Copper Creek Project
NI 43-101 Technical Report and Preliminary Economic Assessment

Arizona, United States of America

Effective Date: May 3, 2023

Prepared for: Faraday Copper Corp.

250 -200 Burrard Street,
Vancouver, BC, Canada, V6C 3L6

Prepared by: Ausenco Engineering USA South Inc.

595 S Meyer Ave.
Tucson, Arizona 85701
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List of Qualified Persons:
Erin L. Patterson, P.E., Ausenco Engineering USA South Inc.;
Peter Mehrfert, P. Eng., Ausenco Engineering Canada Inc.
Scott C. Elfen, P.E., Ausenco Engineering Canada Inc.
Scott Weston, P. Geo., Ausenco Sustainability Inc.
Berkley Tracy, P.G., CPG, P. Geo., SRK Consulting (USA) Inc.
Bob McCarthy, P. Eng., SRK Consulting (Canada) Inc.
Jarek Jakubec, C. Eng., FIMMM, SRK Consulting (Canada) Inc.
Robert W. Pratt, P.E., Call & Nicholas Inc.

CERTIFICATE OF QUALIFIED PERSON
Erin Lynn Patterson, P. E.

I, Erin Lynn Patterson, P.E., certify that:

1. I am employed as Director, Minerals & Metals within Ausenco with Ausenco Engineering USA South Inc. ("Ausenco"), with an office address of 595 S. Meyer Avenue, Tucson, Az, USA.
2. This certificate applies to the technical report titled Copper Creek Project, 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States," (the "Technical Report"), prepared for Faraday Copper (the "Company") with an effective date of May 3, 2023 (the "Effective Date").
3. I graduated from the University of Arizona with a Bachelor of Science degree in Chemical Engineering.
4. I am a registered professional engineer in the state of Arizona, USA, license #54243.
5. I have practiced my profession for a total of 18 years since my graduation from university. My relevant experience includes involvement in all levels of engineering studies from conceptual studies to feasibility as well as mineral projects in the construction and operation stages. The works that I have been directly involved in include the mineral commodities copper, nickel, gold, and silver. I have been directly involved with process design, including testwork interpretation and flowsheet development, design specifications, cost estimating, and execution of mineral projects.
6. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
7. I visited the Copper Creek Property for the day of May 10, 2022 for a visit duration.
8. I am responsible for sections 1.1, 1.9, 1.10.1, 1.11, 1.13.1, 1.13.2.1, 1.13.2.3, 1.13.2.4, 1.14, 1.15, 1.16.1, 1.16.10, 2, 3.1, 3.4, 3.5, 17.1-17.3.1.1, 17.3.1.3-17.3.1.9, 17.3.2-17.4, 18.1,18.2, 18.3.1-18.3.6, 18.3.9, 19, 21.1, 21.2.1, 21.2.3-21.2.10, 21.3.1, 21.3.4, 21.3.5, 22, 24, 25.1, 25.8, 25.9, 25.11, 25.12, 25.13, 25.14.1.1, 25.14.2.6, 26.1, 26.8, and 27 of the Technical Report.
9. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.
10. I have been involved with the Copper Creek Project. I coauthored the "NI 43-101 Technical Report Mineral Resource Estimate Copper Creek Project, Arizona" in August 2022.
11. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: June 13, 2023

"Signed and sealed"

Erin Lynn Patterson, P.E.

CERTIFICATE OF QUALIFIED PERSON

Peter Mehrfert, P.Eng.

I, Peter Mehrfert, P. Eng., certify that:

1. I am employed as a Process Engineer with Ausenco Engineering Canada, with an office at 1050 W Pender St, Vancouver, BC V6E 3S7.

2. This certificate applies to the technical report titled *Copper Creek Project, 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States,"* (the "Technical Report"), prepared for Faraday Copper (the "Company") with an effective date of May 3, 2023 (the "Effective Date").

3. I graduated from the University of British Columbia in 1996 where I obtained a Bachelor of Applied Science in Mining and Mineral Process Engineering.

4. I am a Professional Engineer, registered with Engineers and Geosciences of British Columbia, member number 100283.

5. I have practiced my profession continuously for 28 years and have been involved in the design, evaluation and operation of mineral processing facilities during that time. Approximately half of my professional practice has been the supervision and management of metallurgical test work related to feasibility and pre-feasibility studies of projects involving flotation technologies. Previous copper projects that I have worked on that have similar features to Copper Creek are: Gibraltar, Lomas Bayas, Mt Milligan, Jose Maria and Highland Valley Copper.

6. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.

7. I have not visited the Copper Creek property.

8. I am responsible for section 13, and subsections 1.5, 1.16.6, 25.5, 25.14.1.2, 25.14.2.3, 25.14.2.4, and 26.4 of the Technical Report.

9. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.

10. I have had no previous involvement with the Copper Creek Project.

11. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: June 13, 2023

"Signed and sealed"

Peter Mehrfert, P. Eng.

APEGBC # 100283

CERTIFICATE OF QUALIFIED PERSON

Scott C. Elfen, P.E.

I, Scott C. Elfen, P.E., certify that:

1. I am employed as the Global Lead Geotechnical and Civil Services within Ausenco Engineering Canada Inc. with (“Ausenco”), with an office address of 1050 West Pender Street, Suite 1200, Vancouver, BC V6E 3S7, Canada.
2. This certificate applies to the technical report titled Copper Creek Project, 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States,” (the “Technical Report”), prepared for Faraday Copper (the “Company”) with an effective date of May 3, 2023 (the “Effective Date”).
3. I graduated from the University of California, Davis, California, in 1991 with Bachelor of Science degree in Civil Engineering (Geotechnical).
4. I am a Registered Civil Engineer in the State of California (license no. C056527) by exam since 1996 and I am also a member in good standing of the American Society of Civil Engineers (ASCE), and the Society for Mining, Metallurgy & Exploration (SME).
5. I have practiced my profession continuously for 26 years with experience in the development, design, construction and operations of mine waste storage facilities, such as waste rock storage facilities and tailings storage facilities ranging from slurry to dry stack facilities, focusing on precious and base metals, both domestic and international. In addition, I have developed geotechnical design parameters for pit slope design, plant foundation design, and other supporting infrastructure. Examples of projects I have worked on include: Skeena’s Eskay Creek Project PEA, PFS and FS, O3 Mining’s Marban Project PEA and PFS, First Mining Gold’s Springpole PEA and PFS. SSR Mining’s Puna Silver In-Pit Tailings Disposal PFS, and Detailing Engineering, and the Company’s Cangrejos Project PEA.
6. I have read the definition of “Qualified Person” set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for those sections of the Technical Report that I am responsible for preparing.
7. I have not visited the Copper Creek property.
8. I am responsible for subsections 1.10.2, 1.10.3, 1.16.11, 1.16.12, 1.16.13, 18.3.7, 18.3.8, 18.3.10, 25.14.1.5, 25.14.16.6, 26.9, 26.10, and 26.11 of the Technical Report.
9. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.
10. I have had no previous involvement with Copper Creek Project.
11. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: June 13, 2023

“Signed and sealed”

Scott C. Elfen, P.E.

CERTIFICATE OF QUALIFIED PERSON

Scott Weston, P.Geo.

I, Scott Weston, P. Geo., do hereby certify that:

1. I am a Professional Geoscientist, currently employed as Vice President, Business Development with Ausenco Sustainability Inc. ("Ausenco"), with an office address of 4515 Central Boulevard, Burnaby, BC, Canada.

2. This certificate applies to the technical report titled Copper Creek Project, 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States," (the "Technical Report"), prepared for Faraday Copper (the "Company") with an effective date of May 3, 2023 (the "Effective Date").

3. I graduated from University of British Columbia, Vancouver, British Columbia, Canada, in 1995 with a Bachelor of Science, Physical Geography, and Royal Roads University, Victoria, British Columbia, Canada, in 2003 with a Master of Science, Environment and Management.

4. I am a Professional Geoscientist of Engineers and Geoscientists British Columbia; registration number 124888.

5. I have worked as a geoscientist continuously for 27 years, leading or working on teams advancing multidisciplinary environmental projects related to natural resource development. Example of projects I have been involved with include: Wasamac Project FS, Eskay Creek Mine PFS, Las Chispas Mine FS, and Casino Project FS.

6. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.

7. I have not visited the Copper Creek Project.

8. I am responsible for section 20, and subsections 1.12, 1.16.14, 3.3, 25.10, 25.14.1.7, 25.14.2.5, and 26.12 of the Technical Report.

9. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.

10. I have had no previous involvement with the Copper Creek Project.

11. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument.

12. 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.

Dated: June 13, 2023

"Signed and sealed"

Scott Weston, P. Geo.

CERTIFICATE OF QUALIFIED PERSON

Berkley J. Tracy, MSc Geology, PG, CPG, P.Geo.

I, Berkley J. Tracy, MSc Geology, PG, CPG, P.Geo., certify that:

1. I am employed as a Principal Consultant with SRK Consulting (U.S.), Inc. (SRK), with an office address of 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled Copper Creek Project NI 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States (the “Technical Report”), prepared for Faraday Copper Corp. (the “Company”) with an effective date of May 3, 2023 (the “Effective Date”).
3. I graduated from The University of Georgia (UGA), Athens, Georgia in 1998. with a Bachelor of Science in Geology. In addition, I graduated from UGA in 2001, with a Master of Science degree in Geology.
4. I am a Certified Professional Geologist (CPG #11901) with the American Institute of Professional Geologists (AIPG), a Professional Geoscientist (P.Geo. #3024) with Professional Geoscientists Ontario (PGO), and a licensed/registered Professional Geologist (PG) in several U.S. states (Georgia PG #1792, Alabama PG #1231, and South Carolina PG #2500).
5. I have practiced my profession for over 20 years. I have been directly involved in base and precious metal exploration, resource geology, three-dimensional (3D) modelling, geostatistical estimation, due diligence reviews, independent audits, planning and supervising geologic logging, sampling, mapping, and feasibility projects, and managing large exploration programs leading to mine development. My geoscience background has been developed at multiple organizations spanning from major miners to small-cap explorers to mining, geotechnical engineering, and environmental consultancies.
6. I have read the definition of “Qualified Person” set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for those sections of the Technical Report that I am responsible for preparing.
7. I visited the Copper Creek project between March 7 through 10, 2022 for a visit duration of 4 days. The purpose of my visit was to review the site geology, audit drilling/sampling procedures, and conduct data verification.
8. I am responsible for Geology and Mineral Resources, Sections 1.2, 1.3, 1.4, 1.6, 1.16.2 - 1.16.5, 1.16.7, 1.16.15, 3.2, 4-12, 14, 15, 23, 25.2, 25.3, 25.4, 25.6, 25.14.2.2, 26.2, 26.3, 26.5, and 26.13 of the Technical Report.
9. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.
10. Previously, I prepared a technical report titled *NI 43-101 Technical Report, Mineral Resource Estimate, Copper Creek Project, Arizona* for Faraday Copper Corp. with an effective date of July 6, 2022. I have had no other previous involvement with the Copper Creek Project.
11. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: June 13, 2023

“Signed and sealed”

Berkley J. Tracy, PG, CPG, P.Geo.

CERTIFICATE OF QUALIFIED PERSON
Robert McCarthy, P ENG.

I, Robert McCarthy, P Eng., certify that:

1. I am employed as a Principal consultant with SRK Consulting (Canada) Inc. ("SRK"), with an office address of Suite 2600 – 320 Granville Street, Vancouver, British Columbia, V6C 1S9, Canada.

2. This certificate applies to the technical report titled *Copper Creek Project NI 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States* (the "Technical Report"), prepared for Faraday Copper Corp. (the "Company") with an effective date of May 3, 2023 (the "Effective Date").

3. I graduated from the University of British Columbia in 1984, where I obtained a Bachelor of Applied Science in Mining Engineering. I obtained a Master of Business Administration from Athabasca University in 2005.

4. I am a Professional Engineer registered with the Engineers and Geoscientists of British Columbia, with membership number, 136877.

5. I have practiced my profession for continuously since 1984. I have held positions in engineering, operations, and maintenance at operating mines, and as a consultant since 2007, I have conducted mine planning and costing for numerous mining projects from PEA to feasibility levels.

6. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.

7. I visited the Copper Creek project site on December 13, 2022.

8. I am responsible for subsections 1.7, 1.8.1, 1.13.2.2, 1.16.9, 16.1, 16.4, 16.6.1, 16.6.2.1, 16.6.3, 16.6.5, 16.6.6, 16.7.1, 18.4, 21.2.2.1, 21.2.10, 21.3.2, 25.7, 25.14.1.4, 25.14.2.1, and 26.7 of the Technical Report.

9. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.

10. I have had no previous involvement with the Copper Creek Project.

11. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: June 13, 2023

"Signed and sealed"

Robert McCarthy, P Eng.

CERTIFICATE OF QUALIFIED PERSON
Jarek Jakubec, C. Eng., FIMMM

I, Jarek Jakubec, C. Eng., FIMMM, certify that:

1. I am employed as a Corporate Consultant and Practice Leader (Mining & Geology) with SRK Consulting (Canada) Inc. ("SRK"), with an office address of Suite 2600 – 320 Granville Street, Vancouver, British Columbia, V6C 1S9, Canada.
2. This certificate applies to the technical report titled Copper Creek Project, 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States," (the "Technical Report"), prepared for Faraday Copper (the "Company") with an effective date of May 3, 2023 (the "Effective Date").
3. I graduated from Mining Technical University in Ostrava, Czech Republic with an Engineering degree (Dipl.Ing.) in Mining Geology (1984).
4. I am a Chartered Engineer (license number C.Eng. #509147) registered with the Engineering Counsel in membership as a fellow with the Institute of Materials, Minerals and Mining in the United Kingdom, membership number FIMMM #48717.
5. I have practiced my profession for I have practiced my profession continuously since 1984 and I have 39 years of experience in mining. I have been involved in project management, mine design, due diligence studies, geological and geotechnical modelling around the world. I have direct operational experience from caving mine in Canada and South Africa and have been involved in caving or sub-level caving mines studies in Canada, the United States, Chile, South Africa, Australia, Indonesia, Papua New Guinea, China, Russia, Serbia, Kazakhstan, Mongolia and Sweden.
6. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
7. I visited the Copper Creek property on February 23, 2023.
8. I am responsible for subsections 1.7, 1.8.1, 1.13.2.2, 1.16.9, 16, 16.1, 16.3, 16.5, 16.6.2, 16.6.2.2, 16.6.4, 16.6.5, 16.7.2, 16.8, 17.3.1.2, 18.5, 21.2, 21.2.1, 21.2.2.2, 21.2.10, 21.3.3, 25.7, 25.14.1.4, 25.14.2.1, and 26.7 of the Technical Report.
9. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.
10. I have had no previous involvement with the Copper Creek Project.
11. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: June 13, 2023

"Signed and sealed"

Jarek Jakubec, C. Eng., FIMMM
Corporate Consultant (Mining & Geology)
SRK Consulting (Canada) Inc.

CERTIFICATE OF QUALIFIED PERSON
Robert W. Pratt, P.E.

I, Robert W. Pratt, P.E., certify that:

1. I am employed as a Vice President with Call & Nicholas, Inc. (CNI), with an office address of 2475 N Coyote Dr. Tucson, AZ. 85745.
2. This certificate applies to the technical report titled Copper Creek Project, 43-101 Technical Report and Preliminary Economic Assessment, Arizona, United States," (the "Technical Report"), prepared for Faraday Copper (the "Company") with an effective date of May 3, 2023 (the "Effective Date").
3. I graduated from the University of Arizona located in Tucson, AZ., USA in 1996 with a B.S. in Geological Engineering.
4. I am a Registered Professional Geological Engineer in the US states of Arizona (#36557) and Idaho (#15111).
5. I am an SME Registered Member (#4136115).
6. I have practiced my profession for 26 years. I have been directly and continuously involved in open pit and underground mining geotechnical engineering projects during this time.
7. I have read the definition of "Qualified Person" set out in the National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for those sections of the Technical Report that I am responsible for preparing.
8. I visited the Copper Creek project site on 12 May 2022. This visit allowed independent observation of the property, geology, and geologic structure in rock outcrops and road cuts throughout the area and review of geotechnical core data collection procedures in the core logging facility.
9. I am responsible for subsections 1.8.2, 1.16.8, 16.2, 25.14.1.3, 26.6 of the Technical Report.
10. I am independent of the Company as independence is defined in Section 1.5 of NI 43-101.
11. I have been involved with the Copper Creek Project since 2012. In 2012-13 I contributed to a study involving evaluation of the Post-Pillar Cut and Fill mining method and have been involved in all aspect of data collection, geotechnical analysis, reporting and recommendations since early 2022 including co-authoring the report *Geotechnical PEA Study for the Copper Creek Project* (Call & Nicholas, 2023).
12. I have read NI 43-101 and the sections of the Technical Report for which I am responsible have been prepared in compliance with that Instrument. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make those sections of the Technical Report not misleading.

Dated: June 13, 2023

"Signed and sealed"

Robert W. Pratt, P.E.

Important Notice

This report was prepared as National Instrument 43-101 Technical Report for Faraday Copper Corp. (Faraday) by Ausenco Engineering USA South Inc. (Ausenco), Call & Nicholas Inc. (CNI), SRK Consulting Inc. (SRK), collectively the Report Authors. The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in the Report Authors' services, based on i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Faraday subject to terms and conditions of its contracts with each of the Report Authors. Except for the purposed legislated under Canadian provincial and territorial securities law, any other uses of this report by any third party are at that party's sole risk.

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1 SUMMARY

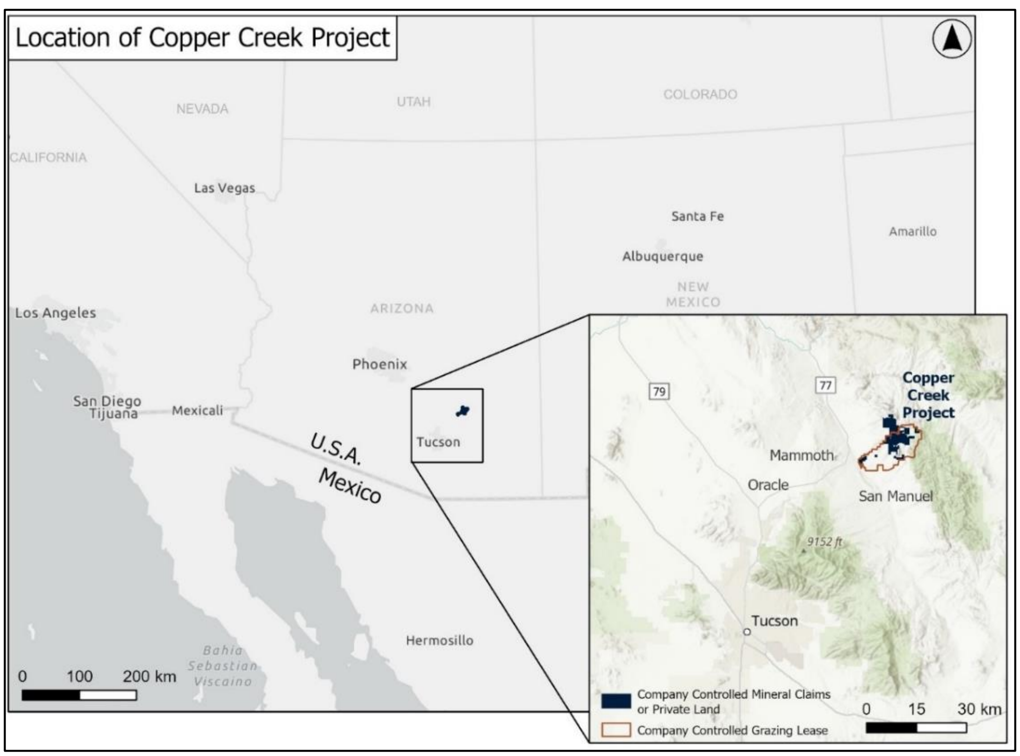
1.1 Introduction

This report was prepared as a Canadian National Instrument 43-101 (NI 43-101) Technical Report on a Preliminary Economic Assessment (PEA) and updated Mineral Resource Estimate (MRE) for Faraday Copper Corp. (Faraday or the "Company") by Ausenco Engineering USA South Inc. (Ausenco), with contributions by SRK Consulting (U.S.) Inc., SRK Consulting (Canada) Inc., and Call & Nicholas Inc. (CNI), collectively, the Consultants, on the Copper Creek Project (Copper Creek or the "Project").

1.2 Property Description and Ownership

The Project is in Pinal County, Arizona, approximately 70 kilometres (km) northeast of Tucson, Arizona, 19 km northeast of San Manuel, Arizona, and 13 km east of Mammoth, Arizona. The Project area entails private, state, and federal surface and mineral rights, and livestock grazing leases located within Pinal County Township 7 and 8 South, Range 18 East, Township 8 and 9 South, Range 17 East, and Graham County Township 7 and 8 South, Range 19 East.

Figure 1-1: Location Map



Note: The inset map shows nearby communities, and the black line shows unpaved public road access from Mammoth to the Project. Source: Faraday, 2023

Faraday, through its wholly owned subsidiary Redhawk Copper Inc. controls 100% of the Copper Creek Project. The Project consists of approximately 65 square kilometres (km^2), spanning seven private patented mining claim parcels (4.70 km^2; 1,161 acres), thirteen private land parcels (27.92 km^2; 6,898acres), nine Arizona State Land Department (ASLD) prospecting permits (12.10 km^2; 2,989 acres), 325 Bureau of Land Management (BLM) unpatented mining claims (20.53 km^2; 5,074 acres), and six livestock grazing leases (~26,000 acres) which partially overlap with the private land and claim parcels mentioned above. The Project headquarters are located in San Manuel, Arizona.

Payments related to parcel and patented mining claims, state prospecting permits, unpatented mining claims, and livestock grazing leases are current with the annual renewal schedule. Any surface disturbance on property that is not owned by the Company requires approval by either the private landowner or BLM. Any sub-surface drilling outside of Company-owned property but within BLM, requires BLM approval. Any sub-surface drilling outside of Company-owned property but within BLM unpatented mining claim blocks or ASLD prospecting permits, requires either BLM or ASLD approval.

The Company has an agreement in place with D&G Mining Company (D&G) for four unpatented mining claims (Moose claims) that are located within the land package boundary. The property can be accessed via the Bunker Hill Road which runs through Faraday-controlled ranch land. This is in addition to the public road access to the property from the town of Mammoth via Copper Creek Road.

A sliding net returns royalty is payable to South32 Ltd. (South32) on most of the production from the current area of the Copper Creek mineral resource. Expenses incurred after the product leaves the property are deducted from the gross value received. No advanced royalty payments are due. The current South32 royalty is 3% based on the current copper (Cu) price.

Payment of $3,000,000 ($500,000 per year over 6 years) is due to Franco Nevada Corporation (Franco) following achievement of commercial production of minerals within a 5-mile radius of certain patented claims now held by Faraday. The Copper Creek mineral resource area is within this 5-mile radius and would therefore be expected to trigger such payments upon production. A 1% net smelter return royalty is payable to Franco on all production from certain areas within Faraday's control. This royalty is a small portion of the current area of the Copper Creek mineral resource.

1.3 Geology and Mineralization

The property is in the prolific porphyry copper region of southwestern North America at the projected intersection of a major northwest-trending belt of copper deposits (Ray, Miami/Globe, Superior/Resolution, and Johnson Camp) and a major east-northeast trending belt of copper deposits (San Manuel/Kalamazoo, Silver Bell, Lakeshore, Safford, and Morenci). The Project hosts a porphyry copper deposit in addition to high-grade, near-surface, breccia mineralization.

The Palaeocene Copper Creek batholith intruded Palaeocene Glory Hole volcanics and Proterozoic to Palaeozoic sedimentary rocks and is the main mineralization host. Some of the breccias also crosscut the Glory Hole volcanics. The batholith is compositionally zoned and contains a shallowly west-dipping monzogranite domain at depth and a dioritic border phase, with the bulk being granodioritic composition. Four main types of granodiorites to quartz diorite porphyry dykes and plugs have been recognized; these largely intruded as narrow, steeply dipping dykes and plugs before and during mineralization.

The underground resource occurs largely in early halo (EH) porphyry-style veins and magmatic cupola zones, while the open pit resource is dominantly hosted in magmatic-hydrothermal breccias. Hypogene copper mineralization is predominantly contained in chalcopyrite and bornite. During deposit formation, the near-surface mineralized breccias were subjected to partial in-situ oxidization that transformed part of the sulphides into secondary copper oxides.

The current geological understanding is considered sufficient for conceptual exploration targeting, geological modelling, and resource estimation of the Copper Creek deposits.

1.4 Status of Exploration, Development, and Operations

The Project has been operated by multiple explorers for over 100 years, with a long history of small-scale mining dating from the 1860s that is detailed in Section 6. Historical copper mining occurred at Copper Creek, with the last production in the 1980s. Historical copper production was mainly from two breccia bodies, referred to as Childs Aldwinkle and Old Reliable.

Exploration conducted on Copper Creek dates back to 1914. Various historical resource estimates on the Project have been provided by various authors since 2012. These resources are historical in nature. The historical estimates that predate this report have been superseded by the Mineral Resource in this report.

After the 2013 PEA and through 2016, Anglo American funded a 7,572m drilling program and additional exploration work under an option agreement with Redhawk Copper, Inc. On August 31, 2018, CopperBank Resources, Corp. (CopperBank) acquired Redhawk Resources, Inc., the parent company of Redhawk Copper, Inc., in which Copper Creek became the flagship project of its portfolio. CopperBank continued to operate the Copper Creek Project under the Redhawk Copper, Inc. name in the United States of America (USA). In September 2021 a new team took over the management of the company and recommenced technical work on the project which included the commencement of a core drilling program, relogging and sampling a portion of the historical drilling, expanding land acquisition around the main portion of the district, reviewing metallurgical studies, and conducting a detailed geotechnical program.

In February 2022, CopperBank initiated a 6,000m core drilling program designed to test previously undrilled areas between known breccia bodies and to collect structural, metallurgical, geotechnical, and hydrogeological information.

In April 2022, the shareholders of CopperBank approved a name change to Faraday Copper Corp. (Faraday; TSX: FDY). All subsequent work has been completed under the Faraday name.

The Phase 1 drilling program was completed by Faraday in June 2022 and totalled 5,923 m in nine drillholes. This report includes an updated geological model and current MRE for which assays collected from the Phase 1 drilling were utilized.

In May 2022, Faraday delivered a geological model based on the relogging of approximately 15,000 m of historical core covering the breccia-style mineralization, observations from new drilling, short wave infrared spectral data, multi-element geochemistry, and detailed relogging of core from the Keel and American Eagle porphyry-style mineralization completed by Faraday geologists. In 2023, these data and new information from Phase I drilling (February to June 2022) were modelled in Seequent Leapfrog Geo™ to generate three-dimensional (3D) wireframe models that were used to constrain the MRE. Moreover, the Copper Creek geological model and MRE are delineated at surface by newly acquired, detailed, 1 m contour topography.

Significant exploration upside remains at the Copper Creek Project. There are over 400 known breccia occurrences mapped at surface, of which only 35 have been drilled and 17 are included in the current MRE. Faraday is developing exploration plans for subsequent phases of drilling at the Project. As disclosed in periodic news releases by Faraday, further exploration and infill drilling has been completed since the data cut-off date for this report. These drillhole data will be incorporated into future model and estimation updates.

1.5 Mineral Processing and Metallurgical Testing

A metallurgical test work program utilizing samples from the Phase I drilling was completed in April 2023 to complement the historical test work. Metallurgical testing which evaluated comminution properties, mineralogy, and flotation response was conducted by ALS Metallurgy, Kamloops (ALS), and tailings filtration testing was completed by BaseMet, Kamloops, with oversight by Ausenco. This test work program was designed to accomplish the following key objectives on samples taken throughout the open pit and deemed representative of the first few years of the mine life:

- Develop process design criteria with test work results from spatially representative samples of the current mineral resource and grade.
- Comminution test work to confirm grinding energy requirements.
- Confirm flotation recoveries for both open pit sulphide and transitional materials.
- Mineralogical analyses to inform future performance by domain.
- Solid–liquid separation test work to confirm dry stack tailings performance.

The outcomes of the 2023 test work were assimilated with the historical test work from Mountain States R&D International (MSRDI 1995 & 1997) and METCON Research (METCON, 2008 & 2012) to form the basis of the process design criteria for this PEA.

The general mineralogy of Copper Creek samples is summarized as follows:

- Copper bearing sulphide mineral grains are generally very coarse, measured at distributions of 130 µm P_{80}. The sulphide grains measured high degrees of liberation at primary grind sizes of 150 µm P_{80}.
- Chalcocite occurs on the upper portions within the oxide and transitional zone, typically within 40 m from surface and locally deeper along fractures. Chalcocite is noted to replace chalcopyrite and bornite. It is possible some of the bornite in this upper zone may be supergene in origin.
- Chalcopyrite is the primary copper sulphide in the main hypogene zone and occurs with minor levels of bornite.
- Bornite commonly occurs together with chalcopyrite at depth at American Eagle and the Keel cupola zone.
- MSRDI indicates that some tennantite occurs, usually overprinting chalcopyrite and bornite, in samples that originated below 1,055 m depth. Above this elevation, the tennantite content is generally at trace levels.
- The metallurgical samples evaluated were generally low in pyrite content.

Historical comminution data indicated ball mill bond work index (BWi) values ranging from 12.7 to 15.7 kWh/t. Recent testing at ALS Metallurgy confirmed this range of grindability values on 8 samples which averaged 14.0 kWh/t. SAG Mill Comminution (SMC) drop weight tests were also conducted, which suggested an Axb value of 38 would be suitable for design to process the harder sulphide material.

Recent flotation performance confirmed the favourable response on sulphide samples that had been measured in historical test programs. Copper recoveries of 94% to final concentrates were achieved at primary grind sizes of approximately 200 µm P_{80} and modest levels of regrinding. Transitional flotation response was more varied but suggested that the copper sulphide minerals performed similarly. Oxide minerals such as malachite and azurite were activated by sulphidization which augmented copper recovery. Final concentrate grades were achieved on transitional samples without regrinding.

The results from the recent testing were considered along with the historical oxide leach testing, in the development of recovery forecasts by Ausenco:

- Given that sulphide copper recovery was insensitive to copper feed grade, a copper recovery of 94.4% is projected for sulphide material flotation.
- A geometallurgical approach was used to develop a copper recovery relationship as a function of feed grade for the transitional material. An average copper bearing mineral assemblage was estimated, and the derived copper recovery equation returns a value of 73.7% at a copper feed grade of 0.40%.
- Molybdenum recovery equations related to feed grades were also developed separately for the sulphide and transitional materials, although performance is similar. A Cu-Mo separation circuit recovery of 90% is applied to estimate recovery to the final molybdenum concentrate. At feed grades of 50 g/t Mo, recovery from sulphide and transitional materials are estimated to be 71.3 and 73.9%, respectively.
- A global silver recovery relationship to silver feed grade was developed , a recovery of 75.1% is estimated at a feed grade of 1.2 g/t silver.
- Oxide heap leach copper recovery is estimated at 75% using a 50 mm crush size.

Additional test work is recommended to confirm these recovery projections for future studies.

Concentrates generated from the recent test work did not contain deleterious elements that were above typical penalty levels for a smelter. Elevated arsenic contents were present in some sulphide materials at depth; however, it is understood that the elevated arsenic levels in the feeds are localized and can be addressed with concentrate blending should the resulting concentrate content become problematic.

1.6 Mineral Resource Estimate

The mineral resource presented herein represents an evaluation of 17 near-surface breccia units and the deeper porphyry zone. The resource estimation is supported by logging, drilling, and sampling current to an October 27, 2022, data cut-off date. The resource estimation methodology conducted by SRK involved the following procedures:

- database and geological model review;
- data conditioning for statistical analysis (capping review and compositing);
- block modelling and grade interpolation;
- resource classification and validation;
- assessment of reasonable prospects for eventual economic extraction (RPEEE);
- application of reporting cut-off grades (CoG) for conceptual mining scenarios; and
- preparation of the mineral resource statement.

SRK has defined the mineral resource (Table 1-1) based on variable CoG derived from assumed economics for both open pit and underground mining potential. The estimation was constrained within discrete breccia domains interpreted by Faraday based on geological logging and assay grades. SRK reviewed the breccia interpretations and updated the wireframe boundaries to reflect the results of the 2022 Phase I drilling program, as available by the data cut-off date of October 27, 2022. Estimation within the breccias considered only the composites and blocks within each unique domain and assumed hard boundary conditions at the breccia unit outer contacts to constrain smearing of often high grades in the breccias. Estimation outside of the defined breccia units, within the deeper porphyry-style mineralization and halo zones around the near-surface breccias, considered a 5 m soft boundary with the breccia units.

Table 1-1: Combined Open Pit and Underground MRE, Copper Creek Project, as of February 9, 2023

Category	Tonnage (Mt)	Grade				Contained Metal			
		Cu (%)	Mo (%)	Ag (g/t)	CuEq (%)	Cu (Mlb)	Mo (Mlb)	Ag (Moz)	CuEq (Mlb)
Open Pit									
Measured	67.2	0.48	0.008	1.2	0.51	710.5	12.5	2.6	751.1
Indicated	59.9	0.31	0.008	0.6	0.33	412.9	10.1	1.1	440.5
Measured and Indicated (M&I)	**127.1**	**0.40**	**0.008**	**0.9**	**0.43**	**1,123.4**	**22.6**	**3.8**	**1,191.6**
Inferred	48.1	0.28	0.006	0.5	0.30	298.4	6.4	0.7	316.0
Underground									
Measured	34.5	0.47	0.011	1.6	0.51	359.8	8.0	1.7	388.0
Indicated	260.3	0.47	0.008	1.2	0.50	2,720.6	43.9	10.0	2,876.8
Measured and Indicated	**294.8**	**0.47**	**0.008**	**1.2**	**0.50**	**3,080.4**	**52.0**	**11.8**	**3,264.8**
Inferred	35.5	0.42	0.009	0.8	0.45	329.7	7.1	0.9	353.0
Total (Open Pit and Underground)									
Measured	101.6	0.48	0.009	1.3	0.51	1,070.3	20.5	4.4	1,139.1
Indicated	320.2	0.44	0.008	1.1	0.47	3,133.5	54.0	11.2	3,317.3
Measured and Indicated	421.9	0.45	0.008	1.1	0.48	4,203.8	74.6	15.5	4,456.4
Inferred	83.6	0.34	0.007	0.6	0.36	628.2	13.4	1.7	669.0

Source: SRK, 2023
CuEq: Copper equivalent; g/t: grams per tonne; Mlb: million pounds; Moz: million troy ounces; Mt: million tonnes.
Notes: The mineral resources in this estimate were prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions and Guidelines (CIM, 2014) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.
All dollar amounts are presented in U.S. dollars.
Pit shell constrained resources with RPEEE are stated as contained within estimation domains defined by the following cut-off grades: 0.13% CuEq for oxide material, 0.14% CuEq for transitional material, and 0.13% CuEq for sulphide material. Pit shells are based on an assumed copper price of \$3.80/pound (lb), assumed molybdenum price of \$13.00/lb, assumed silver price of \$20.00/troy ounce (oz), and overall slope angle of 47 degrees (°) based on preliminary geotechnical data. Operating cost assumptions include open pit mining cost of \$2.25/tonne (t), processing cost of \$7.60/t for milling transitional and sulphide material, \$4.56/t for oxide processing, general and administrative (G&A) costs of \$1.00/t, and treatment charges and refining charges (TCRC) and freight costs dependent on product and material type.
Underground constrained resources with RPEEE are stated as contained within estimation domains above 0.31% CuEq CoG. Underground bulk mining footprints are based on an assumed copper price of \$3.80/lb, assumed molybdenum price of \$13.00/lb, assumed silver price of \$20.00/oz, underground mining cost of \$7.30/t, processing cost of \$7.60/t, G&A costs of \$1.00/t, and TCRC and freight costs of \$6.50/t.
Average bulk density assigned by domain is as follows: 2.47 grams per cubic centimetre (g/cm^3) for all near-surface breccias, 2.60 g/cm^3 for the deeper Mammoth and Keel breccias, porphyry mineralization, and all other areas outside of breccias.
Variable metallurgical recovery by metal and domain are considered for CuEq as follows: copper recovery of 92%, 85%, and 60% within sulphide, transitional, and oxide material, respectively; molybdenum recovery of 78% and 68% for sulphide and transitional material, respectively; and silver recovery of 50% and 40% for sulphide and transitional material, respectively.
CuEq is calculated by material type domain based on the above variable recovery. For example, sulphide CuEq = [(Cu grade/100 * 0.92 Cu recovery * 2,204.62 * 3.8 Cu price) + (Mo grade/100 * 0.78 Mo recovery * 2,204.62 * 13 Mo price) + (Ag grade * 0.50 Ag recovery * 20 Ag price/31.10348)] / (0.92 Cu recovery * 2,204.62 * 3.8) * 100.
Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
All quantities are rounded to the appropriate number of significant figures; consequently, sums may not add up due to rounding.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

The MRE for Copper Creek is based on the current drillhole database, revised lithology from relogging, discrete breccia wireframe domain models, and current detailed topographic data provided by Faraday. The resource estimation data cut-off date is October 27, 2022. is supported by logging, drilling, and sampling current to an October 27, 2022, data cut-off date. SRK undertook the technical work on the geological model and grade estimates between November 2022 and January 2023, with the final assessment for RPEEE completed at the start of February 2023. Based on this assessment, the effective date of the resource statement is February 9, 2023.

As of the data cut-off date, the current drillhole database contained validated assay data from the majority of Faraday Phase 1 drilling, except FCD-22-001, which was pending results. Geological logging data was available from all nine of the Phase 1 drillholes. Between the end of October 2022 and May 2023, SRK conducted the technical work reflected in this disclosure, including incorporation of recovery data and consideration of potential mining scenarios for resource reporting, which resulted in the May 3, 2023 effective date of this report.

During deposit formation, the near-surface mineralized breccias were subjected to partial in-situ oxidization that transformed part of the sulphides into secondary copper oxides. Three domains are recognized within the open pit resource, referred to as Oxide, Transitional, and Sulphide. The underground resources are comprised of only sulphide mineralization. Table 1-2 reports the Copper Creek mineral resources by domain.

Table 1-2: Open Pit MRE, Copper Creek Project, as of February 9, 2023

Category	Domain	Tonnage (Mt)	Grade				Contained Metal			
			Cu (%)	Mo (%)	Ag (g/t)	CuEq (%)	Cu (Mlb)	Mo (Mlb)	Ag (Moz)	CuEq (Mlb)
Measured	Oxide	5.9	0.36	0.006	0.9	0.36	47.0	0.8	0.2	47.0
	Transitional	11.0	0.42	0.006	0.8	0.44	101.6	1.5	0.3	106.4
	Sulphide	50.3	0.51	0.009	1.3	0.54	561.9	10.2	2.2	597.7
	Total	**67.2**	**0.48**	**0.008**	**1.2**	**0.51**	**710.5**	**12.5**	**2.6**	**751.1**
Indicated	Oxide	7.1	0.29	0.009	0.6	0.29	45.7	1.4	0.1	45.7
	Transitional	10.8	0.31	0.008	0.6	0.34	74.4	1.8	0.2	80.0
	Sulphide	42.1	0.32	0.007	0.6	0.34	292.8	6.8	0.8	314.8
	Total	**59.9**	**0.31**	**0.008**	**0.6**	**0.33**	**412.9**	**10.1**	**1.1**	**440.5**
M&I	Oxide	13.0	0.32	0.008	0.8	0.32	92.7	2.2	0.3	92.7
	Transitional	21.7	0.37	0.007	0.7	0.39	176.0	3.3	0.5	186.4
	Sulphide	92.3	0.42	0.008	1.0	0.45	854.7	17.0	2.9	912.6
	Total	**127.1**	**0.40**	**0.008**	**0.9**	**0.43**	**1,123.4**	**22.6**	**3.8**	**1,191.6**
Inferred	Oxide	8.1	0.25	0.005	0.4	0.25	44.3	0.8	0.1	44.3
	Transitional	12.6	0.30	0.005	0.4	0.32	84.0	1.3	0.2	88.1
	Sulphide	27.5	0.28	0.007	0.5	0.30	170.2	4.2	0.5	183.7
	Total	**48.1**	**0.28**	**0.006**	**0.5**	**0.30**	**298.4**	**6.4**	**0.7**	**316.0**

Notes: Refer to the notes following Table 1-1.

