Preliminary Economic Assessment for the Eagle Mountain Gold Project, Guyana

NI 43-101 Technical Report for Goldsource Mines Inc.

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Nigel Fung, P. Eng. (BC, ON, NL)
Principal Author, ERM QP

Leon McGarry, B.Sc., P.Geo. (ON)
Contributing Author, ERM QP

Antoine Berton, Soutex, P.Eng.
Contributing Author, ERM QP

Rolf Schmitt, P.Geo. (BC)
Contributing Author, QP

ERM Consultants Canada Ltd.
120 Adelaide Street West, Suite 2010
Toronto, ON
Canada, M5H 1T1
T +1 416 646 3608
F +1 416 642 1269

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ABBREVIATIONS AND UNITS OF MEASURE

Term	Definition
°	degrees
°C	degrees Celsius
µm	micron
1D, 2D, 3D	one-dimensional, two-dimensional, three-dimensional
AACE	American Association of Cost Engineers
AAS	atomic absorption spectrometry
Acme	Acme Analytical Laboratories Ltd.
Actlabs	Activation Laboratories Ltd.
ADT	articulated dump truck
Ag	Silver
amsl	above mean sea level
Anaconda	Anaconda British Guiana Mines Ltd.
ARD	acid rock drainage
As	Arsenic
Au	Gold
AX	Diamond
BC	British Columbia
BWI	Bond Work Index
Cambior	Cambior Inc.
$(Ca[OH]_2)$	Hydrated Lime
CAPEX	Capital expenditures
CDF	Cumulative Distribution Function
C(g)	Graphite Carbon
C(t)	Total Carbon
CIL	Carbon-in-Leach
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimeters
CNWAD	weak acid dissociable cyanide
COA	certificate of analysis

Term	Definition
COD	chemical oxygen demand
Company, the	Goldsource Mines Inc.
CRM	certified reference material
CSA Global	CSA Global Consultants Canada Limited
Cu	Copper
$CUSO_4$	Copper sulphate
CV	coefficient of variation
DC	design criteria
DCF	discounted cash flow
EIAS	Environmental Impact Assessment Study
EMGC	Eagle Mountain Gold Corp.
EMGI	Eagle Mountain Gold Inc.
EMP	Environmental Management Plan
EMPL	Eagle Mountain Prospecting License
EPA	Environmental Protection Agency
eV	electronvolts
Fe	Iron
ft	feet (or foot)
g, g/L, g/t	grams, grams per liter, grams per tonne
GGMC	Guyana Geology and Mines Commission
GPS	global positioning system
GSR	Golden Star Resources Ltd.
ha	hectares
HARD	half absolute relative difference
HDPE	high density polyethylene
Hg	mercury
IAMGOLD	IAMGOLD Corporation
ICP	inductively coupled plasma
ICP-AES	inductively coupled plasma-atomic emission spectroscopy
IP	induced polarization
IRR	internal rate of return

Term	Definition
IUCN	International Union for the Conservation of Nature
KeV	Thousand electronvolts, kilo electronvolts
kg	kilograms
Kilroy	Kilroy Mining Inc.
km, km^2	kilometres, square kilometres
KNA	kriging neighborhood analysis
k oz	thousand ounces
ktpa	Thousand tonnes per year (a = annum)
ktpd	Thousand tonnes per day
kWh	Kilo watt hour
LiDAR	Light detection and ranging
LOM	Life of Mine
L	Liter
Li	Lithium
lb	pound(s)
m	metre(s)
M	million(s)
Matrix	Matrix Geotechnologies Inc.
ML	Mining license
MECP	(Ontario) Ministry of the Environment, Conservation and Parks
Mlb	million pound(s)
mm	Millimetre(s)
Mn	Manganese
Moz	million ounces
MRE	Mineral Resource Estimate
Mt, Mtpa	million tonnes, million tonnes per year (a = annum)
NaCN	Sodium cyanide
NI 43-101	National Instrument 43-101 – Standards for Disclosure for Mineral Projects
NPV	net present value
NSR	net smelter return

Term	Definition
NTU	nephelometric turbidity units
OGML	Omai Gold Mines Ltd.
OK	ordinary kriging
OPEX	Operating expenses
Orbit	Orbit Garant Drilling Inc.
oz	ounce(s)
PEA	Preliminary Economic Assessment
PFS	Pre-feasibility Study
PLs	Prospecting License
ppm	parts per million
Project, the	Eagle Mountain Gold Project
QAQC	quality assurance and quality control
Q-Q	quantile-quantile
QEM-RMS	QEMSCAN Rapid Mineral Scan
QP	Qualified Person
ROM	Run of Mine
SAG	semi-autogenous grinding
SCC	Standards Council of Canada
SD	standard deviation(s)
SGS	SGS Canada Inc.
SMBS	Sodium metabisulphite
SMU	selective mining units
Sn	Tin
State, the	Republic of Guyana
SUSEX	Sustaining Capital Costs
t	tonne(s)
TDS	Total dissolved solids
TPD	tonnes per day
TSF	Tailings Storage Facility
TSS	total suspended solids
TSX-V	TSX Venture Exchange

Term	Definition
TTG	tonalite-trondhjemite-granodiorite
UTM	Universal Transverse Mercator

1. SUMMARY

1.1 INTRODUCTION

Goldsource Mines Inc. ("Goldsource", the "Company", or the "Issuer") is a Canadian resource company engaged in exploration activities, with its headquarters situated in Vancouver, British Columbia (BC). The Company's common shares are listed on the TSX Venture Exchange (TSX-V) under the symbol "GXS" and on the OTCQX under the symbol "GXSFF". Goldsource indirectly holds a 100% interest in the Eagle Mountain Gold Project (the "Project") located approximately 200 kilometres south-southwest of Georgetown, the capital of Guyana, South America.

The Project is operated by Stronghold Guyana Inc. ("Stronghold"), a wholly-owned subsidiary of Goldsource, based in Georgetown, Guyana. Goldsource commissioned ERM Consultants Canada Ltd. ("ERM") to complete a Preliminary Economic Assessment ("PEA") and prepare a Technical Report on the Eagle Mountain Gold Project in accordance with National Instrument 43-101 and Form 43-101F1.

The Technical Report relies on project data, internal company technical reports, test work results, maps, published government reports, and public information. With respect to mineral resources, the PEA is based on the April 2022 Mineral Resource Estimate ("MRE") for the Eagle Gold Mountain Project, which used an assay cut-off date of December 31, 2021, for drill information.

All monetary units in the Report are in United States dollars (US$), unless otherwise specified. Costs are based on H2 2023 dollars.

1.2 PROPERTY DESCRIPTION AND LOCATION

The Eagle Mountain Gold Project is located in west-central Guyana, approximately 200 kilometres south-southwest of Georgetown, the capital of Guyana, between latitudes of 573,600 N and 581,500 N and longitudes of 261,000 E and 271,800 E (UTM WGS84, Zone 21N).

The Eagle Mountain Property, a 5,050-hectare area, includes Goldsource's 100%-owned Eagle Mountain Prospecting License 03/2019 ("EMPL") totaling 4,784 hectares (with the exception of certain third-party lands legally held or occupied therein) and Kilroy Mining Inc.'s ("Kilroy") Medium-scale Mining Permit K-60/MP/000/2014 totaling 254 acres on which Stronghold has a long-term lease.

Within the EMPL there are third-party small-scale claims ("artisanal claims") that predate the Company's Property. The Artisanal Claims licensed or recommended for license total about 123 hectares (305 acres). Additionally, one medium scale permit (referred to as Bishop Growler) is in the central-eastern part of the EMPL, northeast of the Eagle Mountain resource area. This was under an option and purchase agreement by Goldsource in 2018/19 that has since expired. Two of the small-scale permits, purchased by Kilroy Mining Inc., are controlled by Goldsource. In addition, Goldsource has an option and purchase agreement to acquire a 100% interest in a third small-scale permit, the Ann Mining Claim. None of the permits outside of Goldsource's agreements contain any of the Mineral Resources as defined in the April 2022 MRE nor do they influence the proposed infrastructure. As any small or medium-scale mining permit is required under Guyana law to be held by a Guyanese national, Stronghold entered into agreements with Kilroy, a private arm's length Guyanese company, pursuant to which Stronghold and Kilroy will jointly operate the Kilroy permit area, granted in July 2014 on a 254-ha portion of the EMPL. Kilroy has granted to Stronghold the exclusive right to conduct mining operations on the medium-scale permit area and any additional areas acquired by Kilroy. Stronghold will fund all expenditures and receive 100% of all revenues, subject to applicable government royalties and a 2% net smelter return ("NSR") royalty to Kilroy. The 2% NSR royalty to Kilroy would not be applicable if the EMPL is converted to a large-scale mining license.

Goldsource has pledged a US$206,200 and $100,000 Guyanese dollars (31 December 2022) performance bond, held by the Guyana Geology and Mines Commission ("GGMC"), for exploration permits on the Eagle Mountain Gold Project. The size of the EMPL is sufficiently large for the conceptual mine plan as well as the proposed infrastructure, including the tailings storage areas, waste disposal areas, and processing plant site.

1.3 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Project is located approximately 8 kilometres south of Mahdia Township, Campbelltown, and the Mahdia commercial airstrip. Mahdia has a population of approximately 3,000 inhabitants and is the administrative capital of Potaro-Siparuni Region 8. Mahdia can be accessed by road from Georgetown in five to seven hours, a distance of approximately 275 kilometres. The road is paved from Georgetown to Linden (109 kilometres). A wide laterite road extends between Linden and Mabura (122 kilometres). This section is currently being upgraded to an asphalt/concrete surface. From there an all-weather unpaved road connects Mabura to Mahdia. On this section, access can be challenging during the rainy season, and there are only limited days in the year in which travel is restricted. The Mahdia airstrip is hard surfaced and is suitable for small commercial and charter passenger aircraft. Unpaved roads and tracks from Mahdia provide access to and within the EMPL.

There is a local hospital, school, gas station, and several mechanical shops, restaurants, and two hotels/guest houses. The area is powered by diesel generated power and a recently completed solar farm. Mahdia and surrounds have cell phone coverage by both major cell phone companies in Guyana. The Amalia Falls area, approximately 50 kilometres west-northwest of the EMPL, is currently being assessed for large-scale 165 MW hydroelectric power generation.

The Company has two 500 kVA and one 120 kVA diesel generators on site, installed to provide power to the inactive gravity pilot plant and the exploration camp. Potable water is available from multiple small creeks which spring on Eagle Mountain and a few small rivers within the EMPL.

The local economy is dominated by small-scale mining activities. A labor force familiar with open-pit mining is available to draw upon for any future mining activities. Several large gold mining operations are currently active in Guyana and suitable skilled personnel should be available with limited reliance on expatriates.

Goldsource's current field activities are supported by a 65-man capacity exploration camp and offices on the Property. Supplies are partly sourced from Georgetown and partly from Mahdia.

The camp has an established satellite internet link. Cell phone coverage is limited. Dirt tracks have been constructed to facilitate exploration and related activities.

1.4 PROJECT HISTORY

The Eagle Mountain Gold Project and adjacent Mahdia Valley areas to the north were previously held by Golden Star Resources Ltd ("GSR"). Between 1998 and 2002, GSR had an agreement with Cambior Inc. ("Cambior") to explore the Eagle Mountain Property through a joint venture company, Omai Gold Mines Ltd. ("OGML") which operated the historical Omai Gold Mine, 45 kilometres northeast of the EMPL. GSR sold its interest in OGML to Cambior in 2002. Cambior became part of IAMGOLD Corporation ("IAMGOLD") in 2006 with OGML becoming a 95%-owned subsidiary of IAMGOLD (the remaining 5% held by the Republic of Guyana). In 2010, Eagle Mountain Gold Inc. ("EMGI"), which was called Stronghold Metals Inc. (TSX-V listed entity) at that time, executed an Option Agreement with OGML and IAMGOLD to earn into EMPL subject to certain cash payments, exploration expenditure and stock issuances to IAMGOLD. In January 2012, EMGI vested at 50% in the Project and the EMPL was transferred from OGML to EMGI.

The Option and Joint Venture Agreement was amended and restated in 2012 when Stronghold Metals Inc. vested at 50% interest in EMGI and changed its name to Eagle Mountain Gold Corp. ("EMGC"). In February 2013, EMGC exercised its option to acquire the remaining 50% interest in EMGI and the Project from OGML, giving EMGC 100% ownership of EMGI and the Property. Subsequently, on August 9, 2013, a new three-year prospecting license (PL20/2013) was issued to EMGC's 100% Guyanese subsidiary, Stronghold Guyana Inc., which was in turn renewed on October 18, 2019. In February 2014, an amalgamation transaction between Goldsource and EMGC was concluded, resulting in a 100% interest of EMPL by Goldsource.

Alluvial gold has been exploited in the Eagle Mountain area since at least 1884. Tunnels and shafts exploited hard-rock gold in the time period encompassing the world wars, and dredging was carried out in the Mahdia River and Minnehaha Creek up to 1948. Several phases of exploration were carried out in the Eagle Mountain area during the latter half of the 20th century, including:

- Anaconda British Guiana Mines Ltd ("Anaconda") (1947–1948) carried out geological mapping, diamond drilling, tunnelling and shaft sinking;
- Guyana Geological Survey (1964–1965, 1970–1973, and 1980), who completed a soil geochemical sampling program, pitting and diamond drilling;
- GSR (1986-1997), who carried out a multi-element drainage sample geochemical survey, soil and auger sampling, surface geophysics, trenching, and limited diamond drilling;
- OGML/Cambior (1998–2004), who carried out diamond drilling, auger sampling and surveying; and
- OMGL/IAMGOLD (2006–2009), who compiled a digital GIS database incorporating all available historical data, a regional multi-element drainage sampling program, auger sampling and geological mapping, fixed-wing airborne radiometric and magnetometer surveys, three-dimensional (3D) induced polarization (IP) and resistivity surveys, and diamond drilling.

MREs were previously completed by IAMGOLD Technical Services and Exploration Guyana Group (ITS) in 2009 and audited by ACA Howe International Limited ("ACA Howe") in 2010, as well as in 2012 (re-reported in 2014) by ACA Howe on behalf of EMGC, and most recently in 2021 and 2022 by CSA Global (now ERM) on behalf of the Company. These MRE reports are filed on SEDAR+ (http://www.sedarplus.ca).

1.5 GEOLOGY AND MINERALIZATION

The Eagle Mountain Gold Project occurs in the northern part of the Guiana Shield, an area of Paleoproterozoic greenstone belts and associated tonalite-trondhjemite-granodiorite ("TTG") intrusive belts, deformed in the Trans-Amazonian Orogeny which records the convergence and collision between the Archean nuclei of the Amazonian Craton and the West African Craton between 2.2 Ga and 1.9 Ga (Kronnenber et al., 2016).

The greenstone-TTG terrain is intruded by Paleoproterozoic basic intrusions of the Avanavero Large Igneous Province which postdate the Trans-Amazonian Orogeny. The northern Guiana Shield shares close similarities with the more widely explored Birimian of the West African Shield, where numerous >2 Moz gold deposits are known (Voicu et al., 1999; Bassoo and Murphy, 2018).

The Property is underlain by metavolcanic and metasedimentary rocks intruded by a composite granodiorite pluton that hosts the gold mineralization at the Eagle Mountain deposit. At the Salbora deposit, mineralization is within metavolcanic rocks adjacent to a northeast-trending monzonite dyke.

A large diabase to gabbro-norite sill, which is part of the Avanavero Suite, intrudes the granodiorite pluton and metavolcanic-sedimentary sequence and forms the ridge and cliffs at the top of Eagle Mountain. Associated dikes are oriented 120° and are estimated to be less than 10 metres thick.

The sequence has been deformed and folded in the Trans-Amazonian Orogeny and metamorphosed at greenschist facies. A system of low-angle, west-dipping thrust faults at the Eagle Mountain deposit and upright, north-south to northwest-southeast trending faults and breccias at the Salbora deposit are associated with this event and with gold mineralization. Younger northwest to north-northwest trending faults crosscut and offset the shallow dipping structures at the Eagle Mountain deposit.

The shallow-dipping faults in granodiorite at the Eagle Mountain deposit range from narrow highly silicic altered zones to broader zones of pervasive deformation and fracturing. These fault zones are silicified and chlorite altered with disseminated pyrite and associated gold mineralization. The steep breccia zones at the Salbora deposit are also affected by chloritic alteration, silicification disseminated pyrite and associated gold mineralization.

At the Eagle Mountain deposit, the mineralized fault zones vary from 1 metre to 40 metres in thickness separated by 10 to 100 metres of unmineralized granite. At the Salbora deposit, gold mineralization within steep breccia zones coalesces near surface into a broad, sub-horizontal zone of mineralization. Gold mainly occurs as very fine disseminations of native gold within and associated with pyrite.

The Eagle Mountain deposit is modelled as a series of tabular, sub-horizontal to shallowly dipping zones. The variable thickness of each of the mineralized zones appears to be associated with deformation zones that split into several subparallel deformation zones, thereby broadening the zone of alteration and mineralization.

At Salbora, gold mineralization occurs within and adjacent to sub-vertical, north-south trending breccia zones that are generally a few centimeters to a few metres in thickness. Near the surface, these breccia zones appear to coalesce into broad, sub-horizontal zones of brecciation with mineralization occurring over tens of metres. Breccias are developed in a tholeiitic mafic volcanic and altered granitoid adjacent to a monzonite intrusion. Mineralization is associated with silicification, chloritic alteration and pyrite.

The Eagle Mountain and Salbora areas have been affected by tropical saprolite weathering to a depth of 10 to 50 metres. Gold mineralization at the Eagle Mountain deposit (particularly Zones 1 and 2) have been heavily weathered and occurs largely within saprolite derived from granitoid-hosted deformation zone material, consisting of clay-rich material hosting very fine disseminated gold grains.

1.6 EXPLORATION

Exploration-related work carried out at the Eagle Mountain Project between 2011 and 2023 by Goldsource (including work conducted between 2011 and 2013 by EMGC) includes infrastructure improvements, environmental data collection, topographic surveys, line cutting, trench and outcrop sampling, hand auger sampling, ground geophysical surveys, and reprocessing of existing geophysical data.

Trench and outcrop channel sampling within the EMPL used samples equivalent to NQ-sized core collected at 1-metre intervals or according to identified geological intervals. Hand auger saprolite sampling programs were carried out in 2015 and 2017–2018 along cut lines at 25 metre or 50 metre pre-marked stations using a "Dutch" type hand auger with 1-metre samples collected by compositing four samples collected every 25 cm, to a maximum depth of 6 metres.

Trenching of an auger anomaly in the Salbora area resulted in an intersection of 123 metres grading 1.96 g/t gold, which was followed up with drilling two (2) diamond drill core holes that were the Salbora "discovery holes".

In 2019 and 2020, a ground geophysical survey (gradient array, pole-dipole IP, and ground magnetics) was conducted in an area of approximately 7.5 km^2 surrounding Salbora. Follow-up drill testing of IP/resistivity targets resulted in the discovery of several targets around the Salbora deposit.

In 2019, Goldsource retained Geophysics One Inc. of Ontario, Canada, to re-process and re-interpret a historical airborne Terraquest (fixed wing) magnetic and radiometric survey, flown by IAMGOLD in 2007. The survey covers the western half of the Eagle Mountain Prospecting License (EMPL) (inclusive of the Salbora deposit) and was flown at 100-metre line spacing. The interpretation of this dataset provided structural and lithological information for the area and defined several targets for ground follow-up exploration work. The same year, Goldsource retained Matrix Geotechnologies Inc. ("Matrix") of Ontario, Canada to complete ground geophysical surveys at the Project. The geophysical surveys covered an area of approximately 5 km^2 surrounding the

Salbora deposit and consisted of a gradient array IP spaced at 100 metres for a total length of 39.5 kilometres, eight pole-dipole IP cross sections with a total length of 10.5 kilometres, and ground magnetics over the same grid at 25 metre spacing. During Q1, 2020, Goldsource completed an additional 62 line-km of gradient array IP, 62 line-km of high-resolution ground magnetic survey, and 10 line-km of pole-dipole IP over selected targets.

The ground geophysical survey defined at least five moderate-to-strong IP targets based on the signal of the Salbora deposit.

1.7 DRILLING

In 2011, 76 HQ/NQ diamond drill holes totaling 10,727 metres were focused on infill and step-out drilling at the Eagle Mountain deposit to confirm previous results and to upgrade the Inferred Resources to Indicated Resources. In 2017 and 2018, drilling focused on shallow saprolitic material using a Geoprobe® 540 direct push drill rig. A total of 257 holes (2,729 metres) were drilled during that period. Between 2018 and 2021, 449 HQ/NQ diamond drill core holes totaling 58,528 metres were completed for infill and expansion of the Mineral Resource at the Eagle Mountain deposit, as well as identification and delineation of additional deposits within the Project area. This information was included in the April 2022 MRE.

Following the cut-off date for the April 2022 MRE (December 31, 2021) and up to November 1, 2023, a total of 10,545 metres in 141 diamond holes were drilled on the Eagle Mountain Project. This drilling has not been incorporated in this study.

Core sampling procedures were similar for 2011 and 2018–2023 diamond drilling, with core retrieved using conventional wireline techniques, placed in plastic core boxes, and transported to the core facility where it was cleaned, marked, logged, photographed, and sampled to a minimum interval of 30 centimeters and a maximum of 1.5 metres. Sample details were recorded in a ticket book, one side placed in the sample bag and the second part stapled on the box.

Saprolitic samples were split with a spatula and fresh core with a core saw. Half the core was placed into sample bags with an assay tag and half returned to the core box. A quality assurance/quality control ("QAQC") sample (either a blank, a certified reference material ("CRM"), or a duplicate) was inserted every 15 samples. Core logging and sampling was completed either by or under the onsite supervision of a Goldsource geologist.

For the 2017–2018 programs, Geoprobe drill core sampling, samples were placed in core trays inside plastic tubing. Upon delivery to the core shed, the tubing was removed using a tube cutter and the sample was split by using a knife or putty knife. Each sample was 1 metre in length.

Following analysis, digital assay files provided by the laboratory were merged with a "from" and "to" interval file created by Goldsource, with the sample number linking the two files. This methodology limits data entry errors to sample numbering, as well as the "from" and "to" specifications.

Core recovery for diamond drilling and Geoprobe drilling was generally very good with an average of 91.4% in saprolite and 97.1 % in fresh rock. The Qualified Person is confident there are no sampling or recovery factors that would negatively affect the sampling procedures. Overall, core sampling methods are to industry standards for mineralization of this type.

Upon completion, drill hole collar coordinates and elevations were surveyed in Universal Transverse Mercator (UTM) coordinates, Zone 21N (PSAD 56 datum). The drill contractor completed downhole directional surveys on all diamond drill holes at approximately 50-metre intervals using a single shot digital survey tool.

1.8 DATA VERIFICATION, SAMPLING PREPARATION, ANALYSIS AND SECURITY

Samples from the 2011 diamond drilling program were prepared at Acme Analytical Laboratories ("Acme"), Georgetown, Guyana and sample pulps were forwarded to Acme Santiago, Chile for gold assay and to Acme Vancouver, Canada for multi-element analyses. Gold analyses were carried out using gold fire assay and AA finish. Sample preparations followed industry best practices and the analytical methods used are routine. Umpire check assays were completed at Activation Laboratories Ltd ("Actlabs") in Georgetown.

Samples from the 2017–2018 Geoprobe drilling and the 2018–2021 diamond drilling programs were prepared, and gold fire assays with AA finish were completed at Actlabs, Georgetown. Sample pulps were forwarded to the Actlabs in Ancaster, Canada for multi-element analyses using instrumental neutron activation analysis ("INAA") and inductively coupled plasma ("ICP") with atomic emission spectrometry, where necessary. Sample preparations followed industry best practices and the analytical methods used are routine. Umpire QAQC check assays were completed at MS Analytical Guyana ("MSA") in Georgetown using gold fire assay and AAS finish.

Bulk density tests (150) were carried out in 2011 on a variety of fresh and saprolitic, mineralized and non-mineralized rock types. In 2020-2021, additional bulk density tests 1,360) were carried out at MSA in Georgetown on various mineralized and unmineralized core samples. The water displacement method was used for both 2011 and 2020-21 tests and porous samples were coated with wax. A further 21 saprolite and 40 fresh rock density tests were completed during the 2022-2023 drill campaigns.

The Company is using the April 2022 MRE (assay cut-off date of December 31, 2021) for the PEA. As such, QAQC for the 2022-23 drilling programs is not included in this Technical Report.

The QAQC programs included CRM samples, blank samples, core duplicate, coarse duplicate samples, and pulp duplicate samples. During the 2011 program, CRMs were used at an average insertion frequency of 2.3%. During the 2017–2021 programs, CRMs were used at an average insertion frequency of 2.6%. Results for most CRMs show no significant negative or positive bias at the CRM grades evaluated. During the 2017–2021 programs, a total of 1,202 CRM samples were inserted at an average insertion frequency of 2.7%. Blank samples returned below the detection limit or very low values, indicating very little contamination with the exception of a few outliers. A total of 342 quarter-core field duplicates, and 478 pulp duplicates were submitted between 2017 and 2021 at an average insertion frequency of 1.9%. Duplicates showed good repeatability. An umpire lab, MSA, completed a total of 262 quarter-core duplicate analyses and a total of 481 repeat analysis of pulps at an average insertion frequency of 1.7%. For this 2017-2021 period, QAQC samples represented 9% of all assays in the exploration database.

Qualified Person, P. Eng. Nigel Fung, has validated drill hole positions, reviewed drill core, inspected geology, reviewed core logging, sampling and preparation facilities, and documentation related to drilling, sampling, and assaying. Specific core identified by the April 2022 MRE Qualified Person, Leon McGarry, was pulled and inspected, photographed, and filmed with verbal explanations and description given by Kevin Pickett, Chief Geologist of Goldsource for later review and reference. Analytical facilities at Actlabs and MSA in Georgetown, Guyana, were not inspected.

No samples were collected for additional laboratory verification; however, mineralized intervals were inspected and compared with assay values for confirmation of mineralization.

The quality of the assay results is considered reliable and adequate for the estimation of Mineral Resources. The data available are a reasonable and accurate representation of the Eagle Mountain Gold Project and are of sufficient quality to provide the basis for the conclusions and recommendations reached in this Technical Report.

1.9 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical testwork dates back to 1989. A summary of the testwork is presented in Table 1-1.

TABLE 1-1 SUMMARY OF HISTORICAL METALLURGICAL TESTWORK

<table>
<tr><th>Testwork Date</th><th>Sample Location</th><th>Tests Performed</th><th>Laboratory</th></tr>
<tr><td>1989</td><td>Not specified</td><td>• Desliming and gravity gold recovery</td><td>Not specified</td></tr>
<tr><td>1991</td><td>Not specified</td><td>• Gold gravity testwork</td><td>Lakefield</td></tr>
<tr><td rowspan="3">2009-2010</td><td>Kilroy</td><td rowspan="3">• Chemical and bulk modal characterization
• Bond Work Index (BWI)
• Concentration of gold by gravity (EGRG)
• Leaching performance assessment</td><td rowspan="3">SGS</td></tr>
<tr><td>Millionaire</td></tr>
<tr><td>Zion</td></tr>
<tr><td>2014</td><td>Toucan
Zion
Kilroy</td><td>• Gravity Recovery Flowsheet
• Flotation on gravity tails</td><td>McClellan Laboratories
Met-Solve</td></tr>
<tr><td>2016-2017</td><td>Kilroy</td><td>• Operation of a gravity pilot plant</td><td>On-site pilot plant</td></tr>
<tr><td rowspan="3">2018</td><td>Zion</td><td rowspan="3">Saprolite Samples:
• Chemical and mineralogy characterization
• Gold deportment
• Bond Work Index (BWI)
• Concentration of gold by gravity (Knelson/Mosley)
• Leaching performance assessment</td><td rowspan="3">SGS</td></tr>
<tr><td>Kilroy</td></tr>
<tr><td>Drilled sample</td></tr>
</table>

Testwork Date	Sample Location	Tests Performed	Laboratory
2022	Ounce Hill Zion Bacchus Kilroy Bucket Shaft Bottle No. 1 Hill Scrubber Baboon Salbora Toucan Powis	Saprolite and Fresh Rock Samples: • Chemical analysis • Bond abrasion test (ai) • Bond Work Index • Size fraction test • Concentration of gold by gravity (Knelson/Mosley) • Leaching performance assessments	SGS

Note:
Location of samples from 2018 and 2022 are presented in Section 13, Figure 13-1, and Figure 13-4.

In 1989, Metallurgical studies completed by GSR were limited to desliming and gravity gold recovery testwork. The preliminary results indicated that the majority of gold does not appear to be amenable to the gravity recovery method. Additional testwork showed that desliming achieves a feed volume reduction of up to 81% with a high gold recovery to the sands fraction (+90%). It was predicted that desliming could be an important pre-concentration step, but gravity recovery reached only 24%.

In 1991, GSR carried out additional gold gravity testwork at Lakefield Research using a Falcon concentrator. Nine gravity tests were completed with an average gold recovery of between 33% and 42% of the total gold content.

In 2018, testwork was completed on 22 saprolite samples from different mineralized zones at Eagle Mountain with additional samples of gravity plant tailings and the plus 2 mm stockpile. Five saprolite composites were generated together with a combined master composite. Sample characterization (assaying, sizing, mineralogy, and gold deportment) and grindability testing were followed by gravity separation and cyanidation testwork. With grinding and gravity concentration followed by cyanidation, the five saprolite composites produced elevated gold recoveries ranging from 94.8% to 97.7% with a relatively coarse grind size (p80 averaging 164 microns). The +2 mm stockpile and plant tailings material produced gold recoveries of 93.6% and 87.4%, respectively.

In April 2022, 26 samples (9 saprolite and 17 fresh rock) totaling 750 kg were collected from diamond drill core from the Eagle Mountain and Salbora deposits as well as the Toucan and Powis prospects. The samples were shipped to SGS Canada Inc. (“SGS”) for additional metallurgical testwork. All saprolite and fresh rock samples were submitted for grindability testwork, including

Bond ball mill work index and abrasion index tests to be used for plant design work (equipment selection and sizing). Four (4) saprolite and five (5) fresh rock composites were prepared for gold recovery and grind size optimization testwork. Standard cyanide bottle roll tests were completed on gravity tailings for the saprolite and fresh rock composites. For the saprolite composites, tests were also completed on whole ore (no gravity concentration) to enable a coarse feed size in the bottle roll tests. For all saprolite composites, the testwork returned high gold recoveries, including with a coarse grind size of 80% passing 166 microns. Fresh rock gold recoveries were also high averaging 92% for the main Eagle Mountain deposit at a p80 of approximately 80 microns. At a similar grind size, the gold recoveries for the Salbora deposit and Toucan prospect averaged 85%. Higher recoveries were generated with finer grinding.

1.10 MINERAL RESOURCE ESTIMATES

Mineral Resources are reported in adherence to National Instrument 43-101 Standards of Disclosure for Mineral Projects (Canadian Securities Administrators, 2011), and to the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards on Minerals Resources and Reserves (CIM Council, 2014). The MRE has an effective date of April 7, 2022, and is summarized by Mineral Resource category in Table 1-2.

The drill hole data used for the April 2022 MRE in this study is derived from a data export provided by Goldsource via email with a cut-off date of December 31, 2021, for 75,269 metres of core drilling (772 holes) and 533 metres of auger drilling (158 holes). Only 19% of this subset was carried out by other companies (1997-2009). The MRE includes the Eagle Mountain and Salbora deposits.

Mineral Resources are constrained by a pit shell generated using a Whittle optimization with block values estimated using the same price, metal recovery, and cost assumptions used to define the reporting cut-off grades (see Table 1-2 notes), and assuming a maximum pit slope angle of 45°.

TABLE 1-2 PROJECT MINERAL RESOURCES BY WEATHERING TYPE

Classification	Material	Cut-Off Grade (g/t)	Tonnes (Mt)	Gold (g/t)	Gold (oz)
Eagle Mountain					
Indicated	Sap and Trans	0.30	11.93	0.99	381
	Fresh	0.50	17.15	1.24	682
	All		29.08	1.14	1,063
Inferred	Sap and Trans	0.30	5.86	0.68	131
	Fresh	0.50	11.34	1.12	407
	All		17.20	0.97	538

Classification	Material	Cut-Off Grade (g/t)	Tonnes (Mt)	Gold (g/t)	Gold (oz)
Salbora					
Indicated	Sap and Trans	0.30	0.55	2.09	37
	Fresh	0.50	1.50	1.74	84
	All		2.05	1.83	121
Inferred	Sap and Trans	0.30	0.24	0.87	8
	Fresh	0.50	0.96	1.15	35
	All		1.20	1.13	44
Eagle Mountain Project Total					
Indicated	Sap and Trans	0.30	12.48	1.04	417
	Fresh	0.50	18.66	1.28	766
	All		31.13	1.18	1,183
Inferred	Sap and Trans	0.30	6.10	0.71	139
	Fresh	0.50	12.30	1.12	443
	All		18.40	0.98	582

1. Numbers have been rounded to reflect the precision of the MRE. Totals may vary due to rounding.
2. Gold cut-off grade has been calculated based on a gold price of US$1,600/oz, mining costs of US$1.5/t for saprolite and US$2.0/t for fresh rock, processing costs of US$6.0/t for saprolite and US$12.0/t for fresh rock, and mine-site administration costs of US$3.0/t. Metallurgical recoveries of 95% are based on prior testwork.
3. Mineral Resources conform to NI 43-101, and the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines and 2014 CIM Definition Standards for Mineral Resources & Mineral Reserves.
4. The Company is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing or political factors that might materially affect these Mineral Resource estimates.
5. Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. The quantity and grade of reported Inferred Resources in this Mineral Resource estimate are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured Resources; however, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

1.11 MINERAL RESERVE ESTIMATE

No Mineral Reserves have been estimated for the Eagle Mountain Gold Project as per NI 43-101 guidelines.

Conceptual Life of Mine Plan

The conceptual Life of Mine ("LOM") plan for the Eagle Mountain and Salbora deposits proposes a phased development plan to establish gold production from shallow open pits. Phase 1, estimated at 4.5 years, considers initial gold production from saprolite mineralization during which time most of the mining will be "free dig", not requiring blasting. This is followed by Phase 2 in which gold production will be derived from a blend of fresh rock, transition rock and saprolite mineralization for an estimated 10.5 years for an estimated mine life of 15 years.

Phase 2, which considers a higher-grade subset of the April 2022 fresh rock Mineral Resources, will require drilling and blasting of the fresh rock and transition rock to facilitate mining, material handling and processing.

For both Phase 1 and Phase 2, mill feed rates are estimated at 1.815 Mtpa (5,000 tpd), with Phase 2 designed to process up to 4,250 tpd of fresh and transition rock with the balance being made up with saprolite mill feed. The conceptual mine plan is designed to maintain mill feed rates through Phases 1 and 2. The tonnes and grade of the PEA mine plan are compared to the 2022 MRE in Table 1-3.

TABLE 1-3 COMPARISON OF APRIL 2022 MRE TO 2024 PEA CONCEPTUAL LOM PLAN

Classification	April 2022 MRE		2024 PEA Conceptual Plan		Net Conversion of Tonnes (%)
	Tonnes (Mt)	In-situ Grade (g/t)	Tonnes (Mt)	Mill Head Grade (g/t)	
Indicated					
Sap and Trans	12.5	1.04	11.3	1.08	90
Fresh	18.7	1.28	8.7	1.58	47
All Indicated	**31.1**	**1.18**	**20.0**	**1.30**	**64**
Inferred					
Sap and Trans	6.1	0.71	3.1	0.92	51
Fresh	12.3	1.12	4.1	1.32	33
All Inferred	**18.4**	**0.98**	**7.2**	**1.15**	**39**

1. Numbers have been rounded to reflect the precision of the MRE. Totals may vary due to rounding.
2. For the 2024 PEA conceptual LOM plan, transition rock Indicated and Inferred resources were grouped with fresh rock mineral resources and mined/processed in Phase 2. For the April 2022 MRE, the transition rock mineral resources were grouped with saprolite mineral resources.
3. Refer to the footnotes below Table 1-2.

Overall conversion of Mineral Resources into mill feed for the 2024 PEA conceptual LOM plan is 55%. From the 31.1 Mt of Indicated Resource and 18.4 Mt of Inferred Resource, a total of 27.2 Mt of Indicated and Inferred Mineral Resources are processed as mill feed in the LOM plan with an average grade of 1.26 g/t of gold.

The mine production schedule, strip ratio, and mill feed grade by year are summarized in Figure 1-1. The annual tonnes of mill feed by rock type and the annual amount of gold ounces produced are presented in Figure 1-2.

FIGURE 1-1 LOM PRODUCTION SCHEDULE AND FEED GRADE

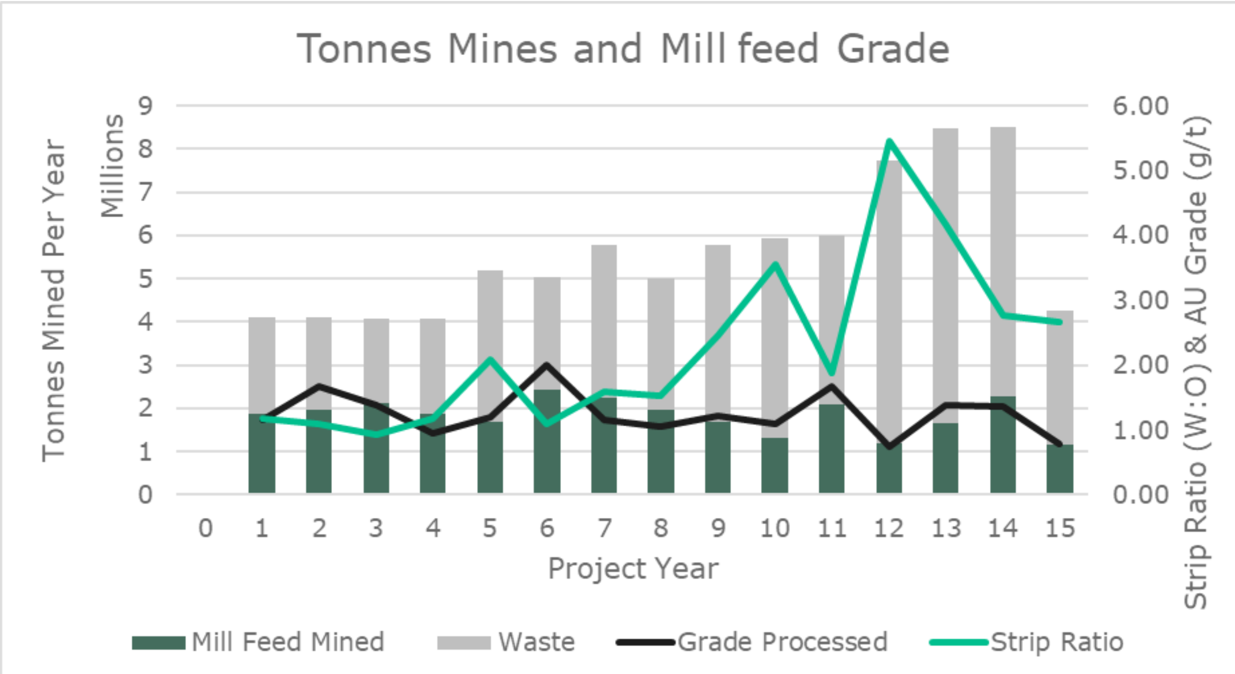
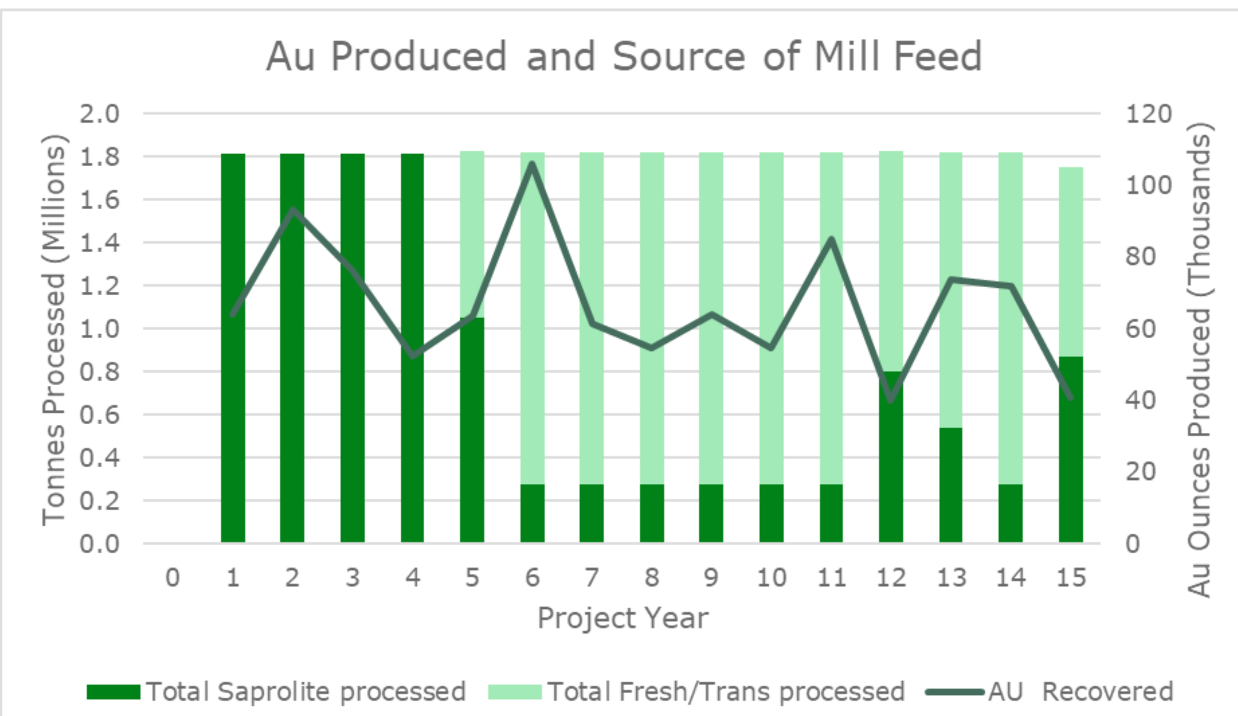


FIGURE 1-2 LOM TONNES MINED BY MATERIAL TYPE WITH MILL FEED GRADE



The mining method will use traditional load and haul methods using hydraulic excavators, and/or wheel loaders as appropriate to the terrain and depending on the major production equipment available from the contract miner selected for the Project.

The mined material will be hauled from the bench to either the processing plant, the Run of Mine ("ROM") stockpiles, or the waste dump depending on the material type.

The haul trucks appropriate for the hilly saprolitic terrain are articulated dump trucks ("ADT"). This type of haul truck has been used on site in the past (during the pilot plant operation). The haul trucks envisioned are Caterpillar 740 (36 metric tonne) model or equivalent from alternative manufacturers.

Ancillary equipment, such as bulldozers, motor graders, and water trucks will be extensively used to maintain haul roads, ramps, and waste dumps.

Other support vehicles will include maintenance, fuel, and lube trucks to support the primary fleets.

Smaller excavators and dozers will be used to maintain ditches, berms, and culverts on and around haul roads as well as to manage surface water drainage throughout the entire mine site including around stockpiles, waste dumps and all tailings infrastructure.

In Phase 2, drill and blast operation for fresh rock will be implemented and will require open pit drill rigs.

The mine plan assumes mining costs that are aligned with truck and shovel operations of some benchmarked mines. This does not preclude the consideration of alternative methods of transporting mill feed and waste if future studies show more economical methods that are practical to implement.

ERM has made particular note of the fact that a pilot gravity separation operation was conducted for one year in 2016 at Eagle Mountain and that the processing operation was successfully fed by a saprolite slurry (mill feed) comprised of 30% to 60% solids, which was successfully transported downhill from the scrubber using a pump and assisted by gravity to the processing plant. The reported unit cost of this method in 2016 was between US$0.40/t and US$1.20/t of solids mined, as compared to US$0.90 to US$1.40 for conventional load and haul (truck and shovel) operations over the same distances during that same period.

1.12 RECOVERY METHODS

Preliminary metallurgical analyses were completed in 1989 and 2009 by Golden Star and IAMGOLD. More comprehensive analyses were conducted in 2018 and 2022 by Goldsource. The 2018 and 2022 testwork provides the basis for the PEA Design Criteria as developed by Soutex. Overall, the metallurgical testwork that was carried out is sufficient in its coverage of the Mineral Resource areas and its scope of analysis to provide confidence in the figures presented and the values selected as design criteria for a PEA-level study.

A constant tails recovery method used for the PEA production and cash flow models predicts an average recovery for gold that is within 1.0% of the gold recovery assumption used for the pit optimization and mine scheduling analyses.

1.12.1 PROCESS DESIGN CRITERIA

The process plant is designed to process 5,000 tpd of gold-bearing mill feed. The operational timeline is set for 4.5 years for Phase 1 and 10.5 years for Phase 2, totaling a 15-year mine life (not including one year of pre-production).

Phase 1 involves a low capital expenditure saprolite carbon-in-leach ("CIL") plant featuring two leach tanks, five CIL tanks, scrubber, ball mill, cyclones, and a gravity concentrator, among many other components. During Phase 2, primarily fresh rock mill feed will be processed, necessitating key additional equipment such as a primary crusher, semi-autogenous grinding ("SAG") mill, thickener, and secondary cone crusher to accommodate the harder material. Coarse and bulk materials mined in Phase 1 will be stockpiled and processed in Phase 2.

1.12.2 PROCESS DESCRIPTION

The Project phases can be summarized as follows:

1.12.2.1 PHASE 1 PROCESS FLOWSHEET

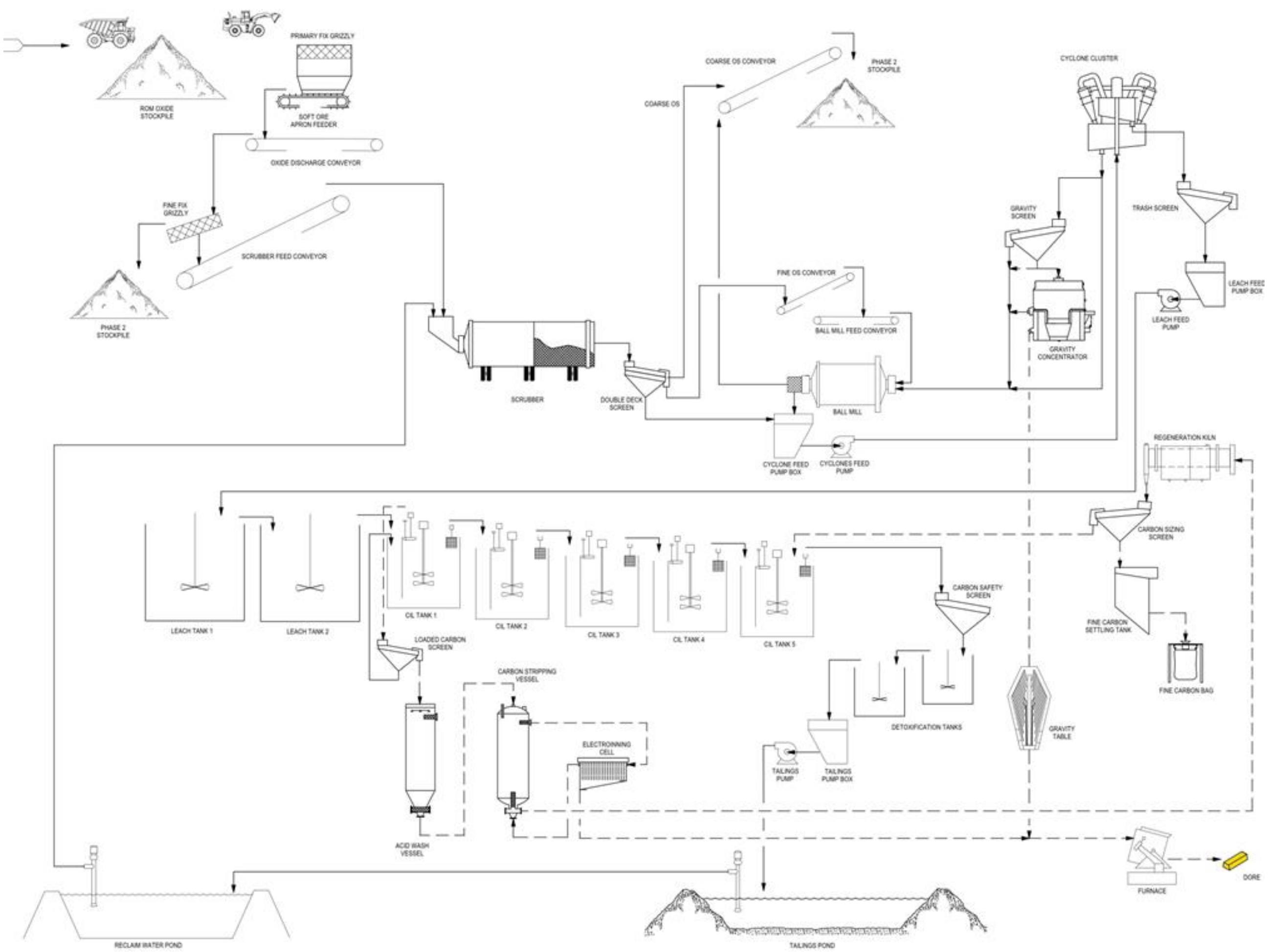
Figure 1-3 presents the simplified process flowsheet for Phase 1 designed for the treatment of saprolite material only. Some of the softer transition material could be processed by the Phase 1 plant configuration. For the purpose of this study, all transition material is treated with the fresh rock in Phase 2.

Phase 1 mechanical equipment include:

- Apron Feeder;
- Grizzly;
- Scrubber;
- Double-Deck, Gravity, Trash, Safety, Loaded Carbon and Carbon Sizing Screens;
- Ball Mill;
- Cyclones;
- Gravity Concentrator;
- Gravity Table;
- Leach Tanks;
- CIL Tanks;
- Interstage Screens;
- Acid Wash Column;
- Carbon Stripping Column;
- Carbon Regeneration Kiln;
- Electrowinning Cells;

- Gold Furnace;
- Reagent Systems; and
- All Associated Conveyors, Pumps, and Screens.

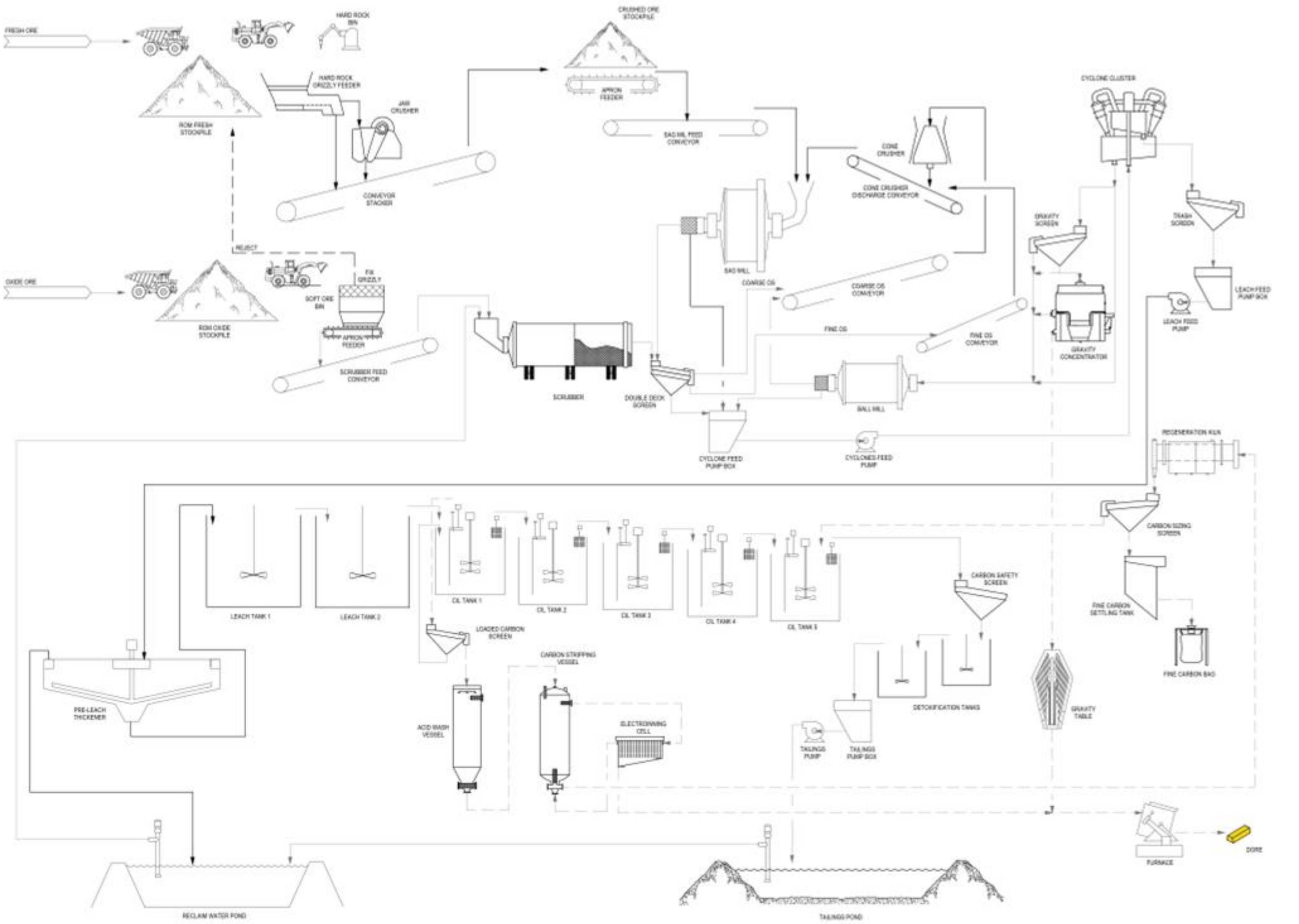
FIGURE 1-3 PROCESS FLOWSHEET: PHASE 1



1.12.2.2 PHASE 2 PROCESS FLOWSHEET

Figure 1-4 presents the simplified flowsheet for Phase 2. This includes modifications to the Phase 1 flowsheet, notably to the crushing and grinding circuits, to allow for the processing of harder fresh rock and transition material in addition to the softer saprolite material. The configuration of the Phase 2 flowsheet is capable of processing 5,000 tpd, including up to 4,250 tpd of fresh and/or transition rock with softer saprolite making up the difference.

FIGURE 1-4 PROCESS FLOWSHEET: PHASE 2



The Phase 2 flowsheet adds the following mechanical equipment to crush and grind transition and fresh rock mill feed down to a size suitable for the CIL process.

- Hard Rock Grizzly Feeder;
- Primary Jaw Crusher;
- Stockpile Reclaim Apron Feeder;
- SAG Mill;
- Secondary Cone Crusher;
- Additional Conveyors;
- Thickener; and
- Additional Screens.

1.13 PROJECT INFRASTRUCTURE

The following infrastructure is proposed for the Eagle Mountain Gold Project:

- Processing Plant;
- Laboratory /Testing Facility;
- Waste Dumps;
- Tailings Storage Facilities;
- Haul Roads;
- Offices;
- Warehouse;
- Maintenance Shop, Wash Bay, and Laydown Area;
- Fuel Storage Facility;
- Water Storage and Water Treatment Facilities;
- Surface Water Management System (ditches and culverts);
- Sedimentation Ponds; and
- Accommodation Village (Camp).

Power Generation and Fuel Supply

The PEA assumes that power generation facilities will be provided by an Independent Power Producer on a power-by-the-hour basis for which the cost of mobilization and setup are estimated at US$0.17/kWh in addition to the cost of fuel required to power the generators for a total estimated cost of at US$0.37/kWh. Fuel supply for the generators and mobile equipment will need to be negotiated with local suppliers, including those currently supplying Mahdia and Campbelltown with gasoline and diesel fuel.

Mining Infrastructure

Mining specific infrastructure will consist of:

- Mine Haul Roads;
- Waste Dumps;
- Stockpile Pads;
- Tailings Storage Facilities (“TSFs”);
- Equipment Maintenance Shop;
- Wash Bay;
- Parts Warehouse;
- Tire Change Area; and
- Laydown Pad.

Communications

Satellite internet and commercial mobile phone services are currently available at the Eagle Mountain Gold Project. The system can be easily upgraded with the installation of a simple service mast by the local telecom company.

Roads

There is access to the Project site by road from Georgetown. In the dry season, the road is adequate for transporting large equipment and plant components. The route includes one river crossing of the Essequibo River at Mango Landing, via a commercial ferry operation. The total trip by regular light vehicle can take between 6 and 9 hours depending on road conditions and ferry operations.

Roads at the mine site will require upgrading, with grading and bridge work, to support light vehicles and heavy equipment. These roads will be separate from the mine haul roads.

Mine haul roads outside of the in-pit roads will be built as needed to provide haulage connections between the mined pits and the storage dump/s as well as the processing plant.

Camp Accommodations

Camp requirements will be made available to accommodate the portion of the workforce that does not come from or live in Mahdia and/or Campbelltown, 8 kilometres to the north. The camp will provide accommodations for over 250 persons, and all necessities for their comfort (kitchen, dining hall, fitness/recreation amenities, showers/toilets, security, etc.)

The Project will favor patronizing local business and accommodations to the extent that the local community desires and permits.

Airstrip

There is a commercial airstrip 7.5 kilometres to the north of the Project in Mahdia. This airstrip provides access for domestic flights from Ogle Airport in Georgetown and smaller regional airstrips in the interior.

1.14 MARKET STUDIES AND CONTRACTS

The primary economic product of the Eagle Mountain Gold Project will be doré bars consisting of gold and certain impurities. The market for gold doré is well-developed. The PEA assumes market rates for gold refining. The entrance of new producers to the global gold markets does not materially affect the price of gold.

The current consensus long-term gold used for the discounted cash flow (“DCF”) model in this PEA study is US$1,850/oz (reference: *Energy, Metals, and Agriculture Consensus Report, November 2023).*

At this time, Goldsource has not entered into any contracts related to project development that are material to the Company, including but not limited to mining, concentrating, refining, transportation, handling, sales and hedging, and forward sales contracts.

1.15 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

A number of biodiversity baseline assessments were conducted by independent consultants within the relevant western half of the EMPL covering the MRE area and the proposed area for mine development. The most recent study was carried out in 2021. No endemic, rare, or threatened plants, birds, or habitats were found in the Project area. However, in 2021, several fish, mammal, amphibian and bird species were identified as "Vulnerable" or "Near Threatened". Two amphibian species were categorized as "Threatened". No "rare" species were identified. Biodiversity baseline information will be used for risk mitigation studies as part of the Environmental Management Plan ("EMP") and/or Environmental Impact Assessment Studies ("EIAS").

Water quality sampling studies were conducted in 2013, covering the entire project area. During both studies, wet and dry seasons were analyzed (see Section 20 for details). The water quality in the project area is generally representative of similar environments in Guyana, with some streams showing variable sediment loads due to seasonal rain events and, in areas, due to historical mining. However, most streams exhibit characteristics of the natural environment.

Additional studies will be required for the EIAS. The assessment of impacts will take into consideration applicable mitigation measures and follow-up programs. Goldsource will engage in formal public consultations and scoping meetings.

Goldsource will need to comply with the requirements for mine development, mine operations and mine site closure and rehabilitation, established by the regulatory authorities in Guyana.

The Qualified Person (QP) is unaware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other relevant issues that could potentially materially affect the PEA and the Eagle Mountain Project.

1.16 CAPITAL COSTS

Phase 1 and Phase 2 pre-production capex estimates for the processing plant are based on budget quotes from manufacturers for large mechanical equipment and quotes from recently constructed and under-construction projects for other plant/auxiliary equipment. Non-plant and other development capex are derived from both benchmarking analyses using comparable projects and calculation-derived estimates for certain earthmoving activities. Development capex includes a contingency of 15%.

Over the 15-year mine life, total capital costs for the Project, including pre-production capital expenditures ("CAPEX") for Phase 1 and Phase 2, and sustaining CAPEX, are estimated at US$296 million (Table 1-4).

The pre-production capital cost for Phase 1 of the Project is estimated at US$95.6 million. It includes indirect costs, owner's costs, and working capital.

The pre-production capital cost for Phase 2, to be incurred in Years 4 and 5, is estimated at US$46.6 million and includes indirect costs, owner's costs, and working capital.

The total sustaining capital costs to be expended over the LOM is estimated at US$133.4 million.

The total capital cost of reclamation is estimated at US$20 million.

TABLE 1-4 CAPITAL COST SUMMARY

CAPEX Description	Year	Cost (US$M)
Pre-production Phase 1 - Direct Costs	0	65.0
Pre-production Phase 1 - Indirects and Owners Costs	0	30.5
Phase 2 - Direct Costs	4 & 5	32.3
Phase 2 - Indirects and Owners Costs	4 & 5	14.3
Sustaining Costs (LOM)	2-15	133.4
Reclamation	15+	20.0
Total CAPEX		**295.6**

1.17 OPERATING COSTS

Operating costs have been determined based on benchmarking analyses using similar sized saprolite and fresh rock operations with adjustments for local conditions. For unit processing cost determinations, the average blend (ratio of fresh rock to saprolite) for the LOM was used to estimate power draw and reagent consumptions.

Total on-site operating costs over the LOM are estimated at US$786 million or US$28.88/t processed (Table 1-5).

TABLE 1-5 UNIT OPERATING COST SUMMARY

Description	Total Cost (US$M)	Unit Cost (US$)	Unit
Mining	202	2.40	US$/t mined
		7.40	US$/t processed
Processing	448	16.47	US$/t processed
Rehandle	4	0.13	US$/t processed
G&A	123	4.50	US$/t processed
Other	8	0.28	US$/t processed
Rent	1	0.03	US$/t processed
Contractor Mobilization	2	0.07	US$/t processed
Total	**786**	**28.88**	**US$/t processed**

1. The unit mining and processing costs for saprolite are estimated at US$2.10/t mined and US$11.10/t processed, respectively.
2. The unit mining and processing costs for fresh and transition rock are US$2.75/t mined and US$21.00/t processed, respectively.

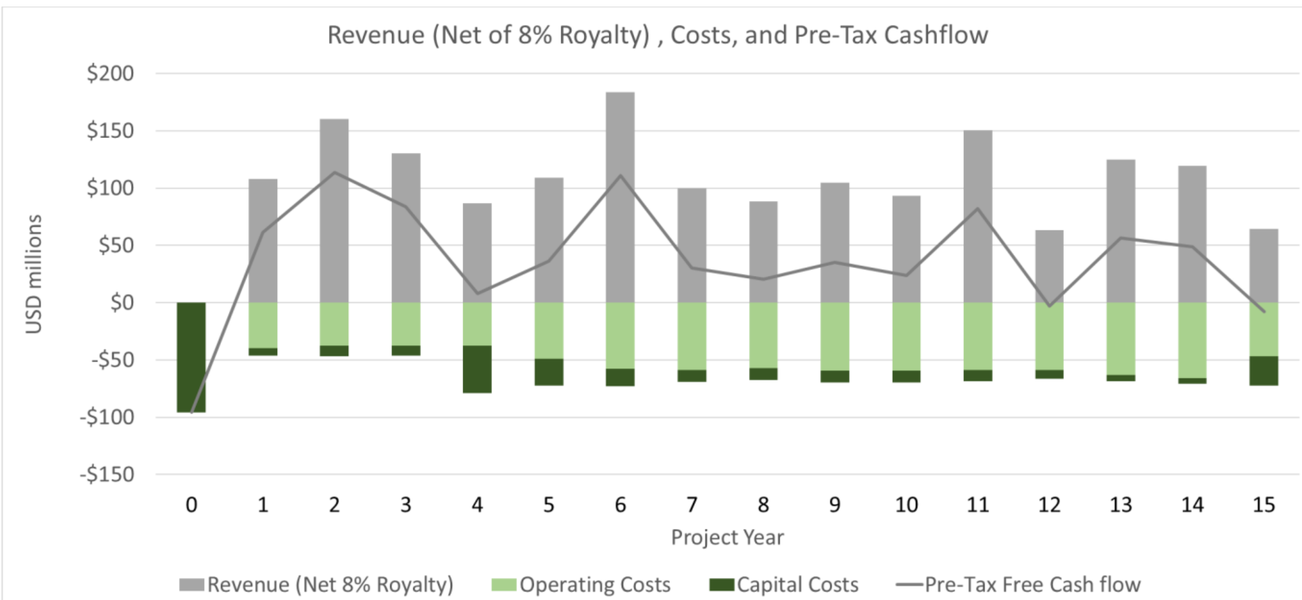
1.18 ECONOMIC ANALYSIS

The economic analysis of the Eagle Mountain Gold Project is based on the production and cost models developed for Phase 1 and Phase 2 and LOM construction, operating, and reclamation plans. The models include the major components of each phase, including open pits, CIL processing plant, and all supporting infrastructure, such as haul roads, waste rock dumps and tailings storage facilities.

The economic analysis uses a DCF model which applies all Phase 1 pre-production capital costs at the end of Year 0, and all revenues, operating costs and sustaining capital at the end of the year in which they occur.

The annual estimates for metal sales (revenue), costs (operating and capital costs), and pre-tax free cash flow are illustrated in Figure 1-5.

FIGURE 1-5 ANNUAL ESTIMATES FOR REVENUE, COSTS, AND PRE-TAX FREE CASH FLOW (GOLD PRICE OF US$1,850/OZ)



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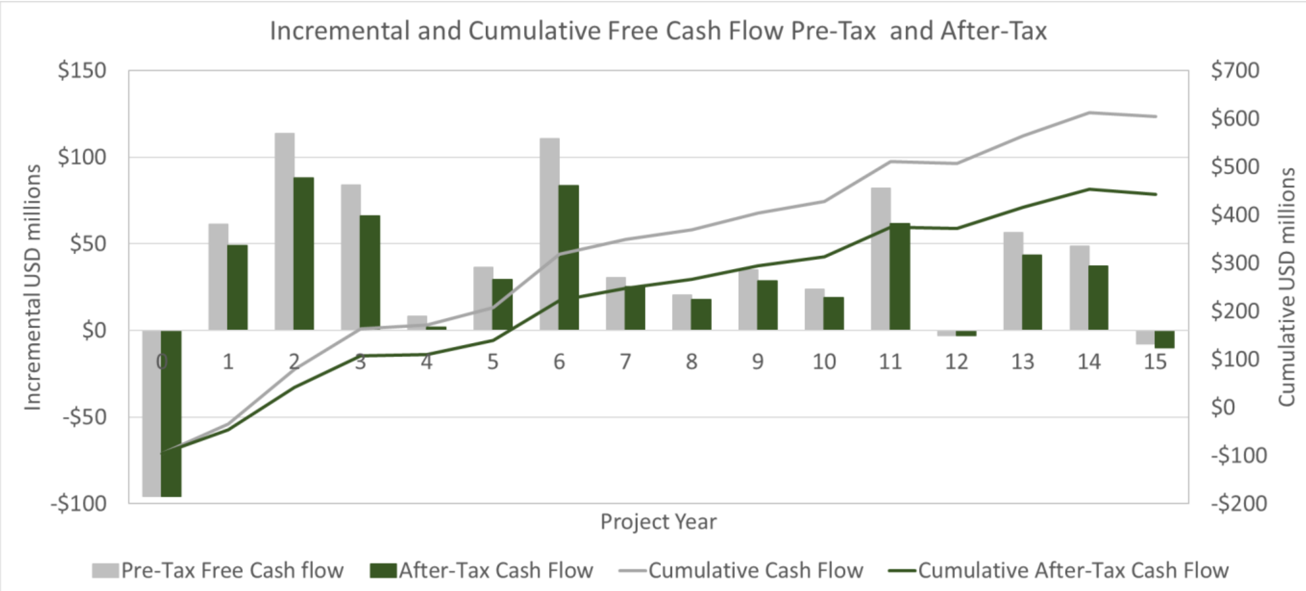
Note: Revenue is reported net of 8% federal royalty.

The DCF's incremental and cumulative free cash flow before and after-tax are presented in Figure 1-6.

After-tax free cash flows are defined as revenues net of operating costs, royalties, capital expenditures and cash taxes. After-tax free cash flows, Net Present Value ("NPV"), and Internal Rate of Return ("IRR") exclude tax loss pools in Guyana (totaling C$37 million as of September 30, 2023), which can be carried forward to offset taxable income in future years.

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

FIGURE 1-6 INCREMENTAL AND CUMULATIVE FREE CASH FLOW PRE- AND AFTER-TAX (GOLD PRICE OF US$1,850/OZ)



The assumed gold price for the Base-Case economic analysis is US$1,850/oz.

The cumulative undiscounted free cash flow for the Project is estimated at US$605 million and US$443 million on pre-tax and after-tax bases, respectively.

The pre-tax and after-tax Net Present Value ("NPV") for the DCF at 5%, 8%, and 10% discount rates are presented in Table 1-6.

TABLE 1-6 PRE-TAX AND AFTER-TAX NPV FOR 5%, 8%, AND 10% DISCOUNT RATES (GOLD PRICE OF US$1,850/OZ)

Parameter	Unit	Base Case Value	Value	Value
Discount Rate	%	5%	8%	10%
Pre-Tax NPV	US$ M	406	326	284
After-Tax NPV	US$ M	292	232	200

The Project has a pre-tax Internal Rate of Return ("IRR") of 75% and an after-tax IRR of 57% as presented in Table 1-7.

TABLE 1-7 PRE-TAX AND AFTER-TAX IRR (GOLD PRICE OF US$1,850/OZ)

Parameter	Unit	Value
Pre-Tax IRR	%	75%
After-Tax IRR	%	57%

1.18.1 PAYBACK PERIOD

The estimated payback period of the Phase 1 pre-production CAPEX is 1.5 years based on the forecast after-tax cash flows at the Base Case gold price assumption of US$1,850/oz.

1.18.2 PHASE 2

After-tax cash flows in Years 1.5 to 4.0, after the Phase 1 payback period, are estimated to exceed the pre-production capital costs for Phase 2.

1.18.3 SENSITIVITY

The sensitivity of the after-tax NPV and after-tax IRR to unit operating costs for mining and processing, CAPEX, and gold price are presented in Figure 1-7 and Figure 1-8.

FIGURE 1-7 AFTER-TAX NPV5% SENSITIVITY TO CHANGE IN PARAMETERS

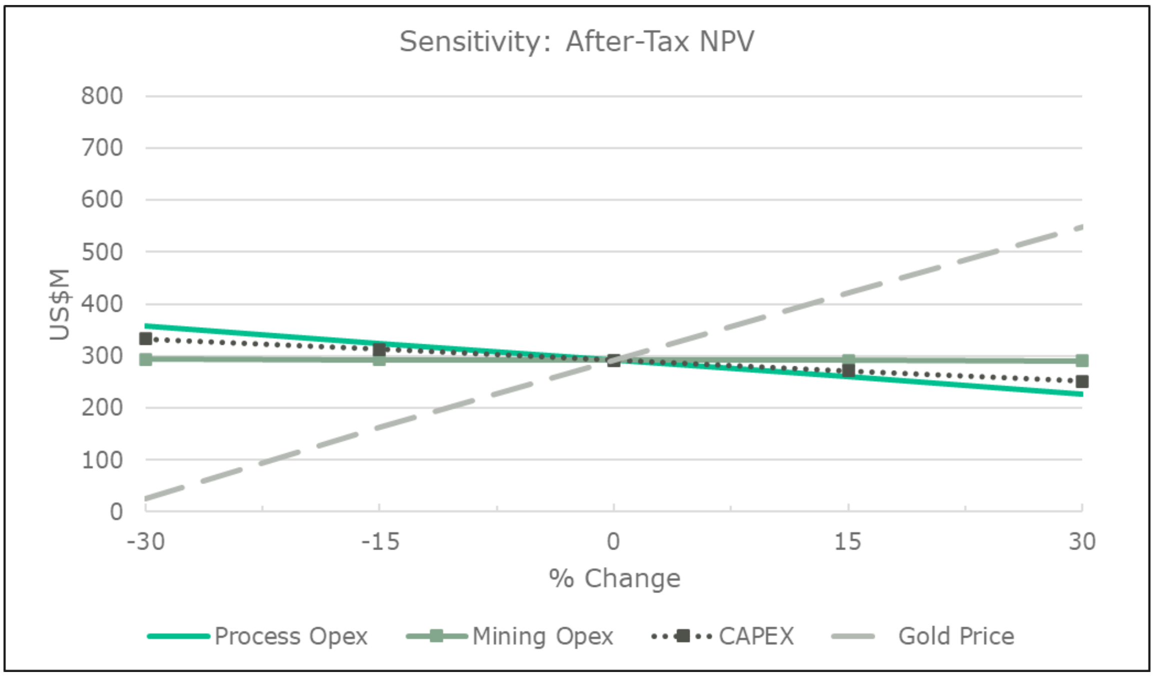
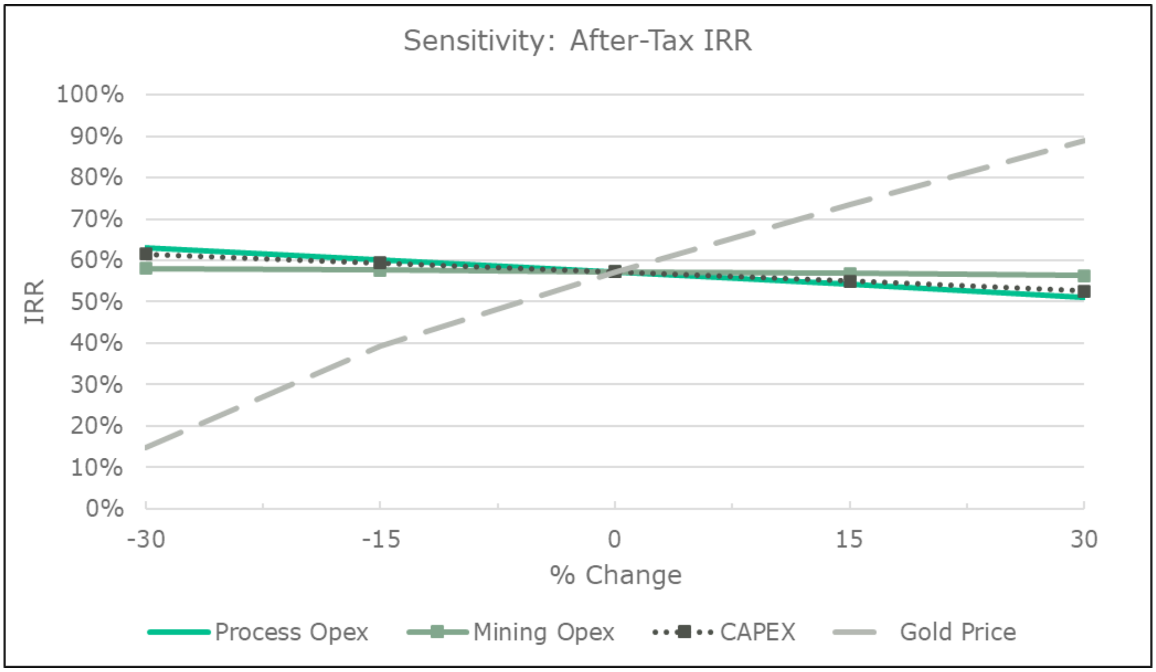


FIGURE 1-8 AFTER-TAX IRR SENSITIVITY TO CHANGE IN PARAMETERS



1.19 CONCLUSIONS

The positive results of the PEA for the Eagle Mountain Gold Project, as expressed by NPV and IRR, justify its further evaluation by advancing to a pre-feasibility study. The QPs noted the following interpretations and conclusions in their respective areas of expertise, based upon the review of data available for this Project.

1.19.1 DATA VERIFICATION AND MINERAL RESOURCES

There is a good understanding of the gold mineralization's geology and the nature on the Project. Additional exploration is warranted to potentially increase the Mineral Resource base.

The sample collection, preparation, analytical, and security procedures, as well as the QAQC program as designed and implemented by Goldsource are adequate, and the assay results within the database are suitable for use in Mineral Resource estimation.

The QAQC program indicates good precision, negligible sample contamination, and potential low bias for gold at the assay laboratory.

1.19.2 METALLURGY AND RECOVERY METHODS

The metallurgical results obtained at the PEA level indicate that saprolite and fresh rock samples from the Eagle Mountain Project should result in elevated gold recoveries with a simple industrial process and with relatively low operating costs, particularly for the saprolite material. To refine the design criteria, it is recommended to pursue additional metallurgical tests during the pre-feasibility study.

Based on the testwork and proposed flowsheet, the overall Project metallurgical recoveries are estimated at 90.7% with an average of 95.1% in Phase 1 and 88.9% in Phase 2. The process plant design and equipment selection are tailored for the distinct requirements of Phase 1 and Phase 2. The plant is initially configured for saprolite, which provides for lower power requirements and lower-than-average capital and operating costs as hard rock crushing and grinding equipment can be deferred to Phase 2. Phase 2 operating costs are particularly sensitive to power costs. Further investigation of alternative power costs is recommended.

1.19.3 MINING METHODS

Reasonable mine plans, production schedules and capital and operating costs have been developed for this Project. Operations will start with open pit development with a fleet of 5 haul trucks and 2 loaders at maximum capacity. The Eagle Mountain Gold Project is expected to produce 27.2 Mt of mineralized material over a mine life of 15 years, with a LOM stripping ratio of 2.1. The initial mining rate is 11 ktpd and will reach a maximum mining rate of 23 ktpd towards the end of the LOM. The average mining rate over the LOM will be 15 ktpd. Mining and surface activities at the mine will be done by a contractor.

1.19.4 INFRASTRUCTURE

The mine infrastructure will include a process plant, haul roads, waste dumps, a starter TSF and a main TSF, a mine camp, mine offices, water treatment facility, water management ditches, sedimentation pond, maintenance shop, laydown area, and warehouse.

The maximum combined storage capacity of the TSF will be approximately 17 Mm^3. No metal leaching nor acid rock drainage studies have been performed to date on the anticipated tailings from future operations.

1.19.5 MARKET STUDIES AND CONTRACTS

Gold markets are extremely mature global markets with trading at multiple locations around the world 24 hours a day. Gold production from the Eagle Mountain Project is expected to be sold on the spot market. The terms and conditions will be consistent with standard industry practices. Doré bars will be shipped from site to Georgetown by air and then on to the Guyana Gold Board.

As of November 13, 2023, the consensus long-term forecast from eight recognized investment institutions was US$1,957.27. The gold price used in the parameters for both the MRE and optimized pit shell upon which the PEA mine plan is based was US$1,600/oz. The gold price used in the cash flow model built from the PEA mine plan was US$1,850/oz.

1.19.6 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Environmental and related studies to support the Project have started. No formal consultation activities with the stakeholders have been conducted by Goldsource. At the time of this technical report, there are no environmental, permitting, legal, title, taxation, socioeconomic, marketing or other relevant issues that could potentially affect the MRE and the Eagle Mountain Gold Project.

1.19.7 CAPITAL AND OPERATING COSTS

The total capital costs (pre-production and sustaining) for the Project are estimated at US$295.6 million. The pre-production capital costs for Phase 1 are estimated at US$95.6 million, including a US$12.5 million contingency. The pre-production capital costs for Phase 2 (to be incurred in Years 4 and 5) are estimated at US$46.6 million, including a US$5.8 million contingency. Sustaining capital costs are estimated at US$133.4 million and closure costs at US$20.0 million. The total capital costs are summarized in Table 21-1.

The total operating costs are estimated at US$786 million, or US$28.88/t processed over the LOM. The total operating costs are summarized in Table 21-17.

1.19.8 ECONOMIC ANALYSIS

The PEA indicates that the potential economic returns from the Project justify its further evaluation by advancing to a pre-feasibility study.

At a base case gold price of US$1,850/oz, the Project generates an after-tax NPV of US$292 million at a 5% discount rate and an IRR of 57% (pre-tax NPV of US$406 million and IRR of 75%). After-tax payback on the Phase 1 pre-production capex is estimated at 18 months (16 months pre-tax).

The Project generates cumulative undiscounted free cash flow of US$443 million on an after-tax basis, and average annual after-tax free cash flow at US$37 million over a 15-year mine life.

Defining additional future resources has the potential to increase mine life and increase NPV.

1.19.9 PROJECT RISKS AND OPPORTUNITIES

The Project is subject to risks that are typical to all mining projects as well as specific risks for this Project. These risks are described below and shall be addressed with subsequent studies at the pre-feasibility and feasibility study levels.

Geology and Mineral Resources:

- The geological models have achieved a foundational level of understanding and will evolve with additional drilling. Future infill drilling is intended to convert Inferred Resources to the Indicated classification.
- The QA/QC program supporting the sample database as executed by Goldsource is adequate; however, improvements are warranted for the QAQC protocol; and
- Mineral Resources that are not Mineral Reserves do not currently demonstrate economic viability. The increase in confirmatory drilling and drilling density will allow for the conversion of Inferred Resources to Indicated category, and the eventual establishment of Mineral Reserves.

Mining and Infrastructure:

- Information on rock mechanics, geotechnical properties and hydrogeology was not available at the time of this PEA; and
- Detailed engineering of required site infrastructure is not completed.

Mineral Processing:

- Prospects along the north-south Salbora-Powis trend, such as Salbora and Toucan exhibit lower gold recoveries via cyanidation. Additional variability testwork should be completed to evaluate opportunities for higher recoveries via finer grinding; and
- Mill operating costs, particularly for fresh rock, are sensitive to power rates. There is an opportunity to the potential for cheaper power sources, which could result in a lower milling unit costs.

Infrastructure:

- Detailed engineering of plant infrastructure is not completed;
- Site power availability and study are to be confirmed from local power supplier;
- Tailings and water management require additional studies;
- Water balance and load balance have not been developed;
- Insufficient geochemistry data to identify sources terms;
- Tailings facility location used in PEA has not been optimized nor confirmed; and
- Groundwater and seepage flow from the tailings facility have not been modelled.

Regulatory

- The Project's realization and/or schedule is dependent upon securing the necessary permits or approvals; and
- The submittal and approval of the closure plan by the regulating authorities are conditional to the release of the mining lease and the beginning of mining operations.

Capital and Operation Costs:

- Detailed engineering and construction sequencing for the TSF has not been completed; and
- Price escalation is not included;

Rehabilitation and Closure:

- The Project waste rock is assumed to be NPAG and non-metal leaching, and no engineered cover is included in the closure cost estimate; and
- Detailed closure plans and costs are to be developed during the next study level.

1.20 RECOMMENDATIONS

1.20.1 GEOLOGY AND MINERAL RESOURCES

This Technical Report was prepared and compiled by ERM (with the support of Soutex for process plant) at the request of Goldsource, with the support of experienced and competent independent consultants and Goldsource management team, using accepted engineering methodologies and standards. It provides a summary of the results and findings from each major area of investigation, including:

- Exploration;

- Geological modelling;
- Mineral Resource;
- Mine design;
- Metallurgy;
- Process design;
- Infrastructure;
- Environmental studies, permitting and social or community factors;
- Tailings and water management;
- Capital and operating costs; and
- Economic analysis.

The level of investigation for each of these areas is considered to be consistent with the level expected in a PEA. The mutual conclusion of the QPs is that the Project contains adequate details and information to support the positive economic outcome shown. The results of this study indicate that the Project is technically feasible and has financial merit with the Base Case assumptions considered.

In summary, the QPs recommend that the Project proceeds to the pre-feasibility study stage. It is also recommended that the environmental and permitting process continue as needed to support the Project's development plans and schedule.

ERM recommends the following additional work programs as the Project advances to a pre-feasibility study:

1.20.2 GEOLOGY AND MINERAL RESOURCES

- Improve the geological model, including updating the mineralization model to delineate zones of variable orientation within the shallow dipping mineralized zones, and to model relay veins linking the faults. The model should be supported by a detailed structural interpretation incorporating data from orientated angled drill holes.
- If Leapfrog software is to be used in future, the veins system modelling tool is recommended instead of the stratigraphic approach used for the 2022 MRE.
- Utilize the newly completed high-resolution LiDAR survey with ground truthing to improve the resolution of the topography model. An updated MRE model should be generated when a high-resolution topography model is available.
- High-resolution topography could support a detailed map of weathering features and resistive post-mineralization dikes. This information could provide the basis for a detailed review of auger data to improve the definition of mineralization trends in saprolite for drill targeting and mineralization modelling.
- A dedicated geological and mining database solution should be obtained. This will enable efficient sharing of increasingly complex Project data between the multi-disciplinary teams involved in the Project as it progresses to more advanced stages of development.

The following gold targets warrant further exploration:

- The steep breccia zone at Toucan is open to the south. This zone should be tested by drill holes on a fence 40 metres to the south of EMD20-103, which included a 10.5 metre intercept grading 1.16 g/t Au.
- The steep breccia zones at Salbora weaken in intensity but are open to the north and south. These extensions can be tested to investigate any strengthening of the mineralized zones in both directions using a series of 40-metre drill hole fences.
- To the south of the Eagle Mountain deposit, mineralized horizons continue at depth south-westward from the Baboon deposit area. Exploration should target extensions to the mineralization encountered in EMD09-43 (6.10 metres at 2.12 g/t Au starting at a downhole depth of 141.90 metres) and EMM21052 (10.5 metres at 0.85 g/t Au starting at a downhole depth of 139.50 metres), particularly where changes in topography bring these zones closer to surface.
- Develop a geological model for the Soca area (not included in the April 2022 MRE).
- Further exploration into exploration targets distal to the Eagle Mountain deposit and Salbora-Powis north-south structural trend, including North Zion area.

1.20.3 CAPITAL AND OPERATING COSTS

- Costs for both CAPEX and OPEX to be regularly checked and updated with budget quotes, in particular with respect to energy costs, construction and contract mining costs and processing costs taking into consideration the fluctuating and generally rising costs of consumables, labor and major equipment and components.
- Whereas it is understood that there is used power generation and processing plant equipment available in country at costs significantly lower than market price for new equipment, it is recommended that contractually enforceable quotes be obtained by the sellers of this equipment in order to support the potential inclusion of this equipment in future cost estimates and DCF models that could potentially show improvement over the cost estimates used in this report.
- Pursue the availability of suitable used processing equipment, evaluate condition, and achieve contract binding costs; estimate logistics, construction and commissioning costs.
- Ongoing benchmarking of comparable projects to de-risk some cost assumptions.
- Undertake regular market studies to assess availability and labor rates for local, regional, national and international (expat) labor and professional workforce requirements to provide accurate projections for capital and operating cost assumptions.

1.20.4 MINING AND PROCESSING

The following trade-off studies should be performed:

- Full trade-off of buying power on a power-by-the-hour basis at US$0.37/kWh against buying generators and building a power station to assess opportunities to reduce unit operating costs.
- Detailed haulage study to determine with better accuracy potential savings of downhill hauls and/or hydraulic haulage. Examine alternative renewable energy sources, such as river turbines, solar and wind power sources, or other novel technologies.
- Contract mining versus owner operator.

Additional studies and investigations are recommended:

- Opportunity to backfill pits with waste and/or tailings once they are mined out and condemned from possible re-opening at higher gold prices.
- Optimization plan for dump heights and locations to minimize visibility from the main road and the villages of Mahdia and Campbeltown. Options include looking at a larger dump at lower elevation as well as relocating one or more dumps to the south of the pits (or other locations).
- Stockpiles management (include low, medium and high-grade stockpiles for saprolite; and the same three sub-categorized stockpiles for transition and fresh rock mill feed).

1.20.5 INFRASTRUCTURE AND TAILINGS FACILITY

- Trade-off study for the construction of an on-site camp vs. using resources and infrastructure available in the nearby communities. It will require community consultation to ensure that the final decision on this matter is supported by the local communities as the best option for them.
- Geotechnical investigations on candidate sites for the processing plant and other infrastructure to determine scale of foundation work required.
- Evaluation of locations and sizes of possible borrow pits for the construction of the starter and main tailings dams.
- Hydrology/Hydrogeological studies (improve understanding of water availability, water limitations, water balance needs for the processing plant, tailings, and other operational needs).
- Locating an area or areas where TSF can be located without requiring a dam or dams greater than 40 m in height.
- Investigate alternative/novel tailings storage strategies to effectively manage precipitation and run-off during the wet season.

1.20.6 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY FACTORS

It is recommended that the environmental and social assessment requirements, including permitting to meet Guyana regulations, be confirmed with relevant agencies and be completed. Goldsource should engage with the public and Indigenous groups.

1.20.7 RECOMMENDED WORK PROGRAM AND BUDGET

ERM proposes the following work program to advance the Project to pre-feasibility study as described in Table 1-8. Several investigations and trade-off studies (as described above) will be required prior to the completion of the pre-feasibility study.

TABLE 1-8 PRE-FEASIBILITY STUDY WORK PROGRAM AND BUDGET

Work Program	Cost Estimate (US$ M)
Infill and Exploration Drilling (10,000 metres @ US$120/metre)	1.2
Mineral Resource & Reserve Estimate	0.2
Sampling & Metallurgical Testwork	0.2
Permitting/Environmental Studies/Geochemistry	1.0
Project Infrastructure Location (excluding TSF), Geotechnical Studies	0.3
Hydrology, Water Management, and TSF Studies	0.5
Trade-Off Studies: Mining Method, Roads, Camp Location and Dump Locations and Designs, Power	0.5
Pre-feasibility Study	1.0
Guyana Administration and Labor	0.3
Sub-total	**5.2**
Contingency (15%)	0.8
Total	**6.0**

2. INTRODUCTION

2.1 ISSUER

Goldsource is a Canadian resource company engaged in exploration activities, with its headquarters situated in Vancouver, BC. The Company's common shares are listed on the TSX-V under the symbol "GXS" and on the OTCQX under the symbol "GXSFF". Goldsource indirectly holds a 100% interest in the Eagle Mountain Gold Project located approximately 200 kilometres south-southwest of Georgetown, the capital of Guyana, South America.

The Project is operated by Stronghold Guyana, a wholly-owned subsidiary of Goldsource, based in Georgetown, Guyana.

2.2 TERMS OF REFERENCE

Goldsource commissioned ERM to complete a PEA and prepare a Technical Report on the Eagle Mountain Gold Project in accordance with National Instrument 43-101. The Technical Report relies on project data, internal company technical reports, testwork results, maps, published government reports, and public information. With respect to Mineral Resources, the PEA Technical Report is based on the April 2022 MRE for the Eagle Mountain Gold Project, which used an assay cut-off date of December 31, 2021, for drill information.

This Technical Report was completed in accordance with disclosure and reporting requirements set forth in National Instrument 43-101 – Standards for Disclosure for Mineral Projects (NI 43-101), Companion Policy 43-101CP, and Form 43-101F1.

The principal author of the PEA is Mr. Nigel Fung, P.Eng., ERM's Partner and Principal Mining Engineer. Mr. Fung has more than 20 years' experience in mining and over 11 years in mine planning and engineering for open pit gold mines and is a Qualified Person according to NI 43-101 standards.

The 2022 MRE was prepared in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves (10 May 2014) as per NI 43-101 requirements. The April 2022 MRE was prepared in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves (2014) as per NI 43-101 requirements. There are no Mineral Reserves defined on the Project. The principal author of the April 2022 MRE was Mr. Leon McGarry, P.Geo, ERM's Associate Resource Geologist. Mr. McGarry has more than five years' experience in the field of structurally controlled gold deposits and is a Qualified Person according to NI 43-101 standards.

Mr. Antoine Berton, P.Eng., Assistant Director - Africa & Europe / Senior Metallurgist at Soutex is the Qualified Person responsible for sections 13 and 17 of the Technical Report regarding the metallurgical testing, recovery, and processing plant and its associated capital and operating costs (incorporated in Section 21).

The Qualified Persons and the sections they are responsible for are presented in Table 2-1.

The Company has reviewed this Technical Report for factual errors. No alterations were made to the interpretations and conclusions reached by ERM. Therefore, the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Technical Report.

2.3 PRINCIPAL SOURCES OF INFORMATION

This Technical Report is based, in part, on internal Goldsource technical reports and maps, consultants' reports, and public information as listed in Section 27 (References) of this Technical Report. This study includes information from the previous NI 43-101 Technical Report - Eagle Mountain Gold Project, by CSA Global (now ERM) with an effective date of April 5, 2022.

The authors have not conducted detailed land status evaluations, and have relied upon previous reports, public documents, and statements by Goldsource regarding Project status and legal title to the Eagle Mountain Gold Project.

The authors also had discussions with the management and consultants of the Issuer, including:

- Mr. Steve Parsons (Chief Executive Officer, Goldsource) regarding the tenure of the Property, technical aspect of the Project, including metallurgy and the phased development plan, and the Guyana tax and royalty structure;
- Mr. Ioannis (Yannis) Tsitos (President and Director, Goldsource) regarding the Project and exploration history, tenure, environmental and community affairs;
- Mr. Eric Fier, CPG, P.Eng. (Executive Chair and Director, Goldsource) regarding technical aspects of the Project;
- Mr. Kevin Pickett (Chief Geologist, Goldsource) regarding the geology, drilling, sampling, and assays carried out on the Property, and the Project history;

This report includes technical information that requires calculations to derive subtotals, totals and weighted averages, which inherently involve a degree of rounding and, consequently, introduce a margin of error. Where this occurs, the authors do not consider it to be material.

2.4 QUALIFIED PERSON SECTION RESPONSIBILITY

This Technical Report was prepared by the Qualified Persons listed in Table 2-1.

TABLE 2-1 QUALIFIED PERSONS - REPORT RESPONSIBILITIES

Section and Title	QP	Company
1: Summary	Nigel Fung, P.Eng., Partner	ERM
2: Introduction		
3: Reliance on Other Experts		
4: Property Description and Location		
5: Accessibility, Climate, Local Resources, Infrastructure, and Physiography	Leon McGarry, P.Geo.	ERM Associate*
6: History		
7: Geological Setting and Mineralization		

Section and Title	QP	Company
8: Deposit Types		
9: Exploration		
10: Drilling		
11: Sample Preparation, Analyses, and Security		
12: Data Verification		
13: Mineral Processing and Metallurgical Testing	Antoine Berton, P. Eng.	Soutex
14: Mineral Resource Estimate	Leon McGarry	ERM Associate*
15: Mineral Reserve Estimate	NA	NA
16: Mining Methods	Nigel Fung	ERM
17: Recovery Methods	Antoine Berton	Soutex
18: Project Infrastructure	Nigel Fung	ERM
19: Market Studies and Contracts		
20: Environmental Studies, Permitting, and Social, or Community Impact	Rolf Schmitt, P.Geo	ERM
Subsections: 20.6 & 20.7	Nigel Fung	
21: Capital and Operating Costs	Nigel Fung	ERM
22: Economic Analysis		
23: Adjacent Properties		
24: Other Relevant Data and Information		
25: Interpretation and Conclusions		
26: Recommendations		
27: References		
28: QP Certificates	ALL	ALL

* Leon McGarry was employed by CSA Global at the time of the 2022 MRE. The MRE was published under the CSA Global name, which ceased to be used following the acquisition of CSA Global by ERM.

The authors are Qualified Persons with the relevant experience, education, and professional standing for the portions of the Technical Report for which they are responsible.

ERM conducted an internal check to confirm that there is no conflict of interest in relation to its engagement in this Project or with Goldsource and that there is no circumstance that could interfere with the Qualified Persons' judgement regarding the preparation of this Technical Report.

2.5 QUALIFIED PERSON SITE INSPECTIONS

A three-day visit to the Eagle Mountain Gold Project was completed by Nigel Fung (QP) from October 25-27, 2023, as detailed in Section 12.1.

3. RELIANCE ON OTHER EXPERTS

The authors and ERM have relied upon Goldsource and its management for information related to the Eagle Mountain Prospecting License (EMPL) and the Kilroy Mining Inc. (Kilroy) Mining Permit location and status, and underlying contracts and agreements pertaining to the acquisition of the Prospecting License and the Mining Permit (Section 4). The status of the tenements and Company agreements was confirmed in a legal opinion provided by Robert H.O. Corbin and Associates, Attorneys-at-Law of Georgetown, Guyana, dated June 30, 2023.

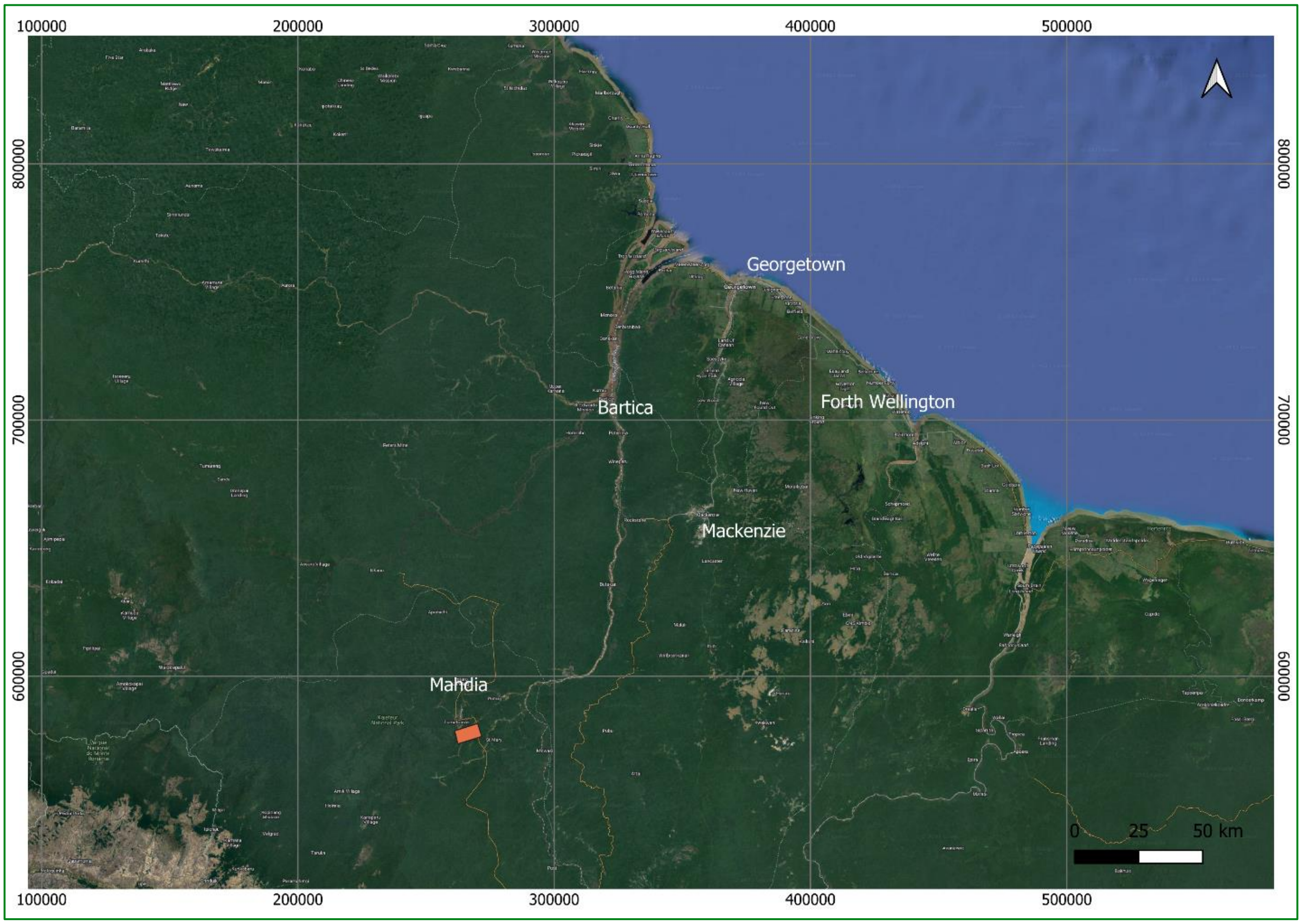
The Property description presented in this Technical Report is not intended to represent a legal, or any other opinion as to title.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION OF PROPERTY

The Eagle Mountain Project is located approximately 200 kilometres south-southwest of Georgetown, the capital of Guyana, South America (Figure 4-1). The Property comprises an area of approximately 4,896 ha (12,098 acres) and is located between the Potaro, Konawaruk and Essequibo rivers in Guyana's Administrative District VIII (Potaro-Siparuni) and in Mining District 2 (Potaro). It lies within the Kaieteur 1:50,000 scale topographic map sheets 43NE and 43SE, approximately bounded by latitudes 573,600 N and 581,500 N and longitudes 261,000 E and 271,800 E (UTM WGS84, Zone 21N).

FIGURE 4-1 LOCATION OF THE EAGLE MOUNTAIN PROPERTY (RED RECTANGLE) RELATIVE TO TOWNS AND VILLAGES



Note: Coordinates are UTM WGS84, Zone 21N. Google maps®

4.2 MINERAL TENURE AND SURFACE RIGHTS

4.2.1 MINING REGULATIONS OF GUYANA

All Mineral Resources in Guyana are the property of the Republic of Guyana ("the State"). The state body responsible for the management of these Mineral Resources is the GGMC under the Ministry of Natural Resources. The *Mining Act* of 1989 and extensive Mining Regulations provide the framework for the mineral tenure system. Tenure is categorized as small-, medium- and large-scale and title renewal applications are reviewed based on actual performance relative to stated work programs and budgets.

