

## **Date and Signature Page**

This Technical Report on the Mercedes Gold–Silver Mine project is submitted to Bear Creek Mining Corporation and is effective 30 September 2024.

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# **LIST OF ACRONYMS, ABBREVIATIONS AND UNITS**

Abbreviation	Description
2SD	Two standard deviations
3D	Three dimensional
3SD	Three standard deviations
AA	Atomic absorption
AAS	Atomic Absorption Spectrometer
ABA	Acid Base Accounting
Ag	Silver
AG	Average Grade
AGS	AGS Resources
AID	Aida deposit
AISC	All-in sustaining cost
ALS	ALS-Chemex
AP	Acid Generating Potential
ARD	Acid Rock Drainage
Au	Gold
AuEq	Gold equivalent
BBA	BBA Engineering Inc.
BCA	Barrancas deposit
ВСН	Brecha Hill deposit
BCMC	Bear Creek Mining Corporation
BM	Block model
BMR	Brownfield Mineral Resource
Bureau Veritas	Bureau Veritas Commodities Canada Ltd.
CAF	Cut and fill
CAPEX	Capital expenditure
СВА	Casa Blanca deposit
CCD	Counter current decantation
CDN	CDN Resource Laboratories Ltd.
CDO	Corona de Oro deposit
CEMEFI	Centro Mexicano para la Filantropía
CHN	Channel
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
CIP	Carbon in Pulp
CN	Cyanide
COG	Cut-off grade
COVID-19	Coronavirus disease of 2019
CPT	Cone Penetration Tests
CRM	Certified reference materials



Abbreviation	Description
DDH	Diamond drill hole
DH	Drill hole
DIL	Diluvio deposit
EBITDA	Earnings Before Interest, Taxes, Depreciation, and
	Amortization
Elemental	Elemental Royalties Corp.
Equinox	Equinox Gold Corp.
ESR	Excellence in Social Responsibility
FA	Fire assay
FAR	Fresh air raise
Fischer-Watt	Fischer-Watt Corporation
G&A	General and Administrative Costs
GAP	Gap deposit
Golder	Golder Associates Inc.
Government	Mexican government
GMR	Greenfield Mineral Resource
GRE	Global Resource Engineering Ltd.
Hg	Mercury
HG	High Grade
ID3	Inverse Distance Cube
INCO	International Nickel Company
IRR	Internal rate of return
JV	Joint venture
KLN	Klondike deposit
LAG	Lagunas deposit
LG	Low Grade
LGEEPA	Ley General de Equilibrio Ecológico y la Protección al
	Ambiente
LHD	Load haul dump
LME	London Metal Exchange
LOM	Life of mine
LOMP	Life of mine plan
LSBF	Low Strength Backfill
LUP	Lupita deposit
MAR	Marianas deposit
MASL	Metres above sea level
Max	Maximum
Mercedes	Mercedes Gold-Silver Mine
Meridian	Meridian Gold Inc.
Min	Minimum
Minera Sortula	Campbell Chibougamau Mines Limited



Abbreviation	Description
ML	Metal Leaching
MLI	McClelland Laboratoires, Inc.
MMM	Minera Mercedes Minerals
Mogul Mining	Mogul Mining Ltd.
MRE	Mineral Resource Estimate
MRMRS	Mineral Resource and Mineral Reserves statements
MXN	Mexican peso
NAD	North American Datum
NI	National Instrument
NN	Nearest neighbour
NNP	Net Neutralization Potential
Nomad	Nomad Royalty Company
NP	Neutralization Potential
NPR	Neutralization Potential Ratio
NPV	Net present value
NSR	Net Smelter Return
OK	Ordinary kriging
OP	Open Pit
OPEX	Operational expenditure
PAC	Potentially Acid-Consuming
PAG	Potentially Acid-Generating
PEA	Preliminary economic assessment
Premier	Premier Gold Mines Limited
QA/QC	Quality Assurance / Quality Control
QP	Qualified person
QS	Quartz + Sericite
RAR	Return air raise
RC	Reverse circulation
RDH	Rey de Oro High deposit
RDO	Rey de Oro deposit
Rio Sonora	Gerle Gold Ltd.
ROM	Run of mine
RQD	Rock quality designation
SAN	San Martin deposit
Sandstorm	Sandstorm Gold Royalties
SD	Standard deviation
SEM	Scanning Electron Microscope
SEMARNAT	Secretaría de Medio Ambiente y Recursos Naturales
SME	Society of Mining, Metallurgy, and Exploration
SMO	Sierra Madre Occidental
SPT	Standard Penetration Tests



Abbreviation	Description
TSF	Tailings storage facility
TSX	Toronto Stock Exchange
TSXV	TSX Venture Exchange
TTQ	Tectoniq Pty Ltd
UG	Underground
US\$ / USD / \$	United States dollar
UTM	Universal Transverse Mercator
VG	Visible gold
VS	Versus
WAD	Weak acid dissociable
Yamana	Yamana Gold Inc.

Unit	Description
°C	Degrees Celsius
°F	Degrees Fahrenheit
μm	micrometre / micron
A	ampere
cfm	cubic feet per minute
cm	centimetre
deg. or °	angular degree
g	gram
gpt or g/t	grams per tonne
ha	hectare
hp	horsepower
Hz	hertz
in.	inch
k	kilo (thousand)
kg	kilogram
km	kilometre
km2	square kilometre
kV	kilovolt
kVA	kilovolt-amperes
kW	kilowatt
kWh	kilowatt hour
L	litre
L/s	litres per second
M	mega (million); molar
m	metre
m3	cubic metre
m3/s	cubic metres per second



Unit	Description			
mm	millimetre			
MW	megawatt			
OZ	troy ounce (31.1035g)			
ppm	parts per million			
psi	pound per square inch			
S	second			
t	tonne (metric ton)			
tpd	tonne per day			
tph	tonne per hour			
tpy	tonnes per year			
V	volt			
W	watt			
wt%	weight percent			
yd	yard			
yd3	cubic yard			



## 1 SUMMARY

#### 1.1 Introduction

In April 2022, Bear Creek Mining Corporation (TSXV: BCM) (OTCQX: BCEKF) (BVL: BCM) announced the completion of its acquisition of a 100% interest in the Mercedes gold-silver mine in Sonora, Mexico, from Equinox Gold Corp. Under a share purchase agreement between Bear Creek, Equinox Gold, and Premier Gold Mines Limited, the company acquired, directly and indirectly, all issued and outstanding shares of certain Equinox Gold subsidiaries that collectively own the Mercedes mine. All mining concessions are held by Minera Mercedes Minerals (MMM), a wholly-owned subsidiary of Bear Creek.

The purpose of this technical report is to support the disclosure of Mineral Reserves and Mineral Resources at the Mine in accordance with the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1.

The Qualified Persons (QPs) responsible for the preparation of this Technical Report are:

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- Luis Quirindongo, SME Registered Member 4208172
- Donald Mc Iver, MSc., FAusIMM Member 223767 and FSEG Member 512015

#### 1.2 Terms of References

Mineral Resources and Mineral Reserves are reported in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM 2014) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM 2019).

Units used in the report are metric units unless otherwise noted. Monetary units are in US dollars (\$) unless otherwise stated. The Report uses US English.

#### 1.3 Property Description and Location

The Mercedes Mine is located in the state of Sonora, northwest Mexico, within the Cucurpe municipality. Mine is located 250 km northeast of Hermosillo, Sonora's capital city, and 300 km south of Tucson, Arizona.

Mercedes is located at 30° 19′ 47″ N latitude and 110° 29′ 02″ W longitude. The UTM coordinates are NAD 27, Zone 12, 549,452 m E, 3,355,473 m N.



## 1.4 Mineral Tenure, Royalties, Environmental Liabilities and Permitting

The Mercedes property consists of approximately 69,285 ha of mineral concessions under lease from the government of Mexico. The area is covered by 43 mineral concessions, all of which have been titled as Mining Concessions, according to Mexican Mining Law.

The titles are valid for 50 years from the date titled and can be renewed for another 50 years. All of the concessions are owned by MMM, a wholly owned subsidiary of Bear Creek.

Production from the Mercedes property is subject to a 1% net smelter return royalty payable to Elemental Royalties Corp. and a 2% net smelter return on gold equivalent ounces produced by the Mercedes Mine payable to Versamet Royalties. Silver and gold production from the Mercedes property are also subject to a purchase and sale agreement with Sandstorm whereby Mercedes is required to deliver 275 oz of gold per month through April 2028 and Mercedes sells this material to Sandstorm at 25% of the market price. The Nomad silver stream was suspended until April 2028.

There are no known environmental concerns with respect to the Mercedes property.

MMM has all the required permits to conduct work on the property.

## 1.5 History

The Mercedes district has been the focus of mining activities since at least the late 1880s. The Mercedes, Tucabe, Saucito, Anita, Klondike, Rey de Oro, Reina, and Poncheña veins were all the focus of exploration and development work on a limited scale in the late 19th and early 20th centuries.

No precise production totals are available from historic mining operations. Some 20,000 to 30,000 ounces of gold were probably produced during the years 1937 to 1939, by Minera Oro Chico, which mined the material outlined by Anaconda at Mercedes. Cumulative past district production, in the order of 150,000 tonnes and approximately 73,000 gold equivalent (AuEq) ounces, is estimated, considering the scale of historic mining observed at Klondike, Rey de Oro, Tucabe or Saucito, and the known high-grade areas in the exploited veins.

Production by MMM at Mercedes is shown in Table 1-1.

Table 1-1: Gold production history from 2011 to December 31, 2024

Year	Ore processed (000)	Gold Grade (gpt Au)	Silver Grade (gpt Au)	Gold Ounces (000)	Silver Ounces (000)
2011	48	7.55	114.5	8	39
2012	603	6.43	78.4	116	490
2013	671	6.16	79.4	129	615
2014	682	5.09	55.9	105	398
2015	713	3.96	43.3	84	383
2016	688	4.52	48.4	93	425
2017	684	3.93	37.6	83	338
2018	666	3.34	35.3	69	309
2019	668	2.91	26.2	60	191



Year	Ore processed (000)	Gold Grade (gpt Au)	Silver Grade (gpt Au)	Gold Ounces (000)	Silver Ounces (000)
2020	399	2.87	33.1	35	168
2021	512	2.69	21.2	42	123
2022	611	2.52	23.5	47	152
2023	522	2.77	31.0	44	165
2024	401	3.27	38.1	40	218
Total	7,868	4.00	43.84	955	4,014

#### Early Exploration 1900s to mid-1990s

The Tucabe vein was mined in the early 1900s. A cyanide mill was constructed on the site and the vein was accessed through a series of tunnels and shafts, covering over 600 m of strike length and over 150 m of vertical range. No production data is available from this time period.

The Saucito zone has been investigated by local prospectors. Workings exposed highly sheared veins that are crosscut by east-west trending post-mineral structures.

The Mercedes vein was discovered in 1936. Anaconda Copper Company optioned the property in 1937 and spent two years exploring underground. The work included sinking a 50 m shaft and excavating a series of tunnels and internal raises for sampling.

The Klondike Mine shows little available historical data. A cross section from the 1930s indicates that the Klondike Mine was mined around 1900, with the main stope being approximately 120 m by 80 m in size, but the workings have been inaccessible since the 1930s. Despite all the reports mentioning the vein continuing at depth, high inflows of water eventually stopped the mining operation.

## Meridian Gold Inc. 1993-2007

Meridian completed surface and underground mapping and sampling in 1999 and 2000, leading to the identification of 11 separate target areas, of which, five had historic mining activity and were the focus of the first phase of an RC drilling program. Veins or stockwork zones were encountered in all five areas by drilling. Mercedes, Klondike, and Tucabe all had at least one drill intercept assaying greater than 10 gpt Au.

A second phase of RC drilling program for testing the target zones, both down dip and along strike, was launched in January 2001, focusing on the Klondike and Mercedes zones. This program was successful in discovering a narrow, vein-hosted mineralized zone at Mercedes and significant mineralization at Klondike.

In 2002, with gold prices dropping to less than \$300 per ounce, Meridian entered into a joint venture (JV) with Fischer-Watt Corporation (Fischer-Watt), to continue exploration at Mercedes. With Fischer-Watt's focus being the Mercedes vein zone, the Klondike and Rey de Oro concessions were dropped from the JV. Fischer-Watt carried out limited metallurgical testing and developed a preliminary design for underground



development on the Mercedes vein area south of Corona de Oro, yet the JV was terminated in the fall of 2004 and the property returned to Meridian.

An exploration program conducted in 2005 resulted in the discovery of a significant high-grade intersection at Corona de Oro shoot in the Mercedes vein. Drilling continued in 2006-2007, focusing on the Mercedes, Klondike, and Lupita veins.

#### Yamana Gold Inc. 2007-2016

In October 2007, Yamana took control over the property and subsequently carried out surface mapping, geochemical exploration, and drilling. An aggressive exploration program was initiated to assess the potential of the property and bring it to a feasibility study stage. Drilling from 2009 to 2016, focusing on district exploration outside of the Mercedes-Klondike systems, resulted in the discovery of the Barrancas zone, the Diluvio zone at Lupita, and the expansion of the Rey de Oro vein system. Commercial production at the Mine started in 2011.

#### Premier Gold Mines 2016-2021

In September 2016, Premier Gold Mines purchased the Mercedes Mine from Yamana Gold. Drilling from 2016 to 2021 focused on underground delineation of the various zones, particularly at Diluvio.

#### **Equinox Gold 2021-2022**

In April 2021, Equinox acquired the Mercedes Mine through the purchase of all outstanding shares of Premier Gold Mines. The mine continued to operate during this time. Equinox continued exploration and definition drilling in 2021.

#### **Bear Creek from 2022**

In December 2021, Equinox agreed to sell the Mercedes Mine to Bear Creek Mining Corp., and the mine has been in operation since the 2011 Yamana Gold start-up until the current time.

#### 1.6 Geologic Setting and Mineralization

The Mine is located on the northwestern edge of Mexico's epithermal (Au-Ag) deposits belt and is surrounded by world-class deposits like Cananea and Nacozari. Mercedes is one of the most accessible mining projects in Mexico, located approximately 250 km from Hermosillo, Sonora, and Tucson, Arizona.

The Mine lies in the Basin and Range physiographic province, approximately 80 km inboard from the Late Proterozoic rifted continental margin of the North American plate and northeast of the inferred "Sonora-Mojave Mega-shear."

The area is underlain by a thick succession of shallow-marine shelf carbonate and siliciclastic rocks ranging in age from Jurassic to Cretaceous. These rocks have been moderate to strongly faulted and folded, related to thin-skinned, northeast-directed thrusting during the Late Cretaceous Laramide Orogeny.



The geology of the Mercedes area is dominated by two northwest-trending arches, cut by numerous northwest-trending high-angle structures. These structures have exposed older marine sediments, overlying interbedded volcaniclastic sediments, and lithic to quartz crystal lithic tuff units.

Andesitic flows and flow breccias (with local coeval andesite dike emplacement events) have been deposited and preserved in at least three west-northwest thickening basins on the margins of the northwest-trending arches. This andesite package, locally over 500 m thick, and the contact zone with the underlying rhyolitic tuff, hosts all known economic epithermal vein deposits in the district.

Some of the local faults have been intruded by at least three stages of dikes and small stocks, ranging in composition from andesite to latite and rhyolite. Dikes generally crosscut and destroy vein mineralization. Vitrophyre is locally preserved on both latite dike and flow margins.

A total of 18.2 km of gold-silver bearing epithermal low sulfidation veins have been identified within some 6 km width across the northwest-trending Mercedes belt or along the margins of the andesite-filled basins, which constitute the primary exploration target on the property. Major veins, like those of the Mercedes vein system, typically trend N30° to 70°W at 60° to 90° dips northeast or southwest, following the major regional structural pattern. Other veins trend variably from east-west to north-south, or even northeast. Veins typically dip at greater than 60° but locally range as low as 25°.

The major exception in the district is in the Lupita-Diluvio basin. The Lupita vein system is localized along a N70°E, 15° to 55° northwest dipping listric fault zone. Diluvio consists of a stockwork, and vein system hosted within older lithic tuff and volcaniclastic units below the andesite package.

#### 1.7 Deposit Type

Gold-silver mineralization on the Mercedes property is hosted within epithermal, low-sulfidation (adularia-sericite) veins, stockwork, and breccia zone (Buchanan 2016). These deposits form on predominately felsic subaerial volcanic complexes in extensional and strike-slip structural regimes. Near-surface hydrothermal systems, including surface hot springs and deeper hydrothermal fluid-flow zones, are the sites of mineralization. Mineral deposition took place as the hot mineralizing fluids underwent cooling by fluid mixing, boiling, and decompression.

In 2000, a fluid inclusion study was carried out by J. Reynolds from Fluid Inc. on vein samples from the Mercedes, Saucito/Tucabe, and Klondike veins. This study confirmed that the sampled material was typical of those from a low sulfidation system. Reynolds noted samples from the Mercedes vein contain quartz that formed at temperatures above 200°C, although some minor quartz formed at temperatures as high as 240°C to 250°C, with evidence for minor boiling.

#### 1.8 Exploration

The primary target areas and drilling objectives in recent years have been:

- Drilling to extend Mineral Resources around the Marianas/GAP/Barrancas trend;
- Expanding and confirming Mineral Resource extension at Diluvio/Diluvio West/San Martin/Lupita;
- Defining deeper continuation of mineralization at Rey de Oro;



• Testing several exploration targets at Diluvio, Diluvio NW, Rey de Oro Deep, Neo, San Martin Displacement, Klondike Displacement, Margarita, Margarita East, and Lagunas West.

## 1.9 Drilling and Channeling

By the end of December 2024, 167 RC holes, covering 26,881.63 meters, and 3,250 core holes, totaling 674,569.45 meters, had been drilled on the Mercedes Mine property. By the date mentioned, a combined total of 3,417 Mineral Resource exploration holes had been drilled on the Mercedes Mine property, covering 701,451.08 meters and including 184,709 samples.

The process of selecting drill hole locations at Mercedes is carried out by the on-site geological team. Drill holes test extensions of the known vein systems in addition to completing exploration to discover new mineralized horizons.

Surveyors mark up drill hole collars prior to the drill set-up and again after the hole is completed. MMM staff prepare core and RC logging procedures. Geologists collect drill log information on standard logging forms, and the information collected typically includes main lithological units with brief lithological descriptions, vein type, zone, hydrothermal alteration minerals, geotechnical information such as rock quality designation (RQD), and standard header information such as collar coordinates and hole inclination. Structural measurements are also recorded.

Mineralized zones at Mercedes, Klondike, Barrancas, Diluvio, Lupita, Marianas, and Rey de Oro were drilled on approximately 20 m to 30 m centers using a combination of diamond drilling and a small amount of RC pre-collar drilling. Recent delineation drilling, aimed at converting Inferred Resources up to the Indicated (±Measured) categories, was also conducted at San Martin and Lupita Extension. Between 2022 and the end of 2024 (December 31, 2021), a total of 60,151 m in 397 drill holes had been completed on the property by Bear Creek.

By December 31, 2024, 24,914 underground channels had been sampled, for a total of 142,298 channel samples representing 126,950.43 meters of sampling. Mineralized zones at Aida, Barrancas, Brecha Hill, Casa Blanca, Corona de Oro, Lagunas, Klondike, Rey de Oro, Diluvio, Lupita, Marianas, and Gap have been sampled periodically, if not regularly, as the mine development progressed. Predominantly in the underground production areas, channel sampling constitutes an important part of the dataset for geomodelling, QAQC, Mineral Resource estimation, and grade control purposes.

#### 1.10 Sample Preparation, Analysis, and Security

Layne Drilling of Hermosillo performed reverse circulation (RC) drilling in 2000-2001 using a Drill Tech wheel rig equipped with a 350/750 psi primary compressor. Diversified Drilling of Hermosillo contracted for the 2006 RC drilling and completed it using a portable track RC drill. All RC holes were drilled using a face discharge hammer or a Mission hammer with an interchange.

The 2000-2001 RC drill samples were collected at 1.5 m intervals (50% split) until the vein zone was approached. Then, samples were collected on 0.75 m intervals in and near the vein zones of most holes, allowing a better definition of vein boundaries and providing additional samples for assay. All 2006 RC sampling was done on 1.0 m spacing, with three samples per 3.0 m drill rod.



Major Drilling has been the preferred contractor retained to carry out most core drilling campaigns at Mercedes, with the exception of a small program conducted by BDW International in 2006. From 2006 to 2019, core boxes were regularly collected at the drill rig under the supervision of MMM geologists and transported to the camp core logging facility.

Underground, channel/chip samples are collected daily at the active fronts where mine development takes place. After the face has been cleared of muck, scaled off, and secured, the advance is measured, a plan & section sketch is drawn, and markings are placed to identify geo-references and summarily describe the mineralized structures from the host rock.

In December 2021, Equinox Gold agreed to sell the Mercedes Mine to Bear Creek (the issuer) less than one year after Equinox acquired the project from Premier Gold Mines. Premier Gold operated from 2016 to 2021, and Equinox Gold operated from 2021 to December 2021. Both operators used the same protocols.

From 2022, Bear Creek has kept the previous protocol conducted by Premier Gold and Equinox Gold and followed the exact core drilling, channeling, and sampling procedures conducted from 2016 to 2021.

Almost all 2000 to 2020 assaying was completed at ALS laboratories (ISO 17025:2017 certified) and predecessors Bondar-Clegg and Chemex in Vancouver, British Columbia. Due to extreme sample volumes, some sample preparation in 2011, 2019, and 2020 was done by Chemex at preparation facilities in Chihuahua, Zacatecas, and Guadalajara, Mexico.

At ALS, the sample is logged in the tracking system, weighed, dried at 120°C, and finely crushed to better than 70%, passing a 2 mm screen. A split of up to 250 g is taken and pulverized to plus 85% passing a 200-mesh screen. Gold analyses were completed using a FA-AA finish, with all samples over 5.0 gpt Au reanalyzed by the FA-gravimetric finish method. From 2020, that threshold was brought to 10 gpt Au.

From 2022 to August 1, 2024, core samples were sent to ALS laboratory (ISO 17025:2017 certified) in Hermosillo for sample preparation and then to ALS Canada for analysis. During this period, the sample tracking, preparation and analytical procedures imitated the 2000 to 2020 procedures. From August 1, 2024, core samples were sent to SGS in Hermosillo for sample preparation and then to SGS (ISO 17025:2012 certified) in Canada for analysis, the methodology used is similar as previously described for ALS, by logging the samples in the tracking system, weighed, dried at 120°C, and finely crushed to better than 70%, passing a 2 mm screen. A split of up to 250 g is taken and pulverized to plus 85% passing a 200-mesh screen. Gold analyses were completed using a FA-AA finish, with all samples over 10.0 gpt Au reanalyzed by the FA-gravimetric finish method. Silver analyses were completed using four-acid digestion, and the digested sample solution was subjected into a Flame Atomic Absorption Spectrometer (AAS).

Channel samples from development headings and underground infill drilling are processed at the Mine laboratory. For gold, samples are analyzed by FA with an AA finish, and if the results are greater than 5.0 gpt Au, the samples are re-analyzed by FA and gravimetric finish, with both procedures using a 30 g pulp sample. For silver, samples are assayed by FA with a total digestion using four acids.



#### 1.11 Data Verification

In 2013, part of the resource database and several drill logs were reviewed by RPA for accuracy of assay transcription from the assay certificates. Approximately 1,400 assays from drill holes in the database were compared to the original assay certificates with no errors noted.

In 2016, RPA compared approximately 6,200 of 21,600 assay certificate values from 2014 and 2015 exploration with the resource database. RPA examined the bulk of the assays taken with the Au\_ppm\_FA50 and Ag\_ppm\_MAAASOG laboratory methods. Of the 6,200 matches, only 40 assays differed from the certificates by more than 0.1 gpt Au, with only 11 assays differing by more than 0.5 gpt Au, with the largest discrepancy at 0.58 gpt Au. Only two silver assays differed from the certificates by more than 10 gpt Ag, with the largest discrepancy at 22 gpt Ag. These discrepancies may, at least in part, be accounted for by re-assays for various reasons.

In 2017, RPA compared approximately 21,800 assay certificates from the exploration and mine laboratories with the resource database.

Drill logs for four holes were compared to the core stored at the site in 2013, three holes were reviewed in 2016, and two holes were reviewed in 2017. It was determined that the logging and sampling were completed to industry standards.

In 2020, BBA completed a data verification program for a significant portion of the historical drill hole database. BBA reviewed and examined the project's drill hole database, which contained assay, survey, and geological information for historical drill campaigns up to 2020. BBA also compared approximately 2,100 of 12,500 assay certificate values from the 2018 exploration drilling and mine sampling work and approximately 1,700 of 14,000 assay certificate values from similar work in 2019. The bulk of the assays taken with the Au\_ppm\_FA50 and Ag\_ppm\_MAAASOG laboratory methods were examined. BBA declared that the drilling, sampling, and assaying protocols in place for the Mine appear to comply with industry standards and that the database is adequate for Mineral Resource estimation.

In 2021, BBA prepared a National Instrument 43-101 compliant Mineral Resource estimate for Mercedes Gold-Silver Mine. BBA assessed the assay certificates for all holes drilled in 2020 and 2021. Assays of Au and Ag were verified for 10% of the database. The assays recorded in the database were compared to the certificates from the different laboratories, and no significant discrepancies were detected. QA/QC reports were reviewed and although no significant issues were observed for gold, these reports revealed issues with silver QA/QC for underground channel samples where the failure rate of the silver standard has generally been high over the last six years; only in 2021 did it show acceptable results. This QA/QC issue only affects underground channel samples (which are prepared and analyzed in the Mine laboratory as opposed to drill core samples which are all prepared and analyzed in independent analytical laboratories); QA/QC for both gold and silver samples from the drill core is acceptable.

The drilling and channeling data were submitted to GRE for a desktop review in January 2025. GRE's Qualified Person (QP), Dr. Hamid Samari, conducted an independent review of the database, which included drilling data from 2000 to 2024 and channeling data from 2012 to 2024.



Only assay data for gold and silver from the 2000, 2001, and 2005 to 2007 drilling programs are available in the database from 2000 to 2007. Mercedes' database does not contain assay certificates for these drilling programs. During this period, 131 RC holes were drilled, yielding 7,739 assays over 19,806.63 meters, along with 170 core holes containing 9,942 assays over 46,428.13 meters. No channeling data is available in Mercedes' database for this exploration period.

The pre-Bear Creek drilling program from 2008 to 2015 includes 1,276 core holes, comprising 82,827 assays for a total of 348,775.28 meters of drilling. The original assay certificates for this period are available in the Mercedes database, along with the collar, survey, gold and silver assays, and QA/QC data. For these drilling campaigns, GRE's QP manually audited approximately 10% of the original assay certificates from 2008 to 2015 and found no material errors. GRE's QP also reviewed and spot-checked some of the existing QA/QC data for this drilling exploration period, as well as some of the QA/QC data from the channeling programs between 2012 and 2015, and found no errors that could affect the Mineral Resource Estimate (MRE).

The pre-Bear Creek drilling programs from 2016 to 2021 include 1,443 core holes, comprising 69,733 assays for a total of 226,289.73 meters of drilling. Completed data on the QA/QC programs for this period, along with collar, survey, assay data, and all original assay certificates, are available in Mercedes' database. During this period, a complete database for channel sampling is also available, containing 75,246 samples and corresponding QA/QC data. GRE's QP reviewed all available historical data for drilling and channeling programs during this period. For the drilling campaigns, GRE's QP conducted a manual audit of approximately 10% of the original assay certificates for core hole samples from 2016 to 2021 and found no material errors. GRE's QP also reviewed the existing QA/QC data for this period and found no errors that could affect the MRE.

For the 2021 exploration period, as the Mercedes Mine transitioned from Premier Gold to Equinox Gold and then to Bear Creek, GRE's QP reviewed all QA/QC data for both drilling and channeling programs and presented the results in this technical report (see Verification of Pre-Bear Creek Analytical Control Data), showing no errors that could affect the MRE.

From 2022 to 2024, Bear Creek completed 53,076.31 meters of core drilling, consisting of 14,468 assay samples from 361 core drill holes within the project site. The current data was provided to GRE in .csv format, including collar, survey, assay, and geology data for the entire database, along with Bear Creek's comprehensive in-house QA/QC files. GRE independently analyzed Bear Creek's data relevant to the 2022 to 2024 drilling programs, comparing the assay data with the provided assay certificates. Approximately 10% of all original assay certificates from the 2022 to 2024 drilling programs were manually spot-checked against the database for accuracy, and no errors were found.

For this exploration period, GRE's QP reviewed all QA/QC data for the drilling and channeling programs and found no critical errors that could affect the MRE.

## 1.12 Mineralogical Processing and Metallurgical Testing

The Mercedes process plant has been operating since the end of 2011 and has shown consistent operating performance over this time period. There is not much room for process optimization. Review of the



available test work indicates that in most cases the Mercedes materials leaches very well, with gold recoveries in excess of 90% often closer to 95%. Silver extractions are typically lower ranging from 20% to 40% in most cases. Mineralogy suggests that the presence of refractory compounds such as electrum, tellurides, argentite, and other silver sulfide minerals may be responsible for some of the variations in gold and silver recovery reported.

## 1.13 Mineral Resource Estimate

The QP has reviewed the Mineral Resource estimates of the various deposits at the Mine as of September 30, 2024. As part of this review, the QP carried out a series of visual and statistical reviews, such as a review of the database, the geological solids, capping and other key parameters, composites, the interpolation procedures and methodology, depletion, and block models. Multiple discussions with onsite staff were held during the course of this mandate.

The Mercedes Mine block models were validated using several methods, including a visual review of the grades in relation to the underlying drill hole and statistical methods, statistical comparisons, and review of the reconciliation.

The QP reviewed the end of September 2024 reconciliation analysis documented by MMM and concludes that the block model is performing well.

The Mineral Resource Estimate presented herein is presented as underground Mineral Resources using appropriate cut-off grades. A summary of the Mineral Resource Estimate inclusive of Mineral Reserves is presented in Table 1-2.

Table 1-2: Mineral Resources, Inclusive of Mineral Reserves – effective 30 September 2024

Classification	Tonnes (000)	Au (gpt)	Ag (gpt)	Contained Au tr oz (000)	Contained Ag tr oz (000)
Measured	793	6.62	58.10	169	1,481
Indicated	1,546	5.65	49.06	281	2,439
Measured + Indicated	2,339	5.98	52.12	450	3,920
Inferred	383	5.26	36.06	65	445
Total	2,722	5.88	49.86	515	4,364

- 1. Mineral Resources are reported using the 2014 CIM Definition Standards, with an effective date of 30 September 2024. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.
- 2. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 3. Mineral Resources are presented as undiluted and in situ for an underground scenario and are considered to have reasonable prospects for economic extraction. Mineral Resources show sufficient continuity and isolated blocks were discarded; therefore, the herein MRE meets the CIM Guidelines published in November 2019.
- 4. Mineral Resources are reported using a cutoff grade varying from 2.1 to 3.0 gpt Au for the varying Mercedes deposits: gold price of US\$2,360/oz; gold recovery of 94%; reference mining cost ranging from of \$73.51/t processed to \$137.47/t processed; processing cost of \$29.35 /t processed; general and administrative costs of \$ 35.27/t processed; and refining costs of \$13.36 /oz Au.
- 5. Calculations used metric units (metre, tonne).
- 6. Numbers have been rounded and may not sum.



7. The QP Ms. Lane is not aware of any known environmental, permitting, legal, title-related, taxation, sociopolitical, or marketing issues or any other relevant issues that could materially affect this Mineral Resource Estimate.

#### 1.14 Mineral Reserve Estimation

Mercedes Mine has been in continuous operation since 2011. The Mineral Reserves are entirely underground.

Mineral Reserves are estimated by the application of mining shapes, governed by a minimum mining width of 3 m, to the Mineral Resource shapes. Appropriate factors for planned dilution, unplanned dilution, and ore recovery have been included as part of the estimate.

Ms Lane (QP) has reviewed the work by MMM personnel related to the estimation of the Mineral Reserves, and is of the opinion that the Mineral Reserves have been estimated in an appropriate manner.

The Mineral Reserve estimate for the Mercedes Mine is summarized in Table 1-3.

**Contained Au Contained Ag** Classification **Tonnes (000)** Au (gpt) Ag (gpt) tr oz (000) tr oz (000) Proven 9 4.25 24.67 1 7 Probable 419 3.94 22.67 53 305 Total 428 3.95 22.71 54 312

**Table 1-3: Mineral Reserve Statement** 

- 1. Mineral Reserves are reported using the 2014 CIM Definition Standards, with an effective date of 30 September 2024. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.
- 2. Mineral Reserves are economically minable tonnes and grades; the reference point is the mill feed at the primary crusher.
- 3. Mineral Reserves are reported using a NSR cutoff cost varying from US\$152 to US\$216/t processed: gold price of US\$2,360/oz; gold recovery of 94%; reference mining cost ranging from of \$73.51/t processed to \$137.47/t processed; processing cost of \$29.35/t processed; general and administrative costs of \$35.27/t processed; and refining costs of \$13.36 /oz Au.
- 4. A minimum mining width of 3 m was used in the creation of all reserve shapes.
- 5. Calculations used metric units (metre, tonne).
- 6. Numbers have been rounded and may not sum.
- 7. The QP Ms. Lane is not aware of any known environmental, permitting, legal, title-related, taxation, sociopolitical, or marketing issues or any other relevant issues that could materially affect this Mineral Reserve Estimate.

## 1.15 Mining Methods

The Mine currently plans the majority of mining to be completed using mechanized long hole stoping mining and the mechanized cut & fill mining method. In Marianas, Barrancas, and Gap the Mine utilizes a mechanized long hole stoping mining method where the ground conditions and ore geometry allow for bulk mining methods.

The mechanized cut & fill mining method is employed at Rey de Oro and Rey de Oro High, where the activities are typically planned as an overhand mining method with multiple available mining horizons to increase the overall productivity of the method. Ore is hauled to the surface via the main ramps and



stockpiled on the surface near the individual portals. Ore from the portals is subsequently hauled to a common stockpile area near the jaw crusher.

Ms. Lane (QP) is of the opinion that the selected mining methods are appropriate for the deposits, but further planning should be considered to perform selective mining to reduce the dilution.

## 1.16 Recovery Methods

The process plant at Mercedes has a capacity of approximately 2,000 tpd and is based upon conventional milling with Merrill-Crowe recovery of gold and silver. The main components are listed below:

- Three-stage crushing circuit;
- Ball mill operated in closed circuit with cyclones;
- Gravity concentration;
- Agitated leach;
- Counter current decantation;
- Merrill-Crowe zinc precipitation;
- Smelting;
- Cyanide detoxification of tailings;
- Tailings disposal.

## 1.17 Project Infrastructure

The Mercedes Mine is comprised of all surface and underground infrastructure necessary to operate the site, including:

- A 2,000 tpd three-stage crushing and process plant. This facility processes ore from the different mining areas and stockpiles;
- Mine infrastructure: administrative office facilities, two camp facilities (exploration and mine personnel), mine operation and maintenance facilities (surface and underground), core storage and exploration offices, personnel change room facilities (mine dry), a lamp room, and a safety room are also in place;
- Tailings management infrastructure for surface disposal and underground disposal.
- A paste plant for underground backfill. A portion of the tailings is mixed with cement, yielding a nominal output rate of 94 tph of paste backfill at 55 wt% solids content as mixer trucks transfer the backfill material to the current mining areas further away. The paste plant, in general, is designed for 78 wt% solids content;
- Two on-site batch plants for the preparation of shotcrete and concrete as required;
- Underground mine dewatering, which meets all of the project's water supply needs. The volume pumped is in excess of project needs and is secure from drought conditions.
- Water treatment, which treats for arsenic prior to discharge.
- Electrical infrastructure and substation to meet site load requirements of approximately 14 MW;



- Access roads connecting the site with public roads as well as internal roads connecting the
  different mine areas to the plant and to the other major infrastructure. There are security gates
  and security posts at mine entries;
- Ore and waste stockpiles areas.

#### 1.18 Market Studies and Contracts

Mineral Resource and Mineral Reserve economics have been assessed using the following metal price provided by BCMC: Gold price = \$2,360.00/oz and Silver Price = \$29.25/oz.

No market studies have been conducted by BCMC or its consultants on the gold and silver produced at Mercedes. Gold and silver are freely traded commodities on the world market for which there is a steady demand from numerous buyers.

The Mercedes Mine has outstanding royalties with Elemental Royalties Corp. (Elemental), the Mexican government (government), and a net smelter return (NSR) with Versamet Royalties. Sandstorm streams are delivered from production according to the agreed gold and silver repayment ounces which was restructured in January of 2024 resulting in a reduction of the gold ounces to 275 per month until termination in April of 2028. The silver stream is suspended until 2028 at which time 100% of the silver ounces produced will be delivered to Sandstorm

## 1.19 Environmental Studies, Permitting, And Social or Community Impact

## 1.19.1 Water Supply Summary

The site is supplied entirely with underground mine dewatering water. This water supply source does not negatively impact local or regional water users, and the use of the water is fully permitted. The water supply source is not sensitive to climate change.

#### 1.19.2 Environmental Summary

The mine is a fully permitted operation that is in compliance with local and federal regulations. Due to favorable geochemical conditions, there is a very low risk of water quality impacts common in gold mines, such as Acid Rock Drainage (ARD) and Metal Leaching (ML).

There are no known prior environmental liabilities on the site, and no long-term post-closure liabilities will exist. The closure cost estimate is included in the cost model for this technical report.

#### 1.19.3 Social Summary

The mine has not had a labor dispute, strike, or protest since its inception. The site appears to have good relations with the surrounding landowners and the community and, as a result, has a Social License to Operate.

# 1.20 Capital and Operating Costs

Mercedes is currently operating, and the capital cost estimate covers the ongoing operations. The LOM capital expenditures total US\$26.7 million as summarized in Table 1-4.



**Table 1-4: Forecast LOM capital costs** 

Category	Cost (US\$ M)
Underground Mine Development	10.00
Other Sustaining Capital Cost	4.71
Tailings Dam TSF1 Expansion and permitting	0.35
Exploration Drilling	1.21
Salvage Cost Estimate	-6.39
Reclamation and Closure Cost	16.83
Total Capital Cost	26.70

The unit operating costs (\$/t milled) for the life of mine (LOM) are summarized in Table 1-5.

Table 1-5: Forecast unit operating costs (\$/t milled)

Category	Costs (US\$/ t milled)
Mine Administration and Underground	93.02
Process Plant	32.11
General & Administration (incl. Site Overhead)	37.28
Refining Cost	1.99
Total Operating Cost	164.40

# 1.21 Economic Analysis

An economic analysis of the Mercedes Mine has been completed using the actual mine costs, current LOM plan, scaled actual costs, and estimates presented in this report. The outcome is a positive cash flow that supports the statement of Mineral Reserves at a gold and silver price of US\$2,360/oz and US\$29.25/oz respectively.

The current LOM is stated for two years with the current mining reserves. The undiscounted pre-tax cash flow is US\$4.61M and after-tax cash flow is US\$3.38M. At a discount rate of 5%, the pre-tax NPV is US\$6.22M, and the after-tax NPV is US\$5.06M.

The mine economics are most sensitive to the gold price and operating costs.

# 1.22 Interpretation and Conclusions

#### 1.22.1 Introduction

The QPs note the following interpretations and conclusions in their respective areas of expertise, based on the reviews and interpretations of data available for this Report.

#### 1.22.2 Mineral Tenure, Surface Rights, Water Rights, Royalties, and Agreements

Mineral tenure held is valid and sufficient to support a declaration of Mineral Resources and Mineral Reserves.



To the extent known to the QP, there are no other significant factors and risks that may affect access, title, or right or ability to perform work on the Project that are not discussed in this Report.

## 1.22.3 Geological Setting and Mineralization

The Mercedes Mine is located on the northwestern edge of Mexico's epithermal (Au-Ag) deposits belt, surrounded by world-class deposits like Cananea and Nacozari. Mercedes is one of the most accessible mining projects in Mexico, covering 69,285 ha and is located approximately 250 km from Hermosillo, Sonora, and Tucson, Arizona.

The area is underlain by a thick succession of shallow-marine shelf carbonate and siliciclastic rocks ranging in age from Jurassic to Cretaceous. These rocks have been moderate to strongly faulted and folded, related to thin-skinned, northeast-directed thrusting during the Late Cretaceous Laramide Orogeny.

The geology of the Mercedes area is dominated by two northwest-trending arches, cut by numerous northwest-trending high-angle structures. These structures have exposed older marine sediments, overlying interbedded volcaniclastic sediments, and lithic to quartz crystal lithic tuff units.

Andesitic flows and flow breccias (with local coeval andesite dikes) have been deposited and preserved in at least three west-northwest thickening basins on the margins of the northwest-trending arches. Most known economic low sulphidation epithermal vein deposits on the Mercedes concessions occur within the lower portions of the andesite package, locally over 500 m thick, and are frequently associated with the lower contact zone with underlying rhyolitic tuffs.

Some local faults have been intruded by at least three stages of dikes and small stocks, ranging in composition from andesite to latite and rhyolite. Dikes generally crosscut and destroy vein mineralization. Vitrophyre is locally preserved on both latite dike and latite flow margins.

Over 18 km of gold-silver-bearing epithermal low sulfidation veins have been identified within or along the margins of the andesite-filled basins, which constitute the primary exploration target on the property. Following the major regional structural pattern, major veins like those of the Mercedes vein system, typically trend N30° —70°W at 60° to 90° dips northeast or southwest.

Mineralogical studies have identified iron oxides, pyrite, gold, electrum, stibnite, and rare pyrargyrite, within a gangue of substantial chalcedony, quartz, and carbonate. Due to the substantial depth of oxidation up to over 500 m in mineralized structures, sulfides are rarely observed. An important component in some economically mineralized zones is the presence of hematite and manganese oxides.

Understanding the Mercedes Mine deposit setting, lithologies, mineralization style and the geological and structural controls on mineralization provides support for the estimation of Mineral Resources and Mineral Reserves.

#### 1.22.4 Exploration, Drilling, and Analytical Data Collection in Support of Mineral Resource Estimation

The exploration programs completed at the Project to date reveal important aspects of the geology, mineralization, and deposit style on the Property. By the end of December 2024, a total of 3,417 holes had been drilled on the Mercedes Mine property, covering 701,451.08 meters and including 184,709



samples. In addition, 24,914 underground channels were completed, totaling 126,950.43 meters, with 142,298 channel samples taken.

The historical drilling and sample collection methods and the recent drilling and sampling conducted by Bear Creek at the Project are acceptable for estimating Mineral Resources and Reserves.

The sample preparation, analysis, and security practices used by Yamana Gold, Premier Gold, and Equinox Gold at the Project from 2008 to 2022 are acceptable, meet most industry-standard practices, and are sufficient to support Mineral Resource and Mineral Reserve estimation. Over the years, the Mercedes QA/QC protocol became more comprehensive and detailed.

Bear Creek continued the established QA/QC protocols for the Project and applied this to all sample collection and analysis streams from 2022 and 2024. Although the QA/QC submission rates did not meet industry-accepted standards for most of the drilling programs, a review of the QA/QC by GRE's QP did not identify any material issues. The data collected still supports the Mineral Resource and Mineral Reserve estimations.

Data verification concludes that the project data adequately supports the geological interpretations and constitutes a database of sufficient quality to support the application of the data in Mineral Resource and Mineral Reserve estimation.

## 1.22.5 Metallurgy and Mineral Processing

Review of the available test work indicates that in most cases the Mercedes materials leaches very well, with gold recoveries in excess of 90% often closer to 95%. Silver extractions are typically lower ranging from 20% to 40% in most cases. Mineralogy suggests that the presence of refractory compounds such as electrum, tellurides, argentite, and other silver sulfide minerals may be responsible for some of the variations in gold and silver recovery reported.

#### 1.22.6 Mineral Resource Estimates

The Mineral Resource estimation for the Project conforms to industry-accepted practices and is reported using the 2014 CIM Definition Standards.

Factors that may affect the estimate include: changes to metal price assumptions; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to the density values applied to the mineralized zones; changes to geological shape and continuity assumptions; potential for unrecognized bias in the assay results from legacy drilling where there was limited documentation of the QA/QC procedures; changes to the input values used to generate the cut-off grade; changes to metallurgical recovery assumptions; changes in assumptions of marketability of final product; changes to the input assumptions for assumed underground operations; changes to environmental, permitting and social license assumptions.

#### 1.22.7 Mineral Reserve Estimates

The Mineral Reserve estimation for the Project conforms to industry-accepted practices and is reported using the 2014 CIM Definition Standards.



Factors that may affect the estimate include: metal price and exchange rate assumptions; changes to the assumptions used to generate the cut-off grade; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shapes, and geological and grade continuity assumptions; density and domain assignments; changes to the underground mining method; changes to metallurgical recovery assumptions; changes to the input and design parameter assumptions; assumptions as to the continued ability to access the site, retain mineral and surface rights titles, obtain and maintain environmental and other regulatory permits, and obtain the social license to operate.

## 1.22.8 Mining Methods

The Mine currently plans and undertakes most of the mining to be completed using the mechanized long hole stoping mining and mechanized cut & fill mining methods.

The current Mineral Reserves, a total of 428 Kt grading 3.95 gpt Au and 22.71 gpt Ag, will be mined over a mine life of 2 years (January 2025 to January 2027).

## 1.22.9 Project Infrastructure

The Mine currently has all the major surface and underground infrastructure necessary to operate the site. No major upgrades or modifications are required; however, tailings management requires re-evaluation.

Due to the current political stance of the Mexican government regarding conventional tailings facilities and its approval, Mercedes Mine paused the TSF3 project, and it is in the process of developing a new strategy. The new strategy consists of converting the tailings management from conventional tailings to filtered tailings for dry-stacking. This conversion allows for the vertical expansion of TSF1. In its current state, this alternative could provide approximately 924,000 m³ of storage capacity.

## 1.22.10 Environmental Studies, Permitting & Social or Community Impact

The mine operates with a fully permitted, sustainable water supply from underground dewatering, unaffected by climate change and without impact on local users. It complies with all regulations and has minimal environmental risk due to favorable geochemical conditions, reducing Acid Rock Drainage (ARD) and Metal Leaching (ML) concerns. There are no known historical or long-term post-closure liabilities, with closure costs included in the cost model. Strong community relations and a history free of labor disputes ensure a stable Social License to Operate.

## 1.22.11 Project Economics

An economic analysis of the Mercedes Mine has been completed using the actual mine costs, current LOM plan, scaled actual costs, and estimates presented in this report. The outcome is a positive cash flow that supports the statement of Mineral Reserves at a gold and silver price of US\$2,360/oz and US\$29.25/oz respectively.

The current LOM is stated for two years with the current mining reserves. The undiscounted pre-tax cash flow is US\$4.61M and after-tax cash flow is US\$3.38M. At a discount rate of 5%, the pre-tax NPV is US\$6.22M, and the after-tax NPV is US\$5.06M.



The mine economics are most sensitive to the gold price and operating costs.

#### 1.22.12 Other Relevant Data

#### 1.22.12.1 Risk

The QPs, as authors of this Technical Report, have noted the following risks:

- Exchange rates, operating costs (fuel and electricity), and, in particular, metal prices all have the potential to affect the economic results of the mine. Negative variances to assumptions made in the budget forecasts would reduce the profitability of the mine, thereby impacting the mine plan. (General)
- Stope optimization blocks can be improved. Associated risks are sterilizing of ore and reduction of reserves through the creation of poor mine designs, which impact the mine economics and production schedule. (Mining and Reserves)
- Reassessment of unplanned dilution and ore loss for mining methods in different mining areas
  can adversely impact the mine's overall head grade to the mill. Risks associated are the mine
  economics and schedule. (Mining and Reserves)
- Maintenance of on-site infrastructure and equipment (Mobile and fixed) for maintaining the
  estimated salvage value. The risks associated are to the mine economics. (Infrastructure, Mining,
  and Processing)
- UG tailings placement estimations may be reduced due to uncertainties in the estimate, i.e., MMM was not able to corroborate the survey of mine due to safety aspects. This may reduce the estimated storage capacity of the LSBF plan, thus increasing the need for new storage facilities. (Infrastructure)
- Mexican regulatory expectations for environmental and social responsibility continue to evolve.
   This has the potential to increase costs for final closure and/or post-closure monitoring.
   (Permitting)
- Inflation costs of consumables and labor costs for estimated CAPEX items for the mine site expansion and reclamation are future mine economics risks. (Economics).

#### 1.22.12.2 Opportunities

The QPs, as authors of this Technical Report, have noted the following opportunities:

- Additional exploration drilling can contribute to the geological understanding of the mine and assist in identifying future Mineral Resource extension and exploration targets.
- Additional definition drilling and channel sampling near active mining fronts will minimize the risk of grade fluctuation.
- Mapping and characterization of mineralized material within historical waste piles to determine
  if the material can be processed economically. This material could be used to fill the mill to
  capacity during periods of reduced ore availability from the mines. (Processing).
- Continue the optimization of the tailings deposition and management options currently implemented can increase the storage capacity of the existing TSF postponing the need for additional storage facilities. (Tailings).



- Evaluate the areas proposed for underground low-strength backfill deposition for the presence of any economical material that can be mined before backfilling. (Mining and Reserves).
- Evaluate alternative mining methods, focusing on narrow vein techniques to reduce dilution and convert in situ Mineral Resources to Reserves. (Mining and Reserves).

#### 1.22.13 Conclusion

Under the assumptions in this Report, the Project shows a positive cash flow over the life-of-mine and supports the Mineral Reserve estimates. The projected mine plan is achievable under the set of assumptions and parameters used.

## 1.23 Recommendations

## 1.23.1 **Geology**

More than a century of mining activities and geological studies within the BCMC concessions have identified over 18 km of frequently blind-to-surface economically mineralized low-sulphidation Au-Ag epithermal veins and stockwork structures. Despite historical drilling campaigns having demonstrated proven discovery success across the project areas within the Mercedes corridor, there remains considerable Mineral Resource extension exploration opportunity in the immediate surroundings of the Mine deposits. Together with constant improvement in the understanding of mineralizing controls, this implies that testing of blind-to-surface targets can now be undertaken with more confidence. It is thus recommended to focus exploration efforts on testing of blind-to-surface prospective zones (Klondike North), as well as strike extensions (Diluvio NW) & depth extensions (Lagunas West) of known open-ended mineralized structures.

To advance initial 2025 exploration testing of targets (to be selected from those described in Item 9), a conservative 24-hole diamond drilling (DDH) program, with average hole depth of 575 meters (15,350 m) is proposed. A budget of \$2.1 million is recommended.

#### 1.23.2 Sampling and QA/QC

Sample collection, preparation, analysis, and security practices for the 2022 to 2024 core drilling programs are in line with industry-standard protocols for gold and silver deposits and should be retained for future drill campaigns. It is recommended that the CRM, blanks, and duplicate sample submission rates should be increased to meet industry-accepted norms for future drilling programs.

#### 1.23.3 Metallurgy and Mineral Processing

The Mercedes process plant has been operating since 2012 and little in the way of process optimization is required. However, there are certain aspects of the plant operation that may be worth investigating such as:

- Conduct a tradeoff study on the impact of additional cyanide dosing and silver recovery.
- Examine the grind influence on recovery across a wider P80 range. The grind size impacts the metal recovery but it also has knock on effects including settling and filtering. With a potential



for the installation of drystack tailings handling or even underground disposal, a coarser grind may present many physical benefits to be weighted against a potential recovery reduction.

- Validate that the deepest extent of the orebody responds similarly to the current metallurgical performance.
- Conduct metallic screens on tailings to monitor for coarse gold.

The estimated cost for the above recommendations is \$50,000.

# 1.23.4 Mining

Due to current narrow mineralized orebody widths and challenging rock quality conditions, BCMC experiences excessive planned and unplanned dilution. To minimize mining dilution and ultimately improve mine design, it is recommended to evaluate alternative mining equipment (narrower) and mining methods (such as resuing or other narrow vein techniques). The estimated duration of the recommended study, which will additionally assess the potential economic impact of decreasing operating costs and improving the conversion of in situ Mineral Resources to Reserves, is two months with an associated cost estimated at \$200,000.

With the same objectives as mentioned above, it is further recommended to update procedures for the collection and use of geological, structural, density and geotechnical data taken from future drill core to facilitate and enhance interpretation of underground allocated rock quality designations.

The following recommendations have been made for mine planning:

- Acquire geomechanical point load test equipment to improve confidence relating to rock quality designation in new mining areas (\$5,000).
- Enhance the scheduling process to align with project execution;
- Monitor metal price fluctuations and trends and adapt the LOM plan as required to maximize value.
- Integrate short-term planning processes to improve the production profile.
- Develop a waste balance on an annual basis to optimize the production profile.
- Ensure that ventilation models are updated regularly to reflect the current state of the vent system.
- Review mined material movement and rehandling after it is removed from the face, as it contributes towards ore loss, dilution, and increased costs.
- Increase definition drilling to reduce dilution and improve grade control.

# 1.23.5 Project Infrastructure

If new areas are identified for operation, the Expansion of TSF1 is required for smooth operation. The estimated cost is \$15,000,000.

The following recommendations have been made for the TSF and tailings management:

 Conduct frequent inspections of TSF1 and TSF2 and establish a maintenance schedule. Items to be considered are:



- Housekeeping Remove trash and debris that can be detrimental to the facilities, especially the liner system.
- Inspect embankment crest and slopes for signs of instability, erosion, and excessive vegetation and correct such observations.
- Inspect and repair liner systems for any surficial damage.
- Conduct frequent inspections of TSF2 diversion channels. Look for sediment accumulation and culvert blockage. These must be informed and cleared out, especially for the rainy season.
- Develop an Emergency Action Plan/Response Plan (EAP/ERP).
- Review the storage capacity of the underground deposition plan.

Upon review of the monitoring system in place, it is necessary to replace the water level meter and calibrate the inclinometer. Upon completion, the new information must be provided to the Engineer for review. Based on the Engineer's recommendations, the monitoring plan must be updated as needed. The estimated cost is \$200,000.

## 1.23.6 Environmental Studies, Permitting, & Social or Community Impact

The mine has a well-run environmental program, and the QP does not have any recommendations apart from the continuation of the existing plans and procedures.

The mine closure plan requires a more detailed management plan. This cost (\$630,750) is included in the closure cost estimate and the mine cost model.



## 2 INTRODUCTION

Dr. Todd Harvey (SME Registered Member), Ms. Terre Lane (MMSA QP), Dr. Hamid Samari (MMSA QP) Larry Breckenridge (PE) and Luis Quirindongo (SME Registered Member) from Global Resource Engineering, Ltd. (GRE) and Donald Mc Iver (FAusIMM Member and FSEG Member) employees of the Bear Creek Mining Corporation (BCMC) were retained by BCMC to prepare this Report on the Mercedes Gold-Silver Mine, located in Sonora State, Mexico. The purpose of this technical report is to support the disclosure of Mineral Reserves and Mineral Resources at the Mine in accordance with the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1.

In April 2022, Bear Creek Mining Corporation (TSXV: BCM) (OTCQX: BCEKF) (BVL: BCM) announced the completion of its acquisition of a 100% interest in the Mercedes gold-silver mine in Sonora, Mexico, from Equinox Gold Corp. Under a share purchase agreement between Bear Creek, Equinox Gold, and Premier Gold Mines Limited, the company acquired, directly and indirectly, all issued and outstanding shares of certain Equinox Gold subsidiaries that collectively own the Mercedes mine. All mining concessions are held by Minera Mercedes Minerals (MMM), a wholly-owned subsidiary of Bear Creek.

This Report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1, as well as with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards - For Mineral Resources and Reserves, Definitions and Guidelines" ("CIM Standards") adopted by the CIM Council on November 29, 2019.

The Qualified Persons (QPs) responsible for the preparation of this Technical Report are:

- Terre Lane, MMSA 01407QP, Society of Mining, Metallurgy, and Exploration (SME) Registered Member 4053005
- Todd Harvey, PhD, PE, SME Registered Member 4144120
- Hamid Samari, PhD, MMSA 01519QP
- Larry Breckenridge, P.E.: No. 12694 in New Hampshire and No. 38048 in Colorado.
- Luis Quirindongo, SME Registered Member 4208172
- Donald Mc Iver, FAusIMM Member 223767 and FSEG Member 512015

The QPs are collectively referred to as the "Authors" of this Report. QPs from GRE have no affiliation with BCMC except for that of an independent consultant/client relationship. QPs from BCMC are not independent of BCMC, and this is not an independent technical report, but BCMC is a "producing issuer" as defined in NI 43-101. As such, this Technical Report is not required to be prepared by or under the supervision of an independent QP.

Luis Quirindongo has visited the Mercedes Mine property. Luis Quirindongo, Principal Geotechnical Engineer for GRE, conducted a site visit to Mercedes mine between June 11th and 12th, 2024, and January 15th to January 17th, 2025. Donald Mc Iver, Vice President Exploration & Geology for BCMC, visited the operation on a regular basis since January 2023, including the core logging, sampling, storage and QA/QC facilities, and has overseen data collection and treatment, Mineral Resource estimation and exploration



processes. Larry Breckenridge, Principal Environmental Engineer, visited the site on October 3rd and 4th, 2024. Ms. Terre Lane visited Mercedes Mine site on May 14th and 15th 2019.

In addition to their own work, the Authors have made use of information from other sources and have listed these sources in this document under "References."

Table 2-1 Shows the report sections and responsible QP.

**Table 2-1: Contributing Authors** 

Section	Section Name	Responsibility	Author/ QP	
1.0	Summary		. ,	
1.1	Introduction	GRE	All	
1.2	Terms of References	GRE	All	
1.3	Property Description and Location	BCMC	Donald Mc Iver	
1.4	Mineral Tenure, Royalties, Environmental Liabilities and Permitting	всмс	Donald Mc Iver	
1.5	History	BCMC	Donald Mc Iver	
1.6	Geologic Setting and Mineralization	BCMC	Donald Mc Iver	
	Deposit Type	BCMC	Donald Mc Iver	
	Exploration	BCMC	Donald Mc Iver	
1.9	Drilling and Channeling	GRE	Dr. Hamid Samari	
	Sample Preparation, Analysis, and Security	GRE	Dr. Hamid Samari	
	Data Verification	GRE	Dr. Hamid Samari	
1.12	Mineralogical Processing and Metallurgical Testing	GRE	Dr. Todd Harvey	
	Mineral Resource Estimate	GRE	Terre Lane	
1.14	Mineral Reserve Estimation	GRE	Terre Lane	
1.15	Mining Methods	GRE	Terre Lane	
1.16	Recovery Methods	GRE	Dr. Todd Harvey	
1.17	Project Infrastructure	GRE	Luis Quirindongo	
1.18	Market Studies and Contracts	GRE	Terre Lane	
1.19	Environmental Studies, Permitting, And Social or Community Impact	GRE	Larry Breckenridge	
1.20	Capital and Operating Costs	GRE	Terre Lane	
1.21	Economic Analysis	GRE	Terre Lane	
1.22	Interpretation and Conclusions		All	
1.23	Recommendations	GRE	All	
2	Introduction	GRE	All	
3	Reliance on Other Experts	GRE	All	
4	Property Description and Location	ВСМС	Donald Mc Iver	
5	Access, Climate, Local Resources, Infrastructure and Physiography	BCMC/GRE	Donald Mc Iver, Larry Breckenridge and Luis Quirindongo	
6	History	BCMC	Donald Mc Iver	
7	Geology Setting and Mineralization	ВСМС	Donald Mc Iver	
8	Deposit Types	ВСМС	Donald Mc Iver	
9	Exploration	ВСМС	Donald Mc Iver	
10	Drilling	GRE	Dr. Hamid Samari	



Section	Section Name	Responsibility	Author/ QP
11	Sample Preparation, Analyses and Security	GRE	Dr. Hamid Samari
12	Data Verification	GRE	Dr. Hamid Samari
13	Mineral Processing and Metallurgical Testing	GRE	Dr. Todd Harvey
14	Mineral Resource Estimates	GRE	Terre Lane
15	Mineral Reserve Estimates	GRE	Terre Lane
16	Mining Methods	GRE	Terre Lane
17	Recovery Methods	GRE	Dr. Todd Harvey
10	Due in at Informations	CDE	Luis Quirindongo and
18	Project Infrastructure	GRE	Larry Breckenridge
19	Market Studies and Contracts	GRE	Terre Lane
20	Environmental Studies, Permitting, and Social or Community Impact	GRE	Larry Breckenridge
21	Capital and Operating Costs	GRE	Terre Lane
22	Economic Analysis	GRE	Terre Lane
22	Adiacont Proporties	GRE	Terre Lane and Donald
23	Adjacent Properties	GKE	Mc Iver
24	Other Relevant Data and Information	GRE	All
25	Interpretation and Conclusions	GRE	All
26	Recommendations	GRE	All
27	References	GRE	All

The scope of this study included a review of pertinent technical reports and data provided to GRE by BCMC relative to the general setting, geology, project history, exploration activities and results, methodology, quality assurance, interpretations, drilling programs, and metallurgy as cited throughout this report. The authors have reviewed much of the available data, made site visits, and made judgments about the general reliability of the underlying data. 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. The authors have made such independent investigations as deemed necessary in the professional judgment of the authors to reasonably present the conclusions discussed herein. The authors believe the data presented in this report are generally an accurate and reasonable representation of the project.

The Effective Date of this Technical Report is 30 September 2024.

In this report, measurements are generally reported in metric units. Unless otherwise indicated, all currency references to dollars (\$) in this report refer to the currency of the United States of America.



## 3 RELIANCE ON OTHER EXPERTS

The Authors are not experts in legal matters, such as the assessment of the legal validity of mining claims, private lands, mineral rights, and property agreements in the United States of America. The Authors did not conduct any investigations of the environmental, permitting, or social-economic issues associated with Mercedes Mine, and the authors are not experts with respect to these issues. The Authors have relied fully on BCMC and MMM for information concerning the legal status of BCMC and related companies, as well as current legal title, material terms of all agreements, existence of all applicable royalty obligations, and material environmental and permitting information that pertain to Mercedes Mine.

As of the date of this report, the Authors are not aware of any litigation that could potentially affect Mercedes Mine.



## 4 PROPERTY DESCRIPTION AND LOCATION

The Mercedes Mine is located in the state of Sonora, northwest Mexico, within the Cucurpe municipality. The Mine is located 250 km northeast of Hermosillo, Sonora's capital city, and 300 km south of Tucson, Arizona (Figure 4-1).

Mercedes is located at 30° 19′ 47″ N latitude and 110° 29′ 02″ W longitude. The UTM coordinates are NAD 27, Zone 12, 549,452 m E, 3,355,473 m N.

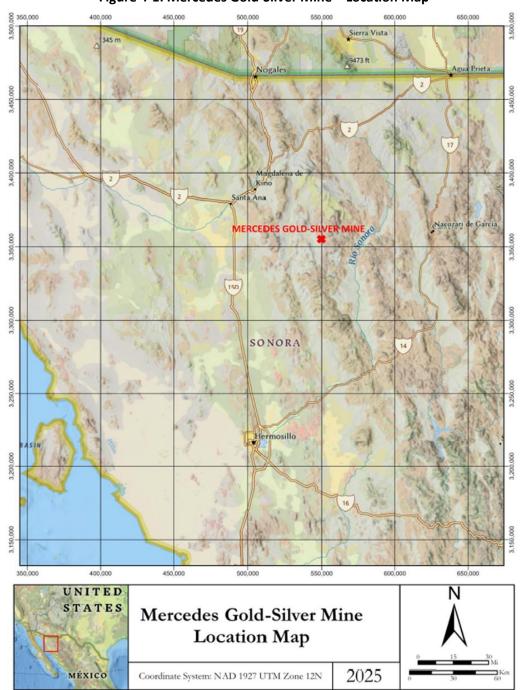


Figure 4-1: Mercedes Gold-Silver Mine – Location Map



# 4.1 Land Tenure & Mineral Rights

The Mercedes property consists of approximately 69,285 ha of mineral concessions under lease from the government of Mexico (Figure 4-2). The area is covered by 43 mineral concessions, all of which have been titled as Mining Concessions, according to Mexican Mining Law.

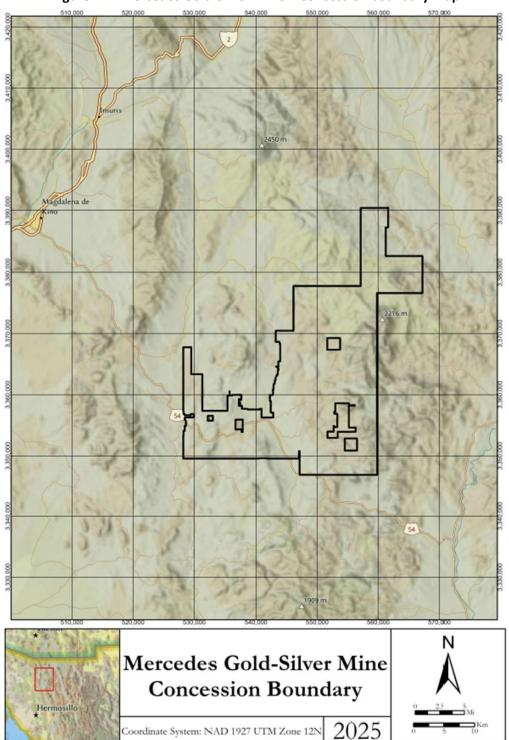


Figure 4-2: Mercedes Gold-Silver Mine – Concession boundary map



The titles are valid for 50 years from the date titled and can be renewed for another 50 years. All of the concessions are owned by MMM, a wholly-owned subsidiary of BCMC.

Survey control of the mining concessions is based upon concrete control points called "Mojonera." The Mojoneras and perimeters of the claims are certified by an authorized surveyor, Perito Minero, and validated by the Dirección General de Minas.

The areas of interest at Mercedes are located on private land. Bear Creek currently has leases with four local ranches totalling 6,490 hectares. The total monthly payment of these leases is US\$7,000. Renewal dates are between July 2025 and October 2027 for 2-4 year terms.

MMM controls 100% of the concessions, either through staking mining claims or finalizing option contracts with the buyout of the claims. All of the concessions are in good standing with mining law obligations through semi-annual tax payments and required assessment work.

All concession taxes are paid on a semi-annual basis by MMM. Table 4-1 shows the List of mining concessions.

Table 4-1: Mercedes Mineral Concessions (as of September 30, 2024)

Concession	Area (ha)	Title	Title Date	Expiry Date
El Principe	18.0000	172217	27-Oct-1983	26-Oct-2033
La Reina	12.0369	172418	15-Dec-1983	14-Dec-2033
Klondike	15.5275	174794	14-Jun-1985	13-Jun-2035
El Rey de Oro	18.6164	175490	31-Jul-1985	30-Jul-2035
El Rey de Oro 2	18.4000	175511	31-Jul-1985	30-Jul-2035
Corona de Oro	10.0000	175671	6-Aug-1985	5-Aug-2035
Klondike 2	9.8487	175672	6-Aug-1985	5-Aug-2035
Pragedia	20.0000	186251	22-Mar-1990	21-Mar-2040
La Bartola	10.0000	187085	30-May-1990	29-May-2040
Fraccion El Nuevo Tucabe	8.8492	208553	24-Nov-1998	23-Nov-2048
El Tucabe	38.4590	210794	26-Nov-1999	25-Nov-2049
El Sol	200.7300	210898	27-Jan-2000	26-Jan-2050
Argonauta	7.7061	212480	24-Oct-2000	23-Oct-2050
Argonauta	390.7005	213646	5-Jun-2001	4-Jun-2051
El Oro Real Fraccion I	497.3410	213718	12-Jun-2001	11-Jun-2051
El Oro Real Fraccion II	3.6784	213719	12-Jun-2001	11-Jun-2051
El Oro Real Fraccion III	4.1211	213720	12-Jun-2001	11-Jun-2051
El Real 1	125.8333	215243	14-Feb-2002	13-Feb-2052
El Real 2	487.6264	215244	14-Feb-2002	13-Feb-2052
El Tucabe 3	109.2250	215246	14-Feb-2002	13-Feb-2052
Gato 2	50.0000	215596	5-Mar-2002	4-Mar-2052
El Nuevo Tucabe	42.3052	216522	17-May-2002	16-May-2052



Concession	Area (ha)	Title	Title Date	<b>Expiry Date</b>
Gato	337.1108	221761	19-Mar-2004	18-Mar-2054
El Hipo Fraccion I	45.8914	221763	19-Mar-2004	18-Mar-2054
El Hipo Fraccion II	11.7569	221764	19-Mar-2004	18-Mar-2054
El Hipo Fraccion III	31.4375	221765	19-Mar-2004	18-Mar-2054
San Francisco	98.9169	221919	14-Apr-2004	13-Apr-2054
El Hipo Fracc II	3.0941	221920	14-Apr-2004	13-Apr-2054
El Hipo Fracc I	123.1961	221921	14-Apr-2004	13-Apr-2054
Rey V	1,597.2124	224150	12-Apr-2005	11-Apr-2055
Tragedia 2	20.0000	226071	16-Nov-2005	15-Nov-2055
Argonauta 2 Fracc 1	4.9663	226859	14-Mar-2006	13-Mar-2056
Argonauta 2 Fracc 2	13.8788	226860	14-Mar-2006	13-Mar-2056
Argonauta 2 Fracc 3	141.8638	226861	14-Mar-2006	13-Mar-2056
Argonauta 3	81.0000	226862	14-Mar-2006	13-Mar-2056
Argonauta 4	2,127.0216	229005	27-Feb-2007	26-Feb-2057
Argonauta 5 Fracc 1	56,298.1556	236193	16-Mar-2007	15-Mar-2057
Argonauta 8	1,173.3752	238166	9-Aug-2011	8-Aug-2061
Argonauta 9 F-1	338.2361	238167	9-Aug-2011	8-Aug-2061
Argonauta 9 F-2	66.6451	238168	9-Aug-2011	8-Aug-2061
Tacuba 2	1,398.6047	243253	29-Aug-2014	28-Aug-2064
Tacuba	99.0807	244214	30-Jun-2015	29-Jun-2065
Tacuba 1	3,174.2856	244258	14-Jul-2015	13-Jul-2065
Total	69,284.7343			

Production from the Mercedes property is subject to a 1% net smelter return royalty payable to Elemental Royalties Corp. and a 2% net smelter return on gold equivalent ounces produced by the Mercedes Mine payable to Versamet Royalties. Silver and gold production from the Mercedes property are also subject to a purchase and sale agreement with Sandstorm whereby Mercedes is required to deliver 275 oz of gold per month through April 2028 and Mercedes sells this material to Sandstorm at 25% of the market price. The Nomad silver stream was suspended until April 2028.

The effective date that the status of the claims was confirmed is September 30, 2024.

## 4.2 Environmental Liabilities

There are no known environmental concerns with respect to the Mercedes property.

The tailings are considered pH neutral to alkaline and are not acid-generating. Rehabilitation of the tailings facility and the remainder of the mining areas on-site at the end of mine life have been accounted for.



# 4.3 Permitting

MMM has all the required permits to conduct work on the property. Section 20 describes the permitting in detail.

# 4.4 Other Significant Factors and Risks

The QPs are not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

# 4.5 QP Comments on "Item 4: Property Description and Location"

The QP's consider that there are no significant factors or material risks that may affect access, mineral tenure, title, or the right or ability to perform work on the Property. All mineral tenure, mining leases, and crown land titles are in good standing. Surface and aerial access to the project site is permitted and well-established. Permits to authorize work program activities are in place and applied for sufficiently in advance of work requirements.



# 5 ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

# 5.1 Accessibility

The Mine is accessed using Highway 54 via Magdalena de Kino, which is approximately 180 km from Tucson, Arizona, and Hermosillo, Mexico. From Magdalena de Kino, the property is accessed using Highway 15 for 67 km, passing through the community of Cucurpe to the Rancho Los Pinos entrance, from which the site can then be reached via a 10-km maintained gravel road.

#### 5.2 Environmental Liabilities

There are no known environmental concerns with respect to the Mercedes property. Section 20 discusses the environmental conditions.

## 5.3 Permitting

MMM has all the required permits to conduct work on the property. Section 20 discusses the permitting in detail.

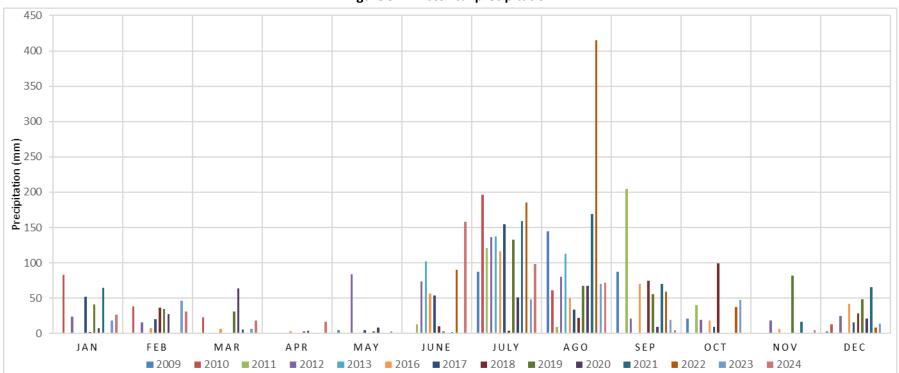
## 5.4 Climate

The climate in the Mercedes area is typical of the high Sonora Desert. Even so, we can say about the precipitation that the "wet" season covers the months of June to October, 2025 precipitation 0 mm, that's why it is not on the graph see Figure 5-1. On the other hand, during January and February, it is common to witness snowfall in the area.

About the temperature, the minimum is -9.6 and maximum of 44.4 degrees Celsius see Figure 5-2. Even though the area is considered desert, during June to September there is the wet season, 2020 and 2019 were isolated cases in terms of rainfall, during October and November.









One can see, the minimum temperatures do not exceed 0 degrees Celsius while the maximum temperatures exceed 40 degrees Celsius, this is one of the areas with the most extreme weather in the country. The maximum temperatures are recorded during June and the minimum during January and February.

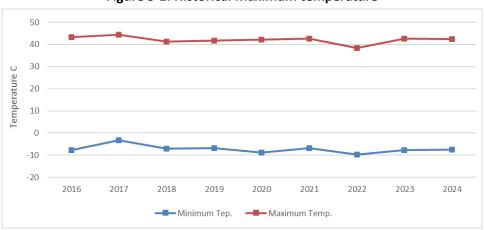


Figure 5-2: Historical Maximum temperature

#### 5.5 Local Resources

Magdalena de Kino is the closest commercial center, with a population of approximately 30,500. It is a well-established community with a variety of services available, including a small airport, lodging, fuel and groceries, limited medical care, schools, and police. Cananea, Sonora, located approximately 170 km from the site, is a major Mexican mining center. Hermosillo and Tucson are the main suppliers for mining activity within the area. Hermosillo has a population of 900,000 people and is known as the mining hub for the Sonora region (Macrotrends, 2022). The site staff and mining personnel live in Hermosillo and Magdalena de Kino. The Mercedes Mine provides transport for the site and mining personnel from Hermosillo and Magdalena de Kino on a weekly basis.

## 5.6 Infrastructure

Mercedes is exploiting the Marianas, Barrancas, GAP, Rey de Oro, Diluvio and San Martin zones has all of the required mining infrastructure, including:

- Declines and a series of ramp-connected levels;
- A 2,000 tpd crushing plant and mill;
- Tailings storage facilities (TSF);
- Associated administrative building, laboratory, shops, and warehouse;
- Sufficient water supply using mine dewatering, water treatment plant and purchased water rights;
- Power supply provided by a 65 km, 110 kV power line, from the town of Magdalena de Kino.



# 5.7 Physiography and Vegetation

The Mercedes property is located in an area of moderate to rugged topography, with numerous arroyos and canyons incised through volcanic stratigraphy, where streams flow intermittently following rainfalls, or more extensively during the rainy period.

Vegetation is typical of the high Sonora desert, including mesquite, desert oak, grasses, and numerous species of cacti, junipers, and cottonwood trees.

Elevation in the property area ranges from 950 meters above sea level (MASL) to 1,400 MASL.



## 6 HISTORY

Some of the information presented below has been derived from Altman et al.'s 2018 NI 43-101 technical report on the property, BBA's 2021 and 2022 NI 43-101 reports, and other historical documentation.

The Mercedes district has been the focus of mining activities since at least the late 1880s. Much of the historical data, including ownership information, was lost during the Mexican Revolution of 1910. Concessions that are now part of the property have been owned by a number of private individuals, who have leased the holdings to various Canadian and Australian companies (Table 6-1).

Year	Ownership and/or Operatorship
1907-1935	Anaconda Copper Mining Company (Tucabe Gold mine)
1935-1942	Minera Oro Chico (Mina Las Mercedes)
1993-2002	Meridian Gold Co. (as FMC Oro Company)
2002-2004	Fischer-Watt Corp.
2004-2007	Minera Meridian Gold
2007-2016	Yamana Gold
2016-2021	Premier Gold Mines
2021-2022	Equinox Gold Corp.
2022-Present	Bear Creek Mining Corp.

Table 6-1: Ownership and/or Operatorship over the Years

The Mercedes, Tucabe, Saucito, Anita, Klondike, Rey de Oro, Reina, and Poncheña veins were all the focus of exploration and development work on a limited scale in the late 19th and early 20th centuries. No data remains of these programs, with the exception of selected reports on the Mercedes, Klondike, and Tucabe mines.

# 6.1 Historical Work on the Property

# 6.1.1 Early Exploration 1900s to mid-1990s

The Tucabe vein was mined in the early 1900s. A cyanide mill was constructed on the site and the vein was accessed through a series of tunnels and shafts, covering over 600 m of strike length and over 150 m of vertical range. No production data is available from this time period. In 1994, the Fomento Minero, an agency of the Mexican government, conducted surface and underground sampling at the Tucabe vein to evaluate the potential for an open pit with heap leach operation. In 1996, Minera Sierra Madre evaluated the area and completed 800 m of reverse circulation (RC) drilling to depths of 75 m, yet these holes, collared within 20 m of the outcropping structure, did not encounter the vein. None of the results from these programs are available.

The Mercedes vein was discovered in 1936. Anaconda Copper Company optioned the property in 1937 and spent two years exploring underground. The work included sinking a 50 m shaft and excavating a series of tunnels and internal raises for sampling.



The Saucito zone, located about 1 km northwest of the Tucabe area, has been investigated by local prospectors. Workings exposed highly sheared veins that are crosscut by east-west trending post-mineral structures. Sampling of the underground workings by Rio Sonora (Gerle Gold Ltd.) indicated that the mineralization was very erratic, yet, several samples returned results greater than 10 gpt Au. Rio Sonora then drilled 10 shallow holes, testing the area for near surface, open pit potential. Drilling returned low-grade values and failed to equal the grade from the underground sampling.

The Klondike Mine shows little available historical data. A cross section from the 1930s indicates that the Klondike Mine was mined around 1900, with the main stope being approximately 120 m by 80 m in size, but the workings have been inaccessible since the 1930s. Despite all the reports mentioning the vein continuing at depth, high inflows of water eventually stopped the mining operation. In the mid-1990s, Mogul Mining Ltd. (Mogul Mining) acquired the property and reported assay results from several hand-dug surface trenches excavated near the main shaft area. A four drill holes program was then conducted by Minera Sortula (Campbell Chibougamau Mines Limited).

#### 6.1.2 Meridian Gold Inc. 1993-2007

The Mercedes and Klondike Mine areas were explored by Meridian Gold Inc.'s predecessor, FMC Gold Company, in 1993 as part of a regional exploration program in Mexico. No further work was recommended at the time as the restricted nature of mineralization precluded obvious open pit development opportunities (Moore and Bergen 2014).