1.7 Mineral Reserve Estimate

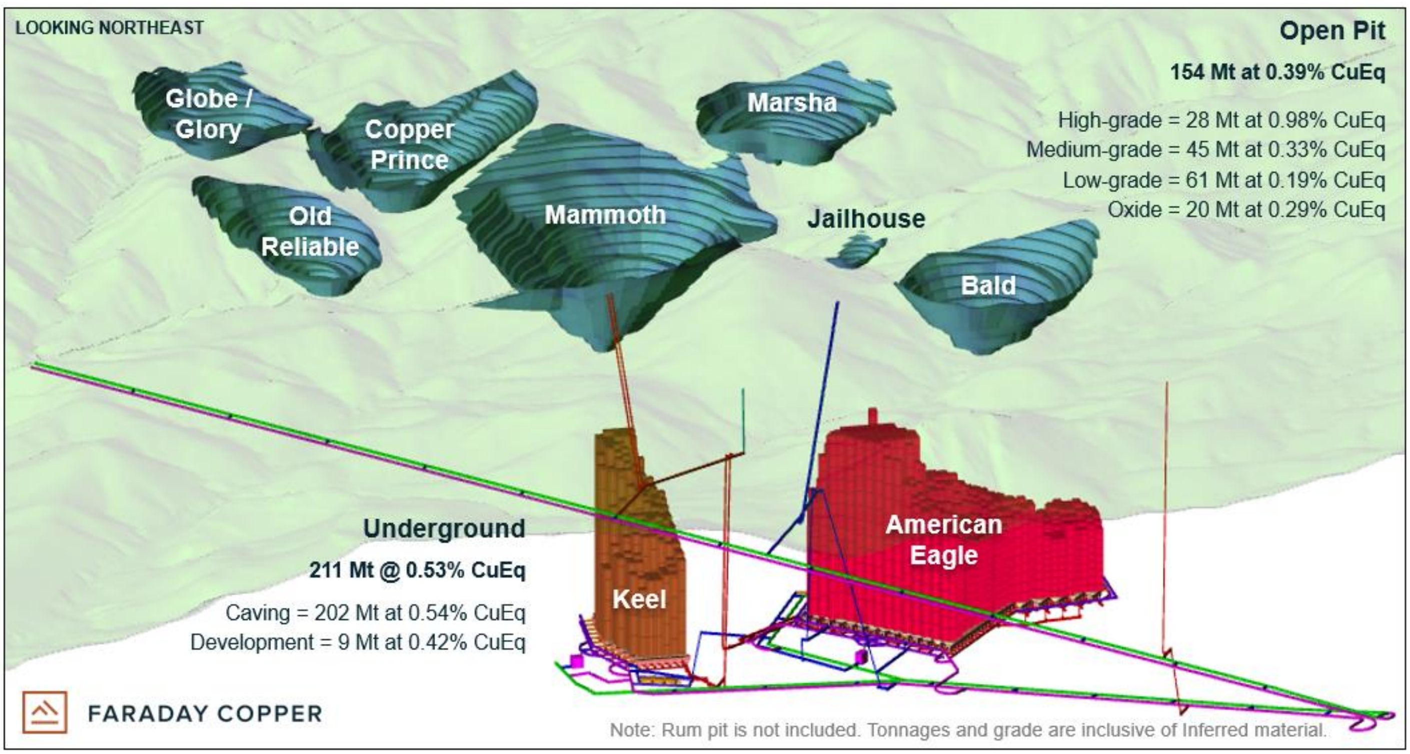
A pre-feasibility study (PFS) is required to demonstrate the economic merit of mineral resources for any conversion to mineral reserves. At this time, no such PFS study has been completed; therefore, the Project currently has no defined mineral reserves according to CIM Definition Standards (CIM, 2014).

1.8 Mining Methods

1.8.1 Mining Overview

The open pit and underground mine plans were developed by SRK. Mining is expected to be by contractor conventional truck and shovel methods at surface and by contractor during underground development (pre-production). Underground mining will transition to an owner-operated block caving underground operation to achieve a base annual mill feed rate of 11.0 Mt (30,000 t/d). Figure 1-2 illustrates the overall mine design for both the open pit operations and the underground operations.

Figure 1-2: Mine Design Overview (isometric view looking northeast)

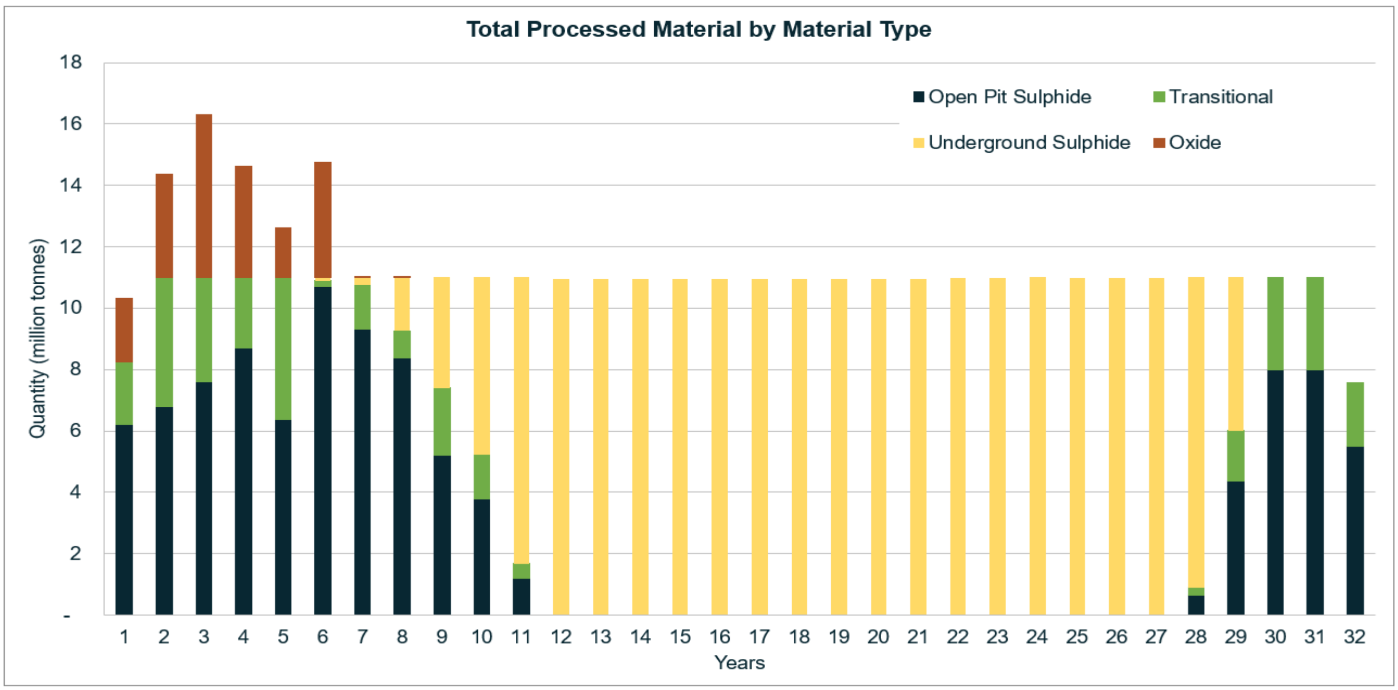


Source: SRK, 2023
Note: Mammoth pit includes the Mammoth and Childs Aldwinkle breccias, and the Copper Prince pit includes numerous breccias such as Copper Prince, Copper Giant, Copper Duchess, and Copper Knight.

Figure 1-3 illustrates the total processed material by material types over the life of the mine. Surface mining provides mill feed until Year 11. A four-year open pit ramp down coincides with the underground production ramp-up, achieving steady-state production by Year 12 and continuing until Year 29. Current mine plan optimization has applied an open pit stockpiling strategy, whereby low-grade material mined from the pits would be stockpiled and processed as supplementary mill feed or fed to the mill at the end of the mine life. The low-grade stockpile peaks at 56.5 Mt, of which 20.0 Mt would be processed as supplementary feed between Years 7 and 11, and the remaining 36.5 Mt would be processed between Years 28 and 32.

The base annual throughput would be primarily sulphide material, with some transitional material mined from the open pits. Oxide material recovered near-surface in the early years of the anticipated mine life would be segregated and processed separately in a heap leach facility. The heap leach contribution will be in addition to the 11.0 Mt base annual throughput (Figure 1-3).

Figure 1-3: Total Processed Material by Material Type



Source: SRK, 2023

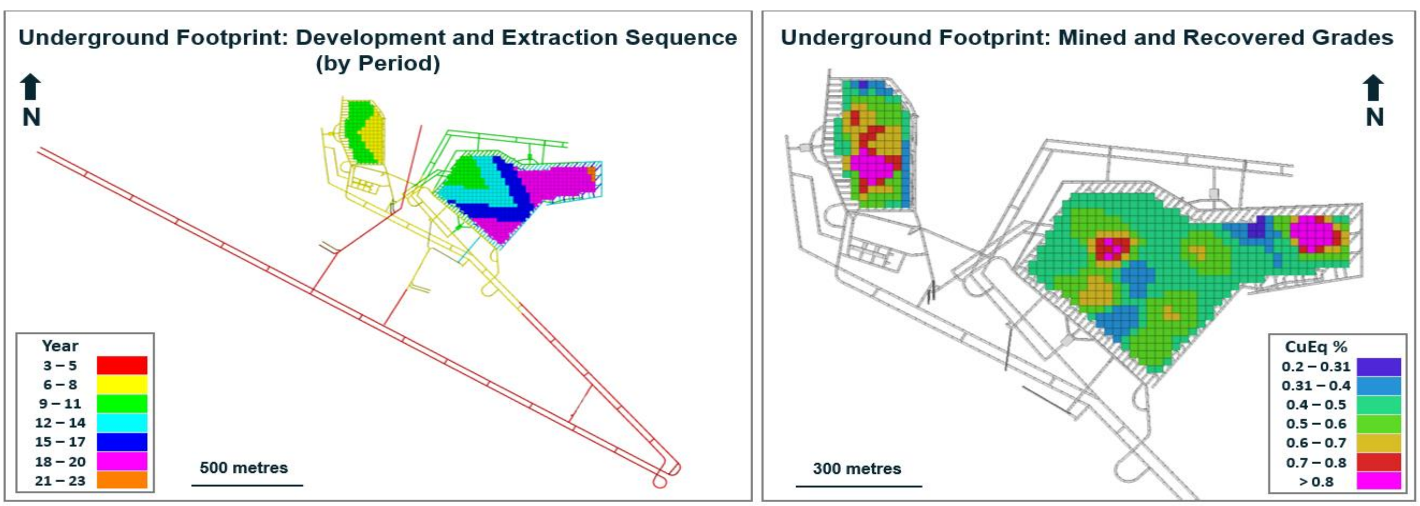
Open pits include Mammoth, the largest open pit, and several smaller satellite pits. Mammoth would be mined in three phases, generally from the northwest to the southeast, while each of the satellite pits would be a single phase. Open pit CoG are dictated by metal price and consider material type, processing costs, recovery and selling costs. The direct feed CuEq CoG for sulphide and oxide material is 0.13% CuEq, while for transitional material it is 0.14% CuEq. Material reporting to a stockpile has a slightly higher CoG than direct mill feed material to account for rehandling costs.

Table 1-3: Open Pit Summary – Material Processed by Year

	Units	Total	1	2	3	4	5	6	7	8	9	10	11	28-32
Total Processed Pit Material	Mt	**153.7**	10.3	14.3	16.3	14.6	12.6	14.7	10.8	9.3	7.4	5.2	1.7	36.5
Sulphides and Transitional	Mt	**133.9**	8.3	11.0	11.0	11.0	11.0	10.9	10.8	9.3	7.4	5.2	1.7	36.5
	%Cu	**0.37**	0.50	0.78	0.38	0.44	0.39	0.42	0.48	0.49	0.29	0.17	0.17	0.17
Oxides	Mt	**19.8**	2.1	3.3	5.3	3.6	1.6	3.8	-	-	-	-	-	-
	%Cu	**0.29**	0.29	0.27	0.41	0.20	0.21	0.25	-	-	-	-	-	

The underground cave footprints would be accessed via a twin decline system providing access and material conveying to surface (Figure 1-4). The mine plan for the underground block cave contemplates development of the twin declines commencing in Year 3 with initial cave production beginning six years after. Underground cave production would ramp up over an approximately four-year period and would achieve steady-state production rate of 30,000 t/d in Year 12 (Table 1-4). The Keel and American Eagle extraction horizons are located at approximately 900 m and 760 m below the portal elevation, respectively. The cave footprints are 300 m laterally offset. The average height of draw of the Keel and American Eagle domains is 375 m and 337 m, respectively. The maximum vertical height of draw was constrained to 500 m for the purpose of the PEA design.

Figure 1-4: Plan Views of Underground Footprint: Extraction Sequence by Period (left) and Mined and Recovered Grades (right)



Source: SRK, 2023

Table 1-4: Underground Production Schedule by Source

Source	Unit	Total	6	7	8	9	10	11	12	13	14	15	16-20	21-25	26-29
Keel	Mt	47.0	-	-	0.85	2.94	5.17	6.80	7.39	6.90	5.60	3.84	7.48	-	-
	Cu %	0.55	-	-	0.48	0.59	0.62	0.60	0.56	0.54	0.51	0.50	0.50	-	-
	CuEq ii %	0.60	-	-	0.54	0.65	0.68	0.65	0.62	0.60	0.57	0.55	0.53	-	-
American Eagle	Mt	154.6	-	-	-	-	-	1.61	2.78	3.27	4.55	6.30	44.11	54.95	37.08
	Cu %	0.49	-	-	-	-	-	0.39	0.40	0.45	0.49	0.49	0.53	0.53	0.40
	CuEq ii %	0.51	-	-	-	-	-	0.45	0.45	0.48	0.52	0.51	0.56	0.56	0.42
Development	Mt	9.7	0.11	0.25	0.88	0.65	0.61	0.92	0.78	0.77	0.79	0.81	3.16	-	-
	Cu %	0.39	0.30	0.37	0.39	0.56	0.36	0.35	0.34	0.31	0.32	0.35	0.43	-	-
	CuEq ii %	0.42	0.31	0.42	0.45	0.61	0.40	0.40	0.38	0.35	0.34	0.38	0.46	-	-
Total	Mt	211.4	0.11	0.25	1.73	3.60	5.77	9.33	10.95	10.95	10.95	10.95	54.75	54.95	37.08
	Cu %	0.50	0.30	0.37	0.44	0.59	0.59	0.54	0.50	0.49	0.49	0.48	0.52	0.53	0.40
	CuEq ii %	0.53	0.31	0.42	0.49	0.64	0.65	0.59	0.56	0.55	0.53	0.52	0.55	0.56	0.42

1.8.2 Geotechnical Overview

Geotechnical assessments of pit slope stability and underground cavability, including fragmentation analysis, subsidence and ground support requirements, were carried out by Call & Nicholas, Tucson ("CNI"). These assessments were based on geotechnical characterizations developed from geological assessments, core logging, downhole televiewing data and laboratory rock strength analysis from the Phase I exploration drilling program (holes drilled between February and June 2022). The geotechnical program was further supported by historical core logging data and prior geomechanical studies of the pit and underground deposits.

A geotechnical assessment of multiple methods was appraised for geotechnical parameters and suitability, shortlisted to open pit mining, block caving, sub-level caving and longhole open stoping. The outcomes of the geotechnical assessment supported the selection of open pit extraction for near-surface deposits (predominantly breccia) and extraction of the underground resource (predominantly porphyry) via block caving methods. Underground mining interaction with the open pits was also assessed to ensure mine sequencing accounts for adequate phasing and realistic operability. Upon method selection for the PEA, a comprehensive geotechnical design parameter report was developed to guide an optimal and practical mine plan.

Key highlights from the PEA geotechnical assessment include:

- Open Pit
  - Geotechnical characteristics are consistent across the project area. A single structural domain characterizes the area.
  - Interramp slope angles are between 50-53 degrees for a 24 m double bench mining configuration (12 m single bench height) for all breccia pipe surface mining targets with geotechnical domains defined by wall orientation.
  - Slope angles are limited by bench-scale rather than overall slope design criterion.

- Underground Block Cave
  - The estimated adjusted rock mass rating (MRMR) of 50 results in a hydraulic radius of 30 to 38 metres for caving.
  - A caving rate of 55 m/y (15 cm/d) is estimated with no requirement for preconditioning currently deemed necessary.
  - Productive capacity of the current underground resource footprint suggests 30 to 45 kilotonnes per day (11 to 16 Mt/a).
  - The extraction level layout is to employ a herringbone configuration with extraction drive spacing of 32 m by 20 m.
  - Thermistors located in vibrating-wire piezometers indicate in-situ rock temperatures between 25 – 44 degrees Celsius, confirming the underground operation is not expected to require refrigeration.

1.9 Recovery Methods

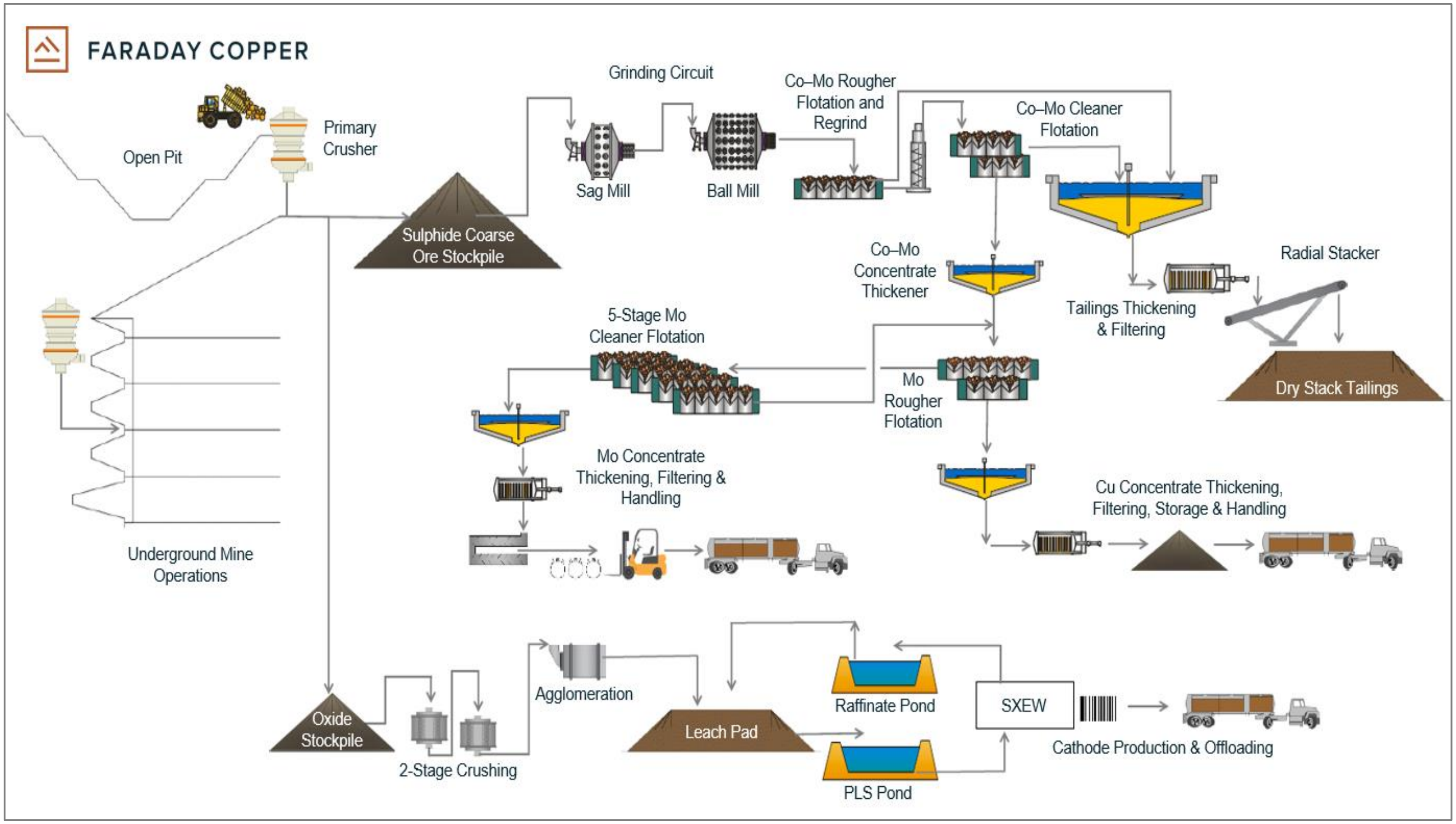
The process design incorporates a staged approach allowing for a concentrator for the recovery of copper from sulphide and transitional materials, a molybdenum circuit, and an oxide heap leaching operation to recover copper from oxide minerals found in the upper 25 m of the Copper Creek deposit.

The selected flowsheet (simplified version) includes a single stage crushing circuit with crushed materials being conveyed overland to a sulphide/transitional stockpile or an oxide stockpile.

The concentrator is designed to process material at a rate of 30,000 t/d. The plant is designed to be operated 24 hours per day, 365 days per year. Crushed mineralized sulphide and transitional materials are reclaimed to the semi-autogenous grinding (SAG), ball mill and pebble crusher (SABC) grinding circuit with the ball mill operating in closed circuit with a cyclone cluster. Cyclone overflow material reports to sequential stages of bulk Cu-Mo rougher flotation, where copper and molybdenum are separated from the gangue material. Bulk Cu-Mo rougher concentrates then report to a regrind mill for further size reduction prior to cleaner flotation. Concentrate grades are upgraded in a copper, then molybdenum, cleaning circuits to produce concentrates of requisite quality. The concentrates are dewatered in high-rate thickeners and vertical plate-and-frame filter presses to form filter cakes. Filtered copper concentrate is then handled by a front-end loader for stockpiling and loadout activities. Molybdenum concentrate is dried and packaged in super sacks for shipping. The gangue materials report from the bulk Cu-Mo rougher & Cu cleaner flotation circuits to a high-rate tailings thickener where they are thickened then fed to the filter feed tank and further dewatered via filtration for dry stacking in a dry stack tailings facility (DSTF).

The oxide heap leaching operation shown involves crushing these materials in the same primary crushing circuit used for sulphide/transitional materials and conveyance overland where they are to be diverted to a temporary stockpile and loaded onto a 2-stage crushing circuit and agglomerated with sulphuric acid prior to being conveyed to a leach pad and irrigated with pumped sulphuric acid. Pregnant leach solution (PLS) will be collected of the pad in a pond and pumped through a solvent extraction/electrowinning (SX/EW) circuit where copper will be recovered as cathode and loaded onto truck for shipment. Barren leach solution or raffinate will be recycled to a second pond where it will be supplemented with additional acid and pumped to irrigate the heap leach facility (HLF). The lined leach pad and solution ponds will be situated just north of the DSTF and operational for the first 8 to 9 years of the mine life. At which time the HLF, SX/EW and solution ponds will be decommissioned and eventually covered with dry stack tails over time.

Figure 1-5: Simplified Flow Schematic for the Copper Creek Project



Source: Ausenco, 2023.

1.10 Project Infrastructure

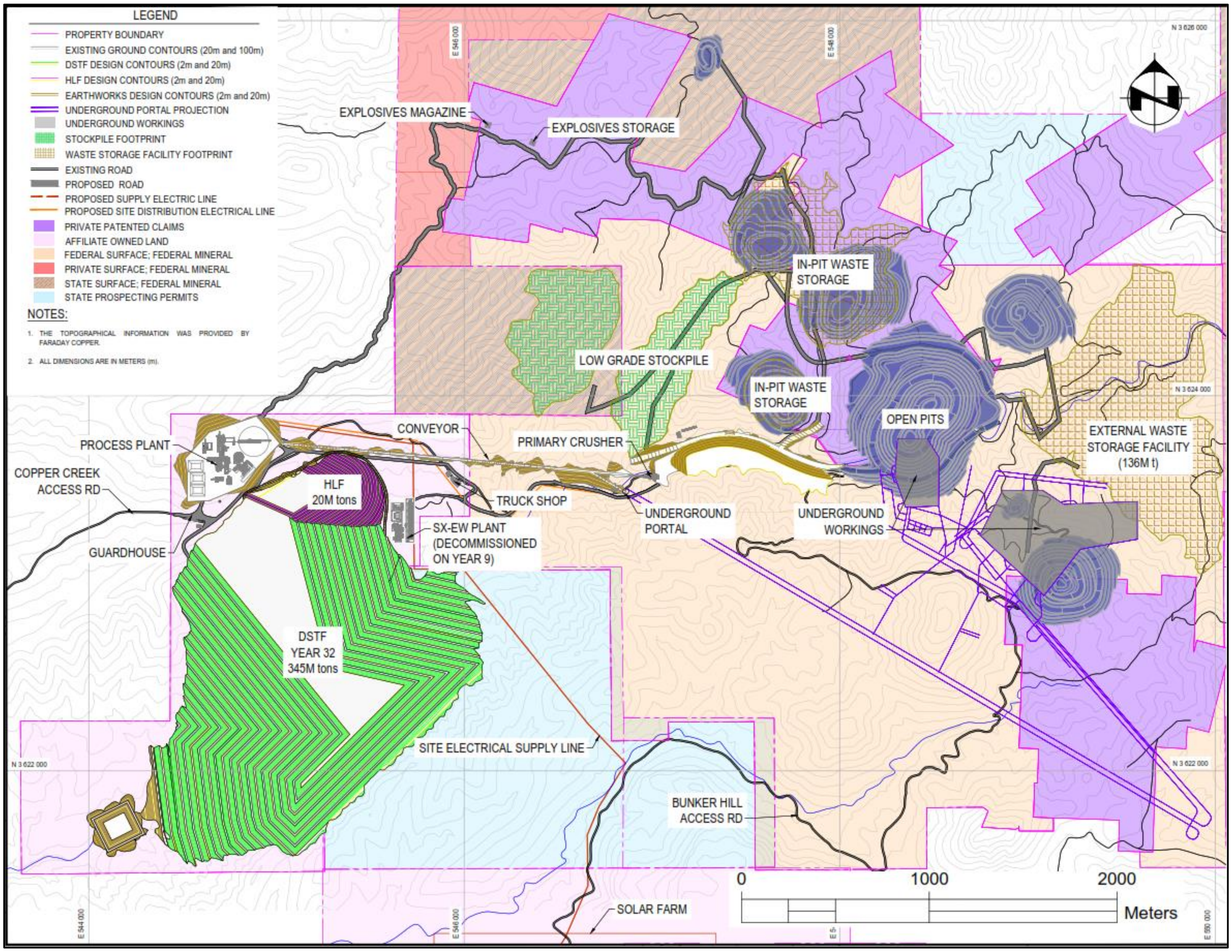
The site layout is configured to optimize materials handling synergies between open pit and underground production, minimize environmental footprint, prioritize the utilization of private and patented land to ensure operational scalability upon resource expansion. The project plans will leverage existing infrastructure such as high voltage power provision near the property, dual site access roads (Copper Creek and Bunker Hill roads), major highway(s) for concentrate haulage and rail access with loadout facilities near the property.

1.10.1 General Infrastructure

Infrastructure planned for the Copper Creek Project includes the following:

- mine facilities, including truck shop & wash bay and mine office, explosive storage facilities, a diesel fuel island and a mine dries/ operations building, the waste storage facility (WSF), low-grade stockpiles, Run-of-mine (ROM) pad, pits and underground portals, underground crushing & conveying to surface;
- common facilities, including an entrance/exit guard shack which will house site security and medical/health & safety personnel, an overall site administration building, fire and fresh or raw water distribution systems, compressed air, a main substation and associated power generation and distribution facilities, communications area, and sanitation systems;
- sulphide materials processing facilities, coarse material storage, grinding and classification, copper flotation, product regrind, copper concentrate thickening, filtering, storing and handling, tailings thickening and filtering a separate molybdenum processing facility consisting of flotation and concentrate thickening, filtering, drying and bagging systems, a covered reagent mixing and distributing facility, assay laboratory and process plant workshop and warehouse;
- oxide materials heap leaching and SX/EW facilities, including a heap leach pad, a temporary stockpile, secondary and tertiary crushing, PLS, raffinate and stormwater ponds, tank farm and acid storage;
- tailings management including conveyor belts, radial stacker, and a DSTF;
- a near-pit crushing facility with associated electrical infrastructure; and
- common facilities, including an entrance/exit guard shack which will house site security and medical/health & safety personnel, an overall site administration building, fire and fresh or raw water distribution systems, compressed air, a main substation and associated power generation and distribution facilities, communications area, and sanitation systems.

Figure 1-6: Project Site Layout



Source: Ausenco, 2023

1.10.2 Heap Leach Facility

The HLF has been designed to leach 20 Mt of crushed materials through the first 6 to 7 years of operations. The leach pad was designed with a composite liner system, consisting of compacted subgrade, a low permeability layer, and a geomembrane liner to prevent seepage into the environment. Crushed oxide materials will be stacked in 10 m lifts and leached with sulphuric acid using drip lines for 60 days prior to stacking the next lift. The collected pregnant solution will be pumped to the SX/EW plant. In addition, there is also a double lined raffinate pond and a single lined stormwater pond. The crushed oxide material will be stacked in 10 m lifts and leached with sulphuric acid using drip lines prior to stacking the next lift. Crushed materials will be stacked to a maximum height of 100 m with overall exterior slopes of 3H:1V.

1.10.3 Tailings Management

A preliminary tailing siting and deposition technology study was performed. Filtered tailings placed in a DSTF is the preferred option to limit land use outside of Faraday's land position and to reduce net operational water requirements compared to conventional tailings. The design of the DSTF was in accordance with the Global Industry Standard on Tailings Management. The footprint of the facility will be cleared, grubbed, and compacted prior to placement of tailings to improve the seepage collection system operation. The DSTF will be constructed in stages over the life of mine to optimize the economics of the facility. Conveyors and a radial stacker will be used to transport and place the tailings in the facility. Dozers and compactors will be used to compact the tailings in thin lifts to improve the overall stability and minimize infiltration of precipitation. The DSTF will be stacked from the bottom of the valley up with exterior slope of 4H:1V, which allows for progressive reclamation in the form of cover system. The DSTF also includes rock stability embankment and a seepage collection system and pond.

1.11 Markets and Contracts

Copper and molybdenum concentrates as well as copper anodes are the main products planned for the Copper Creek Project. Silver will be taken as credits in the copper concentrate. No formal market studies were completed in support of this Technical Report. The commodity prices used in the economic evaluation of the project are shown in Table 1-5. The QP considers the prices used in this study to be consistent with the range of inputs in alignment with long-term price consensus and similar studies.

Table 1-5: Price Projections

Metal	Commodity Unit	Unit Price (USD)
Copper	Pound (lb)	3.80
Molybdenum	Pound (lb)	13.00
Silver	Troy ounce (oz)	20.00

The TCRCs, treatment charges (TC) and refining charges (RCs) shown in Table 1-6 and Table 1-7, respectively were 'benchmarked' from reported annual settlement between major mining companies and Asian smelters.

Table 1-6: Transportation and Treatment Cost

Concept	Value	Unit
Transportation Cost	$46.35	per wmt
Treatment Charge	$75.00	per dmt

Table 1-7: Refining Charge

Refining Charge	Value	Unit
Copper	$0.08	per lb
Molybdenum	$1.30	per lb
Silver	$0.50	per troy oz

The metal payables used in this study are provided in Table 1-8. Other clauses may include payables for copper and silver, penalties for impurities (e.g., arsenic, bismuth, fluorine, etc.), quotational periods, payment terms and delivery (e.g., CIF major Asian port). There are no known deleterious elements that could significantly affect a potential future economic extraction. The QP is of the opinion that the information presented here is suitable for use in cashflow analyses to support this assessment.

Table 1-8: Metals Payables

Metal	Unit	Concentrate
Copper Concentrate	%	96.5%
Silver (in Copper Concentrate)	%	95.0%
Molybdenum Concentrate	%	98.5%
Copper Cathode	%	98.0%

The proposed logistics concept is to use containerized bulk handling to move the concentrates from the mine to the smelter destination or into a vessel hold. Concentrate will be trucked in containers to concentrate shed located in San Manuel, 16 km from the site. They will be loaded on to rail cars and transported, most likely, to the Port of Guaymas, Mexico. At the Port, the containers will be unloaded from the rail and stored until emptied into a shipping vessel hull which will subsequently be transported by sea to clients. Concentrates are expected to be sold to Asian smelters, however opportunities to distribute to the general market of North American and European refineries would also be considered. Empty containers are then returned to site via rail then truck. This process minimizes dust and other product losses.

There are currently no sale contracts or refining agreements in place for the Project.

1.12 Environmental, Permitting and Social Considerations

The Copper Creek Project is situated in a historic mining district which has undergone mining activities dating as far back as the 1880s. The terrain consists of mountainous, steep hills and narrow valleys. In addition to historical mining and mineral exploration activities, livestock grazing, hunting and dispersed recreation are the predominant land uses.

The primary access to the Project from Mammoth is via Copper Creek Road (a 15 km public gravel road) or alternatively, via Bunker Hill Mine Road, a private gravel road which runs through Faraday-owned ranch lands. The towns of Mammoth and San Manuel are the two closest communities to the Project which have faced economic challenges due to the closure of nearby mining operations. The Copper Creek Project aims to provide local employment and economic stimulus without burdening either community.

Although the Copper Creek Project does not encompass any Native American lands, Faraday has proactively engaged with local tribal communities.

Permits issued for the Project will need to meet specific design and monitoring requirements set by regulatory agencies such as the BLM, ADEQ (Arizona Department of Environmental Quality), ADWR (Arizona Department of Water Resources) and the U.S. Army Corps of Engineers (USACE).

1.12.1 Environmental Considerations

A limited number of environmental baseline studies and reports were completed between 2007 to 2013 by Redhawk Copper in support of the 2013 PEA (Preliminary Economic Assessment 25,000 TPD Mill with an Underground Mine for Development of the Copper Creek Resource). Since resuming exploration drilling activities at the Project site in 2022, the Company has initiated a series of environmental baseline monitoring programs including surface and groundwater sampling and monitoring, updated biological evaluations and a waterway assessment to clarify WOTUS (Waters of the U.S.) classification (if at all applicable).

The Copper Creek watershed drains into the San Pedro River. In 2014, ADEQ designated the lower portion of Copper Creek and the portion of the San Pedro River immediately downstream of Copper Creek's confluence as impaired waterways, indicating that these waters do not meet established surface water quality criteria (Arizona Secretary of State, 2016). Copper Creek is reported to be impacted with cadmium, copper, iron, selenium and zinc while the San Pedro River is locally impacted with selenium. Stream flow in Copper Creek is characterized as intermittent and ephemeral with flows responding to precipitation events and evapotranspiration.

The project area is underlain by a bedrock aquifer system that is separated from the primary basin-fill aquifer by west-dipping, mountain-bounding faults. Most groundwater occurs locally within igneous rocks. Wells drilled in bedrock typically yield 10 gallons per minute (gpm), whereas wells completed in the basin yield more than 1,000 gpm. Groundwater is also encountered locally in alluvium and weathered bedrock that underlie site streams including Copper Creek, Mulberry Wash and Saloon Gulch. Observed ground water level measurements in these wells suggest significant variation coincident with summer and winter precipitation events.

The Nature Conservancy (2012) mapped the vegetation surrounding the project area as transitional which included the Arizona Upland subdivision of the Sonoran Desert scrub biotic community, Semidesert Grassland biotic community, Interior Chaparral biotic community, and Madrean Evergreen Woodland biotic community which was field verified by WestLand Resources Inc. (Westland) also in 2012. Stretches along the creek support vegetation of a mesoriparian nature whereas ephemeral drainages in the project area generally support a discontinuous xeroriparian vegetation community of mainly upland species. The semidesert grassland was observed to occur at higher elevations or along cooler northerly facing slopes.

The yellow-billed cuckoo (*Coccyzus americanus* [western Distinct Population Segment]) and the monarch butterfly (*Danaus plexippus plexippus*) are two federally-listed species which may have a potential to occur in the project area due to surrounding vegetation being similar to their known habitat, however, neither species have been observed in the proposed mining area to date. These species may fall under the Endangered Species Act (ESA, Section 7), however, further studies are required to ascertain their presence or absence. Designated critical habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*; SWFL) which includes several miles along the San Pedro River, including at the Copper Creek confluence, may be applicable.

Due to the historical nature of the Project and modest past production, several legacy tailings, waste rock piles, adits, and an evaporation catchment settling pond system exists. These are situated primarily on BLM land positions. Faraday would consider voluntarily reclaiming and mitigating these historic impacts as part of their future Mine Plan of Operations (MPO) to ensure the property is restored to the highest standard of modern mine reclamation.

1.12.2 Permitting

The Project has several favourable attributes which should be considered from a permitting perspective. These include proximity to existing mining districts and associated infrastructure and its remoteness from residential and urban centres.

The Project currently holds a valid multi-sector general permit (MSGP) as well as a corresponding storm water pollution prevention plan (SWPPP) with ADEQ. As part of the MSGP permit bi-annual sampling is conducted at four (4) outfall locations. Additionally, through Pinal County, the Project maintains a Dust Permit (DUSTGEN-22-097) in good standing for land stripping and/or earthmoving for up to 40 acres in support of exploration platform building and road maintenance on private property. On May 20, 2022, the Company submitted an exploration drilling program plan of operation (EPO) to the U.S. Department of the Interior (DOI), BLM, Gila District Office, Safford Field Office. This permit was accepted by the BLM and is currently under review for approval. The permit requests a total of 29.41 acres of disturbance on BLM land for access roads and drill pad development over previously disturbed areas. On January 24, 2023, the Company submitted two geological field operation plans (GFOP) to the ASLD for aerial geophysical surveys and geochemical ground sampling.

The following is a list of potential environmental permitting considerations for the Project.

Table 1-9: Copper Creek Environmental Permitting Considerations

Permit Effort	Agency	Description/Assumptions
MPO/NEPA	Bureau of Land Management (BLM)	Assumes that level of impacts will require an Environmental Impact Statement (EIS)
Air permit	ADEQ/Pinal County	Up to Title V permit for the mill project with new source review (NSR), and Prevention of Significant Deterioration (PSD) requirements; includes quality assurance and collection of ≥1 year meteorological data and emissions modelling
CWA Section 404/NEPA	US Army Corps of Engineers	For all discharges of fill to waters; assumes an individual permit will be required for tailings facilities and reroute of Copper Creek. Does not include cost for mitigation.
Endangered Species Act Compliance	Lead Federal Agency	Required for all federal actions; assumes informal consultation for potential impacts to one or more species.
National Historic Preservation Act Compliance	Lead Federal Agency and SHPO	Includes Class I and Class III survey, treatment plan, and coordination. Data recovery not included.
Aquifer Protection Permit	ADEQ	APP needed for waste rock, heap leach, ponds and tailings facilities; monitoring well installation required
Right-of-Way Access	Arizona State Land Department	Assumes that roadway widening or other modification will be required for access; includes resource surveys
Reclamation Plan	State Mine Inspector	Needed for mining disturbances over 2 hectares on private land
Dam Safety Permit	ADWR	Needed for jurisdictional impoundments (greater that 7.6 m embankment height or greater than 6.2 ha-m (50 ac-ft) storage capacity); assumed not required for the Project.

1.12.3 Mine Waste & Water Management Strategies

The Project will create waste rock from mine development and tailings as a by-product of mineral processing. A common mine waste management consideration is the prevention and control of metal leaching/acid rock drainage (ML/ARD) from the tailings, and any acid generating or potentially acid generating (PAG) waste rock that is produced during mine development or operations. From a general perspective, the presence of PAG and ARD materials is not anticipated for the Project.

Strategies for water management include the following:

- expand the use of diversion structures to the greatest extent practicable;
- manage surface erosion;
- recycle water whenever possible;
- treat water if required; and
- monitor water quality to ensure standards are met.

1.12.4 Closure and Reclamation Considerations

The proposed reclamation/closure design elements for the Project include the following general concepts:

- Selectively place materials in their final design configuration wherever possible.
- Reclaim WSF, DSTF and all other earthen facility surfaces with either suitable waste rock or salvaged topsoil materials and revegetate.
- Recontour sloped surfaces to minimize erosion.
- Cover disturbed surfaces with topsoil and hydroseeded with a native seedbank to promote revegetation for wildlife habitat and grazing.
- Facility grading and stormwater controls will be designed to route stormwater runoff off away from the reclaimed surfaces as practicable.
- All building facilities will be decommissioned, demolished, and any intact, reusable equipment and structural components salvaged to the extent possible. The removal of the installed utility lines, regrading and revegetating is also planned for these disturbed areas.
- Pit will be backfilled and perimeter fencing around the pits is to remain intact.

Closure activities with respect to the underground mining operation will include barricading decline portals with security fencing and locks and fencing is to be erected around the perimeter of the projected subsidence cone.

Post-closure site monitoring and activities include continued surface and groundwater monitoring, stormwater conveyance and erosion monitoring and maintenance, drain-down solution management and monitoring of the DSTF and HLF facilities. Regional groundwater, pit lake, and surface water monitoring (quality and flows) including the management of wildlife watering locations and special-status species monitoring are also anticipated. Reclamation success monitoring and maintenance will be sustained for 5-years once final covers and/or reclamation activities occur. Reclamation will be staged as needed.