The *Mining Act,* 1989 allows for four scales of operation:

1. A Small-scale Permit has dimensions of 1,500 ft x 800 ft (457 metres x 244 metres) whilst a river permit consists of one mile (1,609 metres) of a navigable river.
2. Prospecting Permit Medium-scale ("PPMS") permits, and Mining Permit Medium-scale ("MPMS") permits cover between 150 and 1,200 acres (60.7–486 ha).
3. Prospecting Licenses ("PLs") and Mining Licenses ("MLs") are issued for areas between 500 acres and 12,800 acres (202–5,180 ha).
4. Permission for Geological and Geophysical Surveys ("PGGS") is granted for reconnaissance surveys over large acreages, with the objective of applying for PLs for a specific commodity over favorable ground selected based on results of the reconnaissance surveys. The permits and licenses are located and identified by orthogonal coordinates indicating the corners of the permits/licenses.

Only citizens of Guyana or legal Guyanese entities may hold a small-scale permit or medium-scale permits; however, foreigners may make joint venture arrangements whereby the two parties jointly develop the property under a private contract. To maintain such a permit, there is no requirement to submit a work program or budget, provide reports of work, or survey and mark the permit corners. The area may enclose earlier holdings that retain preferential mineral rights. The initial term of a PPMS is one year with a rental fee of US$0.25/acre (US$0.10/ha). The rental fee increases by US$0.10/acre (US$0.04/ha) per year and the permit may be renewed indefinitely for one-year periods.

A Mining Permit may evolve out of a Prospecting Permit at the permitee's option. There is no requirement for a feasibility study to accompany an application to convert a PPMS to an MPMS. The MPMS is for an initial term of five years or the life of the deposit, whichever is shorter, but it is common to be extended to multiple subsequent terms, subject to the owner performing work on the MPMS. The rental rate on an MPMS is US$1.00/acre (US$0.40/ha). The State is entitled to a 5% non-contributory interest or royalty on gross production from an MPMS. In individual cases, it is possible to negotiate and enter into a Mineral Agreement with the GGMC. Such an agreement would include, but not be limited to, prospecting, exploration and mining/processing, and taxation.

Foreign companies may apply for PLs, MLs and PGGSs. The term for PLs is three years with two rights of renewal of one year each for a total of five years. After five years, the license may be further renewed through submission of a new license application, the granting of which is at the discretion of the Ministry of Natural Resources based on Company's performance during the previous five-year PL period considering fee payments and exploration expenditures in relation to the annual fillings and budgets submitted to GGMC. In practice, PLs may be renewed indefinitely provided the licensee performs according to stated work programs and budgets.

The *Mining Act*, 1989, stipulates that, three months prior to each anniversary date of license, a work program and budget for the following year must be presented for approval. Rental rates for PLs are US$0.50/acre for the first year; US$0.60/acre for the second year, and US$1.00/acre for the third year. An application fee of US$100 and a Work Performance Bond, equivalent to 10% of the approved budget for the respective year, is also payable. The obligations of the licensee include quarterly technical reports on its activities and an audited financial statement to be submitted by the 30th of June for the previous year's expenditure. Should the licensee relinquish part or all of the PL area, then it is required to submit an evaluation report on the work undertaken therein. PL properties are subject to ad hoc monitoring visits by technical staff of the GGMC.

At any time during the PL, and for any part or all the PL area, the licensee may apply for a ML. This application will consist of a technical and economic feasibility study (at the level of detail of a PEA), mine plan, Environmental Impact Statement, and an Environmental Management Plan. Rental for a ML is currently fixed at US$5.00 per acre per year and the license is usually granted for 20 years or the life of the deposit, whichever is shorter. Renewals are possible.

4.2.2 EAGLE MOUNTAIN PROPERTY DESCRIPTION

The Property includes Goldsource's 100% owned EMPL 03/2019 totaling 4,784 ha or 11,820 acres (except for all third-party lands legally held or occupied therein) and MSMP K-60/MP/000/2014 held by Kilroy totaling 254 acres on which Stronghold has a long-term lease with a 2% NSR royalty (Figure 4-2). In October 2020, Goldsource also entered into an option and purchase agreement to acquire a 100% interest in the 24.4-acre Ann SSMC, located within the EMPL 03/2019 boundary. A summary of all relevant licenses is provided in Table 4-1.

4.2.3 EAGLE MOUNTAIN PROSPECTING LICENSE 03/2019

Goldsource currently holds a 100% interest in the EMPL 03/2019 through Stronghold, a Guyanese subsidiary wholly owned by Eagle Mountain Gold Corp., which itself is a 100% subsidiary of Goldsource as per a business combination described in Section 6.1.3.

EMPL 03/2019 was issued to Stronghold by GGMC on October 18, 2019, for a period of three years (expired October 18, 2022) and renewed on August 11, 2023, up to October 18, 2024. The PL covers 4,784 ha and gives Goldsource specific exploration rights to gold, molybdenum and base metals including copper, lead, zinc, and tungsten.

FIGURE 4-2 EAGLE MOUNTAIN PROSPECTING LICENSE WITH INTERNAL LEGAL THIRD-PARTY SMALL-SCALE AND MEDIUM-SCALE PERMITS

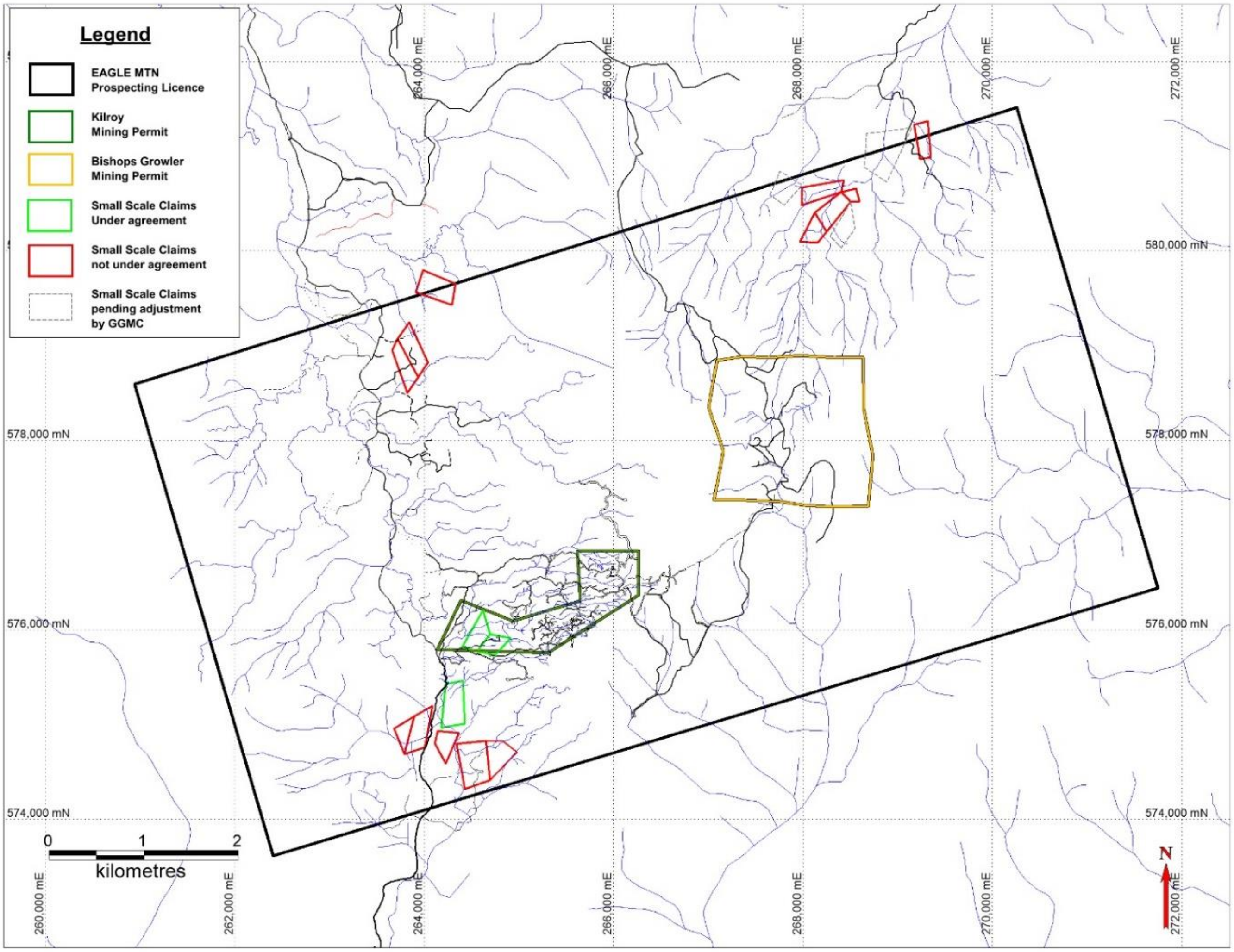


TABLE 4-1 SUMMARY OF LICENSES FOR THE EAGLE MOUNTAIN PROPERTY

License Name/ Number	Ownership/ Agreement	Grant Date	Expiry Date	Area	Rent per Year	Expenditure Commitments
Eagle Mountain Prospecting License (EMPL) PL# 03/2019	Stronghold Guyana Inc. (100% Guyanese subsidiary of Goldsource Mines Inc)	Oct 18, 2019	Oct 18, 2024 (extended on Aug 11, 2023)	11,820 acres (area of PL which excludes the Kilroy and Bishops Growler MPs but Includes 16 valid SSMPs)	US$1.10 per acre per year combined for Gold, Valuable Minerals, Moly and Base Metals (Cu, Pb, Zn, Sn, W, etc.)	Variable based on own (Stronghold Guyana Inc.'s) budget/reporting
Kilroy Mining Medium Scale Mining Permit (MSMP) #K-60/MP/000/2014	Kilroy Mining Inc. (100%). Under agreement with Stronghold Guyana Inc. for 100% control subject to 2% Royalty	July 17, 2014	July 17,2024	254 acres	US$1.00/year p er acre	N/A

License Name/ Number	Ownership/ Agreement	Grant Date	Expiry Date	Area	Rent per Year	Expenditure Commitments
HO#21/213/ 1995, Small Scale Mining Claim, known as Ann SSMC	Mark Crawford (Guyanese). Under Option and Purchase Agreement, dated Oct 20, 2020, for 100%. On Aug 8, 2022, the terms were amended to extend the option period for two additional years, expiring on Oct 20, 2024,	Dec 21, 1998	N/A as long as fees paid annually	24.4 acres	US$20,000/year for whole claim	N/A

The EMPL is located in Potaro Mining District No. 2 on Terra Surveys 1:50,000 topographic map, 43SE. It is described as follows and takes for its reference, a point “X”, at the confluence of the Tiger River and Chance Creek at coordinates (UTM Zone 21N) of:

- UTM Easting 269,653.89
- UTM Northing 582,678.58

Thence 5 miles 1,462 yards (9.38 km) at a true bearing of 153° to the boundary commencement point “A” at the northeastern corner of the PL located with coordinates of:

- UTM Easting 270,266.02
- UTM Northing 581,508.97

Thence 3 miles 532 yards (5.31 km) at a true bearing of 164° to the southeastern corner of the PL, at point “B”, located with coordinates of:

- UTM Easting 271,758.61
- UTM Northing 576,434.36

Thence 6 miles, 105 yards (9.75 km) at a true bearing of 253° to the southwestern corner of the PL, at point “C”, located with coordinates of:

- UTM Easting 262,415.52
- UTM Northing 573,607.89

Thence 3 miles 425 yards (5.22 km) at a true bearing of 344° to the northwestern corner of the PL, at the point “D”, located with coordinates of:

- UTM Easting 260,953.87
- UTM Northing 578,590.66

Thence 6 miles 103 yards (9.75 km) at a true bearing of 72° to the northeastern corner or commencement point “A” of the PL.

Seventeen (17) verified, legal third-party small- and medium-scale permits exist within the EMPL area. Boundary posts have been located by Goldsource and are shown in Figure 4-2. The one medium-scale permit, Bishops Growler MSMP, is located northeast of Eagle Mountain in the central part of the EMPL and was under an option and purchase agreement by Goldsource in 2018/19 which has since expired.

Eleven (11) small-scale permits lie along the Mahdia River lowlands; historically, mining has targeted alluvial gold deposits (four small-scales show current on-ground activity). Three of the 11 claims (outlined by green color in Figure 4-2) are 100% controlled by agreement, by Goldsource. Two of these claims were acquired by Kilroy Mining in 2015 and are included in the agreement between Kilroy and Goldsource (Section 4.2.4) and the third, the Ann Small-scale Permit, is controlled through an option agreement entered into by Goldsource in October 2020, and lies adjacent to the southwest boundary of the Eagle Mountain Mineral Resource (Section 4.2.5). The remaining eight small-scale permits remain independently owned. Five small-scale permits lie in the northeast of the PL.

The small-scale and medium-scale mining permits within the license area that are not controlled by Goldsource are not considered to constitute a major risk to the future development of the Project.

Mineral rights within the EMPL are 100% held by Goldsource, with the exception of: i) 14 legal small-scale permits; ii) one medium-scale permit; and iii) a north-south historic public road. In the northern part of the EMPL, creek water is funneled into a 6-inch PVC pipe to supply potable water to Mahdia Township.

During the life of the EMPL, quarterly and annual reports are submitted to the GGMC, along with work programs and proposed budgets. GGMC is paid an annual fee of US$1.10/acre for the respective rights to two mineral groups: 1) gold; and 2) other base metals and minerals except uranium. A performance bond representing 10% of the approved budget is also lodged. The currently lodged performance bond is approximately US$206,200.

4.2.4 KILROY MEDIUM-SCALE MINING PERMIT K-60/MP/000/2014

The EMPL is beneficially controlled by Stronghold, Goldsource's 100%-owned subsidiary in Guyana. As a MSMP is required under Guyana law to be held by a Guyanese national, Stronghold has entered into agreements with Kilroy, a private arm's length Guyanese company pursuant to which Stronghold and Kilroy will jointly operate the permit area.

On July 17, 2014, Kilroy was granted MSMP K-60/MP/000/2014 (the "Kilroy Permit") for operations on a 254-acre portion ("permit area") of Goldsource's Eagle Mountain gold deposit located within the boundary of the EMPL (Figure 4-2).

The Kilroy Permit grants permission to mine gold, diamonds, precious metals, and precious minerals within the permit area located in Potaro Mining District #2 and it is valid until July 17, 2024. Kilroy, as the holder of the permit, has granted Stronghold the exclusive right to conduct mining operations on the permit area including any additional areas acquired by Kilroy. Stronghold will fund all expenditures on the permit area and receive 100% of all revenues, subject to applicable government royalties and a 2% NSR royalty to Kilroy as compensation for its participation. The 2% NSR royalty to Kilroy would not be applicable if the EMPL is converted to a large-scale mining license. As part of the agreement, Goldsource issued to Kilroy 250,000 common shares of the Company before Goldsource completed a share consolidation in June 2021.

4.2.5 ANN SMALL-SCALE PERMIT

On October 20, 2020, Goldsource entered into an option and purchase agreement to acquire a 100% interest in the Ann Mining Claim, at the Minnehaha Creek area located within the Eagle Mountain Gold Project for total consideration of US$290,000. The terms of the agreement include immediate access to the land for exploration purposes for two years, the right to purchase the claim for US$250,000, and the right to terminate the agreement at any time, without any further liabilities.

On August 8, 2022, Goldsource and the private optionor amended the terms of the Option Agreement to extend the option period for two additional years, expiring on October 20, 2024, for total additional consideration of US$40,000. All other terms of the Option Agreement remain unchanged. Therefore, the remaining payments are scheduled as follows:

- US$20,000 in October 2023 (paid); and
- US$250,000 upon the exercise of the option for the acquisition of the property.

As of the date of this Technical Report, the Company has made three option payments totaling US$60,000 in relation to the Ann Small-scale Permit.

To date, the Company has made all required option payments.

4.3 TENURE AGREEMENTS AND ENCUMBRANCES

4.3.1 UNDERLYING PROPERTY AGREEMENT WITH OGML (OWNED BY IAMGOLD)

The business arrangements under which Goldsource acquired the Eagle Mountain Property are described in Section 6.1 and included a Property Agreement with OGML. Under the terms of this underlying Property Agreement, on effective commencement of commercial production on the Property and the granting of a mining license by GGMC:

A. Goldsource shall pay OGML (owned by IAMGOLD) US$3,025,500.94 (“Initial Payment”) in cash or, at Goldsource’s option, in common shares of Goldsource at a price per share equal to a 5% discount to the volume weighted average price (VWAP) of Goldsource’s common shares for the 20 trading days prior to issuance, upon the earlier of:

    1. If average market price of gold is US$1,400/oz or higher, upon achieving total production of 40,000 ounces of gold, the Initial Payment is due 90 days after 40,000 ounces have been produced, otherwise payment to be made 90 days after 50,000 ounces of gold are produced from the Property, or
    2. Ninety (90) days after having completed one year of gold production under a Large-scale Mining License issued by the GGMC, or
    3. Five days after the date on which the 20-day VWAP of Goldsource exceeds C$0.75 per share (pre the June 2021 share consolidation), provided such date is not earlier than March 1, 2015.

B. Goldsource shall pay OGML an additional US$5,000,000 (“Final Payment”) in cash or, at Goldsource’s option, US$2,500,000 cash and US$2,500,000 in common shares of Goldsource, at a price per share equal to a 5% discount to the 20-day VWAP of Goldsource's common shares, one year after the earlier of:

1. The payment set out in (a) above has been made, or
2. Commencement of gold production under a Large-scale Mining License issued by the GGMC.

Note that the above agreement represents a financial obligation to OGML/IAMGOLD, and that these obligations do not affect mineral tenure, which is 100% held by Goldsource.

4.3.2 KILROY MEDIUM-SCALE MINING PERMIT 637/2014 AGREEMENT

Goldsource, through its 100%-owned subsidiary Stronghold, will fund all expenditures on the MSMP 637/2014 area and receive 100% of all revenues, subject to applicable government royalties and a 2% NSR royalty to Kilroy as compensation for its participation.

See section 4.2.4.

4.3.3 ANN SMALL-SCALE PERMIT AGREEMENT

See section 4.2.5

4.3.4 ROYALTIES PAYABLE TO THE GOVERNMENT OF GUYANA

The State is entitled to a 5% non-contributory interest or NSR royalty on gross production from an MPMS. In individual cases, it is possible to negotiate and enter into a Mineral Agreement with the Government of Guyana. Such an agreement would include, but not be limited to, prospecting, exploration and mining/processing and taxation. Recent Mineral Agreements with foreign mining companies have included an 8% NSR on gold production accompanied with tax concessions, including for income tax, duty and value-added tax exemptions, withholding taxes, among other items.

4.4 ENVIRONMENTAL LIABILITIES

Goldsource has a reclamation provision related to exploration activity and construction of the pilot plant at Eagle Mountain. This provision is currently estimated at US$547,023 (September 30, 2023).

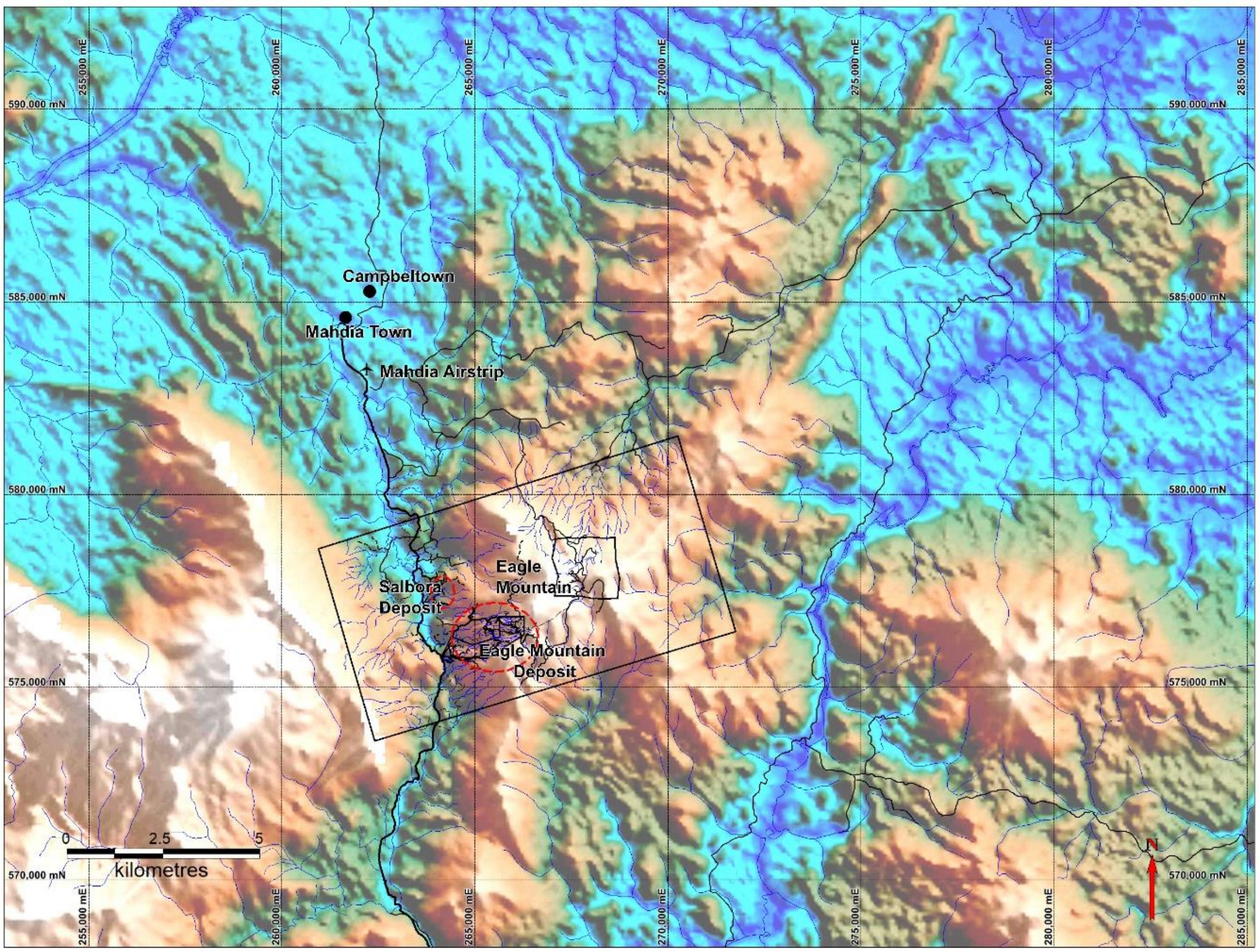
Significant reclamation and closure activities estimated at US$20 million are expected following the end of the proposed mining operations. These activities will include land rehabilitation and the removal of buildings and processing plant.

To the Qualified Person's knowledge, there are no other known environmental liabilities at the Project, although some relatively small areas at low elevations and far from the main project have been deforested and disturbed by historical small-scale illegal alluvial mining before the involvement of Goldsource. There are currently no illegal artisanal miners on the Property.

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

The Property covers an area with elevations ranging from low-lying alluvial valleys (approximate elevation of 100 metres above mean sea level (amsl)) to the summit of Eagle Mountain (approximate elevation of 724.8 metres amsl). The majority of the Eagle Mountain deposit lies on the northwestern and southwestern slopes of Eagle Mountain and generally lies at elevations between 160 metres amsl and 500 metres amsl, extending over an area approximately 2.5 km x 1 km (Figure 5-1). The topography in the mineralized areas is characterized by steep sections separating less steep "benches".

FIGURE 5-1 PHYSIOGRAPHY OF THE EAGLE MOUNTAIN PROPERTY AREA SHOWING THE LOCATION OF THE EAGLE MOUNTAIN AND SALBORA DEPOSITS, AND OF MADHIA TOWN



At higher elevations near the summit of Eagle Mountain, dolerite sills and dikes form steep cliffs of up to 150 metres vertical relief. Unweathered dolerite boulders up to 15 metres in diameter derived from erosion of the dolerite are frequent at lower elevations on the western flank of Eagle Mountain.

Small deeply incised creeks widen quickly to form alluvial flats up to 2 kilometres wide that drain either to the Mahdia River and then to the Potaro River to the north, or south to the Minnehaha Creek and then to the Konawaruk River. The alluvial deposits within both watersheds have been historically worked by artisanal miners and are still worked today outside the Project area. According to GGMC, over 1 Moz of gold have been produced by artisanal miners and recorded at GGMC since production records began about 50 years ago.

The area is covered by thick tropical jungle. Many areas of deforestation due to historical mining have since regrown into tropical jungle vegetation.

5.1 ACCESSIBILITY

The Eagle Mountain and Salbora deposits within EMPL 03/2019 and MSMP K60/MP/000/2014 are located approximately 8 kilometres south of Mahdia Township (Figure 5-1) and 7.5 kilometres south of the Mahdia airstrip. The Mahdia airstrip was hard surfaced in the spring of 2010 and is suitable for small commercial and charter twin-engine passenger aircraft. Charter flights from Georgetown to Mahdia provide the standard access route to the Project.

Mahdia can be accessed by road from Georgetown in 5 to 7 hours, approximately 275 kilometres. The road is paved from Georgetown to Linden (109 kilometres). A wide laterite road extends between Linden and Mabura (122 kilometres). This section is currently being upgraded to an asphalt/concrete surface. From there an all-weather unpaved road connects Mabura to Mahdia. On this road section, access can be challenging during the rainy season, but there are only limited days in the year in which travel is restricted. A large, motorized pontoon ferry is used to cross the Essequibo River at Mango Landing.

From Mahdia, the "old Potaro-Konawaruk Road" provides truck access to the western portion of the EMPL at Mile 118, 8 kilometres to the Eagle Mountain deposit. In 2015, while Goldsource Mines was building the gravity pilot processing plant at Eagle Mountain, the Company widened and resurfaced the road and constructed eleven wooden bridges, allowing 40-ft container trucks with equipment to reach Eagle Mountain camp. From there, the old Millionaire Hill and Porphyry Hill roads allow easterly access into the main mineralized areas. These roads are steep and currently only traversable by four-wheel drive vehicles.

5.2 CLIMATE

The climate is tropical, hot, and humid, with a main rainy season in May–August and "Christmas" rains in November–February, separated by a short March–April dry season and a more consistent dry season from August to October.

The area's abrupt topographic break results in high rainfall, with a monthly average of between 93 mm (October) and 418 mm (June), and a recorded maximum of nearly 700 mm for June. Annual average rainfall is estimated at 2,826 mm.

Temperatures are hot and vary little through the year, with average monthly lows ranging from 21.4°C (January) to 23.1°C (September), and average monthly highs between 29.6°C (January) and 31.6°C (September and October). Exploration and development activities may be conducted year-round at the Project; however, access to areas of steep topography can be more difficult during the rainy seasons.

5.3 ENVIRONMENTAL DATA COLLECTION (2010–2014 AND 2021-2023)

Daily temperature maximums and minimums and rainfall accumulations were recorded manually from October 2010 to January 2013. Weather data was not recorded daily between 2013 and 2021.

A digital weather station was established in May 2021. A Davis 6357 Vantage Vue weather station (Figure 5-2) records temperature, rain levels, rain rates, wind speed, wind direction, atmospheric pressure, and humidity at 15-minute intervals. Goldsource currently has 2.5 years of digitally collected weather data from this period.

EMGC retained Environmental Management Consultants ("EMC") of East Coast Demerara, Guyana to conduct an environmental baseline study in 2013. The study comprised a biodiversity assessment conducted from May 29 to June 9, 2013 (wet season) and from September 3 to 14, 2013 (dry season), and a surface water quality assessment conducted on May 30, 2013 (wet season) and September 4, 2013 (dry season).

FIGURE 5-2 DAVIS 6357 VANTAGE VUE WEATHER STATION ON SITE

5.4 LOCAL RESOURCES AND INFRASTRUCTURE

5.4.1 SOURCES OF POWER

There is no commercial electric power available locally. An abandoned hydroelectric power station is located at Tumatumari, approximately 21 kilometres northeast of the Eagle Mountain Gold Project area. This was constructed in 1957 by British Goldfields Limited and operated until 1959 when mining operations ceased. The Government of Guyana recommissioned the station in 1969 to serve local communities. This development included an embankment dam, a concrete overflow dam, and a two-unit powerhouse with an installed capacity of 1,500 kW.

Several organizations have signed memorandums of understanding within the last 10 years to investigate the viability of refurbishing Tumatumari, but all are now believed to have expired. The Amaila Falls area located approximately 50 kilometres west-northwest of the EMPL is being assessed for potential large-scale (165 MW) hydroelectric power generation.

Goldsource has two 500 kVA and one 120 kVA diesel generators on site. The generators were acquired to provide power to the pilot plant (no longer in operation), and the exploration camp, which can host up to 65 people at Eagle Mountain. The generators are still maintained and functioning.

5.4.2 WATER

Potable water for the exploration camp is available from multiple small creeks and a few small rivers within the EMPL. Water studies are required to determine whether flow rates are adequate to provide potable water for the proposed PEA plan.

5.4.3 LOCAL INFRASTRUCTURE AND MINING PERSONNEL

The nearby town of Mahdia was founded in 1884 and is the capital of the Potaro Region 8. It is reported to have a population of approximately 3,000 people. Campbelltown, an Amerindian village contiguous with Mahdia to the north, has about 300 people. Employment is dependent on local artisanal mining for gold and diamonds and mining related activities. There is a local hospital, regional airport, school, shops, restaurants, a gas station, several mechanical shops, and two hotels/guesthouses. Diesel generators and a recently completed solar farm provide electrical power to the town. Cell phone service is provided by Digicel and GTT. The use of diesel generators, which supply the majority of Mahdia’s power needs, is typical of inland villages in Guyana.

Goldsource’s current field activities are supported by a 65-person capacity exploration camp on the Eagle Mountain Gold Project. Supplies are partly sourced from Georgetown and partly from Mahdia. The camp has limited Digicel cell-phone coverage while an established satellite link at camp provides internet access.

The local economy of the Madhia/Campbelltown area is dominated by small-scale mining activity and a labor force familiar with open pit mining is available to draw upon for any future mining activities. Skilled workers and specialists will need to be sourced from outside the region. Elsewhere in Guyana, several large gold mining operations are currently active, and suitable personnel should be available within Guyana, with limited reliance on expatriates.

5.4.4 PROPERTY INFRASTRUCTURE

The Property infrastructure includes extensive dirt roads and some bridges constructed to facilitate exploration and the 2016 pilot plant operation.

The current explorations camp facilities include:

- Security Gate and Building at Main Property Entrance;
- Geology Office;
- Accommodation Buildings 1 to 7;
- Kitchen;
- Workshop;
- Core Shed & Core Cutting Shed;
- Three Core storage Sheds;
- Drill Store;
- Containers and General Storage Sheds;
- Security Office;
- Communal WCs and Shower Facilities;
- Medical Center;
- Gym;
- Fuel Bay; and
- A registered helipad site for potential emergency Medivac.

The infrastructure and equipment from the gravity concentration pilot plant, which operated from December 2015 to January 2017 to process saprolite material sourced outside of the Aprill 2022 MRE, remains on site and may be salvaged for parts or sold (see Section 18). The equipment includes a scrubber, conveyors, a vibrating screen, slurry pipeline from the scrubber to the gravity separation plant, a cyclone, Falcon concentrators and associated pumps, and a gold room. The use of this equipment was not considered for the PEA.

The TSF from the 2016 pilot plant operations is situated adjacent to the old gravity separation plant and gold room. The TSF contains unrecovered gold from the gravity separation process. Based on daily production records and average gold recoveries of 18%, it is estimated that the TSF contains approximately 3,000 oz of gold, plus or minus 1,000 oz. The recoverability of these ounces has yet to be determined. These ounces are excluded from the PEA.

5.4.5 ADEQUACY OF PROPERTY SIZE

The size of the EMPL is sufficiently large for the conceptual mine plan as well as the proposed infrastructure, including the tailings storage areas, waste disposal areas, and processing plant site. Alluvial flats in the northwest and southwest areas of the EMPL are potentially suitable sites for infrastructure and tailings facilities.

There is more than enough space on the hillside north, northeast and southwest of the pits for a series of waste dumps that will serve pits at the same elevation.

A suitable site has been identified for a starter tailing facility, necessitating minimal earthworks to accommodate tailings for the first year. Two additional locations have been identified to potentially accommodate tailings for the remainder of the mine life.

6. HISTORY

6.1 PROJECT OWNERSHIP HISTORY

6.1.1 GOLDEN STAR RESOURCES LTD AND OGML

The Eagle Mountain Property (then called Minnehaha) and adjacent Mahdia areas to the north were originally held by GSR as a five-year mineral agreement with the Republic of Guyana dated October 30, 1987. Work was suspended between 1992 and 1997 while the State developed its current PL system, with various extensions of rights granted by ministerial decree.

In 1998, Cambior entered into a joint venture agreement with GSR to explore the Eagle Mountain Property through OGML and a three-year PL was granted to GSR under the new licensing system and then transferred to OGML on December 23, 1998. A new PL was issued to OGML in October 2000 for a three-year period, and GSR sold its interest in OGML to Cambior in 2002, after which Cambior became the unique owner of the Property through OGML. The PL was renewed in its entirety for a two-year period in October 2003 and again in 2005.

OGML and Cambior became part of IAMGOLD in 2006, with OGML becoming a 95%-owned subsidiary of IAMGOLD. The Republic of Guyana held the remaining 5% of OGML. A new PL (15/2007) was issued for a three-year period 14 October 2007, and in November 2010 a renewal of this PL until October 2011 was approved.

In December 2010, the EMPL was transferred from OGML to Eagle Mountain Gold Inc. (EMGI – the holding company for OGML) and was again renewed in October 2011 for an additional year. In August 2012, a new license under EGMI was approved by the GGMC.

6.1.2 STRONGHOLD/EMGI JOINT VENTURE

On September 29, 2010, Stronghold Metals Inc. announced it had entered in an Earn-in and Joint Venture Agreement with OGML and EMGI, affiliates of IAMGOLD, whereby it could earn increasing interests up to 100% in EMGI and the Eagle Mountain Property, through its Guyana subsidiary Stronghold, based on a combination of cash payments, share issuances, and work expenditures. At the date of the agreement, EMGI owned 100% of the Eagle Mountain Property and EMGI was 100% owned by OGML (95% owned by IAMGOLD and the remaining 5% held by the Republic of Guyana).

On January 16, 2012, Stronghold announced that it had entered into an Amended and Restated Earn-In and Joint Venture Agreement with OGML and EMGI. The amended agreement made several major changes to the terms of the original agreement pursuant to which the Stronghold was granted the right to acquire up to 95% of the issued and outstanding shares of EMGI.

Up to January 16, 2012, Stronghold had paid OGML US$600,000, issued OGML 4,000,000 shares, and incurred approximately US$3,500,000 in exploration expenditures on the Property. Stronghold incurred more than twice the required expenditures under the original agreement, which, in part, led to the restructuring of the amended agreement.

Under the terms of the original agreement, in addition to the cash and share payments made to January 16, 2012, Stronghold was required to:

- Pay OGML US$900,000 by February 28, 2012;
- Pay OGML an additional US$1.0 million; spend US$3.5 million in qualified expenditures on the Property and issue OGML 2 million common shares of Stronghold by October 31, 2012, in order to earn a 50% interest in EMGI; and
- Pay OGML an additional US$1.0 million to increase the ownership to 95%. The Republic of Guyana holds the remaining 5%.

Under the terms of the amended agreement, OGML agreed to immediately transfer a 50% interest in EMGI to Stronghold in consideration of the issuance of 7,500,000 shares of Stronghold. The changes reduced the cash obligation required under the original agreement and acknowledged the progress Stronghold had made on the property with US$3.5 million expenditure during 2011.

Stronghold had the right to acquire the remaining 45% interest (or 50% interest, if the Government of Guyana would not exercise its right to keep the 5%) in EMGI on or before April 30, 2013 by paying OGML an additional US$1,000,000 in cash or shares, at the Stronghold's discretion. The number of shares were to be determined based on a per share price equal to a 5% discount to the VWAP of Stronghold's shares for the 20 trading days before the date Stronghold notified OGML of its intention to issue such shares, provided such share issuance did not result in OGML controlling in excess of 19.99% of Stronghold's issued and outstanding shares. Between October 31, 2012, and January 31, 2013, OGML could require Stronghold to acquire the remaining 45% interest (or 50%, as above) in the Property under the same terms and conditions.

Upon the grant of a mining or exploitation License by the Republic of Guyana for the development of the Property, Stronghold would pay OGML an additional US$3,500,000. Stronghold could, at its sole option, elect to issue shares to OGML having a deemed value of US$3,500,000, such value to be based on a per share price equal to a 5% discount to the VWAP of Stronghold's shares for the 20 trading days before the date Stronghold notified OGML of its intention to issue such shares, provided such share issuance did not result in OGML controlling in excess of 19.99% of Stronghold's issued and outstanding shares.

Finally, within 180 days from commencement of commercial production of gold from the Property, Stronghold would pay US$5,000,000 cash to OGML.

Stronghold had the option to issue shares to OGML in lieu of the latter two cash payments provided such share issuance did not result in OGML controlling in excess of 19.99% of Stronghold's issued and outstanding shares.

On March 30, 2012, Stronghold announced it had exercised its option to earn a 50% interest in EMGI. Stronghold issued 7,500,000 shares to OGML, which together with prior cash payments (US$600,000), share issuances (4,000,000) to OGML, and completion of exploration expenditure commitments (approximately US$3,500,000) on the Property, met the conditions for Stronghold to acquire 50% of EMGI and effectively an indirect 50% interest in the Property. Stronghold and OGML became joint venture partners, with Stronghold continuing to act as operator.

On July 6, 2012, Stronghold Metals Inc. announced its intent to change its name to Eagle Mountain Gold Corp. to emphasize its focus on the exploration and development of the Eagle Mountain Gold Project.

On February 11, 2013, EMGC announced that it had exercised its option to acquire the remaining 50% interest in EMGI for a total of 100% interest in the Eagle Mountain Property from OGML pursuant to the terms of its January 16, 2012, Amended and Restated Earn-In and Joint Venture Agreement. EMGC issued OGML 3,236,246 common shares in the capital of EMGC in consideration of the US$1,000,000 payment required for the remaining shares in EMGI. Consequently, as of February 11, 2013, OGML (owned 95% by IAMGOLD and 5% by the Republic of Guyana) held 5,536,246 out of 37,083,526 shares, representing 14.93% of the issued and outstanding shares in the EMGC subject to a hold period expiring four months and one day from their date of issue.

The closing of this transaction gave EMGC 100% ownership of EMGI and the Property. Subsequently, on August 9, 2013, GGMC issued a new three-year PL (20/2013) to EMGC's 100% Guyanese subsidiary, Stronghold. The PL gave EMGC specific exploration rights to gold, valuable minerals and molybdenum, and base metals including copper, lead, zinc and tungsten.

6.1.3 GOLDSOURCE – CURRENT OWNERSHIP AND TITLE

6.1.3.1 EAGLE MOUNTAIN PROSPECTING LICENSE (PL 03/2019)

On February 28, 2014, Goldsource and EMGC completed a business combination, jointly announced on November 26, 2013, and March 3, 2014. As a result, all the shareholders of EMGC became shareholders of Goldsource and EMGC became a wholly-owned subsidiary of Goldsource. Pursuant to the business combination, each common share of EMGC was exchanged for 0.52763 of a common share of Goldsource. EMGC's common shares were delisted from the TSX-V on March 5, 2014, as announced in a TSX-V Exchange Bulletin.

As a condition to the Goldsource and EMGC business combination, the parties announced on March 6, 2014, the execution of an Amendment Agreement with OGML, with respect to EMGC's 100% owned Eagle Mountain Property. The Amendment Agreement made several changes to the terms of the previous agreement dated January 16, 2012. Certain cash and/or common share payments to OGML by EMGC set out in the January 16, 2012, agreement and based on effective commencement of commercial production on the Property and the granting of a ML by GGMC were deferred and triggered by different events as summarized in the amending terms below:

a) Following the closing of the Business Combination announced on March 3, 2014, Goldsource agreed to issue to OGML 3,389,279 common shares subject to TSX-V approval, resulting in OGML acquiring 8% of the outstanding shares of Goldsource.
b) Goldsource shall pay OGML US$3,025,500.94 ("Initial Payment") in cash or, at Goldsource's option in common shares of Goldsource, at a price per share equal to a 5% discount to the VWAP of Goldsource's common shares for the 20 trading days prior to issuance, upon the earlier of:
    1. If average market price of gold is US$1,400/oz or higher upon achieving total production of 40,000 ounces of gold, then the Initial Payment is due 90 days after 40,000 ounces have

been produced, otherwise payment to be made 90 days after 50,000 ounces produced from the Property, or

2. Ninety (90) days after having completed one year of gold production under a Large-scale Mining License issued by the GGMC, or
3. Five days after the date on which the 20-day VWAP of Goldsource exceeds C$0.75 per share, provided such date is not earlier than March 1, 2015.

c) Goldsource shall pay OGML an additional US$5,000,000 ("Final Payment") in cash or at Goldsource's option, US$2,500,000 cash and US$2,500,000 in common shares of Goldsource, at a price per share equal to a 5% discount to the 20-day VWAP of Goldsource's common shares. The Final Payment shall be made one year after the earlier of:

1. One year after the payment set out in (b)(1) above has been made, or
2. After having completed one year of gold production under a Large-scale Mining License issued by the GGMC.

On October 18, 2019, GGMC issued a new three-year PL (03/2019) which was extended to five years till October 18, 2024, to Goldsource's 100% Guyanese subsidiary Stronghold. The PL covers 4,784 ha and gives Goldsource specific exploration rights to gold, valuable minerals and molybdenum, and base metals including copper, lead, zinc, and tungsten.

6.1.3.2 KILROY MEDIUM-SCALE MINING PERMIT K-60/MP/000/2014

The Kilroy MSMP was issued on July 17, 2014, and is valid till July 17, 2024. It is the intention of Goldsource to renew the Kilroy MSMP in 2024. Thereafter, subject to achieving certain technical conditions in the coming years, it is the Company's intention to apply for a ML as per Section 4.2.1, before expiration of the EMPL.

6.2 HISTORICAL PROPERTY EXPLORATION

Exploration work conducted up to 2009 is included below. Subsequent exploration and drilling activities are described in Section 9 and 10.

6.2.1 PRE-1986 EXPLORATION

Alluvial gold has been exploited in the Eagle Mountain area since at least 1884. Dredging operations were carried out by the Minnehaha Development Company and the British Guiana Consolidated Gold Company in the Mahdia River and Minnehaha Creek p to 1948 (MacDonald, 1968). Total production from the Mahdia area is estimated at over 1 Moz of gold from alluvial and eluvial sources.

During World War I and World War II, several small stamp mills processing vein material from tunnels and shafts operated in the Eagle Mountain area. The largest included No.1 Hill, which reportedly produced 1,000 oz of gold from 1,000 tonnes of material in the period 1912–1914. The mine was revived in 1921, although production statistics were not recorded.

Anaconda British Guiana Mines Ltd (Anaconda) explored the Eagle Mountain area in 1947 and 1948. Most quarterly and annual reports are still available and include maps. Anaconda's activities included geological mapping, diamond drilling (57 holes), tunnelling, and shaft sinking. This work outlined a series of shallow dipping (20–50°), gold-bearing high silica zones of variable width (1.8–10.7 metres), occurrences of auriferous sub-vertical quartz veining, and molybdenite mineralization within quartz-feldspar porphyry to the west of Minnehaha Creek (Waterman, 1948). A summary report by Bracewell (1948) includes additional information such as petrology and specific gravity data from drill core.

In 1964–1965, a soil sampling program completed by the Guyana Geological Survey outlined several significant molybdenum geochemical anomalies, one with a cumulative strike of 2 kilometres within the EMPL (Bateson, 1965).

During 1970–1973, the Geological Survey of Guyana conducted follow-up work on the Eagle Mountain molybdenum anomaly within the EMPL, including pitting and 15 diamond (AX) drill holes. An additional five holes were drilled at Dickman's Hill to the north and outside of the EMPL boundary (Banerjee, 1972). Some of this core still exists, although a portion was submitted to a commercial laboratory by GSR for re-assay. During the same period, drainage and soil sampling was carried out to test the Baboon Creek area for tungsten mineralization. This work revealed widespread scheelite mineralization in low concentrations. Several reports on molybdenum and tungsten mineralization investigations at Eagle Mountain are summarized in a M.Sc. thesis by Inasi (1975).

Subsequent work by the GGMC was performed specifically to investigate the gold potential of the area, including eight (8) vertical diamond drill holes (AX) completed in 1980 (Livan, 1981). Check assays completed at the GGMC and at various external institutions indicate that original gold assays are unreliable due to poor sample preparation techniques. Consequently, this data has not been included in the database for the current mineral resource model.

6.2.2 GOLDEN STAR RESOURCES LTD (1986 TO 1997)

In 1986, GSR tested the regional exploration potential of the EMPL area by detailed multi-element -80 mesh drainage sample analysis and panning. This work allowed subsequent exploration to be focused on discrete areas of identified gold anomalies. GSR carried out mapping, soil sampling, auger sampling and surface geophysics (very low frequency electromagnetics (VLF-EM) and magnetics) between 1988 and 1990.

The VLF-EM survey identified several distinct features that were interpreted as shear zones. Some of the known dykes could be identified by their strong magnetic signature. However, the large dolerite boulders, derived from weathering of the sill, create significant noise and render most of the ground magnetic data unusable (Jagodits, 1989).

In 1997, GSR completed deep augering, trenching, diamond drilling (1,285 metres in 21 holes) and a preliminary 3D model. Exploration results are documented in quarterly and annual reports from GGMC, and much of GSR's database was later transferred to OGML.

6.2.3 GROWLER MINE JOINT VENTURE

Growler Mine Joint Venture partners obtained an Exclusive Exploration Permission ("EEP") covering the Irene-Good Hope Creek headwaters in 1988. This area was briefly explored by Red Butte

Resources and IMPACT Minerals. Several current small-scale permits held by a local owner occupy a portion of the original EEP area and are excluded from the EMPL (Figure 4-2).

6.2.4 OMAI GOLD MINES LTD/CAMBIOR INC. (1998 TO 2004)

OGML/Cambior exploration activities between 1998 and 2004 included diamond drilling (70 holes totaling 5,936 metres), auger sampling, and surveying. This work is described in Section 6.3.1.

6.2.5 OMAI GOLD MINES LTD/IAMGOLD CORPORATION (2006 TO 2009)

A decision was made in late 2005 to re-examine the gold potential of the EMPL. Initial work included compilation of a digital GIS database incorporating all available historical data. A significant spatial offset between the Anaconda and GSR/OGML datasets as well as the topography in some areas was detected and subsequently corrected through this work.

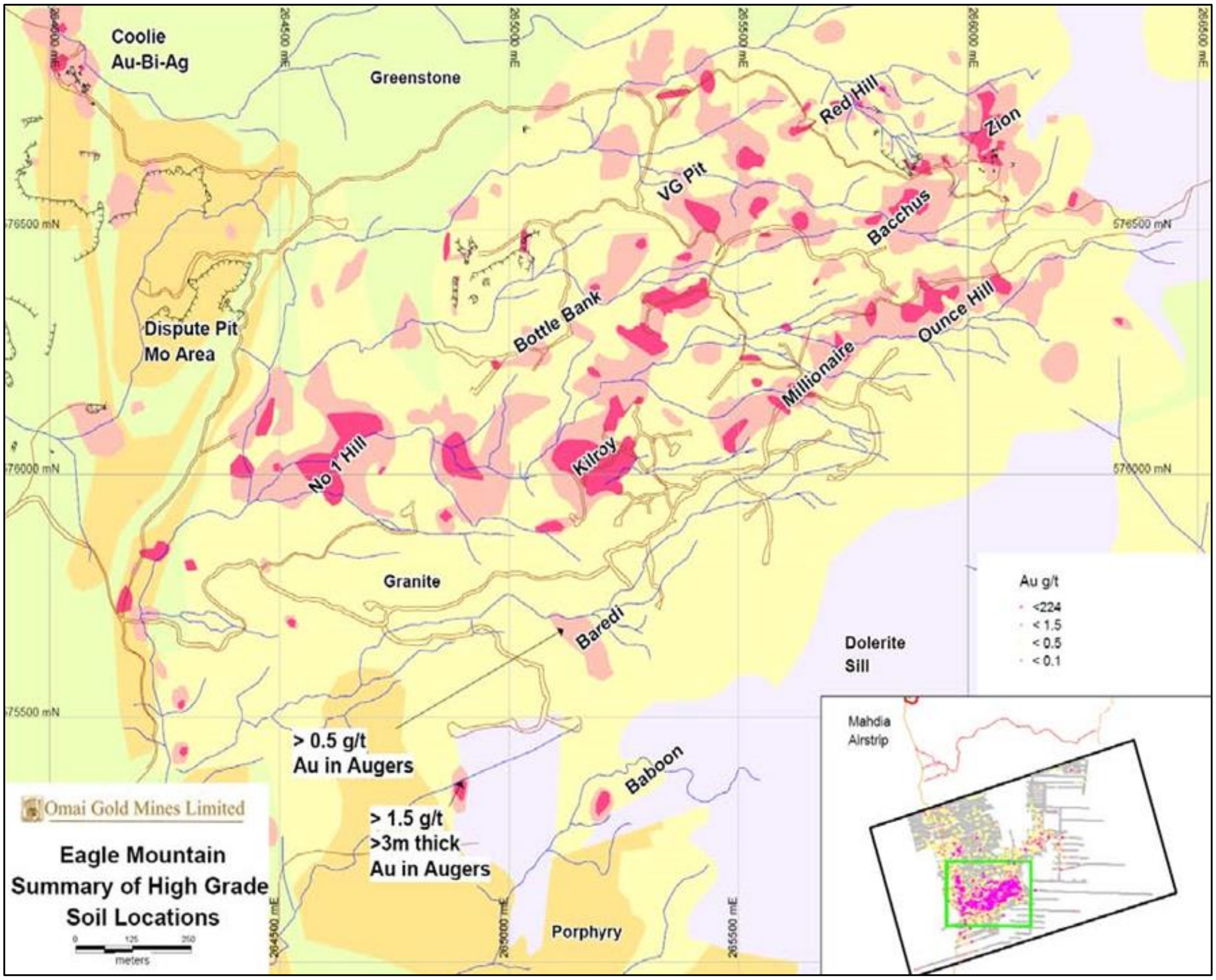
Fieldwork resumed in early 2006 with a regional multi-element drainage sampling program (84 sites). Stream sediment results revealed no significant gold anomalies in the southeastern part of the EMPL and confirmed the historically identified areas of molybdenum mineralization. Several areas were examined by shallow auger sampling and geological mapping, including an area of granitoid northeast of Zion, north of the Bishop-Growler excluded area and at the headwaters of Tiger Creek. Results were generally erratic.

In addition, Terraquest Ltd. was contracted to fly the western part of the EMPL with a fixed-wing airborne radiometric and magnetometer survey. In late 2006, auger and outcrop sampling in the Zion-Bacchus area, together with rock and channel sampling in the Bottle Bank, Dead Stop and VG Pit areas, confirmed significant gold anomalies. Subsequent work programs included detailed auger sampling, principally over the Zion, Toucan (formerly Coolie), and Kilroy-Bottle Bank areas, with a few lines in the Baboon area (6,255 samples from 1,985 auger holes). Several areas were trenched, and a number of historical adits were located and channel sampled. A total of 334 channel samples covering 306 metres were collected, as well as 385 rock samples. Several samples were also used in petrological work.

Extensive auger sampling was instrumental in delineating the Eagle Mountain gold deposit. Together with earlier GSR/OGML/Cambior (1988–2004) programs, auger drilling by OMGL/IAMGOLD between 2006 and 2009 resulted in a total of 5,271 (1 metre) auger sample sites and a total of 14,286 samples from 4,711 deep auger sites, collected over the entire EMPL area. In addition, 85 predominantly 1-metre samples were collected from 10 Trado auger holes. Grab samples were collected at 184 locations where soils were very thin or absent. In total, 2,090 metres of surface channel sampling was also completed in 39 localities, from hand dug and mechanically excavated trenches, road cuts, creek exposures, and small-scale workings.

The Eagle Mountain gold deposit was delineated by a 0.8 km^2 area of significant auger anomalies (Figure 6-1), where an anomalous result is defined as a minimum 3-metre interval averaging over 0.5 g/t Au. The significant lateral extent of the auger anomaly is a consequence of the shallow-dipping deposit geometry and the fact that the soil profile is typically very thin in this area. The low angle mineralized sheets are orientated approximately parallel to the topography in places so that the auger directly sampled mineralized saprolitic material.

FIGURE 6-1 EAGLE MOUNTAIN DEPOSIT AREA HISTORICAL SOIL AUGER ANOMALIES WITH LOCAL AREA NAMES (CASSELMAN AND HEESTERMAN, 2010)



Another significant auger gold anomaly occurs northwest of the main mineralized area, over flat alluvial areas. Systematic exploration to investigate potential alluvial mineral resources has not been attempted, although small-scale miners have worked the Mahdia and Minnehaha valleys for at least 100 years.

IAMGOLD completed a 3D IP and resistivity survey in 2008 over the main mineralized areas of the Eagle Mountain deposit. Survey results enabled the identification of several major structures, and inversion 3D modelling confirmed the presence of low-angle structures bounding domains of differing geology (Hill, 2008).

OGML/IAMGOLD completed a total of 43 diamond drill holes for 8,060 metres (EMD001 to EMD043, includes one restart) in four phases from 2007 to 2009. Drilling programs were designed to expand and further delineate the known gold resources, investigate the molybdenum potential of the Powis area (formerly Dispute Pit) and to test satellite structural, geochemical and/or geophysical targets. Results of this work led to significant advances in the understanding of the mineralization styles at Eagle Mountain. Four, shallowly southwest dipping gold mineralization zones (Saddle, Zion, Kilroy, and Millionaire) that constitute the bulk of the 2009 Eagle Mountain deposit MRE were identified by OGML/IAMGOLD.

In the Powis area, west of the Eagle Mountain deposit, follow-up drill targeting of scattered molybdenum anomalies yielded several significant gold intersections (e.g. 1.5 g/t Au over 14 metres in EMD08-21). Gold mineralization in this area was specifically associated with “cloudy” quartz vein arrays associated with epidote alteration. Economically significant concentrations of this mineralization style were not identified at the time; subsequent exploration has identified the significance of this vein type. In the 271B Adit (Toucan), a north-south striking quartz vein hosted in saprolitic granitoid was exposed in the adit walls, and averages 0.7 g/t Au over 6 metres as well as 17.2 g/t Au over 19 metres across the plunge of the vein. In the creek to the north, channel sampling across quartz veining in metavolcanics returned results of 9.4 g/t Au over 3.5 metres, 3.3 g/t Au over 3 metres, and 9.8 g/t Au over 1 metre. The sample widths are apparent; true thicknesses are uncertain.

Clouston (2009) considered the topography to be well defined over the main mineral resource area but noted that it relied on sparser survey points in the fringe areas such as Baboon to the southwest and Powis to the northwest. Based on Clouston’s recommendations, additional theodolite survey points and traverses were collected by OGML after IAMGOLD’s October 2009 MRE. The survey included a total of 42 drill hole collars.

After completion of the October 2009 IAMGOLD MRE, OGML/IAMGOLD conducted specific gravity tests on a variety of fresh and saprolitic, mineralized and non-mineralized, rock types. The most significant observation was that the “Fresh” mineralized zones have average bulk densities of approximately 2.60 t/m^3 which was a 4% reduction from the value of 2.70 t/m^3 used for the October 2009 IAMGOLD MRE. The saprolitic mineralized zones maintained an average bulk density of approximately 1.60 t/m^3 as used for the October 2009 IAMGOLD MRE.

6.3 HISTORICAL DRILLING PROCEDURES

6.3.1 DRILL PROGRAMS (1947 TO 2009)

This section describes historical drilling procedures utilized by Anaconda, Guyana Geological Survey/GGMC, GSR, and OMGL from 1947 to 2009.

Anaconda completed 57 AX-sized diamond drill holes totaling 5,832 metres in the period 1947 to 1948 (AD01 to AD57; Table 6-1 and Figure 6-2). Most holes are located within the known mineral resource area but have not been used for the current MRE.

Guyana Geological Survey completed eight vertical AX-sized diamond drill holes totaling 473 metres in 1970 to evaluate the gold potential of the property. Gold assay results are incomplete and not considered representative. Consequently, they have not been incorporated into the mineral resource database. Some of the holes were re-logged by GSR in the 1980s, which was useful for locating barren post-mineral dikes.

GGMC followed-up Anaconda's significant molybdenum results with soil sampling, pitting and 15 AX-sized diamond drill holes totaling 4,187 metres (EHD1 to EHD15; Table 6-1, Figure 6-2). Tape-and-compass surveying was used to define collar locations. However, several collars were subsequently relocated in the field and resurveyed. Downhole dip survey data but not azimuth was recorded. Core was transported to Georgetown (Guyana), split and assayed for molybdenum using a spectrographic method. Results were encouraging, but partial re-assaying and re-logging of EHD02, EHD03, EHD08, EHD09, EHD10, EHD14 and EHD15 by GSR indicated that GGMC assay results had overstated molybdenum grades and were erratic for gold. Only GSR assay data has been retained in the database.

In 1997, GSR completed 30 diamond drill holes totaling 2,423 metres using a bulldozer supported Longyear 38 drill rig (EM001 to EM021 and re-drills; Table 6-1, Figure 6-2). HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in hard rock. All drill hole collars were located and systematically surveyed using a theodolite. Down-hole survey data was collected using a Tropari survey tool. Core orientation surveys were completed.

GSR drilled a further 20 diamond drill holes totaling 1,114 metres in late 1998 during the joint venture with OGML (EM022 to EM040; Table 6-1). Late in the following year, management of drilling shifted to OGML and 31 diamond drill holes totaling 2,399 metres were completed (EM99-41 to EM99-70; Table 6-1). Almost all- holes drilled between 1998 and 1999 were vertical.

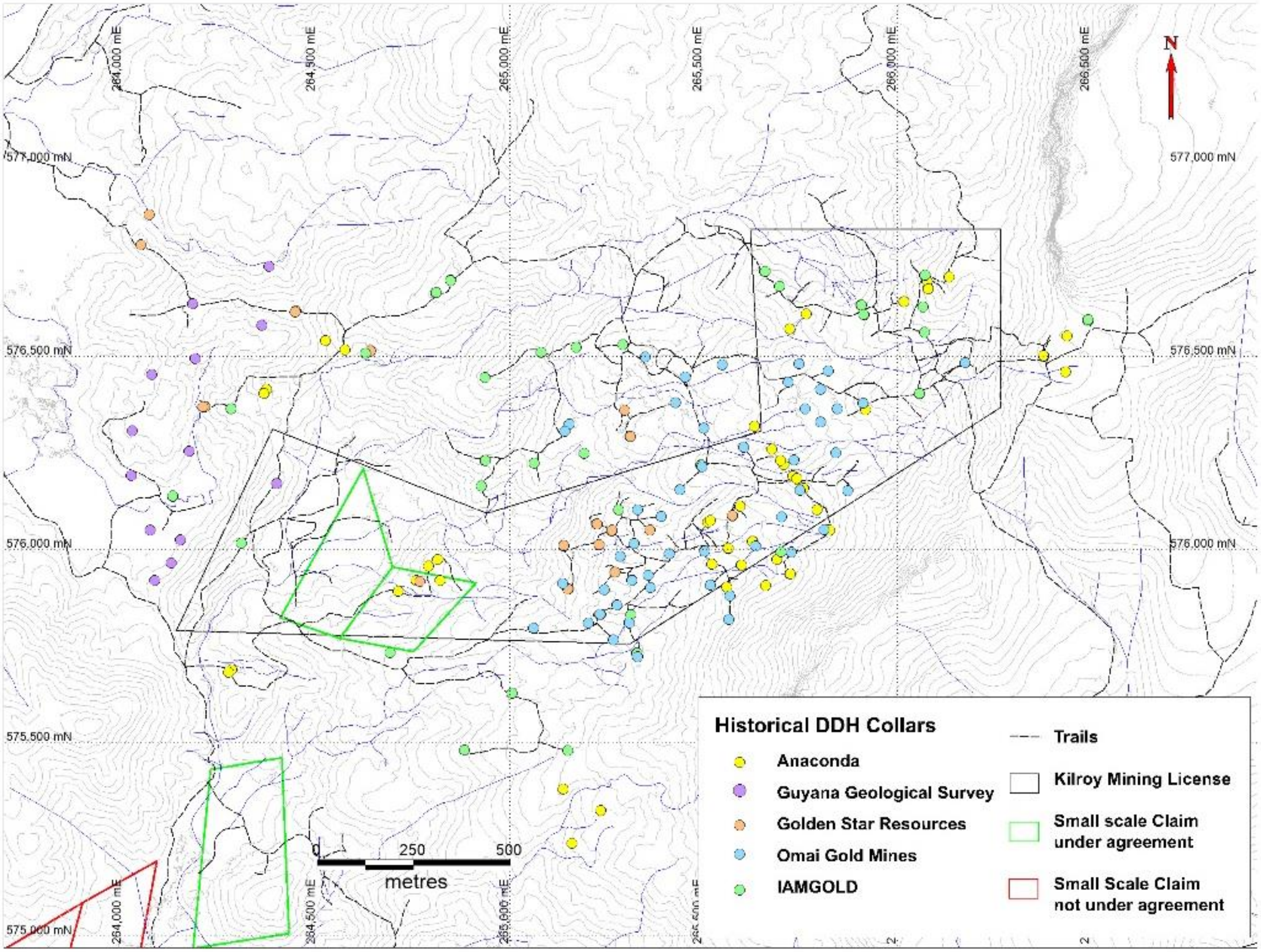
OGML resumed drilling in 2007, with 21 diamond drill holes totaling 2,209 metres (EMD07-01 to EMD08-19; Table 6-1). An RB 37 man-portable hydraulic drill rig was used, enabling access to steep areas such as Zion. HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in fresh rock and continued to a maximum depth of 192 metres. All drill hole locations were surveyed and marked with a concrete monument. Downhole survey data was not collected.

In 2008 to 2009, 25 diamond drill holes totaling 5,850 metres were completed using a bulldozer-supported Longyear 38 drill rig (EMD08-20 to EMD09-43; Table 6-1). Holes tested predominantly geophysical targets. HQ-sized core was drilled to the base of saprolite, reducing to NQ-sized core in fresh rock and continued to a maximum depth of -414 metres. Downhole survey data was collected for all holes except EMD09-32 to EMD09-37 using a Flexit survey instrument. All drill hole locations were marked with a concrete monument. All drill hole collars were positioned using a theodolite survey instrument. Core orientation surveys were completed for holes EMD08-32 to EMD08-43 using an orientation spear. Inconsistent work by drill crews and locally rubbly core resulted in the orientation work being discontinued.

TABLE 6-1 SUMMARY OF DRILLING COMPLETED ON THE EAGLE MOUNTAIN PROPERTY (1947 TO 2009)

Period	Company	Hole Numbers	No. of DDH	Metres	Comments
1947 to 1948	Anaconda	AD01 to AD10, AD12 to AD26, AD28 to AD57	55	5,832	AX core. Not included in 2012 MRE.
1970	Guyana Geological Survey	G01 to G08	8	473	AX core. Only lithology data from a few holes was available. Not included in 2012 MRE.
1973	Guyana Geological Survey	EHD01 to EHD15	15	4,172	AX core. Some holes re-assayed by Golden Star Not included in 2012 MRE.
1997	GSR	EM001 to EM021	21 (30 including failed starts)	2,423	HQ/NQ core. Meterage includes nine failed holes (272.01 metres) that were restarted.
1998	GSR/OMGL	EM022 to EM040	19 (20 including failed starts)	1,114	HQ/NQ core – most holes vertical. Meterage includes one failed hole (16.5 metres) that was restarted.
1999	OMGL/Cambior	EM99-41 to EM99-70	30 (31 including failed starts)	2,399	HQ/NQ core – most holes vertical. Meterage includes one failed hole (10.5 metres) that was restarted.
2007 to 2008	OMGL/IAMGOLD	-EMD07-01 to EMD08-19	19	2,209	HQ/NQ man-portable rig. Two drilling periods.
2008 to 2009	OMGL/IAMGOLD	EMD08-20 to EMD09-43	24 (25 including failed starts)	5,851	HQ/NQ LY38 – two drilling periods. Meterage includes one failed hole (66.0 metres) that was restarted.
Total			**191 (203 including failed starts)**	**24,473**	**Includes failed starts**

FIGURE 6-2 EAGLE MOUNTAIN – HISTORICAL DIAMOND DRILL HOLES LOCATION PLAN



6.4 HISTORICAL DRILL CORE HANDLING, LOGGING AND SAMPLING METHODS

6.4.1 DRILL CORE LOGGING AND SAMPLING

The sampling methodology described in this section relates specifically to post-2005 OGML diamond drilling campaigns. However, a similar procedure was followed for earlier GSR and OGML drill holes.

Diamond drill core was photographed using a digital camera and geotechnical data (recovery and rock quality designation – RQD) was recorded prior to geological logging. Historical core was also systematically photographed where available. Recovery data was recorded for most historical holes, and RQD data was documented for EM99-41 onwards.

The holes were logged, and sample intervals marked out by the supervising geologist. Samples were collected to a minimum interval of 30 cm and a maximum of 1.5 m in areas that were visually unmineralized. Thick dolerite and gabbro-norite dikes were not routinely sampled, except at contact zones. Most samples were cut with a diamond saw, with one half placed in a sample bag and the other half retained in the core box for reference. A hydraulic core splitter was used to halve samples from drillholes directly targeting molybdenum mineralization and from all holes drilled prior to 2007. This applies to only 81 drill holes in the database.

Blanks and Rocklabs' commercial CRM were randomly placed within the sample stream at a frequency of one blank and one standard per 50 samples. Blanks were inserted within zones that were considered to be mineralized or immediately after a sample containing visible gold. Blank material consisting of bauxite was inserted within saprolitic sample intervals; blank Omai dolerite was used for fresh rock sample intervals.

6.5 PREVIOUS MINERAL RESOURCE ESTIMATES

6.5.1 MINERAL RESOURCE ESTIMATE (2009–2010)

In October 2009, ITS reported an internal MRE (Clouston, 2009). This was reviewed and audited by ACA Howe at the request of Stronghold. ACA Howe's 2010 audit was reported in a Technical Report prepared in accordance with NI 43-101 (Roy and Trinder, 2010).

The Mineral Resources was reported in the Inferred category using a cut-off grade of 0.5 g/t Au, estimated at 17.96 Mt with an average grade of 1.27 g/t Au for 733,500 oz of gold**.**

6.5.2 MINERAL RESOURCE ESTIMATE (2012–2014)

EMGC retained ACA Howe to prepare an updated MRE for the Eagle Mountain gold deposit in 2012 (Trinder, 2012). The MRE was prepared in accordance with CIM Definition Standards on Mineral Resources and Reserves (adopted November 27, 2010) and reported in accordance with NI 43-101. The Mineral Resource was reported at a cut-off grade of 0.5 g/t Au in the Inferred and Indicated classification. Indicated Mineral Resources were estimated as 3.9 Mt at 1.49 g/t Au for 188,000 oz of gold. Inferred Mineral Resources were estimated as 20.6 Mt at 1.19 g/t Au for 792,000 oz of gold.

The 2012 MRE was re-issued in 2014 on behalf of Goldsource in a technical report disclosing a PEA of the Eagle Mountain Saprolite Gold Project (Roy et al., 2014). Neither EMGC nor Goldsource had completed additional drilling since the 2012 MRE, therefore ACA Howe reissued and reported the Mineral Resource without change, with an effective date of June 15, 2014 and in accordance with NI 43-101.

6.5.3 MINERAL RESOURCE ESTIMATE (2021)

Goldsource retained CSA Global (now ERM) to prepare an updated MRE for the Eagle Mountain Gold Project in 2021 (Longridge and Martinez, 2021). The MRE was based on results from 674 core holes for 57,550 metres drilled, as well as 158 auger drill holes for 532 metres drilled, which includes infill and exploration drilling up to November 6, 2020.

The 2021 MRE was prepared in accordance with CIM Definition Standards on Mineral Resources and Reserves (adopted November 27, 2010) and reported in accordance with NI 43-101. The Mineral Resource was classified as Inferred and Indicated and reported at a cut-off grade of 0.3 g/t Au for Saprolite and 0.5 g/t Au for Fresh rock. The MRE was constrained by an optimized pit shell based on a gold price of US$1,500/oz.

For the Eagle Mountain deposit, updated Indicated Mineral Resources were estimated at 22 Mt at 1.09 g/t Au for 782,000 oz of gold. Inferred Mineral Resources were estimated as 24 Mt at 1.08 g/t Au for 835,000 oz of gold. The updated MRE incorporated a substantial increase in gold ounces for both Indicated category resources amounting to 594,000 or 316%, and Inferred resources amounting to 43,000 or 5%.

For the Salbora deposit, maiden Indicated Mineral Resources were estimated at 0.81 Mt at 2.57 g/t Au for 67,000 oz of gold. Inferred Mineral Resources were estimated as 0.7 Mt at 1.52 g/t Au for 835,000 oz of gold.

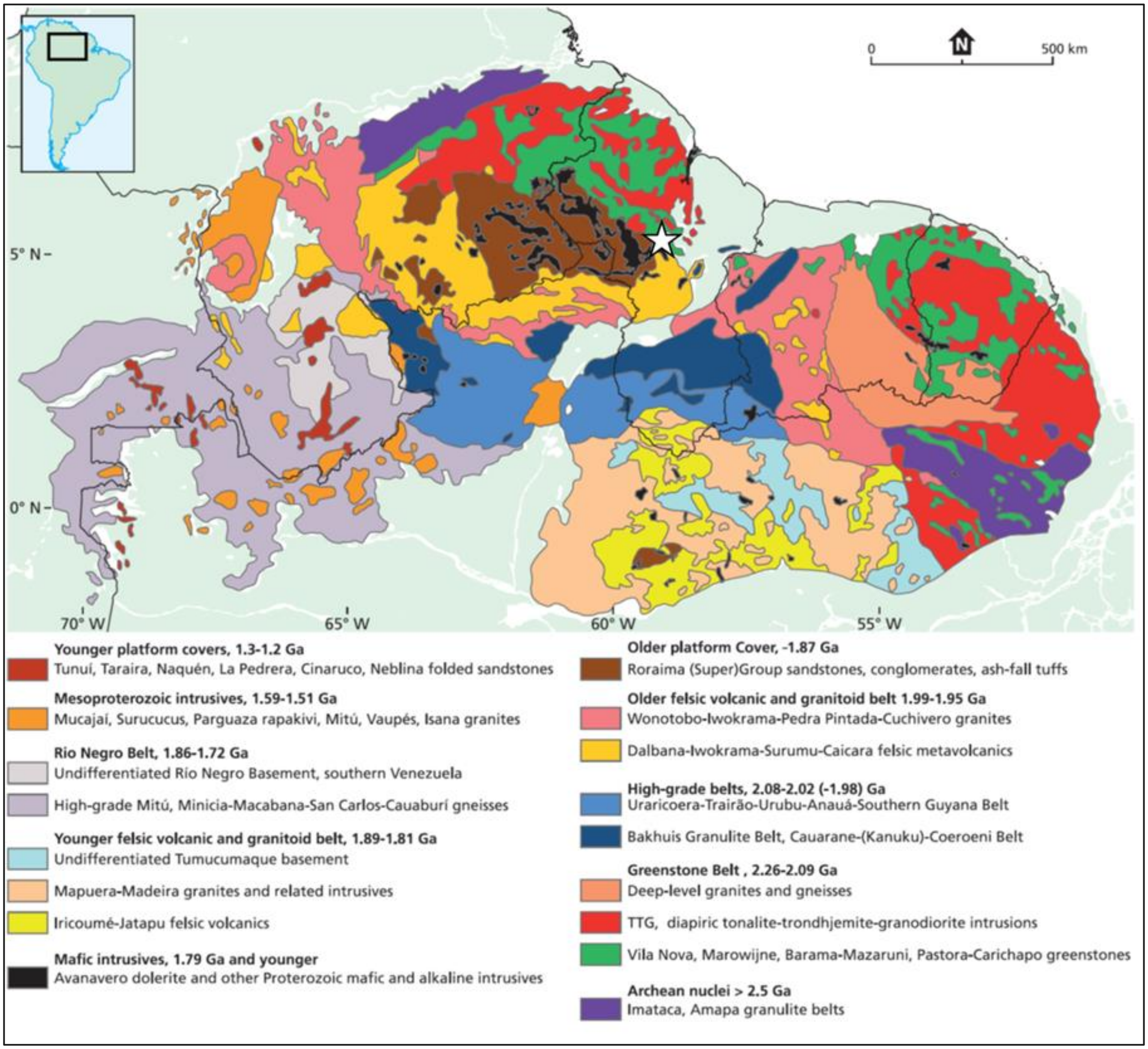
The 2021 MRE is superseded by the 2022 MRE presented in Section 14 of this Technical Report.

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Eagle Mountain Gold Project occurs in the northern part of the Guiana Shield, an area of prominent Paleoproterozoic greenstone and TTG belts. It lies near the southwestern margin of these belts that are shown as red and green in Figure 7-1.-

FIGURE 7-1 SIMPLIFIED GEOLOGICAL MAP OF THE GUIANA SHIELD (KROONENBERG ET AL., 2016)



Note: The location of the Eagle Mountain Gold Project is shown by the white star.

The greenstone-TTG belts are generally attributed to the Trans-Amazonian Orogeny. The orogeny records the convergence and eventual collision between the Archean nuclei of the Amazonian Craton and the West African Craton to have occurred between 2.2 Ga and 1.9 Ga (Kroonenberg et al., 2016). The belts share close similarities with the more widely explored Birimian of the West African Shield where numerous >2 Moz gold deposits are known in Senegal, Mali, Guinea, Ivory Coast, Ghana, and Burkina Faso.

Within the greenstone-TTG terrain, a series of major northwest-southeast striking, sinistral shear zones within a 75–100 kilometres wide belt developed during Trans-Amazonian orogenesis (Voicu et al., 2001). These structures are spatially associated with many known gold deposits in Guyana (e.g., Voicu et al., 1999; Bassoo and Murphy, 2018). The Eagle Mountain Gold Project lies between two of these structures, the Makapa-Kuribrong Shear Zone ("MKSZ") and Issano-Appaparu Shear Zone ("IASZ"). The northwest-southeast lineament bounding the northern part of the Pakaraima Mountains to the west of Eagle Mountain is interpreted to be an extension of the MKSZ, and it is possible that the Eagle Mountain deposit is associated with another of these regional structures (Figure 7-2).

7.2 PROPERTY GEOLOGY

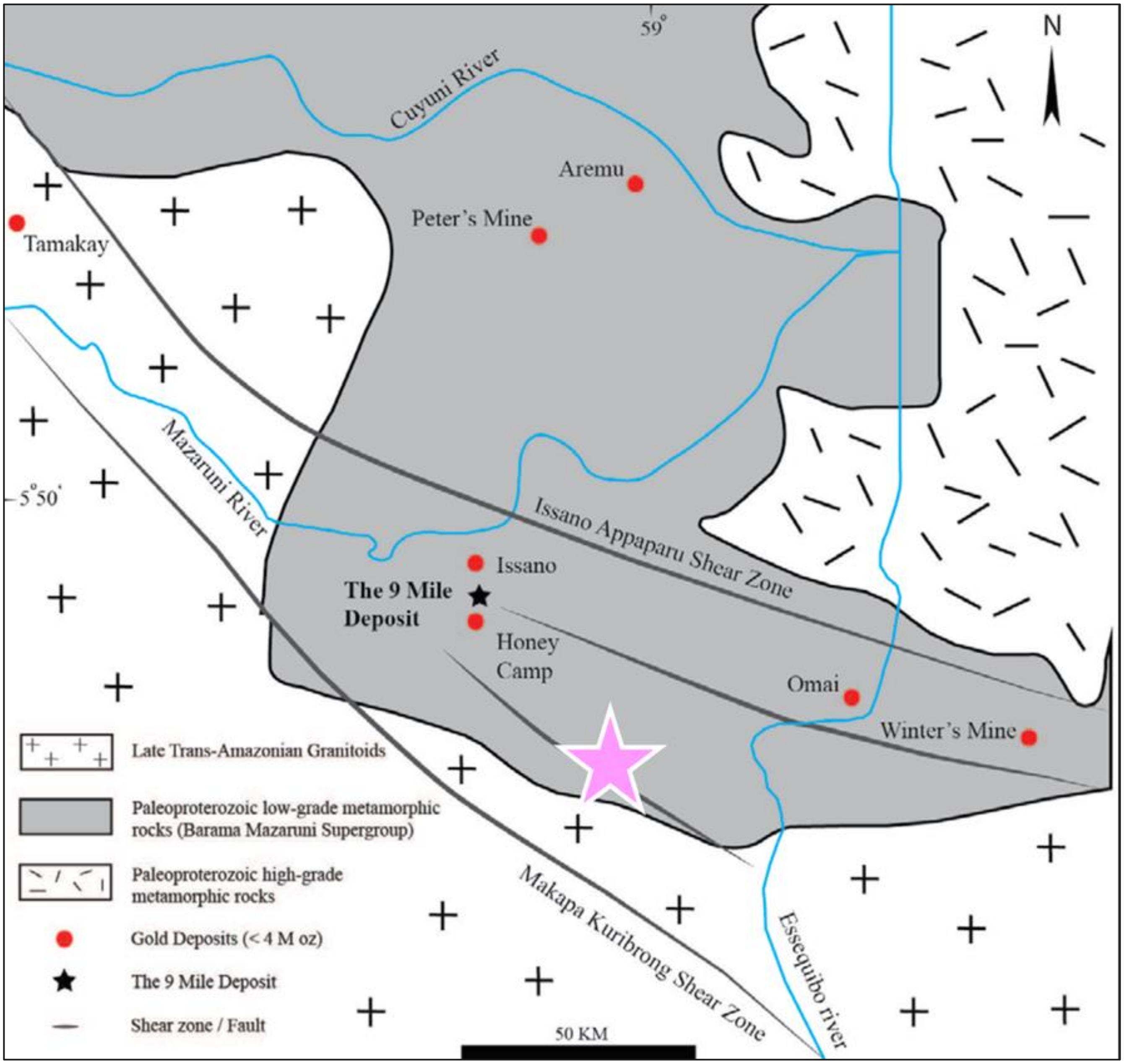
The Property is underlain by an older package of metavolcanic rocks that have been affected by several intrusions of various ages and compositions. These metavolcanic rocks are typically dark colored and fine-grained, contain minor disseminated pyrite and display a general cleavage trending 030°. The metavolcanics are generally mafic to intermediate in composition (tholeiitic basalts and andesites have been distinguished), although more felsic compositions are also recorded (dacite and rhyolite).

Metasediments, including sericitic fine-grained arkose and manganiferous siltstones, are locally interbedded with the mafic meta-volcanics. In addition, polymictic volcaniclastic units are also locally interbedded in the package. These metavolcanic and minor metasedimentary rocks have been intruded by older mafic intrusions (dolerites). Both later intrusions and the host units have also undergone greenschist facies metamorphism, with porphyroblasts of actinolite/hornblende observed.

This package of metavolcanics and metasediments, as well as mafic intrusions, has been intruded by a composite granitoid pluton that hosts the gold mineralization at the Eagle Mountain deposit. This pluton has been mapped throughout the western flank of Eagle Mountain (Figure 7-3) and occurs in scattered outcrops and old workings across the southern boundary of the EMPL. Several discrete compositions have been noted, including granodiorite, alkali granite and quartz diorite, and these have not been mapped as separate phases. In general, approximately equal amounts of medium-grained (26 mm) plagioclase, orthoclase and quartz are present, with minor amounts of biotite and amphibole.

In the Salbora deposit area, a northeast-trending monzonite pluton is emplaced into older metavolcanic rocks of tholeiitic composition with mineralization occurring in structures formed within mafic units adjacent to the monzonite.

FIGURE 7-2 REGIONAL GEOLOGICAL MAP SHOWING THE SPATIAL RELATIONSHIP BETWEEN GOLD DEPOSITS, THE MKSZ AND THE IASZ (BASSOO AND MURPHY, 2018)



Note: Location of the Eagle Mountain Gold Project is shown by pink star.

A large diabase to gabbro-norite sill (likely part of the Avanavero Suite) intrudes the granodiorite pluton and metavolcanic-sedimentary sequence. The sill is 25–40 metres thick in the Saddle area but appears to thicken to the north and south. It partly forms the ridge and cliffs at the top of Eagle Mountain. Northwards, the sill merges with the Tumatumari Dike, which extends northeast to the Omai area where it intersects the Omai sill. The basic sill is interpreted to be generally flat lying, although locally it dips shallowly to the southwest. Additional examples of younger basic intrusions include at least two major (up to 60 metres thick), 030–040° striking and steeply dipping dikes that extend up to 0.8 kilometres in length, plus several smaller sills and dikes up to 15 metres in thickness.

Rare basic porphyry intrusions with feldspar crystals several centimeters in size and locally containing abundant rounded small xenoliths may be classified as lamprophyres (Casselman, pers. comm., 2012). These dikes are oriented 120°, less than 10 metres thick, and postdate the granodiorite pluton that hosts the bulk of the gold mineralization.

Tertiary-age shallow marine/fluviatile sands are preserved as a thin cap below 60 metres amsl outside of the EMPL. A number of Tertiary paleo-channels occur within the area and contain alluvial gold, including the Proto-Mahdia Channel and the Homestretch-Salbora area located east of the access road at the northern EMPL boundary. Modern alluvium and dredge tailings fill the Mahdia and Minnehaha valleys downhill of the mineral resource area thereby obscuring bedrock geology. A small bowl-like basin within the mineralized area is also filled with recent alluvium (Figure 7-3.

7.2.1 EAGLE MOUNTAIN PROPERTY STRUCTURAL GEOLOGY

7.2.1.1 FOLDING

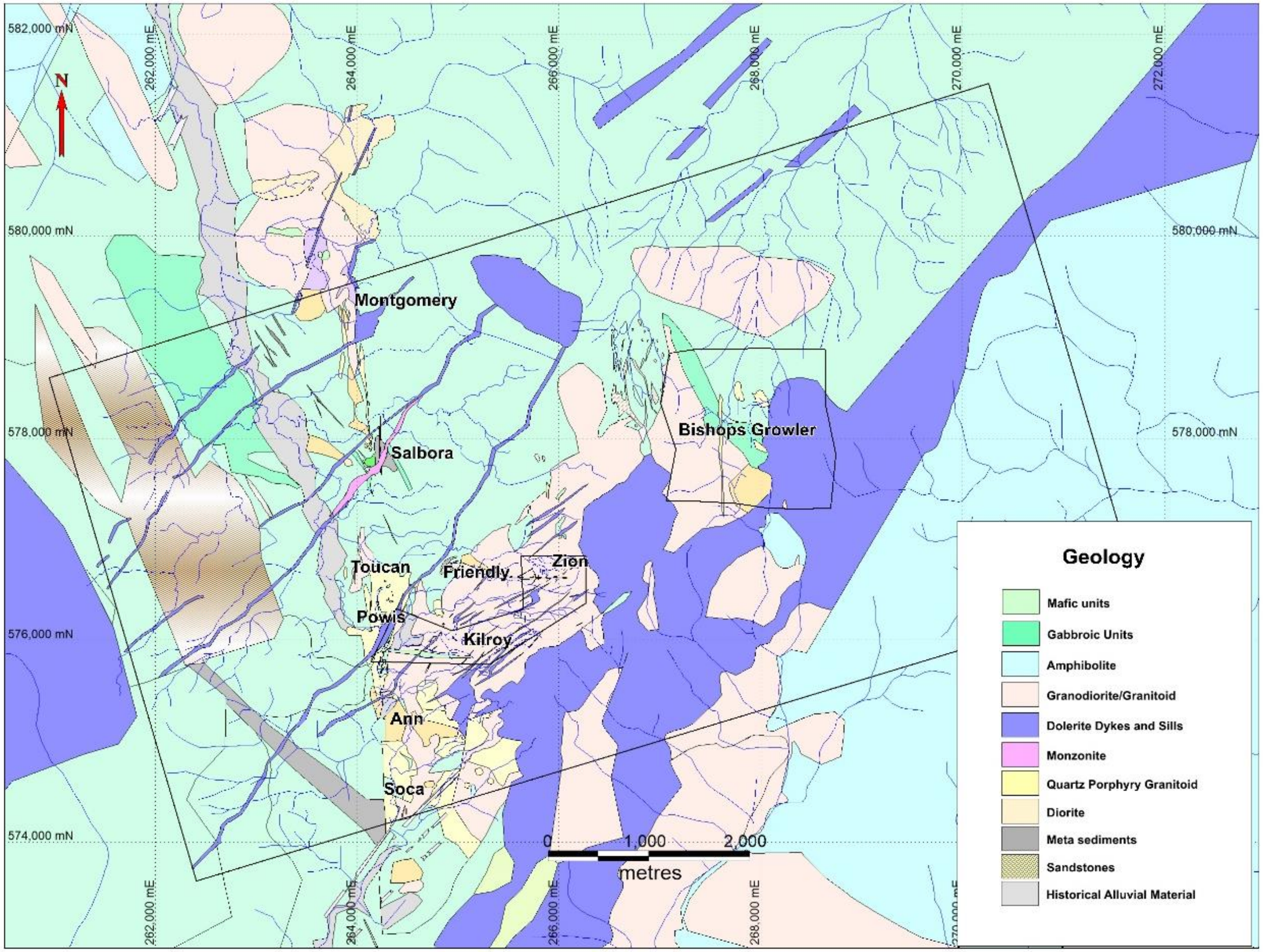
Small-scale folding has been observed in limited outcrops in the Friendly and Powis areas as well as isolated drill core within finely laminated sediments. The folding observed is related to adjacent shear deformation.

7.2.1.2 FAULTING

Several episodes and orientation of faulting can be recognized within the Project:

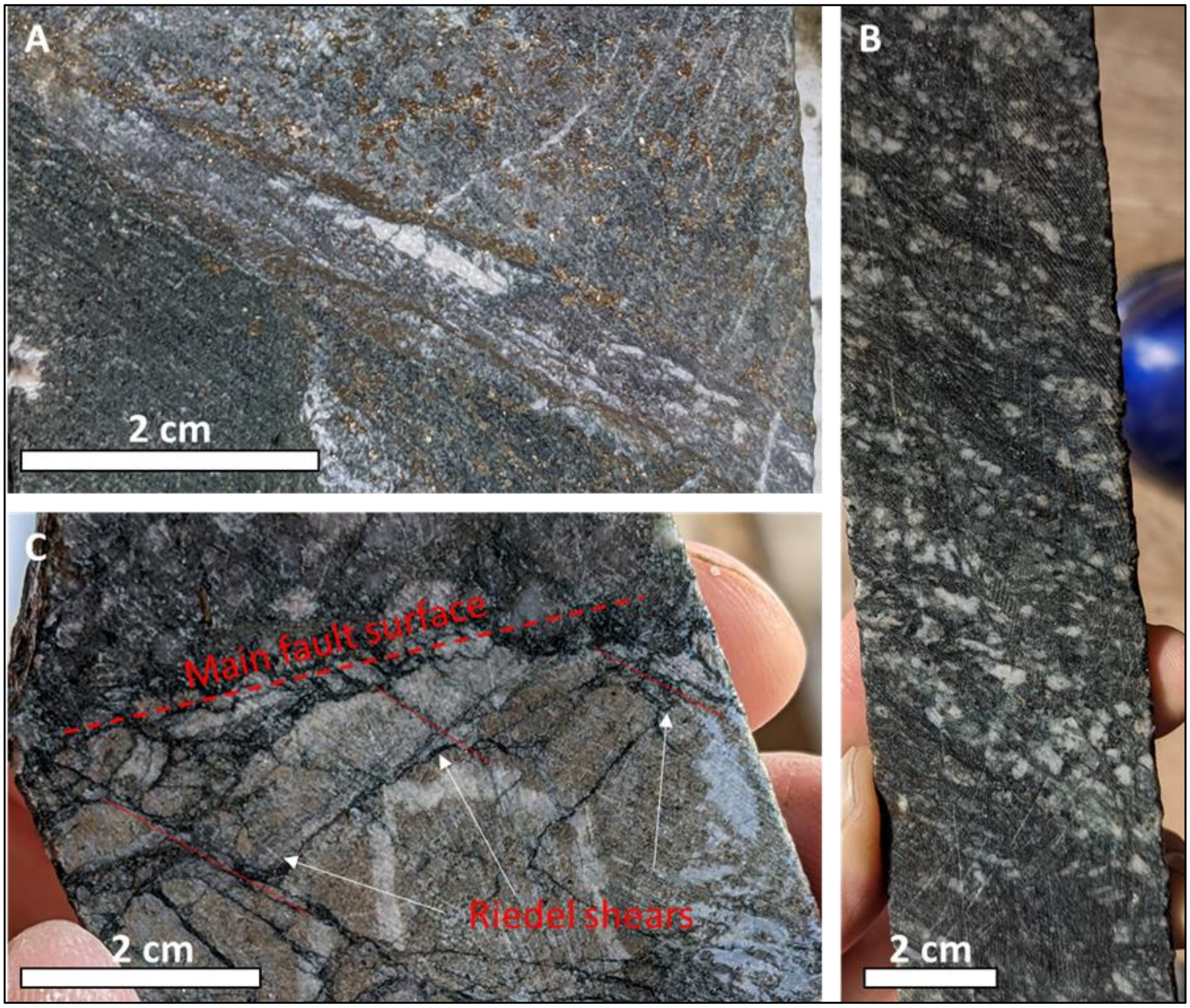
- Within the Eagle Mountain area, a low-angle (10–30°), southwest dipping system of faults can be identified. These range in character from single discrete, narrow deformation zones only a few cm wide (Figure 7-4A) to broader zones of pervasive deformation and fracturing (Figure 7-4B). In places, several fracture orientations occur, and Riedel shear fractures can be recognized (Figure 7-4C). These faults may occur as single deformation zones with a distinctive high silica base and fracturing of the granitoid above or may occur as a series of sub-parallel zones of brittle fracturing. These fault zones are affected by silicification as well as chloritic alteration with disseminations of pyrite. Gold mineralization at the Eagle Mountain deposit is associated with these low-angle deformation zones.
- A series of near vertical, north-south to northwest-southeast trending faults and breccia structures are identified at the Salbora deposit. Rock-matrix breccia zones (Figure 7-5) that can be correlated between drill holes have been interpreted as structures and may form part of a larger system that extends south to the Toucan area. The sense of movement along these structures is not yet clear. These structures are also affected by chloritic alteration, silicification and contain associated pyrite disseminations. Gold mineralization is associated with these structures as well, and they are considered to be related to the mineralization within low-angle deformation zones at the Eagle Mountain deposit, although the relationship between the two orientations is not yet understood.
- Two younger, northwest to north-northwest trending, upright faults (referred to as the Elephant Fault and the Kilroy Fault) crosscut and offset the older shallow dipping structures at the Eagle Mountain deposit. These appear to be normal faults but may have a strike-slip component.

FIGURE 7-3 SIMPLIFIED GEOLOGICAL MAP OF THE EAGLE MOUNTAIN AREA



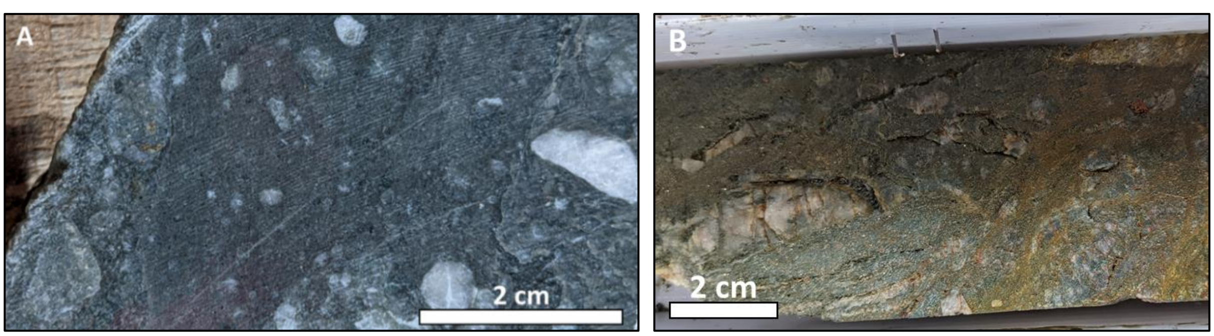
Note: Names refer to target areas, although each of these names does not necessarily represent a single deposit (e.g. Kilroy and Zion are part of the Eagle Mountain deposit.)

FIGURE 7-4 EXAMPLES OF DEFORMATION ASSOCIATED WITH SHALLOW FAULT ZONES AT EAGLE MOUNTAIN



Notes:
A – Single discrete shear with associated pyrite. B – Broader zone of deformation. C – Discrete fractures displaying Riedel shears.

FIGURE 7-5 EXAMPLE OF BRECCIA ZONES AT SALBORA



Notes:
A – Rounded quartz and metavolcanic clasts within a fine-grained chloritic matrix. B – Partially weathered deformation zone with associated chlorite and pyrite.

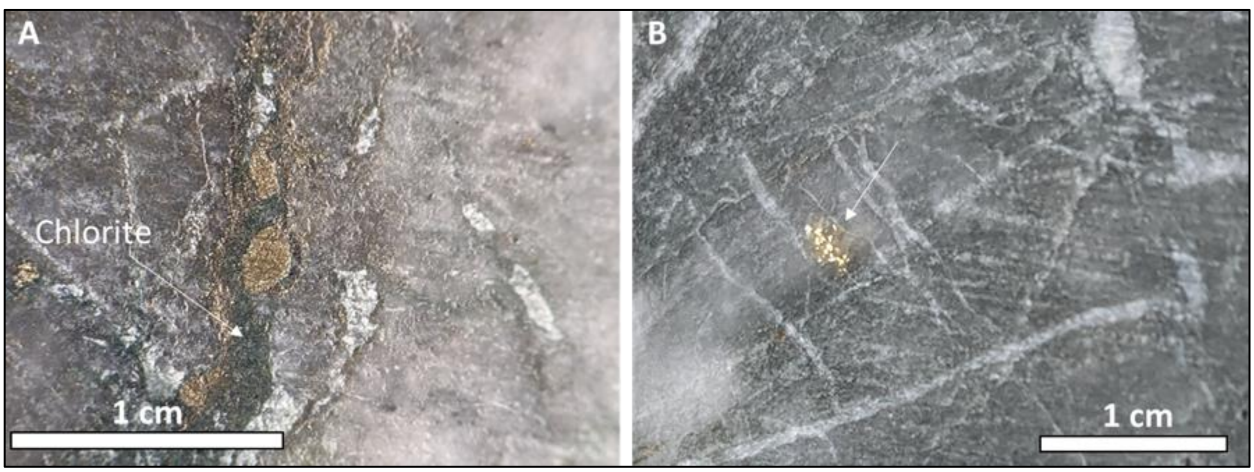
7.3 MINERALIZATION

Mineralization at both the Eagle Mountain and Salbora deposits is structurally controlled and related to shallow-dipping fault zones and steep to near vertically dipping faults and breccia zones, respectively.

Gold at both Eagle Mountain and Salbora occurs as native gold, as very fine disseminations associated with and contained in pyrite. This pyrite is typically associated with chlorite alteration or chlorite veins (Figure 7-6A). An exception is rare visible gold within an interpreted early generation of quartz veins that have been subsequently deformed (Figure 7-6B). This represents an earlier stage of gold mineralization than the main mineralization event. A separate episode of molybdenum mineralization associated with quartz veining is also locally noted within the Eagle Mountain Gold Project.

Although the orientation of the controlling structures is different, both the Eagle Mountain and Salbora deposits show an association of gold with quartz-chlorite-pyrite alteration, and at both deposits these syn-mineralization alteration assemblages are overprinted by brittle carbonate veins. These veins crosscut mineralization and represent late-stage fluids (Figure 7-6B). The similarity of the alteration assemblages suggests that both deposits formed as part of a single mineralizing system.

FIGURE 7-6 EXAMPLES OF MINERALIZATION AT THE EAGLE MOUNTAIN GOLD PROJECT



Notes:
A – Typical mineralization with pyrite associated with chlorite infill within a structure. B – Rare visible gold (indicated by arrow) within quartz vein. Note the younger brittle carbonate veins overprinting the veining.

7.3.1 EAGLE MOUNTAIN

At the Eagle Mountain deposit, gold mineralization occurs in granite as disseminated zones ranging from 1 to 40 metres in thickness. Zones are controlled by a stacked series of low-angle southwest dipping faults related structures. Mineralization is not strictly localized in these fault structures. Very often, the highest gold grades are found within or close to the main fault zone where the alteration is intense with a high density of small fractures containing chlorite and pyrite. The mineralized zones are separated by 10 to 100 metres of granite.

The Eagle Mountain deposit is modeled as a series of tabular, sub-horizontal to shallowly dipping zones (Zone 1 to Zone 10, Figure 7-7).

- Uppermost Zones 1 and 2 host most of the gold mineralization at the Eagle Mountain deposit and typically extend from outcrop to 20 metres deep, and up to 80 metres deep in areas of high elevation (e.g., the Saddle target). Zone 1 outcrops at the Zion, Ounce Hill, Bucket and Bacchus deposit areas. Zone 2 outcrops at the Killroy area. Both zones extend north-eastward at increasing depth below topography.
- Two additional zones (Zone 3 and the more substantive Zone 4), both stratigraphically below Zone 2, extend north-eastward from outcrops at the Baboon, Bottle and Friendly areas.
- Zones 5 to 10 are encountered at the Powis deposit which displays characteristics of shallowly dipping mineralized zones with higher-grade quartz veins, and at the Toucan prospect located at the western extents on the Eagle Mountain deposit.
- These zones extend westward to depths of 80 metres in the Friendly at Bacchus areas and dip toward the south with depths increasing to a maximum of 150 metres in the Baboon deposit areas. Mineralization at the Powis target also occurs in small discrete "cloudy" veins, often showing visible gold, and preferentially developed in a quartz porphyry granitoid, and is thought to be a separate stage of mineralization to the main Eagle Mountain deposit.
- At Toucan, a Salbora-style steeply dipping mineralization is encountered with increased silicification and mineralized breccias.
- Eagle Mountain mineralized zones have been defined on the basis of alteration, grade and identification of structures, and the variable thickness of each of the mineralized zones appears to be related to whether a single deformation zone occurs or whether it zone splits into several sub-parallel zones, thereby broadening the zone of alteration and mineralization (Figure 7-8).

7.3.2 SALBORA

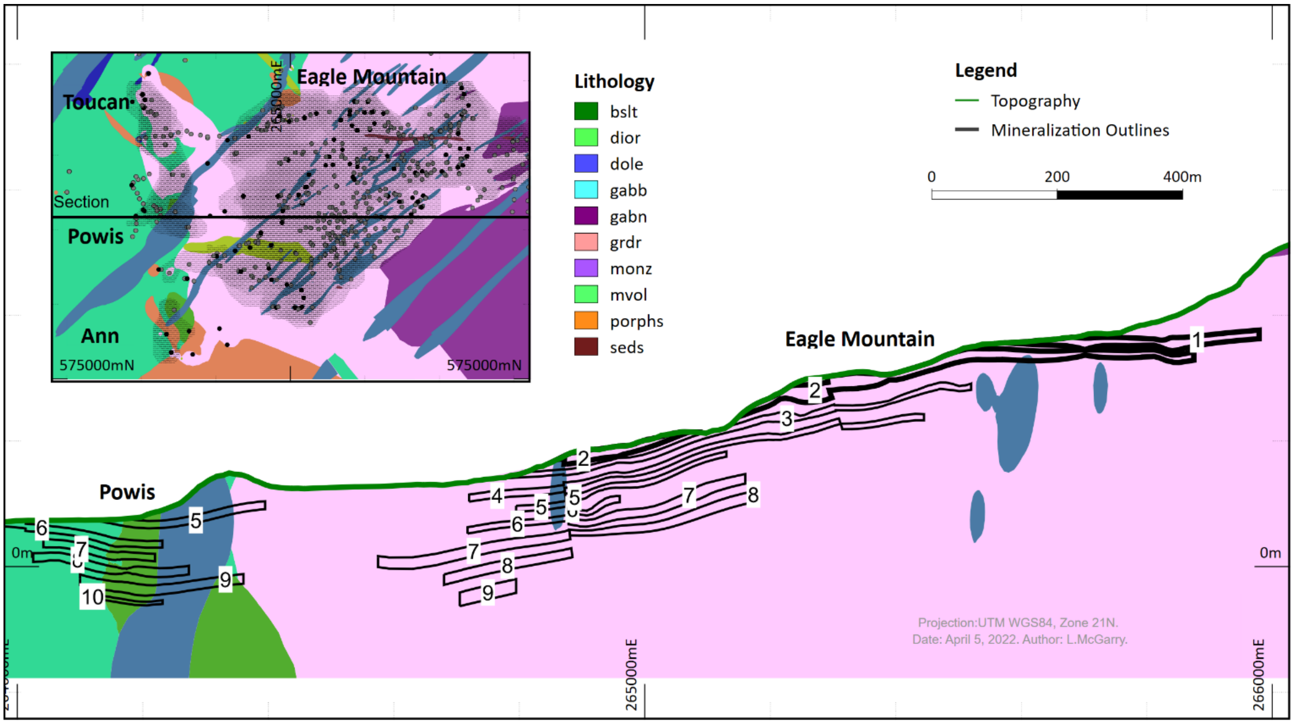
At the Salbora deposit, gold mineralization occurs within and adjacent to sub-vertical, north-south trending breccia zones that are generally a few cm to a few metres in thickness. Near the surface, these breccia zones appear to coalesce into broad, sub-horizontal zones of brecciation with mineralization occurring over tens of metres. Breccias are developed in a tholeiitic mafic volcanic and altered granitoid adjacent to a monzonite intrusion. Mineralization is associated with silicification, chloritic alteration and pyrite (Figure 7-8). Multi-element geochemistry indicates that gold is associated with minor concentrations of silver and arsenic.

