NI 43-101 TECHNICAL REPORT FOR THE MERCUR PROJECT, CAMP FLOYD AND OPHIR MINING DISTRICTS, TOOELE & UTAH COUNTIES, UTAH, USA

View looking northerly at the reclaimed Barrick Mercur gold mine.

Prepared for:

Ensign Minerals Inc.
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7629 Sechelt Inlet Rd
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Effective Date: December 5, 2023

Report Date: February 1, 2024

Forward-Looking Information

Statements contained in this report that are not historical facts are “forward-looking information” or “forward-looking statements” (collectively, “forward-looking information”) within the meaning of applicable Canadian and United States securities legislation. Forward-looking information includes, but is not limited to, disclosure regarding possible events or conditions that is based on assumptions about future conditions and courses of action. Statements concerning Mineral Resource estimates may also be deemed to constitute forward-looking information to the extent that they involve estimates of the mineralization that will be encountered if the property is developed. In certain cases, forward-looking information can be identified by the use of words and phrases such as “plans”, “expects” or “does not expect”, “is expected”, budget”, “scheduled”, “suggest”, “optimize”, “estimates”, “forecasts”, “intends”, “anticipates”, “potential” or “does not anticipate”, believes”, “anomalous” or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. In making the forward-looking statements in this report, the QPs have applied several material assumptions, including, but not limited to, that the current exploration and other objectives concerning property can be achieved and that other corporate activities will proceed as expected; that the current price and demand for gold will be sustained or will improve; that general business and economic conditions will not change in a materially adverse manner and that all necessary governmental approvals for the planned exploration on the property will be obtained in a timely manner and on acceptable terms; the continuity of the price of gold and other metals, economic and political conditions and operations. Forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Ensign to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such risks and other factors include, among others, risks related to the availability of financing on commercially reasonable terms and the expected use of proceeds; operations and contractual obligations; changes in exploration programs based upon results of exploration; future prices of metals; availability of third party contractors; availability of equipment; failure of equipment to operate as anticipated; accidents, effects of weather and other natural phenomena and other risks associated with the mineral exploration industry; environmental risks, including environmental matters under U.S. federal and Utah rules and regulations; impact of environmental requirements on planned exploration on the property; certainty of mineral title; community relations; delays in obtaining governmental approvals or financing; fluctuations in mineral prices; the nature of mineral exploration and mining and the uncertain commercial viability of certain mineral deposits; governmental regulations and the ability to obtain necessary licenses and permits; risks related to mineral properties being subject to prior unregistered agreements, transfers or claims and other defects in title; currency fluctuations; changes in environmental laws and regulations and changes in the application of standards pursuant to existing laws and regulations which may increase costs of doing business and restrict operations; risks related to dependence on key personnel; and estimates used in financial statements proving to be incorrect. Although the QPs have attempted to identify important factors that could affect the project and may cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information. Except as required by law, the QPs and Ensign do not assume any obligation to release publicly any revisions to forward-looking information contained in this report to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

CERTIFICATE OF QUALIFIED PERSON

Susan Lomas, P.Geo.
7629 Sechelt Inlet Rd.
Sechelt, British Columbia V0N 3A4

I, **Susan Lomas**, P.Geo., am the President of Lions Gate Geological Consulting Inc. (LGGC).

This certificate applies to the technical report titled "NI 43-101 Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA", with an effective date of December 5, 2023 (the "Technical Report").

I am a Professional Geologist registered with Engineers and Geoscientists of British Columbia (EGBC) and Professional Geoscientists Ontario (PGO). In 1987, I graduated from Concordia University of Montreal with a Bachelor of Science degree in geology.

I have practiced my profession continuously since 1987 and have been involved in: mineral exploration for gold, nickel, copper, zinc, lead and silver in Canada, United States, Mexico, Venezuela, and Ghana and in underground mine geology, ore control and resource estimation for gold, nickel, copper, zinc, lead, silver, potash and industrial mineral properties in Canada, United States, Mexico, Brazil, Ecuador, Venezuela, Guyana, Peru, Thailand, China, Mongolia, Greece, Romania, Senegal, New Caledonia, Finland, Turkey and Russia.

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43–101 Standards of Disclosure for Mineral Projects (NI 43–101).

I have not visited the Mercur Property.

I am responsible for Sections 1.0, 1.1, 1.2 to 1.7, 2, 3, 14 and 15 to 27 of the Technical Report.

I am independent of Ensign Minerals Inc. as independence is defined by Section 1.5 of NI 43–101.

I have had no prior involvement with the property that is the subject of the Technical Report.

I have read NI 43–101 and the sections of the technical report for which I am responsible have been prepared in compliance with that Instrument.

As of the effective date of the technical report, to the best of my knowledge, information and belief, the sections of the technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those section of the technical report not misleading.

Susan Lomas, P.Geo.

"*Signed and Sealed*"

Dated: February 1, 2024

CERTIFICATE OF QUALIFIED PERSON

I, **Bruce Davis**, FAusIMM, of Grand Junction, Colorado, USA, an associate of Lions Gate Geological Consulting Inc., as an author of this report entitled "NI 43-101 Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA" with an effective date of 16 October 2023, prepared for Ensign Minerals Inc. do hereby certify that:

1. I am employed as a Geostatistical associate with Lions Gate Geological Consulting, Inc., an independent resource consulting firm, whose address is 7629 Sechelt Inlet Road, Sechelt, BC V0N 3A4, Canada.
2. This certificate applies to the report "NI 43-101 Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA" with an effective date of December 5, 2023, (the "Technical Report").
3. I am a Fellow of the Australasian Institute of Mining and Metallurgy, number 211185, and my qualifications include experience applicable to the subject matter of the Technical Report. In particular, I am a graduate of the Brigham Young University with a B.S. in Mathematics (1974), an M.S. in Statistics (1975) and a Ph.D. from the University of Wyoming in Geostatistics (1978). I have practiced my profession continuously since 1978. I have conducted geostatistical analyses for Carlin-style resource models for deposits in Nevada and other disseminated gold deposits in Arizona, California, Idaho, and New Mexico.
4. I am familiar with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and by reason of education, experience and professional registration I fulfill the requirements of a "qualified person" as defined in NI 43-101.
5. I visited the Mercur property on October 12, 2022.
6. I am responsible for Sections 1.4, 11, 12, 14.8, and 14.11, and 25-27.
7. I am independent of Ensign Minerals Inc. as described in section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101.
10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 1st day of February 2024

"*Signed and Sealed*"

Bruce Davis

Geostatistical Associate of Lions Gate Geological Consulting Inc.

CERTIFICATE OF QUALIFIED PERSON

1. I, **Michael S. Lindholm**, C.P.G., do hereby certify that I am currently employed as Principal Geologist by RESPEC Company LLC (formerly Mine Development Associates, Inc.), 210 South Rock Blvd., Reno, Nevada 89502 and:

2. I graduated with a Bachelor of Science degree in Geology from Stephen F. Austin State University in 1984 and a Master of Science degree in Geology from Northern Arizona University in 1989. I have worked as a geologist for more than 30 years. I am a Certified Professional Geologist in good standing with the American Institute of Professional Geologists (#11477). I am also registered as a Professional Geologist in the state of California (#8152).

3. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101"). I have previously conducted exploration, definition, modeling and estimation of similar Carlin-type, sediment-hosted epithermal gold-silver deposits in the western US. I certify that by reason of my education, affiliation with certified professional associations, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

4. I visited the Mercur Project site on May 17 and 18, 2021. Prior to those dates, I have had no involvement with the property that is the subject of this technical report.

5. I am responsible for Section 1.0, 1.1, 1.2, 1.3, 2 through 10, 11.1, 11.2, 12.2, 12.3 and 12.4, 15 through 24 and 27 of this technical report titled, "*NI 43-101 Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA*", with an effective date of December 5, 2023 (the "Technical Report").

6. I am independent Ensign Minerals Inc., and all of their subsidiaries, and the Mercur Property, as defined in Section 1.5 of NI 43-101 and in Section 1.5 of the Companion Policy to NI 43-101.

7. As of the effective date of this Technical Report, to the best of my knowledge, information, and belief, this Technical Report contains all the scientific and technical information that is required to be disclosed to make those parts of this Technical Report for which I am responsible for not misleading.

8. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated this 1st day of February 2024

"*Michael S. Lindholm*"

Michael S. Lindholm

CERTIFICATE OF QUALIFIED PERSON

I, **Carl Defilippi**, RM SME, of Reno, Nevada, USA, Project Manager at Kappes, Cassiday & Associates, as an author of this report entitled "NI 43-101 Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA" with an effective date of December 5, 2023, prepared for Ensign Minerals Inc. do hereby certify that:

1. I am employed as a Project Manager at Kappes, Cassiday & Associates, an independent metallurgical consulting firm, whose address is 7950 Security Circle, Reno, Nevada 89506.
2. This certificate applies to the report "NI 43-101Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA" with an effective date of December 5, 2023, (the "Technical Report").
3. I am a registered member with the Society of Mining, Metallurgy and Exploration (SME) since 2011 and my qualifications include experience applicable to the subject matter of the Technical Report. In particular, I am a graduate of the University of Nevada with a B.S. in Chemical Engineering (1978) and a M.S. in Metallurgical Engineering (1981). I have practiced my profession continuously since 1982. Most of my professional practice has focused on the development of gold-silver leaching projects. I have successfully managed numerous studies at all levels on various cyanidation projects.
4. I am familiar with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and by reason of education, experience and professional registration I fulfill the requirements of a "qualified person" as defined in NI 43-101.
5. I have not visited the Mercur property.
6. I am responsible for Sections 1.5 and 13 and co-responsible for Sections 25 to 27 as they pertain to metallurgy.
7. I am independent of Ensign Minerals Inc. as described in section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101.
10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 1st day of February 2024

"*Carl Defilippi*"

Carl Defilippi, RM SME

Project Manager at
Kappes, Cassiday & Associates

NI 43-101 TECHNICAL REPORT FOR THE MERCUR PROJECT,
CAMP FLOYD AND OPHIR MINING DISTRICTS, TOOELE & UTAH COUNTIES, UTAH, USA

Prepared for:

Ensign Minerals Inc.

1055 West Hastings Street, Suite 1700

Vancouver, British Columbia

V6E 2E9 Canada

DATE AND SIGNATURES

Signed in Sechelt, BC, 1st February 2024
"Signed and Sealed"

Susan Lomas, P. Geo.,
LGGC, Principal

Signed in Grand Junction, CO, 1st February 2024
"Signed and Sealed"

Bruce Davis, FAusIMM
LGGC, Associate

Signed in Reno, NV, 1st February 2024
"Signed and Sealed"

Michael S. Lindholm, CPG
RESPEC Company LLC

Signed in Reno, NV, 1st February 2024
"Signed and Sealed"

Carl Defilippi, RM-SME
Kappes, Cassiday & Associates

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1.0 SUMMARY (ITEM 1)

This technical report on the Mercur project has been prepared at the request of Ensign Minerals Inc. ("Ensign"), a privately held company registered in British Columbia. This report has been prepared in accordance with disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 – Standards of Disclosure for Mineral Projects, Companion Policy 43-101CP, and Form 43-101F1 (collectively, "NI 43-101"). The purpose of this technical report is to provide an update on the mineral resources at the Mercur Project and to support efforts to raise capital to continue exploration and development activities.

The authors of this report are:

- Susan Lomas, P. Geo, a principal of Lions Gate Geological Consulting Inc. ("LGGC"), Sechelt, British Columbia;
- Bruce Davis, FAusIMM, an associate of LGGC, Grand Junction, Colorado;
- Michael S. Lindholm, CPG, a principal geologist at RESPEC Company LLC, Reno Nevada; and
- Carl Defilippi, RM-SME, a project manager at Kappes, Cassiday & Associates, Reno, Nevada.

Each author is an Independent Qualified Person ("QP") as defined by NI 43-101 and has no affiliation with Ensign.

The effective date of this technical report is December 5, 2023.

1.1 Property Description and Ownership

The Mercur project is the area of Ensign's recent gold exploration activity located 57km southwest of Salt Lake City, Utah in the Camp Floyd and Ophir mining districts in the southern Oquirrh Mountains, centered at approximately 40.32°N, 112.22°W (the "Mercur Project"). The Mercur Project includes four informally named sub-areas. These are known as the Main Mercur area, South Mercur area, West Mercur area and North Mercur area.

The Mercur property includes the real property interests at the Mercur Project as listed in Appendix A (the "Mercur Property"). The Mercur Property includes interests in 463 patented mining claims, 426 fee land tax parcels, 395 unpatented lode mining claims, three unpatented mill site claims, and six Utah state metalliferous minerals leases that cover approximately 6,255 net hectares (15,450 net acres) of mineral rights. The holding costs for the Mercur Property in 2024 are approximately US$236,000. Holding costs for 2025 are projected to be about $425,300.

The title to the Mercur Property is held by Ensign's wholly owned subsidiary, Ensign Gold (US) Corp. ("EGUS"), by way of five key agreements with mining companies, four leases with private parties, and the staking of 145 additional mining claims. The five key agreements include:

1. A mineral lease option agreement with Barrick Gold Exploration Inc. ("BGEI") and Barrick Resources (USA) Inc. ("Barrick"), the entity that owns the Mercur mine properties, on May 13, 2021, under which Ensign paid CAD$1,000,000 and issued 3,000,000 warrants for shares of Ensign, exercisable at C$0.25/share, for an option to explore Barrick's reclaimed Mercur mine property. The mineral lease option agreement was amended on June 13, 2022, and May 15, 2023, to extend the option exercise period twice, with the second amendment ultimately extending the option exercise period to January 2, 2026. Ensign has completed a work commitment to spend CAD$6,000,000 on the Barrick property during that period. Ensign has the option to acquire Barrick Resources (USA) Inc. and its Mercur mine property at any time until January 2, 2026 with a payment of CAD$20,000,000 in cash, or at BGEI's election, in Ensign common shares at market price. The Barrick Mercur mine property includes 996 net hectares of mineral interests.

2. An option and assignment agreement with Geyser Marion Gold Mining Company ("Geyser Marion") on October 25, 2021, as amended on October 13, 2023, under which Geyser Marion granted Ensign a five-year option to explore its 673 net hectares of mineral interests in exchange for 1,050,000 shares of Ensign stock, and an option to purchase its properties for $127,188. The properties include 300 net hectares of mineral interests at Main Mercur, as well as 373 net hectares of mineral interests at West Mercur that were already under lease to Ensign. The October 13, 2023 amendment also expanded the definition of an 'initial public offering' in the option and assignment agreement to include Ensign's completion of a business combination transaction with a corporation listed on the TSXV.

3. An option and assignment agreement with Sacramento Gold Mining Company ("Sacramento") on October 25, 2021, as amended on October 13, 2023, under which Sacramento granted Ensign a five-year option to explore its 90 net hectares of mineral interests at Main Mercur in exchange for 150,000 shares of Ensign stock, and an option to purchase its properties for $37,500. The October 13, 2023 amendment also expanded the definition of an 'initial public offering' in the option and assignment agreement to include Ensign's completion of a business combination transaction with a corporation listed on the TSXV.

4. A merger agreement on August 17, 2020, under which Priority Minerals Limited ("Priority") merged into EGUS in exchange for 4,200,000 shares of Ensign, delivered to Energold Minerals Inc., the parent of Priority. With this merger, Ensign acquired 213 net hectares in the South Mercur area.

5. An assignment agreement dated August 3, 2020, under which Rush Valley Exploration Inc. agreed to assign its properties to EGUS in exchange for 4,000,000 shares of Ensign. These properties included 3,579 net hectares of mineral interests, primarily in the West Mercur area.

1.2 Exploration and Mining History

Mercur was the first Carlin-type gold deposit to be discovered in the Great Basin of the western US. Some individual Carlin-type districts in Nevada, such as Gold Acres, Getchell, Carlin and Cortez, have had production of 10 million ounces of gold or more.

The Mercur Project area experienced four cycles of mining activity beginning with the underground mining of small bonanza-grade silver deposits in 1870-1881, which yielded more than 438,000 ounces of silver. Sedimentary rock-hosted, disseminated gold deposits (Carlin-type) were discovered at Mercur in 1883. In 1890, the first commercial use of cyanide for gold extraction was developed and later proved successful at Mercur. The Golden Gate mill was constructed at Mercur and was the largest gold mill in the US in 1900, with a capacity of 1,000 short tons per day. By 1917, Mercur had produced over 920,000 ounces of gold – decades before similar Carlin-type deposits in Nevada were beginning to be discovered.

Mercur experienced renewed activity on a small scale between 1931 and 1945. Recorded production for this period totals 194,194 ounces of gold and 173,955 ounces of silver.

In the 1970s and early 1980s, Getty Oil Company consolidated a large land position at Mercur and Homestake Mining Company consolidated a large land position around the historic underground mines at South Mercur. Getty's work ultimately led to the development of the Mercur open pit mine and CIL mill complex in 1983. Homestake's South Mercur project was vended to Priority and that area remains undeveloped.

In 1985, Getty sold the Mercur mine to a subsidiary of American Barrick Resources Corporation (later renamed Barrick Gold Corporation). Barrick added a dump leach circuit for low-grade material and added an autoclave to pretreat refractory material for the CIL mill. Total gold production by Getty and Barrick from the Mercur mine through closure in 1998 was 1,490,000 ounces of gold.

Historical calculations of the cumulative mining in the Mercur district between 1890 and 1988 indicate a total of 37,559,828 tonnes of mineralized material were mined at an average grade of 2.884g/t Aug/t Au, containing 3,488,375 ounces of gold, from which 2,605,207 ounces of gold were recovered. Silver production is recorded at 1,183,724 ounces, about half mined from primary silver deposits and the other half produced as by-product of the gold deposits.

In 2011 a founder of Rush Valley Exploration Inc. ("RVX") noted a remote sensing anomaly in the pediment 5km west of Mercur in what is now known as the West Mercur area. A field check of the anomalous area revealed previously unmapped limestone outcrops in the alluvium, along with local outcrops of gold-bearing jasperoid. These findings generated interest in the potential for gold deposits concealed by thin alluvial cover along the range front near Mercur. RVX consolidated a large land position at West Mercur, compiled historical data, and collected rock and soil samples to generate exploration targets.

Ensign acquired the RVX properties in 2020 and commenced acquisition of additional prospective lands throughout the Mercur district. Subsequently, Ensign has worked on evaluation of the extensive database associated with the historical operations, collected 836 soil samples, conducted geologic mapping and rock sampling in select areas, and drilled 114 holes totaling 18,236 meters.

There is no available historical resource estimate pertaining to the gold mineralization that may have remained unmined by Barrick when the Mercur mine closed in 1997. At South Mercur, an historical "feasibility study" identified "current mineable reserves" of 1,411,300 tons at 0.059 oz/ton Au (Priority and WCC, 1988). "Additional geological reserves" of 1,100,000 tons at 0.046oz Au/ton were also identified (Priority and WCC, 1988). These historical estimates predate the CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Definition Standards") and NI 43-101, and therefore the terms "feasibility study", "current mineable reserves" and "additional geological reserves" could not reference the level of study or resource and reserve categories as they are currently applied. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Ensign is not treating these historical estimates as current resources or reserves.

With respect to key assumptions, parameters, and methods used to prepare the historical estimates reported by Priority and WCC (1988), the authors are aware only that "current mineable reserves" were calculated from polygonal shapes manually drawn on ten-foot bench plans around pierce points of RC drill holes spaced about 50 to 100 feet apart. The tons, grades and ounces derived using these polygonal methods are considered only as broad indicators of the extents and tenor of mineralized material that may exist at South Mercur, and are relevant as a guide for potential delineation of resources. A qualified person has not done sufficient work to classify these estimates as current mineral resources or reserves as defined in the CIM Definition Standards, and accordingly, should not be relied upon.

1.3 Geology and Mineralization

The Mercur Project encompasses a large portion of the Ophir anticline, a north-northwest trending, doubly plunging fold which exposes a very thick sequence of Mississippian carbonate platform stratigraphy. The important host unit for gold mineralization is the approximately 1,000m-thick Mississippian Great Blue Limestone. This unit is subdivided into the Lower Great Blue Member, the Mercur Member, the Long Trail Shale Member, and the Upper Great Blue Member. The known mineralization along the east flank of the Ophir anticline (North, South and Main Mercur) occurs in the Mercur Member. Along the west flank of the Ophir anticline (West Mercur), the known mineralization occurs in the Upper Great Blue Member, near the contact with the overlying Pennsylvanian Manning Canyon Shale,

The gold deposits at Mercur are classified as Carlin-type gold deposits, which tend to occur as micron size gold particles disseminated in silty, calcareous, and carbonaceous marine sedimentary rocks. At Mercur, the mineralization was deposited in favorable beds of the Mercur Member, where faulting created structural preparation of the rocks and pathways for hydrothermal transport of mineralizing fluids. There is an apparent spatial and temporal association of the gold mineralization with early Oligocene dikes and sills of Eagle Hill Rhyolite.

1.4 Drilling, Database, Data Verification

Ensign has acquired a large volume of digital project data from Barrick and Priority and has access to hundreds of boxes of hardcopy files, which have not yet been fully reviewed. At South Mercur and West Mercur, the digital drill hole spreadsheets have been compared against a small number of available assay certificates and copies of drill logs with annotated assays, and any incorrect data entry errors have been corrected. For the Mercur mine area, the comparison of the paper records of the historical drilling and assaying to digital database is in process. It is complicated by revisions made to data in the original paper records which are not stored in proximity to the original, uncorrected records, but which are reflected in the Barrick digital database.

As of the effective date of this report, the digital project database includes location and other data from 2,970 holes, for a total of more than 279,800 meters, that were drilled by Newmont, Getty, Homestake, Touchstone Resources, Barrick, Priority, Kennecott, and Ensign. This includes 108 holes totaling 17,618m drilled and sampled by Ensign in the South, West and Main Mercur areas between 2020 and 2022.

Ensign is still in the process of evaluating and verifying the large volume of project data, with an early emphasis on using the digital drill hole data to guide exploration drill site selection.

1.5 Mineral Processing and Metallurgical Testing

Records of historical operations at Mercur from 1983 through 1995 indicate three different processing streams were used; oxide ore was processed via a carbon-in-leach plant, refractory sulphide ore was processed via a pressure oxidation circuit followed by carbon-in-leach, and low-grade ore was processed via a dump leach. Over 27 million tonnes of ore were processed and over 1.3 million ounces of gold were produced during this time.

For the purposes of estimating heap leach recoveries for current pit shell optimization, Ensign has assumed recoveries using historical DCN and CIL test data acquired during previous drilling campaigns, assigned DCN recoveries from this data to identified domains and applied a 15% discount to the DCN recovery to simulate heap leach recoveries. These assumed recoveries are as follows:

Table 1.1 Assumed Heap Leach Recoveries by Domain

Domain	Assumed Heap Leach Recovery
Marion Hill - Rover	68%
Golden Gate	32%
Mercur Hill - North	63%
Mercur Hill - South	58%
Sacramento	65%
South Mercur	55%

Further planned metallurgical testing includes variability testing of the identified domains, including a suite of column leach tests, additional bottle roll tests, preg-robbing index tests, agglomeration and comminution tests, among others.

1.6 Mineral Resource Estimates

Mineral resource estimates were generated using drill hole sample assay results and the interpretation of geologic models that relate to the spatial distribution of gold. Grade estimates are made using ordinary kriging into 3D model blocks measuring 50 × 50 × 30 ft (L × W × H) and the effects of anomalous high-grade samples were controlled by outlier limitations, which restrict the distance of influence of high-grade samples during estimation. The results of the modeling process were validated using a combination of visual and statistical methods to ensure the model grades are reasonable representations of the underlying sample data.

Mineral resources within a maximum distance of 400 ft from two drill hole are included in the Inferred category. To ensure the mineral resources exhibit reasonable prospects for eventual economic extraction, the mineral resources are constrained within a pit shell generated using projected technical and economic parameters and tabulated at a base case cut-off grade of 0.20 g/t gold (Au).

Estimates of the Inferred mineral resources are shown in Table 1.2.

Table 1.2 Estimate of Inferred Mineral Resources Reported at 0.20 g/t Au Cut-off

Area	Tonnes (Mt)	Au (g/t)	Contained Metal
			Au (Moz)
Main Mercur	74.1	0.57	1.35
South Mercur	15.6	0.59	0.29
Total	89.6	0.57	1.64

Notes:

1) The effective date of the Mineral Resource is December 5, 2023. The QPs for the Mineral Resource are Susan Lomas, P. Geo. of Lions Gate Geological Consulting Inc (LGGC) and Dr. Bruce Davis FAusIMM.
2) CIM Definition Standards were used for Mineral Resource classification and in accordance with CIM MRMR Best Practice Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. It is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
3) High-grade samples in Main Mercur were restricted using an outlier strategy of 20 g/t Au for 150 ft (~45 m) from the composite. No grade restrictions were used in South Mercur.
4) Mineral Resources were tabulated within an optimized conceptual pitshell. The price, recovery and cost data translate to a marginal cut-off grade of approximately 0.20 g/t Au for heap leach processing method. The cut-off grade include considerations of a $1,800/oz Au price, heap leach recovery as per the values by area of 58% for Mercur Hill South, 32% for Golden Gate, 63% for Mercur Hill North, 68% for Marion Hill/Rover, 65% for Sacramento and 55% for South Mercur; open pit mining cost of $2.75/st ore mined and $2.25/st waste mined and $1.50/st backfill mined; processing and G&A cost of $6.17/st processed (G&A cost included, $0.50/st processed (heap leach)); pit slope of 45° in rock and 38° in fill. Bulk density value of 2.76 was used for mineralized material.
5) Rounding may result in apparent discrepancies between tonnes, grade and contained metal content.

When compared to the mineral resource summations disclosed in the NI 43-101 Report dated November 30, 2023, "*NI 43-101 Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA*", using the same reporting cut-off, 0.20 g/t Au:

- The in-situ gold ounces in the Main Mercur area decreased by 1.5% in the current mineral resource estimation due solely to the change in the topographic surface and the resulting resource limiting pitshell. No changes were made to the underlying block model interpolation.

- The in-situ gold ounces in the South Mercur area increased by 3.5% in the current mineral resource estimation due solely to the acquisition of additional mineral rights in the South Mercur area. Originally Ensign had 50% of the mineral rights for certain patented claims and this has increased to 75% (Figure 14-17). No changes were made to the underlying block model interpolation.

1.7 Conclusions and Recommendations

Based on the evaluation of the data available from the Mercur Project, the authors of this Technical Report conclude the following:

- At the effective date of this Technical Report (December 5, 2023), Ensign owns or has the right to acquire a 100% working interest in the Mercur Property covering 6,255 ha of mineral rights.
- The Mercur Property deposits are characterized as Carlin-style deposits in which favorable stratigraphic units have undergone structural preparation and host disseminated gold mineralization.
- Modern exploration on the Mercur Property began in 1969. From 1983 through 1998 the Mercur Mine was operated by Getty and then Barrick. Production over the period amounted to 1,490,000 troy ounces of gold.
- The Mercur deposits are estimated to contain 89.6M tonnes of mineral resources in the Inferred category at a grade of 0.57 g/t Au, for 1.64M ounces Au. These mineral resources are constrained within a pit shell generated using a gold price of US$1,800/oz and summarized using a base case cut-off grade of 0.20 g/t Au.
- There are no known factors related to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues which could materially affect the mineral resource estimates.

The authors conclude that the Mercur Project is a project of merit that warrants significant additional investment. There are opportunities to expand the inferred mineral resources and to identify new gold resources beyond the pit margins of the historical Mercur mine. At South Mercur there are opportunities to expand the known gold mineralization.

In addition to the potential to expand historically drilled mineralization at the Main Mercur and South Mercur areas, the Mercur Project offers several exploration opportunities for new targets. At Main Mercur, the potential for mineralized feeder structures and deeper, potential stratigraphic host units is under-explored. At South Mercur, where mineralization seems to occur at the intersection of the northerly striking Mercur Member beds and northwest-trending structural zones, there is potential for the discovery of new *en echelon* pods of mineralization. The West Mercur pediment is a greenfields area that holds potential for deposits concealed beneath relatively thin alluvial cover. North Mercur is an early-stage exploration area that has permissive geology for new silver and gold discoveries.

The initial phase of recommended work has an estimated total cost of US$355,000 (approximately CAD$451,000) as summarized in

Table 26.11.3. The program would focus on metallurgical testwork to support a Preliminary Economic Assessment and optimization of the current Inferred Mineral Resource. Additional work would include property-wide prospecting and geologic mapping, identification of areas for geophysical and geochemical surveying, permitting studies and maintenance of the land position. Subsequent work outlined in Phase 2, would be contingent upon the results of the Phase 1 activities.

Table 1.3 Ensign Cost Estimate for the Recommended Programs

Item	Cost
Phase 1 – Q1 & Q2, 2024	
Land Tenure Fees	$25,000
Exploration Overhead*	$100,000
Metallurgical Test Work	$160,000
Permitting and Baselining	$30,000
Admin and Travel	$40,000
Sub Total	**$355,000**
Phase 2 – Q3 & Q4, 2024	
Land Tenure Fees	$225,000
Exploration Overhead*	$250,000
Reclamation Bonds	$50,000
Resource Optimization	$95,000
Permitting and Baselining	$60,000
Preliminary Economic Assessment	$120,000
Reclamation Activities	$50,000
Admin and Travel	$60,000
Sub Total	**$910,000**
Grand Total (Phase 1 and 2)	**$1,265,000**

** Includes estimated payroll, consultants, travel and meals, computer software, storage rental and necessary supplies.*

2.0 INTRODUCTION AND TERMS OF REFERENCE (ITEM 2)

This technical report on the Mercur project was prepared at the request of Ensign Minerals Inc. (“Ensign”), a privately held company registered in British Columbia This report has been prepared in accordance with disclosure and reporting requirements set forth in the Canadian Securities Administrators’ National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1 (“NI 43-101”). The Mercur Property is controlled by Ensign Gold (US) Corp. (“EGUS”), a Nevada corporation and a wholly owned subsidiary of Ensign.

2.1 Project Scope and Terms of Reference

The purpose of this technical report is to provide an update on the mineral resources at the Mercur Project and to support efforts to raise capital to continue exploration and development activities. This technical report builds upon previous technical reports on the Mercur Project on behalf of Ensign (Lomas et al., 2023; Lindholm et al., 2022) and a technical report on the West Mercur Project on behalf of Rush Valley Exploration Inc. (Lunbeck, 2019). The scope of the work completed by the authors included a review of pertinent reports and data provided to the authors by Ensign relative to the general setting, geology, project history, exploration and mining activities and results, drilling programs, methodologies, quality assurance, metallurgy, and interpretations. References are cited in the text and listed in Section 0.

This report has been prepared under the supervision of Susan Lomas, Professional Geologist of Sechelt, British Columbia (“P. Geo”) and a principal of Lions Gate Geological Consulting Inc. of Sechelt, British Columbia; Bruce Davis, Fellow of the Australasian Institute of Mining and Metallurgy (“FAusIMM”) and an independent consulting geostatistician, Grand Junction, Colorado; Michael S. Lindholm, Certified Professional Geologist (“CPG”) of the American Institute of Professional Geologists and Principal Geologist for RESPEC Company LLC (“RESPEC”), Reno, Nevada; and Carl Defilippi, Registered Member of the Society for Mining, Metallurgy & Exploration (“RM-SME”) and a project manager at Kappes, Cassiday & Associates, Reno, Nevada. Ms. Lomas, Mr. Davis, Mr. Lindholm and Mr. Defilippi are Qualified Persons under NI 43-101 and have no affiliation with Ensign except that of an independent consultant/client relationship.

List of Qualified Persons and Report Sections they Authored or Co-Authored

QP Name and Professional Designation	Report Section Authored
Susan Lomas, P.Geo.	1.0, 1.1, 1.2 - 1.7, 2, 3, 14, 15 – 27
Bruce Davis, FAusIMM	1.4, 11, 12, 14.8 and 14.11, 25 - 27
Michael Lindholm, CPG	1.0, 1.1, 1.2, 1.3, 2, 3, 4 – 10, 11.1, 11.2, 12.2, 12.3, 12.4, 15 - 24, 27
Carl Defilippi, RM-SME	1.5, 13, 25 - 27

Mr. Lindholm visited the Mercur Project on May 17 and 18, 2021. He was accompanied by Mr. David Mako, Mr. Calvin Mako, Mr. William Wulftange, Mr. Norm Pitcher, Mr. James Lunbeck and Mr. Michael Ressel, all employees or contractors of Ensign. Also in attendance was Mr. Kevin Hamatake, representing Barrick. Altered and mineralized rocks associated with Barrick's open pit mining and gold production at Main Mercur were examined on the first day. Also observed were the tailings impoundment facility, the remaining infrastructure, and the current state of reclamation at the historical Mercur mine site. The next day, the geology and remnants of historical mining were examined at South Mercur and West Mercur. The North Mercur area of the property was not visited due to difficult access (snow cover).

Mr. Davis visited the Mercur property on October 12, 2022. He inspected drill core, reverse circulation samples, and sampling equipment. He reviewed drill practices and viewed reverse circulation drill set up, operation and sampling. He viewed outcrop and reviewed geological models and assay QA/QC practice. He verified Ensign drill hole locations. Since his site visit, Mr. Davis has continuously monitored the completion of the minor drilling, sampling, assaying and metallurgical test work programs at the Mercur site. He is not aware of any information obtained from those programs after the visit contradicting interpretations or expectations from that time. Mr. Davis is satisfied that work completed since his visit has not materially affected or changed the project.

Personal site inspections of the Mercur Project were not conducted by Ms. Lomas or Mr. Defilippi.

The authors have reviewed the available data and have made judgments as to the general reliability of this information. Where deemed either inadequate or unreliable, the data were either eliminated from use or procedures were modified to account for lack of confidence in that specific information. Ms. Lomas, Mr. Davis, Mr. Lindholm and Mr. Defilippi have made such independent investigations as deemed necessary in their professional judgment to be able to reasonably present the conclusions discussed herein.

The effective date of this technical report is December 5, 2023.

2.2 Frequently Used Acronyms, Abbreviations, Definitions, and Units of Measure

In this report, measurements are generally reported in metric units. Where information was originally reported in United States Customary units, MDA has made the conversions as shown below.

Linear Measure

1 centimeter	= 0.3937 inch	
1 meter	= 3.2808 feet	= 1.0936 yard
1 kilometer	= 0.6214 mile	

Area Measure

1 hectare	= 2.471 acres	= 0.0039 square mile

Capacity Measure (liquid)

1 liter	= 0.2642 US gallons	

Weight

1 tonne	= 1.1023 short tons	= 2,205 pounds
1 kilogram	= 2.205 pounds	

Conversion of United States Customary units to Metric Grades

1 troy ounce per short ton	= 34.2857 grams per metric tonne

Currency: Unless otherwise indicated, all references to dollars ($) in this report refer to currency of the United States.

Frequently used acronyms and abbreviations

AA	atomic absorption spectrometry
AES	atomic emission spectroscopy
Ag	silver
Au	gold
cm	centimeters
core	diamond core-drilling method
ºC	degrees centigrade
CAD$	Canadian dollars
CIL	carbon- in-leach …
DCN	direct cyanide leach analyses
°F	degrees Fahrenheit
ft	foot or feet
g/t	grams per tonne
g/t Au*m	grade-thickness interval in grams gold per tonne x meter
ha	hectares
ICP	inductively coupled plasma analytical method
in.	inch or inches

kg	kilograms
km	kilometers
l or L	liter
lbs	pounds
µm	micron
m	meters
M	million
Ma	million years old
mi	mile or miles
mm	millimeters
MS	mass spectrometry
mtpd	metric tonnes per day
NSR	net smelter return
OES	Optical Emission Spectroscopy
oz	troy ounce
oz/ton	ounces per short ton
POX	pressure oxidation
ppm	parts per million
ppb	parts per billion
QA/QC	quality assurance and quality control
RC	reverse-circulation drilling method
st	short tons
stpd	short tons per day
t	metric tonne or tonnes
ton	short ton
tpd	short tons per day

3.0 RELIANCE ON OTHER EXPERTS (ITEM 3)

The QPs are not experts in legal matters, such as the assessment of the validity of mining claims, mineral rights, and property agreements in the United States or elsewhere. Furthermore, the authors did not conduct any investigations of the environmental, social, or political issues associated with the Mercur Project, and are not experts with respect to these matters. The authors have therefore relied fully upon information and historical title opinions provided by Ensign to Mr. David T. Terry, professional landman of Thames River LLC with regards to the following:

- Section 4.2, which pertains to land tenure, was the subject of limited due diligence reviews of the Mercur Property prepared by Mr. Terry of Thames River LLC (dated June 29, July 23, and November 11, 2021, and September 21, 2023);
- Section 4.3, which pertains to legal agreements and encumbrances, was the subject of limited due diligence reviews of the Mercur Property prepared by Mr. Terry of Thames River LLC (dated June 29, July 23, and November 11, 2021, and September 21, 2023); and
- Section 4.4, which pertains to environmental permits and liabilities, was the subject of a summary of environmental liabilities at Mercur in a report dated August 22, 2023, prepared by David Mako of Ensign.

With such details being contained in the following reports from Mr. Terry and Mr. Mako:

- Terry, D.T., 2021, Letter dated June 29, 2021, summarizing review of Ensign Gold's Mercur mining claims and fee lands title status: prepared for Ensign Gold (US) Corp. by Thames River LLC of Salt Lake City, Utah, 2 p.
- Terry, D.T., 2021b, Letter dated July 23, 2021, summarizing review claims and fee lands title status of Sacramento Gold Mining Company and Geyser Marion Gold Mining Company properties: prepared for Ensign Gold (US) Corp. by Thames River LLC of Salt Lake City, Utah, 2 p.
- Terry, D.T., 2021c, Letter dated November 11, 2021, summarizing review of Sections 4.2 and 4.3 of the Technical Report: prepared for Ensign Gold (US) Corp. by Thames River LLC of Salt Lake City, Utah, 2 p.
- Terry, D.T., 2023, Due diligence title work, Mercur: Letter dated September 21, 2023: prepared for Ensign Gold (US) Corp. by Thames River LLC of Salt Lake City, Utah, 3 p. and 4 Appendices, including: A) Map and List of Properties; B) County Status of Private Lands; C) BLM Status of Unpatented Claims; and D) SITLA Status of State Leases.
- Mako, D.A., 2023, Summary of environmental liabilities pertaining to historical mining at Mercur: Ensign Minerals Inc. memo, 12 p.

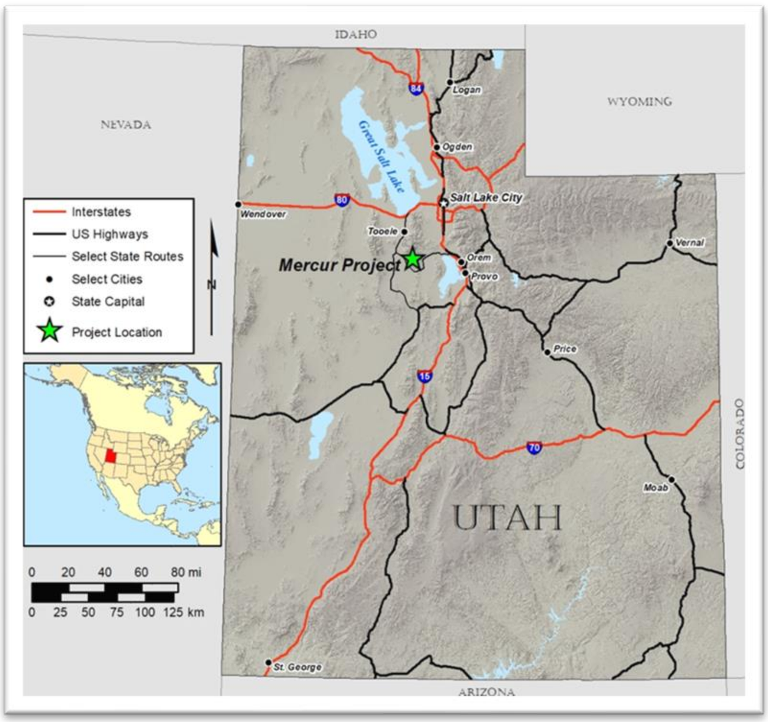
4.0 PROPERTY DESCRIPTION AND LOCATION (ITEM 4)

4.1 Location

Ensign's Mercur gold project and property is located in Tooele and Utah counties, Utah, 57km southwest of Salt Lake City (Figure 4.1 and Figure 4.2). The property is centered at approximately 40.32°N, 112.22°W, and is within the historical Camp Floyd mining district and the southern part of the Ophir mining district. The Mercur Property includes the formerly producing Mercur gold mine, which was last operated by Barrick Resources (USA) Inc. ("Barrick"), a subsidiary of Barrick Gold Corporation.

Figure 4.1 Location Map for the Mercur Project

(from Ensign, 2023)



4.2 Land Area

Ensign owns or controls an exclusive 100% working interest in the Mercur Property, which consists of those real property interests listed in Appendix A. These properties include interests in 395 unpatented lode claims, three unpatented millsite claims, 463 patented mining claims, 426 fee land tax parcels comprised of surveyed lots, and six Utah School and Institutional Trust Lands Administration ("SITLA") metalliferous minerals leases located in the Oquirrh Mountains of Tooele and Utah counties, Utah. All of the properties, lease agreements and option agreements of Appendix A are held by Ensign Gold (US) Corp. ("EGUS"), a Nevada corporation and a wholly owned subsidiary of Ensign.

The Mercur Property covers approximately 6,255 net hectares (15,450 net acres) of mineral rights as shown in Figure 4.2 and

Figure 4.3, and occupies portions of:

- Sections 29 through 33 of Township 5 South, Range 3 West;
- Sections 25 through 29 and 32 through 35 of Township 5 South, Range 4 West;
- Sections 4 through 9, 17 through 22, and 27 through 32 of Township 6 South Range 3 West; and
- Sections 1 through 4, 10 through 15, 23 through 25, and 36 of Township 6 South, Range 4 West, Salt Lake Base and Meridian.

A listing of the patented and unpatented claims and leasehold interests that comprise the property is provided in Appendix A, Parts 1 through 6. Note that for most of the parcels in Appendix that are less than 100% interest, the remaining interest is also held by Ensign due to overlapping leases, options or acquisitions. The few cases where a total of less than 100% interest is controlled by Ensign are shown in Figure 4.3. These partially controlled properties do not impact the ability to complete the work program proposed herein. Less than 1% of the inferred resource described in Section 14 is affected by partially controlled properties, and the inferred resource has been discounted to account for that partial control. Ensign represents that the list of claims and leasehold interests in Appendix A is complete to the best of its knowledge as of the effective date of this report.

Ownership of the unpatented mining claims is in the name of the holder (locator), subject to the paramount title of the United States of America, under the administration of the U.S. Bureau of Land Management ("BLM"). Under the Mining Law of 1872, which governs the location of unpatented mining claims on federal lands, the locator has the right to explore, develop, and mine minerals on unpatented mining claims without payments of production royalties to the U.S. government, subject to the surface management regulation of the BLM. Currently, annual claim-maintenance fees are the only federal payments related to unpatented mining claims, and these fees have been paid in full to September 1, 2024. The current annual holding costs for the Mercur Project unpatented mining claims are estimated at $66,700 (

Table 4.1), including the county recording fees. This cost is calculated to reflect the annual holding cost of $165 per claim.

Other annual land holding costs, including county taxes for the patented claims and leased fee lands, and lease payments due to third-party claim owners, are listed in

Table 4.1. The total 2024 land-holding costs are estimated to be about $236,000. In 2025, the total land holding costs are projected to be $425,300.

The Mercur Project includes four informally named sub-areas. These are known as the Main Mercur area, South Mercur area, West Mercur area, and North Mercur area in Figure 4.3.

Figure 4.2 Generalized Map of the Mercur Property, Oquirrh Mountains, Utah

(from Ensign, 2024)

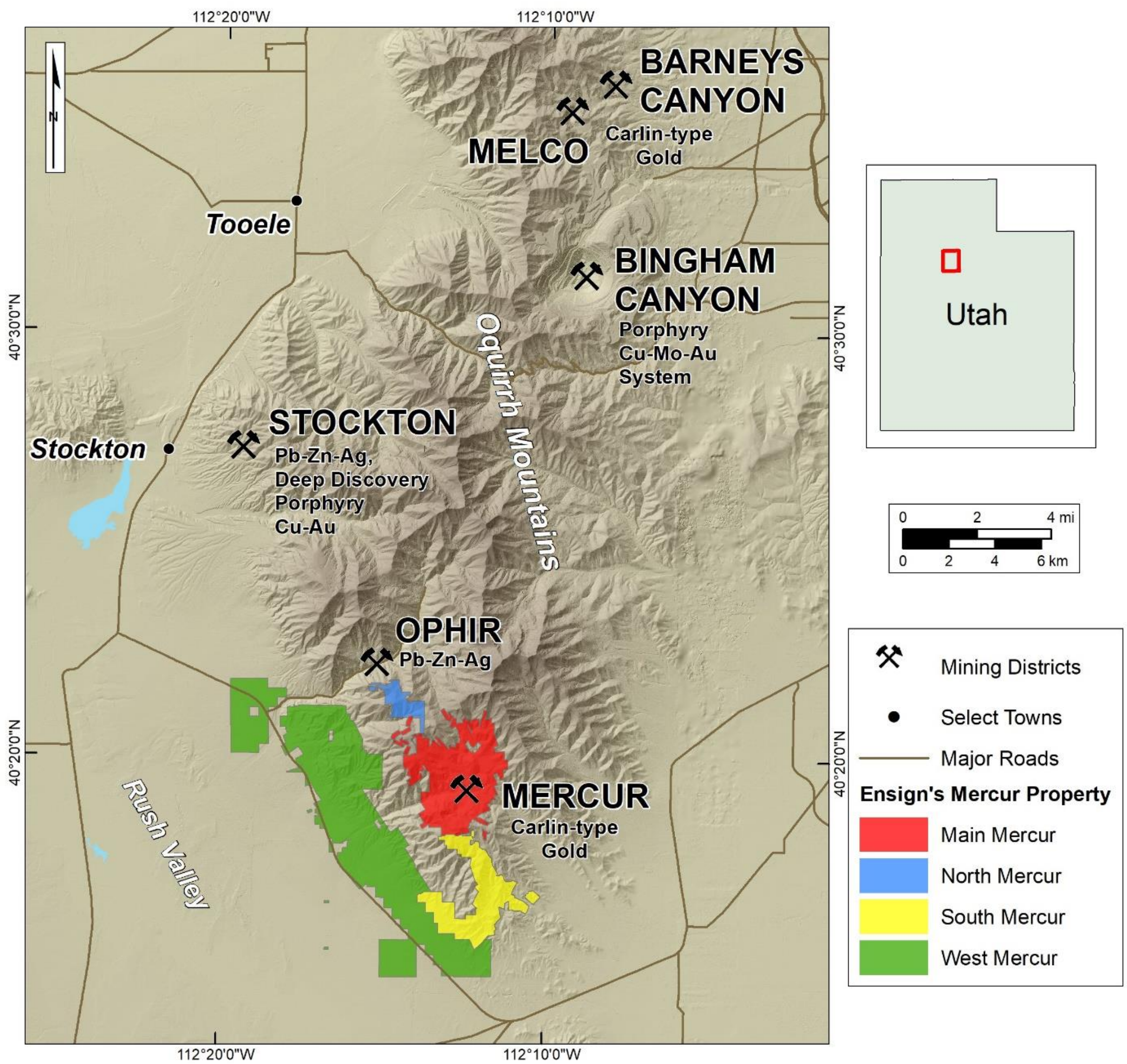


Figure 4.3 Map of the Mercur Property

(from Ensign, 2024)

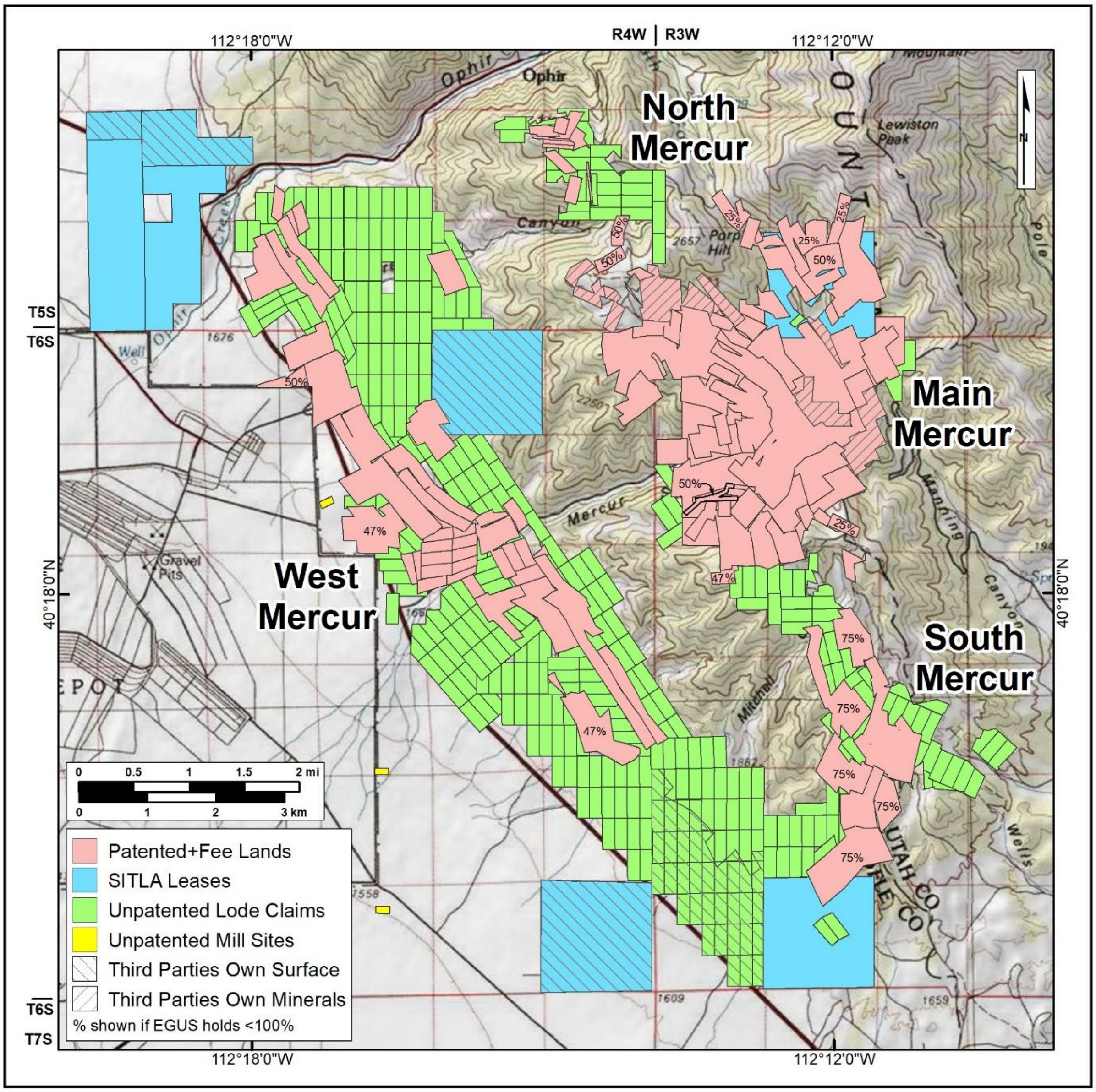


Table 4.1 Summary of 2024 -2025 Estimated Land Holding Costs for the Mercur Property

Annual Fee Type	2024	2025
Unpatented Claims BLM Maintenance Fees	$67,200	$67,200
Unpatented Claims County Filing Fees	$1,200	$1,200
Estimated Holding Costs for Unpatented Mining Claims	**$68,400**	**$68,400**
Tooele and Utah County Patented Claims & Fee Land Taxes	$ 5,600	$5,600
Private Party Mining Lease Agreement Fees (advanced minimum royalties)	$146,000	$145,000
Exercise Private Party Purchase Options		$190,000
Utah SITLA Leases (annual rental and minimum royalty payments)	$16,300	$16,300
Total Estimated Annual Lease Payments, Holding Taxes and Fees	**$167,900**	**$356,900**
Total all Unpatented Claims + Lease Payments and Fees	**$236,300**	**$425,300**

The reviews by Ensign and due diligence reviews by Mr. Terry of Thames River LLC (2021a, 2021b, 2021c and 2023) have not identified any known fatal defects in the title of the claims, and the authors are not aware of any significant land use or conflicting rights, or such other factors and risks that might substantially affect title or the right to explore and mine the property, based on the information provided by Ensign and Thames River LLC.

EGUS holds the surface rights to the patented claims it owns and has leased, subject to various easements and other reservations and encumbrances. EGUS has rights to use the surface of the unpatented mining claims for exploration and mining purposes to September 1, 2024, and which it may maintain on a yearly basis beyond that by timely annual payment of claim maintenance fees and other filing requirements, and subject to the paramount title of the U.S. federal government. EGUS holds surface rights to the areas it has under lease in accordance with the terms of each lease.

Some of the unpatented mining claims and the Utah SITLA leases held by EGUS are split-estate lands in which EGUS controls the mineral rights and private third parties own the surface rights (Figure 4.3). EGUS has the right to conduct casual exploration on these lands (mapping, geochemical sampling, geophysical surveys), but prior agreement with the surface owner is required before undertaking surface disturbing activity such as road construction, drilling or mining. Ensign has no immediate plans for surface disturbing work on these lands, and no surface use agreements have yet been obtained on the split-estate lands.

4.3 Agreements and Encumbrances

Ensign consolidated its land position at the Mercur Project by way of transactions with five mining companies, along with the staking of additional claims and the execution of two mining leases with private parties. The mining company transactions included:

1) An Assignment Agreement between Rush Valley Exploration Inc. ("RVX") and Ensign and its wholly owned subsidiary, EGUS, dated August 3, 2020, under which RVX agreed to assign approximately 3,579 net hectares (8,843 net acres) of mineral rights to EGUS in exchange for 4,000,000 shares of Ensign stock. The assigned property, mostly in the West Mercur area, included 236 unpatented lode mining claims, five Utah SITLA metalliferous minerals leases and eight leases with private parties holding interests in 131 patented claims;

2) An Agreement and Plan of Merger between Ensign and EGUS, and Energold Minerals Inc. ("Energold") and its wholly owned subsidiary, Priority Minerals Limited ("Priority"), dated August 17, 2020, effected the merger of Priority into EGUS in exchange for Energold's receipt of 4,200,000 shares of Ensign stock. By this merger, EGUS acquired ownership interests in 53 patented claims in the South Mercur area totaling 213 net hectares (527 net acres) of mineral rights;

3) A Mineral Lease and Option to Purchase was executed between Barrick Resources (USA) Inc. ("Barrick") and Barrick Gold Exploration Inc. ("BGEI"), Ensign and EGUS on May 13, 2021. The agreement was amended on June 13, 2022, and May 15, 2023, to extend the option exercise period twice, with the second amendment ultimately extending the option exercise period to January 2, 2026. The key terms include a payment of CAD$1,000,000 by Ensign to BGEI upon signing, the issue of 3,000,000 warrants for shares of Ensign to BGEI, exercisable at C$0.25/share, and a two-year lease period during which Ensign must spend CAD$6,000,000 on exploration and evaluation of the Barrick Mercur mine property, all of which have been satisfied. Under the agreement, as amended, Ensign holds an option to complete the purchase of Barrick Resources (USA) Inc. and its Mercur mine property any time prior to January 2, 2026, for CAD$20,000,000 paid to BGEI, at Barrick's election, in cash or Ensign common shares at market price. The Barrick Mercur mine property include interests in 189 patented claims, 174 fee lots, six unpatented lode claims, three unpatented mill site claims, and one Utah SITLA metalliferous minerals lease, which total approximately 996 net hectares (2,462 net acres) of mineral interests;

4) Geyser Marion Gold Mining Company ("Geyser Marion") entered into an Option and Assignment Agreement with Ensign on October 25, 2021. As amended on October 13, 2023, the key terms grant Ensign a five-year option to purchase the properties in exchange for 1,050,000 shares of Ensign stock. The option may be exercised by payment of $127,188 to Geyser Marion. This agreement pertains to interests in 157 patented mining claims and 257 fee lots in the Main Mercur and West Mercur areas, which total 673 net hectares (1,663 net acres) of mineral interests. Sixty-one of these patented mining claims (373 net hectares, 920 net acres) at West Mercur are already under lease to Ensign. Exercise of the purchase option will result in the termination of the lease. The October 13, 2023 amendment also expanded the definition of an 'initial public offering' in the option and assignment agreement to include Ensign's completion of a business combination transaction with a corporation listed on the TSXV.; and

5) Sacramento Gold Mining Company ("Sacramento") entered into an Option and Assignment Agreement with Ensign on October 25, 2021. As amended on October 13, 2023, the key terms grant Ensign a five-year option to purchase the properties in exchange

for 150,000 shares of Ensign stock. The option may be exercised by payment of $37,500 to Sacramento. This agreement pertains to interests in 21 patented mining claims in the Main Mercur area, which total 90 net hectares (222 net acres) of mineral interests. The October 13, 2023 amendment also expanded the definition of an ‘initial public offering’ in the option and assignment agreement to include Ensign’s completion of a business combination transaction with a corporation listed on the TSXV.

In addition to the major acquisitions above, EGUS has:

- staked 145 unpatented lode claims totaling 915 hectares (2,260 acres);
- executed two Mining Lease Agreements with private parties with interests in two patented claims and eight unpatented lode claims totaling 64 net hectares (158 net acres) of mineral interests;
- executed an Exploration License and Option Agreement with a private party on 1 patented claim with an area of 6 hectares (14 acres);
- purchased a 4.17% interest in 15 patented claims with a net area of 3 hectares (8 acres) in which Ensign holds the remaining interest; and
- executed a Mining Lease Agreement with a private party with a 25% interest in 43 patented claims totaling 69 net hectares (170 net acres) of mineral interests.

Fees other than production royalties associated with these agreements are included in the land-holding costs of

Table 4.1. Table 4.2 summarizes further the agreements and encumbrances applicable to the property.

Table 4.2 Summary of Agreements and Encumbrances

(from Ensign, 2024)

Area	Owner	Number of Claims or Lease	Royalty
West Mercur	Ensign	250 unpatented lode claims	none
West Mercur	Utah SITLA	5 separate metalliferous minerals leases	4.0% gross proceeds
West Mercur	Parties A-G	117 patented and 23 unpatented lode claims in 7 leases with similar terms	2.0% net smelter return
West Mercur	"Royalty Pool" Parties A-G	West Mercur Area of Interest	1.0% net smelter return, capped at $10,000,000
North Mercur	Ensign	25 unpatented lode claims	none
North Mercur	Party H	12 patented claims	2.0% net smelter return, can purchase for $1,000,000
North Mercur	Party I	1 unpatented lode claim	2.0% net smelter return, can purchase for $162,162
South Mercur	Ensign	78 unpatented claims and 47 patented claims	none
South Mercur	Ensign-Party RR1	1/3 interest in 6 of the Ensign patented claims	Retained royalty of 1.5% net smelter return by previous owner
South Mercur	Ensign-Party RR2	2/3 interest in the same 6 of the Ensign patented claims	Retained royalty of 3.0% net smelter return by previous owner; can purchase for $775,000
South Mercur	Party J	2 patented claims, 7 unpatented lode claims	1.0% net smelter return
South Mercur	Homestake	South Mercur Area of Interest	1.5% net smelter return
Main Mercur	Barrick	189 patented claims, 174 fee Lots, 1 Utah SITLA mining lease, 6 unpatented lode claims, 3 unpatented mill site claims	2.0% net smelter return on the Barrick-owned mineral interests
Main Mercur	Geyser Marion	96 patented claims, 257 fee lots at Main Mercur; 61 patented claims at West Mercur already under lease to Ensign	none
Main Mercur	Sacramento	21 patented claims	none

Area	Owner	Number of Claims or Lease	Royalty
Main Mercur	Ensign	5 unpatented lode claims	none
Main Mercur	Party K	1 patented claim	none
South & Main Mercur	Party L	25% interest in 43 patented claims	2.0% net smelter return, can purchase for $1,530,765
West Mercur	Barrick-Party RR3	25% interest in 14 of the Barrick patented claims	Retained royalty of 0.75% net value by previous owner, $150,000 maximum payout
Main & West Mercur	Barrick-Party RR4	62 of the Barrick patented claims	Retained royalty of 0.48% net smelter return shared by 4 previous owners
Main Mercur	Barrick-Party RR5	25% interest in 7 of the Barrick patented claims	Retained royalty of 2.0% net value by previous owner
Main Mercur	Barrick-Party RR6	7 of the Barrick patented claims	Retained royalty of 5.0% net value by previous owner
Main Mercur	Barrick-Party RR7	20 of the Barrick patented claims	Retained royalty of 5.0% gross proceeds by previous owner
Main Mercur	Barrick-Party RR8	16.67% interest in 1 of the Barrick patented claims	Retained royalty of 5-20% net return by previous owner

In terms of royalties at West Mercur, Ensign owns 250 unpatented lode claims that have no underlying royalties. Ensign holds five Utah SITLA metalliferous minerals leases with royalties of 4.0% gross proceeds. There are seven mining lease agreements with nearly identical terms that include a 2.0% net smelter return production royalty (“NSR”) obligation (referred to as Parties A-G in Figure 4.4, and in Table 4.2) that apply to 117 of the patented claims and 23 unpatented lode claims. Parties A-G also hold interests in the “Royalty Pool” at West Mercur, which holds a 1.0% NSR, capped at $10,000,000, on any production by Ensign within the West Mercur Area of Interest. Once the Barrick option is exercised, a 2% NSR is payable to Barrick on mineral interests owned by Barrick, and a 1% NSR is payable on non-Barrick interests that Ensign may acquire within 1km of Barrick’s mineral properties (the “Barrick Area of Interest”) (Figure 4.4).

At North Mercur, Ensign owns 25 unpatented lode claims that have no underlying royalties. Ensign holds a mining lease with Party H on 12 patented claims with a 2% NSR ($1,000,000 buyout option) and another mining lease with Party I on one unpatented lode claim with a 2% NSR ($162,162 buyout option).

At South Mercur, Ensign owns 78 unpatented lode claims that have no underlying royalties. Ensign also owns interests in 53 patented claims. Six of these unpatented claims have a 1.5% NSR retained royalty by a previous owner of a 1/3 interest in the claims (Party RR1). The other 2/3 interest is subject to a 3% NSR retained royalty by a previous owner, that may be purchased for

$775,000 (Party RR2). Ensign also holds a mining lease with Party J on two patented claims and seven unpatented lode claims with a 1.0% NSR. The South Mercur Area of Interest (Figure 4.4) is purported to be subject to a 1.5% NSR payable to Homestake Mining Company of California on any mining in the area conducted by Priority Minerals Limited.

Ensign executed a mining lease with Party L pertaining to a 25% interest in 43 patented claims at South Mercur and Main Mercur. There is a 2% NSR royalty on the 25% interest in these claims ($1,530,765 buyout option).

At the Main Mercur area, through its lease and option agreement with Barrick, and its option and assignment agreements with Geyser Marion and Sacramento, Ensign holds interests in 279 patented claims, 426 fee lots, one Utah SITLA metalliferous minerals lease, six unpatented lode claims, and three unpatented mill site claims. Once the Barrick option is exercised, a 2% NSR is payable to Barrick on mineral interests owned by Barrick, and a 1% NSR is payable on non-Barrick interests that Ensign may acquire within 1km of Barrick's mineral properties (the "Barrick Area of Interest", Figure 4.4).

Some parts of the Main Mercur area have additional royalties. Seven parties retained royalty interests when they sold their properties to Barrick or its predecessors (Parties RR3 through RR9), which range from 0.48% to 20% (Table 4.2 and Figure 4.4). The Utah SITLA lease is subject to a 4.0% gross proceeds royalty.

In order to put the wide range of royalty burdens (0-7% NSR) on the Mercur Project in perspective, Ensign made rough calculations of the weighted average royalty in the areas of known gold mineralization. Polygons were drawn for the various royalties over the mineralized areas indicated by the Main Mercur and South Mercur block models, as shown in Figures 14.18 and 14.22 of this report. The weighted average royalty of the block model areas multiplied by the royalty of these polygons, was calculated to be about 1.98% NSR.

Figure 4.4 Map of Royalty Encumbrances for the Mercur Project

(from Ensign, 2024)

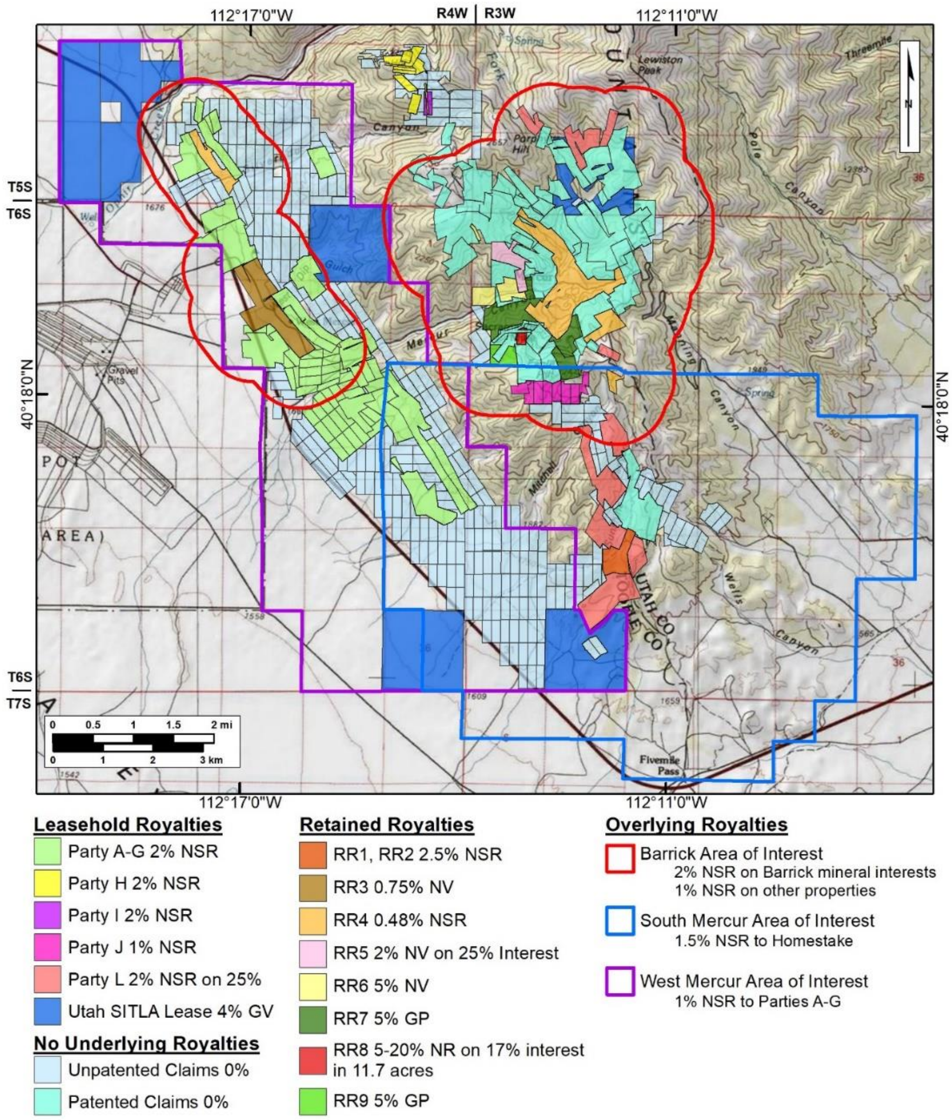


Figure 4.4 shows the areas subject to the lease agreements and royalties summarized in Table 4.2. Royalty types include net smelter return (NSR), gross value (GV), net value (NV), gross proceeds (GP) and net return (NR) royalties, each of which is defined in the individual agreements.

Portions of the property are subject to a road access agreement, pipeline easements, an electrical utility right-of-way, and a BLM right-of-way agreement that include lands and certain rights within portions Sections 28 and 33 of Township 5 South, Range 4 West, Sections 3, 4 10, 11, and 12 of Township 6 South, Range 4 West, and Sections 5, 6, 7, 8 and 18, Township 6 South, Range 3 East, Salt Lake Base and Meridian. These agreements are primarily for the purpose of providing access and utilities to the historical Mercur mine site.

4.4 Environmental Liabilities and Permitting

4.4.1 Environmental Liabilities

No known liability exists at the Mercur Project for historical underground mine openings. In the late 1990s the Abandoned Mine Reclamation Program of Utah's Division of Oil, Gas and Mining ("AMR") mitigated more than 225 abandoned mine openings on what is now the Mercur Property, by backfilling or constructing barricades to prevent human access. Rush Valley Exploration Inc. discovered additional underground openings in 2013. Once these openings were reported to AMR, the state agreed to incorporate the unmitigated mine openings into their closure schedule (Morse, 2013) and the work was completed by 2018.

No known environmental liability exists at the Mercur Project for the historical mine dumps and tailings. At Main Mercur, nearly all of the historical mine openings, dumps and tailings were consumed by the Getty and Barrick open pit operations and the disturbance was reclaimed to modern standards. At South Mercur, the Division of Environmental Response and Remediation of Utah's Department of Environmental Quality ("DEQ") conducted a study of the historical mine dumps and tailings in Sunshine Canyon (Barnitz, 2009), which was followed by DEQ's recommendation to the U.S. Environmental Protection Agency ("EPA") to designate the site as No Further Remedial Action Planned ("NFRAP"). DEQ noted that despite elevated arsenic in the tailings, there is no permanent human population in the area to warrant further investigation, and that no surface or groundwater was affected (Urban, 2011). The EPA approved the NFRAP designation (Dunham, 2012).

At West Mercur, DEQ conducted an internal investigation of the historical mine dumps and tailings at West Dip. The results of the studies are not known, but a summary memo by DEQ reports that further investigation of the site is not warranted due to the lack of human health or environmental targets (Taylor, 2011). No similar studies are known to have been conducted for the historical mines at North Mercur. However, the disturbed areas at North Mercur are less extensive than those at both South Mercur and West Mercur and are more remote from human habitation.

4.4.2 Permitting

EGUS holds five Permits to Commence Exploration from Utah's Division of Oil, Gas and Mining ("DOGM") (Table 4.3). DOGM is the lead permitting agency for mineral exploration and mining projects in Utah, and the sole permitting agency for projects on private land. On lands administered by the BLM, approval of the Notice of Intent to Conduct Exploration ("NOI") is also required by the BLM. On state lands, a copy of the NOI is to be provided to the Utah School and Institutional Trust Lands Administration ("SITLA").

Table 4.3 Table of Ensign's Permits to Commence Exploration

(from Ensign, 2024)

DOGM Permit #	Project Name	Land Type	BLM NOI #	Actual Disturbed Acres	Current Reclamation Bonds	Permit Term (renewable annually)
E/045/0178	Silverado	BLM	UTU-94852	1 acre	$8,700	Through 12/31/2024
E/045/0179	Nose	Utah SITLA		0 acre	$1,000	Through 12/31/2024
E/045/0180	West Mercur Patents	Private		2 acres	$14,400	Through 12/31/2024
E/045/0181	South Mercur Patents	Private		2 acres	$14,400	Through 12/31/2024
E/045/0183	Mercur Mine Exploration	Private		14 acres	$82,800	Through 12/31/2024
				19 acres	**$121,300**	

All of these permits were subject to surveys for cultural resources and approval by Utah's State Historic Preservation Office ("SHPO"). All of the completed work has been fully bonded. These permits will need to be amended for any new surface disturbing work at Mercur and the reclamation bonds will need to be increased accordingly. The only areas of cultural significance that have been identified at the Mercur Project to date relate to local areas with evidence of historical mining activity that are being avoided. No other significant environmental concern or liability for Ensign was identified during the process of obtaining these five permits. Further, Barrick has largely rehabilitated the property.

All of the holes drilled by Ensign were properly capped with a 1.52m cement plug. Drill holes that encountered groundwater were filled with bentonite prior to capping with cement. All drill site sumps were backfilled. Reclamation of roads and drill sites that are no longer in use is scheduled for late fall of2023, which is the optimum season for reseeding the disturbed areas.

The Barrick Mercur mine was in operation between 1981 and 1997 under DOGM's Mining and Reclamation Plan M/045/0017. Barrick holds a Groundwater Discharge Permit, No. UGW450002, from Utah's Division of Water Quality. Barrick also holds a Conditional Use Permit, No. 700-81, with Tooele County and a Road Property Agreement under Ordinance No. 81-15 with the Tooele County Engineer. The mine has been in closure status since 1997. Closure activities have involved partial backfill of the open pits, recontouring and revegetating the waste dumps, dewatering, capping and revegetation of the tailings and heap leach facilities. Water monitoring of the tailings water retention pond and of the heap leach facilities continues. In its latest amendment of the reclamation plan, Barrick (2016) reported that final reclamation release still remained for 404 acres out of the total 1,209 life-of-mine disturbed acres. By the time of its 2018 annual report to DOGM, Barrick (2019) reported 90 acres of remaining disturbance to be reclaimed. Barrick's reclamation surety for the Mercur mine is $4,766,352. Most of this surety is related to Barrick's continuing maintenance of its water management system.

Ensign's permit for the historical Barrick Mercur mine area pertains only to the new surface disturbance and drilling to be conducted by EGUS. Ensign is currently not liable for Barrick's activities under M/045/0017. However, if Ensign exercises the option to purchase the Barrick properties, Ensign will assume whatever reclamation liability remains associated with the Mercur mine.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY (ITEM 5)

The information presented in this section of the report was taken in its entirety from Lindholm et al., 2022 which was derived from publicly available sources. Mr. Lindholm has reviewed this information and believes this summary is materially accurate.

5.1 Access to Property

The Mercur Project is located on the southwest part of the Oquirrh Mountains and is centered 57km south-southwest of Salt Lake City, Utah. It is accessed from Salt Lake City around the west side of the mountains via Interstate 80 (“I-80”) and State Routes 36 and 73 (

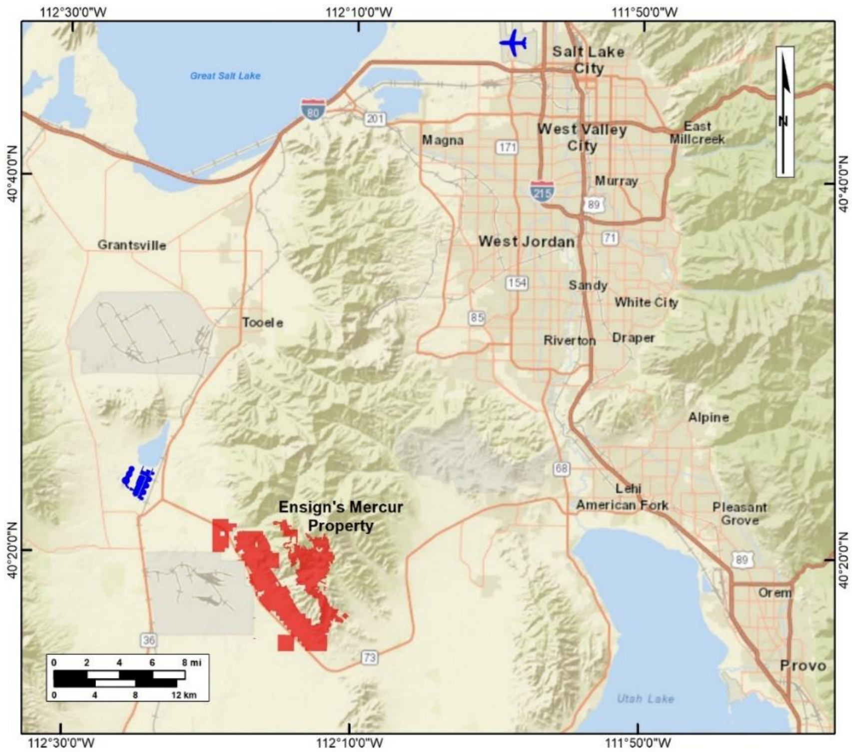
Figure 5.1). Alternatively, one can travel south on Interstate 15 (I-15”) to the Lehi area where State Route 194 can be followed west to a junction with State Route 73. Route 73 is an all-weather two-lane paved road in good condition which is kept plowed during the winter by the Utah State Highway Department. Driving distance to the Mercur Project is some 94km from downtown Salt Lake City using I-80, or 99km using I-15 through Lehi (

Figure 5.1).

There is a marked and paved county access road from Route 73 to the historical Barrick Mercur mine, which is at the center of the Mercur Project. Currently there is a locked gate which limits public access to the Mercur mine less than one kilometer from the Barrick Mercur mine. Other parts of the Mercur Project are easily accessed from Route 73 by means of other dirt roads.

Figure 5.1 Access Map for the Mercur Project

(from Ensign, 2024)



5.2 Climate

The Mercur Project and surrounding area have a dry continental climate characterized by cold dry winters and hot dry summers with overall low precipitation. Average wintertime daily high temperatures are about 1ºC and low temperatures average about -8ºC. It is not unusual for temperatures to fall as low as -20ºC. During the summer, the average high is about 30ºC and the average daily low is about 13ºC. Spring is the wettest season of the year, with an average of about 5cm of precipitation per month. Summers are usually quite dry, averaging about 2-3cm of rain per month. Overall precipitation is 50cm per year. This includes an average of about 2 meters of snowfall during the winter months.

The climate here is such that weather does not usually hamper operations during any season, but large precipitation events can lead to minor operational difficulties. Exploration and mining can take place all year, although exploration at higher elevation areas may be significantly impacted by winter weather.

5.3 Physiography

The Mercur Project is located along the western range front of the southern part of the Oquirrh Mountains. Elevations within the project area vary from 1,750m to 2,650m above sea level. The terrain can be described as moderately steep with most slopes ranging from 15º to 30º, although the westernmost parts of the project area are quite flat. Much of the project area can be accessed with a high-clearance four-wheel drive vehicle and some areas are accessible with two-wheel drive vehicles.

Vegetation over the greater part of the property consists of juniper and piñon pine which do not generally exceed six meters in height, and sagebrush. At higher elevations there are some areas of fairly dense scrub oak, mountain mahogany and local stands of aspen. On the lower, flatter slopes of the alluvial areas there are grasses and sagebrush growing between rare juniper and pinon pine trees.

5.4 Local Resources and Infrastructure

The Mercur Project is located about an hour's drive from Salt Lake City and the Wasatch Front, a population center of a few million people with a large, skilled work force. All services that might be expected in a major metropolitan area are available, including drill contractors, heavy equipment dealers, engineering, financial and communications services, freight railroads, and an international airport.

Closer to the property is the town of Tooele (Figure 5.1) where there are supplies, lodging, groceries, and restaurants available. Provo, a large city along the Wasatch Front, is some 55km east of the project area, and would also be a good source of supplies and labor for any mining operation.

Medium-voltage power lines bring power to the project area from the town of Tooele. There is sufficient gently sloped land on the property and along the range front nearby to locate waste dumps, leach pads, and mill sites within reasonable distances.

There is no flowing water anywhere within the project, and average depth to groundwater is reported to be on the order of 300m. Water for drilling and potential mining operations can be obtained from developed water wells in the alluvial deposits of Rush Valley, west of the Oquirrh Mountains. Water rights sufficient for a potential mining operation have not yet been obtained.

The surface rights as described in Section 4 are sufficient for the mining and exploration activities proposed in this report.

6.0 HISTORY (ITEM 6)

The information presented in this section of the report was taken in its entirety and modified from Lindholm et al., 2022, which was extracted and modified from public sources. Mr. Lindholm has reviewed this information and believes this summary is materially accurate.

Exploration in the Mercur region commenced during the early 1860s when placer gold was discovered in Bingham Canyon, on the east side of the Oquirrh Mountains. Subsequent nearby discoveries sparked interest in prospecting throughout the range.

6.1 Camp Floyd Mining District Discovery and Mining History 1870 - 1945

The Camp Floyd Mining District was organized around what is now known as Mercur in 1870 after discoveries of rich silver mineralized material were made. The district experienced four main cycles of mining activity and recovered from two major fires, which earned Mercur the nickname “the town that can’t stay dead” (Brigham Young University, ca. 1990; Smith, 1997).

In 1870 the mining camp of Lewiston was established at the current Mercur mine site to support mining of bonanza grade silver deposits in the North Mercur area between Marion Hill, Lion Hill and Silveropolis Hill. The siliceous silver-lead mineralization carried grades as high as 1,000oz Ag/ton (Gilluly, 1932). Total production is uncertain, but Gemmel (1897) reported that production by just three parties held a combined silver value of $530,000, or about 438,000oz silver (13.6 tonnes Ag). The silver deposits were exhausted and the town of about 1,500 residents was abandoned by 1881.

Around 1883, gold was identified near some mercury prospects at the Lewiston camp with assay techniques, but the gold was not visible to the naked eye and could not be recovered by crushing and panning. This marks the first discovery of what is now known as a Carlin-type deposit – micron size gold disseminated in sedimentary host rocks (Reid et al., 2020). Recovery of gold from these occurrences proved to be problematic, but by 1890, failure of an amalgamation mill resulted in the reconfiguring of the mill to use cyanide for gold recovery, marking the start of gold production at Mercur and the first commercial use of the cyanide gold recovery process in the United States (Butler et al., 1920).

The town of Mercur grew from 1,500 inhabitants in 1897 to a peak of 5,500 in 1900. During this period, the Golden Gate mill, the largest in North America at the time (1,000 tons per day) was built under the direction of Daniel C. Jackling (Figure 6.1). In 1902 most of the town burned to the ground, but the Golden Gate mill was spared. Operations continued to 1913 with at least two roasting plants and four cyanide gold recovery plants yielding 920,843oz Au (28.6 tonnes Au) (Butler et al., 1920). During this period, a small portion of the district production came from the Sunshine and Overland mines at South Mercur, and the La Cigale and Daisy mines at West Mercur (Gilluly, 1932).