1.12.5 Social Considerations

The Copper Creek Project is located within an area primarily used for livestock grazing, hunting, dispersed recreation in addition to mineral exploration and is zoned as a General Rural Zone (GR) by Pinal County, Arizona, Assessor's Office. Portions of the project are covered by agricultural leases for livestock grazing. Mammoth and San Manuel, Arizona, are the two closest communities within the vicinity to the Project, which were both purpose-built for historic and modern mining activities. Combined, both towns have a 2020 population census of approximately 5,200 people. The town of San Manuel was constructed in the mid-1950s by Magma Copper Company to support their mining operations at the San Manuel Copper mine for 45 years. Both the towns of Mammoth and San Manuel have faced economic challenges due to the closure of nearby mining operations.

As the Project progresses through development, local employment opportunities and economic stimulus to the local communities is anticipated. It is anticipated that approximately 200+ individuals would be employed during construction of the Project and more than 500 persons (including a head count of approximately 300 persons for mining, 150 persons for process operations, and the remainder administrative staff) at peak sustained operations over the 30+ year mine life planned for the Project, while reclamation and closure efforts would employ approximately 20 individuals. The Project would not require a camp facility as the location is easily accessible from the townsites of Mammoth, San Manuel and Oracle, as well as being approximately 80 road km northeast from the city of Tucson.

The Company is dedicated to continuing transparent, inclusive dialogue with all stakeholders, adhere to social and environmental standards, respect human rights and collaborate with community members to address concerns and prioritize sustainability development of the Project. The Company is committed to ensuring the community is not subjected to any adverse impacts related to hazardous waste generation, any other environmental justice concerns by adhering to strict environmental standards and regulations. Outreach to local tribal communities has been paramount for inclusion in the development of the Project.

1.13 Capital and Operating Cost Estimates

1.13.1 Capital Cost Estimates

An overall cost estimate was developed by both Ausenco and SRK for the Copper Creek Project. The capital cost estimate conforms to Class 5 guidelines for a PEA-level estimate with a +50%/-30% accuracy according to the Association for the Advancement of Cost Engineering International (AACE International). The cost estimate for the Project is presented in United States Dollars (USD) with a base date of the first Quarter (Q1) 2023. Ausenco estimated the cost to install the major process equipment, associated infrastructure, facilities, and other engineering requirements to support the Project using an engineering, procurement, and construction management (EPCM) project development approach. Separate initial, expansion, sustaining, and closure capital cost estimates were developed to reflect the phased approach of the Project. The processing plant nameplate capacity is 30,000 t/d (11.0 Mt/a), with a mine life mine of 32 years. The proposed oxide heap leaching operation for the Project has a nameplate capacity of 6,850 t/d (2.5 Mt/a).

All mining related capital costs (in-pit and underground) were estimated by SRK using benchmarks and a first principles approach where appropriate, leveraging the preliminary mine design outputs for mine development requirements. The preliminary underground mine plan and associated mine initial, growth and sustaining capital were prepared using current North American contractor development rates and current equipment prices. Underground infrastructure was estimated using first principles buildups for purchase and installation costs, which were based on recent quotations where applicable and/or leveraged against SRK's database of open pit and block caving projects and operations.

The estimate is broken out into initial capital costs, sustaining and expansion costs and closure cost with the initial capital costs totalling $798 million and, combined, the sustaining and expansion capital costs total $1,859 million for a total LOM capital cost of $2,657 million, which is summarized in Table 1-10.

Table 1-10: Summary of Capital Cost

Item	Initial Capital ($M)	Sustaining & Expansion Capital ($M)	Total Capital ($M)
Installed Process Plant [a]	280	48	328
Crushing and Materials Handling [b]	108	7	115
Tailings	117	9	126
Site Infrastructure	67	50	117
Mining	80	1,376	1,457
Owners Cost	23	2	25
Contingency	122	197	319
Closure and Reclamation	-	170	170
Total [c]	**798**	**1,859**	**2,657**

Notes:
[a] Includes indirect costs.
[b] Includes costs for the oxide heap leach operation.
[c] Totals may not sum due to rounding.

The installed process plant cost estimates include $120 million in indirect project costs to cover EPCM and owner's costs. The crushing and materials handling estimate includes $84 million (including 20% contingency) to cover the heap leaching infrastructure. Initial and expansion cost estimates are based on priced-out detailed, mechanical and electrical equipment lists developed from the Project's Process Design Criteria (PDC). Installed equipment pricing includes base equipment costs (either budgetary quotes or taken from recently executed Ausenco projects), regional labour rates, manhours to install, and factored freight, growth and associated minor equipment costs. Bulk commodities were estimated by applying benchmarked percentages to the installed mechanical equipment costs. Material take-offs for civil earthworks, the DSTF, and overhead powerline were priced using regional construction labour rates and unit rates for bulk materials. The HLF was benchmarked against similar studies. The crushing and materials handling estimate includes $84 million (including 20% contingency) to cover the heap leaching infrastructure.

The initial capital costs associated with open pit mining totals $80 million and accounts for pre-stripping activities to move 17.5 Mt of waste material and 9.5 Mt of low-grade material (sulphide and transitional) that will be stockpiled for processing later in the mine life. Surface operations for the open pit mine are to be executed by a contractor. After three years of operation, an expansion of the Project is planned that will begin developing the underground mine. The cost estimate for the development of the underground mine workings, material crushing and conveyance to the surface totals $1,555 million, including contingency.

The sustaining capital cost is $69 million and includes costs to divert Copper Creek along with continued development of the DSTF and tie-in of the underground mine workings into the existing process flows. The closure costs are estimated at $170 million with 20% contingency included.

1.13.2 Operating Cost Estimates

1.13.2.1 Overview

Mining operating costs were developed from a combination of first principles costing for open pit haulage and underground operations, and project benchmarking against appropriate open pit operations, factored for contract mining. Processing operating costs were developed from first principles costing based on the quantities generated from the preliminary mine design, mine production schedule and processing applications by material type. The PDC and associated mechanical/electrical equipment lists were used to estimate staffing requirements, power, reagent, and typical process-related consumable consumption rates. Regional labour rates and recently acquired unit costs were applied to generate the operating costs estimates shown in Table 1-11.

Table 1-11: Summary of Operating Costs

Operating Costs	Units	Open Pit	Underground
Mining [a]	$/t mined	$2.43	$7.30
Processing [b]	$/t processed	$6.26	$6.30
Off-site charges [c]		$2.51	$2.51
General and administrative (non-mill) [d]		$1.45	$1.45
Total unit costs [e]	**$/t processed**	**$13.01**	**$17.56**

Notes:
[a] Open pit mining unit costs apply to both mineralized material and waste, but exclude stockpile rehandle costs of $1.47/t rehandled. Underground mining unit costs exclude capitalized development and mill feed generated from mine development.
[b] Includes processing-related general & administrative costs.
[c] Off-site charges are based on land transportation costs of $46.35 per wet metric tonne, treatment charges of $75.00 per dry metric tonne, refining charges of $0.080/lb, $0.50/oz, and $1.30/lb for copper, silver, and molybdenum, respectively.
[d] Includes $0.45/tonne average cost over the life of mine related to Arizona property tax.
[e] Amounts will not sum as mining costs are presented on a per tonne mined basis.

1.13.2.2 Mining Operating Cost Estimates

The open pit mining costs are based on mining contractor rates. SRK estimated these costs for the PEA by building up from industry benchmarks for owner-operated mines. The contractor costs include mining costs, overhead, profit and equipment capital repayment. To this, owner supervision/technical costs are added.

On a unit cost basis, the total mining cost has been estimated at $2.43/t mined and $1.47/t for stockpile rehandling costs. This results in an overall LOM average total open pit mining operating cost of $2.68/t mined. The total open pit mining operating cost is the sum of the total contractor mining cost, the capital repayment, and the owner overhead.

Underground mining operating costs associated with block cave production have been estimated from first principles costing with discrete cost buildups for key activities such as drawpoint mucking, secondary breaking, crushing, conveying, mine services and maintenance, definition drilling, rehabilitation and mine operating staff. The underground operating costs have been estimated at $7.30/t mined.

1.13.2.3 Process Operating Cost Estimates

Processing costs have been estimated as $5.91 and $5.74/t for sulphide and transitional materials, respectively. The operating cost of the molybdenum plant contributes an additional $0.39/t processed through the concentrator and will be applied starting in Year 3 when the molybdenum plant is commissioned and operational. The addition of the molybdenum circuit brings the operating cost to $6.30/t for processing sulphide materials and $6.13/t for processing transitional materials. Operating costs of the oxide heap leach and SX/EW facility have been estimated at $6.71/t leached. Table 1-12 summarizes the concentrator operating costs with and without molybdenum processing.

Table 1-12: Process Plant Operating Costs per Material Type

Cost Centre	Sulphide Materials Unit Cost ($/t)	Transitional Materials Unit Cost ($/t)
Mill Plant Feed with Molybdenum Recovery	6.30	6.13
Mill Plant Feed without Molybdenum Recovery	5.91	5.74

1.13.2.4 General and Administrative Cost Summary

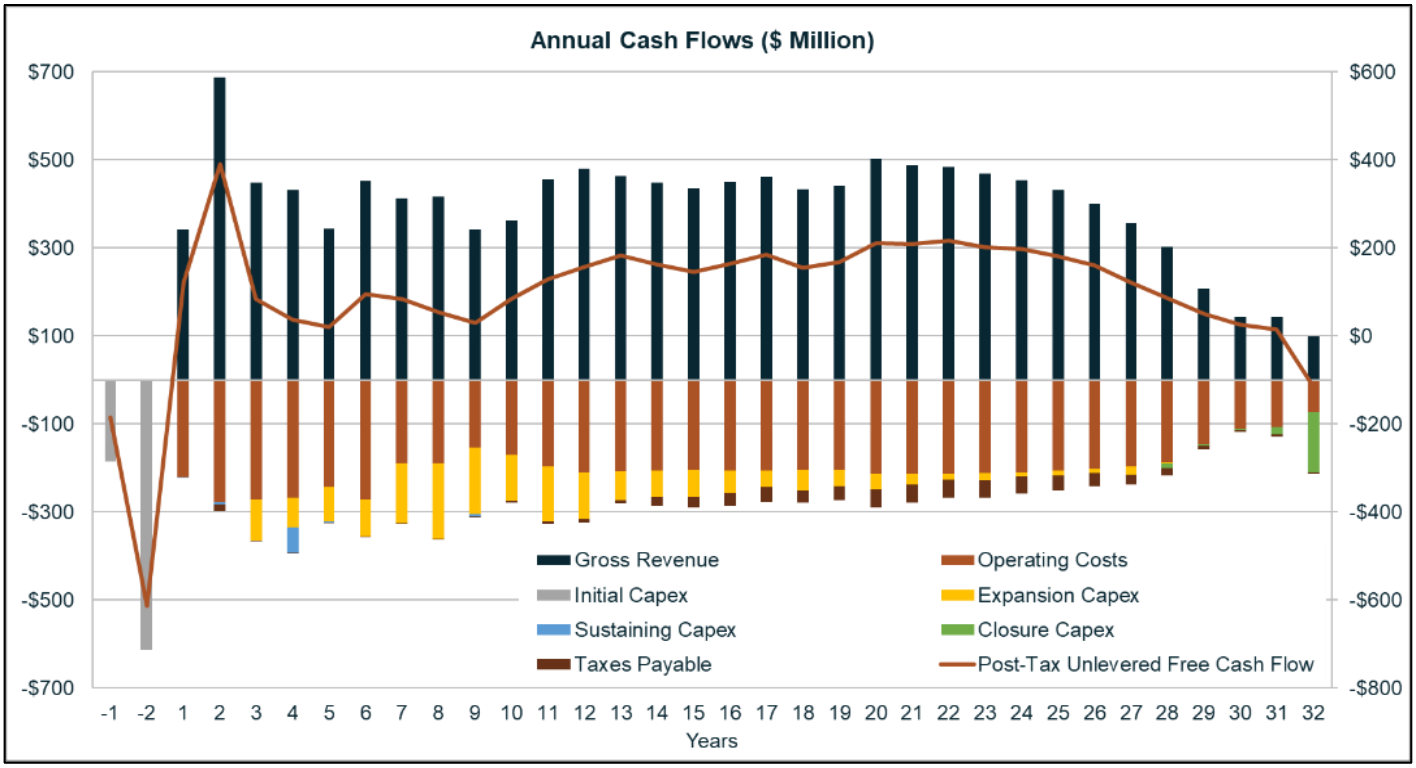
G&A cost of $1.45/t processed (exclusive of process plant related G&A) is comprised of $1.00/t processed based on regional benchmarks of comparative operational scale, plus $0.45/t processed average over the life of mine related to Arizona property tax. The Project would not require a camp facility as the location is easily accessible from the townsites of Mammoth, San Manuel and Oracle, as well as being approximately 80 road km northeast from the city of Tucson.

1.14 Economic Analysis

The economic analysis was performed assuming a 7% discount rate. The pre-tax NPV discounted at 7% is $846 million, the internal rate of return (IRR) is 16.5%, and payback period is 3.9 years. On a post-tax basis, the NPV discounted at 7% is $713 million, the IRR is 15.6%, and the payback period is 4.1 years. A summary of project economics is shown in Table 1-13. The analysis was done on an annual cashflow basis; the cashflow output is shown in Figure 1-7.

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

Figure 1-7: Annual Cash Flow



Source: Ausenco, 2023

The analysis also indicated the standalone open pit operation supports a pre-tax NPV (7%) of $337 million and provides a rapid payback on initial capital of four years and fully funds development of a bulk underground mine for a combined total mine life of 32 years.

Table 1-13: Economic Analysis Summary

General		LOM Total / Avg.
Copper Price ($/lb)		3.80
Silver Price ($/oz)		20.00
Molybdenum Price ($/lb)		13.00
Mine Life (years)		31.7
Total Mill Feed Tonnes, Non-Oxide (kt)		345,292
Total Mill Feed Tonnes, Oxide (kt)		19,789
Production		**LOM Total / Avg.**
Mill Head Grade - Cu, Non-Oxide (%)		0.44
Mill Head Grade - Ag, Non-Oxide (g/t)		1.17
Mill Head Grade - Mo, Non-Oxide (%)		0.008
Mill Head Grade, Oxide - Cu (%)		0.29
Mill Head Grade, Oxide - Ag (g/t)		0.63
Mill Head Grade, Oxide - Mo (%)		0.006
Mill Recovery Rate (Concentrate) - Cu (%)		89.7%
Mill Recovery Rate (Concentrate) - Ag (%)		75.2%
Mill Recovery Rate (Concentrate) - Mo (%)		71.4%
Mill Recovery Rate (Cathode) - Cu (%)		75.0%
Mill Recovery Rate (Cathode) - Ag (%)		-
Mill Recovery Rate (Cathode) - Mo (%)		-
Total Mill Recovered - Cu (mlb)		3,276
Total Mill Recovered - Ag (koz)		10,214
Total Mill Recovered - Mo (mlb)		45.7
Average Annual Production - Cu (mlb)[c]		106
Average Annual Production - Ag (koz)[c]		325
Average Annual Production - Mo (mlb)[c]		1.4
Operating Costs	**Open Pit LOM Total / Avg.**	**Underground LOM Total / Avg.**
Mining Cost ($/t Mined)	2.43	7.30
Average Processing Cost ($/t processed)	6.26	6.30
G&A Cost ($/t processed)	1.45	1.45
Total Operating Costs ($/t processed)	13.01	17.56
Total Operating Costs		**LOM Avg.**
Cash Costs ($/lb Cu)[a]		1.67
All-in Sustaining Cost (AISC) ($/lb Cu)[b]		1.85
Capital Costs		**LOM Total / Avg.**
Initial Capital ($M)		797.9
Sustaining Capital ($M)		68.8
Expansion Capital ($M)		1,620.6
Closure Costs ($M)		169.8
Financials	**Pre-Tax**	**Post-Tax**
NPV (7%) ($M)	846.5	713
IRR (%)	16.5%	15.6%
Payback (years)	3.9	4.1

[a] Cash costs consist of mining costs, processing costs, mine-level G&A and refining charges and royalties
[b] All-in sustaining costs (AISC) includes cash costs plus sustaining capital and closure costs.
[c] Average annual production considers the period of active mining during Years 1 – 29, Year 30 – 32 includes processing of stockpiles only.

1.14.1 Sensitivity Analysis

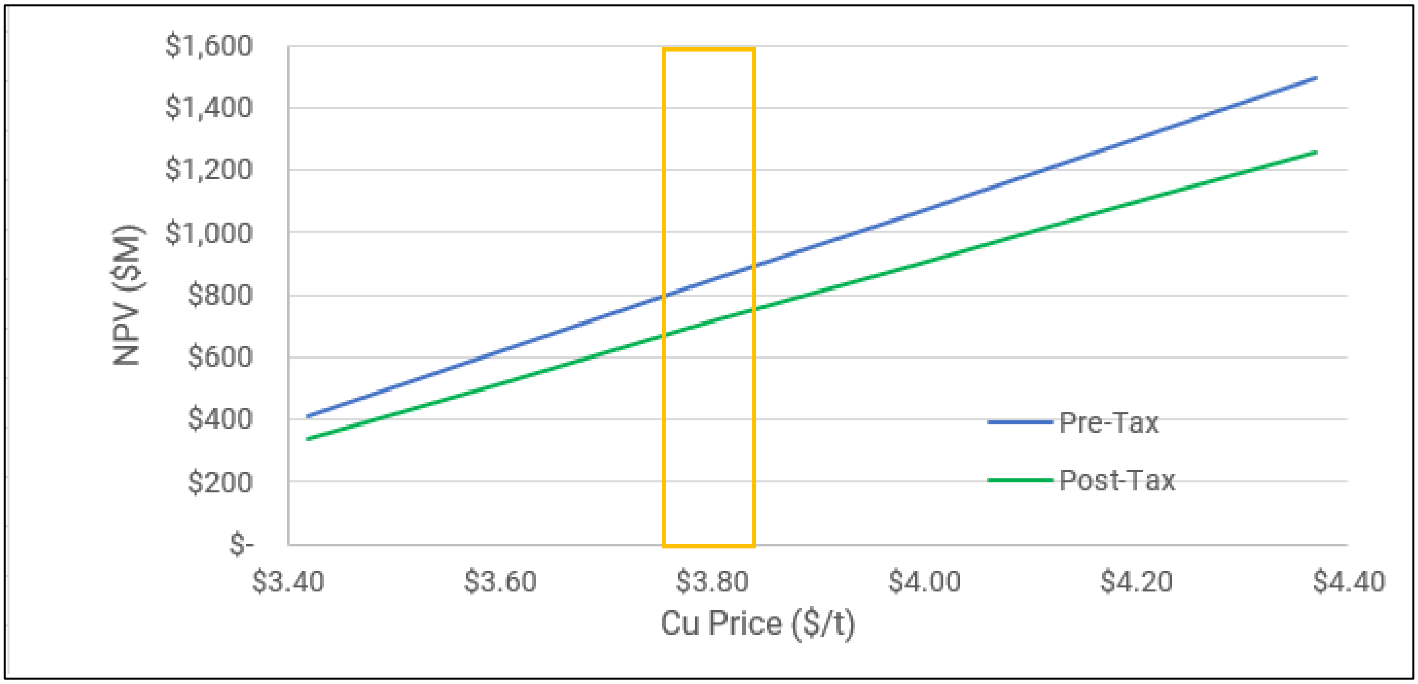
A sensitivity analysis was conducted on the base case pre-tax and post-tax NPV and IRR of the Project, using the following variables: metal prices, discount rate, head grade, recovery, total operating cost, and initial capital cost. Section 22.6 illustrates the sensitivity analysis for the Project NPV & IRR, respectively, and shows both NPV and IRR are sensitive to changes in commodity price, recovery, and head grade, and less sensitive to total operating cost and capital costs.

Table 1-14: Sensitivity Summary Post-Tax NPV Full Year ($M)

Metal Prices	Post-Tax NPV (7%)	Total Capital Cost		Total Operating Cost		Head Grade	
	Base Case	-10.0%	10.0%	-10.0%	10.0%	-10.0%	10.0%
-20.0%	($142)	$6	($291)	$51	($336)	($459)	$173
-10.0%	$302	$449	$154	$494	$109	($52)	$632
--	$713	$861	$566	$906	$521	$343	$1,072
10.0%	$1,111	$1,257	$964	$1,302	$919	$712	$1,500
20.0%	$1,499	$1,645	$1,353	$1,691	$1,307	$1,069	$1,925
Metal Prices	**Post-Tax IRR**	**Total Capital Cost**		**Total Operating Cost**		**Head Grade**	
	Base Case	**-10.0%**	**10.0%**	**-10.0%**	**10.0%**	**-10.0%**	**10.0%**
-20.0%	5.3%	7.1%	3.7%	7.6%	2.8%	1.0%	9.1%
-10.0%	10.6%	12.8%	8.7%	12.9%	8.3%	6.4%	14.6%
--	15.6%	18.4%	13.2%	18.0%	13.2%	11.0%	20.1%
10.0%	20.5%	23.9%	17.7%	23.0%	18.1%	15.5%	25.3%
20.0%	25.2%	29.1%	22.0%	27.7%	22.8%	19.9%	30.4%

Figure 1-8 illustrates the pre- and post- tax project NPV sensitivity to copper pricing. Base price used for the Project is $3.80/lb copper. A 10% increase in the price of copper (above the base case assumption) would result over $1 billion dollars in NPV. The project value also demonstrates sensitivity to molybdenum pricing with a $10/lb increase resulting in a post-tax NPV$_{(7\%)}$ improvement of approximately $129 million.

Figure 1-8: Project NPV Sensitivity to Cu Price



Source: Ausenco, 2023

1.15 Conclusions and Interpretations

Copper Creek represents an advanced-stage exploration project targeting multiple near-surface breccias and deeper porphyry-style copper mineralization. The modelled breccia units and porphyry areas are open in multiple directions and at depth in certain areas. The updated MRE reports M&I resources of 421.9 Mt at an average grade of 0.45% copper for a contained 4.2 billion pounds of copper. The mineral resource remains open at depth and laterally. In addition, there are over 400 breccia occurrences currently mapped at surface, only 17 of which are captured in the MRE. In the opinion of the QP for Mineral Resources, the results of the exploration work completed on the Project to date are of substantial technical merit to recommend additional exploration expenditures.

The Copper Creek property is amenable to conventional truck and shovel open pit mining, followed by block cave underground mass mining. Mining operations would be able to feed 11 Mt/a of mineralized material (averaging 0.44% Cu) for processing over a 32-year project life. Surface mining provides mill feed until Year 11. A four-year open pit ramp down coincides with the underground production ramp-up, achieving steady-state production by Year 12 and continuing until Year 29. The last three years of mill feed would be entirely from LGSP material.

Results from flotation testing showed average recoveries of over 94.0% copper from sulphide material and 74.0% copper from transition materials, producing high-quality clean concentrates. Molybdenum recoveries from sulphide and transitional materials are estimated to be 71.3 and 73.9%, respectively. With an initial capital investment of $798 million and a competitive operating cost profile (average LOM production cash costs of $1.67/lb copper and an AISC of $1.85/lb copper), the Project supports a post-tax NPV of $713 million, an IRR of 15.6% with the open pit operation fully funding the development of the underground mine.

The project also likely benefits from enhanced environmental, social, and governance practices of installing a DSTF and considering renewable solar power.

1.16 Recommendations

1.16.1 Overview

The results presented in this technical report demonstrate positive economics for the Copper Creek Project. Hence, it is recommended to continue developing the Project through subsequent mineral resource update(s) and additional studies. The proposed budget to advance the Project totals $13.5 million.

1.16.2 Infill and District Exploration Drilling

Opportunity exists to both expand the current mineral resource and enhance confidence through additional drilling and sampling at Copper Creek. The next exploration campaign should include a combination of targets, including tighter-spaced infill drilling in areas of the deposit to improve known mineralization continuity and geological understanding. Wider-spaced drilling is recommended to test the extents of the most prospective mapped breccia units or the extent of porphyry-style mineralization based on geophysical and geochemical anomalies. Additionally, Faraday should continue assaying unsampled core in areas where drillholes are projected near interpreted mineralized wireframes.

Faraday Copper anticipates commencing a 20,000 m drill program in quarter four of 2023 (Phase III Campaign), with the objective of addressing both infilling drilling opportunities and district exploration upside.

1.16.3 Infill Drilling

Drill density is largely sufficient for classifying the resource as measured or indicated, with approximately 17% of the resource in the inferred category. It is recommended to plan an 10,000 m infill drilling program aimed at bringing inferred resources into the indicated category or above and improvement to the definition of high-grade zones in the underground footprint.

A budget of $4.50 million is estimated for the infill drilling activity required to elevate the current MRE to higher proportion of measured and indicated resource category and improve definition of high-grade zones in the underground footprint.

1.16.4 District Exploration

District exploration is to focus on testing new targets outside of the resource area and resource expansion. Most of the drilling to date was concentrated on the area containing the resource but despite the long history of mining and exploration, significant exploration upside remains at Copper Creek. Historic drilling in some areas was focused on deep mineralization (Keel, American Eagle) but the near-vertical drillholes may have missed shallow breccia-hosted mineralization. Conversely, areas where historic drilling was focused on shallow breccia-hosted mineralization, cupola-style mineralization may be present below. Large areas between known breccias remain untested.

It is recommended to carry out systematic interpretation of existing information from historic drilling, district mapping and geophysical datasets to design a program focused both near-resource opportunities and the district-wide exploration upside. An exploration program should encompass approximately 10,000 m of drilling and full geochemical characterization. Historical and recently collected exploration datasets such as geophysical and geochemical surveys are considered sufficient for exploration targeting. However, geological mapping, geochemical sampling and processing of geophysical datasets should continue.

Faraday should continue assaying unsampled core in areas where drillholes are projected near interpreted mineralized wireframes. Subsequent assay results from ongoing exploration drilling should be incorporated into an updated MRE. Additionally, it is recommended that Faraday continue collection of solubility data, copper mineral species reports, and related recovery data to enable development of a robust geometallurgical model as the Project advances. Further solubility testing will define metallurgical material type boundaries and determine variability for grade in recovery within these areas.

A budget of $4.70 million is estimated for the exploration drilling activity to target the potential resource upside described above. This includes the cost associated with the continued collection of geochemical, geological and geometallurgical data and reprocessing of existing datasets where appropriate.

1.16.5 Gold Program

Historic coverage of gold assay data is limited to approximately 12% of the data coverage that is available for copper, therefore gold has not been included in the current MRE. Existing data suggests that gold may be present in significant concentrations above estimated payability grade in some of the mineralized domains, including Childs Aldwinkle and Copper Prince. A gold assaying program of historical drill core samples has been initiated. This is initially targeting the Childs Aldwinkle and Copper Prince breccias, to determine the potential for inclusion of gold in future resource updates. All available archived pulps for mineralized domains in these areas are planned to be reanalyzed for gold and a full 4-acid ICP-MS 42 element suite. The result of this initial gold program testing these discrete breccia units, is expected to provide a roadmap for effective gold quantification within the resource but will also increase data coverage for molybdenum and silver, among others. It is recommended that the gold program be expanded to encompass the wider resource area (where deemed geologically applicable). It is also recommended that all drilling moving forward have gold assays completed within the mineralized domains and such samples also form the basis of future metallurgical test work.

A budget of $0.30 million is estimated for this gold program. This includes assaying of gold and, where applicable, a full multi-element suite utilizing historic core and pulps for Childs Aldwinkle and Copper Prince and expanding the gold program to other domains.

1.16.6 Metallurgical Test Work

The metallurgical work outlined below is recommended for the next phase of the Project. Due to the limited drill core available for the metallurgical tests conducted for this study, it is recommended that additional core materials be made available for the following additional metallurgical test work:

- Confirm Transitional Material Recoveries

Further work is recommended to develop criteria for material classification and corresponding recoveries throughout the mineral deposit. Work should include continued assessment of Cu: S ratios and, soluble copper characteristics for drill assays. Additional metallurgical flotation test work is also recommended to confirm “transitional” recoveries from samples taken from the Phase II drill program.

- Copper-Molybdenum Separation Test work

Molybdenum recoveries reported herein are based on process assumptions observed for similar materials ran under similar conditions and simulations. Cu-Mo separation test work on representative materials is limited. Ausenco is recommending the test work program for a future phase of work include this test work to confirm the assumed recoveries reported. This testing is known to be sample mass intensive and may require more planning to obtain suitable sample quantities.

- Acid Leaching Test work

Due to the limited acid leaching test work conducted to date, Ausenco recommends additional acid leaching test work be conducted on more “oxide” samples representative of the various breccia formations. Work should also assess the acid-soluble copper content as correlated to mineralogy for recent and future drill core assays to better define oxide materials over the deposit. Leach test work should also optimize grind size and verify acid consumption rates.

- Coarse Particle Flotation

Testing has indicated that most of the resource can be processed at a relatively coarse primary grind sizing, however the Project could still benefit from evaluating Coarse Particle Flotation (CPF). This processing technique could mitigate throughput constraints associated with tailings dewatering and dry stacking. It would also provide some grinding energy savings and incremental improvements to metal recoveries.

- Transition Tails Recovery

Test work should include investigating the potential to dewater and acid leach the fines reporting to the flotation tails of transitional material with the copper recovered as cathode by the SX/EW plant.

- Historic Tailings Reclamation

There are at least two locations on the property with historical tailings impoundment which are likely to be grade bearing. Both sites present an opportunity to be cleaned up as part of a potential Mine Plan of Operations as the mining footprint overtakes the first site and the water management strategy would benefit from voluntarily cleaning up the second site. Upon further evaluation, an opportunity may exist to reprocess/leach these materials during mine development or even during mill commissioning and consolidate this waste in the planned DSTF.

It is recommended that these historic tails materials be surveyed for volume estimation, assayed for mineral content and sampled for metallurgical testing to qualify if there is a reprocessing business case for including these materials in future studies.

The estimated cost to evaluate the best reclamation approach for the historic tailings facilities is approximated at $0.05 million.

It is also recommended that future metallurgical testing include gold assaying including flotation recovery test work to support the recommended Gold Program (Section 1.18).

A budget of $0.35 million is estimated for the above metallurgical work programs (excluding the costs of drilling).

1.16.7 Mineral Resource Estimate

Initial results of Faraday’s Phase II drilling program suggest that additional mineralization not currently captured in the MRE is present both near the Copper Prince open pit and at Keel underground resource. Likewise, potential upside from gold content within the mineralized domains has not been captured in the current MRE. An update of the MRE that takes the result of Phase II and potential future drill campaigns into consideration is recommended.

The estimated cost of an update MRE is $0.15 million.

1.16.8 Geotechnical Studies for Pit Slope and Block Cave

Additional geotechnical engineering work for future phases of the Project should include the following:

- Open Pit
  - targeted open pit geotechnical drilling using triple-tube HQ holes and televiewer with oriented cores;
  - installation of vibrating-wire piezometers in select holes;
  - laboratory testing for intact rock strength (unconfined compressive strength tests, point load tests, and indirect tensile strength tests) and for discontinuity strength (direct shear tests); and
  - confirmation of recommended bench widths (10.5 m) and interramp slope angle (ISA) guidance.
- Block Cave
  - targeted drilling of American Eagle/ Keel areas to expand the geotechnical database;
  - analysis of primary and secondary fragmentation utilizing both mapping and drilling estimates;
  - estimation of drawpoint hangup frequency;
  - analysis of stress concentrations, ground support rehabilitation cycles and pillar stability;
  - development of ground support plans for the drawpoints (brow sets) and for undercut, extraction, and haulage levels accounting for predictions of ground behaviour and deformation; and
  - confirmation of hydraulic radius to induce caving.

A budget of $0.50 million is estimated for the above work programs and studies, including the cost of drilling.

A detailed hydrogeology program should be conducted in the next phase of work to confirm the pit and underground dewatering rates.

1.16.9 Mine Engineering

Open Pit Design: Future studies should incorporate the steeper OSAs that were achieved in the open pit designs into the open pit optimization work. Open pit design work should also include pit phase designs for Mammoth pit, as only the ultimate pit shell was designed for the PEA.

Underground Geotechnical: The assumptions regarding the dimensions of the mobilized zone and fractured zone should be re-evaluated in light of the additional geotechnical test work recommended above and adjusted if necessary. Furthermore, the cave initiation point and undercutting directions will need to be finalized based on more detailed geotechnical studies and stress modelling.

Mine Production and Processing Rate Increase: evaluate the potential to increase production and processing rates to 40-45kt/d. These mine planning assessments should also be supported by metallurgical and processing evaluations.

Benefits of Preconditioning: The benefits of proactively preconditioning the cave production zone should be assessed as it may be an opportunity to enhance the performance of the cave zone, resulting in a higher production rate and more efficient operating context, for a relatively low incremental capital cost.

Underground Optionality: Consider alternative underground extractive methods, such as longhole stoping and sub-level caving configurations, outside of the current underground block cave envelopes. For example, future resource adjustments and other technical and strategic drivers may result in underground extraction of the lower Mammoth breccia (i.e., Phase 3 of the proposed pit), being viable and/or optimal.

Mine Plan Optimizations: As a result of adjusted resources and/or outcomes of the assessments noted above, additional optimizations should include: underground development profile smoothing, contractor version owner operation trade-off to reflect revised operational scale, waste haulage optimization, revised backfill placement strategy aligned with adjusted pits and surface infrastructure.

A budget of $0.50 million is estimated for the above work programs and studies.

1.16.10 Process and Infrastructure Engineering

Engineering deliverables towards the next phase of study would include:

- conducting process trade-off flotation and leach grind size optimization, transitional material flotation reagent optimization and tailings fines recovery studies);
- optimizing process flows, material and water balances and updating the process design criteria, equipment lists, and power consumption. Power listing and consumption estimate;
- detailing general arrangement, elevation and building drawings to estimate steel and concrete quantities;
- developing electrical single line drawings;
- acquiring updated equipment and supply quotations and materials freight quantities, bulk unit costs, construction labour rates, etc. to revise the capital and operating cost estimates; and
- developing a capital equipment spares and warehouse inventory cost estimate and construction schedule.

The estimated cost for process and infrastructure engineering is $0.50 million.

1.16.11 Site-wide Geotechnical Assessment

Due to the conceptual nature of this study and the paucity of information available at the time of writing, assumptions have been made regarding the layout, MTOs, and construction of the proposed DSTF. Construction material geotechnical properties are required to perform slope stability analyses and other geotechnical assessments to confirm that the civil structures proposed can be built as designed. Detailed engineering of both the tailings and heap leach facilities will be required which may lead to adjustments to the conceptual design to contain the actual capacities.

Additional studies and data collection will be required to advance project development beyond the conceptual level. Some, but not necessarily all, of the current data gaps that would need to be addressed in future studies include the following:

- A geological and geotechnical site investigations and laboratory program should be carried out for infrastructure, the Process plant, the WRFs, the HLF and the DSTF, including drilling and in-situ and laboratory testing, to understand sub-surface soil and rock characteristics, construction material properties, and existing groundwater levels. Seepage analysis for the dry stacked tails and the heap leach material needs further investigation. Limited information and geotechnical testing has been completed for waste rock, and other site associated construction materials.
- More test work of this nature may be required after additional information is obtained to verify and update the assumptions made in this study as the Project advances to the next level of design.

Engineering deliverables towards the next phase of study for the HLF and DSTF would include:

- HLF and DSTF optimization
- Detailed design criteria.
- Phase development of both HLF and DSTF including stacking
- Material takeoffs for both HLF and DSTF
- Detailed material and water balance for HLF and DSTF
- Surface water management for HLF and DSTF
- Stability analyses for HLF and DSTF
- GA and drawings
- Construction manpower estimate
- Construction schedule

The cost of implementing the above recommendations is estimated at $0.70 million.

1.16.12 Water Management

A detailed site-wide water balance model should be completed for the next phase of the study. This should include inflows and outflows of all mine facilities. This will inform of potential needs for additional water supply or water treatment and support the decision for an unlined DSTF facility. Estimated cost for this item is $0.04 million.

- Additional surface water hydraulic modelling to further develop the Copper Creek diversion strategy and the DSTF underdrain design. Estimated cost for this item is $0.05 million. Further site hydrogeological and hydrological characterization through drilling and testing to develop a detailed groundwater model. A hydrogeological model is not only essential for future permitting pursuits, such as MPO, but also allows for the derisking of the mine plan and associated infrastructure. Faraday has adequate data to commence early-stage modelling, however a minimum of two years of applicable baseline data is required in order to generate a robust model to support MPO permit submission.
- Estimated cost for this item is $0.50 million.

The total estimated cost for the water management scope is $0.59 million.

1.16.13 Geochemical Assessment

Geochemical testing to establish whether or not there is an ML/ARD risk from expected tailings is key to support the current unlined design of the DSTF. It is necessary associated with the dry stacked tailing materials. The same applies for unlined WSF and the stockpiles. Typical testing would generally comprise:

- elemental analysis;
- acid base accounting;
- shake flask extraction (short-term leach);
- net acid generation pH;
- mineralogy; and

- humidity cell testing (minimum 40 weeks).

The estimated cost for the recommended lab test work is $0.10 million.

Historical tailings on site should be tested for ML/ARD to further refine the remediation strategy. The estimated cost of historical materials on site assessment is $0.10 million.

The total cost for geochemical assessment is $0.20 million.

1.16.14 Environmental and Permitting

It is recommended that environmental (flora and fauna), cultural and archaeological assessments be updated to reflect the relevant changes in the potential mine strategy. The cost estimate to conduct the updated assessments is $0.20 million.

1.16.15 Regional Asset Synergies

In addition to Project-centric study advancements and optimizations, it is recommended that desktop level study(s) be completed to qualify and quantify the potential of synergies with adjacent assets. This may involve the assessment of combined resources, staged approaches to project expansions, shared infrastructure, land use optimization and potential reduction in net environmental footprints. This would also include a detailed market study involving regional smelters.

The total cost for these desktop studies and evaluations is $0.30 million.

2 INTRODUCTION

2.1 Terms of Reference and Purpose of the Report

This report was prepared for Faraday by Ausenco, with contributions from SRK and CNI, as an NI 43-101 Technical Report on a PEA and updated MRE of the Project.

The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in the Consultants' services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Faraday subject to the terms and conditions of its contract with the Consultants and relevant securities legislation. The contract permits Faraday to file this report as a technical report with Canadian securities regulatory authorities pursuant to NI 43-101, Standards of Disclosure for Mineral Projects.

Except for the purposes legislated under provincial securities law, any other uses of this report by any third party are at that party's sole risk. The responsibility for this disclosure remains with Faraday. The user of this document should ensure that this is the most recent technical report for the property, as it is not valid if a new technical report has been issued.

This report provides mineral resource estimates and a classification of resources prepared in accordance with the CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014 (CIM, 2014) and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019).

All amounts presented in this report are in USD unless otherwise specified.

2.2 Qualified Persons

The Consultants preparing this technical report are specialists in the fields of geology, exploration, and mineral resource estimation and classification. None of the Consultants or any associates employed in the preparation of this report have any beneficial interest in Faraday. The Consultants are not insiders, associates, or affiliates of Faraday. The results of this technical report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Faraday and the Consultants. The Consultants are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience, and professional association, are considered QPs as defined in the NI 43-101 standard for this report and are members in good standing of appropriate professional institutions.

Table 2-1: Report Contributors

Qualified Person	Professional Designation	Position	Employer	Independent of Faraday	Report Section
Erin Lynn Patterson	P.E.	Director – Minerals & Metals	Ausenco Engineering USA South Inc.	Yes	1.1, 1.9, 1.10.1, 1.11, 1.13.1, 1.13.2.1, 1.13.2.3, 1.13.2.4, 1.14, 1.15, 1.16.1, 1.16.10, 2, 3.1, 3.4, 3.5, 17.1-17.3.1.1, 17.3.1.3-17.3.1.9, 17.3.2-17.4, 18.1,18.2, 18.3.1-18.3.6, 18.3.9, 19, 21.1, 21.2.1, 21.2.3-21.2.10, 21.3.1, 21.3.4, 21.3.5, 22, 24, 25.1, 25.8, 25.9, 25.11, 25.12, 25.13, 25.14.1.1, 25.14.2.6, 26.1, 26.8, and 27
Peter Mehrfert	P. Eng.	Principal Process Engineer	Ausenco Engineering Canada Inc.	Yes	1.5, 1.16.6, 13, 25.5, 25.14.1.2, 25.14.2.3, 25.14.2.4, and 26.4
Scott C. Elfen	P.E.	Global Lead Geotechnical and Civil Services	Ausenco Engineering Canada Inc.	Yes	1.10.2, 1.10.3, 1.16.11, 1.16.12, 1.16.13, 18.3.7, 18.3.8, 18.3.10, 25.14.1.5, 25.14.16.6, 26.9, 26.10, and 26.11
Scott Weston	P. Geo.	Vice President - Business Development	Ausenco Sustainability Inc.	Yes	1.12, 1.16.14, 3.3, 20, 25.10, 25.14.1.7, 25.14.2.5, and 26.12
Berkley Tracy	PG, CPG, P.Geo.	Principal Consultant – Resource Geology	SRK Consulting (USA) Inc.	Yes	1.2, 1.3, 1.4, 1.6, 1.16.2 - 1.16.5, 1.16.7, 1.16.15, 3.2, 4-12, 14, 15, 23, 25.2, 25.3, 25.4, 25.6, 25.14.2.2, 26.2, 26.3, 26.5, and 26.13
Robert McCarthy	P. Eng.	Principal Consultant – Mining	SRK Consulting (Canada) Inc.	Yes	1.7, 1.8.1, 1.13.2.2, 1.16.9, 16.1, 16.4, 16.6.1, 16.6.2.1, 16.6.3, 16.6.5, 16.6.6, 16.7.1, 18.4, 21.2.2.1, 21.2.10, 21.3.2, 25.7, 25.14.1.4, 25.14.2.1, and 26.7
Jarek Jacubek	C. Eng., FIMMM	Corporate Consultant and Practice Leader of Mining and Geology	SRK Consulting (Canada) Inc.	Yes	1.7, 1.8.1, 1.13.2.2, 1.16.9, 16, 16.1, 16.3, 16.5, 16.6.2, 16.6.2.2, 16.6.4, 16.6.5, 16.7.2, 16.8, 17.3.1.2, 18.5, 21.2, 21.2.1, 21.2.2.2, 21.2.10, 21.3.3, 25.7, 25.14.1.4, 25.14.2.1, and 26.7
Robert W. Pratt	P.E.	Vice President	Call & Nicholas Inc. (CNI)	Yes	1.8.2, 1.16.8, 16.2, 25.14.1.3, 26.6

2.3 Site Visits and Scope of Personal Inspection

Berkley Tracy, with SRK, visited the Project site between March 7 and 10, 2022. This field visit allowed independent observation of the property, geology, and sampling procedures. Additionally, the QP for Mineral Resources site visit fulfilled NI 43-101 requirements for disclosure and the required level of validation outlined by CIM (2019).

