



## NI 43-101 Technical Report

# Preliminary Economic Assessment of the i-80 Gold Corp. Ruby Hill Project, Eureka County NV

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## 1. SUMMARY

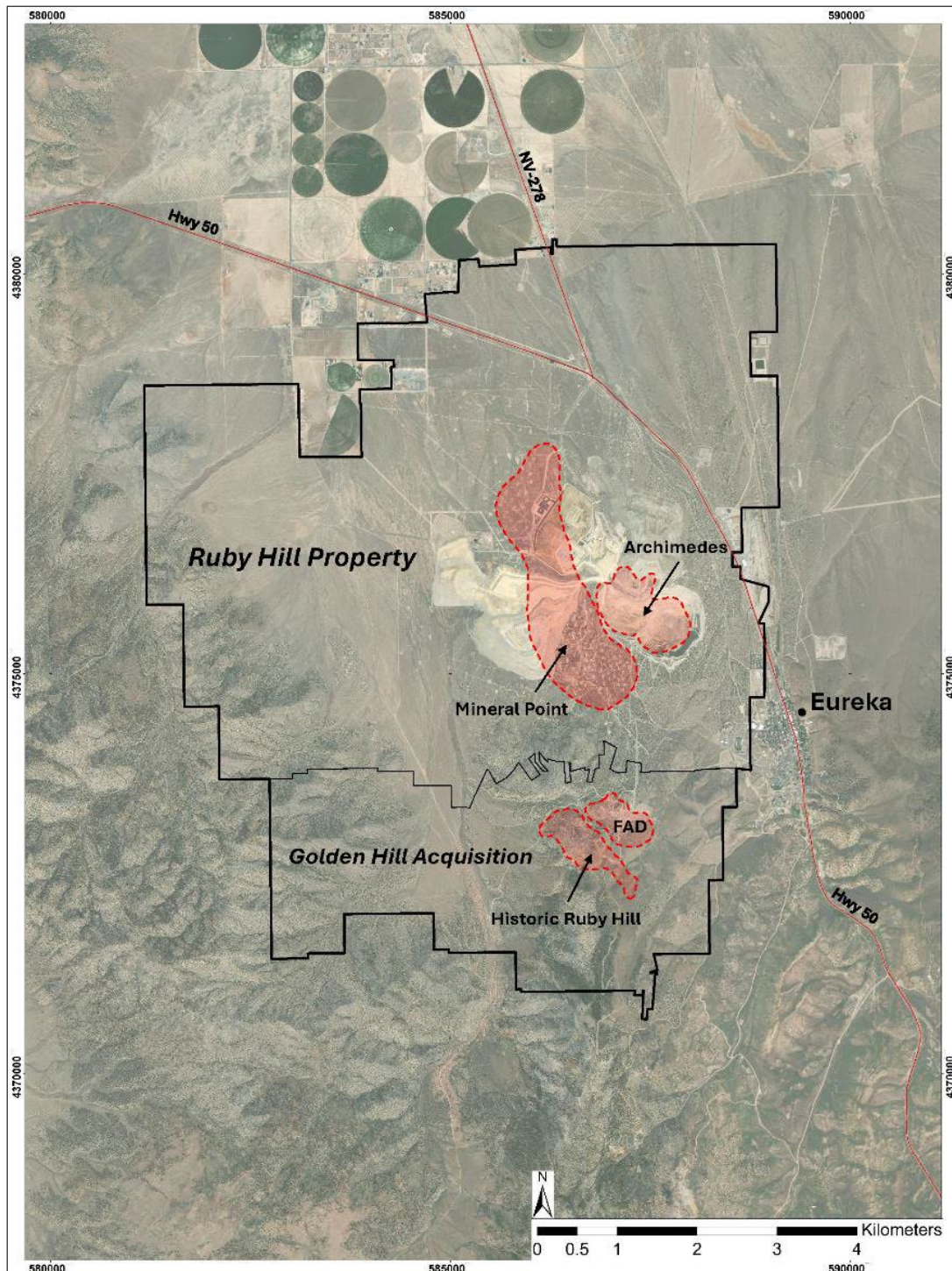
### 1.1 Introduction

This Technical Report (“TR”) dated the 31<sup>st</sup> day of March, 2025 with an effective date of December 31, 2024 provides an updated statement of Mineral Resources for Ruby Hill Mining Company LLC’s Ruby Hill Complex. This TR provides a Preliminary Economic Assessment (“PEA”) for the Archimedes Underground, Archimedes Open Pit, and Mineral Point Open Pit Resource areas at Ruby Hill.

The mining contemplated for each of these areas is independent of the other and there is no interaction between them. Exploitation of one area does not preclude exploitation of the other. This report considers each to be a stand-alone operation, and there has not been any shared benefit assigned to operating or capital costs.

The Ruby Hill property contains several historical mines, current resources, and exploration targets (Figure 1-1). The property is endowed with multiple types of mineralization, including Carlin-style gold, distal disseminated silver-gold, carbonate replacement deposits (CRD), and skarn base metals. i-80 is currently focused on precious metal deposits. The resources considered in this report include the Archimedes Underground Carlin-style gold deposit and the Mineral Point distal disseminated silver-gold deposit.





**Figure 1-1: Ruby Hill Complex Overview**

(Source: i-80 Gold, 2023)

**Cautionary Note:**

*The financial analysis contains certain information that may constitute "forward-looking information" under applicable United States securities legislation. Forward-looking information includes, but is not limited to, statements regarding*



*the Company's achievement of the full-year projections for ounce production, production costs, AISC costs per ounce, cash cost per ounce and realized gold/silver price per ounce, the Company's ability to meet annual operations estimates, and statements about strategic plans, including future operations, future work programs, capital expenditures, discovery and production of minerals, price of gold and currency exchange rates, timing of geological reports and corporate and technical objectives. Forward-looking information is necessarily based upon a number of assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward looking information, including the risks inherent to the mining industry, adverse economic and market developments and the risks identified in Premier's annual information form under the heading "Risk Factors". There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. All forward-looking information contained in this Presentation is given as of the date hereof and is based upon the opinions and estimates of management and information available to management as at the date hereof. Premier disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.*

## 1.2 Property Description

The Ruby Hill property is located in the historic Eureka mining district. It lies west of the town of Eureka in Eureka County, central Nevada. It is a large property containing multiple deposit types and several past-producing mines, and as such it has a long history of prior ownership and production. The property takes its name from the most significant historical mine, the Ruby Hill mine, named for the hill it lies beneath roughly 1.2 miles southwest of Eureka. Historic mining generally exploited silver and base metal mineralization with the majority of production coming from the Ruby Hill mine from 1873-1916. Sporadic exploration and production from 1916 through 1959 included discovery and mining of the TL, Holly and Helen deposits roughly 1.2 miles north of Ruby Hill as well as further attempts to re-access the Ruby Hill mine and a largely as-yet unexploited deposit interpreted as a lower offset of the Ruby Hill deposit known as FAD. The FAD and Locan shafts were sunk to target depths but were plagued by unmanageable water inflows when crosscut mining intersected water bearing structures.

Modern mining began in 1992 with the discovery of the Archimedes Carlin-style gold deposit roughly 1.5 miles NNE of Ruby Hill and one mile NNW of Eureka. Archimedes has been mined using open pit methods from 1997-2002, 2007-2013, and 2020-2021. A pit wall failure in 2013 made continued large scale open pit mining unfeasible due to the economic environment at that time, but continued exploration delineated resources exploitable using underground mining methods. These resources are collectively called Archimedes Underground.

The mineral deposits being considered for economic extraction in this TR are the Archimedes Underground and the Mineral Point deposits.

The Mineral Point deposit was delineated by previous owners between 1992 and 2015 but has not been mined with the exception of limited areas at the southern end of the deposit exploited by the historic TL, Holly and Helen underground mines.

The property is located on owned fee land, owned and leased patented mining claims, and owned and leased unpatented mining claims. i-80 Gold purchased the northern portion of the Ruby Hill property, containing the Archimedes and Mineral Point deposits and small historic underground mines including TL, Holly and Helen from Waterton Global in 2021. The southern portion of the property, including the historic Ruby Hill mine and FAD deposit, was acquired by i-80 through a merger with Golden Hill Mining Corporation in 2022. The Ruby Hill complex comprises 10,608 acres from the Ruby Hill purchase and 3,229 acres from the Golden Hill Merger. i-80 differentiates the property for managerial/administrative purposes, referring to

the northern portion as Ruby Hill and the southern portion as Golden Hill. Collectively they are known as the Ruby Hill Project or the Ruby Hill Complex.

### **1.3 Geology and Mineral Deposits**

The Ruby Hill Project is located along the southeastern end of the Battle Mountain/Eureka gold trend. The Eureka gold mining district exposes a nearly continuous sequence of Cambrian and Ordovician sedimentary rocks approximately 10,000' thick consisting primarily of carbonate units which are favorable for mineralization with subordinate shale and quartz sandstone.

Mineralization at Ruby Hill is characterized by intrusion-related distal-disseminated silver-gold, carbonate replacement base metal deposits, and skarn deposits that have been overprinted by younger Carlin-type gold mineralization. The main precious metal mineralization at Ruby Hill occurs in favorable lithostratigraphic units bound by high angle structures that are interpreted to have been conduits for hydrothermal fluids responsible for gold and silver mineralization. The earlier carbonate replacement base metal mineralization occurs in metamorphosed and skarn-altered limestone units proximal to Cretaceous intrusions.

#### **1.3.1 Distal Disseminated**

The Mineral Point deposit consists of gold and silver mineralization hosted by the Cambrian Hamburg dolomite in the nose of a broad anticline that plunges gently to the north-northwest and is bound to the east by the Holly Fault and to the west by the Spring Valley Fault. The Mineral Point Trend is 10,000 ft long, 2,400 ft wide and up to 500 ft thick. The top of the Mineral Point Trend is near surface at its south end and 500 ft below surface at its north end. The majority of the mineralization in the Mineral Point deposit is oxidized and has a high ratio of cyanide soluble to fire assay total gold. This deposit has not been mined and is the largest (and lowest grade) precious metal Mineral Resource in the Ruby Hill Project.

#### **1.3.2 Carlin Type**

The Archimedes deposit was discovered by Homestake Mining Company in 1992. The upper portions, called West and East Archimedes, were mined as the Archimedes open pit by Homestake followed by Barrick Gold Corporation from 1998 through 2015, and to a lesser extent by Ruby Hill Mining Company, LLC in 2020 and 2021. The Archimedes Underground remains unmined.

The West Archimedes deposit is hosted in the Ordovician Upper Goodwin limestone unit and is bound to the west by the Holly Fault. The zone strikes north-west and dips shallowly to the north-east. The deposit measures 2,000 ft along strike and 740 ft down dip and is up to 300 ft thick. The majority of West Archimedes was mined as an open pit before mining at East Archimedes. The mineralization in the West Archimedes deposit is oxidized and has a high ratio of cyanide soluble to fire assay total gold.

The East Archimedes Zone occurs east of the Graveyard Fault and proximal to the Graveyard Stock. Mineralization extends eastward from the West Archimedes Zone in the Upper Goodwin Formation and extends downward in the Lower Laminated and Lower Goodwin units along the contact with the Graveyard Stock. Silver and base metal grades are elevated in the East Archimedes zone in comparison with the other zones in the Ruby Hill Project in an envelope around the Blackjack zone replacement-style zinc mineralization described below. Mineralization in East Archimedes is roughly 1,200 ft wide and 1,200 ft long in plan and extends from surface where it is well defined by shallow drilling to several mineralized intersections over 1,800 ft below surface. The upper portion of the East Archimedes deposit, above an elevation of approximately 5,000 ft, is oxidized and transitional oxide-sulfide mineralization with a high ratio of cyanide soluble to total fire assay gold. The upper portion of the East Archimedes zone has been mined.

The Archimedes Underground lies below, and extends north of, the Archimedes pit. It includes multiple zones of Carlin-type mineralization characterized by mineralization controlling faults and differing lithologic units with increasing depth. Mineralization is variably oxidized and refractory.

The 426 zone occurs in the Lower Laminated unit of the Goodwin Formation and the upper part of the underlying basal Goodwin unit of the Goodwin Formation in the nose of a fold. The mineralized zone forms a rod-shaped body plunging shallowly to the northeast that is 1,400 ft long, 200 ft wide and 200 ft thick. The top of the zone is approximately 1,000' below surface, but it is 500' below the bottom of the current East Archimedes pit bottom. The majority of the higher-grade mineralization occurring in the Goodwin Formation Lower Laminated unit is sulfide-style mineralization with a low ratio of cyanide soluble to total fire assay gold but the lower portion of the zone that is hosted in the basal Goodwin Unit has a moderate cyanide soluble to total fire assay gold mineralization.

The Ruby Deep zone is a north-south striking, shallowly east dipping zone of mineralization hosted in the Windfall Formation and Dunderberg Shale in proximity to bodies of Bullwhacker Sill intrusive bound by the Graveyard Fault to the east and the Holly Fault to the west. The zone is 2,400 ft long 500 ft wide and 600 ft thick. The top of the zone is 1,600 ft below surface and 1,000 ft below the bottom of the West Archimedes pit. Within the zone there are several tabular horizons of higher-grade mineralization that are 40 ft to 100 ft thick.

The 007 Zone is an exploration target controlled by the NE trending NS Fault. Higher-grade oxide Au mineralization within the fault zone has been intersected by two holes, Barrick's RC hole P7, 55' @ 0.291 Au opt and i-80's core hole iRH22-18A, 43.9' @ 0.276 Au opt. Three more i-80 holes west of the fault zone intersect mineralization extending west into the Bullwhacker member. The zone is untested to the north and south, currently projecting about 400 ft along strike, 100 ft along dip, and ranges from 10 ft thick where stratigraphically controlled to over 40 ft thick within the NS fault zone.

The 008 Zone is an early exploration stage target. It is stratigraphically controlled, lying near the top of the Windfall Formation in the hinge of an anticline bracketed by the 426 and NS faults. The anticline appears to have formed above an intrusive lens emplaced within the upper member of the Windfall Formation, stratigraphically higher than typical Cretaceous sill material, which typically intruded along the lower contact of the Windfall Fm. The 008 Zone is not well defined but currently is about 350 ft long by 200 ft wide by 15 ft thick.

### **1.3.3 CRD and Skarn**

Skarn and CRD mineralization are known to occur on the property but are not being considered for extraction in the current analysis.

Polymetallic (Au-Ag-Pb-Zn) skarn and carbonate replacement deposit (CRD) mineralization is lithologically and structurally controlled. Skarn occurs at Blackjack and the Hilltop Fault-Graveyard Flats stock intersection, primarily within the carbonate-rich Ordovician and mid to upper Cambrian formations adjacent to the Graveyard Flats stock. Minor skarn and CRD mineralization occur within the Cretaceous intrusive units.

Blackjack is a pod of zinc skarn mineralization hosted by the Lower Goodwin Unit proximal to the Graveyard Flats stock within the East Archimedes Zone below the Archimedes pit. It has elevated lead, copper and silver due to CRD overprinting. The base metal-rich CRD and skarn mineralization has been overprinted by later Carlin-style gold mineralization resulting in locally higher-grade gold zones. It is approximately 750 ft wide, 750 ft long and 900 ft high. The Hilltop Fault-Graveyard Flats stock intersection is an exploration stage target and has not been well defined.

CRD mineralization tends to occur in the carbonate-rich formations along WNW trending faults. Examples include the historic Ruby Hill mine, the FAD deposit and the Hilltop exploration target.

## **1.4 Metallurgical Testing and Processing**

### **1.4.1 Archimedes Underground**

The Ruby Hill project encompasses several deposits and mineralization types hosting both precious and base metals. Historical production dates to 1998, primarily under Homestake Mining and Barrick Gold, with intermittent operations up to the current date.

Assumptions are based on historic and current metallurgical performance and the test work reports for oxide gold heap leaching, benchmarks, and the test work reports for zinc sulfide flotation. No detailed process design or production planning has been undertaken at this stage of the Project.

Historically, there have been three destinations for treatment of mineralization from the Ruby Hill Mine: (i) run of mine (ROM) and crushed mineralization to a heap leach pad, (ii) crushing and tank leaching with agglomerated tailings routed to the heap leach pad, and (iii) higher-grade sulfide mineralization (DSO) routed to Nevada Gold Mines Goldstrike Operation for autoclave processing.

For the Archimedes Underground, production will be processed at a third party destination capable of processing refractory ore until such time that i-80 has refurbished the Lone Tree Autoclave facility. The third party destination is an autoclave circuit capable of processing 4 - 5 million tons per year and consists of primary crushing, two parallel semi-autogenous grinding (SAG) Mill-Ball Mill grinding circuits with pebble crushing, five parallel autoclaves capable of acid pressure oxidation (POX) and three of which are capable of alkaline POX, two parallel calcium thiosulphate (CaTS) leaching circuits with resin-in-leach (RIL), electrowinning for gold recovery, and a refinery producing doré bullion from both autoclave and roaster circuits.

The Lone Tree Autoclave Facility is located immediately adjacent to i-80, approximately 12 miles west of Battle Mountain, 50 miles east of Winnemucca, and 120 miles west of Elko. The Lone Tree processing facilities were shut-down at the end of 2007. Since that time, the mills have been rotated on a regular basis to lubricate the bearings. In general, the facility is still in place with most of the equipment sitting idle. i-80 Gold Corp's objective is to refurbish and restart the POX circuit and associated unit operations, including the existing oxygen plant, as it was operating before the shut-down, while meeting all new regulatory requirements. The flotation circuit is not being considered for restart. The POX circuit will have capability to operate under either acidic or basic conditions.

### **1.4.2 Mineral Point Open Pit**

The Mineral Point project encompasses several deposits and mineralization types hosting both precious and base metals. Historical production dates to 1998, primarily under Homestake Mining and Barrick Gold, with intermittent operations up to the current date.

Generally, previous operating experience as well as the metallurgical test work confirms the amenability of oxide material to heap leaching for precious metals extraction. From 2004 to 2014, seven test work programs were carried out, by Kappes Cassiday Associates (KCA) focusing on column leaching and bottle roll leach testing of the oxide deposits, namely Archimedes, 426 and Mineral Point. Mineral Point estimated recoveries are based on alteration type ranging from 83% to 84.4% gold and 40% to 45.2% silver for oxide mineralization. The proposed process for Mineral Point Open Pit material is a two-stage crush conventional heap leach operations with a Merrill-Crowe processing facility.

## 1.5 Mineral Resources

### 1.5.1 Archimedes Underground

Practical Mining LLC estimated the Archimedes Underground Mineral Resource using all drilling and geological data available through October 31, 2022. Wood Canada Ltd. estimated and reported open pit Mineral Resources in the inaugural NI 43-101 Technical Report under i-80's ownership of the Ruby Hill Project. All work, including drilling, done since the time of the inaugural report has targeted the 426, Ruby Deeps and other underground deposits and does not influence the Open Pit Mineral Resource reported on the October 2021 report. The open pit Mineral Resources reported in October 2021 are current and are restated herein.

**Table 1-1: Archimedes Underground Mineral Resource Statement**

Deposit	Tonnes (000)	Au (g/t)	Ag (g/t)	Au oz (000)	Ag oz (000)
<b>Indicated Mineral Resources</b>					
426	899	6.9	0.8	199	22
Ruby Deeps	892	8.3	2.4	237	69
<b>Total Indicated</b>	<b>1,791</b>	<b>7.6</b>	<b>1.6</b>	<b>436</b>	<b>92</b>
<b>Inferred Mineral Resources</b>					
426	1,038	6.6	1.2	219	40
Ruby Deeps	3,150	7.6	2.4	769	246
<b>Total Inferred</b>	<b>4,188</b>	<b>7.3</b>	<b>2.1</b>	<b>988</b>	<b>286</b>

**Notes:**

- Underground Mineral Resources have been estimated at a gold price of \$2,175 per troy ounce and a silver price of \$27.25 per ounce (Section 19.1).
- Mineral Resources have been estimated using pressure oxidation gold metallurgical recoveries of 96.8% and 89.5% for the 426 and Ruby Deeps deposits respectively.
- Pressure oxidation cutoff grades are 5.06 and 5.48 Au g/t (0.148 and 0.160 opt) for the 426 and Ruby Deeps deposits respectively.
- Detailed input mining, processing, and G&A costs are defined in Section 18.1.
- Units shown are metric.
- The contained gold ounces estimates in the Mineral Resource table have not been adjusted for metallurgical recoveries.
- Numbers have been rounded as required by reporting guidelines and may result in apparent summation differences.
- 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.
- 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.
- 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, socio-political, marketing, or other relevant factors.
- Mineral Resources have an effective date of December 31, 2024.
- The reference point for Mineral Resources is in situ.

### 1.5.2 Archimedes Open Pit

The Archimedes deposit was previously mined by Homestake and Barrick for West Archimedes and East Archimedes respectively. Mining ceased after a pit wall failure. In this study an updated estimation of the Archimedes Mineral Resource has been developed Forte Dynamics, Inc (Forte), and the mining potential for continuing the surface exploitation of the deposit was evaluated to estimate a current open pit Mineral Resource Estimate.

The Archimedes Mineral Resources are detailed in Table 1-2. Mineral Resources are not Mineral Reserves and have not been demonstrated to have economic viability. There is no certainty that the Mineral Resource will be converted to Mineral Reserves. Inferred Mineral Resources do not have sufficient confidence that modifying factors can be applied to convert them to Mineral Reserves. The quantity and grade or quality is an estimate and is rounded to reflect the fact that it is an approximation. Quantities may not sum due to rounding.

**Table 1-2: Archimedes Open Pit Mineral Resource Statement**

Deposit	Cutoff Au (g/t)	Tonnes (000)	Au (g/t)	Ag (g/t)	Au oz (000)	Ag oz (000)
<b>Indicated Mineral Resources</b>						
Archimedes Pit	0.2	4,280	1.98	10.7	272	1,460
	0.1	4,320	1.96	10.6	272	1,490
	0.05	4,340	1.95	10.6	272	1,480
<b>Inferred Mineral Resources</b>						
Archimedes Pit	0.2	820	1.18	8.9	31	230
	0.1	870	1.12	8.5	31	250
	0.05	880	1.11	8.5	31	250

**Notes:**

1. Mineral Resources have an effective date of December 31, 2024.
2. Mineral Resources are the portion of Mineral Point that can be mined profitably by open pit mining method and processed by heap leaching.
3. Mineral Resources are below an updated topographic surface (below Archimedes pit).
4. Mineral Resources are constrained to economic material inside a conceptual open pit shell. The main parameters for pit shell construction are a gold price of \$2,175/oz Au, a silver price of \$26.00/oz, average gold recovery of 77%, average silver recovery of 40%, open pit mining costs of \$3.31/tonne, heap leach average processing costs of \$3.47/tonne, general and administrative cost of \$0.83/tonne processed, gold refining cost of \$1.85/oz, silver refining cost of \$0.50, and a 3% royalty (Section 19.1).
5. Mineral Resources are reported above a 0.1 g/t Au cutoff grade. Silver revenues were not considered in the cutoff grade.
6. Mineral Resources are stated as in situ.
7. Mineral Resources have not been adjusted for metallurgical recoveries.
8. Reported units are metric tonnes.
9. Reported table numbers have been rounded as required by reporting guidelines and may result in summation discrepancies.



### 1.5.3 Mineral Point Open Pit

Forte reviewed the Mineral Point Open Pit Mineral Resource Estimate completed by Wood in July 2021. The scope of the review included the informing drillhole and sample data, exploratory data analysis (EDA), input models, and the current topography. The scope also included a review of the grade estimation methodology and model validation, bulk density determination, resource classification, reasonable prospects for eventual economic extraction (RPEEE), and the statement of Mineral Resources.

Upon completion of the Mineral Point open pit resource review, Forte made some slight modifications to the Wood block model. Note that the estimated block grades were not altered or changed. Updates included updating the block model with the current topographic surface, recoding the Wood 2021 lithological model to the block model along with an assigned specific gravity (SG) values based on lithology code, and updated values and conversions for tonnage factor. Forte also used an updated pit shell to constrain and report the Mineral Resource under the requirements for RPEEE, which was based on a 2024 Scoping Study completed by Forte and used for other work completed in this Technical Report Summary.

The Mineral Point Open Pit Mineral Resources are detailed in Table 1-3. Mineral Resources are not Mineral Reserves and have not been demonstrated to have economic viability. There is no certainty that the Mineral Resource will be converted to Mineral Reserves. Inferred Mineral Resources do not have sufficient confidence that modifying factors can be applied to convert them to Mineral Reserves. The quantity and grade or quality is an estimate and is rounded to reflect the fact that it is an approximation. Quantities may not sum due to rounding.

**Table 1-3: Mineral Point Open Pit Mineral Resource Statement**

Deposit	Tonnes (000)	Au (g/t)	Ag (g/t)	Au oz (000)	Ag oz (000)
<b>Indicated Mineral Resources</b>					
Mineral Point	216,982	0.48	15.0	3,376	104,332
<b>Total Indicated</b>	<b>216,982</b>	<b>0.48</b>	<b>15.0</b>	<b>3,376</b>	<b>104,332</b>
<b>Inferred Mineral Resources</b>					
Mineral Point	194,442	0.34	14.6	2,117	91,473
<b>Total Inferred</b>	<b>194,442</b>	<b>0.34</b>	<b>14.6</b>	<b>2,117</b>	<b>91,473</b>

**Notes:**

1. Mineral Resources have an effective date of December 31, 2024.
2. Mineral Resources are the portion of Mineral Point that can be mined profitably by open pit mining method and processed by heap leaching.
3. Mineral Resources are below an updated topographic surface.
4. Mineral Resources are constrained to economic material inside a conceptual open pit shell. The main parameters for pit shell construction are a gold price of \$2,175/oz Au, a silver price of \$26.00/oz, average gold recovery of 77%, average silver recovery of 40%, open pit mining costs of \$3.31/tonne, heap leach average processing costs of \$3.47/tonne, general and administrative cost of \$0.83/tonne processed, gold refining cost of \$1.85/oz, silver refining cost of \$0.50, and a 3% royalty (Section 19.1).
5. Mineral Resources are reported above a 0.1 g/t Au cutoff grade.
6. Mineral Resources are stated as in situ.
7. Mineral Resources have not been adjusted for metallurgical recoveries.
8. Reported units are metric tonnes.
9. Reported table numbers have been rounded as required by reporting guidelines and may result in summation discrepancies.



## 1.6 Mining, Infrastructure, and Project Schedule

### 1.6.1 Archimedes Underground

Permitting approval for development and mining above the 5100 elevation is anticipated by the end of Q2 2025 and underground development will commence immediately thereafter. This is consistent with previously approved permits for mining the Archimedes open pits. Production mining in the 426 deposit will start in 2026 and continue through 2027 with oxide material processed on site in the existing heap leach facility and refractory material sent to a third party for toll processing. Permits for mining below the 5100 elevation are anticipated in the second quarter of 2027 with development mining for the Ruby Deeps deposit beginning shortly thereafter.

Mining conditions anticipated are typical for northern Nevada underground mines. Long hole open stoping will be the primary mining method and will be supplemented with underhand drift and fill mining where deposit geometry dictates. Mining will be undertaken by a qualified contractor, eliminating the need to recruit a workforce and purchase mining equipment.

Transportation, electrical and support infrastructure already exists at Ruby Hill. Additional infrastructure requirements are limited to:

- Overhead power line and transformer at the portal site.
- Backfill and shotcrete plants.
- Fuel and oil storage near the portal.
- Contractor's maintenance facility and office.
- Mine water supply tank.

### 1.6.2 Archimedes Open Pit

The Archimedes Open Pit Mineral Resource has not been evaluated for surface mining.

### 1.6.3 Mineral Point Open Pit

The Mineral Point Project, operated by i-80 Gold, is planned as an open pit mining operation using conventional equipment, targeting a processing rate of 68,000 tons per day. While there is currently no Mineral Reserve Estimate, the project contains Indicated and Inferred Mineral Resources. Pit optimization using Hexagon Mine Plan software identified an optimal pit shell (LG72) with a 78% revenue factor, containing 4.98 million ounces of gold and 195.5 million ounces of silver at an average stripping ratio of 2.8:1. Key economic parameters include a gold price of \$2,175/toz, silver price of \$27.25/toz, and heap leach average recovery rates of 78% for gold and 41% for silver. The calculated cutoff grade for gold is 0.011 oz/ton, ensuring the extraction of economically viable material.

The mine design consists of nine pit phases, with mining benches at 50-foot intervals and a projected Life-of-Mine (LOM) of 17 years. The operation will rely on a mining fleet comprising two rope shovels, (2) hydraulic shovels, (26) haul trucks, and various support equipment. Annual production is expected to average 4.5 million ounces of gold and 177.3 million ounces of silver. Dewatering will be required in later mine stages, though the extent is yet to be determined.

The project will leverage existing infrastructure from previous mining activities at the Ruby Hill site, including site access, haul roads, waste rock storage, and power supply, with necessary upgrades. Key processing facilities include a crushing and stacking system, a heap leach pad, and a Merrill Crowe plant for gold and silver recovery. The heap leach facility will be developed in five phases, with a total capacity of 466.8 million

tons, while a Merrill Crowe plant will process pregnant leach solution at a rate of 11,500 gallons per minute, ultimately producing doré bars for off-site refining.

Supporting infrastructure includes an expanded truck shop, warehouse, administration building, and water management systems for process, potable, fire suppression, and stormwater control. Power will be sourced from an existing substation with potential upgrades, and site communications will be maintained through telemetry and radio networks. Waste rock storage will utilize both surface storage and in-pit backfilling. Environmental considerations include stormwater management ponds, lined heap leach pads, and containment systems for fuel and hazardous materials. Road expansions and rerouting will be necessary to accommodate mining activities, ensuring operational efficiency while minimizing environmental impact.

## 1.7 Economic Analysis

Economic analysis relies on many forward-looking assumptions for the estimation of metal prices, capital and operating costs. These are subject to change depending on operating strategy, new information collected through future operations and macroeconomic conditions. Actual economic outcomes often deviate significantly from forecasts.

### 1.7.1 Archimedes Underground

The values presented are derived from a constant dollar after tax cash flow analysis. Capital and operating costs are summarized below in Table 1-4 and financial statistics are presented in Table 1-5.

**Table 1-4: Capital and Operating Cost Summary**

Category	Total Cost \$M	\$/ton Processed	\$/Au oz
Mining	\$750	\$148.98	\$808
Processing and Transportation	\$682	\$135.51	\$735
G&A, Royalties and Net Proceeds Tax	\$210	\$41.80	\$227
By Product Credits	(\$0.7)	(\$0.1)	(\$1)
Total Cash Cost	\$1,642	\$326.17	\$1,769
Closure and Reclamation	\$8.9	\$1.77	\$10
Sustaining Capital	\$106	\$21.08	\$114
All in Sustaining Costs <sup>2</sup>	\$1,757	\$349.01	\$1,893
Construction Capital	\$49	\$9.81	\$53
All in Costs <sup>3</sup>	\$1,806	\$358.82	\$1,946

Table 1-5: Financial Statistics

Parameter	Value
Gold Price (US\$/oz)	\$2,175
Silver Price (US\$/oz)	\$27.25
Mine Life (years)	10
Mining Rate (tons/day)	1,600
Tons Processed Autoclave (kton)	4,846
Average Grade Autoclave (Au oz/ton)	0.209
Average Gold Recovery (Autoclave %)	90%
Autoclave Gold Produced (koz)	910
Tons Processed Heap Leach (kton)	188
Average Grade Heap Leach (Au oz/ton)	0.111
Average Gold Recovery (Heap Leach %)	87%
Heap Leach Gold Produced (koz)	18
Average Annual Gold Production (koz)	102
Total Recovered Gold (koz)	928
Project After-Tax NPV <sub>5%</sub> (M\$)	\$127
Project After-Tax NPV <sub>8%</sub> (M\$)	\$91
Project After-Tax IRR	23%
Payback Period	7.8 Years

## Notes:

1. Net of byproduct sales.
2. Excludes, construction capital, exploration, corporate G&A, interest on debt, and corporate taxes.
3. Excludes exploration, corporate G&A, interest on debt, and corporate taxes.
4. The financial analysis contains certain information that may constitute "forward-looking information" under applicable United States and Canadian securities legislation. Forward-looking information includes, but is not limited to, statements regarding the Company's achievement of the full-year projections for ounce production, production costs, AISC costs per ounce, cash cost per ounce and realized gold/silver price per ounce, the Company's ability to meet annual operations estimates, and statements about strategic plans, including future operations, future work programs, capital expenditures, discovery and production of minerals, price of gold and currency exchange rates, timing of geological reports and corporate and technical objectives. Forward-looking information is necessarily based upon a number of assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward looking information, including the risks inherent to the mining industry, adverse economic and market developments and the risks identified in the Company's annual information form under the heading "Risk Factors". There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. All forward-looking information contained in this report is given as of the date hereof and is based upon the opinions and estimates of management and information available to management as at the date hereof. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.

## 1.7.2 Mineral Point Open Pit

The economic analysis of the Mineral Point Project is based on the mine schedule, capital and operating costs, metal recovery parameters, and royalties. The project, operated by i-80 Gold, is planned as an open pit operation with a processing rate of 68,000 tons per day. The economic model assumes a gold price of \$2,175/oz and a silver price of \$27.25/oz, with a total initial capital investment of \$708 million and sustaining capital of \$388 million. In addition, approximately 115 million tons of stripping is required to gain access to the body of mineralized material, costing \$287 million. The life-of-mine (LOM) plan spans approximately 16.5 years, with total recovered gold and silver estimated at 3.5 million ounces and 72 million ounces, respectively. The estimated pre-tax net present value (NPV) at a 5% discount rate is \$827.6 million, with an internal rate of return (IRR) of 13.8% and a payback period of 7.6 years. After-tax, the NPV at 5% is reduced to \$614.1 million, with an IRR of 12.1% and a payback period of 7.9 years. A sensitivity analysis indicates that the project is most sensitive to metal prices and recovery rates, followed by capital and operating costs. The inclusion of Inferred Resources, which constitute 38% of the mine plan, significantly impacts the economic assessment.

While the Mineral Point Project demonstrates economic potential, additional exploration and refinement of cost estimates are necessary to improve confidence in the resource model and the feasibility of long-term operations. Table 1-6 shows the total and unit operating costs. Table 1-7 shows the financial.

**Table 1-6: Unit and Total Operating Costs**

Category	Total Cost \$M	\$/ton Processed	\$/Au oz
<b>Costs With Inferred</b>			
Mining	\$3,874.40	\$9.80	\$1,097.75
Processing	\$1,542.23	\$3.90	\$436.97
G&A	\$296.58	\$0.75	\$84.03
Refining, Royalties & Net Proceeds Tax	\$722.30	\$1.83	\$204.65
By-Product Credits	\$(1,952.96)	\$(4.94)	\$(553.34)
Total Operating Cost/Cash Costs	\$4,482.57	\$11.34	\$1,270.07
Closure & reclamation	\$69.83	\$0.18	\$19.78
Sustaining Capital	\$388.43	\$0.98	\$110.05
All-in Sustaining Costs	\$4,940.82	\$12.49	\$1,399.91

Table 1-7: After-Tax NPV Comparison

Parameter	Unit	Value
Mine Life	year	16.5
Mining Rate	kton/day	356.2
Processing Rate	kton/day	68.4
Total Processed Material	kton	395,444
Total Mine Material	kton	1,675,243
Average Processing Grade Au	toz/ton	0.011
Average Processing Grade Ag	toz/ton	0.448
Contained Au	ktoz	4,525
Contained Ag	ktoz	177,293
Recovered Au	ktoz	3,529
Recovered Ag	ktoz	72,028
Heap Leach Recovery Au (average)	%	78%
Heap Leach Recovery Ag (average)	%	41%
Total LOM CAPX	US\$M	\$1,383.2
NPV @ 0%	US\$M	\$1,470.0
NPV @ 5%	US\$M	\$614.1
NPV @ 8%	US\$M	\$295.8
NPV @ 10%	US\$M	\$134.8
NPV @ 12%	US\$M	\$4.3
IRR	%	12.1%
Payback Period	Year	7.6

## 1.8 Conclusions

### 1.8.1 Archimedes Underground

#### 1.8.1.1 Mineral Resources

The Archimedes Underground Mineral Resource contains approximately 70% Inferred Mineral Resources. The planned underground development and drilling program is planned to upgrade Inferred Mineral Resources to Indicated.

#### 1.8.1.2 Mining and Infrastructure

Mining conditions for the Archimedes underground are typical for sedimentary deposits in the north-east Nevada extensional tectonic environments are anticipated. The Ruby Deeps deposit will require dewatering with anticipated pumping rates of 500 to 1,000 gpm.

#### 1.8.1.3 Metallurgical Testing

Metallurgical testing of refractory samples from Archimedes underground deposits has confirmed amenability to grinding followed by pressure oxidation and carbon in leach. Gold recoveries ranged from 80% to 91%. Metallurgical testing programs have identified deleterious elements that are common to deposits in this part of Nevada. Deleterious elements content in the oxide samples are low, while sulfide samples are characterized by high levels of sulfide sulfur, arsenic, and mercury. Processing of Archimedes sulfide mineralization through a third-party or i-80's Lone Tree autoclave will ensure removal and capture of these deleterious elements.

#### 1.8.1.4 Recovery Methods

Metallurgical testing has confirmed that processing of Archimedes underground sulfide mineralization can be processed through Nevada Gold Mines Twin Creeks or the Lone Tree autoclave facilities. The 426 mineralized lenses are more amenable to alkaline conditions while the Ruby Deeps lenses perform better with acidic conditions.

### **1.8.1.5 Financials**

- Initial capital requirements total \$49.4M with an additional \$106.1M in sustaining capital.
- The project achieves after-tax NPV 5% of \$126.8M and NPV 8% of \$91.1M.
- The estimated payback period is 7.8 years with an IRR of 23%.

## **1.8.2 Archimedes Open Pit**

### **1.8.2.1 Mineral Resources**

The Archimedes deposit was previously mined by Homestake and Barrick for West Archimedes and East Archimedes respectively. Mining ceased after a pit wall failure. An updated Mineral Resource Estimate was completed, with the majority of Mineral Resources classified as Indicated. There is currently potential for additional surface production of the deposit which would add to the value of the overall Ruby Hill project.

As the pit was never restarted after the wall failure, it will be important to understand and mitigate rock mechanics stability and safety issues prior to any decision to restart the project.

Given the current focus on the underground mine and the Mineral Point pit, no additional work in the Archimedes pit has been planned.

## **1.8.3 Mineral Point Open Pit**

### **1.8.3.1 Mineral Resources**

The Mineral Point Open Pit Mineral Resource contains approximately 47% Inferred Mineral Resources. Drilling is planned for the deposit to obtain fresh material for additional metallurgical testing. The additional metallurgical test results can be used in future work, along with additional testing for representative bulk density measurements to be used with future updated geological, alteration, redox and structural models. This can be used for future Mineral Resource updates and potentially upgrading Inferred Mineral Resources to Indicated Mineral Resources.

### **1.8.3.2 Mining and Infrastructure**

Mineral point will be a large-scale open pit gold and silver deposit typical of other northern Nevada mines with stripping ratio of 2.9:1, excluding capitalized pre-stripping. Overall average gold grade processed of 0.39 g/tonne with an expected average gold recovery of 78% and an average silver grade processed of 15.37 g/tonne. Most of the current infrastructure on site can be re-used or expanded for the project. Power for the proposed operation will be provided by the power supplier that historically fed the site.

### **1.8.3.3 Metallurgical Testing**

Historical metallurgical testing and production have confirmed the amenability of Mineral Point open pit oxide and sulfide mineralization to conventional cyanide heap leaching; Metallurgical testing of samples from the Mineral Point open pit deposit has also shown amenability to crushing for heap leaching. Gold and silver recoveries ranged from 80-85% and 32-45% respectively.

### **1.8.3.4 Recovery Methods**

Oxide and sulfide material is amenable for processing by crushed-ore cyanide heap leaching. Gold and silver leach at the heap-leach facility will be extracted by Merrill-Crowe zinc precipitation.

### **1.8.3.5 Financials**

- Total capital requirement of \$1,383.2M
- The project achieves an NPV 5% of \$614.1M and NPV 10% of \$134.8M After-Tax

- The project has an IRR of 12.1% and a payback period of 7.9 years After-Tax.

## **1.9 Recommendations**

### **1.9.1 Archimedes Underground**

#### **1.9.1.1 Metallurgical Testing**

- Additional metallurgical testing is recommended from initial Ruby Hill production areas to confirm metallurgical recoveries with Twin Creeks process conditions. Sample selection should be based on available mine production plans and should reflect typical stope dimensions and expected dilution. Testing should include:
  - Comminution testing to confirm throughput through the Sage Mill.
  - Pressure oxidation tests using Twin Creeks conditions.
  - CIL tests on pressure oxidation productions.
- Additional testing on Ruby Hill base metal sulfide zones to investigate flotation parameters to produce saleable lead and zinc concentrates. Detailed assays of lead and zinc concentrates are recommended to determine the extent of deleterious elements that may impair their salability.

#### **1.9.1.2 Permitting and Mine Development**

- Complete the EA and POO amendment for Mining the 426 deposit above the 5100 elevation.
- Initiate construction of the haulage portal and decline in Q3 2025.

#### **1.9.1.3 Resource Conversion and Exploration Drilling**

- Begin Resource Conversion Drilling as soon as decline advance and drill platforms become available.
- The lower leg of the decline provides a drill platform for exploration of the Blackjack deposit.

#### **1.9.1.4 Dewatering**

- Initiate a hydrogeologic study of the Windfall formation, drill a deep test well and complete a drawdown test.

### **1.9.2 Archimedes Open Pit**

Due to the short-term development plans for Mineral Point Open Pit and Archimedes Underground, additional work for the Archimedes Open Pit is not currently defined. Should resources be available a detailed geotechnical review of the existing pit slopes in Archimedes could help to quantify future potential. In light of current development plans on the property, this is not budgeted at this time.

### **1.9.3 Mineral Point Open Pit**

#### **1.9.3.1 Mineral Resources**

It is recommended that i-80 complete additional resource definition drilling and conduct a review of major and minor rock alteration types, and how they align with overall geology, grade domains, metallurgical recovery and bulk densities. This would also include review of the geological model, including lithological, structural, and alteration controls on overall grade distribution and metallurgical recovery. The additional drilling could be used to better define the limits of mineralization and potentially upgrade block classification.

The following points are recommended for additional evaluation:



- Review of the overall (and subsequent low and high-grade) grade distributions to better understand impacts on mineralized domains.
- Detailed review of deposit wide bulk densities to better define the bulk density for the project, including bulk densities of lithology and alteration type.
- Additional drilling to increase the resource definition and confidence, along with potential upgrading of resource classification (Inferred to Indicated, Indicated to Measured).
- Additional drilling for potential resource expansion.

Upon completion of the above items, an update to the geological model and Mineral Resource Estimate should be conducted, along with updated metallurgical recovery assumptions.

#### **1.9.3.2 Mining and Infrastructure**

It is recommended that a site wide water balance be developed for the project to better understand water captured on-site (pit, HLP, WRSA) and evaluate the ability to utilize this water for process make-up water or to provide water for agriculture use. This would include evaluation of climate and available make-up water sources to understand total project requirements for make-up water or discharge as required. The evaluation would include a more accurate reflection of drain down for events, and potentially reduce the event pond volumes required, which could impact capital and sustaining capital costs.

There are several opportunities for infrastructure related components of the project to evaluate, including:

- Conveyor stacking versus truck stacking, reduction of capital and operating costs.
- Blasting versus crushing and screening, reduction of capital and operating costs.
- Reduced number of event ponds and utilize larger event ponds to reduce capital costs.
- Increased Heap Ultimate height of 300 feet, reduction of disturbance area as well as capital costs.
- Utilization of existing crusher to self-perform overliner manufacturing to reduce capital costs
- Evaluate all pits for potential for pit dewatering, including water quality evaluation, for ability to utilize this water as process make-up water or for agricultural use.

#### **1.9.3.3 Metallurgical Testing**

It is recommended that additional metallurgical testing be conducted to further define the predicted recovery for the Mineral Point Open pit project. This includes evaluation of sulfide sulfur content which will assist with determining the various oxidations by lithology as well as understanding recovery and reagent consumptions. This should also be conducted for waste as there may be a need to segregate waste into PAG and NAG facilities.

Next phases of the metallurgical testing program would incorporate additional leach tests, coarse bottle rolls, and column leach tests. This testing is required to support crush size selection, recovery estimates and reagent consumptions for lime and cyanide. Testing is also required to provide comminution design data. Testing and samples to be tested include:

- Samples should focus on weakly-altered alteration of the major formations, the largest component of the Mineral Point resources. Sample selection should address spatial and grade variability within the deposit.
- Identify samples in transition areas to sulfide mineralization to establish boundary criteria such as sulfide sulfur content.
- Use of PQ diameter drilling will permit testing up to -2" crush size to evaluate the impact of crush size on recoveries.
- Evaluate the pilot leach testing of a bulk sample to determine ROM recoveries.

- Testing of composite samples representing the first year and second year mine production once optimal conditions are selected.
- Conduct column leach tests with taller columns and columns in series to replicate actual lift heights and heap leach operations.
- Conduct laboratory tests to determine the crusher work index and abrasion indices to support crushing plant design.
- Geotechnical testing, namely compacted permeability testing, of samples to determine the permeability and stacking characteristics of the mineralized material.
- ABA testing of leach residue under conditions to support environmental permitting.

Additional considerations include metallurgical and geotechnical testing which will further the understanding of the ore's clay content. This would include particle size distribution analysis, Atterberg limits, plasticity index, by ore type. This would also be coupled with compacted permeability testing to understand long term effects of loading and stacking. It is also recommended that ore decrepitation testing be conducted. Additional evaluation of the outcomes of this testing will verify the proposed application rate, leach cycle, and stack height for the various oxidations and lithologies based on permeability and agglomeration requirements.

It is also recommended that additional testing of proposed overliner material be conducted to evaluate screening requirements as well as stability for geotechnical design. This could also lead to a reduction in the overliner depth requirement, decreasing capital costs for the project.

Additional test work for recovery potential of the relocated HL material from historic operations should be conducted to potentially include revenue from this material.

The program has an estimated cost of \$600,000 (excluding drilling costs) based on current conditions.

## **1.9.4 Work Programs**

### **1.9.4.1 Archimedes Underground**

The work program outlined in Table 1-8 will advance the 426 deposit to production within two years. Project risks are manageable, and opportunities exist to enhance the project economics.

**Table 1-8: Archimedes Underground Work Program**

<b>Description</b>	<b>2025</b>	<b>2026</b>	<b>Estimated Costs (US\$M)</b>
Portal Construction	0.1	0.1	0.2
Mine Development	7.8	21.0	28.8
Resource Conversion Drilling	2.1	-	2.1
Dewatering Well and Hydrogeologic Study	3.9	-	3.9
Environmental, Metallurgical Testing and Feasibility Study	0.5	2.0	2.5
Ventilation and Electrical	0.2	2.7	2.9
Project Administration	5.0	0.6	5.6
Contingency	2.9	4.5	7.4
<b>Total</b>	<b>22.5</b>	<b>30.8</b>	<b>53.3</b>

#### **1.9.4.2 Archimedes Open Pit**

Due to the short-term development plans for Mineral Point Open Pit and Archimedes Underground, additional work for the Archimedes Open Pit is not currently recommended.

#### **1.9.4.3 Mineral Point Open Pit**

The work program outlined in Table 1-9 will advance the Mineral Point Open Pit project to a Pre-Feasibility Study (PFS).

##### **1.9.4.3.1 Phase 1**

A two-phase work program is recommended. The focus of the Phase 1 work program will be additional drilling to obtain new sample material for metallurgical test work, hydro and geotechnical studies. This will include metallurgical test work of sufficient variability samples to support overall recovery assumption prior to moving to Phase 2. The additional drilling will also be used for subsequent resource definition, and potential resource classification upgrade and expansion. Based on the results of Phase 1, Phase 2 may be warranted. Additional metallurgical test work and other studies may be needed to further de-risk the Project.

##### **1.9.4.3.2 Phase 2**

The focus of the Phase 2 work program will be additional drilling for resource definition and expansion; and will include additional metallurgical test work to refine the process parameters. The Phase 2 drilling will be designed for resource conversion and growth, with the objective of converting Inferred Resources to Indicated resources, as well as converting Indicated Mineral Resources to Measured Mineral Resources. The additional drilling and potential upgrade of Inferred Mineral Resources to Indicated Mineral Resources may lead to Mineral Reserves.

**Table 1-9: Mineral Point Work Program**

<b>Description</b>	<b>Estimated Costs (US\$M)</b>
<b>Phase 1</b>	
Additional Drilling for Metallurgical, Hydro and Geotechnical Test Work	\$ 3.30
Metallurgical Test Work	\$ 0.25
Contingency	\$ 0.70
<b>Phase 1 Total</b>	<b>\$ 4.25</b>
<b>Phase 2</b>	
Resource Definition & Expansion Drilling	\$ 15.0
Metallurgical Test Work	\$ 0.20
Contingency	\$ 1.00
<b>Phase 2 Total</b>	<b>\$ 16.20</b>

## 2. INTRODUCTION

### 2.1 Terms of Reference

This report is a Preliminary Economic Assessment (PEA). Forte has prepared the PEA to meet National Instrument 43-101 Standards of Disclosure for Mineral Projects (2011), and in accordance with Form 43-101F1 Technical Report. It was prepared for i-80 Gold Corporation and its subsidiaries Ruby Hill Mining Company LLC, Premier Gold Mines, USA Inc. and Golden Hill Mining Corporation (collectively “i-80” or the “Company”). The company has previously disclosed information on the project. (Wood 2021).

This PEA is a preliminary technical and economic study of the economic potential of all or parts of mineralization to support the disclosure of Mineral Resources. The PEA is preliminary in nature. 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. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

This report is based in part on internal Company reports, previous studies, maps, published government reports, company letters and memoranda, and public information as cited throughout this report and listed in Section 27. Reliance on other experts is listed in Section 3 when applicable.

The QPs have reviewed the information provided as well as data collected by the QPs, and believe that the quality of information, the analyses thereof, and the presentation meet the standards of quality necessary for a PEA.

### 2.2 Qualified Persons

The following persons serve as Qualified Persons (QPs) as defined in National Instrument 43-101:

- Aaron Amoroso, MMSA QP, Senior Resource Geologist with Forte Dynamics, Inc.
- Brendan Fetter, P.E, SME-RM, Mineral Processing Engineer with Forte Dynamics, Inc.
- Jonathan R. Heiner, P.E, SME-RM, Director of Mining with Forte Dynamics, Inc.
- Dagny Odell, P.E., SME-RM, Consulting Mining Engineer with Practical Mining LLC
- Laura Symmes, SME-RM, Geologist with Practical Mining LLC
- Tommaso Roberto Raponi, P.Eng., QP (SME-RM), President of TR Raponi Consulting Ltd.

### 2.3 Details of Personal Inspection by Qualified Persons

Table 2-1 summarizes the details of the personal inspections on the property by each qualified person or, if applicable, the reason why a personal inspection has not been completed.

Table 2-1: Personal Inspections by Qualified Persons

QP	Discipline	Dates of Personal Inspection	Details of Inspection
Aaron Amoroso, MMSA QP	Geology and Mineralization, Exploration, Drilling, Sample Preparation, Analysis and Security, Data Verification, Mineral Resources	January 16, 2025	Overview of the project history and current status, examined the Archimedes pit, examined site infrastructure, examined the heap leach pad, review of drill core, geology and mineralization, completed check assays from selected available drill core intervals, review of sample preparation, analysis and security, field inspection for drillhole collar locations, review of current geological model, topography and resource, reviewed proposed heap leach facility area and proposed waste rock storage area. See Site Visit Report (Forte, 2025) in Appendix A for additional details.
Jonathan R. Heiner, P.E., SME-RM	Mining, Mineral Reserves, Site Infrastructure		
Brendan Fetter, P.E., SME-RM	Metallurgy and Metals Processing	None	Site visit not required.
Dagny Odell, P.E., SME-RM	Mining, Mineral Resources, Mineral Reserves	July 14, 2022	Site specific hazard training, examined core and core logging procedures, examined proposed underground portal location, overview of Archimedes pits and heap leach pad.
Laura Symmes, SME-RM	Geology and Mineralization of Carlin Type Deposits, Drilling, Data Verification	July 14, 2022	Site specific hazard training, examined core and core logging procedures, examined proposed underground portal location, overview of Archimedes pits and heap leach pad.
Tommaso Roberto Raponi, P.Eng., SME-RM	Metallurgical Testing, Mineral Processing	None	Reviewed prior test work and designed and supervised current test work on samples from the various deposits at Ruby Hill.

## 2.4 Report Version Update

This Technical Report updates an NI 43-101 Mineral Resource Estimate technical report was prepared by Wood for i-80 (Wood 2021).

## 2.5 Units of Measure

U.S. Imperial units of measure are used throughout this document unless otherwise noted. Units and abbreviations are listed in Table 2-2. Currency is expressed as United States Dollars.

Table 2-2: Units and Abbreviations

	Imperial		Metric	
	Units	Description	Units	Description
Time	yr	year	yr	year
	d	day	d	day
	hr	hour	hr	hour
	min	minute	min	minute
	s	seconds	s	seconds
Length	ft	feet	m	meter
	in	inch	cm	centimeter
	mil	thousandth of an inch	mm	millimeter
	mi	miles	µm	micrometer (micron)
Area	ft <sup>2</sup> , sq ft	square feet	m <sup>2</sup>	square meters
	ha	hectare	ha	hectare
Mass	st	short ton	mt, t	metric tonne
	kton	kilo ton	ktonne	kilo tonne
	dst	dry short tons	dmt	dry metric tonnes
	kst, kdst	thousand dry short tons	kmt, kdmt	thousand dry metric tonnes
	Mtons	millions of short tons	Mtonnes	millions of metric tonnes
	lb	pound	kg	kilogram
	oz	ounce	g	gram
	koz	kilo-ounce		
	toz, troz, troy oz	troy ounce		
Grade	opt, opst	troy ounces per short ton	g/t, gpt	grams per tonne
			opmt	troy ounces per metric tonne
Volume	ft <sup>3</sup>	cubic feet	m <sup>3</sup>	cubic meter
	gal	gallons	L	liter
Volumetric Flow Rate	gpm	gallons per minute	Lpm	liters per minute
	scfm	standard cubic feet per minute	m <sup>3</sup> /hr	cubic meters per hour
Density	lb/ft <sup>3</sup>	pounds per cubic foot	t/m <sup>3</sup>	tonnes per cubic meter
	sg	specific gravity	sg	specific gravity
Percent Solids	wt%	percent solids by weight	wt%	percent solids by weight
Work Index (Hardness)	kWh/st	kilowatt-hours per short ton	kWh/t	kilowatt-hours per tonne
Elevation	amsl	above mean sea level		
	fasl	feet above sea level	masl	meters above sea level
Throughput	st/h, stph	short tons per hour	t/h, tph	metric tonnes per hour
	st/d, stpd	short tons per day	t/d, tpd, mtpd	metric tonnes per day
	st/y, stpy	short tons per year	t/y, tpy	metric tonnes per year
	kst/y, kstpy	thousand short tons per year		
Temperature	°F	degrees Fahrenheit	°C	degrees Celsius
Concentration	ppm	parts per million	mg/L	milligrams per liter
			g/L	grams per liter
Power	hp	horsepower	kW	kilowatt
			kW-hr	kilowatt hour
			MW	megawatt
Work Index	kWh/st	kilowatt hour per short ton	kWh/t	kilowatt hour per metric tonne
Mill Speed	rpm	revolutions per minute	rpm	revolutions per minute
Pressure	psi	pounds per square inch	kPa	kilopascal
			mPa	megapascal
Voltage	kV	kilovolt	kV	kilovolt
	kVA	kilovolt-amperes	kVA	kilovolt-amperes

## 2.6 Coordinate System

Spatial data utilized in the analysis presented in this PEA are projected in the Ruby Hill Mine Grid (local grid, ft) and UTM NAD83 Zone 11 North (ft). The project centroid location (derived from the geological model) is 9495,115158 in the Ruby Hill Mine Grid, and 1925147,14352286 in UTM NAD83 Z11N.



### 3. RELIANCE ON OTHER EXPERTS

The QP has relied upon the following other expert reports, which were provided to the QPs by i-80. i-80 has contracted some studies directly with specialist firms, experts in their discipline and provided the information to the QPs for this Technical Report. The following information was provided to the Qualified Persons by i-80 Gold to use in the preparation of this report:

- The technical status for the claims and land holding is reliant on information provided by The US Bureau of Land Management and the Eureka County Assessor's Office. [Section 4.2]
- Land Title opinions by Parr Brown Gee and Loveless and Erwin Thompson Faillers provided chain of title and land holding positions. [Section 4.2, 4.3]
- Annual property holding costs were provided by i-80 [Section 4.2, 22.1.1]
- The status of i-80's environmental program and the permitting activities were provided by i-80. [Section 4.4, 4.5, 20]
- Archimedes Underground hydrogeologic modeling, dewatering estimates, and Lone Tree autoclave operating costs were provided by i-80. [Section 9.2, 21.1.2]
- Stantec provided hydrogeologic modeling and dewatering estimates for Mineral Point. [Section 18.2.4]
- Hatch provided information on the refurbishment of the Lone Tree pressure oxidation (POX or autoclave) facility which is needed to recover metals from the sulfide ores in the Archimedes underground. [Section 17.2]
- LRE Water performed hydrogeological modeling and analysis of inflows and water management for the Archimedes Underground. [Section 9.2, 18.1]
- Gold Pricing Forecast – CIBC Bank, was used in the metal price analysis section. [Section 19]

These contributions have been reviewed by the authors, and they believe them to be accurate portrayals of the Project at the time of writing this Technical Report.

## 4. PROPERTY DESCRIPTION AND LOCATION

### 4.1 Property Description

The Ruby Hill Complex is in Eureka County, Nevada, 1.5 miles northwest of the town of Eureka, and it is part of the historic Eureka mining district. It is centered at roughly 39°31.5' N latitude and 115°59' W longitude. The Complex is owned by Ruby Hill Mining LLC and Golden Hill Mining Corporation, both are wholly owned subsidiaries of i-80. The northern part of the project, including the Archimedes pit, Archimedes underground, and Mineral Point deposit, is referred to as Ruby Hill and the southern part of the project, containing the historic Archimedes Underground mine and the FAD deposit, is referred to as Golden Hill. Ruby Hill encompasses about 10,608 acres and Golden Hill about 3,229 acres, together totaling about 13,837 acres (56,004 hectares) including owned patented and unpatented claims, owned surface fee land, and owned and leased unpatented claims. The federal land is administered by the US Department of Interior - Bureau of Land Management. Figure 4-1 shows the location of the Ruby Hill Project.

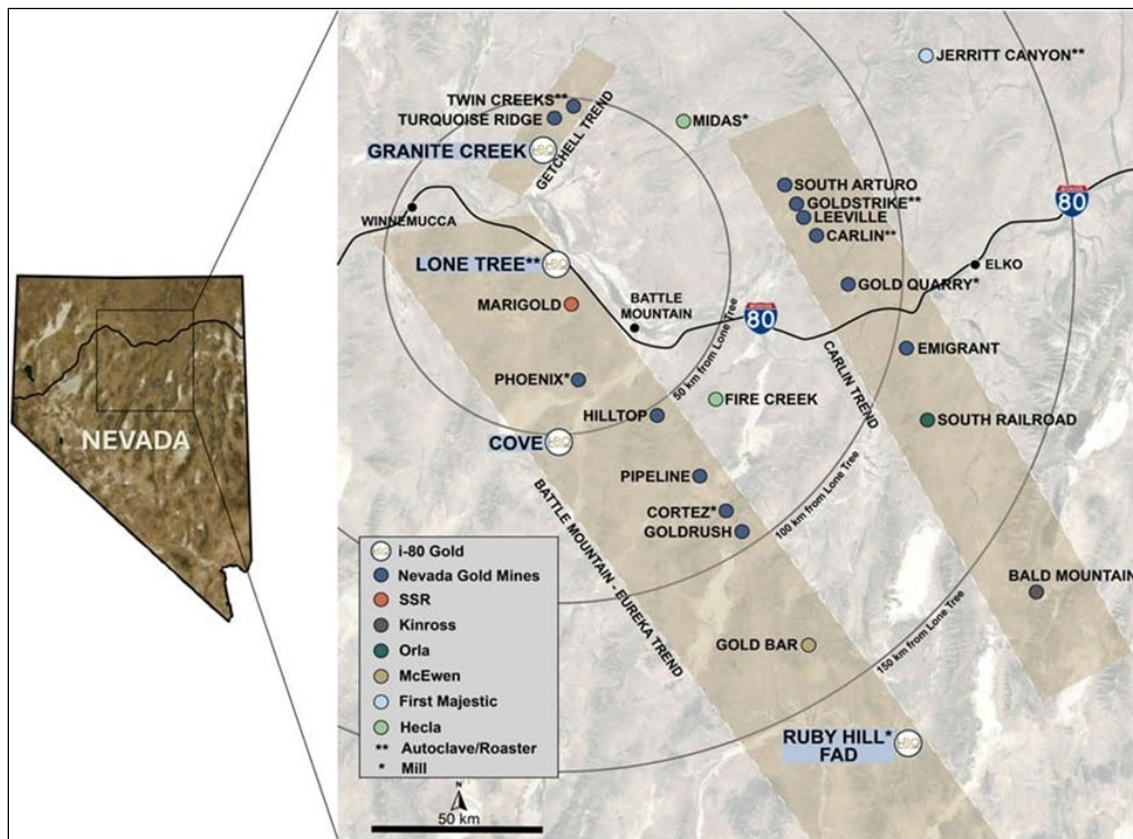


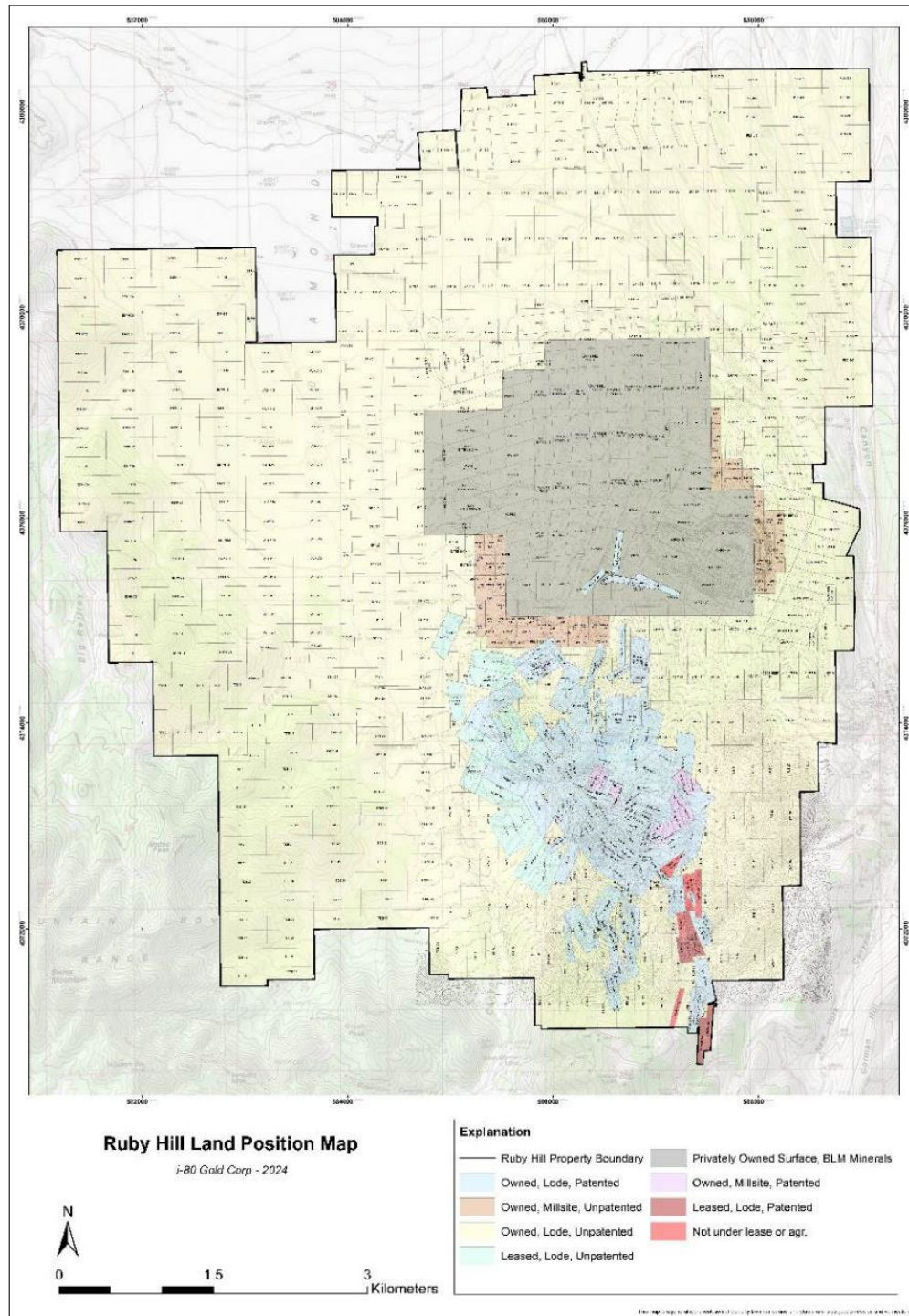
Figure 4-1: Ruby Hill Complex Location Map

(Source: i-80 Gold, 2024)

### 4.2 Status of Mineral Titles

The Ruby Hill Complex land position comprises various forms of title. Figure 4-2 shows the Ruby Hill Complex land position. On the northern Ruby Hill portion of the property, i-80, through its wholly owned subsidiaries Ruby Hill Mining Company LLC and Golden Hill Mining Corporation, owns 34 patented claims (Table 4-1), 640 unpatented claims (Table 4-2), and leases seven unpatented lode claims (Table 4-3). The lease expires May 12, 2032, and may be renewed by notice. i-80 also owns a land patent covering about

1,644.5 acres (665.6 hectares) in the vicinity of the Archimedes and Mineral Point deposits. The mineral rights underlying the patented land are held by patented and unpatented lode claims.



**Figure 4-2: Ruby Hill Complex Land Position**  
(Source: i-80 Gold, 2024)

Table 4-1: Ruby Hill Project Owned Patented Claims

Claim Name	Mineral Survey Number	Patent Number	Claim Type	Number of Claims
Bullwhacker	51	1264	Millsite	1
Cyanide	4686	1753	Lode	1
Vera Cruz and California	76	1772	Lode	1
Alabama	106	2075	Lode	1
Hoosac	60	2115	Lode	1
Wide West	105	2193	Lode	1
Racine	89	2485	Lode	1
General Lee	120	2531	Lode	1
Williamsberg	117	2618	Lode	1
Holly Lode	122	3850	Lode	1
Bowman	175	4228	Lode	1
Little Giant	192	4304	Lode	1
Price, Price No. 2	228, 229	4410, 4411	Lode	2
Oriental and Belmont	196	4511	Lode	1
Europa Consol.	176	4622	Lode	1
Fredrika	269	7023	Lode	1
Belle of the West NO. 2	271	8024	Lode	1
Central Consolidated	268	8066	Lode	1
Minerva, Silver Bill and Diagonal	292, 255	9783, 9784	Lode	2
Members No. 2	281	11490	Lode	1
Protection	300	11552	Lode	1
Lone Pine	4686	17513	Lode	1
Morning Star, Macon City	249, 250	18852, 18853	Lode	2
Democrat	310	20068	Lode	1
Horizontal, Herculean	316, 317	22273, 22274	Lode	2
Margarita	1946	40910	Lode	1
Porphyry, Quartzite	3596	179187	Lode	2
Silver Lick and Bobbie Burns Consol.	75		Lode	1
Silver West	131		Lode	1
<b>Total Owned Patented Claims</b>				<b>34</b>



Table 4-2: Ruby Hill Project Owned Unpatented Claims

Claim Name	BLM Serial Number	Claim Type	Number of Claims
ESPH 1- ESPH 85	NMC1076732 - NMC1076816	Lode	85
TDB 1 - TDB 12	NMC1089497 - NMC1089508	Lode	12
LH-1 - LH-25	NMC483711 - NMC483735	Lode	25
LH-27 - LH-77	NMC483737 - NMC483787	Lode	51
RH-5	NMC489850	Lode	1
SP#1 - SP#37	NMC604319 - NMC604355	Lode	37
SP#37A, SP#38, SP#38A	NMC604356 - NMC604358	Lode	3
SP#39 - SP#45	NMC604359 - NMC604365	Lode	7
SP#51 - SP#58	NMC604371 - NMC604378	Lode	8
LH#98 - LH#120, LH#140	NMC606475 - NMC606498	Lode	24
LH 130, LH 132, LH 134 - LH 136	NMC615733 - NMC615737	Lode	5
LH 139, LH 141	NMC615740 - NMC615741	Lode	2
PLS#37 - PLS#42	NMC676560 - NMC676565	Lode	6
PLS#66 - PLS#94	NMC676589 - NMC676617	Lode	29
PLS#236 - PLS#245, PLS 246 - PLS 248	NMC676759 - NMC676771	Lode	13
PLS 255, PLS 264	NMC676778 - NMC676787	Lode	2
HMC 11 - HMC 12	NMC677967 - NMC677968	Lode	2
WLH#9 - WLH#42	NMC681558 - NMC681591	Lode	34
WLH#85 - WLH#91	NMC681634 - NMC681640	Lode	7
PLS 265 - PLS 273	NMC682320 - NMC682328	Lode	9
PLS 275, PLS 277	NMC682330, NMC682332	Lode	2
PLS 285 - PLS 292	NMC682340 - NMC682347	Lode	8
HMC 15 - HMC 24, HMC 33 - HMC 38	NMC683512 - NMC683527	Lode	16
LH 78A - LH 87A	NMC683528 - NMC683537	Lode	10
HOPE, HOPE1 - HOPE11	NMC699711 - NMC699722	Lode	12
HOPE13 - HOPE21, HOPE EXTENSION	NMC699724 - NMC699733	Lode	10
HOPE EXTENSION 1 - HOPE EXTENSION 12	NMC699734 - NMC699745	Lode	12
JANUARY, JULY NO. 1, JULY NO. 2	NMC699746 - NMC699748	Lode	3
CUB, CUB NO. 1	NMC699749 - NMC699750	Lode	2
AUGUST 3 - AUGUST 6	NMC699751 - NMC699754	Lode	4
AUGUST 8 - AUGUST 9, ADAMS HILL EXTENSION	NMC699756 - NMC699758	Lode	3
ADAMS HILL EXTENSION NO. 1 through 7	NMC699759 - NMC699765	Lode	7
ADAMS HILL EXT. 8 - ADAMS HILL EXT. 10	NMC699766 - NMC699768	Lode	3
CYANIDE EXTENSION NO. 7, CYANIDE NO. 8	NMC699769 - NMC699770	Lode	2
CYANIDE EXTENSION NO. 13, CYANIDE NO. 14	NMC699771 - NMC699772	Lode	2
CYANIDE EXTENSION NO. 16, 17, 24, 25, 26, 27	NMC699773 - NMC699778	Lode	6
SAGEBRUSH, SAGEBRUSH 1, HOLLY 2	NMC699779 - NMC699781	Lode	3
MARCH EXT. 2 - MARCH EXT. 6, SEPTEMBER	NMC699802 - NMC699807	Lode	6
SEPTEMBER 1 - SEPTEMBER 3	NMC699808 - NMC699810	Lode	3
SEPTEMBER 5 - SEPTEMBER 10	NMC699811 - NMC699816	Lode	6
DECEMBER 7 - DECEMBER 10	NMC699818 - NMC699821	Lode	4
OCTOBER FRACTION, NOVEMBER	NMC699822 - NMC699823	Lode	2
NOVEMBER 1, NOVEMBER 2, NOVEMBER FRACTION	NMC699824 - NMC699826	Lode	3
ARC 1 - ARC 41	NMC699827 - NMC699867	Lode	41
ARC 43 - ARC 58	NMC699869 - NMC699884	Lode	16
R-E 10, R-E 15, R-E 20	NMC699892, NMC699897, NMC699902	Lode	3
R-E 25 - R-E 26	NMC699907 - NMC699908	Lode	2
R-E 31, R-E 34	NMC699911 - NMC699912	Lode	2
JAY 22, JAY 24, JAY 26	NMC699964, NMC699966, NMC699968	Lode	3
SNOW, SNOW 1 - SNOW 5	NMC704357 - NMC704362	Lode	6
MARCH, MARCH #1 - MARCH #3	NMC704363 - NMC704366	Lode	4
MARCH 4 - MARCH 11	NMC704367 - NMC704374	Lode	8
MARCH EXT, MARCH EXTENSION #1	NMC704375 - NMC704376	Lode	2
JAY # 23, JAY # 25, JAY # 27, HOPE # 12	NMC705154 - NMC705157	Lode	4
AUGUST # 7, SEPTEMBER # 11	NMC705158 - NMC705159	Lode	2
ARC 62	NMC713810	Lode	1
PLS # 279, PLS # 281	NMC771503 - NMC771504	Lode	2
LH 137R, LH 138R	NMC832613 - NMC832614	Lode	2
RHMS 300 - RHMS 350	NMC909518 - NMC909568	Millsite	51
<b>Total Owned Unpatented Claims</b>			<b>640</b>

Table 4-3: Ruby Hill Project Leased Unpatented Claims

Claim Name	BLM Serial Number	Claim Type	Number of Claims
SWAN	NMC72580	Lode	1
MERIT	NMC72581	Lode	1
GOLD QUARTZ, GOLD QUARTZ #1, GOLD QUARTZ #2	NMC72582 - NMC72584	Lode	3
WEST #1, WEST #2	NMC72586, NMC72587	Lode	2
<b>Total Leased Unpatented Claims</b>			<b>7</b>

On the Golden Hill portion of the property, i-80 owns 105 patented lode and millsite claims (Table 4-4), leases 5 patented claims (Table 4-5), owns 149 unpatented lode claims (Table 4-6), and leases seven unpatented lode claims (Table 4-7). The lease on the unpatented claims expires May 12, 2032, and may be renewed by notice.

Table 4-4: Golden Hill FAD Property Owned Patented Claims

Claim Name	Mineral Survey Number	Patent Number	Claim Type	Number of Claims
SENTINEL, MAMMOTH	40, 41	382, 383	Lode	2
BUCKEYE, CHAMPION	37, 38	389, 390	Lode	2
SAVAGE, LOOKOUT	42, 43	391, 392	Lode	2
CARSON	68	882	Lode	1
RICHMOND, TIP-TOP	64, 65	885, 886	Lode	2
SKYLARK, CALLOWAY	56, 57	1120, 1121	Lode	2
IONE LODE, GRANT LODE	74, 73	1221, 1222	Lode	2
SURPLUS LODE, PORTER, BROWN	85, 86, 87	1581, 1582, 1583	Lode	3
NUGET	46	2066	Lode	1
WILSON, JACKSON	97, 98	2109, 2110	Lode	2
LUPITA	49	2204	Lode	1
ST. GEORGE	66	2265	Lode	1
SILVER STATE MINE, ORIGINAL BALTIC MINE	111, 112	2296, 2297	Lode	2
MARCELINA EAST	119	2830	Lode	1
AT LAST	47	2968	Lode	1
BUCKEYE MILLSITE, CHAMPION MILLSITE	113, 114	3607, 3608	Millsite	2
BROWN MILLSITE	139	3742	Millsite	1
SILVER REGION, VICTORIA	160, 161	3751, 3755	Lode	2
GRAND CENTRAL	174	4077	Lode	1
PORTER MILLSITE, CARSON MILLSITE	138, 137	4197, 4198	Millsite	2
CONNELL	190	4310	Lode	1
DAVIES, DAVIES NO. 2	230, 231	4414, 4415	Lode	2
DIAGONAL, GREAT EASTERN	200, 165	4546, 4555	Lode	2
PEACH, MARRIAGE AMENDED, LA VETA	2869, 2867, 2873	4567, 4568, 4569	Lode	3
T.R., HONEYMOON AMENDED, GULCH	2870, 2868, 2872	4570, 4571, 4572	Lode	3
ALBION NO. 1, REMNANTS, FAD	2860, 3252, 3223	4573, 4574, 4575	Lode	3
APEX, ACOUCHMENT, BIG TR	2865, 2866, 2871	4576, 4577, 4578	Lode	3
ALBION NO. 2, ARCTIC, CLIFF MINE	2861, 2857, 2856	4579, 4580, 4581	Lode	3
ALBION NO. 3, LUCKY MAN, RAVINE	2862, 2852, 2858	4582, 4583, 4584	Lode	3
MAIN SHAFT, ATLANTIC, ANTARCTIC	2864, 2854, 2855	4586, 4587, 4588	Lode	3
ALBION CONSOLIDATED	2863	4589	Lode	1
RICHMOND RANCHO	211	4714	Lode	1
HOPE CONSOLIDATED	206	4800	Lode	1
SURPLUS MILLSITE	141	4923	Millsite	1
BADGER	218	5558	Lode	1
ISANDULA	213	5677	Lode	1
JACK & SCANLAND	217	6057	Lode	1
SKYLARK MILLSITE	214	6093	Millsite	1
GREEN SEAL	167	6169	Lode	1
WESTERN & WINCHESTER	216	6412	Lode	1
DON RICARDO	274	7415	Lode	1
REAR GUARD	225	7528	Lode	1



Claim Name	Mineral Survey Number	Patent Number	Claim Type	Number of Claims
REARGUARD MILLSITE	225	7528	Millsite	1
PRIDE OF THE WEST	267	7582	Lode	1
KEMP & KEEN	265	7886	Lode	1
GERALDINE LODE	284	8023	Lode	1
CENTRAL HILL	273	8097	Lode	1
ST. ANDREW LODE	242	9451	Lode	1
ST. PATRICK LODE	241	9640	Lode	1
TINNIE	195	10012	Lode	1
CHARTER	297	10344	Lode	1
PHIL SHERIDAN	270	15562	Lode	1
MONARCH 2, MONARCH 3, RICHMOND EXTENSION, RICHMOND EXTENSION NO. 1 through 4, RICHMOND FRACTION, RUBY HILL FRACTION, RUBY HILL NO. 1, RUBY HILL NO. 2	4686	17531	Lode	11
FITZGERALD LODE	313	19065	Lode	1
MAUD C.	307	19166	Lode	1
FRIES, FRANK	308, 309	19815, 19816	Lode	2
FEBRUARY, NOVEMBER, SHALE	3596	179187	Lode	3
ADAMS AND FERREN AND DEEP MINE	116		Lode	1
HARLEM AND EUREKA BELLE CON.	262		Lode	1
PATROON AND GRAND DELIVERY CONS.	261		Lode	1
ST. ANDREW MILLSITE	242		Millsite	1
ST. DAVID, AKA ST. DAVID MINE	2859		Lode	1
ST. PATRICK MILLSITE	241		Millsite	1
<b>Total FAD Owned Patented Claims</b>				<b>105</b>

**Table 4-5: Golden Hill FAD Property Leased Patented Claims**

Claim Name	Mineral Survey Number	Patent Number	Claim Type	Number of Claims	Expiration/ Renewal Date
CONTINENTAL	212	5684	Lode	1	June 16, 2032
INDEPENDENT	248	6008	Lode	1	June 16, 2032
STAR OF THE WEST		7981	Lode	1	May 22, 2032
SHOO FLY NO. 2, SHOO FLY NO. 3	58, 59	2294, 2295	Lode	2	June 9, 2032
<b>Total FAD Leased Patented Claims</b>				<b>5</b>	<b>June 9, 2032</b>

Table 4-6: Golden Hill FAD Property Owned Unpatented Claims

Claim Name	BLM Serial Number	Claim Type	Number of Claims
ESPH 86- ESPH 96	NMC1076817 - NMC1076827	Lode	11
HMC 50	NMC1078382	Lode	1
TDB 13 - TDB 57	NMC1089509 - NMC1089553	Lode	45
SRH 35 - SRH 36	NMC1094131 - NMC1094132	Lode	2
RH – 1 - RH – 4	NMC489846 - NMC489849	Lode	4
SP #46 - SP #50	NMC604366 - NMC604370	Lode	5
HMC 3 - HMC 4	NMC661367 - NMC661368	Lode	2
HMC 6, HMC 8, HMC 9	NMC661370 - NMC661372	Lode	3
HMC 39	NMC699710	Lode	1
ARC 42	NMC699868	Lode	1
ARC 59 - ARC 60	NMC699885 - NMC699886	Lode	2
RE-3A, R-E 6 - R-E 9	NMC699887 - NMC699891	Lode	5
R-E 11 - R-E 14	NMC699893 - NMC699896	Lode	4
R-E 16 - R-E 19	NMC699898 - NMC699901	Lode	4
R-E 21 - R-E 24	NMC699903 - NMC699906	Lode	4
R-E 27, R-E 30	NMC699909 - NMC699910	Lode	2
ANN 16 - ANN 20	NMC699913 - NMC699917	Lode	5
SRH 1 - SRH 6	NMC699918 - NMC699923	Lode	6
SRH 8	NMC699925	Lode	1
SRH 10 - SRH 12	NMC699927 - NMC699929	Lode	3
SRH 14 - SRH 26	NMC699930 - NMC699942	Lode	13
SRH 28 - SRH 32	NMC699943 - NMC699947	Lode	5
SRH 34	NMC699948	Lode	1
JAY 1 - JAY 8	NMC699949 - NMC699956	Lode	8
JAY 11 - JAY 14	NMC699957 - NMC699960	Lode	4
JAY 18 - JAY 19	NMC699961 - NMC699962	Lode	2
ARC #61, JAY #9, JAY #20	NMC705151, NMC705152, NMC705153	Lode	3
ARC 63	NMC713811	Lode	1
SRH 27	NMC808229	Lode	1
<b>Total FAD Owned Unpatented Claims</b>			<b>149</b>

Table 4-7: Golden Hill FAD Property Leased Unpatented Claims

Claim Name	BLM Serial Number	Claim Type	Number of Claims
WEST NO. 3 - WEST NO. 5	NMC661796 - NMC661798	Lode	3
WEST, WEST EXTENSION	NMC72585, NMC72591	Lode	2
HMC 2, HMC 5	NMC661366, NMC661369	Lode	2
<b>Total FAD Leased Unpatented Claims</b>			<b>7</b>

Patented land is subject to property taxes and lease holding payments to the claim owner if applicable. Unpatented claims have annual maintenance fees of \$200 per claim payable to the Bureau of Land Management and a notice of intent to hold (NIH) in the amount of \$12 per claim payable to Eureka County. The BLM MLRS mining claim database shows all claim fees paid through September 2025. The NIH was paid to Eureka County on July 10, 2024. All claim fees are current. Annual property holding costs for the Ruby Hill Complex are listed in Table 4-8.

**Table 4-8: Ruby Hill Complex Property Holding Costs**

Description	Payee	Quantity	Amount
Unpatented Claim Maintenance Fee	BLM	803	\$160,600.00
Notice of Intent to Hold Unpatented Claims	Eureka County	803	\$9,660.00
Patented Claim Property Taxes	Eureka County	139	\$1,356.24
Patented Claim Property Taxes 5 leased	Eureka County	5	\$52.35
Real Property Taxes	Eureka County	1	\$103,967.73
Collingwood Ranch Property Taxes	Eureka County	1	\$1,007.88
Personal Property Taxes	Eureka County	1	\$1,216.51
Water Leases	Lease Holders	multiple	\$28,700.00
Yearly Mining Claim Lease Payments	Lease Holders	multiple	\$8,250.00
<b>Total</b>			<b>\$314,810.71</b>

### 4.3 Royalties

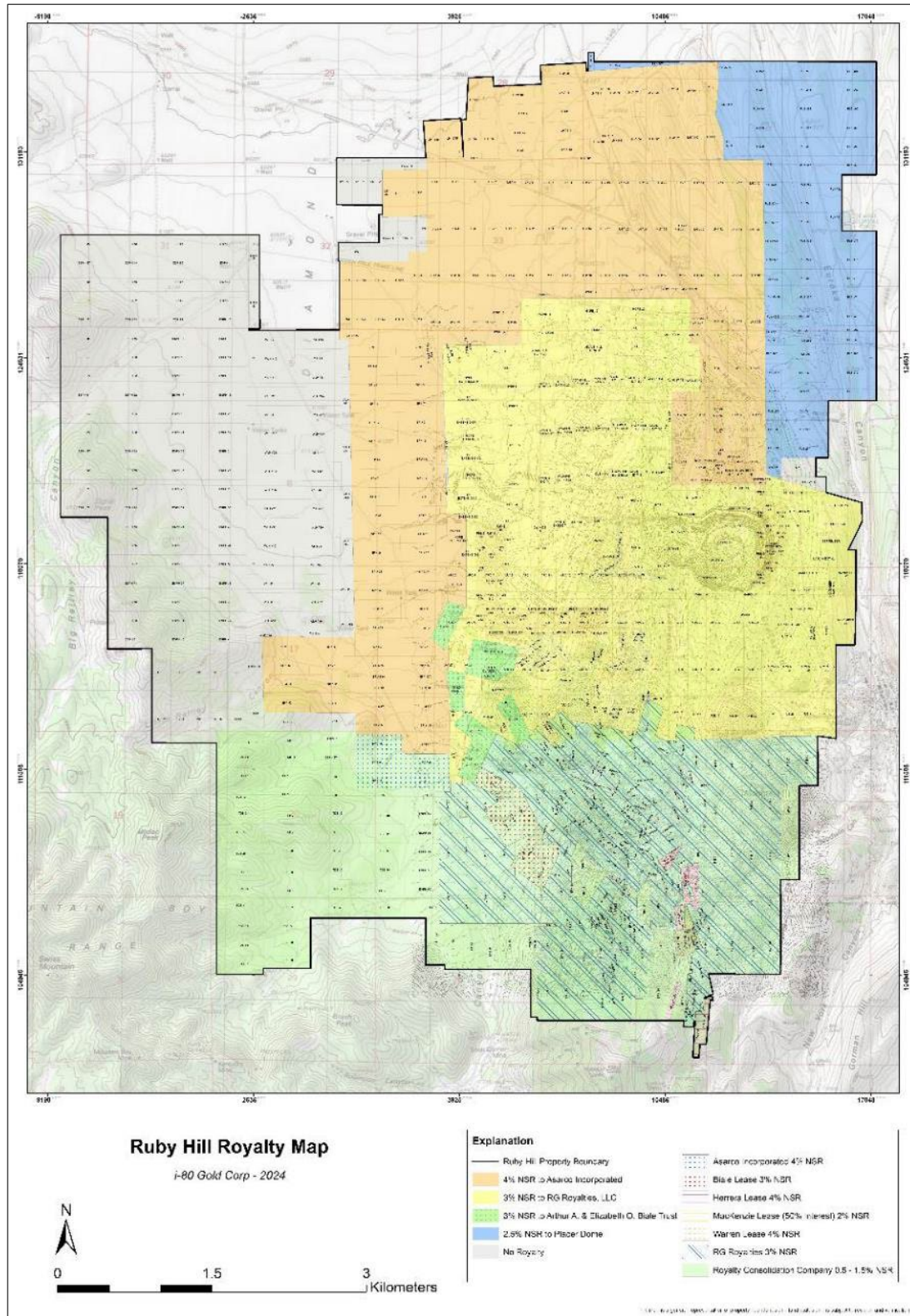
Several royalties are in effect on various areas of the property. Table 4-9 lists the royalties in the Ruby Hill area, and Table 4-10 lists the royalties in the Golden Hill area. Figure 4-3 shows the royalty areas. Some royalties were retained by previous owners upon sale of the property while others were negotiated as lease agreements with claim holders. Royalties are not payable until production occurs in the area covered by the royalty.

**Table 4-9: Ruby Hill Royalties**

Lessor/Grantor	Lease Type
ASARCO Incorporated	4% NSR
RG Royalties, LLC	3% NSR
Arthur A. & Elizabeth O. Biale Trust	3% NSR
Placer Dome	2.5% NSR

**Table 4-10: Golden Hill Royalties**

Lessor/Grantor	Lease Type
ASARCO Incorporated	4% NSR
Biale Lease	3% NSR
Herrera Lease	4% NSR
MacKenzie Lease (50% Interest)	2% NSR
Warren Lease	4% NSR
RG Royalties	3% NSR
Royalty Consolidation Company	0.5-1.5% NSR



**Figure 4-3: Ruby Hill Royalty Map**

(Source: i-80 Gold, 2024)

#### 4.4 Environmental Liabilities

The closure cost for Ruby Hill is estimated to be \$27 million (i-80, 2025). The associated Bond was accepted by the Bureau of Land Management (BLM) on August 8, 2023 and covers authorized disturbance associated with issued permits for Ruby Hill (RHMC 2023). There are no other known environmental liabilities associated with pre-Project operations (RHMC, 2021).

RHMC controls a total of 8,107-acre feet per annum (AFA) of water rights for consumption and occupation (RHMC, 2024).

Due to a history of over pumping in the region based on a heavy agricultural reliance, the Diamond Valley Basin was categorized as a Critical Management Area (CMA) by the Nevada State Engineer's office in 2015. The designation allowed the State Engineer and the community to agree on certain tools to reduce over-pumping, including the implementation of a Diamond Valley Groundwater Management Plan (GMP). Following resolution of a lengthy legal dispute by senior water rights holders in the Basin, the GMP was reinstated effective January 1, 2023. As a groundwater user within the GMP designated area, RHMC controls sufficient water rights to support its mining operations (RHMC, 2024).

#### 4.5 Permits/Licenses

In conjunction with the permitting actions associated with the Archimedes Underground Mine in-pit surface support facilities, a Determination of NEPA Adequacy (DNA) was deemed sufficient for the Plan of Operations (PoO) Amendment NVN-067782 approved by the BLM March 30, 2023. Additionally, on June 23, 2023, the Nevada Division of Environmental Protection – Bureau of Mining Regulation & Reclamation (NDEP-BMRR) approved an Engineering Design Change (EDC) to Water Pollution Control Permit (WPCP) NEV0096103 for the construction of the surface facilities. Permitting actions tied to mining of the underground are currently in progress with the BLM evaluating a PoO Amendment and associated Environmental Assessment (EA) while NDEP-BMRR is analyzing a WPCP Major Modification.



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

### **5.1 Accessibility**

The Ruby Hill Project area is a 4.5-mile drive from the town of Eureka, Nevada. From the intersection of Clark Street and US Highway 50, travel north on Hwy 50 3.2 miles to the junction of Nevada State Route 278 on the right and the Homestake Road turn-off to the left. Turn left, and travel south 1.3 miles on a well-graded gravel road to the Ruby Hill gate. Eureka is located on Highway 50, about 242 miles east of Reno via Interstate 80 and Hwy 50, or 92 miles south of Carlin, via Nevada State Route 278.

### **5.2 Climate**

The climate in Eureka County is typical of the high-desert environment. Typical summer temperatures near Eureka range between 50°F and 82°F while winter temperatures range between 18°F and 38°F. Average precipitation is about 11.8 inches including just under 59 inches of snowfall. Typical snow accumulation is roughly 3 inches on average at lower elevations, although occasional large storms may accumulate significantly more for short durations. The town of Eureka lies at about 6485 ft elevation, while the project area ranges from 6160 ft to 6680 ft. The FAD shaft to the south of the Project sits at about 6900 ft elevation.

Mining operations are able to continue year-round with brief pauses for summer lightning storms or unusually heavy winter snowstorms.

### **5.3 Local Resources**

The town of Eureka has a population of about 410. Basic services are available. The Eureka Mining District has a long history of mining activity, and mining suppliers and contractors are accustomed to working in the area. Some experienced and general labor is available locally, and some may be sourced regionally from the towns of Elko (114-mile drive north of the Project), Reno (242 miles west of the Project), Ely (78 miles east of the Project), and other small towns in the region. There are a number of mining operations in the region and as such, there is always competition for employees.

### **5.4 Infrastructure**

- Electricity – The local utility company is NVEnergy. There is sufficient electrical energy at the site for all planned operations.
- Labor – There are numerous operating mines in northern Nevada and a skilled labor force is available.
- Supplies – Local suppliers can provide all materials necessary to support the planned mining operations.
- Water – The Ruby Hill project can supply sufficient water from existing wells to support all planned mining operations.

### **5.5 Physiography**

The Project lies in the Basin and Range Province, a structural and physiographic province comprised of generally north to north-northeast trending, fault bounded mountain ranges separated by alluvial filled valleys.



The Project is located on the northern flank of the Fish Creek Range sloping towards Diamond Valley. Topography is gentle to moderate with steeper hills to the south in the FAD area. Vegetation is typical of the high desert with sagebrush on the alluvial fans, and piñon and juniper on the mountain slopes.

## 6. HISTORY

### 6.1 Historic Ownership

The Ruby Hill Project is located in the northern portion of the historic Eureka mining district. Prospecting began in the 1860's with production occurring by the 1870's from carbonate replacement (CRD) type deposits. Much of the historic work occurred south of the Ruby Hill Project, with historic mines and prospects scattered through the northern Fish Creek mountains west of Eureka extending south several miles towards the Little Smoky Valley. The majority of historical production, estimated at about 80%, was from the original Ruby Hill Mine (Nolan, 1962 and Nolan and Hunt, 1968). The original Ruby Hill mine is located roughly 1 ¼ miles south of the Ruby Hill Project. i-80 merged with Golden Hill Corporation and acquired the historic Ruby Hill site (FAD property), consolidating their ownership of the Ruby Hill Complex.

Modern work at the Project began in 1992, when Homestake Mining Company made the Archimedes Carlin-type discovery at the current Project area. Table 6-1 lists the general history of ownership, exploration, and mining of the larger, recently consolidated Ruby Hill complex. History prior to 1992 is focused generally on the FAD portion of the property, while history from 1992 to the present is focused on the Archimedes area. One exception is the TL shaft and associated historic underground mines, which Eureka Corporation mined from 1953-1958 in the vicinity of the current Mineral Point Trend resource area.

**Table 6-1: Historic Regional Ownership and Activities**

Year	Company	Comment
1864	Various	Oxidized gold-silver CRD mineralization discovered by prospectors
1869	Various	Ruby Hill CRD mineralization discovered on Prospect Mountain W.W. McCoy devises furnace for recovering metals from oxidized ores
1873-1905	Richmond Mining Company	Production from the Ruby Hill deposit. Smelting ceases 1890
1873-1916	Eureka Consolidated Mining Company	Production from the Ruby Hill deposit The Locan shaft was sunk to 1200 level. High water flow encountered in crosscut partially flooding shaft. Shaft dewatering unsuccessful, mine shut down Smelting ceased 1891
1905-1912	Richmond-Eureka Mining Company	Richmond Mining Company and Eureka Consolidated Mining Company properties consolidated into Richmond-Eureka Mining Company Controlling interest held by Unites States Smelting, Refining, and Mining Company (USSRAM) Rehabilitation of Richmond and Eureka consolidated mines. Processing of stope fill and low-grade ore
1919	Ruby Hill Development Company	Leased property from Richmond-Eureka Mining Company. Dewatered Locan shaft Project abandoned due to exhaustion of finances
1923	Richmond-Eureka Mining Company	Dewatered Locan shaft to 1,200 level Drove SE crosscut to Ruby Hill fault, and a drift to SW. SW drift encountered high water flow and work stopped Vertical exploration hole (type unknown) drilled from 900 level. Hole caved, and project abandoned
1920's - 1930's	Various lessors	Sporadic production
1937-1959	Eureka Corporation, Ltd.	Obtained leases on Ruby Hill property from Richmond-Eureka Mining Company Completed 4 churn holes (totaling 3,596 feet), 260 surface and underground core holes (87,633.8 feet), 13 mud rotary holes (14,252 feet), and 6 RC holes (9,903 feet) Intersection of high-grade polymetallic mineralization in 5 surface core holes led to the FAD shaft being sunk to 2,500' depth to develop mineralization. Underground development encountered high water flow which flooded shaft Rotary drilling in 1953 in Adams Hill area intersected mineralization in Hamburg Dolomite Sinking of the T.L. shaft started in 1953 to exploit mineralization and was completed in 1955 to a depth of 1,127 feet *(This lies above, and locally intersects, the current Mineral Point resource.)

Year	Company	Comment
		Mining commenced in 1956 and shut down in 1958 due to lack of ore
1989-1991	American Smelting and Refining Company (ASARCO)	Drilled 12 RC exploration holes totaling 5,314 feet
1960-1992	Ruby Hill Mining Company	<p>Richmond-Eureka Mining Company (75%) and Eureka Corporation (25%) form Ruby Hill Mining Company</p> <p>In June 1960 a consortium was formed consisting of Richmond-Eureka Mining Company, Eureka Corporation, Newmont Mining Company, Cyprus Mines Corporation, and Hecla Mining Company to finance additional drilling and produce a FAD feasibility study</p> <p>Collectively, Consortium drilled 148 exploration holes (129,362.3 feet); 13 churn (3,641 feet); 33 Mud Rotary (74,039 feet); 6 percussion (395 feet); 3 RC (1,458 feet); and 93 core holes (50,218.3 feet)</p> <p>Fourteen holes drilled in FAD shaft area intersected mineralization. Decision made to dewater FAD shaft to exploit new mineralization</p> <p>In 1963 FAD shaft was dewatered to the 2250 level. New crosscut, 1,028' long, to evaluate mineralized zone completed in 1964. Crosscut used to drill exploration percussion and core holes</p> <p>Drilling completed in 1966 and mine placed on inactive status pending economic evaluation</p> <p>1966 and 1974 Hecla feasibility studies indicate project not feasible</p> <p>In 1974 Newmont withdrew from the consortium followed by Hecla in 1979</p> <p>Cyprus remains as surviving partner drilling 39 mud rotary (7,945 feet), and 98 air track (4,983 feet) exploration holes for near-surface, bulk-mineable gold mineralization between 1980-1981</p> <p>Exploration unsuccessful and property reverted to Sharon Steel Corporation successor to Ruby Hill Mining Company in 1982</p> <p>Sharon Steel Corporation drilled 127 exploration/definition RC holes totaling 31,539 ft between 1982 and 1991</p>
1993-1994	Placer Dome	Drilled 11 RC exploration holes (12,350 feet) at Ruby Flats
1994	Unknown	Drilled 1 RC hole for 500 feet
1992-2001	Homestake Mining Company	<p>Homestake acquired Ruby Hill property from Ruby Hill Mining Company in 1992</p> <p>Exploration/definition drilling between 1992-1993 discovered/defined the Archimedes deposit (both West and East) along with the 426 zone</p> <p>In 1994 Homestake announced plans to develop an open pit mine and processing facility to exploit West Archimedes mineralization. Construction began in 1997 and production commenced in 1998</p> <p>The eastern portion of the Archimedes deposit (East Archimedes) not developed due to low gold prices, high strip ratio, change of mineralization from oxide to sulfide, and mineralization largely below water table creating permitting issues</p> <p>Mining ceased in 2002 and reclamation activities started on mine waste dumps and pit area</p> <p>Completed 1,502 (1,022,842.5 feet) exploration/definition holes between 1992-2001; 1374 RC holes (875,083 feet), and 128 core holes (147,759.5 feet)</p> <p>DIGHEM Surveys conducted an airborne magnetic &amp; electromagnetic survey in 1994 on E-W flight lines at nominal 600' spacing with mean terrain clearance of 115 feet</p> <p>Zonge Geosciences completed ground magnetics survey at 150' spacing in 2000.</p> <p>In 1998, conducted dump sampling program on Diamond Tunnel dump to evaluate grade and tonnage (south of property)</p> <p>Between 1999-2000 conducted rock chip sampling program to determine potential for multi element correlation as pathfinder for gold</p>
2001-2015	Barrick Gold Corporation	<p>Barrick acquired Ruby Hill property during 2001 merger with Homestake Mining Company</p> <p>In 2002 Chadwick and Russell completed Archimedes pit mapping</p> <p>Completed positive feasibility study on East Archimedes deposit in 2004, a Mineral Reserve audit in 2005, and NI 43-101 Technical Reports in 2008 and 2012</p> <p>2005 East Archimedes developed as conventional open pit mining and heap leach operation with initial gold production in 2007</p> <p>In 2013 the East Archimedes high wall failed, and mining was suspended pending economic assessment of moving failed material to continue mining</p>

Year	Company	Comment
		Barrick completed a pre-feasibility study on the 426 zone in 2009 and a feasibility study in 2012. The 2012 feasibility concluded that the 426 zone needed +\$975/oz gold to be economical.
		2003-2015 drilled 674 (811,575 feet) exploration/infill/definition drill holes; 523 RC (630,745 feet) and 151 core (180,830) holes
		2002 Quantec Consulting Inc. conducted a 5-line Titan-24 magnetotelluric survey, added additional 4 lines in 2010
		2006 merged gravity data from multiple sources and various scales
		2007 Magee Geophysics Services LLC conducted a 3,182 station gravity survey on 300' grid spacing
		Conducted rock chip sampling program in 2002
2015	Waterton Precious Metals Funds II Cayman, LP	Purchased Ruby Hill mine from Barrick. Waterton formed new corporate entity called Ruby Hill Mining Company, LLC
2015-2021	Ruby Hill Mining Company, LLC	Completed 42 sonic drill holes totaling 4,106' between 2019 - 2020
		2017 reprocessing of selected historical geophysical datasets, multi-element analysis study of drill core to aid in lithology identification, and structural review by SRK.
		Conveyed the Historic Ruby Hill claims and Fad Mine to Golden Hill Mining Corp.
		McCoy Mining was hired to begin mining from the bottom of the East Archimedes Pit in August 2020. The operation mined about 2,599,000 tons of ore containing 40,900 ozs Au. Mining was completed in November of 2021
October 2021-Present	i-80 Gold Corp	Acquired Project October 18, 2021
		Completed East Archimedes mining November 2021
		Residual leaching and gold recovery from the East Archimedes heap leach pad
		IP Survey 2022
		Ongoing drilling (72 holes totaling 135,941 ft (41,435 m) at time of writing. (Not all holes are within the current resource area.)
		February 2023 purchased FAD property from Paycore Minerals. Paycore had initiated drilling programs testing CRD mineralization at depth and a near-surface oxide target proximal to historic Archimedes Underground mine with favorable results.
April 2022-February 2023	Golden Hill Mining Corp.	Acquired FAD property (south of the Project), drilled 33,675 feet (10264 m), sold to i-80

## 6.2 Historic Mining

Historical district production from 1866 through 1964 is estimated at 1.65 Moz of gold at an average grade of 0.83 oz/ton (28.5 g/t Au) and 39.0 Moz of silver at an average grade of 19.5 oz/ton (668.6 g/t Ag) from 2.0 Mtons mined (also reported >625M lbs Pb @ 15.63 %) of which 80% is estimated to be from the original Ruby Hill Mine (Nolan, 1962 and Nolan and Hunt, 1968). The bulk of historical mining was completed by 1891 when the Eureka smelter closed. Sporadic shipments of lower grade ores by lessors continued until about 1940 along with minor production from Adams Hill and Mineral Point, which are in the vicinity of the current resource area. Production from mines on Adams Hill and Mineral Point contributed no more than 125,000 tons of low-grade material, with most of the production, 67,000 tons, coming from the Holly mine (Nolan, 1962).

The Holly mine was accessed via the TL shaft, sunk by Eureka Corporation, LTD in 1953 to a depth of 1,127 feet. The historic workings lie above, and locally intersect, the current Mineral Point resource. Although records are sparse, the TL shaft appears to have been used to access two main working areas: the Holly mine and the Williamsburg/Bullwhacker mine. The Holly mine is located in the footwall of the Holly fault near its juncture with the 150, 426 and Hilltop faults, adjacent to the southwest highwall of the Archimedes pit. Developed levels range from roughly 70 feet to 900 feet below surface. The Williamsburg mine was developed on levels ranging from near-surface to roughly 1,070 feet below surface. Workings tend to follow the contact of the Bullwhacker sill and the Catlin Member of the Windfall Fm (stratigraphically above the host of the current Mineral Point Trend resource). Although the historical mining concept is not well documented, the target of both the Williamsburg and Holly mines was likely CRD mineralization.

The FAD shaft was sunk in 1941 to access CRD mineralization intercepted by surface exploration drilling adjacent to the historically mined Ruby Hill deposit. The FAD mineralization is thought to be a continuation of the historic Ruby Hill deposit, down-dropped to the north-east by normal faulting. The shaft reached a depth of 2,500 feet and a drift was driven on the 900 “Locan” level for underground exploration drilling and test mining. 78 holes totaling 12,976 feet are known to have been drilled from the Locan level. The shaft eventually flooded, and little work was completed from 1963 until Paycore Minerals acquired the property in April 2022. As of February 2023, Paycore reported completing 33,675 feet (10,264 m) of drilling at 656-foot (200-m) step-outs, expanding the CRD deposit footprint to almost one square mile (1.5km x 1.5km) open in multiple directions. Paycore also reported a near-surface oxide exploration target above the FAD CRD, adjacent to historic infrastructure.

Modern work at the Project began in 1992, when Homestake Mining Company made the Archimedes Carlin-style discovery at the current Project area. About 1,508,900 oz Au have been produced from the Archimedes pit from roughly 24.3 Mtons of ore. Table 6-2 lists historical production.

**Table 6-2: Production History Summary**

Year	Company	Comment
1866-1964	Numerous	Eureka District produced 1.65 Moz Au, 39 Moz Ag, 625 Mlb Pb and 12 Mlb Zn from 2 Mtons of ore (Historical estimate)
		1873-1905 Richmond Mining Company mined 488,081 tons of material valued at \$15,209,012.
		1873-1916 Eureka Consolidated Mining Company mined 550,455 tons material valued at \$19,242,012.
		1871-1939 Richmond-Eureka Mining Company mined 88,081 tons material valued at \$4,021,674.
		Small scale sporadic production from numerous lessors.
1953-1958	Eureka Corporation, LTD.	Sunk TL shaft in 1953, production from historic Williamsburg/Bullwhacker and Holly Mines (underground, these workings lie above, and locally intersect, the current Mineral Point resource.) Production estimates are included in cumulative historic Eureka District totals (Nolan). Subordinate to historic Ruby Hill production (125 Ktons max)
1998-2000	Homestake Mining Company	Produced 365,491 oz Au from 3.7 Mtons of mineralization from West Archimedes Pit
2001-2015	Barrick Gold Corporation	Produced 1,081,458 oz Au from approximately 18 Mtons of ore from West and East Archimedes Pits
2016-2021	Ruby Hill Mining Company, LLC	Produced 21,105 oz Au from residual leaching of pad. Mining in bottom of East Archimedes Pit in August 2020 through August 2021.

### 6.3 Historic Exploration

Exploration for the Ruby Hill Project has a long history which consisted of rock-chip sampling, soil sampling, mapping, drilling, and geophysical surveys. Modern projects conducted by previous owners Homestake Mining Company, Barrick Gold Corporation and RHMC are presented here, and a 2022 IP survey conducted by i-80 is presented in Section 9. All known drilling at the Project is presented in Section 10. A list of all known historical exploration efforts in the district is presented in Table 6-3.

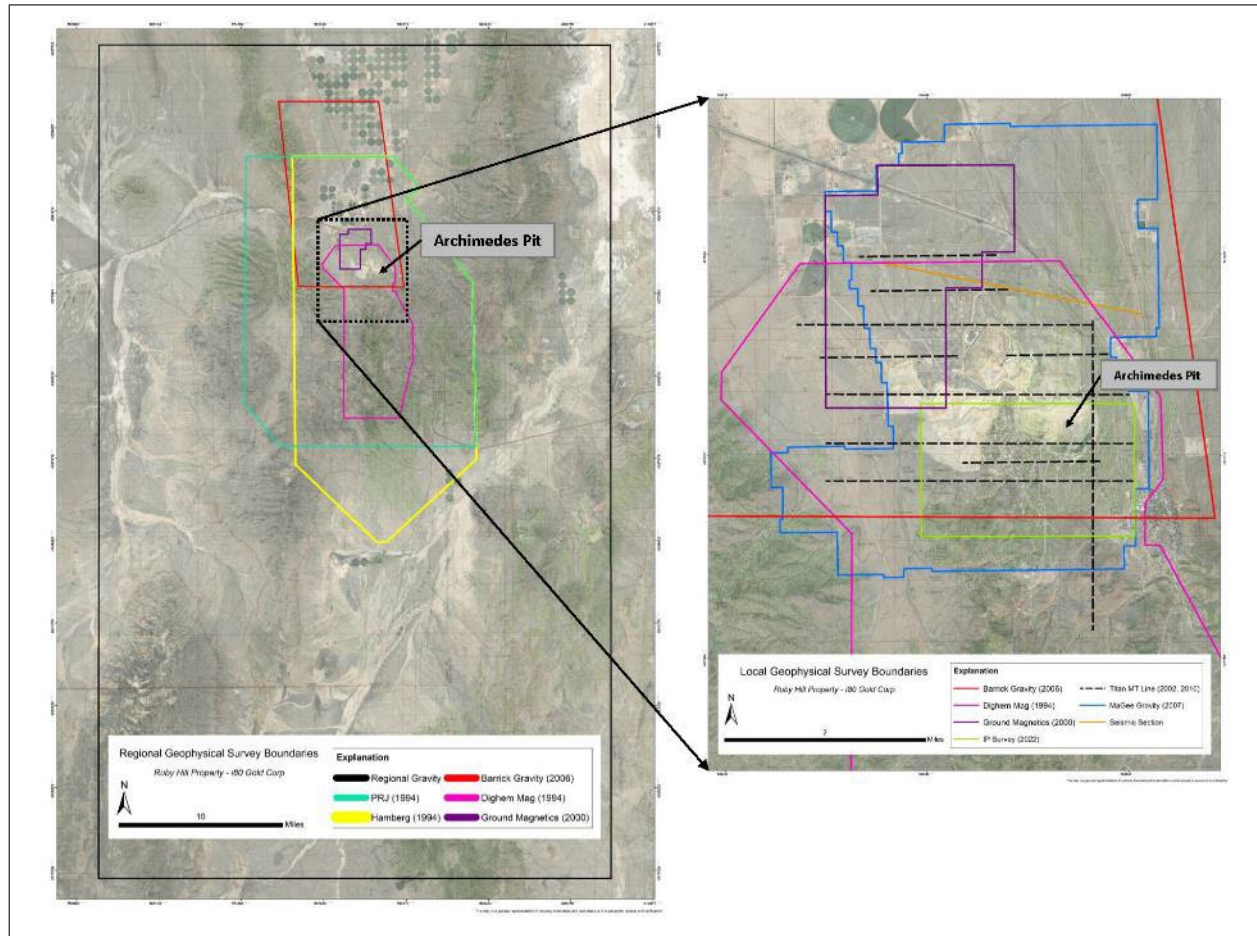
Table 6-3: Historic Exploration

Year	Company	Comment
1864	N/A	Oxidized gold-silver CRD mineralization discovered by prospectors
1923	Richmond-Eureka Mining Company	Drove SE crosscut to Ruby Hill fault, and a drift to SW. Vertical exploration hole (type unknown) drilled from 900 level. Hole caved, and project abandoned
1937-1959	Eureka Corporation, Ltd.	Completed 4 churn holes (totaling 3,596 feet), 260 surface and underground core holes (87,633.8 feet), 13 mud rotary holes (14,252 feet), and 6 RC holes (9,903 feet) Intersection of high-grade polymetallic mineralization in 5 surface core holes led to the FAD shaft being sunk to 2,500' depth to develop mineralization. Rotary drilling in 1953 in Adams Hill area intersected mineralization in Hamburg Dolomite
1989-1991	American Smelting and Refining Company (ASARCO)	Drilled 12 RC exploration holes totaling 5,314 feet
1960-1992	Ruby Hill Mining Company	Consortium (Richmond-Eureka, Eureka Corp, Newmont, Cyprus, Hecla) drilled 148 exploration holes (129,362.3 feet); 13 churn (3,641 feet); 33 Mud Rotary (74,039 feet); 6 percussion (395 feet); 3 RC (1,458 feet); and 93 core holes (50,218.3 feet) Fourteen holes drilled in FAD shaft area intersected mineralization. Decision made to dewater FAD shaft to exploit new mineralization In 1963 FAD shaft was dewatered to the 2250 level. New crosscut, 1,028' long, to evaluate mineralized zone completed in 1964. Crosscut used to drill exploration percussion and core holes Cyprus remains as surviving partner drilling 39 mud rotary (7,945 feet), and 98 air track (4,983 feet) exploration holes for near-surface, bulk-mineable gold mineralization between 1980-1981 Sharon Steel Corporation drilled 127 exploration/definition RC holes totaling 31,539 ft between 1982 and 1991
1993-1994	Placer Dome	Drilled 11 RC exploration holes (12,350 feet) at Ruby Flats
1994	Unknown	Drilled 1 RC hole for 500 feet
1992-2001	Homestake Mining Company	Exploration/definition drilling between 1992-1993 discovered/defined the Archimedes deposit (both West and East) along with the 426 zone Completed 1,502 (1,022,842.5 feet) exploration/definition holes between 1992-2001; 1374 RC holes (875,083 feet), and 128 core holes (147,759.5 feet) DIGHEM Surveys conducted an airborne magnetic & electromagnetic survey in 1994 on E-W flight lines at nominal 600' spacing with mean terrain clearance of 115 feet Zonge Geosciences completed ground magnetics survey at 150' spacing in 2000. Between 1999-2000 conducted rock chip sampling program to determine potential for multi element correlation as pathfinder for gold
2001-2015	Barrick Gold Corporation	In 2002 Chadwick and Russell completed Archimedes pit mapping 2003-2015 drilled 674 (811,575 feet) exploration/infill/definition drill holes; 523 RC (630,745 feet) and 151 core (180,830 feet) holes 2002 Quantec Consulting Inc. conducted a 5-line Titan-24 magnetotelluric survey, added additional 4 lines in 2010 2006 merged gravity data from multiple sources and various scales 2007 Magee Geophysics Services LLC conducted a 3,182 station gravity survey on 300' grid spacing Conducted rock chip sampling program in 2002
2015-2021	Ruby Hill Mining Company, LLC	Completed 42 sonic drill holes totaling 4,106' between 2019 - 2020 2017 reprocessing of selected historical geophysical datasets, multi-element analysis study of drill core to aid in lithology identification, and structural review by SRK
October 2021-Present	i-80 Gold Corp	IP Survey 2022 Ongoing drilling (72 holes totaling 135,941 feet (41,435 m) at time of writing. (Not all holes are within the current resource area.)
April 2022-February 2023	Paycore Minerals	Acquired FAD property (south of the Project), drilled 33,675 feet (10264 m), sold to i-80



Figure 6-1 shows the location of geophysical surveys completed from 1994 to 2022. Geophysical surveys have been instrumental in locating CRD mineralization.

Figure 6-2 and Figure 6-3 show locations and gold grades of rock samples and soil samples collected by previous operators within the Ruby Hill claim block.



**Figure 6-1: Geophysical Surveys in the Ruby Hill Project Area**

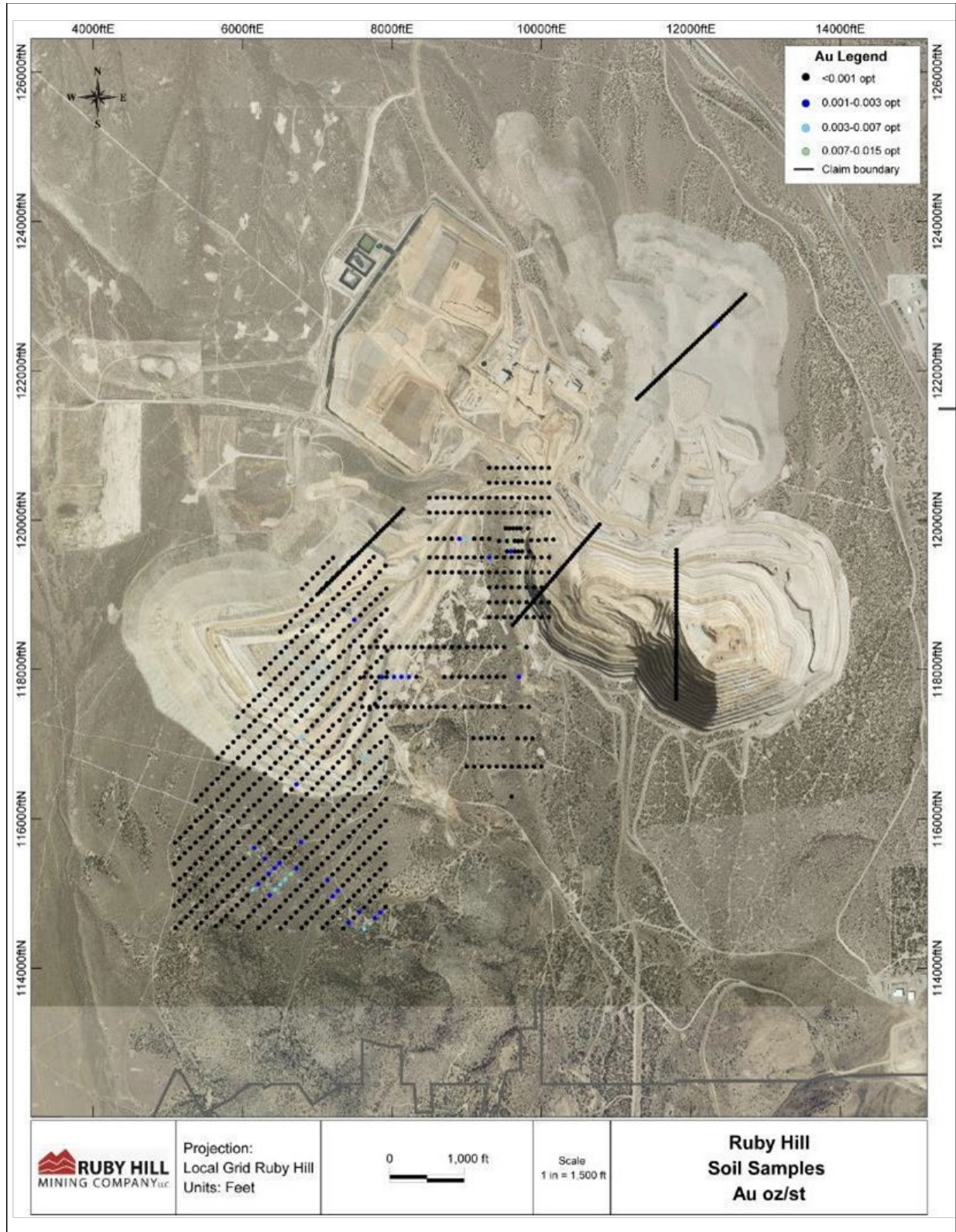
(Source: i-80 Gold, 2024)



**Figure 6-2: Rock Samples with Gold Grade (opt) within the Ruby Hill Claim Block**

(Source: Wood, 2021)





**Figure 6-3: Soil Samples with Gold Grade (opt) within the Ruby Hill Claim Block**

(Source: Wood, 2021)

## 7. GEOLOGIC SETTING AND MINERALIZATION

### 7.1 Regional Geology

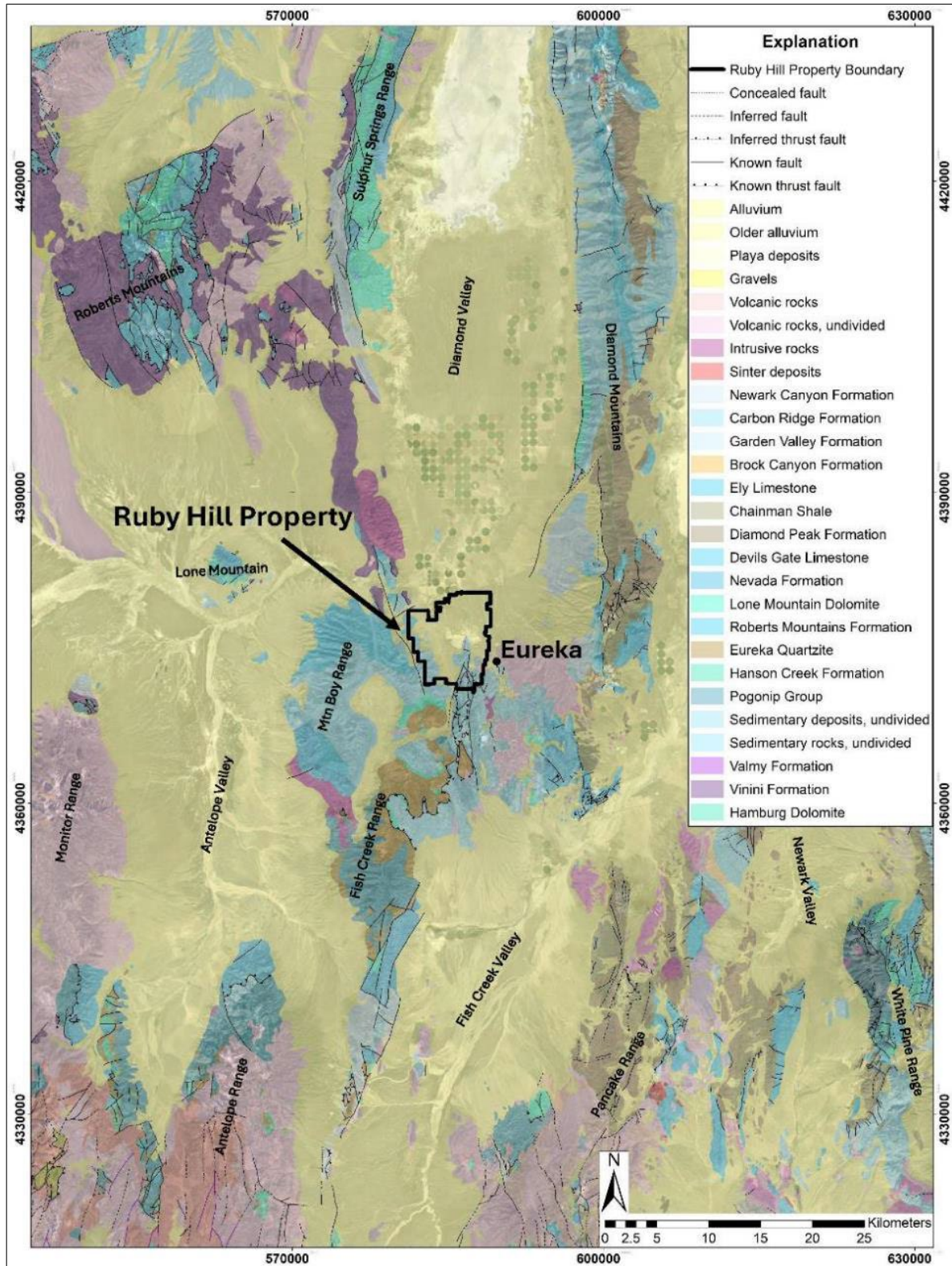
The Ruby Hill Project is located in the Eureka mining district in east-central Nevada, within the northern part of the Fish Creek Range which is a nearly continuous sequence of Cambrian and Ordovician sedimentary rocks (Figure 7-1) totaling nearly 10,000 ft in thickness (Nolan, 1962). These strata accumulated on a stable continental shelf margin and consisted primarily of carbonate units with subordinate shale and sandstone (Dilles et al., 1996). The Cambrian Eldorado Dolomite, the Hamburg Dolomite and overlying Dunderberg Shale, portions of the Windfall Formation, and the Goodwin-Ninemile transition, host most of the mineralization within the district (Barrick, 2011).

During the Mississippian Antler Orogeny, the Roberts Mountains Allochthon, consisting primarily of deep marine sedimentary rocks, was thrust from the west onto the continental margin (Evans and Theodore, 1978), creating a foreland basin in the vicinity of the present-day location of the town of Eureka, NV (Poole, 1974). Post-Antler Mississippian and Permian strata deposited after the Antler Orogeny filled the basin with carbonaceous silts, sands, and conglomerates represented by the Chainman and Diamond Peak formations (Dilles et al, 1996).

Thrust faulting and significant deformation of the Paleozoic section occurred between Permian and Late Cretaceous time (Taylor et al., 1993), and culminated in the development of the Prospect Mountain duplex of the Early Cretaceous Hoosac thrust fault (Lisenbee, 2001), a major regional scale structure that cuts Permian rocks, and is in turn cut by intrusive units dated 110 to 100 Ma (Dilles et al., 1996). Most of the Eureka district is located in the hanging wall of the Hoosac thrust.