Another resurgence of mining activity occurred at Mercur between 1931 and 1944. Several companies conducted small operations that reprocessed some of the old tailings and mined new areas. Total production during this period was tallied to be 194,194oz Au (6.0 tonnes Au) and 173,955oz Ag (5.4 tonnes Ag) (Gloyn, 1999).

Total recorded production in the Camp Floyd district between 1870 and 1945 was 1,223,037oz Au (38.0 tonnes Au) and 614,715oz Ag (19.1 tonnes Ag) (Table 6.1).

Figure 6.1 Photo of Mercur and the Golden Gate Mill, ca 1902, Looking East

(from WesternMiningHistory.com)

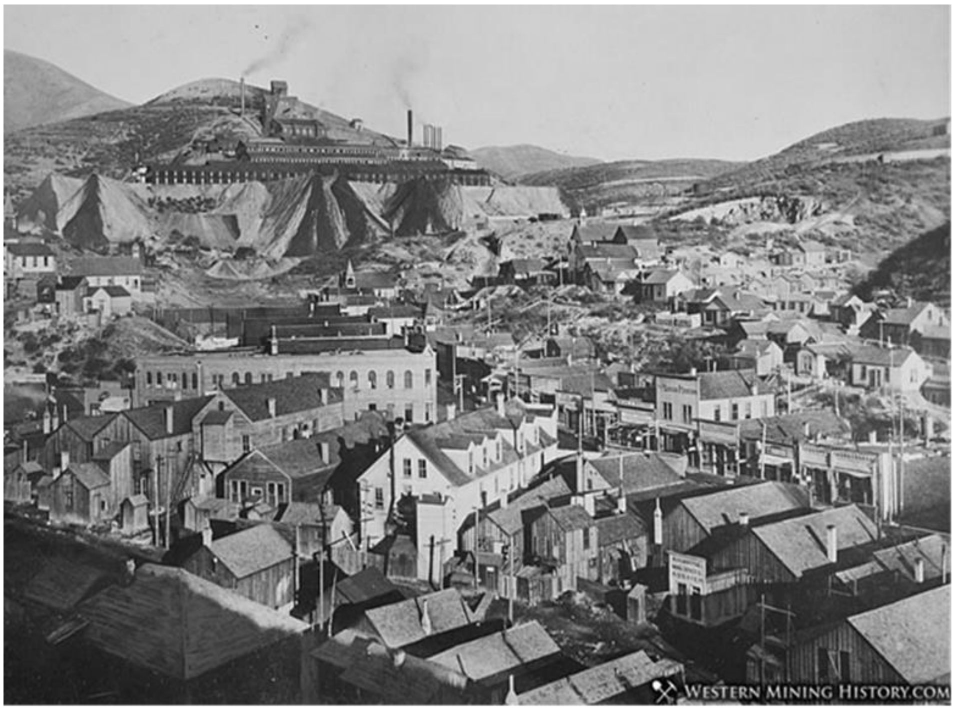


Table 6.1 Recorded Metal Production, Camp Floyd (Mercur) Mining District

(from Mako, 1999)

Period	Ore Mined (tons)	*Contained troy oz Au	Reprocessed Tailings (tons)	Recovered troy oz Au	Recovered troy oz Ag	Recovered flasks Hg	Sources
1871-1881	?	?		?	438,000		Gemmell, 1897
1890-1917	5,583,983	1,200,000		920,843	2,760	3,338	Butler et al., 1920
1931-1942	1,425,399	200,000	502,205	189,135	8,933		Gloyn, 1999
1942-1945	94,858	6,000	-	5,059	165,022		" "
1983-1998	34,298,383	2,077,375	1,723,000	1,490,000	569,009	131	Mako, 1999
Totals	**41,402,623**	**3,483,375**	**2,225,205**	**2,605,037**	**1,183,724**	**3,469**	

* *Estimated, based upon published gold recovery rates. These figures do not include the tonnage and gold content of the reprocessed tailings to avoid duplication.*

6.2 Historical Exploration and Mining 1973 – 1999

6.2.1 Main Mercur Area

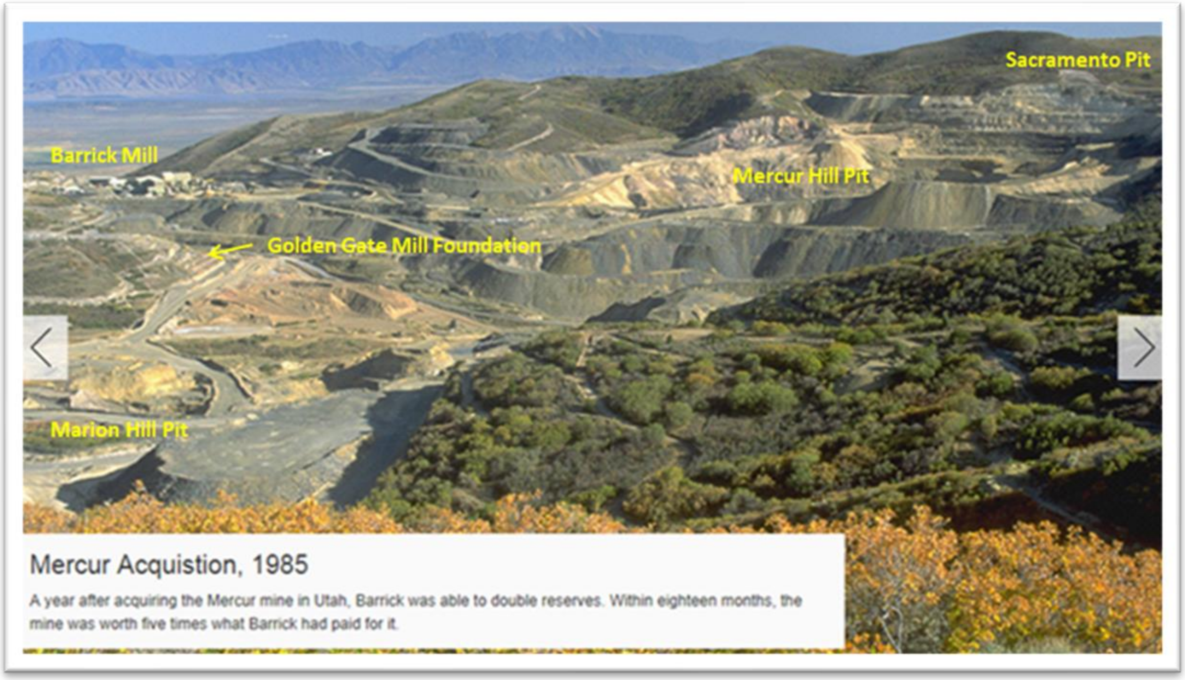
Newmont Exploration Ltd. ("Newmont") was the first modern explorer known to have evaluated the Mercur area. In 1969 they conducted sampling, trenching, and drilling before dropping the project that same year (Lenzi, 1973; Klatt, 1980).

In 1973, Gold Standard, Inc. began consolidating the fractured land position at Mercur and secured an exploration agreement with Getty Oil Company ("Getty"). Getty continued land consolidation and conducted an extensive drilling campaign, resulting in the delineation of reported reserves of 15 million tons at 0.09oz Au/ton (Faddies and Kornze, 1985). Faddies and Kornze (1985) do not discuss the procedures used to arrive at this historical estimate, so the key assumptions, parameters, and methods used to prepare this historical estimate, as well as whether the category of reserves applied to the estimate is consistent with current CIM standards, are unknown to the authors. However, this historical estimate is both supported and superseded by subsequent mining by Getty and Barrick, who processed a total of over 34 million tons of mineralized material at an average grade of 0.06 oz/ton Au from 1983 to 1997 (Mako, 1999) from the Main Mercur area. Some or all of the reserves reported by Faddies and Kornze (1985) were likely consumed by mining, so the authors of the current technical report are unable to do sufficient work to upgrade, verify or classify the historical estimate as current mineral resources or mineral reserves. Therefore, the issuers are not treating this historical estimate as current mineral resources or mineral reserves. Mr. Lindholm believes this estimate is relevant for historical context and should not be relied upon.

Construction of an open pit mine and 3,000 tpd carbon-in-leach mill complex began in 1981. Commercial gold production began in April 1983 with a targeted production rate of 80,000oz Au/year.

In June 1985, a subsidiary of American Barrick Resources, predecessor to Barrick Gold Corporation ("Barrick"), acquired the Mercur mine from Getty. Barrick immediately increased the mill throughput to 4,000 tpd and added a dump leach facility to increase production. The mill capacity was further increased to 4,500 tpd in 1986, which raised annual production levels above 110,000oz Au/year. In 1988, Barrick added a 750 tpd autoclave to the mill circuit to treat refractory material, and in 1991 the mill and autoclave capacities were increased to 5,000 tpd and 875 tpd, respectively. An overview of the mine area in 1993 is shown in Figure 6.2.

Figure 6.2 Barrick Mercur Mine, ca. 1993, Looking Southeast
(from Barrick Gold Corporation – History, http://www.barrick.com/Company/History/default.aspx, accessed 05/12/14, annotated by Ensign, 2021)



Barrick (1996) reported that the CIL mill began operating in April 1983 and consumed cyanide at an average rate of 1.19 lbs/ton between 1983 and 1995. The first of three dump leach facilities was initiated in 1985 and the average cyanide consumption was 1.02 lbs/ton between 1985 and 1995. The alkaline pressure oxidation autoclave circuit to pre-treat the refractory gold mineralization associated with sulfide minerals and organic carbon was added in February 1988. The autoclave operated at a temperature of 215°C and a pressure of 2,900kPa, consuming oxygen at an average rate of 25.64lbs/ton of ore between 1988 and 1995. Barrick (1996) noted, "*Oxidation of the Mercur deposit developed from the bottom upwards. Accordingly, sulphide materials are mined as open-pit overburden.*"

The autoclave circuit was discontinued in February 1996 due to the exhaustion of refractory ores at that time (Barrick, 1996). Mining was halted in March 1997, but the oxide circuits continued to recover gold until April 1998. Based on the production records shown in Table 6.2, refractory ore tons accounted for approximately 12% of the total ore mined. The refractory feed included the lower-grade historical tailings of the Golden Gate mill (1,563,079 tonnes @ 1.817g/t Au), which were mined to expose the underlying gold mineralization in the Golden Gate pit and for environmental remediation.

Table 6.2 Mercur Historical Mine Production, 1983-1998

(from Mako, 1999)

Pit Name	Oxide Ore			Refractory Ore			Dump Leach Ore			Total Ore	Total Avg Grade	Total Contained	Total Recovered
	Tons	oz Au/ton	oz Au	Tons	oz Au/ton	oz Au	Tons	oz Au/ton	oz Au	Tons	oz Au/ton	oz Au	oz Au
Mercur Hill	6,785,796	0.087	590,364	1,275,685	0.081	103,330	2,920,420	0.035	102,215	10,981,901	0.072	795,909	562,706
Marion Hill	7,193,976	0.067	481,996	585,124	0.075	43,884	6,584,322	0.032	210,698	14,363,422	0.051	736,579	497,976
Sacramento	4,223,534	0.073	308,318	632,022	0.087	54,986	842,604	0.035	29,491	5,698,160	0.069	392,795	282,726
Golden Gate	1,628,206	0.062	100,949	147,017	0.088	12,937	1,242,605	0.025	31,065	3,017,828	0.048	144,951	100,094
Rover	74,760	0.045	3,364	1,168	0.060	70	161,144	0.023	3,706	237,072	0.030	7,141	4,435
Historical Tails				1,723,000	0.053	91,319				1,723,000	0.053	91,319	42,062
TOTALS	**19,906,272**	**0.075**	**1,484,992**	**4,364,016**	**0.070**	**306,527**	**11,751,095**	**0.032**	**377,176**	**36,021,383**	**0.060**	**2,168,694**	**1,490,000**

Based on a report of annual mill production records, from April 1983 to December 1995 (Barrick, 1996), consulting metallurgist Dr. Jinxing Ji calculated that the CIL mill circuit for oxide ore reported approximately 77% recovery and 75% recovery from the refractory mineralization that was processed by the autoclave/CIL mill circuit (Ji, 2021). As of the end of 1995, 49% of the contained gold placed on the dump leach pads had been recovered (Table 6.3) (Barrick, 1996). The table does not include subsequent production from 1996 – 1998, which yielded another 130,446 ounces of gold.

Table 6.3 Mercur Gold Mill Production Summary (1983 – 1995)

(compiled from Barrick (1996) by Ensign 2021)

Processing Method	Years of Operation	Total Tons Through 1995	Average Head Grade (oz Au/ton)	Average Recovery	Gold Produced Through 1995 (oz)
Oxide CIL Mill	Apr 1983 - Dec 1995	18,276,744	0.076	76.9%	1,067,057
Autoclave/CIL Mill	Feb 1988 - Dec 1995	2,352,859	0.075	74.8%	131,153
Oxide Dump Leach	Jul 1985 - Dec 1995	9,451,977	0.035	48.8%	161,444
					1,359,654

Total gold production in the Camp Floyd mining district between 1983 and 1998 by Getty and Barrick amounted to 1,490,000oz Au (46.3 tonnes Au) and 569,009oz Ag (17.7 tonnes Ag) (Table 6.1). Annual production is reported in Table 6.4.

Table 6.4 Annual Production from the Mercur Gold Mine, 1983-1998

(from Mako, 1999)

Operator	Year	oz Au	oz Ag	flasks Hg	Comments
Getty	1983	37,643			April start-up.
	1984	80,394			Mill at 3,000 tpd capacity.
	1985a	41,546	9,985		
Barrick	1985b	52,290	6,813		Barrick purchase 6/28. Increased mill to 4000 tpd. Add dump leach in Nov.
	1986	111,007	23,250	3.1	Milling increased to 4500 tpd.

Operator	Year	oz Au	oz Ag	flasks Hg	Comments
	1987	108,278	43,000	7.1	
	1988	115,390	33,009	29.1	750 tpd autoclave commissioned in February.
	1989	117,536	86,721	24.0	
	1990	122,043	54,500	6.9	
	1991	127,280	94,280	14.1	Milling increased to 5000 tpd, autoclave to 875 tpd.
	1992	121,239	53,168	16.2	
	1993	114,761	35,000	9.3	
	1994	108,107	50,510	12.3	
	1995	101,682	39,773	9.2	
	1996	82,593	25,000		Autoclave retired in February due to exhaustion of refractory material.
	1997	40,269	14,000		Mining completed in March.
	1998	7,942			Gold recovery completed in April.
	Totals	**1,490,000**	**569,009**	**131.3**	

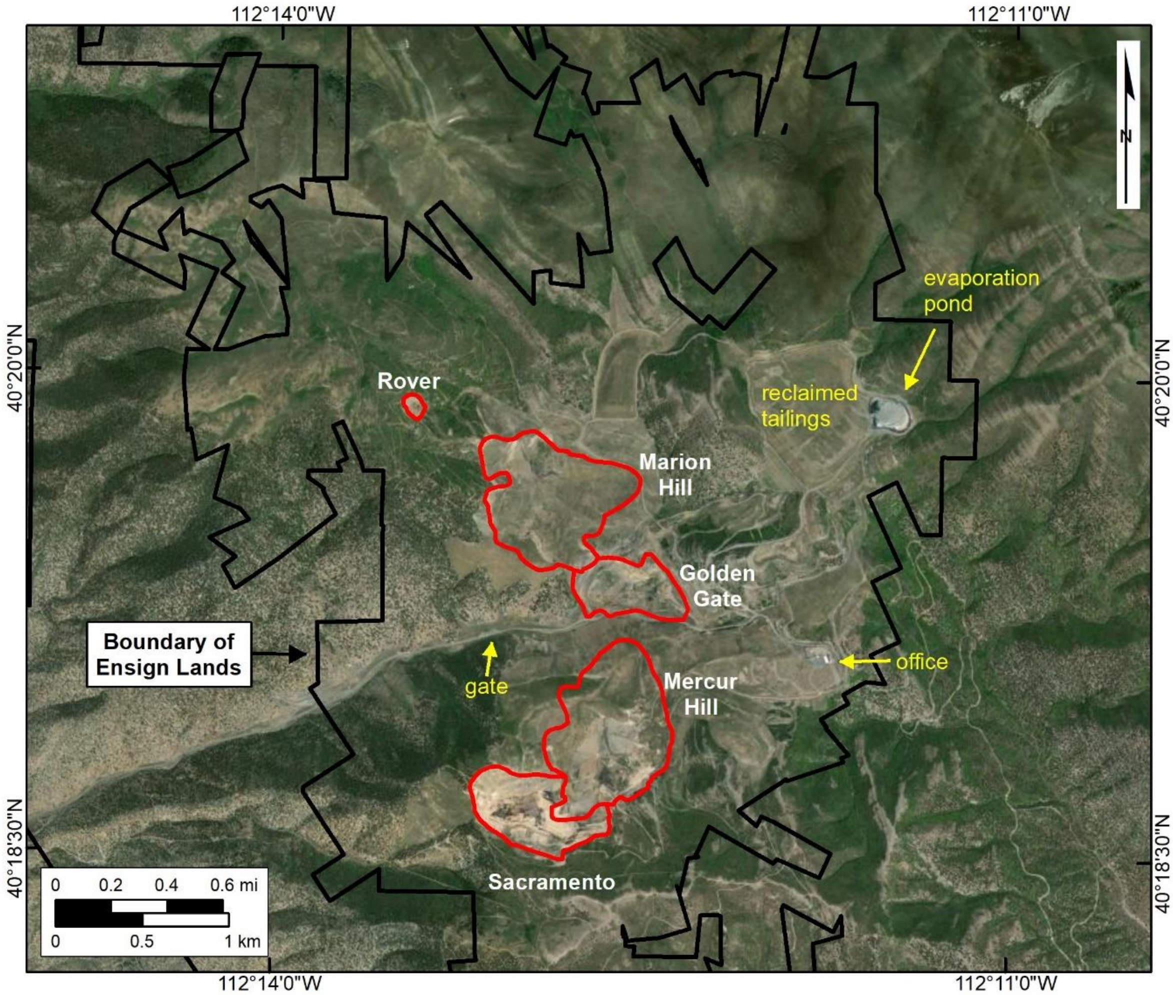
Ultimately, the combined operations by Getty and Barrick resulted in the mining and processing of 36,021,383 tons of mineralized material at an average grade of 0.060 oz/ton Au from five open pits to produce 1,490,000 ounces of gold (Table 6.4), a significant increase from the pre-mining reserves (Faddies and Kornze, 1985).

Figure 6.3 shows the locations of the five open pits and the reclamation status of the site. When combined with historical records of mining activity since 1871 in the Camp Floyd mining district, it can be estimated that a total of 41,402,623 tons of material were mined with an average grade of 0.086 oz/ton Au to produce 2,605,037 ounces of gold (Table 6.1; Mako, 1999), the vast majority of which was mined from the Main Mercur area.

The Mercur mine has been in closure and reclamation status since production ceased in 1997. In 2021, Ensign acquired a lease and option agreement on the Barrick properties.

Figure 6.3 Aerial Image of the Reclaimed Mercur Mine Site

(from Ensign, 2024 annotation of image dated 6/23/2017)



6.2.2 South Mercur Area

In 1980 Homestake Mining Company ("Homestake") consolidated a large land position in the South Mercur area, centered on the historical Sunshine and Overland mines. Homestake collected at least 500 rock samples. The rock samples data were plotted up and show a coincident gold, arsenic, antimony, mercury, and thallium anomaly at the surface where the rocks below the Long Trail Shale crop out. The tailings samples were used to investigate the possibility of reprocessing the still-extant tailings piles. Homestake drilled a total of 54 RC holes totaling some 5,971m between 1981 and 1984.

In 1984, Touchstone Resources ("Touchstone") optioned the South Mercur project from Homestake and drilled 35 vertical reverse circulation drill holes totaling 4,220m. By 1986, Homestake assigned their South Mercur project to Priority Minerals Limited ("Priority") and WCC, Inc. ("WCC").

Priority and WCC commenced exploration drilling and in 1988 produced a "Feasibility Study" (Priority-WCC, 1988), based on 25,604m of reverse-circulation ("RC") drilling in 350 holes and 278m of core drilling in nine holes. McClelland Laboratories, Inc. of Sparks, Nevada was commissioned to conduct limited metallurgical tests for their South Mercur historical feasibility study on three types of mineralization encountered in drill samples, and on samples of the historical tailings at the Overland and Sunshine mines (Shoemaker, 1987). The summary of that report reads as follows:

> *"Column percolation leach tests were conducted on three ore types from [South] Mercur (Overland hard, Overland soft, and Sunshine soft) stage crushed to an 80 percent minus 1¼ inch feed size to determine gold recovery, recovery rate, and reagent requirements. The ore charges were agglomerated before leaching.*
>
> *"Each [South] Mercur ore type was amenable to heap leaching treatment at the 1 ¼ inch feed size. The soft ores were readily amenable to heap leaching. Gold recoveries ranged from 70.4 to 92.9 percent.*

Priority and WCC continued exploration in 1989 and 1990, drilling 2,173m in 33 RC holes. In 1990, the project was assigned to Rochester Minerals (U.S.A.) Inc. ("Rochester"). Apparently, Rochester entered into an agreement with Kennecott, who drilled nine vertical RC holes totaling 1,833m in 1991. Barrick leased the South Mercur properties in 1996 and drilled 21 vertical RC holes totaling 3,702m. In 1997 Kennecott leased the South Mercur properties again and drilled at least nine holes totaling 2,844m. Despite these efforts, the deposits at South Mercur have not yet been developed.

Priority acquired WCC's interest in South Mercur in 1997. Priority's final exploration effort in 2013 included 939m of core drilling in 11 holes. A non-compliant resource calculation was conducted, and drafting of a technical report was attempted, but not completed. The South Mercur area of the property has been idle since 2014.

Priority merged into EGUS in 2020, and Ensign currently owns mineral interests in the properties that encompass most of the known mineralization at South Mercur.

6.2.3 West Mercur Area

The northern part of West Mercur, north of the mouth of Mercur Canyon, which is known historically as West Dip, produced about 36,900 ounces (1.15 tonnes) of gold from several underground mines active between 1895-1913 and 1933-1941 (Mako, 2016a). Two of the larger historical operations, the Daisy and the La Cigale mines, accounted for most of the historical production. Both mines are located about 5km west of the Main Mercur area. Gemmell (1897) described the gold grade at La Cigale as worth about $12 per short ton (~20g/t Au) over a 3.7m width.

Modern exploration at West Mercur included geologic mapping, limited soil sampling, some limited geophysical test surveys (gravity, EM, VLF, IP/Res) and drilling by Getty in 1981 - 1982 in the vicinity of the historical underground mines along a 5km trend known as West Dip. Getty drilled 5,380 m in 36 holes but found the mineralization to be too erratic (Barron, 1982; Bayer, 1982). An important geologic observation of this effort was that the West Dip mineralization occurs in a favorable stratigraphic horizon in the Upper Great Blue Limestone about 450m above the Mercur Member beds, which are the primary host units at the Mercur mine.

In 1986 Barrick drilled six holes testing stratigraphic targets near the mouth of Mercur Canyon. One of these holes intersected 9.1m at 0.2g/t Au, including a quartz vein with realgar. Two follow-up holes were drilled that also intersected low grade gold, the best intercept was in WDS-2, being 13.3m at 0.75g/t Au starting at a depth of 29m. At the time, this discovery was recognized as a new area of hydrothermal gold mineralization, clearly separate in style and geography from the mineralization at West Dip (Shrier, 1987). However, this information seems to have been overlooked by Barrick in subsequent drilling campaigns.

Barrick drilled 10 holes in 1988 with no significant results. In 1996 Barrick conducted a wide-spaced gravity survey and three reflection seismic survey lines to evaluate the thickness of alluvial cover at West Mercur. The results seemed to indicate less than 100m of alluvial cover for a large portion of the pediment. Despite this, Barrick's drilling focused on stratigraphic tests for the Mercur beds, close to the range front. Twenty-two holes were drilled in 1996 totaling 4,863m with no significant results.

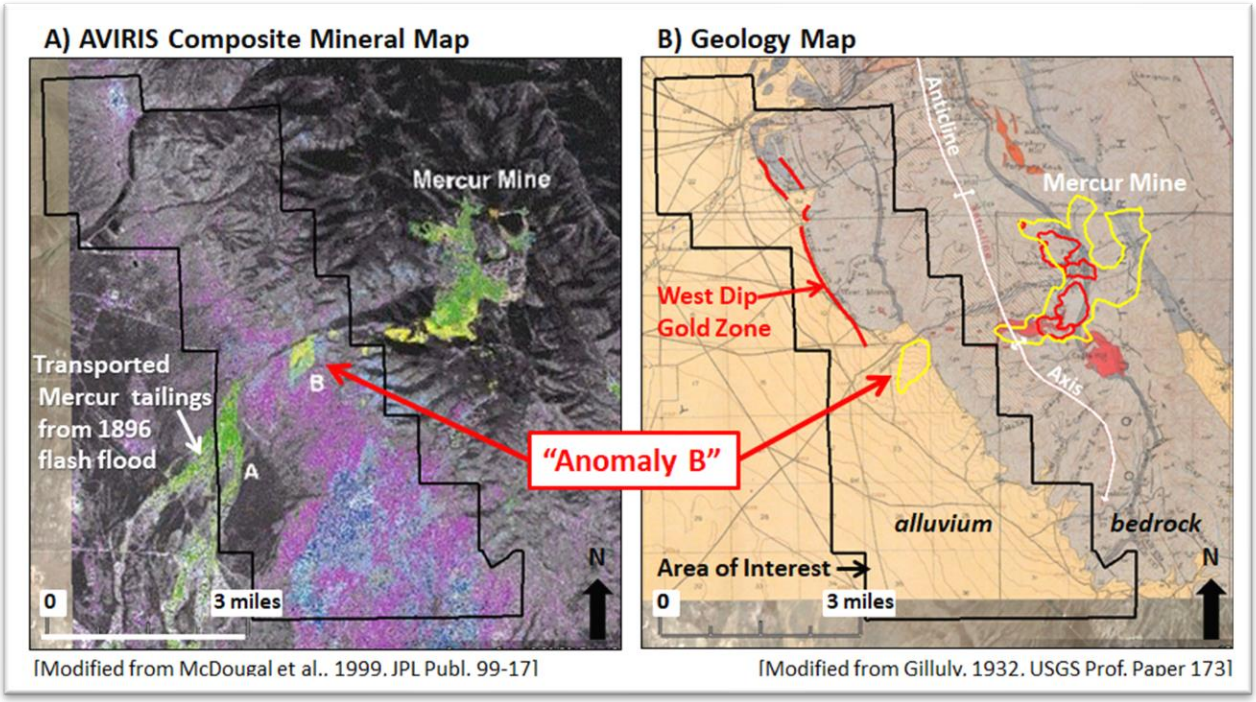
In 1999 Barrick conducted soil sampling and mapping north of Mercur Canyon to evaluate potential in the stratigraphy between the Mercur Member beds and the gold-bearing beds at West Dip. A new geochemically anomalous area was identified between the two traditional host units near dikes of rhyolite. Three holes were drilled totaling 1,189m without significant results.

Also in the 1990s, Kennecott Utah Copper Corporation ("Kennecott") drilled more than 20 holes during two campaigns in the West Mercur area. No drill results from these programs have been released. In 1996 BHP Minerals ("BHP") drilled seven holes in the northern part of the West Mercur area. Four holes were drilled well west of the West Dip Fault and were unsuccessful. Three holes were drilled along the West Dip Fault and two reportedly returned gold mineralization of 25.9m at 0.72g/t Au and 18.3m at 0.34g/t Au (Zimmerman, 1996). The locations of these holes are unknown.

In 2011, Mr. David Mako reviewed a remote sensing study of the Mercur area that was published after Barrick's Mercur mine had closed (McDougal et al., 1999). The authors of that paper identified an unexplained AVIRIS "Anomaly B" in the pediment (Figure 6.4) that piqued Mr. Mako's interest, based on his prior knowledge of the Mercur area (Mako, 1999). Subsequent field visits identified previously unmapped limestone bedrock and gold-bearing jasperoid outcrops within the area of Anomaly B.

Figure 6.4 Comparison of AVIRIS Survey and Geology, West Mercur Area

(from Rush Valley Exploration Inc., 2017)

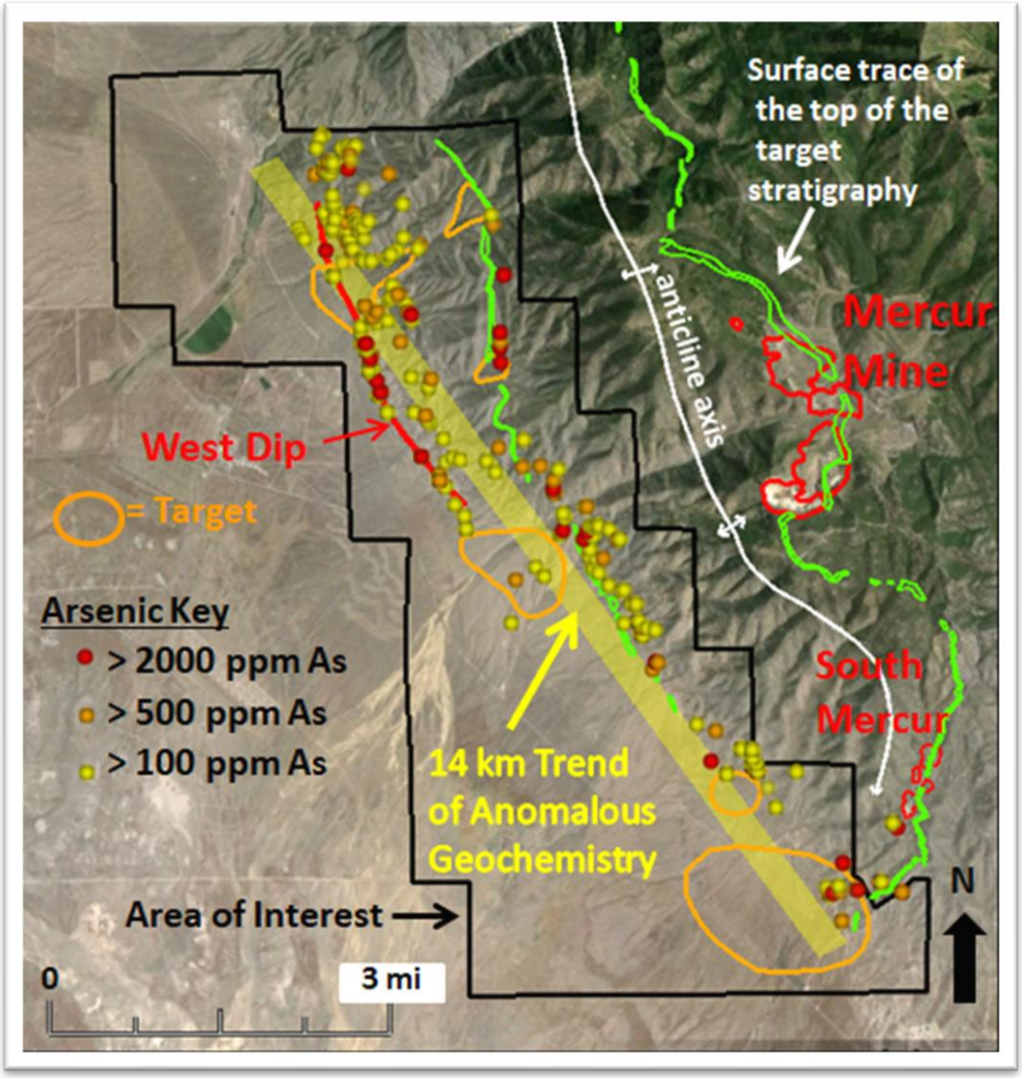


Mr. Mako commenced claim staking for Ash-ley Woods LLC ("Ash-ley Woods") in 2011 and opened discussions with adjacent patented claim owners who had shared the data from Barrick's drilling on their claims. This included the "overlooked" three holes that Barrick drilled in 1986 that encountered low-grade gold, all situated within Anomaly B (Ash-ley Woods, 2012).

In 2017 Rush Valley Exploration Inc. ("RVX") acquired the Ash-ley Woods properties and leased the patented claims of five other parties. RVX compiled rock geochemistry data from Getty, several visiting companies to West Mercur, and sampling by RVX predominantly in the south part of West Mercur. Gold values as high as 17g/t Au were found in mine dumps along the West Dip trend. Jasperoid with anomalous gold values was discovered within Anomaly B. Overall, the gold values in rocks in the south part of West Mercur are low, but anomalous arsenic persists along a 14km strike length of the range front as shown in the RVX target map of Figure 6.5.

Figure 6.5 Anomalous Arsenic in Rock Samples, West Mercur Area

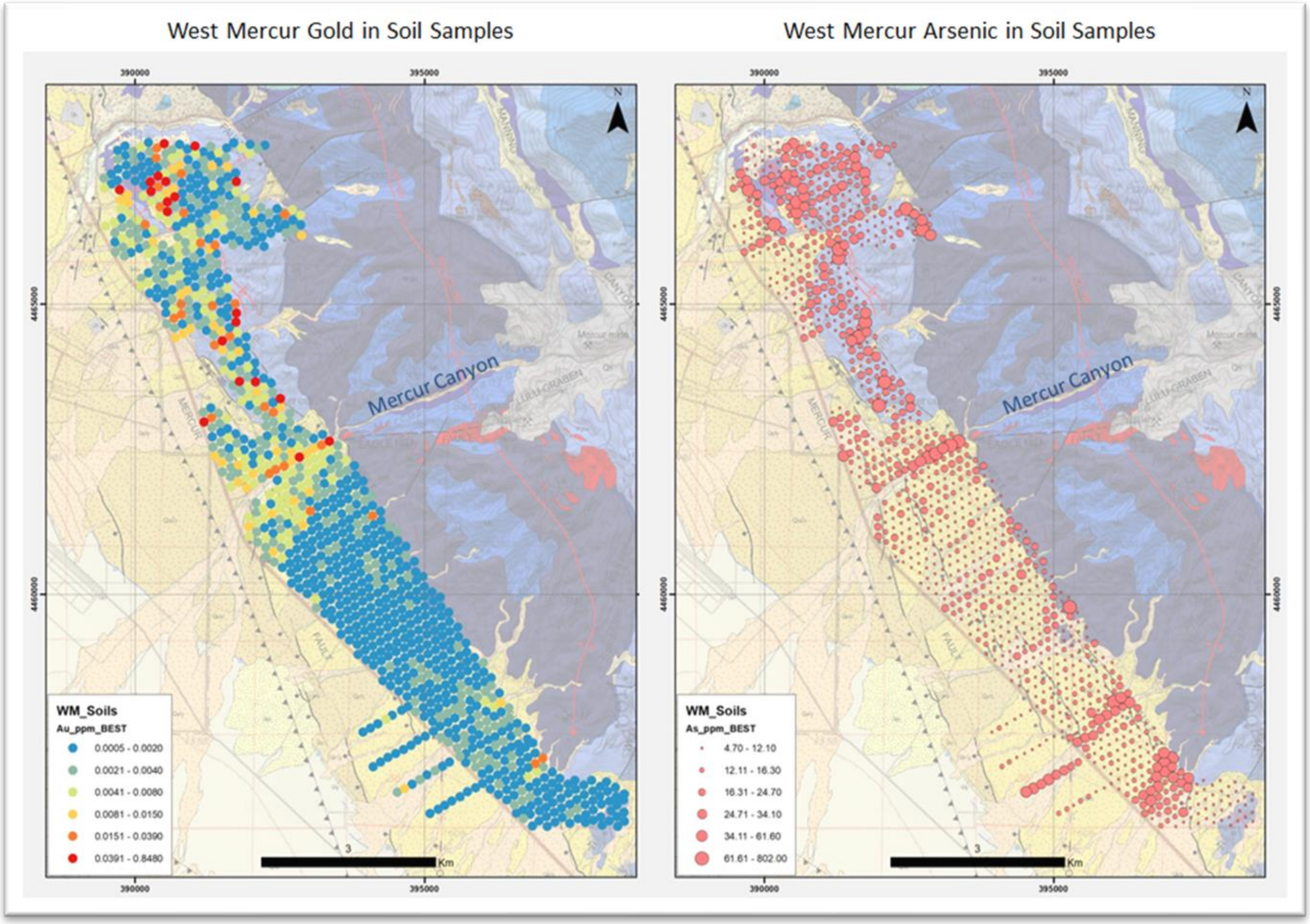
(from RVX, 2017)



RVX entered into an agreement with Torq Resources Inc. ("Torq") in May 2018 under which Torq could acquire RVX by meeting certain funding requirements. Field work included geologic mapping and the collection of 1,037 wide-spaced soil samples (150m x 150m grid) and 28 rock samples. Gold and arsenic results of Torq's soil sampling are presented in Figure 6.6. Despite the identification of untested anomalous areas, Torq abandoned the project in October 2018.

Figure 6.6 Gold and Arsenic in West Mercur Soil Samples

(from RVX, 2019)



Ensign acquired the RVX West Mercur property in 2020.

6.2.4 North Mercur Area

Despite being the site of the earliest mining in the Camp Floyd mining district, relatively little modern exploration has been done at North Mercur. Based on permitting documents and field observations, Centurion Mines Corporation ("Centurion") drilled 14 holes in 1991 and Kennecott drilled two holes in the 1994 at North Mercur. The results of these drilling programs are not known.

6.2.5 2020 – Present Ensign

In 2020, Ensign completed acquisitions of key areas in the district held by RVX and Priority, and agreements on the Main Mercur ground held by Barrick and Geyser Marion-Sacramento were signed in 2021. Exploration work conducted by Ensign is summarized in Section 0.

6.3 Historical Resource Estimates

6.3.1 Main Mercur

Ensign has not yet discovered historical documentation in the Barrick database pertaining to historical estimates of any resources that may have been left unmined when mining was halted in 1997.

6.3.2 South Mercur

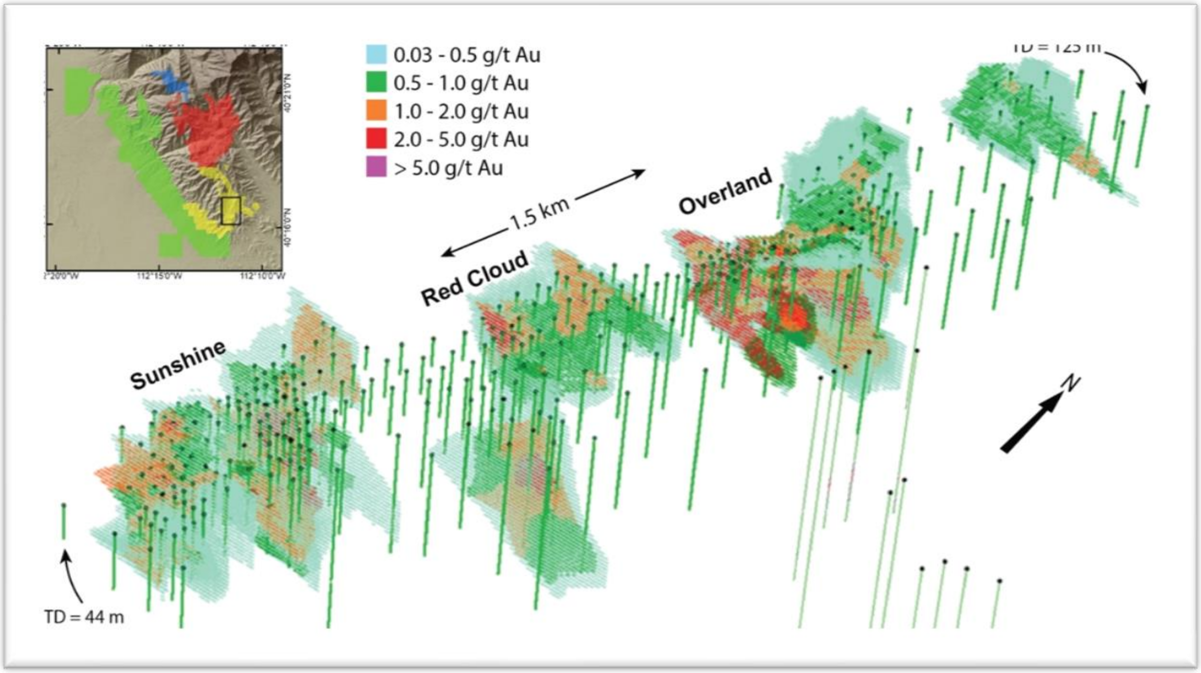
In 1988, Priority and WCC produced a “Feasibility Study” that identified “current mineable reserves” of 1,411,300 tons at 0.059oz Au/ton (Priority and WCC, 1988). “Additional geological reserves” of 1,100,000 tons at 0.046oz Au/ton were also identified (Priority and WCC, 1988). These historical estimates predate the CIM Definition Standards and NI 43-101, and therefore the terms “feasibility study”, “current mineable reserves” and “additional geological reserves” could not reference the level of study or resource and reserve categories as they are currently applied. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. Ensign is not treating these historical estimates as current resources or reserves.

In 2013, Priority initiated an effort to produce an updated resource calculation at South Mercur, incorporating results of an additional 88 RC drill holes and 11 core holes drilled between 1989 and 2013. Caracle Creek International Consulting Inc. (“Caracle”), with offices in Toronto, was contracted by Priority in 2013 to calculate a near surface mineral resource through pit optimization using Whittle software. The consulting firm was to provide a block model and resource estimate with deliverables in the form of a spreadsheet and a CAD database for GEMCOM and advise Priority on the steps that would be needed to create a resource estimate in accordance with NI 43-101. A draft technical report was initiated by Caracle but apparently not completed.

In 2014, Priority compiled a draft technical report which contains summaries of the 3D modelling work initiated by Caracle (Batson, 2014). The models developed by Caracle used 3D GEMS software to generate a wireframe-constrained block model, and gold grades were calculated using the inverse distance squared interpolation. The authors believe this historical estimate is not reliable, does not satisfy the requirements of the CIM Definition Standards and NI 43-101, and therefore the tabulations are not presented herein. Ensign is not treating this historical estimate as current mineral resources. Mr. Lindholm does consider the shapes generated during the modeling efforts as shown in Figure 6.7 to be relevant in a global sense and suitable to guide future exploration and delineation drilling. As with the 1988 estimates, however, the 2014 work would require sufficient documentation of underlying data, QA/QC support, a representative geologic and metal domain model, classification by a qualified person, metallurgical and geotechnical studies, and probable new drilling in order to produce reliable resource estimates. To upgrade or verify the historical estimates, drill-hole locations and assays would need to be confirmed with proper documentation and supported by any existing QA/QC data. Additional drilling will be necessary to confirm historical drilling results, as well as to properly delineate the deposit(s). Metallurgical and geotechnical investigations would also be needed.

Figure 6.7 Three-Dimensional View of Historical South Mercur Gold Model by Caracle

(from Batson, 2014, modified by Ensign, 2021)



7.0 GEOLOGIC SETTING AND MINERALIZATION (ITEM 7)

The information presented in this section of the report was taken in its entirety from Lindholm et al., 2022. It was derived from multiple sources, as cited, and was written by Michael W. Ressel. Mr. Lindholm has reviewed this information and believes this summary accurately represents the Mercur Project geology and mineralization as it is presently understood.

7.1 Northern Great Basin Regional Geology

Ensign's Mercur Project is located in north-central Utah near the northeastern boundary of the Great Basin, an area of high elevation and internal drainage occupying much of Nevada and western Utah. The Great Basin overlaps the northern part of the larger Basin and Range, a physiographic province of normal faulting and crustal extension characterized by numerous alternating north-trending high mountain ranges and deep, broad valleys that developed since the Miocene. The distance between successive mountain ranges averages about 20 to 30km. The Oquirrh Mountains are the first range west of the Wasatch Mountains, which bound the Basin and Range from the Colorado Plateau and Uinta Basin provinces to the east.

Carlin-type gold deposits like those at Mercur and other parts of the northeastern Great Basin occur in a complex geologic setting generally regarded as the late Proterozoic rifted edge of the North American craton (Stewart, 1980; Hintze and Kowallis, 2009). After rifting, a thick wedge of Paleozoic siliciclastic and carbonate sedimentary rocks accumulated upon a passive margin until a series of generally east-vergent orogenic events broadly affected the area and greatly disrupted marine sedimentation. The first deformation event, the early Mississippian Antler orogeny in Nevada, produced highlands that sourced a large amount of sediment in Carboniferous foreland basins in Utah, including in the Oquirrh Mountains. Episodic contractional deformation continued through the late Mesozoic, although north-central Utah including the Oquirrh Mountains was most affected by folding and thrusting associated with the late Cretaceous Sevier orogeny.

Contraction in the northern Great Basin was accompanied by pulses of widespread arc magmatism in the late Jurassic (165 to 157 Ma) and Cretaceous (~120 to 85 Ma), mainly in Nevada, but the Jurassic pulse extended into northwestern Utah. Widespread arc magmatism resumed in the middle Cenozoic at about 42 Ma following a lull of more than 40 m.y. (Barton, 1990). Mechanisms for mid-Cenozoic magmatism are unclear, but a reasonable model is that this magmatism resulted from steepening of the subducted slab, which had previously been subducted at a shallow angle that precluded melt generation. Mid-Cenozoic magmatism swept southwest between the late Eocene and Oligocene in northern and central Nevada and Utah and changed character from early intermediate intrusion- and lava-dominated igneous centers, on the north, to subsequent large silicic caldera complexes dominated by ash-flow tuff to the south, the latter constituting the Oligocene ignimbrite flare-up that affected a broad area of the southern North American Cordillera (Henry and John, 2013).

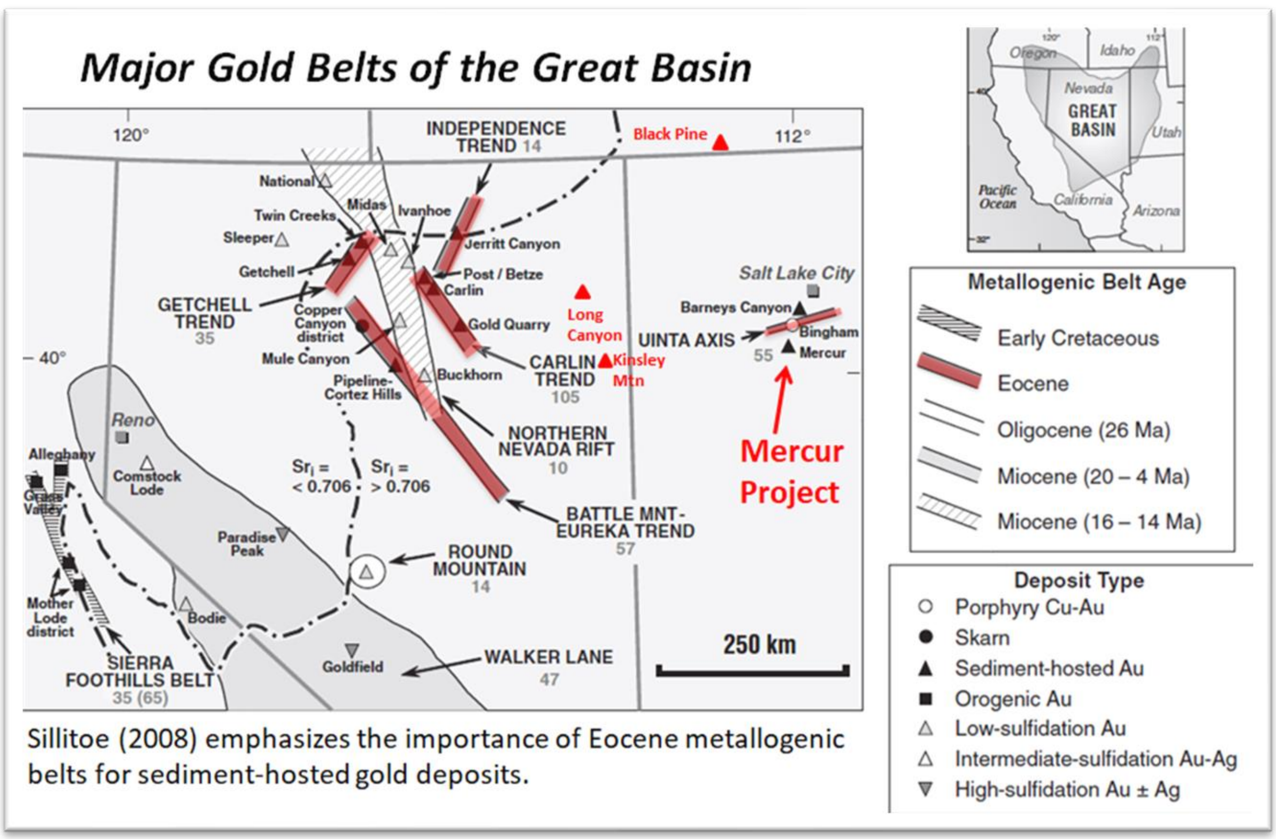
The timing and magnitude of extension in the northern Great Basin is debated, but likely low-magnitude extension initiated prior to onset of Cenozoic magmatism, as evidenced by the development of elongate lacustrine basins and angular unconformities between mid-Cenozoic units. Major extension appears to postdate Eocene-Oligocene magmatism (Best et al., 1991; Henry et al., 2011), initiating in the mid-Miocene (~17 Ma) and coinciding with renewed magmatism of a distinctive bimodal (basalt-rhyolite) character that reflects its extensional origin.

The metallogeny of the northern Great Basin is strongly associated with Mesozoic to Cenozoic magmatism. Economic porphyry mineralization, although not abundant in the province, is associated with Jurassic through mid-Cenozoic intrusions (e.g., Yerington, Contact, Robinson, Hall, Mount Hope, and Bingham Canyon). Jurassic intrusions are associated with porphyry copper and iron oxide-copper-gold ("IOCG") deposits (Barton et al., 2011), whereas Cretaceous porphyries in Nevada range from copper-gold-molybdenum (e.g., the ~90 Ma system at Robinson), through low-fluorine molybdenum types (e.g., Hall and Buckingham).

Eocene magmatism produced the giant Bingham porphyry copper-gold-molybdenum system in the northern Oquirrh Mountains and major silver-base metal deposits of the Park City and Tintic districts of central Utah, and large gold-rich skarns at Fortitude and Cove-McCoy in Nevada. However, Eocene low-temperature Carlin-type or sedimentary rock-hosted gold deposits are, by far, the most important precious-metal deposits in the Great Basin (Figure 7.1), accounting for about 60% of the Great Basin's total gold production, or ~170Moz (5,300 tonnes) of 280Moz (8,700 tonnes) total production (Muntean and Davis, 2017; Utah Geological Survey, 2019).

Figure 7.1 Regional Setting of the Mercur Project

(from Sillitoe, 2008; annotated by Ensign, 2021)



Carlin-type deposits are spatially and temporally related to Eocene magmatism and several studies link the magmatism with Carlin-type ore deposition (Sillitoe and Bonham, 1990; Johnston and Ressel, 2004; Muntean et al., 2011). Combined, Eocene ore deposits account for approximately 77% of the province's gold production, a remarkable statistic considering the Great Basin is also well-known for precious-metal production from major Miocene to Oligocene volcanic-hosted epithermal deposits like Round Mountain, Comstock, Goldfield, and Tonopah (Figure 7.1). In northern Utah, examples of Carlin-type deposits broadly associated with Eocene magmatism include Barneys Canyon and Melco near Bingham Canyon (Figure 7.1), and those at Mercur and the Drum Mountains (Krahulec, 2010). Carlin-type deposits in Utah districts have produced about 4.8Moz of gold (Krahulec, 2011), Mercur being Utah's largest primary gold mine having recovered 2.6Moz (81 tonnes).

Abundant mid-Miocene low-sulfidation, volcanic-related epithermal gold-silver deposits, some of which include bonanza veins (e.g., Jarbidge, Midas, National, Sleeper, Fire Creek), are widespread in the northern Great Basin. Mid-Miocene epithermal deposits are associated with a switch from arc-type to bimodal volcanism in northern Nevada and parts of adjacent Idaho, Utah, and Oregon 17-15 Ma). The switch to bimodal volcanism coincided with the start of widespread extensional faulting throughout the Great Basin.

Somewhat younger epithermal deposits (≤5 Ma) are abundant in the northern Great Basin and commonly spatially associated with modern geothermal systems. In several cases, these young low-sulfidation gold-silver deposits lack a strong spatial or temporal tie to magmatism, prompting interpretations that they are amagmatic and extension-related in origin (Coolbaugh et al., 2011).

7.2 Geology of the Southern Oquirrh Mountains

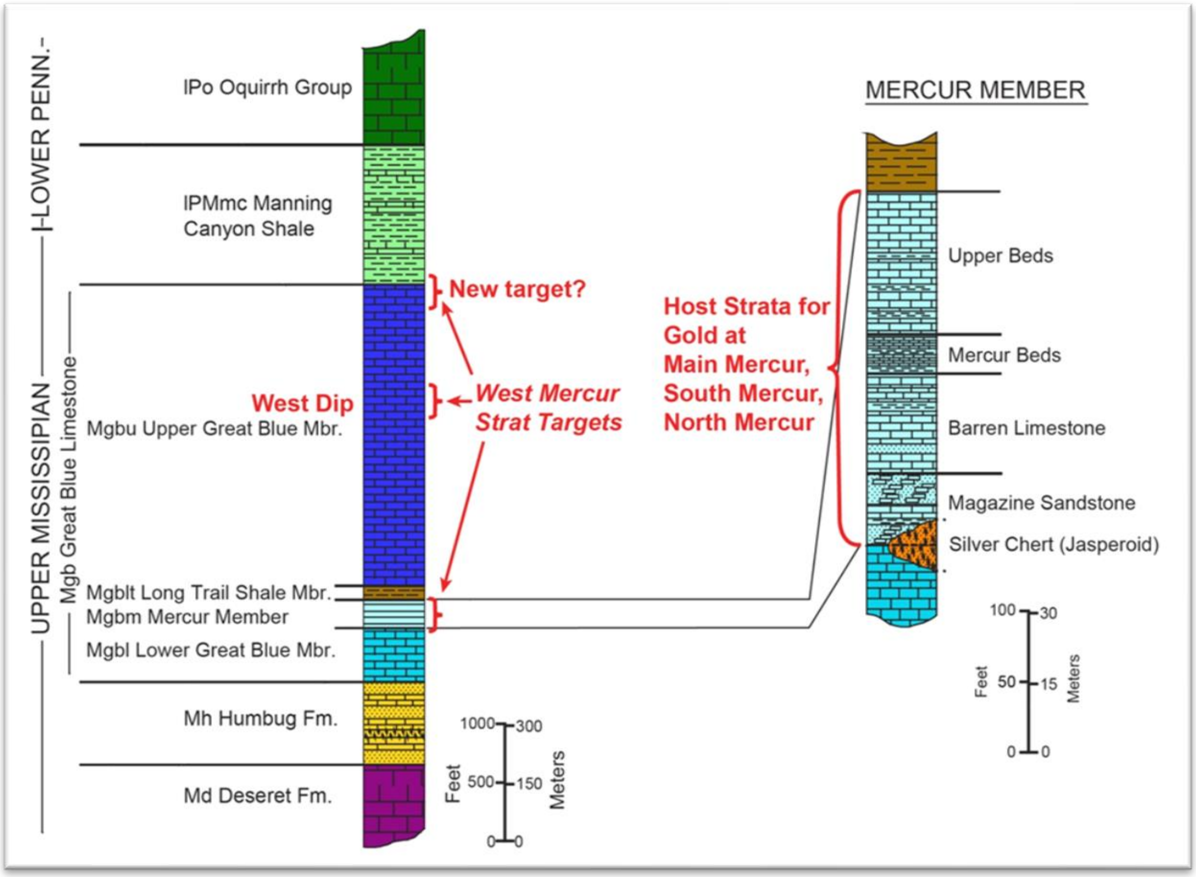
Exposures in the southern Oquirrh Mountains mostly comprise Mississippian through Early Permian carbonate and siliciclastic strata having an aggregate thickness over 5,300m. Five broadly conformable units are recognized, which from oldest to youngest are: Middle Mississippian Deseret Limestone, Late Mississippian Humbug Formation, Late Mississippian Great Blue Limestone, Early Pennsylvanian Manning Canyon Shale, and Pennsylvanian to Early Permian Oquirrh Group (Figure 7.2; Tooker and Roberts, 1998). In Ophir Canyon just north of the Mercur Property, older strata of Devonian-Mississippian and Cambrian age are exposed beneath the Deseret Limestone. The older rocks represent the deeper levels of the Bingham thrust nappe in the southern Oquirrh Mountains.

The Deseret Limestone mainly consists of medium-bedded, commonly karstic, fossiliferous, and cherty limestone and lesser sandstone. Thick-bedded brown sandstone and lesser medium-bedded gray limestone characterize the Humbug Formation. Micritic and silty limestone intercalated with lesser amounts of sandstone, siltstone, and shale characterize the heterogeneous Great Blue Limestone. The Manning Canyon Shale consists mostly of black, commonly calcareous shale with limy sandstone at its base and thin-bedded limestone at its top. The Oquirrh Group represents cyclic deposition of more than 3.8km of shale, sandstone, and limestone subdivided into five formations (see Tooker and Roberts, 1998). In general, the tremendous volume of sedimentary rocks deposited during the Carboniferous in north-central Utah reflects the transition between stable platform deposition of clean carbonate and sand through the Early Mississippian to growing basin instability and changing subsidence rates and lithologies in the Middle Mississippian to Early

Pennsylvanian. This was in response to the westerly influx of siliciclastic sediment associated with erosion of the Antler orogenic highland in Nevada (Bissell and Barker, 1977; Morris et al., 1977).

Figure 7.2 Generalized Stratigraphic Column for the Main Mercur Area

(from Mako, 1999 and Kerr, 1997, modified by Ensign, 2021)

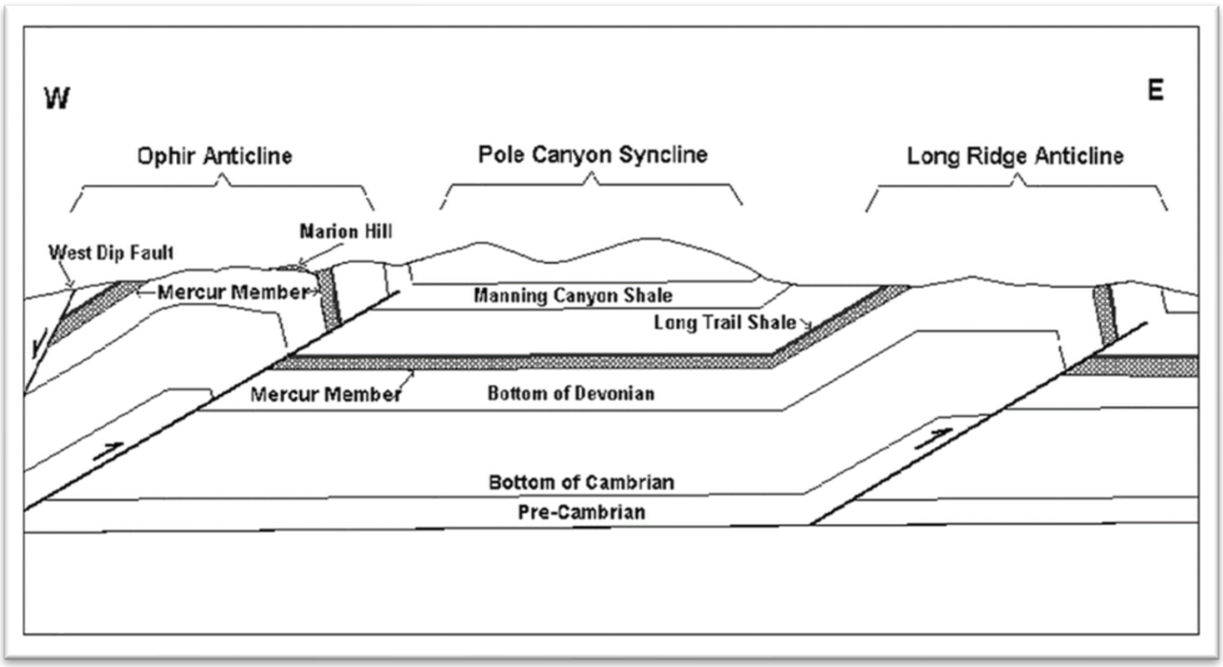


The structure of the Oquirrh Mountains is dominated by successive thrusts sheets stacked eastward against the bulwark of the Uinta Mountains crystalline uplift during the compressive Cretaceous Sevier orogeny (Hintze and Kowallis, 2009). In the Oquirrh Mountains, five nappes are mapped, each possessing distinct internal structural patterns and Paleozoic depositional facies (Tooker and Roberts, 1998). The southern Oquirrh Mountains, including the Mercur region, are located in the Bingham nappe (Figure 7.3), which is comprised of ~7km of allochthonous Paleozoic strata soled by the Midas thrust. The Bingham nappe contains four broad, high-amplitude, asymmetric folds (Figure 7.3) with axes trending north-northwest across the southern Oquirrh Mountains (Tooker, 1999). Both the Mercur area and neighboring Ophir mining district to the north are located in the Ophir anticline, the westernmost of the major folds.

The asymmetry of the Ophir anticline and other regional folds is interpreted to be fault related. The Ophir anticline is observed to be a “box fold” with a gently dipping western limb, broad hinge zone and steep eastern limb (Kerr, 1997). Tooker (1987) favored a fault-bend fold interpretation of this geometry while a structural analysis by Kroko (1992) supported a fault-propagation fold. The thrust fault in question is not clearly exposed and was regarded as blind by Kroko (1992), so a definitive classification is challenging. In either case, the underlying thrust fault likely provided an important fluid pathway, linking the Mercur district to yet deeper structures (Kroko and Bruhn, 1992).

Figure 7.3 Schematic Section Across the Southern Oquirrh Mountains

(from Kroko, 1992)



7.3 Mercur Property Geology

The Mercur Property is underlain by Mississippian rocks that are broadly folded into the northwest-trending Ophir anticline (

Figure 7.4 and Figure 7.5). Because of folding and topography, the Great Blue Limestone is the most extensive stratigraphic unit exposed on the property, with smaller exposures of the underlying Humbug Formation and Deseret Limestone in the core of the anticline in Mercur Canyon, as well as exposures of the younger Manning Canyon Shale along the western and eastern flanks of the property.

The Great Blue Limestone has a total stratigraphic thickness ranging from 764m (Gordon et al., 2000) to about 1,005m (Chamberlain, 1981) in the Mercur mine area. Three mappable subunits are recognized by geologists of the US Geological Survey (Tooker, 1987) and the Utah Geological Survey (Clark et al., 2012). These subunits include the Lower Limestone Member, the Long Trail Shale Member, and the Upper Limestone Member. Tafuri (1987) further divided the Lower Limestone Member to recognize the Mercur Member, a distinct set of beds that host most of the gold in the Mercur district (Figure 7.2).

The oldest unit, the Lower Limestone Member, is correlated with the Topliff Member of the Great Blue Limestone Figure 7.2) in the North Tintic mountains by many workers (Tafuri, 1987). Depending on where the section is measured, the thickness of the Lower Limestone Member is reported to range from 163m to 260m thick (Klatt, 2016; Chamberlain, 1981; Kerr, 1987, Gordon et al., 2000). The lower portion of the unit consists primarily of dark gray, medium- to thick-bedded micritic limestone. The upper portion of the unit is composed of thin bedded, bioclastic limestone, micritic limestone, calcareous shale and sandstone units (Klatt, 2016). Ensign and other workers in the Mercur district further divide the Lower Limestone Member as the Lower Great Blue Member (the lower portion) and the Mercur Member (the upper portion).

The Mercur Member (Figure 7.2) was defined by Tafuri (1987) as the upper portion of the Lower Limestone Member, just below the Long Trail Shale. Measured thickness of the Mercur Member ranges from 95m at Main Mercur, to 101m at West Mercur (Klatt, 2016). The Mercur Member consists of alternating bioclastic limestone, silty limestone, and calcareous siltstone and sandstone beds, which hosted the bulk of material mined in the district.

The Long Trail Shale Member of the Great Blue Limestone (Figure 7.2) consists of 25 to 45m of fissile, black, carbonaceous, and fossiliferous shale with interlayers of limestone and mudstone.

The Upper Limestone Member (or Upper Great Blue Member) of the Great Blue Limestone is 470 to 975m thick and consists mostly of cherty, medium- to thick-bedded, medium gray, micritic limestone, with some beds of calcareous siltstone, shale and bioclastic limestone. The Upper Great Blue Member was the host unit for the material historically mined underground in the West Mercur area.

The Mercur Member, which is the most favorable host unit for gold mineralization in the Mercur mine area, crops out in both the western and eastern limbs of the Ophir anticline (

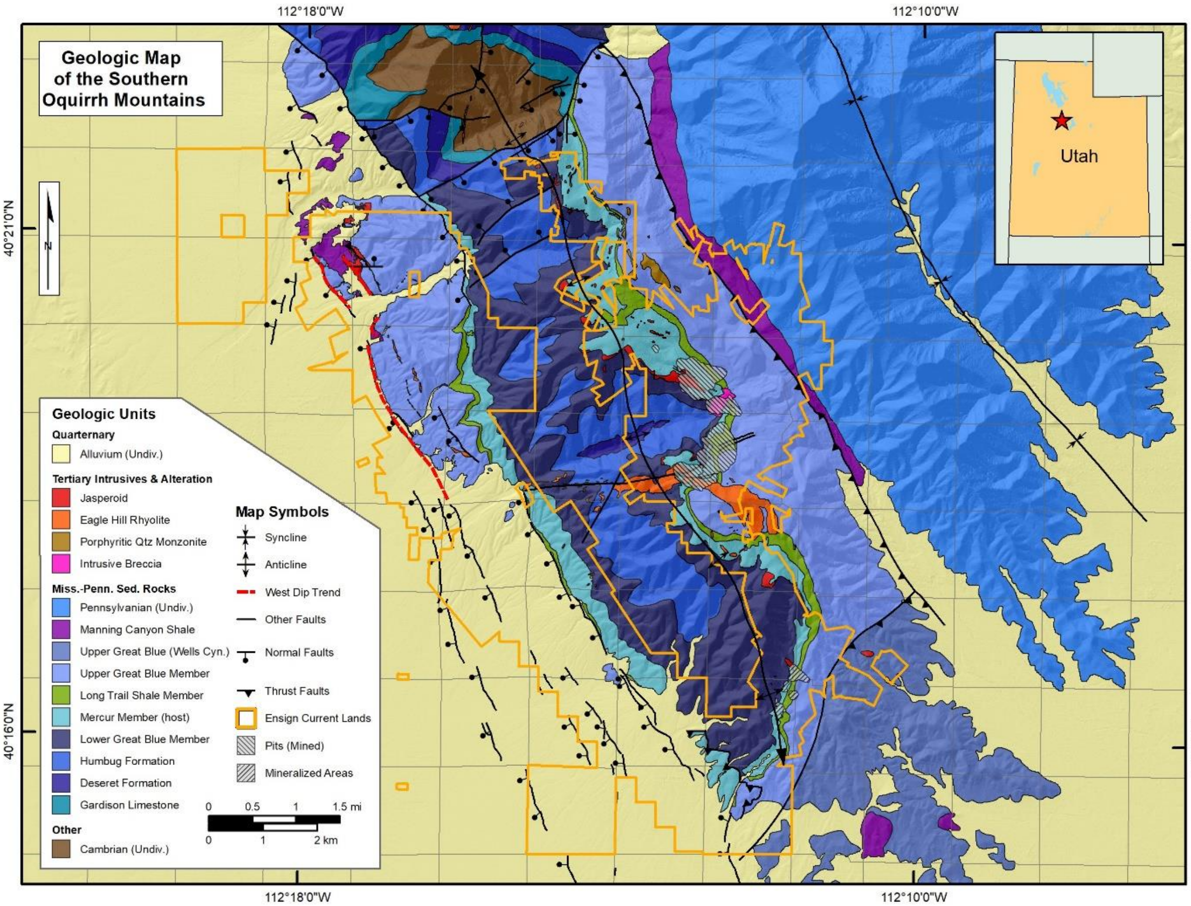
Figure 7.4). The Mercur Member is further subdivided (Figure 7.2) into four lithologically distinct "beds" (e.g., Mako, 1999; Kerr, 1997; Kornze, 1987; Tafuri, 1987) that influenced the distribution of mineralization: the lower, "Magazine Sandstone Beds" (~12m thick), the "Barren Beds" of thicker-bedded limestone (~23m thick), the "Mercur Beds" of highly fossiliferous silty limestone (~9m thick), and the so called "Upper Beds" of medium-bedded limestone (~38m thick). Additionally, an alteration unit, the Silver Chert, is used extensively in the literature of the Mercur mine area to describe a stratigraphically controlled layer of silicified limestone and sandstone at the base of the Mercur Member.

In addition to Mississippian sedimentary rocks, several dikes, sills, and plugs of sparsely quartz-phyric to aphyric rhyolite or aplite (Eagle Hill rhyolite) and porphyritic quartz monzonite (Porphyry Hill quartz monzonite) of Eocene age are present at Mercur (Guenther, 1973; Mako, 1999;

Figure 7.4). The Eagle Hill rhyolite comprises several irregular sill- and dike-like bodies that discontinuously cover an area about 5km east-to-west by ~2km north-to-south centered on Mercur Canyon; the largest rhyolite bodies are ~0.42km^2 and 0.62km^2. Prior to mining, the largest of the Eagle Hill rhyolite exposures covered most of the Sacramento pit gold resource, with most mined material associated with east-northeast- and north-striking faults cutting prospective Mercur Member rocks beneath the intrusion (Kerr, 1997). Patchy strong hydrothermal alteration and low-grade gold mineralization in rhyolite indicate that mineralization postdates the ~Eocene age of intrusion (Kerr, 1997; Mako, 1999).

Figure 7.4 Simplified Geology Map of the Southern Oquirrh Mountains

(from Ensign, 2024; orange lines show Mercur Property outlines)

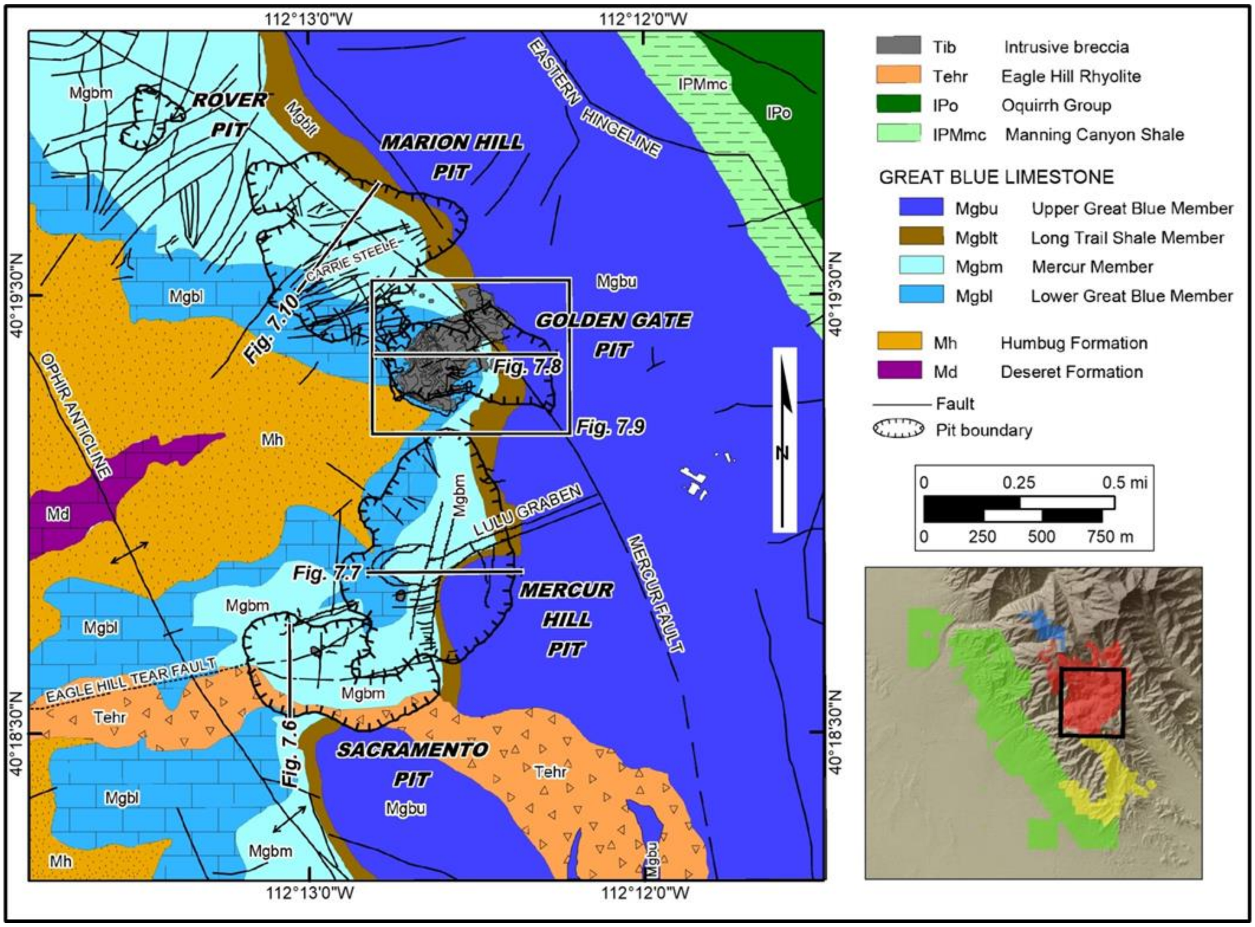


Additional exposures of Eagle Hill rhyolite have been mapped along the western range front in the West Mercur area (Tooker, 1987; Clark et al., 2012). The dikes are subparallel to the general north-northwest strike of bedding and mapped range-front faults. Some of the dikes are near historical mines in the West Mercur area.

The Porphyry Hill quartz monzonite is exposed as altered dikes and plugs of porphyritic quartz monzonite in the area about 500m northeast of the Rover pit (Figure 7.5) near "Porphyry Hill". The rock is coarsely and abundantly porphyritic granodiorite with large, euhedral phenocrysts of plagioclase, K-feldspar, and biotite, with smaller amounts of quartz and hornblende set in a fine-grained, granular groundmass. The largest body covers about 0.2km^2. The dikes and other small intrusions have a northwest trend overall and are mapped as far as the North Mercur (Lion Hill) area in the Ophir district, a distance of about 3.5km (Clark et al., 2012).

Figure 7.5 Geology of the Mercur Mine Area

(from Mako, 1999, modified by Ensign, 2022)



Note: inset shows location of map area relative to the property outlines.

Structural Geology – The Mercur Property covers two geologic segments that correspond to oppositely dipping limbs of the Ophir anticline (

Figure 7.4). The west-dipping limb, called "West Dip" for the historical mining area along the range front, exposes strata from the Humbug Formation through the Early Pennsylvanian Manning Canyon Shale. Much of the western flank of the property is covered by Quaternary and Cenozoic alluvial fan gravels of unknown thickness, although in several places, small patches of Paleozoic rocks are exposed through gravels and shallow historical shafts penetrated to bedrock, indicating modest depths to bedrock. Several active scarps cut young alluvial fans along western range front of the property (Wu and Bruhn, 1994). The historical West Dip underground mines exploited a poorly understood, bedding-parallel structure known as the West Dip fault along the range front at the La Cigale and Daisy mines.

The east limb of the Ophir anticline exposes the Mercur Member stratigraphy, which is the principal control on mineralization in the Mercur mine area (Figure 7.5). The east limb consists of a west-to-east progression of moderately east-dipping Humbug Formation through Manning Canyon Shale, including all members of the Great Blue Limestone. Most historical production from underground and from open pits in the Mercur mine area was derived from mineralized material in the Mercur Member, within the slightly steeper east limb of the Ophir anticline. Although mineralization was strongly bedding-controlled and of replacement-style, individual deposits were typically localized by low-displacement faults and their intersections (e.g., Kerr, 1997). Such high-angle faults are common in the Mercur mine area, although many faults have modest displacements (≤10m) and are not traced for more than a few kilometers (Tooker and Roberts, 1998).

The orientations of most high-angle faults are north-northwest and east-northeast, and both orientations of faults localized mineralization in deposits of the Mercur mine area (Kroko and Bruhn, 1992; Kerr, 1997). The east-northeast faults cut the Ophir anticline at nearly right angles and have been interpreted as tear faults associated with fold propagation (Tooker, 1999; Kerr, 1997; Kroko and Bruhn, 1992). The Eagle Hill "tear" fault has the greatest continuity of the east-northeast faults and partly coincides with the Lulu graben, a 75m-wide east-northeast "keystone" fault zone in the Mercur Hill pit that down-dropped a wedge of highly mineralized Mercur Beds against weakly mineralized Lower Great Blue (Topliff) Member (Kerr, 1997). The Carrie Steele fault in the Marion Hill pit is another east-northeast striking structure. Many of the faults controlling mineralization in the Mercur mine area described by Kerr (1997) have minimal offsets of a few meters or less.

The most extensive faults mapped in the Mercur mine area are northwest-striking faults. The Mercur fault was mapped by Barrick geologists (Kornze, 1987; Kerr, 1997) as a major northwest fault that skirts the east edge of the Golden Gate and Marion Hill pits and extends for more than 10km between Ophir and Sunshine Canyon. However, the 1:62,500-scale map by Clark et al. (2012) did not include the Mercur fault. Kerr (1997) speculates a fold-fault link between the Ophir anticline and Mercur fault based on their similar orientation and scale.

7.4 Gold and Silver Mineralization

Four areas of significant precious-metal mineralization are identified on the Mercur Property including the Main Mercur area where most historical production was derived, and the North, South, and West Mercur areas (
Figure 4.3). All areas were initially mined from underground workings, although only Main

Mercur had later production from more recent open-pit mining. The majority of precious-metal mineralization from all areas is disseminated in preferred stratigraphic intervals of the Great Blue Limestone, although some mineralization also occurs in a few steeply plunging and irregular breccia bodies that cut other stratigraphic units. Vein or intrusion-hosted mineralization is rarely, if ever, described in the literature.

Sedimentary rock-hosted gold mineralization on the Mercur Property is generally consistent with characteristics of large Carlin-type gold deposits in Nevada (e.g., Cline et al., 2005). Most deposits except for those at West Mercur occur on the east limb of the Ophir anticline, near its crest, in thin-bedded, carbonaceous, and relatively iron-rich Mississippian carbonate strata of the Mercur Member of the Great Blue Limestone (Tafuri, 1987). Gold at West Mercur occurs in similar carbonate strata of the Upper Great Blue Member in the west limb of the Ophir anticline. Gold mineralization at Mercur is broadly replacement in style, wherein gold-bearing iron sulfides were disseminated in more favorable carbonate-bearing units during hydrothermal alteration of impure carbonate host rocks. Like other major base and precious metal deposits in the Oquirrh and neighboring Wasatch mountains, Mercur mineralization is considered to be of Eocene age based on close relationships with coeval intrusions. Near the surface or along faults, fracture zones, and dikes, post-mineralization oxidation of the gold deposits converted iron sulfides to oxides.

Mineralization at Mercur exhibits the typical Carlin-type geochemical assemblage of gold associated with anomalous arsenic, antimony, mercury and thallium. Gold values generally exceed silver values, and base metals have low average concentrations. Gold in unoxidized, carbonaceous strata generally occurs in two forms: 1) as minute grains of irregularly shaped iron sulfides ("filigree" pyrite) disseminated and in extremely fine veinlets distributed throughout the rock, or, 2) as a component of micron-scale rims on subhedral pyrite in pyrite-marcasite-sulfosalt micro veinlets (Wilson and Wilson, 1992). The gold-bearing rims on early-formed pyrite and the micron-sized filigree pyrite also contain high concentrations of arsenic, antimony, mercury, and thallium (e.g., Wilson and Wilson, 1992; Mako, 1999).

Other minerals in unoxidized zones include local abundances of realgar, orpiment, stibnite, cinnabar, an assortment of minor thallium-bearing sulfosalts, and barite. Orpiment and realgar occur in irregular clot-like masses, and fracture coatings mostly in carbonaceous rocks broadly associated with gold mineralization. Cinnabar and stibnite are sporadically distributed at Main Mercur, cinnabar most notably at the Sacramento pit and stibnite in the Silver Chert jasperoid. Barite is a common primary sulfate mineral at Mercur and occurs widely in deposits, partly as a component of early silicification in the Silver Chert horizon and in late-stage calcite-halloysite veins (Tafuri, 1987; Mako, 1999). Fluorite was described by Faddies and Kornze (1985) in late-stage calcite-barite veins.

Three main types of primary hydrothermal alteration associated with precious metal mineralization at Mercur are carbonate removal ("decalcification"), silicification of carbonates to form jasperoid, and argillization of the feldspathic component in impure carbonates and igneous rocks. In addition, concentrations of organic carbon are locally evident adjacent to intrusions and in areas associated with intense decalcification. The deposits at Mercur are variably oxidized, although the redox boundary is highly irregular and, in some cases, oxidation occurs below sulfide- and carbon-bearing zones (Kornze, 1987).

The earliest (and pre-gold) stage of alteration recognized at Main Mercur is silicification associated with the Silver Chert, which is a jasperoid body variably developed along an 11km-long stretch at the contact between the Lower Great Blue and Mercur members of the Great Blue Limestone. The Silver Chert jasperoid contains fine-grained quartz along with varying amounts of barite, pyrite, secondary silver minerals, and native silver. Tourmaline in the jasperoid suggests a higher formation temperature prior to supergene silver enrichment. Other zones of bedding-replacement silicification occur widely at Mercur but are relatively minor (Mako, 1999). Moderate silicification is also observed with relatively late mineralization associated with several breccia bodies (Guenther, 1973). Carbonate dissolution, which Jewell and Parry (1987) equated with argillic alteration, is the principal style of alteration that is associated with gold mineralization on the Mercur Property. The process of carbonate dissolution rendered affected rocks more porous and less dense, produced clays (e.g., illite, kaolinite) from feldspars comprising impure carbonate rocks, and greatly enriched the concentration of organic carbon as a residue in unoxidized rocks.