Erin Patterson, with Ausenco, visited the site on May 10, 2022. This field visit allowed independent observation of the available resources and infrastructure within proximity of the property, the nature of the terrain/lay of the land for facilities siting, site accessibility, drilling activities, drill core collection and storage, historical mine features, existing monitoring wells, historical mine features and previous reclamation activities.

Jarek Jakubec, with SRK, visited the site on February 23, 2023. The site visit was conducted to observe the regional setting, investigate potential underground mining portal locations and inspect drill core from a geotechnical engineering perspective (faults, fractures, hardness, etc.) to inform block cave design.

Bob McCarthy, with SRK, visited the site on December 12, 2022. During the site visit, Mr. McCarthy observed the topography and regional setting from an open pit mining perspective and inspected drill core.

Robert Pratt, with CNI, visited the site on May 12, 2021. This visit allowed independent observation of the property, geology, and geologic structure in rock outcrops and road cuts throughout the area and geotechnical core data collection procedures in the core logging facility.

2.4 Effective Dates

The effective date of this report is May 3, 2023.

2.5 Sources of Information and References

The sources of information include historical data and reports compiled by previous consultants and researchers of the Project and supplied by Faraday personnel, as well as other documents cited throughout the report and referenced in Section 27. The QPs have relied on various email exchanges with Faraday representatives, excel spreadsheets, previously completed reports filed on System for Electronic Document Analysis and Retrieval (SEDAR) by previous owners, i.e., Redhawk Copper Inc. prepared by SGS.

The Consultants' opinions contained herein are based on information provided to the Consultants by Faraday throughout the course of the investigations. The Consultants have relied upon the work of other consultants for metallurgy project areas in support of this technical report, as noted in Section 2.2. The Consultants have relied on Faraday's internal experts and legal counsel for details on Project history, regional geology, geological interpretations, and information related to ownership and environmental permitting status. The Consultants have relied on Faraday for forward-looking commodity pricing assumptions.

The Consultants has not performed an independent verification of land title and tenure information as summarized in Section 4 of this report, which was verified separately by Faraday legal counsel. The QP did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between Faraday and third parties, and as such, expresses no opinion as to the ownership status of the Project.

This report has been prepared using the documents noted in the References section (Section 27). The Consultants used their experience to determine if the information from previous reports was suitable for inclusion in this technical report and adjusted information that required amending. This report includes technical information that required subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the Consultants do not consider them to be material.

2.5.1 General

Reports and documents listed in Section 3 and Section 27 of this Report were used to support preparation of the Report.

2.5.2 Previous Technical Reports

The Copper Creek Project has been the subject of previous technical reports, as summarized in Table 2-2.

Table 2-2: Summary of Previous Technical Reports

Reference	Company	Effective Date	Name
SGS Metcon/KD Engineering	Redhawk Copper, Inc.	October 28, 2013	Copper Creek Project Preliminary Economic Assessment 25,000 TPD Mill with an Underground Mine for Development of the Copper Creek Resource
SRK Consulting (U.S.), Inc.	Faraday Copper Corp.	July 6, 2022	NI 43-101 Technical Report Mineral Resource Estimate Copper Creek Project, Arizona

2.6 Units of Measure

The metric system has been used throughout this report, regarding new data disclosure. Most historical data were reported originally in imperial measurements, which has been preserved in Section 6. Unless otherwise stated, tonnes are metric units of 1,000 kilograms (kg), or 2,204.6 lb All currency is in USD unless otherwise stated.

2.7 Glossary

The mineral resources and mineral reserves have been classified according to CIM (CIM, 2014). Accordingly, the resources have been classified as Measured, Indicated, or Inferred, and the reserves have been classified as Proven and Probable based on the measured and indicated resources as defined below.

2.7.1 Mineral Resources

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

An Inferred mineral resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred mineral resource has a lower level of confidence than that applying to an Indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with continued exploration.

An Indicated mineral resource is that part of a mineral resource for which quantity, grade, or quality, densities, shape, and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling, and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated mineral resource has a lower level of confidence than that applying to a Measured mineral resource and may only be converted to a Probable mineral reserve.

A Measured mineral resource is that part of a mineral resource for which quantity, grade, or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling, and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured mineral resource has a higher level of confidence than that applying to either an Indicated mineral resource or an Inferred mineral resource. It may be converted to a Proven mineral reserve or to a Probable mineral reserve.

2.7.2 Definition of Terms

The following general mining terms in Table 2-3 are to be used in this report.

Table 2-3: Definition of Terms

Term	Definition
Alteration	Any change in the mineralogical composition of a rock by physical or chemical means.
Assay	The chemical analysis of mineral samples to determine the metal content.
Axb	A common metric derived from a drop weight test for comminution parameters.
Containerized Bulk Handling	materials being loaded into seal containers which are loaded onto trucks, rail or ship hulls with specialized cranes.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste materials.
Crushing	Initial process of reducing material particle size to render it more amenable for further processing.
Cut-off Grade (CoG)	The grade of mineralized rock, which determines as to whether or not it is economic to recover its metal content by further concentration.
Deleterious Element	Elements which may attract a penalty from refiners.
Dilution	Waste, which is unavoidably mined with mineralized material.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Dyke	An intrusive rock that crosscuts pre-existing rock bodies.
End-dump	truck body that tips up and discharges its contents from the rear.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of a mineralization or stope.
Gangue	Non-valuable components of the mineralized material.
Grade	The measure of concentration of metal within mineralized rock.
Hanging wall	The overlying side of a mineralization or slope.
Hydrocyclone	A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.

Term	Definition
Lithological	Geological description pertaining to different rock types.
LOM Plans	Life of Mine plans.
LRP	Long Range Plan.
Material Properties	Mine properties.
Milling	A general term used to describe the process in which the economic mineralized material is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Assets	The Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve	See Mineral Reserve.
Pillar	Rock left behind to help support the excavations in an underground mine.
ROM	Unprocessed mined material which consists of soil, rocks, minerals, etc.
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.
Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulphide	A sulphur-bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operating and capital nature.
Variogram	A statistical representation of the characteristics (usually grade).
Volcanic	Extrusive igneous rocks produced by solidified magma extruded by a volcano.
Waste Rock	Rock that is removed during mining activities which is not economic to the Project.

2.8 Abbreviations

A list of abbreviations and acronyms is provided in Table 2-4.

Table 2-4: Acronyms and Abbreviations

Acronym/Abbreviation	Description
%	percent
.csv	comma-separated value
<	less than
>	greater than
°	degree
°C	degrees Celsius
µm	micron
AAS	atomic absorption spectrometry
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
AES	atomic emission spectroscopy
Ag	silver
AI	artificial intelligence
A_i	Bond abrasion index
Al	aluminium
ALS	ALS Laboratory
AMA	Active Management Area
AMT	Arizona International Mining Corporation
ANFO	ammonium nitrate fuel oil
Anglo American	Anglo American Exploration (USA)
APP	Aquifer Protection Permit
As	arsenic
ASL	above sea level
ASLD	Arizona State Land Department
ASMI	Arizona State Mining Inspector
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
Au	gold
Ausenco	Ausenco Limited
AZGF	Arizona Game and Fish Department
AZPDES	Arizona Pollutant Discharge Elimination System
Ba	barium
Be	beryllium
Bi	bismuth

Acronym/Abbreviation	Description
BLM	Bureau of Land Management
BMP	best management practices
BRE	Big Rock Exploration
BW_i	Bond work index
C & A	Calumet and Arizona Mining Company
Ca	calcium
CCZ	Copper Creek Zone
Cd	cadmium
Ce	cerium
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	centimetre
CNI	Call and Nicholas Inc.
Co	cobalt
CoG	cut-off grade
COMEX	The Commodity Exchange Inc.
Company	Faraday Copper Corp.
Consultants	SRK Consulting (U.S.), Inc.
Copper Creek	Copper Creek Project
CopperBank	CopperBank Resources Corp.
CPI	consumer price index
Cr	chromium
CRIRSCO	Committee for Mineral Reserves International Reporting Standards
CRM	certified reference material
Cs	caesium
Cu	copper
CuEq	copper equivalent
CV	coefficient of variation
CWA	Clean Water Act
CW_i	Bond crushing work index
D&G	D&G Mining Company
DMY&L	DeConcini, McDonald, Yetwin and Lacy
DOI	U.S. Department of the Interior
DSLR	digital single-lens reflex
DSTF	Dry stack tailings facility
EA	environmental assessment
EDM	early dark micaceous
EH	early halo

Acronym/Abbreviation	Description
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EPCM	engineering, procurement and construction management
EPO	exploration drilling program plan of operation
ESA	Endangered Species Act
Faraday	Faraday Copper Corp.
Fe	iron
Franco	Franco Nevada Corporation
ft	foot
ft^3/ton	cubic feet per short ton
g	gram
G&A	general and administrative
g/cm^3	grams per cubic centimetre
g/t	grams per tonne
Ga	billion years ago
GAII	Geochemical Applications International, Inc.
gdp	granodiorite porphyry
Ge	germanium
GHv	Glory Hole Volcanics
gpm	Gallons per minute
GPS	global positioning system
Hecla	Hecla Mining Company
HLF	Heap leach facility
HMMP	Habitat Mitigation and Monitoring Plan
Hf	hafnium
ICP	inductively coupled plasma
ID10	inverse distance to the tenth power
ID4	inverse distance to the fourth power
IDW3	inverse distance weighting cubed
ILF	in-lieu fee
IMC	Independent Mining Consultants, Inc.
In	indium
IP	Individual Permit
Inspiration	Inspiration Consolidated Copper Company
IRR	Internal rate of return
ISL	in-situ leach
ISO	International Organization for Standardization

Acronym/Abbreviation	Description
K	potassium
kg	kilograms
km	kilometre
km^2	square kilometre
kt	thousand metric tonnes
Kt/d	thousand metric tonnes per day
kWh/st	kilowatt-hour per short ton
kWh/t	kilowatt-hour per metric tonne
La	lanthanum
LA	laser ablation
lb	pound
Li	lithium
LLDL	lower laboratory detection limit
LM	Lower Mammoth
LOM	Life of Mine
m	metre
M	million
m RL	metres elevation
M&I	Measured and Indicated
m^3	cubic metre
Ma	million years ago
masl	metres above sea level
MDRU	Mineral Deposit Research Unit
METCON	METCON Research
Mg	magnesium
mgp	monzogranite porphyry
mi^2	square mile
ML/ARD	Metal leaching/ acid rock drainage
MLRP	Mine Plan Reclamation Plan
Mlb	million pounds
mm	millimetre
Mn	manganese
Mo	molybdenum
Moz	million troy ounces
MPO	Mine Plan of Operations
MRE	mineral resource estimate
MS	mass spectrometry

Acronym/Abbreviation	Description
MSGP	multi-sector general permit
MSRDI	Mountain States R&D International, Inc.
Mt	million tonnes
Na	sodium
NaHS	sodium hydrosulphide
Nb	niobium
NEL	Newmont Exploration Limited
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
Ni	nickel
NI 43-101	Canadian National Instrument 43-101
NN	nearest neighbour
NOI	notice of intent
NPV	Net Present Value
NWP	Nationwide Permit
OP	open pit
opt	ounces per short ton
OR	Old Reliable
Oxymin	Occidental Minerals Corporation
oz	troy ounce
P	phosphorus
P_{80}	80% passing size
PAG	potentially acid generating
Pb	lead
PDC	process design criteria
PEA	preliminary economic assessment
PFS	pre-feasibility study
PLS	pregnant leach solution
PN	Public Notice
POC	point of compliance
ppm	parts per million
pqd	porphyritic quartz diorite
Project	Copper Creek Project
Q1	First quarter
QA/QC	quality assurance/quality control
QP	Qualified Person
Ranchers	Ranchers Exploration and Mining Company

Acronym/Abbreviation	Description
Rb	rubidium
RC	refining charges
Re	rhenium
Redhawk	Redhawk Resources Inc.
ROM	Run-of-mine
ROW	Right-of-Way
RPEEE	reasonable prospects for eventual economic extraction
RQD	rock quality designation
RSD	relative standard deviation
RTP	reduced to pole
RW_i	Bond rod mill work index
S	sulphur
SAG	semi-autogenous
Sb	antimony
Sc	scandium
SD	standard deviation
Se	selenium
SEDAR	System for Electronic Document Analysis and Retrieval
SG	specific gravity
SGS	SGS Canada Inc.
Siskon	Siskon Corporation
SMC	SAG Mill Comminution
Sn	tin
South32	South32 Ltd.
Sr	strontium
SRK	SRK Consulting (U.S.), Inc.
SRU	solids removal unit
SWPPP	stormwater pollution prevention plan
SX/EW	Solvent extraction/electrowinning
t	tonne (metric ton) (2,204.6 pounds)
Ta	tantalum
TCRC	treatment charges and refining charges
Te	tellurium
TGv	Galiuro Volcanics
Th	thorium
Ti	titanium
TIC	Total installed costs

Acronym/Abbreviation	Description
TKgd	Copper Creek batholith
Tl	thallium
TMI	total magnetic intensity
TNW	Traditional Navigable Waterway
U	uranium
UG	underground
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UST	unidirectional solidification texture
UTM	Universal Transverse Mercator
V	vanadium
VIX	Mammoth Breccia
VTEM	Versatile Time Domain Electromagnetic
W	tungsten
WGS-84	World Geodetic System 1984
WOTUS	Waters of the U.S.
X10	Phinar Software's X10-Geo
Y	yttrium
YBC	yellow-billed cuckoo
Zn	zinc
Zr	zirconium
ZTEM	Z-Axis Tipper Electromagnetic
2D	two-dimensional
3D	three-dimensional

3 RELIANCE ON OTHER EXPERTS

3.1 Introduction

The QPs have relied upon the following other expert reports, which provided information regarding mineral rights, surface rights, property agreements, and royalties for sections of this Report.

3.2 Property Agreements, Mineral Tenure, Surface Rights and Royalties

The QPs have not independently reviewed ownership of the Project area and any underlying property agreements, mineral tenure, surface rights, or royalties. The QPs have fully relied upon, and disclaim responsibility for information derived from Faraday and legal experts retained by Faraday for this information through the following document:

- DeConcini, McDonald, Yetwin and Lacy (DMY&L), Tucson, Arizona, legal title opinion reported on January 10, 2022.

This information is used in Section 4 of the Report.

3.3 Environmental, Permitting, Closure, Social and Community Impacts

The QPs have fully relied upon, and disclaim responsibility for, information supplied by Faraday and experts retained by Faraday for information related to environmental (including tailings and water management) permitting, permitting, closure planning and related cost estimation, and social and community impacts as follows:

- SGS, 2013: *Copper Creek Project Preliminary Economic Assessment 25,000 TPD Mill with an Underground Mine for Development of the Copper Creek Resource. Prepared for Redhawk Copper Inc.*, 25 July 2013. 458 pp.
- A. Johnson of Faraday (personal communication, March 27, 2023).

This information is used in Section 20 of the Report.

3.4 Taxation

The QPs have fully relied upon, and disclaim responsibility for, information supplied by Mining Tax Plan LLC (via Faraday) on April 27, 2023. This information relates to taxation as applied to the financial model as provided in Section 22 of the Report.

3.5 Markets

The QPs have fully relied upon, and disclaim responsibility for information derived from Faraday and experts retained by Faraday for this information through the following documents:

- Ocean Partners, 2023: Copper Concentrate Marketing Study. Prepared for Faraday Copper, February 23, 2023.

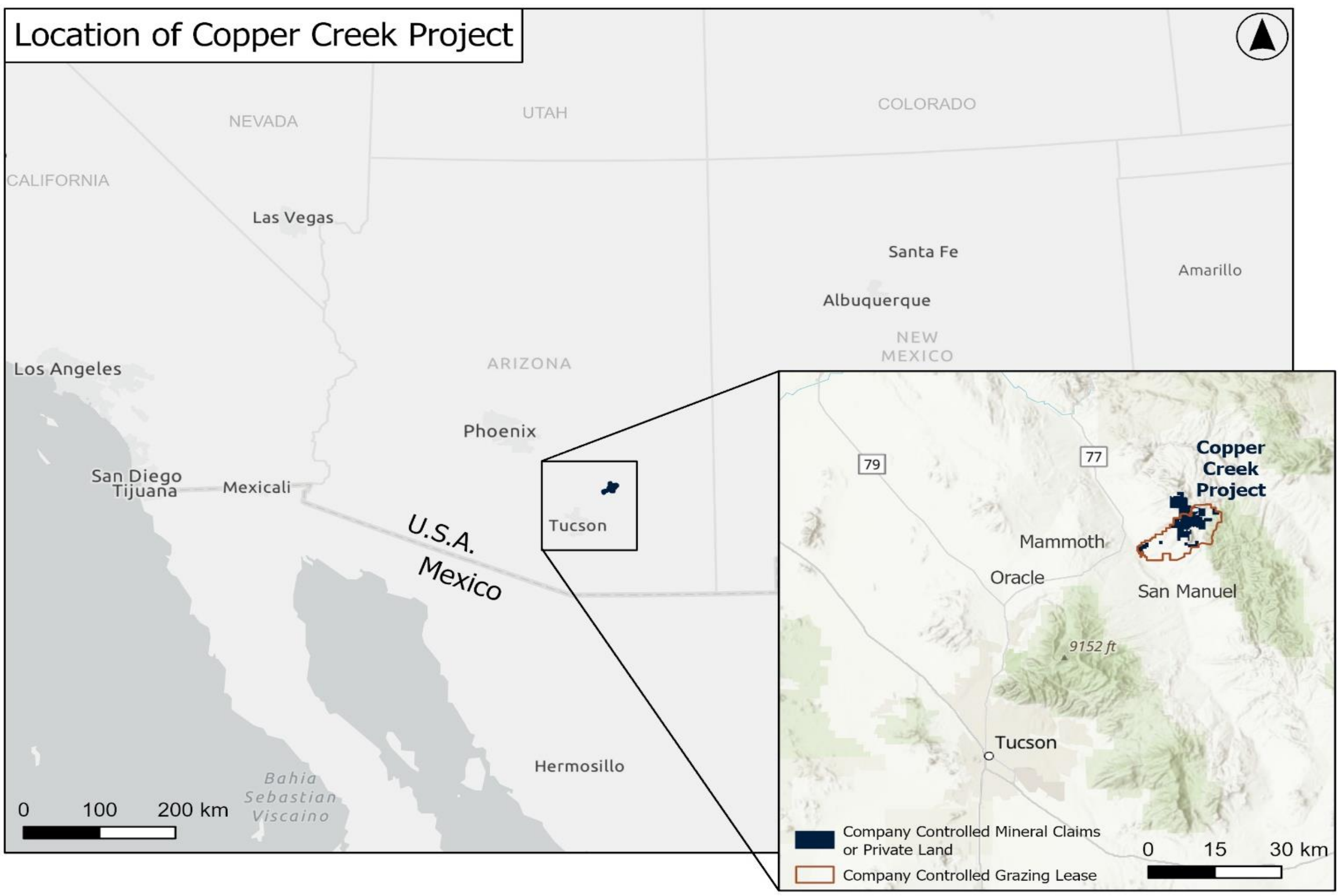
This information is used in Section 19 and Section 22 of the Report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Project is in Pinal and Graham County, Arizona, approximately 70 km northeast of Tucson, Arizona, 19 km northeast of San Manuel, Arizona, and 13 km east of Mammoth, Arizona (Figure 4-1). The area is accessible via public and private roads. The coordinates for the centre of the Project are East -110.478 longitude and North 32.751 latitude, with a variable elevation between 1,050 and 1,500 m above sea level (masl). The Project headquarters are located in San Manuel, Arizona, approximately 19 km southwest of the Project, and encompasses an area of 0.01 km^2 (2.47 acres) that are used for drill core storage and business management.

Figure 4-1: Location Map



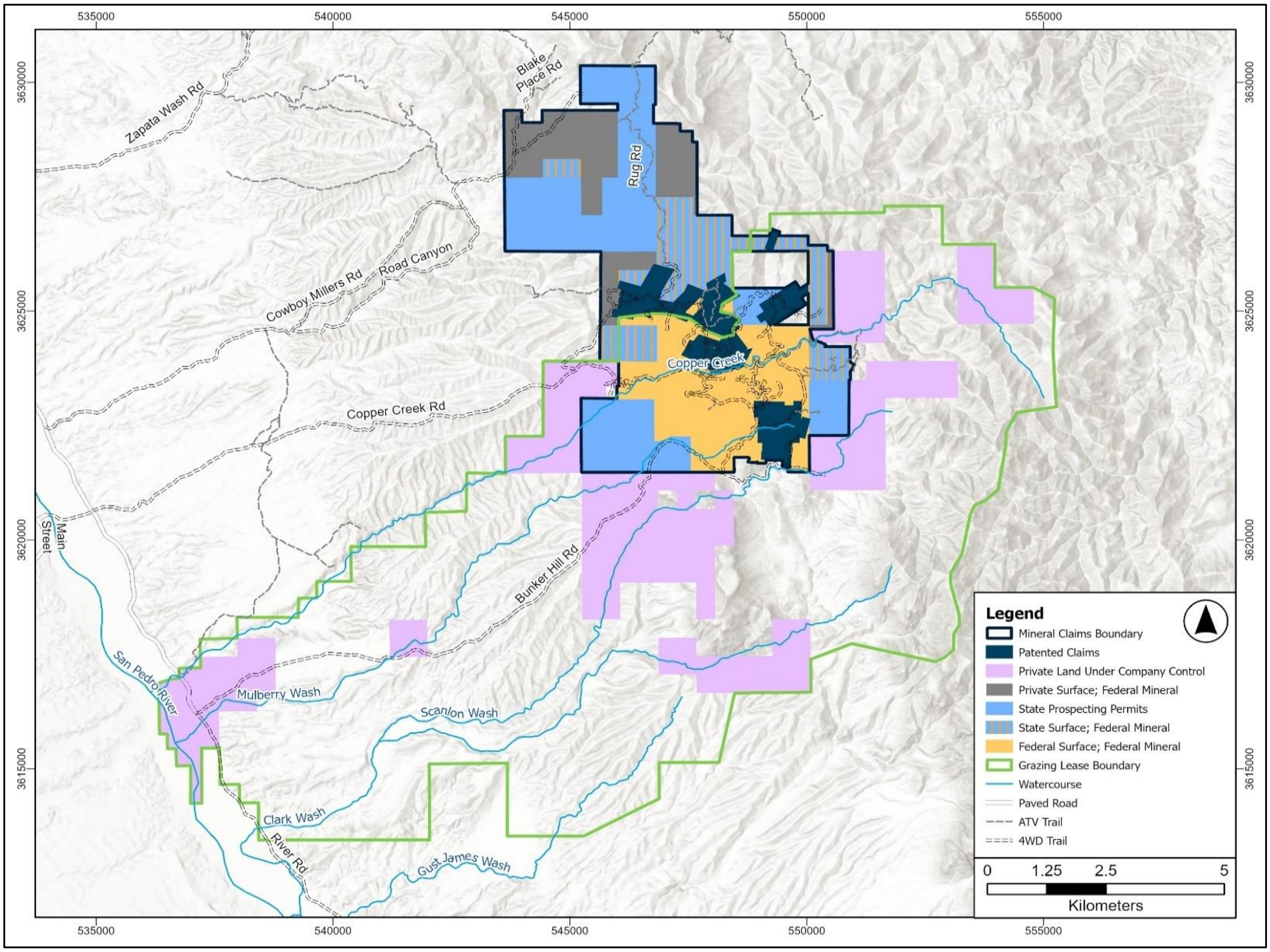
Source: Faraday, 2023. Note: The inset map shows nearby communities, and the black line shows unpaved public road access from Mammoth to the Project.

4.2 Mineral Tenure

The Project, which is 100% controlled by Faraday through its subsidiary Redhawk Copper Inc., encompasses an area of approximately 65 km^2 of which 40.5 km^2 is covered by mineral tenure spanning seven private patented mining claim parcels (4.70 km^2; 1,161 acres), one private land parcel (3.15 km^2; 779 acres), nine ASLD prospecting permits (12.10 km^2; 2,989 acres), and 325 BLM unpatented mining claims (20.53 km^2; 5,074 acres). Additionally, the company recently acquired 12 private land deeded parcels spanning 24.76 km^2 (6,119 acres) and 107.59 km^2 (26,587 acres) of livestock grazing leases, which partially overlap with the private land and claim parcels mentioned above.

Appendix A provides additional specific information on the individual claim descriptions and locations. The Project area entails private, state, and federal surface and mineral rights, and livestock grazing leases located within Pinal County Township 7 and 8 South, Range 18 East, 8 and 9 South, Range 17 East, and Graham County Township 7 and 8 South, Range 19 East. The legal firm DMY&L, Tucson, Arizona, was retained by Faraday to perform an examination of the status of title to certain fee property including patented mining claims in Pinal County, Arizona. The legal title opinion was reported by DMY&L on January 10, 2022, which has informed Faraday’s disclosure in this section. The area is accessible via public and private roads. Figure 4-2 provides a plan map of the Project boundary and concessions by type.

Figure 4-2: Land Tenure Map



Notes: Figure provided by Faraday, 2023. Bold green and black lines denote land package boundary of the Project. Private land within this outline is deeded and under Company control through patented mining claims as shown in dark blue colour. Private land under company control with surface rights but no patented mining claim rights is shown in pink. Grey-coloured parcels represent federal (BLM) unpatented claim blocks on privately owned land where the Company does not control surface rights but does hold the mineral rights. Surface disturbance requires approval from the applicable landowner(s). Thin orange lines over blue–coloured hatched parcels represent federal (BLM) unpatented claim blocks on state-owned land where the Company does not control surface rights but does hold the mineral rights. Surface disturbance requires approval from the ASLD. Orange-coloured parcels represent federal (BLM) unpatented claim blocks on federal-owned land where the Company does not control surface rights but does hold the mineral rights. Light blue-coloured parcels represent state prospecting permits on state-owned land where the Company holds the mineral rights.

Payments related to parcel and patented mining claims, state prospecting permits, unpatented mining claims and livestock grazing leases are current with the annual renewal schedule outlined in Table 4-1. As of the report effective date, all required payments have been made. Any surface disturbance on property that is not owned by the Company requires either private landowner, state, or federal (BLM) approval. Any sub-surface drilling outside of Company-owned property but within BLM unpatented mining claim blocks or ASLD prospecting permits requires either federal (BLM) or state approval. The Company has an agreement in place with D&G for four unpatented mining claims that are located within the land package boundary.

Table 4-1: Payment Schedule for Private Land Taxes, Unpatented Claims, Prospecting Permits, and Livestock Grazing Leases Based on Land Package Category

Land Package Category	Payee	Payment/Renewal Date
Private land parcels	Pinal County Treasurer	October 1
Private land Parcels	Graham County Treasurer	November 1
BLM unpatented claims	BLM	August 31
D&G unpatented claims	D&G	May 31 and November 30
ASLD prospecting permits	ASLD	Varies based on initial permit issuance date
Livestock Grazing leases	ASLD, BLM, USFS	Varies based on initial lease Issuance date

Note: D&G payments are based on contractual agreements and are paid bi-annually. There are nine ASLD prospecting permits (each permit is separate and is based on a block of land) with annual renewal dates dependent on when the initial permit was approved and issued. There are five livestock grazing leases with annual renewal dates dependent on when the initial lease was approved and issued. BLM unpatented claims require annual maintenance fee payments to be renewed and in good standing. ASLD prospecting permits span a five-year term and require annual renewal applications and allowed exploration expenditure to be equal to or greater than $10 per acre for the first two annual periods and $20 per acre for years three through five. If exploration expenditure does not meet this threshold, the permit holder must remit the in-lieu payment difference to ASLD.

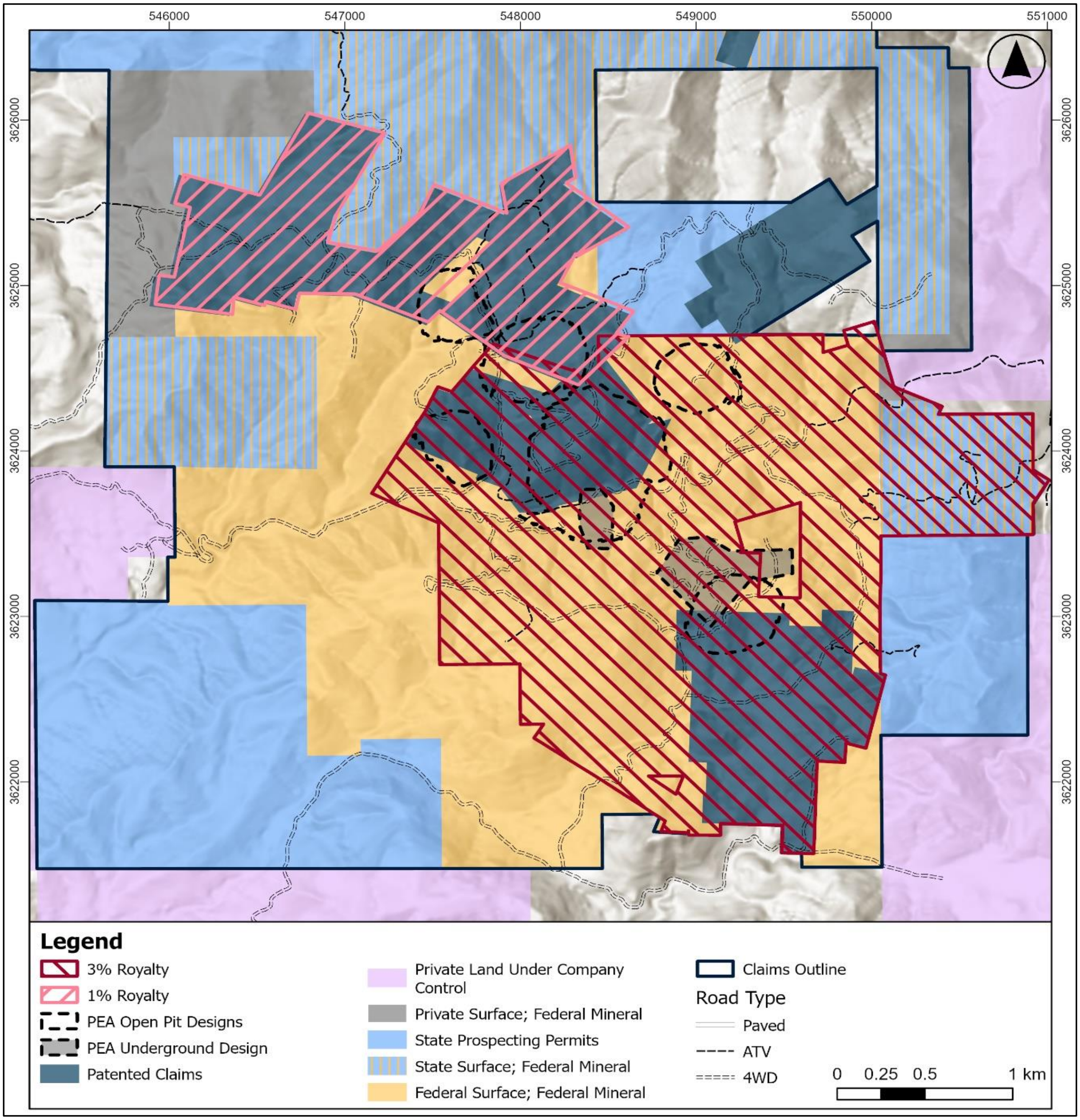
4.2.1 Nature and Extent of Issuer's Interest

Surface disturbance on BLM unpatented claims and D&G unpatented claims requires approval from the BLM. Prospecting permits through the ASLD are registered to the Company and referenced in solid, blue-shaded parcels on Figure 4-2. Exploration activities on ASLD prospecting permits require approval from the ASLD.

4.3 Royalties, Agreements, and Encumbrances

The Project is subject to two royalties based on potential mining production, as detailed in this section. Figure 4-3 shows the claims applicable to royalties.

Figure 4-3: Claims Applicable to Royalties (Diagonal Hatch Pattern)



Source: Faraday, 2023.

4.3.1 Access Agreements

No access agreements are in place as the Company has unrestricted access to the Project through its own private property via Bunker Hill Road. This is in addition to the public road access to the property from the town of Mammoth via Copper Creek Road and provides an alternate access option (see also Figure 4-2).

4.3.2 South32 Royalty

A sliding net returns royalty is payable to South32 on most production from the mineral inventory in the PEA based on the current area of the MRE. Expenses incurred after the product leaves the property are deducted from the gross value received. No advanced royalty payments are due. The sliding royalty is based upon The Commodity Exchange Inc.'s (COMEX) copper price as follows:

- <$0.80/lb: no royalty
- $0.80 to $0.99/lb: 1% royalty
- $0.99 to $1.10/lb: 2% royalty
- $1.10 to $1.20/lb: 2.5% royalty
- Greater than (>) $1.20/lb: 3% royalty

In Figure 4-3, the South32 royalty areas are shown as the red-hatched areas and labelled as 3% royalty based on the current copper price.

4.3.3 Franco Nevada Royalty

Payment of $3,000,000 ($500,000 per year over 6 years) is due to Franco following achievement of commercial production of minerals within a 5-mile radius of certain patented claims now held by Faraday. The MRE is within this 5-mile radius and would therefore be expected to trigger such payments upon production.

A 1% net smelter return royalty is payable to Franco on a small portion of production from the mineral inventory in the PEA based on the current area of the MRE. In Figure 4-3, the Franco Nevada royalty areas are shown as the blue-hatched areas and labelled as 1% royalty.

4.4 Environmental Liabilities and Permitting

4.4.1 Environmental Liabilities

The Project is located in a historical mining jurisdiction dating back to the 1860s (detailed historical mining activities at Copper Creek are described in Section 6 of this report). The previous operator closed many of the underground mine adits; however, due to the historical nature of the Project, there is potential for undocumented adits. The primary historical underground mines are Childs Aldwinkle, Old Reliable, Copper Prince, and Glory Hole. Underground mining at Childs Aldwinkle has resulted in two collapsed features and a minor amount of waste rock associated with these features. There is no point discharge from the waste rock to a receiving water source.

The Old Reliable Mine was mined via underground methods and later by blasting and in-situ leaching. Siskon Mining controlled Old Reliable and the surrounding district, which was optioned to Newmont Exploration Corporation in 1966. Siskon assigned its mining right at Old Reliable to Occidental Minerals Corporation (Oxymin) in 1968, who entered into an agreement with Ranchers Exploration and Mining Company (Ranchers) in 1970. Ranchers assumed Siskon's and Oxymin's obligations under the agreement with respect to Old Reliable. Magma Copper Company (Newmont's successor) was held responsible in an Environmental Protection Agency (EPA)-issued Violation Order for acid drainage into Saloon Gulch and Copper Creek. Magma constructed an evaporation settling pond catchment system in 1986 to minimize the discharge of pollutants into Saloon Gulch. Costs borne by Magma were largely recovered from Hecla Limited (then known as Hecla Mining Company) (Hecla) (Ranchers' successor) via a Settlement Agreement dated June 16, 1989, among Magma Copper Company, Exxon Corporation, Newmont (collectively referred to as the MEN Joint Venture), and Hecla (Siskon is also a named party in the Settlement Agreement). The Settlement Agreement further provides that Hecla is responsible to pay to the MEN Joint Venture 80% of the costs incurred for the ongoing operation and maintenance of the collection and evaporation system installed at the Old Reliable Mine, while the MEN Joint Venture is responsible for the balance of such operation and maintenance costs. There are no other known liabilities, environmental or otherwise, within the Project claim boundaries.

4.4.2 Required Permits and Status

On May 20, 2022, the Company submitted an EPO to the U.S. Department of the Interior (DOI), BLM, Gila District Office, Safford Field Office. This permit was accepted by the BLM and is currently under review for approval. The permit requests a total of 29.41 acres of disturbance on BLM land, which includes 5.58 acres for 67 drill pads and 23.83 acres for approximately 26,370 linear metres (86,514 linear feet) of access roads. Of the 29.41 acres proposed for disturbance, 13.13 acres of pads and re-established access roads are proposed for reclamation.

The Project currently has a valid 2019 MSGP with an expiration date of December 31, 2024, as well as a corresponding storm water pollution prevention plan (SWPPP) with the ADEQ. All mandatory inspections for this permit are completed on an annual basis by ADEQ as outlined in the SWPPP (SWPPP, 2022).

4.4.3 Other Significant Factors and Risks

No other significant factors or risks are known that affect access, title or right or ability to perform the exploration work recommended on the property.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Topography, Elevation, and Vegetation

The Copper Creek site has an elevation varying between 1,050 and 1,500 masl. The physiography of Copper Creek is characterized as mountainous terrain. Steeply sloped rocky hills are transected by narrow valleys. Vegetation consists mainly of cacti, dispersed small trees (such as mesquite), and desert grasses. Cattle are raised locally in areas surrounding the Project.

5.2 Accessibility and Transportation to the Property

Access to and from the Project is simple and approachable from several alternate routes. From Tucson, Arizona, the site office is accessed via AZ-77 highway north, then east on South Veterans Memorial Boulevard toward San Manuel, totalling approximately 80 road km’s. The driving time from Tucson to the Project is approximately 1 hour. From San Manuel, the two main project access roads are Copper Creek Road and Bunker Hill Road. The site is approximately 16 km’s northeast of the town of San Manuel, which recorded a population of 3,114 in 2020.

Accessibility within the Copper Creek site is good, with an extensive network of graded dirt and gravel roads. A four-wheel drive vehicle can access most areas of the Project.

5.3 Climate and Length of Operating Season

Field operations occur throughout the year, and there is limited seasonal limitation on operations. Climatic conditions do not significantly impact exploration activities. The average annual temperature is 20 degrees Celsius (°C). Winter lows rarely reach less than 10°C with only occasional frosts.

The Project site has a desert climate with limited precipitation at 300 mm per year. Most of the annual rainfall occurs in the summer (between July and September) when the average monthly rainfall is 60 mm. Average monthly rainfall from October to June is 20 mm.

Copper Creek is a seasonal flowing stream located in the south-central portion of the Project area. Due to the semi-arid climate, other drainages at the Project are typically ephemeral and rarely contain water in the dry season or between significant summer rain events.

5.4 Sufficiency of Surface Rights

As discussed in Section 4, the Copper Creek surface rights cover 41 km^2 of exploration concessions. The claims are considered sufficient to perform the exploration work recommended on the property. Faraday-controlled ground is sufficient for future envisioned mining activities.