7.3.3 TARGET AREAS

The Montgomery target lies north of Salbora, and mineralization is associated with chlorite + silica + pyrite filled breccia zones in granitoid rocks near the contact between mafic and granitoid units. Breccias are also developed in mafic units but appear to be less mineralized.

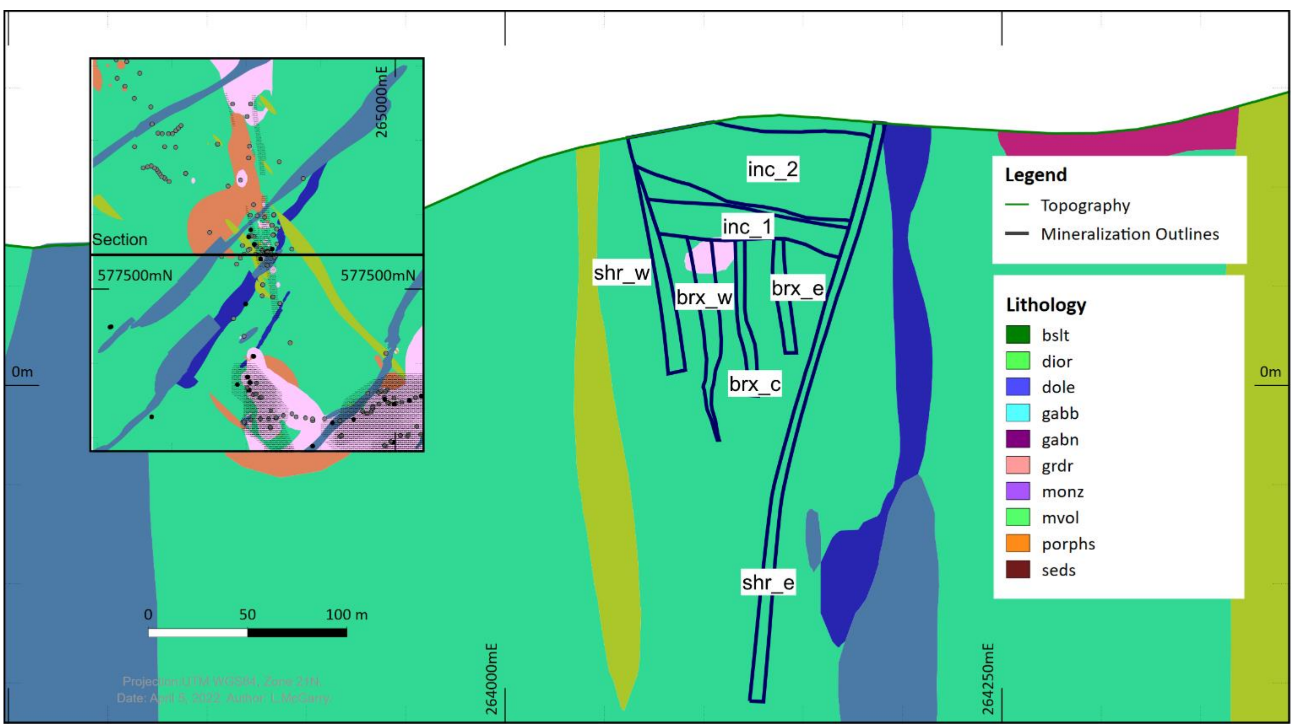
The Soca target lies to the south of Ann, along the north-south alignment. Mineralization at Soca is within silica and chlorite alteration of a quartz porphyry granitoid and its margins into granodiorite. Small breccias occur, but the primary mineralization is alteration hosted. Soca was not considered for the MRE.

FIGURE 7-7 SCHEMATIC EAST-WEST SECTION THROUGH THE EAGLE MOUNTAIN DEPOSIT LOOKING NORTH, ILLUSTRATING THE VARIOUS MINERALIZED ZONES, AND HOST ROCK LITHOLOGIES



Note: Within each mineralized zone, several fault structures may be present.

FIGURE 7-8 SCHEMATIC EAST-WEST SECTION THROUGH THE SALBORA DEPOSIT LOOKING NORTH, ILLUSTRATING THE VARIOUS MINERALIZED ZONES



The Soca-Ann-Toucan-Powis-Salbora-Montgomery targets form in a north-south alignment, interpreted to represent a large-scale, north-south trending zone of deformation and mineralization. The kinematics and orientation of this deformation zone are not yet clearly understood.

7.4 WEATHERING AND OXIDATION – SAPROLITE MINERALIZATION

Saprolite is the chemical weathering product of the underlying bedrock that has decomposed in place and generally retains the rock's original structure and is especially characteristic of tropical lateritic weathering profile. The saprolite consists of soft clay to sandy particles, depending on the rock type being weathered and the amount of quartz present. Both the Eagle Mountain and Salbora deposits are affected by weathering that results in a typical saprolite depth of 10 to 30 metres and rarely to a maximum depth of 76 metres from surface. Saprolite transitions to fresh rock across a variable horizon is typically 1 to 3 metres thick.

The vertical and lateral variability within the laterite profile at Eagle Mountain has not been clearly defined. No ferruginous zone has been described and the upper part of the laterite profile may have been removed by erosion.

Saprolite and transition material is both mineralized and unmineralized. Gold mineralization within the saprolite at the Eagle Mountain deposit occurs were mineralized zones reach shallow depths or outcrop. Mineralized saprolite is derived from mineralized granodiorite and consists of clay-rich material with very fine-grained disseminated gold. There is no evidence for gold remobilization or enrichment in the supergene environment. Furthermore, there is no evidence of transportation or slope slip of saprolite.

At Salbora, the shallow mineralized zone has also been affected by weathering, resulting in a zone of mineralized saprolite near the surface. Figure 7-9 displays typical mineralized saprolite found in core drill holes.

FIGURE 7-9 TYPICAL MINERALIZED SAPROLITE CORE FROM THE SALBORA AREA IN DDH EME20-57

8. DEPOSIT TYPES

The main style of gold mineralization on the Eagle Mountain Property is related to a series of tabular, shallow southwest-dipping, brittle-ductile composite deformation zones within a granodiorite intrusion (Eagle Mountain deposit), or within upright breccia structures within mafic volcanics and altered granitoids (Salbora deposit). Gold mineralization is associated with silicification and with chloritic ± pyritic alteration. Alteration and sulphide mineralization within the low-angle structures is interpreted to be syn-deformational, and the similarity of alteration types at Eagle Mountain and Salbora suggest that they are part of a single mineralized system.

Both the Eagle Mountain and Salbora deposits are considered to be an orogenic-type gold system, also known as lode-gold deposits or (in the case of Archean and Paleoproterozoic deposits) greenstone hosted quartz-carbonate vein deposits (Pulsen et al., 2000). Orogenic gold deposits are a subtype of lode-gold deposits and typically hosted in mafic metamorphic rocks of greenschist to lower amphibolite facies formed at an intermediate depth (5–15 kilometres depth), at or above the brittle-ductile transition, in compressional settings that facilitate transfer of hot gold-bearing fluids from deeper levels (Tomkins, 2013). These deposits likely form in accretionary and collisional orogens (Groves et al., 2018), and hence the term "orogenic" is used.

Orogenic gold deposits have formed for more than three billion years of Earth's history, episodically during the Middle Archean to younger Precambrian, and continuously throughout the Phanerozoic (Goldfarb et al., 2001). They contribute significantly to global gold production, and recognized production and mineral resources from economic Phanerozoic orogenic-gold deposits are estimated at just over 1 billion oz of gold (including placer accumulations associated with this deposit type), with known Precambrian gold concentrations are about half this amount (excluding Witwatersrand ores – Goldfarb et al., 2001). There are a large number of orogenic gold deposits globally that could be considered comparable to Eagle Mountain, including several located in Guyana that are currently in production or under development (e.g. the Karouni gold deposit – Tedeschi et al., 2018; the 9-Mile deposit – Bassoo and Murphy, 2018; and Omai deposit – Voicu et al., 1999).

8.1 MINERALIZATION STYLE

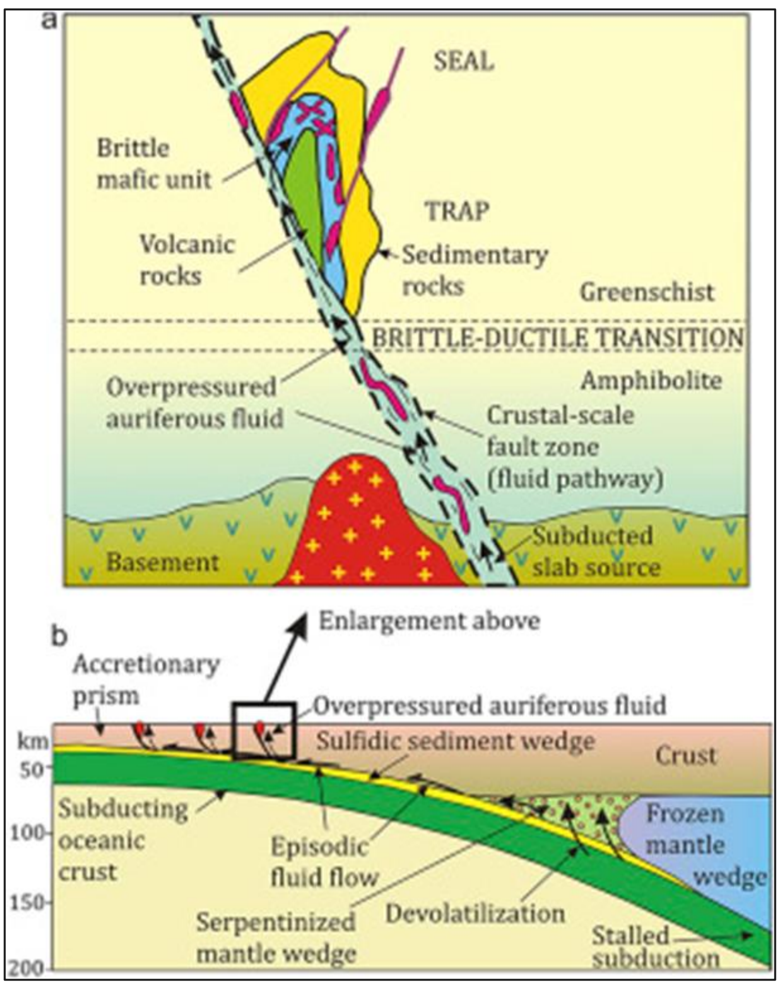
In orogenic gold systems such as Eagle Mountain, mineralization forms with generally consistent geological characteristics, which include variably deformed and metamorphosed host rocks; low sulphide volume; carbonate-sulphide ± sericite ± chlorite alteration assemblages in greenschist-facies host rocks; and a spatial association with large-scale compressional to transpressional structures. The orogenic gold deposits normally consist of abundant quartz ± carbonate veins and show evidence for formation from fluids at supra-lithostatic pressures. The mineralized lodes formed over a uniquely broad range of upper to mid-crustal pressures and temperatures between about 200–650°C and 1–5 kbar. Within the host volcano-sedimentary sequences at the province scale, world-class orogenic gold deposits are most commonly located in second-order structures adjacent to crustal-scale faults and shear zones (Gosselin and Dube, 2005).

8.2 CONCEPTUAL MODELS

In Phanerozoic orogenic gold systems, mineralization forms in subduction-related tectonic settings in accretionary to collisional orogenic belts from metamorphic fluids derived either from metamorphism of intra-basinal rock sequences or de-volatilization of a subducted sediment wedge (Figure 8-1) during a change from a compressional to transpressional stress regime (Groves et al., 2018). Although Archean and Paleoproterozoic crustal tectonics and subduction may have differed in scale and duration, similar metamorphic and intrusive processes drove orogenic gold mineralization in greenstone belts.

Orogenic gold deposits are structurally controlled and typically located adjacent to second-order structures related to district-scale jogs in crustal-scale faults. These jogs are commonly the site of arrays of cross-faults that accommodate the bending of the more rigid components (e.g., volcanic rocks and intrusive sills) of the host belts.

FIGURE 8-1 SCHEMATIC REPRESENTATION OF OROGENIC GOLD DEPOSIT FORMATION MODEL, INVOLVING A SUBCRUSTAL FLUID AND METAL SOURCE FROM SLAB DEVOLATILIZATION (GROVES AND SANTOSH, 2016)



Note: Over-pressured slab-derived fluids intersect deep-crustal faults and eject upwards to form orogenic gold deposits in second-order structures or hydraulically fractured rock bodies.

9. EXPLORATION

The following sections detail exploration carried out at the Eagle Mountain Property between 2011 and 2021 by Goldsource. Work conducted between 2011 and 2013 was completed by EMGC. EMGC was acquired by Goldsource in 2014. Historical exploration carried out prior to 2011 is documented under Section 6 of this Technical Report.

9.1 BULK DENSITY DATA (2011, 2021-2022)

EMGC completed internal (non-independent) bulk density tests using the water displacement method on a variety of fresh and saprolitic, mineralized and non-mineralized rock types from 2011 diamond drill core. Measurements from "fresh" mineralized zones and saprolitic mineralized zones confirmed historical average bulk densities of approximately 2.60 t/m^3 and 1.60 g/cm^3, respectively.

During the drilling programs of 2021-2022, a total of 1,408 samples were collected from drill core and sent to MSA Laboratories in Georgetown Guyana for independent lab-based density calculations. The water displacement method was used for the 2021-2022 tests and porous samples were coated with wax (see Section 11.4 for details).

9.2 TOPOGRAPHIC SURVEYS

9.2.1 LIDAR SURVEY (2012 AND 2023)

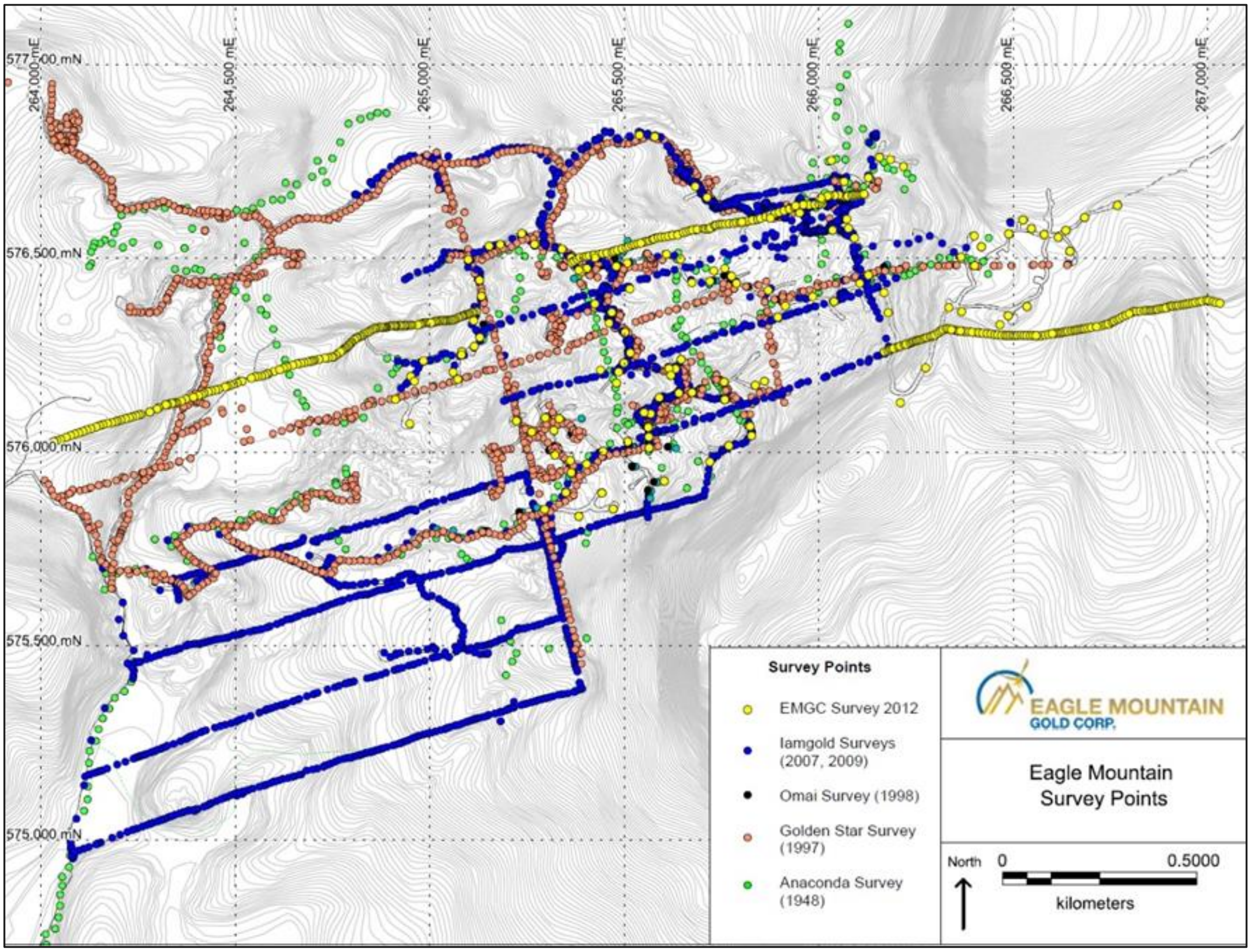
In 2012, EMGC contracted Atlis Geomatics Inc. to conduct a light detection and ranging (LiDAR) topographic survey for select areas of the Project in an effort to establish better topographic control. The survey was partly flown (60%) and was halted due to equipment failure.

A new helicopter-based LiDAR survey was initially flown by Pioneer Exploration in November 2021 and completed in 2023. Data from this survey was used for road cut and fill, waste dump volume, and tailings dam volume analyses. The April 2022 MRE was not adjusted to reflect the 2023 LiDAR data.

9.2.2 LINE CUTTING AND GROUND SURVEYING (2012)

In 2012, EMGC collected additional theodolite survey points, traverses and 73 EMGC drill hole collar coordinates to supplement historical data (Figure 9-1-). These points were collected utilizing a CST/Berger 205 theodolite survey instrument by Mr. David Griffith of South Ruimveldt, Guyana.

FIGURE 9-1 TOPOGRAPHIC MAP AND SURVEY POINT LOCATIONS – 2012 EMGC AND HISTORICAL 1948–2009 LOCATIONS (EMGC, 2012)

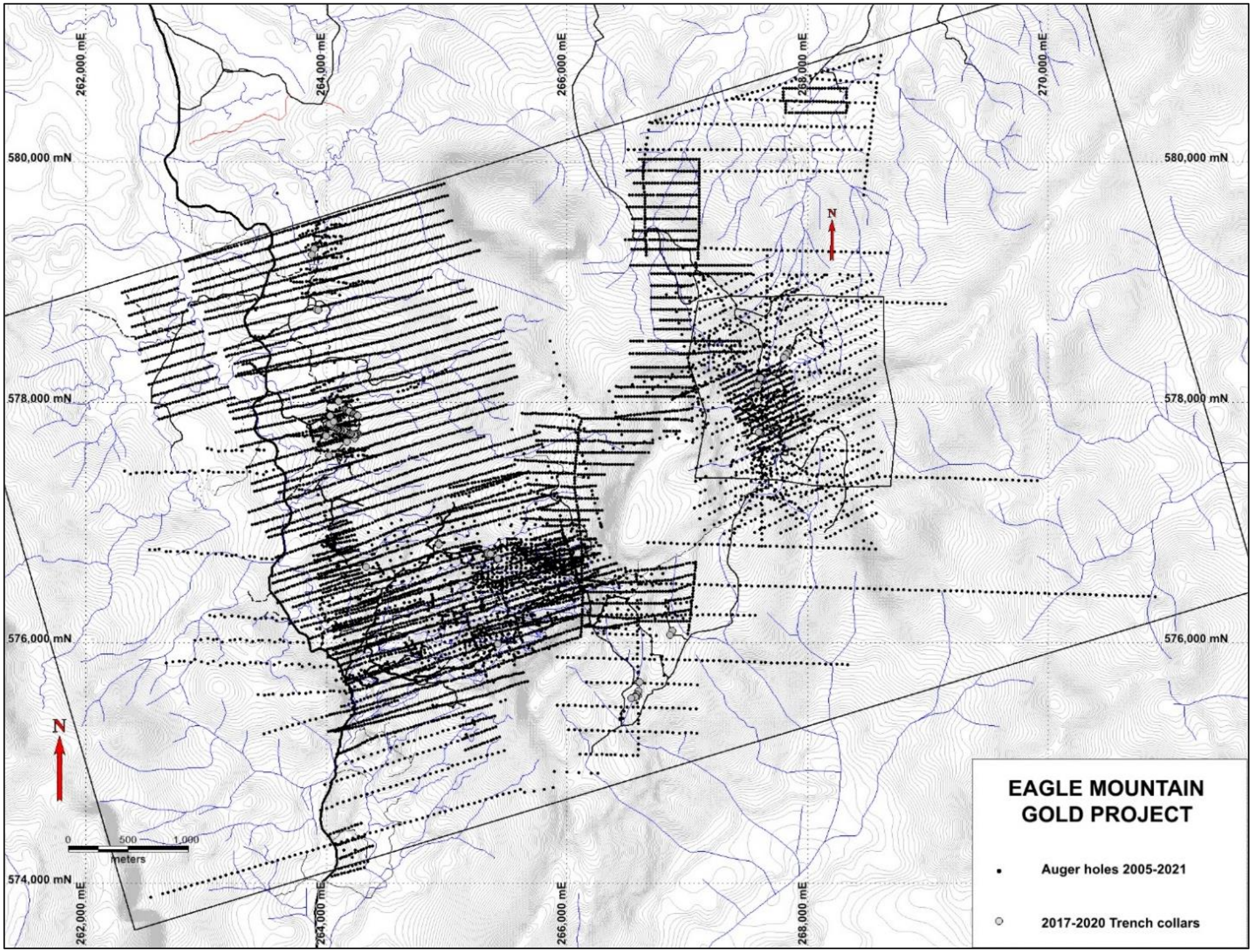


9.3 MAPPING AND GEOCHEMICAL SAMPLING (2011 AND 2018)

9.3.1 TRENCH AND OUTCROP CHANNEL SAMPLING (2011)

In 2011, EMGC completed a total of 102.4 metres of surface channel sampling from mechanically excavated drill pad walls in 27 localities (Figure 9-2). At each site, a start point was designated, and from that point sample intervals were marked out using a tape measure, either at regular 1-metre intervals or according to identified geological intervals. Samples equivalent to NQ-sized core were collected. Detailed plans and sections were created to illustrate logged geology, structure, and assay results.

FIGURE 9-2 AUGER, TRENCH AND OUTCROP CHANNEL SAMPLE LOCATION MAP



9.3.2 HAND AUGER SAPROLITE SAMPLING PROGRAMS (2015 AND 2017–2018)

Goldsource completed 275 vertical hand auger holes for 1,062 metres in 2015. Between 2016 and 2018, a total of 709 hand drilled auger holes totaling 2,481 metres were completed and sampled. The auger program targeted expansion areas such as Friendly and Toucan as well as Salbora and Montgomery. The distribution of auger holes is shown in Figure 9-2.

All 2015–2018 auger sampling was completed along cut lines at 25 metre or 50 metre pre-marked stations. Holes were bored vertically using a "Dutch" type hand auger within 5 metres of each station. The auger was equipped with 1-metre-long extensions, each extension rod is used to measure a full 1-metre sample interval while auguring. Whilst turning the auger, every 25 cm or quarter of a rod length, the auger head was pulled out, emptied onto a plastic sheet, and cleaned. Samples were collected at 1-metre intervals until each hole reached the designated depth or hard ground prevented further penetration. Hand auger holes were generally completed to a depth of 6 metres. If a hole failed to reach a depth of greater than 2 metres, a second hole within a 5-metre radius of the first site was attempted. If the second hole succeeded in reaching a depth of more than 2 metres, material from the failed hole was discarded.

Upon collection of each 1 metre of sample, the plastic sheet was rolled to mix the material thoroughly before a quarter of the material was subset into a sample bag using the "cone and quarter" method. A minimum of 250 g of material was subset, if one cone quarter was not sufficient, a second cone quarter was added. An aluminum tag with the sample number was added to the sample bag, along with a tag from the sample book and a piece of flagging tape with the sample number written on it. The hole ID and depth of sample ("To" and "From") was recorded on each sample stub. The sample number was written on the bag using a black permanent marker and the bag was tied using a piece of flagging tape with the sample number written on it. The plastic sheet used to collect the sample was then cleaned to remove any contamination prior to collecting the next sample.

A global positioning system ("GPS") position of the actual auger site was recorded with a handheld GPS left on ground within 20 cm of hole and left to stabilize to achieve the lowest GPS error possible. The GPS position was recorded on the collar list sheet (or notebook) as well as in the sample book. Samples were transported to camp by Goldsource personnel where they were packed in polypropylene sacks for transport to Georgetown for analysis at a commercial laboratory.

The 2015 auger sampling resulted in the discovery of additional mineralized saprolite near Goldsource's Scrubber Plant ("Scrubber") and north of known mineral resources. Saprolite near the Scrubber area was partially mined and processed through the onsite gravity pilot plant. This processed material is outside of known mineral resources with an estimated 600 oz of gold sold in 2016 and an estimated 4,000 oz of gold delivered to the tailings storage facility for future additional processing. The area north of known mineral resources, including the Scrubber area, is approximately 500 metres x 200 metres and 5–15 metres depth of saprolite.

West of the 2015 Scrubber area, the 2017 auger drilling defined a continuous northeast-southwest mineralized trend (assaying greater than 0.5 g/t Au), measuring approximately 600 metres x 300 metres and 5–15 metres thick of saprolite.

9.3.3 TRENCH AND OUTCROP CHANNEL SAMPLING (2018)

During 2018, Goldsource completed a total of 27 trenches for a total of 1,326 metres of continuous horizontal sampling and 106 metres of vertical sample channels throughout the Property, including the Salbora, Toucan and Montgomery areas. At each site, a start point was designated, and from that point sample intervals were marked out using a tape measure, either at regular 1-metre intervals or according to identified geological intervals. Sample channels equivalent to NQ-sized core were collected. Detailed plans and sections were created to illustrate logged geology, structure, and assay results. At Salbora, trench TRSB19-002 followed up on the historical hand auger results and reported continuous horizontal channel sampling returning 123 metres grading 1.92 g/t Au (Figure 9-3).

FIGURE 9-3 SALBORA TRENCH TRSB18-002 – HORIZONTAL SAMPLING CHANNEL IN LEFT-HAND WALL (GOLDSOURCE, 2018)

This trench was later followed up by the Salbora discovery diamond drill hole EMD18-053 which intersected a 69-metre downhole core length (40 metres true thickness) grading 6.52 g/t Au. Drill pad wall exposures in the Friendly and Kilroy areas were also sampled along continuous horizontal channels and recorded as trenches.

9.4 GEOPHYSICAL SURVEYS

9.4.1 HISTORICAL AIRBORNE GEOPHYSICAL RE-INTERPRETATION

In 2019, Goldsource retained Geophysics One Inc. of Ontario, Canada to re-process and re-interpret an historical airborne Terraquest airborne (fixed wing) magnetic and radiometric survey, flown by IAMGOLD in 2007. The survey covers the western half of the EMPL (including the Salbora deposit) and was flown at 100-metre line spacing. Unfortunately, this historical airborne survey was flown at 350° line direction (almost north-south) and, at that time (2007), the important north-south structural corridor that includes Salbora was not known. The survey, although limited in defining features parallel to the flight lines, provided significant information on the Salbora structural setting and predominantly the other two crosscutting directions (Figure 9-4).

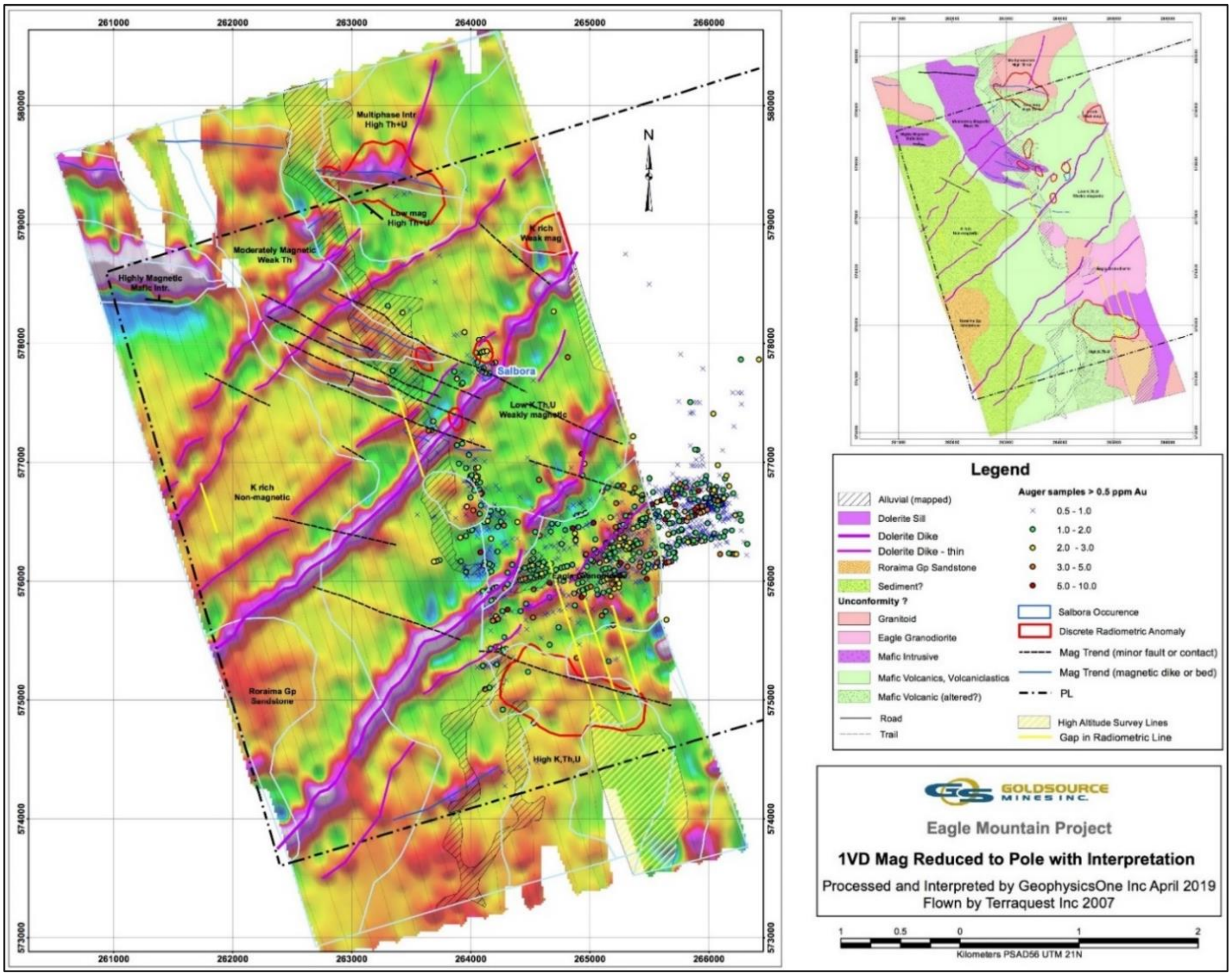
9.4.2 GROUND GEOPHYSICAL SURVEY (2019-2020)

In 2019, Goldsource retained Matrix Geotechnologies Ltd. to complete ground geophysical surveys on the Property. The geophysical surveys covered an area of approximately 5 km^2 surrounding the Salbora deposit and consisted of:

- Gradient array IP and Resistivity – a grid of parallel lines spaced at 100 metres apart with a total length of 39.5 kilometres;
- Pole-dipole IP – eight cross sections with a total length of 10.5 kilometres; and
- Ground magnetics over the same grid lines and at 25 metres station spacing along lines (Figure 9-5-).

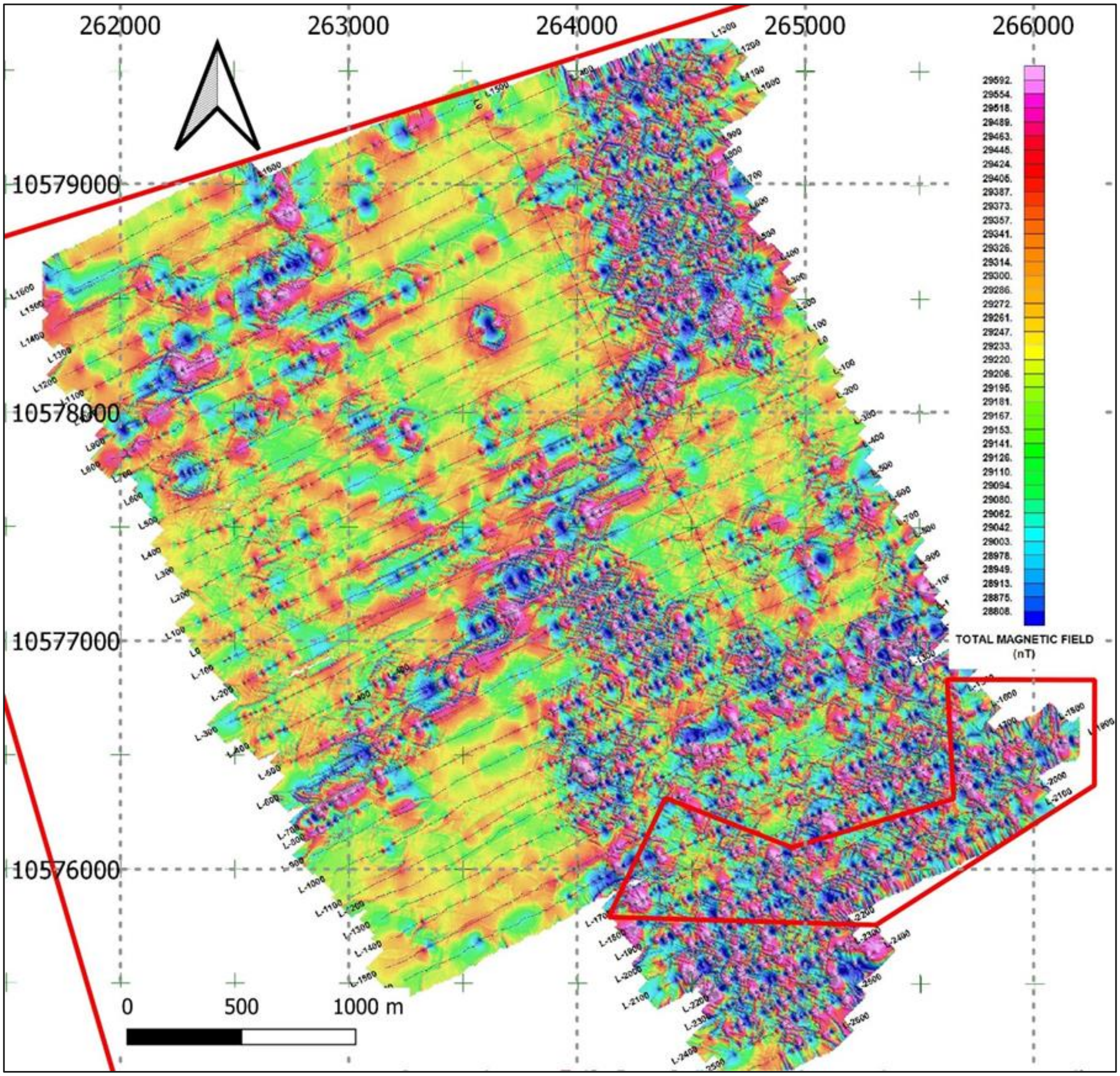
The 2019 ground geophysical survey defined at least five moderate-to-strong IP targets (indicating sulphides, in this case pyrite) with complementary resistivity highs (interpreted primarily as silicified zones) and a cumulative strike length of approximately 4 kilometres. During Q1 2020, Goldsource successfully completed an additional 62 line-km of gradient array IP, 62 line-km of high-resolution- ground magnetic survey, and 10 line-km of pole-dipole IP over selected targets. The total 2019–2020 ground geophysical coverage was expanded to an area of approximately 7.5 km^2 (Figure 9-5-). Additional geophysical anomalies were delineated and merit further exploration. Goldsource interprets the IP targets to represent subvertical sulphide-rich bodies and mineralized shear zones. The Salbora deposit was defined as the result of this geophysical survey and is located within a 600-metre-long x 100-metre-wide IP/resistivity geophysical anomaly.

FIGURE 9-4 EXAMPLE OF REPROCESSED GEOPHYSICAL DATA FROM THE 2007 AIRBORNE SURVEY



Follow-up drilling of the IP/resistivity geophysical targets expanded the Salbora deposit to the north, resulting in the discovery of the Montgomery target, and enhanced targeting at the Toucan, Powis and Friendly areas. Re-processed historical airborne and ground magnetic surveys, along with the IP results, suggest northwest to north structural trends with structural intersections interpreted for drill targeting. The geophysics did confirm geological observations at Salbora, including a lithological foliation at 140–150° with significant breccia and fault structures on an approximately north-south strike.

FIGURE 9-5 FIRST VERTICAL DERIVATIVE OF GROUND MAGNETIC DATA OVER A PORTION OF THE EMPL



10. DRILLING

10.1 SUMMARY OF DRILLING

Goldsource's drilling programs include the 2011 diamond core drilling, the 2017-18 direct-push saprolite core drilling, and the 2018-2021 and 2022-2023 diamond core drilling. Drill collar locations are shown in Figure 10-1 and a summary of the drill programs in Table 10-1.

TABLE 10-1 SUMMARY OF DRILLING BETWEEN 2011 AND 2023 ON THE EAGLE MOUNTAIN GOLD PROJECT AREA

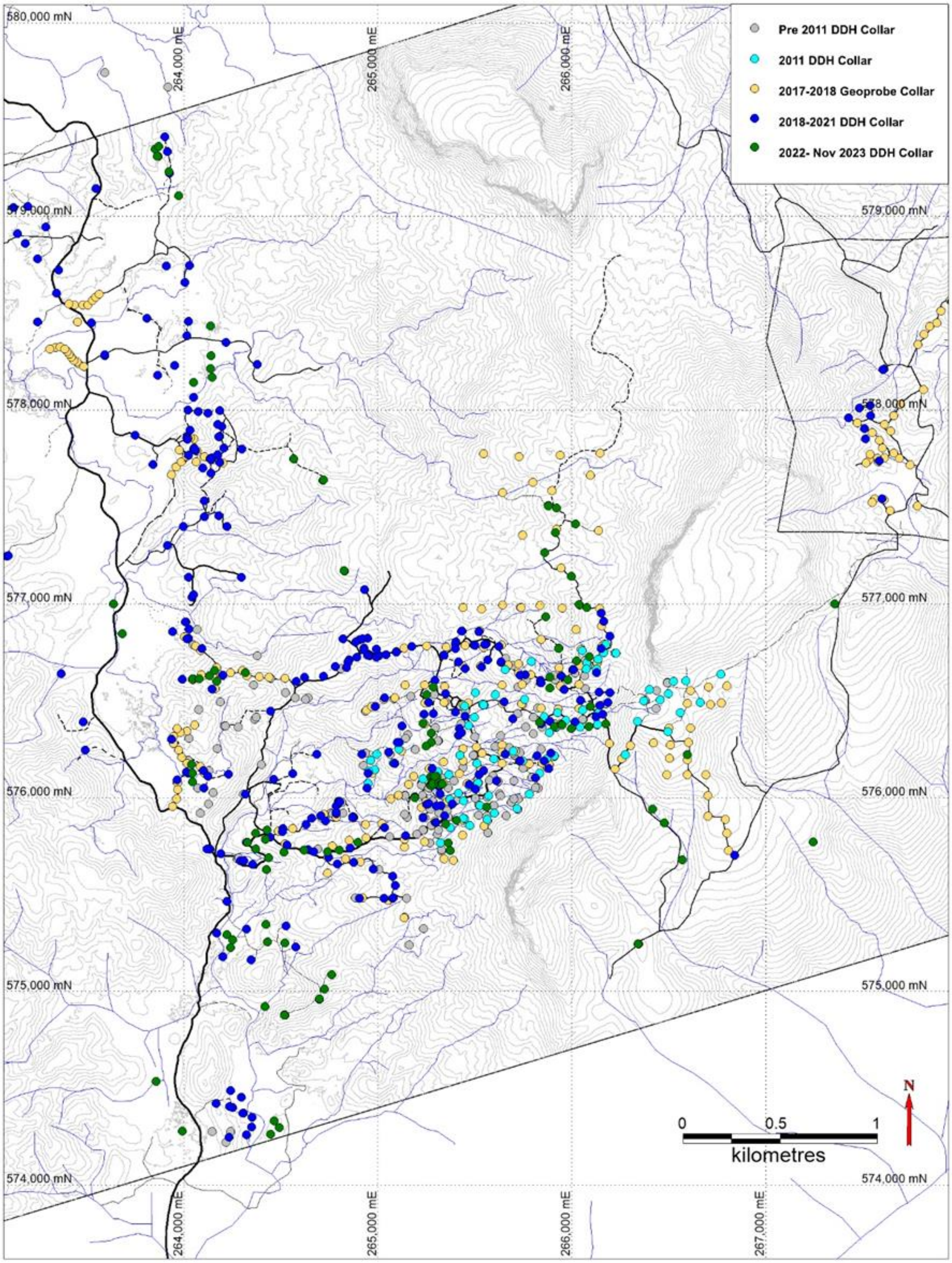
Period	Company	No. of DDH	Metres	Comments
2011	Stronghold	76	10,727	Infill and twinning, upgrade Inferred to Indicated. Drilled by Orbit
2017-2018	Goldsource	257	2,729	Saprolite drilling. Drilled using Goldsource owned Geoprobe Drill
2018-2021	Goldsource	449	58,528	Drilled by rigs owned by Goldsource, Orbit and Drilcor. Infill and expansion of Mineral Resources.
2022-2023	Goldsource	141	10,545	Drilled by rigs owned by Goldsource and Orbit, Infill and expansion of Mineral Resources and testing of exploration targets.
Total		**923**	**82,529**	

10.1.1 DIAMOND DRILLING (2011)

Diamond drilling in 2011 was focused primarily on the Eagle Mountain gold deposit area. Between April and December 2011, 73 diamond drill holes totaling 10,716 metres of HQ/NQ core (63.5/47.6 mm diameter) were drilled with the objectives of expanding the Inferred Mineral Resource by infill and step-out drilling, confirming historical records of gold mineralized horizons by drilling in close proximity to older historical holes (i.e., twinning) and upgrading part of the Inferred Mineral Resource to Indicated Mineral Resource with closely spaced infill drilling. Drilling was carried out by Orbit Garant Drilling Inc. ("Orbit") using a Longyear 38 skid-mounted rig. Significant results from the 2011 drilling program are provided in Appendix A.

Three failed holes totaling 97 meters required a restart (EMD11-84, EMD11-102, and EMD11-112). The area's incised topography limited accessibility and constrained the locations of drill hole collars.

FIGURE 10-1 DRILL COLLAR LOCATIONS FOR THE 2011 TO 2023 DRILLING PROGRAM FOR THE EAGLE MOUNTAIN GOLD PROJECT AREA



10.1.2 GEOPROBE DRILLING (2017–2018)

In 2017 and 2018, Goldsource carried out a drilling program focused on shallow saprolitic material (maximum hole depth was 28 metres). For this program, a Geoprobe® 540 direct push drill rig with bi-directional hammer rotation was used together with a Geoprobe® DT22 open tube soil sampling system which collects continuous 1 metre core samples of unconsolidated materials (such as saprolite) 31.7 mm (1.25 inches) in diameter within a sealed liner casing that is threaded onto the leading end the drill rod. Core enclosed within these plastic liners was collected within core trays. A total of 257 holes (2,729 metres) were drilled. Significant results from the 2017-2018 drilling program are provided in Appendix A.

10.1.3 DIAMOND DRILLING (2018–2021)

Between 2018 and 2021, Goldsource completed a total of 449 HQ/NQ diamond drill holes totaling 58,528 metres using several drill rigs, including a custom-built rig (owned by Goldsource, drill holes identified by the prefix "EMD"), a model FMD # SH-07 drill rig (operated by Orbit, prefix "EME") and an Omni Drill S3 drill rig (operated by Drilcor, prefix "EMM"). All rigs drill HQ (63.5 mm) and NQ (47.6 mm) diameter core. The goal of the drilling program was to infill and expand the Mineral Resource at the Eagle Mountain deposit, as well as identify and delineate additional deposits within the Project area (e.g. the Salbora deposit). Significant results from this program are included in Appendix A.

10.1.4 DIAMOND DRILLING (2022–2023)

Between 2022 and 2023, Goldsource completed a total of 141 HQ/NQ diamond drill holes totaling 10,545 metres using two drill rigs, including a custom-built rig (owned by Goldsource, drill holes identified by the prefix "EMD") and a model FMD # SH-07 drill rig (operated by Orbit, prefix "EME"). All rigs drill were HQ (63.5 mm) and NQ (47.6 mm) diameter core. The goal of the drilling program was to continue infill drilling using the 2022 MRE as a guide, for further upgrading of resource; drilling on the periphery of the resource: drilling exploration in targets around the Eagle Mountain, such as North Zion, and exploration targets along the North-south Salbora trend, including Soca in the south of the PL, which was not included in the 2022 MRE as initial drilling occurred at the end of 2021.

10.2 DRILLING PROCEDURES, CORE HANDLING, LOGGING AND SAMPLING METHODS

10.2.1 DIAMOND DRILL CORE SAMPLING (2011 AND 2018–2023 CAMPAIGNS)

Core was retrieved from the drill string using conventional wireline techniques. Core recovery was generally very good with an average of 91.4% in saprolite and 97.1% in fresh rock. Saprolite is drilled at HQ (63.5 mm) diameter core, which is downsized to NQ (47.6 mm) diameter core on intersecting fresh rock of continuous core for 3-4.5 metres. Core orientation was utilized on selected holes drilled by Orbit (EMD11 prefix during 2011 period and EME prefix post 2018). Hole orientation is taken at 50-metre intervals on all holes completed by Orbit (EME prefix post 2018) using Reflex tool; and Drilcor (EMM prefix) using Trushot.

Sample security and chain of custody started with the removal of core from the core tube and boxing of drill core at each drill rig. Core was removed from the core tube by the drill contractor's personnel and carefully placed in labeled corrugated plastic core boxes and located by inserted depth blocks. Each box contained 3 metres of core. When filled with core, a matching corrugated plastic lid was placed on the box and secured with fiber tape. The boxed core remained under the custody of the drillers until it was transported from the rig to the secure core logging facility by either the drill contractor or one of the Company's designated personnel.

The core logging facility is located at the Eagle Mountain camp. The facility is used for logging, sawing core, and packing samples for shipment to the assay laboratory. The facility has covered rack storage space for core prior to logging and sampling.

The core was stored securely until it was moved into the core shack for processing. Processing of the core started with the core being laid out on workbenches and cleaned prior to logging and sample interval marking. The core was next photographed with a digital camera, capturing images in JPEG format. Spatial information related to each box of core was checked for accuracy and consistency and remedial actions were undertaken, if necessary, to correct deficiencies in the spatial information prior to entry into the database. A geotechnical log of core recovery and RQD measurements was completed by a Goldsource geologist. The geologist then completed a descriptive log comprising a detailed description of rock type, structure, alteration, and mineralization.

The geologist then selected the sample intervals and input the intervals into the drill hole database. The selected portions of core were marked and measured for sampling and were identified with one part of a three-part assay tag, placed at the downhole end of the sample interval. Samples were collected to a minimum interval of 30 cm and a maximum of 1.5 metres in areas that were visually unmineralized. Thick dolerite and gabbro-norite dikes and sections of unmineralized granodiorite below the mineralized zones were not routinely sampled, except at contact zones.

Saprolitic samples were split with a spatula. Most non-saprolitic (fresh – unoxidized) samples were sawn with a 110-volt 1.5 hp water-cooled masonry saw with 14-inch diamond blade and a mounted jig to ensure the core is split equally. The core saw is located in a roofed, open-walled area separate from the core logging facility. Fresh water is used as a cooling/lubricating fluid; recycled water is not used.

The fresh core was cut in half longitudinally using a circular electrical core saw, perpendicular to the foliation (50% split), with one half placed into plastic sample bags along with part two of the three-part assay tag and sealed. The other half-core was returned to the core box for archive and future verification and testing (if required). Each sample bag had the sample number written on the outside of the bag with a black permanent marker corresponding to the sample tag placed inside. Information on the third part of the assay tag was entered into the database and drill log, at which time accuracy and consistency were again reviewed and remedied, if necessary.

Core logging, sawing, sample bagging and sample shipment preparation were completed either by or under the on-site supervision of a Goldsource geologist. After sampling was completed, the archived core boxes were recovered with a lid, labelled, and stacked on tarpaulin covered racks at the Eagle Mountain c-amp.

Following analysis, digital assay files provided by the laboratory were merged with a “from” and “to” interval file created by Goldsource, with the sample number linking the two files. This methodology limits data entry errors to sample numbering, as well as the “from” and “to” specifications.

Overall, core sampling methods were to industry standards for mineralization of this type and the Qualified Person is confident there are no sampling or recovery factors that would negatively impact the accuracy and reliability of the results for the purpose of mineral resource estimation.

10.2.2 GEOPROBE DRILL CORE SAMPLING (2017–2018)

On delivery of core to the core shed, the boxes were laid out in sequence order and metre marking was checked. The plastic core tubing was removed using the tube cutter and with metre markers showing, photographed for reference. The core was measured with recovered amount noted per metre run as “recovery %”. Core recovery was generally very good. The sample was split by using a knife or putty knife, cutting the sample in half through the hole in the plastic tube. The left half of the core was kept in the remaining plastic tubing and remained in the box as reference and the right half was removed as sample. Each sample was 1 metre in length, corresponding to the drill run interval. If the final sample in the hole sample was not 1 metre in length, it was added onto previous sample if <0.5 metre or treated as a new sample if >0.5 metre in length.

Date and hole interval were recorded in a ticket book, and one side of ticket was placed in the bag with sample, the second part was stapled on the box at the end of the sample interval.

An aluminum tag was also placed in bag with sample number written on it. The sample bag was sealed and placed in a white polypropylene sack. A QAQC sample (either a blank, a CRM, or a duplicate) was inserted every 15 samples. Duplicates were taken by splitting the half-core sample into two, so that the original sample and the duplicate sample each contain one quarter of the total core each with samples labelled sequentially (see Section 11.5 for more details).

Core logging, splitting, sample bagging and sample shipment preparation was completed either by or under the onsite supervision of a Goldsource geologist. After sampling was completed, the archived core boxes were recovered with a lid, labelled, and stacked on tarpaulin covered racks at the Eagle Mountain camp.

Following analysis, digital assay files provided by the laboratory were merged with a “from” and “to” interval file created by Goldsource, with the sample number linking the two files. This methodology limits data entry errors to sample numbering, as well as the “from” and “to” specifications.

Overall, core sampling methods are to industry standards for mineralization of this type and the Qualified Person is confident there are no sampling or recovery factors that would negatively impact the accuracy and reliability of the results for the purpose of mineral resource estimation.

10.3 SURVEYING

10.3.1 COLLAR SURVEYING

The drill casing was removed from the drill holes. A short piece of scrap drill steel was left in each hole, capped, and cemented in place with a concrete monument after the drill rig was removed. Upon completion, drill hole collar coordinates and elevations were surveyed in Universal Transverse Mercator (UTM) coordinates, Zone 21N (PSAD 56 datum). This was completed between 2011 and 2018 by utilizing a CST/Berger 205 theodolite survey instrument by Mr. David Griffith of South Rumsveld, Guyana. The survey has a horizontal and vertical accuracy of approximately 2–3 cm. Between April 2018 and 2021, the collar surveys were completed by Zeneth Spatial Solutions of West Coast Demerara, Guyana, utilizing a Trimble R8s GNSS System, which gives a similar horizontal and vertical accuracy of approximately 2–3 cm.

10.3.2 DOWNHOLE SURVEYING

The drill contractor completed downhole directional surveys on all diamond drill holes at approximately 50-metre intervals using a Flexit (Orbit) or Trushot (Drilcor) single-shot digital survey tool.

11. SAMPLE PREPARATION, ANALYSES, AND SECURITY

11.1 SAMPLING TECHNIQUES

Samples from the 2011 diamond drilling program were submitted to Acme Analytical Laboratories Ltd. ("Acme") facility in Georgetown, Guyana (Lot 13 Plantation Non Pariel, East Coast Demerara) for sample preparation and analysis, with QAQC check assays (umpire samples) for this program carried out at Activation Laboratories Ltd ("Actlabs") facility in Georgetown, Guyana (27/28 Parcel Beterverwagting Industrial Area, East Coast Demerara).

Samples from the 2017–2018 Geoprobe drilling and the 2018–2021 diamond drilling programs were submitted to the Actlabs facility in Georgetown, Guyana for primary assay. Starting in 2020, umpire QAQC check assays and density measurements were carried out at MS Analytical Guyana ("MSA") in Georgetown, Guyana (Lot 14 Coldingen Industrial Estate, East Coast Demerara).

Acme, Actlabs and MSA laboratories and their employees are independent from Goldsource. Goldsource personnel, consultants, and contractors are not involved in sample preparation and analysis.

11.2 SAMPLE PREPARATION AND SECURITY

11.2.1 ACTLABS (2011–PRESENT)

Sample preparation and gold fire assays were completed at the Actlabs facility in Georgetown. Sample pulps were forwarded to the Actlabs in Ancaster, Canada laboratory (1336 Sandhill Drive Ancaster, Ontario) for multi-element analyses. The Actlabs facilities are individually certified to standards within ISO 9001:2008. The Ancaster analytical facility has received accreditation to ISO/IEC 17025:2005 (CAN-P-4E) and later ISO/IEC 17025: 2017 from the SCC. The Actlabs laboratory in Georgetown is certified with ISO 9001: 2015 accreditation from the Registrar Company (TRC). Sample preparations follow industry best practices and procedures.
The analytical methods used are routine and provide robust data associated with a high degree of analytical precision.

At the Actlabs Georgetown facility, the rock/core sample was logged into the sample management system, dried, then crushed to 80% passing a 10 mesh (1.7 mm) screen. A split of 100 g was taken using a riffle splitter and pulverized in a mild steel grinding mill with a low-chrome steel bowl to better than 95% passing a 105-micron (Tyler 150 mesh) screen (code RX2). Compressed air was used to clean the equipment between samples. Barren material was crushed between sample batches. A split of the sample pulp was then assayed.

11.2.2 ACME (2011–2012)

Samples were prepared at the Acme Georgetown facility and sample pulps were forwarded to the Acme Santiago, Chile laboratory (Av. Claudio Arrau 7152, Pudahuel, Santiago) for gold assay and the main Acme Vancouver, Canada laboratory (1020 Cordova St. East, Vancouver, BC) for multi-element analyses. These Acme facilities were individually certified to standards within ISO 9001:2008. The Vancouver analytical facility had received accreditation to ISO/IEC 17025:2005 from the SCC for fire assay gold – gravimetric finish. The Santiago analytical facility had received accreditation to ISO/IEC 17025:2005 from the SCC for fire assay gold – gravimetric and atomic absorption spectrometry (AAS) finish. Sample preparations followed industry best practices and procedures. The analytical methods used are routine and provide robust data associated with a high degree of analytical precision.

Acme used a Laboratory Information Management System ("LIMS") to track the flow of every sample through each stage of sample handling and analysis. When received, each sample was barcoded and labelled. This unique barcode was used to build an audit trail that documented the complete history of work performed on each sample.

At the Acme Georgetown facility, each sample was logged into the LIMS, dried, then crushed to 80% passing a 10-mesh screen. A split of 150 g was taken using a riffle splitter and pulverized in a grinding mill with a low-chrome steel bowl to better than 85% passing a 75-micron (Tyler 200 mesh) screen (code R150). Compressed air was used to clean the equipment between samples. Barren material was crushed between sample batches. A split of the sample pulp was then forwarded to either the Santiago or Vancouver laboratory for analysis.

11.2.3 MSA (2020-PRESENT)

Samples were prepared and gold fire assays completed at the MSA facility in Georgetown. Samples were received and captured into the MSA LIMS. Samples were crushed and then milled using a Rocklabs automated mill with auto-splitter. The crusher was cleaned with barren material at the discretion of the operator or every 20 samples. Sample particle size distribution was checked every 20 samples to ensure that samples were >80% passing 75 microns. MSA labs in Georgetown are accredited with ISO 9001:2015 and ISO 14001:2015 from Aambitious Assessment PVT Ltd.

11.3 ANALYTICAL METHOD

Samples were analyzed as follows:

11.3.1 ACME (2011–2020)

Gold fire assay – AA finish (Acme Code G6) – a 30 g prepared sample was fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with gold-free silver and then cupelled to yield a precious metal bead. The bead was digested in dilute nitric acid, concentrated hydrochloric acid was then added and the bead was further digested. The digested solution is cooled, diluted with de-mineralized water, and analyzed by AAS against matrix-matched standards.

11.3.2 ACTLABS (2011–PRESENT)

Gold fire assay – AA finish (Actlabs Code 1A2) – a 30 g prepared sample pulp was mixed with fire assay fluxes (borax, soda ash, silica, litharge) and with silver added as a collector. The mixture was placed in a fire clay crucible, preheated at 850°C, intermediate 950°C and finish 1,060°C – the entire fusion process would take approximately 60 minutes. The crucibles were then removed from the assay furnace and the molten slag (lighter material) carefully poured from the crucible into a mould, leaving a lead button at the base of the mould. The lead button was then placed in a preheated cupel which absorbs the lead when cupelled at 950°C to recover the silver (doré bead) + gold. The entire silver doré bead was dissolved in aqua regia and the gold content was determined by AAS. If value exceeds upper limit (3,000 ppb), re-analysis by fire assay-gravimetric (Code 1A3) was completed.

Multi-element (48) instrumental neutron activation analysis ("INAA") and inductively coupled plasma ("ICP") with atomic emission spectroscopy ("ICP-AES") analysis (Actlabs Code 1H) – for INAA, a 30 g aliquot, if available, was encapsulated in a polyethylene vial and irradiated with flux wires and an internal standard (one for 11 samples) at a thermal neutron flux of 7 x 10 12 n cm-2 s-1. After a seven-day decay to allow Na-24 to decay, the samples are counted on a high-purity Ge detector with resolution to better than 1.7 KeV for the 1332 KeV Co-60 photopeak. Using the flux wires, the decay-corrected activities were compared to a calibration developed from multiple certified international reference materials. The standard present was only a check on accuracy and was not used for calibration purposes. From 10% to 30% of the samples were rechecked by re-measurement. For values exceeding the upper limits, assays were recommended. One standard is run for every 11 samples. One blank was analyzed per work order. Selected duplicates were analyzed when enough material was submitted.

For total digestion – ICP portion, a 0.25 g sample was digested with four acids beginning with hydrofluoric, followed by a mixture of nitric and perchloric acids, heated using precise program-controlled heating in several ramping and holding cycles which takes the samples to incipient dryness. After incipient dryness was attained, samples were brought back into solution using aqua regia. With this digestion, certain phases may be only partially solubilized. These phases included zircon, monazite, sphene, gahnite, chromite, cassiterite, rutile, and barite. Silver greater than 100 ppm and lead greater than 5,000 ppm should be assayed, as high levels may not be solubilized. Only sulphide sulphur would be solubilized. The samples were then analyzed using a Varian ICP. Quality control for the digestion is 14% for each batch, five-method reagent blanks, 10 in-house controls, 10 samples duplicates, and eight CRMs. An additional 13% quality control is performed as part of the instrumental analysis to ensure quality in the areas of instrumental drift.

11.3.3 MSA (2020–PRESENT)

Gold fire assay – AAS finish (MSA Code FAS-111) – a 30 g prepared sample pulp was mixed with fire assay fluxes (borax, soda ash, silica, litharge) and lead collector and the mixture were placed in a clay crucible and heated in stages to 1,050°C to fuse the sample. The molten slag was poured into a mould, and the lead button at the base of the mould removed and placed in the cupel and heated to ~1,000°C – the remaining precious metal bead was dissolved in aqua regia, and the gold content determined by AAS. If value exceeds the upper limit (10 ppm), re-analysis by fire assay-gravimetric (code FAS-418) was completed.

11.4 DRY BULK DENSITY DETERMINATIONS

11.4.1 METHODOLOGY

During 2011, bulk density tests were carried out on a variety of fresh and saprolitic, mineralized and unmineralized rock types from the 2011 diamond drill core. Measurements were carried out in-house using a water displacement method similar to that used by MSA labs in 2020.

During the 2020 and 2021 drill campaigns, additional bulk density tests were carried out on a variety of mineralized and unmineralized core samples from the Eagle Mountain and Salbora deposits. Samples were shipped to MSA in Georgetown, Guyana, where densities were determined (MSA method codes SPG-411 and SPG-415). Density measurements were carried using the following method: A sample receiving vessel was filled to the reference mark with de-ionized water and weighed. Then, approximately one half of the volume of de-ionized water in the sample receiving vessel was discarded and the remainder weighed. Samples were dried and a representative portion of the dried sample was transferred into the sample receiving vessel which was approximately half-filled with de-ionized water. The vessel was then filled to the reference volume with de-ionized water and weighed. This weight was recorded and used for determining the specific gravity of the sample. If samples were porous or absorb >2% water (e.g., saprolite), samples were dried, weighed in air, coated with wax, and weighed again in air. The coated samples were then weighed again in water. Care was taken when transporting and drying saprolitic core to retain solid samples.

During the 2022 and 2023 drill campaigns, density sampling continued with the same methodology.

11.4.2 RESULTS

The 2011 density tests on “Fresh” mineralized zones and saprolitic mineralized zones yielded average bulk densities of approximately 2.60 t/m^3 and 1.60 t/m^3 respectively, and these densities were used for the 2012 and 2014 MREs. 150 density samples were tested in 2011.

The 2020 to 2021 density tests on saprolite samples from the Eagle Mountain Gold Project show a range of densities between 1.01 t/m^3 and 2.92 t/m^3, with an average of 1.57 t/m^3. Transition samples had a range of 1.32 t/m^3 to 3.01 t/m^3, with an average of 2.29 t/m^3. Fresh samples had densities between 2.14 t/m^3 and 4.17 t/m^3, with an average of 2.72 t/m^3. 1,360 density samples were tested from 2020 to 2021. Density statistics for the main rock types at the Project are presented in Table 14-3.

A further 21 saprolite and 40 fresh rock density tests have been completed during the 2022-2023 drill campaigns. Results from this period have not been used for the MRE or any other density analysis.

11.5 QUALITY ASSURANCE AND QUALITY CONTROL

Several different QAQC programs have been implemented at the Eagle Mountain Gold Property, and the monitoring and assessment of QAQC data is used to provide guidance as to the confidence that sample and assay data obtained from laboratories can be used for mineral resource estimation.

The QAQC programs implemented at the Eagle Mountain Gold Project by the current operators include:

- CRM samples – prepared from mineral matrices that contain known gold values uniformly distributed throughout the pulverized rock. Submitted to the assay laboratory in foil sachets, CRM samples are used to assess laboratory accuracy and precision. All CRMs used at the project are prepared by Rocklabs Ltd.;
- Blank samples – prepared from material containing trace amounts of the element under investigation. Blank samples are used in the assessment of contamination from other samples during sample processing and laboratory accuracy;
- Core duplicate samples – quarter-core samples taken from remaining core, used to assess the presence of a "nugget effect";
- Coarse duplicate samples – duplicate splits of coarsely crushed material, generated during sample preparation, used to check the presence of a nugget effect and to assess laboratory precision; and
- Pulp duplicate samples – duplicate splits taken from pulp sample material generated during sample preparation, used to assess laboratory precision.

The Company is using the April 2022 MRE (assay cut-off date of December 31, 2021) for the PEA. As such, QAQC for the 2022-23 drilling programs is not included in this Technical Report.

11.5.1 CERTIFIED REFERENCE MATERIALS (2011)

Four different Rocklabs oxide standards were used during the 2011 program at an average insertion frequency of 2.3% (i.e., a total of 161 CRMs for 6,913 samples submitted during the 2011 program). CRMs were chosen to test the range of gold grades encountered at the Eagle Mountain Project.

Results for the CRMs used in 2011 are summarized in Table 11-1.

TABLE 11-1 SUMMARY OF CRM RESULTS FOR 2011 DRILL CORE SAMPLES

CRM	Control Grade (ppm)	No. of Analyses	Mean* of Analyses	Minimum*	Maximum*
OxE42	0.611	66	0.616	0.55	0.788
OxH52	1.291	61	1.277	0.99	1.394
OxC88	3.557	26	3.537	3.352	3.88
OxN33	7.378	8	7.535	7.7073	7.843

*Mean, minimum and maximum exclude outliers mentioned in the text.

Analysis results show no significant negative or positive bias at the CRM grades evaluated.

Across all CRM grades, 67% and 92% of assay values were within ± 1 and 2 standard deviations, respectively. CRM OxE42 had four samples greater than 2 standard deviations from a mean of 0.616 ppm Au. Two of these were outliers, samples 902326 and 902231 returned grades of 0.788 and 0.713 ppm Au respectively. CRM OxH52 had seven samples greater than 2 standard deviations from a mean of 1.291 ppm Au. Two of these were outliers; samples S04116 and S05633 returned grades of 0.990 and 1.010 ppm Au respectively.

All CRMs show a degree of cyclical analytical drift. It is particularly apparent in the Standard OxE42CRM plot, where there is a gradual decrease in the mean of returned CRM grades over the observation period, expressed as linear trend line from 0.645 ppm Au to 0.584 ppm Au.

Analytical drift does not appear to correlate with outlying values. There is only one occasion where successive CRM assay values are greater than 2 standard deviations the expected value (OxH52 samples S04116 and S05481).

11.5.2 CERTIFIED REFERENCE MATERIALS (2017–2021)

Seven different Rocklabs oxide standards and two fresh rock standards were used during the 2017–2021 programs at an average insertion frequency of 2.6% (i.e., a total of 1,136 CRMs for 40,157 samples submitted during this period). The reference grades and standard deviation performance for the CRMs are shown in Table 11-2 CRM control charts are shown in Figure 11-1 to Figure 11-9.

TABLE 11-2 CRM RESULTS FOR 2017–2021

CRM	Control Grade (ppm)	No. of Analyses	Mean* of Analyses	Minimum*	Maximum*	% Within 1 Standard Deviation	% Within 2 Standard Deviations
OXC152	0.21	593	0.21	0.14	0.25	69	89
OxD108	0.41	71	0.43	0.24	0.87	72	96
OXE150	0.66	154	0.65	0.50	0.83	62	92
OXE152	0.22	17	0.22	0.20	0.25	40	68
OXG098	1.02	58	1.03	0.86	1.16	59	94
OXG140	1.02	171	1.04	0.88	1.09	64	95
OXJ137	2.42	9	2.64	2.40	2.83	22	67
SG99	1.04	4	1.01	0.90	1.07	75	100
SH82	1.33	59	1.25	1.03	1.31	0	7

*Mean, minimum, maximum and standard deviations exclude outliers mentioned in the text.

FIGURE 11-1 CONTROL PLOT FOR GOLD CRM OX152

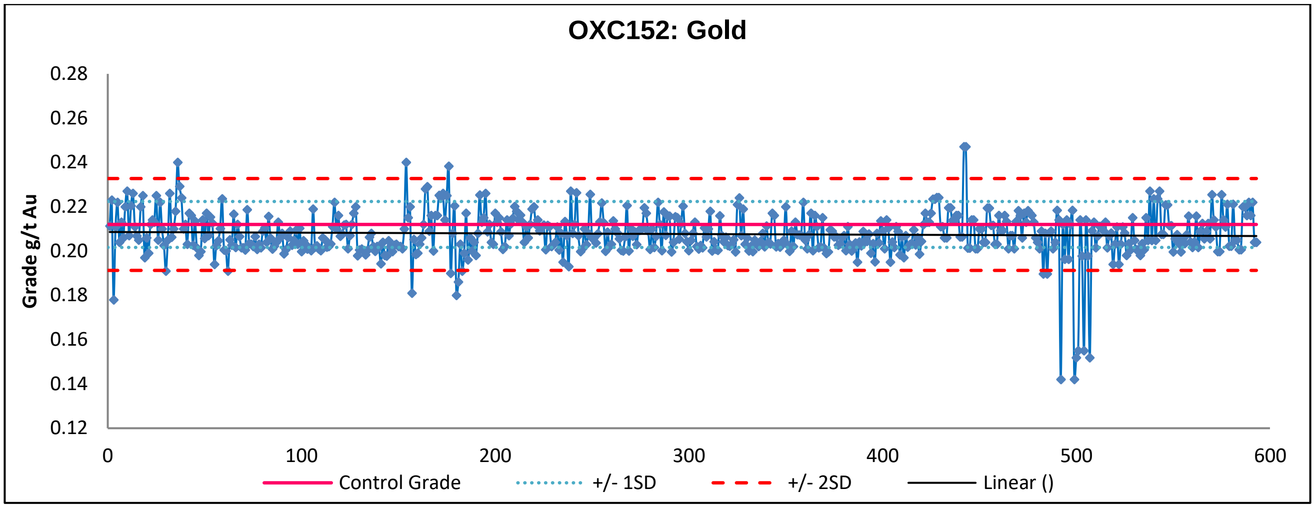


FIGURE 11-2 CONTROL PLOT FOR GOLD CRM OXD108

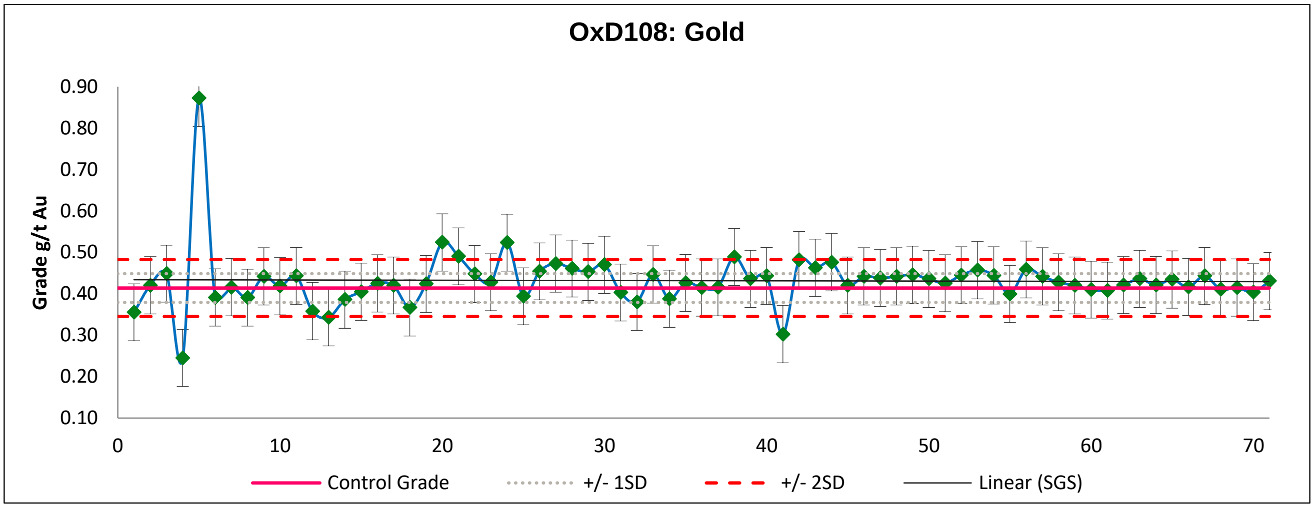


FIGURE 11-3 CONTROL PLOT FOR GOLD CRM OXE150

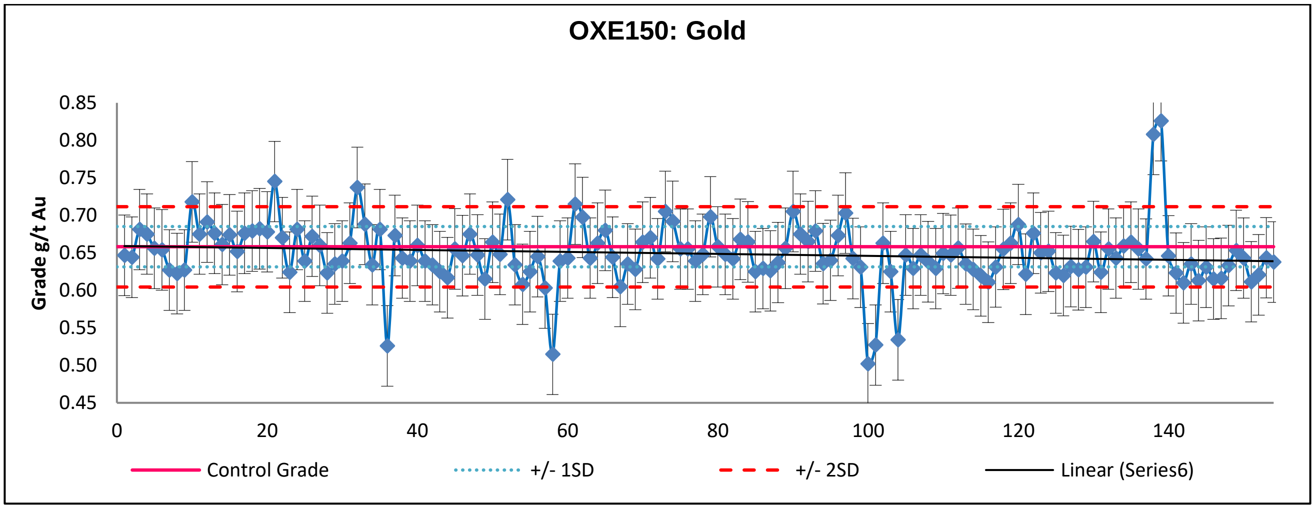


FIGURE 11-4 CONTROL PLOT FOR GOLD CRM OXE152

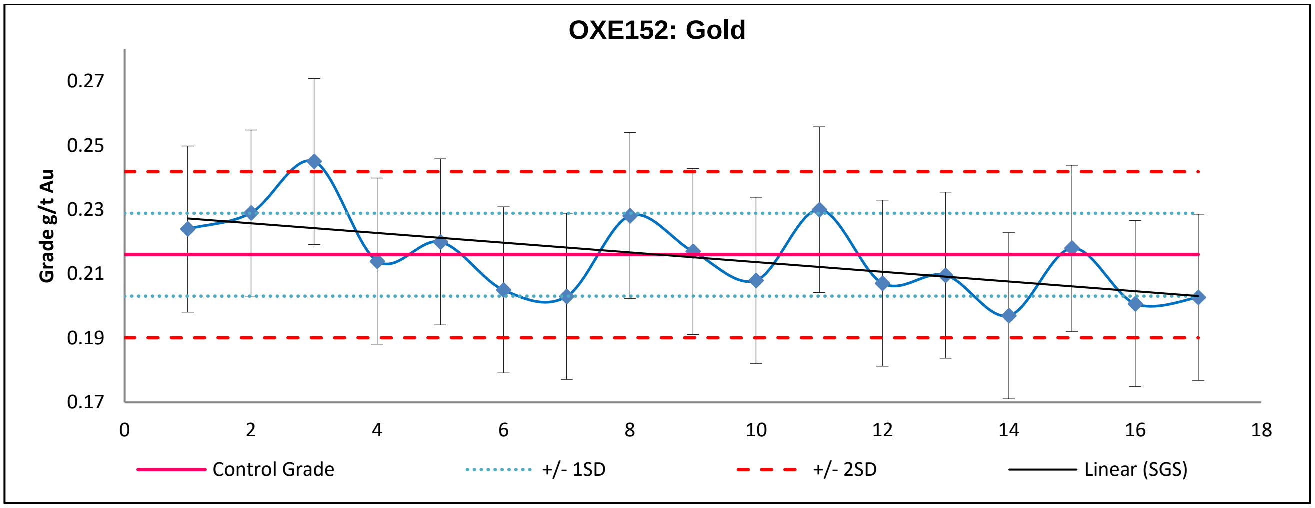


FIGURE 11-5 CONTROL PLOT FOR GOLD CRM OXG098

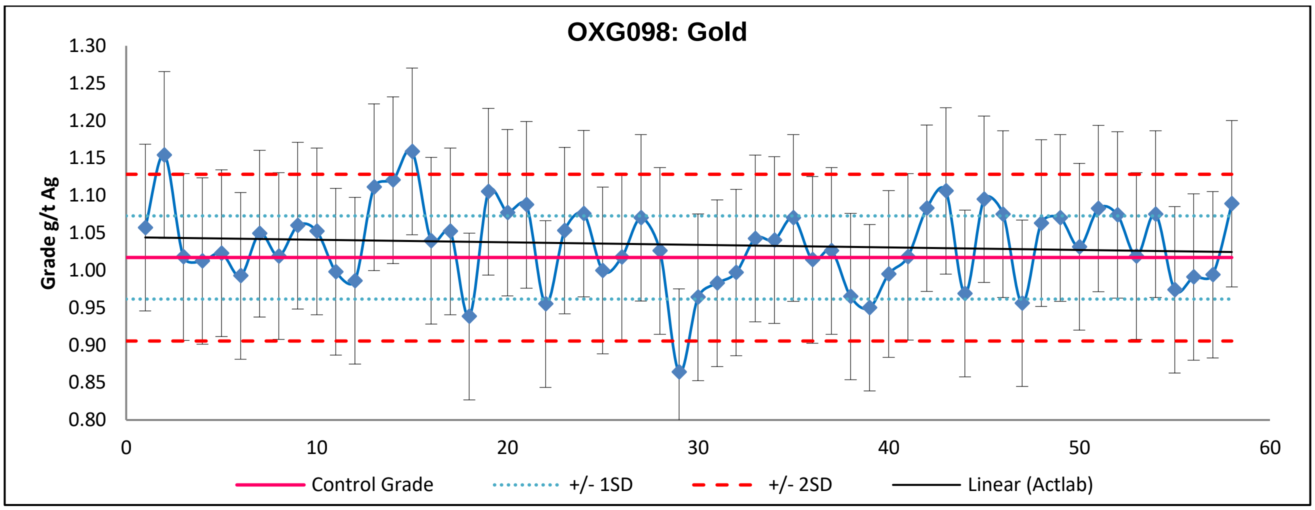


FIGURE 11-6 CONTROL PLOT FOR GOLD CRM OXG140

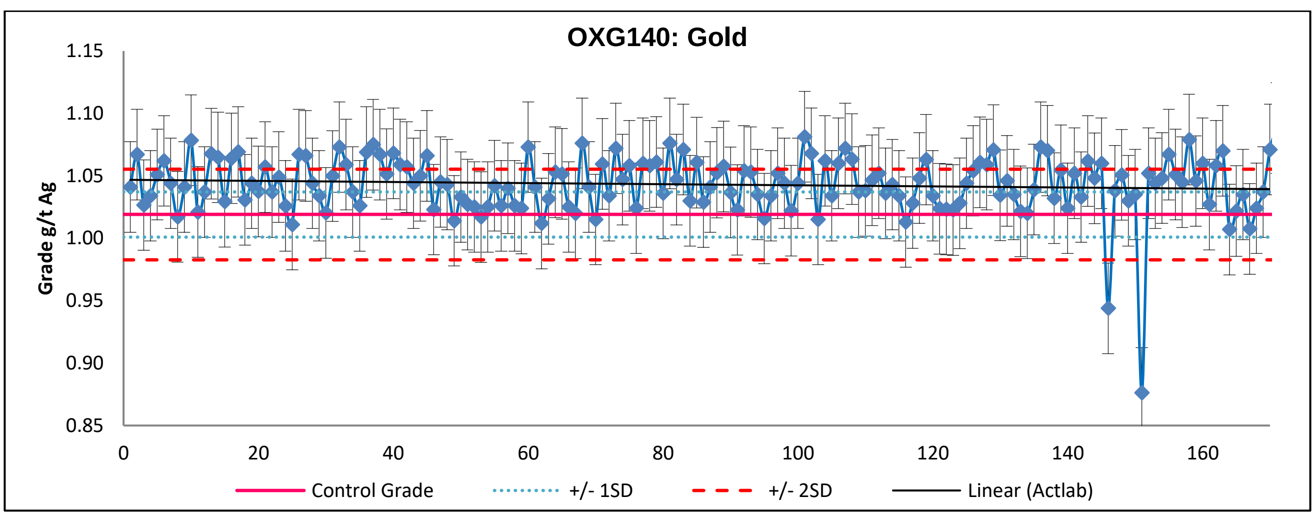


FIGURE 11-7 CONTROL PLOT FOR GOLD CRM OXJ137

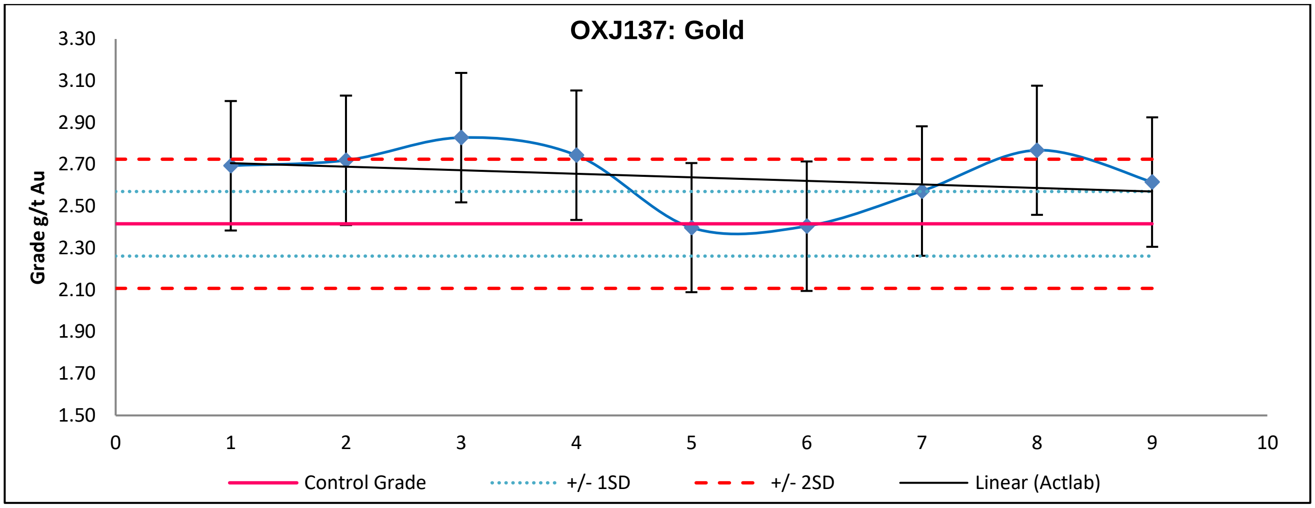


FIGURE 11-8 CONTROL PLOT FOR GOLD CRM SG99

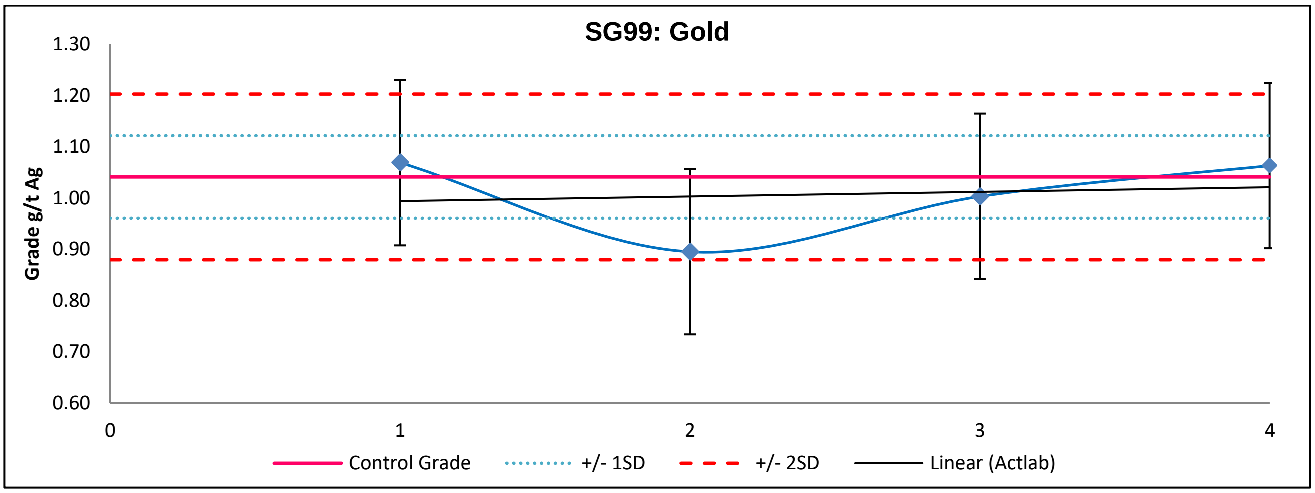
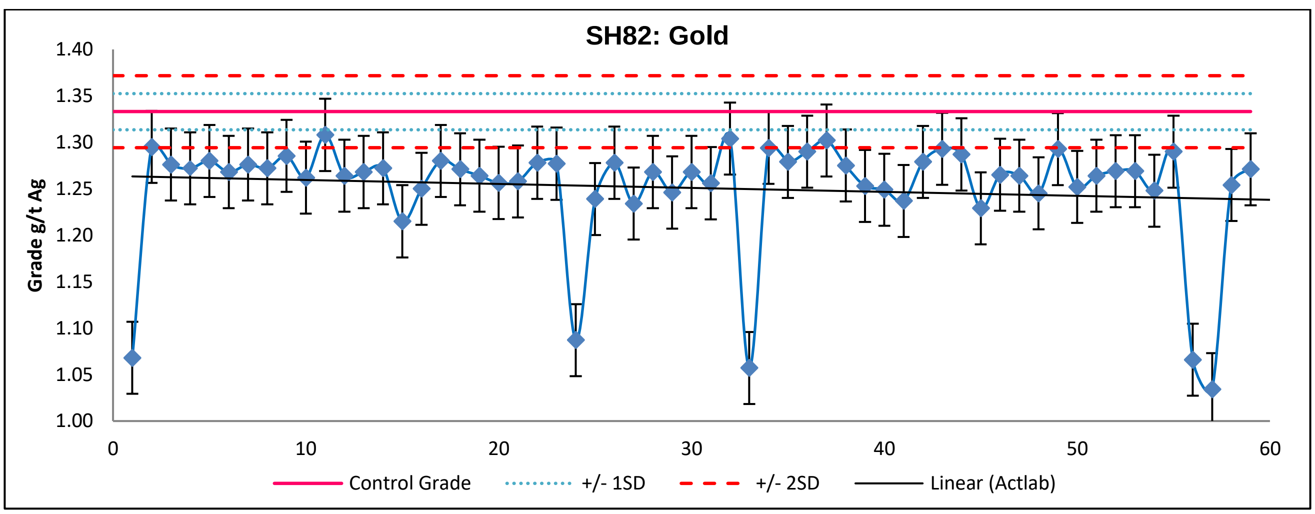


FIGURE 11-9 CONTROL PLOT FOR GOLD CRM SG99



Except for CRMS OXG140 and SH82, CRMs performed well with between 40% and 75% of assay values within ± 1 standard deviation and between 68% and 100% within ± 2 standard deviations.

OXC152 had a cluster of six outliers ranging from 0.14 ppm to 0.16 ppm, approximately 30% less than the expected value. OXCD108 had a single outlier at 0.87 ppm. OXE152 and OXG098 had no outliers. OXG140 had two outliers at 0.94 ppm and 0.88 ppm. OXJ137 and SG99 had no outliers. SH82 had five outliers in a tight range ranging from 1.03 ppm to 1.09 ppm, approximately 20% less than the expected mean. The similar grade of SH82 outliers suggests they could be miss-labelled CRM sachets.

CRM OXG140 (1.02 g/t Au) performed badly due to a consistent positive bias of approximately 10% that resulted in only 67% of samples being within ± 2 standard deviations of the certified mean. CRM SH82 (1.33 g/t Au) performed badly due to a consistent negative bias of approximately -5% that resulted in only 7% of samples being within ± 2 standard deviations of the certified mean. The consistent but contradictory biases seen for these similar grade CRMs is difficult to explain. Both CRMs were prepared and analyzed in the same way during the 2021 drilling campaign. The only significant difference is that OXG140 is an oxide CRM whereas SH82 is a fresh rock CRM.

Ongoing surveillance of CRM results is necessary to identify and resolve consistent bias in sequential CRMs. A common batch failure criterion is two or more sequential CRMs that are all >2 standard deviations below the mean, or all >2 standard deviations above the mean. The Company should implement this quality control criterion and determine the cause of the OXG140 and SH82 CRM bias.

All CRMs suggest a degree of analytical drift. The cyclicity and amplitude of drift over time is difficult to determine because the QAQC database does not contain analysis dates. CRMs can only be reviewed in sample number sequence, not by date. A robust database that includes the analysis date should be established in future.

11.5.3 BLANKS (2011)

A total of 169 blank samples were assayed during the 2011 program (2.4% of submitted samples). Blank samples of Linden bauxite were inserted with saprolitic drill and auger samples and Omai dolerite core were inserted with fresh rock drill samples. Blanks were placed within the sample stream at a frequency of one blank per 50 samples. Blanks were inserted within zones considered to be mineralized or immediately after a sample containing visible gold.

Of the blanks, 79% returned a gold grade below 0.01 ppm Au (>95% upper tail confidence interval after removal of spurious values); 21% of samples returned assays of greater than 0.01 ppm Au with values ranging up to 0.036 ppm Au. One sample returned a spurious value of 0.079 ppm Au and may be the result of mislabeling.

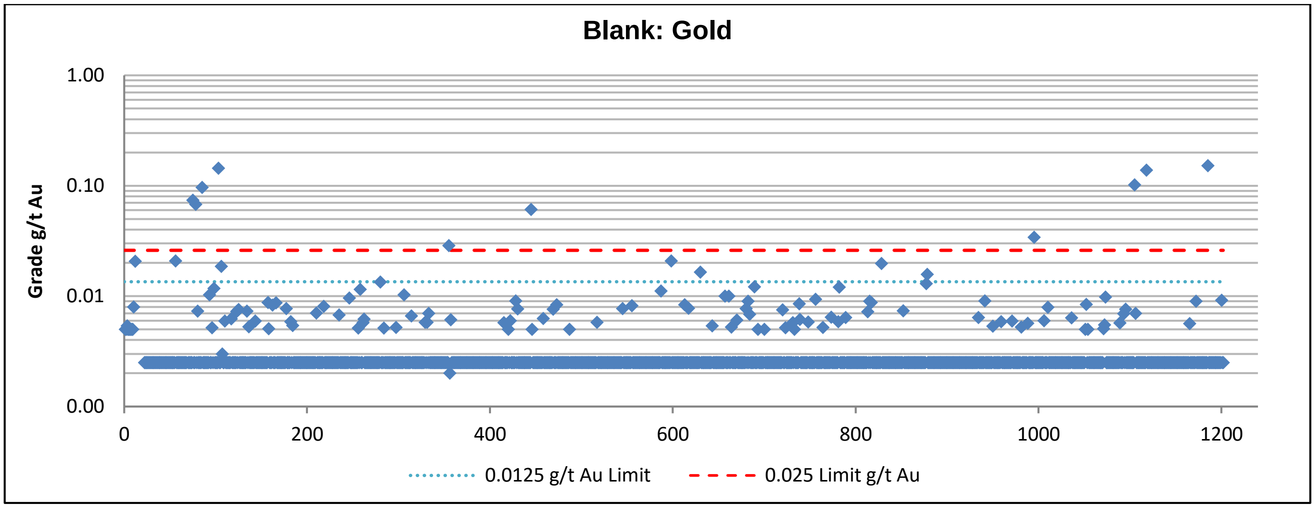
11.5.4 BLANKS (2017–2021)

A total of 1,202 blank samples (2.8% of all samples) were submitted for analysis between 2017 and 2021 (Table 11-3). Blank samples were either barren dolerite from an intrusion near to the project site, or quartz sand, which is used by the assay laboratories for blank material. As shown in Figure 11-10, majority of the blanks had below detection or very low values reported; thus, the blank values indicate there is very little contamination overall.

TABLE 11-3 2017 TO 2021 BLANK ASSAY RESULTS

Element	Minimum (ppm)	Maximum (ppm)	Mean (ppm)	No. of results
Au (ppm)	<0.002	0.15	0.004	1,202

FIGURE 11-10 RESULTS OF BLANK SAMPLES TAKEN DURING THE 2017–2021 PROGRAM



11.5.5 DUPLICATES (2011)

Duplicates from the 2011 program comprised a mixture of coarse duplicates and pulp duplicates. A total of 283 duplicates were submitted (4.1% of all samples).

For coarse duplicates, data is available for 215 samples. Duplicates were selected from five holes, namely EMD11_052 (three samples), EMD11_053 (98 samples), EMD11_054 (46 samples), EMD11_067 (58 samples), EMD11_099 (10 samples), and were submitted for re-analysis at Actlabs in three batches over the course of the drilling program. Good repeatability of original assay values is indicated by a Pearson correlation coefficient of 0.90, and 64% of repeat assays pairs had a half absolute relative difference (HARD) value within ±20%. Variability decreases as mean grade increases and there was no relative bias between original and repeat assay values. Large relative differences between assays at the lower limit of detection can result in an inaccurate analysis of sample repeatability. Because duplicate samples were primarily not selected from mineralized zones, only 20 pairs had a mean gold grade above a cut-off of 0.2 ppm Au and tested repeatability at economically significant grades. Above this nominal cut-off repeatability appears to improve with 90% of pairs having HARD value within ±20%.

For pulp duplicates, data is available for 68 samples. Duplicates were selected from two holes, EMD11_054 (36 samples) and EMD11_055 (34 samples) and were submitted for re-analysis at Actlabs in a single batch. Good repeatability of original assay values is indicated by a Pearson correlation coefficient of 0.99 and 70% of repeat assays pairs had a HARD value within ±20%.

There was no relative bias between original and repeat assay values. Pulp duplicates were not selected from samples with economically significant grades. Only six pairs had a mean gold grade above 0.2 ppm, all returned values within 20% of the mean of the sample pair.

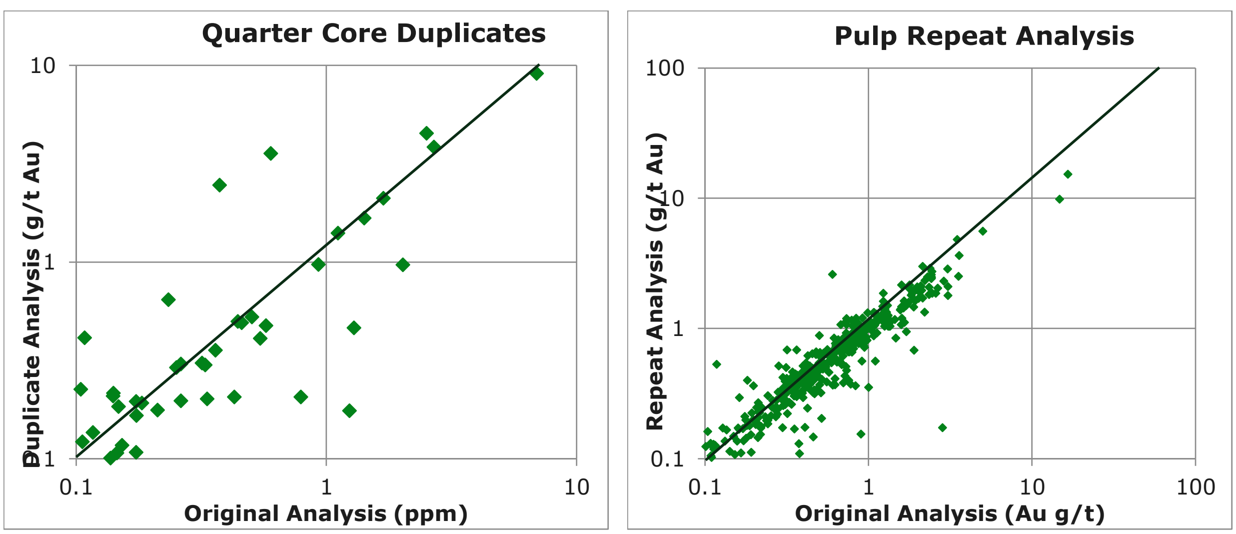
11.5.6 FIELD DUPLICATES (2017 - 2020)

A total of 342 duplicates of mineralized and unmineralized material were submitted between 2017 and 2020 (1.6% of all samples). Quarter-core duplicates were submitted to assess the nugget effect. 86 pairs had a mean gold grade above 0.1 g/t Au. These samples were used to calculate average coefficients of variation ("CVs") following the approach of Stanley and Lawie (2007), and as recommended by Abzalov (2008). The average CV for quarter-core field duplicates is 40%. This matches the 40% CV reported for acceptable sampling practice at coarse ("nuggety") gold projects (Abzalov, 2008). A scatter plot of field duplicate samples >0.1 g/t Au is shown in Figure 11-11.

11.5.7 REPEAT PULP ANALYSIS (2020 - 2021)

Following the recommendations of CSA Global (2021), a total of 478 repeat analyses were carried out on pulp samples from 2020 to 2021 (1.6% of all samples). Repeat analysis was undertaken to assess laboratory assay precision. A significant proportion, 398 pairs, contained gold grades above 0.1 g/t Au. These samples were used to calculate average CVs following the approach of Stanley and Lawie (2007). The average CV for repeat pulp analyses is 23%. This is in line with the 20% CV specified for acceptable sampling practice at coarse gold projects ("nuggety") (Abzalov, 2008). A scatter plot of repeat pulp analyses >0.1 g/t Au is shown in Figure 11-11.

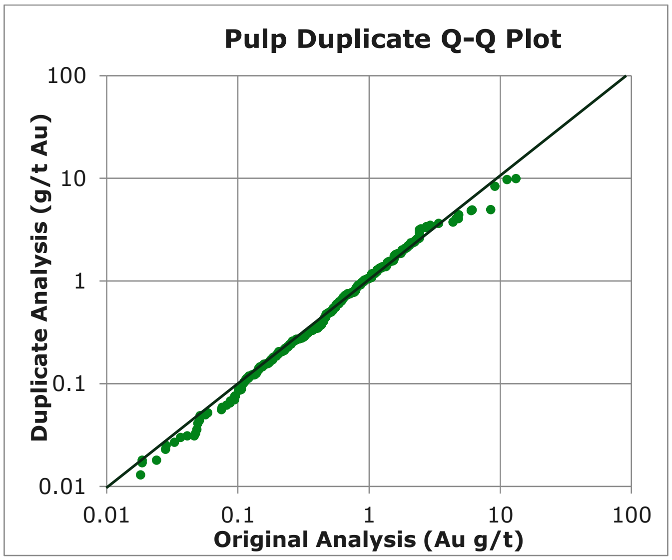
FIGURE 11-11 SCATTER PLOT FOR 2017–2020 QUARTER-CORE DUPLICATES (LEFT) AND PULP REPEAT ANALYSIS (RIGHT)

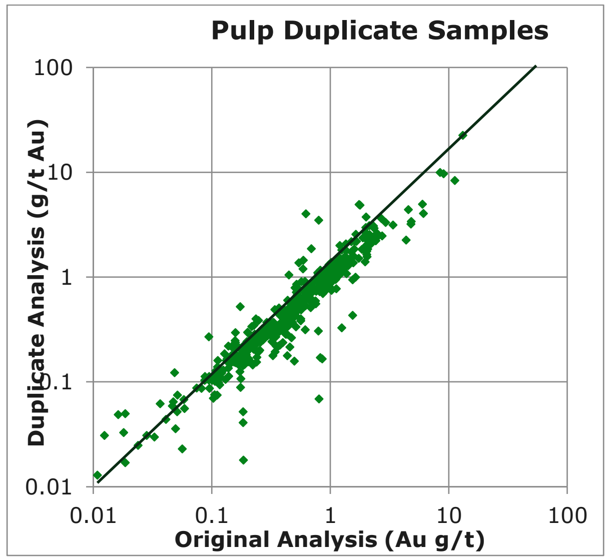


11.5.8 LABORATORY UMPIRE ANALYSIS – QUARTER CORE (2017-2020)

In addition to duplicate analysis, quarter-core duplicates were also submitted to MSA laboratories, who acted as the umpire laboratory. A total of 262 duplicates were submitted between 2017 and 2020 (1.2% of all samples during that period). No pulp duplicates or coarse duplicates were submitted. Reasonable repeatability of original assay values was indicated by a Pearson correlation coefficient of 0.75, and 62% of repeat assays pairs had a HARD value within ±20%. There was no relative bias between original and repeat assay values. Umpire samples were from mineralized zones but not based on previous gold assays. A larger number (213 pairs) had a mean gold grade above 0.2 g/t Au, with 62% of repeat assays above this threshold had a HARD value within ±20% (Figure 11-12).