Cretaceous fresh-water sedimentary rocks unconformably overlie the older Paleozoic units east of Eureka, NV (Nolan, 1962). Cretaceous age granodiorite and quartz porphyry intrude the Paleozoic section. These include the Ruby Hill stock, Bullwhacker Sill, and Graveyard Flats intrusive which are interpreted to be genetically linked to the base metal carbonate replacement deposits at Ruby Hill (Barrick, 2011). Oligocene volcanic tuffs and andesite intrusive rocks are also present within the district, primarily to the NE and SE. The youngest deformational event occurred during the Miocene when Basin and Range extension formed regional high- angle N-S trending normal faults.





**Figure 7-1: Regional Geologic Map**

(Source: i-80 Gold, 2023)

The Eureka district hosts mid-Cretaceous, igneous-related, polymetallic carbonate replacement deposits that have subsequently been overprinted by Carlin-type gold-silver mineralization. Gold and silver mineralization possibly dates to the early-middle Cenozoic (Eocene) and temporally coincides with the onset of extension and Eocene-Oligocene magmatism. Post mineral uplift exposed portions of the Archimedes gold deposit and likely contributed to the relatively deep level of oxidation. Subsequent Miocene Basin and Range faulting resulted in reburial of the Archimedes system beneath 60 to 500 ft of Tertiary-Quaternary overburden in East Archimedes.

## 7.2 Project Geology

The Ruby Hill Project is located on the southeastern end of the Battle Mountain-Eureka gold trend, in the northern portion of the of the Eureka mining district.

From the late Neoproterozoic to the Devonian, the Cordilleran passive margin sequence, a westward-thickening section of clastic and carbonate rocks, was deposited on the rifted North American continental shelf in what is now eastern Nevada and western Utah. The Eureka district was situated near the distal, western margin of the shelf (Cook and Corboy, 2004). The Project is underlain by a thick (approximately 10,000 feet) sequence of carbonate and siliciclastic units comprised of the Prospect Mountain Quartzite, Pioche Shale, Eldorado Dolomite, Geddes Limestone, Secret Canyon Shale, Hamburg Dolomite, Dunderberg Shale, Windfall Formation, Goodwin Formation, Ninemile Formation, Antelope Valley Formation, and the Eureka Quartzite. During the Mississippian, the Roberts Mountains allochthon, composed of distal slope and basinal sediments, was thrust to the east over the western edge of the continental shelf during the Antler orogeny (Dickinson, 1977). Eureka is immediately to the east of the Antler thrust front, but was the site of synorogenic deposition of Mississippian clastic sediments that were sourced from the Roberts Mountains allochthon (Smith and Ketner, 1977). During the Pennsylvanian and early Permian, eastern Nevada underwent a protracted series of deformation and erosion events recorded by unconformity-bound packages of carbonate and clastic rocks (Trexler et al., 2004). In the Eureka district the Pennsylvanian–Permian section consists of 1.3 km of limestone and conglomerate, including the Ely Limestone and Carbon Ridge Formation. However, these rocks are located east of the Project boundary.

The Eureka area has experienced a multiphase tectonic history of contractional deformation complexly overprinted by extensional deformation. The earliest observable deformation event occurred during the Cretaceous Sevier Orogeny as part of the Central Nevada Thrust Belt. The Sevier Orogeny is defined by subduction of the Farallon Plate beneath the North American Plate resulting in contractional deformation. This deformation resulted in the development of the Eureka culmination, a north-striking anticline with a 20 km wavelength, a 4.5 km amplitude, and limb dips of 25°–35°, which is corroborated by deep Paleogene erosion levels that can be traced for ~100 km along strike (Long et al., 2014). Locally, the Mineral Point anticline and several thrust faults are attributed to this deformational period (Hastings, 2008). During the Cretaceous and post-contractional deformation, the region was subjected to widespread magmatic activity, resulting in emplacement of the Ruby Hill stock and the Graveyard Flats intrusive. Late Cretaceous through Eocene saw high-angle extensional deformation accompanied by felsic magmatism. Basin and Range extension began in the Miocene and continues through present, forming elongate N-trending basins and valleys and regional high-angled generally N-trending faults (Dickinson, 2006). Within the district, dominate structural trends are low and high-angled N-, NE-, and E-trending faults. Major structural features within the Property which control mineralization include the NNW- trending Mineral Point anticline, the west bounding Spring Valley fault, the N-trending Jackson-Lawton-Bowman-Holly fault system, and the WNW-trending Blanchard, Hilltop and Ruby Hill fault zones (Hoge et al., 2015).



Mineralization within the Project area is characterized as:

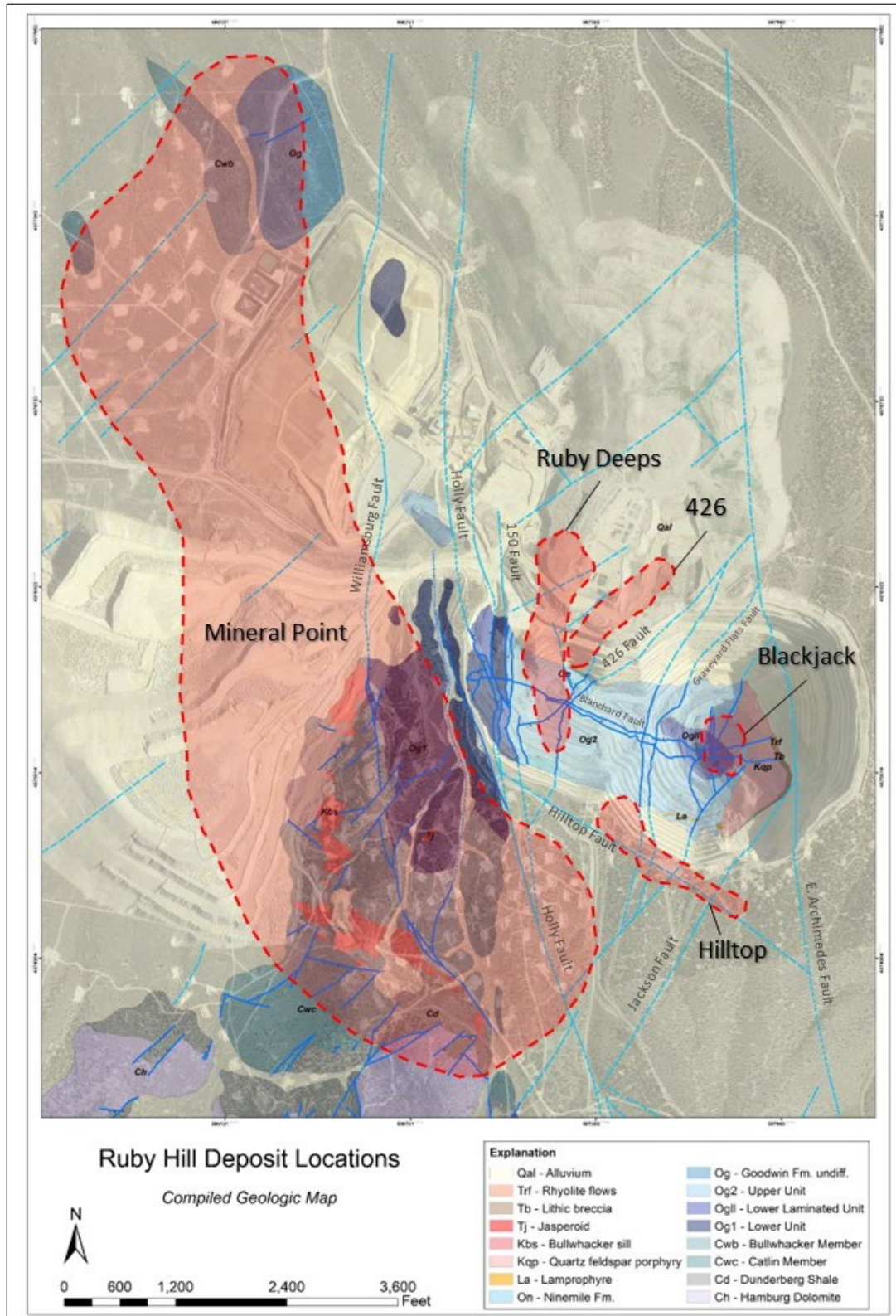
- Au Carlin-type: West Archimedes, East Archimedes, Ruby Deeps, 426 zones and exploration targets including Blue Sky, 007, 008, and 1428.
- Au+Ag distal-disseminated: Mineral Point deposit.
- Zn-Pb-Ag-Au carbonate replacement deposit type (Polymetallic CRD): deposits mined historically throughout the district including FAD and Ruby Hill, exploration potential within the newly identified “Hilltop Corridor” and multiple targets supported by drill intercepts along the newly interpreted Hilltop fault.
- Skarn base metal: Blackjack and Hilltop Fault-Graveyard Flats stock intersection.

Mineralization is lithologically and structurally controlled and is focused primarily within the carbonate-rich Ordovician and mid to upper Cambrian formations. Minor skarn and CRD mineralization occur within the Cretaceous intrusive units.

The northern “Ruby Hill” portion of the Project contains two distinct Mineral Resources, the Mineral Point Trend and the Archimedes complex (consisting of West Archimedes, East Archimedes, 426, Ruby Deeps, Hilltop, 007 and Blackjack). The Mineral Point Trend and Archimedes are separated by the Holly fault.

The southern “Golden Hill” portion of the Project contains the historic Ruby Hill mine and the unmined FAD deposit, which is interpreted to be a deeper extension of the Ruby Hill deposit down dropped by the northwest-striking, down-to-the-northeast Ruby Hill normal fault (Figure 7-6).

Alteration within the project area consists of skarn, calc-silicate, marble and hornfels, silicic, argillic, decarbonatization, and propylitic styles. Silicic alteration most commonly occurs as jasperoid and is most developed in the northern portion of the Property and associated with Carlin-type and distal disseminated mineralization. Decarbonatization is ubiquitous throughout Carlin-type and distal-disseminated mineralization zones including 426, Ruby Deeps, Mineral Point, and Blackjack where Carlin-type alteration overprints skarn (Hastings, 2008). Skarn alteration is limited to areas adjacent to the Graveyard Flats stock. Calc-silicate and propylitic alteration is also found adjacent to the Graveyard Flats stock, in dikes and sills, and in deeper drilling beneath the Archimedes pit and Hilltop areas. Marble and hornfels are seen adjacent to CRD ore at Hilltop, distal to the Graveyard Flats stock, as well as in deeper drilling beneath the Archimedes pit and Hilltop areas. Decarbonatization and argillic assemblages are the most common form of alteration at Ruby Hill and FAD.



**Figure 7-2: Ruby Hill Project Geology and Deposit Locations**

(Source: i-80 Gold, 2023)

### 7.3 Stratigraphy

A stratigraphic column depicting the stratigraphy at the Project is shown in Figure 7-3.

#### 7.3.1 Lower Cambrian

##### ***Prospect Mountain Quartzite (€pm)***

Light tan to white well-sorted quartzite. White, pink, tan, and brown when weathered. Commonly cross-laminated with rare pebble conglomerate interbeds. Micaceous to sandy shale interbeds common near base of unit. The unit is not observed within the Property area but within the region it is mapped up to 1,500 ft thick.

##### ***Pioche Shale (€p)***

Khaki to green, less commonly red-orange, sandy micaceous, locally calcareous shale. Contains thin interbeds of red-brown micaceous sandstone and quartzite, and mottled, well-bedded, dark-blue limestone with abundant trilobite fragments (Long et al, 2014). The unit unconformably overlies the Prospect Mountain Quartzite. It is not observed within the Property area but within the region it is mapped up to 500 ft thick.

#### 7.3.2 Middle Cambrian

##### ***Eldorado Dolomite (€ed)***

Medium-dark gray, massive weathering dolomite. Forms distinct gray cliffs. Commonly mottled and streaked with white stringers and spots. Dark dolomite locally alternates with lighter gray, rough textured dolomite giving the appearance of alternating light and dark bands up to 1 ft thick, which defines bedding (Long et al., 2014). Fenestral (birds' eye) structure is common. Alters to a light-gray, coarse-crystalline (sanded), massive, featureless dolomite. Upper contact is interfingering with the Geddes limestone. Within the Project area the unit is up to 2,240 ft thick.

##### ***Geddes Limestone (€p)***

Well bedded, thin to medium bedded, dark blue to black carbonaceous limestone, with maroon-weathering silty and shaly partings, and black nodular chert (Long et al., 2014). Forms angular blocky float. Lower contact is interfingering with the Eldorado Dolomite. Commonly folded at the outcrop scale. Black color and well-developed bedding diagnostic of the unit. Within the Project area the unit is up to 550 ft thick.

##### ***Secret Canyon Shale***

Divided into two distinct interbedded members, the Lower Shale Member and the Clark Springs Member. Within the Project area the unit is up to 1,250 ft thick.

##### ***Lower Shale Member (€ss)***

Brown, olive to tan, calcareous, argillaceous shale with local interbedded limestone (Nolan, 1974). Weathers to a brown, red, and/or yellow (Nolan et al., 1956). Overlies the Geddes Limestone with a sharp conformable contact.

##### ***Clark Springs Member (€sc)***

Thin- to well-bedded, bioturbated, silty, micritic limestone with distinctive mottled yellow or red argillaceous partings (Nolan, 1974; Long, 2014). Gradational contact with Lower Shale Member.

**Hamburg Dolomite (€h)**

Massive, light- to medium-gray, coarse crystalline dolomite with mottled white stringers that define bedding, and oblong “blue bird” stringers (Long, 2014). Typically porous or vuggy, commonly altered to jasperoid. Lower contact gradational with Clark Springs Member. Within the Project area the unit is up to 1,320 ft thick.

**7.3.3 Upper Cambrian****Dunderberg Shale (€d)**

Brown, khaki, and gray, fissile, paper thin, generally non-calcareous shale with diagnostic nodular limestone discs, and interbeds of medium-bedded, medium-gray limestone (Long, 2014). Outcrop-scale folding is common. Within the Property the unit is up to 265 ft thick.

**Windfall Formation**

Formation is divided into two members, the Caitlin (€wc) and Bullwhacker (€wb) members. Within the Property the unit is up to 700 ft thick.

**Caitlin Member (€wc)**

The Caitlin Member consists of alternating thick-bedded, massive weathering, medium- coarse crystalline, medium-gray limestone (Long, 2014). Interbedded with thin-bedded, sandy-silty limestone with tan to red, sandy-shaly partings. Trilobite fossil hash common in thicker bedded limestone. Sharp conformable contact between Caitlin member and Dunderberg Shale (Nolan et al., 1956).

**Bullwhacker Member (€wb)**

The Bullwhacker Member is thin-bedded, tan to light-brown, sandy or shaly, medium gray limestone, with tan-red sandy-shaly partings and interbeds (Long, 2014). It weathers to a diagnostic tan to red color, and trilobite hash and brachiopods are common. Additionally, the unit contains rare gray chert nodules.

**7.3.4 Lower-Middle Ordovician****Pogonip Group**

The Pogonip Group is divided into three formations, the Antelope Valley (Oav), Ninemile (Onn), and Goodwin (Og) described below.

**Goodwin Formation (Og1, OgII, Og2)**

The Goodwin Formation is a light- to medium-gray, massive weathering limestone, and medium-gray, medium to thick bedded, silty, well bedded, fine crystalline limestone (Long, 2014). It is divided into three units, the Basal unit (Og1), Lower Laminated unit (OgII), and Upper Goodwin (Og2). Within the Property the unit is up to 1,100 ft thick.

**Basal unit (Og1)**

The basal unit consists of massive bedded, fine- to medium-grained, medium to dark gray, chert-bearing calcisiltite and calcarenite (Dilles et al., 1996). The Og1 unit is approximately 350 ft thick.

**Lower Laminated unit (OgII)**

Consists of tan to gray, laminated to thin bedded micrite, calcisiltite, and shaly limestone (Dilles et al., 1996). The unit varies in thickness from 150 to 250 ft.

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***Upper Goodwin (Og2)***

Composed of thin to medium bedded, chert bearing calcisiltite and calcarenite (Dilles, et al., 1996). Light gray, brown, and black chert nodules common (Long, 2014). It is approximately 500 ft thick.

***Ninemile Formation (Onn)***

Platy, thin bedded, porcelaneous, carbonaceous, fossiliferous, olive-green limey shale, and shaly medium-grained limestone (Dilles et al., 1996; Long, 2014). Weathers to a distinctive olive and brown color. Within the Property the unit is up to 520 ft thick.

***Antelope Valley Formation (Oav)***

Thin to medium and locally thick bedded, medium-blue gray, fine crystalline limestone (Long, 2014). Ubiquitous tan to yellow silty partings, and local tan, brown, and white chert nodules. Lower contact interfingers with Ninemile Formation. Within the Property the unit is up to 500 ft thick.

***Eureka Quartzite (Oe)***

Vitreous white to dark gray, fine to medium grained, well sorted quartzite. Exhibits “sugary” quartz texture. Weathers gray to red and is commonly brecciated. The lower portion of the unit is commonly cross-laminated and it unconformably overlies Antelope Valley Formation (Nolan et al., 1956). Within the Property the unit is up to 535 ft thick.

***7.3.5 Cretaceous******Graveyard Flat Intrusion (Kgf)***

The Graveyard Flats intrusion, discovered beneath alluvial cover during drilling at Archimedes, is of Cretaceous age. Primary mineralogy is quartz monzonite (Hastings, 2008). The intrusive consists primarily of quartz, and variably altered plagioclase phenocrysts in a fine-grained, equigranular, plagioclase-dominated groundmass (Dilles et al., 1996). Common alteration products include sericite, kaolinite, calcite, chlorite, epidote, and pyrite (Dilles et al., 1996). Primary ferromagnesian minerals are not preserved. Dilles et al. (1996), based on observed textural variations within the intrusive, suggest that the intrusion may have been emplaced in multiple phases. Mortenson et al. (2000) reports a U-Pb zircon age of  $106.2 \pm 0.2$  Ma for the intrusion.

***Bullwhacker Sill (Kbs)***

The Bullwhacker sill is located west of the Graveyard Flat intrusion, and dips gently east underneath the Archimedes pit where it may merge with the Graveyard Flat intrusion (Hoge, 2015). It is generally emplaced along the contact between the Windfall Formation and the Dunderberg Shale (Dilles et al., 1996) as far west as the hinge of the Windfall anticline, after which it tends to trend upwards through the Bullwhacker member. The sill is offset by several normal faults. West of the Holly Fault the sill dips more steeply east, conformable with bedding steepened by the Bowman-Williamsburg fault. The disseminated mineralization within the Mineral Point trend lies below the sill, and the western limit of the mineralization generally coincides with the westmost extent of the sill, while the eastern limit is proximal to the sill near the Bowman-Williamsburg fault. In the area of the Ruby Deeps deposit, the sill intruded along multiple planes within the Windfall Formation up to the Catlin-Bullwhacker contact, forming multiple lenses. The Ruby Deeps occurs proximal to, and locally within, the lenses. One conspicuous lens of intrusive was emplaced in the Bullwhacker member between the 426 and NS faults. The 008 deposit is proximal to this lens, and the 007 and 426 deposits are somewhat proximal.



### 7.3.6 Tertiary/Quaternary

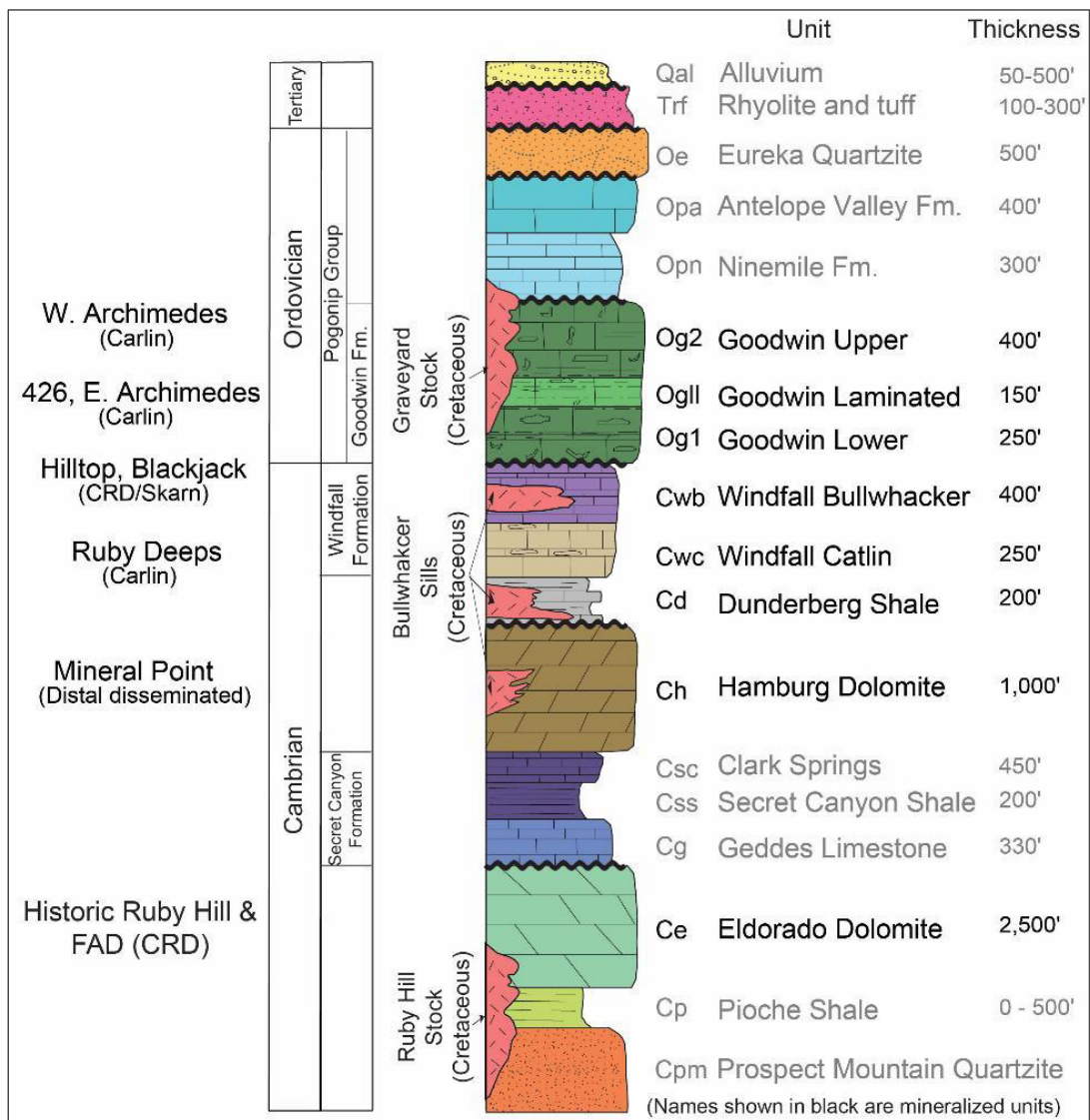
#### Volcanic Units (Trf/Tv)

Tertiary rhyolitic flows, tuff and volcanoclastic rocks are present in the northern part of the district and exposed in eastern and southeastern Archimedes pit wall. Within the Property the unit is at least 200 ft thick.

Sparse intersections of west northwest-trending lamprophyre dikes also have been observed from pit mapping and noted in some East Archimedes drill holes.

#### Alluvium (Qal)

Within the Property the alluvium unit is up to 535 ft thick and consists of “stream alluvial, piedmont gravels, and slope wash” (Nolan, 1962).



**Figure 7-3: Ruby Hill Stratigraphic Column**

(Source: i-80 Gold, 2023)



## 7.4 Structure

The Property has undergone a complex tectonic history of deformational, extensional, and intrusive events, producing a series of folds, and high- to low-angled faults. Structures have been defined by a combination of surface mapping including Nolan (1962), Cooper (2002), Hauntz (1999), and Chadwick and Russell (2002), Uken (2017a 2017b), drill hole logging, geologic modeling, and interpretation of geophysical data.

Mesozoic deformational events produced a series of generally N-, NW-, and NE-trending faults and NW- to NE-trending folds within the Property area (Long et al., 2014). Tertiary Basin and Range extension and subsequent high-angled faulting have transected and possibly displaced some portions of the deposits within the Property (Nolan, 1962).

The main structural features within the Property area include early low-angled thrust faults (45°-95°), and apparent low- to high-angle normal faults (20°-45°) in three dominant orientations, which include 345°-015°, 030°-050°, and 080°-110° (Table 7-1). Major faults within the Property include the Holly fault, Bowman-Williamsburg fault, Hilltop fault, Ruby Hill fault, Champion thrust, and the Blanchard fault zone (Table 7-1). A number of the high-angle normal faults are interpreted to have crosscut and reactivated low-angle thrust faults.

Large-scale folds within the Property include the NNW-trending (330°-340°), gently N- plunging (5°-10°) Mineral Point anticline, located in the central and north-west portions of the Property. The Mineral Point anticline is one control to mineralization within the Mineral Point deposit. Small-scale folds throughout the property control mineralization locally.

**Table 7-1: Major Structural Features and Orientations within the Property Area**

Structure	Orientation	Major Features	Kinematics	Dip	Notes
N-Trending Faults	NNW to NNE	The Bowman Fault, Holly Fault and associated splay faults including the Holly Splay Fault, Armpit Fault, 599 Fault, and 150 Splay Fault	Oblique normal slip	High-angle	The fault surface is typically undulating with up to several feet of gouge fill.
NE-Trending Faults	NE	The 426 Fault, 194 Fault, Jackson fault, and Graveyard Fault	Strike-slip and oblique normal slip	Variable dips from steeply dipping to more shallow dipping	Faults are gouge filled with up to 4 in of gouge material.
E-Trending Faults	EW-WNW	Blanchard fault zone, Hilltop fault, Ruby Hill fault, and associated unnamed EW and WNW faults	Strike-slip	High-angle	The Blanchard fault zone may be up to 100 ft wide in portions of the Archimedes pit. The Hilltop fault is tens of feet thick with gouge and oxidation along it.
Thrust Faults	NS	The Champion thrust, Prospect Mountain thrust, and Ratto Canyon thrust, (off Property to the S), and other possibly reactivated normal faults within the district	Reverse	Low-angle	Commonly associated with folds, including the Mineral Point anticline. Folding typically occurs in well laminated units and varies in amplitude from approximately 20 inches to 3 feet.
Folds	NNW-NNE	The Mineral Point anticline	Anticline		Significant mineralization control.

#### **7.4.1 Archimedes Deposit Structure**

East Archimedes, West Archimedes, 426, Ruby Deep, 007, 008, Hilltop and Blackjack are located on the eastern side of the near north-trending Holly Fault. Chadwick and Russell (2002), Hastings (2008), Morkeh (2011), and Uken (2017a, 2017b), mapped the structure and geology of the Archimedes pit.

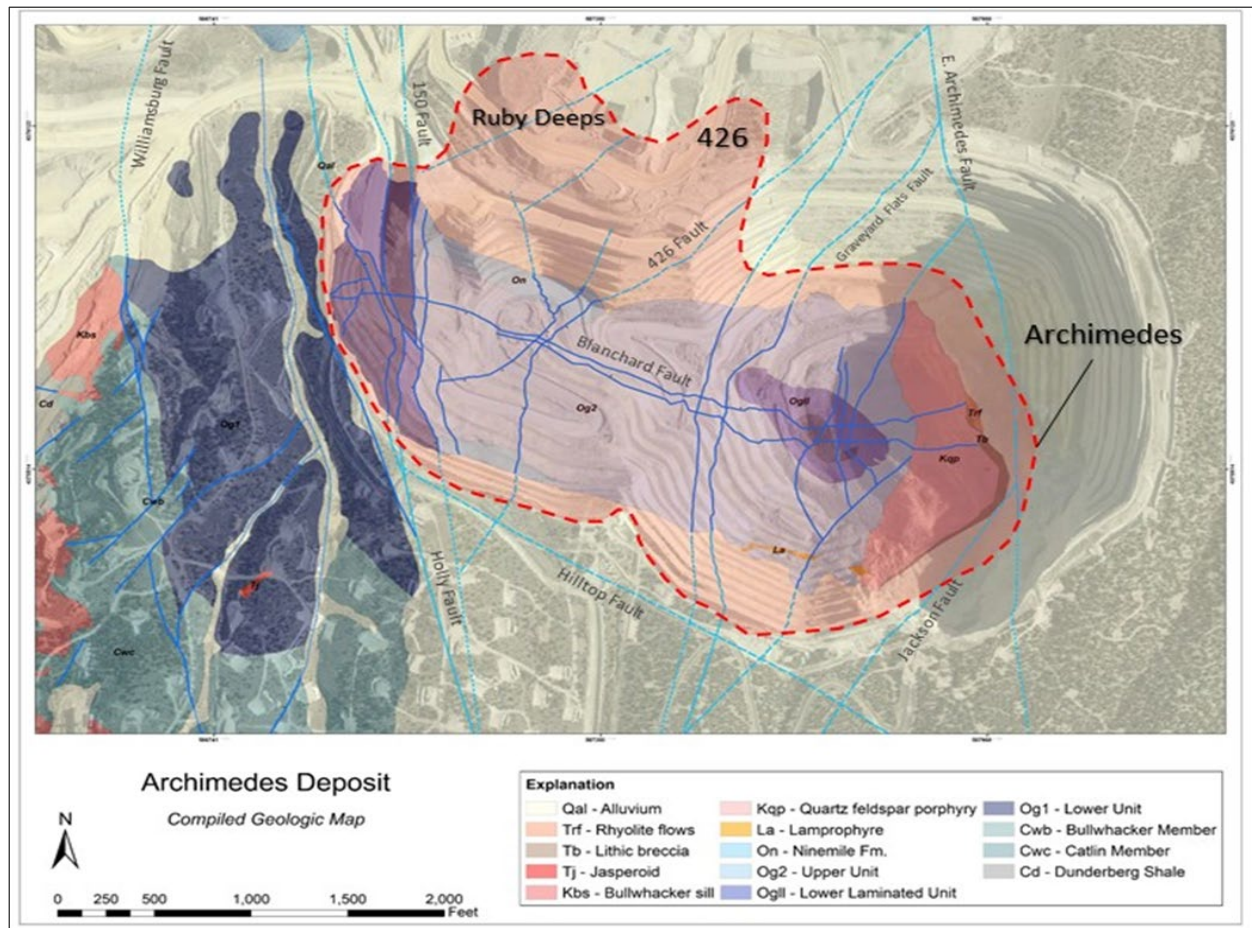
On the western margin of West Archimedes is the N-trending high-angle normal Holly fault (east dipping, 79°), and the 150 fault (east dipping in the northern portion and west dipping in the southern; 85°; Chadwick and Russell, 2002; Hastings, 2008; Morkeh 2011). The 150 fault offsets the Bullwhacker Sill to the east by 500 ft (Hastings, 2008). The 194 fault, 426 fault, and Armpit faults are variable N- to NE-trending (345°-020°), east to west dipping, low- to high-angle faults (46°-87°), which transect the center portion of West Archimedes (Chadwick and Russell, 2002; Hastings, 2008; Morkeh 2011). The Blanchard fault zone is a NW-trending (295°), steeply dipping (NE; 75°-85°), fault zone which is reported to be 100 ft wide in some locations (Chadwick and Russell, 2002; Hastings, 2008).

Within the East Archimedes zone the Graveyard fault zone is a N-trending (350°-010°), west dipping (60°-80°), series of faults, which transects the east margin of the pit (Chadwick and Russell, 2002; Hastings, 2008; Morkeh 2011). The Blanchard fault zone continues east from the West Archimedes pit into East Archimedes for an unknown distance into the Graveyard Flat intrusion on the eastern margin of the pit (Chadwick and Russell, 2002; Hastings, 2008; Morkeh 2011).

The 426 zone is spatially associated with the NE-trending 426 fault zone and north of the Blanchard fault zone. The 007 zone is spatially associated with the NNE-trending NS Fault, also lying north of the Blanchard fault zone. The 008 zone lies between the 426 and NS faults, north of the Blanchard fault zone, along the hinge of an anticline formed above and intrusive lens.

Structure within the Ruby Deep deposit area is a continuation at depth of faulting related to the Archimedes deposit to the east and the Mineral Point deposit to the west. The Ruby Deep deposit is bounded to the east by the Graveyard Flats fault and the west by the Holly fault. The Blanchard fault zone transects the center portion of the deposit but does not appear to offset mineralization.

The Hilltop Fault has similar orientation to the Blanchard fault. It trends WNW just south of the Archimedes pit, from the Holly Fault towards the Graveyard Flat intrusion. It is undetermined whether the Hilltop fault transects the Ruby Deep deposit or defines its southern boundary. Several drillholes have intersected CRD mineralization at various elevations along the Hilltop fault. Structures in the Archimedes deposit area are displayed on Figure 7-4.



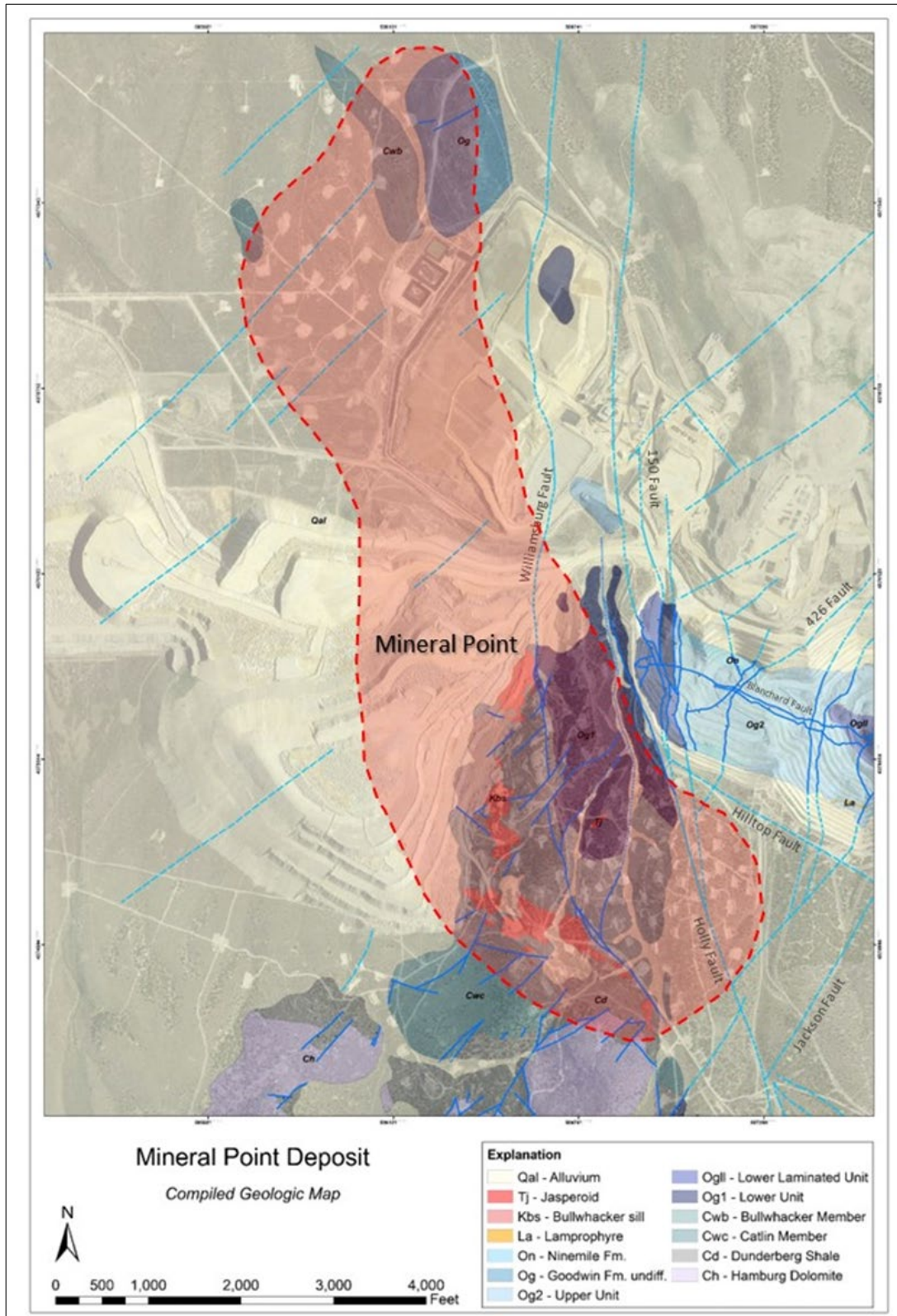
**Figure 7-4: Geology of East Archimedes, West Archimedes and Archimedes Underground Including 426, and Ruby Deeps Zones**

(Source: i-80 Gold, 2023)

#### 7.4.2 Mineral Point Trend Structure

The Mineral Point deposit is in the central portion of the Property, west of the Holly fault. It is situated within the district-scale NNW-trending Mineral Point open anticline that plunges gently to the north. Major structures at Mineral Point represent a horst-like anticlinal dome bounded on the east by the Holly fault, and to the west by the Spring Valley fault (Figure 7-5). The primary lithological host of the Mineral Point mineralization is the Cambrian Hamburg Dolomite. Mineralization outcrops at the southeastern extent and plunges to a depth of about 550 ft at its northern extent, dipping roughly 5° along its 10,000 ft length. Several steeply dipping normal faults of varying apparent displacement are associated with the Mineral Point anticline. From west to east these include the west-dipping West Fault which bounds the west limb of the anticline and defines the western limit of mineralization; the Bowman-Williamsburg Fault which parallels the axial plane of the anticline; and the Holly fault which is an offshoot or northward extension of the district scale Jackson-Lawton Fault system to the south (Loranger, 2013). The Bowman- Williamsburg and Holly Faults both dip steeply to the east. Structures in the Mineral Point Trend are displayed on Figure 7-5.





**Figure 7-5: Mineral Point Trend Geology**

(Source: i-80 Gold, 2023)

### 7.4.3 Historic Ruby Hill and FAD Structure

The historic Ruby Hill and FAD deposits are separated by the northwest-striking, down-to-the-northeast Ruby Hill normal fault. Mineralization at FAD lies within the hanging-wall of the fault with Ruby Hill mineralization in the footwall. East of FAD the Jackson-Holly fault system drops stratigraphy down to the east. Additionally, the Ruby Hill fault cuts and offsets the Ruby Hill stock and mid-Cretaceous carbonate-hosted base metal mineralization. The Jackson branch cuts and offsets the Ruby Hill fault. Thus, the Jackson fault system is probably mid-Cenozoic in age, postdating the Ruby Hill fault. Evidence from zonation in the FAD and Ruby Hill mineralized zones suggests the Ruby Hill fault was pre-mineral, but may also have significant post-mineral offset. The Champion thrust fault, a west dipping fault, is an important control on mineralization at FAD where it forms a basal contact to mineralization. The thrust fault places Eldorado dolomite on Prospect Mountain quartzite with an approximately 100 ft thick gouge and rubble zone and pre-dates mineralization and all normal faulting. Structures in the Archimedes deposit area are displayed on Figure 7-6.

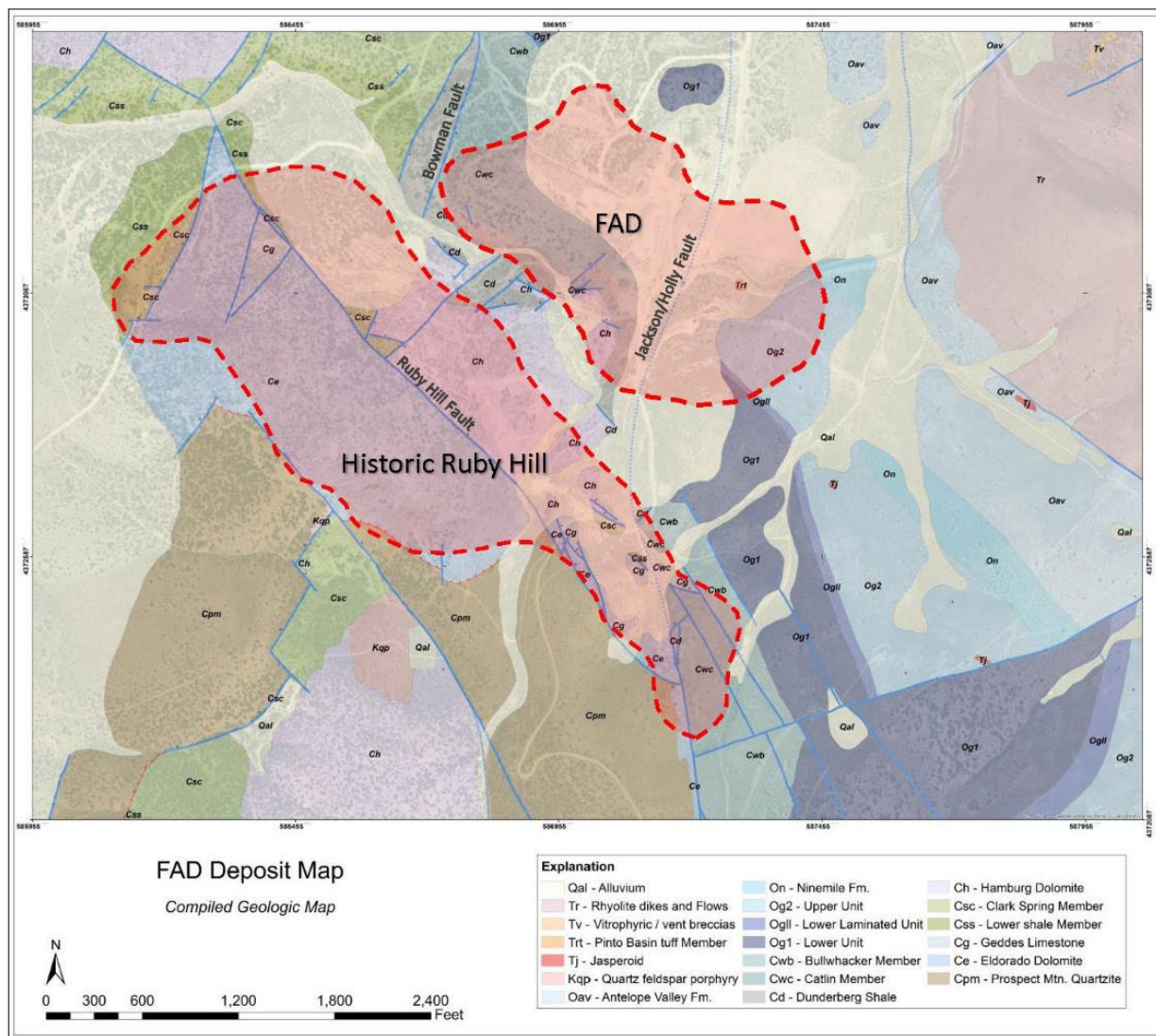


Figure 7-6: Historic Ruby Hill and FAD Deposit Geology

(Source: i-80 Gold, 2023)

## 7.5 Alteration

Within the Project area, four main forms of alteration types have been observed; silicic, argillic, decarbonatization, and reaction skarn/skarnoid. Other types of alteration identified within the Property include skarn, propylitic, and quartz-sericite-pyrite (QSP).

Silicic is characterized by complete (jasperoid) or partial replacement by silica and development of quartz and silica infill of breccias. Silicic altered rocks often appear red to brown in color and are intensely silicified. Jasperoid alteration is commonly observed within the Ninemile Formation, Goodwin Formation, and the Hamburg Dolomite, and within the Mineral Point and Archimedes deposits. Outcrops of jasperoid alteration are common within the Property and are easily distinguished by coloration and resistance to weathering. Dilles et al. (1996) notes that jasperoid consists of quartz with minor late chalcedonic silica filling vugs and veins filling fractures. Iron oxides consist of limonite and hematite pseudomorphs after pyrite and indicate a proto-ore pyrite content ranging from 5% to 20%. Gold occurs on the margins of oxidized pyrite and along hairline fractures in jasperoid (Dilles et al., 1996).

Argillic altered units are predominantly characterized as replacement of feldspar in igneous units by clay minerals (e.g., kaolinite and illite). Argillic alteration has been extensively logged within the carbonate units within the Property and most likely correlates with the removal of carbonate minerals during decarbonatization (Golder, 2012). Argillic altered material often appears white or bleached and may vary from chalky to greasy in texture.

Decarbonatized units are characterized by brecciated and sanded textures associated with dissolution of the carbonate-rich matrix of limestones and dolomites due to the interaction with an acidic fluid. Decarbonatization has been observed across the property.

Reaction skarn/skarnoid alteration forms a halo to garnet-pyroxene alteration and is composed of marble, hornfels, wollastonite, tremolite, and other calc-silicate minerals. This alteration is also present at depth beneath the Hilltop Zone and elsewhere on the property proximal to the Holly fault zone at depth.

Metasomatic garnet-pyroxene skarn and retrograde alteration assemblages are present within Blackjack and East Archimedes at depth, proximal to the Graveyard Flats intrusion. Additionally, propylitic alteration (calcite, chlorite, epidote) and QSP alteration is observed within the Bullwhacker Sill and the Graveyard Flat intrusions.

### 7.5.1 Archimedes Deposit Alteration

Within the East and West Archimedes deposits the three main alteration types are observed along with skarn and propylitic assemblages proximal to the intrusive units.

Silicic alteration is spatially associated with the Blanchard Fault zone, and subsequent intersecting N- to NE-trending faults (Holly, 150, 194, Armpit, 426, and Graveyard Flats). Decarbonatization with breccia textures are observed in carbonaceous sedimentary units. Argillic alteration is logged extensively along the Blanchard fault zone and at the intersections of the Blanchard fault zone with the N- to NE-trending faults.

### 7.5.2 Mineral Point Trend Alteration

Common types of alteration along the Mineral Point Trend include silicic, decarbonatization (sanded and breccia texture development), and argillic assemblages (Golder Associates, 2012; Loranger, 2013). Silicic alteration occurs primarily within the Hamburg Dolomite, and is more prevalent within the SE portion of the deposit area. Silicic altered units are also observed as a series of stacked units that are interpreted to have



preferentially developed along intraformational rock units in the folded Hamburg Dolomite. Sanded and brecciated textures are most common in the Hamburg Dolomite and varies from weak to strong.

Hydrothermal alteration of the Bullwhacker Sill consists of propylitic, QSP, and argillic alteration assemblages (Langlois, 1971). Propylitic alteration resulted in the development of a chlorite-calcite-kaolinite assemblage. Argillic alteration consists of kaolinite, sericite, and quartz (Langlois, 1971). Golder Associates (2012) report that the most intense argillic alteration occurs in the upper 5 to 10' of the sill.

### **7.5.3 Historic Ruby Hill and FAD Alteration**

The most common form of alteration at Ruby Hill and FAD are decarbonatization (sanded and breccia texture development) and argillic assemblages. In the Hamburg dolomite above the FAD mineralization, widespread decarbonatization in the form of sanding is present. Proximal to the mineralization the dolomite host rock has been metamorphosed to marble, with local decarbonatization distal to mineralization. The Prospect Mountain quartzite commonly shows argillic alteration in form of clay development below mineralization. Additionally, argillic alteration and decarbonatization at the historic Ruby Hill is more widespread than at FAD, likely due to supergene oxidation of sulfides forming acidic fluids.

## **7.6 Mineralization**

Within the Property area, four styles of mineralization occur divided into three groups:

- Polymetallic (Au-Ag-Pb-Zn) skarn or carbonate replacement deposit (CRD) of assumed Cretaceous age: Blackjack, Hilltop, FAD, and the historic Ruby Hill, Helen, Holly, and TL mines.
- Au±Ag distal-disseminated mineralization of assumed Cretaceous age: Mineral Point.
- Au Carlin-type mineralization of assumed Eocene age: East Archimedes, West Archimedes, 426, Ruby Deeps, 007, and 008 zones.

The zinc skarn and polymetallic CRD style is the oldest mineralization event recognized at the Property and is related to emplacement of the Cretaceous intrusive units. The precious metal-rich Carlin style overprints the older CRD event and is interpreted to have developed during early to middle Cenozoic (Eocene) times, similar to other Au-Ag deposits of the Battle Mountain/Eureka Trend. Mineralization is largely controlled by lithology and structure.

Distal disseminated Au-Ag mineralization is located west of the Holly fault in the N-trending, largely oxidized lower-grade Mineral Point Trend. This mineralization contains low-grade lead and zinc in addition to significant quantities of silver and lacks realgar and orpiment in contrast to Carlin-type mineralization.

Carlin-type gold mineralization overprinted the CRD/Skarn mineralization. It is largely confined to the area east of the Holly fault in structurally and lithologically controlled deposits (East and West Archimedes, 426, Ruby Deeps, 007 and 008; Figure 7-7).

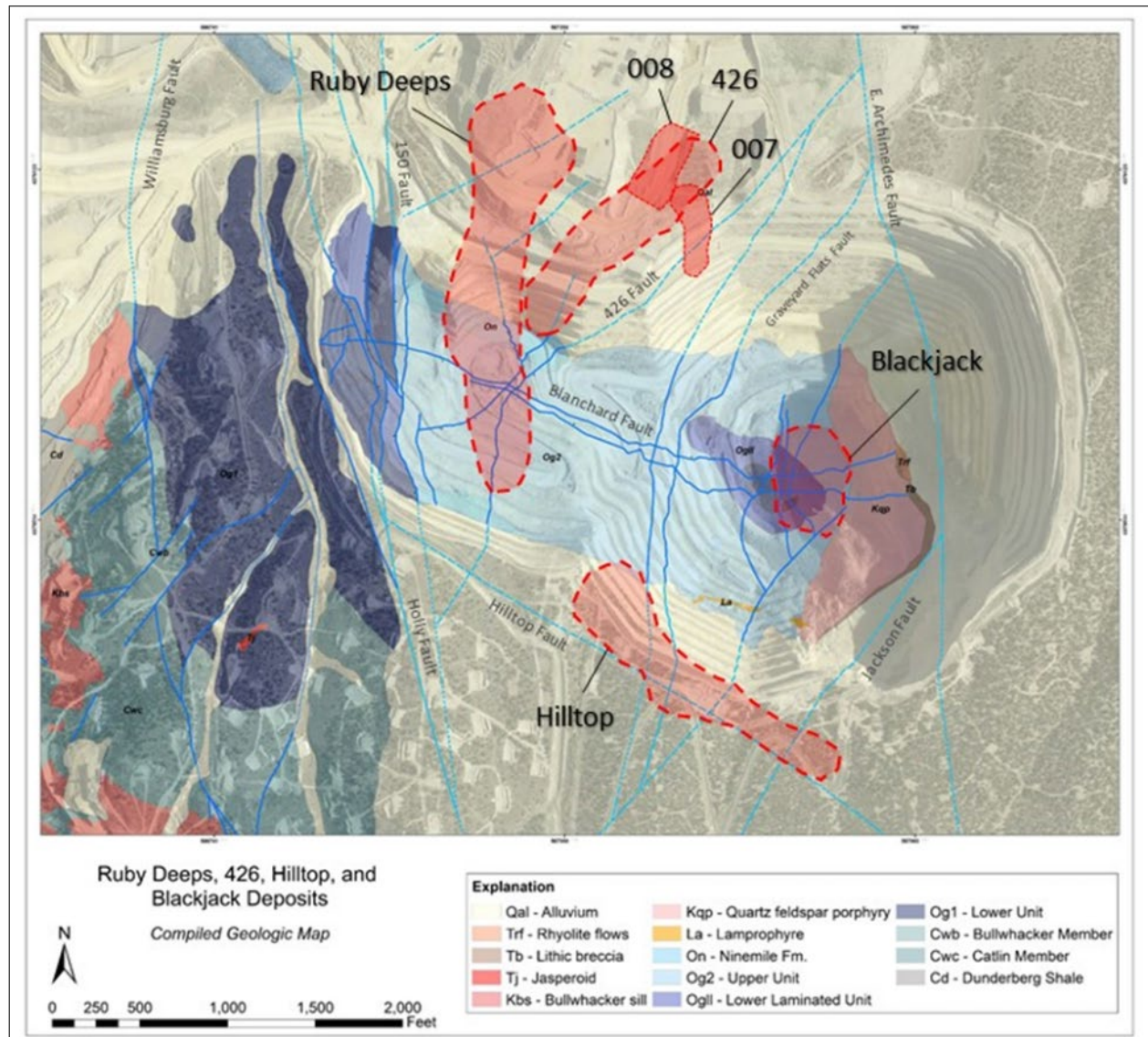
Gold occurs as free grains within the oxide portions along with iron oxides, and associated with sulfide minerals (pyrite, arsenopyrite, arsenian pyrite, realgar, and orpiment) within the unoxidized portions of the deposits. Within the oxide horizons, petrographic work for samples from the Archimedes deposits "...indicate(s) that the gold was originally associated with pyrite grains, with no evidence of silica encapsulation. Higher grade gold mineralization occurs in zones of silicification and decarbonatized limestone," (Resource Evaluations Inc., 2005).

Mineralization including Au, Au-Ag and Au-Ag-Pb-Zn is primarily hosted within the Windfall and Goodwin Formations, and within the Hamburg Dolomite. Combined mineralization spans an area approximately

12,000 ft long, 9,000 ft wide, at the maxima, and spans from surface to approximately 2,400 ft below surface.

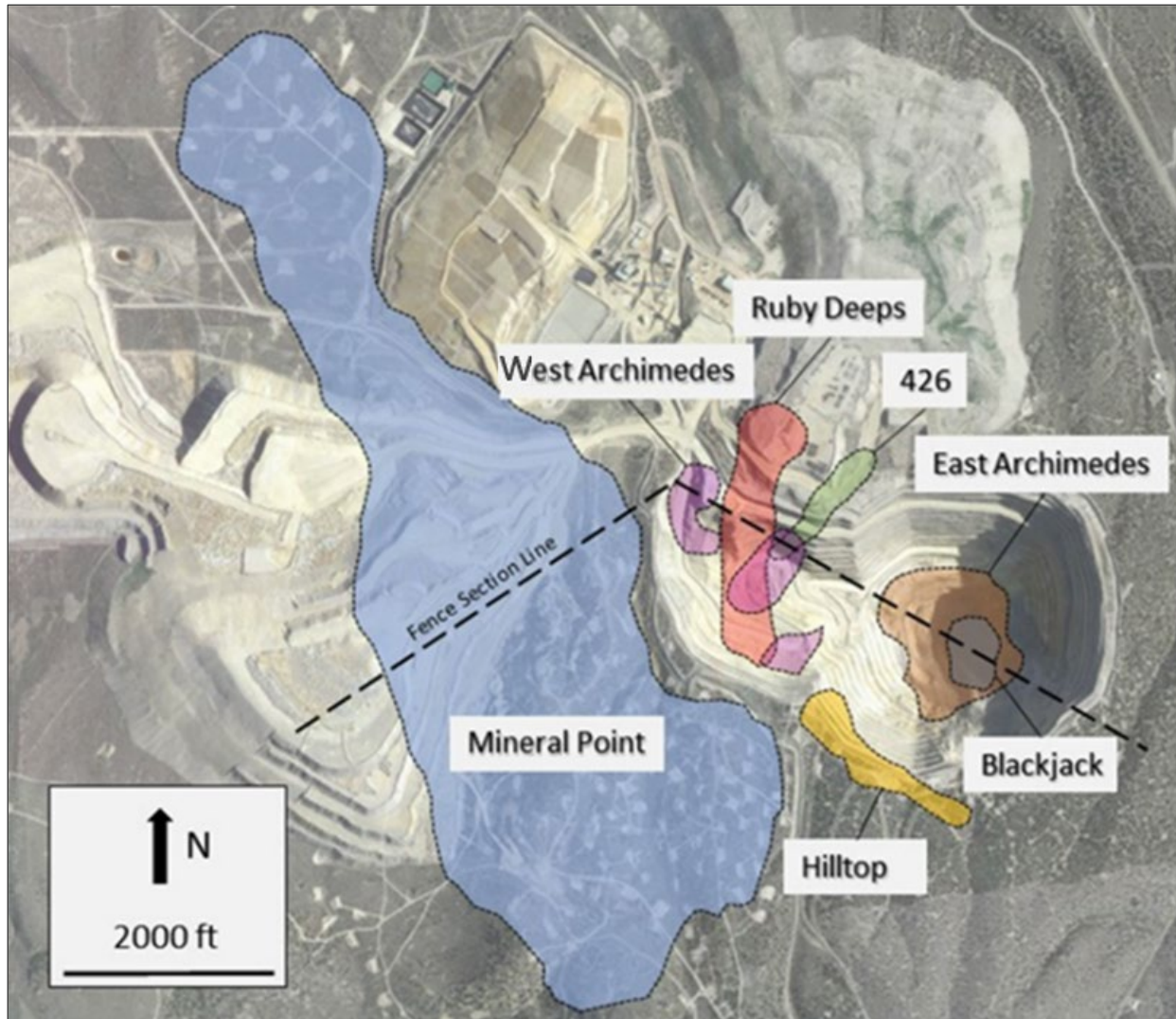
Mineralization is focused along high- and low-angle faults, lithologic contacts, and fold axes.

A plan and cross section showing the geometry and relationships of the Archimedes Deposit and Mineral Point Trend are shown in Figure 7-8 and Figure 7-9.



**Figure 7-7: Plan View of Ruby Deeps, 426, 007, 008, Blackjack, and Hilltop Zones**

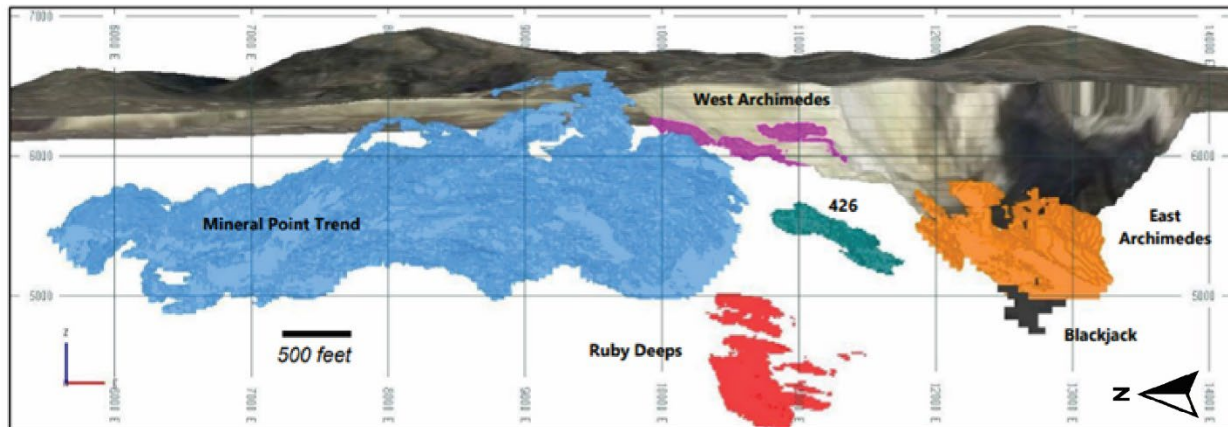
(Source: i-80 Gold, 2023)



**Figure 7-8: Plan View of Mineral Point Trend and Archimedes Deposits**

(Source: i-80 Gold, 2023)





**Figure 7-9: Fence Section of Mineral Point Trend and Archimedes Deposits**

(Source: Wood, 2021)

### 7.6.1 Archimedes Deposit Mineralization

At East and West Archimedes, gold-rich mineralization is associated with jasperoid and moderately to strongly decarbonized limestone. Gold occurs in the oxidized ores as discrete grains less than 3 microns in diameter (Barrick, 2004; Barrick, 2012). Mineralization is controlled by structure and lithology. Within both deposits, the main mineralized bodies are focused along the NW-trending Blanchard fault zone. Second order control to mineralization within West Archimedes is focused by steeply dipping, N-trending normal faults (Holly, 150, 194, 426, and Armpit faults; Barrick 2004). Within East Archimedes, second order control to mineralization is by the N-trending Graveyard fault and East Archimedes fault.

East Archimedes mineralization is a NW-trending, roughly tubular shaped mineralized body, approximately 1,350 ft in height, 800 ft in thick, and 1,900 ft wide. The upper portion flattens and flares out to the west and connects to West Archimedes. Mineralization extends from surface to approximately 1,400 ft below surface and the main host rocks include Og1 and Og2 of the Goodwin Formation.

The West Archimedes zone is NW-trending, roughly cigar shaped, 1,700 ft long, 200 ft thick, and varies from 400 ft to 1,200 ft wide. Mineralization extends from surface to approximately 150 ft below surface and the main host rock is Og2 of the Goodwin Formation.

Mineralization at 426 is NE-trending, roughly rod-shaped, 1,300 ft long, 250 ft thick, and 250 ft wide. Mineralization is variably oxidized. Oxidation correlates strongly with proximity to fault structures and secondarily with elevation. The top of mineralization commences approximately 800 ft below surface with the main host rocks being the Og1 (oxide-rich) and Og1 (sulfide-rich) units of the Goodwin Formation.

Mineralization at Ruby Deeps is N-S trending, tabular zone comprised of stacked mineralized bodies developed within favorable lithological horizons. The overall zone is 2,200 ft long, 900 ft thick, and 800 ft wide. Mineralization is locally oxide at higher elevations and predominantly sulfide-bearing at lower elevations. The top of mineralization is approximately 1,200 ft below surface with the main host rock being the Windfall Formation.

Drilling is sparser eastward from Ruby Deeps and 426 towards the NS fault, and 007 and 008 are expressions of similar style mineralization continuing eastward from Ruby Deeps and 426 through favorable units. 007 and 008 lie generally on-trend with 426, but at lower elevation, lying north and east of the upper reaches of Ruby Deeps.

The 007 Zone is controlled by the NE trending NS fault. Higher-grade oxide Au mineralization within the fault zone has been intersected by two holes, Barrick's RC hole P7, 55' @ 0.291 Au opt and i-80's core hole iRH22-18A, 43.9' @ 0.276 Au opt. Thickness and grade appear to be enhanced where the NS Fault intersects the Windfall-Goodwin contact. Three more i-80 holes west of the fault zone intersect thinner, stratigraphically controlled mineralization extending west along the Windfall-Goodwin contact. The zone is untested to the north and south, currently projecting about 400 ft along strike, 100 ft along dip, and ranges from 10 ft thick where stratigraphically controlled to over 40 ft thick within the NS fault zone.

The 008 Zone is stratigraphically controlled, lying near the top of the Windfall Formation in the hinge of an anticline bracketed by the 426 and Graveyard faults. The anticline appears to have formed above an intrusive lens emplaced within the upper member of the Windfall Formation, stratigraphically higher than typical Cretaceous sill material, which typically intruded along the lower contact of the Windfall Formation. The 008 Zone is not well defined but currently is projected about 350 ft long by 200 ft wide by 15 ft thick.

The Blackjack zone (not included in the current resource estimate) is a pod of zinc skarn mineralization hosted by the Lower Goodwin Unit proximal to the Graveyard Flats stock within the East Archimedes Zone below the Archimedes pit. It has elevated lead, copper and silver due to CRD overprinting. The base metal-rich CRD and skarn mineralization has been overprinted by later Carlin-style gold mineralization resulting in locally higher-grade gold zones. It is approximately 750 ft wide, 750 ft long and 900 ft high. The upper part of the Blackjack zone is partially oxidized with a high-to-moderate ratio of cyanide soluble to total fire assay gold, but sphalerite is un-oxidized. The lower portion of the zone is un-oxidized. Sulfide minerals include pyrite, sphalerite, galena, chalcopyrite and arsenopyrite. The top of mineralization is approximately 1,200 ft below surface, however the top of the deposit is partially exposed in the south east wall of the open pit at East Archimedes.

### **7.6.2 Mineral Point Trend Mineralization**

Gold-silver mineralization at Mineral Point is dominantly oxide in nature with small, but higher-grade refractory material (Loranger, 2013). Mineralization is predominantly hosted within the Hamburg Dolomite and consists of decarbonated dolomite and breccias composed of silicified and oxidized clasts of dolomite in a fine grained dolomite and silica matrix. Locally breccias are gossanous where a higher percentage of original pyrite existed. Higher grade breccia zones are cut by late, multistage quartz veins (Loranger, 2013). Mineralization also occurs along the upper contact into the overlying silicic altered Dunderberg Shale which hosts oxide and sulfide minerals.

The main mineralized zone at Mineral Point is roughly elliptical in shape, NNW-trending, and is approximately 10,000 ft in length, 2,400 ft wide, and approximately 500 ft thick. The mineralization extends from approximately 240 to 1,400 ft below surface.

### **7.6.3 Historic Ruby Hill and FAD Mineralization**

Lead, zinc, gold, and silver values in oxidized replacement mineralization of the historic Ruby Hill occur in cerrusite, anglesite, and plumbojarosite, and in lesser amounts of mimetite, bindheimite, hemimorphite, and smithsonite (Nolan, 1962; Nolan and Hunt, 1968). These minerals are mixed with limonite, goethite, hematite, dolomite, calcite, aragonite, copper oxides, and small amounts of barite, wulfenite, and unreplaced wall-rock dolomite. All metallic oxide minerals formed from weathering of sulfide minerals, as remnant nodules of galena, pyrite, and sphalerite. The primary host rock is Eldorado dolomite with lesser mineralization in the Hamburg dolomite. Mineralization is likely controlled by fracture sets with structural intersections forming larger mineralized zones. Historic mineralized zones spanned 4000 ft in length NW to SE, 3-50 feet in width over a 500 ft wide zone, and were mined to depths over 1000 ft from surface.

At FAD the primary sulfide minerals are pyrite, galena, and sphalerite with lesser chalcopyrite, arsenopyrite, and tennantite-tetrahedrite. These sulfide minerals replace both hydrothermal dolomite  $\pm$  calcite and Eldorado Dolomite that encloses sulfide masses. On a microscopic scale, pyrite contains inclusions of sphalerite, chalcopyrite, and pyrrhotite. Sphalerite contains inclusions of chalcopyrite, pyrite, tennantite, and rare pyrrhotite, which is sometimes elongated and entrained along cleavages (Vikre, 1998). Silver is contained in solid solution with galena, but silver continued to be added as argentite veinlets after galena deposition had ceased. Gold is mostly contained through solid solution in pyrite. Mineralization may be controlled by a WNW-ESE near vertical fault similar to the Blanchard and Hilltop faults. The Champion thrust is an important lower boundary to mineralization, but mineralized zones may be strongly fracture controlled as is common in other deposits of this type. All mineralization at FAD is contained within the Eldorado dolomite. The FAD mineralized zones comprise multiple sub-horizontal lenses over a length of 1600 ft WNW to ESE. Individual lenses range from 3 to 100 ft thick over a width of approximately 500 ft.



## 8. DEPOSIT TYPE

The Mineralization at Ruby Hill is characterized by intrusion-related distal-disseminated, carbonate replacement, and skarn deposits that have been overprinted by younger Carlin-type gold mineralization.

### 8.1 Characteristics of Polymetallic Carbonate Replacement Deposits

The carbonate replacement mineralization is similar to other polymetallic (Pb-Zn-Ag  $\pm$  Au) deposits found worldwide that are spatially associated with Cretaceous age intrusive units (Cox and Singer, 1987; Megaw et al., 1988; Plumlee et al., 1995; Titley 1993 cited in Hammarstrom, 2002; and Kamona, 2011). The carbonate replacement mineralization consists of massive to semi-massive pyrite, galena, sphalerite, and other sulfides typically with sharp boundaries into barren marble. Locally, mineralization is oxidized into gossanous bodies. Fluids are sourced from intrusions, with metals in bisulfide complexes at temperatures of 250°-500°C, with the depositional mechanism typically being a pH change that results in rapid deposition of metals (Beinlich et al., 2019).

### 8.2 Characteristics of Skarn Deposits

The skarn deposits at Ruby Hill are consistent with zinc skarns throughout the Cordillera (Meinert, 1987; Dawson, 1996). The Blackjack deposit is located along the margin of the Cretaceous Graveyard Flats stock. However, drilling by i-80 Gold suggests this is a faulted contact. At Blackjack, sphalerite is found disseminated and semi-massive to massive in garnet-pyroxene altered carbonates. In the eastern Hilltop area zinc skarn is contained within carbonates altered to marble and wollastonite and appears to be located more distal to the Graveyard Flats stock. Both zones typically show evidence of brecciation associated with mineralization. Zinc skarns typically form distal to their source intrusions at temperatures of 350-450°C with mineralization subsequent to metamorphism (Williams-Jones et al., 2010).

### 8.3 Characteristics of Carlin-Type Gold Deposits

Gold and silver mineralization within the Ruby Hill deposits is predominantly attributed to a Carlin-type overprint interpreted to temporally coincide with the onset of extensional tectonics and Eocene-Oligocene magmatism (Barrick, 2004).

The structural setting, alteration mineralogy, and mineralization characteristics of the Ruby Hill gold deposits are consistent with Carlin-type deposits as defined in Radtke (1985) and Hofstra and Cline (2000).

Carlin-type deposits formed in the mid-Tertiary after the onset of extension in an east- west trending, subduction-related magmatic belt. The deposits are located along long- lived, deep crustal structures inherited from Late Proterozoic rifting and the formation of a passive margin within Paleozoic carbonate sequences composed of silty limestone to calcareous siltstone. High and low-angle faults as well as intrusive rocks acted as conduits for moderately acidic fluids containing gold in bisulfide complexes, likely sourced from intrusions at depth (Muntean et al., 2011). Deposits typically show enrichment in antimony, arsenic, mercury, and thallium, caused by hydrothermal fluids with temperatures up to 250°C. Gold deposition occurs in arsenian pyrite, is predominantly hosted within carbonaceous sequences near major high-angle structural zones and is concentrated in structural traps and/or replacement horizons of reactive and permeable sedimentary beds.

Alteration of host carbonate sequences consists of decarbonatization, argillization, and silicification. Gangue minerals in Carlin-type deposits consist of calcite, siderite, clays, and ferroan dolomites that can occur as geochemical fronts beyond the mineralized zones.

#### **8.4 Distal-disseminated Mineralization at Ruby Hill**

Ore grades of gold and silver with elevated concentrations of zinc, lead, and copper and are found in the Mineral Point Trend. This mineralization is attributed to the earlier Cretaceous age of mineralization and is found predominately in the Hamburg dolomite. Ore fluids were likely similar to Carlin-type fluids and resulted in the formation of collapse breccias and an associated geochemical signature including arsenic, antimony, thallium, and mercury.

Distal-disseminated deposits share many similarities to Carlin-type deposits as the hydrothermal fluids are analogous. However, distal disseminated deposits typically occur within 5 km of an intrusion, have an association with base metals, and show a zonation pattern outward from the intrusive source. Examples include Lone Tree, Cove, and Star Pointer (Nevada), Mercur and Barneys Canyon (Utah), Jeronimo (Chile), Bau (Malaysia), Mesel (Indonesia), and Zarshuran (Iran) (Hill, 2016).

#### **8.5 QP Opinion**

The QP is of the opinion that the deposit type models being applied to characterize the mineralization at Ruby Hill are adequate geological representations of the mineral deposits being analyzed in this Preliminary Economic Assessment of the Project.

## 9. EXPLORATION

### 9.1 Geophysical

The Ruby Hill land package extends well beyond the extents of the current analysis (Mineral Point and Archimedes areas), and several exploration targets are being analyzed. Targets have been developed based on historical exploration and drilling projects as described in Section 6 and Section 10, as well as recent work by i-80.

In 2022, i-80 completed an IP/DC Resistivity survey and Transient EM surveys. Discovery Int'l Geophysics Inc. of Saskatoon, SK, S7K 7Z1, Canada completed the work from September 26 to November 6, 2022.

For the IP/DC Resistivity survey, six lines totaling 10.4 mi (16.8 km) were laid out in the vicinity of the Archimedes pit and southward toward the property boundary, covering an area of about 2.1 mi X 1.3 mi (3400m X 2100m). Each line had about 75 nodes with DIAS32 single-channel receivers connected with common voltage reference wire. Current was applied using a 70kW generator and Dias 25 kW transmitter and bi-directional pole-dipole and pole-pole data were simultaneously collected. Geophysicists performed QAQC on the data, analysed and interpreted it using proprietary algorithms. The west side of the grid showed high resistance, the east side showed lower resistance, and the middle showed high chargeability. The high chargeability anomaly might be associated with the presence of sulfides.

For the transient electromagnetic (TEM) surveys, two fixed loops were used (FLTEM) and four boreholes were scanned (BHEM). One fixed loop was arranged around the Archimedes pit encompassing an area of about 3610 ft X 3280 ft (1100 m X 1000 m), and another roughly rectangular loop was run immediately south of the first, covering about 3610 ft X 2950 ft (1100 m X 900 m). Survey stations were set out in 16 lines totaling about 7 mi (11.4 km). Station spacing was closest along the southwest edge of the pit to maximize resolution around drill targets (the Hilltop fault zone). A 70kVa generator, Phoenix TXU30 transmitter, and DigiAtlantis timing controller were used to generate an upward magnetic field in each loop. Acquisition was with an EMIT Fluxgate magnetometer sensor and EMIT SMARTem24 receiver.

The four drillholes scanned for the BHEM surveys were iRH22-40, iRH22-41, iRH22-43, and iRH22-51. An EMIT Digi-Atlantis Borehole System probe and controller were used. The probe was lowered down the hole using an electric/hand winch attached to a 1480m, 4-conductor cable. Transmission was with a 65-75KVA/50-58kW generator, Phoenix TXU30 transmitter and EMIT SMARTem24 Tx controller. All holes were surveyed with both north and south loops, and iRH22-40 was additionally surveyed with the perimeter of both loops energized. Data was measured at 16 ft to 66 ft (5 m to 20 m) intervals, with closer spacing in areas of sharp amplitude shifts to accurately characterize conductive response. Holes iRH22-40 and iRH22-41 were scanned between the 4515 ft and 4965 ft elevations, which coincides with the Lower Hilltop zone, while iRH22-43 and iRH22-51 were scanned between the 5675 and 6120 ft elevations, which coincides with the Upper Hilltop zone.

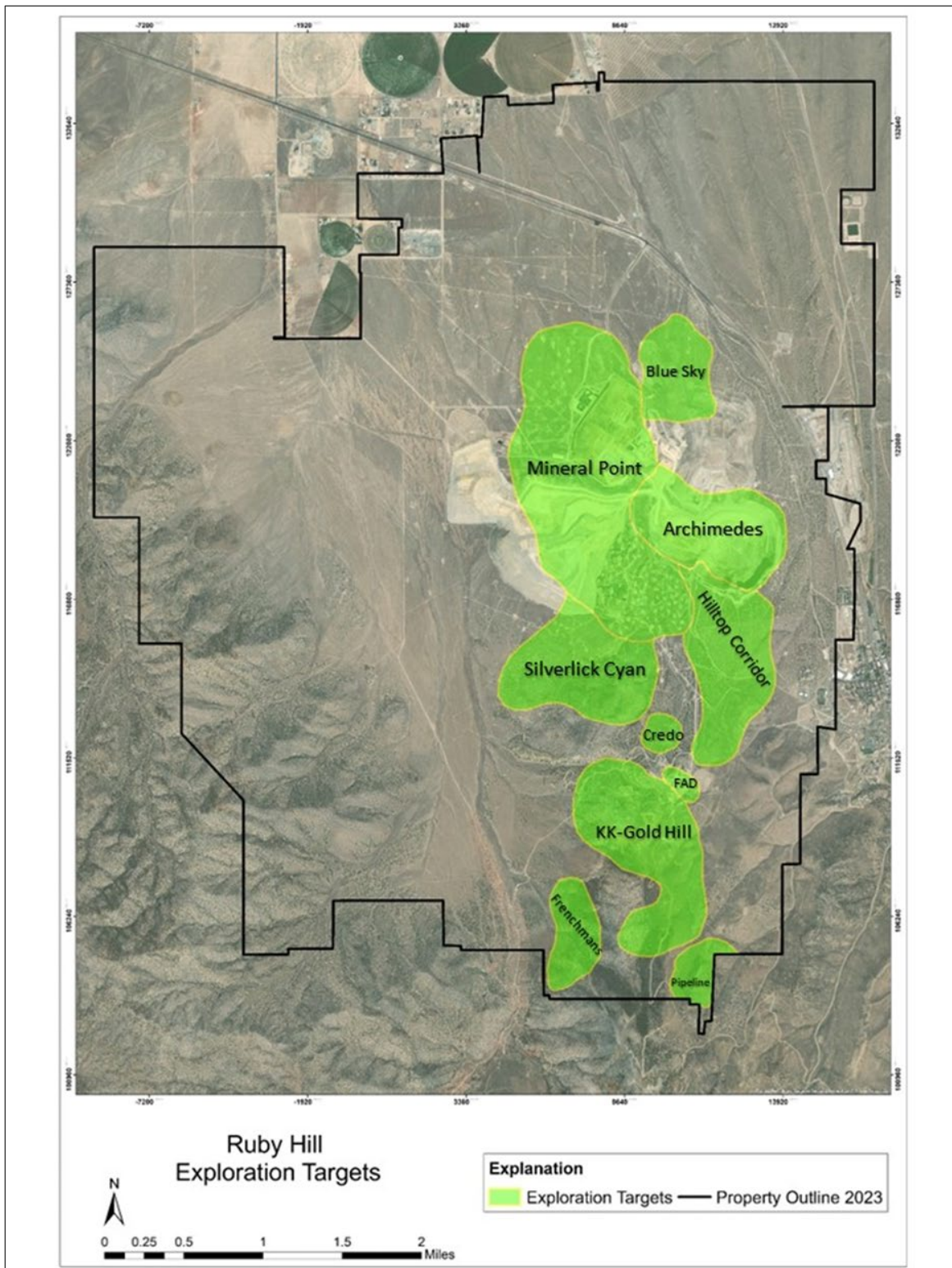
#### 9.1.1 Archimedes Area

- The area north of the Ruby Deeps zone named Blue Sky, where sparse historic drilling defined a large arsenic anomaly at the alluvium-bedrock contact.
- The area beneath the Archimedes pit along the contact of the Graveyard Flats stock where skarn mineralization has been intercepted and drilling is still sparse.
- Continuation of the Ruby Deeps to the south along the hanging-wall of the Holly fault.
- The 428 target located beneath the Archimedes Pit near the Blanchard fault that contains two significant drill intercepts at the top of the Hamburg dolomite below hornfelsed Dunderberg Shale.

- The newly interpreted Hilltop fault zone at the southern boundary of the Archimedes area. i-80 has interpreted a new NW-striking fault structure, similar to major structures controlling the largest past producing mines in the district (Archimedes pit and original Archimedes Underground). A Titan MT survey completed by Barrick in 2010 and an IP survey completed by i-80 in 2022 identified geophysical anomalies including a resistivity high interpreted as a fault zone flanked by conductivity and chargeability highs coincident with massive sulfide mineralization. The conductivity highs closely correlate with CRD and skarn mineralization on the Hilltop fault. Hilltop zones include the high-grade Upper Hilltop near-surface oxide and semi-massive to massive sulfide mineralization, Lower Hilltop deeper high-grade polymetallic CRD mineralization, and East Hilltop high-grade CRD and skarn mineralization.

### 9.1.2 FAD Area

- The Hilltop Corridor stretching from the Hilltop fault zone adjacent to the Archimedes pit south over one mile to the FAD deposit. A 2022 IP survey outlined significant chargeability anomalies within the Hilltop corridor between the Archimedes Pit and FAD. In addition, the 2010 Barrick Titan MT survey contained lines through this corridor that indicated conductivity highs.
- The recently acquired FAD deposit and surrounding area, adjacent to the historic Ruby Hill mine. The FAD CRD mineralization is located in the hanging-wall of the northwest striking Ruby Hill fault. The ore body was discovered in 1937 by Eureka Corp, Ltd. through surface core drilling. The ore zones consist of predominately shallow-dipping bodies of massive sulfide composed of pyrite, galena, and sphalerite, with minor amounts of other sulfides and sulfosalts. The ore is hosted in the Eldorado dolomite with approximate ore body dimensions of 1700 feet NW-SE, 900 feet wide, and 500 feet thick with most ore zones 10-50 feet thick. Carlin style mineralization is thought to overprint the area analogous to Archimedes overprinting Blackjack.



**Figure 9-1: Exploration Targets at Ruby Hill**

(Source: i-80 Gold, 2023)



## **9.2 Hydrogeology**

### **9.2.1 Sampling Methods and Laboratory Determinations**

Hydrogeological data, including water table measurements, pore pressure distribution, and direction of groundwater flow, were collected in conjunction with exploration and geotechnical investigations in pre-construction studies and later from hydrogeological studies for on-going programs in the pit and planned underground mining areas.

Groundwater dewatering and monitoring wells are the primary method of collecting hydrogeological data in support of mining operations, as well as the collection of pore pressure data, which can be converted to groundwater level elevations, from a network of vibrating wire piezometers (VWPs). Another source of data is hydrologic testing. Most wells that are drilled undergo hydrologic testing to estimate aquifer parameters. These tests include injection (slug) tests, air-lift tests, and short-term and long-term pumping tests. Data obtained from testing operations are analyzed using industry standard analytical methods. Analytical and numerical groundwater flow models have been developed based on 3D geological modeling and supported by the site-specific aquifer test analysis results.

From approximately 1997 through 2024, a total of 17 dewatering wells and 54 monitoring locations were completed in the Project area. In 2006, rapid infiltration basins (RIBs) were constructed east of the Project area to infiltrate groundwater pumped from dewatering operations into downgradient, permeable alluvial sediments. During 2022, 16 vibrating wire piezometers were installed north of the Archimedes Pit to increase monitoring in the planned underground mining operations area (HGL, 2022). Currently, there are six active dewatering wells, nine active monitoring wells, and 47 active vibrating wire piezometers (VWPs) across 33 locations. Current dewatering pumping rates range from 30 gpm to 110 gpm from the six dewatering wells. All dewatering wells are monitored, controlled, and data are logged using a supervisory control data acquisition system (SCADA) or manually collected daily if not equipped.

According to permitting requirements, 13 monitoring wells are sampled on a routine basis and analyses run for the State of Nevada Profile I suite at a certified analytical laboratory, currently Western Environmental Testing Laboratory (WETLAB), Reno, NV. Monitor wells and exploration drill holes that have piezometers installed are monitored for water levels and piezometric heads.

### **9.2.2 Hydrogeology Investigations**

Throughout the span of various mine property owners and operators, the Project area has been the subject of multiple studies aimed at characterizing the hydrogeologic properties of the stratigraphy within the Project area and the surrounding region (Table 9-1). Water Management Consultant (WMC, 2004) and Jones (2004) developed early conceptual hydrogeological and groundwater models, as well as characterizing the physical properties of major water bearing geologic units for the East Archimedes Pit Expansion involving deepening of the existing pit below the groundwater table. Continuing from 2005 through 2021, additional hydrogeologic studies were completed by WMC, Schafer Limited, John Shomaker Associates, Inc. (JSAI), WSP, FloSolutions, SRK and Piteau Associates in support of groundwater monitoring, dewatering operations, and water balances (Schafer 2005 and 2010; JSAI 2010, 2012, 2013, 2015, and 2021; WSP 2016; Piteau Associates 2017 and 2018; FloSolutions 2020; and SRK Consulting 2021).

**Table 9-1: Summary of Hydrogeological Surveys Since 2004 (Wood 2021)**

Date	Report/Investigation	Author/Lead Consultant
2004, October	East Archimedes Project, Groundwater Flow Model	Jones, M.A.
2004, October	East Archimedes Project, Assessment of the Hydrogeologic Conditions and Dewatering Feasibility	Water Management Consultants,
2005, May	Final East Archimedes Pit Lake Water Quality	Schafer Limited LLC
2010, August	Revised Archimedes Pit Lake Water Quality	Schafer Limited LLC
2010, June	Final Ruby Hill Mine Groundwater Flow Model 2010 Update	J. Shoemaker and Associates Inc,
2011	Aquifer Test	J. Shoemaker and Associates Inc,
2012	Ruby Hill Mine Groundwater Flow Model	J. Shoemaker and Associates Inc,
2012, June	Bullwhacker Dewatering Evaluation	J. Shoemaker and Associates Inc,
2013	Spring Investigation	J. Shoemaker and Associates Inc,
2015	Aquifer Test, Mineral Point Dewatering Projection	J. Shoemaker and Associates Inc,
2015	Aquifer Test, Base Metals Dewatering Projection	J. Shoemaker and Associates Inc,
2016, September	Ruby Hill Groundwater Characterization and Dewatering Update – Technical Memorandum	WSP Parsons Brinkerhoff
2016, December	Pit Lake Water Balance and Evaporation to Validate Water Rights Requirements	WSP Parsons Brinkerhoff
2017, July	Ruby Hill Mine Pit Lake Study	Piteau Associates Engineering Ltd.
2018 July	Mineral Point PW-15 Pumping Test and Updated Hydrological Model	Piteau Associates Engineering, Ltd.
2020, May	Draft Ruby Hill Produced Water Management Plan, Preliminary Hydrogeological Conceptual Model and Alternatives Analysis	FloSolutions
2020 June	Draft Ruby Hill Rib Characterization Plan	FloSolutions
2021, March	Ruby Hill Mine Pit Lake Geochemical Model Report	SRK Consulting (U.S.), Inc.
2021, March	Ruby Hill Project Water Level and Water Balance for Permitted and Existing Pits – Technical Memorandum	J. Shoemaker and Associates Inc,

More recently, i-80 contracted HydroGeoLogica Inc. (HGL), now part of LRE Water, to conduct operations for monitoring of groundwater levels and pore pressures, plan and oversee operations of dewatering wells, and groundwater flow modeling for local-scale dewatering and regional scale permitting related to the 426 and Blackjack planned underground operations (HGL, 2023).

### 9.2.3 Hydrogeologic Description

The Ruby Hill Mine is in Eureka County, Nevada. The mine is located at the south end of Diamond Valley, about 1 mile from the town of Eureka. Diamond Valley, delineated as Hydrographic Basin 153 by the U.S. Geological Survey (USGS) and Nevada Division of Water Resources (NDWR), is a narrow north to south-oriented basin with a drainage area of approximately 748 square miles. The basin boundaries are formed by Sulphur Spring Mountain along its western margin, the Diamond Mountains along the eastern margin, and the Fish Creek Range at the southern margin. The basin extends approximately 45 miles along its N-S axis and its average width is roughly 15 miles. All facilities associated with the Ruby Hill Mine are in the basin Figure 9-2.

The high elevation mountain-block areas on the perimeter of the basin receive the majority of the basin's annual precipitation and are the principal source of groundwater recharge. Recharge enters the subsurface

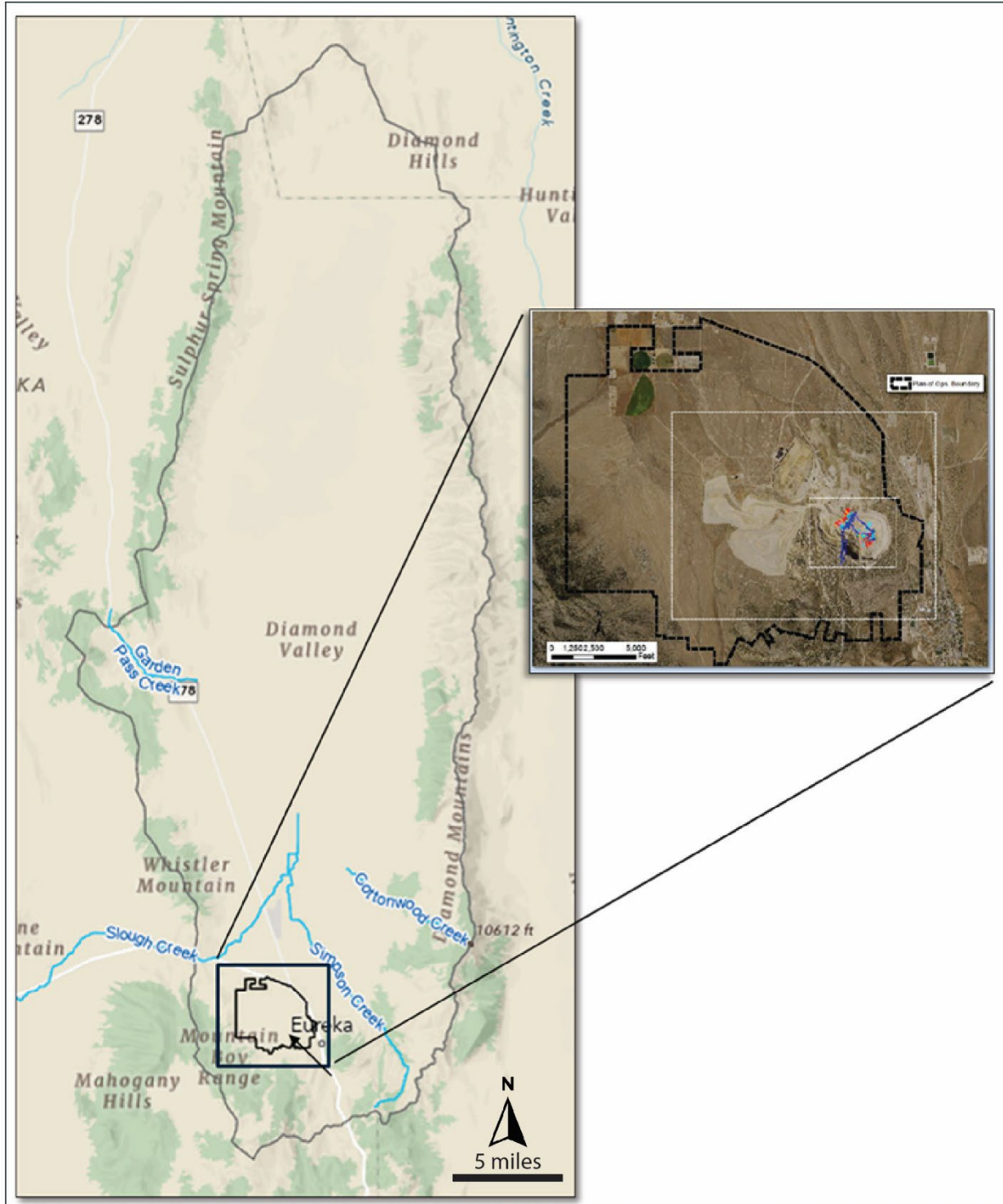
directly into bedrock and as runoff from the mountains that infiltrates to groundwater through alluvial channels and fans. Surface runoff and subsurface flow from upstream basins enters Diamond Valley at Devils Gate, a topographic low on the west margin of the basin.

Most drainages flow intermittently because of seasonal snowmelt or extreme precipitation events. Runoff diminishes rapidly down slope over the alluvial fans, as water flows into the ground. Figure 9-3 shows the pre-mining groundwater level conditions and surface geologic units of the study area, grouped simply into six hydrogeologic units: recent alluvium, older alluvium, carbonate rock, volcanic rock, non-carbonate sedimentary rock, and intrusive rock. Groundwater moves from the perimeter bedrock highlands comprising mostly carbonate rocks, toward the interior of the basin comprising a deep basin-fill aquifer consisting of coarse to fine-grained sediments. Water is removed from the basin as groundwater pumping and as evapotranspiration. (Jones, 2004).

#### **9.2.3.1 Surface Water**

The Diamond Valley Basin is characterized as a closed watershed (endorheic): the only natural discharge from the basin occurring as evaporation and plant transpiration, primarily at the playa located at the northern end of the basin. There is no surface water or groundwater discharges from the basin.

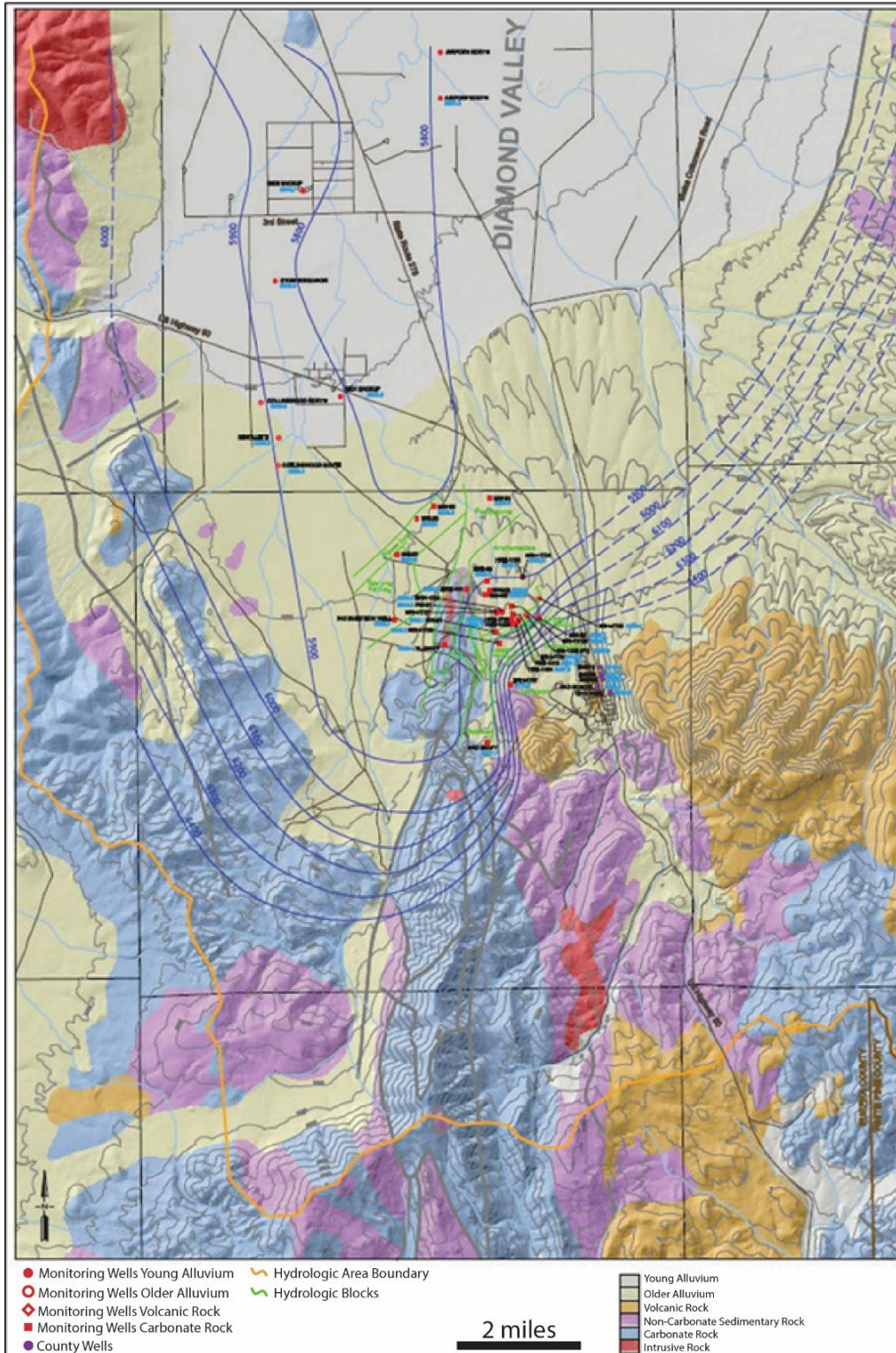
The Project area is within the Lower Slough Creek-Frontal Diamond Valley subwatershed (Hydrologic Unit Code [HUC] 160600051503) within the larger Diamond-Monitor Valleys watershed (HUC 16060005). Surface water within the Project Area is dependent on seasonal precipitation. Precipitation data from the Eureka, Nevada, Station (Western Regional Climate Center [WRCC]) for a period of record (POR) 1903-2022 indicates average precipitation is 11.64 inches (Nexus, 2022).



**Figure 9-2: Diamond Valley Hydrographic Basin and Ruby Hill Mine Permit Area**

(Source: LRE Water, 2025)





**Figure 9-3: Surface Geology and Pre-Mining Groundwater Level Contours**

(Source: Jones, 2004)



Surface hydrology consists of surface seeps and springs, rainfall, and snow melt. There are some seeps and springs upgradient of the Project Area; however, none contribute to channelized surface flow in the Project area. Hydrology at the Project is the result of precipitation runoff and snowmelt that drains generally north from the mountains located to the south of the Project Area. When precipitation events occur or during snow melts, the water flows rapidly off the slopes in the area from the high topographic areas and slows as it reaches shallow valleys toward agricultural fields in Diamond Valley. Ephemeral flows may occur seasonally in the Project area during spring snow melt or after intense storms that produce large amounts of precipitation. If these runoff events are large enough to create flow in the valley channels, they are diverted into the agricultural fields (Nexus, 2022).

JSAI (2013) conducted a desktop study of springs 2012, followed by a field reconnaissance during November 2012 that identified 61 springs within the southern part of Diamond Valley. Results indicated the source of water for the identified springs in the mountain watersheds above Eureka is related to perched or locally sourced groundwater not connected to the groundwater system at Ruby Hill Mine. Springs in the immediate vicinity of Eureka have different water quality than the groundwater at Ruby Hill Mine and are unrelated to the regional aquifer.

#### **9.2.3.1 Groundwater**

The Project area lies within the southern portion of the Diamond Valley Hydrographic Basin. Diamond Valley is the terminal basin in the flow system, receiving sub-surface groundwater flow from the upgradient basins through basin-fill alluvial and possibly carbonate-rock groundwater systems. Estimates for the inflow rate to Diamond Valley vary between 16,000 and 35,000 acre-feet per year (Berger et al., 2016).

The alluvial aquifer system in Diamond Valley is basin-fill deposits ranging from fine to coarse-grained unconsolidated materials eroded from the adjacent mountain ranges. Geologic logs from oil and gas drilling indicate the total basin fill thickness is up to 7,500 ft with significant portions containing fine-grained sediments. The water table is separated from deeper confined aquifers by clay beds and lower conductivity geologic units in some areas (Tumbusch and Plume, 2006).

Harrill (1968) identified the zones of lowest hydraulic conductivity in Diamond Valley as being along the south, southeast, and west valley margins, and in the north central area. A zone of high hydraulic conductivity is found in the south-central part of the valley where irrigated agriculture occurs. Prior to increased irrigation in recent years, the groundwater flow direction in the basin was generally northward towards the playa. This is consistent with the drainage pattern in the project area, where water flows from the higher elevations in the south, towards Diamond Valley in the north.

The southern Diamond Valley basin fill aquifer has undergone a water level decline of approximately 50 ft or more since irrigation pumping began in the 1950s. The rate of decline increased during the mid-1970s. By 1990, the water levels were declining at rates of 1.5 to 2.5 ft/yr (Arteaga et al, 1995). Locally, some well water levels had dropped by up to 90 ft in 2005 (Tumbusch and Plume, 2006). Groundwater in the basin now flows generally toward the area of most concentrated pumping.

The bedrock aquifer system occurs as groundwater movement primarily in the higher permeability carbonate rocks while the siliciclastic sedimentary formations act predominantly as confining, or lower-permeability units. Over time the carbonate rocks have been extensively fractured and faulted. Carbonate rocks are also subject to dissolution interaction with groundwater. The dissolution features form preferential flow pathways that define and reinforce groundwater flow paths. Faults and igneous intrusions in the carbonate rocks result in compartmentalization of the aquifer system. Thrust faults and normal faults can create conduits for groundwater flow in the carbonate rocks, but they can also impede groundwater movement where they

juxtapose hydrogeologic units of differing hydraulic conductivity and/or due to low-permeability fault gouge (Tumbusch and Plume, 2006).

The faulted structural blocks of the Ruby Hill Mine area have formed a network of hydraulic compartments. Where water moves easily within and between compartments, groundwater gradients are shallow. Where flow between compartments is structurally restricted, groundwater levels can show abrupt changes across short lateral distances. Faults typically act as barriers to flow perpendicular to the fault but can act as conduits along the fault plane.

Regionally, groundwater recharge occurs to both the alluvium and the bedrock of the upper piedmont slope elevations and, during years of high run-off, to the alluvium at middle and lower piedmont slope elevations. Groundwater moves towards the center of the basin in the thickening sequences of alluvial deposits. Most natural discharge from the basin occurs through evapotranspiration from the alluvial deposits beneath the valley floor. Locally, historical and current dewatering of the Archimedes Pit has influenced direction of groundwater movement in the vicinity of the mine. Local groundwater movement is also influenced by delivery of water from dewatering operations to two RIBs constructed in the alluvial aquifer system for downgradient recharge to the basin.

#### **9.2.4 Mine Dewatering**

##### **9.2.4.1 Archimedes Pit**

The West Archimedes deposit is hosted in Ordovician Upper Goodwin limestone and is bounded by the Holly Fault to the West. The mineralization for this deposit is oxidized and was mined as an open pit above the water table from 1998 through 2002.

The East Archimedes deposit, east of the Graveyard fault and hosted in the Upper Goodwin formation, extends downward through the Lower Goodwin formation nearly 1,800 feet from ground surface. This zone was mined from 2004 through 2013. In 2013, a slope failure on the south wall of the pit caused suspension of mining activities (Wood, 2021). The mine remained in care and maintenance until early 2020 when the remaining accessible benches of the East Archimedes pit were mined through mid-2021.

Active dewatering started in 2006 to lower the water table below the planned pit expansion and has continued through present. Maximum permitted discharge for dewatering operations is 1,000 gpm and historical pumping rates have reached approximately 850 gpm from up to 10 dewatering wells. Figure 9-4 provides a map showing the network of dewatering and monitoring locations. Currently, there are six operational dewatering wells PW-9, PW-10, PW-11, PW-13, PW-16, and PW-17. Production from the dewatering wells is between 30 and 113 gpm. Due to pump efficiency concerns, PW-9, PW-10, and PW-11 are periodically cycled off to allow for groundwater recovery prior to continued pumping. The current combined average pumping rate of 250 gpm within the Archimedes block has maintained groundwater levels below 5,450 ft amsl, approximately at the current bottom pit elevation. PW-17 completed in the Holly hydrologic block, is the only currently operating dewatering well that is not within the Archimedes block.

#### **9.2.5 Dewatering Discharge**

Water pumped from the dewatering wells not utilized for mining operations is currently discharged to RIBs on the west side of the project area through HDPE pipelines. Two cells, RH-1 and RH-2 are in operation (NEV2005106), with discharge to one of the two cells at any given time. When RIB maintenance is required, discharge is routed to the dormant cell. Current dewatering efforts are well under the permitted 1,000 GPM threshold of the RIBs and the RIB infiltration is sufficiently limiting surface ponding in the active cell.



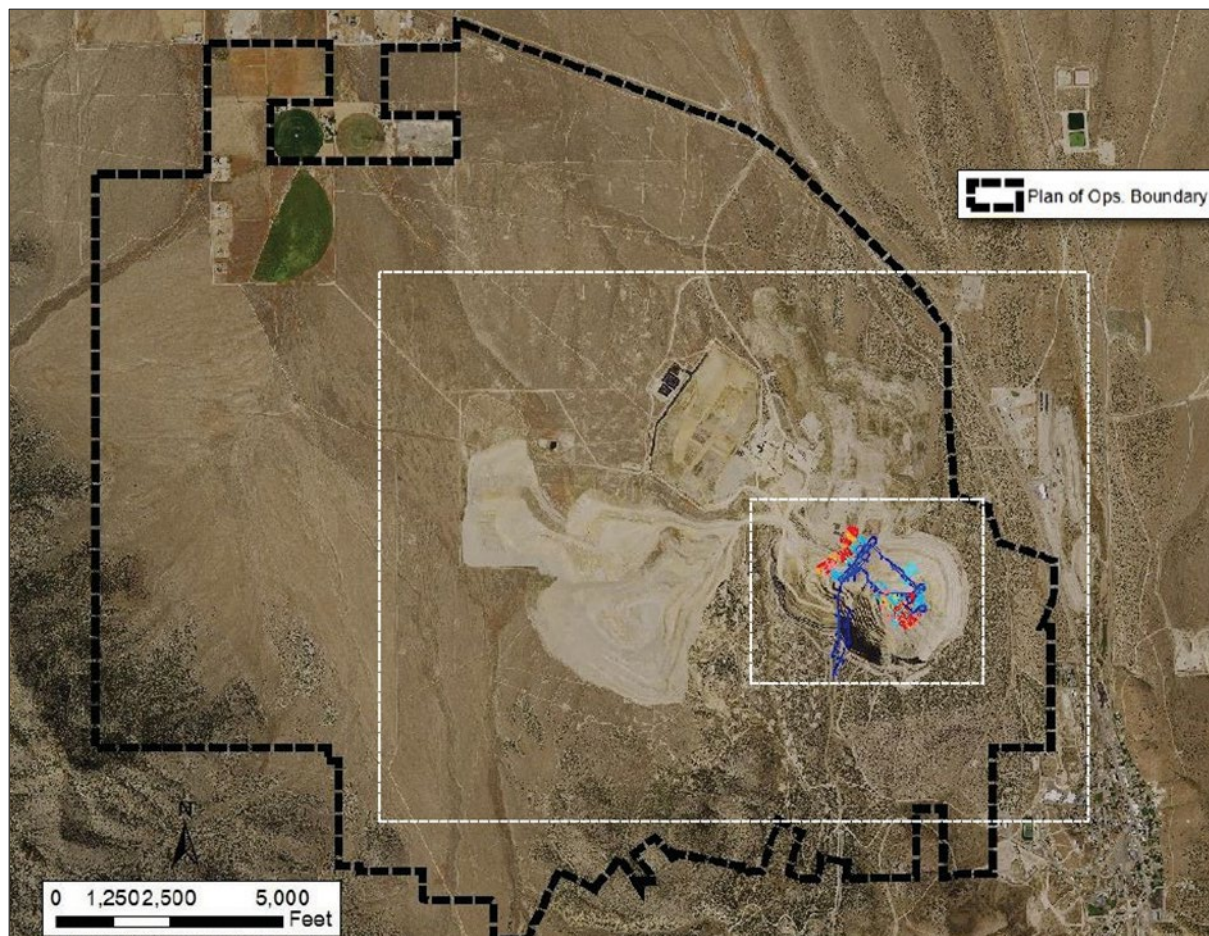
(Source: LRE Water, 2025)

### 9.2.6 Groundwater Flow Model

### 9.2.6.1 Background

The project is proposing a modification to the currently permitted open pit mine plan (open pit plan) that would involve underground mining of the 426 and Blackjack deposits immediately adjacent to and below the existing Archimedes Pit (underground mine plan). The footprint of the 426 and Blackjack deposits are shown in Figure 9-5 relative to the plan of operations boundary together with the footprint of the proposed underground workings (UGWs). The underground mine plan was designed to remain within the ore block of the previously approved open pit mine plan.



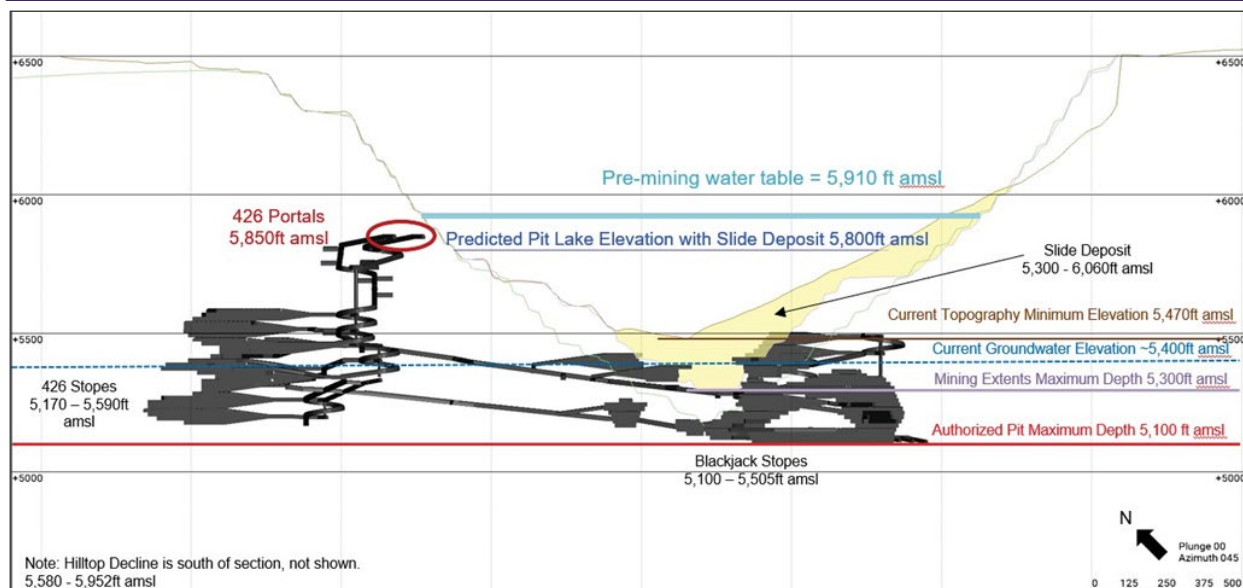


**Figure 9-5: Property Overview showing Plan Operations Boundary, Existing Mine Operations Boundary, and Existing Archimedes Pit with Planned UGWs for the 426 and Blackjack Deposits**

(Source: LRE Water, 2025)

The Archimedes Pit has been dewatered from a pre-mining water table of 5,910 ft amsl to a groundwater elevation of approximately 5,400 ft amsl in support of current mining operations. Both the open pit and proposed underground mine plans extend to a minimum elevation of 5,100 ft amsl which will require an additional 300 ft of dewatering. Figure 9-6 illustrates a cross-section through the Archimedes Pit area. The figure presents the current open pit shell together with the permitted ultimate open pit shell and the authorized maximum pit depth. The proposed underground workings are superimposed on this figure to illustrate their location and elevation within the existing pit disturbance and above the permitted maximum pit depth.

The underground mine plan is similar to the open pit mine plan in terms of dewatering and other hydrogeological factors, but avoids the removal of excess waste rock from the pit shell. UGWs would be backfilled with low hydraulic conductivity cemented rock fill. There would be no open hydraulic connections via UGWs post-closure, so the post-closure hydrogeologic flow regime would be nearly identical to pre-mining conditions.



**Figure 9-6: Schematic Section through the Archimedes Pit Area**

(Source: LRE Water, 2025)

#### 9.2.6.2 Model Overview

Groundwater flow modeling associated with the current mine plan by Jones (2004) and JSAI between 2010 and 2021 provides relevant dewatering, drawdown and pit lake analyses for the underground mine plan. HGL (2023) provided a summary and assessment of the groundwater flow model and updates which were developed to support dewatering and permitting at Ruby Hill and evaluated any potential differences that may be expected as a result of the proposed underground mine plan. Dewatering predictions were assessed relative to the currently proposed underground expansion of the 426 and Blackjack Deposits.

Since 2004, pumping and water table responses have been recorded and incorporated into a groundwater flow model for the site which has been maintained with regular updates to support permitting, mine dewatering and planning. These efforts are presented in several documents, including:

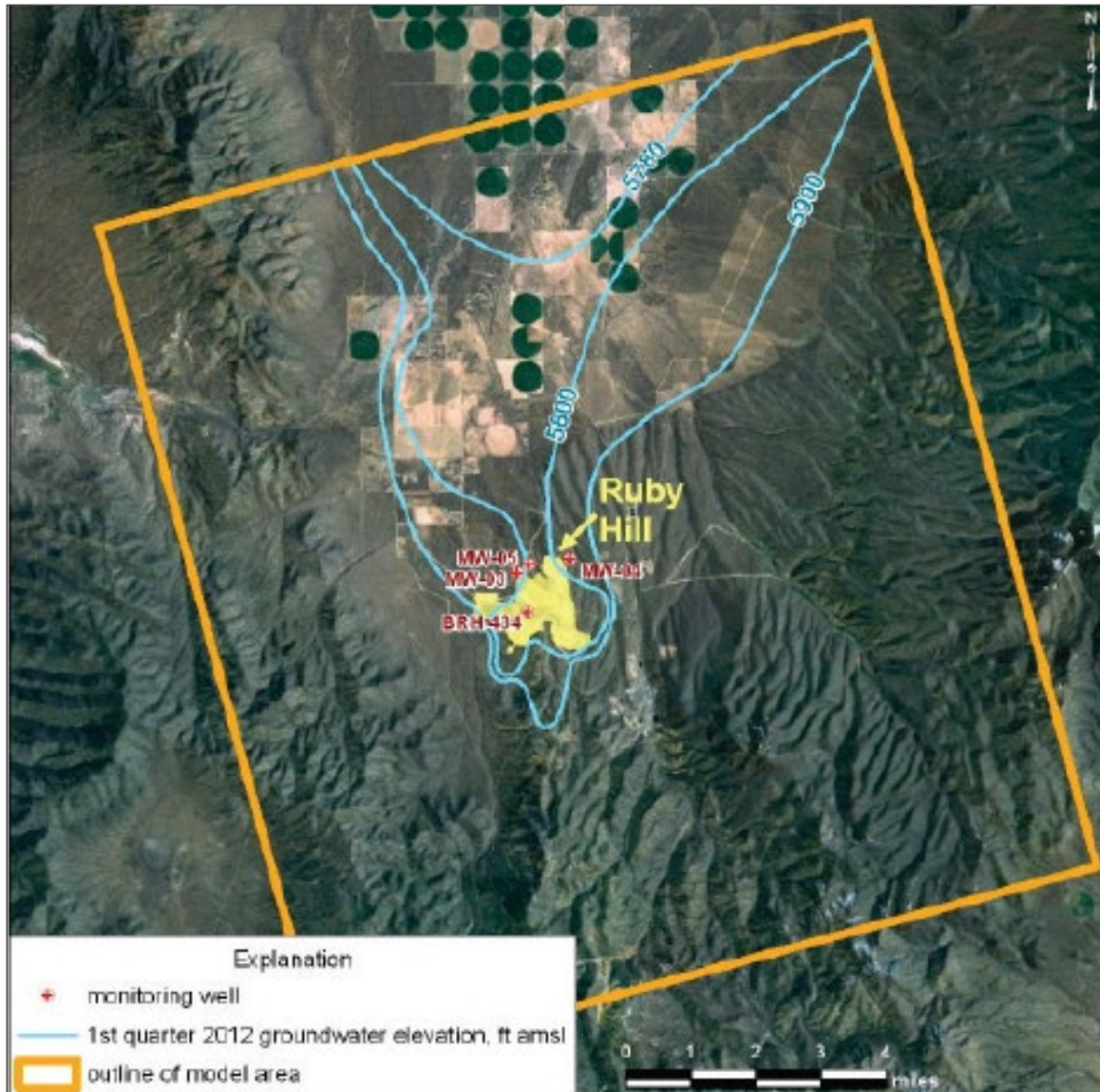
- Jones (2004) - Initial groundwater flow model was developed to support the East Archimedes pit expansion;
- JSAI (2010) – Groundwater flow modeling was updated for evaluation of a pit expansion. This version of the groundwater flow model simulates an increase in depth of the Archimedes Pit to 5,100 ft amsl;
- JSAI (2011) – The groundwater flow model was updated with recently-acquired aquifer test data to verify model calibration and predictions.
- JSAI (2012) – The groundwater flow model was updated to evaluate a mine expansion to include the 426, Archimedes, and Bullwhacker deposits.
- JSAI (2013) – The groundwater flow model was used to evaluate the potential impacts to local, high-elevation streams and springs.
- JSAI (2021) – The 2012 groundwater flow model was used to develop an updated pit lake water balance model to support the SRK (2021) geochemical model for the Water Pollution Control Permit (WPCP) renewal. The application was reviewed and approved by the Nevada Division of Environmental Protection (NDEP).



### 9.2.7 Model Results

The historical groundwater flow model predictions have been calibrated and corroborated by recent and ongoing observations, and, as such, the groundwater flow model is considered a reliable tool. The design, calibration, and results of the JSAI (2012) groundwater flow model are summarized below.

- The groundwater flow model was constructed in MODFLOW (McDonald and Harbaugh, 1988). The model area is shown in Figure 9-7 together with measured groundwater elevation from the first quarter of 2012. The model covers an area of approximately 180 square miles and comprises a grid of 94 rows, 93 columns, and 4 model layers (Figure 9-8).
- The groundwater flow model incorporates detailed information on geology and structure based on exploration drilling results and hydrogeological investigations at the site and at the regional scale. Hydrogeologic units (geologic units with similar hydrogeological properties and behavior) were defined and represented in the model as 'zones', with geologic structures simulated as flow barriers or conduits. An example of the hydrogeologic zones and flow barriers for model layer 2 is provided in Figure 9-9.
- Parameterization of hydrogeologic units, structures, and boundary conditions are based on observed, measured, and interpreted responses associated with long-term operational data and results of hydrogeologic testing programs/investigations. Steady-state and transient model calibrations were conducted to ensure the validity of model predictions.
- The impact assessment involved predicting the pumping requirement to maintain a dry pit (down to a minimum mine elevation of 5,100 ft amsl) then simulating that drawdown through the project life. The pumping rates required for mine operations peaked at approximately 850 gpm at a groundwater and pit floor elevation of approximately 5,400 ft amsl, and then declined to about 600 gpm for the remaining operational period, well below the permitted maximum rate of 1,000 gpm.

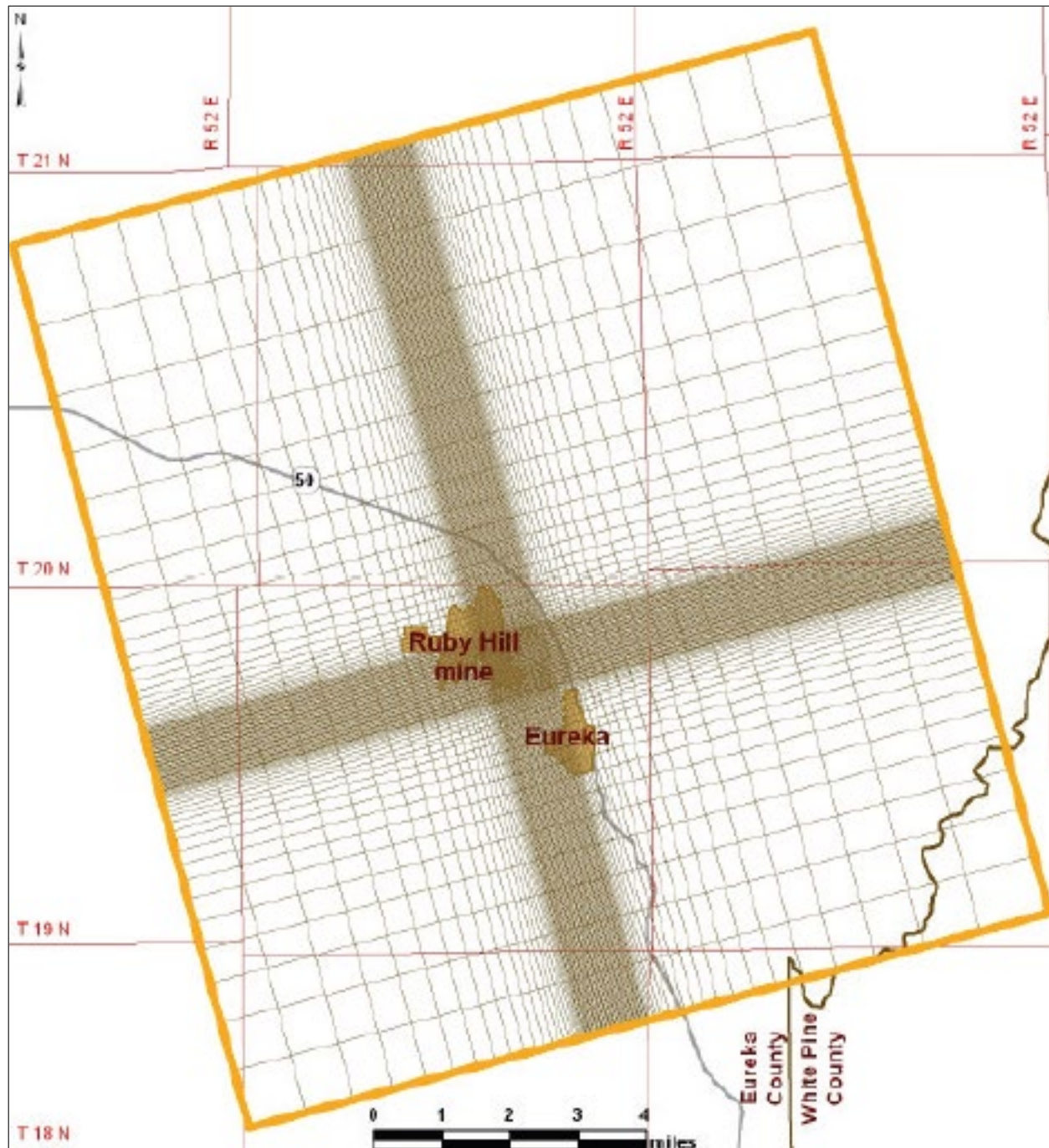


**Figure 9-7: Ground Water Flow Model Boundary**

(Source: LRE Water, 2025)

Figure 9-10 shows the projected maximum extent of the 10-foot drawdown contour (isopleth) at the end of the dewatering period (the end of active mining operations). The groundwater drawdown area is predicted to be limited to less than a mile to the north of the mine and extend up to approximately 4 miles to the south. The spatial difference in drawdown expression is due to:

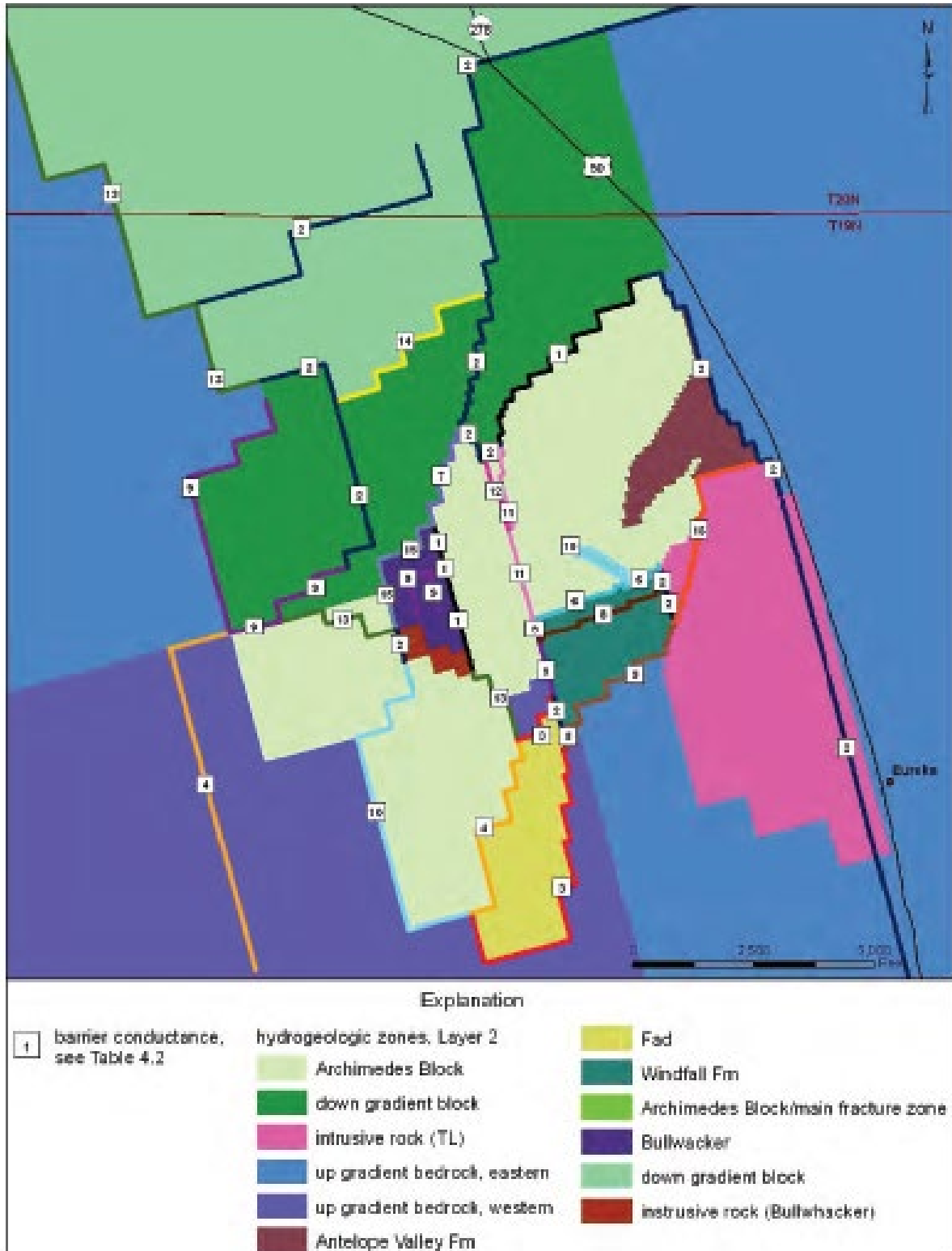
- The presence of thick sequences of alluvium with high hydraulic conductivity and storage to the north and northwest of the project; and,
- The presence of low storage, fractured, and faulted bedrock to the south and southeast of the mine.