The Mercedes district was re-visited in 1999 as part of a program focusing on high-grade, low-sulfidation vein systems. Based on the district's identified potential, an acquisition was recommended, and fieldwork was initiated. Meridian geologists completed surface and underground mapping and sampling in 1999 and 2000, leading to the identification of 11 separate target areas, of which five had historic mining activity and were the focus of the first phase of an RC drilling program. Veins or stockwork zones were encountered in all five areas by drilling. Mercedes, Klondike, and Tucabe all had at least one drill intercept assaying greater than 10 gpt Au.

A second phase of the RC drilling program for testing the target zones, both down dip and along strike, was launched in January 2001, focusing on the Klondike and Mercedes zones. This program was successful in discovering a narrow, vein-hosted mineralized zone at Mercedes and significant mineralization at Klondike.

In 2002, with gold prices dropping to less than \$300 per ounce, Meridian entered into a joint venture (JV) with Fischer-Watt Corporation (Fischer-Watt), to continue exploration at Mercedes. With Fischer-Watt's focus being the Mercedes vein zone, the Klondike and Rey de Oro concessions were dropped from the JV. Fischer-Watt carried out limited metallurgical testing and developed a preliminary design for underground development on the Mercedes vein area south of Corona de Oro. Yet, the JV was terminated in the fall of 2004 and the property returned to Meridian.

An exploration program conducted in 2005 resulted in the discovery of a significant high-grade intersection at Corona de Oro shoot in the Mercedes vein. Drilling continued in 2006-2007, focusing on the Mercedes, Klondike, and Lupita veins.



#### 6.1.3 Yamana Gold Inc. 2007-2016

In October 2007, Yamana took control of the property and subsequently carried out surface mapping, geochemical exploration, and drilling. An aggressive exploration program was initiated to assess the property's potential and bring it to a feasibility study stage. Drilling from 2009 to 2016, focusing on district exploration outside of the Mercedes-Klondike systems, resulted in the discovery of the Barrancas zone, the Diluvio zone at Lupita, and the expansion of the Rey de Oro vein system. Commercial production at the Mine started in 2011.

#### 6.1.4 Premier Gold Mines 2016-2021

In September 2016, Premier Gold Mines purchased the Mercedes Mine from Yamana Gold. Drilling from 2016 to 2021 focused on underground delineation of the various zones, particularly at Diluvio. Additional details of the drilling completed by Premier Gold is disclosed in Section 10 of this report.

During this period, several targets were mapped and sampled, including Tacuba, La Higuera, and Josefina in the western portion of the mining concessions. Sampling also focused around existing mineralized ore shoots such as Rey de Oro, Klondike, Diluvio, San Martin, and Casa Blanca in the core of the mining district, as well as areas with evidence of mineralization in small outcrops located in the eastern, northeastern, and northern portions of the mining claims, including Chipotle, Reyna-Poncheña, La Olvidada, Axis, La Perdida, San Antonio, and La Mesa. A total of 992 channel samples, 697 rock chip samples, 169 trench samples, 31 selective samples, 1 float sample, 32 dump samples, and 712 soil samples were collected. This work aimed to identify new targets and follow up on previously identified areas to guide future exploration drilling programs (Figure 6-1).



Lithology Rhyolite Ignimbrite **Basalt Flow** Conglomerate Latite Mineralization Andesite Rhyolite **Silty Limestone** Sandstone/siltstone Legend 2016\_Surface\_Sampling 2017\_Surface\_Sampling 2018\_Surface\_Sampling 2019\_Surface\_Sampling ▲ 2020\_Surface\_Sampling Post-Mineral Sedimentary and Volcanic Rocks 0 0.751.5 4.5 Kilometers

Figure 6-1: Premier Gold Mines Sampling during the Period 2016 - 2021



## 6.1.4.1 Surface Rock Sampling

Geochemical sampling focused on rock chip samples from outcropping veins. The abundance of outcrop in the property area, combined with limited vegetation, allowed this sampling method, along with samples from the historic mine workings, to define general grades within veins. Surface mapping identified three major basins filled with andesitic volcanic rocks on the Mercedes property, as well as areas in which significant extensions of andesite basins may be covered by shallow post-mineral deposits. The mapping also identified over 18 km of low sulfidation epithermal veins in the Mine area.

Although not recognized as a high-priority exploration target, some skarn-hosted copper-silver mineralization has been recognized on the property on the southwest side of the Klondike basin and on the internal concession controlled by Peñoles (El Gato 82/28489) located south of La Mesa area.

## 6.1.4.2 Soil Sampling

Premier Gold began a systematic soil program at the end of 2019 and continued in 2020 (Figure 6-2). Samples were collected on a 200-m grid spacing with a total of 846 samples collected (Vargas and Blanco 2020). The samples were analyzed for gold, silver, lead, zinc, antimony, mercury, and arsenic, all of which are path finder elements in an epithermal system.

552500 555000 557500 560000 562500 Agnico Eagle PREMIER GOLD Claim BI ANTONIC ARROYO AS MINAS LEGEND \_ppm 0.0025 - 0.010 0.011 - 0.030 0.031 - 0.050 0.051 - 0.080 0.081 - 0.100 0.101 - 0.500 0.501 - 1.145 Pending Samples

557500

560000

555000

Figure 6-2: Geological map and soil sample results from La Mesa and San Antonio areas (Vargas and Blanco 2020)



552500

562500

## 6.1.5 Equinox Gold 2021-2022

In April 2021, Equinox acquired the Mercedes Mine by purchasing all outstanding shares of Premier Gold Mines. The mine continued to operate during this time.

Equinox continued exploration and definition drilling in 2021. Chapter 10 (Drilling) discloses additional details of Equinox's drilling. Due to COVID-19 restrictions, no sampling was performed during this period.

Mineral Resource upgrade drilling during this period focused on underground delineation in San Martin, Diluvio, and Marianas, while exploration drilling focused on Neo, Margarita, and Margarita East.

In December 2021, Equinox agreed to sell the Mercedes Mine to Bear Creek Mining Corp.

# 6.2 Drilling Until 2021

Between 2000 and the end of 2015, a total of 395,203 meters were drilled in 1,446 core holes and 19,807 meters in 131 RC holes on the property. From 2016 to 2021, 1,443 core holes were drilled, totaling 226,290 meters (Table 6-2).

Chapter 10 (Drilling) covers Bear Creek's drilling activities from 2022 to 2024, with a total of 60,152 meters drilled in 397 holes.

Table 6-2: Mercedes Mine - Drilling summary - 2000 to 2021

Year	RC Holes	RC Meters	Core Holes	Core Meters
2000	21	4,080	N/A	N/A
2001	23	4,665	N/A	N/A
2005	25	5,370	N/A	N/A
2006	62	5,692	12	3,066
2007	N/A	N/A	158	43,363
2008	N/A	N/A	312	83,375
2009	N/A	N/A	97	32,338
2010	N/A	N/A	161	45,506
2011	N/A	N/A	124	43,226
2012	N/A	N/A	148	37,721
2013	N/A	N/A	80	19,661
2014	N/A	N/A	184	48,635
2015	N/A	N/A	170	38,313
2016	N/A	N/A	146	28,285
2017	N/A	N/A	315	45,077
2018	N/A	N/A	280	40,631
2019	N/A	N/A	314	52,957
2020	N/A	N/A	177	25,545
2021	N/A	N/A	211	33,795
Total	131	19,806.63	2,889.0	621,493.14



## 6.3 Past Production

No precise production totals are available from historic mining operations. Some 20,000 to 30,000 ounces of gold were probably produced during the years 1937 to 1939, by Minera Oro Chico, which mined the material outlined by Anaconda at Mercedes. Cumulative past district production, in the order of 150,000 tonnes and approximately 73,000 gold equivalent (AuEq) ounces, is estimated, considering the scale of historic mining observed at Klondike, Rey de Oro, Tucabe or Saucito, and the known areas having highgrades in the exploited veins (Moore and Bergen 2014).

Production by MMM at Mercedes is listed in Table 6-3.

Table 6-3: Gold production history from 2011 to December 31, 2024

Year	Ore processed (000)	Gold Grade (gpt Au)	Silver Grade (gpt Au)	Gold Ounces (000)	Silver Ounces (000)
2011	48	7.55	114.5	8	39
2012	603	6.43	78.4	116	490
2013	671	6.16	79.4	129	615
2014	682	5.09	55.9	105	398
2015	713	3.96	43.3	84	383
2016	688	4.52	48.4	93	425
2017	684	3.93	37.6	83	338
2018	666	3.34	35.3	69	309
2019	668	2.91	26.2	60	191
2020	399	2.87	33.1	35	168
2021	512	2.69	21.2	42	123
2022	611	2.52	23.5	47	152
2023	522	2.77	31.0	44	165
2024	401	3.27	38.1	40	218
Total	7,868	4.00	43.84	955	4,014

## 6.4 Historical Mineral Resource and Mineral Reserve Estimates

The following tables summarize the historic Mineral Resource and Mineral Reserves statements (MRMRS) published by previous operators (Table 6-4 and Table 6-5). The historical MRMRS disclosed below are historical in nature. The QP has read the documents pertaining to the description of the different methods used in the historical evaluation of the Mineral Resource Estimate (MRE). The QP has not done sufficient work to classify the historical estimate as current MRMRS's. The QP and Bear Creek are not treating these historical estimates as current MRMRS's as defined by NI 43-101 and such historical estimates should not be relied upon.



**Table 6-4: Historical Mineral Resources** 

Year	Classification	Cut-off Grade (AuEq)	Inclusive or Exclusive of Mineral Reserves	Tonnes (000)	Grade (gpt Au)	Grade (gpt Ag)	Company
	Measured	2.0 gpt (UG)	Inclusive	864	6.6	69.0	
2016	Indicated	0.4 gpt (OG)	inclusive	4,133	4.5	44.0	Premier Gold
	Inferred	0.4 gpt (01 )	N/A	1,220	4.6	33.0	
	Measured	2.0 gpt (UG) 0.4 gpt (OP)	Exclusive	1,085	5.7	60.7	
2017	Indicated		• • • •	LACIUSIVE	2,599	3.7	36.7
	Inferred	0.4 gpt (O1 )	N/A	1,630	4.2	34.0	
	Measured		Inclusive	726	5.1	40.2	Premier Gold /
2020	Indicated	2.0 gpt (UG)	inclusive	3,467	3.9	35.9	Equinox Gold
	Inferred		N/A	1,507	4.4	44.9	Equiliox Gold
	Measured	2 0 to 2 1 ant	Inclusive	865	4.55	33.73	Bear Creek
2022	Indicated	2.0 to 2.1 gpt (UG)	inclusive	2,914	4.79	44.93	Mining
	Inferred	(00)	N/A	884	4.50	41.02	Corporation

**Table 6-5: Historical Mineral Reserves** 

Year	Classification	Cut-off Grade (AuEq gpt)	Tonnes (000)	Gold Grade (gpt Au)	Silver Grade (gpt Ag)	Company	
2016	Proven	3.0 gpt (UG)	509	6.0	51.5	Premier Gold	
2010	Probable	1.55 gpt (OP)	2,404	4.0	32.3	Premier dold	
2017	Proven	2.0-2.5 gpt (UG)	241	5.1	26.1	Premier Gold	
2017	Probable	1.50 gpt (OP)	3,049	3.9	24.0	Premier dolu	
2020	Proven	2.0-2.1 gpt (UG)	381	5.5	41.3	Premier Gold /	
2020	Probable	2.0-2.1 gpt (00)	2,224	3.6	27.2	Equinox Gold	
	Proven	2.0-2.1 gpt (UG)	344	5.65	40.65	Bear Creek	
2022	Probable	2.0-2.1 gpt (UG)	1,873	3.40	26.90	Mining Corporation	



## 7 GEOLOGIC SETTING AND MINERALIZATION

Some of the information presented below has been derived from a previous NI 43-101 technical report on the property (Altman, Malensek and Moore 2018, Hardie, et al. 2022), and other historical documentation.

## 7.1 Regional Geology

The Mine is located in the northwestern edge of the epithermal (Au-Ag) deposits belt of Mexico and is surrounded by world class deposits like Cananea and Nacozari. Mercedes is one of the most accessible mining projects in Mexico, located approximately 250 km from both Hermosillo, Sonora and Tucson, Arizona.

The Mine lies in the Basin and Range physiographic province, approximately 80 km inboard from the Late Proterozoic rifted continental margin of the North American plate and northeast of the inferred "Sonora-Mojave Mega-shear."

The area is underlain by a thick succession of shallow-marine shelf carbonate and siliciclastic rocks ranging in age from Jurassic to Cretaceous, which have been moderately to strongly faulted and folded, related to thin-skinned, northeast directed thrusting during the Late Cretaceous Laramide Orogeny.

In late Cretaceous to middle Tertiary time, the Jurassic-Cretaceous sediments were overlain by intermediate to felsic volcanic rocks of the Sierra Madre continental volcanic arc. The andesitic volcanics within this sequence host the guartz-adularia epithermal veins of the Mercedes area.

The most extensive intrusive rocks in the region are stocks, plutons, and plugs of Tertiary granodiorite to diorite, which intrude the Jurassic metasedimentary sequence. The Miocene was dominated by extension, erosion, and limited volcanic activity. Thick and regionally extensive sequences of polymictic conglomerate and arenite, which are locally intercalated with felsic volcanic units, fill fault-bound extensional basins throughout northcentral Sonora. Figure 7-1 Shows a geological map of the region.



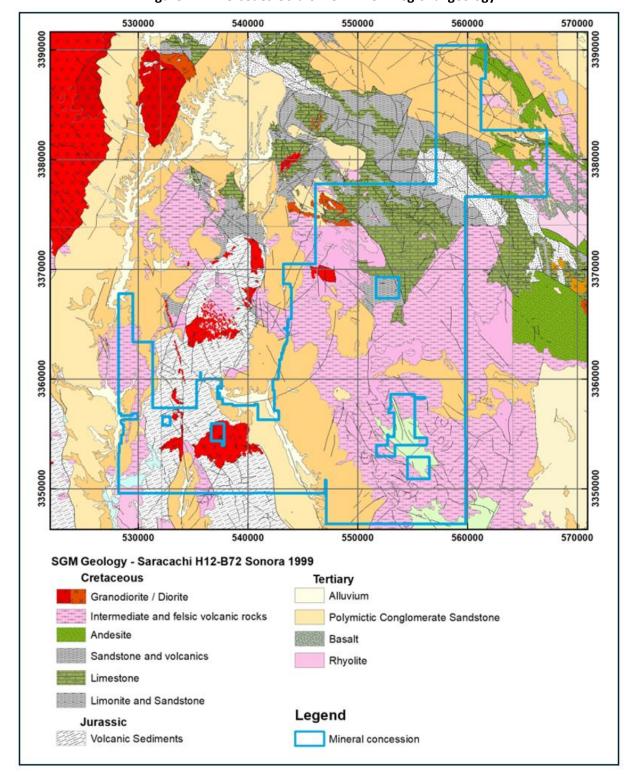


Figure 7-1: Mercedes Gold-Silver Mine – Regional geology



# 7.2 Property Geology

The geology of the Mercedes area is dominated by two northwest-trending arches, cut by numerous northwest and north trending high-angle structures, which have exposed older marine sediments and overlying interbedded volcaniclastic sediments and lithic to quartz crystal lithic tuff units.

Andesitic flows and flow breccias (with local coeval andesite and felsic dike emplacement events) have been deposited and preserved in at least three west-northwest thickening basins on the margins of the northwest-trending arches. This andesite package, locally over 500 m thick, and the contact zone with the underlying rhyolitic tuff, host all known economic epithermal vein deposits in the district (Figure 7-2).

Some of the local faults have been intruded by at least three stages of dikes and small stocks, ranging in composition from andesite to latite and rhyolite. Dikes generally crosscut and destroy vein mineralization. Vitrophyre is locally preserved on both latite dike and latite flow margins.

Post-mineral plagioclase-biotite latite porphyry dikes fill some of the same northwest-trending structures that host veins in the Mercedes/Barrancas corridor, venting to the surface inflow domes and extensive latite porphyry flows ranging from 10.0 m to +190.0 m thick. The latite flow/dome field covers an area of at least 6 km2 to the southwest of the Mercedes fault zone and in places destroys known mineralized structures.

The stratigraphy is overlain locally by more than 200 m of post-mineral conglomerate and volcaniclastic units of the Miocene Baucarit Formation, as well as local intercalated ash tuff/ignimbrite, highly magnetic andesite flows, and overlying bimodal rhyolite and basalt flows.

A total of 16.5 km of gold-silver bearing epithermal low sulfidation veins have been identified within a width of some 6 km across the northwest-trending Mercedes corridor or along the margins of the andesite-filled basins, which constitute the primary exploration target on the property. Major veins, like those of the Mercedes vein system, typically trend N30° -70°W at 60° to 90° dips northeast or southwest, following the major regional structural pattern. Other veins trend variably from east-west to north-south, or even northeast. Veins typically dip at greater than 60° but locally range as low as 25°.

The major exception in the district is in the Lupita-Diluvio basin. The Lupita vein system is localized along a N70°E, 15° to 55° northwest dipping listric fault zone. Diluvio consists of a stockwork, and vein system hosted within older lithic tuff and volcaniclastic units below the andesite package.



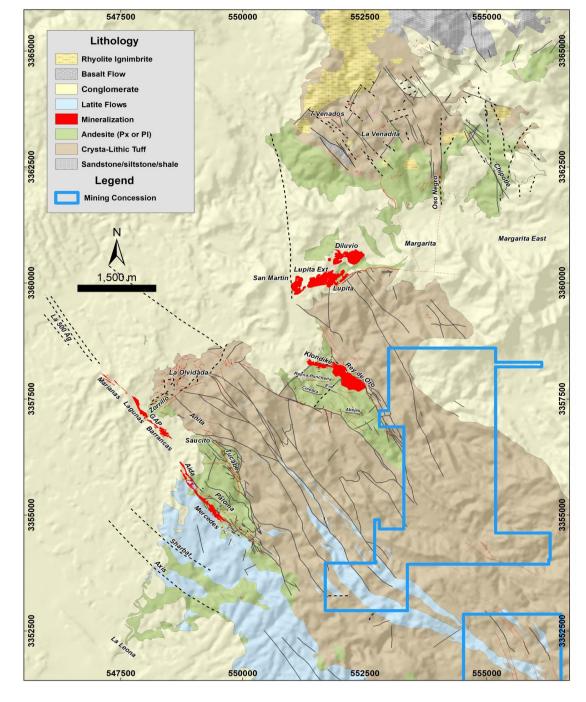


Figure 7-2: Local geology and principal vein systems

## 7.2.1 Vein Mineralogy and Paragenesis

The epithermal veins on the Mercedes property display multiple stages of quartz, carbonate, and adularia. Paragenesis is greatly complicated by hydrothermal brecciation and the multiple stages of pre-, syn-, and post-mineral tectonic brecciation and faulting. Boiling (lattice and froth) textures are locally observed in all vein zones. Textures range from chalcedonic to sugary, granular, and coarsely crystalline.

Earlier mineralized quartz and other quartz pulses are often highly brecciated and cemented by multiple stages of green quartz and 15 to 80% multiple late-stages of rhodochrosite (mainly in Diluvio) and barren



massive grey calcite. Quartz types cover the spectrum from clear to grey, yellow, tan, green, grey, and purple. Greenish quartz is always associated with gold values and the presence of disseminated hematite specks and cubes after oxidized pyrite is often a key guide to bonanza gold grades in all veins. Native gold is also found as specks within quartz or on late fracture with copper oxides (Klondike, San Martin, Lupita Extension & Marianas).

It is believed that gold and silver were locally deposited with some rhodochrosite and siderite pulses (Diluvio orebody). Adularia is present as erratic breccia fillings and in bands within veins, primarily in the Barrancas and Lupita-Diluvio vein systems.

#### 7.2.2 Alteration

The dominant alteration types observed at Mercedes consist of silicification, propylitization, potassium and sericite-clay alterations.

Silicification is the most prominent alteration associated with the Mercedes area veins, although the distribution and intensity vary within and proximal to the different vein/structural zones. The biggest silicification identified in the district, presenting more than 150 m of extension, is associated to the stockwork mineralization in Diluvio. Additional wide zones of silicification and stockwork veining, up to 70 m of width, have been noted in the Corona de Oro, Klondike, and Rey de Oro shoots and are associated with zones of intense fracturing within the host structure. Conversely, many of the same shoots contain wide vein zones with less than 0.5 m of silicified andesite peripheral to the structure.

Variable levels of propylitization affect the main intrusive and extrusive igneous rock packages at Mercedes, resulting from a regional alteration event not considered to be directly related to vein mineralization. The andesite flow and flow breccia host rocks, as well as the massive latite intrusion, range from nearly fresh to strongly altered and contain variable amounts of chlorite-calcite and locally, epidote.

Potassic alteration, in the form of adularia, is widely disseminated in veins and adjacent host rocks at Mercedes, notably in the Barrancas veins and Diluvio zone, which contain locally abundant visible adularia, both within veins and in adjacent wall rocks. Adularia, although commonly seen in thin sections, is otherwise difficult to see in hand samples.

Argillic alteration (sericite-clay) is generally present near veins on the property, though bleached rock is typically not a prominent feature. No detailed analyses have been completed to define clay mineralogy or zoning within the system.

#### 7.2.2.1 Oxidation

Oxidation down the vein structures and of nearby wall rock is generally intense and pervasive, with the exception of isolated nooks and grains. Oxidation is observed in all areas to drilled depths, suggesting a vertical reach of 550 m depth from surface at Mercedes, 280 m at Klondike, 140 m at Rey de Oro, 300 m at Barrancas, 320 m at Diluvio, 450 m at Lupita and 350 m at San Martin. Goethite is more common in the wall rock at Mercedes and Klondike, whereas at Rey de Oro, hematite is most abundant. Unoxidized, disseminated pyrite and scarce galena, chalcopyrite and sphalerite are observed in association with



propylitic or sericite alteration adjacent to vein zones in only a few deep holes below the Corona de Oro, Klondike, Diluvio, Lupita and San Martin areas.

#### 7.2.2.2 Vein Alteration

Along the Mercedes and Barrancas vein system, the veins are hosted in highly variable zones of altered andesite, ranging from nearly fresh to chlorite-calcite-quartz pyrite (chlorite) with calcite stockwork; quartz-adularia-chlorite-pyrite (silica); and quartz-adularia ± sericite-pyrite (QS) with quartz stockwork increasing in intensity as the veins are approached. In some places, however, veins are encountered with only minor chlorite ± adularia alteration directly adjacent to the vein contact. Manganese oxides in the wall rock are generally absent or present only in very small amounts, compared to the Klondike system.

Klondike occurs as a southwest dipping shear zone with alteration evident as strong hematite manganese oxide alteration, silicification, and quartz stockwork. Little narrowing of the alteration package has been noted at depth, even though the gold and silver values at Klondike drop significantly below the 1,000 m elevation level.

At Rey de Oro, the alteration zone occurs as a broad area of hematite oxidation and variable silicification, which envelop zones of quartz stockwork veining. Manganese oxides are generally absent or present in very small amounts, compared to the Klondike system. Deeper core holes show the silica-hematite alteration zones are increasingly restricted at depth.

The alteration zone at Diluvio is mainly represented by strong silicification in relation with the quartz-carbonate vein stockwork system, the vein is mainly represented by calcite with strong presence of MnOx, and with the majority presence of rhodochrosite in the district. In the upper part of this ore system it is common to identify banded green quartz veins and with grey and white quartz in the lower extensions.

The Lupita-Lupita Extension & San Martin orebodies share many vein characteristics, presenting in average 2.8 m of true width vein, but ranging from less than 1 meter up to 6 m wide, with multiple events causing lateral and vertical changes in quartz-carbonate and MnOx presence. The quartz vein presents colloform banding and crustiform, massive and comb textures.

#### 7.2.3 Mineralization

Gold-silver mineralization on the Mercedes property is hosted within epithermal, low-sulfidation (adularia-sericite) veins, stockwork, and breccia zones. Over 18.2 km of veins have been identified within or marginal to the andesite-filled basins, which constitute the primary exploration corridor targeted on the property.

A total of 22 low-sulfidation, epithermal vein/stockwork/breccia zones, have been identified on the Mercedes property and based principally on their relative localities, have been divided into three subdistrict areas:

- Mercedes Area (Mercedes-Marianas);
- Klondike Area (Klondike-Rey de Oro);
- Diluvio Area (Diluvio-Lupita-San Martin).



Most of the veins are found hosted within the andesite package, or locally at the fault contact between andesite and the underlying rhyolitic tuffs. Only in the Diluvio zone at Lupita and the Anita veins is economic grade mineralization found hosted in the lower tuff package. Basic data for all the veins is summarized in Table 7-1.

**Table 7-1: Principal Vein Characteristics** 

Vein	Host	Morphology	Strike	Dip (º)	Length	Width	Elevation
• • • • • • • • • • • • • • • • • • • •	11031	тогрноюду	(º)	5.6()	(m)	(m)	(m)
Mercedes Area							
Mercedes	Andesite	Vein/Stwk/Bx	315	80SW-65NE	3,500	1.0-2.0	680-1,160
Saucito	Andesite	Vein	315	90	250	1.0-3.0	950-1,150
Derrama	Andesite	Vein	310	80	250	1.0-4.0	870-1,050
Paloma/EZ Zone	Andesite	Stwk/Vein	315	90	1,500	0.8-8.0	950-1,165
Axis	Andesite	Vein	320	90	600	1.2	900-1,000
La Leona	Andesite	Stwk/Vein	317	90	250	1.0	900-1,030
Tucabe/Saucito	Andesite	Vein/Stwk	340	65 SW	1,400	1.0-5.0	950-1,200
Barrancas/Lagunas	Andesite	Vein/Stwk	315	80-90	1,900	1.0-15.0	800-1,050
Anita/Venado	Lithic Tuff	Stwk	285	90	700	1.0-2.0	1,120-1,280
Sub-total					10,350		
Klondike Area							
Klondike	Andesite	Vein/Bx/Stwk	290	70 SW	800	1.0-55.0	960-1,200
Rey de Oro	Andesite	Stwk/Vein	320	50 SW	400	1.0-70.0	1,150-1,300
Reina	Andesite	Vein	320	90	150	1.0-2.0	1,100-1,200
Poncheña	Andesite	Vein	290	70 NE	300	1.0-2.0	1,075-1,125
Eva	Andesite	Vein	292	80 NE	495	1.0-2.0	1,150-1235
Abejas	Andesite	Vein	278	80	350	1.0-2.0	1,150-1,225
Culebra	Andesite	Vein	270	45 N	600	1.0-2.0	1,100-1,200
Sub-total					3,095		
Diluvio Area							
Lupita/Diluvio/San	Andesite/	\( \cdot \cd	275	25 60 11	4 000	4 0 400 0	4 400 4 005
Martin	Lithic Tuff	Vein/Stwk	275	25-60 N	1,800	1.0-100.0	1,180-1,325
Oso Negro	Andesite	Vein/Stwk	0	90	500	1.0-6.0	1,150-1,350
Margarita	Andesite	Vein/Stwk	170	25	700	0.5-2.0	1,180-1,250
Chipotle	Lithic Tuff	Vein/Stwk	340	70 SW	600	1.0-3.0	1,220-1,300
Sub-total					3,600		
El Molina Area							
Belen	Andesite	Vein	310	75 SW	650	2.0-5.0	950-1,100
Meche	Andesite	Vein	60	60-70 SW	550	1.0-3.0	950-1,100
Sub-total					1,200		



Vein	Host	Morphology	Strike (º)	Dip (º)	Length (m)	Width (m)	Elevation (m)
<b>Grand Total</b>					18,245		

### 7.2.3.1 Vein Morphology

Major veins typically trend N30°-70°W at 60° to 90° dips following the major regional structural pattern. Veins typically dip at greater than 60°, but locally range as low as 25°, and only the San Martin vein system presented a N45°-50°E has the lowest 10° to 20° dips. Post-mineral latite dikes are emplaced into and around some of the same northwest trending structures that host certain veins, locally destroying previously emplaced mineralized structures.

Mineralized vein-sets display a combination of fissure vein, stockwork, and breccia morphologies that change rapidly along strike and down dip. Mineralization ranges in width from less than one metre to composite vein/stockwork/breccia zones up to 15 m wide. In the Diluvio zone, gold-silver bearing vein/stockwork zones locally attain widths in excess of 100 m. The length of individual veins varies from 100 m to over three kilometres. Property-wide, gold-silver bearing veins occur over a vertical elevation range of 700 m (600 masl to 1,300 masl).

The most favorable exploration zones occur in andesite host rock. The northwestern strike extension of prospective outcropping andesite host rock plunges below younger progressively thicker post-mineral cover (conglomerate) towards the northwest along Mercedes corridor extensions. Barrancas, Lagunas, Marianas and Diluvio are amongst eight blind-to-surface discoveries.

Left-lateral strike-slip indicators have been noted along NW-trending faults like those associated with the Mercedes and Rey de Oro occurrences. Some large areas with potential to host parallel Mercedes-style structures remain untested. Some are included in the BCMC 2025 brownfields Mineral Resource extension drilling program.

## 7.2.3.2 Mercedes Vein System

The Mercedes gold-silver vein system, emplaced into and associated with the Mercedes fault, is the most prominent and continuous mineralized zone identified on the property, consisting of multiple-event quartz-carbonate veining, traced almost continuously on strike for nearly 4.2 km. The Mercedes fault system consists of numerous anastomosing strands within a zone over 50 m wide, where complex, multistage, anastomosing vein/breccia/stockwork zones from 1 m to 15 m wide are emplaced in extensional open areas.

The vein mineralogy (multiple quartz and carbonate stages) and morphology is quite variable along strike and down dip, where highly brecciated mineralized green-grey sugary to chalcedonic quartz is found cemented by 15 to 80% late-stage grey calcite, rhodochrosite, and/or brown-black manganese-iron carbonates.



### 7.2.3.3 Klondike Vein System

The Klondike vein system trending N70°W, dipping 65° to 80° southwest and approximately 800 m long, differs from that at Mercedes in that it forms within a tectonic breccia zone rather than a fissure fill structure. Variable lenses of brecciated white to green or grey quartz and abundant manganese carbonates and calcite are found within the breccia zone.

The overall width of this 'crackle' brecciation zone which includes stockwork veining in association with silicification and strong manganese-iron oxide content, may be up to 50 m in width. Associated but rare fissure-filling veins over 0.5 m wide can be observed. The Klondike system is developed over a maximum vertical range of approximately 300 m and ranges in width from 0.5 to over 50 m.

### 7.2.3.4 Diluvio-Lupita-San Martin Vein System

The Lupita vein zone outcrops on the surface for a distance of 1,800 m, ranging from 1 to 5 m in thickness. Consisting of multi-stage quartz-carbonate  $\pm$  adularia veining, the vein follows a contact between the overlying andesite package and underlying felsic package and extends continuously down dip in places more than 450 m along most of the western half of the surface outcrop. Results from ongoing exploration activities towards the east identify eastwards extensions over a distance more than 2 km into the Margarita East area. This prospective area remains open towards the north and east.

Most importantly, at depths of 200 m to 300 m, Diluvio reveals an extensive zone of multistage quartz-carbonate ± adularia vein breccias, stockwork, and hydrothermal breccia up to 150 m thick that is primarily hosted in a lithic tuff-volcaniclastic sequence underlying the traditional andesite exploration target for new discoveries.

Based on geologic interpretation, it is proposed that mineralized fluid that circulated along the Lupita Fault, under pressure infiltrated the tuff/volcaniclastic sequence due to the elevated porosity of the fractured footwall lithology, creating a large scale stockwork deposit. Diluvio therefore is the only known mineral deposit in the district with the lower lithic tuff/volcaniclastic sequence as the primary host.

### 7.2.3.5 Mineralogy and Geochemistry

Mineralogical polished section studies have identified opaque minerals, including iron oxides, pyrite, gold, electrum, stibnite, and rare pyrargyrite, within a gangue of substantial chalcedony, quartz, and carbonate. In addition to hematite, manganese oxides possibly remnant after dissolution of manganese carbonates are an important component in some mineralized zones. Due to the depth of oxidation, sulphides are rarely observed. The few exceptions include one hole at depth in Klondike (visible galena and sphalerite) and hole L11-133D at Diluvio, which had an unoxidized vein interval containing widely disseminated pyrite, galena, sphalerite, and silver sulphosalts with greater than 500 gpt Ag. Other examples include deeper areas of Rey de Oro, Diluvio, Lupita and San Martin where scarce and narrow hydrothermal breccias with presence of chalcopyrite, galena and sphalerite have been identified.

Metallurgical studies on heavy mineral concentrates have identified the presence of very small quantities of native gold, native silver, electrum, pyrargyrite, stibnite, galena, sphalerite, aguilarite and chalcopyrite. Copper minerals such as malachite and chrysocolla are most common as fracture fillings in breccias at Klondike, although only rare specks are seen in the Mercedes and Lupita- Diluvio veins.



### The vein mineralogy exhibits:

- Multiple stages of quartz-carbonate and adularia/cemented by quartz pulses, as well as multiple
  pulses of rhodochrosite and siderite and barren calcite.
- A complex paragenesis: hydrothermal brecciation, multiple stages of pre-, syn- and post-mineral tectonic brecciation and faulting.
- Quartz types: cover the spectrum in colors, and occurring as chalcedony, sugary, granular and/or coarsely crystalline.
- Crustiform, colloform, banded, lattice etc. boiling textures.
- Rare specks of visible gold (VG) are reported, locally associated with copper carbonates, green quartz, and hematite.

# The deposit geochemistry reveals that:

- There is no statistical correlation between Au and Ag distribution.
- The Ag:Au ratio is low in all veins, ranging from 5-13:1.
- No lateral or vertical Ag:Au zonation has been identified in any of the veins due to complex multistage vein deposition and repeated brecciation, which has resulted in juxtaposition of mineralizing events.
- The dominant alteration consists of oxidation + chlorite + silicification, with pronounced depth of oxidation down the mineralized structures, from surface down to depths of 500-600 m below surface, where the veins still appear strongly oxidized.

There is no significant evidence of refractory behavior in any of the described deposits.

# 7.3 QP Comments on "Item 7: Geological Setting and Mineralization"

In the opinion of the QP, the understanding of the Mercedes Mine deposit setting, lithologies, and geological, structural, and alteration controls on mineralization is sufficient to support the identification of the style of gold-silver mineralization and the estimation of Mineral Resources.



# 8 DEPOSIT TYPE

Some of the information presented below has been derived from a previous NI 43-101 technical report on the property (Altman, Malensek and Moore 2018, Hardie, et al. 2022).

Gold-silver mineralization on the Mercedes property is hosted within epithermal, low-sulfidation (adularia-sericite) veins, stockwork, and breccia zones (Buchanan 2016). These deposits form in predominately felsic subaerial volcanic complexes in extensional and strike-slip structural regimes. Near-surface hydrothermal systems, including surface hot springs and deeper hydrothermal fluid-flow zones, are the sites of mineralization. Mineral deposition takes place as the hot mineralizing fluids undergo cooling by fluid mixing, boiling, and decompression. A profile through a typical system is shown in Figure 8-1.

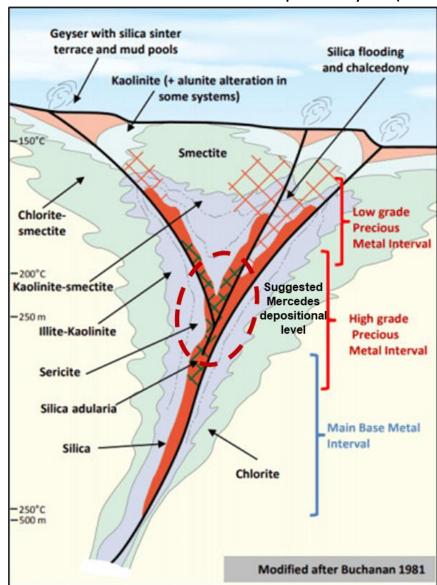


Figure 8-1: Idealized cross-section of a low-sulfidation epithermal system (Buchanan 2016)



The veins at Mercedes are typical of most other epithermal silver-gold vein deposits in Mexico in that they are primarily hosted in the Tertiary Lower Volcanic series of andesite flows, pyroclastics and epiclastics, overlain by the Upper Volcanic series of rhyolite pyroclastics and ignimbrites.

Low-sulfidation epithermal veins in Mexico typically have well-defined mineralized horizons about 300 m to 500 m in vertical extent where the Bonanza grade shoots have been deposited during the boiling phase of the mineralized hydrothermal fluids.

Low sulfidation deposits are formed by the circulation of hydrothermal solutions that are near neutral in pH, resulting in very little acidic alteration with the host rock units. The characteristic alteration assemblages include illite, sericite and adularia that are typically hosted by either the veins themselves or in the vein wall rocks. The hydrothermal fluid can travel either along discrete fractures, where it may create vein deposits, or it can travel through permeable lithology, such as a poorly welded ignimbrite flow, where it may deposit its load of precious metals in a disseminated or possibly even stockwork-like deposit. In general terms, this style of mineralization is found at some distance from the heat source. Figure 8-1 illustrates the spatial distribution of the alteration and veining found in a hypothetical low-sulfidation epithermal hydrothermal system.

In 2000, J. Reynolds from Fluid Inc. conducted a fluid inclusion study on vein samples from the Mercedes, Saucito/Tucabe, and Klondike veins. The study confirmed that the sampled material was characteristic of a low-sulfidation system. Reynolds observed that quartz in the Mercedes vein formed at temperatures above 200°C, with some minor quartz crystallizing at 240–250°C, accompanied by evidence of minor boiling. In contrast, Klondike samples contained only quartz formed at temperatures below 200°C. At Saucito, quartz formation ranged from 160°C to 270°C, with boiling events commonly observed.



# 9 EXPLORATION

# 9.1 Bear Creek Mining Corp.

In April 2022, pursuant to a share purchase agreement dated December 16, 2021, amongst the Company, Equinox Gold, and Premier Gold Mines Limited, BCMC acquired Mercedes. All of the issued and outstanding shares of certain of Equinox Gold's indirect wholly-owned subsidiaries, which in turn owned a 100% interest in Mercedes, were directly and indirectly acquired by BCMC.

## 9.1.1 Drilling

Bear Creek Mining Corporation continued exploration and definition drilling from 2022 to 2024. Additional details relating to the BCMC drilling are disclosed in Chapter 10 (Drilling). The Mercedes mining operation continued during this period. From 2022 to 2024, 397 drill holes representing 60,151.31 m, were drilled. The drilling included 36 reverse circulation drill holes totaling 7,075 meters and 361 diamond drill holes totaling 53,076.31 meters.

# 9.1.2 Surface Sampling

Between 2022 and 2024, 366 soil, 69 channels, 4 rock chips, 2 float, and 1 dump exploration samples were taken from La Mesa North and the Chipotle area (Figure 9-1).



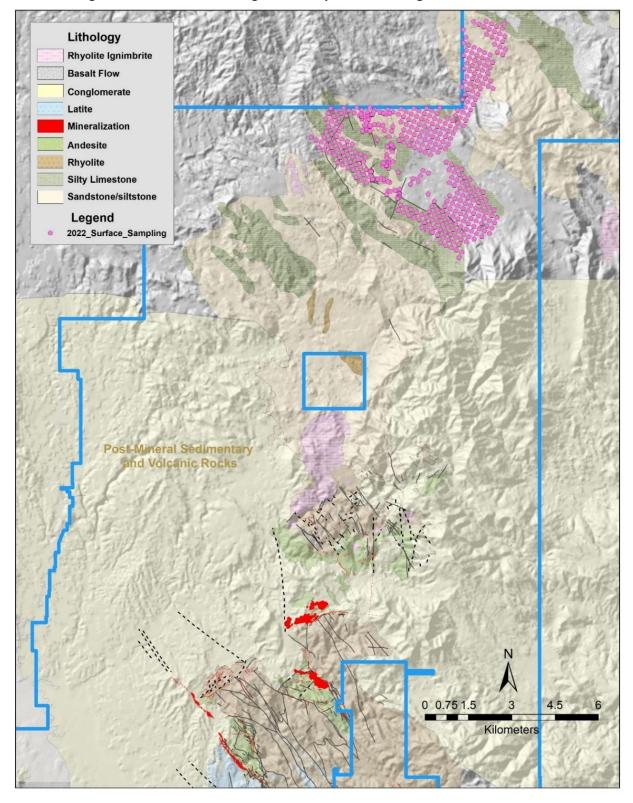


Figure 9-1: Bear Creek Mining Surface Exploration during the Period 2022-2024



### 9.1.3 Exploration Potential

Under BCMC's watch, with the objective of upgrading Mineral Resource classification categories, exploration infill and delineation drill holes have been performed in Diluvio, Marianas, Barrancas, GAP, Rey de Oro, Lupita, and Neo, while exploration drilling from surface to evaluate brownfield & greenfield Mineral Resource extension targets was performed in Margarita, San Martin Displacement, Klondike Displacement, Diluvio Scout, Margarita East, Marianas Deep, Rey de Oro Deep, Neo, Diluvio NW, and Lagunas West.

The Mercedes gold-silver (Au-Ag) mining concessions, spanning an impressive 69,285 hectares, occupy a strategic position at the northwestern edge of the Sierra Madre Occidental (SMO) epithermal belt, sitting at a unique geological intersection where three major metallogenic belts converge, each known for having significant mineral endowment. This prime location encompasses the Southern Arizona coppermolybdenum porphyry belt, the California-Arizona-Sonora orogenic gold belt, and the SMO epithermal Au-Ag belt. The Mercedes concessions offer a combination of exceptional exploration potential & easy access within this mineral-rich convergence zone.

Although a century of mining activity and geological studies on the BCMC concessions have already identified >18 km of economically mineralized Mercedes style low-sulphidation Au-Ag epithermal veining and stockwork structures, exploration studies and follow-on drilling continue to identify new vein horizons and extensions at 'blind-to-surface' targets like, amongst others, Diluvio NW, Lagunas West, San Martin Displacement and Margarita East. Eight of the more recent mining areas at Mercedes (Aida, Barrancas, GAP, Lagunas, Marianas, Diluvio, Lupita Extension and San Martin), do not outcrop at surface and have been discovered through a combination of geo-structural interpretation and exploration drilling. Field evidence indicates that untapped mineral opportunities still remain along the open-ended NW-striking Mercedes trend which to date has delivered economic Au-Ag mineralization over a known strike length of 4.2 km. Current and historical mining activities have been developed over a ~6 km width within this NW-trending corridor and, outside of historical and existing mining areas, only limited exploration activities have been conducted over the greater Mercedes concessions.

During 2024, with the objective of increasing reserves to feed the current mining operation, BCMC geologists initiated a study to identify, evaluate and optimize near-mine brownfield Mineral Resource extensions with reasonable prospects for eventual economic extraction. This work was performed in combination with geological & structural consultants, Tectoniq Pty Ltd (TTQ) and AGS Resources (AGS). Based on the outcome of these studies, several brownfield prospects (Figure 9-2) and greenfield prospects (Figure 9-3) have either been verified and/or newly identified.



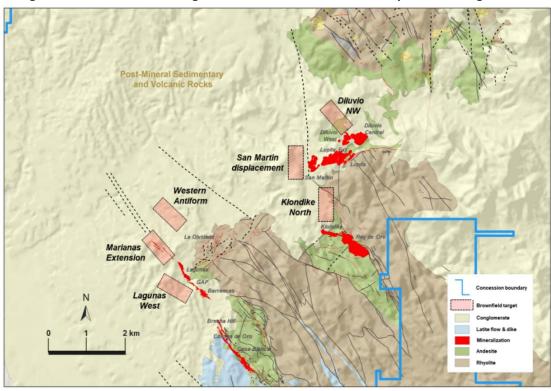
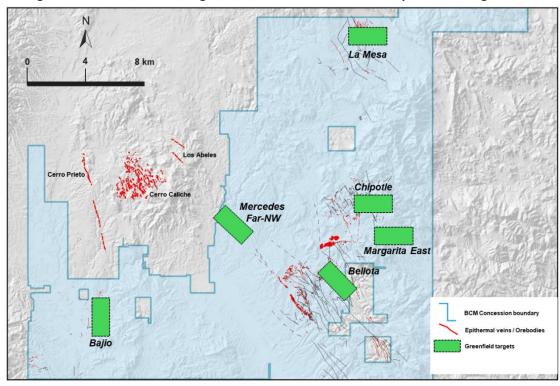


Figure 9-2: Bear Creek Mining Brownfield Mineral Resource Exploration Targets 2025







The BCMC 2025 budget is prioritizing the field evaluation of the six high priority brownfield targets presented in Figure 9-2 and is still considering including at least two of the six greenfield targets displayed in Figure 9-3 into the 2025 surface and underground exploration drilling program. These targets were identified based on an evaluation of collective results obtained from field work, ground-based geochemistry and geological observations in combination with results from an integrated high tech significantly enhanced aeromagnetic reinterpretation of previous information obtained from prior studies flown over the properties in 2009 and 2013. The upgraded aeromagnetic product, integrated with available drill hole data, provides a modelled and smoothed average depth below younger cover to the underlying magnetic andesite-rhyolite basement which plays host to the Mercedes mineralized epithermal structures, and thus is a direct aid in targeting previously blind potentially prospective areas. Coincidental discussions amongst the BCMC team of geologists have led to informed interpretations culminating in the verification of the highlighted brownfield and greenfield targets.

An added benefit of the outcome of the above-mentioned studies is the development of an enhanced understanding of i) deep-seated structures, ii) potential mineralization-driving heat sources, and iii) of mineralizing fluid pathways on the property. Through the application of this new knowledge, BCMC concludes that this geologically prospective Mercedes concession package has excellent potential to host additional Mineral Resource extension targets. It is noteworthy that some of the new Greenfield exploration targets identified on the concessions incorporate new mineralization models.

The BCMC 2025 budget includes exploration by drilling of the Mercedes Brownfield Mineral Resource Exploration targets Marianas Extension, Lagunas West, Diluvio NW, Klondike North, San Martin Displacement area and Western Antiform.

## 9.1.3.1 Brownfield targets

### 9.1.3.1.1 Marianas Extension

The Marianas orebody is blind to surface, gently plunging and open at depths and along strike towards the northwest. The steeply dipping orebody is amenable to lower cost sub-level caving mining methods. Open-ended extensions represent the Marianas Extension Brownfield Mineral Resource (BMR) target. The results of historical Marianas infill and extension drilling were publicly reported as recently as August 2023 [Effective Date: 29 July, 2023 (reference: BCMC News Release "Underground Drilling at Bear Creek's Mercedes Mine returns High Grade Gold Intercepts", dated 30 August, 2023)]. Some 30 drill holes for a combined total of 8,000 m of BMR extension and infill drilling have been programmed for 2025. This drilling is expected to convert Inferred to Indicated and Measured Mineral Resource categories with a targeted potential of ~30 Koz AuEq hosted within ~150 Kt of ore.



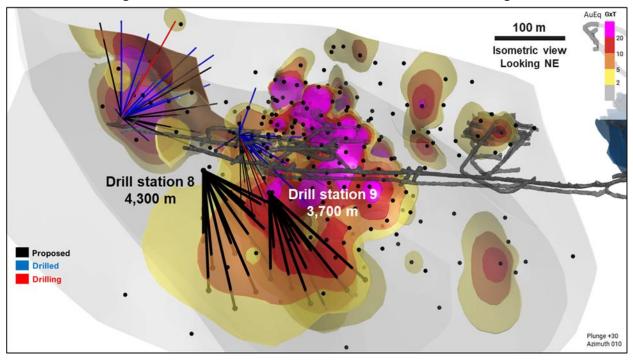


Figure 9-4: Marianas Extension Brownfield Mineral Resource Target

### **9.1.3.1.2** Lagunas West

Lagunas West is a BMR exploration target representing a blind, parallel structure to the northwest trending Mercedes-Marianas Au-Ag mineralized system. Available information at Lagunas West supports a length of over 1,800 m, open-ended in both directions along strike and is unexplored at depth. Three diamond drill holes (DDH's) totalling 2,331 metres (m) in length were completed from surface during 2024, encountering anomalous to highly anomalous but still uneconomic precious metal mineralization. With updated modelling and understanding of the structure it transpires that between 2009 and 2014 an additional five shallow DDH's were previously drilled into the southern extension of the same structure. These early holes intercepted the structure approximately 150 to 200 m higher in the system however, and opposed to the 2024 western intersections, only intercepted weakly anomalous precious metal.

Six new DDH's have been programed to test strike and depth extensions below the 2024 drilling intersections. Results are expected to assist in locating and evaluating the sought-after potentially productive portions of the Lagunas West mineralized structure. One of the six DDH is planned to test a shallower far-northwestern extension of the Lagunas West target. The underlying exploration target is to identify an approximately 200 kilo-ounce (Koz) gold-equivalent (AuEq) resource.



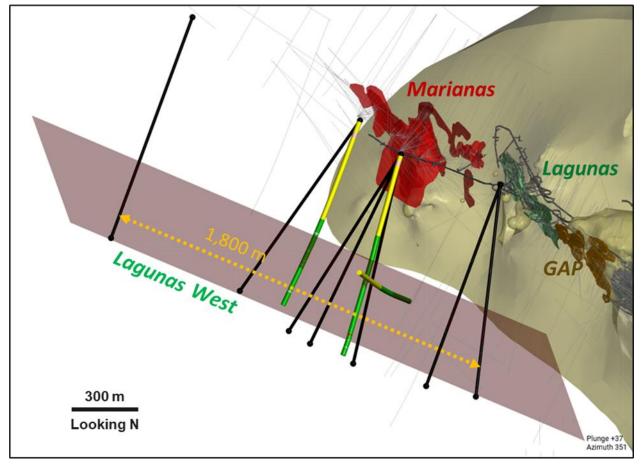


Figure 9-5: Lagunas West Brownfield Mineral Resource Target

### 9.1.3.1.3 Diluvio NW

Diluvio NW is a blind BMR extension target where three exploration DDH's completed from surface during 2024 for a total of 1,578 m length yielded subeconomic to potentially economic precious metal intersections. Four earlier DDH's drilled between 2015-2022, some 250 to 300 m higher in the structure, yielded no intersection of potentially economic interest. This deep, prominent Diluvio target represents the only northwest-trending structure extending out from the previously identified Diluvio area hosting mineralization occurring as a concentration of stockwork-like veins and veinlets. The objective of surface extension DDH drilling is to explore at depth and evaluate the potential of this open-ended, high angle, principal NW trending mineralized structure in the Diluvio basin. Total resources already identified in the partially mined Diluvio Intermediate area represent approximately 35 Koz AuEq.



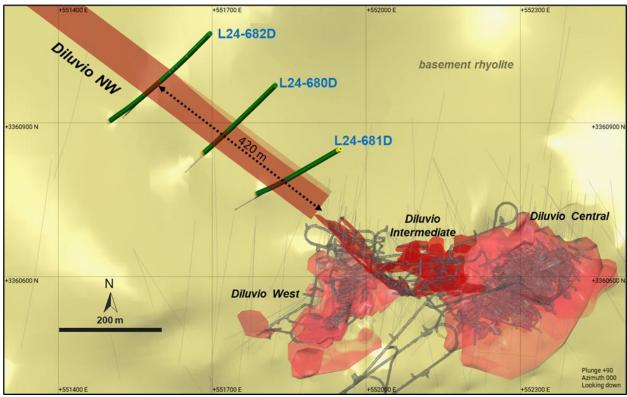


Figure 9-6: Diluvio Northwest Brownfield Mineral Resource Target

### 9.1.3.1.4 Klondike North

Klondike North represents a newly identified relatively shallow, blind, near-mine, drill-ready BMR target. Two vertical surface DDH's are planned for a total of 600 m. The target represents an area measuring approximately 0.8 by 0.6 km and is located a short distance, about 0.35-0.5 km north from the underground Klondike mine. Historical peripheral DDH's fell short of the targeted depth, identified by significantly enhanced high tech aeromagnetic reinterpretation as carried out by TTQ. The primary and secondary BMR targets occupy a similar structural demeanour to that of the nearby Rey de Oro orebody (150 Koz AuEq), which is located on the eastern flank of a NW-trending synclinal feature. Geologically interpreted possibilities include the intercepting of a sub-horizontally inclined San Martin style precious metal mineralization at Klondike North.



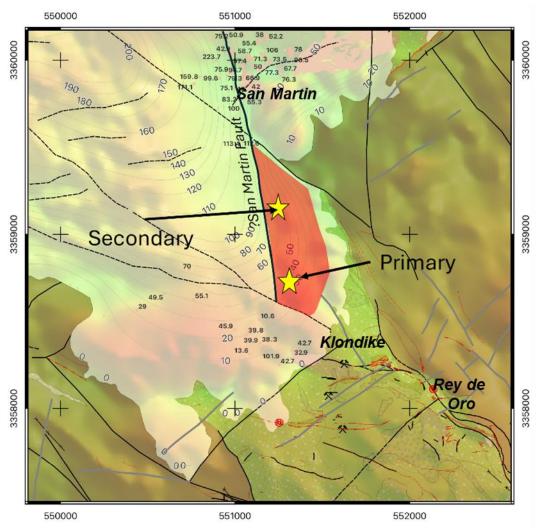


Figure 9-7: Klondike North Brownfield Mineral Resource Target

## 9.1.3.1.5 San Martin Displacement

San Martin is a relatively deep, drill ready BMR target where two drill holes for a total of 1,000 m of exploration drilling are planned to explore and locate a projected fault-displaced continuation of the high-grade Au (±Ag) San Martin orebody. With objectives including the identification of the sense and magnitude of mineralization dislocation along the San Martin displacement fault, a total of eight exploration DDH's were drilled during the 2022-2024 period. These DDH's effectively tested the western downthrown side of the fault over an area measuring 0.8 by 0.3 km. Based on results, a vertical normal displacement of approximately 300 m is identified. Significantly, all DDH's intersected prospective epithermal textures with highly anomalous but subeconomic AuEq grades. This evidence confirms the continuation of the mineralizing system with increasing prospectivity of low sulphidation mineralizing textures towards the west. Observed textures include banded colloform-crustiform quartz, hydrothermal breccias, disseminated manganese oxides (MnOx), green quartz and boiling textures, all considered as highly prospective for encountering economic Mercedes style mineralization.



This target represents a possible western continuation of the prolific sub-horizontally disposed 'Lupita -Lupita Extension - San Martin' precious metal mineralization. This is developed over ~1.2 km strike length with a historical Mineral Resource of ~200 Koz AuEq, and provided a substantial contribution to mining production over the most recent five years.

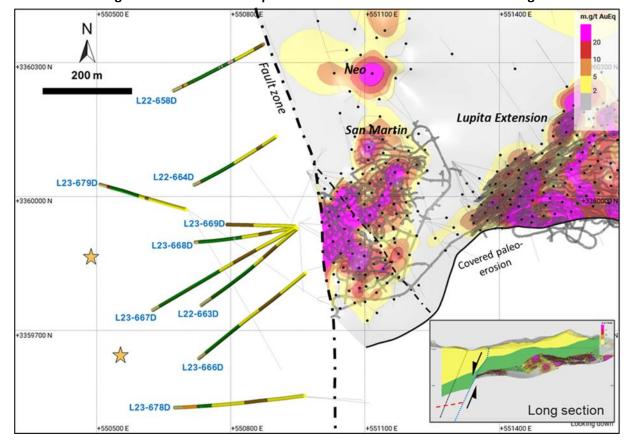


Figure 9-8: San Martin Displacement Brownfield Mineral Resource target

# 9.1.3.1.6 Western Antiform

Western Antiform, interpreted to be a blind antiformal structure in andesites underlying younger cover, represents another important BMR target measuring some 0.8 by 0.6 km. Two surface DDH's are proposed for a total of 1,000 metres to test the limb of this antiformal structure that is located relatively near existing mining operations. This specific area is located Northeast of the Marianas orebody and has not previously been tested by exploration drilling.



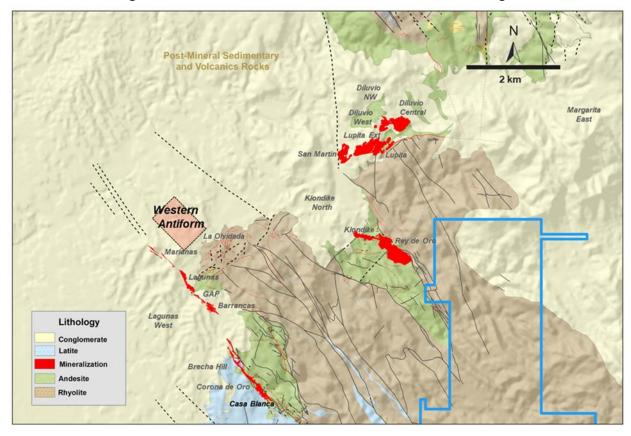


Figure 9-9: Western Antiform Brownfield Mineral Resource target

### 9.1.3.2 Greenfield targets

# 9.1.3.2.1 Margarita East

Margarita East is a Greenfield Mineral Resource (GMR) exploration target representing possible blind eastern extensions of the East-West striking Lupita fault mineralized deposits. The target area is located some 3.5 km towards the East-Northeast of the Diluvio orebody.

Five DDH's have been drilled since 2021 on an approximate 500 m spacing over a prospective area measuring some 1.7 by 0.5 km. Although devoid of anomalous precious metal mineralization, the DDH's intercepted hydrothermal breccias hosting green quartz fragments and MnOx's, representing some of the highly prospective characteristics typical of the low sulphidation gold & silver mineralization at Mercedes. Unusual hydrothermal vuggy (or spongy) leaching textures & small fragments of hydrothermal chalcedony were also observed, which have been interpreted to resemble a possible late high sulphidation leaching event. Furthermore, based on structural analyses, the andesite package which is regionally the favored host to the epithermal orebodies, is interpreted to thicken north of Margarita East area and thereby presents attractive exploration possibilities.

BCMC interpreted exploration targets include any of San Martin, Lupita- or Diluvio-style precious metal mineralization orebodies. To understand the true potential of results obtained to date, four additional surface exploration DDH's are proposed for a total of 2,700 m of exploration drilling.



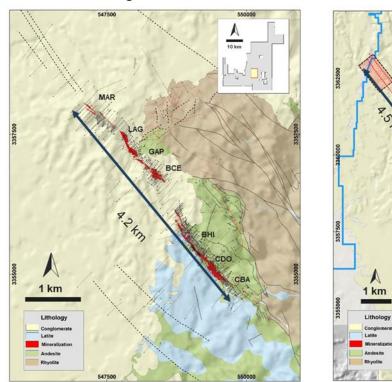


Figure 9-10: Margarita East Greenfield Mineral Resource Target

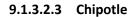
### 9.1.3.2.2 Mercedes Far-NW

The demonstrated 4.2 km economically mineralized primary Mercedes-Marianas low sulphidation epithermal structure has generated almost half of the historical production in the district of the Mine. Considering the presence beyond the western boundaries of the BCMC concessions of several Au-Ag epithermal deposits and prospects aligned along the NW extension of the Mercedes trend (eg: Caliche, Los Abeles, Cerro Prieto, etc., for additional information on mentioned projects refer to Chapter 23),, and presenting a similar strike to the projected 4.5 km extension of the Mercedes-Marianas structure over the Argonauta 5 BCMC property, supports the rationalization that this NW-trending corridor remains highly prospective. Geological interpretations indicate that the thickness of the post-mineral conglomerate which covers the area between Mercedes-Marianas and the western boundary of the concessions, diminishes as the mentioned boundary is approached. To test the real potential and perceived blue-sky upside, preliminary surface exploration DDH's are proposed in the vicinity of the NW boundary for a total of 2,400 m of drilling.









This prospect represents a semi-advanced early-stage Au/Ag ±Cu GMR exploration project which is located near the confluence of the NW-trending Chipotle fault and the N-S trending Oso Negro vein system, east-northeast from the Diluvio area. The prospect occurs near the basal contact of the district scale andesite unit, presenting a stockwork array of micro-quartz veinlets accompanied by haematite alteration of andesite and variable amounts of late MnOx evident. Minor botroyoidal secondary copper is identified in small cavities. Recommended exploration activities include upgrading of geological mapping and geochemical sampling prior to considering DDH drilling or other studies.



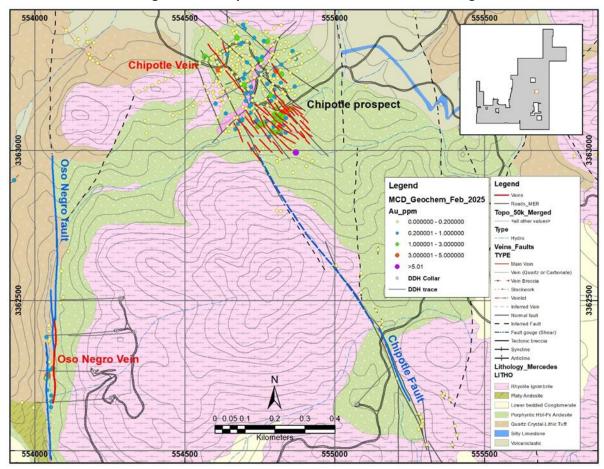


Figure 9-12: Chipotle Greenfield Mineral Resource Target

### 9.1.3.2.4 Bellota

This project is interpreted to represent an early-stage Cu-Ag±Au exploration prospect which presents haematite alteration and surficial secondary Cu mineralization relating to a major regional fault system, the Bellota Fault. This fault is located on the SE limb of a NW trending syncline relating to the Klondike-Rey de Oro basin. Multiple generations and a variety of orientations of quartz veinlets and micro-veinlets are observed.

Detailed magnetic data indicate a high total magnetic anomaly immediately to the N of geochemically anomalous mineralized surface exploration samples, suggesting that the potentially mineralized north-dipping fault could contain magnetite at depth. A detailed infill ground magnetics and gravity survey with modelling to depth is recommended.



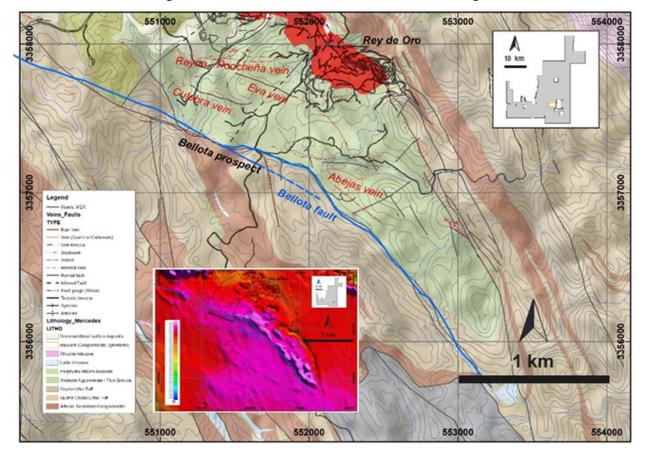


Figure 9-13: Bellota Greenfield Mineral Resource target

### 9.1.3.2.5 Bajio

This Cu-Ag project is located on the west side of Laramidic granitoids intruded into the mid-western side of the Mercedes concessions and is associated with a N-S striking, presumed high angle fault system with a length of at least 4 km, that juxtaposes the intrusive with extrusive felsic volcanic rocks.

Relict magnetite veinlets are replaced by hematite in chloritized granodiorite and present minor secondary Cu mineralization in hematitic veins. Numerous minor quartz veins are also present, and a 3 m wide calcite vein in association with chloritization of both the rhyolite and granodiorite was identified during preliminary mapping.

A ground magnetic survey, possible gravity survey and modelling of the anomaly to depth is recommended prior to DDH drilling, in combination with detailed tracing of structures and veins at surface by mapping and infill sampling in alteration zones.



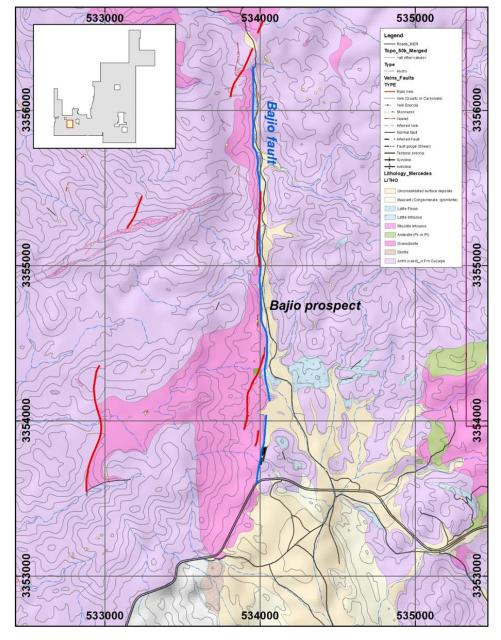


Figure 9-14: Bajio Greenfield Mineral Resource Target

#### 9.1.3.2.6 La Mesa

La Mesa is an early-stage exploration, intrusion-related Sb+Au±W vein system, located on the northern part of the BCMC concessions. Subeconomic gold mineralization is hosted in limestone and a calcareous siltstone associated with multiple intermediate intrusive apophyses and a quartz vein swarm with development of distinctive hematite and pyrite haloes up to 50 cm wide.

The prospect has potential for deep-sourced Sb-Au mineralization driven by an adjacent intrusive and related alteration system. Geological mapping of alteration haloes and refined alteration analysis of geochemical sampling, with detailed magnetic data to identify delineation of alteration zones, is recommended.



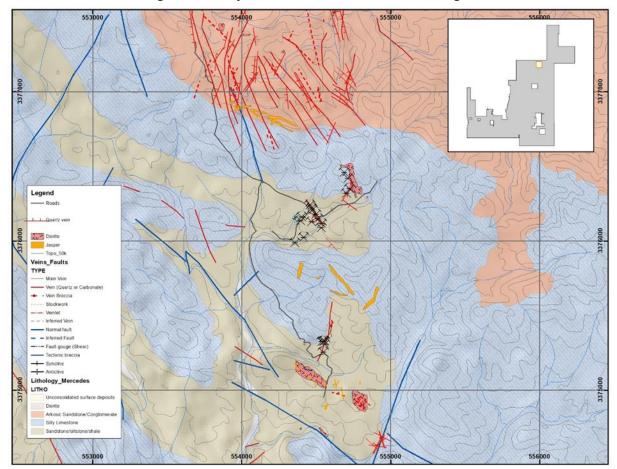


Figure 9-15: Bajio Greenfield Mineral Resource Target

# 9.2 QP Comments on Item 9: "Exploration"

The exploration programs completed to date are appropriate to the style of the deposit and prospects.



# 10 DRILLING

Prior to the 2022 BCMC acquisition of Mercedes, Premier Gold Mines (2016 to 2021) & Equinox Gold (2021 to 2022) were the operators. Since the recent BCMC acquisition, BCMC has used the same drilling protocols as previously applied since 2016 by Premier & Equinox.

By the end of December 2024, a total of 167 RC holes, covering 26,881.63 meters and 3,250 DDH core holes, with a total length of 674,569.45 meters, had been drilled on the Mercedes Mine property (Table 10-1).

Table 10-1: Mercedes Mine – Drilling summary – 2000 to 2024

Year	RC Holes	RC Meters	Core Holes	Core Meters
2000	21	4,080.3		
2001	23	4,664.5		
2005	25	5,370.3		
2006	62	5,691.6	12	3,065.6
2007			158	43,362.5
2008			312	83,374.8
2009			97	32,338.3
2010			161	45,505.6
2011			124	43,226.3
2012			148	37,721.0
2013			80	19,661.3
2014			184	48,634.7
2015			170	38,313.5
2016			146	28,284.9
2017			315	45,077.5
2018			280	40,631.0
2019			314	52,956.6
2020			177	25,545.0
2021			211	33,794.8
2022	32	6,049.0	86	10,786.8
2023	4	1,026.0	110	13,915.8
2024			165	28,373.7
Total	167	26,881.63	3,250.0	674,569.45

# 10.1 Drilling Methodology

The process of selecting drill hole locations at Mercedes is carried out by the on-site geological team. Exploration drilling has been used to test extensions of the known vein systems and in addition, to explore and to discover new mineralized structures.



Mineralized zones at Mercedes, Klondike, Barrancas, Diluvio, Lupita, San Martin, Marianas, and Rey de Oro were evaluated by drilling on approximately 20 m to 30 m centers, using a combination of diamond drilling with a small amount of RC drilling (in recent years used only as pre-collar).

### 10.1.1 Drill Hole Location and Set-up

Drill hole collars were marked up by surveyors prior to the drill set-up and again after the completion of each drill hole. A Reflex instrument was used to provide directional information at 30 m intervals in each hole.

### 10.1.2 Drilling and Core Handling

Core is carefully placed into plastic core trays at the drill rig by the drillers after completion of each drill run. Core trays are numbered by the drillers with a permanent marker, indicating the drill hole number and the sequential box number, starting with box 1 after collaring the casing into the bedrock. The collar coordinates and depth below surface of the start of the hole is carefully recorded.

The drillers insert a meterage tag (wooden block) into the plastic core-trays at the downhole end of the last piece of core taken from the core tube. The block identifies the exact depth at the end of each drill run, measured from the drill's collar.

The wooden depth markers are clearly marked in meters in clean and legible writing. Additional notations can be provided on additional wooden blocks indicating if bad ground, cavities in the bedrock, or changing water conditions are encountered, resulting in core loss. Once the core tray is filled, it is secured shut using a specifically designed plastic lid. Upon completion of the hole, all core-trays are then carefully stacked for transport to the core shack where the core will be prepared for logging & sampling.

### **10.1.3** Receiving Core at the Core Shack

Runs of securely boxed drill core are transported daily to the core logging facility. Care is exercised to ensure the lids are securely attached to minimize core disturbance, breakage, and loss during transport from the drill site.

All core trays are verified in the logging facility, and the wooden marker blocks are checked against core markings before logging is initiated.

## 10.1.4 Geological Logging Procedure

Core and RC logging procedures were prepared by MMM staff.

Geologists collect information on standard log forms and the information collected typically includes main lithological units with brief lithological descriptions, vein intersections and type, zone, hydrothermal alteration minerals, and geotechnical information such as rock quality designation (RQD), as well as standard header information such as drill hole number, collar coordinates and hole inclination. Structural measurements are recorded. After mineralized intervals are identified and the selected intervals are marked for sampling, a colored red wooden block is used to indicate the start and end of each sample, a permanent marker is used to write the depth, after this process high-quality photos are taken of the



washed core. The drill hole database comprises the following data for each mineralized zones at Mercedes:

- Collar coordinates, total depth/length and survey data.
- Intervals detailing from-to and assay results (uncut and cut values) for Au, Ag, and AuEq, as well as the zone/shell they relate to.
- Lithological codes.
- Geotechnical information on core recovery, RQD measurements, fracture type and fill, weathering and a numerical rock code.
- Structural measurements, detailing the angle to core axis, the type of structures and a qualification on intensity of deformation.

### 10.1.5 Assay Sample Selection

Assay samples are broken at major rock code contacts to represent homogeneous units. The minimum interval of the assay sample in the hole will typically not be less than 30 cm, except in unique circumstances. The maximum sample interval will not exceed 150 cm. Geologists try to have no sample crossing a major rock boundary, alteration boundary or mineralization boundary.

Sampling intervals are determined by the geologist during logging and are marked on the core boxes or on the core itself using coloured lumber pencils with a line drawn at right angles to the core axis. Samples are numbered in consecutive order using two-way sample tag books. The sample sequence includes QA/QC samples (blank samples, duplicate samples, and Certified Reference Materials or "CRM"s or Standards) that are inserted into the sample stream using sample numbers that are in sequence with the core samples.

The logging geologist fixes a tag containing the sample number and sample interval onto the box. This is a permanent sample reference that will remain on the plastic core tray.

Sample intervals, sample numbers and QA/QC samples are noted in the "Assay" tab of the "Descriptions" section in the logging software.

# 10.1.6 Core Sampling (Core Saw Splitting)

A geotechnician trained in core-cutting procedures executes the splitting of core at the core shack. The geotechnician follows intervals clearly marked out by the logging geologist.

The core is cut with a core-cutter and one half of the core sample is placed in a sample bag with a sample tag identifying the sample number and the remaining half is returned to the core box.

The bag will then be closed using a zip tie and stored in sequence prior to sample dispatch preparation.

# 10.1.7 Sample Shipment Preparation

Assay sample bags are packed in large "rice" bags. The rice bag is sealed. A unique number is assigned to each rice bag.



The rice bags are stored in the core shack until shipped to the analytical preparation laboratory in Hermosillo. Once the samples have left the site, the laboratory manager receives a digital copy of the sample submission form and the sample dispatch list.

### 10.1.8 Core Storage

Following sampling, the core trays are stored either in a permanent storage facility on-site beside the core shack or pallets beside the storage facility.

# 10.2 Drill Programs

From 2022 to December 31, 2024, a total of 60,151.31 m in 397 drill holes had been completed on the property by BCMC (Table 10-2).

Diamond **Diamond RC Holes RC Meters** Year **Drill Holes Drill Meters** 2022 32 6,049 10,787 86 2023 4 1,026 110 13,916 2024 N/A N/A 165 28,374 Total 36.0 7,075.0 361.0 53,076.31

Table 10-2: Mercedes Mine – Drilling summary – 2022 to the end of 2024

The primary target areas and drilling objectives in recent years have been:

- Drilling to extend Mineral Resources around the Marianas/GAP/Barrancas trend.
- Expanding and confirming Mineral Resource extension at Diluvio/Diluvio West/San Martin/Lupita.
- Defining deeper continuation of mineralization at Rey de Oro.
- Testing several exploration targets at Diluvio, Diluvio NW, Rey de Oro Deep, Neo, San Martin Displacement, Klondike Displacement, Margarita, Margarita East, and Lagunas West.

For the conversion of Inferred Mineral Resources to the Indicated & Measured categories, targeted mineralized zones at Mercedes, Barrancas, Diluvio, Lupita, San Martin, Marianas, and Rey de Oro were drilled on approximately 20 m to 30 m centers by infill diamond drilling. Similar delineation drilling was also conducted at Neo and Lupita Extension.

Figure 10-1 through Figure 10-4 show the locations of all collars on the project by the end of December 31, 2024 (2024).



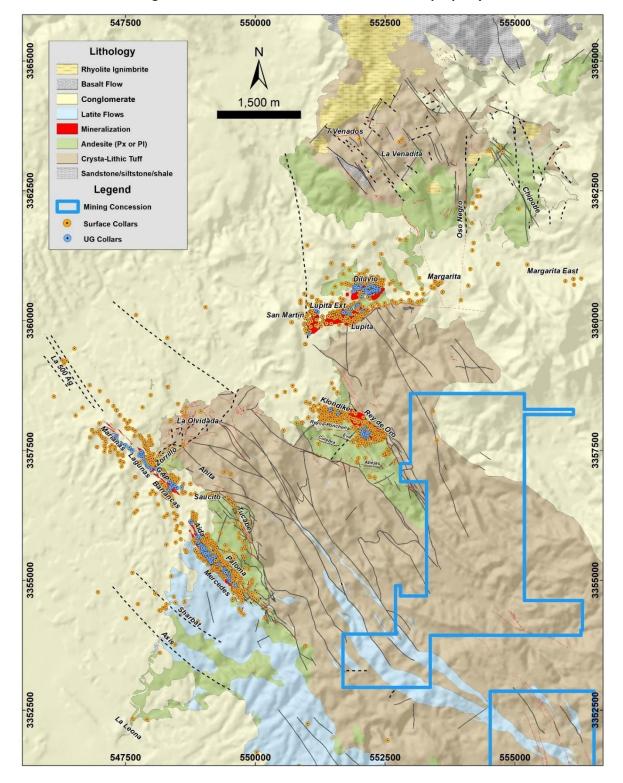


Figure 10-1: Location of drill hole collars on the property



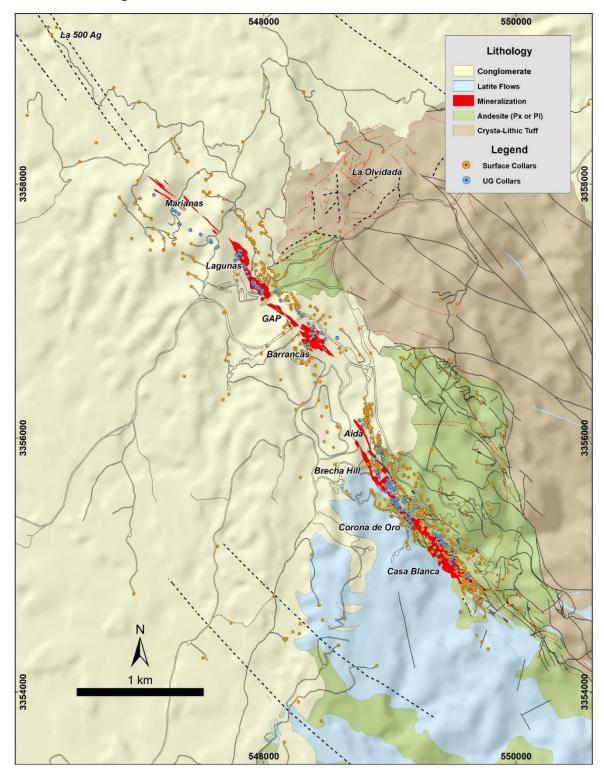


Figure 10-2: Location of drill hole collars for the Mercedes trend



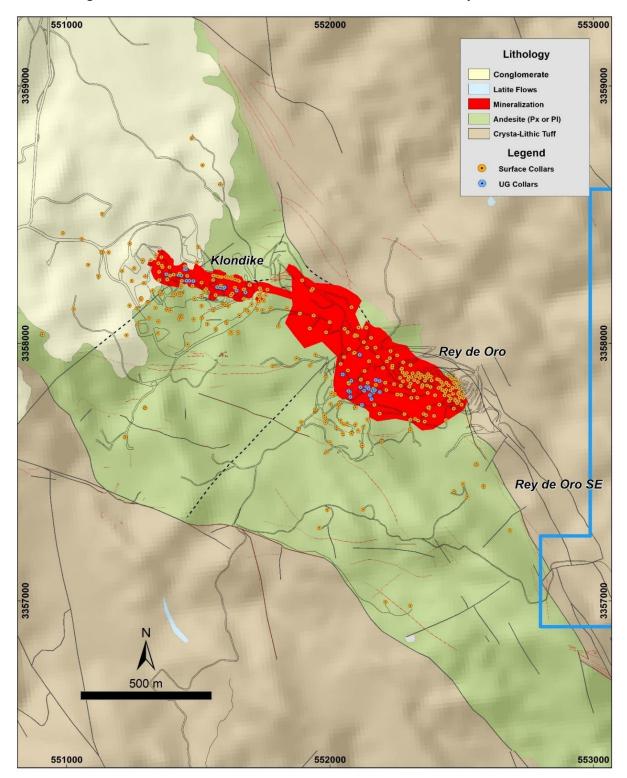


Figure 10-3: Location of drill hole collars for the Klondike and Rey de Ore areas



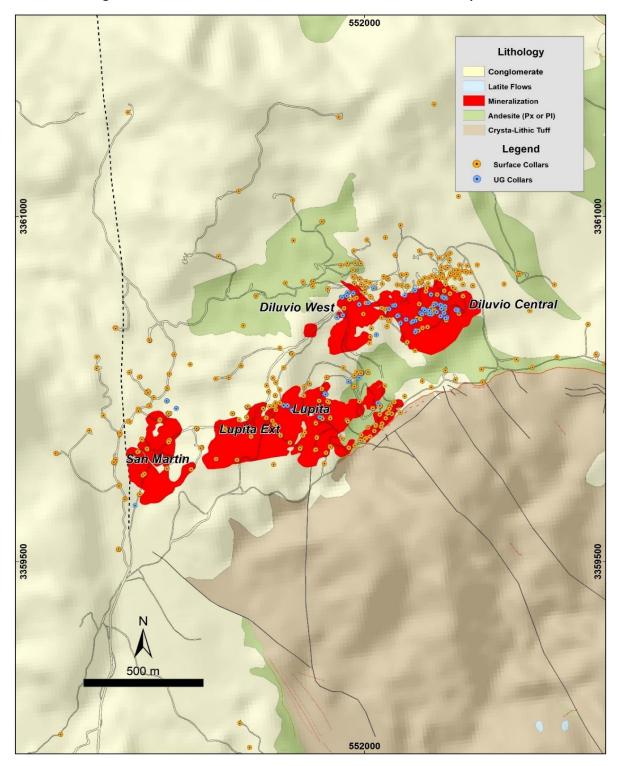


Figure 10-4: Location of drill hole collars for the Diluvio and Lupita areas



# 10.3 Mine Channel Sampling

By December 31, 2024, a total of 24,914 channels has been completed underground, covering 126,950.43 meters and 142,298 channel samples (Table 10-3). Mineralized zones at Aida, Barrancas, Brecha Hill, Casa Blanca, Corona de Oro, Lagunas, Klondike, Rey de Oro, Diluvio, Lupita, Marianas, and Gap have been sampled periodically, as the mine development progressed.