FIGURE 11-12 SCATTER PLOT (LEFT) AND QUANTILE-QUANTILE PLOT (RIGHT) FOR 2017–2020 UMPIRE SAMPLES





11.5.9 LABORATORY UMPIRE ANALYSIS – REPEAT PULP ANALYSIS (2021)

Following the recommendations from CSA Global (2021), a repeat umpire analysis program was established in 2021. Pulp samples were submitted for repeat analysis at MSA laboratories, who acted as the umpire laboratory. Repeat analysis was undertaken to assess laboratory assay accuracy and bias.

A total of 204 pulp samples analyzed by Acme in 2011 were submitted for repeat analysis at MSA laboratories. A significant proportion, 183 pairs, contained gold grades above 0.1 g/t Au. These samples were used to calculate average CV. The average CV for repeat pulp analyses is 16%, in line with the 20% CV specified for acceptable sampling practice at coarse gold projects (Abzalov, 2008). A scatter plot of repeat pulp analyses >0.1 g/t Au is shown in Figure 11-13. There was no relative bias between original and repeat assay values.

A total of 481 pulp samples analyzed by Actlabs in 2020-2021 were submitted for repeat analysis at MSA laboratories. (1.6% of all samples from that period). A significant proportion, 411 pairs, contained gold grades above 0.1 g/t Au. The average CV for repeat pulp analyses is 21%. A scatter plot of repeat pulp analyses >0.1 g/t Au is shown in Figure 11-14. The average result for original values were 3.13% less than the MSA umpire values, which is an acceptable relative difference for this study. The possibility for systematic under reporting of Actlab assay values should be monitored by continuing the umpire analysis program and by careful surveillance of CRM results.

FIGURE 11-13 SCATTER PLOT (LEFT) AND QQ PLOT (RIGHT) FOR 2011 UMPIRE SAMPLES

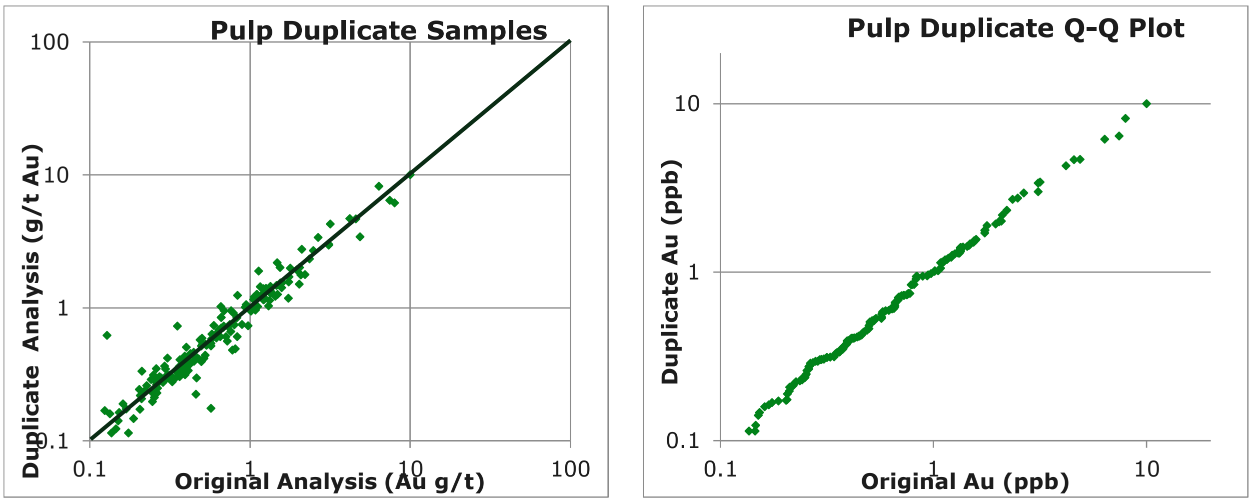
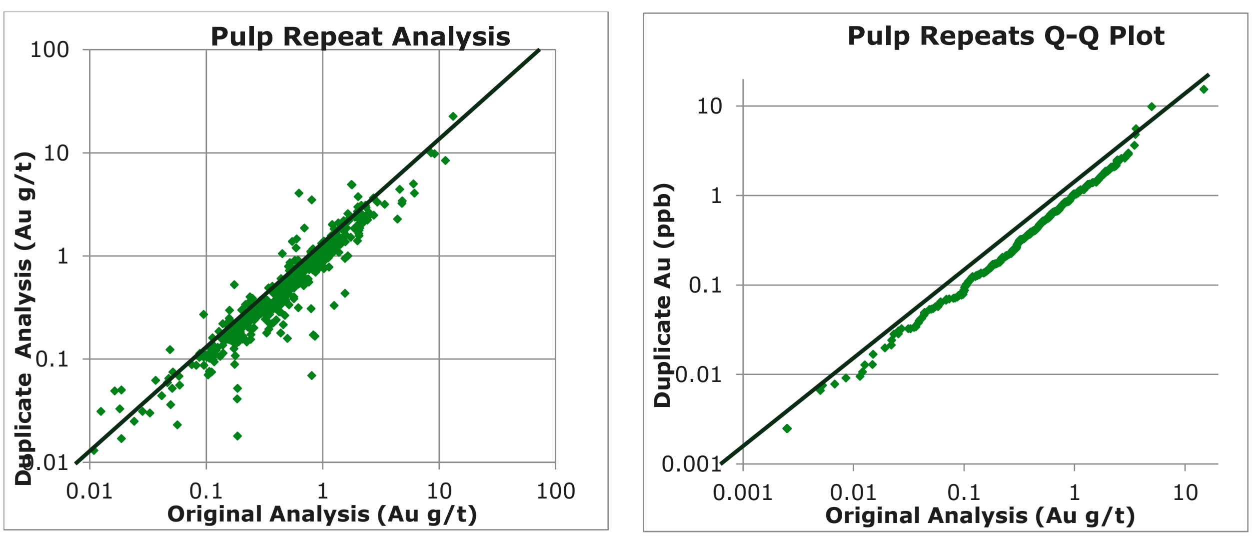


FIGURE 11-14 SCATTER PLOT (LEFT) AND QQ PLOT (RIGHT) FOR 2020–2021 UMPIRE SAMPLES



11.6 QUALIFIED PERSON'S OPINION ON SAMPLE PREPARATION, SECURITY AND ANALYTICAL PROCEDURES

A total of 40,157 core samples were analyzed between 2017 and 2021. For this period, a total of 2,765 QAQC samples were analyzed, representing 9% of all assays in the exploration database.

It is the Qualified Person's opinion that sample preparation and analyses were carried out in line with industry standards and are satisfactory.

Although a small number of CRMs show both positive and negative bias, the quality of assays is considered robust and reliable, and suitable to be used for the MRE. Saprolite CRM OXG140 and fresh rock CRM SH82 had numerous outliers and showed a degree poor precision and bias not seen in umpire repeat analysis. Careful surveillance is required to identify and correct CRM failures when they are reported.

12. DATA VERIFICATION

The Company is using the April 2022 MRE (assay cut-off date of December 31, 2021) for the PEA. As such, data verification for the 2022-23 drilling programs was not carried out by the QP and is not included in the Technical Report.

12.1 SITE VISIT

Nigel Fung, P. Eng, Qualified Person, ERM's Partner and author, carried out a three-day site visit to the Eagle Mountain Gold Project from October 25 to 27, 2023. Over that period, the Qualified Person visited all the target sites of the Eagle Mountain and Salbora properties, except for Bottle Bank; validated drill hole collar positions using a handheld GPS; reviewed drill core at the Eagle Mountain core logging facility, based on core request from Leon McGarry; and evaluated aspects of the site layout and terrain and how they might impact mine engineering aspects of the Project as modifying factors.

For the April 2022 MRE, Dr. Luke Longridge, P.Geo., Qualified Person, ERM's Associate Resource Geologist (former ERM employee) and co-author of the 2022 MRE, carried out a four-day site visit to the Eagle Mountain Gold Project from November 22 to 25, 2020. Over that period, the Qualified Person visited the property site, validated drill hole and auger collar positions using a handheld GPS, reviewed drill core at the Eagle Mountain core logging facility, and inspected the geology of the Project site.

12.2 DATABASE VERIFICATION AND VALIDATION

For the April 2022 MRE, during the site visit, Dr. Longridge observed core logging and sampling procedures, reviewed sampling preparation facilities and procedures, and inspected documentation related to drilling, sampling, and assaying. Analytical facilities at both Actlabs and MSA in Georgetown, Guyana, were inspected. No samples were collected for additional laboratory verification; however, mineralized intervals were inspected and compared with assay values for confirmation of mineralization.

12.3 VERIFICATION OF SAMPLING AND ASSAYING

Visual inspections of drill core were performed during the two separate site visits.

Visual inspections of core corresponded to local geology with contact between saprolite, transition, and fresh rock being notable. Also notable was the presence of hard intact rock boulders in the middle of saprolite zones within the core log.

It is the Qualified Persons' opinion that the data available are a reasonable and accurate representation of the Eagle Mountain Gold Project and are of sufficient quality to provide the basis for the conclusions and recommendations reached in this Technical Report.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

This section summarizes the metallurgical testwork carried out for the Project.

Several rounds of metallurgical testwork were completed for the Eagle Mountain Gold Project, initially in 1989 and more recently in 2018 and 2022. The more recent testwork provides the basis for the PEA metallurgical design criteria as developed by Soutex. Soutex was not involved in the metallurgical testing scope design and analysis and could not verify the various sources directly; however, the metallurgical testwork is sufficient in its coverage of the mineral resource areas and its scope of analysis to provide confidence in the figures presented and the values selected as design criteria for a PEA-level study.

13.1 INTRODUCTION

Numerous metallurgical tests have been performed from several mineralized areas on the Property (Table 13-1).

TABLE 13-1 HISTORICAL TESTWORK

Testwork Date	Sample Location	Tests Performed	Laboratory
1989	Not specified	• Desliming and gravity gold recovery	Not specified
1991	Not specified	• Gold gravity testwork	Lakefield
2009-2010	Kilroy Millionaire Zion	Saprolite and Fresh Rock Samples: • Chemical and bulk modal characterization • Bond Work Index (BWI) • Concentration of gold by gravity (EGRG) • Leaching performance assessment	SGS Laboratories
2013-2014	Toucan/Zion Kilroy	• Gravity recovery flowsheet • Flotation on gravity tails	McClellan Laboratories Met-Solve
2016-2017	Kilroy	• Operation of a gravity pilot plant	On-site pilot plant
2018	Zion Kilroy Drilled sample	Saprolite Samples: • Chemical and mineralogy characterization • Gold deportment • Bond Work Index (BWI) • Concentration of gold by gravity (Knelson/Mosley) • Leaching performance assessment	SGS
2022	Ounce Hill Zion Bacchus Kilroy Bucket	Saprolite and Fresh Rock Samples: • Chemical analysis • Bond abrasion test (ai) • Bond Work Index • Size fraction test • Concentration of gold by gravity (Knelson/Mosley) • Leaching performance assessments	SGS

Testwork Date	Sample Location	Tests Performed	Laboratory
	Bottle		
	No. 1 Hill		
	Scrubber		
	Baboon		
	Salbora		
	Toucan		
	Powis		

13.2 HISTORICAL METALLURGICAL TESTING

13.2.1 GSR METALLURGICAL TESTWORK

Metallurgical studies completed by GSR in 1989 and 1991 were limited to desliming and gravity gold recovery testwork for the Eagle Mountain deposit. During the first quarter of 1989, two samples of saprolite were collected and treated to evaluate the free gold content and the feasibility of gold extraction by gravity. The preliminary results indicated that the majority of the gold does not appear to be amenable to the gravity recovery method.

Additional testwork on the saprolite material completed later in 1989 showed that desliming achieves feed volume reduction of up to 81% with a high gold recovery to the sands fraction (+90%). It was anticipated that desliming ore could be an important pre-concentration step prior to processing. Gold recovered by gravity reached only 24% of the total gold content.

In 1991, GSR carried out additional gold gravity testwork at Lakefield Research using a Falcon concentrator. Nine gravity tests were completed, and the average gold recovery was between 33% and 42% of the total gold content. The gravity gold recovery increased using the more advanced gold recovery technology, but not significantly enough to be retained as a single processing route for the recovery of gold from the Eagle Mountain deposit (McGarry, L. et al./ CSA Global, 2022).

13.2.2 TESTWORK OF 2009-2010

OGML submitted four samples of mineralized saprolite (Kilroy Sap, Millionaire Sap, Zion Sap, and Saddle Sap) and four mineralized fresh rock (Kilroy, Millionaire, Zion, and Saddle) from the Eagle Mountain deposit to SGS in Lakefield, Ontario for testwork to establish the nature of the gold occurrence. The testwork involved sample characterization using head analyses, mineralogy and grindability studies and an investigation of the amenability of the samples to gold recovery/extraction utilizing gravity separation and cyanide leaching.

For the saprolite, the individual samples underwent head analysis and cyanidation testwork. Mineralogical studies and gravity separation testwork were conducted on a composite saprolite sample. The composite sample was made of three samples. The results of the head analysis for gold were 2.79 g/t, 0.68 g/t and 0.68 g/t. Those results were obtained through screened metallic Au analysis. The gold deportment study on the saprolite composite showed that the average gold grain size was 7 microns. It was seen that gold could be trapped in gold clusters in complex rims in the saprolite mineralization. The GRG result for the saprolite gravity test was 70.2%. The cyanidation test results (24 hours) are summarized in Table 13-2. The Kilroy and Millionaire saprolite samples showed good response to cyanidation with gold recoveries over 90%. The Zion saprolite sample showed slower leach kinetics with an initial gold recovery of 64.9%. A further "rolling bottle" leach test was conducted maintaining the same leach conditions with a 72-hour retention time resulting in gold recovery increasing to 95.5%.

TABLE 13-2 CYANIDATION TEST RESULTS SUMMARY

Feed	Grind Actual P80 (µm)	Extraction (%)		Residue (g/t)	
		Au	Ag	Au	Ag
Kilroy Sap	83	96.7	81.9	0.09	0.5
Millionaire Sap	99	91.0	69.2	0.10	0.5
Zion Sap	91	64.9	80.9	0.31	0.5
Kilroy Fresh	72	92.7	30.5	0.07	0.5
Millionaire Fresh	75	95.5	20.8	0.03	0.5
Zion Fresh	79	94.2	29.1	0.03	0.5

The fresh rock samples underwent grindability tests, head analysis and cyanidation testing. A composite of the three samples was used for mineralogical studies and gravity separation. The head analysis results for gold were 1.18 g/t, 0.58 g/t and 0.57 g/t. The mineralogical study showed that the major composition of the hard rock is plagioclase and quartz. The Bond ball mill test results were 17.0 kWh/t, 15.2 kWh/t and 16.2 kWh/t. The GRG number for the fresh rock test is 47.5%. The cyanidation test was done for 24 hours with recovery results of 92.7%, 95.5% and 94.2%.

13.2.3 GRAVITY TESTING OF 2013-2014

In September 2013, Goldsource collected 17 representative mineralized samples (trenching, adit, and core) of saprolite from Toucan, Zion, and Kilroy to complete preliminary metallurgical testwork as part of its due diligence for potential amalgamation with EMGC. These samples were initially provided to McClellan Laboratories in Reno, Nevada, USA. After size analysis of gold particles, 12 of the samples were sent to Met-Solve Laboratories Inc. for scoping level metallurgical testwork to evaluate the response of the material to gravity concentration and flotation. The results returned gold gravity recoveries of between 72% and 80%. Flotation was tested on gravity tailings. This improved gold recoveries to approximately 83%.

13.2.4 GRAVITY PILOT PLANT TESTING OF 2016-2017

A gravity pilot plant was constructed between October and December 2015 and operated intermittently from January 28, 2016 to February 28, 2017. An estimated 148,844 tonnes of mineralized saprolite from the Eagle Mountain deposit grading 0.74 g/t Au (3,541 oz gold contained) were processed with 643.2 oz gold reporting to doré, giving an estimated gold recovery of 18%. Approximately 2,898 oz gold (very fine size) went into tailings storage for potential recovery by cyanidation in future. Due to the lower-than-expected gold recovery by gravity methods, Goldsource stopped operating the pilot plant in Q2 2017.

13.2.5 TESTWORK OF 2018

In 2018, Goldsource retained SGS to conduct metallurgical testwork on saprolite mineralization under the supervision of independent Vancouver-based Tetra Tech Inc. ("Tetra Tech"). Twenty-two (22) saprolite samples representing the different mineralized zones of the Eagle Mountain deposits were collected (trench and core) with additional samples representing the existing pilot gravity plant tailings and the +2 mm stockpile from the same operation.

The test program consisted of sample characterization (assaying, sizing, mineralogy, and gold deportment), grindability testing, followed by gravity separation and cyanidation. The received samples were grouped into seven composites designated as VC1 through VC7 for the test program (Table 13-3). The Master Composite is a blend of composite samples (VC1 to VC4 and VC7). The composite sample VC5 is representative of the existing pilot gravity plant tailings from the 2016 operation. The composite sample VC6 is representative of the +2 mm stockpile from the same pilot plant operation.

The samples used to perform the testwork were taken from locations illustrated in Figure 13-1.

The results of the detailed metallurgical testwork are summarized below and shown in Table 13-3 and Table 13-4.

- The Bond Ball Mill Work Index is 8.1 kWh/t for the overall sample (including fines) and 16.3 kWh/t for the coarse fractions of the MC (with fines removed);
- The Bond Abrasion Index is 0.004 and indicates low abrasiveness the mineralization;
- The gold grade for the MC sample was 0.98 g/t. The sulphur (as pyrite) content is <0.05%. No deleterious elements were noted in the assay results;
- For the MC sample, approximately 50% of the gold occurs within the finer fraction of -25 micron;
- The gravity concentration tests, excluding pilot plant tails, resulted in a gold recovery between 18.9% and 29.5% (averaging 24.4%);
- For the Master Composite samples, cyanide leach test results of gravity tailings showed an average gold recovery of 96.7%;
- Test results show a conceptual grind size of 200 miP80) for processing comprised of gravity concentration followed by leaching. The applied standard condition for cyanide concentration was 0.5 g/L; and
- The cyanide detoxification results indicated that the weak acid dissociable cyanide (CNWAD), present in the carbon-in-pulp barren pulp could be destroyed to levels below the typical effluent discharge requirement of 1 mg/L.

FIGURE 13-1 METALLURGICAL TESTWORK SAMPLING 2018

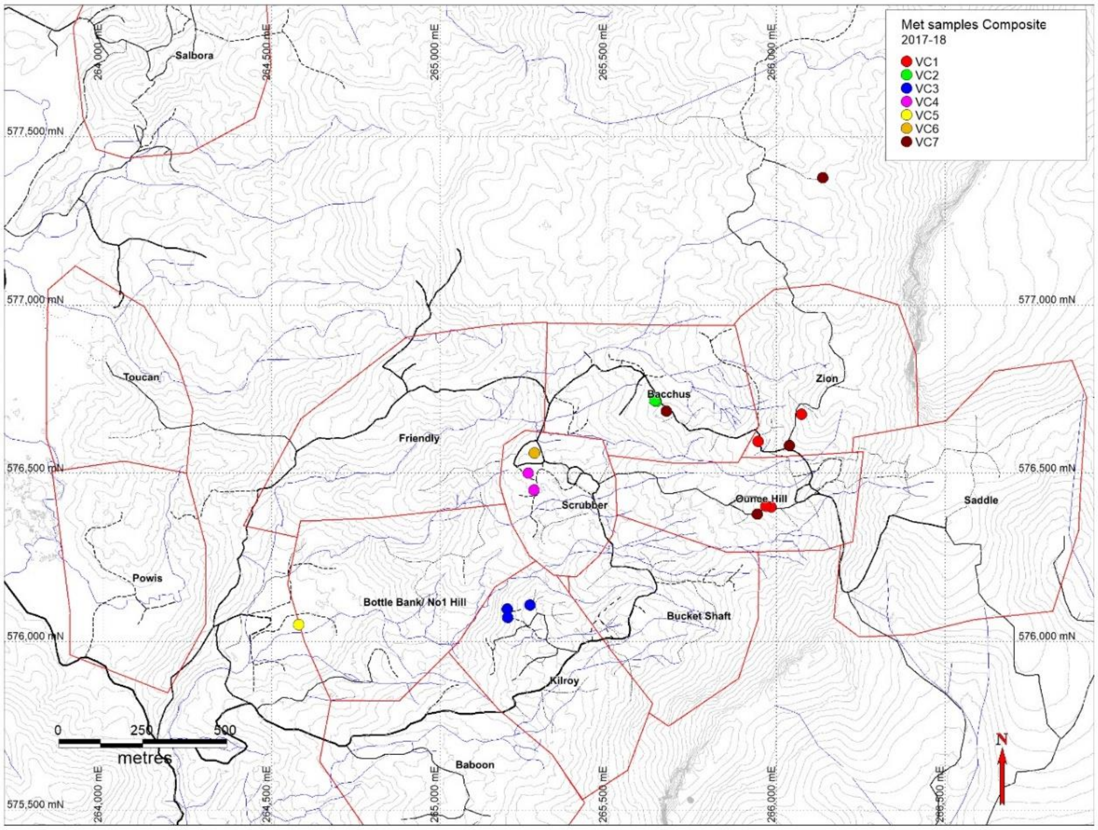


TABLE 13-3 SUMMARY OF GRAVITY AND CYANIDE LEACH RESULTS

Sample No.	Sample Description	Head Grade (Au g/t)	Feed Size P80 (µm)	Gravity Au Extraction/ Recovery (%)	Gravity + CN ** Au Extraction/ Recovery (%)
VC1	Zion 01-07	0.90	173	27.6	97.6
VC2	Zion 08-10	1.29	175	25.4	96.0
VC3	Kilroy 01-06	1.13	132	18.9	97.4
VC4	Kilroy 07-08	0.39	162	29.5	94.8
VC5	Pilot Gravity Plant Tails	0.77	761 *	N/A	87.4
VC6	Stock +2 mm	1.99	195	13.7	93.6
VC7	Saprolite Drill Core	1.17	179	20.7	97.7
Average	**VC1 to VC4 and VC7**	**0.98**	**164**	**24.4**	**96.7**

Notes:
* VC5 sample (Pilot Gravity Plant Tailings) without prior grinding or additional gravity separation; already passed through the FALCON Gravity Concentrators at the pilot plant.
** 48-hour leach residency times

TABLE 13-4 SUMMARY OF CYANIDE LEACH RESULTS OF GRAVITY TAILS

Sample No.	Sample Description	Head Grade (Au g/t)	Feed Size P80 (µm)	Gravity Au Extraction /Recovery (%)	Gravity + CN ** Au Extraction/Recovery (%)
CN5	Master Composite	0.98	563	26.0	97.6
CN6			186		97.0
CN7			124		96.9

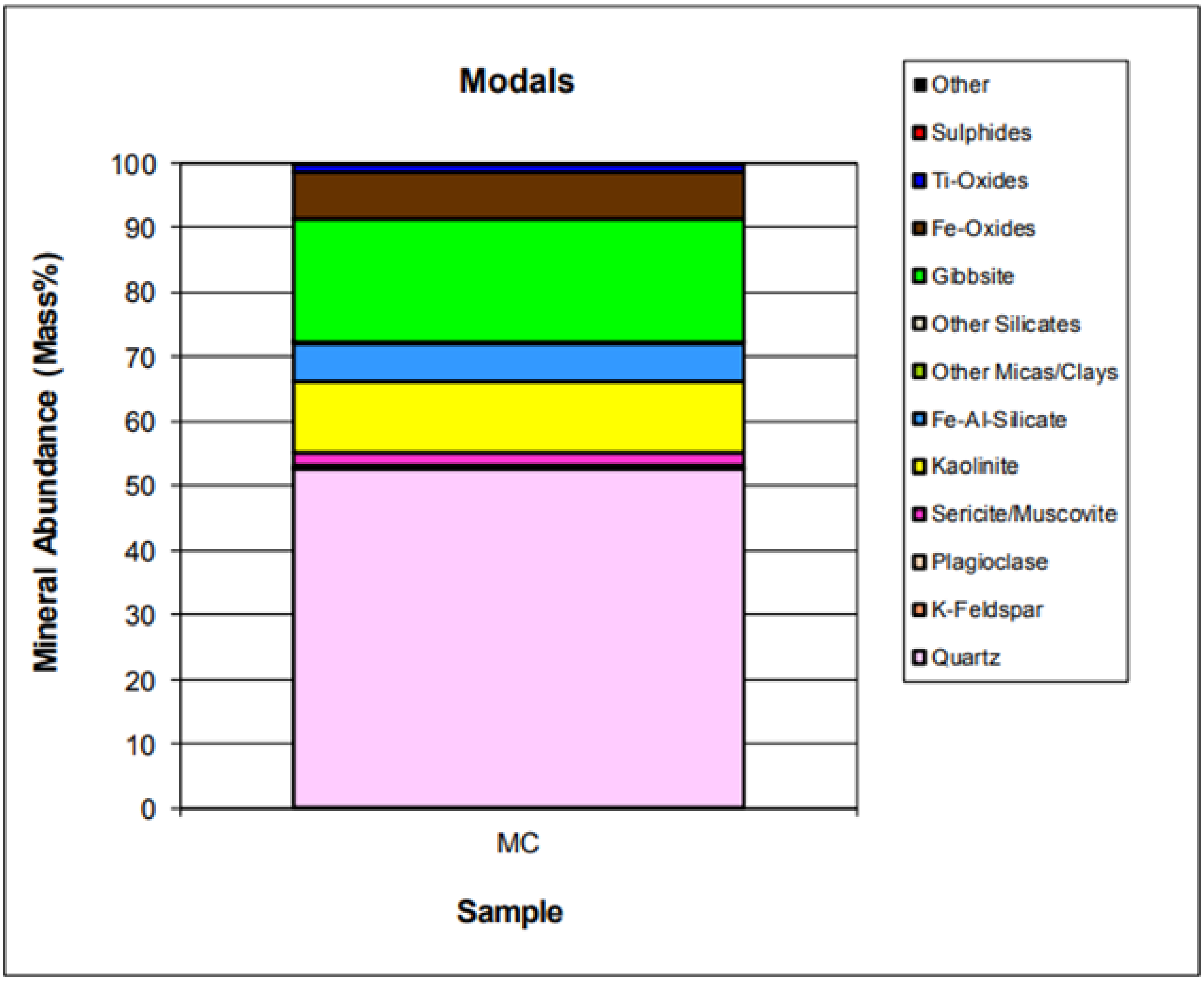
Note:
** 48-hour leach residency times.

A bulk mineralogy of a master saprolite composite was performed in 2018 by QEMSCAN Rapid Mineral Scan ("QEM-RMS") analysis and X-ray diffraction. The results are shown in Table 13-5 and Figure 13-2.

TABLE 13-5 SUMMARY OF BULK MINERALOGY BY QEMSCAN (SGS, 2018)

Mineral Mass (%)	MC
Quartz	52.6
K-Feldspar	0.02
Plagioclase	0.39
Sericite/muscovite	2.14
Kaolinite	11.1
Fe-Al-Silicate	5.63
Other Micas/Clays	0.2
Other Silicates	0.12
Gibbsite	19.2
Fe-Oxides	7.25
Ti-Oxides	0.21
Sulphides	0.01
Other	0.14
Total	100

FIGURE 13-2 QEMSCAN MINERAL DISTRIBUTION (SGS, 2018)



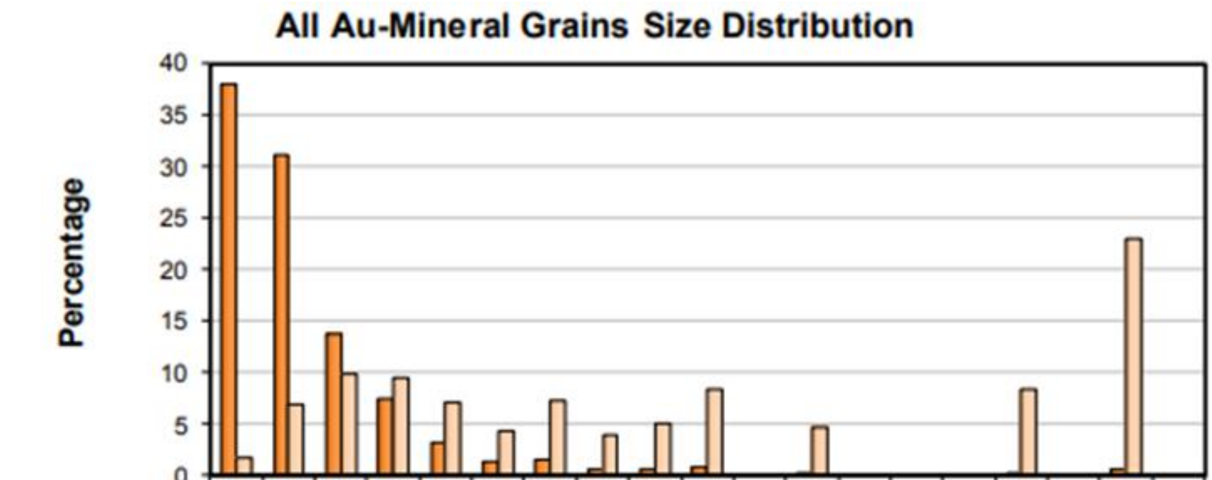
The composite analyzed contains major amounts of quartz (52.6%), gibbsite (19.2%) and kaolinite (11.1%). A gold deportment study was performed on the master composite. A total of 249 gold mineral grains were found by optical SEM-EDS. Mainly, native gold was found and traces of electrum. The gold grains have an average size of 10.8 microns.

The results show that most of the gold in the sample is smaller than 50 microns (Figure 13-3).

13.3 2022 TESTWORK AT SGS

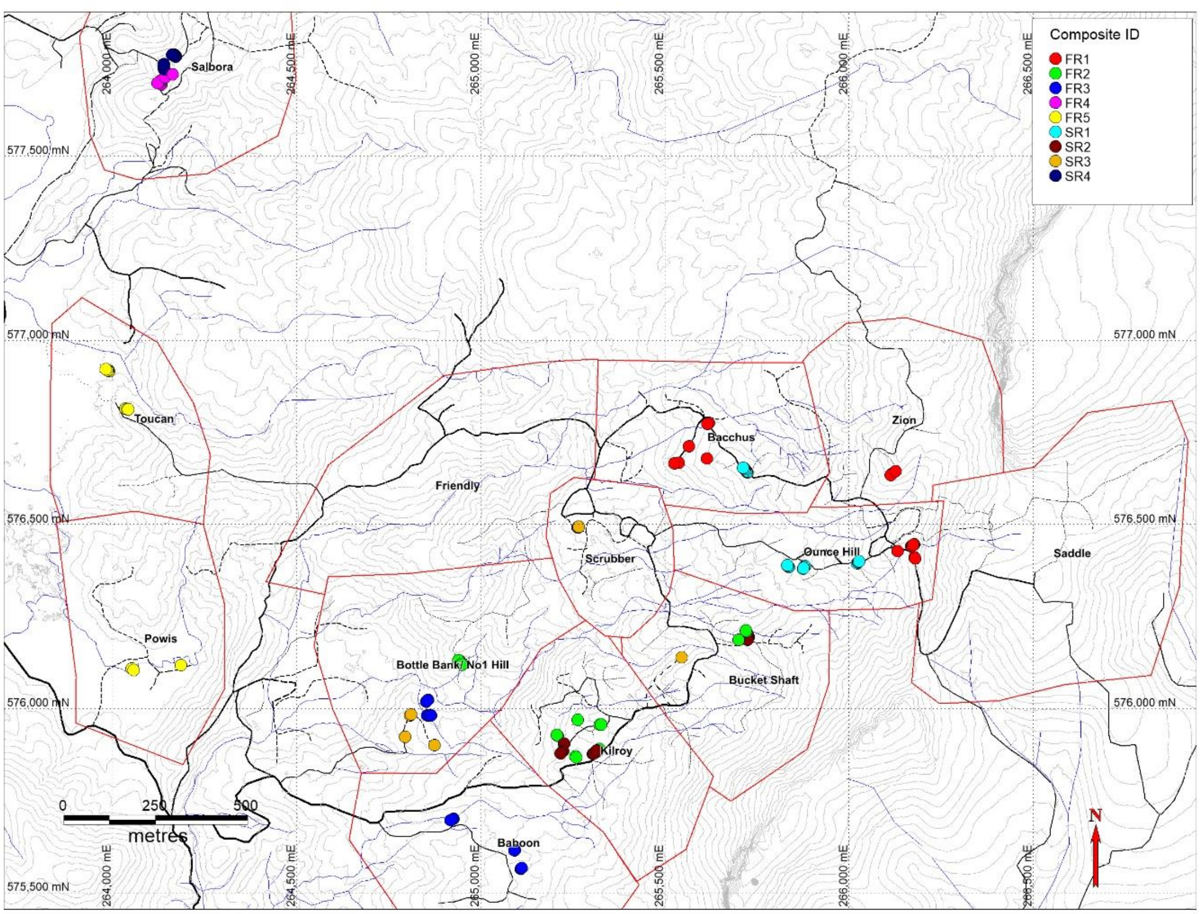
This section presents the testwork performed by SGS in 2022 and sponsored by Goldsource from which most of the design criteria is derived. Figure 13-4 shows the location of the metallurgical samples for the 2022 metallurgical testwork.

FIGURE 13-3 SIZE DISTRIBUTION OF GOLD MINERAL GRAINS (SGS, 2018)



Size Range (µm)	<= 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 - 90	> 90
Frequency (%)	38.0	31.2	13.7	7.5	3.2	1.3	1.6	0.6	0.6	0.9	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.6	0.0
Surface Area (%)	1.7	6.9	9.9	9.4	7.1	4.3	7.3	3.9	5.0	8.4	0.0	4.8	0.0	0.0	0.0	8.3	0.0	22.9	0.0

FIGURE 13-4 METALLURGICAL TESTWORK SAMPLING 2022



13.3.1 MATERIAL CHARACTERIZATION

To determine the major mineral components of the samples and the possible deleterious elements present in them, mineralogical characterization and analytical assays were performed on the composite samples for each zone of interest:

- Kilroy (Eagle Mountain deposit);
- Zion (Eagle Mountain deposit);
- Ounce Hill (Eagle Mountain deposit);
- Bacchus (Eagle Mountain deposit);
- Bucket Shaft (Eagle Mountain deposit);
- Bottle Bank (Eagle Mountain deposit);
- No. 1 Hill (Eagle Mountain deposit);
- Scrubber (Eagle Mountain deposit);
- Baboon (Eagle Mountain deposit);
- Salbora deposit;
- Toucan prospect; and
- Powis prospect.

13.3.1.1 COMPOSITE PREPARATION

To perform the metallurgical tests, composite samples were assembled according to their weathering (fresh rocks and saprolite). Table 13-6 shows the point sample location for the drill core samples used in the 2022 study. Table 13-7 shows the sample used to generate the saprolite and fresh rock composites.

TABLE 13-6 TESTWORK SAMPLE DESCRIPTIONS (SGS, 2022)

Sample #	Area	Type
1	Eagle Mtn deposit (Baboon area)	Fresh
2	Eagle Mtn deposit (Bottle Bank area)	Fresh
3	Eagle Mtn deposit (Bucket Shaft area)	Fresh
4	Eagle Mtn deposit (Bucket Shaft area)	Saprolite
5	Eagle Mtn deposit (Kilroy area)	Fresh
6	Eagle Mtn deposit (Kilroy area)	Fresh
7	Eagle Mtn deposit (Kilroy area)	Saprolite
8	Eagle Mtn deposit (No.1 Hill area)	Fresh
9	Eagle Mtn deposit (No.1 Hill area)	Saprolite
10	Eagle Mtn deposit (Ounce Hill area)	Fresh
11	Eagle Mtn deposit (Ounce Hill area)	Fresh

Sample #	Area	Type
12	Eagle Mtn deposit (Ounce Hill area)	Saprolite
13	Salbora deposit	Fresh
14	Salbora deposit	Fresh
15	Salbora deposit	Saprolite
16	Salbora deposit	Saprolite
17	Eagle Mtn deposit (Scrubber area)	Saprolite
18	Toucan prospect	Fresh
19	Toucan prospect	Fresh
20	Eagle Mtn deposit (Zion area)	Fresh
21	Eagle Mtn deposit (Zion area)	Saprolite
22	Powis prospect	Fresh
23	Eagle Mtn deposit (Zion area)	Fresh
24	Eagle Mtn deposit (Baboon area)	Fresh
25	Eagle Mtn deposit (Bacchus area)	Fresh
26	Eagle Mtn deposit (Ounce Hill area)	Saprolite

TABLE 13-7 TESTWORK SAMPLE DESCRIPTIONS (SGS, 2022)

Composite	Sample #	Sample Mass (Kg)
SR1 (Eagle Mtn)	12	11.3
	21	12.9
	26	5.9
SR2 (Eagle Mtn)	4	8.7
	7	21.3
SR3 (Eagle Mtn)	9	3.7
	17	14
SR4 Salbora)	15	15
	16	14.9
FR1 (Eagle Mtn)	10	5.6
	11	8.1
	20	6.1
	25	10.2

Composite	Sample #	Sample Mass (Kg)
FR2 (Eagle Mtn)	2	9.2
	3	5.8
	5	10.9
	6	14.2
FR3 (Eagle Mtn)	1	12.5
	8	17.1
	24	10.3
FR4 (Salbora)	13	16.5
	14	13.5
FR5 (Toucan/Powis)	18	7.9
	19	5.6
	22	6.2

13.3.1.2 MINERALOGICAL CHARACTERIZATION AND GOLD DEPORTMENT STUDY

A bulk mineralogy of a master saprolite composite was performed in 2018 by QEM-RMS analysis and X-ray diffraction. The results are shown in Table 13-8 with the location of samples shown in Figure 13-1.

13.3.1.3 ANALYTICAL ASSAYS

In the 2022-2023 study, each sample was sent for silver (Ag), sulfur (S), sulfate (S=), total carbon(C(t)), graphite carbon (C(g)), arsenic (As), mercury (Hg), copper (Cu), iron (Fe), and zinc (Zn) assays. The results are shown in Table 13-8 for fresh rock and Table 13-9 for saprolite.

TABLE 13-8 FRESH ROCK SAMPLES HEAD ANALYSIS (SGS, 2022)

Sample ID / Composite No		Au (g/t)	Ag (g/t)	S (%)	S= (%)	C(t) (%)	C(g) (%)	As (%)	Hg (g/t)	Cu (%)	Fe (%)	Zn (%)
No. 10 EM (Ounce Hill)	FR1	3.29	0.9	0.58	0.40	0.21	<0.05	<0.001	<0.3	<0.01	1.91	<0.01
No. 11 EM (Ounce Hill)	FR1	1.69	0.8	0.40	0.33	0.06	<0.05	<0.001	<0.3	<0.01	1.91	<0.01
No. 20 EM (Zion)	FR1	1.22	<0.5	0.31	0.25	0.09	<0.05	<0.001	<0.3	<0.01	2.28	<0.01
No. 25 EM (Bacchus)	FR1	0.79	<0.5	0.21	0.18	0.34	<0.05	<0.001	<0.3	<0.01	2.19	<0.01
No. 2 EM (Bottle Bank)	FR2	3.64	<0.5	0.64	0.61	0.38	<0.05	0.005	<0.3	0.016	2.23	<0.01
No. 3 EM (Bucket Shaft)	FR2	1.13	<0.5	0.36	0.32	0.11	<0.05	<0.001	<0.3	<0.01	1.92	<0.01

Sample ID / Composite No		Au (g/t)	Ag (g/t)	S (%)	S= (%)	C(t) (%)	C(g) (%)	As (%)	Hg (g/t)	Cu (%)	Fe (%)	Zn (%)
No. 5 EM (Kilroy)	FR2	0.77	<0.5	0.38	0.27	0.33	<0.05	<0.001	<0.3	<0.01	2.12	<0.01
No. 6 EM (Kilroy)	FR2	1.06	<0.5	0.37	0.39	0.33	<0.05	<0.001	<0.3	<0.01	2.16	<0.01
No. 1 EM (Baboon)	FR3	1.41	<0.5	0.32	0.29	0.27	<0.05	<0.001	<0.3	<0.01	2.09	<0.01
No. 8 EM (No.1 Hill)	FR3	1.54	<0.5	0.64	0.62	0.40	<0.05	0.004	<0.3	<0.01	2.23	<0.01
No. 24 EM (Baboon)	FR3	0.35	<0.5	0.21	0.16	0.46	<0.05	<0.001	<0.3	<0.01	2.31	<0.01
No. 13 Salbora	FR4	1.78	0.6	1.94	1.93	0.96	<0.05	0.007	<0.3	<0.01	7.55	<0.01
No. 14 Salbora	FR4	0.78	<0.5	0.97	0.76	0.90	<0.05	0.011	<0.3	<0.01	3.76	<0.01
No. 18 Toucan	FR5	1.33	<0.5	0.83	0.74	0.84	<0.05	0.003	<0.3	<0.01	3.04	<0.01
No. 19 Toucan	FR5	0.92	<0.5	0.91	0.75	0.60	<0.05	0.006	<0.3	<0.01	2.77	<0.01
No. 22 Powis	FR5	0.84	<0.5	0.63	0.58	0.37	<0.05	0.002	<0.3	<0.01	3.48	<0.01

TABLE 13-9 SAPROLITE SAMPLES HEAD ANALYSIS (SGS, 2022)

Sample ID / Composite No		Au (g/t)	Ag (g/t)	S (%)	S= (%)	C(t) (%)	C(g) (%)	As (%)	Hg (g/t)	Cu (%)	Fe (%)	Zn (%)
No12 EM (Ounce Hill)	SR1	2.04	1.3	0.03	<0.05	0.04	<0.05	<0.001	<0.03	<0.01	3.47	<0.01
No. 21 EM (Zion)	SR1	0.55	<0.5	0.02	<0.5	0.2	<0.5	<0.001	<0.03	<0.01	3.25	<0.01
No. 26 EM (Ounce Hill)	SR1	0.80	<0.5	0.02	<0.5	0.04	<0.5	<0.001	<0.03	<0.01	4.09	<0.01
No. 4 EM (Bucket Shaft)	SR2	2.47	<0.5	0.02	<0.5	0.02	<0.5	<0.001	<0.03	<0.01	2.81	<0.01
No. 7 EM (Kilroy)	SR2	1.46	4.8	0.02	<0.5	0.02	<0.5	0.001	<0.03	<0.01	2.57	<0.01
No. 9 EM (No. 1 Hill)	SR3	0.62	<0.5	0.02	<0.5	0.03	<0.5	<0.001	<0.03	<0.01	5.24	<0.01
No. 17 EM (Scrubber)	SR3	1.17	<0.5	0.03	<0.5	0.04	<0.5	<0.001	<0.03	<0.01	4.80	<0.01
No. 15 Salbora	SR4	2.10	<0.5	0.04	<0.5	0.03	<0.5	0.070	<0.03	<0.01	9.84	<0.01
No. 16 Salbora	SR4	0.87	0.6	0.24	0.23	0.11	<0.5	0.014	<0.03	0.046	14.9	<0.01

For fresh rock, sample No. 10 (Eagle Mountain - Ounce Hill area) and sample No. 2 (Eagle Mountain – Bottle Bank area) have a higher grade than the other samples. Six (6) samples have gold grades lower than 1 g/t. Sample No. 13 shows a higher level of sulfur and iron, characteristic of the Salbora deposit which has higher concentrations of sulfur-bearing minerals.

For saprolite, sample No. 4, sample No. 12 and sample No. 15 have gold grades superior to 2 g/t. Sample No. 16 (Salbora) had a higher proportion of sulphur and iron.

13.3.1.4 SIZE FRACTION ANALYSES

For the saprolite samples, individual size fraction analyses for gold were performed. These results were then used to estimate each composite head assay and to calculate the gold distribution per size fraction. The results are presented in Table 13-10 and Figure 13-5.

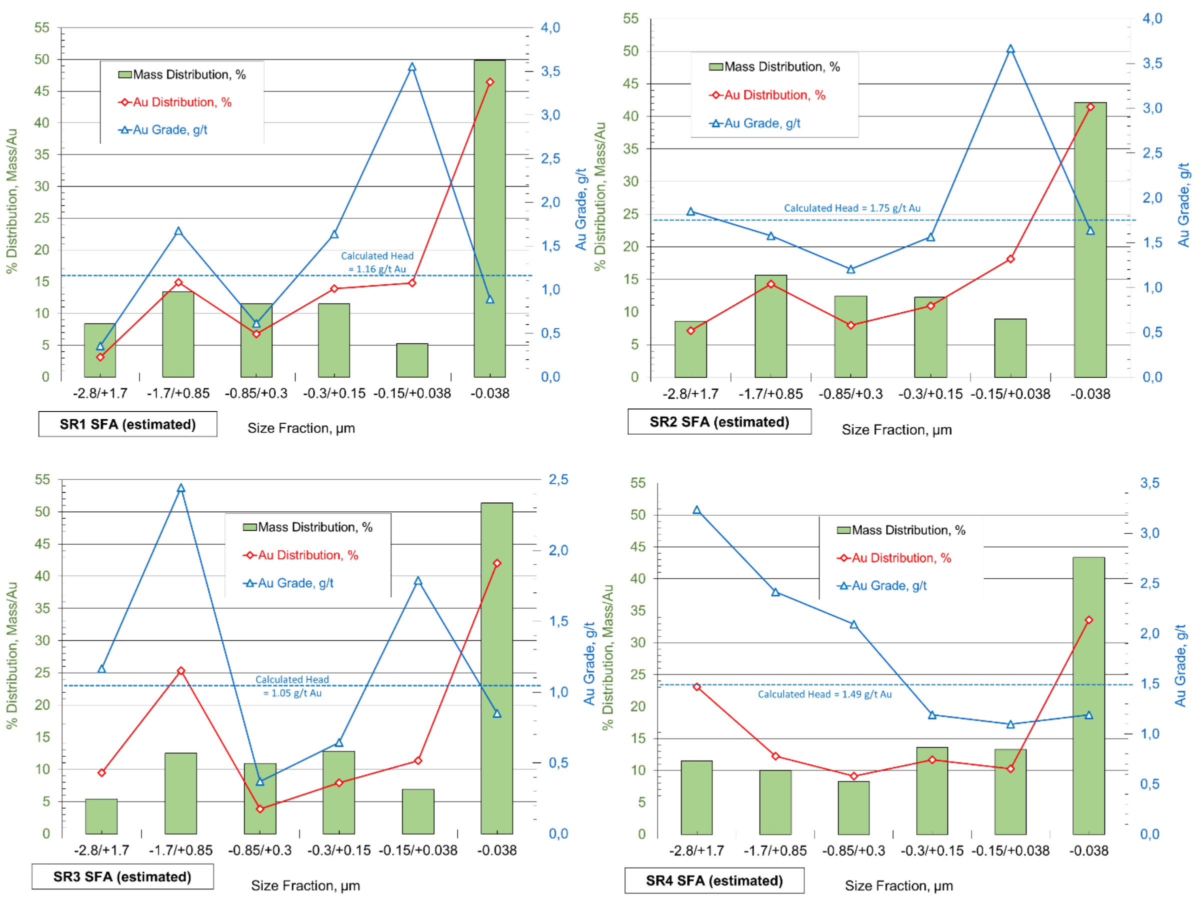
For saprolite, the size fraction distribution showed that 40% to 50% of the gold is present in the minus 38-micron fraction.

TABLE 13-10 GOLD SIZE FRACTION ANALYSES – SAPROLITE COMPOSITES (SGS, 2022)

	Mass Distribution			Gold			
Size	**% Retained**		**% Pass**	**Assay**	**% Retained**		**% Pass**
mm	**Indiv.**	**Cum.**	**Cum.**	**g/t**	**Indiv.**	**Cum.**	**Cum.**
SR1							
-2.8/+1.7	8.4	8.4	91.6	0.36	3.1	3.1	96.9
-1.7/+0.85	13.5	21.8	78.2	1.67	14.9	18.1	81.9
-0.85/+0.3	11.5	33.4	66.6	0.61	6.8	24.8	75.2
-0.3/+0.15	11.5	44.9	55.1	1.64	13.9	38.7	61.3
-0.15/+0.038	5.2	50.1	49.9	3.56	14.8	53.5	46.5
-0.038	49.9	100	-	0.89	46.5	100	-
Total	**100**			**1.16**	**100**		
SR2							
-2.8/+1.7	8.6	8.6	91.4	1.85	7.2	7.2	92.8
-1.7/+0.85	15.6	24.2	75.8	1.58	14.3	21.5	78.5
-0.85/+0.3	12.5	36.7	63.3	1.21	8	29.4	70.6
-0.3/+0.15	12.3	48.9	51.1	1.57	10.9	40.4	59.6
-0.15/+0.038	8.9	57.9	42.1	3.67	18.1	58.5	41.5
-0.038	42.1	100	-	1.64	41.5	100	-
Total	**100**			**1.75**	**100**		
SR3							
-2.8/+1.7	5.4	5.4	94.6	1.17	9.5	9.5	90.5
-1.7/+0.85	12.5	17.9	82.1	2.44	25.4	34.9	65.1
-0.85/+0.3	10.9	28.9	71.1	0.37	3.9	38.7	61.3
-0.3/+0.15	12.8	41.7	58.3	0.64	7.9	46.6	53.4

	Mass Distribution			Gold			
Size	**% Retained**		**% Pass**	**Assay**	**% Retained**		**% Pass**
mm	**Indiv.**	**Cum.**	**Cum.**	**g/t**	**Indiv.**	**Cum.**	**Cum.**
-0.15/+0.038	6.9	48.6	51.4	1.79	11.4	58	42
-0.038	51.4	100	-	0.85	42	100	-
Total	**100**			**1.05**	**100**		
SR4							
-2.8/+1.7	11.5	11.5	88.5	3.24	23.1	23.1	76.9
-1.7/+0.85	10	21.5	78.5	2.42	12.2	35.3	64.7
-0.85/+0.3	8.3	29.8	70.2	2.09	9.1	44.5	55.5
-0.3/+0.15	13.6	43.4	56.6	1.19	11.7	56.1	43.9
-0.15/+0.038	13.3	56.7	43.3	1.1	10.3	66.4	33.6
-0.038	43.3	100	-	1.19	33.6	100	-
Total	**100**			**1.49**	**100**		

FIGURE 13-5 GOLD DISTRIBUTION IN SIZE FRACTIONS - SAPROLITE COMPOSITES (SGS, 2022)



13.3.2 COMMINUTION TESTWORK

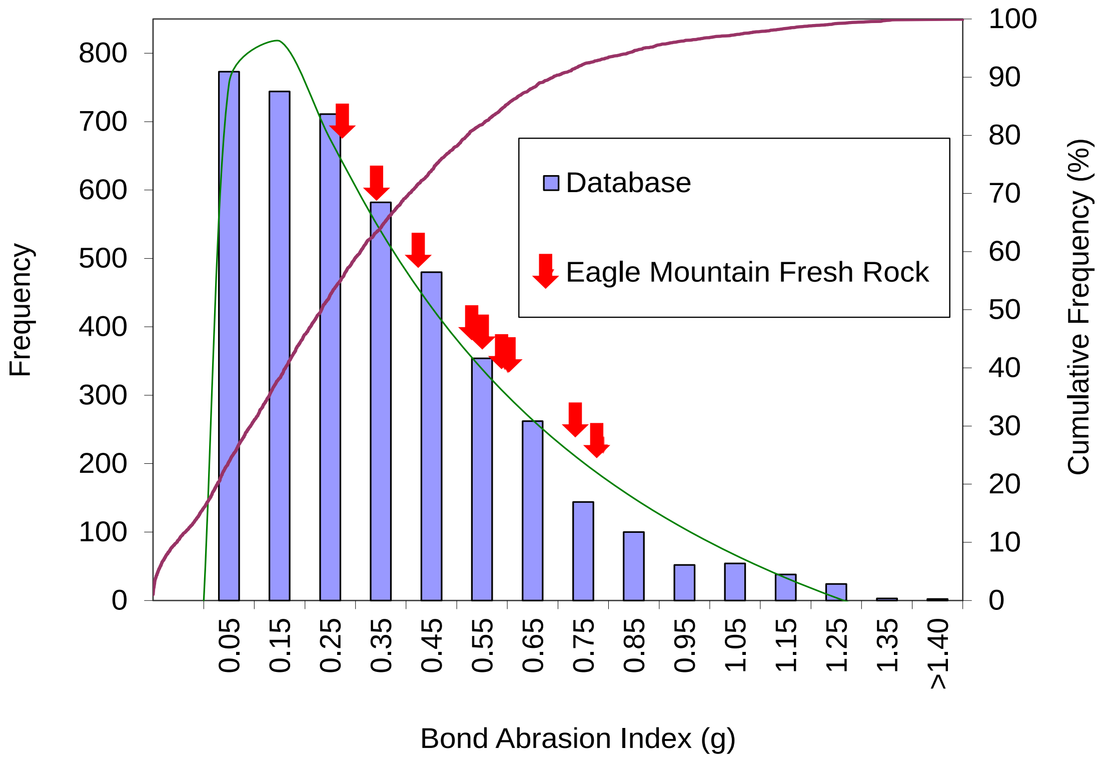
13.3.2.1 BOND ABRASION INDEX (AI)

Bond abrasion tests were performed on 12 fresh rock samples. Six of the 12 samples were combined to run nine tests. Table 13-11 and Figure 13-6 show the results of the tests.

TABLE 13-11 BOND ABRASION TEST RESULTS (SGS, 2022)

Sample NID	Area	AI (g)	Percentile of Abrasiveness	Abrasiveness Class
Sample 1 + 24	Baboon	0.536	79	Abrasive
Sample 5 + 6	Kilroy	0.601	84	Abrasive
Sample 8	No.1 Hill	0.595	84	Abrasive
Sample 10 + 11	Ounce Hill	0.789	93	Very Abrasive
Sample 13	Salbora	0.339	57	Medium
Sample 14	Salbora	0.273	47	Medium
Sample 18	Toucan	0.425	68	Moderately Abrasive
Sample 20	Zion	0.737	92	Very Abrasive
Sample 25	Bacchus	0.551	81	Abrasive

FIGURE 13-6 BOND ABRASION INDEX RESULTS COMPARED TO THE DATABASE (SGS, 2022)



The results of the abrasion test performed are very scattered. This indicates that each area is quite different in terms of the abrasion.

13.3.2.2 BOND BALL MILL WORK INDEX (BWI)

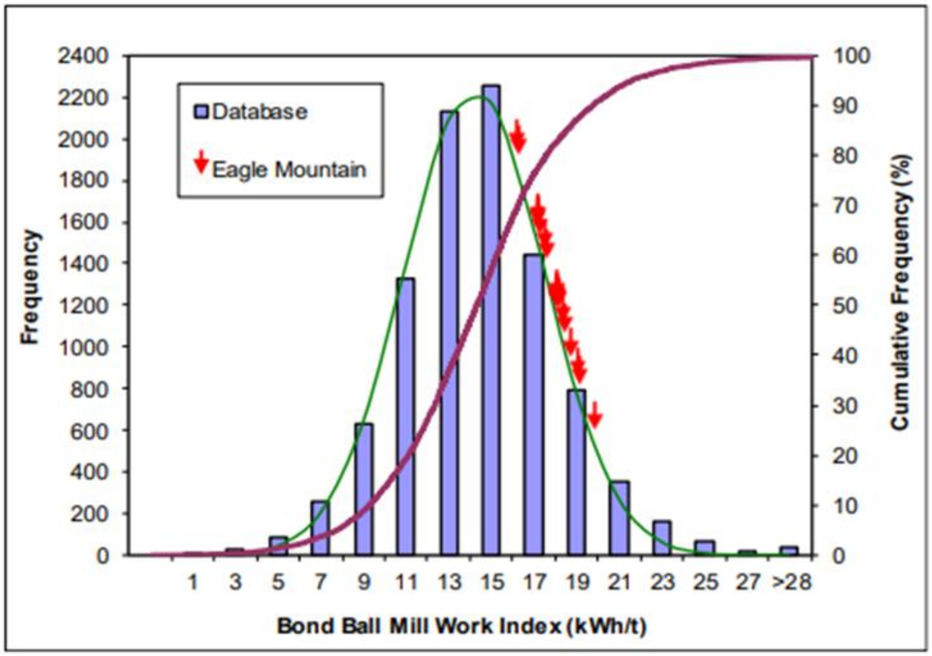
Bond ball mill standard tests were performed on samples from the SGS 2022 test campaign to find the BWI.

Table 13-12 and Figure 13-7 show the work index values for the fresh rock samples.

TABLE 13-12 FRESH ROCK BOND WORK INDEX (SGS, 2022)

Sample Name	Area	F80 (µm)	P80 (µm)	Work Index (kWh/t)
Sample 1	Eagle Mtn (Baboon area)	2 041	149	16.2
Sample 1 @ 89 µm	Eagle Mtn (Baboon area)	2 041	85	17.3
Sample 2	Eagle Mtn (Bottle Bank area)	2 573	144	18.0
Sample 3	Eagle Mtn (Bucket Shaft area)	2 445	149	16.3
Sample 5	Eagle Mtn (Kilroy area)	2 046	148	18.1
Sample 5 @ 89 µm	Eagle Mtn (Kilroy area)	2 046	84	18.7
Sample 6	Eagle Mtn (Kilroy area)	2 127	147	18.3
Sample 8	Eagle Mtn (No. Hill area)	1 983	148	18.1
Sample 10	Eagle Mtn (Ounce Hill area)	2 215	149	17.1
Sample 11	Eagle Mtn (Ounce Hill area)	2 175	148	17.2
Sample 13	Salbora deposit	2 078	143	18.4
Sample 14	Salbora deposit	2 641	143	19.0
Sample 14 @ 89 µm	Salbora deposit	2 641	84	19.9
Sample 18	Toucan prospect	2 041	144	17.4
Sample 19	Toucan prospect	2 508	147	18.1
Sample 20	Eagle Mtn (Zion area)	2 174	148	18.1
Sample 22	Powis prospect	2 595	144	18.1
Sample 23	Eagle Mtn (Zion area)	2 153	147	17.6
Sample 23 @ 89 µm	Eagle Mtn (Zion area)	2 153	85	19.1
Sample 24	Eagle Mtn (Baboon area)	2 188	147	17.2
Sample 25	Eagle Mtn (Bacchus area)	2 237	147	18.1
Average		**2 248**	**147**	**17.7**
Maximum		**2 641**	**149**	**19.9**
Minimum		**1 983**	**143**	**16.2**
Std Dev		**217**	**2.1**	**0.7**
Rel Std Dev		**9.6**	**1.4**	**4.2**

FIGURE 13-7 FRESH ROCK BOND WORK INDEX RESULTS COMPARED TO THE DATABASE (SGS, 2022)



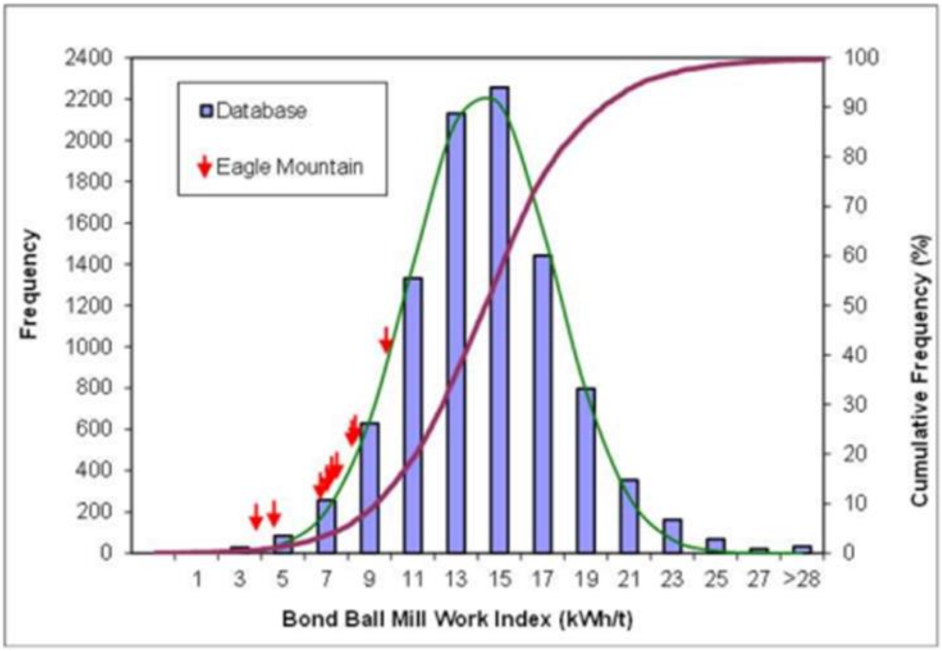
With BWI values ranging from 16.2 kWh/t to 19.9 kWh/t, the fresh rock samples fell in the moderately hard to hard range compared to the SGS database. With a standard deviation of 0.7, this indicates a homogeneous hardness across the deposit samples tested.

Due to the saprolite samples being significantly finer than a standard BWI feed, SGS applied a modified test procedure, which is standard practice for saprolite testwork. The material naturally passing the closing screen was removed and the Bond procedure was applied to the oversize material only. The obtained Bond Index was then reduced for the whole feed according to the proportion of material that was removed at the screening stage. The results are shown in Table 13-13 and Figure 13-8.

TABLE 13-13 SAPROLITE BOND WORK INDEX (SGS, 2022)

Sample Name	Area	F80 (µm)	P80 (µm)	Work Index (kWh/t)
Sample 4	Eagle Mtn (Bucket Shaft area)	1.512	149	8.3
Sample 7	Eagle Mtn (Kilroy area)	1.512	150	8.2
Sample 9	Eagle Mtn (No.1 Hill area)	1.585	151	7.4
Sample 12	Eagle Mtn (Ounce Hill area)	1.907	149	9.7
Sample 15	Salbora deposit	1.531	156	3.7
Sample 16	Salbora deposit	2.122	149	4.5
Sample 17	Eagle Mtn (Scrubber area)	1.213	156	6.7
Sample 21	Eagle Mtn (Zion area)	1.162	152	7.3
Sample 26	Eagle Mtn (Ounce Hill area)	1.67	150	7.0

FIGURE 13-8 SAPROLITE BOND WORK INDEX RESULTS COMPARED TO THE DATABASE (SGS, 2022)



The overall BWI values of the saprolite samples ranged from 3.7 kWh/t to 9.7 kWh/t, which classifies them as very soft when compared to the SGS database. Samples No. 15 and No. 16 (Salbora saprolite) were among the softest samples in the SGS database. The results for the saprolite rock show that the overall grinding energy requirements to be very low.

13.3.3 GRAVITY CONCENTRATION

In 2023, gravity concentration potential was evaluated with a standard Knelson/Mosley test. Table 13-14 and Table 13-15 show the results of those tests.

The results of the gravity concentrations testwork show that for saprolite and fresh rock samples gold recoverable by gravity concentration is relatively low and is less important than the proportion of gold recovered by cyanidation.

TABLE 13-14 FRESH ROCK GRAVITY SEPARATION RESULTS (SGS, 2022)

Composite (Area)	Gravity Test No.	Grind Size (µm)	Gravity Concentrate Au Recovery (%)	Tailings Au Grade (g/t)	Calculated Au Head Grade (g/t)
FR1 (Eagle Mtn)	G1	208	29.6	1.06	1.51
FR2 (Eagle Mtn)	G2	201	25.7	1.04	1.40
FR3 (Eagle Mtn)	G3	193	14.7	1.15	1.35
FR4 (Salbora)	G4	189	7.5	1.68	1.82
FR5 (Toucan/Powis)	G5	189	19.0	0.84	1.04

TABLE 13-15 SAPROLITE GRAVITY SEPARATION RESULTS (SGS, 2022)

Composite (Area)	Gravity Test No.	Grind Size (µm)	Gravity Concentrate Au Recovery (%)	Tailings Au Grade (g/t)	Calculated Head Grade (g/t)
SR1(Eagle Mtn)	G6	113	24.6	0.82	1.09
SR2 (Eagle Mtn)	G7	135	16.4	1.6	1.91
SR3 (Eagle Mtn)	G8	122	19.2	0.87	1.08
SR4 (Salbora)	G9	83	16.4	1.91	2.28

13.3.4 LEACH/CIL TESTWORK

Cyanidation tests were carried out on all composite samples of the 2022 testwork program. Cyanidation tests were performed on whole ore and gravity tails for the saprolite rocks. The duration of the tests was 48 hours. The results of each test are shown in Table 13-16 and Table 13-17.

TABLE 13-16 SAPROLITE WHOLE ORE CYANIDATION TEST RESULTS (SGS, 2022)

Comp	CN Test No.	Grind Size P80 (µm)	Reagents (kg/t of CN Feed)				Au Extraction/ Recovery (%)			Residue Grade Au (g/t)	Head, Au (g/t)
			Added		Consumed		CN Leach Time				CN Calc.
			NaCN	CaO	NaCN	CaO	24 h	36 h	48 h		
SR1	CN28	175	2.19	2.57	0.13	2.55	90	92	**91.9**	0.12	1.42
	CN29	124	2.17	2.46	0.12	2.44	87	94	**98.9**	0.03	2.27
SR2	CN30	182	2.09	2.25	0.04	2.23	95	95	**96.2**	0.09	2.25
	CN31	119	2.08	2.29	0.02	2.28	94	95	**95.7**	0.12	2.67
SR3	CN32	152	2.12	2.89	0.12	2.88	96	96	**98.0**	0.03	1.25
	CN33	109	2.44	2.65	0.44	2.62	94	96	**98.4**	0.02	1.22
SR4	CN34	129	2.26	4.06	0.12	4.03	95	96	**95.3**	0.11	2.25
	CN35	99	2.27	4.09	0.21	4.07	94	98	**97.1**	0.08	2.8

TABLE 13-17 SAPROLITE GRAVITY TAILINGS CYANIDATION TEST RESULTS (SGS, 2022)

Comp	CN Test No.	Grind Size, P80 (µm)	Reagents (kg/t of CN Feed)		Au Extraction/Recovery, (%)					Residue Grade Au (g/t)	Head Au, (g/t)
			Consumed		CN Leach Time			Grav	Grav + CN		O'all Grav + CN
			NaCN	CaO	24 h	36 h	48 h				
SR1	CN16	113	0.37	2.53	94	94	96.3	24.5	**97.2**	0.03	1.64
	CN20	77	0.42	2.36	96	94	96.1		**97.1**	0.03	
	CN24	56	0.73	2.37	95	95	97.8		**98.3**	0.02	
SR2	CN17	135	0.19	2.31	97	97	95.9	16.4	**96.6**	0.07	2.29
	CN21	87	0.08	3.30	93	93	97.8		**98.2**	0.04	
	CN25	62	0.45	2.32	100	97	98.7		**98.9**	0.02	
SR3	CN18	122	0.39	2.79	93	91	95.2	19.2	**96.1**	0.04	1.16
	CN22	88	0.28	2.79	92	94	97.9		**98.3**	0.02	
	CN26	63	0.52	2.91	-	95	97.6		**98.1**	0.02	
SR4	CN19	83	0.32	4.20	94	93	93	16.4	**94.1**	0.13	2.40
	CN23	59	0.34	4.04	97	92	95		**95.8**	0.10	
	CN27	59	0.54	3.69	98	96	94.7		**95.6**	0.10	

From the saprolite cyanidation results above, the major observations are:

- Saprolite test CN28 performed on whole mineralization showed a lower recovery at 91.9%. The coarse grind size for this sample may explain the lower recovery. All other test recoveries for saprolite composites are higher, between 95.3% and 98.9% and with a relatively coarse P80 averaging 130 microns;
- The cyanidation tests on saprolite gravity tails showed test recoveries between 94.1% to 98.9%:
  - The data is not accurate enough to determine if 24, 36 or 48 hours of leaching is suitable. Some tests show higher recovery at 24 or 36 hours compared to 48 hours;
  - Leaching tests done on sample SR 4 (Salbora) show a recovery slightly inferior to the other sample for both tests (whole ore leaching and gravity tails leaching);
  - The tails from the whole ore leaching range from 0.03 g/t Au to 0.12 g/t Au;
  - The tails from the gravity leaching test range from 0.02 g/t Au to 0.13 g/t Au;
  - The saprolite leaching test showed that there is no significant difference between the whole ore cyanidation recovery and the gravity tailings cyanidation recovery. However, the residue grade for the gravity tests showed a lower average result;
- Since there is no information on the dissolved oxygen. The impact of dissolved oxygen on leaching kinetic and final recovery could not be assessed;
- The grind size on the whole ore test showed a better recovery for the sample with the finer grind size. The average P80 for the finer test is 112 microns;

- The average cyanide consumption was measured as follows:
  - Whole mineralized material: 0.15 kg/t;
  - Gravity tailings cyanidation: 0.39 kg/t;
- The average lime consumption was estimated:
  - Whole mineralized material: 2.90 kg/t;
  - Gravity tailings cyanidation: 2.97 kg/t; and
- Although the 48 hours recovery difference is minimal between whole mill feed and gravity tails leaching, the 24 hours shows a better recovery for the gravity concentration with leach process. This indicates that the use of gravity concentration recovers the slow-leaching coarse gold and therefore could cut the leach residence time.

Fresh rock cyanidation tests were only performed on gravity tails. The results are shown in Table 13-18.

TABLE 13-18 FRESH ROCK GRAVITY TAILINGS CYANIDATION RESULTS (SGS, 2023)

Comp	CN Test No.	Grind Size P80 (µm)	Reagents (kg/t of CN Feed)		Au Extraction/Recovery, (%)					Residue Grade Au (g/t)	Head, Au (g/t)
			Consumed		CN Leach time			Grav	Grav + CN		O'all Grav + CN
			NaCN	CaO	24 h	36 h	48 h				
FR1	CN1	208	0.20	0.42	80	82	84.5	30.9	**89.3**	0.16	1.45
	CN36	143	0.16	0.46	81	81	80.8		**86.5**	0.23	
	CN37	114	0.86	0.36	84	83	83.7		**88.5**	0.19	
	CN6	83	1.08	0.31	88	89	91.5		**94.1**	0.09	
	CN11	50	1.43	0.34	92	93	94.6		**96.2**	0.05	
FR2	CN2	201	0.19	0.38	75	77	79.3	26.0	**84.7**	0.22	1.38
	CN38	139	0.13	0.45	78	80	79.8		**85.0**	0.21	
	CN39	99	0.71	0.24	88	88	88.0		**91.1**	0.13	
	CN7	82	1.01	0.35	88	90	90.5		**93.0**	0.10	
	CN12	49	1.41	0.34	90	91	92.9		**94.7**	0.07	
FR3	CN3	193	0.22	0.33	73	75	75.0	15.4	**78.9**	0.26	1.29
	CN40	144	0.21	0.39	63	62	62.7		**63.6**	0.49	
	CN41	105	0.72	0.30	83	85	83.6		**86.0**	0.19	
	CN8	80	0.79	0.32	86	87	86.8		**88.8**	0.16	
	CN13	51	1.50	0.35	91	90	90.3		**91.8**	0.11	

Comp	CN Test No.	Grind Size P80 (µm)	Reagents (kg/t of CN Feed)		Au Extraction/Recovery, (%)					Residue Grade Au (g/t)	Head, Au (g/t)
			Consumed		CN Leach time			Grav	Grav + CN		O'all Grav + CN
			NaCN	CaO	24 h	36 h	48 h				
FR4	CN4	189	0.18	0.55	68	70	72.5	7.5	**74.6**	0.46	1.83
	CN42	137	0.07	0.47	75	76	76.4		**78.2**	0.39	
	CN43	99	0.47	0.58	79	80	79.6		**81.1**	0.34	
	CN9	69	1.04	0.45	81	82	83.8		**85.0**	0.29	
	CN14	44	1.44	0.43	88	88	88.3		**89.2**	0.19	
FR5	CN5	189	0.22	0.34	69	69	68.7	19.3	**74.7**	0.26	1.02
	CN44	146	0.25	0.38	65	67	68.3		**74.3**	0.27	
	CN45	104	0.57	0.38	78	78	74.9		**79.7**	0.22	
	CN10	80	0.93	0.33	80	80	78.7		**82.8**	0.18	
	CN15	48	1.43	0.34	79	84	84.3		**87.3**	0.13	

The results for fresh rock indicate that gold recoveries improved with finer grinding in all cases and for FR4 (Salbora) and FR5 (Toucan/Powis) grinding to a P_{80} of ~50 µm maximized gold recoveries, which ranged from 84% to 95% at the finest grind. It is noted, however, that grinding finer for Salbora and Toucan/Powis will greatly increase processing costs.

From the fresh rock results above, the major observations are:

- There is one outlier value (CN40) with a recovery of 63.6%. As the same composite sample generated higher gold recoveries with both coarser and finer grind sizes, this test result did not factor into the design criteria;
- The leaching test performed on gravity tails showed gold recoveries ranging from 74.7% to 96.2%:
  - Fresh rock composites FR4 (Salbora) and FR5 (Toucan/Powis) exhibited lower gold recoveries than the other three composites, which contained samples from various areas of the Eagle Mountain deposit;
- There is insufficient data to determine if 24, 36 or 48 hours of leaching is suitable. Some tests show higher recovery at 24 or 36 hours compared to 48 hours:
  - For a Feasibility-level study, additional tests should be performed to optimize the leaching retention time;
- The tails from the gravity leaching tests range from 0.05 g/t Au to 0.46 g/t Au:
  - Leach test results vary depending on the composite and the grind size of the sample;
  - Since there is no information on dissolved oxygen the impact of dissolved oxygen on the leaching kinetics could not be assessed;
  - The average cyanide consumption is 0.69 kg/t; and

- The average lime consumption is 0.39 kg/t.

13.4 RECOMMENDED TESTING FOR PRE-FEASIBILITY STUDY

The metallurgical results obtained at the PEA level indicate that saprolite and fresh rock samples from the Eagle Mountain deposit should result in elevated gold recoveries with a simple industrial process and with relatively low operating costs, particularly for the saprolite material. To refine the design criteria estimation, it is recommended to pursue additional metallurgical tests during the pre-feasibility study.

The testwork selection presented in this section identifies the specific tests needed to determine the material hardness, the gold recoveries that can be reached and the thickening behavior as well as the amenability for cyanide destruction. Note that the test for Phase 2 could be performed once the Phase 1 plant is in operation.

13.4.1 SAMPLE CHARACTERIZATION

Additional petrography work, including QEMSCAN tests, are recommended for fresh rock composites FR 4 (Salbora) and FR 5 (Toucan/Powis) which showed lower metallurgical recoveries compared to the areas of the Eagle Mountain deposit. QEMSCAN tests would provide detailed mineralogical profiling to assess the key metallurgical characteristics of the areas.

13.4.2 GRAVITY TEST

Variability gravity tests should be performed with cyanidation of the gravity tails.

13.4.3 LEACHING TEST

Additional fresh rock leach tests should be performed, especially for areas along the Salbora-Toucan-Powis north-south trend. Leach tests on these samples indicate a component of refractory gold. The recommendations are:

- For the fresh rock, a composite leach test on whole mineralized material to compare if there is an increase in gold recovery compared to the leach test on gravity tails done in 2022;
- Variability leach tests on whole mineralized material should be performed on the saprolite samples to validate the gold recoveries for the areas of the Eagle Mountain deposit and Salbora;
- Comparative tests to validate if there is a gain in using oxygen instead of air in the process;
- Kinetic leaching analysis to optimize residence time for the saprolite and the fresh rock; and
- Additional tests to refine reagent consumption estimation.

13.4.4 DROP WEIGHT TEST

Drop Weight Test ("DWT") on fresh rock to generate additional grindability data for the design of the SAG mill before Phase 2.

13.4.5 CRUSHABILITY TEST

A crushability test on fresh rock to generate data for the design of the jaw crusher and the cone crusher before Phase 2.

13.4.6 RHEOLOGY TEST

Rheology tests on 100% saprolite, 100% fresh rock and the expected blend of saprolite and fresh rock that will be used in Phase 2, which is targeted at 85% fresh rock and 15% saprolite.

13.4.7 STATIC THICKENING TEST

Decantation tests on composite samples to design a thickener for Phase 2. Tests should be done on 100% fresh rocks and a blend comprised of 85% fresh rock and 15% saprolite.

13.4.8 DYNAMIC THICKENING TEST

Dynamic thickening tests on composite samples to define the maximum % solids that is attainable. Tests should be completed on 100% fresh rocks and a blend comprised of 85% fresh rocks and 15% saprolite.

13.4.9 CYANIDE DESTRUCTION TESTWORK

Additional detoxification tests to validate a suitable process for cyanide destruction.

13.5 CONCLUSIONS

SGS conducted the metallurgical testwork for the Project. The test program was performed using composite samples from different areas of the Eagle Mountain deposit. The following conclusions can be drawn:

- Considering the level of detail of the metallurgical test results, conservative assumptions should be used as design criteria for the current PEA with possible improvement in performances predicted for future study stages;
- The comminution circuit design for the current study is based on the Bond ball mill testwork. These values should be refined with further testing at the next stage;
- The final tailings gold grades and gold recoveries for fresh rock in the Salbora, Toucan, and Powis areas along the Salbora-Powis north-south trend – areas with lower gold recoveries - need to be refined with variability testing to have better knowledge on these areas. However, even for the lesser-performing fresh samples (FR4 and FR5), the estimated recovery (around 82%) is incorporated into the PEA model; and
- It is recommended to pursue metallurgical tests to refine the recovery assumptions, determine a grind size for each phase of the mine, the material hardness, the thickening behavior in both phases of the mine, and the amenability of the cyanide destruction.

14. MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

The effective date of the MRE for the Eagle Mountain Gold Project in this Technical Report is April 5, 2022. The Mineral Resource estimation work reported herein was carried out and reviewed by Mr. Leon McGarry, P.Geo, ERM Associate (formerly CSA Global), an independent QP as defined by NI 43-101.

The MRE is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101. The MRE is generated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practice Guidelines" (CIM Council, November 29, 2019).

Reported Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of a Mineral Resource will be converted into a Mineral Reserve.

ERM is not aware of any known permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the MRE.

14.2 INFORMING DATA AND DATABASE VALIDATION

Goldsource provided CSA Global (now ERM) with a drill hole database and wireframes representing topography, the base of saprolite and transition zone, and other significant geological units. Mr. McGarry worked with the Company to generate mineralization wireframe models for the Eagle Mountain deposit based on geological parameters. Mineralization models for the Salbora deposit were prepared separately.

The QP reviewed all informing data and considered that the quality and quantity of the information is appropriate for Mineral Resource estimation.

14.2.1 DRILL HOLE DATA

The drill hole data used for the April 2022 MRE in this study is derived from a data export provided by Goldsource via email with a cut-off date of December 31, 2021, for 75,269 metres of core drilling (772 holes) and 533 metres of auger drilling (158 holes). Only 19% of this subset was carried out by other companies (1997-2009). The drill hole data was provided as a set of ASCII CSV files containing collar, survey, assays, lithology, density, and oxidation state. Drill collar locations are shown in Figure 10-1.

A summary of the drill holes used to generate the Eagle Mountain MRE is shown in Table 14-1 and Figure 14-1.

FIGURE 14-1 DRILLING INFORMATION USED FOR THE MRE UPDATE AT THE EAGLE MOUNTAIN GOLD PROJECT

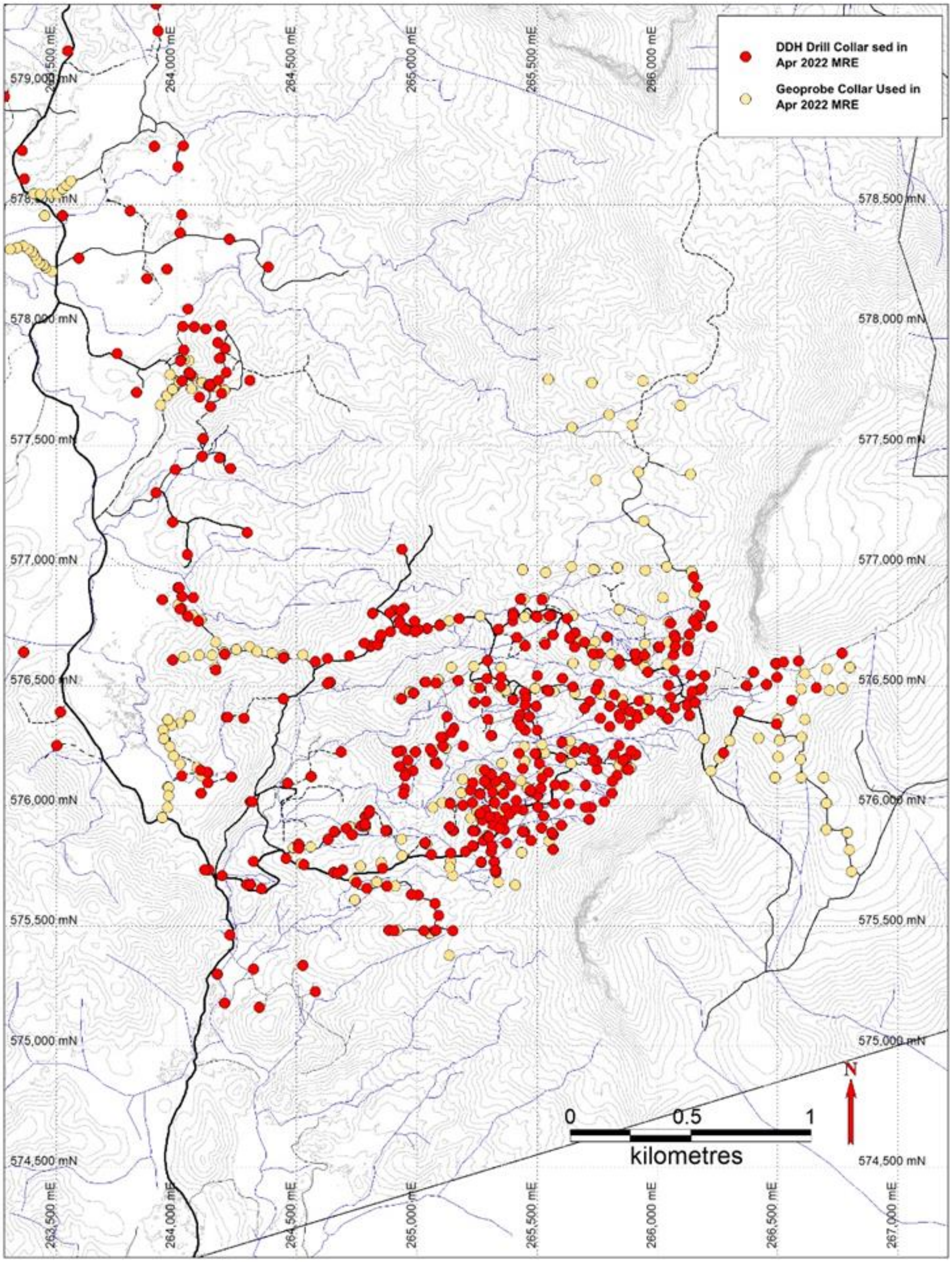


TABLE 14-1 SUMMARY OF DRILL HOLES USED TO ESTIMATE MINERAL RESOURCES AT THE EAGLE MOUNTAIN GOLD PROJECT

Period	Company	Count	Metres	Proportion of Total
1997	Golden Star Resources Ltd	29	2,265	3%
1998	Golden Star / OGML	21	1,271	2%
1999	OGML / Cambior	31	2,399	3%
2007 -2009	OGML / IAMGOLD	44	8,059	11%
2011	Goldsource Mines Inc.	76	10,727	14%
2017-2020	Goldsource Mines Inc.	391	28,887	38%
2021	Goldsource Mines Inc.	180	21,661	29%
Grand Total		**772**	**75,269**	**100%**

All drill hole data was imported into Micromine™ software and interrogated via Micromine™ validation functions prior to constructing a drill hole database for the deposit. The resulting database contains all available drilling and sampling data for the Project. Key fields within these critical drillhole database data files are validated for potential numeric and alpha-numeric errors. Data validation cross referencing collar, survey, assay, and geology files was performed to confirm drillhole depths, inconsistent or missing sample/logging intervals, and survey data. The data was validated and checked for logical or transcription errors, such as overlapping intervals. There were a few very minor errors that were corrected. Collar elevations were compared with the digital elevation model, and the sample distribution was reviewed to make sure they represent the mineralization and are appropriate for spatial interpolation.

The current grid system used is PSAD56 UTM Zone 21N. Drill hole azimuths are recorded in True North. All data was provided in metric units. All assays are for gold and are expressed in g/t (or ppm).

14.2.1.1 DRILL HOLE DATA EDITING

Numerous discrepancies between the elevation of drill hole collars and the topography wireframe were observed, mainly in areas of high relief or at the deposit periphery where topographic survey data is sparse. This issue was resolved by projecting the collars to the topography as described in Section 14.2.3 below.

Unsampled intervals are encountered throughout the deposit. Within the mineralization wireframes, 113 unsampled intervals are generally associated with poor recovery resulting from faults and weathered zones close to surface. Over 70% of unsampled intervals occur in saprolite. To ensure blocks are estimated using representative values, un-sampled intervals are not assigned a zero grade.

14.2.2 AUGER DATA

Drill hole auger data was provided in separate collar, survey, and assays tables. In the 2021 MRE study, data from a limited number of auger drill holes with supporting QA/QC data were used to estimate Mineral Resources. These auger holes are superseded by higher quality core drilling completed in the same deposit areas since the previous estimate.

In the 2022 study, auger data is used to support interpretation of mineralization extents but is not used to estimate Mineral Resources.

14.2.3 TOPOGRAPHY

The company has provided a topography surface derived from elevation contours and drill collar locations surveyed by DGPS.

Numerous, and sometimes large, discrepancies between drill collar elevations and the topography were observed. Where high quality DGPS collar survey data is available the topography surface was offset in Leapfrog to align with more recent collar elevation data. Elsewhere offsets were resolved by projecting collars onto the topography.

14.3 GEOLOGICAL INTERPRETATION AND 3-D MODELLING

14.3.1 SOFTWARE

Geological modelling was undertaken by Goldsource using Leapfrog Geo™ Software Version 2021.01. Leapfrog™ is an algorithm-based solid modelling software that uses mathematic best-fit (implicit) computations to generate geological solids from point data.

Goldsource provided a Leapfrog Project containing 3D interpretations of geological units, mineralized zones, weathering surfaces and major faults. Additional geological modelling and editing was undertaken by CSA Global (now ERM) using Micromine™ and Leapfrog™ software.

14.3.2 LITHOLOGY

The geological model was constructed to aid interpretation of mineralization, assign bulk densities, and to assign a zero grade to blocks within post-mineralization intrusions. The geological model included interpretations for:

- Four host geological units: Metavolcanics (MVOL - 1), Metasediments (SEDS -5), Granodiorite (GRDR- 2), Gabbro (GABN – 10)
- Six post-mineralization intrusive units: Dolerite (DOLE - 3), Monzonite (MONZ - 4), Gabbro (GABB - 6), Porphyry (PORPHS - 7), Basic Porphyry (BPOR - 8) and Hornfels-Feldspar Porphyry (HFPO - 9). Samples and blocks from within these units are excluded from informing the MRE.

For each lithology interval greater than 10 metres in thickness, the contact point with the stratigraphically underlying units is extracted and 3D surfaces are generated using the intrusion modelling tool. Intrusion surfaces are sequentially merged to generate closed wireframe models representing the volume of each major lithological unit.

Lithology wireframes colored by units are shown in plan for Eagle Mountain in Figure 7-7 and for Salbora in Figure 7-8. CSA Global accepted the models provided by the Company and no additional modification was necessary.

14.3.3 WEATHERING

Weathering profiles were modelled for features logged by the Company:

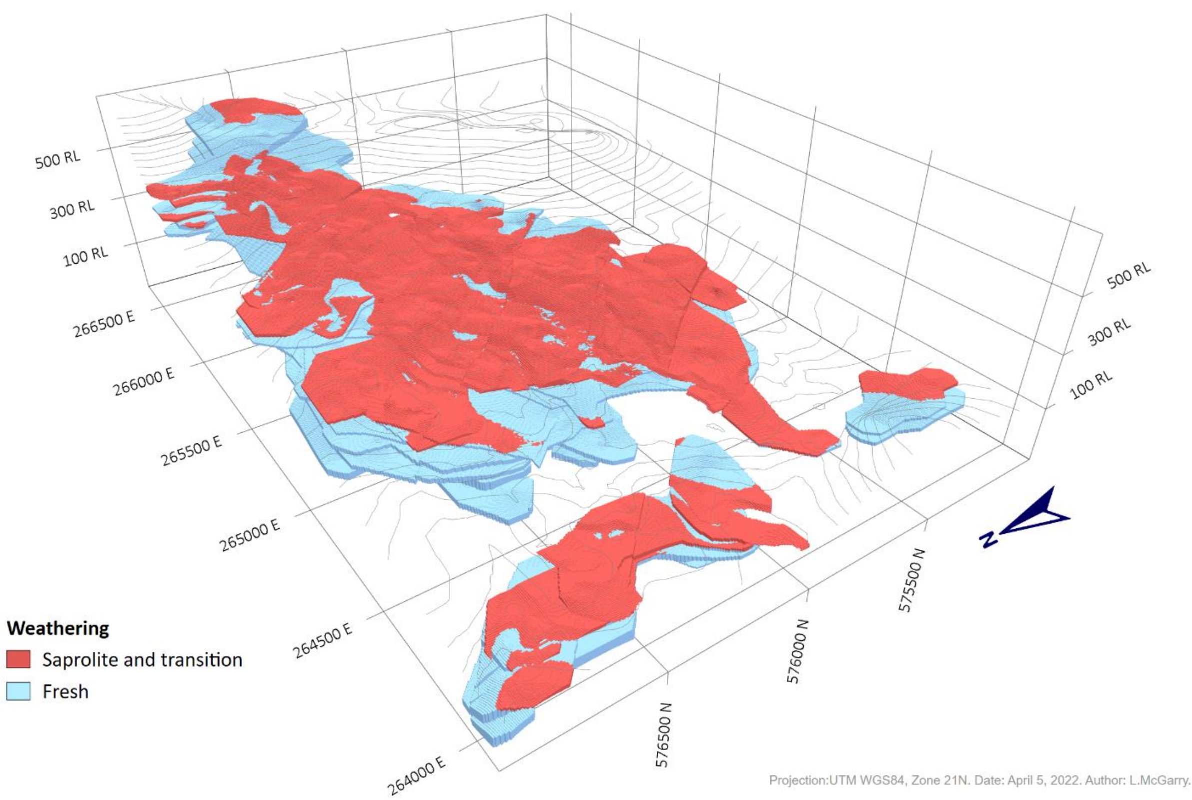
- Base of saprolite surface (SAPR), extending to a maximum depth of approximately 76 metres with an average depth of approximately 20 metres.
- Base of transition surface (TRAN), extending to a maximum depth of approximately 30 metres with an average depth of approximately 25 metres.

For each feature, 3D points representing the base saprolite depth and transition zone depth were extracted from drill hole logs. CSA Global undertook minor modifications including the filtering of inconsistent and possibly mis-logged intervals.

Depths were contoured at a variable resolution of 30 metres or less. Saprolite and transition zone wireframes were generated from gridded depths offset from the topography surface. The extent of weathering at the Eagle Mountain deposit is shown in Figure 142-.

Weathering models are used to apply variable bulk densities, mining cost adjustment factors and reporting cut-off criteria for fresh and weathered material.

FIGURE 14-2 2022 EAGLE MOUNTAIN BLOCK MODEL COLOURED BY WEATHERING – AERIAL VIEW TO SE



14.3.4 STRUCTURES

Geology and mineralization models are intersected by a series of post-mineralization faults with offsets of 5 to 10 metres. These faults are interpreted to have limited horizontal displacement. Grade trends can be projected across these features, and they were not used as hard boundaries during Mineral Resource estimation.

14.4 MINERALIZATION MODEL

14.4.1 EAGLE MOUNTAIN

Mineralization at the Eagle Mountain deposit is interpreted to be controlled by and related to shallow-dipping deformation structures. Disseminated, fracture-controlled gold mineralization occurs in granite, and is related to multiple low-angle southwest-dipping zones which vary from 1 to 40 metres in thickness. Mineralized zones are associated with chloritic alteration, silicification, disseminated pyrite and lesser arsenopyrite.

The Company has assigned mineralized intervals to 13 zones modelled as laterally extensive horizons that span the deposit area. These zones were modelled in Leapfrog using the stratigraphic modelling tool to create a set of stacked planar 3D wireframes. Initially, wireframes cover broad areas and include significant amounts of waste.

To limit mineralization models to within a reasonable distance from drill holes, and to avoid the incorporation of excessive amounts of waste, ERM has constrained the mineralization wireframes using a polygon digitized around mineralized drill holes at a typical 80 metre offset distance. Unclipped wireframes are shown in Figure 14-3. Example clipping parameters for Zone 2 are shown in Figure 14-4.

FIGURE 14-3 3D VIEW OF GOLDSOURCE MINERALIZATION DOMAINS – BIRD'S EYE TOWARD NNE (-15 DIP TOWARD 35 AZIMUTH)

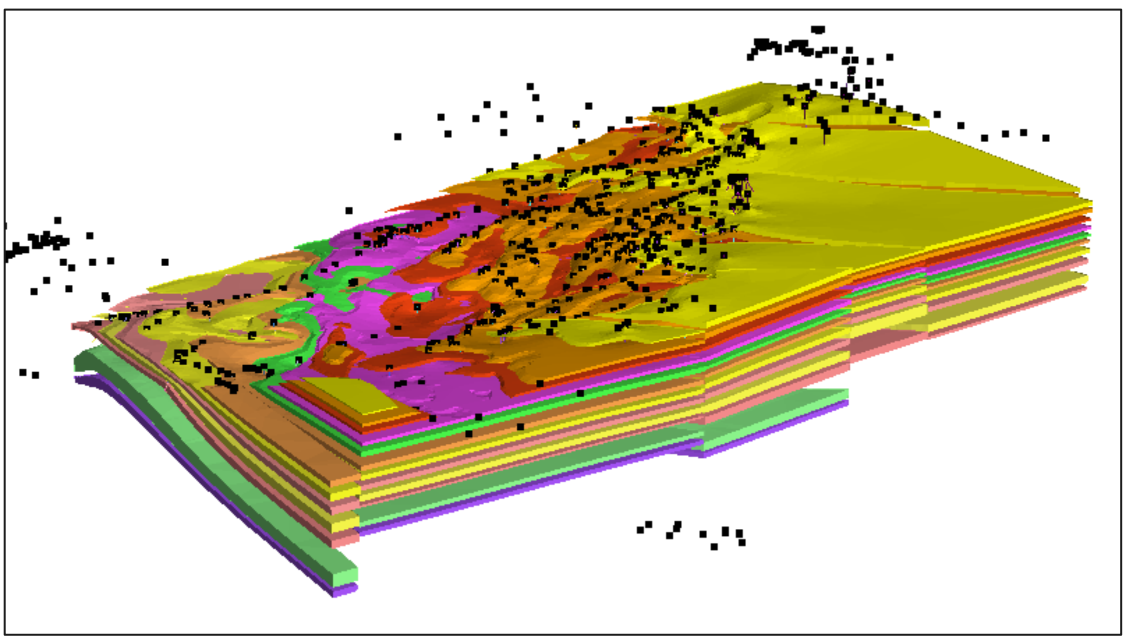
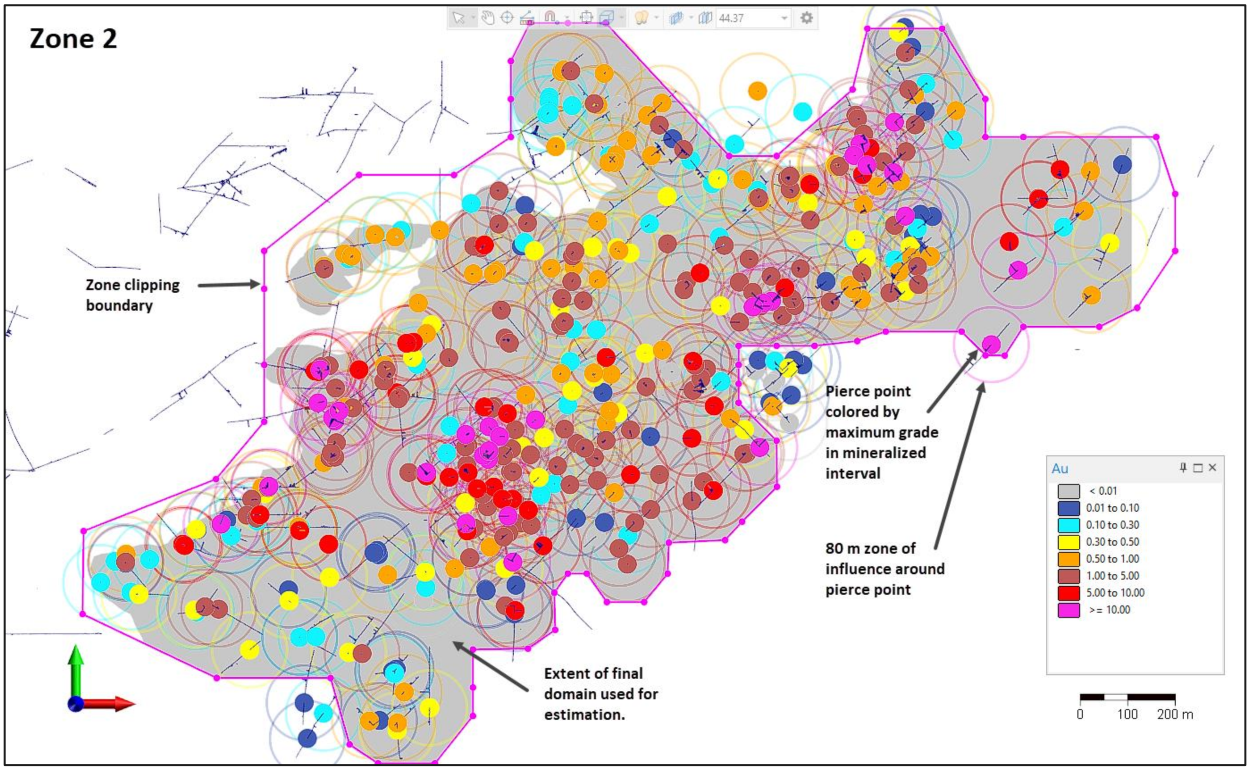


FIGURE 14-4 PLAN VIEW OF THE ZONE 2 INTERVALS, CLIPPING LIMIT AND FINAL DOMAIN 2 EXTENTS



At the Eagle Mountain deposit, mineralized zones are modelled as extensive horizons that span the deposit area. Mineralized zones are drill tested in a 700 to 1,300 metre corridor extending approximately 2,800 metres to the northeast.

At the Toucan deposit area, a steeply dipping high-grade breccia zone of 5 to 10 metres wide associated with the Salbora-Powis structure was modelled in Leapfrog using the vein modelling tool along a strike length of 215 metres and down dip extent of 80 metres (Zone 14).

Outside of the modelled horizons, south of northing 576,956 mN, a broad envelope domain comprises granodiorite and volcanic rocks that host occasional lenses and panels of structurally controlled gold mineralization present over limited extents. Search parameters were used to force the general trend and extent of mineralization distributed within this domain which is unconstrained and generally low-grade.

14.4.2 SALBORA

Mineralization at the Salbora deposit occurs within a sub-vertical, north-south trending structural zone.

The deposit is bound by two thin (1 to 3 metres) steeply dipping structural shear zones up to 1,500 metres in length and extending to a depth of 250 metres. These zones converge at the center of the Salbora deposit. To the north, two small panels are modelled parallel to the eastern shear (shr_w - , shr_e, shr_e1 and shr_e2).

At the center of the Salbora deposit four thicker (5 to 15 metres) breccia lenses extend over a strike length of 250to 350 metres, with down dip extents of 200 metres (brx_w, brx_c, brx_c1 and brw_e). Near the surface, two thick (10 to 30 metres) inclined zones of mineralization 100 metres wide dip shallowly to the south over 150 metres.

Zones were modeled in Leapfrog using the vein system modeling tool. The extent of each vein model was limited using a boundary string. Wireframe solids are projected from drill hole intervals by up to 100 metres along strike and down dip. If a vein set did not extend to the adjacent drill hole section, the wireframe was projected halfway to the next section and terminated.

14.5 SAMPLE CODING AND COMPOSITING

To ensure equal sample support and to avoid splitting assay intervals, a composite interval length equal to 1.5 metres, equal to the dominant sample length of the raw assays, was selected. This is in keeping with the previous MRE. It is also a convenient fit to the 3-metre elevation dimension of the parent block model size.

Lithology was used as a key field such that composite intervals honored geological boundaries. Residual composites less than 0.5 metre in length were discarded so as not to introduce a short sample bias into the estimation process. Density weighting is not required.

Composite intervals within post mineralization dikes were assigned a null grade and were not used to estimate block grades. Un-sampled intervals were not assigned a zero grade prior to compositing.

14.6 STATISTICAL ANALYSIS

The gold grade box plots and summary statistics for Mineralization Domains are presented in Figure 14-5.

Domains 1 to 14 have similar skewed distributions with high CVs associated with a high-grade gold tail containing extreme gold values as shown in the histogram in Figure 14-5. Treatment of very high grades is required.

The Cumulative Distribution Function (“CDF”) in Figure 14-6 tentatively suggests a break between high- and low-grade populations at 0.1 g/t Au, roughly the median grade of domained composite samples. Previously, this grade threshold was used to define a grade shell used as a hard boundary for Mineral Resource estimation.