**Figure 9-8: Ground Water Flow Model Grid**

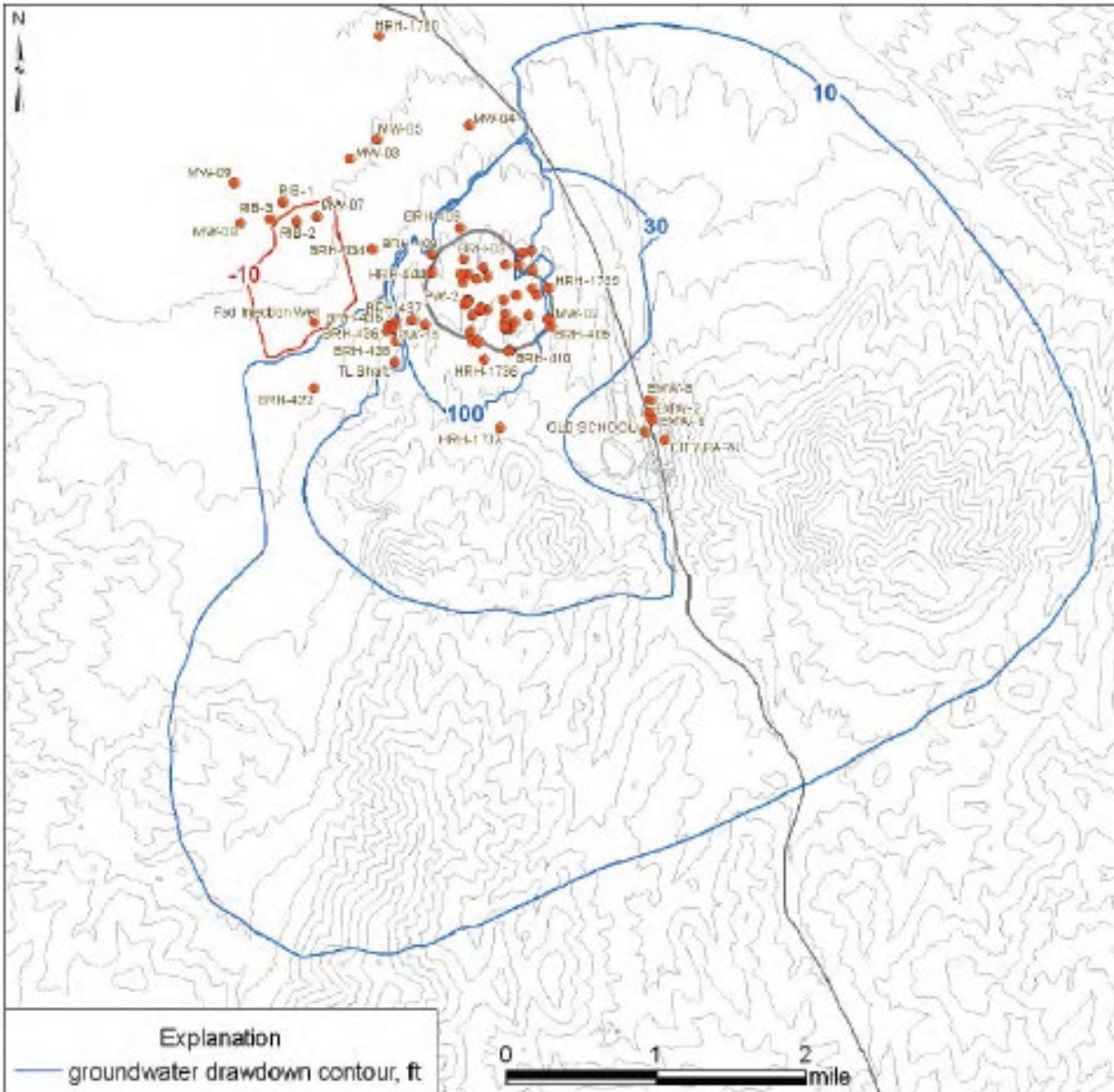
(Source: JSAI, 2012)





**Figure 9-9: Mine-Area Hydrogeologic Zones and Flow Barriers, Layer 2**

(Source: JSAI, 2012)



**Figure 9-10: Projected Changes in Groundwater Level, End of Mining**

(Source: JSAI, 2012)

#### 9.2.7.1 Model Summary

The groundwater flow model constructed by JSAI (2012-2021) was designed to represent dewatering of an open pit mine. The modeling is based on an extensive hydrological, hydrogeological, geological, structural and climatological data set and includes recent updates and a strong calibration to both steady state and transient conditions.

LRE Water (formerly HGL) has evaluated the modeling and concludes the current groundwater flow model dewatering predictions for the open pit mine plan are representative for the proposed underground mine plan for the following reasons:

- All mining will be performed above the 5,100 ft amsl level under both plans.



- The underground mining will be within the proposed and permitted mine shell.
- The currently permitted maximum dewatering rate (1,000 gpm) will be maintained for the proposed underground mine plan.
- The same material in the authorized plan will need to be dewatered to the same depth in order to maintain a dry underground mine.

The projected pit dewatering rates of approximately 800 gpm and ultimate post-closure pit lake level of 5,800 ft amsl predicted by the JSAI (2012 and 2021) models reflect both the open pit mine plan and the proposed underground mine plan of the 426 and Blackjack Deposits. There are no significant hydrogeological or spatial differences that warrant additional model changes at this time considering the close proximity of the underground workings relative to the open pit plan. As operations progress, the process of improving the groundwater model is warranted by incorporating new data, adjusting parameters, modifying the model's conceptual and numerical 3D framework, or refining the grid resolution to better represent the complex dynamics of the groundwater system, ultimately allowing for more accurate predictions and informed decision-making regarding water management strategies.

#### **9.2.8 QP Opinion**

It is the opinion of the QP that the testing and analysis methods used to model the project hydrogeological characteristics are adequate for a Preliminary Economic Assessment of the Project.

## 10. DRILLING

The Wood provided a detailed account of historical drilling at the Project in support of their Mineral Resource Estimate carried out in 2021 for Ruby Hill Mining Company (Wood, 2021), prior to i-80 commencing drilling on the property. Wood's summary of historic drilling at Ruby Hill follows, with figures updated to include i-80 drilling. About 95 percent of the holes being used in the current resource estimation are in the Mineral Point Trend, and the remaining five percent are in the Archimedes area. A description of i-80 drilling procedures is appended as Section 10.11.

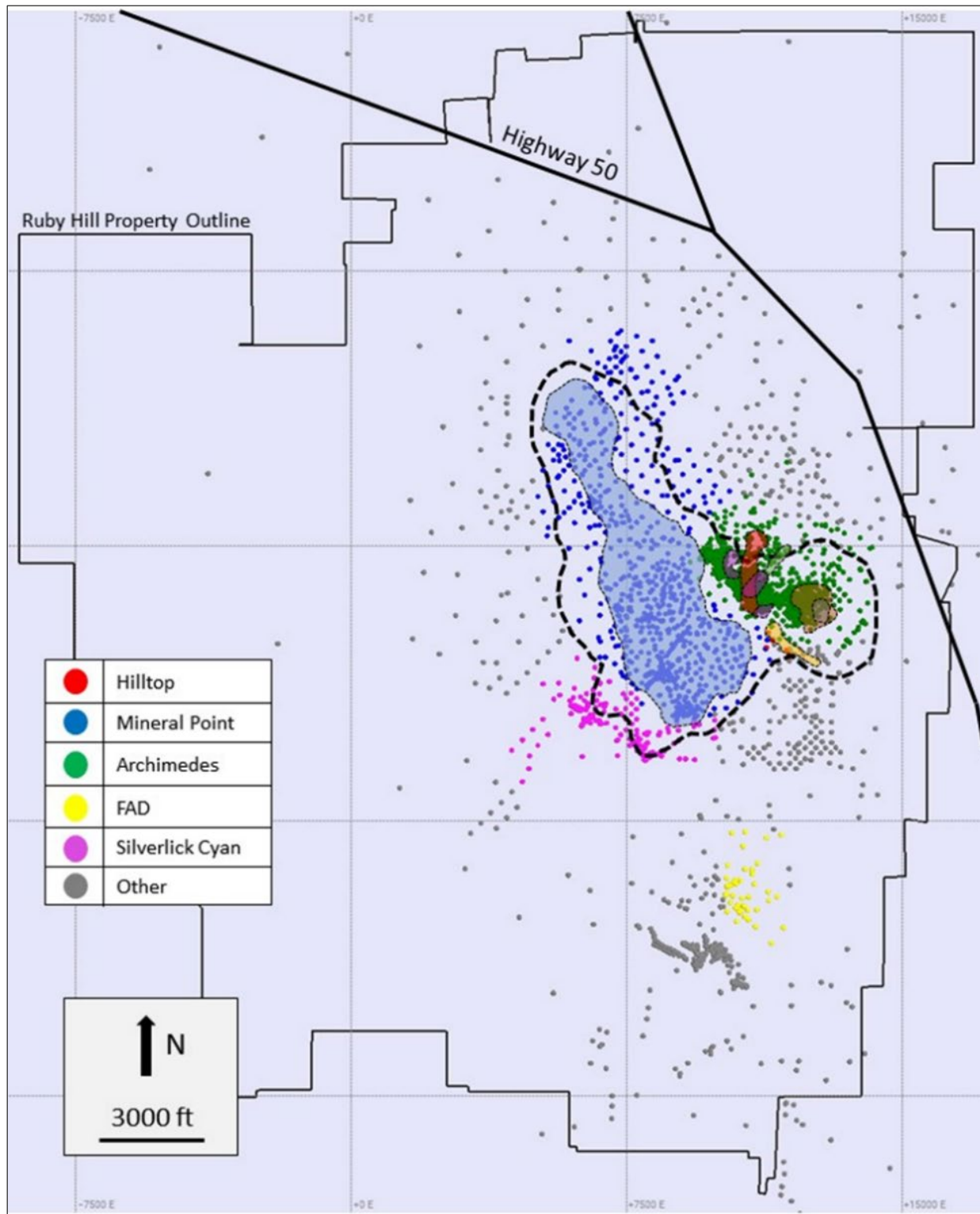
### 10.1 Historic Drilling at Ruby Hill

The RHMC drillhole database consists of data from over 3,600 drillholes and 2.3 million feet of drilling from throughout the southern portion of Eureka County. The database includes holes that have been drilled to test 24 different targets and includes reverse circulation, diamond core, reverse circulation pre-collar with diamond core tail and percussion and churn drill hole types. A total of 2,491 drillholes have been drilled on the current Ruby Hill property and 2,100 drillholes totaling 1.5 million feet of drilling define the Mineral Point Trend and Archimedes deposits. A plan view of the drilling in relationship to the Property boundary, and the drill collars attributed to the Mineral Point Trend and Archimedes Deposits are color coded in Figure 10-1.

The dataset used to produce the Mineral Resource Estimate for the Mineral Point Trend consists of drillhole data compiled from eight companies and work carried out from 1950 to 2015; however, 95% of the drilling was completed from 1992 to 2015 by Homestake, and subsequently by Barrick following completion of its acquisition of Homestake in 2004 (Table 10-1).

Just over 75% of drilling carried out at Ruby hill has been reverse circulation drilling. Diamond drilling has been used to provide drill core for detailed geological and geotechnical logging, metallurgical sampling, to extend reverse circulation holes below the water table to ensure representative sampling for assaying and as twin holes to confirm reverse circulation hole sampling. Mud rotary and other drill types have mainly been used to drill pre-collar holes for diamond drilling. Proportion of drilling by type is charted in Figure 10-2.

The following discussion of drilling, sampling, sample preparation and data verification is sub-divided into five main drill campaigns by owner and type where standards and procedures for data acquisition and confidence in data quality are relatively consistent. The five campaigns are RC and diamond core drilling by Homestake, RC and diamond core drilling by Barrick and the relatively minor amount of drilling carried out by other operators. Table 10-2 lists the distribution of drill footage by campaign and Figure 10-3 and Figure 10-4 show the location of the drilling by campaign in plan and fence section views.

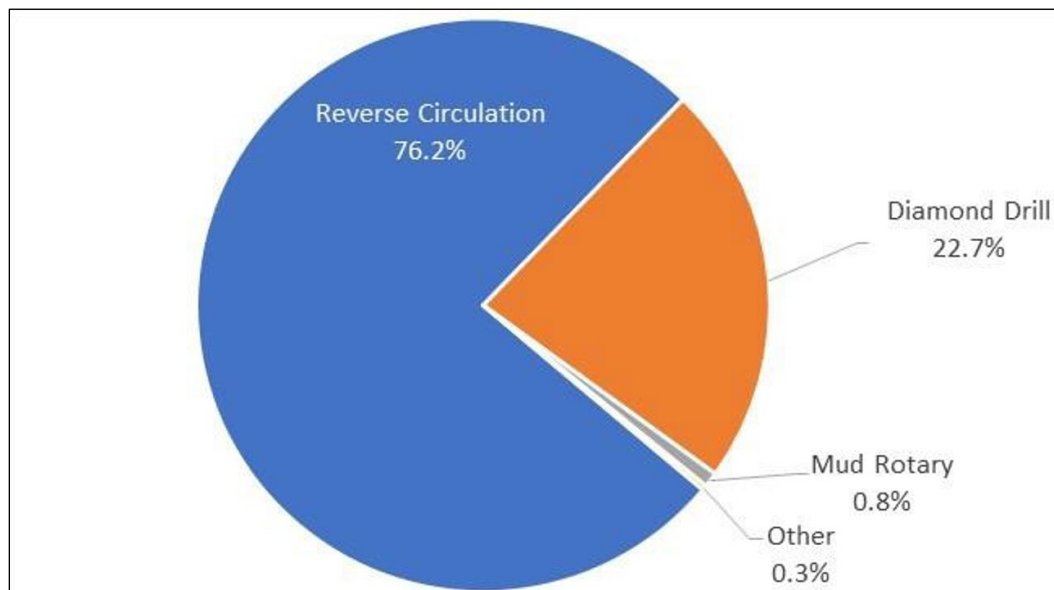


**Figure 10-1: Drill Hole Collar Locations**

(Source: i-80 Gold, 2023)

**Table 10-1: Drilling Statistics for Drillholes Included in the 2021 Ruby Hill Project Mineral Resource Estimate**

Company	Drill Holes	Footage	Proportion of Footage (%)	Start Date	End Date
Eureka Corp.	250	55,558	3.5	1950	1956
Hecla	6	5,945	0.4	January 1960	August 1967
Newmont	1	4,666	0.3	1970	1970
AMOCO-Cyprus	27	3,962	0.3	1978	1978
Sharon Steel Corp.	45	8,510	0.5	August 1982	November 1988
ASARCO	2	635	0.0	July 1989	July 1989
Homestake	1,172	771,445	48.7	March 1992	September 2004
Barrick	597	733,667	46.3	October 2003	November 2015
<b>Total</b>	<b>2,100</b>	<b>1,584,387</b>	<b>100.0</b>	<b>1950</b>	<b>2015</b>



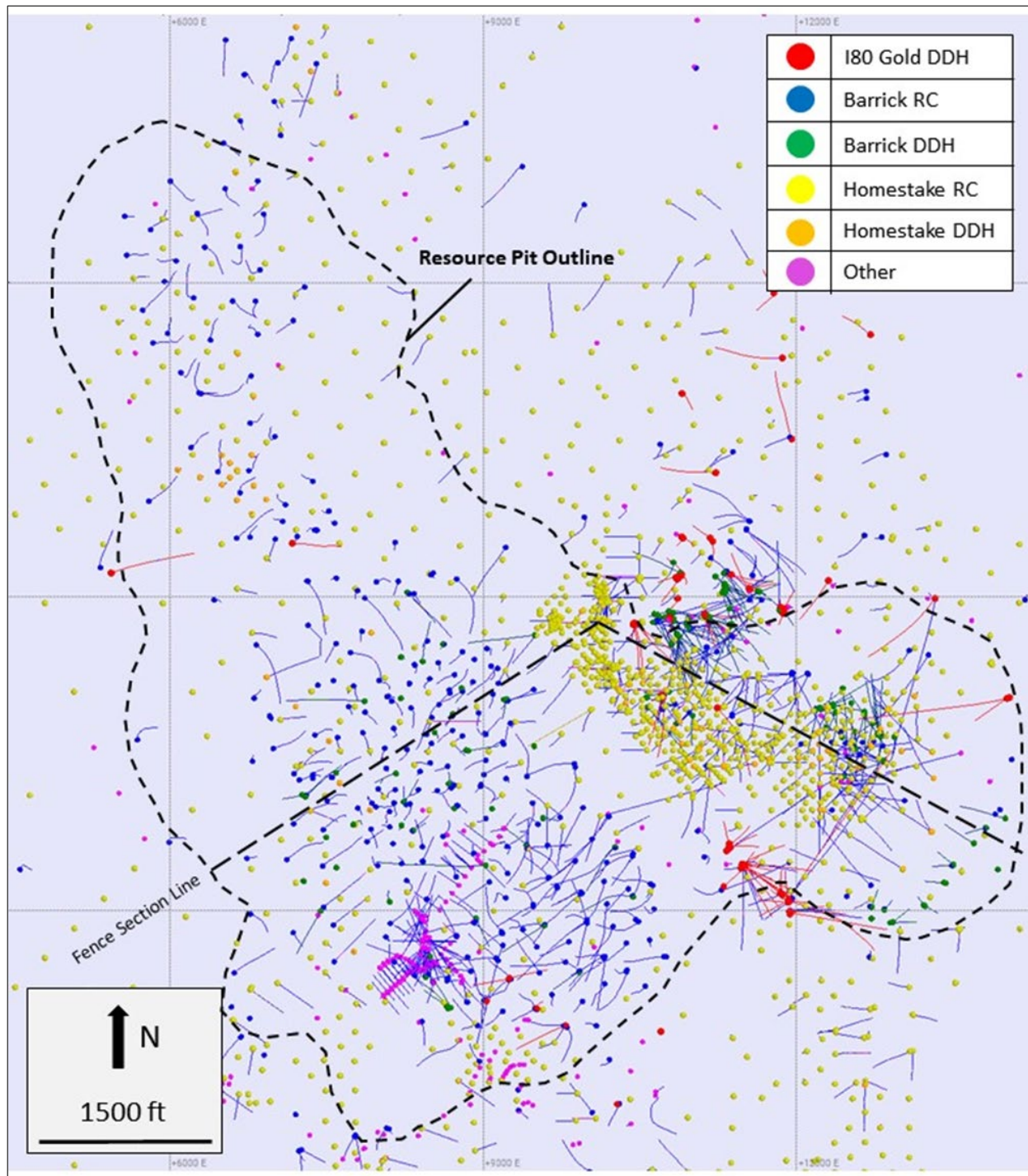
**Figure 10-2: Distribution of Drill Types Included in the 2021 Ruby Hill Project Mineral Resource Estimate**

(Source: Wood, 2021)

**Table 10-2: Distribution of Drilling by Campaign**

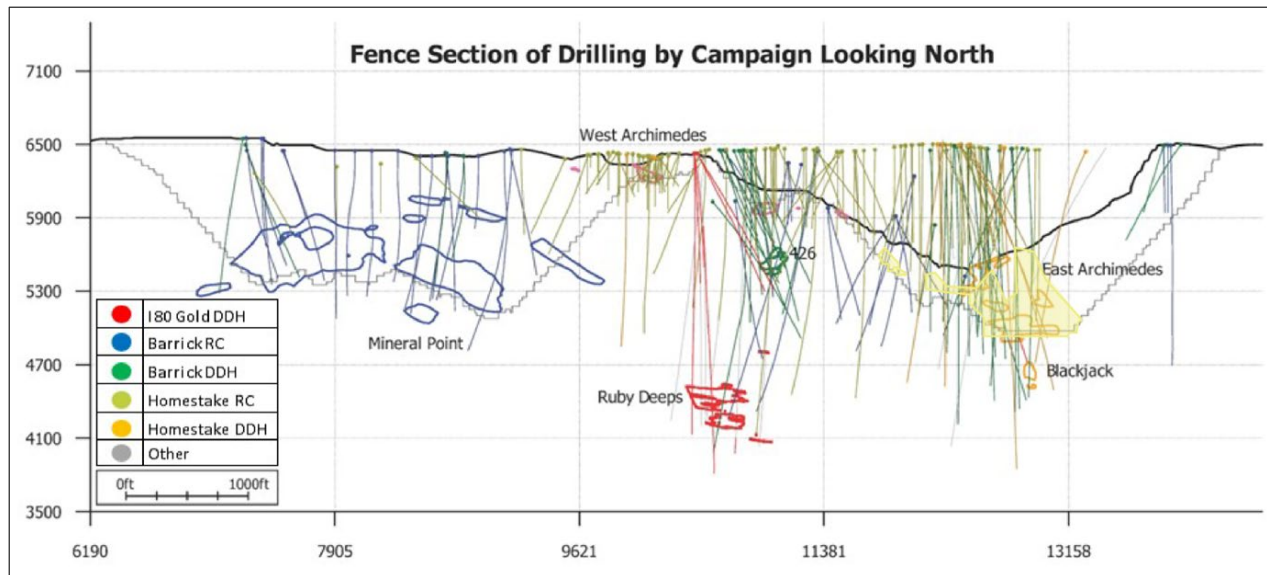
Owner	Type	Campaign	Footage	Proportion (%)
Homestake	RC	1	638,077	40.3
	DDH	2	133,368	8.4
Barrick	RC	3	556,650	35.1
	DDH	4	177,017	11.2
Other		5	79,275	5.0
<b>Total</b>			<b>1,584,387</b>	<b>100.0</b>





**Figure 10-3: Plan View of Drilling by Campaign**

(Source: i-80 Gold, 2023)



**Figure 10-4: Fence Section of Drilling by Campaign (Looking North)**

(Source: i-80 Gold, 2023)

## 10.2 Drilling Methods

Drilling at Mineral Point was 83% by RC with 53% of drill footage drilled by Barrick and 28% drilled by Homestake. Approximately 8% of drilling was diamond core drilling by Barrick and Homestake. Eureka Corporation drilled approximately 46,000 feet of underground and surface drill core accounting for about 6% of total drill footage.

Drilling at Archimedes was 70% RC with 52% of drill footage drilled by Homestake and 18% drilled by Barrick. Approximately 30% of drilling at Archimedes was diamond core drilling and contributions by other operators is negligible.

### 10.2.1 Reverse Circulation Drilling

Barrick drilled 336 RC holes at Mineral Point Trend and 119 RC holes at Archimedes. RC holes were both vertical and inclined. Drilling was conducted by Eklund Drilling Company (Elko, NV), and Boart Longyear (Salt Lake City, UT). Where documented drilling was conducted with a TH-75 drill rig. Hole diameters ranged from 5.0 to 6.75 in. Drill logs indicate that for deeper RC holes intersecting the water table, if the RC hole could not be kept dry during drilling it was extended using diamond drilling.

Homestake drilled 381 RC holes at Mineral Point and 671 holes at Archimedes. The majority of RC holes drilled by Homestake were vertical. Drilling was conducted by Eklund Drilling Company (Elko, NV). Where documented holes were drilled with an MPD-1500 drill rig. Hole diameters ranged from 4.75 to 6.0 inches.

Asarco drilled two short RC holes at Archimedes in 1989. Drilling was conducted by Eklund Drilling Company (Elko, NV), and Hackworth Drilling, Inc. (Elko, NV).

Sharon Steel drilled 45 vertical exploration and definition RC holes totaling 8,510 feet. Drilling was conducted by a number of companies including O'Keefe Drilling (Butte, MT), Boyles Brothers, Polar Drilling, Lang Exploratory Drilling (Elko, NV), and Tonto Drilling Services, Inc. (Salt Lake City, UT). Where documented drill rigs used were a Jaswell 2400, Long Year 44 core rig adapted for RC drilling, Drill Systems CSR 1000, Chicago Pneumatic 650 WS, and T4W. Where noted, hole diameters were 5.25 inches.

Eureka Corporation completed 2,788' of RC drilling in two holes at Mineral Point. Drilling was conducted by Sierra Drilling Company (Bakersfield, CA). Drilling equipment, drill procedures, and sampling procedures from the Eureka RC drilling are not documented.

### **10.2.2 Core Drilling**

Barrick drilled 131,375 feet of diamond drill core holes at Mineral Point and Archimedes. 38,800 feet of the total were diamond drill tails from RC precollars, including the total footage downhole from the collar. Drilling was conducted by a number of companies including Boart Longyear (Salt Lake City, UT), Dynatec Drilling, Inc. (Salt Lake City, UT), Major Drilling (Elko, NV), EMM Core Drilling Services (Winnemucca, NV), National Drilling (Elko, NV), and Connors Drilling, LLC (Montrose, CO). Where documented, core sizes drilled include PQ (3.345 in), HQ3 (2.406 in), HQ (2.5 in), and NQ (1.875 in). Where noted, an LF90 D drill rig was used. Most core holes are inclined.

Homestake drilled 133,368 feet of core holes at Mineral Point and Archimedes. Drilling was conducted by a number of companies including Tonto Drilling Services, Inc. (Salt Lake City, UT), Boart Longyear (Salt Lake City, UT), Connors Drilling LLC (Montrose, CO), Inland Pacific Drilling (Newman Lake, WA), and Westec/Haztec Drilling, Inc. (Meridian, ID). Where documented, drill rigs used were an LS-244 truck mounted rig and an LY44 drill rig. Hole size was HQ (2.5 in), reduced to NQ (1.875 in) when poor ground conditions dictated. Holes were both vertical and inclined, drilled on azimuths of 025° to 357° and inclinations of -45° to -87°.

Hecla drilled two vertical surface core holes totaling 3,511.5 feet. Drilling was conducted by Nichols Universal Drilling Co., Sprague & Henwood Inc., Continental Drilling Company, and Boart Longyear (Salt Lake City, UT). Where documented, the drill rig used was a Longyear 34 diamond drill. Where noted, holes were collared with NX (2.125 in) size core and reduced to BX (1.625 in) or HQ (2.5 in) size core reduced to NQ (1.875 in), dependent on depth and/or ground conditions.

Eureka Corporation drilled 239 exploration and definition core holes totaling 46,123.8 ft with 232 holes drilled underground and 24 collared at surface. Forty-seven were vertical and the remaining 214 were oriented with azimuths that ranged from 006° to 359° and inclinations of -70° to -85°. Drilling was conducted by Boyles Brothers. Holes were typically collared with NX (2.125 in) size core, and reduced to BX (1.625 in), AX (1.125 in) or EX (0.845 in) core size as depth and ground conditions necessitated. Drilling equipment and drill procedures are undocumented.

### **10.2.3 Other Drilling Methods**

Amoco-Cyprus drilled 25 exploration mud rotary holes totaling 3,830 ft, and 2 exploration air track holes totaling 1,143 ft. All holes were vertical. Drilling equipment, drill procedures, and sampling procedures are undocumented.

Newmont drilled three vertical mud rotary exploration holes totaling 11,697 ft. Collared hole size ranged from 11 to 15 in with reduction to 9.625 and 6.75 in as depth and ground conditions necessitated. Drilling equipment and drill procedures are undocumented.

Hecla drilled five mud rotary holes totaling 2,496 ft, and 3 churn holes totaling 1,143 ft. Mud rotary and churn holes were vertical. Where documented, drilling was conducted by Continental Drilling Company, and Boyles Brothers. Drilling equipment, drill procedures, and sampling procedures are undocumented. Hole size for mud rotary drilling was 5.625 in, whilst hole sizes for churn holes are undocumented.

Eureka Corporation drilled seven mud rotary holes totaling 7,011 ft, and nine churn holes totaling 4,802 ft. All holes were vertical. Drilling equipment, drill procedures, and sampling procedures are undocumented. Mud rotary holes ranged from 8.5 to 9.0 in in diameter, and churn hole sizes ranged from 10 to 15 inches.

## **10.3 Geological Logging**

### **10.3.1 Barrick**

Barrick geologists captured RC and core logging data on graphic strip logs on paper. The parameters captured included:

- stratigraphic unit, rock type
- chert intensity and color
- oxidation characteristics, iron oxide occurrence and intensity
- modal percentage of pyrite and total sulfides
- intensity of silicification, decalcification decarbonatization, dolomitization, and skarn alteration
- percentage of vein calcite and quartz
- estimated percentage of downhole contamination (for RC)
- intensity of realgar, orpiment, scorodite, carbon, carbonate mineralization
- structure types and orientation

Graphic logs have been retained in a folder for each hole including original assay sheets, downhole survey reports, daily drill company sheets and notes on performance of quality control samples, database issues and other drilling issues.

### **10.3.2 Homestake**

Homestake logging was also captured on graphic strip logs, on paper and captured many of the same parameters as the Barrick log sheets. The Homestake log sheets are also retained in drillhole folders and binders.

### **10.3.3 Logging by Other Operators**

Logging by all other historic operators was also captured on paper and the parameters logged include rock type, structure, alteration, mineralization and oxidation intensity and handwritten notes about drilling including water flow.

## **10.4 Sample Recovery**

Core recovery for the Barrick drilling programs was 92% and only suffered in broken zones. Core recovery for the Eureka Corporation, Hecla, and Homestake core drill programs are unknown.

Churn, rotary, percussion, air track and RC sample recovery for all drill programs is not documented.

## **10.5 Collar Surveys**

Collar survey data exists for holes drilled from 1992 to 2015 when Homestake and Barrick were conducting mining operations at Ruby Hill. Collar locations were captured by mine survey personnel using a Trimble 4400 differential GPS survey system with centimeter accuracy.

The method of survey is unknown for drilling conducted prior to 1992.

## **10.6 Downhole Surveys**

Barrick engaged International Drilling Services (IDS) of Elko, Nevada, to conduct downhole surveys with measurements collected every 50 ft using a Humphrey Gyroscopic System instrument. Dependent on the survey year, declinations used to convert magnetic north to grid north migrated from 13° to 16.25° E.



Homestake employed both Silver State Survey, Inc. (NV) and Wellbore Navigation, Inc (CA) to conduct downhole surveys. Surveys were conducted on 50 ft intervals. Surveys conducted by Silver State Surveys, Inc used a Sperry Sun downhole camera survey instrument, and Wellbore Navigation, Inc. used an Inrun Survey Minimum Curvature gyro reference system bearing True North. Declinations are undocumented.

Survey procedures for earlier operators were variable and, in some cases, poorly documented:

- Eureka Corporation holes were surveyed by Houston Oil Field Material Company (HOMCO) of California at 100 to 200 ft intervals. Survey type, equipment and declination are undocumented.
- Newmont engaged HOMCO and Eastman Directional Drilling Oil Well Services (Denver, CO) to conduct downhole surveys at 100 ft intervals. Survey type and equipment are undocumented. Where documented, a declination of 17.5° E was used.
- Hecla captured directional surveys at 100 and 200 ft intervals downhole but the surveyor, survey type, survey equipment and declination are undocumented.
- It is unknown if Amoco-Cyprus, Sharon Steel or ASARCO conducted downhole surveys.

## 10.7 Metallurgical Drilling

In 2004 Barrick completed a cyanide soluble assay metallurgical program on mineralized drill intervals from East Archimedes to assist in gold recovery modeling. Material from 12 RC and two core holes were used (Table 10-3). A mineralogical study of 17 select samples was also conducted by Barrick Metallurgical Services Mineralogy Lab.

**Table 10-3: 2004 Barrick Metallurgical Holes**

Hole ID	Easting (ft)	Northing (ft)	Elevation (ft)	Azimuth (degree)	Inclination (degree)	Length (ft)	Hole Type
HRH237	12260.0	117964.0	6509.0	45	-60	1,000.0	RC
HRH256	12336.0	118502.0	6490.0	94.5	-48	1,045.0	RC
HRH262	12350.0	118500.0	6500.0	123.9	-54	905.0	RC
HRH335	11944.9	118171.8	6512.7	0	-90	945.0	RC
HRH385	12016.2	118522.7	6503.9	0	-90	1,000.0	RC
HRC271	12226.2	118310.1	6504.8	88.3	-60	1,983.0	Core
HC1408	12468.8	118515.6	6479.7	0	-90	924.5	Core
HRH1387	12086.7	118879.8	6497.0	0	-90	1,305.0	RC
HRH1389	12787.6	118455.5	6472.5	0	-90	1,400.0	RC
HRH1400	12436.4	118381.6	6483.6	0	-90	1,285.0	RC
HRH1402	12724.0	118074.0	6468.0	0	-90	940.0	RC
HRH1407	12640.2	118673.7	6459.4	0	-90	1,355.0	RC
HRH1413	12661.1	118144.7	6479.9	0	-90	1,100.0	RC
HRH1415	12861.8	118527.1	6464.6	0	-90	1,200.0	RC
HRH1416	12855.6	118670.2	6460.8	0	-90	1,485.0	RC

In 2009 Barrick engaged Kappes, Cassidy & Associates (KCA) of Reno, Nevada to complete metallurgical testwork on Archimedes drill holes. Material from 2 RC (hole size undocumented) and 10 core holes were used (Table 10-4).

In 2010 and 2011 Barrick engaged KCA to complete metallurgical testwork on Mineral Point core (Table 10-5) and RC cuttings identified as "Watertank RC material" (hole number(s) undocumented).

In 2011, 16 refractory and two oxide samples from the 426 zone were tested at Barrick Technology Centre. Samples from nine core holes (Table 10-6) were received for the test program.



Table 10-4: 2009 Metallurgical Holes

Hole ID	Easting (ft)	Northing (ft)	Elevation (ft)	Azimuth (degree)	Inclination (degree)	Length (ft)	Hole Type
HRH1766	11,552.0	119,810.9	6,440.8	225	-50	1,305.0	Core
BRH-36C	10,639.0	119,759.4	6,453.9	106	-48	1,500.0	Core
BRH-37C	10,626.2	119,757.3	6,453.9	140	-59	1,481.0	Core
BRH-38C	10,864.4	119,628.9	6,445.4	133	-69	1,463.0	Core
BRH-41C	10,855.2	119,644.0	6,444.6	175	-62	1,269.0	Core
BRH-67C	10,979.2	119,697.6	6,448.1	102	-70	1,141.0	Core
HRH1767	11,551.4	119,806.2	6,440.8	213	-69	960.0	RC
BRH-08C	12,563.2	118,542.1	6,466.3	35	-90	2,062.0	Core
BRH-06C	12,804.3	118,663.3	6,464.5	181	-76	2,168.0	Core
BRH-12C	12,936.0	118,662.1	6,453.8	180	-80	2,044.0	Core
BRH-18C	12,797.4	118,667.9	6,464.5	173	-80	2,168.0	Core
BRH-17C	12,556.3	118,712.1	6,473.8	175	-76	1,750.0	RC

Table 10-5: 2010 and 2011 Metallurgical Holes

Hole ID	Easting (ft)	Northing (ft)	Elevation (ft)	Azimuth (degree)	Inclination (degree)	Length (ft)	Hole Type
BRH-165C	9,200	119,018	6,464	131.7	-88.6	1,403.0	Core
BRH-166C	8,618	119,550	6,447	173.4	-88.9	682.0	Core
BRH-184C	7,297	118,088	6,497	45.9	-69.7	1,180.0	Core
BRH-231C	8,536	118,703	6,405	42.2	-89.7	1,102.0	Core
BRH-235C	8,709	118,879	6,428	36.3	-89.5	1,093.0	Core

Table 10-6: 2011 Metallurgical Holes

Hole ID	Easting (ft)	Northing (ft)	Elevation (ft)	Azimuth (degree)	Inclination (degree)	Length (ft)	Hole Type
BRH-95C	11,361.8	119,737.3	6,453.0	130.4	-70.3	1,672.0	Core
BRH-99C	11,138.3	119,826.4	6,478.7	97.3	-83.5	1,660.0	Core
BRH-103C	10,945.9	119,742.0	6,447.2	134.7	-79.9	1,500.0	Core
BRH-210C	11,319.4	120,089.8	6,505.0	113.0	-74.7	1,380.5	Core
BRH-211C	11,322.5	120,059.2	6,505.5	158.2	-79.0	1,338.0	Core
BRH-212C	11,163.9	119,805.8	6,478.1	126.2	-78.7	1,277.0	Core
BRH-213C	11,128.5	119,810.3	6,477.7	152.0	-70.7	1,202.0	Core
BRH-214C	10,822.3	119,793.5	6,446.8	138.3	-63.4	1,266.0	Core
BRH-215C	10,737.3	119,806.8	6,446.5	145.2	-57.9	1,156.5	Core

## 10.8 Sample Length/True Thickness

Approximately 66% of the drilling at Ruby Hill was vertical, producing essentially true- width intercepts through the relatively flat-lying mineralized zones. The remaining holes (34%) have steep inclinations and intersect mineralized units at high angles. Figure 10-4 provides an image of drill hole intersections with the mineralized bodies.

## 10.9 Potential Downhole Contamination

Oakley (1997) of the Elko Mining Group, a subsidiary of Waterton Global Resource Management, conducted a study of potential downhole contamination of reverse circulation holes drilled by Barrick. The study included compilation of intervals from 18 drill holes identified as having potential downhole contamination from drill core logging by Barrick, analysis of decay and cyclicity, and comparison of twin RC-diamond core holes including preparation of histograms and Q-Q plots comparing the grade distributions of twin holes, and downhole grade profile plots. The study concluded that the holes identified as being potentially contaminated by Barrick project geologists were likely contaminated and identified additional drillholes and intervals with potential sampling and assaying issues. The study culminated in a list of 30 holes for exclusion, nine holes having depths below which assays were suspected of being contaminated, and were flagged for exclusion, six holes with intervals flagged for exclusion, and six holes with anomalous silver grades that were flagged for exclusion.

A comprehensive review of Barrick, Homestake and other company drilling by Wood, and identification of additional intervals for exclusion is presented in Section 11.

## 10.10 Summary and Interpretation of All Relevant Drilling Results

Figure 10-3 and Figure 10-4 provide an example of the Ruby Hill drilling and the outlines of the mineralization in the Mineral Point and Archimedes deposits and illustrates the variability of density of drilling, the widths of mineralized intersections and drillhole intersection angles to mineralization. A discussion of the distribution and types of material intersected in metallurgical drilling, metallurgical test work composites, and an interpretation of the results of the metallurgical test work are presented in Section 0. Examples of the interpretation of the drilling in the construction of geological models and use of the interpretations in Mineral Resource estimation are presented and discussed in more detail in Section 14.

## 10.11 i-80 Drilling

i-80 completed 9,883 feet of drilling in 2021 at Ruby Deepes for infill. Holes were drilled using RC pre-collars followed by HQ core-tails. In 2022, 137,210 feet of drilling was completed with a mix of core and RC. Core drilling was conducted by National Drilling (Salt Lake City, UT) with RC conducted by Envirotech Drilling (Winnemucca, NV). Where documented, core sizes drilled include PQ (3.345 in), HQ3 (2.406 in), HQ (2.5 in), and NQ (1.875 in). Most holes were inclined. Thirty-six i-80 holes totaling 75,546.5 feet contributed to the current resource estimation, representing about 30 percent of holes flagged for use in the Ruby Deepes and 426 deposits. The remainder of the i-80 drilling was in exploration areas including Hilltop, Ruby Deepes expansion, Blackjack definition, 428, and Blue Sky. All of the i-80 holes contributing to the current resource estimation were drilled using core or RC precollar with core tail.

Drill hole collars are surveyed by the Ruby Hill surveyor using Trimble equipment with sub-centimeter accuracy referencing a local base station with GNSS rover. Coordinates are collected in the Ruby Hill mine grid, NAD83(2011), US survey feet. Downhole surveys are performed by IDS using a north seeking gyro.

i-80 logs geological characteristics of drill samples in Excel, filling data fields similar to those recorded by Barrick and Homestake but with additional focus on sulfides to support characterization of CRD mineralization. Data is organized in Excel sheets with tabs for geotechnical, sampling, lithology, alteration, oxide, sulfide, structure, point data, veins, density and water level information. Core recovery averaged about 93%, which is comparable to core recovery of Barrick's drilling campaigns. Recovery within the modeled mineral envelopes is similar to overall recovery, about 93% for Ruby Deepes and about 95% for 426. The slightly higher recovery within the 426 zone correlates with relatively high RQD values in the OGLL host unit.

Geometry of Carlin type mineralization at Ruby Hill is well understood, and drill spacing is close enough to allow true thickness to be reasonably represented by interpolating between mineralized intercepts in adjacent drill holes. Most holes intersect the mineralization at near-normal orientations.

#### **10.12 QP Opinion**

It is the QP's opinion that the accuracy and reliability of the results based on the drilling, sampling and recovery factors are adequate for a Preliminary Economic Assessment of the Project.

## **11. SAMPLE PREPARATION, ANALYSES AND SECURITY**

The following section describes procedures employed by previous operators at Ruby Hill for the security, laboratory preparation, and analysis of reverse circulation (RC) and core samples during the drilling programs completed from 1992 to 2015. The descriptions are largely summarized from previous technical and feasibility reports (Barrick, 2004; REI, 2005; Newman and Mahoney, 2008; Barrick, 2012; RPA, 2012; and Barrick, 2013). A description of i-80's procedures follows in Section 11.9

### **11.1 Sampling Methods**

Homestake and Barrick employed similar sampling procedures for RC drilling. For most RC holes, only bedrock was sampled with the exception select intervals of alluvium saved for waste rock characterization (Barrick, 2004 & 2013). RC cuttings were sampled on 5' intervals except in 1992 when 10 ft intervals were used on select holes. Coarse and fine fractions of RC cuttings were collected in cloth or plastic sample bags.

Homestake and Barrick also employed similar procedures for sampling drill core. Core was sampled in consistent 5 ft intervals except where shorter intervals were dictated by geologic conditions. Core was cut in half along the long axis using a diamond saw, and a half-split was bagged and submitted to the laboratory for analysis.

Sampling methods are not well documented for the drill campaigns carried out before the Barrick and Homestake campaigns from 1992-2015. The following information has been compiled from the drill logs and interrogation of the drillhole database:

- Eureka Corporation sampled rotary, RC and core holes on 5 ft or shorter intervals based on geologic conditions. Newmont samples were generally collected on 5 ft intervals, although intervals ranged from 1 to 10 ft based on geologic conditions.
- Hecla rotary holes were sampled on 10 ft intervals, percussion holes on 20 to 30 ft intervals, surface RC holes on 10 ft intervals, and underground RC holes on 4 ft intervals. Surface core holes were sampled on 5 ft intervals, and underground core holes on 4 ft intervals although intervals for both hole types ranged from 0.5 to 10 ft based on geologic conditions.
- Amoco-Cyprus sampling for mud rotary holes was conducted on 10 ft intervals. Air track holes were sampled on 6 ft intervals, although intervals ranged from 2 to 10 ft based on geologic conditions.
- Sharon Steel sampling was conducted primarily on 5 ft intervals although 10 ft intervals were used based on geologic conditions.
- Asarco sampling was conducted on 10 ft intervals.

### **11.2 Analytical and Test Laboratories**

The Ruby Hill database is comprised of gold, silver, base metal and major and trace element geochemistry and density data analyzed and commercial laboratories independent of the project owners, including i-80. The majority of samples collected from drilling by Homestake were assayed at Berringer Laboratories in Reno Nevada, and assaying from the Barrick campaigns was carried out at the ALS Global laboratory in Reno Nevada. Details of other work are presented in Table 11-1.

### **11.3 Density Determinations**

Density determinations were carried out during programs operated by Barrick with analyses at G&T Metallurgical Services in Kamloops, BC, Canada, McClelland laboratory in Reno, Nevada and at the Bald Mountain mine site in Nevada.



### 11.3.1.1 Barrick

Material densities used for the estimation of Mineral Resources in the East Archimedes deposit in 2004 were determined by traditional volume displacement procedures using drill core (holes unknown) sealed by acrylics (Barrick, 2004). Average bulk density values obtained by the tests are shown in Table 11-2.

Between 2007 and 2008, G&T Metallurgical Services performed 41 bulk density measurements from four core holes from the East Archimedes deposit. Bulk density measurements were determined using the water immersion volume displacement method.

In 2008, Barrick submitted 49 samples from two core holes to MLI for bulk density determinations. Only 47 samples were analyzed with 2 samples rejected due to being broken. Bulk density measurements were made using a standard volume displacement method on oven dried, coated (spray lacquer finish) pieces of drill core.

**Table 11-1: Assay, Density and Metallurgical Laboratories**

Company	Year	Lab Name and Location	Accreditation	Testwork Performed
Eureka Corporation	1950's - 1960's	Union Assay Office, Inc, Salt Lake City, UT	Unknown	Au, Ag, Pb assays
Amoco	1980-1981	Unknown	Unknown	Precious and base metal assays
Sharon Steel	1980's, 1991	Sharon Steel Corporation Mining Division	Unknown	Precious and base metal assays
Hecla	1960, 1969	Union Assay Office, Inc, Salt Lake City, UT Skyline Labs, Wheatridge, CO	Unknown	Union Assay: Au, Ag, Pb, Zn (no analysis information) Skyline labs: multi-element
Homestake	1992-1993	Barringer Laboratories, Reno, Nevada Legend Assay Laboratory, Reno, NV Bondar Clegg, Sparks, NV (acquired by ALS Chemex, 2001)	Unknown	Barringer: Au-FA/AA, Path 7 (Ag, As, Cu, Hg, Pb, Sb, Zn) Legend: Au-FA/AA, 1AT Bondar Clegg: Au-FA/AA, Ag, As, Cu, Hg, Pb, Sb, and Zn
	1994-2001	ALS Global (previously ALS Chemex Labs), Reno, NV Bondar Clegg, Vancouver, BC (acquired by ALS Chemex, 2001)	ALS Global - ISO Guide 25 moving to adopt ISO 9002 Bondar Clegg moving to adopt ISO Guide 25	ALS Global: Au-FA/AA, Ag, As, Cu, Hg, Pb, Sb, Zn, and CN-Au Bondar Clegg: Au-FA/AA, 35 multi-element suite, Hg
Barrick	2003-2015	ALS Global, Reno, Nevada BSI Inspectorate, Reno, NV Kappes, Cassiday & Associates (KCA), Reno, NV McClelland (MLI), Reno, NV G&T Metallurgical Services, Kamloops, BC Bald Mountain Mine Site, NV	ALS Global - ISO 9001:2000; ISO 17025:2000 BSI Inspectorate - ISO 9001:2000 certified KCA was working towards ISO 9002 at the time	ALS Global: gold assays, multi-element geochemistry, density determinations BSI Inspectorate: Au check assays KCA: metallurgical testwork, Au assays MLI, G&T and Bald Mountain: density determinations
RHMC	2017	ALS Global	ALS Global - ISO 9001:2000; ISO 17025:2000	Density determinations

**Table 11-2: Barrick Rock Type Density Values**

Unit	Density (cu. ft/st)
Alluvium	14.5
Limestone (Goodwin Formation)	13.5
Intrusive (Graveyard Flats)	13.5
Volcanic Tuff/Rhyolite Flow	13.5
Fill Material	18.2

In 2007 and 2008 ALS Global conducted bulk density determinations on 38 samples from 10 core holes located in East Archimedes. Bulk density determinations were conducted using the OA-GRA09A method utilizing the following equation:

$$\text{Bulk Density} = A/C - [(B-A)/D_{\text{wax}}]$$

A = weight of sample; B = weight of waxed sample in air; C = volume of displaced water;  $D_{\text{wax}}$  = density of wax.

Between 2009 and 2015, Barrick conducted an additional 878 bulk density determinations from 71 holes located in the East Archimedes and Mineral Point deposit areas. Determinations were conducted by Barrick's Bald Mountain mine site laboratory. The density determination method is unknown.

#### 11.3.1.2 RHMC

RHMC collected samples representative of the different lithological, alteration and redox units for density determination. Twenty-two samples were collected from nine core holes collared in the Mineral Point area and submitted to ALS Global for analysis. Samples ranged from 0.25 to 0.60 ft in length. Bulk density determinations were conducted using the OA-GRA09A method using the following equation:

$$\text{Bulk Density} = A/C - [(B-A)/D_{\text{wax}}]$$

A = weight of sample; B = weight of waxed sample in air; C = volume of displaced water;  $D_{\text{wax}}$  = density of wax

### 11.4 Sample Preparation and Analysis

Sample preparation and analysis procedures for the Barrick and Homestake drilling are reasonably well documented and have been confirmed by reviewing assay certificates from these programs. Details of the sample preparation and assay procedures follow.

Details about sample preparation and analysis procedures for samples analyzed prior to the Homestake campaigns beginning in 1992 are not well documented.

#### 11.4.1 Barrick

Exploration RC and core sample preparation and gold assaying were conducted by ALS Global. Sample preparation procedures included:

- Samples were dried and weighed
- Samples were crushed and screened to minus 2 mm
- Samples were split to 500 g then pulverized to minus 75  $\mu\text{m}$  (-200 mesh)
- A 30 g pulp (one assay ton) was split for assay
- Pulp excess and coarse rejects were retained and stored.

All samples were assayed using standard 30 g charge, FA digest with AA. Samples with greater than 0.10 oz/st Au were rerun by FA with gravimetric finish. Samples with greater than 0.010 oz/st Au were assayed using cyanide digestion with AA finish. This cut-off was reduced to 0.005 oz/st Au in September 2006 to provide AA assays closer to mine cut-off grades (Barringer, 2013). Table 11-3 lists ALS Global gold analytical parameters.

**Table 11-3: ALS Global Gold Analytical Parameters**

ALS Global Code	Sample Digestion	Assay/Analysis	Pulp Weight (g)	Detection Limit (g/t Au)	Upper Limit (g/t Au)
Au-AA13	Cyanide Leach	AAS	30	0.030	50
Au-AA23	Fire Assay Fusion	AAS	30	0.005	10
Au-GRA21	Fire Assay Fusion	Gravimetric	30	0.050	1,000

Mercury was analyzed using an aqua regia digestion with a cold vapor/AA finish (Hg- CV41). A 48 multi-element package (ME-MS61) included a 4-acid digest and inductively coupled plasma mass spectrometry (ICP-MS) finish. Base metal overlimits (>10,000 ppm) were rerun using an overlimit method with a 0.4 g charge, 4-acid digest and ICP finish.

#### 11.4.2 Homestake

Except for approximately 15 RC holes that were prepared at the Ruby Hill mine site assay laboratory, all drill samples from the Homestake drill programs were prepared at independent commercial laboratories including Barringer (1992-1993), Legend (1992-1993), ALS Global (1993-2001), and Bondar Clegg (1992-2001).

##### Barringer Laboratories (Barringer)

No documentation exists for the preparation procedures used for samples by Barringer. Gold content was determined using a 30 g charge with a fire assay (FA) digest and atomic absorption (AA) finish. Detection limit was 1 ppb. Samples assaying greater than 0.1 oz/st Au (3.43 g/t Au) were rerun using a gravimetric finish. A multi-element "Pathfinder" analysis package was used for Ag, As, Sb, Hg, Cu, Pb, and Zn analyses, although the analytical procedure is undocumented.

##### Legend Assay Laboratory (Legend)

No documentation exists for preparation protocols used by Legend. Gold was analyzed using a 30 g charge, FA digest and AA finish. Detection limit was 0.001 oz/st Au (0.031 g/t). Samples assaying greater than 0.1 oz/st Au (3.43 g/t Au) were rerun using a gravimetric finish.

##### ALS Global

Preparation protocols used by ALS Global included samples were crushed to 70% passing minus 2 mm, a 250 g split collected using a riffle splitter, and the split was pulverized to 85% passing -75 µm in a ring and puck mill. Gold was analyzed using a 30 g charge, FA digest and AA finish. Detection limit was 5 ppb. Samples assaying greater than 0.1 oz/st Au (3.43 g/t Au) were rerun using a gravimetric finish. Cold cyanide leach gold analyses (30 g) were also made on select samples. Ag, As, Cu, Pb, and Zn analyses were determined by nitric acid-aqua regia (AR) digest with an AA finish. Antimony analyses were determined using a hydrochloric acid-potassium chloride digestion and an AA finish. Mercury was analyzed using a nitric acid-hydrochloric acid digestion with an AA finish.

**Bondar Clegg (Bondar)**

Preparation protocols used by Bondar included samples were crushed to 75% passing minus 2 mm, a 250 g split collected, and the split was pulverized to 95% passing -150 µm. Gold was analyzed using a 30 g charge, FA digest and AA finish. Detection limit was 5 ppb. Samples assaying greater than 0.1 oz/st Au (3.43 g/t Au) were rerun using a gravimetric finish. Mercury was analyzed using a cold vapor digestion with an AA finish. A six multi-element package (Ag, As, Cu, Pb, Sb, Zn) included an AR digest and AA finish. The 35 multi-element package included an AR digest with an inductively coupled plasma atomic emission spectrometry (ICP-AES) finish. Antimony analyses were determined using a hydrochloric acid-potassium chloride digestion and an AA finish.

**11.5 Quality Assurance and Quality Control (QA/QC)**

Barrick implemented a QA/QC program for its RC and diamond drill programs from 2004 to 2015 and digital results of the QA/QC program are incorporated in the digital database for the project.

Review of drillhole logs, sample submission sheets and notes on assay certificates from the Homestake drilling indicates that a QA/QC program was used for some of the sampling and assaying; however, the extent of the implementation of QA/QC and full detailed results of the program are not available in the digital database for the project.

It is not clear whether operators prior to Homestake implemented QA/QC for data quality assurance prior to 1992.

The results of the Barrick QA/QC program have been reviewed in detail by REI (2005), Waterton (EMG, 2017) and by Wood in 2020.

A description of the QA/QC programs and selected results for the Barrick and Homestake programs follows.

**11.5.1 Barrick QA/QC Program**

The Barrick QA/QC program evolved from analysis of check samples at a secondary laboratory to a more robust program including routine insertion of standard reference materials, coarse blanks, pulp duplicates and field duplicate samples with tolerances for standard reference materials and blank materials used to flag sample batches for re-assay prior to import into the digital database.

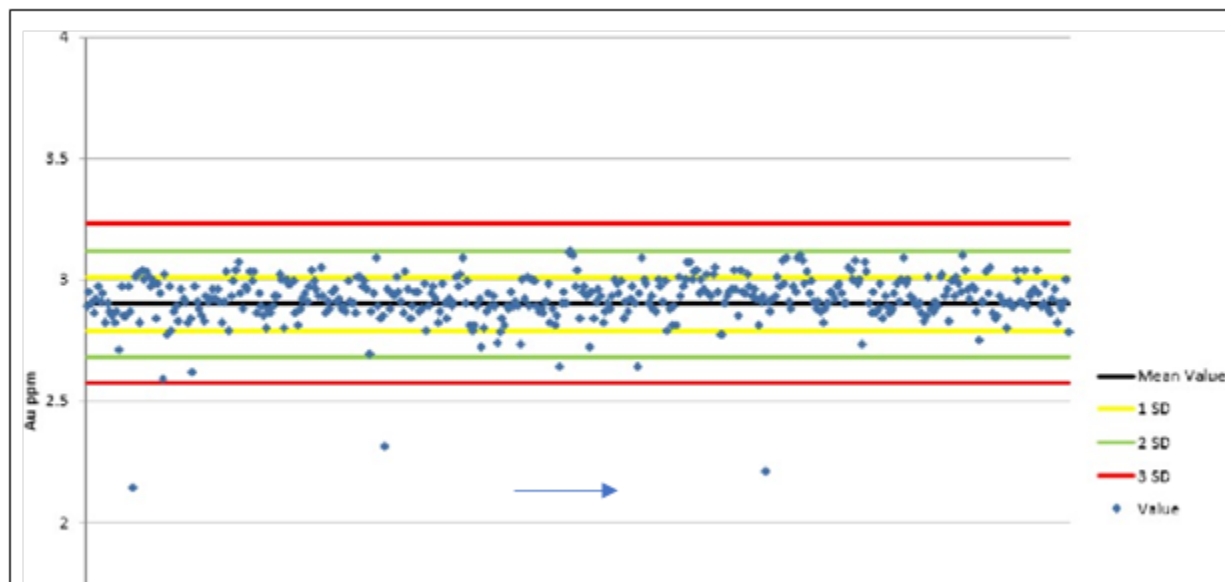
Table 11-4 shows the evolution of Barrick's QA/QC program with the number of control samples of different types shown for each year, and the number of original sample assays analyzed per year. ALS Global also started re-assaying lab pulp duplicates in 2012.

**Table 11-4: Count and Description of QA/QC Samples by Year**

Year	No. of Standards/Blanks	No. of Field Duplicates	No. of Duplicates	No. of Lab Pulp Duplicates	No. of QA/QC samples	No. of Assays	Percentage of Assays
2004	58	0	0	0	58	576	10.00
2005	201	0	15	0	216	1,980	10.90
2006	182	23	53	0	258	4,007	6.40
2007	165	2	16	0	183	4,877	3.80
2008	236	41	119	0	396	4,464	8.90
2009	755	197	401	0	1,353	14,408	9.40
2010	1,699	438	960	0	3,097	32,227	9.60
2011	1,220	295	679	0	2,194	22,639	9.70
2012	1,248	317	696	877	3,138	23,945	13.10
2013	506	117	225	363	1,211	8,309	14.60
2015	271	77	152	135	635	2,823	22.50
UNKN	21	0	0	0	21	1,900	1.10
<b>Total</b>	<b>6,562</b>	<b>1,506</b>	<b>3,316</b>	<b>1,375</b>	<b>12,760</b>	<b>122,155</b>	<b>Average: 10.8</b>

Barrick inserted 3,445 standards of 25 different types with best values ranging between 0.214 g/t Au and 8.367 g/t Au between 2004 and 2015. Standards included commercially prepared oxide gold reference from OREAS and Rocklabs and internal oxide gold standards developed by Barrick. All standards were inserted under the guidance of the project geologist.

Barrick's QA/QC guidelines stated that during the program re-runs were to be requested when the result exceeded  $\pm 3$  standard deviations (3SD) of the expected value. Failed standards within non-mineralized intervals were reviewed and re-assayed at the discretion of the project geologist. A total of 99 samples (3%) were flagged as failed from 3,445 SRM samples. The weighted average bias of all standards is 1.15% and the biases of OREAS 54PA and BCH-OX-01, BCHOX-02 and BCH-03 standards which were the most commonly inserted standards range from 0.7% to 3.2%. Figure 11-1 presents the results of SRM OREAS 54PA which is one of the most commonly analyzed SRM. Eighty-six percent of samples were within 2 standard deviations (2SD), and 96% within 3SD of the expected value (Table 11-5).


**Figure 11-1: Control Chart for Standard OREAS 54PA**

(Source: Wood, 2021)



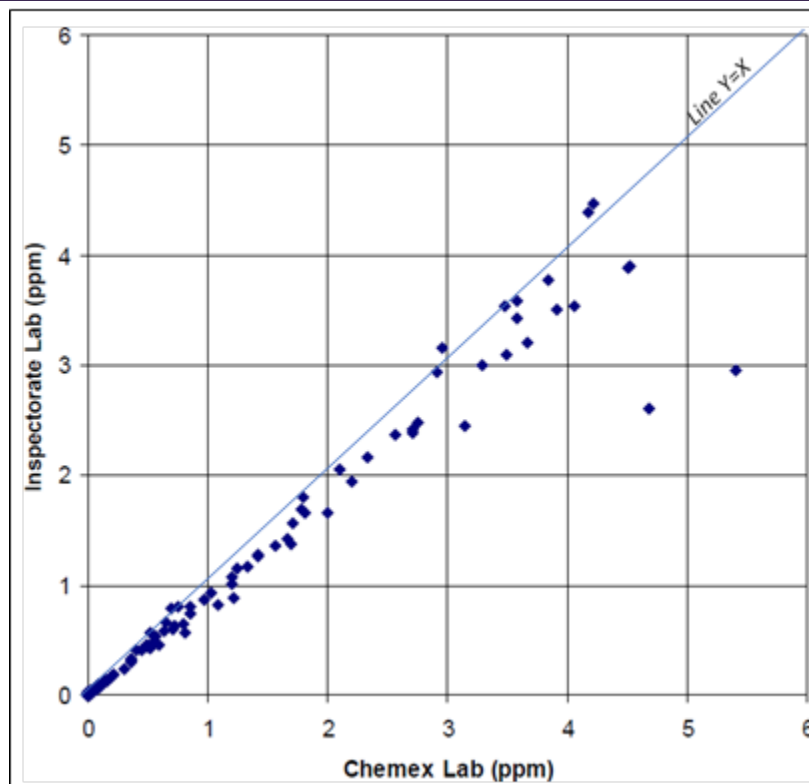
Table 11-5: SRM Performance

Standard ID	Sample Count	Au Grade	% Within 2SD	% Within 3SD	Bias (%)	Relative Standard Deviation (%)
BCH-OX-01	338	0.214	91	97	1.10	5.30
BCH-OX-02	203	0.338	77	93	3.20	4.00
BCH-OX-03	541	2.260	85	98	3.20	4.40
BCH-OX-04	204	6.450	96	100	-0.30	2.30
BCH-OX-06	108	0.283	96	99	2.00	4.20
OREAS 2PD	201	0.885	95	100	-1.70	3.00
OREAS 50PB	29	0.841	83	90	0.70	6.00
OREAS 52c	190	0.346	99	99	3.60	6.20
OREAS 52PB	199	0.307	93	99	4.60	3.90
OREAS 53PB	41	0.623	90	95	0.00	5.70
OREAS 54PA	429	2.900	98	99	0.70	3.40
OREAS 6PC	158	1.520	99	100	0.50	3.10
OxD57	61	0.413	95	98	-0.80	3.00
OxG38	86	1.031	94	99	-0.30	4.00
OxH29	33	1.298	73	88	-1.80	5.10
OxH52	37	1.291	89	95	-1.10	3.70
OxH55	124	1.282	92	96	1.50	3.60
OxI23	81	1.844	78	91	-1.20	4.50
OxK48	31	3.557	58	87	-1.10	3.30
SF12	78	0.819	88	91	-4.60	11.70
SG14	71	0.989	96	100	0.90	3.70
SJ10	36	2.643	72	97	-2.30	3.30
SK11	51	4.823	82	92	-1.20	3.50
SK21	77	4.048	70	94	-0.20	3.90
SN16	38	8.367	53	76	-2.40	6.70
Total	3,445		86	96		4.50

A total of 3,116 blanks were inserted in the sample stream by Barrick with 51 samples (or 1.6%) plotting above the 0.025 g/t Au. Material used for blank samples was sourced from the Devonian Devils Gate Limestone.

Ninety-eight sample pulps, representing approximately 4% of existing sample pulps from drilling at East Archimedes by Barrick were sent to BSI-Inspectorate Laboratory in Reno, Nevada for check assays. Original assays were performed by ALS Global. Six certified standard samples from OREAS of Australia were also randomly introduced with the pulps. Original ALS Global assays indicated approximately 70% of the 98 pulps consisted of mineralized material, the remainder was classified as waste.

Results from the BSI-Inspectorate check assays have a mean grade slightly lower than the ALS results for the same samples and the relative bias increases slightly with increasing grade (REI, 2005) (Figure 11-2). This relative bias confirms the small positive bias of approximately 1-3% evident in the analyses of the SRM materials analyzed at ALS.

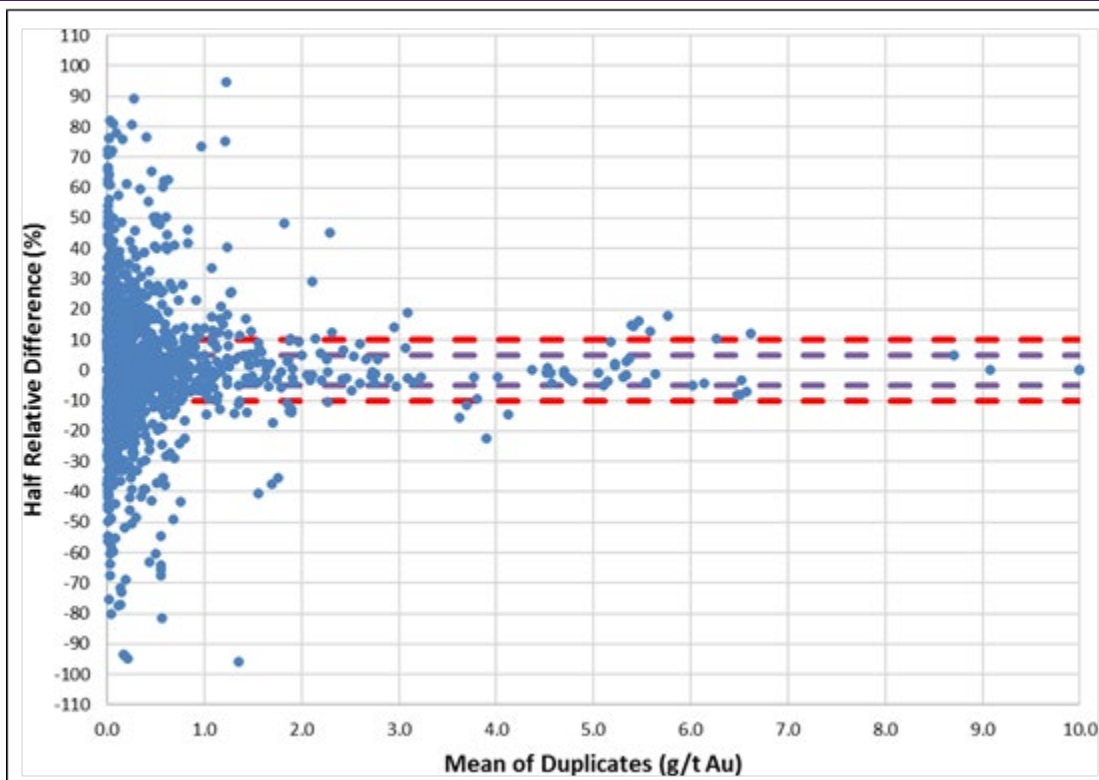


**Figure 11-2: ALS Global (Chemex) Pulps Checked at Inspectorate**

(Source: Newman and Mahoney, 2008)

Field duplicates were added to the QA/QC protocol as part of the 1 in 300 QA/QC samples. For core duplicates the other half of core was taken and analyzed. For RC duplicates, a secondary sample was taken at the splitter on the drill rig. Barrick used a sample ID that was consecutive to the original sample to identify the duplicate sample.

A total of 1,037 field duplicates (230 core and 807 RC) with mean values greater than 0.1 g/t Au were analyzed and 73.4% of the samples plot within  $\pm 15\%$  of half the relative difference (Figure 11-3).

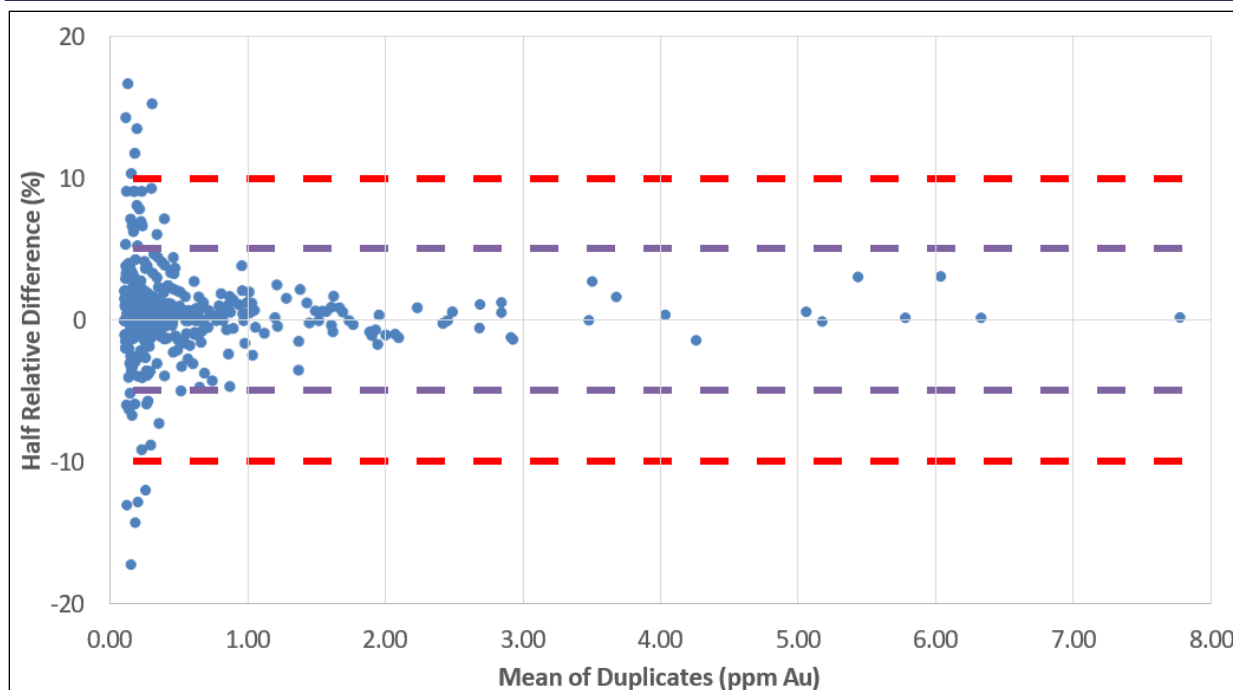


**Figure 11-3: Mean Versus Half Relative Difference for Field Duplicates**

(Source: RHMC, 2017)

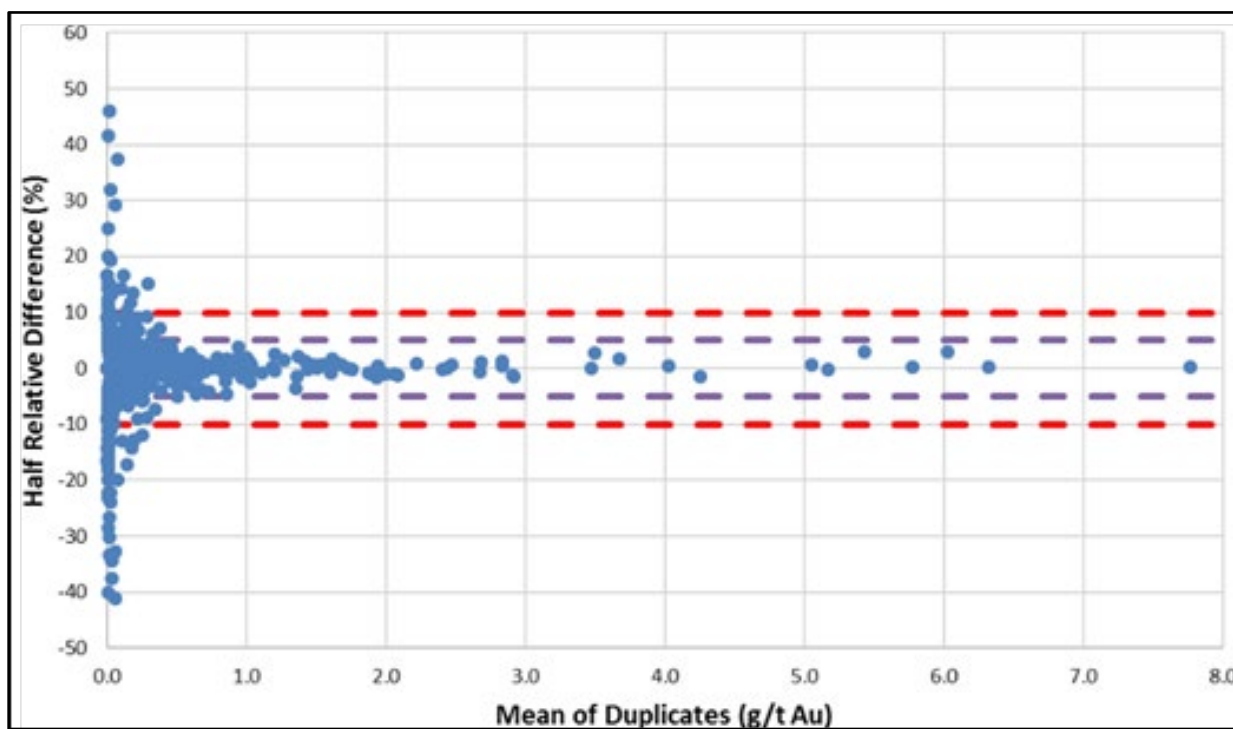
A plot of lab pulp duplicate samples on a scatter graph (Figure 11-4) indicates good repeatability for the pulp duplicates with 90% plotting within 5% half the relative difference of the original analysis. All samples were assayed by ALS Global between 2012 and 2015.

Pulp duplicates plotted on mean versus half relative difference graphs indicates over 90% of samples plot within 10% of half the relative difference (Figure 11-5). All values greater than 10% of half the relative distance are very low grade (<0.06 g/t).



**Figure 11-4: Scatter Plot of all Lab Duplicates**

(Source: RHMC, 2017)



**Figure 11-5: Mean Versus Half Relative Difference for Pulp Duplicates**

(Source: RHMC, 2017)

## 11.6 Historical Databases

In early 2004 Barrick prepared the Ruby Hill drill hole database for use in resource modeling efforts. A systematic program was instituted to combine the various disparate databases into an accurate database. The program produced an accurate Ruby Hill drill hole database stored in Microsoft® Access.

More recent Barrick RC and core logging was performed by a company geologist using a logging template. All geologic, structural, geotechnical, metallurgical, and density measurements, taken at 50 ft intervals, were recorded on the template and entered into an acQuire database. It is unknown when Barrick migrated the database from Microsoft Access to acQuire. The acQuire database was maintained by the Barrick Gold Exploration Inc., office in Elko, Nevada.

In April 2016 RHMC contracted the Maxwell Geoservices of Vancouver, Canada to migrate the Ruby Hill acQuire database to Maxwell's DataShed software. Original digital assay results were directly imported, csv files were generated from pdf or paper versions of each assay lot and then imported. As of the date of this Report, information that has been loaded into DataShed includes collar, downhole survey, assay, lithological and multi-element data.

The database was maintained on the RHMC server in Reno, and nightly back-ups were made at a secure off-site location.

## 11.7 Historical Sample Security

Sample handling procedures and chain of custody for drilling prior to the 2002 closure of the Ruby Hill operation are not well documented. It is assumed samples from earlier drilling were in the custody of the drill contractor, Homestake geologists, or employees of the various laboratories that prepared and assayed the drilling samples. In 2005 REI (2005) notes that examination of remaining historical core was in good order in core boxes with drill run blocks in place and sample intervals clearly marked and was of the opinion that drill core in general was probably well handled, transported, and stored during the course of drilling.

The security procedures and chain of custody employed for drill samples is poorly documented. Newman and Mahoney (2008) report that no officer or employee of the company prepared drill samples, except that core samples were split by a company employee before sending to the assay lab, and a minor number of holes (14) were prepared and assayed at the company's internal lab. RC drill cutting samples were picked up from the drill rig by the assay lab's courier service. Core samples were first split in half by company staff, one half was archived, and the other half picked up by the lab courier service. Laboratory chain of custody was typical to commercial labs in Nevada at the time of activity according to Newman and Mahoney (2008).

All remaining pulps were securely stored in locked shipping containers on site. Remaining core is also stacked on pallets and stored on site with more than half of the core covered. Numerous uncovered core boxes have been partially to completely destroyed due to weathering.

## 11.8 Comments on Historic Ruby Hill Data

The Ruby Hill Mineral Resource dataset has been acquired over many years during which time best practice for drilling, sampling, assaying, sample and data security practices have evolved significantly. The data acquired by Barrick from 2003 to 2015 has been acquired from RC and diamond drill core holes using industry standard practices for surveying, logging, sampling, sample preparation, assaying and assay QA/QC. Review of QC data indicates that the accuracy, sampling and analytical precision and reproducibility of the Barrick assaying for gold and silver is of good standard. Database compilation efforts by Barrick beginning in 2004, and by RHMC in 2016 included direct import of digital files wherever possible to limit the possibility of data transcription issues. The Barrick data has been used to provide data quality



assurance for the Homestake data and data acquired by operators before Homestake and is discussed in Section 9 on data verification.

## **11.9 i-80 Sample Preparation, Laboratory Analysis, Security, and Quality Control Procedures**

### **11.9.1 i-80 Sample Preparation Procedures**

RC samples were collected on 5-foot intervals using an adjustable cyclone splitter. The target weight for each interval was approximately 8 kg of sample caught directly in a sample bag placed below the splitter. Each sample was tied and placed in a sample bin. Sample bins were transported from the drill site to the core yard area by an i-80 employee and then from there samples were picked up by either ALS Minerals, American Assay Laboratories, or Paragon Geochemical.

Core samples were cut by i-80 technicians using core saws at i-80's core processing facility at Lone Tree. Technicians prepare sample bags for the sample intervals specified in the logging geologist's cut sheet. Core sample intervals may range from one foot to ten feet. The technician cuts the core in half, places one half into the sample bag and returns one half to the core box. When the entire sample interval is split, the technician ties the bag and places it into a sample bin. When splitting is complete for the hole, the sample bin is picked up by a driver for ALS Minerals, American Assay Laboratories, or Paragon Geochemical and delivered to the respective lab.

#### **11.9.1.1 i-80 Laboratory Analysis Procedures**

Both Core and RC samples were submitted to either ALS Minerals, American Assay Laboratories, or Paragon Geochemical, all located in Sparks, Nevada. All labs are independent of i-80. Paragon is certified under ISO/IEC 17025:2017. ALS Minerals and American Assay Laboratories are ISO 9001 and 17025:2017 certified. Samples were dried, weighed, screened, crushed to 70% passing 10 mesh, split to 250g with a riffle splitter, then pulverized to 85% passing 200 mesh. Samples submitted through Paragon Geochemical were analysed with a 50 element suite (code 50AR-MS) using 0.5g aqua regia digestion with ICP-MS finish. Samples submitted through ALS Minerals (4977 Energy Way, Reno, NV 89502 or 1345 Water St. Elko, NV 89801) were analysed with a 35 element suite (code ME-ICP41) using 0.5g 4-acid digestion with ICP-AES finish. The ALS ICP-AES facility is located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. Samples submitted through American Assay Laboratories (1506 Glendale Ave, Sparks, NV 89431) were only analysed for gold with pulps sent to ALS Minerals for multi-element analysis. Each sample sent to Paragon Geochemical (1555 Industrial Way, Sparks, NV 89431) was analysed for Au using 30g fire assay, aqua regia digestion with AAS finish (code Au-AA30) with detection range 0.005 to 5 ppm Au. Samples with Au result greater than 5 ppm Au were analysed using 30g fire assay with gravimetric finish (code Au-GR30), detection range 0.14 to 10,000 ppm Au. Each sample sent to ALS Minerals was analysed for Au using 30g fire assay, aqua regia digestion with AAS finish (code Au-AA23), with detection range 0.005 to 10 ppm Au. Samples with Au result greater than 10 ppm Au were analysed using 30g fire assay with gravimetric finish (code Au-GRAV21), detection range 0.05 to 10,000 ppm Au. Each sample sent to American Assay Laboratories was analysed for Au using 30g fire assay, aqua regia digestion with AAS finish (code FA-PB30-ICP), with detection range 0.003 to 10 ppm Au. Samples with Au result greater than 10 ppm Au were analysed using 30g fire assay with gravimetric finish (code GRAVAu30), detection range 0.103 to 10,000 ppm Au.

#### **11.9.1.2 i-80 Security**

Core is transported from the drill to the Ruby Hill core shed, a rented facility near Ruby Hill which is fenced and locked. It is stored in the core yard until it can be logged. Once logging is complete, core is transported to Lone Tree by i-80 personnel for splitting. Lone Tree is fenced and access is controlled with ID key cards. Once splitting is complete, lab drivers pick up the samples, maintaining chain of custody.

RC samples are stored at the drill site under supervision of the drillers until the hole is complete. It is then transported to the Ruby Hill core yard and stored for a short time until it can be picked up by the lab driver, maintaining chain of custody.

Split core retained in the original box is stored at the Lone Tree core yard. Pulps are initially returned to the Lone Tree lab for check analysis before being stored at Lone Tree.

### **11.9.1.3 i-80 QA/QC**

Several standards with various characteristics (high, medium and low grade, oxide and refractory) are in use at Ruby Hill. The provenance of most of the standard material is Carlin type deposits. Standards are inserted at a rate of approximately 5% with the goal of matching the standard grade to the nearby grade of the rock. Blanks are inserted at a rate of approximately 5%. Duplicates are made at approximately 5% (2.5% sample duplicates generated during the core splitting phase or at the drill rig with a Y-splitter in the case of RC samples, 2.5% prep dups generated after the pulverizing phase of sample prep by the assay laboratory.) QAQC is inserted at the discretion of the geologist performing the logging on core material. QAQC for RC samples is pre-determined by the sample sheet which is made prior to drilling the hole.

i-80 uses crushed marble for blanks, and for standards purchases certified reference materials from OREAS, a reputable supplier of reference materials for the mining industry.

Check samples are conducted at the Lone Tree assay lab facility once pulps are returned to the site. All samples with values >1 ppm Au have a check assay performed, with a target check rate of about 10% of total sample stream.

## **11.10 i-80 Standards and Blanks**

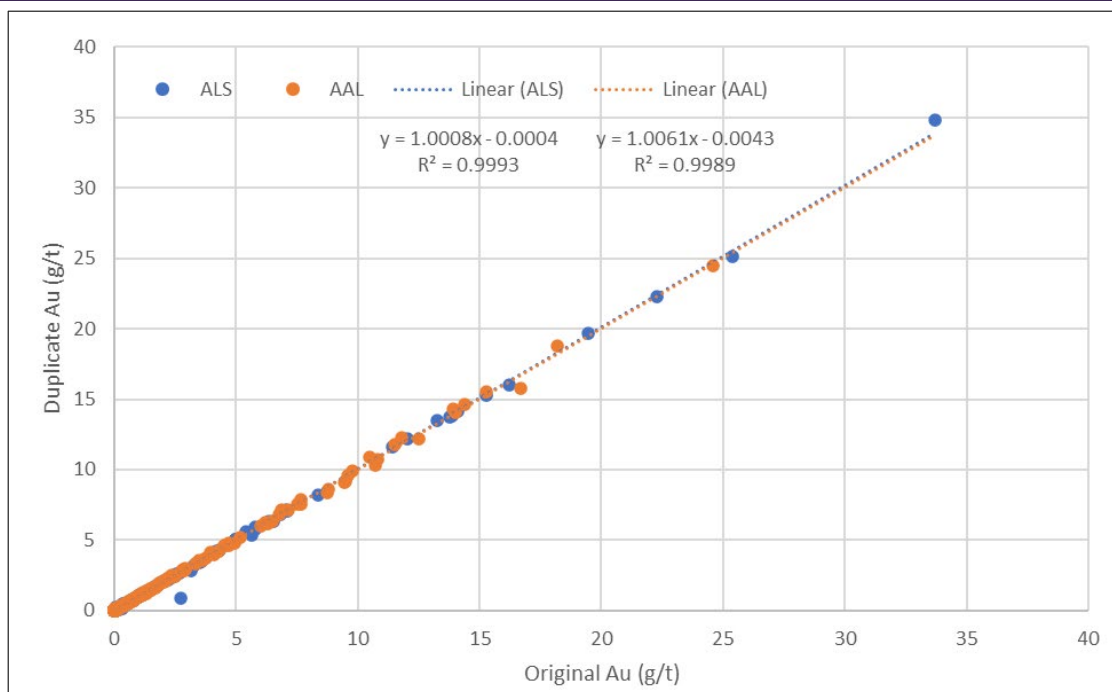
i-80 has used 40 different commercially prepared standard reference materials and blanks in its QA/QC program for the Ruby Hill drilling. The QA/QC data through Dec 31, 2022 contains a total of 3,764 gold assays. Selected results for i-80's QA/QC program are shown in Table 11-6.

**Table 11-6: Selected i-80 Blank and Standard Reference Results**

Std ID	Blank	Blank Marble Chip	CDN-GS- 1Z	G919-10	KIP-19	OREAS- 273	OREAS- 277
Count	192	876	99	119	124	330	208
Mean	0.017	0.006	1.152	7.542	2.489	9.925	3.356
Standard Dev	0.147	0.026	0.058	0.366	0.313	1.629	1.109
Min	0.002	0.002	0.950	5.900	2.040	0.306	0.009
Q25	0.003	0.003	1.120	7.510	2.420	10.000	3.350
Median	0.003	0.003	1.160	7.600	2.460	10.000	3.420
Q75	0.005	0.005	1.190	7.695	2.490	10.700	3.480
Max	2.031	0.611	1.250	8.020	4.930	13.000	10.800
No Rejected	2	0	0	0	0	38	20
% Pass	99%	100%	100%	100%	100%	88%	90%

## **11.11 i-80 Duplicate Assays**

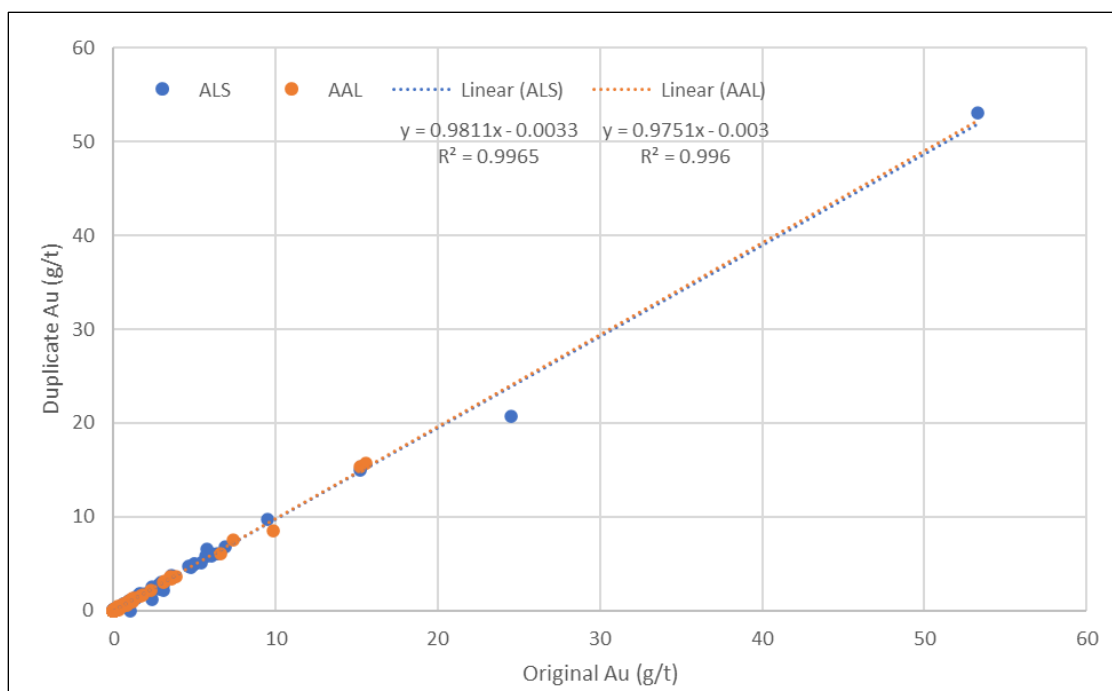
The database contains 2,145 lab duplicates. ALS assayed 878 and AAL 1,267. The results from both labs are displayed in Figure 11-6. Both labs performed well with regression line slopes of unity and correlation coefficients of 0.999.



**Figure 11-6: i-80 Lab Duplicates**

(Source: Practical Mining, 2023)

The database contains 596 prep duplicates. ALS assayed 392 and AAL 244. The results from both labs are displayed in Figure 11-7. Both labs performed well with regression line slopes of unity and correlation coefficients of 0.996.



**Figure 11-7: i-80 Prep Duplicates**

(Source: Practical Mining, 2023)

**11.12 QP Opinion**

It is the opinion of the QP that sample preparation, security, and analytical procedures meet industry standard practices.

## 12. DATA VERIFICATION

### 12.1 Historical Data Review

A detailed summary of drill hole data analysis undertaken historically at Ruby Hill is provided by Wood in their Technical Report dated 2021. Property tenure has varied over the years, and data analysis has been performed on correspondingly varying data sets, generally covering areas beyond the focus of the current analysis. In summary, Barrick validated 18 holes in support of its East Archimedes Project feasibility study in 2004 (Newman and Mahoney, 2008). In 2005, REI performed an audit of the East Archimedes Project and compared assay values in the estimation database with laboratory certificates for 12 drillholes. They concluded the assay database was valid for Mineral Resource estimation. In 2011, Barrick updated their Ruby Hill block model to include new drilling from the 426 and Mineral Point areas. The database was checked for overlapping and missing intervals and for excessive azimuth and inclination deviations. Errors in the lithology table (typos and inconsistent naming conventions) were identified and corrected. Barrick deemed the database to be in good condition (Barrick, 2013). In 2016, RHMC performed a detailed data review after migrating the data from acQuire to Datashed. Multiple errors and inconsistencies were identified and corrected.

Very few core twins of RC holes have been drilled on the larger Ruby Hill property. Homestake drilled four twins in the Mineral Point area, and Barrick twinned two holes in the Mineral Point area. Homestake concluded two of its four RC holes were contaminated, while Barrick attributed grade differences to lithology and structural characteristics of the rocks. RHMC agreed with Barrick's analysis. RHMC also performed statistical analysis of drilling by type and operator (Barrick vs Homestake and RC vs Core) and noted differences in grade but also found that holes of differing type within proximity of each other (200 feet) compare reasonably well, indicating reproducible assay by type and company (Wood, 2021).

### 12.2 Wood Data Verification 2021

Wood completed detailed data verification for their 2021 Mineral Resource Estimate covering the Mineral Point Trend and Archimedes area deposits. Wood analyzed downhole contamination using Quantile-Quantile plots to compare the grade distributions of the core samples and the RC samples. Raw results indicated a slight high bias in the core. The bias was nearly eliminated when filtered to data within the mineralized domains.

Wood checked the digital database against original hardcopy records by selecting 100 holes for collar and assay data audits and 50 holes for downhole survey and lithology audits. The audit focused on holes drilled by Barrick because hardcopy records for Homestake holes tend to be incomplete. Wood observed no discrepancies in the assay data. Original collar data was not available for some holes, but locations correspond well with topography; Wood recommended attempting to recover lost survey reports. Downhole surveys were deemed reasonable. Geology corresponded well with paper logs. Homestake data was supported by comparing Homestake holes with nearby Barrick holes, which demonstrated grade and thickness compare well between drilling campaigns.

Gold grades were also analyzed visually, and Wood identified four holes with mineralized intercepts that do not correlate well with adjacent data. Those four intervals were excluded from the Mineral Resource estimation. Wood concluded the database was suitable for use in the Mineral Resource Estimate.

### 12.3 Practical Mining Data Verification 2023

In 2023, Practical Mining updated the resource estimate in the Ruby Deep and 426 areas to include new drilling. 102 drillholes were flagged for use in the estimate, and 15 holes (representing about 15% of the data set) were chosen for detailed review. The holes selected for review were chosen to represent the area



of interest in an even spatial distribution as well as represent different operators over time (i-80, Barrick and Homestake.) Table 12-1 summarizes holes drilled in the 426 and Ruby Deeps zones by type and operator.

**Table 12-1: Drill Holes in 426 and Ruby Deeps Zones**

Company	Core	RC	Validated
i-80	31		4 core
Barrick	34	18	2 core, 2 RC
Homestake	12	7	5 core, 2 RC
<b>Totals</b>	<b>77</b>	<b>25</b>	<b>15</b>

Practical Mining requested original hardcopy data records for the selected holes including collar location surveys, downhole deviation surveys, geology logs, and assay certificates. Collar survey records were available for only four holes, two drilled by Barrick and two drilled by Homestake. Another Barrick hole, BRH2C, was located a significant distance from the planned location recorded on the geology log. i-80 geologists were subsequently able to recover survey data confirming the location of BRH2C. Practical Mining recommends continuing to recover missing survey records, as well as systematically archiving data in digital and hard copy formats as new holes are drilled. Practical Mining viewed holes in Vulcan to confirm collars coincide with topography. Hole HC1399 lies about 32.5 feet above the original topography, but it is located in the topsoil stockpile area and was apparently drilled during construction of the stockpile.

All holes used in the estimation have downhole deviation surveys, although some hard copy records were not archived. Downhole survey records were available for all of the selected i-80 and Barrick holes, and three of the Homestake holes. All of the selected records match the database, except the most recently drilled i-80 hole, iRH22-57, which had an intermediate version of the survey taken before the final 1011 feet were drilled. Updating the final survey will affect the location of a mineralized interval in the Ruby Deeps zone, but should not have a significant effect on the mineral estimation due to its location within the modeled zone and the small magnitude of the change relative to wide drillhole spacing. All hole traces were viewed in Vulcan and no excessive deviation was noted.

Geology logs were available for all requested holes. Logs match the database quite well. Two Homestake holes had logs digitized for the core tail but not the RC pre-collars, and one Homestake hole had not been entered in the digital database at all. Practical Mining recommends digitizing the data for consistency and to make the database more comprehensive, although it is unlikely to have an effect on the geology model since drill spacing is close and the geology data is interpolated between adjacent holes. Practical Mining viewed all drillhole traces coded by lithology in Vulcan and observed that the drill data coincides very well with i-80's lithological and structural models.

Assay certificates were unavailable for one requested Barrick hole and two Homestake holes. Certificates for 12 holes were compared with the database and only one mismatch was identified, a minor error where the preliminary value was exported instead of the final value. Practical Mining viewed all drillhole traces coded by assay grades in Vulcan and noted that grade and thickness correlate well between adjacent holes and along geological contacts. Table 12-2 summarizes the number of holes reviewed per data field.

**Table 12-2: Drillhole Data Fields Reviewed**

	Collar Surveys	Downhole Surveys	Geology Logs	Assay Certificates
Holes Reviewed	8	11	15	12
Percent of Population	7.8%	10.8%	14.7%	11.8%

Practical Mining recommends continuing to recover collar survey records and archiving all drilling records properly. Practical Mining concludes the database is suitable for use in the Mineral Resource estimation.

**12.4 QP Opinion**

It is the QP's opinion that the data verification methods described are adequate and that any remaining errors in the database will not materially affect results.

## 13. MINERAL PROCESSING AND METALLURGICAL TESTING

### 13.1 Archimedes Underground

This section summarizes all the relevant test work performed on the Archimedes Underground project. The Archimedes Underground project encompasses several deposits and mineralization types hosting both precious and base metals. Historical production dates to 1998, primarily under Homestake Mining and Barrick Gold, with intermittent operations up to the current date. Characteristics of each deposit, historical production and metallurgical interpretation for the Archimedes Underground deposits are described in this section, based on data provided by Ruby Hill Mining LLC. Generally, metallurgical test work confirms the amenability of oxide mineralization to heap leaching for precious metals extraction. Tests on refractory samples support gold extraction via pressure oxidation.

#### 13.1.1 Refractory Testing Programs

A series of testing programs have been completed on refractory samples from 426, Blackjack and Ruby Deeps zones. These programs are summarized in Table 13-1.

**Table 13-1: Ruby Hill Project Refractory Testing Programs**

No.	Document Title	Deposit	Technical Content	Date
1	Barrick Technology Center	426 Zone	Refractory roasting, pressure oxidation, leach tests	2008
2	G&T Metallurgy	426 Zone	Refractory flotation, leach tests	2008
3	Barrick Technology Center	426 Zone	Pressure oxidation, CaTS and standard CIL leach tests	2011
4	FLSmith Minerals Testing and Research Center	426 and Ruby Deeps	Refractory pressure oxidation and roasting	2024

The laboratories used for testing have the following accreditations:

- Kappes Cassiday and Associates, no certifications listed on website.
- Barrick Technology Center, a part of Barrick Gold Inc. at the time. No certifications provided.
- G&T Metallurgy, now part of ALS Metallurgy but no known accreditations at the time programs were completed.

##### 13.1.1.1 January 2008 Barrick Technology Centre Program

This report summarizes the testing of three composites consisting of various blends of 426 Zone samples with typical Barrick Goldstrike roaster feed material. Table 13-2 shows the results. In the report, an adverse trend is noted between gold recovery and increasing arsenic concentration. In the table, BTR stands for Bench Top Roaster and BTALK for Bench Top Alkaline autoclave.

**Table 13-2: January 2008 426 Zone Barrick Technology Centre Test Results Summary**

Sample	Head Grade(opt)		Leach Extraction (Au %)		
	Au	As	BTR	BTALK	Pilot Plant
BGMI Roaster Feed Baseline - Pilot Plant	0.252	861			87.0
BGMI Roaster Feed Baseline - BTR	0.262	868	89.6		
RH 426 Composite 1 - Pilot Plant	<b>0.350</b>	9,808			51.0
RH 426 Composite 1 – BTR & BTalk	0.368	10,211	81.9	90.1	
RH 426 Composite 2	0.174	2,194	85.3	91.0	
RH 426 Composite 3	0.125	1,208	88.1	89.6	
RH 426 Composite 2&3 (1:1 blend)	0.156	1,787			86.1
RH 426 Composite 2&3 (1:1 blend)	0.152	1,787	83.5	91.3	
Blend 3.6% Comp. 1 Baseline	0.260	993			87.3
Blend 10% Comp. 1 in Baseline	0.253	1,751			82.9
Blend 20% Comp. 1 in Baseline	0.261	1,735			80.6

### 13.1.1.2 February 2008 Barrick Technology Centre Program

The report summarizes a program that investigated recovery of arsenic to a pre-flotation concentrate, while minimizing gold losses. Up to 80% of the arsenic was recovered in the pre-flotation concentrate, with gold losses of approximately 5.0%, with a concentrate mass recovery of 2.7%. This was achieved in a single-stage cleaning step using strongly alkaline conditions. Subsequent gold recovery to a sulfide concentrate was only 66%, with a mass recovery of 32%. Low selectivity and high mass concentrate mass recovery indicated poor gold liberation.

### 13.1.1.3 December 2008 G&T Metallurgical Services Program

The test program was developed to investigate the potential for producing a pre-flotation concentrate with high arsenic and low gold recoveries to this stream. Arsenic occurs mainly as realgar in the 426 Zone samples.

The test flowsheet included, after the arsenic pre-float, a bulk sulfide rougher flotation step. The objective was to recover the sulfide mineralization and gold into a flotation concentrate that could then be further processed to recover the gold.

Gold extraction from the whole ore and flotation product streams was also investigated using cyanidation bottle roll techniques.

Rougher flotation tests failed to produce greater than 50% As recovery into a pre-float concentrate. A single test with an arsenic feed content of 2.4%, achieved about 82% As recovery to the pre-float concentrate.

Gold recovery, to a bulk sulfide rougher concentrate, carried out on the pre-flotation tailing was also limited to about 50%. To achieve this result, about 30 percent of the feed mass needs to be recovered to the bulk sulfide rougher concentrate.

Cyanidation bottle roll tests were carried out on whole ore and flotation products from one sample. Under a variety of test conditions, the best 48 hour gold extraction from any stream was about 30%.

### 13.1.1.4 November 2011 Barrick Technology Centre Program

Sixteen refractory and two oxide samples from the 426 Zone were tested at The Barrick Technology Centre. For the refractory samples, CIL recoveries following alkaline pressure oxidation gave recoveries ranging from 77% to 93%, with an average recovery of 88%. Direct CIL tests on the two oxide samples gave recoveries between 92% and 96%, averaging 94%. The sulfide sulfur (S<sup>2-</sup>) content of these oxide samples was <0.05%. Table 13-3 shows results of BTALK tests followed by both Calcium Thiosulfate (CaTS) leaching and standard cyanide CIL leaching. On average, CaTS leaching produced comparable recoveries to standard CIL.

**Table 13-3: November 2011 426 Zone Barrick Technology Centre Test Results Summary**

Sample	Head Grade					Recovery (Au %)	
	Au (opt)	CO <sub>3</sub> (%)	C <sub>ORG</sub> (%)	S <sup>2-</sup> (%)	As (%)	CaTS	CIL
Average	0.158	26.51	0.05	1.59	0.39	87.61	88.02
Maximum	0.533	45.40	0.09	3.06	2.58	94.20	93.10
Minimum	0.026	1.50	0.02	0.40	0.03	70.90	76.50

### 13.1.1.5 2024 FLS Program

This program included thirteen samples (five from 426 Zone and eight from Ruby Deeps) for metallurgical testing included cyanide leach shake/Preg Rob testing, pressure oxidation by benchtop autoclave, calcination by benchtop roast testing, cyanidation testing of POx and roaster calcines, and benchtop flotation scoping along with mineralogical testing. The samples and major assays are shown in Table 13-4.

**Table 13-4: 2024 FLSmidth Program Assays Summary**

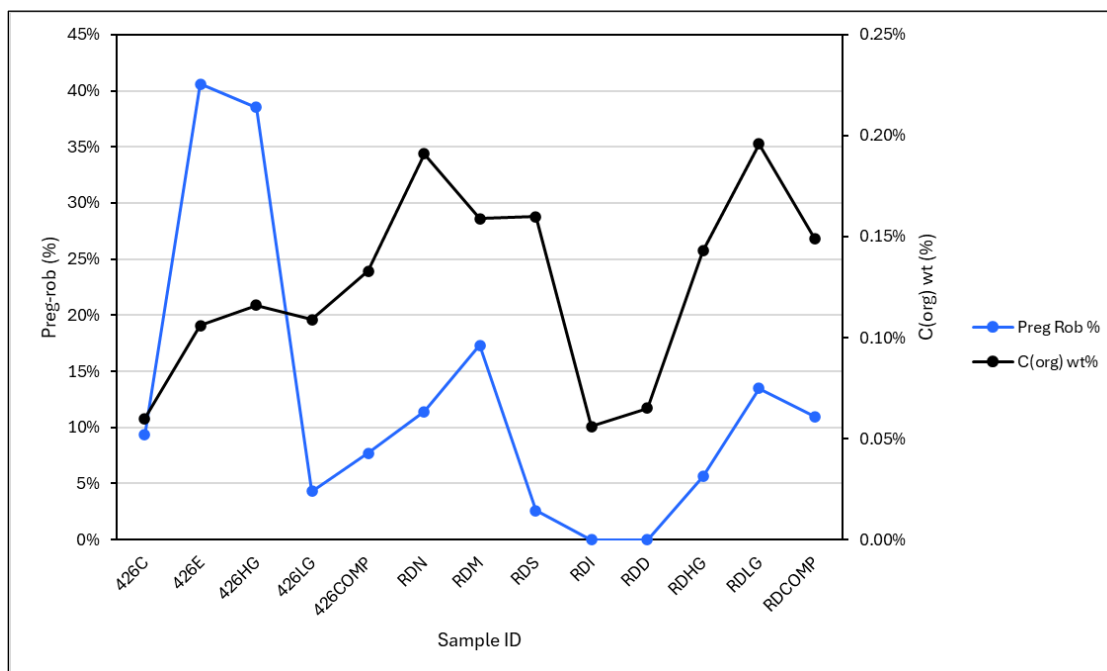
Sample Description	Assays									
	Au (opt)	Ag (opt)	S <sub>TOT</sub> (%)	S <sup>=</sup> (%)	SO <sub>4</sub> (%)	S <sup>o</sup> (%)	C <sub>TOT</sub> (%)	C <sub>ORG</sub> (%)	As (%)	Hg (ppm)
426 Zone Central Sample	0.185	0.065	0.87	0.51	0.35	0.00	0.06	5.61	1.20	57.19
426 Zone East Sample	0.277	0.063	2.49	2.13	0.35	0.02	0.11	1.47	0.63	43.88
426 Zone High Grade Sample	0.653	0.129	4.01	3.42	0.57	0.02	0.12	3.26	4.77	91.75
426 Zone Low Grade Sample	0.159	0.056	2.43	2.15	0.28	0.00	0.11	2.70	0.27	27.65
426 Zone Composite Sample	0.312	0.119	2.95	2.54	0.39	0.02	0.13	3.20	0.70	56.52
Ruby Deeps North Sample	0.304	0.137	1.42	1.19	0.23	0.00	0.19	3.37	0.11	9.05
Ruby Deeps Mid Sample	0.212	0.160	1.79	1.40	0.39	0.00	0.16	1.43	0.25	9.99
Ruby Deeps South Sample	0.239	0.115	2.03	1.53	0.50	0.00	0.16	0.47	0.29	36.48
Ruby Deeps Intrusive Sample	0.248	0.131	3.51	3.32	0.19	0.00	0.06	1.65	0.66	17.04
Ruby Deeps Dunderberg Shale Sample	0.318	0.101	4.02	3.71	0.31	0.00	0.07	1.36	1.08	17.52
Ruby Deeps High Grade Sample	0.524	0.131	2.86	2.13	0.73	0.00	0.14	1.87	1.20	24.40
Ruby Deeps Low Grade Sample	0.169	0.133	2.25	1.54	0.68	0.03	0.20	1.93	1.25	16.08
Ruby Deeps Composite Sample	0.439	0.117	3.02	2.18	0.75	0.09	0.15	3.05	0.55	40.58

Average gold grades are similar for the 426 and Ruby Deeps samples are comparable at 0.317 and 0.307 opt respectively. Sulfide sulphur grades are comparable as well at 2.15% and 2.13% respectively. Arsenic and mercury grades are markedly higher in the 426 samples compared to Ruby Deeps, averaging 1.52% As and 55.4 ppm Hg for 426 Zone and 0.67% As and 21.39 ppm for the Ruby Deeps samples.

The two composite samples were subjected to QEMSCAN analysis to characterize their mineralogy. Major rock forming minerals in the samples include quartz, potassium feldspar, and calcite. Samples also contain appreciable amounts of kaolinite (5.9% to 7.3%). Major sulfide minerals include pyrite at 4.8% in the 426 Zone composite and 3.8% in the Ruby Deeps composite. The next most abundant sulfide mineral is realgar at 0.76% and 0.60% in the 426 composite and in the Ruby Deeps composite respectively. Both samples have relatively low concentrations of arsenopyrite at 0.05% and 0.16% in 426 and Ruby Deeps composites respectively. The amounts of arsenopyrite are significantly lower than expected based on the arsenic concentrations, indicating that the pyrite carries significant amounts of arsenic (arsenian pyrite).



Preg robbing tests showed a general correlation with organic carbon content as shown in Figure 13-1. Preg robbing occurred in both 426 and Ruby Deeps samples but was generally higher in the 426 samples.



**Figure 13-1: 2024 FLSmidth Program Preg-Robbing as a Function of Organic Carbon Concentration**

(Source: FLSmidth, 2024)

Baseline CIL tests were done on all samples at two different grinds. Test conditions included:

- Grind sizes of  $k_{80}$  = 100 mesh and 200 mesh.
- Slurry density = 35% solids.
- Cyanide concentration of 1.0 g/L, maintained at 0.5 g/L.
- Carbon concentration of 20 g/L.
- Test duration = 48 hours.

The results showed the refractory nature of the samples with overall average gold recoveries of 31.2% at the 200 mesh grind and 30.8% at the 100 mesh grind. The Ruby Deeps Dunderberg sample had 0% gold recovery in both baseline tests. Several Ruby Deeps samples had recoveries below 10%. Overall average CIL baseline gold recovery was 31.2%; 55% for the 426 samples and 16.3% for the Ruby Deeps samples.

All samples were subjected to BTAC testing with three different sets of conditions outlined in Table 13-5.

**Table 13-5: FLSmidth Program BTAC Conditions Summary**

Operating Conditions	A	B	C
Acidulation	Yes	No	No
POx Condition	Alkaline	Alkaline	Acid
Trona Addition	None	None	Stoichiometric
Temperature (°F)	390	390	437
O <sub>2</sub> Overpressure (psig)	100	100	100
Pulp Density (% solids)	30	30	30
Grind Size (k <sub>80</sub> , mesh)	200	200	200
Retention Time (minutes)	45	75	45

BTAC products were then subjected to CIL testing, following the same conditions for the baseline tests with the tests run for 24 hours instead of 48 hours.

The samples were also subjected to batch roasting tests. Tests were run for 90 minutes at 932°C with an atmosphere of 40% oxygen. As with the BTAC tests, samples were ground to k<sub>80</sub> of 200 mesh.

Results of the BTAC and batch roasting CIL tests are shown in Table 13-6 along with S<sup>=</sup> oxidation. Baseline CIL test results are included for comparison.

**Table 13-6: FLSmidth Program BTAC and Roasting CIL Recovery Summary**

Sample Description	Baseline CIL	BTAC Condition A		BTAC Condition B		BTAC Condition C		Roasting	
	Recovery (% Au)	Oxidation (% S <sup>=</sup> )	Recovery (% Au)	Oxidation (% S <sup>=</sup> )	Recovery (% Au)	Oxidation (% S <sup>=</sup> )	Recovery (% Au)	Oxidation (% S <sup>=</sup> )	Recovery (% Au)
426 Zone Central Sample	62.0	81	90.2	56	91.0	98	96.4	83	78.0
426 Zone East Sample	55.0	58	87.8	74	89.2	100	95.0	80	64.0
426 Zone High Grade Sample	38.0	40	62.7	51	70.0	99	97.7	80	39.0
426 Zone Low Grade Sample	50.0	63	89.5	76	91.4	100	97.8	89	67.0
426 Zone Composite Sample	70.0	67	92.9	68	93.4	98	97.0	94	74.0
Ruby Deeps North Sample	4.0	50	47.9	60	56.0	47	48.9	90	80.0
Ruby Deeps Mid Sample	20.0	54	69.3	69	80.0	99	95.7	91	80.0
Ruby Deeps South Sample	53.0	35	76.3	55	74.8	98	92.9	89	83.0
Ruby Deeps Intrusive Sample	3.0	18	30.4	32	44.4	29	38.8	76	47.0
Ruby Deeps Dunderberg Shale Sample	0.0	44	60.6	58	75.0	99	98.1	92	69.0
Ruby Deeps High Grade Sample	4.0	57	74.4	69	78.5	98	97.2	95	83.0
Ruby Deeps Low Grade Sample	9.0	48	57.5	57	67.1	79	85.4	94	75.0
Ruby Deeps Composite Sample	37.0	47	75.5	61	82.2	56	74.1	99	76.0

The results show that:

- BTAC condition C produced the highest overall average gold recovery at 85.8%, followed by BTAC condition B at 76.4%. Roasting and BTAC condition C produced comparable gold recoveries at 70.4%.
- Roasting had the highest overall average S<sup>-</sup> oxidation at 88.6% but this did not result in the highest gold recoveries.
- Ruby Deeps samples are more refractory than the 426 samples with an average gold CIL recovery of 78.9% compared to 96.8% under BTAC condition C.
- Overall Ruby Deeps sample recoveries are lower than 426 samples with all oxidation conditions used.

A series of flotation tests were conducted on the two composite samples using conditions developed in the December 2008 G&T metallurgical program. Two flotation tests were performed on each sample, one at a grind k<sub>80</sub> of 200 mesh, and a second test at a k<sub>80</sub> of 270 mesh with a lower pH. Both flotation tests on both samples achieved very low (less than 40%) recovery of Au. For the flotation test on the 426 Comp at a finer grind, a lower pH could not be achieved due to very high carbonate content.

It was noted in all four flotation tests that the pre-float contained a significant amount of the Au that floated. This suggests that some of the Au in these samples was present in a form that is self-floating, possibly hosted in the arsenic minerals. Leaching of flotation tailings was not expected to yield significant additional gold recovery and were not performed.

### **13.1.2 Deleterious Elements**

A wide range of analyses were carried out on the samples used in the metallurgical testing programs included in this section. Deleterious elements were identified that are common to deposits in this part of Nevada. Deleterious elements content in the oxide samples is low, while sulfide samples are characterized by high levels of sulfide sulfur, arsenic, and mercury. Processing of Ruby Hill sulfide mineralization through the Twin Creeks autoclave at the Nevada Gold Mines Turquoise Ridge Complex initially and the i80 Lone Tree facility in 2028 will ensure removal and capture of these deleterious elements.

#### **13.1.2.1 Arsenic and Mercury**

The KCA January 2009 report conducted investigations into arsenic and mercury deportment. Although a note was added stating that as multi-acid digestion was specified, the values for arsenic and mercury may be biased low due to partial volatilization upon digestion.

The arsenic contents of the refractory samples were variable up to 2.6% and averaged 0.4%. One of the two oxide samples had a relatively high arsenic content of 0.43%. The 2024 FLSmidth program confirmed the presence of arsenic as arsenopyrite and arsenian pyrite in appreciable concentrations. Processing of arsenical refractory production through either pressure oxidation or roasting results in the capture and sequestration of arsenic in a stable form suitable for tailings disposal.

Mercury contents in the low and high-grade oxide composites from the 426 zone were moderate at 5.7 ppm and 9.6 ppm respectively.

The KCA February 2014 report analyzed six samples for mercury, they were reported as being between 2 and 10 ppm. All 16 refractory samples documented in the BTC November 2011 report had levels of less than 10 ppm Hg. Mercury concentrations at this level require the inclusion of mercury retorting in electrowinning and gold smelting areas of process facilities and mercury capture equipment on carbon reactivation kilns.

The 2024 FLSmidth program confirmed the presence of significant concentrations of mercury.

### 13.1.2.2 Sulfur and Carbon

The 16 refractory and two oxide samples documented in the BTC November 2011 report were analyzed for total carbon and sulfur. Speciation for organic and inorganic carbon and speciation for sulfide and sulphate sulfur was included. Results are summarized in Table 13-7.

**Table 13-7: November 2011 426 Zone Barrick Technology Centre Refractory Sample Assays Summary**

Sample	Sample Assays (%)						
	C <sub>Total</sub>	C <sub>Inorg</sub>	CO <sub>3</sub>	C <sub>ORG</sub>	S <sub>T</sub>	SO <sub>4</sub> <sup>2-</sup>	S <sup>2-</sup>
Average	5.18	5.13	25.64	0.06	1.64	0.10	1.55
Maximum	9.17	9.08	45.40	0.09	3.20	0.24	3.06
Minimum	0.39	0.30	1.50	0.02	0.44	0.04	0.40

The sulfide contents of the refractory samples were variable up to 3.03% and averaged 1.55%. Organic carbon concentrations are at levels that do not indicate preg-robbing (active carbonaceous matter that will adsorb dissolved gold as it leaches). The spiked preg-rob shake flask test results showed low preg-robbing for most of the samples and moderate preg robbing for the remainder. Low to moderate preg-robbing is typically overcome with carbon-leach (CIL) that will overcome the effect of natural carbonaceous matter.

The two oxide samples exhibited almost no preg-robbing.

### 13.1.3 Recovery Estimates

#### 13.1.3.1 Archimedes Refractory Mineralization

Recoveries for refractory mineralization were estimated using the average leach recovery from tests using alkaline oxidation followed by CIL on sulfide refractory material (16 data points). The average of the 16 BTC refractory samples is 25.3 %CO<sub>3</sub><sup>2-</sup> and 1.4 %S<sup>2-</sup>. This gives a CO<sub>3</sub><sup>2-</sup>: S<sup>2-</sup> ratio of 18. As a general rule, acid autoclaving is preferred when this ratio is less than 5:1, while alkali autoclaving is preferred when the ratio is greater than 5:1. The average of the refractory samples is 23.2, therefore, these samples are firmly in the alkali autoclaving territory. The 2024 FLSmidth program samples had an average ratio of 9.1:1, although without the 426 Zone central sample, the ratio reduces to 5.3:1.

The results from testing of alkaline pressure oxidation followed by CIL indicated an average leach recovery of 88% could be achieved. Recovery from acid pressure oxidation is higher but is expected to have poorer economics due to the amount of sulfuric acid needed to destroy the carbonate ahead of autoclaving.

#### 13.1.3.2 Recommended Recoveries

A summary of the gold recoveries is shown in Table 13-8. Autoclave/CIL recoveries are based on acid pressure oxidation conditions (BTAC Condition C) described in 13.1.1.5.

**Table 13-8: Ruby Hill (Archimedes) Summary of Estimated Gold Recoveries**

Mineralization Type	Autoclave/CIL Recovery (Au %)
426 Zone	96.8
Ruby Deeps Windfall	96.0
Ruby Deeps Dunderberg Shale	98.1
Ruby Deeps Intrusive	38.8

The Ruby Deeps North sample was excluded from the recovery estimates as it is on the periphery of the zone and may no longer be representative. The Ruby Deeps Composite sample was also not considered as the sample is largely from two drill holes and not fully representative.

The weighted average (by lithology) Ruby Deeps CIL gold recovery is 89.5% and 94.6% (without the Intrusive zone). The latter assumes that the Intrusive Zone is not mined.

## 13.2 Mineral Point Open Pit

This section summarizes all the relevant test work performed on the Mineral Point open pit project. The Mine project encompasses several deposits and mineralization types hosting both precious and base metals. Historical production dates to 1998, primarily under Homestake Mining and Barrick Gold, with intermittent operations up to the current date. Characteristics of each deposit, historical production and metallurgical interpretation for the Mineral Point deposits are described in this section, based on data provided by Ruby Hill Mining LLC. Generally, metallurgical test work confirms the amenability of oxide mineralization to heap leaching for precious metals extraction.

### 13.2.1 Historical Operations

Historical operations at Ruby Hill have included three process routes for production: run of mine (ROM) and crushed production to heap leaching, crushing and leaching with agglomerated tailings routed to the heap leach pad, and higher-grade sulfide production (DSO) routed to Goldstrike for autoclave processing. Currently there is residual heap leaching of previously stacked material. This heap leach will be replaced by a new heap leach pad and solution management system.

### 13.2.2 Historical Test Work

A series of historical metallurgical test reports previously completed for other studies on the Ruby Hill Project are shown in Table 13-9.

**Table 13-9: Ruby Hill Project Historical Metallurgical Testing Programs**

No.	Document Title	Deposit	Technical Content	Date
1	Ruby Hill Project, East Archimedes, Report of Metallurgical Test Work, Kappes Cassiday Associates	Archimedes	Column leach tests	2004
2	Kappes Cassiday Associates	Archimedes	Column leach tests	2005
3	Barrick Technology Center	426 Zone	Roasting, pressure oxidation, leach tests	2008
4	G&T Metallurgy	426 Zone	Flotation, leach tests	2008
5	G&T Metallurgy	Blackjack	Flotation	2008
6	Kappes Cassiday Associates	426 Zone	Column leach tests	2009
7	Kappes Cassiday Associates	426 Zone	Column leach tests	2011
8	Kappes Cassiday Associates	Mineral Point	Column leach tests	2011
9	Kappes Cassiday Associates	Mineral Point	Column leach tests	2012
10	Kappes Cassiday Associates	Mineral Point	Column leach tests	2014

#### 13.2.2.1 Archimedes Deposit

##### 13.2.2.1.1 June 2004 KCA Column Leach Test Program

Nineteen separate column leach tests were conducted on the core composites, sulfide composite and bulk ROM samples received from the Ruby Hill Project at Kappes Cassiday Associates (KCA). Tests were conducted at a crush size approximating ROM material and crushed material at –1.25” Column tests ran between 40 and 62 days of leaching. Results are summarized in Table 13-10.



The overall average gold extraction for the samples was 82%, the average sodium cyanide consumption was 0.82 lb/ton, and the average hydrated lime consumption was 3.60 lb/ton. Sample 31624 was labeled sulfide and had a low recovery of only 31%.

**Table 13-10: June 2004 KCA Archimedes Column Test Results Summary**

Sample	Crush Size (inches)	Head Grade (opt Au)	Leach Extraction (Au %)	Reagent Consumption (lb/ton)	
				Cyanide	Hydrated Lime
Low Grade Oxide	-1.25	0.020	84	0.62	4.00
High Grade Oxide	-1.25	0.156	84	0.74	3.00
Low Grade Oxide	-1.25	0.029	81	0.62	2.00
Low Grade Oxide	-1.25	0.015	72	0.30	2.00
High Grade Oxide	-1.25	0.272	85	0.80	4.02
Medium Grade Oxide	-1.25	0.089	86	1.08	6.04
Medium Grade Oxide	-1.25	0.078	88	0.64	2.00
Medium Grade Intrusive	-1.25	0.063	87	0.98	5.02
Low Grade Intrusive	-1.25	0.018	78	0.70	5.00
Medium Grade Oxide	-1.25	0.091	84	0.54	5.02
Low Grade Oxide	-1.25	0.044	79	0.26	5.02
High Grade Oxide	-1.25	0.241	88	0.82	2.00
High Grade Oxide	-1.25	0.387	86	0.86	2.00
Medium Grade Oxide	-1.25	0.061	87	0.44	2.00
Oxide	ROM	0.032	90	0.42	2.20
Oxide	ROM	0.030	91	0.48	2.20
Oxide	-1.25	0.032	90	0.42	2.20
Oxide	-1.25	0.030	89	0.70	2.14
High Grade Sulfide	-1.25	0.357	31	3.42	10.44

#### 13.2.2.1.2 May 2005 KCA Program

Eight separate column leach tests were conducted on four samples received from the Archimedes deposit. Two column tests were conducted on each sample, one at the as received size and another set at a crush size of -1.5". The 80% passing size ( $k_{80}$ ) of the ROM and -1.5" tests ranged from approximately 0.20" to 0.60" and there was little difference between the average gold extractions for the as received and crushed material. The column tests ran from 41 to 121 days (ROM3 and ROM5 as received). The results are summarized in Table 13-11.

**Table 13-11: May 2005 KCA Archimedes Column Test Results Summary**

Sample	Crush Size (inches)	Head Grade (opt Au)	Leach Extraction (Au %)	Reagent Consumption (lb/ton)	
				Cyanide	Hydrated Lime
ROM3	ROM	0.152	90	0.32	2.00
ROM4	ROM	0.010	80	0.42	2.00
ROM5	ROM	0.086	70	0.24	2.00
ROM6	ROM	0.014	65	0.22	1.76
ROM3 crushed	-1.5	0.147	93	0.62	2.00
ROM4 crushed	-1.5	0.012	67	0.20	2.00
ROM5 crushed	-1.5	0.084	75	0.40	2.00
ROM6 crushed	-1.5	0.014	71	0.74	2.00

#### 13.2.2.2 426 Zone

##### 13.2.2.2.1 January 2009 KCA Program

Metallurgical test work completed on two composites (low and high-grade oxide material) included density testing, head analyses, coarse and pulverized bottle roll leach tests, as well as compacted permeability tests and column leach tests.

The bottle roll leach tests carried out on the low-grade composite had gold recoveries of between 82% and 91% could be achieved on material crushed to -1" and 89% on pulverized material. Sodium cyanide consumption ranged from <0.02 to 1.32 lb/ton depending on the concentration used in the leach solutions.

Bottle roll leach tests carried out on the high-grade composite indicated that slightly higher gold recoveries of between 86% and 91% could be achieved on material crushed -1" and 95% on pulverized material. Sodium cyanide consumption ranged up to 1.24 lb/ton depending on concentration used in the leach solution.

Column leach gold extraction from the high-grade composite material, crushed to -1" was higher at 90% after 75 days of leaching. Sodium cyanide consumption was 0.07 lb/ton and hydrated lime addition was 3.00 lb/ton. The results are summarized in Table 13-12.

**Table 13-12: January 2009 426 Zone KCA Column Leach Test Results Summary**

Sample	Crush Size (inches)	Head Grade (opt Au)	Leach Extraction (Au %)	Reagent Consumption (lb/ton)	
				Cyanide	Hydrated Lime
Low grade	-1	0.020	85	0.06	3.00
High grade	-1	0.102	90	0.08	3.00

#### 13.2.2.2.2 November 2011 KCA Program

Metallurgical test work completed on eight samples included, head analyses, size by size analyzes, coarse and pulverized bottle roll leach tests, and column leach tests.

The bottle roll leach tests had gold extractions between 78% and 94% could be achieved when pulverized to a k<sub>80</sub> = -200 mesh. When pulverized to -10 mesh, gold extractions ranged from 72% and 89%.

Column leach gold extractions crushed to -1" ranged from 81% to 93%. Sodium cyanide consumptions ranged from 0.52 lb/ton to 3.02 lb/ton. Hydrated lime consumptions were an average of 2.0 lb/ton. The results are summarized in Table 13-13

**Table 13-13: November 2011 426 Zone KCA Column Leach Test Results Summary**

Sample	Crush Size (inches)	Head Grade (opt Au)	Leach Extraction (Au %)	Reagent Consumption (lb/ton)	
				Cyanide	Hydrated Lime
BRH-95C, BRH-99C	-1	0.91	81	0.86	2.02
BRH-99C, BRH-211C	-1	1.87	93	0.72	2.00
BRH-101C	-1	2.40	92	0.52	2.06
BRH-210C, BRH-211C	-1	1.54	93	1.28	2.02
BRH-213C	-1	2.33	84	0.66	2.02
BRH-214C	-1	0.93	91	0.98	2.00
BRH-214C	-1	6.00	84	3.02	2.02
BRH-212C	-1	1.70	89	2.06	2.00

#### 13.2.2.3 Mineral Point Deposit

##### 13.2.2.3.1 February 2011 KCA Program

The Mineral Point Deposit (formerly named the Bullwhacker Deposit) samples were described as:

- BW-1 Hamburg Dolomite – This sample is dominated by hematite altered sanded dolomite containing secondary goethite after pyrite cubes. The entire interval is oxidized.
- BW-2 Hamburg Dolomite – This sample is again dominantly hematite and limonite altered sanded dolomite. The entire zone is oxidized.