Number of Number of Zone **Total Length** Channels **Channel Assays** Aida 521 2,214 2,573 **Barrancas** 2,434 12,541 15,580 Brecha Hill 1,490 6,676 8,463 Casa Blanca 11,940 14,472 2,543 Corona de Oro 19,828 3,489 15,672 Diluvio 3,829 31,435 29,633 Gap 117 1,136 948 Klondike 1,742 7,171 9,081 Lagunas 2,360 11,097 13,979 Lupita 4,291 16,850 17,469 Marianas 467 2,560 2,376 Rey de Oro 4,539 5,026 862 San Martin 769 3,120 2,870 **Total** 24,914.0 126,950.43 142,298.0

Table 10-3: Channel dataset in the Mercedes database

Channel samples constitute an important part of the dataset used for geomodelling, Mineral Resource estimation, and grade control purposes.

The channel sample datasets consist of:

- Collar coordinates, length and survey data.
- Intervals detailing assays for Au and Ag.
- Description of the mineralized zone/shell they relate to.
- Lithological codes.

Samples are collected across veins or mineralized structures exposed at the faces of headings being developed underground. Since these headings are regularly surveyed, the location of these channel samples is relatively precise, being measured with a measuring tape from the nearest surveyed front.

Sampling is done manually by technician samplers chiseling the rock faces and collecting the chips and fragments in a basket. Samples are then transferred to sample bags, in which numerated tags are inserted. Samples are then transported out of the Mine and delivered to the mine assay laboratory for analytical preparation and analysis at the end of each working shift.

A detailed sampling protocol was developed to standardize sampling operations, ensure a proper chain of custody, minimize sample mishandling, and expedite sample preparation and assay result turnaround



from the Mine lab. Standards and blanks are inserted in every batch at a rate of one each per shift. Assay results are reviewed and are made available within 12 hours for use in planning.

The working development faces for sampling are photographed, and the traces of the samples, their widths/lengths, and approximate azimuths are sketched in to be correlated with the detailed mapping of the same headings.

All the information collected is entered on a Mapping Sheet template or in a Pocket PC or Tablet PC, if available. Once on the surface, all geological information is transferred in the "Sampling Report" data system, which should contain the following information:

- Sector ID
- Level ID
- Camera
- Date
- Heading ID
- Name of the technician
- Channel number
- Mooring topographic point
- Distance to the face
- Azimuth
- Channel sample length
- Channel sampling inclination
- Channel sampling azimuth
- Requested section and observations
- Correlative number of samples
- Sampled structures (code)
- Split blasting width

# 10.4 QP Comments on Item 10 "Drilling"

In the opinion of the QP, drilling was conducted in accordance with industry-standard practices. The drilling as performed provides suitable coverage of the zones of silver—gold mineralization. Collar and down hole survey methods used generally provide reliable sample locations. Drilling methods provide good core recovery. Logging procedures provide consistency in descriptions.

The collected sample data adequately reflect the deposit dimensions, true widths of mineralization, and the style of the deposits. Drill orientations are generally appropriate for the mineralization style for the bulk of the deposit area.

The QP considers that the quantity and quality of the logging, geotechnical, collar, and downhole survey data collected in the exploration and infill drill programs are sufficient to support Mineral Resource estimation.



# 11 SAMPLE PREPARATION, ANALYSIS, AND SECURITY

The data below was taken from previous technical reports (Hardie, et al. 2021, Hardie, et al. 2022). New data from the 2021 to 2024 drilling campaigns were taken from the BCMC database and the project reports.

# 11.1 Sampling

### 11.1.1 Pre-Bear Creek

### **11.1.1.1** RC Sampling

Reverse circulation (RC) drilling in 2000-2001 was performed by Layne Drilling of Hermosillo, using a Drill Tech wheel rig equipped with a 350/750 psi primary compressor. The 2006 RC drilling was contracted to Diversified Drilling of Hermosillo and completed using a portable track RC drill. All RC holes were drilled utilizing a face discharge hammer or a Mission hammer with an interchange.

The 2000-2001 RC drill samples were collected at 1.5 m intervals (50% split) until the vein zone was approached. Then, samples were collected on 0.75 m intervals in and near the vein zones of most holes, allowing a better definition of vein boundaries and providing additional samples for assay. Generally, 75% of the near-vein material from the 0.75 m samples was collected for assay.

All 2006 RC sampling was done on 1.0 m spacing, with three samples per 3.0 m drill rod. All of the dry RC sample chips went through the cyclone and were collected in a Jones splitter, where the sample was split in half or quartered and bagged for assay.

A geologic determination is reportedly made at the drill rig regarding which samples were to be assayed. Typically, any intervals with veining or strong silicification are marked, and several unmineralized samples on either side of the vein zone are included. Samples to be shipped are placed in grain sacks and secured with their tops tied with plastic tie-wraps or tape. MMM personnel transport samples to the Mercedes camp area.

Samples are collected on-site approximately once per week by drivers from ALS-Chemex, who come from the Hermosillo laboratory facility, where samples are prepared, reduced, and then shipped to Vancouver for analysis. Check samples and duplicate samples are collected daily, temporarily stored at the Mine and shipped periodically, when quantity justifies doing so.

In 2000-2001, wet samples were collected at 1.5 m intervals until the vein zone contact was reached. In vein zones, samples were collected at 0.75 m intervals, whereas all 2006 wet RC sampling was done at 1.0 m spacing, with three samples per 3.0 m drill rod.

With wet RC sampling, the entire sample was funneled from the cyclone into a circulating splitter, fitted with blocks placed on alternate openings to cut the sample size down to a quarter split. Samples were collected in bags fitting directly into the 19 L buckets, where flocculant was added in advance of drilling to help settle out fines. In high-water-flow areas, water was allowed to flow out of the bucket.

# 11.1.1.2 Core Sampling

Major Drilling has been the favored contractor retained to carry out most core drilling campaigns at Mercedes, except for a small program conducted by BDW International in 2006.



Over the period 2006-2019, core boxes were regularly collected at the drill rig under the supervision of MMM geologists and transported to the camp core logging facility. The basic sequence in the core facility included, in this order, Labeling intervals on boxes, washing the core, core photography, geotechnical logging, geologic logging, marking of sample intervals, core splitting, and transferring core boxes with mineralized zones to a secure warehouse.

Core intervals to be sampled were selected by the logging geologist, to cover all vein and significant alteration zones. Typically, sampling was started 5.0 m before and extended 5.0 m beyond the point of interest. Core samples were divided into lengths ranging from 30 cm to a maximum of 1.5 m, based on geologic characteristics. All core was split using manual hydraulic splitters after test sampling with diamond saws reportedly demonstrated a significant loss of earthy hematite vein-filling material known to commonly contain very small visible gold specks.

All cores drilled between 2005 and 2020 were logged by MMM at the Mercedes camp. Core samples are typically marked, logged, split, and placed in plastic bags sealed with bag ties. Batches of samples were then placed in grain sacks sealed with tie-wraps or tape to be temporarily stored in a locked warehouse facility on-site. Drivers from ALS-Chemex coming from the Hermosillo preparation facility collected samples on-site approximately once per week.

# 11.1.1.3 Channel Sampling

Channel/chip samples are collected daily at the active fronts, where mine development takes place. After the face has been cleared of muck, scaled off, and secured, the advance is measured, a sketch is drawn, and markings are placed to identify geo-references and summarily describe the mineralized structures from the host rock.

Samplers proceed to collect chips of rock over what constitutes linear channels across the mineralized structures and do so separately for the surrounding rocks. The chips of a sample, collected in a pail, are bagged with a numbered sample tag and sealed for transportation to the Mine laboratory. On average, some 20 mine (channel) samples per shift are collected and sent for analysis.

This process is manual, laborious, dependent on the individuals' dispositions, and inherently inconsistent due to the variable conditions at the faces on any given day, such as access (has the face been cleared and secured), timing (are the miners willing to wait), vein/rock variable occurrence, hardness, width, etc. However, it is a necessary procedure to track mineralization, monitor grade variation, and cumulatively provide the sample density and information needed to delineate resources.

## 11.1.2 Bear Creek

In December 2021, Equinox Gold agreed to sell the Mercedes Mine to Bear Creek (the issuer) less than one year after Equinox acquired the project from Premier Gold. Premier Gold Mines was the operator from 2016 to 2021, and Equinox Gold from 2021 to December 2021. Both operators used the same protocols.

From 2022, Bear Creek has kept the previous protocol conducted by Premier Gold and Equinox Gold and followed the exact core drilling and sampling procedures conducted from 2016 to 2021. During 2022 and



2023, Bear Creek drilled RC holes within the property, primarily planned as pre-collars to reduce overall drilling costs. These holes were not intended for sampling and were not designed to recover ore intervals.

The method of sampling and the analytical procedure for channeling programs from 2022 to 2024 also followed the same as conducted from 2016 to 2021.

# 11.2 Sample Preparation and Analytical Procedures

### 11.2.1 Pre-Bear Creek

# 11.2.1.1 Drill Sample

Almost all 2000 to 2020 assaying was completed at ALS laboratories (ISO 17025:2017 certified) and predecessors Bondar-Clegg and Chemex in Vancouver, British Columbia. Due to extreme sample volumes, some sample preparation in 2011, 2019, and 2020 was done by Chemex at preparation facilities in Chihuahua, Zacatecas, and Guadalajara, Mexico.

At the laboratory, the sample is logged in the tracking system, weighed, dried at 120°C, and finely crushed to better than 70% passing a 2 mm screen. A split of up to 250 g is taken and pulverized to better than 85%, passing a 200-mesh screen.

Bondar-Clegg assayed for gold utilizing a 30 g fire assay (FA)/Atomic Absorption (AA) finish. Silver was determined with AA using a single acid dilution. Any gold assays over 10.0 gpt Au were rerun with fire assay and any silver values over 50 gpt Ag were run a second time utilizing additional dilutions. The Bondar-Clegg fire assay procedure contained the following steps:

• A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica, and other reagents as required, inquarted with 6 mg of gold-free silver, and then cupelled to yield a precious metal bead. The bead is digested in 0.5 mL dilute nitric acid in a microwave oven. 0.5 mL concentrated hydrochloric acid is then added, and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 10 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

Throughout 2005 to 2016, gold and silver analyses were conducted using a 30 or 50 g fire assay, gravimetric finish method. Most 2005 to 2013 assaying was done using a gravimetric method at the ALS Chemex laboratory (ALS) in Vancouver, British Columbia, Canada. From 2013 to 2019, gold analyses were completed using a FA-AA finish, with all samples over 5.0 gpt Au re-analyzed by the FA-gravimetric finish method, and over 10.0 gpt Au since 2020. Due to the high sample volume, a small percentage of the 2007 samples were analyzed in the ALS laboratory in Guadalajara, Mexico. The gravimetric procedure was completed as follows:

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica, and
other reagents to produce a lead button. The lead button containing the precious metals is
cupelled to remove the lead. The remaining gold and silver bead is parted in dilute nitric acid,
annealed, and weighed as gold. Silver, if requested, is then determined by the difference in
weights.



When visible gold was noted, samples were sometimes analyzed, or re-assayed by metallic screen methods. The screen metallic procedure was completed as follows:

• The sample pulp (1,000 g) is passed through a 100 μm (Tyler 150 mesh) stainless steel screen. Any material remaining on the screen (+) 100 μm is retained and analyzed in its entirety by FA with a gravimetric finish and reported as the Au (+) fraction. The material passing through the screen (-) 100 μm fraction is homogenized and two sub-samples are analyzed by FA with an AA finish (Au-AA25 and Au-AA25D). The average of the two AA results is taken and reported as the Au (-) fraction result. All three values are used in calculating the combined gold content of the plus and minus fractions. The gold values for both the (+) 100 μm and (-) 100 μm fractions are reported together with the weight of each fraction as well as the calculated total gold content of the sample.

For a few months during 2021, due to the delays in turnaround time combined with economic reasons, samples were sent to Bureau Veritas Commodities (ISO/IEC 17025:2005 certified and ISO 9001:2008 certified) also in Hermosillo, which was independent from the issuer. At Bureau Veritas Commodities, the sample is logged in the tracking system, weighed, dried at 120°C, and finely crushed to better than 70%, passing a 2 mm screen. A split of up to 250 g is taken and pulverized to plus 85%, passing a 200-mesh screen. Gold analyses were completed at this laboratory using a FA-AA finish, with all samples over 5.0 gpt Au re-analyzed by the FA-gravimetric finish method.

## 11.2.1.2 Channel Sample

Channel samples from development headings and underground infill drilling are processed at the Mine laboratory. Figure 11-1 shows the sample preparation and analysis procedure at the Mine laboratory. For gold assays, samples are analyzed by FA with an AA finish, and if the results are greater than 5.0 gpt Au, the samples are re-analyzed by FA and gravimetric finish, with both procedures using a 30 g pulp sample. For silver analysis, samples were assayed by FA with a gravimetric finish using a 30 g pulp sample until September 2015. After that date, silver analysis was done with a total digestion using four acids.



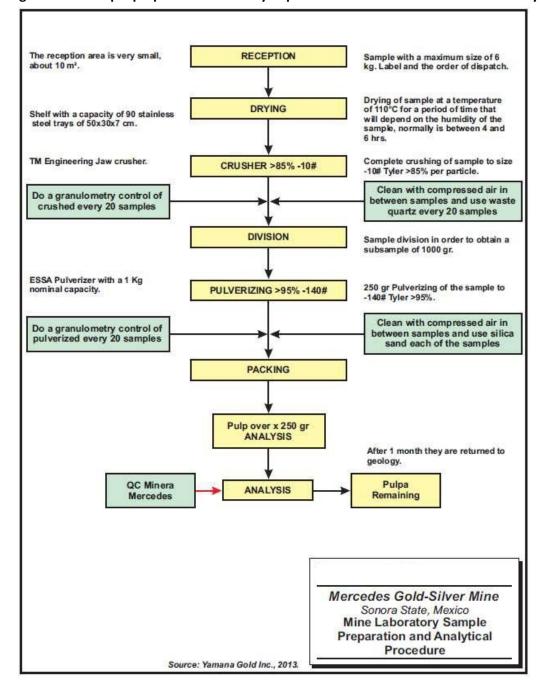


Figure 11-1: Sample preparation and analysis procedure at the on-site Mine Laboratory

# 11.2.2 Bear Creek

## 11.2.2.1 Drill Sample

Since 2022, Bear Creek has continued sending core samples to external laboratories for sample preparation and analysis. In general, only mineralized intervals are sampled. To create representative and homogenous samples, sampling honors lithological contacts, i.e., no sample crossed a major lithological boundary, alteration boundary, or mineralization boundary.



The sample length for most intervals collected varies from 0.30 m to 1.5 m.

At the mine site, the core is cut in half with a rock splitter along its length. One half is put into a plastic sample bag, and the other half is retained and kept in the core box for later reference. A sample assay tag is placed in the plastic sample bag, and the bag is tied off.

From 2022 to August 1, 2024, core samples were sent to ALS laboratory (ISO 17025:2017 certified) in Hermosillo for sample preparation and then to ALS Canada for analysis.

At ALS, the sample is logged in the tracking system, weighed, dried at 120°C, and finely crushed to better than 70%, passing a 2 mm screen. A split of up to 250 g is taken and pulverized to plus 85% passing a 200-mesh screen. Gold analyses were completed using a FA-AA finish, with all samples over 5.0 gpt Au reanalyzed by the FA-gravimetric finish method. From 2020, that threshold was brought to 10 gpt Au.

From August 1, 2024, core samples were sent to SGS in Hermosillo for sample preparation and then to SGS (ISO 17025:2012 certified) in Canada for analysis

At SGS, Gold analyses were completed using an FA-AA finish. Crushed and pulverized rock samples are weighed, mixed with lead oxide flux, and fused at approximately 1100°C (2012°F), followed by the cupellation of a lead button resulting in a dore bead consisting of gold and silver. In some cases when no dore bead is visible or when there is not enough silver present, the bead is either recupelled with silver and lead foil, to allow for gold determination or the sample is refused with silver nitrate. The gold is determined by AAS, where the solution is aspirated into a Flame Atomic Absorption Spectrometer (AAS), aerosolized, and mixed with combustible gas (acetylene and air). The mixture is ignited in a flame that has a temperature ranging from 2,100 to 2,800°C. During combustion, atoms of gold in the sample are reduced to free, unexcited ground-state atoms, which absorb light. Light of the appropriate wavelength is supplied and the amount of light absorbed can be measured against a standard curve.

At SGS, Silver analyses were completed using four-acid digestion, and the digested sample solution was subjected into a Flame Atomic Absorption Spectrometer (AAS). Crushed and pulverized rock, soil, and /or sediment samples are digested using HNO3, HCl, HClO4, and HF and heating. The resultant solution is then analyzed by AAS. The digested sample solution is aspirated into an AAS, aerosolized, and mixed with the combustible gas, acetylene, and air. Atoms created in the flame absorb light at certain well-defined wavelengths. The specific absorbance results in a spectral peak which is in relative proportion to the amount of analyte present. By calibrating against matrix-matched solutions of known concentration and comparing the absorbance against the unknown samples, the silver quantity present is determined

### 11.2.2.2 Channel Sample

Channel samples are sent to the Mine site Laboratory.

Channel samples are collected daily at the active mining fronts, where mine development takes place. After the face has been cleared of muck, scaled off, and secured, the advance is measured, a sketch is drawn, and markings placed to identify, geo-reference, and summarily describe the mineralized structures from the host rock.



Samplers proceed to collect chips of rock over what constitute linear channels across the mineralized structures and do so separately for the surrounding rocks. The chips of a sample, collected in a pail, are bagged with a numbered sample tag and sealed for transportation to the Mine laboratory. On average, some 20 channel samples per shift are collected and sent for analysis.

In general, only mineralized intervals are sampled. To create representative and homogenous samples, sampling honors lithological contacts; no sample crosses a major lithological boundary, alteration boundary, or mineralization boundary.

The sample length for most intervals collected varies from 0.50 m to 1.5 m.

The channel is entirely put into a plastic sample bag. A sample assay tag is placed in the plastic sample bag, and the bag is tied off. At the laboratory, the sample is logged in the tracking system, dried, weighted, and follows the protocol presented in Figure 11-1.

For gold, samples are analyzed by FA with an AA finish, and if the results are greater than 5.0 gpt Au, the samples are re-analyzed by FA and gravimetric finish, with both procedures using a 30 g pulp sample. For silver, samples are assayed by FA with a total digestion using four acids.

# 11.3 Quality Assurance and Quality Control

## 11.3.1 Pre-Bear Creek

## 11.3.1.1 Drill samples

Although early exploration within the property started in the 1900s, no formal quality assurance/quality control (QA/QC) program was in place until 2008.

Yamana Gold undertook official QA/QC programs from 2008 to 2015. QA/QC was limited to inserting sterile, blank, standard, and filed duplicate samples for this period. Only for the 2008 and 2015 drilling programs pulp duplicates were inserted into the sample stream. The rate of QA/QC sample insertion for this period was above the standard recommended by the industry, which is generally accepted to be 5% of total rock samples (see Table 11-1).

Table 11-1: Pre Bear Creek (QA/QC Programs, 2008-2015)

Year	RC Samples	Core Samples	Coarse Blank (Sterile)	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
2008	N/A	13,246	N/A	282	677	323	143	10.76
2009	N/A	6,809	200	128	251	222	N/A	11.76
2010	N/A	12,240	380	333	451	443	N/A	13.13
2011	N/A	11,669	173	152	186	473	N/A	8.43
2012	N/A	12,073	335	291	375	274	N/A	10.56
2013	N/A	4,199	124	110	137	89	N/A	9.23
2014	N/A	10,704	89	207	287	139	N/A	3.71
2015	N/A	11,887	197	251	355	217	666	14.18



Premier Gold Mines conducted official QA/QC programs from September 2016 to April 2021, and Equinox Gold Corp from April 2021 to December 2021. In these QA/QC programs, Premier Gold and Equinox Gold exploration teams continued the established inclusion of coarse and pulp blanks, standards, and field and pulp duplicate samples to the sample stream (see Table 11-2).

Table 11-2: Pre Bear Creek (QA/QC Programs, 2016-2021)

Year	RC Samples	Core Samples	Coarse Blank (Sterile)	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
2016	N/A	10,234	164	172	246	163	610	13.24
2017	N/A	16,316	287	322	384	289	879	13.24
2018	N/A	13,414	232	280	352	251	909	15.09
2019	N/A	13,143	281	347	383	286	744	15.53
2020	N/A	9,631	142	158	210	125	492	11.70
2021	N/A	6,995	148	164	195	121	327	13.65

For this period, the material used for the blanks was purchased from CDN Resource Laboratories Ltd. (CDN), including CDN-BL-10. From 2016 to 2021, blanks were inserted at a rate of approximately two per 100 samples.

Sterile samples (coarse blank) used to monitor contamination during sample preparation were sourced from vitrophyre rocks found on the property. Samples returning values over the 0.03 GPT Au limit were considered failures. From 2016 to 2021, coarse blanks were inserted at an average rate of 1.7 per 100 samples.

Certified reference materials were used to monitor the accuracy of the results, all were bought from CDN Labs and ranged in value from 0.7 gpt to 7.3 gpt for Au and from 48 gpt to 92.5 gpt for Ag. CDN Labs were commissioned to make some of the standards utilizing core or coarse rejects from Mercedes area core, they were labeled as MX-MER (see Table 11-3 and Table 11-4). From 2016 to 2021, CRMs were inserted at an average rate of 2.5 per 100 samples.

Table 11-3: List of Certified Reference Materials Used from 2016 to 2021 Drilling Program for Au

Certified Reference Material (Au)	Year	Certified Value ppm	- 3SD	+ 3SD
MX_MER_LG	2016-2017-2018-2019-2020-2021	0.70	0.6623	0.7397
MX_MER_MG	2016-2017-2018-2019-2020-2021	5.71	5.228	6.182
MX_MER_CG	2016-2017-2018-2019-2020-2021	2.36	2.055	2.673
MX_CDN_GS_P7E	2016-2017-2018-2019	0.77	0.637	0.895
MX_CDN_GS_1P5F	2016-2017-2018-2019	1.40	1.22	1.58
MX_CDN_GS_4D	2016-2017-2018-2019-2020	3.81	3.435	4.185
MX_CDN_GS_7E	2016-2017-2018-2020	7.32	6.57	8.07
MX_CDN_GS_P6C	2021	0.77	0.65	0.884



Table 11-4: List of Certified Reference Materials Used from 2016 to 2021 Drilling Program for Ag

Certified Reference Material (Ag)	Year	Certified Value ppm	- 3 SD	+ 3 SD
MX_MER_LG	2016-2017-2018-2019-2020- 2021	48.0	44.25	51.75
MX_MER_MG	2016-2017-2018-2019-2020- 2021	92.5	87.7	97.3
MX_MER_CG	2016-2017-2018-2019-2020- 2021	66.0	60.75	71.25
MX_CDN_GS_P6C	2021	66.0	57.75	74.25

The systematic use of core (field) duplicates was implemented at the beginning of the 2008 program to monitor the variability of the core grades. These duplicates were splits of drill core inserted in approximately every 30 samples and taken randomly from outside the vein. They were treated as normal samples and were consecutively numbered with respect to the original core split. From 2016 to 2021, Field duplicates were inserted at an average rate of 1.7 per 100 samples.

In May 2008, a system for pulp checking was implemented at Mercedes. Every laboratory order that was submitted to ALS-Chemex included a request for at least one sub-sample of pulp to be sent to ACME Labs, acting as a secondary laboratory, with the purpose of checking the reproducibility of the analyses. These check pulps were selected at random, approximately every 30 to 40 samples, by the person arranging the sample shipments. Up to November 2008, a total of 143 check assays had been received and the correlation between originals and checks was deemed good at 98%.

No pulp samples were sent to a secondary laboratory for analysis from 2011 to 2013, yet the pulp checking program resumed in 2014. A total of 1,642 pulps were sent to ACME Labs to check the reproducibility of the original assays in 2014, 2015, and 2016. Standards and blanks were added to this sample stream. Results were excellent, with a slight negative bias for high-grade silver analyses in the ALS-Chemex data.

From 2016 to 2021, a total of 3,961 pulp duplicates, averaging 5.8 per 100 samples, were sent to the second laboratory, Bureau Veritas.

## 11.3.1.2 Channel samples

The QA/QC programs were conducted by Yamana Gold from 2012 to 2015, and no data is available prior to 2012. During this period, QA/QC efforts were limited to the insertion of sterile, blank, standard, and field samples. The rate of QA/QC sample insertion for this period, with the exception of standards and field duplicates in 2014 and 2015, was below the industry-standard recommendations (Table 11-5).

Table 11-5: Pre Bear Creek (QA/QC Programs, 2012-2015)

Year	Channel Samples	Sterile	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
2012	10,379	83	N/A	232	N/A	N/A	3.03
2013	12,386	293	166	538	62	479	12.42



Year	Channel Samples	Sterile	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
2014	9,965	285	274	581	642	N/A	17.88
2015	14,718	442	457	877	856	N/A	17.88

The present report will specifically address the QA/QC procedures and data related to the past five years, covering the period between 2016 and 2021.

Over the years, sterile material samples have been used to monitor contamination during sample preparation. Rock samples from a vitrophyre porphyritic outcrop on the property are submitted daily, once per night shift, to the Mine lab. The results of the sterile sample analyses are compiled monthly and tabulated yearly in Table 11-6. From 2016 to 2021, Sterile samples (Coarse Blank) were inserted at an average rate of 2.5 per 100 samples.

Table 11-6: Pre Bear Creek (QA/QC Programs, 2016-2021)

Year	Channel Samples	Sterile	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
2016	15,406	382	381	745	708	N/A	14.38
2017	16,472	386	396	762	708	N/A	13.67
2018	12,771	356	365	729	653	N/A	16.47
2019	13,143	281	347	383	286	744	15.53
2020	7,768	212	210	380	340	N/A	14.70
2021	9,686	388	416	734	623	N/A	22.31

For this period, the material used for the blanks was purchased from CDN Resource Laboratories Ltd. (CDN), including CDN-BL-10. From 2016 to 2021, blanks were inserted at a rate of approximately 2.6 per 100 samples.

Certified reference materials were used to monitor the accuracy of the results, all were bought from CDN Labs and ranged in value from 0.84 gpt to 13.90 gpt for Au and from 22 gpt to 120.5 gpt for Ag. CDN Labs were commissioned to make some of the standards utilizing core or coarse rejects from Mercedes area core, they were labeled as MX-MER (see Table 11-7 and Table 11-8). From 2016 to 2021, CRMs were inserted at an average rate of 4.6 per 100 samples.

Table 11-7: List of Certified Reference Materials Used from 2016 to 2021 Channel Program for Au

Certified Reference Material (Au)	Year	Certified Value %	- 3SD	+ 3SD
CDN-ME-1403	2016-2017	0.95	0.84	1.07
CDN-ME-1304	2016-2018	1.80	1.62	1.98
CDN-ME-1312	2016-2017-2021	1.27	1.05	1.50
CDN-ME-1402	2016-2018-2021	13.90	12.70	15.10



Certified Reference Material (Au)	Year	Certified Value %	- 3SD	+ 3SD
CDN-GS-7F	2016	6.90	6.29	7.52
CDN-ME-1204	2017	0.98	0.88	1.07
CDN-ME-1501	2017-2018	1.38	1.22	1.55
CDN-GS-3M	2017-2018	3.10	2.76	3.45
CDN-GS-7G	2017-2018	7.19	6.64	7.75
CDN-GS-6F	2018-2020-2021	6.87	6.45	7.29
CDN-ME-1311	2018	0.84	0.74	0.94
MX_MER_LG	2019	0.70	0.66	0.74
MX_MER_MG	2019	5.71	5.23	6.18
MX_MER_CG	2019	2.36	2.06	2.67
MX_CDN_GS_P7E	2019	0.77	0.64	0.90
MX_CDN_GS_1P5F	2019	1.40	1.22	1.58
MX_CDN_GS_4D	2019	3.81	3.44	4.19
CDN-ME-1308	2020	1.40	1.25	1.55
CDN-ME-1705	2020-2021	3.66	3.35	3.98
CDN-ME-1803	2020-2021	1.30	1.20	1.40
CDN-ME-1702	2020-2021	3.24	2.97	3.51
CDN-ME-1708	2021	6.85	5.89	7.81
CDN-CM-40	2021	1.31	1.13	1.49
CDN-GS-3X	2021	3.23	2.93	3.52

Table 11-8: List of Certified Reference Materials Used from 2016 to 2021 Channel Program for Ag

Certified Reference Material (Ag)	Year	Certified Value %	- 3 Std dev	+ 3 Std dev
CDN-ME-1403	2016-2017	53.90	45.80	62.00
CDN-ME-1304	2016-2018	34.00	29.20	38.80
CDN-ME-1312	2016-2017-2021	22.30	19.75	24.85
CDN-ME-1402	2016-2017-2018-2020-2021	131.00	120.50	141.50
CDN-ME-1204	2017	58.00	49.00	67.00
CDN-ME-1501	2017-2018	34.60	31.15	38.05
CDN-GS-3M	2017-2018	95.40	87.00	103.80
CDN-ME-1311	2018	44.90	41.60	48.20
MX_MER_LG	2019	48.00	44.25	51.75
MX_MER_MG	2019	92.50	87.70	97.30
MX_MER_CG	2019	66.00	60.75	71.25
CDN-ME-1308	2020	45.70	39.70	51.70
CDN-ME-1705	2020-2021	78.30	68.70	87.90
CDN-ME-1803	2020-2021	46.00	41.50	50.50
CDN-ME-1702	2020-2021	47.40	42.45	52.35



Certified Reference Material (Ag)	Year	Certified Value %	- 3 Std dev	+ 3 Std dev
CDN-ME-1708	2021	53.90	47.90	59.90
CDN-CM-40	2021	18.00	15.00	21.00
CDN-GS-3X	2021	85.00	77.50	92.50

From 2016 to 2021, file and pulp duplicates were selected and inserted into the sample stream as the drilling programs. During this period, field duplicates were inserted at an average rate of 4.1 per 100 samples. During this period, from 2016 to 2021, only a total of 744 pulp duplicates were sent to the second laboratory in 2019, which was at an average rate of 5.7 per 100 samples, and no pulp duplicates were sent to the second laboratory during other channel sampling programs.

### 11.3.2 Bear Creek

## 11.3.2.1 Drill samples

A systematic QA/QC procedure, previously implemented by Premier and Equinox, was continued by Bear Creek, from 2022 to 2024, which comprised the insertion of standards, sterile, blanks, field, and pulp duplicates in a prescribed order and regularly included the insertion of QA/QC samples every 40-50 samples, in every sample sequence (see Table 11-9).

A QC failure was deemed to occur when encountering any of the following outcomes:

- A standard greater than three standard deviations (3SD) from the mean.
- Two adjacent standards that are greater than two standard deviations (2SD) from the mean, on the same side of the mean (bias).
- A blank or sterile sample that is greater than the warning limit, i.e. five times the detection limit for the gravimetric method. This rule is even more of a concern if an adjacent standard also fails.

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Year	RC Samples	Core Samples	Sterile	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
2022	N/A	3,947	67	68	77	62	228	12.72
2023	N/A	3,750	74	77	83	37	147	11.15
2024	N/A	6.771	110	133	130	61	N/A	6.41

Table 11-9: Bear Creek (QA/QC Drilling Programs, 2022-2024)

Also, during this period, the material used for the blanks was purchased from CDN Resource Laboratories Ltd. (CDN), including CDN-BL-10. From 2022 to 2024, blanks were inserted at a rate of approximately two per 100 samples.

Sterile samples (coarse blank) used to monitor contamination during sample preparation were sourced from vitrophyre rocks found on the property. Samples returning values over the 0.03 GPT Au limit were



considered failures. From 2022 to 2024, coarse blanks were inserted at an average rate of approximately two per 100 samples.

Certified reference materials were used to monitor the accuracy of the results, all were bought from CDN Labs and ranged in value from 0.76 gpt to 2.36 gpt for Au and from 66 gpt for Ag. CDN Labs were commissioned to make some of the standards utilizing core or coarse rejects from Mercedes area core, they were labeled as MX-MER (see Table 11-10 and Table 11-11). From 2022 to 2024, CRMs were inserted at an average rate of two per 100 samples.

Table 11-10: List of Certified Reference Materials Used from 2022 to 2024 Drilling Program for Au

Certified Reference Material (Au)	Year   Certitied Value %		- 3SD	+ 3SD
MX_CDN_GS_P6C	2022-2023-2024	0.767	0.65	0.884
MX_MER_CG	2022-2023-2024	2.364	2.055	2.673

Table 11-11: List of Certified Reference Materials Used from 2022 to 2024 Drilling Program for Ag

Certified Reference Material (Ag)	Year		- 3SD	+ 3SD
MX_CDN_GS_P6C	2022-2023-2024	66	57.75	74.25
MX_MER_CG	2022-2023-2024	66	60.75	71.25

Pulps were sent to Bureau Veritas Commodities Canada Ltd. (Bureau Veritas) in Vancouver to check the reproducibility of the original assays in the ALS-Chemex data. A total of 375 pulps were sent to ACME Labs to check the reproducibility of the original assays in 2022 and 2023. Standards and blanks were added to this sample stream. For 2022 and 2023, pulp duplicates were inserted at an average rate of 5.8 and 3.9 per 100 samples, respectively.

To monitor the variability of the core grades, the systematic use of core (field) duplicates was implemented. These duplicates were splits of drill core inserted at approximately 1.2 per 100 samples from 2022 to 2024 and taken randomly from outside the vein. They were treated as normal samples and consecutively numbered with respect to the original core split.

# 11.3.2.2 Channel samples

Bear Creek continued the same systematic QC procedure conducted by Premier and Equinox from 2022 to 2024, which comprised the insertion of sterile blank, blank, standard, and file duplicate samples. In this period, no pulp duplicate was inserted in the sample stream (see Table 11-12).

Table 11-12: Bear Creek QA/QC Channel Programs, 2022-2024

	Year	Channel Samples	Sterile	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
ĺ	2022	6,361	340	337	652	617	N/A	30.59



Year	Channel Samples	Sterile	Blank	Standard	Field Duplicate	Pulp Duplicate	% of Total Assays
2023	5,372	301	300	587	675	N/A	34.68
2024	4,173	186	109	365	286	N/A	22.67

Standard blanks, including CDN-BL-10, were purchased from CDN Resource Laboratories Ltd. (CDN). From 2022 to 2024, blanks were inserted at a rate of approximately 4.5 per 100 samples.

Sterile samples (coarse blank) were sourced from vitrophyre rocks found on the property. Samples returning values over the 0.03 GPT Au limit were considered failures. From 2022 to 2024, coarse blanks were inserted at an average rate of five per 100 samples.

For 2022 to 2024, filed duplicates were inserted at an average rate of 9.7 per 100 samples. The mine laboratory collected and analyzed the samples. Due to the suspected presence of coarse erratic free gold, field duplicates, at best, only show fair precision in almost all concentrations for the two monitored elements. No pulp samples were sent to a secondary laboratory for analysis from the Mine lab between 2022 and 2024.

Certified reference materials were used to monitor the accuracy of the results, all were bought from CDN Labs and ranged in value from 0.88 gpt to 12.31 gpt for Au and from 18 gpt to 153 gpt for Ag. CDN Labs were commissioned to make some of the standards utilizing core or coarse rejects from Mercedes area core, they were labeled as MX-MER (see Table 11-13 and Table 11-14). From 2022 to 2024, CRMs were inserted at an average rate of ten per 100 samples.

Table 11-13: List of Certified Reference Materials Used from 2022 to 2024 Channel Program for Au

Certified Reference Material (Au)	Year	Certified Value %	- 3SD	+ 3SD
CDN-CM-40	2022	1.31	1.13	1.49
CDN-GS-3X	2022	3.23	2.93	3.52
CDN-ME-2105	2022-2023	3.88	3.47	4.29
CDN-ME-2003	2022-2023	1.30	1.10	1.50
CDN-ME-1708	2022	6.85	5.89	7.81
CDN-GS-6G	2022-2023-2024	6.30	5.85	6.75
CDN-GS-3M	2023-2024	3.10	2.76	3.45
CDN-ME-1204	2023-2024	0.98	0.88	1.07
CDN-GS-2Q	2023-2024	2.37	2.12	2.63
CDN-GS-5Q	2023	5.64	5.12	6.17
CDN-GS-12A	2023	12.31	11.50	13.12
CDN-ME-2205	2024	0.88	0.73	1.03
CDN-ME-2102	2024	3.24	2.97	3.51
CDN-GS-7M	2024	7.63	6.94	8.32



Table 11-14: List of Certified Reference Materials Used from 2022 to 2024 Channel Program for Au

Certified Reference Material (Ag)	Year	Certified Value %	- 3SD	+ 3SD
CDN-CM-40	2022	18.00	15.00	21.00
CDN-GS-3X	2022	85.00	77.50	92.50
CDN-ME-2105	2022-2023	153.00	139.50	166.50
CDN-ME-2003	2022-2023	106.00	92.50	119.50
CDN-ME-1708	2022	53.90	47.90	59.90
CDN-GS-6G	2022-2023-2024	84.00	76.50	91.50
CDN-GS-3M	2023-2024	95.40	87.00	103.80
CDN-ME-1204	2023-2024	58.00	49.00	67.00
CDN-GS-2Q	2023-2024	73.20	66.60	79.80
CDN-GS-5Q	2023	60.30	54.45	66.15
CDN-ME-2205	2024	65.90	60.95	70.85
CDN-ME-2102	2024	71.00	63.50	78.50
CDN-GS-7M	2024	83.00	74.00	92.00

### 11.4 Database

### 11.4.1 Pre-Bear Creek

From 2000 to 2010, the entire logging database was recorded using printed spreadsheet logs, capturing data from reverse circulation and diamond drilling programs. This included information on geology, alteration, structural features, veins, oxidation, geotechnical data, QA/QC and analytical sampling data. All of this data was stored in an Access database, which was maintained by a QA/QC manager.

In 2011, all historical data from 2000 to 2010, previously stored in the Access database and printed files, including collar, survey, lithology, geotechnical, and assay files, were transferred to the DHLogger system. From that point on, starting with the initial mining extraction in December 2011, all data collection, management, and reporting for downhole data, sampling, surveys, geological-structural logging, and quality control were conducted and captured within DHLogger. Reporting and customized deliveries were handled using ReportManager and Fusion Administrator software, both part of the same software suite.

The channel sample database was set up to be managed with DHLogger, supported by Fusion Client and LIMS software, to directly report results from the Mine Laboratory facilities.

All subsequent companies continued to use DHLogger, Fusion, ReportManager, and Fusion Administrator.

### 11.4.2 Bear Creek

Since transitioning to Bear Creek, the company has continued using the same software suite—DHLogger, Fusion, ReportManager, and Fusion Administrator—to capture, manage, and report all geological logging and sampling data. These tools remain essential for the collection and validation of drill hole and channel sampling information.



The QA/QC process is rigorously maintained to ensure the accuracy and reliability of geological data. As new data is imported into the database, it undergoes continuous quality control reviews to identify potential errors or inconsistencies. A senior geologist is responsible for generating detailed QA/QC reports, which are reviewed by senior technical staff at the conclusion of each drilling campaign. This review process guarantees compliance with industry standards and best practices.

In addition, Bear Creek has optimized data management workflows to enhance efficiency in data capture, integration, and reporting. The channel sample database is still configured within DHLogger, Fusion Client, and LIMS software, allowing for direct integration of laboratory assay results from the Mine Laboratory facilities. This seamless integration provides real-time access to geochemical and geological data, facilitating better-informed decision-making in exploration and resource modeling.

To maintain consistency and data integrity, all downhole survey, geological-structural logging, and geotechnical information continue to be systematically recorded within the DHLogger system. Customized reporting and data visualization are carried out using ReportManager and Fusion Administrator, ensuring that geologists and technical staff have timely and accurate information for resource estimation, mine planning, and operational decisions.

Bear Creek's commitment to data management best practices guarantees that both historical and newly acquired drilling data remain accurate, accessible, and aligned with industry standards. The structured approach to QA/QC, database management, and software integration plays a crucial role in supporting ongoing exploration and mining operations.

# 11.5 Sample Shipping and Security

## 11.5.1 Pre-Bear Creek

Very little is known about the sample security before Bear Creek in 2016, but from 2016 to 2021, Premier Gold and Equinox Gold maintained formal chain-of-custody procedures.

Individual cut samples are placed in poly bags with a unique bar-coded assay tag, and rice bags are used. Mine staff pick up the samples approximately once a week and bring them to the Hermosillo Laboratory by truck.

### 11.5.2 Bear Creek

From 2022 to 2024, Bear Creek maintained formal chain-of-custody procedures during all segments of sample transport as conducted by previous companies.

Individual cut samples are securely bagged, tagged, and placed in rice bags. Mine staff ship them approximately once a week by truck to the ALS Laboratory in Hermosillo Laboratory. Results are received by email in secure PDF files, and QA/QC data is evaluated before the samples are moved into a master database.

The following procedures are implemented to ensure the safe and secure management of materials and data related to core samples:



- Pre-delivery, all core samples to be submitted for preparation and analysis to the independent analytical laboratory are secured in rice bags. Mine staff pick them up approximately once a week and bring them to the Hermosillo Laboratory by truck.
- The sample shipment contains a sample submittal form as well as a sample dispatch list detailing the rice bag# and samples contained in each rice bag.
- Once the shipment leaves the core shack, the sample submittal form and sample dispatch list are
  electronically transmitted to the laboratory. At this time the Bill of Loading for the shipment is
  simultaneously emailed to the laboratory.

# 11.6 QP Comments on Section 11: Sample Preparation, Analyses, And Security

GRE's QP, Dr. Hamid Samari, reviewed all sample preparation procedures, analytical and security procedures, as well as insertion rates and the performance of blanks, standards, and duplicates for the drilling and channeling programs for the historical data and measures employed by Bear Creek for the drilling campaign from 2022 to 2024.

Since early exploration within the property started in the 1900s, no formal quality assurance/quality control (QA/QC) program was in place until 2008.

GRE's QP believes that the previous QA/QC practices and procedures for drill samples prior to Bear Creek's purchase of the property from 2008 to 2021 meet the partially current industry practices with some expectations, such as:

- For drilling samples, from 2008 to 2014, no sterile and blank were inserted for silver.
- For drilling samples, from 2008 to 2010, no certificates were inserted for silver.
- For drilling samples, from 2008 to 2014, no field duplicate was considered for silver.
- For drilling samples, from 2011 to 2013, no pulp duplicate was considered.

For channel samples, no data is available for the previous QA/QC practices and procedures prior to Bear Creek's purchase of the property from 2008 to 2013. From 2014 to 2015, limited data was available from the QA/QC procedures, which included the insertion of sterile, blank, and standard samples. GRE's QP reviewed in-house QA/QC procedures for channel samples from 2016 to 2021 and found that they have met almost all the best current industry practices, with the exception that for this period, no pulp duplicate was considered.

In the opinion of GRE's QP, Dr. Hamid Samari, the sampling preparation, security, and analytical procedures used from 2022 to 2024 by Bear Creek for drilling and channeling programs are consistent with current best-accepted industry practices and are, therefore, adequate for Mineral Resource estimation.

In the opinion of GRE's QP, Dr. Hamid Samari:

• A detailed review of field practices and sample collection procedures should be performed regularly to ensure that the correct procedures and protocols are being followed.



- Laboratory work should be reviewed and evaluated on an ongoing basis, including occasional visits to the laboratories involved.
- Sample collection, preparation, analysis, and security for the RC, core drill, and channel programs follow industry-standard gold and silver deposit methods.
- Standards, blanks, and duplicates, including one standard, one duplicate, and one blank sample, should be inserted every 20 interval samples, as is common within industry standards. This standard procedure was not considered exactly from 2008 to 2015 by Yamana, not followed from 2016 to 2021 by Premier and Equinox, and not followed even from 2022 to 2024 by Bear Creek. This standard should be considered and continued for future drilling programs.
- QA/QC program results do not indicate any problems with the analytical programs (refer to discussion in Section 12).

GRE's QP, Dr. Hamid Samari, is of the opinion that the quality of the gold and silver analytical data is sufficiently reliable to support Mineral Resource Estimation without limitations on Mineral Resource confidence categories.

No factors were identified with any drilling and channel sampling that could materially impact on the accuracy and reliability of the results.



# 12 DATA VERIFICATION

## 12.1 External Data Verification

#### 12.1.1 BBA Inc.

In 2021, BBA (Hardie, et al. 2021) prepared a National Instrument 43-101 compliant resource estimate for the Mercedes Gold-Silver Mine. This technical report covered and reviewed previous technical reports prepared for Mercedes Mine. BBA reviewed and presented the previous verification on Mercedes conducted by Altman, Malensek and Moore 2018, as below.

## RPA 2017 Verifications (Altman, Malensek and Moore 2018)

- In 2013, part of the resource database and several drill logs were reviewed by RPA for accuracy
  of assay transcription from the assay certificates. Approximately 1,400 assays from drill holes in
  the database were compared to the original assay certificates with no errors noted.
- In 2016, RPA compared approximately 6,200 of 21,600 assay certificate values from 2014 and 2015 exploration with the resource database. RPA examined the bulk of the assays taken with the Au\_ppm\_FA50 and Ag\_ppm\_MAAASOG laboratory methods. Of the 6,200 matches, only 40 assays differed from the certificates by more than 0.1 gpt Au, with only 11 assays differing by more than 0.5 gpt Au, with the largest discrepancy at 0.58 gpt Au. Only two silver assays differed from the certificates by more than 10 gpt Ag, with the largest discrepancy at 22 gpt Ag. These discrepancies may, at least in part, be accounted for by re-assays for various reasons.
- In 2017, RPA compared approximately 21,800 assay certificates from the exploration and mine laboratories with the resource database.
- Drill logs for four holes were compared to the core stored at site in 2013, three holes were reviewed in 2016, and two holes were reviewed in 2017. It was determined that the logging and sampling were completed to industry standards.

In 2021, BBA completed a data verification program for a significant portion of the historical drill hole database. BBA reviewed and examined the project's drill hole database, which contained assay, survey, and geological information for historical drill campaigns up to 2020.

In 2021, BBA compared approximately 2,100 of 12,500 assay certificate values from the 2018 exploration drilling and mine sampling work and approximately 1,700 of 14,000 assay certificate values from similar work in 2019. The bulk of the assays taken with the Au\_ppm\_FA50 and Ag\_ppm\_MAAASOG laboratory methods were examined.

• Of the 2,100 matches for the 2018 tally, only one series of four consecutive assays differed from the certificate by +0.62, +0.01 and 0.032 gpt Au and with one assay differing by -1.74 gpt Au (negative bias), which could have resulted from a mix-up when manipulating the drill sample dataset or may, at least in part, be accounted for by re-assays for various reasons. These assays correspond to a contiguous core interval from 139.57 to 145.67 m in drill hole UG-CDO18-028. The corresponding silver assay values over that interval do match those of the lab assay certificate.



- Of the 1,700 matches for the 2019 tally, two short series of four consecutive assays each, differed from the certificates. The first series corresponding to a contiguous core interval from 272.0 to 277.2 m in drill hole L19-402D, relates to a marginal grade interval of 5.2 m at 0.04 gpt Au, showing a very minimal discrepancy of less than 0.01 gpt Au with the actual assay certificates. The second series also correspond to a contiguous core interval from 110.9 to 116.3 m in drill hole UG-DI19-067, which also relates to a marginal grade interval of 5.4 m at 0.4 gpt Au showing a very minimal discrepancy of less than 0.05 gpt Au with the actual assay certificates. The silver assay values all match the lab assay certificates.
- Drill hole data were uploaded, examined, and summarily reviewed on the screen, and it was found that no drill hole collar coordinates protruded the top surface or the underground workings from which they were positioned, nor that extreme length or odd hole deviations were apparent. The standard validations for overlapping samples, etc., also returned virtually no errors, with only occasional insignificant discrepancies arising from the rounding of figures.
- BBA mentioned that the drilling, sampling and assaying protocols in place for the Mine appear to comply with industry standards and that the database is adequate for the purposes of Mineral Resource estimation.

In 2022, BBA (Hardie, et al. 2022) prepared a National Instrument 43-101 compliant resource estimate for Mercedes Gold-Silver Mine. BBA accessed the assay certificates for all holes drilled in 2020 and 2021. Assays of Au and Ag were verified for 10% of the database. The assays recorded in the database were compared to the certificates from the different laboratories and no significant discrepancies were detected. QA/QC reports were reviewed and although no significant issues were observed for gold, these reports revealed issues with silver QA/QC for underground channel samples where the failure rate of the silver standard has generally been high over the last six years; only in 2021 did it show acceptable results. This QA/QC issue only affects underground channel samples; QA/QC for both gold and silver samples from the drill core is acceptable.

BBA reviewed the QA/QC reports for the underground channel samples for gold and silver and concluded that, while issues appear to be impressive at first sight (multiple certified standard failures), they do not have a material impact on the Mineral Resource Estimate when put into perspective for these reasons:

- QA/QC issues only affect samples analyzed at the mine site laboratory, and samples analyzed at an independent laboratory show acceptable failure rates. Therefore, only channel samples are affected, not drill core samples.
- The QP statistically compared silver values from exploration drill holes (which proved to have an
  acceptable QA/QC failure rate) to the mine samples (issues with silver standard failure rate) and
  confirmed that although silver grades are likely to differ slightly locally, silver grades are accurate
  when looked at globally.
- Silver is only presented as a sub-product and not included in the cut-off grade calculation.
- Silver only represents a low contribution to the AuEq (and therefore block value); overall silver only contributes 4% to the project.
- Overall reconciliation numbers are good.



A block model using both datasets (drill holes and channels) was compared to a block model using
only drill holes, and results showed no material impact on grade when using channel samples.

In 2022, BBA mentioned that the Mercedes Mine Project database is of good overall quality. Minor variations have been noted during the validation process but have no material impact on the current MRE. In the QP's opinion, the Mercedes Mine database is appropriate for a Mineral Resource Estimate.

# 12.2 Data Verification by Global Resource Engineering (GRE)

The drilling and channeling data were submitted to GRE for a desktop review in January 2025. GRE's Qualified Person (QP), Dr. Hamid Samari, conducted an independent review of the database, which included drilling data from 2000 to 2024 and channeling data from 2012 to 2024. The general data provided to GRE consisted of collar, survey, assay, geology, original certificates, QA/QC files, and yearly in-house reports in .csv, PDF, and Word formats. However, for certain exploration periods, no complete data was found in the database.

Since all sample preparation and analysis for channel samples have been conducted at the Mercedes Mine site, there is no certification for channel samples.

#### 12.2.1 Pre-Bear Creek Data

### 12.2.1.1 Database - 2000 to 2007

In the database from 2000 to 2007, only assay data for gold and silver from the 2000, 2001, and 2005 to 2007 drilling programs are available in .csv format. Mercedes' database does not contain assay certificates for these drilling programs.

During this period, 131 RC holes were drilled, yielding 7,739 assays over 19,806.63 meters, along with 170 core holes containing 9,942 assays over 46,428.13 meters. The database for this period includes a total of 17,681 assay records, broken down as follows: 1,349 assays for 2000, 1,854 for 2001, 881 for 2005, 4,625 for 2006, and 8,972 for 2007.

No channeling data is available in Mercedes' database for this exploration period.

### 12.2.1.2 Database - 2008 to 2015

The pre-Bear Creek drilling program from 2008 to 2015 includes 1,276 core holes, comprising 82,827 assays for a total of 348,775.28 meters of drilling. The original assay certificates for this period are available in the Mercedes database, along with the collar, survey, gold and silver assays, and QA/QC data.

For these drilling campaigns, pre-Bear Creek, GRE's QP manually audited approximately 10% of the original assay certificates from 2008 to 2015 and found no material errors. The only issue identified by GRE's QP was that some certificates in CSV format from the 2012, 2013, 2014, and 2015 drilling programs had incorrect headers. However, the actual assay data for gold and silver from these certificates was properly entered into the Mercedes database. The Mercedes QA/QC manager confirmed GRE's QP's findings on this matter and noted that some of the certificates have been adjusted, with efforts underway to correct the remaining certificates with this issue.



From 2012 to 2015, a complete database for channel sampling, containing 47,448 samples and corresponding QA/QC data, was also available.

GRE's QP also reviewed and spot-checked some of the existing QA/QC data for this drilling exploration period, as well as some of the QA/QC data from the channeling programs between 2012 and 2015 and found no errors that could affect the Mineral Resource Estimate (MRE).

### 12.2.1.3 Database - 2016 to 2021

The pre-Bear Creek drilling programs from 2016 to 2021 include 1,443 core holes, comprising 69,733 assays for a total of 226,289.73 meters of drilling. Completed data on the QA/QC programs for this period, along with collar, survey, assay data, and all original assay certificates, are available in Mercedes's database.

During this period, a complete database for channel sampling is also available, containing 75,246 samples and corresponding QA/QC data.

GRE's QP, Dr. Hamid Samari, reviewed all available historical data for drilling and channeling programs during this period. For the drilling campaigns, GRE's QP conducted a manual audit of approximately 10% of the original assay certificates for core hole samples from 2016 to 2021 and found no material errors.

GRE's QP also reviewed the existing QA/QC data for this period and found no errors that could affect the MRE.

For the 2021 exploration period, as the Mercedes Mine transitioned from Premier Gold to Equinox Gold and then to Bear Creek, GRE's QP reviewed all QA/QC data for both drilling and channeling programs and presented the results in this technical report (see Verification of Pre-Bear Creek Analytical Control Data), showing no errors that could affect the MRE.

# 12.2.2 Bear Creek Database - 2022 to 2024

From 2022 to 2024, Bear Creek completed 53,076.31 meters of core drilling, consisting of 14,468 assay samples from 361 core drill holes within the project site.

The current data was provided to GRE in .csv format, including collar, survey, assay, and geology data for the entire database, along with Bear Creek's comprehensive in-house QA/QC files.

GRE independently analyzed Bear Creek's data relevant to the 2022 to 2024 drilling programs, comparing the assay data with the provided assay certificates. Approximately 10% of all original assay certificates from the 2022 to 2024 drilling programs were manually spot-checked against the database for accuracy, and no errors were found.

From 2022 to 2024, a complete database for channel sampling, containing 15,906 samples and corresponding QA/QC data, was also available.

For this exploration period, GRE's QP reviewed all QA/QC data for the drilling and channeling programs and presented the results in this technical report (see Verification of Bear Creek Analytical Quality Control Data). The data showed no critical errors that could affect the MRE.



## 12.2.3 Verification of Pre-Bear Creek Analytical Quality Control Data

Pre-Bear Creek's in-house QA/QC data for the drilling program from 2005 to 2021 and for the channeling program from 2012 to 2021 are available in the Mercedes database and were submitted to GRE for review and verification.

## 12.2.3.1 Drilling Program (2005-2021)

From 2005 to 2008, the in-house QA/QC data were not complete and organized. There are a few reports in Word format showing graphs and tables for standard sample analyses for gold and silver considering  $\pm$  2SD and a few Excel files mostly showing standard, duplicate, blank, and sterile samples for gold and silver.

From 2009 to 2015, the in-house QA/QC data were more organized and completed, especially in 2015. The database contains annual QA/QC reports in Word format. There are QA/QC graphs for standards, blanks, sterile, and field duplicates.

The Mercedes database contains well-organized and comprehensive QA/QC data from 2016 to 2021. Annual QA/QC reports are in Word format, and all sources are available in an Excel file for review and checking. GRE's QP reviewed all these data in detail and prepared a summary for these programs from 2016 to 2020. For the 2021 exploration period, as the Mercedes Mine transitioned from Premier Gold to Equinox Gold and then to Bear Creek, GRE's QP reviewed all QA/QC data for both drilling and channeling programs and presented the results here after an explanation of drilling programs from 2016 to 2020.

From 2016 to 2020, a total of 1,106 coarse blank samples were inserted into the sample streams at an average rate of 0.35 per 20 assays for all 62,738 core samples (Table 12-1). Data evaluation showed satisfactory results, although the insertion rate of coarse blanks was below the industry standard of one blank per 20 samples.

Table 12-1: Coarse Blank (Sterile) Results, 2016-2020 Drilling Programs

Year Sterile		Failur	es (Au)	Failures (Ag)		
Tear	Inserted	Number	%	Number	%	
2016	164	1	0.61	0	0.00	
2017	287	7	2.44	3	1.05	
2018	232	7	3.01	2	0.86	
2019	281	7	2.49	2	0.71	
2020	142	3	2.11	2	1.41	

From 2016 to 2020, a total of 1,279 fine blank samples were inserted into the sample streams at an average rate of 0.4 per 20 assays for all 62,738 core samples (Table 12-2). Data evaluation of the fine blanks showed satisfactory results, although their insertion rate was below industry standards.

Table 12-2: Standard (Fine) Blank Results, 2016-2020 Drilling Programs

Voor	Year Blanks Failures (Au)		Failures (Ag)		
Teal	Inserted	Number %		Number	%
2016	172	0	0.00	0	0.00
2017	322	0	0.00	1	0.31



Year	Blanks		es (Au)	Failure	es (Ag)
Teal	Inserted	Number %		Number	%
2018	280	1	0.36	4	1.42
2019	347	0	0.00	0	0.00
2020	158	0	0.00	1	0.63

From 2016 to 2020, a total of 1,575 certified reference materials (CRM) samples from seven different types (see Table 11-3) were inserted into the sample streams at an average rate of 0.5 per 20 assays for all 62,738 core samples (Table 12-3). Data evaluation of the CRMs showed acceptable results, although their insertion rate was below industry standards.

Table 12-3: Certified Reference Materials (CRMs) Results, 2016-2020 Drilling Programs

	Standards	Failures	(Au)	Failures	(Au)	Standards	Failures	(Ag)	Failures	(Ag)
Year	(Au) Inserted	>2SD<3	SD	>3SI	D	(Ag) Inserted	>2SD<3	SD	>3SE	)
		Number	%	Number	%		Number	%	Number	%
2016	246	11	4.50	0	0.00	181	10	5.50	1	0.60
2017	384	6	1.60	5	1.30	311	13	4.20	1	0.30
2018	352	27	7.70	7	2.00	280	22	7.90	12	4.30
2019	383	17	4.40	4	1.00	345	17	4.90	5	1.40
2020	210	7	3.30	4	1.90	202	13	6.40	2	1.00

From 2016 to 2020, a total of 1,114 field duplicate samples were inserted into the sample streams at an average rate of 0.35 per 20 assays for all 62,738 core samples (Table 12-4). Due to the nature of the field duplicates, data evaluation showed acceptable results, although their insertion rate was also below industry standards.

Table 12-4: Field Duplicate Results, 2016-2020 Drilling Programs

Year	Field Duplicates	Correlation	Correlation
	Inserted	(Gold)	(Silver)
2016	163	0.96	0.99
2017	289	0.98	0.98
2018	251	0.88	0.98
2019	286	0.81	0.95
2020	125	0.74	0.92

From 2016 to 2020, a total of 3,634 preparation duplicate samples were sent to the second laboratory at an average rate of 1.16 per 20 assays for all 62,738 core samples (Table 12-5). Data evaluation showed excellent results, with an acceptable insertion rate in line with industry standards.



Table 12-5: Preparation of Duplicate Results, 2016-2020 Drilling Programs

Year	PREP Duplicates	Correlation	Correlation
	Inserted	(Gold)	(Silver)
2016	610	0.97	0.99
2017	879	0.98	0.99
2018	909	0.99	0.99
2019	744	0.99	0.99
2020	492	0.99	0.99

In 2021, 148 coarse blank samples were inserted into the sample streams at an average rate of 0.42 per 20 assays for all 6,995 core samples for gold and silver (Figure 12-1 and Figure 12-2). Although data evaluation shows great and acceptable results for gold and silver, respectively, the rate of insertion is below the industry standard of one blank per 20 samples.

In 2021, 164 standard blank samples were inserted into the sample streams at an average rate of 0.47 per 20 assays for all 6,995 core samples for gold and silver (Figure 12-3 and Figure 12-4). The results for gold are excellent, while some blank samples showed values above the threshold for silver. Given the average grade of silver, this is considered acceptable.

Au Control Chart for MX-Sterile (2021) 0.050 0.045 0.040 0.035 0.030 0.025 Threshold (3X DL) 0.020 Det. Limit 0.015 Blank Value 0.010 0.005 0.000 **Analysis Date** 

Figure 12-1: Coarse Blank Results for Gold in the 2021 Drilling Program



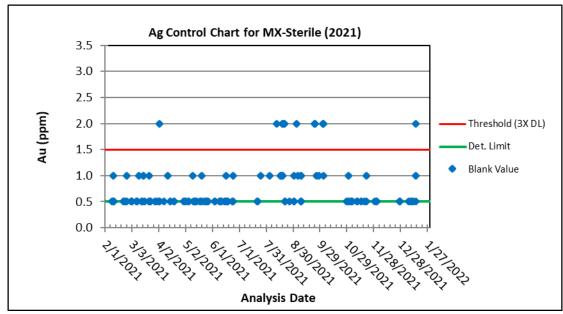
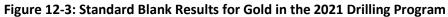
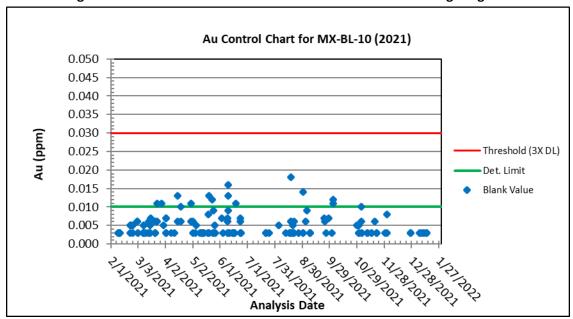


Figure 12-2: Coarse Blank Results for Silver in the 2021 Drilling Program







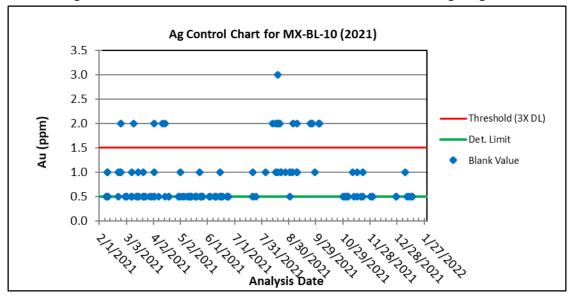


Figure 12-4: Standard Blank Results for Silver in the 2021 Drilling Program

In the 2021 drilling program, 195 commercially prepared CRM samples for gold and silver were inserted into the sample stream at a rate of 0.56 per 20 sample assays for all 6,995 core samples (Figure 12-5 through Figure 12-12). The results for all CRMs for gold and silver are acceptable, except for CRM MX-MER-MG for silver, which shows six CRMs with values outside of ±3 SD.

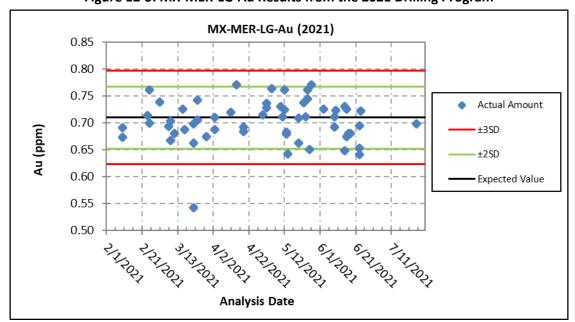


Figure 12-5: MX-MER-LG-Au Results from the 2021 Drilling Program



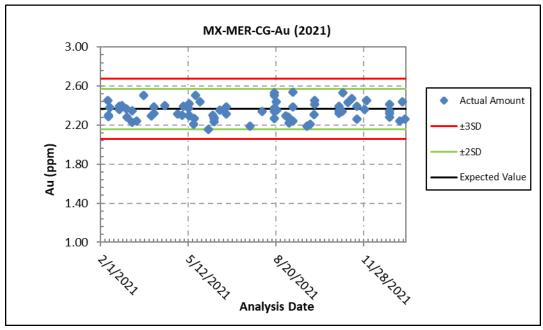
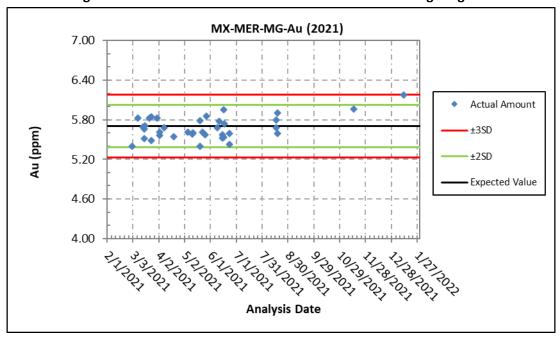


Figure 12-6: MX-MER-CG-Au Results from the 2021 Drilling Program







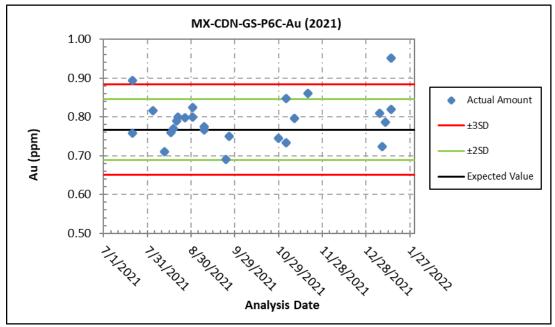
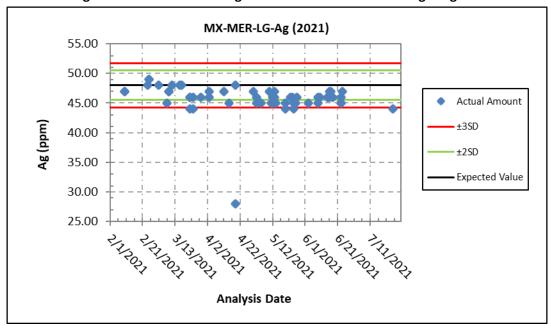


Figure 12-8: MX-CDN-GS-P6C-Au Results from the 2021 Drilling Program







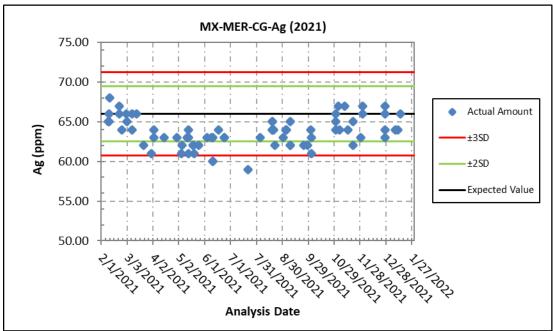
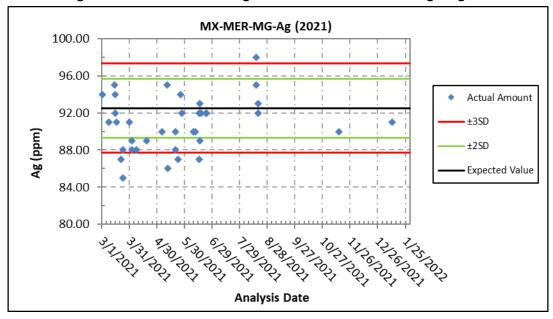


Figure 12-10: MX-MER-CG-Ag Results from the 2021 Drilling Program







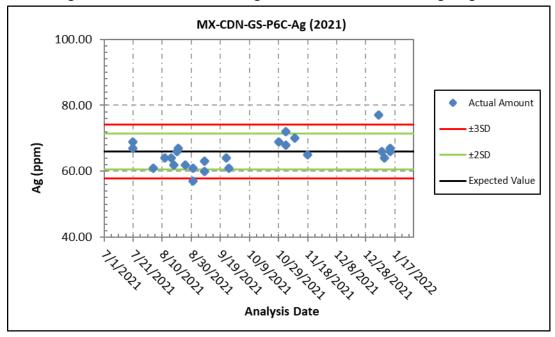


Figure 12-12: MX-CDN-GS-P6C-Ag Results from the 2021 Drilling Program

In the 2021 drilling program, a total of 121 fields duplicated at a rate of 0.35 per 20 samples and a total of 327 pulp duplicates at a rate of one per 20 samples were considered for all 6,995 core samples. Field duplicates were analyzed in the ALS lab, and pulp duplicates at a second laboratory, Bureau Veritas (see section 11).

Figure 12-13 through Figure 12-16 Show the Q-Q plots for field and pulp duplicates for gold and silver. As seen, due to the nature of field duplicates and the deposit types, the Q-Q plot correlations for gold and silver show some scattered points, whereas no scatter is observed for pulp duplicates. Overall, all results are deemed acceptable.



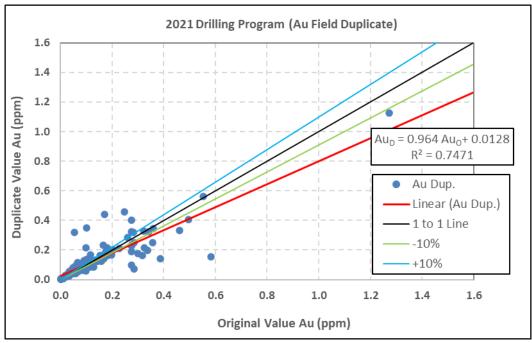
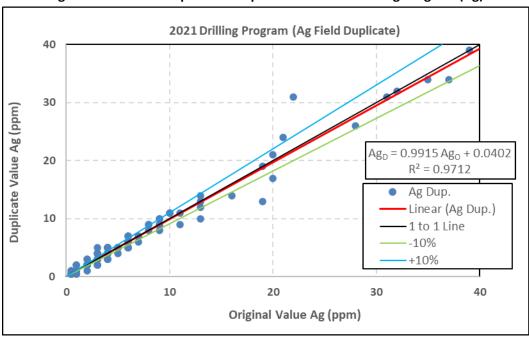


Figure 12-13: Field Duplicate Samples for the 2021 Drilling Program (Au)







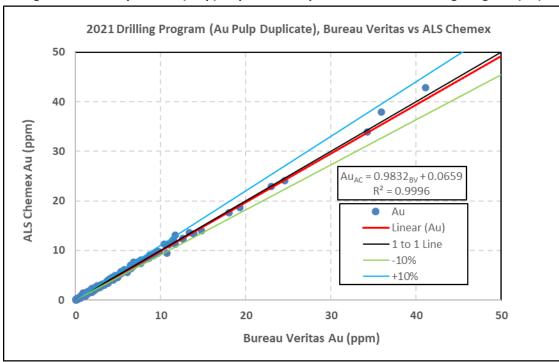
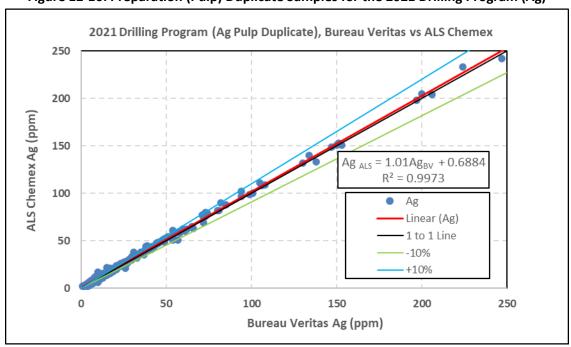


Figure 12-15: Preparation (Pulp) Duplicate Samples for the 2021 Drilling Program (Au)







## 12.2.3.2 Channeling Program (2012-2021)

2020

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The Mercedes Mine in-house QA/QC procedures from 2012 were submitted to GRE for review. From 2012 to 2015, the database contains annual QA/QC reports in Word format. There are QA/QC Excel file and their graphs for standards, blank, sterile, and field duplicates.

The database contained well-organized and comprehensive QA/QC data from 2016 to 2021. Annual reports are in Word format, and all sources are available in an Excel file for review and checking. GRE's QP reviewed all these data in detail and prepared a summary for these programs from 2016 to 2020. For the 2021 channeling program, such as the drilling program period, as the Mercedes Mine transitioned from Premier Gold to Equinox Gold and then to Bear Creek, GRE's QP reviewed all QA/QC data for both drilling and channeling programs and presented the results here after an explanation of drilling programs from 2016 to 2020.

From 2016 to 2020, a total of 1,617 coarse blank samples were inserted into the sample streams at an average rate of 0.5 per 20 assays for all 65,560 channel samples (Table 12-6). Data evaluation showed satisfactory results, although the insertion rate of coarse blanks was below the industry standard of one blank per 20 samples.

Sterile Failures (Au) Failures (Ag) Year Inserted Number % Number % 2016 382 8 2.09 17 4.45 2017 386 10 2.59 2.85 11 2018 356 22 6.18 52 14.60 7 2019 281 2.49 2 71.00 16

Table 12-6: Coarse Blank (Sterile) Results, 2016-2020 Channeling Programs

From 2016 to 2020, a total of 1,699 fine (standard) blank samples were inserted into the sample streams at an average rate of 0.52 per 20 assays for all 65,560 channel samples (Table 12-7). Data evaluation of the fine blanks showed satisfactory results, although their insertion rate was below industry standards.

7.55

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5.66

Table 12-7: Standard (Fine) Blank Results, 2016-2020 Channeling Programs

Year	Blanks	Failure	es (Au)	Failures (Ag)		
	Inserted	Number	%	Number	%	
2016	381	6	1.57	5	1.31	
2017	396	11	2.78	8	2.02	
2018	365	13	3.56	34	9.31	
2019	347	0	0.00	0	0.00	
2020	210	6	2.86	1	0.47	

From 2016 to 2020, a total of 2,999 certified reference material (CRM) samples, spanning 21 different types (see Table 11-7), were inserted into the sample streams. This was done at an average rate of one



CRM per 20 assays across a total of 65,560 channel samples. Data evaluation of the CRMs presented in Table 12-8, with an insertion rate that meets industry standards.

Table 12-8: Certified Reference Materials (CRMs) Results, 2016-2020 Channeling Programs

	Standards	Failures (Au) >2SD//<3SD		>3SD (Ag)		Standards	Failures (Ag) >2SD//<3SD		Failures (Ag)	
Year	(Au) Inserted					(Ag) Inserted			>3SD	
		Number	%	Number	%		Number	%	Number	%
2016	745	26	3.49	49	6.58	570	10	1.75	22	3.86
2017	762	56	7.35	63	8.27	635	17	2.68	16	2.52
2018	729	45	6.17	72	9.88	82	1	1.22	2	2.44
2019	383	17	4.44	4	1.04	345	17	4.93	5	1.45
2020	380	41	10.79	48	12.63	136	11	8.09	69	50.74

From 2016 to 2020, a total of 2,695 field duplicate samples were inserted into the sample streams at an average rate of 0.82 per 20 assays across all 65,560 channel samples. Due to the nature of the field duplicates, data evaluation showed acceptable results, with an insertion rate that nearly meets industry standards. For this period, no pulp duplicate samples were considered.

In 2021, a total of 388 coarse (sterile) blank samples were inserted into the sample streams at an average rate of 0.80 per 20 assays across all 9,686 channel samples for gold and silver (Figure 12-17 and Figure 12-18). Although data evaluation shows acceptable results for both gold and silver, with 3.35% and 3.61% of samples out of range for gold and silver, respectively, the insertion rate falls below the industry standard of one blank per 20 samples.

In 2021, a total of 416 standard blank samples were inserted into the sample streams at an average rate of 0.86 per 20 assays across all 9,686 channel samples for gold and silver (Figure 12-19 and Figure 12-20). Data evaluation shows better results than for coarse blanks, with 1.44% of samples out of range for both gold and silver. However, the insertion rate still falls below the industry standard.



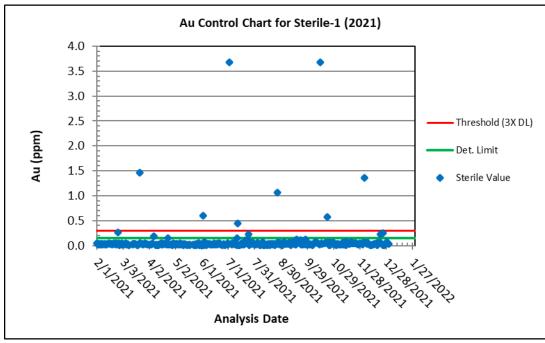
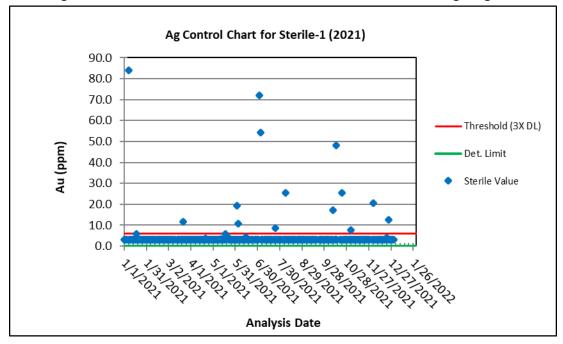


Figure 12-17: Coarse Blank Results for Gold in the 2021 Channeling Program







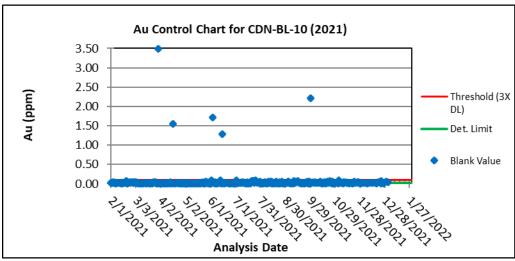
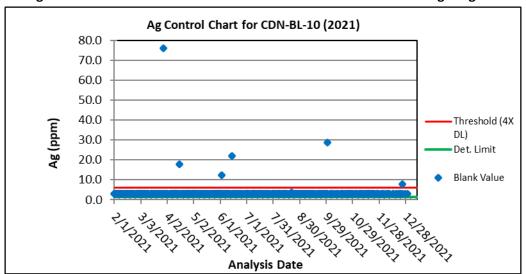


Figure 12-19: Standard Blank Results for Gold in the 2021 Channeling Program





In the 2021 channel program, 734 commercially prepared CRM samples for gold and silver were inserted into the sample stream at a rate of 1.52 per 20 assays across all 9,686 channel samples (Figure 12-21 and Figure 12-22). The results for nearly all CRMs for gold and silver are acceptable. For gold CRMs, a few minor discrepancies were observed, including two samples for CDN-ME-1705 and one for CDN-CM-40, with assay values near zero, as well as one sample for CDN-ME-1312, with an assay result of 22 ppm. These errors are likely due to human mistakes, such as the incorrect insertion of other standards in place of CDN-ME-1312. For silver CRMs, similar errors were noted, including zero or very low assay results for one CDN-ME-1312, two CDN-ME-1708, and one CDN-ME-1708. Additionally, there was one high value (137.7 ppm) for CDN-ME-1312, one low value (9.7 ppm) for CDN-ME-1702, and one for CDN-CM-40 with an assay value of 3.0 ppm. These discrepancies are likely the result of human error involving the incorrect insertion of other standards.