FIGURE 14-5 GOLD GRADE BOX PLOTS AND SUMMARY STATISTICS FOR MINERALIZATION DOMAINS

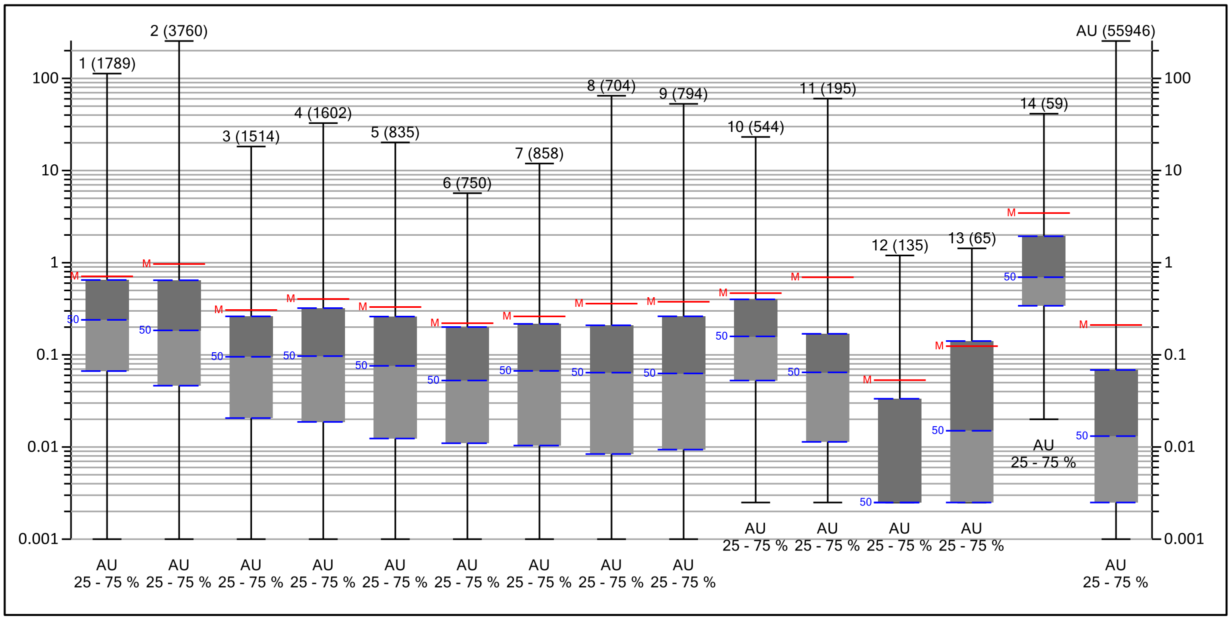
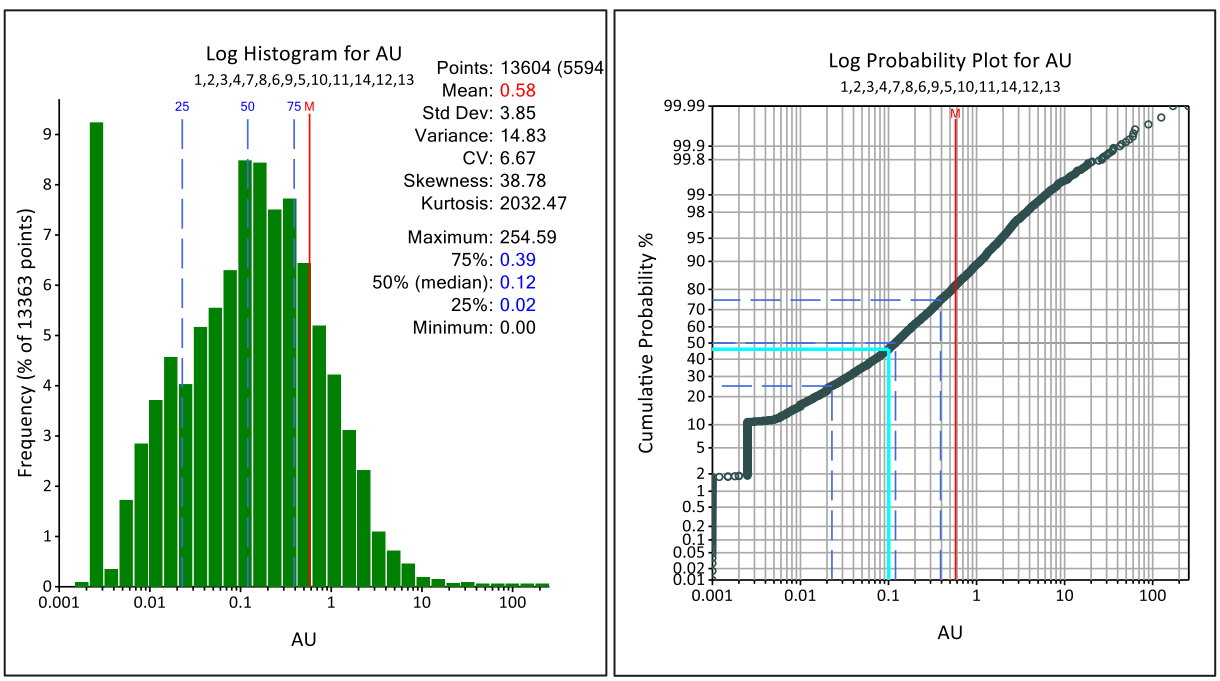


FIGURE 14-6 GOLD GRADE HISTOGRAM AND CDF ALL DOMAINED COMPOSITES



14.6.1 TOP CUTS

Capping occurred after compositing in keeping with the previous MRE. In general, very high grades are located within the well mineralized portions of the deposit. Most very high-grade samples are well constrained by surrounding drillholes. Log normal cumulative probability plots for each of the domains were reviewed to identify inflection points at the upper end of the distribution and derive a capping value.

Summary composite statistics by mineral resource domain and the impact of top cuts are shown in Table 14-2.

TABLE 14-2 EAGLE MOUNTAIN DEPOSIT COMPOSITE SUMMARY

Domain	Count	Min.	Max.	Mean	Standard Deviation	Uncut CV	Capping Value	Number Capped	Capped Mean	Capped Standard Deviation	CV
Eagle Mountain											
1	1,687	0	112.79	0.7	3.24	4.61	20	4	0.68	1.52	2.23
2	3,681	0	254.59	0.98	6.56	6.72	65	4	0.97	3.79	3.91
3	1,500	0	18.23	0.3	0.88	2.9	10	3	0.31	0.77	2.46
4	1,594	0	32.72	0.41	1.32	3.25	15	1	0.41	1.13	2.74
5	836	0	20.19	0.33	1.08	3.28			0.35	1.12	3.18
6	747	0	5.68	0.22	0.51	2.31			0.23	0.52	2.29
7	870	0	11.92	0.26	0.79	3			0.26	0.7	2.68
8	722	0	64.8	0.38	2.61	6.78	10	2	0.32	1.01	3.15
9	783	0	52.9	0.38	2.24	5.9	10	3	0.31	0.87	2.76
10	544	0	23.16	0.47	1.4	2.99	15	1	0.45	1.18	2.61
11	195	0	60.41	0.7	4.6	6.62	10	2	0.39	1.41	3.59
12	135	0	1.2	0.05	0.16	3.07			0.05	0.16	3.07
13	65	0	1.43	0.12	0.25	1.99			0.13	0.25	1.92
14	65	0	41.38	3.25	7.2	2.21			3.25	7.2	2.21
0											
Salbora											
21	149	0	37.88	1.89	4.46	2.36	20	2	1.9	3.6	1.9
22	405	0	69.23	2.29	4.76	2.08	35	1	2.21	3.77	1.71
23	276	0	12.33	0.39	1.16	2.95			0.4	1.17	2.93
24	139	0	13.4	0.65	1.95	2.99			0.65	1.95	2.99
25	307	0	16.54	0.57	1.39	2.43			0.57	1.39	2.43
26	171	0	22.74	0.75	2.02	2.7	10	1	0.68	1.32	1.96
27	48	0.01	37.86	1.71	6.14	3.6	10	2	0.9	2.09	2.32
28	85	0	16.95	0.39	1.85	4.68			0.39	1.85	4.68
29	10	0	8.45	1.64	2.8	1.71			1.64	2.8	1.71
30	5	0.11	1.61	0.79	0.6	0.76			0.79	0.6	0.76

14.6.2 GRADE CLAMPING

'Clamping' of composite grades was utilized for all estimation domains to manage potential bias from extrapolation of extreme values at the periphery of the model. Clamping limits were applied to limit the influence of samples above a 5 g/t Au cut-off to the first two estimation runs only. For the third run, samples are clamped at a maximum grade of 5 g/t Au. Grade clamping affects limited portions of the deposit peripheral to high grade zones that are estimated in run 3.

14.6.3 DENSITY

Average densities were applied to fresh rocks and to saprolite based on lithology. There are 856 measurements of density in saprolite, 59 measurements from transitional material and 632 measurements in fresh rock material. A comprehensive tabulation of bulk density data with respect to rock type and oxidation state was provided by the Company. This tabulation was grouped into respective rock types and oxidation states, and bulk density averages and standard deviations were calculated (Table 14-3 and Table 14-4).

If there was no average density available for a specific rock/oxidation combination, or there were any cells that did not receive a rock type attribute, then the average density for the oxidation state was applied.

Mineralized domains inherit the same densities as the ROCK/ZONE configuration as described above.

TABLE 14-3 DENSITY SUMMARY

Weathering	LITHO	Count	Min (t/m^3)	Max (t/m^3)	Average (t/m^3)	StdDev
Saprolite	BPOR	1	1.28	1.28	1.28	-
	DOLE	8	1.32	1.79	1.49	0.14
	GABN	7	1.31	2.53	1.77	0.48
	GRDR	756	1.01	2.92	1.59	0.18
	HFPO	5	1.14	1.58	1.33	0.16
	MSED	6	1.31	1.66	1.50	0.12
	MVOL	73	1.01	2.67	1.46	0.27
Saprolite Total		**856**	**1.01**	**2.92**	**1.57**	**0.20**
Transition	DOLE	2	1.32	2.79	2.06	1.04
	GRDR	41	1.35	3.01	2.33	0.41
	MSED	3	2.16	2.49	2.30	0.17
	MVOL	13	1.38	2.70	2.23	0.46

Weathering	LITHO	Count	Min (t/m³)	Max (t/m³)	Average (t/m³)	StdDev
Transition Total		**59**	**1.32**	**3.01**	**2.29**	**0.43**
Fresh	BPOR	7	2.61	3.01	2.76	0.16
	DOLE	28	2.51	3.01	2.84	0.15
	GABN	12	2.85	4.17	3.03	0.36
	GRDR	458	2.14	3.43	2.66	0.13
	HFPO	15	2.56	3.02	2.75	0.14
	MONZ	3	2.98	3.09	3.03	0.06
	MSED	9	2.60	2.79	2.71	0.06
	MVOL	100	2.62	3.18	2.85	0.10
Fresh Total		**632**	**2.14**	**4.17**	**2.71**	**0.16**

TABLE 14-4 AVERAGE DENSITIES BY ZONE

Weathering	Count	Min (t/m³)	Max (t/m³)	Average (t/m³)	StdDev
Saprolite	865	1.01	2.92	1.57	0.20
Transition	59	1.32	3.01	2.29	0.43
Fresh	632	2.14	4.17	2.71	0.16

14.6.4 VARIOGRAPHY

Composite gold values underwent a normal score transform prior to being assessed for anisotropy, or directional dependence. Maps of gold value continuity were used to investigate the strike, dip, and pitch direction axis of gold mineralization trends.

The grade variation between sample pairs orientated along each direction axis ±10° was reviewed using semi-variogram charts. Sample pairs are grouped by their separation distance, or "lag interval" on the X-axis. For each lag interval assessed, half of average variance value of paired samples is plotted on the Y-axis. The resulting empirical semi-variogram chart can show if there is a relationship that can be modelled between grade variance and distance along each axis. Normal score variograms are back transformed for use in Ordinary Kriging ("OK").

Nugget (i.e., intrinsic sample variance) was determined by downhole extrapolation of variance towards a sample separation distance of zero. Ellipses were visualized in Micromine to confirm alignment with mineralization trends.

14.6.4.1 EAGLE MOUNTAIN

A subset of samples from within the 14 mineralization wireframes was selected for geostatistical analysis. Semi-variogram charts for gold were modelled using two spherical functions, except for Domain 0 which was modelled using two exponential functions. Semi-variogram models are presented in Table 14-5. For minor domains 12 and 13, insufficient samples were available to create reliable models and the domain 11 model was used.

TABLE 14-5 MODELLED SEMI-VARIOGRAM PARAMETERS FOR EAGLE MOUNTAIN GRADE INTERPOLATION

Domain	DM rotation			Model			Range		
	Z	X	Y	Nugget	Structure	Sill	Major	Semi-major	Minor
1	-70	10	0	0.43	1. Sph	0.43	25	30	10
					2. Sph	0.15	110	120	15
2	-60	15	0	0.43	1. Sph	0.35	10	10	10
					2. Sph	0.22	110	60	20
3	0.43	6.40	-7.69	0.43	1. Sph	0.35	20	20	3.5
					2. Sph	0.22	80	60	15
4	-60	15	0	0.43	1. Sph	0.44	60	15	5
					2. Sph	0.13	100	110	15
5	-80	10	0	0.42	1. Sph	0.48	40	50	5
					2. Sph	0.10	70	80	15
6	-60	10	0	0.53	1. Sph	0.25	80	50	5
					2. Sph	0.23	140	140	10
7	-60	10	0	0.48	1. Sph	0.35	80	50	5
					2. Sph	0.17	160	100	15
8	-60	10	0	0.43	1. Sph	0.40	80	99.3	10
					2. Sph	0.17	120	138.3	20
9	-60	10	0	0.41	1. Sph	0.42	120	50	10
					2. Sph	0.17	130	80	20
10	10	0	25	0.55	1. Sph	0.30	35	35	5
					2. Sph	0.15	60	50	15
11 (12, 13)	10	0	25	0.58	1. Sph	0.27	25	35	5
					2. Sph	0.15	75	60	15
14	-90	-90	90	0.56	1. Sph	0.20	10	30	5
					2. Sph	0.24	40	60	15
0	0	270	90	0.220	1. Exp	0.26	14	10	12
					2. Exp	0.52	75	70	60

For all domains, semi-variogram models for gold have high nugget values, describing expected variation between the grade of samples collected from the same location, ranging from 22% to 58% of the total variance for domains 0 and 6 respectively. High nugget values are in line with the style of mineralization and known levels of continuity where often rapid changes in grade and thickness across horizons are observed.

14.6.4.2 SALBORA

A subset of samples from within the seven mineralization wireframes was selected for geostatistical analysis to give the semi-variogram parameters presented in Table 14-5 and Table 14-6. For minor domains 29 and 30, insufficient samples were available to create reliable semi-variograms and the domain 28 model was used.

At Salbora semi-variogram models for gold also have high nugget values ranging from 29% to 68% of the total variance for domains 22 and 24 respectively.

TABLE 14-6 MODELLED SEMI-VARIOGRAM PARAMETERS FOR SALBORA GRADE INTERPOLATION

Domain	DM Rotation		Model				Range		
	Z	X	Y	Nugget	Structure	Sill	Major	Semi-major	Minor
21	-100	0	20	0.45	1. Sph	0.29	45	20	10
					2. Sph	0.26	75	40	15
22	-100	0	20	0.29	1. Sph	0.39	45	15	10
					2. Sph	0.32	70	50	20
23	180	0	-85	0.50	1. Sph	0.31	60	40	10
					2. Sph	0.20	140	90	20
24	165	0	-100	0.68	1. Sph	0.17	60	30	6
					2. Sph	0.15	140	90	15
25	175	0	-90	0.57	1. Sph	0.29	20	30	10
					2. Sph	0.14	100	90	20
26	175	0	-110	0.46	1. Sph	0.33	30	30	6
					2. Sph	0.21	60	60	10
27	180	0	-80	0.54	1. Sph	0.26	30	30	2
					2. Sph	0.19	60	60	5
28 (29, 30)	175	0	90	0.60	1. Sph	0.26	30	30	3
					2. Sph	0.14	60	60	6

14.7 BLOCK MODEL CONSTRUCTION

Block models were built assuming that selective mining within an open pit will be completed. As presented in Table 14-7, the block model is non-rotated and uses sub-cells. Estimation cell size is 20 metres by 20 metres by 3 metres (X-Y-Z). The smallest sub-cells are 5 metres by 5 metres by 1 metre. The number of parent cells in the X-direction is 312, 210 in the Y-direction, and 200 in the Z-direction. The model origin (bottom left-hand corner of block model) is 263600 mE, 575100 mN and -200 mRL.

TABLE 14-7 BLOCK MODEL PARAMETERS

	X	Y	Z
Eagle Mountain			
Origin (Min. Extent)	263,600	575,100	-200
Range (m)	3,120	2,100	600
Largest (parent) cell	10 m	10 m	3 m
Smallest sub cell*	5 m	5 m	1 m
No. of Parent Cells	312	210	200
Salbora			
Origin (Min. Extent)	263,600	577,200	-280
Range (m)	3,120	2,100	930
Largest (parent) cell	10	20	12
Smallest sub cell*	2.5	2.5	3
No. of Parent Cells	90	90	82

Cells were filled in the mineralization wireframes and the corresponding “DOM” code was applied to respective block model cells. Similarly, cells were filled in the geology wireframes and corresponding “ROCK” code was applied to respective block model cells. Cells above the base of saprolite surface and base of transition surface were assigned a corresponding weathering code in the “Zone” field. Cells above the topography surface were clipped from the block model.

After estimation, both block models were split to a maximum parent block size of 10 metres by 10 metres by 3 metres.

14.7.1 DYNAMIC ANISOTROPY

The block model is coded with strike and dip data derived mineralization model wireframes. This orientation data determines search ellipse orientation during subsequent grade estimation.

From mineralization triangles, true strike and dip values were extracted and filtered to remove artifacts such as vertical triangles at wireframe edges. Within a 50 metre distance from each block, a maximum of four triangle orientation points were used to assign dip and dip directions to the block model using the Inverse Distance Weighting (“IDW”) of angles method in Datamine.

14.8 GRADE INTERPOLATION

Mineralization domain shell contacts are interpreted as hard boundaries for grade interpolation, such that gold grades in one domain cannot inform blocks in another domain.

The OK interpolation method used the mineralization trends modeled using the semivariograms in Table 14-5 to weight composite assay values when estimating block grades. The OK estimation process incorporates a locally varying average sample grade and is therefore an appropriate method for estimating block grades at the Eagle Mountain deposit where mineralization has a locally variable nature.

For validation purposes, interpolation was also undertaken using IDW of input samples. The IDW technique weights sample grades proportionally to the inverse of their distance from the block raised by a power of three (IDW^3).

14.8.1 KRIGING PARAMETERS

Interpolation parameters were derived by iteratively generating block model estimates for domains 1 and 2 to derive a set of estimation parameters that result in the best block model validation result, specifically through global change of support analysis.

Up to three search passes were used if blocks were not estimated in the first pass. For all domains the first search distance was 80 × 80 × 30 metres and subsequent searches were undertaken using two and three times this distance.

For a block elevation size of 3 metres, a maximum of 2 x 1.5 metres samples per hole is appropriate. The sensitivity of the MRE to overall informing sample maximums of 6, 8 and 12 was tested. Due to a mix of low and high grades within mineralization domains, max8 and max12 both resulted in too much ‘smoothing’, had worse validation results, and resulted in significant decreases in average grade relative to the previous 2021 MRE.

In 2021, a maximum of 6 samples in total and two per hole was used. These restrictions were retained for the current study for passes 1 and 2. To avoid smearing high gold grades over unreasonably large distances for run three, up to four samples per hole were used. In run three, grades were also clamped to a maximum of 5 g/t Au.

The grade of parent cells was estimated using a discretization of three divisions in the easting, northing, and elevation directions. No de-clustering weights were used.

Refer to Table 14-8 and Table 14-9 for details.

TABLE 14-8 ESTIMATION SEARCH ELLIPSE RANGES

Orientation Domain	Orientation			Range		
	Strike	Dip	Plunge	Major	Semi-major	Minor
Eagle Mountain Deposit						
Eagle Mountain	Dynamic			80	80	30
Salbora Deposit						
Eagle Mountain	Dynamic			60	60	20

TABLE 14-9 ESTIMATION RUN PARAMETERS

	Pass 1	Pass 2	Pass 3
Discretization	3 x 3 x 3		
Boundaries	Hard		
Ellipse Segments	1		
Search volume multiple	× 1	× 2	× 3
Eagle Mountain Deposit			
Minimum samples	5	5	8
Maximum samples	6	6	12
Maximum per hole	2	2	4
Salbora Deposit			
Search volume multiple	× 1	× 2	× 3
Minimum samples	8	8	8
Maximum samples	12	12	12
Maximum per hole	4	4	4

14.9 BLOCK MODEL VALIDATION

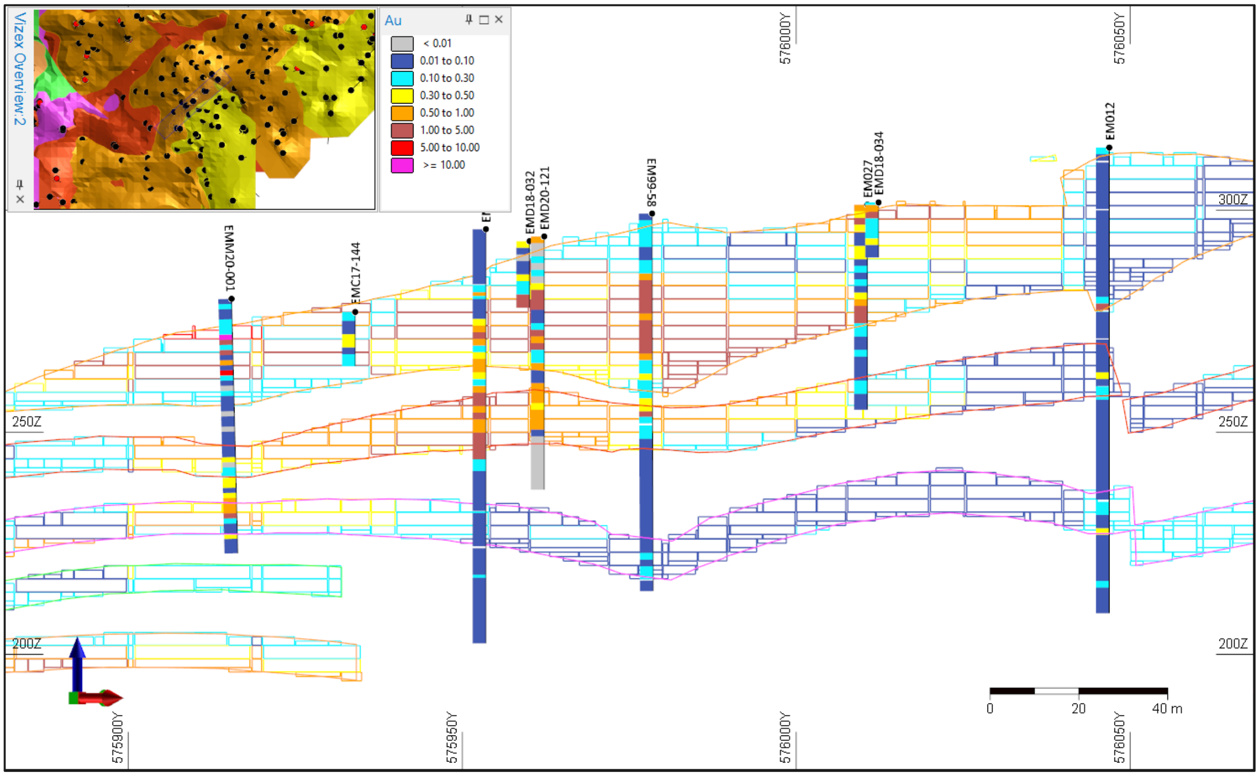
Validation of the grade estimates was completed by:

- Visual checks on screen in cross-section and plan view to ensure that block model grades honor the grade of sample composites.
- Statistical comparison of composite and block grades.
- Generation of swath plots to compare input and output grades in a semi-local sense, by easting, northing and elevation.

14.9.1 VISUAL VALIDATION

Block grades correlate well with input sample grades. The distribution and tenor of grades in the composites are honored by the block model and are appropriate considering known levels of grade continuity and the modeled semi-variogram. Poorly informed deposit areas with widely spaced samples are more smoothed which is expected. Cross-section views of the Eagle Mountain block model colored by gold are shown in Figure 14-7-.

FIGURE 14-7 EXAMPLE CROSS-SECTION SHOWN VALIDATION VIEW PLOT FOR GOLD



14.9.2 COMPARISON OF MEANS

A comparison of the average gold grade of input composites and estimated block grades was undertaken for each MRE domain. Drilling is highly clustered with significantly more samples collected from mineralized portions of the deposit and few samples collected from low grade areas, therefore the simple averages of block grades are significantly lower than input composites for all estimation methods.

To account for locally clustered sample data, sample data were de-clustered using the procedure detailed in Deutsch and Journel (1998) with variable de clustering cell sizes deduced on a domain-by-domain basis (Table 14-10 and Table 14-11).

The test demonstrated that the grades for the de-clustered mean input composites and the grade of OK and IDW block models are broadly comparable with difference typically within ±10% for individual domains and within ±2% globally. The OK estimate had the best overall correlation at 1% (Table 14-10). Larger differences are seen for domains with greater grade variance and fewer samples.

TABLE 14-10 COMPARISON OF EAGLE MOUNTAIN DE-CLUSTERED COMPOSITE AND BLOCK MODEL GOLD GRADES

Domain	Samples	Mean	Declustered Mean	Au OK	Diff. OK	Au IDW3	Diff. IDW
Domain 1	1,510	0.68	0.57	0.54	-5.26	0.56	-1.75
Domain 2	3132	0.98	0.70	0.67	-4.29	0.69	-1.43
Domain 3	1,413	0.33	0.34	0.37	8.82	0.36	5.88
Domain 4	1,548	0.42	0.38	0.38	0.00	0.39	2.63
Domain 5	753	0.39	0.34	0.34	0.00	0.35	2.94
Domain 6	656	0.25	0.22	0.22	0.00	0.23	4.55
Domain 7	748	0.27	0.23	0.21	-8.70	0.22	-4.35
Domain 8	566	0.30	0.24	0.27	12.50	0.26	8.33
Domain 9	624	0.36	0.31	0.34	9.68	0.32	3.23
Domain 10	539	0.45	0.32	0.36	12.50	0.34	6.25
Domain 11	199	0.39	0.28	0.20	-28.57	0.23	-17.86
Domain 12	134	0.06	0.07	0.06	-14.29	0.06	-14.29
Domain 13	61	0.13	0.17	0.19	11.76	0.21	23.53
Domain 14	65	3.25	2.76	2.76	0.00	2.60	-5.80
Block volume weighted average:					**0.61**		**1.93**
Domain 0	23,447	0.04	0.04	0.04	0.00		

TABLE 14-11 COMPARISON OF SALBORA DE-CLUSTERED COMPOSITE AND BLOCK MODEL GOLD GRADES

Domain	Samples	Mean	De-clustered Mean	Au OK	Diff. OK	Au IDW3	Diff. IDW
Domain 21	137	1.90	2.11	1,718	2.28	7.79	2.29
Domain 22	404	2.21	1.83	3,153	1.85	1.17	1.81
Domain 23	272	0.40	0.46	14,798	0.46	1.75	0.46
Domain 24	139	0.65	0.54	6,299	0.49	-8.72	0.46
Domain 25	307	0.57	0.57	2,915	0.59	3.58	0.58
Domain 26	171	0.68	0.89	1,761	0.90	1.00	0.88
Domain 27	48	0.90	1.10	670	1.04	-5.30	0.97
Domain 28	85	0.39	0.77	1,125	0.84	9.41	0.68
Domain 29	10	1.64	2.03	417	2.09	2.96	1.99
Domain 30	5	0.79	0.75	446	0.75	-0.23	0.76
					0.26		**-2.33**

14.9.3 GLOBAL CHANGE OF SUPPORT

Domains 1 to 7 contain 88% of MRE tonnes and 95% of MRE ounces. These domains were selected for further validation by analysis of histograms, CDF and quantile-quantile (Q-Q) plots, which were generated in Supervisor. For all domains, the CDF and histogram validation plots for OK and IDW gold grade estimates show a degree of smoothing relative to input samples, with the OK estimate (black line) showing a slightly larger decrease in grade variance.

The Global Change of Support ("GCOS") assessment compares the estimated block model grade and tonnage curves to the theoretical grade and tonnage curves deduced from sample distributions. The sample grade and tonnage curves are adjusted to account for the decrease in variability that is expected for grades between Selective Mining Units ("SMU"). This decrement in variability is known as "support effect" and was modelled using the discrete gaussian model. Estimates were validated by comparing global theoretical grade-tonnage curves in SMU support with global theoretical grade-tonnage calculated with OK and IDW^3 estimates.

Results are tabulated for domains 1 to 7 in Table 14-12. OK and IDW^3 estimates returned average block grades and tonnages that are similar to theoretical de clustered SMU grade-tonnage curves. At a 0.2 g/t Au cut- off, grades estimated by OK and IDW^3 are well within ±15% of the theoretical SMU grades.

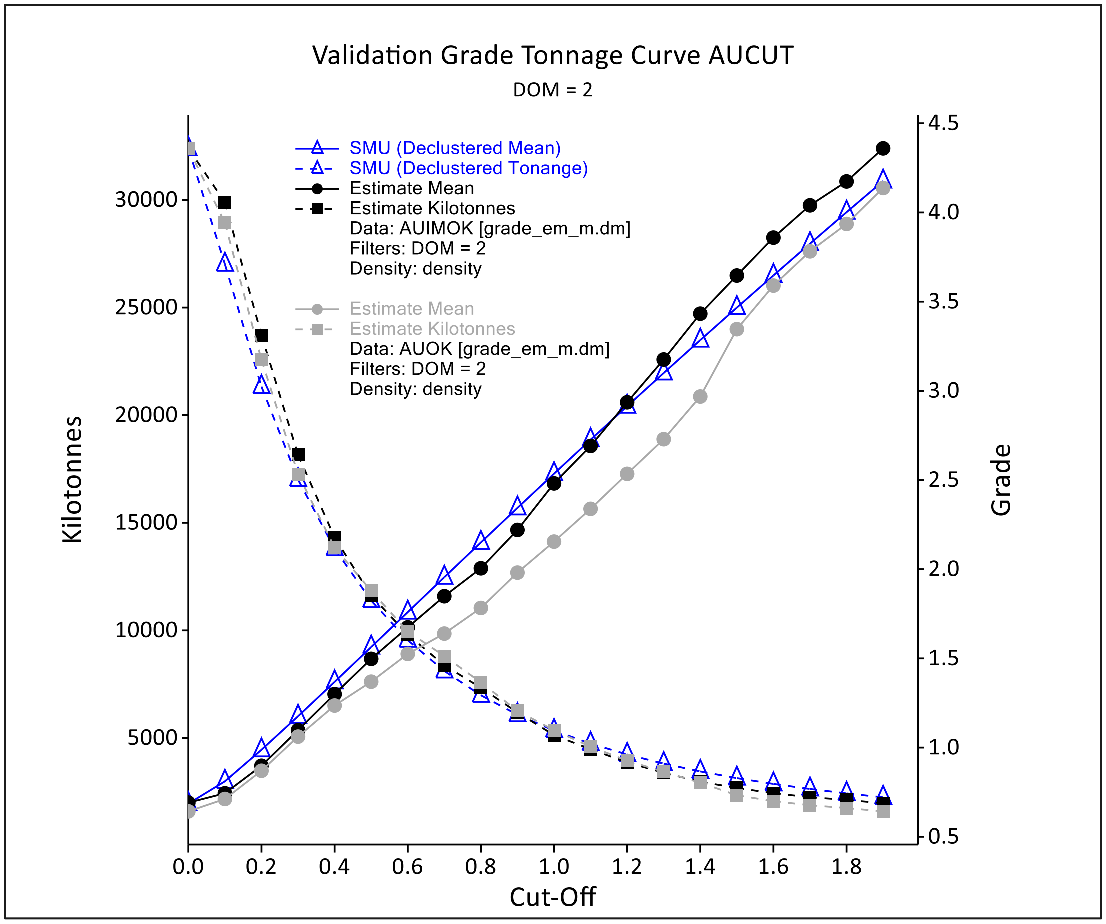
An example GCOS plot for Domain 2 is shown in Figure 14-8-.

TABLE 14-12 GLOBAL CHANGE OF SUPPORT FOR GOLD GRADES AT A 0.5 G/T AU CUT-OFF

Domain	Series	Tonnes (Mt)	Grade (g/t Au)	Ounces (k oz)	Difference in Grade	Difference in Ounces
1	OK	7.147	1.075	247	-0.1 (-9%)	-3 (-1%)
	IDW	6.879	1.024	227	-0.15 (-13%)	-23 (-9%)
	Declustered SMU	6.600	1.178	250		
2	OK	11.838	1.369	521	-0.19 (-12%)	-51 (-9%)
	IDW	11.067	1.497	533	-0.07 (-4%)	-39 (-7%)
	Declustered SMU	11.382	1.563	572		
3	OK	4.314	1.041	144	0.03 (3%)	12 (9%)
	IDW	4.196	1.058	143	0.04 (4%)	10 (8%)
	Declustered SMU	4.056	1.014	132		
4	OK	5.224	1.293	217	0.21 (20%)	-3 (-1%)
	IDW	5.071	1.406	229	0.33 (30%)	9 (4%)
	Declustered SMU	6.344	1.080	220		
5	OK	2.149	0.833	58	-0.14 (-14%)	-13 (-19%)
	IDW	2.332	0.860	64	-0.11 (-12%)	-6 (-9%)
	Declustered SMU	2.269	0.973	71		

Domain	Series	Tonnes (Mt)	Grade (g/t Au)	Ounces (k oz)	Difference in Grade	Difference in Ounces
6	OK	1.955	0.845	53	0 (0%)	12 (28%)
	IDW	1.772	0.934	53	0.08 (10%)	12 (28%)
	Declustered SMU	1.523	0.849	42		
7	OK	1.620	0.927	48	-0.04 (-4%)	-28 (-37%)
	IDW	1.911	1.008	62	0.04 (4%)	-14 (-19%)
	Declustered SMU	2.444	0.971	76		

FIGURE 14-8 EXAMPLE GLOBAL CHANGE OF SUPPORT PLOT FOR GOLD ESTIMATED BY OK AND OK, DOMAIN 2



14.9.4 SWATH PLOTS

Swath plots were generated for the two major sub-domains which compare the grades of composites and block grade estimates that fall within 20 metres easting and northing slices and 3-metre elevation slices. Plots will identify slices that contain high-grade samples and low-grade blocks, or vice versa, which might indicate a problem with the estimation technique.

For all domains, block grades estimated by OK and IDW^3 have a smoother profile relative to input samples. Where there are more samples, good agreement is seen between the trends of input composites and block grades estimated by each technique. The OK profile is slightly smoother than IDW^3. Both models reflect drill hole data on a local basis.

An example easting direction swath plot for Au in domain 2, is shown in Figure 14-9 to Figure 14-11.

FIGURE 14-9 EXAMPLE SWATH PLOT FOR GOLD, EASTING DIRECTION, EAGLE MOUNTAIN DOMAIN 2

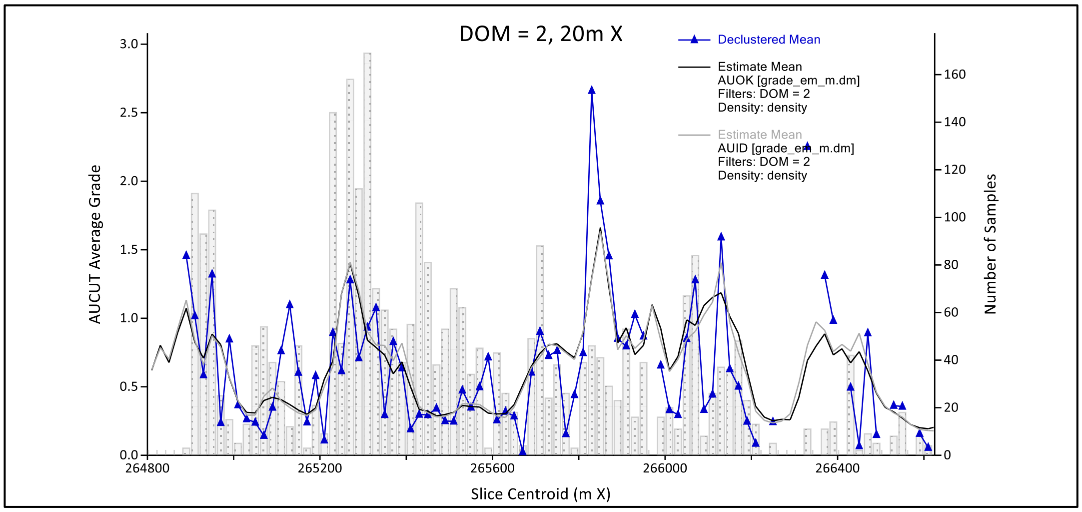


FIGURE 14-10 EXAMPLE SWATH PLOT FOR GOLD, NORTHING DIRECTION, DOMAIN 2

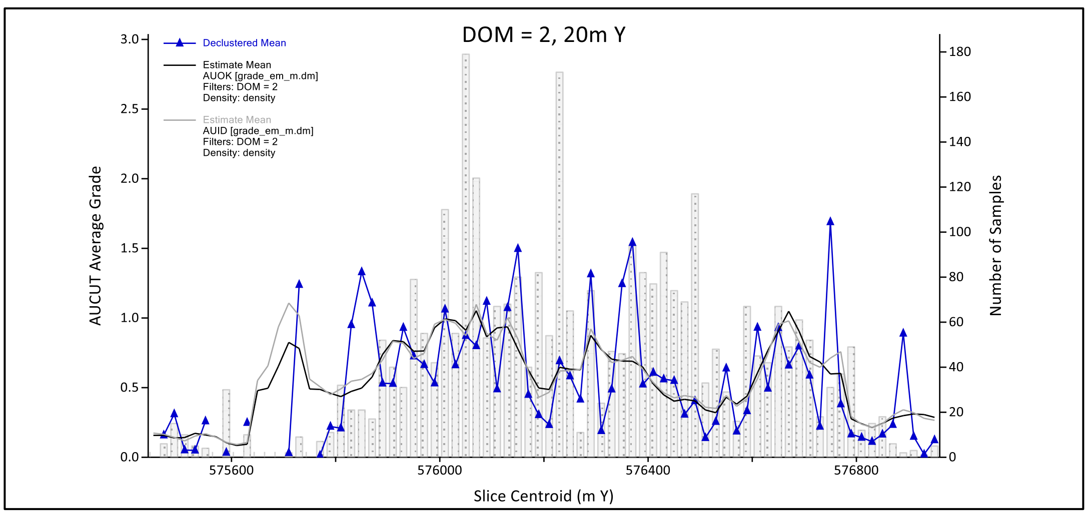
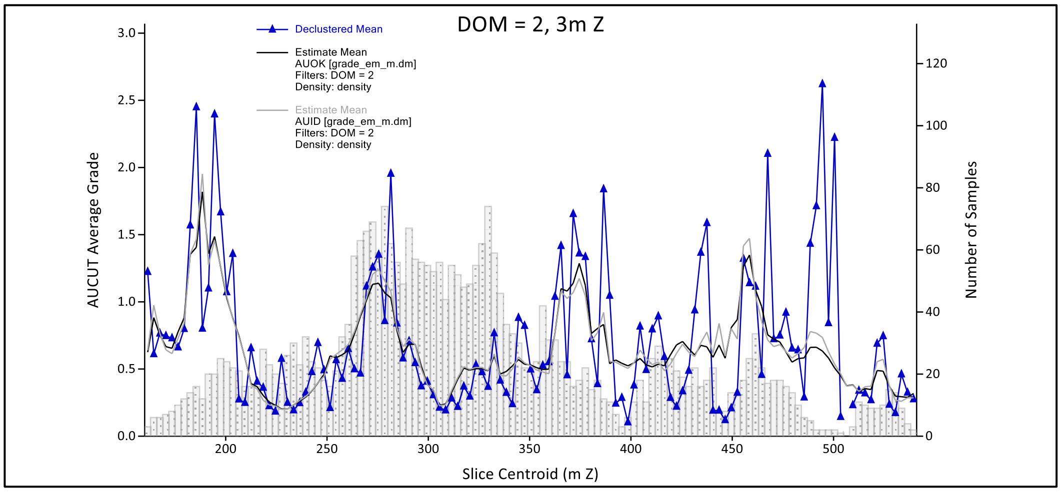


FIGURE 14-11 EXAMPLE SWATH PLOT FOR GOLD, ELEVATION DIRECTION, DOMAIN 2



14.10 MINERAL RESOURCE CLASSIFICATION AND REPORTING

14.10.1 REASONABLE PROSPECTS FOR EVENTUAL ECONOMIC EXTRACTION

The depth, geometry and grade of gold mineralization at the deposits make them amenable to exploitation by open pit mining methods. Two cut-off grades are reported: 0.3 g/t Au for saprolite and transitional material and 0.5 g/t Au for fresh rock. Selected cut-off values assume a revenue factor of US$1,600 per ounce of gold and the processing recoveries and costs detailed in Table 14-13.

The Mineral Resource is constrained by a conceptual pit shell derived from a Whittle optimization. Material falling outside of this shell is considered to not have reasonable prospects for eventual economic extraction. The Whittle optimization considers block gold grade estimates and mining and processing parameters are listed in Table 14-14.

At Eagle Mountain, out of a total tonnage of 50.93 Mt above the reporting cut-off grades, 38.73 Mt or 76% falls within the conceptual shell. Areas excluded include speculative blocks at depth and at the periphery of the deposit. The extent of the Mineral Resource constraining shell is shown in Figure 14-12.

At Salbora, out of total tonnage of 4.65 Mt above the reporting cut-off grades, 3.19 Mt or 69% falls within the conceptual shell (Figure 14-14).

Cross-section views of Mineral Resource constraining shells at the Eagle Mountain and Salbora deposits are shown in Figure 14-13.

TABLE 14-13 CUT-OFF SELECTION PARAMETERS

Material	Price per oz Au	Price per gr Au	Process Recovery	Recovered Price	Process + G&A Cost (US$/t)	Minimum Economic Grade	Selected Cut-Off
Saprolite	1,600	51	95%	48.9	9	0.18	0.30
Fresh	1,600	51	95%	48.87	15	0.31	0.50

TABLE 14-14 WHITTLE PIT SHELL PARAMETERS

Item	Value
Gold Price	US$1,600/oz
Mining Cost Mineralization & Waste	US$1.50/t saprolite and transition rock
	US$2.00/t fresh rock
Processing Cost	US$6.00/t saprolite and transition rock
	US$12.00/t fresh rock
Processing Gold Recovery	95%
General and Administration Cost	US$3.00/t processed
Pit Slope Angle	45°

FIGURE 14-12 2022 EAGLE MOUNTAIN DEPOSIT BLOCK MODEL COLORED BY AU GRADE WITH MINERAL RESOURCE CONSTRAINING SHELL - BIRD'S EYE VIEW TO SE (A-A' CROSS-SECTION SOWN IN FIGURE 14-13)

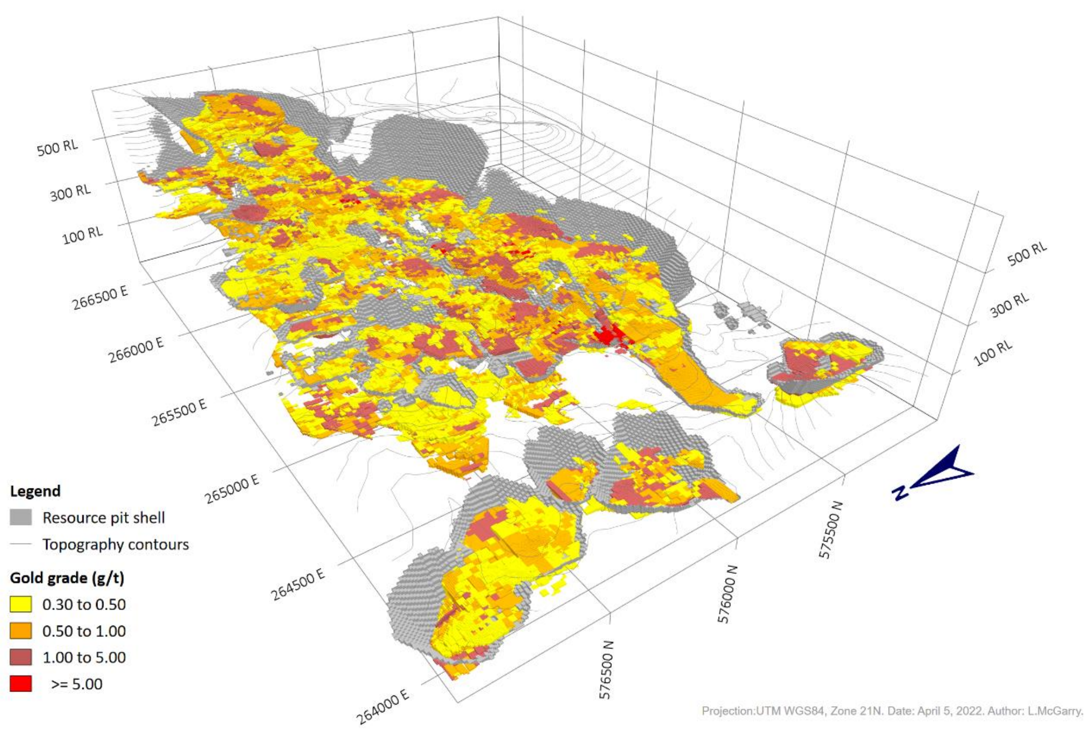


FIGURE 14-13 2022 SALBORA DEPOSIT BLOCK MODEL COLORED BY AU GRADE WITH MINERAL RESOURCE CONSTRAINING SHELL - BIRD'S EYE VIEW TO NE (B-B' CROSS-SECTION SHOWN IN FIGURE 14-13)

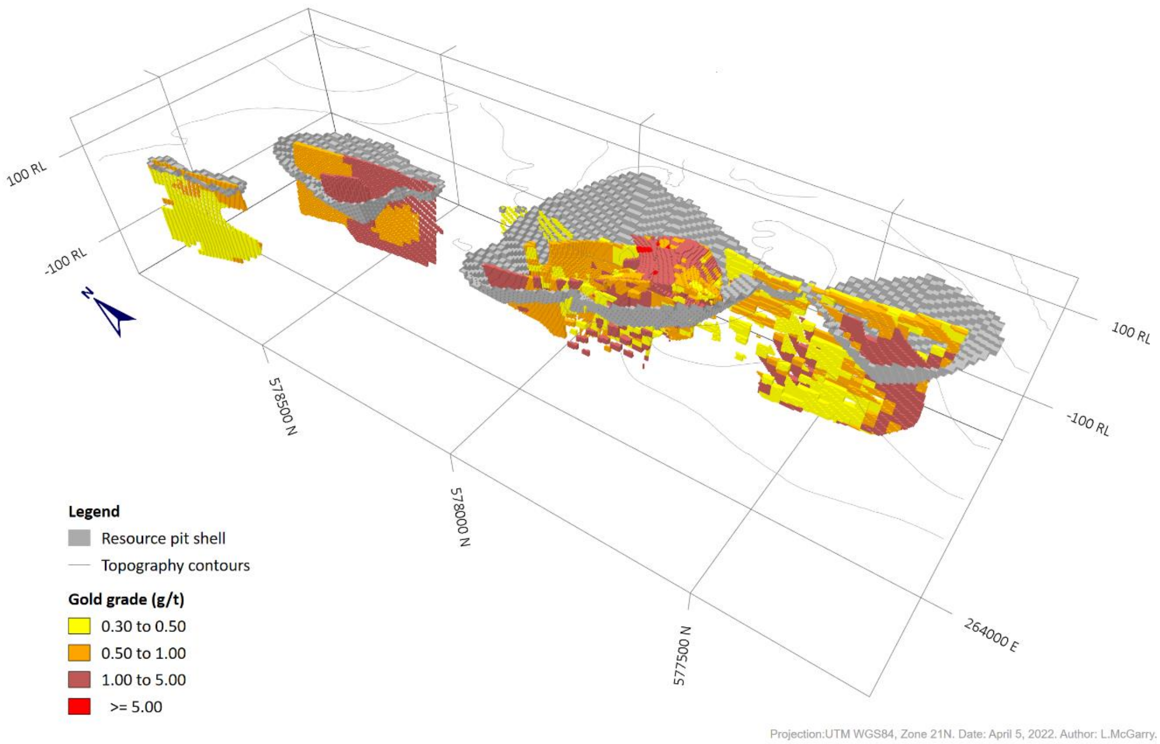
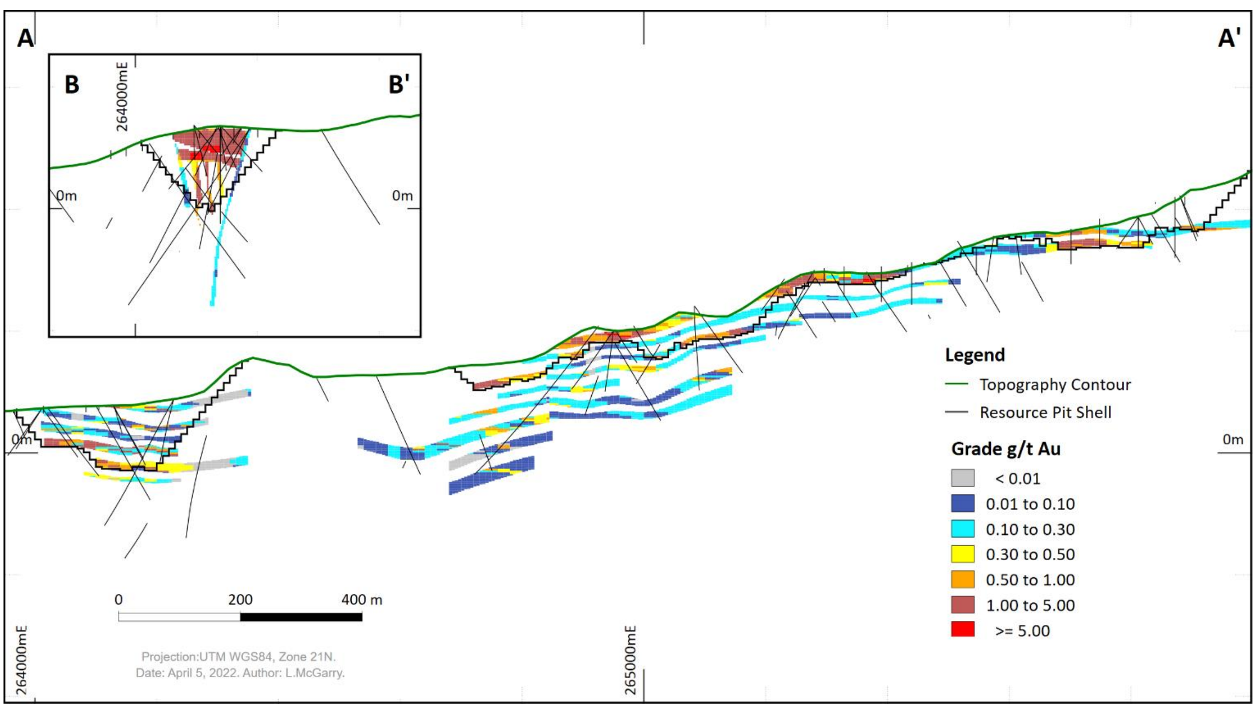


FIGURE 14-14 2022 BLOCK MODEL COLORED BY GOLD GRADE WITH RESOURCE CONSTRAINING SHELL; CROSS-SECTION VIEW



14.10.2 MINERAL RESOURCE CLASSIFICATION PARAMETERS

The MRE is classified in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves, adopted by the CIM Council (2014). The Mineral Resource has been classified as Indicated and Inferred on a qualitative basis. The classification level is primarily based upon an assessment of the validity and robustness of input data and the estimator's judgment with respect to the proximity of mineral resource blocks to sample locations and confidence with respect to the geological continuity of the domain interpretations and grade estimates.

Mineral Resource classifications are assigned to the block model in a cookie cutter fashion using manually digitized classification boundary strings:

- Indicated blocks are captured in an area that broadly meets the following criteria:
    - demonstrates reasonable geological and grade continuity;
    - estimated in runs 1 or 2, typically within 50 metres to the nearest drill hole (and locally up to 80 metres-equal to the typical variogram range in the along strike or strike and downdip directions);
- Inferred blocks are captured in an area that broadly meets the following criteria:
    - within a 120-metre buffer of drilling in the Eagle Mountain deposit area (Figure 14-14); and
    - informed in search ellipse volumes 1 to 3.

At the Eagle Mountain deposit, Indicated Mineral Resources extend from surface to a maximum depth of 150 metres and have an average depth of 35 metres. 75% of the Indicated Mineral Resource are within 50 metres of the surface.

At the Salbora deposit, Indicated Mineral Resources extend from surface to a maximum depth of 156 metres and have an average depth of 49 metres. 58% of the Indicated Mineral Resource are within 50 metres of the surface.

A histogram showing distances between blocks and samples for each category is shown in Figure 14-1-5. The Eagle Mountain and Salbora block models are shown colored by class and with Mineral Resource constraining shells in Figure 14-16 and Figure 14-17.

FIGURE 14-15 CLASSIFIED BLOCK DISTANCES FROM NEAREST DRILL HOLE EAGLE MOUNTAIN (LEFT) SALBORA (RIGHT)

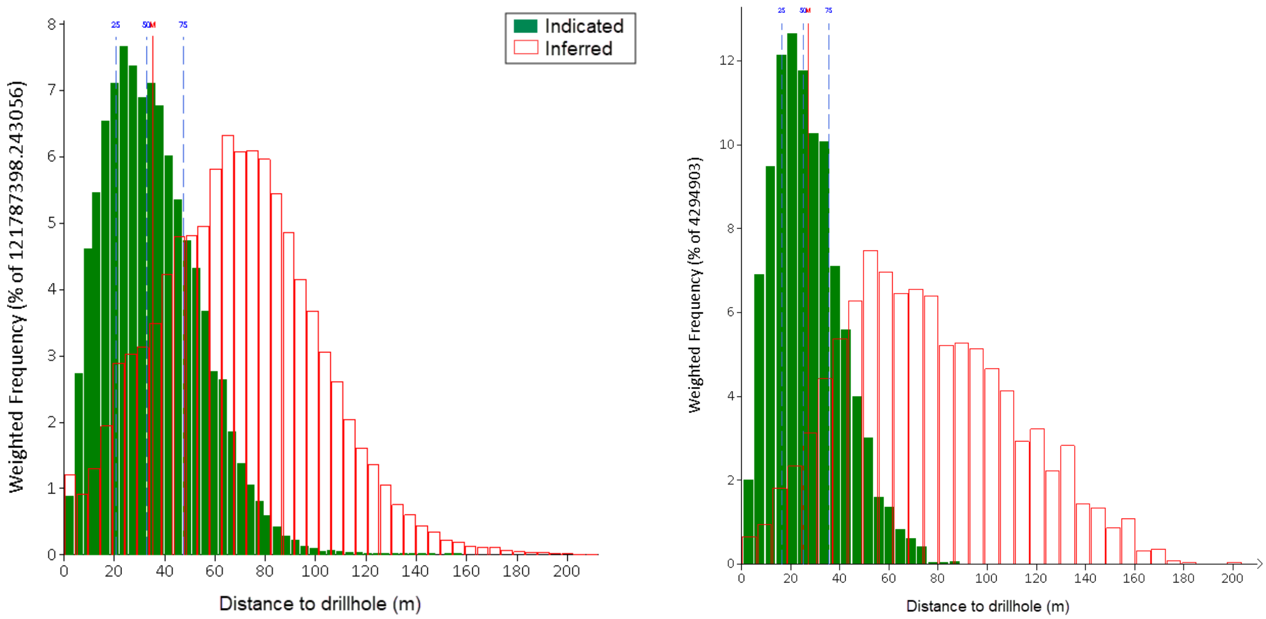


FIGURE 14-16 2022 EAGLE MOUNTAIN BLOCK MODEL COLORED BY CLASS WITH MINERAL RESOURCE CONSTRAINING SHELL - BIRD'S EYE VIEW TO SE

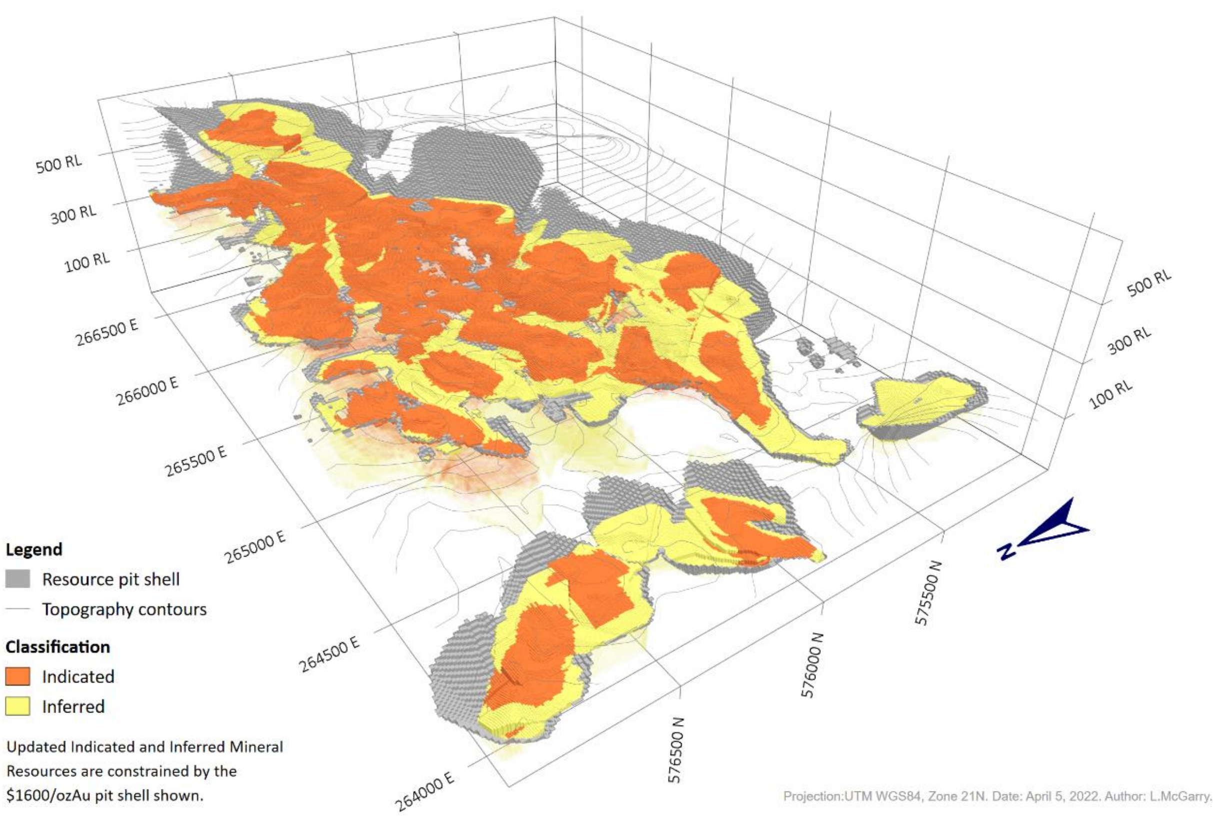
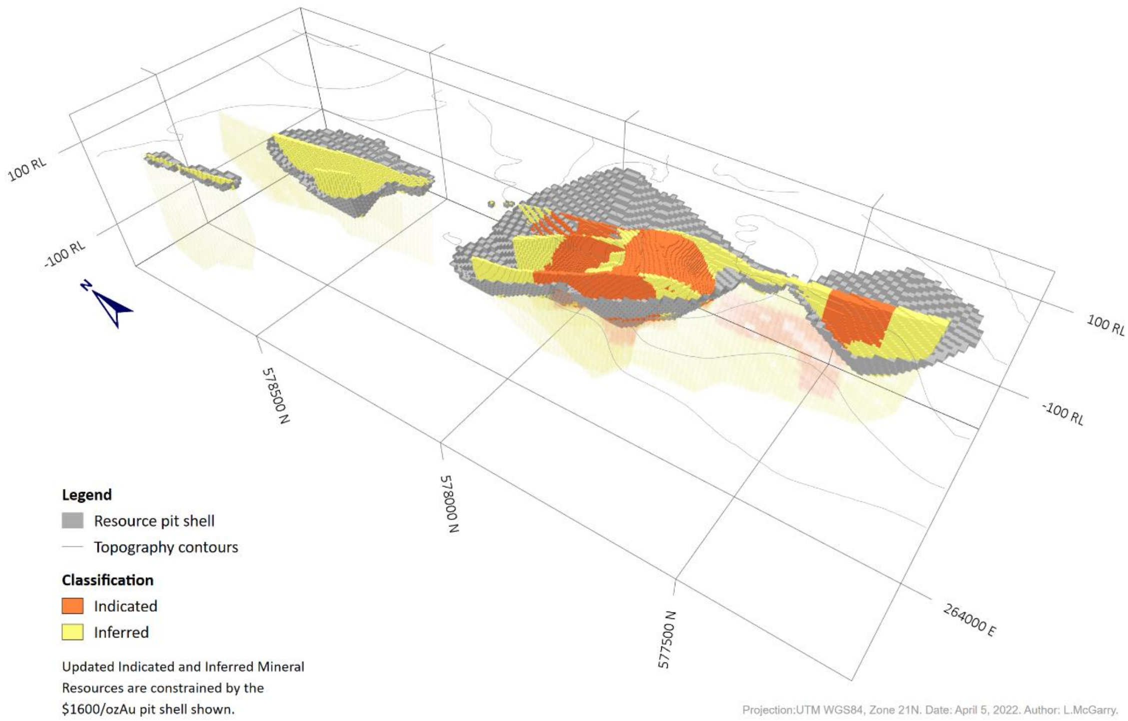


FIGURE 14-17 2022 SALBORA BLOCK MODEL COLORED BY CLASS WITH MINERAL RESOURCE CONSTRAINING SHELL - BIRD'S EYE VIEW TO NE



14.11 MINERAL RESOURCE REPORTING

The April 2022 MRE for the Eagle Mountain Gold Project is summarized in Table 14-15. The Mineral Resource has an effective date of April 7, 2022.

TABLE 14-15 MINERAL RESOURCES BY WEATHERING TYPE

Classification	Material	Cut-Off Grade (g/t)	Tonnes (Mt)	Gold (g/t)	Gold (oz)
Eagle Mountain					
Indicated	Sap and Trans	0.30	11.93	0.99	381
	Fresh	0.50	17.15	1.24	682
	All		29.08	1.14	1,063
Inferred	Sap and Trans	0.30	5.86	0.68	131
	Fresh	0.50	11.34	1.12	407
	All		17.20	0.97	538

Classification	Material	Cut-Off Grade (g/t)	Tonnes (Mt)	Gold (g/t)	Gold (oz)
Salbora					
Indicated	Sap and Trans	0.30	0.55	2.09	37
	Fresh	0.50	1.50	1.74	84
	All		2.05	1.83	121
Inferred	Sap and Trans	0.30	0.24	0.87	8
	Fresh	0.50	0.96	1.15	35
	All		1.20	1.13	44
Eagle Mountain Project Total					
Indicated	Sap and Trans	0.30	12.48	1.04	417
	Fresh	0.50	18.66	1.28	766
	All		31.13	1.18	1,183
Inferred	Sap and Trans	0.30	6.10	0.71	139
	Fresh	0.50	12.30	1.12	443
	All		18.40	0.98	582

Notes:

1. Numbers have been rounded to reflect the precision of an MRE. Totals may vary due to rounding.
2. Gold cut-off has been calculated based on a gold price of US$1,600/oz, mining costs of US$1.5/t (t) for saprolite and US$2.0/t for fresh rock, processing costs of US$6.0/t for saprolite and US$12.0/t for fresh rock, and mine-site administration costs of US$3.0/t. Metallurgical recoveries of 95% are based on prior testwork.
3. Mineral Resources conform to NI 43-101, and the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines and 2014 CIM Definition Standards for Mineral Resources & Mineral Reserves.
4. The Company is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing or political factors that might materially affect these Mineral Resource estimates.
5. Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. The quantity and grade of reported Inferred Mineral Resources in this MRE are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured Resources; however, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve.

As shown in Table 14-16, the effect of gold price is very modest, as mineralization is structurally controlled within defined structures and does not have a low-grade halo that is sensitive to changes in gold price. The pit-constrained Mineral Resource does, however, increase more materially above US$1,700/oz, allowing for the pit to capture mineralization at depth, notably in the Eagle Mountain deposit.

TABLE 14-16 TOTAL PROJECT MRE UPDATE - SENSITIVITY TO GOLD PRICE USED FOR MINERAL RESOURCE CONSTRAINING SHELL

	Classification	Gold Price (US$/oz)	Tonnes (000 t)	Grade (Au g/t)	Ounces Au (oz)
Saprolite	Indicated	1,500	12,388	1.05	416,000
		1,600	**12,475**	**1.04**	**417,000**
		1,700	12,517	1.04	418,000
		1,800	12,544	1.04	418,000
	Inferred	1,500	5,998	0.72	138,000
		1,600	**6,104**	**0.71**	**139,000**
		1,700	6,117	0.71	139,000
		1,800	6,146	0.71	140,000
Fresh Rock	Indicated	1,500	17,467	1.30	732,000
		1,600	**18,659**	**1.28**	**766,000**
		1,700	19,094	1.27	777,000
		1,800	21,110	1.24	839,000
	Inferred	1,500	11,341	1.14	417,000
		1,600	**12,300**	**1.12**	**443,000**
		1,700	12,841	1.12	463,000
		1,800	15,007	1.09	524,000

14.12 RECOMMENDATIONS

ERM recommends the following additional work with respect to the MRE:

- Update the mineralization model to delineate zones of variable orientation within the shallow dipping fault zones, and to model relay veins linking the faults. The model should be supported by a detailed structural interpretation incorporating data from orientated angled drill holes;
- If Leapfrog software is to be used in future, the veins system modeling tool should be used instead of the stratigraphic approach used currently;
- Apply the 2023 high-resolution LiDAR survey with ground truthing to improve the resolution of the topography model. An updated MRE model should be generated using the updated topographic model;
- High-resolution topography could support a detailed map of weathering features and resistive post-mineralization dikes. This information could provide the basis for a detailed review of auger data to improve the definition of mineralization trends in saprolite for drill targeting and mineralization modelling; and

- Obtain a dedicated geological and mining database solution. This will enable efficient sharing of increasingly complex project data between the multi-disciplinary teams involved in the project as it progresses to more advanced stages of development.

The following targets warrant further exploration:

- The steep breccia zone at Toucan (Zone 14) at Salbora is open to the south. This zone would be tested by drill holes on a fence 40 metres to the south of EMD20-103, which included a 10.5 metre intercept at 1.16 g/t Au;
- At Toucan, the convergence of the steep breccia zone and flat horizons is associated with increased mineralization intensity. Drilling on a regular grid should test the Salbora-Powis structural zone adjacent to the Eagle Mountain deposit to explore for similar breccia zones; and
- At the south of the Eagle Mountain deposit, mineralized horizons continue at depth south-westward from the Baboon deposit area. Exploration should target extensions to mineralization encountered in EMD09-43 (6.10 metres at 2.12 g/t Au from 141.90 metres) and EMM21-052 (10.5 metres at 0.85 g/t Au from 139.50 metres), particularly where changes in topography bring these zones closer to surface.

15. MINERAL RESERVE ESTIMATES

This section is not applicable for this Technical Report.

16. MINING METHODS

16.1 INTRODUCTION

This section outlines the parameters and steps used to conduct the PEA-level mine plan at a proposed plant feed rate of 1.825 Mtpa (5,000 tpd).

The conceptual mine plan for the Eagle Mountain and Salbora deposits proposes a 15-year mine plan that initially focusses on the mining of saprolite for the first 4.5 years (Phase 1) during which time most of the mining will be "free dig", not requiring blasting. This is followed by Phase 2 in which gold production will be derived from a blend of fresh rock, transition rock and saprolite mineralization for an estimated 10.5 years for an estimated LOM plan of 15 years. Fresh and transition rock will require drilling and blasting to facilitate mining, material handling and processing. For both Phase 1 and Phase 2, mill feed rates approximate 1.815 Mtpa (5,000 tpd), with Phase 2 designed to process up to 4,250 tpd of fresh and transition rock with the balance being made up with saprolite. The mining method will use traditional load and haul methods using hydraulic excavators, and/or wheel loaders as appropriate to the terrain and depending on the major production equipment available from the contract miner selected for the Project.

The mined material will be hauled from the bench to either the crusher, the ROM stockpiles, or the waste dump depending on the material type.

Furthermore, ancillary equipment, such as bulldozers, graders, and a range of vehicles, is employed to perform functions related to maintenance, support, services, and utilities.

The loading equipment will load ADTs and / or rigid frame trucks that may be of a single truck type but may also be comprised of a mix of off highway and on highway truck models. The mine plan assumes mining costs that are aligned with truck and shovel operations.

16.2 GENERAL ARRANGEMENT

The proposed layout of the optimized pit shells, the waste dumps, the two tailings storage facilities, haul roads, and the location of the processing facilities are illustrated in Figure 16-1.

16.3 OPTIMIZED PIT

The optimization process was conducted using the Datamine Studio NPVS software, employing a mill throughput rate of 1.825 Mtpa to calculate a reference NPV for each nested pit. A range of revenue factors from 1% to 100% was applied, resulting in the generation of a set of nested pits that will serve as the basis for phase selection. Optimization parameters are summarized in Table 16-1.

FIGURE 16-1 GENERAL PROPOSED SITE ARRANGEMENT

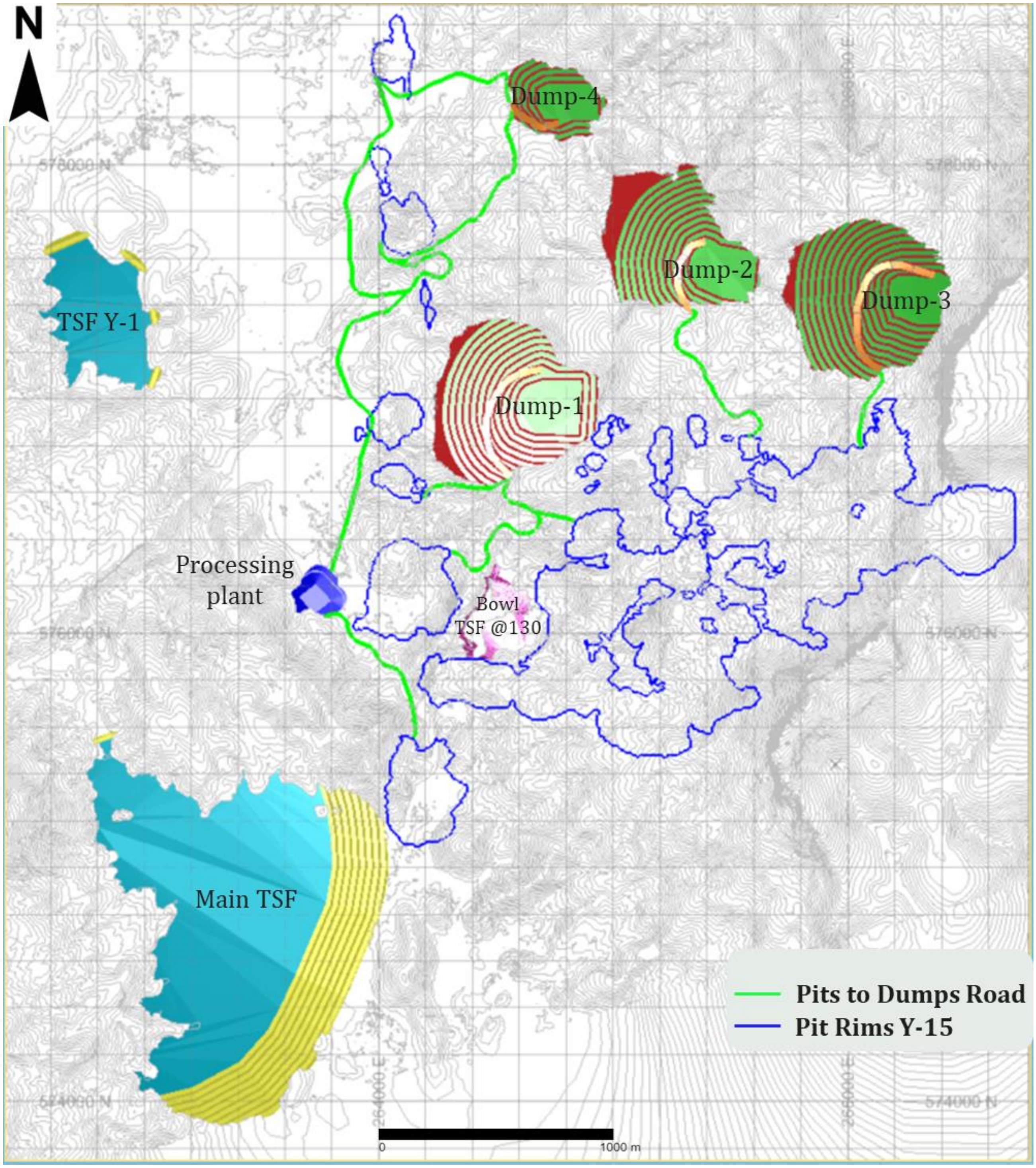


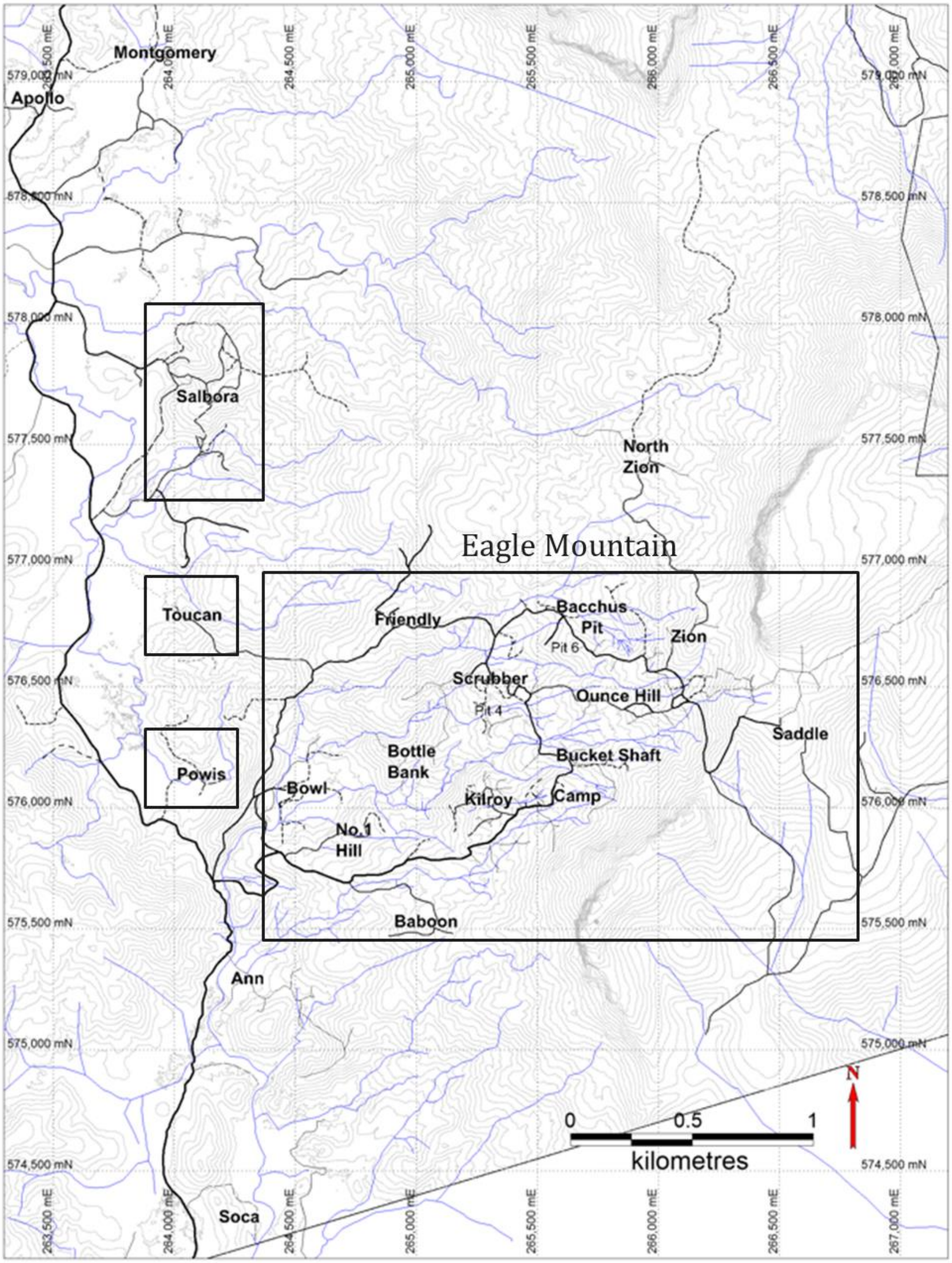
TABLE 16-1 PIT OPTIMIZATION PARAMETERS

Parameters	ERM Value	Unit
Sales Revenue		
Gold Price	1,600	US$/oz
NPV discount rate	5	%
Operating Costs		
Direct open pit mining costs – saprolite (ore/waste)	1.875	US$/t
Direct open pit mining costs – fresh rock and transition (ore/waste)	2.50	US$/t
G&A	3.00	US$/t
Processing Plant or Leaching Unit Costs - Fresh or Transition Rock	12.00	US$/t
Processing Plant or Leaching Unit Costs - Saprolite	6.00	US$/t
Federal Royalty (8% NSR, 6% tax adjusted)	6	%
Metallurgy		
Refinery Payability of Metal	100	%
Processing Recovery - Saprolite @ Salbora and Eagle Mt	97	%
Processing Recovery - Fresh or transition @ Salbora	82	%
Processing Recovery - Fresh or transition @ Eagle Mt	92	%
Geotechnical Parameters		
Overall Angle - Saprolite	35	degrees
Overall Angle - Transition	40	degrees
Overall Angle - Fresh Rock	45	degrees
Fresh Rock Specific Gravity	2.7	t/m^3
Saprolite Specific Gravity	1.7	t/m^3
Monzonite Density	3.0	t/m^3
Pit Optimization Parameters		
Dilution	2.5	%
Mining Recovery	98	%
Swell Factor	1.30	No unit
Mill Throughput Rate (Saprolite - Phase 1)	1.82	Mt/y
Mill Throughput Rate (Fresh or transition rock)	1.46 - 1.64	Mt/y

Mining phases, also referred to as pushbacks, have been chosen to access the mineralized material necessary to meet the annual plant throughput requirements and to manage the sufficient waste removal needed to prevent delays in mineralized material delivery in the coming years.

The optimized pit shell encompasses several deposit areas (Eagle Mountain and Salbora) across the Eagle Mountain Gold Project as illustrated in Figure 16-2.

FIGURE 16-2 DEPOSIT AREA NAMES AND PIT SHELL OUTLINES



16.4 REVENUE PARAMETERS

Projected revenue for the Project is expected to come from the sale of gold that is refined on-site and sold as doré. For the pit optimization, which formed the basis for determining the pit shell for the MRE and the Mine Schedule in this PEA, the applied gold price was US$1,600/oz. A gold price of US$1,850/oz was used for the Discounted Cashflow Model, as shown in Table 16-2.

TABLE 16-2 GOLD PRICE AND RECOVERY CONVERSION TO REVENUE

Item	Units	Pit Optimization for MRE Shell	Pit Optimization for the Mine Plan	Discounted Cashflow Model
Au Price	US$	1,600	1,600	1,850
Processing Recovery: Saprolite @ Salbora and Eagle Mtn.	%	95	97	97
Processing Recovery: Fresh or transition @ Salbora	%	95	82	82
Processing Recovery: Fresh or transition @ Eagle Mtn.	%	95	92	92
Mining Loss	%	0	2	2
Effective Royalty	%	0	6	8
Refining Cost	US$/oz	0	0	0.25
Net Revenue per gram - Saprolite	(US$/gram)	48.87	45.97	52.67
Net Revenue per gram – Salbora Fresh & Trans	(US$/gram)	48.87	38.86	44.46
Net Revenue per gram - Eagle Mtn. Fresh & Trans	(US$/gram)	48.87	43.6	49.93
Net Revenue per ounce - Saprolite	(US$/oz)	1,520	1,430	1,638
Net Revenue per ounce – Salbora Fresh & Trans	(US$/oz)	1,520	1,209	1,383
Net Revenue per ounce - Eagle Mtn. Fresh & Trans	(US$/oz)	1,520	1,356	1,553

16.5 LERCHS GROSSMAN (LG) SHELLS

The Lerchs and Grossman algorithms are extensively employed in the surface mining sector to address the pit limit problem and to develop an approximate solution for the extraction sequence problem.

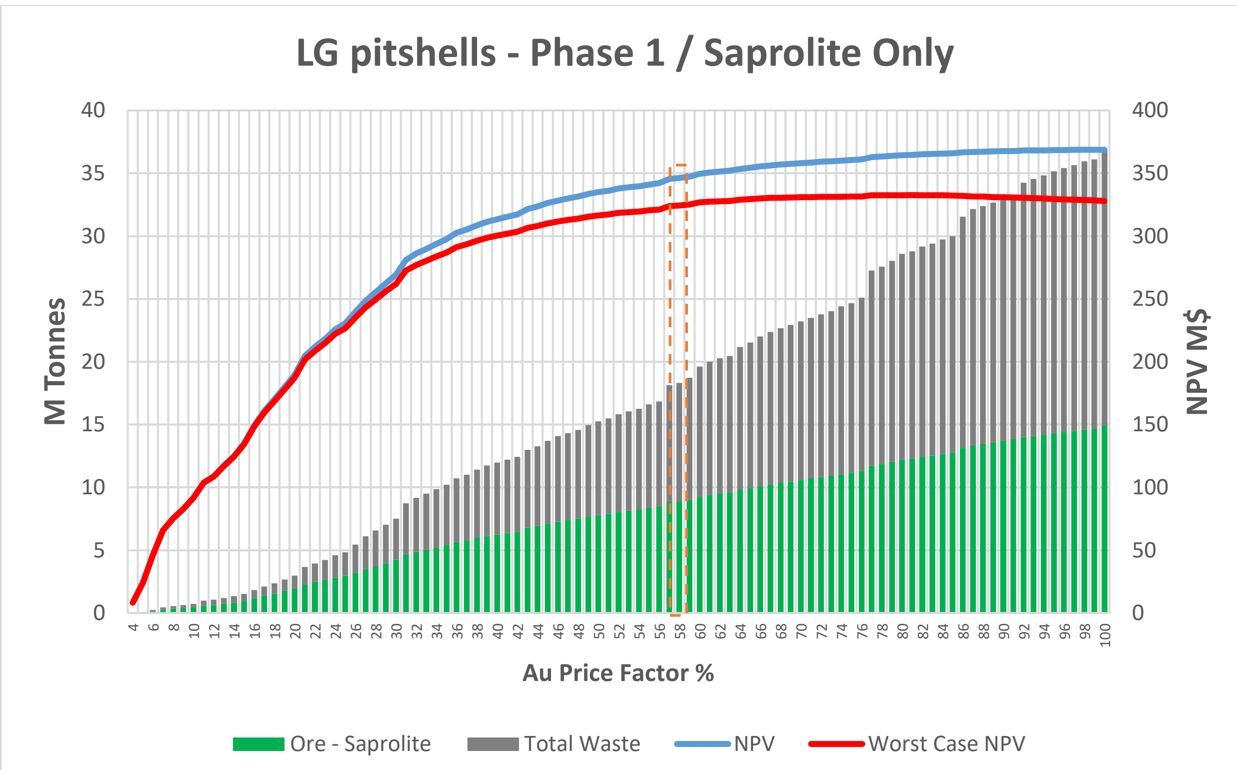
The process of pit optimization was carried out using Datamine's StudioNPV software, which utilizes a Lerchs-Grossman based algorithm. This application facilitated the generation of optimized nested pit shells, incorporating economic parameters and incremental price factors linked to the target metal price, which in this case was US$1,600/oz. The optimization was executed at 1% to the full 100% (US$1/oz to US$1,600/oz).

16.5.1 LG SHELLS FOR PHASE 1 OPTIMIZATION (SAPROLITE)

The pit optimization was first done for Phase 1 - the phase in which the processing plant is designed to treat only saprolite material. The pit shell does however contain some high grade fresh and transition rock which is stockpiled and processed in Phase 2.

The results of the pit optimization across various price factors are depicted in Figure 16-3. This figure presents the amount of candidate mill feed and waste for each nested pit, along with their respective Index NPV. It highlights that the chosen shell from this initial optimization was the Pit 55 revenue factor at 58% shell.

FIGURE 16-3 LG SHELLS FOR SAPROLITE ONLY (PHASE 1)



The tonnes, grade, and contained gold of mineralized material and tonnes of waste from the chosen shell are presented in Table 16-3.

TABLE 16-3 SELECTED PIT SHELL FOR PHASE 1 – PIT #55 (58%)

Pit	Mill Feed (Mt)	Waste (Mt)	Average Grade (g/t)*	Au Contained (k oz)
Pit 55	8.9	9.4	1.49	421.6

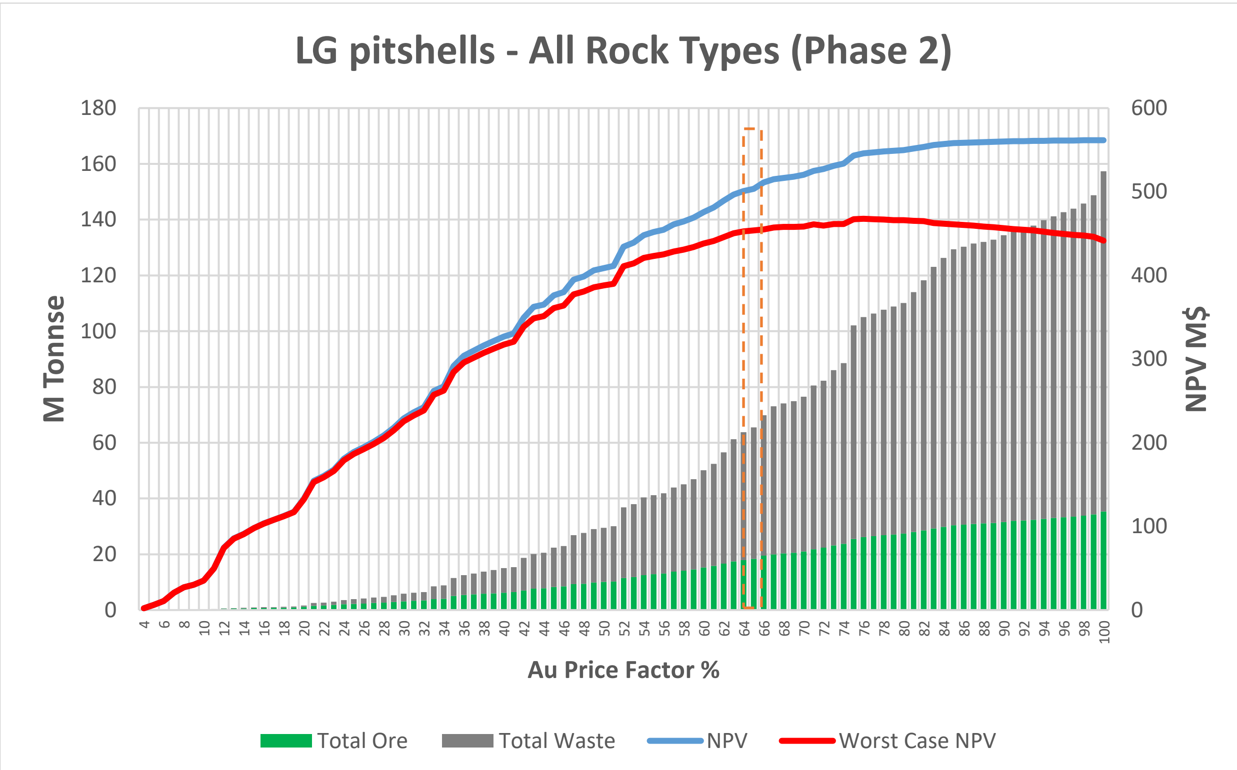
* The grade of all saprolite in the pit (plus lesser amounts of higher grade fresh and transition rock that occur within the pit that will be stockpiled) from both Salbora and Eagle Mountain deposits for Inferred and Indicated Categories are averaged.

16.5.2 LG SHELLS FOR ALL ROCK TYPES

Starting with the selected shell from the saprolite-only optimization, a second optimization was performed for Phase 2 which considers all rock types for inclusion as mill feed.

The selected shell from this initial optimization was Pit 62 with a revenue factor of 65%, as illustrated in Figure 16-4.

FIGURE 16-4 LG SHELLS FOR ALL ROCK TYPES PHASE 2



The tonnes, grade, and contained gold of mineralized rock as well as tonnes of waste are presented in Table 16-4.

TABLE 16-4 SELECTED PIT SHELL FOR PHASE 2 – PIT #62 (65%)

Pit	Mill Feed (Mt)	Waste (Mt)	Average Grade (g/t)*	Au Contained (k oz)
Pit 62	18.4	47.2	1.14	672.8

* The grade of all candidate mill feed from Salbora & Eagle Mountain for Inferred and Indicated Categories are averaged.

16.5.3 CONTENTS OF COMBINED SELECTED PIT SHELLS FOR PHASE 1 AND PHASE 2

The combined total contents for the selected pits for both Phase 1 and Phase 2 are presented in Table 16-5.

TABLE 16-5 COMBINED SELECTED PITS – PHASE 1 PLUS PHASE 2

Pit	Scenario	Mill Feed (Mt)	Waste (Mt)	Average Grade (g/t)	Au Contained (k oz)
1-Pit 55	Saprolite*	8.9	9.4	1.49	421.6
2-Pit 62	All Rock Types	18.4	47.2	1.14	672.8
Pit (1-55) + (2-62)	Combined	27.2	56.6	1.26	1094.4

16.6 GEOTECHNICAL

Geotechnical studies have not been conducted for the Project. Consequently, generally conservative assumptions are used in the PEA, particularly for saprolite material for which 35-degree slope angles were considered. 40- and 45-degree angles were used for transition and fresh rock to derive the overall slope angle of the pit.

16.7 OPEN PIT MINING

For the Eagle Mountain Gold Project, a traditional open pit mining method has been selected using truck and shovel techniques.

The mine will consist of several shallow and medium depth open pits distributed along the north-south Salbora-Powis trend and several interconnected pits within the Eagle Mountain deposit, extending eastward to the base of the Eagle Mountain cliff face approximately 400 metres in elevation higher than the valley floor.

During the initial four and a half (4.5) years (Phase 1), only a small amount of drilling and blasting will be required as the mine plan calls for saprolite only. However, there are areas of transition and fresh rock that will need to be mined to access planned saprolite. Also, within the saprolite layer there are localized unweathered boulders of granodiorite and dolerite one metre in diameter or more which cannot be handled without blasting.

During Phase 2, from the mid-point of year five (5) to the end of the LOM plan, drilling and blasting will be used regularly to ensure that the transition and fresh rock can be loaded and hauled by mining equipment.

Benches will be 5 metres in height with double bench pre-splitting executed in fresh rock to improve pit wall integrity.

16.7.1 OVERBURDEN STOCKPILING

The topsoil overburden removed during the clearing of areas prior to open pit mining will be deposited in an overburden stockpile. This material will be reserved for reclamation works during the LOM and at mine closure. In further studies, the amount of topsoil overburden will be determined from which a properly dimensioned stockpile will be designed.

16.7.2 WASTE ROCK DUMPS

It is conceived that waste rock removed from the open pits will be transported and placed in waste dumps potentially located to the north of the Eagle Mountain deposit.

The waste dumps will require the removal of some ridge crests and the filling of the valley between them as the dumps are built from south to north.

Parts of the dumps may be used as the foundation for haul ramps that will be built to access the pits at higher elevations.

The rock waste dumps are designed based on the material that will be excavated over the LOM. The design parameters are summarized in Table 16-6.

TABLE 16-6 WASTE DUMP DESIGN PARAMETERS AND CAPACITIES

	Unit	Dump 1	Dump 2	Dump 3	Dump 4	Total
Ramp Grade	%	10	10	10	10	-
Ramp Width	m	30	30	30	30	-
Bench Width	m	15.8	15.8	15.8	15.8	-
Loose Density	t/m^3	2.08	2.08	2.08	2.08	-
Overall Slope	degrees	35	35	35	35	-
Lift Slope	degrees	18.4	18.4	18.4	18.4	-
Lift Height	m	10	10	10	10	-
Dump Capacity	Mm^3	12.4	7.1	8.6	1.7	29.8
Dump Capacity*	Mt	20.3	11.6	14.2	2.8	48.9

* Calculated based on an average consolidated loose density for saprolite, transition, and fresh rock waste proportional to their representation in the LOM plan.

16.7.3 STOCKPILES

During Phase 1, in which the mill is configured for only saprolite, transition and fresh rock will be stockpiled for processing during Phase 2. The Phase 1 mine plan also calls for the stockpiling of low grade saprolite, which will be processed in Phase 2.

The LOM plan calls for the stockpiling and reclaim of 9.6 Mt as fresh, transition and saprolite material.

16.7.4 MINE DESIGN

The mine plan is based on the selected optimized pit shells for Phase 1 and Phase 2; however, the future pit design will recommend design parameters used at other gold mines in the region which employ double-bench strategy with 5-metre bench heights, selected to match the mining equipment requirements. Due to limited geotechnical information, conservative geotechnical parameters were applied for the conceptual mine design.

The pit shells used for the mine plan in this Technical Report incorporate 35 degrees overall pit slope angles in saprolite, 40 degrees in transition and 45 degrees in hard rock.

The haulage ramps will be designed based on the width of the largest haulage truck, accommodating double lane traffic with a buffer space equivalent to half a truck's width. Roads will incorporate a safety berm with a height matching a haul truck tire radius and a 2:1 slope for added safety. Additionally, there will be accommodation for a 2-metre-wide ditch to facilitate water drainage and pipe installation.

To ensure safe navigation, all ramp segments will have a maximum gradient of 10% on the inner curvature, and switchbacks will incorporate flat rolling surfaces for ease of use.

A summary of the design parameters is shown in Table 16-7.

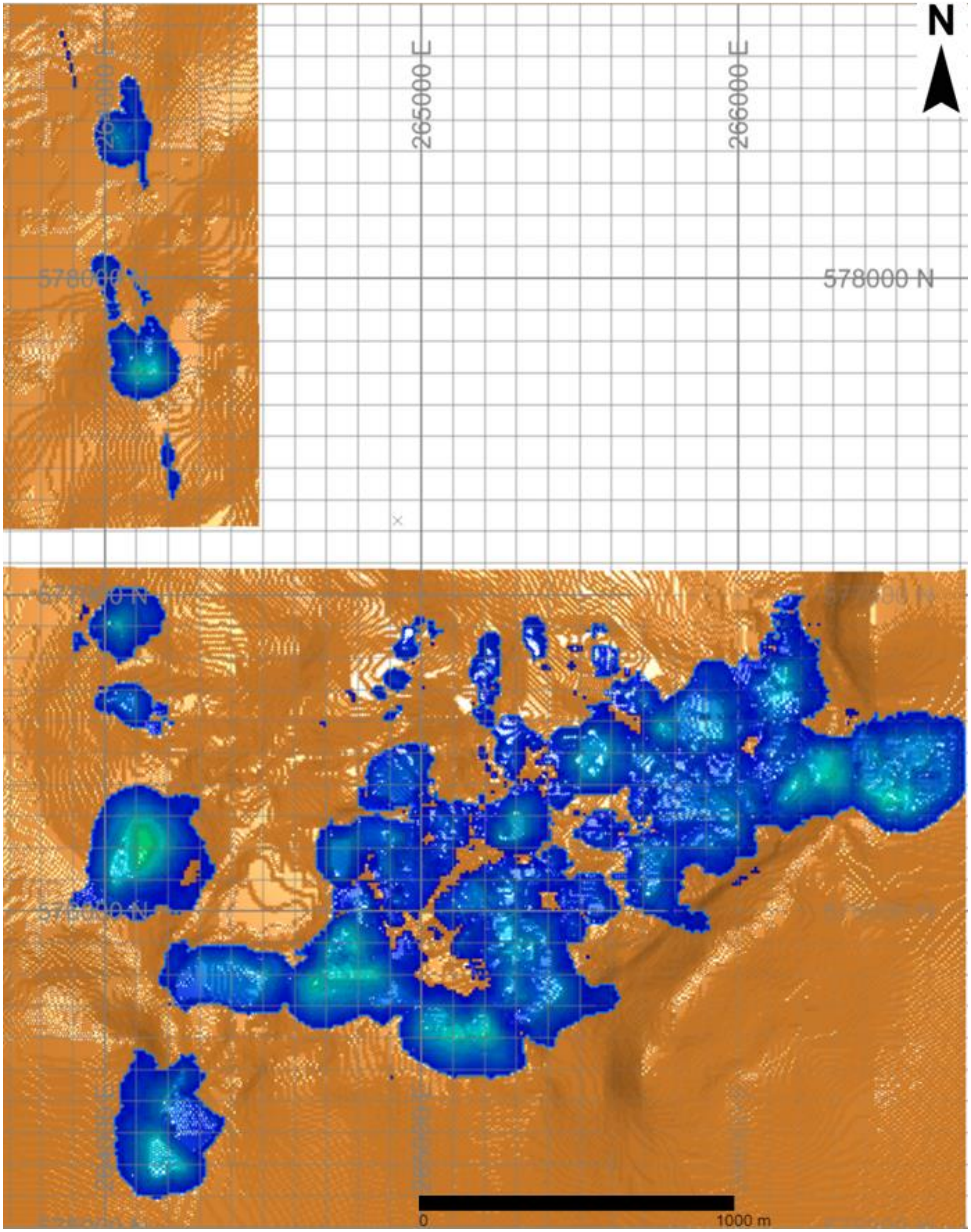
TABLE 16-7 DESIGN PARAMETERS – OPEN PIT

Parameter	Value	Unit
Slope		
Face Angle (Batter Angle) - Saprolite	55	Degrees
Face Angle (Batter Angle) - Transition	70	Degrees
Face Angle (Batter Angle) - Fresh	80	Degrees
Bench Height (Double Bench)	5.0 (10.0)	Metres
Berm Width	9.5	Metres
IRA – Saprolite	35	Degrees
IRA - Transition	40	Degrees
IRA - Fresh	45	Degrees
Ramps		
Ramp Width	30.0	Metres
Ramp Gradient	10.0	%

The selected optimized pit shell, which incorporates the stated pit wall angles, was used for the mine schedule and is shown in Figure 16-5. This shell will be the basis for the future conceptual pit design.

The future conceptual pit design will be generated using Datamine software Studio OP, which will incorporate haulage ramp access to all benches. The design parameters will be reviewed with further geotechnical and hydrogeological studies when more information is available.

FIGURE 16-5 FINAL PIT SHELL USED FOR LOM PLAN



16.7.5 CUT-OFF GRADES: "MILL FEED" / WASTE CUT-OFF AND BREAKEVEN CUT-OFF

The Eagle Mountain and Salbora deposits underwent pit optimization following industry best practices.

The cut-off grade used for pit optimization uses the breakeven cut-off grade which is inclusive of the mining cost, processing cost, and G&A. The breakeven cut-off determines which blocks are included with the final pit shell.

The chosen cut-off for this procedure is determined using engineering and economic parameters which take into account:

- Market prices of the commodity;
- Assumptions regarding operational costs;
- Predicted process plant recovery rates; and
- Assumptions concerning mining losses and dilution.

In accordance with the previously presented economic parameters, the economic breakeven cut-off grades employed in the pit optimization were calculated as follows for the various stages of the PEA study (Table 16-8).

These cut-off grades are applied intrinsically within the pit optimization process only. The breakeven cut-off grades calculated from the DCF Parameters are presented in Table 16-8 for comparative purposes only and were not applied for the mine schedule nor in the DCF itself.

TABLE 16-8 ECONOMIC BREAKEVEN CUT-OFF GRADES

Pit Optimization for MRE Shell	Units	Salbora	Eagle Mountain
Saprolite - Mine COG	g/t Au	0.24	0.24
Transition - Mine COG	g/t Au	0.24	0.36
Fresh - Mine COG	g/t Au	0.24	0.36
Pit Optimization for the Mine Plan	Units	Salbora	Eagle Mountain
Saprolite - Mine COG	g/t Au	0.25	0.25
Transition - Mine COG	g/t Au	0.30	0.40
Fresh - Mine COG	g/t Au	0.30	0.40
Discounted Cashflow Model	Units	Salbora	Eagle Mountain
Saprolite - Mine COG	g/t Au	0.21	0.21
Transition - Mine COG	g/t Au	0.25	0.33
Fresh - Mine COG	g/t Au	0.25	0.33

For the determination of mineralized material and waste for the economic model and mine plan, the mill cut-off grade is used, which includes processing and G&A costs (and other operational costs if applicable) and is exclusive of the cost of mining. During the optimization process it has already been determined that a given tonne of rock will be mined or not using the break-even cut-off grade (also called the mine cut-ff grade). During the mine scheduling process, it is only at the pit's edge that the determination of mineralized material or waste is made, i.e., the mining cost is a sunk cost at that point.