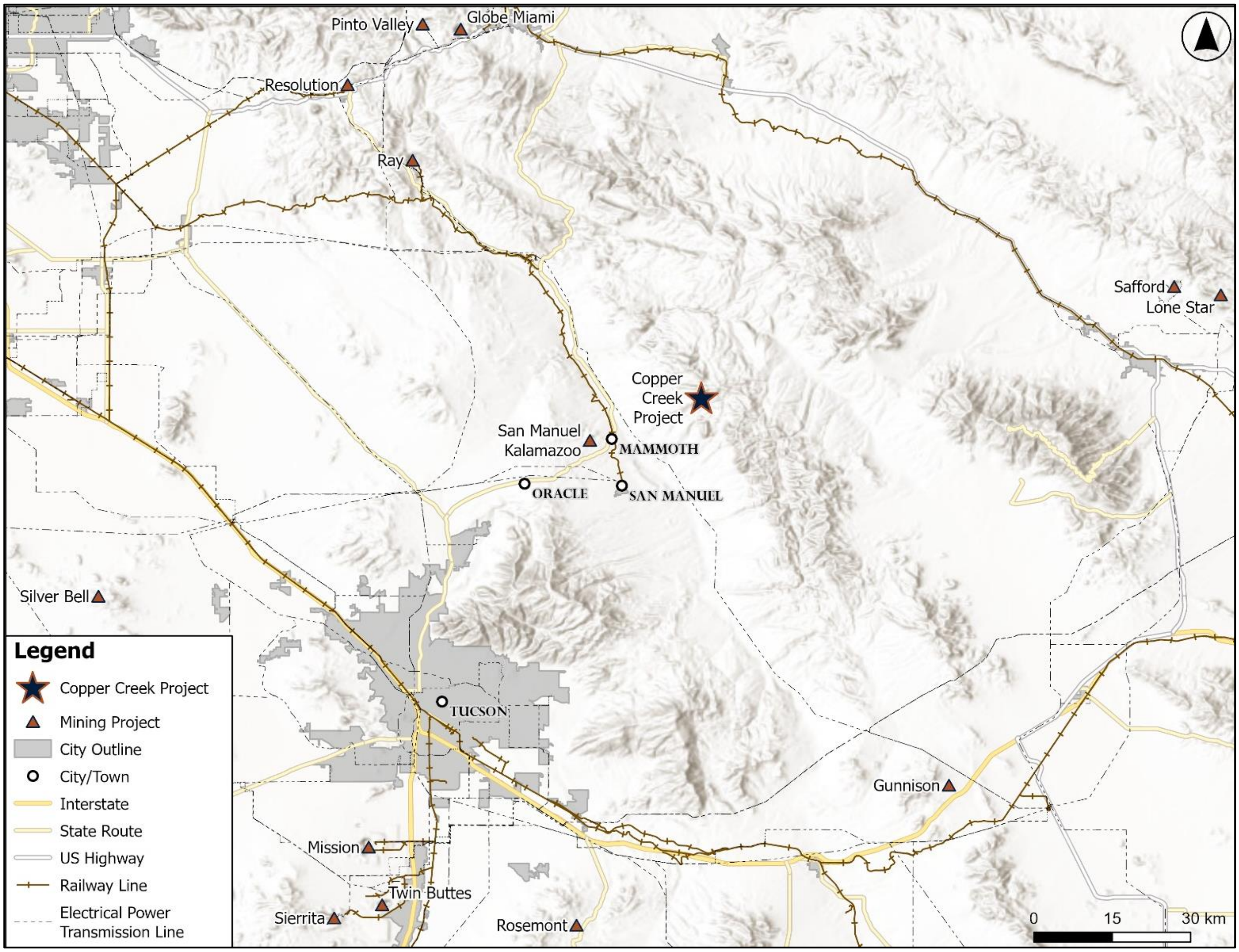
5.5 Infrastructure Availability and Sources

The area is in a mining-friendly and politically stable jurisdiction with extensive infrastructure, including power, rail, water, roads, and access to skilled personnel. The Copper Creek Property is in a predominantly ranching and mining area northeast of Tucson, Arizona off State Highway 77. Tucson is a major population centre and transportation hub with well-developed infrastructure and services to support the multitude of mines in the area. The main access to the property, from Tucson, is along the paved Highway 77 to the property road junction at Copper Creek Rd and Main Street in the town of Mammoth, Arizona, then north 10 km to the site. Alternatively, the site may be accessed via another private, unimproved gravel road, Bunker Hill Road accessible south of Copper Creek Rd. along South River Rd. However, the intention is to only improve and widen Copper Creek Rd.

The Project is situated in an area with well-developed mining infrastructure which includes BHP Group Limited's (BHP) closed San Manuel operation located approximately 16 km to the west in the town of San Manuel. An opportunity also exists to refurbish and utilize Capstone already existing infrastructure including their rail loadout facility for concentrate handling and their substation. Power is supplied to APS San Manuel Substation through a 115 kV transmission line from the Tortolita Substation. San Manuel Arizona Railroad Company (SMARRCO) owns a track that used to service BHP's San Manuel loadout facility north to Winkelman where it connects with the Copper Basin Railway. The Copper Basin Railway is operated by ASARCO and connects to the Union Pacific Railroad. SMARRCO has not been operational for the past 7 years since Capstone changed to hauling concentrate via truck to the Port of Guaymas, Mexico for overseas shipment to smelter and the BHP San Manuel mine was closed. The Project will also look at entering into a contract to smelt concentrate locally at Freeport McMoRan's Miami Smelter to the north off Highway 77 in Miami-Globe, AZ (approximately 125 km) or regionally at Southern Copper Corporation's La Caridad complex in Nacozari, Sonora, Mexico approximately 650 km via rail.

Mammoth and San Manuel, AZ are the closest communities; both were purpose-built for historic and modern mining activities, with the latter built for BHP's San Manuel Mine in the mid-1950s. The 2020 population census for both towns combined is approximately 5,200 people and although the local economy is currently characterized as depressed, both communities are within proximity of a highly skilled and experienced workforce. A camp facility is not planned as room and board are easily accessible from the nearby townsites of Mammoth, San Manuel, Oracle, and from the city of Tucson and neighbouring suburbs.

Figure 5-1: Map of Rail, Power, Roadways, Mining Projects and Townships in the Surrounding Area



Source: Ausenco, 2023

6 HISTORY

This section is referenced directly from the 2013 SGS PEA report (Preliminary Economic Assessment 25,000 TPD Mill with an Underground Mine for Development of the Copper Creek Resource (SGS, 2013)) prepared for Redhawk by SGS METCON/KD Engineering. Modifications from 2013 to present were added in Sections 6.4 to 6.6. Table 6-1 summarizes drilling activities since 1914, which are detailed in the following sections.

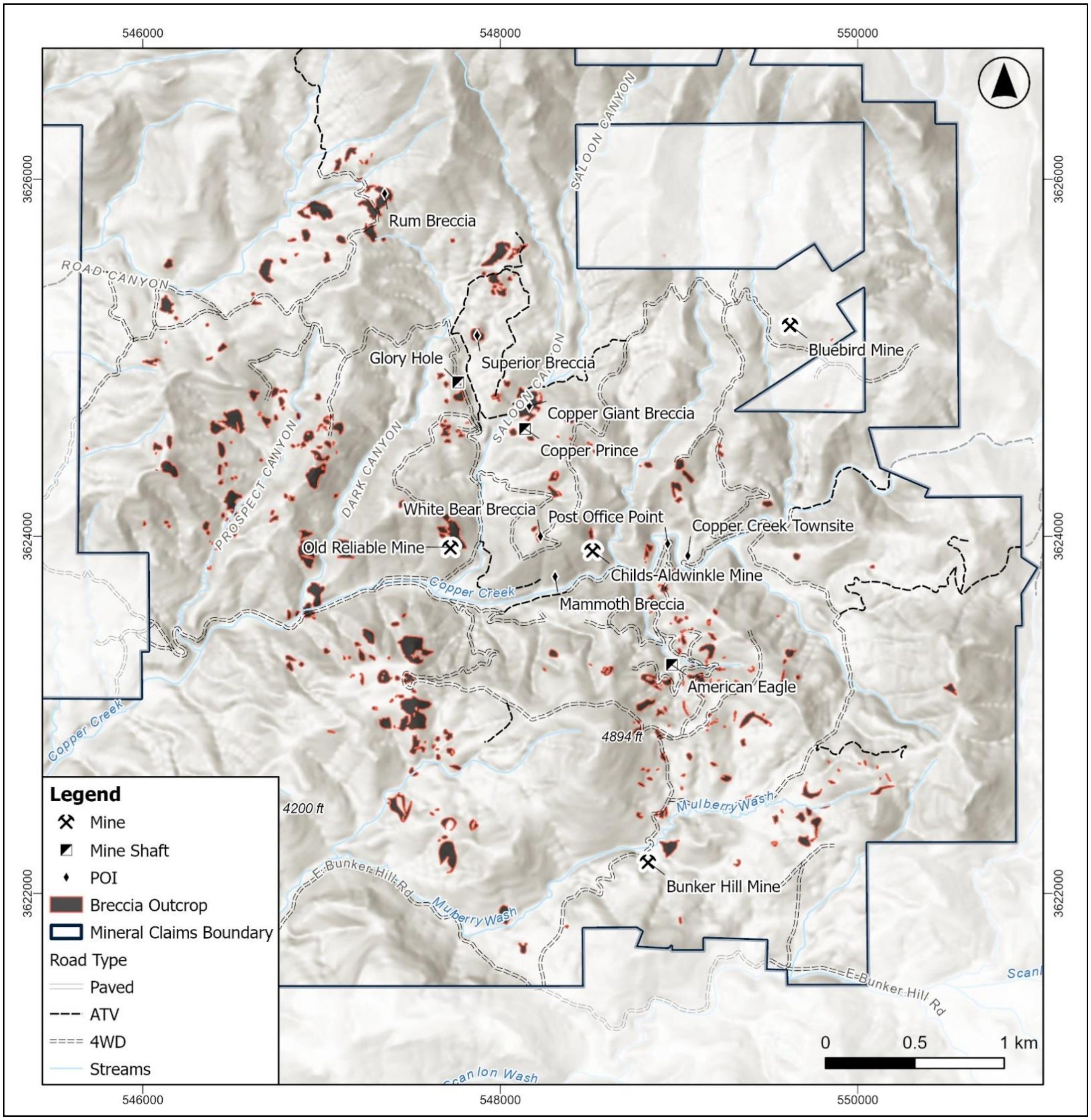
Table 6-1: Historical Drilling Activities, Copper Creek

Company	Date	Number of Holes	Total Drilling (m)
Calumet & Arizona Mining Company (C&A)	1914	14	1,649
Bureau of Mines	1942 to 1943	31	893
Siskon Corporation (Siskon)	1956 to 1958	25	1,227
Bear Creek Mining Company	1959 to 1962	15	8,865
Newmont Exploration Limited (NEL)	1966	22	9,223
Oxymin	1968 to 1970	49	2,810
Ranchers	1971	3	239
Magma Copper	1971 to 1972	38	28,734
Exxon Corporation	1971 to 1972	21	22,412
Inspiration Consolidated Copper Company (Inspiration)	1973	6	227
Phelps Dodge	1972 to 1974	9	7,756
AMT International Mining Corporation (AMT)	1995 to 2001	238	58,646
Redhawk Resources Inc. (Redhawk)	2006 to 2012	78	58,030
Others		2	311
Total		**551**	**201,022**

6.1 Historical Exploration and Development (1863 to 1960)

Lead (Pb)-silver (Ag) veins were mined from the Bluebird Mine (Figure 6-1) and several other historical workings as early as 1863, with the ore shipped via the Sea of Cortez to Swansea, Wales, for reduction. The Bunker Hill (Copper Creek) mining district was organized in 1883 after completion of the Southern Transcontinental railroad across Arizona in 1880. Mining claims were staked to cover copper deposits in the district prior to 1900, but little work was completed until after 1902.

Figure 6-1: Historical Mine Location Map



Source: Faraday, 2023

In 1903, Copper Creek Mining Company acquired claims covering narrow copper-silver veins near the headwaters of Copper Creek and later acquired ground along Copper Creek and the Old Reliable deposit (Figure 6-1). The wagon road from Mammoth to Copper Creek was constructed in 1908, which provided more-favourable freight haul after the railroad was extended to Winkelman in 1911.

By 1913, the Copper Creek Mining Company and its successors (the Minnesota-Arizona Mining Company and Copper State Metals Mining Company) had constructed a dam, power plant, dispensary, and a 181 t/d (200 st/d) gravity concentrator in the vicinity of Post Office Point (Figure 6-1). The Company developed and mined a small, tabular breccia orebody at American Eagle. The Old Reliable deposit was developed for mining and was connected to the concentrator with about 3 km of narrow-gauge railroad. By the end of 1913, the Company was in default, and employees were working the Old Reliable to recover unpaid wages. The Company was refinanced in 1914 and operated at Old Reliable, where about 30,000 tons of ore were reportedly produced prior to shut down in 1919. The Old Reliable claim group was surveyed and approved for patent in 1919.

Commencing in 1907, C&A, guided by well-known geologist Ira Joralemon, explored the Copper Giant, Copper Prince, Glory Hole (Globe), and Superior breccia pipes by adits, shafts, and drifts. To supplement the underground exploration, C&A drilled about 1,830 m (6,000 ft) in 14 drillholes collared at surface during 1914. A copper resource was discovered in both the Glory Hole and Copper Prince pipes, but there was no production. The C&A group of 26 claims was surveyed for patent between 1908 and 1919. Title passed to Phelps Dodge Corporation in 1931 when it purchased C&A. The only recorded production from the C&A ground was by Arizona Molybdenum Corporation, which mined and milled 21,148 tonnes (23,312 short tons) of ore from the Copper Prince pipe with an average grade of 3.19% Cu during 1937. Written logs of the C&A drillholes reside in Faraday's files, but core has not been located.

- Drillholes drilled by C & A: DH-1 through DH-14

In 1915, an adit driven below the outcrops of the Childs Aldwinkle pipes discovered the Cu-Mo mineralization under the outcrops, and the breccia pipes were developed for production from 1917 to 1918. The claims were surveyed in 1916 and patented in 1919. Arizona Molybdenum Corporation acquired the property in 1933 and proceeded to develop the Cu-Mo mineralization to 171 m (520 ft) below the haulage level. The old Arizona-Minnesota Mining Company gravity concentrator was converted to flotation to process about 318 tonnes (350 st/d). In 1935, a new flotation concentrator was constructed on the Childs Aldwinkle property near the portal of the haulage adit, where about 272 t/d were processed. Between 1933 and 1938, reportedly 289,460 tonnes (329,000 short tons) were milled. Leasers worked the mine in 1939 and again from 1957 to 1965. At some time prior to 1957, the Childs Aldwinkle winze was extended to 223 m (680 ft) below the haulage adit; the 680 level was developed, and six short drillholes were drilled by Inspiration. Magma Copper Company obtained logs of these drillholes from Inspiration in 1967, and the logs are in Faraday's files; however, the core has not been located.

- Drillholes drilled by Inspiration at Childs Aldwinkle: H-1 through H-6

During his work at Copper Creek for C&A, Ira Joralemon postulated that the area between the chalcocite-enriched Old Reliable and Glory Hole pipes may be underlain by a chalcocite blanket of commercial tenor. In the late 1940s, Copper Creek Consolidated Mining Company (Morris Elsing) secured the patented claims at Old Reliable and, during 1950, drilled four drillholes with a churn-drill to disprove Joralemon's idea. Copper Creek Consolidated Mining Company held the Old Reliable property without recorded production until about 1954.

- Drillholes drilled by Morris Elsing near OR: CDH-1 through CDH-4

6.2 The Modern Era (1960 to 1994)

In 1956, Siskon acquired ground that had been part of the properties of the old Copper State Metals Mining Company, mostly in Sections 10, 11, and 14. Siskon's principal interest was the Old Reliable mine. The Old Reliable had been rehabilitated and sampled in 1942 and 1943 by the U.S. Bureau of Mines, and very encouraging results were reported in RI 4006 (1947). Siskon drilled 21 diamond core drillholes from the 30 m (100 ft) and 61 m (200 ft) levels of the Old Reliable mine. Neither logs nor core are available.

- Drillholes drilled by Siskon at OR: OR-1 through OR-17, SW-1, 2, and 3

In 1959, Bear Creek Mining Company (Kennecott) optioned the Siskon ground and the Childs Aldwinkle patented claims. Bear Creek Mining Company mounted the first integrated exploration (geologic mapping and geochemical and geophysical surveys, followed by drilling) at Copper Creek. Bear Creek Mining Company drilled 15 drillholes, and several of these cut mineralized zones. However, none of the Bear Creek Mining Company intersections appeared to be minable, and they abandoned the Project in 1962. The Bear Creek Mining Company drill core was stored in a cabin at the Old Reliable under care of watchman Pete Carey. This core was moved to a warehouse at Magma's plant in San Manuel in 1967 and is now in the possession of Faraday.

- Drillholes drilled by Bear Creek Mining Company:
  - OR CU-3 and 10
  - CA CA-1, 2, and 3
  - Siskon claims CU-1, 2, 4, 5, 6, 7, 8, 9, 11, and 12

In 1966, Newmont Mining Corporation optioned the Siskon property and enlisted the Magma Copper Company (80.3% owned by Newmont Mining Corporation) as co-venture and operator. The Childs Aldwinkle patented claims were also optioned (as were adjacent claims owned by Clark, Downey, and Lehman), as well as the patented Redbird claims (Bluebird Mine). Additional claims were located to cover open federal land, and state land was leased. Exploration was directed toward discovery of a major disseminated copper deposit as breccia pipes were not a primary target. Between 1966 and 1970, geology of the district was mapped, and 30 deep core drillholes were drilled. Core from these and all other joint venture drillholes drilled at Copper Creek was stored in a warehouse at Magma's plant at San Manuel until June 2005. This work demonstrated that a significant copper mineralized zone existed at depth beneath the American Eagle Area. Magma became a wholly owned subsidiary of Newmont Mining Corporation in 1969.

- Drillholes drilled by Magma – Newmont Mining Corporation:
  - Siskon claims SK-1, 2, 3, 4, 6, and 7
  - Bonbright claims B-20, 24, 29, and 30 (CA)
  - Downey claims D-5, 8, 9, 13, and 26
  - Lehman claims L-10, 12, 19, 25, and 27
  - Magma – Newmont Mining Corporation claims M-22, M-28, A-11, S-14, 15, 16, 17, 18, 21, and 23

Although Newmont Mining Corporation acquired the Siskon ground in 1966, Siskon retained the right to deal separately with the upper part of the Old Reliable pipe and certain adjacent claims for a period of 15 years. In 1968, Oxymin leased that ground from Siskon and optioned part of the adjacent Phelps Dodge ground that covered the mineralized Glory Hole, Copper Prince, and Copper Giant pipes. The old workings that C & A had driven to test the (Phelps Dodge) pipes were rehabilitated above the water table, and Oxymin drilled 67 surface and underground drillholes to test the Old Reliable, Glory Hole, Copper Prince, and Copper Giant pipes. Oxymin released their option on the Phelps Dodge ground in 1970. Faraday has copies of Oxymin core logs but no logs for percussion drillholes. The location of the core is not known.

- Drillholes drilled by Oxymin:
  - OR OOR1, 2, 3, 4, 5, and 6 (surface: core)

  - UG-1, 2, 3, 4, 5, 6, 7, and 8 (100 level: core)
  - EH-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, and 26 (100 and 200 levels: percussion)
  - Glory Hole GH-1, 2, and 3 (surface: core)
  - EHGH-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 (UG: percussion)
  - Copper Prince open pit -1 (surface : core)
  - EHOP-1, 2, 3, 4, 5, and 6 (UG: percussion)
  - Copper Giant OG-1 and 2 (surface: core)

In 1971, Oxymin assigned their interest in the Old Reliable to Ranchers Exploration and Mining Company (Ranchers). Ranchers drilled three drillholes to confirm results of Oxymin drillholes. Logs of the Ranchers drillholes are in Faraday's files, but the location of the core is not known. In 1972, Ranchers, in association with Du Pont, rubblized the Old Reliable pipe above the 1,223 m (3,730 ft) elevation by blasting with ammonium nitrate fuel oil (ANFO). Copper was leached from this rubble column with dilute sulphuric acid, and copper was recovered from the leach liquors by precipitation on tin cans (cementation) in a plant below the mine. More than 12,077,000 lb (~5,478 t) of cement copper were recovered between 1972 and 1981, when the Ranchers lease expired.

- Drillholes drilled by Ranchers at OR: RD-1, 2, and 3

From 1972 through 1974, after retrieving its property from Oxymin, Phelps Dodge (now Freeport Copper & Gold, Inc.) geologists mapped, sampled, and tested the Phelps Dodge ground with geophysics; nine drillholes were drilled to test deep targets, with disappointing results. Phelps Dodge did not explore the breccia pipe deposits on its ground. Faraday has copies of the Phelps Dodge drillhole logs, but Freeport Copper & Gold, Inc. has the core.

- Drillholes drilled by Phelps Dodge: CC-1 through CC-9

Humble Oil joined Newmont Mining Corporation and Magma in exploration for porphyry copper deposits at Copper Creek in 1971. Humble Oil assumed project management from 1971 through 1972 (their earn-in period) and drilled 20 deep drillholes. It was Humble Oil–Newmont Mining Corporation Drillhole HN-12 that discovered the third (north) finger of the Childs Aldwinkle pipe. Faraday has both logs and drill core.

- Drillholes drilled by Humble Oil–Newmont Mining Corporation:
  - American Eagle HN-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 19, and 20
  - CA HN-12, 14, 17, and 18
  - OR HN-13
  - Joint Venture claims HN-15

Humble Oil was renamed Exxon Corporation in about 1973. In 1979, Exxon Corporation, at their sole cost, drilled a hole to test a geological theory that was advanced by their exploration management but failed to make a significant discovery. Faraday has both the drill log and core.

- Drillhole drilled by Exxon Corporation (JV ground): EN-1

Newmont Mining Corporation resumed management of the Copper Creek Joint Venture in 1973 and drilled six angled drillholes from surface to test breccia pipe targets. However, by the mid-1970s, Newmont Mining Corporation's corporate interest in porphyry copper exploration had waned. The Project reverted to care and maintenance. While drill targets were carefully selected, drilling was reduced to the amount needed to underwrite property maintenance costs.

Drillhole NE-6 discovered the Lower Mammoth (LM) feeder zone, and Drillhole NE-10 discovered the Mammoth Breccia (VIX) pipe. What historically was termed Lower Mammoth Zone is referred to as Keel herein (see Anderson et al., 2009). Faraday has both the drill logs and core for these drillholes. Between 1972 and 1977, the joint venture surveyed for patent claims on public domain that would be interior to a crack-line projected at 45° from the bottom of the American Eagle deposit. This survey was filed with the BLM, but the claims were not patented. Exxon Corporation ceased contributing to the joint venture in 1985 and withdrew in 1987.

- Drillholes drilled by Newmont Mining Corporation–Exxon Corporation:
    - CA AH-1, 2, and 3
    - American Eagle AH-4, 5, and 6 and NE-2, 4, 7, and 8
    - Mammoth area NE-5, 6, and 10
    - Railroad pipe NE-9
    - Joint venture claims NE-1 and 3

When Newmont Mining Corporation distributed Magma's equity to their shareholders in 1987, their ownership interest in properties at Copper Creek was incorporated into Magma, and Magma Copper became an independent company. Magma Copper's management had little interest in exploration at Copper Creek; they reduced the size of the property package but held the core of the Copper Creek property. Magma Copper met the requirement for assessment expenditure by drilling three drillholes. Faraday has the logs and drill core for these drillholes.

- Drillholes drilled by Magma Copper:
    - Mammoth area CC-1
    - CA CC-2 and 3

6.3 AMT (1995 to 2004)

Arizona Mineral Technology (Kushal Singh) finalized an agreement to acquire the Copper Creek property from Magma Copper in 1994. Singh's company was renamed AMT International Mining Corporation when it was incorporated in Canada.

Between 1960 and 1995 when AMT became active at Copper Creek, more than 77 deep drillholes had been drilled by major copper companies, and a considerable amount of geological, geophysical, geochemical, and other analytical data had been generated by those companies. However, major exploration companies were searching for a large porphyry copper deposit, and the mineralized breccia pipes were too small in tonnage to be of interest to major companies.

AMT began field investigations at Copper Creek in the spring of 1995. Their primary interest was the overlooked and shallow mineralized breccia pipes. Claims were staked to recover the ground dropped by Magma and to fill fractions. Agreements to acquire the Bell (Ryland) ranch and the Mercer ranch were signed. An agreement was signed with Phelps Dodge Exploration Corporation to obtain an interest in their patented claim block. AMT obtained a prospecting permit for state lands in the south half of Section 2 near the Bluebird Mine. Access and drill roads were repaired, and a new access road was constructed from Saloon Gulch to the top of White Bear Hill.

During May and June 1995, AMT drilled nine reverse circulation drillholes at Old Reliable to confirm that leaching by Ranchers had not significantly depleted the chalcocite mineralization. In addition, three RC drillholes were drilled at Old Reliable in June 1996, and 20 RC drillholes were drilled during January through March 1997. Six of these vertical RC drillholes were extended with the core drill to test the deposit below the rubble column.

- Drillholes drilled by AMT at OR:
    - OR-1R (core), 2R, 3R, 4R, 5R, 6R, 7R, 8R, 9R, 10R, 11R, 12R, 13R (core), 14R (core), 15R (core), 16R (core), 17R (core), 18R, 19R, 20R, 21R, 22R, 23R, 24R, 25R, 26R, 27R, 28R, 29R, 30R, 31R, and 32R

AMT drilled 12,233 m (40,135 ft) in 37 angled diamond core drillholes to test the Childs Aldwinkle pipe above 853 m (2,800 ft) elevation from March through September 1996. These westerly directed drillholes were drilled from four surface sites, east of the Childs Aldwinkle glory holes. In addition, 1,091 m (3,580 ft) were drilled in nine RC drillholes to test the top of the blind north finger of the pipe, and three vertical core drillholes were drilled to obtain metallurgical test samples.

- Drillholes drilled by AMT at CA:
    - CA28+3ª, CA28+4, CA28+5, CA28+8, CA30+3, CA30+4, CA30+5, CA30+6, CA32+3, CA32+4, CA32+5, CA32+6, CA32+8, CA34+2, CA34+3, CA34+4, CA34+4ª, CA34+7, CA35.5+1, CA35.5+2, CA35.5+3, CA35.5+4, CA36+7, CA36+8, CA36.5+2, C36.5+3, CA36.5+4, CA37.5+1, CA37.5+1ª, CA37.5+2, CA37.5+3, CA38+6, CA38+7, CA40+6, CA40+7, CA40+8, CATECH, Met-2CA, 3CA, 4CA, and CA-1R, 2R, 3R, 4R, 5R, 6R, 7R, 8R, and 9R

From 1976 through 1982, Newmont Mining Corporation drilled two core drillholes beneath the south wall of Copper Creek canyon, almost directly beneath the prior location of the Arizona Molybdenum Corporation concentrator. Both drillholes cut mineralized intervals. The near-surface intercept in Drillhole NE-10 was like other copper mineralized breccia pipe deposits in the area, but the deeper intercepts in Drillhole NE-6 were pervasive sericite-chalcopyrite replacement of granodiorite. Follow-up drillholes drilled by AMT 11,454 m (37,578 ft) in 24 angled and seven vertical drillholes) defined the Mammoth, a pipe-form, quartz-chalcopyrite veinlet stockwork zone with N25W elongation of the potentially economic parts of the pipe: bottom above the approximately 853m (2,800ft) elevation.

- Drillholes drilled by AMT to test the Mammoth pipe:
    - CK32+0, 33+1Y, 33+3Y, 34.5-50, 35+3Y, 35.5-50, 36+0, 37+100, 37+50, 37.2+50 CK-B, C, D, and E
    - VIX24-2, 28-1, 28-2, 30-1, 32+1, 32-1, 32-2, 32-3, 34+1, 34-1, 34-2, and 36-2
    - VIX-A, VIXTECH, UM-1, MET1-CK, and MET5-CK

During November 1996, Drillhole VIX 28-2 extended through the shallow Mammoth pipe and into sericite-chalcopyrite rock, similar to the deep mineral intercept in Newmont Mining Corporation Drillhole NE-6. The similarity between these mineral intercepts, about 213 m (700 ft) apart, stimulated drilling of drillholes to test the continuity of the intervening Lower Mammoth mineralized zone (now referred to as Keel). The Keel is a steep, N25W trending, altered and mineralized zone interpreted as a magmatic cupola that has fed mineralizing fluids upward into the Mammoth pipe. In addition to Newmont Mining Corporation's Drillhole NE-6, the Keel Zone was tested by an additional 13 drillholes drilled by AMT. The limited information indicates potentially economic parts of the Keel feeder zone tops near 787 m (2,400 ft) elevation, and it has reasonable continuity for at least 213 m (700 ft) along strike and is open downward and to the southeast. Both tenor and thickness appear to increase toward the south, where thickness of the zone exceeds 31 m (100 ft).

- Drillholes drilled by AMT to test the LM Zone:
    - VIX24-2 and 28-2
    - LM-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11

In addition to the drillholes drilled to test the four previously described major deposits, AMT drilled several core and RC drillholes to test other mineral occurrences at Copper Creek. Some of these drillholes identified additional mineralized zones. Drillhole logs, split drill core (in some cases skeletonized), and RC cuttings trays are in possession of Faraday.

- Drillholes drilled by AMT to test various targets at Copper Creek (partial list):

- American Eagle AE-1, 2, and 3
- AE-1R, 2R, and 3R
- B-24 Breccia B24-1R, 2R, and 3R
- Boomerang breccia BG-1R
- Bluebird area S2-98-1
- Copper Giant CG1, 2, 3, 4, 5, and 6
- Copper Prince CP1, 2, 3, 4, 5, and 6
- Doreen breccia DB1, 2, 3, and 4
- Glory Hole (Globe) G1, 2, 3, 4, 5, 6, 7, 8, 9, 9A, 10, 11, 12, and 13
- M22 drill site M22-1R
- Marsha breccia MB-1, 2, and 2ª
- Pole breccia PB30+14, 34+14, and 38+14
- PB-1R, 2R, 3R, 4R, and 5R
- Railroad pipe RR-1R, 2R, 3R, 4R, and 5R
- PC1
- Post Office breccia PO-1R
- Rum claims RUM-1
- Shirley breccia SB-1 and 2
- Superior breccia S1, 2, and 3
- White Bear pipe WB-1R, 2R, 3R, 4R, and 5R

AMT mounted a staggered, 61m (200ft) grid, which covered much of the productive ground at Copper Creek. This grid was used to guide collection of geochemical samples, ground magnetic, and radiometric surveys. The exploration survey data is in files controlled by Faraday.

AMT exhausted its financial resources in 2001 and ceased all exploration. Norshield Investments, AMT's primary creditor, advanced funds necessary to maintain the key properties at Copper Creek, but agreements to secure the Ryland ranch, the Mercer Ranch, the Phelps Dodge claims, and Downey's Moose claims were dropped.

6.4 Redhawk (2005 to 2018)

Redhawk reviewed the Project data in 2004. Redhawk then acquired AMT's property at Copper Creek, as well as the drill core, rock samples, and the accumulated project data, in 2005. Redhawk spent considerable time following the acquisition organizing and consolidating the available data and drill core. The core is now housed in a core storage facility at Faraday's project office in San Manuel, Arizona.

During the review of the drill core, it was discovered that the last drillholes drilled by AMT were not split or assayed. Redhawk logged, split, and assayed this core, and the results were added to the database.

Redhawk commissioned Independent Mining Consultants, Inc. (IMC) to develop a resource estimate of the four mineralized targets: Mammoth, Childs Aldwinkle Breccia, Old Reliable Breccia, and the Keel Zone, all on Redhawk's ground. IMC's work started in March 2006, and a historical resource was announced in September 2006. The NI 43-101 technical document for this historical resource is titled "Copper Creek Property Mineral Resource, Pinal County, Arizona, USA, Technical Document," dated October 31, 2006, and filed on the SEDAR on November 8, 2006. This historical MRE was superseded by later estimates, as discussed in Section 6.8.

Redhawk commenced a drilling program in 2006 in the Mammoth deposit and in the breccia pipes located on the claims acquired from Phelps Dodge Corporation. In 2007, Redhawk commissioned IMC to develop a resource estimate for the American Eagle deposit to report the resource and to provide guidance to Redhawk's drilling in the American Eagle. The historical resource is documented in IMC's NI 43-101 technical report titled "American Eagle Deposit Mineral Resource, Copper Creek Property, Pinal Country, Arizona, USA, Technical Report," dated November 26, 2007, and filed on SEDAR on November 29, 2007. This historical MRE was superseded by later estimates, as discussed in Section 6.8.

In late 2007 and early 2008, Redhawk completed 12 rotary hammer pre-collar drillholes totalling 5,494 m (18,024 ft) in the American Eagle area. One pre-collar drillhole was deepened 75 m (246 ft) with core drilling, and one core drillhole was completed from surface to a depth of 1,160 m (3,806 ft) in the American Eagle area. Redhawk also drilled three core drillholes from surface totalling 3,345 m (10,975 ft). Redhawk drilled 12 core drillholes totalling 1,158 m (3,800.4 ft) from surface on the Copper Prince Breccias and three core drillholes from surface on the Globe Breccias totalling 372 m (1,220 ft) in early 2008.

IMC updated the mineral resources in October 2008. This estimate included resources in the Globe and Copper Prince breccias for the first time. The historical resources are documented in IMC's NI 43 101 technical report titled "Copper Creek 2008 Mineral Resource, Pinal Country, Arizona, USA, Technical Report," dated October 28, 2008, and filed on SEDAR on October 29, 2008. This historical MRE is discussed further in Section 6.8.

Redhawk commissioned K D Engineering of Tucson to provide a scoping level economic study for the Project in late 2009 based on the 2008 resource estimate. The NI 43-101 technical document for this resource is titled "Copper Creek Project 2,500-10,000 TPD Scoping Study," dated March 12, 2010, and filed on SEDAR on May 12, 2010. This historical mining study was superseded by later work, as discussed in Section 6.8.

Redhawk conducted a district exploration program in 2010 and early 2011. This program targeted six previously undrilled areas outside the existing breccia and porphyry resources which Redhawk judged prospective for potentially higher-grade mineralization in mafic volcanic and diabase host rocks. Encouraging copper intercepts in Drillhole REX-10-047 west of the Keel and American Eagle areas suggested the possibility of extending these porphyry resources westward. Consequently, two additional angled drillholes were drilled from the same site. Drilling for the expanded eight-drillhole program totalled 10,019 m (32,871 ft). A key result of the district exploration program was that it showed for the first time the scale of the Copper Creek sulphide system. These drillholes expanded the footprint of known porphyry-style alteration and sulphide mineralization from approximately 1.7 km to over 3 km in the northwest-southeast direction across the mineral resource area.

Starting in February 2011, Redhawk embarked on a 30,500m (100,000ft) program of infill and step-out drilling intended to upgrade a significant portion of the American Eagle and Keel porphyry resources from the Inferred category to the Measured and Indicated category. In addition, the program was designed increase the size and confidence of the potential resource area connecting the Keel and American Eagle porphyry resources. Both objectives were successfully achieved. The program included mostly vertical but also some angled core drillholes and completed core drilling from several rotary pre-collars drilled in 2007 and 2008. As of the end of July 2012, 77 drillholes (plus a wedge from one drillhole) totalling 58,030 m (190,388 ft) had been completed by Redhawk on the Project.

At Redhawk's request, IMC updated property-wide breccia and porphyry resources from April to May 2012 based on drilling through the end of March 2012. This historical MRE was announced in Redhawk's news release dated May 10, 2012, and formed the basis of the historical resource report titled "Copper Creek 2012 Mineral Resource Update, Pinal County, Arizona, USA – Technical Report," dated June 25, 2012 (IMC, 2012). This historical MRE considered potential open pit extraction of a much larger-scale resource and is discussed further in Section 6.8.

Redhawk and its consultants evaluated the opportunities of developing Copper Creek as either a large open pit or a large-scale underground mine . To support the underground alternative, the Copper Creek MRE was updated with any additional information to target an underground resource. The MRE was revised for the Keel and American Eagle deposits based on 174 drillholes totalling 104,790 m (343,799 ft), and the historical mineral resource for the breccia deposits is based on the historical mineral resource announced previously in the October 2008 technical report (IMC, 2008). This historical resource estimate was announced in the Redhawk press release dated December 19, 2012, and is documented in the technical report titled "Copper Creek December 2012 Mineral Resource – Pinal Country, Arizona, USA – Technical Report," dated January 31, 2013. This historical MRE is discussed further in Section 6.8.

SGS completed a PEA in 2013 entitled "Preliminary Economic Assessment 25,000 TPD Mill with an Underground Mine for Development of the Copper Creek Resource" (SGS, 2013). The historical PEA was completed July 25, 2013, and was filed on SEDAR on November 1, 2013. The results of the PEA disclosed in 2013 are no longer valid or current.

Redhawk numbered their drillholes with a prospect prefix followed by the year and sequence.

- Drillholes completed by Redhawk 2006-2012 and included in the 2013 PEA:
    - RMM-06-001, 002, 003, and 006; RMM-07-004, 006, 007, 008, 010, 011, 012, and 013
    - RAE-07-016, 017, 018, 019, 020, 021, 022, 023, 024,025, 029, 032, and 045
    - RAE-11-054,055, 056, 057, 058, 059,060, 061, 062, 063, 064, and 066
    - RGC-07-014 and RGC-08-043
    - RCP-08-026, 027, 028, 030, and 038
    - RGS-08-041 and 042
    - RMK-07-015; RMK-08-031 and 044; RMK-11-065, 065b, 067, 070, and 072
    - RMK-012-068, 069, 071, 075, 076, and 077
    - RPE-08-033, 034, 035, 036, 037, 039, and 040
    - RSS-07-005; RSS-11-073 and 074
    - RWB-07-009
    - REX-10-046, 047, 048, 049, 049b, 050, and 051; REX-11-052 and 053

From the 2012 resource statement into early 2014, Redhawk explored the Project and completed three drillholes on the Dark Canyon prospect located in the northwest portion of the project area (Table 6-2). Redhawk also evaluated potential joint venture offers from other companies.

Table 6-2: Post-2013 Drillholes Completed, Copper Creek

Hole ID	Company	Target	Depth (ft)	Depth (m)
REX-13-078	Redhawk	Dark Canyon	5,008	1,527
REX-14-079	Redhawk	Dark Canyon	4,017	1,225
REX-14-080	Redhawk	Dark Canyon	4,527	1,380
Total			**13,552**	**4,132**
REX-15-081	Copper Creek Project LLC	Prospect Canyon	4,557	1,389
REX-15-082	Copper Creek Project LLC	Rum	4,596	1,401
REX-16-083	Copper Creek Project LLC	Deep Am. Eagle	6,205	1,892
REX-16-084	Copper Creek Project LLC	East Creek	3,677	1,121
REX-16-085	Copper Creek Project LLC	Black Reef	3,100	945
REX-16-086	Copper Creek Project LLC	Black Reef	2,700	823
Total			**24,835**	**7,572**

In May 2014, Anglo American Exploration (USA) (Anglo American) signed a confidentiality statement and entered a joint venture agreement with Redhawk to explore the 75km^2 (29-square-mile (mi^2)) Copper Creek land position at that time. The joint venture company was known as Copper Creek Project LLC, a Delaware corporation, and a subsidiary of Redhawk Copper, Inc, the operating subsidiary of Redhawk Resources Inc. The joint venture took effect in November 2014, with Redhawk retaining the joint venture operatorship.

The agreement called for Anglo American to spend $44 million over 5 years to earn a 60% interest in the Project, another $20 million to earn an additional 20% interest, and then a buyout or production joint venture decision to be made on the Project.

Between November 2014 and late 2016, Anglo American spent $7 million on the Project. The main costs incurred were an estimated $1.5 million on diamond core drilling 7,572 m (24,835 ft), $1 million on a 216 mi^2 (559 km^2) airborne Z-Axis Tipper Electromagnetic (ZTEM)-Versatile Time Domain Electromagnetic (VTEM)-magnetic geophysical survey, and $100,000 on a regional hyperspectral remote sensing survey. The joint venture also compiled district-wide vein and hydrothermal alteration mapping, detailed intrusive and geochronology studies to refine the geologic history of the district, and 3D modelling. Table 6-2 outlines the drillholes completed as part of the post-2013 SGS PEA (Redhawk), and those drillholes attributed to the Anglo American joint venture (Copper Creek Project LLC).

Anglo American was targeting a greenfield discovery outside of the known American Eagle mineralization. The joint venture used a semi-quantitative assessment to identify, rank, and prioritize 15 district targets based on geology, geophysics, multi-element geochemistry, previous drilling, magnetics, and risk profile for follow-up exploration and drilling. However, the subsequent drilling program did not follow their ranking system.

Three of the six joint venture drillholes targeted greenfield prospects near to the existing resources (Prospect Canyon, Rum, and East Creek). One drillhole on the American Eagle Deep (REX-16-083) tested the potential for very deep mineralization adjacent to the American Eagle mineralization. Two additional drillholes were completed on the Black Reef prospect north of the main Project area. The results of these drillholes did not meet Anglo American's expectations, and they terminated their interest in the Project in late 2016.

From late 2016 until mid-2018, the Project was on care and maintenance of the property position, and Redhawk did not fund any exploration.

6.5 CopperBank (2018 to 2022)

On August 31, 2018, CopperBank acquired Redhawk in which Copper Creek became the flagship project of its portfolio. The Project continued to operate under the Redhawk name in the U.S.