In addition to the replacement-type mineralization, gold has been found to occur in what has been described as intrusive breccia pipes (Tooker, 1987). Breccia bodies occur on the Mercur Property in the Golden Gate, Mercur Hill, and Sacramento deposits at Main Mercur, and a cluster of three small pipes near the Sunshine mine in South Mercur. The breccia bodies have irregular, funnel-shaped forms that tend to narrow with depth. The breccia bodies commonly contain igneous clasts (Guenther, 1973; Mako, 1999), although the majority of clasts comprise altered limestone consistent with lithologies in the lower members of the Great Blue Limestone that the breccia bodies. The breccia bodies at the Golden Gate and Sacramento deposits were the only ones to carry significant gold mineralization, and gold was erratically distributed throughout the breccia.

7.4.1 Main Mercur Mineralization

The Mercur Project is centered on five open pits dating from between 1983 and 1997, which are located in the Main Mercur area. The five open pits, which were largely expansions of the historical underground workings, are from south to north: Sacramento, Mercur Hill, Golden Gate, Marion Hill, and Rover (Figure 7.5). All five areas contain gold-mineralized material that was not previously mined but was identified through drilling and other historical exploration activities. Representative cross sections of the Sacramento, Mercur Hill, Golden Gate, and Marion Hill pits are provided in Figure 7.6, Figure 7.7, Figure 7.8, Figure 7.9 and Figure 7.10. These areas are summarized individually in the following subsections based on Faddies and Kornze, (1985), Kerr (1997), and Mako (1999).

7.4.1.1 Sacramento Pit

Gold mineralization in the Sacramento pit area occurs in the pipe-like Sacramento breccia body and in replacements of favorable sedimentary beds. The Sacramento breccia body is bound within a graben-like structure defined by two oppositely dipping, east-northeast-striking normal faults. In contrast, the bedding replacements occur in the footwall of one of the normal faults. Although production from Sacramento was mostly gold, early underground mining was initially for mercury in cinnabar, and Getty-Barrick recovered about 131 flasks of mercury from the autoclave process during open pit mining (Mako, 1999).

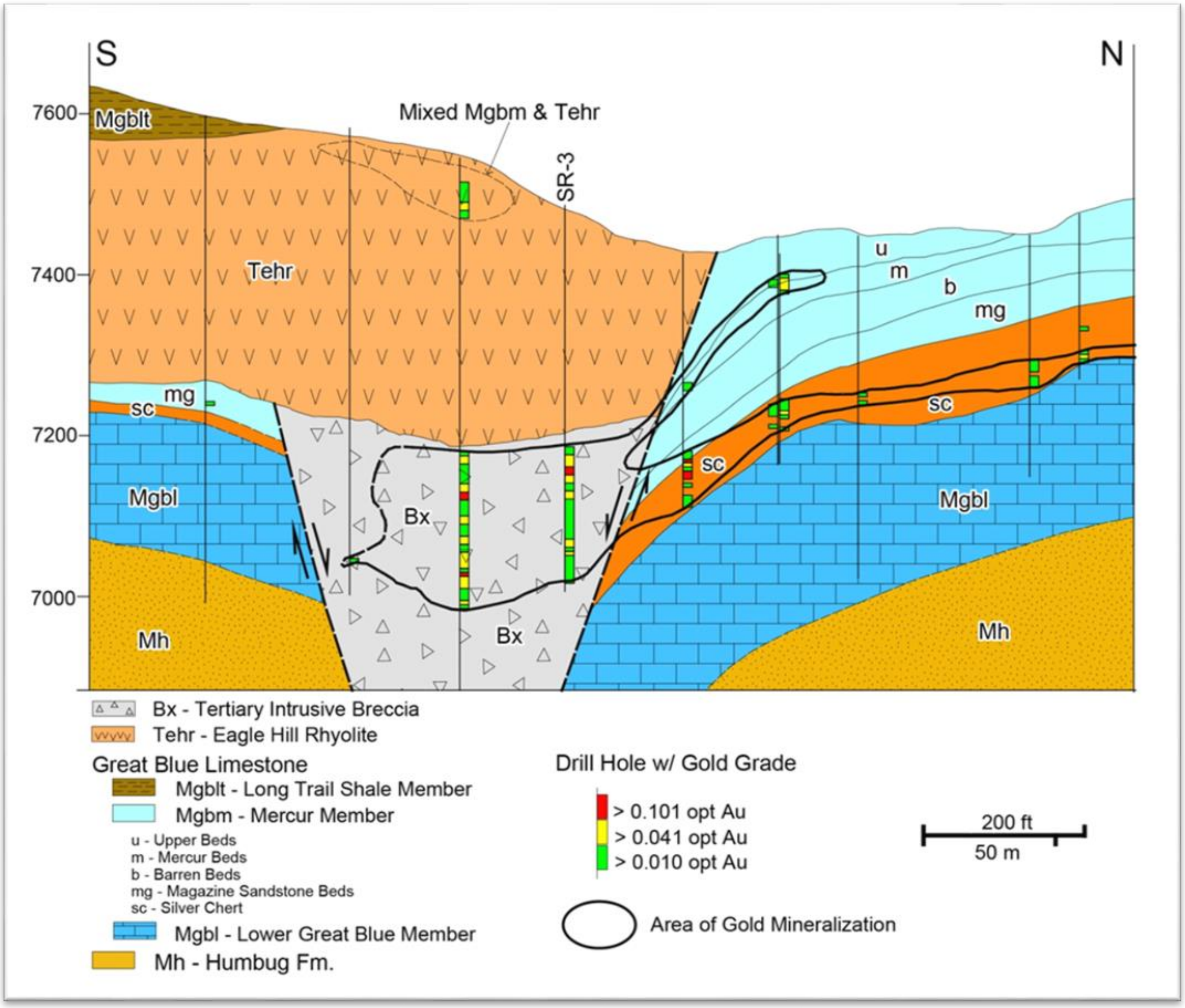
The Sacramento breccia is an upward-flaring body as much as 150m wide near its upper contact with the flat-lying Eagle Hill rhyolite sill and extending vertically for at least 120m (Figure 7.6).

The plan view footprint of the mineralized breccia is about 220m by 100m, but narrow mineralization extends for more than 400m along the normal faults (Kerr, 1997). The breccia cuts the favorable Mercur Member as well as underlying Lower Great Blue Member of the Great Blue Limestone, and clasts of both make up the bulk of breccia clasts. A small percentage of kaolinite-altered clasts were interpreted as rhyolite (Guenther, 1973; Tafuri, 1987).

The breccia is described as generally oxidized, matrix-supported, and consisting of angular to subrounded, decalcified, and clay-altered limestone clasts in a matrix of fine-grained quartz and hematite (Guenther, 1973; Kerr, 1997). Abundant organic carbon with disseminated fine-grained iron sulfides and realgar persist at high levels of the breccia body immediately beneath the rhyolite sill in the Mercur Member in the south highwall. The varying degrees of oxidation are generally attributed to near-surface weathering, although Kornze (1987) suggests that some oxide mineralization underlying intervals of mineralized sulfidic and carbonaceous rocks such as in the Sacramento pit may be primary. The percentage of gold associated with the siliceous matrix versus contained in oxidized pyrite in the altered clasts of the breccia is uncertain. Gold grades in the mined breccia were locally greater than 3g/t Au in its upper part but apparently decreased to less than 0.3g/t Au at depths greater than 120m (Figure 7.6). Despite extensive mineralization in the breccia, not all of it was mineralized (Kerr, 1997; Mako, 1999).

Figure 7.6 Geologic Section of the Sacramento Deposit Area, Main Mercur Area

(from Mako, 1999, modified by Ensign, 2021; see Figure 7.5 for section location)



The bedding-replacement mineralization is localized in the footwall of the Eagle Hill fault (Figure 7.5), the northernmost of the two east-northeast normal faults and mainly occurs as jasperoid in both the Mercur Member as well as the uppermost part of the Lower Great Blue Member (Kerr, 1997). Distal bedding-replacement alteration affecting the Mercur Member include decalcification and argillization of silty carbonate interbeds.

7.4.1.2 Mercur Hill Pit

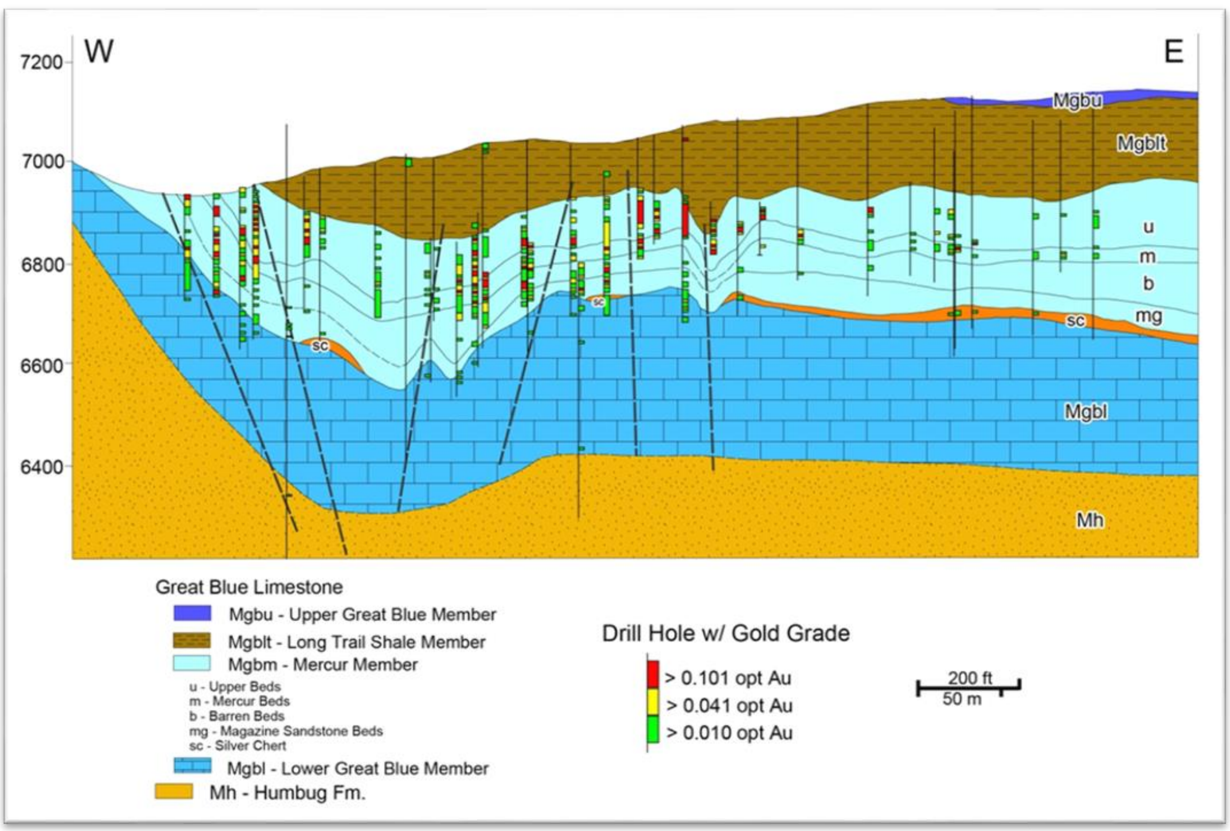
Mercur Hill was the largest-producing of the Getty-Barrick open pits at Main Mercur (Mako, 1999) and partly overlaps with the eastern edge of the Sacramento pit. The deposit contained the highest and most persistent gold grades of any of the open pits and a large volume of mined material averaged more than 3g/t Au (Kerr, 1997). Mercur Hill exploited two fault-connected zones: a southern oblong footprint measuring about 510m east-west by about 250m north-south, and a northern cross-shaped footprint measuring approximately 355m north-south by 300m east-west, with each cross segment averaging about 100m in width. In both zones, gold was stratabound in the Mercur Member (Figure 7.7) and extended outward from syn-mineral faults no more than about 100m (Kerr, 1997).

Gold in the southern zone is localized in the Mercur Member at the intersection of the narrow (40-145m wide), east-northeast Lulu graben and a series of north-northeast faults about 70m wide known as the Twist fault zone (Kerr, 1997). A collapse breccia body ("Kirk breccia") occurs in the southwest corner of the fault intersection, an area in which the mineralization was broadest. The lower part of the Kirk breccia contained mineralized clasts of Mercur Member and possibly even clasts of the Upper Great Blue Member of the Great Blue Limestone, and was bounded by coherent limestone of the Lower Great Blue Member. Abundant fractures in the entirety of this structural intersection resulted in pervasive oxidation.

The northern zone of mineralization is linked to the southern zone by the Twist fault zone, which changes to a northwest strike north of the Lulu graben (Kerr, 1997). The intersection of the Twist faults with another east-northeast fault focused the highest grades.

Figure 7.7 Geologic Section of Mercur Hill, Main Mercur Area

(from Mako, 1999, modified by Ensign, 2021; see Figure 7.5 for section location)



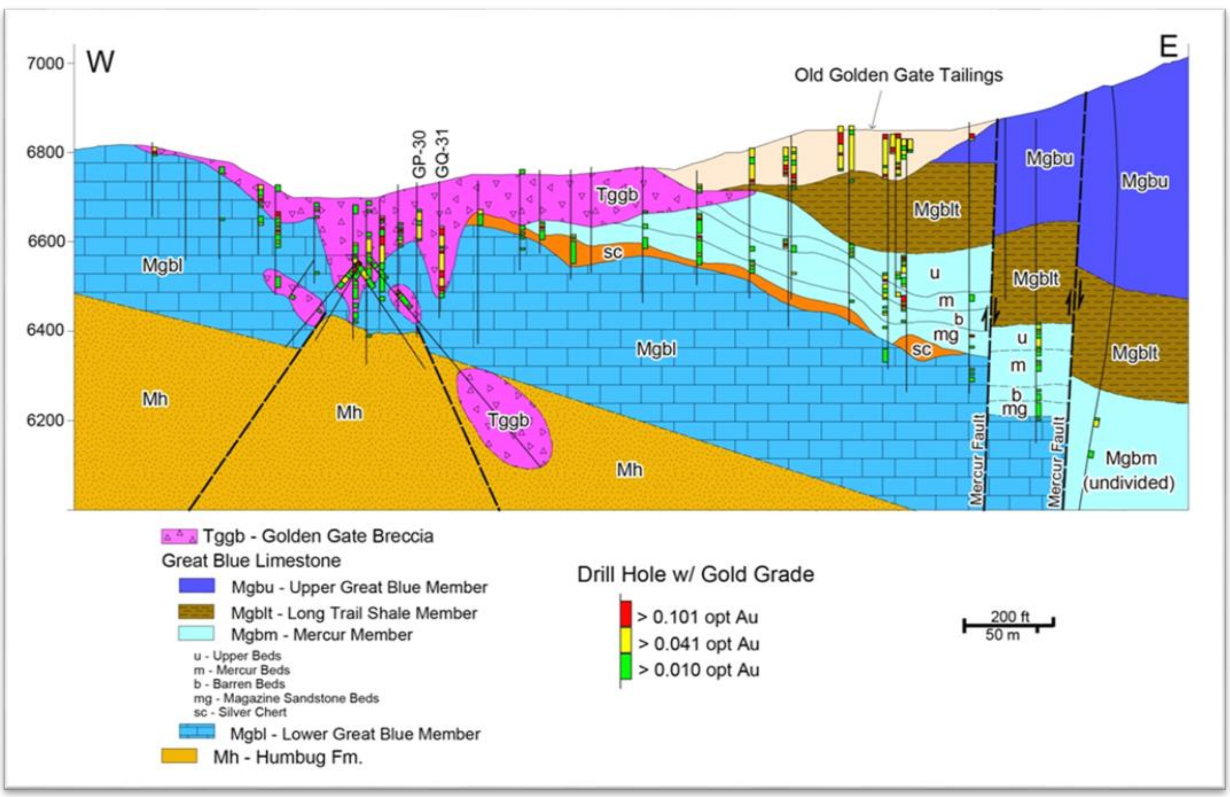
7.4.1.3 Golden Gate Pit

The Golden Gate pit was developed in Mercur Canyon at an area covered by tailings from the historical Golden Gate Mill and part of the historical townsite of Mercur (Figure 6.1). The gold mineralization is east-west elongate over approximately 350m. The bulk of gold mineralization at Golden Gate was contained in an irregular but generally upward-flaring, mushroom-shaped breccia body ("Golden Gate breccia" of Mako, 1999) centered above a structural high of the Humbug Formation (Figure 7.8) in the western half of the deposit.

Prior to mining, the Golden Gate breccia, most of which was oxidized, covered an area roughly 550m northeast-southwest by 210m northwest-southeast (Figure 7.9). Kerr (1997) indicates that the northeast elongation of the Golden Gate breccia and deposit was a result of a northeast-striking fault. The flared upper part of the Golden Gate breccia narrowed considerably below about 60m into a series of more discrete pipe-like bodies (Figure 7.8). The Golden Gate breccia cuts the upper Humbug Formation, and the Lower Great Blue and Mercur members of the Great Blue Limestone. Variably sized clasts of these sedimentary units along with igneous lithologies similar to the Eagle Hill rhyolite and Porphyry Hill granodiorite occur in mixed fashion within the core of the body (Mako, 1999). The matrix of the Golden Gate breccia consists of fine rock fragments, calcite, and iron oxides commonly with euhedral crystals of biotite. No information could be found that describes the deportment of gold between breccia clasts and matrix. Gold grade was distributed erratically in the breccia and not all of the breccia contained economic grades of gold (Figure 7.9).

Figure 7.8 Geologic Section of the Golden Gate Area

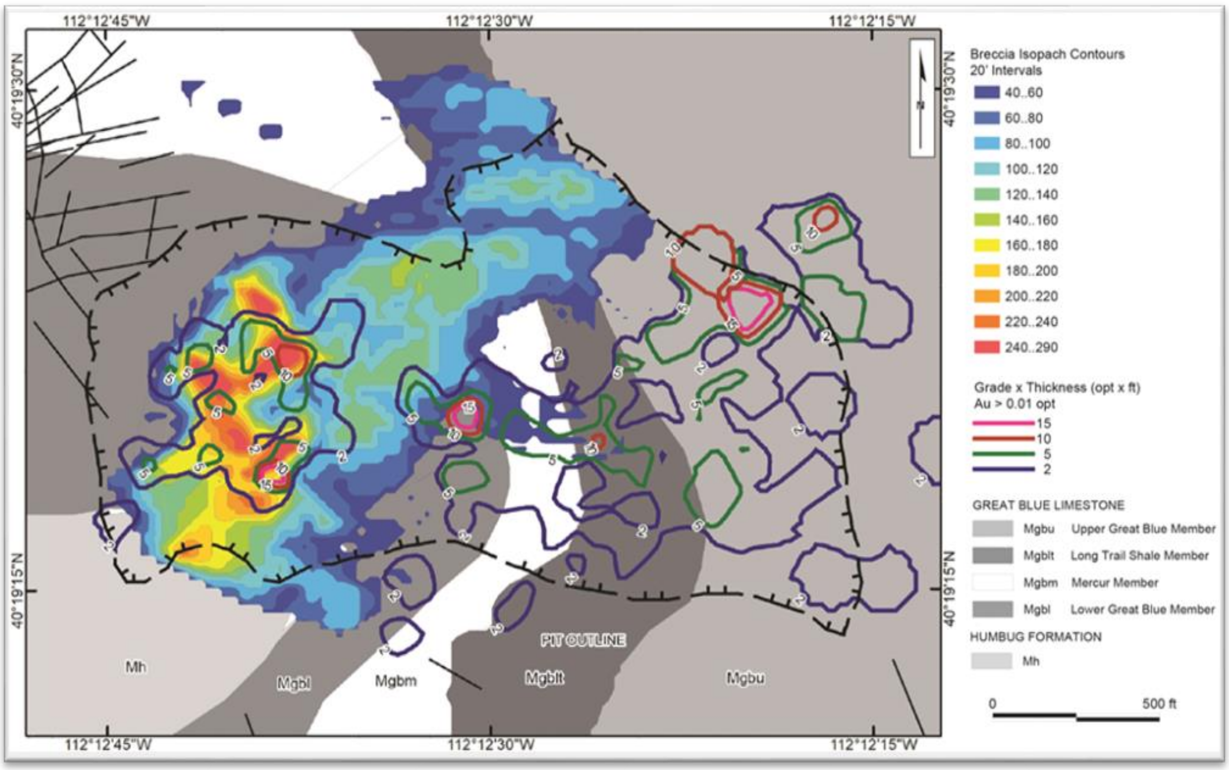
(from Mako, 1999, modified by Ensign, 2021; see Figure 7.5 for section location)



Gold mineralization in the eastern part of the Golden Gate pit is stratabound in the Mercur Member (mostly the Mercur Beds subunit) in contrast to the Golden Gate breccia body. Much of the material mined from the eastern part of Golden Gate was sulfide-bearing and carbonaceous, and calcite and realgar veins were common (Kerr, 1997).

Figure 7.9 Breccia Thickness and Gold Grade Thickness, Golden Gate Area

(from Mako, 1999, modified by Ensign, 2021; see Figure 7.5 for map location)

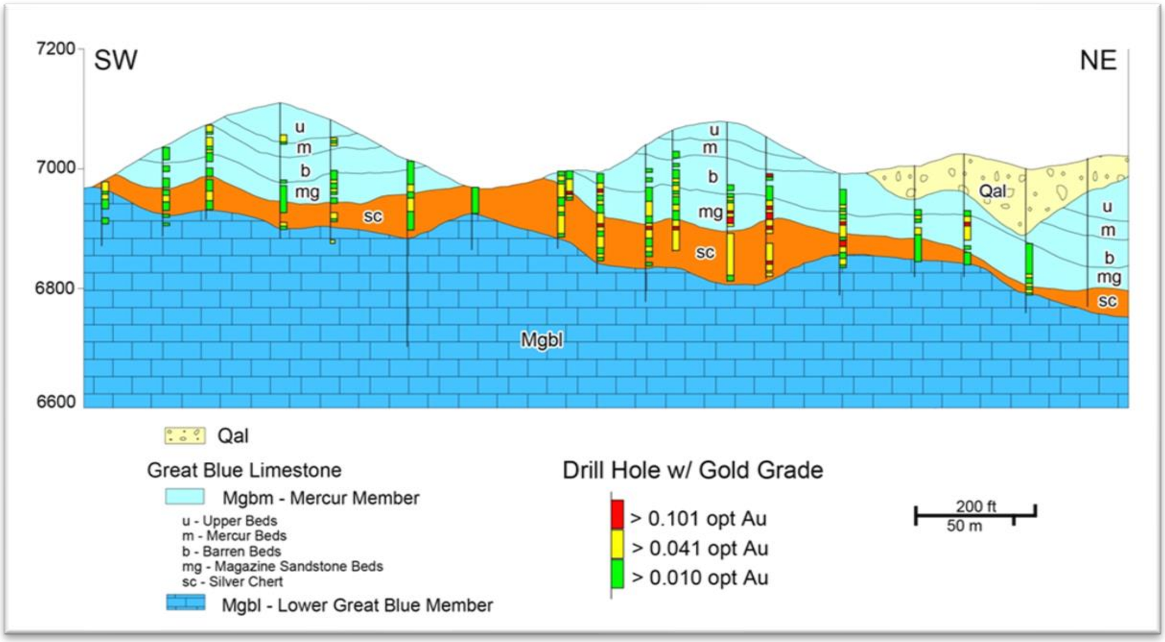


7.4.1.4 Marion Hill Pit

The Marion Hill pit is located immediately north of the Golden Gate pit on the north side of Mercur Canyon. Historically, Marion Hill was the best and highest-grade producer of silver at Main Mercur, with much silver derived from the Silver Chert horizon. Gemmell (1897) reported that silver grades from Marion Hill locally exceeded $4,000/short ton (~98,000g Ag/t) in the early 1870s. The gold at Marion Hill is distributed more widely than silver. Most gold occurs in the Silver Chert and Magazine Sandstone Beds, but all beds of the Mercur Member could carry economic grades of gold (Figure 7.10). Three pit phases at Marion Hill produced about 498,000 ounces of gold (Mako, 1999).

Figure 7.10 Geologic Section of Marion Hill, Main Mercur Area

(from Mako, 1999, modified by Ensign, 2021; see Figure 7.5 for section location)



The Marion Hill mineralization is localized by several small displacement, east-northeast-striking normal faults, the largest of which is the Carrie Steele fault (Figure 7.5). The east-northeast faults dip north, thus progressively down-dropping northward various units of the Great Blue Limestone. Mineralized zones are secondarily controlled along north-south faults or intersection between north-south and east-northeast faults. A small zone of gold mineralization occurs on the east side of the Mercur fault at its intersection with the Carrie Steele fault.

The largest and highest-grade gold zone at Marion Hill occurs in the footwall of the Carrie Steele fault. This zone extends approximately 350m along the fault and has a footprint width in plan view of about 90m. Similar but narrower and shorter zones of mineralization occur south of the Carrie Steele fault along other east-northeast faults. The replacement-style mineralization that occurs along east-northeast faults at Marion Hill is largely contained in the Silver Chert and Magazine Sandstone beds of the Mercur Member (Kerr, 1997).

7.4.1.5 Rover Pit

The Rover pit is by far the smallest of the modern-era open pits and is centered on an apparently separate deposit, or mineralized zone, at the northwest part of the Mercur mine area (Figure 7.5). Gold mineralization occurs in the oxidized Magazine Sandstone Beds of the Mercur Member in association with east-northeast and northwest-striking faults (Kerr, 1997). Several northwest dikes of the Porphyry Hill granodiorite occur in and near the Rover area.

7.4.2 North Mercur (Lion Hill-Silveropolis)

The north part of the Mercur Property includes the many historical workings at Lion Hill and Silveropolis Hill about 1.2km south of the town of Ophir (Figure 4.3). North Mercur is notable for production of bonanza-grade silver in the 1870s when the Camp Floyd district was established. The silver grades at North Mercur were generally higher than those encountered elsewhere in the district, except perhaps the Marion Hill area.

Mineralization at North Mercur was first found in the Silver Chert, which is a largely conformable jasperoid ledge occurring at the base of the Mercur Member of the Great Blue Limestone. Silver chlorides and native silver indicative of near surface enrichment occurred in oxidized and brecciated Silver Chert. Most of the district's earliest production from the 1870s was from Lion Hill and was poorly documented. The size, grade, and geometry of the silver deposits are poorly known. Similarly, the potential for gold mineralization at North Mercur is uncertain and little exploration has been undertaken in this area since the early 1900s.

7.4.3 West Mercur (West Dip)

West Mercur refers to the extensive area located west of the Main Mercur area along the western flank of the Oquirrh Mountains. In contrast to Main Mercur, gold at West Mercur occurs in the Upper Limestone Member of the Great Blue Limestone near its contact with the Manning Canyon Shale in the west-dipping limb of the Ophir anticline (Gilbert, 1935; Bayer, 1982). The axis of the Ophir anticline lies about 3km east of West Mercur. In this position, mineralized units of the Great Blue at West Mercur lie stratigraphically about 450m higher than the productive horizons of the Mercur Member in the Main Mercur.

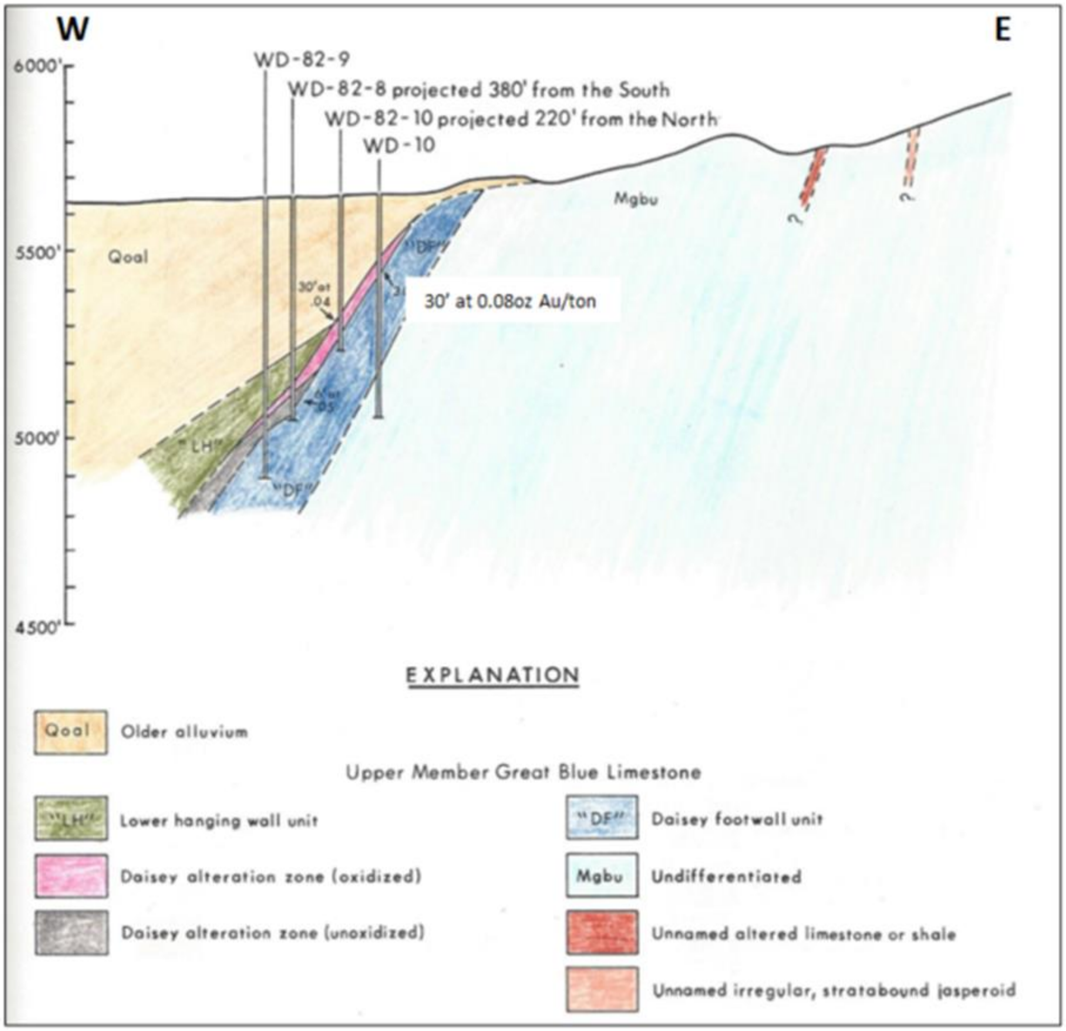
Mineralization at West Mercur was described by Gilbert (1935) as occurring discontinuously over a 3.6km strike length and at the Daisy mine, to depths of at least 230m along the 45° to 60° dips of the West Dip fault. The mineralization was noted to be of a pinch-and-swell character. As an indication of potential gold grades and thicknesses of gold mineralization at West Mercur, two better drill intercepts to date are from hole WD-13-1, which encountered 11.5m grading 4.9g/t Au, and WD-11, which encountered 4.6m grading 5.1g/t Au (Bayer, 1982; Barron, 1982).

The gold mineralization at West Mercur occurs in highly carbonaceous strata spatially linked to a range front fault (West Dip fault) that is partly obscured by alluvial cover. A prominent fault scarp is present in several areas along the range front that separates footwall rocks of the Upper Great Blue Member of the Great Blue Limestone from Quaternary alluvial gravels. Despite the evidence for planar fault control for mineralization, some old mine maps show that narrow but persistent, steep shoots extended east-northeast, nearly orthogonal to the northwest-striking, west-dipping fault and bedding.

The West Dip fault separates alluvial gravels in the hanging wall from the gold-mineralized "Daisy alteration zone" in strongly decalcified and carbonaceous Upper Great Blue Member of the Great Blue Limestone in its immediate footwall (Figure 7.11). There is a distinctive subunit of dense, fossiliferous limestone just a short distance into the footwall known as the Daisy footwall unit of the Upper Great Blue Member (Bayer, 1982; Barron, 1982). Despite its spatial association with mineralization, the importance of the Daisy fault for gold mineralization has been questioned (Barron, 1982). The Daisy alteration zone commonly is brecciated along its footwall margin (Bayer, 1982), and overall, the zone of strong decalcification averages about 12m width, nearly all of which consists of soft, strongly sulfidic, and highly carbonaceous material. The sulfide-bearing rocks of the Daisy alteration zone contain finely disseminated pyrite, and thus are like occurrences of unoxidized mineralized material at Main Mercur.

Figure 7.11 Geologic Section of the Daisy Mine Area, West Mercur

(from Bayer, 1982, modified by Ensign, 2022)



7.4.4 South Mercur

The Sunshine and Overland mines were the principal historical underground mines of the South Mercur area, each of which produced about 10,000 ounces of gold during the periods 1895-1913 and 1936-1941 (Mako, 1999).

Gold mineralization occurs in the east limb of the Ophir anticline near its axial trace along a narrow, north-northwest-trending, 2.3km-long corridor that follows the Mercur Member at and near the bottom of Sunshine Canyon. This mineralization is considered to be a southern continuation of the deposits in the Main Mercur area, with similar styles of mineralization and host strata.

Three principal gold deposits have been described at South Mercur: Overland, Red Cloud, and Sunshine (Priority Minerals, 1988). The deposits are situated in *en echelon* style along 1km of strike length of north-northeast trending Mercur Member beds. The deposits appear to occur where northwest-trending structural zones intersect the Mercur Member, resulting in the discontinuous deposits shown in Figure 6.7. Historical drilling shows the southeast-dipping deposits can be traced down dip from the surface to depths of more than 200m. Thickness of the mineralized zones is quite variable, ranging from a few meters to more than 55m. Gold grades are similar to those at Main Mercur.

Mineralized material in the upper 46m at South Mercur is oxidized. Below 46m depth, rocks are partially to completely unoxidized and were considered by Priority Minerals (1988) to possess refractory characteristics. However, one of Ensign's deeper drill holes at South Mercur (SM-20-011) encountered refractory mineralization at the top of the 75m mineralized zone, followed by oxidized mineralization to depths of 135m (see Section 10.6). The oxidized rocks consist mostly of clay, quartz in jasperoid, and/or relatively minor iron oxides. Unoxidized material is variably altered to jasperoid or clay; clay-rich material is strongly sulfidic and carbonaceous with varying amounts of fine-grained pyrite and/or marcasite, orpiment, and realgar.

Mineralization at South Mercur is stratabound, mainly within the favorable units of the Mercur Member of the Great Blue Limestone. The more prospective units of the Mercur Member include the basal contact of the Mercur Member (i.e., Silver Chert) which is commonly altered to jasperoid, and probably the Magazine Sandstone and the Mercur Beds. Despite the strong stratigraphic control, mineralization is confined to narrow zones bordering northwest-striking, high-angle faults. Gold mineralization locally extends into the overlying Long Trail Shale Member and the underlying Lower Great Blue Member where these units are cut by northwest-striking faults (Priority Minerals, 1988). The combined structural and stratigraphic controls on gold mineralization yield moderately plunging mineralized shoots that trend southeast, similar to but oblique to the dip of the sedimentary strata (Priority Minerals, 1988).

8.0 DEPOSIT TYPE (ITEM 8)

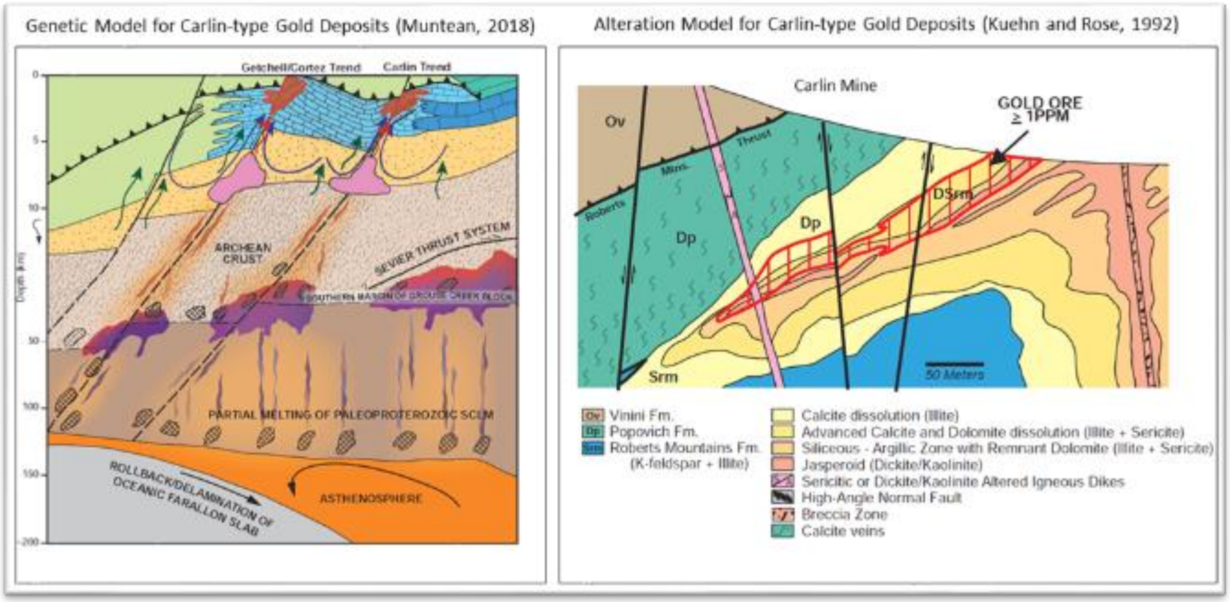
The information presented in this section of the report was taken in its entirety from Lindholm et al., 2022. It was derived from multiple sources, as cited, and was written by Michael W. Ressel. Mr. Lindholm has reviewed this information and believes this summary accurately represents the Mercur Project geology and mineralization as it is presently understood.

Based on an abundance of gold production between about 1890 and 1996, the Mercur Project is best described in the context of Carlin-type gold deposits. Carlin-type deposits are disseminated, replacement-type gold deposits commonly contained in fine-grained silty limestone and calcareous siltstone. Where unoxidized by surface weathering, the mineralized carbonate rocks are commonly carbonaceous. The deposits are characterized by high gold, minor silver, and negligible base-metal contents; ratios of Au:Ag are typically ≥3. Other elements associated with Carlin-type gold mineralization include arsenic, antimony, mercury, and thallium.

Gold in Carlin-type deposits occurs in micron-size particles. In some cases, gold grains are encapsulated in jasperoid quartz or in cases of unoxidized strata, in arsenic-rich rims of pyrite or marcasite grains. Minerals associated with Carlin-type mineralization are stibnite, orpiment, realgar, and barite.

Carlin-type gold deposits are derived from hydrothermal fluids that were relatively low temperature (≤250°C) and are considered more distally derived from contemporaneous heat sources like larger intrusions, although older plutons are commonly present in major Carlin-type districts. Many Carlin-type deposits are, however, spatially and temporally associated with small, shallowly emplaced felsic dikes and other small intrusions, which are commonly porphyritic in texture. The dikes are commonly coeval with mineralization, and popular models (e.g., Figure 8.1) favor origins of Carlin-type deposits from deep-seated, subduction-related magmatism.

Figure 8.1 Genetic and Alteration Models for Carlin-type Gold Deposits



The alteration associated with Carlin-type deposits is commonly subtle due to a general paucity of feldspathic rocks to cause extensive clay alteration. Nonetheless, argillic alteration of silty carbonates and felsic intrusions is common as are decalcification, silicification, and bleaching of host carbonate rocks (Figure 8.1). Decalcification, or removal of carbonate from calcareous rocks, is the most important alteration process and results in mass or volume loss. Rocks significantly affected by decalcification are generally soft, porous, of lower-density and weather recessively. Commonly, alteration accompanying Carlin-type gold mineralization renders the host beds soft, and the associated recessive weathering makes exploration difficult. If there are cleaner, less silty limestone beds intercalated with ore-bearing units, they will often remain visually unaltered and unmineralized, but it is often only these unmineralized rocks which will crop out. In addition, the slope wash or colluvium from these more resistant units will often completely cover the weathering ore beds. Other common signs of Carlin-type mineralization are late hydrothermal barite and calcite veins, and visually apparent zones of enrichment in organic carbon, all of which may be found close or distal to significant mineralized material.

Carlin-type deposits are typically associated with jasperoid, most often a very resistant, sucrosic- to chalcedonic-textured, dark-colored, very hard, siliceous replacement of carbonate rocks. The gold content of these jasperoids can be quite low or even below detection limits, although in other cases their grade is such that they constitute ore. Indeed, the highest-grade roots of some major Carlin-type deposits (e.g., Meikle, Deep Post), contain a large amount of jasperoid quartz. This association of jasperoid with Carlin-type mineralization is observed in most deposits, but no systematic spatial or temporal relation of jasperoid to ore grades is recognized. Because jasperoid bodies often develop in an envelope of argillic alteration, they are sometimes not all that prominent even though the jasperoid itself is very resistant to erosion. Still, jasperoid is known as one of the best visual indications of potential mineralization, even though there are many occurrences of jasperoid in the Great Basin that lack nearby gold mineralization.

Carlin-type gold deposits are named for the Carlin mine in Nevada, which was put into production by Newmont Mining Corporation in 1965. Carlin was considered unusual at the time due to its lack of quartz veins and the extremely small particle size of its gold. Despite the notoriety of the Carlin mine for micron-sized gold, the first Carlin-type gold ores to be mined, starting around 1890, were actually from the Mercur area of the Camp Floyd district.

The occurrence of high concentrations of silver in the Silver Chert at Lion Hill and Marion Hill, although in part of supergene origin, coupled with modest base metals, is atypical of most Carlin-type deposits in the Great Basin. The high silver and modest base metal contents of some Mercur deposits suggest relatively higher fluid temperatures like those associated with proximal intrusion-centered sources. Yet, mineral occurrences in these areas of the Mercur Property are also described as containing very fine-grained quartz (i.e., jasperoid) and gold mineralization consistent with relatively lower-temperature Carlin-type deposits. One possibility is that the higher silver and base metal expression of the Silver Chert mineralization reflects a higher-temperature, early phase of Carlin-type mineralization. Similar examples from Nevada include deposits such as Lone Tree and Cove sedimentary rock-hosted deposits that have been classified as distal-disseminated Au-Ag deposits (Cox, 1992) because of these characteristics and their closer spatial relationship to Eocene intrusions (e.g., Sillitoe and Bonham, 1990; Johnston and Ressel, 2004). A more recent study by Sillitoe (2020) emphasizes the expected variation of Carlin-type replacement deposits from those that are relatively more proximal versus those that are more distal to intrusion sources.

9.0 EXPLORATION (ITEM 9)

The information presented in this section of the report was modified from Lindholm et al., 2022, and is a summary of exploration work carried out by Ensign at the Mercur Project. Ensign began acquiring properties in the Mercur area in August 2020. Since then, Ensign has been compiling historical data for the property, and in 2020 completed a soil geochemical survey at North Mercur, drilled 11 RC holes at South Mercur and one RC hole at West Mercur, and has initiated geologic mapping. In 2021, Ensign commenced an RC drill campaign and drilled 55 holes totaling 8,489m, conducted prospecting, geologic mapping and rock sampling in select areas, collected 456 soil samples at South Mercur, and has further compiled historical data. In 2022, Ensign drilled 37 RC holes totaling 6,498m and 10 core holes comprising 1,778m. Extensive work to recover Barrick CIL and cyanide-soluble gold data from paper records was undertaken, resulting in digital files of the majority of this available historical work. Drilling conducted by Ensign is described in Section 10.6. Mr. Lindholm has reviewed this information and believes it accurately represents relevant work completed by Ensign at the Mercur Project.

9.1 Database Development and Checking

Ensign has assay and location data for 2,970 of the approximately 3,050 drill holes in the Mercur Project area, and 2,880 of these holes were drilled in the property controlled by Ensign. No data is available for holes drilled by Centurion and most of the holes drilled by Kennecott.

Spreadsheets of drill hole data have been obtained from Barrick and Priority, and those data have been organized in the MX Deposit drill hole data entry software for managing the historical and Ensign's own drilling data.

Ensign and its consultants have been able to construct 3D models of this drill hole database using Leapfrog software. Ensign has found the 3D model to be an effective tool for guiding exploration.

Most of the historical drill hole data (2,246 holes) pertains to the Main Mercur area. Ensign has located and compared the original logs and assay certificates for these holes in Barrick's hard copy files. Many of these drill holes have been mined away, but 689 of those in the Main Mercur area are outside the boundaries of the former open pits.

During the fall and winter of 2022-2023, Ensign engaged in a concerted effort to recover the extensive amounts of carbon-in-leach ("CIL"), atomic absorption ("AA"), and direct cyanide amenability ("DCN") data in the paper files made available to Ensign by Barrick. Much of these data, especially the CIL and AA results were entered manually by Ensign staff into spreadsheets which were checked and then entered into the digital database. The DCN data were largely found in historical Mercur Mine metallurgy reports. Most of the DCN results were in printed form and so could be scanned, read, and digitized by optical scanning software. Handwritten results were entered manually into spreadsheets, and then all the data were incorporated into the digital database.

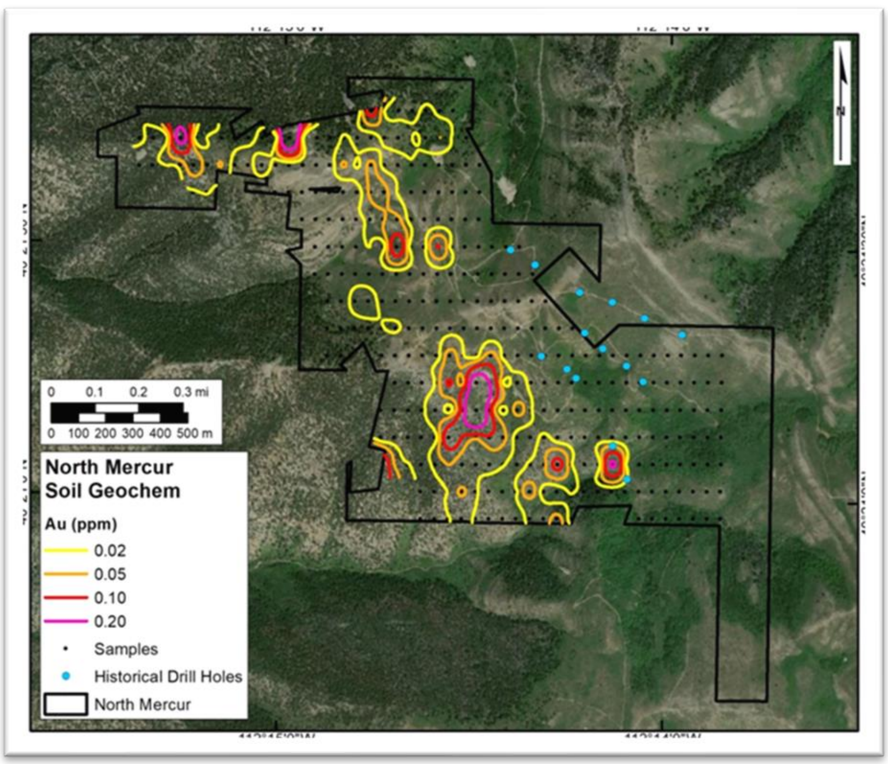
A small sample (one above-detection result per drill hole) of fire assay results from Chemical & Mineralogical Services of Salt Lake City, Utah found in paper form were checked against values found in the database. The discrepancy rate between the two was less than 1%.

9.2 Ensign Soil Geochemical Sampling

In October of 2020, Ensign commissioned North American Exploration Services, Inc. ("North American") of Layton, Utah to carry out a soil sampling program in the North Mercur portion of the property (DeMars, 2020). Soil samples were collected from 380 sites. The samples were spaced at 50m intervals along east-west lines spaced 100 m apart. Samples were collected in cloth bags of 14 by 20cm in size. Target depth of the sampling was 25cm, although this depth was not always reached in rockier terrain. No screening was done in the field, but larger pebbles were removed from the samples by hand. Most samples weighed between 600 and 900g.

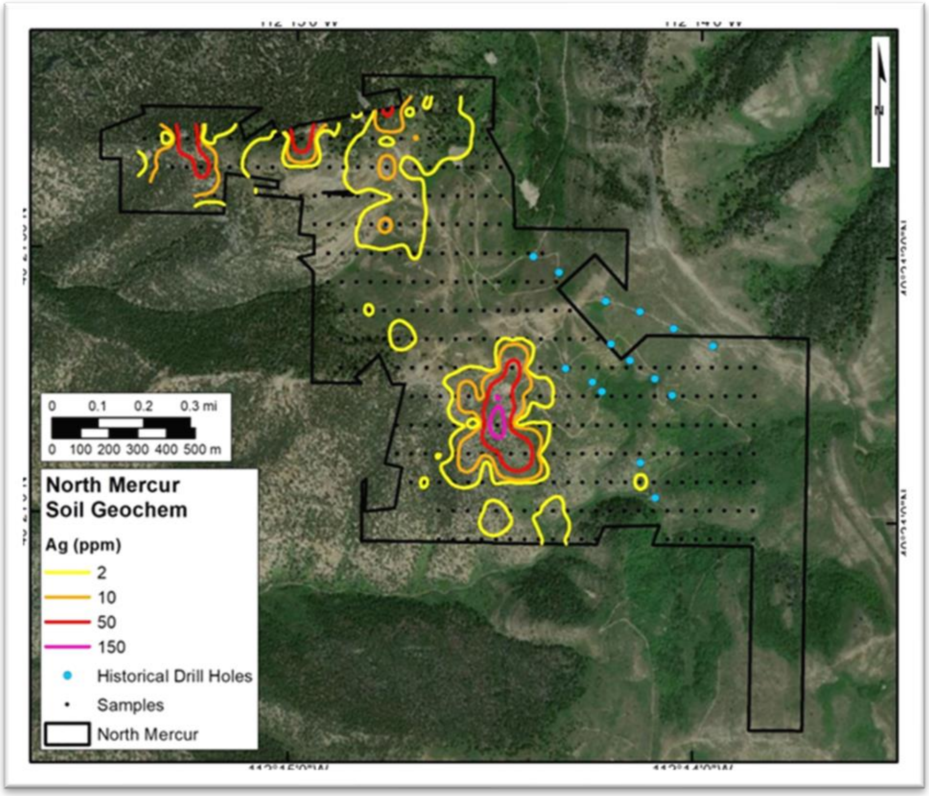
Plots of the results for gold and silver are shown in Figure 9.1 and Figure 9.2, respectively. Ensign has not yet conducted follow-up reconnaissance or geologic mapping to ascertain the nature of these anomalous areas. While the results of the previous drilling at North Mercur are unknown, the Ensign soil geochemistry indicates the prior operators could have missed some anomalous areas with their drilling.

Figure 9.1 Gold in Soil Samples, North Mercur Area
(from Ensign, 2021)



Note: Highest gold value is 514 ppb.

Figure 9.2 Silver in Soil Samples, North Mercur Area
(from Ensign, 2021)

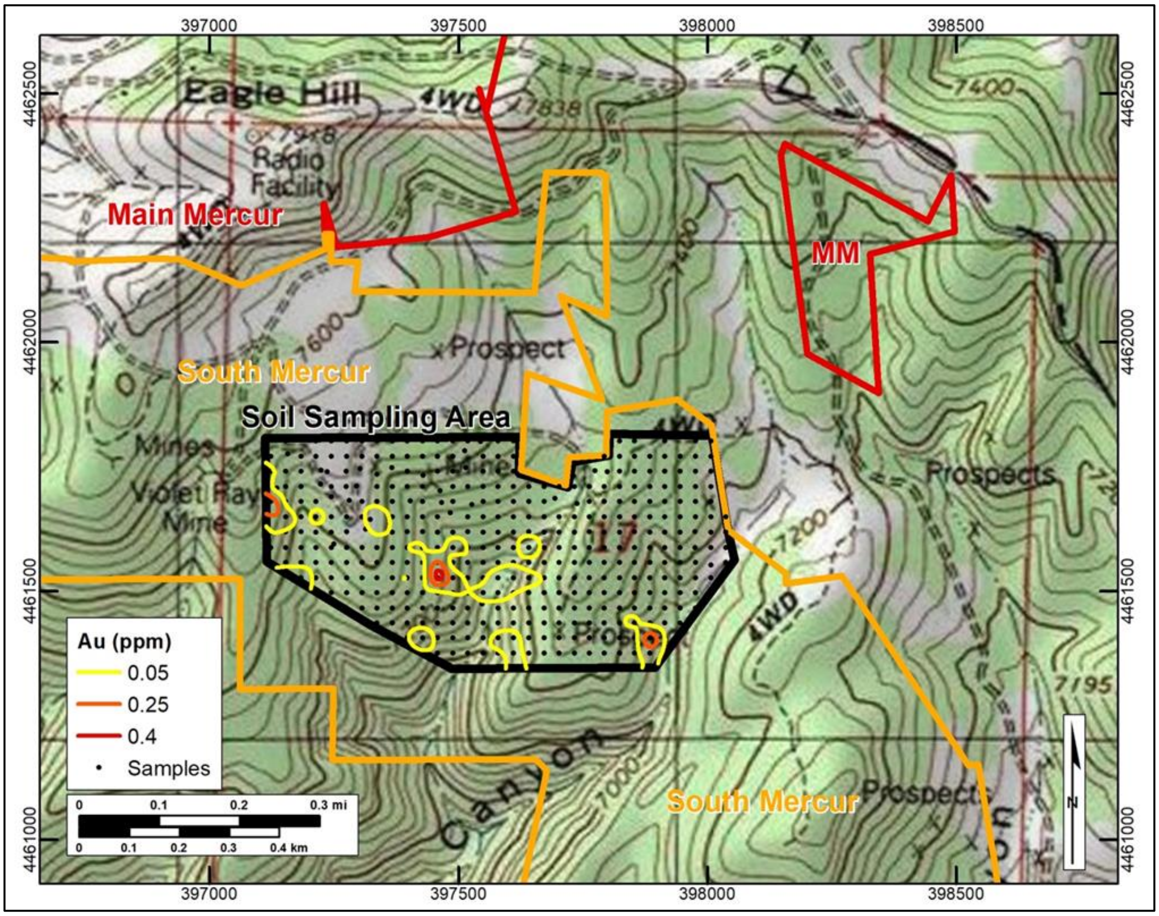


Note: Highest silver value is 251 ppm (7.3oz Ag/ton).

In October 2021, McKay Mineral Exploration, LLC of South Ogden, Utah collected 456 soil samples on behalf of Ensign at the Violet Ray prospect in the north part of South Mercur (Figure 9.3). The samples were spaced at 30m intervals along east-west lines spaced 30m apart. Samples were collected in cloth bags of 14 by 20cm in size. Average depth of the sampling was 28cm. The batch of samples included four field duplicates, three blanks and three standards that were inserted at 50-sample intervals in the sample stream. The results show anomalous gold values that trend to the southeast from the area of the Violet Ray mine (Figure 9.3).

Figure 9.3 Soil Sample Locations, Violet Ray Prospect, South Mercur Area

(from Ensign, 2022)

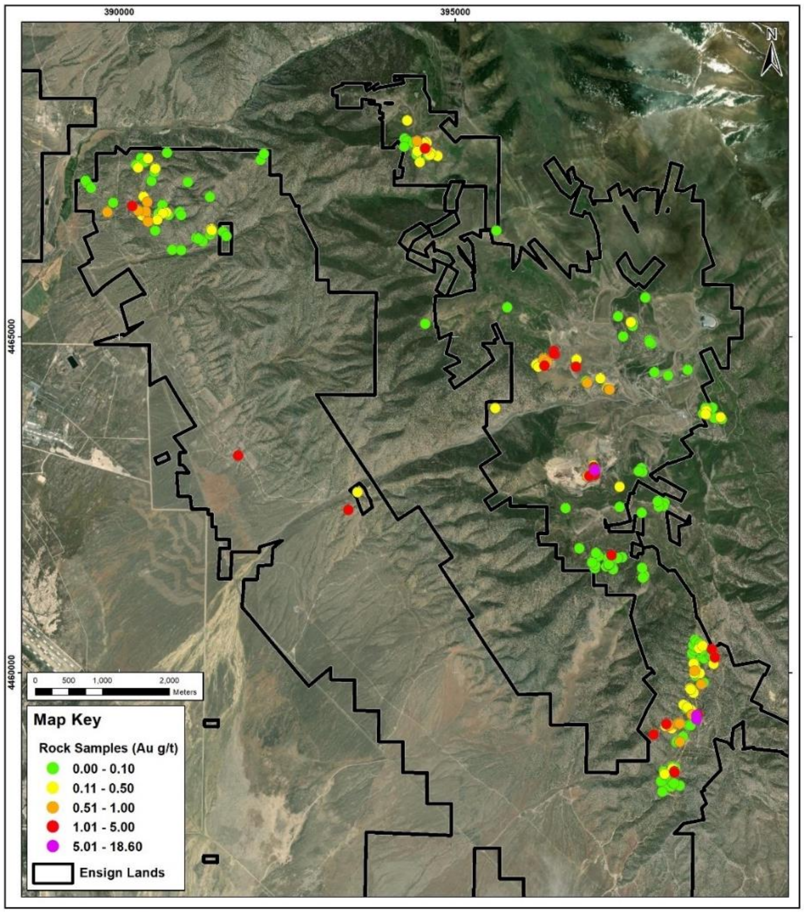


9.3 Ensign Rock Sampling 2021 – 2022

Ensign's staff and consulting geologists collected 400 rock samples for geochemical analyses during the course of prospecting and mapping various parts of the Mercur Property. The locations of the rock samples are shown in

Figure 9.4. The sample sites are color-coded for gold grade.

Figure 9.4 Rock Sample Locations, Mercur Project
(from Ensign, 2024)



9.4 Ensign 2021 – 2022 Geologic Mapping

In 2021, Mr. Peter Chapman, a consulting geologist, conducted geologic mapping on behalf of Ensign with a focus on alteration and structural zones at the northern part of West Mercur, north of Silverado Canyon (Chapman 2021a) and in the area of the open-pit mines of Main Mercur (Chapman, 2021b). Detailed stratigraphic, alteration and structural geologic mapping was conducted at South Mercur on behalf of Ensign by Mr. Calvin Mako (Mako, C., 2022). In 2022, Mr. Chris Clinkscales completed geologic mapping of the Silverado Canyon part of West Mercur and the Golden Gate and Sacramento pit areas of Main Mercur (Clinkscales, 2022). This mapping is being used to guide further exploration.

9.5 Ensign 2020 – 2022 Drilling

Between December 2020 and October 2022, Ensign drilled a total of 18,219m in 104 RC drill holes and 10 core holes at the Mercur Project. The details of this drilling are summarized in Section 10.6.

10.0 DRILLING (ITEM 10)

The information presented in this section of the report was modified from Lindholm et al., 2022. It is a summary of the drilling carried out in the Mercur Project area by historical operators prior to 2020 and by Ensign commencing in 2020. The information presented in this section of the report is derived from multiple sources as cited. Mr. Lindholm has reviewed this information and believes this summary accurately represents drilling done at the Mercur Project.

10.1 Summary

Ensign has records of more than 290,600m of drilling in 3,103 holes in the Mercur Project area as summarized in Table 10.1. This includes Ensign's drilling in 2020 through 2022. No drilling was done in 2023.

Table 10.1 Mercur Project Drilling Summary

Main Mercur			
Year	**Company**	**# Holes**	**Meters**
1969	Newmont	31	3,499
1973 - 1985	Getty	2,120	176,807
1985 - 1997	Barrick	109	22,134
2021 - 2022	Ensign	97	16,023
Main Mercur Totals		**2,357**	**218,463**
South Mercur			
1969	Newmont (*Violet Ray area*)	19	1,746
1973 - 1985	Getty (*Violet Ray area*)	110	10,120
1980 - 1984	Homestake	54	5,971
1984	Touchstone	35	4,220
1986 - 1990	Priority - WCC	306	17,778
1991	Rochester - Kennecott	9	1,833
1992 - 1996	Barrick (*Violet Ray area*)	13	2,091
1996	Barrick	21	3,702
1997	Kennecott	9	2,844
2013	Priority	11	939
2020 -2021	Ensign	13	1,724
South Mercur Totals		**600**	**52,967**
West Mercur			
1981 - 1982	Getty	36	5,341
1986	Barrick	6	1,592
1988	Barrick	10	1,600
1990 - 1992	Kennecott (*HT project*)	14	607
1991	Rochester - Kennecott	14	1,664
1995	Kennecott (*SWP project*)	10	?
1996	Barrick	27	5,603
1996	BHP	7	1,178
1999	Barrick	3	1,189
2020 - 2021	Ensign	4	495
West Mercur Totals		**131**	**19,269**
North Mercur			
1991	Centurion	13	?
1994	Kennecott	2	?
North Mercur Totals		**15**	**-**
Total Project Area Drilling		**3,103**	**>290,699**

Records of historical drilling are incomplete, but there is likely information in the paper records which is not in the digital database received by Ensign from Barrick. Ensign has not yet, and may not, be able to fully parse and use all the data in the paper files. To date, Ensign has prioritized the recovery of carbon-in-leach (CIL) and direct cyanide soluble (DCN) assays which are useful for determining gold recovery estimates from the historical drill samples. The known limitations of the data sets are described in Section 10.2. Ensign has not yet conducted an exhaustive evaluation of all the available data. Much of the drilling information pertains to portions of gold deposits that have already been mined. The data is presented here to illustrate the volume of information available to guide future exploration.

Figure 10.1 shows the density of drilling of all known drill holes in the area of the Mercur Project

10.2 Historical Drilling – 1969 through 1998, Main Mercur Area

10.2.1 Newmont 1968 - 1969

In late 1968, Newmont Exploration Ltd. ("Newmont") acquired a lease of lands in the Main Mercur area which covered the Marion Hill, Sacramento, and other areas. They held this land until late in 1969. The Newmont exploration program included trenching, 31 rotary drill holes totaling 2,214m, and two core holes aggregating 1,285m. Drilling east and south of the Sacramento area revealed a 200m by 900m zone which had anomalous gold. Klatt (1980) reported the highest-grade zones contained 2 to almost 6g/t Au over thicknesses ranging from 1.5 to 16m at depths of 100m or less. The drill hole locations, depths and assays are included in the Barrick drill hole database, but Ensign has not yet encountered the original data to verify the details of the Newmont drilling, and no further information has been found on the drilling contractors, rigs, methods and procedures used.

10.2.2 Getty 1973 - 1985

Getty began exploring the Main Mercur area in 1973, began mining in March 1983 and sold the mine to Barrick in June 1985. During this time, Getty is believed to have drilled 2,120 holes totaling 176,807m. Aside from the first 26 holes which were drilled with a conventional circulation hammer, it is believed that most of the subsequent drilling was by RC methods in vertical holes (Klatt, 1980). Ensign has prioritized the recovery of data from the paper files which will likely prove useful for continued exploration in the Main Mercur area, especially cyanide leach data present in the paper files. While it may be present in the paper files from Barrick, Ensign has not yet encountered the original data to verify the details of the Getty drilling and no information is available on the drilling contractors, rigs, methods and procedures used.

10.2.3 Barrick 1985 - 1997

Barrick is credited with drilling 109 holes totaling 22,134m. Most was vertical RC drilling, but it is known that some core drilling was completed, along with some angled holes. Some of the drilling attributed to Getty may have been drilled by Barrick if Barrick continued to use the same hole numbering system established by Getty. Ensign has not yet encountered the original data to verify the details of the Barrick drilling and Mr. Lindholm is unaware of the drilling contractors, rigs, methods and procedures used.

10.2.4 Ensign Compilation of Main Mercur Drilling

Based on the historical data compiled by Ensign as of the effective date of this report, a summary of historical drill results and selected intervals from areas apparently left unmined in 1997 are presented in Figure 10.2.

Figure 10.1 Map of Mercur Area Drill Holes through 2022

(from Ensign, 2024)

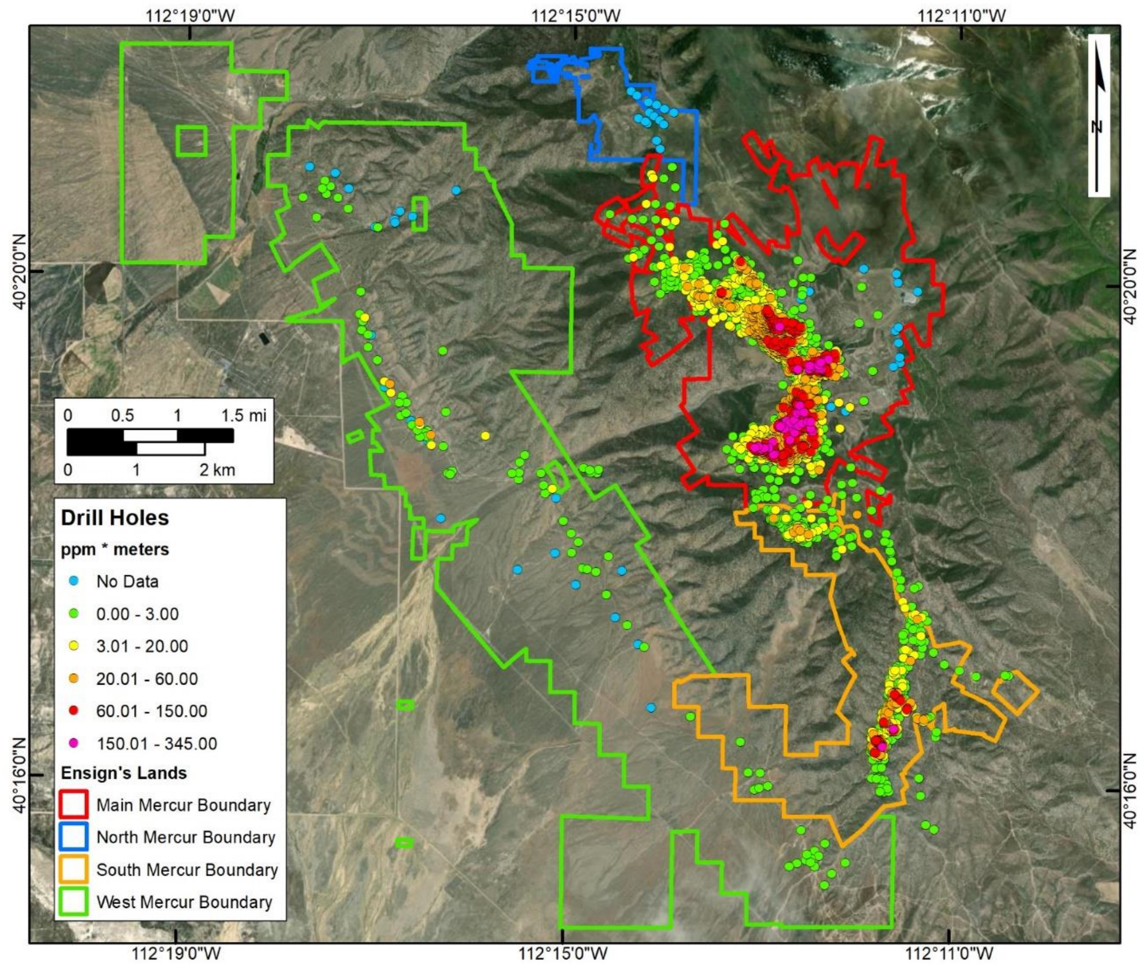
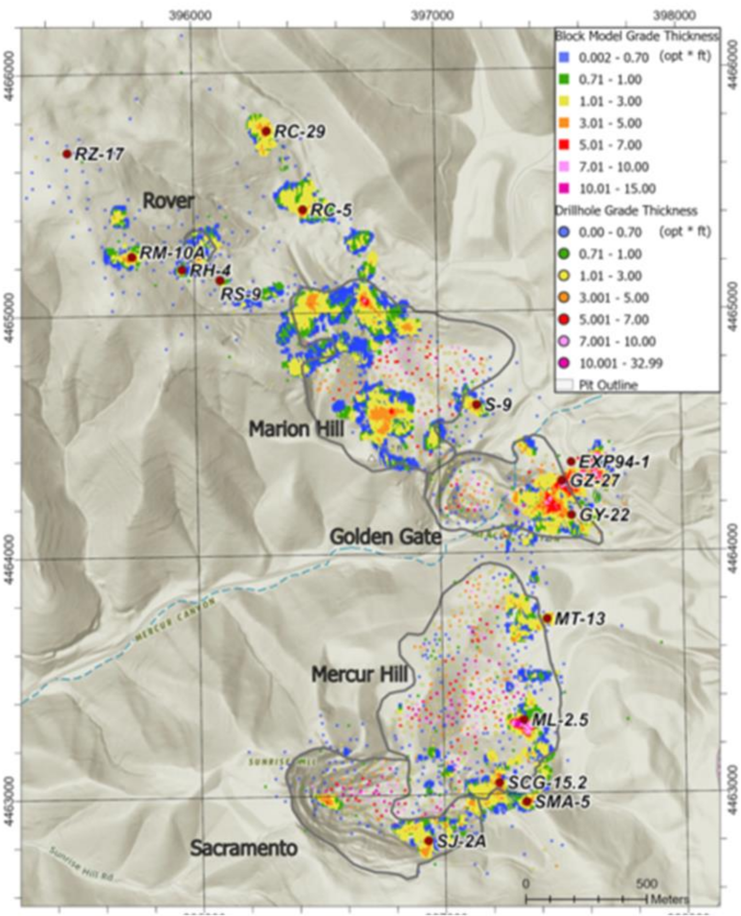


Figure 10.2 Select Historical Drill Hole Results at the Mercur Mine Area

(from Ensign, 2021)



Select Historical Drilling Results In Apparently Unmined Areas				
Drill Hole ID	From m	To m	Length m	Au ppm
RC-29	51.8	68.6	**16.8**	**4.6**
RZ-17	32.0	45.7	**13.7**	**3.3**
RC-5	38.1	70.1	**32.0**	**1.6**
RM-10A	0.0	10.7	**10.7**	**1.7**
and	18.3	39.6	**21.3**	**1.6**
RH-4	3.0	6.1	**3.1**	**1.4**
and	9.1	35.1	**26.0**	**1.9**
RS-9	38.1	41.2	**3.1**	**1.7**
and	82.3	105.2	**22.9**	**1.5**
S-9	44.2	62.5	**18.3**	**2.0**
EXP94-1	164.9	178.8	**13.9**	**6.4**
GZ-27	112.8	129.5	**16.8**	**5.0**
GY-22	118.9	125.0	**6.1**	**7.5**
MT-13	125.0	140.2	**15.2**	**3.6**
ML-2.5	57.9	68.6	**10.7**	**10.1**
and	74.7	86.9	**12.2**	**4.1**
and	132.6	140.2	**7.6**	**3.1**
and	144.8	147.9	**3.1**	**3.1**
SCG-15.2	70.1	73.15	**3.0**	**12.3**
SMA-5	193.5	201.2	**7.6**	**7.4**
SJ-2A	88.4	126.5	**38.1**	**2.1**

10.3 Historical Drilling – South Mercur Area

10.3.1 Newmont 1968 – 1969 (Violet Ray prospect)

Concurrent with its exploration at the Main Mercur area, Newmont also conducted drilling south of the current Sacramento pit area at what is known as the Violet Ray prospect within the South Mercur area. Newmont drilled 19 holes totaling 1,746m. The drill hole locations, depths and assays are included in the Barrick drill hole database, but Ensign has not yet encountered the original data to verify the details of the Newmont drilling, and no further information has been found on the drilling contractors, rigs, methods and procedures used.

10.3.2 Getty 1973 – 1985 (Violet Ray prospect)

Along with its exploration at Main Mercur, Getty drilled 110 vertical reverse circulation holes totaling 10,120m at the Violet Ray prospect, in what is now considered the northern part of Ensign's South Mercur area. Ensign has not yet encountered the original data to verify the details of the Getty drilling and no information is available on the drilling contractors, rigs, methods and procedures used.

10.3.3 Homestake 1980 - 1984

Homestake initiated modern exploration at South Mercur in 1980. Homestake drilled 54 vertical rotary holes totaling 5,971m by 1984. Ensign has copies of the drill logs with assays written or typed on the logs, but assay certificates, and other information related to the drilling details are not available. From notes on the logs, it appears that Hunter Labs was usually used for gold assays in these holes. No information is available on the drilling contractors, rigs, methods and procedures used.

10.3.4 Touchstone 1984

In 1984, Touchstone optioned the South Mercur project from Homestake and drilled 35 vertical RC drill holes totaling 4,220m. Ensign has copies of the handwritten drill logs and assays with the logo for Cornucopia Resources Ltd., a company that was related to Touchstone, but no other details pertaining to drilling or assaying are available.

10.3.5 Priority – WCC 1986 - 1990

Priority and WCC, Inc. optioned the South Mercur project from Homestake in 1986. The venture drilled 297 vertical RC holes totaling 17,500m, and nine core holes totaling 278m. Ensign has copies of the handwritten drill logs and assays, but no other details pertaining to drilling or assaying are available. Results of the 1986 and 1987 drilling by Priority-WCC are summarized in the cross sections shown in Figure 10.3 and Figure 10.4.

Figure 10.3 Priority-WCC South Mercur Drill Cross Section 1

(from Priority and WCC, 1988)

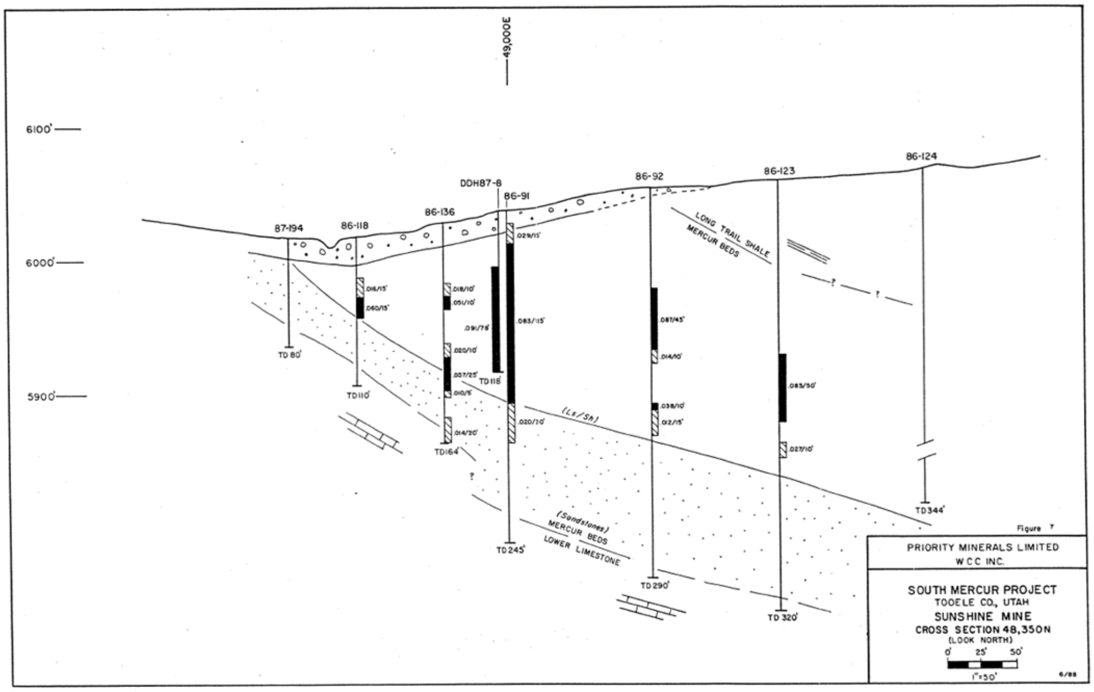
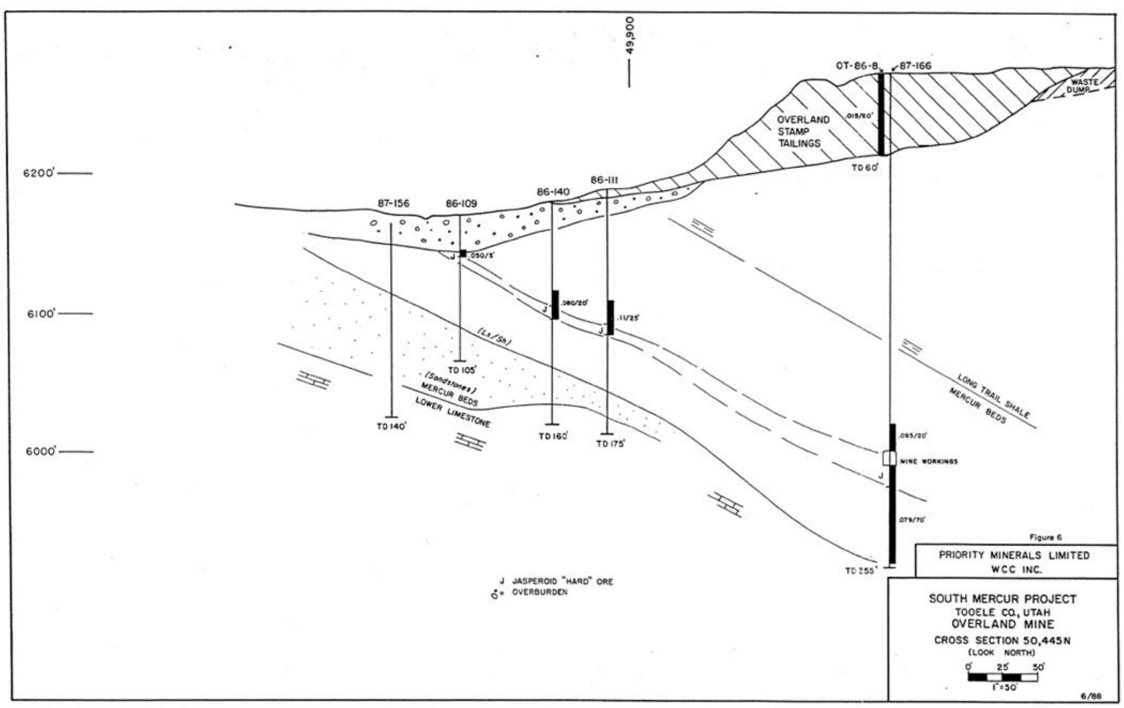


Figure 10.4 Priority-WCC South Mercur Drill Cross Section 2

(from Priority and WCC, 1988)



10.3.6 Rochester – Kennecott 1991

In 1990 Priority and WCC acquired the South Mercur project from Homestake and shortly thereafter assigned the project to Rochester Minerals (U.S.A.) Inc. ("Rochester"). Apparently, Rochester entered into an agreement with Kennecott, who drilled 9 vertical reverse circulation holes totaling 1,833m in 1991 (and another 14 holes in the West Mercur area). No logs are available for the Kennecott holes, but a brief report summarizes Kennecott's efforts (Garbrecht, 1991). The drill hole spreadsheets obtained from Priority and Barrick both have summaries of the geology and assays of these holes, but no additional information regarding the drilling or assay details is available.

10.3.7 Barrick 1992 – 1996 (Violet Ray prospect)

Barrick explored the Violet Ray prospect in the northern part of the South Mercur area with 13 vertical RC holes totaling 2,091m. Ensign has not yet encountered the original data to verify the details of the drilling or assaying. No information is available on the drilling contractors, rigs, methods and procedures used.

10.3.8 Barrick 1996

In 1996, Barrick leased the Priority-WCC property at South Mercur, and those of other adjacent patented claim owners, and drilled 21 vertical RC holes totaling 3,702m. Data for these holes are missing from the Priority data files, but data is included in the drill hole spreadsheet received from Barrick. Ensign has not yet encountered the original data to verify the details of the drilling or assaying. No information is available on the drilling contractors, rigs, methods and procedures used.

10.3.9 Kennecott 1997

Kennecott leased the Priority-WCC property at South Mercur and is known to have drilled 28 holes on these and adjacent claims. Nine of these holes, totaling 2,844m, are known from the spreadsheet data provided by Priority, but no logs, assays or other details about the drilling are available.

10.3.10 Priority 1997 - 2013

In 1997 Priority acquired WCC's interest in the South Mercur project, but no further drilling was done until 2013. Priority drilled 11 core holes totaling 939m of HQ core in 2013. Drilling was done by National Exploration, Wells and Pumps of Elko, Nevada, using an Atlas Copco CS14C crawler mounted core rig. Samples were shipped to the Elko ALS prep facility by Old Dominion Freight Line. All samples were assayed by ALS for gold by fire assay with an ICP-AES finish and for other elements by a 35-element aqua regia digestion and ICP-AES finish. The logs and assay certificates for these holes are included in the Priority database. Some of the core has been retained in a Utah storage facility and transported to Ensign's storage facility at the Mercur mine. About half of the core was relogged by Ensign geologists. No further information is presently available to the authors as of the effective date of this report on the methods and procedures used for this drilling.

10.4 Historical Drilling – West Mercur Area 1981 - 1999

10.4.1 Getty 1981 – 1982

Getty drilled in the West Dip (West Mercur) area in 1981 and 1982 (Barron, 1982; Bayer, 1982). Getty drilled 36 vertical RC holes totaling 4,879m. Seven of these holes had core tails totaling 462m of core drilling. RVX later purchased the West Dip project files from a private owner of the Getty files, which include a nearly complete set of handwritten drill logs and most of the original assay certificates. In 1981 the RC drilling was done by O'Keefe Drilling of Butte, Montana. All holes were dry to the bottom. No information is available about the core drilling contractor. For the 1982 program, no information is available with respect to the drilling contractors, either RC or core, or presence of water in the holes. No further information is presently available to the authors as of the effective date of this report regarding the drill diameters or type of bit used for this drilling.