- BW-3 Hamburg Dolomite and Dunderberg Shale – A small part of this sample is composed of a slightly calcareous limonite altered silicified shale. The rest of the interval is composed of a breccia containing clasts of vuggy silicified dolomite in an argillic, hematite, and goethite altered matrix.

The samples were utilized for head analyses, bottle roll cyanide leach, cyanide shake and column leach test work, acid-base accounting (ABA) and meteoric water mobility procedure (MWMP) testing.

For the pulverized bottle roll tests, gold extraction ranged from 77% to 84% with an average of 81%. For the coarse bottle roll tests, gold extraction ranged from 61% to 83% with an average of 72%. Results are shown in Table 13-14.

**Table 13-14: February 2011 Mineral Point Deposit KCA Bottle Rolls Test Results Summary**

Sample	Lithology	Crush Size (mesh or inches)	Head Grade (opt Au)	Leach Extraction (Au %)	Reagent Consumption (lb/ton)	
					Cyanide	Hydrated Lime
BW-1, Pulverized	Hamburg	-200M	0.013	77	0.76	1.00
BW-1, Coarse	Dolomite/Sanded	-10M	0.011	83	0.06	1.00
BW-2, Pulverized	Hamburg	-200M	0.052	84	1.14	1.00
BW-2, Coarse	Dolomite/Weakly-Altered	-0.225"	0.067	74	0.40	1.00
BW-3, Pulverized	Dunderberg Shale and	-200M	0.038	82	1.00	2.00
BW-3, Coarse	Hamburg	-1.0"	0.037	61	0.62	1.00
BW-3, Coarse	Dolomite/Silicic	-0.361"	0.046	70	0.70	1.00

Column leach tests were conducted on samples from each of the composites. Five of the column tests were conducted at a crush size of -0.5" and were run for a period of 91 days. The column leach test average gold recovery was 80%. On one of the samples (BW-3), two columns were run, one at -0.5" and the other at -1.5", the recovery from the coarser column was only 1% lower. Samples BW-1 and BW-2 were run with and without agglomeration. Results between the two were relatively close, indicating agglomeration is not required. The results are summarized in Table 13-15. The average sodium cyanide consumption was 1.38 lb/ton. Lime and cement consumptions were variable.

**Table 13-15: February 2011 Mineral Point Deposit KCA Column Leach Test Results Summary**

Sample	Lithology	Crush Size (inches)	Head Grade (opt Au)	Leach Extraction		Reagent Consumption (lb/ton)		
				(Au %)	(Ag %)	Cyanide	Hydrated Lime	Cement
BW-1	Hamburg Dolomite/ Sanded	-0.5	0.010	85	35	1.10	2.0	-
BW-1 Agglomerated		-0.5	0.013	84	39	0.70	-	8.0
BW-2	Hamburg Dolomite/ Weakly- Altered	-0.5	0.050	82	50	1.30	2.0	-
BW-2 Agglomerated		-0.5	0.051	81	46	0.82	-	8.0
BW-3 Coarse Crush	Dunderberg Shale and Hamburg Dolomite/ Silicic	-1.5	0.036	74	14	2.06	2.0	-
BW-3 Fine Crush		-0.5	0.037	75	15	2.30	2.0	-

### 13.2.2.3.2 July 2012 KCA Program

Samples originated from four drill cores from the Mineral Point deposit. The samples for this program were utilized for head analyses, size by size analysis, bottle roll cyanide leach, agglomeration testing and column leach test work, acid-base accounting (ABA) and meteoric water mobility procedure (MWMP) testing.

Cyanide bottle roll leach tests were conducted on each of the samples at crush sizes -1.5" and -0.5" and pulverized to  $k_{80} = 200$  mesh. Results are summarized in Table 13-16. Results from the pulverized tests for two of the samples, RH 231 and RH 235A, showed anomalously low recoveries compared to the coarse crush sizes. All samples had low sulfide sulphur concentrations so are considered as oxide samples.

**Table 13-16: July 2012 Mineral Point Deposit KCA Bottle Rolls Test Results Summary**

Sample	Lithology	Crush Size (mesh or inches)	Head Grade (opt Au)	Leach Extraction (Au %)	Reagent Consumption (lb/ton)	
					Cyanide	Hydrated Lime
RH 184	Hamburg Dolomite/Silicic and Weakly-Altered	-1.5"	1.41	70	0.16	0.50
		-0.5"	0.044	74	0.32	1.00
		-200M	0.042	84	1.66	1.50
RH 231	Hamburg Dolomite/Silicic	-1.5"	0.015	71	0.74	1.00
		-0.5"	0.016	76	0.78	1.00
		-200M	0.016	57	0.99	1.50
RH 235A	Hamburg Dolomite/Weakly-Altered	-1.5"	0.013	73	0.32	1.00
		-0.5"	0.013	72	0.34	1.00
		-200M	0.013	58	0.52	1.00
RH 235B	Hamburg Dolomite/Weakly-Altered	-1.5"	0.058	77	0.32	1.00
		-0.5"	0.053	77	0.42	1.00
		-200M	0.056	76	0.84	1.50

Column leach tests were conducted at crush sizes of -1.5" and -0.5" for all samples. Sample RH 184 was agglomerated at both crush sizes. Samples RH 231, 235A and RH 235B were agglomerated at the coarse crush size. Results are summarized in Table 13-17.

The overall gold extractions ranged from 81% to 86% over the 93-day leach period. The cyanide consumptions ranged from 1.80 to 4.52 lb/ton. Hydrated lime consumptions were about 1.00 lb/ton, and cement additions ranged from 4.04 to 4.16 lb/ton. Some tests had high sodium cyanide consumptions although there is no apparent reason as samples are low in sulfide sulphur and soluble copper.

**Table 13-17: July 2012 Mineral Point Deposit KCA Column Leach Test Results Summary**

Sample	Lithology	Crush Size (inches)	Head Grade (opt Au)	Leach Extraction		Reagent Consumption (lb/ton)		
				(Au %)	(Ag %)	Cyanide	Hydrated Lime	Cement
RH 184	Hamburg Dolomite/Silicic and Weakly-Altered	-1.5	0.040	82	34	0.90	1.02	4.04
		-0.5	0.046	86	58	2.06	-	4.12
RH 231	Hamburg Dolomite/Silicic	-1.5	0.014	88	34	1.56	1.00	-
		-0.5	0.014	81	39	1.16	-	4.10
RH 235A	Hamburg Dolomite/Weakly-Altered	-1.5	0.013	84	27	1.26	1.00	-
		-0.5	0.013	82	47	1.14	-	4.16
RH 235B	Hamburg Dolomite/Weakly-Altered	-1.5	0.051	86	48	1.30	1.00	-
		-0.5	0.046	82	52	2.26	-	4.04

### 13.2.2.3.3 February 2014 KCA Program

Samples originated from four drill cores from the Mineral Point deposit. These samples were utilized for head analyses, head screen analyses with assays by size fraction, comminution test work, bottle roll leach test work and column leach test work.

Cyanide bottle roll leach tests were conducted on each of the samples at pulverized to-10 mesh and to  $k_{80} = 200$  mesh. Results are summarized in Table 13-18. Gold extractions ranged from 22 to 86%. The sodium cyanide consumptions ranged from 0.04 to 3.48 lb/ton. The samples utilized in leaching was blended with

2.00 to 10.0 lb/ton hydrated lime. Extraction increased by an average of 6% when the samples were pulverized from a nominal size of -10 mesh to a target size of  $k_{80} = 200$  mesh. Sample BRH 445C (580-632.2) originates from the Dunderberg Shale Zone within the Mineral Point deposit with high sulfide sulphur and arsenic content, which likely contributed to the low recoveries.

**Table 13-18: February 2014 Mineral Point Deposit KCA Bottle Rolls Test Results Summary**

Sample	Lithology	Crush Size (mesh)	Head Grade (opt Au)	Leach Extraction (Au %)	Reagent Consumption (lb/ton)	
					Cyanide	Hydrated Lime
BRH 445C (580-632.2)	Dunderberg Shale/Weakly-Altered (sulfide)	-10M	0.029	22	3.48	7.50
		-200M	0.028	30	13.08	10.00
BRH 445C (632.2-670)	Dunderberg Shale and Hamburg Dolomite/Weakly-Altered (oxide and sulfide)	-10M	0.014	67	0.48	2.76
		-200M	0.014	69	0.30	7.00
BRH 266C	Hamburg Dolomite/Silicic and Sanded	-10M	0.010	74	0.04	2.00
		-200M	0.010	86	0.38	6.00
BRH 317C	Hamburg Dolomite/Weakly-Altered	-10M	0.029	57	1.68	2.50
		-200M	0.029	59	2.40	7.00
BRH515C	Hamburg Dolomite/Weakly-Altered	-10M	0.014	80	0.48	2.26
		-200M	0.014	83	0.64	7.00
BH343C	Hamburg Dolomite/Weakly-Altered and Sanded	-10M	0.016	67	0.16	2.00
		-200M	0.016	73	1.66	4.00

Column leach tests were conducted at crush sizes of -1.0" and -0.75" for all samples and leached for 69 days. Samples BRH 266C and BRH 343C at both crush sizes failed column percolation tests completed at the end of the leach cycles. However, gold extraction for these columns was consistent with the other column tests. Results are summarized in Table 13-19.

For column leach tests, gold extractions ranged from 29% to 85% based on calculated heads which ranged from 0.010 to 0.034 opt. The sodium cyanide consumptions ranged from 0.62 to 4.84 lb/ton. The samples utilized in leaching were blended with 2.00 to 9.62 lb/ton hydrated lime. Extraction increased by an average of 4% when the crush size was reduced from 100% passing 0.5" to 100% passing 0.75". The high cyanide consumption from the BRH 445C (580-632.2) leach tests is attributed to high sulfide sulphur content.



**Table 13-19: February 2014 Mineral Point Deposit KCA Column Leach Test Results Summary**

Sample	Lithology	Crush Size (inches)	Head Grade (opt Au)	Leach Extraction		Reagent Consumption (lb/ton)	
				(Au %)	(Ag %)	Cyanide	Hydrated Lime
BRH 445C (580-632.2)	Dunderberg Shale/Weakly-Altered (sulfide)	-1.0	0.031	29	32	4.52	7.52
		-0.75	0.033	31	48	4.84	9.62
BRH 445C (632.2-670)	Dunderberg Shale and Hamburg Dolomite/Weakly-Altered (oxide and sulfide)	-1.0	0.019	71	39	1.24	2.76
		-0.75	0.017	70	43	0.62	6.96
BRH 266C	Hamburg Dolomite/Silicic and Sanded	-1.0	0.010	76	6	1.08	2.00
		-0.75	0.011	81	15	2.72	6.04
BRH 317C	Hamburg Dolomite/Weakly-Altered	-1.0	0.034	57	24	1.08	2.05
		-0.75	0.029	62	29	0.74	6.98
BRH 515C	Hamburg Dolomite/Weakly-Altered	-1.0	0.021	63	20	1.62	2.50
		-0.75	0.014	85	20	0.99	6.98
BRH 343C	Hamburg Dolomite/Weakly-Altered and Sanded	-1.0	0.015	83	25	0.62	2.00
		-0.75	0.016	74	27	0.70	4.02

### 13.2.3 Mineral Point Leach Cycle Times

Leach cycle times for full scale heap leach operations is typically measured in tons of leach solution applied to tons of ore under leach. The full leach cycle is not normally completed with a single continuous application of solution. The cycle is usually broken down into the primary leach cycle where solution is directly applied to the ore under leach and a secondary leach cycle where solution flows through an area previously leached from a lift above. The primary leach cycle typically is at a solution application rate of 1:1. The remainder of the recovery would be obtained during secondary leaching as ore in subsequent lifts above are leached. The design final solution application rate is typically 4:1.

The Mineral Point column leach tests showed leach times between 6 days and 34 days to achieve the solution application rate of 1:1. Between 80% and 99% of ultimate Au extractions were achieved within this period excluding sulfide and mixed oxide/sulfide samples. Days of leach in column tests are scaled up based on lift height, bulk density and the size of a block under leach. For this technical report, a primary leach time of 90 days is recommended.

Average retained moisture contents for the three Mineral Point column test programs ranged from 18.6 gallons/ton to 28.2 gallons/ton.

### 13.2.4 Mineral Point Reagent Consumptions

Based on the column test results, recommended sodium cyanide and quicklime consumption rates are 1.0 lb/ton and 8 lb/ton respectively.

### 13.2.5 Deleterious Elements

A wide range of analyses were carried out on the samples used in the metallurgical testing programs included in this section. Deleterious elements were identified that are common to deposits in this part of Nevada. Deleterious elements content in the oxide samples are low, while sulfide samples are characterized by high levels of sulfide sulfur, arsenic, and mercury.

### 13.2.5.1 Arsenic and Mercury

The KCA January 2009 report conducted investigations into arsenic and mercury department. Although a note was added stating that as multi-acid digestion was specified, the values for arsenic and mercury may be biased low due to partial volatilization upon digestion.

The arsenic contents of the refractory samples were variable up to 2.6% and averaged 0.4%. One of the two oxide samples had a relatively high arsenic content of 0.43%. Processing of arsenical refractory production through either pressure oxidation or roasting results in the capture and sequestration of arsenic in a stable form suitable for tailings disposal.

Mercury contents in the low and high-grade oxide composites from the 426 zone were moderate at 5.7 ppm and 9.6 ppm respectively.

The KCA February 2014 report analyzed six samples for mercury, they were reported as being between 2 and 10 ppm. All 16 refractory samples documented in the BTC November 2011 report had levels of less than 10 ppm Hg. Mercury concentrations at this level require the inclusion of mercury retorting in electrowinning and gold smelting areas of process facilities and mercury capture equipment on carbon reactivation kilns.

### 13.2.6 Recovery Estimates

Gold and silver recovery estimates were completed using the methodologies described in the following sections.

#### 13.2.6.1 Oxide Mineralization

The test results from the four KCA reports relevant to Archimedes, 426 and Mineral Point zones are summarized in Table 13-20. The resources for this technical report include only Mineral Point.

**Table 13-20: Summary of Column Leach Test Results**

Test Program	Zone	Crush Size (inches)	Leach Extraction		No. of Samples
			(Au %)	(Ag %)	
2004-06 KCA	East Archimedes	-1.25	84.0	13.5	15
2004-06 KCA	East Archimedes	ROM	90.5	1.5	2
2005-05 KCA	East Archimedes	-1.5	76.0	3.0	4
	East Archimedes	ROM	77.0	1.0	4
2009-01 KCA	426	-0.75	87.5	10.0	2
2011-11 KCA	426	-1.0	88.0	42.0	8
2011-02 KCA	Mineral Point Oxide	-0.5	83.0	42.5	4
	Mineral Point Mixed	-0.5	75.0	15.0	2
2012-07 KCA	Mineral Point Oxide	-1.5	85.0	36.0	4
		-0.5	82.8	49.0	4
2014-02 KCA	Mineral Point Oxide	-1.0	74.0	25.0	3
		-0.75	80.0	30.5	3
	Mineral Point Mixed	-1.0	64.0	31.5	2
		-0.75	66.0	36.0	2

Analysis of the results from all programs showed that crush size had minimal impact on recoveries. Results from crushed and ROM samples are considered as one dataset.

The two KCA programs documented in June 2004 and May 2005 reports were carried out on oxide samples from the East Archimedes deposit. The column tests show no variation of gold recovery with gold grade, or crush size, with the two ROM samples having slightly higher recovery than the crushed samples, likely due to these tests running for longer durations. In the 2005 program, the particle size of the ROM, as-received material was only slightly coarser than the crushed material and recoveries were similar.

The KCA January 2009 and November 2011 programs were carried out on oxide samples from the 426 zone.

The three KCA programs February 2011, July 2012 and February 2014 were carried out on thirteen Mineral Point samples. One sample was identified as sulfide, another as mixed and two others contained significant amounts of Dunderberg Shale. The remaining eight were identified as Hamburg Dolomite. The selected flowsheet includes two stage crushing to -0.75". Column test results show minimal response to finer crush sizes; consequently, all crush sizes were included for recovery estimates. Recoveries were assigned based on the alteration (silicic, sanded or weakly altered) and were used to predict recoveries from within the Mineral Point deposit. Mixed lithology/alteration samples were excluded as recoveries were assigned based on coded alteration in the block model. While the sample set and column leach test results are not large; they are sufficient for this report.

### **13.2.6.2 Recommended Recoveries**

A summary of the design gold and silver recoveries based on the alteration types is shown in Table 13-21.

**Table 13-21: Mineral Point Summary of Estimated Gold and Silver Recoveries**

<b>Alteration</b>	<b>Crushed Heap Leach Recovery (Au %)</b>	<b>Crushed Heap Leach Recovery (Ag %)</b>
Silicic Oxide	84.4	45.2
Silicic Sulfide	31.0	45.2
Sanded Oxide	83.5	44.0
Sanded Sulfide	24.0	44.0
Weakly Altered Oxide	83.0	40.0
Weakly Altered Sulfide	24.0	40.0

## 14. MINERAL RESOURCE ESTIMATES

### 14.1 Introduction

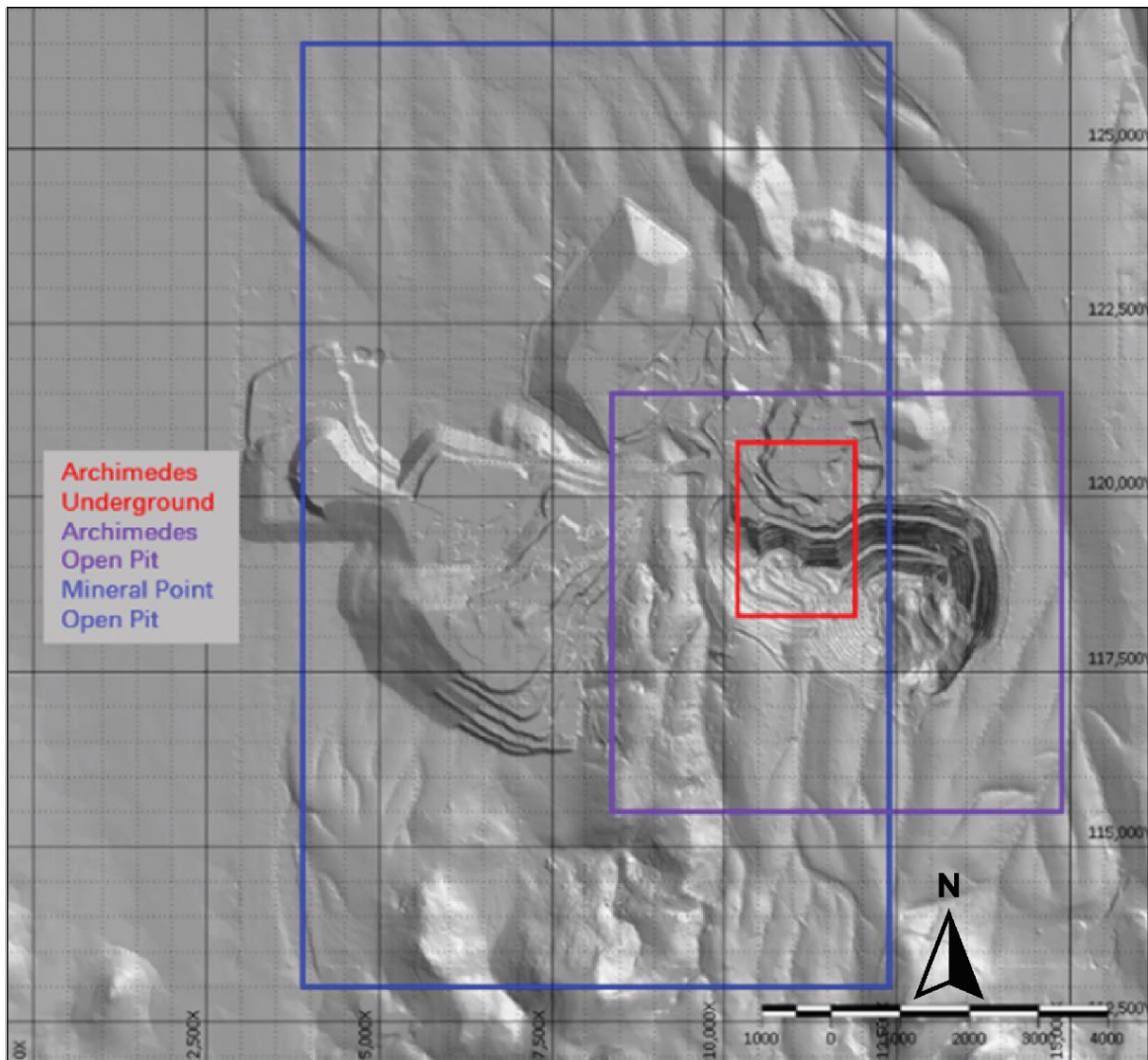
The Mineral Resource Estimate (MRE) presented herein has been prepared following the guidelines of the CIM Best Practice Definitions.

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resources will be converted into Mineral Reserves. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability sufficient for public disclosure.

Practical Mining LLC (Practical) estimated the Archimedes Underground Mineral Resource using all drilling and geological data available through October 31, 2022. Wood Canada Ltd. (Wood) completed the Mineral Point open pit MRE in the inaugural NI 43-101 Technical Report (July 2021) under i-80's ownership of the Ruby Hill Project. Forte Dynamics, Inc (Forte) reviewed the Mineral Point open pit MRE completed by Wood (July 2021). Upon completion of the Mineral Point open pit resource review, Forte made some slight modifications to the Wood resource block model (estimated block grades were not changed or altered) along with using an updated constraining pit shell to report the Mineral Point open pit MRE. Forte also completed an updated MRE for the Archimedes open pit deposit.

All work, including drilling, completed since the time of the inaugural technical report has targeted the 426 and Ruby Deep deposits and does not influence the Mineral Point open pit Mineral Resource. The Archimedes open pit Mineral Resource was completed using all current drilling and geological data available through December 31, 2024.

Open pit and underground block model horizontal extents are shown in Figure 14-1. The Archimedes open pit model extends vertically from 7,500 to 6,700 feet amsl, the Mineral Point open pit model extends vertically from 4,600 to 6,900 feet amsl and the Archimedes underground model from 4,000 to 5,300 feet amsl.



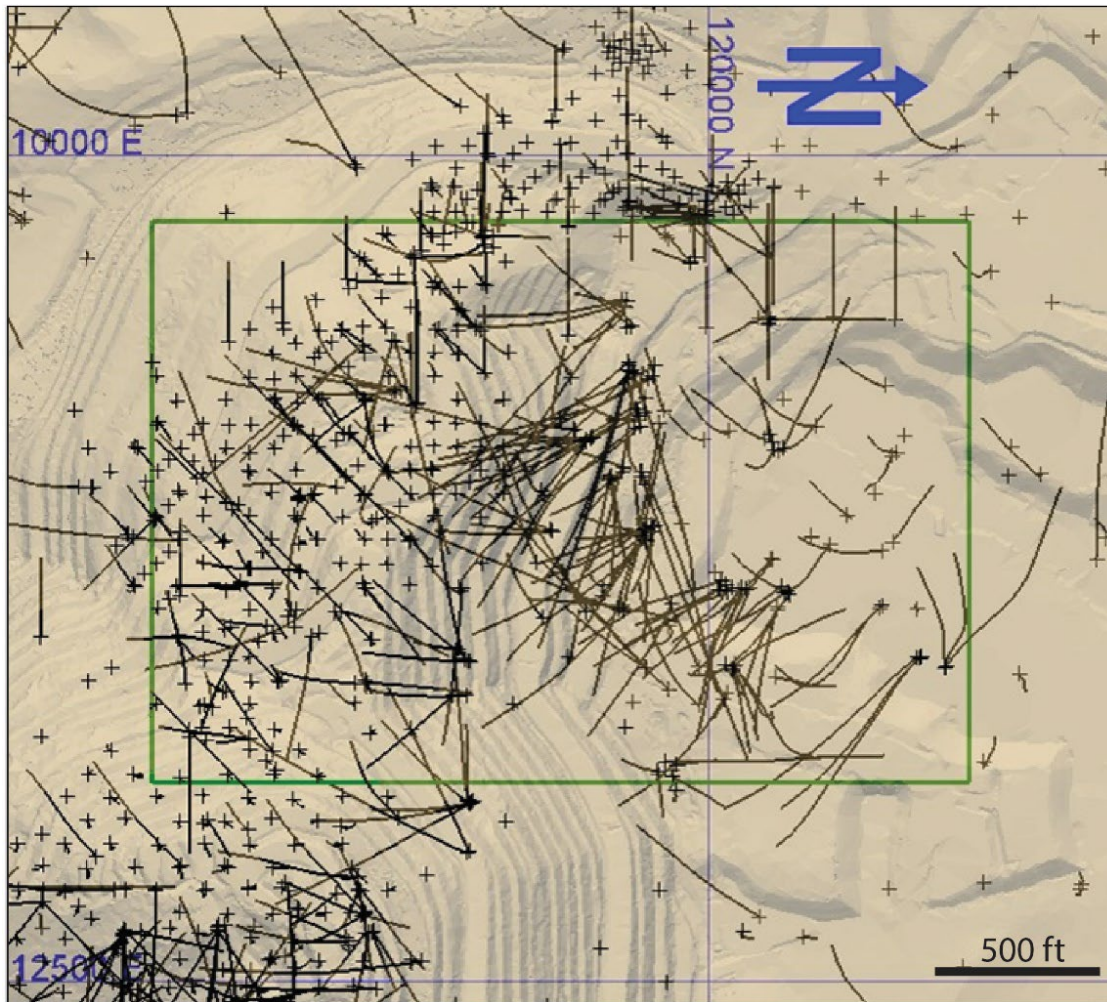
**Figure 14-1: Block Model Extents**

(Source: Forte Dynamics, 2025)

## 14.2 Archimedes Underground

In 2022, i-80 moved all drillhole data completed by i-80 and previous property owners to an acQuire database, an industry standard relation SQL data management solution. Collar, downhole survey, assay and geological data was exported to comma-separated values files on February 2, 2023. Practical converted the drill hole data to Vulcan version 11.1 format. i-80 created lithologic and structural models using Leapfrog software which were also imported into Vulcan 11.1





**Figure 14-2: Underground Model Extents and Drill Hole Traces**

(Source: Practical Mining, 2025)

### 14.2.1 Grade Shells

Practical explicitly modeled grade shells at nominal 0.004 Au opt and 0.1 Au opt limits using lithologic boundaries and the Holly, 426, Graveyard Flats, and Blanchard Faults as general guides. Intercept grades below the shell cutoff were included where the intercept fell within the trend of the grade shell. Similarly, intercepts above the shell grade that are distant and discontinuous were excluded. There are eight (8) unique 0.1 Au opt grade shells and one (1) 0.004 Au opt grade shell in the 426 deposit. The Ruby Deeps deposit contains 15 high grade and two (2) low grade shells. Two high grade and one low grade shell lie west of and on the footwall of the Holly Fault.

### 14.2.2 Density

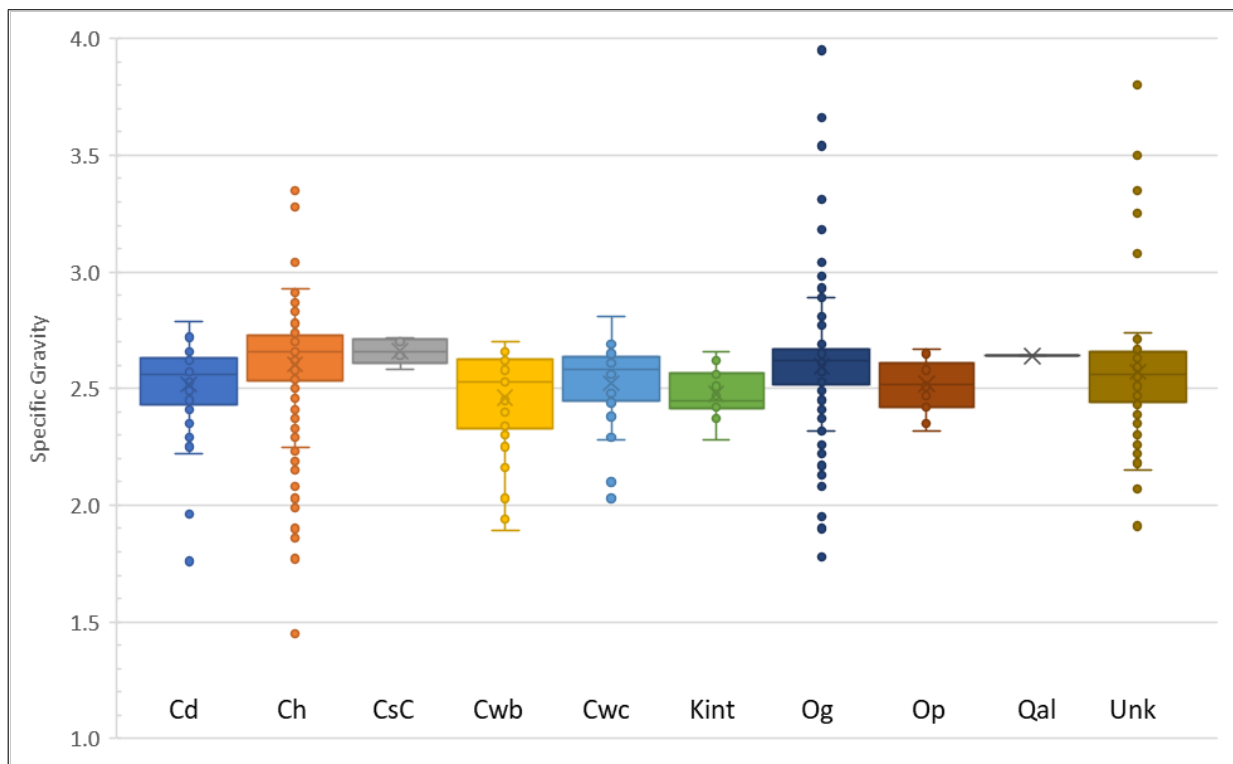
The Ruby Hill database contains 985 density determinations completed by the previous property owners. i-80 has not completed any density measurements. Univariate statistics sorted by lithology formation are listed in Table 14-1 and graphically in Figure 14-3.

A Vulcan script assigned mean density values in tons per cubic foot to the block model.

**Table 14-1: Univariate Density Statistics by Lithology Formation (tonnes/m<sup>3</sup>)**

	Cd	Ch	Csc	Cwb	Cwc	Kint	Og	Op	Qal	Unk
Count	56	336	5	49	32	22	242	15	1	195
Mean	2.516	2.604	2.660	2.461	2.523	2.478	2.595	2.520	2.00	2.572
Std Dev	0.178	0.211	0.055	0.207	0.172	0.098	0.225	0.109		0.328
CV	0.071	0.081	0.021	0.084	0.068	0.040	0.087	0.043		0.128
Lower 95% CI	2.470	2.582	2.612	2.403	2.463	2.437	2.567	2.465		2.526
Upper 95% CI	2.563	2.627	2.708	2.519	2.582	2.519	2.623	2.575		2.618
Min	1.760	1.450	2.580	1.890	2.030	2.280	1.780	2.320	2.00	1.910
25% Quartile	2.438	2.538	2.640	2.340	2.463	2.423	2.520	2.445	2.00	2.440
Median	2.560	2.660	2.660	2.530	2.585	2.450	2.620	2.520	2.00	2.560
75% Quartile	2.630	2.723	2.700	2.620	2.633	2.550	2.670	2.600	2.00	2.660
Max	2.790	3.350	2.720	2.700	2.810	2.660	3.950	2.670	2.00	6.120

Note: One tonne/m<sup>3</sup> = 0.0312 tons per ft<sup>3</sup>

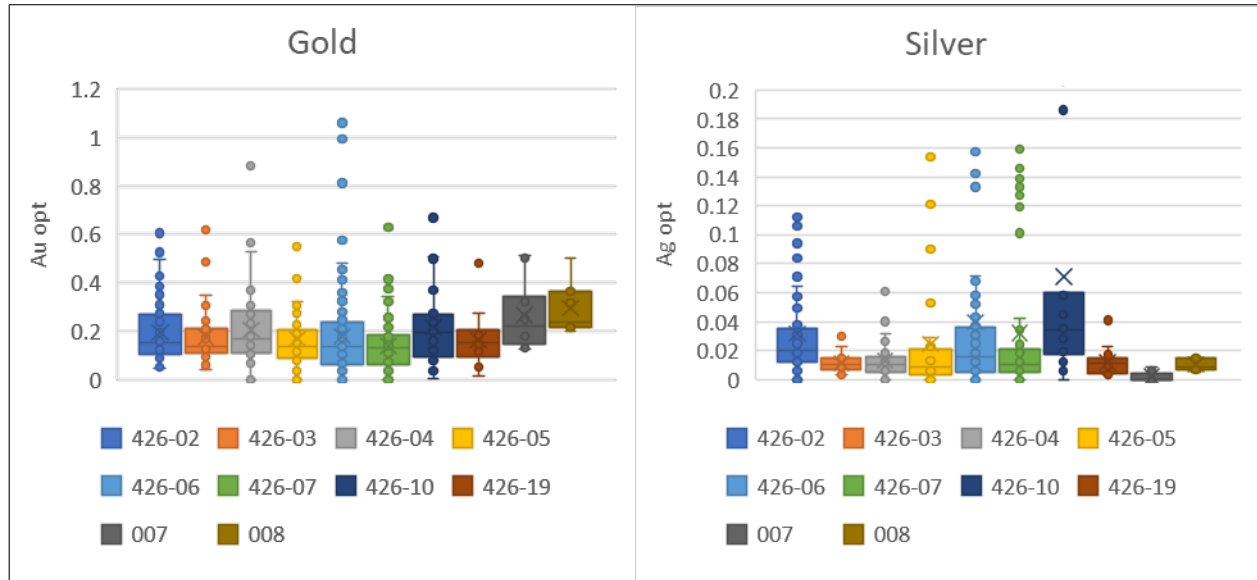

**Figure 14-3: Density Box and Whisker Plot by Lithology Formation**

(Source: Practical Mining, 2025)

### 14.2.3 Statistics

Drill holes were composited such that all composites are approximately ten-feet (10 ft) in length and cut at the grade shell boundary. Each composite is flagged by a grade shell name.

Gold and Silver univariate statistics for each grade shell are presented in Table 14-2 through Table 14-7 and are also presented graphically in the Box and Whisker plots of Figure 14-4 through Figure 14-6.



**Figure 14-4: 426 0.1 Au opt Box and Whisker Plots**

(Source: Practical Mining, 2025)

**Table 14-2: Gold Univariate Statistics for 426 0.1 Au opt Composites**

Grade Shell	426-02	426-03	426-04	426-05	426-06	426-07	426-10	426-19	007	008
Count	84	43	43	40	152	99	28	20	12	7
Length	815.4	427.5	424.2	362.2	1474.8	988.9	279.8	181.1	118.4	56.0
Std_Dev	0.118	0.118	0.168	0.131	0.174	0.111	0.157	0.098	0.137	0.108
Lower 95% CI	0.170	0.140	0.154	0.126	0.152	0.117	0.157	0.120	0.189	0.214
Mean	0.196	0.175	0.204	0.167	0.179	0.139	0.216	0.163	0.266	0.295
Upper 95% CI	0.221	0.210	0.254	0.207	0.207	0.161	0.274	0.205	0.344	0.375
Minimum	0.048	0.039	0.000	0.000	0.000	0.000	0.003	0.016	0.124	0.200
25% Quartile	0.106	0.111	0.111	0.095	0.063	0.063	0.110	0.106	0.168	0.223
Median	0.154	0.134	0.167	0.138	0.138	0.133	0.194	0.150	0.219	0.238
75% Quartile	0.271	0.200	0.276	0.197	0.238	0.182	0.259	0.202	0.335	0.339
Maximum	0.605	0.617	0.882	0.571	1.060	0.628	0.669	0.480	0.513	0.502

Table 14-3: Silver Univariate Statistics for 426 0.1 Au opt Composites

Grade Shell	426-02	426-03	426-04	426-05	426-06	426-07	426-10	426-19	007	008
Count	84	43	43	40	152	99	28	20	12	7
Length	815.4	427.5	424.2	362.2	1474.	988.9	279.8	181.1	118.4	56.0
Std_Dev	0.040	0.006	0.012	0.040	0.166	0.050	0.100	0.009	0.003	0.004
Lower 95% CI	0.023	0.009	0.009	0.012	0.013	0.022	0.034	0.008	(0.000)	0.007
Mean	0.031	0.011	0.013	0.024	0.040	0.032	0.071	0.012	0.002	0.010
Upper 95% CI	0.040	0.013	0.016	0.037	0.066	0.042	0.108	0.016	0.004	0.013
Minimum	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.005
25% Quartile	0.012	0.007	0.006	0.004	0.005	0.005	0.019	0.004	0.000	0.008
Median	0.020	0.010	0.010	0.009	0.016	0.010	0.034	0.012	0.000	0.009
75% Quartile	0.034	0.015	0.016	0.017	0.036	0.021	0.059	0.015	0.002	0.014
Maximum	0.248	0.030	0.061	0.154	2.038	0.164	0.425	0.041	0.009	0.016

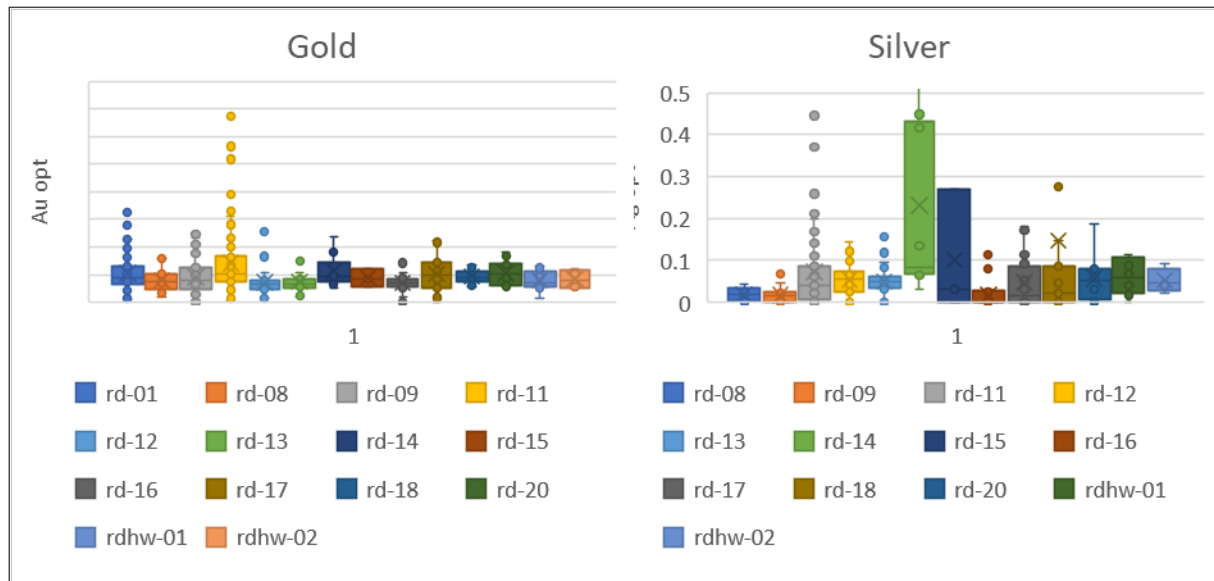


Figure 14-5: Ruby Deeps 0.1 Au opt Box and Whisker Plots

(Source: Practical Mining, 2025)

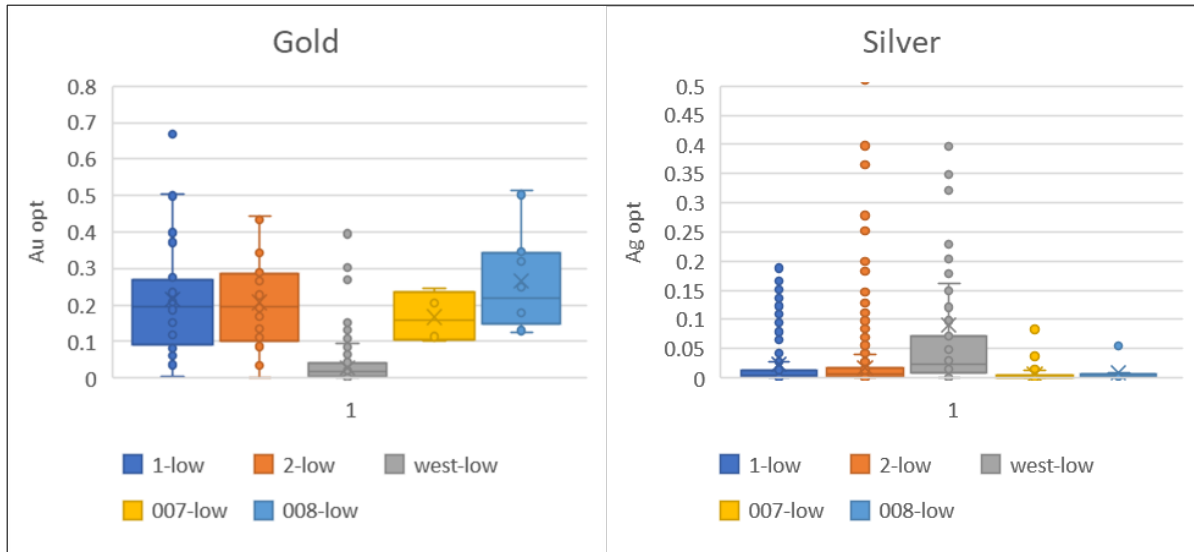
Table 14-4: Gold Univariate Statistics for Ruby Deepes 0.01 Au opt Composites

Grade Shell	rd-01	rd-08	rd-09	rd-11	rd-12	rd-13	rd-14	rd-15	rd-16	rd-17	rd-18	rd-20	rdhw-01	rdhw-02
Count	140	12	46	89	22	31	9	3	16	16	15	12	12	4
Length	1361.	107.0	458.7	880.8	217.6	309.3	93.5	25.0	140.7	164.7	143.1	101.5	124.8	41.0
Std_Dev	0.123	0.088	0.126	0.224	0.106	0.072	0.118	0.063	0.066	0.131	0.052	0.087	0.070	0.070
Lower 95% CI	0.191	0.111	0.146	0.236	0.101	0.124	0.149	0.104	0.109	0.142	0.161	0.162	0.117	0.098
Mean	0.212	0.161	0.183	0.283	0.146	0.150	0.226	0.175	0.141	0.206	0.188	0.211	0.157	0.167
Upper 95% CI	0.232	0.210	0.219	0.329	0.190	0.175	0.303	0.246	0.173	0.270	0.214	0.260	0.196	0.236
Minimum	0.016	0.038	0.000	0.012	0.027	0.042	0.099	0.115	0.000	0.001	0.112	0.109	0.026	0.102
25% Quartile	0.131	0.104	0.102	0.149	0.097	0.104	0.177	0.143	0.115	0.108	0.150	0.137	0.110	0.110
Median	0.173	0.152	0.163	0.209	0.129	0.128	0.191	0.171	0.139	0.195	0.180	0.201	0.141	0.160
75% Quartile	0.261	0.199	0.245	0.339	0.161	0.170	0.218	0.206	0.172	0.276	0.226	0.273	0.206	0.216
Maximum	0.650	0.318	0.496	1.343	0.514	0.314	0.473	0.240	0.285	0.445	0.269	0.362	0.261	0.246

Table 14-5: Silver Univariate Statistics for Ruby Deepes 0.01 Au opt Composites

Grade Shell	rd-01	rd-08	rd-09	rd-11	rd-12	rd-13	rd-14	rd-15	rd-16	rd-17	rd-18	rd-20	rdhw-01	rdhw-02
Count	140	12	46	89	22	31	9	3	16	16	15	12	12	4
Length	1361.0	107.0	458.7	880.8	217.6	309.3	93.5	25.0	140.7	164.7	143.1	101.5	124.8	41.0
Std_Dev	0.072	0.015	0.017	0.105	0.039	0.034	0.254	0.148	0.033	0.062	0.380	0.052	1.727	0.029
low 95%Ci	0.042	0.010	0.013	0.051	0.038	0.038	0.065	(0.066)	0.002	0.017	(0.046)	0.027	(0.228)	0.024
Mean	0.054	0.019	0.018	0.073	0.054	0.049	0.231	0.101	0.018	0.048	0.147	0.057	0.750	0.052
Upper 95% CI	0.066	0.027	0.022	0.095	0.070	0.061	0.398	0.268	0.034	0.078	0.339	0.086	1.727	0.080
Minimum	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.023
25% Quartile	0.000	0.009	0.003	0.007	0.027	0.034	0.070	0.016	0.000	0.000	0.000	0.023	0.030	0.037
Median	0.040	0.018	0.016	0.041	0.057	0.050	0.082	0.032	0.000	0.017	0.023	0.053	0.059	0.048
75% Quartile	0.083	0.031	0.024	0.086	0.071	0.059	0.417	0.151	0.026	0.069	0.070	0.080	0.095	0.063
Maximum	0.548	0.043	0.082	0.545	0.143	0.156	0.764	0.270	0.114	0.182	1.493	0.187	5.556	0.091





**Figure 14-6: 0.002 Au opt Box and Whisker Plots**

(Source: Practical Mining, 2025)

**Table 14-6: Gold Univariate Statistics for 0.002 Au opt Composites**

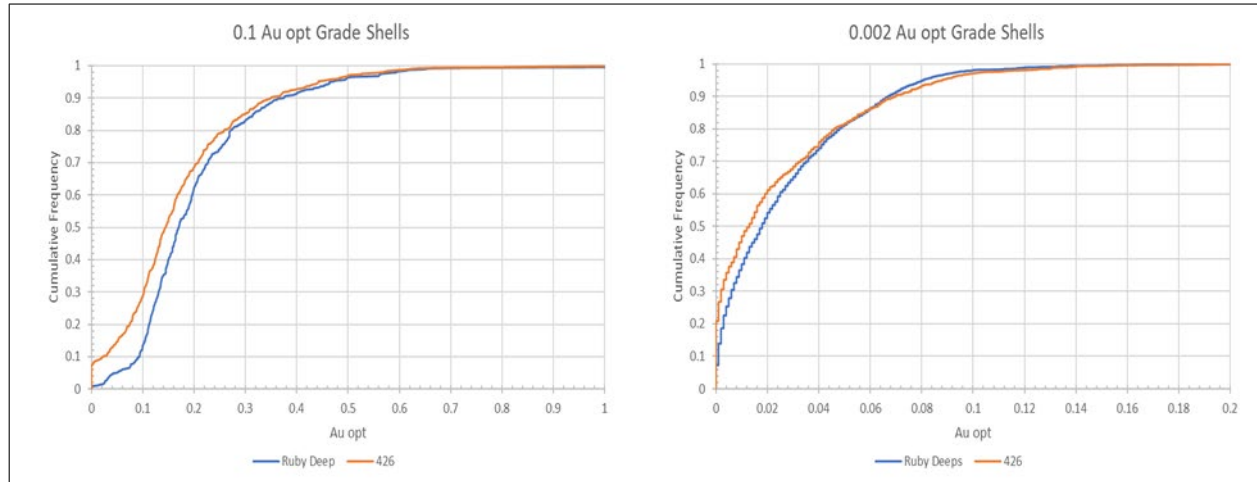
Grade Shell	1-Low	007-Low	008-Low	2-Low	West-Low
Count	841	60	12	2159	94
Length	8201.7	594.8	103.8	21329.0	921.4
Std_Dev	0.033	0.020	0.032	0.031	0.026
low 95%Ci	0.023	0.017	0.029	0.026	0.021
Mean	0.025	0.022	0.047	0.027	0.026
Upper 95% CI	0.028	0.027	0.065	0.029	0.031
Minimum	0.000	0.000	0.007	0.000	0.000
25% Quartile	0.001	0.006	0.021	0.004	0.003
Median	0.012	0.016	0.039	0.018	0.017
75% Quartile	0.040	0.037	0.072	0.041	0.045
Maximum	0.270	0.088	0.099	0.395	0.093

**Table 14-7: Silver Univariate Statistics for 0.002 Au opt Composites**

Grade Shell	1-Low	007-Low	008-Low	2-Low	West-Low
Count	841	60	12	2159	94
Length	8201.7	594.8	103.8	21329.0	921.4
Std_Dev	0.045	0.012	0.015	0.063	0.284
low 95%Ci	0.020	0.003	(0.000)	0.015	0.033
Mean	0.024	0.006	0.008	0.018	0.090
Upper 95% CI	0.027	0.008	0.017	0.020	0.148
Minimum	0.000	0.000	0.003	0.000	0.000
25% Quartile	0.003	0.000	0.003	0.003	0.010
Median	0.005	0.003	0.003	0.006	0.024
75% Quartile	0.013	0.005	0.006	0.018	0.068
Maximum	0.188	0.083	0.055	1.705	2.675

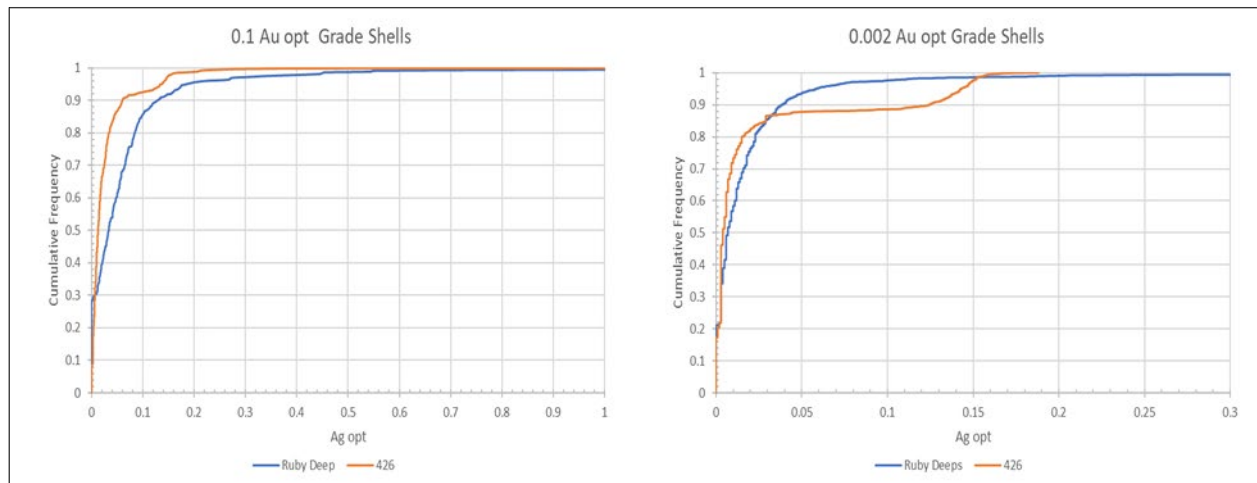
### 14.2.4 Grade Capping

Cumulative frequency plots of composite grades were used to determine grade capping values (Figure 14-7 and Figure 14-8). Grade capping values for the high-grade domains were selected to impact no more than 1% of high-grade composites.



**Figure 14-7: Gold Cumulative Frequency**

(Source: Practical Mining, 2025)



**Figure 14-8: Silver Grade Shells Cumulative Frequency**

(Source: Practical Mining, 2025)

Grade cap values for gold and silver are listed in Table 14-8. The range of influence of composites exceeding the grade cap value is restricted to the 25 x 25 x 25 foot block that contains the composite. Within that block the uncapped value is used in the grade estimation and then it is disregarded in the estimation of neighboring blocks.

Table 14-8: Gold and Silver Grade Caps

Deposit	Assay	0.1 Au opt Grade Shells		0.002 Au opt Grade Shells	
		Grade Cap	No. Composites Capped	Grade Cap	No. Composites Capped
426	Au	0.6	8	0.3	0
Ruby Deep	Au	0.6	8	0.3	3
426	Ag	0.2	7	0.2	0
Ruby Deep	Ag	0.2	19	0.2	22

### 14.2.5 Block Model

Primary block dimensions are 25 x 25 x 25 feet and blocks inside or touching boundaries of the 0.1 opt grade shells are sub blocked to 5 x 5 x 5 feet. Gold, Silver and Cyanide soluble gold grades were estimated for each block using Nearest Neighbor (NN) and Inverse Distance Weighted cubed (IDW<sup>3</sup>) methodologies. The estimation process was governed by the search ellipsoid dimensions, orientation and sample requirements shown in Table 14-9 and Table 14-10.

Table 14-9: Estimation Search Distances and Sample Requirements

Est. ID	Grade Shell	Major (ft)	Semi (ft)	Minor (ft)	Min. Composites	Max. Composites	Composites per DH
Pass 1	0.1 opt	40	40	40	3	12	2
Pass 2	0.1 opt	100	100	100	3	12	2
Pass 3	0.1 opt	300	300	300	3	12	2
Pass 4	0.1 opt	600	600	600	2	12	2
Pass 5	0.002 opt	600	600	600	2	12	2

Table 14-10: Ellipsoid Search Parameters for each Grade Shell

Grade Shell	Bearing	Plunge	Dip	Grade Shell	Bearing	Plunge	Dip
426-02	35	0	0	Rd-12	0	0	0
426-03	35	-12	0	Rd-13	0	-10	0
426-04	35	-12	0	Rd-14	0	0	0
426-05	35	-17	0	Rd-15	0	0	0
426-06	35	-17	0	Rd-16	0	0	0
426-07	35	-17	0	Rd-17	0	0	0
426-10	35	0	0	Rd-18	0	0	0
426-19	0	0	0	Rd-20	0	0	0
Rd-01	0	-10	0	Rdhw-01	0	0	0
Rd-08	0	0	0	Rdhw-02	0	0	0
Rd-09	0	0	0	All Low	0	0	0
Rd-11	0	-12	0				

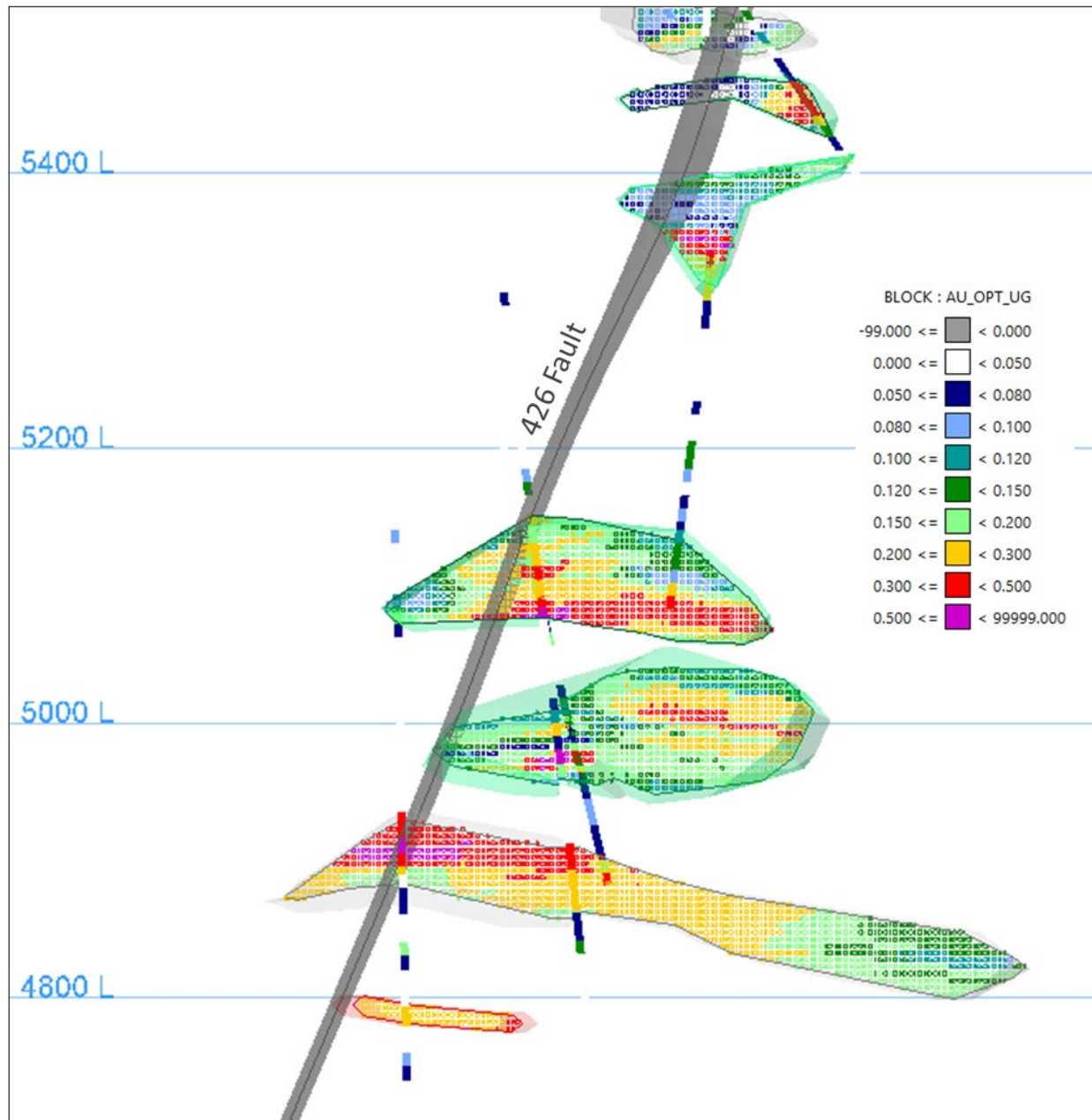
### 14.2.6 Model Validation

A global comparison of composite and block model gold statistics for each grade shell is shown in Table 14-11. Overall, composite and model statistics compare well and are considered acceptable.

Table 14-11: Comparison of Composite and Block Model Statistics

Shell	Composites										Block Model							
	Count	Length	Mean	Std. Dev	CV	Max	Upper Quartile	Median	Lower Quartile	Min	Mean	Std. Dev.	CV	Max	Upper Quartile	Median	Lower Quartile	Min
426-02	84	815.4	0.196	0.118	0.603	0.605	0.271	0.154	0.106	0.048	0.185	0.087	0.470	0.587	0.220	0.161	0.125	0.007
426-03	43	427.5	0.175	0.118	0.672	0.617	0.200	0.134	0.111	0.039	0.187	0.076	0.404	0.750	0.222	0.172	0.136	0.030
426-04	43	424.2	0.204	0.168	0.825	0.882	0.276	0.167	0.111	0.000	0.224	0.102	0.453	0.714	0.292	0.203	0.144	0.003
426-05	40	362.2	0.167	0.131	0.784	0.571	0.197	0.138	0.095	0.000	0.159	0.099	0.623	0.703	0.181	0.134	0.098	0.024
426-06	152	1,474.8	0.179	0.174	0.972	1.060	0.238	0.138	0.063	0.000	0.185	0.112	0.608	0.800	0.244	0.162	0.110	0.000
426-07	99	988.9	0.139	0.111	0.804	0.628	0.182	0.133	0.063	0.000	0.166	0.096	0.580	0.662	0.223	0.140	0.099	0.000
426-10	28	279.8	0.216	0.157	0.727	0.669	0.259	0.194	0.110	0.003	0.190	0.095	0.502	0.778	0.237	0.189	0.121	0.002
426-19	20	181.1	0.163	0.098	0.602	0.480	0.202	0.150	0.106	0.016	0.156	0.086	0.551	0.559	0.197	0.151	0.099	0.010
rd-01	140	1,361.0	0.212	0.123	0.584	0.650	0.261	0.173	0.131	0.016	0.196	0.093	0.471	0.724	0.229	0.176	0.136	0.010
rd-08	12	107.0	0.161	0.088	0.548	0.318	0.199	0.152	0.104	0.038	0.181	0.063	0.349	0.317	0.226	0.161	0.138	0.024
rd-09	46	458.7	0.183	0.126	0.692	0.496	0.245	0.163	0.102	0.000	0.164	0.082	0.499	0.578	0.211	0.158	0.108	0.000
rd-11	88	880.8	0.284	0.225	0.792	1.343	0.339	0.211	0.149	0.012	0.225	0.116	0.513	0.800	0.284	0.194	0.135	0.021
rd-12	22	217.6	0.146	0.106	0.727	0.514	0.161	0.129	0.097	0.027	0.147	0.074	0.504	0.547	0.151	0.130	0.116	0.022
rd-13	31	309.3	0.150	0.072	0.480	0.314	0.170	0.128	0.104	0.042	0.139	0.047	0.340	0.467	0.157	0.134	0.110	0.012
rd-14	9	93.5	0.226	0.118	0.521	0.473	0.218	0.191	0.177	0.099	0.191	0.094	0.489	0.525	0.213	0.171	0.120	0.094
rd-15	3	25.0	0.175	0.063	0.357	0.240	0.206	0.171	0.143	0.115	0.171	0.047	0.275	0.327	0.227	0.159	0.140	0.110
rd-16	16	140.7	0.141	0.066	0.469	0.285	0.172	0.139	0.115	0.000	0.131	0.059	0.453	0.334	0.159	0.124	0.100	0.000
rd-17	16	164.7	0.206	0.131	0.634	0.445	0.276	0.195	0.108	0.001	0.190	0.103	0.538	0.521	0.255	0.193	0.101	0.001
rd-18	15	143.1	0.188	0.052	0.278	0.269	0.226	0.180	0.150	0.112	0.174	0.046	0.266	0.374	0.201	0.162	0.138	0.064
rd-20	12	101.5	0.211	0.087	0.412	0.362	0.273	0.201	0.137	0.109	0.176	0.060	0.344	0.461	0.218	0.163	0.118	0.087
rdhw-01	12	124.8	0.157	0.070	0.448	0.261	0.206	0.141	0.110	0.026	0.128	0.054	0.419	0.314	0.169	0.114	0.092	0.002
rdhw-02	4	41.0	0.167	0.070	0.423	0.246	0.216	0.160	0.110	0.102	0.159	0.050	0.314	0.311	0.198	0.143	0.116	0.100

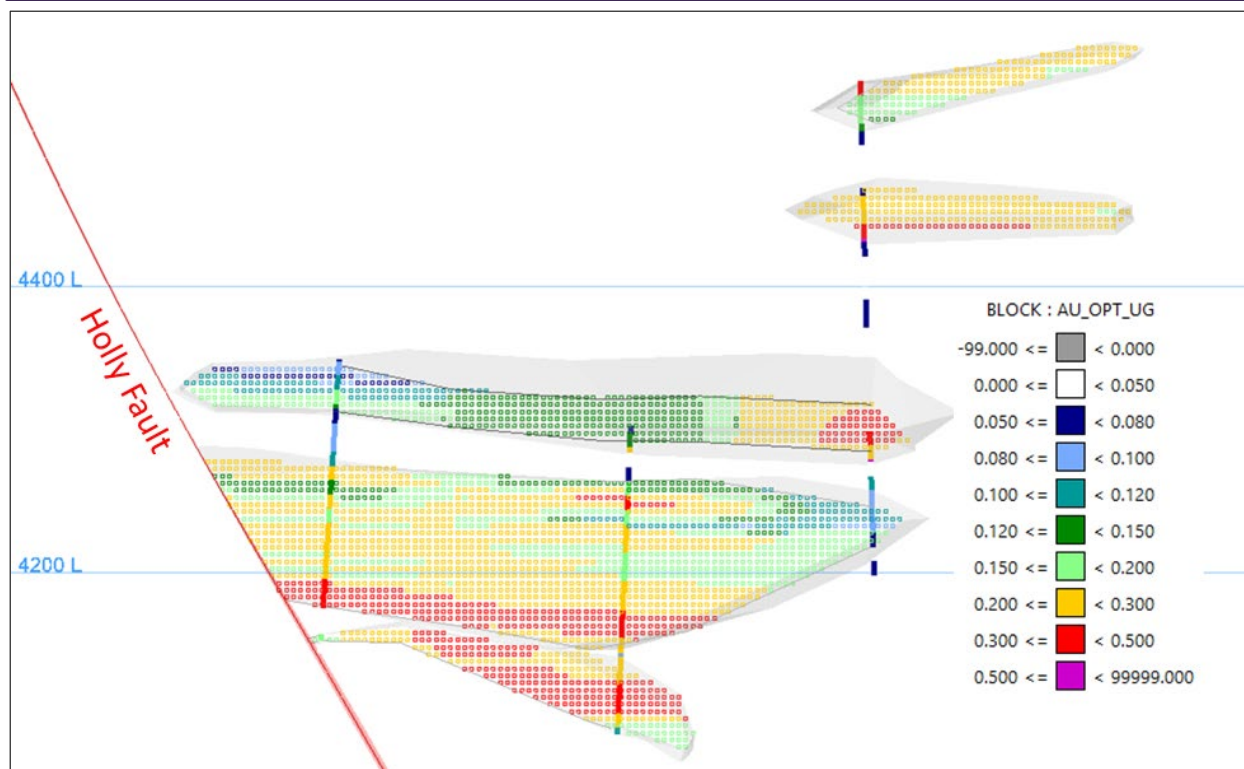
Visual comparison of drilling and estimated block grades within the 0.1 opt Au grade shells provides a validation on a localized basis. Two (2) examples are shown in Figure 14-9 and Figure 14-10.



**Figure 14-9: 426 Deposit Comparison of Composite and Block Grades**

(Source: Practical Mining, 2025)

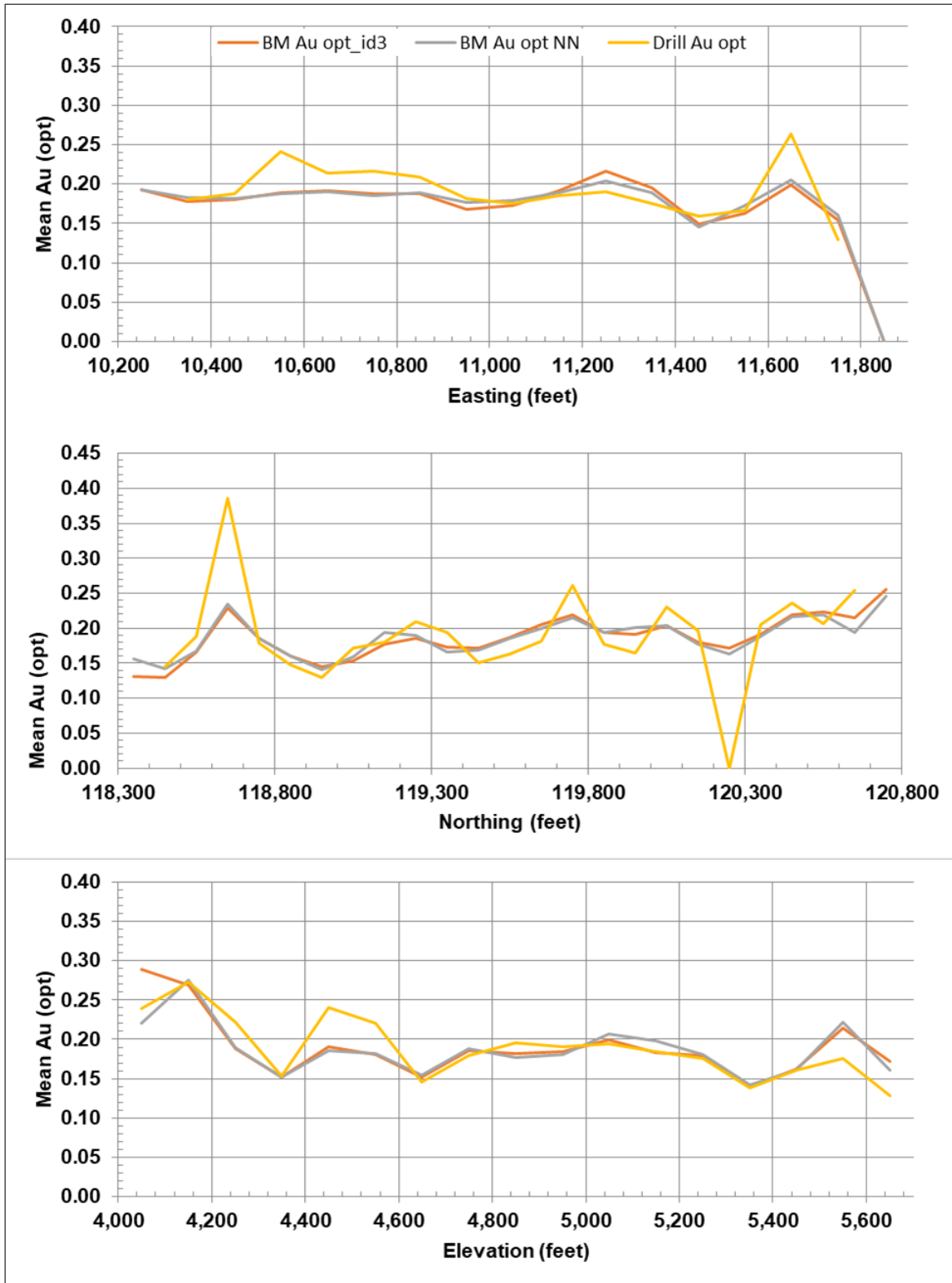




**Figure 14-10: Ruby Deeps Deposit Comparison of Composite and Block Grades 120450N**

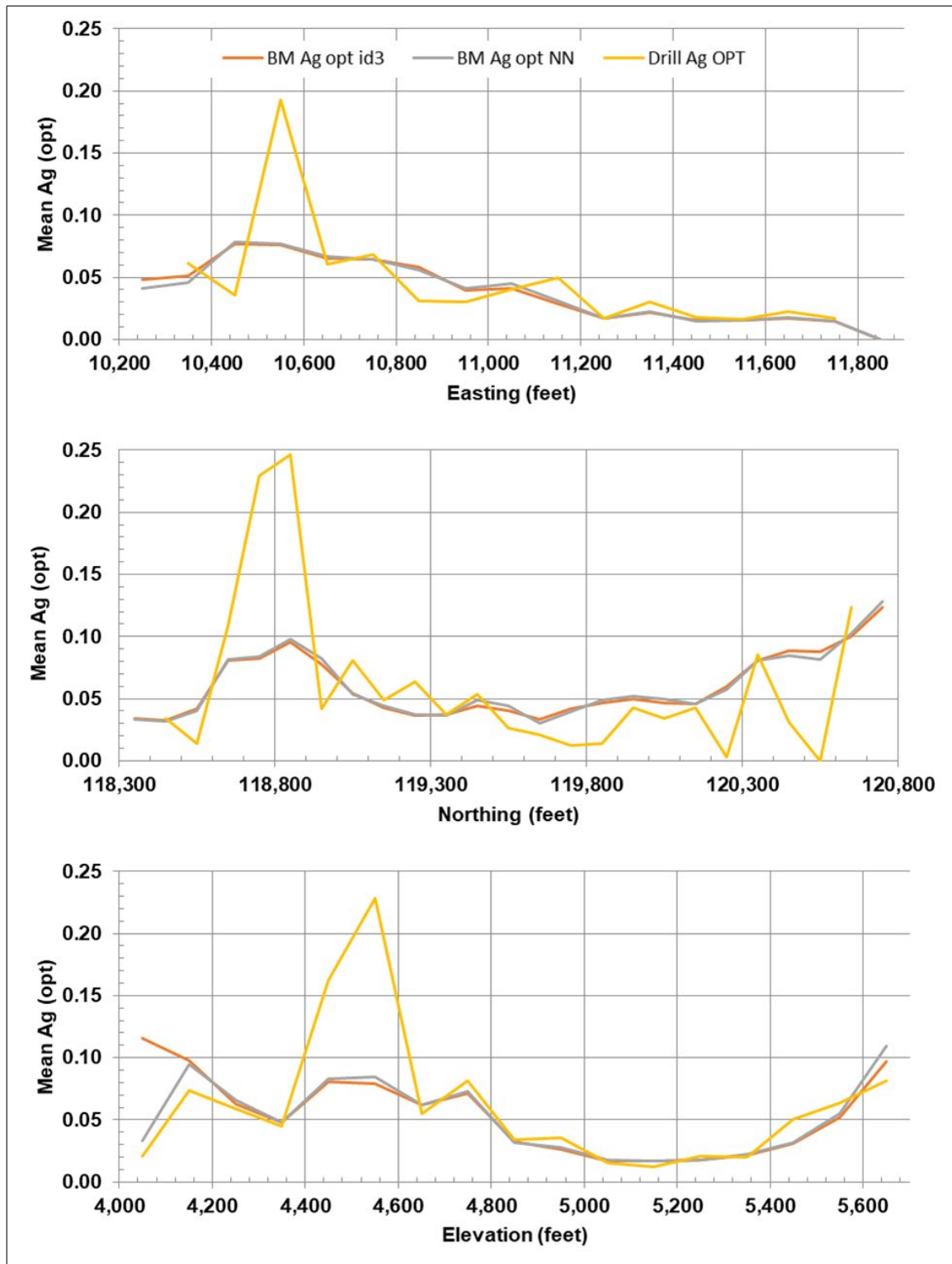
(Source: Practical Mining, 2025)

Drift analysis (swath plot) is a localized comparison of model and drilling grades. The drilling data and block model are sliced into a predefined width in the specified direction and the average grade of each variable contained in the slice is calculated. Results are displayed graphically. Model and drilling grades should track closely together. Drift analysis comparing block model Nearest Neighbor (NN) and Inverse Distance Weighted cubed (IDW3) grades to drilling grades is displayed in Figure 14-11 and Figure 14-12 for gold and silver respectively.



**Figure 14-11: Drift Analysis Gold**

(Source: Practical Mining, 2025)



**Figure 14-12: Drift Analysis Silver**

(Source: Practical Mining, 2025)

### 14.2.7 Resource Classification

Individual block model blocks have been classified using the criteria given in Table 14-12. A minimum of two drillholes within the given distance are required to classify a block.

**Table 14-12: Mineral Resource Classification Scheme**

Class	Major (ft)	Semi (ft)	Minor (ft)	Min. Composites	Max. Composites	Composites per DH
Measured	40	40	40	3	12	2
Indicated	100	100	100	3	12	2
Inferred	300	300	300	3	12	2

### 14.2.8 Factors That May Affect Mineral Resources

Areas of uncertainty that may materially impact the Mineral Resource Estimates include:

- Changes to long term metal price assumptions.
- Changes to the input values for mining, processing, and G&A costs to constrain the estimate.
- Changes to local interpretations of mineralization geometry and continuity of mineralized Domains.
- Changes to the density values applied to the mineralized zones.
- Changes to metallurgical recovery assumptions.
- Variations in geotechnical, hydrogeological and mining assumptions.
- Changes to assumptions with an existing agreement or new agreements.
- Changes to environmental, permitting, and social license assumptions.
- Logistics of securing and moving adequate services, labor, and supplies could be affected by epidemics, pandemics and other public health crises.

### 14.2.9 Reasonable Prospects for Eventual Economic Extraction

NI 43-101 requires Mineral Resources demonstrate “Reasonable Prospects for Eventual Economic Extraction” (RPEEE). Stope optimizer software is well suited to meet this requirement. The software will produce stope designs that meet minimum minable geometric shapes that exceed the cutoff grade. These shapes will include necessary low grade or waste dilution included with the stope design.

Mineral Resources are defined by a mining geometry consistent with the drift and fill or drift and bench mining methods chosen. The dimensions of a minimum minable stope cross section are 20 feet wide x 15 feet high. Individual stope lengths can vary from a minimum of 20 feet to a maximum of 100 feet.

### 14.2.10 Archimedes Underground Mineral Resource Statement

The Ruby Hill Project MRE has been classified according to the 2014 CIM Definition Standards and CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (2019).

A Mineral Resource must demonstrate Reasonable Prospects for Eventual Economic Extraction (RPEEE). This was accomplished using the Vulcan 11.1 Mine Stope Optimizer. The stope optimizer creates stope shapes meeting minimum predefined geometrical criteria and cutoff grade. Optimality, this is achieved when metal content is maximized while obeying the cutoff grade and geometrical criteria. Mineral Resources in Table 14-13 are constrained by stopes measuring no less than 15 x 10 x 15 feet in width, length and height with an average undiluted grade of 0.174 Au opt.

Mineral Resources are not Mineral Reserves and have not been demonstrated to have economic viability. There is no certainty that the Mineral Resource will be converted to Mineral Reserves. The quantity and

grade or quality is an estimate and is rounded to reflect the fact that it is an approximation. Quantities may not sum due to rounding.

There is no guarantee that Mineral Resources can be converted to Mineral Reserves. Inferred Mineral Resources do not have sufficient confidence that modifying factors can be applied to convert them to Mineral Reserves.

**Table 14-13: Archimedes Underground Mineral Resource Statement**

Deposit	Tonnes (000)	Au (g/t)	Ag (g/t)	Au oz (000)	Ag oz (000)
<b>Indicated Mineral Resources</b>					
426	899	6.9	0.8	199	22
Ruby Deepes	892	8.3	2.4	237	69
<b>Total Indicated</b>	<b>1,791</b>	<b>7.6</b>	<b>1.6</b>	<b>436</b>	<b>92</b>
<b>Inferred Mineral Resources</b>					
426	1,038	6.6	1.2	219	40
Ruby Deepes	3,150	7.6	2.4	769	246
<b>Total Inferred</b>	<b>4,188</b>	<b>7.3</b>	<b>2.1</b>	<b>988</b>	<b>286</b>

**Notes:**

- Underground Mineral Resources have been estimated at a gold price of \$2,175 per troy ounce and a silver price of \$27.25 per ounce (Section 19.1).
- Mineral Resources have been estimated using pressure oxidation gold metallurgical recoveries of 96.8% and 89.5% for the 426 and Ruby Deepes deposits respectively.
- Pressure oxidation cutoff grades are 5.06 and 5.48 Au g/t (0.148 and 0.160 opt) for the 426 and Ruby Deepes deposits respectively.
- Detailed input mining, processing, and G&A costs are defined in Section 18.1.
- Units shown are metric.
- The contained gold ounces estimates in the Mineral Resource table have not been adjusted for metallurgical recoveries.
- Numbers have been rounded as required by reporting guidelines and may result in apparent summation differences.
- 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.
- 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.
- 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, socio-political, marketing, or other relevant factors.
- Mineral Resources have an effective date of December 31, 2024.
- The reference point for Mineral Resources is in situ.

### **14.2.11 QP Opinion**

Practical Mining is not aware of any environmental, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors that would materially affect the estimation of Mineral Resources that are not discussed in this Technical Report.



Practical Mining is of the opinion that the Mineral Resources for the Archimedes Underground Project were estimated using CIM best practice definitions.

Technical and economic parameters and assumptions applied to the MRE are based on parameters received from i-80 and reviewed by Practical Mining to determine if they were appropriate.

The QP considers that all issues relating to all relevant technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

### **14.3 Archimedes Open Pit**

The Archimedes deposit area is physically separated from the Mineral Point deposit area and was treated independently in this report.

#### **14.3.1 Summary Workflow**

The Mineral Resource estimation workflow for the Archimedes open pit deposit area includes:

1. Data validation and loading into mining software system.
2. Exploratory data analysis to determine appropriate estimation domains and estimation parameters.
3. Use of an indicator shell at an 85% probability of grades being above 0.05 Au g/t to define an outer mineralized envelope.
4. Analysis of statistics and variography within the indicator domain envelope.
5. Grouping of rock units with similar statistical behavior into an estimation domain.
6. Variography and development of estimation parameters
7. Block model grade estimation.
8. Block model validation consisted of visual and statistical comparisons methods, including a review and comparison to the historical production.
9. Mineral Resource classification into Measured, Indicated, and Inferred Mineral Resources.
10. Economic analysis of resources remaining below the former pit limit to determine if there is reasonable prospects for eventual economic extraction.
11. Reporting of resource estimation results.

#### **14.3.2 Exploratory Data Analysis (EDA)**

After data loading and cleanup, summary statistics were run on each rock unit with a lower cutoff of 0.001 ppm (to avoid distortions from unmineralized material). The summary statistics are presented in Table 14-14. An initial statistical review of samples was confined to the principal host geologic units (primarily carbonates). There are additional units on the property, however they were not represented in the Archimedes area.

The alluvium and the tertiary volcanics were mostly unmineralized; and the Secret Canyon and Antelope Valley formations contained significantly less gold than the other units, thus they were excluded from the analysis and resource estimation.

Table 14-14: Summary Sample Statistics - Archimedes

Code		Lith Code	Samples	Minimum	Maximum	Mean	Var.	Std.Dev.	CV
3	Cambrian Secret Canyon Formation	Csc	452	0.0027	2.91	0.059	0.047	0.217	3.644
4	Cambrian Hamburg Dolomite	Ch	1195	0.0024	51.12	0.400	2.943	1.716	4.285
5	Cambrian Dunderberg Shale	Cd	1352	0.0024	40.29	1.421	14.014	3.744	2.634
6	Cambrian Windfall Catlin Member	Cwc	2152	0.0015	29.97	0.976	6.363	2.523	2.583
7	Cambrian Windfall Bullwhacker Member	Cwb	8518	0.0015	69.70	0.641	5.067	2.251	3.510
8	Ordovician Lower Goodwin Member	Og1	18838	0.0015	52.40	0.354	2.625	1.620	4.583
9	Ordovician Lower Laminated Goodwin Member	Ogll	10858	0.0015	83.47	0.953	12.173	3.489	3.660
10	Ordovician Upper Goodwin Member	Og2	38659	0.0015	66.51	0.781	8.853	2.975	3.810
11	Ordovician Ninemile Formation	On	7405	0.0015	59.89	0.408	6.922	2.631	6.443
12	Ordovician Antelope Valley Formation	Oav	1854	0.0017	9.12	0.041	0.100	0.315	7.645
13	Cretaceous Bullwhacker Sill	Kbs	1388	0.0024	21.84	0.768	3.363	1.834	2.389
14	Tertiary Volcanics	Tv	68	0.003	0.22	0.028	0.001	0.031	1.139
15	Quaternary Alluvium	Qal	2486	0.0015	1.74	0.013	0.003	0.055	4.353
9999	Not Coded	Unk	15159	0.0015	81.67	0.366	2.580	1.606	4.383
Total			110384	0.0015	83.47	0.607	6.397	2.529	4.170

A box and whisker plot of the logarithms of these grades is shown in Figure 14-13 supporting the exclusion of certain units from the analysis.

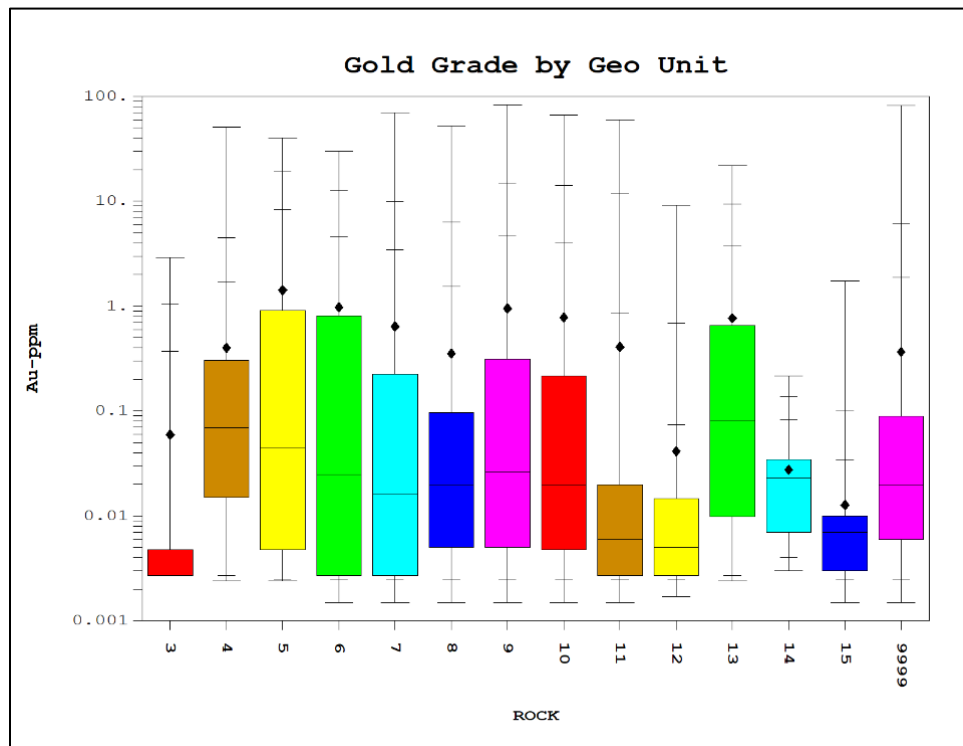
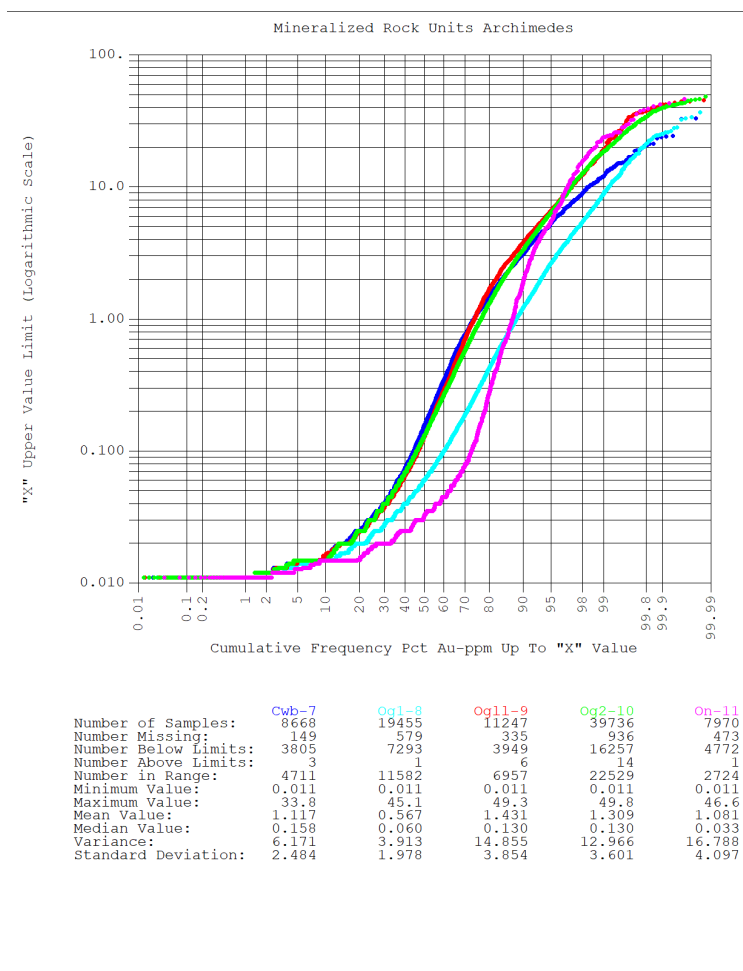


Figure 14-13: Graphical Statistical Comparison of Rock Units

(Source: Forte Dynamics, 2025)

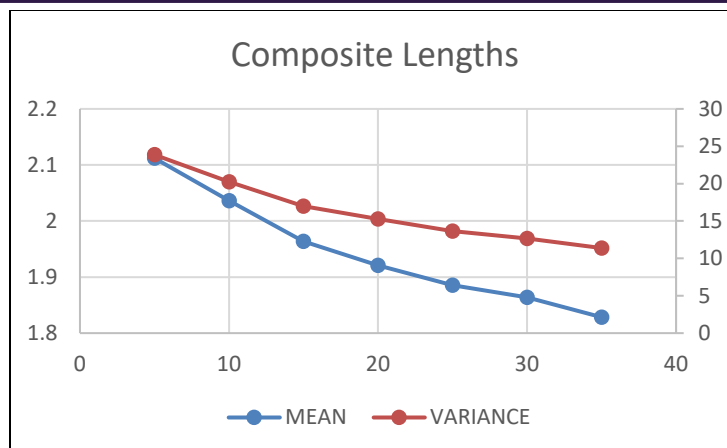
Cumulative frequency plots of five (5) of the key geological units are shown in Figure 14-14. There is evidence of an overrepresentation of very low grades within the database, indicating that the rock units are not the mineralogical control.



**Figure 14-14: Statistics for Key Geological Units**

(Source: Forte Dynamics, 2025)

A compositing study was performed to determine an appropriate composite length. This is an analysis of the increasing dilution and loss of variability incurred when combining drill hole samples into units of equal length for informing the resource estimate in an unbiased manner. The study results are shown in Figure 14-15. Grades will be very much diluted should a sample the length of a model block (25 ft) be used. There is an inflection in both curves at the 15ft. point, and it was determined that a ½ block composite of 12.5 ft. was appropriate for this estimate.



**Figure 14-15: Composite Study Results**

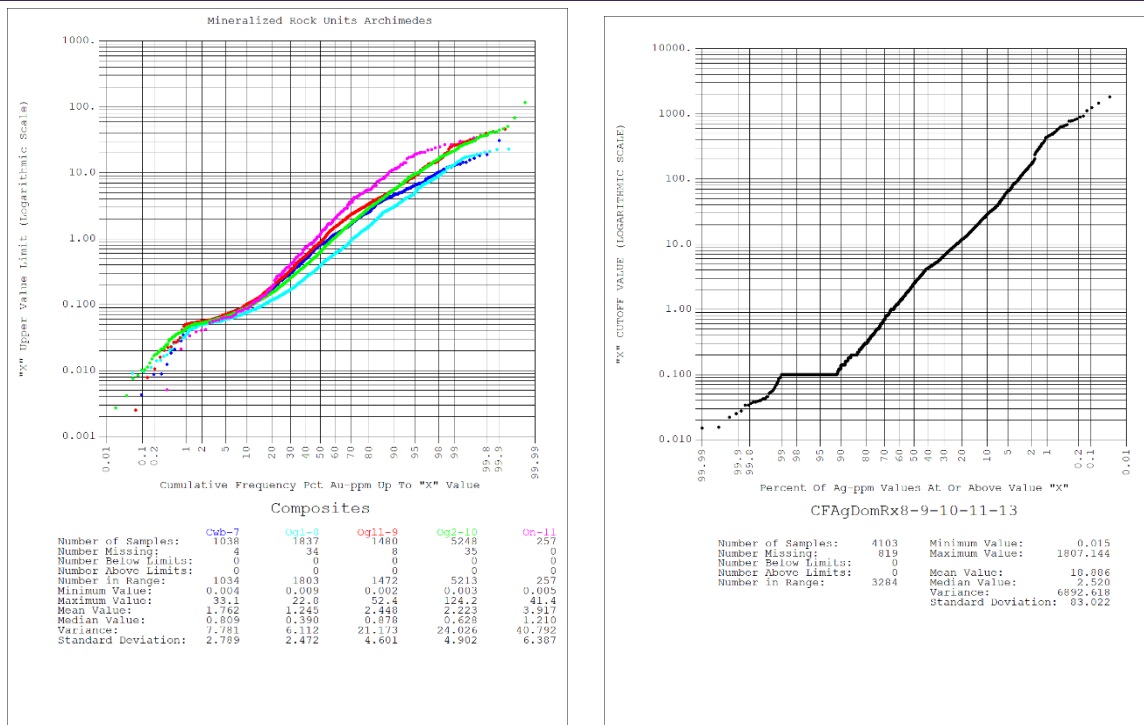
(Source: Forte Dynamics, 2025)

The QP suspects that the precious metals may have followed a structural overprint of fractures spanning the geological units. From this it was determined to develop a shell through indicator kriging to confine the analysis to the mineralized geological units and to limit the spread of metals into country rock. From Figure 14-14 it was determined that a threshold value of 0.05 ppm Au would be appropriate to differentiate mineralized from non mineralized rock. Variograms were developed for samples within the indicator shell as shown in Table 14-15. The estimated indicator values were plotted over drill hole sections to determine an appropriate decision value. The 0.85 probability value was selected, and this shell is being considered as the mineralized domain.

**Table 14-15: Variogram for 0.05 Au ppm Indicator**

Nugget	Sill 1	Sill 2	Azimuth	Dip	Range 1	Range 2
0.17	0.28	0.55	0	0	50	220
			90	0	25	220
			0	90	35	210

After limiting the composites to the indicator shell, cumulative frequency graphs were developed and are shown in Figure 14-16. Although the distributions are not perfectly log-normal, these are much improved in statistical behavior and were used for the gold and silver grade estimation. To avoid over projection of high-grade samples, the gold composites were capped at 15 g/t Au, and silver composites were capped at 200 g/t Ag.

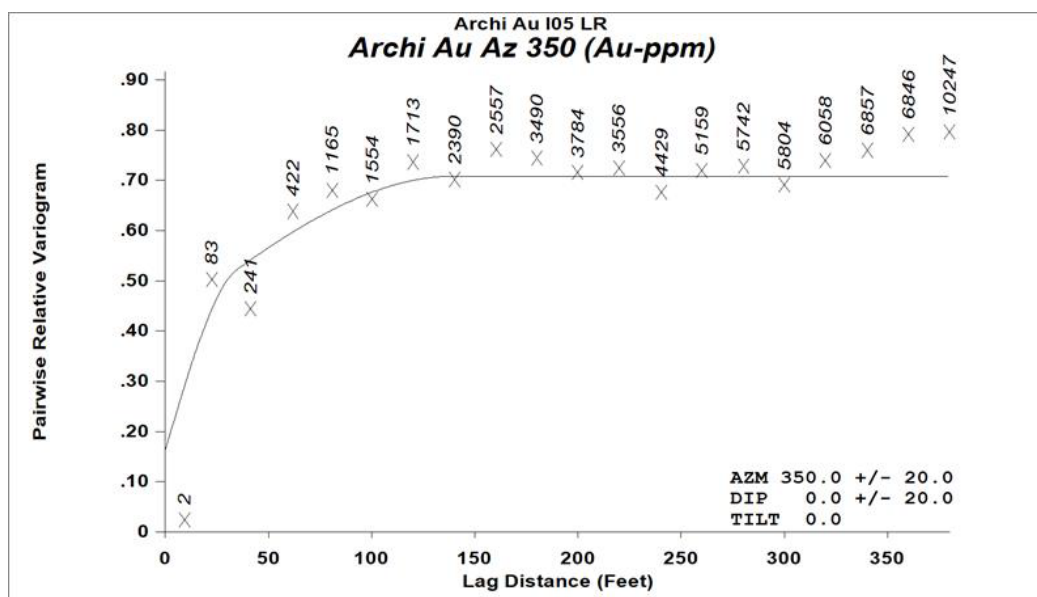


**Figure 14-16: Gold and Silver Composite Samples within the Indicator Shell**

(Source: Forte Dynamics, 2025)

### 14.3.3 Resource Estimation

Variograms were developed using the composites within the indicator shell. An example gold variogram is shown in Figure 14-17.



**Figure 14-17: Example Gold Variogram**

(Source: Forte Dynamics, 2025)



The variograms were modeled for both gold and silver within the mineralized domain as shown in Table 14-16.

**Table 14-16: Variograms for Au and Ag**

Gold Au	Nugget	Sill 1	Sill 2	Azimuth	Dip	Range 1	Range 2
	0.17	0.28	0.55	350	0	35	170
				80	80	35	170
				80	10	20	130
Silver Ag	Nugget	Sill 1	Sill 2	Azimuth	Dip	Range 1	Range 2
	0.23	0.76		0	0	95	
				90	0	95	
				0	90	80	

As the mineralized domain limit was based on an estimated value, and was well drilled, grade estimation parameters were limited to one variogram range and there were sufficient samples to estimate the volume at this range. A single pass search strategy was conducted using samples inside and outside of the indicator shell to estimate blocks.

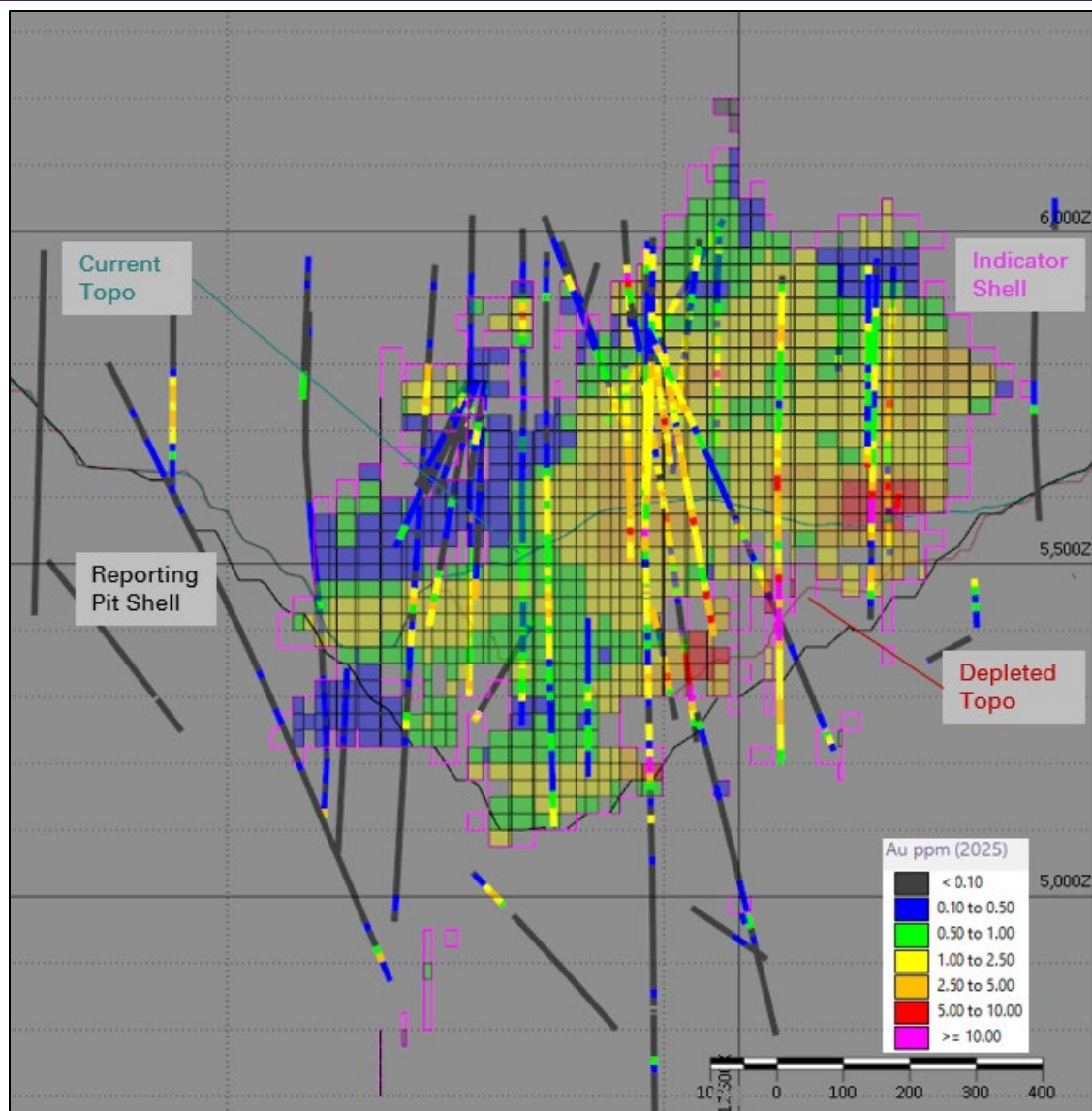
**Table 14-17: Gold and Silver Search Parameters**

Gold Au	Azimuth	Dip	Range 2	min	max	Max/hole
	350	0	170	9	16	4
	80	80	170			
	80	10	130			
Silver Ag	Azimuth	Dip	Range 2	min	max	min
	0	0	220	9	16	4
	90	0	220			
	0	90	210			

#### 14.3.4 Model Validation

Block model validation consisted of visual and statistical methods, including a comparison to the historical production. According to historical production records the Archimedes Pit produced about 22 million tons of ore at an average grade of about 2.29 g/t (0.067 opt). Testing the current model against the final mined topography gives an estimated mined resource of 21.4 million tons at about 2.25 g/t (0.066).

Numerous sections were reviewed and in general the estimated block grades compare well to the informing composite samples. Figure 14-18 shows an example cross section for the estimated block model and informing composites, including the reporting pit shell, current topo surface and the depleted topo surface, running SW-NE (100 ft window for composites).

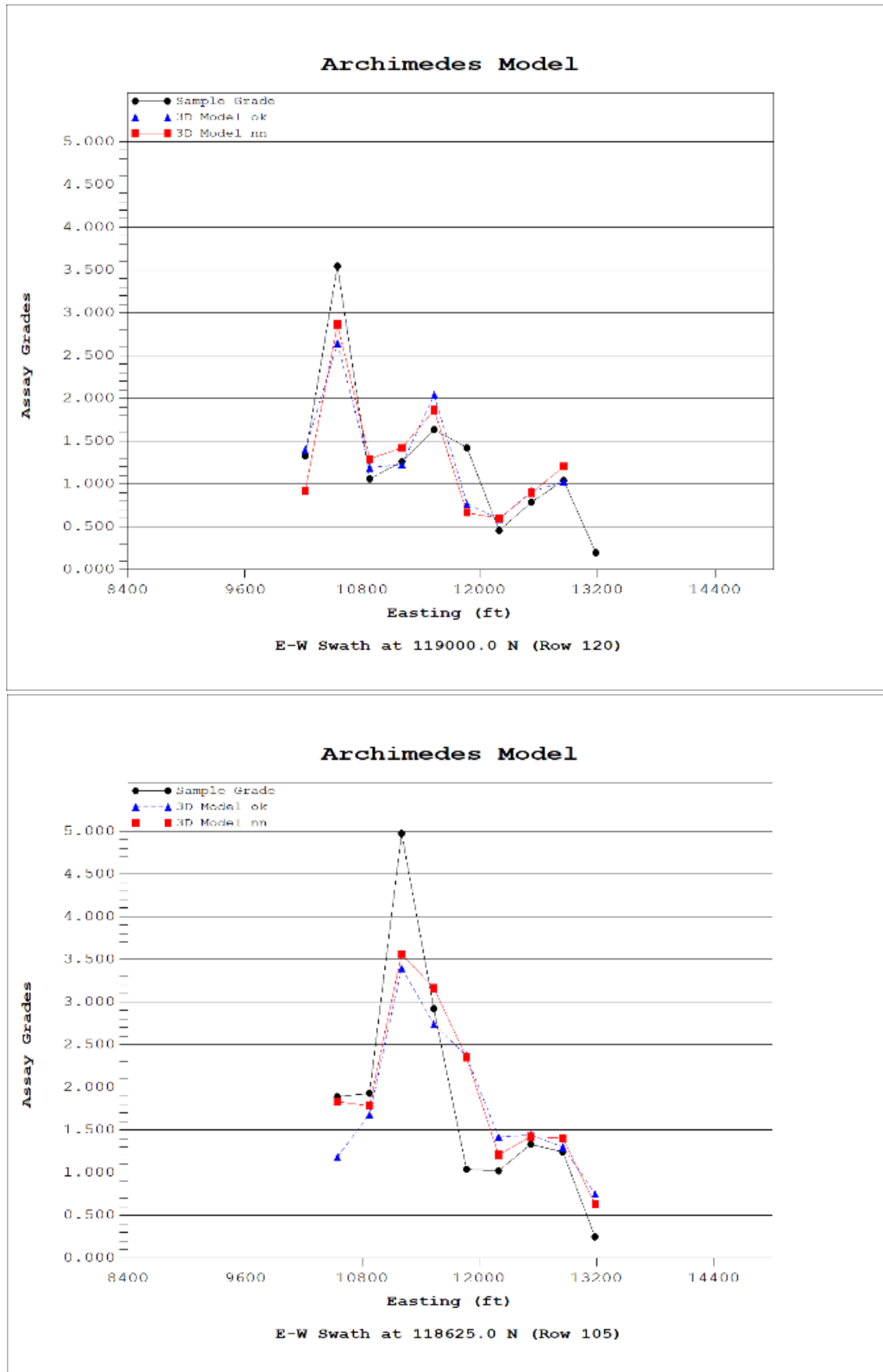


**Figure 14-18: Cross Section of Estimated Block Model and Composites**

(Source: Forte Dynamics, 2025)

The block model was checked for global bias by comparing the average grade of Ordinary Kriging (OK) to Nearest Neighbor (NN) at a zero grade g/t Au cutoff. The global bias was below 3% and considered acceptable and within the recommended Forte guidelines of 5%.

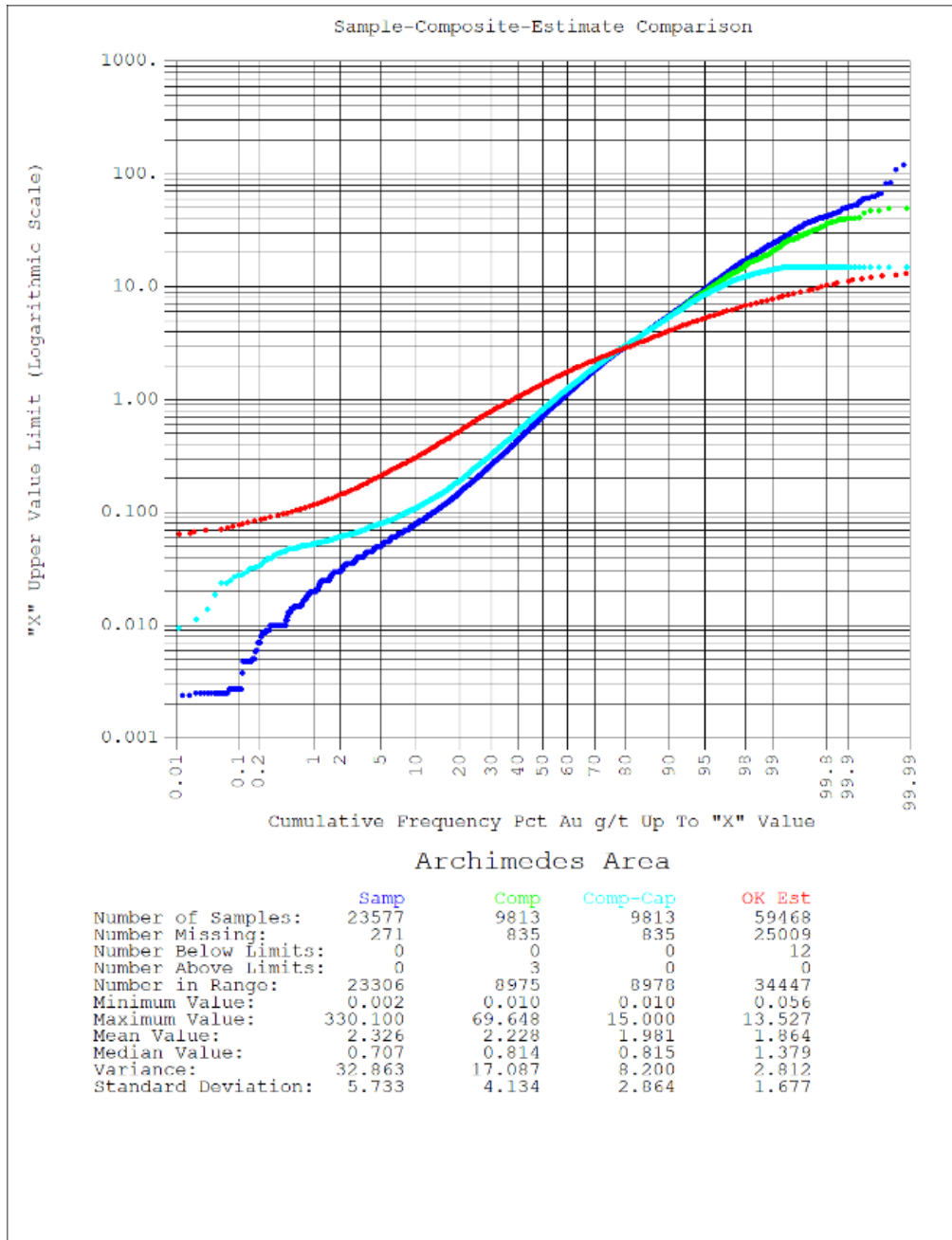
Local bias was reviewed using east-west swath plots to compare the estimate with the informing composite data, analyzing local trends. Two examples are shown through richly mineralized areas of the model. There are some slight differences between the OK and NN models grades, but it is within tolerance and considered normal.



**Figure 14-19: Example Swath Plots**

(Source: Forte Dynamics, 2025)

Figure 14-20 shows a statistical comparison of the distributions. As the volume of representative material increases from samples to composites to model blocks, the statistical variance decreases as shown in the change of slope. The capped composites and the estimated grades have similar means, and a lower mean value than the raw samples and uncapped composites.



**Figure 14-20: Comparison of Cumulative Frequency**

(Source: Forte Dynamics, 2025)

### 14.3.5 Mineral Resource Classification

The Mineral Resource was classified into Indicated and Inferred Mineral Resources (no Measured Resources). This was done using the average spacing of the closest three (3) drill holes to the block. Since the variogram models had been normalized (total sill =1.0) the distance at which the variogram reaches a proportion of the sill was chosen. This method was compared to the estimation of composite declustering weights and the sample density on drill hole bench intercept maps.

**Table 14-18: Resource Classification by Sample Density**

	% of Sill	Distance
Measured	<50%	35 ft
Indicated	<70%	80 ft
Inferred	>70%	80 ft

### 14.3.6 Reasonable Prospects for Eventual Economic Extraction

The potential for economic extraction was determined by use of an economic pit limit program, MineFlow, from the Colorado School of Mines. This utilizes a unique algorithm, but provides similar results to a Lerchs-Grossman analysis. The economic parameters applied are equal to those used in the more detailed Mineral Point study shown in Table 16-12. The bulk of the surface minable Archimedes deposit has been mined previously, leaving about 5 million tonnes of ore and 300 thousand gold ounces within the optimized pit shell and below the depleted topo surface.

### 14.3.7 Archimedes Open Pit Mineral Resource Statement

Mineral Resources are detailed in Table 14-19 for the Archimedes Open Pit mineral resource statement. Mineral Resources are not Mineral Reserves and have not been demonstrated to have economic viability. There is no certainty that the mineral resource will be converted to Mineral Reserves. The quantity and grade or quality is an estimate and is rounded to reflect the fact that it is an approximation. Quantities may not sum due to rounding.

There is no guarantee that Mineral Resource can be converted to Mineral Reserves. Inferred Mineral Resources do not have sufficient confidence that modifying factors can be applied to convert them to Mineral Reserves.



Table 14-19: Archimedes Open Pit Mineral Resource Statement

Deposit	Cutoff Au (g/t)	Tonnes (000)	Au (g/t)	Ag (g/t)	Au oz (000)	Ag oz (000)
Indicated Mineral Resources						
Archimedes Pit	0.2	4,280	1.98	10.7	272	1,460
	0.1	4,320	1.96	10.6	272	1,490
	0.05	4,340	1.95	10.6	272	1,480
Inferred Mineral Resources						
Archimedes Pit	0.2	820	1.18	8.9	31	230
	0.1	870	1.12	8.5	31	250
	0.05	880	1.11	8.5	31	250

## Notes:

1. Mineral Resources have an effective date of December 31, 2024.
2. Mineral resources are the portion of Mineral Point that can be mined profitably by open pit mining method and processed by heap leaching.
3. Mineral Resources are below an updated topographic surface (below Archimedes pit).
4. Mineral Resources are constrained to economic material inside a conceptual open pit shell. The main parameters for pit shell construction are a gold price of \$2,175/oz Au, a silver price of \$26.00/oz, average gold recovery of 77%, average silver recovery of 40%, open pit mining costs of \$3.31/tonne, heap leach average processing costs of \$3.47/tonne, general and administrative cost of \$0.83/tonne processed, gold refining cost of \$1.85/oz, silver refining cost of \$0.50, and a 3% royalty (Section 19.1).
5. Mineral Resources are reported above a 0.1 g/t Au cutoff grade. Silver revenues were not considered in the cutoff grade.
6. Mineral Resources are stated as in situ.
7. Mineral Resources have not been adjusted for metallurgical recoveries.
8. Reported units are metric tonnes.
9. Reported table numbers have been rounded as required by reporting guidelines and may result in summation discrepancies.

### 14.3.8 QP Opinion

The Archimedes Open Pit Mineral Resource has been estimated using core drill data using industry best practices, and have been prepared and reported under S-K 1300 definitions. Forte believes that the Mineral Resource Estimate is of sufficient quality to support future exploration and mining related work, including future preliminary economic assessment level studies.

Forte is not aware of any other factors or issues not discussed in this technical report that may materially affect the Mineral Resource Estimate other than normal risks faced by mining projects in terms of environmental, permitting, taxation, socioeconomic, marketing and political factors.

## 14.4 Mineral Point Open Pit

Forte Dynamics, Inc (Forte) reviewed the Mineral Point Open Pit Mineral Resource Estimate completed by Wood in July 2021. The scope of the review included the informing drillhole and sample data, exploratory data analysis (EDA), input models (described below), and the current topography. The scope also included a review of the grade estimation methodology and model validation, bulk density determination, resource classification, reasonable prospects for eventual economic extraction (RPEEE), and the statement of Mineral Resources.

Upon completion of the Mineral Point Open Pit resource review, Forte made some slight modifications to the Wood block model. Note that the estimated block grades were not altered or changed. Updates included updating the block model with the current topographic surface, recoding the Wood 2021 lithological model

to the block model along with an assigned specific gravity (SG) values based on lithology code, and updated values and conversions for tonnage factor. Forte also used an updated pit shell to constrain and report the Mineral Resource under the requirements for RPEEE, which was based on a 2024 Scoping Study completed by Forte and used for other work completed in this Technical Report Summary.

No Mineral Resource depletion has occurred since the Wood 2021 Mineral Resource Estimate. The 2025 Mineral Point Mineral Resource Estimate is comprised of Indicated and Inferred Mineral Resources and is presented in Table 14-23.

#### **14.4.1 Summary Workflow**

The Mineral Resource estimation workflow for the Mineral Point Trend consisted of three (3) steps:

1. Exploratory data analysis to understand grade trends and distributions and select an approach and parameters for grade estimation and density determination.
2. Estimation of block model grades.
3. Block model validation consisting of visual and statistical comparison methods.
4. Mineral Resource classification into Measured, Indicated, and Inferred Mineral Resources.
5. Economic analysis to determine if there are reasonable prospects for eventual economic extraction.
6. Reporting of resource estimation results.

The Mineral Resource block model was classified according to the 2014 CIM Definition Standards following an assessment of the spatial continuity of grades and geological features, input data spacing and data quality.

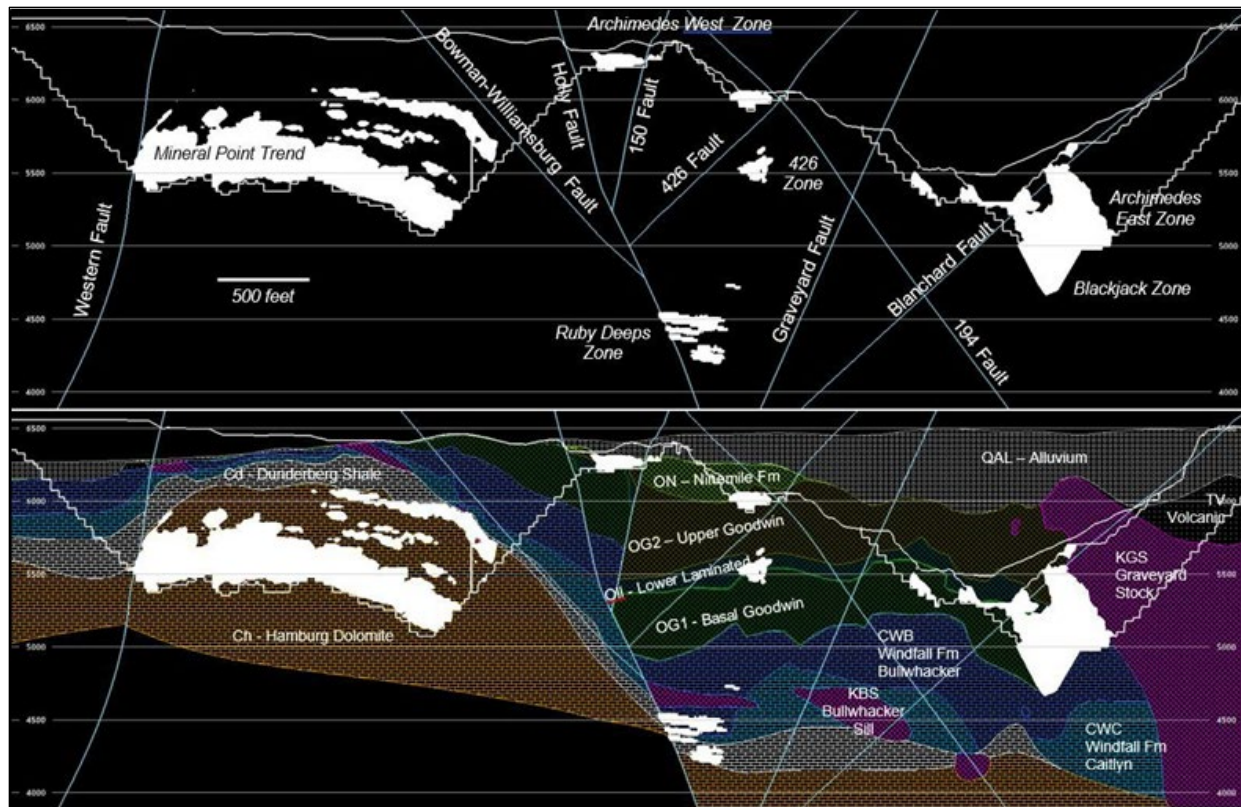
A Mineral Resource optimized Lerchs-Grosman (LG) pit shell was constructed to define the portion of the resource model having reasonable prospects for eventual economic extraction (RPEEE) amenable to open pit mining and run of mine heap leaching.

Classified Mineral Resources blocks were tabulated for above conceptual cut off grades inside the resource pit shell, and resource risks and opportunities were evaluated.

#### **14.4.2 Geological Modeling**

##### **14.4.2.1 Structural Model**

A structural model was developed for the Ruby Hill project by SRK (Uken, 2017a, 2017b). The structural model consists of a set of fault surfaces that offset lithological units and an assessment of fold geometry affecting the lithological units hosting gold mineralization. The model was developed from mapping in the open pit and analysis of blasthole, diamond drill and reverse circulation data. The main fault features are shown in Figure 14-21.



**Figure 14-21: Fence Section Looking North Showing Main Faults and Stratigraphic Units for the Ruby Hill Project**

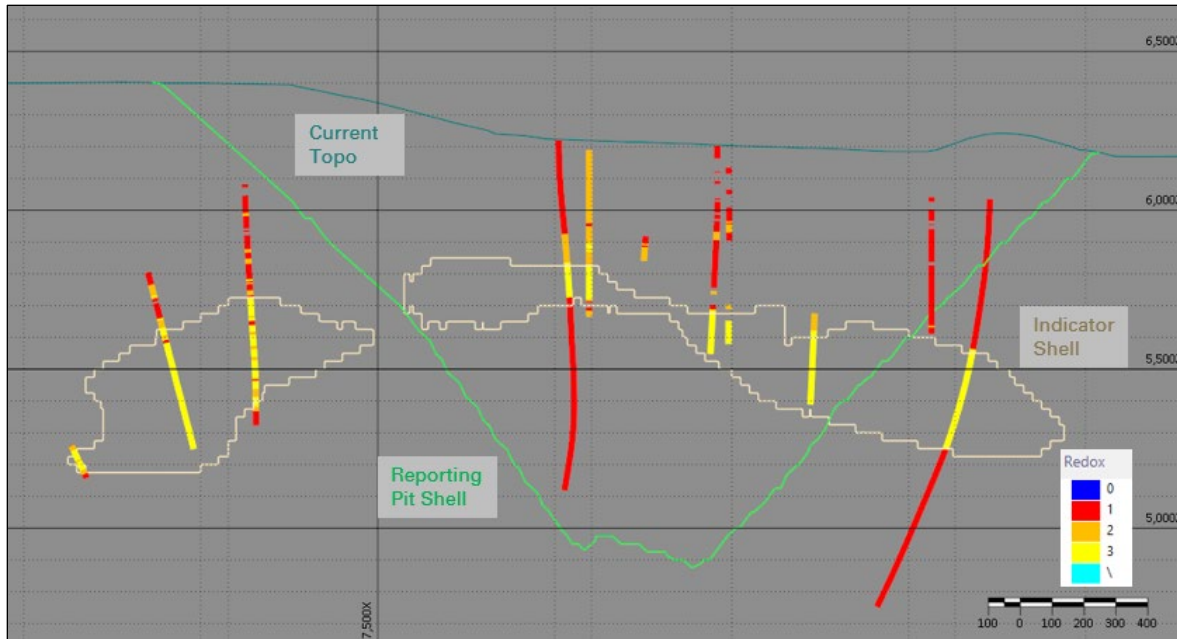
(Source: Wood, 2021)

#### **14.4.2.2 Lithology Model**

A lithology model consisting of the stratigraphic units hosting gold and base metal mineralization was constructed using the Project structural model faults and fold geometries along with geological logging from diamond drill and reverse circulation drilling to guide interpretation. Figure 14-21 shows the lithology model for the Ruby Hill Project.

#### **14.4.2.3 Oxidation Model**

An oxidation model was constructed consisting of wireframes interpreted using the logged oxide-sulfide codes and the ratio of cyanide soluble gold to total gold grade (AURAT). The oxidation model was coded to the block model to define sulfide and oxide blocks. An example cross section showing the modeled sulfide zone and Redox coding in the drillhole database running SW-NE is shown in Figure 14-22.



**Figure 14-22: Example Cross Section Showing Modeled Sulfide Domain and Redox Codes in the Drillhole Database**

(Source: Forte Dynamics, 2025)

### 14.4.3 Exploratory Data Analysis

Exploratory data analysis (EDA) was carried out on raw assay samples and assay composites and included construction and review of histograms, probability plots, boxplots, visual review of spatial grade trends in three dimensions, and down hole and directional grade variography to develop the approach for grade estimation and generate parameters for interpolation. A summary of the EDA is presented here.

Visual assessment of gold grades at Mineral Point indicates that grades are moderate compared to the Archimedes Deposit, but on-strike and lateral continuity is good along the broadly folded Hamburg dolomite unit that hosts the majority of the mineralization at Mineral Point. Locally varying anisotropy, using the hanging wall surface of the Hamburg Dolomite to orient the strike and dip of anisotropic search ellipsoids, was identified as a good way to model the folded grade trend evident at Mineral Point.

Figure 14-23 shows a histogram and probability plot for gold and silver assay sample grades for the Mineral Point Trend constrained to the optimized LG pit shell used to report the Mineral Resource Estimate in this section. The gold grade distribution is log-normal with a mean of 0.39 g/t Au and a median grade of 0.05 g/t Au with a long tail to a maximum grade of 128.5 g/t Au. The coefficient of variation (CV) of the gold assay grades is 6.5.

Based on an assessment of the relatively high variance of the assay grade distribution a 10-foot downhole composite length was selected to reduce variance of the majority 5-foot assay sample intervals. The CV of the gold composite grades is 5.6.

Figure 14-24 shows an example East-West cross section (looking North) through the West central part of the Mineral Point Trend showing raw assays (right of trace) and downhole 10 ft. composites (left of trace) with the optimized pit shell. Figure 14-25 shows a box and whisker plot for the raw assay sample grades and 10 ft. composites for gold and silver.