Figure 12-21: Au CRMs of CDN-CM-40, GS-3X, GS-6F, ME-1312, ME-1402, ME-1702, ME-1705, ME-1708, ME-1803 for the 2021 Channeling Campaign

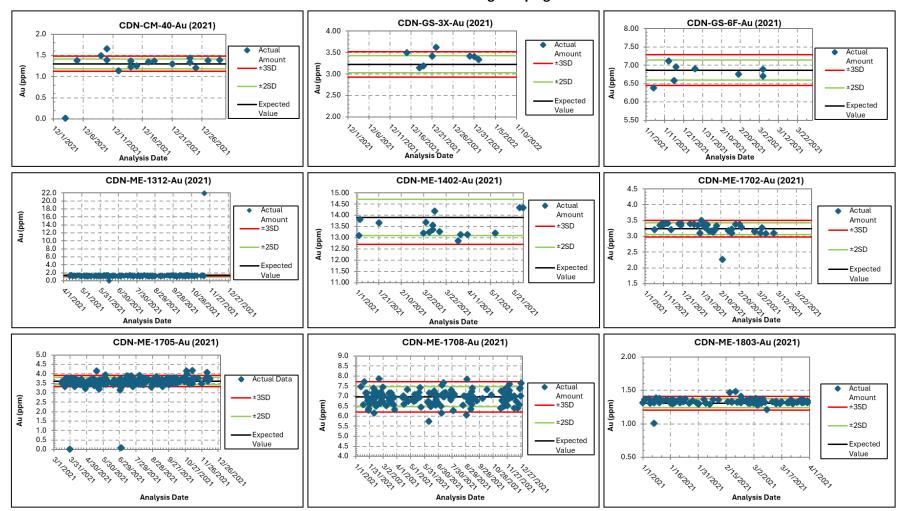
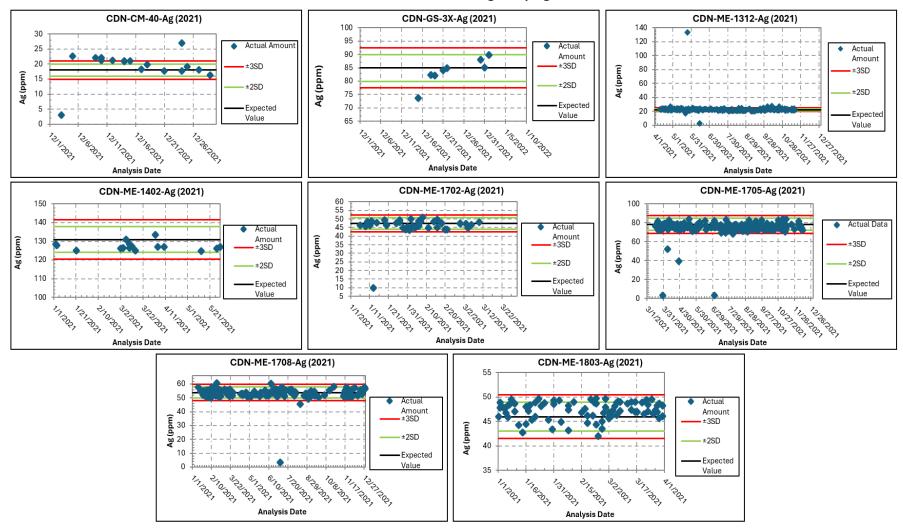




Figure 12-22: Ag CRMs of CDN-CM-40, GS-3X, ME-1402, ME-1702, ME-1705, ME-1708, ME-1803 for the 2021 Channeling Campaign





In the 2021 channeling program, a total of 623 field duplicates were inserted into the sample stream at a rate of 1.29 per 20 channel samples, across all 9,686 core samples. No preparation duplicate samples were considered for this program. Figure 12-23 and Figure 12-24 display the Q-Q plots for field duplicates of gold and silver. As observed, due to the nature of field duplicates and the types of deposits, the Q-Q plot correlations for both gold and silver show some scattered points, with very low R<sup>2</sup> values for both metals.

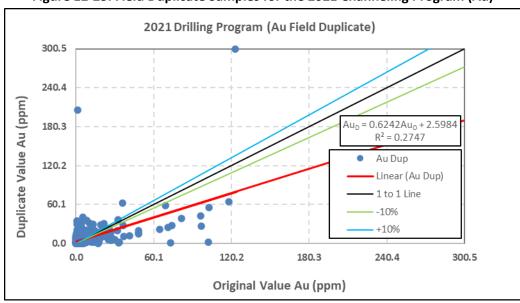
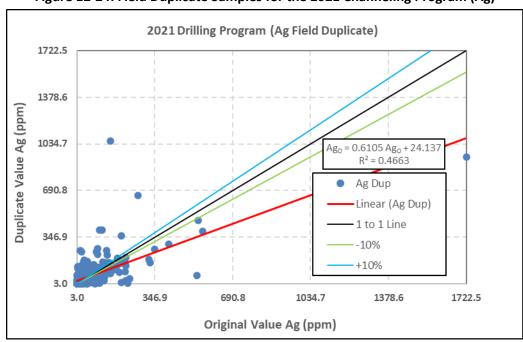


Figure 12-23: Field Duplicate Samples for the 2021 Channeling Program (Au)







### 12.2.4 Verification of Bear Creek Analytical Quality Control Data

## 12.2.4.1 Drilling Program

### 12.2.4.1.1 Verification of the 2022 Drilling Program

During the 2022 drilling program, Bear Creek completed 86 core holes, totaling 10,787.8 meters within the property. A total of 3,947 core samples were collected and sent to ALS for analysis.

As part of this program, 67 coarse (sterile) blank samples were inserted into the sample stream at an average rate of 0.34 blanks per 20 assays across all 3,947 core samples for gold and silver (Figure 12-25 and Figure 12-26). Data evaluation indicates acceptable results for gold and silver, with only 1.49% of the samples falling outside the expected range for gold and no samples outside the range for silver. However, the insertion rate of blanks is below the industry standard of one blank per 20 samples.

In addition, 68 standard blank samples were inserted into the sample stream at the same rate of 0.34 blanks per 20 assays for gold and silver (Figure 12-27 and Figure 12-28). The data shows excellent results, with no samples outside the range for either gold or silver. Nevertheless, the blank insertion rate still does not meet the industry standard.

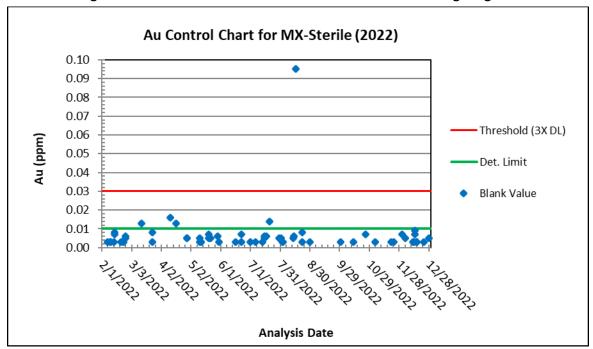


Figure 12-25: Coarse Blank Results for Gold in the 2022 Drilling Program



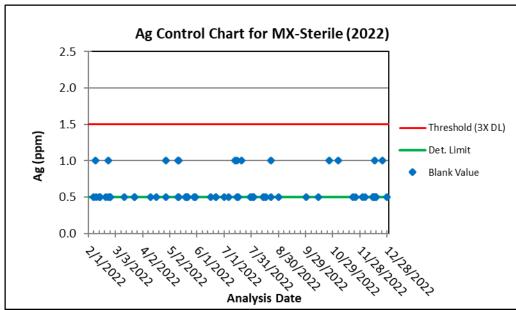
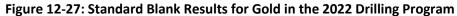
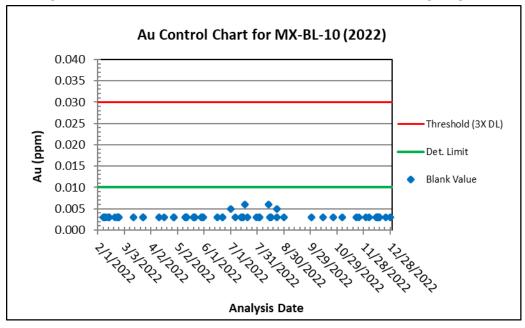


Figure 12-26: Coarse Blank Results for Silver in the 2022 Drilling Program







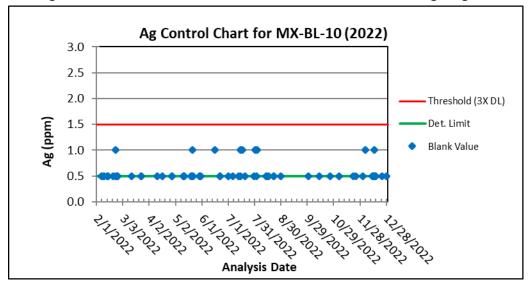


Figure 12-28: Standard Blank Results for Silver in the 2022 Drilling Program

In the 2022 drilling program, a total of 77 commercially prepared CRM samples for gold and silver were inserted into the sample stream at a rate of 0.39 per 20 assays across all 3,947 core samples (Figure 12-29 through Figure 12-32). The results for nearly all CRMs for both gold and silver were acceptable. For the gold CRM, MX-MER-CG-Au, there was only one sample with an assay result more than 3 standard deviations (SD) below the expected value. Similarly, for the silver CRM, MX-CDN-GS-P6C, only one assay result exceeded 3 standard deviations (SD) above the expected value. For the silver CRM, MX-CDN-GS-P6C-Ag, there was only one sample with an assay result more than 3 standard deviations (SD) above the expected value.

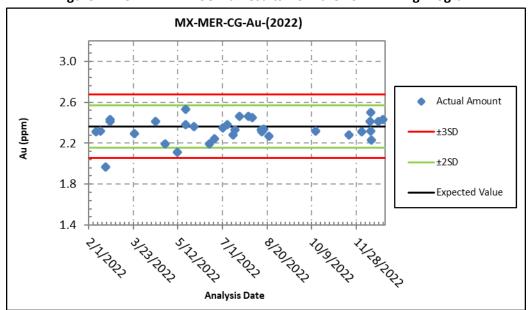


Figure 12-29: MX-MER-CG-Au Results from the 2022 Drilling Program



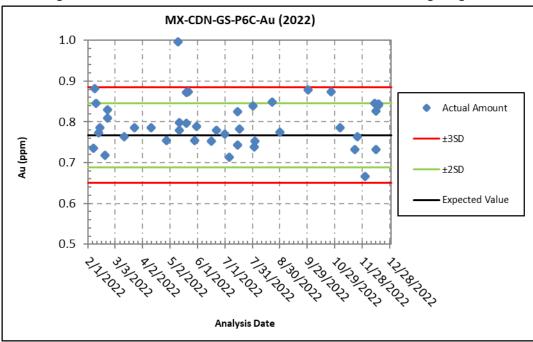
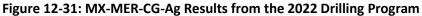
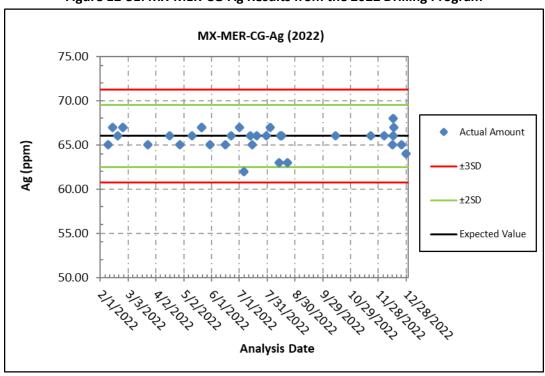


Figure 12-30: MX-CDN-GS-P6C-Au Results from the 2022 Drilling Program







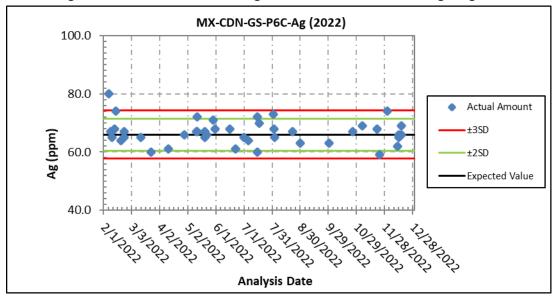


Figure 12-32: MX-CDN-GS-P6C-Ag Results from the 2022 Drilling Program

In the 2022 drilling program, 62 field duplicates were collected at a rate of 0.31 per 20 samples, and 228 pulp duplicates were collected at a rate of 1.16 per 20 samples, for a total of 3,947 core samples. Field duplicates were analyzed at the ALS lab, while pulp duplicates were sent to a second laboratory, Bureau Veritas.

Figure 12-33 through Figure 12-36 display the Q-Q plots for field and pulp duplicates for both gold and silver. As shown, except for a few scattered data points in the field duplicate results, the remaining plots demonstrate excellent correlation, with R<sup>2</sup> values greater than 0.98.

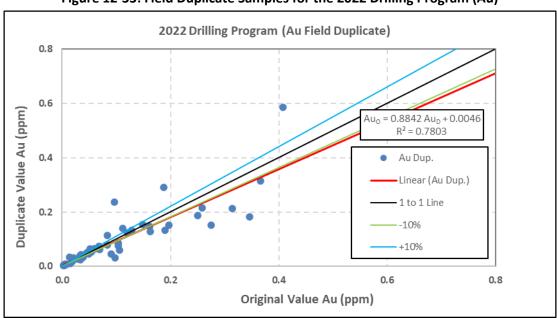


Figure 12-33: Field Duplicate Samples for the 2022 Drilling Program (Au)



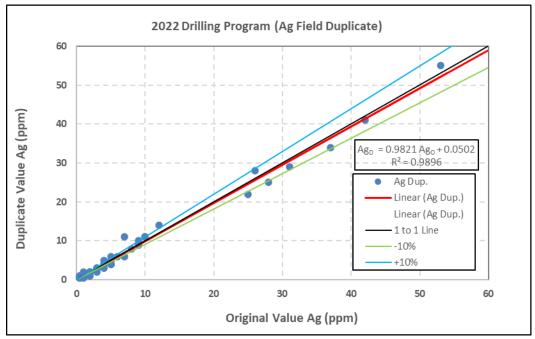
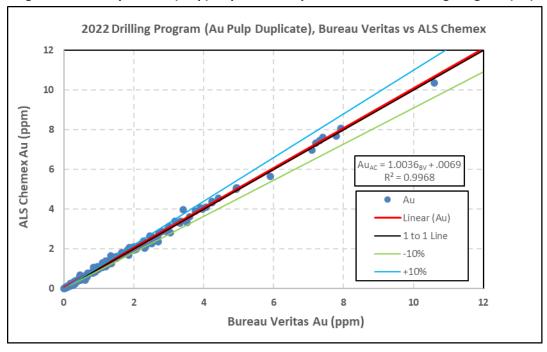


Figure 12-34: Field Duplicate Samples for the 2022 Drilling Program (Ag)







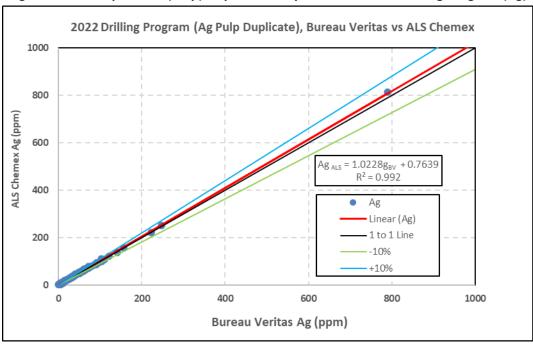


Figure 12-36: Preparation (Pulp) Duplicate Samples for the 2022 Drilling Program (Ag)

## 12.2.4.1.2 Verification of the 2023 Drilling Program

During the 2023 drilling program, Bear Creek completed 110 core holes, totaling 13,915.81 meters within the property. A total of 3,750 core samples were collected and sent to ALS for analysis.

As part of this program, 74 coarse (sterile) blank samples were inserted into the sample stream at an average rate of 0.39 blanks per 20 assays across all 3,750 core samples for gold and silver (see Figure 12-37 and Figure 12-38). Data evaluation shows excellent results for gold, with no samples outside the expected range, and acceptable results for silver, with only 1.35% of the samples falling outside the expected range. However, the blank insertion rate remains below the industry standard of one blank per 20 samples.

Additionally, 77 standard blank samples were inserted into the sample stream at the same rate of 0.41 blanks per 20 assays for gold and silver (see Figure 12-39 and Figure 12-40). The data shows excellent results for gold, with no samples outside the expected range, and acceptable results for silver, with 2.60% of the samples falling outside the expected range. However, the blank insertion rate still does not meet the industry standard.



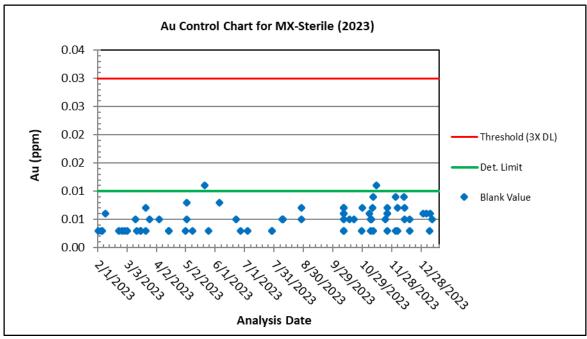
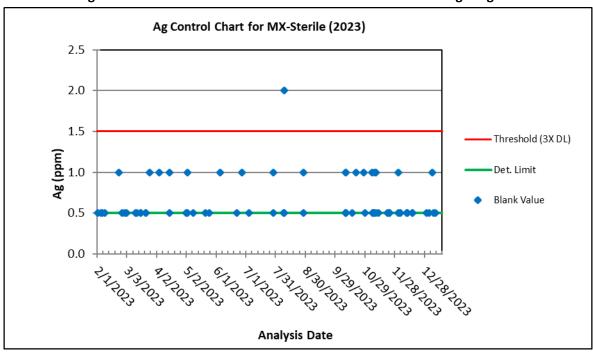


Figure 12-37: Coarse Blank Results for Gold in the 2023 Drilling Program







Au Control Chart for MX-BL-10 (2023)

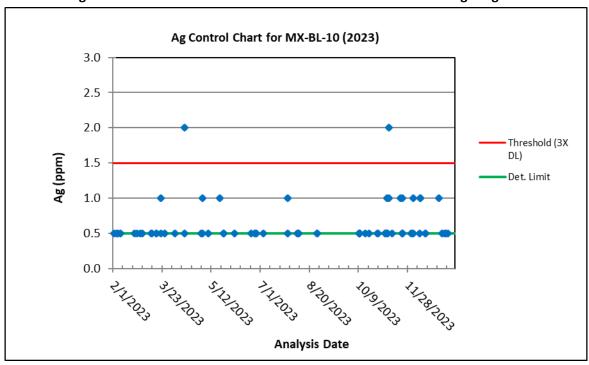
0.040
0.035
0.030
0.025
0.0010
0.015
0.010
0.005
0.000

Threshold (3X DL)
Det. Limit
Blank Value

Analysis Date

Figure 12-39: Standard Blank Results for Gold in the 2023 Drilling Program







In the 2023 drilling program, a total of 83 commercially prepared CRM samples for gold and silver were inserted into the sample stream at a rate of 0.44 per 20 assays across all 3,750 core samples (see Figure 12-41 and Figure 12-42). The results for the gold CRM, MX-MER-CG-Au, show one sample (2.4%) with an assay result of more than 3 standard deviations (SD) below the expected value. For the gold CRM, MX-CDN-GS-P6C-Au, five samples (12.2%) were found outside the ±3SD range.

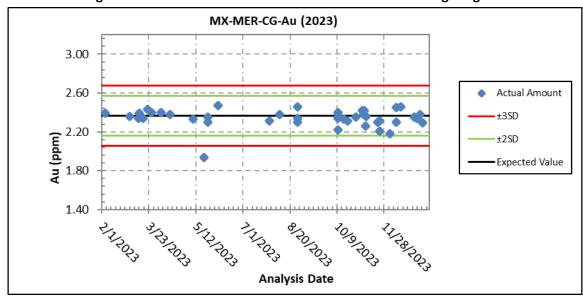
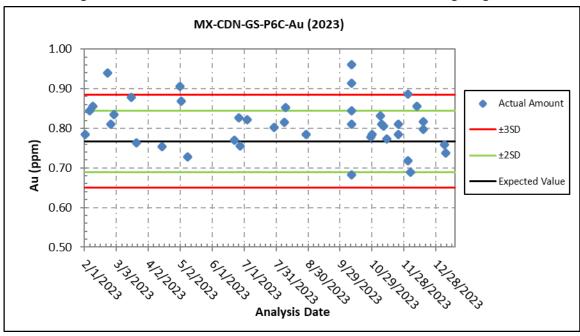


Figure 12-41: MX-MER-CG-Au Results from the 2023 Drilling Program





The results for the silver CRM, MX-MER-CG-Ag, show no samples with assay results above or below ±3 standard deviations (SD) from the expected value. For the silver CRM, MX-CDN-GS-P6C-Ag, two samples (4.9%) were found outside the ±3SD range (see Figure 12-43 and Figure 12-44).



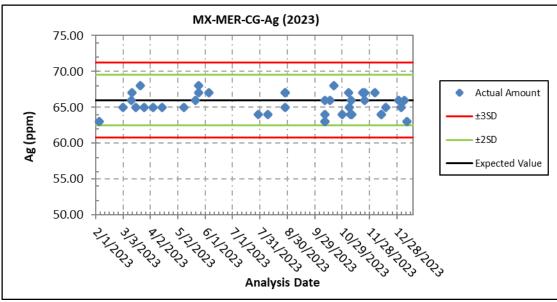
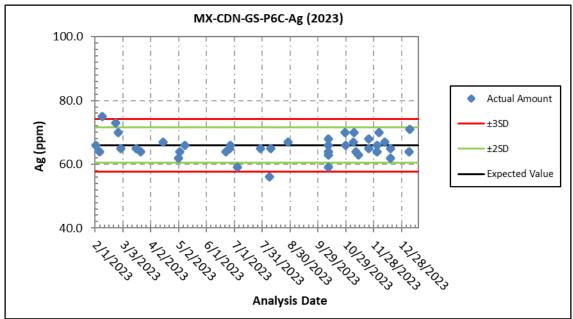


Figure 12-43: MX-MER-CG-Ag Results from the 2023 Drilling Program





In the 2023 drilling program, 37 field duplicates were collected at a rate of 0.20 per 20 samples, and 147 pulp duplicates were collected at a rate of 0.78 per 20 samples, for a total of 3,750 core samples. Figure 12-45 through Figure 12-48 display the Q-Q plots for field and pulp duplicates for both gold and silver. While there are a few scattered data points for gold and silver, the results are generally good, with R² values greater than 0.9 for the field duplicates. The Q-Q plots for pulp duplicates show excellent correlation, with R² values greater than 0.99 for both gold and silver.



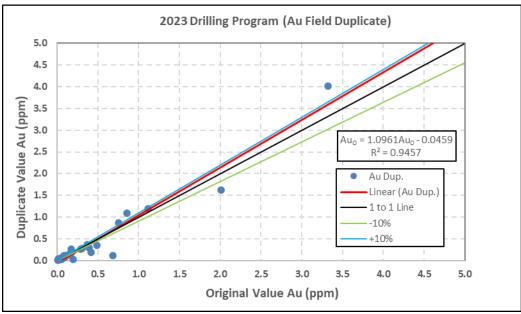
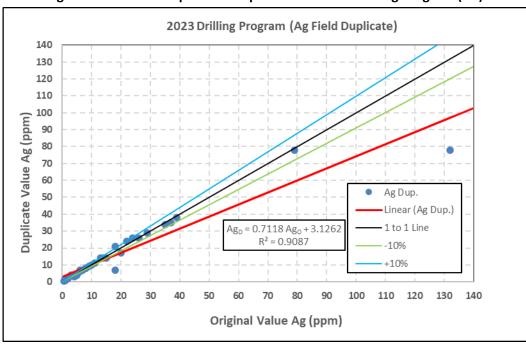


Figure 12-45: Field Duplicate Samples for the 2023 Drilling Program (Au)







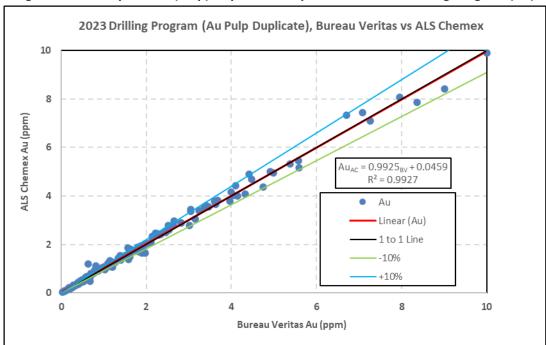
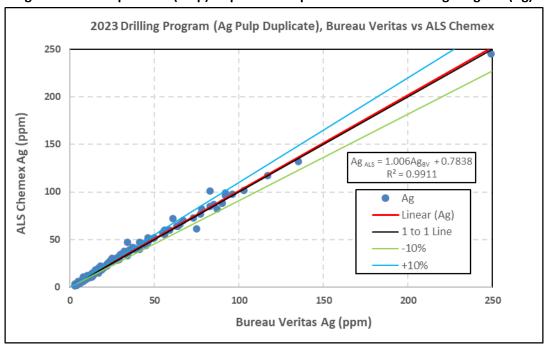


Figure 12-47: Preparation (Pulp) Duplicate Samples for the 2023 Drilling Program (Au)





# 12.2.4.1.3 Verification of the 2024 Drilling Program



During the 2024 drilling program, Bear Creek completed 165 core holes, totaling 28,373.7 meters within the property. A total of 6,771 core samples were collected and sent to ALS for analysis.

As part of this program, 110 coarse (sterile) blank samples were inserted into the sample stream at an average rate of 0.32 blanks per 20 assays across all 6,771 core samples for gold and silver (Figure 12-49 and Figure 12-50). Data evaluation showed acceptable results for both gold and silver, except for four (3.64%) samples that fell outside the expected range for these metals. It should be noted that the blank insertion rate remains below the industry standard of one blank per 20 samples.

Additionally, 133 standard blank samples were inserted into the sample stream at a rate of 0.39 blanks per 20 assays for gold and silver (Figure 12-51 and Figure 12-52). The results for gold and silver were excellent, with no samples falling outside the expected range. However, despite the positive results, the blank insertion rate still does not meet the industry standard.

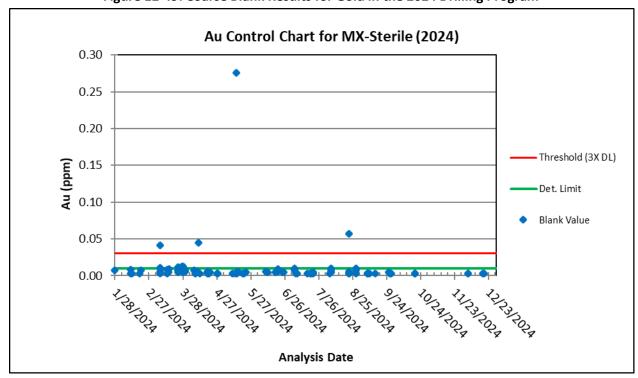


Figure 12-49: Coarse Blank Results for Gold in the 2024 Drilling Program



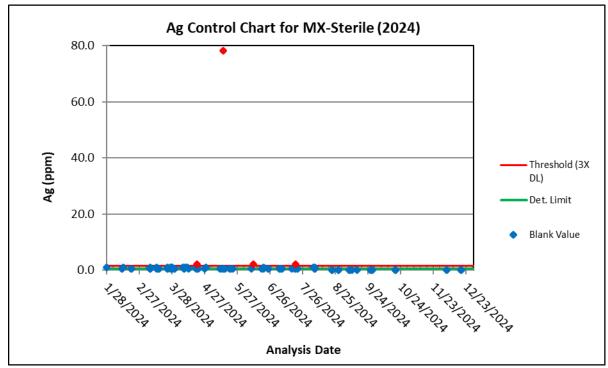
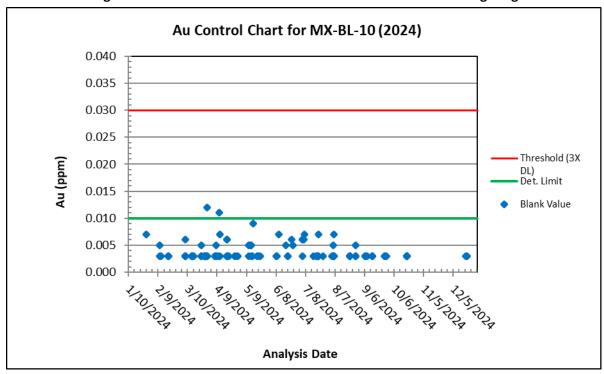


Figure 12-50: Coarse Blank Results for Silver in the 2024 Drilling Program







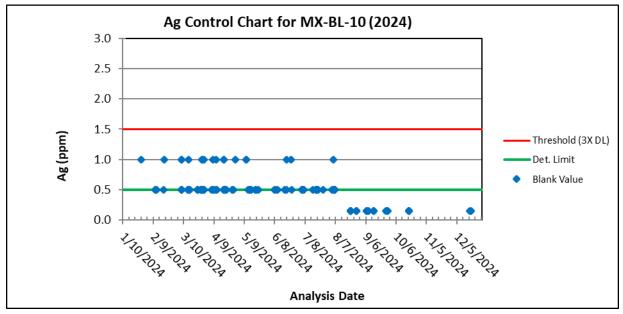


Figure 12-52: Standard Blank Results for Silver in the 2024 Drilling Program

In the 2024 drilling program, a total of 130 commercially prepared CRM samples for gold and silver were inserted into the sample stream at a rate of 0.38 per 20 assays across all 6,771 core samples (Figure 12-53 and Figure 12-54). The results for the gold CRM, MX-MER-CG-Au, show no sample out of +- 3 standard deviations (SD). For the gold CRM, MX-CDN-GS-P6C-Au, five samples (11.4%) were found outside the  $\pm$ 3SD range.

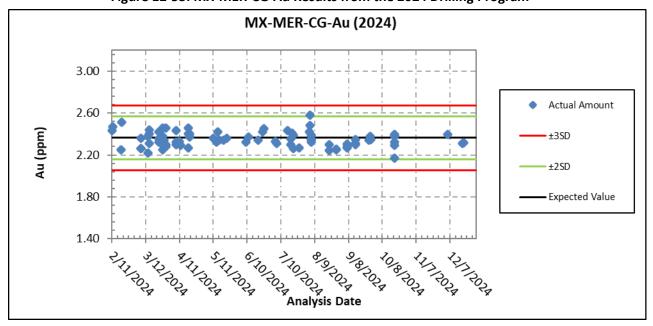


Figure 12-53: MX-MER-CG-Au Results from the 2024 Drilling Program



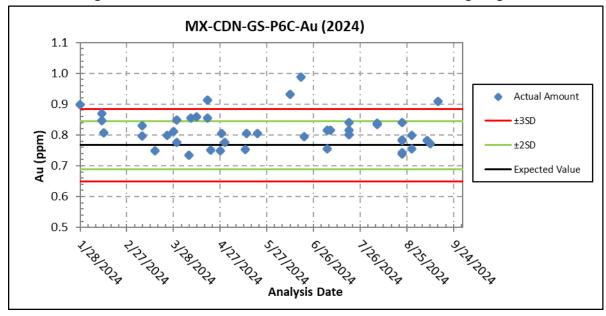


Figure 12-54: MX-CDN-GS-P6C-Au Results from the 2024 Drilling Program

The results for the silver CRM, MX-MER-CG-Ag, show no samples with assay results above or below ±3 standard deviations (SD) from the expected value. For the silver CRM, MX-CDN-GS-P6C-Ag, three samples (6.8%) were found outside the ±3SD range (Figure 12-55 and Figure 12-56).

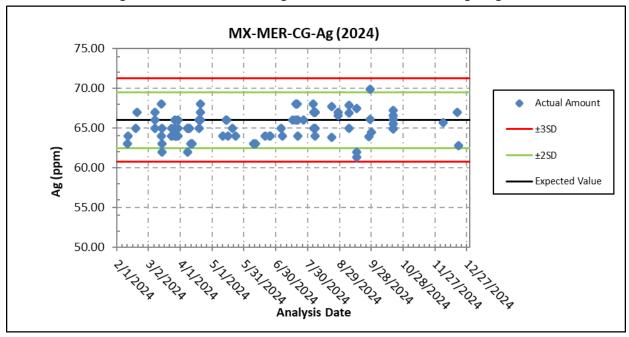


Figure 12-55: MX-MER-CG-Ag Results from the 2024 Drilling Program



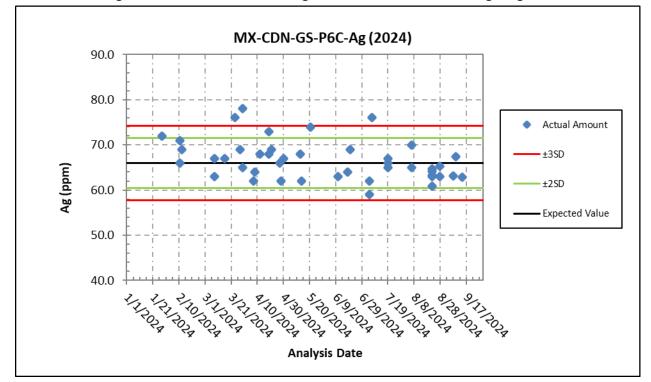


Figure 12-56: MX-CDN-GS-P6C-Ag Results from the 2024 Drilling Program

In the 2024 drilling program, 61 field duplicates were collected at a rate of 0.18 per 20 samples for a total of 6,771 core samples. For this program, no pulp duplicate samples were considered. Figure 12-57 and Figure 12-58 display the Q-Q plots for field duplicates for gold and silver. While there are a few scattered data points for gold and silver, the results are generally good, with R<sup>2</sup> values of 0.92 and 0.87 for gold and silver, respectively.



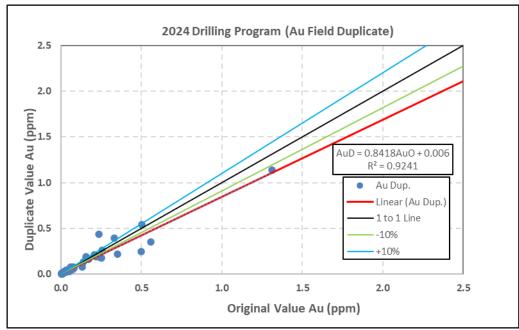
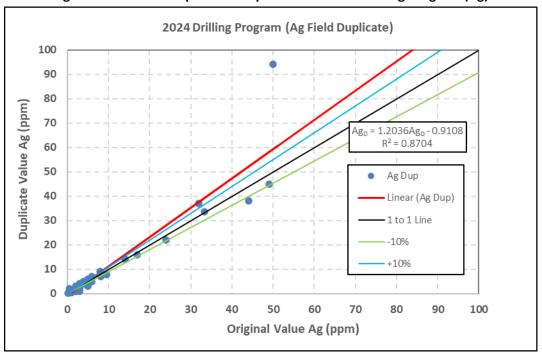


Figure 12-57: Field Duplicate Samples for the 2024 Drilling Program (Au)







### 12.2.4.2 Channeling Program

## 12.2.4.2.1 Verification of the 2022 Channeling Program

During the 2022 channeling program, Bear Creek collected 6,361 channel samples, all of which were analyzed at the Mercedes Mine's laboratory.

As part of this program, 340 coarse (sterile) blank samples were inserted into the sample stream at an average rate of one blank per 20 assays across all 6,361 channel samples for gold and silver (Figure 12-59 and Figure 12-60). Data evaluation indicates acceptable results for gold and silver, with only one sample (0.29%) falling outside the expected range for gold and three samples (0.88%) falling outside the expected range for silver. The blank insertion rate perfectly aligns with the industry standard of one blank per 20 samples.

Additionally, 337 standard blank samples were inserted into the sample stream at the same rate of one blank per 20 assays for gold and silver (Figure 12-61 and Figure 12-62) The data shows acceptable results, with three samples (0.89%) falling outside the expected range for gold and two samples (0.59%) falling outside the expected range for silver. For this program, the blank insertion rate also meets the industry standard.

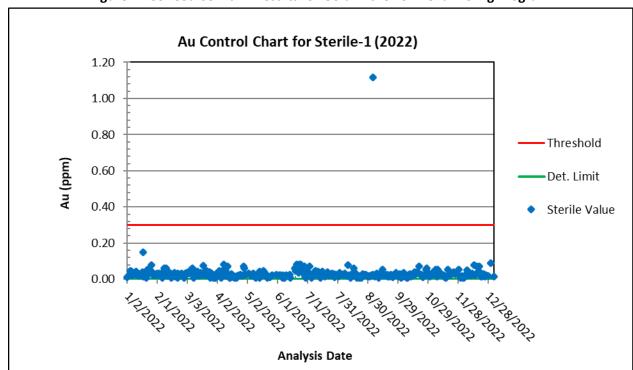


Figure 12-59: Coarse Blank Results for Gold in the 2022 Channeling Program



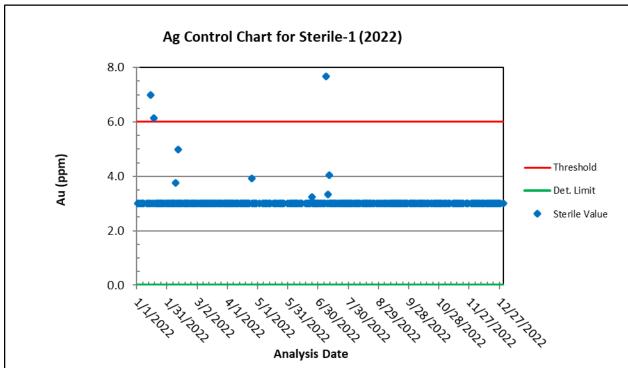
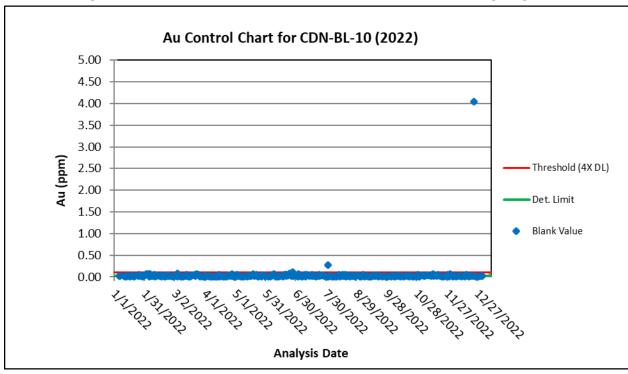


Figure 12-60: Coarse Blank Results for Silver in the 2022 Channeling Program







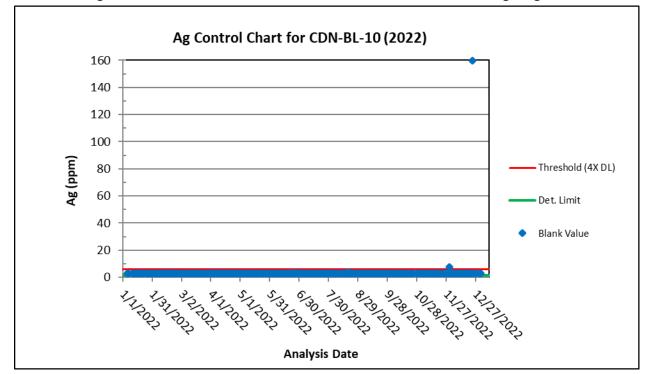


Figure 12-62: Standard Blank Results for Silver in the 2022 Channeling Program

In the 2022 channeling program, a total of 652 commercially prepared Certified Reference Material (CRM) samples for gold and silver were inserted into the sample stream at a rate of two per 20 assays across all 6,361 channel samples (Figure 12-63 and Figure 12-64).

The results for nearly all CRMs for both gold and silver are acceptable. However, for the gold CRMs, the evaluation of results reveals some samples with assay results outside of the ±3 standard deviation (SD) range. Specifically, CDN-CM-40-Au showed two samples, CDN-GS-3X-Au showed 11 samples, CDN-ME-2003-Au showed two samples, and CDN-ME-2105-Au showed three samples outside the expected range.

For the silver CRMs, the evaluation of results indicates that some samples fell outside the ±3 standard deviation (SD) range. Specifically, CDN-CM-40-Ag had three samples, CDN-GS-3X-Ag had 11 samples, CDN-ME-2003-Ag had one sample, and CDN-ME-2105-Ag had two samples that were outside the expected range.



Figure 12-63: Au CRMs of CDN-CM-40, GS-3X, GS-6F, ME-1708, ME-2003, and ME-2105 for the 2022 Channeling Campaign

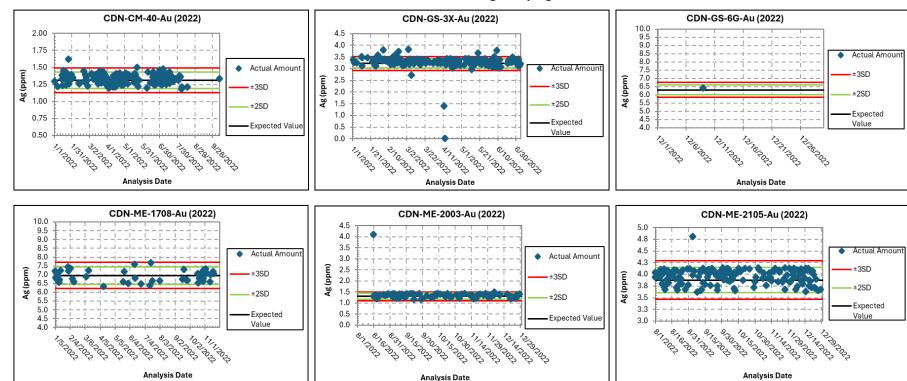
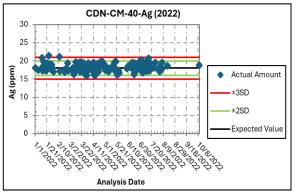
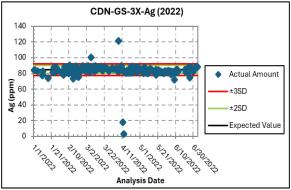
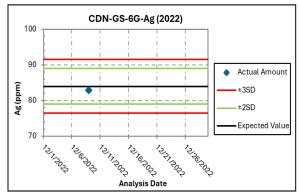


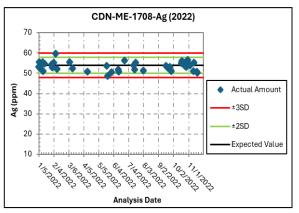


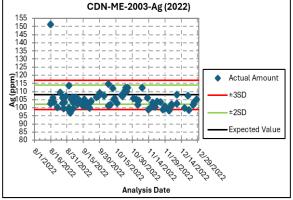
Figure 12-64: Ag CRMs of CDN-CM-40, GS-3X, GS-6F, ME-1708, ME-2003, and ME-2105 for the 2022 Channeling Campaign

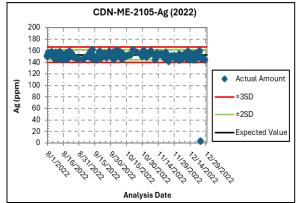














In the 2022 channeling program, 617 field duplicate samples were inserted into the sample stream at a rate of 1.94 per 20 channel samples for a total of 6,361 channel samples. No preparation duplicate samples were included in this program. Figure 12-65 and Figure 12-66 display the Q-Q plots for field duplicates of gold and silver. Given the nature of field duplicates and the characteristics of the deposits, the Q-Q plot correlations for both gold and silver filed duplicate samples show some scattered points. The R<sup>2</sup> values for gold and silver were 0.32 and 0.68, respectively.

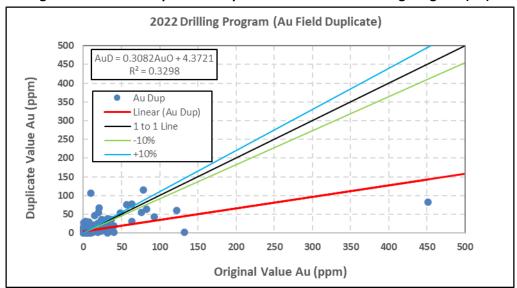
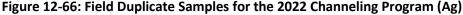
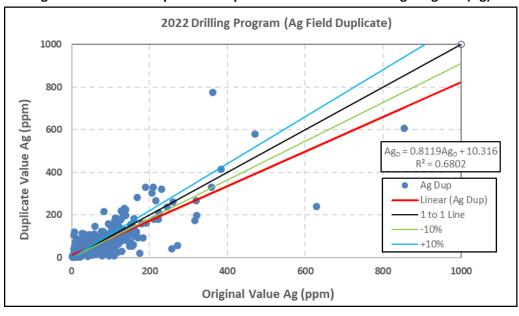


Figure 12-65: Field Duplicate Samples for the 2022 Channeling Program (Au)







## 12.2.4.2.2 Verification of the 2023 Channeling Program

During the 2023 channeling program, Bear Creek collected 5,372 channel samples, all of which were analyzed at the Mercedes Mine's laboratory.

As part of this program, 301 coarse (sterile) blank samples were inserted into the sample stream at an average rate of one blank per 20 assays across all 5,372 channel samples for gold and silver (Figure 12-67 and Figure 12-68). Data evaluation indicates acceptable results for gold and silver, with only two samples (0.7%) falling outside the expected range for gold. The blank insertion rate aligns perfectly with the industry standard of one blank per 20 samples.

Additionally, 300 standard blank samples were inserted into the sample stream at the same rate of one blank per 20 assays for gold and silver (Figure 12-69 and Figure 12-70). The results show acceptable outcomes, with only one sample (0.33%) falling outside the expected range for gold. For this program, the blank insertion rate also meets the industry standard.

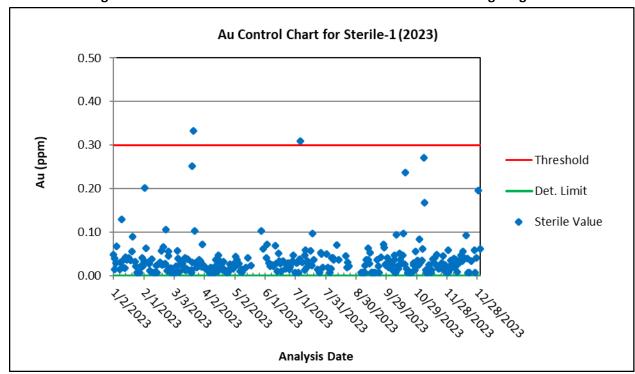


Figure 12-67: Coarse Blank Results for Gold in the 2023 Channeling Program



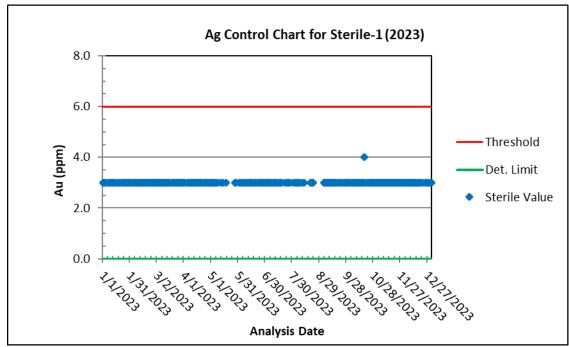
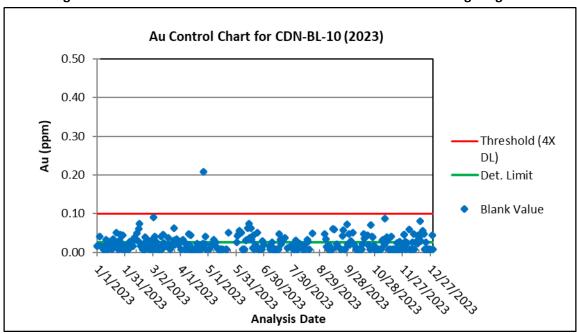


Figure 12-68: Coarse Blank Results for Silver in the 2023 Channeling Program







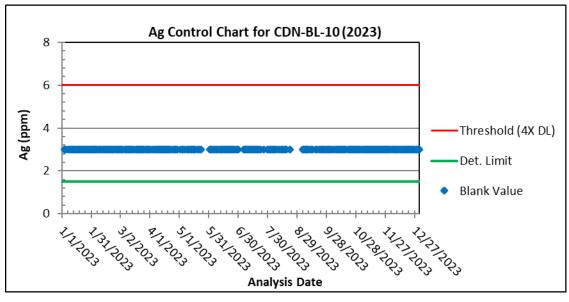


Figure 12-70: Standard Blank Results for Silver in the 2023 Channeling Program

In the 2023 channeling program, a total of 587 commercially prepared Certified Reference Material (CRM) samples for gold and silver were inserted into the sample stream at a rate of two per 20 assays across all 5,372 channel samples (Figure 12-71 and Figure 12-72).

The results for nearly all CRMs for both gold and silver are acceptable. However, for the gold CRMs, the evaluation of results reveals some samples with assay results outside the ±3 standard deviation (SD) range. Specifically:

- CDN-ME-2003 showed two samples.
- CDN-GS-3M showed one sample.
- CDN-GS-6G showed one sample.
- CDN-ME-1204 showed five samples.
- CDN-GS-2Q showed one sample.
- CDN-GS-5Q showed seven samples.

For the silver CRMs, the evaluation of results indicates that some samples fell outside the ±3 standard deviation (SD) range. Specifically:

- CDN-ME-2003 showed one sample.
- CDN-GS-3M showed five samples.
- CDN-GS-6G showed one sample.
- CDN-GS-2Q showed nine samples.
- CDN-GS-5Q showed three samples.



Figure 12-71: Au CRMs of CDN-GS-2Q, CDN-GS-3M, CDN-GS-5Q, CDN-GS-6G, CDN-GS-12A, CDN-ME-1204, CDN-ME-2003, and CDN-ME-2105 for the 2023 Channeling Campaign

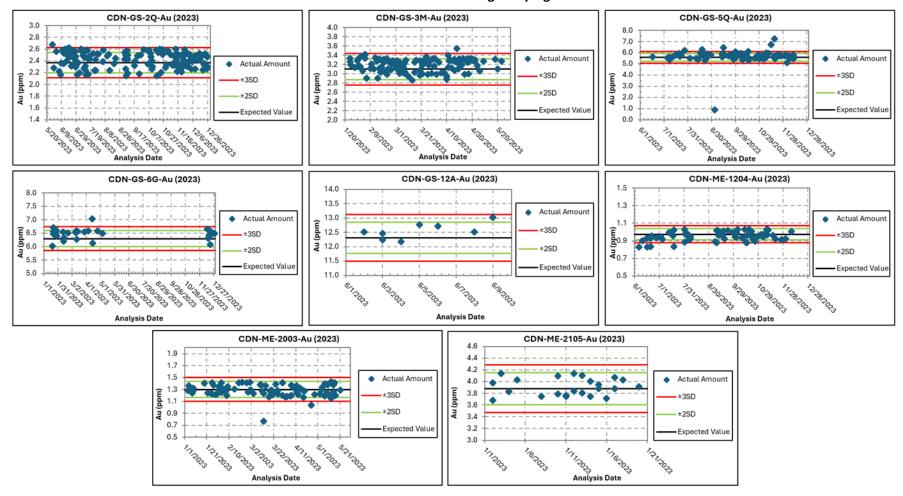
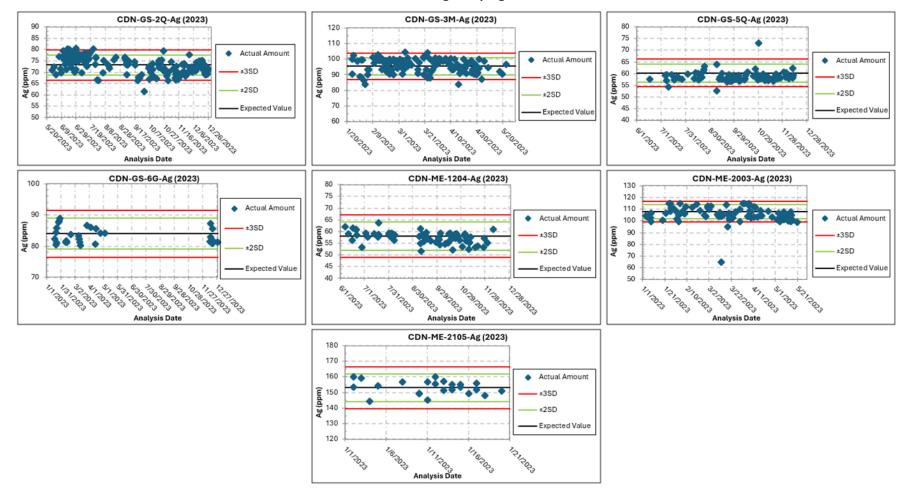




Figure 12-72: Ag CRMs of CDN-GS-2Q, CDN-GS-3M, CDN-GS-5Q, CDN-GS-6G, CDN-ME-1204, CDN-ME-2003, and CDN-ME-2105 for the 2023 Channeling Campaign





In the 2023 channeling program, 675 field duplicate samples were inserted into the sample stream at a rate of two and a half per 20 channel samples across a total of 5,372 channel samples. No preparation duplicate samples were included in this program. Figure 12-73 and Figure 12-74 display the Q-Q plots for the field duplicates of gold and silver, showing some scattered points for both metals. The R<sup>2</sup> values for gold and silver were 0.21 and 0.66, respectively, indicating a low correlation.

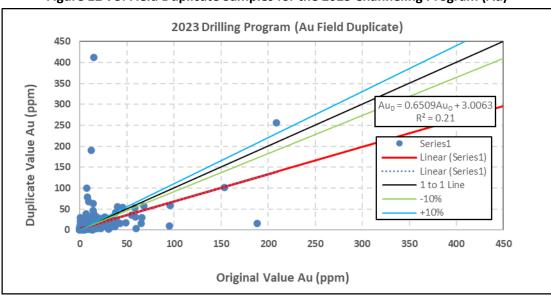
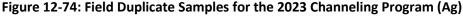
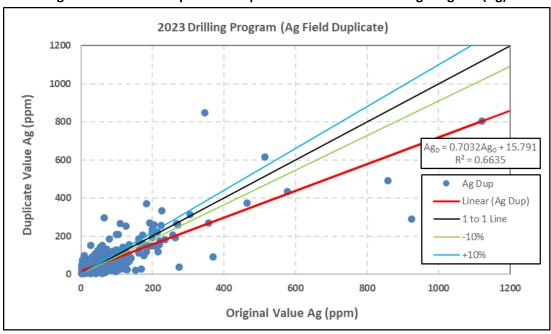


Figure 12-73: Field Duplicate Samples for the 2023 Channeling Program (Au)





## 12.2.4.2.3 Verification of the 2024 Channeling Program



During the 2024 channeling program, Bear Creek collected 4,173 channel samples, all of which were analyzed at the Mercedes Mine's laboratory.

As part of this program, 186 coarse (sterile) blank samples were inserted into the sample stream at an average rate of 0.89 blanks per 20 assays across all 4,173 channel samples for gold and silver (Figure 12-75 and Figure 12-76). Data evaluation indicates acceptable results for both gold and silver, with no samples falling outside the expected range for either metal. The blank insertion rate aligns closely with the industry standard of one blank per 20 samples.

Additionally, 109 standard blank samples were inserted into the sample stream at a rate of 0.52 blanks per 20 assays for gold and silver (Figure 12-77 and Figure 12-78). The results show acceptable outcomes, with four samples (3.67%) for gold and two samples (1.83%) for silver falling outside the expected range. For this program, the blank insertion rate does not meet the industry standard.

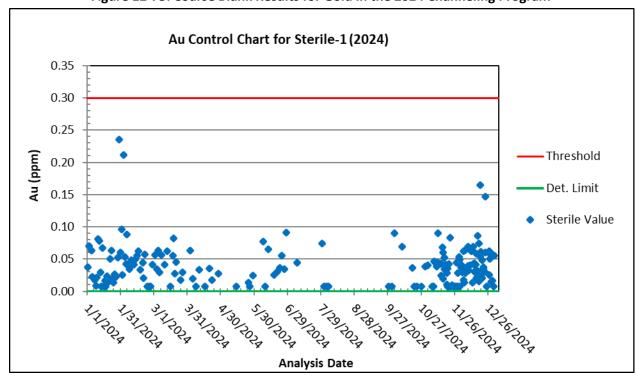


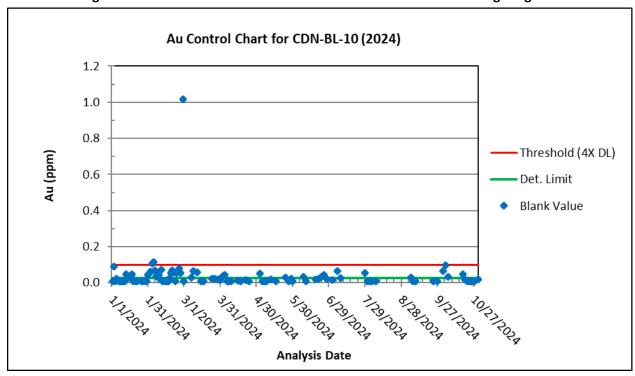
Figure 12-75: Coarse Blank Results for Gold in the 2024 Channeling Program



Ag Control Chart for Sterile-1 (2024) 10.0 9.0 8.0 7.0 6.0 Threshold 5.0 Det. Limit 4.0 3.0 Sterile Value 2.0 1.0 0.0 **Analysis Date** 

Figure 12-76: Coarse Blank Results for Silver in the 2024 Channeling Program







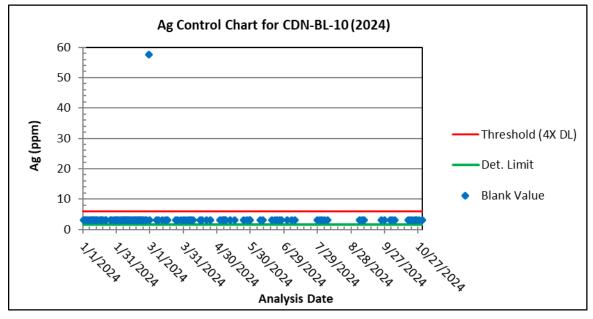


Figure 12-78: Standard Blank Results for Silver in the 2024 Channeling Program

In the 2024 channeling program, a total of 365 commercially prepared Certified Reference Material (CRM) samples for gold and silver were inserted into the sample stream at a rate of 1.75 per 20 assays across all 4,173 channel samples (Figure 12-79 and Figure 12-80).

The results for nearly all CRMs for both gold and silver are acceptable. However, for the gold CRMs, the evaluation of results reveals some samples with assay results outside the ±3 standard deviation (SD) range. Specifically:

- CDN-ME-1204 showed two samples.
- CDN-GS-2Q showed three samples.
- CDN-ME-2205 showed one sample.
- CDN-ME-2102 showed five samples.
- CDN-GS-7M showed two samples.

For the silver CRMs, the evaluation of results indicates that some samples fell outside the ±3 standard deviation (SD) range. Specifically:

- CDN-GS-2Q showed one sample.
- CDN-ME-2205 showed 14 samples.
- CDN-ME-1204 showed one sample.
- CDN-ME-2102 showed one sample.



Figure 12-79: Au CRMs of CDN-GS-2Q, CDN-GS-3M, CDN-GS-6G, CDN-ME-1204, CDN-GS-7M, CDN-ME-2012, CDN-ME-2205 for the 2024 Channeling Campaign

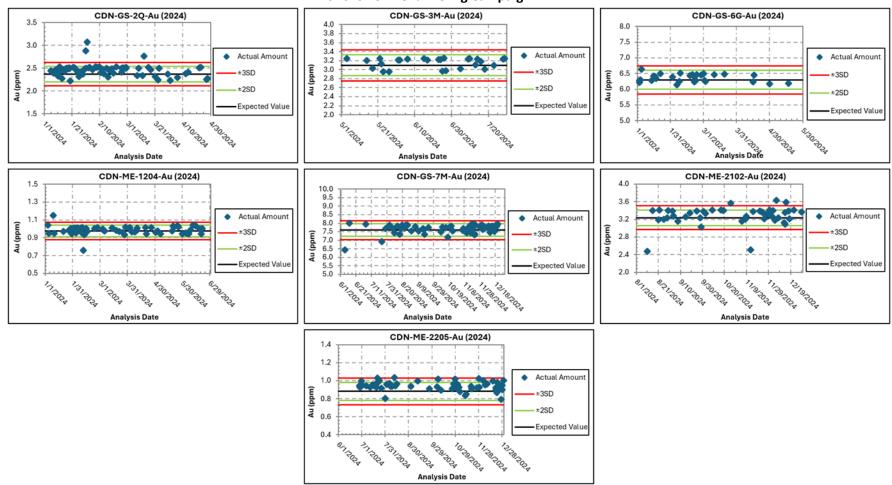
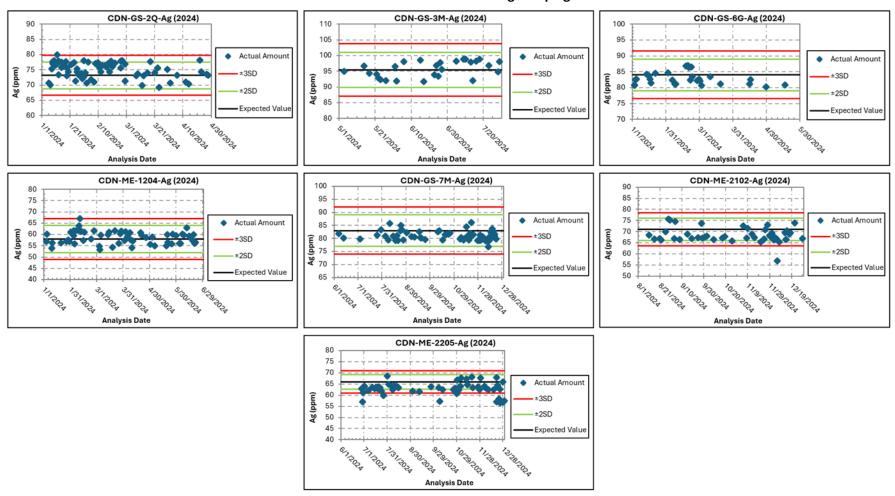




Figure 12-80: Ag CRMs of CDN-GS-2Q, CDN-GS-3M, CDN-GS-6G, CDN-ME-1204, CDN-GS-7M, CDN-ME-2012, CDN-ME-2205 for the 2024 Channeling Campaign





In the 2024 channeling program, 286 field duplicate samples were inserted into the sample stream at a rate of 1.37 per 20 channel samples across a total of 4,173 channel samples. No preparation duplicate samples were included in this program. Figure 12-81 and Figure 12-82 present the Q-Q plots for the field duplicates of gold and silver, which show some scattered points for both metals. The R<sup>2</sup> values for gold and silver were 0.29 and 0.55, respectively, indicating a low correlation between the duplicates and their original values.

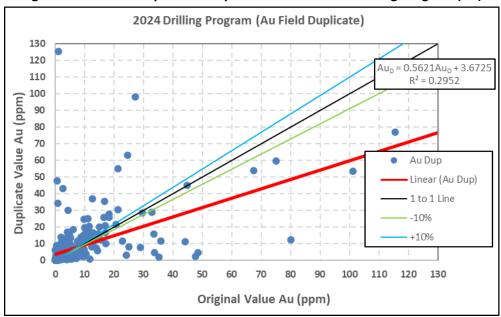
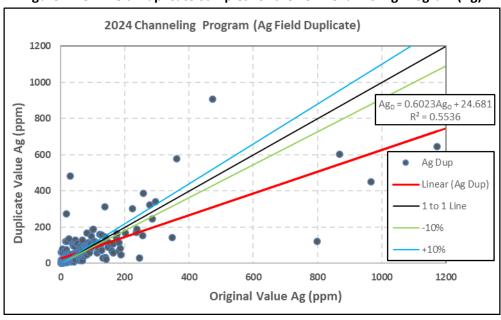


Figure 12-81: Field Duplicate Samples for the 2024 Channeling Program (Au)







# 12.3 Site Visits

Mr. Luis Quirindongo from GRE conducted a visit to the Mercedes Mine (Mercedes) from June 11th and 12th, 2024, and January 15th to January 17th, 2025. The main purpose of this visit was to perform a facility inspection, evaluate site conditions, and review the operations of the Tailings Storage Facilities (TSF). The visit was made in the company of the personnel in charge of the Mercedes tailings facilities (Figure 12-83 and Figure 12-84).



Figure 12-83: TSF1 in 2024



Date & Time: Tue Jun 11 09:01:44 MST 2024
Position: 12 N 548287 3356197
Altitude: 1217m
Datum: WGS-84
Azimuth/Bearing: 209° S29W 3716mils (Magnetic)
Zoom: 1X
Gre offoce

Figure 12-84: TSF2 general view June 2024

Mr. Larry Breckenridge, Principal Environmental Engineer, visited the site on October 3rd and 4th, 2024.

BCMC personnel have visited the Mercedes Mine area to conduct site inspections, to become familiar with conditions on the property, to observe the geology and mineralization, to perform core review, and to verify the work completed on the property as part of the Mineral Resource estimation and technical report process since April 2022.

Ms. Terre Lane visited Mercedes Mine site on May 14th and 15th 2019. Ms. Terre Lane did not visit the site in recent years and reviewed the information provided by BCMC personnel and found no discrepancies.

GRE's QP, Dr. Hamid Samari and Dr. Todd Harvey did not visit the Mercedes Mine and reviewed the information provided by BCMC personnel and found no discrepancies.

All QP's considers the provided information valuable and relevant for inclusion in the recent Technical Report.

Mr. Donald Mc Iver included the following photos from his site visits.

- Core Shack (Figure 12-85)
- Underground working in Barrancas Area (Figure 12-86)
- Underground working in San Martin Area (Figure 12-87)
- General view of the process plant (Figure 12-88)
- General view of the crushing facility (Figure 12-89)
- Mine laboratory (Figure 12-90)





Figure 12-85: Core shack and sample preparation room





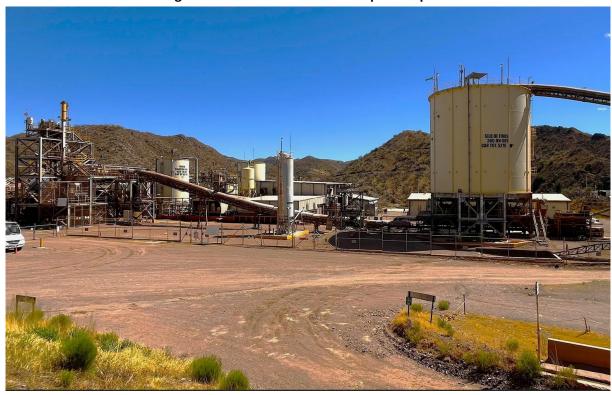


Figure 12-87: Underground working in San Martin Area





Figure 12-88: General view of the process plant





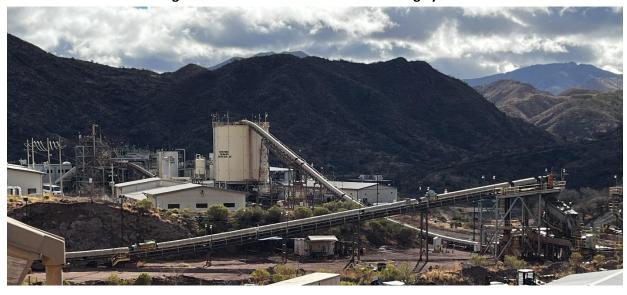


Figure 12-89: General view of the Crushing System

Figure 12-90: Mine laboratory: crusher (A&B), Oven (C&D), pulveriser (E), and ICP-AES (F)



# 12.4 GRE Database Audits

# 12.4.1 Pre-Bear Creek (2008-2021)

Dr. Samari, GRE's QP, completed a manual digital Project database audit. About 10% of original assay certificates from 2008 to 2015 and 10% of original assay certificates from 2016 to 2021 for drill holes were spot-checked with the database for accuracy and for any clerical errors. The manual audit revealed no discrepancies between the hard-copy information and the digital database. As the Project advances and more data is collected, periodic database verification should be performed to maintain accuracy.



### 12.4.2 Bear Creek (2022-2024)

The database manual audit work by GRE's QP, Dr. Samari, which compared more than 10% of original assay certificates with the database for the 2022 to 2024 drill campaigns, found no material errors. Dr. Samari recommends that Mercedes Mine establish a routine, internal mechanical audit procedure to check for overlaps, gaps, total drill hole length inconsistencies, non-numeric assay values, or any missing information in the database. After any significant update to the database, an internal mechanical audit should be conducted. The results of each audit, including any corrective actions taken, should be documented to provide a running log of the database validation.

# 12.5 Geology QP Opinion on Adequacy

Based on the findings of GRE's QP Dr Hamid Samari's check of the sampling practices, review of QA/QC procedure, and the results of manual database audit efforts for entire drilling campaigns, Dr. Samari considers the assay data contained in the Project database to be reasonably accurate and suitable for use in estimating mineral resources and mineral reserves.

## 12.6 Metallurgy QP Opinion on Adequacy

GRE's QP Dr. Todd Harvey reviewed all the metallurgical data and assessed it to be current and appropriate for use.

# 12.7 Resource Estimation QP Opinion on Adequacy

The database used for the 2024 Mineral Resource estimation was reviewed by GRE's QP, Ms. Terre Lane, MMSA QP. The data verification of the drilling campaigns shows that data did not identify any material issues, and GRE's QP, Ms. Terre Lane, MMSA QP, is satisfied that the assay data are of suitable quality to be used as the basis for the resource estimate.

# 12.8 Mine Planning QP Opinion on Adequacy

The Mercedes mine has been in continuous operation since 2011. Mining and processing methods, costs, and infrastructure needs were based on the current operations. All costs used in the analysis were verified and reviewed by GREs QP Ms. Terre Lane, MMSA QP, and were assessed to be current and appropriate for use.



## 13 MINERALOGICAL PROCESSING AND METALLURGICAL TESTING

The following chapter presents the results of metallurgical testing conducted for Mercedes. The original test work for Mercedes was conducted by McClelland Laboratories, Inc. (MLI), in Sparks, Nevada, from February 2007 to November 2010. The Mercedes plant was built and achieved commercial production by February 1, 2012, and continues to operate. Early test work results have appeared in previous technical reports to various degrees (Altman, Malensek and Moore 2018).

The Mercedes project has been in commercial production since 2012. Much of the supporting test work was utilized for the development of the process plant.

## 13.1 Metallurgical Testing - Pre-2018

No test work reports prior to 2018 were provided to GRE. However, GRE secured reports from 2014, 2016 and 2018 but the test work was only summarized. As such, pre-2018 test work was not able to be reviewed in detail by GRE. The remainder of Section 13.1 is a summarization of test work as reported.

Initial metallurgical testing programs were split into five separate phases.

#### Phase I

In February 2007, 23.4 m of drill hole samples were used to create three composites as listed below.

- Mercedes High Grade (HG) 29.25 g/t Au
- Mercedes Average Grade (AG) 8.45 g/t Au
- Rey de Oro Low Grade (LG) 1.32 g/t Au

Mineralogical studies identified opaque minerals, including iron oxides, pyrite, gold, electrum, stibnite, and rare pyrargyrite, within a gangue of substantial chalcedony, quartz, and carbonate.

Preliminary testing showed Mercedes HG and AG were amenable to milling cyanidation at  $75\mu m$  feed size. Average gold and silver recoveries were 95% and 25%, respectively.

#### Phase II

In December 2007, twelve coarse reject drill core samples from the Mercedes, Klondike, and Corona de Oro zones were utilized for testing. Metallurgical testing included cyanidation, gravity concentration, sulfide flotation, and comminution.

No significant benefits were observed in silver recovery with an increase of NaCN concentration above 1.5 g NaCN/L.

Preliminary gravity concentration test work showed at a P80 of  $150\mu m$ , a gravity cleaner concentrate representing 0.1% to 0.2% of the total feed weight contained roughly 12% to 24% of the total gold contained. Gravity concentrations was not effective for silver recovery.

Mercedes HG and AG materials were tested to determine their response to gravity concentration. Gravity recoverable gold values for the HG and AG materials were equivalent to 61.9% and 39.7% of the total gold contained, respectively.



The Mercedes composites did not respond well to sulfide flotation at a grind of P80 of 75µm. Gold and silver recoveries to the rougher concentrate were reported at 65% and less than 22%, respectively. Comminution testing was performed on nine drill composites to determine crusher work index, abrasion index, and ball mill work index. A summary of results from the comminution test work are presented in Table 13-1 below.

Work Index (kWh/t) Abrasion Mia Rod Ball Composite Crushing Mill Mill Index Α b Axb DWi KWh/t Ta Mercedes HG/UG 5.53 17.57 0.279 66.1 0.99 65.2 3.9 13.4 0.80 Mercedes MG/UG 5.79 18.29 0.280 64.4 1.10 69.00 3.6 12.9 0.86 Mercedes LG/UG 6.39 18.59 0.249 69.2 0.80 56.00 4.4 15.2 0.70 Mercedes HG/UG 14.21 17.97 Mercedes MG/UG (3) 13.88 18.64 Mercedes LG/UG 13.29 18.59 (3)Klondike Vien 18.14 Mercedes Stockwork 17.98 Mercedes Vien 15.75

Table 13-1: Summary of Comminution Test Work

The ultimate flowsheet constructed at Mercedes was multistage crushing followed by primary ball milling. The ball mill work index ranged from 17.6 kWh/t to 18.6 kWh/t, classifying this material as hard to very hard.

A four-cycle locked cycle simulation test program was performed to determine whether process solution recycling would affect extraction rates. A P50 of 150  $\mu$ m was utilized to simulate the anticipated cyclone underflow. The material was then treated by gravity concentration to produce a concentrate. The gravity tailings were then blended and split to create the "feed" for locked cycle testing.

The feed material was ground to a P80 of  $45\mu m$  and treated by Carbon in Pulp (CIP) to recover precious metals. There is no indication as to the quantity of carbon employed in the CIP and as such recoveries could have suffered due to the high silver loading (high solution losses). The test produced a gravity gold recovery of 20.4% and a CIP gold recovery of 74.5% resulting in a total gold recovery of 94.9%. The silver recoveries by gravity and CIP were 6.1% and 16.1%, respectively resulting in a total silver recovery of 22.2%.

#### Phase III

In October 2008, process simulation testing, cyanide neutralization testing, detailed liquid/solid separation testing, and scoping tests were conducted for evaluation of novel processing alternatives for improved silver recovery. No further summarization was provided.

### **Phase IV**

In June 2009, comminution, gravity concentration, and process simulation testing were performed. This was for the generation of leach slurry for liquid/solid testing, detailed evaluation of tailings neutralization, and environmental characteristics. No further summarization was provided.



#### Phase V

In November 2010, testing was performed to determine the ore variability and diagnosis for the Barrancas and Lupita veins. This test work indicated that Barrancas and Lupita materials responded similarly to Mercedes ore when subjected to agitated leach. No raw data has been provided nor reviewed by GRE.

## 13.2 Metallurgical Testing – Internal Test work

The metallurgical department at Mercedes conducts on-going test work to ensure that the plant is performing optimally, to improve efficiency and recovery, and to reduce costs. No internal test work was provided for review from 2017 through 2022. As such, this test work, if any, has not been reviewed.

#### 13.2.1 Internal Test Work - 2017

In 2017, mining of the Diluvio and Lupita materials commenced. These materials account for a significant portion of the feed material for the life of mine plan. Three samples from each mine were tested and the results are tabulated in Table 13-2 and Table 13-3, below.

Head Grade Residue Residue **P80** NaCN Recovery Sample рΗ Au (g/t) Ag(g/t)Au (g/t) Ag(g/t)(µm) (ppm) Au (%) Ag (%) 1105-4.35 42.87 0.24 24.72 54 1011 11.2 94.5% 42.3% SC-1 1105-4.99 48.70 0.23 31.40 60 975 11.4 95.4% 35.5% SC-2 05-SE-4.22 43.44 0.20 26.56 54 95.3% 614 11.4 38.9% 01

Table 13-2: Diluvio Material Test Work - Results

According to the 2018 technical report, the results from this Diluvio test work appear to be consistent with historical operating data.

**Head Grade Tailings NaCN** Recovery Sample P80 (µm) рΗ Au (g/t) Au (g/t) (ppm) (% Au) 1060-AC 0.08 38 12.0 0.39 1000 80.50% 0.06 1000 88.70% 1118-E 0.52 39.5 12.2 0.07 12.2 85.60% 1118-W 0.45 38 1000

Table 13-3: Lupita Material Test Work – Results

According to the 2018 technical report, the results from this Lupita test work appear to be inconsistent with historical operating data. The lower recovery appears to be a function of the low feed grades.

### 13.2.2 Internal Test Work - 2022

In 2022, the effects of grind size and reagent dosages were investigated for various materials. The materials used for this testwork were sourced from the Lupita, Diluvio, Barrancas-Lagunas, and Klondike mine areas.



Sample ID's containing Marginal, low (Baja), medium (Media), and High (Alta) refer to the gold head grade of the sample tested. Marginal represents a gold head grade of 1.7-2 g/t, Baja represents a gold head grade of 2–3 g/t. Media represents a gold head grade of 3-5 g/t, and Alta represents a gold head grade above 5 g/t. Most of the test work was performed on the Lupita materials (Table 13-4). The test program provided does not specify the exact locations of the materials or provide the exact head and tails grades. All leach tests were carried out for 24 hours.

Table 13-4: 2022 Lupita Leach Test Work – Gold Head Grade, Grind Size, and Reagent Dosage

		500 ppm Na	CN		750 ppm Na	aCN	500 p	pm NaCN + Pb(NO <sub>3</sub> ) <sub>2</sub>	
Test ID	Grind P80	Gold Recovery	Silver Recovery	Grind P80	Gold Recovery	Silver Recovery	Grind P80	Gold Recovery	Silver Recovery
	μm %		%	μm	%	%	μm	%	%
Alta Lupita, 23.4µm	23.4	94.8	40.5	23.4	90.5	38.1	23.4	95.7	42.1
Alta Lupita, 44.1μm	44.1	91.6	36.5	44.1	92.5	34.9	44.1	91.8	34.4
Media Lupita, 31.4μm	31.4	95.3	52.6	31.4	95.8	53.0	31.4	95.8	53.3
Media Lupita, 47.4μm	47.4	95.1	43.9	47.4	95.0	49.1	47.4	95.0	45.9
Marginal Lupita, 41.5µm	41.5	92.8	34.8	41.5	93.6	30.5	41.5	92.7	36.8
Baja Luptia, 31.4μm	31.4	89.8	39.9	31.4	90.6	39.4	31.4	90.2	42.2
Baja Luptia, 44.8μm	44.8	89.1	30.0	44.8	87.8	33.2	44.8	86.4	26.9

These results are presented graphically in Figure 13-1 through Figure 13-3, below.