10.4.2 Barrick 1986

Barrick drilled a total of 1,391m in six vertical RC holes testing stratigraphic targets near the mouth of Mercur Canyon in 1986. One hole was deepened with core drilling from 357m to 558m. Copies of Barrick's handwritten drill logs and assays were provided by a lessor of the property. Ensign has not yet encountered the original data to verify the details of the drilling or assaying. No information is available on the drilling contractors, rigs, methods and procedures used.

10.4.3 Barrick 1988

Barrick drilled 10 vertical RC holes in 1988 at West Mercur totaling 1,600m. Copies of Barrick's handwritten drill logs and assays for some of the holes were provided by a lessor of the property. Ensign has not yet encountered the original data to verify the details of the drilling or assaying and no information is available on the drilling contractors, rigs, methods and procedures used.

10.4.4 Kennecott (HT Project) 1990 – 1992

Kennecott drilled 14 holes at its Hidden Treasure project in the north part of the West Mercur area. Copies of Kennecott's handwritten drill logs and assays for four vertical RC holes totaling 607m were provided by a lessor of the property. While the locations of the remaining holes are known from permitting documents, no other details are known about the drilling or assaying.

10.4.5 Rochester – Kennecott 1991

In 1990 Priority and WCC acquired the South Mercur project from Homestake and shortly thereafter assigned the project to Rochester Minerals (U.S.A.) Inc. ("Rochester"). Apparently, Rochester entered into an agreement with Kennecott, who drilled 14 vertical reverse circulation holes totaling 1,664 m in 1991 in the southern part of the West Mercur area (and another 9 holes in the South Mercur area). No logs are available for the Kennecott holes, but a brief report summarizes Kennecott's efforts (Garbrecht, 1991). The drill hole spreadsheets obtained from Priority and Barrick both have summaries of the geology and assays of these holes, but no additional information regarding the drilling or assay details is available.

10.4.6 Kennecott (SWP Project) 1995

Kennecott is believed to have drilled 10 holes at its Southwest Pediment project in the southern half of the West Mercur area. Some of the locations of these drill sites are known, but no additional information regarding the drilling or assay details is available.

10.4.7 Barrick 1996

Barrick drilled 27 vertical RC holes in the West Mercur area in 1996 totaling 5,603m. The drill hole spreadsheets obtained from Barrick include summaries of the geology and assays of these holes. Ensign has not yet encountered the original data to verify the details of the drilling or assaying and no information is available on the drilling contractors, rigs, methods and procedures used.

10.4.8 BHP 1996

BHP drilled seven vertical RC holes in the West Mercur area in 1996 totaling 1,178m according to a report by Zimmerman (1996). The report noted two interesting intercepts of gold mineralization, 26m at 0.72g/t Au and 18m at 0.34g/t Au but did not contain the locations of the holes and no additional information regarding the drilling or assay details is available.

10.4.9 Barrick 1999

In 1999, Barrick conducted its last exploration drilling with three RC holes (one vertical, two with azimuth 40° and inclination -60°) totaling 1,189m at West Mercur. This drill program was documented by Tapper (2000) but did not address the drilling details. No information is available on the drilling contractors, rigs, methods and procedures used.

10.5 Historical Drilling – North Mercur

10.5.1 Centurion 1991

Centurion is known to have permitted and reclaimed 13 drill sites in the North Mercur area based on public permit documents. The locations of the drill sites are known, but no other details are known regarding drilling methods or assay details.

10.5.2 Kennecott 1994

Kennecott is known to have permitted and reclaimed two drill sites in the North Mercur area based on public permit documents. The locations of the drill sites are known, but no other details are known regarding drilling methods or assay results.

10.6 Ensign Drilling 2020 - 2022, South Mercur, West Mercur and Main Mercur Areas

Ensign drilled 114 holes totaling 18,214m in the South, West and Main Mercur areas in 2020 to 2022 as summarized in Table 10.2.

Table 10.2 Ensign 2020 – 2022 Drilling

Area	Year	RC Holes	RC Meters	Core Holes	Core Meters	Total Holes	Total Meters
South Mercur	2020-2021	13	1,724			13	1,724
West Mercur	2020-2021	4	495			4	495
Main Mercur	2021-2022	87	14,245	10	1,778	97	16,023
All Ensign Drilling	**2020-2022**	**104**	**16,464**	**10**	**1,778**	**114**	**18,242**

The first phase of the drill program was carried out in December of 2020 and included 11 RC holes at South Mercur and one RC hole at West Mercur. The second phase of drilling commenced in late July 2021 and continued through October 2021. Fifty RC holes were drilled at Main Mercur, three holes were drilled at West Mercur, and two holes were drilled at South Mercur. The third phase of drilling was conducted from July to October 2022 at Main Mercur and consisted of 37 RC holes and 10 core holes.

For both the 2020 and 2021 campaigns, the drilling was operated by Major Drilling America, Inc. ("Major Drilling") of Salt Lake City, utilizing a track-mounted Schramm 455 RC drill rig which ran two 12-hour shifts per day. Holes were drilled with a 12.07cm diameter hammer bit, both "crossover" and "center-return" set-ups being used. Most drill holes were dry, but water was injected into the compressed air stream for dust mitigation as is generally required in the United States.

The 2022 drill campaign included both RC and core drilling. Major Drilling of Salt Lake City, Utah was the core drilling contractor. All core drilled was of HQ size, and ten holes were drilled for a total of 1778 meters. For the RC part of the campaign, Boart-Longyear utilized a Foremost 1500 track-mounted rig which used 10-foot rods. A total of 37 RC holes were drilled, totaling 6,515 meters.

Table 10.3 is a summary of the "significant drill hole assay results" (grade x interval > 3g/t Au x meters) from the RC drill holes. Table 10.4 is a summary of the significant assay results from the core drill holes.

Table 10.3 Ensign 2020 – 2022 RC Drill Hole Assay Summaries

(Cutoff grade is 0.2g/t Au. For the *included* higher-grade intervals, the lower cutoff grade is 6g/t Au)

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
SOUTH MERCUR							
SM-20-001	152.4	Not assayed. Redrilled as SM-20-011.					NA

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
				SOUTH MERCUR			
SM-20-002	206.0	155.4	167.6	12.2	1.15	Upper Beds	14.0
	and	170.7	182.9	12.2	2.89	Mercur Beds	35.3
	and	184.4	193.5	9.1	0.57	Barren Beds	5.2
	and	198.1	201.2	3.0	2.00	Barren Beds	6.1
SM-20-003	80.8	9.1	45.7	36.6*	1.52	Mercur, Barren & Mag SS Beds	55.6
	and	50.3	68.6	18.3	0.43	Mag SS Beds	7.9
SM-20-004	61.0	13.7	57.9	44.2	1.50	Mercur, Barren & SS Beds, Lower Great Blue	66.1
SM-20-005	76.2	0.0	7.6	7.6	2.39	Tailings	18.2
	and	10.7	32.0	21.3	1.88	Barren Beds, Mag SS Beds	40.0
SM-20-006	74.7	21.3	22.9	1.5	3.38	Barren Beds	5.2
	and	44.2	71.6	27.4	1.91	Mag SS Beds	52.3
SM-20-007	121.9	39.6	105.2	65.5	2.39	Mercur, Barren & SS Beds, Lower Great Blue	156.4
	including	44.2	47.2	3.0	15.12	Mercur Beds	46.1
SM-20-008	123.4	61.0	68.6	7.6	1.55	Barren Beds	11.8
SM-20-009	121.9	85.3	93.0	7.6	0.51	Mag SS Beds, Lower Great Blue	3.9
SM-20-010 (45°, -50°)	109.7	85.3	102.1	16.8	1.59	Mag SS Beds	26.7
SM-20-011	147.8	73.2	147.8	74.7	2.29	Long Trail, Mercur and L Great Blue Members	170.9
	including	79.2	83.8	4.6	6.93	Long Trail or highly altered Mercur Member	31.7
SM012 (45°, -65°)	245.4	80.8	88.4	7.6	2.89	Barren Beds	22.0
	and	115.8	140.2	24.4	0.63	Mag SS Beds, Brx	15.4
SM013	202.7	125.0	146.3	21.3	1.20	Upper Beds, Mercur Beds, Barren Beds	25.7
	and	149.4	179.8	30.5	0.51	Barren Beds, Mag SS Beds	15.6

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
WEST MERCUR							
WM001	178.3	No Significant Intercepts					NSI
WM002	76.2	27.4	35.1	7.6	1.16	Alluvium?/Collapsed stope?	8.9
WM003	105.2	59.4	73.2	13.7	2.87	Alluvium?/Daisy Alteration Zone/U Great Blue	39.3
	including	62.5	65.5	3.0	8.16	Alluvium?/ Daisy Alteration Zone	24.9
WM004	135.6	No Significant Intercepts					NSI
MAIN MERCUR							
EN001	202.7	0	9.1	9.1	2.24	Tailings	20.5
EN002	160.0	109.7	135.6	25.9*	3.01	Upper Beds, Mercur Beds	77.9
	including	114.3	120.4	6.1	7.17	Upper Beds	43.7
EN003 (270°, -55°)	147.8	117.3	147.8	30.5	1.26	Mercur Beds, UG workings, Barren Beds	38.3
EN004 (240°, -60°)	190.5	120.4	146.3	25.9*	2.84	Mercur Beds, Barren Beds	73.5
	including	131.1	135.6	4.6	7.05	Barren Beds	32.2
EN005	105.2	No Significant Intercepts					NSI
EN006	318.5	163.1	175.3	12.2	0.85	Barren Beds	10.4
	and	178.3	187.5	9.1	0.59	Barren Beds, Mag SS Beds	5.4
EN007	397.8	272.8	295.7	22.9	1.50	Upper Beds	34.4
	and	317.0	338.3	21.3	0.31	Mercur Beds, Barren Beds	6.6
	and	379.5	396.2	16.8	0.43	Lower Great Blue	7.2
EN008	160.0	0.0	12.2	12.2	0.78	Dump	9.5
	and	131.1	150.9	19.8	0.91	Lower Great Blue	18.1
EN009	83.8	51.8	82.3	30.5	1.46	Mag SS Beds, Rhyolite, Lower Great Blue	44.4
EN010	152.4	41.1	51.8	10.7	6.51	Upper Beds	69.5
	including	44.2	50.3	6.1	10.13	Upper Beds	61.8

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
	and	64.0	68.6	4.6	1.30	Mercur Beds	5.9
	and	105.2	128.0	22.9	0.66	Mag SS Beds, Lower Great Blue	15.2
EN011 (295°, -60°)	184.4	50.3	73.2	22.9	3.50	Upper Beds	80.1
	including	53.3	56.4	3.0	8.22	Upper Beds	25.0
	and	76.2	129.5	53.3	2.49	Mercur, Barren & SS Beds, L Great Blue	132.6
	including	77.7	82.3	4.6	8.99	Mercur Beds	41.1
	and	157.0	170.7	13.7	0.50	Lower Great Blue	6.8
EN012	160.0	48.8	64.0	15.2	2.35	Upper Beds	35.8
	and	74.7	80.8	6.1	0.65	Mercur Beds	4.0
EN013	160.0	99.1	117.3	18.3	0.67	Mag SS Beds, Lower Great Blue	12.3
	and	123.4	135.6	12.2	2.10	Lower Great Blue	25.6
	including	126.5	128.0	1.5	8.45	Lower Great Blue	12.9
EN014	105.2	24.4	39.6	15.2	0.82	Mercur Beds, Barren Beds	12.5
	and	50.3	57.9	7.6	0.61	Barren Beds	4.6
EN015	111.3	10.7	19.8	9.1	0.80	Dump	7.3
	and	19.8	29.0	9.1	0.83	Mag SS Beds	7.6
EN016	13.7	1.5	13.7	12.2	0.79	Dump	9.7
EN017	86.9	0.0	16.8	16.8	0.72	Dump	12.1
EN018	105.2	13.7	27.4	13.7	2.60	Upper Beds	35.6
	including	13.7	16.8	3.0	8.39	Upper Beds	25.6
	and	65.5	103.6	38.1	2.21	Silver Chert, Lower Great Blue	84.2
	including	89.9	93.0	3.0	12.70	Lower Great Blue	38.7
EN019	140.2	33.5	42.7	9.1	0.75	Upper Beds	6.9
	and	80.8	105.2	24.4	0.65	Mercur Beds, Barren Beds	15.7
EN020	227.1	198.1	208.8	10.7	0.56	Silver Chert, Lower Great Blue	6.0
EN021	141.7	68.6	73.2	4.6	0.72	Mercur Beds	3.3

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
	and	80.8	83.8	3.0	1.05	Mercur Beds	3.2
EN022	111.3	68.6	106.7	38.1	2.05	Mag SS Beds, Lower Great Blue	78.1
	including	88.4	91.4	3.0	15.33	Lower Great Blue	46.7
EN023	141.7	39.6	44.2	4.6	0.93	Upper Beds	4.3
	and	59.4	65.5	6.1	0.57	Mercur Beds	3.5
	and	86.9	108.2	21.3	0.77	Mag SS Beds	16.5
EN024	123.4	45.7	59.4	13.7	2.10	Barren Beds	28.8
	including	51.8	54.9	3.0	6.23	Barren Beds	19.0
	and	85.3	93.0	7.6	0.76	Silver Chert, Lower Great Blue	5.8
EN025	153.9	68.6	77.7	9.1	3.59	Mercur Beds, Barren Beds	32.8
	including	70.1	73.2	3.0	9.05	Barren Beds	27.6
	and	82.3	99.1	16.8	4.91	Barren Beds	82.4
	including	82.3	91.4	9.1	8.10	Barren Beds	74.1
	and	126.5	143.3	16.8	1.05	Silver Chert, Lower Great Blue	17.6
	and	149.4	153.9	4.6	1.51	Lower Great Blue	6.9
EN026	105.2	3.0	30.5	27.4	0.70	Dump	19.2
	and	41.1	44.2	3.0	1.04	Barren Beds	3.2
	and	71.6	96.0	24.4	1.61	Barren Beds, Mag SS Beds, Silver Chert	39.4
EN027	153.9	59.4	67.1	7.6	1.47	Barren Beds, workings	11.2
	and	89.9	121.9	32.0	1.85	Mag SS Beds, Silver Chert	59.2
	and	128.0	153.9	25.9	6.34	Lower Great Blue	164.3
	including	137.2	143.3	6.1	23.89	Lower Great Blue	145.6
EN028	111.3	54.9	59.4	4.6	1.68	Mercur Beds	7.7
EN029	111.3	36.6	41.1	4.6	3.73	Upper Beds	17.1
	and	48.8	62.5	13.7	2.05	Upper Beds, Mercur Beds	28.1
EN030	99.1	41.1	50.3	9.1	3.09	Mercur Beds	28.3

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
	including	42.7	44.2	1.5	11.25	Mercur Beds	17.1
EN031	160.0	51.8	83.8	32.0	4.14	Upper Beds, Mercur Beds	132.5
	including	73.2	77.7	4.6	10.99	Upper Beds	50.2
EN032	135.6	3.0	29.0	25.9	0.62	Dump	16.0
	and	41.1	44.2	3.0	1.05	Mercur Beds	3.2
	and	71.6	88.4	16.8	2.90	Mag SS Beds, Silver Chert	48.6
	including	76.2	79.2	3.0	9.71	Mag SS Beds	29.6
EN033	153.9	0.0	19.8	19.8	1.16	Dump	22.9
	and	129.5	141.7	12.2	0.29	Mag SS Beds	3.5
EN034	99.1	50.3	59.4	9.1	0.42	Silver Chert	3.9
EN035	105.2	51.8	68.6	16.8	0.72	Mag SS Beds, Silver Chert	12.0
EN036	93.0	27.4	83.8	56.4	0.82	Barren/Mag SS Beds, Silver Chert, L. Great Blue	46.4
EN037	105.2	57.9	83.8	25.9	0.68	Barren Beds, Mag SS Beds	17.5
EN038	86.9	48.8	62.5	13.7	1.94	Mag SS Beds, Silver Chert	26.7
EN039	153.9	No Significant Intercepts					NSI
EN040 (145°, -70°)	199.6	No Significant Intercepts					NSI
EN041 (315°, -65°)	172.2	105.2	118.9	13.7	0.33	Silver Chert, Lower Great Blue	4.5
EN042	251.5	175.3	178.3	3.0	1.09	Barren Beds	3.3
EN043	86.9	29.0	68.6	39.6	0.86	Mag SS Beds, Silver Chert, Lower Great Blue	34.0
	and	76.2	85.3	9.1	0.33	Lower Great Blue	3.1
EN044	178.3	0.0	15.2	15.2	1.32	Dump, Upper Great Blue?	20.1
	and	150.9	166.1	15.2	0.48	Upper Beds, Mercur Beds	7.3

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
EN045 (135°, -70°)	221.0	0.0	16.8	16.8	1.38	Dump	23.1
EN046 (235°, -60°)	233.2	0.0	18.3	18.3	0.62	Dump	11.4
EN047	184.4	138.7	150.9	12.2	2.47	Upper Beds	30.1
	including	149.4	150.9	1.5	15.30	Upper Beds	23.0
EN048 (230°, -53°)	214.9	134.1	144.8	10.7	1.41	Upper Beds, Mercur Beds	15.1
EN049	221.0	129.5	144.8	15.2	1.01	Upper Beds, Mercur Beds	15.4
EN050 (225°, -60°)	202.7	126.5	132.6	6.1	0.58	Upper Beds	3.6
EN051	121.9	No Significant Intercepts					NSI
EN052	121.9	No Significant Intercepts					NSI
EN053	140.2	No Significant Intercepts					NSI
EN054	140.2	76.2	83.8	7.6	0.48	Barren Beds	3.6
	and	99.1	117.3	18.3	1.17	Mag SS Beds, Silver Chert, Lower Great Blue	21.5
EN055	121.9	45.7	59.4	13.7	2.00	Barren Beds	27.4
EN056	121.9	39.6	73.2	33.5	0.80	Barren/Mag SS Beds, Silver Chert, L. Great Blue	27.0
EN057	129.5	53.3	64.0	10.7	0.59	Mag SS Beds, Silver Chert	6.3
EN058	91.4	No Significant Intercepts					NSI
EN059 (140°, -80°)	440.4	195.1	204.2	9.1	2.69	Upper Beds	24.6
	including	198.1	199.6	1.5	10.00	Upper Beds	15.2
	and	216.4	227.1	10.7	0.43	Upper Beds, Mercur Beds	4.6
	and	277.4	288.0	10.7	0.36	Silver Chert, Lower Great Blue	3.9

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
EN060 (270°, -65°)	259.1	0.0	4.6	4.6	1.82	Dump	8.3
EN061 (90°, -65°)	289.6	6.1	16.8	10.7	1.64	Mercur Beds, U/G Workings	17.4
	and	53.3	77.7	24.4	0.56	Mag SS Beds, Silver Chert, Lower Great Blue	13.7
EN062 (300°, -55°)	213.4	0.0	10.7	10.7	0.45	Dump	4.7
EN063 (330°, -55°)	243.8	0.0	7.6	7.6	0.50	Dump	3.8
EN064 (300°, -50°)	245.4	0.0	30.5	30.5	0.64	Dump	19.7
	and	35.1	47.2	12.2	0.93	Dump, Humbug Formation	11.3
EN065 (235°, -50°)	274.3	1.5	15.2	13.7	0.92	Dump	12.6
EN066	137.2	1.5	27.4	25.9	0.56	Dump	14.5
	and	71.6	76.2	4.6	2.74	Mag SS Beds	12.5
EN067	213.4	83.8	105.2	21.3	2.18	Mag SS Beds, Silver Chert	46.6
	including	88.4	91.4	3.0	6.56	Mag SS Beds	20.0
EN068	137.2	0	36.6	36.6	0.36	Dump	13.2
	and	61.0	94.5	33.5	1.80	Mag SS Beds, Silver Chert, Lower Great Blue	60.5
	including	83.8	86.9	3.0	10.27	Silver Chert	31.3
EN069	137.2	0.0	36.6	36.6	0.44	Dump	16.0
	and	77.7	83.8	6.1	0.83	Mag SS Beds, Silver Chert	5.1
EN070	182.9	0.0	79.2	79.2	0.57	Dump	44.8
	and	79.2	93.0	13.7	1.70	Mag SS Beds, Silver Chert	23.3
	and	108.2	115.8	7.6	1.17	Lower Great Blue	8.9
EN071	182.9	9.1	36.6	27.4	1.66	Upper/Mercur/Barren Beds	45.5

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Host Stratigraphic Units	Avg Au x Length (g/t*m)
		From (m)	To (m)	Length (m)	Avg Au (g/t)		
EN072	182.9	79.2	103.6	24.4	1.24	Upper/Mercur/Barren Beds	30.3
	and	135.6	182.9	47.2	2.20	Silver Chert, Lower Great Blue	104.1
	including	141.7	143.3	1.5	8.12	Silver Chert	12.4
EN073	228.6	85.3	117.3	32.0	0.95	Upper Beds, Mercur Beds	30.3
	and	182.9	192.0	9.1	1.96	Lower Great Blue	17.9
EN074	182.9	93.0	112.8	19.8	1.35	Upper/Mercur/Barren Beds	26.8
	and	141.7	161.5	19.8	1.36	Silver Chert, Lower Great Blue	26.9
EN075	182.9	74.7	83.8	9.1	1.15	Upper Beds	10.5
	and	134.1	150.9	16.8	0.35	Silver Chert	5.9
EN076	152.4	96.0	117.3	21.3	0.57	Silver Chert, Lower Great Blue	12.2
EN077	167.6	50.3	56.4	6.1	1.67	Upper Beds	10.2
	and	105.2	115.8	10.7	2.31	Silver Chert, Lower Great Blue	24.6
	including	106.7	108.2	1.5	10.50	Silver Chert	16.0
EN078	243.8	No Significant Intercepts					NSI
EN079	190.5	No Significant Intercepts					NSI
EN080	121.9	39.6	45.7	6.1	1.39	Mercur Beds	8.5
EN081	121.9	No Significant Intercepts					NSI
EN082	182.9	102.1	115.8	13.7	1.25	Mag SS Beds, Silver Chert	17.1
EN083	152.4	0.0	22.9	22.9	0.35	Dump	8.0
EN084	137.2	Not Assayed. Samples compromised by drillers.					NA
EN085	91.4	Not Assayed. Samples compromised by drillers.					NA
EN086	121.9	Not Assayed. Samples compromised by drillers.					NA
EN087	91.4	Not Assayed. Samples compromised by drillers.					NA
* - Intercept includes void/missing sample interval.							

Table 10.4 Ensign 2022 Drill Core Assay Summaries

(Cutoff grade is 0.2g/t Au. For the *included* higher-grade intervals, the lower cutoff grade is 6g/t Au)

Hole ID (Azi., Dip) if not vertical	Mineralized Intervals Hole Length (m)	From (m)	To (m)	Interval (m)	Avg Au (g/t)	Host Stratigraphic Units	Avg Au x Interval (g/t*m)
MAIN MERCUR							
ENC001	192.2	104.2	105.2	0.9	6.03	Barren Beds	5.4
	and	119.9	138.1	18.2	0.44	Mag SS Beds, Silver Chert	8.0
ENC002 (0°, -70°)	102.7	Hole abandoned. Redrilled as ENC003.					NSI
ENC003 (0°, -70°)	188.4	95.3	111.4	16.1	0.37	Upper Beds, Mercur Beds	6.0
ENC004 (180°, -70°)	210	80.7	95.1	14.4	1.52	Mag. SS Beds, Lower Great Blue	21.9
ENC005 (105°, -75°)	212.8	No Significant Intercepts					NSI
ENC006 (90°, -60°)	213.4	71.9	85.3	13.4	0.78	Barren Beds	10.5
	and	85.3	89.6	4.3	0.83	Barren Beds, Mag. SS Beds	3.6
	and	89.6	93.6	4.0	0.48	Magazine Sandstone Beds	1.9
	and	93.6	113.1	19.5	0.72	Mag. SS Beds, Silver Chert, L. Great Blue	14.0
	and	141.6	163.4	21.8	1.21	Mag. SS Beds, Silver Chert, L. Great Blue	26.4
	including	153.8	115.5	0.7	12.50	Lower Great Blue	8.8
ENC007 (90°, -60°)	208.8	99.6	112.9	13.3	0.57	Magazine Sandstone Beds, Silver Chert	7.6
ENC008 (335°, -70°)	250.2	No Significant Intercepts					NSI
ENC009 (135°, -55°)	29.6	Not Assayed. Hole abandoned in overburden.					NA
ENC010 (135°, -55°)	170.1	No Significant Intercepts					NSI

Mr. Lindholm verified the average grade and grade-thickness calculations found in Table 10.3 and 10.4 and found them to be accurate and in agreement with the gold values in Ensign's database. Averages have been calculated by ignoring missing assay intervals which are usually due to no sample return from voids in underground workings, but the grade-thickness calculations include the thickness of these missing intervals. Those mineralized zones with missing intervals are marked with an asterisk in the "Interval" column.

Ninety-two of 108 holes drilled and assayed by Ensign encountered "significant gold intercepts" greater than 3g/t Au x m. Also, 59 of the holes encountered intercepts greater than 20g/t Au x m. Nineteen intervals of higher-grade material were encountered that exceeded 3m at 6g/t Au. The best of these higher-grade intervals was in EN027 (Table 10.3), which encountered 6.1m at

23.89g/t Au within an interval of 25.9m at 6.34g/t Au, all within the Lower Great Blue Member which had been considered by previous operators to be an unfavorable host rock.

10.6.1 South Mercur Drilling 2020 - 2021

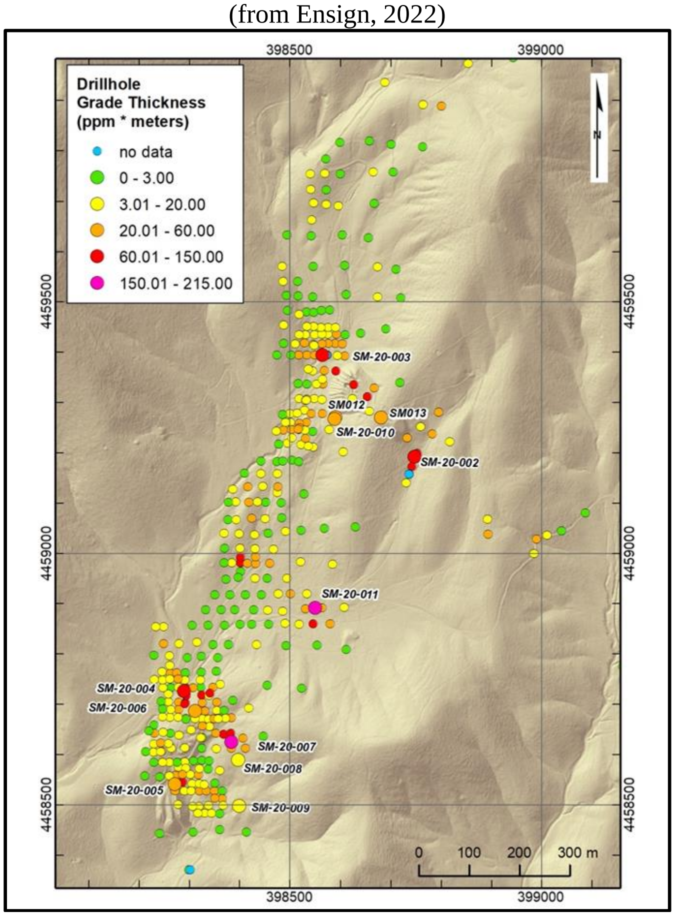
Ensign drilled 1l holes at South Mercur in 2020 and two holes in 2021. Of the 13 holes, seven were validation ("twin") holes of previous operators' drilling, five were offsets of mineralized holes drilled by previous operators, and one was a redrill of an earlier hole in the program (SM-20-011 was a redrill of SM-20-001).

The twin holes all encountered gold mineralization similar to the historical holes. Two holes had almost identical gold grades to the previous holes, two had values somewhat higher, one had grades somewhat lower, one hole had significantly higher, and one hole significantly lower gold grades. These results generally confirm the gold values obtained by Priority and Homestake in the past, although with a large amount of variation. The step out drill holes were all successful in intercepting gold values in the target stratigraphy. Ensign's drill results at South Mercur are summarized in Table 10.3.

Figure **10.5** illustrates the locations of the Ensign drill holes at South Mercur.

Figure 10.5 Ensign 2020 South Mercur Drill Holes Relative to Historical Drilling

(from Ensign, 2022)



Note: True thickness of mineralization in vertical holes is estimated to be approximately 85% of the significant interval lengths.

In the South Mercur area, dips of the mineralized beds intersected by drilling average about 30 degrees. At this dip, thickness of mineralization would be exaggerated by a factor of 1.15.

10.6.2 West Mercur Drilling 2020 – 2021

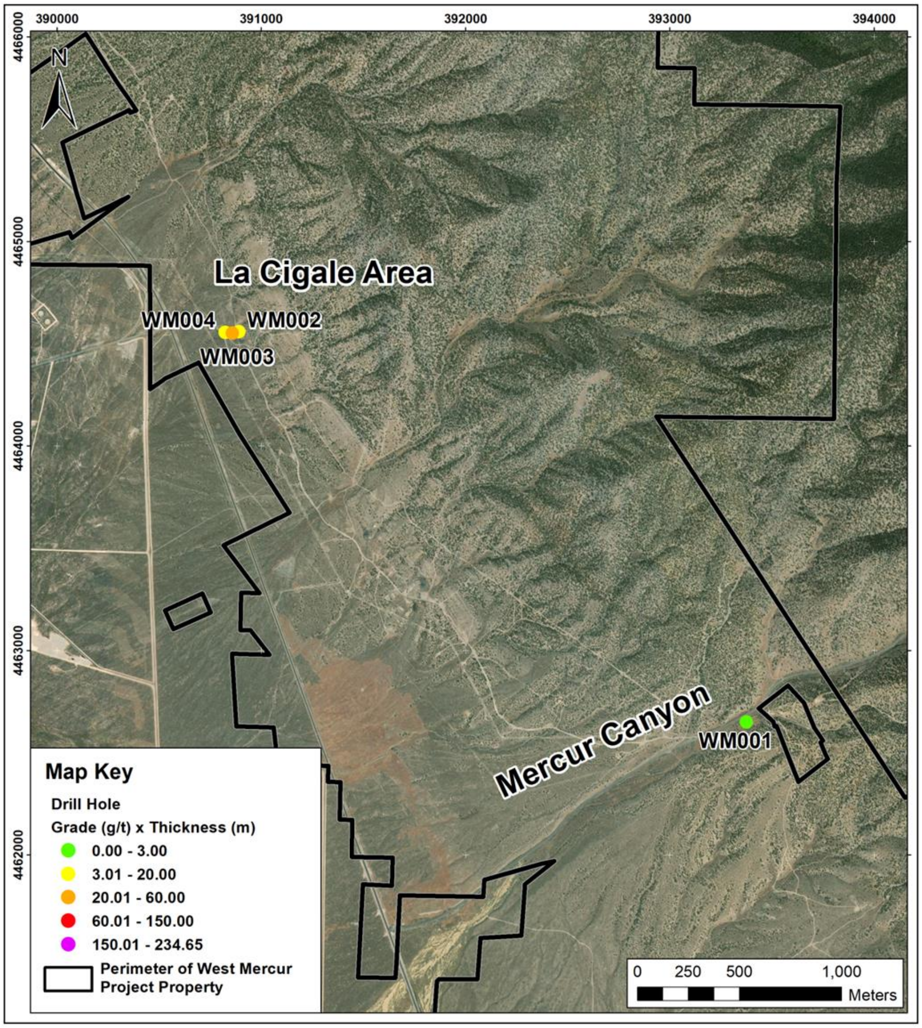
One RC hole was drilled in 2020 in the West Mercur area to test a previously undrilled area at the mouth of Mercur Canyon. That hole, WM001, intercepted target stratigraphy of the Mercur Beds but encountered no gold.

Three additional RC holes were drilled at West Mercur in 2021 down dip of the La Cigale mine in an attempt to intersect the projection of historical stopes of the underground workings. The locations of the West Mercur drill holes are shown in Figure 10.6

All three of the holes encountered detectable gold, and two of them WM002 and WM003 encountered "significant gold" (grade x interval >3g/t Au * m) and WM003 had a high-grade interval of 3.0m of 8.12g/t Au (Table 10.3). Curiously, most of the gold mineralization occurs in intervals where the rotary drill cuttings were logged as alluvium. Previous underground operators at West Dip described the mineralization occurring as a very soft, clay material occurring beneath sub-lithified gravel and above a resistant limestone bed (Gilbert, 1936). Getty geologists (Barron, 1982, and Bayer, 1982) described the Daisy alteration zone as a strongly argillized, carbonized and mineralized bed above the Daisy footwall zone, a distinctive fossiliferous limestone unit in the Upper Great Blue Member. At shallow depths, the older Quaternary alluvium rests directly on the Daisy alteration zone. Deeper, the Daisy alteration zone continues as a layer between the Daisy footwall zone and unnamed hanging wall limestone (Figure 7.11).

Figure 10.6 West Mercur Area 2020 - 2021 Drill Hole Locations

(from Ensign, 2022)

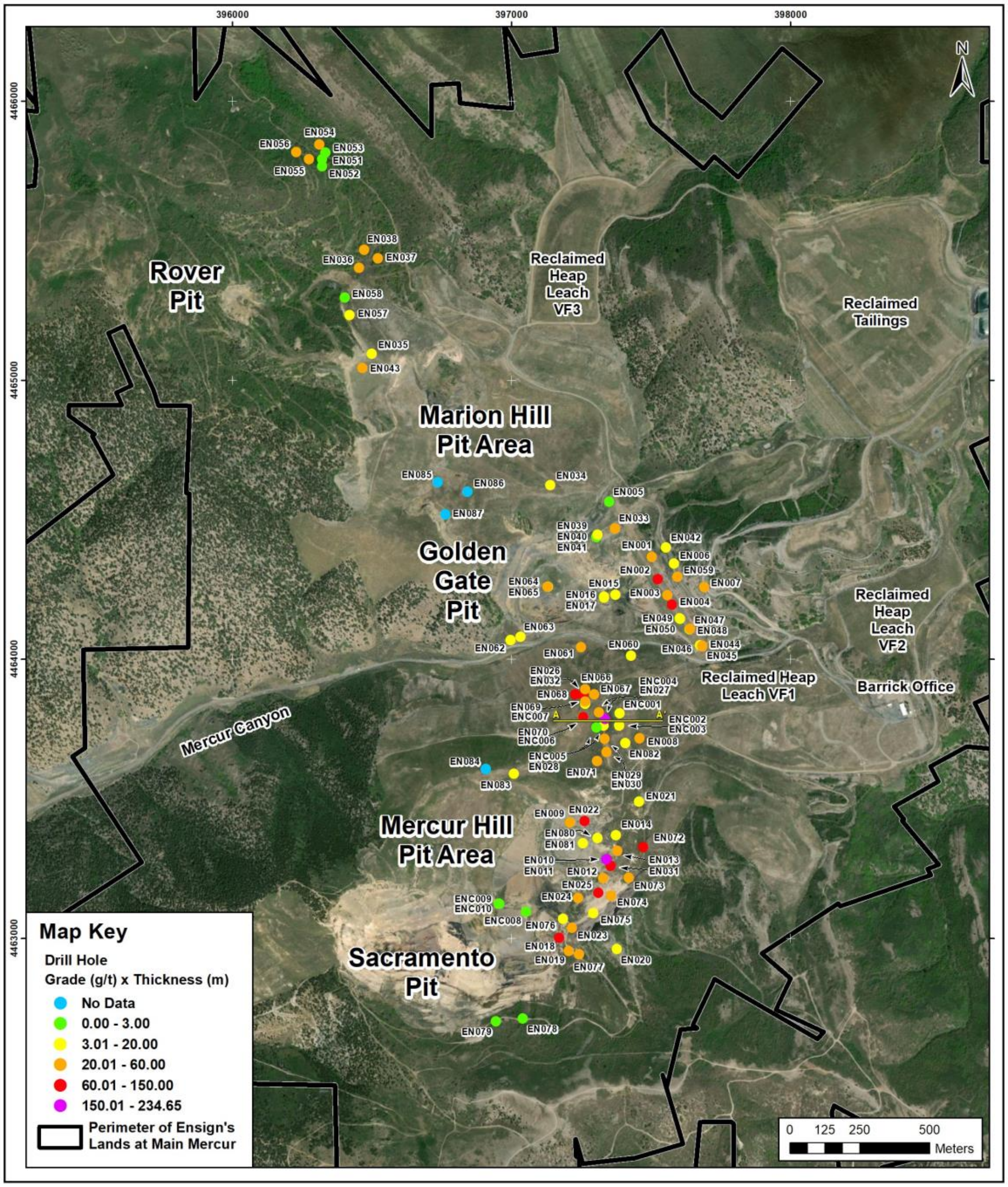


10.6.3 Main Mercur Drilling 2021-2022

Fifty RC holes were drilled at Main Mercur in 2021 as an initial test for mineralization indicated by historical drill holes, to determine the amount of backfill in the historical open pit mines, and to test new target areas. In 2022, and additional 37 RC holes and 10 core holes were drilled at Main Mercur. The locations of the drill holes are shown in Figure 10.7. Assays are summarized in Table 10.3.

Figure 10.7 Main Mercur Area 2021-2022 Drill Hole Locations

(from Ensign, 2022)



Ensign's block model target proved to be an effective drilling guide for confirming the presence of significant gold mineralization that had not been mined by previous underground and open pit mining cycles. Substantial intervals and grades were intersected by drilling, as predicted by the model. Additionally, at least sixteen holes encountered unexpected gold-bearing zones in a deeper stratigraphic unit (the Lower Great Blue Member) than the traditional hosts in the Mercur Member. Table 10.4 summarizes the gold mineralization intercepted by the 2021-2022 drilling from Table

10.3 in these non-traditional host rocks. Figure 10.10 provides a cross section through EN027 which encountered 25.9m at 6.34g/t Au in the Lower Great Blue Member. The orientation and true thickness of this mineralized zone is unknown.

Table 10.4 Ensign 2021-2022 Main Mercur Select Gold Intercepts in Non-Traditional Host Rocks

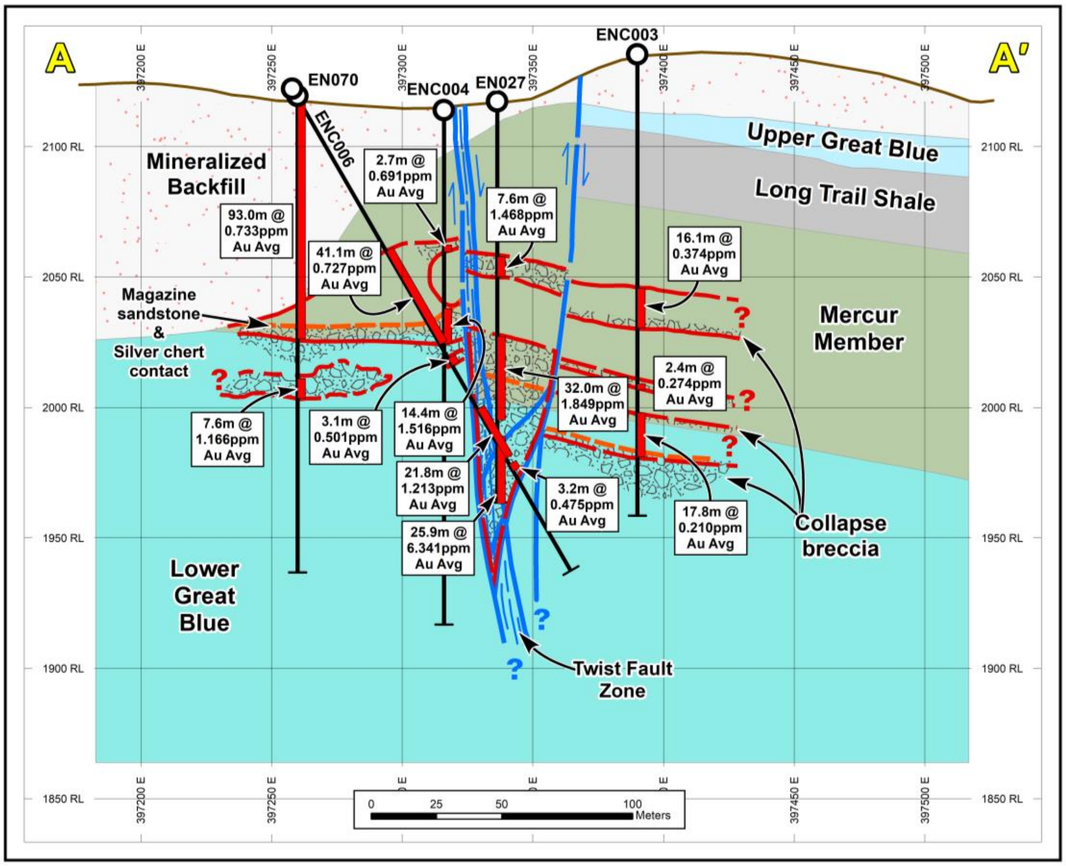
(Cutoff grade is 0.2g/t Au; for the *included* higher-grade intervals, the lower cutoff grade is 6g/t Au)

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Stratigraphic Units	Avg Au x Interval (g/t*m)
		From (m)	To (m)	Interval (m)	Avg Au (g/t)		
MAIN MERCUR							
EN007	397.8	379.5	396.2	16.8	0.43	Lower Great Blue	7.2
EN008	160.0	131.1	150.9	19.8	0.91	Lower Great Blue	18.1
EN010	152.4	105.2	128.0	22.9	0.66	Mag SS Beds, Lower Great Blue	15.2
EN011 (45°, -50°)	184.4	157.0	170.7	13.7	0.50	Lower Great Blue	6.8
EN013	160.0	123.4	135.6	12.2	2.10	Lower Great Blue	25.6
	including	126.5	128.0	1.5	8.45	Lower Great Blue	12.9
EN018	*105.2*	65.5	103.6	38.1	2.21	Silver Chert, Lower Great Blue	84.2
	including	89.9	93.0	3.0	12.70	Lower Great Blue	38.7
EN022	111.3	68.6	106.7	38.1	2.05	Mag SS Beds, Lower Great Blue	78.1
	including	88.4	91.4	3.0	15.33	Lower Great Blue	46.7
EN025	153.9	126.5	143.3	16.8	1.05	Silver Chert, Lower Great Blue	17.6
	and	149.4	153.9	4.6	1.51	Lower Great Blue	6.9
EN027	153.9	128.0	153.9	25.9	6.34	Lower Great Blue	164.3
	including	137.2	143.3	6.1	23.89	Lower Great Blue	145.6
EN043	86.9	76.2	85.3	9.1	0.33	Lower Great Blue	3.1
EN056	121.9	39.6	73.2	33.5	0.80	Barren/Mag SS Beds, Silver Chert, L. Great Blue	27.0
EN072	182.9	135.6	182.9	47.2	2.20	Silver Chert, Lower Great Blue	104.1
EN073	228.6	182.9	192.0	9.1	1.96	Lower Great Blue	17.9
EN074	182.9	141.7	161.5	19.8	1.36	Silver Chert, Lower Great Blue	26.9

Hole ID (Azi., Dip if not vertical)	Hole Length (m)	Mineralized Intervals				Stratigraphic Units	Avg Au x Interval (g/t*m)
		From (m)	To (m)	Interval (m)	Avg Au (g/t)		
MAIN MERCUR							
EN076	152.4	96.0	117.3	21.3	0.57	Silver Chert, Lower Great Blue	12.2
ENC006 (90°, -60°)	213.4	141.6	163.4	21.8	1.21	Lower Great Blue	26.4
	and	153.8	154.5	0.7	12.50	Lower Great Blue	8.6

Figure 10.8 Mercur Hill Interpretive Cross Section Looking North (see Figure 10.9 for location of section)

(from Ensign, 2023)



10.7 Drill-Hole Collar Surveys

Historical drill hole collar locations at the Mercur Project were typically surveyed in feet on what was called the “Mercur Mine” grid or on the separate “South Mercur” grid, also in feet. Ensign has no information on the exact methods and instruments used to measure these historical locations, or any information on the accuracy of this historical surveying. The definition of the Mercur Mine grid, such as the original datum, projection or precise zero point, is not currently known to Ensign. An ArcGIS projection was developed as a result of surveying by Rick Lyman, a former Getty employee, for Barrick in 2002 (E. Nozdrya, pers. comm. with Ensign, 2021). This projection is currently in use to convert between the global and local coordinate systems. The parameters for the projections are as follows:

False_Easting: 22304.478

False_Northing: 17968.243

Scale_Factor: 1.000500483

Azimuth: 0.129704528

Longitude_Of_Center: -112.205187775

Latitude_Of_Center: 40.306347862

Linear Unit: Foot_US (0.3048006096012192)

Geographic Coordinate System: GCS North American 1983 (NAD 83)

The Root Mean Squared Error ("RMSE") of this projection is reported as < 2ft (E. Nozdrya, pers. comm. with Ensign, 2021).

Historical drill holes at the South Mercur area were surveyed in feet on the local "South Mercur" grid. This grid is defined as having the northeast corner of Section 29, T6S, R3W at 50,000 feet East, 50,000 feet North. It is not known whether this grid was derived from the Utah State Plane system or not, or whether it uses the same north direction.

Ensign has located known drill holes at South and West Mercur primarily by georeferencing maps with drill hole locations to section corners, and visible features in LiDAR and aerial imagery. This included maps likely drafted by Homestake and subsequent property owners, and inherited by Ensign from Priority Minerals. From the initial georeferenced locations, positions of drill holes were adjusted if they deviated from obvious drilling-related ground disturbance in LiDAR and aerial imagery. For reference, the website for the Maxar imagery (used by Google Earth and ArcGIS) that these adjustments were based on states, "*The average positional accuracy of our imagery is less than 5m CE90*" (Maxar Technologies, 2021). In addition, more obvious errors in some locations due to presumed typographical errors were corrected. Based on Ensign's locations, drill hole collars and evidence of historical drilling can reliably be found in the field at the expected locations, and the data from these drill holes can be used to plan further exploration with confidence.

The author recommends an effort to recover the definition of both the Mercur Mine and South Mercur grids, and to have a professional surveyor survey the known drill holes and old control points with modern equipment in the UTM system, NAD83 datum.

The collar location coordinates of Ensign's 2020 drill holes were surveyed immediately following drilling by Ensign geologists using a Garmin ETREX20 GPS in December 2020. In May 2021, surveyors with Mineral Exploration Services of Reno, Nevada re-occupied the sites and surveyed the coordinates of each drill hole in UTM coordinates, NAD83 datum, using a Trimble ProXRT2. Coordinates were surveyed with decimeter precision. In one case the exact location of the drill collar could not be identified, but the remaining evidence of drilling allowed a location with less than 5m of horizontal error to be surveyed.

Ensign's 2021 drill hole collars at Main Mercur were surveyed in October 2021 by McKay Mineral Exploration, LLC in UTM coordinates, NAD83 datum, using a Trimble R1 GNSS receiver with a Juno3B controller. Coordinates were reported to have been surveyed with sub-meter precision.

The drill collars of Ensign's 2022 program were surveyed by an Ensign employee using a Trimble Geo 7X GPS receiver which has a claimed accuracy of about 1 meter in the horizontal plane. The author recommends that these holes be eventually surveyed by a professional surveyor.

10.8 Down-Hole Surveys

10.8.1 Historical Drilling

Ensign has down-hole survey information compiled for 27 holes from the historical drilling in the Mercur Project area. Most of these holes were deep tests (> 300m) in the Main Mercur area drilled by Barrick from 1994 to 1996. Ten of the 27 holes were angle holes, the rest were collared as vertical holes. In general, the average deviation of these surveyed holes at 100m is about five degrees and the average at 200m is 10 degrees or more. By 300m, deviations are approaching 14 degrees or so. One can expect a hole with 5 degrees of deviation at 100m to have wandered perhaps four meters at that depth, and a hole with 10 degrees of deviation at 200m to have wandered perhaps 15 to 20m at that depth. By 300m, a hole with a deviation of 12 degrees at that depth will have missed its target by 35m or so. It is germane that seven angle holes were surveyed, some deviated greatly while others were straighter. One hole, #96-24, which was started at a 55º declination, ended up at a declination of 78º at final depth of 350m. Hole #96-25 started at -60º inclination and ended with -75º dip at a depth of 300m. Other holes were straighter, but RC holes drilled at an angle with a hammer will often "droop" to a considerable extent.

The author concludes that although deviations are likely to have occurred in the historical drilling at the Mercur Project, it was likely minor due to most holes having been drilled vertically and the shallow depths at which most drilling was done. Although it would be preferable to have these data, the lack thereof will not compromise future exploration targeting based on historical drilling results. The author recommends that all future drill holes be surveyed for down-hole deviation.

10.8.2 Ensign Drilling

Major Drilling operated a Reflex EZ-GYRO down-hole survey tool to measure down-hole deviation in all of Ensign's 2020 drill holes. On the first hole, deviation was measured every 15.24m (50 feet) but on subsequent holes measurements were taken every 6.1m (20 feet). The results of these surveys show that deviations on all the vertical holes were quite minor, generally at three degrees or less, although drill hole SM-20-009 deviated four degrees at 100m depth, and hole #SM-20-002 deviated six degrees by 200m. All other holes were quite straight, with less than three degrees of deviation even in the deepest holes. The one angle hole drilled, SM-20-010, was very straight, deviating only about a degree over 100m.

Major Drilling used the same type of Reflex EZ-GYRO down-hole survey tool to measure the 2021 drill holes. Deviation was measured every 50 feet to the bottom of the hole. The results from the 44 vertical RC drill holes show that deviations were in most cases moderate, averaging less than two degrees deviation at 150 meters in vertical holes. Vertical hole EN006 showed the greatest deviation, with six degrees deviation at 150m depth and nine degrees at 250m. Vertical hole EN007 showed only two degrees deviation at 150m depth but eight degrees at 285m. Most of the other vertical holes deviated less, with many holes deviating less than a degree at 150m depth, while others deviated less than two degrees. There are a few exceptions, such as hole EN028 which deviated five degrees at a depth of 90 meters, and hole EN044, which deviated five degrees by 165 meters.

During the 2021 campaign, nine RC angle holes were drilled by the end of October. Almost all of these "drooped" significantly, although they did stay relatively straight, with deviations from initial azimuth always less than 10 degrees. All angle holes, except for hole EN004, were steepened by about 10 degrees by 150m depth. Hole EN004 only steepened by five degrees at a depth of 180 meters. The other holes, begun at angles from 53 to 70 degrees, steepened with depth. The most extreme steepening was seen in holes EN045 and EN046, drilled at 70 and 60 degrees from the horizontal, which steepened to 83 degrees and 76 degrees, respectively, at a depth of 200 meters. For targeting purposes in future work, it may be assumed that angled RC holes drilled with a hammer will steepen by about 10 degrees at 150 meters and continue to steepen thereafter.

During the 2022 drill campaign, a total of 33 RC holes and nine diamond holes were usefully completed. Of the RC holes, 26 were started as vertical holes and 7 were drilled at various angles. All of the nine diamond holes were angle holes.

The vertical RC holes had an average deviation of about 3 ½ degrees at 150 meters depth during the initial phases of the drilling, but for some reason, tended to be much straighter with an average of 1 ½ degrees of deviation at 150 meters during the later stages of the drilling. These vertical RC holes had no dominant azimuth direction of deviation, with as many deviating to the left as to the right when viewed from above. One might expect that at 150 meters depth, a drill hole with 3 ½ degrees of deviation might be offset 5 meters or so from its collar location, and a hole with 1 ½ degrees of deviation might have 2 meters of offset.

The RC angle holes generally increased their dip (drooped) by about 3 to 5 degrees at 150 meters depth, and increased this droop at greater depths. However, these holes were remarkably straight when viewed in plan section.

The nine core holes were generally straight with very little change in azimuth and dip although a couple of holes (ENC007, ENC010) drooped about 3 degrees at 150 meters depth.

10.9 Sample Quality and Down-Hole Contamination

Down-hole contamination is not thought to be a significant issue with the historical drilling at the Mercur Project due to the depth to the water table, generally some 300m or more below the surface. Most of the drilling in the Mercur Project area has been above the water table, although small, perched water zones have been intersected in places. Despite the limited possibility for down-hole contamination due to formation water, the author believes the historical RC drilling is reliable as long as the usual issues inherent in RC drilling are given due consideration.

10.10 Summary Statement

There are a limited number of down-hole deviation surveys done for historical holes in the Mercur database, which contains data for 27 RC holes. Although this is not unusual for drilling done during the 1990s and before, the lack of down-hole deviation surveys adds some uncertainty to the exact locations of drill samples at depth. In RC drilling, hole deviations are common, particularly in deeper angle holes. However, in the Main Mercur area these uncertainties are mitigated to a significant extent by the vertical orientation of almost all of the drill holes, and the generally shallow total depths.

In the Mercur Project area, almost all mineralization dips at less than 45°. Thickness of mineralization would be exaggerated by a factor of up to 1.4 in a vertical hole intersecting mineralization at a 45 degree angle. At a 30-degree dip of mineralization, the thickness of mineralization would be exaggerated by a factor of 1.15.

The overwhelming majority of sample intervals in the Mercur database have a down-hole length of 1.52 meters (five feet). This sample length is considered appropriate for the near-surface style of mineralization that characterizes the current known anomalous gold at South Mercur and West Mercur.

11.0 SAMPLE PREPARATION, ANALYSIS, AND SECURITY (ITEM 11)

The information in this section has been compiled by the QPs from historical records as cited and from observation of the 2020 - 2023 work completed by Ensign.

11.1 Historical Sample Preparation, Analysis and Security

11.1.1 Historical Surface and Underground Sampling

Data from historical sampling carried out before 1973 is very spotty and usually available only as assays plotted on underground mine maps. Gold and silver data from before 1973 are presumed to have been obtained by fire-assay fusion methods with a gravimetric finish to determine gold content. There are no known laboratory records for assays prior to 1973. Many of the surface sampling results from the 1970s through the late 1990s, from what is now the Mercur Project, survive but there are no details available as to the QA/QC procedures that might have been used during these years.

Main Mercur:

Ensign has no information as of the effective date of this report on any aspect of the surface sampling by previous operators in the Main Mercur area.

South Mercur:

The only surface sample data available from South Mercur are widespread rock and tailings sampling results from Homestake, mostly dating from 1980 and 1981. These samples were assayed by Cone Geochemical (“Cone”) of Lakewood, Colorado, using an aqua regia digestion with an atomic absorption (“AA”) finish for gold. Other elements were analyzed by AA, but may have had a different digestion. It appears that Cone used Coalex Energy Corporation to run some samples by fire assay as a check on their AA results. Both Cone and Coalex Energy were independent of Homestake. It is not known what certifications they might have held as of 1981, but Cone was a well-known and respected lab that was in business for many years. No further information is available as to the procedures used to collect, ship, prepare, and assay these Homestake samples. Likewise, no information is available on sample security procedures in use by Homestake when these samples were collected.

West Mercur:

Aside from a few underground maps from the 1930s, the earliest records Ensign has from the West Mercur area are those of Getty’s sampling on their West Dip project. It appears Getty sampled numerous rocks and ran a number of soil sample lines. Rocky Mountain Geochemical Corp. (“Rocky Mountain”) of Salt Lake City, Utah was used as the primary lab for this work. Most results, including those for gold, were determined by AA, but arsenic values were determined colorimetrically. Later, during 1987 and 1988, Barrick sampled the existing dumps in the West Mercur area as possible sources of mill feed. The assays were done in the Barrick Mercur mine lab. Gold was determined variously by AA, fire-assay fusion, and cyanide leach with an AA finish.

During Barrick’s programs at West Mercur, it appears that surface rock samples were sent to Chemex Labs of Sparks, Nevada. Gold assays were determined by fire-assay fusion with an AA finish. Trace elements specified by Barrick were digested with aqua regia or other acids and analyzed by AA, and the multi-element package was analyzed by an inductively coupled plasma atomic-emission spectrometry ("ICP-AES") process. Chemex was a well-known lab for many years, but it is not known what certifications it may have held during the relevant time periods.

There is no information available from other operators at West Mercur before 2011.

RVX and predecessor company Ash-ley Woods LLC were responsible for a number of small surface sampling programs from 2011 to 2019. None of these small sampling programs utilized quality control samples. Other companies that took samples to evaluate the West Mercur area also sent copies of their results to RVX. These samples were mostly sent to ALS Minerals ("ALS") or American Assay Laboratories ("AAL"), both in Reno, Nevada. Gold determinations were made with a 30-gram fire-assay fusion with an ICP-AES finish and trace elements were usually determined with an ICP-AES procedure.

In 2018, RVX entered into an agreement with Torq on the West Mercur property as it existed at that time. Torq's soil samples were screened to minus 80 mesh and assayed by ALS in Reno, Nevada. At ALS, 25g subsamples were digested with aqua regia and analyzed for gold and 25 other elements by an inductively coupled plasma – mass spectrometry ("ICP-MS") process. Adequate sample security procedures were in place during this sampling, including formal chain of custody protocols, and the use of locked facilities for temporary storage. ALS is an accredited lab independent of Torq, RVX, and Ensign. QA/QC procedures included Torq's insertion of blanks, standards and duplicates at rates of 2%, 3% and 4%, respectively.

North Mercur:

Ensign has electronic copies of rock sample geochemistry maps of the North Mercur area for gold, silver, and arsenic that were provided by a lessor. These maps were prepared in 1991 by Centurion. No information is available as to the samplers, analytical methods, or laboratories used to determine these values.

11.1.2 Historical Drill Sampling

Main Mercur:

Samples from the 1969 Newmont rotary holes were evidently collected at 1.52m (5-foot) intervals. No information is known about the contractors, equipment, sampling techniques, assay labs, or assay techniques used for this drill program.

According to Klatt (1980), Getty used conventional rotary drilling with a down-hole hammer for the first 26 holes in 1973, and RC methods for later drilling. In the Main Mercur area, it is unknown what analytical techniques were used, what laboratories were used, and what the sampling sizes and techniques might have been.

Details of Barrick's 1985 – 1997 RC and core drilling are lacking. Ensign has not yet found details of drill contractors, equipment, or sampling sizes or techniques used during historical drilling by Barrick in the Main Mercur area.

South Mercur:

For South Mercur, a few copies of assay certificates from drilling campaigns are in the possession of Ensign, but little information about sampling protocols and QA/QC procedures survives.

There is no information available on drilling methods, bit sizes, sampling procedures, analytical methods, or labs used by Getty during their work at the Violet Ray prospect at South Mercur between 1973 and 1985.

From the drill logs, it is apparent that Homestake submitted a small number of duplicate samples and a few standards along with the general run of drill samples. On sample summary sheets from this drilling, the lab is noted as "Hunter." There is no information available on drilling methods, bit sizes, sampling procedures, or analytical methods used by Homestake during their work in the South Mercur area between 1981 and 1984.

There is no information available on drilling methods, drill contractors, bit sizes, sampling procedures, laboratories, or analytical methods used by Touchstone during their work in the South Mercur area during 1984.

For at least some of the 1986 Priority drill program, it appears Bondar-Clegg was used as the primary assay laboratory. Drill logs show no evidence that any QC samples were submitted. Samples were assayed only for gold. Bondar-Clegg was a well-known laboratory at the time that was independent of Priority and WCC. There is no information available as to drill contractors, drilling methods, bit sizes, sampling procedures, or analytical methods used during the Priority – WCC drill programs from 1986 to 1990.

No information is available on drill contractors, drilling methods, bit sizes, sampling procedures, laboratories, or analytical methods used by Kennecott during their work in the South Mercur area in 1991.

No information is available on drill contractors, drilling methods, bit sizes, sampling procedures, laboratories, or analytical methods used by Barrick during their work in the South Mercur area in 1992 and 1996, or used by Kennecott in 1997.

From available information in Batson (2014), the core drilling at South Mercur was done by National Exploration of Elko, Nevada using an Atlas Copco CS14C crawler mounted core rig. Samples were shipped by Old Dominion Freight Line. Preparation of samples was done at Elko, Nevada by ALS. Assaying was done by ALS either at Reno, Nevada or North Vancouver, B.C., Canada using a fire assay fusion with an ICP-AES finish for gold, an ICP-MS procedure to determine silver, and 35 other elements were determined using an aqua regia digestion with an ICP-AES finish.

West Mercur:

Getty used CMS and Rocky Mountain, both of Salt Lake City, for drilling done at West Mercur. CMS was the primary lab used in 1981 and Rocky Mountain was the primary lab used in 1982. During 1981 an AA method was used which had been developed at the Getty Mercur mine. This involved a one-hour roast at 550ºC prior to aqua regia digestion of the pulp that was then analyzed by atomic absorption. In 1982, a similar method was used by Rocky Mountain, but the roast temperature was increased to either 650º or 750ºC, but it is not clear why some were roasted at the higher temperature. Later investigation showed that the higher roast temperatures had had the effect of volatilizing some of the gold, leading to lower-than-true assay results. Later reruns by fire assay and with a lower roast temperature returned gold values significantly higher than had been first reported by Rocky Mountain. Records indicate Getty submitted one standard with each ten drill samples, but further details of this QA/QC program are lacking.

During 1981 Getty used O'Keefe Drilling of Polson, Montana as the RC drill contractor. The 1.52m (5-foot) samples were taken starting in bedrock. Some RC holes were deepened by an unnamed core drilling contractor. No information is available as to RC drill technique (hammer or tri-cone), bit diameter, or sampling procedures on the rig. Details are lacking from the 1982 campaign as to drill contractors, drilling equipment used, bit sizes, and sampling techniques.

During the later Barrick drilling from 1986 to 1988, assay certificates are generally missing, as is drilling and sampling.

There is no information as to drilling, sampling assaying during the Kennecott and the Rochester-Kennecott drilling in the West Mercur area from 1990 to 1992, or for the Kennecott 1995 drilling, for Barrick during their 1996 campaign or for the BHP 1996 drill campaign.

Most details are lacking for the three holes drilled by Barrick during 1999.

11.1.3 Sample Security Procedures for Historical Drilling

There is no information about sample security procedures in use during any of the drilling programs in the Mercur Project area by any of the previous operators from the 1960s to the 1990s.

11.2 Ensign Sample Preparation, Analysis and Security

11.2.1 Ensign Soil Samples 2020 - 2021

The 2020 North Mercur soil samples collected by North American were collected and labelled by contractor personnel, who kept the samples at a nearby base camp. At the conclusion of the sampling, the samples were grouped into lots of about 25 and placed into large woven nylon-filament "rice sacks" for shipment to ALS in Reno, Nevada. The samples were transported from North American's base camp to Elko, where they were transferred to a principal of Ensign, who then delivered them to ALS in Reno. ALS is a commercial laboratory that is independent of Ensign and is certified under ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

At ALS the samples were dried and then screened to a minus 180µm size, equivalent to screening with an 80-mesh screen. Then a 25g split of the fine fraction was dissolved with aqua regia (a 3:1 mixture of concentrated hydrochloric and nitric acids). The content of gold, along with 50 other elements, was determined by ICP-MS and ICP-AES. Samples with silver contents over the limit of 100g Ag/t were re-analyzed using aqua regia digestion and ICP-AES or AA methods.

The 2021 South Mercur samples from the Violet Ray prospect were collected and labeled by contract personnel of McKay Mineral Exploration, LLC. The samples were stored at their nearby base camp and then either picked up by Ensign geologists at the camp or delivered to the Mercur Project office at the Barrick Mercur mine site. The samples were stored in a locked facility while awaiting shipment for geochemical analyses.

It is the opinion of the QP, quality control procedures used on these surveys, including the use of blanks, duplicates, and standards, were adequate for an exploration soil survey of this sort and the sample collection, security procedures, and methods of analysis used were adequate.

11.2.2 Ensign Rock Samples 2021 – 2022

During 2021, Ensign geologists and contract geologists collected 292 rock samples which were analyzed by AAL in Sparks, Nevada. The samples were crushed to pass a 10-mesh screen (equivalent to 2mm or smaller particle size). A 250g split of the crushed sample was pulverized to 85% passing a 250-mesh screen (less than 75 microns in size). From this pulp a 30g subsample was analyzed by fire-assay fusion with an inductively coupled plasma – optical emission spectrometry ("ICP-OES") finish. In the event of an "over limit" result (more than 10g/t Au, or 100g/t Ag), another 30g subsample was fire assayed with a gravimetric finish. In addition, silver, arsenic, calcium, copper, iron, mercury, molybdenum, lead, sulfur, antimony, uranium, and zinc were determined by ICP-OES using a 0.5g sample of the prepared pulp dissolved in a 2-acid (hydrochloric and nitric acids) digestion (AAL package 2AO-12). An additional 6 rock samples were analyzed by ALS of Reno, Nevada in late 2021. Each sample was dried, weighed, crushed to 70% passing a 2mm mesh and was then split to obtain 250 grams which was pulverized to 85% less than 75 microns. Gold analyses were determined at both the Reno and North Vancouver facilities by fire assay of a 30g portion of the pulp with an atomic absorption finish. During 2022, 108 rock samples were collected by Ensign employees and were analyzed by BV using a 30g sample of the pulp that was fire-assayed with an AAS finish.

Results from these rock samples are being used to plan further exploration.

11.2.3 Ensign Drill Samples 2020

For the 2020 program, RC drilling was used, drilling was measured in feet and 1.52-meter (5 foot) samples were taken. Because the samples were generally quite wet from the water injection, an industry-standard rotary splitter was used to collect the assay samples. The commercially available sample bags came prelabeled with a 6-digit number printed on the tags which was noted on drill logs and was used by the assay laboratory. All bags were also clearly labeled with hole number and footage with a permanent marker by Ensign personnel to prevent any possible confusion at the drill rig. Personnel from Major Drilling were responsible for collecting all samples but a geologist from Ensign was on hand at all times samples were collected to ensure adherence to proper procedure. James Lunbeck, a consulting geologist for Ensign from Salt Lake City, visited the drill program on five occasions to verify that industry-standard procedures were in use at the drill sites (Lindholm et al., 2022).

After each sample was taken from the rotary splitter, the bag was tied up and placed on a large black plastic sheet laid out near the rig so that excess water could seep from the sample bags. The bags were sewn from a plastic fabric marketed as "Olefin" which is perforated with a pattern of very small holes to allow this seepage. Given the volume of sample and water produced from each 5-foot drilling interval, it is impossible to prevent some of the finer fraction of the sample from being lost with the excess water. Because drilling was carried out during early December, the samples usually froze before each hole was completed.

After completion of each drill hole, all the samples from that hole were loaded onto a pickup truck and transported a few kilometers down the South Mercur access road to a camp where an Ensign senior geologist stayed during the program. At this camp a thawing and drying system was set up to allow more water to run off from the samples, enough so that they might be shipped. This consisted of an enclosed trailer, approximately 2 m by 4 m in size, set up on a slight incline so that any water melted from the samples could run out below the closed rear doors. Inside there was a propane heater set up to maintain a temperature of between 20º and 40ºC. After this initial drying step was complete, the samples were transported to a rented storage locker in Lehi, Utah, which was also heated by a propane heater to promote drying and prevent freezing. At the conclusion of the drill program, the samples were shipped in three lots by USF Reddaway Trucking to AAL in Sparks, Nevada.

AAL is an accredited lab, independent of Ensign. It has been awarded the ISO 17025 and the Nevada Department of Environmental Protection accreditations starting in 2013. Currently it is accredited with an ISO 17025:2017 Certificate with an Effective Date of December 2, 2020.

At AAL, the drill samples were first dried and then crushed to pass a 10-mesh screen (equivalent to 2mm or smaller particle size). A 1-kg split of this crushed sample was pulverized to 85% passing a 250-mesh screen (less than 75 microns in size). From this pulp a 30g subsample was analyzed by fire-assay fusion with an ICP-OES finish. In the event of a result of more than 10g/t Au, another 30 g subsample was fire assayed with a gravimetric finish. In addition, 12 other elements (package 2AO-12) were determined by ICP-OES using a 0.5g sample of the prepared pulp dissolved in a 2-acid (hydrochloric and nitric acids) digestion. The other elements determined under the 2AO-12 protocol using this digestion were silver, arsenic, calcium, copper, iron, mercury, molybdenum, lead, sulfur, antimony, uranium, and zinc.

In addition, some of the samples were analyzed for gold by cyanide-leach extraction. Ensign commissioned AAL in Sparks, Nevada to perform 2-hour cyanide-leach shaker tests on 30-gram aliquots of pulps from Ensign's 2020 South Mercur RC drilling. The pulps had a nominal particle size of 85% passing 75 microns. The 30g sample was weighed into a centrifuge tube and 60ml of 0.30% NaCN/NaOH solution was dispensed into the tube, which was tumbled for two hours. The tubes were then centrifuged and decanted for analysis of the solution, which was analyzed by ICP-OES.

11.2.4 Ensign Drill Samples 2021

In 2021 all geochemical services for drill samples were provided by ALS. Sample collection procedures were very similar to the 2020 campaign described above, but temperatures have been much higher due to the time of year, obviating the need to carefully dry samples under freezing conditions before shipment. Personnel from ALS came to the Mercur Project by truck to pick up and take custody of the drill samples at regular intervals during the course of the 2021 drill program. ALS transported the samples either to their lab facilities in Elko, Nevada, USA or Guadalajara, Jalisco, Mexico for sample preparation. Each sample was dried, weighed, crushed to 70% passing a 2mm mesh and was then split to obtain 250 grams which was pulverized to 85% less than 75 microns. These sample pulps were then shipped to the ALS facilities in Reno, Nevada, USA and North Vancouver, British Columbia, Canada. Gold analyses were determined at both the Reno and North Vancouver facilities by fire assay of a 30 gram portion of the pulp with an atomic absorption finish (ALS procedure Au-AA23). The North Vancouver facility also analyzed for 35 elements by aqua regia digestion and ICP-AES analysis (ALS procedure ME-ICP41). Over limit results of the multi-element determination are rerun by the same process with a diluted solution. Samples that assayed >10g/t Au were reanalyzed by 30-gram fire assay with a gravimetric finish (ALS procedure Au-GRA21).

11.2.5 Ensign Drill Samples 2022

During the 2022 RC drill campaign geochemical and assay services were provided by Bureau Veritas (BV), an international analysis company which maintains ISO 17025 accreditation. They have a preparation facility in Elko, Nevada where samples were crushed, split, and pulverized, and a fire assay laboratory in Reno, Nevada, where all gold assaying was done. Multi-element geochemistry was performed at a facility in Vancouver, B.C., Canada.

All RC drill samples were bagged at the drill site and if wet, were left to dry overnight. Weather during the program was such that samples did not freeze. Ensign geologists transported the samples with an Ensign vehicle to the Mercur mine office Mercur, where they were loaded into either palleted bins or supersacks provided by BV.

The core drilling contractor applied orientation marks to the core samples at the drill site. The core samples were transported to the core facility, a framed tent next to the Mercur mine office. Here geologists marked, logged, cut, and bagged the samples and placed them into the BV-supplied shipping containers.

Bureau Veritas personnel periodically came to the Mercur mine office to pick up and take custody of the accumulated drill and transported them to their preparation facility in Elko, Nevada. Here, each sample was dried, weighed, crushed to 70% passing 10 mesh screen, split, and then 250 grams were pulverized to 85% passing a 200 mesh screen (BV procedure PRP70-250) to form the pulp material which was used for all geochemical procedures.

Samples for gold assay were shipped to the Bureau Veritas laboratory in Reno Nevada, where a 30 gram sample of the pulp was fire-assayed with an AAS finish (BV procedure FA430) to determine gold content. The lower detection limit reported by Bureau Veritas is 0.005 ppm (5ppb). Samples which returned in excess of 10 ppm gold were rerun with a gravimetric finish (BV procedure FA530).

At the beginning of the drill campaign, a small split of the pulp of each sample was sent by BV from Reno to Vancouver, B.C., where a 0.25 gram split was dissolved with a four-acid digestion and then 45 elements were read by an ICP-MS process (BV procedure MA200). For the latter half of the campaign, this multi-element scan was discontinued, and only fire assay results were reported.

During the early months of 2022, a number of drill sample pulps from the 2021 campaign were subjected to a cyanide leach test (BV procedure CN403) in which a 30 gram sample was shaken for one hour in a 60mL cyanide solution, which was then read by AAS. The lower detection limit for this test is reported as 0.03 ppm and the upper limit is 50 ppm.

In early 2023 selected gold-bearing pulps from the 2022 campaign were sent to American Assay Labs in Elko, Nevada for cyanide leach testing for gold to aid in the modeling effort. A 30-gram sample of each pulp was leached for two hours and the resultant liquor was analyzed by ICP-OES (procedure IO-CNAu230). The lower detection limit was reported to be 0.01 ppm and the upper limit 100 ppm.

11.3 Quality Assurance / Quality Control Programs

QA/QC programs undertaken as part of the various exploration and development drilling programs of historical operators and Ensign are described in this subsection.

Very little information survives on what QA/QC procedures were used by historical operators in the Mercur Project area. Available information is summarized below.

11.3.1 Historical QA/QC Procedures

Main Mercur:

There is little information available on QA/QC procedures used during Newmont, Getty, and Barrick drilling from the 1960s through the 1990s. There is no information available on Newmont's drilling. During the Getty drilling from 1973 to 1978, a standard was inserted into the sample stream for every ten drill samples (Klatt, 1980). These standards were made up by Getty personnel using some of the large "metallurgical" samples regularly collected during this early drilling. No information is available for later Getty and Barrick drilling conducted during the 1980s and 1990s.

South Mercur:

It is apparent from copies of Homestake drill logs that there were a few insertions of standards assayed along with drill samples. The standards were inserted at a rate of 5%. A few check assays (less than 5%) were performed, but it is unclear whether these checks were done by a different lab or at a different time than the original samples.

The 1984 Touchstone drill logs show no evidence of any QA/QC procedures on the samples taken. There is no evidence from the logs that Touchstone submitted any QC samples along with their drill samples.

The limited amount of copies of original Bondar-Clegg assay certificates from Priority's program in 1986 and 1988 show no evidence of any QA/QC procedures. Geologist's logs likewise show no evidence of any QA/QC procedures.

There is no information on any QA/QC procedures from the Getty drilling at South Mercur during 1973-1985, or for the 1991 Rochester – Kennecott drilling. Also, there is no information available on QA/QC procedures in use by Barrick during their campaigns in the South Mercur area from 1992 to 1996.

During the 2013 Priority drill campaign, chain-of-custody procedures were followed while shipping samples to the ALS prep lab in Elko, Nevada. Batson (2014) states that no QC samples were inserted by Priority into the assay sample stream during the 2013 campaign.

West Mercur:

There is very little information available on QA/QC procedures that were used by Getty during the drilling programs carried out in the West Mercur area. During the 1981 Getty drilling, it is apparent that a standard, likely similar to those used earlier at Main Mercur, was submitted with every 10 samples taken at the drill. There is no information on QA/QC procedures from the 1982 Getty drilling.

There is no information available on QA/QC procedures for the Barrick drilling that occurred in 1986, 1988, 1996 and 1999. There is also no information available on QA/QC procedures for any of the Kennecott and BHP drill campaigns in the West Mercur area.

North Mercur:

There is no information available on QA/QC procedures that may have been used during the Centurion and Kennecott drilling in 1991 and 1994, respectively.

11.3.2 Ensign QA/QC Program 2020

A system of inserting blanks, duplicates and Certified Reference Materials ("CRMs"), usually known as "standards" was instituted by Ensign. In general, for every 10 samples taken on the rig, a quality control sample, either a duplicate, blank, or standard was inserted into the numbered sample stream. Half of the duplicates were rig duplicates, taken at the rig by means of a split, y-shaped tube attached to the sample outfall to give two roughly equal samples. Half were "pulp duplicates", where an empty bag was inserted into the sample stream with instructions to the lab to prepare an additional standard size pulp, with its own number, from the previous sample number. Of the blanks and standards used, half were "blank" and half were commercial standards prepared by Minerals Exploration and Environmental Geochemistry of Reno, Nevada ("MEG").

This program was similar to others used in the industry, with a total of 10% of rig samples having a QA/QC sample associated. In addition, all of the internal standards, blanks and duplicates run by AAL were included in the analysis of the QA/QC results. These included some 110 prep duplicates (whereby an additional 1kg split was taken from the minus 10-mesh coarse crushed sample, and then prepared and analyzed as a separate sample), 33 lab blanks, and 48 lab standards for a total of 191 laboratory QA/QC samples out of 931 analyzed samples, or a 20.5% rate of QA/QC samples.

Ensign's protocol for interpreting the analytical results for the standards, blanks and duplicates was established by Wulftange (2021). For the CRMs, any analysis that exceeds +/- 2 standard deviations from the certified value should trigger a warning. Any analysis that exceeds +/- 3 standard deviations from the certified value should be deemed a failure, and cause for re-assay of the batch. Any two consecutive standards in the "warning zone" (either > + 2 std to + 3 std, or < -2 std to -3 std) would also be deemed a failure, and cause for re-assay of the batch. Blanks, which should be field grab samples of barren rocks or barren drill samples, should not return analytical results in excess of 6.0 times the lower detection limit for a particular element. If a blank exceeds 6.0 times the detection limit, and potential for sample mix-up has been checked and ruled-out, Ensign designed a formula for a maximum acceptable value in a blank sample that followed a mineralized sample in preparation of the sample pulp. That formula is 2% of the analysis of the previous sample plus 2.0 times the detection limit. If the calculation exceeds the limit for any blank, the batch should be re-assayed.

In October of 2020, Ensign carried out a soil sampling program in the North Mercur portion of the property (DeMars, 2020). Most samples weighed between 600 and 900g. A total of seven duplicates were taken in the field and four blanks and four standards were inserted into the sample stream by Ensign.

11.3.3 Ensign QA/QC Program 2021

The QA/QC program used by Ensign for the 2021 drill program was very similar to the program used for the 2020 campaign. The same amounts of standards, blanks, rig duplicates and prep duplicates were inserted into the sample stream as was done in 2020. During the 2021 program, a certified blank material, CRM 22h from OREAS, a company based in Melbourne, Australia, was used as a blank in place of the sand and gravel mix that was used for the 2020 campaign. For standards, the same two CRMs from MEG were used, as well as two CRMs purchased from OREAS. The blanks and standards were submitted to the laboratory in sealed plastic bags along with the drill samples. These two standards from OREAS were 264 and 277, which have certified values of 0.307g/t Au and 3.39 g/t Au, respectively. The reported standard deviation of each is 0.011 and 0.120g/t, respectively.

11.3.4 Ensign QA/QC Program 2022

The 2022 QA/QC for the drill program was identical in most respects to the programs followed by Ensign in prior drilling campaigns during the previous two years. The same two OREAS CRMs (Certified Reference Materials or "standards"), 264 and 277, used during the 2021 campaign were used in 2022, placed into the sample stream as pulps, one every 40 samples, as in previous years. The same blank material, OREAS 22h was used, placed into the sample stream one per 40 samples as well. Duplicates were collected at the rig every 40 samples, and prep duplicates with a separate sample number were ordered every 40 samples as well, giving an average of one QA/QC sample every 10 drill samples. Bureau Veritas also had its own internal system of duplicates, both pulp and reject, standards and blanks which were run concurrently with the customer's samples. Typically, their insertions were approximately 3% pulp duplicates, 3% reject duplicates, 12% pulp CRMs, and 4% pulp blanks, along with 3 prep blanks per certificate. The results of their internal checks were reported at the end of each assay certificate.

11.4 Quality Assurance/Quality Control Results

11.4.1 Historical QA/QC Results

There is no information available regarding the results of any QA/QC procedures instituted on any of the drilling programs completed within the Mercur Project area by any of the operators prior to Ensign.

11.4.2 Ensign QA/QC Results

Ensign drilled a total of 16,464m in 104 RC drill holes and 1,778m in 10 core holes during the 2020-2022 drill campaigns. Samples from the 2020 drilling in South Mercur and West Mercur were analyzed by AAL in Sparks, Nevada. The 2021 drill samples were analyzed by ALS in Reno, Nevada. The 2022 drill samples were analyzed by BV in Reno, Nevada and Vancouver, British Columbia, with some additional cyanide leach assays performed by AAL in Sparks, NV. Table 11.1 summarizes the drill and accompanying QA/QC samples analyzed by the laboratories. The total of 10.6% QA/QC samples inserted by Ensign is a generally acceptable insertion rate.

Table 11.1 Summary of 2021, 2021 and 2022 Drill and QA/QC Samples

Sample Type	Count
Drill Samples Submitted for Analyses	11836
Ensign Field Duplicates	382
Ensign Inserted QA/QC Blanks and CRMs	868
Total Ensign QA/QC (Blanks, CRMs and Duplicates)	1250
Ensign QA/QC Insertion Rate	10.6%
Lab Inserted Internal QA/QC	1277
Lab Preparation Duplicates	495

11.4.2.1 Certified Reference Materials

The CRMs (standards) used for Ensign's 2020 to 2022 drill program at Mercur were obtained from MEG Inc. of Nevada (the MEG CRMs) and Ore Research and Exploration P/L of Australia (the OREAS CRMs). At least two CRMs were submitted in any given assay batch, one of a relatively low gold grade and the other five to ten times that grade. The OREAS CRMs have certified values for cyanide leach digestions, whereas the MEG CRMs do not. Table 11.2 lists the CRMs in use during the 2020-22 drill programs, and Table 11.3 summarizes all failures associated with the CRMs.