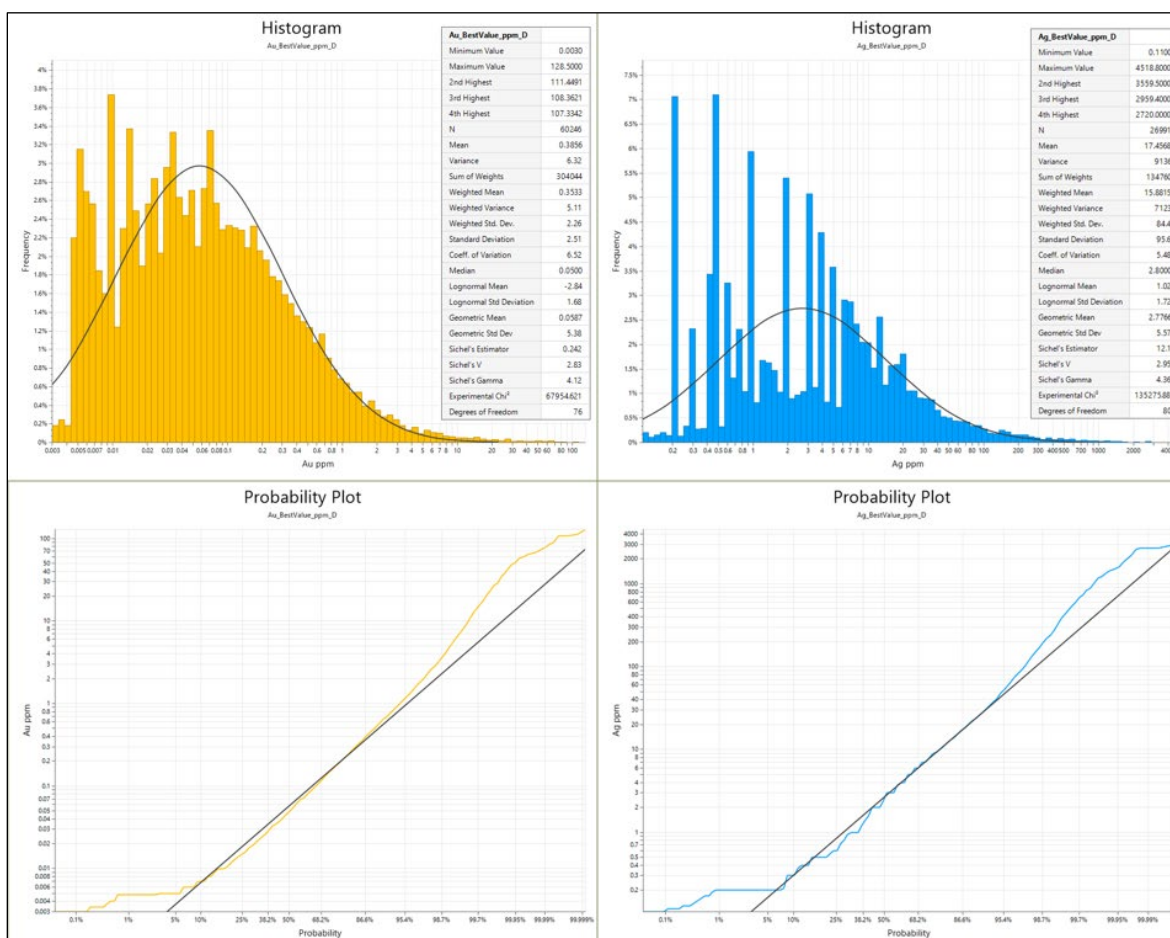


To further manage the high variance of the gold grades the Probability Assigned Constrained Kriging (PACK) method was selected and indicator grade thresholds of 0.08 g/t Au and 1.0 g/t Au were selected to define low- and high-grade gold domains for the Mineral Point Trend.

An analysis of the high-grade assays was undertaken, and assay capping thresholds were selected to mitigate over projection of higher-grade samples.

Experimental correlograms were calculated using 10' composites within the low- and high-grade domains. Down-hole variograms were used to define the nugget effect, and variogram maps were used to determine the directions of best continuity. Variograms were then modeled in the three primary directions.

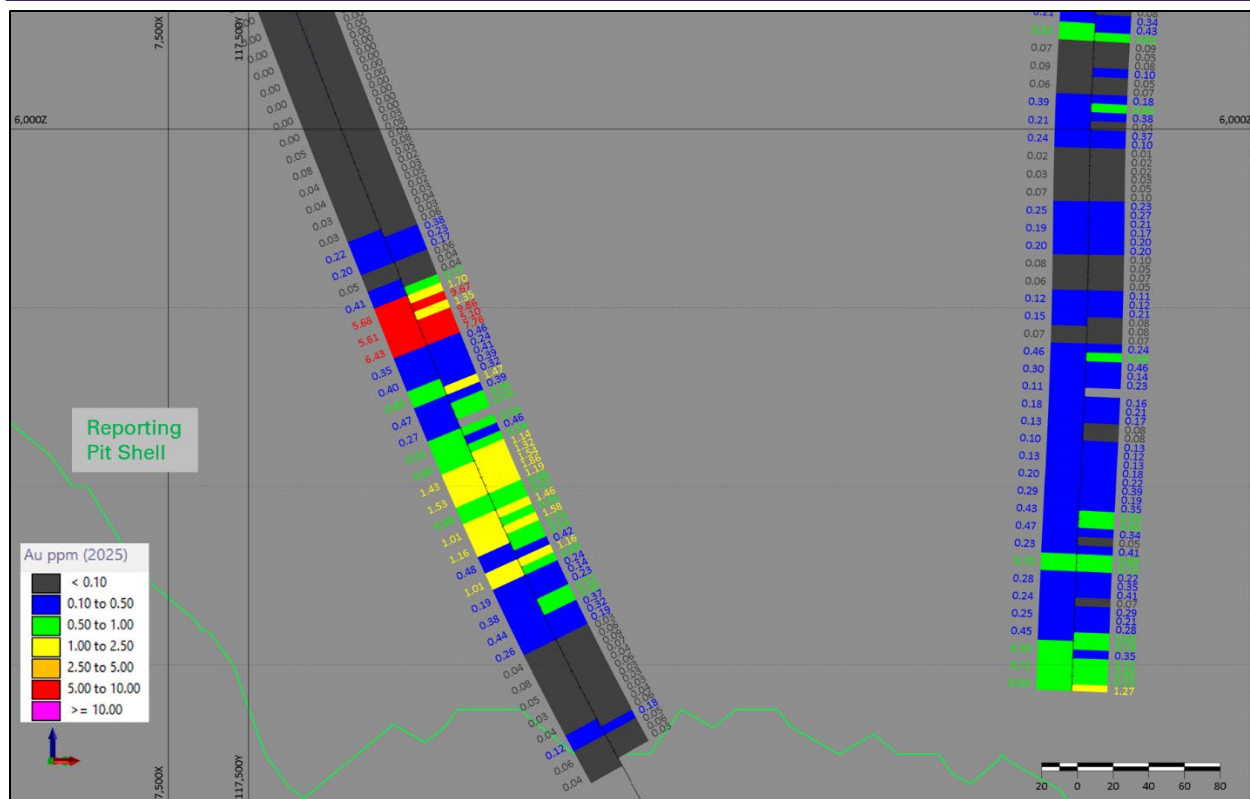
EDA for silver grades indicated that although silver is not well correlated with gold grades, the grade distribution of silver is similar to that of gold and a similar approach would be suitable for silver grade estimation. Indicator grade thresholds of 4.0 g/t Ag and 40 g/t Ag were selected to define the low- and high-grade domains for silver.



**Figure 14-23: Gold and Silver Raw Assay Sample Grade Histograms and Probability Plots**

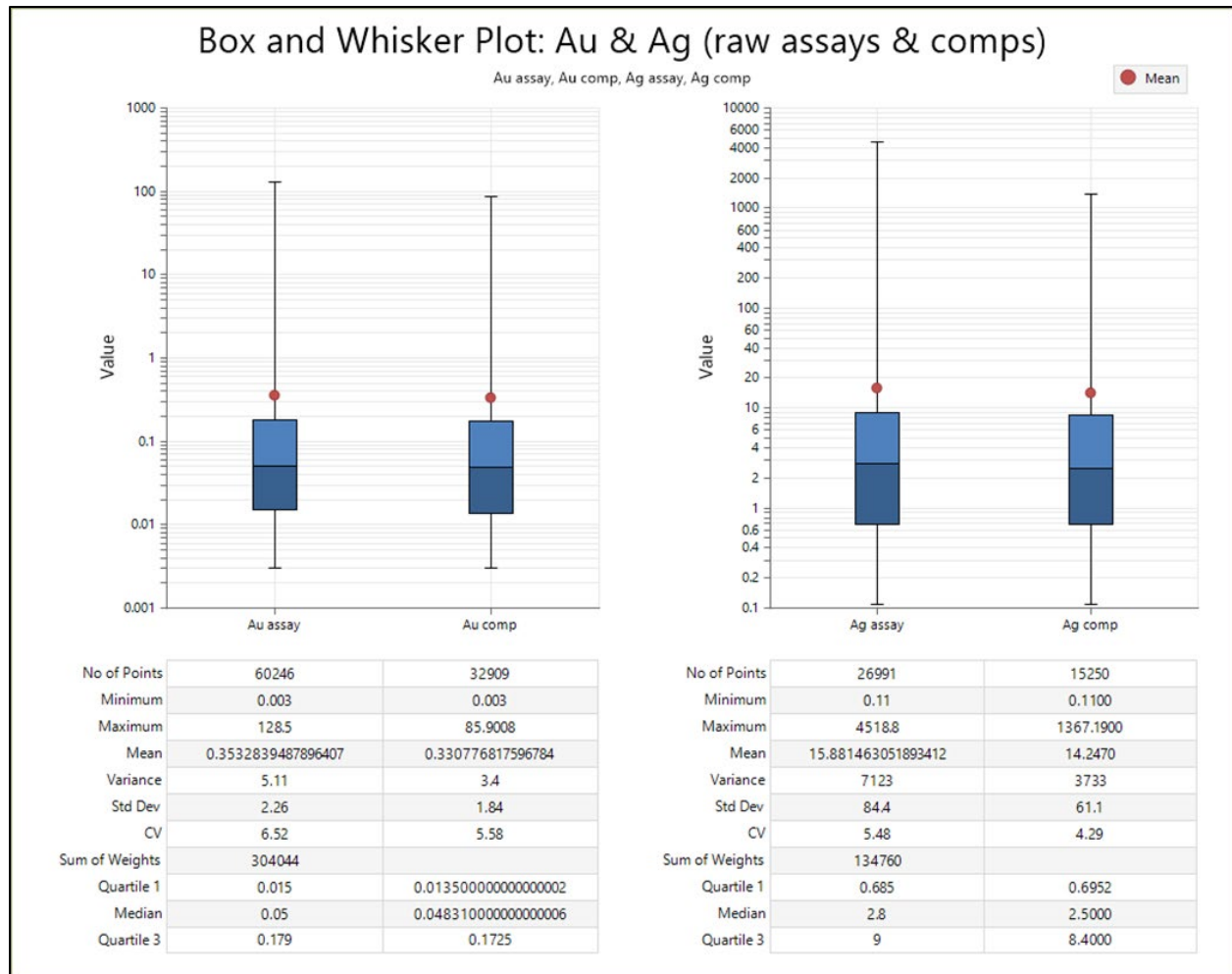
(Source: Forte Dynamics, 2025)





**Figure 14-24: Example Cross Section of the Mineral Point Trend Showing Raw Assays (Right of Trace) and Downhole 10 ft. Composites (Left of Trace) with the Optimized Pit Shell**

(Source: Forte Dynamics, 2025)



**Figure 14-25: Box and Whisker Plot for Assay Sample Grades and 10 ft. Composites for Gold and Silver**

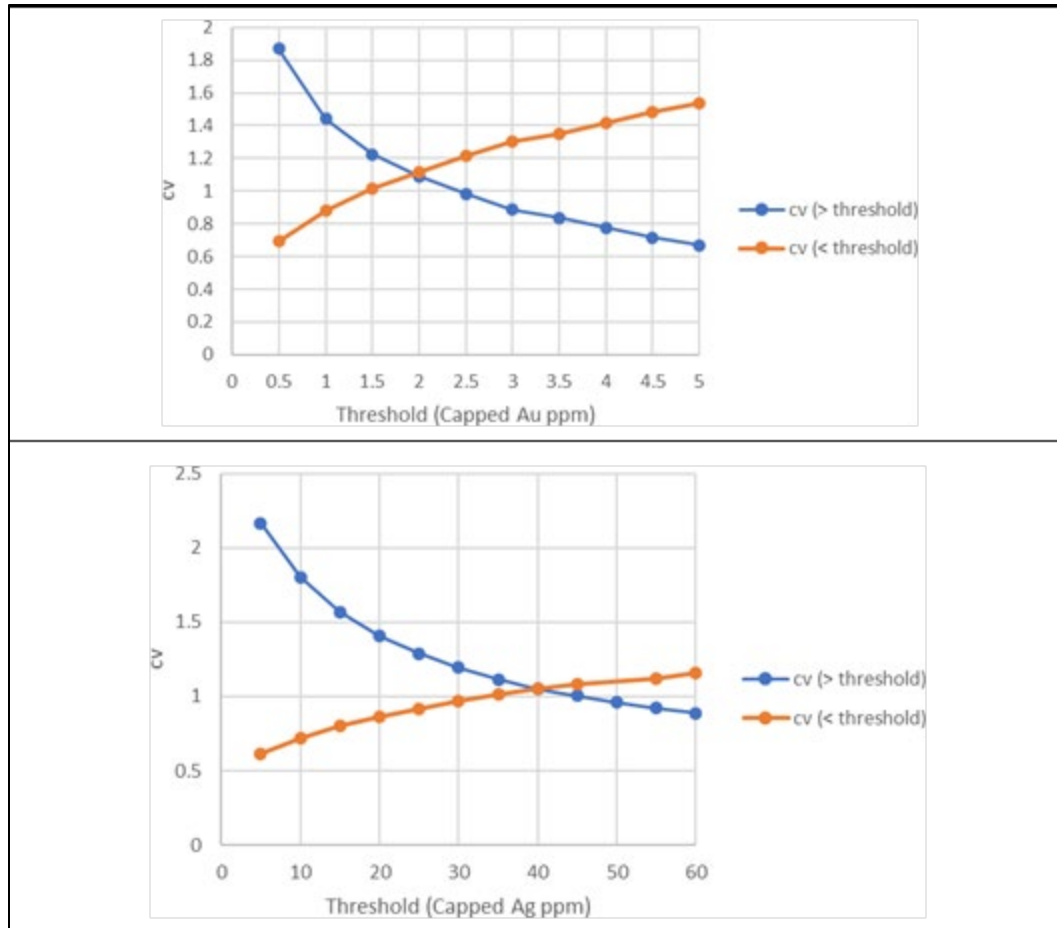
(Source: Forte Dynamics, 2025)

#### 14.4.4 Grade Estimation

Grade estimation was completed using the PACK methodology using Vulcan commercial mining software for gold and silver. A composite length of 10 feet and block size of 25 ft x 25 ft x 25 ft were selected to reduce sample variance and build models for open pit mining. The selected block size is consistent with the bench height and selectivity of historic mining in the Archimedes pits and the selectivity envisaged for future open pit mining.

Grades for the Mineral Point Trend were estimated into 25 ft x 25 ft x 25 ft blocks using 10 ft assay composites.

Based on an analysis of the Coefficient of Variation (CV) at a range of grade thresholds, thresholds of around 1.0 g/t Au and 40 g/t Ag were selected to define low- and high-grade domains for gold and silver. This threshold allowed reduction of the variance of composite grades within the two grade domains and enough samples to support estimation in both domains.



**Figure 14-26: Indicator Threshold Selection – CV of Gold and Silver Assay Composite Grades**

(Source: Wood, 2021)

Low and high-grade indicators were estimated from the 10 ft composites using inverse distance weighting to the second power with a search of 500 ft x 500 ft x 50 ft, using a minimum of 6 samples, maximum of 15 samples and maximum of 3 samples per drillhole. Based on volumetric review comparing a Nearest Neighbor (NN) model of the high-grade indicator, an estimated indicator probability of 0.37 was selected as the probability threshold to define blocks for the high-grade domain. Estimated indicator probabilities in the block model were then back-flagged into the composites. Composites with back-flagged probabilities  $\geq 0.37$  were used to estimate blocks with an estimated indicator  $\geq 0.37$  for the high-grade domain. Composites with back-flagged indicator probabilities  $< 0.37$  were used to estimate blocks in the low-grade domain. Gold and silver grades for blocks within the high-grade domain were interpolated using the estimation parameters shown in Table 14-20. Estimation search ellipse orientation is based on locally varying anisotropy (LVA) in which each block is assigned an orientation based on the tangent plane to the hanging wall contact of the Hamburg dolomite at the point nearest to the block centroid.

Table 14-20: Estimation Parameters

Estimation Pass	Min	Max	Max Per DH	X Axis	Y Axis	Z Axis	% Estimated
<b>LG Domain</b>							
1	6	15	3	200	200	50.0	39
2	6	15	3	300	300	75.0	34
3	6	15	3	450	450	112.5	25
4	1	15	3	600	600	150.0	2
<b>HG Domain</b>							
1	5	15	3	200	200	50.0	42
2	5	15	3	300	300	75.0	24
3	5	15	3	450	450	112.5	20
4	1	15	2	600	600	150.0	14

A review of the grade tonnage curve and histograms for gold revealed an inflection at the 0.8 g/t Au indicator threshold. To soften the boundary between low- and high-grade domains, a mixing zone was applied by adjusting the composite selection allowed to estimate each domain. For Au estimates for Mineral Point the final gold grade estimate was based on allowing composites with a probability between 0 and 0.45 to estimate blocks in the LG domain and composites with a probability between 0.20 and 1 to estimate blocks in the HG domain. Figure 14-27 shows the reduction in the “valley” by applying this soft boundary.

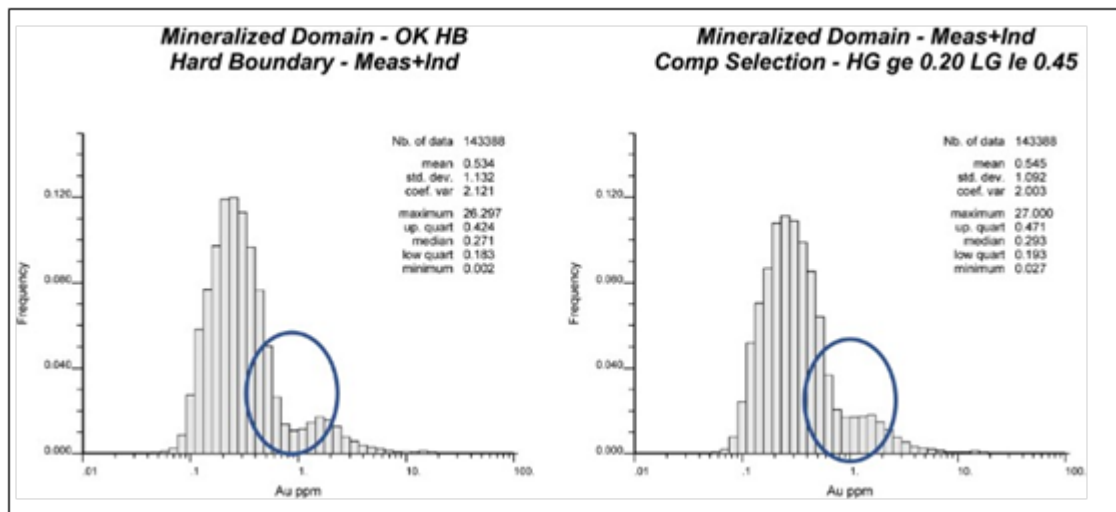
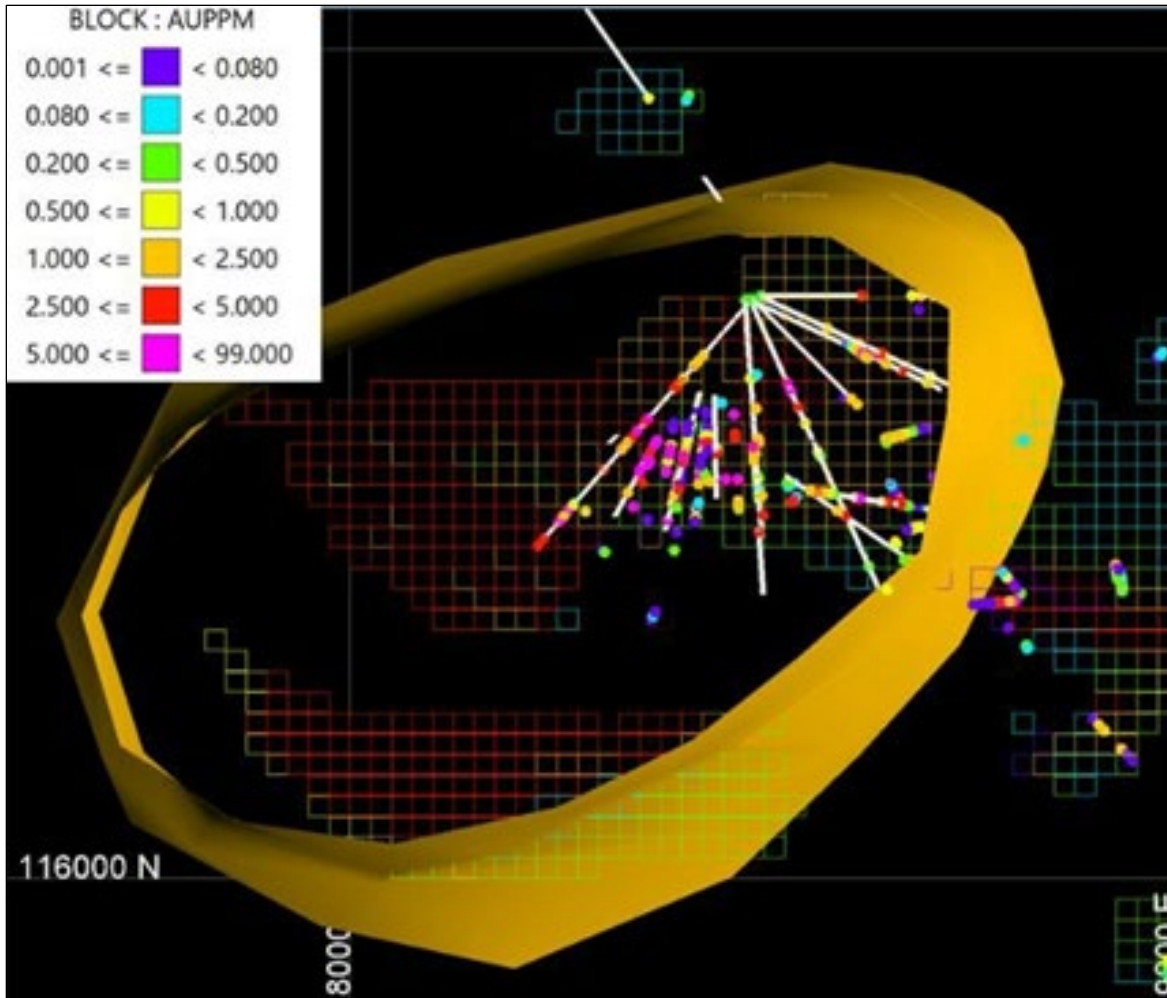


Figure 14-27: Au Estimation – Implementation of a Soft Boundary Between LG and HG Composites

(Source: Wood, 2021)

A review of the estimated Au grades noted a high-grade blow-out in a limited area with existing underground development, drilling and assaying by Eureka Corp. To constrain the blowout Wood created a small wireframe around the affected area and applied a local cap grade of 5.0 g/t Au to composites within this area (Figure 14-28).



**Figure 14-28: Area of Au High-Grade Blow-out and Eureka Corp Underground Drilling**

(Source: Wood, 2021)

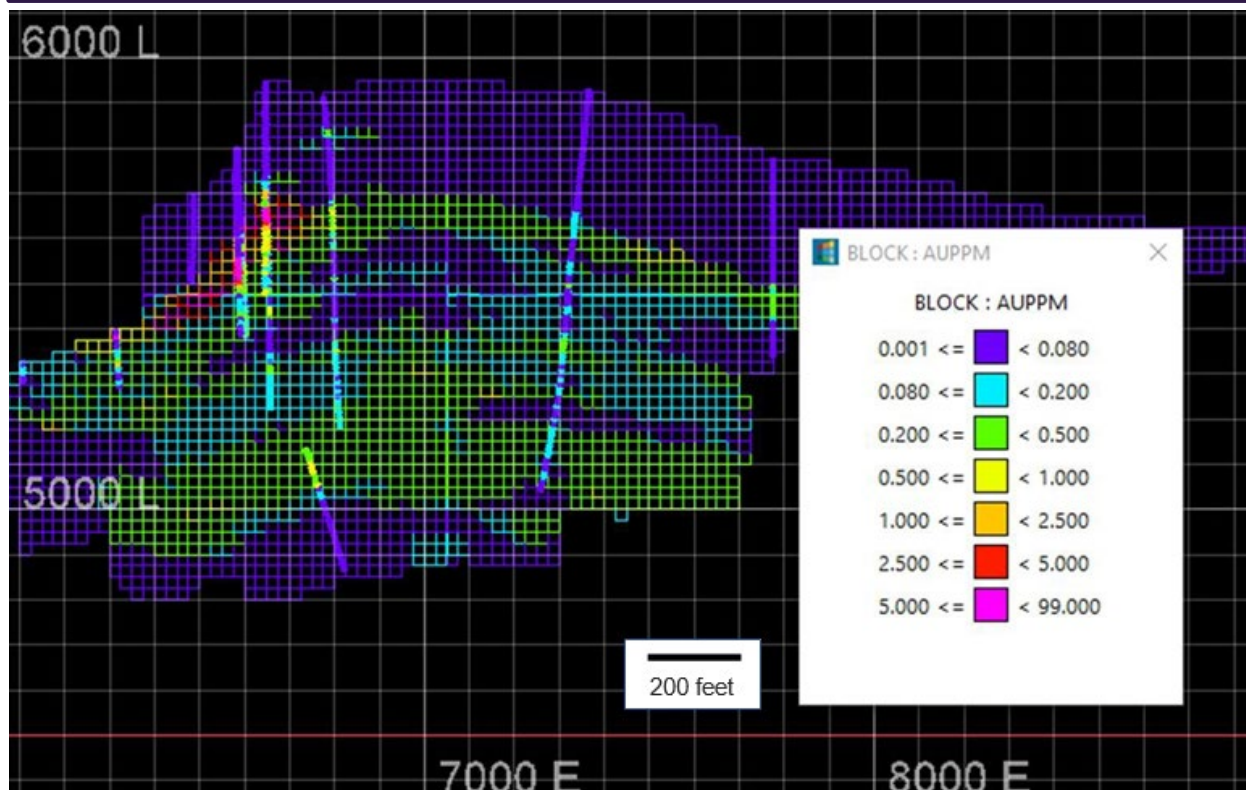
#### **14.4.5 Resource Model Validation**

Block model validation consisted of visual comparisons of the ordinary kriging (OK) estimated blocks vs the informing composites, statistical comparisons of the OK grade estimates to the nearest neighbor (NN), and swath plot spatial comparisons of the OK grade estimates to NN and IDW<sup>2</sup> to ensure grade trends were maintained.

##### **14.4.5.1 Visual**

Estimated block model grades and composite grades were visually examined in cross section, longitudinal sections, and plan views. In general, the composites and model blocks compared well. An example section for gold grades and estimated blocks are shown Figure 14-29.





**Figure 14-29: Estimated Block Grades and 10 Foot Composite Grades for Gold - Section 121200 N Looking N**

(Source: Wood, 2021)

#### 14.4.5.2 Global Bias

The block model was checked for global bias by comparing the average Au and Ag estimated OK grades (with no cut-off) to the Nearest Neighbor (NN) average estimates. The NN estimator produces a theoretically globally unbiased (declustered) estimate of the average value when no cut-off grade is applied and is a good basis for checking the performance of the different estimation methods. Global biases are within the recommended Forte guidelines of 5%. The comparison is summarized in Table 14-21.

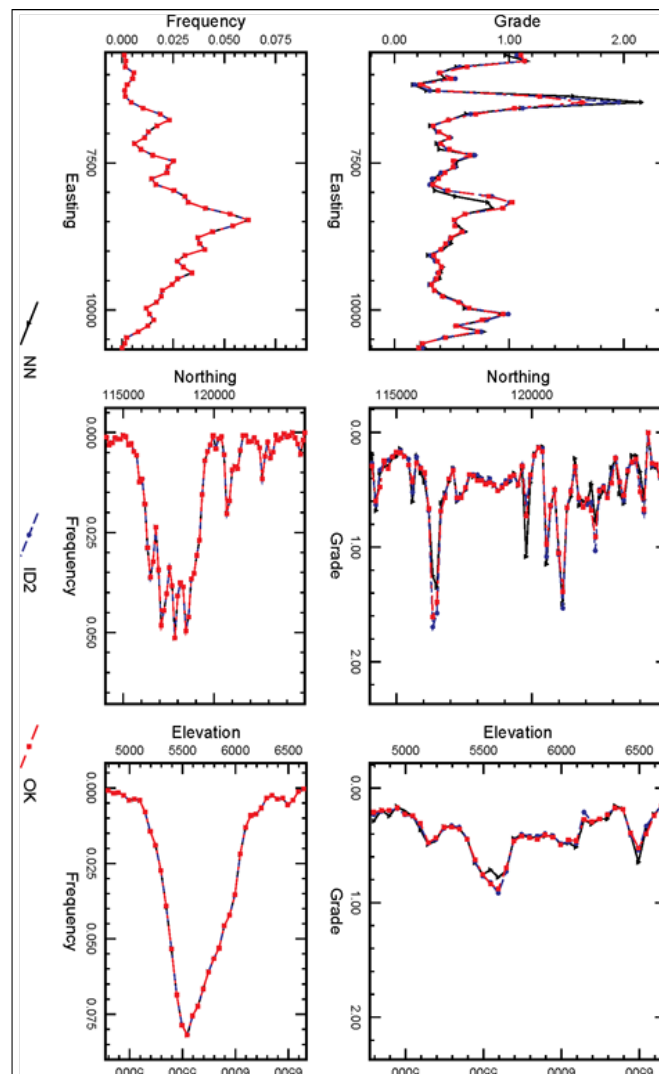
**Table 14-21: Global Bias Check within Indicated Resources**

		Tons	Estimated Mean		Relative Difference (%)
Class	Element	(000s)	NN Mean	(OK)	(OK-NN)/NN
Indicated	Ag (g/t)	183546	0.496	0.493	-0.6
	Au (g/t)		15.104	15.251	1.0

### 14.4.5.3 Local Bias

Local bias checks for Au and Ag were performed within the mineralized envelope by creating and analyzing local trends in the grade estimates using swath plots as presented in Figure 14-30.

This was done by plotting the mean values from the NN estimate, the ID2 estimates and the OK estimates in east-west, north-south and vertical swaths or increments. Swath intervals are 100 feet in the easterly direction, 150 feet in the northerly direction, and 50 feet vertically. In the upper row of the swath plots, the red line represents the OK model grades, the blue line represents the ID2 model grades, and the black line represents the NN model grades. In the lower row of swath plots, the number of blocks contained in each swath is shown by the red, blue, and black lines. Because the NN model is declustered and the composites are not, the NN model is a better reference model to validate the OK resource model. Swath plots are for Indicated blocks only. Both Au and Ag show good agreement, especially in areas supported by large numbers of blocks. There are some slight differences between the OK and NN models grades, but it is within tolerance and considered normal.



**Figure 14-30: Swath Plots – Gold – Indicated Blocks**

(Source: Wood, 2021)

#### 14.4.6 Bulk Density

Bulk density was assigned to blocks based on lithology model using the median of the bulk density measurements for each unit (Figure 14-31). A specific gravity value of 2.0 was assigned to quaternary alluvium, and a default value of 2.6 was assigned to lithologies for which there were no bulk density measurements. Dimensionless specific gravity values were converted to Imperial density in short tons per cubic foot for tabulation of resources and Imperial tonnage was converted to Metric tonnes for reporting.

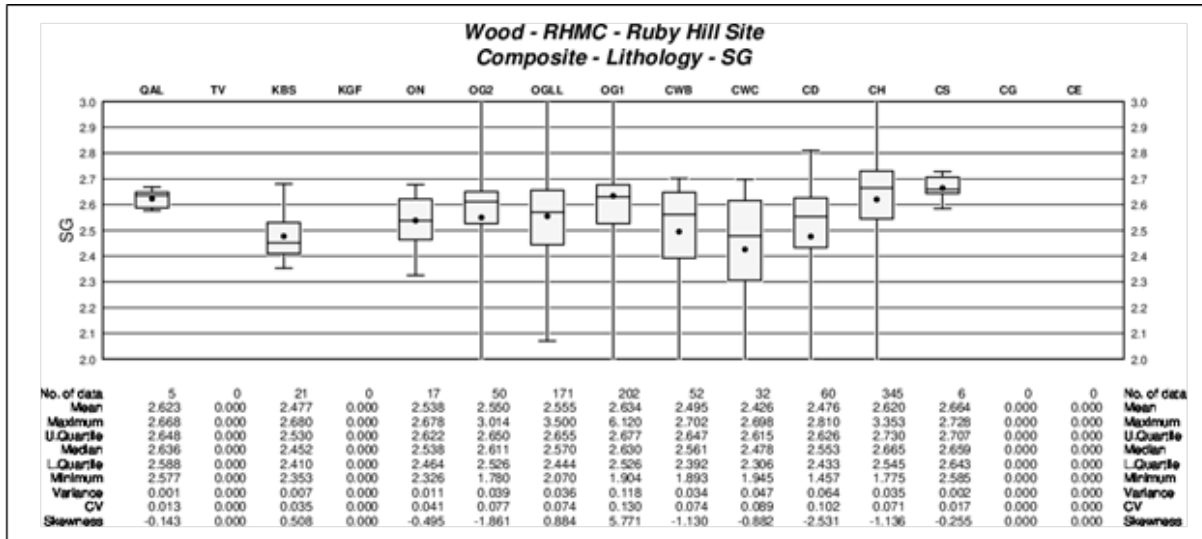


Figure 14-31: Bulk Density Values by Lithology

(Source: Wood, 2021)

#### 14.4.7 Mineral Resource Classification

The Ruby Hill Project Mineral Resource Estimate has been classified according to the 2014 CIM Definition Standards and CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (Nov. 29, 2019). The parameters evaluated in the development of confidence classification criteria include the quality of the data used for the estimate, input data spacing, continuity of geological features, and grade and geostatistical assessment of estimation error of forecast grade for quarterly and annual production volumes.

A geostatistical drillhole spacing study was carried out as part of the assessment of parameters for Mineral Resource classification for the Mineral Resource Estimate. The drillhole spacing study used the gold grade variogram and the coefficient of variation (CV) of the assay composite database to calculate estimation error for forecasts of gold grade for quarterly and annual production volumes at a mining rate of 20 ktpd based on a range of drill patterns. The study indicated that based on the variance of the gold grades and their spatial continuity a 100 ft x 100 ft square pattern would allow estimates of quarterly production with an error of approximately  $\pm 15\%$  at the 80th confidence interval, and a 200 ft x 200 ft grid would be required to produce estimates within  $\pm 15\%$  at the 80th confidence interval for annual production volumes. A portion of the Mineral Point block model is estimated by drillholes spaced closely enough for Measured classification but concerns about data quality for the legacy data caused a downgrade of confidence of this material, and all blocks within an average of 140 ft to the nearest three (3) drillholes were classified as Indicated. Blocks estimated from drillholes from 140 ft to 500 ft were classified as Inferred. A smoothing routine was run to reduce the number of small, isolated patches of Measured and Indicated blocks in areas of predominantly

Inferred classification and reduce the number of small, isolated islands of Inferred blocks inside areas of predominantly Indicated classification.

#### 14.4.8 Reasonable Prospects for Eventual Economic Extraction

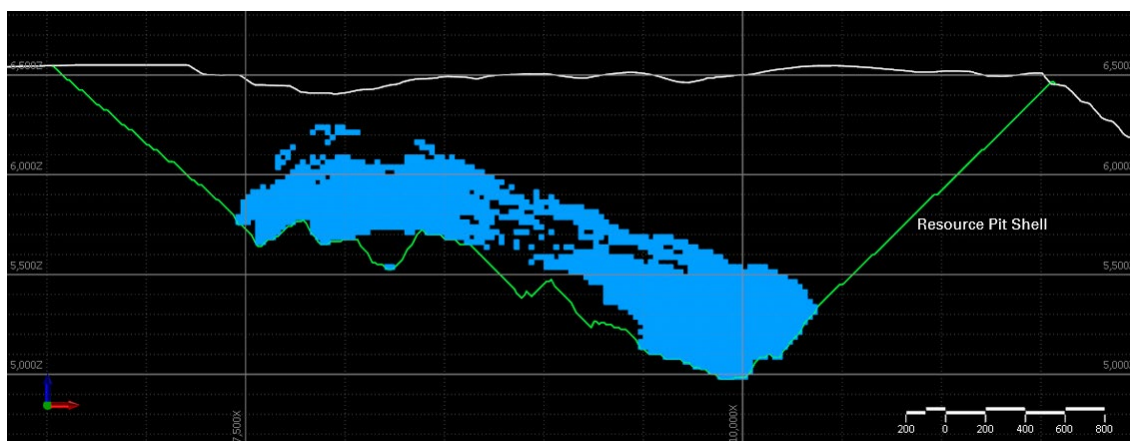
A Mineral Resource optimized LG pit shell was constructed to define the portion of the Mineral Point resource having reasonable prospects for eventual economic extraction (RPEEE) amenable to open pit mining and processing by heap leaching using the 25 ft x 25 ft x 25 ft block model. Conceptual mining, processing and economic assumptions for the open pit resource shell are presented in Table 14-22. Open pit Mineral Resources contained within the pit shell are reported above a fixed cut-off grade of 0.1 g/t Au.

A cross section showing the extents of the Mineral Point Resource Pit (green) and the current topographic surface (white) is shown in Figure 14-32.

**Table 14-22: Parameters for Mineral Resource Pit Shell Construction**

Parameter	Unit	Value
Metals Price		
Gold	US\$/toz	2,175
Silver	US\$/toz	26
Au Process Recovery	%	77
Ag Process Recovery	%	40
Mining Operating Cost	US\$/tonne	3.31
Processing Cost	US\$/tonne	3.47
G&A Cost	US\$/tonne processed	0.83
Royalty	%	3.0%
Payable Metal		
Gold	%	99.90
Silver	%	99.50
Treatment & Refining Cost - Gold	US\$/toz	1.85
Treatment & Refining Cost - Silver	US\$/toz	0.50
Overall Slope Angles (OSA)		
Dumps	degree	30.00
Alluvium	degree	55.00
Sanded	degree	45.00
Unsanded	degree	45.00

*Note: Au and Ag presented recoveries are weighted averages for all materials.*



**Figure 14-32: Cross Section Showing the Mineral Point Resource, Resource Pit Shell, and Topo**

(Source: Forte Dynamics, 2025)

*Note: Blocks displayed above 0.1 g/t Au cutoff.*

#### 14.4.9 Mineral Point Open Pit Mineral Resource Statement

The estimated tonnages and grades in the Mineral Resource Estimate have not been adjusted for mining recovery and dilution. Contained metal estimates in the Mineral Resource statement table have not been adjusted for metallurgical recoveries.

Mineral Resources are reported in Table 14-23 for open pit oxide heap leach at Mineral Point. Mineral Resources are not Mineral Reserves and have not been demonstrated to have economic viability. There is no certainty that the Mineral Resource will be converted to Mineral Reserves. The quantity and grade or quality is an estimate and is rounded to reflect the fact that it is an approximation. Quantities may not sum due to rounding.

There is no guarantee that Mineral Resources can be converted to Mineral Reserves. Inferred Mineral Resources do not have sufficient confidence that modifying factors can be applied to convert them to Mineral Reserves.

**Table 14-23: Mineral Point Open Pit Mineral Resource Statement**

Deposit	Tonnes (000)	Au (g/t)	Ag (g/t)	Au oz (000)	Ag oz (000)
<b>Indicated Mineral Resources</b>					
Mineral Point	216,982	0.48	15.0	3,376	104,332
<b>Total Indicated</b>	<b>216,982</b>	<b>0.48</b>	<b>15.0</b>	<b>3,376</b>	<b>104,332</b>
<b>Inferred Mineral Resources</b>					
Mineral Point	194,442	0.34	14.6	2,117	91,473
<b>Total Inferred</b>	<b>194,442</b>	<b>0.34</b>	<b>14.6</b>	<b>2,117</b>	<b>91,473</b>

**Notes:**

1. Mineral Resources have an effective date of December 31, 2024.
2. Mineral Resources are the portion of Mineral Point that can be mined profitably by open pit mining method and processed by heap leaching.
3. Mineral Resources are below an updated topographic surface.
4. Mineral Resources are constrained to economic material inside a conceptual open pit shell. The main parameters for pit shell construction are a gold price of \$2,175/oz Au, a silver price of \$26.00/oz, average gold recovery of 77%, average silver recovery of 40%, open pit mining costs of \$3.31/tonne, heap leach average processing costs of \$3.47/tonne, general and administrative cost of \$0.83/tonne processed, gold refining cost of \$1.85/oz, silver refining cost of \$0.50, and a 3% royalty (Section 19.1).
5. Mineral Resources are reported above a 0.1 g/t Au cutoff grade.
6. Mineral Resources are stated as in situ.
7. Mineral Resources have not been adjusted for metallurgical recoveries.
8. Reported units are metric tonnes.
9. Reported table numbers have been rounded as required by reporting guidelines and may result in summation discrepancies.

#### 14.4.10 Factors that may Affect Mineral Resources

The QP notes the following points as factors that may materially affect the Mineral Resource.

- Changes and/or updates to the geological model which was used to code lithology (rock) type to the block model.
- Changes and/or updates to the specific gravity values based on lithology.
- Changes to interpretation and grade continuity of resource domains.
- Interpretation of oxidation-sulfide model which affects mining material type and destination.
- Interpretation of alteration type related to metallurgical recovery.



- Changes to high-grade capping values used in the grade estimation.
- Changes to input cost assumptions.
- Changes in metallurgical testing results and subsequent recoveries.
- Changes to other commonly used resource estimation and mining assumptions.

#### **14.4.11 QP Opinion**

The Mineral Point open pit Mineral Resource has been estimated using core drill data and have been prepared and reported under CIM best practice definitions. Forte believes that the Mineral Resource Estimate is of sufficient quality to support future exploration and mining related work, including future preliminary economic assessment level studies.

Forte is not aware of any other factors or issues not discussed in this technical report that may materially affect the Mineral Resource Estimate other than normal risks faced by mining projects in terms of environmental, permitting, taxation, socioeconomic, marketing and political factors.

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**15. MINERAL RESERVE ESTIMATES**

The Ruby Hill Project does not have any Mineral Reserves.

## 16. MINING METHODS

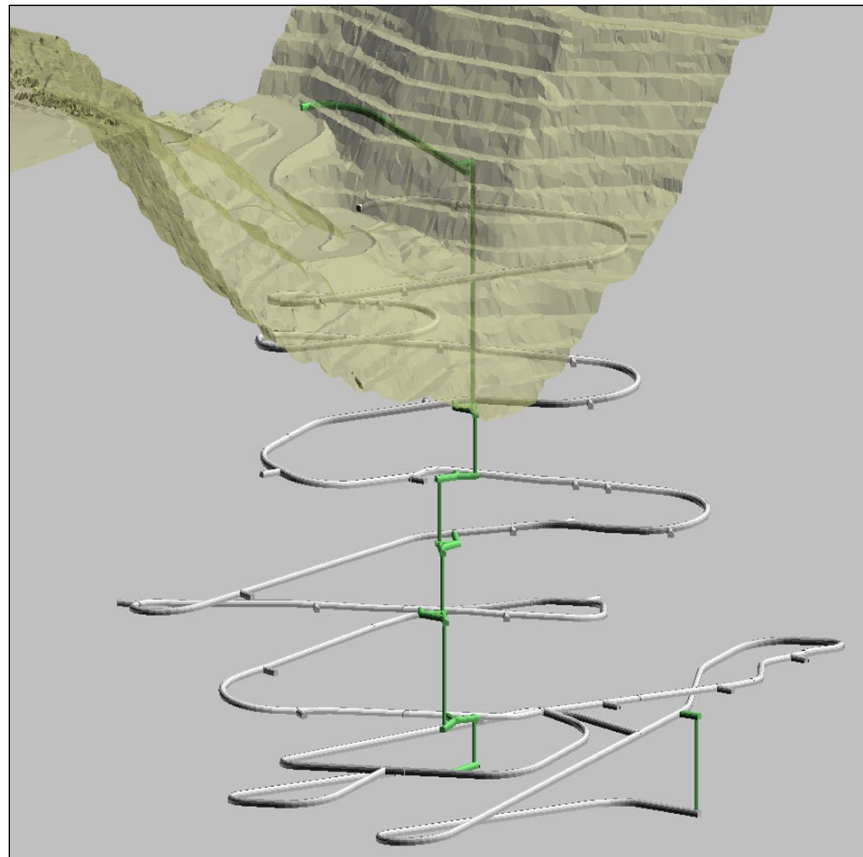
### 16.1 Archimedes Underground

#### 16.1.1 Mine Development

Underground access will be through two portals located in the north wall of the Archimedes Pit adjacent to the pit haulage ramp. The main decline and portal will provide personnel and equipment access to all areas of the mine and will be 15 feet wide and 17 feet high. Decline gradient will not exceed +/- 13%.

Fresh air intake into the mine and secondary egress will be through a series of raises and drifts connecting to the main decline at logical intervals to promote efficient extraction. The intake portal will also be located in the north wall of the Archimedes Pit approximately 450 feet northwest and 140 feet above the main portal. Ventilation drifts will be 15 feet wide and 15 feet high. The first ventilation raise will be 590 feet in length and eight to ten feet in diameter. It will be excavated with a raise bore and lined with shotcrete or steel. This raise will be equipped with an unguided escape capsule that can be called remotely and operated from the underground station, thus not requiring a hoist operator.

The remaining raises will be excavated using raise bore or vertical crater retreat methods. They may be lined or unlined and also equipped with ladders and landings for egress. Optionally, a second smaller raise parallel to the first may be excavated and equipped for egress allowing for greater airflow (Figure 16-1).



**Figure 16-1: Archimedes Underground Isometric View Showing Portals, Main Ramp and Ventilation Development**

(Source: Practical Mining, 2025)

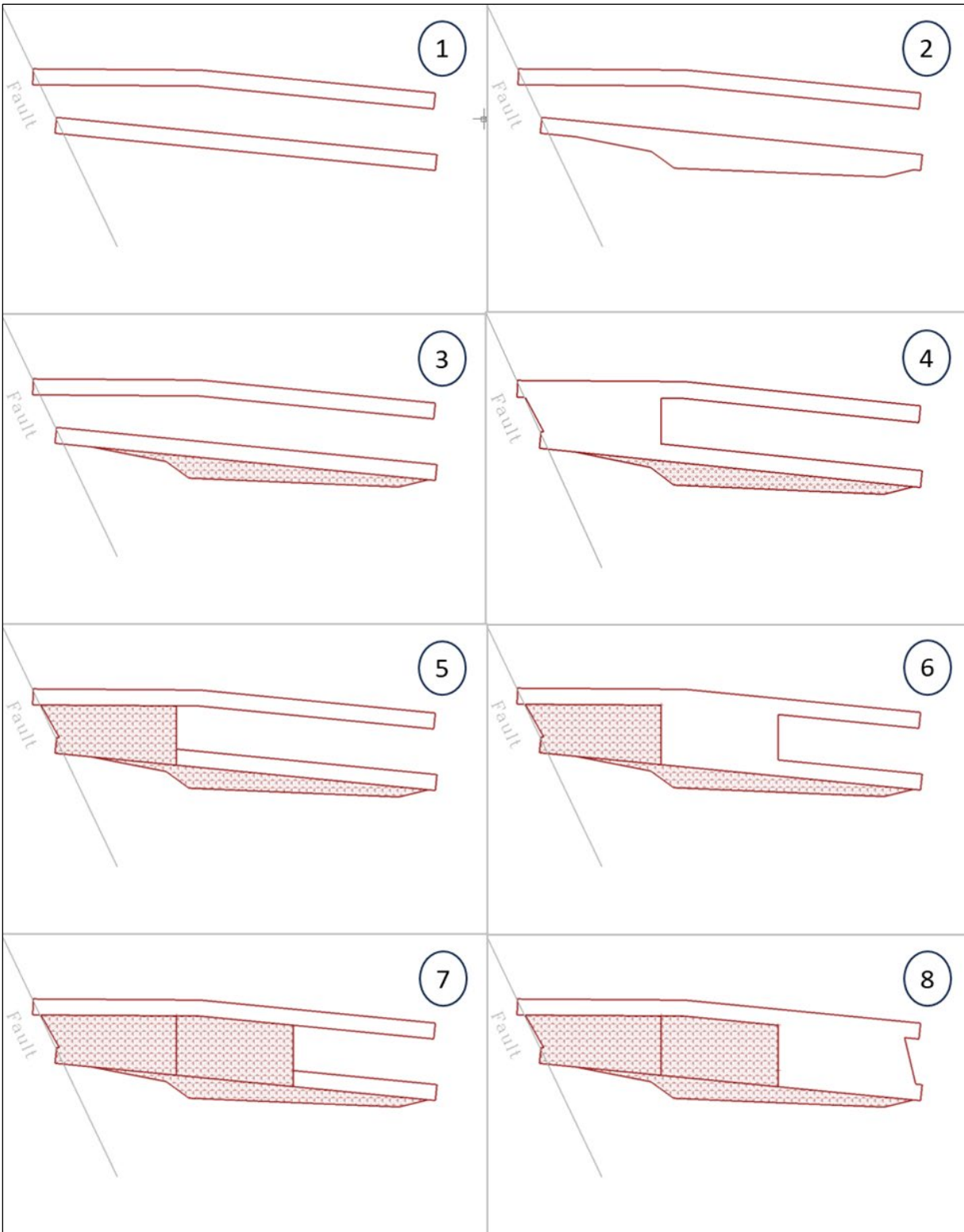
### 16.1.2 Mining Methods

Long hole open stoping (LHOS) with delayed backfill is the primary mining method planned for Ruby Hill. (Figure 16-2 and Figure 16-3) This will be widely supplemented with sill breasting from the lowest stope development drift. This allows access development to the lowest stope development drift to maintain a uniform elevation profile while extraction can adapt to varying mineralization boundaries. Stope development drifts will be 15 feet high and 15 to 20 feet wide. The gradient of stope development drifts will not exceed +/- 10%. LHOS widths will match stope development widths. Stope heights can vary from 30 to 60 feet from back to sill of the upper and lower stope development drifts. Sills can be up to 30 feet deep and the entry ramp gradient can be up to – 25% as it only need accommodate a loader which may be operated remotely.

The extraction and backfill sequence for a multi height LHOS panel with sill mining as shown in Figure 16-2 and Figure 16-3 is as follows:

1. Excavate the lowest and middle stope development drifts.
2. Excavate the sill below the lowest stope development drift.
3. Backfill the sill.
4. Excavate the first LHOS between the lower and middle stope development drifts. Stope lengths can be adjusted to accommodate stope wall stability conditions but have a practical upper limit of 100 to 150 feet.
5. Backfill the first stope.
6. (6-9) Excavate and backfill the remaining stopes on the level and drift the upper stope development drift.
7. Excavate the first stope on the next level.
8. Backfill the first stope and excavate and backfill any additional stopes.
9. Backfill the stope development drifts and begin development of the adjacent stope panel if present.

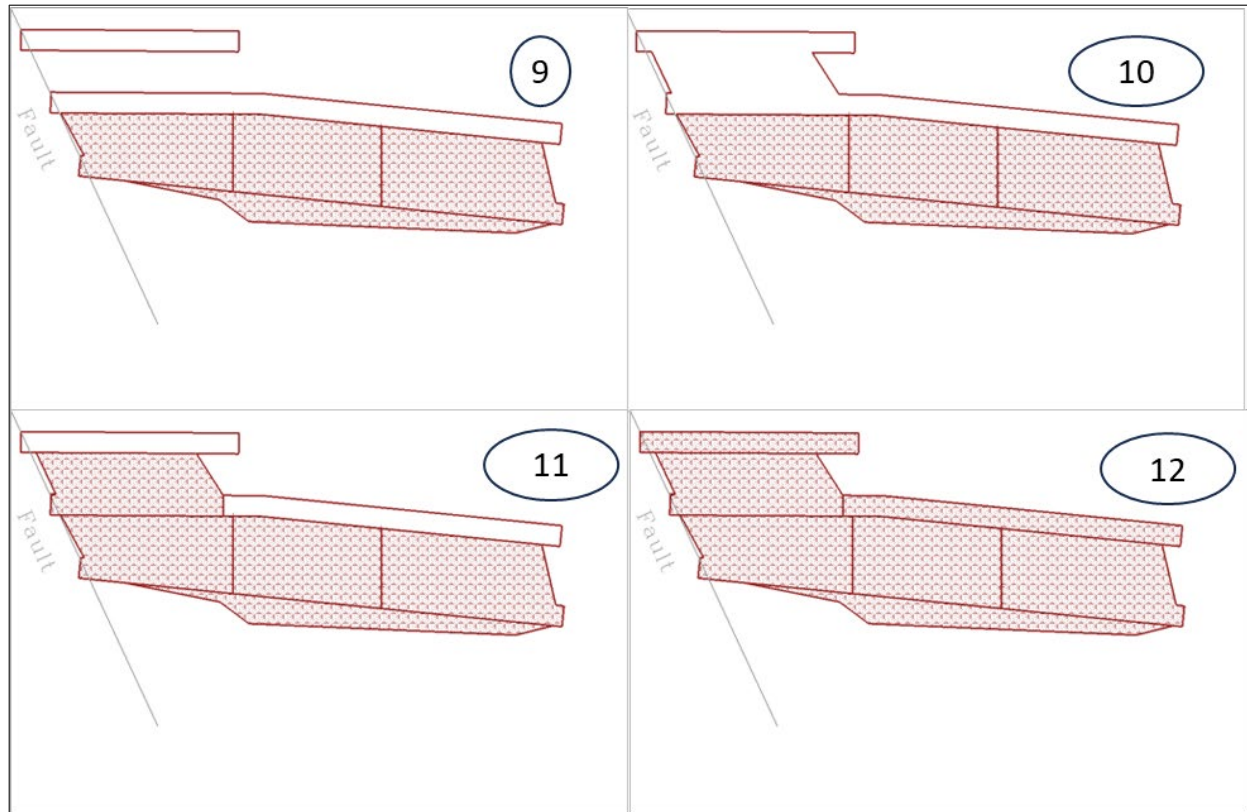
Drift and fill mining can be implemented when the mineralization geometry does not have sufficient vertical extent to allow LHOS or sill mining or where ground conditions will not maintain vertical stope walls. Underhand drift and fill mining is preferred since the backfill quality will be better than the rock quality.



**Figure 16-2: Stope Mining Sequence Part A**

(Source: Practical Mining, 2025)





**Figure 16-3: Stope Mining Sequence Part B**

(Source: Practical Mining, 2025)

### 16.1.3 Geotechnical and Ground Support

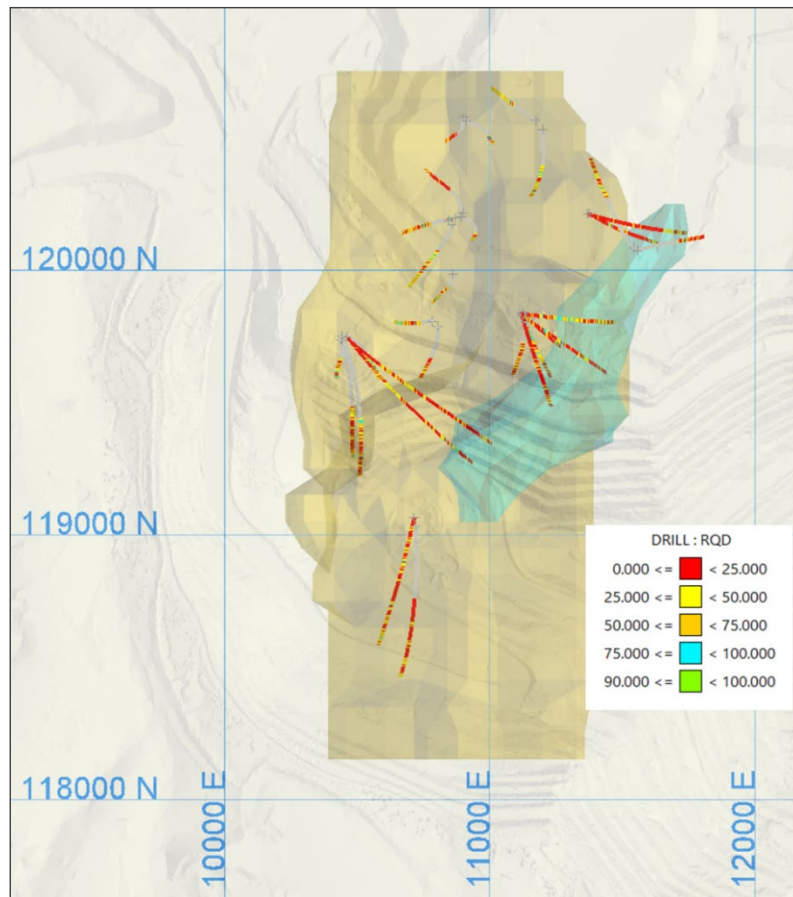
#### 16.1.3.1 Rock Quality Designation (RQD)

Rock Quality Designation is one of the simplest methods of rock mass classification. The RQD number is the percentage of the sum of the length of core pieces whose length is greater than twice the core diameter divided by the total interval length. Drawbacks to the RQD method are that it does not include any information on the rock jointing surfaces, joint filling material, joint orientation and rock strength. RQD numbers will vary depending on the orientation of the drill hole to the prominent jointing. Tunnel support recommendations based on reviews of tunnels constructed in the US prior to 1969 are presented in Table 16-1 (Deere 1969).

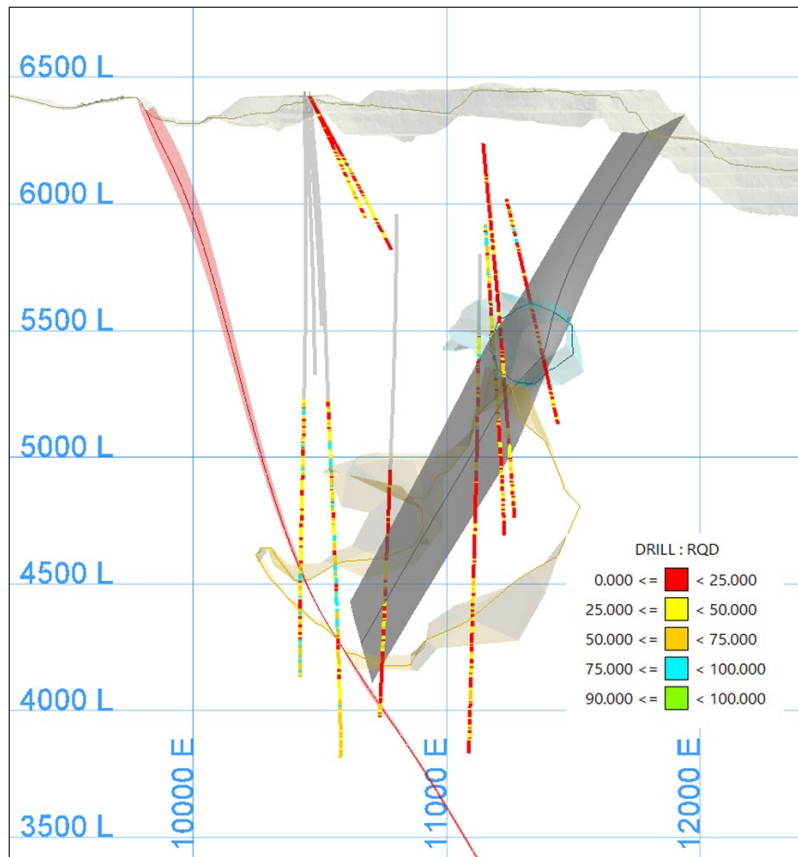
**Table 16-1: Guidelines for the Selection of Primary Support for 20-foot to 40-foot Tunnels in Rock**

RQD	Support System		
	Steel Sets	Rock Bolts	Shotcrete
Excellent >90	None to occasional light sets	None to occasional	None to occasional on 2 – 3 inches crown
Good 75 - 90	Light Sets 5-6 feet c-c	5-6 feet c-c w/mesh of straps as required	Local, 2-3 inches on crown
Fair 50 - 75	Light to Medium Sets 4-5 feet c-c	3-5 feet c-c with mesh or straps as required	4 inches or more, crown and sides with possible bolts
Poor 25 - 50	Medium to Heavy Sets 2-4 feet c-c	2-4 feet c-c with mesh or straps, resin anchors may be required	6 inches or more crown and sides, rock bolts as required 4-6 feet c-c
Very Poor < 25	Medium to Heavy 2 feet c-c	3 feet c-c, 100% mesh or straps required, resin anchors may be required	6 inches or more on whole section, medium to heavy sets as required
Very Poor Squeezing or Swelling	Very Heavy 2 feet c-c	2-3 feet c-c, 100% mesh or straps required, resin anchors may be required	6 inches or more on whole section, heavy sets as required

During the 2021 and 2022 drill campaigns, i-80 geologists logged 31 drill holes using the RQD method. The locations and logged values are shown in Figure 16-4 and Figure 16-5.


**Figure 16-4: RQD Logged Drill Holes (426 - Turquoise, Ruby Deeps - Gold)**

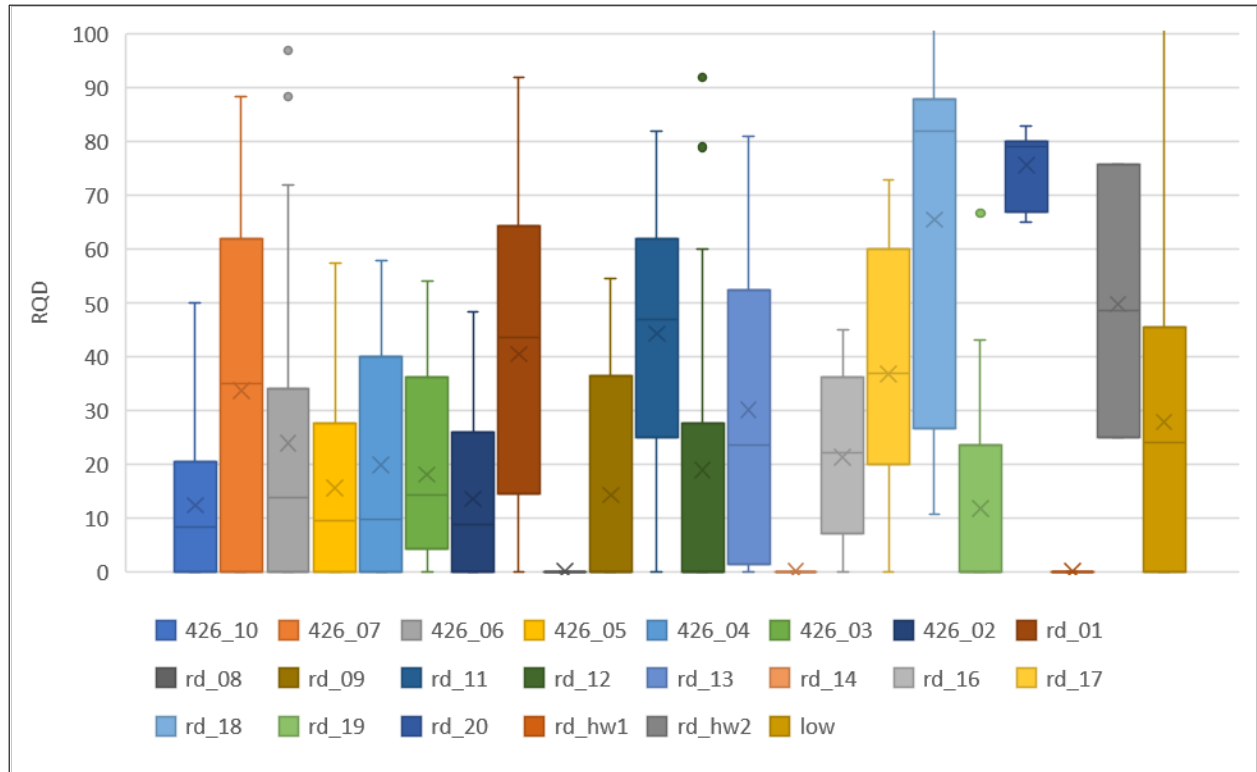
(Source: Practical Mining, 2025)



**Figure 16-5: Cross Section 119625N Showing RQD Values (426 - Turquoise, 426 Fault - Gray, Ruby Deeps - Gold, Holly Fault - Red)**

(Source: Practical Mining, 2025)

RQD logging results by mineralized zone are shown graphically in Figure 16-6 and summary statistics in Table 16-2. The majority of RQD logging is classified as Poor (25 – 50) or Very Poor (< 25). Support recommendations would be rock bolts on 2 – 4-foot centers with wire mesh. The recommended bolt length is 1/3 to 1/4 the span.



**Figure 16-6: RQD Box and Whisker Plot**

(Source: Practical Mining, 2025)

**Table 16-2: RQD Univariate Statistics by Grade Shell**

Grade Shell	426_10	426_07	426_06	426_05	426_04	426_03	426_02	rd_01	rd_08	rd_09	rd_11
Count	20	19	27	15	24	14	40	108	5	23	75
Length	121	113	166	76	148	86	239	730	35	144	489
Std Dev	14.46	30.31	29.63	18.28	21.11	17.73	14.66	28.83	0.00	20.41	23.81
Lower 95% CI	6.0	20.0	12.7	6.3	11.4	8.7	8.9	35.0	0.0	5.9	38.9
Average	12.3	33.7	23.9	15.5	19.8	18.0	13.5	40.5	0.0	14.3	44.3
Upper 95% CI	18.7	47.3	35.0	24.8	28.3	27.3	18.0	45.9	0.0	22.6	49.7
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25% Quartile	0.0	3.5	0.0	0.0	0.0	5.7	0.0	14.6	0.0	0.0	26.0
Median	8.2	35.0	13.7	9.4	9.7	14.2	8.6	43.5	0.0	0.0	47.0
75% Quartile	17.5	55.5	32.0	22.3	40.0	31.8	24.7	63.4	0.0	31.5	61.5
Maximum	50.0	88.4	96.9	57.3	57.9	54.0	48.3	92.0	0.0	54.4	82.0
Grade Shell	rd_12	rd_13	rd_14	rd_16	rd_17	rd_18	rd_19	rd_20	rd_hw1	rd_hw2	low
Count	21	32	5	18	19	11	17	7	5	3	1123
Length	85	169	34	100	97	69	50	64	26	19	7170
Std Dev	28.25	26.44	0.00	15.31	23.91	31.96	19.69	6.88	0.00	25.38	25.32
Lower 95% CI	6.8	20.9	0.0	14.2	26.0	46.7	2.3	70.5	0.0	21.0	26.4
Average	18.9	30.1	0.0	21.3	36.8	65.5	11.7	75.6	0.0	49.8	27.9
Upper 95% CI	30.9	39.2	0.0	28.3	47.5	84.4	21.1	80.7	0.0	78.5	29.4
Minimum	0.0	0.0	0.0	0.0	0.0	10.6	0.0	65.0	0.0	25.0	0.0
25% Quartile	0.0	3.8	0.0	7.4	20.0	39.3	0.0	71.7	0.0	36.8	0.0
Median	0.0	23.5	0.0	22.1	37.0	82.0	0.0	79.0	0.0	48.6	24.0
75% Quartile	27.5	49.5	0.0	35.9	58.8	88.0	17.1	79.5	0.0	62.1	45.5
Maximum	92.0	81.0	0.0	45.0	73.0	105.3	66.7	83.0	0.0	75.7	104.4

### 16.1.3.2 Q-system

The Q-system was developed in 1974 by Barton, Lien and Lund of the Norwegian Geotechnical Institute. It was updated in 1993 and 2002 to include advances in ground support fixtures and shotcrete. The support chart (Figure 16-7) is based on the analysis of over 2,000 Scandinavian and Indian case studies. The Q-value gives a description of the rock mass stability of an underground opening in jointed rock masses. High Q-values indicate good stability and low values mean poor stability. Based on 6 parameters the Q-value is calculated using the following equation:

$$Q = \frac{RQD}{J_n} + \frac{J_r}{J_a} + \frac{J_w}{SRF}$$

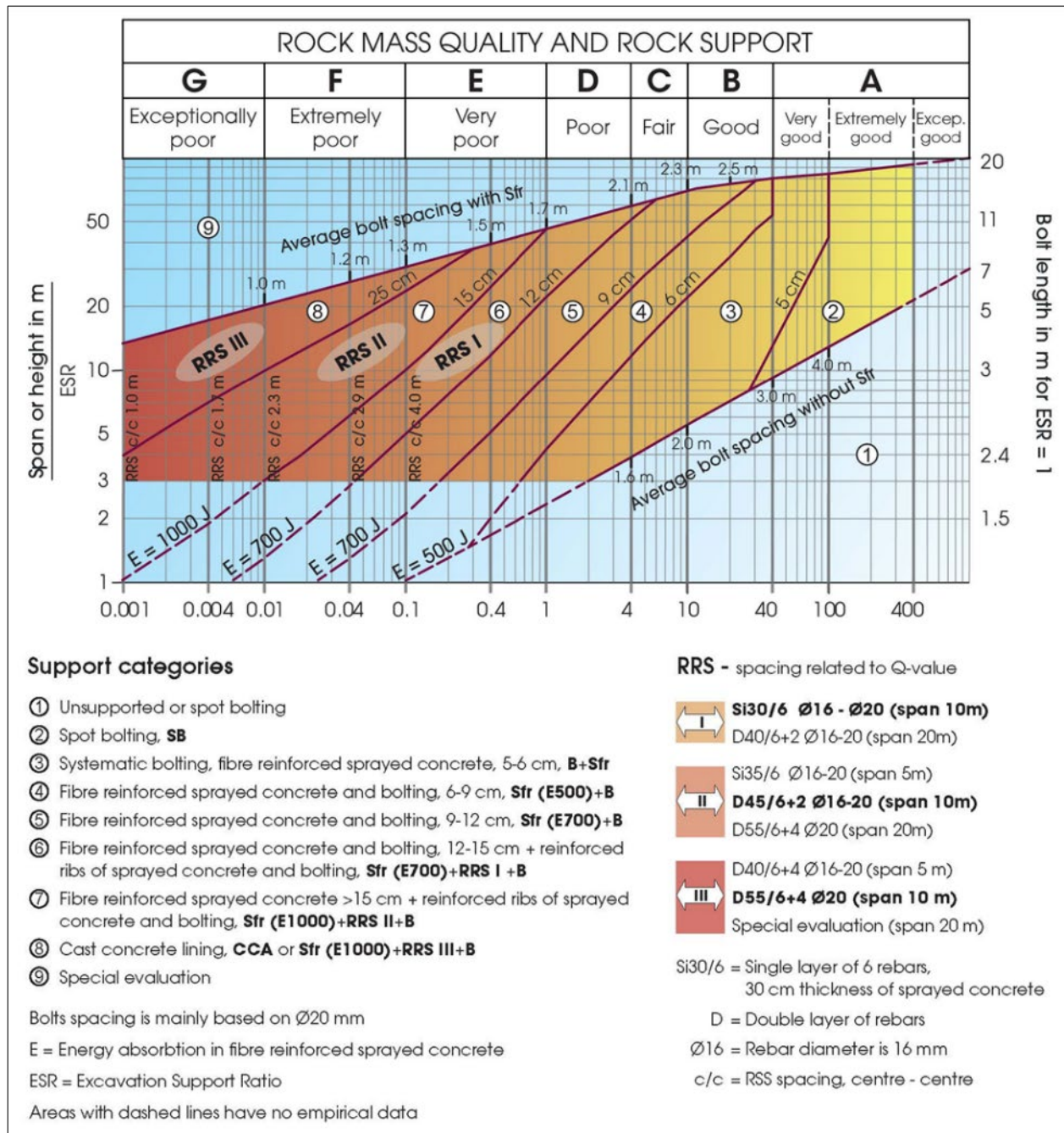
The six parameters are:

- RQD - Rock Quality Designation
- $J_n$  – Joint set number
- $J_r$  – Joint roughness number
- $J_a$  – Joint alteration number
- $J_w$  – Joint water reduction factor
- SRF – Stress Reduction Factor

Individual parameters are determined during logging or mapping using tables that give numerical values. (Norwegian Geotechnical Institute 2022)

The Q-system also introduces a factor for Excavation Support Ratio (ESR). ESR numbers range from 0.5 for very long-lived strategic excavation to 1.6 for permanent mine openings and 3.5 for temporary mine openings (Norwegian Geotechnical Institute 2022).

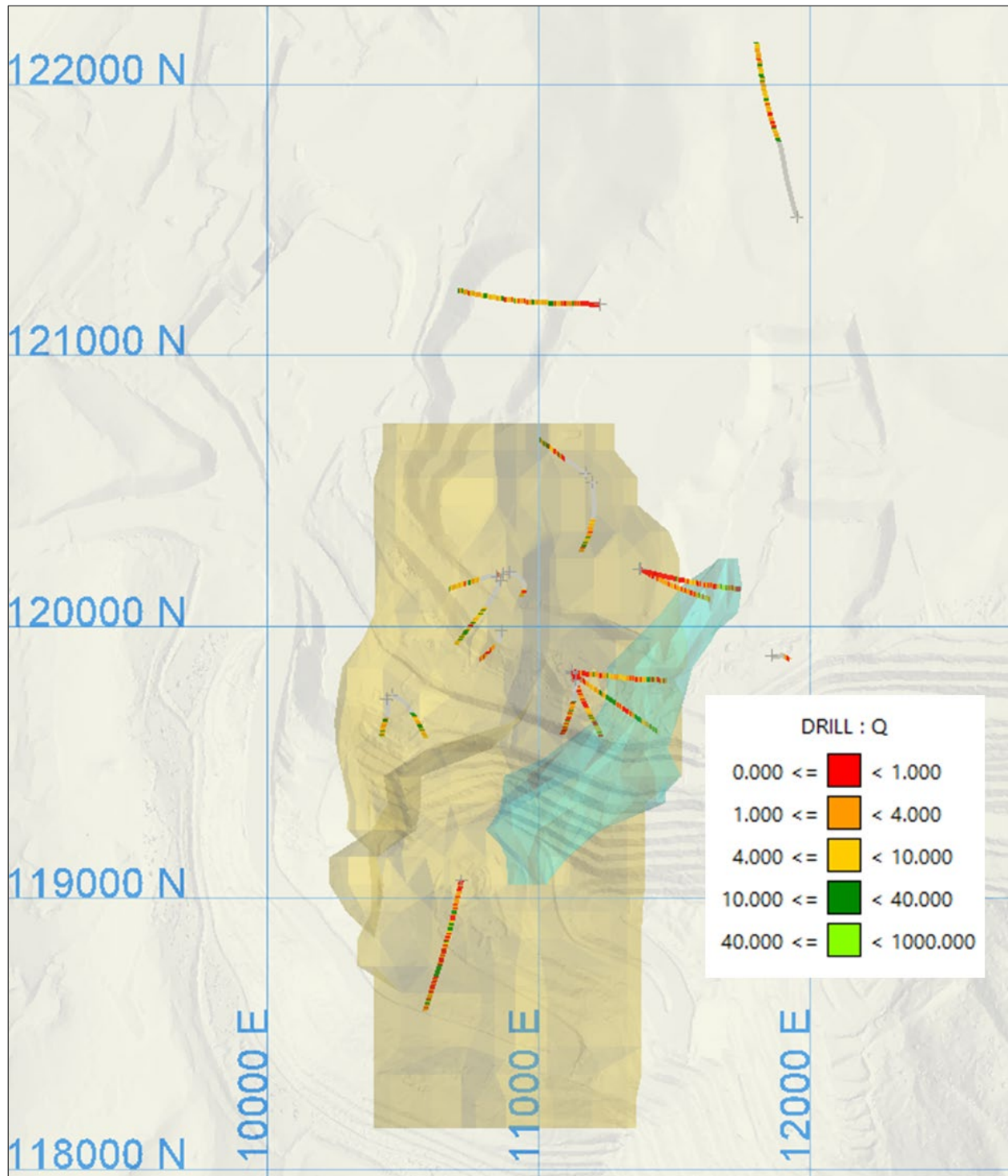




**Figure 16-7: Q-system Support Recommendations**

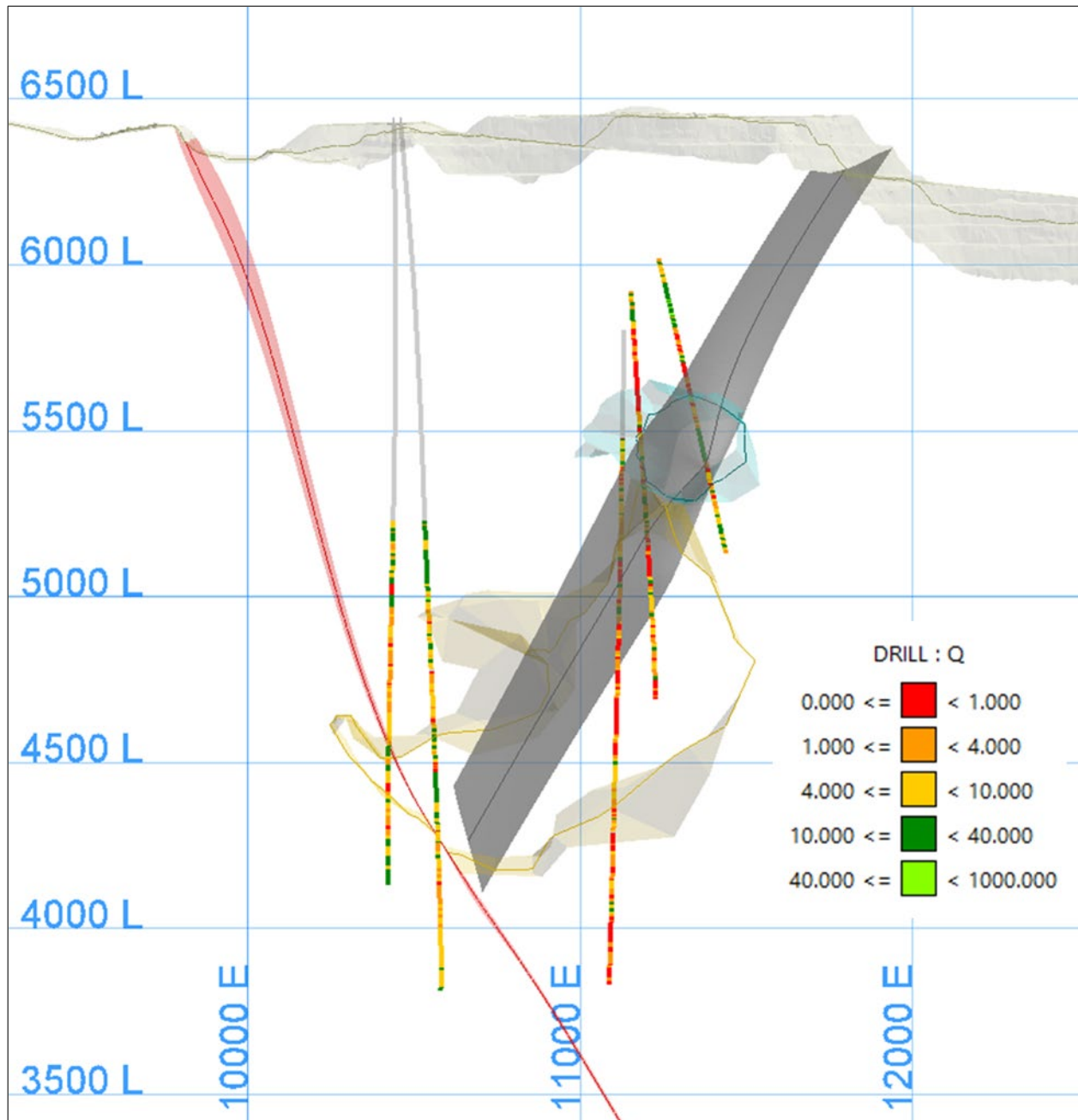
(Source: Norwegian Geotechnical Institute, 2022)

During the 2021 and 2022 drill program, i-80 engaged Call and Nicholas to log 19 drillholes using the Q-system. Drill hole traces and logging results are shown in Figure 16-8 and Figure 16-9.



**Figure 16-8: Q Logged Drill Holes (426 - Blue, Ruby Deeps - Gold)**

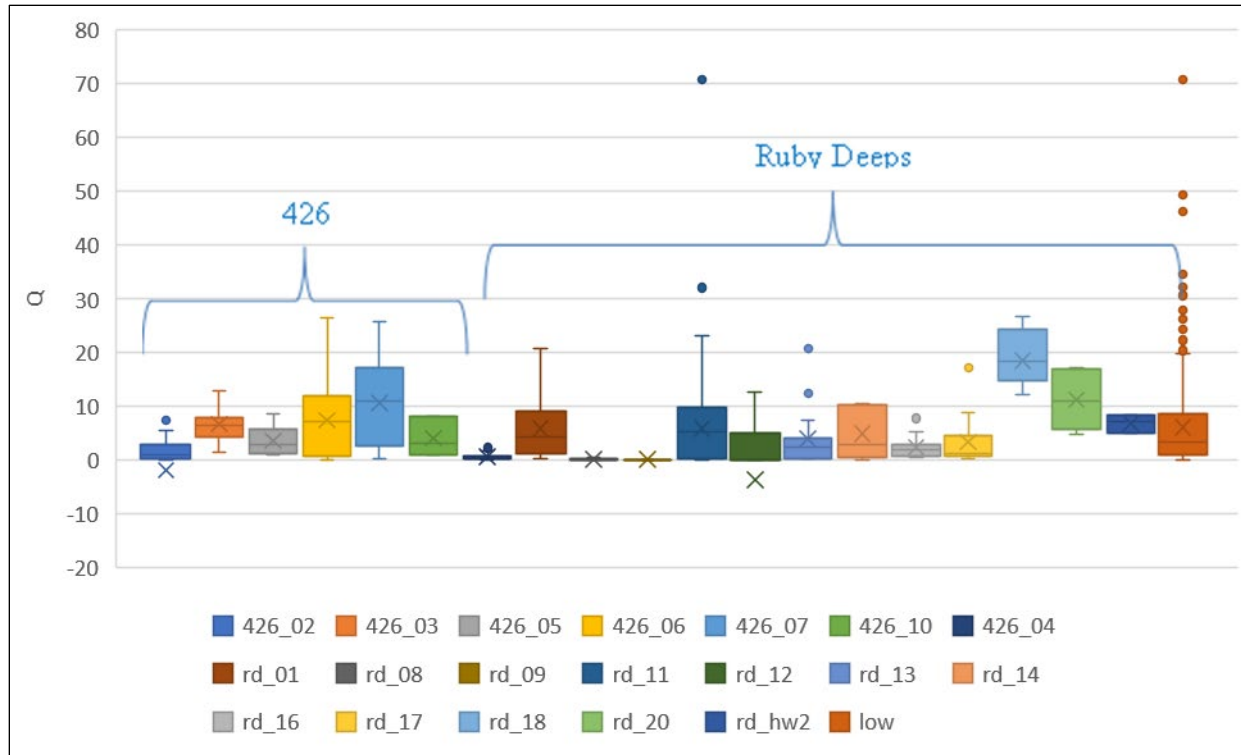
(Source: Practical Mining, 2025)



**Figure 16-9: Cross Section 119625N Showing Q Values (426 - Blue, 426 Fault - Gray, Ruby Deeps - Gold, Holly Fault - Red)**

(Source: Practical Mining, 2025)

Q-system logging results by mineralized zone are displayed in Figure 16-10 and summary statistics in Table 16-3. All but a few areas have Q values in the zero to ten range. For production excavations the span to ESR ratio is 1.7 and 3.1 for main development. From Figure 16-7, both excavation categories lie in category three or four. Category three recommended support consists of systematic bolting and five to six centimeters of shotcrete. Category 4 recommendations increase the shotcrete thickness to 6-9 centimeters.



**Figure 16-10: Q Value Box and Whisker Plot**

(Source: Practical Mining, 2025)

**Table 16-3: Q Value Univariate Statistics by Grade Shell**

Grade Shell	426_02	426_03	426_05	426_06	426_07	426_10	426_04	rd_01	rd_08	rd_09
Count	26	7	10	24	13	3	15	40	5	4
Length	163	53	56	150	83	14	97	298	35	28
Std Dev	19.89	3.52	2.77	7.24	8.05	3.56	0.81	5.74	0.11	0.00
Lower 95% CI	-9.6	4.0	1.8	4.5	6.2	0.0	0.2	4.1	0.0	0.0
Average	-2.0	6.6	3.5	7.4	10.6	4.1	0.6	5.8	0.1	0.0
Upper 95% CI	5.7	9.2	5.2	10.3	15.0	8.1	1.0	7.6	0.2	0.0
Minimum	-99.0	1.5	0.8	0.1	0.2	1.0	0.1	0.2	0.1	0.0
25% Quartile	0.1	5.1	1.2	0.7	3.4	2.1	0.1	1.2	0.1	0.0
Median	0.9	6.3	2.8	7.1	11.0	3.2	0.3	4.3	0.1	0.0
75% Quartile	2.8	7.7	5.3	11.7	16.0	5.6	0.6	8.9	0.1	0.0
Maximum	7.4	12.9	8.6	26.5	25.6	8.0	2.5	20.8	0.3	0.0
Grade Shell	rd_11	rd_12	rd_13	rd_14	rd_16	rd_17	rd_18	rd_20	rd_hw2	low
Count	44	16	16	5	12	13	7	6	3	566
Length	330	55	72	34	65	64	54	60	19	3936
Std Dev	20.18	25.73	5.54	5.01	2.21	4.93	5.30	5.32	1.71	7.47
Lower 95% CI	-0.2	-16.4	1.1	0.4	1.1	0.6	14.6	6.9	4.8	5.4
Average	5.8	-3.8	3.8	4.8	2.3	3.3	18.5	11.1	6.7	6.0
Upper 95% CI	11.7	8.8	6.6	9.2	3.6	6.0	22.4	15.4	8.7	6.6
Minimum	-99.0	-99.0	0.1	0.0	0.3	0.2	12.0	4.8	4.8	0.0
25% Quartile	0.2	0.1	0.4	0.8	0.6	0.8	14.8	6.8	6.0	0.8
Median	5.3	0.1	2.3	2.8	1.9	1.1	18.4	10.9	7.1	3.3
75% Quartile	9.3	3.1	3.5	9.9	2.9	1.8	21.4	15.9	7.7	8.5
Maximum	70.7	12.5	20.7	10.4	7.7	17.1	26.6	17.1	8.2	70.7



### **16.1.3.3 Ground Support Requirements**

Both the RQD and Q-system classifications obtained from Ruby Hill drill core logging fall within typical ranges seen at northern Nevada mines. Support requirements anticipated for primary development excavation entail 8-foot Swellex ® rock bolts with welded wire mesh and shotcrete installed to within five feet of the sill. Large intersections can be supplemented with longer Swellex bolts and/or fully grouted cable bolts. Support requirements in production excavations are largely the same, however with only spot shotcrete application. Excavations under backfill may require only spot bolting.

### **16.1.4 Cemented Rock Fill**

The aggregate for Cemented Rock Fill (CRF) will be sourced from previously mined open pit waste. Potential sources should have minimal amounts of clay present. Aggregate will be crushed onsite to 100% passing a two-inch screen and will contain fine fractions similar to that of commercial concrete aggregates. Backfill will be mixed onsite with 5-8% type II Portland Cement and transported underground on the return leg of a haul truck cycle. An LHD fitted with a “Jammer” boom will push the material into place ensuing all voids are filled tightly.

During each shift of backfilling operations, concrete test cylinders will be collected for uniaxial compression testing. When test results are below design strengths these areas will be mined with additional bolting and shotcrete for support.

### **16.1.5 Staffing and Underground Equipment Requirements**

Four crews will work a rotating schedule and operate the mine two 12-hour shifts per day. Multiple heading drift advance rates up to 100 feet per day is possible with the crew size and equipment configuration provided. Stope production up to 500 tons per day per stope can offset some of the drift advance when loading and trucking equipment requirements exceed availability. Backfill placement will be at rates to sustain production rates of 1,500 tons of mineralized material per day. Anticipated i-80 and contractor staffing levels for the Archimedes Underground are combined in Table 16-4.

**Table 16-4: Personnel Requirements**

<b>Position</b>	<b>Headcount</b>
Miners	96
Maintenance	24
Production Forman	4
Maintenance Forman and Planner	2
Mine Superintendent	1
Maintenance Superintendent	1
Surveyors	2
Geologist	6
Engineers	2
Manager	1
<b>Total</b>	<b>139</b>

*Note: Includes Contractor Personnel*

The underground contractor will provide the equipment necessary for execution of the work. Table 16-5 lists the type and number of each type of equipment necessary to meet the production and development schedule shown in Table 16-7 and Table 16-8. This list is typical of northern Nevada underground mines of similar size and scope.



**Table 16-5: Equipment Requirements**

Description	Number of Units
2-Boom Face Jumbo	2
Rock Bolter	3
Production Drill	1
RC Drill	1
Explosives Truck	1
6-yd3 LHD	3
6-yd3 LHD with Jammer	2
30-ton Haul Trucks	5
Water Truck	1
Road Grader	1
Shotcrete Sprayer	1
Shotcrete Remix Trucks	2
Scissor Deck Truck	1
Forklifts	3
Fuel and Lube Truck	1
Backfill Plant	1
Shotcrete Plant	1
Personnel Transport Tractors	5

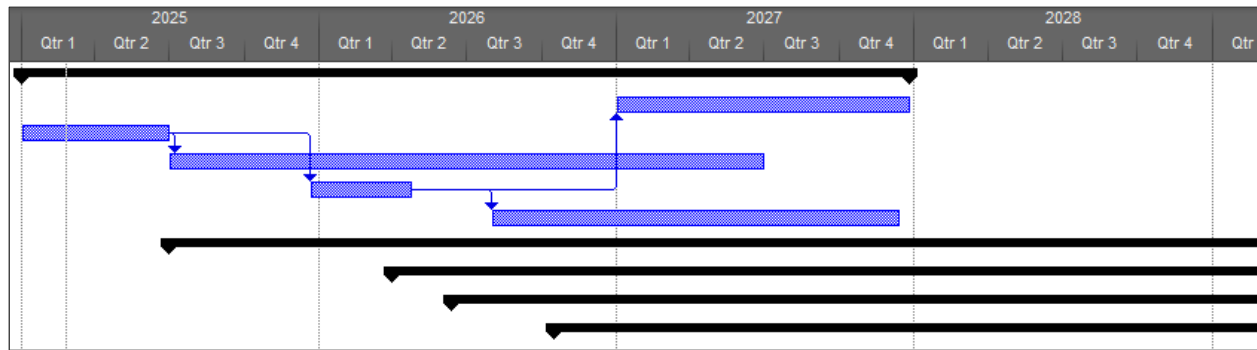
i-80 currently has onsite the surface support equipment listed in Table 16-6 for maintaining the surface roads and stockpiles.

**Table 16-6: i-80 Support Equipment**

Make	Model	Description	Condition	Hours
Cat	D9R	D9R Dozer	fair	57,503
Cat	D10R	D10R Dozer	fair	11,657
Cat	992C	992C Loader (Not in Service)	poor	36,330
Cat	980G	980G Loader	fair	28,397
Komatsu	PC300	Excavator	fair	10,657
Cat	235C	Excavator	fair	5,631
Cat	14H	14H Blade	fair	35,607
Cat	IT28	IT28 Loader	fair	23,299
Cat	785C	785C Haul Truck	Poor	48,681
Sterling	LT 7501	Water Truck	Average	5,135

### 16.1.6 Mine Plan

Initial mining within the Goodwin Formation will be governed by an amendment to the Ruby Hill Plan of Operations (POO). This amendment will be part of an Environmental Assessment (EA) that has been initiated, and completion is anticipated in Q2 of 2025. Construction of the Portals and Underground development to the 426 deposit will commence on approval of the EA and POO amendment. Concurrent to construction, a second EA to amend the POO and permit mining in the Windfall Formation will be initiated. It is anticipated that approval of the second POO amendment will take 18 months at which time development and mining of the Ruby Deeps deposit can begin. (Figure 16-11) Mining of mineralization above the 5,100 elevation will be authorized under the EA and will continue while the second POO amendment is being processed. Development below the 5100 elevation will begin three months after receipt of the second POO amendment.



**Figure 16-11: Permitting Development and Initial Production Schedule**

(Source: Practical Mining, 2025)

Development footage for the haulage decline and ventilation excavations are listed in Table 16-7. Also tabulated is the waste tonnage from expensed crosscuts connecting the haulage decline to the stopes. Expensed and capitalized waste mining totals 2.4M tons with waste mining peaking at 1,150 to 1,00 tons per day in 2028 and 2039. This corresponds to the development push into the Ruby Deeps mineralized zone.

**Table 16-7: Ruby Hill Development Schedule**

	2025	2026	2027	2028	2029	2030
Capital Development						
Primary Drifting (feet)	2,206.4	6,863.9	2,854.1	6,893.1	6,822.9	-
Secondary Drifting (feet)	300.0	3,336.2	2,594.5	5,163.3	4,010.3	1,288.1
Raising (feet)	694.7	139.6	472.9	241.2		
Capital Waste (ktons)	52.4	214.1	110.8	246.8	221.7	23.8
Expensed Waste (ktons)	-	12.8	106.3	177.0	213.7	292.1
Total Waste (ktons)	52.4	226.9	217.0	423.8	435.5	316.0
Waste Mining Rate (tons/day)	285	622	595	1,158	1,193	866
	2031	2032	2033	2034	2035 -2036	Total
Capital Development						
Primary Drifting (feet)	-	-	-	-	-	25,640
Secondary Drifting (feet)	1,841.7	1,505.7	1,205.0	-	-	21,245
Raising (feet)				-	-	1,548
Capital Waste (ktons)	34.8	27.1	24.1	-	-	955.6
Expensed Waste (ktons)	136.2	281.1	93.3	116.9	62.9	1,492.3
Total Waste (ktons)	171.0	308.2	117.4	116.9	62.9	2,447.9
Waste Mining Rate (tons/day)	469	842	322	320	265	583

The Archimedes Life of Mine (“LOM”) production plan shown in Table 16-8 was extrapolated using the mining rates listed Table 16-9. These rates are typical of those used at similar Nevada underground mines.

The production mining processing schedules presented below contain 69% Inferred Mineral Resources. The confidence in Inferred Mineral Resources is considered too low to be converted to Mineral Reserves and there is no guarantee that they will be upgraded to Measured or Indicated Mineral Resources.

**Table 16-8: Archimedes Production Mining Plan**

	2025	2026	2027	2028	2029	2030
Production Mining						
Stope Development (ktons)	-	18.3	150.9	217.9	282.3	309.3
Stope Mining (ktons)	-	21.3	117.7	283.0	320.6	276.3
Cemented Rock Fill (ktons)	-	35.3	164.1	419.1	507.2	528.1
Production Mining (tons/day)	-	79	1,546	2,149	2,031	2,124
Total Mining Rate (tons/day)	285	748	1,376	2,583	2,923	2,477
	2031	2032	2033	2034	2035-2036	Total
Production Mining						
Stope Development (ktons)	285.6	234.4	225.5	232.1	200.9	2,157.2
Stope Mining (ktons)	330.0	384.5	393.8	371.1	240.5	2,738.8
Cemented Rock Fill (ktons)	451.3	540.0	435.0	446.7	318.3	3,845.2
Production Mining (tons/day)	1,688	1,691	1,731	1,720	640	1,380
Total Mining Rate (tons/day)	2,156	2,533	2,052	2,040	727	1781

**Table 16-9: Mine Production Rates by Excavation Type**

Type of Excavation	Mining Rate	Units
Primary Development 15 x 17 ft.	10	ft./day
Secondary Development 15 x 15 ft.	8	ft./day
Expensed Waste Crosscuts 15x15 ft.	8	ft./day
Stope Development Drift 15x20 ft.	8	ft./day
Longhole Stope or Bench	500	tons/day
Cemented Backfill	400	tons/day

The processing schedule for oxide and refractory mineralization is shown in Table 16-10. Stockpiling of material for processing in a later year is not anticipated at any time during the Archimedes LOM. The third-party facility will purchase up to 1,000 tons/day of refractory mineralization through 2027. The combined production rate during the time for all i-80 mines operations is not planned to exceed 1,000 tpd. Likewise, the capacity of the Lone Tree refractory facility is planned for 2,500 tpd and the production during that time from all i-80 mining operations is not expected to exceed Lone Tree's capacity.

Table 16-10: Ruby Hill Processing Plan

	2025 <sup>1</sup>	2026 <sup>1</sup>	2027 <sup>1</sup>	2028 <sup>2</sup>	2029	2030
Refractory High Grade (ktons)	0	26	199	390	540	541
Au Grade (opt)	0.000	0.254	0.236	0.229	0.217	0.221
Ag Grade (opt)	0.000	0.042	0.035	0.023	0.029	0.036
Au Contained (koz)	0	7	47	89	117	119
Ag Contained (koz)	0	1	7	9	16	19
Refractory Low Grade (ktons)	0	3	25	49	64	47
Au Grade (opt)	0.000	0.099	0.095	0.103	0.103	0.098
Ag Grade (opt)	0.000	0.032	0.029	0.017	0.021	0.035
Au Contained (koz)	0	0	2	5	7	5
Ag Contained (koz)	0	0	1	1	1	2
Refractory (ktons)	0	29	224	439	604	587
Au Grade (opt)	0.000	0.236	0.220	0.215	0.205	0.211
Ag Grade (opt)	0.000	0.041	0.034	0.022	0.028	0.036
Au Contained (koz)	0	7	49	94	124	124
Ag Contained (koz)	0	1	8	10	17	21
Au Recovered (koz)	0	4	29	89	117	119
Ag Recovered (koz)	0	0	1	1	2	2
Au Recovery	-	58%	58%	95%	94%	96%
Ag Recovery	-	10%	10%	10%	10%	10%
Refractory Throughput (tpd)	0	80	613	1203	1655	1609
Heap Leach (ktons)	0.0	16.9	61.2	82.2	27.4	0.7
Au Grade (opt)	0.000	0.117	0.106	0.110	0.127	0.067
Ag Grade (opt)	0.000	0.013	0.015	0.011	0.010	0.044
Au Contained (koz)	0.0	2.0	6.5	9.0	3.5	0.0
Ag Contained (koz)	0.0	0.2	0.9	0.9	0.3	0.0
Au Recovered (koz)	0.0	1.7	5.7	7.9	3.0	0.0
Ag Recovered (koz)	0.0	0.0	0.1	0.2	0.1	0.0
Au Recovery	#DIV/0!	88%	87%	87%	87%	84%
Ag Recovery	#DIV/0!	18%	16%	20%	25%	18%
Leach Stacking Rate (ton/day)	0	46	168	225	75	2
	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>2035 - 2036</b>	<b>Total</b>
Refractory High Grade (ktons)	540.3	540.9	540.0	540.6	408.3	4265.8
Au Grade (opt)	0.215	0.210	0.233	0.237	0.216	0.223
Ag Grade (opt)	0.065	0.067	0.073	0.064	0.051	0.051
Au Contained (koz)	116.3	113.6	125.7	127.9	88.1	950.8
Ag Contained (koz)	35.2	36.3	39.5	34.5	20.8	218.4
Refractory Low Grade (ktons)	75.7	77.9	91.7	87.1	59.3	579.9
Au Grade (opt)	0.100	0.105	0.105	0.105	0.103	0.103
Ag Grade (opt)	0.045	0.046	0.041	0.038	0.035	0.036
Au Contained (koz)	7.5	8.2	9.6	9.1	6.1	59.5
Ag Contained (koz)	3.4	3.6	3.7	3.3	2.1	20.8
Refractory (ktons)	616.0	618.8	631.7	627.7	467.7	4845.7
Au Grade (opt)	0.201	0.197	0.214	0.218	0.201	0.209
Ag Grade (opt)	0.063	0.064	0.068	0.060	0.049	0.049
Au Contained (koz)	123.8	121.8	135.3	137.0	94.2	1010.3
Ag Contained (koz)	38.6	39.9	43.2	37.8	22.9	239.2
Au Recovered (koz)	114.5	109.0	121.1	122.6	84.3	909.6
Ag Recovered (koz)	3.9	4.0	4.3	3.8	2.3	23.9
Au Recovery	93%	90%	90%	90%	90%	90%
Ag Recovery	10%	10%	10%	10%	10%	10%
Refractory Throughput (tpd)	1,688	1,695	1,731	1,720	1,281	1328
Heap Leach (ktons)	-	-	-	--	-	188.4
Au Grade (opt)	-	-	-	-	-	0.111

	2025 <sup>1</sup>	2026 <sup>1</sup>	2027 <sup>1</sup>	2028 <sup>2</sup>	2029	2030
Ag Grade (opt)	-	-	-	-	-	0.012
Au Contained (koz)	-	-	-	-	-	21.0
Ag Contained (koz)	-	-	-	-	-	2.3
Au Recovered (koz)	-	-	-	-	-	18.3
Au Recovery	0.0%	-	-	-	-	0.4
Ag Recovery	0.0%	-	-	-	-	87%
Leach Stacking Rate (ton/day)	-	-	-	-	-	19%

Notes:

1. All refractory mineralization sold to a third-party processing facility in the years 2025 through 2027.
2. Beginning in 2028 refractory mineralization will be processed at i-80's Lone Tree facility.

## 16.2 Archimedes Open Pit

The Archimedes Open Pit Mineral Resource has not been evaluated for surface mining.

## 16.3 Mineral Point Open Pit

i-80 Gold's Mineral Point Project will consist of an open pit mining operation using conventional equipment. The Project is a conventional hard rock open pit, and mining is planned to be self-performed. Mining is planned on 50-foot (15.24-meter) benches using haul trucks, shovels, and conventional drill and blast activities. Processed material is planned to be mined at a rate of 68,000 tons (62,000 tonnes) per day.

### 16.3.1 Initial Pit Limit Evaluations

The open pit optimization was performed using the *Pseudo Flow* algorithm in Hexagon Mine Plan software. The pit optimizer delineates an economic pit shell that maximizes the value of the extractable material by incorporating the mining cost, processing cost, selling cost, gold recovery values, and an overall pit slope. The result of the pit optimization also includes a series of pit shells across a range of revenue factors. Revenue factors are defined as reducing the commodity price but leaving the cost the same. The generated pit shells can then be evaluated to determine which pits are relatively insensitive to economic factors.

This process assessed the sensitivity of the pit optimizations to the fluctuation in the revenue generated, as well as the impact of pit size and stripping ratio on the Projects' NPV. This procedure yields a series of nested pit shells that prioritize the extraction of the most economically viable and robust material. Less profitable material, characterized by lower gold grade, higher stripping ratios, or higher ratios of the tonnage per ounce of gold, may be mined later in the mine life, or not at all. These "robust" pit shells are used to develop the pushback designs.

The pit optimizations use reasonable and relevant economic, cost, recovery, and pit slope assumptions. The pit optimizer included only resource blocks classified as Indicated and Inferred. The resource block model contains no blocks classified as Measured.

### 16.3.2 Open Pit Economic Parameters

During the pit limit analysis phase, the Project was envisioned as a 275 to 330 thousand tons (250 to 300 thousand tonnes) per day operation with a two-stage crusher and heap leach pad. The pit analysis was performed with pit slopes defined by rock type. The pit slope by rock unit is summarized in Table 16-11. The key pit optimization parameters used to generate the economic pit shells for the deposit are summarized in Table 16-12. The processing cost and process recoveries were defined by rock and mineral alteration.



Table 16-11: Pit Slope by Lithology Unit

Lithology Unit	Slope (degrees)
Waste Dump	30
Alluvium	55
Sanded	45
Unsanded	45

Table 16-12: Pit Optimization Parameters

Modifying Factor	Units	Value
Gold Price	US\$/toz	\$2,175
Gold Price	US\$/gr	\$69.93
Silver Price	US\$/toz	\$26.00
Silver Price	US\$/gr	\$0.84
Gold Refining Charges	US\$/toz	\$1.85
Silver Refining Charges	US\$/toz	\$0.50
Royalties	%	3%
Payable Au	%	99.9%
Payable Ag	%	99.5%
Costs		
Mining	US\$/ton	\$3.00
Mining	US\$/tonne	\$3.31
Processing (average)	US\$/ton	\$3.12
Processing (average)	US\$/tonne	\$3.44
G&A	US\$/ton	\$0.75
G&A	US\$/tonne	\$0.83
Heap Leach Recovery Au (average)	%	78%
Heap Leach Recovery Ag (average)	%	41%

The parameters in Table 16-12 were used in Equation 16-1 to calculate the gold and silver cutoff grades. The gold cutoff grade (COG) of 0.011 toz/ton (0.36 g/tonne)<sup>1</sup> and an incremental cutoff grade (ICOG) of 0.003 toz/ton (0.10 g/tonne) was calculated. The silver COG is 0.323 toz/ton (11.08 g/tonne), and an ICOG of 0.171 toz/ton (5.86 g/tonne) was calculated.

<sup>1</sup> Troy ounce per ton conversion to metric grams per tonne may be inconsistent due to truncation and rounding. Imperial is reported to three significant figures, and metric is reported to two significant figures.

### Equation 16-1: Cutoff Grade Equation

$$COG \left( \frac{g}{ton} \right) = \frac{(\text{Mining OP Cost} + \text{Process Cost} + \text{G\&A cost} + \text{Transport and Refining Cost})}{(\text{Gold Price} - \text{Selling Cost}) \times \text{Recovery}}$$

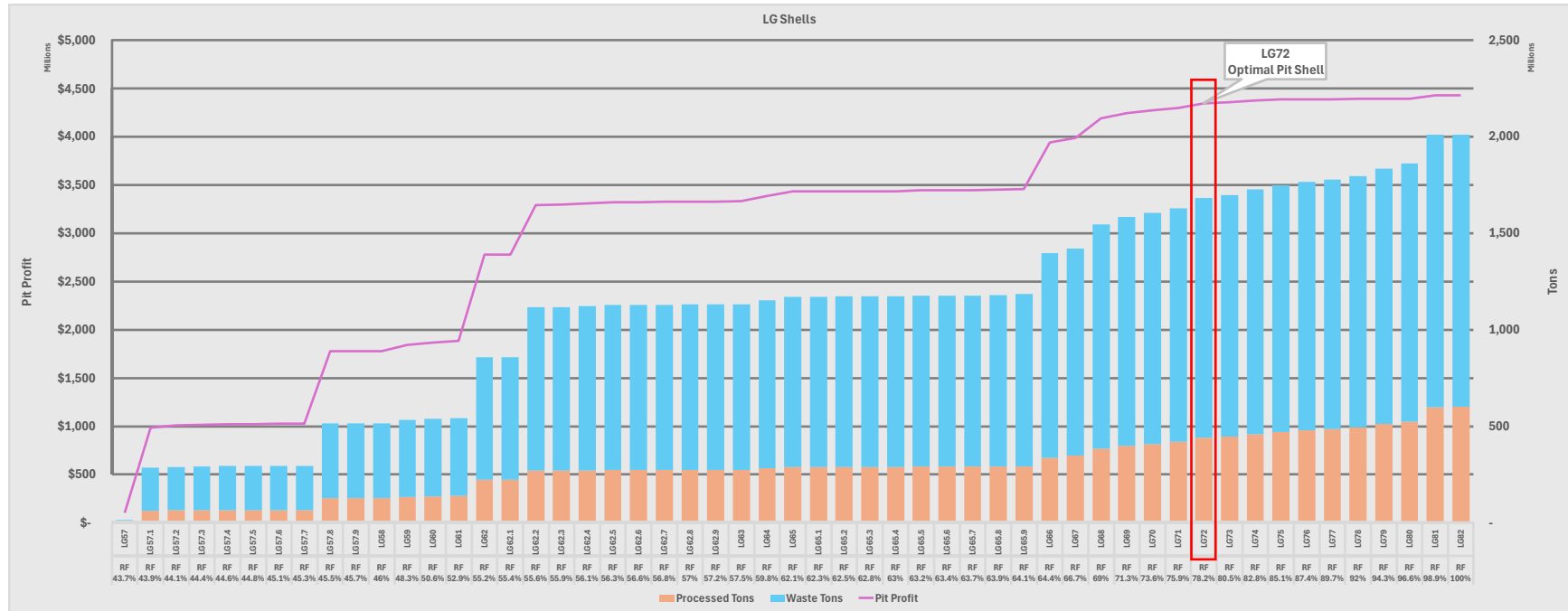
Where:

Process is the total on site processing cost,

Recovery is the metallurgical recovery in percent (%),

Selling cost includes royalties and payable percent (%).

Figure 16-12 shows the results for each revenue factor shell, for processed and waste tonnes, along with profit. The shells selected for pushback designs and the eventual mine scheduling were LG57.1, LG57.8, LG62, LG62.2, LG66, and LG72. Selected shells along with others are presented in Table 16-13. Pit shell LG72 was selected as the optimal pit shell, which corresponds to a 78% Revenue Factor. Pit shell LG72 shell has a total tonnage of 1,683.6 Mton including 440.1 Mton of processed material at an average grade of 0.011 toz/ton Au for 4.98 Mtoz of contained gold and 195.5 Mtoz of contained silver. The average stripping ratio is 2.8:1. Figure 16-13 shows the percentage of profit, processed material, and recoverable gold by LG shell. Figure 16-15 is a plan view of the site with the six nested pit shells and section lines. Figure 16-16 to Figure 16-19 are cross sections showing the LG pit shells and the estimated block grades for gold. For the below section and plan plots, the block model has filtered out all blocks below 0.003 toz/ton (0.1 g/tonne) Au.



**Figure 16-12: LG Shells by Revenue Factor**

(Source: Forte Dynamics, 2025)

**Table 16-13: Profit Factor for Optimization Results**

Revenue Factor	LG Name	Processed kton	Au oz/ton	Ag oz/ton	Waste kton	Total kton	Stripping Ratio	Au ktoz	Ag ktoz	Revenue 000s\$	Mining Cost 000s\$	Processing Cost 000s\$	Total Op Ex 000s\$	Net 000s\$	Total Ton/toz Au	Profit/ton
16.1%	LG45	3,232	0.014	1.271	7,335	10,567	2.3:1	45	4,108	\$118,011	\$31,701	\$9,816	\$41,517	\$76,494	234.4	\$7.24
27.6%	LG50	4,096	0.013	1.116	8,184	12,279	2:1	53	4,572	\$135,733	\$36,838	\$12,412	\$49,251	\$86,482	232.5	\$7.04
39.1%	LG55	4,926	0.013	1.003	9,445	14,371	1.9:1	62	4,942	\$155,545	\$43,113	\$14,953	\$58,066	\$97,479	233.3	\$6.78
41.4%	LG56	5,224	0.012	0.970	9,811	15,035	1.9:1	64	5,069	\$160,978	\$45,105	\$15,863	\$60,968	\$100,010	235.1	\$6.65
43.9%	LG57.1	62,987	0.015	0.628	221,284	284,271	3.5:1	914	39,583	\$1,949,282	\$852,812	\$190,557	\$1,043,369	\$905,913	310.9	\$3.19
45.5%	LG57.8	127,856	0.013	0.507	386,174	514,030	3:1	1,716	64,777	\$3,574,878	\$1,542,091	\$386,953	\$1,929,045	\$1,645,833	299.5	\$3.20
50.6%	LG60	136,219	0.013	0.495	401,969	538,188	3:1	1,806	67,388	\$3,756,831	\$1,614,564	\$412,385	\$2,026,949	\$1,729,881	298.0	\$3.21
55.2%	LG62	222,434	0.013	0.412	634,104	856,538	2.9:1	2,875	91,687	\$5,810,935	\$2,569,615	\$673,838	\$3,243,453	\$2,567,481	298.0	\$3.00
55.6%	LG62.2	269,825	0.013	0.511	847,733	1,117,558	3.1:1	3,409	137,875	\$7,166,960	\$3,352,674	\$818,183	\$4,170,856	\$2,996,104	327.9	\$2.68
62.1%	LG65	287,929	0.012	0.499	883,405	1,171,334	3.1:1	3,572	143,641	\$7,512,551	\$3,514,001	\$873,114	\$4,387,115	\$3,125,436	327.9	\$2.67
64.4%	LG66	337,702	0.012	0.498	1,057,599	1,395,301	3.1:1	4,217	168,019	\$8,781,080	\$4,185,903	\$1,023,596	\$5,209,500	\$3,571,581	330.9	\$2.56
73.6%	LG70	408,775	0.012	0.460	1,197,358	1,606,133	2.9:1	4,786	187,846	\$9,925,573	\$4,818,400	\$1,237,059	\$6,055,459	\$3,870,114	335.6	\$2.41
78.2%	LG72	440,089	0.011	0.444	1,243,516	1,683,605	2.8:1	4,982	195,532	\$10,313,809	\$5,050,815	\$1,330,036	\$6,380,851	\$3,932,958	337.9	\$2.34
85.1%	LG75	470,608	0.011	0.428	1,278,749	1,749,357	2.7:1	5,154	201,391	\$10,640,300	\$5,248,072	\$1,419,598	\$6,667,670	\$3,972,630	339.4	\$2.27
96.6%	LG80	524,340	0.010	0.404	1,336,075	1,860,416	2.5:1	5,411	211,642	\$11,141,075	\$5,581,247	\$1,576,397	\$7,157,644	\$3,983,431	343.8	\$2.14
100%	LG82	601,390	0.010	0.375	1,409,969	2,011,359	2.3:1	5,720	225,383	\$11,459,297	\$6,034,078	\$1,828,498	\$7,862,577	\$3,596,720	351.6	\$1.79

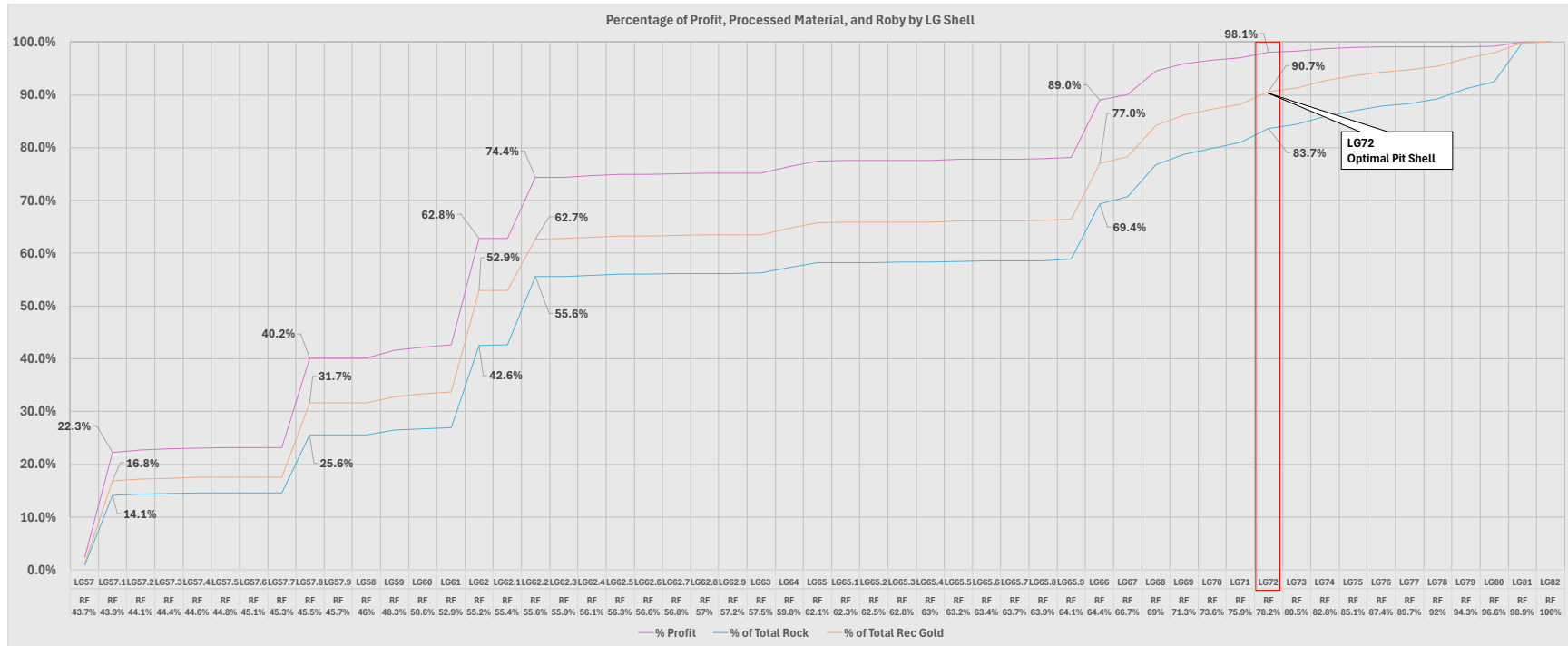
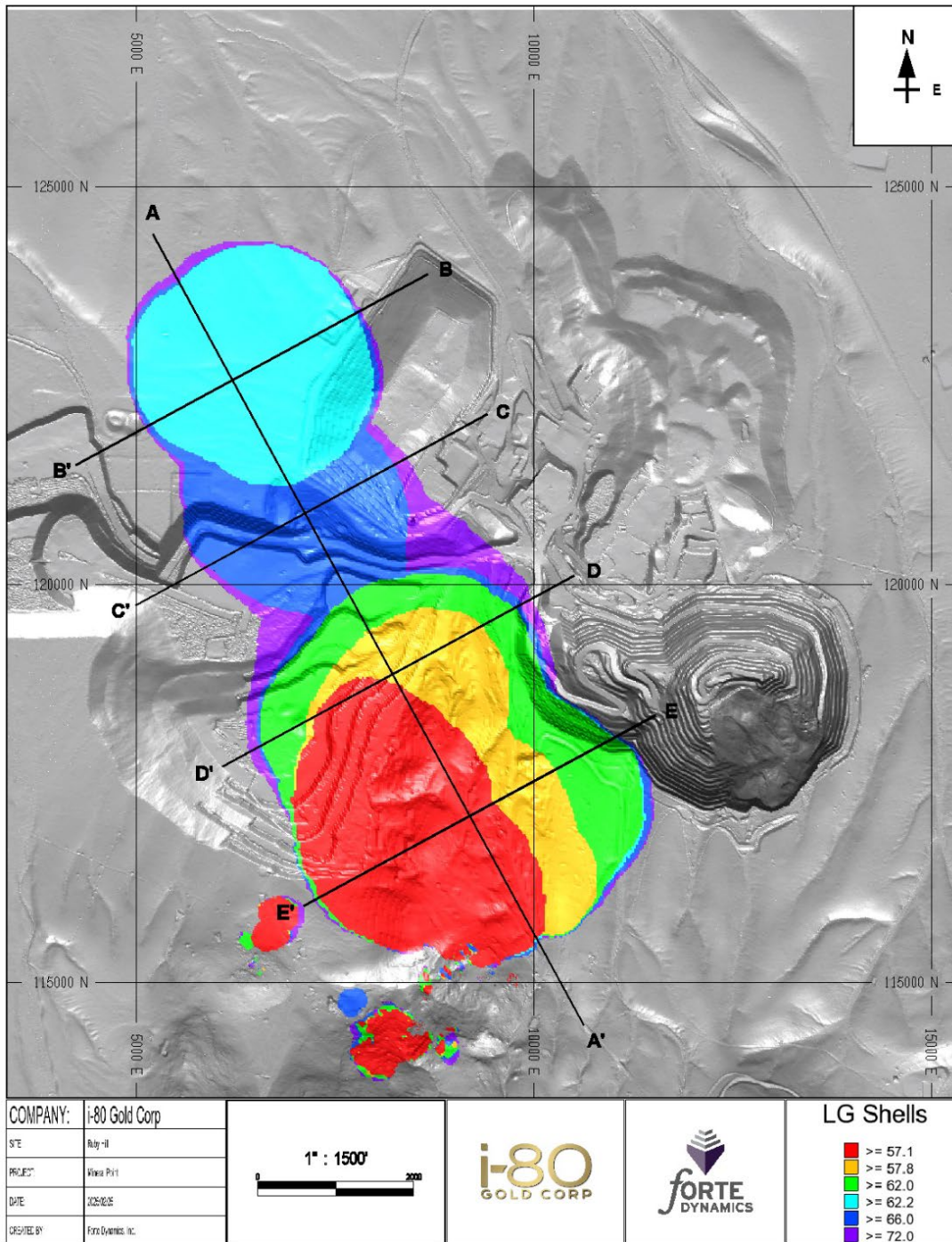


Figure 16-13: Percentage of Profit, Processed Material, and Recoverable Gold by LG Shell

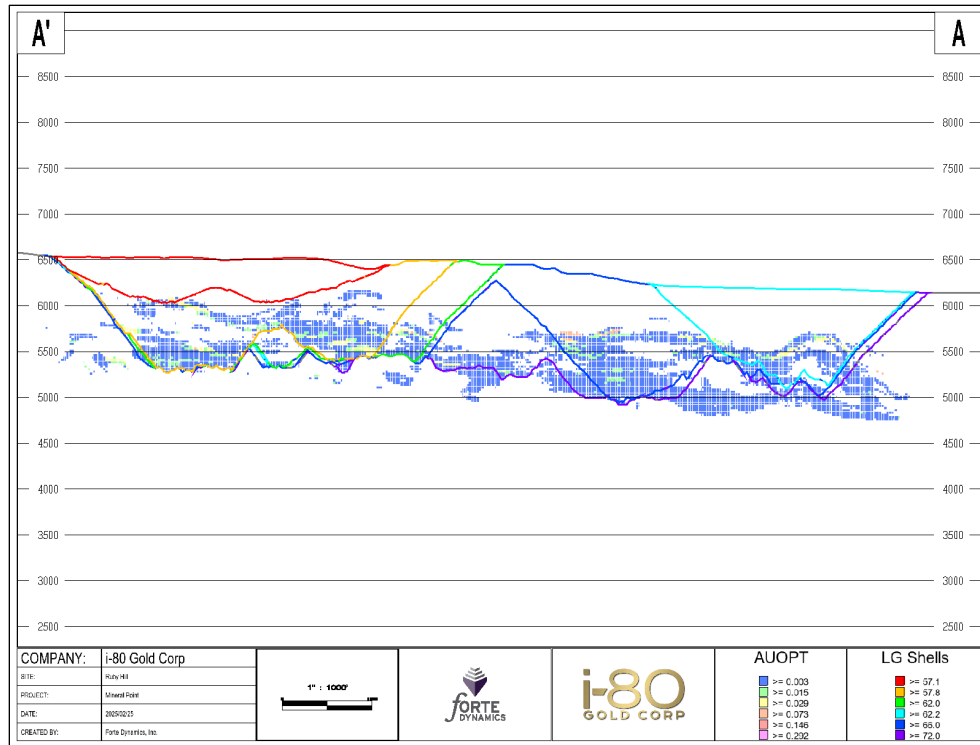
(Source: Forte Dynamics, 2025)





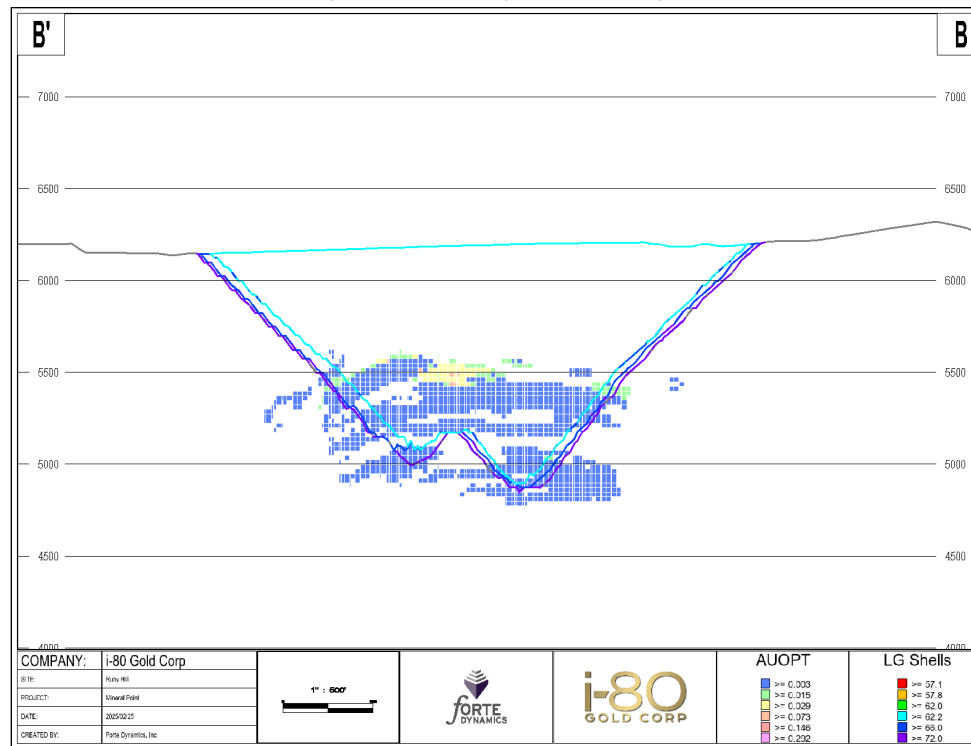
**Figure 16-14: Plan View of LG Pit Shells and Cross Section Locations**

(Source: Forte Dynamics, 2025)



**Figure 16-15: Pit Optimization Looking West (Section A' – A)**

(Source: Forte Dynamics, 2025)



**Figure 16-16: Pit Optimization Looking North (Section B' – B)**

(Source: Forte Dynamics, 2025)

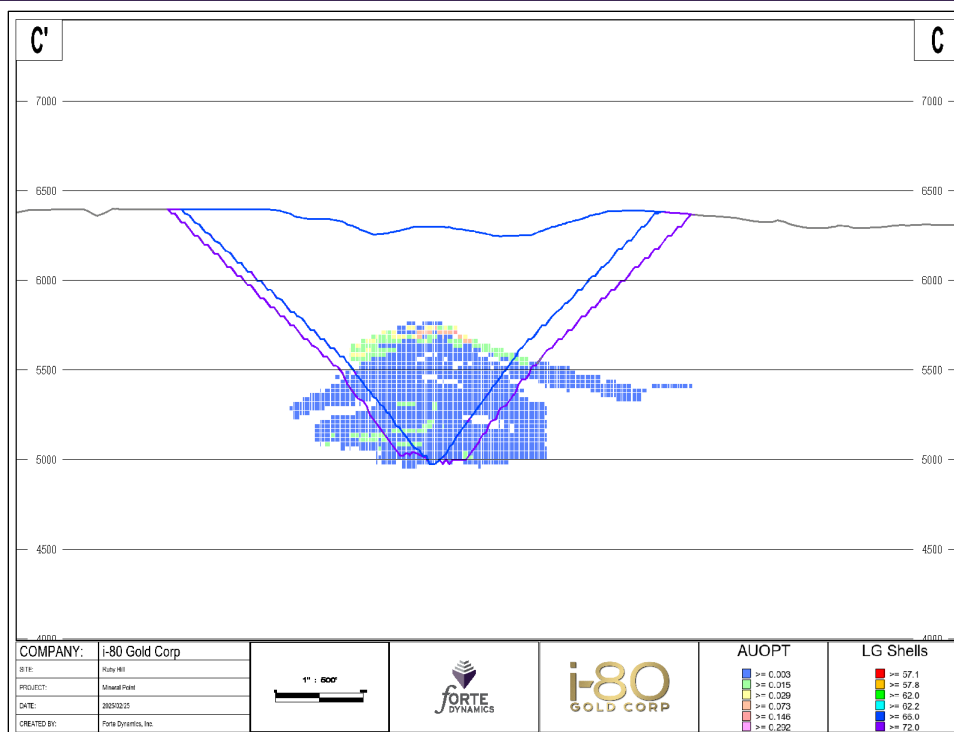


Figure 16-17: Pit Optimization Looking North (Section C' – C)

(Source: Forte Dynamics, 2025)

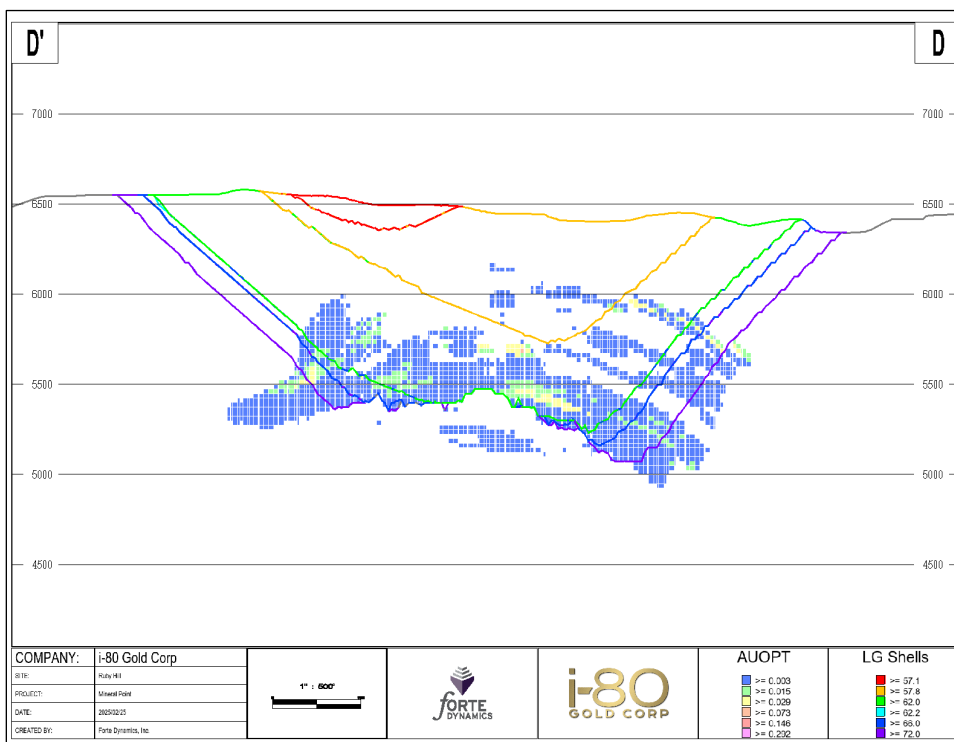
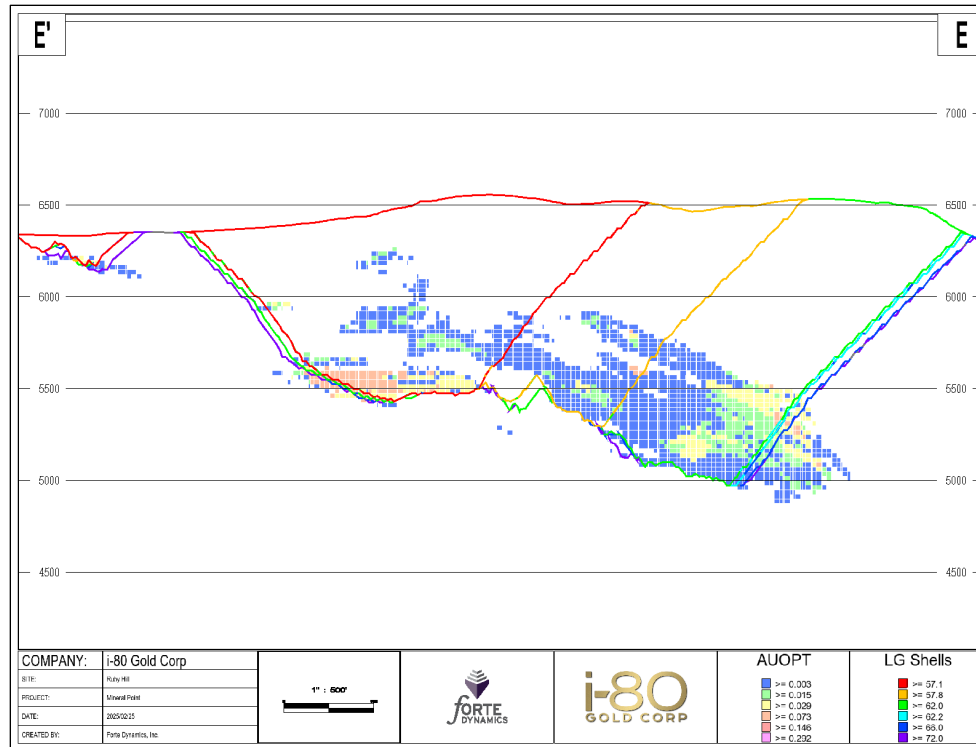


Figure 16-18: Pit Optimization Looking North (Section D' – D)

(Source: Forte Dynamics, 2025)



**Figure 16-19: Pit Optimization Looking North (Section E' – E)**

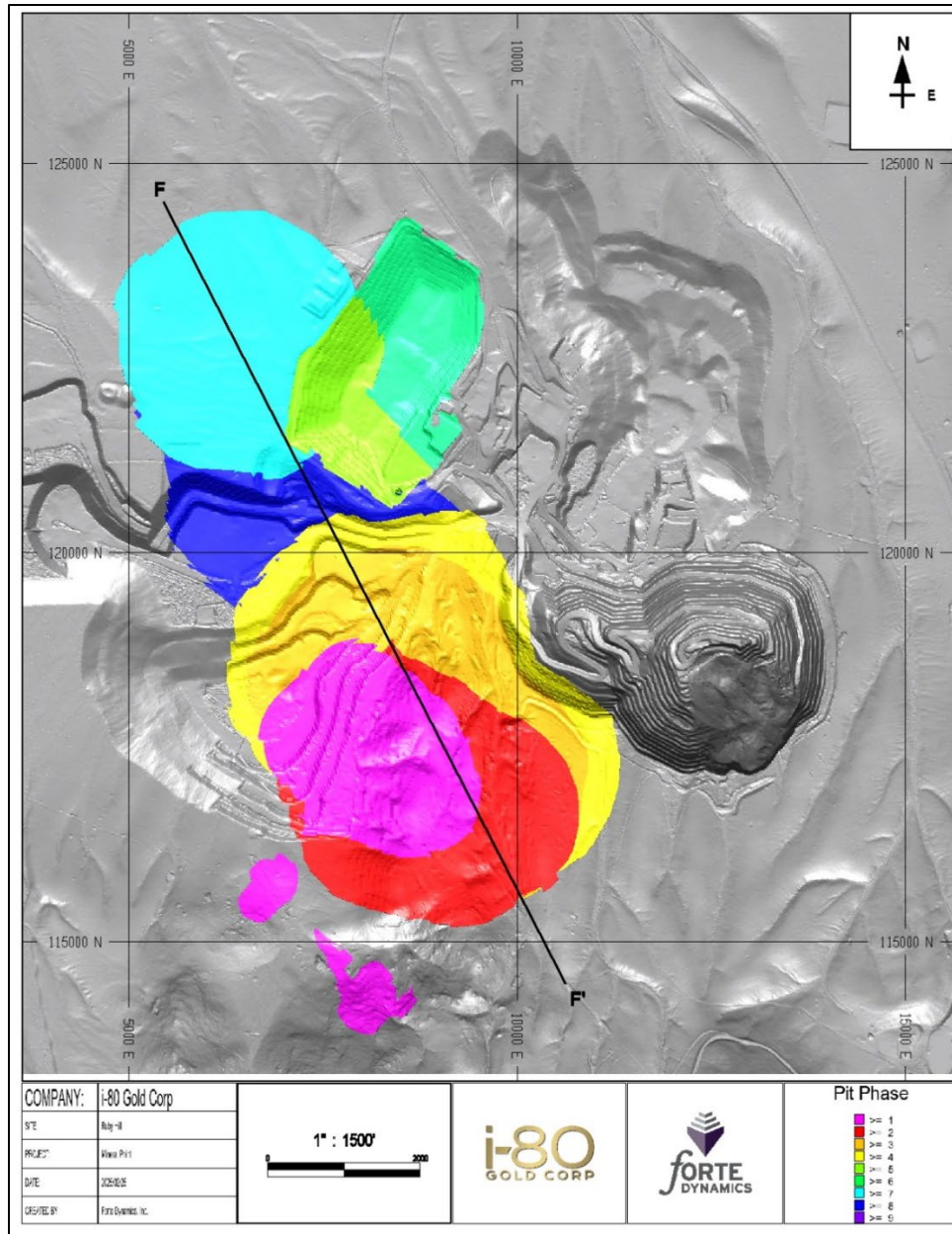
(Source: Forte Dynamics, 2025)

### 16.3.3 Pit Designs

The pit shells and the block model were used as a basis for preliminary life of mine (LOM) open pit mine designs. Pit shell LG57.1 was determined to be too large for an initial pit phase and was split into two sub-phases. The current heap leach relocation was done in phases 5 and 6. Table 16-14 shows the pit design parameters used. Figure 16-20 shows all nine pit phases, along with a section line running along the strike of the deposit. Figure 16-21 is a cross-section of all nine phases with the block model showing Au toz/ton. Figure 16-22 to Figure 16-30 show each pit phase design individually. Figure 16-31 shows the final pit design and estimated block model in an orthogonal view looking northwest. For the below section and plan plots, the block model has filtered out all blocks below 0.003 toz/ton (0.1 g/tonne) Au.