Figure 13-1: Gold and Silver Recoveries of Lupita Materials - 500 ppm NaCN 500 ppm NaCN 100% 94.75% 91.56% 92.81% 89.12% 90% 80% 70% Recovery, % 60% 52.63% 50% 43.92% 40.48% 39.92% 40% 36.45% 34.80% 30.01% 30% 20% 10% Alta Lupita, Alta Lupita, Media Lupita, Media Lupita, Marginal Baja Luptia, Baja Luptia, 23.4µm 44.1µm 31.4µm 47.4µm Lupita, 31.4µm 41.5µm ■ Gold Recovery ■ Silver Recovery



The grind variation between tests was not very large and the grind sizes tested did not have a major impact on the gold and silver recovery for a given reagent dosage.

Increased cyanide dosage and the addition of lead nitrate showed no statistical improvement to either the gold or silver extraction. However, higher cyanide and lead nitrate are often employed when high grade silver is present. The Baja Lupita showed slightly lower gold extraction, and it may be due to higher grades or increased sulfide grades in that material.

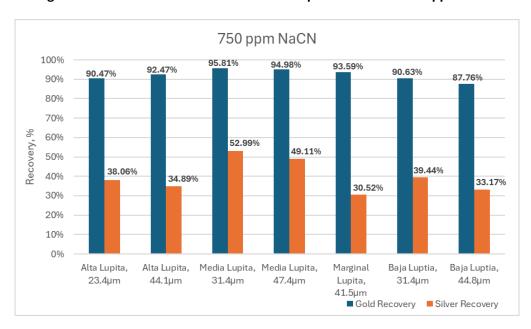
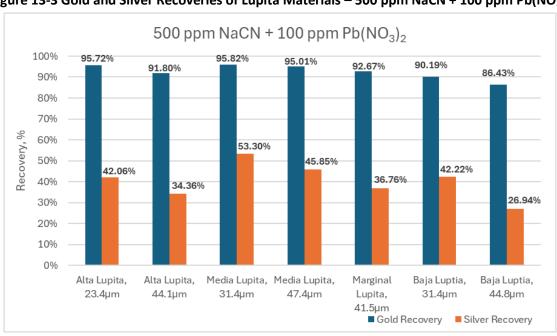


Figure 13-2: Gold and Silver Recoveries of Lupita Materials – 750 ppm NaCN







Additional test work was performed on the Lupita material to determine the effects of reagent dosage on gold and silver recovery. All of the Lupita materials tested had a P80 ranging from 42 to 48  $\mu$ m. These leach tests were also carried out for 24 hours. Grades of the materials tested were not provided. The results of this test work are tabulated in Table 13-5.

Table 13-5: 2022 Lupita Leach Test Work -Grind Size, Reagent Dosage, and Depth/Location

		500 ppm Na	CN		750 ppm Na	aCN	500 ppm NaCN + 100 ppm Pb(NO₃) <sub>2</sub>				
Test ID	Grind P80	Gold Recovery	Silver Recovery	Grind P80	Gold Recovery	Silver Recovery	Grind P80	Gold Recovery	Silver Recovery		
	μm	%	%	μm	%	% %		%	%		
Lupita 1035E	46	94.9	56.1	46	94.6	59.6	46	94.8	66.0		
Lupita 1076E	44	92.1	33.0	44	92.9	29.9	44	93.0	35.0		
Lupita 1136E	48	91.5	40.0	48	91.5	35.2	48	92.3	43.1		
Lupita 1035W	48	96.9	50.2	48	94.0	52.5	48	94.7	57.6		
Lupita 1135W	47	93.8	29.0	47	94.0	28.1	47	93.8	29.4		
Lupita 1136W	42	88.8	29.3	42	89.1	30.0	42	90.8	28.6		
Lupita 1145W	48	48 92.7 30.4		48	48 92.7 34.6		48	92.5	38.2		

These results are presented graphically in Figure 13-4 through Figure 13-6, below.

500 ppm NaCN 96.86% 94.86% 100% 93.75% 92.69% 92.06% 91.50% 88.79% 90% 80% 70% Recovery, % 60% 56.11% 50.20% 50% 39.96% 40% 32.98% 30.43% 29.32% 28.99% 30% 20% 10% 0% Lupita 1035E Lupita 1076E Lupita 1136E Lupita 1035W Lupita 1135W Lupita 1136W Lupita 1145W ■ Gold Recovery ■ Silver Recovery

Figure 13-4: Gold and Silver Recoveries of Lupita Materials – 500 ppm NaCN

Like the previous test work, the grind range was fairly small, and no statistical impact is shown. Further, the impact of cyanide and lead nitrate did not yield and compelling differences in the gold leach



performance. Silver extractions were generally improved with a higher cyanide dosage and the addition of lead nitrate.

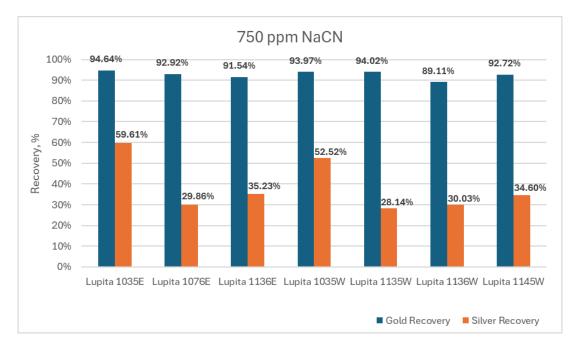
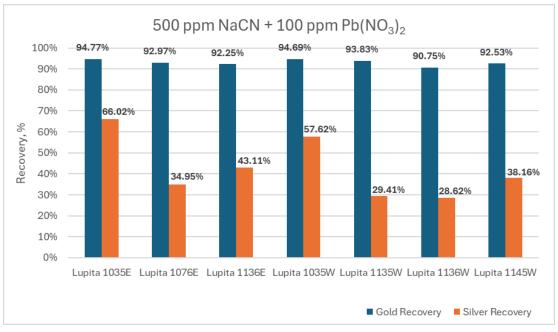


Figure 13-5: Gold and Silver Recoveries of Lupita Materials – 750 ppm NaCN





In 2022, four tests were performed on the Diluvio material with differing gold head grades as described below Table 13-6. The P80 grind size of the materials tested were kept consistent and ranged from 43.1 to 47.3  $\mu$ m. These leach tests were carried out for 24 hours.



Table 13-6: 2022 Diluvio Leach Test Work – Gold Head Grade and Reagent Dosage

		500 ppm Na	CN		750 ppm Na	aCN	500 ppm NaCN + 100 ppm Pb(NO <sub>3</sub> ) <sub>2</sub>				
Test ID	Grind P80	Gold Recovery	Silver Recovery	Grind P80	Gold Recovery	Silver Recovery	Grind P80	Gold Recovery	Silver Recovery		
	μm	%	%	μm	%	%	μm	%	%		
Alta Diluvio	47.3	89.5%	34.1%	47.3	91.2%	37.8%	47.3	91.4%	37.8%		
Media Diluvio	43.1	87.0%	36.4%	43.1	88.2%	37.6%	43.1	89.5%	40.3%		
Marginal Diluvio	46.3	93.0%	36.8%	46.3	95.5%	27.8%	46.3	92.2%	29.5%		
Baja Diluvio	44.6	95.0%	33.9%	44.6	96.7%	33.7%	44.6	93.0%	28.5%		

The effect of increased NaCN dosage from 500 ppm to 750 ppm increased the gold recoveries for the Diluvio materials. However, the increased NaCN dosage significantly reduced the silver recovery of the Marginal Diluvio material by 9.07%. The addition of the Pb(NO<sub>3</sub>)<sub>2</sub> reagent did not appear to significantly impact the gold and silver recoveries.

More tests were performed on the Mariana, Corona de Oro, Barranca, and Klondike materials. The effects of reagent dosages were tested for these materials. These leach tests were carried out for 24 hours. No grade information was provided. The results are tabulated in Table 13-7 below.

Table 13-7: 2022 Various Materials Leach Test Work - Reagent Dosage

		500 ppm Na	aCN		750 ppm Na	CN	500 ppm NaCN + 100 ppm Pb(NO₃) <sub>2</sub>			
Test ID	Grind Gold P80 Recovery		Silver Recovery	Grind P80	Gold Recovery	Silver Recovery	Grind P80	Gold Recovery	Silver Recovery	
	μm	%	%	μm	%	%	μm	%	%	
Corona de Oro	41.5	92.4	30.3	41.5	94.5	30.2	41.5	93.0	29.6	
Barranca	45.2	87.4	44.9	45.2	86.5	40.1	45.2	81.7	30.4	
Klondike	37.5	91.4	34.7	37.5	93.1	33.5	37.5	93.6	31.1	
Mariana 892W	46	89.7	38.9	46	93.7	34.3	46	93.6	34.6	

The increase in NaCN dosage from 500 ppm to 750 ppm increased the gold and silver recoveries for the Mariana material by 4.0% and 3.8%, respectively. The silver recoveries were all negatively impacted due to the increase in NaCN dosage.

The addition of the  $Pb(NO_3)_2$  reagent appears to have reduced the gold recovery for the Barranca material and increased the gold recovery for the Klondike and Mariana 892W materials. The silver recoveries were generally negatively impacted due to the  $Pb(NO_3)_2$  reagent addition for all materials. The silver recovery of the Barranca material decreased by 14.6%.



#### 13.2.3 Internal Test Work – 2023

In 2023, most of the internal test work was performed on the Lupita material from various depths and locations. No grind size/P80 data was provided with this test program. The results from the internal Lupita material test work are tabulated in Table 13-8 below.

Table 13-8: 2023 Lupita Leach Test Work – Grades, Reagent Dosage and Depth/Location

			500 ppr	n NaCN	750 ppr	n NaCN	500 ppm NaCN + 100 ppm Pb(NO3)2		
Test ID	Head Assay, Au	Head Assay, Ag	Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	
	g/t	g/t	%	%	%	%	%	%	
Lupita 1061 ACC B	2.63	6.21	92.5	27.5	91.0	21.4	91.9	22.5	
Lupita 1167 E	1.89	26.01	85.2	34.7	85.5	37.3	85.6	38.6	
Lupita 1188 W	2.47	19.44	89.3	30.5	91.4	27.2	89.8	26.4	
Lupita Ext. 1032 E	2.87	16.79	93.5	34.1	93.6	42.0	93.5	34.1	
Lupita Ext. 1035 W	3.08	26.15	93.8	32.8	94.4	28.6	93.7	30.5	
Lupita Ext. 1188 E	7.05	26.82	95.4	32.5	95.8	30.9	95.9	32.8	

The increase in NaCN dosage did not appear to significantly impact the gold recoveries and in some cases decreased the silver recoveries for the Lupita material.

The addition of the Pb(NO<sub>3</sub>)<sub>2</sub> reagent did not significantly impact the gold or silver recovery.

The effects of gold and silver head grade on recovery of Lupita materials are presented in Figure 13-7 and Figure 13-8 below.

Figure 13-7: 2023 Lupita Test Work – Effects of Au Head Grade on Recovery Effects of Head Grade on Gold Recovery (500 ppm NaCN) 96.0%  $R^2 = 0.9364$ 94.0% 92.0% Recovery (%) 90.0% 88.0% 86.0% 84.0% 1.5 3.5 Head Grade (g/t)



It appears that there is a statistical correlation between head grade and gold recovery with an  $R^2$  of 0.94 when the high-grade sample was removed ( $R^2$  of 0.44 when included). This indicates that approximately half of the recovery relationship is related to gold grades. Silver showed a less strong correlation with an  $R^2$  of 0.57.

In general, a higher gold head grade results in higher gold recoveries. This is likely due to the concept of a constant tail grade.

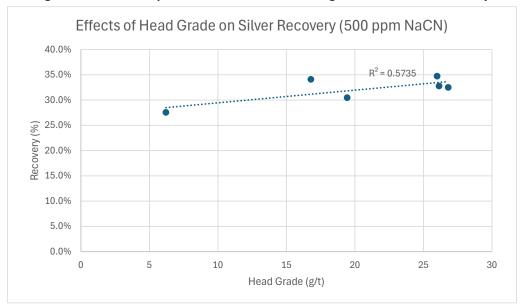


Figure 13-8: 2023 Lupita Test Work – Effects of Ag Head Grade on Recovery

Three tests were performed on the Diluvio material from differing depths and locations. No grind size/P80 data was provided with this test program. The results are tabulated in Table 13-9 below.

Table 13-9: 2023 Diluvio Test Work - Effects of Head Grades, Reagent Dosage and Depth/Location

			500 ppr	n NaCN	750 ppr	m NaCN	500 ppm NaCN + 100 ppm Pb(NO3)2		
Test ID	Head Assay, Au	Head Assay, Ag	Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	
	g/t	g/t	%	%	%	%	%	%	
Diluvio 936 ACC W	2.54	13.63	97.2	29.1	97.1	28.6	96.8	31.1	
Diluvio 976 W2	2.01	16.21	90.0	25.2	90.9	27.9	89.9	27.9	
Diluvio 996 EA	1.36	59.26	91.3	25.8	94.0 32.9		92.3	33.6	

The increase in NaCN reagent dosage did not have a material impact on the gold or silver extraction.

The addition of the  $Pb(NO_3)_2$  reagent did not impact the gold recovery of the Diluvio materials. The silver recoveries were increased by the addition of  $Pb(NO_3)_2$  and in the case of Diluvio 996EA, increased by an absolute 7.8%.



The effects of gold and silver head grade on recovery of Diluvio materials are presented in Figure 13-9 and Figure 13-10, below.

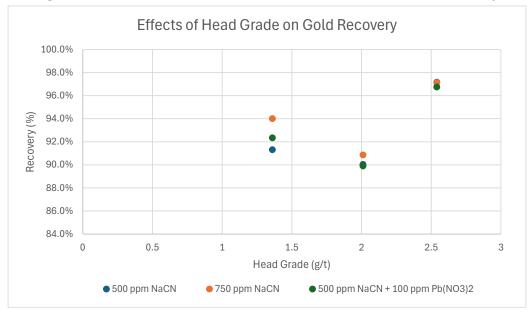


Figure 13-9: 2023 Diluvio Test Work – Effects of Au Head Grade on Recovery

The gold head grade did impact the recovery but not with as strong a relationship as Lupita (R<sup>2</sup> ~0.53)

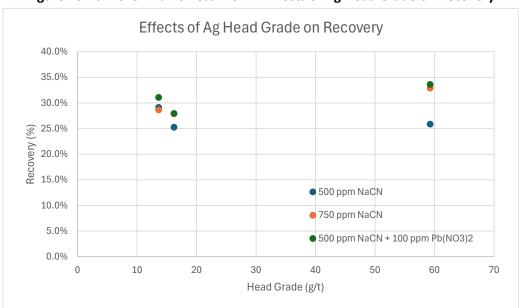


Figure 13-10: 2023 Diluvio Test Work – Effects of Ag Head Grade on Recovery

It appears that there is no statistically significant correlation between head grade and recovery for the case of silver. For the 500 ppm NaCN dosage case, the correlation factor (R<sup>2</sup>) of silver head grade versus silver recovery was 0.18.



Three tests were performed on the Mariana materials from differing depths and locations. No grind size/P80 data was provided with this test program. The results are tabulated in Table 13-10 below.

Table 13-10: 2023 Mariana Leach Test Work - Head Grades, Reagent Dosage and Depth/Location

			500 ppr	n NaCN	750 ppr	n NaCN	500 ppm NaCN + 100 ppm Pb(NO3)2		
Test ID	Au Ag		Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	
	g/t	g/t	%	%	%	%	%	%	
Mariana 850 W1	4.22	66.8	96.8	41.1	97.2	34.4	96.8	34.1	
Mariana 850 W2	3.66	13.58	93.0	42.9	93.7	39.3	93.3	42.4	
Mariana 893 E3	4.36	56.29	95.7	24.8	94.7	33.3	95.0	24.1	

The increase in NaCN dosage and the addition of the  $Pb(NO_3)_2$  reagent did not appear to influence the gold recovery of the Mariana material. The silver recoveries of the Mariana material did not differ significantly due to reagent dosages except in the case of Mariana 850W1. A 6.99% decrease in silver recovery of the Mariana 850W1 material was observed due to the  $Pb(NO_3)_2$  reagent addition.

The effects of gold and silver head grade on recovery of the Mariana materials are presented in Figure 13-11 and Figure 13-12, below.

Figure 13-11: 2023 Mariana Test Work - Effects of Au Head Grade on Recovery Effects of Head Grade on Gold Recovery 100.0% 98.0% 8 96.0% Recovery (%) 94.0% 92.0% 90.0% 88.0% 86.0% 84.0% 3.6 3.7 3.8 3.9 4 4.1 4.2 4.3 4.4 Head Grade (g/t)

750 ppm NaCN

● 500 ppm NaCN + 100 ppm Pb(NO3)2



500 ppm NaCN

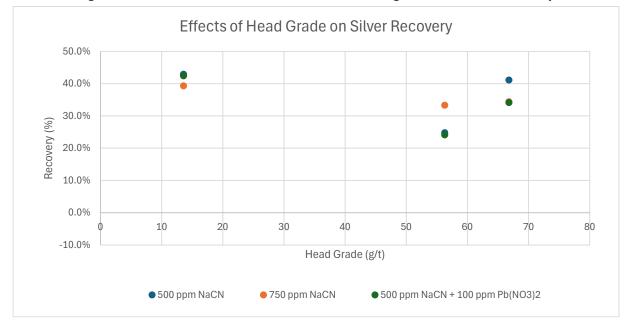


Figure 13-12: 2023 Mariana Test Work – Effects of Ag Head Grade on Recovery

There appears to be correlation between gold/silver head grades and their respective recoveries for the Mariana material but with only three tests the relationship is not statistically valid.

Three tests were performed on the San Martin materials from differing depths and locations. No grind size/P80 data was provided with this test program. The results are tabulated in Table 13-11 below.

Table 13-11: 2023 San Martin Test Work - Head Grades, Reagent Dosage and Depth/Location

			500 ppr	m NaCN	750 ppr	m NaCN	500 ppm NaCN + 100 ppm Pb(NO3)2		
Test ID	Head Head Assay, Assay, Au Ag Recovery			Silver Recovery	Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	
	g/t	g/t	%	%	%	%	%	%	
San Martin 1030 E3	2.46	28.06	94.5	29.0	94.1	31.6	94.9	31.2	
San Martin 1030 W4	2.14	19.48	93.3	32.4	92.5	36.4	93.4	28.3	
San Martin 1034 W	1.77	20.00	93.4	37.1	93.1	37.5	93.5	34.4	

Neither the increase in NaCN dosage nor the addition of the  $Pb(NO_3)_2$  reagent appeared to impact the gold recovery of the San Martin material. The silver recovery of San Martin increased by 4.06% due to the increased NaCN dosage but also decreased by 4.05% due to the addition of  $Pb(NO_3)_2$ .

The effects of gold and silver head grade on recovery of the San Martin materials are presented in Figure 13-13 and Figure 13-14, below.



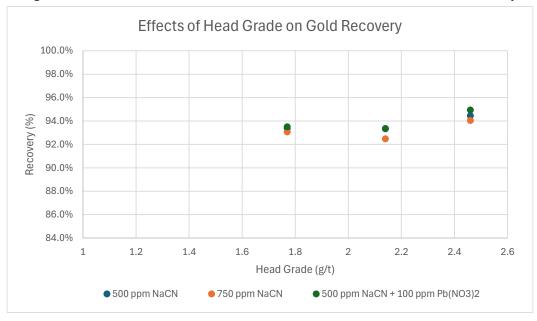


Figure 13-13: 2023 San Martin Test Work – Effects of Au Head Grade on Recovery

The data set is too small to determine a statistical relationship between grade and recovery but in general the gold recovery increases with grade and the silver recovery is not overly impacted.

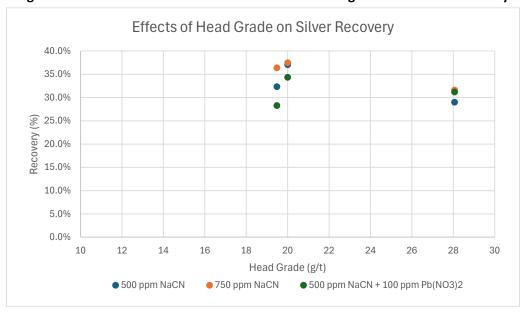


Figure 13-14: 2023 San Martin Test Work – Effects of Ag Head Grade on Recovery

There appears to be no significant correlation of head grade versus recovery in the case of silver. The overall relationship of head grade influence on recovery was evaluated for both gold and silver as shown in Figure 13-15 below.



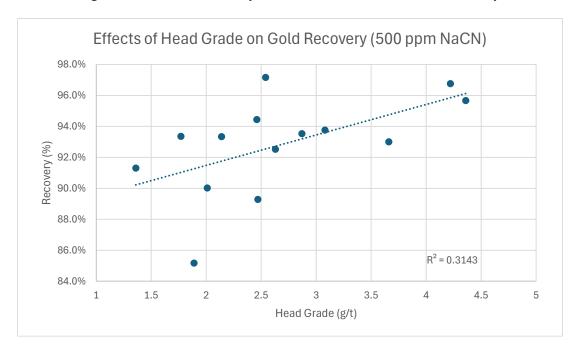


Figure 13-15: 2023 Summary – Effects of Au Head Grade on Recovery

Gold recovery shows a reasonable correlation to the gold head grade with an R<sup>2</sup> of 0.31. Silver recovery did not show any relationship across these tests.

## 13.2.4 Internal Test Work - 2024

In 2024, the San Martin material was tested to determine the effects of grind size on gold and silver recovery. The samples were ground to a P80 of 45 um and a P95 of 20  $\mu$ m for this test program. All tests were performed using 500 ppm NaCN. The results are tabulated in Table 13-12 below.

Table 13-12: 2024 San Martin Test Work - Effects of Grind Size and Location/Depth

			P80 4	5 um	P95 2	20 um	Delta from	45um Base
Sample	Head Assay, Au	Head Assay, Ag	Gold Recovery	Silver Recovery	Gold Recovery	Silver Recovery	Gold Recovery Increase	Silver Recovery Increase
	g/t	g/t	%	%	%	% %		%
San Martin 990 E	N/A	10.82	91.0	47.5	96.2	72.3	5.7	52.0
San Martin 1015 W2	4.29	29.99	94.1	28.9	98.2	52.2	4.3	80.7
San Martin 1015 W1	3.94	29.7	93.6	29.2	96.8	47.4	3.4	62.0
San Martin 1026 E1	3.06	10.65	88.3	29.8	94.5	35.2	7.0	18.1
San Martin 1026 E2	2.5	24.35	91.2	27.4	97.4	57.0	6.8	108.0
San Martin 1026 E3	2.23	27.84	93.0	42.4	97.6	65.0	5.0	53.4
San Martin 1026 S1	1.45	41.04	93.0 27.5		97.8	56.8	5.2	106.9
San Martin 1040	1.08	41.12	93.8 32.6		96.7	52.3	3.1	60.1



An uplift in gold and silver recoveries was observed due to finer grinding in all cases. The uplift in recoveries is presented graphically in Figure 13-16, below.

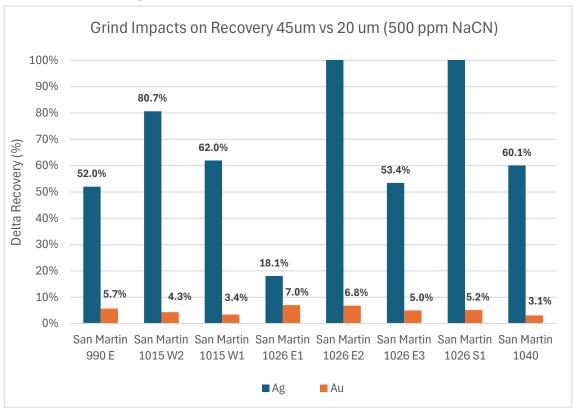


Figure 13-16: 2024 San Martin Test Work – Grind Size

Finer grinding significantly increased the relative gold recovery in all tests ranging from 3.1% to 7.0%; base case of 45  $\mu$ m compared to 20  $\mu$ m. Silver recovery was further enhanced by the finer grind in all tests ranging from 18.1% to 108.0%; base case of 45  $\mu$ m compared to 20  $\mu$ m.

## 13.2.5 Internal Test Work – 2025

In 2025, the Lupita, Diluvio, San Martin, Barrancas, and Rey de Oro materials were leach tested. The P80 of all test materials was reported at 48  $\mu$ m. All tests were performed using 500 ppm NaCN. The results are tabulated in Table 13-13 below.

Table 13-13: 2025 Leach Test Work of Various Materials – Head Assays and Depth/Location (P80 48, 500 ppm NaCN)

Sample	Head Assay, Au	Head Assay, Ag	Gold Recovery	Silver Recovery
	g/t	g/t	%	%
Barrancas 1075E	1.06	26.14	90.7	21.2
Barrancas 1074E	1.94	12.42	81.9	19.4
Barrancas 1074W	0.26	20.12	70.5	20.3
Divulio 964E	1.5	6.27	93.4	32.6
Diluvio 966 S1E	8.77	59.83	92.9	43.0



Sample	Head Assay, Au	Head Assay, Ag	Gold Recovery	Silver Recovery
	g/t	g/t	%	%
Lupita 1178W	1.49	23	90.3	40.0
Rey de Oro 1210W	2.31	41.62	91.8	28.6
San Martin 1030W	8.56	57.52	93.1	44.2
San Martin 1015 ACC	0.71	15.34	92.3	30.4
San Martin 962 W3A	1.01	27.75	91.5	44.9

All of the materials showed typical gold recovery except for the two Barrancas samples 1074E, and 1074W. The 1074W sample was very low gold grade. There does not appear to be a correlation between the head grades and recoveries.

The results are presented graphically in Figure 13-17 below.

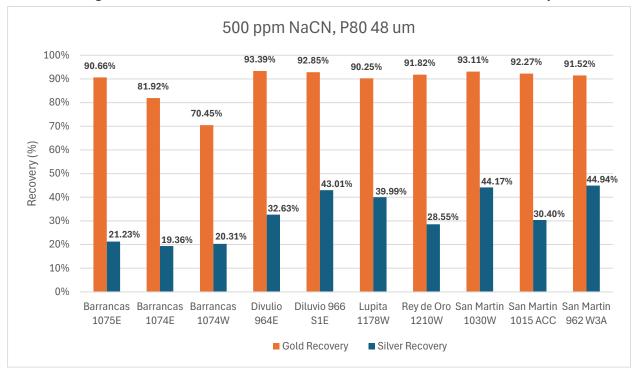


Figure 13-17: 2025 Test Work on Various Material – Gold and Silver Recovery

# 13.3 Mineralogy

Significant mineralogy test work has been performed on the Diluvio, Lupita, Mariana, and San Martin materials from 2022 through 2024. Gangue minerals identified are of that typically observed including quartz ( $SiO_2$ ), calcite ( $CaCO_3$ ), feldspar (KAlSi<sub>3</sub>O<sub>8</sub>), and iron oxides.

Review of all mineralogical test work provides further insight of possible inefficiencies in gold and silver recoveries in the mill. Gold is consistently identified as native gold but is also consistently present as electrum in specific deposits.



The presence of gold as electrum negatively impacts the gold recoveries in the mill due to the chemistry of the naturally occurring solid solution alloy. A solid solution of gold and silver does not allow for selective reactivity with gold. Instead, silver dissolves at a rate consistent with gold dissolution which increases NaCN dosage required. At typical NaCN addition rates, gold present as electrum may not fully dissolve and reports to the tails.

Silver is consistently identified as argentite, aguilarite, hessite, and an AgHg amalgam. Silver present as a sulfide will not dissolve to the same extent in cyanide as it become passivated.

Detailed in Sections 13.3.1 through 13.3.4 below are mineralogical analyses pertaining to the associations of gold and silver minerals for each deposit.

### 13.3.1 Diluvio Mineralogy

In most cases, mineralogical analyses of Diluvio materials identified native gold and silver. Specific samples have been selected for discussion due to the identification of differing gold and silver minerals.

In 2022, three Diluvio samples were submitted for mineralogical analysis. Analysis of Diluvio 932S1 identified the presence of electrum (Au/Ag alloy), canfieldite (4Ag<sub>2</sub>S\*SnS<sub>2</sub>), and proustite (Ag<sub>3</sub>AsS<sub>3</sub>). A scanning electron microscope (SEM) image containing these minerals is presented in Figure 13-18 below.

Feld K
Proustita

Canfieldita

Canfieldita

Vanadatos Pb-Cu

BES 20kV WD10mm SS50 x2,500 10µm
003 Dilluvio 932 S1, Mercedes Minerales

BES 20kV WD10mm SS50 x3,000 5µm
003 Dilluvio 932 S1, Mercedes Minerales

Figure 13-18: 2022 Diluvio 932S1 - SEM Imaging of Electrum and Proustite (Left) and Canfieldite (Right)

In 2025, a single Diluvio sample (Diluvio 975W) was submitted for mineralogical analysis. Mineralogical analysis did not identify electrum, canfieldite, nor proustite. However, aguilarite ( $Ag_2(Se,Cu)$ ) and pyrite ( $FeS_2$ ). SEM images of the Diluvio 975W material are presented in Figure 13-19 below.



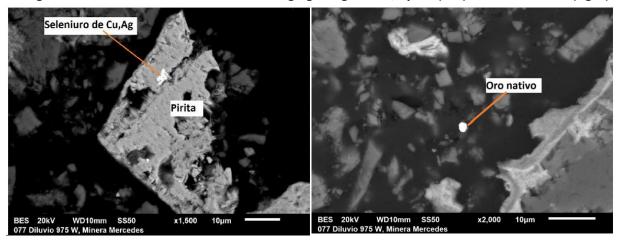


Figure 13-19: 2025 Diluvio 975W - SEM Imaging of Aguilarite/Pyrite (left) and Native Gold (right)

Insufficient mineralogical test work has been provided to determine whether mineralogy of the deposit remains constant with depth. Mineralogical analysis of the Diluvio materials identified minerals such as electrum, aguilarite and silver sulfides minerals (canfieldite and proustite).

# 13.3.2 Lupita Mineralogy

In most cases, mineralogical analyses of Lupita materials identified native gold and silver. Specific samples have been selected for discussion due to the identification of differing gold and silver minerals.

In 2022, twelve Lupita samples were submitted for mineralogical analysis. Lupita 1122W and 1136W were selected for discussion. Mineralogical analysis of Lupita 1122W identified electrum, argentite ( $Ag_2S$ ), hessite ( $Ag_2Te$ ), an AgHg amalgam, and aguilarite. SEM imaging of these minerals is presented in Figure 13-20 below. No SEM imaging of hessite is available.



B
BES 20kV WD10mm SS50
989 Lupita 1122W, Mercedes Minerales

Aguillarita

C
C
BES 20kV WD10mm SS50
Aguillarita

C
C
BES 20kV WD10mm SS50
Aguillarita

C
C
BES 20kV WD10mm SS50
Amalgama Ag

BES 20kV WD10mm SS50

Figure 13-20: 2022 Lupita 1122W - SEM Imaging of Electrum (A), Argentite (B), Aguilarite (C), and an AgHg Amalgam (D)

Mineralogical analysis of Lupita 1136W was similar to Lupita 1122W but identified stromeyerite (CuAgS) as well. SEM imaging of stromeyerite is presented in Figure 13-21

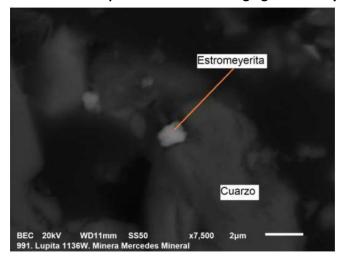


Figure 13-21: 2022 Lupita 1136W - SEM imaging of Stromeyerite



In 2023, three samples were submitted for mineralogical analysis. Lupita 1136E and Lupita Ext 1035W were selected for discussion. Lupita 1136E analysis identified electrum and hessite present in the material. SEM imaging of Lupita 1136E is presented in Figure 13-22 below.

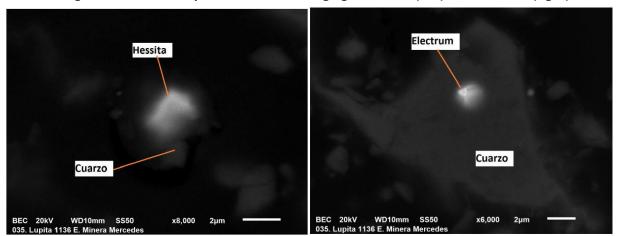


Figure 13-22: 2023 Lupita 1136E - SEM Imaging of Hessite (left) and Electrum (right)

Mineralogical analysis of Lupita Ext 1035W identified native gold, argentite, an AgHg amalgam, cerargyrite (AgCl), and yoderite (AgI). SEM imaging of Lupita Ext 1035W is presented in Figure 13-23 below.

Cuarzo

Minerales de Ag

BEC 20kV WD11mm SS50 x12,000 1µm
046. Lupita Ext 1035W. Minera Mercedes

Figure 13-23: 2023 Lupita Ext 1035W - SEM Imaging of Silver Minerals (Cerargyrite and Yoderite)

In 2024, five Lupita samples were submitted for Mineralogical Analysis. Lupita 1160W, 1188W, and 1167E were selected for discussion. Analysis of Lupita 1160W identified a mixture of hessite and aguilarite. SEM imaging of these minerals is presented in Figure 13-24 below.



Hessita/aguillarita

Hessita/aguillarita

BES 20kV WD11mm SS50 x1,500 10μm

034. Lupita 1160 W. Minera Mercedes

Figure 13-24: 2024 Lupita 1060W – SEM Imaging of Hessite/Aguilarite

Analysis of Lupita 1188W identified argentite and hessite present. SEM imaging of these minerals are presented in Figure 13-25 below.

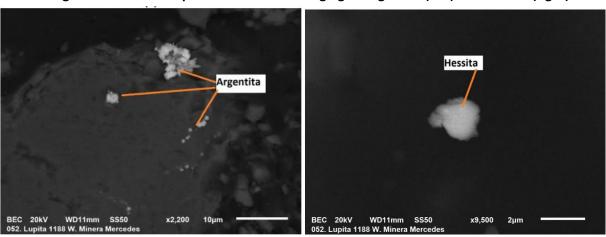


Figure 13-25: 2024 Lupita 1188W – SEM Imaging of Argentite (left) and Hessite (right)

Analysis of Lupita 1167E identified argentite, an AgHg amalgam, and aguilarite. SEM imaging of these minerals is presented in Figure 13-26 below.



A Amalgama

Aguilarita

B

BEC 20kV WD12mm SS50 x8,500 2µm

BEC 20kV WD12mm SS50 x9,500 2µm

OS3. Lupita 1167 E. Minera Mercedes

Argentita

Figure 13-26: 2024 Lupita 1167E – SEM Imaging of an AgHg Amalgam (A), Aguilarite (B), and Argentite (C)

In 2025, a single Lupita sample (Lupita Ext 1178) was submitted. Analysis identified native gold and no silver minerals. Mineralogical analysis of the Lupita deposit consistently identified electrum, hessite, argentite, and aguilarite at varying depth/locations. AgHg amalgams were also identified consistently.

## 13.3.3 Marianas Mineralogy

In most cases, mineralogical analyses of Mariana materials identified native gold and silver. Specific samples have been selected for discussion due to the identification of differing gold and silver minerals.

In 2022, a single Marianas sample (Marianas 89SW) was submitted for mineralogical analysis. This analysis identified argentite and yoderbromite (2AgCI\*2BrCI\*AgI). SEM imaging of these minerals are presented in Figure 13-27.



Sales de Ag

Sales de Ag

Argentita

BES 20kV WD10mm SS50 x500 50µm

BES 20kV WD10mm SS50 x2,300 10µm
994 Mariana 895W, Mercedes Minerales

Figure 13-27: 2022 Mariana 89SW – SEM Imaging of Yoderbromite (left) and Argentite (right)

In 2023, four Marianas samples were submitted for mineralogical analysis. Marianas 850 W1 did not identify any gold or silver minerals. Marianas 850EB2 identified argentite. Marianas 893E3 identified argentite and aguilarite. SEM imaging of Marianas 893E3 minerals is presented in Figure 13-28 below.

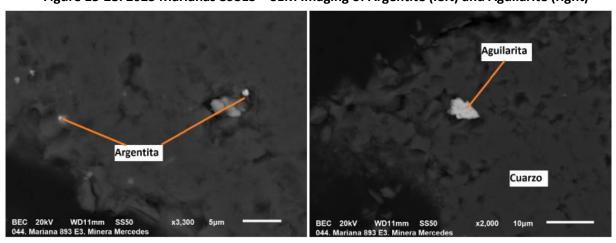


Figure 13-28: 2023 Marianas 893E3 – SEM Imaging of Argentite (left) and Aguilarite (right)

Marianas 853ACC identified a silver/iodine amalgam (AgI). SEM imaging of Marianas 853ACC is presented in Figure 13-29 below.



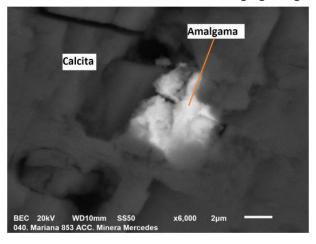


Figure 13-29: 2023 Marianas 853ACC – SEM Imaging of Agl Amalgam

In 2024, a single Marianas sample was submitted for mineralogical analysis. Analysis identified native gold and argentite. Insufficient mineralogical test work has been provided to determine whether mineralogy of the deposit remains constant with depth. Mineralogical analysis of the Marianas deposit consistently identified argentite.

# 13.3.4 San Martin Mineralogy

In most cases, mineralogical analyses of San Martin materials identified native gold and silver. Specific samples have been selected for discussion due to the identification of differing gold and silver minerals.

In 2023, four San Martin samples were submitted for mineralogical analysis. Samples San Martin 1030E3 and 850W2 identified only native gold and argentite present.

Samples San Martin 1030CCC and 1030 W5 identified native gold, electrum, and no silver minerals. SEM imaging of electrum identified in 1030ACC and 1030 W5 is presented in Figure 13-30 below.

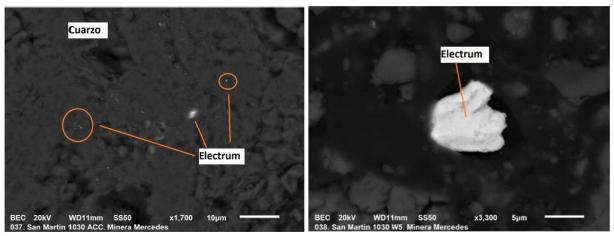


Figure 13-30: SEM Imaging of Electrum - San Martin 1030 ACC (left) and 1030 W5 (right)



In 2024, two samples from San Martin were submitted for mineralogical analysis. Analysis of sample San Martin 1034W identified native gold and silver, and aguilarite. Analysis of San Martin 1030W4 identified presence of argentite, aguilarite, and hessite. SEM imaging of the San Martin 1030W4 sample is presented in Figure 13-31 below.

Cuarzo

Argentita

Cuarzo

Cuarzo

BEC 20kV WD11mm SS50 x8,000 2µm BEC 20kV WD11mm SS50 x9,000 2µm

Figure 13-31: 2024 San Martin 1030W4 – SEM Imaging of Argentite (left) and Aguilarite/Hessite (right)

In 2025, two San Martin samples were submitted for mineralogical analysis. Analysis of San Martin 962 EA identified no gold minerals and argentite. Analysis of San Martin 962 W3C identified electrum, argentite and an AgHg amalgam. SEM imaging of San Martin 962 W3C is presented in Figure 13-32 below.

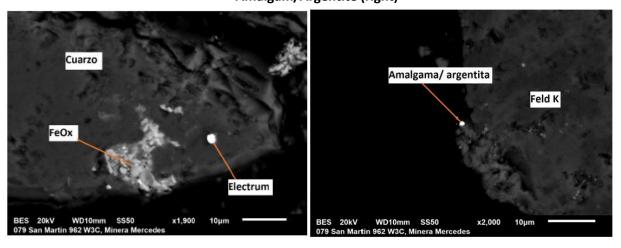


Figure 13-32: 2025 San Martin 962 W3C – SEM Imaging of Electrum (left) and an AgHg
Amalgam/Argentite (right)

Mineralogical analysis of the San Martin deposit consistently identified electrum and argentite. Hessite was also identified in a single sample.

### 13.4 Plant Production

The Mercedes plant has been in production from 2012. The process plant performance has been consistent over this period with throughput decreasing over the last four years due to mining constraints. Gold recovery has averaged 95.0% ranging from 93.1% to 96.0%. Silver production is more variable due



to the nature of the deposit. Silver recovery has averaged 36.7% ranging from 31.6% to 43.2%. Table 13-14 shows the plant production statistics since commissioning.



**Table 13-14: Plant Production Statistics** 

	Mill	ed Tonnage (	mt)	Gold	l Grade (g/mt)		Silver Grade (g/mt)		Gold	Recovery (	%)	Silver	Recovery (%)		Au Ounces			Ag Ounces			
Year	Actual	Dudget	Act. vs	Actual	Dudget	Act. vs	Actual	Dudget	Act.	Actual	Budget	Act. vs	Actual	Dudget	Act. vs	Actual	Dudget	Act. vs	Actual	Dudget	Act. vs
	Actual	Budget	Bud.	Actual	Budget	Bud.	Actual	Budget	Bud	Actual	Budget	Bud.	Actual	Budget	Bud.	Actual	Budget	Bud.	Actual	Budget	Bud.
2012	603,187	566,938	36,249	6.43	6.45	-0.02	78.5	71.7	6.8	95.1	93.9	1.2	32.2	30.0	2.2						
2013	670,867	664,827	6,040	6.16	6.39	-0.23	79.4	73.1	6.3	94.5	95.0	-0.5	34.4	30.0	4.4						
2014	681,833	695,061	-13,228	5.08	5.69	-0.61	55.9	57.8	-1.9	94.5	95.0	-0.5	32.9	33.0	-0.1						
2015	713,475	630,965	82,510	3.96	5.67	-1.71	43.3	52.3	-9	93.1	95.0	-1.9	38.6	30.0	8.6						
2016	688,396	760,722	-72,326	4.46	3.93	0.53	47.4	45.2	2.2	94.4	93.8	0.6	40.3	33.3	7.0						
2017	683,574	629,431	54,143	3.93	4.74	-0.81	37.6	43.0	-5.4	95.5	95.0	0.5	40.8	40.0	0.8						
2018	665,522	767,889	-102,367	3.39	3.75	-0.36	35.3	33.5	1.8	96.0	95.0	1.0	41.0	40.0	1.0						
2019	667,723	682,368	-14,645	2.93	3.31	-0.38	26.3	26.2	0.1	95.8	95.5	0.3	34.0	40.0	-6.0						
2020	398,731	402,328	-3,597	2.81	3.52	-0.71	31.7	24.0	7.7	95.5	95.5	0.0	39.8	35.0	4.8	34,418	43,464	-9,047	168,196	108,631	59,566
2021	502,353	476,292	26,061	2.64	2.98	-0.34	20.7	19.1	1.6	95.8	95.5	0.3	35.3	40.0	-4.7	41,086	43,580	-2,494	115,897	116,992	-1,095
2022	502,806	420,805	82,001	2.67	2.95	-0.28	23.2	20.2	3.0	95.6	95.5	0.1	32.8	40.0	-7.2	45,235	38,134	7,101	139,829	109,449	30,380
2023	532,744	401,994	130,750	2.80	3.51	-0.71	31.5	35.3	-3.8	94.8	95.5	-0.7	31.6	40.0	-8.4	42,790	43,302	-512	168,827	182,589	-13,761
2024	403,152	397,710	5,442	3.37	3.20	0.17	32.2	31.7	0.5	94.9	94.0	0.9	43.2	30.0	13.2	37,797	38,447	-650	233,713	121,505	112,208
Minimum	398,731			2.64			20.7			93.1			31.6			34417.7			115897.3		
Average	593,413			3.89			41.8			95.0			36.7			40265.0			165292.5		
Maximum	713,475			6.43			79.4			96.0			43.2			45234.8			233713.0		



The monthly plant feed tonnage and gold ounces is shown in Figure 13-33. The plant design was based on the ability to treat 2,000 tonnes per day or approximately 55,000 tonnes per month. The mill is not constrained to the lower tonnages seen over the last few years.

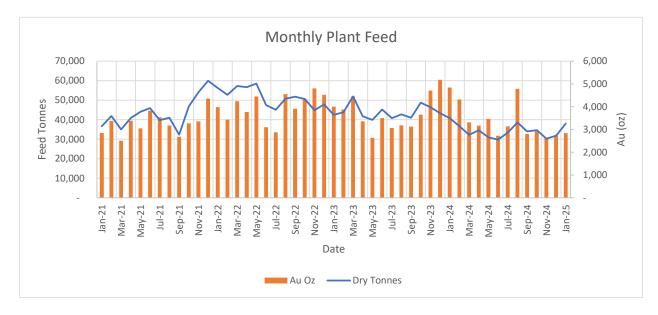


Figure 13-33: Monthly Tonnage and Gold Ounces Delivered

The gold recovery of the plant is very stable as illustrated in Table 13-14 and this is shown graphically by month in Figure 13-34 below.

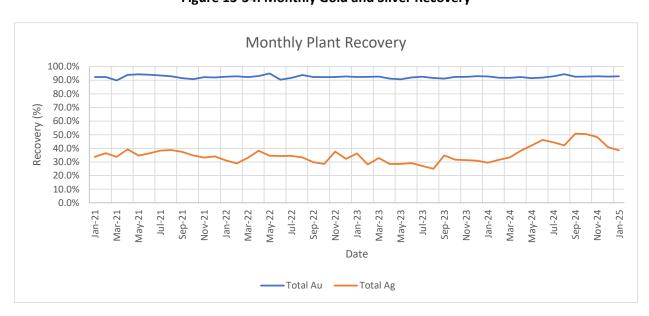


Figure 13-34: Monthly Gold and Silver Recovery

The metallurgical performance of the plant has been very good in terms of gold recovery. However, there are some signs that recovery could be improved through the understanding of the grade relationship between the head and tail.



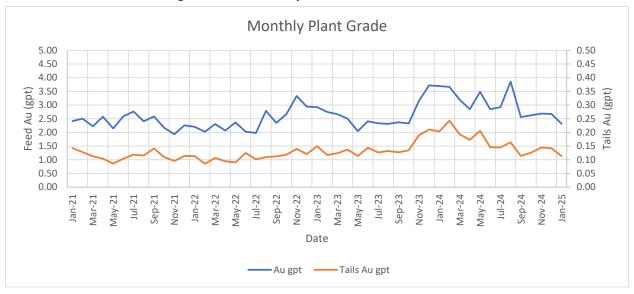


Figure 13-35: Monthly Gold Head and Tails Grade

Figure 13-35 shows a strong relationship between the gold head grade entering the plant and the gold tails grade leaving the plant (solids). This is further supported by a plot of the head versus tails grades. A similar trend is shown for silver but is less important to the process.

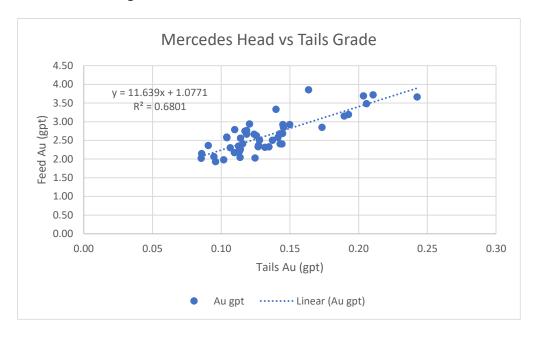


Figure 13-36: Gold Head and Tails Grade Influence

Figure 13-36 shows a strong relationship between the gold head and tail grades. The R<sup>2</sup> of the head versus tails grade is 0.68, indicating that tails grade is largely a function of the head grade. The implication of this is that when there is higher grade the tails tend to be higher indicating that higher grade materials may not achieve their full gold extraction. The cause of this can be multifaceted; it could be related to retention time, reagent dosage, coarse gold particles or mineralogy.



The author tends to believe that the higher tails are the result of either coarser gold or the presence of more recalcitrant gold minerals like electrum. The impact is not serious, but it potentially represents an opportunity to enhance the gold recovery during higher grade periods.

The operating data also suggests that the ratio of silver to gold impacts the gold recovery but not with a string correlation ( $R^2 = 0.08$ ). This would be expected as the silver to gold ratio is often 10:1 and the silver consumes reagents potentially reducing gold recovery.

The operating data also suggests that grind size has an impact on the metal recoveries but because the operating range is so narrow the correlation is low. However, the laboratory testing supports this relationship.

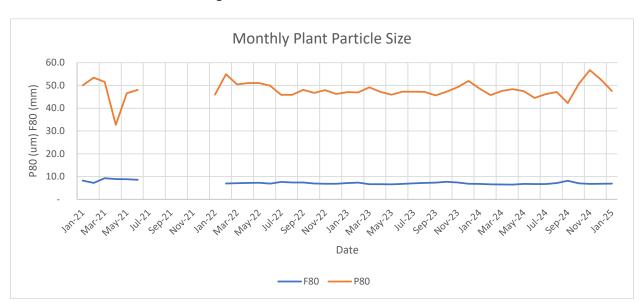


Figure 13-37: F80 and P80 For Ball Mill

The P80 of the mill product is generally slightly below 50  $\mu$ m.

#### 13.5 Conclusions

Review of the available test work indicates that in most cases the Mercedes materials leaches very well, with gold recoveries more than 90% often closer to 95%. Silver extractions are typically lower ranging from 20% to 40% in most cases. Mineralogy suggests that the presence of refractory compounds such as electrum, tellurides, argentite, and other silver sulfide minerals may be responsible for some of the variations in gold and silver recovery reported.

Cyanide concentration, in the ranges investigated, did not show a statistical impact on the gold recovery but did tend to show improved silver recovery. Grind size appeared to have the largest impact when reduced from a P80 of 50  $\mu$ m to P80 of 20um. Gold extraction increased on average 5% (relative) and silver recovery increased an average of 67.7%. Unfortunately, no data was available to define a wider range of grind size influences.



Production statistic indicate that the plant performance is predictable with gold recoveries generally being close to 95% and silver recoveries range around 35%. Gold reconciliation has generally been good with 2024 showing an average of 5% more gold poured than the plant data suggests. Silver poured was 12% higher than plant data suggested.

Dr Todd Harvey (QP) is of the opinion that the existing process plant operating data is not suggestive of any processing factors or deleterious elements that could have a significant effect on potential economic extraction (throughput or metal recovery) at Mercedes.

#### 13.6 Recommendations

The Mercedes process plant has been operating since 2012 and little in the way of process optimization is required. However, there are certain aspects of the plant operation that may be worth investigating such as:

- Conduct a tradeoff study on the impact of additional cyanide dosing and silver recovery.
- Examine the grind influence on recovery across a wider P80 range. The grind size impacts the
  metal recovery but it also has knock on effects including settling and filtering. With a potential
  for the installation of drystack tailings handling or even underground disposal, a coarser grind may
  present many physical benefits to be weighed against a potential recovery reduction.
- Validate that the deepest extent of the orebody responds similarly to the current metallurgical performance.
- Conduct metallic screens on tailings to monitor for coarse gold.



## 14 MINERAL RESOURCE ESTIMATE

GRE's QP Ms. Lane was retained by BCMC to audit and review the Mineral Resource Estimate (MRE) for the Mercedes Mine Project.

Deposits for which Mineral Resources are declared are Aida (AID), Barrancas (BCA), Brecha Hill (BCH), Casa Blanca (CBA), Corona de Oro (CDO), Diluvio (DIL), Gap (GAP), Klondike (KLN), Lagunas (LAG), Lupita (LUP), Marianas (MAR), San Martin (SAN), Rey de Oro (RDO) and Rey de Oro High (RDH). RDO and RHD belong to the same deposit, effectively resulting in a total of 13 deposit areas.

Figure 14-1 locates the different mineralized zones. Drill hole and channel information up to September 30, 2024, was considered for this estimate.

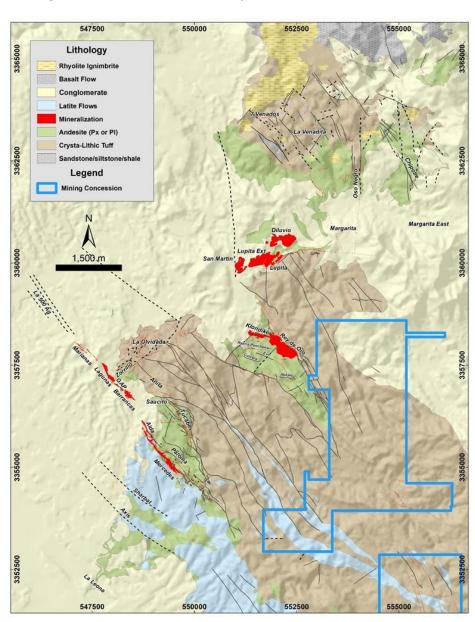


Figure 14-1: Main Mineralized Deposit Areas of the Mercedes Mine



MMM staff provided the QP Ms. Lane with the data and native data files pertaining to the estimations. Documents and reports detailing the procedures and quality assurance assessments that were periodically compiled outlining the project's geological modeling, block modeling, and grade estimation procedures were also provided.

As part of this review, the QP carried out a series of visual and statistical reviews such as:

- Review of the database
- Review of the geological solids
- Review of the capping and other key parameters
- Review of the composite databases
- Review of the procedures and methodology
- Review of the block models

The QP Ms. Lane takes responsibility for this Mineral Resource Estimate.

# 14.1 Mineral Resource Estimate Methodology

Leapfrog Geo™ (2024.1) was used for the modeling of mineralized zones and the generation of the drill hole intercepts for each solid. Vulcan™ (2023.2) was used for the compositing, the geostatistical study, the 3D block modeling, the interpolation, and the reporting.

The methodology for the estimation of the Mineral Resources involved the following steps:

- Database verification
- 3D modeling of the mineralized zones
- Drill hole intercept generation for each mineralized zone
- Statistical analysis for each mineralized zone
- Grade Capping
- Composite generation for each mineralized zone
- Geostatistical analysis, including variography
- Block modeling and grade interpolation
- Mineral resource classification
- Block model validation
- Cut-off grade calculation
- Validation that the blocks meet the reasonable prospects for economic extraction
- Preparation of the Mineral Resource statement.

# 14.2 Resource Database

The total drill hole database for the project, as of August 2024, consisted of 3,158 drill holes with a cumulative length of 691,301 m and 24,607 channels with a cumulative length of 121,242 m. However, the resource database for the project, as of August 2024, consisted of 2,951 drill holes with a cumulative length of 583,430 m and 24,607 channels with a cumulative length of 121,242 m.



The database was validated as part of the current mandate. The individual deposit database cut-off dates for the resource estimate are presented in Table 14-1.

Table 14-1: Database Close-Out Dates as per MMM Staff

Deposit	Database Channel Samples	Database Drill Hole Data
AID	2020-03-22	2020-05-07
BCA	2020-02-02	2024-07-29
BHI	2019-12-31	2019-11-24
СВА	2019-12-31	2019-11-24
CDO	2019-12-31	2019-11-24
DIL	2024-07-23	2024-07-29
GAP	2020-03-31	2019-11-24
KLN	2018-12-31	2020-05-31
LAG	2020-03-31	2020-05-07
LUP	2024-04-30	2024-07-26
MAR	2024-02-06	2024-08-26
RDO and RDH	2024-07-23	2024-07-26

### 14.2.1 Drill Hole Samples

The database received from the MMM staff comprises drill holes and channel sampling data for each mineralized zone at Mercedes. The drill hole datasets consist of:

- Collar coordinates
- Length and downhole survey data
- Assays for Au and Ag, as well as the zone they relate to
- Lithological codes
- Geotechnical information on core recovery, RQD measurements, fracture type, etc.
- Structural measurements detailing the type of structures, a qualification on intensity, and
- core angle
- Vein interval

As of the effective date of this technical report (September 30, 2024), a total of 2,951 drill holes were drilled on the project with a cumulative length of 583,430 m and 24,607 channels totaling 121,242 m for the purpose of resource estimation (Table 14-2).

Table 14-2: Drill hole Data in the Mercedes Database

Deposit	Number of Drill holes	Total Length	Number of Drill hole Assays
AID	118	25,686	5,735
BCA	149	33,178	9,760



Deposit	Number of Drill holes	Total Length	Number of Drill hole Assays	
ВНІ	233	46,598	9,020	
СВА	327	54,569	14,275	
CDO	321	48,253	11,961	
DIL	397	96,902	37,493	
GAP	AP 81 17,477		5,616	
KLN	206	34,788	7686	
LAG	150	36,496	11,242	
LUP	249	40,985	6,613	
MAR	247	64,933	16,133	
RDO and RDH	348	54,538	20,846	
SAN	125	29,027	5,382	
Total	2,951	583,430	161,762	

## 14.2.2 Channel Samples

Channel samples constitute an important part of the dataset used for both the geomodelling and the mineral estimation process, as well as for grade control purposes.

The channel sample datasets consist of:

- Collar coordinates, length, and survey data
- Intervals detailing assays for Au and Ag
- Description of the zone/shell they relate to
- Lithological codes

As of the effective date of this technical report September 30, 2024), a total of 24,607 channel samples were collected underground (UG), totaling 121,242 m (Table 14-3).

Table 14-3: Channel data in the Mercedes database

Deposit	Number of Channel	Total Length	Number of Channel Assays
AID	522	2,214	2,574
BCA	2,340	11,413	14,862
ВНІ	1,491	6,676	8,464
СВА	2,545	11,940	14,473
CDO	3,490 16,534		19,829
DIL	3,687	27,835	27,596
GAP	223	1,121	1,405
KLN	1,733	7,131	9,045
LAG	2,474	11,667	14,710
LUP	4,244	16,631	17,219
MAR	456	1,896	2,124



Deposit	Number of Channel	Total Length	Number of Channel Assays
RDO and RDH	808	4,291	4,772
SAN	594	1,891	2,026
Total	24,607	121,242	139,099

# 14.3 Geological Interpretation and Modelling

### 14.3.1 Geological Models

Geological interpretation is based on lithological and structural data and observations, using all available validated drilling (surface and UG) and channel sampling data (UG). Delineation of the veins and individual bodies of mineralization was based upon geological evidence from mapping, log descriptions, and vectorizing of 2D interpretation on plans and sections or directly in 3D, either discretely or implicitly, using Leapfrog Geo™ and Vulcan™ as modelling platforms.

A cut-off of 0.5 gpt Au is typically used to guide this contouring for Diluvio, and a 2.0 gpt Au is used on all the other deposits. The mid-distance rule between drill hole intercepts is respected. No minimum width was applied when interpreting the veins. The QP Ms Lane recommends the use of a minimum reasonable width for future updates as this practice is likely to have localized impacts on the mineral resource estimate.

Country rock domains were implicitly generated to capture marginal grade mineralization surrounding the mineralized vein solids.

Geological solid models for different deposits are presented in Table 14-2 and Table 14-3.

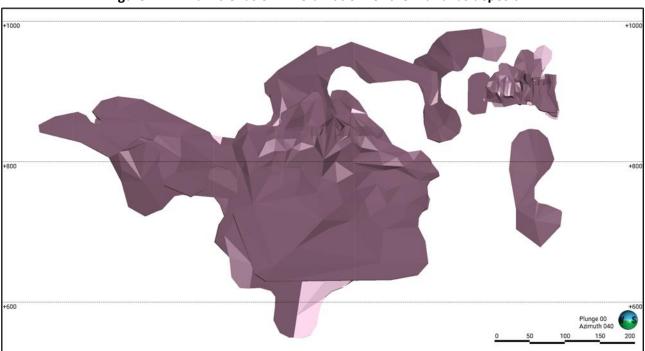


Figure 14-2: Main trends of mineralization for the Marianas deposit



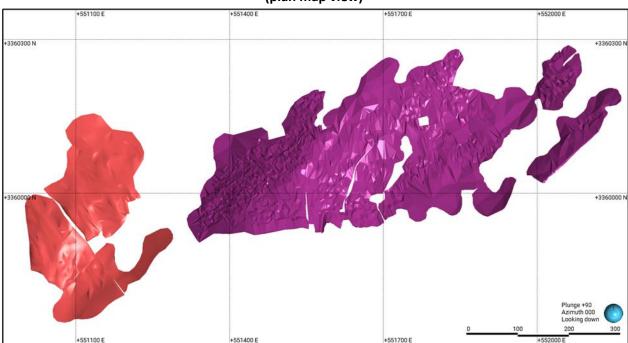


Figure 14-3: Main trends of mineralization for the Lupita (right) and the San Martin (left) deposits (plan map view)

## 14.3.2 Structural Analysis

MMM staff worked on structural analysis on multiple deposits. The correlation of the interpretation to match structural observations in core permits an orientation, connecting the vein intercepts together for improved geo-modeling. The Marianas structural model is summarized in Figure 14-4.



+3358000 N +3357800 N +3357600 N 100 m M14 712D M14-675D

Figure 14-4: Plan and sub-section views showing Marianas vein system reinterpretation using structural & drill hole intersection data



### 14.3.3 Overburden and Topography

The overburden-rock interface was created in Vulcan<sup>™</sup>, where it was needed for mine planning, and is based on the drill hole collars, mine survey, lidar, and/or the national survey grid. The overburden varies in thickness from nil to a few meters (typically less than 10 m).

## 14.3.4 Underground Workings

Underground workings were added to the models and properly depleted from the Mineral Resource Estimate.

# 14.4 Data Analysis

#### 14.4.1 Assay Statistics

Rock codes were assigned to all assay data that intersected mineralized zones, and basic statistics were derived from the coded intercepts. A total of 83,711 samples fall within mineralized zones of the deposits under consideration. Summary statistics on raw assays from the combined drill hole and channel sampling for each deposit are presented in Table 14-4.

**Table 14-4: Summary of Sample Statistics** 

Deposit	Count	Minimum (gpt)	Mean (gpt)	Maximum (gpt)	Std.Dev			
Gold Assay Statistics								
AID	1,527	0.03	5.86	736.76	22.62			
BCA	6,941	0.00	9.49	1,332.87	27.43			
ВНІ	3,666	0.01	9.50	963.71	26.53			
CBA	5,172	0.01	7.94	888.33	29.34			
CDO	9,725	0.00	11.81	2,784.00	48.58			
DIL	32,002	0.01	2.34	323.49	6.01			
GAP	232	0.08	6.80	164.93	14.35			
KLN	3,606	0.03	8.76	782.33	20.60			
LAG	6,393	0.02	11.76	624.82	27.00			
LUP	9041	0.00	7.42	995.85	20.90			
MAR	1,343	0.00	7.76	497.00	20.57			
RDO and RDH	2,940	0.02	9.76	824.86	37.79			
SAN	1,123	0.05	8.64	530.88	21.18			
Total	83,711							
	Si	lver Assay St	atistics					
AID	1,527	0.30	29.85	227.60	27.92			
BCA	6,941	0.30	109.67	20,181.30	409.38			
ВНІ	3,666	0.70	72.29	1,475.00	77.95			
СВА	5,172	0.50	102.33	10,951.70	220.81			



Deposit	Count	Minimum (gpt)	Mean (gpt)	Maximum (gpt)	Std.Dev
CDO	9,725	0.10	132.53	12,936.00	251.22
DIL	32,002	0.50	18.48	6,275.70	57.37
GAP	232	2.50	113.71	2,102.50	160.61
KLN	3,605	1.00	47.64	697.50	48.33
LAG	6,393	0.30	74.00	4,758.10	117.76
LUP	9,041	0.50	51.31	6,710.20	109.09
MAR	1,343	1.00	88.53	5,420.00	231.95
RDO and RDH	2,940	2.00	115.99	35,280.60	498.00
SAN	1,123	2.00	56.99	1,382.40	90.78
Total	83,711				

# 14.4.2 Capping

Capping is performed on high-grade values considered to be outliers to trim them to a lower grade value based on the results of a statistical study. High-grade capping was done on the raw assay data and established on a per-deposit basis with different capping values for drill holes and channels.

The capping values were defined by checking for abnormal breaks or change of slope on the grade distribution probability plots while ensuring that the coefficient of variation of the capped data is lowered to ideally less than 2. Summary statistics on composited and capped assay data were compiled for each deposit.

MMM staff also used the Parrish method, which consists of assessing the metal content within deciles and percentiles of assay distribution, and to cap the data if the highest percentiles have more than 10% of the total metal content. As per Parrish, a capping threshold is selected by reducing all assays from the high metal content percentiles to the percentile below which the metal content does not exceed 10% of the total.

The capping parameters established by MMM staff for both gold and silver composited datasets produced for the mineral zones at Mercedes mine are presented in Table 14-5.



**Table 14-5: Capping Statistics by Deposit Areas** 

		Minimum	Mean	Maximum	Capped '	Values	# of	Capped	Capped	Coefficient	
Deposit	Count	(gpt)	(gpt)	(gpt)	Drill hole	Channel	Capped Samples	Mean (gpt)	Maximum (gpt)	of Variation	
	Gold Assay Statistics										
AID	1,527	0.03	5.86	736.76	58	53	14	4.99	58	3.86	
BCA	6,941	0.00	9.49	1,332.87	40	145	39	8.75	145	2.89	
ВНІ	3,666	0.01	9.5	963.71	65	130	22	9.26	130	2.79	
СВА	5,172	0.01	7.94	888.33	140	175	23	7.36	175	3.69	
CDO	9,725	0.00	11.81	2,784.00	87	112	127	9.77	112	4.11	
DIL	32,002	0.01	2.34	323.49	25	32	185	2.26	32	2.57	
GAP	232	0.08	6.8	164.93	25	27	11	5.48	27	2.11	
KLN	3,606	0.03	8.76	782.33	64	140	17	8.98	140	2.35	
LAG	6,393	0.02	11.76	624.82	100	300	16	11.98	300	2.3	
LUP	9041	0.00	7.42	995.85	30	129	34	6.90	129	2.82	
MAR	1,343	0.00	7.76	497	49	48	31	6.96	49	2.65	
RDO and RDH	2,940	0.02	9.76	824.86	110	150	31	8.17	150	3.87	
SAN	1,123	0.05	8.64	530.88	40	500	2	8.64	500	2.45	
Total	83,711										
		-		Silv	er Assay Stati	stics					
AID	1,527	0.30	29.85	227.6	140	153	19	29.78	153	0.94	
BCA	6,941	0.30	109.67	20,181.30	150-300	324-3600	198	82.73	3,600	3.73	
ВНІ	3,666	0.7	72.29	1,475.00	400	350	23	74.76	400	1.08	
СВА	5,172	0.5	102.33	10,951.70	630	1000	23	98.77	1000	2.16	
CDO	9,725	0.1	132.53	12,936.00	679	625	120	123.53	679	1.90	
DIL	32,002	0.5	18.48	6,275.70	600	1200	23	18.55	1200	3.1	
GAP	232	2.5	113.71	2,102.50	395	280	13	98.70	395	1.41	



	Minimum M		Mean	Maximum	Capped '	Capped Values		Capped	Capped	Coefficient
Deposit	Count	(gpt)	(gpt)	(gpt) Drill hole		Channel	Capped Samples	Mean (gpt)	Maximum (gpt)	of Variation
KLN	3,605	1	47.64	697.5	200	300	22	48.84	300	1.01
LAG	6,393	0.3	74	4,758.10	340	930	23	73.94	930	1.59
LUP	9,041	0.50	51.31	6,710.20	200	347	75	47.70	347	2.13
MAR	1,343	1	88.53	5,420.00	199	427	36	77.77	427	2.62
RDO and RDH	2,940	2	115.99	35,280.60	350	550	56	101.27	550	4.29
SAN	1,123	2	56.99	1,382.40	250	500	8	54.59	500	1.59
Total	83,711									



### 14.4.3 Compositing

Compositing of drill hole samples was conducted to homogenize the database for the statistical analysis and remove any bias associated to the sample length that may exist in the original database. The composite length was determined using original sample length statistics and the thickness of the mineralized zones.

Studies of sample lengths have determined that one metre was the most common length at the various deposits at Mercedes mine. Channels at Diluvio's bulk deposit areas were given less weight over drill holes by increasing their length. As a result, composites were generated with a length of 5 m for channels and 1.5 m for drill holes in Diluvio's bulk deposit areas and 1.0 m for channels and 1.5 m for drill holes for discrete veins at Diluvio and all other deposits.

For drill holes, the tails were merged with the previous composite if less than 0.5 m. For channels, the tails were merged with the previous composite if less than 0.25 m. Grades of 0 gpt Au and 0 gpt Ag were assigned to missing samples. Missing intervals due to poor recovery were ignored during the compositing process.

## 14.4.4 Density

Due to the variable composition and commonly high degree of oxidation observed in the mineralization and the immediate host rock, some 999 bulk density measurements were taken to determine tonnage. The measurements were conducted by the MMM staff and by McClelland Laboratories in Sparks, Nevada. The density values were averaged by deposit, and the resulting averages are listed in Table 14-6

Min. Value Deposit Count Density Max. Value AID 64 2.26 4.12 1.94 **BCA** 34 2.34 2.51 2.15 2.57 2.64 2.33 **DIL Central** 69 DIL Interm. 20 2.52 2.60 2.43 **DIL West** 109 2.56 2.68 2.12 LAG 20 2.40 2.54 2.26 LUP 65 2.44 2.68 2.06 2.72 **LUP Extension** 284 2.46 2.14 SAN 140 2.44 2.94 2.06 2.23 MAR 271 2.89 1.66 RDO and RDH 114 2.49 2.23 2.67

Table 14-6: Density Values by Deposits

#### 14.5 Block Models

Separate block models (BM) were generated for each of the 13 deposits (RDO and RHD are part of the same deposit and share the block model). This was meant to lighten the manipulation of the individual models, reduce interpolation computing time and allow for a better discrimination between zones.



The block models provided were constructed using the Vulcan™ modelling platform.

All models have a rotated origin to represent the general northwest to southeast trend of the mineralization. Individual parent block cells within the mineralized structures have dimensions of 3 m long (x-axis) by 3 m wide (y-axis) by 3 m vertical (z-axis), with sub-blocks of  $0.5 \text{ m} \times 0.5 \text{ m} \times 0.5 \text{ m}$ . The country rock outside of the mineralized structures has block cell dimensions of 12 m long (x-axis) by 12 m wide (y-axis) by 12 m vertical (z-axis), with sub-blocks of  $0.5 \text{ m} \times 0.5 \text{ m}$ .

Rock codes were assigned to the blocks inside the vein/solid defined as "shell", where denominations of 1000s identify the zone/deposit and numerical increments identify the main mineralized structures, starting at "1" and increasing for secondary structures. "Shell" codes 5, 10, and 99 were retained for flagging the country rock outside and immediately surrounding the mineralized structures or for identifying implicitly generated solids carrying marginal grades that were interpolated as separate domains. Grades were otherwise set to nil or to (minus) 99 outside of mineralized structures.

A class numerical tag, the number of holes and composites interrogated, and the average distance to the samples used in the block estimated were assigned to each block as the passes were run sequentially.

A summary of the block models coordinates and parameters is tabulated in Table 14-7. All models are built similarly and comprise the attributes listed in

Table 14-8.

.



**Table 14-7: Block Models Coordinates and Summary Parameters** 

Deposit	BM Origin Coordinated (UTM)		Bearing	Plunge	Dip	Mode	l Dimensio	on (m)	Parent Cell in Mineralization (m)	Sub-blocks (m)	
	Х	Υ	Z	X about Z	X about Y	Y about X	Х	Υ	Z	XxYxZx	XxYxZx
AID	548,918	3,355,283	856	53	0	0	600	900	384	3.0x3.0x3.0	0.5x0.5x0.5
BCA	548,493	3,356,484	828	45	0	0	288	504	432	3.0x3.0x3.0	0.5x0.5x0.5
BHI	549,039	3,355,297	551	45	0	0	408	816	600	3.0x3.0x3.0	0.5x0.5x0.5
СВА	549,603	3,354,483	619	45	0	0	600	912	636	3.0x3.0x3.0	0.5x0.5x0.5
CDO	549,257	3,354,921	287	45	0	0	480	720	1,284	3.0x3.0x3.0	0.5x0.5x0.5
DIL	551,636	3,360,346	842	90	0	0	1,080	456	504	3.0x3.0x3.0	0.5x0.5x0.5
GAP	548,212	3,356,739	730	53	0	0	228	432	480	3.0x3.0x3.0	0.5x0.5x0.5
KLN	551,765	3,357,916	791	24	0	0	396	684	612	3.0x3.0x3.0	0.5x0.5x0.5
LAG	547,993	3,356,941	756	53	0	0	288	744	444	3.0x3.0x3.0	0.5x0.5x0.5
LUP	551,390	3,359,300	925	45	0	0	1,248	912	372	3.0x3.0x3.0	0.5x0.5x0.5
MAR	547,397	3,357,170	495	53	0	0	744	1,104	648	3.0x3.0x3.0	0.5x0.5x0.5
RDO and										2 0v2 0v2 0	0 Ev0 Ev0 E
RDH	552,505	3,357,542	853	24	0	0	396	684	528	3.0x3.0x3.0	0.5x0.5x0.5
SAN	550,754	3,359,310	931	45	0	0	1,510	1,510	360	3.0x3.0x3.0	0.5x0.5x0.5

**Table 14-8: Block Model Attributes** 

	Variable	Data Type	Default Value	Description
1	shell	Integer (Integer*4)	99	Vein code area defined by solids
2	density	Float (Real*4)	999	Assigned density as per zone-specific gravity
3	au	Double (Real*8)	0	Estimated gold grade in ppm
4	ag	Double (Real*8)	0	Estimated silver grade in ppm
5	aueq	Double (Real*8)	0	Calculated AuEq



	Variable	Data Type	Default Value	Description
6	nholes	Integer (Integer*4)	0	Number of holes in estimate
7	nsamp	Integer (Integer*4)	0	Number of composites in estimate
8	avdist	Double (Real*8)	999	Avg composite distance to block centre
9	pass	Integer (Integer*4)	0	Grade estimation pass flag
10	class	Integer (Integer*4)	99	1=meas 2=ind 3=inf 4=expl 99=default/unest
11	aunn	Double (Real*8)	0	Nearest neighbour gold grade
12	agnn	Double (Real*8)	0	Nearest neighbour silver grade
13	mined	Float (Real*4)	0	1=air 0=rock
14	avdst2	Double (Real*8)	999	Average distance to nearest 2 drill holes
15	avdst3	Double (Real*8)	999	Average distance to nearest 3 drill holes
16	junk	Float (Real*4)	-99	Miscellaneous



### 14.5.1 Variography Analysis and Search Ellipsoids

Semi-variograms are used to assess the spatial continuity of sample assay grades within a mineralized zone. In principle, the spatial variability within a zone would be expected to augment between samples taken further apart. A variogram thus gives a measure of how much two samples taken from the same mineralized zone will vary in grade depending upon the distance and orientation between those samples and therefore allowing the established search ellipsoids parameters and kriging weights to be used during interpolation.

Variogram studies were conducted using the gold data for the principal veins and were primarily fit to the orientation of the veins in the deposits. No variography was conducted for silver on the account that it does not have a material impact on the Mineral Resource Estimate. The interpolation of silver has been based upon the variography and parameters developed for gold. The variography study was developed using Vulcan™.

An example of the variogam model for the Marianas area is shown in Figure 14-5.

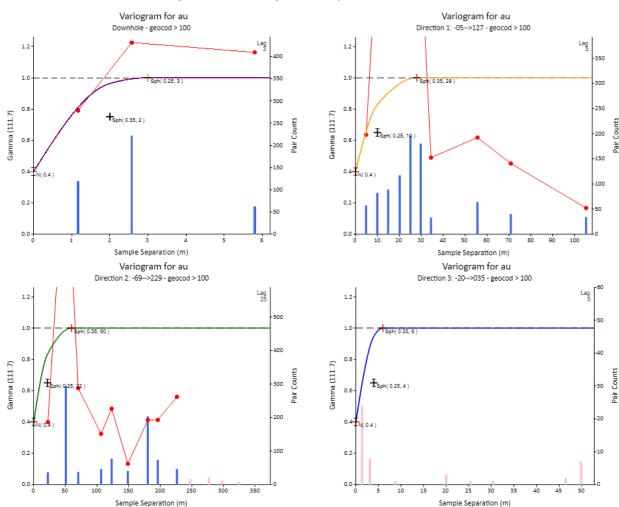


Figure 14-5: Variogram Analysis for Marianas



### 14.5.2 Interpolation Method and Parameters

Grade estimations for gold and silver were run in three passes with progressively greater search dimensions. All interpolations were carried out assuming hard boundaries to prevent smearing of grades across estimation domains. Grades for gold and silver were estimated separately using Ordinary Kriging (OK) and inverse distance cubed (ID3) methods.

OK was preferred in areas with lower grade, bulky and stockwork style of mineralization, whereas ID3 was preferred to narrower zones as it restricts smearing of high-grade values. Nearest neighbor (NN) estimates were performed for validation purposes.

The ranges of the ellipsoids used for the interpolation were established using the variography study and correspond to the range of the first structure for the first pass and to the second structure for the second pass.

Table 14-9 lists the parameters used for resource estimation.