Table 11.2 Certified Reference Materials

		Certified Gold Values		
Standard	Laboratory	Target (g/t)	Std Dev	Insertions
MEG-Au.11.17	AAL	2.693	0.118	13
MEG-Au.11.17	ALS	2.693	0.118	23
MEG-Au.19.05	AAL	0.663	0.046	12
MEG-Au.19.05	ALS	0.663	0.046	22
OREAS 264	ALS	0.307	0.011	60
OREAS 264	BV	0.307	0.011	142
OREAS 277	ALS	3.390	0.120	60
OREAS 277	BV	3.390	0.120	129
OREAS 264 - CN	AAL	0..273	0.021	20
OREAS 277 - CN	AAL	0.818	0.029	15

Table 11.3 List of Failures for the CRMs

Standard ID	Drilling Year	Lab	Sample ID	Target (g/t)	High /Low	Fail Limit	Failed Value	Certificate
MEG-Au.11.17	2020	AAL	696223	2.693	Low	2.339	2.270	SP0134535
MEG-Au.11.17	2020	AAL	696289	2.693	Low	2.339	2.310	SP0134535
MEG-Au.11.17	2020	AAL	696378	2.693	Low	2.339	2.140	SP0134665

Standard ID	Drilling Year	Lab	Sample ID	Target (g/t)	High /Low	Fail Limit	Failed Value	Certificate
MEG-Au.11.17	2020	AAL	696488	2.693	Low	2.339	2.060	SP0134665
MEG-Au.19.05	2020	AAL	696179	0.663	Low	0.525	0.514	SP0134535
MEG-Au.19.05	2020	AAL	696422	0.663	Low	0.525	0.461	SP0134665
MEG-Au.19.05	2020	AAL	696532	0.663	Low	0.525	0.451	SP0134665
MEG-Au.19.05	2020	AAL	696642	0.663	Low	0.525	0.449	SP0134665
OREAS 264	2021	ALS	PN0000725277	0.307	High	0.340	0.373	EL21336699
OREAS 264	2021	ALS	PN0000725277	0.307	Low	0.274	0.069	EL21287215
OREAS 277	2021	ALS	540525	3.390	Low	3.210	3.020	EL21260566
OREAS 264	2022	BV	4563720	0.307	High	0.340	0.350	EKO22000179B
OREAS 264	2022	BV	4560193	0.307	Low	0.274	0.268	REN22000603
OREAS 264	2022	BV	4564143	0.307	Low	0.274	0.272	EKO22000187B
OREAS 264	2022	BV	4564011	0.307	High	0.340	0.348	EKO22000187A
OREAS 264	2022	BV	4566991	0.307	High	0.340	0.345	EKO22000250
OREAS 277	2022	BV	4565407	3.390	Low	3.210	2.968	EKO22000215B
OREAS 277 - CN	2022	AAL	4560882	0.818	Low	0.337	0.400	SP0144956

There were four low failures each for the MEG-Au.11.17 and MEG-Au.19.05 standards, associated with the 2020 South Mercur and West Mercur drill programs (Figure 11.1 and Figure 11.2). The gold assay results of these CRMs by AAL were consistently low, with 12 of 18 CRMs exceeding two standard deviations below the certified value and nine of these falling below three standard deviations. Ensign believes, and the QP acknowledges the possibility that the clustered failures were due to water damage of the CRMs during shipment of the samples to the lab (Mako, C., 2021a). Ensign directed AAL to re-assay the pulps from 71 mineralized samples (drill holes SM-20-005, SM-20-011) associated with the eight failed CRM assays. Seven dry MEG CRMs were inserted into the re-assay sample stream. The re-assays were consistent with the original assay results, and there were no CRM failures (Mako, C., 2021b). The original assays associated with the failed CRMs were replaced by the re-assay values.

During the 2021 drill program the OREAS 264 and OREAS 277 CRMs were inserted in the sample streams submitted to ALS for assay. The results for these analyses are shown in Figure 11.3 and Figure 11.4, respectively.

The control chart for the OREAS 264 shows four failures for the 2021 insertions. One of the low failures is due to a blank being inserted rather than the standard. The single low failure for CRM

OREAS 277 is only slightly below the LCL for the population. Each of the failures has been resolved.

During the 2022 drill campaign, Bureau Veritas was responsible for fire assay of drill samples, both core and reverse circulation. Two standards were used during the 2022 campaign, OREAS 264 and 277. The results of the standard analyses are shown in Figure 11.5 and Figure 11.6, respectively.

The same type of analysis of QA/QC results was made by Ensign as in the previous two years. Under the protocols established by Ensign in previous drill campaigns, CRM assay values of between 2 and 3 standard deviations from the certified value trigger a so-called warning, and values in excess of 3 standard deviations from the accepted values are cause for re-assay of sample batches. During the 2022 campaign, out of 142 submitted there were 5 assay failures of OREAS 264, two low (below 0.274 ppm Au) and three high (above 0.340 ppm Au). All failures have been addressed and resolved. The average of the OREAS 264 samples is about 3% higher than the certified value but it is within the expected uncertainty of the process. Data for OREAS 277 was somewhat better, showing no failures (values more than 3 standard deviations from the certified value) out of 129 samples submitted. The average of the OREAS 277 samples is about 2% higher than the certified value and is again within uncertainty expectations.

Figure 11.1 Control Chart for MEG-Au.11.17

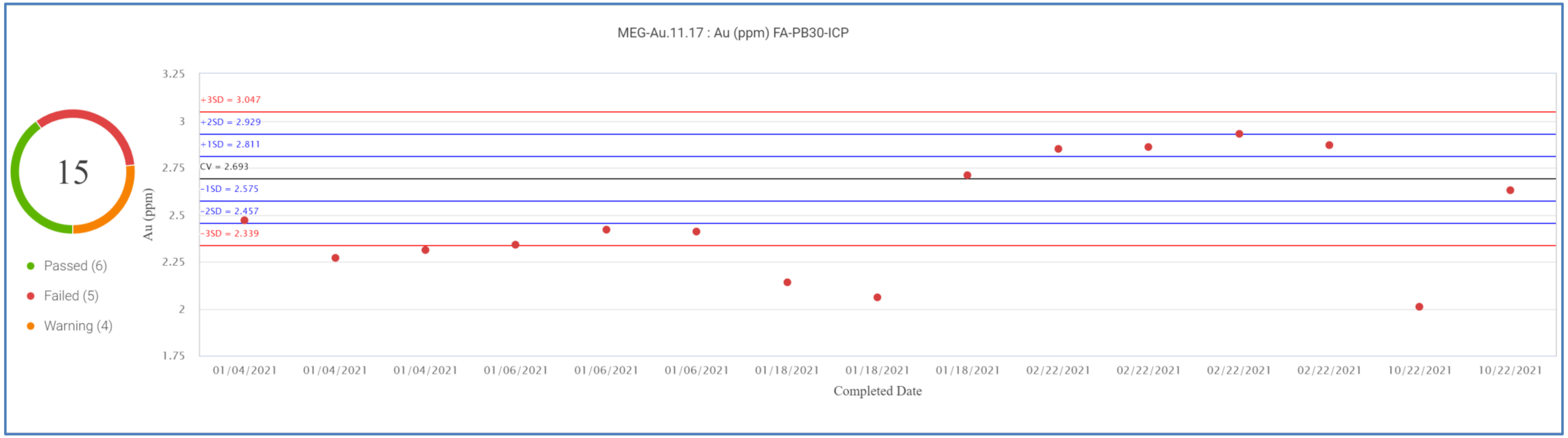


Figure 11.2 Control Chart for MEG-Au.19.05

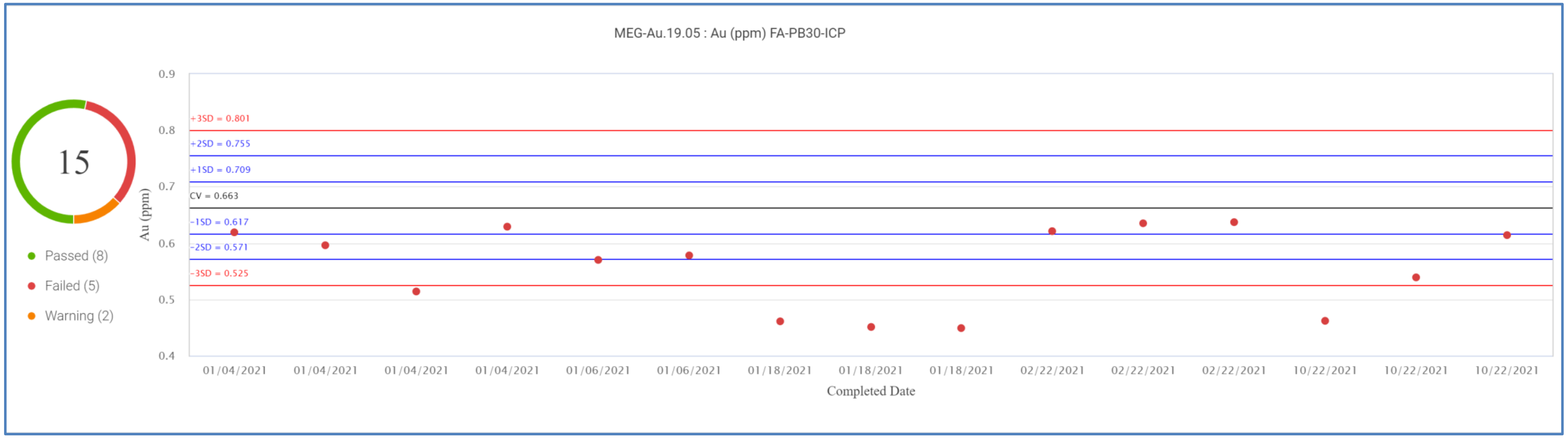


Figure 11.3 ALS Control Chart for OREAS 264

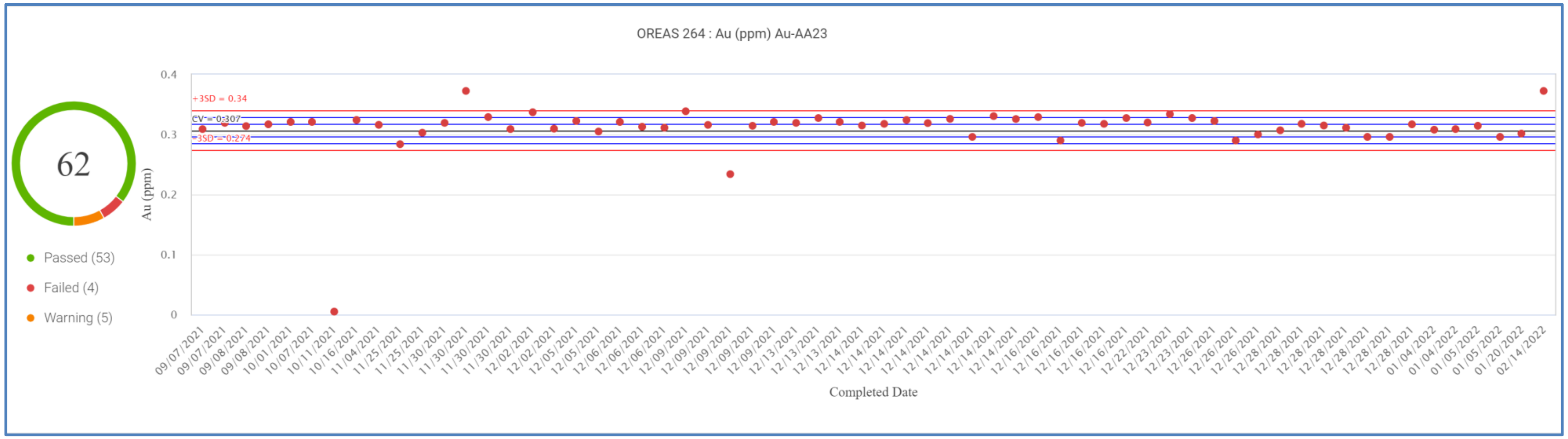


Figure 11.4 ALS Control Chart for OREAS 277

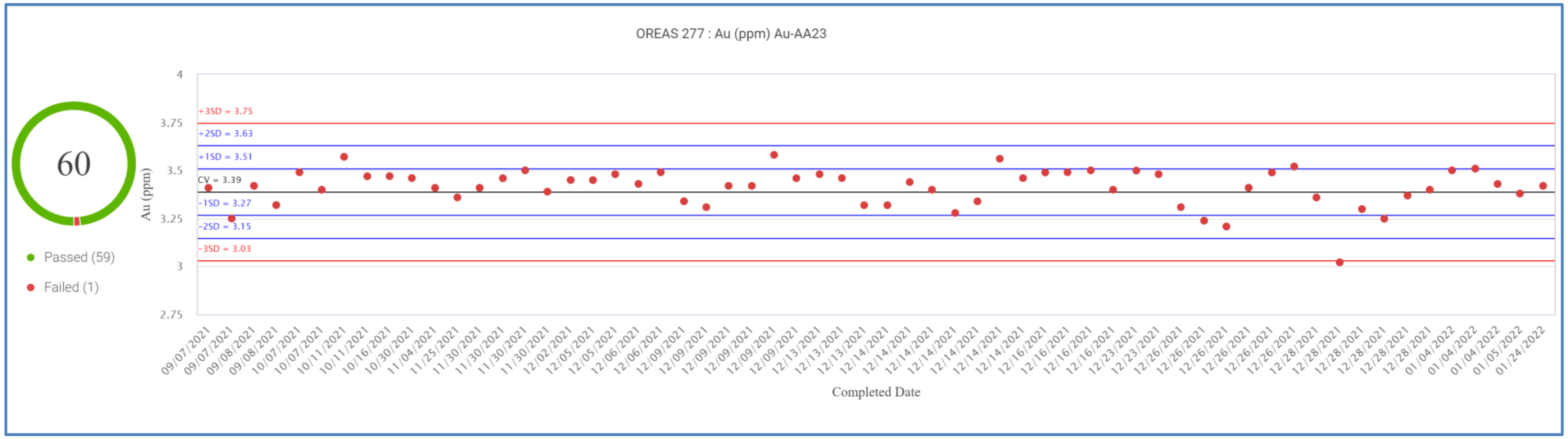


Figure 11.5 BV Control Chart for OREAS 264

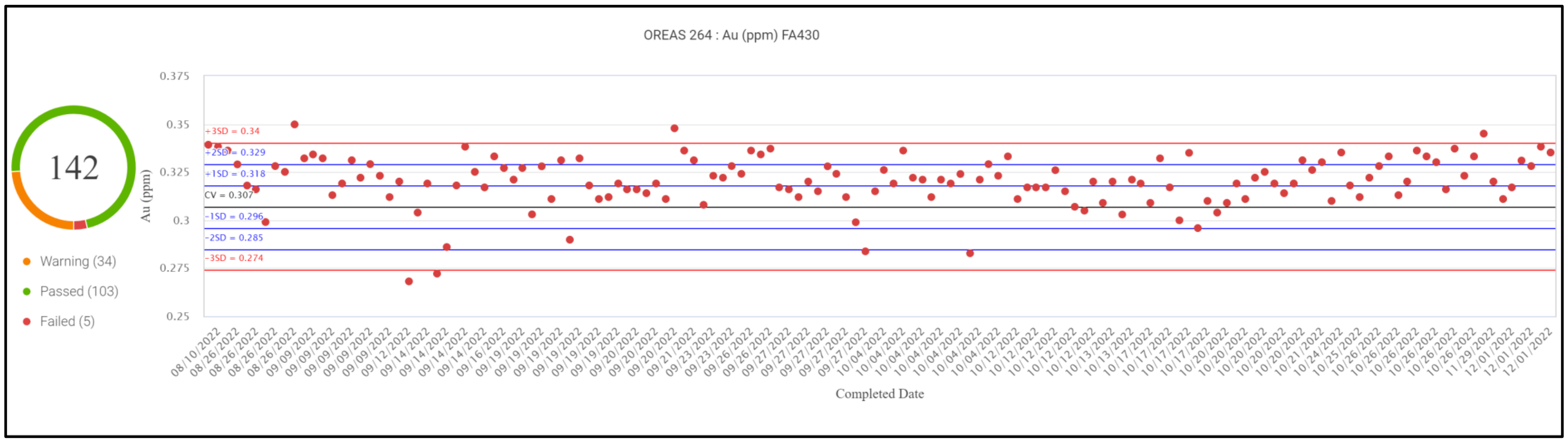
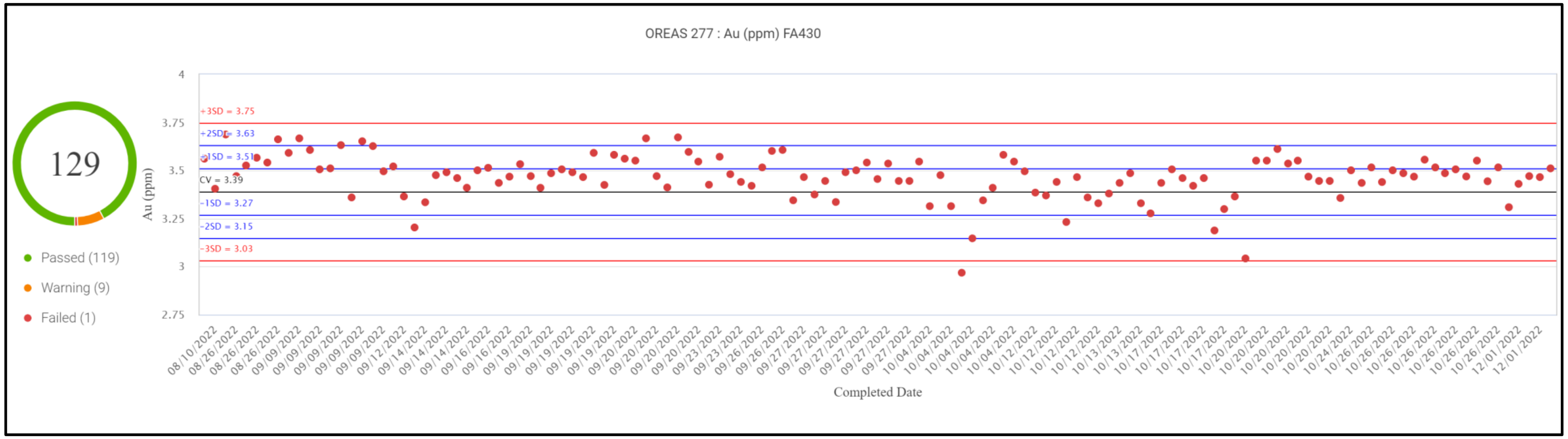


Figure 11.6 BV Control Chart for OREAS 277



11.4.2.1 Blanks

Coarse blank material ("Company Blank"), which consisted of Sakrete™ gravel obtained from a home improvement store, was submitted with drill samples to AAL for the 2020 South Mercur and West Mercur drilling. Two pulp blank reference materials, OREAS 22f and OREAS 22h, were obtained from Ore Research of Australia and submitted to ALS with 2021 drill samples. These same OREAS blanks were used in the 2022 drill program for samples submitted to BV. Ensign's protocol to identify a failure of a blank assay is six times the lower detection limit. For the AAL, ALS and BV gold analyses, this warning limit is 0.018g/t Au, 0.03g/t Au and 0.03g/t Au, respectively.

Pulp blanks test for possible contamination during analytical phase of assaying, but do not test the sample preparation phase. The majority of sample contamination overwhelmingly occurs during sample preparation, which is tested by the use of coarse blank material.

There were five coarse blank assays that exceeded the warning limit for AAL in 2020, which are plotted on **Error! Reference source not found.**11.7. Three of these are the same sample number on two different certificates, suggesting the original assay was flagged as a failure and rerun. Although the re-assays were consistent with the original results, likely indicating the pulp assays are reasonably accurate, it does not preclude the possibility of contamination during sample preparation. In all, three of 30 of the coarse blank assays would be considered failures, which is a failure rate of 10%. All of the blank assays followed samples with grades in excess of 2g/t Au, which does suggest that contamination during sample preparation was occurring at the lab. However, the grades of the blank assays are low, which indicates that the magnitude of the possible contamination is correspondingly low. The amount of potential contamination is not practically significant. Also, the coarse blanks were not certified, and it is possible that the gravels contained higher than background levels of gold. Ensign discontinued use of the Company Blank material following the 2020 drill program.

In 2021 OREAS 22f blank material was assayed by ALS 30 times with no failures. OREAS 22h blank material was analyzed 63 times by ALS with one failure, yielding an overall failure rate of 1.1% for the 2021 drill program. The preceding assay grade for this failure was not anomalous, and the extreme high grade of the blank assay suggests that a CRM was mistakenly submitted rather than a blank. This, however, cannot be proven. Regardless, the low failure rate does not indicate a systematic contamination issue in the analytical phase of the assaying process.

For the 2022 drill campaign, Ensign used prepared pulps of OREAS 22h for blank material. Bureau Veritas, the assayer of the 2022 drilling, used OREAS 22f as blanks for its internal quality control. The detection limit reported by Bureau Veritas was 0.005 ppm gold, so the criterion for a blank failure, six times the detection limit, would be a reading of 0.03 ppm Au. Of the 106 internal blank samples reported by Bureau Veritas, 12 were reported as above detection, but only two were above 0.01 ppm, the highest being less than 0.02 ppm (Figure 11.10). Of the 42 blanks submitted by Ensign, only two reached twice the detection limit, or 0.01 ppm (Figure 11.11). In summary, there were no blank failures during the 2022 campaign.

Figure 11.7 Coarse Blank and Preceding Sample Gold Analyses – 2020 Drill Program

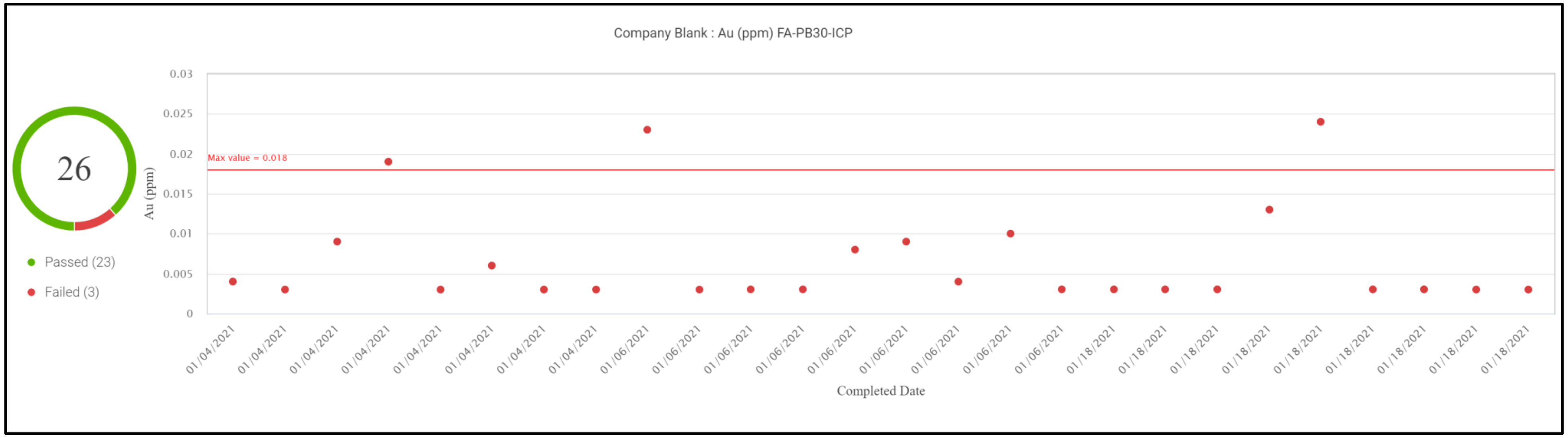


Figure 11.8 OREAS 22f Pulp Blank from ALS – 2021 Drill Program

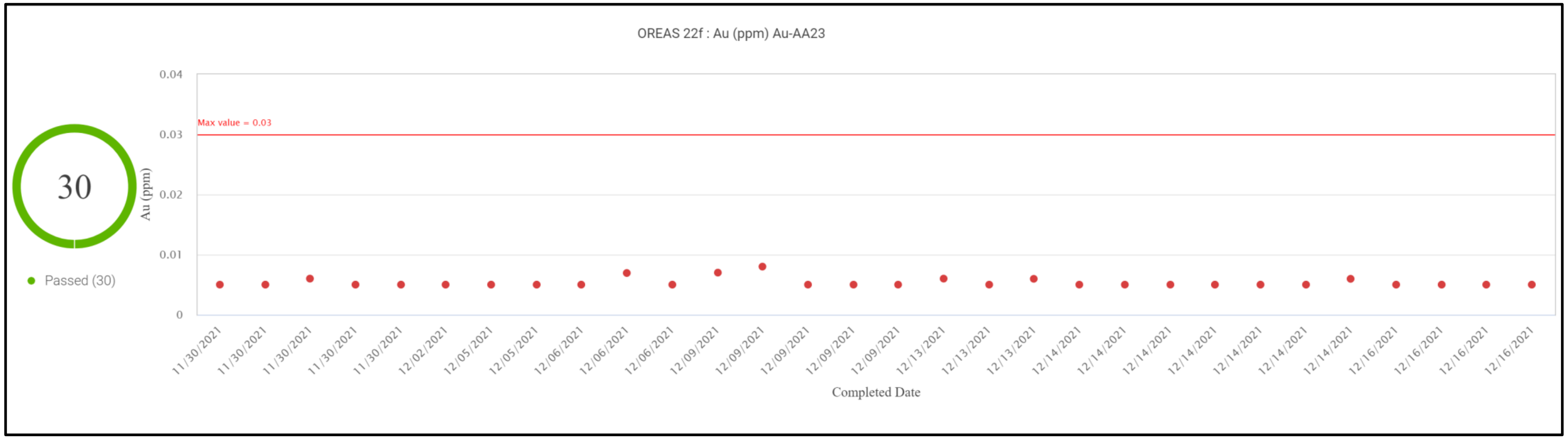


Figure 11.9 OREAS 22h Pulp Blank from ALS – 2021 Drill Program

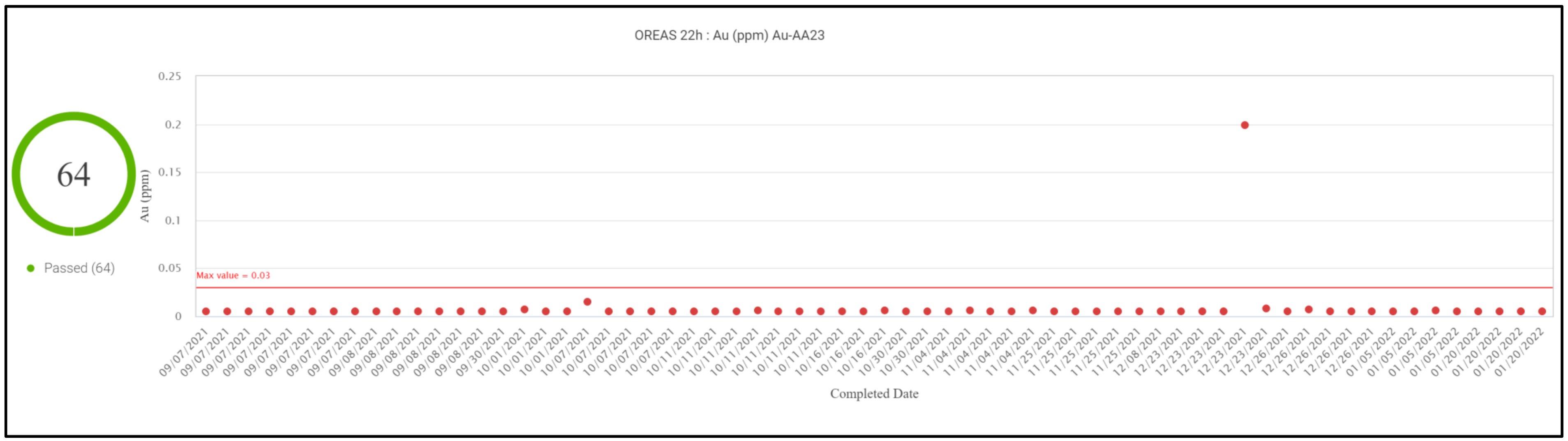


Figure 11.10 OREAS 22f Pulp Blank from BV – 2022 Drill Program

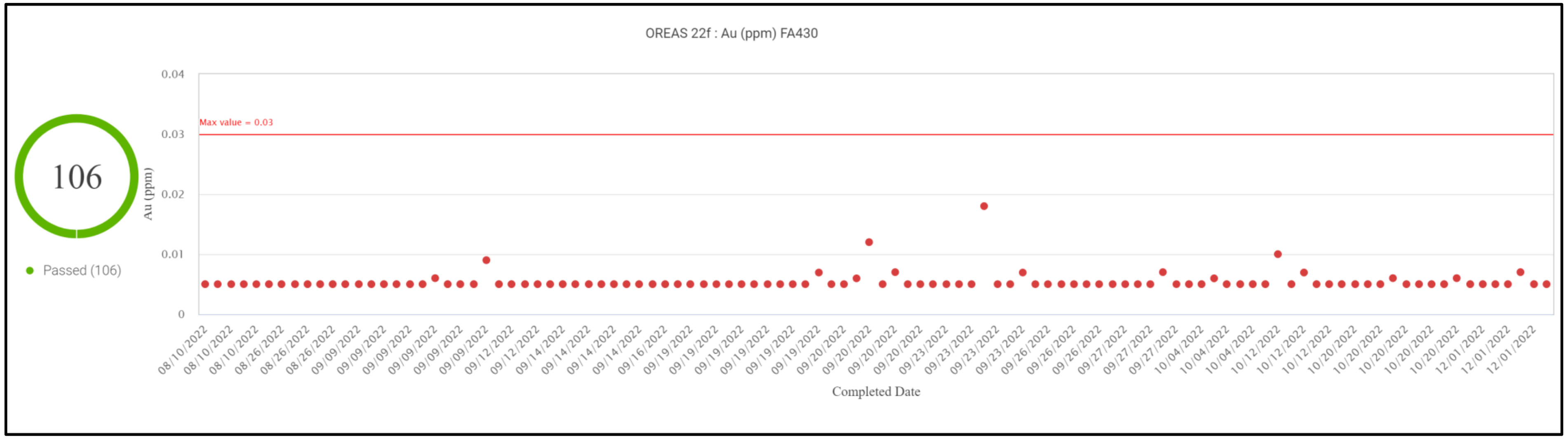
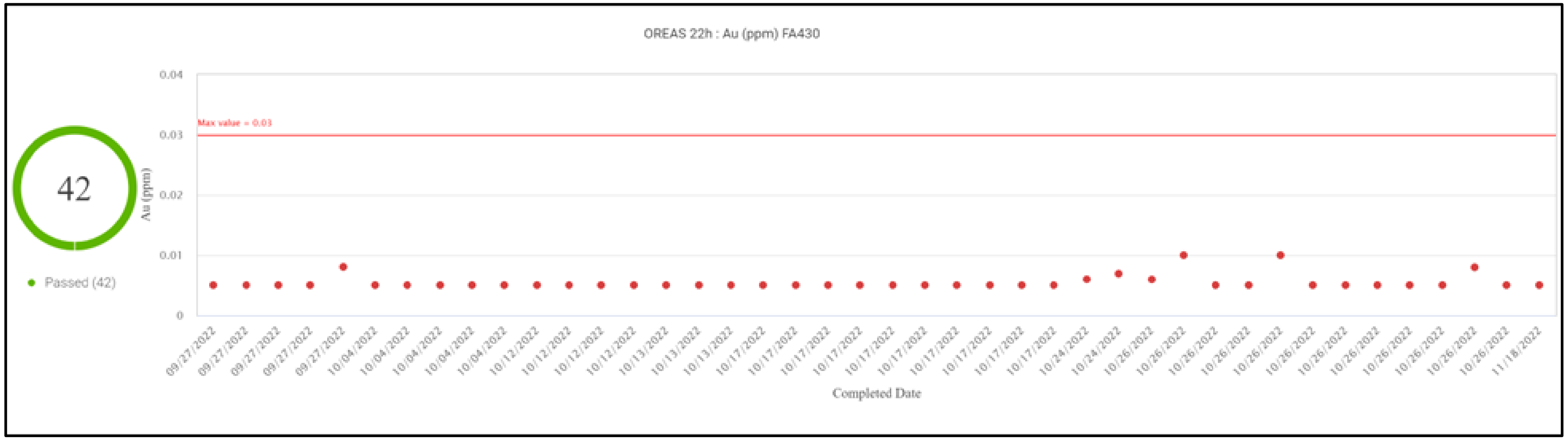


Figure 11.11 OREAS 22h Pulp Blank from BV – 2022 Drill Program



11.4.2.1 Duplicates

Field duplicates were collected at the drill rig throughout the 2020, 2021 and 2022 programs. Log-log scatter plots for the AAL 2020, ALS 2021 and BV 2022 field duplicates and originals are shown in Figure 12.AAL 2020, ALS 2021 and BV 2022 field duplicates and originals are shown in Figure 12.

Figure 13 and Figure 11.14, respectively. The data on the ALS chart indicate low variability and only a very slight average difference between original and duplicate samples. More variability and a somewhat higher average difference of original assay grades greater than duplicate grades is apparent on the AAL chart. In general, the variability in field duplicate data provides a measure of the inherent heterogeneity of gold in the Mercur deposit. The relatively higher average difference in the AAL data could indicate a sample splitting issue at the drill rig but is within the range of uncertainty of the sampling and assay processes.

Figure 11.12 Log-Log Scatter Plot of AAL 2020 Field Duplicates

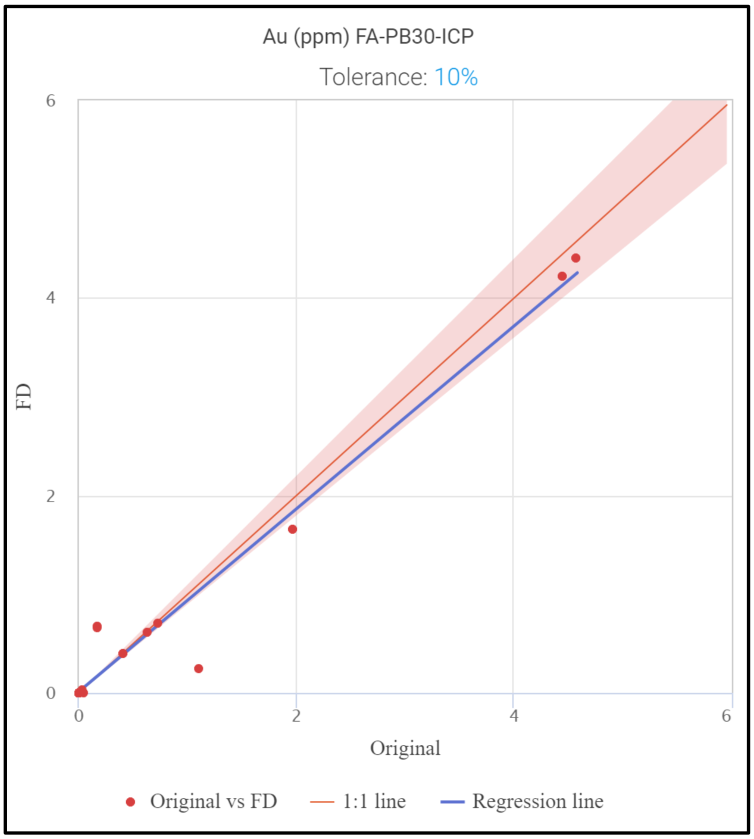


Figure 11.13 Log-Log Scatter Plot of ALS 2021 Field Duplicates

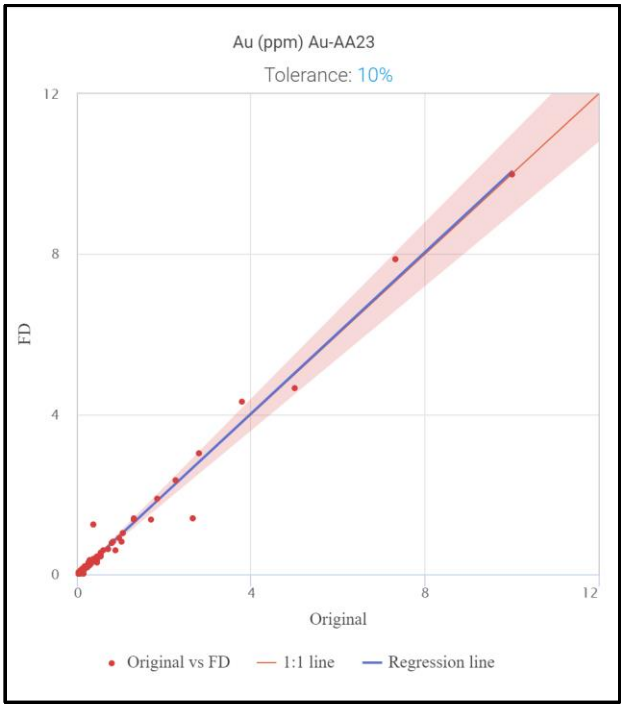
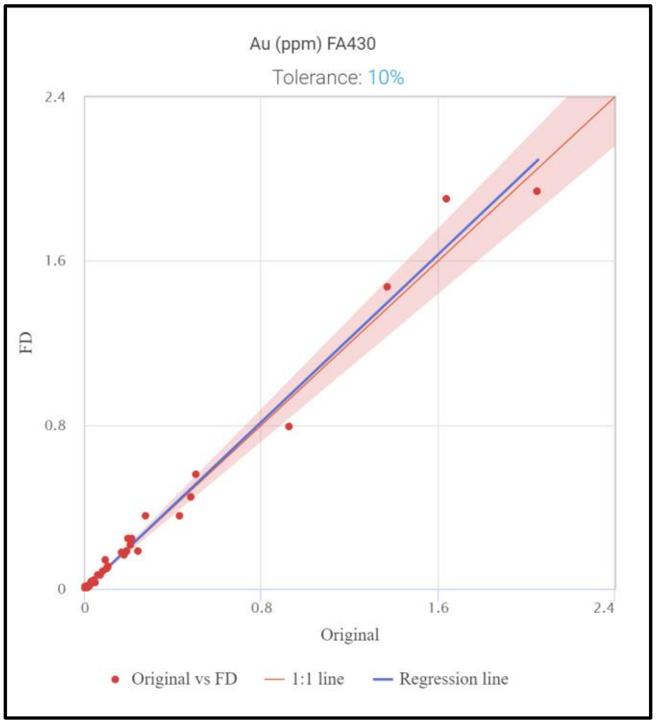


Figure 11.14 Log-Log Scatter Plot of BV 2022 Field Duplicates



11.4.3 Discussion of QA/QC Results and Summary Statement

11.4.3.1 Ensign Drilling

Many of Ensign's inserted CRMs in 2020 may have been compromised by becoming wet and produced possible false failures. However, Mr. Davis believes the results which were reported by AAL can be relied upon because the internal checks performed by AAL supported the initial assays, and the re-assay of 71 sample pulps associated with the possibly compromised CRMs yielded similar results. The values reported by AAL for the MEG standards averaged lower than certified values, so it is unlikely that higher than true values were reported. Other aspects of the RC drilling and sampling program were well within current industry standards and resulted in data which can be relied upon in the opinion of Mr. Davis.

There was a high failure rate associated with the 2020 coarse blank assays, and because grades of the preceding samples exceeded 2g/t Au, some contamination during sample preparation is indicated. However, the failed coarse blank assays are well below potentially economic grades, indicating no practically significant effects. Also, the coarse blanks were not certified, and it is possible that the gravels contained higher than background levels of gold. Ensign discontinued use of the Company Blank material following the 2020 drill program. There was a single failure in the 2021 pulp blank assays.

Field duplicate assay pairs showed some expected variability. However, no systematic bias between original and duplicate assays was noted.

Ensign's 2020 to 2022 drill program gold assays are sufficiently well controlled to support the estimation of Inferred resources. Mr. Davis recommends Ensign's QA/QC program include the use of coarse blanks, to monitor and control possible contamination during sample preparation. The QP recommends that a check sampling program of gold values be initiated with a minimum of 3% of pulps of drill samples being sent to another reliable lab for check assays, using a fire assay with an AA finish. The check assay program should be controlled with the usual suite of QC sample insertions.

11.4.3.2 Data from Previous Operators

While historical drill results cannot be verified by the availability of QA/QC data, those results supported a successful mining operation run by a major gold producer. Further, spatial statistical comparisons (as described in Section 14) of historic and Ensign drill results show good agreement between the two sets of data. Mr. Davis believes the historic drill data in combination with the Ensign drill results are adequate to support the estimation of Inferred mineral resources.

It is the opinion of the QP that sample preparation, sample security, and analytical procedures are adequate to support the estimation of Inferred mineral resources.

12.0 DATA VERIFICATION (ITEM 12)

Data verification, as defined in NI 43-101, is the process of confirming that data has been generated with proper procedures, has been accurately transcribed from the original source and is suitable to be used. Mr. Davis has verified the Mercur Project database to the extent possible given the availability of supporting documentation.

The historical information available to Mr. Davis is electronic records in the form of spreadsheets and electronic images of paper records. Few original digital or paper certificates of assays or other data were available for review. There is no storage facility where cuttings, core, coarse rejects, pulps or other materials are available to be retested.

12.1 Drill-Hole Data Verification

12.1.1 Collar Coordinate Data

The Getty and Barrick drill-hole collar locations at Main Mercur were surveyed by contracted and in-house professional surveyors using a local grid system. Documentation for the collar coordinates in the drill-hole database is sparse.

Because the original datum, projection and precise base point for the local Mercur Mine grid was not known, an ArcGIS projection was developed by Barrick, and is currently used by Ensign to convert between the global and local coordinate systems.

Ensign has applied several methods to verify the locations of pre-Ensign holes at South Mercur and West Mercur, with some success by georeferencing maps with drill hole locations to section corners, and visible features in LiDAR and aerial imagery. From the initial georeferenced locations, positions of drill holes were adjusted if they deviated from obvious drilling-related ground disturbance in LiDAR and aerial imagery. In addition, more obvious errors in some locations due to presumed typographical errors were corrected. Based on Ensign's refined and corrected locations, drill hole collars and evidence of historical drilling can be found in the field at the expected locations, and the data from these drill holes can be used with confidence.

Most of the drill-hole collars at Main Mercur have been obscured by subsequent mining and reclamation. However, as noted above for South and West Mercur, Ensign's plots of the Main Mercur drill holes outside reclaimed areas using the ArcGIS projection show reasonable correlation with field evidence of old roads and drill pads.

The accuracy of historic drill-hole locations for the Mercur Project will be sufficient to estimate Inferred mineral resources. For purposes of developing higher classification resources, Mr. Davis recommends an effort to recover the definition of both the Mercur Mine and South Mercur grids, and to have a professional surveyor survey the known drill holes and old control points with modern equipment in the UTM system, NAD83 datum. Old mine and exploration records should also be searched for any additional documentation that would support collar coordinate, down-hole survey, assay, and other drill-hole data.

12.1.2 Down-Hole Survey Data

Down-hole surveys were not commonly done by previous operators in the Mercur Project area.

Mr. Lunbeck compared Ensign's 2021 down-hole survey data in the Ensign database with surveys accessed directly from the Reflex website (Lindholm et al., 2022). No differences were found.

12.1.3 Drill Hole Assay Data

12.1.3.1 Historical Drilling

Mr. Lunbeck located and reviewed copies of original assay certificates from Bondar-Clegg and Rocky Mountain Geochemical for the South Mercur data (Lindholm et al., 2022). Mr. Davis has reviewed Mr. Lunbeck's verification and accepts responsibility for the work. Secondary sources, such as hand-written assays on various forms, were reviewed as well. These records were compared to Ensign's assay database, with the results summarized below.

Assay certificates for 28 of 54 total (52%) of the 1986 drill holes were available to verify data in Ensign's database. Drill hole names were hand-written on the Bondar-Clegg assay certificates, and two hole identifications were entered on drill logs, one of which is currently used in the database, the other submitted to Bondar-Clegg. In hole 86-117, the database assay did not match the certificate assay for one interval. Ensign corrected this error.

For the 1988 drilling program, extant copies of assay certificates show that samples were assayed either at Bondar-Clegg of Sparks, Nevada or Rocky Mountain Geochemical of Salt Lake City, Utah. Mr. Lunbeck audited 18 drill holes and verified that the values in Ensign's database match the assays on certificates without error (Lindholm et al., 2022).

There are no copies of assay certificates for the Homestake drilling conducted during 1981 and early 1982 at South Mercur. Gold values were entered onto assay data forms that did not originate from a commercial lab, and "Hunter" was noted as the lab used. The data on these forms were compared to the values in the database. No discrepancies were noted in any of the holes from HMC-81-001 through HMC-82-53.

Rocky Mountain Geochemical, and Chemical and Mineralogical Services ("CMS") assay certificates from the 1981 drilling by Getty in the West Mercur area were in Ensign's files. These certificates were compared to values in the database for 10 holes of 19 holes (53%), and no errors were found.

No collar, assay or any other data is available for the holes drilled in the North Mercur area.

For Main Mercur, Ensign personnel compared the digital spreadsheet of gold analyses provided by Barrick with paper copies of the historical fire assay (FA) certificates in a data room at a law firm in Salt Lake City. All historical certificates found were reviewed, a point sample was taken and entered into a spreadsheet to check the FA data. This point sample was compared to Ensign's MX Deposit historical database for consistency. The only assays considered were those that had gold values greater than or equal to 0.001oz Au/ton (0.034g/t Au). It was found that there was less than 1% discrepancy between the historical database and the certificates.

12.1.3.2 Verification of 2020 – 2022 Drill-Hole Data

For the 2020 and 2021 drilling, Mr. Lunbeck independently conducted audits of Ensign's assay data. To verify the existing Ensign database, certificates from AAL and ALS labs were obtained and compiled. ALS certificates (44 out of the 50 total) were downloaded directly from the laboratory. AAL certificates were supplied in both PDF and Excel format by Ensign personnel. The compiled certificate data was compared to the assay database supplied by Ensign. The only material issue found was in the values assigned for below detection limit assays. Ensign's database contained the full value of the detection limit, however, these were re-assigned as half the detection limit to distinguish from real assays. No other issues were discovered (Lindholm et al., 2022).

Mr. Davis independently verified the database from 2022 drilling that was assayed at Bureau Veritas (BV). Ten percent of the holes drilled in 2022 were selected at random. BV assay certificates were supplied in both PDF and EXCEL format by Ensign personnel. The compiled certificate data was compared to the assay database. No material differences were discovered.

12.1.4 Geology

During the May 2021 site visit, Mr. Lindholm was able to verify in a general manner the overall geology in most of the major areas of the Mercur Property. The general stratigraphy, lithology, alteration, oxidation, and structure were observed on a regional, property and local scale. This provides some verification of depictions in Barrick, Ensign, and other published maps and reports. The general alteration and other geological characteristics associated with precious-metal mineralization were observed in pits, on underground mine dumps, and outcrops throughout the property (Lindholm et al., 2022). Mr. Davis verified the geology in the October 2022 site visit and accepts responsibility for Mr. Lunbeck's work.

12.2 Independent Personal Site Inspections

Mr. Lindholm visited the Mercur Project on May 17 and 18, 2021, accompanied by geological personnel and consultants of Ensign. Mr. Kevin Hamatake with Barrick also accompanied the group for a portion of the site visit. Altered and mineralized rocks associated with Barrick's open pit mining and gold production at Main Mercur were examined on the first day. Also observed were the tailings impoundment facility, the remaining infrastructure, and the current state of reclamation at the mine site. The next day, the geology and remnants of historical mining were examined at South Mercur and West Mercur. The North Mercur area of the property was not visited due to snow cover.

Mr. Davis visited the Mercur property on October 12, 2022. He inspected drill core, reverse circulation samples, and sampling equipment. He reviewed drill practices and viewed reverse circulation drill set up, operation and sampling. He viewed outcrop and reviewed geological models and assay QA/QC practice. He verified Ensign drill hole locations.

12.3 Independent Verification of Mineralization

Mr. Lunbeck and Mr. Lindholm collected a number of confirmation samples from West and South Mercur during the various site visits since 2017. The purpose of the sampling was not to duplicate values of existing rock chip or other assays, but rather to confirm that gold exists on Ensign's property outside Barrick's historical production. The samples are not intended to be representative of a particular volume of material but were collected from alteration types most likely to contain gold at the highest levels in a given area.

On May 16, 2017, Mr. Lunbeck collected 16 samples from outcrops and dumps to confirm the presence of gold mineralization in the West Mercur area (Lunbeck, 2019; Lindholm et al., 2022). These samples were shipped by UPS from Salt Lake City to the ALS preparation laboratory in Elko, Nevada. After preparation, pulps were shipped to North Vancouver, British Columbia, where gold was determined by a 30-gram fire assay with AA finish. Trace elements (As, Hg, Sb, Tl) were analyzed by ICP following aqua regia digestion. The results of this sampling are listed in Table 12.1. Mr. Lindholm has reviewed Mr. Lunbeck's confirmation sampling procedures and results at West and South Mercur and takes responsibility for the work.

Table 12.1 2017 Verification Sample Results - West Mercur

(coordinates given in UTM NAD 83 meters projection)

		Lunbeck GPS Sample Site							
Sample Number	Type	Easting (m)	Northing (m)	Au (ppm)	Ag (ppm)	As (ppm)	Hg (ppm)	Sb (ppm)	Tl (ppm)
301	Grab, 1m	390828	4464920	0.035	0.21	154.5	1.12	1.66	7.12
302	Dump	390822	4464924	0.150	0.18	524	3.25	6.6	9.35
303	Grab, 0.3m	390836	4464942	0.714	0.31	6450	10.45	183	58.4
304	Grab, 0.3m	390924	4464681	0.512	0.31	939	2.56	74.4	22.1
305	Grab, float	390926	4464662	0.218	0.45	1460	5.75	138	12.2
306	Dump	390815	4464776	17.700	0.58	244	20.2	111	1.78
307	Dump	390818	4464784	0.496	0.18	299	8.24	9.98	1.08
308	Grab, float	390777	4465155	1.330	0.80	3070	22.4	277	4.59
309	Grab, float	390774	4465149	1.950	0.83	2390	21.4	288	3.63
310	Grab, float	390792	4465069	1.215	2.39	1450	7.03	274	4.04
311	Dump	391785	4463341	3.230	0.11	611	10.7	67.5	7.95
312	Dump	391506	4463559	0.066	0.16	524	2.64	16.65	11.05
313	Dump	391523	4463578	2.900	0.06	1745	22.3	57.3	18.6
314	Dump	391980	4462915	0.165	0.56	169	1.06	1.8	1.33
315	Dump	392156	4462555	0.050	0.17	231	0.667	1.96	2.8
316	Grab, outcrop	393355	4462371	1.120	0.23	15.6	3.47	2.62	0.8

Mr. Lindholm collected six confirmation samples during the site visit on May 18 and 19, 2021, including four samples at South Mercur and two at West Mercur. These samples remained in Mr. Lindholm's control from the time of sampling to submittal to ALS in Reno, Nevada. Gold was determined by a 30-gram fire assay with AA finish, and silver was analyzed by ICP-AES following aqua regia digestion. Assay results and GPS-determined locations of the samples are given in Table 12.2.

Table 12.2 2021 Verification Sample Results – West and South Mercur

		Lindholm GPS Sample Site				
Sample Number*	**Type and Location**	**Easting (m)**	**Northing (m)**	**Elevation (m)**	**Au (ppm)**	**Ag (ppm)**
SM-01	Outcrop	398,239	4,458,582	1833.7	0.25	<0.2
SM-02	Dump, Sunshine Mine	398,268	4,458,538	1836.7	1.06	0.2
SM-03	Outcrop	398,525	4,459,385	1891.0	0.65	4.1
SM-04	Dump, Overland Mine	398,599	4,459,372	1907.8	8.76	0.2
WM-01	Outcrop, Anomaly B	393,416	4,462,434	1793.8	1.34	0.8
WM-02	Dump, Daisy Mine	391,779	4,463,239	1729.1	2.75	0.2
* - SM - South Mercur; WM - West Mercur; coordinates in UTM NAD 83 meters projection						

The North Mercur area was visited by Mr. Lunbeck on October 15, 2021, and four rock samples were collected to independently confirm the existence of gold mineralization (Lindholm et al., 2022). Select analytical results are presented in Table 12.3. Mr. Lindholm has reviewed Mr. Lunbeck's confirmation sampling procedures and results at North Mercur, and takes responsibility for the work. The samples confirm the presence of gold at North Mercur; however, the elevated silver, lead and zinc values are not common in the typical geochemical assemblage for Carlin-type deposits. The geology is similar to Main Mercur, and it is postulated that the geochemistry at North Mercur represents a zonation of a distal halo or shallow expression of Carlin-type gold mineralization.

Table 12.3 2021 Verification Sample Results – North Mercur

(coordinates given in UTM NAD 83 meters projection)

		Lunbeck GPS Sample Site							
Sample Number	**Type**	**Easting (m)**	**Northing (m)**	**Au (ppm)**	**Ag (ppm)**	**As (ppm)**	**Sb (ppm)**	**Pb (ppm)**	**Zn (ppm)**
NM401	Float grab	394,542	4,467,820	0.123	11.4	155	258	13	17
NM402	Dump grab	394,552	4,467,800	3.640	1640.0	2,400	4,550	7,590	4,320

NM403	Dump grab	394,560	4,467,790	0.843	317.0	908	772	2,520	5,430
NM404	Dump grab	394,588	4,467,804	0.360	27.8	592	244	224	2,330

Gold and silver production from the historical underground mines in all areas of the Mercur Project, and more recent open-pit operations at Main Mercur, is well documented in both private historical records and public documents. The abundance of evidence of significant mining is readily apparent and indicates that precious metals mineralization has existed and could still be present. This was confirmed by sampling at West and South Mercur. In the opinion of the QPs, independent sampling for the purposes of verifying the Main Mercur mineralization is not needed, as past mining and production is sufficient confirmation that gold was present in the district.

12.4 GPS Field Collar Checks

During the May 2021 Mercur site visit, Mr. Lindholm took GPS measurements on 15 drill pads, or suspected drill pads, to spot-check coordinates in Ensign's collar tables (Table 12.4). Field measurements and collars coordinates in the database were taken in NAD83 meters for comparison in Table 12.4. Direct evidence of drill holes, such as concrete plugs, drill pipe or open holes, were found at eight sites. Five sites had drill hole identifications marked in some way, of which two were Ensign holes. The remainder of the sites were suspected or determined to be pads using less direct evidence, such as the presence of cuttings, or level spots likely constructed for no other reason than for drilling. Where no drill-hole identification was found at the site, the closest drill collar in the database was used for comparison. This gives the best-case, though unconfirmed, comparisons in Table 12.4. Reclamation, recontouring and reseeding, particularly in the Main Mercur area, has covered or destroyed a significant number of historical drill sites so that physical evidence of holes could not be located.

Table 12.4 Verification GPS Checks of Ensign's and Historic Drill Collars at the Mercur Project

	Author's GPS Site				Nearest Collar in Database		Difference - Author's vs Database		
Drill Hole	Easting (m)	Northing (m)	Elevation (m)	Easting (m)	Northing (m)	Elevation (m)	Easting (m)	Northing (m)	Elevation (m)
SCG-14	397197	4463008	2215.0	397197.2	4463007.4	2212.5	0.2	-0.6	-2.4
EXP92-13	397407	4462764	2270.8	397408.2	4462764.2	2271.5	1.2	0.2	0.7
96-23	397051	4463121	2129.6	397043.4	4463121.8	2130.6	-7.6	0.8	0.9
EXP92-4	396354	4465295	2218.0	396352.1	4465297.3	2219.6	-1.9	2.3	1.6
RC-10	396513	4465504	2226.3	396515.4	4465504.6	2227.2	2.4	0.6	0.9
EXP92-18	396703	4465314	2205.8	396705.6	4465310.0	2207.1	2.6	-4.0	1.2

	Author's GPS Site				Nearest Collar in Database		Difference - Author's vs Database		
SM-20-004	398287	4458728	1844.0	398288.3	4458726.2	1844.0	1.3	-1.8	0.0
87-167	398312	4458673	1859.3	398311.0	4458670.0	1853.7	-1.0	-3.0	-5.6
86-128	398292	4458612	1849.5	398291.0	4458612.0	1846.8	-1.0	0.0	-2.7
SM-20-003	398563	4459390	1893.1	398565.6	4459392.8	1891.2	2.6	2.8	-1.9
86-143	398559	4459397	1882.4	398563.0	4459394.0	1891.4	4.0	-3.0	9.0
WM-001	393376	4462649	1785.5	393374.8	4462649.6	1783.1	-1.2	0.6	-2.4
WDS-1	393486	4462390	1807.2	393487.8	4462389.8	1808.1	1.8	-0.2	0.9
WD-7	390789	4464920	1728.5	390790.6	4464933.6	1731.8	1.6	13.6	3.3
WD-82-14	390691	4464959	1729.1	390715.0	4464989.9	1730.2	24.0	30.9	1.1

A Garmin eTrex - Legend non-differential GPS was used to measure coordinates at the drill sites and pads. The Garmin website indicates it is accurate to within "3-5 meters (10-16 ft), 95% typical with DGPS corrections, <15 meters (49 ft) RMS, 95% typical". The overall results were good for most holes and suspected pads, drill sites and inferred collar locations, especially considering the exact locations of the collars on the pads were not known for half the sites. Most measured coordinates were within an expected range of the non-differential GPS accuracy as compared to the database coordinates. For the collar check with the largest discrepancy, it is possible that the PVC pipe found and measured for WD-82-14 was not the actual drill collar, and that the actual location was in an adjacent reseeded area.

On April 21, 2022, Mr. Lunbeck visited the Mercur Project and took additional hand-held GPS coordinates on recent Ensign drill-hole collars to verify the general accuracy of the location northings and eastings in the Ensign database (Lindholm et al., 2022). A total of 31 drill holes were located and surveyed with a Garmin eTrex non-differential GPS using the NAD83 datum in the UTM system. Measurements were taken approximately one meter above ground surface, directly over the hole collar in each case. Claimed accuracy for the GPS is three to five meters with 95% of measurements accurate to within 15m. Steep terrain is known to significantly degrade the accuracy of non-differential GPS receivers, particularly the elevations. The results are presented in Table 12.5. Mr. Lindholm has reviewed Mr. Lunbeck's GPS collar check data, and takes responsibility for the work.

Table 12.5 Verification GPS Checks of Ensign's Drill Collars at the Mercur Project

	Author's GPS Site			Ensign Database			Difference - Author's vs Database		
Drill Hole	Easting (m)	Northing (m)	Elevation (m)	Easting (m)	Northing (m)	Elevation (m)	Easting (m)	Northing (m)	Elevation (m)
EN001	397505	4464367	2090.9	397504	4464367	2083.0	-1	0	-7.9
EN002	397526	4464287	2083.6	397524	4464287	2078.1	-2	0	-5.4
EN004	397577	4464195	2083.4	397578	4464196	2079.3	1	1	-4.0
EN005	397352	4464564	2077.7	397352	4464568	2072.9	0	4	-4.7
EN006	397584	4464342	2109.2	397582	4464343	2101.3	-2	1	-7.9
EN008	397460	4463715	2133.8	397457	4463716	2123.5	-3	1	-10.3
EN009	397188	4463424	2119.0	397208	4463414	2109.5	20	-10	-9.5
EN011	397342	4463283	2147.6	397339	4463281	2141.2	-3	-2	-6.4
EN012	397331	4463214	2162.1	397326	4463214	2151.0	-5	0	-11.2
EN014	397376	4463368	2131.0	397372	4463369	2121.1	-4	1	-9.9
EN021	397459	4463488	2148.6	397461	4463489	2137.3	2	1	-11.3
EN022	397263	4463418	2119.2	397262	4463418	2110.1	-1	0	-9.1
EN025	397314	4463163	2179.1	397313	4463162	2170.8	-1	-1	-8.3
EN026	397259	4463874	2115.2	397256	4463875	2106.5	-3	1	-8.8
EN027	397336	4463785	2116.9	397336	4463787	2113.2	0	2	-3.7
EN028	397332	4463761	2117.9	397329	4463763	2113.8	-3	2	-4.1
EN029	397335	4463714	2120.1	397335	4463714	2114.7	0	0	-5.4
EN030	397342	4463668	2122.1	397341	4463668	2115.0	-1	0	-7.1
EN031	397358	4463258	2155.3	397354	4463257	2145.2	-4	-1	-10.1
EN034	397141	4464624	2087.7	397140	4464626	2085.1	-1	2	-2.6
EN039	397306	4464439	2072.3	397305	4464442	2060.5	-1	3	-11.8
EN040	397306	4464438	2072.2	397305	4464441	2060.5	-1	3	-11.7
EN041	397309	4464445	2073.2	397310	4464447	2060.8	1	2	-12.4
EN042	397556	4464401	2104.4	397555	4464402	2094.0	-1	1	-10.4
EN044	397685	4464048	2083.0	397684	4464050	2071.7	-1	2	-11.3

	Author's GPS Site			Ensign Database			Difference - Author's vs Database		
Drill Hole	Easting (m)	Northing (m)	Elevation (m)	Easting (m)	Northing (m)	Elevation (m)	Easting (m)	Northing (m)	Elevation (m)
EN046	397677	4464050	2083.0	397676	4464051	2075.7	-1	1	-7.3
EN047	397641	4464109	2083.2	397642	4464109	2075.4	1	0	-7.8
EN049	397605	4464146	2083.1	397607	4464144	2074.2	2	-2	-9.0
EN050	397615	4464144	2083.1	397607	4464142	2074.2	-8	-2	-9.0
WM002	390882	4464559	1719.1	390892	4464556	1712.1	10	-3	-7.0
WM003	390853	4464556	1716.4	390858	4464550	1704.7	5	-6	-11.7

With one exception, results obtained with the eTrex match the Ensign data within the accuracy limitations of the hand-held GPS receiver. Despite the relatively steep terrain, GPS elevations are within 12m of the formal surveying. The cause of large discrepancy in eastings and northings for EN009 is not known.

These exercises verify the existence and rough location of the historical drilling in the database. Results add confidence in collar data. Supporting documentation from original collar surveys, or resurvey of any old holes remains critical to provide a higher level of confidence.

12.5 Summary Statement

The authors experienced no limitations with respect to data verification activities related to the Mercur Project. In consideration of the information summarized in this and other sections of this report, Mr. Davis has verified that the Mercur Project data are acceptable as used in this report for the estimation of Inferred mineral resources.

Mr. Davis recommends continuing investigations be made to verify historical data to allow the estimation of higher-class mineral resources.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING (ITEM 13)

13.1 Introduction

The Getty/Barrick Mercur mine operated between 1983 and 1998, producing 1,490,000 ounces of gold by three flowsheet processes. The mineralization at the Mercur mine has fine gold particles associated with oxide, sulfide and carbonaceous minerals. The oxidation profile in the deposits is complex with influence from bottom up fluid movement and structural disruption. A carbon-in-leach (CIL) process plant was built and commissioned in 1983 at the mine site to process the higher grade free milling oxide ores. This CIL process plant was operated until 1997. During this period, a dump leach for the low-grade materials also operated from 1985 to 1998. In 1988, a pressure oxidation (POX) plant was installed to treat the refractory sulfide materials. After pressure oxidation, the slurry was cooled down and then sent to the CIL circuit for gold recovery. This POX plant was operated until February 1996 (see Tables 6.2, 6.3 and 6.4 of this Technical Report).

As is illustrated in Table 13.1, the historical operations that treated these different types of materials report that less than 8% of the tonnes processed and less than 10% of the gold produced at the property were treated through the (POX) flowsheet for preg-robbing and refractory ores, with the balance being treated in the Dump Leach or (CIL) flowsheets.

Mineral exploration at the Mercur Project was continued in recent years by Ensign Minerals Inc. During 2022 and 2023, a metallurgical testwork program was carried out jointly by Bureau Veritas Minerals in Richmond, British Columbia, Canada and ALS Metallurgy in Kamloops, British Columbia, Canada.

13.2 Historical Production and Performance

Table 13.1 summarizes production data of Mercur historical operations from 1983 to 1995 (Barrick, 1996) or about 92% of the ounces of gold recovered by Getty and Barrick between 1983 and 1998. It should be pointed out that some historical data in the available documentation were not fully reconcilable from each other. As a result, some numbers in Table 13.1 may have a small discrepancy when compared with the numbers in the available documentation, subject to which numbers and tables are being used for comparison.

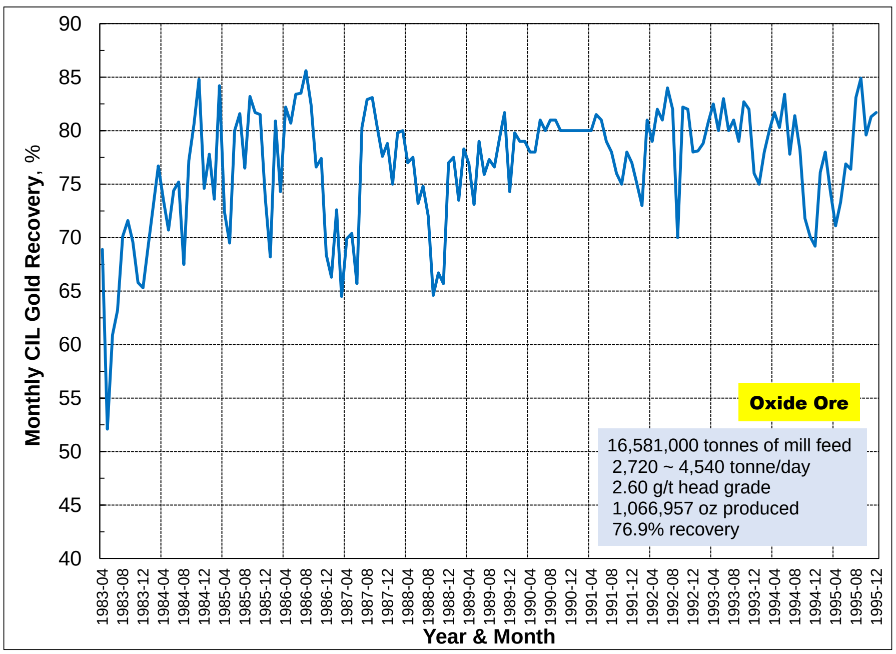
Table 13.1 Gold Production Data of Mercur Historical Operations from 1983 to 1995

		CIL for Oxide Material	POX + CIL for Refractory Material	Dump Leach for Low-Grade Material
Years of Operation		1983 ~ 1995	1988 ~ 1995	1985 ~ 1995
Gold Production	oz	1,066,957	130,795	161,444
Ore Tonnage	tonne	16,581,000	2,134,000	8,576,000
Gold Grade	g/t	2.60	2.55	1.19
Gold Recovery	%	76.9	74.6	49.2

Recent production at the Mercur mine started in 1983 with a (CIL) process plant to treat the oxide materials with mill throughput of initially 2,722 tonne/day and later expanded to 4,536 tonne/day. Because of the potential for preg-robbing materials present in a small portion of the ore, a high-level activated carbon concentration (40 g/L) was applied in the CIL circuit. Sodium cyanide consumption was modest at 0.60 kg/tonne. Gold recovery was variable (Figure 13.1) and was 76.9% on average.

Figure 13.1 Historical Monthly Gold Recovery from CIL Cyanide Leach of Oxide Materials from 1983 to 1995

(from Ensign, Ji, 2023)



CIL recovery for the refractory sulfide materials after pressure oxidation was also highly variable (**Error! Reference source not found.**) and did not have a consistent correlation with gold head grade (**Error! Reference source not found.**). Gold recovery averaged 74.6% for the pressure-oxidized sulfide materials.

Figure 13.2 Historical Monthly Gold Recovery from CIL Cyanide Leach of Sulfide Materials after POX from 1983 to 1995

(from Ensign, Ji, 2023)

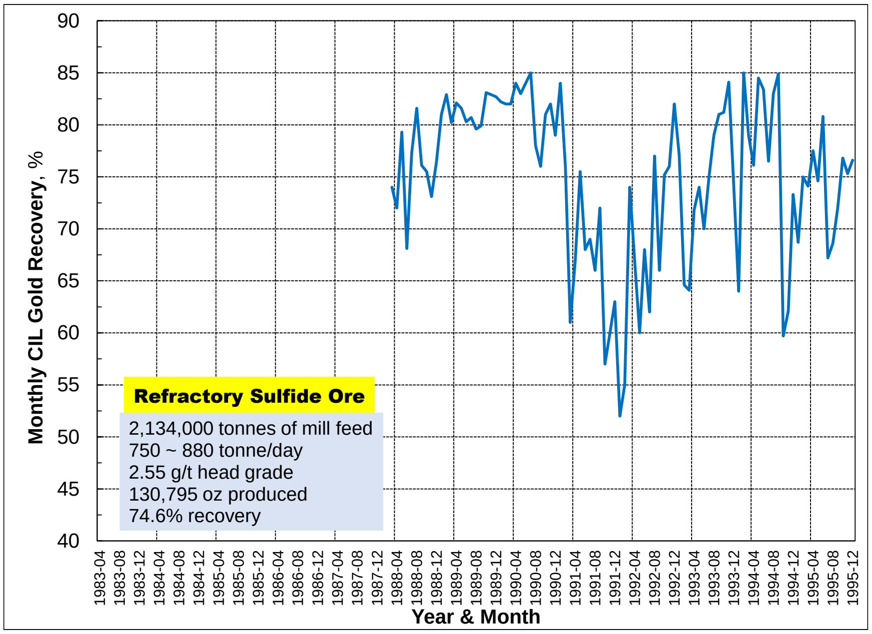
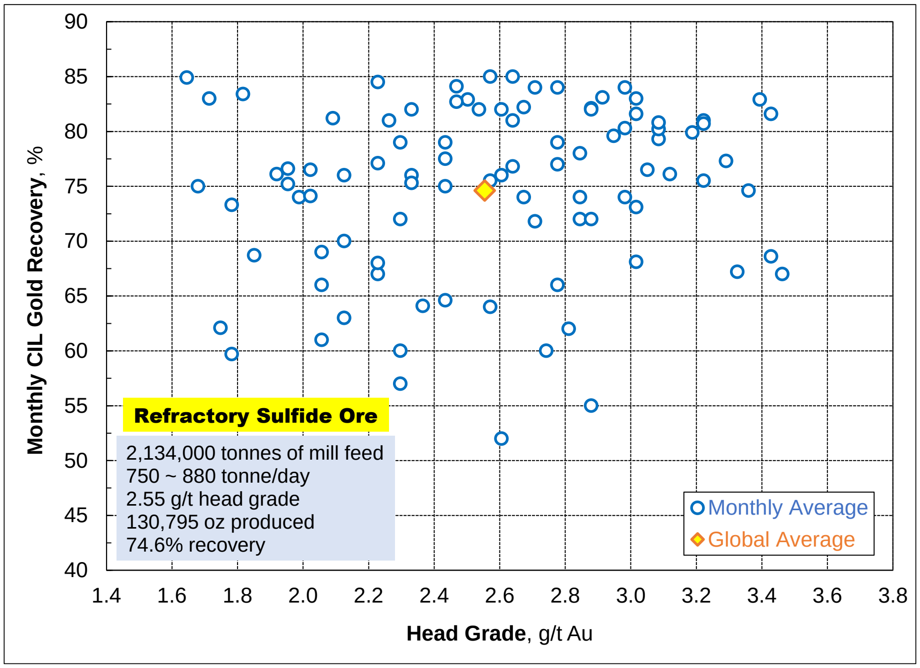


Figure 13.3 Historical Monthly CIL Recovery as a Function of Head Grade for Sulfide Materials after POX

(from Ensign, Ji, 2023)



A dump leach was operated for the low-grade materials from 1985 to 1998. Three dumps were utilized for this purpose. It is understood that these low-grade materials had a lower extent of preg-robbing and also a lower sulfide content. Tonnage, head grade and gold recovery are summarized in **Error! Reference source not found.**. Average head grade was 1.19 g/t and average gold recovery was 49.2%, representative of the direct dumping operation and uncrushed particle size. Sodium cyanide consumption was 0.51 kg/t on average.

Table 13.2 Production data of Mercur historical dump leach operation from 1983 to 1995

		Area #1	Area #2	Area #3	Total
Quantity	tonne	362,309	4,016,307	4,196,980	**8,575,596**
Head Grade	g/t	1.41	1.27	1.10	**1.19**
Gold Recovery	%	38.0	48.8	50.8	**49.2**
Gold Production	oz	6,229	80,275	74,940	**161,444**

13.3 Ensign Metallurgical Testwork

Since Ensign has operated the Mercur Project, pulps from the mineralized drill samples have been subjected to cyanide soluble gold assays by American Assay Laboratories and Bureau Veritas. The cyanide soluble gold assay is a direct “cyanide shake” leachability test for rapid determination of potential gold recovery. The results, however, are indicative only. Generally, the sample is pulverized to 80% – 85% passing 75 µm, a concentrated cyanide solution (2 – 3 g/L NaCN) is applied, and shaking time is 1 – 2 hours in a closed test tube or a bottle.

In 2022, a scoping-level metallurgical testwork program was also carried out jointly by Bureau Veritas Minerals in Richmond, British Columbia, Canada and ALS Metallurgy in Kamloops, British Columbia, Canada. Twelve composite samples were made up using intervals (RC chips) from eight drill holes in six mineralization zones. The scope of work included cyanide soluble gold assays on all 12 samples. Carbon-in-leach (CIL) bottle roll testing using the ground slurry and direct cyanide leach (DCN) bottle roll tests using the RC chips without grinding were done on 10 of the samples. Table 13.3 lists the details of cyanide soluble gold assay procedures, the CIL procedures and the DCN procedures from different laboratories and what materials are covered by each procedure.

Table 13.3 Metallurgical Procedures Conducted on Behalf of Ensign

Procedure Type			**Cyanide Soluble Gold Assay**				**CIL (carbon-in-leach)**	**DCN (direct cyanide leach)**
Laboratory			American Assay Labs	Bureau Veritas		ALS	Bureau Veritas	ALS
Test Type			shake	shake	shake	shake	bottle roll	bottle roll
Procedure Name			AuCN30	CN430	AuCN	Au-AA13	customized	customized
Open to Atmosphere			No	No	No	No	continuous oxygen sparging	continuous oxygen sparging
Solid Weight		g	30	30	30	30	1,000	1,000
Method of Particle Size Reduction			dry pulverization	dry pulverization	dry pulverization	dry pulverization	wet ground	no grinding
Particle size (P80)		µm	pulverized	85% passing 75 µm	90% passing 75 µm	85% passing 75 µm	80% passing 50 µm	RC chips
Retention Time		hour	2	1	2	1	48	48
Temperature		°C	room temp	room temp	room temp	room temp	room temp	room temp
Cyanide Solution	Volume	mL	60	60	60	60	1,500	1,000
	g/L NaCN		3.0	3.0	10.0	2.5	2.0	2
	g/L NaOH		alkaline	3.0	2.5	0.5	lime	lime
	pH		/	/	/	/	10.5 ~ 11.0	11.0
Activated Carbon	added before reagents		/	/	/	/	30 g/L	/
	added after 2 hr		/	/	/	/	/	/
Assay Method			ICP-OES	AAS	AAS	AAS	AAS/Fire Assay	AAS/Fire Assay
Solution Assay Range		ppm	0.01 ~ 100	0.03 ~ 50	≥ 0.01	0.03 ~ 50	≥ 0.01	N/A
Covered Materials			Drill Holes SM 20-002 to -011 EN003 to EN050 (partial) EN053 to EN082 ENC001 to ENC007	Drill Holes EN001 to EN050 (partial)	10 met samples MH EN011 175-240 MH EN011 370-410 MH EN027-310-390 MH EN027 440-490 GG EN002 360-410 GG EN043 95-155 GG EN043 155-225 ER EN036 155-220 SE EN018 220-320 GGT EN033 0-50	2 met samples SM 20-011 245-295 SM 20-011 375-440	10 met samples MH EN011 175-240 MH EN011 370-410 MH EN027-310-390 MH EN027 440-490 GG EN002 360-410 GG EN043 95-155 GG EN043 155-225 ER EN036 155-220 SE EN018 220-320 GGT EN033 0-50	10 met samples MH EN011 175-240 MH EN011 370-410 MH EN027-310-390 MH EN027 440-490 GG EN002 360-410 GG EN043 95-155 GG EN043 155-225 ER EN036 155-220 SE EN018 220-320 GGT EN033 0-50
Number of Samples Assayed			1001 samples from exploration	828 samples from exploration	10 met samples	2 met samples	10 met samples	10 met samples
Covered Years			2020 to 2022	2022	2022	2022	2022	2022

13.3.1 Cyanide Soluble Gold Assays on 2020 South Mercur Drill Samples

The 2020 mineralized drill hole intercepts from South Mercur were identified and selected for cyanide soluble gold assays based on the original fire-assay grades (> 0.100g/t Au) of the 1.52-meter RC samples. A total of 256 1.52-meter RC intervals were tested by AAL. The average gold fire assay and cyanide soluble gold assays for the tested intervals in each hole are reported in Table 13.4.

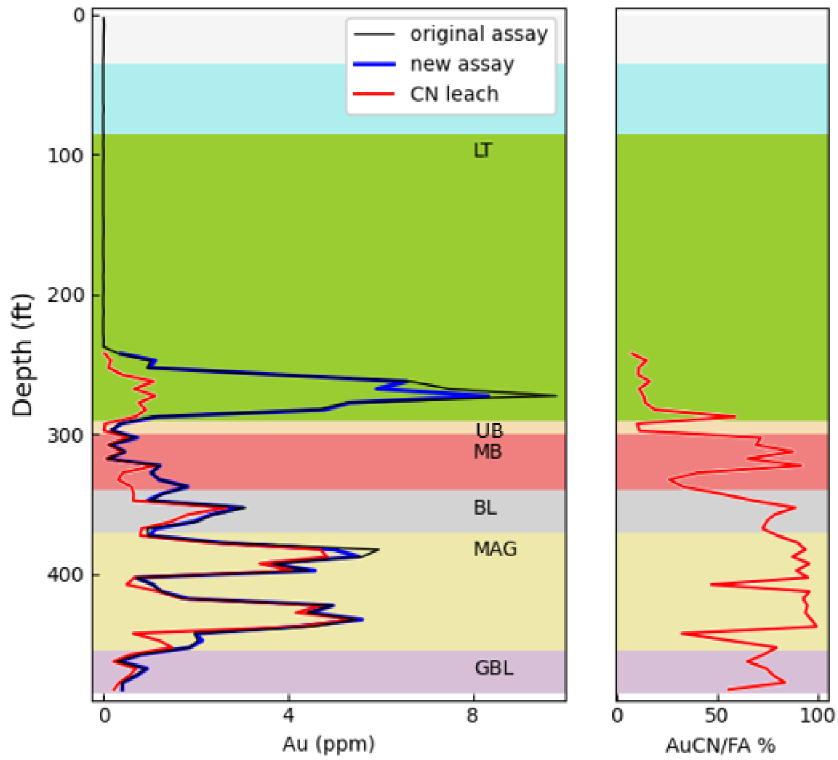
Table 13.4 AAL Cyanide Leach Results, 2020 South Mercur RC Samples

Hole ID	From (m)	To (m)	Length (m)	# of 1.52m Samples	Calc. Head Grade	Calculated CN Soluble Gold	
					g Au/t	g Au/t	%
SM-20-002	155.4	167.6	12.2	8	1.147	0.811	71
	170.7	182.9	12.2	8	2.893	2.285	79
	184.4	196.6	12.2	8	0.461	0.351	76
	198.1	201.2	3.0	2	1.999	1.875	94
SM-20-003	9.1	71.6	62.5	41	1.038	0.992	96
SM-20-004	13.7	59.4	45.7	30	1.450	1.212	84
SM-20-005	0.0	33.5	33.5	22	1.753	1.629	93
SM-20-006	21.3	22.9	1.5	1	3.380	3.240	96
	44.2	73.2	29.0	19	1.814	1.659	91
SM-20-007	39.6	105.2	65.5	43	2.381	1.955	82
SM-20-008	56.4	57.9	1.5	1	0.764	0.579	76
	61.0	68.6	7.6	5	1.550	1.220	79
	83.8	85.3	1.5	1	1.110	1.060	95
SM-20-009	85.3	93.0	7.6	5	0.509	0.107	21
SM-20-010	85.3	102.1	16.8	11	1.598	1.449	91
SM-20-011	73.2	147.8	74.7	49	2.289	1.355	59
						Average:	80

Drill hole SM-20-011 intersected the longest continuous intercept of mineralized material at South Mercur (74.7m at 2.360g/t Au) and the widest range of calculated gold extraction rates (7.8 to 99.5%). Figure 13.4 illustrates that the upper portions of the intercept in the carbonaceous and sulfide-bearing Long Trail shale responded poorly to cyanide soluble gold tests, whereas the underlying Mercur Member is oxidized and responds well to cyanide soluble gold tests. As was described by Barrick (1996) at Main Mercur (Section 6.2.1), refractory mineralization, if present, is usually in the upper portion of the mineralized interval. The oxidation appears to be from below and the higher sulfide intervals are nearer to the surface.

Figure 13.4 Downhole Fire Assays vs. Cyanide Leach Analyses, Drill Hole SM-20-011

(from Ensign, Mako, C., 2021c)



Note that the poor cyanide-solubility assays are in the upper portion of the mineralized interval, suggesting that refractory mineralization overlies oxidized mineralization. The highest-grade gold appears to be in sulfide-bearing, carbonaceous portions of the Long Trail Shale (LT), an unusual host rock in the Mercur district. Gold is more typically hosted in the Mercur Member beds: UB – the upper beds, MB the Mercur beds, BL – the barren limestone, MAG – the Magazine sandstone; and less so in GBL – the Lower Great Blue Limestone.

Overall, the 2020 mineralized drill samples from South Mercur responded well to cyanide soluble gold tests with the average cyanide soluble assay for the 256 samples at about 80% of the fire assay. Ensign conducted additional cyanide soluble gold tests on the 2021 and 2022 mineralized drill samples. The results of those analyses are consolidated with the much larger database of historical cyanide extraction tests as discussed in Sections 13.4 and 13.5.

13.3.2 Sample Selection and Head Assays

The twelve composite samples tested in 2022, were made up using intervals (RC chips) from eight drill holes in six mineralization zones. The samples were selected with a view to test the higher-grade portions of the deposits, which have historically been the more metallurgically challenging components of the resource, albeit a small proportion of it. This selection and program was done to assess the performance of these mineralization zones, in a conventional CIL setting, in order to (eventually) trade off the merits of a CIL flowsheet vs a Heap Leach approach. Noting this objective, the locations and seemingly, mineralogical composition of the samples are not necessarily reflective of the current resource base as it is presented today.