**Table 16-14: Pit Design Parameters**

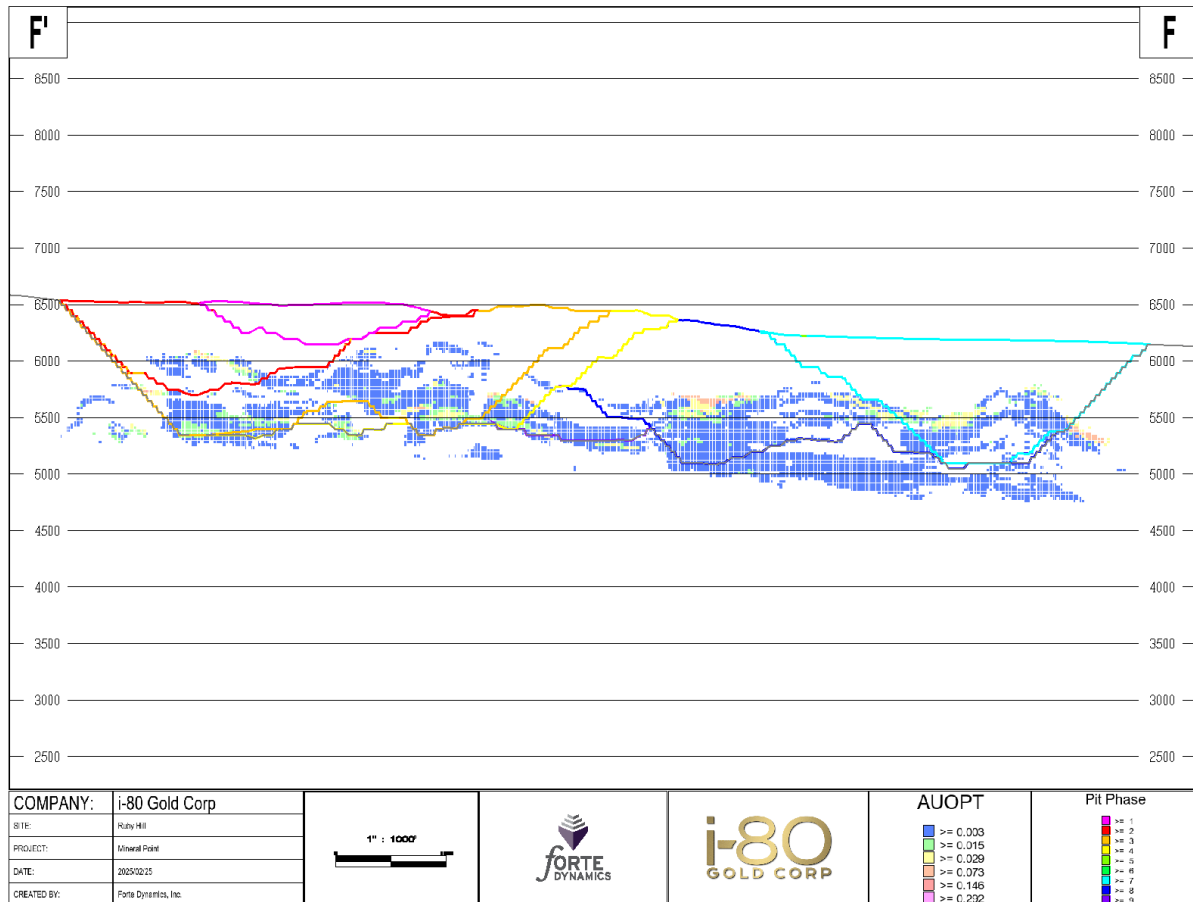
Parameter	Units	Waste Dump	Alluvium	Sanded	Unsanded
Bench Height	ft	50.0	50.0	50.0	50.0
Bench Face Width	ft	18.2	18.2	18.2	18.2
Catch Bench Width	ft	68.4	13.0	26.8	26.8
Ramp Width	ft	130	130	130	130
Ramp Grade	%	10	10	10	10
Bench Face Angle	deg	70	70	70	70
Inter Ramp Angle	deg	30	58	48	48
Overall Slope Angle	deg	30	55	45	45



**Figure 16-20: Pit Phasing and Section Line**

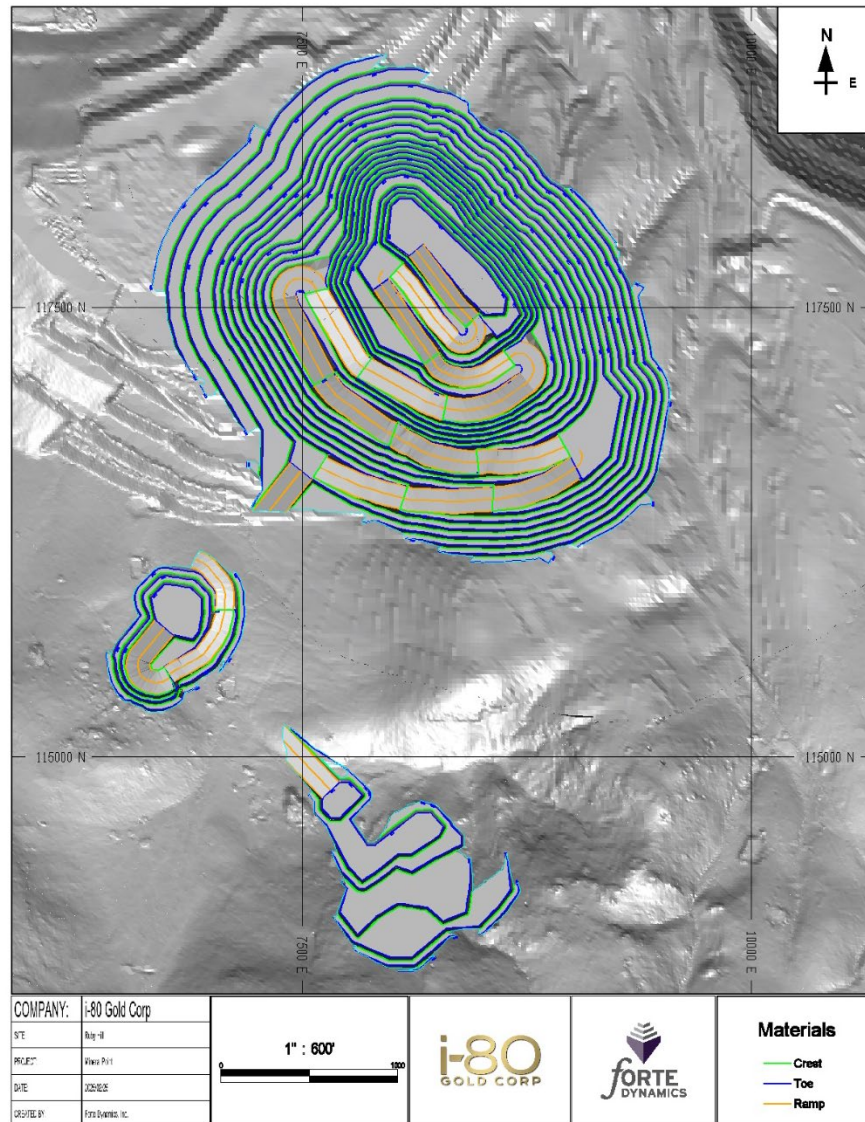
(Source: Forte Dynamics, 2025)





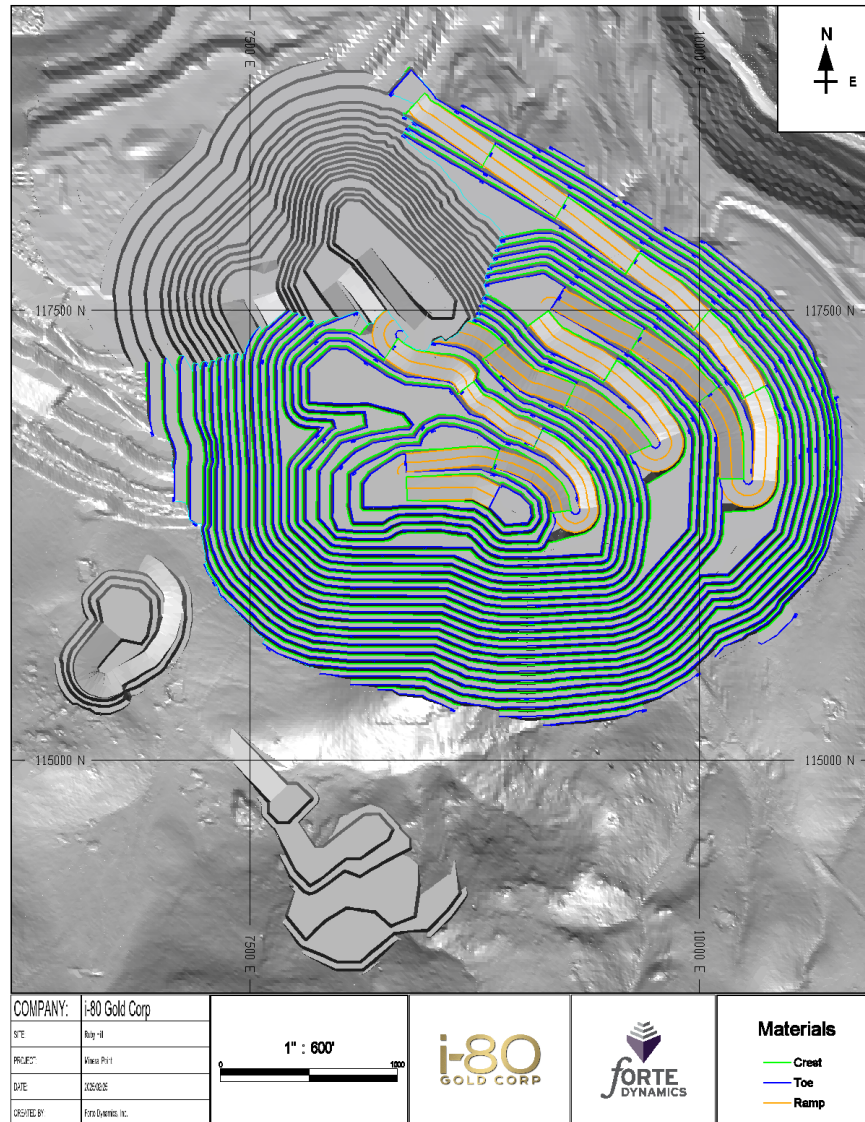
**Figure 16-21: Cross Section F' to F of Pit Phasing**

(Source: Forte Dynamics, 2025)



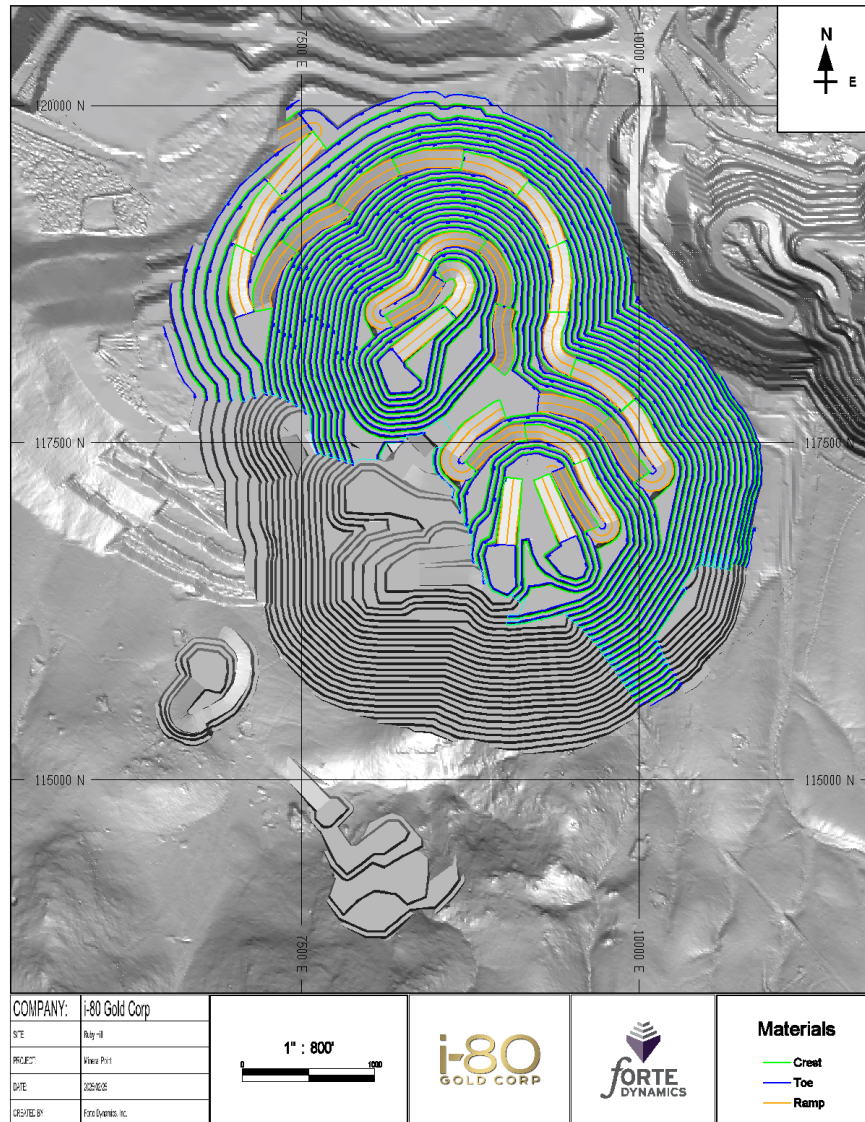
**Figure 16-22: Phase 1 Design**

(Source: Forte Dynamics, 2025)



**Figure 16-23: Phase 2 Design**

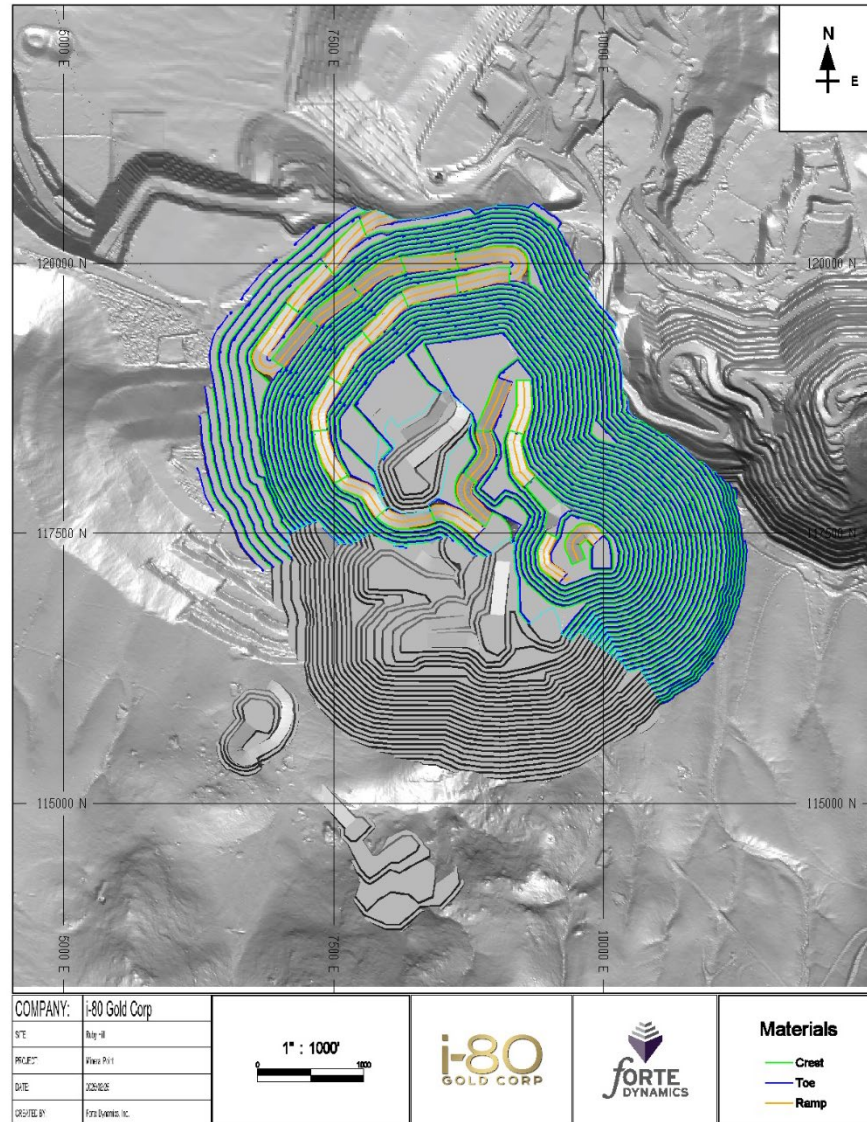
(Source: Forte Dynamics, 2025)



**Figure 16-24: Phase 3 Design**

(Source: Forte Dynamics, 2025)

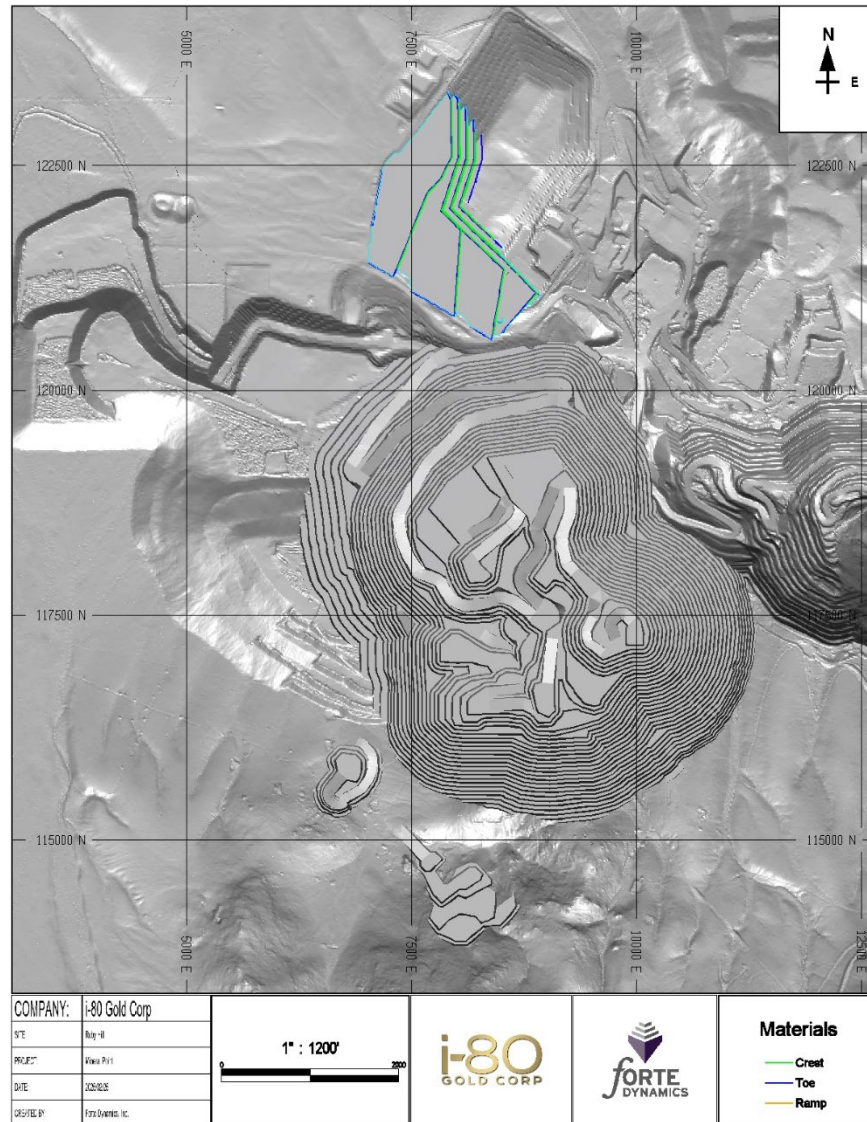




**Figure 16-25: Phase 4 Design**

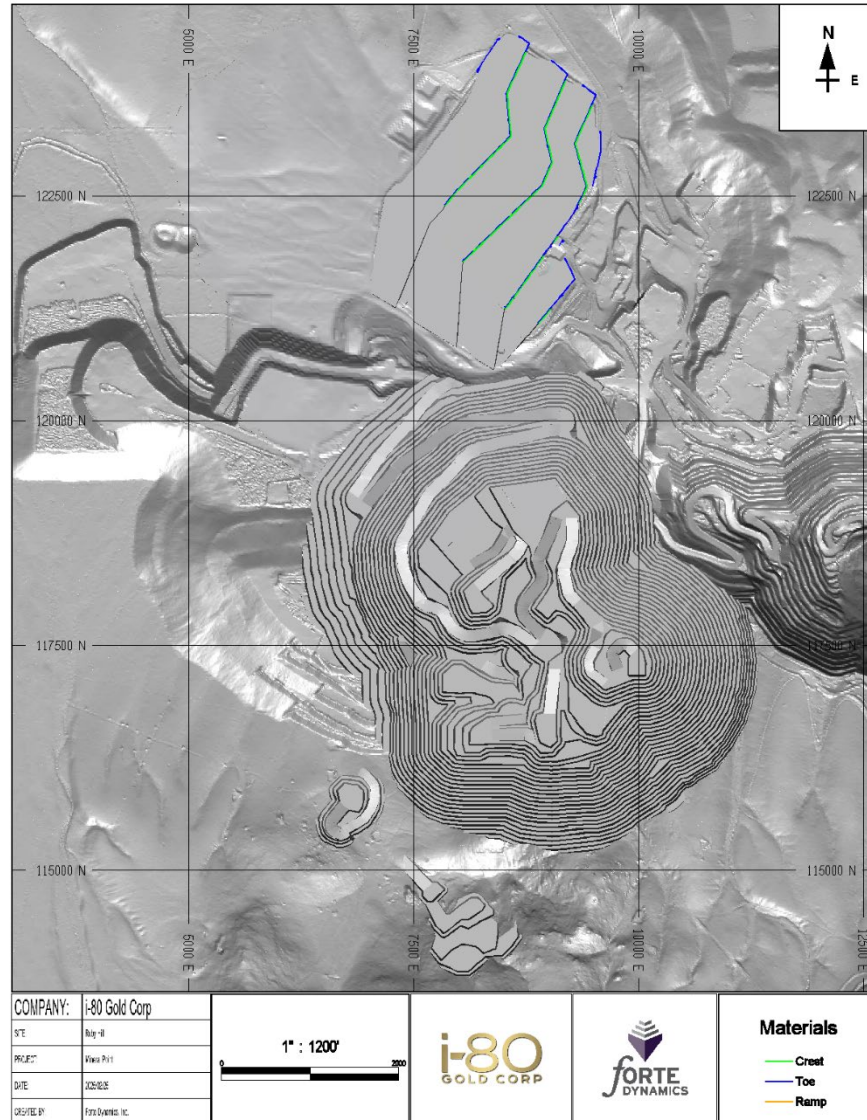
(Source: Forte Dynamics, 2025)





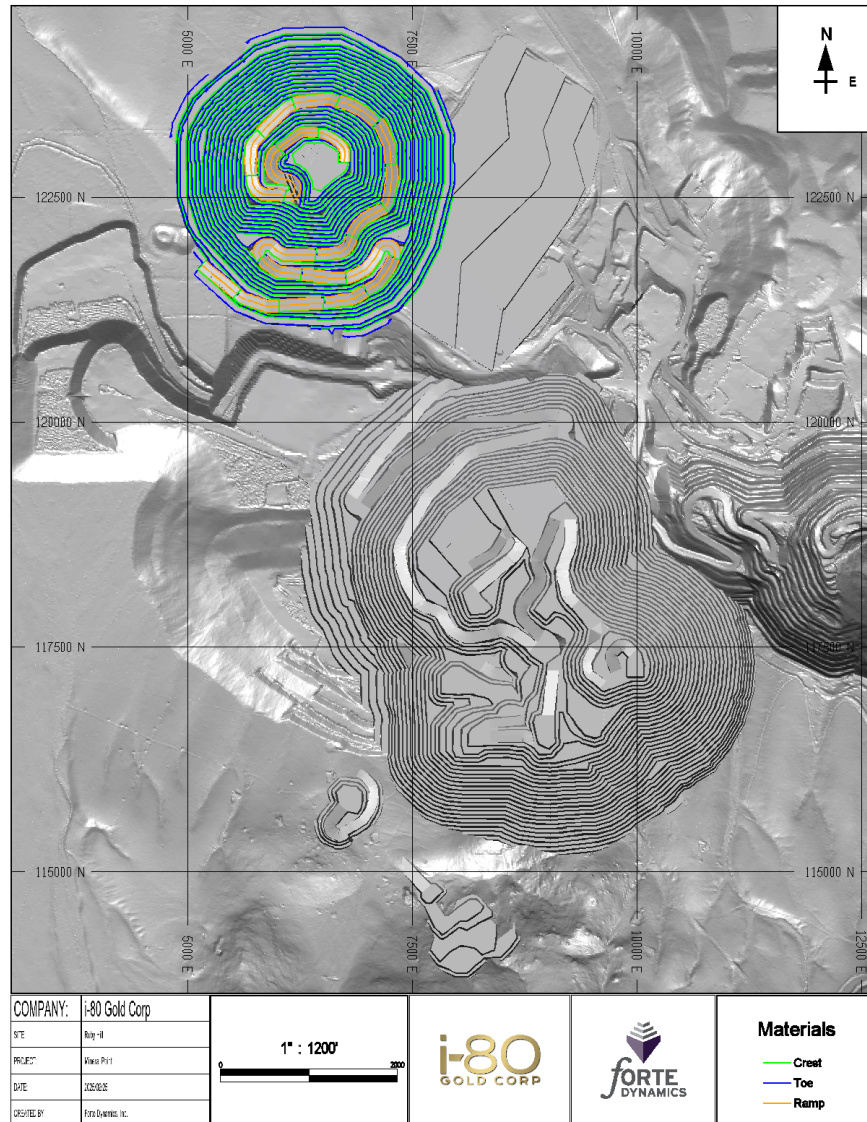
**Figure 16-26: Phase 5 Design (First Phase of Heap Leach Relocation)**

(Source: Forte Dynamics, 2025)



**Figure 16-27: Phase 6 Design (Second Phase of Heap Leach Relocation)**

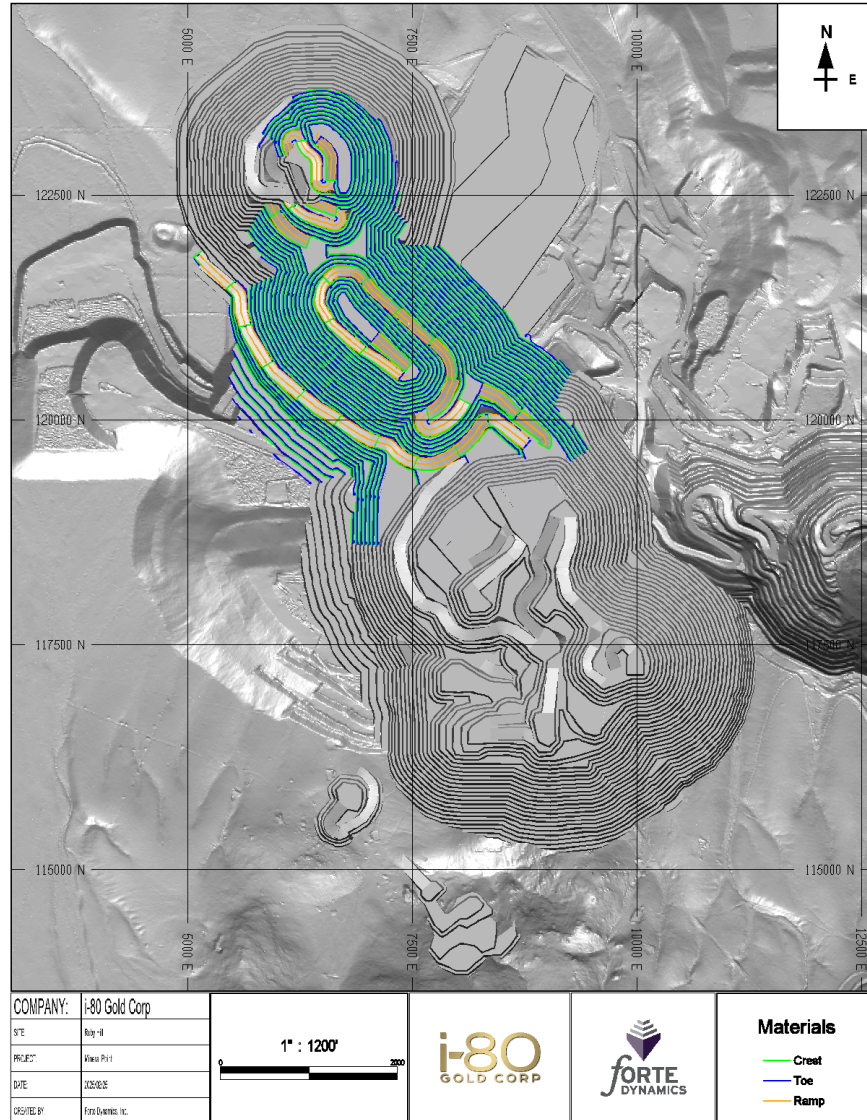
(Source: Forte Dynamics, 2025)



**Figure 16-28: Phase 7 Design**

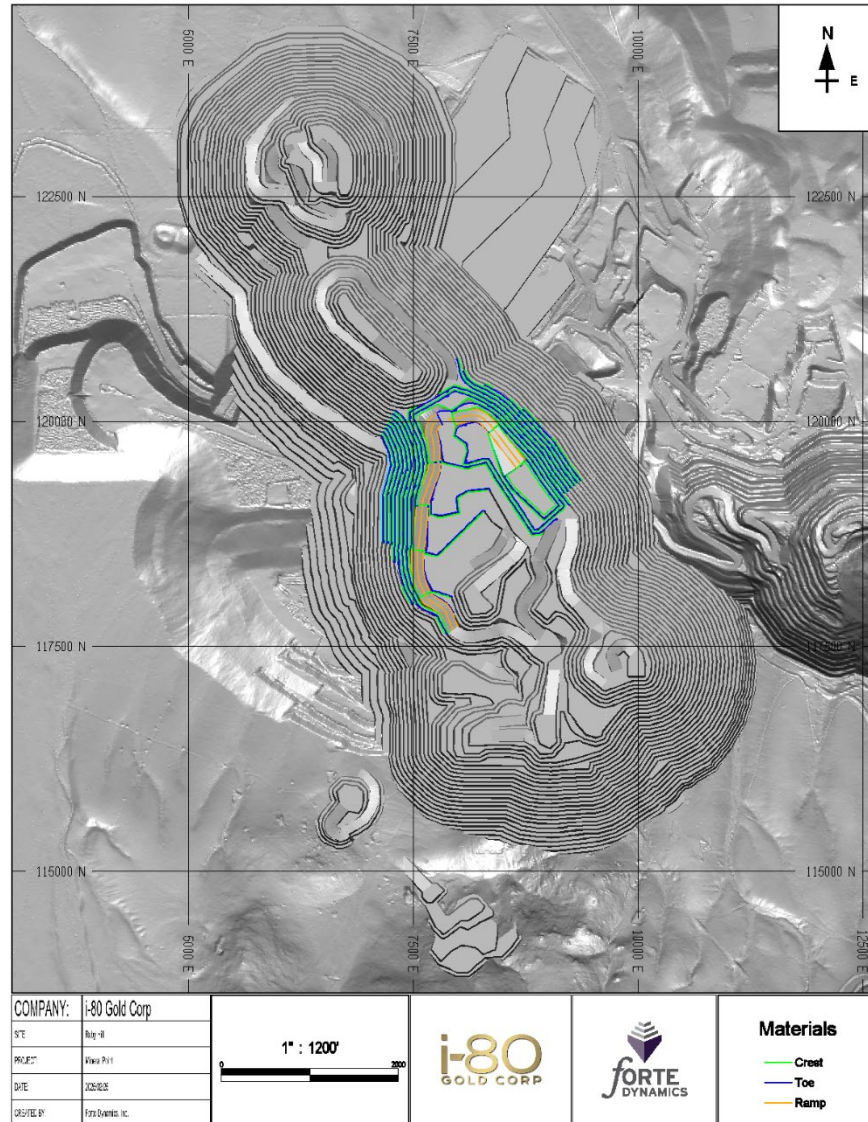
(Source: Forte Dynamics, 2025)





**Figure 16-29: Phase 8 Design**

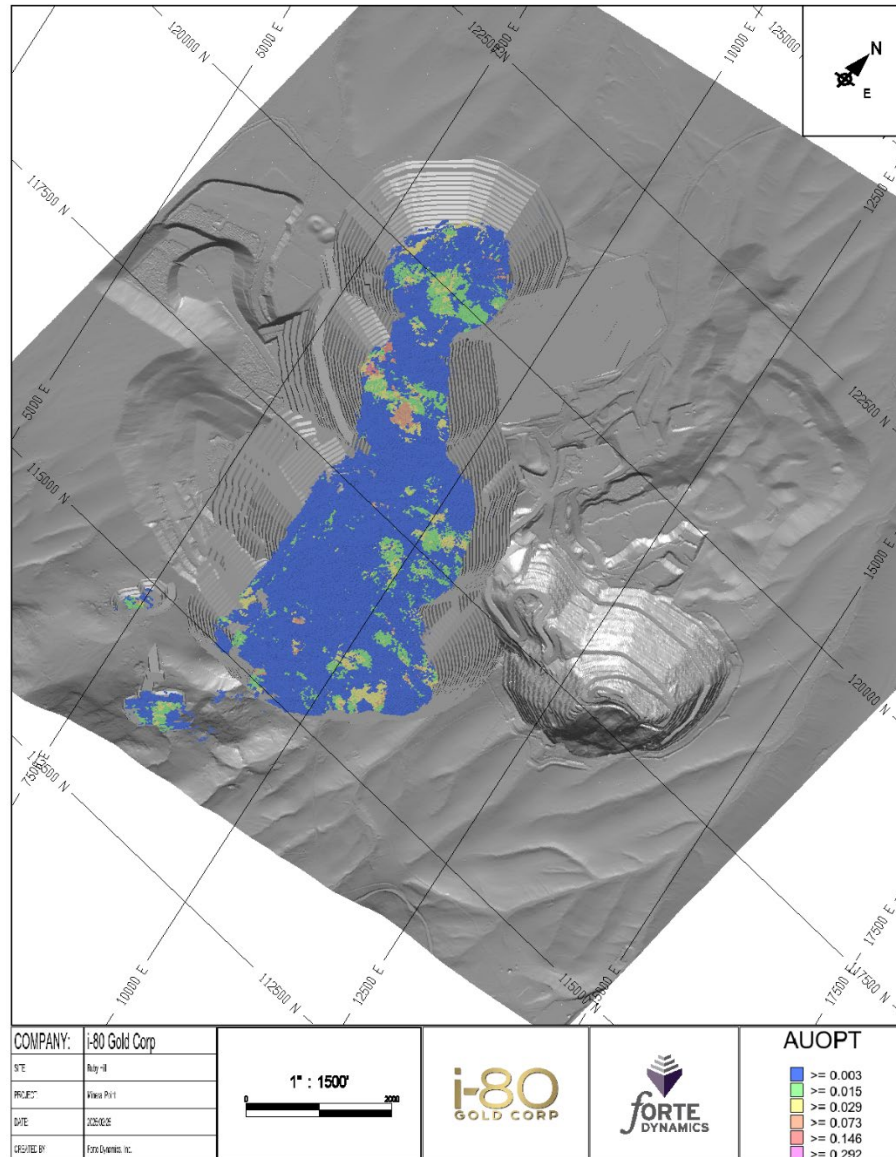
(Source: Forte Dynamics, 2025)



**Figure 16-30: Phase 9 Design**

(Source: Forte Dynamics, 2025)





**Figure 16-31: Final Pit and Estimated Block Model in Orthogonal View Looking Northwest**

(Source: Forte Dynamics, 2025)

#### 16.3.4 Haul Road Design

Existing roads are planned to be utilized where possible. New haul roads will have to be built to the top of each phase for waste mining. This will require the removal of vegetation and any topsoil for the construction of the planned haul roads.

Haul roads were designed to be wide enough for two-lane traffic, except for the bottom four benches, which were designed for single-lane travel to minimize waste stripping requirements.

### 16.3.5 Economic Evaluation

The economic evaluation parameters are different from the pit limit runs. Additional benchmarking from other sites was conducted, along with a more detailed workup of the processing cost. The silver price was updated to reflect current trends.

### 16.3.6 Cutoff Grade

The processed/waste cutoff grades for mineable resource reporting were based on the economic parameters and the individual metal grades within each block. The mining and processing cost, along with the silver price, have been updated from the numbers in Table 16-12. The updated costs and price are shown in Table 16-15. All other inputs were held the same as shown in Table 16-12. The prices in Table 16-15 were used in Equation 16-1 to calculate a gold COG of 0.006 oz/ton (0.19 g/tonne) and ICOG of 0.004 oz/ton (0.14 g/tonne). The silver COG of 0.277 toz/ton (9.49 g/tonne) and an ICOG of 0.171 toz/ton (5.85 g/tonne) were calculated.

**Table 16-15: Design Metal Prices, Costs, and Recoveries**

Description	Units	Value
Mining Cost	US\$/ton	\$2.50
Processing Cost	US\$/tonne	\$2.76
Processing Cost	US\$/ton	\$3.90
Processing Cost	US\$/tonne	\$4.30
Silver Price	US\$/toz	\$27.25
Silver Price	US\$/gr	\$0.88

### 16.3.7 Pit Design Inventories

Indicated and Inferred Mineral Resource inventories of the preliminary open pit designs are tabulated in Table 16-16. In summary, the final pit limit contains a total tonnage of 1,675 Mton (1,520 Mtonne) including 245.7 Mton (222.9 Mtonne) of Indicated Mineral Resource at 0.013 toz/ton (0.45 g/tonne) Au and 0.426 toz/ton (14.61 g/tonne) Ag, and 149.7 Mton (135.8 Mtonne) of Inferred Mineral Resource at 0.009 toz/ton (0.31 g/tonne) Au and 0.486 toz/ton (16.66 g/tonne) Ag, for a total of 4.5 Mtoz (139.97 Mgram) of contained gold and 177.3 Mtoz (5,514.6 Mgram) of contained silver. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. There has been insufficient exploration to define the Inferred Resources tabulated above as Indicated or Measured Mineral Resources. However, it is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. There is no guarantee that any part of the Mineral Resources discussed herein will be converted into a Mineral Reserve in the future.

Table 16-16: In-Pit Mineral Resources by Pit Phase

Phase	Material	Processed Resource							Waste	Total	
		kton	Au toz/ton	Ag toz/ton	Au Cont ktoz	Ag Con ktoz	Au Rec ktoz	Ag Rec ktoz	kton	kton	Stripping Ratio
PH1	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	25,258	0.011	0.371	269	9,378	224	3,936	32,276	57,534	1.3
	Inferred	5,067	0.009	0.256	46	1,295	38	528	10,918	15,985	2.2
	Waste	-	-	-	-	-	-	-	67,980	67,980	-
PH2	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	37,239	0.015	0.695	558	25,894	451	10,542	77,661	114,900	2.1
	Inferred	11,853	0.010	0.463	116	5,489	93	2,211	30,717	42,570	2.6
	Waste	-	-	-	-	-	-	-	95,933	95,933	-
PH3	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	76,486	0.011	0.308	839	23,587	689	9,798	67,694	144,180	0.9
	Inferred	7,772	0.009	0.317	68	2,465	56	1,008	6,119	13,891	0.8
	Waste	-	-	-	-	-	-	-	134,950	134,950	-
PH4	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	59,822	0.013	0.290	767	17,324	607	7,162	39,350	99,172	0.7
	Inferred	24,742	0.011	0.262	281	6,489	221	2,649	17,987	42,729	0.7
	Waste	-	-	-	-	-	-	-	158,381	158,381	-
PH5	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-	-	-	-
	Inferred	-	-	-	-	-	-	-	-	-	-
	Waste	-	-	-	-	-	-	-	9,112	9,112	-
PH6	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-	-	-	-
	Inferred	-	-	-	-	-	-	-	-	-	-
	Waste	-	-	-	-	-	-	-	17,343	17,343	-
PH7	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	11,079	0.016	1.045	172	11,575	120	4,630	26,399	37,478	2.4
	Inferred	29,243	0.010	0.983	290	28,755	224	11,502	39,115	68,359	1.3
	Waste	-	-	-	-	-	-	-	192,356	192,356	-
PH8	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	25,370	0.017	0.528	425	13,402	269	5,363	30,172	55,542	1.2
	Inferred	47,724	0.008	0.473	397	22,560	293	9,027	54,363	102,087	1.1
	Waste	-	-	-	-	-	-	-	152,333	152,333	-
PH9	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	10,452	0.010	0.328	105	3,432	87	1,399	6,278	16,730	0.6
	Inferred	23,336	0.008	0.242	191	5,647	157	2,273	11,687	35,023	0.5
	Waste	-	-	-	-	-	-	-	673	673	-
Total	Measured	-	-	-	-	-	-	-	-	-	-
	Indicated	245,706	0.013	0.426	3,135	104,591	2,448	42,830	279,831	525,537	1.1
	Inferred	149,738	0.009	0.486	1,389	72,702	1,081	29,199	170,906	320,644	1.1
	Waste	-	-	-	-	-	-	-	829,062	829,062	-

### 16.3.8 Drilling and Blasting

Primary fragmentation for mining will be carried out using traditional drill and blast techniques that are standard in open pit mining. This study used a powder factor of 0.51 lb/ton (0.25 kg/tonne) for mineralized material and waste rock.

Benches are blasted and mined in 50-foot (15.24-meter) benches. Buffer and trim rows are planned to allow controlled blasting and minimize back-breaking damage to the high walls.

### 16.3.9 Production Schedules

The mine designs were used to create a LOM schedule for the site. This schedule considers open pit mining operations. The yearly mine schedule is presented in Table 16-17. The production schedule is driven by the nominal rate of 68,000 ton/day (62,000 tonne/day) processed material which is a 25 Mton/year (23 Mtonne/year), and the average LOM stripping ratio is 3.2:1 waste-to-processed material.

Table 16-17 details the LOM production schedule by year. Figure 16-32 shows the LOM annual production schedule for processed, heap leach relocation, and waste materials, and recovered Au toz.

Table 16-17: LOM Production Schedule

Year	Days	Processed kton	HL Relo kton	Waste kton	Total kton	Stripping Ratio	Au (toz/t on)	Ag (toz/to n)	Au Cont (ktoz)	Ag Cont (ktoz)	Au Rec (ktoz)	Ag Rec (ktoz)
1	365	8,132	-	121,783	129,915	15.0	0.007	0.467	60.7	3,795.0	50.5	1,600.9
2	365	25,000	-	106,842	131,842	4.3	0.010	0.410	253.3	10,250.9	210.9	4,249.7
3	366	25,068	-	108,536	133,604	4.3	0.011	0.431	277.0	10,800.9	223.7	4,455.7
4	365	24,323	-	106,552	130,874	4.4	0.018	0.747	433.3	18,164.1	348.3	7,318.1
5	365	25,000	-	110,495	135,495	4.4	0.010	0.298	246.2	7,462.0	200.1	3,125.0
6	365	25,000	-	91,216	116,216	3.6	0.010	0.271	249.8	6,767.9	204.0	2,783.4
7	366	25,068	9,112	76,394	110,574	3.0	0.012	0.316	294.5	7,913.3	243.4	3,284.3
8	365	25,000	-	78,883	103,883	3.2	0.012	0.336	300.7	8,411.4	244.0	3,471.3
9	365	25,000	-	80,373	105,373	3.2	0.011	0.250	280.7	6,249.0	215.9	2,577.5
10	365	25,000	-	88,958	113,958	3.6	0.014	0.318	348.9	7,947.2	275.1	3,272.8
11	366	25,068	-	88,600	113,669	3.5	0.015	0.553	364.4	13,867.3	274.8	5,578.9
12	365	25,000	-	78,692	103,692	3.1	0.011	1.053	269.1	26,333.1	209.8	10,533.2
13	365	25,000	-	80,420	105,420	3.2	0.014	0.650	344.7	16,255.2	207.1	6,506.9
14	365	25,000	17,343	9,512	51,855	0.4	0.012	0.525	301.2	13,120.6	210.4	5,248.3
15	366	25,068	-	6,861	31,929	0.3	0.007	0.380	175.3	9,523.6	143.9	3,809.4
16	365	25,000	-	17,496	42,496	0.7	0.008	0.268	206.0	6,705.5	168.9	2,717.4
17	365	12,717	-	1,731	14,448	0.1	0.009	0.293	118.7	3,726.1	98.5	1,495.5
Total		395,444	26,455	1,253,344	1,675,243	3.2	0.0114	0.4483	4,525	177,293	3,529	72,028

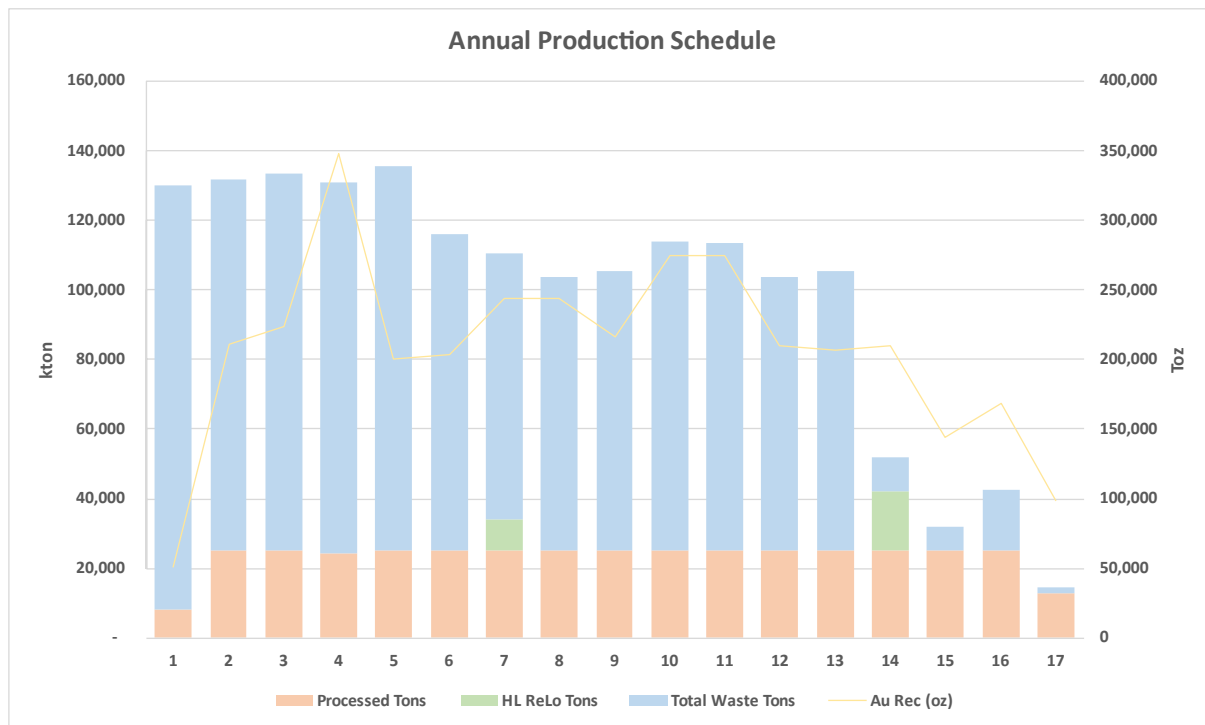


Figure 16-32: LOM Annual Production Schedule

(Source: Forte Dynamics, 2025)

### 16.3.10 Mine Fleet

The Project's mining fleet will be designed to support the planned open pit operation, with a focus on maximizing efficiency and production rates while maintaining operational flexibility and safety. The primary equipment for the mining operation will consist of four main shovels (two rope shovels and two hydraulic shovels) and up to 26 haul trucks.

The two rope shovels will be used for overburden removal and high-volume digging, offering the advantage of high digging force and efficiency in hard rock conditions. The rope shovels will be equipped with large capacity buckets to facilitate the efficient loading of the haul trucks. The two hydraulic shovels will primarily be employed for more selective digging in ore zones and areas requiring increased precision. The fleet will consist of up to 26 haul trucks, each with a 320-ton capacity, which can transport large volumes of material efficiently from the pit to the processing plant or waste disposal area. The haul trucks will be selected for their reliability, fuel efficiency, and suitability for the operating environment. A wide range of support equipment will support the load and haul fleet. Table 16-18 contains a list of the proposed mining equipment for the Project.

**Table 16-18: Mining Equipment List**

Item	Manufacturer	Model	# of Units
Cable Shovels small	Komatsu	2800XPC	1
Cable Shovels large	Komatsu	4100XPC	1
Hydraulic Shovel	Komatsu	PC5500-11	2
Rear Dump Trucks	Komatsu	930E-5	26
Loader	Komatsu	WE1850-3	1
Rotary Drills	Komatsu	ZR77	5
Bulldozers	Komatsu	D375A-8	5
Wheel Dozer	CAT	854	2
Graders	Komatsu	GD955-7	3
Water Tankers	Komatsu	830E-5	2

### 16.3.11 Dewatering

Dewatering will be necessary as the pit develops and as is covered in section 18.2.4.



## **17. RECOVERY METHODS**

### **17.1 Archimedes Underground**

#### **17.1.1 Introduction**

Refractory production from the Ruby Hill operation will be processed via milling, pressure oxidation followed by carbon in leach (CIL) or roasting followed by CIL. The most recent metallurgical testing is described in Section 13 Mineral Processing and Metallurgical Testing that will support processing parameters at the Turquoise Ridge Surface Sage autoclave under a Toll Milling Agreement (TMA).

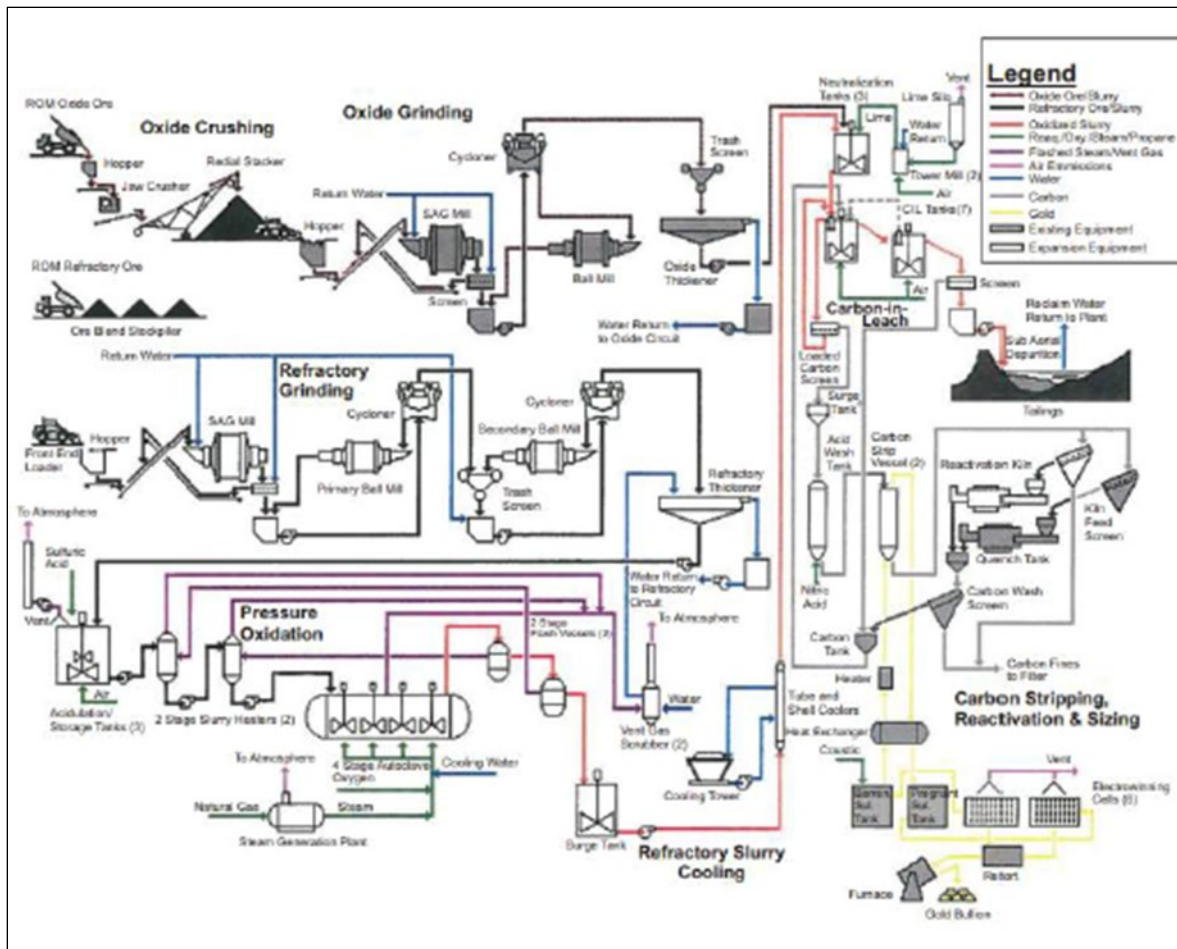
Ruby Hill production will be classified based on gold grade, level of oxidation and refractory characteristics (e.g. presence of preg-robbing components in ore, refractory sulfide components) which contribute to recovery at processing facilities and is routed based on an integrated process production plan is devised for maximum economic returns.

Nevada Gold Mines LLC (Nevada Gold Mines) operates the Turquoise Ridge Complex, located in Humboldt County, Nevada, USA. Nevada Gold Mines is a joint venture between Barrick Gold Corporation (Barrick) and Newmont Corporation (Newmont), Barrick is the operator of the joint venture and owns 61.5%, with Newmont owning the remaining 38.5%. Under the joint venture, Barrick's Turquoise Ridge Mine and Newmont's Twin Creeks Complex were combined as a single operation, now known as Turquoise Ridge. The process operations are now known as the Sage Mill complex.

#### **17.1.2 Refractory Mineralization Processing**

Prior to 2028, refractory mineralization from Archimedes Underground will be shipped to the Turquoise Ridge Complex. Production will be sampled to determine the geochemistry, gold content, and moisture content.

Specifically, the samples are assayed for organic carbon and gold since the gold recovery formula is dependent upon these two parameters. The simplified Sage Mill flowsheet is shown in Figure 17-1.



**Figure 17-1: Third Party POX Facility Simplified Flowsheet**

(Source: Nevada Gold Mines, 2020)

#### 17.1.2.1 Sage Mill Process

The Sage Mill processes 4 - 5 million tonnes per year of feed from various sources.

Mill feed is passed through a grizzly and the undersize is fed to a 8.5 m diameter by 3.0 m long 3.0 MW SAG mill. The SAG mill is fitted with a trommel jet with no pebbles discharged from the mill. SAG mill discharge is combined with the primary ball mill discharge (7.9 m diameter by 9.1 m long, 5.6 MW) and classified by 500 mm diameter cyclones. Primary cyclone overflow is further ground by two 5.0 m diameter by 8.8 m long 3.0 MW ball mills operating in closed circuit with 250 mm diameter cyclones. Secondary cyclone overflow reports to a 61 m diameter thickener. Thickener underflow reports to an acidification circuit where sulphuric acid is added as necessary to ensure adequate autoclave free acid solution levels. The free acid concentration for Turquoise Ridge Complex pressure oxidation circuit is maintained at minimum of 30 g/L.

Thickener overflow solution is returned to the milling circuit. There are three surge tanks ahead of the two autoclaves, providing 15 hours autoclave feed storage. After acidification, ore slurry is added to two identical autoclaves that are operated in parallel. Each autoclave is 5.8 m outside diameter and 22.9 m overall length. Each autoclave has four compartments and provides approximately 50 minutes retention time. The autoclaves are operated at 225°C and 3.2 MPa oxygen over pressure. Two stages of flash heat recovery

are utilized. Autoclave discharge is cooled before reporting to the lime neutralization circuit. Autoclave waste gas is cooled and scrubbed before discharging to the atmosphere.

Oxide ore and acidic oxidized sulfide ore slurry are combined in the neutralization circuit.

After neutralization with the carbonate oxide ore and supplemental lime, the combined slurry reports to a carbon-in-leach (CIL) circuit where the combined slurry leached in cyanide solution to extract the gold. The CIL circuit provides approximately 18 hours retention time. Final tailings slurry is pumped to the tailings area. Tailings settle and decant solution is reclaimed and reused in the grinding circuit.

Loaded carbon from the CIL circuit is transferred to the recovery plant. After acid washing to remove inorganic contaminants, the carbon is transferred to the pressure Zadra stripping circuit. Gold is stripped from the carbon using caustic and cyanide solution at elevated temperature and pressure. Pregnant solution from the stripping circuit is pumped to an electrowinning circuit where precious metal is removed from the solution as sludge. The sludge is filtered, dried in a mercury retort, mixed with fluxes, and refined into doré bars.

After carbon stripping, the barren carbon reports to the kiln regeneration circuit and returns to the CIL circuit.

Gold recovery estimates are based on both testwork and operational history at both facilities with curves utilized for both depending on operating strategy and mineralization characteristics.

## **17.2 Lone Tree Pressure Oxidation Facility**

i-80 Gold plans to process single refractory mineralization from their Nevada mines at their Lone Tree Mill in a hub and spoke arrangement.

### **17.2.1 Lone Tree Mill Historic Processing**

The Lone Tree Mine is located immediately adjacent to I-80, approximately 12 miles west of Battle Mountain, 50 miles east of Winnemucca, and 120 miles west of Elko. Mining commenced at Lone Tree in April 1991 with the first gold pour in August of 1991. In 1993, a POX circuit was added to the facility, which included a SAG / ball mill circuit, followed by a thickening circuit, the POX process for refractory gold ores, and finally CIL, carbon stripping, and refining.

In 1997, a 4,500 tpd flotation plant was constructed to make concentrate to supplement the feed to the POX circuit, as well as to ship excess concentrate to Newmont's Twin Creeks POX plant or to its Carlin roaster. The Lone Tree processing facilities were shut down at the end of 2007. Since that time, the mills have been rotated on a regular basis to lubricate the bearings. In general, the facility is still in place with most of the equipment sitting idle.

i-80 Gold Corp's objective is to refurbish and restart the POX circuit and associated unit operations, including the existing oxygen plant, as it was operating before the shut-down, while meeting all new regulatory requirements. The flotation circuit is not being considered for restart. The POX circuit will have capability to operate under either acidic or basic conditions.

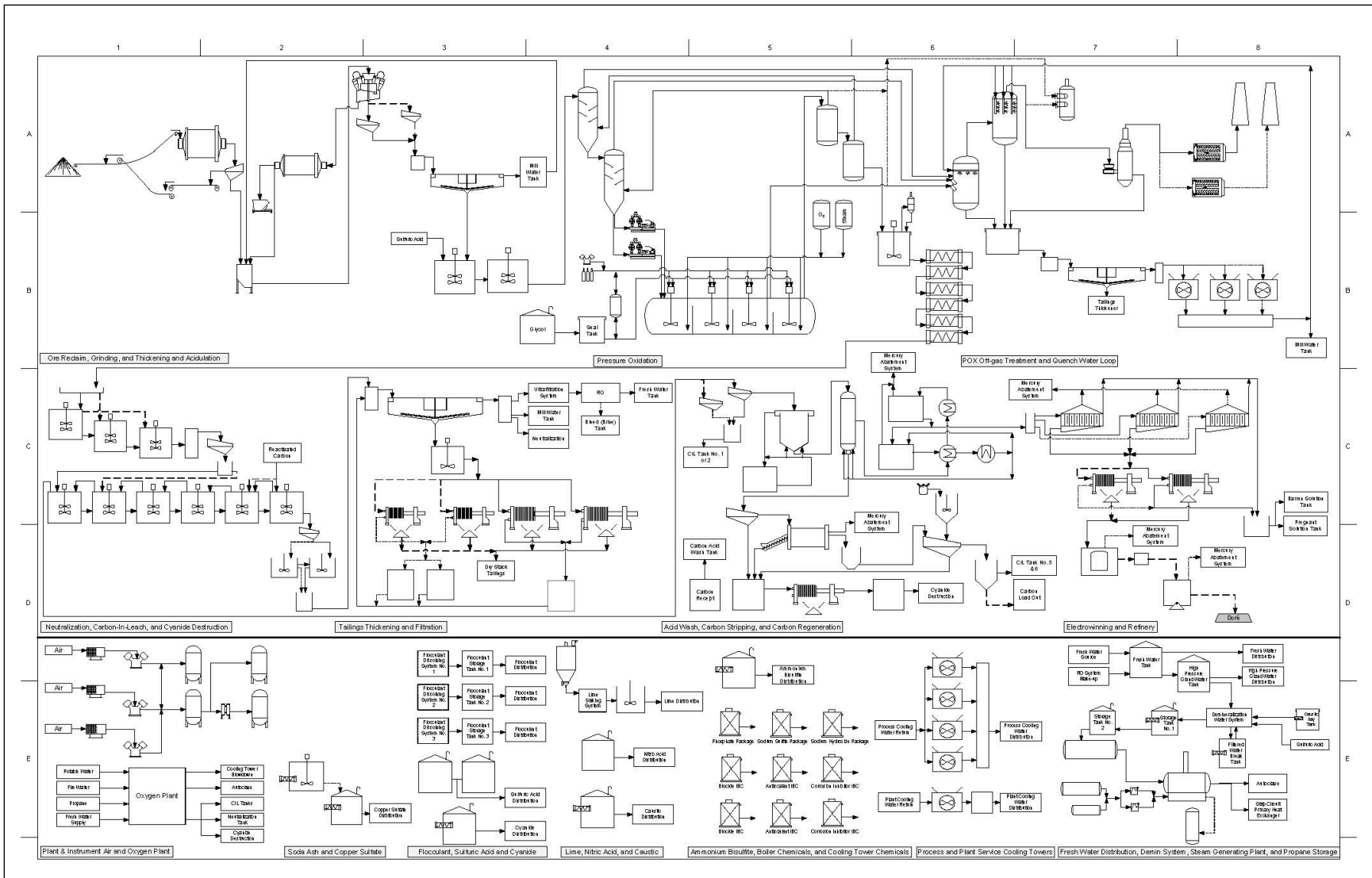
In order to restart the process plant, new environmental regulations in relation to allowable mercury emissions must be met. In February 2011, the NDEP and the EPA brought about new standards to limit mercury emissions to 127 lb of mercury for every million tons of ore processed. In order to meet this requirement, the Lone Tree facility will require several environmental upgrades prior to restart.

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**17.2.2 Lone Tree Facility Block Flow Diagram**

A block flow diagram for the Lone Tree Mill facility is included in Figure 17-2. The block flow diagram contains the follow major processing areas:

- Ore Reclaim, Grinding and Thickening and Acidulation
- Pressure Oxidation
- POX Off-gas Treatment and Quench Water Loop
- Neutralization, Carbon-in-Leach, and Cyanide Destruction
- Tailings Thickening and Filtration
- Acid Wash, Carbon Stripping, and Carbon Regeneration
- Electrowinning and Refinery
- Plant and Instrument Air
- Oxygen Plant
- Reagent Preparation and Storage
- Process and Plant Service Cooling Towers
- Water Distributions
- Steam Generating Plant and Propane Storage.



**Figure 17-2: Loan Tree Block Flow Diagram**

(Source: i-80 Gold, 2025)



### 17.2.3 Key Design Criteria

The Lone Tree Pressure Oxidation (POX) Facility restart will have minimal changes made from the 1993 PDC. A new PDC was developed based on the expected production sources as defined by i-80.

Key process design criteria are summarized in Table 17-1.

**Table 17-1: Summary of Key Process Statistics**

Criteria	Units	Value
Annual Mill Throughput	tons	912,500
<b>Daily Throughput (per calendar day)</b>	<b>tons</b>	<b>2,500</b>
Operating Throughput of Ore to Autoclave Circuit (LTH feed)	tph	122.5
Operating Time / Availability	%	85
Design Sulfur Treatment Rate	tph S	2.7
Gold Recovery	%	<i>Varies</i>
Silver Recovery	%	<i>Varies</i>

### 17.2.4 Lone Tree Facility Description

#### 17.2.4.1 Mill Feed Reclaim

The purpose of the Mill feed reclaim area is to store and reclaim material for processing, which has been shipped to the lone tree processing facility via highway trucks.

Run of mine (ROM) crushed material is delivered to the stockpile area. Material from various mining locations – namely Granite Creek, Cove, and Archimedes – is dumped at designated locations within the storage area and blended into facility feed stockpiles.

The stockpile area will have the capacity to store multiple days worth of mined and crushed material to accommodate the production shipment schedule to site. Additionally, the reclaim area is utilized for feed blending for the POX circuit. This blending will be used to manage the sulfide sulfur concentrations, gold grades, and carbonate grades through the autoclave to ensure stable circuit operation within the design window for the plant.

#### 17.2.4.2 Comminution

The purpose of comminution area is to reduce the particle size of the feed mineralization to the target autoclave circuit feed size for sufficient sulfide oxidation kinetics and gold recovery within the autoclave. The comminution area contains an SABC circuit with a dedicated SAG (semi-autogenous grinding mill) and ball mill to reduce the feed particle size to the target grind size. The SAG mill is fed via a conveyor from the dump hopper. The ball mill cyclone overflow is directed to the POX feed thickening conveyor.

#### 17.2.4.3 Thickening and Acidulation

The purpose of the thickening area is to prepare the slurry for autoclave process by densifying the product of the grinding circuit to improve storage capacity of the downstream slurry storage tanks, improve the autoclave heat balance by reducing the water transferred to the autoclave and improving the possible solids flow through the autoclave feed pumps. The dense slurry is stored in two acidulation tanks that provide a combined storage / acidulation retention time of 12 hours. The acidulation tanks ensure a continuous feed to the autoclave plant, unaffected by upstream throughput variations.

#### **17.2.4.4 Pressure Oxidation**

The POX autoclave circuit includes the slurry pre-heaters, autoclave feed, autoclave, and the POX ancillary services: autoclave agitator seal system, oxygen supply, high pressure cooling water, and high-pressure steam. The Lone Tree Facility restart includes provisions to operate the circuit in alkaline or acidic modes depending on the feed carbonate concentration among other factors.

##### **17.2.4.4.1 Slurry Heaters**

The purpose of the slurry heaters is to capture excess energy discharged from the autoclave and pre-heat the feed slurry prior to the autoclave process reducing the total energy input required to operate the autoclave. The heating is achieved in two stages consisting of a series of two refractory lined counter-current splash slurry heater vessels. The heat source is flashed steam released from the autoclave discharge slurry during the pressure letdown process. The splash slurry heaters are direct contact heat exchanger and provide a means of heat recovery via steam condensation. This reduces the off-gas load on the downstream off-gas equipment and reduces the required input steam.

##### **17.2.4.4.2 Autoclave Feed**

The purpose of the autoclave feed area is to increase the pressure of the pre heated slurry to above the autoclave operating pressure to facilitate transfer into the autoclave at the required pressure using the autoclave feed pumps.

##### **17.2.4.4.3 Autoclave**

The purpose of the autoclave is to oxidize the refractory sulfide minerals under acidic or alkaline conditions to liberate the gold trapped in the sulfide sulfur minerals. The autoclave at Lone Tree is designed to operate at 389 °F and 297 PSI(g) with a slurry residence time of 40 - 50 minutes and consists of 4 compartments. The design expects a 78% - 97% cumulative sulfide sulfur oxidation through the autoclave depending on operating conditions. In either operating condition high purity oxygen is introduced to all four compartments of the autoclave at controlled rates to oxidize the fed sulfide minerals. Due to the low sulfur grades steam is required to be continuously fed to the autoclave to maintain the kinetically required oxidation rates to achieve the sulfide sulfur oxidation extent. The autoclave slurry is discharged through a level control choke valve and is fed to the high pressure flash vessel.

##### **17.2.4.4.4 Flash System**

The purpose of the flash system is to reduce the pressure and temperature of the autoclave discharge, making it suitable for subsequent unit operations downstream. The oxidized slurry undergoes a controlled pressure and temperature reduction process as it passes through two stages of flashing vessels located downstream of the last autoclave compartment.

#### **17.2.4.5 POX Off-gas Treatment**

The purpose of the POX off-gas treatment area is to effectively eliminate particulate matter present in the POX vent stream, while simultaneously reducing the temperature and volume of the vent gas through direct contact condensation. This process serves to alleviate the burden imposed on downstream equipment, ensuring their optimal performance, and mitigates the environmental impact by minimizing emissions. The off-gas treatment circuit also includes a mercury removal step to minimize autoclave mercury emissions to the environment.

#### **17.2.4.6 Slurry Coolers**

The purpose of slurry coolers is to reduce the temperature of the incoming slurry from the low-pressure flash vessel to prepare it for the downstream neutralization and CIL circuits through a series of water cooled shell and tube heat exchangers.

#### **17.2.4.7 Neutralization**

The purpose of neutralization circuit is to neutralize all free acid in the slurry, precipitate the heavy metals as their hydroxides and raise the pH to approximately 10 to ensure cyanide stability in the CIL circuit for personnel safety and process optimization. The neutralization circuit is dosed with lime slurry to raise the pH of the autoclave discharge slurry. The neutralized slurry from this circuit is then fed to the CIL circuit for gold recovery.

#### **17.2.4.8 Carbon-in-Leach**

The purpose of CIL circuit is to leach and extract gold and silver from the oxidized slurry from neutralization using cyanidation and carbon adsorption. The CIL circuit provides retention time of 24 to 28 hours. The CIL circuit consists of 6 mechanically agitated tanks arranged in a series. The agitators prevent solid settlement and maximize contact time to improve gold and silver recovery. The carbon flows counter current to the slurry flows and the loaded carbon is sent to an elution circuit for carbon stripping and regeneration. Unloaded carbon is fed the last tank of the CIL circuit. The leached slurry is transferred from to the cyanide destruction circuit.

#### **17.2.4.9 Elution**

The purpose of the elution circuit is to elute precious metals from the loaded carbon and transfer the resulting loaded solution of high gold concentration (pregnant eluate) to the refinery to generate doré.

##### **17.2.4.9.1 Carbon Acid Wash**

The purpose of acid wash is to rinse the loaded carbon from CIL with dilute nitric acid solution prior to the carbon stripping process. Carbonate scale builds up on the activated carbon during the CIL process and fouls the carbon's adsorption properties by depositing a layer of scale. If left intact, over time the scale will limit the adsorption capacity of the carbon and will cause softening of the carbon in the regeneration kiln. The loaded carbon from CIL is first treated within the carbon acid wash vessel prior to treatment within the carbon stripping vessel.

##### **17.2.4.9.2 Carbon Stripping**

The purpose of the carbon strip circuit is to strip the cleaned loaded carbon from the acid wash vessel of the adsorbed gold using a Pressure ZADRA Strip scheme. The ZADRA strip uses several bed volumes of a recirculated solution to strip the precious metals off the loaded carbon. The cyanide solution is buffered by caustic to assist with gold elution. The stripped carbon is then sent to carbon regeneration circuits. The loaded solution is next processed in the electrowinning circuit.

##### **17.2.4.9.3 Elution Mercury Abatement**

The purpose of elution mercury abatement system is to condition the off gas leaving the pregnant and barren solution tank to remove fine particulate, solution aerosols and condensed and gas phase mercury.

#### **17.2.4.10 Carbon Regeneration**

The purpose of the carbon regeneration circuit is to restore the activated carbon's ability to recover gold from the cyanidation circuit solutions. The circuit also permits the introduction of new carbon to the process and removes carbon fines from the process.

#### *17.2.4.10.1 Carbon Regeneration Kiln*

As carbon is used in the CIL and elution circuits, the surface and internal pore structure becomes contaminated with organic species. The organics foul the carbon, slow the gold adsorption rate, and decrease the gold loading capacity of the carbon. The carbon reactivation electric kiln is a horizontal rotary kiln that is specifically designed for this purpose.

#### *17.2.4.10.2 Carbon Fines Handling*

Carbon fines are transferred by gravity from the reactivated carbon vibrating screen, carbon reactivation feed vibrating screen, kiln feed hopper, and carbon reactivation electric kiln. The carbon fines are dewatered in a filter press and discharged into supersacks for external sale.

#### **17.2.4.11 Refinery**

The purpose of the refinery circuit is to recover gold cyanide solutions via electrowinning and produce doré bullion bars.

##### *17.2.4.11.1 Electrowinning*

The purpose of the electrowinning (EW) circuit is to recover gold from the pregnant solution by applying a voltage across electrodes immersed in the pregnant solution. Rich solution from the pregnant solution tank is transferred through the EW cells to electrowin the gold.

##### *17.2.4.11.2 Refining*

The purpose of the refining process is to produce doré bars void of other contaminants including but not limited to mercury.

The sludge from the EW cells is first processed in a mercury retort oven to remove the co-captured mercury from the precious metals recovery steps. The retorted gold sludge is then processed in a melt furnace to produce the final mine grade doré bars.

#### **17.2.4.12 Cyanide Destruction**

The purpose of the cyanide destruction circuit is to effectively reduce the concentration of cyanide in the final tail discharge and the recycled process water, ensuring compliance with predefined environmental standards and regulations and improving the safety of the operation by reducing cyanide concentrations outside of the CIL and elution circuits. The circuit targets a specific concentration limit of 2.5 mg/L of residual weakly acid-dissociable cyanide (CNWAD). This reduction is accomplished through the application of the SO<sub>2</sub>/air cyanide destruction process, which oxidizes the cyanide to meet the required concentration level. The cyanide destruction circuit is fed directly from the slurry discharge from the CIL circuit.

#### **17.2.4.13 Tailings Preparation**

The purpose of the tailings circuit is to increase the density of the detoxified tailings to aid with dry stacking of tailings residue. Additionally, this circuit produces process water for internal use within the facility. The tailings preparation circuit consists of a thickener as a first stage of solids densification. The thickener underflow is then fed to a tailings filtration circuit which dewateres the tailings sufficiently to support tailings dry stacking. The de-watered tailings from the filter presses are then dry stacked at the tailings storage facility.

The water removed from the tailings slurry is used as process water within the facility to offset water requirements. Excess process water is processed via a reverse osmosis circuit to provide supplemental permeate water to offset fresh water requirements.

#### **17.2.4.14 Water Distributions**

There are eight types of defined water services at Lone Tree:

- Fresh water – Is generally used for reagent make-up and water washing streams.
- Gland water – Is used to supply gland water to slurry pumps.
- Mill water – Is used to provide dilution water within the milling circuit.
- Potable water – Is used for safety showers and sanitary uses.
- Demineralized water – Is primarily used to supply the steam generating plant.
- Process water – Is used for washing and slurry dilutions. Additionally, generally feeds the reverse osmosis circuit to generate permeate water.
- Quench water – Is used within the POX off-gas circuit as the source of direct cooling water.
- Excess water – Is discharged from the main processing facility to the existing heap leach facility for treatment.

#### **17.2.4.15 Solution Cooling**

The purpose of the cooling area is to reject heat absorbed within the process to atmosphere. The solution cooling area includes the process service cooling circuit and the plant service cooling circuit. The process cooling circuit rejects the heat from the autoclave cooling circuit and the elution circuit heat exchangers. The plant service cooling circuit provides trim heat rejection from various equipment support systems throughout the design.

#### **17.2.4.16 Reagents**

Each set of compatible reagent preparation and storage systems is located within dedicated containment areas to prevent erroneous mixing of reagents. Storage tanks are equipped with level indicators, instrumentation, and alarms to reduce the risk of spills during normal operation. Appropriate ventilation, fire and safety protection, safety shower stations and Safety Data Sheet stations are located throughout the facility.

##### **17.2.4.16.1 Oxygen Plant**

High purity oxygen is primarily used for oxidation of sulfide during the POX process, of iron conversion from ferrous to ferric in the neutralization circuit, and of cyanide to cyanate in cyanide destruction. Furthermore, during cyanidation, the addition of oxygen maximizes the rate of gold dissolution. At Lone Tree, a cryogenic ASU produces high purity oxygen. The unit uses pressure swing adsorption technology for front end purification and production of high-pressure oxygen at 95% purity.

#### **17.2.4.17 Instrument and Plant Air**

The Lone Tree facility includes separate instrument and plant air systems to support the facilities air requirements.

### **17.2.5 Utilities Consumption**

The plant consumptions for water and power are provided for the average processing case below and consider the design blend of material to be processed within the Lone Tree Facility for the design life of operation.

#### **17.2.5.1 Water Consumption**

Table 17-2 provides a summary of the water consumption by type for the Lone Tree processing facility.



**Table 17-2: Lone Tree Facility Water Consumption by Type**

Type	Consumption (gpm)
Mill Water	1,550
Fresh Water	570
Permeate Water	195
Low Pressure Gland Water	105
High Pressure Gland Water	170
Demineralized Water	110
Potable Water	15

### 17.2.5.2 Electrical Power Requirements

The estimated annual electrical energy requirements for the Lone Tree processing facility are summarized by area in Table 17-3.

**Table 17-3: Lone Tree Facility Energy Usage by Area**

Area	Annual Energy Consumption (MWh/y)
000 – General Plant Wide	2,250
180 – Water System	930
181 – Potable Water	240
182 – Process Water (RO and Process Water Tank)	4,900
210 – Mineralization Reclaim	770
240 – Refinery	2,310
241 – POX Grinding	26,920
242 – POX Grinding Thickening and Acidulation	1,890
244 – Neutralization and CIL and Acid Storage	6,540
245 – Carbon Stripping	4,090
247 – CND	690
248 – Reagents	2,640
249 – Plant Air and Propane	3,310
250 – Pressure Oxidation (POX) and POX Utilities	15,540
251 – POX Demineralized Water System	2,660
275 – Tailings Filtration	13,690
300 – Plant Wide Electrical and Instrumentation	4,000
305 – ABS and CN Storage	160
320 – POX Mercury Abatement	900
340 – Quench Water Treatment	4,020
255 – Oxygen Plant	40,090
099 – Existing Plant Areas	3,570
<b>Total</b>	<b>142,090</b>

### 17.3 Mineral Point Open Pit

The proposed processing facilities for the Mineral Point Project will be developed in correspondence to the mining sequence of the deposit. The primary processing methods include primary and secondary crushing, conveyor stacking on an HLP, extraction with cyanide solution, Merrill-Crowe recovery of precious metals, and refining.

#### 17.3.1 Summary Process Design Criteria

Table 17-4 lists the preliminary design process for the process facilities and is grouped by ore mineralization type and deposit as required. It should be noted that the processing circuits have not been optimized at this time and require additional test work to be completed in further stages of this project.

**Table 17-4: Mineral Point Design Criteria**

	Units	Nominal Design	Source
<b>ORE CHARACTERISTICS</b>			
Dry Bulk Density			
Mineral Point	lb/ft <sup>3</sup>	118	Forte
Historic Heap Leach Relocated Ore	lb/ft <sup>3</sup>	118	Forte
Leach Pad Stacking Properties			
Angle of Repose	Degrees	37	Forte
Crushed Ore Moisture	%	4	Forte
Historic Heap Leach Relocated Ore	%	8	Forte
Work Indices and Abrasion			
Crusher Work Index (CWi)	kWh/st	12	DRA-2022
Bond Abrasion Index (Ai)	g	0.3	DRA-2022
Ave. UCS Strength-Hamburg (CH)	psi	5,000	Golder-2015
Particle Size Passing 80% (P80) Inches			
RoM Size Passing 80% (P80)	in	16	Forte
HL Relocated Ore Size Passing 80% (P80)	in	0.75	Client
<b>OPERATING SCHEDULE</b>			
Mining			
Operating Schedule	days/year	365	Client
	days/week	7	Client
	hours/day	24	Client
Crushing/Stacking			
Operating Schedule	days/year	365	Client
	days/week	7	Client
	hours/day	24	Client
Crusher Availability	Hours/day	20	Forte
MERRILL-CROWE PLANT			
Operating Schedule	days/year	365	Client
	days/week	7	Client
	hours/day	24	Client
Plant Availability	%	98	Forte
<b>PRODUCTION DATA</b>			
Overall Ore Production Rate			
LOM Average Mineral Point	kstpy	24,900	Forte
HL Relocated Ore in active years	kstpy	2,258	Forte
Yearly Ore Placed		See Section 6	
Total Mineral Point	kdst	408,816	Forte

	Units	Nominal Design	Source
Total HL Relocated Ore	kdst	26,290	Forte
Mineral Point Strip Ratio LOM Average	waste:ore	3.1	Forte
Precious Metal Grades and Recovery			
Average Head Grade – Au (LOM)			
Mineral Point	opt	0.011	Forte
HL Relocated Ore	opt	0.000	Forte
Average Head Grade – Ag (LOM)			
Mineral Point	opt	0.43	Forte
Historic Leached Ore	opt	0.00	Forte
Recovery – Au (LOM)			
<b>Mineral Point</b>			
Au Silicic Oxide Crush HL	%	84.4	
Au Silicic Sulfide Crush HL	%	31.0	
Au Sanded Oxide Crush HL	%	83.5	
Au Sanded Sulfide Crush HL	%	24.0	
Au Weakly-Altered Oxide Crush HL	%	83.0	
Au Weakly-Altered Sulfide Crush HL	%	24.0	
Au Heap Leach Relocate	%	N/A	
Recovery – Ag (LOM)			
<b>Mineral Point</b>			
Ag Silicic Oxide Crush HL	%	45.2	
Ag Silicic Sulfide Crush HL	%	45.2	
Ag Sanded Oxide Crush HL	%	44.0	
Ag Sanded Sulfide Crush HL	%	44.0	
Ag Weakly-Altered Oxide Crush HL	%	40.0	
Ag Weakly-Altered Sulfide Crush HL	%	40.0	
Ag Heap Leach Relocate	%	N/A	
<b>LEACH PAD DESIGN</b>			
Leach Pad Properties			
Leach Pad Area – Phase 1	ft2	8,420,000	Forte
Phase 1 Ore	kdst	9,336,000	Forte
Leach Pad Area – Phase 2	ft2	8,420,000	Forte
Phase 2 Ore	kdst	9,336,000	Forte
Leach Pad Area – Phase 3	ft2	8,420,000	Forte
Phase 3 Ore	kdst	9,336,000	Forte
Leach Pad Area – Phase 4	ft2	8,420,000	Forte
Phase 4 Ore	kdst	9,336,000	Forte
Leach Pad Area – Phase 5	ft2	8,420,000	Forte
Phase 5 Ore	kdst	9,336,000	Forte
Leach Pad Area – All Phases	ft2	42,100,000	Forte
Total Capacity of Pad – All Phases	kdst	466,800,000	Forte
Leach Pad Stacking Method	-	Conveyors	Forte
RoM Haul Truck Capacity	st	320	Forte
Ultimate Height	ft	250	Client
Average Lift Height	ft	30	Forte
Overall Heap Leach Slope	h:v	3:1	Forte
Reclaimed Heap Leach Slope	h:v	3:1	Forte
<b>LEACHING SOLUTION MANAGEMENT</b>			
Solution Application Method	-	Drip Emitter	Forte
Barren Solution Application Rate	gpm/ft2	0.003	Forte
Barren Solution Flow Rate	gpm	11,500	Forte
Primary Leach Cycle	days	90	Forte
Area Under Leach	ft2	3,833,000	Calculated

	Units	Nominal Design	Source
Tons Under Primary Leach	dst	6,785,000	Calculated
Barren Solution pH	pH	10.5	Forte
Pregnant Solution Collection			
In-pad Collection Piping Layout	-	Herring Bone	Forte
Pregnant Solution Pond Operating Volume	Mgal	8.3	Forte. 12-hours at nominal flow
Pregnant Solution Pond Draindown Volume	Mgal	16.6	Forte. 24-hours draindown at nominal flow
Pregnant Solution Pond Total Volume	Mgal	24.9	Forte. Excludes 2-foot freeboard
Event Pond			
Event-100 year-24 hr (depth)	in	2.94	Forte
Event Pond Volume Phase 1	Mgal	15.4	Forte, Excludes 2-foot freeboard
Event Pond Volume Phase 2	Mgal	15.4	Forte, Excludes 2-foot freeboard
Event Pond Volume Phase 3	Mgal	15.4	Forte, Excludes 2-foot freeboard
Event Pond Volume Phase 4	Mgal	15.4	Forte, Excludes 2-foot freeboard
Event Pond Volume Phase 5	Mgal	15.4	Forte, Excludes 2-foot freeboard
Total Event Pond Volume-All Phases	Mgal	77.2	Forte, Excludes 2-foot freeboard
<b>PROCESSING AND REAGENTS</b>			
Crushing			
Crusher Availability	%	83.3	Forte
Primary Throughput (nominal/max)	st/hr	3,450/4,100	Forte
Mineral Point Product Size Passing 80% (P80)	in	0.75	Client/Robert Raponi
Processing			
Quicklime Consumption	lb/ton	8	Robert Raponi/Forte
Cyanide Consumption	lb/ton	1	Robert Raponi/Forte
Merrill-Crowe	gpm	11,500	Forte

### 17.3.2 Process Descriptions

The Mineral Point Project will place approximately 68.0 kstpd of crushed ore for a period of approximately 17 years. Run-of-mine (ROM) ore will undergo primary and secondary crushing operations in open circuit. Crushed ore and heap leach (HL) relocated ore, from historic operations, will also be placed on the HLP. Loading and stacking of the crushed ore will be done utilizing conveyors and a radial stacker. The relocated ore from the historic HLP will be loaded into haul trucks and direct dumped onto the HLP and spread with dozers. The pregnant solution recovered from the HLP will flow into the process pond and be pumped into the Merrill-Crowe zinc precipitation circuit for metals recovery. The Merrill-Crowe process is a zinc precipitation circuit in which the precipitates will be heated in a retort to capture mercury, after which it is fed into a smelting furnace to produce doré. The doré will be sold and shipped off site for further refining. The site also includes all associated infrastructure, facilities, and reagents necessary for the operation. The Merrill-Crowe and refinery will be indoors, and the refinery will be further enclosed for security purposes. Figure 17-3 shows the flowsheet for Mineral Point.

#### 17.3.2.1 Crushing

##### 17.3.2.1.1 Primary

Run-of-mine (ROM) ore will be transported from the pit to a primary crusher via 320 st haul trucks. The haul trucks will direct dump into a gyratory crusher. The crushing plant will operate 20 hours per day, seven days a week. The primary crusher will provide a product size with 100 percent passing 7". The primary crusher product is discharged to the secondary crusher feed.

#### 17.3.2.1.2 Secondary

The secondary crushing circuit consists of four cones crushers operating in parallel. The secondary crushers will provide a product size with an 80 percent passing size of 0.75”.

#### 17.3.2.2 Ore Handling and Stacking

Discharge from the secondary crushers will be stockpiled and/or discharged directly to overland conveyors. The crushed ore stockpile will provide surge capacity to continue pad loading for up to 24 hours during primary crusher maintenance and stacking conveyor moves. A reclaim feeder will feed ore to the overland conveyor when the stockpile bypass is not active. Quicklime will be added for pH control on the HLP at a rate of 8 lb/ton. Relocated material from historic HLP operations will be hauled directly to the HLP and stacked via haul trucks.

The overland conveyors will then discharge onto two parallel jump conveyor strings. At the discharge point of both strings, there will be horizontal index conveyors to move ore to the radial stackers. The horizontal-radial stacking conveyor is coupled so that it can be moved in a retreat stacking mode without shutting down the system. The proposed stacking lift height is 30 feet. The conveyance capacity is currently sized at the primary crusher throughput.

#### 17.3.2.3 Heap Leach Pad

The HLP is designed as a double lined system that consists of a layer of geosynthetic clay liner (GCL) and a layer of geosynthetic liner made from high density polyethylene (HDPE). A series of pregnant solution collection pipes will be installed in a “herring bone” arrangement to collect the pregnant leach solution (PLS) and direct it into the process pond. Overliner material will consist of crushed and screened ore and will provide both liner protection and provide adequate drainage for PLS. The overliner will be placed in a three-foot-thick layer over the liner and solution collection piping.

Ore will then be stacked, utilizing the conveyor system and radial stackers, in 30-foot lifts to a maximum of 250 feet. The leach pad will be constructed in five phases. Each phase is relatively similar in footprint size and will be constructed as needed to store additional ore based on the mine plan throughput and operational parameters including application rate and leach cycle.

#### 17.3.2.4 Solution Management

After stacking, the piping heads and drip irrigation lines will be added to the HLP surface. Dilute sodium cyanide solution will be applied to the HLP surface via the header/drip system at a proposed application rate of 0.003 gpm/ft<sup>2</sup> with a preliminary leach cycle of 90 days. The cyanide solution, at a nominal flow rate of 11,500 gpm, applied to the HLP surface will percolate through the HLP, being collected on the impervious leach pad liner. The PLS solution flows by gravity into the process pond via the solution collection piping system.

It is planned that the HLP solution application rate will be adjusted during the leach cycle to maximize the gold and silver recovery.

#### 17.3.2.5 Process Ponds

The Project consists of the process pond and multiple event ponds, which will be constructed in phases in conjunction with the HLP phasing. The process pond and one of the event ponds will be part of initial construction. The process pond receives the PLS from the HLP via the solution collection piping system. Pumps will then transfer the PLS solution into the Merrill-Crowe for processing. The process pond consists



of a lined system including leak detection. The process pond is designed to manage a 12-hr operational flow plus a 24-hr draindown event at the nominal flow rate, including freeboard.

The initial event pond and subsequent event ponds are designed as emergency ponds. The event ponds are sized to capture inflow from a 100-yr, 24-hr storm event matching the HLP footprint's phased progression. The process pond is connected to the event ponds to manage solutions during upset conditions. Overflow would be directed into the event ponds avoiding release to the environment. The event ponds are also lined with geosynthetics.

#### **17.3.2.6 Merrill-Crowe Plant and Refinery**

Pregnant leach solution from the process pond will be pumped to the clarifier filter feed tank at the Merrill-Crowe plant. Solution clarification will be performed by clarifying filters arranged to operate in parallel. The clarified solution then proceeds to the deaeration tower, where it will be introduced into an evacuated chamber to remove as much dissolved oxygen as possible. After deaeration, powdered zinc, cyanide, and lead nitrate will be added to the solution to initiate an exchange redox reaction where zinc metal loses electrons to gold and silver, thereby reducing gold and silver to their metallic states and oxidizing zinc to form cyanide complexes in solution.

The gold and silver mixture will then be pumped to plate and frame filters operating in parallel. All the precipitated gold and silver will remain in the filter press until they are discharged when the filters are full. The filtrate solutions will report to the barren solution tank. Additional cyanide and caustic will be introduced, as required, into the barren solution tank before it is recycled to the HLP. Gold and silver precipitates collected by the filter presses will be dried in a retort to remove moisture and mercury before they are fluxed and smelted in an induction melting furnace. At the end of smelting, molten metal will be poured into bullion molds to produce doré bars. The doré bars will be shipped off-site for further refining.

#### **17.3.2.7 Reagents**

Crushed ore will utilize quicklime during stacking process to be utilized for pH control during the leach process. The proposed lime addition rate is 8 lb/ton.

Cyanide will be brought to the site in briquettes and mixed in batches on site utilizing a mixing skid. Cyanide solution will be added to the barren solution for dissolution of the precious metals in the ore during the leaching process. The LOM average cyanide consumption is 1 lb/ton.

The Merrill-Crowe process will utilize lead nitrate, zinc powder, and diatomaceous earth to further extract leached metals from the PLS.

#### **17.3.3 Process Water**

Process water makeup is estimated to be on the order of 800 gpm, for a total process requirement of 420 Mgal per year, which does not include infrastructure, facilities, or mining use.

#### **17.3.4 Process Flowsheet**

The Mineral Point process flowsheet is shown below.

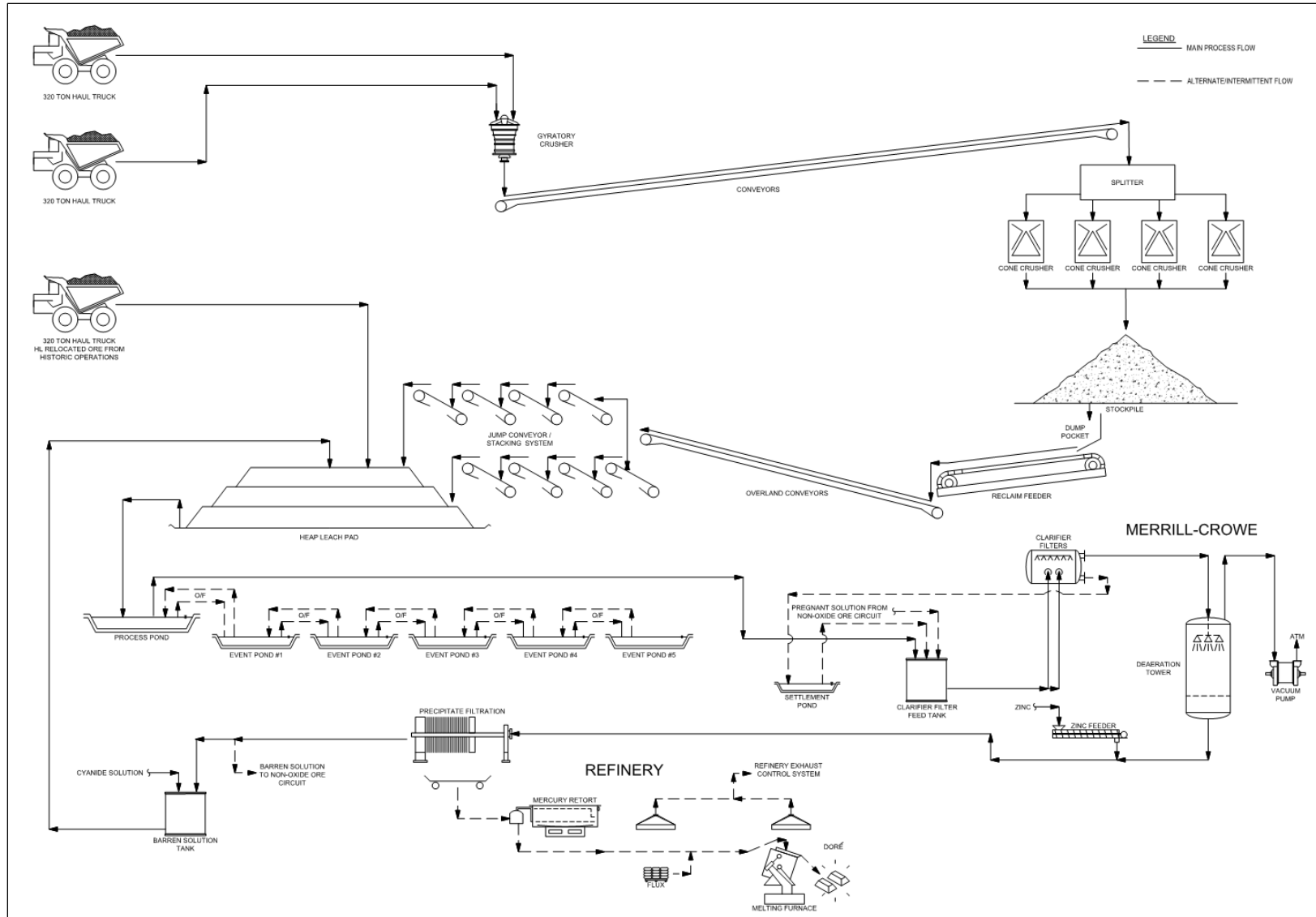


Figure 17-3: Mineral Point Process Flowsheet

(Source: Forte Dynamics, 2025)

## **18. PROJECT INFRASTRUCTURE**

### **18.1 Archimedes Underground**

#### ***18.1.1 Operations Dewatering***

Five active dewatering wells PW-9, PW-10, PW-11, PW-13, and PW-16 pump groundwater from the Archimedes block hydrogeologic unit at a combined average rate of approximately 250 gpm. Additionally, dewatering well PW-17 pumps approximately 70 gpm from the Holly block south of Archimedes pit (Figure 9-4). Discharge water is routed via a buried HDPE line to the RIBs for infiltration back into the downgradient alluvial basin aquifer. The dewatering well pump parameters are referenced from LRE 2025 and are listed in Table 18-1.

#### ***18.1.2 Operations Monitoring Wells and VWP***

Monitoring wells and VWPs are used to collect hydrogeological data in support of mining operations. Currently, there are 9 active monitoring wells and 47 active VWPs across 33 locations (Figure 9-4). Construction and recent water level data are provided in Table 18-2.

#### ***18.1.3 Operations RIBs***

Water from the dewatering wells that is not utilized for operations is currently discharged to Rapid Infiltration Basins (RIBs) on the west side of the project area through HDPE pipelines. Two cells, RH-1 and RH-2 are in operation (NEV2005106), with discharge to one of the two cells at any given time. When RIB maintenance is required, discharge is routed to the dormant cell. Current dewatering efforts are well under the permitted 1,000 GPM threshold of the RIBs and the RIB infiltration is sufficiently limiting surface ponding in the active cell.

#### ***18.1.4 Operations Water Supply***

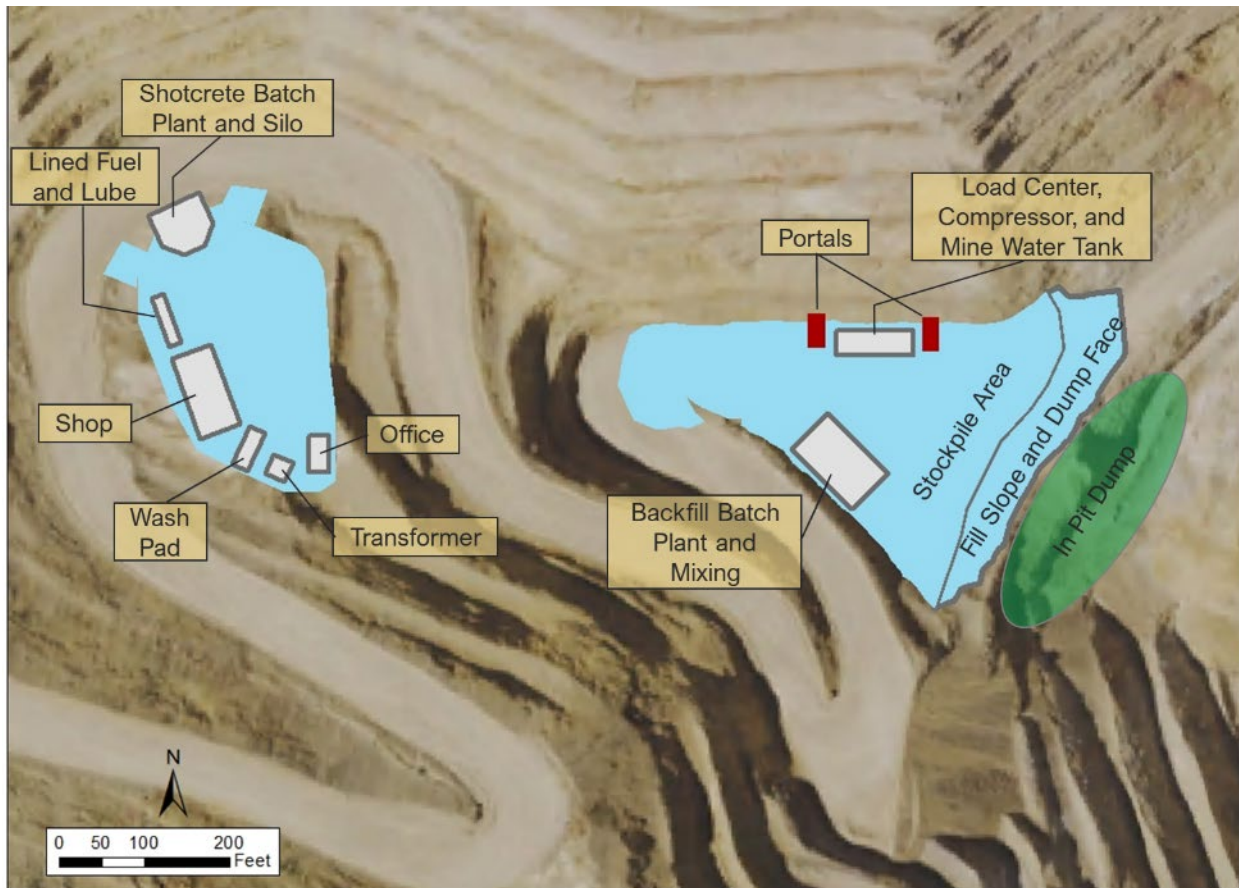
A potable water well is located west of the Four Corners Road and supplies potable water to the Project. The well is completed in basin alluvial deposits to a depth of 265 ft and equipped with a pump capable of supplying 50 gpm.

#### ***18.1.5 Electrical Power***

Ruby Hill is connected to the NV Energy grid and has excess power available at the main project substation. An overhead power line will connect the underground transformer to the existing project near the East Archimedes Pit rim.

#### ***18.1.6 Underground Mine Facilities***

The proposed location of portal site facilities is shown in Figure 18-1.



**Figure 18-1: Portal Surface Facilities Conceptual Layout**

(Source: i-80 Gold, 2023)

### 18.1.7 Backfill

Backfill material for unconsolidated waste fill (GOB) can be obtained from any suitable source such as development waste, open pit waste dumps, or leach pads.

Backfill material for Cemented Rock Fill (CRF) will need to meet specifications designed to achieve minimum Uniaxial Compressive Strength (UCS) specifications. This specification is designed to provide the pillar strength needed to maintain stability of adjacent underground excavations and may require screening and/or crushing. CRF material will be mixed at a backfill plant located near the portal and transported underground using the same truck fleet used to remove mineralized material and waste from the mine.

**Table 18-1: Ruby Hill Active Dewatering Wells (LRE 2025)**

Well ID	Collar Coordinates (Mine Grid)			Casing Diameter	Well Depth	Static Water Level	Pumping Water Level	Screened Interval (s)	Average GPM	Pump Power	Pump Set-Depth
	Northing	Easting	Elevation	in	ft bgs	ft bgs	ft bgs	ft bgs	GPM	HP	ft bgs
PW-9	120109	12087	6462	12	1720	1002.1	1570	1200 to 1706	50	40	1650
PW-10	11679	119741	6445	12	1720	986.8	1138	1000 to 1700	25	40	1650
PW-11	10724	119800	6449	12	1720	982.9	1184	1200 to 1700	50	50	1620
PW-13	13279	119974	6410.8	12	1816	1030	1548	1337 to 1800	95	75	1756
PW-16	121261	11199	6510	12	1967	638	1944	800 to 1987	30	50	1911
PW-17	117156	11557	6548	12	1820	664	1120.3	800 to 1800	75	60	1780



Table 18-2: Summary of Locations, Construction Information, and Water Levels for Dewatering Wells, VWP's, Monitoring Wells, and Piezometers

Identifier	Coordinates		Surace Elevati on	Year	Incl	Open Interval of Well or VWP setting		Static Water Level or Hydraulic Head			Comment
	Easting (ft)	Northing (ft)				Depth (ft bls) <sup>c</sup>	Elevation (ft amsl)	Depth (ft bls) <sup>d</sup>	Elevation (ft amsl) <sup>e</sup>	Date	
Dewatering Wells											
PW-7	120642.0	13254.0	6404.9	2008	-90	840 to 1700	5565 to 4705	820.2	5584.7	5/22/2024	Inactive due to high As, completed in limestone
PW-9	12087.1	120109.4	6462.0	2010	-90	1200 to 1706	5262 to 4756	1649.7	4812.3	5/22/2024	Active, pump and motor replaced 11/2023
PW-10	119741.0	11679.0	6445.0	2010	-90	1000 to 1700	5445 to 4745	1138.7	5306.3	5/22/2024	Active
PW-11	119800.0	10724.0	6449.0	2010	-90	1200 to 1700	5249 to 4749	1152.1	5296.9	2/5/2024	Active
PW-13	119974.0	13279.0	6410.8	2011	-90	1338 to 1800	5073 to 4611	1058.5	5352.3	10/23/2023	Active
PW-14	117116.1	12467.3	6511.3	2012	-90	1078 to 1860	5433 to 4651	724.4	5786.9	10/9/2024	Inactive due to highwall failure; water level sensor still functioning; power supply no longer connected
PW-15	8045.2	117833.0	6428.0	2011	-90	595 to 1200	5833 to 5228	652.2	5775.8	7/30/2011	Mineral Point well; inactive due to location outside Archimedes hydrogeologic block
PW-16	11199.1	121260.6	6510.0	2013	-90	800 to 1980	5710 to 4530	783.0	5727.0	5/30/2023	Active, pump and motor replaced 11/2023
PW-17	11557.0	117155.5	6548.0	2012	-90	800 to 1800	5748 to 4748	1082.0	5466.0	8/19/2024	Active, pump and motor replaced 1/2024
VWPsa											
iRH22-17	11953.0	121510.0	6505.1	---	---	---	---				
iRH22-17D_5274	---	---	---	2022	-76	1269	5274	---	---	---	Pressure sensor not functioning
iRH22-17C_4115	---	---	---	2022	-76	1639	4915	1110	5395.1	11/18/2024	Active
iRH22-17B_4352	---	---	---	2022	-76	2219	4352	1156	5349.1	11/18/2024	Active
iRH22-17A_3670	---	---	---	2022	-76	2922	3670	---	---	11/18/2024	Pressure sensor not functioning
IRH22-18a	11859.5	119891.4	6447.8	---	---	---	---				
IRH22-18aD_5231	---	---	---	2022	-87	1218	5231	753	5694.8	11/18/2024	Active
IRH22-18aC_4847	---	---	---	2022	-87	1603	4847	1127	5320.8	11/18/2024	Active
IRH22-18aB_4352	---	---	---	2022	-87	2099	4352	1123	5324.8	11/18/2024	Active
IRH22-18aA_3971	---	---	---	2022	-87	2480	3971	722	5725.8	11/18/2024	Active
iRH22-20	10781.6	119805.4	6454.1	---	---	---	---				
iRH22-21D_5108	---	---	---	2022	-89	1346	5108	769	5685.1	11/18/2024	Active
iRH22-21C_4863	---	---	---	2022	-89	1591	4863	1122	5332.1	11/18/2024	Active
iRH22-21B_4504	---	---	---	2022	-89	1950	4504	1306	5148.1	11/18/2024	Active
iRH22-21A_4146	---	---	---	2022	-89	2308	4146	2025	4429.1	11/18/2024	Active
iRH22-24	12709.3	122509.7	6448.6	---	---	---	---				

Identifier	Coordinates		Surace Elevati on	Year	Incl	Open Interval of Well or VWP setting		Static Water Level or Hydraulic Head			Comment
	Easting (ft)	Northing (ft)				Depth (ft bls) <sup>c</sup>	Elevation (ft amsl)	Depth (ft bls) <sup>d</sup>	Elevation (ft amsl) <sup>e</sup>	Date	
IRH22-24D_5181	---	---	---	2022	-85	1272	5181	1074	5374.6	11/18/2024	Active
IRH22-24C_4760	---	---	---	2022	-85	1695	4760	1114	5334.6	11/18/2024	Active
IRH22-24B_4235	---	---	---	2022	-85	2222	4235	817	5631.6	11/18/2024	Active
IRH22-24A_3883	---	---	---	2022	-85	2575	3883	---	---	11/18/2024	Pressure sensor not functioning
BRH-365	10389.9	117205.9	6558	2011	-90	1011	5547	780.4	5777.6	5/22/2023	Active
BRH-399A	9474.0	118027.2	6456	2011	-90	1200	5256	832.6	5623.4	5/22/2024	Active
BRH-403	11117.4	117513.0	6516.7	2011	-90	1303	5214	1075.4	5441.3	10/9/2024	Active
BRH-405	117962.5	13945.6	6492.1	2011	-90	1671	4821	659.2	5832.9	1/25/2021	Current status unknown, unable to access due to highwall failure
BRH-409	10444.4	121429.4	6374	2011	-90	1296	5078	933.1	5440.9	5/22/2024	Active
BRH-411	11053.5	117758.6	6518.7	2011	-90	1698	4821	1110.7	5408.0	10/9/2024	Active
BRH-435A	8146.1	118021.0	6410	2011	-90	1200	5210	652.7	5757.4	5/23/2024	Active
BRH-435B	8146.1	118021.0	6410	2011	-90	1000	5410	705.0	5705.0	5/23/2024	Active
BRH-435C	8146.1	118021.0	6410	2011	-90	800	5610	638.3	5771.7	5/23/2024	Active
BRH-436C	8105.0	117799.0	6410	2011	-90	800	5610	638.9	5771.1	5/23/2024	Active
BRH-437A	8378.5	118155.3	6439	2011	-90	1200	5239	679.5	5759.5	9/25/2023	Active; logger needs to be replaced, but pressure sensor can be read manually
BRH-437B	8378.5	118155.3	6439	2011	-90	1000	5439	674.4	5764.6	3/19/2024	Active
BRH-437C	8378.5	118155.3	6439	2011	-90	800	5639	693.7	5745.3	9/25/2023	Active; logger needs to be replaced, but pressure sensor can be read manually
BRH-453	12668.8	121965.8	6479	2012	-90	1829	4650	1155.6	5323.5	10/29/2024	Active; logger needs to be replaced, but pressure sensor can be read manually
BRH-455	12815.2	120572.3	6455	2012	-90	1535	4920	1157.0	5298.0	5/22/2024	Active
BRH-517c	8491.8	116558.0	6502	2013	-90	954	5548	733.1	5768.9	5/22/2024	Active
BRH-582	8091.9	119049.9	6502	2013	-90	905	5597	740.0	5762.0	5/23/2024	Active
BRH-583	8082.0	119045.3	6502	2013	-90	1195	5307	754.4	5747.6	5/23/2024	Active
BRH-584	7369.5	118261.9	6548	2013	-90	883	5665	776.4	5771.6	5/23/2024	Active
BRH-585	6955.7	118861.6	6548	2013	-90	1174	5374	908.4	5639.6	1/31/2024	Active; pressure sensor only reads periodically; likely failing over time
BRH-586	6955.7	118861.6	6501	2013	-90	783	5718	596.2	5904.8	5/23/2024	Active
BRH-587	6967.3	118842.7	6500	2013	-90	1176	5324	729.4	5770.6	5/23/2024	Active
BRH-590	11281.2	117197.3	6507.5	2013	-90	1204	5303	504.4	6003.1	10/9/2024	Active
BRH-617	8154.0	119545.0	6462	2013	-90	1159	5303	688.1	5773.9	5/23/2024	Active
BRH-618	8143.0	119559.0	6462	2013	-90	759	5703	667.0	5795.0	3/19/2024	Active

Identifier	Coordinates		Surface Elevation	Year	Incl	Open Interval of Well or VWP setting		Static Water Level or Hydraulic Head			Comment
	Easting (ft)	Northing (ft)				Depth (ft bls) <sup>c</sup>	Elevation (ft amsl)	Depth (ft bls) <sup>d</sup>	Elevation (ft amsl) <sup>e</sup>	Date	
PZ17-01 CH1-3	3697.5	126571.9	6121	2017	-90	N/A	N/A	---	---	---	---
PZ17-01 CH1	---	---	---	---	-90	292	5829	331.8	5789.2	10/9/2023	Active
PZ17-01 CH2	---	---	---	---	-90	322	5799	322	5799.0	10/9/2023	Active
PZ17-01 CH3	---	---	---	---	-90	442	5679	300	5821.0	10/9/2023	Active
PZ17-02 CH1-3	2672.6	119186.4	6170	2017	-90	N/A	N/A	---	---	---	---
PZ17-02 CH1	---	---	---	---	-90	971	5199	458.6	5711.4	10/9/2023	Active
PZ17-02 CH2	---	---	---	---	-90	800	5370	---	---	---	Pressure sensor not functioning
PZ17-02 CH3	---	---	---	---	-90	440	5730	---	---	---	Pressure sensor not functioning
PZ17-03 CH1-4	10981.5	113605.9	6654	2017	-90	N/A	N/A	---	---	---	Limestone/Dolomite
PZ17-03 CH1	---	---	---	---	-90	1351	5304	523	6131.0	5/22/2024	Active
PZ17-03 CH2	---	---	---	---	-90	1271	5384	518	6136.0	5/22/2024	Active
PZ17-03 CH3	---	---	---	---	-90	1161	5494	518	6136.0	5/22/2024	Active
PZ17-03 CH4	---	---	---	---	-90	811	5844	261	6393.0	5/22/2024	Sensor not functioning
PZ17-04 CH1-4	7395.9	114594.6	6417	2017	-90	N/A	N/A	---	---	---	Limestone/Dolomite
PZ17-04 CH1	---	---	---	---	-90	1000	5417	656.2	5760.8	5/22/2024	Active
PZ17-04 CH2	---	---	---	---	-90	800	5617	643	5774.0	5/22/2024	Active
PZ17-04 CH3	---	---	---	---	-90	730	5687	692	5725.0	5/22/2024	Active
PZ17-04 CH4	---	---	---	---	-90	680	5737	765	5652.0	5/22/2024	Active
<b>Monitor Wells</b>											
Fad Shaft	10890.0	111090.0	6911.5	---	-90	1050	5862	1012.0	5899.5	3/18/2024	Active
HRH-1734	12921.4	120577.1	6423.1	2003	-90	590 to 650	5833 to 5773	582.6	5840.5	5/22/2024	Active
HRH-1736	11561.2	116791.1	6567	2010	-90	740 to 840	5827 to 5727	DRY	DRY	8/25/2022	Inactive
MW-2R	14021.3	114979.8	6472.1	---	-90	---	---	110.1	6362.0	7/15/2024	Active, located off Hogpen Road offsite
MW-3R	6631.2	124018.8	6188.4	---	-90	425 to 525	5763 to 5713	414.9	5773.5	7/16/2024	Active; 10-inch diameter casing
MW-4R	11037.2	125060.3	6271.8	2013	-90	780 to 800	5492 to 5472	500.4	5771.4	7/15/2024	Active; completed in limestone
MW-7	5613.0	121868.0	6169.8	---	-90	---	---	281.6	5888.2	7/16/2024	Active
MW-8	2647.3	121605.3	6159	---	-90	260 to 300	5899 to 5859	278.5	5880.5	7/16/2024	Active
MW-9	2576.6	123201.0	6124	1997	-90	260 to 300	5864 to 5824	240.0	5884.0	7/17/2024	Active

## Notes:

1. feet above mean sea level; for wells, elevation of land surface at surface casing; for VWP's elevation of surface casing at land surface
2. degrees from horizontal at bottom of well or depth of VWP along inclined borehole using IDS survey
3. feet below land surface for wells; feet along inclined borehole for VWP's based on IDS inclination survey and Leapfrog Geologic Model positioning
4. feet below land surface for wells; feet below land surface of collar location for VWP's
5. feet above mean sea level
6. Source LRE 2025

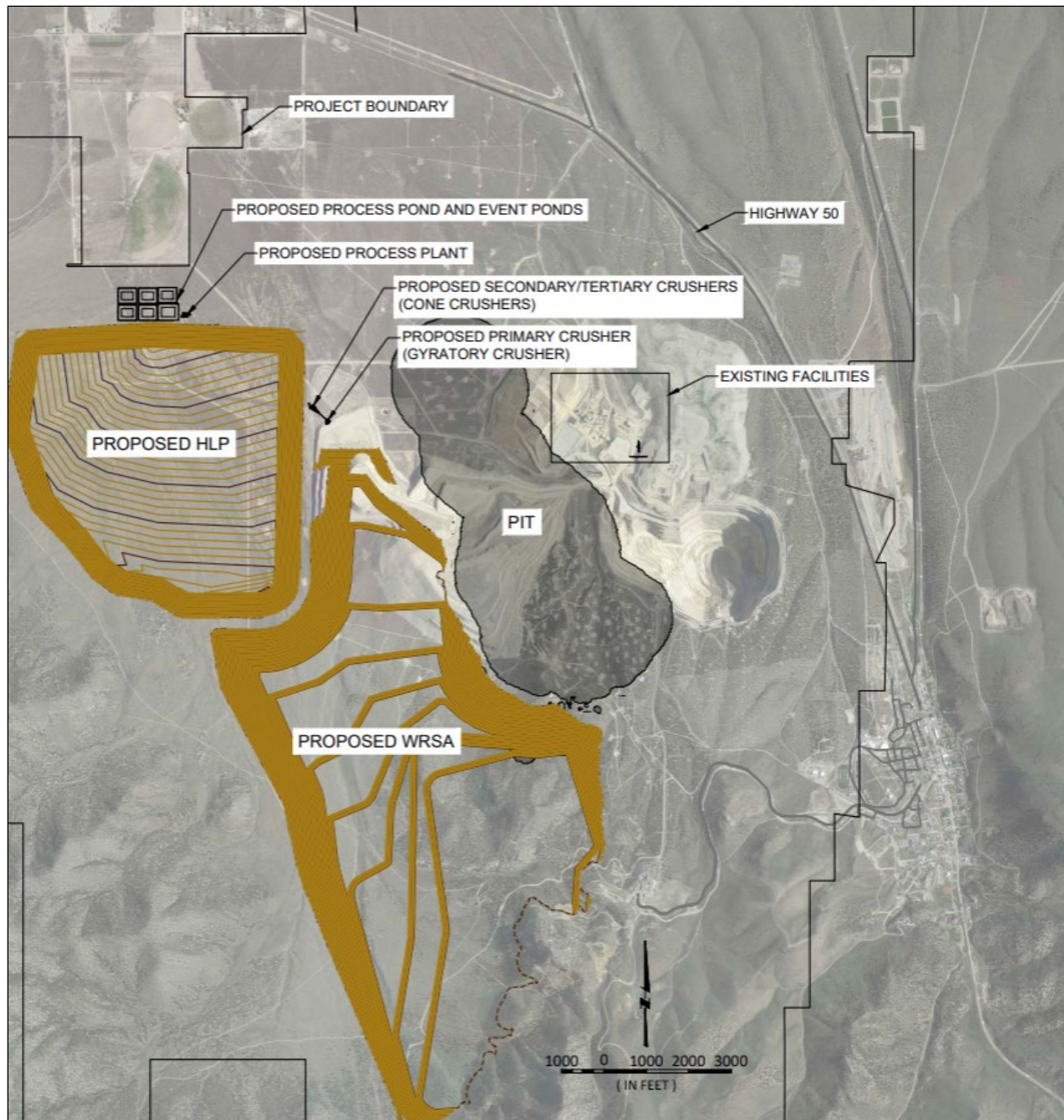
## 18.2 Mineral Point Open Pit

The Mineral Point Project is identified as a 68,500 short tons per day (stpd) gold and silver secondary crush heap leach project with a Merrill Crowe processing plant. The Mineral Point Project located at the Ruby Hill site includes mining and mineral processing infrastructure that has been used in open pit mining and oxide gold heap leaching activities by previous owners.