**Table 14-9: Variography Parameters Used for Estimation** 

	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	1310p1	ID3	333.0	-30.0	95.0	15	10	7.5	10	21	3	4	7
	1310p2	ID3	333.0	-30.0	95.0	30	18	12	7	18	3	3	6
	1310p3	ID3	333.0	-30.0	95.0	50	30	20	4	15	3	2	5
	1310p4	ID3	333.0	-30.0	95.0	80	48	32	1	12	1	1	4
	1320p1	ID3	326.3	-44.9	-103.7	15	10	7.5	10	21	3	4	7
	1320p2	ID3	326.3	-44.9	-103.7	30	22.5	9	7	18	3	3	6
	1320p3	ID3	326.3	-44.9	-103.7	50	37.5	15	4	15	3	2	5
	1320p4	ID3	326.3	-44.9	-103.7	80	60	24	1	12	1	1	4
	1331p1	ID3	340.9	9.7	-96.1	15	10	7.5	10	21	3	4	7
	1331p2	ID3	340.9	9.7	-96.1	30	25	10	7	18	3	3	6
	1331p3	ID3	340.9	9.7	-96.1	50	42	15	4	15	3	2	5
	1331p4	ID3	340.9	9.7	-96.1	80	64	24	1	12	1	1	4
AID	1332p1	ID3	146.1	-15.4	-88.3	15	10	7.5	10	21	3	4	7
	1332p2	ID3	146.1	-15.4	-88.3	30	20	9	7	18	3	3	6
	1332p3	ID3	146.1	-15.4	-88.3	50	30	15	4	15	3	2	5
	1332p4	ID3	146.1	-15.4	-88.3	80	48	24	1	12	1	1	4
	1340p1	ID3	346.7	9.3	-95.2	15	10	7.5	10	21	3	4	7
	1340p2	ID3	346.7	9.3	-95.2	30	25	10	7	18	3	3	6
	1340p3	ID3	346.7	9.3	-95.2	50	42	15	4	15	3	2	5
	1340p4	ID3	346.7	9.3	-95.2	80	64	24	1	12	1	1	4
	1350p1	ID3	338.4	14.5	-93.9	15	10	7.5	10	21	3	4	7
	1350p2	ID3	338.4	14.5	-93.9	30	25	10	7	18	3	3	6
	1350p3	ID3	338.4	14.5	-93.9	50	42	15	4	15	3	2	5
	1350p4	ID3	338.4	14.5	-93.9	80	64	24	1	12	1	1	4
	1361p1	ID3	310.0	-34.0	-105.0	15	10	7.5	10	21	3	4	7



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(x)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	1361p2	ID3	310.0	-34.0	-105.0	30	22.5	12	7	18	3	3	6
	1361p3	ID3	310.0	-34.0	-105.0	50	37.5	18	4	15	3	2	5
	1361p4	ID3	310.0	-34.0	-105.0	80	60	24	1	12	1	1	4
	1362p1	ID3	155.0	-12.0	-47.3	15	10	7.5	10	21	3	4	7
	1362p2	ID3	155.0	-12.0	-47.3	30	22.5	12	7	18	3	3	6
	1362p3	ID3	155.0	-12.0	-47.3	50	37.5	20	4	15	3	2	5
	1362p4	ID3	155.0	-12.0	-47.3	80	60	32	1	12	1	1	4
	1390p1	ID3	142.0	9.4	-89.2	15	10	7.5	10	21	3	4	7
	1390p2	ID3	142.0	9.4	-89.2	30	18	12	7	18	3	3	6
	1390p3	ID3	142.0	9.4	-89.2	50	27	20	4	15	3	2	5
	1390p4	ID3	142.0	9.4	-89.2	80	38	32	1	12	1	1	4
	99p4	ID3	142.0	9.4	-89.2	99	99	99	1	18	1	1	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10
	1300nn	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	2001p1	ID3	141.4	14.7	-75.6	15	10	7.5	10	21	3	1	10
	2001p2	ID3	141.4	14.7	-75.6	30	20	15	7	18	3	1	10
BCA	2001p3	ID3	141.4	14.7	-75.6	50	35	25	4	15	3	1	10
BCA	2001p4	ID3	141.4	14.7	-75.6	80	55	40	1	12	3	1	10
	2002p1	ID3	128.3	-41.7	-74.2	15	10	7.5	10	21	3	1	10
	2002p2	ID3	128.3	-41.7	-74.2	30	20	15	7	18	3	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2002p3	ID3	128.3	-41.7	-74.2	50	35	25	4	15	3	1	10
	2002p4	ID3	128.3	-41.7	-74.2	80	55	40	1	12	3	1	10
	2003p1	ID3	125.5	-10.9	-71.3	15	10	7.5	10	21	3	1	10
	2003p2	ID3	125.5	-10.9	-71.3	30	20	15	7	18	3	1	10
	2003p3	ID3	125.5	-10.9	-71.3	50	35	25	4	15	3	1	10
	2003p4	ID3	125.5	-10.9	-71.3	80	55	40	1	12	3	1	10
	2004p1	ID3	280.5	-56.5	49.4	15	10	7.5	10	21	3	1	10
	2004p2	ID3	280.5	-56.5	49.4	35	20	15	7	18	3	1	10
	2004p3	ID3	280.5	-56.5	49.4	35	35	25	4	15	3	1	10
	2004p4	ID3	280.5	-56.5	49.4	50	55	40	1	12	3	1	10
	2010p1	ID3	304.4	-23.5	101.5	15	10	7.5	10	21	3	1	10
	2010p2	ID3	304.4	-23.5	101.5	35	20	15	7	18	3	1	10
	2010p3	ID3	304.4	-23.5	101.5	35	35	25	4	15	3	1	10
	2010p4	ID3	304.4	-23.5	101.5	50	55	40	1	12	3	1	10
	2011p1	ID3	309.2	-8.2	137.3	15	10	7.5	10	21	3	1	10
	2011p2	ID3	309.2	-8.2	137.3	35	20	15	7	18	3	1	10
	2011p3	ID3	309.2	-8.2	137.3	35	35	25	4	15	3	1	10
	2011p4	ID3	309.2	-8.2	137.3	50	55	40	1	12	3	1	10
	2020p1	ID3	317.4	20.0	77.3	15	10	7.5	10	21	3	1	10
	2020p2	ID3	317.4	20.0	77.3	35	20	15	7	18	3	1	10
	2020p3	ID3	317.4	20.0	77.3	35	35	25	4	15	3	1	10
	2020p4	ID3	317.4	20.0	77.3	50	55	40	1	12	3	1	10
	2021p1	ID3	309.4	-5.8	96.9	15	10	7.5	10	21	3	1	10
	2021p2	ID3	309.4	-5.8	96.9	35	20	15	7	18	3	1	10
	2021p3	ID3	309.4	-5.8	96.9	35	35	25	4	15	3	1	10
	2021p4	ID3	309.4	-5.8	96.9	50	55	40	1	12	3	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2030p1	ID3	297.0	-25.1	70.5	15	10	7.5	10	21	3	1	10
	2030p2	ID3	297.0	-25.1	70.5	35	20	15	7	18	3	1	10
	2030p3	ID3	297.0	-25.1	70.5	35	35	25	4	15	3	1	10
	2030p4	ID3	297.0	-25.1	70.5	50	55	40	1	12	3	1	10
	2031p1	ID3	327.2	-14.9	104.1	15	10	7.5	10	21	3	1	10
	2031p2	ID3	327.2	-14.9	104.1	35	20	15	7	18	3	1	10
	2031p3	ID3	327.2	-14.9	104.1	35	35	25	4	15	3	1	10
	2031p4	ID3	327.2	-14.9	104.1	50	55	40	1	12	3	1	10
	2032p1	ID3	308.9	-17.7	120.1	15	10	7.5	10	21	3	1	10
	2032p2	ID3	308.9	-17.7	120.1	35	20	15	7	18	3	1	10
	2032p3	ID3	308.9	-17.7	120.1	35	35	25	4	15	3	1	10
	2032p4	ID3	308.9	-17.7	120.1	50	30	15	1	12	3	1	10
	2040p1	ID3	291.5	-19.9	70.8	50	30	15	10	21	3	1	10
	2040p2	ID3	291.5	-19.9	70.8	50	30	15	7	18	3	1	10
	2040p3	ID3	291.5	-19.9	70.8	50	30	15	4	15	3	1	10
	2040p4	ID3	291.5	-19.9	70.8	50	30	15	1	12	3	1	10
	2041p1	ID3	323.0	54.8	83.7	50	30	15	10	21	3	1	10
	2041p2	ID3	323.0	54.8	83.7	50	30	15	7	18	3	1	10
	2041p3	ID3	323.0	54.8	83.7	50	30	15	4	15	3	1	10
	2041p4	ID3	323.0	54.8	83.7	50	30	15	1	12	3	1	10
	2042p1	ID3	324.9	4.5	113.4	50	30	15	10	21	3	1	10
	2042p2	ID3	324.9	4.5	113.4	50	30	15	7	18	3	1	10
	2042p3	ID3	324.9	4.5	113.4	50	30	15	4	15	3	1	10
	2042p4	ID3	324.9	4.5	113.4	50	30	15	1	12	3	1	10
	2043p1	ID3	300.9	11.8	106.8	50	30	15	10	21	3	1	10
	2043p2	ID3	300.9	11.8	106.8	50	30	15	7	18	3	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2043p3	ID3	300.9	11.8	106.8	50	30	15	4	15	3	1	10
	2043p4	ID3	300.9	11.8	106.8	50	30	15	1	12	3	1	10
	2044p1	ID3	115.7	-35.1	-94.4	50	30	15	10	21	3	1	10
	2044p2	ID3	115.7	-35.1	-94.4	50	30	15	7	18	3	1	10
	2044p3	ID3	115.7	-35.1	-94.4	50	30	15	4	15	3	1	10
	2044p4	ID3	115.7	-35.1	-94.4	50	30	15	1	12	3	1	10
	2045p1	ID3	252.3	-17.8	52.1	50	30	15	10	21	3	1	10
	2045p2	ID3	252.3	-17.8	52.1	50	30	15	7	18	3	1	10
	2045p3	ID3	252.3	-17.8	52.1	50	30	15	4	15	3	1	10
	2045p4	ID3	252.3	-17.8	52.1	50	30	15	1	12	3	1	10
	2050p1	ID3	164.3	-56.8	-55.6	50	30	15	10	21	3	1	10
	2050p2	ID3	164.3	-56.8	-55.6	50	30	15	7	18	3	1	10
	2050p3	ID3	164.3	-56.8	-55.6	50	30	15	4	15	3	1	10
	2050p4	ID3	164.3	-56.8	-55.6	50	30	15	1	12	3	1	10
	2051p1	ID3	315.3	-21.1	99.8	50	30	15	10	21	3	1	10
	2051p2	ID3	315.3	-21.1	99.8	50	30	15	7	18	3	1	10
	2051p3	ID3	315.3	-21.1	99.8	50	30	15	4	15	3	1	10
	2051p4	ID3	315.3	-21.1	99.8	50	30	15	1	12	3	1	10
	2052p1	ID3	316.2	60.3	75.9	50	30	15	10	21	3	1	10
	2052p2	ID3	316.2	60.3	75.9	50	30	15	7	18	3	1	10
	2052p3	ID3	316.2	60.3	75.9	50	30	15	4	15	3	1	10
	2052p4	ID3	316.2	60.3	75.9	50	30	15	1	12	3	1	10
	2060p1	ID3	297.9	-21.6	73.8	50	30	15	10	21	3	1	10
	2060p2	ID3	297.9	-21.6	73.8	50	30	15	7	18	3	1	10
	2060p3	ID3	297.9	-21.6	73.8	50	30	15	4	15	3	1	10
	2060p4	ID3	297.9	-21.6	73.8	50	30	15	1	12	3	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2061p1	ID3	229.3	-79.0	12.9	50	30	15	10	21	3	1	10
	2061p2	ID3	229.3	-79.0	12.9	50	30	15	7	18	3	1	10
	2061p3	ID3	229.3	-79.0	12.9	50	30	15	4	15	3	1	10
	2061p4	ID3	229.3	-79.0	12.9	50	30	15	1	12	3	1	10
	2070p1	ID3	305.2	-13.6	73.6	50	30	15	10	21	3	1	10
	2070p2	ID3	305.2	-13.6	73.6	50	30	15	7	18	3	1	10
	2070p3	ID3	305.2	-13.6	73.6	50	30	15	4	15	3	1	10
	2070p4	ID3	305.2	-13.6	73.6	50	30	15	1	12	3	1	10
	2071p1	ID3	312.7	-25.6	76.4	50	30	15	10	21	3	1	10
	2071p2	ID3	312.7	-25.6	76.4	50	30	15	7	18	3	1	10
	2071p3	ID3	312.7	-25.6	76.4	50	30	15	4	15	3	1	10
	2071p4	ID3	312.7	-25.6	76.4	50	30	15	1	12	3	1	10
	2072p1	ID3	290.6	-14.1	52.2	50	30	15	10	21	3	1	10
	2072p2	ID3	290.6	-14.1	52.2	50	30	15	7	18	3	1	10
	2072p3	ID3	290.6	-14.1	52.2	50	30	15	4	15	3	1	10
	2072p4	ID3	290.6	-14.1	52.2	50	30	15	1	12	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10
	99p4	ID3	142.0	9.4	-89.2	80	80	80	1	18	1	1	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	nn2300	NN	51.0	8.5	-155.2	100	100	100	1	1	10	1	10
BHI	1001p1	ID3	144.7	-13.9	-84.0	15	10	7.5	10	21	21	5	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	1001p2	ID3	144.7	-13.9	-84.0	30	20	15	7	18	18	3	10
	1001p3	ID3	144.7	-13.9	-84.0	50	35	25	4	15	15	2	10
	1001p4	ID3	144.7	-13.9	-84.0	80	55	40	1	12	12	1	10
	1002p1	ID3	132.7	-12.5	-87.1	15	10	7.5	10	21	21	5	10
	1002p2	ID3	132.7	-12.5	-87.1	30	20	15	7	18	18	3	10
	1002p3	ID3	132.7	-12.5	-87.1	50	35	25	4	15	15	2	10
	1002p4	ID3	132.7	-12.5	-87.1	80	55	40	1	12	12	1	10
	1003p1	ID3	137.1	-0.7	-99.4	15	10	7.5	10	21	21	5	10
	1003p2	ID3	137.1	-0.7	-99.4	30	20	15	7	18	18	3	10
	1003p3	ID3	137.1	-0.7	-99.4	50	35	25	4	15	15	2	10
	1003p4	ID3	137.1	-0.7	-99.4	80	55	40	1	12	12	1	10
	1004p1	ID3	348.7	-53.9	107.7	15	10	7.5	10	21	21	5	10
	1004p2	ID3	348.7	-53.9	107.7	35	20	15	7	18	18	3	10
	1004p3	ID3	348.7	-53.9	107.7	35	35	25	4	15	15	2	10
	1004p4	ID3	348.7	-53.9	107.7	50	55	40	1	12	12	1	10
	1005p1	ID3	316.8	-18.6	92.3	15	10	7.5	10	21	21	5	10
	1005p2	ID3	316.8	-18.6	92.3	35	20	15	7	18	18	3	10
	1005p3	ID3	316.8	-18.6	92.3	35	35	25	4	15	15	2	10
	1005p4	ID3	316.8	-18.6	92.3	50	55	40	1	12	12	1	10
	1006p1	ID3	330.4	-13.6	87.7	15	10	7.5	10	21	21	5	10
	1006p2	ID3	330.4	-13.6	87.7	35	20	15	7	18	18	3	10
	1006p3	ID3	330.4	-13.6	87.7	35	35	25	4	15	15	2	10
	1006p4	ID3	330.4	-13.6	87.7	50	55	40	1	12	12	1	10
	1007p1	ID3	325.7	-43.8	78.1	15	10	7.5	10	21	21	5	10
	1007p2	ID3	325.7	-43.8	78.1	35	20	15	7	18	18	3	10
	1007p3	ID3	325.7	-43.8	78.1	35	35	25	4	15	15	2	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	1007p4	ID3	325.7	-43.8	78.1	50	55	40	1	12	12	1	10
	1008p1	ID3	153.0	-5.7	-96.6	15	10	7.5	10	21	21	5	10
	1008p2	ID3	153.0	-5.7	-96.6	30	20	15	7	18	18	3	10
	1008p3	ID3	153.0	-5.7	-96.6	50	35	25	4	15	15	2	10
	1008p4	ID3	153.0	-5.7	-96.6	80	55	40	1	12	12	1	10
	99p4	ID3	142.0	9.4	-89.2	80	80	80	1	18	18	1	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	15	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	15	1	10
	nn1000	NN	51.0	8.5	-155.2	100	100	100	1	1	1	7	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	2	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	3	7	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	2	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	3	7	10
	1201p1	ID3	145.5	-1.7	-118.7	15	10	7.5	10	21	3	5	10
	1201p2	ID3	145.5	-1.7	-118.7	30	20	15	7	18	3	3	10
	1201p3	ID3	145.5	-1.7	-118.7	50	35	25	4	15	3	2	10
	1201p4	ID3	145.5	-1.7	-118.7	80	55	40	1	12	3	1	10
	1202p1	ID3	120.0	7.6	-94.8	15	10	7.5	10	21	3	5	10
CBA	1202p2	ID3	120.0	7.6	-94.8	30	20	15	7	18	3	3	10
CDA	1202p3	ID3	120.0	7.6	-94.8	50	35	25	4	15	3	2	10
	1202p4	ID3	120.0	7.6	-94.8	80	55	40	1	12	3	1	10
	1203p1	ID3	146.3	-4.0	-105.8	15	10	7.5	10	21	3	5	10
	1203p2	ID3	146.3	-4.0	-105.8	30	20	15	7	18	3	3	10
	1203p3	ID3	146.3	-4.0	-105.8	50	35	25	4	15	3	2	10
	1203p4	ID3	146.3	-4.0	-105.8	80	55	40	1	12	3	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	99p4	ID3	142.0	9.4	-89.2	80	80	80	1	18	1	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10
	nn1200	NN	142.0	9.4	-89.2	100	100	100	1	1	3	7	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	1101p1	ID3	129.6	-0.5	-92.8	15	10	7.5	10	21	3	5	10
	1101p2	ID3	129.6	-0.5	-92.8	30	20	15	7	18	3	3	10
	1101p3	ID3	129.6	-0.5	-92.8	50	35	25	4	15	3	2	10
	1101p4	ID3	129.6	-0.5	-92.8	80	55	40	1	12	3	1	10
	1102p1	ID3	131.9	-7.0	-98.0	15	10	7.5	10	21	3	5	10
	1102p2	ID3	131.9	-7.0	-98.0	30	20	15	7	18	3	3	10
	1102p3	ID3	131.9	-7.0	-98.0	50	35	25	4	15	3	2	10
	1102p4	ID3	131.9	-7.0	-98.0	80	55	40	1	12	3	1	10
CDO	1103p1	ID3	130.7	1.1	-96.2	15	10	7.5	10	21	3	5	10
	1103p2	ID3	130.7	1.1	-96.2	30	20	15	7	18	3	3	10
	1103p3	ID3	130.7	1.1	-96.2	50	35	25	4	15	3	2	10
	1103p4	ID3	130.7	1.1	-96.2	80	55	40	1	12	3	1	10
	1104p1	ID3	130.1	4.4	85.5	15	10	7.5	10	21	3	5	10
	1104p2	ID3	130.1	4.4	85.5	35	20	15	7	18	3	3	10
	1104p3	ID3	130.1	4.4	85.5	35	35	25	4	15	3	2	10
	1104p4	ID3	130.1	4.4	85.5	50	55	40	1	12	3	1	10
	99p4	ID3	142.0	9.4	-89.2	80	80	80	1	18	1	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10
	nn1100	NN	142.0	9.4	-89.2	100	100	100	1	1	3	7	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	4000n4	NN	0.0	99.0	99.0	99	99	99	1	1	1	1	10
	4001p1	ОК	305.0	10.0	-74.0	15	10	7.5	10	21	3	1	10
	4001p2	ОК	305.0	10.0	-74.0	25	15	10	7	18	3	1	10
	4001p3	ОК	305.0	10.0	-74.0	40	25	20	4	15	3	1	10
	4001p4	ОК	305.0	10.0	-74.0	80	60	40	1	12	3	1	10
	4002p1	ОК	285.0	-20.0	-34.0	15	10	7.5	10	21	3	1	10
	4002p2	ОК	285.0	-20.0	-34.0	30	20	15	7	18	3	1	10
	4002p3	ОК	285.0	-20.0	-34.0	50	35	20	4	15	3	1	10
DIL	4002p4	ОК	285.0	-20.0	-34.0	80	60	40	1	12	3	1	10
DIL	4004p1	ОК	265.5	8.0	68.5	15	10	7.5	10	21	3	1	10
	4004p2	ОК	265.5	8.0	68.5	30	25	15	7	18	3	1	10
	4004p3	ОК	265.5	8.0	68.5	45	40	20	4	15	3	1	10
	4004p4	OK	265.5	8.0	68.5	60	60	30	1	12	3	1	10
	4005p1	ID3	309.5	12.9	-81.5	15	10	7.5	10	21	3	4	7
	4005p2	ID3	309.5	12.9	-81.5	30	25	15	7	18	3	3	6
	4005p3	ID3	309.5	12.9	-81.5	50	40	25	4	15	3	2	5
	4005p4	ID3	309.5	12.9	-81.5	80	65	40	1	12	3	1	4
	4006p1	ID3	312.4	3.3	-88.0	15	10	7.5	10	21	3	4	7



_	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	4006p2	ID3	312.4	3.3	-88.0	30	25	15	7	18	3	3	6
	4006p3	ID3	312.4	3.3	-88.0	50	40	25	4	15	3	2	5
	4006p4	ID3	312.4	3.3	-88.0	80	65	40	1	12	3	1	4
	4007p1	ID3	312.4	3.3	-81.1	15	10	7.5	10	21	3	4	7
	4007p2	ID3	312.4	3.3	-81.1	30	25	15	7	18	3	3	6
	4007p3	ID3	312.4	3.3	-81.1	50	40	25	4	15	3	2	5
	4007p4	ID3	312.4	3.3	-81.1	80	65	40	1	12	3	1	4
	4031p1	ID3	259.8	3.1	-65.9	15	10	7.5	10	21	3	4	7
	4031p2	ID3	259.8	3.1	-65.9	30	25	15	7	18	3	3	6
	4031p3	ID3	259.8	3.1	-65.9	50	40	25	4	15	3	2	5
	4031p4	ID3	259.8	3.1	-65.9	80	65	40	1	12	3	1	4
	4032p1	ID3	246.2	8.7	-55.7	15	10	7.5	10	21	3	4	7
	4032p2	ID3	246.2	8.7	-55.7	30	25	15	7	18	3	3	6
	4032p3	ID3	246.2	8.7	-55.7	50	40	25	4	15	3	2	5
	4032p4	ID3	246.2	8.7	-55.7	80	65	40	1	12	3	1	4
	4033p1	ID3	261.7	0.5	-53.4	15	10	7.5	10	21	3	4	7
	4033p2	ID3	261.7	0.5	-53.4	30	25	15	7	18	3	3	6
	4033p3	ID3	261.7	0.5	-53.4	50	40	25	4	15	3	2	5
	4033p4	ID3	261.7	0.5	-53.4	80	65	40	1	12	3	1	4
	4034p1	ID3	316.1	4.2	-76.9	15	10	7.5	10	21	3	4	7
	4034p2	ID3	316.1	4.2	-76.9	30	25	15	7	18	3	3	6
	4034p3	ID3	316.1	4.2	-76.9	50	40	25	4	15	3	2	5
	4034p4	ID3	316.1	4.2	-76.9	80	65	40	1	12	3	1	4
	4035p1	ID3	268.7	-2.1	-59.5	15	10	7.5	10	21	3	4	7
	4035p2	ID3	268.7	-2.1	-59.5	30	25	15	7	18	3	3	6
	4035p3	ID3	268.7	-2.1	-59.5	50	40	25	4	15	3	2	5



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	4035p4	ID3	268.7	-2.1	-59.5	80	65	40	1	12	3	1	4
	4036p1	ID3	263.7	13.2	-44.8	15	10	7.5	10	21	3	4	7
	4036p2	ID3	255.0	4.4	-46.7	30	25	15	7	18	3	3	6
	4036p3	ID3	270.6	12.6	-46.1	50	40	25	4	15	3	2	5
	4036p4	ID3	252.8	2.0	-50.3	80	65	40	1	12	3	1	4
	4037p1	ID3	278.3	-16.3	-57.4	15	10	7.5	10	21	3	4	7
	4037p2	ID3	278.3	-16.3	-57.4	30	25	15	7	18	3	3	6
	4037p3	ID3	278.3	-16.3	-57.4	50	40	25	4	15	3	2	5
	4037p4	ID3	278.3	-16.3	-57.4	80	65	40	1	12	3	1	4
	4038p1	ID3	266.6	0.9	-57.4	15	10	7.5	10	21	3	4	7
	4038p2	ID3	266.6	0.9	-57.4	30	25	15	7	18	3	3	6
	4038p3	ID3	266.6	0.9	-57.4	50	40	25	4	15	3	2	5
	4038p4	ID3	266.6	0.9	-57.4	80	65	40	1	12	3	1	4
	4039p1	ID3	253.5	-8.7	-48.2	15	10	7.5	10	21	3	4	7
	4039p2	ID3	253.5	-8.7	-48.2	30	25	15	7	18	3	3	6
	4039p3	ID3	253.5	-8.7	-48.2	50	40	25	4	15	3	2	5
	4039p4	ID3	253.5	-8.7	-48.2	80	65	40	1	12	3	1	4
	9905p4	ID3	99.0	99.0	99.0	99	99	99	4	15	3	1	10
	9910p4	ID3	99.0	99.0	99.0	99	99	99	4	15	3	1	10
	99dst2	ID3	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	99dst3	ID3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
	99n4	NN	99.0	99.0	99.0	99	99	99	1	1	1	1	10
	99p4	ID3	99.0	99.0	99.0	99	99	99	1	18	1	1	10
	avdst2	ID3	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	avdst3	ID3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
GAP	2101p1	ID3	114.4	-13.6	-104.6	15	10	7.5	10	21	3	5	10



Deposit	Solid/ Pass	Estimation Method	Bearing (Z)	Plunge (Y)	Dip (X)	Range			Min	Max	Max	Min	Max
						Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2101p2	ID3	114.4	-13.6	-104.6	30	20	15	7	18	3	3	10
	2101p3	ID3	114.4	-13.6	-104.6	50	35	25	4	15	3	2	10
	2101p4	ID3	114.4	-13.6	-104.6	80	55	40	1	12	3	1	10
	2102p1	ID3	121.9	-12.8	-99.0	15	10	7.5	10	21	3	5	10
	2102p2	ID3	121.9	-12.8	-99.0	30	20	15	7	18	3	3	10
	2102p3	ID3	121.9	-12.8	-99.0	50	35	25	4	15	3	2	10
	2102p4	ID3	121.9	-12.8	-99.0	80	55	40	1	12	3	1	10
	2103p1	ID3	135.1	-15.4	-86.7	15	10	7.5	10	21	3	5	10
	2103p2	ID3	135.1	-15.4	-86.7	30	20	15	7	18	3	3	10
	2103p3	ID3	135.1	-15.4	-86.7	50	35	25	4	15	3	2	10
	2103p4	ID3	135.1	-15.4	-86.7	80	55	40	1	12	3	1	10
	2104p1	ID3	131.0	-15.6	-91.9	15	10	7.5	10	21	3	5	10
	2104p2	ID3	131.0	-15.6	-91.9	30	20	15	7	18	3	3	10
	2104p3	ID3	131.0	-15.6	-91.9	50	35	25	4	15	3	2	10
	2104p4	ID3	131.0	-15.6	-91.9	80	55	40	1	12	3	1	10
	2105p1	ID3	111.8	-14.1	-112.5	15	10	7.5	10	21	3	5	10
	2105p2	ID3	111.8	-14.1	-112.5	30	20	15	7	18	3	3	10
	2105p3	ID3	111.8	-14.1	-112.5	50	35	25	4	15	3	2	10
	2105p4	ID3	111.8	-14.1	-112.5	80	55	40	1	12	3	1	10
	99p4	ID3	142.0	9.4	-89.2	80	80	80	1	18	1	1	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10
	nn2100	NN	51.0	8.5	-155.2	100	100	100	1	1	3	7	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10



Deposit	Solid/ Pass	Estimation Method	Bearing (Z)	Plunge (Y)	Dip (X)	Range			Min	Max	Max	Min	Max
						Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	3001p1	ID3	283.8	-1.7	66.8	15	10	7.5	10	21	3	4	7
	3001p2	ID3	283.8	-1.7	66.8	30	25	15	7	18	3	3	6
	3001p3	ID3	283.8	-1.7	66.8	50	37.5	25	4	15	3	2	5
	3001p4	ID3	283.8	-1.7	66.8	80	55	40	1	12	3	1	4
	3002p1	ID3	284.0	-5.7	-110.8	15	10	7.5	10	21	3	4	7
	3002p2	ID3	284.0	-5.7	-110.8	30	15	5	7	18	3	3	6
	3002p3	ID3	284.0	-5.7	-110.8	50	30	10	4	15	3	2	5
	3002p4	ID3	284.0	-5.7	-110.8	80	40	15	1	12	3	1	4
	3003p1	ID3	320.2	-6.6	-111.1	15	10	7.5	10	21	3	4	7
	3003p2	ID3	320.2	-6.6	-111.1	30	25	10	7	18	3	3	6
	3003p3	ID3	320.2	-6.6	-111.1	50	35	20	4	15	3	2	5
KLN	3003p4	ID3	320.2	-6.6	-111.1	80	60	30	1	12	3	1	4
KLIN	3004p1	ID3	280.6	-5.8	-111.4	15	10	7.5	10	21	3	4	7
	3004p2	ID3	280.6	-5.8	-111.4	30	25	10	7	18	3	3	6
	3004p3	ID3	280.6	-5.8	-111.4	50	35	20	4	15	3	2	5
	3004p4	ID3	280.6	-5.8	-111.4	80	60	30	1	12	3	1	4
	3005p1	ID3	286.0	3.3	-114.0	15	10	7.5	10	21	3	4	7
	3005p2	ID3	286.0	3.3	-114.0	30	25	10	7	18	3	3	6
	3005p3	ID3	286.0	3.3	-114.0	50	35	20	4	15	3	2	5
	3005p4	ID3	286.0	3.3	-114.0	80	60	30	1	12	3	1	4
	3006p1	ID3	298.1	-33.1	-132.4	15	10	7.5	10	21	3	4	7
	3006p2	ID3	298.1	-33.1	-132.4	30	25	10	7	18	3	3	6
	3006p3	ID3	298.1	-33.1	-132.4	50	35	20	4	15	3	2	5
	3006p4	ID3	298.1	-33.1	-132.4	80	60	30	1	12	3	1	4



Deposit	Solid/	Estimation Method	Bearing (Z)	Plunge (Y)	Dip (X)	Range			Min	Max	Max	Min	Max
	Pass					Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	3007p1	ID3	303.7	3.1	-100.9	15	10	7.5	10	21	3	4	7
	3007p2	ID3	303.7	3.1	-100.9	30	25	10	7	18	3	3	6
	3007p3	ID3	303.7	3.1	-100.9	50	35	20	4	15	3	2	5
	3007p4	ID3	303.7	3.1	-100.9	80	60	30	1	12	3	1	4
	99p4	ID3	285.0	3.0	67.0	99	99	99	1	12	3	1	4
	99n1	NN	285.0	3.0	67.0	99	99	99	1	1	3	1	4
	nn3000	NN	285.0	3.0	67.0	99	99	99	1	1	3	1	4
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	2211p1	ID3	330.3	-15.2	-66.9	15	10	7.5	10	21	3	7	10
	2211p2	ID3	330.3	-15.2	-66.9	30	20	15	7	18	3	3	6
	2211p3	ID3	330.3	-15.2	-66.9	60	40	30	4	15	3	2	5
	2211p4	ID3	330.3	-15.2	-66.9	80	55	40	1	12	3	1	4
	2212p1	ID3	328.9	-15.4	-74.8	15	10	7.5	10	21	3	7	10
	2212p2	ID3	328.9	-15.4	-74.8	30	20	15	7	18	3	3	6
LAG	2212p3	ID3	328.9	-15.4	-74.8	60	40	30	4	15	3	2	5
	2212p4	ID3	328.9	-15.4	-74.8	80	55	40	1	12	3	1	4
	2213p1	ID3	313.8	-17.1	-87.4	15	10	7.5	10	21	3	7	10
	2213p2	ID3	313.8	-17.1	-87.4	30	20	15	7	18	3	3	6
	2213p3	ID3	313.8	-17.1	-87.4	60	40	30	4	15	3	2	5
	2213p4	ID3	313.8	-17.1	-87.4	80	55	40	1	12	3	1	4
	2214p1	ID3	333.9	-87.4	-75.5	15	10	7.5	10	21	3	7	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2214p2	ID3	333.9	-87.4	-75.5	30	20	15	7	18	3	3	6
	2214p3	ID3	333.9	-87.4	-75.5	60	40	30	4	15	3	2	5
	2214p4	ID3	333.9	-87.4	-75.5	80	55	40	1	12	3	1	4
	2215p1	ID3	310.6	-17.3	-56.2	15	10	7.5	10	21	3	7	10
	2215p2	ID3	310.6	-17.3	-56.2	30	20	15	7	18	3	3	6
	2215p3	ID3	310.6	-17.3	-56.2	60	40	30	4	15	3	2	5
	2215p4	ID3	310.6	-17.3	-56.2	80	55	40	1	12	3	1	4
	2221p1	ID3	320.8	-16.5	-73.5	15	10	7.5	10	21	3	7	10
	2221p2	ID3	320.8	-16.5	-73.5	30	20	15	7	18	3	3	6
	2221p3	ID3	320.8	-16.5	-73.5	60	40	30	4	15	3	2	5
	2221p4	ID3	320.8	-16.5	-73.5	80	55	40	1	12	3	1	4
	2222p1	ID3	330.2	-15.6	-69.9	15	10	7.5	10	21	3	7	10
	2222p2	ID3	330.2	-15.6	-69.9	30	20	15	7	18	3	3	6
	2222p3	ID3	330.2	-15.6	-69.9	60	40	30	4	15	3	2	5
	2222p4	ID3	330.2	-15.6	-69.9	80	55	40	1	12	3	1	4
	2223p1	ID3	334.9	-9.4	-98.6	15	10	7.5	10	21	3	7	10
	2223p2	ID3	334.9	-9.4	-98.6	30	20	15	7	18	3	3	6
	2223p3	ID3	334.9	-9.4	-98.6	60	40	30	4	15	3	2	5
	2223p4	ID3	334.9	-9.4	-98.6	80	55	40	1	12	3	1	4
	2231p1	ID3	342.3	-13.3	-71.6	15	10	7.5	10	21	3	7	10
	2231p2	ID3	342.3	-13.3	-71.6	30	20	15	7	18	3	3	6
	2231p3	ID3	342.3	-13.3	-71.6	60	40	30	4	15	3	2	5
	2231p4	ID3	342.3	-13.3	-71.6	80	55	40	1	12	3	1	4
	2232p1	ID3	323.6	-17.3	-71.4	15	10	7.5	10	21	3	7	10
	2232p2	ID3	323.6	-17.3	-71.4	30	20	15	7	18	3	3	6
	2232p3	ID3	323.6	-17.3	-71.4	60	40	30	4	15	3	2	5



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(x)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2232p4	ID3	323.6	-17.3	-71.4	80	55	40	1	12	3	1	4
	2241p1	ID3	342.4	-13.2	-70.2	15	10	7.5	10	21	3	7	10
	2241p2	ID3	342.4	-13.2	-70.2	30	20	15	7	18	3	3	6
	2241p3	ID3	342.4	-13.2	-70.2	60	40	30	4	15	3	2	5
	2241p4	ID3	342.4	-13.2	-70.2	80	55	40	1	12	3	1	4
	2242p1	ID3	323.3	-16.6	-71.8	15	10	7.5	10	21	3	7	10
	2242p2	ID3	323.3	-16.6	-71.8	30	20	15	7	18	3	3	6
	2242p3	ID3	323.3	-16.6	-71.8	60	40	30	4	15	3	2	5
	2242p4	ID3	323.3	-16.6	-71.8	80	55	40	1	12	3	1	4
	99p4	ID3	99.0	99.0	99.0	99	99	99	1	12	1	1	10
	99n4	NN	99.0	99.0	99.0	99	99	99	1	1	1	1	10
	nn2200	NN	99.0	99.0	99.0	100	100	100	1	1	3	7	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	4101p1	ID3	204.0	25.5	-42.2	15	10	7.5	10	21	3	7	10
	4101p2	ID3	204.0	25.5	-42.2	30	20	10	7	18	3	3	6
	4101p3	ID3	204.0	25.5	-42.2	60	40	20	4	15	3	2	5
LUP	4101p4	ID3	204.0	25.5	-42.2	80	60	30	1	12	3	1	4
LOF	4102p1	ID3	39.8	-16.2	-154.4	15	10	7.5	10	21	3	7	10
	4102p2	ID3	39.8	-16.2	-154.4	30	20	10	7	18	3	3	6
	4102p3	ID3	39.8	-16.2	-154.4	60	40	20	4	15	3	2	5
	4102p4	ID3	39.8	-16.2	-154.4	80	60	30	1	12	3	1	4



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(x)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	4103p1	ID3	65.0	-2.0	21.8	15	10	7.5	10	21	3	7	10
	4103p2	ID3	65.0	-2.0	21.8	30	20	10	7	18	3	3	6
	4103p3	ID3	65.0	-2.0	21.8	60	40	20	4	15	3	2	5
	4103p4	ID3	65.0	-2.0	21.8	80	60	30	1	12	3	1	4
	4104p1	ID3	39.7	-17.9	23.4	15	10	7.5	10	21	3	7	10
	4104p2	ID3	39.7	-17.9	23.4	30	20	10	7	18	3	3	6
	4104p3	ID3	39.7	-17.9	23.4	60	40	20	4	15	3	2	5
	4104p4	ID3	39.7	-17.9	23.4	80	60	30	1	12	3	1	4
	4105p1	ID3	46.6	-11.0	51.5	15	10	7.5	10	21	3	7	10
	4105p2	ID3	46.6	-11.0	51.5	30	20	10	7	18	3	3	6
	4105p3	ID3	46.6	-11.0	51.5	60	40	20	4	15	3	2	5
	4105p4	ID3	46.6	-11.0	51.5	80	60	30	1	12	3	1	4
	4106p1	ID3	70.0	0.0	-158.7	15	10	7.5	10	21	3	7	10
	4106p2	ID3	70.0	0.0	-158.7	30	20	10	7	18	3	3	6
	4106p3	ID3	70.0	0.0	-158.7	60	40	20	4	15	3	2	5
	4106p4	ID3	70.0	0.0	-158.7	80	60	30	1	12	3	1	4
	4107p1	ID3	67.0	-8.3	7.9	15	10	7.5	10	21	3	7	10
	4107p2	ID3	67.0	-8.3	7.9	30	20	10	7	18	3	3	6
	4107p3	ID3	67.0	-8.3	7.9	60	40	20	4	15	3	2	5
	4107p4	ID3	67.0	-8.3	7.9	80	60	30	1	12	3	1	4
	4108p1	ID3	335.2	-51.9	7.9	15	10	7.5	10	21	3	7	10
	4108p2	ID3	335.2	-51.9	7.9	30	20	10	7	18	3	3	6
	4108p3	ID3	335.2	-51.9	7.9	60	40	20	4	15	3	2	5
	4108p4	ID3	335.2	-51.9	7.9	80	60	30	1	12	3	1	4
	99p4	ID3	142.0	9.4	-89.2	99	99	99	1	12	1	1	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	1	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	nn4100	NN	51.0	8.5	-155.2	100	100	100	1	1	3	7	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	7	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	7	10
	2301p1	ID3	131.3	-23.6	-75.6	15	10	7.5	10	21	3	1	10
	2301p2	ID3	131.3	-23.6	-75.6	30	20	15	7	18	3	1	10
	2301p3	ID3	131.3	-23.6	-75.6	50	35	25	4	15	3	1	10
	2301p4	ID3	131.3	-23.6	-75.6	80	55	40	1	12	3	1	10
	2302p1	ID3	148.9	-11.2	-77.8	15	10	7.5	10	21	3	1	10
	2302p2	ID3	148.9	-11.2	-77.8	30	20	15	7	18	3	1	10
	2302p3	ID3	148.9	-11.2	-77.8	50	35	25	4	15	3	1	10
	2302p4	ID3	148.9	-11.2	-77.8	80	55	40	1	12	3	1	10
	2303p1	ID3	89.3	58.9	-42.3	15	10	7.5	10	21	3	1	10
MAR	2303p2	ID3	89.3	58.9	-42.3	30	20	15	7	18	3	1	10
	2303p3	ID3	89.3	58.9	-42.3	50	35	25	4	15	3	1	10
	2303p4	ID3	89.3	58.9	-42.3	80	55	40	1	12	3	1	10
	2304p1	ID3	316.2	-33.4	82.5	15	10	7.5	10	21	3	1	10
	2304p2	ID3	316.2	-33.4	82.5	35	20	15	7	18	3	1	10
	2304p3	ID3	316.2	-33.4	82.5	35	35	25	4	15	3	1	10
	2304p4	ID3	316.2	-33.4	82.5	50	55	40	1	12	3	1	10
	2305p1	ID3	135.4	-22.8	-84.4	15	10	7.5	10	21	3	1	10
	2305p2	ID3	135.4	-22.8	-84.4	30	20	15	7	18	3	1	10
	2305p3	ID3	135.4	-22.8	-84.4	50	35	25	4	15	3	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(x)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	2305p4	ID3	135.4	-22.8	-84.4	80	55	40	1	12	3	1	10
	2306p1	ID3	141.0	-22.1	-81.0	15	10	7.5	10	21	3	1	10
	2306p2	ID3	141.0	-22.1	-81.0	30	20	15	7	18	3	1	10
	2306p3	ID3	141.0	-22.1	-81.0	50	35	25	4	15	3	1	10
	2306p4	ID3	141.0	-22.1	-81.0	80	55	40	1	12	3	1	10
	2307p1	ID3	296.6	-24.9	52.1	15	10	7.5	10	21	3	1	10
	2307p2	ID3	296.6	-24.9	52.1	30	20	15	7	18	3	1	10
	2307p3	ID3	296.6	-24.9	52.1	50	35	25	4	15	3	1	10
	2307p4	ID3	296.6	-24.9	52.1	80	55	40	1	12	3	1	10
	2308p1	ID3	296.6	-24.9	55.0	15	10	7.5	10	21	3	1	10
	2308p2	ID3	296.6	-24.9	55.0	30	20	15	7	18	3	1	10
	2308p3	ID3	296.6	-24.9	55.0	50	35	25	4	15	3	1	10
	2308p4	ID3	296.6	-24.9	55.0	80	55	40	1	12	3	1	10
	2309p1	ID3	296.6	-24.9	55.0	15	10	7.5	10	21	3	1	10
	2309p2	ID3	296.6	-24.9	55.0	30	20	15	7	18	3	1	10
	2309p3	ID3	296.6	-24.9	55.0	50	35	25	4	15	3	1	10
	2309p4	ID3	300.1	-27.0	56.5	80	55	40	1	12	3	1	10
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	10	1	10
	99p4	ID3	142.0	9.4	-89.2	80	80	80	1	18	10	1	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
	nn2300	NN	51.0	8.5	-155.2	100	100	100	1	1	10	1	10



	Solid/	Estimation	Bearing	Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	3100n1	NN	302.0	-23.0	57.0	99	99	99	1	1	10	1	10
	3101p1	ID3	302.0	-23.0	52.3	15	10	7.5	10	21	3	4	7
	3101p2	ID3	302.0	-23.0	52.3	30	25	15	7	18	3	3	6
	3101p3	ID3	302.0	-23.0	52.3	50	37.5	25	4	15	3	2	5
	3101p4	ID3	302.0	-23.0	52.3	80	55	40	1	12	3	1	4
	3102p1	ID3	323.0	24.0	-128.0	15	10	7.5	10	21	3	4	7
	3102p2	ID3	323.0	24.0	-128.0	30	15	5	7	18	3	3	6
	3102p3	ID3	323.0	24.0	-128.0	50	30	10	4	15	3	2	5
	3102p4	ID3	323.0	24.0	-128.0	80	40	15	1	12	3	1	4
	3103p1	ID3	336.0	16.0	-126.0	15	10	7.5	10	21	3	4	7
RDO	3103p2	ID3	336.0	16.0	-126.0	30	25	10	7	18	3	3	6
	3103p3	ID3	336.0	16.0	-126.0	50	35	20	4	15	3	2	5
	3103p4	ID3	336.0	16.0	-126.0	80	60	30	1	12	3	1	4
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
	99n1	NN	302.0	-23.0	57.0	99	99	99	1	1	10	1	10
	99p4	ID3	302.0	-23.0	57.0	99	99	99	1	12	10	1	4
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
	4201p1	ID3	51.0	8.5	-155.2	25	20	10	10	21	3	7	10
	4201p2	ID3	51.0	8.5	-155.2	30	24	10	7	18	3	3	6
SAN	4201p3	ID3	51.0	8.5	-155.2	60	48	20	4	15	3	2	5
	4201p4	ID3	51.0	8.5	-155.2	80	64	30	1	12	3	1	4
	4202p1	ID3	63.4	35.9	-153.5	15	10	7.5	10	21	3	7	10



Danasit	Deposit Solid/	Estimation Bear		Plunge	Dip		Range		Min	Max	Max	Min	Max
Deposit	Pass	Method	(Z)	(Y)	(X)	Major	Semi- Major	Minor	smpl/Est	smpl/Est	smpl/dh	dh/Est	dh/Est
	4202p2	ID3	63.4	35.9	-153.5	30	24	10	7	18	3	3	6
	4202p3	ID3	63.4	35.9	-153.5	60	48	20	4	15	3	2	5
	4202p4	ID3	63.4	35.9	-153.5	80	64	30	1	12	3	1	4
	9905p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	9910p4	ID3	142.0	9.4	-89.2	45	45	45	4	15	3	1	10
	99dst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	99dst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
	99n4	NN	142.0	9.4	-89.2	99	99	99	1	1	10	1	10
	99p4	ID3	142.0	9.4	-89.2	99	99	99	1	12	10	1	10
	avdst2	avdst2	0.0	0.0	0.0	180	180	180	2	2	1	1	10
	avdst3	avdst3	0.0	0.0	0.0	90	90	90	3	3	1	1	10
	nn4200	NN	51.0	8.5	-155.2	100	100	100	1	1	10	1	10



### 14.6 Block Model Validation

The Mercedes Mine block models were validated using several methods, including a visual review of the grades in relation to the underlying drill hole and statistical methods, statistical comparisons, review of the reconciliation, and comparison between a block model derived from drill holes and channels versus a block model derived only from drill holes.

#### 14.6.1 Visual Validation

Block model grades were visually compared against drill hole composite grades and raw assays in cross-section, plan, longitudinal, and 3D views to ensure that the estimation honoured the raw data at a local scale.

The values of the block estimates were compared to composite sample data in sections and 3D views to ensure that the estimation respects the raw data at a local scale. Without excessive smoothing, the visual comparison shows a generally good correlation between the values. The block models reflect a grade distribution that looks naturally fluid enough, emulating grade shoots and the style of mineralization, while comparing well enough to drill hole and sampling data. Figure 14-6 and Figure 14-7 show the San Martin and Rey de Oro vein systems, respectively.

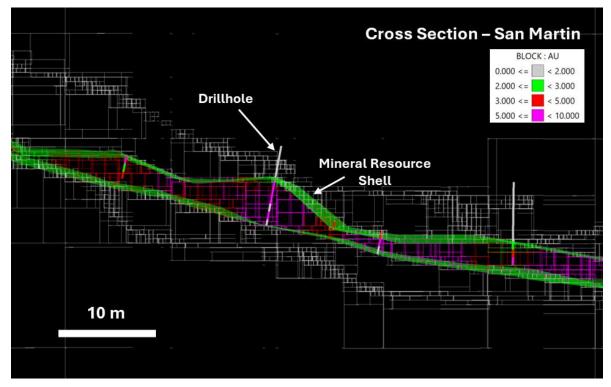


Figure 14-6: Example of visual validation on a typical cross-section of the San Martin vein system



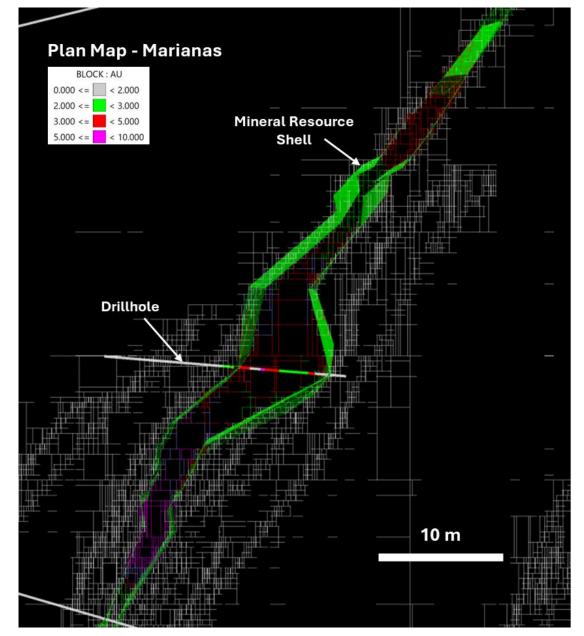


Figure 14-7: Example of visual validation on a typical plan view of the Rey de Oro vein system

# 14.6.2 Statistical Validation

The QP Ms Lane compared block grade estimates with composite grades via summary statistics for the Mercedes Mine deposits. Table 14-10 tabulates a summary of the block model statistics versus capped composite statistics. Block models mean grades for gold are largely comparable or slightly below capped composite mean grades, which is what is expected.



Table 14-10: Block model vs composite statistics for gold and silver

	Ca	pped Com	posite Da	ıta		Block N	1odel	
Deposit	Count	Min	Max	Mean	Count	Min	Max	Mean
	Count	(gpt)	(gpt)	(gpt)	Count	(gpt)	(gpt)	(gpt)
				Gold				
AID	1,527	0.03	58	4.99	58,555	0.05	53.87	4.66
BCA	6,941	0.00	145	8.75	378,420	0.00	143.70	5.57
ВНІ	3,666	0.01	130	9.26	284,960	0.00	127.79	6.78
СВА	5,172	0.01	175	7.36	431,163	0.01	173.00	5.32
CDO	9,725	0.00	150	9.77	559,196	0.00	149.95	7.69
DIL	32,002	0.01	32	2.26	1,284,432	0.03	46.62	1.90
GAP	232	0.08	27	5.48	89,053	0.11	24.96	4.10
KLN	3,606	0.03	140	8.98	353,698	0.00	139.84	7.24
LAG	6,393	0.02	300	11.98	221,380	0.05	176.70	8.13
LUP	9.041	0.00	129	6.90	537,271	0.00	119.72	5.90
MAR	1,343	0.00	49	6.96	344,599	0.00	48.50	5.35
RDO and RDH	2,940	0.02	150	8.17	453,623	0.00	145.20	4.65
SAN	1,123	0.05	79	7.88	143,822	0.00	78.50	6.53
				Silver				
AID	1,527	0.30	153	29.78	58,555	0.30	150.40	33.20
BCA	6,941	0.30	3,600	82.73	378,420	0.00	3,248	70.10
ВНІ	3,666	0.70	400	74.76	284,960	0.00	394.63	61.10
СВА	5,172	0.50	1,000	98.77	431,163	0.90	989.20	74.20
CDO	9,725	0.10	679	123.53	559,196	0.10	670	88.80
DIL	32,002	0.50	1,200	18.55	1,284,432	0.04	748.31	29.61
GAP	232	2.50	395	98.70	89,053	0.00	395.00	78.20
KLN	3,605	1.00	300	48.84	353,698	0.00	299.90	46.10
LAG	6,393	0.30	930	73.94	221,380	1.99	883.00	56.30
LUP	9,041	0.50	500	47.70	537,271	0.00	499.73	43.73
MAR	1,343	1.00	427	77.77	344,599	0.00	427.00	35.14
RDO and RDH	2,940	2.00	550	101.27	453,623	0.00	550.00	67.72
SAN	1,123	2.00	500	54.59	143,822	0.00	460.26	49.06

## 14.6.3 Swath Plot Validation

Swath plots were routinely generated by MMM as part of the block model validation. A swath plot is a graphical display of the mean grade distribution derived from a series of sectional slices (or swaths) generated in several directions throughout the deposit and associated block models. The QP Ms Lane reviewed the plots derived from comparative block models generated from using either channel and drill



hole data (blue line) or drill hole data only (yellow line). These are plotted against the Nearest neighbor (NN) swath curve (grey), analogous to declustered composite data, and/or against the assay composites (orange).

The swath plots review reveals a generally conciliant correlation between estimated block grades from the CHN+DDH (channel + drill hole) BM data (in blue) and the DDH-only BM data (in yellow) against the NN curve (in grey) and that of the assay composites (in orange).

Swath plots on the Lupita and Rey de Oro areas (Figure 14-8 and Figure 14-9), show an overall good correlation between various data supports.

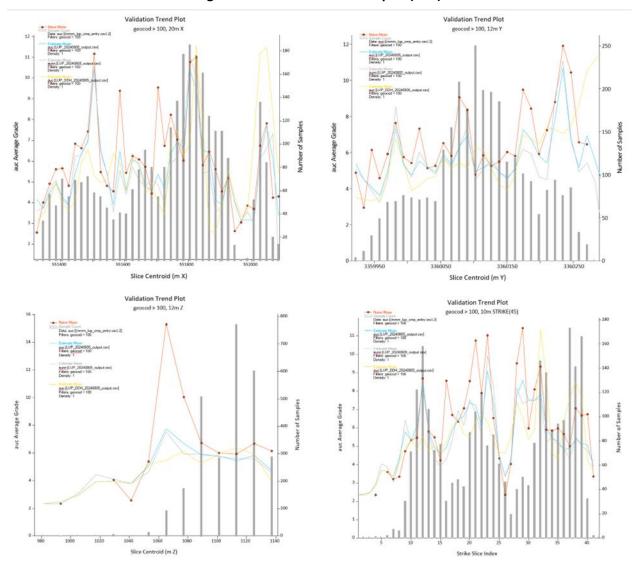


Figure 14-8: Swath Plots for Lupita (LUP)



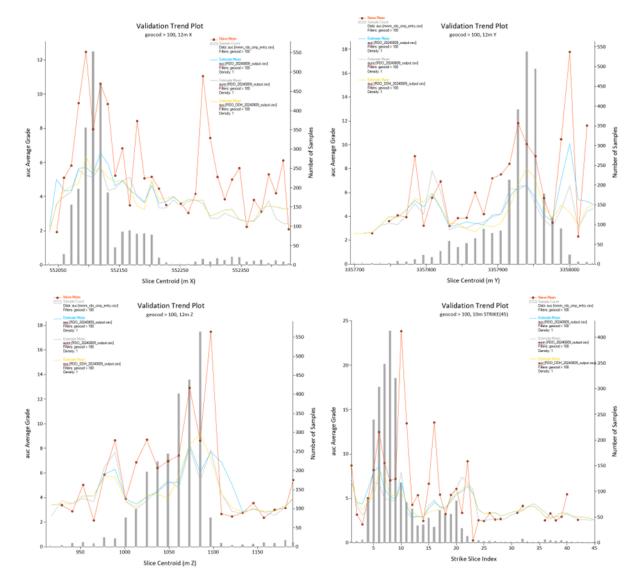


Figure 14-9: Swath Plot for Rey de Oro (RDO) and Rey de Oro Hill (RDH)

### 14.6.4 Reconciliation

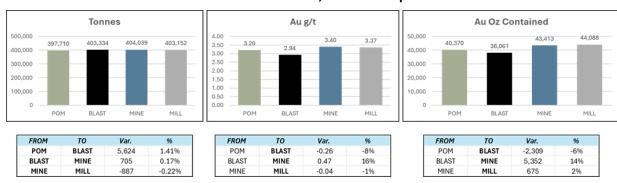
MMM staff track progress and conduct periodic reconciliation exercises to assess the relative precision of the resource estimation process, comparing it to the grade control database, the mine plan, and mill production figures obtained over a given period.

Such reconciliation exercises are crucial KPIs to the mine planners and mineral resource estimators. Successful reconciliation hinges on the adequacy of the sampling and grade control reporting, timely and accurate surveying of headings, documented material handling and tracking, and interdepartmental transparency and communications.

Figure 14-10 shows the performance of the resource block model with the mine plan, grade control database, and mill output for 2024.



Figure 14-10: Reconciliation analysis for gold, comparing the block model to the mine plan, grade control database, and mill output



The 2024 results show that the mined tonnes are slightly higher than planned, which indicates unplanned dilution. Mined and milled tonnes are almost equal to blasted tonnes, which reflects efficient material handling with minimal stockpile accumulation.

The blast grade is lower than planned by mining outside planned areas and is affected by dilution, while the mined grade is higher than the blasted grade, indicating possible selective mining or a reconciliation adjustment. The mill grade is close to the mined grade, suggesting good blending and minimal losses during processing.

The QP recommends reviewing of blasting techniques to minimize dilution and assessing of ore control processes to improve selectivity and minimize loss. The QP concluded that the Mineral Resource block model is performing well.

### 14.7 Mineral Resource Classification

The estimated blocks were classified into either the Inferred, Indicated, or Measured Mineral Resource category using drill spacing, geological continuity of mineralization, grade continuity, and overall level of confidence.

Inferred Mineral Resources were defined for blocks within the mineralized zones that have been informed by a minimum of two drill holes or channels within an average estimation distance no greater than 45 to 60m, depending on the deposit.

Indicated Mineral Resources were defined for blocks within the mineralized zones that have been informed by a minimum of three drill holes or channels within an average estimation distance no greater than 20 to 30m depending on the deposit.

Measured Mineral Resources were defined for blocks within the mineralized zones that have been informed by a minimum of four drill holes or channels within an average estimation distance no greater than 15 m and a minimum of 10 composites within Pass 1.

When needed, a series of clipping boundaries were created manually in longitudinal views to either upgrade or downgrade classification to avoid issues due to automatically generated classification. All remaining estimated but unclassified blocks were not reported.



## 14.8 Mining Depletion

A series of depletion volumetric solids were overlaid onto the block models where mining extraction and development have taken place. Material inside the depletion of solids is excluded from the Mineral Resource statement.

The depleted solids were updated as of September 30, 2024, the same date as the database cutoff date.

### 14.9 Mineral Resource Estimation

By definition, a Mineral Resource must have "reasonable prospects for eventual economic extraction". This requirement implies that the quantity and grade estimates meet certain economic thresholds and that the Mineral Resources are reported at an appropriate cut-off grade that considers extraction scenarios and processing recoveries.

The factors and parameters used to determine the Mineral Resource at Mercedes Mine are based on the actual factors and parameters applied to the material being extracted at the Mine.

The areas of CBA, CDO, BCH, and AID are not considered to contribute to Mineral Resources as they are either backfilled with low strength backfill or ramps are inaccessible due to air relaxation. Thus, these areas were removed from the Mineral Resource Estimation.

Economic benefit was applied to all three classes of measured, indicated, and inferred for the determination of mineral resources. The cut-off grade used for the Mineral Resource Estimate varies from 2.1 grams per tonne (gpt) of gold (Au) to 3.0 gpt Au. Table 14-11 shows the parameters used for the mineral resource estimate cut-off grades.



Table 14-11: Cut-off Grade Parameters for 2024 Resources

Cost	Unit	KLN	LAG	GAP	BCA	MAR	DIL	LUP	SAN	RDO	RDH
Mining Cost	US\$/t processed	137.47	97.05	97.05	73.51	119.37	97.05	113.32	80.07	137.47	113.32
Processing Cost	US\$/t processed	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35	29.35
General and Administration	US\$/t processed	35.27	35.27	35.27	35.27	35.27	35.27	35.27	35.27	35.27	35.27
Gold Price	US\$/ tr oz	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360
Gold Recovery	%	94	94	94	94	94	94	94	94	94	94
Refinery cost	US\$/tr oz	13.36	13.36	13.36	13.36	13.36	13.36	13.36	13.36	13.36	13.36
Break-even feed grade	gpt Au	2.8	2.3	2.3	1.9	2.6	2.3	2.5	2.0	2.8	2.5
Cut-off Grade	gpt Au	3.0	2.5	2.5	2.1	2.8	2.5	2.7	2.2	3.0	2.7



The Mineral Resource Estimate presented herein is presented as *in-situ* underground Mineral Resources using appropriate cut-off grades. A summary of the Mineral Resource Estimate inclusive of Mineral Reserves is presented in Table 14-12.

Table 14-12: Mineral Resources, Inclusive of Mineral Reserves – effective 30 September 2024

Classification	Tonnes (000)	Au (gpt)	Ag (gpt)	Contained Au tr oz (000)	Contained Ag tr oz (000)
Measured	793	6.62	58.10	169	1,481
Indicated	1,546	5.65	49.06	281	2,439
Measured + Indicated	2,339	5.98	52.12	450	3,920
Inferred	383	5.26	36.06	65	445
Total	2,722	5.88	49.86	515	4,364

- 1. Mineral Resources are reported using the 2014 CIM Definition Standards, with an effective date of 30 September 2024. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.
- 2. Mineral Resources are reported inclusive of those Mineral Resources converted to Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- 3. Mineral Resources are presented as undiluted and in situ for an underground scenario and are considered to have reasonable prospects for economic extraction. Mineral Resources show sufficient continuity and isolated blocks were discarded; therefore, the herein MRE meets the CIM Guidelines published in November 2019.
- 4. Mineral Resources are reported using a cutoff grade varying from 2.1 to 3.0 gpt Au for the varying Mercedes deposits: gold price of US\$2,360/oz; gold recovery of 94%; reference mining cost ranging from of \$73.51/t processed to \$137.47/t processed; processing cost of \$29.35 /t processed; general and administrative costs of \$35.27/t processed; and refining costs of \$13.36 /oz Au.
- 5. Calculations used metric units (metre, tonne).
- 6. Numbers have been rounded and may not sum.
- 7. The QP Ms. Lane is not aware of any known environmental, permitting, legal, title-related, taxation, sociopolitical, or marketing issues or any other relevant issues that could materially affect this Mineral Resource Estimate.

# 14.10 Mineral Resource Estimation by Area

A summary of the Mineral Resource Estimate by area is presented in Table 14-13.

Table 14-13: Mercedes Mine Mineral Resource Estimate by Area

Deposit	Classification	Tonnes (000)	Au (gpt)	Ag (gpt)	Contained Au tr oz (000)	Contained Ag tr oz (000)
	Measured	0	0	0	0	0
Aida	Indicated	0	0	0	0	0
Alua	Inferred	0	0	0	0	0
	Total	0	0	0	0	0
	Measured	130	6.38	57.18	27	238
Barrancas	Indicated	89	4.54	46.66	13	134
Darrancas	Inferred	1	5.59	28.42	0	0
	Total	220	5.62	52.82	40	373
Brecha Hill	Measured	0	0	0	0	0
Біеспа пііі	Indicated	0	0	0	0	0



		Tonnes			Contained Au	Contained Ag
Deposit	Classification	(000)	Au (gpt)	Ag (gpt)	tr oz (000)	tr oz (000)
	Inferred	0	0	0	0	0
	Total	0	0	0	0	0
	Measured	0	0	0	0	0
Casa Blanca	Indicated	0	0	0	0	0
Casa Bialica	Inferred	0	0	0	0	0
	Total	0	0	0	0	0
	Measured	0	0	0	0	0
Corona de Oro	Indicated	0	0	0	0	0
Corona de Oro	Inferred	0	0	0	0	0
	Total	0	0	0	0	0
	Measured	265	3.52	17.97	30	153
Diluvio	Indicated	378	3.78	34.45	46	419
Dilavio	Inferred	58	3.92	48.93	7	91
	Total	702	3.7	29.42	83	664
	Measured	3	6.52	125.83	1	13
Gan	Indicated	80	4.71	86.43	12	223
Gap	Inferred	65	4.16	80.62	9	169
	Total	149	4.5	84.72	22	405
	Measured	2	6.62	43.14	0	2
Klondike	Indicated	45	7.7	41.29	11	60
Riolidike	Inferred	0	7.12	26.18	0	0
	Total	47	7.66	41.26	12	62
	Measured	8	9.39	58.07	3	16
Lagunas	Indicated	62	5.42	42.08	11	84
Laguilas	Inferred	18	5.96	27.61	4	16
	Total	88	5.91	40.59	17	115
	Measured	92	6.76	48.6	20	143
Lupita	Indicated	174	5.72	45.04	32	251
Lupita	Inferred	20	4.19	38.62	3	24
	Total	285	5.95	45.74	54	419
	Measured	34	7.69	75.74	9	84
Marianas	Indicated	277	7.67	42.39	68	378
iviarialias	Inferred	207	6.12	18.96	41	126
	Total	518	7.05	35.27	118	588
	Measured	30	9.41	79.39	9	77
Rey de Oro	Indicated	123	5.53	75.32	22	298
incy de Oio	Inferred	6	4.12	37.13	1	7
	Total	159	6.21	74.74	32	382
San Martin	Measured	87	8.18	57.09	23	160



Deposit	Classification	Tonnes (000)	Au (gpt)	Ag (gpt)	Contained Au tr oz (000)	Contained Ag tr oz (000)
	Indicated	45	7.16	71.29	10	104
	Inferred	0	4.08	43.74	0	0
	Total	133	7.82	61.9	33	264
Rey de Oro High	Measured	141	10.56	130.85	48	594
	Indicated	272	6.33	55.8	55	489
	Inferred	9	3.82	34.02	1	10
	Total	422	7.69	80.45	104	1093

# 14.11 Factors that May Affect the Mineral Resource Estimates

Factors that may affect the Mineral Resource estimates include:

- Metal price assumptions.
- Changes to the assumptions used to generate the gold cut-off grade.
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones.
- Changes to geological and mineralization shapes and geological and grade continuity assumptions.
- Density and domain assignments,

## 14.12 QP Comments on Item 14 "Mineral Resource Estimates"

There are no environmental, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors known to GRE's QP Terre Lane that would materially affect the estimation of Mineral Resources that are not discussed in this Report.

There is upside potential for the estimates if mineralization that is currently classified as inferred can be upgraded to higher-confidence Mineral Resource categories and/or if the Mines operational costs can be reduced.



## 15 MINERAL RESERVE ESTIMATION

The Mineral Reserve estimates conform to CIM Definition Standards for Mineral Resources and Mineral Reserves (2014) and only include Measured and Indicated Resources.

Ms. Terre Lane (QP) has reviewed the Mineral Reserve estimates at the Mine as reported by MMM Staff, effective September 30, 2024. The mining geometry, reserve shapes, and numerical calculations used in the Mine reserve estimates have been reviewed for compliance with CIM guidelines. Ms. Lane is independent of Mercedes and takes QP responsibility as defined in NI 43-101 for the Mineral Reserve estimate.

## 15.1 Mineral Reserve Calculation Methodology

Underground Mineral Reserves for the Mine have been estimated by site personnel, applying mining considerations to the Mineral Resource block model. Deswik stope optimizer was utilized as a first pass to determine economic zones for extraction. Site personnel then verified the output of the optimizer and removed areas that would be deemed uneconomical based upon other mining considerations. Stope designs were prepared in Deswik™ software, together with the required development for access to the stopes. The shapes were created using a minimum mining width of 3 m for cut & fill and long hole mining.

Unplanned dilution is estimated by the expansion of the mining shape to include material not expected to be mined more than the planned drift profile. External unplanned dilution was assigned a grade based upon the average grade of the Measured and indicated material outside of the ore shell. Upon finalizing the diluted tonnes and grade of the mining shapes, site personnel reviewed the extraction likelihood of the blocks and assigned mineability and recovery factors based on previous production data in the area.

Stope economics were then calculated with consideration for capital development requirements by zone to ensure profitability. The stope shapes that have reasonable expectations for economic extraction were then tabulated to form the Mineral Reserve estimate.

### 15.1.1 Mining Recovery

The mining recoveries used in estimating the Mineral Reserves were determined based upon the mining methods in use. Expected losses considered in the recovery of losses are:

- Drilling and blasting inefficiencies
- Loss of ore from block corners and edges or abandoning stopes due to excessive waste slough.

For the Mineral Reserve estimate an ore recovery factor of 90% has been applied for long hole stoping method and 97% has been applied for cut & fill mining method, resulting in an average recovery of 92% (Table 15-5).

#### 15.1.2 Cut-off Grade

GRE estimated the cut-off grade (COG) using the actual values provided by the MMM Staff. The metal pricing used for the COG analysis was determined by MMM. The COG calculations are shown in Table 15-1



and do not include the silver revenue credit. Silver revenue credits are excluded from the COG calculation as they do not present a significant magnitude of value to the COG due to the low mill recovery.

Table 15-1: Cut-off Grade Parameters for 2024 Reserves

Cost	Unit	GAP/ DIL/LAG	ВСА	MAR	SAN	RDO/KLN	RDH/LUP
Mining Cost	US\$/t ore	97.05	73.51	119.37	80.07	137.47	113.32
Processing Cost	US\$/t ore	29.35	29.35	29.35	29.35	29.35	29.35
General and Administration	US\$/t ore	35.27	35.27	35.27	35.27	35.27	35.27
Gold Price	US\$/oz	2,360	2,360	2,360	2,360	2,360	2,360
Gold Recovery	%	94	94	94	94	94	94
Refinery cost	US\$/oz	13.36	13.36	13.36	13.36	13.36	13.36
Break-even feed grade	gpt Au	2.3	2.0	2.7	2.1	2.9	2.6
Cut-off Grade	gpt Au	2.5	2.1	2.8	2.3	3.0	2.7

## 15.1.3 Net Smelter Return (NSR)

GRE used the estimated COG for each mine (Table 15-1) to calculate that mine's NSR cut-off (Table 15-3). The NSR cut-off was then used to calculate the reserves.

The NSR is calculated using the following equation:

$$NSR = Grade \ Au \ \left(\frac{gr}{t}\right) * NSR \ Gold \ \left(\frac{usd}{gr}\right) + Grade \ Ag \ \left(\frac{gr}{t}\right) * NSR \ Ag \ (\frac{USD}{gr})$$

Where,

 $NSR\ Gold = (Gold\ Price - Gold\ Refinary\ Costs) * Gold\ Recovery$ 

NSR Ag = (Silver Price - Silver Refinary Costs) \* Silver Recovery

The Parameters used to calculate the NSR are shown in Table 15-2.

Table 15-2: NSR Parameters Used for Calculation

Description	Budget	Value	
Gold Price	2,360	USD/oz	
Silver Price	29.25	USD/oz	
Metallurgy Recovery Gold	94	%	
Metallurgy Recovery Silver	35	%	
Refinery Gold Cost	13.36	USD/oz	
Refinery Silver Cost	0.40	USD/oz	
NSR Gold	70.92	USD/g	
NSR Silver	0.32	USD/g	



The NSR cut-off used for reserves is shown in Table 15-3, and the development costs used are shown in Table 15-4.

Table 15-3: NSR Cut-off used by Area

		NSR Cut-off
Mining Method	Location	(\$/tonne)
Long Hole Stoping	Barrancas (BCA)	152
Long Hole Stoping	Diluvio (DIL)	176
Long Hole Stoping	Lagunas (LAG)	176
Long Hole Stoping	Gap (GAP)	176
Long Hole Stoping	Marianas (MAR)	198
Cut & Fill	Rey de Oro High (RDH)	192
Cut & Fill	Lupita (LUP)	192
Cut & Fill	Rey de Oro (RDO)	216
Cut & Fill	Klondike (KLN)	216
Room&Pillar	San Martin (SAN)	159

**Table 15-4: Parameters for Mineral Reserve Estimate** 

Parameter	Dimensions (W x H, m)	Costs	Unit	
Capital Development Cost	4.0 x 4.5	\$4,320	per m	
Operating Development Cost	3.0 x 3.5	\$2,853	per m	

The areas of Klondike, Lupita, Diluvio, and Lagunas have isolated parts with higher grades and require more development to access those mineralized areas making them uneconomical. San Martin area is depleted. Thus, these areas are not considered in the reserve estimation.

It was assumed that if development activities are conducted for a group of stopes in an area, those with undiluted NSR above the cut-off but diluted NSR below the cut-off will also be mined as part of that group. For these stopes, it is assumed that the operating costs are absorbed by adjacent stopes. This allows the mine site to meet production targets and balance the development activities. This also makes the production schedule less sensitive to the changes in the operating costs.

### **15.1.4 Dilution**

Factors for both planned and unplanned dilution have been estimated for each deposit at the Mine. Material classified as planned dilution is material that must be excavated for minimum mining widths, geomechanical constraints, or geometrical constraints. In the case of the Mine, planned dilution generally occurs where the ore vein is narrower than the minimum mining width of 3 m.

The total expected dilution for each deposit has been calculated by adding the expected planned and unplanned dilution quantities. Development in vein widths less than the minimum mining width of 3 m considers the additional material to meet the widths as planned dilution. Unplanned dilution for each deposit was estimated by Mercedes Staff. The factors for planned and unplanned dilution used for each



deposit are listed in Table 15-5. Measured and indicated material outside of the vein ore shells was representative of the in-situ grade for the unplanned dilution tonnage.

Further factored into the unplanned dilution calculation is backfill dilution. Due to the nature of the cut & fill (CAF) mining method, backfill dilution will occur because of mucking from cemented paste fill floors along the length of each CAF cut. It is estimated that the average depth of over-digging the floor will be approximately 0.25 m.

The potential dilution in the long hole mining method is highly dependent on the Rock Mass Rating (RMR) classification of each vein, as weaker rock masses tend to experience greater instability and overbreak. Veins with an RMR of 0-20, such as Marianas, show the highest dilution values, reaching up to 2.3 m and 2.25 m, respectively. In contrast, more competent rock masses with an RMR of 41-60, such as Diluvio, exhibit significantly lower dilution at approximately 0.5 m. This variation underscores the importance of geomechanical conditions in long hole mining, as rock strength directly affects both planned and unplanned dilution. Proper stope design, controlled drilling, and optimized blasting techniques are crucial in minimizing excessive dilution and improving ore recovery.

There is upside potential for decreasing current excessive dilution levels and high operational costs by reducing the widths of current mining machinery from a minimum width of 3.5 m down to 1.5 m on selected narrow structures.

**Planned Unplanned Total Ore Recovery Deposit Mining Method** Dilution (%) Dilution (%) Dilution (%) Factor (%) 39 31 70 90 MAR Long Hole Stoping BCA Long Hole Stoping 32 28 60 90 GAP Long Hole Stoping 26 28 54 90 **RDO** Cut & Fill 57 15 72 97 RDH Cut & Fill 61 22 83 97 Total 40 27 67 92

Table 15-5: Estimated Dilution and Recovery Factors by Deposit

#### 15.1.5 Classification

Measured Mineral Resources are converted to Proven Mineral Reserves, and Indicated Mineral Resources are converted to Probable Mineral Reserves.

The QP Ms. Lane is of the opinion that Mineral Reserves are being estimated in an appropriate manner using current mining software and procedures consistent with industry's best practice.

## 15.2 Mineral Reserve

The Mineral Reserve estimate for the Mercedes Mine is summarized in Table 15-6.



**Total** 

312

**Tonnes Contained Au Contained Ag** Classification Au (gpt) Ag (gpt) (000)tr oz (000) tr oz (000) Proven 4.25 24.67 Probable 419 3.94 22.67 53 305

Table 15-6: Mineral Reserve Statement

 Mineral Reserves are reported using the 2014 CIM Definition Standards, with an effective date of 30 September 2024. The Qualified Person for the estimate is Ms. Terre Lane, MMSA QP, a GRE employee.

22.71

54

- 2. Mineral Reserves are economically minable tonnes and grades; the reference point is the mill feed at the primary crusher.
- 3. Mineral Reserves are reported using a NSR cutoff cost varying from US\$152 to US\$216/t processed: gold price of US\$2,360/oz; gold recovery of 94%; reference mining cost ranging from of \$73.51/t processed to \$137.47/t processed; processing cost of \$29.35/t processed; general and administrative costs of \$35.27/t processed; and refining costs of \$13.36 /oz Au.
- 4. A minimum mining width of 3 m was used in the creation of all reserve shapes.

3.95

- 5. Calculations used metric units (metre, tonne).
- 6. Numbers have been rounded and may not sum.

428

7. The QP Ms. Lane is not aware of any known environmental, permitting, legal, title-related, taxation, sociopolitical, or marketing issues or any other relevant issues that could materially affect this Mineral Reserve Estimate.

## 15.3 Mineral Reserve Estimate by Area

A summary of the Mineral Reserve Estimate by area is presented in Table 15-7.

Table 15-7: Mercedes Mine Mineral Resource Estimate by Area

Classification	Deposit	Tonnes (000)	Au (gpt)	Ag (gpt)	Contained Au tr oz (000)	Contained Ag tr oz (000)
	MAR	5	3.97	9.60	1	2
	BCA	0	2.03	10.34	0	0
Proven	GAP	1	2.74	43.68	0	1
	RDO	2	5.77	58.58	0	4
	RDH	1	3.87	13.42	0	0
	MAR	256	3.78	15.64	31	129
Probable	BCA	3	2.82	18.19	0	2
	GAP	32	2.81	45.55	3	47
	RDO	52	4.14	53.69	7	90
	RDH	76	4.84	15.51	12	38
	MAR	261	3.78	15.52	32	130
	BCA	3	2.81	18.10	0	2
Total	GAP	33	2.81	45.49	3	48
	RDO	55	4.21	53.88	7	94
	RDH	77	4.83	15.49	12	38
Total		428	3.95	22.71	54	312



## 15.4 Factors that may affect the Mineral Reserves

Factors that may affect the Mineral Reserve estimates include:

- Metal price,
- Changes to the mining method
- Reductions to minimum widths of mining machinery
- Changes in local interpretations of mineralization geometry and continuity of mineralized zones,
- Changes to geological and mineralization shapes and geological and grade continuity assumptions,
- Density and domain assignments,
- Changes to geotechnical assumptions, including pit slope angles,
- Changes to hydrological and hydrogeological assumptions,
- Changes to mining and metallurgical recovery assumptions,
- Changes to the input and design parameters,

## 15.5 QP comments on Section 15 Mineral Reserve Estimation

There are no other environmental, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors known to the QP that would materially affect the estimation of Mineral Reserves that are not discussed in this report.

It should be noted that within the designed shapes, there are 102 thousand tonnes of inferred material with a gold grade of 3.63 gpt and silver grade of 16.40 gpt, resulting in 12 thousand ounces of gold and 54 thousand ounces of silver, considered as waste for the purposes of reserve estimation. Before production reaches this inferred material, budgeted infill drilling is targeted to convert this inferred material into proven and probable material. After conversion, the converted material can be mined without requiring additional development.



## 16 MINING METHODS

The Mine consists of seven separate underground mines:

- Mercedes Mine area composed of Corona de Oro, Casa Blanca, Brecha Hill, and Aida;
- Barrancas-Lagunas mine area composed of the Lagunas, Barrancas Centro, Barrancas
- Marianas and Gap mine area;
- Lupita mine area;
- Diluvio mine areas;
- Klondike mine area composed of the Klondike, Rey de Oro, and Rey de Oro High;
- San Martin mine area.

Each of the deposits is accessed through surface portals with some underground connections between deposits where possible.

While each of these deposits has ore remaining, areas of Diluvio, Klondike, Lagunas and Lupita does not have any reserves, San Martin is nearing depletion, and areas of Corona de Oro, Casa Blanca, Brecha Hill, and Aida are either backfilled with low strength backfill or inaccessible ramps due to air relaxation. The bulk of the tonnage for the LOM is expected to be mined from Marianas, Barrancas, Gap, Rey de Oro, and Rey de Oro High.

Figure 16-1 is a plan map of the Mine areas and significant infrastructure. Longitudinal section and schematic views of the individual mine area layouts are shown in Figure 16-2 to Figure 16-6.