The mill cut-off grades used to determine what is sent to the mill for the mine plan and DCF are presented in Table 16-9:

TABLE 16-9 ECONOMIC MILL CUT-OFF GRADES

Pit Optimization for MRE Shell	Units	Salbora	Eagle Mountain
Saprolite - Mill COG	g/t Au	0.18	0.18
Transition - Mill COG	g/t Au	0.18	0.31
Fresh - Mill COG	g/t Au	0.18	0.31
Pit Optimization for the Mill Plan	Units	Salbora	Eagle Mountain
Saprolite - Mill COG	g/t Au	0.20	0.20
Transition - Mill COG	g/t Au	0.23	0.34
Fresh - Mill COG	g/t Au	0.23	0.34
Discounted Cashflow Model	Units	Salbora	Eagle Mountain
Saprolite - Mill COG	g/t Au	0.16	0.16
Transition - Mill COG	g/t Au	0.19	0.28
Fresh - Mill COG	g/t Au	0.19	0.28

16.7.6 OPEN PIT MINE SCHEDULE

The mine plan was developed using Studio NPVS, and the scheduling was carried out on an annual basis throughout the entire project duration. The primary objective set for the mine planning optimizer was to maximize NPV.

The pre-production phase is limited to the first year referred to as Year 0 and will have a duration estimated at 12 months but could extend up to 16 months.

The first production year begins when the pre-production phase ends.

The mining operations will be carried out using contractor personnel and contractor equipment in order to minimize capital outlay.

Some basic auxiliary support equipment is already owned by Goldsource and is located on the site where it is currently used. Some additional auxiliary equipment will be purchased to augment the existing fleet of support equipment.

The mine schedule will be divided into two phases.

Phase 1

Phase 1 will focus on mining and processing saprolite only (although some transition and fresh rock will be unavoidable and will be stockpiled). The majority of the mined material will not require drilling and blasting; however, some oversize and unweathered material may require blasting from time to time.

The mining rate will be a nominal 5,000 tpd (1.825 Mtpa).

Phase 1 is planned to have a duration of 4.5 years.

In Phase 1:

- 8.63 Mt of in-situ mill feed will be mined.
- 10.25 Mt of waste will be mined.
- The average gold grade mined will be 1.59 g/t (including high grade fresh and transition rock that cannot be avoided while mining the saprolite mill feed and will be stockpiled for processing during Phase 2)
- The tonnes and grade sent to the stockpiles will be 0.71 Mt at an average gold grade of 1.08 g/t (this includes the high-grade transition and fresh rock going to one stockpile a very low grade saprolite going to a separate stockpile)
- 8.21 Mt of saprolite will be processed at a diluted gold grade (mill head grade) of 1.20 g/t.
- During Phase 1, while the optimized pit shell attempted to contain saprolite only, some transition and fresh rock will be encountered and will be sent to the stockpile.

Phase 2

Phase 2 will focus on the mining and processing of all rock types, predominantly fresh and transition material, which will require drilling and blasting, and the remaining saprolite material.

Oversize and hard intrusions will require blasting.

The mining rate will remain at a nominal 5,000 tpd which converts to 1.825 Mtpa.

The maximum amount of fresh and trans processed per day will be a nominal 4,250 tpd with the remaining balance up to 5,000 tpd being supplied as saprolite.

Phase 2 is planned to have duration of just under 10.5 years.

In Phase 2:

- 18.60 Mt of in-situ mill feed will be mined.
- 46.33 Mt of waste will be mined.
- The average gold grade mined will be 1.26 g/t.
- The tonnes and grade sent to the stockpile will be 2.83 Mt at a gold grade of 0.34 g/t.
- 18.90 Mt of mill feed will be processed at a diluted gold grade (mill head grade) of 1.28 g/t at the mill head.

- During Phase 2, all rock types (saprolite, transition and fresh rock) will be mined and processed including transition and fresh rock stockpiled during Phase 1.

Phase 1 and 2 Combined (LOM Total)

Over the LOM:

- 27.23 Mt of in-situ mill feed will be mined and processed at a diluted gold grade of 1.26 g/t.
- 56.58 Mt of waste will be mined.
- 3.54 Mt grading 0.49 g/t will be stockpiled and reclaimed over the LOM.
- In addition to stockpiling, it is estimated that approximately 3% of the mined mill feed will require rehandling.
- The PEA plan considers construction of the Phase 2 facilities starting in Year 4 with processing of fresh rock commencing by mid-Year 5.
- The mine production schedule is presented in Table 16-10 and the corresponding stockpile evolution is presented in Table 16-11.

16.8 MINE SEQUENCE

The conceptual mine plan presented is captured visually in the sections below and described as follows.

In any given year, mining will come from multiple locations to achieve the planned grade and maximize NPV.

However, during any given week, production will not be scheduled in more than two areas (pits).

During Phase 1, saprolite allows for free digging of both mill feed and waste which reduces the need to depend upon a drill and blast cycle.

During Phase 2, the load and haul plan must be well coordinated with the drill and blast plan, and areas must be properly cleared for drilling operations a week or two before production mining to allow for the drill and blast cycle. This can be complicated during the rainy season due to the presence of muddy saprolite. This issue will be mitigated by always keeping a higher elevation / well drained drill and blast area available as backup and a similarly high elevation / well drained mining face available as backup for rainy periods.

TABLE 16-10 EAGLE MT AND SALBORA PRODUCTION SCHEDULE

Year	Unit	Y-1	Y-2	Y-3	Y-4	Y-5	Y-6	Y-7	Y-8	Y-9	Y-10	Y-11	Y-12	Y-13	Y-14	Y-15	Total
Pit To Process	K tonnes	1,816	1,816	1,816	1,773	1,389	1,717	1,820	1,685	1,535	973	1,820	1,084	1,483	1,798	1,161	23,687
Pit to Process Au	g/t	1.15	1.68	1.38	0.96	1.27	2.12	1.16	1.08	1.35	1.59	1.68	0.99	1.63	1.37	1.02	1.37
Stockpile to Process	K tonnes	0	0	0	43	437	103	0	135	285	847	0	741	339	22	589	3540
Stockpile to Process Au	g/t	0	0	0	0.25	0.98	0.24	0.00	0.55	0.45	0.52	0.00	0.41	0.32	0.27	0.34	0.49
Processed	K tonnes	1,816	1,816	1,816	1,816	1,825	1,820	1,820	1,820	1,820	1,820	1,820	1,825	1,822	1,820	1,750	27,227
Processed Au	g/t	1.15	1.68	1.38	0.94	1.20	2.01	1.16	1.04	1.21	1.09	1.68	0.75	1.39	1.36	0.79	1.26
Recovered Gold	kg	1,984	2,897	2,377	1,628	1,974	3,294	1,907	1,702	1,984	1,699	2,640	1,239	2,294	2,231	1,266	31,115
Recovered Gold	K oz	63.78	93.13	76.42	52.34	63.45	105.92	61.33	54.71	63.78	54.61	84.86	39.84	73.76	71.74	40.70	1,000.36
Saprolite Mill Feed Mined	K tonnes	1,841	1,917	2,044	1,827	865	181	414	335	229	496	454	538	345	436	535	12,455
Saprolite Mill Feed mined grade	g/t	1.14	1.60	1.25	0.94	0.70	0.53	0.40	0.35	0.46	0.86	0.64	0.45	0.42	0.40	0.64	0.98
Saprolite Mill Feed tonnes added to stockpile	K tonnes	25	101	228	54	82	7	138	59	36	220	177	99	145	182	0	1,553
Saprolite Mill Feed grade added to stockpile	g/t	0.24	0.25	0.25	0.24	0.24	0.23	0.26	0.24	0.24	0.47	0.31	0.26	0.26	0.23	-	0.29
Saprolite tonnes reclaimed from stockpile	K tonnes	0.0	0.0	0.0	42.6	266.3	102.8	0.0	0.0	82.9	0.0	0.0	361.7	339.5	22.0	334.9	1552.6
Saprolite Mill Feed grade reclaimed from stockpile	g/t	-	-	-	0.25	0.25	0.24	-	-	0.25	-	-	0.34	0.32	0.27	0.25	0.29
Saprolite Pit to Process	K tonnes	1,816	1,816	1,816	1,773	783	173	276	276	193	276	276	438	201	254	535	10,903
Saprolite Pit to Process grade	g/t	1.15	1.68	1.38	0.96	0.74	0.55	0.47	0.37	0.50	1.17	0.85	0.50	0.54	0.52	0.64	1.07
Total Saprolite processed	K tonnes	1,816	1,816	1,816	1,816	1,049	276	276	276	276	276	276	800	540	276	870	12,455
Total Saprolite processed	g/t	1.15	1.68	1.38	0.94	0.62	0.43	0.47	0.37	0.42	1.17	0.85	0.43	0.40	0.50	0.49	0.98
Fresh rock/trans Mill Feed tonnes mined	K tonnes	38	44	53	36	795	2,220	1,796	1,616	1,420	777	1,624	646	1,282	1,798	626	14,772
Fresh /trans Mill Feed grade mined	g/t	2.35	1.87	2.49	1.64	1.60	1.77	1.17	1.11	1.42	1.62	1.76	1.32	1.81	1.36	1.35	1.49
Fresh rock/trans Mill Feed tonnes added to stockpile	K tonnes	38	44	53	36	190	676	252	207	78	80	80	0	0	254	0	1,988
Fresh rock/trans Mill Feed grade added to stockpile	g/t	2.35	1.87	2.49	1.64	0.46	0.59	0.51	0.43	0.40	0.41	0.45	-	-	0.45	-	0.64
Fresh rock/trans tonnes reclaimed from stockpile	K tonnes	0	0	0	0	170	0	0	135	202	847	0	379	0	0	254	1988
Fresh rock/trans Mill Feed grade reclaimed from stockpile	g/t	0.00	0.00	0.00	0.00	2.12	0.00	0.00	0.55	0.53	0.52	0.00	0.48	0.00	0.00	0.45	0.64
Fresh/Trans Pit to Process	K tonnes	0	0	0	0	605	1544	1544	1409	1342	697	1544	646	1282	1544	626	12784
Fresh/Trans Pit to Process grade	g/t	0	0	0	0	1.95	2.29	1.28	1.22	1.48	1.76	1.82	1.32	1.81	1.51	1.35	1.63
Total Fresh/Trans processed	K tonnes	-	-	-	-	776	1,544	1,544	1,544	1,544	1,544	1,544	1,025	1,282	1,544	880	14,772
Total Fresh/Trans processed grade	g/t	-	-	-	-	1.99	2.29	1.28	1.16	1.35	1.08	1.82	1.01	1.81	1.51	1.09	1.49
Mill Feed mined and processed (Saprolite + Fresh)	K tonnes	1,879	1,961	2,096	1,863	1,660	2,401	2,210	1,951	1,650	1,273	2,078	1,183	1,628	2,234	1,161	27,227
Mill Feed Dumped	K tonnes	2	2	14	11	14	13	23	24	27	31	12	13	14	29	0	229

Year	Unit	Y-1	Y-2	Y-3	Y-4	Y-5	Y-6	Y-7	Y-8	Y-9	Y-10	Y-11	Y-12	Y-13	Y-14	Y-15	Total
Total Mill Feed Mined	K tonnes	1,881	1,963	2,111	1,874	1,674	2,414	2,233	1,975	1,677	1,304	2,090	1,196	1,642	2,263	1,161	27,457
Saprolite Waste	K tonnes	2,119	2,119	1,920	2,161	2,917	682	1,871	1,200	1,295	2,360	2,377	3,358	2,909	2,517	2,275	32,081
Fresh/Trans Waste	K tonnes	99	18	29	34	588	1,942	1,680	1,819	2,814	2,284	1,540	3,173	3,932	3,736	811	24,499
Total Waste	K tonnes	2,219	2,137	1,949	2,195	3,505	2,624	3,551	3,019	4,110	4,643	3,918	6,531	6,840	6,253	3,086	56,580
Total Mined	K tonnes	4,100	4,100	4,059	4,070	5,179	5,039	5,783	4,993	5,787	5,947	6,007	7,727	8,482	8,517	4,247	84,037

TABLE 16-11 STOCKPILE EVOLUTION FOR EAGLE MT AND SALBORA

Year	Unit	Y-1	Y-2	Y-3	Y-4	Y-5	Y-6	Y-7	Y-8	Y-9	Y-10	Y-11	Y-12	Y-13	Y-14	Y-15
Fresh Transition Stockpile – Mill Feed	K tonnes	0	38	82	135	170	190	866	1118	1190	1066	300	379	0	0	254
Fresh Transition Stockpile - Volume	m^3	0	16	36	60	76	75	341	437	462	415	116	147	0	0	94
Fresh Transition Stockpile - AU_EST	g/t		2.35	2.10	2.25	2.12	0.46	0.56	0.55	0.53	0.52	0.49	0.48			0.45
Fresh Transition Stockpile – Mill Feed Out	K tonnes	0	0	0	0	170	0	0	135	202	847	0	379	0	0	254
Fresh Transition Stockpile - Volume Out	m^3	0	0	0	0	76	0	0	53	79	329	0	147	0	0	94
Fresh Transition Stockpile - MILL FEED In	K tonnes	38	44	53	36	190	676	252	207	78	80	80	0	0	254	0
Fresh Transition Stockpile - Volume In	m^3	16	19	24	16	75	266	96	78	31	30	31	0	0	94	0
Saprolite Stockpile - MILL FEED	K tonnes	0	25	126	354	365	181	85	223	282	235	455	632	370	175	335
Saprolite Stockpile Volume	m^3	0	16	79	222	230	114	54	141	178	148	287	399	234	110	211
Saprolite Stockpile AU_EST	g/t		0.24	0.25	0.25	0.25	0.24	0.24	0.26	0.25	0.25	0.35	0.34	0.32	0.27	0.25
Saprolite Stockpile MILL FEED Out	K tonnes	0	0	0	43	266	103	0	0	83	0	0	362	339	22	335
Saprolite Stockpile Volume Out	m^3	0	0	0	27	168	65	0	0	53	0	0	228	215	14	211
Saprolite Stockpile MILL FEED In	K tonnes	25	101	228	54	82	7	138	59	36	220	177	99	145	182	0
Saprolite Stockpile Volume In	m^3	16	64	143	34	52	5	88	37	23	138	112	63	91	114	0

16.8.1 PITS

There are 14 named areas from two deposits (Eagle Mountain and Salbora) and two prospects (Toucan and Powis) that will be mined during the life of mine.

The pits will occur in the vicinity of exploration targets that currently have the following names:

1. Ann prospect
2. Bacchus Pit (Eagle Mountain deposit)
3. Bottle Bank (Eagle Mountain deposit)
4. Bucket Shaft (Eagle Mountain deposit)
5. Friendly (Eagle Mountain deposit)
6. Kilroy (Eagle Mountain deposit)
7. No.1 Hill (Eagle Mountain deposit)
8. Ounce Hill (Eagle Mountain deposit)
9. Pit 1 (Eagle Mountain deposit)
10. Powis prospect
11. Saddle (Eagle Mountain deposit)
12. Salbora deposit
13. Toucan prospect
14. Zion (Eagle Mountain deposit)

16.8.2 PRE-PRODUCTION DEVELOPMENT

Prior to production, significant effort and cost will be expended to cut and fill haul roads up the side of the hill adjacent to and sometimes through the various pit areas in order to ensure access by haul trucks and shovels.

Some preliminary conceptual haul road design is included in this study and significant additional design work will be required in the future.

16.8.3 MINE SEQUENCE FOR EAGLE MOUNTAIN AND SALBORA

In the first year of mining, production will come primarily from six areas which will include:

- Ounce Hill (Eagle Mountain deposit)
- Bottle Bank (Eagle Mountain deposit)
- Kilroy (Eagle Mountain deposit)
- Bucket Shaft (Eagle Mountain deposit)
- Saddle (Eagle Mountain deposit)
- Salbora deposit

This is shown in Figure 16-6.

Some pioneering work will be initiated at some other areas such as Zion, Bacchus pit, and near to camp.

Waste will be hauled to nearest dumps.

The second year of mining will continue to mine saprolite in the areas of Bacchus, in addition to the start mining in No.1 Hill pit as shown in Figure 16-7.

As in year three, mining of saprolite will progress to Kilroy, Zion, and Bucket Shaft, as shown in Figure 16-8.

In Year 4, mining of saprolite will continue in Kilroy, Zion and Ounce Hill and mining of the transition material and fresh will start in the second half of the same year. Mining in the area called Camp will expand as shown in Figure 16-9.

In Year 5 to 6, mining will start in Toucan, Friendly, Scrubber and Ann pits. Mining will continue in Saddle as shown in Figure 16-10 and Figure 16-11.

In the remaining years of the mining project, mining of all mineralized rock types as mill feed will continue from Year 6 until the final year. Ongoing pit limit expansions associated with the LOM Mine Plan are illustrated for each year end in Figure 16-11 to Figure 16-20.

In the remaining years, mining will expand in Powis and Toucan and continue in all pits as shown in Figure 16-15 to Figure 16-20.

16.9 MINE EQUIPMENT AND PERSONNEL

The conceptual mine plan presented in this study is executed using standard commercially available mining equipment.

16.9.1 CURRENT EQUIPMENT ONSITE

There is currently some mining equipment on site which includes the following:

- D6 Bulldozer;
- Articulated Dump Truck; and
- Hydraulic Excavator.

16.9.2 OPEN PIT MINING EQUIPMENT

This section addresses the selection of equipment and the fleet requirements essential for executing the open-pit mining plan. Eagle Mountain and Salbora will be mined using contract mining whose fleet requirements are estimated in Table 16-12.

FIGURE 16-6 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 1

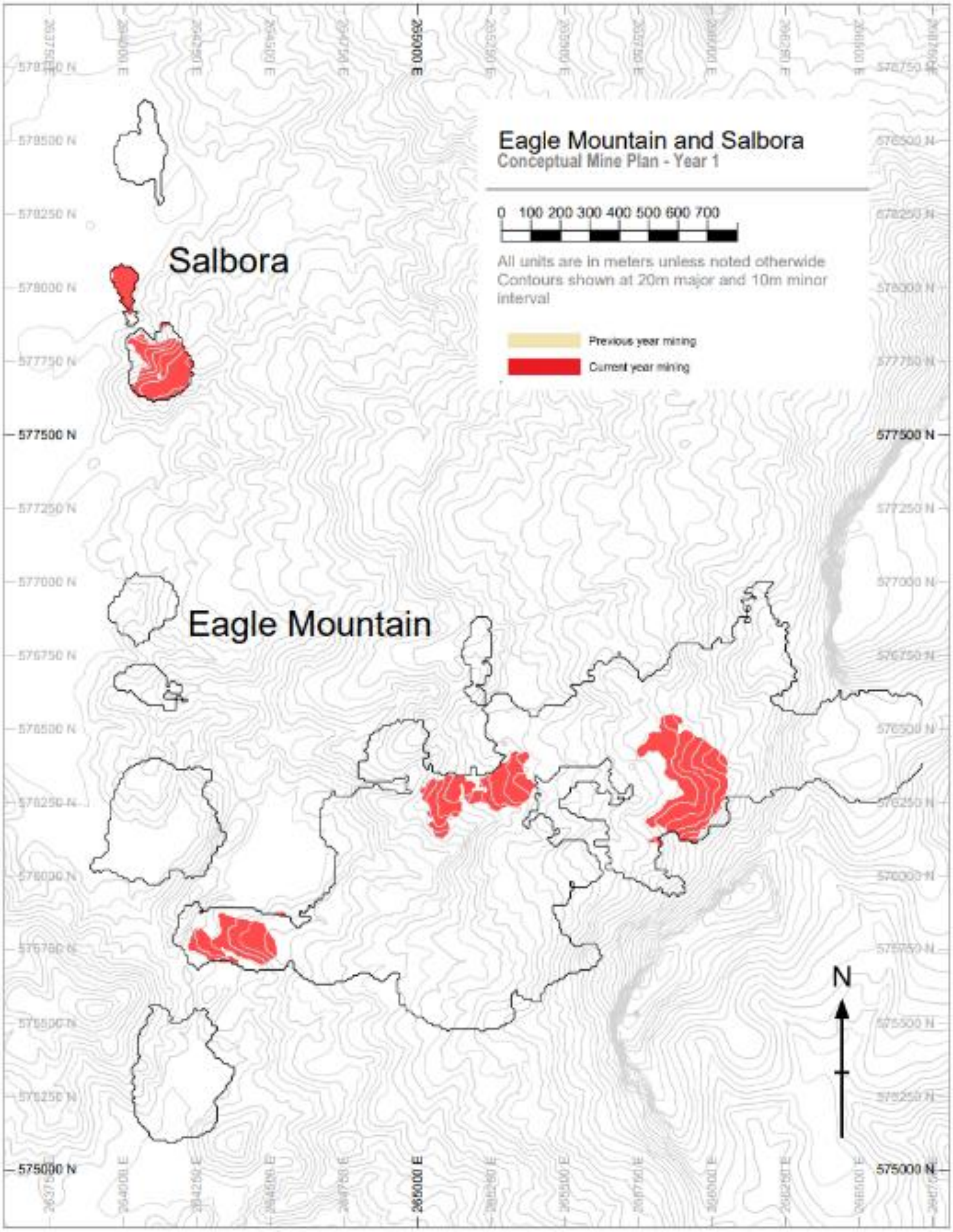


FIGURE 16-7 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 2

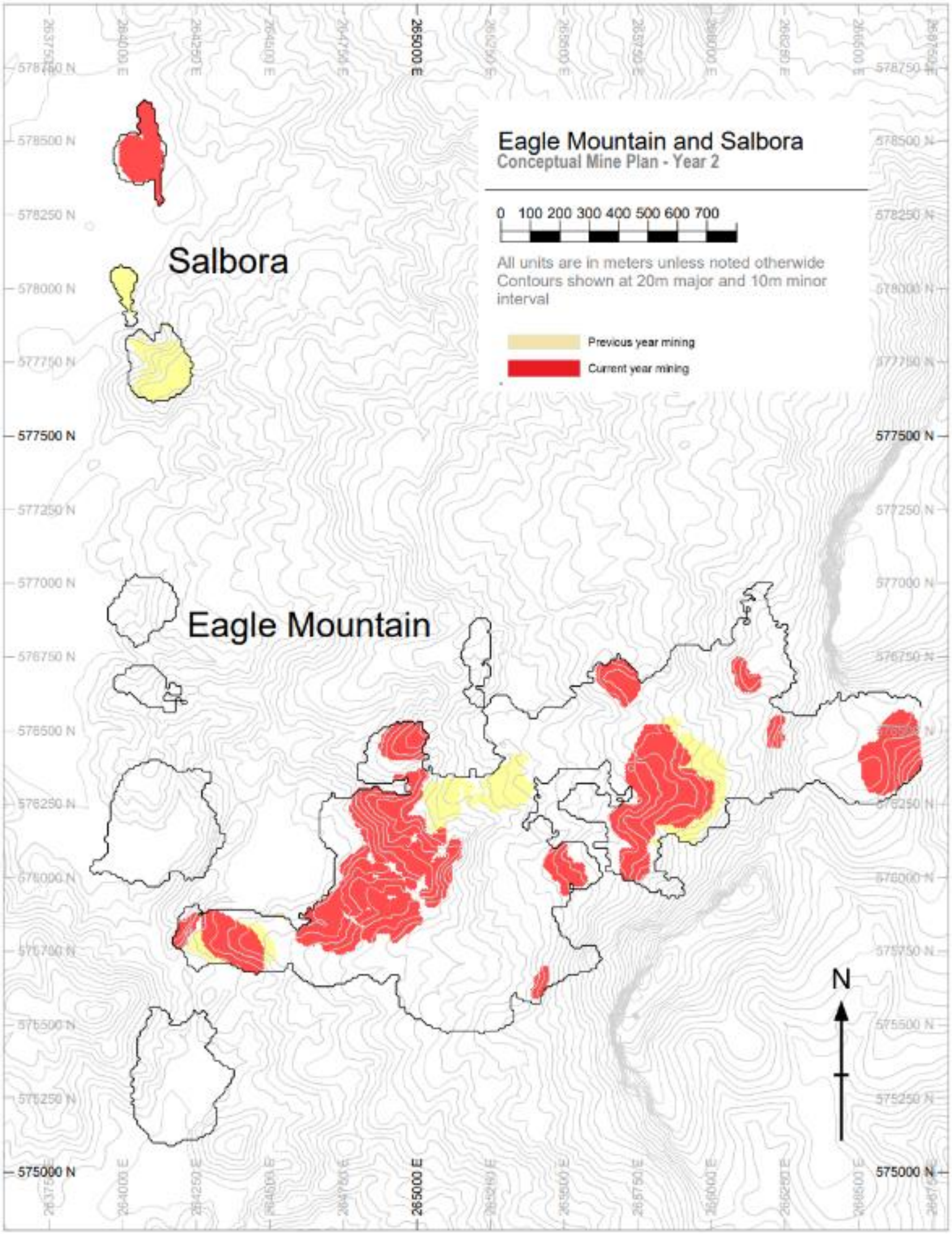


FIGURE 16-8 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 3

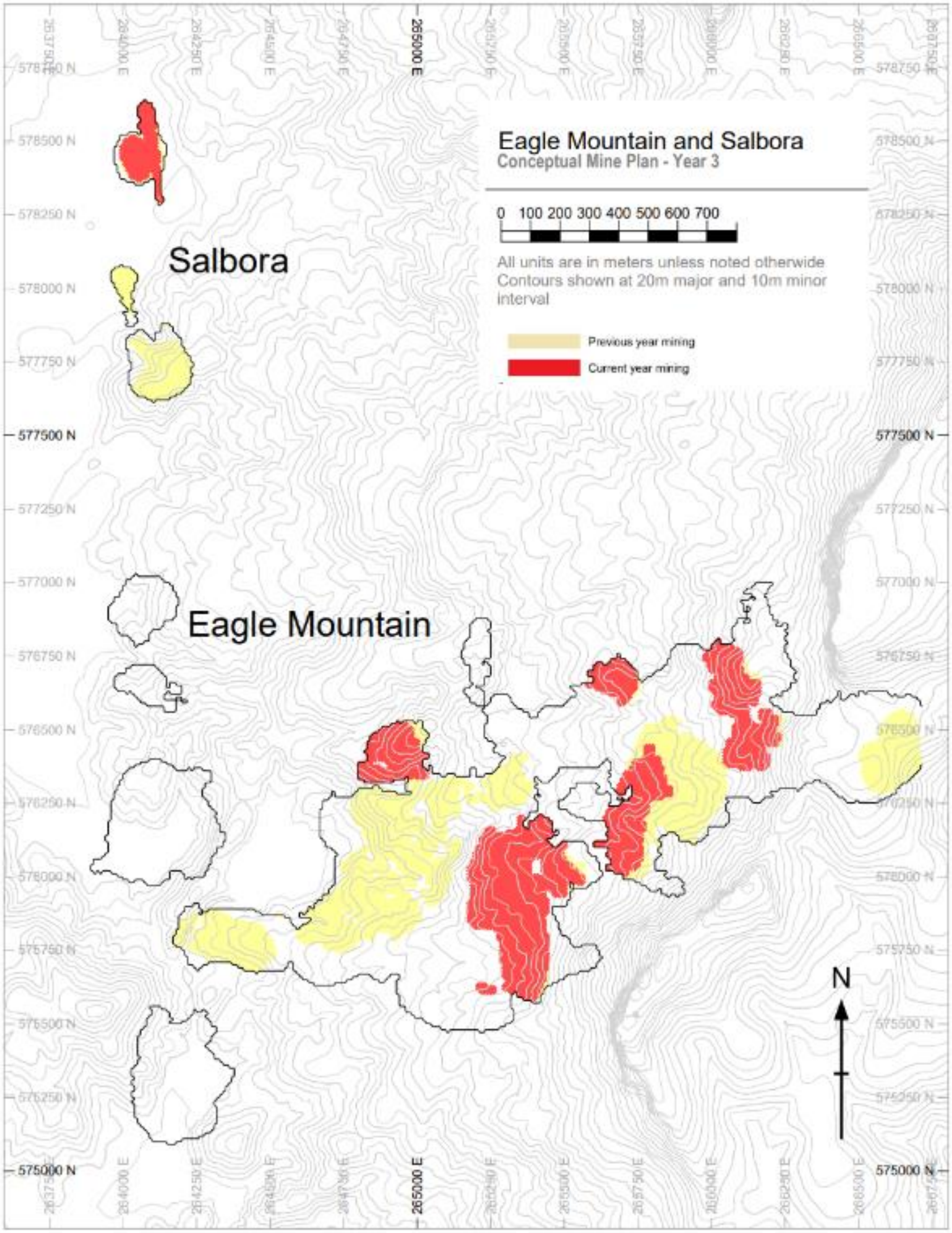


FIGURE 16-9 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 4

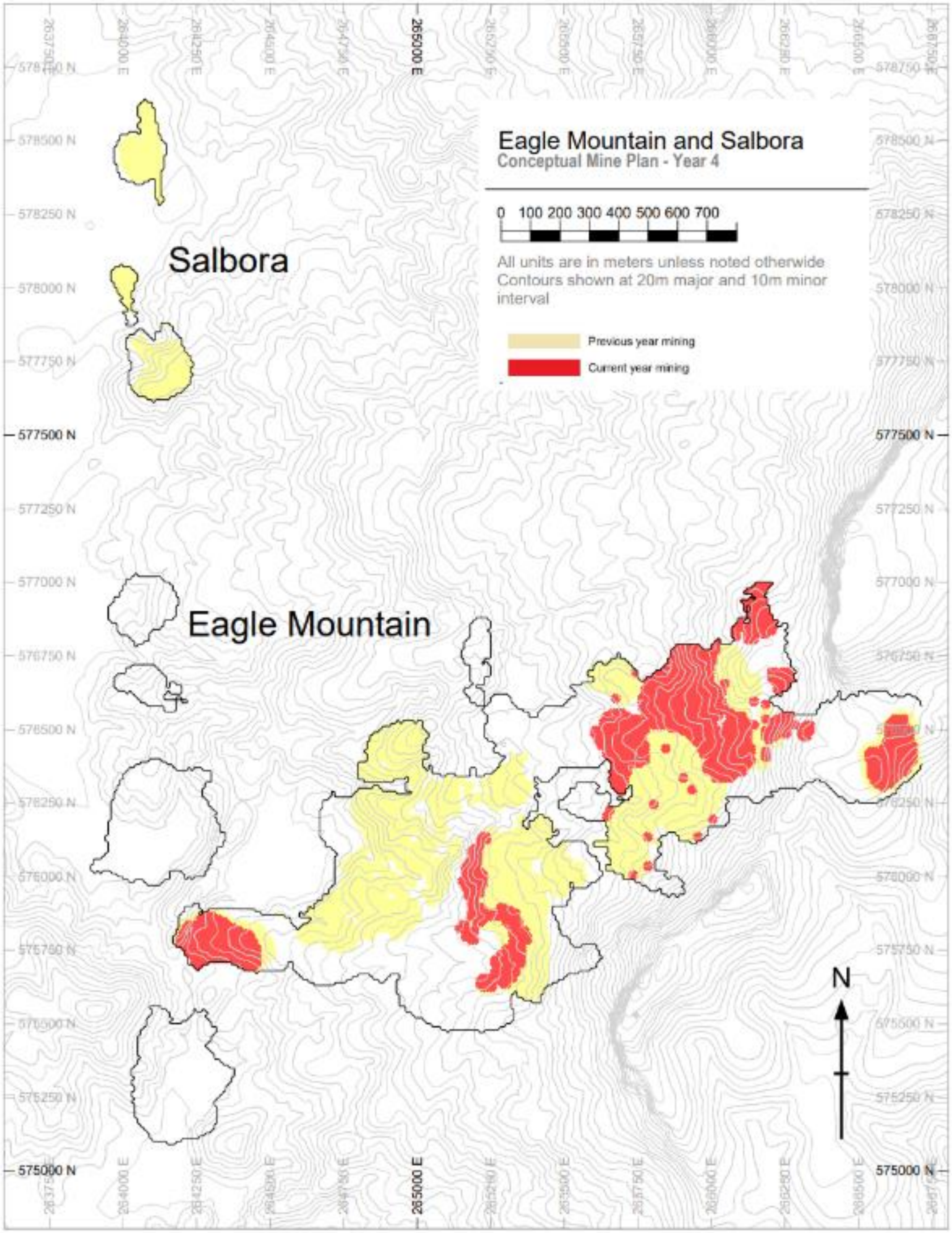


FIGURE 16-10 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 5

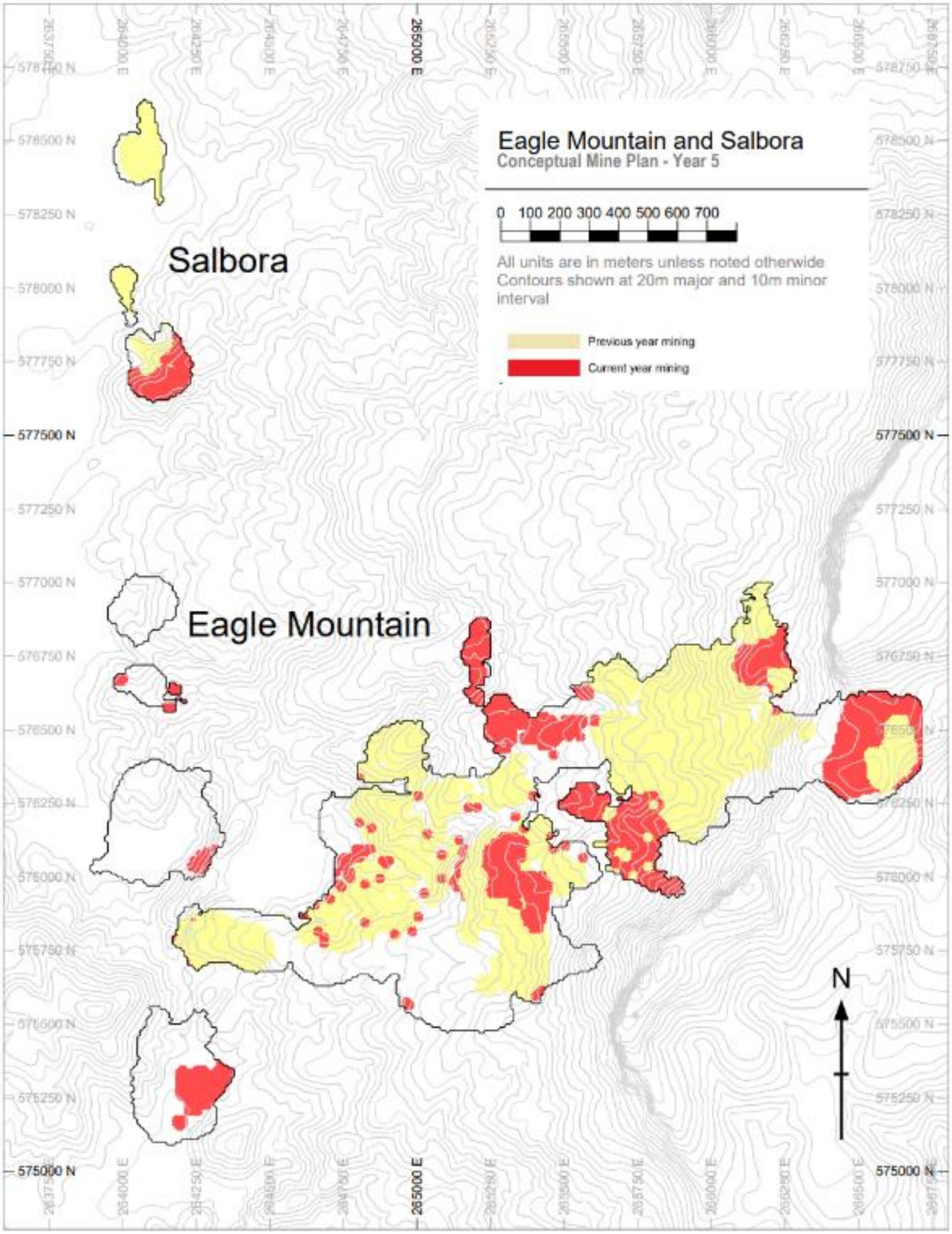


FIGURE 16-11 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 6

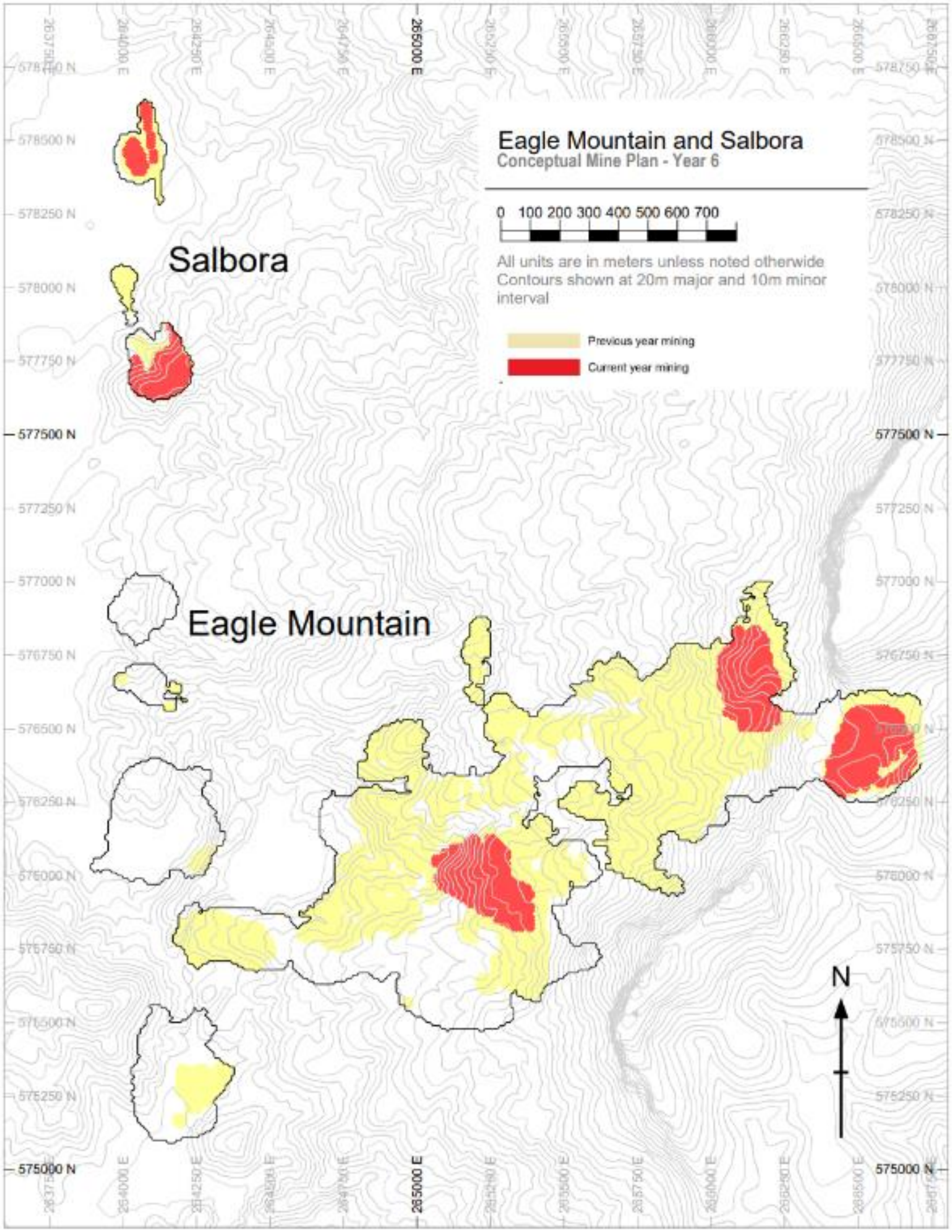


FIGURE 16-12 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 7

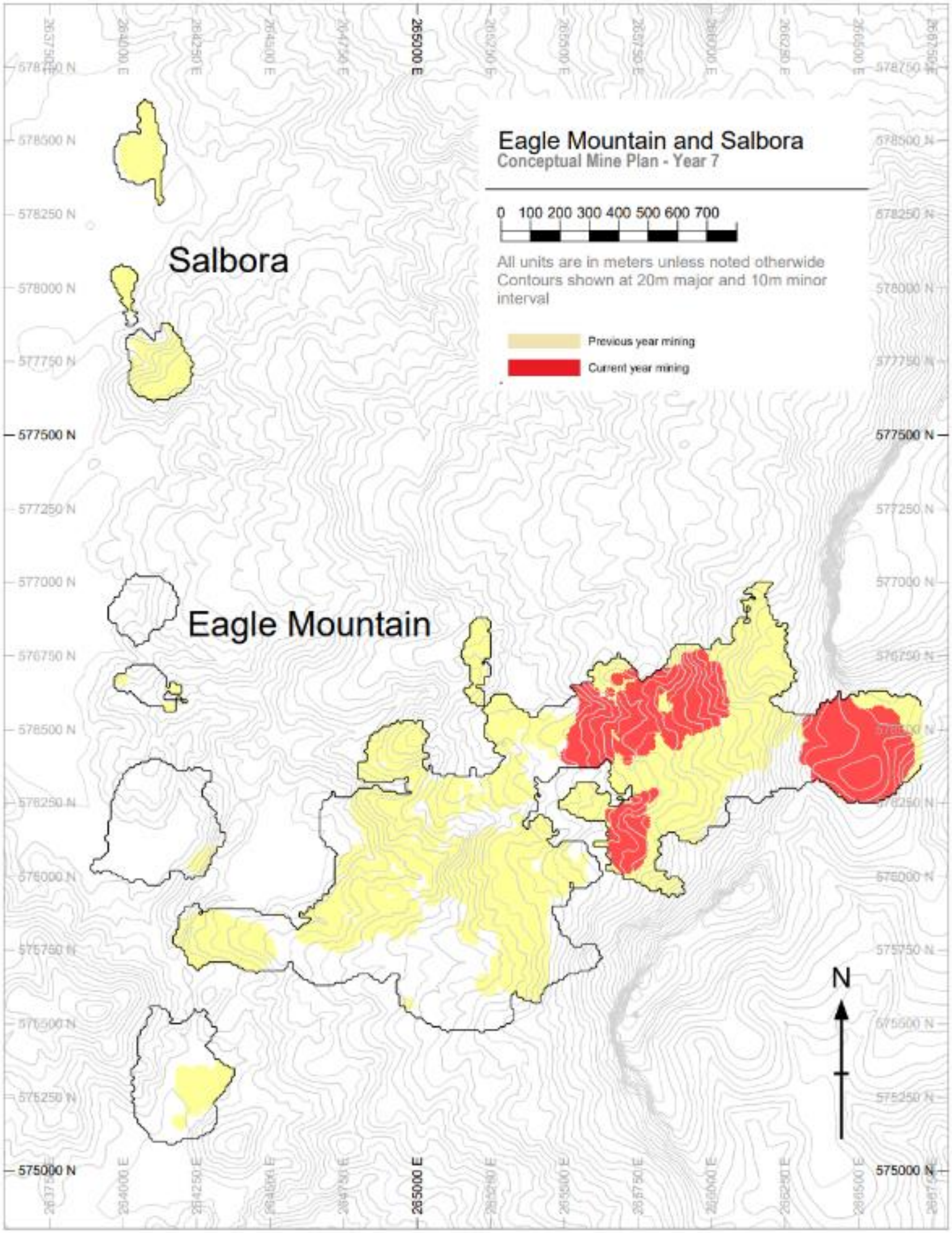


FIGURE 16-13 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 8

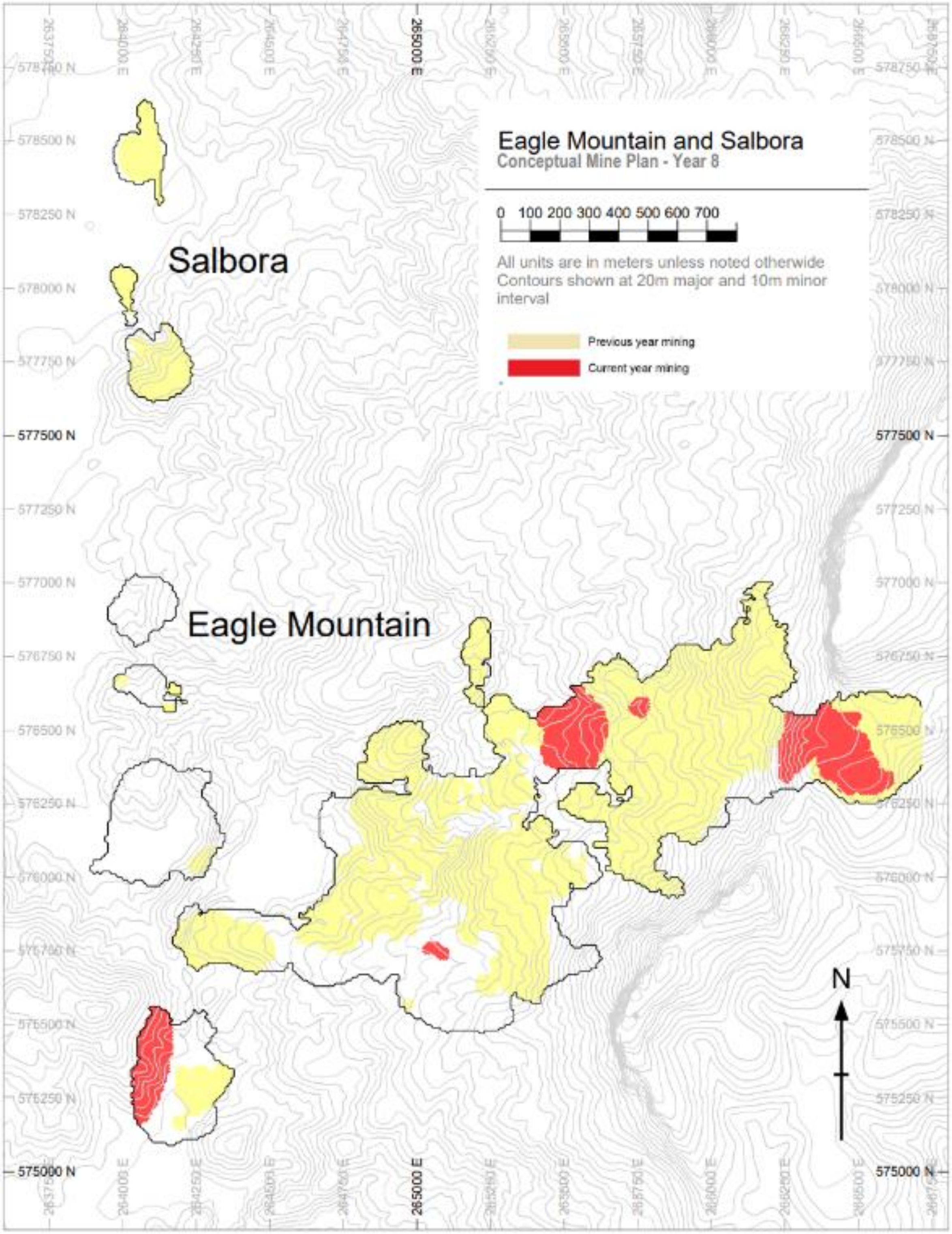


FIGURE 16-14 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 9

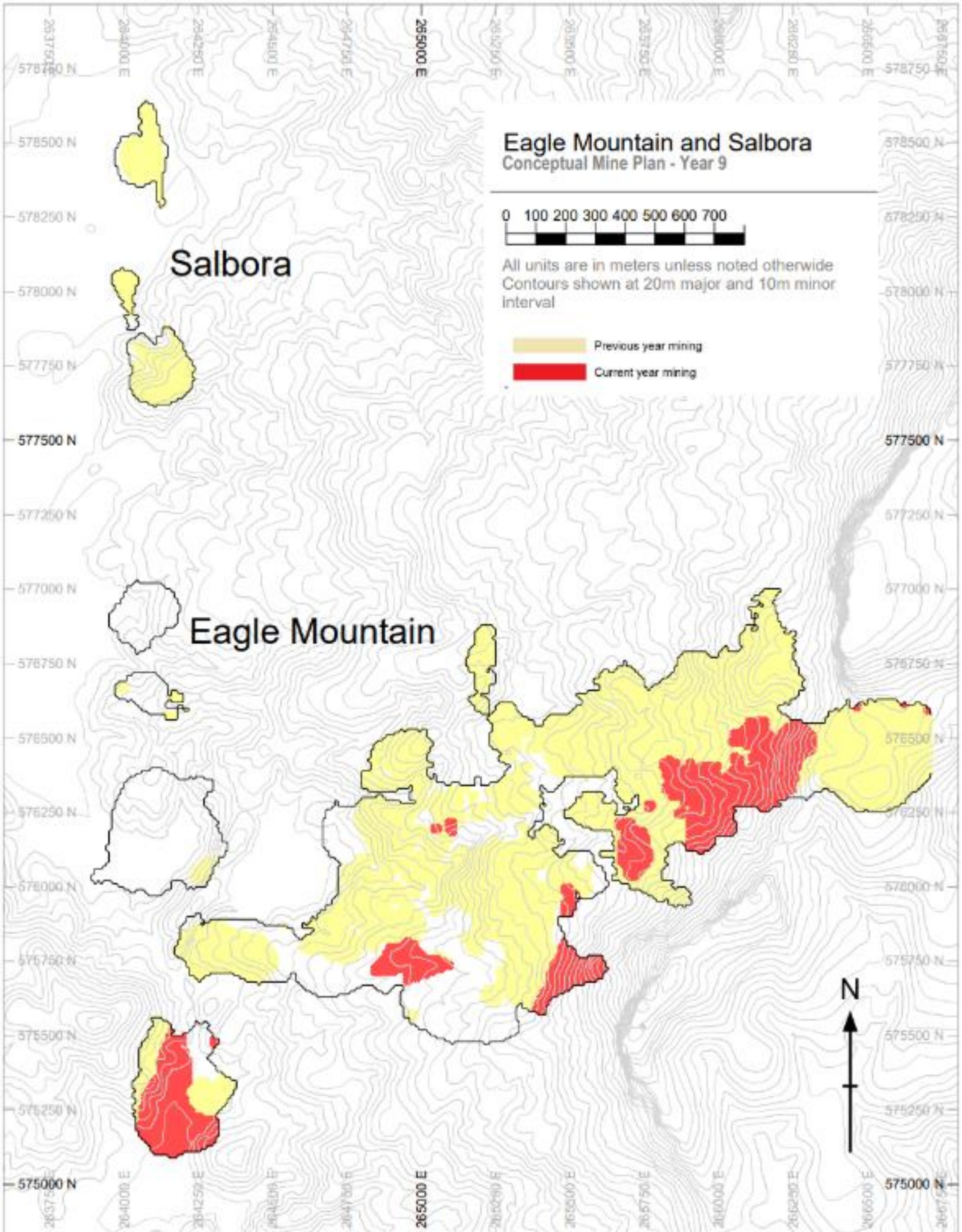


FIGURE 16-15 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 10

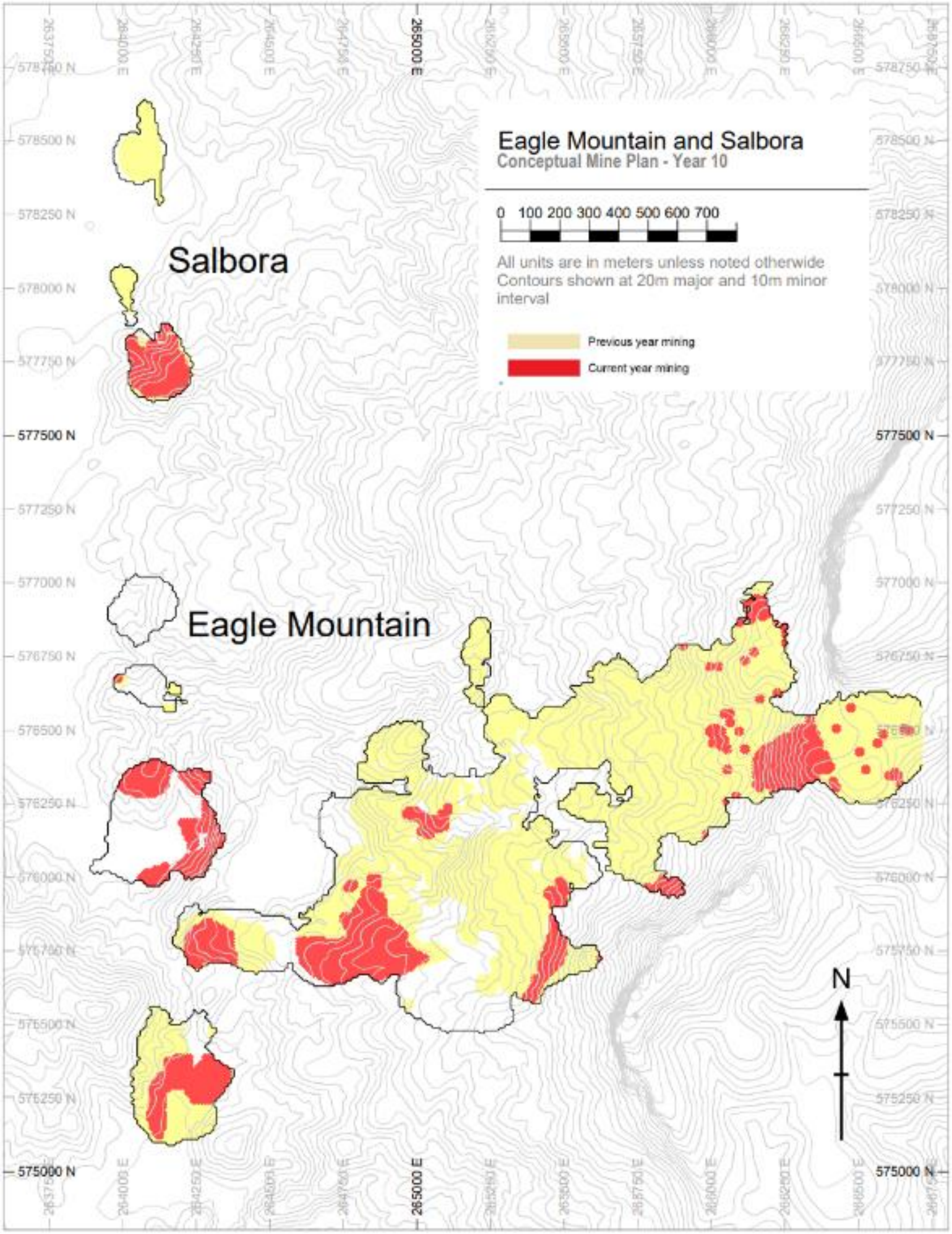


FIGURE 16-16 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 11

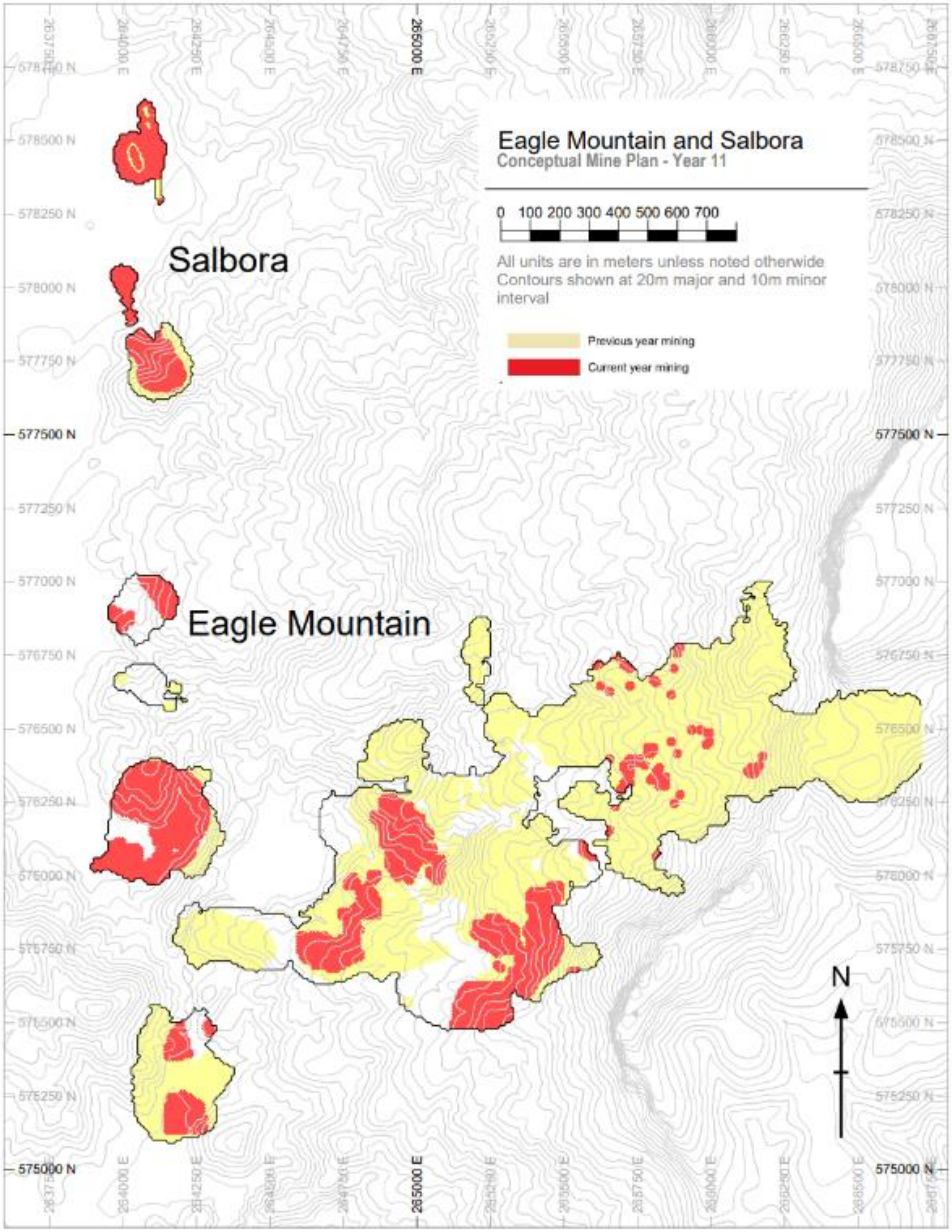


FIGURE 16-17 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 12

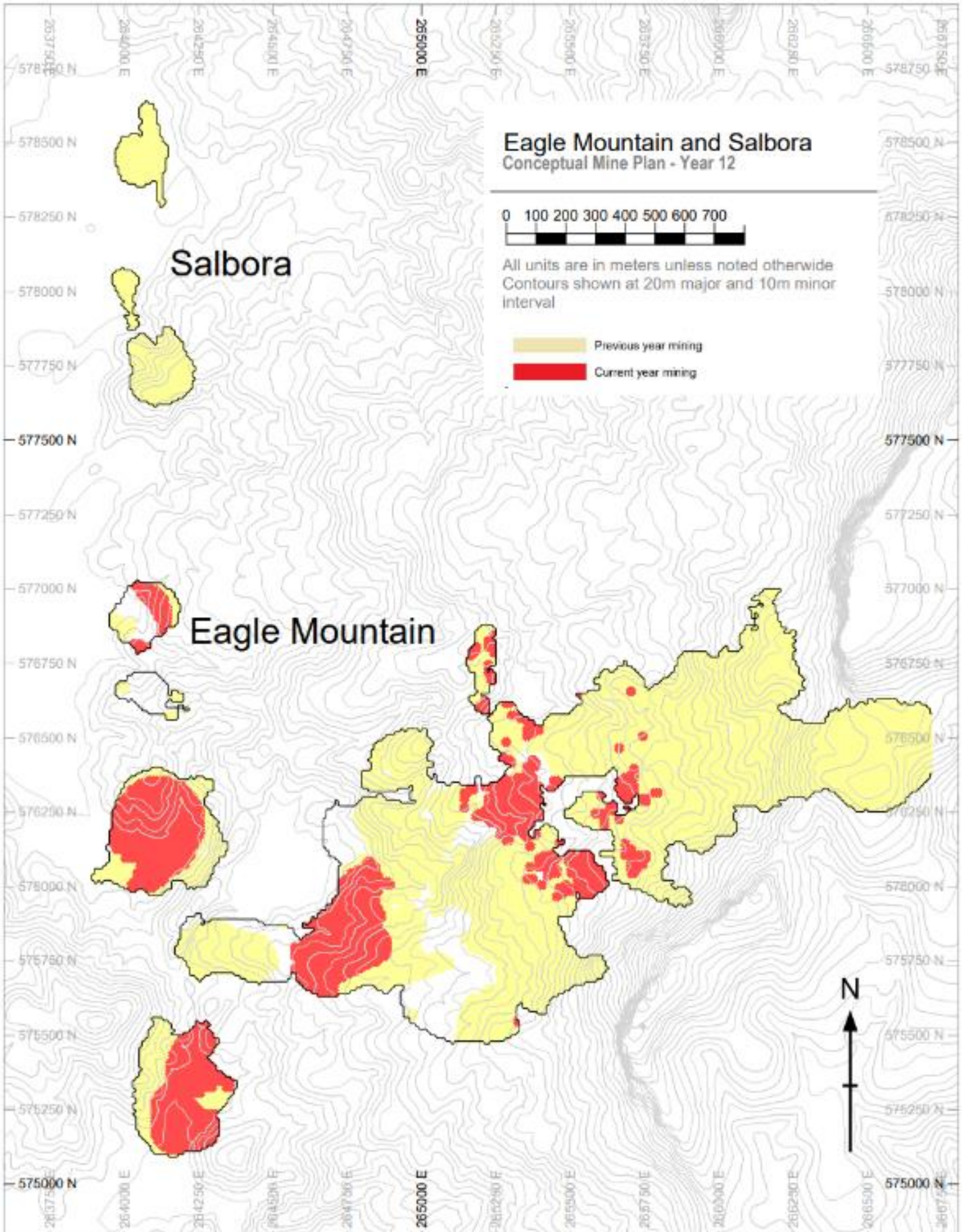


FIGURE 16-18 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 13

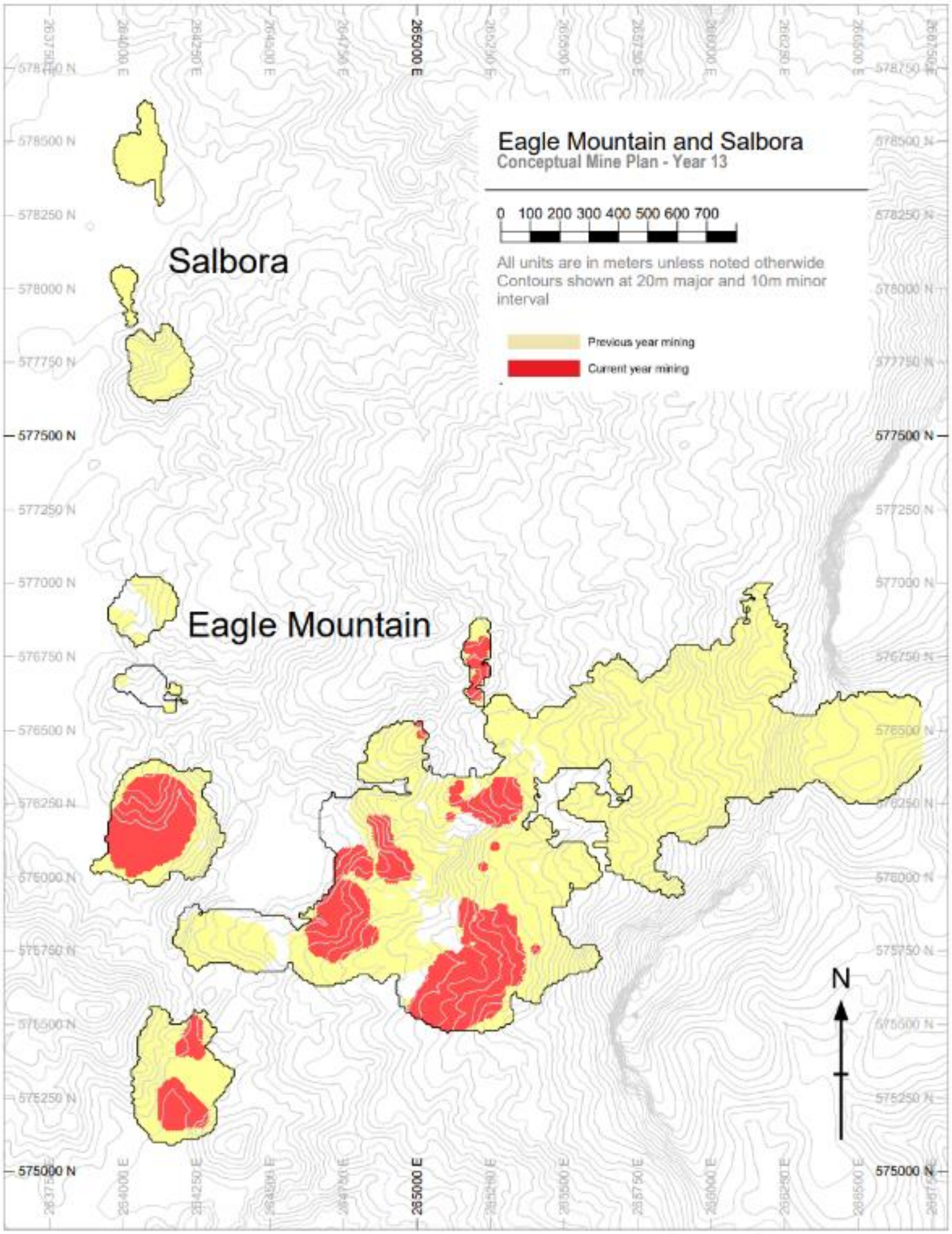


FIGURE 16-19 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 14

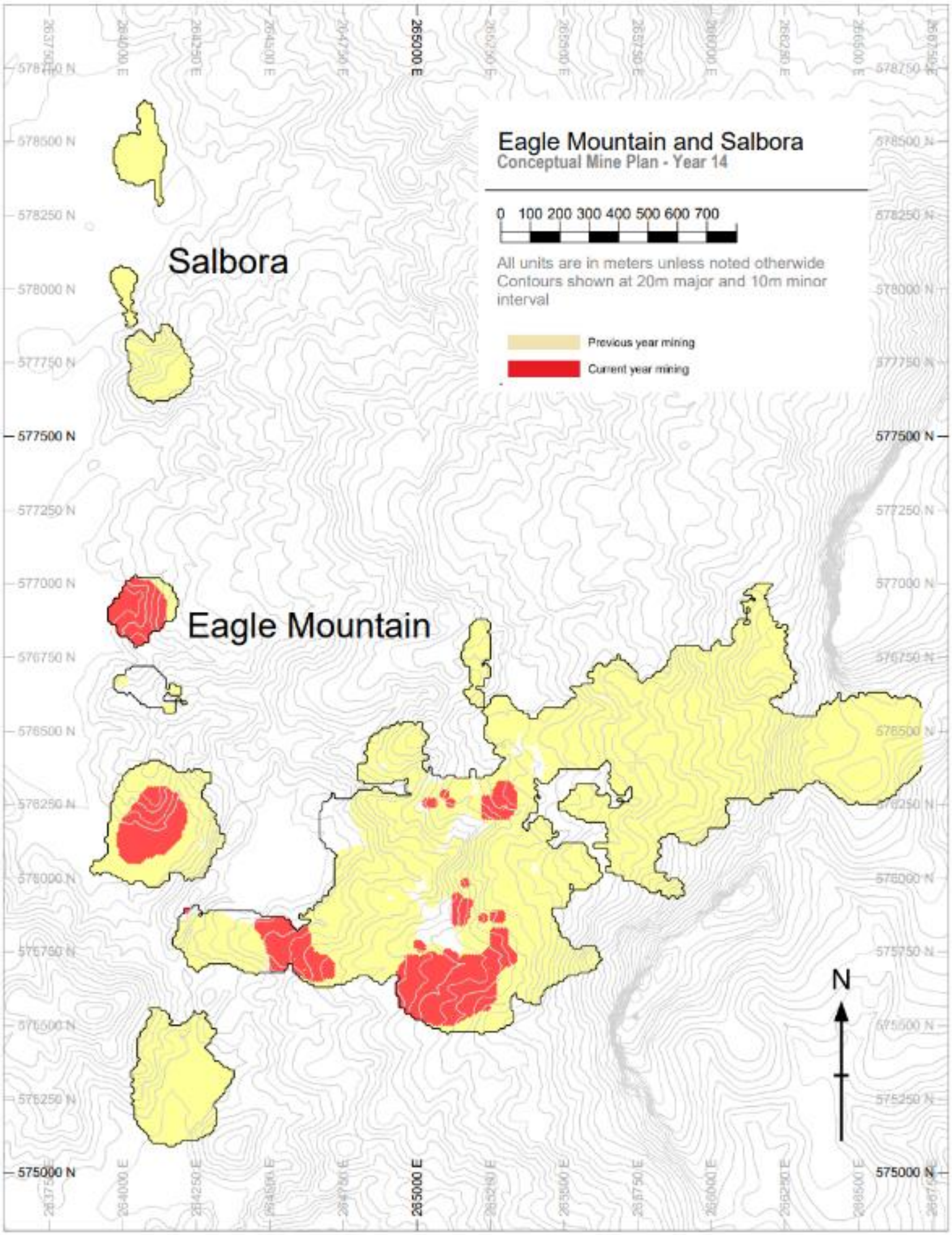


FIGURE 16-20 EAGLE MOUNTAIN AND SALBORA – CONCEPTUAL MINE PLAN – YEAR 15

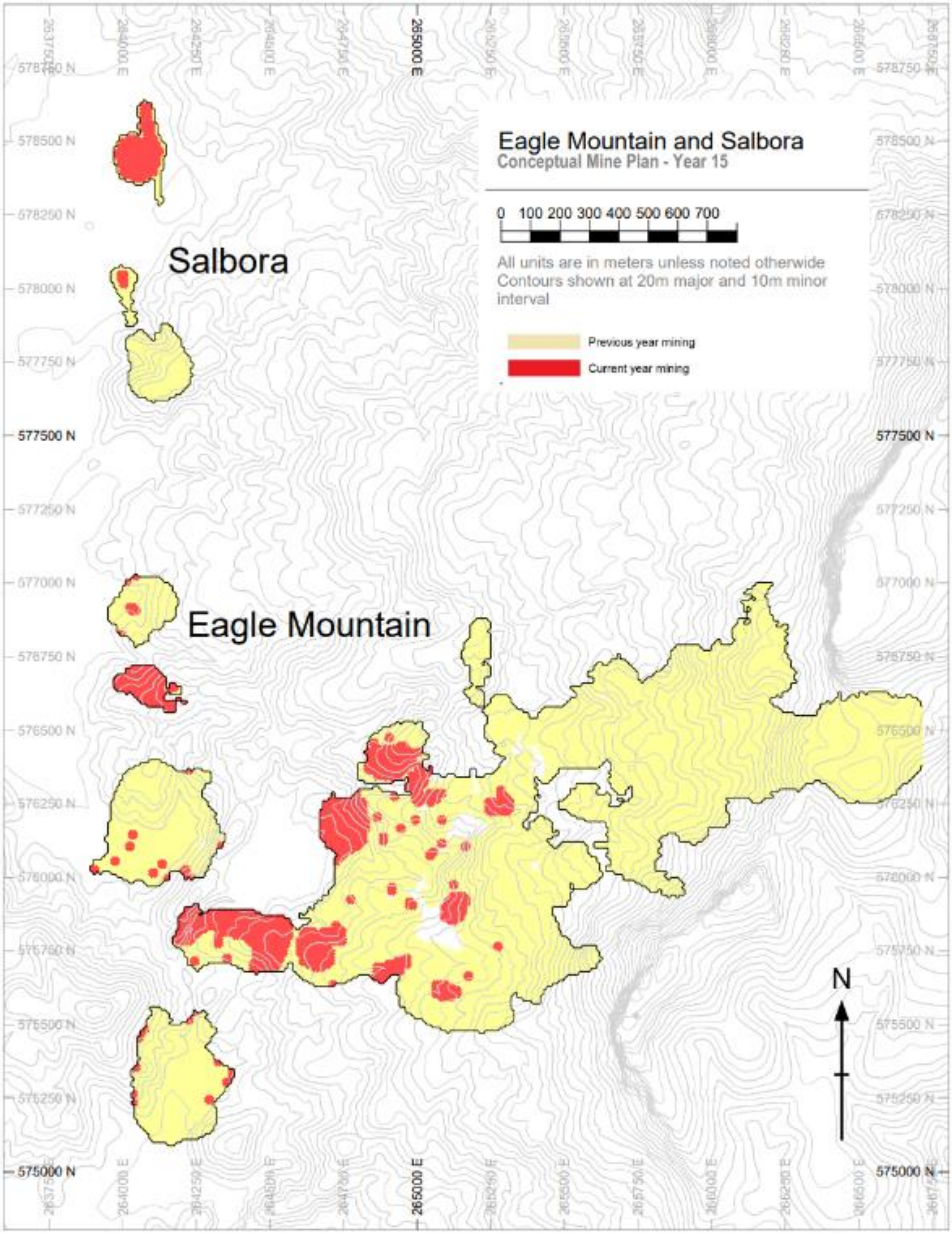


TABLE 16-12 MAIN OPEN PIT EQUIPMENT (FOR YEAR 1)

Equipment	Model	Units
Excavator	CAT 374	3
Haul Truck	CAT 740	10
Rotary Drills	Epiroc - DM30 II SP	0*
Bulldozer	CAT D10	1
Excavator (Spare)	CAT374	1
Haul Truck (Spare)	CAT740	1

*Production drill not required until Phase 2 but a small or used unit may be useful on site prior to Phase 2 to blast any intrusions or boulders within saprolite benches.

The open pit operations will follow a schedule involving two 12-hour shifts each day, operating seven days a week, and continuing for 360 days annually.

In the fleet calculations, provision is made for five days of potential lost mine production attributed to adverse weather and operation conditions.

The Key Performance Indicators (KPIs) assumptions employed for the trucks and excavators are presented in Table 16-13.

TABLE 16-13 OPEN PIT EQUIPMENT KPIS

Description	Trucks	Excavators
Availability	85%	85%
Machine Utilization	75%	70%
Operating Efficiency	95%	85%
Effective Utilization	61%	51%

16.9.2.1 HAUL TRUCKS

The haul trucks selected for the project are the CAT 740, articulated dump truck with a nominal payload capacity of 40 tons (36 tonnes). A fleet of 10 CAT740 trucks will be required during Phase 1 of the operation then increasing to 17 in Year 11 and as high as 25 trucks in Year 14 (pre last year of production).

Whereas contract mining is assumed, the short-term excess mining capacity needed toward the later part of phase two will be the responsibility of the contractor.

The haul truck fleet will be responsible for transporting mill feed to the processing plant and waste to the appropriate waste dump. There will be a minimum of overburden removal required. The payload calculations have been adjusted to consider a 2% carry-back for mill feed and waste. The summary of the required trucks through LOM is shown in Table 16-14.

TABLE 16-14 ANTICIPATED REQUIRED TRUCKS THROUGH MINE LIFE

Schedule Year	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Required Trucks*	10	10	10	10	10	13	13	15	13	16	16	17	22	24	25	13

* Assumed starting roads total of 9.5 km in Year 1.

16.9.2.2 MINING EXCAVATORS

The main loading equipment chosen for the Project consists of five (5) CAT 374 mining excavators powered by diesel. These excavators are equipped with 4.6 m^3 buckets and have an average payload capacity of 11.5 tonnes.

The calculations derived from the mine plan presented in the Technical Report indicate the need for three (3) excavators at the commencement of operations. Additionally, one (1) spare CAT 374 excavator will be kept on standby in case the primary loading equipment experiences a failure or requires maintenance downtime.

16.9.2.3 ANCILLARY EQUIPMENT

Table 16-15 provides an inventory of ancillary mobile equipment needed to support the Eagle Mountain Gold Project.

TABLE 16-15 OPEN PIT ANCILLARY EQUIPMENT

Equipment	Units	Utilization Factor
Grader	1	50%
Wheel Dozer	1	50%
Front End Loader	1	85%
Boom truck	1	50%
Telehandler	1	50%
Mobile Rock Breaker	1	50%
Mechanics Vehicle	1	50%
Electrician Vehicle	1	50%
Personnel Carrier	2	50%
Supervisor Vehicle	1	50%
Geo/Eng Vehicle	2	50%
Ambulance	2	50%
Water/Sand Truck	2	50%

16.9.3 DRILLING AND BLASTING

16.9.3.1 PHASE 1

During Phase 1, a focus on predominantly saprolite material, most of the mining will be "free digging". The saprolite observed in the proposed pits during the QP site visit is amenable to free digging). Where hard intrusions exist (boulders or otherwise), drilling and blasting will be required to facilitate material handling.

Final pit walls in saprolite will be graded and protected with rip rap in order to minimize erosion and benches will be graded so as to mitigate water from flowing over the bench crest and thus eroding the bench.

16.9.3.2 PHASE 2

During Phase 2, transition and fresh rock will require drilling and blasting to be loaded and hauled.

Mineralized and waste rock production drilling will be conducted using open pit production drills powered by diesel, with a hole diameter of 152.4 mm (6.0 inches). With a penetration rate of 25 metres per hour, each hole is expected to take approximately 15 to 20 minutes to drill, accounting for tasks such as managing drill rods and moving between holes. A contingency redrill ratio was estimated at around 10%.

Double bench pre-splitting will be employed for final pit walls in fresh rock (not in transition nor saprolite). Pre-splitting of temporary walls will only be applied if necessary.

During dry season bulk ANFO will be preferred for blasting with and assumed density of 1.10 g/cm³.

During the wet season, bulk emulsion will be the chosen explosive for blasting. An explosive density of 1.20 g/cm³ is assumed in this study.

An explosives supplier will be responsible for providing and storing the explosives and accessories.

Whether the supplier or contract blasters will load the blast holes and carry out the blasts is yet to be determined.

The conceptual location of the explosive storage facilities is shown in Figure 18-11.

The location of the explosive storage facilities will adhere to minimum distance requirements.

Table 16-16 presents the parameters employed in establishing the drilling and blasting computations.

TABLE 16-16 DRILLING AND BLASTING PARAMETERS

Description	Units	Fresh	Transition	Saprolite*
Bench Height	m	5.0	5.0	5.0
Blasthole Diameter	mm	152.4	152.4	152.4
Burden	m	4	4.5	5.5
Spacing	m	4	4.5	5.5
Sub-Drilling	m	1.00	1.00	1.00
Powder Factor	kg/t	0.45	0.28	0.2
Re-drilling contingency	%	10	10	10
Rock Density	t/m^3	2.7	2.4	1.6
Rock Volume/hole	m^3	80	101	151
Tonnes/hole	t	216	243	242
Emulsion Stemming	m	1.6	2.9	3.8
Emulsion required	kg	97.2	68.0	48.4
Emulsion density	t/m^3	1200	1200	1200
Emulsion	kg/m	21.9	21.9	21.9
Emulsion depth	m	4.44	3.11	2.21
ANFO Stemming	m	1.16	2.61	3.59
ANFO required	t	97.2	68.04	48.4
ANFO density	t/m^3	1100	1100	1100
ANFO	kg/m	20.1	20.1	20.1
ANFO depth	m	4.8	3.4	2.4

* Some areas of saprolite may require blasting from time to time.

16.9.3.3 EXPLOSIVES DELIVERY AND STORAGE

The responsibility of providing, managing, and operating the on-site explosives storage facility and distribution will rest with the explosives supplier.

Transportation of explosives to the site will most likely be managed by one of the larger commercial suppliers, such as Dyno Nobel or Orica.

The distances that will be respected for the location of the powder magazines, high explosive storage and any potential bulk mixing plant will abide by industry guidelines.

16.9.4 OPEN PIT MINING LABOR

Table 16-17 provides a detailed breakdown of the workforce distribution for different positions within the Project across a span of the 15-year mine life. This table organizes staff into various categories such as Mining, Site Support, Mill, Maintenance, Yard and Warehouse, and Security/First Aid. According to the work schedule, each primary production mining equipment in use will need four (4) operators.

For the first year of production, a workforce of 200 hourly laborers is estimated. This number will increase over the LOM as the stripping ratio increases. A maximum of 287 hourly laborers is estimated for the final year of the LOM.

The hourly workforce will be predominated by primary production equipment operators, mining support equipment operators, site support, and maintenance positions for both the plant and for mobile equipment.

The initial primary production team will include 40 truck drivers and 20 shovel operators, supplemented by operators for support machinery like dozers, graders, and wheel loaders.

Company staff is estimated to consist of 86 persons throughout the LOM.

The labor and staff required to run the mill is estimated at 52 persons (31 labor and 21 supervision).

Table 16-18 presents the distribution of staff labor across different positions at the Eagle Mountain Gold Project over the mine life. The distribution is summarized in Table 16-19.

The team required includes estimates for General Management, Mine Supervision, Mill Supervision / Technical Staff, Maintenance Supervision, Technical Services, and Safety and Training. The table specifies the number of staff needed for each role annually. These employees will undertake indirect activities aiding in mining operations. Given the region’s heavy rainfall, the proposal to increase staff in particular sectors such as Environmental and Road Maintenance has been considered.

16.10 OTHER MINING OPTIONS

The unique topography of the mine site with steep inclines and ridges will need to be effectively managed. Positive, however, is that the mining areas of the Eagle Mountain deposit are uphill of the proposed location for the processing plant, thereby providing scope for cost benefits with downhill haulage. Furthermore, the change in elevation could allow for consideration of slurry transport of saprolite material, which could mitigate some of the challenges of truck haulage in the rainy season. Two such possibilities are:

1. Slurry pumping of saprolite mill feed down from a scrubber location as was demonstrated during the pilot plant project.
2. Raised conveyor such as a rail conveyor or cable conveyor that utilizes the potential energy of the mineralized mill feed to drive the system and potentially generate electrical energy at the same time.

These are proven technologies at other mines where the pits are at elevations above the processing facilities.

TABLE 16-17 OPEN PIT MINING HOURLY LABOR FORCE

Hourly Labour	Y 0	Y 1	Y 2	Y 3	Y 4	Y 5	Y 6	Y 7	Y 8	Y 9	Y 10	Y 11	Y 12	Y 13	Y 14	Y 15
Mining																
Excavator Operator	20	20	20	20	20	24	24	24	24	24	24	24	24	24	24	24
Haul Truck Driver	40	40	40	40	40	52	52	60	52	64	64	68	88	96	100	52
Rotary Drill Operator	0	0	0	0	4	8	8	8	8	8	8	8	8	8	8	8
Bulldozer Operator	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Blaster - Lead	0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4
Blaster - Helper	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8	8
General Support - Helper	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
All Mining Personnel	**72**	**72**	**72**	**72**	**88**	**108**	**108**	**116**	**108**	**120**	**120**	**124**	**144**	**152**	**156**	**108**
Site Support																
Grader Operator	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Wheel Dozer Operator	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Front End Loader Operator	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Logistics Crew	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Water/Sand / Truck Driver	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Site Support Personnel	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**
Mill																
Lead hand Mill	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Control Room Operator	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Gravity Separation / Other Process Operator	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Product Handling Operator	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Thickening/Filtration Operator	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Hourly Labour	Y 0	Y 1	Y 2	Y 3	Y 4	Y 5	Y 6	Y 7	Y 8	Y 9	Y 10	Y 11	Y 12	Y 13	Y 14	Y 15
Metallurgical Technician	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Utility Operator	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Laborer	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Crusher Operator	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Mill Personnel	**5**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**
Maintenance																
Tradesman Lead hand	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Electrician Certified	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Electrician Apprentice	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Instrumentation Tech	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mechanic Certified	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Mechanic Apprentice	4	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Trades Apprentice	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Millwright Certified	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Welders Certified	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Drill Doctor	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Maintenance Personnel	**34**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**
Yard and Warehouse																
Material Controller Sr.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Material Controller Jr.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Material Expediter	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
All Yard and Warehouse Personnel	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**

Hourly Labour	**Y 0**	**Y 1**	**Y 2**	**Y 3**	**Y 4**	**Y 5**	**Y 6**	**Y 7**	**Y 8**	**Y 9**	**Y 10**	**Y 11**	**Y 12**	**Y 13**	**Y 14**	**Y 15**
Security/First Aid																
Security Officers	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Security/First Aid Officers	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Security/First Aid Personnel	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
Mining Labor Summary (No Supervision)																
Primary Production Crew	72	72	72	72	88	108	108	116	108	120	120	124	144	152	156	108
Site Support	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Mill	5	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Maintenance	34	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Yard and Warehouse	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Security/ First Aid	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
All Hourly Personnel	**148**	**200**	**200**	**200**	**216**	**236**	**236**	**244**	**236**	**248**	**248**	**252**	**272**	**280**	**284**	**236**

TABLE 16-18 STAFF

Salaried Staff	**Y - 1**	**Y 1**	**Y 2**	**Y 3**	**Y 4**	**Y 5**	**Y 6**	**Y 7**	**Y 8**	**Y 9**	**Y10**	**Y11**	**Y12**	**Y13**	**Y14**	**Y 15**
General Management																
General Manager	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Site Controller	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Administrative Coordinator	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Accountant	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Payroll	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
HR Coordinator	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Purchaser	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Salaried Staff	**Y - 1**	**Y 1**	**Y 2**	**Y 3**	**Y 4**	**Y 5**	**Y 6**	**Y 7**	**Y 8**	**Y 9**	**Y10**	**Y11**	**Y12**	**Y13**	**Y14**	**Y 15**
IT Support	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
All General Management	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mine Supervision																
Mine Superintendent	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine General Foreman	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Shift Boss	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Road Maintenance Foreman	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Mine Supervision	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mill Supervision / Tech Staff																
Mill Superintendent	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mill General Foreman	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mill Supervisor	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mill Metallurgist	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chief Assayer - Staff	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Assayer	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Sample Prep	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TSF Foreman	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Mill Supervision	2	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Maintenance Supervision																
Maintenance General Foreman	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance Supervisor	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Electrical Supervisor	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Maintenance Supervision	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

Salaried Staff	Y - 1	Y 1	Y 2	Y 3	Y 4	Y 5	Y 6	Y 7	Y 8	Y 9	Y10	Y11	Y12	Y13	Y14	Y 15
Technical Services																
Manager Technical Services	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Senior Mine Geologist	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Geologist	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Core Shack Tech Lead	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Core Shack Tech	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chief Engineer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Senior Engineer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Planning Engineer	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine Technician	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Surveyor	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
All Technical Services	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Safety and Training																
Health, Safety & Security Coordinator	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Safety/Training Technician	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
All Safety Training	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Environmental																
Environmental Coordinator	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Environmental Technician	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Water Management Supervisor	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
All Environmental	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Total Salaried Staff	**66**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**

TABLE 16-19 LABOR AND STAFF SUMMARY

Staff & Labor	Y - 1	Y 1	Y 2	Y 3	Y 4	Y 5	Y 6	Y 7	Y 8	Y 9	Y10	Y11	Y12	Y13	Y14	Y 15
Labor Summary																
Primary Production Crew	72	72	72	72	88	108	108	116	108	120	120	124	144	152	156	108
Site Support	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Mill	5	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Maintenance	34	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Yard and Warehouse	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Security/ First Aid	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
All Hourly Personnel	148	200	200	200	216	236	236	244	236	248	248	252	272	280	284	236
Staff Summary																
General Management	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mine Supervision	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mill Supervision / Tech Staff	2	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Maintenance Supervision	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Technical Services	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Safety and Training	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Environmental	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Total Salaried Staff	**66**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**	**86**
Total Personnel	214	286	286	286	302	322	322	330	322	334	334	338	358	366	370	322

16.10.1 UNDERGROUND MINING SUMMARY

There is currently no underground mining potential being investigated.

16.11 GEOTECHNICAL ASSESSMENT

Geotechnical assessment on the property consists only of RQD logging.

Observation of previous mining of saprolite on site suggest practical batter angle and overall slope angle of 35° is a reasonable assumption for the overall slope angle in saprolite.

The assumptions of 40° in transition material. The assumption of 45° in fresh rock is viewed by ERM as possibly being conservative in comparison to actual slope angles in fresh rock and parameters used at other open pit mines in Guyana and Suriname.

16.12 HYDROGEOLOGY

Surface and groundwater management will be important to this Project and will require ongoing testing to ensure water movement does not threaten the integrity of pit walls, haul roads, dumps nor tailing storage facilities.

16.13 WATER

Supply of fresh water from aquifers and natural springs in the hillside is readily available. Testing to ensure the quantity of water that can be extracted for make-up water and other purposes such as dust control is recommended.

16.14 DUST CONTROL

A sprinkler system that can wet the main haul road surfaces will be designed with sprinkler heads sitting on berms adjacent to the haul roads. The system will be powered by pump and fed by treated water via a pipe system designed to ensure pressures at the sprinklers is adequate to wet the entire road width. This system will primarily be applied during the dry season.

During the dry season dust control additives may be applied to haul roads.

16.15 ELECTRICAL POWER

Electric power is currently planned to be supplied by diesel generation alone; however, alternative energy sources such as river turbines and solar power will be the subject of trade-off studies at or prior to a PFS study. The effective application of alternative energy sources will have some minor effect on mining operations but a larger effect on processing.

Electrical power required for lighting stations around the pits required for night shift and dewatering pumps in the pits will be powered by small and medium sized dedicated diesel generators.

Electrical power for pumps that will provide water for sprinklers along haul roads that will help reduce dust during dry season will be powered by the main diesel-powered grid.

16.16 EMERGENCY FACILITIES

Medical facilities on site will include standard nursing facilities and an ambulance able to transport an injured person to Mahdia 8 kilometres away where there is a hospital. A helicopter pad for medical evacuation is available on site currently for transport to Georgetown in approximately 60 minutes.

17. RECOVERY METHODS

The design basis and design criteria of the processing plant are presented together with a description of each processing section. This information, with general arrangement drawings, provides the basis for the capital and operating cost estimates.

17.1 PROCESS PLANT DESIGN BASIS AND DESIGN CRITERIA

The process plant, as described in the subsequent sections, is designed to process 5,000 tpd of gold-bearing mill feed. The operational timeline is set for 4.5 years for Phase 1 and 10.5 years for Phase 2, totaling a 15-year mine life.

Phase 1 involves a low capital expenditure saprolite mill feed plant. During Phase 2, primarily fresh mill feed will be processed, necessitating additional equipment to accommodate the different material types. Coarse and bulk materials in Phase 1 will be stockpiled and processed with appropriate equipment in Phase 2.

Table 17-1 displays the source codes utilized for the design criteria. Table 17-2 and Table 17-3 provide the design criteria for Phases 1 and 2, respectively. Should Phase 2 lack specific criteria, refer to the Phase 1 table.

Together, these tables encapsulate the key parameters forming the basis of the plant's design, derived from SGS's testwork conducted in 2010, 2018, 2022, and 2023.

The relative stability of tails grades being reflective of what is typically seen in a plant, the decision was made to fix the tails grades for each mill feed type. Recoveries were then estimated from the LOM head grades and selected tails grades.

TABLE 17-1 TABLE OF SOURCES FOR THE DESIGN CRITERIA

Source Code	Description
A	Criteria Provided by Owner
B	Standard Industry Practice
C	Soutex Recommendation
D	Vendor-Originated Criteria
E	Criteria from Process Calculations
F	Engineering Handbook Data
G	Assumed Data
H	Criteria Provided by "Technology Supplier"
I	Metallurgical Test Result
J	International, National, Local and Industry Design Codes and Regulations
K	Budget Quote from Supplier
L	Existing Equipment Specifications / Process data

TABLE 17-2 TABLE OF DESIGN CRITERIA PHASE 1

Parameter	Unit	Value	Sources
General			
Plant Operating Time	%	92	C
Throughput			
Phase 1 (Saprolite Mill feed Processing)	t/y	1 825 000	A
Process Plant Throughput	t/h	226	E
Recovery			
Phase 1 Average Recovery	%	95.1	E
Mill feed Characteristics			
Soft Mill Feed (Feed Moisture)	%	15	G
Gold Feed Average Grade Phase 1	g/t	1.21	E
Mill feed Specific Gravity	unitless	2.7	G
Comminution Circuit			
BWI			
Saprolite Bond Work Index	kWh/t	7	I
Ball Mill			
Ball Mill Installed Power	kW	1500	H
Circuit P80	µm	106	I
Cyclones			
Cyclone Overflow % Solids	%	47	C
Gravity Concentrator Circuit			
Gravity Concentrator			
Gravity Concentrator Gold Recovery	%	20	E
Leaching			
Phase 1 Total Leach Retention Time	h	24	I
Number of Leach Tanks	-	2	C
Number of Tanks (CIL)	-	5	C
CIL Gold Tails Saprolite	g/t	0.06	I
Carbon Concentration per CIL Tank	g/l	10	E
Carbon Plant			
Elution Type		Press. Zadra	A
Elution Frequency	nb/d	1	C
Acid Wash and Elution Vessels Capacity	t	2	A

Parameter	Unit	Value	Sources
Detox			
Detox Retention Time Phase 1	min	40	C

TABLE 17-3 TABLE OF DESIGN CRITERIA PHASE 2

Parameter	Unit	Value	Sources
General			
Throughput			
Phase 2 (Fresh Mill Feed Processing)	t/y	1 460 000	A
Fresh Mill Feed Proportion During Phase 2	%	85	A
Phase 2 (Saprolite Mill Feed Processing)	t/y	365 000	A
Process Plant Throughput	t/h	226	E
Recovery			
Phase 2 Average Recovery	%	88.3	E
Mill Feed Characteristics			
Fresh Mill Feed (Feed Moisture)	%	4	G
Gold Feed Average Grade Phase 2	g/t	1.28	E
Crushing (Phase 2)			
Crushing Plant Availability	%	65	B
Jaw Crusher Installed Power	kW	160	G
Crushing Plant Capacity	t/h	237	E
Comminution Circuit			
BWI			
Fresh	kWh/t	17.7	I
SAG Mill			
SAG Mill Installed Power	kW	3 600	H
Cone Crusher			
Cone Crusher Installed Power	kW	100	G
Crusher Capacity	t/h	80	E
Ball Mill			
Circuit P80	µm	106	I
Gravity Concentrator Circuit			

Parameter	Unit	Value	Sources
Gravity Concentrator			
Gravity Concentrator Gold Recovery	%	20	E
Pre-Leach Thickener (Phase 2)			
Underflow % solids	%	55	I
Leaching			
Phase 2 Total Leach Retention Time	h	30	I
Number of Leach Tanks	-	2	C
Number of Tanks (CIL)	-	5	C
CIL Gold Tails Saprolite	g/t	0.06	I
CIL Gold Tails Fresh	g/t	0.16	I
Carbon Concentration per CIL Tank	g/l	10	E
Carbon Plant			
Elution Type		Press. Zadra	A
Elution Frequency	nb/d	1	C
Acid Wash and Elution Vessels Capacity	t	2	A
Detox			
Detox Retention Time phase 2	min	50	C

17.2 DESCRIPTION OF PROCESSING PLANT - PHASE 1

Since the project is in two (2) phases, the description of each section of the mill is separated in each phase.

17.2.1 OVERALL PROCESS FLOWSHEET PHASE 1

Figure 17-1 presents a simplified flowsheet for Phase 1. The process plant layout is presented in Figure 17-2 and Figure 17-3, where Phase 2 is highlighted in light grey.