### 18.2.1 Site Layout

The Project is located on the Battle Mountain/Eureka gold trend approximately 2 miles northwest of the town of Eureka in Eureka County, Nevada, USA, approximately 90 miles south of Elko and approximately 200 miles east of the city of Reno, Nevada. Figure 4-1 identifies the Project's location. The Project is accessible by way of US-50.

Project infrastructure at Mineral Point is designed to support the mining, heap leaching, and processing facilities. There are sufficient and appropriate areas within the site to accommodate mining facilities to include waste rock storage area (WRSA), processing facilities, and all applicable storage facilities. Infrastructure that is essential to mining and metals production includes a crusher and conveyor circuit, stockpiles, access roads, haul roads, maintenance, storage area, and supporting ancillary facilities. Figure 18-2 displays the overall site map that identifies the Project's major infrastructure.



**Figure 18-2: Site Layout Map**

(Source: Forte Dynamics, 2025)



### 18.2.2 Existing Infrastructure

The existing infrastructure on site supported previous mining and processing activities when the Archimedes Pit was an active mine. Figure 18-3 shows the locations of the existing infrastructure on site.



**Figure 18-3: Existing Infrastructure**

(Source: Forte Dynamics, 2025)

The Project is designed to leverage existing infrastructure, aiming to reduce costs, minimize disturbance to new areas, and enhance the construction timeline. Table 18-3 outlines the intended use of the existing infrastructure during operations. The Project includes site access, access roads, and haul roads that can be utilized for future operations.

Table 18-3: Existing Infrastructure Plans

Existing Infrastructure	Planned Use Status for Mineral Point Project
Administration Area	Utilize in Operations and Expand
Mill	No Planned Use
Primary Crusher	No Planned Use
Secondary Crusher	No Planned Use
Tertiary Crusher	No Planned Use
Heap Leach Pad (HLP)	Spent material relocated to new HLP
Southwest Energy Building (Core Shack)	Utilized by Explosives Contractor
Tire Pad	Utilize in Operations
Warehouse	Expand in Operations
Truck Shop	Use for support equipment/expand in Operations
Fuel Island	Expand in Operations
Waste Rock Storage Facility	Expand in Operations
Power Supply	Utilize in Operations/Upgrade & Improve if needed

### 18.2.3 Planned Infrastructure

The primary infrastructure for the Project includes several key components. The process system consists of the crushing and stacking system, the heap leach facility, Merrill Crowe, refinery, reagents, and waste rock storage area. The preproduction and facilities infrastructure covers utilities, mining support facilities, mine dewatering, and site improvements.

#### 18.2.3.1 Process Infrastructure

The process infrastructure includes crushing, conveying, stacking, leaching, and Merrill Crowe processing of ore to recover metals. Once fresh mineralized material from the open pit or process material from the existing HLP is scheduled for processing, it is deemed ore.

##### 18.2.3.1.1 Crushing, Conveying, and Stacking

Run-of-mine (ROM) ore will be transported from the pit to a primary crusher via 320 short ton (st) haul trucks. The haul trucks will direct dump into a gyratory crusher. The crushing plant will operate on average 20 hours/day and seven days a week. The primary crusher will provide a product size with a 100 percent passing size of 7". The primary crusher product is discharged to the secondary crusher feed.

The secondary crushers, comprised of a set of four (4) cone crushers operating in parallel will produce material with 80 percent passing 0.75". The secondary cone crusher product is discharged to the secondary product conveyor and then stockpiled or discharged onto the final product conveyor, where lime is added for pH control on the heap at a rate of 8 lb/ton.

The crushed ore stockpile will have enough capacity to feed the downstream heap stacking circuit, which will continuously operate 24 hours/day and seven days a week. The crushed ore stockpile will provide buffering capacity to minimize production loss during crusher maintenance and stacking conveyor moves. A reclaim feeder will feed ore to the overland conveyor where ore will be stacked, utilizing the conveyor system and radial stackers, in 30-foot lifts to a maximum of 250 feet. Heap Leach (HL) relocated material from historic operations will be hauled directly to the HLP and stacked via haul trucks.

The primary gyratory crusher will handle a maximum throughput of 3,900 short tons per hour (st/hr) and require a total power of 1,275 horsepower (hp). Each of the secondary cone crushers will have a maximum throughput of 1,000 st/hr, with a combined power requirement of 5,000 hp for all four units.

#### 18.2.3.1.2 Heap Leach Facility

The Mineral Point Project will include the construction of a new HLP with associated process and event ponds and solution management that together are referred to as the Heap Leach Facility (HLF), which is a closed system. The HLF will be located west of the proposed open pit.

The HLP is designed as a lined system that consists of a layer of geosynthetic clay liner (GCL), having a hydraulic conductivity less than or equal to  $1 \times 10^{-6}$  cm/s which acts as the secondary liner system. A layer of 80-mil geosynthetic liner made from high density polyethylene (HDPE) will be placed over the GCL to act as the primary liner for the liner system. A series of pregnant solution collection pipes will be installed in a “herring bone” arrangement to collect the pregnant leach solution (PLS) and direct it into the process pond. Overliner material will consist of crushed and screened ore and will provide both liner protection and provide a hydraulic conductivity of at least  $1 \times 10^{-1}$  cm/s. Over liner will be screened to 100% passing 2” and limited to a maximum of 10% passing 200 Mesh. The overliner will be placed in a three-foot-thick layer over the liner and solution collection piping.

The HLP will be constructed in five (5) phases. The footprint, capacity, and planned year of construction for each phase is presented in Table 18-4 below.

**Table 18-4: Heap Leach Pad Phases**

Phase	Footprint (million ft <sup>2</sup> )	Capacity (million tons)	Year Constructed
Phase 1	10.5	116.7	-1
Phase 2	10.5	116.7	4
Phase 3	10.5	116.7	7
Phase 4	10.5	116.7	10
<b>Totals</b>	42.1	466.8	13

Solution will be managed by a series of lined ponds. There will be one 200,000 square feet process pond which will be built in Phase 1 and will be able to hold 24.9 million gallons. This pond’s liner system will include GCL and two layers of geosynthetics with a geonet in between to provide leak detection. The process pond will also include bird balls as a wildlife deterrent. There will be 5 total event ponds, one will be built each phase of pad expansion. These event ponds will be approximately 166,500 square feet and will hold 19.3 million gallons each. The event ponds have the capacity to capture inflow from a 100-year, 24-hour storm event. The ponds will be connected in series one overflowing into the next to prevent releases into the environment, as the heap leach process is a closed system. All ponds will be inside a fenced area to provide wildlife deterrents.

#### 18.2.3.1.3 Merrill Crowe and Refinery

The Mineral Point Project will process the PLS from the HLP through a Merrill Crowe plant. The Merrill Crowe is designed to process the PLS at a rate of 11,500 gpm. Pregnant leach solution from the process pond will be pumped to the clarifier filter feed tank at the Merrill Crowe plant. Solution will be cleaned by clarifying filters arranged to operate in parallel. The clarified solution then proceeds to the deaeration tower, where it will be introduced into an evacuated chamber to remove as much dissolved oxygen as possible. After deaeration, powdered zinc, cyanide, and lead nitrate will be added to the solution to initiate an exchange redox reaction where zinc metal loses electrons to gold and silver, thereby reducing gold and silver to their metallic states and oxidizing zinc to form cyanide complexes in solution.

The gold and silver mixture will then be pumped to plate and frame filters operating in parallel. All the precipitated gold and silver will remain in the filter press until they are discharged when the filters are full. The filtrate solutions will report to the barren solution tank. Additional cyanide and caustic will be introduced

to condition the barren solution tank before it is recycled to the HLP. Gold and silver precipitates collected by the filter presses will be dried in a retort to remove moisture and mercury before they are fluxed and smelted in an induction furnace. At the end of smelting, molten metal will be poured into bullion molds to produce doré bars. The doré bars will be shipped off-site for refining.

The Merrill Crowe and Refinery will be located on a concrete foundation providing secondary containment that will overflow into the event pond. The facility will be located inside a pre-engineered metal building.

A system of tanks, pumps, and piping will be installed to provide a cyanide mixing station to allow cyanide to be brought to site in briquette form, dissolved in water, and diluted to the specified concentration for addition to the HLF's closed system.

#### **18.2.3.1.4 Waste Rock Storage Area**

The WRSA was designed with a 3:1 final slope ratio. Lift heights for the WRSA have not been finalized, however a strategy for determining them will be developed in subsequent stages of the Project. The current design is conservative given the current understanding. To assure competent foundation, and to salvage media for closure purposes, the growth media will be removed and stockpiled to an estimate 0.5 foot depth. The growth media stockpile will be located adjacent to WRSA, and clearing and grubbing will be completed in phased approaches as needed. The parameters of the WRSA can be found in Table 18-5 below.

**Table 18-5: WRSA Parameters**

<b>WRSA Parameter</b>	<b>Value</b>
Capacity	886.7 million tons
Footprint	75.1 million sq ft
Waste Rock Bulk Density	118 lb/ft
Average Slope Ratio	3:1

The remaining waste tons will be placed into in-pit backfill areas. These areas will be identified as the pit phasing allows. These in-pit backfills will also be designed to a 3:1 slope ratio.

#### **18.2.3.2 Preproduction and Facilities**

Infrastructure required to support the mine and process, including utilities, ancillary facilities, and site improvements, are described in the below sections.

##### **18.2.3.2.1 Utilities**

###### **Power**

The site is currently connected to a power grid at a substation located along Highway 50. The Project is anticipated to utilize the same substation while requiring upgrades. The process only power load is currently estimated at 10 megawatts, and it is anticipated that a separate substation will serve the open pit and associated electric shovels.

###### **Communications**

The necessary communications infrastructure for the Mineral Point Project is assumed to be in place from the existing mine and/or from the Archimedes Project consisting of the following.

The connection to telephone and internet services has not been confirmed at this time; however, telephone service is available in the City of Eureka. A Cellular Telemetry System will be used to communicate data exchange between the Process Plant and administration building. The system will incorporate a Master Telemetry Station, located in a switch room of the Process Plant, and remote Telemetry Stations, located in remote equipment switchboards. The Master Telemetry Station will communicate with the Plant Process

Control System via the preferred communications network and will communicate with the remote locations. Control of the remote equipment will be made by the Plant Process Control System, with sufficient data exchange to ensure correct operation of the equipment.

Fiber is an alternative that could be brought to site with relatively low cost by installing it in parallel with the overhead power line servicing this Project.

To ensure effective communication among personnel and equipment, a site-wide VHF radio network will be installed, equipped with multiple channels. Frequencies for this network will be assigned and approved by the Federal Communications Commission (FCC). This system will facilitate radio communication for both routine and emergency purposes, with mobile radios provided for operating and maintenance personnel to use outside office premises.

#### **Potable Water**

No improvements of the existing Potable Water system are anticipated for the Mineral Point Project. Eyewash stations will be self-contained units that can be refilled with bottled water.

#### **Waste**

Portable toilets will be used on site to accommodate the employees. Cleaning services will be sourced from a local company, which will also manage sewage disposal by transporting it to the local sewage treatment facility. For waste management, dumpster and roll-off bins will be utilized for garbage storage. These containers will be supplied by a local company, responsible for both their provision and the hauling of garbage to a nearby facility as required.

The routine generation of solid and hazardous waste, inherent in mining and processing activities, will be managed in compliance with local and state regulations.

Any hazardous waste generated at site would be placed in drums, on pallets, labelled, and stored in a designated location. The pallets would be placed in an area offering secondary containment where the material would be stored until it could be hauled offsite by a licensed contractor for appropriate disposal.

#### **Fire Water**

The Mineral Point Project will require a fire suppression system. It is foreseen that this system would be comprised of a large Fire/Freshwater tank located on site. This water will be used as make-up water for the process water supply, emergency firefighting supply, dust suppression, and water for the reagents make-up. The upper half of this tank will act as freshwater storage, and the lower half of the tank will be held in reserve for the fire suppression system. The fire water system will consist of a jockey pump, diesel pump, and electric pump. Fire water will be distributed to the site buildings through a distribution and sprinkler system. Additionally, strategically positioned fire hydrants on site will ensure easy access for local fire trucks.

#### **18.2.3.2.2 Mining Support**

Eureka offers standard municipal amenities including lodging and services, and a limited supply of food and hardware. The nearest major supply center is Elko, roughly 90 miles north of the Project area. Commercial air and rail services are both available in Elko. Rail access is also available in the community of Ely, roughly 60 miles east of the Project area. Unskilled and skilled labor can be found in Eureka, Ely, and a variety of other communities throughout the regional area.

#### **18.2.3.2.3 Ancillary Facilities**

Ancillary buildings necessary to support the Mineral Point Project include administration building, truck shop and warehouse building, an assay laboratory, and the main gatehouse and truck scale. Other facilities include a truck wash bay and an existing diesel storage and dispensing facility located outdoors. The



Mineral Point Project will utilize as much of the existing infrastructure as possible, but also recognizes that with the size of the mine fleet, expansion of buildings and facilities will be required.

***Water Management***

Open pit stormwater management can be accomplished using a series of trenches and sumps from which water can be pumped. Additional dewatering wells and pumps will be required during active mining. The water recovered will be utilized for process make-up water and dust control.

***Administration Building***

The site has two existing administration buildings that total approximately 5000 square feet. An additional building will be constructed that is approximately 18,000 square feet, which will include change rooms and more admin space.

***Truck Shop & Warehouse***

The existing truck shop has three bays designed to service Cat 785 (150 short ton) haul trucks, which was built in the late 1990s. There is a small warehouse that is attached to the back of the truck shop, along with some office space.

The Project will utilize Komatsu 930E-5 (320 short ton) haul trucks which will necessitate extending the truck shop another four bays to accommodate the servicing of the additional, larger haul trucks. The three existing bays will be used to service support equipment and light vehicles. The warehouse will be extended once the new bays are added to the truck shop.

The new bays of the truck shop will be approximately 18,000 square feet, and the new warehouse area will be approximately 9,000 square feet.

***Truck Wash***

An existing outdoor wash pad will be utilized for light vehicles and support equipment, which will include spray monitors and wheel washes, a water heater, a sump for waste wash water, an oil-water separator, and a portable pressure washer. A new outdoor truck wash including spray monitors, water heater, and oil-water separator is included in Mineral Point Project. The footprint of this facility is 11,000 square feet and will be located next to the shop.

***Assay Laboratory***

The existing assay lab on site will be utilized for the Mineral Point Project and will process daily production blasthole samples from the mine, along with analytical data from samples in the processing plant. The lab building will be located on site.

***Security & Truck Scale***

The Mineral Point Project assumes that the facilities required for site security, including site access guard shack and gate, as well as perimeter fencing are currently installed or will be in place from the Archimedes Project. Fencing for process areas including refinery and solution ponds are included in the above process infrastructure.

***Fuel Storage***

An existing fuel supply area, originally designed to accommodate Cat 785 haul trucks (150 short tons), will be upgraded to support 320 short ton haul trucks. Haul trucks and fuel/lube trucks can easily pull onto the modified fuel pad for refueling before returning directly to the haul road.

Additionally, a secondary fuel island will be installed on the west side of the pit, closer to the crusher and waste dump location, minimizing out-of-cycle truck travel for fueling when the pit is in operation. To prioritize environmental safety, both fuel areas will include containment systems designed to capture any leaks or spills.

**Explosive Storage**

Two explosive magazines will be required, one for boosters and high explosives, and one for detonators. There will be 4 Ammonium Nitrate (AN) storage bins with 100-ton capacity. These will occupy an area of 2,000 square feet. Bulk AN will be delivered to the site and AN-fuel mix trucks will be used for blast loading.

**18.2.3.2.4 Site Improvements****Site Preparation**

The following site preparations are included for the development of the Mineral Point Project surface infrastructure works area:

- Disturbed areas include:
  - Crusher area
  - Access road and haul roads
  - Powerline footprint
  - Open Pits
- Clearing and grubbing for disturbed areas as required; soil will be removed and stockpiled for use during site reclamation.
- Cut and fill to prepare for disturbed areas; cut material will be reused for fill materials wherever possible. Bulk earthworks are designed to minimize the import of fill materials.
- Site grading and road water management.
- Installation of powerline and site water supply.
- Installation of chain link and barbed wire fences on the site.
- Access gates will be installed at the site entrance.

**Stormwater Management**

Stormwater run-off will be diverted away from disturbed areas of the Project. The Project will require diversions and ponds to adequately handle stormwater events. Contact stormwater will be collected in ponds, which may be used for makeup water in the processing facilities. The Project water balance will be prepared in the next level of study to design the pond volumes. It is anticipated that culverts will be required on the access and haul roads where drainages cross to prevent washouts. A diversion will need to be installed to collect offsite water and direct it around the WRSA and HLP.

**Access & Haul Roads**

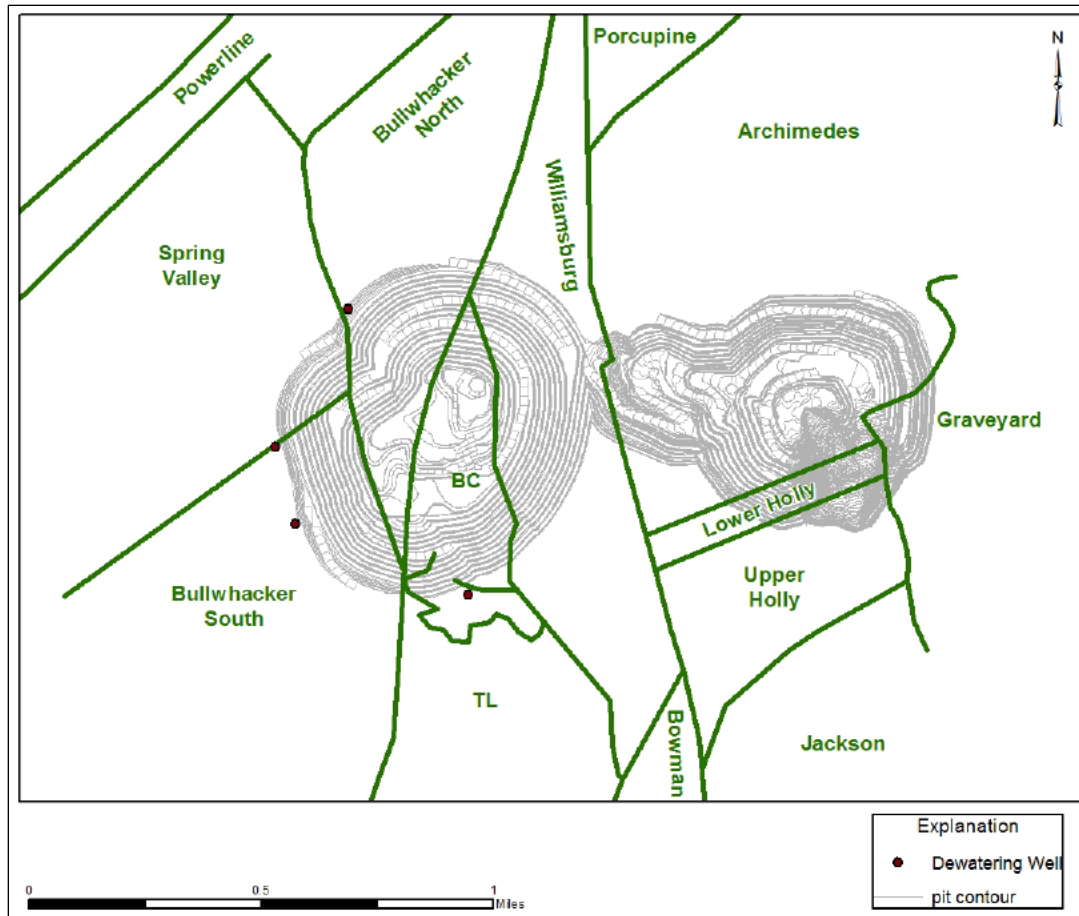
This Project will require the rerouting of public roads around proposed facilities. The roads are gravel county roads estimated at approximately 4 miles long. The haul roads will need to be expanded to be able to accommodate 320 ton haul trucks and will have an estimated total additional 3.8 miles of roadway within and outside of the pit.

**18.2.3.3 Geotechnical Review and Analysis**

A geotechnical review and analysis for all proposed facilities is recommended for future study work.

**18.2.4 Operations Dewatering**

Previous dewatering operations in the mine area starting in the 1990s have identified multiple hydrologic blocks that segment bedrock groundwater levels in the immediate vicinity of the open pit operations as seen in Figure 18-4. The eastern portion of the Mineral Point open pit will share one hydrologic block with the western portion of the Archimedes open pit (i.e., the Williamsburg block) and then operate in four additional blocks (i.e., BC, Bullwhacker North, Bullwhacker South, and Spring Valley).



**Figure 18-4: Hydrologic Blocks of Mineral Point**

(Source: JSAI, 2015)

*Note: Pit contours reflect the design at the time of the dewatering model.*

The predicted dewatering for Mineral Point ramps up to a peak rate of approximately 4,800 gallons per minute (gpm) at the end of mining (JSAI 2015). Dewatering will be achieved through a combination of pumping wells located on the pit perimeter and via in-pit groundwater seepage collection that will be pumped out of the pit by an in-pit booster station located at the working pit bottom. Inflows from the Archimedes Pit area towards the Mineral Point Pit will be controlled by continued operation of existing pumping wells PW-9, PW-10, PW-11, PW-13, PW-16, and/or PW-17. Another existing pumping well located near the center of the Mineral Point Pit (PW-15) will be utilized until it is mined out. Mineral Point dewatering simulations utilized four new pumping wells (one per Mineral Point hydrologic blocks; Table 18-6) to supplement in-pit dewatering efforts (JSAI 2015).

**Table 18-6: Ruby Hill Pumping Wells**

Well	Status and Hydrologic Block	Northing (mine grid)	Easting (mine grid)	Collar Elevation (feet amsl)	Well Depth (feet bgs)	Anticipated Pumping Rate (gpm)
PW-9	Existing, Archimedes Block	120109	12087	6462	1570	50
PW-10	Existing, Archimedes Block	119741	11679	6445	1138	25
PW-11	Existing, Archimedes Block	119800	10724	6449	1184	50
PW-13	Existing, Archimedes Block	119974	13279	6411	1548	95
PW-16	Existing, Archimedes Block	121261	11199	6510	1944	30
PW-17	Existing, Archimedes Block	117156	11557	6548	1120	75
PW-15	Existing, BC Block, to be mined out	1117861	8318	6428	1200	350
BC Well	New, BC Block	-	-	-	~2000	~350
Bullwhacker North Well	New, Bullwhacker North Block	-	-	-	~2000	~350
Bullwhacker South Well	New Bullwhacker South Block	-	-	-	~2000	~350
Spring Valley Well	New, Spring Valley Block	-	-	-	~2000	~350
In-pit Booster	New In-pit	-	-	-	-	~3400

Approximately 10,000 feet of 12-inch to 24-inch diameter pipelines constructed from HDPE or steel will convey pumped water from the individual pumping wells and in-pit booster to a surface collection point for water treatment, as necessary. A portion of the dewatering water will be utilized as make-up water and dust suppression for the mine operations. The balance of the dewatering water will be conveyed from the mine area to rapid infiltrations basins (RIBs) where it will be artificially recharged into the Diamond Valley aquifer. This conveyance will utilize approximately four miles of 24-inch to 30-inch diameter HDPE pipelines to deliver water to one existing RIB site plus two additional new RIB sites.

An existing water treatment plant is used to lower arsenic concentrations in Archimedes Pit dewatering water prior to discharging to an existing RIB location approximately 3,000 feet northwest of the Mineral Point area. The existing RIB location consists of two basins that receive discharge from a conveyance pipeline. Past operations supporting the Archimedes Pit pumped and discharged an average of 300 gpm to the RIB with short-term peak discharge rates up to 900 gpm (FloSolutions 2021). Each individual basin has been able to independently manage discharges at these rates with limited surface ponding within the basin.

To accommodate the increased pumping associated with the Mineral Point Pit (i.e., 4,800 gpm), the water treatment plant capacity will be expanded as necessary to accommodate dewatering production from the new perimeter wells and in-pit sump in instances where those new dewatering sources have arsenic concentrations above regulatory standards. To artificially recharge the increased dewatering production, the existing artificial recharge system will need to be expanded (FloSolutions 2021) by constructing approximately two new RIB locations consisting of two to four basins each. These locations would be northwest and/or north of the Mineral Point Pit area on the alluvial fans that transition from the mine area to the Diamond Valley floor. This system of three RIB locations will be developed as dewatering production ramps up to allow for sustained infiltration for water management at the predicted pumping rates.

Total electrical power requirements to operate the dewatering system are anticipated to be approximately 1.5 megawatts (extrapolated from Piteau 2017 estimates). The pumping wells and in-pit sump will utilize

line power or generators. The water treatment plant will utilize line power. The RIB locations do not require an electrical power source.

### **18.2.5 Operations Monitoring**

There is an existing network of nine monitoring well locations plus 47 vibrating wire piezometers (VWPs) installed at 33 individual locations. These monitoring wells and VWPs provide water level data across the mine site within each of the hydrologic blocks as well as the local alluvial groundwater. The monitoring wells provide the ability to collect water samples for analytical laboratory testing to quantify groundwater geochemical conditions and metal concentrations.

The existing monitoring network will require minor expansion to account for the dewatering activities for the Mineral Point Pit once its operations commence. Approximately five to 10 additional piezometer locations will be needed to observe water levels in the five hydrologic blocks associated with Mineral Point Pit dewatering.

Prior to construction and operation of the two new RIBs, installation of three monitoring wells per RIB will be required to observe water levels and collect samples for water chemistry analyses. Monitoring will continue throughout RIB operation and closure periods. In accordance with Nevada Division of Environmental Protection Technical Publication WTS-3A (2017), each site will need one alluvial monitoring well hydraulically upgradient of the RIBs location (based on the pre-infiltration groundwater flow direction) and two alluvial monitoring wells hydraulically downgradient.

### **18.2.6 Water Supply**

The potable water supply for workers on-site will be obtained from an existing potable water well and supply system. The existing 265-feet deep potable well is completed in alluvium northwest of the Mineral Point area and produces at a pumping rate of approximately 50 gpm.

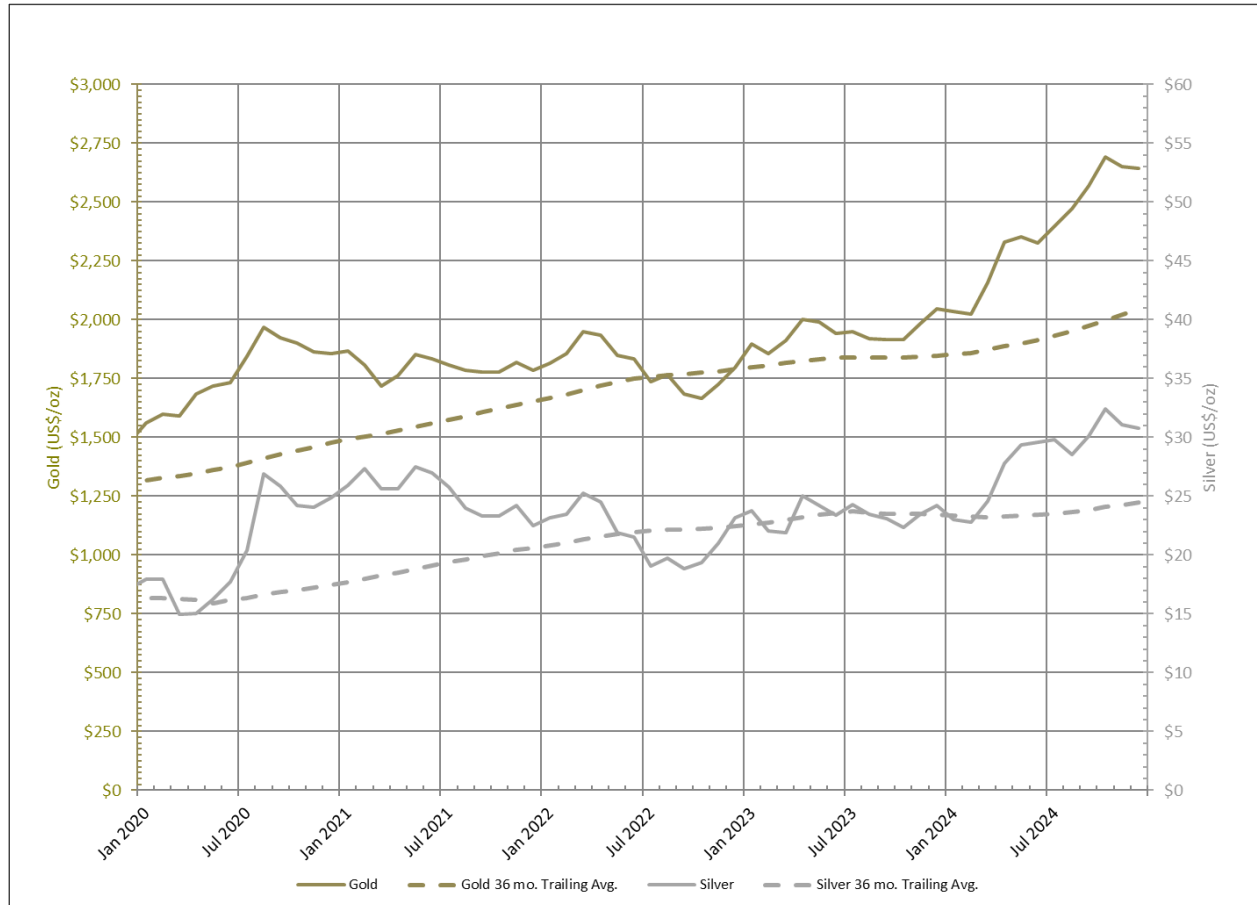
Water supply for make-up water and dust suppression will be obtained from its existing dewatering well sources and/or new dewatering well installations. The dewatering pumping will be in excess of the planned consumptive use needs and the existing water rights authorization for consumptive use. Therefore, an additional temporary water rights authorization for Mineral Point Pit dewatering will be needed from the Nevada Division of Water Resources for pumping that does not represent a consumptive use of groundwater but involves dewatering pumping from the pit area followed by recharge of the aquifer via the RIBs.



## 19. MARKET STUDIES AND CONTRACTS

### 19.1 Precious Metal Markets

Gold and silver are fungible commodities with reputable smelters and refiners located throughout the world. The price of gold has reached all-time highs in 2024 with the December price averaging 2,644 per ounce. As of December 2024 the three-year trailing average gold price was \$2,044 per ounce and the two-year trailing average price was \$2,166 per ounce. The three -year and two-year trailing average prices for silver in December 2024 were \$24.50 and \$25.88 per ounce respectively. Historical plots for both are shown in Figure 19-1.



(Source: Practical Mining, 2025)

**Figure 19-1: Historical Monthly Average Gold and Silver Prices and 36 Month Trailing Average**

Issuers may also rely on published forecasts from reputable financial institutions. The current long term price forecast by CIBC is \$2,169 and per ounce and \$27.61 per ounce for gold and silver respectively (CIBC., 2025).

Commodity prices for Mineral Reserves are chosen not to exceed financial institution forecasts or the three-year trailing average price. Commodity pricing for the estimation of Mineral Resources can be 10% to 20% higher than that used for Mineral Reserves. The gold price selected for estimating Mineral Resources disclosed in this technical report is \$2,175. The silver price selected is \$27.25 per ounce.

### **19.1.1 QP Opinion**

The QP is unaware of any other marketing studies or analysis conducted by i-80 that provide future projections of gold and silver pricing.

## **19.2 Contracts**

### **19.2.1 Financing Agreements**

#### **Orion and Sprott Financing Package**

The Company entered into a financing package with OMF Fund III (F) Ltd. an affiliate of Orion Mine Finance (collectively “Orion”) on December 31, 2021, and a fund managed by Sprott Asset Management USA, Inc. and a fund managed by CNL Strategic Asset Management, LLC (“Sprott”) on December 9, 2021 (together the “Finance Package”).

The Financing Package in its aggregate consists of:

- a. \$50 million convertible loan (the “Orion Convertible Loan”)
- b. \$10 million convertible loan (the “Sprott Convertible Loan” and together with the Orion Convertible Loan, the “Convertible Loans”)
- c. \$45 million gold prepay purchase and sale agreement entered into with affiliates of Orion (the “Gold Prepay Agreement”), including an accordion feature potentially to access up to an additional \$50 million at i-80 Gold’s option
- d. \$30 million silver purchase and sale agreement entered into with affiliates of Orion (the “Silver Purchase Agreement”), including an accordion feature to potentially access an additional \$50 million at i-80 Gold’s option and an amended and restated offtake agreement entered into with affiliates of Orion (the “A&R Offtake Agreement”)
- e. 5,500,000 warrants of the Company issued to Orion (the “Orion Warrants” and together with the Orion Convertible Loan, Gold Prepay Agreement, Silver Purchase Agreement and the A&R Offtake Agreement, the “Orion Finance Package”).

Under the Gold Prepay Agreement, i-80 Gold was due to deliver to Orion 3,000 troy ounces of gold for each of the quarters ending March 31, 2022 and June 30, 2022, and thereafter, 2,000 troy ounces of gold per calendar quarter until September 30, 2025 in satisfaction of the

\$45 million prepayment, for aggregate deliveries of 32,000 troy ounces of gold. i-80 Gold may request an increase in the \$45 million prepayment by an additional amount not exceeding \$50 million in aggregate in accordance with the terms of the Gold Prepay Agreement.

The final Gold Prepay Agreement includes an amendment to adjust the quantity of the quarterly deliveries of gold, but not the aggregate amount of gold, to be delivered by the Company to Orion over the term of the Gold Prepay Agreement. Under the amended Gold Prepay Agreement, commencing on the date of funding, the Company is required to deliver to Orion 1,600 troy ounces of gold for the quarter ending March 31, 2022, 3,100 troy ounces of gold for the quarter ending June 30, 2022, and thereafter 2,100 troy ounces of gold per calendar quarter until September 30, 2025, in satisfaction of the \$45 million prepayment, for aggregate deliveries of 32,000 troy ounces of gold, subject to adjustment as contemplated by the terms of the Gold Prepay Agreement. As the funding from Orion did not occur until April 2022, payment for the delivery of 1,600 ounces for the quarter ending March 31, 2022 was offset against the \$45 million of proceeds received from Orion.

Under the Silver Purchase Agreement, commencing April 30, 2022, i-80 Gold will deliver to Orion 100% of the silver production from the Granite Creek and Ruby Hill projects until the delivery of 1.2 million ounces

of silver, after which the delivery will be reduced to 50% until the delivery of an aggregate of 2.5 million ounces of silver, after which the delivery will be reduced to 10% of the silver production solely from the Ruby Hill Project. Orion will pay i-80 Gold an ongoing cash purchase price equal to 20% of the prevailing silver price. Until the delivery of an aggregate of 1.2 million ounces of silver, i-80 Gold is required to deliver the following minimum amounts of silver (the "Annual Minimum Delivery Amount") in each calendar year: (i) in 2022, 300,000 ounces, (ii) in 2023, 400,000 ounces, (iii) in 2024, 400,000 ounces, and (iv) in 2025, 100,000 ounces. Upon a construction decision for the Ruby Hill project, comprised of one or both of the Ruby Deep or Blackjack Deposits, which construction decision is based on a feasibility study in form and substance satisfactory to Orion, acting reasonably, i-80 Gold will have the right to request an additional deposit from Orion in the amount of \$50 million in aggregate in accordance with the terms of the Silver Purchase Agreement.

Both the Gold Prepay Agreement and the Silver Purchase Agreement were funded on April 12, 2022 with i-80 Gold receiving net proceeds of \$71.6 million after netting the aforementioned March 31, 2022 gold delivery and closing costs as further described in Note 10 and Note 24 in the Company's Financial Statements.

The main amendments reflected in the A&R Offtake Agreement include the increase in the term of the agreement to December 31, 2028, the inclusion of the Granite Creek and Ruby Hill projects, and the increase of the annual gold quantity to up to an aggregate of 37,500 ounces in respect of the 2022 and 2023 calendar years and up to an aggregate of 40,000 ounces in any calendar year after 2023. During the year ended December 31, 2022, Orion assigned all of its rights, title and interest under the A&R Offtake Agreement to TRR Offtakes LLC, now Deterra Royalties Limited.

On September 20, 2023, the Company entered into an Amended and Restated ("A&R") Gold Prepay Agreement with Orion, pursuant to which the Company received aggregate gross proceeds of \$20 million (the "2023 Gold Prepay Accordion") structured as an additional accordion under the existing Gold Prepay Agreement.

The 2023 Gold Prepay Accordion will be repaid through the delivery by the Company to Orion of 13,333 troy ounces of gold over a period of 12 quarters, being 1,110 troy ounces of gold per quarter over the delivery period with the first delivery being 1,123 troy ounces of gold. The first delivery will occur on March 31, 2024, and the last delivery will occur on December 31, 2026. Obligations under the A&R Gold Prepay Agreement, including the 2023 Gold Prepay Accordion, will continue to be senior secured obligations of the Company and its wholly-owned subsidiaries Ruby Hill Mining Company, LLC and Osgood Mining Company, LLC and secured against the Ruby Hill project in Eureka County, Nevada and the Granite Creek project in Humboldt County, Nevada.

The remaining terms of the A&R Gold Prepay Agreement remain substantially the same as the existing Gold Prepay Agreement. The Company may request an increase in the prepayment by an additional amount not exceeding \$50 million in aggregate in accordance with the terms of the A&R Gold Prepay Agreement.

In connection with the 2023 Gold Prepay Accordion, the Company issued to Orion warrants to purchase up to 3.8 million common shares of the Company at an exercise price of C\$3.17 per common share until September 20, 2026, and extended the expiry date of 5.5 million existing warrants by an additional 12 months to December 13, 2025.

### **Orion Offtake**

In February of 2025, i-80 Gold and Orion entered into an offtake agreement (the "Orion Offtake Agreement"). The Orion Offtake Agreement has similar terms to the current A&R Offtake Agreement with

Deterra Royalties Limited and will commence upon its expiry. The Orion Offtake Agreement expires on December 31, 2034.

#### **South Arturo Purchase and Sale Agreement (Silver)**

The Company entered into a Purchase and Sale Agreement (Silver) (the "Stream Agreement") with Nomad, which was connected to South Arturo, whereby the Company will deliver to Nomad (i) 100% of the refined silver from minerals from the main stream area, and (ii) 50% of the refined silver from the exploration stream area. Nomad will pay an ongoing cash purchase price equal to 20% of the silver market price on the day immediately preceding the date of delivery and will credit the remaining 80% against the liability. Following the delivery of an aggregate amount of refined silver equal to \$1.0 million to Nomad under the Stream Agreement, Nomad would continue to purchase the refined silver at an ongoing cash purchase price equal to 20% of the prevailing silver price. The liability for the Stream Agreement was included in the net asset value in connection with the asset exchange with Nevada Gold Mines LLC ("NGM") discussed in the "Lone Tree and Ruby Hill Acquisition", and therefore, is no longer impacting the Financial Statements as of December 31, 2021.

#### **19.3 Refractory Mineralized Material Sale Agreement**

Refractory mineralization mined prior to 2028 will be sold to a third party for processing under an existing agreement. Payment will be made for 58% of the contained gold at the average gold price realized during the month the material was processed. The processing agreement applies to all i-80 projects and allows a maximum purchase rate of 1,000 tons per day from all i-80 operations. The QP's have reviewed this agreement and find the terms and conditions are in accordance with industry standard practice.

#### **19.4 Other Contracts**

The company also intends to negotiate contracts for underground mine development, production mining, and over-the-road haulage with reputable contractors doing business in northeast Nevada. At the time of this report these negotiations have not been initiated.

## **20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

### **20.1 Closure and Reclamation Requirements**

The intent of the reclamation program for the Ruby Hill Project is to restore the project area to a beneficial post-mining land use, prevent undue or unnecessary degradation of the environment, and reclaim disturbed areas such that they are visually and functionally compatible with the surrounding topography. RHMC may choose to retain some facilities for post-mining use.

The BLM and the NDEP-BMRR are the primary federal and state agencies with regulations for the reclamation of surface mines in Nevada (43 CFR 3809, NRS 519A, and Nevada Administrative Code [NAC] 519A, respectively). These regulations were used in the development of the approved site-specific reclamation procedures.

The current estimated cost to close and reclaim the Project is approximately \$27 million. The associated bond was accepted by the BLM on August 8, 2023 (RHMC, 2023).

The bond amount includes closure of all permitted mining and exploration disturbance at the Project, excluding the underground mining activities which are still in the permitting phase, and is calculated using standardized reclamation cost estimators that assess the following:

- Exploration drill hole abandonment
- Exploration roads and pads
- Waste rock dumps
- Heap leach pads
- Roads
- Pits
- Foundations and buildings
- Other demolition and equipment removal
- Sediment and drainage control
- Process ponds
- Landfill
- Yards
- Waste disposal
- Well abandonment
- Underground portals closure
- Miscellaneous costs
- Monitoring
- Construction management
- Mobilization and demobilization.

There are no other known environmental liabilities associated with Project operations (RHMC, 2024).

### **20.2 Social or Community Impacts**

The following information on community relations and stakeholder consultation is taken from Ruby Hill Mining Company (RHMC) personnel inputs in 2024.

Mining activity at the property began in the 1860s and has continued with periodic interruptions until the present day. Throughout its history, Ruby Hill has been a constant presence in the town of Eureka and has been an economic benefit to the community by offering employment, direct and indirect benefits.



Ruby Hill and its predecessors, including Homestake Mining Company and Barrick Gold Corporation, have each maintained comprehensive community relations programs. Ruby Hill works closely with community and local stakeholders to provide updates on key developments, including:

- Project status (operations and permitting)
- Community program and initiatives.

Due to the proximity of the mine to the town, Ruby Hill diligently monitors:

- Blasting
- Noise
- Light
- Dust
- Water Use

RHMC holds quarterly meetings with the public, landowners, and County officials to discuss operational status, safety and environmental compliance at the Project including monitoring, blasting schedules, and other matters of similar relevance to the Project's neighbors. Additionally, Eureka is a community that is familiar with and supportive of mining. RHMC continues to have a positive professional relationship with its stakeholders, including its regulators at the federal and state agencies (RHMC, 2024).

### 20.3 Permits

In conjunction with the permitting actions associated with the Archimedes Underground Mine Project in-pit surface support facilities, a DNA was deemed sufficient for the PoO Amendment NVN-067782 approved by the BLM March 30, 2023. Additionally, on June 23, 2023, the NDEP-BMRR approved an EDC to WPCP NEV0096103 for the construction of the surface facilities. Permitting actions tied to mining of the underground are currently in progress with the BLM evaluating a PoO Amendment and associated EA while NDEP-BMRR is analyzing a WPCP Major Modification.

RHMC is currently permitted to carry out mining operations and reclamation activities at the Project site. This permitting allows it to carry out the exploration, geotechnical and metallurgical field work recommended in this Report. Specific permits related to site activities are presented in Table 20-1.

**Table 20-1: Ruby Hill Project Significant Permits**

Permit Name	Agency	Permit Number
Plan of Operations Amendment	BLM	NVN-067782
Class II Air Quality Operating Permit	NDEP-BAPC	AP1041-0713.05
Mercury Operating Permit to Construct	NDEP-BAPC	AP1041-2252 (De Minimis)
Water Pollution Control Permit - Infiltration Project	NDEP-BMRR	NEV2005106
Water Pollution Control Permit - Ruby Hill Mine	NDEP-BMRR	NEV0096103
Mine Reclamation Permit	NDEP-BMRR	0107
Mining Stormwater General Permit	NDEP-BWPC	NVR300000: MSW-44886
Onsite Sewage Disposal System	NDEP-BWPC	GNEVOSDS09L0107
Public Drinking Water System	NDEP-BSDW	EU-0885-NTNC: NV0000885
Nitrate Removal System	NDEP-BSDW	EU-0885-TP02: NV0000885
RCRA (Small Quantity Generator)	NDEP-BSMM	RCRA ID / NVR000002899
Class III Wavered Landfill	NDEP-BSMM	SWW362
Industrial Artificial Pond Permit	NDOW	S-479016
Hazardous Materials Storage Permit	Nevada State Fire Marshal	125455
Waters of the United States Jurisdictional Determination	USACE	Request for Approved Jurisdictional Determination (AJD) submitted to USACE November 2022

## 20.4 Water Use Permits

RHMC controls a total of 8,107 acre feet per annum (AFA) of water rights for consumption and occupation (RHMC, 2024).

Due to a history of over pumping in the region based on a heavy agricultural reliance, the Diamond Valley Basin was categorized as a CMA by the Nevada State Engineer's office in 2015. The designation allowed the State Engineer and the community to agree on certain tools to reduce over-pumping, including the implementation of a Diamond Valley GMP. Following resolution of a lengthy legal dispute by senior water rights holders in the Basin, the GMP was reinstated effective January 1, 2023. As a groundwater user within the GMP designated area, RHMC controls sufficient water rights to support its mining operations (RHMC, 2024).

## 20.5 QP Opinion

It is the opinion of the QP that i-80's environmental programs for waste and tailings disposal, site monitoring, and water management are adequate for operations and closure.

## 21. CAPITAL AND OPERATING COSTS

### 21.1 Archimedes Underground

#### 21.1.1 Capital Costs

The Company intends to execute a contract mining agreement with a reputable firm for development and production mining at the Archimedes Underground Mine. The unit costs listed in this section are derived from similar mining contracts in northern Nevada. Contingencies include 15% on capital mine development and resource delineation drilling and 25% on all other capital.

Because of this and the infrastructure in place from previous mining activity on the property, capital requirements for the project are only for the construction of underground mine infrastructure, and underground development. The latter comprises 83% of total estimated capital expenditures. The unit rates for like development excavations are sourced from the Cove Underground Project Mine Development bids Table 21-1 (George, 2021). Table 21-2 details the timing and total of capital expenditures required for the Archimedes Underground Project. The final payment to Waterton of \$20.0M is anticipated to occur in October 2023.

**Table 21-1: Mine Development Unit Costs**

Description	\$/foot <sup>1</sup>
Primary Drifting (15'w x17'h)	\$2,000
Secondary Drifting (15'w x17'h)	\$2,000
Lined Raise Bore (10' dia.)	\$4,000

*Note: Excludes 15% Contingency*

**Table 21-2: Project Capital Costs (\$M)**

Item	Total	2025	2026	2027	2028	2029	2030	2031	2032	2033
Mine Development	100.0	7.8	21.0	12.8	25.1	21.7	2.6	3.7	3.0	2.4
Resource Conversion Drilling	10.6	2.1	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0
Facilities										
Environmental Permitting	5.0	0.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0
Feasibility Study	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Admin and Management	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NV Energy	1.4	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Metallurgical Testing	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dewatering Wells	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contractor Mobilization	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portal Construction	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Escape Hoist	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UG Electrical	3.7	0.2	1.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0
Fans/Ventilation	2.8	0.0	1.2	0.2	0.4	0.4	0.3	0.3	0.0	0.0
Facilities Total	22.6	9.7	5.3	3.2	1.9	0.9	0.8	0.8	0.0	0.0
Contingency	22.3	2.9	4.5	4.5	4.7	3.5	0.6	0.7	0.5	0.4
<b>Total Capital</b>	<b>155.4</b>	<b>22.5</b>	<b>30.8</b>	<b>29.0</b>	<b>31.7</b>	<b>26.0</b>	<b>4.0</b>	<b>5.2</b>	<b>3.5</b>	<b>2.8</b>

*Note: Items inside the red box are considered sustaining capital.*

#### 21.1.2 Operating Costs

Underground operating costs are listed in Table 21-3. Underground mining unit costs are from similar northern Nevada mining contracts and include allowances for owner supplied materials and commodities. Other costs are i-80 estimates or supplier quotations.

**Table 21-3: Underground Mine Operating Costs**

Item	Unit Cost	Units
Variable Costs		
Stope Development Mining (15x20)	\$ 100.00	\$/ton
Long Hole Stopping	\$ 80.00	\$/ton
Sill Breasting (Floor Pull)	\$ 80.00	\$/ton
Cemented Rockfill	\$ 37.93	\$/fill ton
Unconsolidated Fill	\$ 13.00	\$/ton
Lone Tree Pressure Oxidation – Acid	\$ 106.45	\$/ton
Lone Tree Pressure Oxidation – Alkaline	\$ 70.81	\$/ton
Over the Road Haulage – Lone Tree	\$ 39.15	\$/wet ton
Over the Road Haulage – Third Party Sales	\$ 48.81	\$/wet ton
Crush, Screen and Agglomerate Heap Leaching	\$ 8.63	\$/ton
Run of Mine Heap Leaching	\$ 2.41	\$/ton
Electrical Energy	\$ 0.08	\$/kw-hr
Electrical Demand	\$ 10.39	\$/kw
Fixed Costs		
Mine G&A	\$ 7.3M	\$/year
Property Holding Costs	\$ 0.3M	\$/year
Electrical Power	\$ 2.8M	\$/year
Total Fixed Cost	\$ 10.4M	\$/year

### 21.1.3 Cutoff Grade

Cutoff grades for pressure oxidation of refractory mineralization at Twin Creeks and on-site crush, screen and agglomerate leaching of oxide mineralization at Ruby Hill are shown in Table 21-4. For both mineralization types the mine is the production rate limiting factor and the mine limited cutoff grade is the correct cutoff grade to use. If mine production were to increase so that processing is the limiting factor, then the cutoff grade calculation must include fixed costs and sustaining capital.

**Table 21-4: Resource Cutoff Grades by Process**

	CSA Heap Leach	3 <sup>rd</sup> Party Sales 2025 - 2027	426 Zone Lone Tree Acidic	Ruby Deeps Zone Lone Tree Acidic
Gold Price (\$/oz)	\$2,175			
Nevada Commerce and Excise Tax	1.151%			
Refining and Sales (\$/oz)	\$1.85		\$1.85	
Royalty	3%			
Recovery <sup>1</sup>	88%	58%	96.8%	89.5%
Process Capacity (tpd)	10,000	1,000	1,600	1,600
Mine Capacity (tpd)	1,600			
Mining Costs (\$/ton)	\$145.88			
Haulage Cost	-	\$48.81	\$39.15	
Process Cost	\$8.63	-	\$106.45	
Incremental Cutoff Grade (opt)	0.005	0.040	0.072	0.078
Dilution Modifier	5%			
Mine Limited Cutoff Grade (opt)	0.094	0.172	0.153	0.168
Fixed Costs (\$ 000's/year)	\$10,404			
Process Limited Cutoff Grade (opt)	0.109	0.193	0.163	0.176

## 21.2 Mineral Point Open Pit

The capital and operating costs used in this report were based on costs from similar project work performed recently by Forte Dynamics, high-level quotes from vendors, and interpolation from CostMine™ models. The QP believes that the estimates are appropriate for inclusion in this report and that these costs comply with the precision requirements for a Preliminary Economic Assessment (PEA).

### 21.2.1 Capital Cost Estimate

Mine construction capital, which includes all pre-production facilities and equipment, is estimated to total \$708 million. This includes \$299 million in mobile equipment for the initial fleet. In addition, approximately 115 Mtons (104 Mtonnes) of stripping is required in the first year of production to gain access to the mineralized material, with an incurred cost of \$287 million. The life of mine (LOM) sustaining capital is estimated at \$388 million, primarily for leach pad expansion and mobile equipment maintenance and rebuilds. Capital estimates included a contingency of 15% on all Mine Equipment and 25% on Process, Preproduction & Facilities, and Owner's Cost.

Table 21-5 provides a summary of the capital costs by category for the Project.

**Table 21-5: Mineral Point Project Capital Cost Summary**

Category	US\$M
Mining Equipment	\$420.7
Process	\$316.0
Preproduction & Facilities	\$80.1
Owner's Cost	\$93.6
CAPEX Waste Stripping	\$287.3
Total Contingency	\$185.5
<b>Total CAPEX</b>	<b>\$1,383.2</b>

#### 21.2.1.1 Mine Equipment Costs

The project is planned to be self-performed, requiring the owner to purchase the necessary mining fleet. Forte engaged with Komatsu and interpolated published data from CostMine™ to develop the capital cost for the mining fleet. Table 21-6 has a detailed list of mining equipment and the LOM CAPEX.



**Table 21-6: Mineral Point Mining Equipment LOM CAPEX**

Equipment	# of Units	US\$M per Unit	Total US\$M
Cable Shovel small	1	\$29.0	\$29.0
Cable Shovel large	1	\$34.7	\$34.7
Hydraulic Shovel	2	\$11.8	\$23.6
Rear Dump Trucks	26	\$6.4	\$165.1
Loader	1	\$9.9	\$9.9
Rotary Drills	5	\$3.4	\$17.0
Bulldozers	5	\$1.5	\$7.3
Wheel Dozer	2	\$2.8	\$5.6
Graders	3	\$0.2	\$0.47
Water Tankers	2	\$5.4	\$10.7
Backhoes Hydraulic	2	\$1.4	\$2.7
Service/Tire Trucks	16	\$0.28	\$4.4
Bulk Trucks	3	\$0.25	\$0.75
Light Plants	5	\$0.02	\$0.1
Pumps	6	\$0.03	\$0.18
Pickups Trucks	30	\$0.06	\$1.9
Sustaining CAPEX			\$107.7
Contingency			\$63.1
<b>Total CAPEX</b>			<b>\$483.8</b>

### 21.2.1.2 Process Infrastructure

Capital costs for the process infrastructure were estimated by scaling similar project work performed by Forte, obtaining high-level quotes from vendors, and/or interpolating published data from CostMine™. For costs of the crushers, conveyors, and stackers, the sizing was estimated using the total throughput of the processed material. The HLP includes bulk earthworks, liner systems, and overliner. The ultimate heap footprint sized to accommodate LOM is planned for five phases, each of similar footprints being constructed approximately every three years. The Process Ponds include one process pond, and five event ponds. One of the event ponds will be required at the onset of stacking of the pad, and an event pond will be constructed with associated Phases of the HLP. Ponds for the Merrill Crowe, both barren and pregnant, are included in costs of the Merrill Crowe line as well as the barren and pregnant pumps and the cyanide mixer. The refinery includes mercury retort. Waste Rock Storage Area (WRSA) Foundation preparation includes clearing and grubbing in five phases approximately every third year. Table 21-7 has a detailed list of process infrastructure items and the LOM CAPEX.

**Table 21-7: Mineral Point Process Infrastructure LOM CAPEX**

Category	US\$M
Crushers/Conveyers/Stacker	\$79.9
Heap Leach Pad	\$192.7
Process Ponds	\$8.0
Merrill Crowe	\$25.1
Refinery	\$7.6
WRSA Foundation Prep.	\$2.7
Contingency	\$79.0
<b>Total CAPEX</b>	<b>\$474.0</b>

### 21.2.1.3 Pre-Production and Facilities

Capital costs for the Pre-Production and Facilities infrastructure were estimated by scaling similar project work performed by Forte, obtaining high-level quotes from vendors, interpolating published data from CostMine™, and Client input as well as other mines in the area. The total cost for Utilities includes the pit substation and main substation. Mining Support includes the truck shop, truck wash, warehouse, fuel stations, and blasting supply storage. The Ancillary Facilities includes administrative building and dewatering system. The Site Improvements, stormwater management and rerouting public roads were considered. Table 21-8 has a detailed list of supporting infrastructure items and the LOM CAPEX.

**Table 21-8: Mineral Point Pre-Production and Facilities LOM CAPEX**

Category	US\$M
Utilities	\$4.3
Mining Support	\$37.2
Ancillary Facilities	\$30.6
Site Improvements	\$8.0
<b>Total CAPEX</b>	<b>\$120.2</b>

### 21.2.1.4 Owner's Costs

The owner's costs were estimated to be 23% of the total process costs. This resulted in a total cost of \$91.2 million from the IA CAPEX estimation for engineering and management. There were no estimates for permitting, reclamation/closure, and exploration. Table 21-9 provides a breakdown of the owner's costs for the project.

**Table 21-9: Mineral Point Owner's Costs LOM CAPEX**

Category	US\$M
Engineering/Management	\$93.6
Permitting	\$0
Reclamation/Closure	\$0
Exploration	\$0
Contingency	\$23.4
<b>Total CAPEX</b>	<b>\$114.0</b>

## 21.2.2 Operating Cost Estimate

Operating costs for the mine were benchmarked against other similar Northern Nevada sites. The plant was estimated by scaling other simpler projects and interpolating published data from CostMine™. This gave a total cash cost (net of by-product credit) of \$1,270.19 per Au toz produced. Table 21-10 provides a detailed breakdown of operating costs for the Project.

Table 21-10: Mineral Point LOM Operating Cost Summary

Operating Costs	Unit	LOM (USD \$M)	\$/oz Au Produced
Mining to Process	\$2.50 per ton	\$988.6	\$280.11
Mining Heap Leach Relocation	\$1.50 per ton	\$39.7	\$11.24
Mining Waste	\$2.50 per ton	\$2,846.1	\$806.40
Processing	\$3.90 per ton	\$1,542.2	\$436.97
Mine Site G&A	\$0.75 per ton	\$296.6	\$84.03
<b>Total Operating Costs:</b>		\$5,713.2	\$1,618.75
Refining Cost Au	\$1.85 per toz	\$6.5	\$1.85
Refining Cost Ag	\$0.50 per toz	\$36.0	\$10.20
Royalties & State Taxes		\$679.8	\$192.6
<b>Total Cash Costs:</b>		\$6,435.5	\$1,823.4
Silver Revenue (by-product)	\$27.25 per toz	\$1,953.0	\$553.21
<b>Total Cash Cost (net of by-product credit)</b>		\$4,482.5	\$1,270.19

### 21.2.2.1 Mine Operating Costs

Open pit operating costs were developed by benchmarking other Northern Nevada sites of similar size and operation.

### 21.2.2.2 Mineral Processing Costs

Table 21-11 presents the estimated cost per ton of processed material by area. The number of personnel was estimated for each area, and salaries plus benefits typical of the Nevada mining industry were utilized for Labor estimates. Consumables cost was the most significant cost of processing, which is expected for a Nevada heap leach project. The cyanide cost estimated of \$1.19/lb of reagent for briquettes totaled \$1.18 per ton processed. The conservative dosing rate of 1 lb/ton determined from lab testing was utilized throughout the LOM. Quicklime consumption was estimated at \$0.15/lb of reagent at a conservative dosing rate of 8 lb/ton, as determined from lab testing. Total quicklime consumption was \$1.20/ton. Reagent consumptions including Zinc, Diatomaceous Earth, fluxes, anti-scalant, and other less significant reagents were estimated utilizing benchmark cost per ton processed. Maintenance costs were estimated by factors of the CAPEX for equipment of 8% per year, except for conveyors, which was 12% of CAPEX per year. The unit cost of power was \$0.13/ kW-hr, estimating power was consumed at 85% of the installed name plate power.

Table 21-11: Mineral Point Processing Costs

Process Area	\$/ton of Processed Material				
	Labor	Consumables	Maintenance	Power	Total
Crushing	\$0.06	\$0.07	\$0.14	\$0.16	<b>\$0.43</b>
Stacking	\$0.05	\$0.02	\$0.06	\$0.09	<b>\$0.22</b>
Leaching Merrill Crowe	\$0.16	\$2.93	\$0.05	\$0.09	<b>\$3.23</b>
<b>Total</b>	<b>\$0.27</b>	<b>\$3.02</b>	<b>\$0.25</b>	<b>\$0.35</b>	<b>\$3.90</b>

## **22. ECONOMIC ANALYSIS**

### **22.1 Archimedes Underground**

#### **22.1.1 Taxes**

##### **22.1.1.1 Federal**

The United States Government tax rate on corporations is 21% of taxable income. Taxable income is determined by offsetting revenue with depreciation, amortization, and depletion deductions. Unused depreciation and amortization deductions can be carried forward to the following year. The carryforward balance for the Ruby Hill project at the beginning of 2023 is \$117.9M and the Fad property will add \$60.0M. The net effect of all deductions reduces the federal tax liability to zero over the life of the project.

##### **22.1.1.2 Nevada**

Nevada does not have an Income tax, however, there are several other taxes that apply to all businesses and the net proceeds tax applies to mining companies specifically. Net mining proceeds are taxed at a rate of up to 5%. Net proceeds are generally defined as revenue less the costs of production. Capital investments are deductible using straight line depreciation over a 20-year period.

The state legislature enacted an excise tax that went into effect in 2022. The tax applies to gross revenue from the extraction of gold and silver. The tax is two tiered. Revenues greater than \$20,000,000 and less than \$150,000,000 are taxed at 0.75% while revenues above \$150,000,000 are taxed at 1.1%.

Equipment and supplies for use in mining is subject to the sales and use tax. The tax rate for Eureka County is 6.85%.

The commerce tax is imposed on businesses with annual revenue exceeding \$4,000,000. The commerce tax rate for mining companies is 0.051% of revenue above \$4,000,000.

All employers subject to Nevada Unemployment Compensation is also subject to the Modified Business Tax (MBT) on total gross wages less employee healthcare benefits paid. The MBT rate is 1.378%. The first \$50,000 of gross wages is exempt from MBT.

##### **22.1.1.3 Property Taxes**

Property or ad valorem taxes are based on the value of the property, both real and personal. The Nevada constitution caps the property tax rate at five dollars for every \$1000 of assessed value. It is also capped by statute at \$3.64 per \$100 of assessed value. The assessed value in Nevada is 35% of the taxable value. Real and personal property taxes attributable to Ruby Hill Mining LLC and Golden Hill Mining LLC totaled \$107,600.71 in 2024.

#### **22.1.2 Cash Flow**

A constant dollar cash flow analysis combining the mine production schedule presented in Section 16.1.6 combined with the commodity pricing of Section 19.1 and the capital and operating costs of Section 21 is presented in Table 22-1 and Table 22-2.

Table 22-1: Income Statement

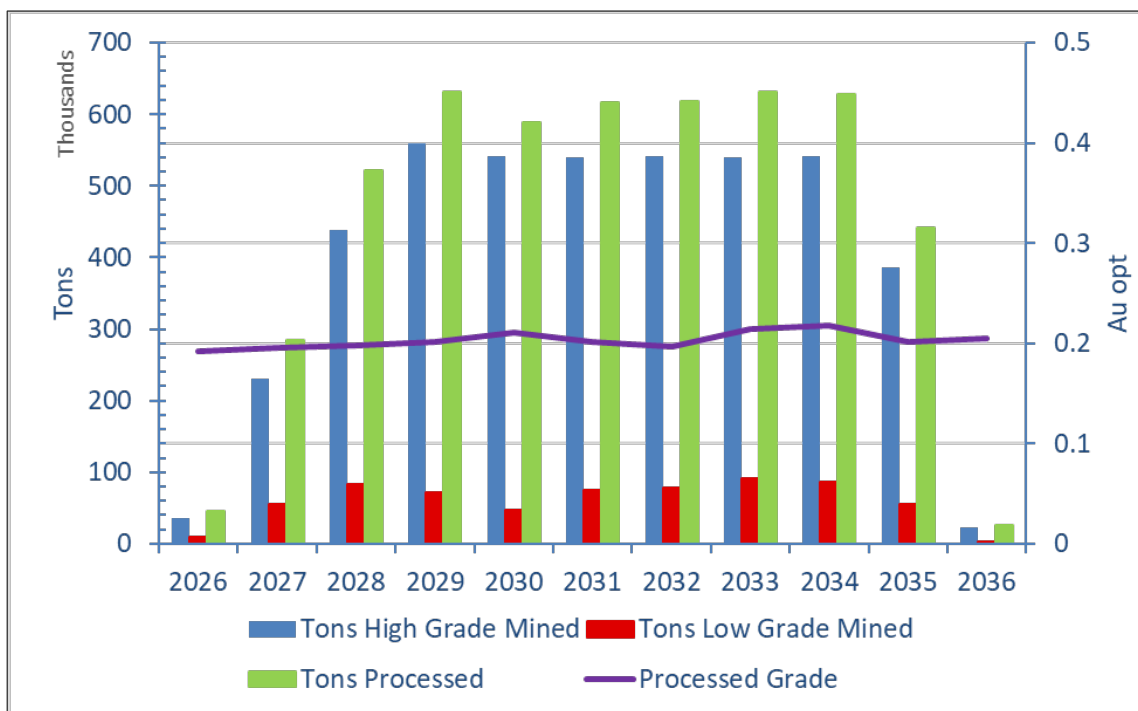
	Total	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Revenue													
Gold Sales	2,018.3	0.0	12.5	74.5	211.1	260.7	259.8	249.1	237.1	263.4	266.7	172.7	10.6
Silver Sales	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Total Revenue	2,018.9	0.0	12.5	74.5	211.2	260.7	259.9	249.2	237.3	263.6	266.8	172.7	10.6
Operating Costs													
Mining	(750.0)	0.0	(6.9)	(43.8)	(80.9)	(98.3)	(104.1)	(86.5)	(103.4)	(81.5)	(84.2)	(57.0)	(3.4)
Surface Haulage to Mill	(192.2)	0.0	(1.4)	(10.9)	(17.2)	(23.7)	(23.0)	(24.1)	(24.2)	(24.7)	(24.6)	(17.3)	(1.0)
Processing	(490.0)	0.0	(0.1)	(0.4)	(47.3)	(64.5)	(62.5)	(65.6)	(65.9)	(67.2)	(66.8)	(46.9)	(2.8)
Electrical Power	(29.4)	0.0	(0.6)	(1.5)	(2.9)	(3.4)	(3.7)	(4.0)	(3.4)	(2.6)	(2.6)	(2.5)	(2.3)
Site G&A	(79.1)	0.0	(3.9)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)	(7.5)
Total Operating	(1,540.7)	0.0	(12.9)	(64.1)	(155.9)	(197.4)	(200.8)	(187.7)	(204.4)	(183.6)	(185.7)	(131.2)	(17.1)
General & Administrative													
Refining & Sales	(1.7)	0.0	(0.0)	(0.1)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)	(0.0)
Nevada Excise Tax	(60.6)	0.0	(0.4)	(2.2)	(6.3)	(7.8)	(7.8)	(7.5)	(7.1)	(7.9)	(8.0)	(5.2)	(0.3)
Royalty	(1.0)	0.0	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.0)
Nevada Net Proceeds Tax	(21.7)	0.0	0.0	(0.6)	(2.3)	(2.9)	(2.9)	(2.7)	(2.6)	(2.9)	(2.9)	(1.9)	0.0
Nevada Commerce Tax	(16.9)	0.0	0.0	(0.2)	(2.0)	(2.3)	(2.0)	(2.2)	(0.8)	(3.1)	(3.1)	(1.3)	0.0
Total Cash Cost	(1,642.6)	0.0	(13.3)	(67.2)	(166.8)	(210.7)	(213.8)	(200.4)	(215.2)	(197.8)	(200.1)	(139.8)	(17.4)
EBITA	376.3	0.0	(0.8)	7.3	44.3	50.0	46.1	48.8	22.0	65.8	66.7	32.9	(6.8)
Reclamation Accrual (UOP)	(8.9)	0.0	(0.1)	(0.3)	(0.9)	(1.1)	(1.1)	(1.1)	(1.0)	(1.2)	(1.2)	(0.8)	(0.0)
Depreciation	(270.0)	0.0	(1.0)	(7.2)	(24.1)	(33.7)	(34.3)	(33.9)	(33.2)	(37.9)	(38.4)	(24.8)	(1.5)
Total Cost	(1,921.5)	0.0	(14.4)	(74.7)	(191.9)	(245.6)	(249.2)	(235.4)	(249.5)	(236.8)	(239.7)	(165.4)	(19.0)
Pre-Tax Income	97.4	0.0	(1.9)	(0.2)	19.3	15.2	10.6	13.8	(12.2)	26.7	27.2	7.3	(8.4)
Income Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	97.4	0.0	(1.9)	(0.2)	19.3	15.2	10.6	13.8	(12.2)	26.7	27.2	7.3	(8.4)



Table 22-2: Cash Flow Statement

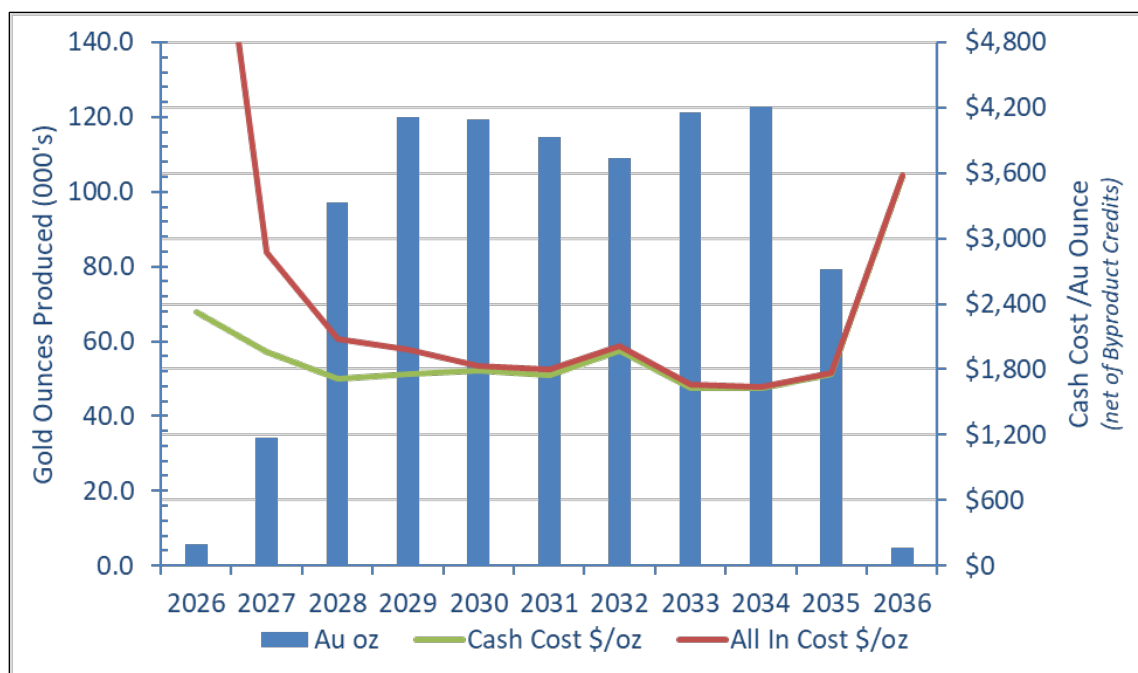
	Total	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037-2045
Net Income	97.4	0.0	(1.9)	(0.2)	19.3	15.2	10.6	13.8	(12.2)	26.7	27.2	7.3	(8.4)	0.0
Depreciation	270.0	0.0	1.0	7.2	24.1	33.7	34.3	33.9	33.2	37.9	38.4	24.8	1.5	0.0
Reclamation	0.0	(0.4)	(0.3)	(0.0)	0.5	0.7	0.7	0.6	0.6	0.7	0.7	0.3	(0.5)	(3.5)
Working Capital	(0.0)	0.0	(1.5)	(6.2)	(11.5)	(5.1)	(0.4)	1.5	(1.7)	2.0	(0.3)	7.0	14.1	2.0
Operating Cash Flow	367.4	(0.4)	(2.7)	0.7	32.4	44.5	45.3	49.9	19.8	67.3	66.0	39.4	6.7	(1.5)
Capital Costs														
Capitalized Development	(100.0)	(7.8)	(21.0)	(12.8)	(25.1)	(21.7)	(2.6)	(3.7)	(3.0)	(2.4)	0.0	0.0	0.0	0.0
Definition and Conversion Drilling	(10.6)	(2.1)	0.0	(8.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mine Facilities	(22.7)	(5.8)	(5.3)	(5.2)	(3.9)	(0.9)	(0.8)	(0.8)	0.0	0.0	0.0	0.0	0.0	0.0
Contingency	(22.3)	(2.9)	(4.5)	(4.5)	(4.7)	(3.5)	(0.6)	(0.7)	(0.5)	(0.4)	0.0	0.0	0.0	0.0
Total Capital	(155.5)	(18.6)	(30.8)	(31.0)	(33.7)	(26.0)	(4.0)	(5.2)	(3.5)	(2.8)	0.0	0.0	0.0	0.0
After Tax Cash Flow	211.9	(19.0)	(33.5)	(30.2)	(1.3)	18.4	41.3	44.7	16.4	64.6	66.0	39.4	6.7	(1.5)
Cumulative Cash Flow		(19.0)	(52.5)	(82.7)	(84.1)	(65.6)	(24.4)	20.4	36.7	101.3	167.2	206.7	213.4	1,918

Mine production, processing and average head grade are shown in Figure 22-1. Annual gold production, cash costs and all in costs are displayed in the graph of Figure 22-2.



**Figure 22-1: Mineralization Mined and Processed**

(Source: Practical Mining, 2025)



**Figure 22-2: Gold Production and Unit Costs**

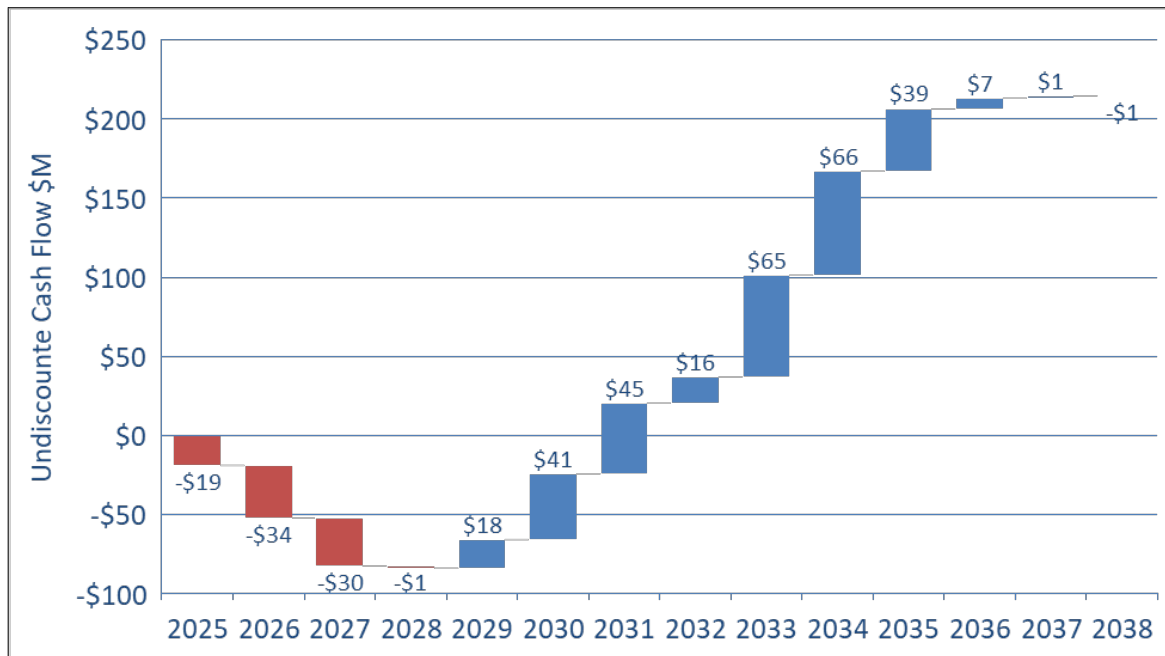
(Source: Practical Mining, 2025)

Table 22-3 shows life of mine total costs, cost per ton and cost per recovered gold.

**Table 22-3: Capital and Operating Cost Summary**

Category	Total Cost	\$/ton Processed	\$/Au oz
Mining	\$750	\$148.98	\$8068
Processing	\$490	\$97	\$528
Ore Haulage	\$192	\$38	\$207
Electrical Power	\$29	\$5.84	\$32
G&A, Prop Holding Costs	\$79	\$16	\$85
By Product Credits	(\$1)	(\$0.13)	(\$0.71)
Total Operating Costs	\$1,541	\$306	\$1,660
Refining	\$2	\$0.34	\$1.85
Royalty	\$61	\$12	\$65
Nevada Taxes	\$40	\$0.20	\$43
Cash Cost	\$1,642	\$3.36	\$1,769
Closure and Reclamation	\$8.9	\$326	\$10
Sustaining Capital	\$106	\$21	\$114
All in Sustaining Costs	\$1,757	\$347	\$1,893
Construction Capital	\$49	\$9.81	\$53
All in Costs	\$1,806	\$359	\$1,946

Annual undiscounted cash flows are depicted in the waterfall chart of Figure 22-3. The maximum cash draw of \$68.1M occurs in 2026 with the project reaching the breakeven point two years later in 2029.



**Figure 22-3: Cash Flow Waterfall Chart**

(Source: Practical Mining, 2025)

Table 22-4: Financial Statistics

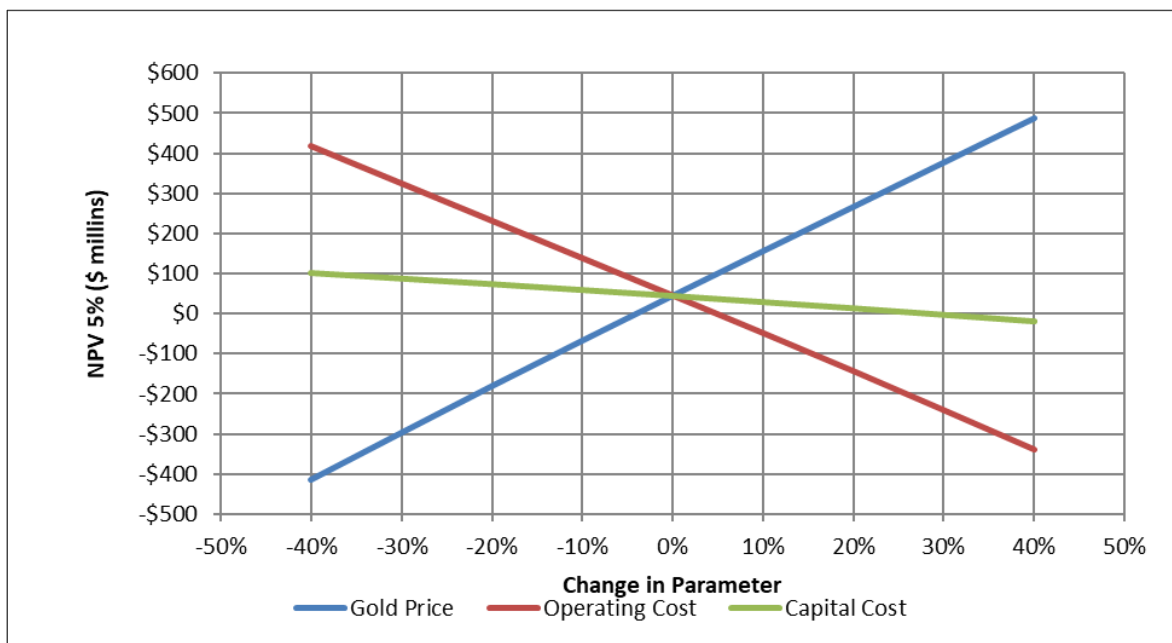
Parameter	Value
Gold price - base case (US\$/oz)	\$2,175
Silver price - base case (US\$/oz)	\$27.25
Mine life (years)	10
Mining Rate (tons/day) <sup>1</sup>	1,600
Tons Processed Autoclave (ton)	4,846
Average grade Autoclave (Au oz/ton)	0.209
Average gold recovery (autoclave %) <sup>2</sup>	92%
Autoclave Gold Produced (oz)	910
Tons Processed Heap Leach (ton)	188
Average Grade Heap Leach (Au oz/ton)	0.111
Average gold recovery (Heap Leach %)	87.4%
Heap Leach Gold Produced (oz)	18
Average annual gold production (koz)	102
Total recovered gold (koz)	928
Cash cost (US\$/oz) <sup>1</sup>	\$1,769
Sustaining Capital (M\$)	\$98
All-in sustaining cost (US\$/oz) <sup>1,3</sup>	\$1,893
Pre-Production Capital (M\$)	\$49
All in Costs (US\$/oz) <sup>3,4</sup>	\$1,938
Project after-tax NPV <sub>5%</sub> (M\$)	\$127
Project after-tax NPV <sub>8%</sub> (M\$)	\$91
Project after-tax IRR	23%
Payback Period	7.8 Years
Profitability Index 8% <sup>2</sup>	1.7

## Notes:

1. Net of byproduct sales;
2. Profitability index (PI), is the ratio of payoff to investment of a proposed project. It is a useful tool for ranking projects because it allows you to quantify the amount of value created per unit of investment. A profitability index of 1 indicates breakeven;
3. Excludes, construction capital, exploration, corporate G&A, interest on debt, and corporate taxes; and
4. Excludes exploration, corporate G&A, interest on debt, and corporate taxes; and,
5. The financial analysis contains certain information that may constitute "forward-looking information" under applicable United States securities legislation. Forward-looking information includes, but is not limited to, statements regarding the Company's achievement of the full-year projections for ounce production, production costs, AISC costs per ounce, cash cost per ounce and realized gold/silver price per ounce, the Company's ability to meet annual operations estimates, and statements about strategic plans, including future operations, future work programs, capital expenditures, discovery and production of minerals, price of gold and currency exchange rates, timing of geological reports and corporate and technical objectives. Forward-looking information is necessarily based upon a number of assumptions that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward looking information, including the risks inherent to the mining industry, adverse economic and market developments and the risks identified in Premier's annual information form under the heading "Risk Factors". There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. All forward-looking information contained in this Presentation is given as of the date hereof and is based upon the opinions and estimates of management and information available to management as at the date hereof. i-80 disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.

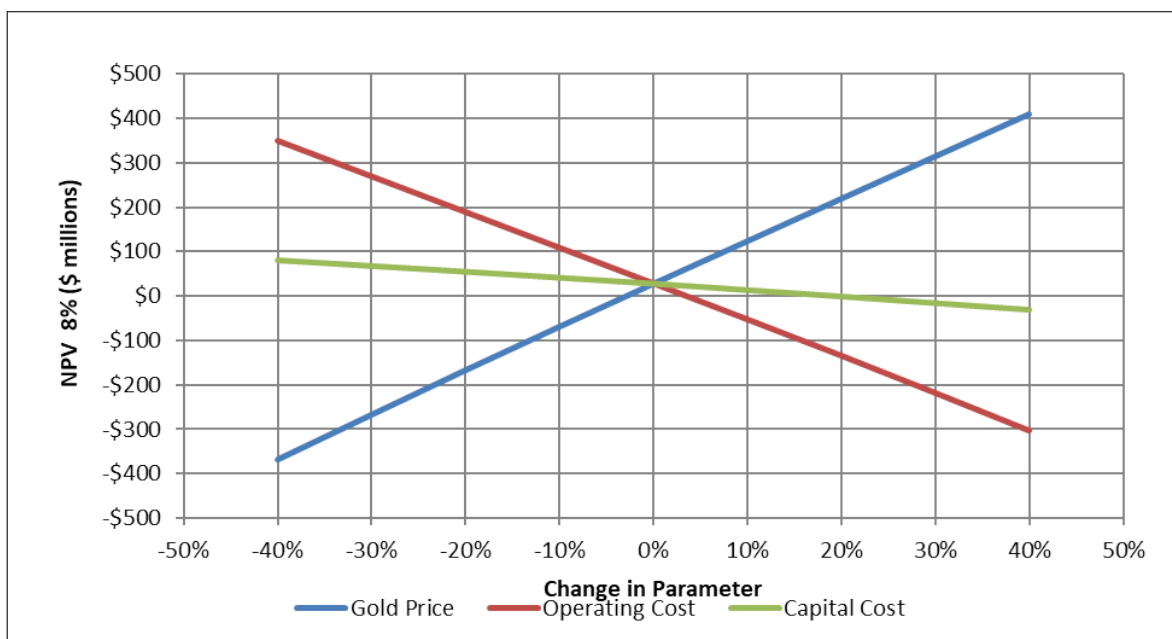
### 22.1.3 Sensitivity

The Ruby Hill Projects economic sensitivity to changes in gold price, operating costs and capital costs are shown in Figure 22-4 through Figure 22-7. The after tax cash flow breakeven gold price is \$1,925 per ounce. A 13% increase in operating costs will also result in breakeven economics and a 139% increase in total capital expenditures is required to reduce the project economics to break even.



**Figure 22-4: NPV 5% Sensitivity**

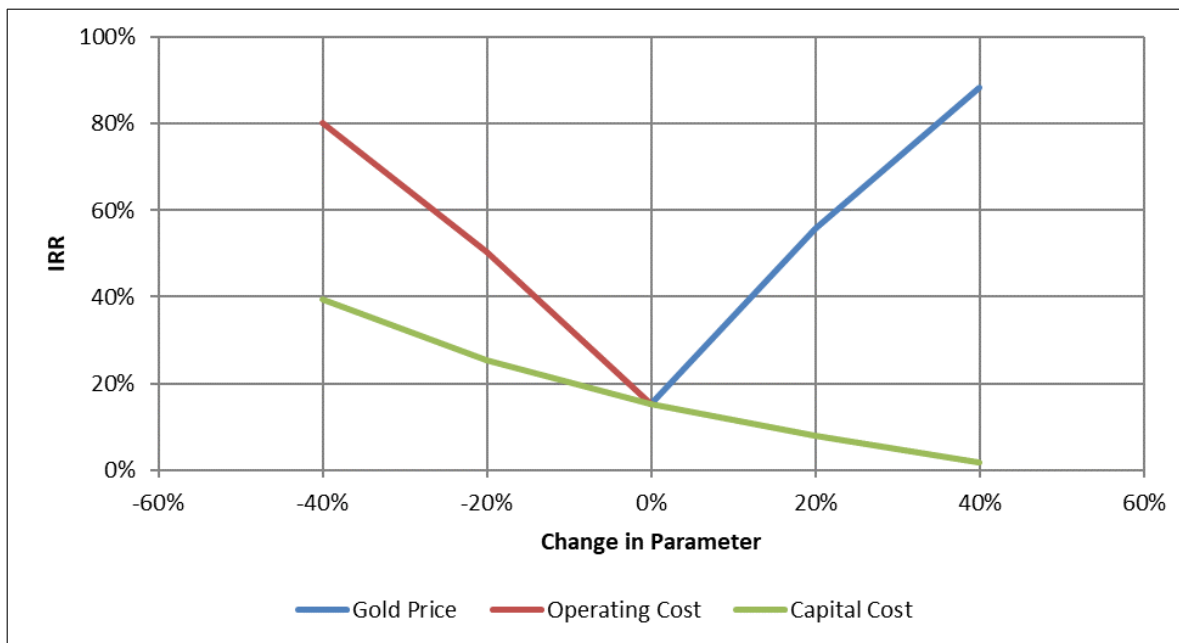
(Source: Practical Mining, 2025)



**Figure 22-5: NPV 8% Sensitivity**

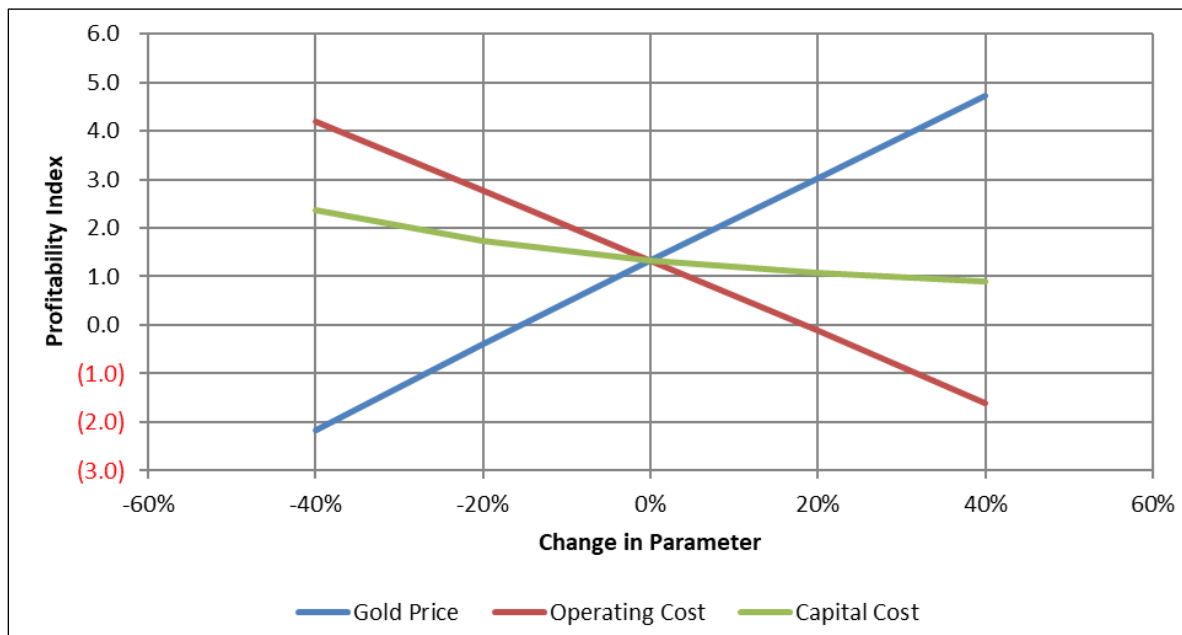
(Source: Practical Mining, 2025)





**Figure 22-6: IRR Sensitivity**

(Source: Practical Mining, 2025)



**Figure 22-7: Profitability Index Sensitivity**

(Source: Practical Mining, 2025)

## 22.2 Mineral Point Open Pit

The economic analysis of the Mineral Point Project is based on the mining schedule, capital and operating costs, recovery parameters, and royalties outlined in earlier sections of this report.

The economic results presented do not define a Mineral Reserve. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. While the economic parameters used in this technical report are considered reasonable, additional information could alter these assumptions and affect the analysis. All figures are expressed in constant 2025 US dollars.

### 22.2.1 Principal Assumptions

The mine will utilize surface production only as of the time of this report.

Mineral processing is planned at 68,000 ton/day (62,000 tonne/day). The mine and plant will be operated by i-80 Gold Corp. personnel.

**Table 22-5: Economic Model Parameters**

Parameter	Unit	Value
Discount Rate	%	5%
Gold Price	US\$/toz	\$2,175
Silver Price	US\$/toz	\$27.25
Cash Reclamation	US\$M	\$69.8

The Project uses a contingency of 15% for mining equipment and 20% for everything else, which is considered reasonable for an IA.

The model encompasses 1.0 year of production ramp-up with year 1 averaging 22.3 kton/day (20.2 ktonne/day), followed by 15 years at 68 kton/day (62 ktonne/day), ending with year 17 averaging 34.8 kton/day (31.6 ktonne/day) of processed material mined. A key input to the model is the mine schedule, detailed in Table 16-17, which outlines the grade and tonnage of the mined mineralized material. Revenue is derived from the amount of recovered metal, the specified metal price, and royalties incurred.

### 22.2.2 Operating Cost

Operating costs for the mine were benchmarked against other Northern Nevada sites. The plant was estimated by scaling other simpler projects and interpolating published data from CostMine™. The QP believes that these are appropriate for this level of preliminary study.

#### 22.2.2.1 General and Administrative

General and Administrative (G&A) or overhead costs are the costs not directly incurred during production.

No camp facility is required at the Project and most overhead will be carried by the corporation, allowing a distribution of the costs between projects. G&A costs are estimated at \$0.75/ton of processed material.

### 22.2.3 Capital Costs

Capital costs for the mining equipment, process plant, and facilities were estimated by scaling similar project work performed by Forte, obtaining high-level quotes from vendors, or interpolating published data from CostMine™. Mine construction capital, which includes all pre-production facilities and equipment, is estimated to total \$708 million. This includes \$299 million in mobile equipment for the initial fleet. In addition, approximately 115 Mtons (104 Mtonnes) of stripping is required in the first year of production to gain access to the body or mineralized material, costing \$287 million. Life of mine (LOM) sustaining capital is estimated

at \$388 million, primarily for leach pad expansion and mobile equipment maintenance and rebuilds. The accuracy of the estimates is  $\pm 50\%$ , and capital costs have a contingency of 15% on mining equipment and 25% on process, production, and facilities as well as owner's costs.

#### **22.2.4 Cost Summary**

The costs used in the economic model are summarized in Table 22-6.

**Table 22-6: Cost Summary**

<b>Prices</b>	<b>Unit</b>	<b>Value</b>
Gold Price	US\$/toz	\$2,175
Silver Price	US\$/toz	27.25
Initial Capital	US\$M	\$708
Sustaining Capital	US\$M	\$388
Project Life	Years	16.5
<b>Production</b>	<b>Unit</b>	<b>Value</b>
Total Mined Processed Material	ktons	395,444
Total Heap Leach Relocation Material	ktons	26,455
Total Mined Waste	ktons	1,253,344
Total Mined Gold	ktoz	4,525
Total Mined Silver	ktoz	177,293
Au Grade	toz/ton	0.0114
Au Grade	g/tonne	0.391
Ag Grade	toz/ton	0.4483
Ag Grade	g/tonne	15.37
<b>Operating Cost</b>	<b>Unit</b>	<b>Value</b>
Open Pit Mining Cost	US\$/ton	\$2.50
Process Cost	US\$/ton	\$3.90
Heap Leach Relocation Mining Cost	US\$/ton	\$1.50
G&A Cost	US\$/ton processed	\$0.75
Royalty	%	3.0%

#### **22.2.5 Economic Model**

A summary of the economic model is provided in Appendix B. Additionally, a high-level summary of the Pre-Tax Net Present Value (NPV) is provided in Table 22-7, and the After-Tax summary is included in Table 22-8. Figure 22-8 shows the undiscounted Pre-Tax LOM annual cash flow.

Thirty eight percent (38%) of the material considered for mineral processing is classified as Inferred Mineral Resources. This analysis includes Inferred Mineral Resources, which are considered too speculative geologically to apply modifying factors that would enable them to be classified as Mineral Reserves, and there is no certainty that this economic assessment will be realized.

Table 22-7: Pre-Tax NPV Summary

Pre-Tax NPV	US\$M
NPV @ 0%	\$1,854.50
NPV @ 5%	\$827.58
NPV @ 8%	\$451.23
NPV @ 10%	\$262.46
NPV @ 12%	\$110.22
IRR	13.8%
Payback Period	8.7 years

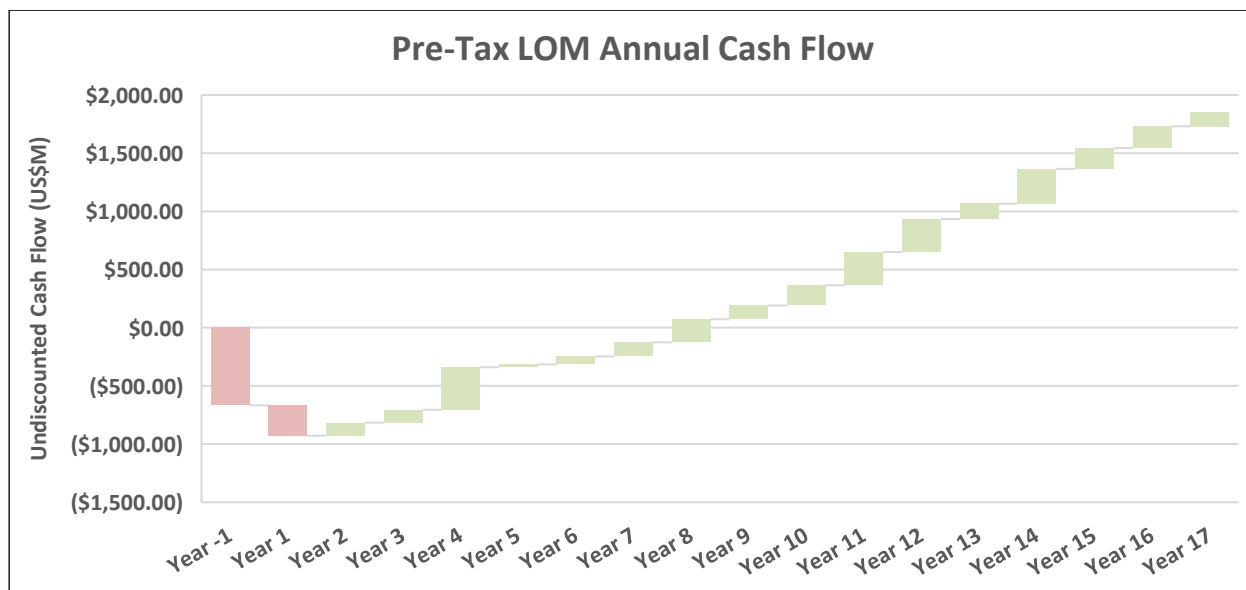


Figure 22-8: Pre-Tax LOM Annual Cash Flow

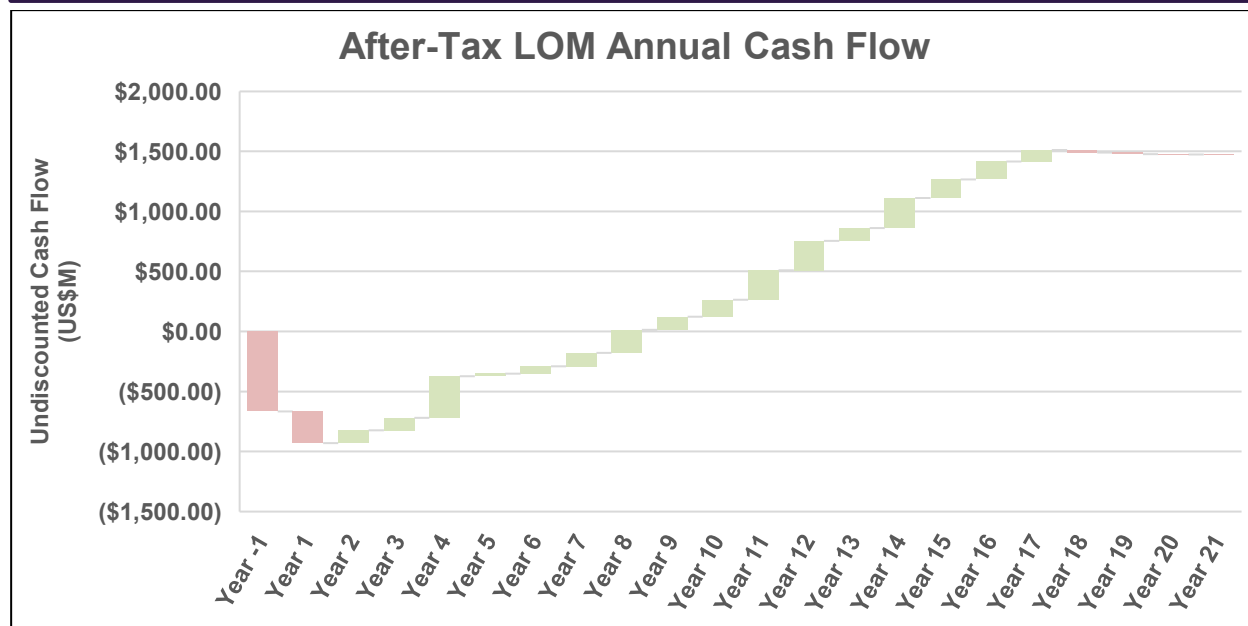
(Source: Forte Dynamics, 2025)

### 22.2.5.1 Taxes and Royalties

Royalties are discussed in detail in Section 3.3. Taxes are calculated as required for a project in Nevada. A summary of the After-Tax NPV is included in Table 22-8. The Project will pay a total of US \$263.1 million dollars in federal taxes and a total of US \$234.8 million in state taxes during the life of mine. Figure 22-9 shows the undiscounted After-Tax LOM annual cash flow.

Table 22-8: After-Tax NPV Summary

After-Tax NPV	US \$M
NPV @ 0%	\$1,470.0
NPV @ 5%	\$614.1
NPV @ 8%	\$295.8
NPV @ 10%	\$134.8
NPV @ 12%	\$4.3
IRR	12.1%
Payback Period	7.9 years



**Figure 22-9: After-Tax LOM Annual Cash Flow**

(Source: Forte Dynamics, 2025)

#### 22.2.5.2 Sensitivity Analysis

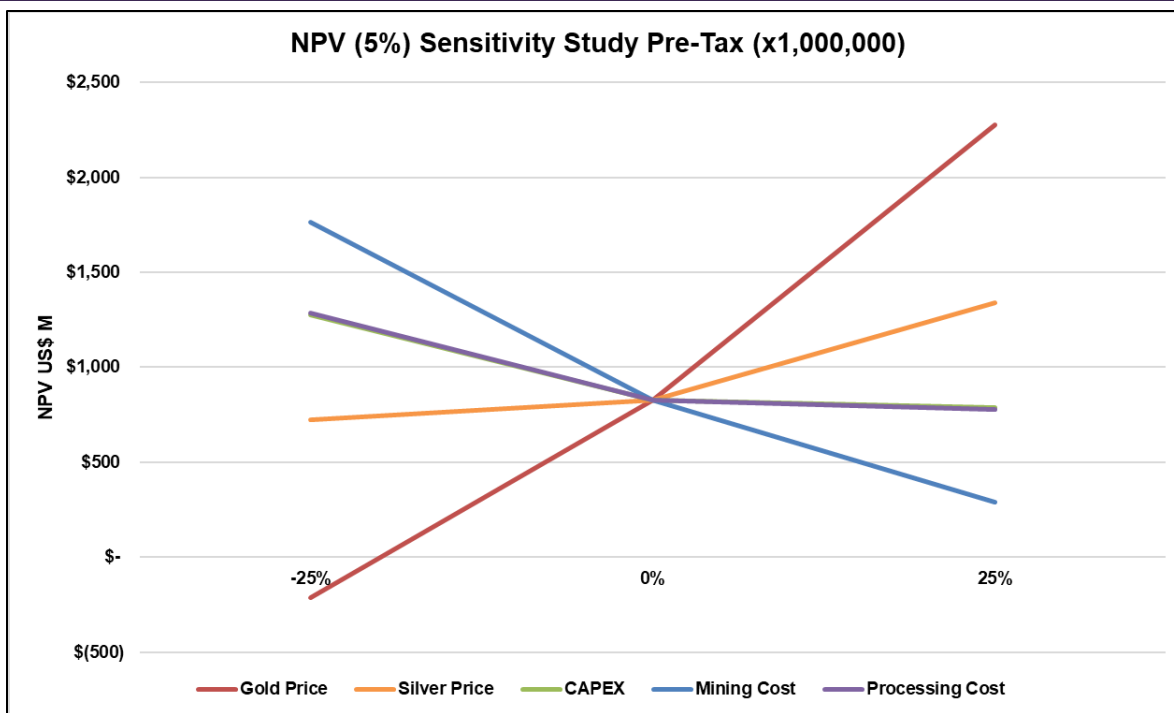
A sensitivity analysis was conducted on the parameters of capital cost, operating cost, and metal price, all assessed on a Pre-Tax and After-Tax basis. A summary of these sensitivities is shown in Table 22-9. Figure 22-10 and Figure 22-11 show the sensitivity of NPV @ 5% and IRR Pre-Tax. Figure 22-12 and Figure 22-13 show the sensitivity of NPV @ 5% and IRR After-Tax.



Table 22-9: Sensitivity Summary

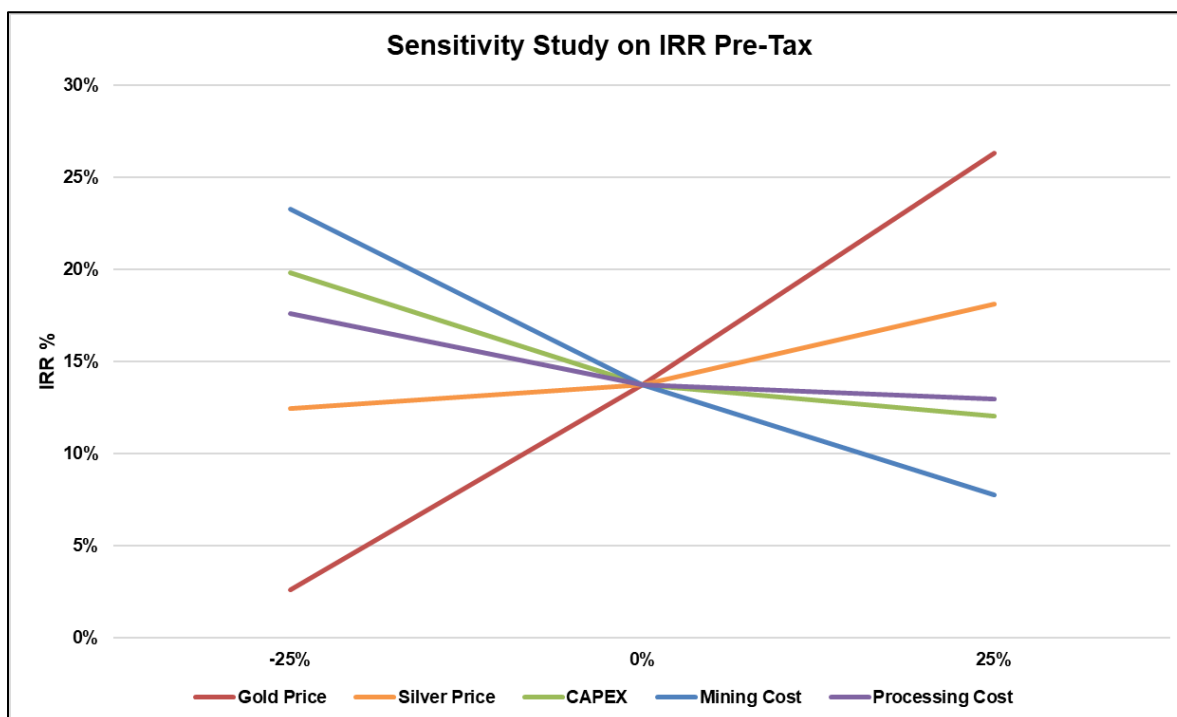
Parameter	Item	Pre-Tax Sensitivity			After-Tax Sensitivity		
		-25%	0%	+25%	-25%	0%	+25%
Gold	Price (US\$/toz)	\$1,631	\$2,175	\$2,719	\$1,631	\$2,175	\$2,719
	NPV @5% (US\$M)	\$(211.2)	\$827.6	\$2,274.4	\$(395.6)	\$614.1	\$1,523.0
	NPV @8% (US\$M)	\$(398.9)	\$451.2	\$1,610.0	\$(543.7)	\$295.8	\$1,002.4
	NPV @10% (US\$M)	\$(489.0)	\$262.5	\$1,272.9	\$(613.9)	\$134.8	\$740.0
	NPV @12% (US\$M)	\$(559.1)	\$110.2	\$998.4	\$(667.8)	\$4.3	\$527.6
	IRR (%)	2.6%	13.8%	26.3%	0.3%	12.1%	19.9%
Silver	Price (US\$/toz)	\$20.44	\$27.25	\$34.06	\$20.44	\$27.25	\$34.06
	NPV @5% (US\$M)	\$722.1	\$827.6	\$1,341.0	\$346.5	\$614.1	\$828.4
	NPV @8% (US\$M)	\$358.0	\$451.2	\$853.2	\$55.8	\$295.8	\$439.4
	NPV @10% (US\$M)	\$176.0	\$262.5	\$607.9	\$(88.2)	\$134.8	\$245.4
	NPV @12% (US\$M)	\$29.6	\$110.2	\$409.8	\$(203.2)	\$4.3	\$89.7
	IRR (%)	12.5%	13.8%	18.1%	8.7%	12.1%	13.4%
CAPEX	Price (US\$M)	\$1,037	\$1,383	\$1,729	\$1,037	\$1,383	\$1,729
	NPV @5% (US\$M)	\$1,274.1	\$827.6	\$789.0	\$834.1	\$614.1	\$349.1
	NPV @8% (US\$M)	\$835.5	\$451.2	\$375.7	\$480.6	\$295.8	\$20.8
	NPV @10% (US\$M)	\$615.2	\$262.5	\$168.7	\$304.4	\$134.8	\$(142.1)
	NPV @12% (US\$M)	\$437.3	\$110.2	\$2.0	\$163.0	\$4.3	\$(272.3)
	IRR (%)	19.8%	13.8%	12.0%	15.0%	12.1%	8.2%
Mining Cost	Price (US\$/ton)	\$1.88	\$2.50	\$3.13	\$1.88	\$2.50	\$3.13
	NPV @5% (US\$M)	\$1,762.1	\$827.6	\$289.3	\$1,263.5	\$614.1	\$(92.9)
	NPV @8% (US\$M)	\$1,218.6	\$451.2	\$(17.3)	\$815.5	\$295.8	\$(324.5)
	NPV @10% (US\$M)	\$942.5	\$262.5	\$(167.5)	\$589.1	\$134.8	\$(436.0)
	NPV @12% (US\$M)	\$717.6	\$110.2	\$(286.3)	\$405.3	\$4.3	\$(522.7)
	IRR (%)	23.3%	13.8%	7.8%	18.6%	12.1%	4.1%
Processing Cost	Price (US\$/ton)	\$2.93	\$3.90	\$4.88	\$2.93	\$3.90	\$4.88
	NPV @5% (US\$M)	\$1,283.8	\$827.6	\$776.7	\$787.3	\$614.1	\$392.0
	NPV @8% (US\$M)	\$808.1	\$451.2	\$401.0	\$407.2	\$295.8	\$91.2
	NPV @10% (US\$M)	\$568.9	\$262.5	\$213.2	\$217.7	\$134.8	\$(57.8)
	NPV @12% (US\$M)	\$375.7	\$110.2	\$62.1	\$65.6	\$4.3	\$(176.8)
	IRR (%)	17.6%	13.8%	13.0%	13.0%	12.1%	9.2%

The Project's NPV and IRR in relation to fluctuations in the long-term gold and silver price are outlined in Table 22-10. Based on the economic sensitivity study, the Project is robust regarding both capital and operating costs. It is most sensitive to metal price and, by direct correlation, to metal recovery.



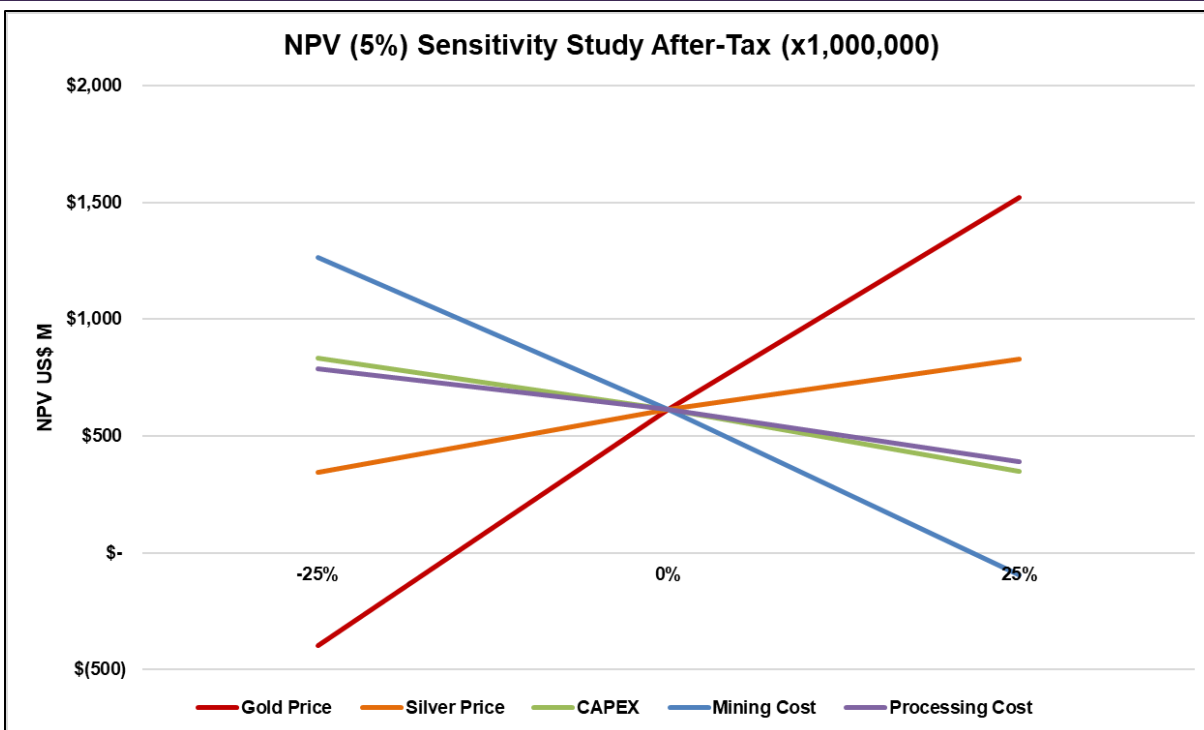
**Figure 22-10: Pre-Tax Sensitivity NPV @5%**

(Source: Forte Dynamics, 2025)



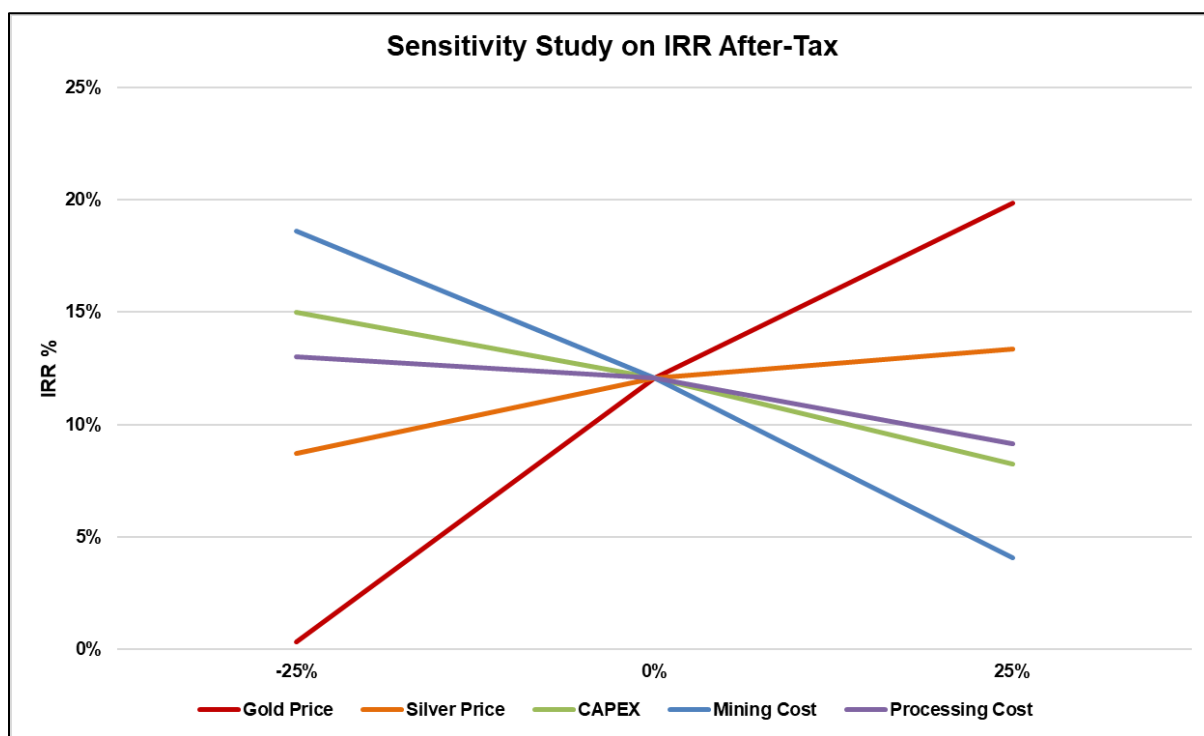
**Figure 22-11: Pre-Tax Sensitivity IRR**

(Source: Forte Dynamics, 2025)



**Figure 22-12: After-Tax Sensitivity NPV @5%**

(Source: Forte Dynamics, 2025)



**Figure 22-13: After-Tax Sensitivity IRR**

(Source: Forte Dynamics, 2025)

**Table 22-10: Gold and Silver Price Sensitivity After-Tax Analysis**

		Gold Price (US\$/toz)											
		\$ 2,000		\$ 2,175		\$ 2,500		\$ 2,750		\$ 2,900		\$ 3,000	
		NPV 5%	IRR	NPV 5%	IRR	NPV 5%	IRR	NPV 5%	IRR	NPV 5%	IRR	NPV 5%	IRR
Silver Price (US\$/oz)	\$ 25.00	\$ 218	8%	\$ 540	11%	\$ 1,126	18%	\$ 1,573	22%	\$ 1,840	25%	\$ 2,017	26%
	\$ 27.25	\$ 294	8%	\$ 614	12%	\$ 1,199	18%	\$ 1,647	23%	\$ 1,913	25%	\$ 2,091	27%
	\$ 30.00	\$ 387	10%	\$ 705	13%	\$ 1,286	19%	\$ 1,737	24%	\$ 2,001	26%	\$ 2,181	28%
	\$ 32.75	\$ 479	11%	\$ 795	14%	\$ 1,377	20%	\$ 1,826	24%	\$ 2,092	27%	\$ 2,270	28%
	\$ 35.00	\$ 554	11%	\$ 869	15%	\$ 1,450	21%	\$ 1,899	25%	\$ 2,164	27%	\$ 2,343	29%

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**23. ADJACENT PROPERTIES**

There are no adjacent properties relevant to The Ruby Hill Project.

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**24. OTHER RELEVANT DATA AND INFORMATION**

The authors are not aware of any other relevant data or information.



## **25. INTERPRETATION AND CONCLUSIONS**

### **25.1 Conclusions**

The authors have reviewed the data from the project, which include Archimedes Underground, Archimedes Open Pit, and Mineral Point Open Pit, and undertook verification of the data that are material to this report. Based on the work completed or supervised by the authors, it is the opinion of the authors that the project data are of sufficient quality for the modeling, estimation, and classification of the gold and silver resources disclosed in this report, as well as for the completion of the Technical Report summarized herein. Furthermore, the authors are unaware of any significant risks or uncertainties that could reasonably be expected to affect the reliability of the current Mineral Resources.

The economic analysis presented in this PEA is an evaluation of the Archimedes Underground and Mineral Point Open Pit Mineral Resources and do not have demonstrated economic viability. The Archimedes Open Pit is a Mineral Resource and does not include an economic analysis.

#### **25.1.1 Archimedes Underground**

##### **25.1.1.1 Mineral Resources**

The Archimedes Underground Mineral Resource contains approximately 70% Inferred Mineral Resources. The planned underground development and drilling program is planned to upgrade Inferred Mineral Resources to Indicated.

##### **25.1.1.2 Mining and Infrastructure**

Mining conditions for the Archimedes underground are typical for sedimentary deposits in the north-east Nevada extensional tectonic environments are anticipated. The Ruby Deeps deposit will require dewatering with anticipated pumping rates of 500 to 1,000 gpm.

##### **25.1.1.3 Metallurgical Testing**

Metallurgical testing of refractory samples from Archimedes underground deposits has confirmed amenability to grinding followed by pressure oxidation and carbon in leach. Gold recoveries ranged from 80% to 91%. Metallurgical testing programs have identified deleterious elements that are common to deposits in this part of Nevada. Deleterious elements content in the oxide samples are low, while sulfide samples are characterized by high levels of sulfide sulfur, arsenic, and mercury. Processing of Archimedes sulfide mineralization through a third-party or i-80's Lone Tree autoclave will ensure removal and capture of these deleterious elements.