In October 2020, CopperBank contracted Tellurian Exploration, Inc. to outline the steps necessary to reopen the Project and design a drilling program. Tellurian Exploration, Inc. completed the planned drilling layout during the second quarter 2021.

During the summer of 2021 and under a new management team, CopperBank began moving forward on exploration and development of the Project by redesigning the initial 5,000m core drilling program, relogging and sampling of a portion of the historical drilling, expanding land acquisition around the main portion of the district, reviewing metallurgical studies, and conducting a detailed geotechnical program to identify the viability of a modest Open Pit mining operation followed by underground block caving of the American Eagle mineralization.

6.6 Faraday Copper Inc. (2022)

In February 2022, CopperBank initiated an eight-drillhole, 5,000-m core drilling program, which was later expanded to nine drillholes and 6,000 m, designed to test previously undrilled areas between known breccia bodies, primarily in the Copper Giant, Glory Hole, and Mammoth-Keel areas (Figure 6-1). Drillholes were also designed to collect structural, metallurgical, geotechnical, and hydrogeological information. In April 2022, the shareholders of CopperBank approved a name change to Faraday Copper Inc. All subsequent work has been completed under the Faraday name. The Faraday Phase 1 drilling program was completed in June 2022 and all drillholes, except for FCD-22-001, were returned for assay by the data cut-off data and used for calculation of the MRE presented in this report. Table 6-3 outlines the 2022 Faraday core drilling program.

Table 6-3: Faraday Drillholes Completed, Q1 to Q2 2022

Hole ID	Azimuth (°)	Dip (°)	Target	Depth (ft)	Depth (m)	Data used for MRE
FCD-22-001	130	-45	Copper Prince	1,588	484.02	Logging only
FCD-22-002	170	-45	Glory Hole	1,777	541.63	Logging and assays
FCD-22-003	012	-45	Copper Giant	1,748	532.93	Logging and assays
FCD-22-004	175	-45	Copper Prince	1,628	496.21	Logging and assays
FCD-22-005	180	-50	Mammoth	2,678	816.25	Logging and assays
FCD-22-006	230	-50	OR	1,519	462.99	Logging and assays
FCD-22-007	135	-45	Keel	3,997	1,310.64	Logging and assays
FCD-22-008	150	-45	Mammoth	1,580	518.15	Logging and assays
FCD-22-009	000	-45	American Eagle	2,319	760.48	Logging and assays
Total				**18,834**	**5,923.3**	

6.7 Historical Production

The Project is located in a historical mining jurisdiction with activity dating back to the 1860s, although overall production was limited in volume from small-scale operations. Historical copper mining occurred at Copper Creek, with the last production in the 1980s. The primary historical underground mines are Childs Aldwinkle, Old Reliable, Copper Prince, and Glory Hole. No three-dimensional stope volumes exist to record exact location of historical underground mining.

Historical documentation indicates that 12,077,000 lb (approximately 5,478 t) of cement copper were recovered from the Old Reliable in-situ leaching (ISL) operation in the 1970s. The Old Reliable breccia pipe was blasted above the 1,140-masl elevation to increase permeability. Recovery of the ISL operation was reported as approximately 20%.

For Childs Aldwinkle, underground mining during the 1930s resulted in 298.5 thousand metric tonnes (kt) total production. Historical recovery of the room-and-pillar mining method was likely on the order of 65% to 70%. The two southernmost fingers of the breccia were mined, and the subsidence cavities are visible at surface.

The most significant previous mining known at Copper Creek occurred in the Old Reliable and Childs Aldwinkle breccias. Other named mines are known to have had artisanal production targeting high grades, primarily before the 1930s; however, detailed production records do not exist. Near-surface historical production in other areas at Copper Creek, beyond Old Reliable and Childs Aldwinkle breccias, is a known data gap; however, SRK does not view this as a material risk due to the volumetrically minor nature of the historical operations.

6.8 Historical Mineral Resource and Reserve Estimates

Multiple historical estimates and mining studies were prepared for Redhawk between 2008 and 2013. A QP has not done sufficient work to classify these historical estimates as current mineral resources or mineral reserves. Faraday is not treating these historical estimates as current mineral resources or mineral reserves. The results of the historical mining studies, including the PEA disclosed in 2013, are no longer valid or current. A summary of these historical estimates and studies is included in the July 2022 MRE disclosure (SRK, 2022) and the reader is referred to that report for more detailed information.

Table 6-4provides the 2022 SRK MRE for the Copper Creek Project. This historical estimate has been replaced by the current mineral resource estimate in Table 1-1 of this report. The historical MRE is provided for reference of the relative changes between the estimates and supporting information.

Table 6-4: SRK July 2022 MRE, Combined Open Pit and Underground MRE, Copper Creek Project

Category	Tonnage (Mt)	Grade				Contained Metal			
		Cu (%)	Mo (%)	Ag (g/t)	CuEq (%)	Cu (Mlb)	Mo (Mlb)	Ag (Moz)	CuEq (Mlb)
open pit									
Measured	38.9	0.68	0.010	1.8	0.72	584.2	8.7	2.2	614.6
Indicated	45.7	0.44	0.007	0.9	0.46	446.4	7.2	1.3	467.8
Measured and Indicated (M&I)	**84.6**	**0.55**	**0.009**	**1.3**	**0.58**	**1,030.6**	**16.0**	**3.6**	**1,082.5**
Inferred	29.3	0.35	0.004	0.8	0.36	224.6	2.9	0.8	233.0
UG									
Measured	26.1	0.50	0.012	1.5	0.54	288.7	7.0	1.3	312.7
Indicated	244.4	0.48	0.007	1.2	0.51	2,587.8	39.9	9.7	2,731.1
M&I	**270.5**	**0.48**	**0.008**	**1.3**	**0.51**	**2,876.5**	**46.9**	**11.0**	**3,043.8**
Inferred	45.6	0.41	0.009	0.9	0.44	410.3	9.2	1.3	440.5
Total (Open pit + Undergound)									
Measured	65.1	0.61	0.011	1.7	0.65	872.9	15.7	3.5	927.3
Indicated	290.0	0.47	0.007	1.2	0.50	3,034.2	47.2	11.0	3,199.0
M&I	**355.1**	**0.50**	**0.008**	**1.3**	**0.53**	**3,907.1**	**62.9**	**14.5**	**4,126.3**
Inferred	75.0	0.38	0.007	0.8	0.41	634.9	12.0	2.0	673.5

Source: SRK, 2022

CuEq: Copper equivalent; g/t: grams per tonne; Mlb: million pounds; Moz: million troy ounces; Mt: million tonnes.

Notes: The mineral resources in this estimate were prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions and Guidelines (CIM, 2014) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

All dollar amounts are presented in U.S. dollars.

Pit shell constrained resources with RPEEE are stated as contained within estimation domains above 0.23% CuEq CoG. Pit shells are based on an assumed copper price of $3.80/pound (lb), assumed molybdenum price of $13.00/lb, assumed silver price of $20.00/troy ounce (oz), and overall slope angle of 47 degrees (°) based on preliminary geotechnical data. Operating cost assumptions include open pit mining cost of $2.25/t, processing cost of $7.95/t, general and administrative (G&A) costs of $1.25/t, and treatment charges and refining charges (TCRC) and freight costs of$6.50/t.

UG constrained resources with RPEEE are stated as contained within estimation domains above 0.31% CuEq CoG. Underground bulk mining footprints are based on an assumed copper price of $3.80/lb, assumed molybdenum price of $13.00/lb, assumed silver price of $20.00/oz, underground mining cost of $9.25/t, processing cost of $7.00/t, G&A costs of $1.25/t, and TCRC and freight costs of $6.50/t.

Average bulk density assigned by domain is as follows: 2.33 grams per cubic centimetre (g/cm^3) for all near-surface breccias, 2.40 g/cm^3 for the Mammoth breccia, and 2.56 g/cm^3 for the Keel breccia, porphyry mineralization, and all other areas outside of breccias.

Variable metallurgical recovery by metal and domain are considered for CuEq as follows: copper recovery of 92%, 85%, and 60% within sulphide, transitional, and oxide material, respectively; molybdenum recovery of 78% and 68% for sulphide and transitional material, respectively; and silver recovery of 50% and 40% for sulphide and transitional material, respectively.

CuEq is calculated by domain based on the above variable recovery. For example, sulphide CuEq = [(Cu grade/100 * 0.92 Cu recovery * 2,204.62 * 3.8 Cu price) + (Mo grade/100 * 0.78 Mo recovery * 2,204.62 * 13 Mo price) + (Ag grade * 0.50 Ag recovery * 20 Ag price/31.10348)]/(0.92 Cu recovery * 2,204.62 * 3.8) * 100.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

All quantities are rounded to the appropriate number of significant figures; consequently, sums may not add up due to rounding.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Geological Setting and Mineralization

Copper Creek is part of the Southwestern North American Porphyry Copper province (Leveille and Stegen, 2012), which includes parts of the State of Sonora, Mexico, as well as the U.S. states of New Mexico and Arizona (Figure 7-1). This metallogenetic province is, after the Central Andes, the most endowed in copper around the Pacific (Sillitoe, 2012). Porphyry and related deposits are generally aligned along northwest- or northeast-oriented lineaments, which reflect the underlying large-scale basement architecture (Leveille and Stegen, 2012). Mineralization in these deposits coincides with the 80 to 55 Ma Laramide orogeny, which was the result of northeast-directed shallow-angle subduction of the Farallon Plate beneath the North American continental plate (e.g., Liu and Currie, 2016).

7.2 Geological Setting of Copper Creek

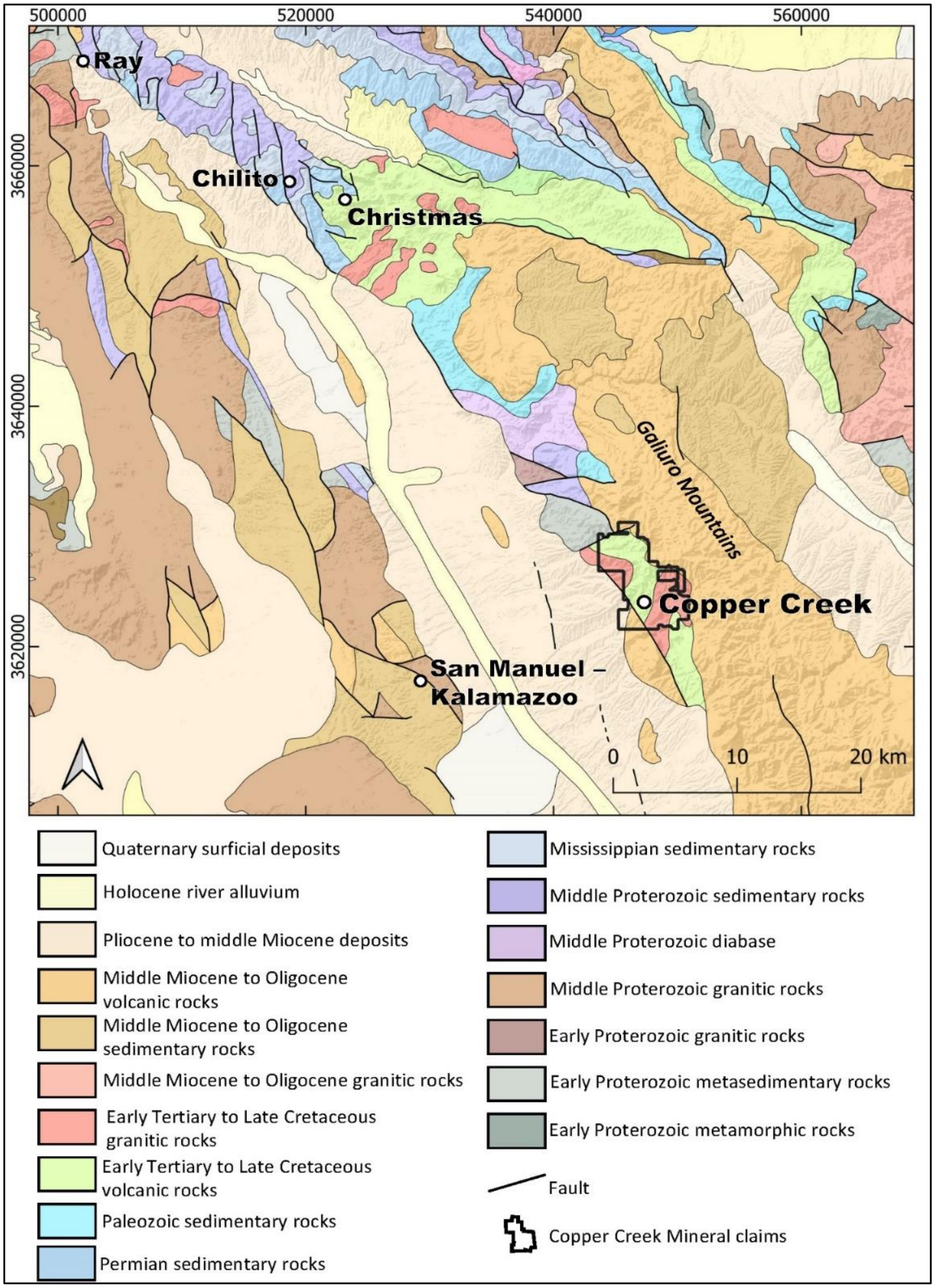
The Project is located within the Galiuro Mountains along a segment of the northwest-southeast-oriented part of a Laramide-age magmatic arc which parallels a major northeast-verging, thick-skinned thrust system (Favorito and Seedorff, 2018). At Copper Creek, these thrust faults are partially obscured by Laramide-age volcanics (the Glory Hole volcanics, see below) and intruded by the Copper Creek batholith (Favorito and Seedorff, 2018). Figure 7-2 shows the regional geology.

The Precambrian to Mesozoic geological evolution and basement architecture is a major control on orientation of fold and thrust belts, magmatism, and Laramide porphyry metallogeny (Leveille and Stegen, 2012). The Precambrian basement that underlies the Galiuro Mountains, the San Pedro basin, and the Copper Creek (Bunker Hill) mining district is composed of the Pinal Schist, which is the principal basement greenschist grade metamorphic rock of south-eastern Arizona. The Pinal Schist possesses the characteristics of a subduction complex associated with the Paleoproterozoic (1.64 to 1.7 Ga) Mazatzal volcanic arc.

Figure 7-1: Map of Southern Arizona, New Mexico, and Northern Mexico, showing the Location of the Project Relative to Other Significant Copper Deposits

Source: Faraday, 2023

Figure 7-2: Regional Geological Map of the San Pedro Valley and the Galiuro Mountains, showing Copper Creek and Other Major Copper Mining Districts



Source: Faraday, 2023. Note: Geology from Krieger (1968) and Gootee et al. (2018).

The Pinal Schist is conformably overlain by sedimentary and diabase sill strata of the Proterozoic Apache Group, which includes the Dripping Springs Quartzite and Mescal Formations. The Apache Group is unconformably overlain by folded Palaeozoic sedimentary rocks of the Bolsa Quartzite, Martin Formation, and Escabrosa Limestone and Mesozoic rocks of the Pinkard Formation. The Proterozoic and Palaeozoic rock units are common host rocks to vein, skarn, carbonate replacement, and porphyry-type mineralization in southwest Arizona.

The Project area is comprised of the Tertiary- and Laramide-age Glory Hole Volcanic rocks (GHv) and the Copper Creek batholith (TKgd), late-porphyry-related intrusions, and breccias, all of which postdate the Laramide Holy Joe thrust fault in the area (Favorito and Seedorff, 2018). These units are bordered by the Proterozoic and Palaeozoic rocks and are discussed in detail below.

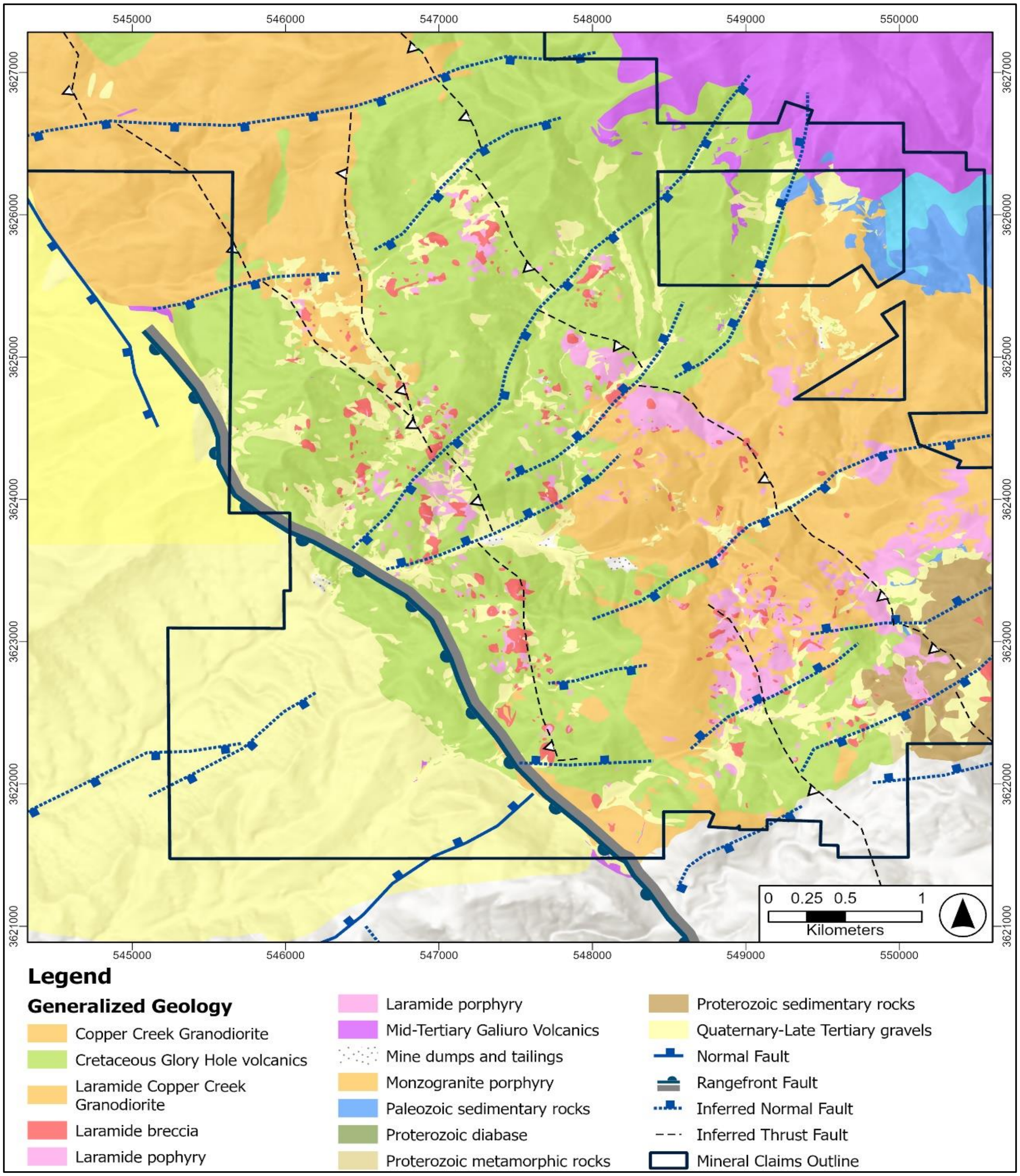
The post-mineralization Miocene Galiuro Volcanics (TGv) are to the east, north, and south of the Project area and form the tops of the Galiuro Mountains and the range front prominence of Sombrero Butte and Table Mountain. The Galiuro Volcanics are dated at a late-Oligocene to early-Miocene age (approximately 24 Ma) and consist of a gently eastward-dipping thick sequence of andesitic to rhyolitic volcanic ash-flow tuffs and flows which are related to the Santa Teresa caldera complex immediately north of the Copper Creek district (Hauck, 1985).

Unconsolidated rocks in and adjoining the Project area are comprised of the Miocene to Pleistocene-age Gila Conglomerate forming the upper pediment surface, the Pleistocene-age Quiburis formation lake sediments forming the lower pediment surface, and recent sediments within Copper Creek and Mulberry Wash. All these unconsolidated sediments are part of the down-dropped San Pedro Basin on the west and minor alluvial-colluvial material is present in the Project area.

7.3 Property Geology

The geology of the Project is summarized from Riedell et al. (2013), Lambiotte (2017), and incorporates a recent structural model provided by Faraday, unless indicated otherwise. Figure 7-3 shows the property geology.

Figure 7-3: Geological Map of the Project Area



Note: Mapping from Guthrie and Moore (1978) and company mapping by Redhawk Copper Inc. Faults from Faraday's new structural model.
Source: Faraday, 2023

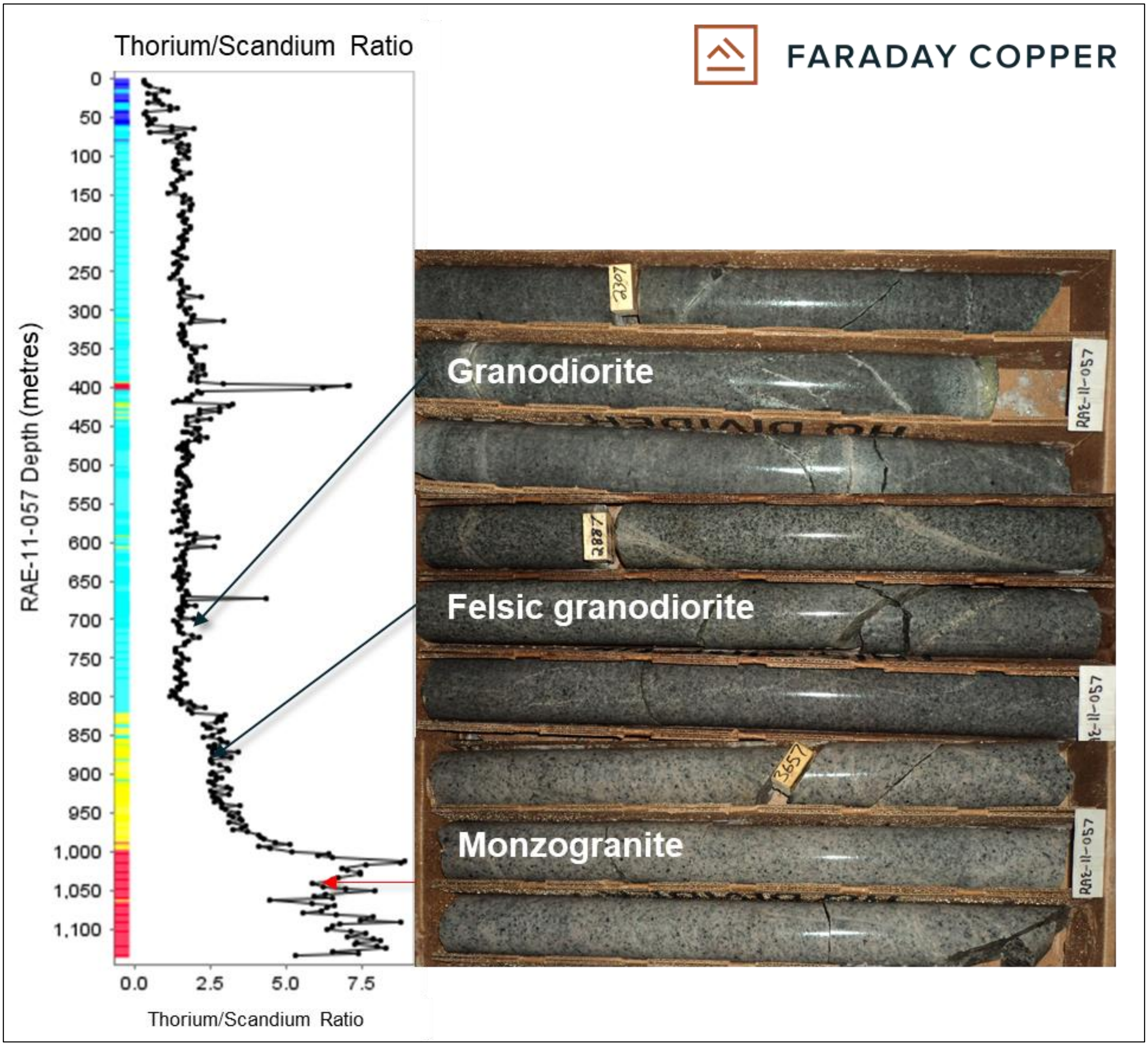
7.3.1 Host Rocks

The early Tertiary GHv (63.4 ± 2.1 to 63.0 ± 0.6 Ma) (Mizer, 2018) are a heterogenous sequence of andesitic to dacitic welded tuffs, breccias, and lavas, which cover an area of about 12 km north-south and about 4.5 km east-west. The GHv are bordered by down-dropped Plio-Pleistocene-age Gila Conglomerate and Quiburis alluvial fan and lakebed deposits on the west and Palaeozoic sedimentary rocks, late-Proterozoic Apache Group, and young, post-mineral Galiuro volcanics to the east. The GHv lie unconformably on Palaeozoic and Precambrian sedimentary rocks and are overlain by late-Tertiary Galiuro volcanics. Relic flow features suggest that the GHv strikes northwest and dips gently to the northeast. The GHv is host to numerous breccia bodies particularly in the western portion of the Project.

The GHv are hornfelsed and contact metamorphosed to biotite-calc silicate grade. Field relationships clearly show that the GHv are intruded by the Copper Creek Granodiorite and that the GHv are slightly older than the Copper Creek granodiorite.

The TKgd is a broadly zoned, composite, calc-alkaline pluton composed of a dioritic border phase, granodiorite, and a monzogranitic variety recognized by drilling at depth (Figure 7-4). Late differentiates of the TKgd includes the monzogranite porphyry (mgp) and aplite dykes exposed on the surface and in drilling. Textures of the TKgd range from equigranular to seriate to weakly porphyritic near its contacts. The TKgd batholith is the dominant Laramide intrusion in the Copper Creek area and serves as the principal host rock for the breccia pipes, base and precious metals mineralization, and hydrothermal alteration zones. The TKgd has been dated by the uranium (U)–Pb laser ablation (LA)–inductively coupled plasma (ICP)–mass spectrometry (MS) method on zircon, yielding an age of 62.3 ± 0.6 Ma. Multiple types of the monzogranite, granodiorite, and quartz diorite porphyry dykes and small irregular stocks are part of the host rock sequence; these have been dated between approximately 59 to 62 Ma by U–Pb in zircon (Mizer, 2018). However, the age dates for porphyries reported by Mizer (2018) were obtained at two different laboratories (University of Arizona and CODES in Hobart, Australia), and the ages obtained at University of Arizona tend to be older and internally more consistent. Unless indicated otherwise, those ages are cited below.

Figure 7-4: Example of a Downhole Plot (Drillhole RAE-11-057) of the Thorium/Scandium Ratio used to Delineate Compositional Variation in the Copper Creek Batholith



Note: Core photographs illustrate subtle but discernible petrographic variations. Source: Faraday, 2023.

7.3.2 Porphyry Intrusive Rocks

The TKgd and GHv rocks are intruded by a series of porphyritic textured intra-mineral dykes and stocks. These units are largely pre- to syn-mineral and of limited volume and extent and are briefly described below.

- Pre-Mineralization to Early-Mineralization Units
    - mgp: The mgp has 20% to 35% phenocrysts of mostly plagioclase and lesser biotite and quartz with subordinate hornblende in a fine-grained, pink quartz-feldspathic groundmass. The mgp is compositionally equivalent to the monzogranitic variety of the batholith and is, together with the aplite dykes, considered a late differentiate of the batholith, although it clearly crosscuts the latter. The mgp is clearly pre-mineral, but locally small miarolitic cavities containing chalcopyrite and trace bornite have been observed. Earlier reports referred to this unit as pink porphyry (Guthrie and Moore, 1978).
    - Granodiorite porphyry 1(gdp): The gdp1 dykes have 55% to 65% total phenocrysts. The phenocrysts consist of 32% to 37% plagioclase lath, 1% to 3% prismatic hornblende, 7% to 10% stacked and super-stacked biotite, and trace quartz eyes. The groundmass texture is fine aplitic with an average size of 0.05 to 0.08 mm and is composed of potassium (K) K-feldspar, quartz, and biotite (trace). The distinguishing features include a crowded plagioclase phenocryst texture, stacked to super-stacked biotite books, and the trace quartz eyes. The gdp1 was dated at 61.2 ± 0.7 Ma (U-Pb, zircon) (Mizer, 2018) and is mineralized by paragenetically early veins. A larger body of gdp1 is mapped as Copper Giant porphyry in the northern part of the resource area. Earlier reports referred to this unit as grey porphyry (Guthrie and Moore, 1978).
    - Granodiorite porphyry 2 (gdp2): The gdp2 dykes are, at approximately 21% phenocrysts, less crowded than gdp1. The phenocrysts consist of 17% plagioclase lath, 4% pyroxene pseudomorphs replaced by biotite, and trace quartz eyes. The groundmass has an aphanitic texture and is composed of plagioclase microlites, altered mafic microlites, and interstitial quartz. U–Pb dating on zircon yielded 61.6 ± 0.9 Ma (Mizer, 2018). This unit has previously been referred to as grey porphyry, as was the case for gdp1 (Guthrie and Moore, 1978).
    - Porphyritic quartz diorite (pqd): The gdp2 commonly forms hybrid dykes together with pqd suggesting the two rock types are closely related in time. Geochronology confirms this, as pqd was dated at 61.6 ± 0.8 Ma (U–Pb, zircon) (Mizer, 2018). The pqd has 6% plagioclase phenocrysts as well as occasional quartz and biotite in a fine-grained to aphanitic dark groundmass of plagioclase and biotite (Riedell et al., 2013). The gdp2 and pqd have been observed to contain locally abundant disseminated chalcopyrite and bornite and are crosscut by later breccia-style mineralization and D-veins. They are believed to be intimately associated with early-stage mineralization.
- Late-Mineralization Units
    - Late-stage porphyry intrusions are volumetrically subordinate, and crosscutting relationships are unclear as they are not observed in the same areas. Lambiotte (2017) described three principal textural varieties of gdp (gdp3, gdp4, and gdp5), whereas Riedell et al. (2013) only describes gdp3. These units tend to be less mineralized than the above porphyry varieties and hence are considered late-mineralization. According to Riedell et al. (2013) and recent observations, gdp3 are characterized by 8% to 20% plagioclase, up to 15% slender, commonly flow aligned hornblende and minor biotite as well as occasional quartz phenocrysts in a fine-grained to aphanitic groundmass. Zircons from late-mineralization units dated by U–Pb yielded ages 61.8 ± 0.8 and 61.9 ± 0.9 Ma (i.e., indistinguishable from other porphyries).

7.3.3 Breccia Bodies

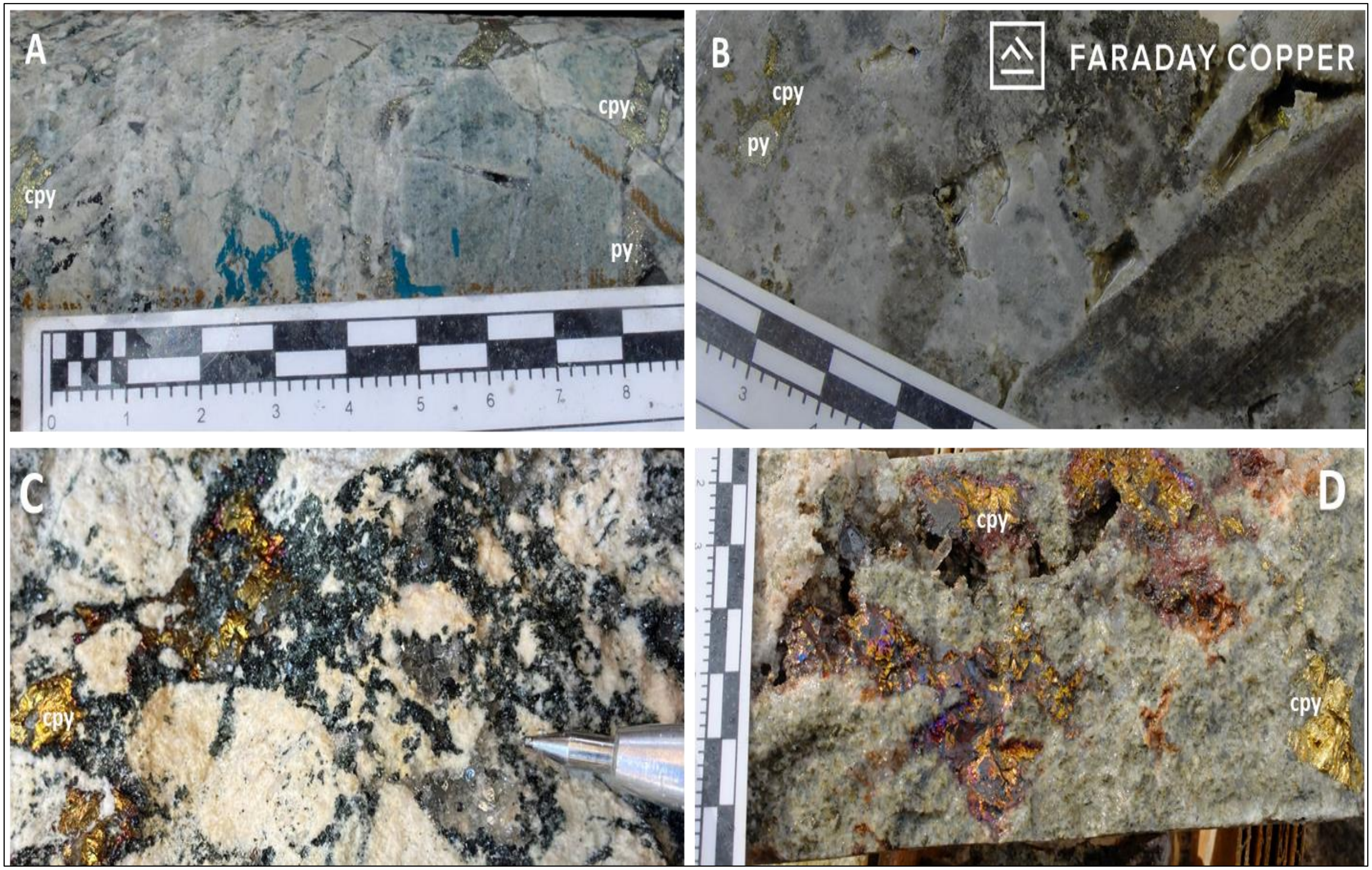
The youngest significant rock types of the Copper Creek district are magmatic-hydrothermal breccia zones. More than 400 breccia occurrences, ranging in width from 1 to 250 metres at surface, have been mapped (Guthrie and Moore, 1978). These have a vertical extent of as much as 900 m beneath the present surface and cut the main host rocks and early porphyry stocks and dykes. Some well mineralized breccias in the district are completely blind and do not crop out. The breccias form two distinct northwest-trending belts (Figure 7-3), with the eastern belt hosting the mineralized breccias included in the resource area.

Breccia pipes at Copper Creek consist of vertically extensive columns of dominantly clast-supported breccia comprising angular to subangular clasts of locally derived fragments. Clasts are cemented by hydrothermal minerals, including variable amounts of quartz, sulphides, carbonate, sericite, chlorite, and, less commonly, tourmaline, anhydrite, or orthoclase. Clastic matrix is subordinate, but open space is common. Exotic fragments are not found in these breccias, and breccias which are polymictic show multiple wall rock types at the current level of exposure.

Evidence of multiple generations of brecciation superimposed upon the same volume of rock is uncommon, though injections of slurried, hydrothermally altered rock flour and broken gangue and sulphide mineralization are locally present as post-mineralization structural overprint. In general, the limited extent of clast milling and largely absent clastic matrix suggest that the breccias were probably generated during a single fracturing event and are clearly not diatreme breccias that vented to the surface, since those are characterized by significant vertical clast movement, milling and rock flour matrix.

The general characteristics of seven of the main breccia bodies (Table 6-1) are briefly described below, and Figure 7-5 illustrates examples.

Figure 7-5: Examples of Breccia Textures from the North-Western Part of the Copper Creek Resource Area



Notes:
[a] Glory Hole breccia; B: OR breccia; C: Copper Giant breccia; D: Copper Prince breccia. Note the angular nature of clasts, local open space, and sulphide cement. The occurrences of chalcopyrite and pyrite have been labelled with cpy and py, respectively. Source: Faraday, 2023.

7.3.3.1 Mammoth-Keel Breccia System

The Mammoth is a coarse grained breccia characterized by boulder-sized clasts, cemented by euhedral quartz and coarse pyrite, and chalcopyrite (Anderson et al., 2009). Significant open space remains, and it is classified as a hydrothermal breccia. At depth, it transitions into quartz-sericite-pyrite altered granodiorite with occasional coarse quartz veins with late carbonate. The Keel Zone is located below the Mammoth Zone and contains intense quartz stockwork grading into a magmatic cupola zone with miarolitic cavities in granodiorite at depth. This zone has previously been described as the lower part of the Mammoth pipe (Anderson et al., 2009) but recent observations suggest that Keel represents an earlier mineralization event overprinted by the Mammoth breccia. Dominant alteration is potassium feldspar and biotite, and mineralization is intimately associated with a granodiorite porphyry phase. Sulphides are vertically zoned from pyrite-chalcopyrite in the Mammoth zone to chalcopyrite>pyrite at depth. The Keel zone predominantly contains bornite, chalcopyrite and molybdenite. The Keel-Mammoth system is interpreted as a vertically continuous mineralized zone varying in style as a result of temperature and pressure gradients and cross cutting events. The dimension of the entire system, is 430 by 270 m, with a known vertical extent of 1,450 m.

7.3.3.2 Childs Aldwinkle Breccia

Childs Aldwinkle is a north-northwest elongated breccia system with a complex geometry, from which approximately 280,000 t of copper mineralized material was produced in the 1930s. The Childs Aldwinkle breccias consist of angular fragments of altered Copper Creek granodiorite with a cement of chlorite-quartz-sulphides-orthoclase. Locally, the breccia has the appearance of a brecciated pegmatite. Dimensions of the fragments range from 2 cm to 4 m in size (Kuhn, 1941). Principal sulphide mineralization is chalcopyrite-bornite-molybdenite. Minor tennantite has also been noted. The dimension of the Childs Aldwinkle breccia is 300 by 140 m, with a known vertical extent of 560 m.

7.3.3.3 Copper Prince and Copper Knight Breccia

Two similar but discrete breccia bodies, the Copper Prince and Copper Knight, approximately 100 m apart can host high copper grades where chalcopyrite is the dominant breccia cement. Breccias are characterized as intrusive clast dominated crackle breccia and cement-rich breccias associated with sericite-quartz alteration, grading into potassium feldspar alteration at depth. The Copper Prince breccia is mineralized at surface, with oxide copper mineralization dominant up to approximately 20 m below surface and mixed oxide and sulphide present to an approximate 40-m depth in the transitional zone. The surface diameter of each of the two breccias is approximately 50 m, with a known vertical extent of 315 m. Note that earlier workers distinguished East and West units of Copper Prince breccia. Faraday refers to the western body as Copper Prince,83rojee the eastern breccia now is referred to as Copper Knight.

7.3.3.4 Copper Giant Breccia

Copper Giant is a polymictic breccia with angular clasts of hornfelsed GHv as well as granodiorite and granodiorite porphyry. There is minimal rock flour matrix, and clasts are cemented by quartz, carbonate, coarse chlorite, chalcopyrite, and lesser pyrite. The sulphides commonly occur late, and open space remains. Dominant alteration is sericite and kaolinite. The breccia intruded the contact zone between the GHv and the TKgd. The dimension of the Copper Giant breccia is 285 by 170 m, with a known vertical extent of 354 m.

7.3.3.5 Glory Hole Breccia

Several prominent outcrops of breccia occur in the Glory Hole area; these may also be referred to as the Globe breccia. Clasts are dominantly angular and composed of GHv. Border zones include shingle breccias, and there is slightly more clast rotation evident away from the contact. Clasts are cemented by quartz and sulphides, of which pyrite commonly is greater than chalcopyrite. Breccias are affected by intense quartz-sericite alteration. Oxide copper mineralization is only dominant in the top 10-20 m below surface, with moderate copper enrichment below that. The dimension of the Glory Hole breccia is 130 by 90 m, with a known vertical extent of 365 m.

7.3.3.6 Holly Breccia

The Holly breccia is located approximately 250 m south of the Glory Hole breccia and was historically drilled by RC, thus limiting textural and structural observation from drill core. Two of the drillholes drilled in Faraday's 2022 exploration program have intersected intensely sericite-kaolinite altered polymictic breccia, with mainly pyrite and minor chalcopyrite mineralization below historic near-surface copper mineralization identified in RC drilling. The dimension of the Holly breccia is 220 by 100 m, with a known vertical extent of 475 m.