FIGURE 17-1 OVERALL PROCESS FLOWSHEET PHASE 1

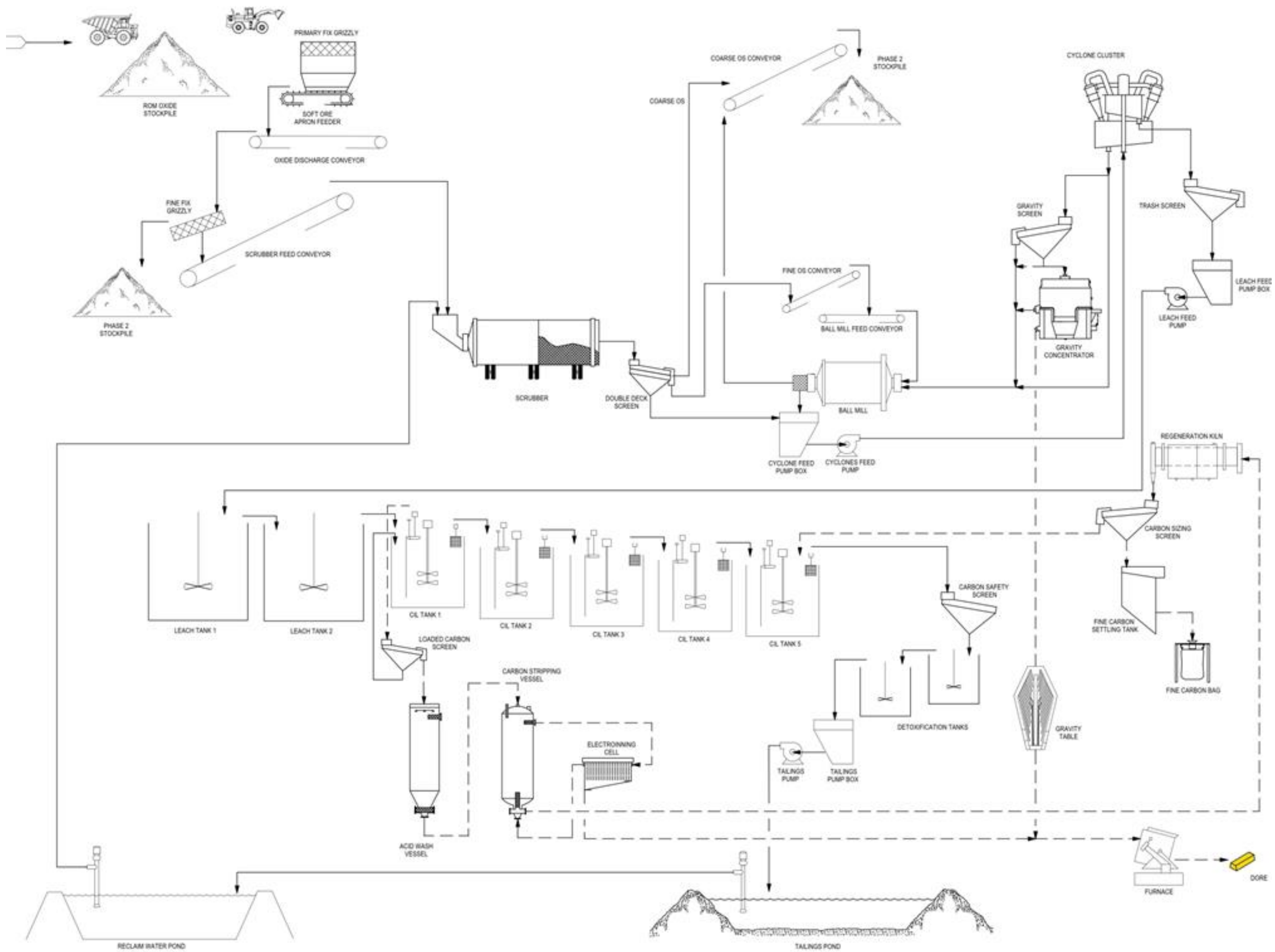


FIGURE 17-2 GENERAL ARRANGEMENT PHASE 1 (PHASE 2 IN GREEN)

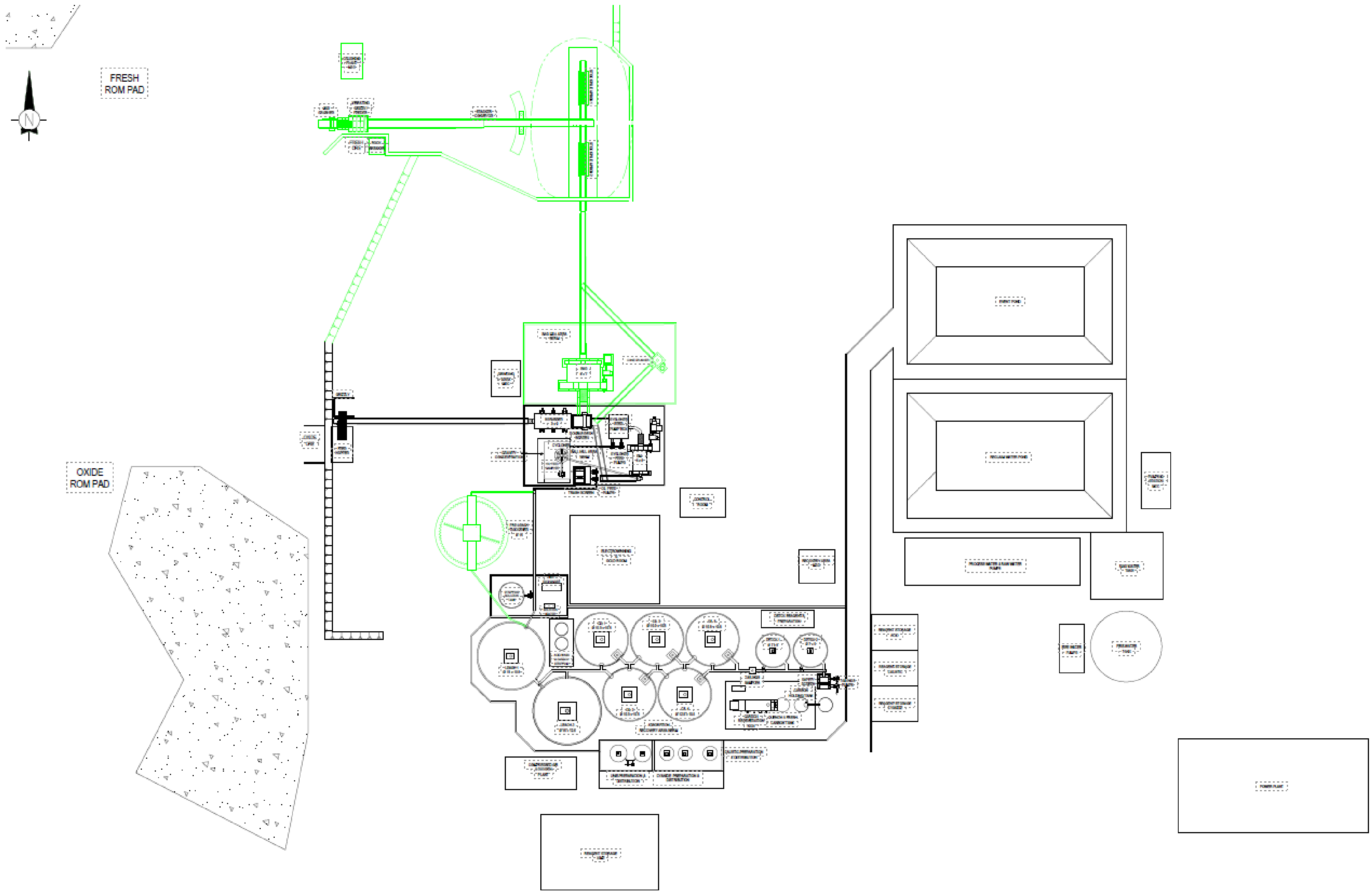
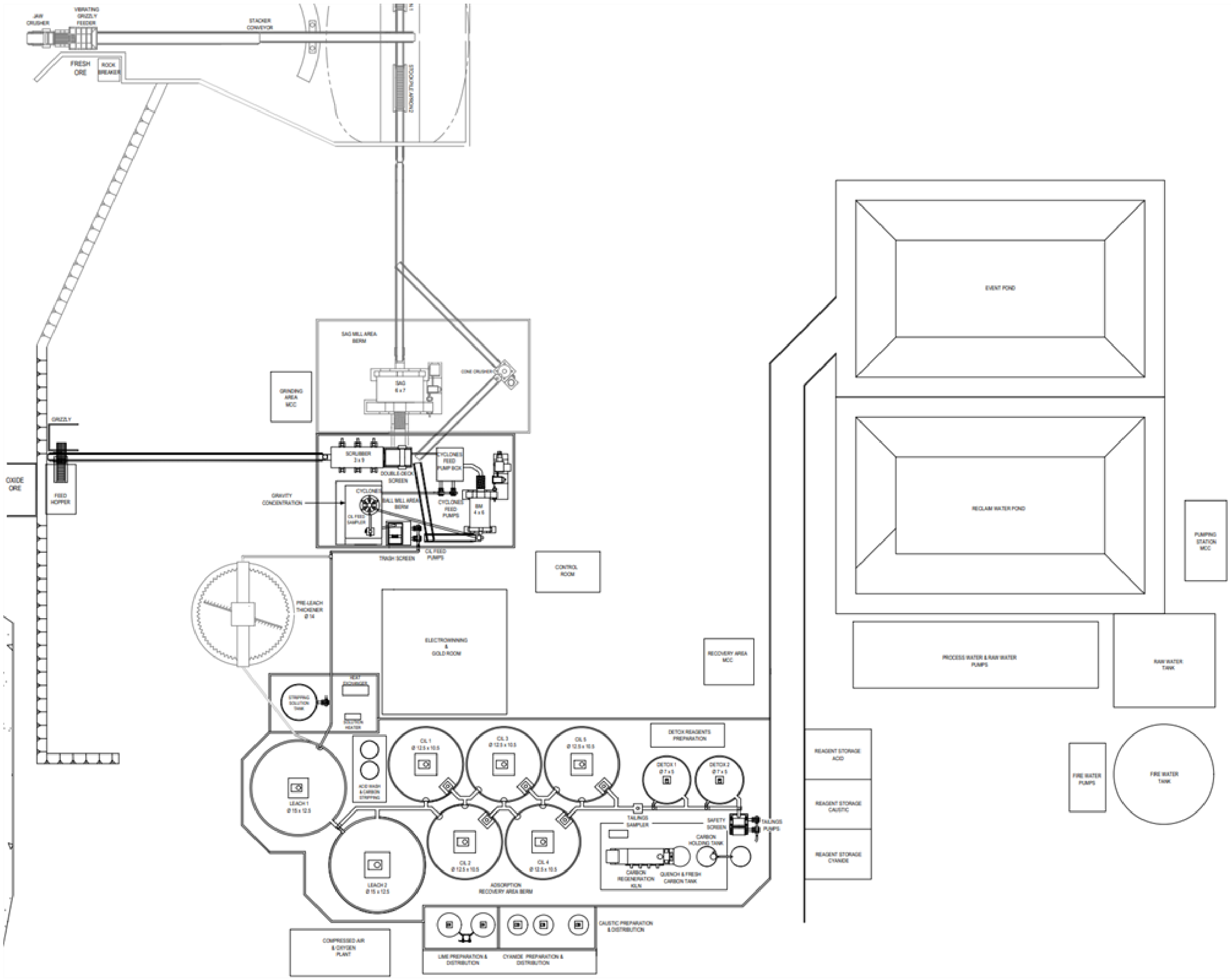


FIGURE 17-3 GENERAL ARRANGEMENT (ZOOMING)



17.2.2 DESCRIPTION OF PROCESSING PLANT PHASE 1

The following process description gives an overview of the selected recovery circuit based on the testwork and design criteria presented in Table 17-2. The process is divided into the following sections:

- Crushing and Stockpiling;
- Milling;
- Gravity;
- Leach and Carbon-in-Leach;
- Carbon Management Circuit;
- Gold Room;
- Detoxification;
- Tailings disposal;
- Reagents;
- Water Management; and
- Service Area.

Phase 1 will process saprolite mill feeds on-site with gold recovery taking place in a dedicated plant.

17.2.2.1 CRUSHING AND STOCKPILING

There is no crushing line for saprolite mill feed in Phase 1. Saprolite mill feed from the ROM stockpile is reclaimed by a front-end loader to feed a fixed grizzly. The material is fed via an apron feeder to a secondary grizzly. Coarser material is stockpiled for Phase 2, while finer material goes to a scrubber for washing and deagglomeration of the mill feed and then to a double deck screen.

17.2.2.2 MILLING

Phase 1 milling consists of a double deck screen followed by a ball mill in a closed circuit with a cyclone cluster. Oversize from the top deck reports to a stockpile for processing in Phase 2.

The material reporting to the lower deck oversize (the Intermediate) is conveyed to the ball mill.

The screen undersize material (fines) reports to the cyclone feed pump box and then to a cyclone cluster. Cyclone overflow reports to a trash screen where plastic, wood and other tramp materials are removed. The undersize of the trash screen reports to the CIL pump box. The slurry is then pumped to Leach Tank 1 via the CIL feed pump.

A fraction of the cyclone underflow is directed to the gravity circuit. The majority of the cyclone underflow is mixed with the Intermediate in the ball mill feed chute. The discharge of the ball mill flows into the cyclone feed pump box.

A trommel at the ball mill’s discharge protects the cyclone feed pump by removing the coarser and harder material (scats), as well as from large grinding media. The scats will be stockpiled for processing in Phase 2.

17.2.2.3 GRAVITY

The portion of the cyclone underflow that is directed to the gravity circuit is fed across a scalping screen. The oversize is returned to the ball mill. The undersize is directed to a gravity concentrator for the recovery of gravity gold. The concentrate is sent to a magnet to remove steel tramps and the cleaned concentrate is further processed on a shaking table for final concentration and smelting.

The slurry rejected by the gravity concentrator is returned to the ball mill feed chute.

17.2.2.4 LEACH AND CARBON-IN-LEACH (CIL)

The undersize portion of the trash screen feeds the leach and CIL circuit. The leach and CIL circuit consists of seven tanks: two (2) leach tanks and five (5) CIL tanks to provide a total residence time of 24 hours for Phase 1.

Oxygen is sparged to the tanks to maintain high dissolved oxygen levels for leaching. Hydrated lime is added to bring the pH to the operating set points. Cyanide solution is added to Leach Tank #1 and the CIL Tank #1.

Fresh/regenerated carbon from the carbon circuit is fed to the last tank (CIL Tank #5). The carbon in the CIL tanks is pumped countercurrent. Slurry from the last CIL tank flows to the safety carbon screen to capture any carbon that might exit the CIL tanks.

Each CIL tank is fitted with:

- An interstage screen;
- Oxygen spargers;
- An agitator;
- A carbon transfer pump.

Loaded carbon is transferred from the first CIL tank to the carbon elution circuit via the Loaded Carbon Screen.

17.2.2.5 CARBON CIRCUIT

Loaded carbon, recovered by the loaded carbon screen, is discharged into the acid wash vessel where hydrochloric acid is introduced to remove the carbonates trapped in the carbon during the CIL stage. The acid solution in the vessel is neutralized with sodium hydroxide. The solution is drained, and the loaded carbon is rinsed with water and transferred to the elution vessel for stripping.

At high temperature (up to 140 °C) and under pressure, a solution consisting of fresh water, sodium hydroxide and cyanide is introduced into the elution vessel. The solution strips the gold from the carbon, resulting in a pregnant leach solution with a high concentration of gold. The solution is cooled and then transferred to the electrowinning cells, where gold is precipitated onto cathodes. The barren solution is then reused in the elution vessel.

The eluted carbon is transferred to a kiln (operated at 650-700 °C) for regeneration of the carbon. The carbon is then quenched in water and transferred to the carbon-sizing screen to remove undersize carbon (carbon fines). The oversize carbon is directed to CIL Tank #5. The undersize carbon is dewatered and stored in bags for third-party processing.

17.2.2.6 GOLD ROOM

The electrowinning cells are emptied and cleaned using a high-pressure washer to recover gold sludge that plated and precipitated in the electrowinning cell. The sludge is then filtered in a filter press. Solids are dried, mixed with the gravity table concentrate and fluxes and then smelted in a furnace. The melted material is poured to produce doré bars. The slag is recovered and returned to the ball mill feed chute. The electrowinning, tabling, and smelting processes take place in a secured and supervised gold room with a safe.

17.2.2.7 DETOXIFICATION

Only limited detoxification testwork was completed on the saprolite material. The typical SO_2/air process is believed to be effective on Phase 1 and Phase 2 mill feed and is used for the design criteria. Further testing will be completed in the next stages of the project.

CIL tailings slurry passing through the carbon safety screen is discharged into two (2) cyanide detoxification tanks. Cyanide detoxification will take place using the SO_2/air process. In this process, sodium metabisulphite (SMBS) and oxygen are used to destroy the cyanide. This reaction is done at a pH of 8.5 and uses copper sulphate as a catalyst. Lime is used to maintain the pH of the reaction. The cyanide detoxification makes use of two (2) tanks in parallel that have each been sized for a total residence time of 40 minutes.

17.2.2.8 REAGENTS

The main reagents required for the chemical treatment of the mill feed can be summarized as follows:

- Hydrated lime ($Ca[OH]_2$): pH control in the leach, CIL and detoxification circuit.
- Sodium Cyanide (NaCN): main gold leaching reagent in the CIL circuit and elution column.
- Sodium Hydroxide (NaOH): pH control and reagent in the carbon elution and cyanide preparation.
- Hydrochloric Acid (HCl): removal of lime scale from the activated carbon in the acid wash circuit.
- Copper sulphate ($CuSO_4$): catalyst in the detoxification reaction.
- Sodium Metabisulfite ($Na_2S_2O_5$): reagent and source of SO_2 in the detoxification circuit.
- Activated carbon: adsorption of dissolved gold in the CIL circuit.
- A flux composed of silica, nitrate and soda ash: Reagents for gold smelting in the Gold Room.

17.2.2.9 TAILINGS DISPOSAL

Detoxified tailings slurry is pumped to a TSF, where the solids settle to the bottom of the tailings pond and water can be reclaimed. Reclaimed water is pumped back and reused as process water within the plant.

17.2.2.10 SERVICE AREA

The process plant is supplied with both compressed and dried instrument air. Compressors first supply air for general process use, leaching and detoxification through a primary receiver. A fraction of the compressed air is diverted to be dried and filtered for instrument use.

An oxygen plant is planned to supply oxygen for the leaching and detox processes. Although it is not yet known if the use of pure oxygen will significantly favor the leaching kinetics, the lower energy consumption of oxygen plant justifies its inclusion in the PEA. A trade-off study should be realized at the next study level.

17.2.2.11 WATER MANAGEMENT

The process uses fresh water and reclaimed process water to maintain the plant water balance. Fresh water is used to supply gland seal pumps, water for reagent mixing and the elution circuit. The process water is sourced from the reclaimed water and the return water from the TSF.

17.3 DESCRIPTION OF PROCESSING PLANT - PHASE 2

17.3.1 OVERALL PROCESS FLOWSHEET PHASE 2

Figure 17-4 presents the simplified flowsheet for Phase 2. The process plant layout is presented in Figure 17-2, light grey illustrating Phase 2 equipment.

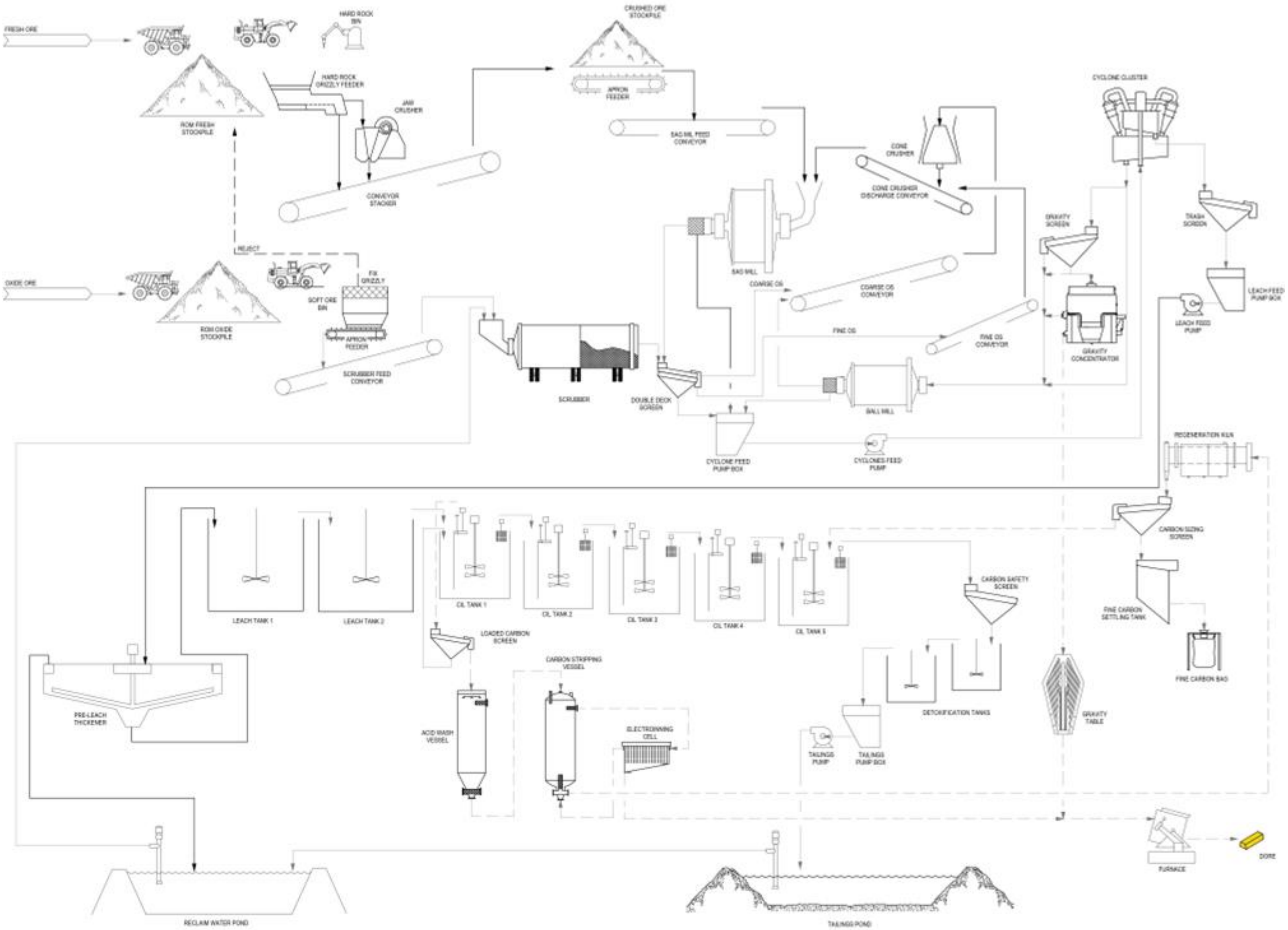
17.3.2 DESCRIPTION OF PROCESSING PLANT PHASE 2

The following process description gives an overview of the selected recovery circuit based on the testwork and design criteria presented in Table 17-3. In Phase 2, only the sections where modifications occur are presented. For the description of the sections that do not change, refer to the above description in Phase 1.

Sections with changes:

- Crushing and Stockpiling;
- Milling;
- Pre-Leach Thickener;
- Reagents.
    - Sections without changes:
- Leach and Carbon-in-Leach;
- Carbon Management Circuit;
- Gravity Concentration;
- Gold Room;
- Detoxification;
- Tailings Disposal;
- Water Management; and
- Service Area.

FIGURE 17-4 OVERALL PROCESS FLOWSHEET PHASE 2



17.3.2.1 CRUSHING AND STOCKPILING

Phase 2 will process transition and fresh rock, which are harder than saprolite and require the addition of a crushing circuit.

In Phase 2, the saprolite mill feed from the ROM pad is reclaimed by a front-end loader to feed a fixed grizzly. The oversize material is reclaimed and transferred to the Fresh Mill feed Crushing Circuit. The grizzly undersize is directed to the scrubber via an apron feed and mill feed conveyor.

For the fresh and transition rock a front-end loader feeds a fixed grizzly with oversize broken down by a rock breaker. Oversize rocks are directed to the jaw crusher. The crusher discharge and fines are conveyed to the crushed mill feed stockpile.

17.3.2.2 MILLING

In Phase 2, a SAG mill, a cone crusher, two (2) apron feeders and conveyors are added to the milling circuit.

The apron feeders reclaim crushed mill feed and transfer to the SAG mill via the mill feed conveyor. The SAG mill trommel oversize and scrubber discharge are fed across a double-deck screen. Oversize from the top deck is directed to a pebble (cone) crusher for further size reduction. A self-cleaning magnet protects the crusher from tramp iron. The crusher discharge and fine oversize portion are redirected to the SAG mill. The screen undersize is combined with the SAG and ball mill discharges, after which the slurry follows the same process route as Phase 1.

17.3.2.3 PRE-LEACH THICKENING

For Phase 2, a pre-leach thickener is incorporated in the circuits between the trash screen and Leach Tank #1. The undersize of the trash screen feeds the pre-leach thickener, where the slurry is thickened to achieve 52-58 % solids. The thickener underflow is then directed to Leach Tank #1. The overflow of the Pre-leach Thickener serves as make-up water. Since the percent solids feeding the leach and CIL circuit is higher in Phase 2, this increases leach time. The same applies to the detoxification circuit.

17.3.2.4 REAGENTS

In Phase 2, flocculant is added as a new reagent. Flocculant is used as a thickening aid in the pre-leach thickener. A flocculant preparation system is added.

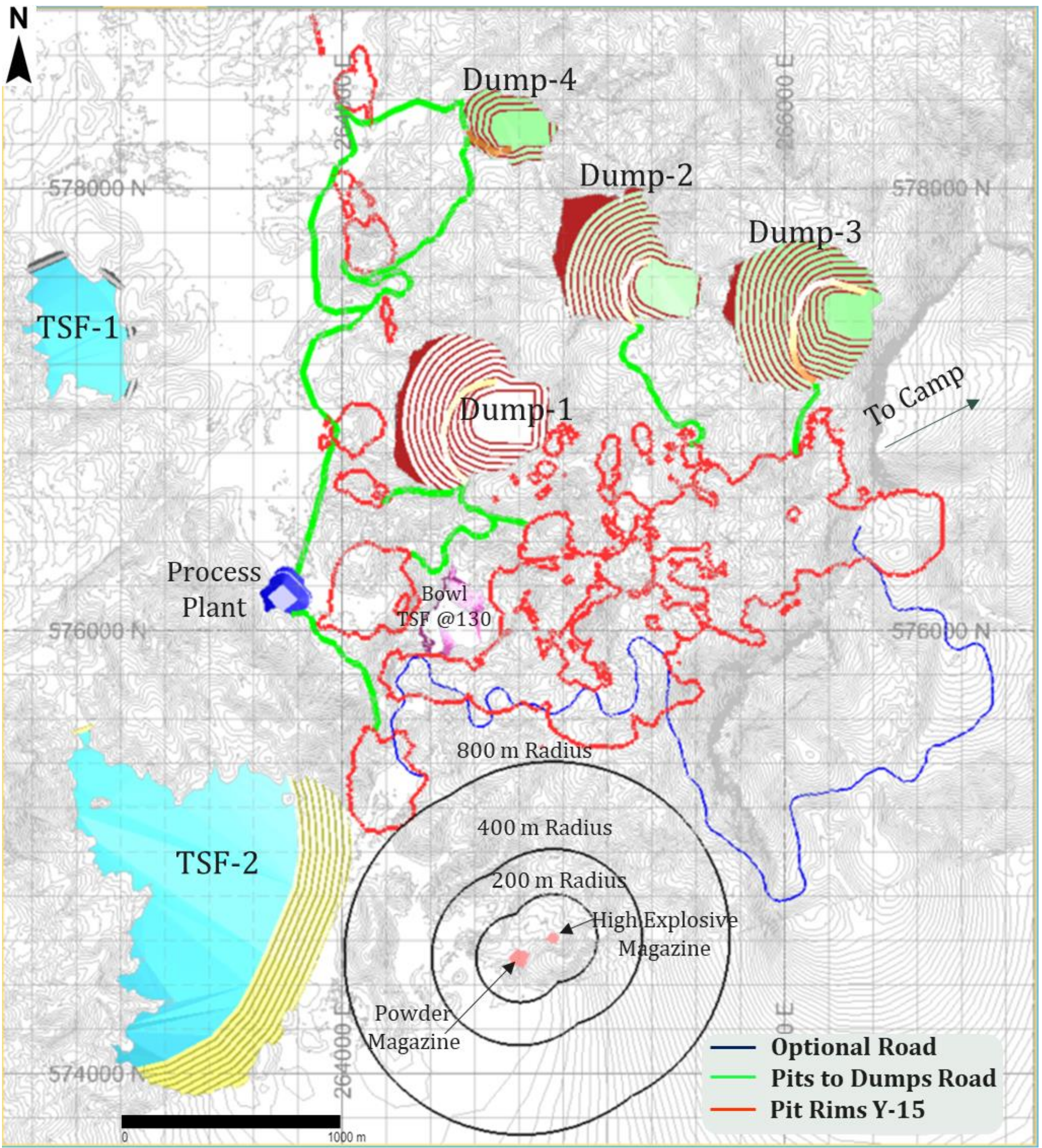
18. PROJECT INFRASTRUCTURE

The project infrastructure at the Eagle Mountain Project will consider the requirements of Phase 1 and 2 to sequence the pre-production capex according to the timing requirements.

The Project will minimize camp and transportation requirements by using workforce from Mahdia and Campbelltown to the highest degree possible. Both communities are located less than 10 km (about 6.2 miles) from the Project site and have labor forces familiar with mining, heavy equipment, and local terrain and climate. The Property has suitable locations for the placement of the processing facilities, mine security, offices, storage warehouses and equipment maintenance facilities.

Due to the topography and precipitation, there is a ready supply of fresh water and there is a well-established- road from the site to the communities of Mahdia and Campbeltown where there is an airstrip. The general layout of the Project, including all infrastructure, is illustrated in Figure 18-1.

FIGURE 18-1 GENERAL SITE LAYOUT OF INFRASTRUCTURE



The Project infrastructure items presented in this PEA are conceptual in nature only, and the locations, elevations, sizes, shapes, and designs of dumps, roads, process plant pad, and tailings storage facilities are likely to change prior to or during the detailed engineering phase of a pre-feasibility study and feasibility study, or during construction itself.

18.1 PROJECT INFRASTRUCTURE OPPORTUNITIES

Most of the infrastructure in this PEA study has not been fully optimized and with this there are opportunities for improvement on the proposed size, shape and location of the dumps, dams, or foundations. In some cases, this could have a favorable effect on the estimated project cash flow model or the contrary.

18.2 ROADS

18.2.1 MAIN ACCESS ROAD

The well-maintained 8 kilometres long gravel surfaced access road from Mahdia to the mine site will be upgraded to accommodate haul truck traffic, which will mainly involve widening the road and improving the (approximately 12) bridges along the way.

The existing road is on favorable terrain. It will require a modest capital investment to achieve the width and bearing capacity required to accommodate haul truck traffic and the delivery of supplies and large equipment to site.

18.2.2 SITE ACCESS ROAD

A site access road will be built from the main access road to the open pit mining operations. Other haulage and site service roads will also be constructed from the open pit to the co-disposal sites and surface facilities.

18.2.3 HAUL ROADS

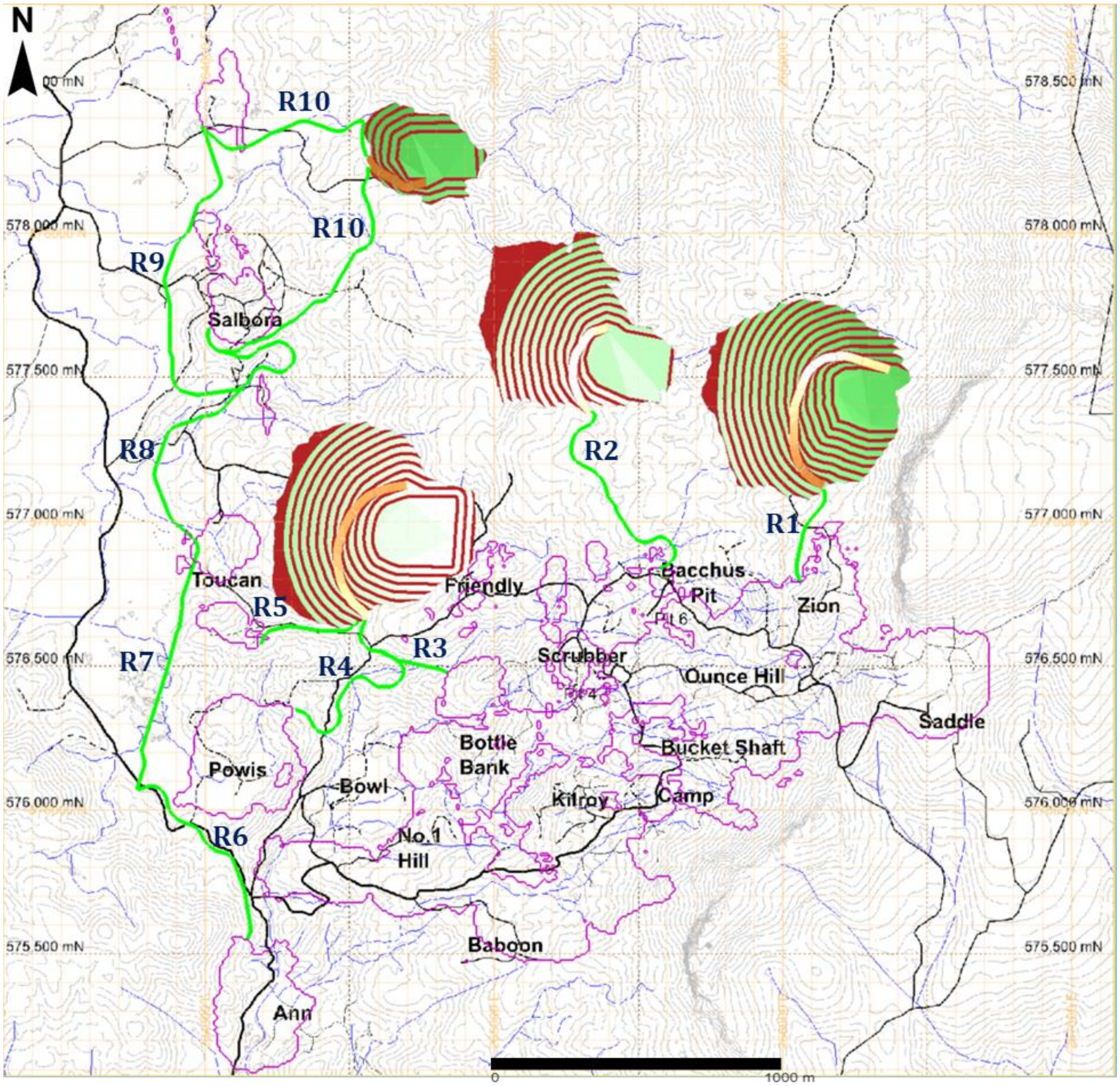
Due to the steep terrain and the presence of ridges and valleys perpendicular to the primary hill side upon which most of the deposits reside, the design of roads for pioneering work and initial production will be important.

The current road system that traverses the mine site is extensive but currently too steep in some areas for light vehicles other than ATVs.

Cutting and filling of roads up the hillside at no more than 10% but targeting the recommended grade of 8% may require significant cutting and filling of material if optimization of the routes is not possible.

A preliminary conceptual study of road locations suggests placing roads to the north of the pits, winding their way with switchbacks from the valley floor up to the Zion area of the Eagle Mountain deposit. The conceptual layout of haul roads to access pits from the valley floor up to the uppermost benches of the highest pit is illustrated in Figure 18-2.

FIGURE 18-2 CONCEPTUAL LAYOUT OF HAUL ROADS TO ACCESS PITS AND WASTE DUMPS



At an estimated cost of approximately US$250/metre, the construction of the primary haulage roads/ramp system of approximately 14 km (about 8.7 mi) would require approximately US$3.5 millions of road construction during pre-production.

The positive side of the steep terrain and the relative position of the pits relative to the processing facilities is that trucks will haul loaded downhill which will require significantly less energy (diesel) than hauling uphill.

When mechanical trucks haul downhill and are in retarder mode, there is no fuel consumed by the engine.

Considering a total maximum elevation change of approximately 400 metres, a ramp system of approximately 6.9 km in length was identified as requiring minimal cut and fill using a road optimization software (RoadEng 11 ®).

Mine Roads Optimization

For conducting the conceptual road layout from the pits to the waste dumps, RoadEng 11 ® software was used for the optimization of mine roads. The anticipated length and cut and fill volumes for these roads is summarized in Table 18-1.

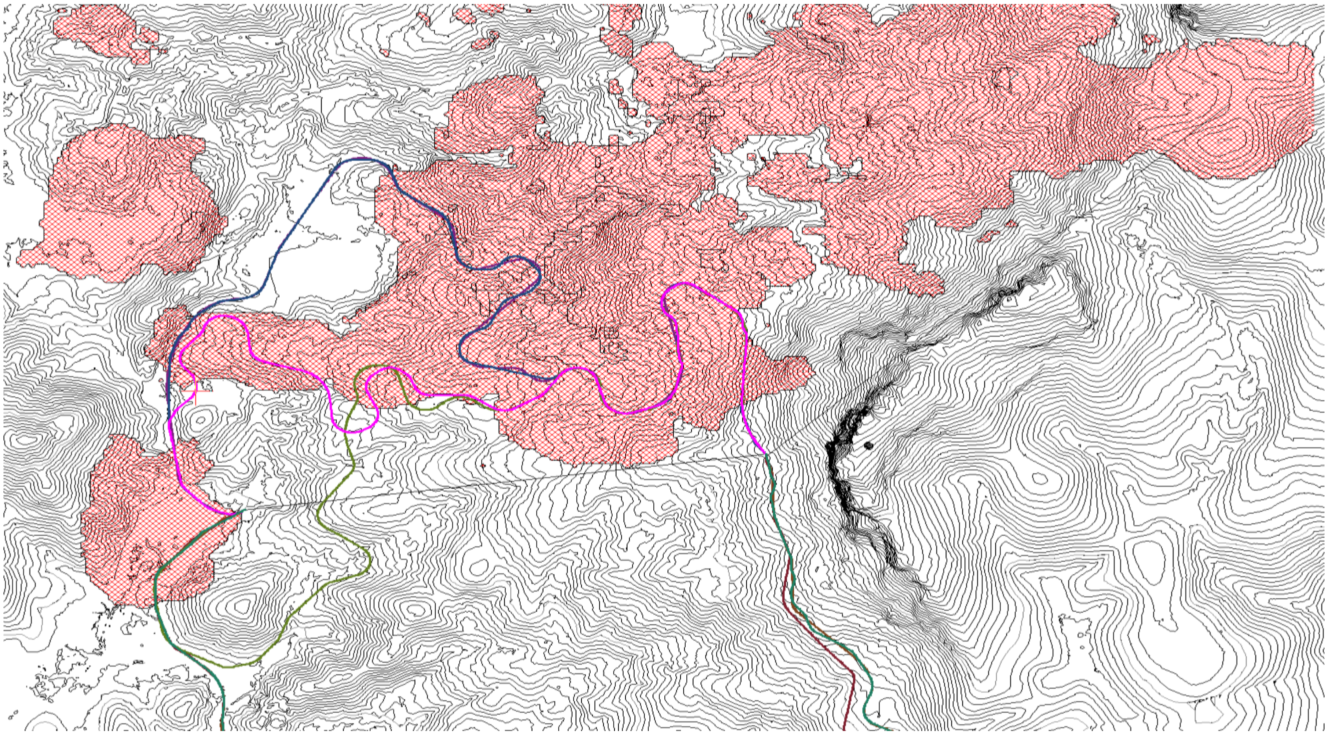
TABLE 18-1 MINING ROADS LENGTHS AND CUT/FILL SUMMARY

Road	Length (m)	Cut (m^3)	Fill (m^3)
R1	349	6,005	487
R2	841	7,452	4,714
R3	420	4,076	5,475
R4	692	9,317	5,997
R5	408	4,721	2,732
R6	744	4,595	5,203
R7	571	2,430	1,895
R8	1,706	17,338	8,084
R9	1,877	18,491	7,264
R10	1,915	13,100	16,503
Total	**9,523**	**74,424**	**58,353**

Access Roads through the Pits

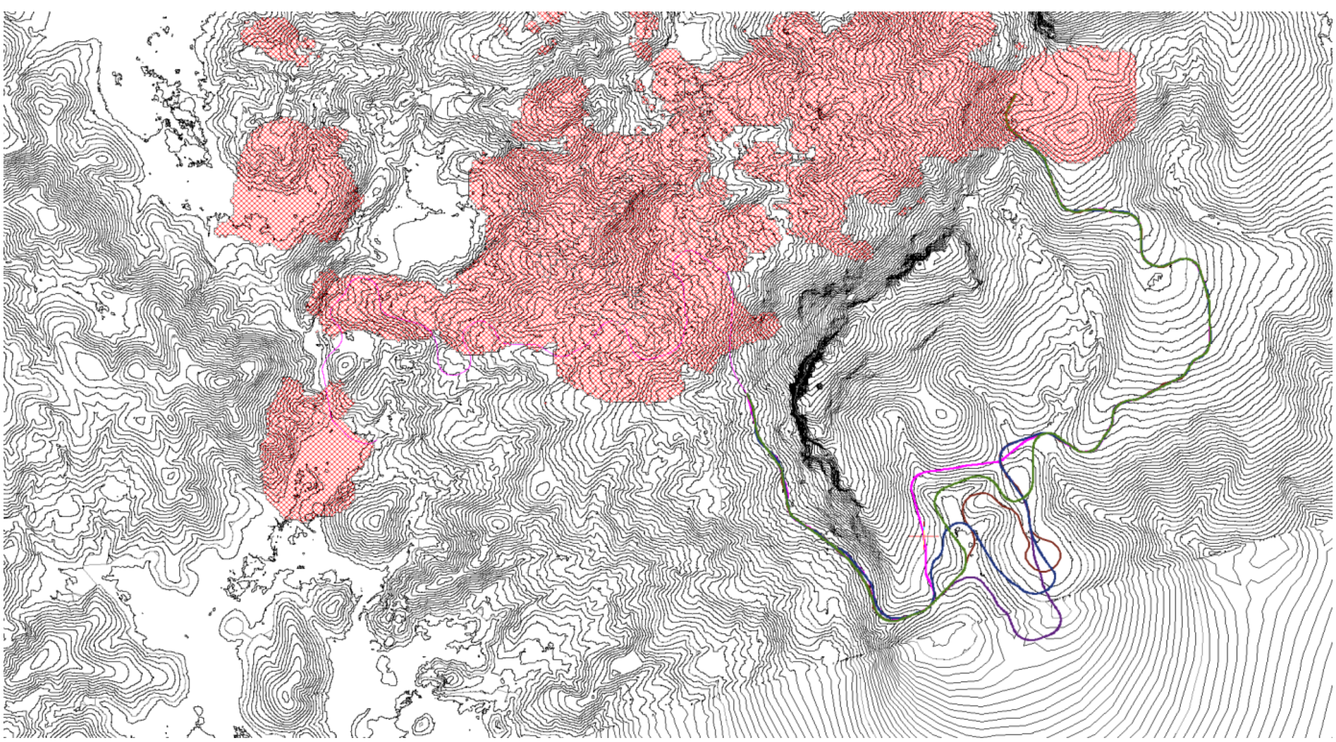
For future plans, additional conceptual roads in the southern part of Eagle Mountain were created using the same optimization method, starting from the lowest part of the pit (Ann) and extends to the upper part before the reaching the ridge at the Bucket Shaft area of the Eagle Mountain deposit; this is part 1 of road optimization as shown in Figure 18-3. Part 2 of the optimized road continues from the same location and weaves around the cliff to saddle pit and due to the complexity of the topo the optimized possible road took a path around the southern limit of Chalmer’s Cliff as shown in Figure 18-4.

FIGURE 18-3 CONCEPTUAL ACCESS ROAD IN SOUTH PART OF EAGLE MT (LOWER PART OF EM)



*Selected road shown in pink color.

FIGURE 18-4 CONCEPTUAL ACCESS ROAD IN SOUTH PART OF EAGLE MT (UPPER PART OF EM)



*Selected road shown in pink color.

The length summary for possible access roads is 6.92 km, and material cut volume is 72,051 m^3 while fill volume is 40,165 m^3.

18.3 POWER SUPPLY AND ELECTRICAL DISTRIBUTION

Site power will be obtained from electricity generated by Diesel engines supplied on a power-by-the-hour contract with a local contractor such as MACORP (the Guyanese Caterpillar dealer).

There is no capital required, and there is a unit charge per kWh supplied.

The cost per kWh is estimated at a budgetary cost of US$0.17/kWh, which is equivalent to approximately US$1.5 million/MW installed power and running for 1 year. This cost includes the maintenance and installation but does not include the cost of fuel, which would bring the cost to approximately US$0.30/Wh.

Power demand for the Project is estimated to be approximately 2-3 MW for Phase 1 and >4 MW for Phase 2.

The power generated by the diesel generators will be distributed to the processing plant and any remote locations via appropriately specified high tension or low-tension wire system as appropriate.

Due to the high cost of power, solar panels will be utilized where possible and power will be conserved at camp through all practical means possible.

Several alternative power sources such as river turbines will be investigated at the pre-feasibility study level.

The business case for a solar power plant and other renewables at the mine site would be worthwhile investigating.

18.4 WASTE STORAGE FACILITIES

18.4.1 WASTE DUMPS

The waste rock and tailings produced by mining operations is classified as low risk due to minimal sulfide content, meaning that it has low acid drainage and leachability potential.

There will be multiple waste dumps at various elevations to the north of the Eagle Mountain pits in order to facilitate short waste hauls during the mining of pits at various elevations.

The waste dumps will also partially provide for the backfilling of valleys and uneven terrain to help with the construction of the haul ramps up the hillside, the layout of the waste dumps is shown in Figure 18-5 in the Year 1 pit outlines and Figure 18-6 shows the waste dumps with last year pit outlines.

FIGURE 18-5 CONCEPTUAL DESIGN AND LOCATIONS FOR EAGLE MOUNTAIN AND SALBORA WASTE DUMPS WITH YEAR 1 PIT OUTLINES

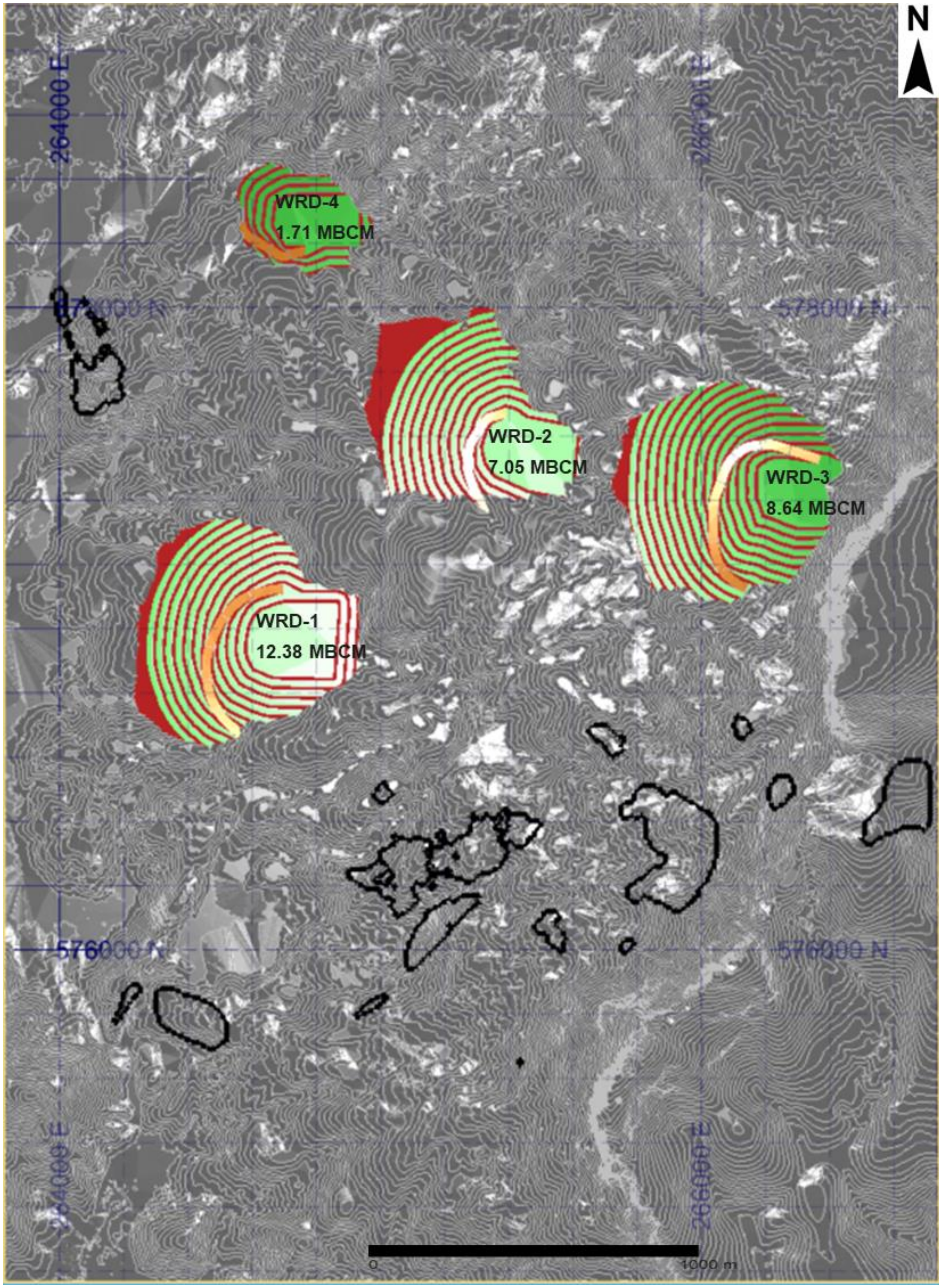
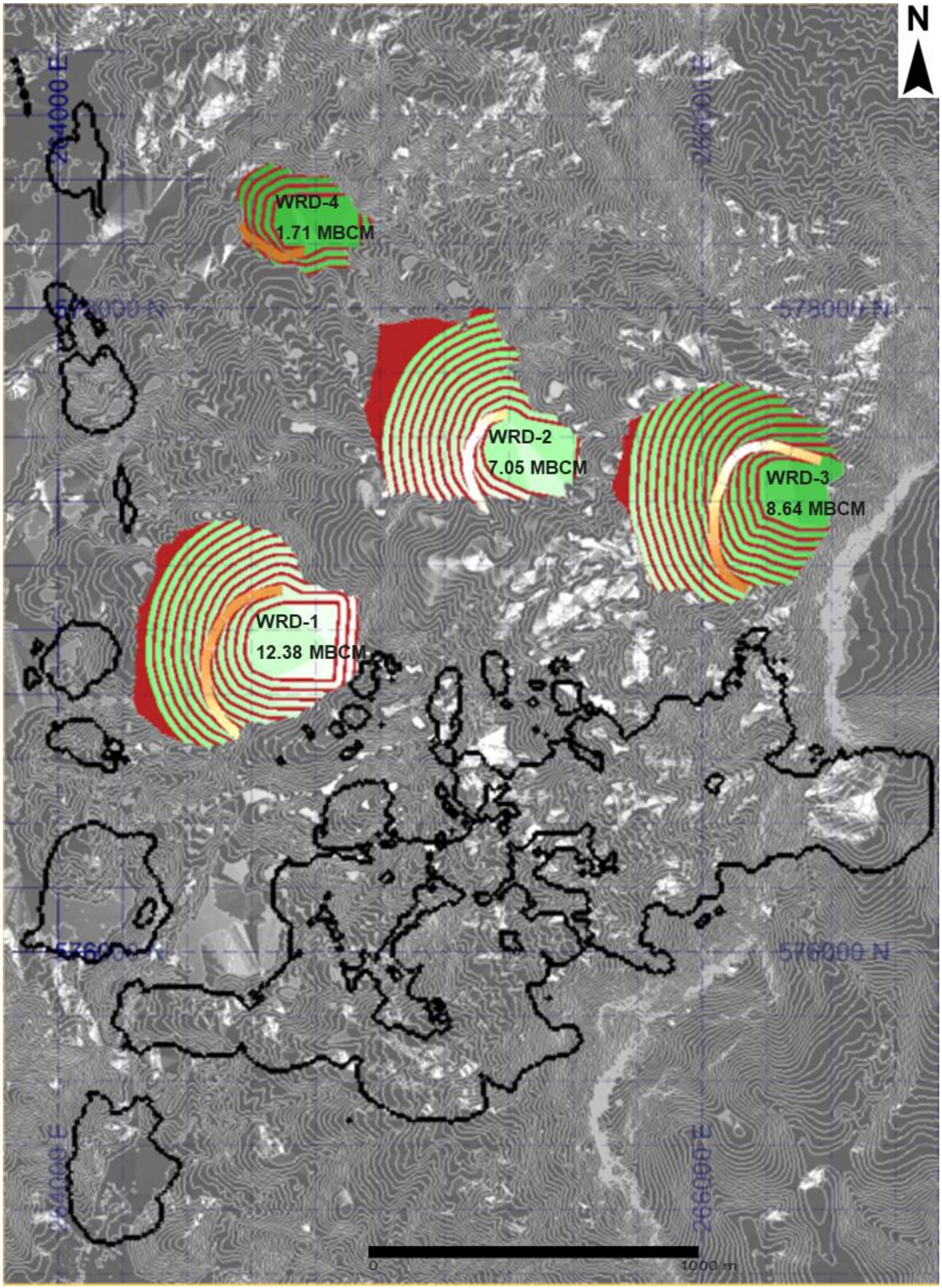


FIGURE 18-6 CONCEPTUAL DESIGN AND LOCATIONS FOR EAGLE MOUNTAIN AND SALBORA WASTE DUMPS WITH YEAR 15 PIT OUTLINES



The total volume of waste rock produced in the open pit mining operations is based on the selected optimized pit shells created for the PEA, which will be equivalent to approximately 28 Mm^3.

18.4.2 SALEABLE WASTE ROCK STORAGE FACILITIES

It may be proposed that separate storage facilities be created for waste rock that will be used for site construction and/or potential sale to external buyers.

The waste rock storage facilities will be designed such that waste with favorable physical construction properties will be segregated for easy recovery should economic factors change such that the waste would become sufficiently attractive economically to process and sell for road construction or other purposes.

18.5 TAILINGS

18.5.1 TAILINGS STORAGE FACILITIES

The total volume of tailings produced over the LOM will be approximately 17.2 Mm^3.

The initial TSF will occur in a starter pond that will hold the tailings for the first year of production, approximately 1.8 Mm^3. This facility will require a minimum capital cost and 154,000 m^3 of placed material to dam in the starter TSF. The starter tailings dam is illustrated in Figure 18-7.

The main tailings dam, as illustrated in Figure 18-8, is designed to operate from Year 2 to 15. This facility will be built to accommodate 15.4 Mm^3 of tailings. The estimate of the dam lift volumes is summarized in Table 18-2.

The design is conceptual and is used to estimate the volume of construction material required to contain the tailings in this location. The design does not include any technical specifications beyond standard assumptions.

TABLE 18-2 MAIN TAILINGS DAM LIFTS SUMMARY

Lift ID	Lift (m)	Tailings Volume (m^3)	Dam Volume (Mm^3)
1	90-105	3.3	0.6
2	115-130	6.5	0.9
3	130-145	6.6	1.2
	Total	**16.4**	**2.7**

FIGURE 18-7 STARTER TAILINGS DAM FOR YEAR 1 WITH 1ST YEAR PIT OUTLINES AND POSSIBLE PROCESSING PLANT LOCATION

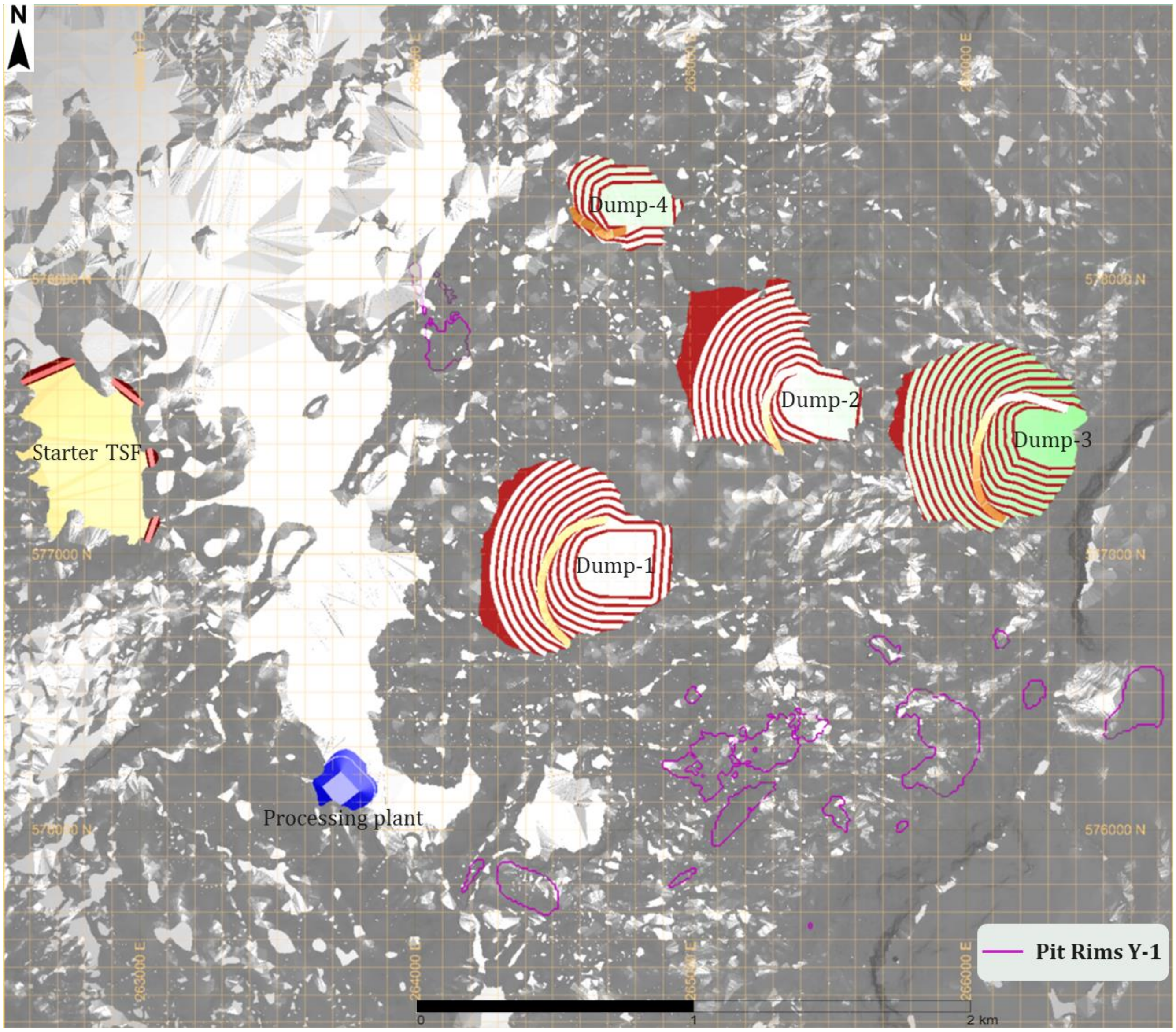
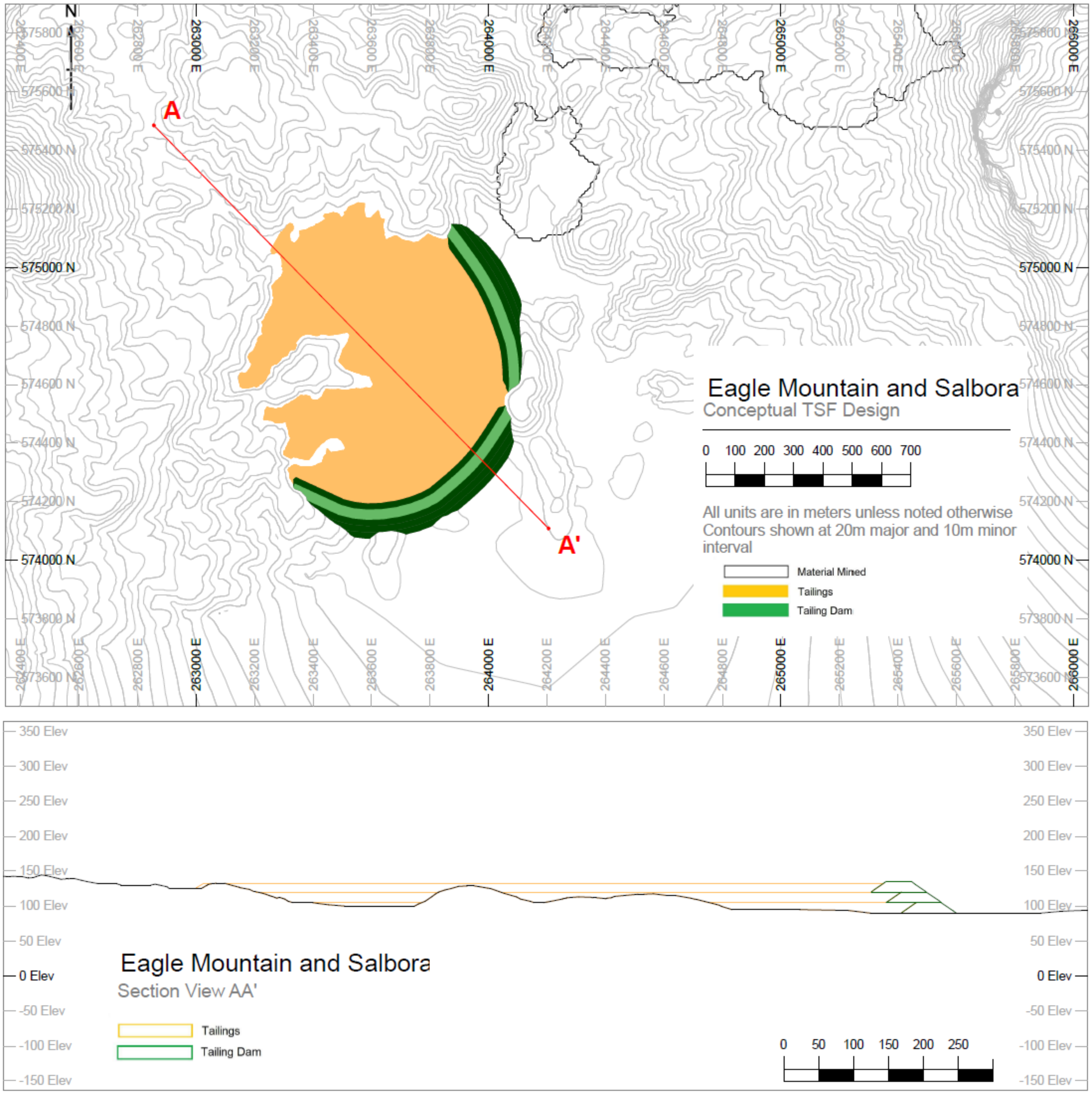


FIGURE 18-8 MAIN TAILINGS STORAGE FACILITY (CONCEPTUAL LOCATION)



Further studies are recommended to find alternative locations or approaches for tailings storage, which could have a positive impact on the capital and management of the tailings facility.

18.5.2 TAILINGS DISTRIBUTION SYSTEM

The following are calculation requirements for the tailings pump and pipelines. The pit dewatering pumps can be used along with boosters.

The wet pumped tailings will be approximately 33% solids by weight. Once the solids settle in the TSF and the excess water is recycled as process water for the plant, the percent solids by weight is estimated to increase to 65% or greater, which needs to be confirmed with future test work.

Slurry pumps are estimated to require a power draw of up to 130 kW for tailings with solids SG of 2.7.

The tailings density including water will be 1.57 SG during distribution. As the solids settle the water phase will be pumped back to the reclaim water pond for cleaning and return to the plant as make-up water.

Any discharge of water outside of the EMPL will be monitored to ensure quality is within acceptable regulatory limits.

A second backup pump will be added to the design (i.e., an “operational spare”) that will not be used unless the primary pump failed, in which case the bypass valves will be closed on the first pump and opened on the second one. The power draw with the latter pumping arrangement would also be 130 kW, with the connected power at 260 kW.

There will be a redundant distribution line in case of blockage within the principal line and a clean out is required.

Calculations assume that the process plant will be running at 100% utilization. If it is running below 100%, there will need to be a recalculation with a multiplier factor of the motor kW by a factor of 1/x% utilization (i.e., if planned plant utilization is 85% then multiply by 1/0.85*130 kW = 153 kW).

18.6 SEDIMENTATION POND

Contact water from the mine operations including pit dewatering system discharge will report to a large sedimentation pond in the bowl area where the pond design will permit adequate retention time to allow for the reduction of suspended solids and ensuring that all quality specifications are met before the water is permitted to be releasing beyond the property limits.

The Bowl area was chosen because its natural topography allows minimal construction effort to build the desired containment structure which will facilitate the required sedimentation function.

Some smaller additional sedimentation ponds will be constructed to manage contact water from pits at elevations below the primary sedimentation pond at the Bowl area.

18.7 WATER STORAGE AND MANAGEMENT FACILITIES

Sedimentation ponds will be constructed to contain all open pit mining contact water and runoff from the co-disposal sites.

Surface water management system will be designed to minimize contact water and keep surface runoff from entering the pit and other mine-disturbed areas to the highest practical degree, with ditches and culverts designed to meet the prevailing maximum storm requirements of local and regional/provincial regulations and legislation.

Storm water storage ponds will be constructed where required and stormwater management strategy will be implemented to ensure contact water released to nature will meet all applicable quality standards before release.

18.8 WATER TREATMENT PLANT

Currently, water at Eagle Mountain is drawn from natural creeks which are sourced by natural springs.

Potable and fresh water for the mine site may also be drawn from wells to produce cool and potable water from aquifers.

Future wells and any recycled or reused water will be treated in on-site facilities as required.

18.9 FUEL SUPPLY AND STORAGE

A fuel farm will be constructed on site to store diesel and gasoline, adequate to meet the requirements for a week or longer of operations.

The quantity of diesel fuel to be stored at the fuel farms is estimated to be approximately 225,000 L, 150,000 L for power generation and 75,000 L for mining equipment.

The quantity of gasoline to be stored at the fuel farms is estimated to be 10,000 L, mainly for light vehicles.

18.10 HEAT RECOVERY FOR HVAC

A heat recovery system and other energy saving infrastructure should be investigated at the PFS level as it is highly conceivable that a heat recovery facility would be technically economically viable.

18.11 PLANT CONTROL SYSTEM (PCS)

A SCADA system will be installed to allow automatic control of various components of the processing plant and will include a data historian system (such as OSI-PI), HMI and process control system processor connected to a network of sensors on various equipment and structures.

18.12 MINING INFRASTRUCTURE

18.12.1 EQUIPMENT MAINTENANCE FACILITIES

Maintenance facilities will be constructed on site and will include:

- A fully equipped garage for preventative maintenance and overhaul/rebuild tasks;
- Electrical shop;
- Warehouse;
- Tire Change; and
- Wash Bay.

Maintenance infrastructure will be provided by the contractor and will largely be constructed from shipping containers (Figure 18-9).

A basic schematic layout of the Equipment Maintenance Facilities is illustrated in Figure 18-10.

FIGURE 18-9 CONCEPT FOR MOBILE EQUIPMENT MAINTENANCE FACILITY

18.12.2 WAREHOUSE STORAGE FACILITIES

A warehouse to house all parts needed to maintain maximum mechanical availability of the mining equipment will be stocked using predictive maintenance methods and parts management software and technology.

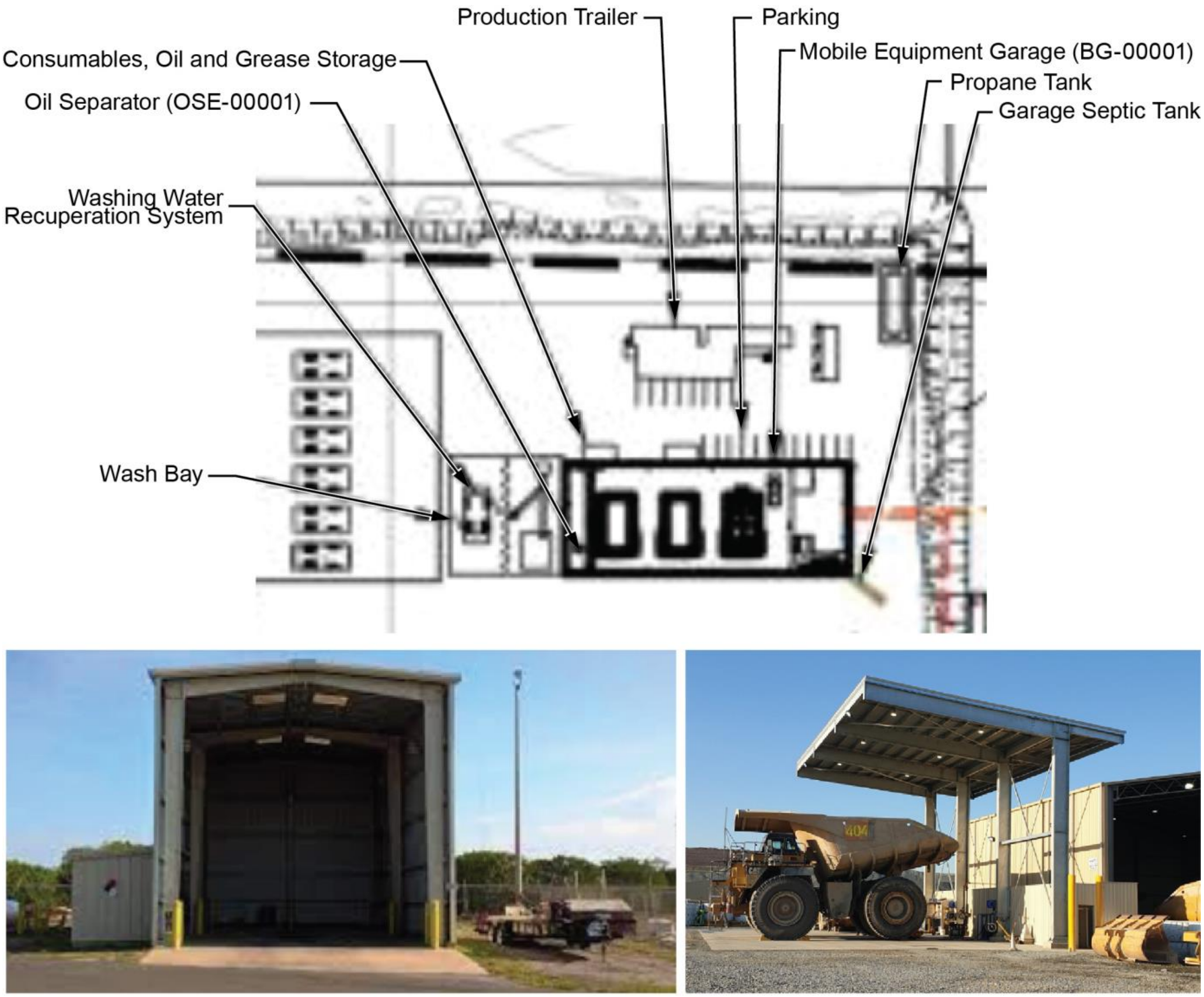
Parts supplied by manufacturers on a concession basis will be sought out to reduce capital dollars in parts from the beginning of the Project.

18.12.3 EXPLOSIVES

Explosives and cap magazines will be constructed on site at a location to be determined and in compliance with all applicable legislation and safety regulations.

Potential powder magazine locations are illustrated in Figure 18-11.

FIGURE 18-10 EQUIPMENT MAINTENANCE FACILITIES – SCHEMATIC LAYOUT

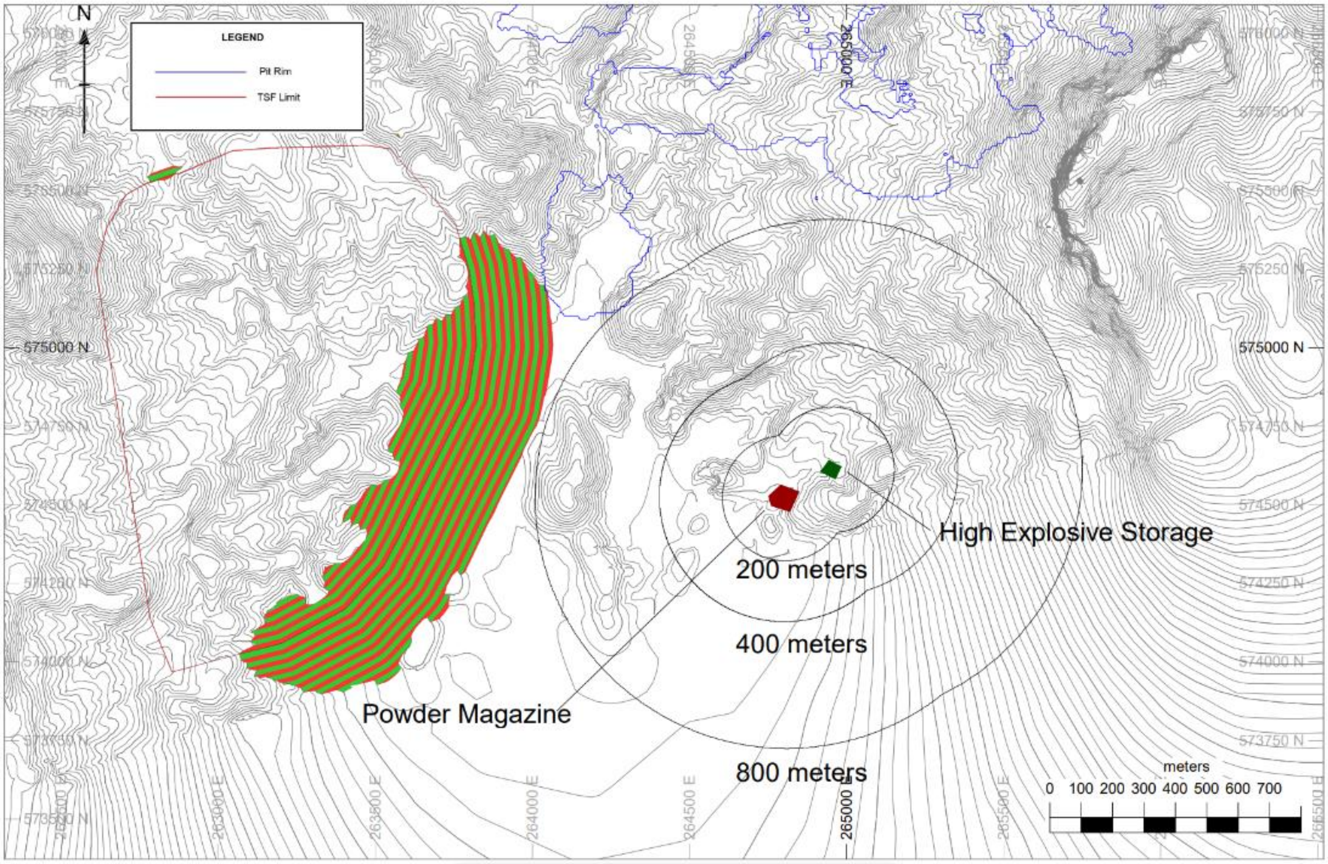


Source: https://www.mitm.com/blog/wash-bay-equipment/

Source: https://assetbuilding.com.au/blog/case-study-generic-gold-mine/

MPF-23ERM-014

FIGURE 18-11 POTENTIAL POWDER MAGAZINE LOCATION



18.12.4 PIT DEWATERING

Due to the position of many of the pits on a hillside, dewatering can be achieved using gravity and some strategically placed drill holes.

Horizontal holes in the bench faces can also be used to de-pressurize the pit wall faces to improve pit slop angle integrity and safety factor.

In the pits located at the valley floor, pit dewatering will be facilitated by a combination of in-pit pumps and perimeter pitless well pumps (if appropriate). Some of the deeper pits on the hillside that cannot be dewatered using drill holes and gravity will require similar dewatering equipment. The dewatering pumps will be selected for engineering specifications that will meet criteria dictated by recommendations from future hydrology and hydrogeological studies and studies on the intensity and frequency of precipitation events.

In-pit pumps will collect water inflow and transfer it away from the pit into the sedimentation pond via a HDPE pipe. The sedimentation pond for most of the mine will be situated in an area called the "Bowl" where a minimum of construction effort will be required.

A typical pit dewatering pump and pipe set up schematic is illustrated in Figure 18-12.

FIGURE 18-12 TYPICAL PIT DEWATERING PUMP AND PIPE SET-UP SCHEMATIC

https://menafn.com/1105154371/Dewatering-Pumps-Market-Expected-To-Reach-101334-Million-By-2026-Growing-At-A-CAGR-Of-59-From-2019-To-2026

18.13 COMMUNICATIONS

There are currently adequate telecommunications on site. This will be upgraded to provide high-speed Wi-Fi and mobile phone communications for security and work productivity reasons.

On-site communications services will include video, internet, VOIP telephone and private radio systems as well as a telecom repeater to facilitate mobile telephone communication across the site.

18.14 PORT FACILITIES

Port facilities at Georgetown will be the nearest port for receiving most consumables, equipment and parts form outside of Guyana. Travel time from the port at Georgetown to the mine site can be accomplished in a single day. Times can vary based on the size and weight of the load.

Port facilities at Georgetown are extensive and capable of receiving all heavy equipment and plant components.

Loading and offloading cranes and other support equipment is abundant.

18.15 TRANSPORT TO SITE

From Georgetown port to site, all heavy equipment, parts, plants, and consumables are deliverable by road and include one commercial river ferry crossing and can take from 8-12 hours depending on conditions and ferry times/operation.

18.16 FIRE DETECTION AND FIRE PROTECTION

Fire detectors will be installed in all office, warehouse, and maintenance buildings, in addition to being placed in/and around equipment in the processing plant where fires might be initiated.

A fire water system will be installed with an independent water source that will be separate from other water supplies to be ready in case of a fire at any time.

18.17 SECURITY AND FIRST AID

A security gate and office will be constructed at the entrance to the Project site.

A first aid office will also be in the main office complex.

18.18 ACCOMMODATION CAMP

Due to facilities available to accommodate most employees at Mahdia and Campbelltown and because most of the personnel will come from these towns, less than 10 kilometres away from the Project, minimal camp facilities will be required over and above a kitchen and canteen.

18.19 AIRSTRIP

There is a working airstrip in Mahdia with commercial flights arriving from Georgetown and other parts of Guyana daily.

19. MARKET STUDIES AND CONTRACTS

19.1 MARKETS

Gold markets are extremely mature global markets supported by many reputable smelters and refiners located throughout the world. Gold is a principal metal primarily traded at spot prices for immediate delivery. The markets for gold trading occur at multiple locations around the world (such as New York, London, Zurich, Sydney, Tokyo, Hong Kong, and Dubai), and thus the markets are collectively open 24 hours a day.

Daily prices are quoted on the New York spot market. Future prices are quoted on several futures exchanges including the CME in Chicago.

19.2 CONTRACTS

Gold production from the Eagle Mountain Gold Project is expected to be sold on the spot market. Prior to initial production, a contract will be drawn up with a refiner or refiners of choice in North America and/or Europe.

The terms and conditions will be consistent with standard industry practices and are expected to be typical of similar contracts for the sale of doré throughout the world. Refining charges will include treatment and transportation.

It is assumed that the doré will be shipped from site to Georgetown by air and then on to the Guyana Gold Board.

19.3 GOLD PRICE

Gold price forecasts are presented in Table 19-1. The gold price used in the parameters for the pit shell constraining the MRE was US$1,600/oz.

The gold price used in the parameters for the optimized pit shell upon which the PEA mine plan is based was also US$1,600/oz.

The gold price used in the cash flow model built from the PEA mine plan was US$1,850/oz. As of November 13, 2023, the consensus long-term forecast from eight recognized investment institutions was US$1,957.27.

TABLE 19-1 CONSENSUS GOLD PRICE FORECASTS

Survey Date: November 13, 2023	**Long-Term Gold Price (US$/oz)**					
	Dec-23 (nominal)	**Dec-24 (nominal)**	**2025**	**2026**	**2027**	**2028-2032 (nominal)**
Consensus (Mean)	1,919	1,960	1,927	1,868	1,858	1,957
High	2,050	2,200	2,225	2,300	2,400	2,500
Low	1,825	1,655	1,587	1,519	1,479	1,605
Standard Deviation	51	157	196	229	265	335

Survey Date: November 13, 2023	Long-Term Gold Price (US$/oz)					
	Dec-23 (nominal)	Dec-24 (nominal)	2025	2026	2027	2028-2032 (nominal)
Number of Forecasts	31	30	26	19	17	8
Société Générale	2,000	2,200	2,150			
ISGR	1,990	2,175	2,225	2,300	2,400	2,500
JP Morgan	1,920	2,175	na			
UBS	1,955	2,150	2,200	1,950		1,848
ANZ	1,939	2,130	na			
Moody’s Analytics	1,875	2,086	2,122	2,167	2,214	2,308
Capital Economics	1,910	2,085	2,050			
Commerzbank	1,900	2,100	na			
Goldman Sachs	2,050	na	na			
Morgan Stanley	2,000	1,950	1,713	1,650	1,650	1,625
Bank of China International	1,900	2,080	na			
Citigroup	1,980	2,010	1,875			
ING Bank	1,950	2,025	2,100			
TD Securities	1,935	1,975	1,938			
Econ Intelligence Unit	1,944	1,980	2,016	2,013	2,009	
BoA Securities	1,900	2,000	2,150	2,112	2,074	
Macquarie	1,950	1,950	1,875	1,800	1,850	1,882
RBC Capital Markets	1,890	2,010	1,975	1,900	1,800	
Commonwealth Bank	1,875	1,975	1,985	1,985	1,985	
Investec	1,928	1,945	1,963	1,875	1,775	1,703
Pezco Economics	1,936	1,916	1,901	1,877	1,852	2,187
Oxford Economics	1,915	1,908	1,932	1,944	1,947	
Banco de Credito del Peru	1,925	1,900	1,850			
Deutsche Bank	1,850	1,950	2,200	2,141	2,190	
Australia Dept of Industry	1,915	1,860	1,833			
Standard Chartered	1,860	1,880	1,921	1,893		
Bank Julius Baer	1,850	1,700	1,600	1,550	1,550	
BMO	1,850	1,700	1,675	1,615	1,630	
S&P Global Mkt Intel	1,914	1,660	1,601	1,557	1,542	
Euromonitor International	1,871	1,655	1,587	1,519	1,479	
Liberum Capital	1,825	1,673	1,663	1,647	1,631	1,605

Source: © Copyright Consensus Economics Inc., November 2023.

19.4 PRODUCT QUALITY

The product of the Eagle Mountain Project will be doré bars, produced in a small blast furnace in a gold room following CIL, stripping, and electrowinning.

The doré bars will vary in weight, gold percentage and quantity of impurities which may incur penalties from the refinery.

The mining plan and processing will be planned to achieve the refiner's specifications to minimize penalties for being out of spec or having excessive deleterious elements.

19.5 FOREIGN EXCHANGE RATE

As of November 20, 2023:

The exchange rate CAD 1.00: US$0.73.

The exchange rate GYD 208: US$1.00.

The exchange rate CAD 1.00: GYD 152.

19.6 RECENT DEMAND

As shown in Figure 19-1, demand has increased steadily from 2014 to 2023, with gold prices fluctuating mostly in the range of US$1,150 to US$1,400/oz of gold prior to 2019, and then moving into a range of between US$1,600 and US$2,050/oz between 2020 and today (2023).

FIGURE 19-1 10 YEAR GOLD PRICE IN US$/OZ

Source: goldprice.org.

20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 SUMMARY OF ENVIRONMENT WORK TO DATE

In 2013, Goldsource (Stronghold) began conducting Biodiversity Baseline Assessment and Water Quality Sampling surveys across the Eagle Mountain Gold Project. Environmental Management Consultants ("EMC") were hired to carry out these surveys. Another assessment was carried out in 2021 by EMC to update the data and ensure its accuracy due to the significant amount of time that has passed since the 2013 survey. Additional wet and dry season biodiversity surveys were completed, and the findings were reported in the November 2021 EMC report named "Consolidated Report Biodiversity Baseline Assessment Eagle Mountain, Region 8, Guyana".

As of the current date of this Technical Report, there are four assessments:

1. Biodiversity Baseline Assessment (2013).
2. Surface Water Quality Baseline Study (2013).
3. Draft of Environmental and Social Management Plan (2016).
4. Consolidated Report Biodiversity Baseline Assessment Eagle Mountain, Region 8, Guyana (2021) (summarized in Section 20.2).

These reports on the Project area provide an understanding of the local biodiversity environment (e.g., species abundance, cumulative frequency, trend analysis), and information for the de-risking of Project activities.

The studies will serve as the basis for developing other plans, such as biodiversity monitoring, closure, contingency, and emergency plans, and any future applications for operations. Biodiversity Baseline Assessment Studies data, conclusions, and subsequent monitoring will be utilized for the EIAS necessary for the Mining License permitting process.

Meteorological data collected is available in its raw form. Since May 7, 2021, the Project site has been digitally collecting data on a Davis 6357 Vantage Vue weather station.

20.1.1 HYDROLOGY

The Eagle Mountain Project is situated in a region of Guyana that experiences one significant wet season (April to July), one significant dry season (August to early October) with a smaller wet season between late November and early January, based on on-site weather recordings and observations. The months of May and June receive the highest rainfall, while August and September are usually the driest months.

The study area for which the baseline assessment was conducted is within the Project area. The study area is drained by two main water bodies, the Mahdia River and the Minnehaha Creek. The Mahdia River flows towards the north, while the Minnehaha Creek flows in a southerly direction. The Mahdia River drains most of the study area, while the Minnehaha Creek drains most of the Project's Mineral Resource area. The Mahdia River discharges into the Potaro River, while the Minnehaha Creek eventually discharges into the Konawaruk River.

Most of the streams that feed these water bodies are small, shallow, and sometimes seasonal. Some of the streams that flow into the Minnehaha Creek include Deer Creek, Culvert Creek, Bacchus Creek, and Baboon Creek, while streams flowing into the Mahdia River include Kettledrum Creek and Elephant Creek.

Several of the streams within the area, including the Mahdia River and the Minnehaha Creek, have been severely disturbed from previous and current mining activities (the latter, outside the EMPL). These activities have resulted in contamination, sedimentation, and diversion of streams. The streams in higher elevation areas are less disturbed.

20.1.2 2013 AND 2021 BIODIVERSITY BASELINE ASSESSMENTS

For the Biodiversity Baseline Assessment, EMC commissioned a multi-disciplinary team with diverse experience to conduct a biodiversity survey within the Project area (the western part of the EMPL, area that covers the April 2022 MRE and beyond). This was done in accordance with national and international regulations and guidelines which require an assessment of the baseline environmental conditions as well as the protection and conservation of biodiversity, including endangered species and sensitive ecosystems, and identification of legally protected areas. Since the Project area is relatively small the biodiversity surveys covered the entire area.

EMC surveyed plants and animals at selected sites and baseline sections throughout and across the project area aiming to identify any endangered, vulnerable, threatened, and rare species as defined by The International Union for the Conservation of Nature (IUCN) Red List of Threatened Species Version 2021-3.

Four biodiversity surveys were conducted, two in 2013 and two in 2021 for wet and dry seasons respectively to capture any seasonal variation in the presence and distribution of species.

Areas covered include assessment of the vegetation, the Lepidoptera (butterflies) and other invertebrates, assessment of the fish, fauna and associated water quality, amphibians and reptiles, mammals, and avifauna (birds). Survey results indicate:

- No endemic, rare and threatened plants or habitats were found to occur in the Project area. The forest is well-represented and in a pristine state as in many other parts of Guyana;
- Two species of frogs recorded from the study area are Threatened: The Kaei Rocket frogs (*Anomaloglossus kaiei*) and *Anomaloglossus praderioi,* both of which are listed by IUCN Red List as Endangered;
- The Yellow/red-footed Tortoise (*Chelonoidis denticulata*), categorized by IUCN as Vulnerable was noted;
- Endangered, Rare and Threatened mammals identified in the area are the Lowland Tapir (*Tapirus terrestris*), Guiana Spider-monkey (*Ateles paniscus*), Giant Anteater (*Myrmecophaga tridactyla*), and White-lipped Peccary (*Tayassu pecari*). The jaguar (*Panthera Onca*) is listed on the IUCN Red List as Near Threatened. The jaguar has a very large geographical range, throughout the tropical Americas into the USA in the north and Argentina in the south. It is classified as Near-Threatened due to a suspected 20-25% decline over the past three

generations (21 years) in areas of occupancy, extent of occurrence and habitat quality, along with actual or potential levels of exploitation; and

- Several birds recorded from the study area are listed on the IUCN Red List as Threatened: The Channel-billed Toucan (*Ramphastos vitellinus*), White-throated Toucan (*Ramphastos tucanus*), and Guianan Streaked Antwren (*Myrmotherula surinamensis*), are listed by the IUCN as Vulnerable.

Table 20-1 summarizes the baseline findings. The data will be used for the development of risk mitigation guidelines. Baseline findings are typical to areas developed for mining operations in similar forest areas of Guyana.

TABLE 20-1 SUMMARY OF THE BASELINE FINDINGS

Classification & IUCN Categories	Least Concern	Near Threatened	Vulnerable	Endangered	Critically Endangered
Flora (97 tree species and numerous plant species in the canopy, subcanopy and floor area identified)	Most identified species	None	None	None	None
Mammals (59 mammal species were recorded, including 24 species of bats, none endemic)	54 identified species	1 (Jaguar (*Panthera onca*))	4 (Lowland tapir, giant anteater, Guiana spider monkey, white-lipped peccary)	None	None
Birds (147 bird species identified during the wet season and 82 species during the dry season)	Most identified species	4 (Caica parrot, mealy parrot, blue-cheeked parrot, orange-breasted falcon	3 (Channel-billed toucan, white-throated toucan, Guianan streaked-antwren)	None	None
Amphibians (21 amphibian species identified during the wet season and 20 species in the dry season)	Most identified species	None	None	2 (Kaie rocket frog, *anomaloglossus praderioi*)	None
Reptiles (20 reptile species identified during the wet season and 25 species during the dry season).	Most identified species	None	1 (Yellow-footed tortoise)	None	None
Fish (24 fish species identified during the wet season and 27 species during the dry season)	All	None	None	None	None
Macro-invertebrates (60 butterfly species and 26 macro-invertebrate orders have been recorded at site)	All	None	None	None	None

20.1.3 SURFACE WATER SAMPLING (2013)

In addition to the Biodiversity Baseline Assessment, a surface water quality survey was also conducted in both wet and dry seasons, which included the streams within and around the project area. Streams include small creeks flowing into the Mahdia River and Minnehaha Creek. Sampling was conducted at various points along the Mahdia River and Minnehaha Creek. Streams impacted by previous and artisanal mining in the area, as well as unimpacted streams, were sampled to gain a thorough understanding of the region's water quality.

Surface water quality assessment was conducted in May and September 2013 where 12 sites were sampled, with one water sample collected from each location during both the wet and dry seasons. The collected samples were analyzed for several parameters that are typically used to determine the quality of stream water. Analyses were conducted in the field and at a laboratory.

The parameters analyzed in the fields were:

- Turbidity;
- Conductivity;
- PH;
- Total Dissolved Solids ("TDS");
- Dissolved Oxygen ("DO"); and
- Temperature.

Parameters analyzed at the laboratory were:

- Total Metals;
- Oil and Grease;
- Sulphates;
- Chemical Oxygen Demand ("COD"); and
- Total Suspended Solids ("TSS").

The analyses were done to provide background baseline information on the streams within the study area. However, a comparison was made with local and international applicable standards to better understand water quality. It should be noted that Guyana currently has yet to have a national standard for background water quality. During the wet and dry season analysis, most parameters fell within acceptable range, as shown in Table 20-2.

TABLE 20-2 RESULTS OF ANALYSIS IN WET AND DRY SEASON

Parameter	Wet Season	Dry Season
pH	• pH was within the acceptable range for all the areas sampled	• pH was within the acceptable range for all the areas sampled
Oil and Grease	• Only one sample was analyzed for oil and grease. This sample was collected downstream of active mining areas. No oil and grease were detected by the analysis	• A small amount of oil and grease was detected, though well within the acceptable limit

Parameter	Wet Season	Dry Season
Turbidity	• Turbidity levels in most of the streams were low, except in the Mahdia River below the mining operations where it was more than 1000 ntu	• Turbidity levels in all the streams were low. It should be noted that at the SW 9 location on the Mahdia River the level decreased from in excess of 1000 ntu during the wet season to only 11.7 during the dry season
TSS	• TSS was only detected in one of the samples, the same sample downstream of current mining operations. The level recorded at this location was very high	• TSS levels were very low in all of the streams
DO	• The dissolved oxygen content within the streams was within the acceptable range for all of the samples	• The dissolved oxygen content within the streams was within the acceptable range for all of the samples
TDS	• The TDS levels within the streams were within the acceptable range for all the samples	• The TDS levels within the streams were within the acceptable range for all of the samples
Conductivity	• Conductivity levels were within the acceptable range for all of the streams sampled	• Conductivity levels were within the acceptable range for all of the streams sampled since the recordings were below 200 µS/cm which is the limit indicator of pristine or background conditions
COD	• COD content was detected in only five of the samples analyzed. The levels recorded are well within the acceptable limit	• COD content was detected in only five of the samples analyzed. The levels recorded are well within the acceptable limit
Total Metals	• For Total Metals no copper was detected. The levels of zinc recorded were within the acceptable limits. Aluminum was detected in only four of the samples and the levels were acceptable. Iron was detected in all the samples with levels generally acceptable.	• For Total Metals copper was detected in only three of the samples and was within the acceptable limits. The levels of zinc recorded were within the acceptable limits. Iron was detected in all the samples with levels generally acceptable. Aluminum was detected in only six of the samples, and the levels were acceptable.

A baseline data on water quality prior to mining is recommended as it will be beneficial for monitoring impacts during mining. Once mining commences, the Company will implement a Water Quality Monitoring Program. The baseline data will be useful in comparing the water quality for impacts and potential remediation.

The water quality within the Project area is representative of water quality of similar environments in Guyana. Most of the streams exhibited characteristics of the natural environment. Only streams which have been directly affected by historical mining show elevated levels of contamination in the form of high sediment loads. From the two sampling exercises conducted, water quality shows that streams recover well and improve once mining has ceased in an area. Seasonal variation also seems to influence the water quality in the streams with parameters such as DO, conductivity and TDS, pH, turbidity, etc., fluctuating between the wet and dry seasons. Variations are mainly a result of the dilution from rainfall water and the flow rate of streams.

20.1.4 SOIL

The soils in the Project area belong to two groups - Kandiudults/Eutrochrepts and Udothents/Kanhapludults. These soils are typically deep, well drained and have low fertility and highly susceptible to erosion. The topsoil layer is usually quite thin - no more than half a metre in most places.

The subsurface layer of soil is known as saprolite. Saprolite is formed by the chemical weathering of the underlying bedrock, which decomposes in place while retaining the rock's original structure. The Eagle Mountain Mineral Resource area has been weathered to a depth of 10 to 40 metres from the surface, creating typical saprolite material, both mineralized and un-mineralized. The saprolite is composed of soft clay to sandy particles depending on the type of rock being weathered and the percentage of quartz veining present.

Gold mineralization within the saprolite at Eagle Mountain occurs as very fine disseminated gold grains in a clay-rich, weathered granitoid-hosted deformation zone.

20.2 POTENTIAL ENVIRONMENTAL IMPACTS

20.2.1 MINE EXPLORATION

This section outlines the potential environmental impacts of exploration activities (Table 20-3). The exploration stage has relatively low environmental impact. The main activities that have an impact during this phase are the clearing of vegetation to facilitate transect lines and the drilling of exploration holes. Both these activities have a low impact and can be managed effectively. Once exploration is successful, it is important to establish baseline data for the project's environmental impact. The GGMC requires exploration before mining on all scales because it allows for better placement of tailings, dumps and settling ponds; and reduces the area of vegetation that will need to be cleared for mining.

TABLE 20-3 POTENTIAL ENVIRONMENTAL IMPACTS OF MINE EXPLORATION

	Condition	**Possibles Mitigation Measures**
Land use	• Line cutting	• Lines are kept within specification and not extended beyond the area necessary for surveys.
	• Road/trail construction	• Adhere to regulations in relation to dust, water and noise pollution. Roads must be built in keeping with the requirements of the GGMC and EPA.
	• River landing construction	• Adhere to the GGMC and EPA regulations for water pollutions and river constructions.
	• Drilling programs	• Refill bore holes after use, drill only necessary holes and collect and properly dispose of waste materials from drilling.
	• Camp construction	• Keep construction to the minimum area necessary, adhere to the regulations set by the GGMC and EPA.
	• Fuel/lubricant storage	• Adhere to the regulations set by the Guyana Energy Agency (GEA), EPA and GGMC.

	Condition	Possibles Mitigation Measures
Water quality	• Tailings from drilling/ excavation operations	• Tailings disposal according to regulations set out by the EPA in relation to turbidity levels of creeks and rivers.
	• Manage tailings from test washing	• Manage tailings disposal according to regulations set out by the EPA in relation to turbidity levels for creeks and rivers.
Biodiversity	• Animals attracted to waste and garbage	• Properly dispose of garbage and waste.
	• Nesting areas for birds/ animals disturbed	• Work with biodiversity experts to identify and avoid critical nesting areas.
	• Animals affected by noise from drills and other activity	• Follow the EPA guidelines for noise pollution.
	• Animals hunted to supply exploration camp with meat	• Maintain good supply chain to reduce exploration camp dependence on wild game.

20.2.2 MINE DEVELOPMENT

This section outlines the potential environmental impacts of mine development and the necessary mitigation actions (Table 20-4). The location of the mine site will also determine the type and level of environmental impact.

TABLE 20-4 POTENTIAL ENVIRONMENTAL IMPACTS OF MINE DEVELOPMENT

Type	Condition	Possibles Mitigation Measures
Land Use	• Construction of access roads, power lines and airstrips; habitat disruption and additional/uncontrolled access to mine site. • Construction of buildings, workshops, stores, processing plant and permanent camps. • Large excavations, bulk sampling and extensive drilling. • Fuel and chemical storage. • Soil Erosion due to land clearing. • Extensive land disturbance from placer mines and hydraulic operations.	• Keep road construction to minimum requirements, monitor road use and minimise access by installing security gates. • Use local design expertise to advise on construction. Minimize land use. • Use planning to minimise land disturbance. • Follow the EPA regulations and GGMC guidelines established for fuel and chemical storage. • Contingency and emergency response plan. • Create water channels to control runoff. • Manage the number of dredges allowed to mine in a particular area.
Air Quality	• Dust from roads and mining activities.	• Water roads to minimise dust emissions. • Reduce vehicle speeds on dusty roads.

Type	Condition	Possibles Mitigation Measures
Water Quality	• Chemicals in water discharge, tailings discharged in rivers, erosion, rerouting of water courses, and mercury in fish.	• Follow approved EIA requirements. • Follow limits of turbidity discharge and tailings discharge. • Maintain settling and tailings ponds within required specifications. • Dispose of effluent in keeping with regulations. • Dispose of chemical, petroleum products and poisonous substances in keeping with established code of practice and regulations.
Biodiversity	• Animals attracted to garbage, food and waste. • Overhunting of animal and overfishing to supply camps. • Biodiversity in area affected by increased human activity, increased human / animal conflicts. • Valuable / endangered plant/animal species destroyed during mine construction.	• Restore water courses in keeping with regulations. • Use an approved retort and properly handle mercury. • Use effective waste management programs and dispose of garbage properly. • Work with local communities to establish limits for supply. • Educate employees to understand their environmental responsibility for wildlife. • Use EIA to understand biodiversity of the area. • Use EIA to understand biodiversity of the area. • Work with local conservation organisations to manage impact.

20.2.3 MINE OPERATION

Table 20-5 presents the potential environmental impacts associated with mining operations. The extent of these impacts will depend on the type and location of the mine.

TABLE 20-5 POTENTIAL ENVIRONMENTAL IMPACTS OF MINE OPERATIONS

Type	Condition	Possibles Mitigation Measures
Land Use	• Land disturbance from mining activities, excavations in the mine and waste rock storage. • Tailings waste, tailings dams and mining pits.	• Minimize the mining footprint by using good planning and community input. • Design and operate within the specifications established by the GGMC. • Use planning to minimize land disturbance.
	• Soil Erosion due to land clearing and hydraulic mining.	• Create water channels to control runoff.
	• Extensive land disturbance from placer mines and hydraulic operations.	• Manage the number of dredges allowed to mine in a particular area.

Type	Condition	Possibles Mitigation Measures
Air Quality	• Dust from roads and mining activities.	• Water roads to minimize dust emissions. • Reduce vehicle speeds on dusty roads. • Follow approved EIA requirements.
Water Quality	• Chemicals in water discharge, tailings discharged in rivers, erosion, rerouting of water courses, and mercury in fish.	• Follow limits of turbidity discharge and tailings discharge. • Maintain settling and tailings ponds within required specifications. • Dispose of effluent in keeping with regulations. • Dispose of chemical, petroleum products and poisonous substances in keeping with established code of practice and regulations. • Restore water courses in keeping with regulations. • Use an approved retort and properly handle mercury.
Biodiversity	• Animals attracted to garbage, food and waste. • Overhunting of animals and overfishing to supply camps. • Biodiversity in area affected by increased human activity, increased human animal conflicts. • Valuable/ endangered plant/animal species destroyed during mine construction.	• Use effective waste management programs and dispose of garbage properly. • Work with local communities to establish limits for supply. • Reduce dependence on local game for food supply. • Educate employees to understand their environmental responsibility for wildlife. • Use EIA to understand biodiversity of the area. • Use EIA to understand biodiversity of the area. Work with local conservation organizations to manage impact.

Monitoring is a crucial aspect of the mining operation, especially during this stage. It helps to measure and evaluate the impacts of the operation in comparison to the baseline conditions collected during the exploration stage. The mining companies must continuously monitor their operations to ensure that they comply with the regulations and identify any changes that occur. Once the changes are identified, the Company must take the necessary steps to reduce the impact and prevent any long-term environmental damage, in accordance with its environmental plan. In some cases, the GGMC may order the Company to halt mining until the problem has been addressed and the impact has been corrected. Some changes may be noticeable immediately, while others may take a longer time to manifest in the environment. Throughout the operation, the Company and the GGMC will monitor several aspects, including:

- Wastewater/effluent discharge;
- Wildlife;
- Air quality;
- Water quality; and
- Fish and fish habitat.

20.2.4 MINE CLOSURE

It is important to identify the potential environmental impacts that a community may experience during mine closure. The closure of a mine marks the end of the mining cycle and the impact created at this stage is relatively low. Proper planning for the closure of the mine can significantly reduce the impact at the end of the operation.

The main impacts to consider during mine closure are presented in Table 20-6.

TABLE 20-6 POTENTIAL ENVIRONMENTAL IMPACTS OF MINE CLOSURE

Type	Condition	Possibles Mitigation Measures
Land use	• Long term stability of waste rock piles and mining slopes. Mining pits left open. • Tailings containment structures.	• Needs to be monitored until piles are stable. • Backfill mining pits. • Monitor and maintain structures.
Water quality	• Tailings discharged into rivers.	• Treat tailings to reduce turbidity and chemical toxicity. • Monitor tailings discharge.

After a mine is closed, it is important to have a monitoring program in place to evaluate the effectiveness of the reclamation and mitigation measures. This is typically carried out by both the GGMC and the mining company to ensure that the closure plan and regulations are being followed. In some cases, a committee consisting of the Government, the mining company, and local communities may be formed to oversee the progress.

20.3 POSSIBLE SOCIAL AND COMMUNITY IMPACTS

The communities affected or potentially benefitting from the Eagle Mountain gold mining and processing operations are primarily the Mahdia Town & Campbelltown communities, and also the general Region 8 (Potaro-Siparuni) communities, and potentially the wider Linden, Bartica, and Georgetown communities in terms of potential mine employment.

The population of Mahdia consists of four principal groups. The first group is the Patamonas, an Indigenous Amerindian tribe, who have lived in the area before the town was established, and are involved in farming, hunting and mining. The second group consists of residents from the coastlands of Guyana who migrated to the hinterland to seek employment mainly mining. The third group, called Islanders, are immigrants from the Caribbean Islands, particularly, St Lucia and Dominica. Their offspring are Guyanese who have been fully acculturated as locals. The older migrants focus on farming and burning charcoal while the younger generation is fully involved in the local economy including mining by land dredges. The fourth group consists of a mixed population of the historic peoples.

Mahdia town has been producing gold for over 100 years. Due to the town's reliance on farming and mining as the main economic activities, the town faces various developmental challenges. These include areas such as power generation, waste disposal and clean water supply. The most significant challenge is the inadequate water supply system in the Mahdia district.

Additionally, there is a need to implement a proper solid waste disposal plan for residents and businesses as there is currently no garbage disposal system in place.

No community issues have been raised to date. Goldsource anticipates increased engagement with local communities, regulators, and the EPA in the future, as the Company initiates permitting activities, which may include an EIAS and/or an EMP.

20.4 ENVIRONMENTAL COMMITMENT AND RESPONSIBILITY

The Eagle Mountain Gold Project will be classified as a Large-scale Mining Project and will operate as such. Surface disturbances have and will be minimized, and best management practices will be used to minimize lasting Project impact.

Engagement with local and regional stakeholders may be held. Engagement efforts could include public information sessions and other forms of communications to ensure stakeholders are aware of Gouldsource's plans and activities, and concerns can be heard and resolved.

To demonstrate its commitment to ensure environmental protection and sustainability, the Company has prepared different environmental and social assessments, referenced in Section 20.1.

20.5 ENVIRONMENTAL ASSESSMENT AND PERMITTING

The Eagle Mountain Property possesses various permits and licenses listed in Table 20-7.
The Licenses are renewable.