Details of mineralization zones, drill hole numbers and depths are shown Table 13.5. Based on these selected intervals, the expected head grade and cyanide soluble gold were calculated. These details are also included in Table 13.5.

Detailed assays of these twelve composite samples are presented in Table 13.6. The first ten samples in Table 13.6 were analyzed by Bureau Veritas Minerals in Richmond, and the last two samples were analyzed by ALS Metallurgy in Kamloops. Based on these detailed assays, it is evident that the majority of the samples contained a high level of organic carbon, which is the main cause of gold preg-robbing. Elevated levels of mercury also appeared in several samples. Sulfur content and arsenic content were variable.

Table 13.5 Selections of Twelve Composite Samples

Sample ID	Mineralization Zone	Drill Hole	Depth	Sample Weight	Calculated Head Grade	Calculated CN Soluble Gold	
			foot	kg	g/t	g/t	%
MH EN027 310-390	Mercur Hill	EN027	310 ~ 390	14.59	2.36	2.21	93
MH EN027 440-490			440 ~ 490	9.94	10.58	8.30	78
MH EN011 175-240		EN011	175 ~ 240	13.00	4.05	1.51	37
MH EN011 370-410			370 ~ 410	12.00	3.23	2.90	90
GG EN002 360-410	Golden Gate	EN002	360 ~ 410	9.65	3.89	1.65	42
GG EN043 95-155		EN043	95 ~ 155	12.00	1.16	0.45	39
GG EN043 155-225			155 ~ 225	14.00	0.60	0.32	53
ER EN036 155-220	East Rover	EN036	155 ~ 220	13.00	1.29	1.04	81
SE EN018 220-320	Sacramento East	EN018	220 ~ 320	10.00	2.60	1.74	67
GGT EN033 0-50	Golden Gate Tailing	EN030	0 ~ 50	10.00	1.40	0.31	22
SM-20-011 245-295	South Mercur	SM-20-011	245 ~ 295	17.00	3.83	0.60	16
SM-20-011 375-440			375 ~ 440	22.10	3.48	3.22	93

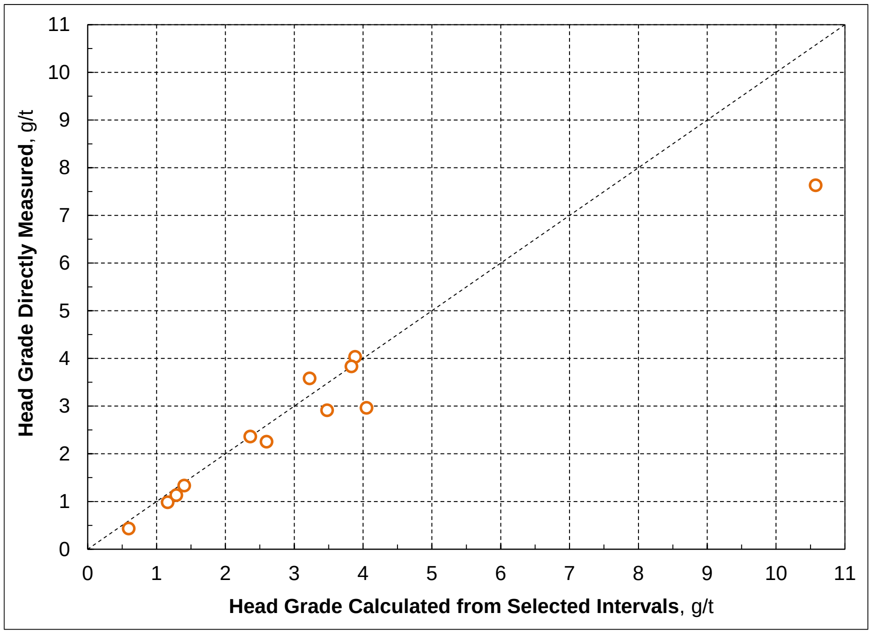
Table 13.6 Head Assays of Twelve Composite Samples

Sample ID	Gold	Cyanide Soluble Gold	Total Carbon	Organic Carbon	Graphite Carbon	Total Sulfur	Sulfide	Mercury	Silver	Arsenic	Copper	Calcium
	Au		C_{TOTAL}	C_{ORG}	C_{GRA}	S_{TOTAL}	S^{2-}	Hg	Ag	As	Cu	Ca
	g/t	g/t	%	%	%	%	%	g/t	g/t	g/t	g/t	%
MH EN027 310-390	2.36	1.13	1.9	0.24	0.02	0.17	<0.05	0.58	10.1	411	27	6.1
MH EN027 440-490	7.63	4.97	9.1	0.98	<0.02	0.21	<0.05	1.56	1.7	345	7	28.1
MH EN011 175-240	2.96	0.58	6.2	0.68	<0.02	2.03	0.93	<0.01	<0.5	1,983	7	20.0
MH EN011 370-410	3.58	1.71	1.6	0.29	<0.02	1.11	<0.05	<0.01	6.5	668	10	4.9
GG EN002 360-410	4.03	0.49	4.4	0.56	0.02	3.57	2.86	3.99	<0.5	3,445	11	12.8
GG EN043 95-155	0.98	0.52	0.3	0.06	0.02	0.33	<0.05	7.04	3.7	745	5	0.7
GG EN043 155-225	0.43	0.25	8.4	0.84	0.02	0.20	<0.05	6.69	6.0	424	7	25.7
ER EN036 155-220	1.13	0.53	1.5	0.24	<0.02	0.33	<0.05	<0.01	12.3	411	16	4.4
SE EN018 220-320	2.25	1.11	2.7	0.21	0.02	0.21	<0.05	2.33	12.9	240	9	8.7
GGT EN033 0-50	1.33	0.14	3.3	0.31	<0.02	0.75	<0.05	<0.01	0.6	3,465	13	11.5
SM 20-011 245-295	3.83	0.20	0.2	0.13	0.11	6.91	5.94	60.2	0.1	>10,000	20	0.3
SM 20-011 375-440	2.91	3.72	0.4	0.05	0.02	0.15	0.07	25.5	0.1	3,130	13	1.3

Comparisons of gold grade between direct measurement and calculated from the selected intervals show a good correlation for nine samples. However, for three samples (MH EN027 440-490, MH EN011 175-240 and SM 20-011 375-440), the difference between direct measurement and calculated from the selected intervals is relatively large (Figure 13.5). The large differences may be an indication of the presence of coarse gold particles.

Figure 13.5 Comparison of Gold Head Grade between Direct Measurement and Calculated from the Selected Intervals

(from Ensign, Ji, 2023)



Comparisons of cyanide soluble gold assays between direct measurements and calculated from the selected intervals show a good correlation except one sample (SM 20-011 375-440) (Figure 13.6). This outlier sample (SM 20-011 375-440) may be caused by possible nugget effect.

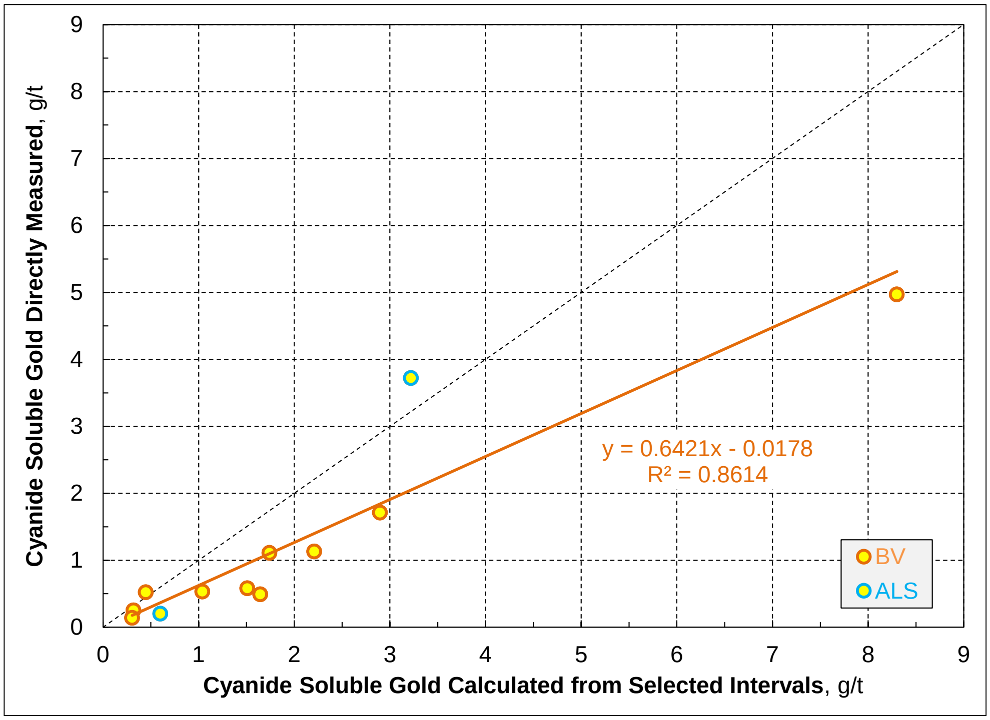
For ten of the samples in Figure 13.6, cyanide soluble gold assays were carried out by Bureau Veritas Minerals in Richmond. A customized procedure was applied whereby a 30-gram sample pulverized to 85 –90% passing 75 µm, was treated with 60 mL cyanide solution containing 10.0 g/L NaCN and 2.5 g/L NaOH, room temperature, and 2 hours of shaking. The pregnant solution is then assayed by AAS. This customized procedure is different from BV's CN403 procedure which involves 30-gram sample, 60 mL cyanide solution (3.0 g/L NaCN, 3 g/L NaOH), room temperature, 1-hour shaking.

For two of the samples in Figure 13.6, cyanide soluble gold assays were carried out by ALS Metallurgy in Kamloops following their Au-AA13 procedure. This procedure involves 30-gram solid pulverized to 85% passing 75 µm, 60 mL cyanide solution (2.5 g/L NaCN, 0.5 g/L NaOH) and 1-hour shaking.

Although the trend in Figure 13.6 is generally consistent, the slope is less than 1:1. This implies an impact likely occurring when materials with variable extents of preg-robbing are mixed together within an interval.

Figure 13.6 Comparison of Cyanide Soluble Gold Assays between Direct Measurement and Calculated from the Selected Intervals

(from Ensign, Ji, 2023)



13.3.3 Carbon-in-leach (CIL) Tests Carried out by Bureau Veritas in 2022

Ten CIL bottle roll cyanide amenability tests were completed by Bureau Veritas Minerals in Richmond in 2022. The grind size was targeted at 80% passing 50 µm. After grinding, 4-hour pre-aeration was followed with addition of 0.50 kg/t lead nitrate, pH 10.5 –11.0 and continuous oxygen sparging to achieve over 15 ppm dissolved oxygen. CIL cyanide leach was carried out with 30 g/L activated carbon, 2.0 g/L sodium cyanide, pH 10.5 – 11.0 and continuous oxygen sparging for 48 hours. The purpose of these ten CIL cyanide leach tests was to maximize gold recovery.

The results of these CIL bottle roll tests are presented in Table 13.7. Half of the samples produced excellent gold recoveries over 90%. Excluding the sample of historical tailing (GGT EN033 0-50), the range of CIL recovery was 47.4% to 99.2% and the average CIL recovery was 83.4%.

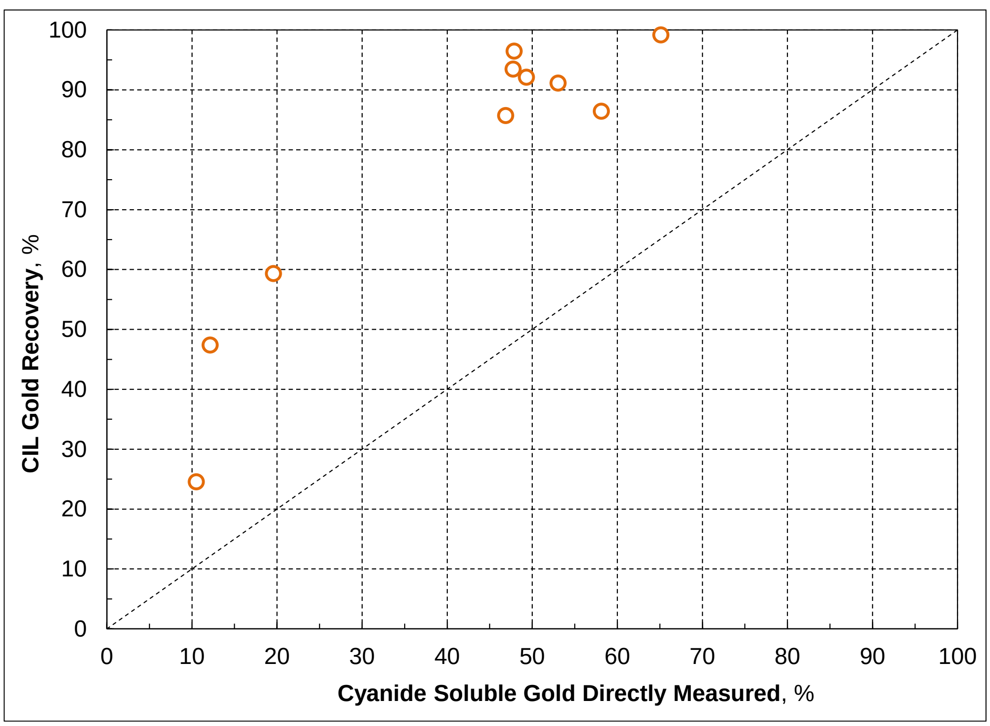
Table 13.7 Results of Bottle Roll CIL Cyanide Leach Tests Carried out in 2022

Mineralization Zone	Sample ID	Measured Particle Size (80% passing)	Assayed Head Grade	Back Calculated Head Grade	Leach Residue	Gold Recovery	Cyanide Consumption	Lime Consumption
		µm	g/t	g/t	g/t	%	kg/t NaCN	kg/t $Ca(OH)_2$
Mercur Hill	MH EN027 310-390	49	2.36	2.53	0.09	96.4	2.82	0.96
	MH EN027 440-490	52	7.63	10.15	0.09	99.2	2.44	0.69
	MH EN011 175-240	50	2.96	3.66	1.49	59.3	3.59	1.78
	MH EN011 370-410	50	3.58	3.81	0.25	93.4	2.68	0.96
Golden Gate	GG EN002 360-410	54	4.03	4.18	2.20	47.4	4.54	2.12
	GG EN043 95-155	47	0.98	1.18	0.11	91.1	2.85	0.92
	GG EN043 155-225	51	0.43	0.55	0.08	86.4	2.68	0.90
East Rover	ER EN036 155-220	47	1.13	1.26	0.18	85.7	2.55	0.91
Sacramento East	SE EN018 220-320	50	2.25	2.72	0.22	92.1	2.91	0.86
Golden Gate Tailing	GGT EN033 0-50	54	1.33	1.39	1.05	24.5	3.78	1.67

Figure 13.7 shows the comparisons between CIL gold recovery and cyanide soluble gold extraction. It is apparent that CIL gold recovery was significantly higher than the cyanide soluble gold extraction in every case.

Figure 13.7 Comparison of CIL Gold Recovery with Cyanide Soluble Gold Assay

(from Ensign, Ji, 2023)



From the results of these ten composite samples, there was no consistent correlation between CIL gold recovery and arsenic content, and between CIL gold recovery and organic carbon content. For batch CIL cyanide leach, the adverse impact from organic carbon (preg-robbing) is usually effectively mitigated by the presence of the activated carbon. When the correlation between CIL gold recovery and sulfur content is examined, a trendline seems visible (**Error! Reference source not found.**). This implies that the refractory nature comes primarily from the sulfide minerals. The sample GGT EN033 0-50 can be excluded because it is a sample of historical tailing where the gold had previously been extracted.

After the tailing sample (GGT EN033 0-50) and two other samples with high sulfur contents (MH EN011 175-240 and GG EN002 360-410) are excluded, it appears that CIL gold recovery followed the normal relationship and increased with the head grade (Figure 13.9).

Figure 13.8 CIL Gold Recovery as a Function of Total Sulfur Content in the Feed

(from Ensign, Ji, 2023)

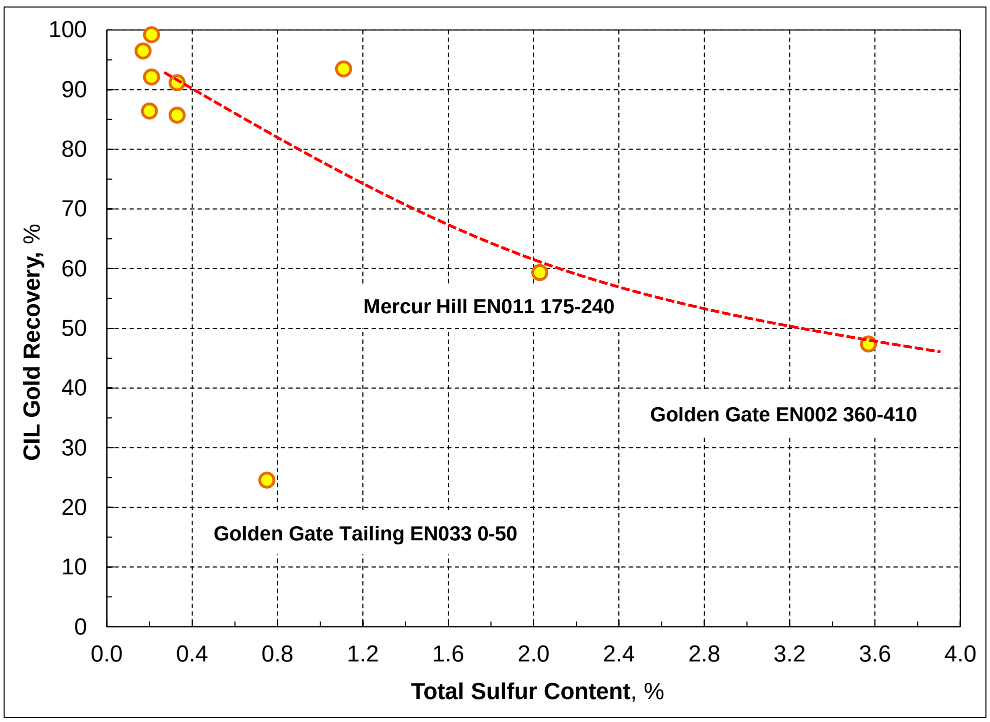
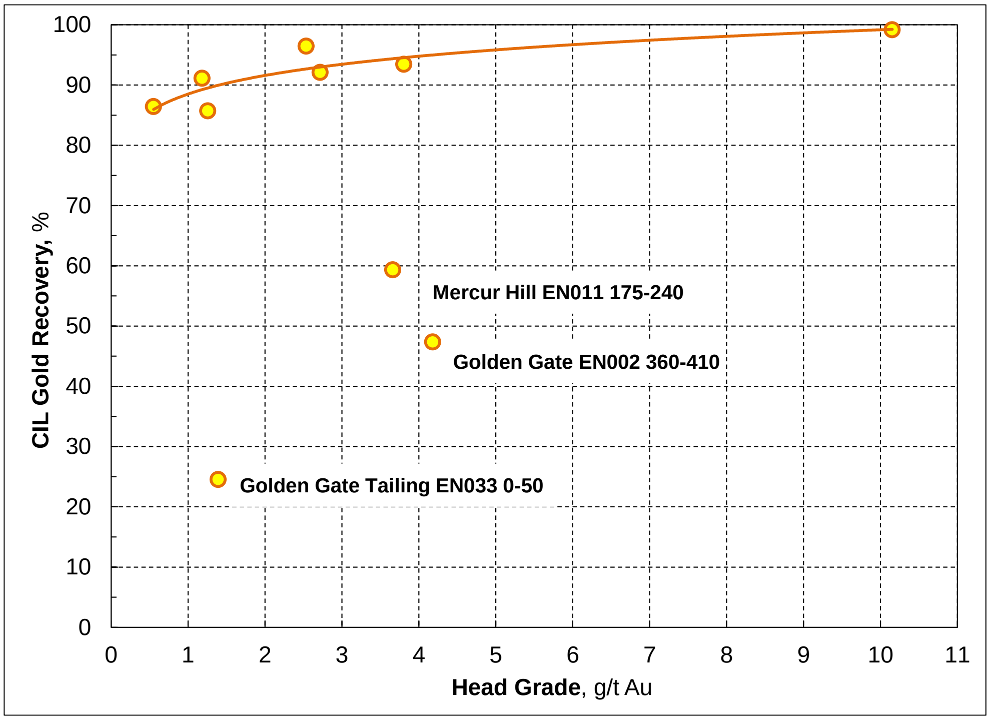


Figure 13.9 CIL Gold Recovery as a Function of Head Grade

(from Ensign, Ji, 2023)



13.3.4 Direct Cyanide (DCN) Bottle Roll Leach Tests - ALS Metallurgy in 2022

Heap leaching of the Mercur mineralization is considered a favorable project flowsheet option. As such, a decision was made to carry out DCN leach tests in the absence of activated carbon using the as-received RC chips without grinding. It should be pointed out that by no means, the RC chips represent particle size of a typical heap leach feed. Nevertheless, the RC chips are a better choice compared with the finely ground slurry. Ten DCN tests were carried out by ALS Metallurgy in Kamloops, BC under the conditions of 1.0 kg solid, pulp density of 50% solid, bottle roll leach, pH 11.0, 0.50 kg/t lead nitrate, 16-hour pre-aeration, continuous oxygen sparging to achieve over 8 ppm dissolved oxygen, 2.0 g/L sodium cyanide concentration and 48-hour retention time. These conditions were aggressive and meant to maximize gold recovery.

The results of these ten DCN tests are summarized in Table **Error! Reference source not found.**. Four samples showed the presence of preg-robbing, because gold recovery peaked and then declined. Despite the coarse particle size, two samples achieved over 90% gold recovery, and three samples achieved between 80% and 90% gold recovery. Sodium cyanide consumption was much lower than what was consumed during CIL tests. Those two high cyanide consumptions (1.13 kg/t and 1.58 kg/t) are related to samples with higher sulfur content.

Table 13.8 Results of DCN Cyanide Leach Tests using RC Chips Without Grinding

Mineralization Zone	Sample ID	Head Grade		Gold Recovery				Leach Residue Grade	Cyanide Consumption	Lime Consumption
		Assayed	Back Calcd.	2 h	6 h	24 h	48 h			
		g/t		%				g/t	kg/t NaCN	kg/t $Ca(OH)_2$
Mercur Hill	MH EN027 310-390	2.36	2.57	77.9	81.4	88.0	90.8	0.24	0.36	0.67
	MH EN027 440-490	7.63	10.66	90.3	92.4	93.6	96.7	0.35	0.37	0.55
	MH EN011 175-240	2.96	3.69	30.0	31.9	28.8	26.1	2.73	1.13	1.48
	MH EN011 370-410	3.58	3.94	72.7	79.0	84.8	86.9	0.52	0.82	0.68
Golden Gate	GG EN002 360-410	4.03	4.03	13.5	12.9	9.7	8.6	3.68	1.58	1.59
	GG EN043 95-155	0.98	1.16	71.5	81.5	83.8	86.2	0.16	0.29	0.52
	GG EN043 155-225	0.43	0.60	62.9	77.7	76.8	75.7	0.15	0.16	0.50
East Rover	ER EN036 155-220	1.13	1.19	60.1	70.8	68.4	64.2	0.43	0.26	0.56
Sacramento East	SE EN018 220-320	2.25	2.77	79.0	84.6	84.6	86.6	0.37	0.33	0.55
Golden Gate Tailing	GGT EN033 0-50	1.33	1.41	13.0	18.2	18.0	15.8	1.19	0.48	1.22

Table 13.9 shows the comparison of each sample between the CIL tests and the DCN tests. For each sample tested, gold recovery was higher in the CIL test than the DCN test. This is a result of the finer grind size used during the CIL tests (P80 of 50 µm) than the RC chip size, but also the presence of activated carbon (30 g/L) in the CIL tests which would mitigate some of the preg rob potential. Across all samples tested, the CIL tests averaged 77.6% gold recovery and the DCN tests averaged 63.8%.

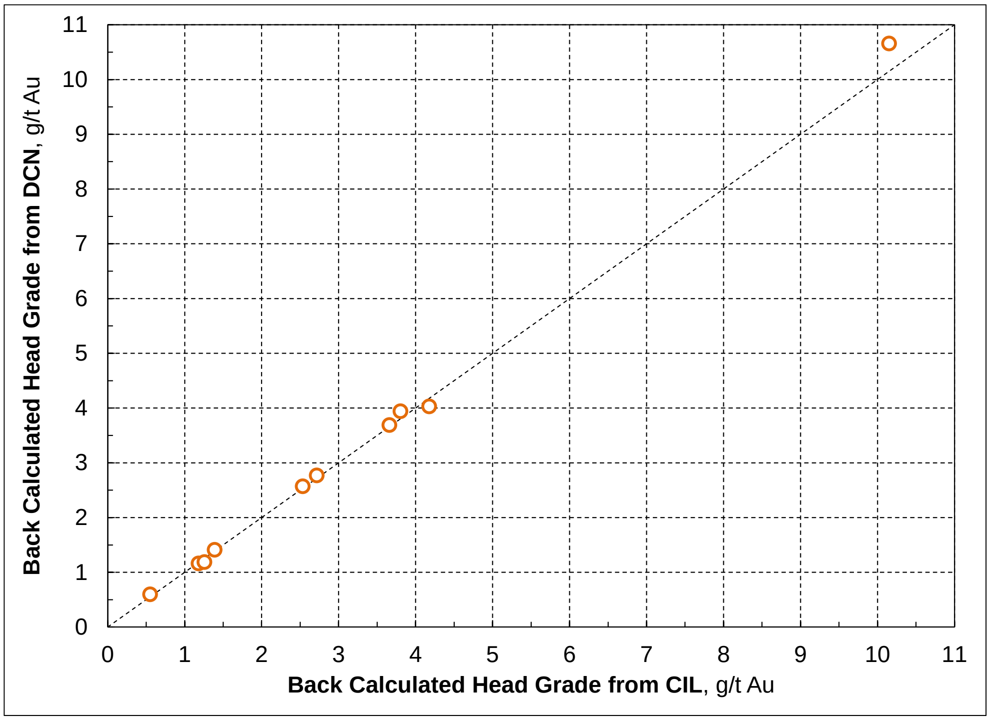
Table 13.9 Comparison of Gold Recovery between CIL and DCN Samples

Mineralization Zone	Drill Hole	Depth	Head Grade				Gold Recovery	
			Calcd. from Intervals	Direct Assay	Back Calcd. from CIL	Back Calcd. from DCN	CIL (P80 50 µm)	DCN (RC Chips)
		foot	g/t				%	
Mercur Hill	EN027	310 ~ 390	2.36	2.36	2.53	2.57	96.4	90.8
		440 ~ 490	10.58	7.63	10.15	10.66	99.2	96.7
	EN011	175 ~ 240	4.05	2.96	3.66	3.69	59.3	26.1
		370 ~ 410	3.23	3.58	3.81	3.94	93.4	86.9
Golden Gate	EN002	360 ~ 410	3.89	4.03	4.18	4.03	47.4	8.6
	EN043	95 ~ 155	1.16	0.98	1.18	1.16	91.1	86.2
		155 ~ 225	0.60	0.43	0.55	0.60	86.4	75.7
East Rover	EN036	155 ~ 220	1.29	1.13	1.26	1.19	85.7	64.2
Sacramento East	EN018	220 ~ 320	2.60	2.25	2.72	2.77	92.1	86.6
Golden Gate Tailing	EN030	0 ~ 50	1.40	1.33	1.39	1.41	24.5	15.8

The head grades from the CIL tests using the ground slurry (P80 50 µm) and from the DCN tests using the RC chips compared very well to each other (Figure 13.10). This implies that gold mass balances from these CIL tests and DCN tests are reliable and thus corresponding gold recoveries can be considered reliable.

Figure 13.10 Comparison of Back Calculated Head Grades Based on DCN Tests and CIL Tests

(from Ensign, Ji, 2023)



Despite the coarse particle size, these DCN bottle roll recoveries were still higher than cyanide soluble gold assays in most cases (**Error! Reference source not found.**). This fact further demonstrates that cyanide soluble gold assays are indicative in nature. Also, grinding and finer crushing could also "release" organic carbon constituents leading to lower recoveries. Interestingly, when the cyanide soluble gold assays, which are calculated from the selected intervals, are used to compare with the DCN recovery, overall comparison seems more balanced despite large fluctuations individually (**Error! Reference source not found.**). Such improved comparison overall is difficult to explain. Nevertheless, this observation may add a little bit more confidence in the early stage of project evaluation to use this cyanide soluble gold assay data to approximate heap leach performance after a certain deduction.

When DCN recovery (RC chips) and CIL recovery (80% passing 50 µm) are compared, after the tailing sample (GGT EN033 0-50) is excluded, there was a consistent relationship (**Error! Reference source not found.**). This observation implies that CIL recovery can be estimated when DCN recovery is known, or vice versa, DCN recovery can be estimated when CIL recovery is known. Such correlation was also found in the past testwork by Hazen Research in 1980s.

Figure 13.13 shows a collective view for ten samples that were tested, to compare CIL recovery (80% passing 50 µm), DCN recovery (RC chips) and directly measured cyanide soluble gold. The conclusion is that CIL recovery was always highest in every case, cyanide soluble gold was always lowest in every case, and DCN recovery was in between. The difference between CIL recovery and cyanide soluble gold, or between DCN recovery and cyanide soluble gold, was sometimes quite large. These observations illustrate the importance of exercising adequate caution when using cyanide soluble gold assay data to approximate gold recovery of either heap leach or stirred tank cyanide leach. Similarly, it is important to consider the sample representivity relative to the resource base when considering possible recoveries for it.

Figure 13.11 Comparison of DCN Recovery (RC chips) with Cyanide Soluble Gold Assay

(from Ensign, Ji, 2023)

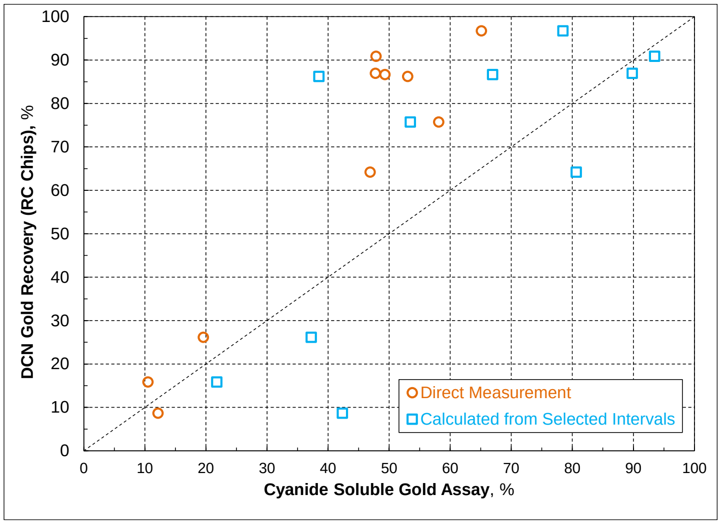


Figure 13.12 Comparison of DCN Recovery (RC chips) with CIL Recovery (P80 50 µm)

(from Ensign, Ji, 2023)

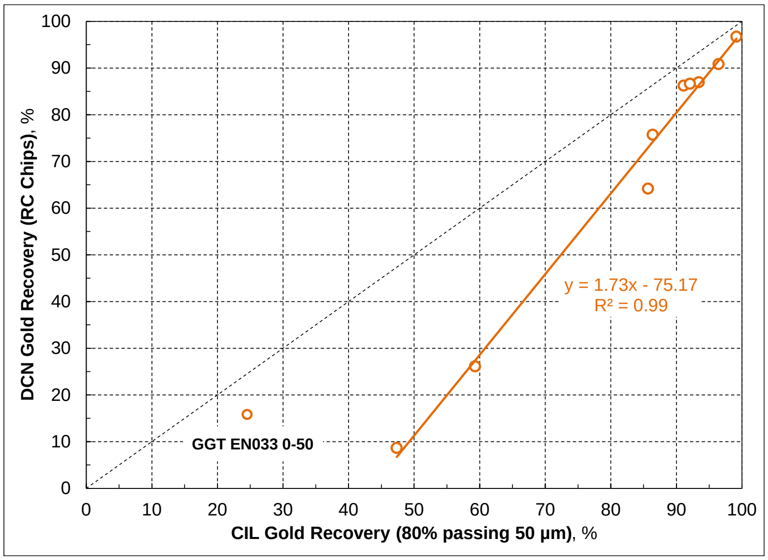
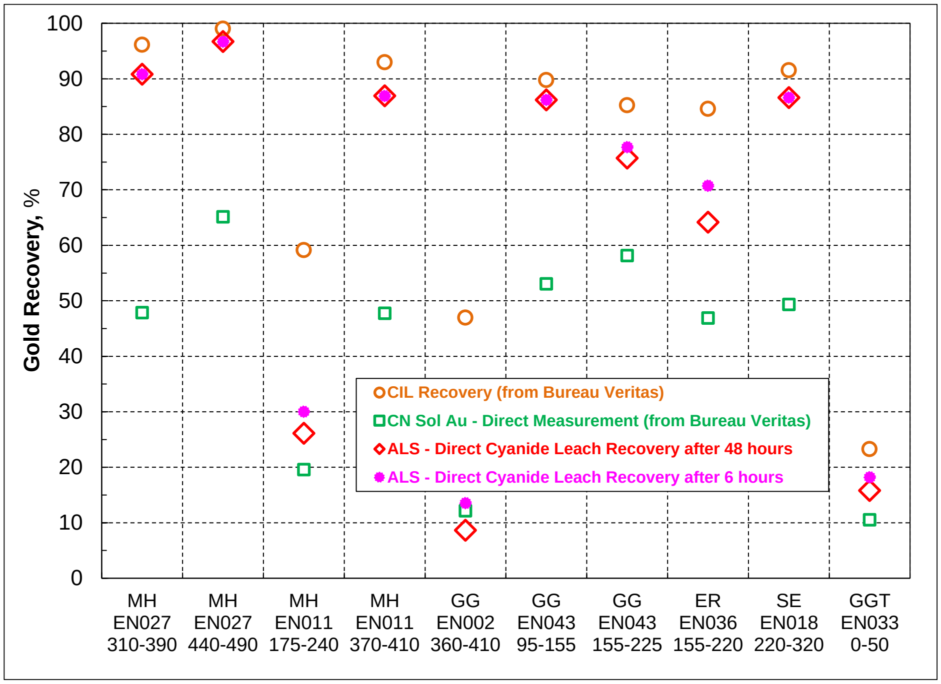


Figure 13.13 Comparison among DCN Gold Recovery (RC chips), CIL Gold Recovery (P80 50 µm) and Cyanide Soluble Gold

(from Ensign, Ji, 2023)



13.4 Historical Data and Metallurgical Testwork

There have been no column leach tests performed on samples from the Mercur project. Throughout the drilling programs and production performed by Getty and Barrick, samples were taken from drill holes on a regular basis and tested to determine the extent of cyanide soluble gold in intervals. For this purpose, direct cyanide leach (DCN) tests and carbon-in-leach (CIL) bottle roll tests were conducted on a large volume of samples and provided a useful dataset when considering gold leaching characteristics.

The initial historical DCN bottle roll tests on more than 3,000 drill hole samples were conducted by Hazen Research, Inc. of Golden, Colorado (Hazen, 1981). Subsequently, 453 of those samples were tested with CIL bottle roll procedures to compare the results of the two procedures (Hazen 1982a). Once CIL bottle roll tests were decided to be the preferred method, Hazen conducted additional CIL bottle roll tests on 494 drill hole samples from the areas of the Marion Hill and Mercur Hill deposits (Hazen 1982b). The Hazen DCN and CIL bottle roll tests were amenability tests. Both cyanide concentration and activated carbon concentration were aggressive and meant to maximize gold recovery. The details of these procedures are presented in Table 13.10.

Subsequently, Getty and Barrick conducted about 10,000 additional CIL tests on exploration drill hole samples, which Ensign staff compiled from paper copies of data provided by Barrick. The labs and the procedures for these tests are unknown, but it is presumed that the procedure followed similar methods to those used by Hazen as described in **Error! Reference source not found.**.

Table 13.10 Procedures for Historical DCN and CIL Bottle Roll Tests

Procedure Type			**DCN (direct cyanide leach)**	**CIL (carbon in leach)**
Laboratory			Hazen	Hazen
Test Type			bottle roll	bottle roll
Procedure Name			cyanide amenability test	CIL amenability test
Open to Atmosphere			Yes	Yes
Solid Weight		g	300	300
Method of Particle Size Reduction			wet ground	wet ground
Particle size (P80)		µm	80% passing 150 µm	80% passing 150 µm
Retention Time		hour	24	24
Temperature		°C	room temp	room temp
Cyanide Solution	Volume	mL	300	300
	g/L NaCN		10.0	10.0
	g/L NaOH		lime	lime
	pH		11.0	11.0
Activated Carbon	added before reagents		/	11 g
	added after 2 hr		/	11 g
Assay Method			AAS/Fire Assay	AAS/Fire Assay
Solution Assay Range		ppm	N/A	N/A
Covered Materials			Getty Drill Hole Samples	Getty and Barrick Drill Hole Samples
Number of Samples Assayed			3506 samples from exploration	10738 samples from exploration
Covered Years			1980s	1980s - 1990s

This large set of historical DCN (3506 samples) and CIL (10738 samples) recovery results for Main Mercur were collated by Ensign, along with the new cyanide soluble gold assays of Ensign's Main Mercur drilling (1573 samples). These recovery results were assigned to the blocks of the block model described in Section 14 from which the samples were taken. Based on these data, "metallurgical domains" were established for areas of similar gold recovery characteristics. The resultant average recoveries by domain were calculated from these individual test results and assigned to each domain as shown in Table 13.11.

No historical DCN or CIL results are available for South Mercur. Based on Ensign's cyanide soluble gold tests of 256 samples of mineralized South Mercur drill hole intercepts, which yielded an average 80% cyanide soluble gold recovery value (Section 13.3.1), a conservative estimate of 70% average DCN recovery is assumed for South Mercur in Table 13.11.

Table 13.11 Average Domain Recoveries Calculated from Historical CIL and DCN Data

Domain	Total Blocks in Domain	Blocks with CIL Leach Data	Average CIL Recovery	Blocks with DCN Assay Data	Average DCN Recovery
			%		%
Marion Hill Rover	19,759	11,466	81	4,096	83
Golden Gate	2,997	1,872	60	1,642	47
Mercur Hill North	2,043	1,186	85	1,043	78
Mercur Hill South	4,061	2,543	73	2,270	73
Sacramento	7,482	3,143	82	1,919	80

13.5 Application of Recovery Values in the Resource Estimation

In the absence of actual column leach data, historical DCN recovery values were utilized as a baseline to develop an assumption for potential gold recovery values. DCN values were used as opposed to CIL results as they reflect a process without the use of activated carbon and also reflect the possibility of carbonaceous materials being contained within the heap.

DCN values were interpolated into blocks that contained a gold value. The assay database contained more gold assays than DCN assays and as a result, there were blocks with an interpolated gold grade but not a DCN value. For blocks without DCN recovery, the domain average DCN recovery was used. Domains were then further defined using geological field observations along with the drillhole data.

In order to generate an input for the resource constraining the pit shell optimization, in line with standard industry practice, these DCN recovery values were then discounted by 15 percentage points in order to reflect a potential heap leach gold recovery scenario. The resultant gold recoveries assumed for the Resource pit optimization by domain are summarized in Table 13.12.

Table 13.12 Assumed Heap Leach Gold Recovery by Domain

Domain	Assumed Heap Leach Recovery
Marion Hill - Rover	68%
Golden Gate	32%
Mercur Hill - North	63%
Mercur Hill - South	58%
Sacramento	65%
South Mercur	55%

Also acknowledging that the historical dump leach (no crushing or agglomeration) gold recovery at Mercur was 49.2% on average, the optimization inputs used and summarized in **Error! Reference source not found.** could be viewed conservatively and an area of focus in subsequent studies on the project.

13.6 Recommendations for Further Work

Testwork that more accurately defines the metallurgical characteristics of the resource base as it stands today is important. Some of the testwork programs in the past have been more targeted towards the higher-grade refractory materials that are more reflective of the historic production focus, as opposed to what the resource presents as today.

Simple domain variability tests to confirm amenability of that area, to the likely heap leach approach will add understanding quickly. Initially, RC chip samples will be utilized as an indicative sighter program ahead of the more targeted and defined larger particle size column tests for composites from each domain.

As the drilling density increases in subsequent drill campaigns, this will allow the project to better constrain areas of oxide, sulfide materials as well as those areas defined as refractory or preg-robbing.

On the matter of preg-robbing material specifically, whether heap leach or another processing route is chosen, the extent of preg-robbing needs to be measured appropriately on the basis of rock types, crush size, mineralization, total sulfur content, sulfide content, arsenic content and organic carbon content. Assessment of the mineralization at the project should be carried out and compared using the following different testing procedures, including:

- Preg-robbing index
- Cyanide soluble gold assays (shake leach test)
- DCN (standard amenability test)

- CIL (CIL amenability test)
- IBRT (intermittent bottle roll test)
- Column leach tests

Agglomeration requirements and crusher work and abrasion indices should also be determined in the next phase of testing.

Not only metallurgical testwork should be conducted, but also geo-metallurgical definition and modelling that builds upon the extensive DCN data in the models that helps better define the deposits from a recovery perspective as well as helping to guide exploration priorities.

14.0 MINERAL RESOURCE ESTIMATES (ITEM 14)

14.1 Introduction

The mineral resource estimate is based on the Mercur Project database provided by Ensign, which included drillhole sample data and a series of 3D (wireframe) domains representing the distribution of various stratigraphic zones and topographic surfaces.

This mineral resource estimate was prepared under the direction of Susan Lomas, P.Geo, Lions Gate Geological Consulting Inc. (LGGC), with the assistance of Bruce Davis, FAusIMM. Based on education, work experience relevant to this style of mineralization and deposit type, and membership in a recognized professional organization, Lomas and Davis are both independent qualified persons (QPs) within the requirements of NI 43-101 for the purpose of the mineral resource estimate contained in this report.

The mineral resource has been estimated in conformity with generally accepted guidelines outlined in CIM *Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines* (November 29, 2019) and is reported in accordance with the Canadian Securities Administrators' (CSA) NI 43-101. Mineral resources are not mineral reserves, and they do not have demonstrated economic viability.

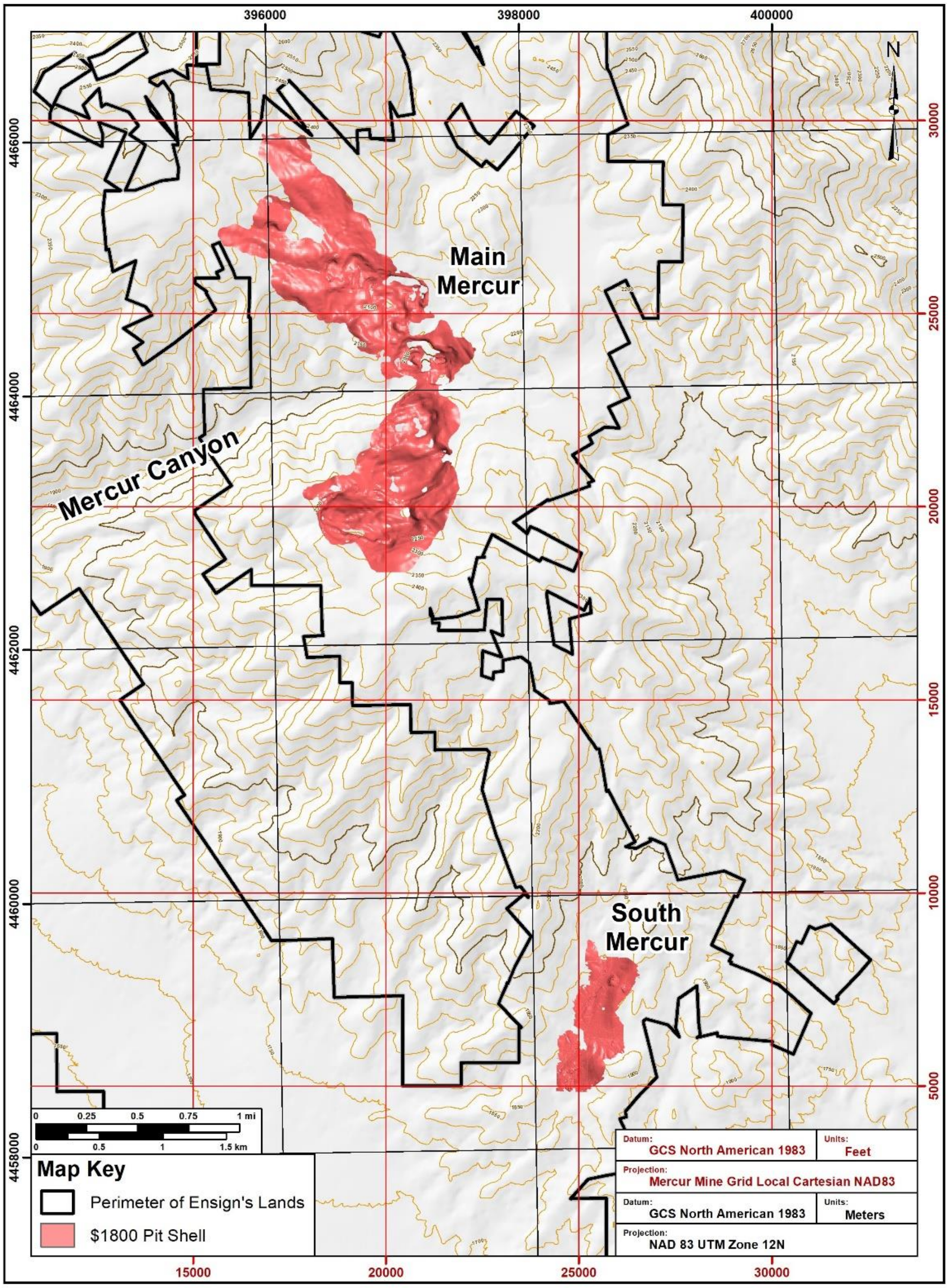
Estimations are made from 3D block models based on geostatistical applications using commercial mine planning software (HxGNMinePlan 3D® v16.0.5). The project limits are based on a local mine grid system in imperial units as described in section 10.7. Figure 14.1 shows the relative locations of the local mine grid and the UTM grid (NAD 83 UTM Zone12N). Separate block models were set up for Main Mercur and South Mercur with a nominal block size of 50 x 50 x 30 ft.

Sample data are derived from a combination of surface diamond and reverse circulation drillholes. The pierce points of the drillholes into the mineralized zone vary but can be approximately 25 to 50 ft spacing in the areas of historic mining.

There are a total of 2,970 drillholes in the area of the block models. Of these, 2,861 holes are historical holes (see Section 10), and 109 holes were drilled by Ensign. Comparisons show that the Ensign drillhole and historic drillhole sample results agree well over all areas being investigated. The historical drillholes only report results for gold assays while the Ensign drillholes were analyzed for multiple elements including silver (Ag), arsenic (As), iron (Fe) and sulphur (S).

The mineral resource estimate has been generated from drillhole sample assay results and the combination of interpretation of a geologic model which relates to the spatial distribution of gold and a probability-based Indicator shell using 0.20 g/t Au threshold. While gold is the principal element of the resource estimation, additional elements (Ag, As, Fe and S) were interpolated into the block model. Interpolation characteristics were defined based on the geology, drillhole spacing, and geostatistical analysis of the data. The mineral resources were classified according to their proximity to sample data locations and are reported, as required by NI 43-101, according to the CIM *Definition Standards for Mineral Resources and Mineral Reserves* (May 2014).

Figure 14.1 Plan Map Showing Mine Grid and UTM Coordinates Relative to Proposed $1800 Pit Shells
(from Ensign, 2024)



14.2 Available Data

On March 1, 2023, Ensign provided the final drillhole database in a spreadsheet file (Excel format) containing collar and down-hole survey information, assay results, and geologic information. Also provided were 3D interpretations (DXF format) and 2D surfaces (DXF format), representing the various stratigraphic zones and topographic surfaces. These data were formatted and imported into MinePlan® software.

The whole project database contains a total of 2,970 drillholes with a cumulative length of 918,207 ft. Note: The drilling database has been truncated to contain drillholes in the general vicinity of the Mercur property deposits and excludes exploration drillholes that do not impact the estimate of mineral resources.

There are a total of 2,765 drillholes (832,409 ft) in the vicinity of the Main Mercur and South Mercur deposits that have intersected gold mineralization (**Error! Reference source not found.**). Figure 14.2 is an isometric view of the drillholes showing composite grades and the indicator shells proximal to Main Mercur (MM) area and Figure 14.3 is an isometric view of drillholes and the indicator shell in South Mercur (SM) area.

Table 14.1 Number of Drillholes and Total Footage in Project Database by Area (MM=Main Mercur, SM=South Mercur)

DDH	No. DDHs	Length (ft)	MM No.	MM (ft)	SM No.	SM (ft)	Other No.	Other (ft)
Historical	2861	859,903	2325	660,643	427	115,088	201	78,875
Ensign	109	58,303	92	51,032	13	5,646	4	1,625
Total	2970	918,206	2325	711,675	440	120,734	205	80,500

Figure 14.2 Main Mercur: Isometric View Showing the Distribution of Gold Grades in Drilling and Indicator Shells

(from LGGC, 2023)

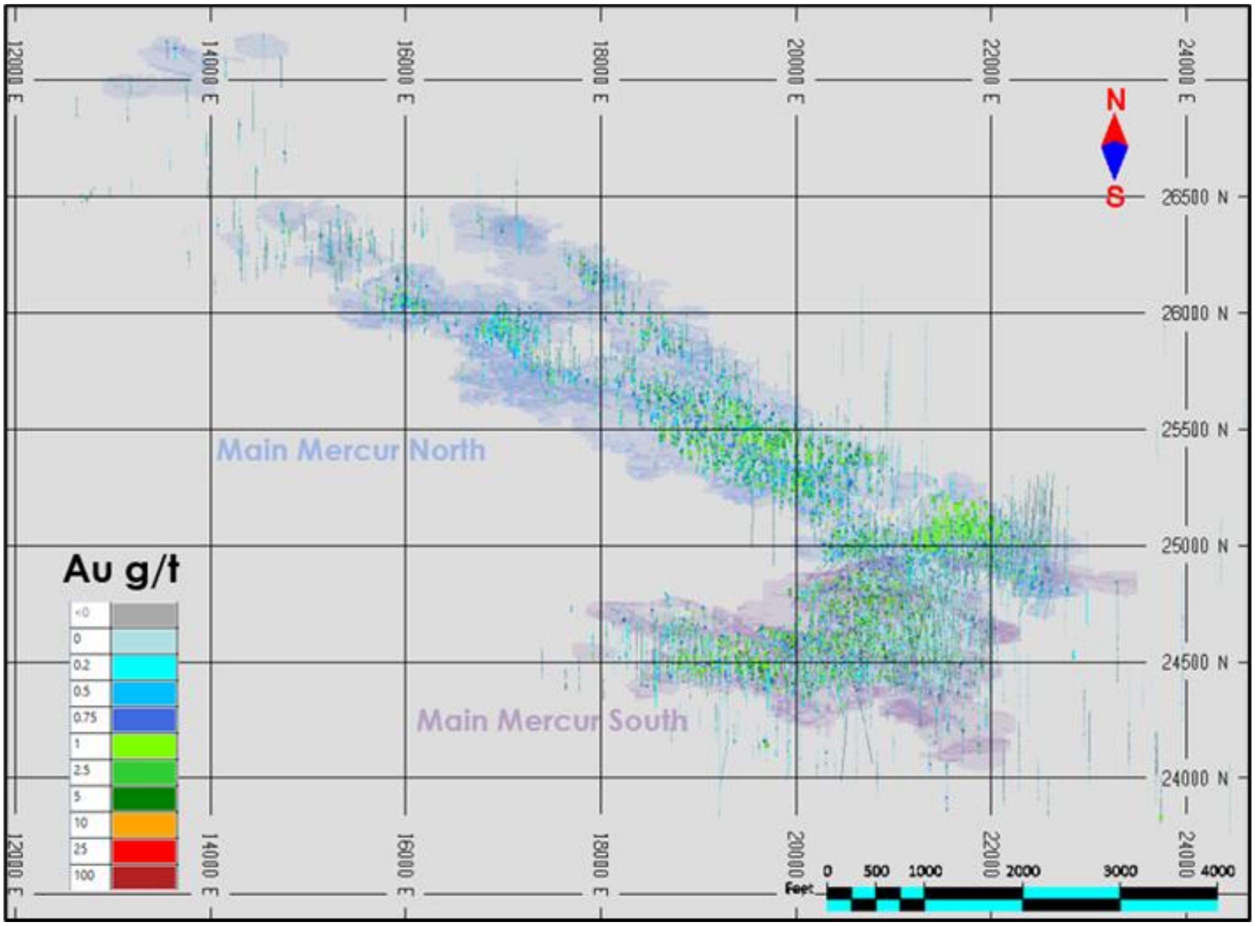
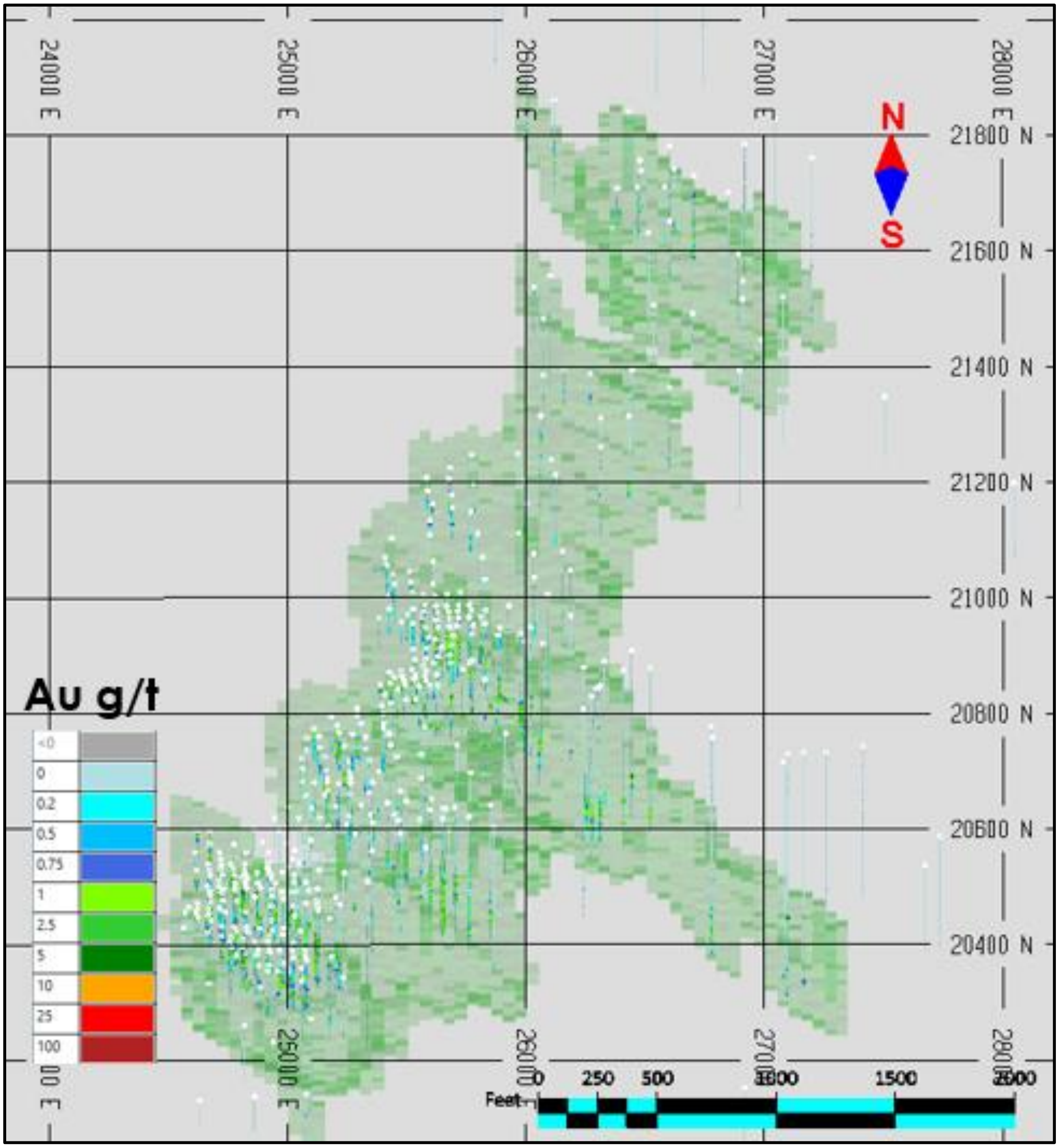


Figure 14.3 South Mercur: Isometric View Showing the Distribution of Gold Grades in Drilling and Indicator Shell

(from LGGC, 2023)



There is a total of 96,603 individual samples in the resource assay database with results for gold content while there are 10,046 results for Ag, As, Fe and S. Individual sample intervals range from 0.39 to 1140 ft, and average 8.65 ft long (82% of sample intervals proximal to the Mercur mineral resource are exactly 5 ft long). The long sample intervals are likely due to repeated assay results being entered into the database as a single interval. Original sample lengths should be restored in the assay database. Values analyzed below the detection limit (<DL) were assigned values equal to one half of the detection limit (½DL).

A basic statistical summary of the assay sample database is shown in **Error! Reference source not found.**.

Table 14.2 Statistical Summary of Sample Assay Data

Area	Metal (units)	No.	Mean[1]	CV	Min	25th Q	50th Q	75th Q	Max
Main Mercur	Au (g/t)	78983	0.37	3.25	0.001	0.001	0.34	0.21	68.91
Main Mercur	Ag (g/t)	8685	1.06	7.46	0.1	0.2	0.2	0.3	394
Main Mercur	As (ppm)	8685	344.2	2.73	1	18	63	270	10000
Main Mercur	Fe (%)	8685	1.54	0.94	0.03	0.45	1.12	2.08	14.6
Main Mercur	S (%)	8685	0.49	1.61	0.01	0.1	0.1	0.6	10
South Mercur	Au (g/t)	17620	0.221	3.31	0.001	0.001	0.001	0.069	30.17
South Mercur	Ag (g/t)	1032	0.27	0.97	0.2	0.2	0.2	0.2	4.6
South Mercur	As (ppm)	1032	1607.34	1.97	2	27	213	1547	20000
South Mercur	Fe (%)	1032	2.05	0.77	0.04	0.87	1.74	2.83	10.38
South Mercur	S (%)	1032	0.48	2.5	0.01	0.02	0.04	0.4	10

[1] Statistics are weighted by sample length

14.3 Geologic Model, Domains and Coding

Mercur is interpreted to be a Carlin-type gold deposit with mineralization occurring in a sequence of structurally prepared stratigraphic units. Ensign has produced 3D wireframe interpretations of the distribution of stratigraphic sequences and specific mineralization limiting units for the Main Mercur area. A detailed geological model has not been constructed for the South Mercur area but a mineralization limiting 3D wireframe was constructed for this area to represent the mineralized domains.

To delimit the volume of generally elevated mineralization, LGGC made indicator shells using the assay data from all the geology domains for Main Mercur and South Mercur areas. This involved applying a 0.20 g/t Au threshold to the assay values and assigning a value of 1 if the threshold was exceeded and 0 if not. The 1 and 0 values were then used to estimate the probability the 50 x 50 x 30 ft blocks contained gold grades greater than the 0.20 g/t threshold. The variography study work in the Main Mercur area showed different orientations to the mineralization in the southern part of the deposit from the northern portion. They were treated as independent data sets during the indicator and ultimately the grade interpolations. At a probability of 30% and a kriging variance threshold of 60%, a contiguous volume was produced for the northern and southern portions of the Main Mercur area. For the South Mercur deposit, a contiguous volume was established using probability and kriging variance thresholds of 32% and 62%. The volumes were enclosed by wireframes to create the Indicator Shells. Isometric views of the Indicator Shells for Main Mercur and South Mercur areas are included in Figure 14.2 and Figure 14.3.

The majority of the mineralization occurs within the Mercur Member though there is some mineralization that occurs in proximal over- and underlying units. Ensign built a Mineralization Limiting Shell (MLS) representing the favoured Mercur Member beds and portions of the Lower Great Blue Limestone Member where drilling indicated the presence of gold mineralization. Blocks outside of the MLS were not included in the resource estimate summation. Figure 14.4to Figure 14.7show plan and section views of the stratigraphic units and the MLS in the Main Mercur area. The stratigraphic units were modeled to the top of the original (pre-mining) topography but the MLS is clipped to the top of the current topographic surface.

Figure 14.4 Main Mercur: Plan View Showing Locations of Sections

(from LGGC, 2023)

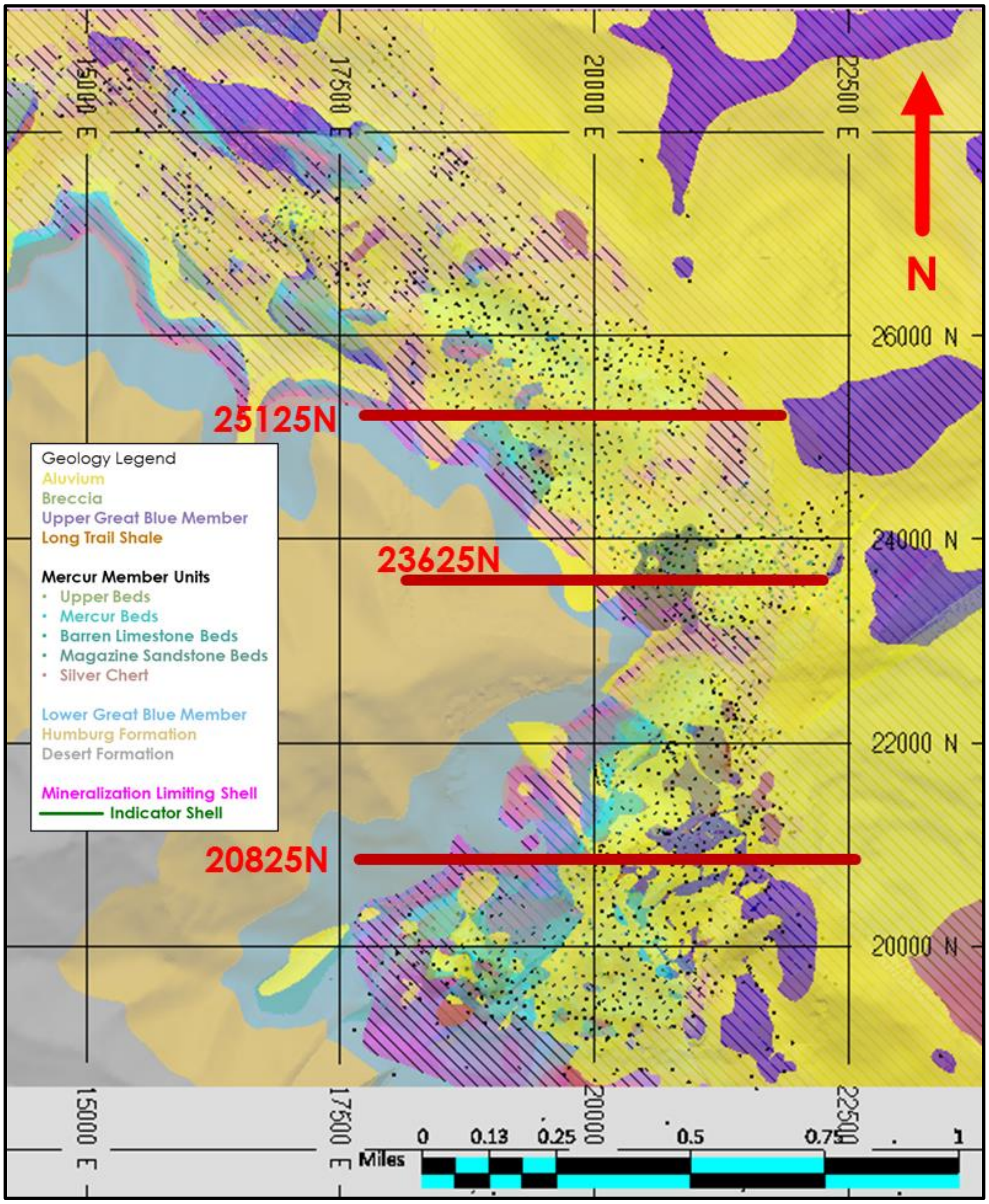


Figure 14.5 Section Showing Geology Model and Mineralization Limiting Solid in the Mercur Hill South Area, Section 20825 N

(from LGGC, 2023)

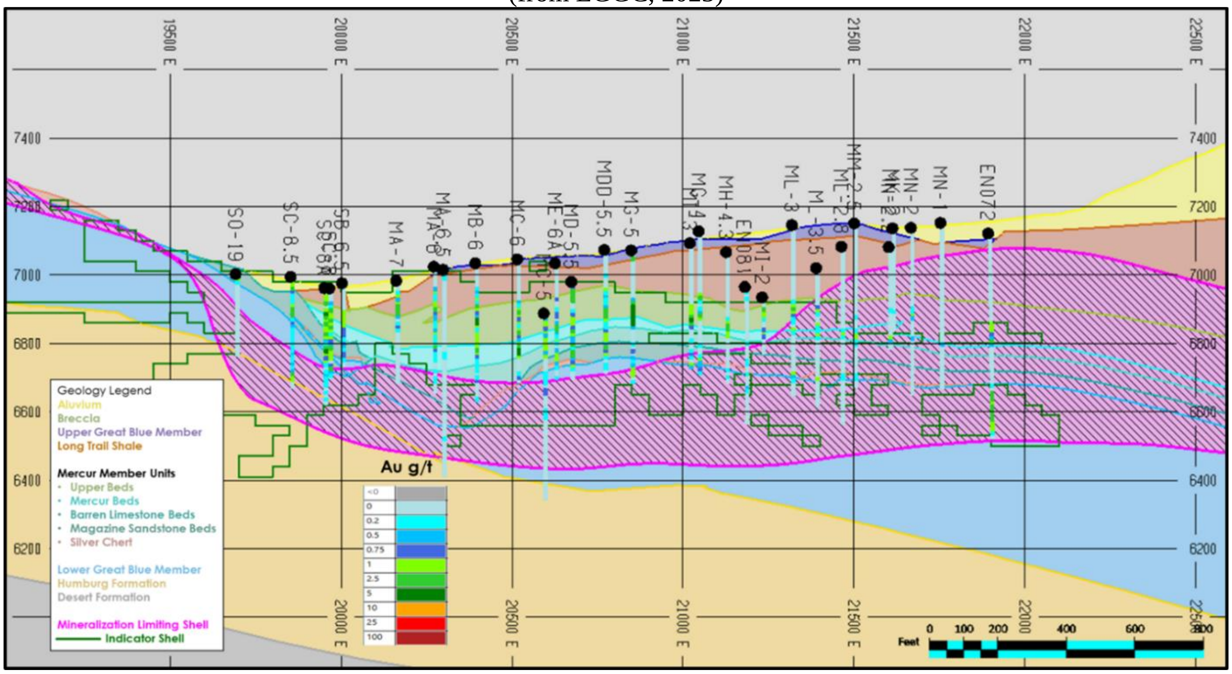


Figure 14.6 Section Showing Geology Model and Mineralization Limiting Solid in the Golden Gate Area, Section 23625 N

(from LGGC, 2023)

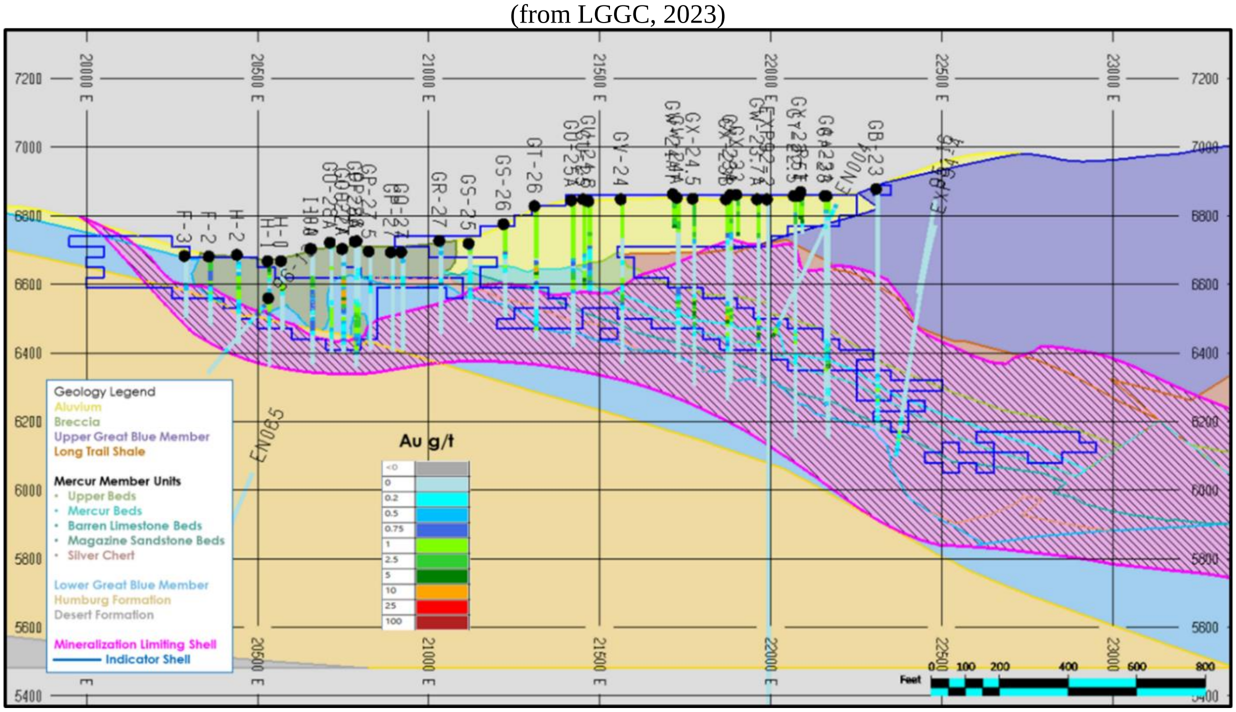
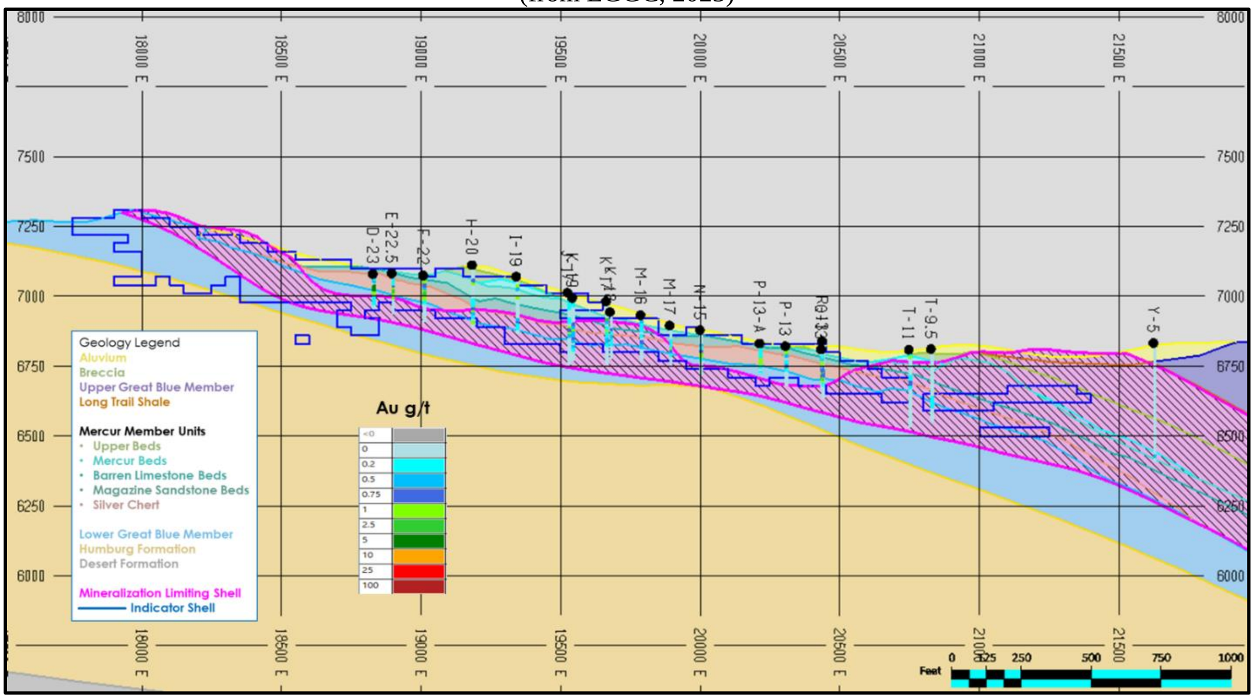


Figure 14.7 Section Showing Geology Model and Mineralization Limiting Solid in the Marion Hill Area, Section 25125 N

(from LGGC, 2023)



Several fault structures were identified in the deposit area. Portions of some structures appear to influence the distribution of mineralization in the deposits. Further study is needed to determine whether any major structures controls the distribution of mineralization.

14.4 Compositing

Compositing of drillhole samples is carried out to standardize the database for further statistical evaluation. This step eliminates any effects related to the sample length that may exist in the data.

To retain the original characteristics of the underlying data, a composite length is selected which reasonably reflects the average original sample length. The generation of longer composites results in some degree of smoothing which could mask certain features of the data. Sample intervals are relatively consistent in the database: over the whole database, samples average 5 ft long; and in the vicinity of the Mercur deposits, 82% of the samples are exactly 5 ft long. Nevertheless, due to the large number of samples and the block height of 30 ft, a standard composite length of 10 ft has been applied to the sample data. The larger composite length did not contribute any inappropriate averaging or smoothing to the ultimate block estimates. The summary statistics for the 10 ft composites tagged inside the indicator shells and the Mineralized Limiting Shell are included in Table 14.3.

Drillhole composites are length-weighted and have been generated *down-the-hole*; this means that composites begin at the top of each hole and are generated at 10 ft intervals down the length of the hole. Several holes were randomly selected, and the composited values were checked for accuracy. No errors were found. The composites were tagged with codes for the indicator shell and the MLS.

Table 14.3 Summary Statistics for 10 ft Composites, Inside Indicator and Mineralized Limiting Shells

Area	Metal (units)	No.	Mean	CV	Min	25th Q	50th Q	75th Q	Max
Mercur Main	Au (g/t)	1169 4	0.58	1.99	0.00	0.10	0.27	0.60	36.83
Mercur Main	Ag (g/t)	831	3.08	3.36	0.00	0.20	0.30	1.80	148.10
Mercur Main	As (ppm)	831	887.17	1.67	0.00	142.00	336.00	852.00	10000
Mercur Main	Fe (%)	831	1.53	0.68	0.00	0.76	1.40	2.01	5.91
Mercur Main	S (%)	831	0.65	1.43	0.00	0.10	0.17	0.83	5.01
Mercur South	Au (g/t)	8021	0.31	2.45	0.00	0.00	0.01	0.26	18.56
Mercur South	Ag (g/t)	393	0.25	0.92	0.00	0.20	0.20	0.20	3.00
Mercur South	As (ppm)	393	2080.94	1.54	0.00	82.00	678.00	2538.0 0	20000
Mercur South	Fe (%)	393	2.24	0.67	0.00	1.22	2.00	2.87	9.44
Mercur South	S (%)	393	0.55	2.32	0.00	0.02	0.07	0.57	9.35

14.5 Exploratory Data Analysis

Exploratory data analysis (EDA) involves the statistical summarization of the database to better understand the characteristics of the data that may control grade. One of the main purposes of this exercise is to determine whether there is any evidence of spatial distinctions in grade which may require the separation and isolation of domains during interpolation. The application of separate domains prevents unwanted mixing of data during grade interpolation so that the resulting grade model will better reflect the unique properties of the deposit. However, applying domain boundaries in areas where the data are not statistically unique may impose a bias in the distribution of grades in the model.

A domain boundary, which segregates the data during interpolation, is typically applied if the average grade in one domain is significantly different from that of another domain. A boundary may also be applied where there is evidence that a significant change in the grade distribution exists across a geologic contact.

14.5.1 Basic Statistics by Geology Domain

Basic statistics for the distributions of gold were generated inside the logged geology units as listed in Table 14.4. The distributions for gold are quite different in each of the geology domains. The distributions of gold inside and outside the logged geology domains are shown in the boxplot Figure 14.8.

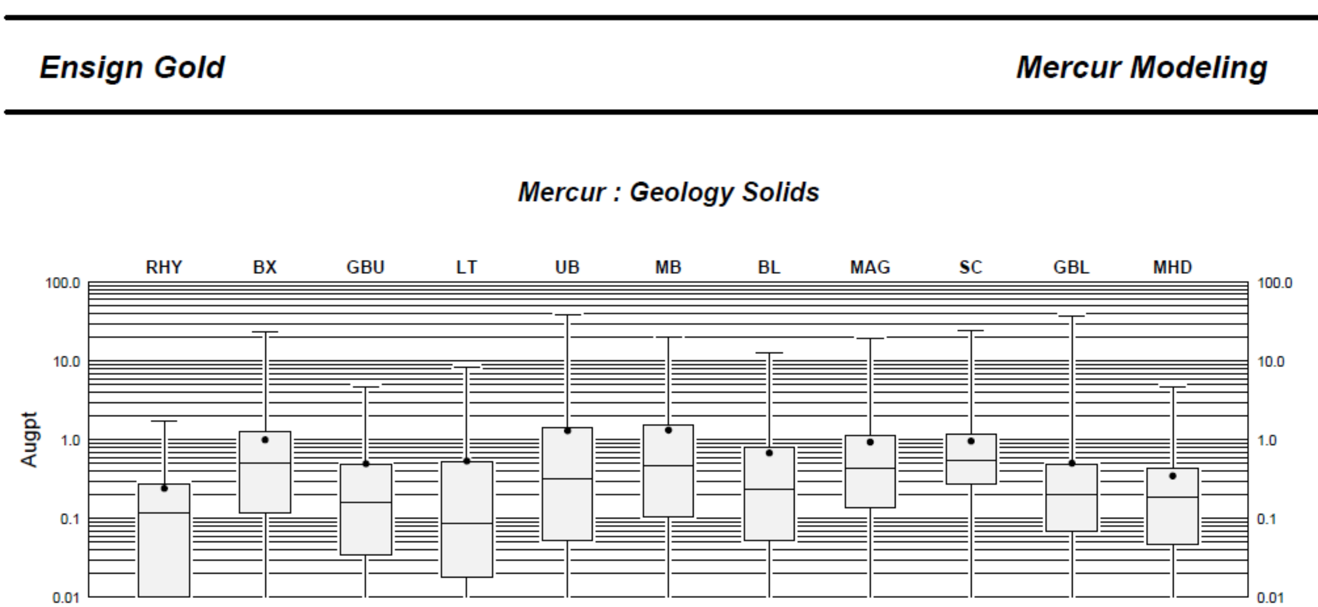
Table 14.4 Lithology Codes in Project Database

LithCode	Name	Block Code
OVB	Overburden	93
MCS	Manning Canyon Shale	23
GBU	Upper Great Blue Limestone	30
LT	Long Trail Shale	40
MM	Mercur Member (formerly MS)	
UB	Upper Beds	53
MB	Mercur Beds	54
BL	Barren Limestone	55
MAG	Magazine Sandstone	56
SC	Silver Chert Jasperoids	58
GBL	Lower Great Blue Limestone	60

LithCode	Name	Block Code
RHY	Rhyolite	10
MH	Humbug Formation	80
MHD/MD	Deseret Formation	70
NS	Not Sampled	90
TLS	Tailings	91
ALV	Alluvium	2
WRK	Workings	92
BX	Breccia	11
Vein	Vein	12
UNK	Unknown	15
UNK2	Unknown	16

Figure 14.8 Boxplots of Gold (g/t) by Lithology Unit

(from LGGC, 2023)



	RHY	BX	GBU	LT	UB	MB	BL	MAG	SC	GBL	MHD
Number of data	124	827	62	243	3179	1690	2859	4158	5179	5081	117
Mean	0.242	1.0	0.498	0.538	1.307	1.331	0.68	0.935	0.963	0.505	0.349
Variance	0.123	2.565	0.677	1.131	6.461	5.25	1.38	2.033	1.629	1.461	0.313
Skewness	2.322	5.933	2.883	3.37	4.991	3.718	3.963	3.936	4.981	11.055	4.653
Coef of Variation	1.454	1.602	1.651	1.978	1.944	1.721	1.728	1.524	1.325	2.392	1.604
Maximum	1.714	23.314	4.749	8.229	38.777	20.366	12.737	19.715	24.789	36.825	4.629
Upper quartile	0.275	1.269	0.48	0.519	1.406	1.522	0.789	1.115	1.2	0.487	0.441
Median	0.12	0.514	0.163	0.086	0.326	0.463	0.24	0.429	0.55	0.206	0.189
Lower quartile	0.01	0.12	0.035	0.018	0.052	0.104	0.052	0.137	0.274	0.068	0.048
Minimum	0.0	0.0	0.001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001

Variable: Augpt
Acceptable range 0.0 to 100.0

14.5.2 Modeling Implications

The results of the EDA indicate that elevated grades are generally confined to the Mercur Member beds and proximal units. Distinctly, lower grades occur outside these units. The mineralized stratigraphic domain is considered distinct with respect to the distribution of gold and should be treated accordingly during block grade estimations.