7.3.3.7 Old Reliable Breccia

The Old Reliable breccia was mined in the early 20th century and again in the early 1970s (by way of a marginally successful in-situ leaching operation). During the second mining period, approximately 19% of the total copper was recovered, most of which was from the near-surface oxide blanket. The breccia consists primarily of altered and angular to subangular pebble-sized to 1-m diameter fragments of GHv. The breccia may be genetically associated with the intrusion of a porphyritic quartz diorite stock. The breccia cement consists of quartz, sericite, chlorite, and sulphides, and the core of the pipe is strongly silicified. Mineralization consists of pyrite-chalcopyrite-chalcocite-molybdenite, with oxide copper minerals significant in the upper 30 m from surface. The dimension of the OR breccia is 250 by 190 m, with a known vertical extent of 285 m.

7.4 Structure

The Project lies at the intersection of an east-northeast-trending belt of porphyry copper deposits, which include Ajo, Lakeshore, Silver Bell, San Manuel-Kalamazoo, Safford, and Morenci, and a north-northwest-trending belt that includes Superior (Resolution), Ray, Christmas, and Miami-Inspiration, part of the southwest Arizona arc orogen. Many of these deposits are tilted, faulted, and deeply eroded, but the Copper Creek porphyry system is upright and intact.

Recent structural mapping suggests that the Galiuro Mountains are underlain by a major northwest-oriented thick-skinned thrust system related to the Laramide orogeny. At Copper Creek, these thrust faults are partially blind and covered by the Laramide-age GHv and intruded by the Copper Creek batholith and covered by the late-Tertiary Galiuro volcanic rocks (Favorito and Seedorff, 2018).

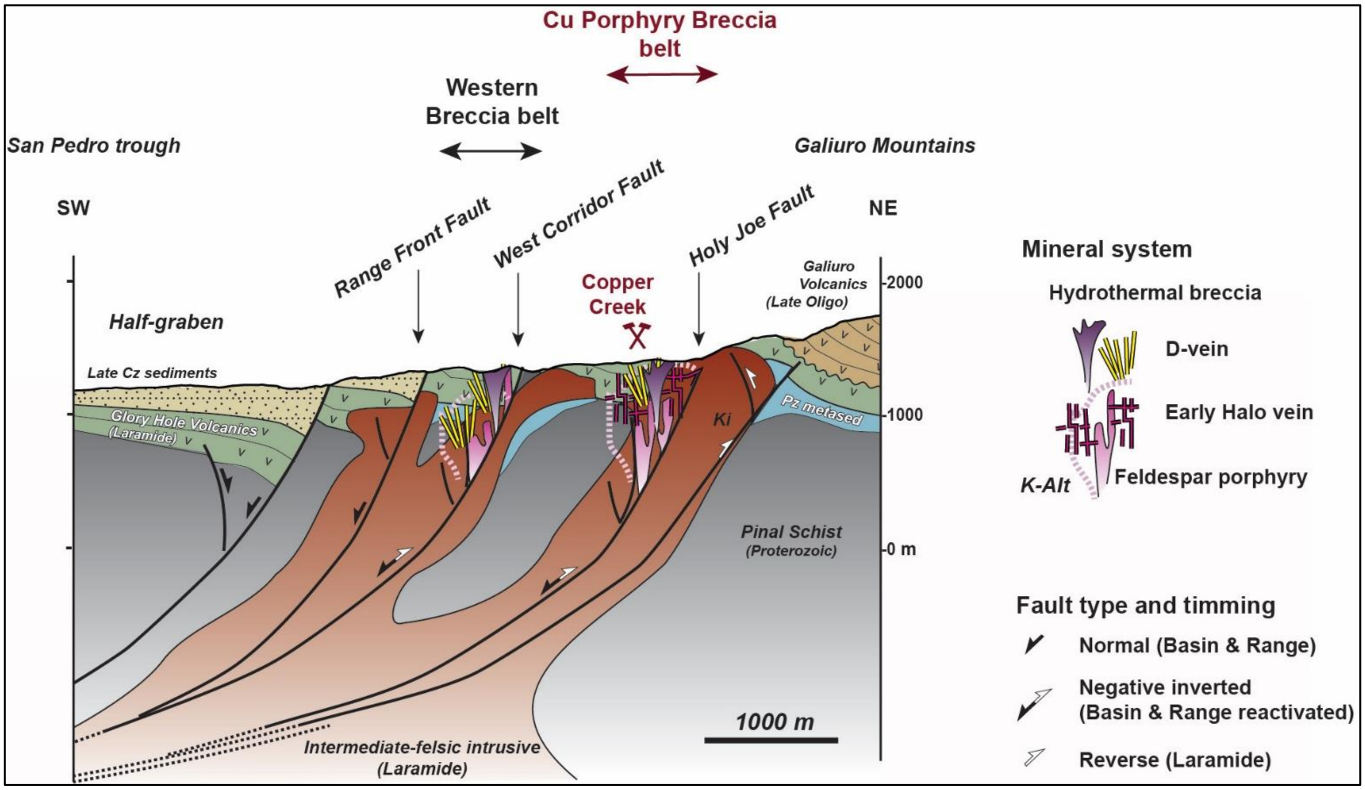
The distribution and geometry of veins and breccias at the Copper Creek Project can be explained by the deformation associated with the Laramide orogeny and subsequent Basin and Range extension.

The porphyries and breccias are aligned into two principal NW oriented trends: the western and eastern breccia trends. The eastern trend is interpreted to be emplaced in the hanging wall of the Holy Joe thrust fault, whereas the western breccias are emplaced in similar positions relative to sub-parallel related thrust structures. Two major sets of porphyry veins are recognized: shallowly west-dipping veins are overprinted by E-W to NE striking, steeply dipping extensional veins.

The shallowly dipping veins are consistent with the stress field during orogeny whereas overprinting E-W to NE trending steeply dipping extensional veins may be related to orogen-normal extension during tectonic relaxation.

Basin and Range extension is mostly manifested in the reactivation of thrust faults, which led to an approximate 10degree eastward tilting and greater exhumation of the hydrothermal system (see below) in the eastern breccia trend compared to the west. The most prominent extensional structure on the property is the Range Front fault which juxtaposes Glory Hole volcanic bedrock to the east with Gila conglomerate to the west (Figure 7-6).

Figure 7-6: Conceptual cross-section of the Copper Creek District



Source: Faraday, 2023
Note: Veins and porphyries are shown schematically.

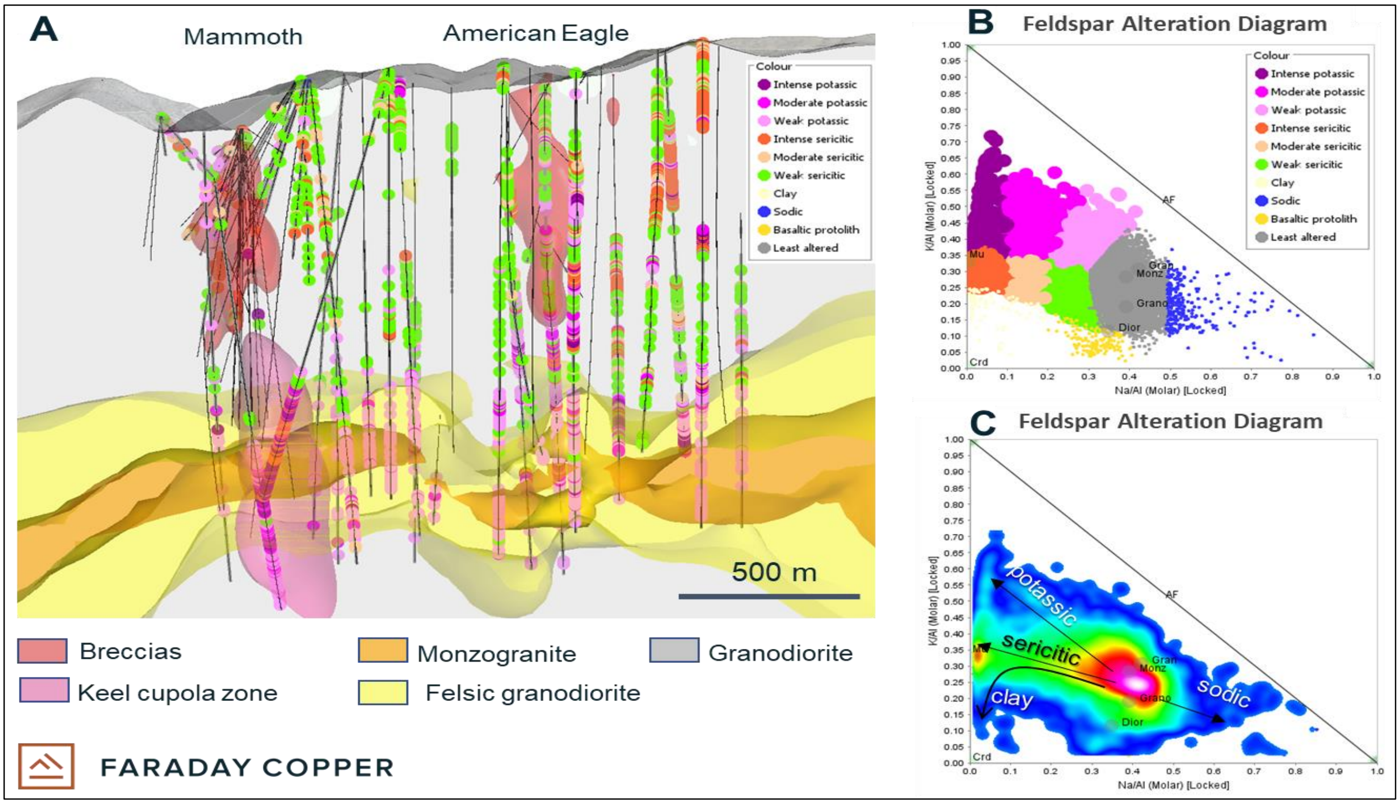
7.5 Hydrothermal Alteration

District-scale hydrothermal alteration in the Project area is atypical of porphyry systems in the Southwestern North America porphyry province. Classic hydrothermal alteration halos as described in higher-level porphyry systems, such as the nearby San Manuel-Kalamazoo porphyry (Lowell, 1968), are poorly developed.

Weak potassic alteration is defined by a 3km by 5km northwest-southeast-directed ellipse of weak-to-moderate secondary biotite replacement, primarily of hornblende. Propylitic alteration is poorly developed in the district, whereas intense sericitic or argillic alteration is localized along fractures or near-surface. Advanced argillic alteration has not widely been mapped but has been observed in the western breccias.

The Copper Creek district is recognized for the widespread presence of EH veins (or early dark micaceous (EDM) veins) (Proffett, 2009), which are characterized by 1- to 10-cm-wide halos of biotite-muscovite-green sericite and potassium feldspar with disseminated sulphides. Where EH veins are abundant, this amounts to a moderate addition of potassium to the rock. More intense potassic alteration is localized in the Keel Zone, which is interpreted as a magmatic cupola zone (Figure 7-7).

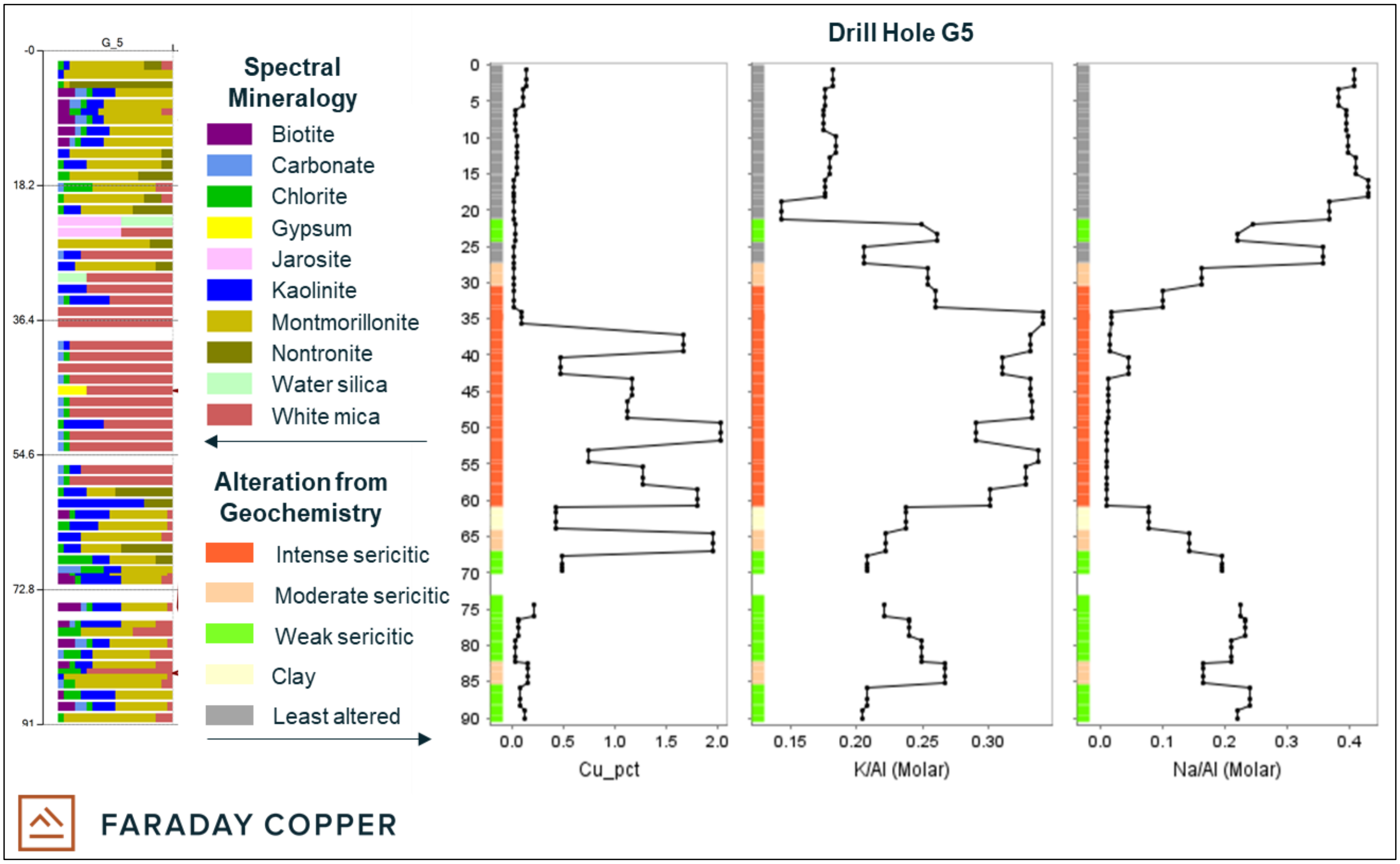
Figure 7-7: Alteration Distribution at the Mammoth and American Eagle Areas



Source: Faraday, 2023
Notes:
[a] Northwest to southeast section through Mammoth-Keel and American Eagle areas, showing alteration as determined from geochemistry. Intense potassic alteration characterizes the Keel Zone, whereas intense sericitic alteration is present at Mammoth and east of American Eagle. Note that geochemical data coverage is partial through Mammoth and Keel.
[b] Molar K/aluminium (Al) versus sodium (Na)/Al diagram used to define alteration classes.
[c] The diagram shown in Figure B with data coloured by point density. Main alteration trends are shown. The diagram shows that the bulk of the samples correspond to unaltered or weakly-altered granodiorite. Reference compositions are labelled (Grano: granodiorite; Dior: diorite; Monz: monzonite; Gran: granite).

Phyllic (also referred to as sericitic) alteration is controlled by fractures and breccias and is associated with D-type veining overprinting earlier styles of alteration, including EH veins. The most intense and widespread phyllic alteration is recognized within and around hydrothermal breccia bodies (Figure 7-8). There, alteration is characterized by locally coarse muscovite and quartz ± kaolinite, as well as minor chlorite and carbonate, and is interpreted to be broadly temporally related to D-vein overprint over the EH-style mineralization.

Figure 7-8: Example of Alteration from Spectral Mineralogy Compared to Geochemistry of Drillhole G5



Note: The intensely sericitized portion coincides with the Glory Hole breccia. Source: Faraday, 2023

Hydrothermal alteration zonation and intensity at Copper Creek differs from typical porphyry systems in that potassic alteration is only locally intense and a surrounding propylitic halo is only weakly developed. Sericitic alteration around breccias is dominated by unusually coarse muscovite and quartz. Argillic or advanced argillic alteration are largely absent from the resource area but are locally present in the western part of the district. Copper Creek displays similarities to some porphyry districts, such as Los Pelambres, Chile, and Highland Valley, British Columbia, Canada, where EH-type veins are prominent (Perelló et al., 2012; Ryan et al., 2020).

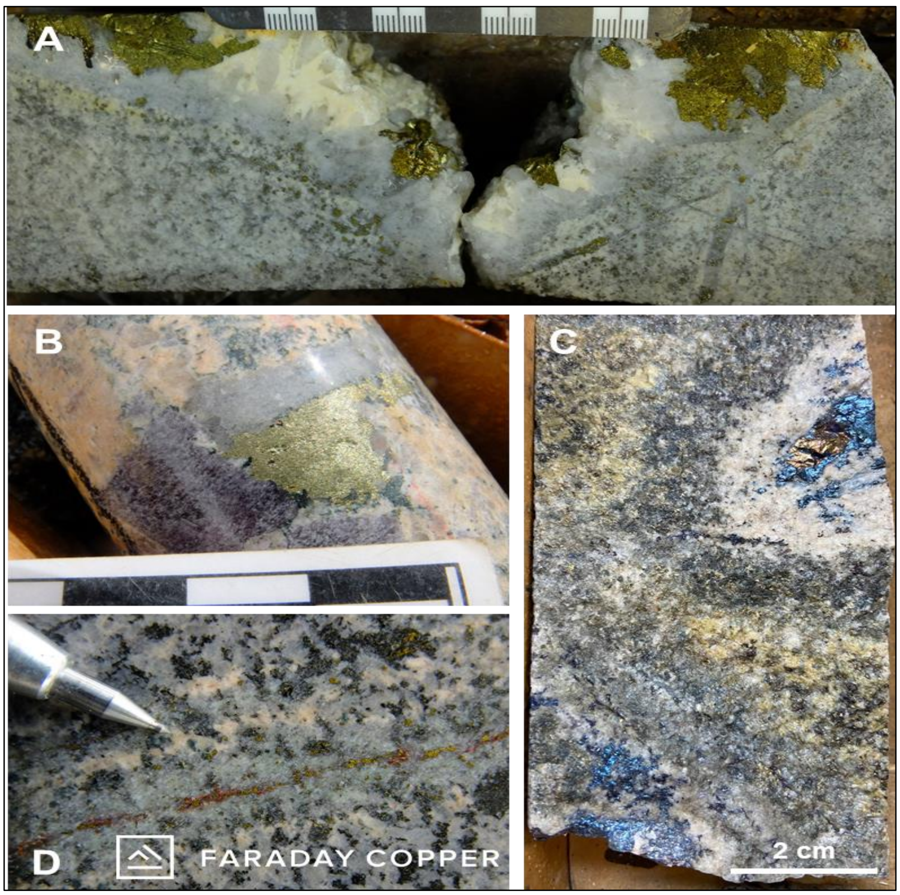
7.6 Mineralization

Copper Creek is a low-sulphide mineral system compared to other porphyry systems in Arizona. A strong, overall vertical and lateral sulphide mineral zoning pattern exists with pyrite near-surface, grading with depth to pyrite>chalcopyrite, chalcopyrite>pyrite, then chalcopyrite>bornite, bornite> chalcopyrite, and finally bornite>molybdenite.

Mineralization occurs in three fundamental styles (Figure 7-9):

- High-grade mineralization is related to chalcopyrite and pyrite cementing breccias. This style predominates in breccias near present-day surface. Molybdenum and gold grades vary between breccias with the most-consistent grades observed at Childs Aldwinkle.
- The Keel Zone represents a magmatic cupola. Mineralization in the upper part of the Keel Zone consists of coarse chalcopyrite and lesser pyrite and fine-grained disseminated sulphides associated with discontinuous thin quartz veins, potassium feldspar alteration, and anhydrite. The deeper part of Keel is characterized by miarolitic cavities filled with potassium feldspar and later bornite and chalcopyrite as well as molybdenite. This style can have high-grade mineralization.
- American Eagle mineralization is dominated by EH-style veins. Mineralization is somewhat lower-grade compared to the previous styles but forms a greater volume. Most of the copper occurs above the monzogranitic layer at depth, but molybdenum is also relatively high below that host rock compositional boundary.

Figure 7-9: Photographs of Drill Core Showing the Vertical Zonation through the Mammoth-Keel System and American Eagle

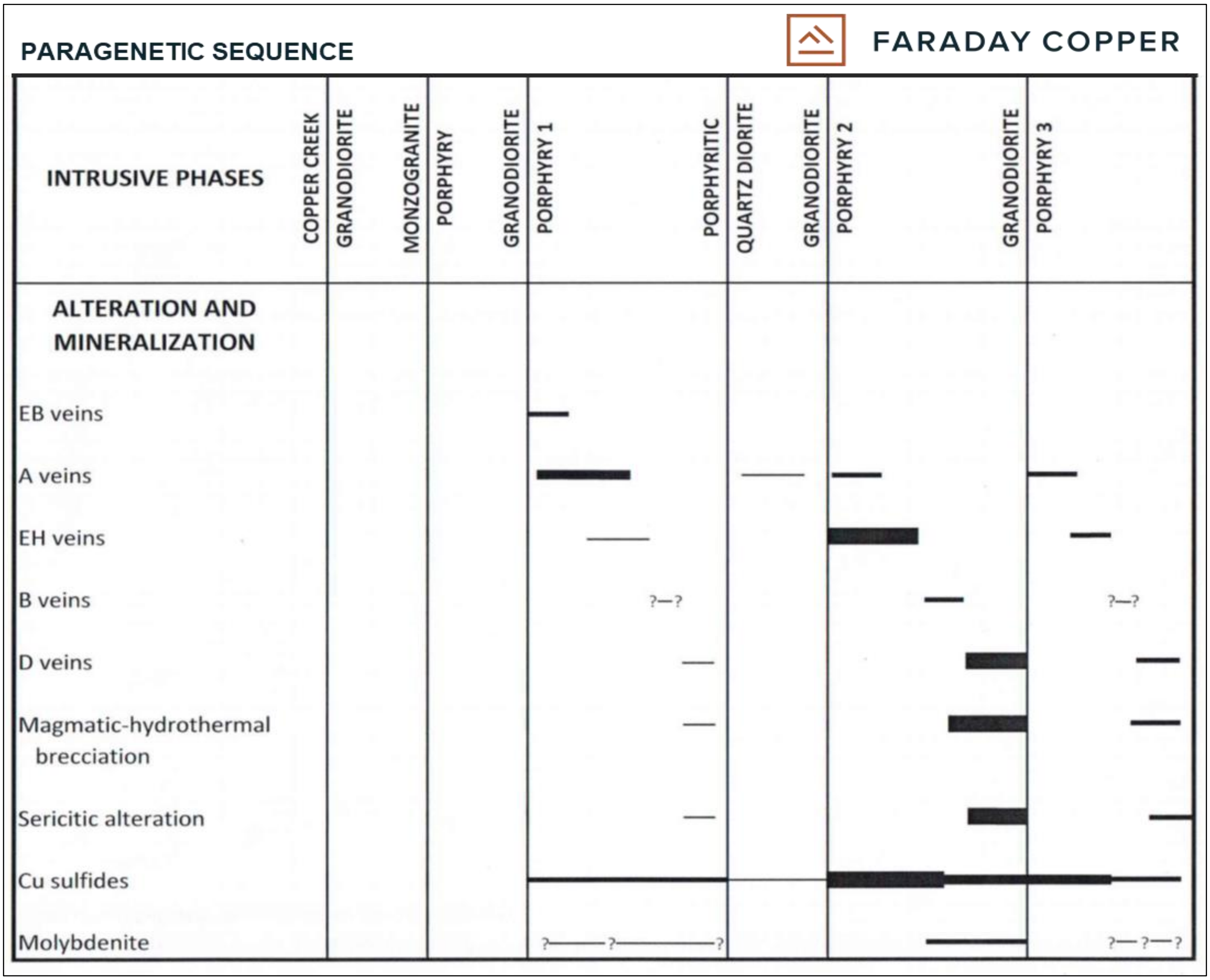


Source: Faraday, 2023
Notes:
A: Mammoth mineralization style with coarse quartz cementing large sericite-quartz altered granodiorite clasts. Coarse pyrite and chalcopyrite fill in open space.
B: Coarse chalcopyrite with purple anhydrite and truncated A-type quartz vein in potassium feldspar altered granodiorite in the upper Keel Zone.
C: Miarolitic cavity filled with bornite and chalcopyrite from the deep Keel Zone.
D: EH vein with chalcopyrite in central suture and disseminated in the vein halo from the American Eagle Zone.

In general, copper correlates with silver. Gold (Au) analyses are limited, but where data are available, gold grades are low. However, gold is locally significant at Childs Aldwinkle.

Crosscutting relationships indicate that EH-style mineralization occurred early in the development of the system but after the intrusion of early granodiorite porphyries (gdp1 and gdp2). Mineralization at Keel is intimately associated with the intrusion of gdp2, and current interpretations suggest overprints the Keel mineralization. In general, breccia-style mineralization post-dates EH veins, but in some areas (e.g., Copper Giant area) multiple overprinting breccia systems may be present (Figure 7-10).

Figure 7-10: Paragenetic Sequence of the Copper Creek Mineralization



Source: Riedell et al., 2013

The overall sulphide and alteration zonation within breccias is consistent with a slight tilt to the east. Mineralization at Holly, Glory Hole, and Old Reliable breccias is dominated by pyrite>chalcopyrite; these are hosted by GHv, which overlie the TKgd. The Copper Prince, Copper Giant and Childs Aldwinkle breccias, which are located farther to the northeast, have comparatively less pyrite and crosscut the Copper Creek Granodiorite, suggesting a deeper level of exhumation in the footwall of southwest dipping extensional faults.

Breccia bodies likely have a magmatic root zone but with the exception of Keel and Mammoth, breccia bodies lack the drill density at depth to confidently locate their likely source of magmatic fluids and metals.

Oxidation affects the near-surface mineralization to a limited degree. Complete oxidation is confined to the uppermost 20 m or less, whereas mixed sulphide and oxide mineralization is limited to the uppermost 30 to 40 m of the transitional zone. Secondary sulphide enrichment (chalcocite) is most prevalent at Old Reliable, whereas localized occurrences are present at Childs Aldwinkle and Copper Prince. The limited oxidation and supergene enrichment, together with the structural preservation, distinguishes Copper Creek from other copper deposits in the southwestern U.S., such as the Ray or San Manuel-Kalamazoo deposits.

Mineralization ages are consistent or slightly younger than the porphyries. Molybdenite Re-Os ages include 60.6 ± 0.3 Ma (upper Keel); 61.4 ± 0.4 Ma (Childs Aldwinkle); 61.8 ± 0.2 and 60.9 ± 0.2 Ma west of Keel (the latter two reported by Mizer (2018)). A hydrothermal monazite from Childs Aldwinkle yielded a U–Pb age of 61.3 ± 0.4 Ma (Mizer, 2018).

7.7 Veining

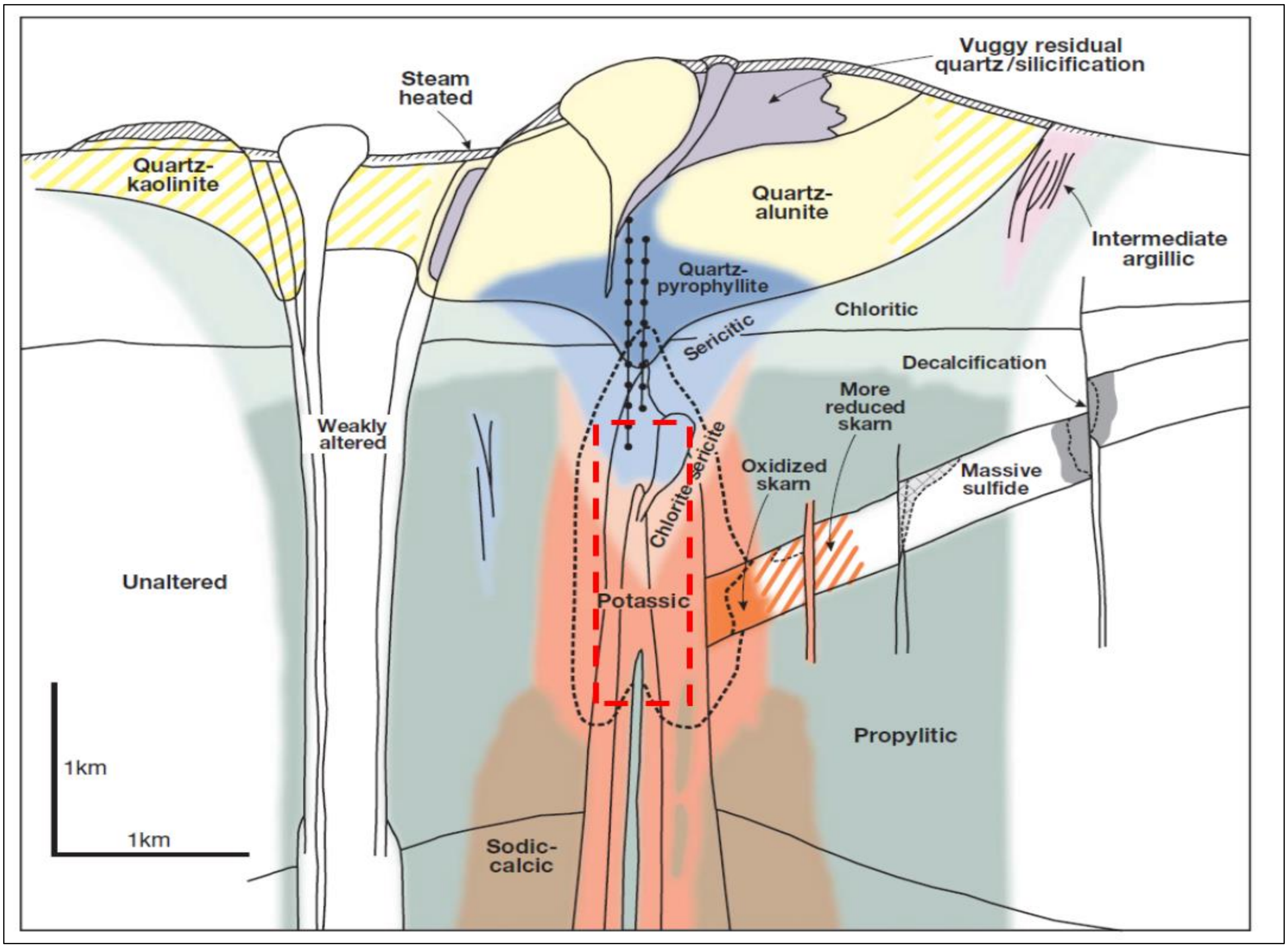
Mineralization in the Copper Creek district is closely related to EH veins, which form vertical sheeted vein zones and domal-sub-horizontal zones, with less defined A, B, and D-vein sets. The former is more common south of the CCZ in the American Eagle mineralized zone, while the latter is common north of the CCZ in the Copper Giant mineralized zone.

Early introduction of copper occurred in the sheeted EH veinlets with centimetre-scale envelopes of sericite>biotite ± potassium K-feldspar and widespread disseminated chalcopyrite. Copper grades exceed 0.5% Cu where steep east-northeast-striking EH vein sets cut a shallowly dipping set. EH veins are cut by and reopened by D-type quartz-sericite ± tourmaline-specular hematite, which contain variable amounts of pyrite, chalcopyrite, bornite, molybdenite, tennantite, and lesser galena. Distal veins include polymetallic Pb-zinc (Zn)-manganese (Mn)-Cu-Ag veins at the historical Bluebird and Bunker Hill mines, located, respectively, some 1.5 km northeast and 2.2 km south from the Mammoth.

8 DEPOSIT TYPES

The Copper Creek district contains mineralization styles broadly consistent with magmatic-hydrothermal systems, also known as porphyry systems (Sillitoe, 2010) (Figure 8-1). However, Copper Creek has some geologic characteristics that are uncommon or subordinate in other well-known porphyry copper deposits and differ from the well-known models (e.g., Lowell and Guilbert, 1970; Seedorff et al., 2005; Sillitoe, 2010), including the prevalence of mineralized EH-style veins (Proffett, 2009), batholith-hosted mineralization, and the abundance of breccia-hosted mineralization. Copper Creek is primarily a Cu-Mo system.

Figure 8-1: General Porphyry Model



Source: Sillitoe, 2010
Note: The red box indicates the approximate environment of mineralization exposed at Copper Creek.

Generally, alteration zonation, typical for porphyry deposits elsewhere (e.g., Halley et al., 2015), is weakly developed in batholith-hosted systems with only subtle potassic alteration and poorly developed propylitic halos. Intense argillic or advanced argillic alteration is not widespread.

Distal polymetallic veins (Pb-Zn-Mn-Cu-Ag) are also known at Copper Creek and were the first to be mined in the district (Bluebird Mine and Bunker Hill), but these are not currently part of the resource. Supergene oxidation and secondary copper enrichment at Copper Creek is minor compared to other copper deposits in the Southwestern North American Copper province and restricted to the uppermost 20 to 40 m.

The principal mineralization styles encountered at Copper Creek are described in the following sections.

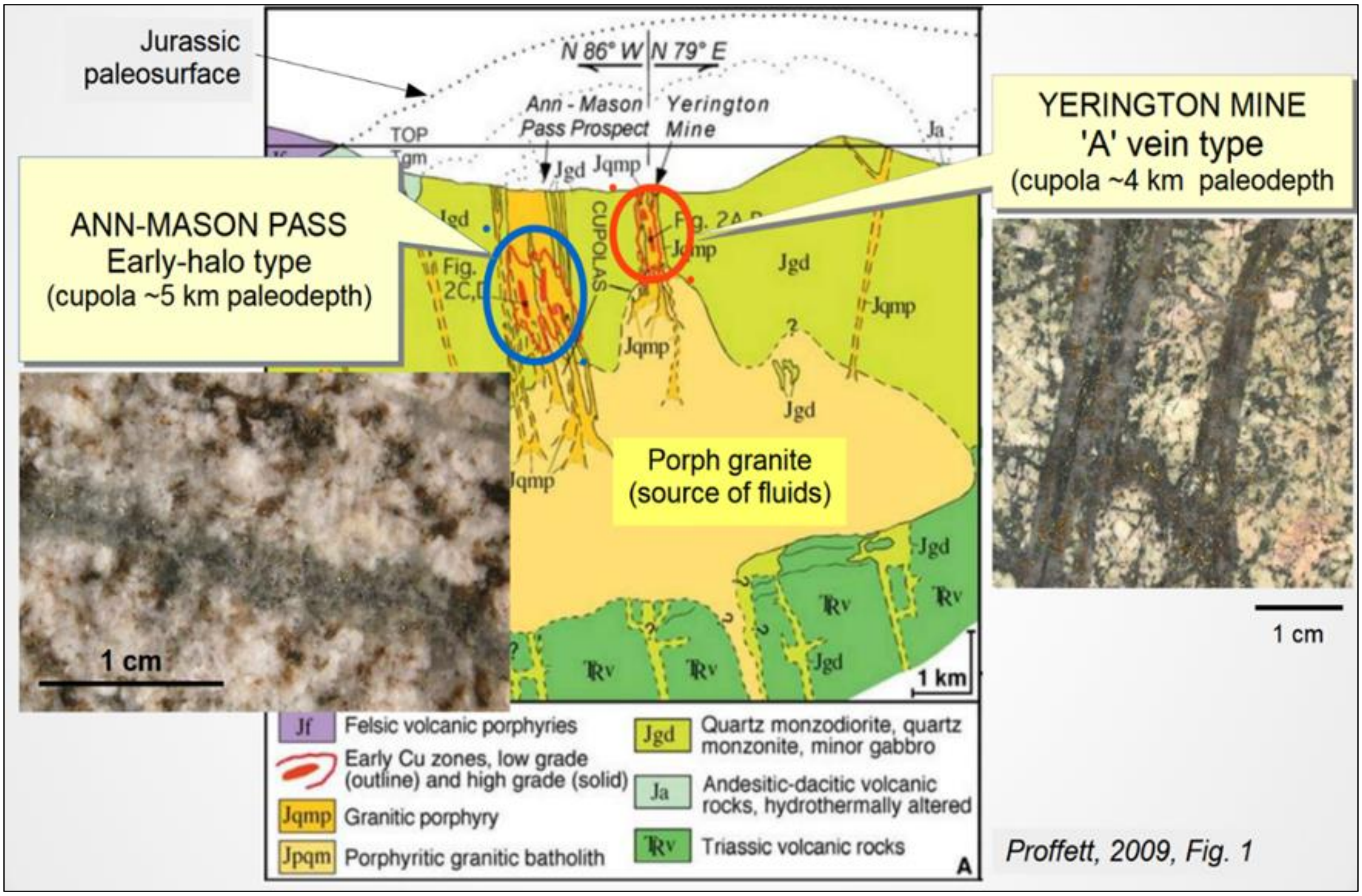
8.1 Mineralization Styles

8.1.1 EH-Style Porphyry Cu-Mo Mineralization

The Copper Creek Cu-Mo-(Ag) batholith-hosted mineralization primarily in the American Eagle Zone is considered a prime example of a batholith-hosted EH-style porphyry system (Proffett, 2009). EH veins, commonly also referred to as EDM veins, are characterized by muscovite-biotite and K-feldspar halos around fractures. Sulphides occur in the central suture as well as disseminated in the vein halos, but quartz is only a minor component of vein infill. These batholith-hosted systems are low in total sulphide content.

The primary difference between the EH and classic porphyry systems is the depth of formation (Figure 8-2). Batholith-hosted Cu-Mo mineralization typically forms at depths >5 km, where magmatic metal-bearing fluids are a single phase which, higher in the system, separates into two phases (a brine and magmatic vapor). A- and B-type porphyry veinlets (Gustafson and Hunt, 1975) are less common than EH veins at Copper Creek and form in the two-phase fluid field (e.g., Rusk et al., 2008; Proffett, 2009). The low-Au but high-Cu-Mo content in the Copper Creek system is also consistent with deep crustal levels of emplacement; this has been demonstrated for other deeply emplaced porphyry systems, whereas gold-rich porphyry systems tend to be emplaced at shallow crustal levels (Murakami et al., 2010).

Figure 8-2: Geological Setting of the Ann Mason EH-Type Porphyry System Compared to the Yerington Deposit Within the Yerington Batholith, Nevada



Source: Proffett, 2009

Note: Both deposits are situated above a cupola zone within the batholith, with Ann Mason being emplaced at a deeper level. Representative vein styles for both settings are indicated.

Host and source rocks associated with EH veins may or may not be porphyritic, and there is typically no clear spatial relationship of porphyries and mineralization (Proffett, 2009). Pervasive hydrothermal alteration outside the EH veins is subtle and dominated by secondary biotite replacement of mafic minerals, principally hornblende, and by K-feldspar stockwork veinlets and patchy flooding. Magnetite is typically destroyed by EH alteration but preserved outside. Sulphides in EH-style mineralization are dominated by chalcopyrite, bornite, and molybdenite.