TABLE 20-7 MAIN PERMITS

License Name/Number	Ownership/ Agreement	Expiry Date
Eagle Mountain Prospecting License (EMPL) PL# 03/2019	Stronghold Guyana Inc. (100% Guyanese subsidiary of Goldsource Mines Inc)	Oct 18, 2024
Kilroy Mining Medium Scale Mining Permit (MSMP) #K-60/MP/000/2014	Kilroy Mining Inc. (100%). Under agreement with Stronghold Guyana Inc. for 100% control subject to 2% Royalty	July 17, 2024
HO#21/213/1995, Small Scale Mining Claim, known as Ann SSMC	Mark Crawford (Guyanese). Under Option and Purchase Agreement, dated Oct 20, 2020, for 100%.	On Aug 8, 2022, the terms were amended to extend the option period for two additional years, expiring on Oct 20, 2024

The environmental permitting requirements for a Large-Scale License are described in Table 20-8. An EIAS is required for most the large-scale mining operations which must be approved by the Environmental Protection Agency ("EPA") of Guyana. Only after the EPA has issued an Environmental Permit can a Mining License be issued for a large-scale operation.

TABLE 20-8 ENVIRONMENTAL PERMITTING REQUIREMENTS

License or Permit Type	Phase	Main Activities that Should be Performed
Large Scale Prospecting License- Large Scale Mining License	Mine exploration	If the exploration activities have shown a positive result for mineral deposits. Operators can apply for a mining License. To apply for a mining License, the operator will have to: • Submit an environmental plan. • Collect baseline environmental data that includes the collecting of water, plant and soil samples which will be used as a reference for the EIA.
	Mine Development	• Apply for a mining license. • Environmental management plan. • Reclamation and closure plan. • A Contingency and Emergency Response Plan • Environmental and Social Impact Assessment Plan. • Submit an environmental impact statement to grant a mining license, doing some activities such as: o Sampling of the water quality, an analysis of the biodiversity of the mine area. o Hosting of public scoping meetings and the determination of the social and environmental impact the mine operation will have. • Develop feasibility studies, including: o Water and waste management planning. o Mine closure and reclamation plan. o Environmental effect monitoring program. o Use of Mercury and disposal of its effluent.
	Mine Operation	Once a mining company obtains a mining license, it becomes responsible for all mining activities, including extraction and environmental issues. Monitoring is a crucial aspect of this responsibility.
	Mine Closure	Strict application of the mine closure and reclamation plan with the main purpose must be restored to a usable state which can see the regeneration of vegetation and become compatible with human activities and a healthy environment. Monitoring is important in this stage.

Currently, there is no information available regarding any correspondence, complaints (whether formal or informal), lawsuits, notices, orders or demands that have been received by or served upon the Companies by relevant environmental authorities, protective agencies or third parties in relation to the Mining Properties, including the Lands that are held by virtue of the mining permit and claim licenses.

Furthermore, there have been no actions or claims made against the Companies or relating to the mining properties, including the Lands held by virtue of the Mining Permit and Claim Licenses.

Regarding the EMPL, it should be noted that no environmental impact studies, EMPs or any similar reports/studies have been filed with any governmental authorities for the mineral property. However, an EIA must be completed before the mining license is granted. The Mining License would cover the Kilroy Mining Permit, all or part of the EMPL and any relevant small-scale claims.

20.6 TAILINGS MANAGEMENT

There will be two traditional wet TSFs located within the EMPL. One of the TSFs has a smaller footprint and will be used at the start of the mine life, while the larger one will be used once the initial smaller TSF reaches its design capacity. Both TSFs are less than 1.5 kilometres from the processing plant. It is presumed that both TSFs will be lined using geosynthetic liners or compacted clay to mitigate the likelihood of seepage from the TSFs to the underlying foundation (as required by the EPA and GGMC). Monitoring wells will be located downstream of the TSFs and monitored.

20.7 WATER MANAGEMENT

All contact water will be managed using ditches and topography contouring in addition to sedimentation and containment ponds to ensure that all contact water that reports to nature outside of the EMPL will meet all regulatory requirements.

To limit the amount of water in sedimentation and containment ponds, non-contact water will be diverted away from mining and disturbed areas.

Runoff and seepage from mine facilities will report to containment ponds, with excess pumped or gravity fed to the water treatment plant.

Treated water will report to a polishing pond before discharging to the environment.

Contact and non-contact water will be kept separate as feasible.

Both containment ponds and sedimentation ponds will be lined.

20.8 MINE CLOSURE AND RECLAMATION

An environmental management plan and a reclamation and closure plan are important steps in mine development that must be developed and approved by the EPA and GGMC before a mining license can be issued. Best management practices should be conducted on site to minimize surface impact for operations closure.

The conceptual mine closure and reclamation plans contemplate the following components as appropriate and required:

Planning and Design:

- Develop a comprehensive closure plan early in the mining project;
- Include stakeholders in the planning process, such as local communities, regulatory authorities, and environmental organizations; and
- Design the closure and rehabilitation strategies based on the mine’s specific characteristics and potential environmental impacts.

Pre-Closure Activities:

- Implement pre-closure activities before mining operations cease, such as removing expendable infrastructure, securing hazardous materials, and initiating environmental monitoring programs; and

- Acquiring baseline data before closure to support the end land use plan objectives.

Waste, Tails, and Waste Dump Management:

- Manage and treat waste materials in accordance with environmental regulations;
- Implement proper disposal methods for hazardous waste and rehabilitation of waste storage areas;
- Removal of any potentially hazardous materials from site for proper disposal per regulations;
- Resloping of dumps to geomorphic contouring so as to blend into natural terrain;
- Application of organic stockpiled soil to accelerate natural revegetation via self seeding from the surrounding jungle;
- Planning for geotechnical, chemical stability, restoration of biodiversity elements.
- Backfilling pits where prudent and desired;
- Upgrading any roads for future public use after mine closure if /as appropriate; and
- When appropriate, resloping of tailings dam structures to geomorphic contouring so as to blend into natural terrain and revegetate with local species.

Water Management:

- Implement water management strategies to control and treat water discharge from the mine site; and
- Establish water monitoring programs to ensure compliance with water quality standards.

Vegetation and Soil Management:

- Implement measures to protect and stabilize soil; and
- Revegetate disturbed areas using native plants to restore ecosystems and prevent soil erosion.

Infrastructure Removal and Decommissioning:

- Decommission and remove processing plants, facilities, and other infrastructure;
- Where possible removal of infrastructure by sale of any usable materials to scrap recyclers;
- Remediate and rehabilitate areas impacted by infrastructure; and
- Remove all hazardous or potentially hazardous materials from site.

Monitoring and Contingency Planning:

- Establish a monitoring program to track environmental parameters over time; and
- Develop contingency plans to address unforeseen issues and adapt rehabilitation efforts accordingly.

Community Engagement:

- Engage with local communities throughout the closure process, providing information and involving them in decision-making where appropriate; and
- Address social and economic aspects, such as job retraining and alternative livelihoods for affected communities.

Closure Certification:

- Demonstrate compliance with closure and rehabilitation plans and regulatory requirements; and
- Obtain closure certification from relevant authorities once all activities are completed.

Post-Closure Monitoring:

- Continue monitoring the site post-closure to ensure the effectiveness of rehabilitation efforts and address any emerging issues; and
- Continue monitoring until indicator measurements stabilize at levels acceptable by regulations. Implement adaptive management strategies if needed.

21. CAPITAL AND OPERATING COSTS

21.1 INTRODUCTION

The capital and operating costs in this Technical Report are based on the design criteria and engineering work performed by the individual QPs under their areas of responsibility and expertise.

Sources used for the estimates include historical data from the pilot test, benchmark costs at similar operations in Guyana, West Africa, and abroad, CostMine database where applicable, empirical factors and first principle calculations where and as appropriate.

The PEA involves the development of an open pit mine consisting of several pits located on the side of a hill and in the valley below, the construction of on-site processing facilities, waste dumps, tailings storage facilities, haul roads up the side of the hill, some site security, offices, and all infrastructure required to support those activities.

The main components that form the basis of this study include:

- Several open pits;
- Mine waste rock storage areas and stockpiles;
- ROM stockpiles;
- A saprolite processing facility (Carbon in Pulp);
- A waste rock/tailings co-disposal facility;
- Power generation and distribution;
- Main road access and site access roads;
- Site buildings and support infrastructure;
- Water supply and distribution systems;
- Wastewater impoundment and treatment facilities;
- Explosives and cap storage facilities; and
- Mine closure and reclamation.

Gold doré bars produced on site will be transported to an offsite by plane to Georgetown and to the Guyana Gold Board.

The cost estimates were prepared by ERM for the open pit and site infrastructure capital and operating costs, the indirect capital costs and sustaining capital costs, and mine closure capital costs; and by Soutex for the Phase 1 and Phase 2 processing plant capital and operating costs, as well as contingencies.

21.2 CAPITAL COSTS

The total estimated capital costs for the Project (including all pre-production CAPEX, Phase 1 CAPEX, Phase 2 CAPEX, and sustaining CAPEX) amounts to a total of US$295.6 million over the 15-year mine life (Table 21-1).

The pre-production estimated capital cost for Phase 1 of the Project of US$95.6 million includes indirect costs, owner's costs, and working cash flow.

The estimated capital cost for Phase 2 of the Project of US$46.6 million includes indirect costs, owner's costs, and working cash flow.

The total amount of sustaining capital expended over the LOM amounts to US$133.4 million.

The total estimated CAPEX cost for closure reclamation is US$20 million at the end of the mine life.

TABLE 21-1 CAPITAL COST SUMMARY

CAPEX Description	Cost (US$M)
Preproduction Phase 1 - Direct Costs	65.0
Phase 1 – Indirects, Owners Costs, Contingency	30.5
Phase 2 - Direct Costs	32.3
Phase 2 – Indirects, Owners Costs, Contingency	14.3
Sustaining Costs	133.4
Reclamation	20.0
Total LOM CAPEX	**295.6**

21.2.1 BASIS OF ESTIMATE

All capital cost estimates are based on Q4 2023 American Dollars (US$) and where applicable a US Dollar to Guyanese Dollar conversion of US$1.00 = 210 GYD where applicable.

21.2.1.1 MINING AND NON-PROCESSING CAPITAL COSTS

The capital cost estimates for the non-process plant related portions of the Eagle Mountain Project have been prepared to an accuracy of +30%/-20%.

The basis of the estimates for the roads and the TSFs are based on preliminary engineering work that bring the estimates at or near to the requirements for an American Association of Cost Engineers ("AACE") Class 3 Estimate.

Other direct and indirect capital costs are based on benchmarking of South American and West African open pit saprolite projects (or similar), including capital intensity per tonne throughput.

21.2.1.2 PROCESSING PLANT CAPITAL COSTS

The capital cost estimates for the processing plant were carried out and reported by Soutex, independently of other CAPEX estimation work performed by ERM.

The cost estimates for aspects related to the processing plant have been prepared to an accuracy of +/-35% for capital costs (+/-20% for operating costs).

The main engineering deliverables on which the estimates are based are:

- Process flowsheet;
- Process design criteria;
- Mass and water balances;
- Process plant layout and general arrangement;
- Request for proposal (RFQ) and bid analysis for SAG mill, Ball mill and key pieces of equipment; and
- Equipment list.

The capex estimates are based primarily on equipment prices obtained from recent projects for similar ore types and locations. Equipment-specific RFQs were also submitted, and prices received are part of the evaluation.

Direct costs related to construction and installation are factored in the equipment cost.

Indirect costs are mostly benchmarked unless otherwise specified in the following sections.

The capital costs of the TSF are excluded from the process plant cost evaluation. However, the tailings pumping system, as well as the process water reclaim system, are included in the process equipment list (this excludes the pipelines exiting the concentrator and towards the TSF).

21.2.2 PRE-PRODUCTION PERIOD CAPITAL COST SUMMARY

Total pre-production capital costs are estimated at US$95.6 million and summarized in Table 21-2. This includes capitalized operating costs incurred before the open pit mine moves into the production phase.

TABLE 21-2 PRE-PRODUCTION CAPITAL COSTS

Cost Center	Description	Cost (US$M)
Direct CAPEX Costs (Phase 1)		
1000	Open Pit Mining	4.5
3000	Mineral Processing	39.0
4000	Power, Electrical and Instrumentation	2.9
5000	Site Infrastructure and Support Services, incl. Roads	8.7
6000	Water Management Systems	2.1
7000	Initial Tailings and Mine Waste Management Facilities	7.8
Total Direct CAPEX Costs		**65.0**

Cost Center	Description	Cost (US$M)
Owner and Indirect CAPEX Cost Summary		
	Working Capital	3.8
9000	Indirect and Owner Costs	14.3
9600	Contingency (15%)	12.5
Indirect, Owners Cost, Working Capital, and Contingency		30.5
Total Pre-Production CAPEX Costs		**95.6**

21.2.3 PHASE 2 CAPITAL COST SUMMARY

The capital costs associated with the startup of Phase 2 include US$32.3 million of direct costs, US$8.5 million of owner's and indirect costs, and US$5.8 million for contingency as shown in Table 21-3.

TABLE 21-3 PHASE 2 CAPITAL COSTS

Cost Center	Description	Cost (US$M)
Direct CAPEX Costs (Phase 1)		
1000	Open Pit Mining	0.0
3000	Mineral Processing	16.2
4000	Power, Electrical and Instrumentation	3.0
5000	Site Infrastructure and Support Services, incl. Roads	12.6
6000	Water Management Systems	0.3
7000	Tailings and Mine Waste Management Facilities	0.3
Total Direct CAPEX Costs		**32.3**
Owner and Indirect CAPEX Cost Summary		
	Owners Costs	1.5
9000	Indirect Costs & Working Capital	7.0
9600	Contingency (15%)	5.8
Indirect, Owners Cost, Working Capital, and Contingency		14.3
Total Phase 2 CAPEX Costs		**46.6**

21.2.4 SUSTAINING CAPITAL COST SUMMARY

Total sustaining capital costs incurred over the production phase of the mine is estimated at US$133.4 million as summarized in Table 21-4. Just over half of the sustaining capital is allocated to the construction of the tailings storage facility, roads, and water management structures, and the maintenance of waste dumps.

TABLE 21-4 TOTAL SUSTAINING CAPITAL COSTS

Cost Center	Description	Cost (US$M)
Direct Sustaining Capital Costs		
1000	Open Pit Mining	20.0
3000	Mineral Processing	23.8
4000	Power, Electrical and Instrumentation	12.5
5000	Site Infrastructure and Support Services, incl. Roads	7.5
6000	Water Management Systems	8.0
7000	Tailings and Mine Waste Management Facilities	54.9
8000	Ongoing Reclamation	0.8
Total Direct		**127.4**
9000	Indirect and Owner Costs	3.0
9600	Contingency	3.0
Total		**133.4**

21.2.5 OPEN PIT MINE CAPITAL COSTS

Capital costs for the open pit mine over the pre-production period are estimated to be US$4.5 million, with an additional US$20 million in sustaining capital costs over the LOM. Refer to Table 21-5.

TABLE 21-5 BREAKDOWN OF OPEN PIT MINING CAPITAL COSTS

Description	Pre-Production (US$ M)	Sustaining (US$ M)	Total (US$ M)
Support Mobile Equipment	3.0	5.0	8.0
Explosives Storage	0.8	0.9	1.7
Fixed Equipment	0.8	4.1	4.8
Capital Replacements	0	10.0	10.0
Total	**4.5**	**20.0**	**24.5**

21.2.6 MINERAL PROCESSING CAPITAL COSTS

The pre-production capital costs for the Phase 1 Processing Plant are estimated at US$56.6 million and are summarized in Table 21-6. The pre-production capital costs for the Phase 2 Processing Plant are estimated at US$44.6 million and summarized in Table 21-7.

TABLE 21-6 PRE-PRODUCTION CAPITAL COST ESTIMATE FOR PROCESS PLANT – PHASE 1

Plant Component	Cost (US$M)
Equipment	8.5
Process Piping and Valves	1.9
Electrical	3.4
Instrumentation	0.9
Process Buildings (structure, tankage, civil)	11.5
General Earthworks (including ROM Pad, site improv.))	4.7
Plant Associated Facilities	1.7
Installation (incl. Mobilization)	6.4
Total Direct Costs	**39.0**
Commissioning /Critical Spares	0.7
Transport	1.0
Vendor Services	0.4
Engineering	1.5
Procurement & Construction Management	2.5
Plant Commissioning (Doc. Training and start-up to nameplate)	1.2
First Fills - 3 months consumables	1.9
2 years operational spares (without mill liners)	1.0
Total Indirect Costs	**10.2**
Contingency (15%)	7.4
Total Plant Pre-Production CAPEX	**56.6**

TABLE 21-7 CAPITAL COST ESTIMATE FOR PROCESS PLANT – PHASE 2

Plant Component	Cost (US$M)
Equipment	7.6
Process Piping and Valves	1.7
Electrical	3.0
Instrumentation	0.8
Process Buildings (structure, tankage, civil)	8.4
General Earthworks (including ROM Pad, site improv.))	4.2
Plant Associated Facilities	0.4
Installation (incl. Mobilization)	5.7

Plant Component	Cost (US$M)
Total Direct Costs	**31.8**
Commissioning /Critical Spares	0.5
Transport	1.0
Vendor Services	0.4
Engineering	1.0
Procurement & Construction Management	2.0
Plant Commissioning (Doc. Training and start-up to nameplate)	0.5
First Fills - 3 months consumables	0.9
2 years operational spares (without mill liners)	0.7
Total Indirect Costs	**7.0**
Contingency (15%)	5.8
Total Plant Pre-Production Capex	**44.6**

21.2.7 POWER, ELECTRICAL, AND INSTRUMENTATION CAPITAL COSTS

Capital costs for on-site power, electrical distribution and instrumentation incurred during the pre-production period were estimated to be US$6.3 million whereas the power supplier will install the generators and supporting systems and infrastructure free of cost. All costs are supported by a third-party power provider in Guyana.

The capital cost estimate includes the purchasing of equipment and the construction of the main power line to site as summarized in Table 21-8.

TABLE 21-8 SUMMARY OF CAPITAL COSTS FOR POWER, ELECTRICAL, AND INSTRUMENTATION

Description	Pre-Production (US$M)	Sustaining (US$M)	Total (US$M)
Power Infrastructure	2.9	5.9	8.8
Instrument, Distribution, Foundations	3.4	6.6	10.0
Total	**6.3**	**12.5**	**18.8**

21.2.8 SITE INFRASTRUCTURE AND SUPPORT SERVICES CAPITAL COSTS

Capital costs for site infrastructure and support services incurred during the pre-production period were estimated to be US$20.9 million.

The capital cost estimate includes mobile and fixed equipment required for site support services, communications equipment and the construction of the site support buildings as summarized in Table 21-9.

TABLE 21-9 SUMMARY OF CAPITAL COSTS FOR SITE INFRASTRUCTURE AND SUPPORT SERVICES

Description	Pre-Production (US$M)	Sustaining (US$M)	Total (US$M)
Aux. Mobile Equipment	3.0	5.0	8.0
Fixed Equipment	0.8	2.0	2.8
Site Buildings	11.5	8.4	19.9
Camp	2.0	3.75	5.8
Roads	3.4	3.0	6.4
Site Communications	0.3	0.75	1.0
Total	**20.9**	**22.9**	**43.8**

21.2.9 WATER MANAGEMENT SYSTEMS CAPITAL COSTS

Capital costs for site water management systems incurred during the pre-production period were estimated at US$2.1 million and the sustaining capital costs over the remainder of the mine life were estimated to be US$8.0 million. The capital cost estimate includes the construction of a water treatment plant. Refer to Table 21-10.

TABLE 21-10 SUMMARY OF CAPITAL COSTS FOR WATER TREATMENT PLANT AND WATER MANAGEMENT

Description	Pre-Production (US$M)	Sustaining (US$M)	Total (US$M)
Water Treatment Plant	1.0	3.0	4.0
Sed Ponds, Ditches, Culvert	1.1	3.0	4.1
Pond. Ditch and Culvert Maintenance	0.0	2.0	2.0
Total	**2.1**	**8.0**	**10.1**

21.2.10 TAILINGS STORAGE FACILITIES CAPITAL COSTS

Capital costs for the TSFs incurred during the pre-production period were estimated to be US$7.0 million. Sustaining capital costs for the TSF are estimated at US$51.9 million. Refer to Table 21-11.

The pre-production CAPEX is mainly for the construction of an initial TSF that is in a pre-existing natural basin that has enough capacity for one to two years of tailings and requires very minimal construction work. The sustaining cost estimate of US$51.9 million accounts for the construction of a much larger conceptual TSF to contain tailings for the balance of the LOM. This estimate is preliminary and potentially conservative on the basis that alternative locations within the EMPL may provide more favorable (i.e., lower cost) conditions for tailings deposition. Costs include the liners.

TABLE 21-11 SUMMARY OF CAPITAL COSTS FOR TAILINGS STORAGE FACILITIES

Description	Pre-Production (US$M)	Sustaining (US$M)	Total (US$M)
Tailings Storage Facilities – Dams (incl. Liner)	5.8	48.6	54.4
Pumps, Pipelines, Valves	1.2	3.3	4.5
Total	**7.0**	**51.9**	**58.9**

21.2.11 MINE WASTE DUMP CAPITAL COSTS

Capital costs for the mine waste dumps during the pre-production period were estimated to be US$1.1 million while sustaining capital costs were estimated at US$4.0 million (Table 21-12).

TABLE 21-12 SUMMARY OF CAPITAL COSTS FOR THE MINE WASTE MANAGEMENT FACILITIES

Description	Pre-Production (US$M)	Sustaining (US$M)	Total (US$M)
Mine Waste Facilities	1.1	4.0	5.1
Total	**1.1**	**4.0**	**5.1**

21.2.12 INDIRECT AND OWNER’S COSTS

Owner’s costs incurred during the pre-production period consist mainly of general and administration costs, and includes labor, material and consumables costs for work performed during the pre-production period that would otherwise be categorized as operating costs when the project enters the production phase. Total indirect and owner’s costs including working capital and contingency incurred during the pre-production phase were estimated at US$30.5 million.

Summary of indirect and owner’s costs are summarized in Table 21-13.

TABLE 21-13 SUMMARY OF INDIRECT AND OWNER’S COST

Description	Pre-Production (US$M)	Sustaining (US$M)	Total (US$M)
Indirect Plant Costs	10.2	7.0	17.2
Other Indirect Costs	2.2	0	2.2
Owners Costs	1.9	1.5	3.4
Working Capital	3.8	0	3.8
Contingency	12.5	8.8	21.3
Total Indirect and Owner Costs	**30.5**	**17.3**	**47.8**

Indirect and owner's costs were estimated to be $14.4 million during the pre-production period, while working capital was estimated at US$3.8 million.

Items covered in this category include external services such as engineering, environmental, procurement and construction management, freight, commissioning/startup, and spare parts.

21.2.13 CONTINGENCY COSTS

Contingency costs were factored for capital equipment, structures and goods purchased under each cost center. A total of US$12.5 million of contingency was estimated for the pre-production period, including US$7.4 million related to plant costs and US$5.1 million allocated for mining operations and infrastructure. Phase 2 of the plant has a US$5.8 million contingency, and an additional general contingency of US$3.0 million was allocated over the LOM. Refer to Table 21-2 and Table 21-13.

21.2.14 MINE REHABILITATION BOND AND CLOSURE COSTS

Permanent storage of geochemically inert waste material produced by open pit mining activities and the tailings material produced by the CIL process will be reclaimed at the end of the mine life with an estimated cost of US$20 million assumed to cover removal of structures, re-sloping of dumps, revegetation of tailings dams and dumps and any other disturbed areas.

Since the operation occurs within an area predominated by dense jungle, revegetation occurs rapidly by self-seeding and natural forest growth.

21.2.15 WORKING CAPITAL

The working capital required during the pre-production production was assumed to be equivalent to US$3.8 million, which is the equivalent of G&A required for one year of operation exclusive of the camp costs.

21.2.16 EXCLUSIONS

Costs associated with the following list of items are not included in the capital cost estimates:

- Federal and provincial taxes;
- Force majeure, labor disputes or major strikes;
- Contaminated soil and/or hazardous waste excavation, treatment, disposal or removal;
- Significant variations in assumed hourly rates or skill levels of labor cost inputs;
- Significant changes in assumed foreign currency exchange rates;
- Pre-feasibility, definitive feasibility, or value engineering studies; and
- Capitalized interest payments or financing costs.

21.3 OPERATING COSTS

The operating cost summary is presented in Table 21-14. The total of all operating costs over the LOM are estimated at US$786 million or US$28.88/t processed.

TABLE 21-14 UNIT OPERATING COST SUMMARY

Description	Total Cost (US$M)	Unit Cost (US$)	Unit
Mining	202	2.40	US$/t mined
		7.40	US$/t processed
Processing	448	16.47	US$/t processed
Rehandle	4	0.13	US$/t processed
G&A	123	4.50	US$/t processed
Other	8	0.28	US$/t processed
Rent	1	0.03	US$/t processed
Mobilization	2	0.07	US$/t processed
Total	**786**	**28.88**	**US$/t processed**

21.3.1 BASIS OF ESTIMATE

The mining and processing costs refer to benchmarks from technical reports from projects and operating mines in South America, West Africa, and Mexico, preferentially for project where there is open pit saprolite and fresh rock cost references for CAPEX and OPEX.

The operating cost estimate is based on the total amount of labor, materials and consumables that will be required to fully execute the mining and processing plans as described in the previous sections of this Technical Report.

The total operating costs incurred over the LOM are based on the operating costs of the two phases. In Phase 1, where only saprolite is processed we assume there is sufficient saprolite mill feed available from various pits to begin processing plant operations in Year 1 through until midway through Year 5.

The unit operating costs for processing were estimated by Soutex for each rock type and applied to the overall LOM project schedule, which includes the processing of 12.5 Mt of saprolite mill feed and 14.8 Mt of transition and fresh rock mill feed.

The unit operating costs for mining Saprolite and Fresh (or transition) rock were estimated by ERM and applied to the overall LOM project schedule, which includes the mining of 44.5 Mt of saprolite mill feed and waste and 39.3 Mt of transition and fresh rock. Open Pit Mining

Open pit mine operating costs were calculated based on the types and quantities of equipment, labor, materials and consumables that would be required to meet the proposed mining schedule.

All mine operating costs were built up from first principles, with unit costs for labor, materials and consumables being based on mine costs in Guyana and recent real numbers from the mining during the one-year gravity pilot plant where saprolite was mined, scrubbed, converted into a slurry and transported by pipe downhill to the process plant.

This test period provided proof of concept to the fact that the saprolite did not require drilling or blasting to be excavated and loaded into trucks.

For Phase 1, the main activities for the open pit cost calculations include only loading, hauling, mining support services, labor and general site support and maintenance.

For phase two where fresh rock is mined, the main activities for the open pit cost calculations include drilling and blasting, loading, hauling, mining support services, labor and general site support and maintenance.

The total Phase 1 and Phase 2 operating expenditures required to mine mill feed and waste material is estimated to be US$201.5 million, or a unit cost of US$2.40/t mined as shown in Table 21-15.

TABLE 21-15 SUMMARY OF OPEN PIT MINING OPERATING COST (PHASE 1 AND 2)

Description	Total Cost (US$M)	Unit Cost (US$/t mined)
Phase 1 - Open Pit Mining	36.1	1.91
Phase 1 - Site Support and Services	4.0	0.21
Phase 1 - Total	40.1	2.13
Phase 2 - Open Pit Mining	145.2	2.24
Phase 2 - Site Support and Services	16.1	0.25
Phase 2 - Total	161.4	2.49
Total - Open Pit Mining	181.4	2.16
Total - Site Support and Services	20.2	0.24
Total (Phase 1 + Phase 2)	**201.5**	**2.40**

21.3.2 PROCESSING OPERATING COST ESTIMATION

The average mill feed blend for the LOM is used to estimate power draw and reagent consumptions. Table 21-16 details the operating costs for the Eagle Mountain processing plant. Operating costs assume a power rate of US$0.37/kWh with diesel cost (US$0.17/kWh excluding diesel cost).

TABLE 21-16 OPEX EVALUATION PER PHASE

Parameters	Units (US$)	Phase 1	Phase 2	Source
Energy Costs				
Power	$/y	7,982,750	17,269,750	E
Diesel	$/t	0.15	0.15	C
Total energy	$/t	4.52	9.61	E

Parameters	Units (US$)	Phase 1	Phase 2	Source
Reagents and Consumables Costs				
Steel Balls	$/t	0.34	1.22	E
Liner	$/y	240,000	1,113,600	E
Consumables - Crusher and more	$/y		200,000	C
NaCN	$/t	0.71	4.93	E
Lime	$/t	0.98	0.28	E
Carbon	$/y	144,000	144,000	E
Acid	$/y	94,791	94,791	E
Caustic Soda	$/y	226,665	226,665	E
Detox Costs				
Power	kWh/y	525,000	525,000	E
SMBS	$/t	0.85	0.85	C
Copper Sulfate	$/t	0.3	0.3	C
Lime	$/t	0.15	0.15	C
Total Detox	$/t	1.58	1.58	E
Other Costs				
Manpower	$/y	3,730,000	3,730,000	A E
Maintenance	$/y	810,000	1,540,000	C
Assays	$/y	150,000	150,000	C
Total Costs				
Cost per tonne of feed	$/t	11.1	21.6	E

The reagents and grinding media consumption evaluation are based on the process design criteria. The unitary costs are based on recent quotations for similar projects.

The grinding media and liner consumption are benchmarked from similar operations with similar ore.

21.3.2.1 MAINTENANCE

The maintenance costs include the spare parts and motor consumables (oil, grease, lubricants, filter, chute liner, etc.). The maintenance costs are factorized relative to the equipment's CAPEX value.

21.3.2.2 LABOR

The workforce and salary for each position for the process plant operations were evaluated by Soutex using data from a similarly sized operating plant as well as Goldsource's current Guyana payroll expenses. The total payroll for the process plant sums up to 104 people.

21.3.2.3 PROCESS PLANT ASSAYING

A benchmarked yearly provision for process plant assays is used. Grade control assays, being part of mining costs, are excluded.

21.3.2.4 POWER

Power cost is based on a quote provided to Goldsource by Caterpillar, which is providing turnkey power solutions in the region. Electrical power would be entirely provided by thermal groups.

The process plant consumption was evaluated with equipment installed power, estimated utilization factor and operating hours.

21.3.2.5 PLANT DIESEL CONSUMPTION

The plant diesel consumption cost is based on the consumption for the kiln, elution heater and smelting furnace.

21.3.2.6 ORE REHANDLING

It is estimated that 3% of the mill feed will have to be rehandled during Phase 1 (coarse rejects). The rehandling costs are not considered as plant operating costs but as mining operating costs.

21.3.2.7 PROCESSING

Processing plant operating costs were calculated based on the types and quantities of equipment, labor, materials, and consumables that would be required to meet the proposed crushing, grinding and processing schedules.

Phase 1 of processing includes facilities for the processing of saprolite only.

Whereas the processing of saprolite does not require crushing and grinding there is much less power required per tonne processed.

Phase 2 of processing includes all equipment for processing hard transition material and fresh rock including crushing and processing plant costs as built up in detail by Soutex.

The total operating expenditures required to process the quantities of mill feed scheduled over the production period of the Project were estimated to be US$448 million, or US$16.47/t of mill feed.

The total processing Phase 1 was estimated to be US$124.6 million, or US$28.53/t of mill feed during Phase 2 estimated to be US$124.6 million, or US$28.5/t of mill feed as shown in Table 21-17.

TABLE 21-17 SUMMARY OF MINERAL PROCESSING OPERATING COST

Description	**Total Cost (US$M)**	**Unit Cost (US$/t milled)**
Saprolite Processed	138.3	11.10
Trans/Fresh Processed	310.2	21.00
Total / Average - Processed	448.5	16.47
Saprolite - Labor	38.5	3.09
Saprolite - Consumables & Materials	17.2	1.38
Saprolite - Power	82.5	6.62
Saprolite - Total	138.3	11.10
Trans/Fresh - Labor	49.2	3.33
Trans/Fresh - Consumables & Materials	33.5	2.27
Trans/Fresh - Power	227.6	15.41
Trans/Fresh - Total	310.2	21.00
Phase 1 - Labor	25.7	3.09
Phase 1 - Consumables & Materials	11.5	1.38
Phase 1 - Power	55.1	6.62
Phase 1 - Total	92.3	11.10
Phase2 - Labor	56.4	2.98
Phase 2 - Consumables & Materials	38.4	2.03
Phase 2 - Power	261.3	13.82
Phase 2 - Total	356.2	18.83
Total - Labor	82.2	3.02
Total - Consumables & Materials	49.9	1.83
Total - Power	316.4	11.62
Total - Total	**448.5**	**16.47**

21.3.3 GENERAL AND ADMINISTRATION

General and administration (“G&A”) costs consists of costs that are not directly related to the open pit mining or processing activities over the production period of the project life.

Total G&A costs were estimated to be US$122.5 million, or US$4.50/t milled (of which US$1.50/t milled is allocated to running the camp) (Table 21-18).

TABLE 21-18 SUMMARY OF GENERAL AND ADMINISTRATION OPERATING COST

Description	Total Cost (US$M)	Unit Cost (US$/t milled)
Labor – Mining Ops.	49.0	1.80
Supplies and Consumables – Mining Ops.	24.5	0.90
External Services – Mining Ops.	8.2	0.30
Camp	40.8	1.50
Total	**122.5**	**4.50**

21.3.4 EQUIPMENT LEASES

Where possible, the owner's equipment will be rented or leased to minimize upfront capital costs.

21.3.5 OPEN PIT MINE DEVELOPMENT AND INFRASTRUCTURE

Operating costs associated with the development of the open pits and related infrastructure will primarily be associated with dewatering and haul road / ramp maintenance and dust management.

Development costs associated with construction of haul roads and water management costs such as diversion ditches and sedimentation ponds will be classified as capital costs.

21.3.6 NON-PROCESS INFRASTRUCTURE

Operating costs associated with non-process infrastructure are categorized as General and Administration. These costs typically include security, H&S, ESG team and administration at the mine site.

21.3.7 TAILINGS STORAGE FACILITIES

Operating costs associated with the TSFs are typically the costs associated with pumping.

The annual maintenance and construction work to increase in the height of the dams in addition to upgrades to the distribution system consisting of pumps and HDPE pipe are all capitalized costs.

21.3.8 WASTE STORAGE AND MANAGEMENT FACILITIES

Operating costs associated with waste storage are generally attributed to dozer costs for maintaining the operability of the dump surface, especially during the wet season.

21.3.9 CONTINGENCY

There is US$28.8 million of contingencies built into the DCF model.

There is an annual operational contingency of US$0.5 million to cover miscellaneous operational mine costs such as dust suppressant, machine rentals, etc. which adds up to a total of US$7.5 million over the LOM.

There is an annual sustaining capital contingency allowance of US$0.33 million to cover unexpected capital requirements for a total of US$5 million.

Phase 1 CAPEX has a contingency allowance of US$7.4 million included in the Soutex cost build up for the processing plant; and US$5.1 million for mining and infrastructure contingency.

Phase 2 CAPEX has contingency allowance of US$5.8 million included in the Soutex cost build up.

21.3.10 WORKING CAPITAL

ERM estimated that working capital of US$3.8 million would be adequate for covering G&A for approximately 6 months (excluding camp costs) on a revolving basis for the duration of Phase 1. An additional allocation of US$1.5 million in working capital is included at the beginning of Phase 2.

21.3.11 ROAD TRANSPORT OF EQUIPMENT AND CONSUMABLES TO SITE

The costs to transport equipment to site is primarily included in the contractor mobilization cost estimated at US$2 million.

21.4 ROYALTIES

There is a single tax- deductible royalty of 8% payable to the Guyanese government applicable to the Eagle Mountain Gold Project.

The application of this royalty at a gold price of US$1,850/oz is the equivalent of US$147/oz.

In the calculation of taxable income, the Company and its Affiliates shall be entitled to deduct the value of all gold and other valuable minerals paid to the Government of Guyana in-kind as an expense in an amount equal to the market price of valuable minerals as of the trading day the gold and other valuable minerals are delivered to Government of Guyana.

The application of the 8% royalty in the DCF model totals US$146.7 million payable to the Government of Guyana. For the purposes of the pit optimizations, a 6% tax-effected royalty was applied to revenue.

22. ECONOMIC ANALYSIS

22.1 ECONOMIC ANALYSIS SUMMARY

The economic analysis of the Eagle Mountain Project is based on distinct cost models developed for Phase 1 and Phase 2 and prepared for each major component of the overall Project, including open pits, CIL processing plant, and all supporting infrastructure, haul roads, waste rock dumps and tailings storage facilities. The economic analysis uses a DCF model which applies all Phase 1 pre-production capital costs at Year 0 and all revenues, operating costs and sustaining capital at the end of the year in which they occur.

The calculated IRR of the project does not include potential external financing costs and assumes that all required funding will be equity based. The Base Case NPV calculations assume a discount rate of 5% and gold price assumption of US$1,850/oz.

The cash flow model includes revenues, costs, taxes, and other known factors directly related to the project but excludes indirect factors such as financing costs, sunk costs, and corporate obligations.

The Base Case economic indicators of the Project include the following:

- Undiscounted pre-tax free cash flow of US$605 million and after-tax free cash flow of US$443 million.
- Pre-tax IRR of 75% and after-tax IRR of 57%.
- Phase 1 payback period (after tax) of 18 months

The undiscounted pre- and after-tax cash flows, pre- and after-tax IRRs, and Phase 1 payback period for the Project are presented in Table 22-1.

TABLE 22-1 BASE CASE FREE CASH FLOW (UNDISCOUNTED) AND IRR (US$1,850/OZ)

Parameter	Unit	Value
Pre-tax Free Cash Flow	US$M	605
After-Tax Free Cash Flow	US$M	443
Pre-Tax IRR	%	75
After-Tax IRR	%	57
Payback Period (Phase 1)	months	18

A summary of the pre- and after-tax NPVs for discount rates of 5%, 8% and 10% are presented in Table 22-2.

TABLE 22-2 PRE-TAX AND AFTER-TAX NPV FOR 5%, 8%, AND 10% DISCOUNT RATES (US$1,850/OZ)

Parameter	Unit	Value	Value	Value
Discount Rate	%	5%	8%	10%
Pre-tax NPV	US$M	406	326	284
After-tax NPV	US$M	292	232	200

22.2 DCF PARAMETERS

The DCF parameters are presented alongside the corresponding pit optimization parameters in Table 22-3 for comparison.

TABLE 22-3 DCF PARAMETERS (WITH COMPARISON TO PIT OPTIMIZATION PARAMETERS)

Parameters	Unit	Pit Optimization	DCF Value	Variation
Sales Revenue				
Gold Price	US$/oz	1,600	1,850	16%
NPV Discount Rate	%	5	5	same
Operating Costs				
Waste Rock Mining Cost	US$/t	1.88	2.10	12%
Ore Mining Cost - Fresh Rock, Saprolite and Transition	US$/t	2.50	2.75	10%
Mine-Site G&A	US$/t	3.00	4.50	50%
Processing Plant or Leaching Unit Costs - Fresh Rock	US$/t	12.00	21.00	75%
Processing Plant or Leaching Unit Costs - Saprolite or Transition	US$/t	6.00	11.10	85%
Federal Gold Royalty	%	6	8	33%
Metallurgy				
Refinery Payability of Metal	%	100	100	same
Processing Recovery - Saprolite @ Salbora and Eagle Mt	%	97	95*	-2%
Processing Recovery - Fresh or transition @ Salbora	%	82	82*	same
Processing Recovery - Fresh or transition @ Eagle Mt	%	92	92*	same
Pit Optimization Parameters				
Dilution	%	2.5	2.5	same

Parameters	Unit	Pit Optimization	DCF Value	Variation
Mining Recovery	%	98	98	same
Swell Factor		1.3	1.3	same
Mill Throughput Rate (Saprolite - Phase 1)	Mt/y	1.825	1.825	same
Mill Throughput Rate (Fresh or transition rock)	Mt/y	1.460 - 1.643	1.460 - 1.643	same

*Soutex constant tails model was used to refine recovery to reflect poorer recovery at lower grades.

22.3 CAUTIONARY STATEMENT

The PEA is preliminary in nature. It includes Inferred Mineral Resources considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, socio-political, marketing, or other relevant issues."

The Project economic analysis and its results are based on forward-looking information whose validity and accuracy may vary significantly in the future from what has been assumed in this study based on all currently available information.

Forward-looking statements that might significantly affect the Project economics include but are not limited to the following items:

- Mineral Resource and Reserve estimates;
- Variances in Project construction and mining schedules due to delays induced by financing, environmental assessment processes or other factors;
- The future availability and costs of skilled labor, equipment, materials and consumables, including power and fuel costs;
- Variances in processing methods, rates and recoveries;
- Changes in federal legislative and taxation frameworks;
- Variations in future gold prices, selling costs and other offsite costs such as transportation, duties, off-takes or royalties;
- General business and economic conditions, both globally and domestically; and
- Currency rate fluctuations.

22.4 DISCOUNTED CASHFLOW MODEL

The discounted cash flow model, before application of tax, depreciation and any tax credits is presented in Table 22-4.

TABLE 22-4 DISCOUNTED CASHFLOW MODEL

Year	Units	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	LOM
Mill Feed Processed	Mt	0	1.82	1.82	1.82	1.82	1.83	1.82	1.82	1.82	1.82	1.82	1.82	1.83	1.82	1.82	1.75	27.23
Processed Au	g/t	0	1.15	1.68	1.38	0.94	1.20	2.01	1.16	1.04	1.21	1.09	1.68	0.75	1.39	1.36	0.79	1.26
Recovered Gold	kg	-	1,981	2,943	2,398	1,599	2,004	3,382	1,834	1,621	1,928	1,718	2,772	1,162	2,292	2,197	1,188	31,018
Recovered Gold	k oz	0.0	63.7	94.6	77.1	51.4	64.4	108.7	59.0	52.1	62.0	55.2	89.1	37.4	73.7	70.6	38.2	997.2
Revenue, net of refining costs & federal royalty	**US$ M**	0	108	160	130	87	109	184	100	88	105	93	151	63	125	119	65	1687
Operating Costs	**US$ M**	0	40	38	37	37	49	58	59	57	59	59	59	59	63	66	47	786
Mining	US$ M	0	9	9	9	9	12	13	14	13	15	14	15	19	21	21	10	202
Processing	US$ M	0	20	20	20	20	28	35	35	35	35	35	35	30	33	35	28	448
Rehandle	US$ M	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	4
G&A	US$ M	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	123
Other/ Contingency/Rent	US$ M	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
Contractor Mobilization	US$ M	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8
Revenue-OPEX	US$ M	0	68	123	93	49	60	126	41	31	45	34	92	5	61	54	18	900
Capital Costs	**US$ M**	95.6	7	9	9	41	24	16	11	10	10	10	10	8	5	5	25	296
Phase 1: Direct Pre-Production CAPEX	US$ M	65.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	63
Phase 1: Owner, Indirect, and Contingency CAPEX	US$ M	30.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Phase 2: Direct CAPEX	US$ M	0	0	0	0	24	8	0	0	0	0	0	0	0	0	0	0	32
Phase 2: Owner, Indirect, and Contingency CAPEX	US$ M	0	0	0	0	8	6	0	0	0	0	0	0	0	0	0	0	14
Sustaining Capital	US$ M	0	7	9	9	9	9	16	11	10	10	10	10	8	5	5	5	133.4
Closure and Reclamation	US$ M	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20
REVENUE -OPEX - CAPEX	**US$ M**	-91	61	113	84	8	36	111	31	21	35	24	82	-3	56	49	-8	605
DCF 5%	**US$ M**	-91	49	88	66	2	29	84	25	18	29	19	62	-3	43	37	-10	443

22.5 TAXATION

The effective tax rate for mining is 25%.

Mining companies which only engage in mining will pay this 25% rate on chargeable income from mining (unless another rate is agreed as part of the mineral agreement negotiations). This rate has changed over recent years trending downwards.

22.6 DEPRECIATION

The Company shall have the right to amortize:

- Its expenditure on mill, crusher and shaft at a maximum rate of 20% per year as of the commencement of commercial production;
- Its expenditure on mobile equipment and other surface expenditure east the applicable rate from the date of active service; and
- Exploration expenditures incurred to date and subsequently by the Company will be treated in accordance with the applicable tax laws (tax loss carry forwards are allowed).

Subject to the above, with respect to capital expenditures, the Company shall have the right to depreciate annually 20% of the amount of such expenditures until they are completely written off. lt is understood that the Company shall prove the cost of each item imported.

With respect to mine development expenditures, the Company shall have the right to deduct the full amount of expenditures incurred on stripping and other pre-production work in the year such expenses are incurred.

22.6.1 RENT

Rent is specific to the Mining License area, not prospecting area.

Upon granting of the Mining License, the Company shall, in the manner and on the terms set forth in the Mining License, pay rent annually and in advance to the Commission in an amount in Guyana Dollars equal to US$5.00 per acre for each acre of land included in the Mining License should the Government of Guyana enact a written law (including subsidiary legislation) of general application prescribing a lower rent than that set forth herein and in the Mining License the obligation to pay rent shall be reduced to such rent as is so prescribed.

The ML will be smaller than the current EMPL. The current property information is as follows:

4,784 ha (11,820 acres) of the Eagle Mountain Property relate to the EMPL while 266 hectares (660 acres) relate to the Medium-scale Mining Permit held by Kilroy Mining Inc., a Guyanese Company. Within the EMPL there are third-party small-scale claims (“artisanal claims”) that predate the Company’s property. The artisanal claims that are licensed or recommended for license total approximately 123 ha (305 acres).

Although the ML will likely be smaller than the EMPL, the economic model assumes that the total annual rent to be paid is US$60,000.

22.6.2 TAX CREDITS

As of September 30, 2023, the Company's cumulative exploration and evaluation expenditures, including acquisition costs, on the Eagle Mountain Gold Project totaled C$43.7 million. C$37.0 million is related to exploration expenditures in Guyana. Operating losses can be carried forward in Guyana and applied to operations. Any potential reduction of taxes was not considered in the PEA.

22.7 SENSITIVITY ANALYSIS

The NPV and IRR are sensitive to the increase and decrease of operating costs, capital costs, gold price, and metallurgical recovery among other factors such as the price of electricity and diesel fuel.

The sensitivity of the Project NPV5% and IRR to changes in mine operating costs, processing operating costs, capital costs and gold prices are presented in Table 22-5, and Figure 22-1 to Figure 22-4 on both pre- and after- tax bases.

TABLE 22-5 SENSITIVITY OF NPV5% AND IRR TO CHANGES IN OPERATING COSTS, CAPITAL COSTS AND GOLD PRICES (BASE CASE AT US$1,850/OZ)

% Change	Pre-Tax NPV5% (US$M)	After-Tax NPV5% (US$M)	Pre-Tax IRR (%)	After-Tax IRR (%)
Processing Unit OPEX				
-30	492	357	83%	63%
-15	449	325	79%	60%
0	406	292	75%	57%
15	363	259	72%	54%
30	320	227	68%	51%
Mining Unit OPEX				
-30	408	294	77%	58%
-15	407	293	76%	58%
0	406	292	75%	57%
15	405	291	75%	57%
30	403	290	74%	56%
CAPEX				
-30	474	333	115%	62%
-15	440	312	92%	59%
0	406	292	75%	57%
15	372	272	63%	55%
30	338	252	53%	53%

% Change	Pre-Tax NPV5% (US$M)	After-Tax NPV5% (US$M)	Pre-Tax IRR (%)	After-Tax IRR (%)
Gold Price				
-30	64	25	26%	15%
-15	235	162	53%	39%
0	406	292	75%	57%
15	577	421	96%	74%
30	747	549	116%	89%

FIGURE 22-1 PRE-TAX NPV5% SENSITIVITY (BASE CASE AT US$1,850/OZ)

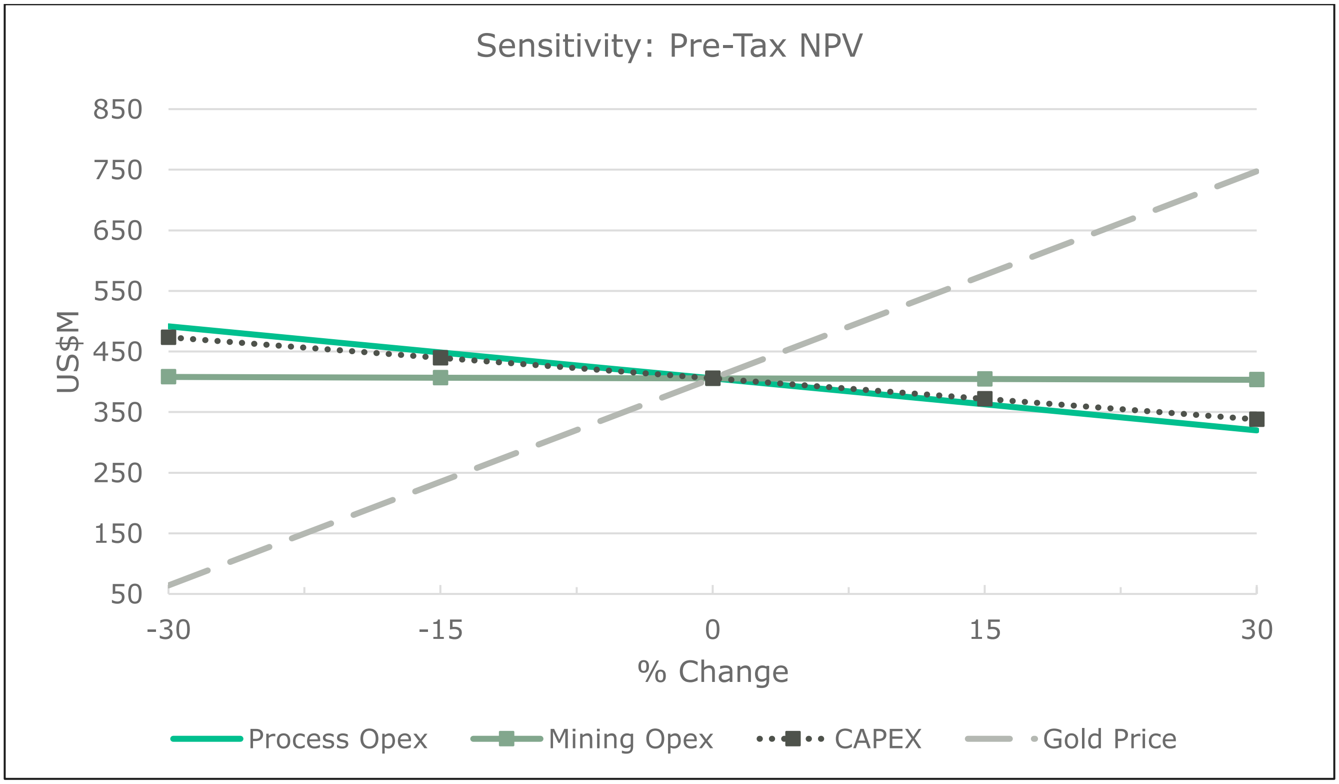


FIGURE 22-2 AFTER-TAX NPV5% SENSITIVITY (BASE CASE AT US$1,850/OZ)

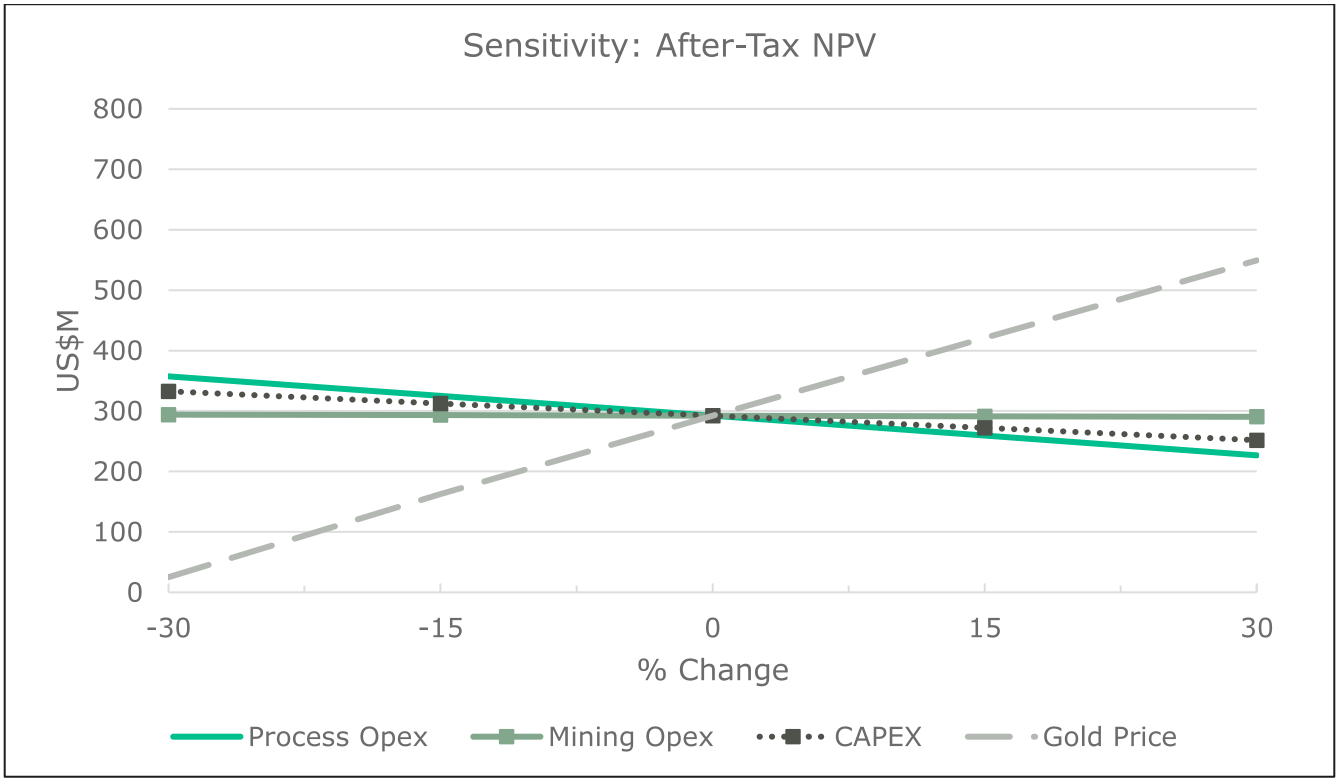


FIGURE 22-3 PRE-TAX IRR SENSITIVITY (BASE CASE AT US$1,850/OZ)

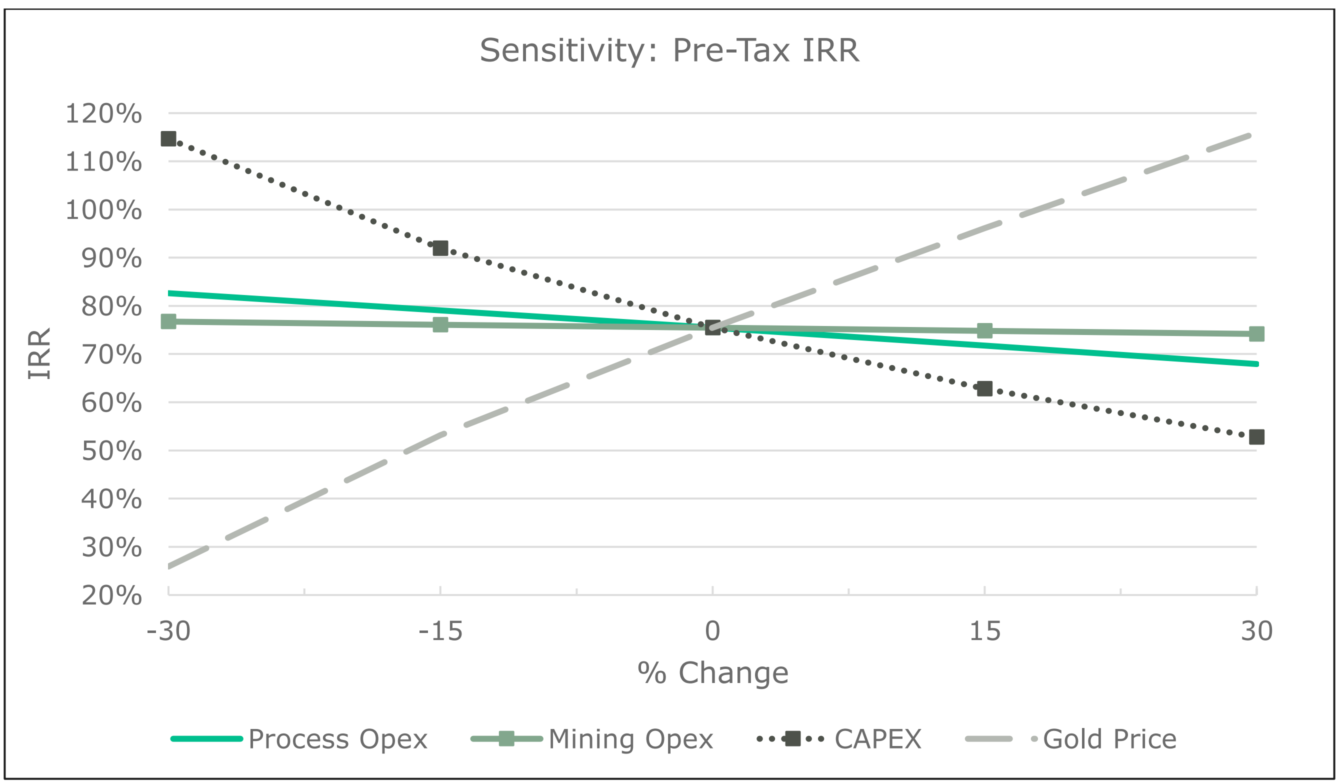
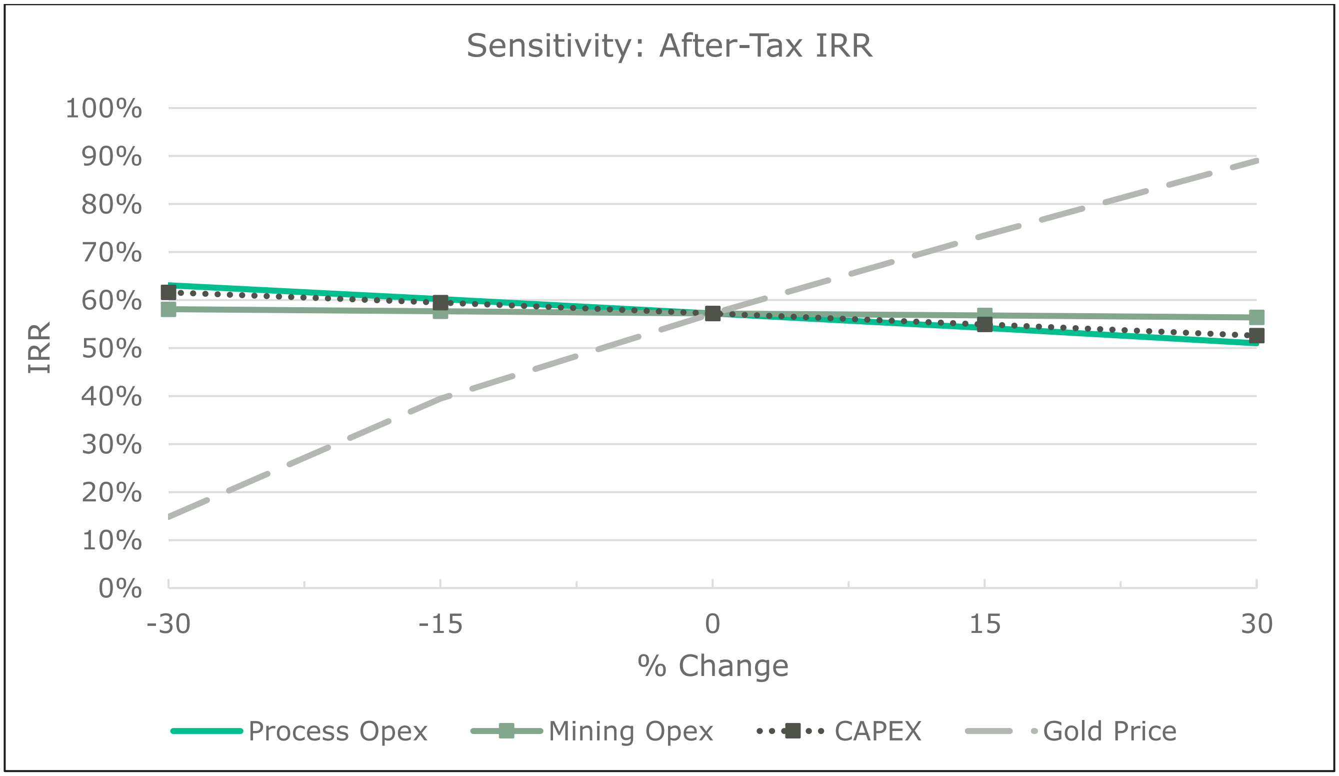


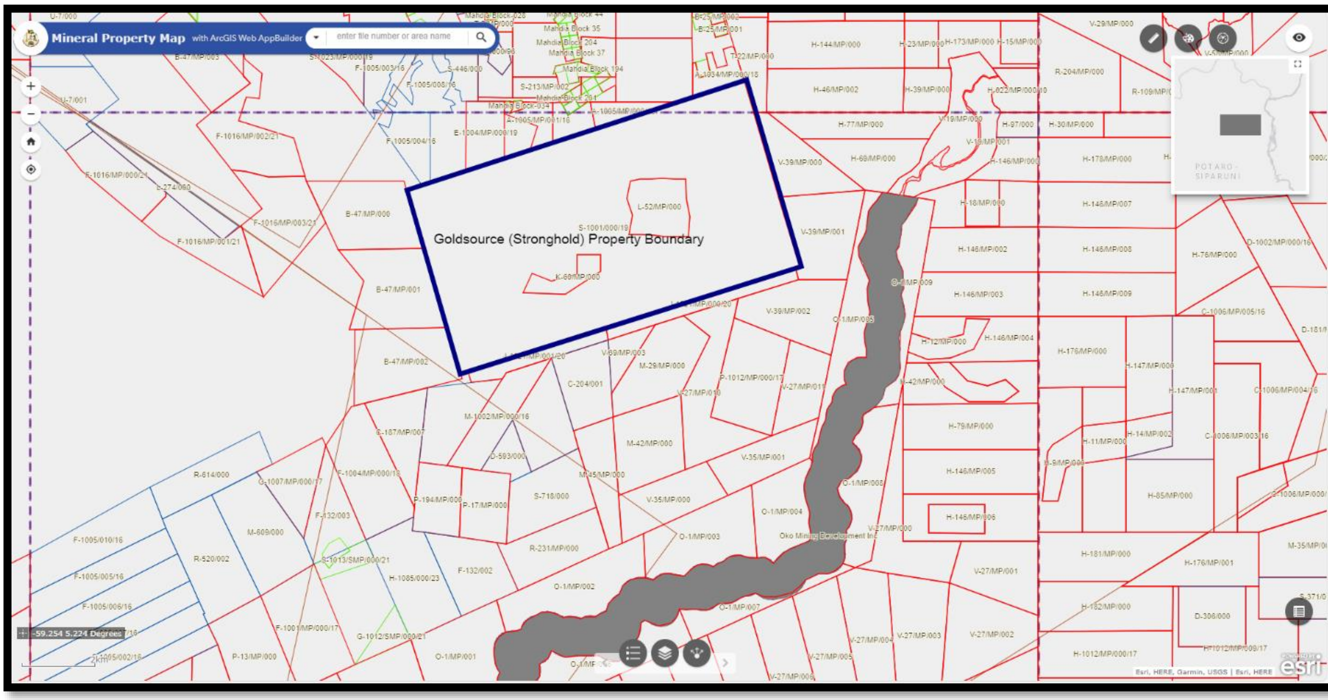
FIGURE 22-4 AFTER-TAX IRR SENSITIVITY (BASE CASE AT US$1,850/OZ)



23. ADJACENT PROPERTIES

The EMPL, owned by Goldsource (Stronghold) is the largest claim block in the area, located in the 43SE Map sheet of the Potaro SE Mining District. There are no large-scale significant mineral properties adjacent to the EMPL; however, there are several other individual tenements (medium- and small-scale) around the Property owned by small-scale miners (Figure 23-1).

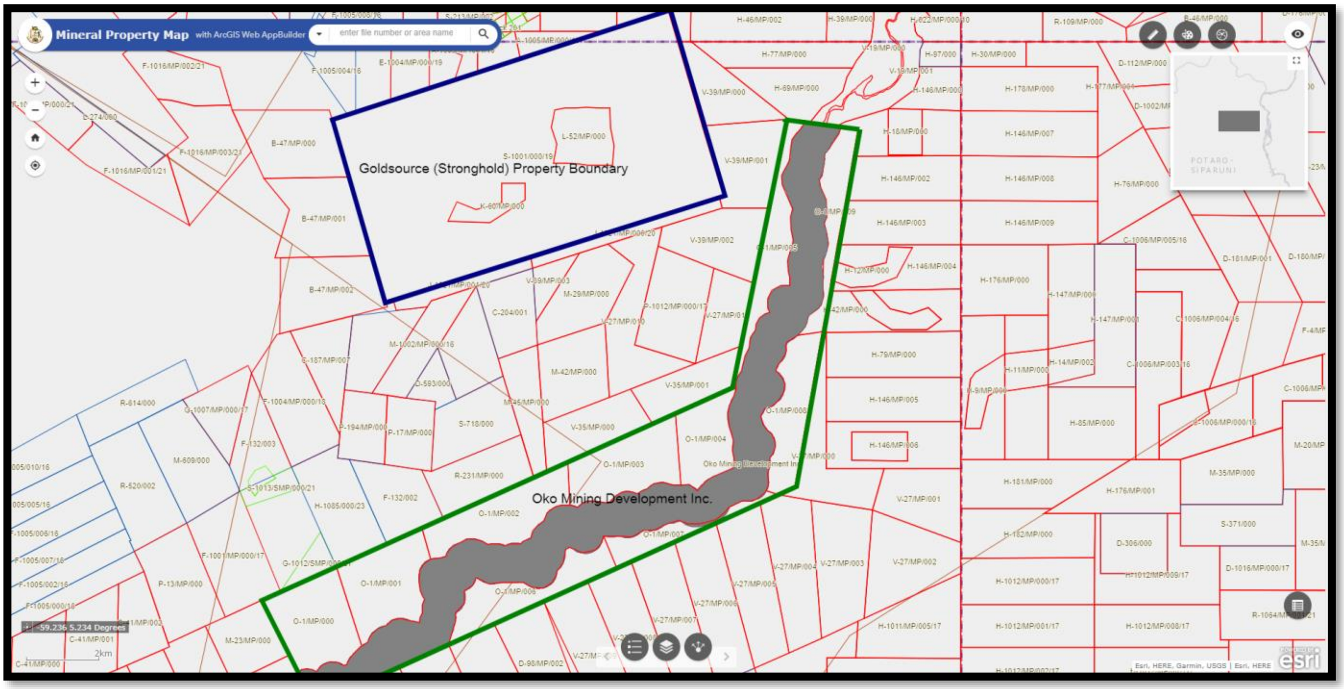
FIGURE 23-1 GOLDSOURCE PROPERTY LIMITS (BLUE OUTLINE)



Source: Guyana Geology and Mines Commission (Mineral Property Map, 2023).

The largest medium-scale claim block is located west-southwest from the EMPL and belongs to Oko Mining Development Inc., comprising six medium-scale mining tenements (0-1/MP/001,002, 004,007,008,009) (Figure 23-2). ERM could not find any further information on Oko Mining Development Inc.

FIGURE 23-2 MAP SHOWING GOLDSOURCE PROPERTY LIMITS (BLUE OUTLINE) AND OKO MINING DEVELOPMENT INC.'S PROPERTY (GREEN)



Source: Guyana Geology and Mines Commission (Mineral Property Map, 2023.

24. OTHER RELEVANT DATA AND INFORMATION

ERM and the Company conclude that there is no additional information or explanation required to make the Technical Report more understandable and not misleading.

25. INTERPRETATION AND CONCLUSIONS

The positive results of the PEA for the Eagle Mountain Gold Project, as expressed by NPV and IRR, justify its further evaluation by advancing to a pre-feasibility study. The QPs noted the following interpretations and conclusions in their respective areas of expertise, based upon the review of data available for this Project.

25.1 DATA VERIFICATION AND MINERAL RESOURCES

There is a good understanding of the gold mineralization's geology and the nature on the Property. Additional exploration is warranted to potentially increase the Mineral Resource base.

The sample collection, preparation, analytical, and security procedures, as well as the QAQC program as designed and implemented by Goldsource are adequate, and the assay results within the database are suitable for use in Mineral Resource estimation.

The QAQC program indicates good precision, negligible sample contamination, and potential low bias for gold at the assay laboratory.

25.2 METALLURGY AND RECOVERY METHODS

The metallurgical results obtained at the PEA level indicate that saprolite and fresh rock samples from the Eagle Mountain Project should result in elevated gold recoveries with a simple industrial process and with relatively low operating costs, particularly for the saprolite material. To refine the design criteria, it is recommended to pursue additional metallurgical tests during the pre-feasibility study.

Based on the testwork and proposed flowsheet, the overall Project metallurgical recoveries are estimated at 90.7% with an average of 95.1% in Phase 1 and 88.9% in Phase 2. The process plant design and equipment selection are tailored for the distinct requirements of Phase 1 and Phase 2. The plant is initially configured for saprolite, which provides for lower power requirements and lower-than-average capital and operating costs as hard rock crushing and grinding equipment can be deferred to Phase 2. Phase 2 operating costs are particularly sensitive to power costs. Further investigation of alternative power costs is recommended.

25.3 MINING METHODS

Reasonable mine plans, production schedules and capital and operating costs have been developed for this Project. Operations will start with open pit development with a fleet of 5 haul trucks and 2 loaders at maximum capacity. The Eagle Mountain Gold Project is expected to produce 27.2 Mt of mineralized material over a mine life of 15 years, with a LOM stripping ratio of 2.1. The initial mining rate is 11 ktpd and will reach a maximum mining rate of 23 ktpd towards the end of the LOM. The average mining rate over the LOM will be 15 ktpd. Mining and surface activities at the mine will be done by a contractor.

25.4 INFRASTRUCTURE

The mine infrastructure will include a process plant, haul roads, waste dumps, a starter TSF and a main TSF, a mine camp, mine offices, water treatment facility, water management ditches, sedimentation pond, maintenance shop, laydown area, and warehouse.

The maximum combined storage capacity of the TSF will be approximately 17 Mm^3. No metal leaching nor acid rock drainage studies have been performed to date on the anticipated tailings from future operations.

25.5 MARKET STUDIES AND CONTRACTS

Gold markets are extremely mature global markets with trading at multiple locations around the world 24 hours a day. Gold production from the Eagle Mountain Project is expected to be sold on the spot market. The terms and conditions will be consistent with standard industry practices. Doré bars will be shipped from site to Georgetown by air and then on to the Guyana Gold Board.

As of November 13, 2023, the consensus long-term forecast from eight recognized investment institutions was US$1,957.27. The gold price used in the parameters for both the MRE and optimized pit shell upon which the PEA mine plan is based was US$1,600/oz. The gold price used in the cash flow model built from the PEA mine plan was US$1,850/oz.

25.6 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Environmental and related studies to support the Project have started. No formal consultation activities with the stakeholders have been conducted by Goldsource. At the time of this technical report, there are no environmental, permitting, legal, title, taxation, socioeconomic, marketing or other relevant issues that could potentially affect the MRE and the Eagle Mountain Project.

25.7 CAPITAL AND OPERATING COSTS

The total capital costs (pre-production and sustaining) for the Project are estimated at US$295.6 million. The pre-production capital costs for Phase 1 are estimated at US$95.6 million, including a US$12.5 million contingency. The pre-production capital costs for Phase 2 (to be incurred in Years 4 and 5) are estimated at US$46.6 million, including a US$5.8 million contingency. Sustaining capital costs are estimated at US$133.4 million and closure costs at US$20.0 million. The total capital costs are summarized in Table 21-1.

The total operating costs are estimated at US$786 million, or US$28.88/t processed over the LOM. The total operating costs are summarized in Table 21-17.

25.8 ECONOMIC ANALYSIS

The PEA indicates that the potential economic returns from the Project justify its further evaluation by advancing to a pre-feasibility study.

At a base case gold price of US$1,850/oz, the Project generates an after-tax NPV of US$292 million at a 5% discount rate and an IRR of 57% (pre-tax NPV of US$406 million and IRR of 75%). After-tax payback on the Phase 1 pre-production capex is estimated at 18 months (16 months pre-tax).

The Project generates cumulative undiscounted free cash flow of US$443 million on an after-tax basis, and average annual after-tax free cash flow at US$37 million over a 15-year mine life.

Defining additional future resources has the potential to increase mine life and increase NPV.

25.9 PROJECT RISKS AND OPPORTUNITIES

The Project is subject to risks that are typical to all mining projects as well as specific risks for this Project. These risks are described below and shall be addressed with subsequent studies at the pre-feasibility and feasibility study levels.

Geology and Mineral Resources:

- The geological models have achieved a foundational level of understanding and will evolve with additional drilling. Future infill drilling is intended to convert Inferred Resources to the Indicated classification.
- The QA/QC program supporting the sample database as executed by Goldsource is adequate; however, improvements are warranted for the QAQC protocol; and
- Mineral Resources that are not Mineral Reserves do not currently demonstrate economic viability. The increase in confirmatory drilling and drilling density will allow for the conversion of Inferred Resources to Indicated category, and the eventual establishment of Mineral Reserves.

Mining and Infrastructure:

- Information on rock mechanics, geotechnical properties and hydrogeology was not available at the time of this PEA; and
- Detailed engineering of required site infrastructure is not completed.

Mineral Processing:

- Prospects along the north-south Salbora-Powis trend, such as Salbora and Toucan exhibit lower gold recoveries via cyanidation. Additional variability testwork should be completed to evaluate opportunities for higher recoveries via finer grinding; and
- Mill operating costs, particularly for fresh rock, are sensitive to power rates. There is an opportunity to the potential for cheaper power sources, which could result in a lower milling unit costs.

Infrastructure:

- Detailed engineering of plant infrastructure is not completed;
- Site power availability and study are to be confirmed from local power supplier;
- Tailings and water management require additional studies;
- Water balance and load balance have not been developed;
- Insufficient geochemistry data to identify sources terms;
- Tailings facility location used in PEA has not been optimized nor confirmed; and
- Groundwater and seepage flow from the tailings facility have not been modelled.

Regulatory

- The Project's realization and/or schedule is dependent upon securing the necessary permits or approvals; and
- The submittal and approval of the closure plan by the regulating authorities are conditional to the release of the mining lease and the beginning of mining operations.

Capital and Operation Costs:

- Detailed engineering and construction sequencing for the TSF has not been completed; and
- Price escalation is not included;

Rehabilitation and Closure:

- The Project waste rock is assumed to be NPAG and non-metal leaching, and no engineered cover is included in the closure cost estimate; and
- Detailed closure plans and costs are to be developed during the next study level.

26. RECOMMENDATIONS

This Technical Report was prepared and compiled by ERM (with the support of Soutex for process plant) at the request of Goldsource, with the support of experienced and competent independent consultants and Goldsource management team, using accepted engineering methodologies and standards. It provides a summary of the results and findings from each major area of investigation, including:

- Exploration;
- Geological modelling;
- Mineral Resource;
- Mine design;
- Metallurgy;
- Process design;
- Infrastructure;
- Environmental studies, permitting and social or community factors;
- Tailings and water management;
- Capital and operating costs; and
- Economic analysis.

The level of investigation for each of these areas is considered to be consistent with the level expected in a PEA. The mutual conclusion of the QPs is that the Project contains adequate details and information to support the positive economic outcome shown. The results of this study indicate that the Project is technically feasible and has financial merit with the Base Case assumptions considered.

In summary, the QPs recommend that the Project proceeds to the pre-feasibility study stage. It is also recommended that the environmental and permitting process continue as needed to support the Project’s development plans and schedule.

ERM recommends the following additional work programs as the Project advances to a pre-feasibility study:

26.1 GEOLOGY AND MINERAL RESOURCES

- Improve the geological model, including updating the mineralization model to delineate zones of variable orientation within the shallow dipping mineralized zones, and to model relay veins linking the faults. The model should be supported by a detailed structural interpretation incorporating data from orientated angled drill holes.
- If Leapfrog software is to be used in future, the veins system modelling tool is recommended instead of the stratigraphic approach used for the 2022 MRE.

- Utilize the newly completed high-resolution LiDAR survey with ground truthing to improve the resolution of the topography model. An updated MRE model should be generated when a high-resolution topography model is available.
- High-resolution topography could support a detailed map of weathering features and resistive post-mineralization dikes. This information could provide the basis for a detailed review of auger data to improve the definition of mineralization trends in saprolite for drill targeting and mineralization modelling.
- A dedicated geological and mining database solution should be obtained. This will enable efficient sharing of increasingly complex Project data between the multi-disciplinary teams involved in the Project as it progresses to more advanced stages of development.

The following gold targets warrant further exploration:

- The steep breccia zone at Toucan is open to the south. This zone should be tested by drill holes on a fence 40 metres to the south of EMD20-103, which included a 10.5 metre intercept grading 1.16 g/t Au.
- The steep breccia zones at Salbora weaken in intensity but are open to the north and south. These extensions can be tested to investigate any strengthening of the mineralized zones in both directions using a series of 40-metre drill hole fences.
- To the south of the Eagle Mountain deposit, mineralized horizons continue at depth south-westward from the Baboon deposit area. Exploration should target extensions to the mineralization encountered in EMD09-43 (6.10 metres at 2.12 g/t Au starting at a downhole depth of 141.90 metres) and EMM21-052 (10.5 metres at 0.85 g/t Au starting at a downhole depth of 139.50 metres), particularly where changes in topography bring these zones closer to surface.
- Develop a geological model for the Soca area (not included in the April 2022 MRE).
- Further exploration into exploration targets distal to the Eagle Mountain deposit and Salbora-Powis north-south structural trend, including North Zion area.

26.2 CAPITAL AND OPERATING COSTS

- Costs for both CAPEX and OPEX to be regularly checked and updated with budget quotes, in particular with respect to energy costs, construction and contract mining costs and processing costs taking into consideration the fluctuating and generally rising costs of consumables, labor and major equipment and components.
- Whereas it is understood that there is used power generation and processing plant equipment available in country at costs significantly lower than market price for new equipment, it is recommended that contractually enforceable quotes be obtained by the sellers of this equipment in order to support the potential inclusion of this equipment in future cost estimates and DCF models that could potentially show improvement over the cost estimates used in this report.
- Pursue the availability of suitable used processing equipment, evaluate condition, and achieve contract binding costs; estimate logistics, construction and commissioning costs.

- Ongoing benchmarking of comparable projects to de-risk some cost assumptions.
- Undertake regular market studies to assess availability and labor rates for local, regional, national and international (expat) labor and professional workforce requirements to provide accurate projections for capital and operating cost assumptions.

26.3 MINING AND PROCESSING

The following trade-off studies should be performed:

- Full trade-off of buying power on a power-by-the-hour basis at US$0.37/kWh against buying generators and building a power station to assess opportunities to reduce unit operating costs.
- Detailed haulage study to determine with better accuracy potential savings of downhill hauls and/or hydraulic haulage. Examine alternative renewable energy sources, such as river turbines, solar and wind power sources, or other novel technologies.
- Contract mining versus owner operator.

Additional studies and investigations are recommended:

- Opportunity to backfill pits with waste and/or tailings once they are mined out and condemned from possible re-opening at higher gold prices.
- Optimization plan for dump heights and locations to minimize visibility from the main road and the villages of Mahdia and Campbeltown. Options include looking at a larger dump at lower elevation as well as relocating one or more dumps to the south of the pits (or other locations).
- Stockpiles management (include low, medium and high-grade stockpiles for saprolite; and the same three sub-categorized stockpiles for transition and fresh rock mill feed).

26.4 INFRASTRUCTURE AND TAILINGS FACILITY

- Trade-off study for the construction of an on-site camp vs. using resources and infrastructure available in the nearby communities. It will require community consultation to ensure that the final decision on this matter is supported by the local communities as the best option for them.
- Geotechnical investigations on candidate sites for the processing plant and other infrastructure to determine scale of foundation work required.
- Evaluation of locations and sizes of possible borrow pits for the construction of the starter and main tailings dams.
- Hydrology/Hydrogeological studies (improve understanding of water availability, water limitations, water balance needs for the processing plant, tailings, and other operational needs).
- Locating an area or areas where TSF can be located without requiring a dam or dams greater than 40 m in height.
- Investigate alternative/novel tailings storage strategies to effectively manage precipitation and run-off during the wet season.

26.5 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY FACTORS

It is recommended that the environmental and social assessment requirements, including permitting to meet Guyana regulations, be confirmed with relevant agencies and be completed. Goldsource should engage with the public and Indigenous groups.

26.6 RECOMMENDED WORK PROGRAM AND BUDGET

ERM proposes the following work program to advance the Project to pre-feasibility study as described in Table 26-1. A number of investigations and trade-off studies (as described above) will be required prior to the completion of the pre-feasibility study.

TABLE 26-1 PRE-FEASIBILITY STUDY WORK PROGRAM AND BUDGET

Work Program	**Cost Estimate (US$ M)**
Infill and Exploration Drilling (10,000 metres @ US$120/metre)	1.2
Mineral Resource & Reserve Estimate	0.2
Sampling & Metallurgical Testwork	0.2
Permitting/Environmental Studies/Geochemistry	1.0
Project Infrastructure Location (excluding TSF), Geotechnical Studies	0.3
Hydrology, Water Management, and TSF Studies	0.5
Trade-Off Studies: Mining Method, Roads, Camp Location and Dump Locations and Designs, Power	0.5
Pre-feasibility Study	1.0
Guyana Administration and Labor	0.3
Sub-total	**5.2**
Contingency (15%)	0.8
Total	**6.0**

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28. CERTIFICATES

28.1 CERTIFICATE OF AUTHOR – NIGEL FUNG, P.ENG.

I, Nigel Fung, do hereby certify that,

I am employed as a Principal Mining Engineer by ERM Consultants Canada Limited, with an office address of 2010-120 Adelaide Street West, Toronto, Ontario, Canada, M5H 1T1 and carried out this assignment for ERM Consultants Canada Ltd.

I graduated with a B.Eng. degree in Mining Engineering from McGill University in Montreal, Canada (2001).

I am a member in good standing of the Professional Engineers of Ontario, License 100176.

I have worked as a mining engineer for 12 years and in the mining industry for 25 years.

I have read the definition of "Qualified Person" set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43- 101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.

I am responsible for sections 1-4,16,18,19, 20.6, 20.7 and 21-28 of technical report titled "*Preliminary Economic Assessment for the Eagle Mountain Gold Project, Guyana*" (following the NI 43-101 Standards of Disclosure and Form 43-101F1) (the "Technical Report"), effective date of January 16, 2024, and signature date dated of March 1, 2024.

I have visited the property that is the subject of the Technical Report for three days during October 25-27, 2023.

I have not had prior involvement with the property that is the subject of the Technical Report.

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

I am independent of the issuer, applying all of the tests in section 1.5 of NI 43-101.

I have read NI 43-101, as well as Form 43- 101F1, and the Technical Report has been prepared in accordance with that Instrument and form.

I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

[*signature and stamped original on file*]

Nigel Fung

Effective Date: January 16, 2024

Signature Date: March 1, 2024

28.2 CERTIFICATE OF AUTHOR – LEON MCGARRY, P.GEO.

I, Leon McGarry B.Sc., P.Geo. (ON), do hereby certify that:

I am contracted as an Associate Senior Resource Geologist by ERM Consultants Canada Limited, located at 2010-120 Adelaide Street West, Toronto, Ontario, Canada, M5H 1T1 and carried out this assignment for ERM Consultants Canada Ltd.

I graduated with a degree in Bachelor of Science Honours, Earth Science, from Brunel University, London, United Kingdom, in 2005 and have practiced the profession of geoscience since my graduation.

I am a Professional Geoscientist (P. Geo.) registered with the Association of Professional Geoscientists of Ontario (APGO, No. 2348).

I have practiced my profession for over 15 years and was employed as a consultant with ACA Howe since 2007, with CSA Global between 2016 and 2019 and independently since 2020. I have over ten years of direct experience with the preparation of mineral resource estimations for structurally hosted precious metal deposits in Proterozoic terrains. Additional experience includes over ten years of direct experience in the completion of NI 43-101 technical reports.

I have read the definition of "qualified person" set out in National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

I am responsible for sections 5-12, and 14 of technical report titled "*Preliminary Economic Assessment for the Eagle Mountain Gold Project, Guyana*" (following the NI 43-101 Standards of Disclosure and Form 43-101F1) (the "Technical Report"), effective date of January 16, 2024, and signature date dated of March 1, 2024.

I have not made a site visit to the property that is the subject of the Technical Report.

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form;

As of the effective date of the technical report (16 January 2024), to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

I am independent of the Issuer, and the Property applying all of the tests in section 1.5 of National Instrument 43-101.

I was the QP for the 2022 Mineral Resource Estimate for the property that is the subject of the Technical Report.

I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

[*signature and stamped original on file*]

Leon McGarry, B.Sc., P. Geo

Effective Date: January 16, 2024

Signature Date: March 1, 2024

28.3 CERTIFICATE OF AUTHOR – ANTOINE BERTON, P.ENG.

I, Antoine Berton, do hereby certify that,

I am employed as Assistant Director - Africa & Europe / Senior Metallurgist by Soutex, 1990 Cyrille-Duquet, Street, Suite 204, Quebec City, QC, G1N 4K8 Canada and carried out this assignment for Goldsource Mines Inc

I graduated with a B.Eng. degree in Mining Engineering from McGill University in Montreal, Canada (2001).

I am a member in good standing of the Professional Engineers Ontario, License 100173276; also a member in good standing of EGBC, License 56108.

I have worked as a mining engineer for 12 years; and in the mining industry for 25 years (since 1998).

I have read the definition of "Qualified Person" set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43- 101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.

I am responsible for sections 13 and 17 of technical report titled "Preliminary Economic Assessment for the Eagle Mountain Gold Project, Guyana" (following the NI 43- 101 Standards of Disclosure and Form 43-101F1) (the "Technical Report"), effective date of January 16, 2024, and signature date dated of March 1, 2024.

I have not visited the property that is the subject of the Technical Report.

I have not had prior involvement with the property that is the subject of the Technical Report.

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

I am independent of the issuer, applying all of the tests in section 1.5 of NI 43-101.

I have read Regulation 43-101 respecting standards of disclosure for mineral projects, as well as Form 43-101F1, and the Technical Report has been prepared in accordance with that regulation and form.

I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

[*signature and stamped original on file*]

Antoine Berton, P.Eng.

Effective Date: January 16, 2024

Signature Date: March 1, 2024

28.4 CERTIFICATE OF AUTHOR – ROLF SCHMITT, P.GEO.

I, Rolf Schmitt, do hereby certify that,

I am employed as a Technical Director - Permitting by ERM Consultants Canada Limited, #1000 – 1100 Melville Street, Vancouver, British Columbia, Canada, V6E 4A6 and carried out this assignment for ERM Consultants Canada Ltd.

I graduated from the University of British Columbia – Bachelor of Science (B.Sc.) Geology (1977), and a Master of Science (M.Sc.) Regional Planning (1985), and University of Ottawa - Master of Science (M.Sc.) Exploration Geochemistry (1993).

I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, License 19824.

I have practiced my profession for 46 years since graduation; 6 years in mineral exploration, 22 years in government mining regulation and geochemical research, and 20 years as a senior mining and natural resource regulatory consultant (since 2005).

I have read the definition of "Qualified Person" set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.

I am responsible for section 20 of technical report titled "Preliminary Economic Assessment for the Eagle Mountain Gold Project, Guyana" (following the NI 43-101 Standards of Disclosure and Form 43-101F1) (the "Technical Report"), effective date of January 16, 2024, and signature date dated of March 1, 2024.

I have not visited the property that is the subject of the Technical Report.

I have not had prior involvement with the property that is the subject of the Technical Report.

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

I am independent of the issuer, applying all of the tests in section 1.5 of NI 43-101.

I have read Regulation 43-101 respecting standards of disclosure for mineral projects, as well as Form 43-101F1, and the Technical Report has been prepared in accordance with that regulation and form.

I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

[*signature and stamped original on file*]

Rolf Schmitt, P.Geo.

Effective Date: January 16, 2024

Signature Date: March 1, 2024

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APPENDIX A DRILLING CAMPAIGNS DETAILED

SIGNIFICANT INTERVALS (>2 M @ >1 G/T AU) DRILLED USING GEOPROBE DRILLING AT EAGLE MOUNTAIN. ACTUAL CORE LENGTH IS CONSIDERED TO REPRESENT TRUE THICKNESS

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
EMC17-001	4	8	4	1.1
EMC17-009	0	6.7	6.7	7.5
EMC17-010	0	4.6	4.6	1.45
EMC17-033	5	17	12	1.31
EMC17-048	0	15	15	1.05
EMC17-050	0	2.4	2.4	1.82
EMC17-051	0	19	19	3.04
EMC17-101	0	11	11	1.19
EMC17-110	0	7	7	1.97
EMC17-120	0	11	11	1.98
EMC17-145	8	11.46	3.46	1.2
EMC18-057	0	8	8	2.65
EMC18-059	1	4	3	2.01
EMC18-066	4	6	2	87.5
EMC18-077	0	2	2	1.02
EMC18-096	0	8.4	8.4	3.69
EMC18-098	0	2	2	1.6
EMC18-107	0	6	6	2.32

SIGNIFICANT INTERVALS (>2 M @ >1 G/T AU) DRILLED USING DIAMOND DRILL CORE AT THE EAGLE MOUNTAIN GOLD PROJECT. ACTUAL CORE LENGTH IS CONSIDERED TO REPRESENT TRUE THICKNESS.

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
EMD18-052	0	44.7	44.7	2.82
EMD18-053	0	69	69	6.52
EMD19-054	0	39	39	2.78
EMD19-055	0	49.5	49.5	2.9
EMD19-056	0	55.5	55.5	1.19
EMD19-057	0	49.5	49.5	2.36
EMD19-058	0	49.5	49.5	2.95
EMD19-059	24	36	12	1.21
EMD19-061	57	60	3	1.03
EMD19-072	16.5	19.5	3	2.36
EMD19-083	145.5	148.5	3	1.8
EMD19-084	22.5	28.5	6	1.27
EMD19-088	18	27	9	1.07
	55.5	60	4.5	2.86
EMD19-096	81	91.5	10.5	9.94
EMD19-098	43.5	48	4.5	1.33
EME19-003	0	2.5	2.5	1.3
EME19-012	39	45	6	1.06
	57	61.5	4.5	2.2
EME19-013	48	87	39	1.75
EME19-015	16	96	80	2.07
	124.5	127.5	3	1.13
	142.5	154.5	12	4.93
EME19-016	17.5	75	57.5	2.55
EME19-019	137	213.5	76.5	1.18
EME19-023	121.5	148.5	27	1.72
	121.5	148.5	27	1.72
	225	231	6	1.32
	225	231	6	1.32

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
EME19-024	22	25	3	1.1
	22	25	3	1.1
	112.5	115.5	3	3.34
	112.5	115.5	3	3.34
EME19-025	207	216	9	1.73
	207	216	9	1.73
EMD20-100	25.5	28.5	3	2.46
EMD20-102	21	24	3	1.17
	79.5	87	7.5	9.19
EMD20-103	73.5	84	10.5	1.16
EMD20-105	46.5	66	19.5	3.76
	46.5	82.5	36	2.1
	79.5	82.5	3	1.76
EMD20-107	103.5	108	4.5	1.53
EMD20-110	67.5	73.5	6	3.81
EMD20-111	7.5	16.5	9	1.48
	48	51	3	1.59
	78	99	21	1.84
EMD20-113	39	42	3	1.24
EMD20-114	13.5	18	4.5	3.2
	96	99	3	1.01
	132	135.5	3.5	1.51
EMD20-115	84	90	6	4.1
EMD20-117	81	85.5	4.5	1.18
EMD20-118	3	7.5	4.5	25.32
EMD20-119	18	39	21	1
EMD20-120	24	43.5	19.5	1.26
EMD20-121	12	25.5	13.5	1.01
EMD20-129	15	39	24	1.03
EMD20-130	0	7.5	7.5	1.34
EMD20-131	0	9	9	2.03
EMD20-132	33	52.5	19.5	1.59

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
EMD20-133	18	55	37	1.11
EMD20-139	42	45	3	9.88
EMD20-140	0	4.5	4.5	1.7
EMD20-141	55.5	66	10.5	1.45
EMD20-149	9	46.5	37.5	1.02
EMD20-150	0	21	21	1.44
	76.5	79.5	3	5.32
EMD20-151	0	19.5	19.5	1.26
EME20-033	88.5	93	4.5	3.18
	123	126	3	1.78
EME20-034	268.5	271.5	3	1.55
EME20-041	114	127.5	13.5	1.13
	142.5	169.5	27	1.01
EME20-043	108	111	3	3.69
EME20-054	84	94.5	10.5	1.49
	115.5	118.5	3	1.46
EME20-057	22	57	35	1.1
EME20-058	0	4	4	1.42
	13	41.5	28.5	2.03
	137	156	19	1.44
EME20-060	99	123	24	1.6
EME20-064	31	34	3	1.08
	64.5	67.5	3	1.34
EME20-066	150	153	3	8.71
EME20-067	189	207	18	1.31
	214.5	217.5	3	1.3
EME20-070	193.5	199.5	6	3.36
EME20-071	50.5	56.5	6	3.06
	139.5	144	4.5	1.98
EME20-072	55	59.5	4.5	1.56
	198	217.5	19.5	1.38
EME20-073	97.5	100.5	3	1.39

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
EME20-074	48	87	39	1.55
EME20-077	10	28.5	18.5	1.55
	48	55.5	7.5	1.08
EME20-078	10	46.5	36.5	1.83
EME20-079	0	11.5	11.5	3.37
EME20-081	63	66	3	5.4
EMM20-001	10.5	64.5	54	1.72
EMM20-002	19.5	27	7.5	2.2
EMM20-003	4.5	7.5	3	1.52
	54	60	6	1.15

SIGNIFICANT INTERVALS INTERSECTED SINCE THE PREVIOUS MRE (>2 M @ >1 G/T AU) DRILLED USING DIAMOND DRILL CORE AT THE EAGLE MOUNTAIN GOLD PROJECT. ACTUAL CORE LENGTH IS CONSIDERED TO REPRESENT TRUE THICKNESS.

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
EME20-077	10	28.5	18.5	1.55
	48	55.5	7.5	1.08
EME20-078	10	46.5	36.5	1.83
EME20-079	0	11.5	11.5	3.37
	4	11.5	7.5	5.21
EMD20-149	9	46.5	37.5	1.02
EMD20-150	0	21	21	1.44
EMD20-151	0	19.5	19.5	1.26
EMM20-001	10.5	64.5	54	1.72
	10.5	22.5	12	6.91
EMM20-002	19.5	27	7.5	2.2
EMM20-003	54	60	6	1.15
EMX21-002	114	124.5	10.5	1.04
	199.5	204	4.5	1.29
EMM21-007	0	42	42	20.38
	21	42	21	39.00
EMM21-008	1.5	31.5	30	3.41

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
EMM21-009	0	51	51	2.02
EMM21-010	25.5	33	7.5	2.61
EMM21-011	39	52	13	1.15
	39	43.5	4.5	2.92
EMM21-013	6	24	18	1.75
EMM21-014	6	21	15	1.17
EMM21-015	36	43.5	7.5	1.03
EMM21-016	51	66	15	1.51
EMM21-017	22.5	37.5	15	1.17
	39	49.5	10.5	1.35
	22.5	49.5	27	1.19
EMM21-022	16.5	24	7.5	1.91
	16.5	21	4.5	3.00
EMM21-031	15	27	12	1.83
EMM21-033	16.5	21	4.5	2.50
EMM21-037	139.5	144	4.5	2.35
EMM21-041	57	63	6	15.73
EMM21-44A	69	87	18	1.46
EMM21-044/44A	49.5	87	37.5	1.14
EMM21-048	94.5	99	4.5	1.63
EMM21-050	117	121.5	4.5	1.16
EME21-090	0	5.5	5.5	1.16
EME21-092	114	120	6.0	7.68
EME21-093	19.5	24	4.5	1.56
EME21-094	85.5	96	10.5	2.58
EME21-095	51	72	21.0	1.86
	100.5	106.5	6.0	18.14
EME21-104	87	93	6.0	1.09
	156	165	9.0	1.06
EME21-105	0	24	24.0	1.28
EME21-106	0	5.5	5.5	1.10

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
	24	33	9.0	1.23
EME21-107	0	10.5	10.5	1.02
EME21-108	0	21	21.0	2.61
EME21-108	5.5	13.5	8.0	4.69
EME21-109	1	19.5	18.5	2.60
	102	108	6.0	1.21
EME21-110 EME21-110	0	5.5	5.5	1.20
	26	42	16.0	1.96
EME21-111	19	29.5	10.5	2.71
EME21-112	14.5	23.5	9.0	1.35
EME21-113	49.5	57	7.5	2.23
EME21-114	14.5	20.5	6.0	1.82
	135	139.5	4.5	2.55
	154.5	163.5	9.0	1.18
EME21-115	7	16	9.0	1.66
EME21-116	8.5	13	4.5	4.22
EME21-124	16	23.5	7.5	1.05
EME21-125	14.5	20.5	6.0	3.75
EME21-127	0	8.5	8.5	1.10
	85.5	90	4.5	1.86
EME21-128	105	112.5	7.5	1.41
EME21-129	51	78	27.0	3.87
EME21-130	135	139.5	4.5	1.04
EME21-138	108	112.5	4.5	1.02
	243	253.5	10.5	1.51
EME21-140	126	130.5	4.5	1.26
EME21-141	81	91.5	10.5	1.12
EME21-142	66	70.5	4.5	1.10
EME21-143	115.5	121.5	6.0	1.68
EME21-144	43.5	48	4.5	2.22
EME21-147	25.5	33	7.5	1.32

Hole	From (m)	To (m)	Core Length (m)	Au (g/t)
	63	69	6.0	1.54
EME21-148	73.5	78	4.5	3.24
	87	94.5	7.5	1.32
EME21-153	37	41.5	4.5	1.28
	112.5	117	4.5	7.70
EME21-154	25.5	31.5	6.0	2.26
EME21-155	0	7	7.0	2.66
	72	81	9.0	1.30
EMD21-167	19.5	27	7.5	1.06
EMD21-175	9	16.5	7.5	1.70
EMD21-180	28.5	37.7	9.2	1.06
EMD21-186	57	67.5	10.5	1.18
EMD21-189	9	13.5	4.5	1.72
EMD21-193	6	22.5	16.5	21.80
	16.5	21	4.5	78.16
	93	114	21	1.32
EMD21-194	58.5	81	22.5	1.89
	69	79.5	10.5	2.77
EMD21-195	75	79.5	4.5	2.77
EMD21-196	25.5	46.5	21	1.13
	88.5	93	4.5	2.55
EMD21-197	12	16.5	4.5	26.77
	24	58.5	34.5	3.62
	49.5	58.5	9	11.64
	85.5	91.5	6	1.15

SIGNIFICANT DRILLING 2023. THE FOLLOWING TABLE SHOWS THE MOST SIGNIFICANT RESULTS (UNCUT, UNDILUTED) FOR SOCA AND SOUTH ANN PROSPECTS – SIGNIFICANT DRILL HOLE INTERCEPTS

Hole ID (1) (2)	From (m)	To (m)	Drilled Interval (m)	Au (4) (g/t)	ETW (3) (m)	Area
EME22-175	22	26.5	4.5	0.76	3.4	South Ann
	31	35.5	4.5	0.54	3.4	
	51	63	12	1.39	9.2	
	132	133.5	1.5	0.87	1.1	
	151.5	153	1.5	0.88	1.1	
	163.5	165	1.5	0.76	1.1	
	205.5	207	1.5	1.4	1.1	
EME22-176	1	16	15	0.5	11.5	South Ann
	26.5	32.5	6	0.65	4.6	
	43	44.5	1.5	0.61	1.1	
EME22-177	1	5.5	4.5	0.75	3.4	South Ann
	14.5	29.5	15	0.5	11.5	
Incl.	25	28	3	1.12	2.3	
	34	35.5	1.5	0.54	1.1	
	43	44.5	1.5	0.93	1.1	
	58	70.5	12.5	2.65	9.6	
Incl.	58	59.5	1.5	9.87	1.1	South Ann
And	64	70.5	6.5	2.74	5	South Ann
	103.5	105	1.5	0.63	1.1	
	108	109.5	1.5	0.62	1.1	
EME22-180	82.5	84	1.5	0.8	1.3	South Ann
	96	102	6	3.6	5.4	
EME22-183	0	2.5	2.5	0.79	1.9	South Ann
	11.5	16	4.5	0.99	3.4	
	24	25.5	1.5	7.32	1.1	
	61.5	64.5	3	0.5	2.3	
	93	94.5	1.5	8.94	1.1	

Hole ID (1) (2)	From (m)	To (m)	Drilled Interval (m)	Au (4) (g/t)	ETW (3) (m)	Area
EMD23-282	18	21	3	1.65	2.3	Soca
	34.5	36	1.5	1.76	1.1	
EMD23-283	3	13.5	10.5	4.41	9.1	Soca
Incl.	9	13.5	4.5	9.8	3.9	
	18	19.5	1.5	0.82	1.3	
	70.5	72	1.5	1.45	1.3	
	81	85.5	4.5	0.5	3.9	

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ERM's Toronto Office
120 Adelaide Street West,
Suite 2010
Toronto, ON
Canada, M5H 1T1

T +1 416 646 3608
F +1 416 642 1269

www.erm.com