##### **25.1.1.4 Recovery Methods**

Metallurgical testing has confirmed that processing of Archimedes underground sulfide mineralization can be processed through Nevada Gold Mines Twin Creeks or the Lone Tree autoclave facilities. The 426 mineralized lenses are more amenable to alkaline conditions while the Ruby Deeps lenses perform better with acidic conditions.

##### **25.1.1.5 Financials**

- Initial capital requirements total \$49.4M with an additional \$106.1M in sustaining capital.
- The project achieves after-tax NPV 5% of \$126.8M and NPV 8% of \$91.1M.
- The estimated payback period is 7.8 years with an IRR of 23%.

### **25.1.2 Archimedes Open Pit**

#### **25.1.2.1 Mineral Resources**

The Archimedes deposit was previously mined by Homestake and Barrick for West Archimedes and East Archimedes respectively. Mining ceased after a pit wall failure. An updated Mineral Resource Estimate was completed, with the majority of Mineral Resources classified as Indicated. There is currently potential for additional surface production of the deposit which would add to the value of the overall Ruby Hill project.

As the pit was never restarted after the wall failure, it will be important to understand and mitigate rock mechanics stability and safety issues prior to any decision to restart the project.

Given the current focus on the underground mine and the Mineral Point pit, no additional work in the Archimedes pit has been planned.

### **25.1.3 Mineral Point Open Pit**

#### **25.1.3.1 Mineral Resources**

The Mineral Point Open Pit Mineral Resource contains approximately 47% Inferred Mineral Resources. Drilling is planned for the deposit to obtain fresh material for additional metallurgical testing. The additional metallurgical test results can be used in future work, along with additional testing for representative bulk density measurements to be used with future updated geological, alteration, redox and structural models. This can be used for future Mineral Resource updates and potentially upgrading Inferred Mineral Resources to Indicated Mineral Resources.

#### **25.1.3.2 Mining and Infrastructure**

Mineral point will be a large-scale open pit gold and silver deposit typical of other northern Nevada mines with stripping ratio of 2.9:1, excluding capitalized pre-stripping. Overall average gold grade processed of 0.39 g/tonne with an expected average gold recovery of 78% and an average silver grade processed of 15.37 g/tonne. Most of the current infrastructure on site can be re-used or expanded for the project. Power for the proposed operation will be provided by the power supplier that historically fed the site.

#### **25.1.3.3 Metallurgical Testing**

Historical metallurgical testing and production have confirmed the amenability of Mineral Point open pit oxide and sulfide mineralization to conventional cyanide heap leaching; Metallurgical testing of samples from the Mineral Point open pit deposit has also shown amenability to crushing for heap leaching. Gold and silver recoveries ranged from 80-85% and 32-45%, respectively.

#### **25.1.3.4 Recovery Methods**

Oxide and sulfide material is amenable for processing by crushed-ore cyanide heap leaching. Gold and silver leach at the heap-leach facility will be extracted by Merrill-Crowe zinc precipitation.

#### **25.1.3.5 Financials**

- Total capital requirement of \$1,383.2M
- The project achieves an NPV 5% of \$614.1M and NPV 10% of \$134.8M After-Tax
- The project has an IRR of 12.1% and a payback period of 7.9 years After-Tax

## 25.2 Risks and Opportunities

The Project is subject to the risks and uncertainties typical of gold projects, particularly risk in commodity prices and the precious metals equity markets. Lower metal prices or lack of precious metals equity market interest or activity could render the Project uneconomic or reduce access to project financing.

The life of mine (LOM) plan includes a significant percentage of Inferred Mineral Resources along with the Indicated Resources (there are no Measured Mineral Resources). The current mineable resource demonstrates economic viability but will need to be upgraded to become a Mineral Reserve.

Metallurgical data appears to be of reasonable quality but does require additional test work. Incomplete classification of material types or misunderstanding of the representativeness of metallurgical samples could lead to a change in recovery or process cost assumptions. Further test work is needed to confirm crush sizes for optimal extraction and to refine cost parameters.

This is a Preliminary Economic Assessment, which is based on engineering assumptions related to operating cost, capital cost, recovery, and other inputs. Further test work or analysis may modify these assumptions in ways which negatively impact the Project economics.

The Ruby Hill Project is located in a brownfields mining site with good electrical and transportation infrastructure in place. The local labor force is experienced in the type of mining planned, and contractors are available to perform the work. The permitting requirements for the underground mine are minimal and dewatering could provide a benefit to the agricultural users down gradient from the mine. Table 25-1 shows the risks and uncertainties for the Archimedes Underground (AUG), Mineral Point Open Pit (MPOP), and Archimedes Open Pit projects (AOP). Table 25-2 shows the opportunities for the Archimedes Underground (AUG), Mineral Point Open Pit (MPOP) and Archimedes Open Pit (AOP) projects.

Table 25-1: Risks and Uncertainties

Project	Risks	Impact	Mitigation Measure
AUG	Dewatering Requirements Greater than Anticipated	Increased capital costs and operating costs	Hydrogeological study to determine dewatering requirements
AUG	Delays in Permitting Approval	Production ramp up delays	Increased mine life and reduced life of mine economics
AUG	Ground Conditions Worse than Expected	Increased operating costs	Install additional ground support, reduce mining widths, convert to underhand drift and fill mining
MPOP	Proximity to Local Communities	Potential loss of social license	Maintain a pro-active and transparent strategy to identify all stakeholders and maintain a communication plan. The main stakeholders have been identified, and their needs/concerns understood. Continue to organize information sessions, publish information on the mining project, and meet with host communities.
MPOP	Metallurgical Recovery	Lower recovery decrease in revenue	Additional test work is required to improve understanding of the recovery in different lithologies and target P80. Evaluate leach cycle, application rate, and lift height for final comminution circuit, including geotechnical considerations.
MPOP	Permitting Challenges	Delay permitting and increase pre-production costs	Additional biological, geochemical, hydrogeological and archaeological baseline studies and follow-up are required.
MPOP	Overliner Source for Heap Leach Facility has Not Been Explicitly Identified	Inhibit effective solution management, decrease in revenue	Identify and test overliner sources
MPOP	Poor Foundation (geotechnical) Conditions	Increased capital costs	Complete geotechnical and hydrogeological studies and material testing programs for the heap leach facility and ancillary infrastructure to define foundation conditions and/or shallow ground water.
MPOP	Power Availability	Increased capital and operating costs	Perform detailed power study and confirm with provider on capacity. Additional generators to provide power.
MPOP	Water Supply	Constrained throughput, decreased revenue	Perform detailed water supply from ground and water demand study. Include climate analysis and inclusion of available make-up water sources.
MPOP	Definition of Resource Model Alteration Types and Recoveries	Recoverable metal, decrease in revenue	Complete additional metallurgical test work to build geometallurgical model.
MPOP	Bulk Density	Changes to Tonnage and Contained Metal Content, change in revenue	Review of key lithological units from existing drill core and/or potential relogging of core to achieve greater confidence in bulk density determination. Incorporate review work into updated geological model. Use commercial lab for umpire analysis of new samples, along with umpire check analysis of existing samples.
AOP	Pit slope stability	Reduction in potentially minable resources	Additional Geotech mapping and drilling in the pit limit area.

Table 25-2: Opportunities

Project	Opportunities	Impact
AUG	Process Ruby Hill Material at Lone Tree	Lower costs, higher return on investment.
AUG	Mine Grades Exceed Plan	Increased gold production, lower cash cost.
AUG	Underground Resource Conversion, Near Mine Exploration Success	Reserve growth, mine expansion, increased production rate, longer mine life.
AUG	Dewatering	Infiltration of the water may alleviate historic overallocation down gradient from Ruby Hill and increase the water available for process or agricultural uses for MPOP and AOP.
MPOP	Metallurgical Recovery	Additional metallurgical test work may improve understanding of operating parameters leading to more accurate revenue projections and a more effective production plan.
MPOP	Geotechnical	Geotechnical drilling may improve understanding of operating parameters leading to more accurate mine designs and a more effective production plan.
MPOP	Partial Contract Mining	Using a contractor to perform pre-stripping early in the project life may postpone capital spending.
MPOP	In-Pit Dumping	Reduce haulage distance/time, improve productivity, decrease mining unit costs, and reduce operating costs.
MPOP	Increase Ultimate Heap Height	Reduce disturbance and capital costs.
MPOP	Self-Perform Manufacturing of Overliner	Determine if existing crusher at site could be leveraged and utilized in producing overliner, specifically for sustaining capital costs.
MPOP	Self-Perform Clear and Grub	Evaluate mine fleet for capability to perform clear and grub for areas of future phases of HLP and WRSA, may reduce sustaining capital costs.
MPOP	Event Ponds Containment	All event ponds in series include costs for secondary containment to utilize them as process ponds with no duration requirement to empty. Remove contingency design and empty ponds within set durations, may reduce capital costs.
MPOP	Recovery from HL Relocated Processed Material from Historic Operations	Additional metallurgical test work may prove additional recovery from relocated material, improving revenue.
MPOP	Screening in Comminution Circuit	May reduce capital costs with introduction of scalping screens to reduce volume sent to secondary crushers.
MPOP	Resource Conversion and Growth	Conversion of Inferred Resources to Indicated Resources, and Indicated Resources to Measured Resources, leading to greater resource confidence and potential Resource and/or Reserve growth.
MPOP	Improved Stormwater Management	Perform hydrology and hydraulics study to reroute existing drainage around proposed WRSA and HLF, may decrease costs.
AOP	Waste rock storage	Should future expansion potential for the Archimedes as an open pit operation be eliminated, Archimedes could be utilized as storage for future overburden.

## **26. RECOMMENDATIONS**

### **26.1 Archimedes Underground**

#### **26.1.1 Metallurgical Testing**

- Additional metallurgical testing is recommended from initial Ruby Hill production areas to confirm metallurgical recoveries with Twin Creeks process conditions. Sample selection should be based on available mine production plans and should reflect typical stope dimensions and expected dilution. Testing should include:
  - Comminution testing to confirm throughput through the Sage Mill.
  - Pressure oxidation tests using Twin Creeks conditions.
  - CIL tests on pressure oxidation productions.
- Additional testing on Ruby Hill base metal sulfide zones to investigate flotation parameters to produce saleable lead and zinc concentrates. Detailed assays of lead and zinc concentrates are recommended to determine the extent of deleterious elements that may impair their salability.

#### **26.1.2 Permitting and Mine Development**

- Complete the EA and POO amendment for Mining the 426 deposit above the 5100 elevation.
- Initiate construction of the haulage portal and decline in Q3 2025.

#### **26.1.3 Resource Conversion and Exploration Drilling**

- Begin Resource Conversion Drilling as soon as decline advance and drill platforms become available.
- The lower leg of the decline provides a drill platform for exploration of the Blackjack deposit.

#### **26.1.4 Dewatering**

- Initiate a hydrogeologic study of the Windfall formation, drill a deep test well and complete a drawdown test.

### **26.2 Archimedes Open Pit**

#### **26.2.1 Mineral Resources**

Due to the short-term development plans for Mineral Point Open Pit and Archimedes Underground, additional work for the Archimedes Open Pit is not currently defined. Should resources be available a detailed geotechnical review of the existing pit slopes in Archimedes could help to quantify future potential. In light of current development plans on the property, this is not budgeted at this time.

### **26.3 Mineral Point Open Pit**

#### **26.3.1 Mineral Resources**

It is recommended that i-80 complete additional resource definition drilling and conduct a review of major and minor rock alteration types, and how they align with overall geology, grade domains, metallurgical recovery and bulk densities. This would also include review of the geological model, including lithological, structural, and alteration controls on overall grade distribution and metallurgical recovery. The additional drilling could be used to better define the limits of mineralization and potentially upgrades block classification.



The following points are recommended for additional evaluation:

- Review of the overall (and subsequent low and high-grade) grade distributions to better understand impacts on mineralized domains.
- Detailed review of deposit wide bulk densities to better define the bulk density for the project, including bulk densities of lithology and alteration type.
- Additional drilling to increase the resource definition and confidence, along with potential upgrading of resource classification (Inferred to Indicated, Indicated to Measured).
- Additional drilling for potential resource expansion.

Upon completion of the above items, an update to the geological model and Mineral Resource Estimate should be conducted, along with updated metallurgical recovery assumptions.

### **26.3.2 Mining and Infrastructure**

It is recommended that a site wide water balance be developed for the project to better understand water captured on-site (pit, HLP, WRSA) and evaluate the ability to utilize this water for process make-up water or to provide water for agriculture use. This would include evaluation of climate and available make-up water sources to understand total project requirements for make-up water or discharge as required. The evaluation would include a more accurate reflection of drain down for events, and potentially reduce the event pond volumes required, which could impact capital and sustaining capital costs.

There are several opportunities for infrastructure related components of the project to evaluate, including:

- Conveyor stacking versus truck stacking, reduction of capital and operating costs.
- Blasting versus crushing and screening, reduction of capital and operating costs.
- Reduced number of event ponds and utilize larger event ponds to reduce capital costs.
- Increased Heap Ultimate height of 300 feet, reduction of disturbance area as well as capital costs.
- Utilization of existing crusher to self-perform overliner manufacturing to reduce capital costs
- Evaluate all pits for potential for pit dewatering, including water quality evaluation, for ability to utilize this water as process make-up water or for agricultural use.

### **26.3.3 Metallurgical Testing**

It is recommended that additional metallurgical testing be conducted to further define the predicted recovery for the Mineral Point Open pit project. This includes evaluation of sulfide sulfur content which will assist with determining the various oxidations by lithology as well as understanding recovery and reagent consumptions. This should also be conducted for waste as there may be a need to segregate waste into PAG and NAG facilities.

Next phases of the metallurgical testing program would incorporate additional leach tests, coarse bottle rolls, and column leach tests. This testing is required to support crush size selection, recovery estimates and reagent consumptions for lime and cyanide. Testing is also required to provide comminution design data. Testing and samples to be tested include:

- Samples should focus on weakly-altered alteration of the major formations, the largest component of the Mineral Point resources. Sample selection should address spatial and grade variability within the deposit.
- Identify samples in transition areas to sulfide mineralization to establish boundary criteria such as sulfide sulfur content.
- Use of PQ diameter drilling will permit testing up to -2" crush size to evaluate the impact of crush size on recoveries.

- Evaluate the pilot leach testing of a bulk sample to determine ROM recoveries.
- Testing of composite samples representing the first year and second year mine production once optimal conditions are selected.
- Conduct column leach tests with taller columns and columns in series to replicate actual lift heights and heap leach operations.
- Conduct laboratory tests to determine the crusher work index and abrasion indices to support crushing plant design.
- Geotechnical testing, namely compacted permeability testing, of samples to determine the permeability and stacking characteristics of the mineralized material.
- ABA testing of leach residue under conditions to support environmental permitting.

Additional considerations include metallurgical and geotechnical testing which will further the understanding of the ore's clay content. This would include particle size distribution analysis, Atterberg limits, plasticity index, by ore type. This would also be coupled with compacted permeability testing to understand long term effects of loading and stacking. It is also recommended that ore decrepitation testing be conducted. Additional evaluation of the outcomes of this testing will verify the proposed application rate, leach cycle, and stack height for the various oxidations and lithologies based on permeability and agglomeration requirements.

It is also recommended that additional testing of proposed overliner material be conducted to evaluate screening requirements as well as stability for geotechnical design. This could also lead to a reduction in the overliner depth requirement, decreasing capital costs for the project.

Additional test work for recovery potential of the relocated HL material from historic operations should be conducted to potentially include revenue from this material.

The program has an estimated cost of \$600,000 (excluding drilling costs) based on current conditions.

## **26.4 Work Program**

### **26.4.1 Archimedes Underground**

The work program outlined in Table 26-1 will advance the 426 deposit to production within two years. Project risks are manageable, and opportunities exist to enhance the project economics.

**Table 26-1: Archimedes Underground Work Program**

<b>Description</b>	<b>2025</b>	<b>2026</b>	<b>Estimated Costs (US\$M)</b>
Portal Construction	0.1	0.1	0.2
Mine Development	7.8	21.0	28.8
Resource Conversion Drilling	2.1	-	2.1
Dewatering Well and Hydrogeologic Study	3.9	-	3.9
Environmental, Metallurgical Testing and Feasibility Study	0.5	2.0	2.5
Ventilation and Electrical	0.2	2.7	2.9
Project Administration	5.0	0.6	5.6
Contingency	2.9	4.5	7.4
<b>Total</b>	<b>22.5</b>	<b>30.8</b>	<b>53.3</b>

### 26.4.2 Archimedes Open Pit

Due to the short-term development plans for Mineral Point Open Pit and Archimedes Underground, additional work for the Archimedes Open Pit is not currently recommended.

### 26.4.3 Mineral Point Open Pit

The work program outlined in Table 26-2 will advance the Mineral Point Open Pit project to a Pre-Feasibility Study (PFS).

#### 26.4.3.1 Phase 1

A two-phase work program is recommended. The focus of the Phase 1 work program will be additional drilling to obtain new sample material for metallurgical test work, hydro and geotechnical studies. This will include metallurgical test work of sufficient variability samples to support overall recovery assumption prior to moving to Phase 2. The additional drilling will also be used for subsequent resource definition, and potential resource classification upgrade and expansion. Based on the results of Phase 1, Phase 2 may be warranted. Additional metallurgical test work and other studies may be needed to further de-risk the Project.

#### 26.4.3.2 Phase 2

The focus of the Phase 2 work program will be additional drilling for resource definition and expansion; and will include additional metallurgical test work to refine the process parameters. The Phase 2 drilling will be designed for resource conversion and growth, with the objective of converting Inferred Mineral Resources to Indicated Mineral Resources, as well as converting Indicated Mineral Resources to Measured Mineral Resources. The additional drilling and potential upgrade of Inferred Mineral Resources to Indicated Mineral Resources may lead to Mineral Reserves.

**Table 26-2: Mineral Point Work Program**

Description	Estimated Costs (US\$M)
<b>Phase 1</b>	
Additional Drilling for Metallurgical, Hydro and Geotechnical Test Work	\$ 3.30
Metallurgical Test Work	\$ 0.25
Contingency	\$ 0.70
<b>Phase 1 Total</b>	<b>\$ 4.25</b>
<b>Phase 2</b>	
Resource Definition & Expansion Drilling	\$ 15.0
Metallurgical Test Work	\$ 0.20
Contingency	\$ 1.00
<b>Phase 2 Total</b>	<b>\$ 16.20</b>

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**28. CERTIFICATES OF QUALIFIED PERSONS**



**CERTIFICATE OF QUALIFIED PERSON****Aaron Amoroso, MMSA QP**

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This certificate applies to the report entitled: "Preliminary Economic Assessment of the i-80 Gold Corp. Ruby Hill Project, Eureka County Nevada" (the "Technical Report"), effective date December 31, 2025.

I, **Aaron Amoroso**, do hereby certify that:

- 1) I am a Senior Resource Geologist for Forte Dynamics, Inc., with a business address of 120 Commerce Drive, Units 3-4, Fort Collins, CO 80524.
- 2) I graduated with a Bachelor of Arts in Geology in 2006 from the University of Minnesota in Minneapolis, MN. I have worked as a geologist for over 17 years with specific expertise in geology and mineral resource estimation. I am a QP member in Geology and Ore Reserves with the Mining & Metallurgical Society of America (MMSA 01548QP).
- 3) 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" within the meaning of NI 43-101.
- 4) I personally inspected the property that is a subject of this Preliminary Economic Assessment in January 2025.
- 5) I am the QP responsible for Sections 1.5.2, 1.5.3, 1.8.2.1, 1.8.3.1, 1.9.2, 2, 3, 14.3, 14.4, 24, 25.1, 25.1.2.1, 25.1.3.1, 25.2, 26.2.1, 26.3.1, 26.4.2, 26.4.3, 27, and a contributor to the overall content of this report.
- 6) I am independent of the issuer, i-80 Gold Corp., according to Section 1.5 of NI 43-101.
- 7) I have had no prior involvement with the property that is the subject of the Technical Report.
- 8) I have read NI 43-101, Form 43-101F1-Technical Report, 43-101 CP-Standards of Disclosure for Mineral Projects, and confirm that the Technical Report has been prepared in compliance with such instrument, form, and companion policy.
- 9) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the portions of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 10) I consent to the filing of the Technical Report with any securities regulatory authority, stock exchange and other regulatory authority and any publications by them, including electronic publication in the public company files on their websites accessible by the public.

**Dated this 31st day of March 2025,**

*//s// Aaron Amoroso*

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Aaron Amoroso, MMSA QP

**CERTIFICATE OF QUALIFIED PERSON****Brendan Fetter, P.E., SME-RM**

Principal Engineer - Forte Dynamics, Inc.

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This certificate applies to the report entitled: "Preliminary Economic Assessment of the i-80 Gold Corp. Ruby Hill Project, Eureka County Nevada" (the "Technical Report"), effective date December 31, 2025.

I, **Brendan Fetter**, do hereby certify that:

- 1) I am a Mineral Processing Engineer for Forte Dynamics, Inc., with a business address of 120 Commerce Drive, Units 3-4, Fort Collins, CO 80524.
- 2) I graduated with two Bachelor of Science degrees in Civil and Mechanical Engineering in 2013 from the Colorado School of Mines in Golden, CO. I have worked in the mining industry for 12 years with specific expertise in mineral processing, metallurgical evaluations, and financial evaluations. I am a Registered Member of the Society of Mining Engineers, and a Professional Engineer licensed in Colorado, Nevada, and Idaho.
- 3) 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" within the meaning of NI 43-101.
- 4) I am the QP responsible for Sections 1.8.3.4, 1.9.3.3, 17.3, 25.1.3.4, 25.2, 26.3.3, and a contributor to the overall content of this report.
- 5) I am independent of the issuer, i-80 Gold Corp., according to Section 1.5 of NI 43-101.
- 6) I have had no prior involvement with the property that is the subject of the Technical Report.
- 7) I have read NI 43-101, Form 43-101F1-Technical Report, 43-101 CP-Standards of Disclosure for Mineral Projects, and confirm that the Technical Report has been prepared in compliance with such instrument, form, and companion policy.
- 8) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the portions of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 9) I consent to the filing of the Technical Report with any securities regulatory authority, stock exchange and other regulatory authority and any publications by them, including electronic publication in the public company files on their websites accessible by the public.

**Dated this 31st day of March 2025,**

*//s// Brendan Fetter*

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Brendan Fetter, P.E., SME-RM

**CERTIFICATE OF QUALIFIED PERSON****Jonathan R. Heiner, P.E., SME-RM**

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This certificate applies to the report entitled: "Preliminary Economic Assessment of the i-80 Gold Corp. Ruby Hill Project, Eureka County Nevada" (the "Technical Report"), effective date December 31, 2025.

I, **Jonathan R. Heiner**, do hereby certify that:

- 1) I am the Director of Mining for Forte Dynamics, Inc., with a business address of 120 Commerce Drive, Units 3-4, Fort Collins, CO 80524.
- 2) I graduated with a Bachelor of Science in Mining Engineering in 2009 from the University of Utah in Salt Lake City UT. and with a Professional Masters in Explosive Engineering in 2018 from Missouri Science and Technical Institute in Rolla MO. I have worked as a mining engineer for 15 years with specific expertise in open pit design and scheduling and blasting. I am a Registered Member of the Society of Mining Engineers, and a Professional Engineer licensed in Utah USA.
- 3) 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" within the meaning of NI 43-101.
- 4) I personally inspected the property that is a subject of this Preliminary Economic Assessment in January 2025.
- 5) I am the QP responsible for Sections 1.6.2, 1.6.3, 1.7.2, 1.8.3.2, 1.8.3.5, 1.9.3.2, 2, 3, 15, 16.2, 16.3, 18.2, 21.2, 22.2, 24, 25.1.3.2, 25.1.3.5, 25.2, 26.3.2, 27, and a contributor to the overall content of this report.
- 6) I am independent of the issuer, i-80 Gold Corp., according to Section 1.5 of NI 43-101.
- 7) I have had no prior involvement with the property that is the subject of the Technical Report.
- 8) I have read NI 43-101, Form 43-101F1-Technical Report, 43-101 CP-Standards of Disclosure for Mineral Projects, and confirm that the Technical Report has been prepared in compliance with such instrument, form, and companion policy.
- 9) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the portions of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 10) I consent to the filing of the Technical Report with any securities regulatory authority, stock exchange and other regulatory authority and any publications by them, including electronic publication in the public company files on their websites accessible by the public.

**Dated this 31st day of March 2025,**

*//s// Jonathan R. Heiner*

---

Jonathan R. Heiner, P.E., SME-RM

# *Practical Mining LLC*

*Mineral Resource Professionals*



## **CERTIFICATE of QUALIFIED PERSON**

Re: *Preliminary Economic Assessment of the i-80 Gold Corp. Ruby Hill Project, Eureka County Nevada*, with an effective date of December 31, 2024 (the “Technical Report”):

I, Dagny Odell, P.E., do hereby certify that:

As of March 31, 2025, I am a consulting mining engineer at:  
Practical Mining LLC  
495 Idaho Street, Suite 205  
Elko, Nevada 89801  
775-345-3718

- 1) I am a Registered Professional Mining Engineer in the State of Nevada (# 13708), and a Registered Member (#2402150) of the Society for Mining, Metallurgy and Exploration (SME).
- 2) I graduated from The Colorado School of Mines, Golden, Colorado with a Bachelor of Science Degree in Mining Engineering in 1985. I have practiced my profession continuously since 1985. Since 1985, I have held the positions of mine engineer, chief engineer, mine superintendent, technical services manager and mine manager at underground and surface metal and coal mines in the western United States. The past 20 years, I have worked as a self-employed mining consultant with clients located in North America, Asia and Africa. My responsibilities have included the preparation of detailed mine plans, geotechnical engineering, reserve and resource estimation, preparation of capital and operating budgets and the economic evaluation of mineral deposits.
- 3) 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 experience and qualifications and good standing with proper designation within a recognized professional organization fully meet the criteria as a Qualified Person as defined under NI 43-101.
- 4) I am a contract consulting engineer for i-80 Gold Corp. and last inspected the Ruby Hill Project on July 14, 2022.
- 5) I am responsible for Sections 1.1, 1.5.1, 1.6.1, 1.7, 1.7.1, 1.8.1.1, 1.8.1.2, 1.8.1.5, 1.9.1.2, 1.9.1.3, 1.9.1.4, 1.9.4.1, 2, 3, 4.4, 4.5, 9.2, 14.1, 14.2, 15, 16.1, 18.1, 19, 20, 21.1, 22.1, 23, 24, 25.1.1.1, 25.1.1.2, 25.1.1.5, 25.2, 26.1.2, 26.1.3, 26.1.4, 26.4.1, 27, and a contributor to the overall content of this Technical Report.
- 6) I am independent of i-80 Gold Corp. within the meaning of Section 1.5 of NI 43-101.
- 7) I was paid a daily rate for consulting services performed in evaluation of the Ruby Hill Project for i-80 Gold Corp. and do not have any other interests relating to the project. I do not have any interest in adjoining properties in the Ruby Hill area.
- 8) I have read NI 43-101 and Form 43-101F1, and the sections of the Technical Report for which I am responsible have been prepared in accordance with that instrument and form.
- 9) 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 in the public company files on their websites accessible by the public, of the Technical Report.
- 10) As at the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st Day of March 2025,

//s// *Dagny Odell*

---

Dagny Odell, P.E.  
Practical Mining LLC  
[dagny@practicalmining.com](mailto:dagny@practicalmining.com)

***495 Idaho Street, Suite 205  
(775) 345-3718***

***Elko, Nevada 89801  
Fax (775) 778-9722***

# *Practical Mining LLC*

*Mineral Resource Professionals*



## **CERTIFICATE of QUALIFIED PERSON**

Re: *Preliminary Economic Assessment of the i-80 Gold Corp. Ruby Hill Project, Eureka County Nevada* with an effective date of December 31, 2024 (the “Technical Report”):

I, Laura M. Symmes, SME, do hereby certify that:

As of March 31, 2025, I am a geologist at:  
Practical Mining, LLC  
495 Idaho Street, Suite 205  
Elko, NV 89801

- 1) I am a registered member of the Society for Mining, Metallurgy & Exploration (SME) #4196936.
- 2) I graduated with a Bachelor of Science degree in Geology from Utah State University in 2003. I have worked as a geologist for a total of 21 years since my 2003 graduation from university. My experience has been focused on exploration and production of gold deposits, including planning and supervision of drill projects, generating data from drilled materials and making geologic interpretations, data organization, geologic mapping, building digital models of geologic features and mineral resources, and grade control of deposits in production.
- 3) 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 on NI 43-101.
- 4) I am a contract geologist for i-80 Gold Corp. and last inspected the Ruby Hill Project on July 14, 2022.
- 5) I am responsible for Sections 1.2, 1.3, 4.1, 4.2, 4.3, 5, 6, 7, 8, 9.1, 10, 11, and 12 of this Technical Report.
- 6) I am independent of i-80 Gold Corp. within the meaning of Section 1.5 of NI 43-101.
- 7) I was paid a daily rate for consulting services performed in evaluation of the Ruby Hill Project for i-80 Gold Corp. and do not have any other interests relating to the project. I do not have any interest in adjoining properties in the Ruby Hill area.
- 8) 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.
- 9) 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 in the public company files on their websites accessible by the public, of the Technical Report.
- 10) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31st Day of March 2025,

//s// *Laura M. Symmes*

---

Laura M. Symmes, SME  
Practical Mining LLC  
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**CERTIFICATE OF QUALIFIED PERSON**

**Tommaso Roberto Raponi, P.Eng., QP**

President - TR Raponi Consulting Ltd.

15-223 Rebecca Street

Oakville, ON L6K 3Y2

Email: [rob@trraaponiconsulting.ca](mailto:rob@trraaponiconsulting.ca)

This certificate applies to the report entitled: "Preliminary Economic Assessment of the i-80 Gold Corp. Ruby Hill Project, Eureka County Nevada", effective date December 31, 2025.

I, **Tommaso Roberto Raponi**, do hereby certify that:

- 1) I am the President of TR Raponi Consulting Ltd., with a business address of 15-223 Rebecca Street, Oakville, ON L6K 3Y2.
- 2) I graduated from the University of Toronto with a Bachelor of Applied Science degree in Geological Engineering with specialization in Mineral Processing in 1984.
- 3) I am a Professional Engineer registered with the Professional Engineers of Ontario (license No. 90225970), the Engineers and Geoscientists of British Columbia (license No. 23536), and the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (license No. L4508). I am a Professional Member (reg. No. 02641200) of the Society for Mining, Metallurgy and Exploration (SME).
- 4) I have practiced my profession continuously for over 40 years with experience in the development, design, operation and commissioning of mineral processing plants, focusing on gold projects, both domestic and internationally. My project design and development experience include the generation of capital and operating costs for mineral processing plants and associated infrastructure and financial modeling of project economics.
- 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" within the meaning of NI 43-101.
- 6) I have not visited the project site that is the subject of this report.
- 7) I am the QP responsible for Sections 1.4, 1.8.1.3, 1.8.1.4, 1.8.3.3, 1.8.3.4, 1.9.1.1, 1.9.3.3, 13, 17.1, 17.2, 25.1.1.3, 25.1.1.4, 25.1.3.3, 25.1.3.4, 25.2, 26.1.1, 26.3.3, 27, and a contributor to the overall content of this report.
- 8) I am independent of the issuer, i-80 Gold Corp., according to Section 1.5 of NI 43-101.
- 9) I have had no prior involvement with the property that is the subject of the Technical Report.
- 10) I have read NI 43-101, Form 43-101 F1 -Technical Report, 43-101 CP-Standards of Disclosure for Mineral Projects, and confirm that the Technical Report has been prepared in compliance with such instrument, form, and companion policy.
- 11) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the portions of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 12) I consent to the filing of the Technical Report with any securities regulatory authority, stock exchange and other regulatory authority and any publications by them, including electronic publication in the public company files on their websites accessible by the public.

**Dated this 31st day of March 2025,**

*//s// Tommaso Roberto Raponi*

---

Tommaso Roberto Raponi, P.Eng., QP



## APPENDIX A – SITE VISIT REPORT

**Site Visit Report**  
**Mineral Point Property, Nevada**  
**Project No. 195005**

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*Prepared by:*

**FORTE DYNAMICS, INC**  
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## Version Control

Revision	Date	Status	Prepared By	Checked By	Approved By
REV A	7-Feb-2025	Draft	J. Heiner	A. Amoroso	A. Amoroso
REV B	11-Feb-2025	Final	A. Amoroso	A. Amoroso	A. Amoroso
REV C	27-Mar-2025	Final v2	A. Amoroso	A. Amoroso	A. Amoroso

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## EXECUTIVE SUMMARY

Forte Dynamics, Inc (Forte) conducted a site visit at i-80 Gold Corp's (i-80 Gold) Ruby Hill Mine with the focus on the Mineral Point property. The date of the site visit was January 16<sup>th</sup>, 2025, and served as the required site visit for QP sign-off on the project. Jon Heiner, Director of Mining, and Aaron Amoroso, Senior Resource Geologist, with Forte, performed the site visit. The site visit was conducted as part of the Preliminary Economic Assessment (PEA) on the Mineral Point property that i-80 Gold contracted Forte to complete along with Practical Mining. Forte will complete the surface open pit work and analysis on the Mineral Point project, and Practical Mining (Practical) will complete all underground and other open pit (not Mineral Point) work and analysis on the project. Practical will act as lead author for the NI 43-101 Technical Report (TR) and S-K 1300 Technical Report Summary (TRS).



## 1. INTRODUCTION

Forte Dynamics, Inc (Forte) conducted a site visit at i-80 Gold Corp's (i-80 Gold) Ruby Hill Mine with the focus on the Mineral Point property. The date of the site visit was January 16<sup>th</sup>, 2025, and served as the required site visit for QP sign-off on the project. Jon Heiner, Director of Mining, and Aaron Amoroso, Senior Resource Geologist, with Forte, performed the site visit. The site visit was conducted as part of the Preliminary Economic Assessment (PEA) on the Mineral Point property that i-80 Gold contracted Forte to complete along with Practical Mining. Forte will complete the surface open pit work and analysis on the Mineral Point project, and Practical Mining (Practical) will complete all underground and other open pit (not Mineral Point) work and analysis on the project. Practical will act as lead author for the NI 43-101 Technical Report (TR) and S-K 1300 Technical Report Summary (TRS).

The site visit covered many topics including an office discussion of the property and project, project history, past and current infrastructure, drilling, review of the project geology and Leapfrog geological model, past and present topographic surfaces, the Wood 2021 Mineral Resource Estimate (MRE) and Forte 2024 Scoping Study (including block models), potential site locations for infrastructure and pit/s, future plans for the project, and timelines for the TR and TRS. The site visit also included a tour of the Archimedes Pits (east and west) from down inside the pits and at a lookout station from above, the service shop (truck shop) and connected warehouse, and the current core shack. No labs were visited during the site visit.

## 2. AREAS OF REVIEW

### 2.1 Office Discussion

The site visit started with an in-office meeting discussing the following topics:

- Project history
- Current project status
- Infrastructure (past, present, planned), including road issue/s
- Waste dump and heap leach pad
- Topographic surfaces
- Imagery
- Wood 2021 MRE on Mineral Point and Forte 2024 Scoping Study
- Drilling (i-80 Gold drilling and historic drilling)
- Geology and review of Leapfrog geological model
- Review of underground resources and mining
  - In conjunction with Practical
- Project timelines and deliverables (NI 43-101 TR and S-K 1300 TRS)

### 2.2 Previous Technical Reports

Recent previous technical reports on the project prepared for i-80 Gold include:

- Forte 2024 Scoping Study
- *Practical Mining 2023 updated PEA (unpublished)*
- Forte 2022 Scoping Study
- Wood 2021 MRE
- RPA 2012 Technical Report (prepared for Barrick Gold)

### 2.3 Project Location and Coordinate System

#### 2.3.1 Project Location

The Ruby Hill (Mineral Point) project is located on the Battle Mountain/Eureka gold trend approximately 2 km northwest of the small town of Eureka in Eureka County, Nevada, USA, approximately 145 km south of Elko and approximately 325 km east of Reno.<sup>1</sup>

---

<sup>1</sup> NI 43-101 Report on 2021 Ruby Hill Mineral Resource Estimate, Wood, Section 4 pp. 4-1.



**Figure 1: Project Location Map**

(Source: 2021 Ruby Hill Mineral Resource Estimate, Wood)

### 2.3.2 Coordinate System

The project has used a local grid system referred to as the Ruby Hill Mine Grid, which uses the Locan Shaft as its origin. The Ruby Hill Mine Grid is in feet (ft).

The Locan Shaft origin point of 0,0 ft was modified to 10000,110000 to avoid any negative numbers.

The project centroid location (derived from the geological model) is 9495, 115158 in the Ruby Hill Mine Grid, and 1925147, 14352286 in UTM NAD83 Z11N.

Ruby Hill Mining Company made an update to the Ruby Hill Mine Grid in 2017, applying NAD83\_2011 Geodetic Datum (Lat/Long).<sup>2</sup>

<sup>2</sup> NI 43-101 Report on 2021 Ruby Hill Mineral Resource Estimate, Wood, Section 9.1 pp. 9-1.

## 2.4 Drilling

Since acquiring the project, i-80 Gold has completed drilling of 184 drill holes from 2021-2024. None of the drill holes from 2021-2024 drilling campaigns specifically targeting the Mineral Point deposit; however, approximately seven (7) drill holes intersected the Mineral Point deposit, as part of a drilling program designed to target the CRD style mineralization below and/or adjacent to the Mineral Point deposit.

### 2.4.1 Mineral Point Trend

The Mineral Point deposit is the largest precious metal Mineral Resource in the i-80 portfolio. It consists of gold and silver mineralization hosted by the Cambrian Hamburg dolomite in the nose of a broad anticline that plunges gently to the north-northwest and is bound to the east by the Holly Fault and to the west by the Spring Valley Fault. The Mineral Point deposit is 10,000 ft long, 2,400 ft wide and up to 500 ft thick. The top of the Mineral Point deposit is near surface at its south end and 500 ft below surface at its north end. Majority of the mineralization in the Mineral Point Trend deposit is oxidized and has a high ratio of cyanide soluble to fire assay total gold. This deposit has not been mined and is the largest precious metal Mineral Resource in the Ruby Hill Project.<sup>3</sup>

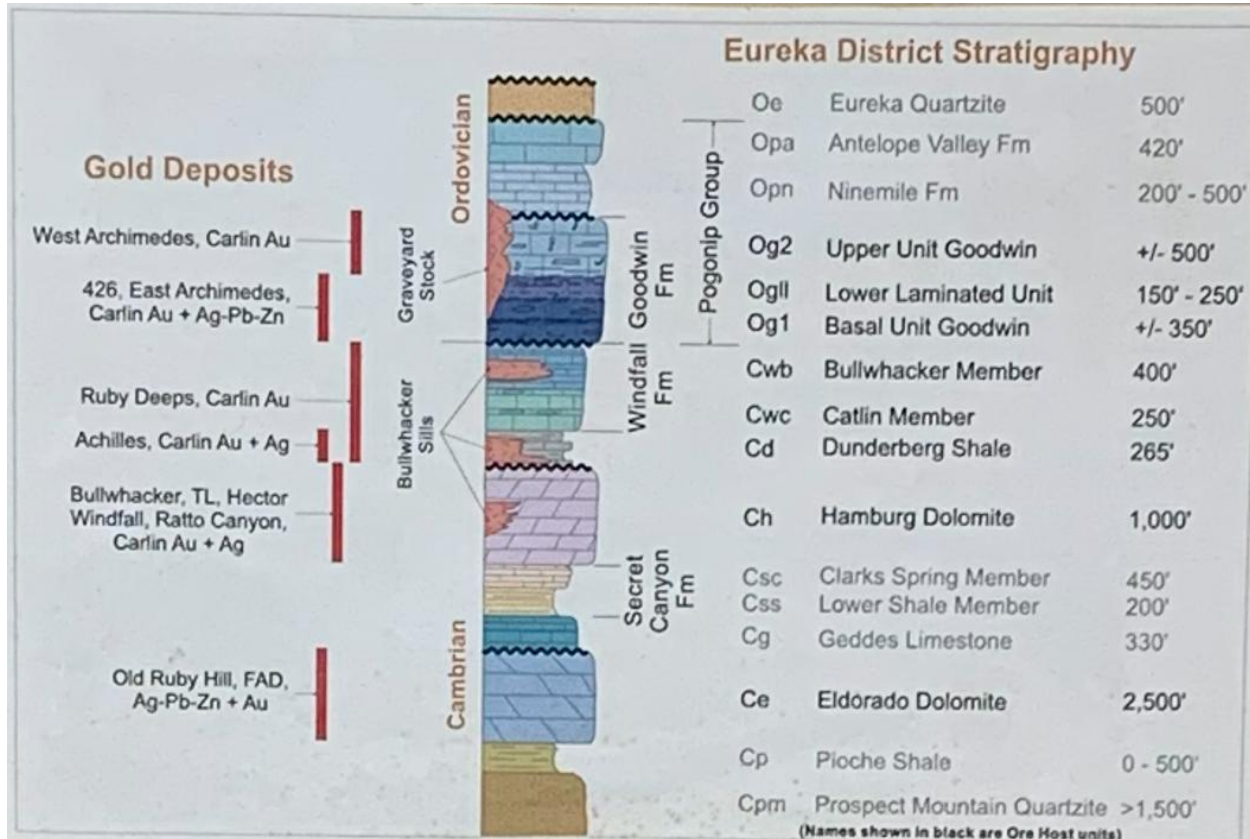
### 2.4.2 Core Shack and Drill Core Review

After the joint tour of the pits and surface infrastructure, Tyler Hill (i-80 Gold) accompanied Aaron Amoroso (Forte) around the project site with a focus on the geology and drilling. The first stop on the tour was a visit to the core shack to review relevant drill core to the Mineral Point project resource. The core shack was very nice looking from the outside and inside, clean, very well lit from artificial light, and also heated for comfortable use during winter in Nevada. There were two (2) large tables capable of holding many core boxes for logging with sufficient indoor artificial lighting. Per Aaron's request, Tyler pulled out portions of three (3) drill holes from i-80 Gold drilling between 2021-2024 that was relevant to the existing Mineral Point resource and located in the south portion of the deposit. The drill holes reviewed were BRH-166C, BRH-184C and BRH-517C (holes drilled by Barrick). Only portions of the drill core near the mineralized zones were pulled out for review, as the mineralization of the available drill holes tends to start at depth (~500ft at depth).

Aaron reviewed the core library and stratigraphic column, focusing on the geology of the mineralized zone for Mineral Point, which included the hanging wall of Dunderberg Shale, then entering the Hamburg Dolomite which hosts the majority of the mineralization with a semi-hard boundary to the footwall Secret Canyon Formation. Tyler stated that the higher grades in the dolomite came via a Cretaceous Intrusion (KI) unit. Aaron reviewed a number of occurrences noting the logged alteration, decarbonation, silicification and brecciation, which were consistent with the Wood technical report and core photos. Some zones of mineralization were heavily fractured and/or altered, and extremely fine grained, resembling a fine-grained beach sand.

---

<sup>3</sup> NI 43-101 Report on 2021 Ruby Hill Mineral Resource Estimate, Wood, Section 1.5.1 pp. 1-4.



**Figure 2: Eureka District Stratigraphy**

(Source: Photo taken by Forte staff from inside the core shack)

Aaron specifically reviewed the higher-grade intervals available in the pulled core from the three (3) drill holes. It should be noted that a number of the higher/highest grade samples had been fully removed for previous metallurgical test work and thus not available for review or check assay analysis. Some higher-grade remaining intervals had elevated amounts of galena along with elevated levels of oxidation and darker coloring, and higher traces of visible sulfides. Tyler made the comment that the style of mineralization resembles carbonate replacement deposit (CRD) mineralization. Aaron then also reviewed the footwall Secret Canyon Formation (shale), which carries almost no elevated Au grades.

Aaron also completed a general review of the different lithological units, dominant minerals, alteration types, contacts (lithology and mineralized), common structures observed in the core, mineralized zones defined from assays, and mineralization styles.

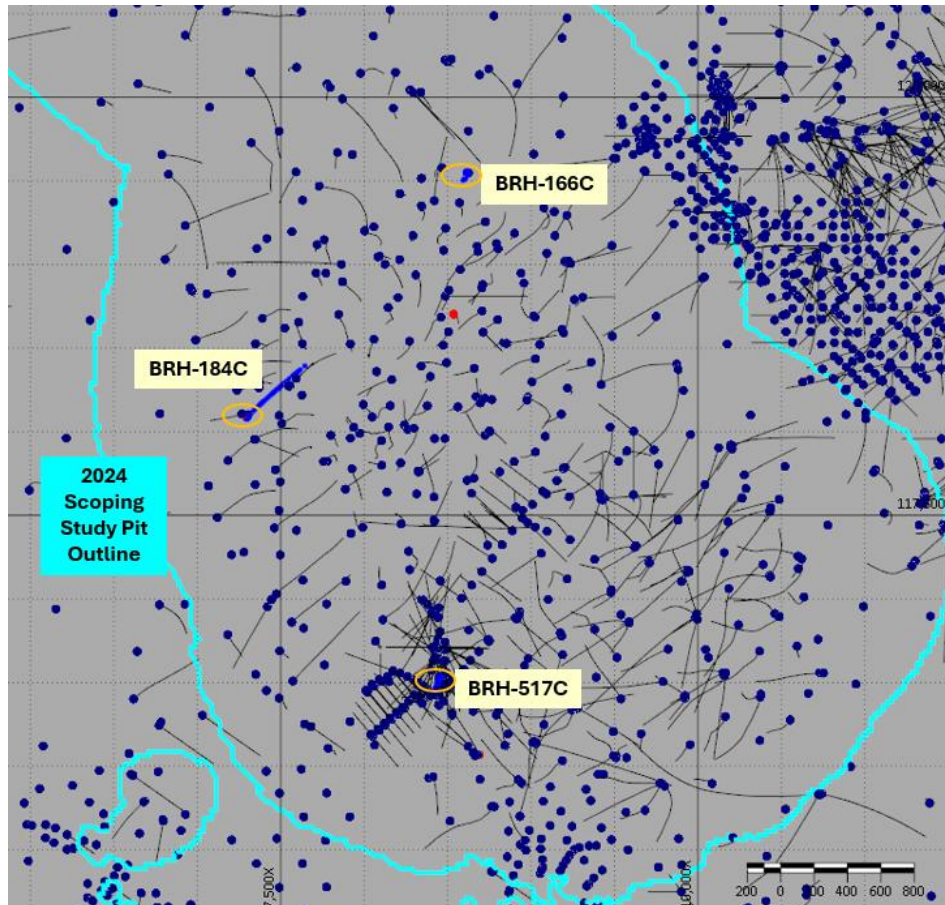




**Figure 3: Inside of Core Shack with Drill Core Boxes on Tables for Review**

(Source: Photo taken by Forte staff from inside the core shack)





**Figure 4: Location of Reviewed Core Drill Holes (South Part of Deposit, Plan View)**

(Source: Forte Dynamics, Inc. 2024)



**Figure 5: Drill Core Example from Drill Hole BRH-517C**

(Source: Photo taken by Forte staff from inside the core shack)

### 2.4.3 Core Storage

The core is stored outside on the north waste dump, on pallets, under a weather resistant tarp which is strapped down.

The coarse rejects are stored in multiple locations. Historic rejects are stored with core on-site at the Project in barrels. More recent drilling rejects are stored in barrels and/or on pallets under a tarp at the Lone Tree project (Nevada).

Pulps are stored at an indoor warehouse at the Lone Tree project.





**Figure 6: Core Storage On-Site**

(Source: Forte Dynamics, Inc. 2024)

## 2.4.4 Sampling Procedures

### 2.4.4.1 RC Drilling

Sample intervals from the RC drill holes were collected in five (5) feet (ft) intervals, where samples were inserted into sequentially numbered sample bags by the drilling crew with the outside of the bags marked with the drill hole and sample number. Samples were allowed to drain/dry at the sample site and were then reviewed by the geologist in charge of the program to ensure accurate numbering/sequencing of the samples. Once drained and/or dried, the samples were re-located from the drill site to the shipment staging area, where personnel relabeled the bags containing the duplicate samples by assigning the correct sequential number. The samples were then loaded into 4 x 4 x 3-foot wooden or plastic crates in preparation for pickup by the assay lab.

### 2.4.4.2 Diamond Drilling

Sample intervals are chosen by the geologist based on detailed geologic observations. Sample intervals may range from ten feet to a minimum of one foot, with a maximum of five feet in areas of interest. The geologist marks sample intervals on the core and staples a sample ticket double-stub in the core box at the end of the sample interval. Sample IDs are automatically generated in AcQuire, with a prefix that designates the project. Sample tickets are then printed out with sample IDs. Logged core boxes are photographed with

a high-resolution camera while wet and then stacked on a wooden pallet prior to being transported to the Lone Tree mine site for cutting of the core and shipping to an assay lab.

The geologist prints a cut-sheet from AcQuire software with the sample numbers and intervals and provides a cut-sheet to the geotechnician. The geotechnician puts one sample bag in a five-gallon plastic bucket on the floor next to the core saw. The core is sawed in half, the left piece is placed into the sample bag, and the right piece goes back into the core box. In the case of broken core, the sampler does their best to divide the sample equally. Once the interval is split, the geotechnician takes one part of the double sample stub from the core box and staples it to the sample bag. The remaining sample stub remains in the core box for future reference. The geotechnician then ties the sample bag shut and marks the sample off the cut-sheet. The tied sample bags are stored in a sample bin for the lab driver to pick up.

Drill hole status, such as splitting, sample dispatch date, batch ID, and dates of both preliminary and final results, are tracked in AcQuire as well as on ALS Mineral's online portal.

Samples were submitted to three (3) different labs – ALS Minerals (ALS), American Assay Labs (AAL) and Paragon Geochemical Assay Laboratories (PAL) – all located in Sparks, NV.

## **2.4.5 QA/QC Procedures and Protocols**

### **2.4.5.1 RC Drilling**

Blanks and standards were inserted into the sample stream for every tenth sample. Duplicate samples were collected every 100 ft. i-80 Gold targets a ~20% QC sample insertion rate for their drilling and sampling programs.

Note, there was no active drilling at the time of the site visit, with the last drilling completed by i-80 Gold from early 2024. During the office discussion, Aaron discussed the QA/QC procedures and protocols used by i-80 Gold for their drilling since owning the project. Their QAQC program includes standards, duplicates and blanks, trying to achieve a ~20% QC insertion rate. Based on the discussion, it sounds like i-80 Gold is employing a robust QAQC program that follows industry best practices.

### **2.4.5.2 Diamond Drilling**

Similar QA/QC procedures and protocols used for the RC drilling were used for the diamond drilling.

The geologist assigns QAQC samples while logging targeting 5% blanks, 5% standards, and 2.5% field duplicates. The geologist attempts to place blanks after high-grade samples where available. The geologist also attempts to place standards proximal to mineralized zones with standard gold values approximately that of the mineralized zone gold values. However, since the gold value of the rock cannot be known prior to assay, the standard value may not always compare well to the mineralized zone. The geotechnician places the blanks and duplicates with their sample tags in the sample bin with the regular core samples. The standards are placed in a small sample bag with the corresponding sample ID. The standards corresponding to a single hole are then placed in a larger bag prior to shipment to the assay lab.

The geologist completes a sample submittal sheet and randomly designates 2.5% of samples to have a prep duplicate prepared by the assay lab as an additional QAQC measure. The assay lab driver picks up the samples from the Lone Tree core shed and is given a chain of custody form with sample ID's for the shipment. An electronic copy of the sample submittal form is emailed to the assay lab.

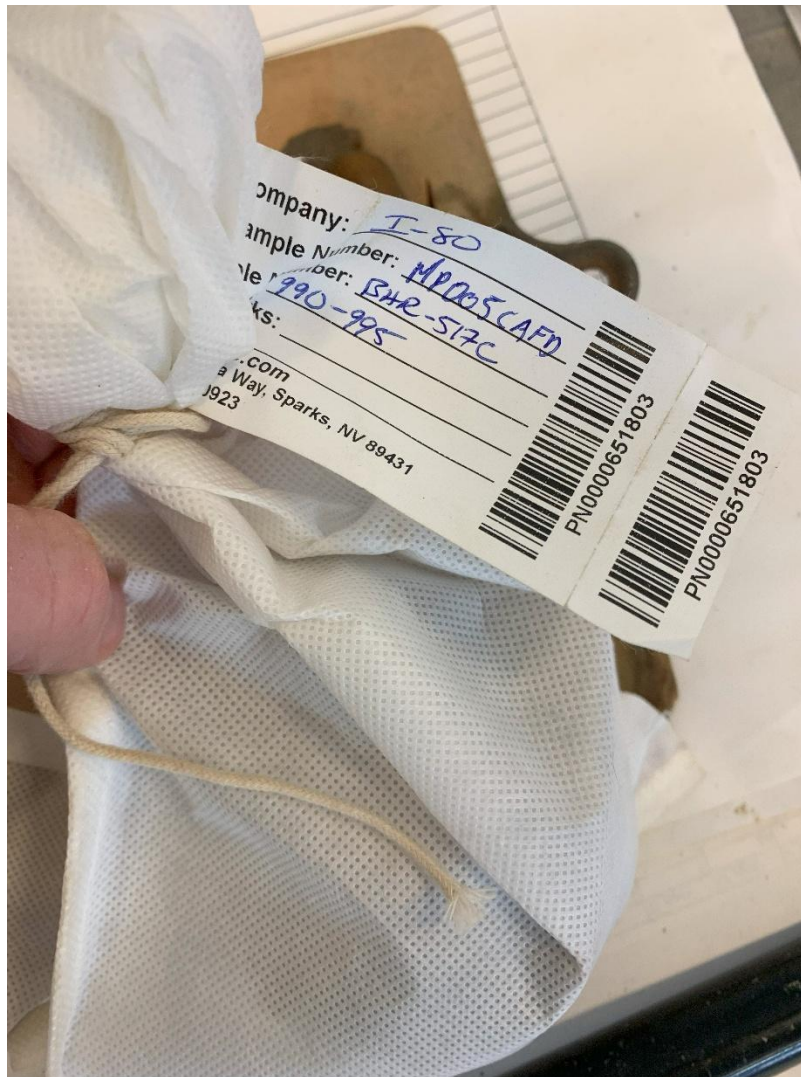
## **2.4.6 Specific Gravity**

SG measurements were taken by i-80 Gold staff internally. No samples for the Mineral Point deposit have been sent to a commercial lab for analysis and verification of internal measurements.



## 2.4.7 Check Assays

As part of the data verification process, Aaron collected five (5) samples from three (3) different drill holes to submit to a commercial lab for check assay analysis. As noted above, almost all of the higher-grade samples had been removed for previous met testing analysis. Thus, Aaron had to take the next best samples that had somewhat elevated grades. Table 1 shows the check assays samples selected for umpire lab analysis. The sample were collected by Aaron and submitted to ALS in Sparks, NV by Tyler. The assay results certificate was requested to be sent directly to Aaron from ALS to ensure chain of custody was followed the best that it could be given the circumstances.



**Figure 7: Check Assay Sample from Hole BRH-517C**

(Source: Photo taken by Forte staff from inside the core shack)

Table 1: Mineral Point Check Assay Results

Mineral Point Check Assays									
Lab Sample #	Field Sample #	Drill Hole	Interval (ft)	Check Assay Au g/t	Database Assay Au g/t	Check Assay Ag g/t	Database Assay Ag g/t	Difference Au	Difference Ag
RE25015355M001	MP001-CAFD	BRH-166C	635-640	0.095	0.146	2.3	3.0	0.65	0.76
RE25015355M002	MP002-CAFD	BRH-184C	840-845	0.043	0.666	1.8	7.0	0.06	0.26
RE25015355M003	MP003-CAFD	BRH-184C	930-935	0.234	1.250	1.9	41.0	0.19	0.05
RE25015355M004	MP004-CAFD	BRH-517C	685-690	14.350	12.400	235.0	111.0	1.16	2.12
RE25015355M005	MP005-CAFD	BRH-517C	990-995	1.080	1.135	135.0	169.0	0.95	0.80

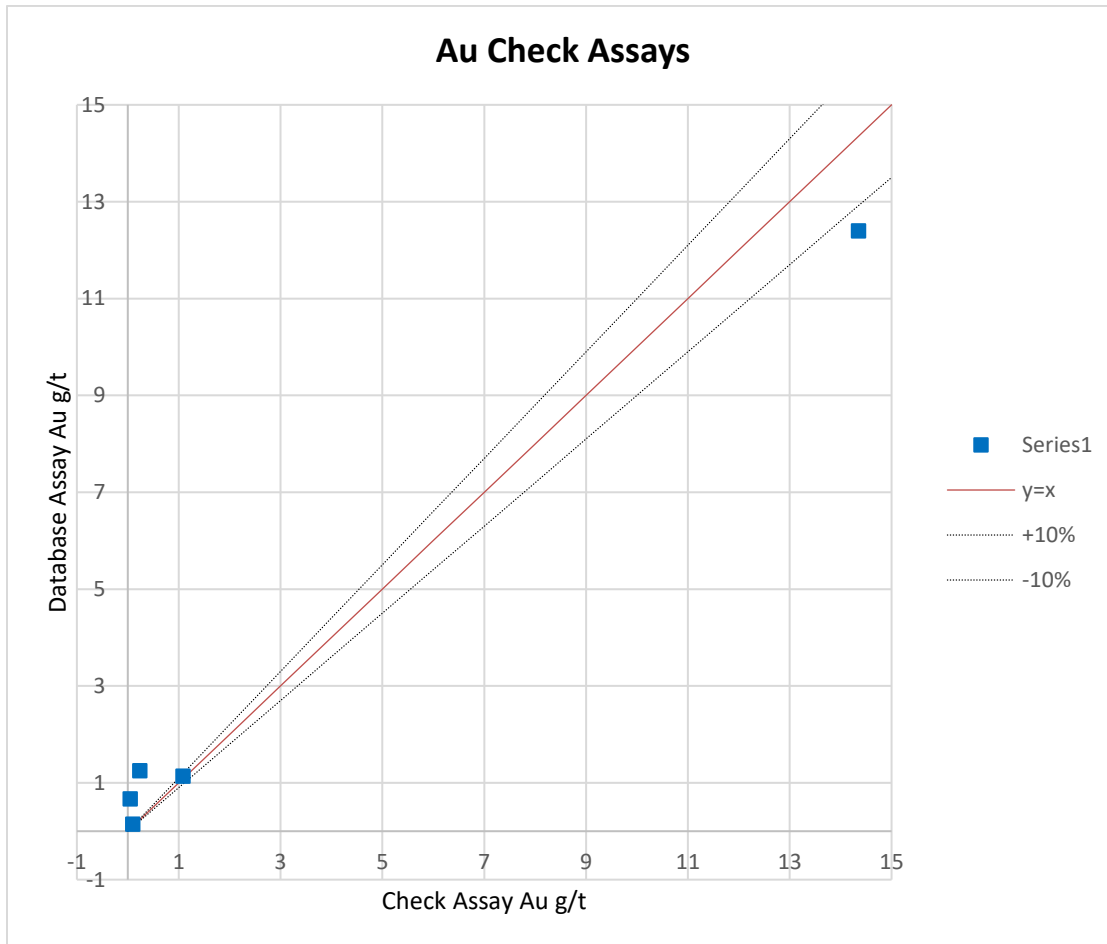
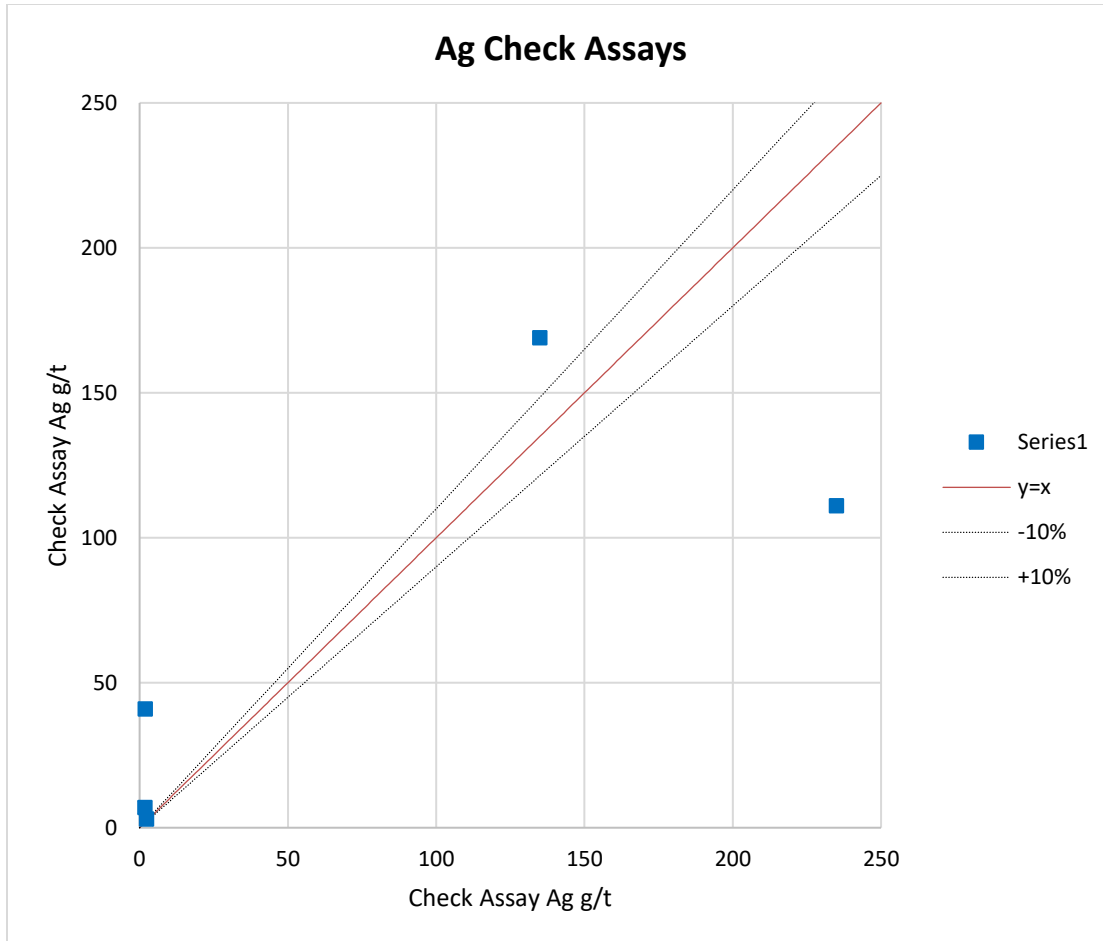


Figure 8: Check Assay Results for Au

(Source: Forte Dynamics, Inc. 2024)





**Figure 9: Check Assay Results for Ag**

(Source: Forte Dynamics, Inc. 2024)

#### 2.4.8 Collar Check Field Inspection

Aaron did a modified field inspection reviewing existing collar locations near the main infrastructure. This was done in part due to time constraints as well as the snow that fell prior to the site visit, which made finding some existing collar locations difficult. Not many existing collar locations had casing sticking out from the ground. Tyler asked another i-80 geologist to go to the field earlier in the day to find/flag some collar locations for the field inspection. Tyler and Aaron were able to find a few collars to take a waypoint using a handheld Garmin GPS.



**Figure 10: Field Inspection Searching for Collar Locations Covered in Snow**

(Source: Photo taken by Forte staff on the south side of the Mineral Point deposit)

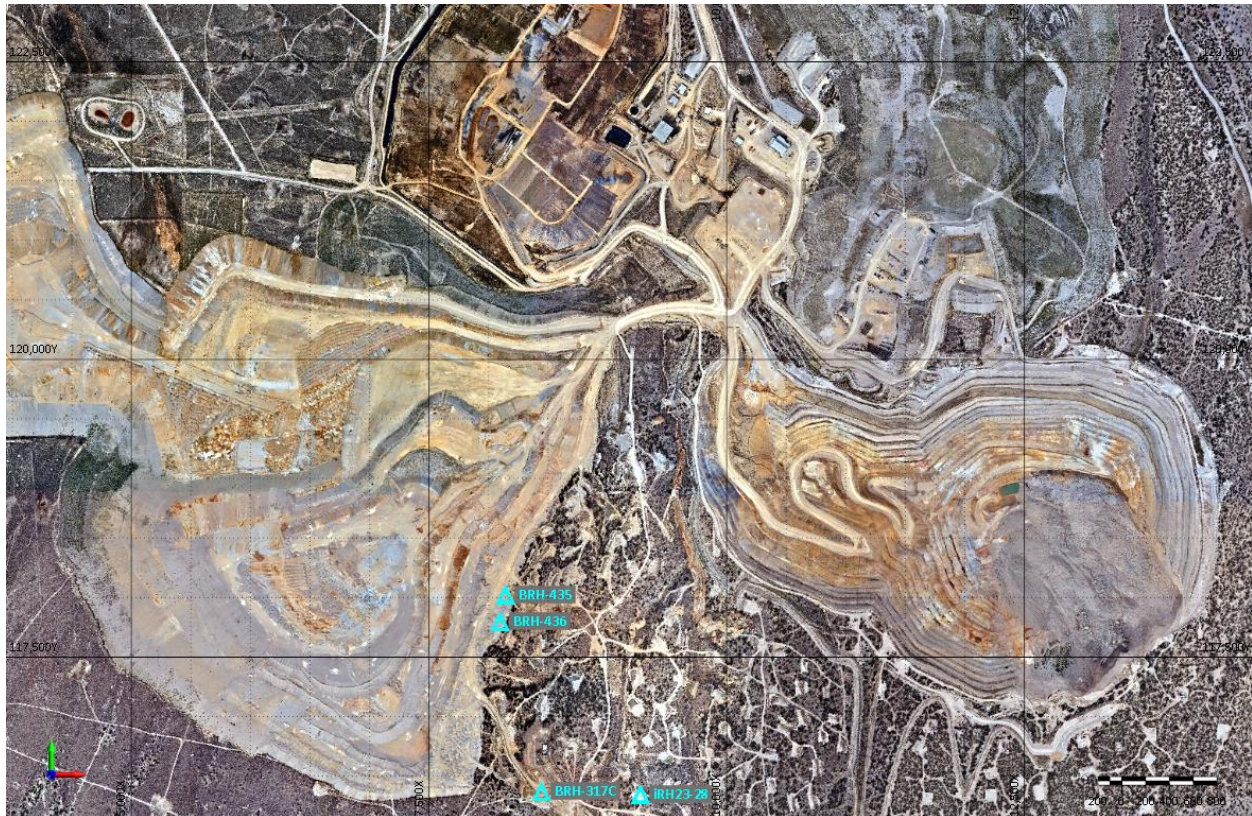


**Figure 11: Collar Location of Drill Hole with Brown Top Casing and Piezometer**

(Source: Photo taken by Forte staff on the south side of the Mineral Point deposit)

Of the five (5) collars checked with the handheld GPS, one was a water well and was not in the drilling database (PW5, which is an active dewatering well). The other four (4) collars checked for X and Y location were all within the acceptable difference range when using a handheld GPS. Note that drill hole BRH-317C had a bigger difference in X and Y to the database compared to other checked collars, but due to snow cover, we were unable to find the exact collar and had to estimate its location. It should also be noted that the Z elevation in the database was slightly different than the elevations taken from the current topo surface. These differences are most likely due to different survey methods over the life of the database/s from different owners and drilling campaigns, and/or perhaps elevations taken from a different topo surface than was used for the collar verification. Regardless, the difference in elevation was minimal and within tolerance.





**Figure 12: Aerial Photo Image Showing Garmin Handheld GPS Waypoints of Collar Check Locations**

(Source: Forte Dynamics, Inc. 2024)

**Table 2: Field Collar Location Check**

#	Drill Hole ID	Field Inspection Collar Check						Diff Subtracted By (ft)		
		Check X	Check Y	Topo Elev	Database X	Database Y	Database Elev	Diff X	Diff Y	Diff Z
1	BRH-317C*	8,445.00	116,374.00	6,502.98	8,449.54	116,364.24	6,502.38	4.54	(9.76)	(0.60)
2	iRH23-28	9,275.00	116,351.00	6,560.91	9,277.66	116,347.45	6,559.12	2.66	(3.55)	(1.79)
3	BRH-436	8,099.00	117,800.00	6,407.50	8,105.20	117,799.31	6,409.74	6.20	(0.69)	2.23
5	BRH-435	8,143.00	118,028.00	6,410.00	8,146.05	118,028.09	6,409.02	3.05	0.09	(0.98)

## 2.5 Geology

Aaron discussed the project and deposit geology with Tyler in detail in the office and out in the field, including the core shack while reviewing the three (3) core holes pulled for review. Aaron also spent time going through and reviewing the geological model, created by i-80 Gold using Leapfrog software. The geological model appears to be reasonable and makes sense geologically when compared to the drill core, mineralization style and observed macro and micro geological and structural data available. Tyler sent Aaron a copy of the current Leapfrog project which includes the geological model. The main geological units (Hamburg Dolomite) will be reviewed along the modeled mineralized domain zones.

## 2.6 Topography

The current topo surface is believed to be from 2021, which topo Jon used for his work in the 2022 and 2024 Forte Scoping Studies.

i-80 Gold completed a LiDAR survey in 2023 and generated a topo surface.

## 2.7 Resource Block Model

### 2.7.1 Summary of Wood Block Models

Wood (Wood) completed an MRE in 2021 for the Ruby Hill Complex which included the Mineral Point project resource. The MRE used a probability assigned constrained kriging (PACK) methodology for the resource estimate using thresholds of 1.0 g/t Au and 40 g/t Ag to define low-grade and high-grade domains (composites), and an estimated indicator probability of 0.37 to define blocks for the high-grade domain (ore-waste definition).

The Two (2) Wood block models were created in Vulcan and named Vulcan block models 252525\_global\_simplified.bmf and 252525\_expanded\_11dec.bmf.

### 2.7.2 Summary of Forte Block Model

Forte then completed a scoping study on Mineral Point in 2022 where the Wood 2021 resource was reviewed/audited and slightly modified by Larry Snider. The modifications included combining certain data/fields from the two (2) above Wood block models (Vulcan block models 252525\_global\_simplified.bmf and 252525\_expanded\_11dec.bmf) into a single updated block model (expanded).

Updates were made to selected fields for oxide-transition-sulfide definition, re-flagging (block coding) of the lithology model using a version of the Wood 3-D wireframe lithological model as well as assigning density values based on the lithology, updates to tonnage factor values (density values in imperial units appeared to be inconsistent along with the conversion from imperial tonnage factors), as well as updating the block model for the updated 2021 topo surface and waste dumps.<sup>4</sup> The resulting updated Vulcan block model was named 252525\_expanded\_11dec\_forte10-17-22.bmf.

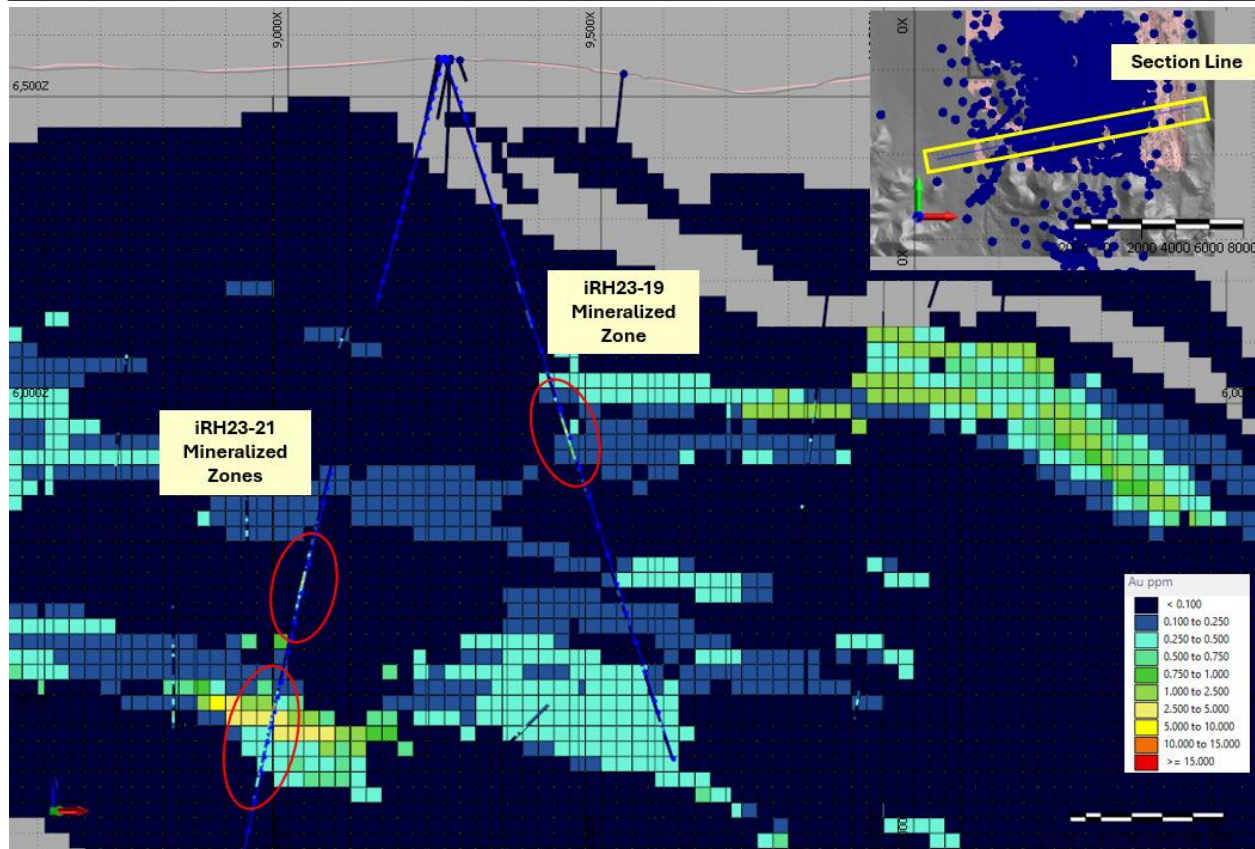
### 2.7.3 i-80 Gold Drilling

Although no i-80 Gold drill holes from the 2021-2024 drilling campaigns specifically targeted the Mineral Point resource, seven (7) drill holes intersected the resource. Figure 13 shows an orthogonal section of the current block model (50 ft section window) from the south part of the deposit with two (2) 2023 i-80 Gold drill holes and associated mineralized zones. In this section, one (1) of the mineralized zones appears to reasonably follow the current estimated block grades, where the other two (2) mineralized zones would potentially contribute a positive impact to an updated mineral resource estimate.

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<sup>4</sup> Technical Memorandum on Open Pit Mineral Reserves Parameters, Forte Dynamics, Dec. 2022, pp. 2-3.





**Figure 13: Orthogonal Section of Existing Block Model (Forte-LS 2022) with 2023 i-80 Gold Drill Holes (section width +/- 25 ft)**

(Source: Forte Dynamics, Inc. 2024)

## 2.8 Archimedes Pit

The Archimedes pit has a large alluvium failure in the southeast corner of the pit, as seen in Figure . The pit is blocked off after the switchbacks on the northwest corner of the pit as the ramp leads into the main pit area. At this location, i-80 Gold is preparing two portals to start the Ruby Deeps underground project. They are currently scaling the wall and hoping to start development in late Q1 or early Q2 2025. Practical Mining is currently working on the two surface deposits (West and East Archimedes) in the Archimedes pit for the upcoming PEA.





**Figure 14: Archimedes Pit Looking Southeast Towards the Failure**

(Source: Forte Dynamics photo looking southeast over Archimedes pit. Underground portals are directly below where the photo was taken)

## 2.9 Infrastructure

### 2.9.1 Current

After viewing the Archimedes pits the first stop to review on-site infrastructure was the current truck shop and warehouse. The shop was built in the late 1990s for 777 haul trucks. It is a three-bay truck shop with a wash pad on the southeast end. A small warehouse is attached to the back of the truck shop, along with some office space. There is also another storage building to the northwest of the truck shop that does not have heating for overflow items. The main fuel island is located to the southeast of the truck shop. This fuel island is set up for 785 haul trucks. There are two administration buildings located next to the old mill. There are currently three crushers on site. The primary crusher is a jaw crusher, the secondary is a cone crusher (the cone has been removed), and a small tertiary crusher. Refer to the DRA report ([DRA - H6975-0000-PM-REP-001 - Ruby Hill Scoping Study Report 10242022\\_SA.pdf](#)). All these items are shown in Figure . The main power comes from the substation to the northeast along Highway 50. We were unable to see any nameplates on the transformers. This power supply will be used for the planned underground. The current underground infrastructure will not be inside the Mineral Point pit area and should not have an impact.





**Figure 15: Current Infrastructure Locations**

(Source: Forte Dynamics, Inc. 2024)

## 2.9.2 Proposed

After discussion with personnel on-site, we came to these recommendations:

- Expand the current truck shop to the Northwest, adding four (4) bays to handle 320-ton trucks. Figure 16 shows the area for potential shop expansion.
- Use the current three (3) bays for support equipment.
- Extend the warehouse behind the four (4) new bays for extra storage.
  - If needed, expand the storage building.
  - If possible, turn the storage building into a light vehicle truck shop if not needed for storage.
- Leave tire pad in current location if possible.
  - If need to move, place over in the current Primary Crusher dump pocket area where there is space.
- May need to add or upgrade the main fuel island for the larger fleet.
  - Add a secondary fuel island on the west side of the pit closer to the crusher or waste dump location to limit out-of-cycle travel for fuel when the pit is running.
- The current crushers (primary, secondary, and tertiary) are too small for the mineral point project and cannot be reused. A budget review is required for the cost of all new crushers. The old heap leach was only a primary and secondary crush. The tertiary was for the mill.
- The proposed new crusher location to the west of the proposed Mineral Point pit on the current waste dump is good. Access will need to be developed to reach this area.
- We will need to add admin and/or line-out space.
  - There is room up and around the truck shop, or can you look around the current admin area?

- It is possible that the current core shack will be taken back by Southwest Energy (explosives company), and if so, it will need to find a new location.
- There is no plan to use the current mill.



**Figure 16: Looking Northwest from the Warehouse Door Towards the Tire Pad**

(Source: Forte Dynamics, Inc. 2024 photo looking northwest from warehouse door behind current truck shop)

## 2.10 Mineral Point Pit Area

The currently proposed Mineral Point pit area can be divided into three (3) main areas. The first is on the south end of the pit, where phases 1 to 4 are mined. The area is split into two (2) sub-areas. The first is the native ground, which is covered in shrubs, trees, drill pads, and some old mining infrastructure. The area has some elevation changes as it is on the foothills of Ruby Hill. This area will also have to deal with some current Waste Rock Storage Area (cWRSA) removal. Figure 17 and Figure 18 show the area and old mining infrastructure in Area 1. Figure shows the exit point for phases 1 to 4 next to the current WRSA.

Area two is at the far north end of the pit and is on flat land of the valley floor. There is minimal elevation change in the area. This area will have to deal with removing the current heap leach pad. It is assumed that the bulk of the removal would be done with mining equipment, and a third-party contractor would do the last 20-ish feet and the liner removal. Sampling of the soil below the pad would have to be done to confirm that no leaks/spills needed to be cleaned up. Figure 20 shows the north end of the pit.



Area three is the pit's center section, mostly removing cWRSA. There is little native ground in this area, and it looks to already be disturbed by other mining.



**Figure 17: Looking East from the Current Waste Rock Storage Area at Pit Area Phase 1 to 4**

(Source: Forte Dynamics, photo looking east over first four phase of mining)



**Figure 18: Old Head Frame in Pit Area Phase 1 to 4**

(Source: Forte Dynamics, photo looking west towards current waste dumps and old head frame in phase 1 of mining)





**Figure 19: Looking West at Exit Point of Pit Area for Phases 1 to 4 and Access to WRSA to the South (Left)**

(Source: Forte Dynamics, Inc. 2024: photo looking east from first phases of mining)

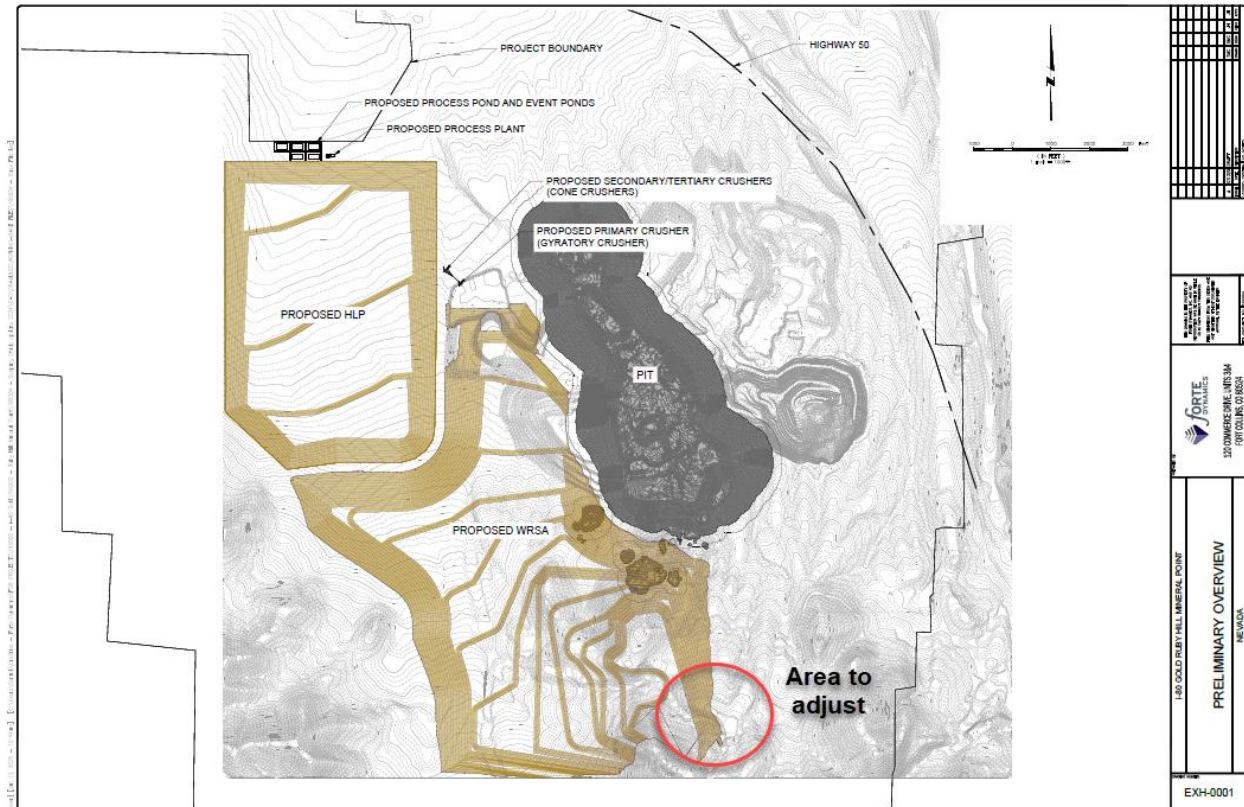


**Figure 20: North End of Pit Showing HL (Center) and WRSA (Right)**

(Source: Forte Dynamics, Inc. 2024: photo looking east over new Heap Leach location)

## 2.11 Proposed Waste Rock Storage Area

The proposed Waste Rock Storage Area (pWRSA) is to the west and south of the proposed pit. When on the tour, Carol Olsen, who lives in Eureka, NV, informed us that the pWRSA covers some county roads. One comes off Rubby Hill into the valley, and is extremely close to impacting a paved road leading to radio towers. We will need to look at moving the dump to the west and south into the valley more to limit the impact on these roads as seen in Figure 21. They would like to keep the dump on the west side of the ridge to limit visibility from town. Some cultural sites in this area will have to be remediated. There is also a county road at the bottom of the valley that will need to be relocated to the west along the foothills of the valley. Overall, the group thinks this is a good location for the pWRSA.



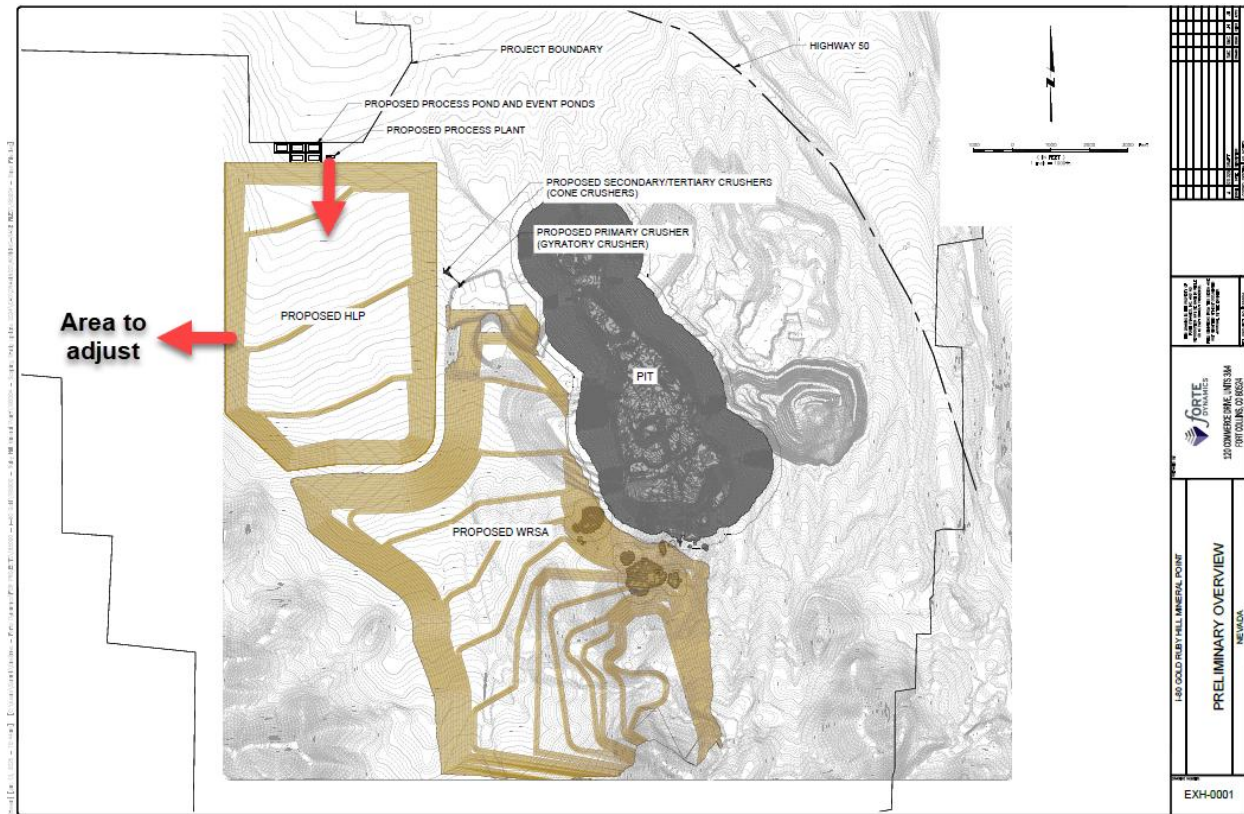
**Figure 21: pWRSA and Area that Needs to be Adjusted**

(Source: Forte Dynamics, Inc. 2024)

## 2.12 Proposed Heap Leach Facility Area

The proposed heap leach is on the flat of the valley. The current ponds are pushed against the current property bound, which places them very close to some homes and farms. The conversation in the field is to expand the pad to the west allowing the pad to be pulled to the south away from the homes and farms as shown in Figure 22. The heap leach also covers the same county road in the bottom of the valley that the pWRSA covers. A new road to the west around the HLF will have to be established for public access. i-80 Gold is working on getting an expanded topo out to the property boundary for this work.





**Figure 22: Heap Leach Adjustment**

(Source: Forte Dynamics, Inc. 2024)

### 3. CONCLUSIONS AND RECOMMENDATIONS

The site visit was very useful to review the project with i-80 staff and discuss key components to the upcoming PEA. There were no major issues identified during the site visit and at the time of writing this report.

Selected recommendations from the site visit under the scope of the upcoming PEA include:

- Review of SG measurements throughout the deposit, including from historical drill holes to better estimate SG values for use in the project and the resource estimation models.
- Submit samples to a commercial lab for SG analysis and verification of existing internal measurements
  - Consider the HW and FW lithological units as well for the analysis.
- Review of magnetic declination and potential adjustment to existing drill holes
  - Past drilling and certainly future drilling.
- Additional metallurgical test work
  - Note this is planned for later in 2025 under a planned drilling program to get additional fresh material for met testing.
- Review the potential impact of the seven (7) drill holes that intersected the Mineral Point resource from the 2021-2024 i-80 Gold drilling campaigns.
- Consider updating the resource using i-80 Gold's drilling results from 2021-2024 and the planned 2025 Mineral Point drilling campaign.
- Review alternative resource domain and estimation techniques to focus on a more geologically constrained resource rather than a more statistical PACK estimation workflow.
- Continue to refine the Leapfrog geological model
  - Use updated model for future resource updates along with updated SG determinations.



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## APPENDIX B – MINERAL POINT OPEN PIT ECONOMIC MODEL

FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Inputs								
Mining and Processing Cost			Metal Price, Deduct, & Recovery					
Mining Ore	US\$/ton	\$ 2.50	Gold Price	US\$/toz	\$ 2,175.00	Payable Au	%	100%
Mining Waste	US\$/ton	\$ 2.50	Silver Price	US\$/toz	\$ 27.25	Payable Ag	%	100%
Mining HeapLeach	US\$/ton	\$ 1.50	Royalties	%	3%	Gold Recovery	%	78%
Processing Cost	US\$/ton	\$ 3.90	Refining Cost Au	US\$/toz	1.85	Silver Recovery	%	41%
G&A Cost	US\$/ton	\$ 0.75	Refining Cost Ag	US\$/toz	0.5			

Period			(1)	1	2	3	4	5
Year			2029	2030	2031	2032	2033	2034
Production	Processing Material	tons	-	8,131,522	24,999,945	25,068,438	24,322,575	24,999,945
	OPEX Waste	tons	-	6,882,728	106,842,126	108,535,995	106,551,803	110,495,080
	CAPEX Waste	tons	-	114,900,417	-	-	-	-
	Heap Leach Relocation	tons	-	-	-	-	-	-
	Total Material	tons	-	129,914,667	131,842,071	133,604,434	130,874,378	135,495,025
	Processing Material	Tonne	-	7,376,794	22,679,575	22,741,711	22,065,075	22,679,575
	OPEX Waste	Tonne	-	6,243,908	96,925,574	98,462,227	96,662,197	100,239,479
	CAPEX Waste	Tonne	-	104,235,935	-	-	-	-
	Heap Leach Relocation	Tonne	-	-	-	-	-	-
	Total Material	Tonne	-	117,856,637	119,605,149	121,203,938	118,727,272	122,919,054
Metal	Contained Au	toz	-	60,698	253,260	277,039	433,268	246,246
	Au Grade	toz/ton		0.0075	0.0101	0.0111	0.0178	0.0098
	Recovered Au	toz	-	50,485	210,936	223,656	348,326	200,058
	Sellable Au	toz	-	50,435	210,725	223,432	347,977	199,858
	Contained Ag	toz	-	3,795,038	10,250,946	10,800,857	18,164,122	7,462,025
	Ag Grade	toz/ton		0.4667	0.4100	0.4309	0.7468	0.2985
	Recovered Ag	toz	-	1,600,880	4,249,672	4,455,719	7,318,117	3,125,044
	Sellable Ag	toz	-	1,592,876	4,228,424	4,433,440	7,281,527	3,109,419
	Contained Au	grams	-	1,887,926	7,877,263	8,616,870	13,476,165	7,659,116
	Au Grade	g/tonne		0.2559	0.3473	0.3789	0.6107	0.3377
	Recovered Au	grams	-	1,570,274	6,560,834	6,956,489	10,834,150	6,222,497
	Sellable Au	grams	-	1,568,704	6,554,273	6,949,533	10,823,316	6,216,275
	Contained Ag	grams	-	118,038,958	318,840,291	335,944,470	564,967,765	232,095,081
	Ag Grade	g/tonne		16.0014	14.0585	14.7722	25.6046	10.2337
	Recovered Ag	grams	-	49,792,980	132,179,670	138,588,442	227,619,055	97,199,810
	Sellable Ag	grams	-	49,544,015	131,518,772	137,895,499	226,480,960	96,713,811



FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Period			6	7	8	9	10	11	12
Year			2035	2036	2037	2038	2039	2040	2041
Production	Processing Material	tons	24,999,945	25,068,438	24,999,945	24,999,945	24,999,945	25,068,438	24,999,945
	OPEX Waste	tons	91,216,491	76,393,718	78,883,005	80,373,042	88,957,968	88,600,089	78,692,481
	CAPEX Waste	tons	-	-	-	-	-	-	-
	Heap Leach Relocation	tons	-	9,111,725	-	-	-	-	-
	Total Material	tons	116,216,435	110,573,881	103,882,950	105,372,987	113,957,912	113,668,527	103,692,426
	Processing Material	Tonne	22,679,575	22,741,711	22,679,575	22,679,575	22,679,575	22,741,711	22,679,575
	OPEX Waste	Tonne	82,750,232	69,303,235	71,561,479	72,913,218	80,701,334	80,376,672	71,388,638
	CAPEX Waste	Tonne	-	-	-	-	-	-	-
	Heap Leach Relocation	Tonne	-	8,266,020	-	-	-	-	-
	Total Material	Tonne	105,429,807	100,310,966	94,241,054	95,592,793	103,380,909	103,118,383	94,068,214
Metal	Contained Au	toz	249,812	294,535	300,650	280,749	348,919	364,353	269,114
	Au Grade	toz/ton	0.0100	0.0117	0.0120	0.0112	0.0140	0.0145	0.0108
	Recovered Au	toz	204,021	243,386	243,994	215,920	275,100	274,809	209,808
	Sellable Au	toz	203,817	243,143	243,750	215,704	274,825	274,535	209,598
	Contained Ag	toz	6,767,883	7,913,326	8,411,357	6,248,963	7,947,194	13,867,275	26,333,087
	Ag Grade	toz/ton	0.2707	0.3157	0.3365	0.2500	0.3179	0.5532	1.0533
	Recovered Ag	toz	2,783,374	3,284,291	3,471,255	2,577,538	3,272,777	5,578,944	10,533,235
	Sellable Ag	toz	2,769,457	3,267,870	3,453,899	2,564,651	3,256,413	5,551,050	10,480,568
	Contained Au	grams	7,770,029	9,161,061	9,351,267	8,732,273	10,852,589	11,332,640	8,370,400
	Au Grade	g/tonne	0.3426	0.4028	0.4123	0.3850	0.4785	0.4983	0.3691
	Recovered Au	grams	6,345,765	7,570,157	7,589,067	6,715,863	8,556,563	8,547,532	6,525,749
	Sellable Au	grams	6,339,419	7,562,587	7,581,478	6,709,147	8,548,006	8,538,984	6,519,223
	Contained Ag	grams	210,504,843	246,132,151	261,622,648	194,364,634	247,185,545	431,320,786	819,051,161
	Ag Grade	g/tonne	9.2817	10.8229	11.5356	8.5700	10.8990	18.9661	36.1140
	Recovered Ag	grams	86,572,682	102,152,960	107,968,175	80,170,461	101,794,825	173,524,699	327,620,464
	Sellable Ag	grams	86,139,818	101,642,195	107,428,334	79,769,609	101,285,850	172,657,075	325,982,362

FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Period			13	14	15	16	17	
Year			2042	2043	2044	2045	2046	Total
Production	Processing Material	tons	24,999,945	24,999,945	25,068,438	24,999,945	12,716,826	395,444,125
	OPEX Waste	tons	80,419,828	9,511,676	6,860,676	17,496,102	1,731,192	1,138,443,998
	CAPEX Waste	tons	-	-	-	-	-	114,900,417
	Heap Leach Relocation	tons	-	17,343,218	-	-	-	26,454,942
	Total Material	tons	105,419,773	51,854,839	31,929,114	42,496,047	14,448,018	1,675,243,483
	Processing Material	Tonne	22,679,575	22,679,575	22,741,711	22,679,575	11,536,514	358,740,979
	OPEX Waste	Tonne	72,955,662	8,628,850	6,223,902	15,872,202	1,570,511	1,032,779,319
	CAPEX Waste	Tonne	-	-	-	-	-	104,235,935
	Heap Leach Relocation	Tonne	-	15,733,507	-	-	-	23,999,527
	Total Material	Tonne	95,635,236	47,041,932	28,965,613	38,551,777	13,107,025	1,519,755,759
Metal	Contained Au	toz	344,656	301,153	175,310	206,036	118,744	4,524,542
	Au Grade	toz/ton	0.0138	0.0120	0.0070	0.0082	0.0093	0.0114
	Recovered Au	toz	207,108	210,398	143,929	168,933	98,526	3,529,392
	Sellable Au	toz	206,901	210,188	143,785	168,764	98,427	3,525,863
	Contained Ag	toz	16,255,199	13,120,648	9,523,562	6,705,453	3,726,136	177,293,070
	Ag Grade	toz/ton	0.6502	0.5248	0.3799	0.2682	0.2930	0.4483
	Recovered Ag	toz	6,506,857	5,248,259	3,809,425	2,717,429	1,495,470	72,028,286
	Sellable Ag	toz	6,474,322	5,222,018	3,790,378	2,703,842	1,487,992	71,668,145
	Contained Au	grams	10,720,021	9,366,902	5,452,754	6,408,455	3,693,367	140,729,097
	Au Grade	g/tonne	0.4727	0.4130	0.2398	0.2826	0.3201	0.3923
	Recovered Au	grams	6,441,782	6,544,127	4,476,700	5,254,394	3,064,503	109,776,446
	Sellable Au	grams	6,435,341	6,537,583	4,472,223	5,249,140	3,061,439	109,666,670
	Contained Ag	grams	505,593,585	408,098,081	296,216,107	208,563,052	115,895,860	5,514,435,018
	Ag Grade	g/tonne	22.2929	17.9941	13.0252	9.1961	10.0460	15.3716
	Recovered Ag	grams	202,386,014	163,239,232	118,486,443	84,521,547	46,514,336	2,240,331,795
	Sellable Ag	grams	201,374,084	162,423,036	117,894,011	84,098,939	46,281,764	2,229,130,136

FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

			Period Year	(1) 2029	1 2030	2 2031	3 2032	4 2033	5 2034
Revenue & Royalties	Revenue Au	US\$		\$ -	\$ 109,696,067	\$ 458,326,033	\$ 485,965,674	\$ 756,850,900	\$ 434,690,569
	Revenue Ag	US\$		\$ -	\$ 43,405,868	\$ 115,224,542	\$ 120,811,238	\$ 198,421,598	\$ 84,731,665
	Royalties Au	US\$		\$ -	\$ 3,290,882	\$ 13,749,781	\$ 14,578,970	\$ 22,705,527	\$ 13,040,717
	Royalties Ag	US\$		\$ -	\$ 1,302,176	\$ 3,456,736	\$ 3,624,337	\$ 5,952,648	\$ 2,541,950
	Total Revenue	US\$		\$ -	\$ 145,036,407	\$ 547,126,095	\$ 578,908,706	\$ 910,740,594	\$ 497,061,034
Capital Costs	CAPEX Waste	US\$		\$ -	\$ 287,251,043	\$ -	\$ -	\$ -	\$ -
	Mining Equipment & Sustaining CAPEX	US\$		\$ 263,794,346	\$ 37,588,289	\$ 18,611,419	\$ 7,262,164	\$ 7,683,192	\$ 9,200,991
	Process	US\$		\$ 158,646,667	\$ -	\$ -	\$ -	\$ 40,413,333	\$ -
	Preproduction & Facilities	US\$		\$ 75,830,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Owner's Cost	US\$		\$ 56,400,000	\$ -	\$ -	\$ -	\$ 9,300,000	\$ -
	Capex summary	US\$		\$ 554,671,013	\$ 37,588,289	\$ 18,611,419	\$ 7,262,164	\$ 57,396,526	\$ 9,200,991
	Mine Equipment Contingency	US\$		\$ 39,569,152	\$ 5,638,243	\$ 2,791,713	\$ 1,089,325	\$ 1,152,479	\$ 1,380,149
	Other Contingency	US\$		\$ 72,719,167	\$ -	\$ -	\$ -	\$ 12,428,333	\$ -
	Total CAPEX	US\$		\$ 666,959,331	\$ 330,477,576	\$ 21,403,131	\$ 8,351,488	\$ 70,977,338	\$ 10,581,139
Operating Costs	Surface Ore	US\$			\$ 20,328,804	\$ 62,499,863	\$ 62,671,096	\$ 60,806,437	\$ 62,499,862
	Surface HL Relocation	US\$			\$ -	\$ -	\$ -	\$ -	\$ -
	Surface Waste	US\$			\$ 17,206,820	\$ 267,105,314	\$ 271,339,988	\$ 266,379,507	\$ 276,237,700
	Power	US\$			\$ -	\$ -	\$ -	\$ -	\$ -
	Processing	US\$			\$ 31,712,935	\$ 97,499,786	\$ 97,766,909	\$ 94,858,042	\$ 97,499,785
	Transportation and Refining	US\$			\$ -	\$ -	\$ -	\$ -	\$ -
	G&A	US\$			\$ 6,098,641	\$ 18,749,959	\$ 18,801,329	\$ 18,241,931	\$ 18,749,959
	Refining Cost Au	US\$			\$ 93,398	\$ 390,231	\$ 413,764	\$ 644,403	\$ 370,107
	Refining Cost Ag	US\$			\$ 800,440	\$ 2,124,836	\$ 2,227,859	\$ 3,659,059	\$ 1,562,522
	Total Operating Cost	US\$			\$ 76,241,038	\$ 448,369,989	\$ 453,220,945	\$ 444,589,378	\$ 456,919,935
Cash Flow Pre-Tax	Discounted @ 0% (Net Cash Flow)	US\$		\$ (666,959,346)	\$ (261,088,672)	\$ 113,610,437	\$ 110,080,520	\$ 365,501,441	\$ 25,357,785
	Discounted @ 5%	US\$		\$ (666,959,346)	\$ (248,655,878)	\$ 103,048,015	\$ 95,091,692	\$ 300,698,940	\$ 19,868,488
	Discounted @ 8%	US\$		\$ (666,959,346)	\$ (241,748,771)	\$ 97,402,638	\$ 87,385,466	\$ 268,654,470	\$ 17,258,082
	Discounted @ 10%	US\$		\$ (666,959,346)	\$ (237,353,338)	\$ 93,892,923	\$ 82,705,124	\$ 249,642,402	\$ 15,745,189
	Discounted @ 12%	US\$		\$ (666,959,346)	\$ (233,114,886)	\$ 90,569,545	\$ 78,353,140	\$ 232,282,773	\$ 14,388,688
	Cumulative Cash Flow @0%	US\$		\$ (666,959,346)	\$ (928,048,018)	\$ (814,437,581)	\$ (704,357,061)	\$ (338,855,620)	\$ (313,497,835)
Cash Flow After-Tax	Discounted @ 0% (Net Cash Flow)	US\$		\$ (666,959,331)	\$ (262,945,851)	\$ 107,406,046	\$ 102,740,082	\$ 347,914,491	\$ 20,425,075
	Discounted @ 5%	US\$		\$ (666,959,331)	\$ (250,424,620)	\$ 97,420,450	\$ 88,750,746	\$ 286,230,113	\$ 16,003,580
	Discounted @ 8%	US\$		\$ (666,959,331)	\$ (243,468,380)	\$ 92,083,372	\$ 81,558,389	\$ 255,727,537	\$ 13,900,963
	Discounted @ 10%	US\$		\$ (666,959,331)	\$ (239,041,683)	\$ 88,765,327	\$ 77,190,144	\$ 237,630,278	\$ 12,682,364
	Discounted @ 12%	US\$		\$ (666,959,331)	\$ (234,773,081)	\$ 85,623,442	\$ 73,128,361	\$ 221,105,949	\$ 11,589,736
	Cumulative Cash Flow @0%	US\$		\$ (666,959,331)	\$ (929,905,182)	\$ (822,499,136)	\$ (719,759,055)	\$ (371,844,564)	\$ (351,419,489)

FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Period Year			6 2035	7 2036	8 2037	9 2038	10 2039	11 2040	12 2041
Revenue & Royalties	Revenue Au	US\$	\$ 443,301,766	\$ 528,835,200	\$ 530,156,249	\$ 469,156,011	\$ 597,743,462	\$ 597,112,563	\$ 455,875,093
	Revenue Ag	US\$	\$ 75,467,714	\$ 89,049,458	\$ 94,118,736	\$ 69,886,728	\$ 88,737,262	\$ 151,266,105	\$ 285,595,491
	Royalties Au	US\$	\$ 13,299,053	\$ 15,865,056	\$ 15,904,687	\$ 14,074,680	\$ 17,932,304	\$ 17,913,377	\$ 13,676,253
	Royalties Ag	US\$	\$ 2,264,031	\$ 2,671,484	\$ 2,823,562	\$ 2,096,602	\$ 2,662,118	\$ 4,537,983	\$ 8,567,865
	Total Revenue	US\$	\$ 497,168,978	\$ 592,224,162	\$ 598,017,236	\$ 517,280,518	\$ 658,787,321	\$ 713,826,020	\$ 696,378,827
Capital Costs	CAPEX Waste	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Mining Equipment & Sustaining CAPEX	US\$	\$ 7,984,491	\$ 8,174,991	\$ 7,793,991	\$ 8,174,991	\$ 8,365,491	\$ 7,793,991	\$ 8,174,991
	Process	US\$	\$ -	\$ 40,413,333	\$ -	\$ -	\$ 40,413,333	\$ -	\$ -
	Preproduction & Facilities	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Owner's Cost	US\$	\$ -	\$ 9,300,000	\$ -	\$ -	\$ 9,300,000	\$ -	\$ -
	Capex summary	US\$	\$ 7,984,491	\$ 57,888,324	\$ 7,793,991	\$ 8,174,991	\$ 58,078,824	\$ 7,793,991	\$ 8,174,991
	Mine Equipment Contingency	US\$	\$ 1,197,674	\$ 1,226,249	\$ 1,169,099	\$ 1,226,249	\$ 1,254,824	\$ 1,169,099	\$ 1,226,249
	Other Contingency	US\$	\$ -	\$ 12,428,333	\$ -	\$ -	\$ 12,428,333	\$ -	\$ -
Operating Costs	Total CAPEX	US\$	\$ 9,182,164	\$ 71,542,906	\$ 8,963,089	\$ 9,401,239	\$ 71,761,981	\$ 8,963,089	\$ 9,401,239
	Surface Ore	US\$	\$ 62,499,862	\$ 62,671,096	\$ 62,499,863	\$ 62,499,863	\$ 62,499,862	\$ 62,671,095	\$ 62,499,863
	Surface HL Relocation	US\$	\$ -	\$ 13,667,587	\$ -	\$ -	\$ -	\$ -	\$ -
	Surface Waste	US\$	\$ 228,041,227	\$ 190,984,294	\$ 197,207,512	\$ 200,932,604	\$ 222,394,919	\$ 221,500,223	\$ 196,731,203
	Power	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Processing	US\$	\$ 97,499,784	\$ 97,766,910	\$ 97,499,787	\$ 97,499,786	\$ 97,499,784	\$ 97,766,909	\$ 97,499,786
	Transportation and Refining	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	G&A	US\$	\$ 18,749,959	\$ 18,801,329	\$ 18,749,959	\$ 18,749,959	\$ 18,749,958	\$ 18,801,329	\$ 18,749,959
	Refining Cost Au	US\$	\$ 377,439	\$ 450,264	\$ 451,389	\$ 399,452	\$ 508,934	\$ 508,397	\$ 388,144
	Refining Cost Ag	US\$	\$ 1,391,687	\$ 1,642,146	\$ 1,735,627	\$ 1,288,769	\$ 1,636,389	\$ 2,789,472	\$ 5,266,617
Cash Flow Pre-Tax	Total Operating Cost	US\$	\$ 408,559,957	\$ 385,983,625	\$ 378,144,137	\$ 381,370,432	\$ 403,289,846	\$ 404,037,425	\$ 381,135,571
	Discounted @ 0% (Net Cash Flow)	US\$	\$ 67,178,469	\$ 120,631,147	\$ 198,352,566	\$ 118,942,186	\$ 172,254,448	\$ 284,788,781	\$ 285,022,196
	Discounted @ 5%	US\$	\$ 50,129,608	\$ 85,730,304	\$ 134,252,825	\$ 76,671,194	\$ 105,749,289	\$ 166,510,102	\$ 158,711,023
	Discounted @ 8%	US\$	\$ 42,333,831	\$ 70,387,116	\$ 107,163,720	\$ 59,500,706	\$ 79,787,139	\$ 122,141,027	\$ 113,186,235
	Discounted @ 10%	US\$	\$ 37,920,494	\$ 61,902,852	\$ 92,532,936	\$ 50,443,098	\$ 66,411,547	\$ 99,816,730	\$ 90,816,855
	Discounted @ 12%	US\$	\$ 34,034,703	\$ 54,567,405	\$ 80,111,275	\$ 42,891,745	\$ 55,461,322	\$ 81,869,969	\$ 73,158,099
Cash Flow After-Tax	Cumulative Cash Flow @0%	US\$	\$ (246,319,367)	\$ (125,688,220)	\$ 72,664,347	\$ 191,606,533	\$ 363,860,981	\$ 648,649,762	\$ 933,671,957
	Discounted @ 0% (Net Cash Flow)	US\$	\$ 61,562,267	\$ 112,623,945	\$ 190,359,486	\$ 108,174,035	\$ 141,464,532	\$ 245,453,852	\$ 244,796,708
	Discounted @ 5%	US\$	\$ 45,938,711	\$ 80,039,735	\$ 128,842,793	\$ 69,729,947	\$ 86,846,951	\$ 143,511,784	\$ 136,311,967
	Discounted @ 8%	US\$	\$ 38,794,671	\$ 65,714,990	\$ 102,845,307	\$ 54,113,949	\$ 65,525,450	\$ 105,270,950	\$ 97,212,141
	Discounted @ 10%	US\$	\$ 34,750,295	\$ 57,793,892	\$ 88,804,105	\$ 45,876,351	\$ 54,540,701	\$ 86,030,078	\$ 77,999,775
	Discounted @ 12%	US\$	\$ 31,189,360	\$ 50,945,353	\$ 76,883,004	\$ 39,008,641	\$ 45,547,793	\$ 70,562,117	\$ 62,833,218
	Cumulative Cash Flow @0%	US\$	\$ (289,857,223)	\$ (177,233,277)	\$ 13,126,208	\$ 121,300,243	\$ 262,764,776	\$ 508,218,627	\$ 753,015,335

FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Period Year			13 2042	14 2043	15 2044	16 2045	17 2046	Total
Revenue & Royalties	Revenue Au	US\$	\$ 450,009,344	\$ 457,158,920	\$ 312,732,830	\$ 367,060,893	\$ 214,079,750	\$ 7,668,751,322
	Revenue Ag	US\$	\$ 176,425,283	\$ 142,299,990	\$ 103,287,790	\$ 73,679,685	\$ 40,547,787	\$ 1,952,956,940
	Royalties Au	US\$	\$ 13,500,280	\$ 13,714,768	\$ 9,381,985	\$ 11,011,827	\$ 6,422,393	\$ 230,062,540
	Royalties Ag	US\$	\$ 5,292,758	\$ 4,269,000	\$ 3,098,634	\$ 2,210,391	\$ 1,216,434	\$ 58,588,708
	Total Revenue	US\$	\$ 593,527,566	\$ 570,091,143	\$ 395,276,978	\$ 421,623,986	\$ 243,744,888	\$ 9,176,820,460
Capital Costs	CAPEX Waste	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 287,251,043
	Mining Equipment & Sustaining CAPEX	US\$	\$ 6,079,491	\$ 4,078,480	\$ 4,442,980	\$ 3,490,480	\$ 2,011,480	\$ 420,706,249
	Process	US\$	\$ 40,413,333	\$ -	\$ -	\$ -	\$ -	\$ 320,300,000
	Preproduction & Facilities	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,830,000
	Owner's Cost	US\$	\$ 9,300,000	\$ -	\$ -	\$ -	\$ -	\$ 93,600,000
	Capex summary	US\$	\$ 55,792,824	\$ 4,078,480	\$ 4,442,980	\$ 3,490,480	\$ 2,011,480	\$ 910,436,249
	Mine Equipment Contingency	US\$	\$ 911,924	\$ 611,772	\$ 666,447	\$ 523,572	\$ 301,722	\$ 63,105,937
	Other Contingency	US\$	\$ 12,428,333	\$ -	\$ -	\$ -	\$ -	\$ 122,432,500
Operating Costs	Total CAPEX	US\$	\$ 69,133,081	\$ 4,690,252	\$ 5,109,427	\$ 4,014,052	\$ 2,313,202	\$ 1,383,225,729
	Surface Ore	US\$	\$ 62,499,862	\$ 62,499,863	\$ 62,671,095	\$ 62,499,863	\$ 31,792,064	\$ 988,610,312
	Surface HL Relocation	US\$	\$ -	\$ 26,014,827	\$ -	\$ -	\$ -	\$ 39,682,414
	Surface Waste	US\$	\$ 201,049,570	\$ 23,779,190	\$ 17,151,690	\$ 43,740,256	\$ 4,327,980	\$ 2,846,109,996
	Power	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Processing	US\$	\$ 97,499,784	\$ 97,499,786	\$ 97,766,908	\$ 97,499,786	\$ 49,595,621	\$ 1,542,232,087
	Transportation and Refining	US\$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	G&A	US\$	\$ 18,749,959	\$ 18,749,959	\$ 18,801,328	\$ 18,749,959	\$ 9,537,619	\$ 296,583,094
	Refining Cost Au	US\$	\$ 383,150	\$ 389,237	\$ 266,269	\$ 312,525	\$ 182,273	\$ 6,529,375
	Refining Cost Ag	US\$	\$ 3,253,428	\$ 2,624,130	\$ 1,904,712	\$ 1,358,714	\$ 747,735	\$ 36,014,143
Cash Flow Pre-Tax	Total Operating Cost	US\$	\$ 383,435,752	\$ 231,556,992	\$ 198,562,003	\$ 224,161,103	\$ 96,183,292	\$ 5,755,761,422
	Discounted @ 0% (Net Cash Flow)	US\$	\$ 130,380,521	\$ 300,096,508	\$ 178,778,993	\$ 187,545,870	\$ 124,026,042	\$ 1,854,499,891
	Discounted @ 5%	US\$	\$ 69,143,574	\$ 151,569,129	\$ 85,995,752	\$ 85,916,924	\$ 54,112,151	\$ 827,583,786
	Discounted @ 8%	US\$	\$ 47,940,647	\$ 102,171,169	\$ 56,358,595	\$ 54,742,852	\$ 33,520,388	\$ 451,225,963
	Discounted @ 10%	US\$	\$ 37,766,593	\$ 79,024,790	\$ 42,798,270	\$ 40,815,446	\$ 24,537,891	\$ 262,460,456
	Discounted @ 12%	US\$	\$ 29,879,850	\$ 61,405,691	\$ 32,662,254	\$ 30,592,794	\$ 18,063,691	\$ 110,218,712
Cash Flow After-Tax	Cumulative Cash Flow @0%	US\$	\$ 1,064,052,478	\$ 1,364,148,986	\$ 1,542,927,979	\$ 1,730,473,849	\$ 1,854,499,891	
	Discounted @ 0% (Net Cash Flow)	US\$	\$ 107,194,375	\$ 252,402,612	\$ 153,111,325	\$ 150,595,310	\$ 95,866,506	\$ 1,470,031,733
	Discounted @ 5%	US\$	\$ 56,847,465	\$ 127,480,470	\$ 73,649,165	\$ 68,989,447	\$ 41,826,239	\$ 614,063,213
	Discounted @ 8%	US\$	\$ 39,415,149	\$ 85,933,256	\$ 48,267,075	\$ 43,957,335	\$ 25,909,740	\$ 295,756,735
	Discounted @ 10%	US\$	\$ 31,050,392	\$ 66,465,496	\$ 36,653,634	\$ 32,773,927	\$ 18,966,677	\$ 134,831,182
	Discounted @ 12%	US\$	\$ 24,566,184	\$ 51,646,575	\$ 27,972,867	\$ 24,565,357	\$ 13,962,414	\$ 4,288,964
	Cumulative Cash Flow @0%	US\$	\$ 860,209,710	\$ 1,112,612,322	\$ 1,265,723,646	\$ 1,416,318,956	\$ 1,512,185,462	



FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Results	Item	Unit	Pre-Taxes	After-Taxes	Delta (PRE-AFTER)
	NPV @ 0% (x1,000,000)	US\$	\$ 1,854.50	\$ 1,470.03	\$ 384.47
	NPV @ 5% (x1,000,000)	US\$	\$ 827.58	\$ 614.06	\$ 213.52
	NPV @ 8% (x1,000,000)	US\$	\$ 451.23	\$ 295.76	\$ 155.47
	NPV @ 10% (x1,000,000)	US\$	\$ 262.46	\$ 134.83	\$ 127.63
	NPV @ 12% (x1,000,000)	US\$	\$ 110.22	\$ 4.29	\$ 105.93
	IRR	%	13.8%	12.1%	1.7%
	Pay Back Period	Years	7.63	7.93	(0.30)

\*Pre-tax also does not include reclamation costs

Cost Summary	Category	Total Costs (US\$M)	Unit Cost (US\$/Process ton)	Cost Per Ounce (US\$/Recovered toz Au)
	Mining	\$ 3,874.40	\$ 9.80	\$ 1,097.75
	Processing	\$ 1,542.23	\$ 3.90	\$ 436.97
	G&A	\$ 296.58	\$ 0.75	\$ 84.03
	Refining, Royalties & Net Proceeds Tax	\$ 722.30	\$ 1.83	\$ 204.65
	By-Product Credits	\$ (1,952.96)	\$ (4.94)	\$ (553.34)
	Total Operating Cost/Cash Costs	\$ 4,482.57	\$ 11.34	\$ 1,270.07
	Closure & reclamation	\$ 69.83	\$ 0.18	\$ 19.78
	Sustaining Capital	\$ 388.43	\$ 0.98	\$ 110.05
	All-in Sustaining Costs	\$ 4,940.82	\$ 12.49	\$ 1,399.91

FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Sensitivity Study	Item		Unit	Pre-Tax			After-Tax		
				-25%	0%	25%	-25%	0%	25%
	Gold Price	Price	US\$	\$ 1,631.25	\$ 2,175.00	\$ 2,718.75	\$ 1,631.25	\$ 2,175.00	\$ 2,718.75
		NPV @ 5% (x1,000,000)	US\$	\$ (211.24)	\$ 827.58	\$ 2,274.36	\$ (395.58)	\$ 614.06	\$ 1,523.01
		NPV @ 8% (x1,000,000)	US\$	\$ (398.88)	\$ 451.23	\$ 1,610.03	\$ (543.65)	\$ 295.76	\$ 1,002.44
		NPV @ 10% (x1,000,000)	US\$	\$ (489.02)	\$ 262.46	\$ 1,272.92	\$ (613.88)	\$ 134.83	\$ 740.04
		NPV @ 12% (x1,000,000)	US\$	\$ (559.10)	\$ 110.22	\$ 998.45	\$ (667.80)	\$ 4.29	\$ 527.55
		IRR	%	2.6%	13.8%	26.3%	0.3%	12.1%	19.9%
	Silver Price	Price	US\$	\$ 20.44	\$ 27.25	\$ 34.06	\$ 20.44	\$ 27.25	\$ 34.06
		NPV @ 5% (x1,000,000)	US\$	\$ 722.07	\$ 827.58	\$ 1,341.05	\$ 346.48	\$ 614.06	\$ 828.39
		NPV @ 8% (x1,000,000)	US\$	\$ 357.97	\$ 451.23	\$ 853.19	\$ 55.79	\$ 295.76	\$ 439.39
		NPV @ 10% (x1,000,000)	US\$	\$ 175.96	\$ 262.46	\$ 607.94	\$ (88.24)	\$ 134.83	\$ 245.38
		NPV @ 12% (x1,000,000)	US\$	\$ 29.57	\$ 110.22	\$ 409.78	\$ (203.19)	\$ 4.29	\$ 89.65
		IRR	%	12.5%	13.8%	18.1%	8.7%	12.1%	13.4%
	CAPEX	Price (x1,000,000)	US\$	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
		NPV @ 5% (x1,000,000)	US\$	\$ 1,274.09	\$ 827.58	\$ 789.03	\$ 834.13	\$ 614.06	\$ 349.07
		NPV @ 8% (x1,000,000)	US\$	\$ 835.49	\$ 451.23	\$ 375.67	\$ 480.58	\$ 295.76	\$ 20.75
		NPV @ 10% (x1,000,000)	US\$	\$ 615.19	\$ 262.46	\$ 168.71	\$ 304.35	\$ 134.83	\$ (142.12)
		NPV @ 12% (x1,000,000)	US\$	\$ 437.30	\$ 110.22	\$ 2.04	\$ 162.99	\$ 4.29	\$ (272.27)
		IRR	%	19.8%	13.8%	12.0%	15.0%	12.1%	8.2%
	Mining Cost	Price	US\$/ton	\$ 1.88	\$ 2.50	\$ 3.13	\$ 1.88	\$ 2.50	\$ 3.13
		NPV @ 5% (x1,000,000)	US\$	\$ 1,762.08	\$ 827.58	\$ 289.26	\$ 1,263.47	\$ 614.06	\$ (92.93)
		NPV @ 8% (x1,000,000)	US\$	\$ 1,218.56	\$ 451.23	\$ (17.28)	\$ 815.50	\$ 295.76	\$ (324.50)
		NPV @ 10% (x1,000,000)	US\$	\$ 942.49	\$ 262.46	\$ (167.47)	\$ 589.06	\$ 134.83	\$ (435.96)
		NPV @ 12% (x1,000,000)	US\$	\$ 717.57	\$ 110.22	\$ (286.25)	\$ 405.33	\$ 4.29	\$ (522.73)
		IRR	%	23.3%	13.8%	7.8%	18.6%	12.1%	4.1%
	Processing Cost	Price	US\$/ton	\$ 2.93	\$ 3.90	\$ 4.88	\$ 2.93	\$ 3.90	\$ 4.88
		NPV @ 5% (x1,000,000)	US\$	\$ 1,283.81	\$ 827.58	\$ 776.71	\$ 787.30	\$ 614.06	\$ 391.96
		NPV @ 8% (x1,000,000)	US\$	\$ 808.07	\$ 451.23	\$ 401.00	\$ 407.25	\$ 295.76	\$ 91.23
		NPV @ 10% (x1,000,000)	US\$	\$ 568.91	\$ 262.46	\$ 213.16	\$ 217.74	\$ 134.83	\$ (57.82)
		NPV @ 12% (x1,000,000)	US\$	\$ 375.67	\$ 110.22	\$ 62.07	\$ 65.64	\$ 4.29	\$ (176.82)
		IRR	%	17.6%	13.8%	13.0%	13.0%	12.1%	9.2%

FORTE DYNAMICS, INC	
Company	i-80 Gold Corp.
Project Name	Mineral Point
Project Number	195005
Date	3/31/2025
Economic Model	DS_1v2 Sch_v1 With Inferred

Production Summary	Item	Unit	Imperial	Metric
	Processing Material	Ton -> Tonne	395,444,125	358,740,979
	OPEX Waste	Ton -> Tonne	1,138,443,998	1,032,779,319
	CAPEX Waste	Ton -> Tonne	114,900,417	104,235,935
	Heap Leach Relocation	Ton -> Tonne	26,454,942	23,999,527
	Total Material	Ton -> Tonne	1,675,243,483	1,519,755,759
	Contained Au	Toz -> grams	4,524,542	140,729,097
	Au Grade	Toz/ton -> g/tonne	0.0114	0.392
	Recovered Au	Toz -> grams	3,529,392	109,776,446
	Sellable Au	Toz -> grams	3,525,863	109,666,670
	Contained Ag	Toz -> grams	177,293,070	5,514,435,018
	Ag Grade	Toz/ton -> g/tonne	0.448	15.372
	Recovered Ag	Toz -> grams	72,028,286	2,240,331,795
	Sellable Ag	Toz -> grams	71,668,145	2,229,130,136



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**[www.fortedynamics.com](http://www.fortedynamics.com)**

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