Table 14.5 shows gold is to be estimated in the model and indicates how the various domains are applied during grade interpolations. The MLS includes all domains within the Mercur Member beds and portions of the Lower Great Blue Limestone Member. Within the MLS, the different geology units were treated as soft boundaries so that composites were blended and used to estimate the block grades where composites outside of the MLS were not used for grade interpolation (hard boundary.

Table 14.5 Summary of Estimation Domains

Element	Domains	
	Mineralized Units	Outside Units
Gold	Soft boundary	Hard boundary

14.5.3 Segregation by Northing

Drilling programs on the Mercur deposits have tested the mineralized zone from the South Mercur area starting at 4000N to the Main Mercur area which extends to almost 33000N. Although the general nature of the mineralization varies little from south to north, there are subtle differences in the spatial distributions of gold. As a result, the segregation of data by northing, from 4000N to 12700N for South Mercur (SM) and the division of Main Mercur into north (MM-N) from 18200N to 22900N and south (MM-S) from 22900N to 33000N was applied during the variography and the treatment of outlier samples. During grade estimation the north to south transition at MM was treated as a soft boundary were composites from either side of 22900N were used.

14.6 Bulk Density

Bulk density was assigned in the model based on historic mine figures. A tonnage factor of 12 ft^3/short ton was applied to the mineral zone and other rock domain model blocks to determine tonnages. This is equivalent to a bulk density of 2.67 t/m^3.

14.7 Evaluation of Outlier Grades

Histograms and probability plots of the distributions of gold were reviewed to identify the existence of anomalous outlier grades in the composite database. As stated previously, the deposit has been separated into three areas based on northings that were examined separately as MM-N, MM-S and SM.

For the Main Mercur area the potential outlier samples were visually reviewed to determine their location in relation to the surrounding data. There were very few outlier grades in the assay or composited data and it was decided to use an outlier limitation strategy. The composite data in MM-N area did not have any outlier grades therefore no restrictions were applied. For the MM-S area a restriction of 20 g/t Au was applied over a range of 150 ft during grade interpolation. This strategy impacted 12 out of 12,214 composites in this area and only removed 1.5% of the contained metal. Samples above the outlier limit threshold grades are restricted to a maximum distance of influence during interpolation of 150 ft in MM-S.

There were no outlier assays or composites in the South Mercur area so no capping or restricted outlier strategy was used.

Composite grades for Ag, As, Fe and S were reviewed by histograms and probability plots but no capping or outlier grade restrictions were applied to the composites during grade interpolation.

14.8 Variography

The degree of spatial variability in a mineral deposit depends on both the distance and direction between points of comparison. Typically, the variability between samples increases as the distance between those samples increases. If the degree of variability is related to the direction of comparison, then the deposit is said to exhibit *anisotropic* tendencies which can be summarized with the search ellipse. The semi-variogram is a common function used to measure the spatial variability within a deposit.

The components of the variogram include the nugget, the sill, and the range. Often samples compared over very short distances, and even samples compared from the *same* location, show some degree of variability. As a result, the curve of the variogram often begins at some point on the *y*-axis above the origin: this point is called the *nugget*. The nugget is a measure of not only the natural variability of the data over very short distances, but also a measure of the variability which can be introduced due to errors during sample collection, preparation, and the assay process.

The amount of variability between samples typically increases as the distance between the samples increases. Eventually, the degree of variability between samples reaches a constant, maximum value; this is called the *sill*, and the distance between samples at which this occurs is called the *range*.

The spatial evaluation of the data in this report was conducted using a correlogram rather than the traditional variogram. The correlogram is normalized to the variance of the data and is less sensitive to outlier values, which generally gives better results.

Correlograms were generated using the commercial software package SAGE 2001© (Isaaks & Co.). Multidirectional correlograms were generated for gold in their specific domains. The results are summarized in Table 14.6.

No correlograms were generated for Ag, As, Fe or S as grade interpolation method was restricted to inverse distance squared and nearest neighbour due to the small amount of data available for these elements.

Table 14.6 Correlogram Parameters–Gold

<table>
<tr><th colspan="4"></th><th colspan="3">1st Structure</th><th colspan="3">2nd Structure</th></tr>
<tr><th>Domain</th><th>Nugget</th><th>S1</th><th>S2</th><th>Range (ft)</th><th>AZ</th><th>Dip</th><th>Range (ft)</th><th>AZ</th><th>Dip</th></tr>
<tr><td rowspan="3">South Mercur</td><td>0.200</td><td>0.525</td><td>0.275</td><td>51.0</td><td></td><td></td><td>427.5</td><td></td><td></td></tr>
<tr><td colspan="3" rowspan="2">Spherical</td><td>53.1</td><td></td><td></td><td>183.3</td><td></td><td></td></tr>
<tr><td>35.5</td><td></td><td></td><td>100.5</td><td></td><td></td></tr>
<tr><td rowspan="3">MM-S</td><td>0.176</td><td>0.688</td><td>0.135</td><td>74.3</td><td>48</td><td>-5</td><td>253.8</td><td>166</td><td>-2</td></tr>
<tr><td colspan="3" rowspan="2">Spherical</td><td>16.8</td><td>318</td><td>2</td><td>384.2</td><td>77</td><td>9</td></tr>
<tr><td>29.7</td><td>68</td><td>85</td><td>115.1</td><td>243</td><td>81</td></tr>
<tr><td rowspan="3">MM-N</td><td>0.212</td><td>0.553</td><td>0.235</td><td>74.3</td><td>125</td><td>-5</td><td>377.2</td><td>135</td><td>2</td></tr>
<tr><td colspan="3" rowspan="2">Spherical</td><td>31.8</td><td>32</td><td>-25</td><td>477.7</td><td>44</td><td>-6</td></tr>
<tr><td>35.5</td><td>46</td><td>64</td><td>136.3</td><td>26</td><td>84</td></tr>
</table>

Note: Correlograms conducted on 10 ft drillhole composite data.

14.9 Model Setup and Limits

A block model was initialized in MinePlan® and the dimensions are shown in Table 14.7. The extents of the block models are represented by the purple rectangle shown in Blocks in the model were coded on a majority basis with the various estimation domains. Blocks have also been assigned distinct codes in relation to the mineral zone domain interpretation. During this stage, blocks along a domain boundary are coded if >50% of the block occurs within the boundaries of that domain.

The proportion of blocks which occur below the topographic surfaces are also calculated and stored in the model as individual percentage items. These values are used as weighting factors to determine the in-situ mineral resources of the deposit.

Figure 14.9. The selection of a nominal block size measuring 50 x 50 x 30 ft is considered appropriate with respect to the current drillhole spacing.

Table 14.7 Block Model Limits

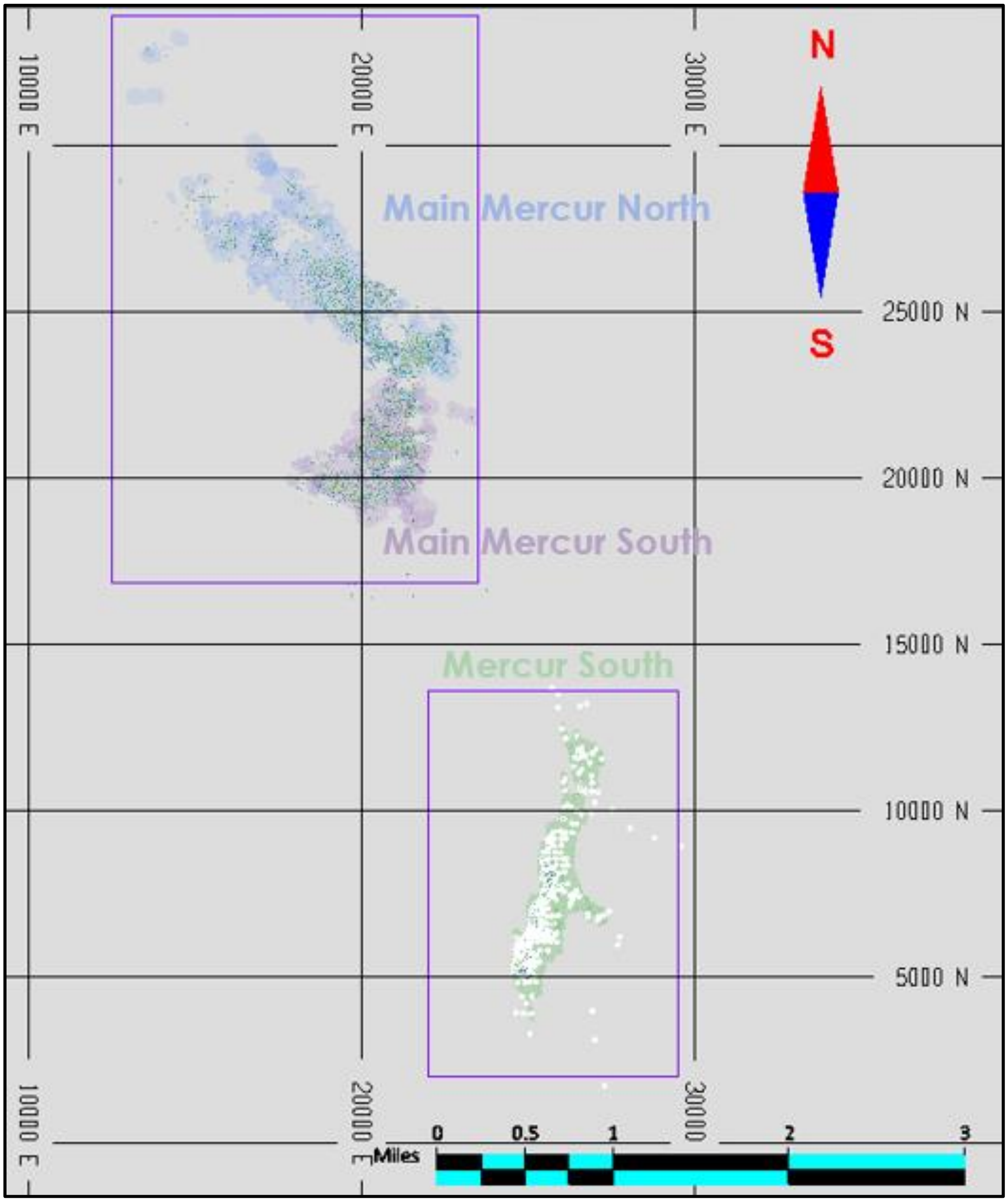
Direction	Minimum	Maximum	Block Size (ft)	Number of Blocks
Main Mercur Area				
East	**12500**	**23500**	**50**	**220**
North	**16850**	**33900**	**50**	**341**
Elevation	**5000**	**9500**	**30**	**150**
South Mercur Area				
East	**22000**	**29500**	**50**	**150**
North	**2000**	**13600**	**50**	**232**
Elevation	**2000**	**8000**	**30**	**200**

Blocks in the model were coded on a majority basis with the various estimation domains. Blocks have also been assigned distinct codes in relation to the mineral zone domain interpretation. During this stage, blocks along a domain boundary are coded if >50% of the block occurs within the boundaries of that domain.

The proportion of blocks which occur below the topographic surfaces are also calculated and stored in the model as individual percentage items. These values are used as weighting factors to determine the in-situ mineral resources of the deposit.

Figure 14.9 Location of Main Mercur and Mercur South Block Models Showing the drilling and Indicator Shells for each Area

(from LGGC, 2023)



14.10 Interpolation Parameters

The block model grades for gold are estimated using ordinary kriging (OK), inverse distance squared (ID^2) and nearest neighbour (NN) methods. The results of the OK estimation are compared with the *Hermitian Polynomial Change of Support* method, also referred to as the *Discrete*

Gaussian Correction. This method is described in greater detail in Section 14.11.2. The block model grades for Ag, As, Fe and S were estimated using ID^2 and NN method.

The Mercur property OK models were generated with a relatively limited number of samples to match the change of support or Herco (HERmitian COrrection) grade distribution. This approach reduces the amount of smoothing or averaging in the model, and, while there may be some uncertainty on a localized scale, this approach produces reliable estimations of the recoverable grade and tonnage for the overall deposit.

All grade estimations use length-weighted composite drillhole sample data. The interpolation parameters are summarized in Table 14.8 . For gold estimates, a horizontally oriented search ellipse, parallel to the general strike of the deposit areas, was used in an attempt to retain the general trend of the mineralization in areas where the drillholes are spaced farther apart.

Table 14.8 Interpolation Parameters–Gold

Interpolation Domain	Search Ellipse Range[1] (ft)			Number of Composites		
	X	Y	Z	Min/block	Max/block	Max/hole
South Mercur	500	250	150	3	15	2
MM-N	200	600	700	4	15	3
MM-S	200	600	700	4	15	3

[1] Ellipse oriented in relation to Mine Grid directions.

14.11 Validation

The results of the modeling process were validated using several methods. These include a thorough visual review of the model grades in relation to the underlying drillhole sample grades, comparisons with the change of support model, comparisons with other estimation methods, and grade distribution comparisons using swath plots.

14.11.1Visual Inspection

A detailed visual inspection of the block model was conducted in both section and plan to ensure the desired results following interpolation. This also confirmed the proper coding of blocks within the various domains. The distribution of block grades were compared relative to the drillhole samples to ensure the proper representation in the model.

14.11.2 Model Checks for Change of Support

The relative degree of smoothing in the block model estimates is evaluated using the *Discrete Gaussian Correction*; it is also referred to as the *Hermitian Polynomial Change of Support* method (described by Rossi and Deutsch, Mineral Resource Estimation; 2014). With this method, the distribution of the hypothetical block grades can be directly compared to the estimated OK model through the use of pseudo-grade/tonnage curves. Adjustments are made to the block model interpolation parameters until an acceptable match is made with the Herco grade distribution. In general, the estimated model should be slightly higher in tonnage and slightly lower in grade when compared to the Herco grade distribution at the projected cut-off grade. These differences account for selectivity and other potential ore-handling issues which commonly occur during mining.

The Herco grade distribution is derived from the declustered composite grades which are adjusted to account for the change in support, moving from smaller drillhole composite samples to the larger blocks in the model. The transformation results in a less-skewed distribution, but it has the same mean as the original declustered samples.

All models show an appropriate degree of correlation with the Herco grade distributions. Examples from the gold models within the two Main Mercur areas are shown in Figure 14.10 and 14.11, respectively.

Figure 14.10 Herco Plots of Gold Main Mercur North (> 22900N)

(from LGGC, 2023)

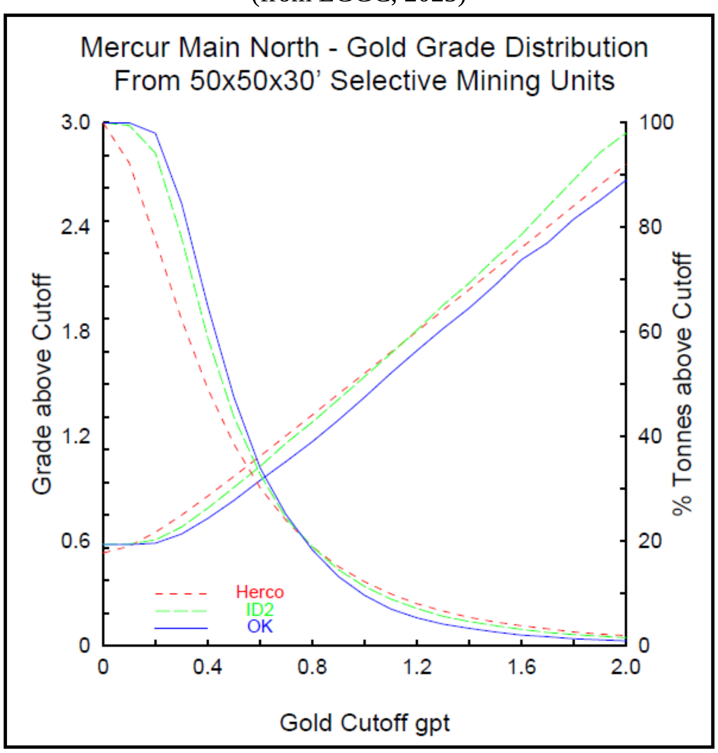
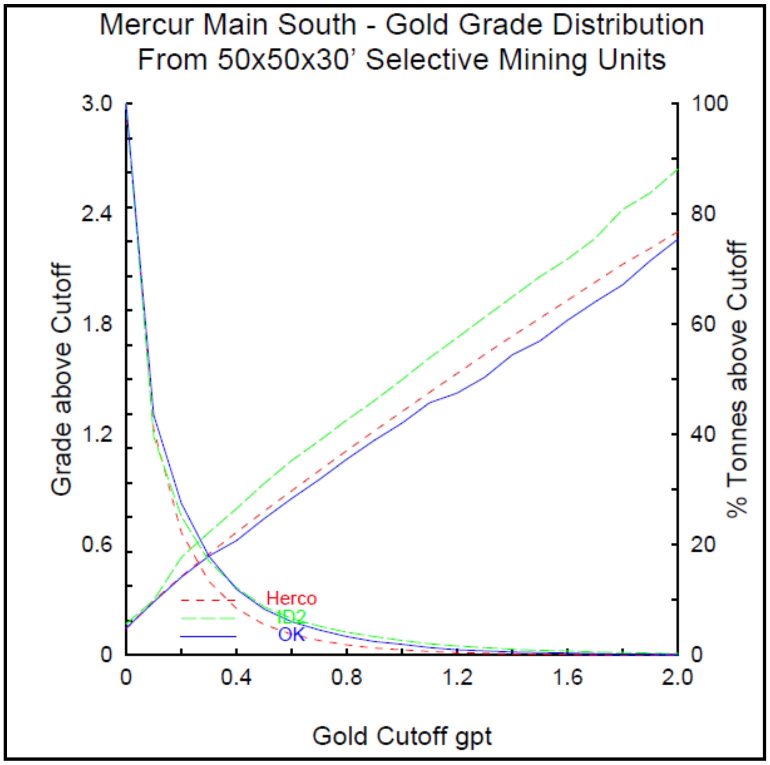


Figure 14.11 Herco Plots of Gold Main Mercur South (< 22900N)

(from LGGC, 2023)



14.11.3Swath Plots (Drift Analysis)

A swath plot is a graphical display of the grade distribution derived from a series of bands, or swaths, generated in several directions throughout the deposit. Using the swath plot, grade variations from the OK model are compared to the distribution derived from the declustered nearest neighbour (NN) grade model.

On a local scale, the NN model does not provide reliable estimations of grade, but, on a much larger scale, it represents an unbiased estimate of the grade distribution based on the underlying data. Therefore, if the OK model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend should be similar to the NN distribution of grade.

Swath plots were generated in three orthogonal directions for the distributions of all modeled elements. There is very good agreement between all modeled elements. Examples of the gold models in north-south-oriented swaths are shown in Figure 14.12 and Figure 14.13. The degree of smoothing in the OK model is evident in the peaks and valleys.

Figure 14.12 Swath Plots by Northing for Gold, OK, ID and NN Models, Main Mercur

(from LGGC, 2023)

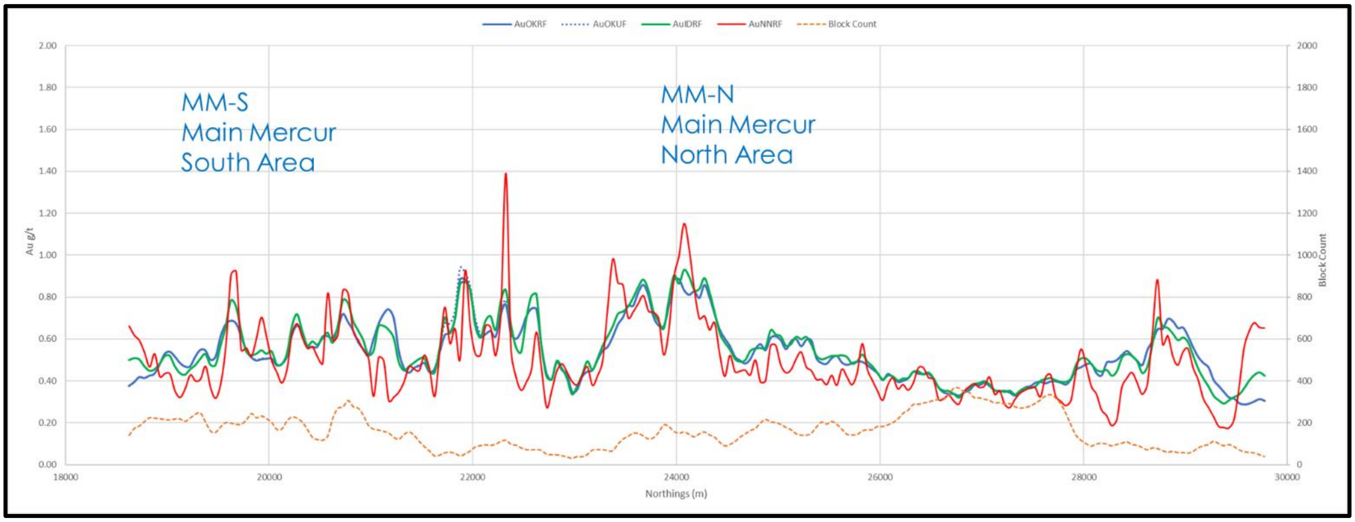
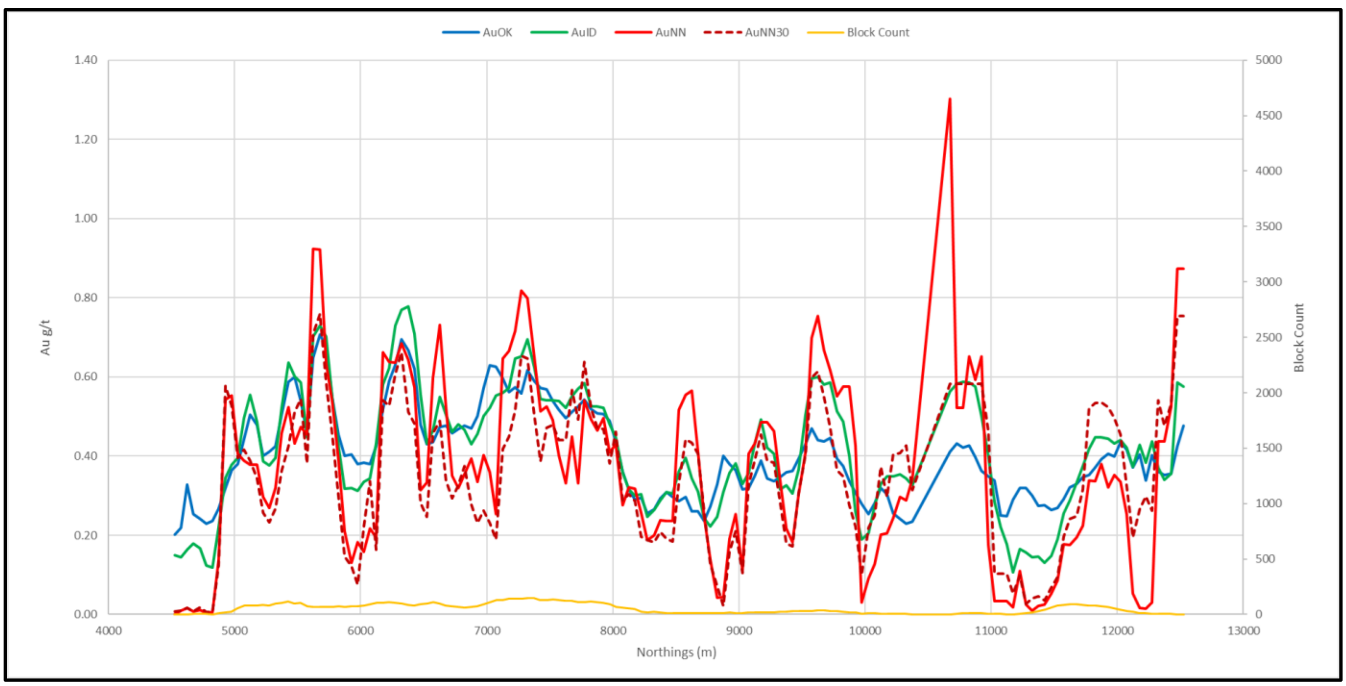


Figure 14.13 Swath Plots by Northing for Gold in OK, ID and NN Models, South Mercur

(from LGGC, 2023)



14.12 Mineral Resource Classification

The mineral resources for the Mercur deposits were classified in accordance with the CIM *Definition Standards for Mineral Resources and Mineral Reserves* (May 2014). The classification parameters are defined in relation to the distance to sample data and are intended to encompass zones of reasonably continuous mineralization.

Inferred resources are defined as that part of a Mineral Resource estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade continuity. Based on statistical analysis of drilling information and geologic interpretation continuity is implied by drilling spaced at 400 ft intervals. These results are used to define the classification criteria defined in this section.

Inferred Resources

Mineral resources in the Inferred category include model blocks which are within the indicator shell and the MLS and a maximum distance of 400 ft from two drillholes (Figure 14.14 and 14.15).

Figure 14.14 Planview of Inferred Classified Blocks in the Mineral Resource Model for the Main Mercur Area

(from LGGC, 2023)

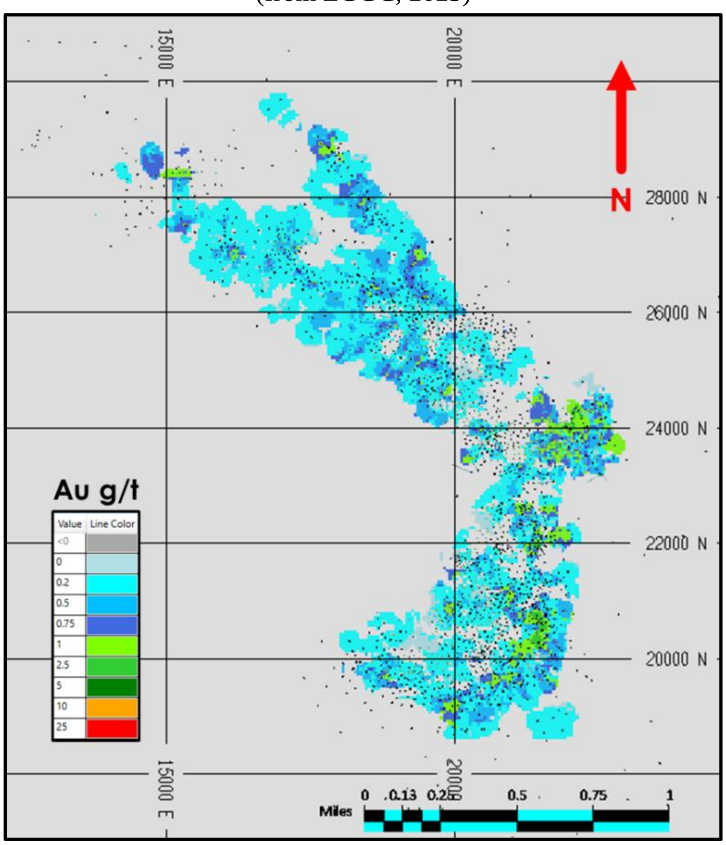
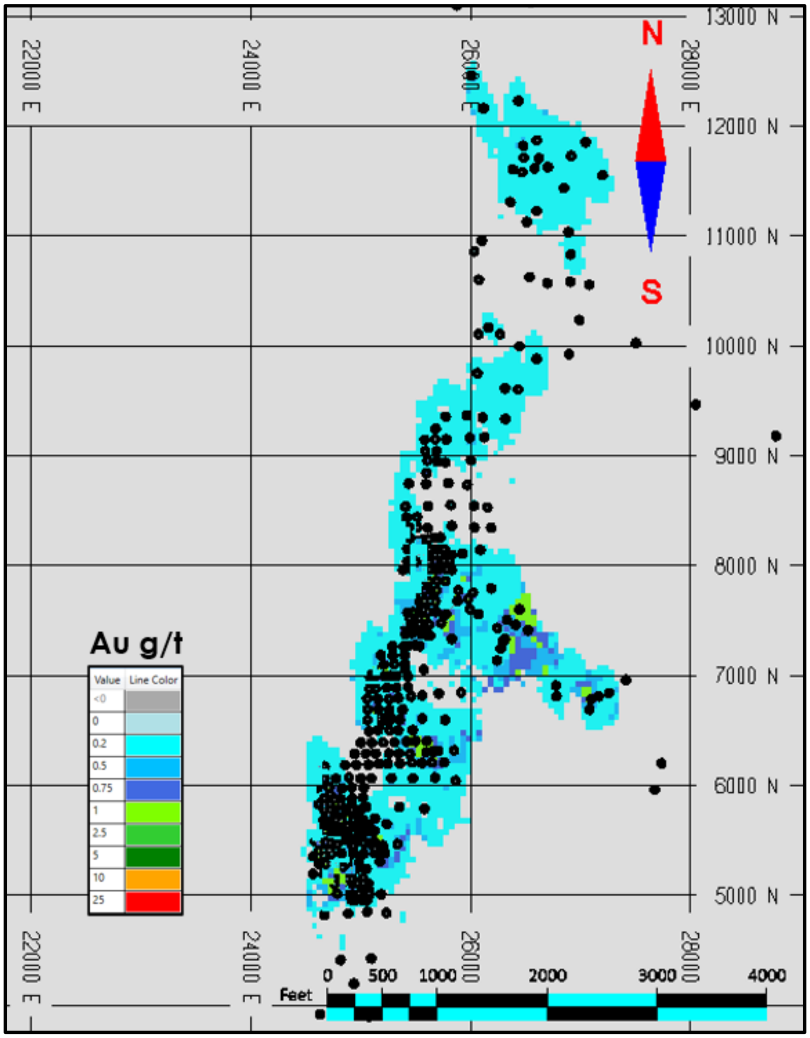


Figure 14.15 Planview of Inferred Classified Blocks in the Mineral Resource Model for the South Mercur Area

(from LGGC, 2023)



14.13 Mineral Resources

CIM *Definition Standards for Mineral Resources and Mineral Reserves* (May 2014) provides the following definition:

> *"A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling."*

The "reasonable prospects for eventual economic extraction" requirement generally implies that quantity and grade estimates meet certain economic thresholds and that mineral resources are reported at an appropriate cut-off grade which takes the extraction scenarios and processing recovery into account.

Resource-limiting pit shells were generated using the following technical and economic parameters:

- Operating costs:
  - Mining mineralization: open pit US$2.75/st
  - Mining waste: open pit US$2.25/st
  - Mining backfill: US$1.50/st
  - Processing and G&A: US$6.17/st
- Pit slope in rock: 45 degrees
- Pit slope in fill: 38 degrees
- Metal prices: US$1,800/oz Au
- Metallurgical recoveries: As shown in Table 14.10.

Ensign provided the QPs with the sample database of cyanide (CN) recovery results for historical and Ensign drillholes. The summary statistics for these data are included in Table 14.9.

Table 14.9 Summary Statistics for Cyanide Leach Data

Drilling	No. Samples	Average Recovery (%)	Minimum (%)	Maximum (%)
Historical	3512	71.31	0.00	100
Ensign	1067	62.84	0.58	100

There was not enough data to produce a hard boundary oxide-sulphide model for the project and the QPs strongly recommend that data be gathered to outline areas by their oxide state as the project advances. To assess possible areas of sulphide and oxide, the CN data was imported into the project database and interpolated into the blocks models in the MM and SM areas using ID^2 method. The interpolated recovery block values were averaged by area (

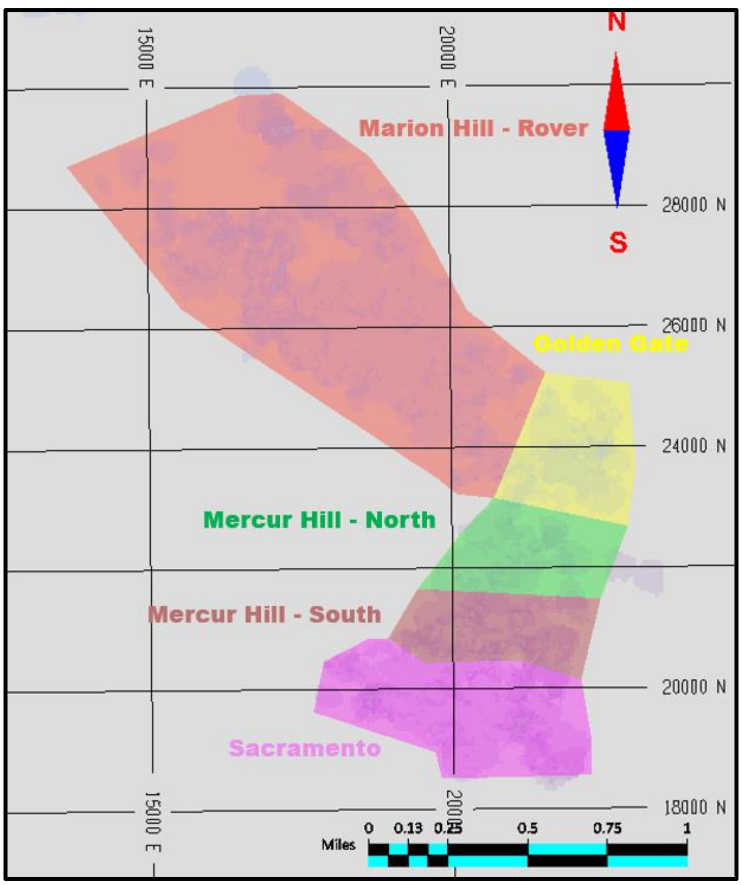
Figure 14.16) based on CN recovery values and geologic observations of both outcrop and drill samples. Blocks that contained an Au value but not a CN recovery value were assigned the average value of the area where the block was located. For the pit optimization runs the CN recovery values were discounted by 15% to reflect a coarser crush size in a potential heap leach scenario. The final averaged recoveries by area are summarized in Table 14-10.

Table 14.10 Heap Leach Recovery by Area

Metallurgical Domain	Assumed Heap Leach Recovery
Marion Hill - Rover	68%
Golden Gate	32%
Mercur Hill - North	63%
Mercur Hill - South	58%
Sacramento	65%
South Mercur	55%

Figure 14.16 Heap Leach Recovery Areas at Main Mercur Area

(from LGGC, 2023)

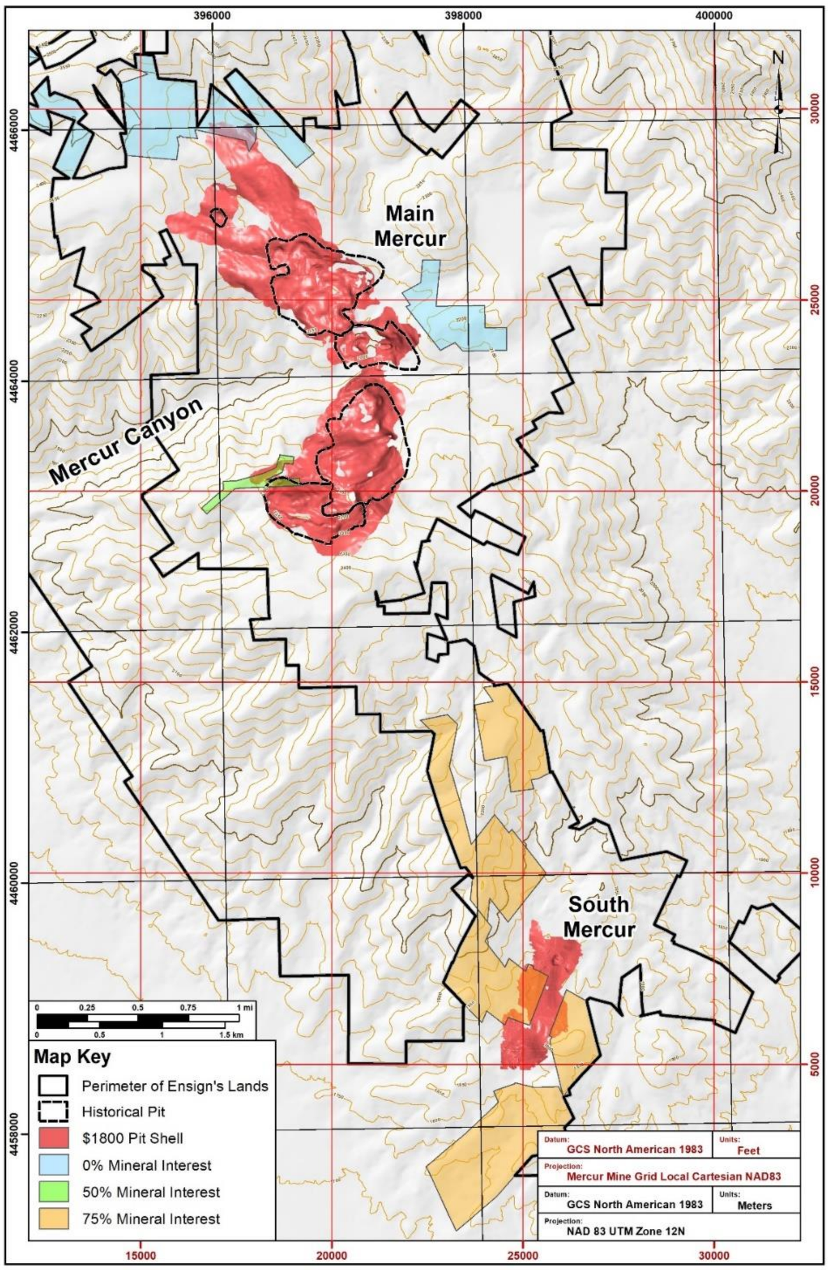


There are some blocks of claims in the Mercur Project where Ensign holds 0%, 50% or 75% of the mineral rights of the underlying mineral resources. LGGC has adjusted the mineral resources to account for these restrictions and found that only 1% of the total estimated results were removed from the inventory. The 0%, 50% and 75% claim blocks are shown in

Figure 14.17 relative to the location of the $1800 pit shells for the mineral resources.

Figure 14.17 Location of Patented Claim Blocks with 0%, 50% and 75% Discount on the Mineral Resource Estimate

(from Ensign, 2024)



An estimation was made of fill material in the historical pits using the difference between the current topography and a surface that represents the top of bedrock. The top of bedrock is called the As-Built surface and was made by Ensign personnel using drilling data and mining plans of the historical pits. The As-Built surface will be refined as the project progresses. There is currently no site-specific testing of the bulk density of the fill material in the historical pits. The QP determined the volume of material in the historical pitshells using the available topographic surfaces and used a range of density values between 1.4 to 1.8 t/m^3 to estimate the tonnes of fill material (Table 14.11).

Table 14.11 Estimation of Fill in the Historical Pits in Main Mercur

Pitshell Area	Volume ft3	Volume m3	tonnes (BD1.4)	tonnes (BD1.6)	tonnes (BD1.8)
Marion Hill	81,767,000	2,315,000	3,241,000	3,704,000	4,167,000
Golden Gate	16,976,000	480,000	672,000	768,000	864,000
Mercur Hill	399,466,000	11,311,000	15,835,400	18,097,600	20,359,800
Sacramento	75,378,000	2,134,000	2,987,600	3,414,400	3,841,200
Total	573,587,000	16,240,000	22,736,000	25,984,000	29,232,000

The total Inferred mineral resource estimate for the Mercur Project is summarized in Table 14.12. The base case cut-off grade of 0.20 g/t Au approximates the current break-even cost. The block values for Ag, As, Fe and S are not reported and were estimated to assess the spacing of the data. There are too few drillholes with assay data for these elements to rely on the resulting block values.

There has been cyanide based gold extraction on the property beginning in 1890 and mining was episodic up until 1998 with estimated total gold production of 3.5 M ounces (37.5Mt at 2.88 g/t). As stated in Section 4.4 of this report there are no known factors related to environmental issues with respect to the historical dumps and tailings that could materially impact the mineral resource. Ensign holds permits for exploration on the project site and as stated in Section 4.5 of this report, "Ensign is currently not liable for Barrick's activities under M/045/0017. However, if Ensign exercises the option to purchase the Barrick properties, Ensign will assume whatever reclamation liability remains associated with the Mercur mine." As far as the QPs are aware, there are no issues related to legal, title, or taxation which could materially affect the mineral resource.

It is expected that the majority of mineral resources in the Inferred category could be upgraded to Indicated mineral resources with continued exploration and metallurgical studies.

Table 14.12 Estimate of Inferred Mineral Resources Reported at 0.20 g/t Au Cut-off

Area	Tonnes (Mt)	Au (g/t)	Contained Metal Au (Moz)
Main Mercur	74.1	0.57	1.35
South Mercur	15.6	0.59	0.29
Total	89.6	0.57	1.64

Notes:
1) The effective date of the Mineral Resource is December 5, 2023. The QPs for the Mineral Resource are Susan Lomas, P. Geo. of Lions Gate Geological Consulting Inc (LGGC) and Dr. Bruce Davis FAusIMM.
2) CIM Definition Standards were used for Mineral Resource classification and in accordance with CIM MRMR Best Practice Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. It is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
3) High-grade samples in Main Mercur were restricted using an outlier strategy of 20 g/t Au for 150 ft (~45 m) from the composite. No grade restrictions were used in South Mercur.
4) Mineral Resources were tabulated within an optimized conceptual pitshell. The price, recovery and cost data translate to a marginal cut-off grade of approximately 0.20 g/t Au for heap leach processing method. The cut-off grade include considerations of a $1,800/oz Au price, heap leach recovery as per the values by area of 58% for Mercur Hill South, 32% for Golden Gate, 63% for Mercur Hill North, 68% for Marion Hill/Rover, 65% for Sacramento and 55% for South Mercur; open pit mining cost of $2.75/st mineralization mined, $2.25/st waste mined and $1.50/st backfill mined; processing and G&A cost of $6.17/st processed (G&A cost included, $0.50/st processed (heap leach)); pit slope of 45° in rock and 38° in fill. Bulk density value of 2.76 was used for mineralized material.
5) Rounding may result in apparent discrepancies between tonnes, grade and contained metal content.

When compared to the mineral resource summations disclosed in the NI 43-101 Report dated November 30, 2023, "*NI 43-101 Technical Report for the Mercur Project, Camp Floyd and Ophir Mining Districts, Tooele & Utah Counties, Utah, USA*":

- The in-situ gold ounces in the Main Mercur area decreased by 1.5% in the current mineral resource estimation due solely to the change in the topographic surface and the resulting resource limiting pitshell. No changes were made to the underlying block model interpolation.
- The in-situ gold ounces in the South Mercur area increased by 3.5% in the current mineral resource estimation due solely to the acquisition of additional mineral rights in the South Mercur area. Originally Ensign had 50% of the mineral rights for certain patented claims and this has increased to 75% (Figure 14-17). No changes were made to the underlying block model interpolation.

Table 14.13 shows the mineral resources at a series of cut-off limits to provide additional information regarding the sensitivity of the mineral resource.

Table 14.13 Sensitivity of Mineral Resource Estimate to Various Cutoff Grades

Area	Au Cut-off (g/t)	Tonnes (t)	Au g/t	Au Oz
Main Mercur	0.1	75,500,000	0.56	1,360,000
South Mercur	0.1	18,400,000	0.52	310,000
Total	0.1	93,900,000	0.55	1,670,000
Main Mercur	**0.2**	**74,100,000**	**0.57**	**1,350,000**
South Mercur	**0.2**	**15,600,000**	**0.59**	**290,000**
Total	**0.2**	**89,600,000**	**0.57**	**1,640,000**
Main Mercur	0.3	63,700,000	0.62	1,260,000
South Mercur	0.3	12,300,000	0.67	270,000
Total	0.3	76,000,000	0.63	1,530,000
Main Mercur	0.4	47,000,000	0.71	1,080,000
South Mercur	0.4	9,400,000	0.77	230,000
Total	0.4	56,500,000	0.72	1,310,000
Main Mercur	0.5	33,300,000	0.82	880,000
South Mercur	0.5	7,000,000	0.88	200,000
Total	0.5	40,400,000	0.83	1,080,000

Notes:

1) The effective date of the Mineral Resource is December 5, 2023. The QPs for the Mineral Resource are Susan Lomas, P.Geo. of Lions Gate Geological Consulting Inc (LGGC) and Dr. Bruce Davis FAusIMM.
2) CIM Definition Standards were used for Mineral Resource classification and in accordance with CIM MRMR Best Practice Guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. It is reasonably expected that the majority of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
3) High-grade samples in Main Mercur were restricted using an outlier strategy of 20 g/t Au for 150 ft (~45 m) from the composite. No grade restrictions were used in South Mercur.
4) Mineral Resources were tabulated within an optimized conceptual pitshell. The price, recovery and cost data translate to a marginal cut-off grade of approximately 0.20 g/t Au for heap leach processing method. The cut-off grade include considerations of a $1,800/oz Au price, heap leach recovery as per the values by area of 58% for Mercur Hill South, 32% for Golden Gate, 63% for Mercur Hill North, 68% for Marion Hill/Rover, 65% for Sacramento and 55% for South Mercur; open pit mining cost of $2.75/st mineralization mined, $2.25/st waste mined and $1.50/st backfill mined; processing and G&A cost of $6.17/st processed (G&A cost included, $0.50/st processed (heap leach); pit slope of 45° in rock and 38° in fill. Bulk density value of 2.76 was used for mineralized material.
5) Rounding may result in apparent discrepancies between tonnes, grade and contained metal content.

Figure 14.18 shows the distribution of mineral resource blocks above the 0.20 g/t Au cut-off grade in the resource limiting pit shell in the Main Mercur area (Vertical Sections are included as Figure 14.19 to Figure 14.21) and Figure 14.22 shows the distribution of mineral resource blocks above the 0.20 g/t Au cut-off grade in the resource limiting pit shell in the South Mercur area (Vertical Sections are included as Figure 14.23 to Figure 14.25).

Figure 14.18 Main Mercur: Planview of Inferred Mineral Resource Blocks Above the Resource Limiting Pit Shell and Cutoff > 0.20 Au g/t (Showing Section Locations for Figures 14.19 to 14.21)

(from LGGC, 2023)

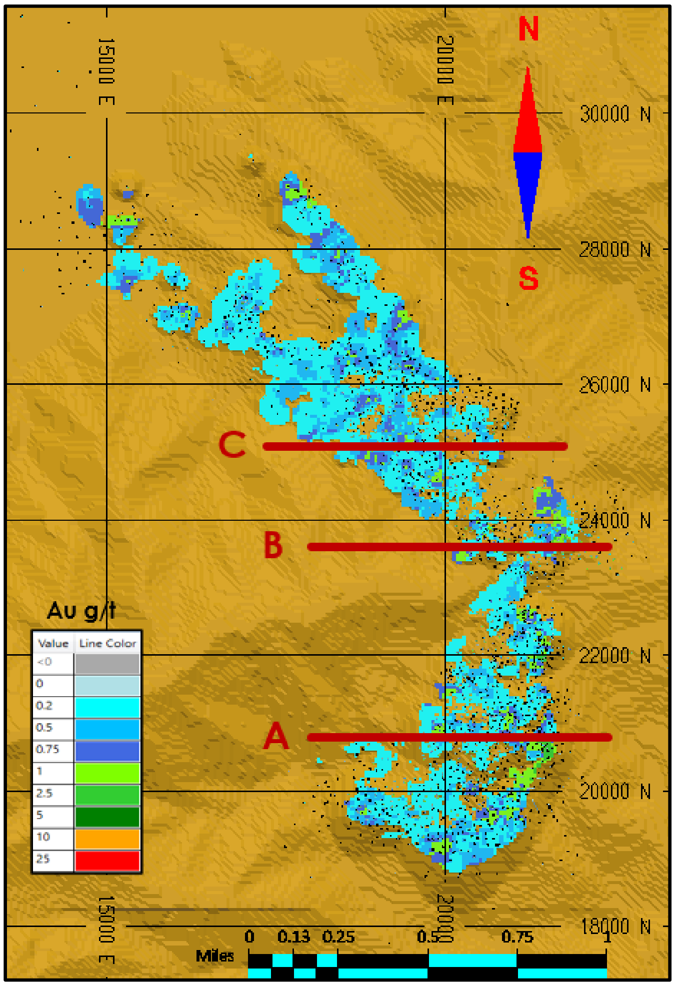


Figure 14.19 Main Mercur Area: Vertical Section, Mercur Hill South Area, Section 20825N, ("A", Figure 14-17)

(from LGGC, 2024)

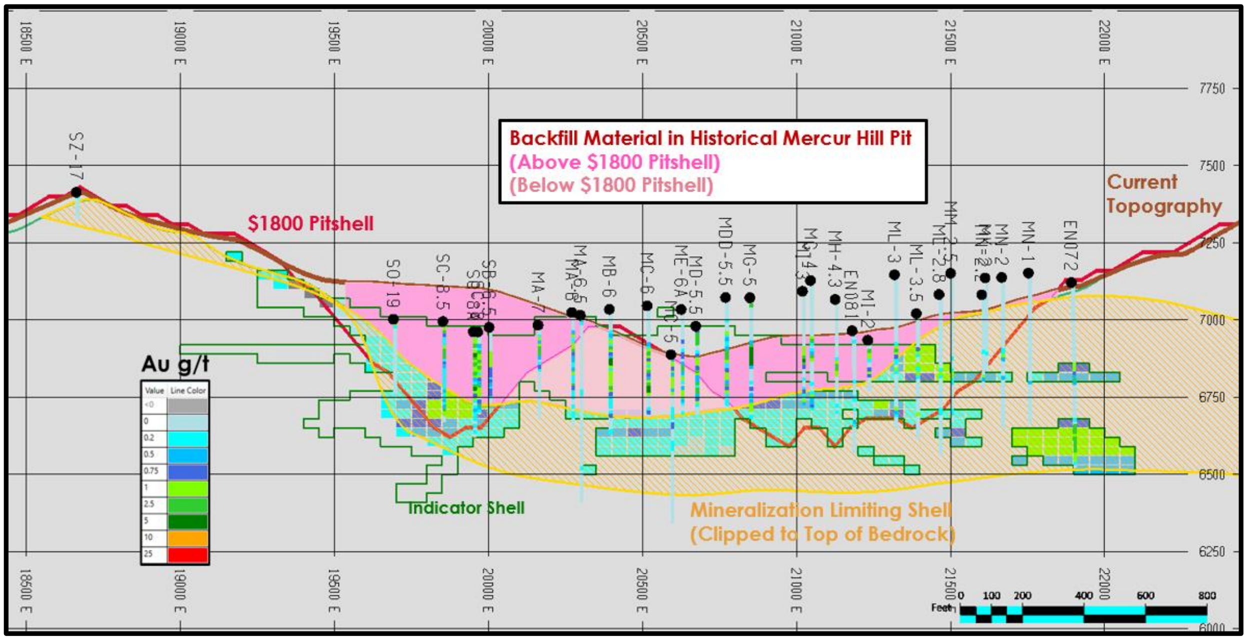


Figure 14.20 Main Mercur Area: Vertical Section, Golden Gate Area, Section 23625N, ("B", Figure 14-17)

(from LGGC, 2024)

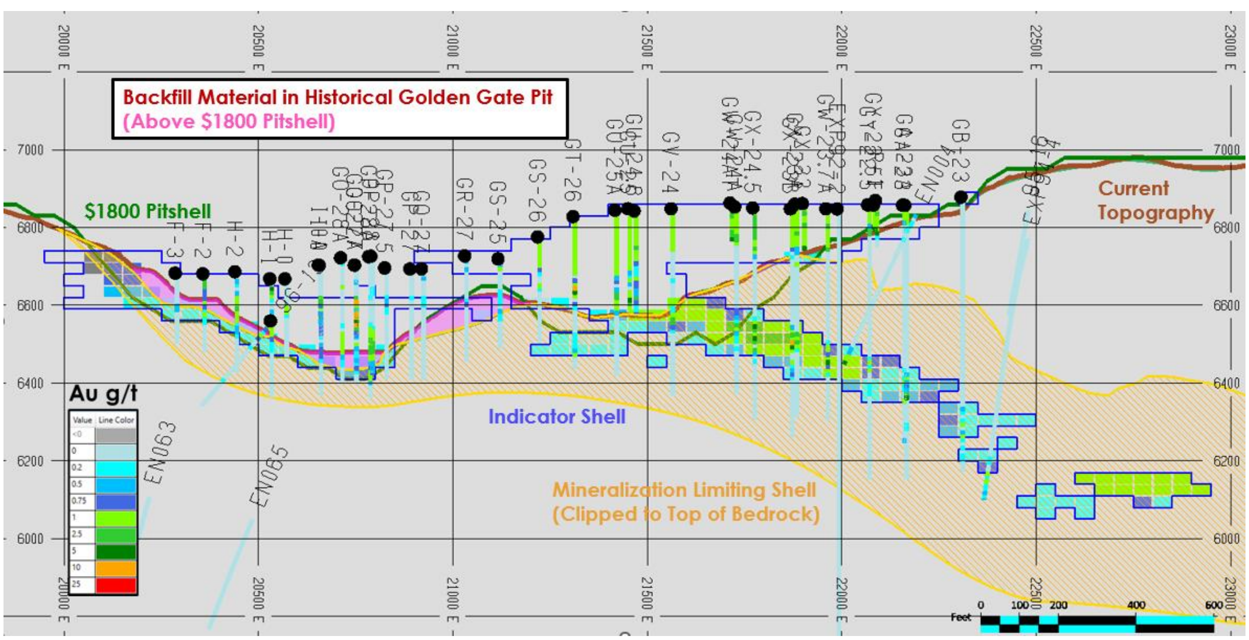


Figure 14.21 Main Mercur Area: Vertical Section, Marion Hill Area, Section 25125N, ("C", Figure 14-17)

(from LGGC, 2024)

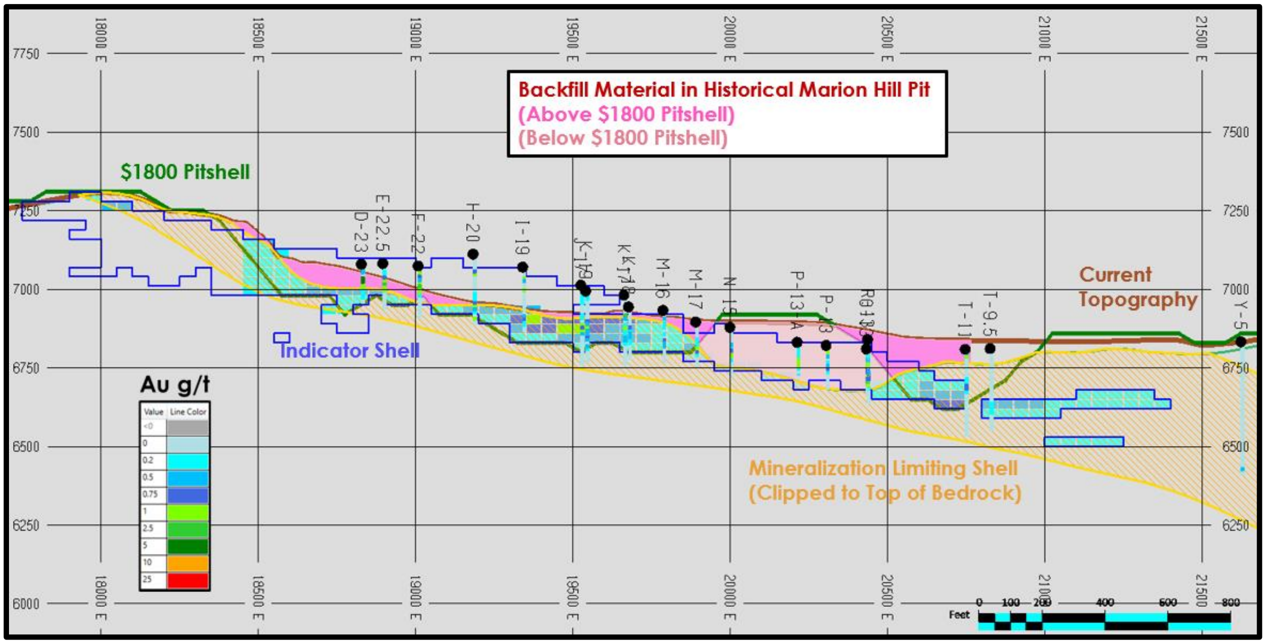


Figure 14.22 South Mercur: Planview of Inferred Mineral Resource Blocks Above the Resource Limiting Pit Shell and Cutoff of >0.20 Au g/t (Showing Section Locations for Figures 14.23 to 14.25)

(from LGGC, 2023)

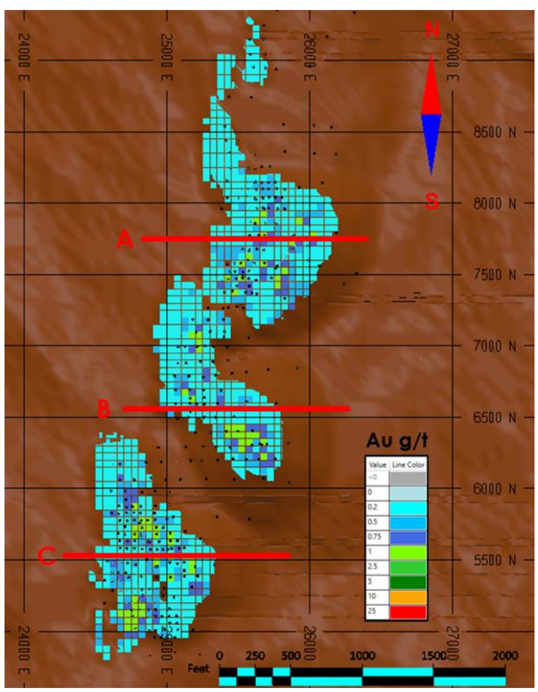


Figure 14.23 South Mercur Section 7775N (A) showing Drillholes and Block Model Au g/t

(from LGGC, 2023)

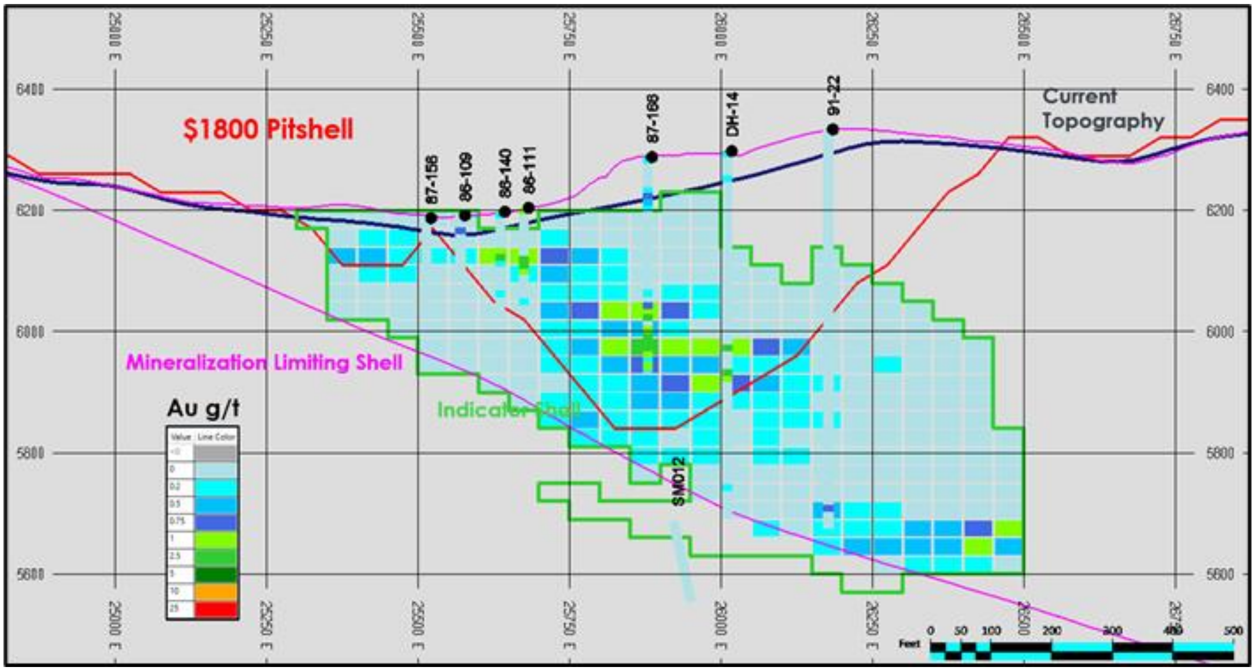


Figure 14.24 South Mercur Section 6575N (B) showing Drillholes and Block Model Au g/t

(from LGGC, 2023)

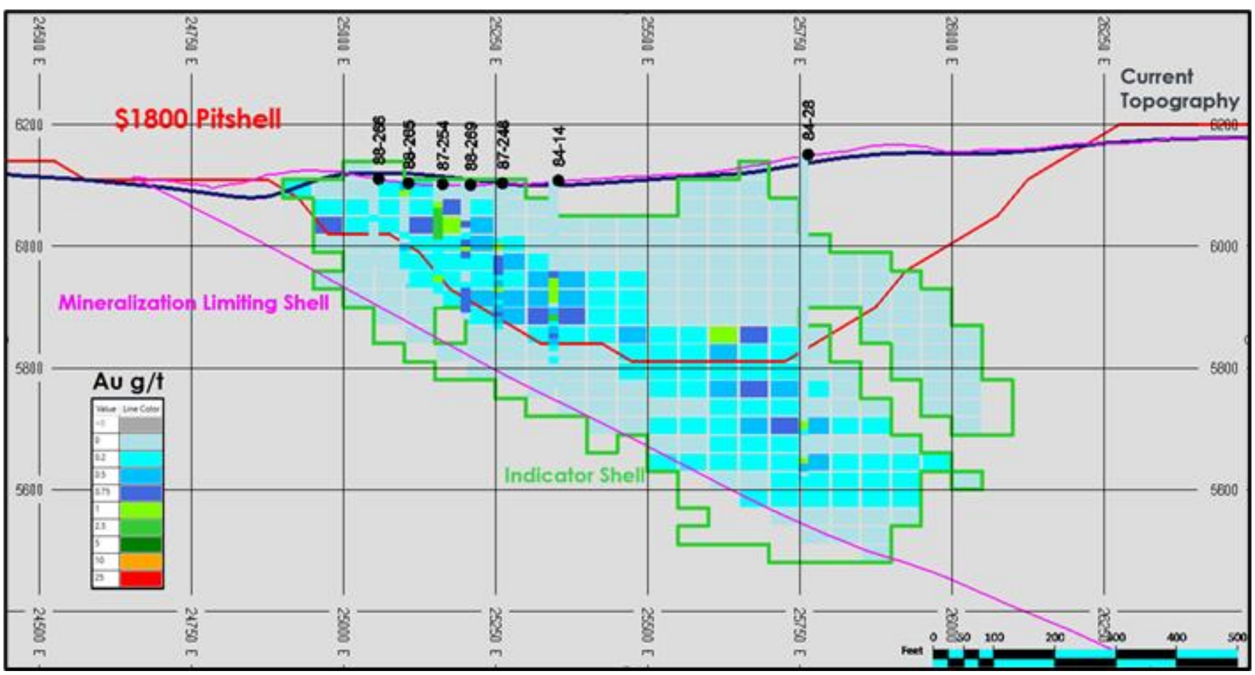
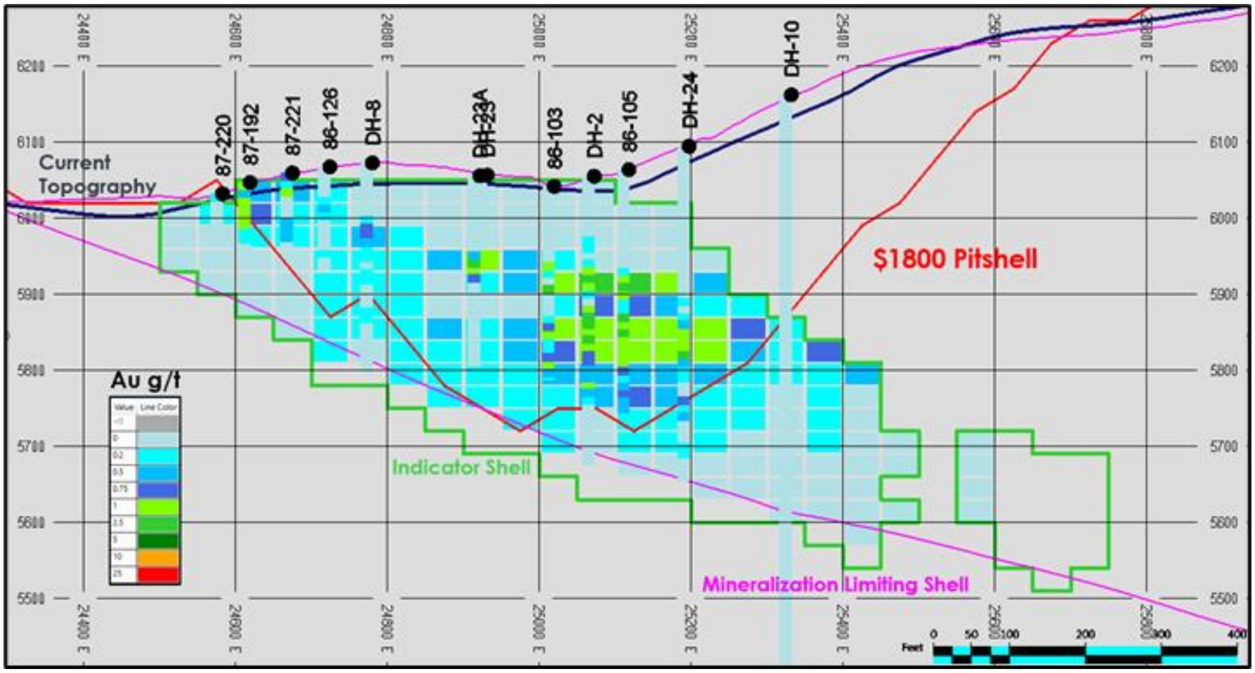


Figure 14.25 South Mercur Section 5475N (C) showing Drillholes and Block Model Au g/t

(from LGGC, 2023)



15.0 MINERAL RESERVE ESTIMATES (ITEM 15)

There are no current mineral reserves estimated for the Mercur Property.

16.0 MINING METHODS (ITEM 16)

This Section is not applicable to the Mercur Project technical report.

17.0 RECOVERY METHODS (ITEM 17)

This Section is not applicable to the Mercur Project technical report.

18.0 PROJECT INFRASTRUCTURE (ITEM 18)

This Section is not applicable to the Mercur Project technical report.

19.0 MARKET STUDIES AND CONTRACTS (ITEM 19)

This Section is not applicable to the Mercur Project technical report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT (ITEM 20)

This Section is not applicable to the Mercur Project technical report.

21.0 CAPITAL AND OPERATING COSTS (ITEM 21)

This Section is not applicable to the Mercur Project technical report.

22.0 ECONOMIC ANALYSIS (ITEM 22)

This Section is not applicable to the Mercur Project technical report.

23.0 ADJACENT PROPERTIES (ITEM 23)

The authors have no information to disclose on adjacent properties.

24.0 OTHER RELEVANT DATA AND INFORMATION (ITEM 24)

The authors are not aware of any relevant data or information available for the Mercur Project that have been excluded from this report.

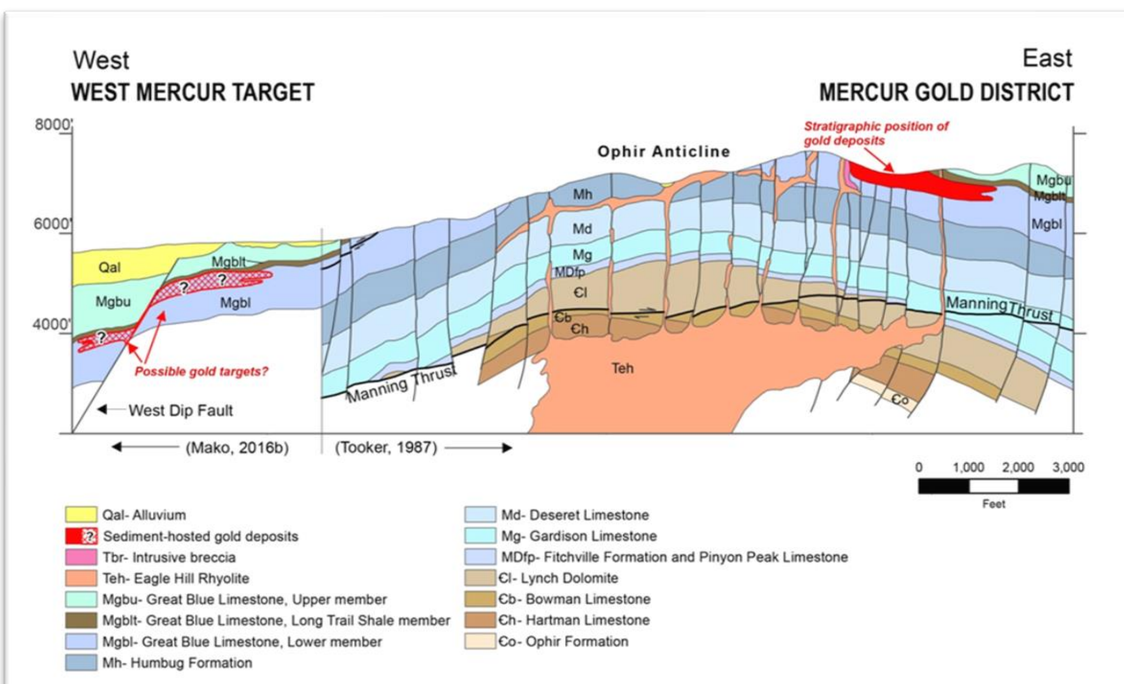
25.0 INTERPRETATION AND CONCLUSIONS (ITEM 25)

The authors have reviewed the available data from the Mercur Project, which includes the Main Mercur, South Mercur, West Mercur and North Mercur areas, and verified the data to the extent necessary for this report. Based on the work completed or supervised by the authors, it is the opinion of the authors that the Mercur Project is a project of merit and the project data are of sufficient quality for the exploration proposals presented in this report.

Carlin-type gold deposits have successfully been mined in the Mercur Project area since 1890, yielding total gold production of more than 2.6 million ounces. The vast majority of this production came from the Main Mercur area on the east flank of the Ophir anticline (Figure 25.1), initially from underground mines, and later by open pit mines that encompassed the areas of the old underground mines. Gold mineralization is also known to exist at South Mercur (also on the east flank) and West Mercur (on the West flank of the Ophir anticline; Figure 25.1) from the underground mines developed in the 1890s – 1900s. The known mineralization at West Mercur occurs in different stratigraphic units (Upper Great Blue Member) from those hosting gold at the Mercur mine (Mercur Member). The underground mines developed at North Mercur in the 1870s yielded bonanza-grade silver mineralization in similar stratigraphic units that host the Carlin-type gold deposits at Main Mercur and South Mercur (Figure 25.1). More studies may show that the North Mercur style of mineralization may represent a shallow-level silver-biased end member of Carlin-type deposits (Ressel et al., 2015).

Figure 25.1 Idealized Section and Target Model of the West to Main Mercur Area

(modified from Tooker (1987) and Mako (2016b))



Ensign has compiled a district-scale land position at the Mercur Project of 6,206 hectares. Ensign is in the process of evaluating the geology and the database of historical information for this district.

Mercur was the first Carlin-type gold deposit to be discovered in the Great Basin of the western US. More than 920,000 ounces of gold had been produced at Mercur by 1917, well before mining began at other well-known Carlin-type districts in Nevada, such as Gold Acres in 1936, Getchell in 1936, Carlin in 1965, and Cortez in 1968. Some individual Carlin-type districts in Nevada have endowments of 10 million ounces of gold or more. Exploration in the Mercur district has been largely idle since 1999, and the authors conclude that further exploration of the Mercur Project is warranted.

Based on the evaluation of the data available from the Mercur Project, the authors of this Technical Report conclude the following:

- At the effective date of this Technical Report (December 5, 2023), Ensign controls a 100% working interest in the Mercur Property covering approximately 6,255 net ha of mineral rights.
- The Mercur Property deposits are characterized as Carlin-style deposits in which favorable stratigraphic units have undergone structural preparation and host disseminated gold mineralization.
- Modern exploration on the Property began in the early 1980s. From 1983 through 1998 the Mercur Mine was operated by Getty and then Barrick. Production over the period amounted to 1,490,000 troy ounces of gold.

  The Mercur deposits are estimated to contain 89.6M tonnes of mineral resources in the Inferred category at a grade of 0.57 g/t Au. These mineral resources are constrained within a pit shell generated using a gold price of US$1,800/oz and summarized using a base case cut-off grade of 0.20 g/t Au.
- There are no known factors related to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues which could materially affect the mineral resource estimates.

In addition to the potential to expand historically drilled mineralization at the Main Mercur and South Mercur areas, the Mercur Project offers several exploration opportunities for new targets. At Main Mercur, the potential for mineralized feeder structures and deeper stratigraphic host units is under-explored. At South Mercur, where mineralization seems to occur at the intersection of the northerly strike of the Mercur Member beds and northwest-trending structural zones, there is potential for the discovery of new *en echelon* pods of mineralization. The West Mercur pediment is a greenfields area where undiscovered deposits could be concealed beneath relatively thin alluvial cover. North Mercur is an early-stage exploration area that has permissive geology for new silver and gold discoveries.

26.0 RECOMMENDATIONS (ITEM 26)

The authors recommend that Ensign initiate a multi-faceted exploration and development program at the Mercur Project to include the following activities:

- Conduct metallurgical testwork, including column test samples, from within the resource area which are representative of resource grade to support assumptions required for a Preliminary Economic Assessment. Such testwork may also support a consideration for some areas of the resource classification to be classified as Indicated Mineral Resources;
- Review of the project environmental permitting status as well as a gap analysis as to what further activities would be required to re-start mining at the Mercur Project under the existing permit;
- Optimize the current Inferred Mineral Resource Estimates at Main and South Mercur. Take advantage of the extensive, 262km drilling library and resultant dataset to better incorporate the geological understanding into future resource estimates;
- Review the current Inferred Mineral Resource Estimates at Main and South Mercur and identify areas for expansion in future drill campaigns;
- Continue property-wide prospecting and geologic mapping, which would include identifying structures related to mineralization and the possibility of new host units;
- Identify select areas for geophysical and geochemical surveys;
- Continue review, compilation, and validation of the extensive historical data as it relates to the current Inferred Mineral Resource base and how that might be incorporated into subsequent updates;
- Conduct a Preliminary Economic Assessment of the Mercur Project;
- Use the results of these activities to develop a proposal for additional work, inclusive of expansion drilling and ultimately additional economic studies along with infill and expansion drilling.

The initial phase of recommended work has an estimated total cost of US$335,000 (approximately CAD$451,000) as summarized in

Table 26.1. Subsequent work outlined in Phase 2, would be contingent upon the results of the Phase 1 activities.

Table 26.1 Ensign Cost Estimate for the Recommended Programs

Item	Cost
Phase 1 – Q1 & Q2, 2024	
Land Tenure Fees	$25,000
Exploration Overhead*	$100,000
Metallurgical Test Work	$160,000
Permitting and Baselining	$30,000
Admin and Travel	$40,000
Sub Total	**$355,000**
Phase 2 – Q3 & Q4, 2024	
Land Tenure Fees	$225,000
Exploration Overhead*	$250,000
Reclamation Bonds	$50,000
Resource Optimization	$95,000
Permitting and Baselining	$60,000
Preliminary Economic Assessment	$120,000
Reclamation Activities	$50,000
Admin and Travel	$60,000
Sub Total	**$910,000**
Grand Total (Phase 1 and 2)	**$1,265,000**

** Includes estimated payroll, consultants, travel and meals, computer software, storage rental, and necessary supplies.*

It is the authors' opinion that the Mercur Project is a project of merit that warrants the proposed program and level of expenditures outlined above.

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LISTING OF PATENTED AND UNPATENTED FEDERAL MINING CLAIMS, FEE LANDS AND LEASED STATE LANDS OWNED OR CONTROLLED BY ENSIGN GOLD (US) CORP.

Part 1 – Properties assigned to Ensign Gold (US) Corp. by Rush Valley Exploration Inc.

Part 1A –Unpatented Lode Mining Claims owned by Ensign Gold (US) Corp.