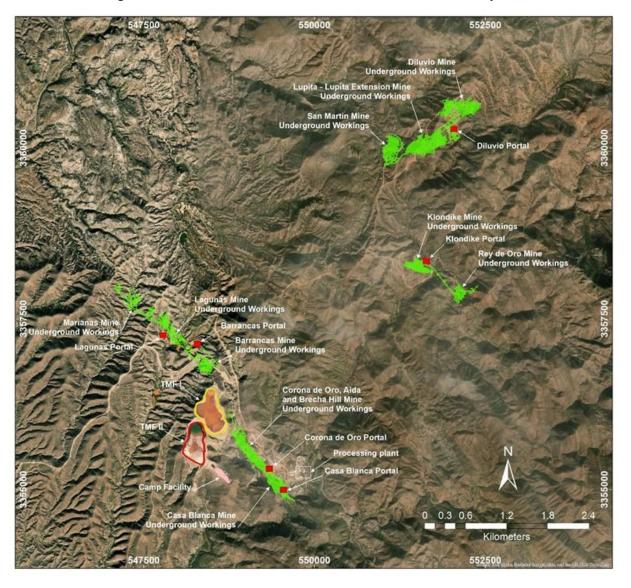


Figure 16-1: Plan view of the Mercedes Gold-Silver Mine site layout



Figure 16-2: Isometric long section looking north-east showing the Mercedes deposit as-builts and reserve locations

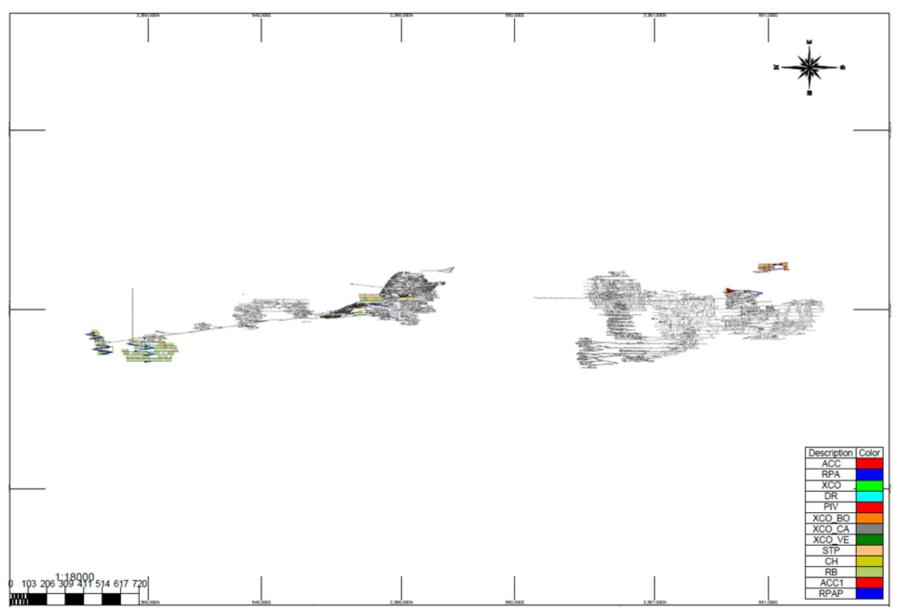




Figure 16-3: Isometric long section looking north-east showing the Lagunas/Barrancas deposit as-builts and reserve locations

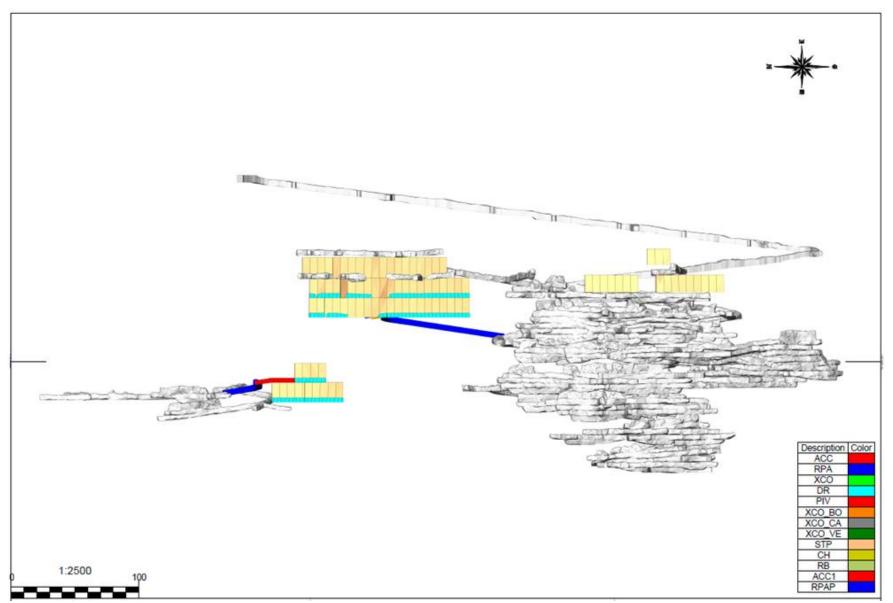




Figure 16-4: Isometric long section looking north-east showing the Marianas/Lagunas deposit as-builts and reserve locations

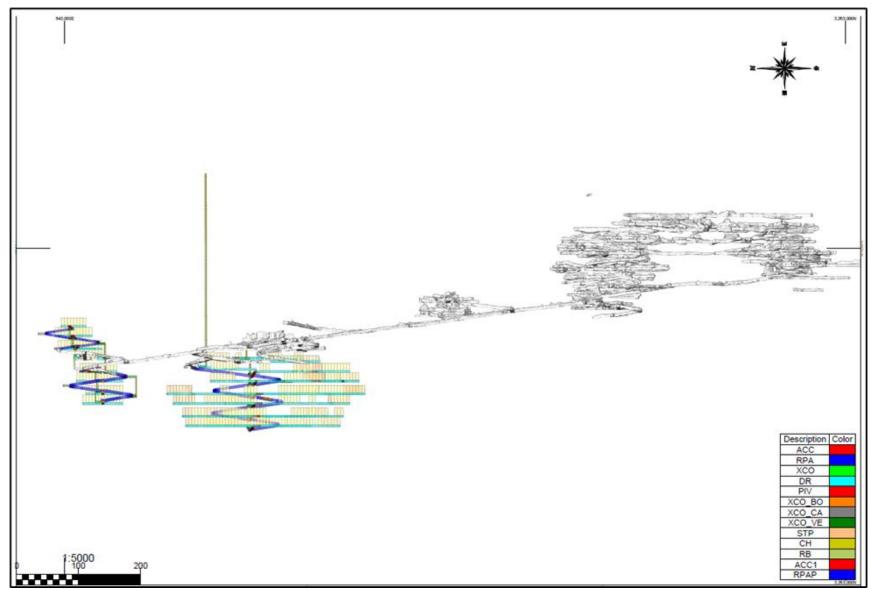




Figure 16-5: Isometric long section looking north-east showing the Klondike/Rey de Oro deposit as-builts and reserve locations

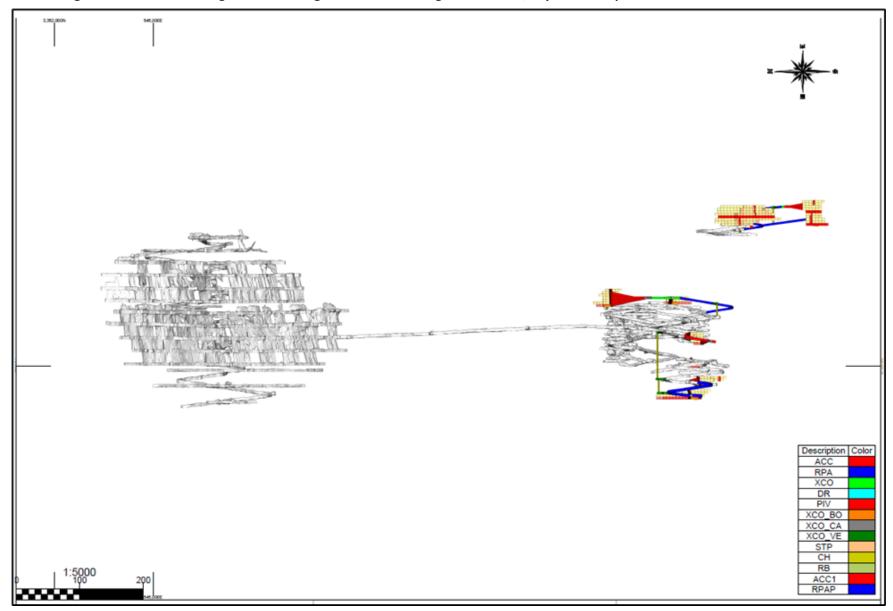
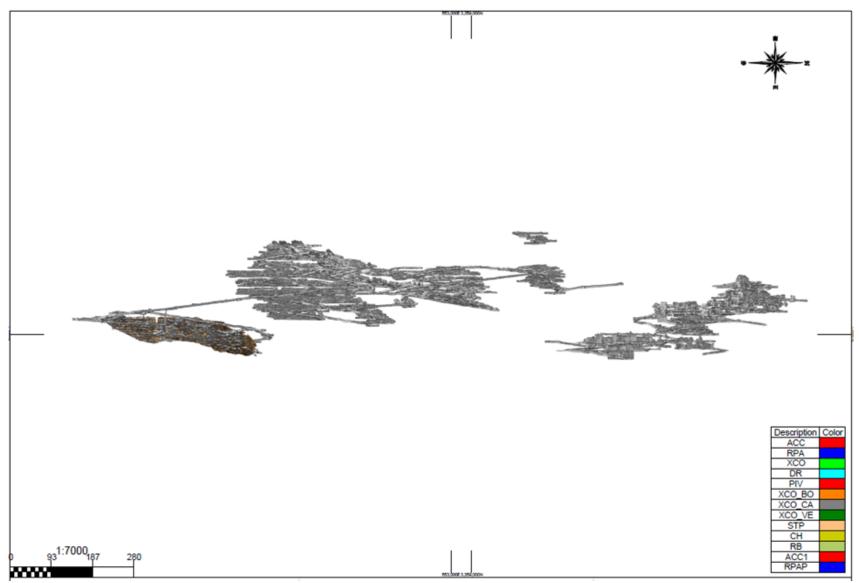




Figure 16-6: Isometric long section looking north-west showing the Diluvio/Lupita/Lupita Extension/San Martin deposit as-builts (No Reserves)





## 16.1 Mine Design

The Mine deposits are all near-surface ramp access mines. Each deposit is currently accessible to be mined aside from the Rey de Oro High deposit where portal development is in construction. The level layouts and design are variable according to the deposit to be mined, with standard cut & fill mining applying to Rey de Oro and Rey de Oro High and bulk long-hole stoping mining applying to Marianas, Barrancas and Gap.

Underground ramps connecting levels and nearby deposits are used as haulage routes for the 16 t haul trucks utilized at the Mine. These haul trucks are responsible for hauling from underground at each respective deposit and dumping at the ore stockpile located at the Mercedes section of the mine site. Infrastructure to support the three separate mining areas is located at the Mercedes Mine section of the site, including the mill, camp, and paste fill plant.

The Mine normally operates on a rotational basis with employees following 5 days on and 2 days off roster, 12 hours per shift, 365 days per year. Mining production rates are scheduled assuming 9 hours of productive time per shift to cover breaks, meetings, maintenance, and travel time. The expected productivity of the mine is covered in the life of mine plan but is expected to average approximately 1,000 tpd (ore).

Table 16-1: Typical underground development dimensions for the Mercedes Mine deposits

Development Type	Dimensions		
Units	(Width x Height, m)		
Main Ramp	4.0 x 4.5		
Main Access (ramp to sill)	4.0 x 4.5		
Ventilation Raise Access Drifts	3.0 x 3.5		
Escapeway/ Return Air Raise Accesses	3.0 x 3.5		
Sumps	3.0 x 3.5		
Electrical Substations	3.0 x 3.5		
Drift	3.0 x 3.5		
Drift Access Ramps	3.0 x 3.5		

## **16.2 Mining Methods**

The Mine currently plans most of the mining to be completed using the mechanized long hole stoping mining and mechanized cut & fill mining methods. In Marianas, Barrancas and Gap the Mine utilizes a mechanized long hole stoping mining method where the ground conditions and ore geometry allow for bulk mining methods.

The mechanized cut & fill mining method is employed at Rey de Oro and Rey de Oro High, where the activities are typically planned as an overhand mining method with multiple available mining horizons to increase the overall productivity of the method. A mining horizon is a block of three level accesses, with production able to progress upwards every third level.



- 1. Ramp down three total level accesses.
- 2. Develop the 2nd and 3rd level accesses & infrastructure in unison, typically located central to the ore sill on that elevation.
- 3. Begin the first cut on the 3rd access utilizing a -15% cut & fill ramp.
- 4. Complete the ore sill on both sides of the cut & fill ramp.
- 5. Barricade & paste fill the 1st cut and re-establish access after curing to begin the next cut at level grade.

This sequence continues for three full cuts per level at -15%, 0%, and +15%. It is understood that there are multiple available mining horizons to facilitate multiple ore faces available each shift.

Long-hole stoping is planned as uppers stopes with a height of 12m, a length of 6 m, and widths varying between 2.5 m and 7 m.

Ms. Lane (QP) is of the opinion that the selected mining methods are appropriate for the deposits, but further planning should be considered to perform selective mining to reduce the dilution.

## 16.3 Geomechanics, Ground Support

Geotechnical characterization of the deposit(s) and surrounding rock mass has been carried out by the Mercedes mine using available drill hole data, laboratory testing data, geological models, underground mapping, and experience excavating in the area over the life of the mine. Geotechnical models of the Mercedes, Barrancas-Lagunas, Lupita, Diluvio, Klondike, and Rey de Oro mine areas were developed based on these characterization studies. Observations of ground performance in the underground ramp and vein crosscuts have been used by the Mine technical services team to confirm and revise the geotechnical model where appropriate.

The ground conditions at all the mine areas were analyzed by Golder (Golder 2021). The results of the study break down the rock mass characteristics present at each respective deposit.

The Mercedes Mine area rock mass quality is characterized as poor to very poor and will require significant support and reinforcement. These ground constraints imply that bulk mining methods will not be applicable in the Mercedes Mine area. This area consists mostly of remnant mining areas, and therefore, the ground conditions are less representative of the overall rock quality of the rest of the deposit.

Required ground support includes a combination of bolting, shotcrete, steel sets, and mesh. The use of shotcrete arches (lattice girders) is prevalent in most areas of the mines, especially in areas of especially weak ground and/or to advance through zones of faulted ground. Arches and girders (steel sets) are also used as part of the standard support recommendations. Where used, corresponding bolting and shotcrete requirements are optimized.

For the Barrancas-Lagunas area, Golder recommended that in-ore development should be limited to a maximum span of 7 m, and intersections should be designed to limit spans to 9 m. Where benching is planned, newly exposed walls are supported in accordance with the defined wall support requirements, and total wall heights should be limited to 8 m. Further, benched stopes are backfilled to original (4 m) heights shortly after completion.



Since the completion of the study, the Mine has expanded to more deposits than originally considered. The geomechanics of the Lupita, Diluvio, and Rey de Oro deposits were not covered in the scope of the Golder report and were, therefore, later evaluated by MMM Technical Services. The Mercedes Mine Technical services created a series of ground support standards for the typically encountered underground scenarios. Considerations for intersection span support, permanent infrastructure ground support, and cut & fill support have been established and successfully implemented by the MMM Technical Services team.

### 16.3.1 Rock Strength & Rock Quality

#### 16.3.1.1 Barrancas-Lagunas Mine Area

The vein material at Barrancas-Lagunas is primarily quartz with lesser proportions of carbonates and calcite. On average, the vein can be described as a strong to very strong, moderate to highly fractured rock mass, however, some areas have been heavily altered and oxidized to near soil-like conditions.

The rock quality in the immediate walls of the Barrancas-Lagunas area is highly variable and is comparable to the quality of the Mercedes deposit. At the Barrancas deposit, the lower rock quality attributed to Barrancas Centro is related to geological structures such as the latite dike parallel to the vein and multiple faults crossing the veins. The rock quality increases as the dike moves away from the vein toward Barrancas Norte. In other areas of the vein, weak rock is generally not continuous in the walls over a significant area, and it appears randomly distributed along the vein. A wide range of rock strength variability exists across the Barrancas and Lagunas areas.

The waste rock at the Lagunas deposits (located between Barrancas and Lagunas) consists of approximately 40% weak rock with an average intact strength of 5 MPa and 60% strong rock with an average intact strength of 46 MPa. At the Barrancas deposit, the composition is evenly split, with 50% weak rock and 50% strong rock. The waste rock mass quality across all deposits is anticipated to be highly variable. On average, it is expected to be very poor, with most material being highly fractured or rubblized. Q values derived from underground mapping indicate that the average values likely range between 0.3 and 1.0.

The orebody rock mass material at the Lagunas deposits consists of approximately 30% weak rock with an average intact strength of 5 MPa and 70% strong rock with an average intact strength of 46 MPa. At the Barrancas deposit, the composition is 60% weak rock and 40% strong rock. The orebody rock mass quality across all deposits is highly variable, with an overall poor average quality. While slightly better than the waste rock, the orebody rock mass remains highly fractured or rubblized. Underground mapping estimates Q values to range between 1.5 and 2.5.

## 16.3.1.2 Marianas and Gap Mine Area

The veins can be described as a moderately to highly fractured rock mass, however, some areas have been heavily altered and oxidized to near ground-like conditions, specifically in the Marianas area. The rock quality in the immediate walls of the Marianas and Gap area is comparable to the quality of the Lagunas deposit.



The waste rock deposits are comprised of approximately 50% weak rock (average intact strength 5 MPa) and 50% strong rock (average intact strength 46 MPa). The average quality is expected to be poor, and the majority is expected to be moderately fractured or fragmented. Q values estimated from underground mapping suggest that a range of average values between 0.3 and 4.0 is likely.

### 16.3.1.3 Lupita Mine Area

Waste rock at the Lupita deposit is comprised of approximately 20% weak rock (average intact strength of 5 MPa) and 80% strong rock (average intact strength of 46 MPa).

Average quality is fair, with a majority being moderately to highly fractured. The orebody rock mass at the Lupita deposit consists of mostly strong (average intact strength of 46 MPa), moderate to highly fractured rock.

In comparison to the other deposits, the rock mass characteristics of Lupita represent a much higher quality orebody with a simplified extraction sequence. The Lupita deposit geometry is not conducive to bulk mining, but it is recognized that the quality of the rock simplifies the ground support for extraction.

The lack of identifiable spatial trends in rock mass quality within the deposit precluded the designation of specific geotechnical domains at any scale smaller than the level of deposit and ore zone (ore or waste).

#### 16.3.1.4 Diluvio Mine Area

The Diluvio deposit is comprised of 10% weak rock and 90% strong rock. Waste rock mass quality at all deposits is expected to be relatively consistent. Average quality is fair, with a majority being moderately to highly fractured. The orebody rock mass quality at the Diluvio deposit is strong and less heavily fractured than the Lupita deposit.

In comparison to the other deposits, the rock mass characteristics of Diluvio represent a much higher quality orebody with a simplified extraction sequence. Diluvio geometry and rock quality will be conducive to bulk mining methods, and further geomechanical work should be completed to optimize stope sizing with the mining methods.

The lack of identifiable spatial trends in rock mass quality within the deposit precluded the designation of specific geotechnical domains at any scale smaller than the level of deposit and ore zone (ore or waste).

### 16.3.1.5 Klondike Mine Area

Rey de Oro rock quality is similar to the mined-out Klondike deposit, where the lowest rock quality in the vein is near the surface, above an approximate elevation of 1,100 m. Below 1,100 m, the rock quality is generally higher, consisting of strong, moderate to highly fractured rock.

### 16.3.1.6 San Martin Mine Area

The rock type is andesite and is of fair to good quality with a Q value of 4 to 20 and a deposit between 15° and 26°, so the most appropriate mining method is the one with rooms and pillars, in which accesses are developed at different levels and then streets are made between levels, considering the safety factor of the pillar resistance. The Q values are higher in vein zones in most areas, and only in areas with sub-



vertical transverse faults with a mostly northeast azimuth and governed by regional faults displacing the vein.

### 16.3.2 Stability Analysis

Base case stope sizes used in analyses were based on 20 m sub-level spacing (floor-to-floor), resulting in 24 m wall height exposures and with 15 m stope length. For average rock quality conditions, some flexibility was allowed for shortening or lengthening stopes in varying rock quality.

Stability analyses were then performed using the Mathews method to estimate average stable stope sizes for each domain. Where the empirical approach indicated that strike lengths should be limited to less than 10 m for the average rock quality conditions, open stoping is not considered practical and cut & fill mining is used. These areas are mainly near the surface in the Corona de Oro area of the Mercedes vein. In most cases, the sizes of the stopes are limited by the rib (sidewall) rock quality.

The use of bulk mining methods should be used in conjunction with the cut & fill mining method where rock quality allows.

### 16.4 Mine Infrastructure

### 16.4.1 Mercedes Mine Access

Primary access to the Mercedes Mine is centrally located above the Corona de Oro zone. This portal provides access to the main decline designed nominally at a 12% grade and 4.3 m wide by 4.5 m high to accommodate the ore haulage trucks. The decline is located approximately 60 m laterally from the orebody to minimize the level access drift lengths while still providing adequate length for level infrastructure.

The main decline is designed with a flat area at each level access to provide a location for truck loading in the main ramp. This design reduces the amount of maneuvering a truck driver must perform to be loaded. The Mercedes Mine also develops re-muck bays and electrical substations at each main level intersection, these are present approximately every 60 m vertically.

#### 16.4.2 Barrancas, Lagunas, Marianas, and Gap Mine Access

The Barrancas and Lagunas mine deposits are accessed via two surface portals with declines to each respective zone. Each of these deposits has been mined with the same design parameters of the Mercedes deposit. The main declines for each deposit have been developed to the same dimensions of 4.3 m wide by 4.5 m high. The two deposits are connected underground with an internal ramp to facilitate easy equipment and material management between the zones. The Gap zone is accessed through the internal ramp between Barrancas and Lagunas and is planned to resume production in late 2025.

The Marianas deposit development has begun with the main decline being developed from the lower levels of the Barrancas decline. Further ramp development is required for each lens of the deposit, along with the development of a new ventilation raise to the surface to support mining operations. The most recent life of mine plan has the Marianas deposit beginning full production in 2025.



The deposits are also served by a 2.4 m diameter return air raise (RAR) and an escapeway raise for secondary egress. A 127 mm diameter paste fill borehole, drilled from the surface, also accesses each level of the Barrancas deposit for the distribution of paste fill to the mined stopes.

## 16.4.3 Diluvio, Lupita and San Martin Mine Access

The Diluvio, San Martin, and Lupita deposits share a surface access portal and main decline ramp. The decline is developed at a 12% grade and is 4.3 m wide by 4.5 m high. The Diluvio mine design parameters were modeled after the Mercedes design but were adjusted to reflect the difference in rock quality. Diluvio ore sills can be driven wider where necessary and reduce the overall operating cost of the cut & fill method. Vertical development for the Diluvio deposit consists of a 3.1 m diameter RAR to service both Diluvio and Diluvio West.

The Diluvio West deposit is accessed through an internal ramp from mid-way through the Diluvio deposit. The main decline development is finished, and the deposit is produced by the geological interpretation of the remaining blocks. Vertical development for Diluvio West consists of a 2.4 m diameter FAR located at the top of the deposit ramp to service both Diluvio and Diluvio West.

The Lupita deposit is accessed from the Diluvio main ramp and is internally connected to the Lupita Extension deposit. The Lupita and Lupita Extension deposits are currently being mined using the cut & fill method, each with their own main internal ramping systems to minimize the required operating development. Vertical development for the deposit currently includes one 3.1 m diameter RAR.

A 127 mm diameter paste fill borehole, drilled from the surface, also accesses each level of the Diluvio deposit for the distribution of paste fill to the mined stopes. Where boreholes cannot be used, the paste is distributed using the mine fleet's cement-mixing trucks.

#### 16.4.4 Klondike and Rey de Oro Mine Access

The Klondike deposit is accessed through a surface portal connected to a 4.3 m wide by 4.5 m high decline at a 12% grade. Toward the bottom of the deposit, an internal ramp has been developed to access the Rey de Oro deposit, located approximately 1,200 m southeast of Klondike. The Klondike deposit is nearing depletion with minimal reserves left over but serves as the main access to Rey de Oro. Based on their relative proximity and geological domains, design patterns for opening sizes are like those found at the Klondike deposit, which is described below.

The 4.3 m wide by 4.5 m high decline is nominally a 12% grade and accesses levels every 20 vertical metres. Each level is accessed by a 4.0 m wide by 4.0 m high crosscut driven at -2% grade from the ramp for approximately 10 m to a sump and then driven at +2% grade towards the ore sill access drifts. A 4.0 m by 4.0 m truck-loading bay is developed at each level-ramp intersection, opposite to the main level crosscut. The level access drift infrastructure also includes paste line access, electrical substations, escapeway accesses, and sumps. Unlike Klondike, Rey de Oro does not have truck loading bays located at every level and instead utilizes the re-muck system & ramp loading like the Mercedes Mine.

Vertical development for the Rey de Oro deposit includes a 2.4 m diameter RAR and an escapeway raise for secondary egress. The fresh air supply for both Klondike and Rey de Oro is provided from a 2.4 m



diameter fresh air raise with subsequent drop raised legs to reach the bottom of the deposit. A 127 mm diameter paste fill borehole, drilled from the surface, also accesses each level of the Klondike deposit for the distribution of paste fill to the mined stopes.

## 16.4.5 Rey de Oro High Mine Access

The Rey de Oro High deposit is not currently accessible from the surface or underground. The satellite deposit was formerly planned to be mined as an open pit but has since been modified to be extracted with underground cut & fill methods. The main decline is accessed through a surface at 4.3 m wide and 4.5 m high with a nominal grade of 12%.

## 16.4.6 Internal Ramps

The Mercedes Mine deposit utilizes several internal ramps between the main truck loading levels located at 60 m vertical intervals. These smaller ramps are a nominal 4.0 m wide by 4.0 m high and can be used by all mobile equipment other than the ore haulage trucks. These ramps are limited to the Mercedes deposit and have not since been developed or planned with the most recent life of mine plan. Where reasonable, internal ramps connect the deposits to improve traveling time and to allow equipment to be more easily transported and shared between deposits. The standard design for the underground decline grades at 15% and is either 4.3 m by 4.5 m or 4.0 m by 4.0 m, depending on whether truck access is required.

## 16.4.7 Level Drives and Stope Access

The average drift size for waste development is 4.0 m wide by 4.0 m high. The minimum ore drift size is 3.0 m wide by 3.5 m high. The ore drift sizing is modified according to the width of the mineralized material to reduce dilution where the zone is narrow and increase recovery where the zone is wide. Often, multiple cut & fill drift passes are required to fully extract the level.

Ore sills are driven under geological control to closely follow the economic veins. Geologists and development crews must work closely together to ensure that the ore sills are developed to maximize recovery and minimize dilution from material outside of the vein. Geological control methods require that the vein contact be exposed in the upper shoulder or back of the sills. The production geologist will map the face and provide instruction to the development crew for the direction of the next round. Close control and training of development crews and geologists are required to reduce dilution and re-work.

#### 16.4.8 Mine Ventilation

The ventilation design for the Mercedes Mine deposits was modelled using VentSim Visual software.

The airflow requirements are based on "NORMA Official Mexicana NOM-023-STPS-2012, Underground mines and opencast mines - Conditions of security and health at work", specifically, section 8.4.4. The ventilation system in underground mines must comply with at least the following characteristics:

- a. Supply the interior of the mine with an air volume of:
  - 1. 1.50 cubic meters per minute for each worker; and
  - 2. 2.13 cubic meters of air per minute per horsepower (0.0476 m3/s/kw) of the driven machinery by diesel combustion engines, located inside the mine.



- b. Maintain a minimum airspeed of 15.24 meters/minute when on any front or gallery that has machinery driven by diesel combustion engines.
- c. Keep the end of the ducts at a distance less than 30 meters from the top of the front of excavation when it is necessary to use ducts to achieve the ventilation required in the fronts, galleries, or drifts in development.

Equipment lists for individual mining areas were not available; therefore, air volume requirement per mining area, as stated in the next paragraph could not be verified.

Based on 100% diesel equipment utilization and the assumed diesel equipment fleet, the ventilation requirement is 203 m3/s of total airflow for the Mercedes and 108 m3/s of total airflow for the Klondike mine area.

Based on Figure 16-7 through Figure 16-12; A total of ten (150 hp and 250 hp) surface fans with variable speed drives are required. These fan requirements are shown in Table 16-2.

Table 16-2: Summary of surface and auxiliary fan requirements and provided airflow per mining area

Mining Area	Total Airflow Provided	Total Airflow Provided	Total Fan	Total Fan Motor Power	Estimated Number of				
Willing Area	(cfm)	(m3/s)	(hp)	(kW)	Auxiliary Fans				
MERCEDES									
Brecha Hill									
Corona de Oro No.1									
Corona de Oro No.2		IIV	OPERATIVE AR	AEA					
Casa Blanca									
	LAC	GUNAS-BARRAI	NCAS						
Lagunas Centro	94,000	44.4	150	112	2				
Barrancas	129,000	60.9	200	149	2				
	DILUVIO/LUPITA								
Diluvio Centrale	250,000	118.0	150	112					
Diluvio West	87,500	41.3	200	149					
Lupita West	134,800 63.6 150 112 4								
Lupita Centrale	73,600	34.7	150	112	2				
	KLC	NDIKE- REY DE	ORO						
Klondike-Rey de Oro	69,000	32.6	200	149	3				
MARIANAS - GAP									
Marianas	400,000	298.2	750	541	6				
Gap	100,000	48.0	300	224	4				
SAN MARTIN									
San Martin	274,000	204.7	375	279	5				



The Mercedes area is inoperative.

The Barrancas mine area is supplied with fresh air through the Barrancas and Lagunas portals. This mining area has two exhaust fans to expel the used air. Bulkheads installed where the raises connect to the ramps allow variable openings to control the flow of fresh air depending on which of the four sections has the main mining activity.



Figure 16-7: Lagunas-Barrancas mining area ventilation layout

Diluvio/Lupita mining area is supplied with fresh air through three sources: two fresh air raises (FAR) and the shared portal. Exhaust air is expelled through two exhaust raises.



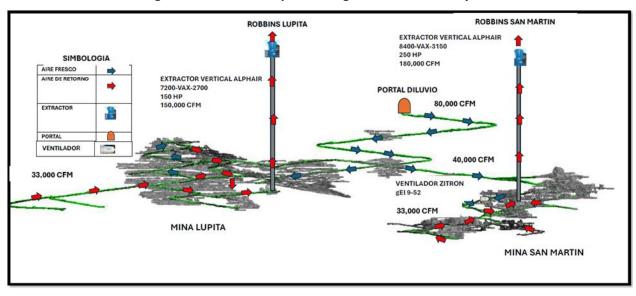


Figure 16-8: Diluvio-Lupita mining area ventilation layout

The Klondike/Rey de Oro mining area is supplied through two sources: a fresh air raise and the portal. Exhaust air is expelled through a single return air raise.

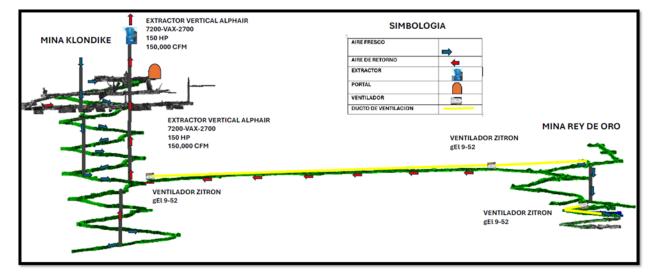


Figure 16-9: Klondike – Rey de Oro mining area ventilation layout

The Marianas and Gap mining area is supplied through two sources: a fresh air robbins and the portal. Exhaust air is expelled through a twin ramp and exhaust raise.



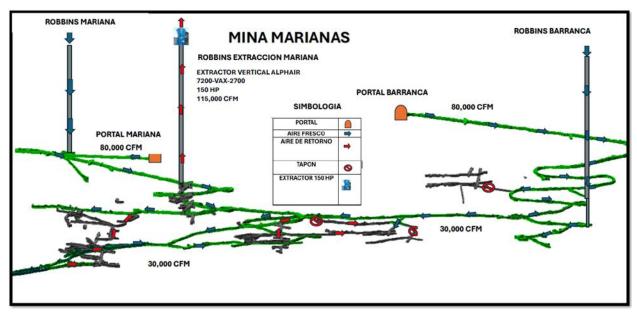
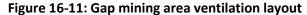
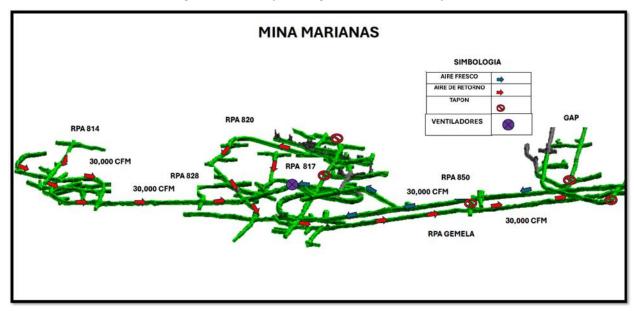


Figure 16-10: Marianas mining area ventilation layout





San Martin mining area is supplied through the portal. Exhaust air is expelled through a Robbins of 2.4 m of diameter and 218 m of long.

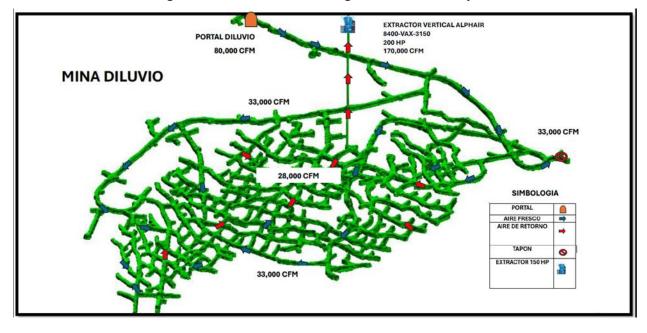


Figure 16-12: San Martin mining area ventilation layout

Mine uses a combination of push-pull and pull systems. Where practical, ventilation raises are installed to create a flow-through system, eliminating issues associated with air recirculation & fresh-air dilution. The flow-through system is accomplished by adjusting associated bulkhead controls where mining activity is occurring.

Auxiliary ventilation is required on each of the active levels, where production mining is occurring outside of the main ventilation circuit. Typical ventilation ducting ranges from 91 cm (36 in.) to 107 cm (42 in.) diameter, with the required airflow provided by an appropriately sized auxiliary fan. Table 16-3 shows the Diesel equipment airflow requirements.

**Equipment Type** kW m3/s/kW (m3/s)(cfm) hp 144 6.85 Scoop Tram (3.5 yd) 193 0.0476 14,516 Scoop Tram (8 yd) 250 0.0476 11.78 24,947 186 **Scoop Tram** 295 220 0.0476 13.89 29,437 330 15.54 32,929 **Hauling Truck** 246 0.0476 Water Tank Truck 200 149 0.0476 9.42 19,957 Diesel Truck (Pipa) 200 19,957 149 0.0476 9.42 Trompo (Mixer) 330 246 0.0476 15.54 32,929 140 104 0.0476 6.59 Alpha 13,970 **Backhoe** 97 72 4.57 0.0476 9,679 Jumbo Boomer L1C 160 119 0.0476 7.54 15,966 Jumbo Boomer S1D 74 55 0.0476 3.49 7,384 **Boltec Anclador MC** 173 129 0.0476 8.15 17,263 **Boltec Anclador MD** 161 120 0.0476 7.58 16,066

Table 16-3: Diesel equipment airflow requirements



Equipment Type	hp	kW	m3/s/kW	(m3/s)	(cfm)
Anclador	161	120	0.0476	7.58	16,066
Telehandler	99	74	0.0476	4.66	9,879
Scissor Lift	170	127	0.0476	8.01	16,964
Boom Truck	170	127	0.0476	8.01	16,964
Hanger	170	127	0.0476	8.01	16,964
Anfoloader	170	127	0.0476	8.01	16,964
Mitsubishi L200	126	94	0.0476	5.93	12,573
Nissan	152	113	0.0476	7.16	15,167
Tonelada	330	246	0.0476	15.54	32,929

## 16.4.9 Mine Dewatering

Each of the main areas within the Mercedes Mine complex has its independent dewatering system that pumps directly to the surface.

Corona de Oro has two secondary pumps, equipped with 140-hp submersible pumps, which deliver water to four main pumping stations on 890 and 1,000 L. The main pumping stations are equipped with 100 hp centrifugal pumps and cascade water upwards to the surface (1,185L) at a maximum rate of 52L/s. Once on the surface, the water is stored in ponds that supply the water treatment plant, which provides process water to the operation.

Rey de Oro/Klondike complex has two secondary sumps on 1,024L and 1,020L that are both fitted with 60 hp submersible pumps. There are two main pumping stations on 1,080L and 1,138L that are equipped with a combination of 50 hp and 200 hp pumps. Water from the secondary sumps cascades upwards through the two pumping stations to surface (1,265L) at a maximum rate of 41L/s.

Lagunas complex has three secondary sumps equipped with 15 hp, 35 hp and 40 hp submersible pumps. From the secondary sumps all water is sent to the main sump on 1,010 L. The main sump is equipped with one 200 hp pump capable of delivering 15L/s to surface.

Diluvio has three interconnected pumping systems that consist of the original cascading system and two newer high-pressure pumping stations. The two newer pumping stations are equipped with 250 hp and 400 hp high pressure pumps that can pump a combined 142L/s to surface. Water is delivered to the main pumping stations from a series of secondary sumps equipped with 15-50 hp submersible pumps.

As a result of ongoing underground mining activity at this site, it is not anticipated that water inflows will exceed the capability of the existing infrastructure as mining progresses.

## 16.4.10 Compressed Air

Compressed air is required underground for various underground equipment, including handheld drilling equipment (jacklegs and stopers), as well as utility requirements. The location and size of the current compressors are as follows:



#### Diluvio Area

- Supplies compressed air to Diluvio, Diluvio West, Lupita, Lupita Extension, and San Martin.
- Two 1,000 CFM, 250 hp compressors, each with four 5,800 L air receivers.
  - Not currently operating, maintained in good state of repair.
  - Not currently operating, maintained in good state of repair.
- Rey de Oro Area
  - One 350 CFM, 50 hp compressor with a 5,800 L air receiver.
    - Not currently operating, maintained in good state of repair.
- Marianas and Gap Area
  - One 1,000 CFM, 150 hp compressor with a 5,800 L air receiver.
    - o Not currently operating, maintained in good state of repair.

Compressed air is delivered underground via 6 in. diameter piping down the main ramps and/or through service boreholes. Distribution on the levels uses a combination of 4 in. and 2 in. diameter piping.

#### 16.4.11 Electrical

The underground electrical power requirements for the Mine are met by two 13.8 kV circuits, named Mercedes Circuit and Klondike Circuit, fed from the main substation on surface.

The electrical system breakdown is as follows:

- The Mercedes Circuit
  - Total capacity of approximately 10 MW.
  - Surface Loads: paste backfill plant, water treatment plant, camp, workshops, fuel station, and guard shed.
  - Underground Loads: Corona de Oro and Lagunas-Barrancas areas.
  - In Corona de Oro, there are substation 750 kVA underground mobile substations located on 920L that feed six 480 V electrical bays in Aida, Corona de Oro (3) and Brecha Hill (2).
  - In Lagunas, there are 1,000 kVA mobile substations located on 936L as well as one 750 kVA substation on the surface that feed five low-voltage electrical bays in Lagunas (4) and Marianas.
  - In the Marianas Circuit, there are 2 substations, 750 kVa and 1,000 kVa, located on 850 and 840 that feed five 480 V electrical bays
- The Klondike Circuit
  - Total capacity of approximately 10.5 MW.
  - Underground loads: Diluvio and Klondike areas.
  - In the Diluvio area, there are two 1,000 kVA and 750 kVA underground mobile substations on 1106L in Lupita, 1065L in Diluvio, and 1078L Diluvio West that feed a total of eleven 480 V electrical bays throughout Diluvio, Diluvio West, and Lupita. Three additional 480 V electrical bays in Diluvio are fed from a skid-mounted transformer on the surface.
- San Martin there are two 1,000 kVA mobile substations located on 1,030L and 962L that feed six low voltage electrical bays.



In the Klondike area there are two 1,000 kVA underground mobile substations located on 1000L in Klondike and 1064L in Rey de Oro that feed a total of six 480 V electrical bays in Klondike (3), Rey de Oro (3).

#### 16.4.12 Communications

A leaky feeder communications system is installed in Mercedes, Barrancas, Lagunas, Diluvio, Lupita, and Klondike-Rey de Oro. This system ensures communication between the underground workforce and the surface. It is an important part of managing safe development and extraction in the mine operation.

#### 16.4.13 Mine Maintenance

Most of the mobile equipment maintenance is done in surface equipment shops located near the Mercedes portal. Small repairs at Barrancas and Diluvio are done in a small surface area near their respective portals. In addition to these repair facilities, the Mine has a haul truck repair shop located in the Diluvio mining area for major repairs.

## 16.4.14 Refuge Stations and Escapeways

There are currently eight portable refuge stations at the Mine. Each unit is designed to accommodate 12 to 16 individuals and is equipped with steel doors and an air-lock chamber. As mining progresses, the chambers are relocated to best protect workers in case of an emergency.

The quantities and locations are as follows:

- 2 Lagunas.
- 1 Barrancas.
- 2 Lupita/Diluvio.
- 1 Klondike/Rey de Oro.

## 16.4.15 Mine Equipment

The major mine mobile equipment is listed in Table 16-4. The equipment is generally new and is appropriate for the scale of operations and the mine headings. The production metrics for the key production equipment are in Table 16-5.

Table 16-4: Major fixed and mobile equipment to support mine operations

Equipment Type	Manufacturer	Model	Size	No. of Units
LHD	Epiroc	ST-1030	6 yd³	2
LHD	Sandvik	LH307	4 yd³	1
LHD	Sandvik	LH410	6 yd³	1
Backhoe	Case	Super N - 580N	3,195 kg	2
Longhole Drill	Epiroc	Simba M7C	6.36'	1
Longhole Drill	Epiroc	Trauco 235	11.41'	1
Longhole Drill	Boart Longyear	Longhole Drill 2012	N/A	1
Scissor lift	Getman	A-64 Scissor	2177 kg	1
Anfo loader	Getman	A-64 ANFO	N/A	1
Diamond Drill	Epiroc	Diamec U6 PHC	N/A	1



Equipment Type	Manufacturer	Model	Size	No. of Units
Fire Truck	Kenworth	T300	10,000 lbs	1
Warehouse & Utility truck	Kenworth	T300	10,000 lbs	1
Piping Truck	Kenworth	T800B	15,000 lbs	1
Piping Truck	Kenworth	T300	10,000 lbs	1
Surface boom truck	Kenworth	BT28106 Terex	28 ton	1
Surface boom truck	TEREX	RT-555-1	50 ton	1
Wheel loader	Caterpillar	Bob cat 242B	.36 M3	1
Wheel loader	Komatsu	WA470	5.2 M3	1
Wheel loader	Case	921 F	3.1 M3	1
Bulldozer	Caterpillar	D6K	N/A	1
Generator	Cummins	DGBB-1209742	23.5-35 kVA	1
Generator	Cummins	DQDAA-1026048	167-250 kVA	1
Generator	Cummins	C2000D6	2,000 kW	1
Compressor	Atlas Copco	G-160	989 cfm	4

Table 16-5: Key performance metrics for the major mobile equipment at the Mercedes Mine

Mercedes Mine Equipment	Units	2022	2023	2024				
Trucks								
Availability	%	65.61	65.05	69.67				
Utilization	%	72.01	60.61	12.49				
Jumbo	Drills							
Availability	%	61.16	73.66	77.35				
Utilization	%	30.05	32.83	18.30				
Scooptra	m (4yd)							
Availability	%	52.18	64.82	67.51				
Utilization	%	46.20	37.05	30.92				
Scooptra	m (6yd)							
Availability	%	54.22	60.68	64.71				
Utilization	%	82.03	59.27	66.86				
Longhol	e drills							
Availability	%	74.92	76.24	65.25				
Utilization	%	25.15	21.85	22.68				
Bolter								
Availability	%	66.24	66.84	66.15				
Utilization	%	41.70	35.78	22.68				



## 16.5 Mine Production

## 16.5.1 Production History

The Mine commenced commercial production in November 2011. Mine production since that time is shown in Table 16-6.

Table 16-6: Mine production history until September 30, 2024

Year	Processed Tonnes (000)	Processed Au Grade (gpt)	Processed Ag Grade (gpt)	Produced Au Oz (000)	Produced Ag Oz (000)	Waste Produced (000)	Capital Development (m)
2011	48	7.55	114.5	8	39	23	257
2012	603	6.43	78.4	116	490	83	5,344
2013	671	6.16	79.4	129	615	158	4,687
2014	682	5.09	55.9	105	398	161	4,373
2015	713	3.96	43.3	84	383	182	3,190
2016	513	4.52	48.4	93	425	94	2,355
2017	684	3.93	37.6	83	338	269	1,859
2018	699	3.39	37.6	69	309	195	1,444
2019	668	2.91	26.2	60	191	270	2,192
2020	399	2.87	33.1	35	168	155	2,731
2021	512	2.69	21.2	42	123	140	2,798
2022	611	2.52	23.5	47	152	180	4,818
2023	522	2.77	31.0	44	165	150	2,376
2024	308	3.45	38.8	32	162	182	2,576
Total	7,633	4.00	44.0	947	3,958	2,242	36,048

Notes:

The produced Au and Ag values are as reported by the processing plant.

#### 16.5.2 2024 Mine vs. Mill Production Reconciliation

The QP has reconciled the mining & milling production data till end of September 2024 to determine the delta in tonnes and grades reported from each department. A reconciliation from mine to mill ensures that geological models and underground production reporting are in line with expected tolerances.

The tonnage and gold grade by month for 2024 for the mine compared to the processed grade is shown in Figure 16-13.



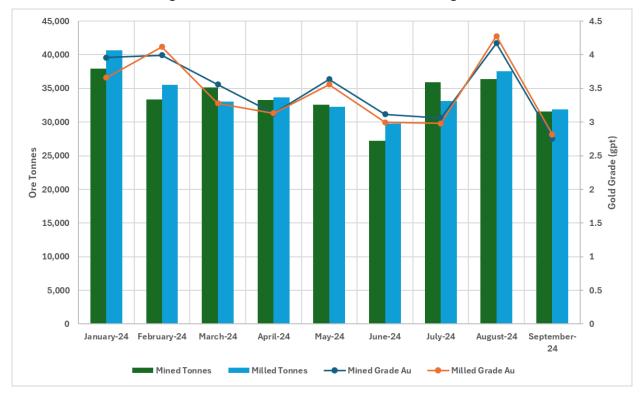


Figure 16-13: 2024 Mine versus Mill tonnes and grade

#### 16.6 Life of Mine Production Schedule

The Mine prepares a life of mine plan (LOMP) on an annual basis for reforecasting and budget optimization. Ms. Lane (QP) reviewed the 2024 LOMP supplied by the Mine Technical Services department. The plan prepared by MMM Staff considers inferred material along with the material included in the Mineral Reserve statement, however, only the material included in the Mineral Reserve statement is considered. All mined ore is expected to be delivered directly to the mill with the minimum stockpiling required.

The LOMP was prepared in late 2024, following the completion of the Mineral Reserve estimation. Each deposit was considered individually monthly to produce a unique LOM profile, feeding the overall LOMP. The LOMP for the mine is summarized in Table 16-7.

Year Total/ Category Units 2025 2026 2027 Average **Ore Tonnes** t 000 281 138 9 428 173 295 **Waste Tonnes** t 000 122 0 Au Grade gpt 3.89 4.10 3.12 3.95 23.5 19.0 55.4 22.7 Ag Grade gpt 1 54 Au Contained Oz oz 000 35 18 Ag Contained Oz oz 000 212 84 16 312

Table 16-7: 2024 Life of mine production plan



Category	Units		Total/		
Category		2025	2026	2027	Average
Au Recovery	%	94.0	94.0	94.0	94.0
Ag Recovery	%	35.0	35.0	35.0	35.0
Au Recovered Oz	oz 000	33	17	1	51
Ag Recovered Oz	oz 000	74	30	6	109
Development OPEX	m 000	5.2	3.0	0.0	8.2
Development CAPEX Hz	m 000	1.9	0.4	0.0	2.3



## 17 RECOVERY METHODS

The processing facilities at the Mercedes employ conventional milling with Merrill-Crowe recovery of precious metals as shown in Figure 17-1 and the flowsheet in Figure 17-2. The plant is capable of processing approximately 2,000 tpd and is comprised of:

- Three-stage crushing.
- Single stage grinding and classification with cyclones.
- Gravity concentration (available but not normally required or used).
- Agitated cyanide leaching.
- Counter current decantation (CCD) thickener wash circuit.
- Merrill-Crowe precious metal recovery circuit.
- Cyanide detoxification of tailings.
- Refinery.

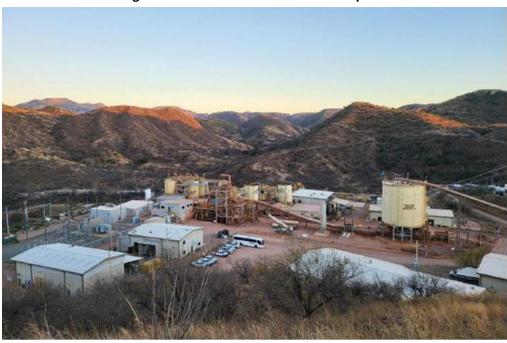


Figure 17-1: Mercedes Mine - Process plant

In 2021, a minor modification was made to the mill flowsheet to optimize and reduce the consumption of cyanide. This change was made to process plant piping to recirculate cyanide containing solution from the CCD circuit to the grinding circuit.

## 17.1 Crushing

Run of mine (ROM) stockpiles ahead of the crusher are used to blend different grades of ore. ROM ore is transported to the primary jaw crusher dump hopper. From the dump hopper, the ore discharges onto a vibrating grizzly feeder that feeds the ore into the primary jaw crusher. A single jaw crusher powered by a 112 kW motor, reduces the ROM particle size to 89mm. The jaw crusher product discharges onto the



crusher discharge belt feeder and then onto a transfer conveyor that transports the crushed ore to the coarse ore bin.

A hydraulic rock breaker, mounted on a mobile backhoe, is used at the crusher dump pocket to break oversize ROM ore.

# 17.2 Fine Crushing and Conveying

A reclaim feeder transfers crushed ore from the coarse ore bin to the reclaim conveyor. The reclaim conveyer transports the primary crushed ore to the secondary screen. Secondary screen undersize material (final product) discharges to the screen undersize conveyor, which transports it to the fine ore bin. Oversize material from the secondary screen is crushed in the secondary cone crusher. The secondary cone crusher is powered by a 224 kW motor and reduces the particle size to 19mm. The discharge from the secondary crusher is routed to the tertiary screen.

Oversize material from the tertiary screen discharges into the tertiary cone crusher surge bin and is crushed in the tertiary cone crusher. The tertiary cone crusher is powered by a 224 kW motor and reduces the particle size to 9.5mm. Tertiary screen undersize (final product) discharges onto the screen undersize collection conveyor. Undersize material from the secondary and tertiary screens are combined and conveyed to the fine ore bin.

The fine ore bin has a live capacity of 3,500 tonnes and 5,275 tonnes total capacity bin measuring 16 m in diameter and 16 m high. Ore is withdrawn from the bin by two 1,220 mm wide fine ore bin reclaim belt feeders.

A transfer chute, belt feeder and additional conveyor were added in 2020 to provide an option to bypass the fine ore bin and feed directly to the grinding (ball) mill.

## 17.3 Grinding and Classification

The grinding circuit reduces the crushed ore from a particle size of 80% passing (F80) 9.5 mm (3/8 in.) to a nominal P80 of 45  $\mu$ m.

A single ball mill measuring 5.03 m in diameter and 8.84 m long, powered by a 3,430 kW motor, is operated in closed circuit with hydrocyclones. The reclaim belt feeders from the fine ore bin discharge crushed ore to the ball mill feed conveyor. The ball mill discharges to the cyclone feed sump. Slurry is pumped from the sump using variable speed horizontal centrifugal slurry pumps to a bank of seven (five operating) 254 mm (10 in.) hydrocyclones. A portion of the cyclone underflow flows by gravity to the gravity concentration circuit when it is in use. The remainder of the slurry from the cyclone underflow is combined with the tailings from the gravity concentration circuit when it is in use and returned to the ball mill for further grinding. Overflow from the cyclones is the final product from the grinding circuit. The slurry flows by gravity to the pre-leach thickener.

Pebble lime is added to the ball mill feed conveyor to adjust the pH of the slurry. Sodium cyanide containing barren solution is added into the cyclone feed sump. The primary leaching of gold and silver starts inside the grinding circuit with 70-80% of the leaching happening there.



# 17.4 Gravity Concentration

When utilized, approximately 25% of the hydrocyclone underflow is directed to a 762 mm diameter bowl style gravity concentrator. Tailings from the gravity concentrator are returned to the ball mill circuit. Gravity concentrate flows by gravity to a magnetic separator and shaking table circuit. Non-magnetic concentrate material is further upgraded on a shaking table. Middlings from the shaking table are recirculated to the table feed, while the tailings are pumped back to the ball mill circuit. The table concentrate is dried in an electric oven prior to smelting. The concentrate is direct smelted to produce a final doré product.

#### 17.5 Pre-leach Thickener

Flocculant is added to a 16.4 m diameter high-rate thickener feed to aid in settling the solids and promote liquid/solids separation. A variable speed thickener underflow pump is adjusted to either the thickener underflow density or thickener solids loading. Underflow from the pre-leach thickener is pumped at approximately 54% solids to the leach circuit. Overflow from the pre-leach thickener is pumped to the clarification circuit.

#### 17.6 Leach Circuit and Counter Current Decantation

The leach circuit consists of a series of four 9.3 m diameter by 9.9 m high agitated tanks. Each tank has a working volume of 581 m<sup>3</sup>. The slurry is leached in cyanide solution to extract gold and silver from the ore. The four leach tanks provide approximately 24 hours of retention time at 50% solids (depending on the mill throughput). Cyanide solution may be added to the first, third, or fourth tanks. Low pressure air is piped to all tanks. Slurry advances by gravity from leach tank to leach tank, starting at leach tank 1 and exiting leach tank 4.

After leaching, the slurry continues to flow by gravity and reports to a series of four, high-capacity, 16.4 m diameter CCD thickeners, that wash the leach tailings to remove soluble gold and silver. CCD thickener underflow slurry is advanced by pumping from thickener to thickener, starting in CCD 1 and exiting from CCD 4. The slurry density in the CCD thickeners is maintained at 55 % solids by weight. From CCD 4, the underflow slurry flows by gravity to the cyanide recovery thickener. Overflow from the cyanide recovery thickener, along with barren solution from the Merrill-Crowe plant, are pumped to the last CCD thickener dilution box, where it combines with barren solution to be used as wash water. CCD thickener overflow flows by gravity in a flow pattern that is counter current to the underflow slurry, starting at CCD 4 and ending at CCD 1. From CCD 1, the overflow solution is pumped to the Merrill-Crowe circuit.

# 17.7 Cyanide Recovery Thickener

Underflow from CCD 4 reports to a high-capacity, 16.4 m diameter cyanide recovery thickener. Flocculant and dilution water are added to the thickener feed to aid in settling. The withdrawal rate of settled solids is controlled by a variable speed thickener underflow pump, to maintain either the thickener underflow density or thickener solids loading. The thickener underflow pump sends the cyanide recovery slurry to the detoxification circuit, while overflow from the cyanide recovery thickener is pumped back to the CCD circuit as wash water.



# 17.8 Tailings Detoxification

In the tailings detoxification circuit, weak acid dissociable (WAD) residual cyanide (CN-) is oxidized to relatively non-toxic cyanate (OCN<sup>-</sup>) using sodium metabisulphite ( $Na_2S_2O_5$ ), copper sulphate and air, a variant of the INCO SO2-air process, which is referred to in this manner in other parts of this technical report. Copper sulphate is added as a catalyst for the reaction. The stable iron cyanide complexes are precipitated from the solution as insoluble ferro-cyanide complexes. Cyanide levels are reduced to environmentally acceptable, non-toxic levels.

Two 7.5 m diameter by 8.5 m high agitated tanks serve as the detoxification reactors. Each tank provides a residence time of approximately 1.5 hours. Underflow from the cyanide recovery thickener is diluted to approximately 25% solids by weight in the cyanide detoxification tank using fresh water or reclaimed water from the TMF. Slurry discharging from the detoxification circuit flows by gravity to a high-capacity, 16.4 m diameter tailings thickener. Flocculant and dilution water are added to the thickener feed to aid in settling.

The tailings thickener underflow is the final tailings from the plant. The slurry is pumped to the tailings management facility or pumped to the paste fill plant and used as backfill to fill voids in the underground mine. Overflow from the tailings thickener is pumped back to the detoxification circuit for dilution water or to the reclaim water tank.

#### 17.9 Merrill-Crowe

Gold and silver are recovered from the pregnant solution by the Merrill-Crowe process, which utilizes zinc dust cementation and comprises:

- Clarification and filtering of pregnant solution to remove suspended solids.
- De-aeration of pregnant solution to reduce the dissolved oxygen concentration.
- Recovering gold and silver from the solution by zinc dust cementation.
- Filtering and drying of the precious metals cementation product.

A portion of the pregnant solution from CCD 1 is returned to the grinding circuit for use as dilution water. This enriches the pregnant solution to achieve higher concentrations of precious metals, which improves the performance of the Merrill-Crowe circuit. The precious metal recovery circuit has the capacity to process approximately 155,000 ounces of gold and 595,000 ounces of silver annually. Barren solution exiting the Merrill-Crowe circuit flows into a barren solution tank and is recycled to the process.

## 17.10 Refinery

The zinc dust cementation product and gravity concentrate are independently batch processed in retort furnaces to volatilize and recover mercury (Hg), which may be present. There are two Hg retorts. The dried cementation product and/or the gravity concentrate are mixed with fluxing agents and charged to an indirectly-heated, diesel-fired crucible melting furnace for smelting. The doré metal, containing the gold, silver and minor impurities, is poured into bar molds. The doré is shipped off site for further refining. The impurities are collected in slag that rises to the top of the molten metal and separated from the precious metal. The slag is returned to the grinding circuit for re-processing.



A process flow diagram of the Mercedes Mine mill is presented in Figure 17-2 below.



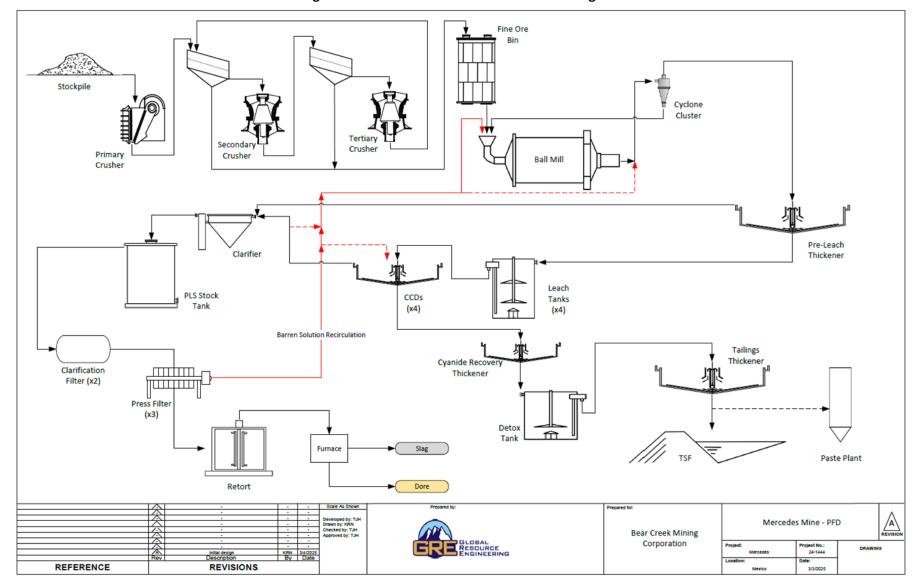


Figure 17-2: Mercedes Mine – Process Flow Diagram



# 18 PROJECT INFRASTRUCTURE

#### 18.1 Overview

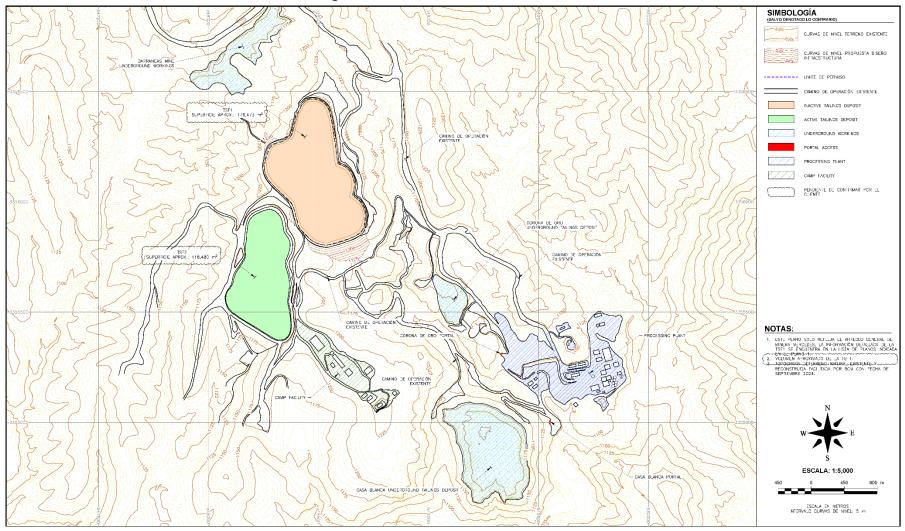
The Mercedes Mine is comprised of all surface and underground infrastructure necessary to operate the site, including:

- A process plant with a maximum installed capacity of 2,000 tpd. This facility manages ore from the different mining areas and stockpiles.
- Mine infrastructure: administrative office facilities, two camp facilities (exploration and mine personnel), mine operation and maintenance facilities (surface and underground), core storage and exploration offices, personnel changing room facilities (mine dry), a lamp room, and a safety room are also in place.
- Three-stage crushing plant.
- Tailings management infrastructure for surface disposal: two existing facilities and a third one to be designed and constructed.
- A paste plant for underground backfill (currently not in operation). A portion of the tailings is mixed with cement, yielding a nominal output rate of 94 tph of paste backfill at 55 wt.% solids content as mixer trucks transfer the backfill material to the current mining areas further away. The paste plant, in general, is designed for 78 wt.% solids content.
- Two on-site batch plants for the preparation of shotcrete and concrete as required.
- Water supply and Water Treatment Plant.
- Electrical energy supply with an installed capacity of approximately 14 MW.
- Access roads connecting the site with public roads as well as internal roads connecting the
  different mine areas to the plant and to the other major infrastructure. There are security gates
  and security posts at mine entries;
- Ore and waste stockpiles areas.

The overall site plan infrastructure layout of the Mercedes mine site is shown in Figure 18-1.



Figure 18-1: Mercedes Mine Infrastructure





Over the last few years, exploration activities at Mercedes have resulted in the life of the mine (LOM) being extended to January 2027. To support the longer mine life, several infrastructure improvements and additions are required. The principal changes foreseen at this stage of the project are:

- Conversion of the current slurry deposition to Filtered tailings.
- Deposition of tailings underground in the central ramp of the Brecha Hill, Corona de Oro, Casa Blanca, San Martin, Lupita, and Barrancas.
- Design and development of a vertical expansion of TSF1 and TSF2.
- Additional access and hauling roads.
- Extension of electrical lines.
- Development of new ore and waste rock stockpile areas.

The following sections summarize the tailings management facility infrastructure to be updated as planned and reported by MMM.

#### **18.2 Power**

Power is provided to the site via a federal 115 kV transmission line from Magdalena de Kino, 65 km away. Two 115 kV – 13.2 kV step-down transformers are provided to feed all the facilities. Both transformers are sized so that each can carry the full load to ensure full redundancy. There is a separate transformer for the mill. The system uses capacitor banks to maintain the power factor correction at a minimum of 98%. The 2 kVA backup diesel generators feed the emergency mine and site services. The site also uses the diesel generator for maintenance shutdowns. Figure 18-2, Figure 18-3 and Figure 18-4 show the facilities described.

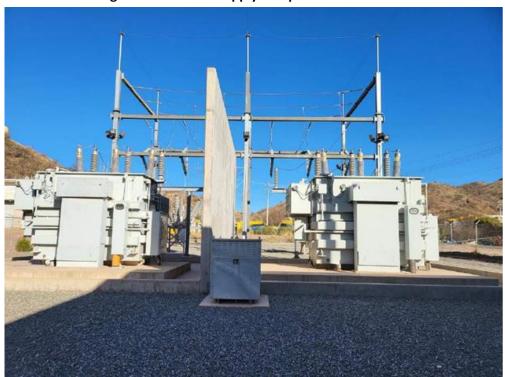


Figure 18-2: Power supply - Step down to 13.2 kVA





Figure 18-3: Site switchgear with two reserves





# 18.3 Tailings Storage Facility

Tailings management at the Mercedes Mine is based on using both conventional surface hydraulic deposition and underground low strength backfill (LSBF) approaches. Slurry tailings at the process plant are detoxified by a sulphur dioxide- air (SO2-air) cyanide destruction circuit prior to being pumped via pipelines to the tailings storage areas. Geochemical characterization test work indicates that the leaching potential of the tailings is generally low and meets the requirements of NOM-052.



Currently, two surface facilities to store tailings exist at Mercedes, TSF1 and TSF2. Hydrotechnical, geotechnical, and civil engineering design for these facilities has been performed according to Mexican regulations (Golder 2021). The impoundment areas are lined with synthetic geomembranes.

Production records indicate that TSF1 reached its maximum capacity in 2018. However, in 2023, due to an emergency, TSF1 was reactivated, resulting in the loss of the freeboard. TSF2 started operations in November 2018, and its design and construction were planned and executed in two phases. According to Golder (2021), the first phase of TSF2 was projected to reach maximum capacity in 2020. Due to the modified mine plan that was implemented after the suspension of operations in March 2020 by order of the health authority to mitigate the spread of the COVID-19 virus, the life of TSF2 (Phase 1) was extended until Q3 2023. Currently, the second phase of TSF2 has an estimated 3 months of life and, as of December 2024, the TSF deposition was stopped, and it has temporarily been set as water storage and emergency deposition. Both storage areas, TSF1 and TSF2, are shown in Figure 18-5.

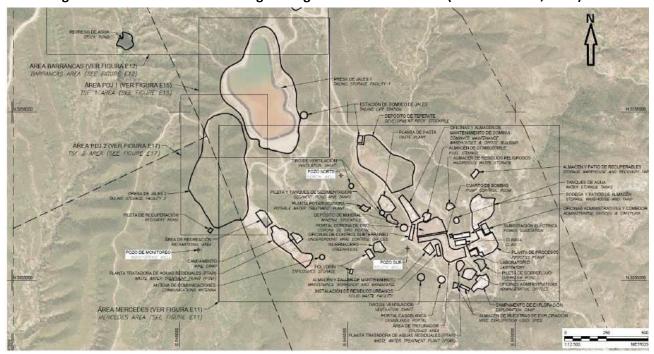


Figure 18-5: Mercedes Mine tailings storage areas TSF1 and TSF2 (source: Golder, 2021)



Figure 18-6: TSF1 in 2024



Figure 18-7: TSF2 general view June 2024





Due to the current political stance of the Mexican government regarding conventional tailings facilities and its approval, MMM decided to pause the TSF3 project. As the design and permit process was not moving at a favorable pace, a new plan was developed, which included the deposition of appropriately prepared tailings underground as LSBF and the evaluation of converting the tailings management from conventional tailings to filtered tailings. The conversion to filtered tailings opens up the alternative of the expansion of TSFs 1 and 2, and it is currently under evaluation. However, it is planned to resume the TSF3 work in Q3 of 2025, beginning with a sitting study looking for a more favorable location(s). The following subsections provide a summary of these alternatives.

## 18.3.1 LSBF Management Plan

Due to the short life of TSF2, a contingency plan has been established. As of December 2024, MMM began the deposition of tailing underground in the central ramp of the Corona de Oro (CDO) and Brecha Hill (BHI). For deposition, the tailings are mixed with 0.05% cement and are deposited at an average of 55% solids via a 4-in HDPE pipe. The water recovered from this operation is being collected and pumped back to the process plant. Water not used by the process plant is provisionally being discharged to a nearby creek. MMM is in the process of quoting equipment for evaporation of the excess water in order to suspend water discharge to the environment. Figure 18-8 and Figure 18-10 shows the deposition areas prepared by MMM. Figure 18-11 to Figure 18-13 shows the existing deposition in the deposit.



Phase II Cap: 37,113 m3

Phase II Cap: 37,113 m3

Phase II Cap: 3,850 m3

Real Jan – Feb 2025: 69,497 m3

Real Jan – Feb 2025: 69,497 m3



1,500RL LUPITA Phase V Cap: 65,235 m3 Phase IV Cap: 57, 081 m3 **SAN MARTIN** 1,000RL Phase III Cap: 40,772 m3 Diluvio

Figure 18-9: Diluvio, Lupita and San Martin Deposition Areas



Figure 18-10: Barrancas Deposition Areas **BARRANCAS** Phase II Cap: 93,620 m3 1,000RL 1,000RL

Phase I Cap: 39,695 m3





Figure 18-11: Tailings discharge point CDO level 930



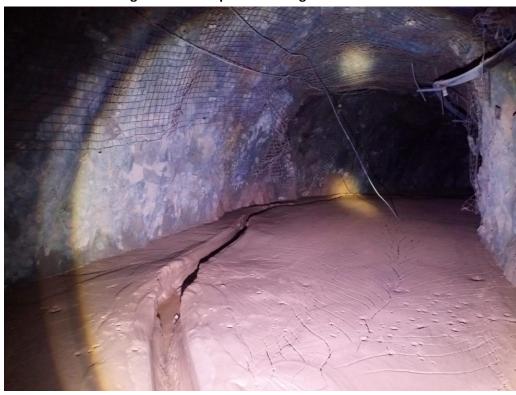






Figure 18-13: Recovered water BHL level 860

## 18.3.2 TSF1 freeboard reestablishment

As previously mentioned, due to an emergency, tailings were deposited in TSF1, resulting in the loss of the freeboard of the facility. As a result, MMM requested GRE to provide a design to remediate this situation. By December 2024, a design was provided that included the restoration of the freeboard, the designing of diversion channels, and a preliminary plan for the remediation and closure of the TSF. This design has been submitted to the governing agency SEMARNAT for permit modification and approval. It is anticipated that approval will be received by Q2 of 2025 and construction should start shortly after. A plan view of this design is included in Figure 18-14.



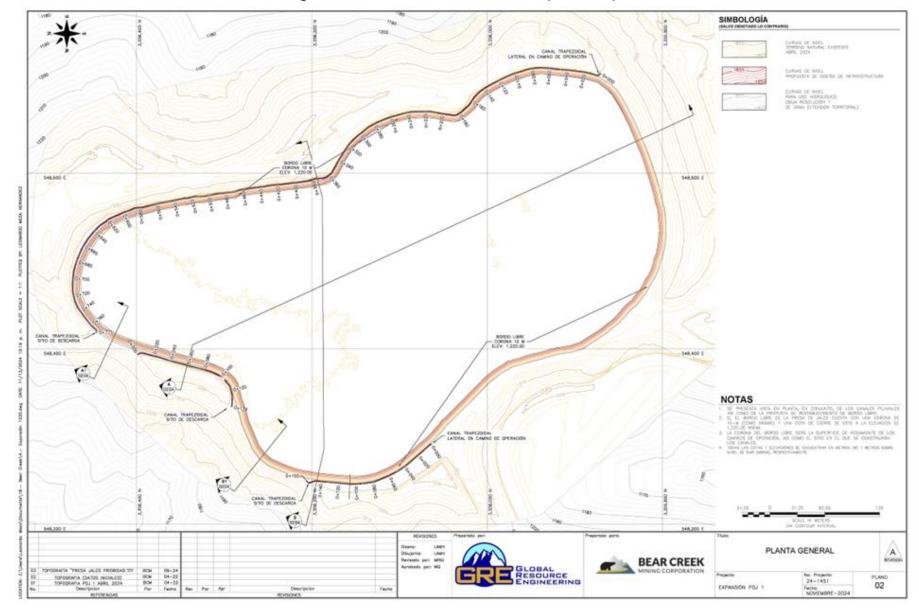


Figure 18-14: Freeboard re-establishment (GRE, 2024)



## 18.3.3 TSF1 Expansion Concept Design

In 2024, MMM began evaluating the possibility of converting the tailing management from conventional slurry tailings to filtered tailings. With favorable results, the evaluation has been extended to evaluate the possibility of vertical expansion of TSF1 and TSF2. Currently, GRE has prepared a conceptual design for the expansion of TSF1 utilizing filtered tailings. The work began with a geotechnical characterization of the tailings deposited in TSF1. The field portion of the investigation began on October 5, 2024, and was concluded on October 28, 2024. The investigation consisted of 9 cone penetration tests (CPT) where dissipation tests and seismic measurement where conducted. Additionally, a total of 6 boreholes were drilled between the tailings and embankments, where standard penetration tests (SPT) were performed, and both disturbed and undisturbed samples were collected. Additionally, a total of 13 Menard pressure meter tests were performed to determine the in-situ stress-strain parameters of the very loose to medium compactness tailings strata, as well as the materials used for embankment construction.

As the geotechnical investigation showed the presence of soft saturated soils, it is necessary to dewater and densify the deposit. The proposed methodology is the use of vertical wick drains and the construction of a drainage layer to recover the water extracted. The implementation of this technology will allow the use of filtered tailings to expand TSF1 to an estimated maximum elevation of 1224 m above sea level. At this preliminary stage, this expansion allows for approximately 5 years of tailings storage. All this work is in an early stage, and further analysis is being performed.



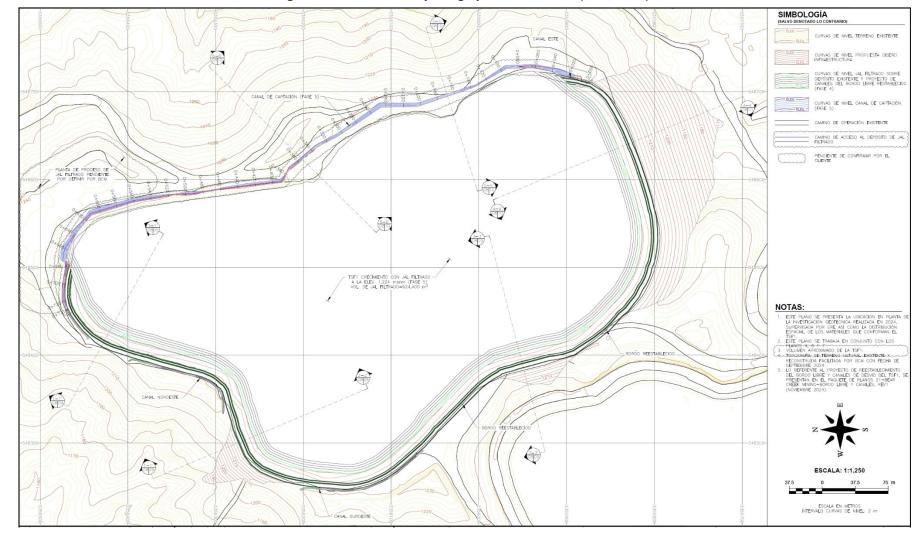
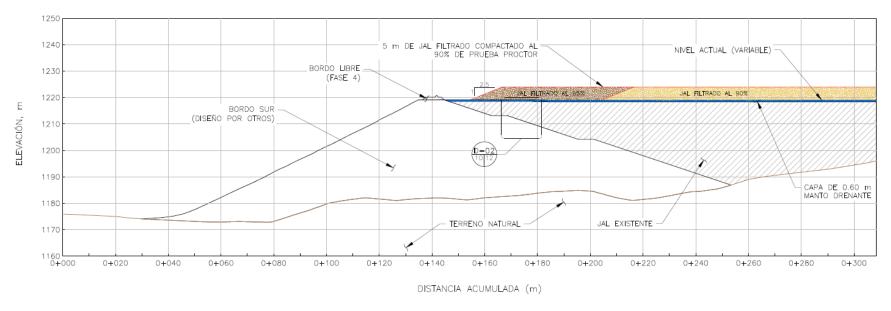


Figure 18-15: Preliminary design plan and section (GRE, 2025)



Figure 18-16: Cross-section (4-4') for Preliminary design plan





# 18.4 Tailings Storage Capacity

The total capacity of TSF2 is evaluated at 1,798,000 m³ (Golder 2021). Based on the current LOM forecast and the suspension tailings used underground as LSBF, TSF2 only has 3 months of life (approximately 67,744m³). As a result, the operation has moved to place 100% of tailings used underground (UG) as LSBF to accommodate all of the tailings produced as per the LOM plan until depletion of the minable reserves. However, the underground deposition is estimated to last until December 2026, so it is important to finalize, permit, and implement the TSF1 expansion. In its current state of the TSF1 expansion, it can provide approximately 924,000 m³ of storage capacity. Table 18-1 and Table 18-2 shows the current UG tailings deposition schedule.

It is important to note that the filing schedule has been a moving target, and it is continuously being updated. Additionally, as the TSF1 is in the early stages, no projections have been made.



Table 18-1: 2025 UG Tailings filling schedule

2025 UG	Canasity		Volume (m³), Considering 30% Water Recovery												
Disposal	Capacity (m³)	1/1/2025	2/1/2025 *	Mar-25	Apr-25	May- 25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Deposited in 2025	Remaining
Phase I	106,214	36,833	32,664	36,717										106,214	0
Phase II	3,850				3,850									3,850	0
Phase III	37,113				27,586	9,527								37,113	0
Phase IV	24,609					17,248	7,361							24,609	0
Phase V	63,981						18,430	22,107	23,444					63,981	0
Phase VI	38,388								656	21,781	15,951			38,388	0
San Martin	125,407										4,102	23,082	26,775	53,959	71,448
Tailings Total	399,562	36,833	32,664	36,717	31,436	26,775	25,791	22,107	24,100	21,781	20,053	23,082	26,775	328,114	-
Tonnes mill	-	36,111	36,598	41,140	35,223	30,000	28,898	24,770	27,002	24,405	22,469	25,862	30,000	362,478	-

<sup>\*</sup> These values are actual values provided by MMM



Table 18-2: 2025 UG Tailings filling schedule

2026 HG	2026 UG Capacity			Volume (m³), Considering 30% Water Recovery											
Disposal	Capacity (m³)	Jan- 26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Deposited in 2026	Remaining
San Martin	71,448	26,017	28,526	16,905										71,448	0
Lupita	163,088			16,892	36,197	30,487	24,911	34,909	19,692					163,088	0
Barrancas	133,316									26,775	26,775	26,775	26,775	107,100	26,216*
Tailings Total	367,853	26,017	28,526	33,797	36,197	30,487	24,911	34,909	26,775	26,775	26,775	26,775	26,775	341,636	-
Tonnes mill	-	25,507	31,962	37,868	40,557	34,159	27,912	39,114	30,000	30,000	30,000	30,000	30,000	387,079	-

<sup>\*</sup> The remaining capacity at this mine will be filled with limited production on January 2027.



It is important to note that the filing schedule has been a moving target, and it is continuously being updated. Additionally, as the TSF1 is in the early stages, no projections have been made.

# 18.5 Underground Mine Dewatering

The Klondike, Diluvio, and Lagunas mine portals are currently dewatered through a system of sumps and pumps. The operation costs for mine dewatering are included in the mining costs. The pumping volumes from each portal are provided below:

- Klondike: 108,405 m³ per year, of which 47,524 m3 were consumed.
- Diluvio: 2,031,590 m<sup>3</sup> per year, of which 235,840 m3 were consumed.
- Lagunas: 712,408 m<sup>3</sup> per year, of which 73,606 m3 were consumed.

The remainder, 2,495,523 m<sup>3</sup> per year, are returned to surface water drainages near the site. No unusual changes in dewatering costs are expected to extract the MRE.

#### 18.6 Water Balance

The Mercedes mine is completely supplied by dewatering water from the Klondike, Diluvio, and Lagunas underground mines. The Klondike portal supplies the camp and the office. Excess water from the Klondike portal passes through an arsenic treatment plant and, from there, is discharged to the Rio San Miguel.

Process water is taken from the Diluvio portal. Dust suppression water is taken from the Diluvio and Lagunas portals. Figure 18-17 shows a water balance diagram.