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
1	WM-01	UT101752996	UMC417451	3/28/2012		West Mercur
2	WM-04	UT101752997	UMC417454	3/28/2012		West Mercur
3	WM-05	UT101752998	UMC417455	3/28/2012		West Mercur
4	WM-10	UT101752999	UMC417460	3/28/2012		West Mercur
5	WM-11	UT101753000	UMC417461	3/28/2012		West Mercur
6	WM-16	UT101753001	UMC417466	3/28/2012		West Mercur
7	WM-17	UT101753002	UMC417467	3/27/2012		West Mercur
8	WM-18	UT101753003	UMC417468	3/27/2012		West Mercur
9	WM-19	UT101753004	UMC417469	3/27/2012		West Mercur
10	WM-20	UT101753005	UMC417470	3/27/2012		West Mercur
11	WM-21	UT101753006	UMC417471	3/27/2012		West Mercur
12	WM-22	UT101753007	UMC417472	3/27/2012		West Mercur
13	WM-23	UT101753008	UMC417473	3/27/2012		West Mercur
14	WM-24	UT101753009	UMC417474	3/27/2012		West Mercur
15	WM-25	UT101753010	UMC417475	3/27/2012		West Mercur
16	WM-26	UT101753011	UMC417476	3/27/2012		West Mercur
17	WM-27	UT101753012	UMC417477	3/27/2012		West Mercur
18	WM-28	UT101753013	UMC417478	3/27/2012		West Mercur
19	WM-33	UT101753014	UMC417483	3/27/2012		West Mercur
20	WM-34	UT101753015	UMC417484	3/27/2012		West Mercur
21	GR-01	UT101359305	UMC420548	9/1/2013		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
22	GR-02	UT101359306	UMC420549	9/1/2013		West Mercur
23	BUF-09	UT101356774	UMC422923	2/16/2014	Part 3rd party surface	West Mercur
24	BUF-10	UT101356775	UMC422924	2/16/2014	Part 3rd party surface	West Mercur
25	SUN-01	UT101356776	UMC422927	2/16/2014	3rd party surface	West Mercur
26	SUN-02	UT101357766	UMC422928	2/16/2014	3rd party surface	West Mercur
27	SUN-07	UT101357767	UMC422933	2/17/2014	3rd party surface	West Mercur
28	SUN-09	UT101357768	UMC422935	2/17/2014	3rd party surface	West Mercur
29	SUN-11	UT101357769	UMC422937	2/17/2014	3rd party surface	West Mercur
30	SUN-13	UT101357770	UMC422939	2/17/2014	3rd party surface	West Mercur
31	SUN-14	UT101357771	UMC422940	2/17/2014	3rd party surface	West Mercur
32	SUN-15	UT101357772	UMC422941	2/17/2014	3rd party surface	West Mercur
33	SUN-16	UT101358768	UMC422942	2/17/2014	3rd party surface	West Mercur
34	SUN-18	UT101358769	UMC422944	2/17/2014	3rd party surface	West Mercur
35	SUN-20	UT101358770	UMC422946	2/17/2014	3rd party surface	West Mercur
36	SUN-22	UT101358771	UMC422948	2/17/2014	3rd party surface	West Mercur
37	SUN-24	UT101358772	UMC422950	2/17/2014	3rd party surface	West Mercur
38	SW-01	UT101489039	UMC423056	7/2/2014		West Mercur
39	SW-02	UT101489040	UMC423057	7/2/2014		West Mercur
40	SW-03	UT101489041	UMC423058	7/2/2014		West Mercur
41	SW-04	UT101489042	UMC423059	7/2/2014		West Mercur
42	SW-06	UT101489043	UMC423061	7/2/2014		West Mercur
43	SW-08	UT101489044	UMC423063	7/2/2014		West Mercur
44	SW-19	UT101489045	UMC423074	7/3/2014		West Mercur
45	SW-21	UT101489046	UMC423076	7/3/2014		West Mercur
46	SW-23	UT101489047	UMC423078	7/3/2014		West Mercur
47	SW-25	UT101489048	UMC423080	7/3/2014		West Mercur
48	SW-27	UT101489049	UMC423082	7/3/2014		West Mercur
49	SW-28	UT101489050	UMC423083	7/3/2014		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
50	SW-29	UT101489051	UMC423084	7/3/2014		West Mercur
51	SW-30	UT101490065	UMC423085	7/3/2014		West Mercur
52	SW-32	UT101490066	UMC423087	7/3/2014		West Mercur
53	SW-39	UT101490067	UMC423094	7/3/2014		West Mercur
54	SW-40	UT101490068	UMC423095	7/4/2014		West Mercur
55	SW-41	UT101490069	UMC423096	7/4/2014		West Mercur
56	SW-42	UT101490070	UMC423097	7/4/2014		West Mercur
57	SW-43	UT101490071	UMC423098	7/4/2014		West Mercur
58	SW-44	UT101490072	UMC423099	7/4/2014		West Mercur
59	SW-45	UT101490073	UMC423100	7/4/2014		West Mercur
60	SW-46	UT101490074	UMC423101	7/4/2014		West Mercur
61	SW-53	UT101490075	UMC423108	7/5/2014		West Mercur
62	SW-54	UT101490076	UMC423109	7/5/2014		West Mercur
63	SW-55	UT101490077	UMC423110	7/5/2014		West Mercur
64	SW-56	UT101490078	UMC423111	7/5/2014		West Mercur
65	SW-57	UT101490079	UMC423112	7/5/2014		West Mercur
66	SW-58	UT101490080	UMC423113	7/5/2014		West Mercur
67	SW-59	UT101490081	UMC423114	7/5/2014		West Mercur
68	SW-60	UT101490082	UMC423115	7/5/2014		West Mercur
69	GR-03	UT101490083	UMC423117	7/6/2014		West Mercur
70	GR-04	UT101490084	UMC423118	7/6/2014		West Mercur
71	GR-05	UT101490085	UMC423119	7/6/2014		West Mercur
72	GR-06	UT101351096	UMC423120	7/6/2014		West Mercur
73	GR-07	UT101351097	UMC423121	7/6/2014		West Mercur
74	GR-08	UT101351098	UMC423122	7/6/2014		West Mercur
75	GR-09	UT101893698	UMC425257	10/26/2014		West Mercur
76	GR-10	UT101893699	UMC425258	10/26/2014		West Mercur
77	GR-11	UT101893700	UMC425259	10/26/2014		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
78	GR-12	UT101893701	UMC425260	10/26/2014		West Mercur
79	GR-13	UT101893702	UMC425261	10/26/2014		West Mercur
80	GR-14	UT101893703	UMC425262	10/26/2014		West Mercur
81	GR-15	UT101893704	UMC425263	10/26/2014		West Mercur
82	RV-1	UT101649492	UMC426669	4/12/2016		West Mercur
83	RV-2	UT101649493	UMC426670	4/12/2016		West Mercur
84	RV-3	UT101649494	UMC426671	4/12/2016		West Mercur
85	BUFR-01	UT101890715	UMC428912	9/1/2016	Part 3rd party surface	West Mercur
86	BUFR-02	UT101890716	UMC428913	9/1/2016	Part 3rd party surface	West Mercur
87	BUFR-07	UT101890717	UMC428915	9/1/2016	3rd party surface	West Mercur
88	BUFR-08	UT101890718	UMC428916	9/1/2016	Part 3rd party surface	West Mercur
89	SUNR-03	UT101892044	UMC428918	9/1/2016	3rd party surface	West Mercur
90	SUNR-04	UT101892045	UMC428919	9/1/2016	3rd party surface	West Mercur
91	SUNR-05	UT101892046	UMC428920	9/1/2016	Part 3rd party surface	West Mercur
92	SUNR-06	UT101892047	UMC428921	9/1/2016	Part 3rd party surface	West Mercur
93	SUNR-12	UT101892048	UMC428924	9/1/2016	Part 3rd party surface	West Mercur
94	SUNR-17	UT101892049	UMC428925	9/1/2016	Part 3rd party surface	West Mercur
95	SUNR-19	UT101892050	UMC428926	9/1/2016	3rd party surface	West Mercur
96	SUNR-21	UT101892051	UMC428927	9/1/2016	Part 3rd party surface	West Mercur
97	SUNR-23	UT101892052	UMC428928	9/1/2016	Part 3rd party surface	West Mercur
98	SUNR-26	UT101892053	UMC428930	9/3/2016	Part 3rd party surface	West Mercur
99	SUNR-27	UT101892054	UMC428931	9/3/2016	Part 3rd party surface	West Mercur
100	SUNR-29	UT101892055	UMC428933	9/3/2016	3rd party surface	West Mercur
101	SUNR-30	UT101892056	UMC428934	9/3/2016	Part 3rd party surface	West Mercur
102	SUNR-31	UT101892057	UMC428935	9/3/2016	3rd party surface	West Mercur
103	SUNR-32	UT101892058	UMC428936	9/3/2016	Part 3rd party surface	West Mercur
104	SUNR-33	UT101892059	UMC428937	9/3/2016	3rd party surface	West Mercur
105	SUNR-34	UT101892060	UMC428938	9/3/2016	3rd party surface	West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
106	SWR-20	UT101892061	UMC428959	9/2/2016		West Mercur
107	SWR-22	UT101892062	UMC428960	9/2/2016		West Mercur
108	SWR-24	UT101892063	UMC428961	9/2/2016		West Mercur
109	SWR-26	UT101892064	UMC428962	9/2/2016		West Mercur
110	SWR-48	UT101893307	UMC428968	9/3/2016		West Mercur
111	SWR-61	UT101893308	UMC428973	9/1/2016		West Mercur
112	GTO-1	UT101893309	UMC428974	9/2/2016		West Mercur
113	GTO-2	UT101893310	UMC428975	9/2/2016		West Mercur
114	GTO-3	UT101893311	UMC428976	9/2/2016		West Mercur
115	GTO-4	UT101893312	UMC428977	9/2/2016		West Mercur
116	GTO-5	UT101893313	UMC428978	9/2/2016		West Mercur
117	RVX 22	UT101646420	UMC433775	3/25/2017		West Mercur
118	RVX 23	UT101646421	UMC433776	3/26/2017		West Mercur
119	RVX 24	UT101647622	UMC433777	3/26/2017		West Mercur
120	RVX 25	UT101647623	UMC433778	3/26/2017		West Mercur
121	RVX 26	UT101647624	UMC433779	3/26/2017		West Mercur
122	RVX 27	UT101647625	UMC433780	3/26/2017		West Mercur
123	RVX 28	UT101647626	UMC433781	3/26/2017		West Mercur
124	RVX 29	UT101647627	UMC433782	3/26/2017		West Mercur
125	RVX 30	UT101647628	UMC433783	3/26/2017		West Mercur
126	RVX 31	UT101647629	UMC433784	3/27/2017		West Mercur
127	RVX 32	UT101647630	UMC433785	3/27/2017		West Mercur
128	RVX 33	UT101647631	UMC433786	3/27/2017		West Mercur
129	RVX 34	UT101647632	UMC433787	3/27/2017		West Mercur
130	RVX 35	UT101647633	UMC433788	3/27/2017		West Mercur
131	RVX 81	UT101647634	UMC433834	3/28/2017		West Mercur
132	RVX 82	UT101647635	UMC433835	3/28/2017		West Mercur
133	RVX 83	UT101647636	UMC433836	3/28/2017		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
134	RVX 84	UT101647637	UMC433837	3/28/2017		West Mercur
135	RVX 85	UT101647638	UMC433838	3/28/2017		West Mercur
136	RVX 86	UT101647639	UMC433839	3/28/2017		West Mercur
137	RVX 87	UT101647640	UMC433840	3/28/2017		West Mercur
138	RVX 88	UT101647641	UMC433841	3/28/2017		West Mercur
139	RVX 89	UT101647642	UMC433842	3/28/2017		West Mercur
140	RVX 90	UT101649022	UMC433843	3/28/2017		West Mercur
141	RVX 91	UT101649023	UMC433844	3/28/2017		West Mercur
142	RVX 92	UT101649024	UMC433845	3/28/2017		West Mercur
143	RVX 93	UT101649025	UMC433846	3/28/2017		West Mercur
144	RVX 94	UT101649026	UMC433847	3/28/2017		West Mercur
145	RVX 95	UT101649027	UMC433848	3/28/2017		West Mercur
146	RVX 96	UT101649028	UMC433849	3/28/2017		West Mercur
147	RVX 97	UT101649029	UMC433850	3/25/2017		West Mercur
148	RVX 98	UT101649030	UMC433851	3/28/2017		West Mercur
149	RVX 99	UT101649031	UMC433852	3/28/2017		West Mercur
150	RVX 100	UT101649032	UMC433853	3/28/2017		West Mercur
151	RVX 101	UT101649033	UMC433854	3/29/2017		West Mercur
152	RVX 102	UT101649034	UMC433855	3/29/2017		West Mercur
153	RVX 103	UT101649035	UMC433856	3/29/2017		West Mercur
154	RVX 104	UT101649036	UMC433857	3/29/2017		West Mercur
155	RVX 105	UT101649037	UMC433858	3/29/2017		West Mercur
156	RVX 106	UT101649038	UMC433859	3/29/2017		West Mercur
157	RVX 115	UT101649039	UMC433868	3/28/2017		West Mercur
158	RVX 116	UT101649040	UMC433869	3/28/2017		West Mercur
159	RVX 117	UT101649041	UMC433870	3/28/2017		West Mercur
160	RVX 118	UT101649042	UMC433871	3/28/2017		West Mercur
161	RVX 119	UT101650222	UMC433872	3/28/2017		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
162	RVX 120	UT101650223	UMC433873	3/28/2017		West Mercur
163	RVX 121	UT101650224	UMC433874	3/29/2017		West Mercur
164	RVX 122	UT101650225	UMC433875	3/29/2017		West Mercur
165	RVX 123	UT101650226	UMC433876	3/29/2017		West Mercur
166	RVX 124	UT101650227	UMC433877	3/29/2017		West Mercur
167	RVX 125	UT101650228	UMC433878	3/29/2017		West Mercur
168	RVX 140	UT101650229	UMC433893	3/28/2017		West Mercur
169	RVX 141	UT101650230	UMC433894	3/28/2017		West Mercur
170	RVX 142	UT101650231	UMC433895	3/28/2017		West Mercur
171	RVX 143	UT101650232	UMC433896	3/28/2017		West Mercur
172	RVX 144	UT101650233	UMC433897	3/29/2017		West Mercur
173	RVX 152	UT101650234	UMC433905	3/29/2017		West Mercur
174	RVX 153	UT101650235	UMC433906	3/29/2017		West Mercur
175	RVX 154	UT101650236	UMC433907	3/29/2017		West Mercur
176	RVX 155	UT101650237	UMC433908	3/29/2017		West Mercur
177	RVX 156	UT101650238	UMC433909	3/29/2017		West Mercur
178	LARK	UT101614311	UMC446057	2/20/2020		West Mercur
179	OW 1	UT101568703	UMC446977	5/19/2020		South Mercur
180	OW 2	UT101570026	UMC446978	5/19/2020		South Mercur
181	OW 3	UT101570027	UMC446979	5/19/2020		South Mercur
182	ALN 1	UT101570028	UMC446980	5/19/2020		South Mercur
183	ALN 2	UT101570029	UMC446981	5/19/2020		South Mercur
184	CC 1	UT101570030	UMC446982	5/19/2020		South Mercur
185	CC 2	UT101570031	UMC446983	5/19/2020		South Mercur
186	CC 3	UT101570032	UMC446984	5/19/2020		South Mercur
187	CC 4	UT101570033	UMC446985	5/19/2020		South Mercur
188	CC 5	UT101570034	UMC446986	5/19/2020		South Mercur
189	CC 6	UT101570035	UMC446987	5/19/2020		South Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date of Location	Comment	Area
190	CC 7	UT101570036	UMC446988	5/19/2020		South Mercur
191	VR 1	UT101570037	UMC446989	5/18/2020		South Mercur
192	VR 2	UT101570038	UMC446990	5/18/2020		South Mercur
193	VR 3	UT101570039	UMC446991	5/18/2020		South Mercur
194	VR 4	UT101570040	UMC446992	5/18/2020		South Mercur
195	VR 5	UT101570041	UMC446993	5/18/2020		South Mercur
196	VR 6	UT101570042	UMC446994	5/18/2020		South Mercur
197	VR 7	UT101570043	UMC446995	5/18/2020		South Mercur
198	SH 1	UT101570044	UMC446996	5/19/2020		North Mercur
199	SH 2	UT101570045	UMC446997	5/19/2020		North Mercur
200	SH 3	UT101570046	UMC446998	5/19/2020		North Mercur
201	SH 4	UT101570047	UMC446999	5/19/2020		North Mercur
202	SH 5	UT101891339	UMC447000	5/19/2020		North Mercur
203	SH 6	UT101891340	UMC447001	5/19/2020		North Mercur
204	SH 7	UT101891341	UMC447002	5/19/2020		North Mercur
205	SH 8	UT101891342	UMC447003	5/19/2020		North Mercur
206	SH 9	UT101891343	UMC447004	5/19/2020		North Mercur
207	SH 10	UT101891344	UMC447005	5/19/2020		North Mercur
208	SH 11	UT101891345	UMC447006	5/19/2020		North Mercur
209	SH 12	UT101891346	UMC447007	5/19/2020		North Mercur
210	SH 13	UT101891347	UMC447008	5/19/2020		North Mercur
211	SH 14	UT101891348	UMC447009	5/19/2020		North Mercur
212	SH 15	UT101891349	UMC447010	5/19/2020		North Mercur
213	SH 16	UT101891350	UMC447011	5/19/2020		North Mercur

Part 1B –Utah SITLA Metalliferous Minerals Leases held by Ensign Gold (US) Corp.

Lease #	Date	Legal Description (Salt Lake B&M)	Acres	Area	Interests
ML 51995	6/1/2011	T6S, R4W, Section 2: Lots 1-6, S½NE¼, S½NW¼, E½SW¼, SE¼	587	West Mercur	min only
ML 52080	1/1/2012	T6S, R4W, Section 36	640	West Mercur	min only
ML 52081	1/1/2012	T5S, R4W, Section 28: S½NW¼, NW¼SW¼, Section 29: NE¼, N½SE¼, SE¼SE¼, Section 32: NE¼, N½SE¼, SW¼SE¼	680	West Mercur	minerals, 480 acres of surface
ML 52082	1/1/2012	T5S, R4W, Section 29: W½, Section 32: W½	640	West Mercur	minerals, 600 acres of surface
ML 52083	2/1/2012	T6S, R3W, Section 32: Lots 1-10, S½S½, N½SW¼, W½NW¼	570	West Mercur	minerals & surface

Part 1C –Private Party Properties Leased by Ensign Gold (US) Corp.

Party A Lease– Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Rush Valley	3145	West Mercur	20.34	50%[1]
2	Snow Storm No. 7	3883	West Mercur	20.522	50%[1]
3	Snow Storm No. 8	3884	West Mercur	18.41	50%[1]
4	Snow Storm No. 9	3885	West Mercur	14.47	50%[1]
5	Lillian Russell	3348	West Mercur	20.53	50%[2]
6	La Cigale	3348	West Mercur	19.352	50%[2]
7	La Cigale No. 2	3348	West Mercur	19.71	50%[2]
8	La Cigale No. 4	3348	West Mercur	20.526	50%[2]
9	La Cigale No. 6	3348	West Mercur	13.268	50%[2]
10	La Cigale No. 8	3348	West Mercur	3.563	50%[2]
11	La Cigale No. 3	3348	West Mercur	18.932	50%[2]
12	La Cigale No. 5	3348	West Mercur	15.246	50%[2]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
13	La Cigale No. 12	3348	West Mercur	9.996	50%[3]
14	La Cigale No. 13	3348	West Mercur	6.866	50%[3]
15	La Cigale No. 14	3348	West Mercur	1.651	50%[3]
16	La Cigale No. 19	3348	West Mercur	3.941	50%[2]
17	La Cigale No. 20	3348	West Mercur	7.006	50%[3]

[1] The remaining 50% is leased from Party F.

[2] The remaining 50% is leased from Party C.

[3] The remaining 50% is held by a third party. There is no known mineralization on these claims and there is no impact on the ability to do the work program.

Party A Lease – Unpatented Lode Mining Claims

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Location Date	Area
1	ISURUS-01	UT101428297	UMC413344	4/21/2011	West Mercur
2	ISURUS-02	UT101400780	UMC413345	4/21/2011	West Mercur
3	ISURUS-03	UT101400781	UMC413346	4/21/2011	West Mercur
4	ISURUS-04	UT101400782	UMC413347	4/21/2011	West Mercur
5	ISURUS-05	UT101400783	UMC413348	4/21/2011	West Mercur
6	ISURUS-06	UT101400784	UMC413349	4/21/2011	West Mercur
7	ISURUS-07	UT101400785	UMC413350	4/21/2011	West Mercur
8	ISURUS-08	UT101400786	UMC413351	4/21/2011	West Mercur
9	ISURUS-09	UT101400787	UMC413352	4/22/2011	West Mercur
10	ISURUS-10	UT101400788	UMC413353	4/22/2011	West Mercur
11	ISURUS-11	UT101400789	UMC413354	4/22/2011	West Mercur
12	ISURUS-12	UT101400790	UMC413355	4/22/2011	West Mercur
13	ISURUS-13	UT101400791	UMC413356	4/22/2011	West Mercur
14	ISURUS-14	UT101400792	UMC413357	4/22/2011	West Mercur
15	ISURUS-15	UT101400793	UMC413358	4/22/2011	West Mercur
16	ISURUS-16	UT101400794	UMC413359	6/22/2011	West Mercur
17	ISURUS-17	UT101400795	UMC413360	6/22/2011	West Mercur
18	ISURUS-18	UT101400796	UMC413361	6/22/2011	West Mercur
19	ISURUS-19	UT101400797	UMC413362	6/22/2011	West Mercur
20	ISURUS-20	UT101358773	UMC422963	2/18/2014	West Mercur
21	ISURUS-21	UT101358774	UMC422964	2/18/2014	West Mercur
22	ISURUS-22	UT101358775	UMC422965	2/18/2014	West Mercur
23	ISURUS-23	UT101358776	UMC422966	2/18/2014	West Mercur

Party B Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Black Horse No. 1	3494	West Mercur	16.917	100%
2	Black Horse No. 2	3494	West Mercur	14.235	100%
3	Black Horse No. 3	3494	West Mercur	16.641	100%
4	Black Horse No. 4	3494	West Mercur	16.694	100%
5	Black Horse No. 8	3494	West Mercur	15.151	100%
6	Black Horse No. 23	3494	West Mercur	10.186	100%
7	Martha Washington	3342	West Mercur	14.43	100%
8	Vanderbilt	3342	West Mercur	19.14	100%
9	Bucklin	3342	West Mercur	19.3	100%
10	Singer	3342	West Mercur	13.93	100%
11	Vindicator	3342	West Mercur	14.39	100%
12	Golden Zone No. 1	3390	West Mercur	17.37	100%
13	Alton	3390	West Mercur	20.17	100%
14	Seago Lilly No. 1	3390	West Mercur	19.06	100%
15	Snow Storm No. 1	3877	West Mercur	15.472	100%
16	Snow Storm No. 2	3878	West Mercur	15.343	100%
17	Snow Storm No. 3	3879	West Mercur	14.559	100%
18	Snow Storm No. 4	3880	West Mercur	12.536	100%
19	Snow Storm No. 5	3881	West Mercur	18.459	100%
20	Snow Storm No. 6	3882	West Mercur	20.344	100%
21	Snow Storm No. 10	3886	West Mercur	9.468	100%
22	Grannett Mountain No. 3	3681	West Mercur	19.672	100%
23	Grannet Mt. No. 5	3681	West Mercur	20.033	100%
24	Grannet Mountain No. 2	3681	West Mercur	20.371	100%
25	Grannet Mountain	3681	West Mercur	18.761	100%
26	Granite Mt. No. 6	3681	West Mercur	4.679	100%
27	Santa Fee	3681	West Mercur	13.032	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
28	Grace K.	3681	West Mercur	15.303	100%
29	Ohio Boy	3681	West Mercur	19.905	100%
30	Nellie G.	3681	West Mercur	19.039	100%
31	Quartet No. 1	3935	West Mercur	15.161	100%
32	Kansas Boy	3935	West Mercur	17.639	100%
33	Grannet Mt. No. 4	3935	West Mercur	19.727	100%
34	Kansas Boy Fraction	3935	West Mercur	6.695	100%
35	Kansas Boy No. 4	3935	West Mercur	5.296	100%
36	Kansas Boy No. 3	3935	West Mercur	16.454	100%
37	Syndicate No. 1	3487	West Mercur	17.63	100%
38	Syndicate No. 2	3487	West Mercur	19.41	100%
39	Monopolist No. 1	3487	West Mercur	16.32	100%
40	Monopolist No. 2	3487	West Mercur	12.83	100%
41	Monopolist No. 3	3487	West Mercur	8.17	100%
42	Monopolist No. 4	3487	West Mercur	17.17	100%
43	Monopolist No. 5	3487	West Mercur	2.44	100%
44	Monopolist No. 6	3487	West Mercur	0.67	100%
45	Monopolist No. 7	3487	West Mercur	6.2	100%
46	Monopolist No. 8	3487	West Mercur	6.2	100%
47	West Shore	3164	West Mercur	20.3	100%
48	Selma	3164	West Mercur	18.8	100%
49	Sister Mary	3164	West Mercur	17.4	100%
50	West Selma	3164	West Mercur	7.76	100%
51	Four O'Clock	3164	West Mercur	5.72	100%
52	Esther	3164	West Mercur	18.31	100%
53	Alice	3164	West Mercur	19.24	100%
54	Maggie Kelly	3164	West Mercur	19.26	100%
55	Honest Dick	3164	West Mercur	17.93	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
56	Lola Barker	3164	West Mercur	18.91	100%
57	Black Sheep	3164	West Mercur	20.59	100%
58	Ivanhoe	4192	West Mercur	11.663	100%
59	Coin	4192	West Mercur	20.145	100%
60	Albion	4192	West Mercur	15.307	100%
61	Try Again	4192	West Mercur	16.549	100%

Party C Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Edna May	3381	West Mercur	18.522	100%
2	Louis No. 1	3381	West Mercur	15.863	100%
3	Louis No. 2	3381	West Mercur	17.174	100%
4	Louis No. 3	3381	West Mercur	17.174	100%
5	Gold Bug No. 1	3356	West Mercur	16.044	100%
6	Gold Bug No. 2	3356	West Mercur	16.12	100%
7	Gold Bug No. 3	3356	West Mercur	16.32	100%
8	Gold Bug No. 4	3356	West Mercur	6.718	100%
9	Snap	3350	West Mercur	17.314	100%
10	Snap No. 2	3351	West Mercur	7.302	100%
11	Solo	3411	West Mercur	17.448	100%
12	Valley View	3402	West Mercur	19.14	100%
13	Valley View No. 2	3402	West Mercur	18.565	100%
14	Valley View No. 3	3402	West Mercur	18.488	100%
15	Louis No. 10	3402	West Mercur	9.741	100%
16	Louis No. 11	3402	West Mercur	15.277	100%
17	Louis No. 14	3402	West Mercur	13.55	100%
18	La Cigale	3348	West Mercur	19.352	50%[4]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
19	La Cigale No. 2	3348	West Mercur	19.71	50%[4]
20	La Cigale No. 3	3348	West Mercur	18.932	50%[4]
21	La Cigale No. 4	3348	West Mercur	20.526	50%[4]
22	La Cigale No. 5	3348	West Mercur	15.246	50%[4]
23	La Cigale No. 6	3348	West Mercur	13.268	50%[4]
24	La Cigale No. 8	3348	West Mercur	3.563	50%[4]
25	La Cigale No. 19	3348	West Mercur	3.941	50%[4]
26	Lillian Russell	3348	West Mercur	20.53	50%[4]

[4]The remaining 50% is leased from Party A.

Party D Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Auerbach No. 1	3742	West Mercur	15.351	41.660%[5]
2	Auerbach No. 2	3742	West Mercur	19.371	41.660%[5]
3	Auerbach No. 3	3742	West Mercur	20.441	41.660%[5]
4	Auerbach No. 4	3742	West Mercur	20.441	41.660%[5]
5	Auerbach No.5	3742	West Mercur	16.01	41.660%[5]
6	Auerbach Fraction No. 1	3742	West Mercur	16.451	41.660%[5]
7	Auerbach Fragment	3742	West Mercur	16.701	41.660%[5]
8	Hoketika No. 1	3658	West Mercur	15.584	41.660%[5]
9	Hoketika No. 2	3658	West Mercur	16.611	41.660%[5]
10	Hoketika No. 3	3658	West Mercur	16.582	41.660%[5]
11	Hoketika No. 4	3658	West Mercur	17.344	41.660%[5]
12	Hoketika No. 5	3658	West Mercur	20.557	41.660%[5]
13	Hoketika No. 6	3658	West Mercur	18.845	41.660%[5]
14	Hoketika No. 7	3658	West Mercur	18.766	41.660%[5]
15	Hoketika No. 8	3658	West Mercur	1.238	41.660%[5]

16	Hoketika No. 9	3658	West Mercur	6.988	41.660%[5]

[5] Another 5.216% is leased from Party E. The remaining 53.124% is held by ten parties with interests ranging from 1.5670% to 8.3396%. There is no known mineralization on these claims and there is no impact on the ability to do the work program.

Party E Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Auerbach No. 1	3742	West Mercur	15.351	5.216%[6]
2	Auerbach No. 2	3742	West Mercur	19.371	5.216%[6]
3	Auerbach No. 3	3742	West Mercur	20.441	5.216%[6]
4	Auerbach No. 4	3742	West Mercur	20.441	5.216%[6]
5	Auerbach No.5	3742	West Mercur	16.010	5.216%[6]
6	Auerbach Fraction No. 1	3742	West Mercur	16.451	5.216%[6]
7	Auerbach Fragment	3742	West Mercur	16.701	5.216%[6]
8	Hoketika No. 1	3658	West Mercur	15.584	5.216%[6]
9	Hoketika No. 2	3658	West Mercur	16.611	5.216%[6]
10	Hoketika No. 3	3658	West Mercur	16.582	5.216%[6]
11	Hoketika No. 4	3658	West Mercur	17.344	5.216%[6]
12	Hoketika No. 5	3658	West Mercur	20.557	5.216%[6]
13	Hoketika No. 6	3658	West Mercur	18.845	5.216%[6]
14	Hoketika No. 7	3658	West Mercur	18.766	5.216%[6]
15	Hoketika No. 8	3658	West Mercur	1.238	5.216%[6]
16	Hoketika No. 9	3658	West Mercur	6.988	5.216%[6]
17	Lucky Boy	3425	South Mercur	5.060	5.216%[7]
18	Victorious	3425	South Mercur	12.48	5.216%[7]

[6] Another 41.660% is leased from Party D. The remaining 53.124% is held by ten parties with interests ranging from 1.5670% to 8.3396%. There is no known mineralization on these claims and there is no impact on the ability to do the work program.

[7] Another 41.660% is leased from Party J (Part 6D). The remaining 53.124% is held by ten parties with interests ranging from 1.5670% to 8.3396%. There is no known mineralization on these claims and there is no impact on the ability to do the work program.

Party F Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Rush Valley	3145	West Mercur	20.34	50%[8]
2	Snow Storm No. 7	3883	West Mercur	20.522	50%[8]
3	Snow Storm No. 8	3884	West Mercur	18.41	50%[8]
4	Snow Storm No. 9	3885	West Mercur	14.47	50%[8]

[8] The remaining 50% is leased from Party A.

Party G Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Snow Storm No. 13	3889	West Mercur	9.925	100%
2	Snow Storm No. 14	3890	West Mercur	14.622	100%
3	Snow Storm No. 17	3973	West Mercur	5.018	100%
4	Cedar Hill	3349	West Mercur	20.64	100%
5	Senator Stewart	3349	West Mercur	20.653	100%
6	Dollie Faunce	3349	West Mercur	20.628	100%

Party H Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Monarch	39	North Mercur	5.05	100%
2	Chloride Point	47	North Mercur	4.36	100%
3	Empire	129	North Mercur	20.402	100%
4	Monarch No. 2	130	North Mercur	6.88	100%
5	Monarch No. 3	131	North Mercur	6.88	100%
6	Northern Light	156	North Mercur	15.909	100%
7	Winter Quarters	168	North Mercur	4.408	100%
8	Wachusett	175	North Mercur	17.65	100%
9	Chance	3398	North Mercur	8.46	100%
10	Fair Day	3398	North Mercur	3.201	100%

11	Monarch Fraction	3398	North Mercur	0.309	100%
12	Columbus	3406	North Mercur	17.574	100%

<u>Part 2 – Properties owned by Ensign Gold (US) Corp.</u>

Part 2A – Acquired by Ensign Gold (US) Corp. via merger with Priority Minerals Limited

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Excess	3072	South Mercur	3.88	100%
2	Gold Point	3072	South Mercur	19.84	100%
3	Lost Link	3072	South Mercur	18.84	100%
4	Shriner	3072	South Mercur	2.48	100%
5	Sunshine	3072	South Mercur	19.86	100%
6	Sunshine No. 2	3072	South Mercur	16.84	100%
7	Andrew	3239	South Mercur	19.54	95.83%[9]
8	Armstrong	3239	South Mercur	7.29	95.83%[9]
9	Bethel	3239	South Mercur	16.18	95.83%[9]
10	David S.	3239	South Mercur	3.56	95.83%[9]
11	Fairchild	3239	South Mercur	12.9	95.83%[9]
12	Fairchild No. 2	3239	South Mercur	13.19	95.83%[9]
13	Mary K.	3239	South Mercur	18.76	95.83%[9]
14	Mary K. No. 2	3239	South Mercur	9.93	95.83%[9]
15	Phra	3239	South Mercur	17.53	95.83%[9]
16	Phra No. 2	3239	South Mercur	17.88	95.83%[9]
17	Red Jacket	3239	South Mercur	12.08	95.83%[9]
18	Silver Hill	3239	South Mercur	12.42	95.83%[9]
19	Sun Down Mine	3239	South Mercur	20.55	95.83%[9]
20	Tamar	3239	South Mercur	11.61	95.83%[9]
21	Wall	3239	South Mercur	3	95.83%[9]
22	Annie Laura	3047	South Mercur	20.3	50%[10]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
23	Annie Laura No. 1	3047	South Mercur	19.74	50%[10]
24	Annie Laura No. 2	3047	South Mercur	20.41	50%[10]
25	Annie Laura No. 3	3047	South Mercur	13.52	50%[10]
26	Gold Blossom No. 1	3047	South Mercur	9.89	50%[10]
27	Gold Blossom No. 2	3047	South Mercur	11.73	50%[10]
28	Gold Blossom No. 3	3047	South Mercur	17.79	50%[10]
29	Gold Blossom No. 4	3047	South Mercur	6.9	50%[10]
30	Tribune No. 2	3088	South Mercur	17.86	50%[10]
31	Red Cloud	3133	South Mercur	20.66	50%[11]
32	Campus	3433	South Mercur	18.336	50%[10]
33	Fellowship	3433	South Mercur	15.146	50%[10]
34	Free Coinage	3433	South Mercur	19.449	50%[10]
35	Lehi	3433	South Mercur	15.831	50%[10]
36	Little Gem	3433	South Mercur	17.504	50%[10]
37	Lower Reef	3433	South Mercur	18.185	50%[10]
38	Malvern	3433	South Mercur	14.725	50%[10]
39	Malvern No. 2	3433	South Mercur	19.05	50%[10]
40	Old Horseshoe	3433	South Mercur	18.288	50%[10]
41	OT	3433	South Mercur	16.182	50%[10]
42	Apex	3707	South Mercur	13.376	50%[10]
43	Home Stake	3707	South Mercur	10.199	50%[10]
44	Old Fred	3707	South Mercur	19.562	50%[11]
45	Old Fred No. 2	3707	South Mercur	14.124	50%[10]
46	Ouida	3707	South Mercur	17.596	50%[10]
47	Fairfield	3925	South Mercur	19.492	50%[10]
48	Golden Era	3925	South Mercur	19.283	50%[10]
49	Golden Wedge	3925	South Mercur	18.122	50%[10]
50	Mollie Gibson	3925	South Mercur	14.771	50%[10]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
51	Three Points	3925	South Mercur	3.722	50%[10]
52	Keystone No. 4	4495	South Mercur	16.168	50%[10]
53	Keystone No. 5	4495	South Mercur	16.846	50%[10]

[9] The remaining 4.17% is owned by Ensign via purchase from the J.C. Proctor Estate.

[10] Another 25% is leased from Party L (Part 6B). The remaining 25% is owned by an unleased party. There are no mineralized drill holes on these claims and there is no impact on the ability to do the work program.

[11] Another 25% is leased from Party L (Part 6B). The remaining 25% is owned by an unleased party. Less than 1% of the inferred resource is situated on these claims as discussed in Section 14.13. There is no impact on the ability to do the work program.

Part 2B – Purchased by Ensign Gold (US) Corp. from the J.C. Proctor Estate

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Andrew	3239	South Mercur	19.54	4.17%[12]
2	Armstrong	3239	South Mercur	7.29	4.17%[12]
3	Bethel	3239	South Mercur	16.18	4.17%[12]
4	David S.	3239	South Mercur	3.56	4.17%[12]
5	Fairchild	3239	South Mercur	12.9	4.17%[12]
6	Fairchild No. 2	3239	South Mercur	13.19	4.17%[12]
7	Mary K.	3239	South Mercur	18.76	4.17%[12]
8	Mary K. No. 2	3239	South Mercur	9.93	4.17%[12]
9	Phra	3239	South Mercur	17.53	4.17%[12]
10	Phra No. 2	3239	South Mercur	17.88	4.17%[12]
11	Red Jacket	3239	South Mercur	12.08	4.17%[12]
12	Silver Hill	3239	South Mercur	12.42	4.17%[12]
13	Sun Down Mine	3239	South Mercur	20.55	4.17%[12]
14	Tamar	3239	South Mercur	11.61	4.17%[12]
15	Wall	3239	South Mercur	3	4.17%[12]

[12] The remaining 95.83% is owned by Ensign via the merger with Priority Minerals.

Part 3 – Properties held by Ensign Gold (US) Corp. via Barrick Lease and Option Agreement

Part 3A – Barrick patented claims optioned by Ensign Gold (US) Corp.

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	GENTILE BELLE	46	Main Mercur	4.59	100%
2	GOLD DUST	2941	Main Mercur	16.59	100%
3	GOLD DUST No. 2	2941	Main Mercur	16.44	100%
4	GULCH	2941	Main Mercur	2.270	100%
5	SUNFLOWER	2941	Main Mercur	16.540	100%
6	TEN FORTY	2941	Main Mercur	13.680	100%
7	JONES BONANZA	2957	Main Mercur	20.660	100%
8	SHERMAN	2957	Main Mercur	12.280	100%
9	CANNON	3033	Main Mercur	19.13	100%
10	DELTA	3033	Main Mercur	0.62	100%
11	GOLDEN DREAM	3033	Main Mercur	19.36	100%
12	GOLDEN SPRAY	3033	Main Mercur	13.97	100%
13	INDEX	3033	Main Mercur	8.75	100%
14	INGOT	3033	Main Mercur	16.11	100%
15	INTERMEDIATE	3033	Main Mercur	1.32	100%
16	MEGG	3033	Main Mercur	4.10	100%
17	ROVER	3089	Main Mercur	20.22	100%
18	ROVER MINE No. 2	3089	Main Mercur	18.57	100%
19	ROVER MINE No. 3	3089	Main Mercur	14.60	100%
20	ROVER MINE No. 5	3089	Main Mercur	14.78	100%
21	LITTLE RUTH	3092	Main Mercur	20.33	100%
22	MORMON GIRL	3092	Main Mercur	20.30	100%
23	SONG BIRD	3101	Main Mercur	17.83	100%
24	SONG BIRD No. 1	3101	Main Mercur	6.85	100%
25	SONG BIRD No. 2	3101	Main Mercur	14.83	100%
26	ROVER No. 6	3152	Main Mercur	3.46	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
27	ROVER No. 7	3152	Main Mercur	7.57	100%
28	ROVER No. 8	3152	Main Mercur	0.89	100%
29	ELIZA	3156	Main Mercur	6.90	100%
30	ISABELLA	3156	Main Mercur	7.17	100%
31	DEXTER	3163	Main Mercur	12.35	100%
32	GENEROUS	3163	Main Mercur	10.360	100%
33	BALTIC No. 2	3166	Main Mercur	19.536	100%
34	CALEDONIA	3166	Main Mercur	13.434	100%
35	CONSTITUTION	3166	Main Mercur	15.940	100%
36	FREE TRADE	3166	Main Mercur	7.385	100%
37	IDAHO	3166	Main Mercur	17.707	100%
38	IDAHO No. 2	3166	Main Mercur	19.795	100%
39	SEVEN THIRTY	3166	Main Mercur	17.301	100%
40	TILLIE	3166	Main Mercur	9.170	100%
41	WEDGE	3168	Main Mercur	0.389	100%
42	BORDER No. 1	3176	Main Mercur	8.33	100%
43	BORDER No. 2	3176	Main Mercur	18.12	100%
44	BORDER No. 3	3176	Main Mercur	2.38	100%
45	BORDER No. 4	3176	Main Mercur	0.55	100%
46	AJAX	3193	Main Mercur	15.61	100%
47	GRAND VIEW	3193	Main Mercur	8.23	100%
48	JOMBO	3193	Main Mercur	13.70	100%
49	CACTUS	3190	West Mercur	19.23	100%
50	DAYTON	3190	West Mercur	19.47	100%
51	DOUGLAS	3190	West Mercur	17.00	100%
52	INDIANA	3190	West Mercur	14.81	100%
53	OHIO	3190	West Mercur	17.92	100%
54	OMAHA	3190	West Mercur	15.94	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
55	DAISEY No. 1	3386	West Mercur	19.30	100%
56	DAISEY No. 2	3386	West Mercur	20.49	100%
57	DAISEY No. 3	3386	West Mercur	20.13	100%
58	DAISEY No. 4	3386	West Mercur	20.25	100%
59	DAISEY No. 5	3386	West Mercur	20.23	100%
60	DAISEY No. 6	3386	West Mercur	20.51	100%
61	McENTIRE No. 2	3386	West Mercur	20.27	100%
62	McENTIRE No. 3	3386	West Mercur	20.27	100%
63	MERCUR	57	Main Mercur	6.36	100%
64	RESOLUTE No. 2	62	Main Mercur	10.470	100%
65	NIMROD	63	Main Mercur	18.110	100%
66	SOUTHSIDE No. 2	65	Main Mercur	13.630	100%
67	APEX	66	Main Mercur	12.560	100%
68	RUBY	67	Main Mercur	17.940	100%
69	APEX No. 2	68	Main Mercur	0.97	100%
70	RALPH	69	Main Mercur	18.850	100%
71	FREMONT	70	Main Mercur	18.130	100%
72	LULU	71	Main Mercur	19.90	100%
73	ARAB	72	Main Mercur	12.090	100%
74	BRICKYARD	72	Main Mercur	20.03	100%
75	JUSTICE	72	Main Mercur	12.780	100%
76	POTOSI	72	Main Mercur	7.422	100%
77	LADY MAY	74	Main Mercur	11.503	100%
78	SULLIVAN	74	Main Mercur	9.560	100%
79	VULTURE	74	Main Mercur	16.487	100%
80	GRASSHOPPER	2948	Main Mercur	15.223	100%
81	MABEL	2948	Main Mercur	15.360	100%
82	NOONDAY	2948	Main Mercur	2.640	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
83	B.B.	2977	Main Mercur	19.66	100%
84	MAGPIE	2977	Main Mercur	0.490	100%
85	SURPRISE	2977	Main Mercur	18.180	100%
86	EXCHEQUER	2979	Main Mercur	16.424	100%
87	ROB ROY	2979	Main Mercur	2.217	100%
88	PLUTARCH	2982	Main Mercur	0.783	100%
89	NAVIGATOR	2984	Main Mercur	9.167	100%
90	WEDGE OF GOLD	2984	Main Mercur	2.638	100%
91	FUNDAMENTAL	3078	Main Mercur	2.20	100%
92	DEFIANCE	3087	Main Mercur	1.70	100%
93	INDEPENDENCE	3087	Main Mercur	1.18	100%
94	MATTIE No. 4	3110	Main Mercur	3.50	100%
95	MATTIE No. 5	3111	Main Mercur	17.89	100%
96	KEYSTONE	3112	Main Mercur	0.40	100%
97	FOURTH OF SEPTEMBER	3136	Main Mercur	4.41	100%
98	HARD TIMES	3136	Main Mercur	13.06	100%
99	HARD TIMES No. 2	3136	Main Mercur	8.50	100%
100	HARD TIMES No. 3	3136	Main Mercur	8.40	100%
101	SNOWFLAKE	3246	Main Mercur	0.913	100%
102	MERRETT	3290	Main Mercur	20.644	100%
103	MERRETT No. 1	3290	Main Mercur	20.644	100%
104	MERRETT No. 2	3290	Main Mercur	18.380	100%
105	ORTEGA	3291	Main Mercur	0.750	100%
106	TEMPEST	3321	Main Mercur	0.134	100%
107	HARD TIMES No. 4	3328	Main Mercur	1.678	100%
108	GENEVIEVE	3511	Main Mercur	3.479	100%
109	OLD GUARD	3511	Main Mercur	15.549	100%
110	GOLD FLAT	3284	Main Mercur	18.757	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
111	LITTLE VEE	3284	Main Mercur	4.331	100%
112	ROVER MINE No. 4	3284	Main Mercur	15.953	100%
113	LEHI	3320	Main Mercur	1.70	100%
114	CUSTER No. 2	3403	West Mercur	6.606	100%
115	DOLLY VARDEN	3403	West Mercur	19.080	100%
116	DOLLY VARDEN FRACTION	3403	West Mercur	2.206	100%
117	JOHN ADAM	3403	West Mercur	2.484	100%
118	MILLER	3403	West Mercur	20.449	100%
119	YANKEE GIRL	3403	West Mercur	19.819	100%
120	YANKEE GIRL No. 2	3403	West Mercur	2.031	100%
121	YANKEE GIRL No. 3	3403	West Mercur	1.663	100%
122	YANKEE GIRL FRACTION	3403	West Mercur	3.051	100%
123	DUMP NO. 1	3120	Main Mercur	17.276	100%
124	DUMP NO. 2	3120	Main Mercur	13.666	100%
125	LITTLE JOINT	3120	Main Mercur	5.13	100%
126	SILVER BELL	3120	Main Mercur	13.10	100%
127	TRAMWAY	3120	Main Mercur	20.372	100%
128	GENERAL SHERMAN	3526	Main Mercur	4.413	100%
129	CRESCENT	3755	Main Mercur	3.067	100%
130	STAR OF THE WEST	44	Main Mercur	5.42	100%
131	ANTIQUE	3649	Main Mercur	11.010	100%
132	WHITE OAK	3649	Main Mercur	11.922	100%
133	WHITE OAK No. 2	3649	Main Mercur	11.807	100%
134	ANTIQUE No. 2	3653	Main Mercur	9.540	100%
135	MERCUR GOLD BAR No. 1	7204	Main Mercur	20.661	100%
136	MERCUR GOLD BAR No. 3	7204	Main Mercur	20.661	100%
137	BUNKER HILL	2989	Main Mercur	19.410	100%
138	CARTHAGE	2989	Main Mercur	5.88	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
139	CARTHAGENIA	2989	Main Mercur	0.34	100%
140	CYCLONE	2989	Main Mercur	20.22	100%
141	FALCON	2989	Main Mercur	19.420	100%
142	GUNSITE	2989	Main Mercur	14.14	100%
143	HILLSIDE	2989	Main Mercur	17.380	100%
144	HILLSIDE No. 2	2989	Main Mercur	3.710	100%
145	HILLSIDE No. 3	2989	Main Mercur	14.870	100%
146	COLORADO	3128	Main Mercur	14.59	100%
147	GOLD CHANNEL	3179	Main Mercur	20.32	100%
148	GOLD CHANNEL No. 1	3179	Main Mercur	19.03	100%
149	GOLD CHANNEL No. 2	3179	Main Mercur	11.71	100%
150	RELIANCE	3179	Main Mercur	16.92	100%
151	RELIEF	3179	Main Mercur	12.93	100%
152	THURSDAY	3179	Main Mercur	9.88	100%
153	TIP TOP	3179	Main Mercur	18.08	100%
154	CHRISTMAS GIFT	3679	Main Mercur	5.494	100%
155	GOLD CHAIN	3679	Main Mercur	4.355	100%
156	TRADE MARK	4568	Main Mercur	0.065	100%
157	DIDSBURY	3479	Main Mercur	16.648	50%[13]
158	GLADSTONE No. 1	3479	Main Mercur	15.654	50%[13]
159	GLADSTONE No. 2	3479	Main Mercur	15.956	50%[13]
160	LEADVILLE No. 3	3479	Main Mercur	11.218	50%[13]
161	MARK CORY	3479	Main Mercur	14.497	50%[13]
162	HAZLE	2994	Main Mercur	11.662	16.67%[14]
163	BONANZA FRACTION	2957	Main Mercur	6.855	Surf only[15]
164	BONANZA No. 2	2957	Main Mercur	7.747	Surf only[15]
165	UTAH No. 3	2957	Main Mercur	0.560	Surf only[15]
166	ABE LINCOLN	3086	Main Mercur	20.01	Surf only[15]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
167	45TH STAR	3667	Main Mercur	6.115	Surf only[15]
168	GOLD RING	3086	Main Mercur	20.66	Surf only[15]
169	MARY E.	3073	Main Mercur	10.52	Surf only[16]
170	MARY E. No. 2	3073	Main Mercur	3.68	Surf only[16]
171	NORTH SIDE	3073	Main Mercur	16.220	Surf only[16]
172	OLD GROVER	3073	Main Mercur	19.47	Surf only[16]
173	WONDER	3073	Main Mercur	12.30	Surf only[17]
174	HECLA	3079	Main Mercur	11.21	Surf only[17]
175	HECLA No. 1	3079	Main Mercur	2.61	Surf only[17]
176	HECLA No. 2	3079	Main Mercur	17.15	Surf only[17]
177	HECLA No. 3	3079	Main Mercur	17.62	Surf only[17]
178	HECLA No. 4	3079	Main Mercur	18.52	Surf only[17]
179	SEAL	3180	Main Mercur	4.13	Surf only[17]
180	SEAL No. 2	3180	Main Mercur	2.50	Surf only[17]
181	SEAL No. 3	3180	Main Mercur	2.33	Surf only[17]
182	STRONG FRACTION NO.1	3200	Main Mercur	2.30	Surf only[17]
183	ELMA	3260	Main Mercur	20.63	Surf only[17]
184	McKAY	3260	Main Mercur	20.45	Surf only[17]
185	SCRIBNER	3260	Main Mercur	19.74	Surf only[17]
186	SCRIBNER No. 2	3271	Main Mercur	6.02	Surf only[17]
187	SCRIBNER No. 3	3271	Main Mercur	4.17	Surf only[17]
188	GRAY BOLL No. 1	3102	Main Mercur	9.370	Surf only[18]
189	GRAY BOLL No. 2	3102	Main Mercur	13.610	Surf only[18]

[13] The remaining 50% is owned by third parties. There is no known mineralization on these claims and there is no impact on the ability to do the work program.

[14] The remaining 83.33% of the Hazle claim is optioned by Ensign from Sacramento Gold Mining Company (82.33%) and Geyser Marion Gold Mining Company (1%).

[15] The mineral interests are held by third parties. These claims include the Barrick office, a heap leach facility and other infrastructure. No mineralization is known to occur on the claims and there is no impact on the ability to do the work program.

[16] The mineral interests are held by a third party. These claims include access roads and other infrastructure. Deep drill holes have encountered subeconomic mineralization on the claims. Barrick holds a right of first refusal to acquire the mineral interests. There is no impact on the ability to do the work program.

[17] Ensign holds the mineral interests via the option agreement with Geyser Marion Gold Company.

[18] The mineral interests are held by third parties. These claims include a portion of the tailings facility and other infrastructure. No mineralization is known to occur on the claims and there is no impact on the ability to do the work program.

Part 3B – Barrick fee lots optioned by Ensign Gold (US) Corp.

Count	Surveyed Fee Lots	Twp Rng Sec	Area	Acres	Undivided Interest
1	LOTS 11, 13, 16 THRU 26	T5S R3W Sec 31	Main Mercur	26.58	100%
2	LOT 6	T5S R3W Sec 33	Main Mercur	30.52	100%
3	LOT 4	T6S R3W Sec 4	Main Mercur	0.66	100%
4	LOT 9	T6S R3W Sec 4	Main Mercur	17.89	100%
5	LOTS 1, 5, 7, 10, 13, 16, 17, 18, 19, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38	T6S R3W Sec 5	Main Mercur	85.21	100%
6	LOTS 1, 4, 5, 17, 18, 21 THRU 37	T6S R3W Sec 6	Main Mercur	81.26	100%
7	LOTS 8, 11 THRU 16, 19, 20, 21, 23, 24, 27 THRU 31	T6S R3W Sec 7	Main Mercur	70.34	100%
8	LOT 22	T6S R3W Sec 7	Main Mercur	0.20	100%
9	LOTS 29 and 30	T6S R3W Sec 8	Main Mercur	0.33	100%
10	LOTS 7, 10, 12, 14, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 31, 32, 33, 34	T6S R3W Sec 8	Main Mercur	13.71	100%
11	LOT 4	T6S R3W Sec 9	Main Mercur	0.84	100%
12	LOT 7	T6S R4W Sec 1	Main Mercur	15.60	100%
13	LOTS 9, 10, 11, W 4 FT OF LOT 6 & E 20 FT OF LOT 7, BLK 1, MERCUR SURVEY.	T6S R3W Sec 5	Main Mercur	0.64	Surf only[19]

Count	Surveyed Fee Lots	Twp Rng Sec	Area	Acres	Undivided Interest
14	LOT 23, BLK 2, PLAT A, MERCUR SUR.	T6S R3W Sec 7	Main Mercur	0.04	Surf only[19]
15	LOT 6, BLK 2, MERCUR SUR.	T6S R3W Sec 8	Main Mercur	0.05	Surf only[19]
16	LOTS 2 & 12, BLK 2 PLAT A MERCUR SURVEY.	T6S R3W Sec 7, 8	Main Mercur	0.1	Surf only[19]
17	LOT 18, BLOCK 3, PLAT A, MERCUR SUR	T6S R3W Sec 7	Main Mercur	0.05	Surf only[19]
18	LOT 19, BLK 3, PLAT A, MERCUR SUR	T6S R3W Sec 7	Main Mercur	0.05	Surf only[19]
19	LOT 7,BLK 3, PLAT A, MERCUR SUR.	T6S R3W Sec 7	Main Mercur	0.06	Surf only[19]
20	LOTS 10 & 11, BLK 3, PLAT A, MERCUR SUR	T6S R3W Sec 7	Main Mercur	0.1	Surf only[19]
21	LOTS 4, 5, 6, 13, 14, BLK 4, PLAT A, MERCUR SUR	T6S R3W Sec 6, 7	Main Mercur	0.80	Surf only[19]
22	LOT 2, BLK 6, PLAT A, MERCUR SUR	T6S R3W Sec 7	Main Mercur	0.04	Surf only[19]
23	LOT 23, BLK 9, PLAT A, MERCUR SUR.	T6S R3W Sec 7	Main Mercur	0.06	Surf only[19]
24	LOTS 34 & 35 BLK 9 PLAT A MERCUR.	T6S R3W Sec 7	Main Mercur	0.09	Surf only[19]
25	LOT 25, BLK 10, PLAT A, MERCUR SUR	T6S R3W Sec 7	Main Mercur	0.05	Surf only[19]
26	LOT 6, BLK 10, PLAT A, MERCUR SUR	T6S R3W Sec 7	Main Mercur	0.04	Surf only[19]
27	LOT 14, BLK 11, PLAT A, MERCUR SUR.	T6S R3W Sec 7	Main Mercur	0.04	Surf only[19]
28	LOT 15, BLK 11, PLAT A, MERCUR SUR.	T6S R3W Sec 7	Main Mercur	0.04	Surf only[19]
29	LOT 17 THRU & 21, BLK 11, PLAT A, MERCUR SURVEY.	T6S R3W Sec 7	Main Mercur	0.32	Surf only[19]
30	LOT 2, BLK 12, PLAT A, MERCUR SUR	T6S R3W Sec 7	Main Mercur	0.06	Surf only[19]

Count	Surveyed Fee Lots	Twp Rng Sec	Area	Acres	Undivided Interest
31	LOT 2 AND 6 TO 10 INCL. BLOCK 1, PLAT A SOUTH SIDE NO. 2. MERCUR	T6S R3W Sec 8	Main Mercur	0.36	Surf only[19]
32	LOT 2 BLK 2 SOUTH SIDE #2	T6S R3W Sec 8	Main Mercur	0.04	Surf only[19]
33	LOTS 1, 3, 4, 5, AND 11, BLK1, SOUTHSIDE NO. 2 SUBDV.	T6S R3W Sec 8	Main Mercur	0.30	Surf only[19]
34	LOTS 1, 3-10, BLK 2 SOUTHSIDE NO. 2 SUBDV.	T6S R3W Sec 8	Main Mercur	0.36	Surf only[19]
35	LOTS 1-6, BLK 3 SOUTHSIDE NO. 2 SUBDV.	T6S R3W Sec 8	Main Mercur	0.21	Surf only[19]
36	LOTS 6, 10, 13 ,14, 15, 16, 17, 18 (SITLA minerals)	T5S R3W Sec 32	Main Mercur	131.07	Surf only[20]

[19] Ensign also holds the mineral interests via the option agreement with Geyser Marion Gold Company (Junebug and Baby Elephant claims) and the option agreement with Barrick (Southside No. 2 claim).

[20] Ensign also holds the mineral interests via Barrick's lease agreement with Utah SITLA.

Part 3C – Barrick's Utah SITLA Lease under option to Ensign Gold (US) Corp.

Lease #	Date	Legal Description (Salt Lake B&M)	Acres	Area	Interests
ML 42967	7/1/1986	T5S, R3W, Section 32, Lots 1 – 18 (Barrick owns fee surface of the Lots in entry #36 above)	174.6	Main Mercur	Minerals and some surface

Part 3D – Barrick's Unpatented Lode Claims under option to Ensign Gold (US) Corp.

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Area
1	JULIE # 12	UT101300985	UMC230542	9/17/1980	Main Mercur
2	JULIE # 17	UT101401660	UMC230547	9/15/1980	Main Mercur
3	JULIE # 13	UT101424836	UMC230543	9/17/1980	Main Mercur
4	JULIE # 16	UT101759271	UMC230546	9/15/1980	Main Mercur
5	ELMA FRAC	UT101425627	UMC291640	6/16/1986	Main Mercur
6	DT	UT101366163	UMC369247	11/23/2002	Main Mercur

Part 3E – Barrick's Unpatented Mill Site Claims under option to Ensign Gold (US) Corp.

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Area
1	TNT # 1	UT101403746	UMC227370	12/9/1980	West Mercur
2	TNT # 2	UT101502186	UMC227371	12/9/1980	West Mercur
3	WW 7	UT101401991	UMC317018	10/28/1988	West Mercur

<u>Part 4 – Properties held by Ensign Gold (US) Corp. via Geyser Marion Option and Assignment Agreement</u>

Part 4A – Geyser Marion patented claims optioned to Ensign Gold (US) Corp.

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	MARION MINE	37	Main Mercur	7.34	100%
2	SPARROW-HAWK MINE	38	Main Mercur	2.75	100%
3	LAST CHANCE MINE	39	Main Mercur	3.67	100%
4	GEYSER	58	Main Mercur	6.359	100%
5	FRONT NO. 3	73	Main Mercur	9.118	100%
6	PROTECTIVE TARIFF	74	Main Mercur	16.42	100%
7	FLORENCE NO. 3	75	Main Mercur	8.289	100%
8	WEST GEYSER	75	Main Mercur	16.602	100%
9	BABY ELEPHANT	2983	Main Mercur	13.368	100%
10	JUNEBUG	2983	Main Mercur	14.106	100%
11	SOUTH GEYSER	3015	Main Mercur	10.014	100%
12	DUMP	3124	Main Mercur	6.321	100%
13	DUMP NO. 2	3127	Main Mercur	0.69	100%
14	VICTOR	3144	Main Mercur	18.24	100%
15	MAINE	3180	Main Mercur	11.76	100%
16	MAINE NO. 2	3180	Main Mercur	9.92	100%
17	ANNAPOLIS	3184	Main Mercur	8.56	100%
18	ANNAPOLIS NO. 3	3184	Main Mercur	9.17	100%
19	GOLD BUTTON	3231	Main Mercur	9.355	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
20	MADONNA	3287	Main Mercur	4.479	100%
21	FIRST CHANCE	4057	Main Mercur	0.57277	100%
22	BLACK SHALE	3029	Main Mercur	19.115	100%
23	FRIDAY	3103	Main Mercur	18.03	100%
24	BALTIC	3104	Main Mercur	18.37	100%
25	SNYDER	3141	Main Mercur	1.7	100%
26	DOUGLAS MINING CLAIM NO. 1	3142	Main Mercur	11.996	100%
27	DOUGLAS MINING NO. 2	3142	Main Mercur	14.16	100%
28	DON	3167	Main Mercur	15.213	100%
29	FLO	3167	Main Mercur	10.437	100%
30	HAL	3167	Main Mercur	8.158	100%
31	SAMBO	3181	Main Mercur	9.18	100%
32	BAY HORSE NO. 1	3182	Main Mercur	11.73	100%
33	BAY HORSE NO. 2	3182	Main Mercur	14.82	100%
34	BAY HORSE NO. 3	3182	Main Mercur	15.38	100%
35	MAY FLOWER	3182	Main Mercur	8.9	100%
36	MAY FLOWER NO. 1	3182	Main Mercur	15.28	100%
37	BUENA VISTA	3231	Main Mercur	9.77	100%
38	MARY JEAN NO. 1	3231	Main Mercur	18.221	100%
39	MARY JEAN NO. 2	3231	Main Mercur	18.079	100%
40	MARY JEAN FRACTION	3231	Main Mercur	2.302	100%
41	GOLDEN SLIPPER	3279	Main Mercur	5.661	100%
42	SUNDAY	3279	Main Mercur	7.756	100%
43	BLACK BARE GROUP NO. 1	4944	Main Mercur	12.385	100%
44	BLACK BARE NO. 3	4944	Main Mercur	19.766	100%
45	BLACK BARE NO. 4	4944	Main Mercur	17.543	100%
46	BLACK BARE EXTENSION NO. 2	4944	Main Mercur	10.154	100%
47	BLACK BARE FRACTION	4944	Main Mercur	4.433	100%

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
48	BLACK BARE FRACTION NO.2	4944	Main Mercur	4.433	100%
49	ERA MINE NO. 1	4944	Main Mercur	16.489	100%
50	ERA MINE NO. 2	4944	Main Mercur	17.063	100%
51	HECLA	3079	Main Mercur	11.21	100% min only[21]
52	HECLA NO. 1	3079	Main Mercur	2.61	100% min only[21]
53	HECLA NO. 2	3079	Main Mercur	17.15	100% min only[21]
54	HECLA NO. 3	3079	Main Mercur	17.68	100% min only[21]
55	HECLA NO. 4	3079	Main Mercur	17.62	100% min only[21]
56	SEAL	3180	Main Mercur	4.13	100% min only[21]
57	SEAL NO. 2	3180	Main Mercur	2.50	100% min only[21]
58	SEAL NO. 3	3180	Main Mercur	2.33	100% min only[21]
59	STRONG FRACTION NO.1	3200	Main Mercur	2.30	100% min only[21]
60	ELMA	3260	Main Mercur	20.63	100% min only[21]
61	McKAY	3260	Main Mercur	20.45	100% min only[21]
62	SCRIBNER	3260	Main Mercur	19.74	100% min only[21]
63	SCRIBNER NO. 2	3271	Main Mercur	6.02	100% min only[21]
64	SCRIBNER NO. 3	3271	Main Mercur	4.17	100% min only[21]
65	CONS'D CAMP DOUGLAS MINE	40	Main Mercur	9.182	50%[22]
66	AMERICAN FLAG	47	Main Mercur	5.26	50%[22]
67	BLACK HAWK	47	Main Mercur	5.26	50%[22]
68	LYNN	47	Main Mercur	10.68	50%[22]
69	RED EAGLE	47	Main Mercur	10.68	50%[22]
70	LAST CHANCE MINE	3129	Main Mercur	19.158	50%[23]
71	LITTLE PITTSBURG MINE	3129	Main Mercur	20.589	50%[23]
72	CAP ROCK	3090	Main Mercur	6.04	50% surf only[24]
73	SPAR MINE	3129	Main Mercur	18.682	50% surf only[24]
74	SUMMITT	3651	Main Mercur	12.209	50% surf only[24]
75	JUNCTION	3090	Main Mercur	8.74	50% surf only[24]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
76	EUREKA	3431	Main Mercur	20.629	50% surf only[24]
77	EAGLE	3431	Main Mercur	16.444	50% surf only[24]
78	LAKE VIEW	3090	Main Mercur	16.28	50% surf only[24]
79	NORA	3090	Main Mercur	20.66	50% surf only[24]
80	NORA NO. 2	3090	Main Mercur	19.79	50% surf only[24]
81	GREY EAGLE MINE	3126	Main Mercur	17.57	50% surf only[24]
82	WILLIAM PENN	3378	Main Mercur	19.302	50% surf only[25]
83	AMERICAN EAGLE MINE	3126	Main Mercur	11.88	50% surf only[25]
84	BALD EAGLE MINE	3126	Main Mercur	20.20	50% surf only[24]
85	EAGLES NEST MINE	3126	Main Mercur	16.53	50% surf only[24]
86	HERSCHEL	3084	Main Mercur	15.51	1%[26]
87	HERSCHEL NO. 2	3084	Main Mercur	12.41	1%[26]
88	HERSCHEL NO. 3	3084	Main Mercur	13.25	1%[26]
89	HERSCHEL NO. 4	3084	Main Mercur	18.01	1%[26]
90	YELLOW JACKET	3084	Main Mercur	16.23	1%[26]
91	YELLOW JACKET NO. 2	3084	Main Mercur	7.03	1%[26]
92	REMNANT (N portion)	3085	Main Mercur	4.76	1%[26]
93	PEGASI (N portion)	3248	Main Mercur	2.32	1%[26]
94	ABBA	3362	Main Mercur	10.841	1%[26]
95	SUNRISE	3380	Main Mercur	14.496	1%[26]
96	HAZLE	2994	Main Mercur	11.662	1%[27]

[21] Ensign holds the surface interests via the Barrick option agreement.

[22] The remaining 50% is owned by a third party. Less than 1% of the inferred resource is situated on these claims at Main Mercur as discussed in Section 14.13. There is no impact on the ability to do the work program.

[23] The remaining 50% is owned by third parties. No significant mineralization is known on these claims and there is no impact on the ability to do the work program.

[24] The remaining 50% of surface and 100% of minerals are owned by third parties. No significant mineralization is known on these claims and there is no impact on the ability to do the work program.

[25] The remaining 50% of surface and 100% of minerals are owned by third parties. A very small portion of the inferred resource (<1%) at the northern end of Main Mercur extends onto these 2 claims. That mineralization is not included in the inferred resource reported in Section 14.13. There is no impact on the ability to do the work program.

[26] Ensign holds the remaining 99% via the Sacramento Gold Mining Company option agreement.

[27] Ensign holds the remaining 99% via the Sacramento Gold Mining Company option agreement (82.33%) and the Barrick Option agreement (16.67%).

Part 4B – Geyser Marion fee lots optioned to Ensign Gold (US) Corp.

Count	Surveyed Fee Lots	Twp Rng Sec	Area	Acres	Undivided Interest
1	LOT 20	T6S R3W Sec 6	Main Mercur	6.21	100%
2	LOTS 6, 7 and 18	T6S R3W Sec 7	Main Mercur	2.66	100%
3	LOTS 1,2, 3, 4, 5, PART OF 6, PART OF 7, 8, BLK1, PLAT A, MERCUR SURV.	T6S R3W Sec 5	Main Mercur	0.36	Surf only[28]
4	LOTS 3 and 4, BLK 2, PLAT A, MERCUR SURV.	T6S R3W Sec 8	Main Mercur	0.09	Surf only[28]
5	LOTS 25 AND 26, BLK 2, PLAT A , MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.09	Surf only[28]
6	LOT 17, BLK 3, PLAT A, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.045	Surf only[28]
7	LOTS 1, 2, 3, 4, 5, 6, 8, 9, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24, AND 25, BLK 3, PLAT A, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.855	Surf only[28]
8	LOTS 1, 2, 3, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20, AND 21 BLK 4, PLAT A, MERCUR SURV	T6S R3W Sec 6, 7	Main Mercur	0.72	Surf only[28]
9	LOTS 1-16, BLK 5 PLAT A, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.72	Surf only[28]
10	LOTS 1-22, BLK 6, PLAT A, MERCUR SURV,	T6S R3W Sec 7	Main Mercur	0.95	Surf only[28]
11	LOTS 1-4, 6-26, BLK 7, PLAT A, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	1.2	Surf only[28]
12	ALLOF BLK 8 CONTAINING 32 LOTS EXCEPT LOTS 10 AND 24, PLAT A, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	1.29	Surf only[28]
13	LOT 15, BLK 9, PLAT A, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.06	Surf only[28]
14	ALL OF BLOCK 12, PLAT B, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	1.62	Surf only[28]
15	ALL OF BLK 13, EXCEPT LOT 4, PLAT B, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.45	Surf only[28]

Count	Surveyed Fee Lots	Twp Rng Sec	Area	Acres	Undivided Interest
16	LOT 4, BLK 13, PLAT B, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.045	Surf only[28]
17	ALL OF BLK 14 EXCEPT LOT 5, PLAT B, MERCUR SURV.	T6S R3W Sec 7	Main Mercur	0.63	Surf only[28]
18	ALL OF BLOCKS 15, 16, 17 AND 18, PLAT B, MERCUR SURVEY.	T6S R3W Sec 7	Main Mercur	2.25	Surf only[28]

[28] Ensign also holds the mineral interests via the option agreement with Geyser Marion Gold Company (Junebug and Baby Elephant claims) and the option agreement with Barrick (Southside No. 2 claim).

Part 5 – **Properties held by Ensign Gold (US) Corp. via Sacramento Option and Assignment Agreement**

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	SACREMENTO	2990	Main Mercur	19.83	100%
2	PAN HANDLE	2992	Main Mercur	8.807	100%
3	JESSIE LAKIN	3000	Main Mercur	11.392	100%
4	EXCELSIOR	3448	Main Mercur	16.870	100%
5	MATTIE NO. 3	4251	Main Mercur	16.049	100%
6	MAY DAY	4251	Main Mercur	6.886	100%
7	SAGE HEN	4251	Main Mercur	14.195	100%
8	SACRAMENTO NO. 1	4252	Main Mercur	4.146	100%
9	REMNANT (S portion)	3085	Main Mercur	0.8	100%
10	PEGASI (S portion)	3248	Main Mercur		100%
11	HERSCHEL	3084	Main Mercur	15.51	99%[29]
12	HERSCHEL NO. 2	3084	Main Mercur	12.41	99%[29]
13	HERSCHEL NO. 3	3084	Main Mercur	13.25	99%[29]
14	HERSCHEL NO. 4	3084	Main Mercur	18.01	99%[29]
15	YELLOW JACKET	3084	Main Mercur	16.23	99%[29]
16	YELLOW JACKET NO. 2	3084	Main Mercur	7.03	99%[29]
17	REMNANT (N portion)	3085	Main Mercur	4.76	99%[29]
18	PEGASI (N portion)	3248	Main Mercur	2.32	99%[29]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
19	ABBA	3362	Main Mercur	10.841	99%[29]
20	SUNRISE	3380	Main Mercur	14.496	99%[29]
21	HAZLE	2994	Main Mercur	11.662	82.33%[30]

[29] Ensign holds the remaining 1% via the Geyser Marion Gold Mining Company option agreement.

[30] Ensign holds the remaining 17.67% via the Geyser Marion Gold Mining Company option agreement (1%) and the Barrick option agreement (16.67%).

<u>Part 6 – Other Properties Staked or Leased by Ensign Gold (US) Corp.</u>

Part 6A – Unpatented Lode Mining Claims Owned by Ensign Gold (US) Corp.

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Comment	Area
1	EG 1	UT101578200	UMC447595	9/2/2020		South Mercur
2	EG 2	UT101579375	UMC447596	9/2/2020		South Mercur
3	EG 3	UT101579376	UMC447597	9/2/2020		South Mercur
4	EG 4	UT101579377	UMC447598	9/2/2020		South Mercur
5	EG 5	UT101579378	UMC447599	9/2/2020		South Mercur
6	EG 6	UT101579379	UMC447600	9/2/2020		South Mercur
7	EG 7	UT101579380	UMC447601	9/2/2020		South Mercur
8	EG 8	UT101579398	UMC447602	9/2/2020		South Mercur
9	EG 9	UT101579399	UMC447603	9/2/2020		South Mercur
10	EG 10	UT101579400	UMC447604	9/1/2020	Part 3rd party surface	South Mercur
11	EG 11	UT101579564	UMC447605	9/1/2020	Part 3rd party surface	South Mercur
12	EG 12	UT101579565	UMC447606	9/1/2020	Part 3rd party surface	South Mercur
13	EG 13	UT101579566	UMC447607	9/1/2020		South Mercur
14	EG 14	UT101579567	UMC447608	9/1/2020		South Mercur
15	EG 15	UT101579568	UMC447609	9/1/2020		South Mercur
16	EG 16	UT101579569	UMC447610	9/1/2020		South Mercur
17	EG 17	UT101579570	UMC447611	9/1/2020	Part 3rd party surface	South Mercur
18	EG 18	UT101579571	UMC447612	9/1/2020		South Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Comment	Area
19	EG 19	UT101579572	UMC447613	9/1/2020		South Mercur
20	EG 20	UT101579573	UMC447614	9/1/2020		South Mercur
21	EG 21	UT101579574	UMC447615	9/1/2020		South Mercur
22	EG 22	UT101579575	UMC447616	9/1/2020		South Mercur
23	EG 23	UT101579576	UMC447617	9/1/2020		South Mercur
24	EG 24	UT101579577	UMC447618	9/1/2020		South Mercur
25	EG 25	UT101579578	UMC447619	9/1/2020		South Mercur
26	EG 26	UT101579579	UMC447620	9/1/2020		South Mercur
27	EG 27	UT101820585	UMC447621	9/1/2020		South Mercur
28	EG 28	UT101820586	UMC447622	9/1/2020		South Mercur
29	EG 29	UT101820587	UMC447623	9/1/2020		South Mercur
30	EG 30	UT101820588	UMC447624	9/1/2020		South Mercur
31	EG FRAC 1	UT101820589	UMC447625	10/12/2020		South Mercur
32	CC 8	UT101820590	UMC447626	10/12/2020		South Mercur
33	CC 9	UT101820591	UMC447627	10/12/2020		South Mercur
34	CC 10	UT101820592	UMC447628	10/12/2020		South Mercur
35	CC 11	UT101820593	UMC447629	10/12/2020		South Mercur
36	CC 12	UT101820594	UMC447630	10/12/2020		South Mercur
37	CC 13	UT101820595	UMC447631	10/12/2020		South Mercur
38	CC 14	UT101820596	UMC447632	10/12/2020		South Mercur
39	CC 15	UT101820597	UMC447633	10/12/2020		South Mercur
40	CC 16	UT101820598	UMC447634	10/12/2020		South Mercur
41	SH 17	UT105246387		5/16/2021		North Mercur
42	SH 18	UT105246388		5/16/2021		North Mercur
43	SH 19	UT105246389		5/16/2021		North Mercur
44	SH 20	UT105246390		5/16/2021		North Mercur
45	SH 21	UT105246391		5/16/2021		North Mercur
46	SH 22	UT105246392		5/17/2021		North Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Comment	Area
47	SH 23	UT105246393		5/17/2021		North Mercur
48	SH 24	UT105246394		5/17/2021		North Mercur
49	SH 25	UT105246395		5/16/2021		North Mercur
50	RVF-161	UT105274843		10/20/2021		West Mercur
51	RVF-162	UT105274844		10/20/2021		West Mercur
52	RVF-163	UT105274845		10/20/2021		West Mercur
53	RVF-164	UT105274846		10/20/2021		West Mercur
54	RVXX-107	UT105274847		10/20/2021		West Mercur
55	RVXX-108	UT105274848		10/20/2021		West Mercur
56	RVXX-109	UT105274849		10/20/2021		West Mercur
57	RVXX-110	UT105274850		10/20/2021		West Mercur
58	RVXX-111	UT105274851		10/20/2021		West Mercur
59	RVXX-112	UT105274852		10/20/2021		West Mercur
60	RVXX-113	UT105274853		10/20/2021		West Mercur
61	RVXX-114	UT105274854		10/20/2021		West Mercur
62	RVXX-126	UT105274855		10/20/2021		West Mercur
63	RVXX-127	UT105274856		10/20/2021		West Mercur
64	RVXX-128	UT105274857		10/20/2021		West Mercur
65	RVXX-129	UT105274858		10/20/2021		West Mercur
66	RVXX-130	UT105274859		10/20/2021		West Mercur
67	RVXX-131	UT105274860		10/20/2021		West Mercur
68	RVXX-132	UT105274861		10/20/2021		West Mercur
69	RVXX-133	UT105274862		10/20/2021		West Mercur
70	RVXX-134	UT105274863		10/20/2021		West Mercur
71	RVXX-135	UT105274864		10/20/2021		West Mercur
72	RVXX-136	UT105274865		10/20/2021		West Mercur
73	RVXX-137	UT105274866		10/20/2021		West Mercur
74	RVXX-138	UT105274867		10/20/2021		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Comment	Area
75	RVXX-139	UT105274868		10/20/2021		West Mercur
76	RVXX-145	UT105274869		10/20/2021		West Mercur
77	RVXX-146	UT105274870		10/20/2021		West Mercur
78	RVXX-147	UT105274871		10/20/2021		West Mercur
79	RVXX-148	UT105274872		10/20/2021		West Mercur
80	RVXX-149	UT105274873		10/20/2021		West Mercur
81	RVXX-150	UT105274874		10/20/2021		West Mercur
82	RVXX-151	UT105274875		10/20/2021		West Mercur
83	RVXX-157	UT105274876		10/22/2021		West Mercur
84	WMX-02	UT105274877		10/21/2021		West Mercur
85	WMX-03	UT105274878		10/21/2021		West Mercur
86	WMX-06	UT105274879		10/21/2021		West Mercur
87	WMX-08	UT105274881		10/21/2021		West Mercur
88	EHTF-02	UT105274892		10/21/2021		Main Mercur
89	EHTF-25	UT105274915		10/21/2021		Main Mercur
90	EHTF-26	UT105274916		10/21/2021		Main Mercur
91	EHTF-27	UT105274917		10/22/2021		Main Mercur
92	EHTF-28	UT105274918		10/22/2021		Main Mercur
93	OW 4	UT105274919		10/22/2021		South Mercur
94	RVXX-47	UT105274920		10/22/2021		West Mercur
95	RVXX-48	UT105274921		10/22/2021		West Mercur
96	RVXX-49	UT105274922		10/22/2021		West Mercur
97	RVXX-50	UT105274923		10/22/2021		West Mercur
98	WMF-1	UT105274924		10/21/2021		West Mercur
99	WMF-2	UT105274925		10/21/2021		West Mercur
100	WMF-5	UT105274928		11/2/2021		West Mercur
101	WMF-6	UT105274929		11/2/2021		West Mercur
102	WMF-7	UT105274930		11/2/2021		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Comment	Area
103	VR 8	UT105274931		10/22/2021		South Mercur
104	VR 9	UT105274932		10/22/2021		South Mercur
105	VR 10	UT105274933		10/22/2021		South Mercur
106	VR 11	UT105274934		10/22/2021		South Mercur
107	VR 12	UT105274935		10/22/2021		South Mercur
108	VR 13	UT105274936		10/22/2021		South Mercur
109	VR 14	UT105274937		10/22/2021		South Mercur
110	VR 15	UT105274938		10/22/2021		South Mercur
111	SC 1	UT105274939		11/2/2021		South Mercur
112	SC 2	UT105274940		11/2/2021		South Mercur
113	SC 3	UT105274941		11/2/2021		South Mercur
114	SC 4	UT105274942		11/2/2021		South Mercur
115	SC 5	UT105274943		11/2/2021		South Mercur
116	SC 6	UT105274944		11/2/2021		South Mercur
117	S32X-1	UT105274945		11/2/2021		West Mercur
118	S32X-2	UT105274946		11/2/2021		West Mercur
119	RVXX-38	UT105274947		11/3/2021		West Mercur
120	RVXX-39	UT105274948		11/3/2021		West Mercur
121	RVXX-40	UT105274949		11/3/2021		West Mercur
122	RVXX-41	UT105274950		11/3/2021		West Mercur
123	RVXX-43	UT105274951		11/3/2021		West Mercur
124	RVXX-44	UT105274952		11/3/2021		West Mercur
125	RVXX-64XX	UT105274953		11/2/2021		West Mercur
126	RVXX-65	UT105274954		11/2/2021		West Mercur
127	RVXX-66	UT105274955		11/2/2021		West Mercur
128	RVXX-67	UT105274956		11/2/2021		West Mercur
129	RVXX-68	UT105274957		11/2/2021		West Mercur
130	RVXX-69	UT105274958		11/2/2021		West Mercur

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Comment	Area
131	RVXX-70	UT105274959		11/2/2021		West Mercur
132	RVXX-71	UT105274960		11/2/2021		West Mercur
133	RVXX-72	UT105274961		11/2/2021		West Mercur
134	RVXX-73	UT105274962		11/2/2021		West Mercur
135	RVXX-74	UT105274963		11/2/2021		West Mercur
136	RVXX-75	UT105274964		11/2/2021		West Mercur
137	RVXX-76	UT105274965		11/2/2021		West Mercur
138	RVXX-77	UT105274966		11/2/2021		West Mercur
139	RVXX-78	UT105274967		11/2/2021		West Mercur
140	RVXX-79	UT105274968		11/2/2021		West Mercur
141	RVXX-80	UT105274969		11/2/2021		West Mercur
142	PHRAC 1	UT105274970		11/2/2021		South Mercur
143	PHRAC 2	UT105274971		11/2/2021		South Mercur
144	CC 17	UT105274972		11/2/2021		South Mercur
145	CC 18	UT105274973		11/3/2021		South Mercur

Part 6B – Private Party Mining Leases held by Ensign Gold (US) Corp.

Party I Lease – Unpatented Lode Claim

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Area
1	Chloride Point	UT101884475	UMC410369	9/2/2010	North Mercur

Party J Lease – Unpatented Lode Claims

Count	Claim Name	BLM Serial Number	BLM Legacy Serial Number	Date Of Location	Area
1	Victorious 1	UT101558446	UMC435663	9/4/2017	South Mercur
2	Victorious 2	UT101558447	UMC435664	9/4/2017	South Mercur
3	Victorious 3	UT101558448	UMC435665	9/4/2017	South Mercur
4	Victorious 4	UT101558449	UMC435666	9/4/2017	South Mercur

5	Victorious 5	UT101558450	UMC435667	9/4/2017	South Mercur
6	Victorious 6	UT101558451	UMC435668	9/4/2017	South Mercur
7	Victorious 7	UT101558452	UMC435669	9/4/2017	South Mercur

Party J Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Lucky Boy	3425	South Mercur	5.060	41.660%[31]
2	Victorious	3425	South Mercur	12.48	41.660%[31]

[31] Another 5.216% is leased from Party E (Part 1C). The remaining 53.124% is held by ten parties with interests ranging from 1.5670% to 8.3396%. There is no known mineralization on these claims and there is no impact on the ability to do the work program.

Party K Lease – Patented Claim

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Mountain Gem	3132	Main Mercur	14.16	100%

Party L Lease – Patented Claims

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
1	Annie Laura	3047	South Mercur	20.3	25%[32]
2	Annie Laura No. 1	3047	South Mercur	19.74	25%[32]
3	Annie Laura No. 2	3047	South Mercur	20.41	25%[32]
4	Annie Laura No. 3	3047	South Mercur	13.52	25%[32]
5	Gold Blossom No. 1	3047	South Mercur	9.89	25%[32]
6	Gold Blossom No. 2	3047	South Mercur	11.73	25%[32]
7	Gold Blossom No. 3	3047	South Mercur	17.79	25%[32]
8	Gold Blossom No. 4	3047	South Mercur	6.9	25%[32]
9	Tribune No. 2	3088	South Mercur	17.86	25%[32]
10	Red Cloud	3133	South Mercur	20.66	25%[33]
11	Campus	3433	South Mercur	18.336	25%[32]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
12	Fellowship	3433	South Mercur	15.146	25%[32]
13	Free Coinage	3433	South Mercur	19.449	25%[32]
14	Lehi	3433	South Mercur	15.831	25%[32]
15	Little Gem	3433	South Mercur	17.504	25%[32]
16	Lower Reef	3433	South Mercur	18.185	25%[32]
17	Malvern	3433	South Mercur	14.725	25%[32]
18	Malvern No. 2	3433	South Mercur	19.05	25%[32]
19	Old Horseshoe	3433	South Mercur	18.288	25%[32]
20	OT	3433	South Mercur	16.182	25%[32]
21	Apex	3707	South Mercur	13.376	25%[32]
22	Home Stake	3707	South Mercur	10.199	25%[32]
23	Old Fred	3707	South Mercur	19.562	25%[33]
24	Old Fred No. 2	3707	South Mercur	14.124	25%[32]
25	Ouida	3707	South Mercur	17.596	25%[32]
26	Fairfield	3925	South Mercur	19.492	25%[32]
27	Golden Era	3925	South Mercur	19.283	25%[32]
28	Golden Wedge	3925	South Mercur	18.122	25%[32]
29	Mollie Gibson	3925	South Mercur	14.771	25%[32]
30	Three Points	3925	South Mercur	3.722	25%[32]
31	Keystone No. 4	4495	South Mercur	16.168	25%[32]
32	Keystone No. 5	4495	South Mercur	16.846	25%[32]
33	Martha H.	3163	Main Mercur - S	19.35	25%[34]
34	Summit Flat	3098	Main Mercur - N	10.97	25%[34]
35	Summit Spring No. 2	3098	Main Mercur - N	4.17	25%[34]
36	Triumph	3098	Main Mercur - N	20.64	25%[34]
37	Aspen No. 3	3485	Main Mercur - N	19.816	25%[34]
38	Brooklyn No. 1	3485	Main Mercur - N	12.188	25%[34]
39	Brooklyn No. 2	3485	Main Mercur - N	18.152	25%[34]

Count	Patented Claim Name	Mineral Survey #	Area	Acres	Undivided Interest
40	Brooklyn No. 3	3485	Main Mercur - N	15.405	25%[34]
41	Gold Wedge	3485	Main Mercur - N	11.888	25%[34]
42	Leadville No. 1	3485	Main Mercur - N	16.887	25%[34]
43	Leadville No.2	3485	Main Mercur – N	16.123	25%[34]

[32] The remaining 75% is owned by Ensign (50%) and an unleased party (25%). There are no mineralized drill holes on these claims and there is no impact on the ability to do the work program.

[33] The remaining 75% is owned by Ensign (50%) and an unleased party (25%). Less than 1% of the inferred resource is situated on these claims as discussed in Section 14.13. There is no impact on the ability to do the work program.

[33] The remaining 75% is owned by two unleased parties. There are no mineralized drill holes on these claims and there is no impact on the ability to do the work program.