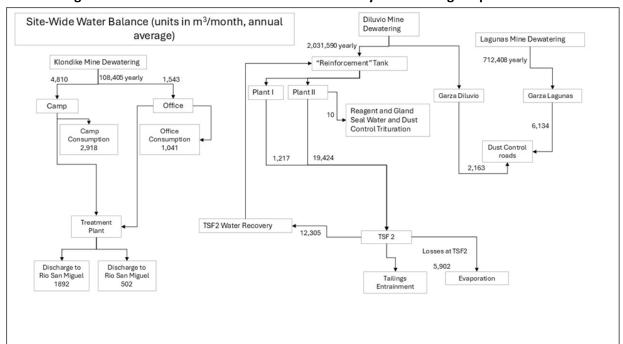


Figure 18-17: Site Wide Water Balance Prior to Dry Stack Tailings Implementation



According to the best-available numbers, as an annual average per month, the site extracts 2,852,403 m<sup>3</sup> from groundwater, consumes 18,158 m<sup>3</sup>, and recirculates 12,305 m<sup>3</sup>. This is a recycling rate of 64% and a consumption rate of 1.05 m<sup>3</sup> of water per tonne of mineralized material processed. This consumption rate is higher than industry average for a conventional tailings deposit (~0.6 m<sup>3</sup>/tonne (Worley 2023)) This is because the mine historically used conventional tailings in an arid environment.

With dry-stack tailings, as proposed in this technical report, the site will be significantly more water efficient. At an 18% graviometric water supply coming from the tailings filtration system, the mine will consume 0.18 m<sup>3</sup>/tonne of water per tonne of mineralized material processed.

The site wide water balance for the Mercedes operation, either with conventional tailings or dry stack tailings does not negatively impact other water rights in the area, nor is it subject to risk from climate change.



## 19 MARKET STUDIES AND CONTRACTS

# 19.1 Gold and Silver Price Projections

Mineral Resource and Mineral Reserve economics have been assessed using the following metal price provided by BCMC: Gold price = \$2,360.00/oz and Silver Price = \$29.25/oz.

GRE has reviewed this metal price taking into consideration current market and recent historical prices, values used in other recent projects, and forecasts in the public domain.

According to the London Metal Exchange (LME), the average gold price for 2024 was \$2,388 per troy ounce. The six-month, one-year, two-year, and three-year rolling average gold prices through the end of December 2024 are \$2,571 per troy ounce, \$2,388 per troy ounce, \$2,162 per troy ounce, and \$2,039 per troy ounce, respectively. The volatility of the gold price over these periods can be seen illustrated in Figure 19-1, and shows the low of \$1,664 and the high of \$2,703 during the three-year period.

According to the London Metal Exchange (LME), the average silver price for 2024 was \$28.21 per troy ounce. The six-month, one-year, two-year, and three-year rolling average silver prices through the end of December 2024 are \$30.33 per troy ounce, \$28.20 per troy ounce, \$25.79 per troy ounce, and \$24.42 per troy ounce, respectively. The volatility of the price over these periods can be seen illustrated in Figure 19-2, and shows the low of \$18.74 and the high of \$32.42 during the three-year period.

\$3,000 \$2,500 \$2,000 \$1,500 US\$/Au-oz \$1,000 --- PM Fix 12-mo Avg. 24-mo Avg. 36-mo Avg \$500 48-mo Avg 60-mo Avg . • Selected Gold Price

2011

Vear

2013

2015

2017

2019

2021

2023

Figure 19-1: Gold spot prices

LME Gold Cash Price

1995 1997 1999 2001 2003 2005 2007 2009



\$45 \$40 \$35 \$30 \$25 US\$/Au-oz \$20 \$15 12-mo Avg. \$10 24-mo Avg. 36-mo Avg 48-mo Avg \$5 60-mo Avg Selected Silver Price \$0 1995 2019 2021 Year

Figure 19-2: Silver spot prices

LME Silver Cash Price

An exchange rate of 19.5 Mexican Peso to US dollar (base case) were assumed within the financial model (Chapter 22) to estimate costs and revenues from the project.

The forecasted gold and silver prices are kept constant and is meant to reflect the average metal price expectation over the life of the project. It should be noted that metal prices can be volatile and that there is the potential for deviation from the LOM forecasts.

#### 19.2 Markets

No market studies have been conducted by BCMC or its consultants on the gold and silver produced at Mercedes. Gold and silver are freely traded commodities on the world market for which there is a steady demand from numerous buyers. Doré is produced at the Mine and refined at Asahi Refining's Salt Lake City, Utah refinery. The refined metals are then delivered to an offtake partner, streaming counterparties, with any remaining balance sold through Asahi Refining.

#### 19.3 Contracts

#### 19.3.1 Metal Streaming Contracts

Mercedes has gold and silver stream contracts with Sandstorm . Stream contracts are described in Section 22.2 of the Economic Analysis chapter.



#### 19.3.2 NSR Contracts

Mercedes has NSR contracts with Elemental Royalties and Versamet Royalties. Both contracts are described in Section 22.2 of the Economic Analysis chapter.

#### 19.3.3 Service and Supply Contracts

Mercedes is an operating mine and processing facility and has contracts in place for the provision of various services and supplies. The material contracts in place are:

- Diesel and Fuel Abastecedora De Combustibles Del Noroeste (Petroil);
- Cement Mintcsa Minas Y Tramos Carreteros, S.A. De C.V.;
- Mine Development Minerales de Tarachi S de RL de CV; Maquinas Fer SA de CV; Virgo S.A. DE C.V.
- Catering Profood Centro Comedor Industrial Sa de CV;
- Explosives Explosivos Del Pitic, S.A. De C.V. (Austin);
- Diamond drilling Major Drilling de Mexico S.A. de C.V.;
- General Mining Supplies Sandvik Mining and Construction MEXICO, S.A. De C.V.;
- Drilling Supplies EPIROC MEXICO, S.A. De C.V.;
- Power Comisión Federal de Electricidad (CFE);
- Shotcrete Minerales de Tarachi S de RL de CV;
- Steel Materials Larusa, S.A. De C.V.;
- Oils and Lubricants Circulo Llantero, S.A. De C.V.;
- Contracted Dore Refiner Asahi Refining;

The QP did not review the details of the various contracts but considers the amount of contracting to be within industry norms compared to similar operations in North and Central America.



# 20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

The Mercedes Mine is currently operating within the environmental framework established by the former mine owners, Premier Gold Mines and Equinox Gold. The site operates under a corporate responsibility program that includes corporate responsibility, community relations, environment, and health and safety.

# 20.1 Project Permitting

Although local and state permits are also required, mine permitting in Mexico is regulated and administered under an integrated regime by the government body, Secretaría de Medio Ambiente y Recursos Naturales ("SEMARNAT"), the federal regulatory agency that establishes the minimum standards for environmental compliance. The federal level environmental protection system is described in the General Law of Ecological Equilibrium and the Protection of the Environment (Ley General de Equilibrio Ecológico y la Protección al Ambiente or "LGEEPA"). Under LGEEPA, numerous regulations and standards for environmental impact assessment, air and water pollution, solid and hazardous waste management, and noise have been issued. Article 28 of the LGEEPA specifies that SEMARNAT must issue prior approval to parties intending to develop a mine and mineral processing plant.

The Mercedes Mine is currently complying with the necessary permits and licenses in a timely manner. Table 20-1 shows the status of Mercedes permits, and Table 20-2 shows the reporting plan for the year 2025.



**Table 20-1: Current Mercedes Mine Permits** 

CURRENT PERMITS OF MINA MERCEDES IN MATTERS OF FEDERAL ENVIRONMENTAL IMPACT							
Project	Authorization date	Validity date	Extension Validity	Term			
Mercedes Tunel	May 14, 2008	May 14, 2011	Without extension	Concluded			
Mercedes	April 9, 2010	April 9, 2018	April 9, 2026				
Mercedes Expansion	Decemeber 14, 2010	December 14, 2018	December 10, 2026				
Barrancas	Sepember 1, 2011	September 1, 2021	September 1, 2026				
Diluvio	November 26, 20212	November 26, 2025					
LSTE	July 15, 2010	July 15, 2060					
Tailings Dam 2	June 7, 2017	June 7, 2027					
Tailings Dam 3	Awaiting authorization						

STATE INTEGRAL ENVIRONMENTAL LICENSE (CEDES)					
Project	Authorization	Validity	Term		
Mercedes Mine LAI	August 20, 2014	August 20, 2024	Concluded		
RME generator record	Receipt August 5, 2024	August 1, 2029	Awaiting authorization		

CONCESSION, ASSIGNMENT AND PERMIT FOR WASTE WATER DISCHARGE CONAGUA						
Project	Authorization	Validity	Term			
Manta disabanan namait			Awaiting resolution from			
Waste discharge permit	November 15, 2013	November 14, 2023	CONAGUA			
Tailings Dam 2 Concession	February 13, 2019	February 12, 2029				
Tailings Dam 3 Concession	Awaiting authorization					

FEDERAL MANAGEMENT PLAN PERMITS					
Plan	Authorization date	Validity date	Term		
Management of mining waste	July 28, 2017	July 28, 2025			
Hazardous waste management	September 13, 2017	No date			

RADIOLOGICAL SAFETY PERMIT						
License	Authorization date	Validity date	Term			
Operating license for use of						
sealed sources	August 10, 2021	August 10, 2026				
Annual report of radiological ac	tivities	July, 2025	On time			

PERMIT FOR USE OF EXPLOSIVES					
License	Authorization date	Validity date	Term		
License for use of explosives	January 1, 2024	December 31, 2025			

Expiration ID code					
Short Term (< 2 years)					
Short Term (2 years)					
Medium Term					
Long Term					

Table 20-1 shows that the mine has up-to-date permits except for waste discharge permit that is awaiting resolution with CONAGUA, but that this permit is not impeding operations.



**Table 20-2: Mercedes Mine Reports** 

REPORTING PLAN AND/OR REPORTS TO THE AUTHORITY 2025						
License	Filing Date	Status				
Mercedes Annual Report	Apr-2025	On time				
Mercedes Expansion Annual	D 2025	0.5 4:				
Report	Dec-2025	On time				
Barrancas Annual Report	Sep-2025	On time				
Deluge Annual Report	Nov-2025	On time				
LSTE Annual Report	Jul-2025	On time				
Tilting Dam 2 Annual Report	Jun-2025	On time				
Tilting Dam 3 Annual Report	Not authorized at the moment	To be delivered				
CONAGUA Wastewater Annual Report	Jan-2025	Delivered				
First CONAGUA Semi-Annual Report on Wastewater for Fiscal Year 2025	Aug-2025	On time				
Second CONAGUA Semi-Annual Report on Wastewater for Fiscal Year 2024	Jan-2025	Delivered				
CNSSN Annual Radiation Safety Report	Jul-2025	On time				
Annual Operation Certificate (Federal COA)	Jun-2025	On time				
Annual Operation Certificate (State COA)	Aug-2025	On time				
Presentation of Guarantee Insurance	Jan-2025	To be delivered (Jan 17, 2025)				
Estimation of the Cost of Environmental Compensation	Jan-2025	To be delivered (Jan 17, 2025)				
Environmental Surveillance Program	Jan-2025	To be delivered (Jan 17, 2025)				
Second Semi-Annual Report of the CUS of the TSF3	Jan-2025	To be delivered (Jan 17, 2025)				
Environmental Monitoring Program	Mar-2025	To be delivered (Environmental monitoring is missing)				

Expiration ID code					
Short Term (< 2 years)					
Short Term (2 years)					
Medium Term					
Long Term					

In Table 20-2 one can see evidence of ongoing compliance with environmental permit requirements.



# **20.2** Environmental Geochemistry

#### 20.2.1 Geochemistry of Mine Tailings

Geochemical risk, the risk that water-rock interactions will degrade water quality, is a major factor in site closure risk. Fortunately, the existing dataset for geochemical properties of the Mercedes mine shows that there is very low risk of acid rock drainage and/or metal leaching. Figure 20-1 and Figure 20-2 show a scatter plot of the Acid Base Accounting (ABA) results for mine tailings from Jales 1 (PJ1) and Jales 2 (PJ2) since 2020.

In ABA tests, the acid generating potential (AP) and neutralization potential (NP) values can be combined to derive a quantitative screening-level estimate of a material's overall acid-generating or neutralizing potential. Subtracting AP from NP (NP-AP) gives the Net Neutralization Potential (NNP), while dividing NP by AP (NP/AP) gives the Neutralization Potential Ratio (NPR). Based on the resulting values of NNP and NPR, the samples are classified as "potentially acid-generating" (PAG), "potentially acid-consuming" (PAC), or "uncertain" according to the criteria given by the GARD Guide, (INAP 2009). These criteria are presented in Table 20-3.

**Table 20-3: Screening Guidelines for Acid Generation Potential Prediction** 

Metavial Designation	Comparative Criteria			
Material Designation:	NNP (TCaCO <sub>3</sub> /kT)	NPR		
Potentially Acid-Generating (PAG)	< -20	< 1		
Uncertain	-20 < NNP < 20	1 < NPR < 2		
Potentially Acid-Consuming (PAC)	> 20	> 2		

Although this criterion is used for the assessment of ARD in the United States, the definition of acid generation potential by NOM-141 is similar. NOM-141 defines PAG material as NP/AP < 1.2 and non-PAG material as NP/AP > 1.2. The ABA tests of both PJ1 and PJ2 since 2020 indicate that mine tailings at Mercedes are strongly PAC.



1000 - NPR = 1 Non Acid-Generating **Acid Consuming** NPR = 2- NNP = -20 100 NNP = 20 **Neutralization Potential Ratio** 3/31/2020 10 10/9/2020 3/29/2021 10/15/2021 Uncertain 4/18/2022 Reactive PAG 9/19/2022 3/27/2023 0.1 9/12/2023 -50 0 50 100 150 200 250 **Net Neutralization Potential** 

Figure 20-1: Scatter Plot of ABA of PJ1

The test on 9/19/2022 is strongly acid-consuming and off the chart at (114.31,11432).

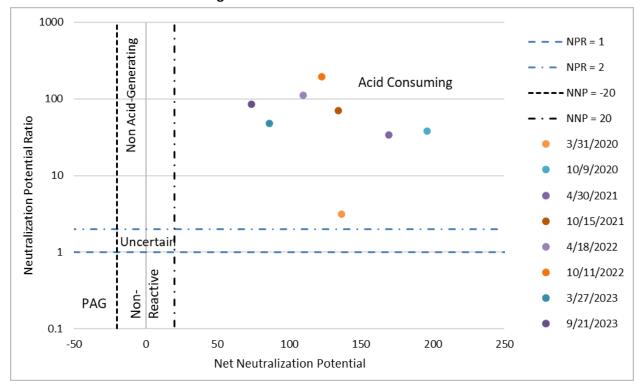


Figure 20-2: Scatter Plot of ABA of PJ2



Metal leaching (ML) can occur in pH-neutral mine-impacted water. The current test work shows that the Mercedes mine has a low risk of ML. Figure 20-3 shows a bar graph of major regulated metals in comparison to regulatory standards of NOM 52 SEMARNAT-2005 and NOM 127 SEMARNAT-1994 (Estados Unidos Mexicanos.- Secretaría de Medio Ambiente y Recursos Naturale 2005) ( Estados Unidos Mexicanos.- Secretaría de Salud 2000).

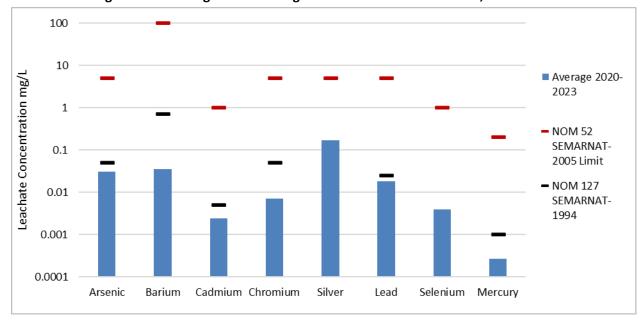


Figure 20-3: Tailings Leachate Regulated Metals Concentrations, 2020-2023

 $For instances \ where \ concentrations \ tested \ below \ the \ detection \ limit, \ the \ detection \ limit \ was \ used \ to \ calculate \ averages.$ 

Metal leachate from tailings samples test consistently below both NOM 52 SEMARNAT-2005 and NOM 127 SEMARNAT-1994 since 2020. This indicates that the tailings pose very low ML risk, and leachate from mine tailings will not impact local and regional water quality.

#### 20.2.2 Geochemistry of Waste Rock

Waste rock sampling has occurred from 2017 to the present, Sampling occurs twice a year in March and September. Most of the waste rock meets the requirements for non-reactive rock according to NOM-157-SEMARNAT-2009, which is an NP to AP ratio of 3:1. Figure 20-4 shows the ABA scatter diagram for the waste rock based on the criteria contained in Table 20-3.



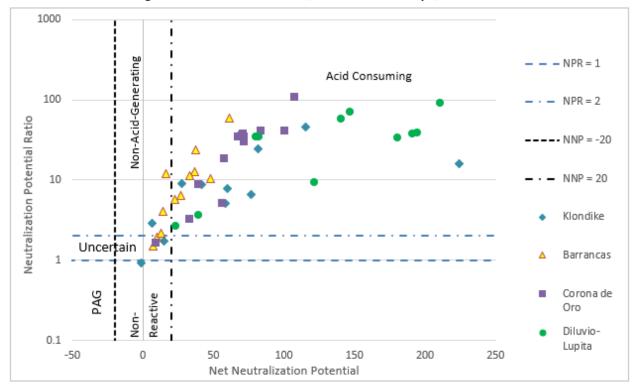


Figure 20-4: Scatter Plot ABA, Waste Rock Dumps, 2017-2024

These results conclusively show that the waste rock produced by the Mercedes mine is non-acid generating.

Figure 20-5 shows the metal leaching concentrations from Mercedes waste rock.

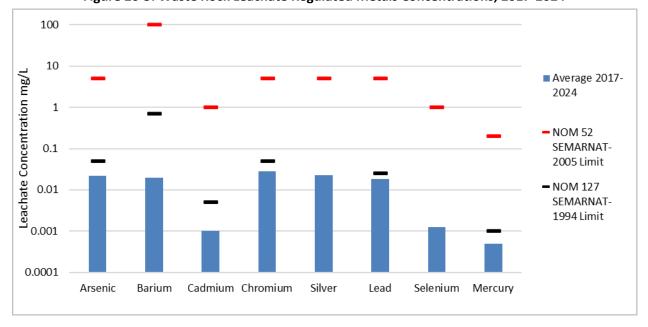


Figure 20-5: Waste Rock Leachate Regulated Metals Concentrations, 2017-2024

On average, of the four waste rock dumps, the "ND" results were half of L.C.



The metal leaching results from the four Waste Rock Dumps at the Mercedes mine do not exceed the maximum permissible limits according to NOM 52 SEMARNAT-2005 and NOM 127 SEMARNAT-1994; these results are averages of the four Waste Rock Dump per metal.

# 20.3 Surface Water Discharge Water Quality

There are two sources of water discharge at the Mercedes Mine, El Camp and Offices, these water discharges are analyzed quarterly. Coliforms and fecal coliforms are frequently over the regulatory limit. This is because of localized impacts from the widespread cattle ranching in the area. No metal concentrations are in excess of standards; for example, Figure 20-6 shows a bar graph of the arsenic concentrations compared to the regulatory standard.

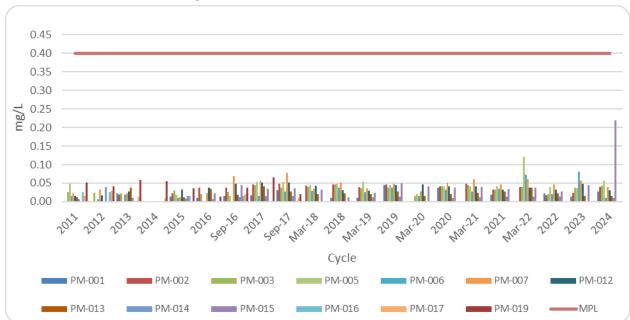


Figure 20-6: Arsenic in surface water results

#### 20.4 Groundwater Quality

The Mercedes mine has analyzed site-wide groundwater since 2011. <u>NOM-001-SEMARNAT-2021</u> establishes the permissible limits of chemical components in groundwater. The site has had no exceedances of the standard apart from fecal coliforms (again, an impact of ranching-related microbes making their way into groundwater) and a single excess oil and grease measurement in well PM-19 in 2024. Figure 20-7 shows the arsenic standard compared to groundwater monitoring results and is an example of the mine's compliance with groundwater quality standards.



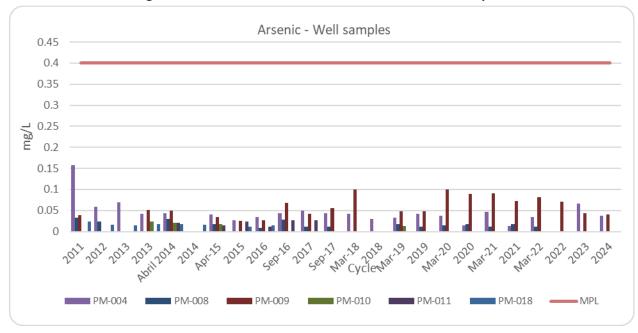


Figure 20-7: Arsenic Concentrations in Groundwater Samples

## 20.5 Air, Noise, and Fauna

The Mercedes mine is also subject to regulations for noise and air quality.

The Mercedes mine has had two prior noise studies; one occurred in November 2023, and the second occurred in January 2024. Both documents specify that the noise emitted by equipment and in immobile sites, such as workshops or the plant, does not exceed the limits according to NOM-081-SEMARNAT-1994.

The mine is also in compliance with air quality standards. The PM10 studies carried out in the processing and crushing plant do not show exceedances to NOM-025-SEMARNAT-2021, which governs air quality.

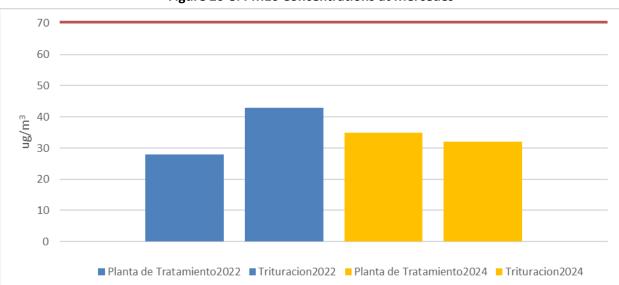


Figure 20-8: PM10 Concentrations at Mercedes



#### 20.5.1 Fauna Studies

The Mercedes Mine has ongoing fauna studies and a fauna protection plan. For example, in Mercedes Tunnel 1 live several families of bats. The site environmental personnel have installed cameras, traps, counters, and other devices to estimate a population census of bats in Mercedes Mine. During August 2023 count, seven different species and a total of more than 308,000 individuals were detected.



Figure 20-9: Bat Counter on Tunnel Mercedes 1

# 20.6 Surface Water and Groundwater Quantity (Water Rights and Water Use)

The site does not have an impact on surface water quantity in the area of the project. No surface water abstraction occurs to supply the mine. However, the site does discharge 28,735m<sup>3</sup> of water per year to the Klondike River drainage, which seeps into the alluvial materials and works its way towards the San Miguel River.

The site does not extract water from groundwater wells; instead, the mine meets all its needs from dewatering the underground mine workings. Section 18.6 discusses the site-wide water balance.

## 20.7 Social or Community Requirements

MMM has a well-developed community program focused on the community of Cucurpe, Sonora, which is located approximately 22 km west of the Mercedes operation and has 1700 inhabitants. Although the Mine is located on private land, previously purchased from a local rancher, MMM has established several social and economic programs in the community of Cucurpe.

During the last five years there have been no strikes or demonstrations by the Cucurpe community. Annually, during April the union contracts are renewed, and there has been no work stoppage associated with the contract negotiations.



#### The jobs at MMM are occupied by:

- 51% of the personnel are hired from communities near the mine, such as Cucurpe and Magdalena de Kino,
- 39% are resident personnel from other municipalities in Sonora
- 10% of hires are from other states in Mexico, and there are no Foreigners (Extranjeros) working permanently at the mine.

In terms of social investment, the MMM invests a total of USD \$76,000 annually in the following programs:

- In-kind support to schools in the communities of Cucurpe and Magdalena.
- Support in-kind to ranchers near the mine.
- Twice-annual maintenance of local roads
- Scholarships to "Communal Goods" of Cucurpe.
- Support for mammograms during Breast Cancer Awareness Month.
- Volunteering at the DIF of Cucurpe and Magdalena on festive dates, such as the Christmas season.

In addition, MMM has made an investment of more than MN \$3.2 million in the environment. The Mercedes mine manages a forest nursery and has produced 8,407 trees and has reclaimed 4.72 hectares of forest.

For the effort, MMM has received the Excellence in Social Responsibility (ESR) badge for the twelfth consecutive year from the Centro Mexicano para la Filantropía (CEMEFI), which is a private, non-profit membership association based in Mexico City that seeks to promote a culture of philanthropy and social responsibility in Mexico.

#### 20.8 Mine Closure Requirements

Mexican law requires only a conceptual plan that meets legal guidelines for implementation. Regulations require physical stability, chemical stability, and revegetation. Physical stability includes geotechnical stability of mine wastes, and the sealing of shafts and portals. Chemical stability includes closing the site in a manner that will not impact surface or groundwater quality, and vegetation requires native species revegetation to a similar condition to nearby non-impacted ground.

The post-closure land uses for the Mercedes property are defined as ranching and wildlife, which correspond to the original land use prior to mining activities in the area. All mine waste facilities, mine openings, plant areas, processing areas, buildings, storm water and water treatment facilities, storage areas, stockpiles, and borrow areas will be closed so that there are no potential safety or health hazards for ranchers, cattle, and wildlife.

No long-term impacts on water quality are expected. Section 20.2 shows that there is low ARD and ML risk, but it is also important to know that no mine portals have post-mining water levels below the portal height and, therefore, will not discharge water.



The exit strategy has also been defined as walk-away mine closure to the extent feasible, which is consistent with the current practice of hauling out domestic and hazardous waste, rather than establishing on-site landfills. The intention is to remove waste and demolition debris to the extent possible, to minimize the number of facilities requiring long-term care and maintenance.

An updated closure plan and schedule were developed by GRE (GRE, 2024) based on assumed closure activities beginning in 2028. The costs of the closure of the existing facilities at the Mine are mostly concentrated in the first four years, with most closure activities being completed by 2029. However, the mine must wait approximately two years for the TSF2 to dry out to make the surface sufficiently trafficable for the placement of a closure cover. The post-closure period begins in 2030 and will continue for 5 years.

The total direct and indirect cost of closure and post-closure of the Mine was estimated at US\$16.83 million, including contingency. The rehabilitation cost estimates for the Mercedes operation are listed in Table 20-4.

Table 20-4: Closure cost estimate

Category	Cost (US\$)	Cost (%)
A. Earthwork/Recontouring	\$4,345,108	26%
B. Revegetation/Stabilization	\$518,388	3%
C. Detoxification/Water Treatment/Disposal of Wastes	\$800,328	5%
D. Structure, Equipment and Facility Removal, and Misc.	\$2,938,612	17%
E. Monitoring	\$1,384,523	8%
F. Construction Management & Support	\$1,315,907	8%
G. Closure Planning, G&A, Human Resources	\$630,750	4%
Indirect Costs	\$4,892,782	29%
Total	\$16,826,398	100%

(Basis: US\$1=MXN\$20)

The closure costs have been included in the economic model according to the closure cost timeline (see Section 21).

#### 20.9 Summary

As of the effective date of the report, MMM has all the environmental and operating permits and licenses necessary to operate the Mercedes Mine as per local, state, and national Mexican regulations. Larry Breckenridge (QP) confirms that there are no relevant environmental studies or known environmental issues that could materially impact mineral extraction. Furthermore, the site has low overall environmental risk and an apparently strong Social License to operate.



## 21 CAPITAL AND OPERATING COSTS

The forecast LOM capital and operating costs described in this chapter were derived from the MMM 2025 LOM budget for the period of 2025 to 2027. All costs are presented in US dollars (US\$) and based upon an exchange rate of 1 US dollar = 19.5 Mexican Pesos.

## 21.1 Capital Costs

The Mercedes mine has been in operation since 2012 and all the primary plant equipment is in place. The capital expenditure in LOM for ongoing operations totals approximately US\$26.7 million, as summarized in Table 21-1. This includes US\$16.83 million in funds identified for final and post-closure activities as described in Chapter 20. Capital cost estimates are based upon the LOM plan, operating experience, current costs for mine development and engineering studies.

The equipment salvage value was evaluated by BCMC and is valued at \$6.39M. The Mercedes Mine's major assets for salvage value include the process plant, paste plant, power station, 2MW diesel backup generator, two cement plants, water treatment plant, and the mobile equipment. These salvage credits are also included in the capital costs.

Cost (US\$ M) Category **Underground Mine Development** 10.00 Other Sustaining Capital Cost 4.71 Tailings Dam TSF1 Expansion and permitting 0.35 **Exploration Drilling** 1.21 -6.39 Salvage Cost Estimate **Reclamation and Closure Cost** 16.83 **Total Capital Cost** 26.70

**Table 21-1: Forecast LOM capital costs** 

# 21.2 Operating Costs

Operating cost estimates are based on actual operating data refined where necessary to incorporate future operating forecasts. Operating costs within each category include labor, consumables, power, fuel and lubricants, routine maintenance parts, and all other direct operating expenses. Operating costs do not include major component replacement and major maintenance costs that are capitalized.

The LOM operating costs were estimated based on current site operating costs and escalated as necessary. The estimated LOM operating costs are based on mining activities in Marianas, Barrancas and Gap areas using long hole stoping mining method and Rey de Oro and Rey de Oro High areas using cut & fill mining method.

The LOM forecasted operating costs are shown in Table 21-2.



Table 21-2: Forecast unit operating costs (\$/t milled)

Category	Costs (US\$/ t milled)
Mine Administration and Underground	93.02
Process Plant	32.11
General & Administration (incl. Site Overhead)	37.28
Refining Cost	1.99
Total Operating Cost	164.40



## 22 ECONOMIC ANALYSIS

A financial analysis for the Mercedes Mine was developed by MMM using a discounted cash flow approach on a pre-tax and after-tax basis using the actual mine costs, current mine plan, scaled actual costs, and estimates presented in this report. The NPV was calculated from the cash flow generated by the project based on a discount rate of 5%. A sensitivity analysis was performed for the after-tax base case to assess the impact of variations of the capital costs, operating costs, and the gold metal selling price. The internal rate of return (IRR) for Mercedes is not discussed as it would be misleading as the project was already constructed and has been in commercial operations since February 2012.

## 22.1 Methods, Assumptions, and Basis

The economic analysis was performed on the following assumptions and basis:

- The financial analysis was performed on Proven and Probable Mineral Reserves as outlined in this report for the underground mines.
- The LOM NPV was determined on a pre-tax and after-tax basis with discounting to the start of 2025, which marks the first year in the current LOM.
- Annual cash flows used for NPV calculations are assumed to be realized at year-end.
- Base case gold and silver metal selling prices are \$2,360/oz and \$29.25/oz, respectively, based on market conditions.
- The exchange rate has been assumed to be 19.50 Pesos: US\$.
- All costs and sales are presented in US\$, with no inflation or escalation factors considered.
- All gold and silver sales are assumed to be in the same period as produced.
- All related payments and disbursements incurred prior to the year-end of 2025 are considered sunk costs.
- Details of capital and operating costs are provided in Chapter 21 of this report.
- Cash flows shown include payment of royalties and metal streaming agreements.
- Progressive and final closure costs are included in the period incurred, with post closure costs reported in 2027-2036, the final year of closure prior to entering post-closure.
- A salvage value of \$6.39 M has been applied to assets within the economic evaluation.
- Closure costs are included within the analysis, although most of these costs will be incurred regardless of the extension of the mine life. These costs are estimated as \$16.83 M.
- As a result of the use of \$19 M in carry-forward losses, no income tax is incurred.

#### 22.2 Streams, Royalties, and NSRs

The Mercedes Mine has outstanding royalties with Elemental Royalties Corp. (Elemental), the Mexican government (government) and Versamet Royalties. Sandstorm streams are delivered from production according to the agreed gold and silver repayment ounces.

On September 28, 2023, Bear Creek announced a restructuring of its Sandstorm steaming obligations. Prior to the restructuring, Mercedes had two stream obligations remaining with Sandstorm: the Sandstorm Gold Stream established upon Bear Creek's acquisition of Mercedes (originally announced on December 17, 2021 and amended on May 11, 2023) and the Nomad Silver Stream, which applied to



Mercedes prior to its acquisition by the Company. As announced by Bear Creek on September 28, 2023, the Bear Creek made the final gold delivery under a gold pre-pay streaming agreement (the "Nomad Gold Stream").

Under the Restructuring Agreement, effective January 1, 2024, gold deliveries pursuant to the Sandstorm Gold Stream were reduced from 600 oz per month to 275 oz per month and silver deliveries pursuant to the Nomad Silver Stream were fully suspended until April 2028.

Sandstorm's streams total is US\$12.17M, using US\$2,360/oz gold and US\$29.25/oz silver.

Versamet Royalties holds a 2% net smelter return on gold equivalent ounces produced by the Mercedes Mine. Elemental currently has a 1% net smelter return on gold equivalent production value. According to historical and future production estimates, net smelter return payments to Versamet Royalties and Elemental will total US\$3.64M.

The Mexican government has a 1% royalty on the gross gold and silver revenue and will receive US\$2.3M.

#### 22.3 Taxation

There is also a special mining tax of 0.5% levied on gold and silver producers. The Corporation Tax rate is 30%, which is applied after all costs, including reclamation, depreciation, amortization, royalties,, mining taxes, and Worker Profit Share tax. No income tax is expected as \$19 M in carry-forward losses were applied to the forecasted taxable income. Table 22-1 shows the tax summary.

Taxes
US\$ M
Worker Profit Share Tax
2.34
Special Mining Duty
2.57
Income Tax
Total Taxes
4.91

Table 22-1: Summary of total taxes

# 22.4 Financial Analysis Summary

The current LOM is stated for two years with the current mining reserves. The undiscounted after-tax cash flow is US\$3.38M. Using a discount rate of 5%, the pre-tax NPV is US\$6.22M, and the after-tax NPV is US\$5.06M. Table 22-2 shows the Mercedes Mine Financial Summary.



**Table 22-2: Mercedes Mine Financial Summary** 

	Total/													
Mercedes Mine	Units	Total/ LOM	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Mining														
Ore	000 tonnes	428.0	280.6	138.2	9.2	-	-	-	-	-	-	-	-	-
Contained Gold	000 tr oz	54.3	35.1	18.2	0.9	-	-	-	-	-	-	-	-	-
Contained Silver	000 tr oz	312.5	211.7	84.4	16.3	-	-	-	-	-	-	-	-	-
Gold Grade	gpt	3.95	3.89	4.10	3.12	-	-	-	-	-	-	-	-	-
Silver Grade	gpt	22.71	23.47	19.00	55.40	-	-	-	-	-	-	-	-	-
Processing														
Gold Recovery	%	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
Silver Recovery	%	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Recoverable Au	000 tr oz	51.0	33.0	17.1	0.9	-	-	-	-	-	-	-	-	-
Recoverable Ag	000 tr oz	109.4	74.1	29.6	5.7	-	-	-	-	-	-	-	-	-
Financial Analysis														
Revenue														
Gold Price	US\$/tr oz Au	2,360	2,360	2,360	2,360	-	-	-	-	-	-	-	-	-
Silver Price	US\$/tr oz Ag	29.25	29.25	29.25	29.25	-	-	-	-	-	-	-	-	-
Gold Revenue	US\$ M	120.44	77.95	40.45	2.04	-	-	-	-	-	-	-	-	-
Silver Revenue	US\$ M	3.20	2.17	0.86	0.17	-	-	-	-	-	-	-	-	-
<b>Total Revenue</b>	US\$ M	123.64	80.11	41.31	2.21	-	-	-	-	-	-	-	-	-
<b>Operating Costs</b>														
Mining Cost + Development Cost	US\$ M	(39.81)	(25.95)	(13.07)	(0.79)	-	-	-	-	-	-	-	-	-
Processing Cost	US\$ M	(13.74)	(9.01)	(4.44)	(0.29)	-	-	-	-	-	-	-	-	-
G&A (inc. Site Overhead)	US\$ M	(15.95)	(10.46)	(5.15)	(0.34)	-	-	-	-	-	-	-	-	-
Refining Cost	US\$ M	(0.85)	(0.55)	(0.28)	(0.02)	-	-	-	-	-	-	-	-	-
<b>Total Operating Cost</b>	US\$ M	(70.36)	(45.98)	(22.94)	(1.45)	-	-	-	-	-	-	-	-	-
Capital Costs														
Underground Mine Development	US\$ M	(10.00)	(8.31)	(1.69)	-	-	-	-	-	_	-	-	-	-
Other Sustaining Capital Cost	US\$ M	(4.71)	(3.15)	(1.49)	(0.08)	-	-	-	-	-	-	-	-	-



Mercedes Mine	Units	Total/ LOM	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Tailings Dam Expansion and permitting	US\$ M	(0.35)	(0.35)	-	-	-	-	-	-	1	-	1	1	-
Exploration Drilling	US\$ M	(1.21)	(1.21)	-	-	-	-	-	-	-	-	-	-	-
Salvage Cost Estimate	US\$ M	6.39	-	-	6.39	-	-	-	-	-	-	-	-	-
Reclamation and Closure Cost	US\$ M	(16.83)	-	-	(5.74)	(4.99)	(1.31)	(1.31)	(1.52)	(0.39)	(0.39)	(0.39)	(0.39)	(0.39)
Total Capital Cost	US\$ M	(26.70)	(13.02)	(3.18)	0.58	(4.99)	(1.31)	(1.31)	(1.52)	(0.39)	(0.39)	(0.39)	(0.39)	(0.39)
Other Costs														
Sandstorm Gold Streams	US\$ M	(12.17)	(5.84)	(5.84)	(0.49)	-	-	-	-	-	-	-	-	-
Worker Profit Share Tax	US\$ M	(2.34)	(1.52)	(0.79)	(0.04)	-	-	-	-	-	-	-	-	-
Special Mining Duty	US\$ M	(2.57)	(1.66)	(0.86)	(0.04)	-	-	-	-	-	-	-	-	-
<b>Total Other Costs</b>	US\$ M	(17.08)	(9.02)	(7.49)	(0.57)	-	-	-	-	-	-	-	-	-
Royalty														
Government @1%	US\$ M	(1.24)	(0.80)	(0.41)	(0.02)	-	-	-	-	1	-	1	1	-
Elemental @1%	US\$ M	(1.21)	(0.79)	(0.41)	(0.02)	-	-	-	-	-	-	-	-	-
Versamet @2%	US\$ M	(2.43)	(1.57)	(0.81)	(0.04)	-	-	-	-	-	-	-	-	-
Total Royalty	US\$ M	(4.88)	(3.16)	(1.63)	(0.09)	-	-	-	-	-	-	-	-	-
Cash Costs														
Total Cash Cost (inc. Royalty)	US\$/tr oz Au	(1,340.24)	(1,350.68)	(1,311.85)	(1,504.26)	-	-	-	-	1	-	ı	ı	-
AISC	US\$/tr oz Au	(2,198.10)	(1,752.35)	(1,497.11)	(7,462.43)	-	-	-	-	-	-	-	-	-
Cash Flow Analysis														
Revenue	US\$ M	123.64	80.11	41.31	2.21	-	-	-	-	-	-	-	-	-
Operating Costs	US\$ M	(70.36)	(45.98)	(22.94)	(1.45)	-	-	-	-	-	-	-	-	-
Net Operating Income	US\$ M	53.28	34.14	18.38	0.76	-	-	-	-	-	-	-	-	-
Capital Expenditures	US\$ M	(26.70)	(13.02)	(3.18)	0.58	(4.99)	(1.31)	(1.31)	(1.52)	(0.39)	(0.39)	(0.39)	(0.39)	(0.39)
Gross Income from mining	US\$ M	26.57	21.12	15.20	1.34	(4.99)	(1.31)	(1.31)	(1.52)	(0.39)	(0.39)	(0.39)	(0.39)	(0.39)
Other Costs	US\$ M	(17.08)	(9.02)	(7.49)	(0.57)	-	-	-		-		-	-	-



Mercedes Mine	Units	Total/ LOM	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Royalties	US\$ M	(4.88)	(3.16)	(1.63)	(0.09)	-	-	-	-	-	-	-	-	-
Total Pre-Tax Cash Flow	US\$ M	4.61	8.94	6.08	0.68	(4.99)	(1.31)	(1.31)	(1.52)	(0.39)	(0.39)	(0.39)	(0.39)	(0.39)
Taxes														
Sales Tax @1%	US\$ M	(1.24)	(0.80)	(0.41)	(0.02)	-	-	-	-	-	-	-	-	-
Income Tax	US\$ M		-	-	-	-	-	-	-	-	-	-	-	-
Economics														
Pre-tax NPV 0% discounting	US\$ M	4.61												
Pre-tax NPV 5% discounting	US\$ M	6.22												
After-tax NPV 0% discounting	US\$ M	3.38												
After-tax NPV 5% discounting	US\$ M	5.06												

As a result of the use of \$19 M in carry-forward losses, no income tax is incurred.

A salvage value of \$6.39 M has been applied to assets within the economic evaluation.



#### 22.5 Sensitivities

A financial sensitivity analysis was conducted on the pre-tax LOM Mineral Reserves Case cash flow NPV for variations in gold metal selling price and operational and capital expenditures. The results are presented in Table 22-3 and Figure 22-1.

Table 22-3: Sensitivity Analysis for Pre-Tax NPV @ 5% Sensitivities Pre-Tax NPV @5% Description -25% -20% -15% -10% -5% 0% 5% 10% 15% 20% 25% -\$15.42 \$0.81 \$6.22 \$17.04 \$27.86 **Gold Price** -\$20.83 -\$10.01 -\$4.60 \$11.63 \$22.45 \$33.27 \$12.79 -\$2.54 OPEX \$17.17 \$14.98 \$10.60 \$8.41 \$6.22 \$4.03 \$1.84 -\$0.35 -\$4.73

\$12.01 \$10.86 \$9.70 \$8.54 \$7.38 \$6.22 \$5.06 \$3.90 \$2.75 \$1.59 CAPEX \$0.43 Figure 22-1: Sensitivity Analysis for Pre-Tax NPV @ 5%

\$40.00 \$30.00 \$20.00 \$10.00 Gold Price @ **→**OPEX NPV \$0.00 --- CAPEX -10% -30% -20% 10% 20% 30% -\$10.00 -\$20.00 -\$30.00 Sensitivity %

A financial sensitivity analysis was conducted on the after-tax LOM Mineral Reserves Case cash flow NPV for variations in gold metal selling price and operational and capital expenditures. The results are presented in Table 22-4 and Figure 22-2.

Table 22-4: Sensitivity Analysis for After-Tax NPV @ 5%

Description				Sen	sitivities	After-Ta	x NPV @5	%			
Description	-25%	-20%	-15%	-10%	-5%	0%	5%	10%	15%	20%	25%
Gold Price	-\$21.71	-\$16.35	-\$11.00	-\$5.64	-\$0.29	\$5.06	\$10.42	\$15.77	\$21.13	\$26.48	\$31.84



Description				Sen	sitivities	After-Ta	x NPV @5	%			
Description	-25%	-20%	-15%	-10%	-5%	0%	5%	10%	15%	20%	25%
OPEX	\$16.01	\$13.82	\$11.63	\$9.44	\$7.25	\$5.06	\$2.88	\$0.69	-\$1.50	-\$3.69	-\$5.88
CAPEX	\$10.86	\$9.70	\$8.54	\$7.38	\$6.22	\$5.06	\$3.91	\$2.75	\$1.59	\$0.43	-\$0.73

\$40.00 \$30.00 \$20.00 \$10.00 NPV @ 5% → Gold Price **→**OPEX \$0.00 --- CAPEX -30% -20% -10% 10% 20% 30% -\$10.00 -\$20.00 -\$30.00 Sensitivity %

Figure 22-2: Sensitivity Analysis for After-Tax NPV @ 5%

# 22.6 Conclusion

GRE's QP Terre Lane confirms that the outcome is a positive cash flow that supports the statement of Mineral Reserves.



# 23 ADJACENT PROPERTIES

Magdalena is an old gold and silver district that during the recent past, has been the mining centre for five active mines. The Mercedes Mine's property concessions, located in the Magdalena gold and silver district, are surrounded on the northern sides by several concession holders who either have recently been or are still actively carrying out exploration and development work on their properties.

The QP has been unable to verify the information presented below and is unable to validate whether all the information is up to date. The information serves to support the impressive geological prospectivity of the region but is not necessarily indicative of the mineralization on the Mercedes Mine Project area.

Below are some of the main projects for which the QP was able to find information.

# 23.1 Agnico-Eagle Mines, Santa Gertrudis Exploration Project

The Santa Gertrudis property was the site of historic heap-leach operations that produced approximately 565,000 ounces of gold between 1991 and 2000. Substantial surface infrastructure is already in place on the property including pre-stripped pits, haul roads, water sources and buildings.

Drill programs by the Company in 2018 and 2019 at Santa Gertrudis have led to the declaration of initial open-pit indicated mineral resources of 5.1 million tonnes grading 0.64 g/t gold (104,000 ounces of gold) as well as inferred open-pit and underground mineral resources of 22.1 million tonnes grading 1.64 g/t gold (1.2 million ounces of gold) as of December 31, 2019.

In the northern portion of the Santa Gertrudis property, the high-grade Amelia deposit continues to grow, with exploration drilling in 2019 extending the Amelia ore shoot to 677 meters below the surface. The updated inferred mineral resource at Amelia is 70,000 ounces of gold (1.6 million tonnes grading 1.38 g/t gold) in oxides at open pit depth, as well as an initial underground inferred mineral resource of 451,000 ounces of gold (3.1 million tonnes grading 4.58 g/t gold) in the high-grade sulphide material, as of December 31, 2019.

The 2019 Espiritu Santo discovery, 500 meters east-southeast of Amelia, includes high-grade gold and silver mineralized structures at shallow depth.

The Company is currently evaluating a potential production scenario at Santa Gertrudis that utilizes a heap leach for lower-grade mineralization and a small mill facility to process higher-grade ore. (Source: Agnico Eagle website).

# 23.2 Sonoro Gold Corp., Cerro Caliche Mining Project

On December 19, 2024, exploration at the Cerro Caliche Mining property confirmed a broadly mineralized low-sulfidation epithermal vein structure and over 25 northwest-trending gold mineralized zones along the trend and near the surface. With only 30% of the property's identified mineralized zones drilled and assayed, the Company filed an updated Mineral Resource Estimate (MRE) in March 2023 based on a total of 55,360 meters of drilled data, including 498 drill holes, 17 trenches, and assays for 53,865 meters of the drilled data.



In October 2023, the Company filed a new Preliminary Economic Assessment (PEA) demonstrating the potential viability for a 9-year open pit with gold extraction via a heap leach mining operation. (Source: Sonoro Gold Corps., October 17, 2023, Website).

# 23.3 Goldgroup Mining, Cerro Prieto Mining Project

The Cerro Prieto Mine is an open pit heap leach gold mine. From the start of mining operations in 2013 to 2021, Cerro Prieto has produced 117,033 ounces of gold. Ongoing mining operations continue to produce approximately 1,000 - 1,200 ounces of gold monthly.

Mined zones and more recently discovered mineralization are located within or near the Cerro Prieto Shear, a major north-trending, near vertical shear zone up to 65 metres in width. The shear zone contains a series of major veins near its margins, along with secondary veins and zones of stringers, breccias, and silicification, which, with the veins, forms a mineralized system from 15 to 65 meters thick. Ongoing exploration resulted in the discovery of significant mineralization in several new zones along the trend of the Cerro Prieto Shear, both north and south of the existing mine. (Source: Goldgroup Mining website).

## 23.4 Riverside Resources, Los Cuarentas Project

Los Cuarentas is a low-sulfidation epithermal Au-Ag target characterized by strong argillic and phyllic alteration surrounding low-sulfidation epithermal vein systems that host gold and silver mineralization. Vein textures and silica polymorphs suggest that the higher levels of the epithermal systems are present throughout the under-explored district. Hydrothermal alteration is overprinted in places by strong oxidation after pyrite and other sulfides. Several target zones have been identified, and most are ready for drilling; these are named Santa Rosalia, Santa Rosalia Sur, and El Sombrero.

The property is located in northern Sonora, 170 km northeast of Hermosillo and located 17 km northwest of SilverCrest Metals' Las Chispas Mine. The Los Cuarentas Project is also located 15 km northeast of BCMC's Mercedes Mine. (Source: Riverside Resources website).

#### 23.5 Private Owner, Los Abeles

Los Abeles is a small privately-owned project covering a total of 7,152 hectares, located in the vicinity West of the Mercedes mining claims and Northeast of the Cerro Caliche project. A reverse circulation drilling campaign was performed in 2012. Results from parallel veins (Los Abeles internal reports) identified evidence of mineralized epithermal quartz veins hosted within andesite (and there is a possible association with rhyolite dikes). Grades of up to 38.7 g/t Au were intercepted.



# 24 OTHER RELEVANT DATA AND INFORMATION

There is no additional information or explanation necessary to make the technical report understandable and not misleading.



## 25 INTERPRETATION AND CONCLUSIONS

#### 25.1 Introduction

The QPs note the following interpretations and conclusions in their respective areas of expertise, based on the reviews and interpretations of data available for this Report.

## 25.2 Mineral Tenure, Surface Rights, Water Rights, Royalties, and Agreements

Mineral tenure held is valid and sufficient to support a declaration of Mineral Resources and Mineral Reserves.

To the extent known to the QP, there are no other significant factors and risks that may affect access, title, or right or ability to perform work on the Project that are not discussed in this Report.

## 25.3 Geological Setting and Mineralization

The Mercedes Mine is located on the northwestern edge of Mexico's epithermal (Au-Ag) deposits belt, surrounded by world-class deposits like Cananea and Nacozari. Mercedes is one of the most accessible mining projects in Mexico, covering 69,285 ha and is located approximately 250 km from Hermosillo, Sonora, and Tucson, Arizona.

The area is underlain by a thick succession of shallow-marine shelf carbonate and siliciclastic rocks ranging in age from Jurassic to Cretaceous. These rocks have been moderate to strongly faulted and folded, related to thin-skinned, northeast-directed thrusting during the Late Cretaceous Laramide Orogeny.

The geology of the Mercedes area is dominated by two northwest-trending arches, cut by numerous northwest-trending high-angle structures. These structures have exposed older marine sediments, overlying interbedded volcaniclastic sediments, and lithic to quartz crystal lithic tuff units.

Andesitic flows and flow breccias (with local coeval andesite dikes) have been deposited and preserved in at least three west-northwest thickening basins on the margins of the northwest-trending arches. Most known economic low sulphidation epithermal vein deposits on the Mercedes concessions occur within the lower portions of the andesite package, locally over 500 m thick, and are frequently associated with the lower contact zone with underlying rhyolitic tuff.

Some local faults have been intruded by at least three stages of dikes and small stocks, ranging in composition from andesite to latite and rhyolite. Dikes generally crosscut and destroy vein mineralization. Vitrophyre is locally preserved on both latite dike and latite flow margins.

Over 18 km of gold-silver-bearing epithermal low sulfidation veins have been identified within or along the margins of the andesite-filled basins, which constitute the primary exploration target on the property. Following the major regional structural pattern, major veins like those of the Mercedes vein system, typically trend  $N30^{\circ} - 70^{\circ}W$  at  $60^{\circ}$  to  $90^{\circ}$  dips northeast or southwest.

Mineralogical studies have identified iron oxides, pyrite, gold, electrum, stibnite, and rare pyrargyrite, within a gangue of substantial chalcedony, quartz, and carbonate. Due to the substantial depth of



oxidation up to over 500 m in mineralized structures, sulfides are rarely observed. An important component in some economically mineralized zones is the presence of hematite and manganese oxides.

Understanding the Mercedes Mine deposit setting, lithologies, mineralization style and the geological and structural controls on mineralization provides support for the estimation of Mineral Resources and Mineral Reserves.

# 25.4 Exploration, Drilling, and Analytical Data Collection in Support of Mineral Resource Estimation

The exploration programs completed at the Project to date reveal important aspects of the geology, mineralization, and deposit style on the Property. By the end of December 2024, a total of 3,417 holes had been drilled on the Mercedes Mine property, covering 701,451.08 meters and including 184,709 samples. In addition, 24,914 underground channels were completed, totaling 126,950.43 meters, with 142,298 channel samples taken.

The historical drilling and sample collection methods and the recent drilling and sampling conducted by Bear Creek at the Project are acceptable for estimating Mineral Resources and Reserves.

The sample preparation, analysis, and security practices used by Yamana Gold, Premier Gold, and Equinox Gold at the Project from 2008 to 2022 are acceptable, meet most industry-standard practices, and are sufficient to support Mineral Resource and Mineral Reserve estimation. Over the years, the Mercedes QA/QC protocol became more comprehensive and detailed.

Bear Creek continued the established QA/QC protocols for the Project and applied this to all sample collection and analysis streams from 2022 and 2024. Although the QA/QC submission rates did not meet industry-accepted standards for most of the drilling programs, a review of the QA/QC by GRE's QP did not identify any material issues. The data collected still supports the Mineral Resource and Mineral Reserve estimations.

Data verification concludes that the project data adequately supports the geological interpretations and constitutes a database of sufficient quality to support the application of the data in Mineral Resource and Mineral Reserve estimation.

## 25.5 Metallurgy and Mineral Processing

Review of the available test work indicates that in most cases the Mercedes materials leaches very well, with gold recoveries in excess of 90% often closer to 95%. Silver extractions are typically lower ranging from 20% to 40% in most cases. Mineralogy suggests that the presence of refractory compounds such as electrum, tellurides, argentite, and other silver sulfide minerals may be responsible for some of the variations in gold and silver recovery reported.

#### 25.6 Mineral Resource Estimates

The Mineral Resource estimation for the Project conforms to industry-accepted practices and is reported using the 2014 CIM Definition Standards.



Factors that may affect the estimate include: changes to metal price assumptions; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to the density values applied to the mineralized zones; changes to geological shape and continuity assumptions; potential for unrecognized bias in the assay results from legacy drilling where there was limited documentation of the QA/QC procedures; changes to the input values used to generate the cut-off grade; changes to metallurgical recovery assumptions; changes in assumptions of marketability of final product; changes to the input assumptions for assumed underground operations; changes to environmental, permitting and social license assumptions.

#### 25.7 Mineral Reserve Estimates

The Mineral Reserve estimation for the Project conforms to industry-accepted practices and is reported using the 2014 CIM Definition Standards.

Factors that may affect the estimate include: metal price and exchange rate assumptions; changes to the assumptions used to generate the cut-off grade; changes in local interpretations of mineralization geometry and continuity of mineralized zones; changes to geological and mineralization shapes, and geological and grade continuity assumptions; density and domain assignments; changes to the underground mining method; changes to metallurgical recovery assumptions; changes to the input and design parameter assumptions; assumptions as to the continued ability to access the site, retain mineral and surface rights titles, obtain and maintain environmental and other regulatory permits, and obtain the social license to operate.

# 25.8 Mining Methods

The Mine currently plans and undertakes most of the mining to be completed using the mechanized long hole stoping mining and mechanized cut & fill mining methods.

The current Mineral Reserves, a total of 428 Kt grading 3.95 gpt Au and 22.71 gpt Ag, will be mined over a mine life of 2 years (January 2025 to January 2027).

#### **25.9 Project Infrastructure**

The Mine currently has all the major surface and underground infrastructure necessary to operate the site. No major upgrades or modifications are required; however, tailings management requires reevaluation.

Due to the current political stance of the Mexican government regarding conventional tailings facilities and its approval, Mercedes Mine paused the TSF3 project, and it is in the process of developing a new strategy. The new strategy consists of converting the tailings management from conventional tailings to filtered tailings for dry-stacking. This conversion allows for the vertical expansion of TSF1. In its current state, this alternative could provide approximately 924,000 m<sup>3</sup> of storage capacity.

## 25.10 Environmental Studies, Permitting & Social or Community Impact

The mine operates with a fully permitted, sustainable water supply from underground dewatering, unaffected by climate change and without impact on local users. It complies with all regulations and has



minimal environmental risk due to favorable geochemical conditions, reducing Acid Rock Drainage (ARD) and Metal Leaching (ML) concerns. There are no known historical or long-term post-closure liabilities, with closure costs included in the cost model. Strong community relations and a history free of labor disputes ensure a stable Social License to Operate.

## **25.11 Project Economics**

An economic analysis of the Mercedes Mine has been completed using the actual mine costs, current LOM plan, scaled actual costs, and estimates presented in this report. The outcome is a positive cash flow that supports the statement of Mineral Reserves at a gold and silver price of US\$2,360/oz and US\$29.25/oz respectively.

The current LOM is stated for two years with the current mining reserves. The undiscounted pre-tax cash flow is US\$4.61M and after-tax cash flow is US\$3.38M. At a discount rate of 5%, the pre-tax NPV is US\$6.22M, and the after-tax NPV is US\$5.06M.

The mine economics are most sensitive to the gold price and operating costs.

#### 25.12 Other Relevant Data

#### 25.12.1 Risk

The QPs, as authors of this Technical Report, have noted the following risks:

- Exchange rates, operating costs (fuel and electricity), and, in particular, metal prices all have the potential to affect the economic results of the mine. Negative variances to assumptions made in the budget forecasts would reduce the profitability of the mine, thereby impacting the mine plan. (General)
- Stope optimization blocks can be improved. Associated risks are sterilizing of ore and reduction of reserves through the creation of poor mine designs, which impact the mine economics and production schedule. (Mining and Reserves)
- Reassessment of unplanned dilution and ore loss for mining methods in different mining areas can adversely impact the mine's overall head grade to the mill. Risks associated are the mine economics and schedule. (Mining and Reserves)
- Maintenance of on-site infrastructure and equipment (Mobile and fixed) for maintaining the
  estimated salvage value. The risks associated are to the mine economics. (Infrastructure, Mining,
  and Processing)
- UG tailings placement estimations may be reduced due to uncertainties in the estimate, i.e., MMM was not able to corroborate the survey of mine due to safety aspects. This may reduce the estimated storage capacity of the LSBF plan, thus increasing the need for new storage facilities. (Infrastructure)
- Mexican regulatory expectations for environmental and social responsibility continue to evolve.
   This has the potential to increase costs for final closure and/or post-closure monitoring.
   (Permitting)



• Inflation costs of consumables and labor costs for estimated CAPEX items for the mine site expansion and reclamation are future mine economics risks. (Economics).

### 25.12.2 Opportunities

The QPs, as authors of this Technical Report, have noted the following opportunities:

- Additional exploration drilling can contribute to the geological understanding of the mine and assist in identifying future Mineral Resource extension and exploration targets.
- Additional definition drilling and channel sampling near active mining fronts will minimize the risk of grade fluctuation.
- Mapping and characterization of mineralized material within historical waste piles to determine if the material can be processed economically. This material could be used to fill the mill to capacity during periods of reduced ore availability from the mines. (Processing).
- Continue the optimization of the tailings deposition and management options currently implemented can increase the storage capacity of the existing TSF postponing the need for additional storage facilities. (Tailings).
- Evaluate the areas proposed for underground low-strength backfill deposition for the presence of any economical material that can be mined before backfilling. (Mining and Reserves).
- Evaluate alternative mining methods, focusing on narrow vein techniques to reduce dilution and convert in situ Mineral Resources to Reserves. (Mining and Reserves).

#### 25.13 Conclusion

Under the assumptions in this Report, the Project shows a positive cash flow over the life-of-mine and supports the Mineral Reserve estimates. The projected mine plan is achievable under the set of assumptions and parameters used.



### **26 RECOMMENDATIONS**

# 26.1 Geology

More than a century of mining activities and geological studies within the BCMC concessions have identified over 18 km of frequently blind-to-surface economically mineralized low-sulphidation Au-Ag epithermal veins and stockwork structures. Despite historical drilling campaigns having demonstrated proven discovery success across the project areas within the Mercedes corridor, there remains considerable Mineral Resource extension exploration opportunity in the immediate surroundings of the Mine deposits. Together with constant improvement in the understanding of mineralizing controls, this implies that testing of blind-to-surface targets can now be undertaken with more confidence. It is thus recommended to focus exploration efforts on testing of blind-to-surface prospective zones (Klondike North), as well as strike extensions (Diluvio NW) & depth extensions (Lagunas West) of known open-ended mineralized structures.

To advance initial 2025 exploration testing of targets (to be selected from those described in Item 9), a conservative 24-hole diamond drilling (DDH) program, with average hole depth of 575 meters (15,350 m) is proposed. A budget of \$2.1 million is recommended.

## 26.2 Sampling and QA/QC

Sample collection, preparation, analysis, and security practices for the 2022 to 2024 core drilling programs are in line with industry-standard protocols for gold and silver deposits and should be retained for future drill campaigns. It is recommended that the CRM, blanks, and duplicate sample submission rates should be increased to meet industry-accepted norms for future drilling programs.

### 26.3 Metallurgy and Mineral Processing

The Mercedes process plant has been operating since 2012 and little in the way of process optimization is required. However, there are certain aspects of the plant operation that may be worth investigating such as:

- Conduct a tradeoff study on the impact of additional cyanide dosing and silver recovery.
- Examine the grind influence on recovery across a wider P80 range. The grind size impacts the
  metal recovery but it also has knock on effects including settling and filtering. With a potential
  for the installation of drystack tailings handling or even underground disposal, a coarser grind may
  present many physical benefits to be weighted against a potential recovery reduction.
- Validate that the deepest extent of the orebody responds similarly to the current metallurgical performance.
- Conduct metallic screens on tailings to monitor for coarse gold.

The estimated cost for the above recommendations is \$50,000.



## 26.4 Mining

Due to current narrow mineralized orebody widths and challenging rock quality conditions, BCMC experiences excessive planned and unplanned dilution. To minimize mining dilution and ultimately improve mine design, it is recommended to evaluate alternative mining equipment (narrower) and mining methods (such as resuing or other narrow vein techniques). The estimated duration of the recommended study, which will additionally assess the potential economic impact of decreasing operating costs and improving the conversion of in situ Mineral Resources to Reserves, is two months with an associated cost estimated at \$200,000.

With the same objectives as mentioned above, it is further recommended to update procedures for the collection and use of geological, structural, density and geotechnical data taken from future drill core to facilitate and enhance interpretation of underground allocated rock quality designations.

The following recommendations have been made for mine planning:

- Acquire geomechanical point load test equipment to improve confidence relating to rock quality designation in new mining areas (\$5,000).
- Enhance the scheduling process to align with project execution.
- Monitor metal price fluctuations and trends and adapt the LOM plan as required to maximize value.
- Integrate short-term planning processes to improve the production profile.
- Develop a waste balance on an annual basis to optimize the production profile.
- Ensure that ventilation models are updated regularly to reflect the current state of the vent system.
- Review mined material movement and rehandling after it is removed from the face, as it contributes towards ore loss, dilution, and increased costs.
- Increase definition drilling to reduce dilution and improve grade control.

## **26.5 Project Infrastructure**

If new areas are identified for operation, the Expansion of TSF1 is required for smooth operation. The estimated cost is \$15,000,000.

The following recommendations have been made for the TSF and tailings management:

- Conduct frequent inspections of TSF1 and TSF2 and establish a maintenance schedule. Items to be considered are:
  - Housekeeping Remove trash and debris that can be detrimental to the facilities, especially the liner system.
  - Inspect embankment crest and slopes for signs of instability, erosion, and excessive vegetation and correct such observations.
- Inspect and repair liner systems for any surficial damage.
- Conduct frequent inspections of TSF2 diversion channels. Look for sediment accumulation and culvert blockage. These must be informed and cleared out, especially for the rainy season.
- Develop an Emergency Action Plan/Response Plan (EAP/ERP).



• Review the storage capacity of the underground deposition plan.

Upon review of the monitoring system in place, it is necessary to replace the water level meter and calibrate the inclinometer. Upon completion, the new information must be provided to the Engineer for review. Based on the Engineer's recommendations, the monitoring plan must be updated as needed. The estimated cost is \$200,000.

## 26.6 Environmental Studies, Permitting, & Social or Community Impact

The mine has a well-run environmental program, and the QP does not have any recommendations apart from the continuation of the existing plans and procedures.

The mine closure plan requires a more detailed management plan. This cost (\$630,750) is included in the closure cost estimate and the mine cost model.



### 27 REFERENCES

- Estados Unidos Mexicanos.- Secretaría de Salud. 2000. "NORMA OFICIAL MEXICANA NOM-127-SSA1-1994."
- Altman, K.A., G.A. Malensek, and C.M. Moore. 2018. "Technical Report on the Mercedes Gold-Silver Mine, Sonora State, Mexico, a NI 43-101 Technical Report for Premier Gold Mines Limited, dated April 18, 2018."
- Buchanan, L. 2016. "Mercedes Operations Overview, prepared for Yamana Gold Inc., July 2016."
- CIM. 2014. "Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral."
- CIM. 2019. "CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines."
- Estados Unidos Mexicanos.- Secretaría de Medio Ambiente y Recursos Naturale. 2005. "NORMA Oficial Mexicana NOM-052-SEMARNAT-2005."
- Golder. 2021. "Conceptual Closure Plan, Mercedes Mine, Sonora Mexico, ref. 21480395-B-2100-MI-REP-02-B\_Mercedes\_Conceptual\_Closure\_Plan\_31DEC21, December 31, 2021."
- Hardie, C., D. Willock, S. Ghouralal, and P. Richard. 2022. "Technical Report on the Mercedes Gold-Silver Mine, Sonora State, Mexico, a NI 43-101 Technical Report for Bear Creek Mining Corporation, dated July 4, 2022."
- Hardie, H, T McCracken, D Willock, and J.A Debreil. 2021. "Technical Report on the Mercedes Gold-Silver Mine, Sonora State, Mexico, a NI 43-101 Technical Report for Equinox Gold, dated June 30, 2021."
- INAP. 2009. "Global Acid Rock Drainage Guide." International Network on Acid Prevention.
- Moore, C.M., and R.D. Bergen. 2014. "Technical Report on the Mercedes Gold-Silver Mine, Sonora State, Mexico, a NI 43-101 Technical Report for Yamana Gold Inc., dated February 25, 2014. Updated as of May 31, 2014."
- Vargas, P, and E Blanco. 2020. "Geology and Epithermal Au Signature Mineralization of the La Mesa Project, Sonora, Mexico, Internal Equinox Gold Report."
- Worley. 2023. "How Can Copper Mines Use Less Water Internet Article." April 2023. https://www.worley.com/en/insights/our-thinking/resources/how-can-copper-mining-processes-use-less-water.





#### CERTIFICATE OF QUALIFIED PERSON

Jeffrey Todd Harvey, RM SME Director of Process Engineering Global Resource Engineering Ltd. 17301 W. Colfax Ave, Suite 400 Golden, CO 80401

I, Jeffrey Todd Harvey, RM SME, am employed as Director of Process Engineering at Global Resource Engineering Ltd., with an office at 17301 W. Colfax Ave, Suite 400, Golden, Colorado, 80401. This certificate applies to the technical report titled This certificate applies to the technical report titled "NI 43-101 Technical Report, Mercedes Gold – Silver Mine, Sonora State, Mexico " dated March 14, 2025 (with an effective date of September 30, 2024) (the "Technical Report").

I am a Registered Member of the Society of Mining, Metallurgy and Exploration (SME) with a membership number of 04144120. I hold a Doctor of Philosophy degree in Mineral Processing from Queen's University in 1994 as well as a Master of Science and Bachelor of Science degree from Queen's University. I also hold a Master of Business Administration degree from the University of New Brunswick (2000) and a Bachelor of Science in Metallurgical Engineering from Toronto Metropolitan University. I have worked for several mining companies and most recently for Global Resource Engineering Ltd. for the last 5 years.

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") for those sections of the Technical Report that I am responsible for preparing.

I have not visited the Mercedes Gold - Silver Mine property.

I am responsible for Sections 1.1, 1.2, 1.12, 1.16, 1.22.12, 1.22.13, 1.22.5, 1.23.3, 2, 3, 12.3, 12.6, 13, 17, 25.5, 25.12.1, 25.12.2, 25.13, 26.3, and 27 of the Technical Report.

I am independent applying the test set out in section 1.5 of NI 43-101.





I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101. 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 the Technical Report not misleading.

Dated: March 14, 2025

"Signed and stamped"

"Todd Harvey"

Todd Harvey, RM SME





#### CERTIFICATE OF QUALIFIED PERSON

Terre Lane, RM SME, MMSA Principal Mining Engineer Global Resource Engineering Ltd. 17301 W. Colfax Ave, Suite 400 Golden, CO 80401

I, Terre Lane, RM SME, MMSA, am employed as a Principal Mining Engineer at Global Resource Engineering Ltd., with an office at 17301 W. Colfax Ave, Suite 400, Golden Colorado, 80401. This certificate applies to the technical report titled "NI 43-101 Technical Report, Mercedes Gold – Silver Mine, Sonora State, Mexico " dated March 14, 2025 (with an effective date of September 30, 2024) (the "Technical Report").

I am a Qualified Professional in the United States from the Mining and Metallurgical Society of America (MMSA) with a membership number of 01407QP and a Registered Member of the Society of Mining, Metallurgy and Exploration (SME) with a membership number of 4053005. I graduated from Michigan Technological University with a Batchelor of Science in Mining Engineering in 1982. I have practiced my profession for over 40 years. I have been directly involved in construction, startup, operations of several mines. I have been involved with or led geology, resource and reserve estimation, mine design, capital and operating cost estimation, economic analysis, and reports for hundreds of developing projects from preliminary to detailed design engineering levels.

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") for those sections of the Technical Report that I am responsible for preparing.

I have visited the Mercedes Gold – Silver Mine property several times most recently on May 14-15, 2019 for a total duration of two days.

I am responsible for Sections 1.1, 1.2, 1.13, 1.14, 1.15, 1.18, 1.2, 1.21, 1.22.1, 1.22.6, 1.22.7, 1.22.8, 1.22.11, 1.22.12, 1.22.13, 1.23.4, 2, 3, 12.3, 12.7, 12.8, 14, 15, 16, 19, 21, 22, 23, 24, 25.1, 25.6, 25.7, 25.8, 25.11, 25.12.1, 25.12.2, 25.13, 26.4, and 27 of the Technical Report.

I am independent applying the test set out in section 1.5 of NI 43-101.

My prior involvement with the Mercedes Gold – Silver Mine was for prior owners as an independent engineer.

I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101. 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 the Technical Report not misleading.

Dated: March 14, 2025

"Signed and stamped"

"Terre Lane"

Terre Lane, RM SME, MMSA





#### CERTIFICATE OF QUALIFIED PERSON

Hamid Samari, MMSA Principal Geologist Global Resource Engineering Ltd. 17301 W. Colfax Ave, Suite 400 Golden, CO 80401

I, Hamid Samari, MMSA, am employed as a Principal Geologist at Global Resource Engineering Ltd., with an office at 17301 W. Colfax Ave, Suite 400, Golden, Colorado, 80401. This certificate applies to the technical report titled "NI 43-101 Technical Report, Mercedes Gold – Silver Mine, Sonora State, Mexico" dated March 14, 2025 (with an effective date of September 30, 2024) (the "Technical Report").

I am a Qualified Professional in the United States from the Mining and Metallurgical Society of America (MMSA) with special expertise in Geology, with a membership number of 01519QP. I hold a Doctor of Philosophy of Science degree (2000) in Tectonics Geology from Tehran Azad University (Sciences & Research Branch). I have practiced my profession since 1997 in capacities from expert of geology to senior geologist and project manager positions for geology, seismic hazard assessment and mining exploration. I have practiced in the areas of geology, mining, and civil industry for over 25 years. I have worked for Azad University, Mahallat branch as assistant professor and head of geology department for 19 years, for Tamavan consulting engineers as senior geologist for 12 years, and for Global Resource Engineering for nearly eight years. I have worked on geologic reports and resource estimation for gold, silver and lithium deposits in the United States and Latin America. This includes epithermal gold and silver deposits in Peru, gold deposits in Nevada and Utah, Lithium in Nevada, and mixed precious metals deposits elsewhere in the Western Hemisphere. I have also worked on several similar epithermal deposits in Nevada and Utah. I have been involved with many studies including scoping studies, prefeasibility studies, and feasibility studies.

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") for those sections of the Technical Report that I am responsible for preparing.

I have not visited the Mercedes Gold - Silver Mine property.

I am responsible for Sections 1.1, 1.2, 1.9, 1.10, 1.11, 1.22.4, 1.22.12, 1.22.13, 1.23.2, 2, 3, 10, 11, 12.1, 12.2, 12.3,12.4, 12.5, 25.4, 25.12.1, 25.12.2, 25.13, 26.2, and 27 of the Technical Report.

I am independent applying the test set out in section 1.5 of NI 43-101.





I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101. 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 the Technical Report not misleading.

Dated: March 14, 2025

"Signed and stamped"

"Hamid Samari"

Hamid Samari, MMSA





#### CERTIFICATE OF QUALIFIED PERSON

J. Larry Breckenridge, P.E. Principal Environmental Engineer Global Resource Engineering Ltd. 17301 W. Colfax Ave, Suite 400 Golden, CO 80401

I, J. Larry Breckenridge, P.E., am employed as a Principal Environmental Engineer at Global Resource Engineering Ltd., with an office at 17301 W. Colfax Ave, Suite 400, Golden, Colorado, 80401. This certificate applies to the technical report titled "NI 43-101 Technical Report, Mercedes Gold — Silver Mine, Sonora State, Mexico " dated March 14, 2025 (with an effective date of September 30, 2024) (the "Technical Report").

I am a Professional Engineer, No. 38048 in Colorado, USA. I graduated from Dartmouth College and the Colorado School of Mines with a Bachelor of Arts degree in Engineering and a Master of Science degree in Environmental Science and Engineering, respectively. I have practiced my profession for twenty-seven years.

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") for those sections of the Technical Report that I am responsible for preparing.

I have visited the Mercedes Gold – Silver Mine property on October 3-4, 2024 for a total duration of two days.

I am responsible for Sections 1.1, 1.2, 1.19, 1.22.10, 1.22.13, 1.23.6, 2, 3, 4.2, 4.3, 5.4, 12.3, 18.5, 18.6, 20, 25.1, 25.12.1, 25.10, 25.12.2, 25.13, 26.6, and 27 of the Technical Report.

I am independent applying the test set out in section 1.5 of NI 43-101.





I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101. 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 the Technical Report not misleading.

Dated: March 14, 2025

"Signed and stamped"



"Larry Breckenridge"

Larry Breckenridge, P.E.





#### CERTIFICATE OF QUALIFIED PERSON

Luis Quirindongo, RM SME Principal Geotechnical Engineer Global Resource Engineering Ltd. 17301 W. Colfax Ave, Suite 400 Golden, CO 80401

I, Luis Quirindongo, RM SME, am employed as Director of Process Engineering at Global Resource Engineering Ltd., with an office at 17301 W. Colfax Ave, Suite 400, Golden, Colorado, 80401. This certificate applies to the technical report titled This certificate applies to the technical report titled "NI 43-101 Technical Report, Mercedes Gold – Silver Mine, Sonora State, Mexico " dated March 14, 2025 (with an effective date of September 30, 2024) (the "Technical Report").

I am a Registered Member of the Society of Mining, Metallurgy and Exploration (SME) with a membership number of 04208172. I hold a Master of Science degree in Geological Engineering from Missouri University of Science and Technology (2004) and Bachelor of Science degree in Geological Science from the University of Puerto Rico-Mayagüez (1999). I have worked for several consulting companies and most recently for Global Resource Engineering Ltd. for the last 8 years.

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") for those sections of the Technical Report that I am responsible for preparing.

I have visited the Mercedes Gold – Silver Mine property on June 11-12, 2024 and January 15-17, 2025 for a total duration of five days.

I am responsible for Sections 1.1, 1.2, 1.17, 1.22.9, 1.22.12, 1.22.13, 1.23.5, 2, 3, 5.6, 12.3, 18.1, 18.2, 18.3, 18.4, 25.9, 25.12.1, 25.12.2, 25.13, 26.5, and 27 of the Technical Report.

I am independent applying the test set out in section 1.5 of NI 43-101.





I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101. 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 the Technical Report not misleading.

Dated: March 14, 2025

"Signed and stamped"

"Luis Quirindongo"

Luis Quirindongo, RM SME



#### CERTIFICATE OF QUALIFIED PERSON

Donald A. Mc Iver, MSc., FAusIMM, FSEG, QP Vice President of Exploration and Geology of Bear Creek Mining Corporation Av. Conquistadores 1144, Piso 6, San Isidro, Lima 15703, Perú.

I, Donald A. Mc Iver, FAusIMM QP, FSEG, am employed as Vice President of Exploration and Geology of Bear Creek Mining Corporation with an office at Av. Conquistadores 1144, Piso 6, San Isidro, Lima 15703, Perú.

This certificate applies to the technical report titled "NI 43-101 Technical Report, Mercedes Gold - Silver Mine, Sonora State, Mexico", dated March 14, 2025 (with an effective date of September 30, 2024) (the "Technical Report"), and prepared for Bear Creek Mining Corporation. I, Donald A. Mc Iver, do hereby certify that:

- I am a Fellow Member Qualified Person (#223767) in good standing of the Australasian Institute of Mining and Metallurgy (FAusIMM), as well of the Society of Economic Geologists (FSEG #512015).
- b) I graduated with a Bachelor of Science Honours from the University of Port Elizabeth, Republic of South Africa, in January 1987, I have worked as a professional Geologist for 38 years. I post-graduated from the University of Rhodes, Grahamstown, Republic of South Africa, in 1996 with a Master of Science degree in Exploration and Economic Geology. My career experience has focused on exploration, mining geology, consulting, resource development and Mineral Resource Estimation of precious metals and polymetallic base metal deposits.
  - As a result of my education, professional qualifications, and experience, I am a Qualified Person, as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") for those sections of the Technical Report that I am responsible for reviewing and sign-off approval of the final compilation.
- c) I completed a 5-day independent verification inspection of the Mercedes Gold-Silver Mine from January 30, 2023, to February 3, 2023. I have conducted several independent site-inspections since that time including, since July 2024, posterior extended stays as a member of the BCM executive team.
- d) I am responsible for technical review and sign-off approval of the final compilation of the following Items: 1 (in part); 2; 4 (in part); 6; 7; 8; 9; 23; 25 (in part); 26 (in part).
- e) I am not independent of the issuer, Bear Creek Mining Corporation. Since I am an employee of the issuer, a producing issuer, I fall under subsection 5.3(3) of NI 43-101 where "a technical report required to be filed by a producing issuer is not required to be prepared by or under supervision of an independent qualified person".
- f) I have had prior independent as well as non-independent involvement with the Mercedes Gold Silver Mine property that is the subject of the Technical Report.
- g) I have read National Instrument 43-101, Form 43-101F1 and the Companion Policy 43-101CP, and the sections of the Technical Report for which I am responsible have been prepared in compliance with the guidelines presented in NI43-101, Form 43-101F1, and 43-101CP.
- h) As of the Effective Date of the Technical Report, to the best of my knowledge, information, and belief, the Items of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated and signed at the Mercedes Gold - Silver Mine, Sonora State, Mexico, this day March 14, 2025.

Signed By

Donald A. Mc Iver, MSc., FAusIMM, FSEG, QP

THE MINERALS INSTITUTE
EXPLORATION AND ECONOMIC GEOLOGIST
Bonald A. Mc Iver