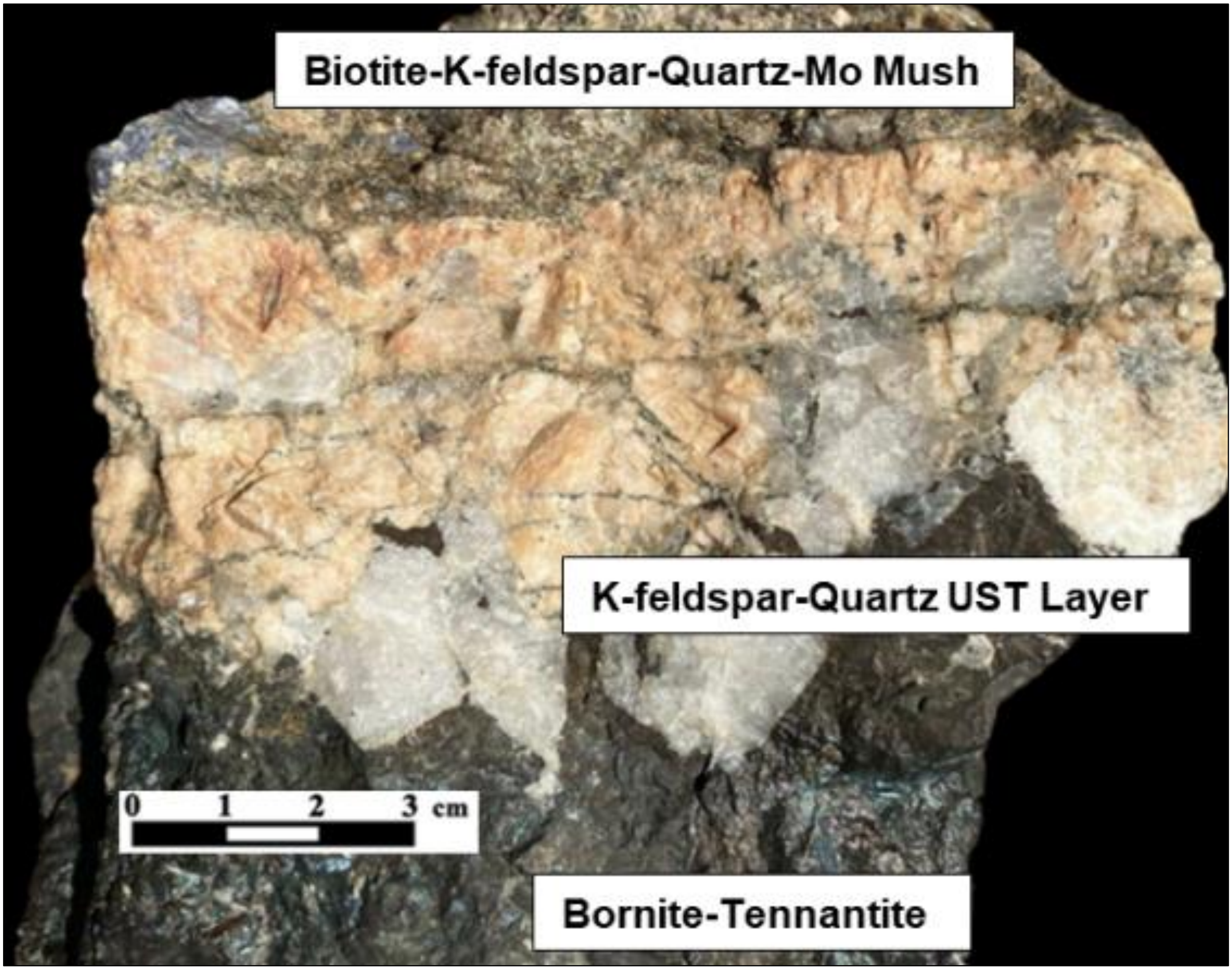
EH veins can be confused with D-veins, as both are rich in sericite. D-veins do not have biotite or K-feldspar as part of the assemblage but commonly have quartz infill. Sulphides are largely pyrite with lesser sulphosalts and chalcopyrite. D-veins are a common late-stage overprint on porphyry systems associated with variably voluminous phyllic alteration; at Copper Creek, they are widespread and in some areas are observed to exploit pre-existing EH veins, introducing pyrite, chalcopyrite, and locally tennantite.

Other porphyry districts where EH-type mineralization is common include Los Pelambres, Chile (Perelló et al., 2012), Butte, Montana (Reed et al., 2013), and Highland Valley, British Columbia, Canada (Alva-Jimenez et al., 2020; Ryan et al., 2020).

8.1.2 Magmatic Cupola-Style Cu-Mo Mineralization

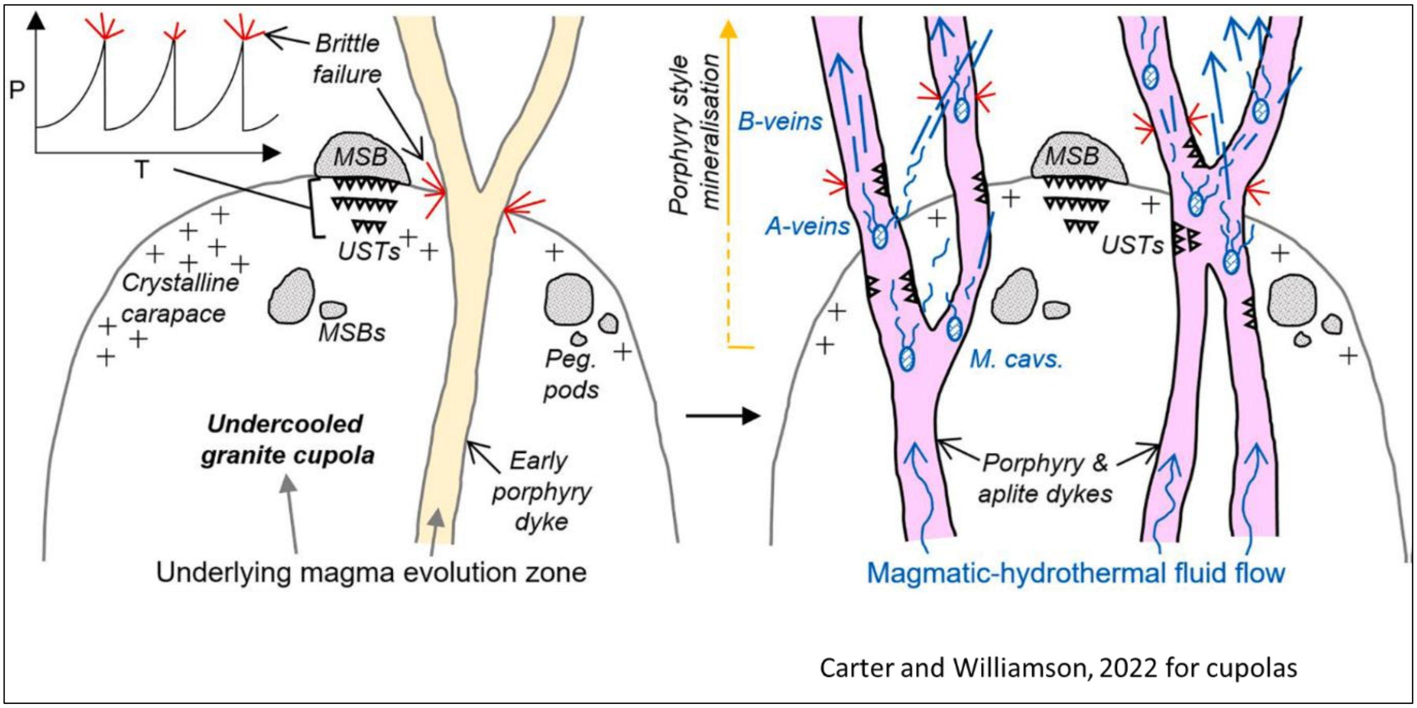
Magmatic cupolas are regions in the upper part of intrusive systems where fluids exsolved from the batholithic magma chamber get focused and can accumulate and periodically inject into the wallrock above to form intense quartz stockwork veining and potassic alteration (e.g., Seedorff et al., 2008; Carter and Williamson, 2022) (Figure 8-3 and Figure 8-4). The shallow parts of cupolas are characterized by abundant wavy to discontinuous quartz veins and stockwork (A-veins). Near the upper contact of the magma body, massive quartz bodies may occur that transition downward into unidirectional solidification textures (UST), characterized by euhedral quartz crystals growing downward or inward towards porphyry dyke centres. The USTs are interpreted to have formed in fluid-filled pockets that rupture periodically, after which fluid escapes and aplitic material with variable amounts of sulphides or anhydrite crystallizes. Multiple episodes of UST growth can occur. Deeper into the magmatic cupola, miarolitic cavities may be present. These are millimetre- to centimetre-scale pockets filled with high-temperature hydrothermal minerals, including K-feldspar, anhydrite, and sulphides. Miarolitic cavities are interpreted as relics of variably interconnected fluid-filled bubbles in the magmatic cupola zones (Harris et al., 2004). At Copper Creek, the Keel Zone is interpreted as a magmatic cupola zone with abundant miarolitic cavities, quartz veining, and intense potassic alteration. Other similar zones may be present in other areas below known magmatic-hydrothermal breccias, including Childs Aldwinkle and American Eagle.

Figure 8-3: Photograph of UST Texture from CA



Note: Sample in the collection of the University of Arizona originally collected by T. H. Kuhn (1941) photographed by D. Kirwin (2021).

Figure 8-4: Summary Schematic Section Showing the Spatial and Temporal Distribution of Magmatic-Hydrothermal Textures within a Cupola Associated with Porphyry-Style Mineralization

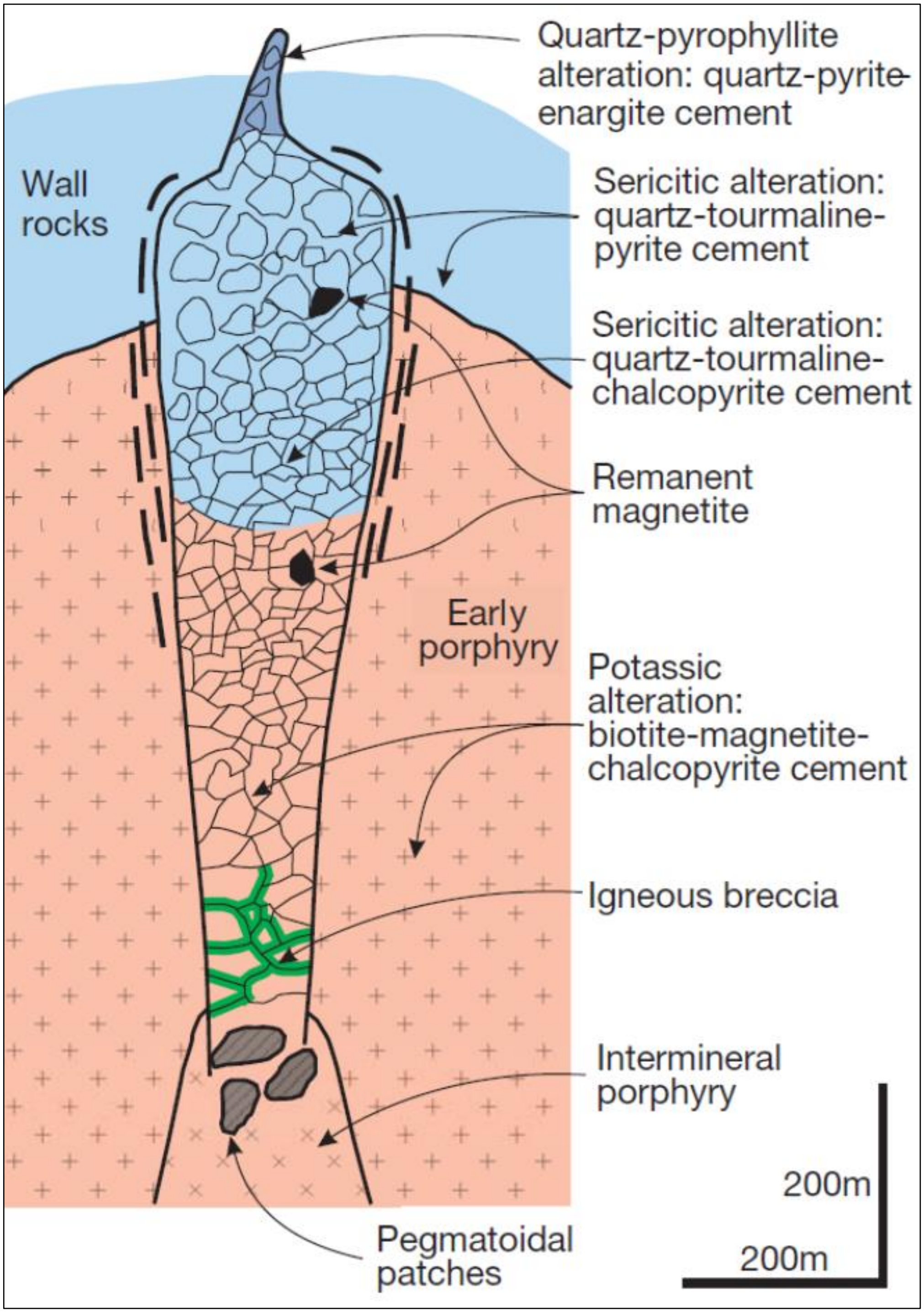


Notes: Inset graph is schematic showing pressure (P) versus time (T) during the formation of rhythmically banded USTs.
Figure taken from Carter and Williamson (2022).
Peg. Pods: pegmatitic pods; MSBs: massive silica bodies (Kirwin, 2005); M. cavs.: miarolitic cavities.
A-veins are represented by sinuous blue lines, which transition to B-veins represented by straight blue lines.
Vein nomenclature is after Gustafson and Hunt (1975). Figure is not to scale.

8.1.3 Breccia-Hosted Cu-Mo Mineralization

The most significant breccias in the Copper Creek district are magmatic-hydrothermal breccia pipes (Figure 8-5) that, as can be demonstrated for Mammoth, originate from cupola zones at depth (i.e., the Keel Zone) (Anderson et al., 2009). The breccias in the Copper Creek resource area are characterized by angular clasts, negligible clastic matrix, and remnant open space, suggesting limited transport or milling within the breccia pipe. Clasts are cemented by hydrothermal minerals, including quartz, chlorite, coarse sericite, carbonate, and sulphides, as well as local presence of tourmaline or K-feldspar. Some deeper portions of breccias may include igneous cemented breccias. The limited clast movement and abundance of hydrothermal cement suggests that the breccias are the result of a single fragmentation event and did not breach the surface as phreatomagmatic diatremes or similar, which would be characterized by more intense milling and vertical clast movement; in the case of the blind Mammoth, this can be demonstrated.

Figure 8-5: Schematic Diagram for Breccias above Porphyry



Note: At Copper Creek, the wall rocks are related to the TKgd at depth (salmon coloured) and GHv above (light blue coloured). Quartz-pyrophyllite alteration and quartz-pyrite-enargite is not known from Copper Creek, and tourmaline, magnetite, and biotite are relatively uncommon breccia cement phases. Source: Sillitoe, 2010.

The hydrothermal breccias are typically altered by intense quartz-coarse sericite ± chlorite. Hypogene sulphides include significant pyrite with chalcopyrite in the shallow parts of the breccias transitioning to chalcopyrite-bornite at depth. Sulphosalts are generally rare but locally present at Childs Aldwinkle. Limited data demonstrate that Childs Aldwinkle locally contains gold ranging up to 0.5 to 1 g/t in some drill core samples.

Breccia-hosted mineralization forms the bulk of the resource in some exceptionally well-endowed porphyry systems, such as Rio Blanco-Los Bronces in Chile (Frikken et al., 2005). There breccias are vertically extensive (>1,200 m), and hydrothermal minerals cementing the breccias include biotite and magnetite at depth, transitioning to tourmaline and quartz-sericite-tourmaline-specularite at shallower levels. The breccias there are interpreted to be the result of catastrophic magmatic-hydrothermal explosion when hydrostatic pressure exceeded lithostatic load but probably did not appear to have vented to the surface as diatremes (Frikken et al., 2005). Compared to Rio Blanco-Los Bronces, the breccias at Copper Creek have lower and more localized tourmaline, magnetite, or specularite, and biotite cement and most breccia bodies are smaller and not known for more than approximately 600 m in vertical extent (except for Mammoth-Keel). However, the origin and fragmentation mechanisms are thought to be similar.

8.1.4 Distal Vein Mineralization

Late-stage high-grade Cu-Pb-Zn-Ag veins at the Bluebird and Bunker Hill mines were the first mineral producers in the Copper Creek district. These mines are located some 2 to 3 km from Mammoth-Keel and are interpreted as distal expressions of the mineral system (Sillitoe, 2010). Such veins are also referred to as cordilleran polymetallic veins

(e.g., Catchpole et al., 2011). These distal veins are not part of the current resource but are part of the overall mineral system.

8.1.5 Supergene Mineralization

Copper Creek is a largely intact system with limited tilting, which distinguishes it from nearby porphyry deposits (such as San Manuel-Kalamazoo and Ray). Complete supergene oxidation is limited to the uppermost (approximately 20 m below surface) at namely the Old Reliable, Glory Hole, Copper Prince, and Copper Giant breccia pipes. Associated oxide minerals include abundant malachite and cuprite with lesser azurite and chrysocolla as well as rare copper phosphates, sulphates, and molybdates (Gibbs and Jenkins, 2021). Secondary enriched mineralization does not currently constitute a significant part of the resource, but copper-enriched zones or mixed oxide-sulphide mineralization may be present in these areas down to approximately 40 to 50 m below surface within a transitional zone occurring prior to the hypogene sulphide mineralization at depth. Secondary copper mineralization consists of chalcocite and minor amounts of native copper, covellite, and bornite. The reason why Copper Creek is less affected by supergene oxidation and copper enrichment than some other deposits in Arizona is not fully understood, but the relative paucity of sulphides, especially pyrite, together with the exceptional structural preservation are considered important factors.

Old Reliable is historically the only deposit in the district where supergene mineralization was exploited in the form of an in-situ leach operation (Section 6).

9 EXPLORATION

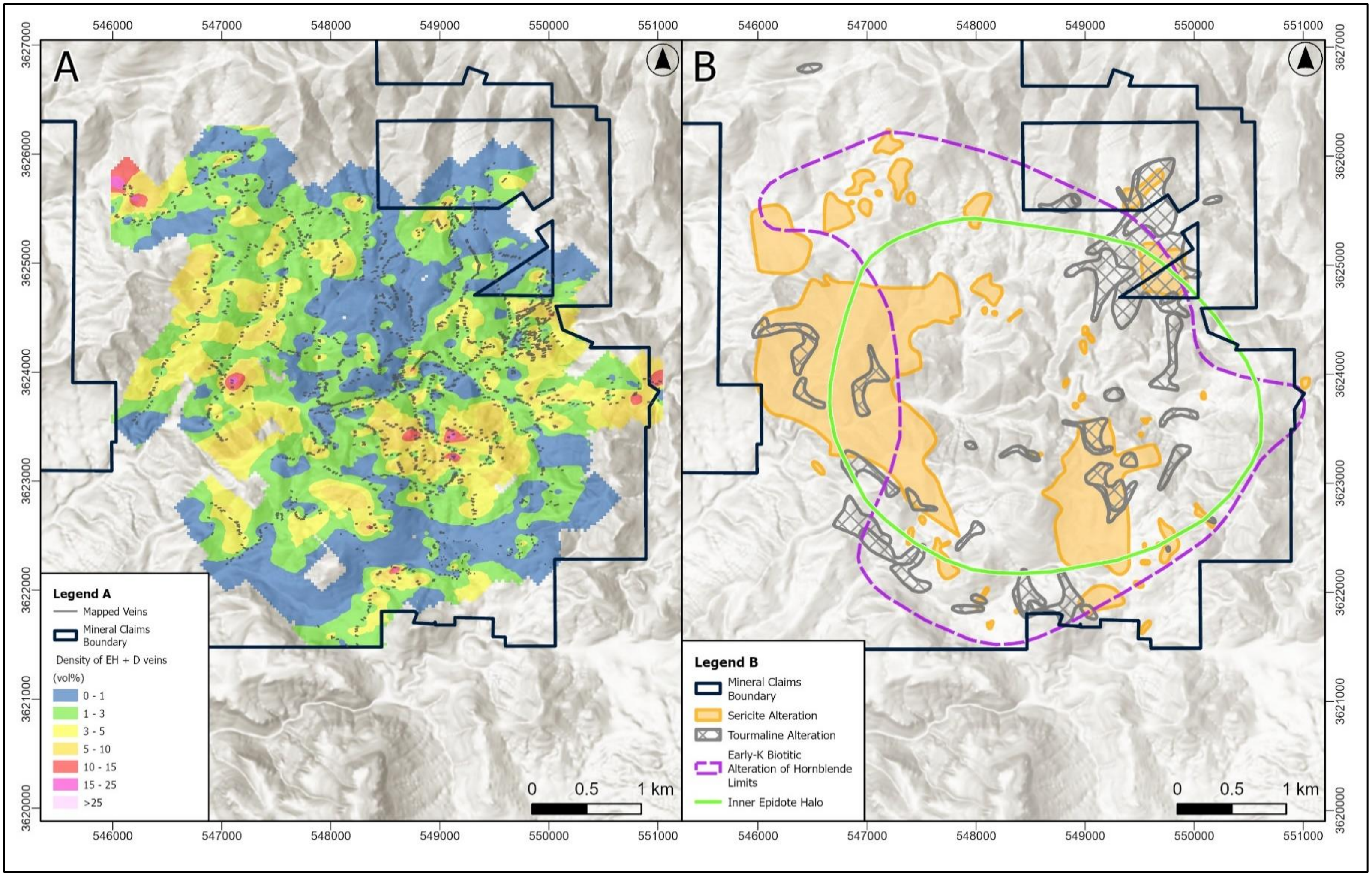
Over the long history of exploration and mining, a wealth of exploration data for the Project have been accumulated. This section summarizes the most significant exploration datasets collected largely since the 1990s that form the basis of Faraday's exploration generative studies. Faraday has initiated the collection of additional datasets, including geological mapping and airborne spectral and geophysical surveys, but data were not available by the effective date of this report and this section largely reviews historical exploration data collected by previous project operators.

9.1 Geological Mapping

The bedrock on the property is well exposed with minimal cover. The geology has been mapped in multiple iterations over several decades. Property-scale geological maps currently used (Figure 7-3) are based on a compilation from 2016 that builds upon early geologic work (e.g., Kuhn (1941) and Guthrie and Moore (1978)) and incorporates mapping by AMT and Redhawk company geologists. Targeted mapping of veins and vein density was also completed by Redhawk and presented at the Society of Economic Geologists conference in Whistler, Canada, in 2013 (Riedell et al., 2013). The veins strike largely east-west to east-northeast/west-southwest, steeply dipping to the north or south. Areas of high vein density of both EH- and D-type veins occur in the American Eagle area (Figure 9-1); there, veins are not necessarily well mineralized at surface, but high vein density at surface coincides with porphyry-style mineralization at depth.

Along with geology and vein density, general alteration zonation and patterns were established. The district is characterized by relatively subtle biotite alteration in the core overprinted by zones of variably intense sericitic and argillic alteration, particularly around breccias. Figure 9-1 shows a general alteration map of the Copper Creek district.

Figure 9-1: Geological Mapping Datasets for Copper Creek



Note: A: Vein density mapping showing combined EH- and D-vein density (Riedell et al., 2013). Small grey dots depict observation points on which the gridded image is based.
B: Map showing the extent of selected alteration features.

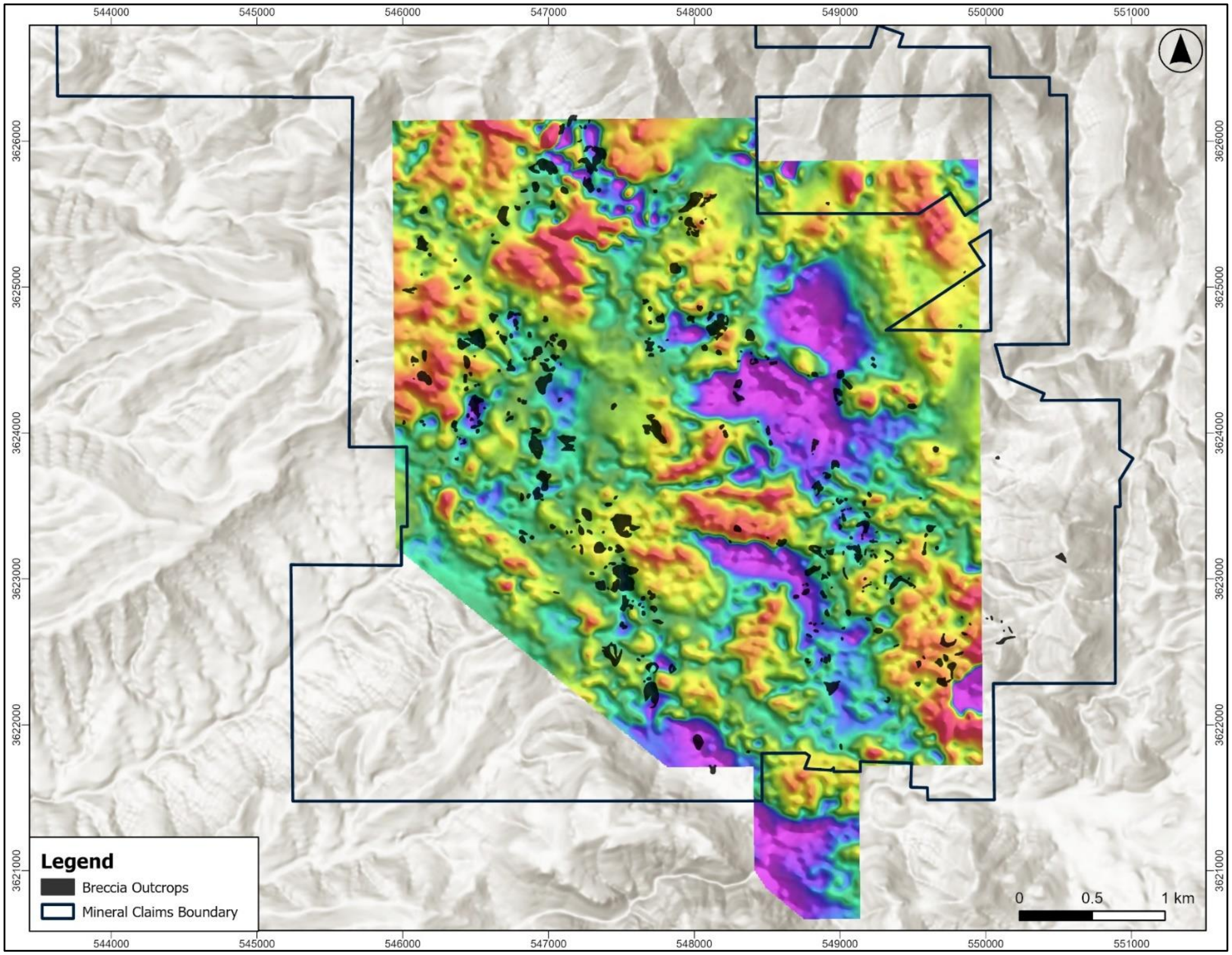
9.2 Geophysical Data

Geophysical data were collected since the 1960s. In this report, only the datasets electronically available covering the bulk of the property collected since 2000 are summarized. Earlier surveys include a regional-scale aeromagnetic survey collected by Newmont Mining Corporation with 1,000-m line spacing, which is not detailed herein as it is superseded by more recent datasets.

In 2001, AMT performed a ground magnetic survey over approximately 4 by 5 km in the core resource area of the Copper Creek district. Data were collected in north-south-oriented lines approximately 60 m apart (Figure 9-2).

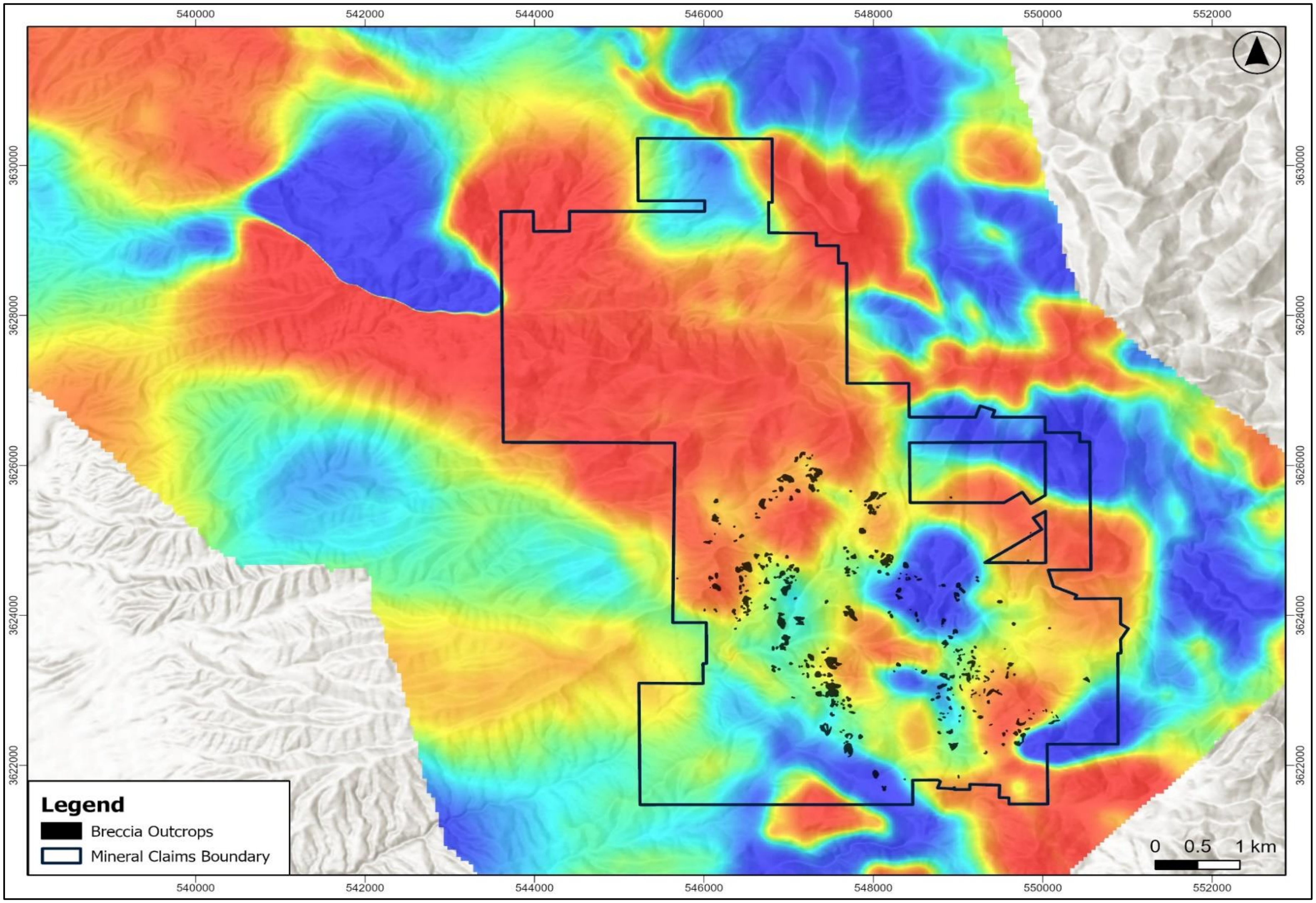
An airborne magnetic and ZTEM survey was flown in 2015 by Geotech for Redhawk covering the entire district and adjacent areas to the north and west (Figure 9-3). The survey included 1,269 line-kilometres at a line spacing of 200 m and tie lines every 2,000 m. Average magnetic sensor clearance was 128 m, and flight lines were oriented northeast-southwest. Concurrently with the ZTEM survey, a small area over part of the resource area was covered by VTEM as a trial of Geotech's helicopter-borne VTEM extreme system.

Figure 9-2: Ground Magnetometric Survey over Copper Creek Collected in 2001 by AMT



Note: Figure prepared by Faraday, 2023. Image shows reduced to pole (RTP) total magnetic intensity (TMI) signal.
Source: Faraday, 2023

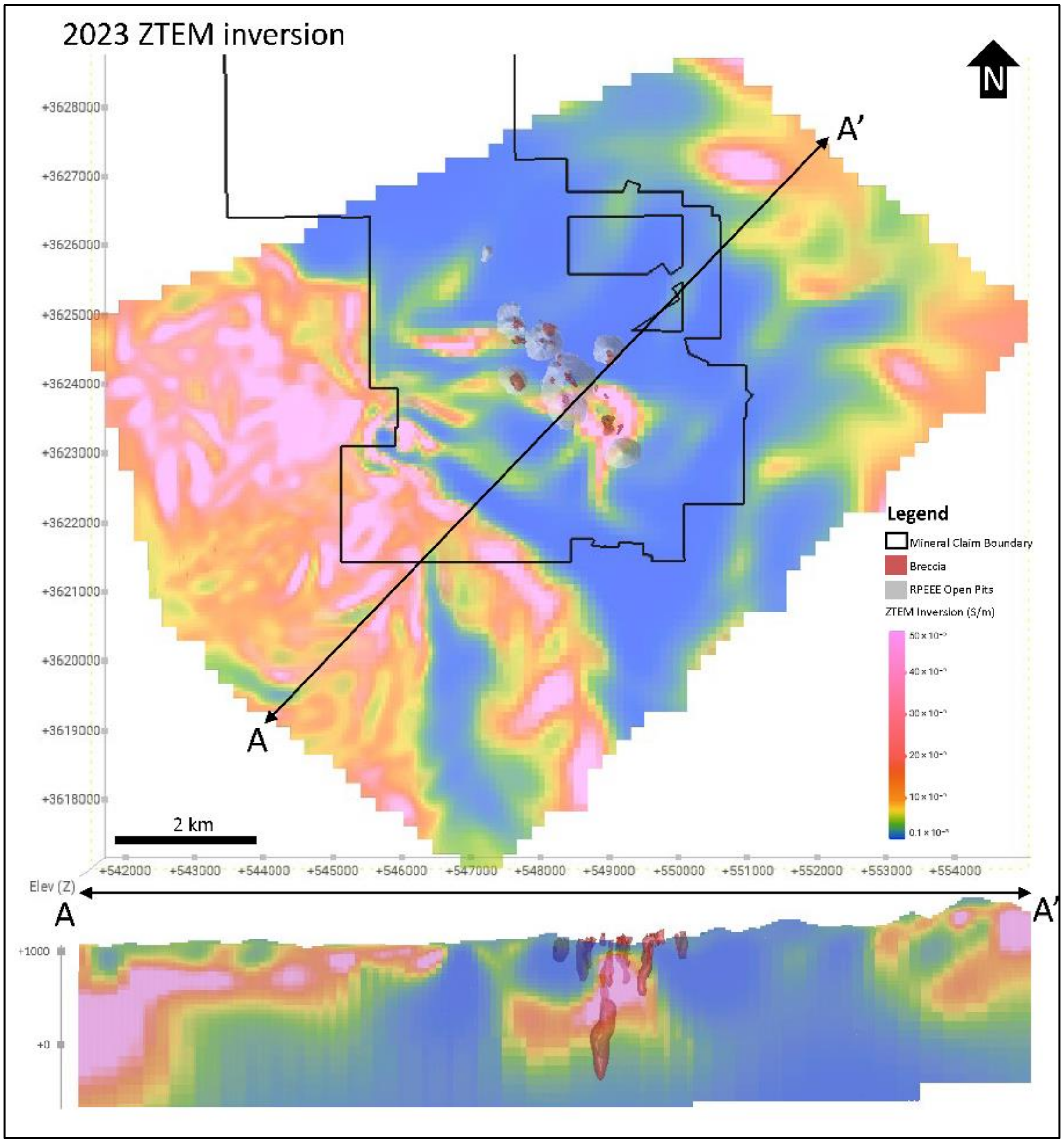
Figure 9-3: Airborne Magnetometric Survey over Copper Creek Collected in 2015 by Anglo American Showing the RTP-TMI Signal



Source: Faraday, 2023

The two-dimensional (2D) and 3D inversions models of ZTEM data were generated in multiple iterations by Anglo American and Condor Geophysical consultants and recently on request by Faraday by Computational Geosciences Inc. in higher resolution over part of the surveyed area. Figure 9-4 shows plan views and sections of inversions generated by Computational Geosciences Inc.

Figure 9-4: Airborne ZTEM Electromagnetic Survey



Source: Faraday, 2023
A: Slice at 350-m depth through the 3D inversion model generated by Anglo American
B: Vertical section along the line shown in A. Warm colours depict areas or high conductivity and low resistivity, whereas cool colours show resistive areas.

Magnetic data suggest that parts of the TKgd are inversely magnetized, which are represented by magnetic lows in the RTP magnetic data (Figure 9-2 and Figure 9-3). Areas of intense clay, sericitic, or EH-style alteration are magnetite destructive. Trends of high vein density, including along Copper Creek, tend to be represented by linear magnetic lows (Figure 9-2).

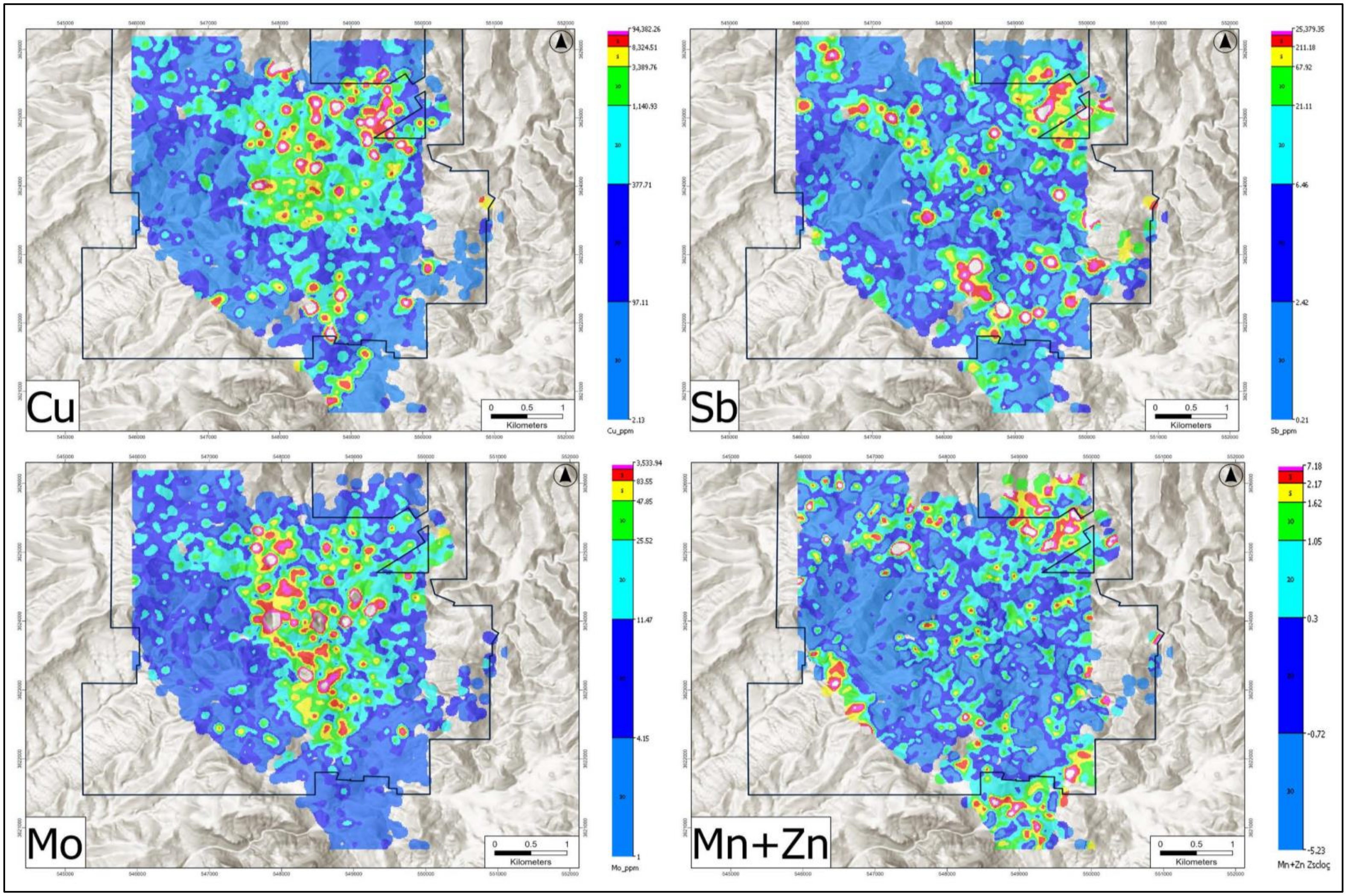
Areas of high conductivity are readily identified in the ZTEM data and corresponding inversion models; these include areas to the west of the Copper Creek district where high conductivity is attributed to the presence of groundwater within the Miocene gravels. Mineralization at American Eagle is also associated with a marked conductivity high which also extends to the west of the known mineralization defined by drilling to date (Figure 9-4).

9.3 Surface Geochemical Data

Surface geochemical samples (n = 4,237) were collected from outcrops during several campaigns from 1997 to 2013 by AMT and Redhawk. The overall sample spacings and grid are irregular. Some historical sampling campaigns specifically targeted veins or breccias, whereas others were aimed at collecting samples in regularly spaced intervals. Analytical methods include aqua regia digestion with ICP–atomic emission spectroscopy (AES) finish for samples collected in the 1990s by AMT and a mix of aqua regia and 4-acid digestions combined with MS and AES finishes. In 2015, an additional 515 samples were collected from outcropping veins over the Copper Creek area and analysed by 4-acid ICP-MS/AES at ALS Laboratory (ALS) (Methods ME-MS61 and ME-ICP61). The geochemical data were evaluated in a report by Bluemel and Van Geffen (2015).

In general, data from 2013 and earlier are of variable quality with a limited element suite at appropriate detection limits and digestion methods for exploration targeting (Bluemel and Van Geffen, 2015). The Copper Creek main resource and surrounding areas are covered by aqua regia ICP data largely on samples collected from veins. Figure 9-5 shows the gridded data collected in 2013 or before for copper, molybdenum, antimony (Sb), and zinc + manganese, showing the overall zonation of these elements at Copper Creek. Copper and molybdenum show the highest concentrations in the core area around Copper Creek and areas contiguous to the north, whereas zinc + manganese are most elevated in the periphery of the area surveyed. This general zonation is consistent with the established element zonation in porphyry systems (Halley et al., 2015). Antimony is highest in localized areas and may suggest preservation of a shallow or distal mineralizing environment.

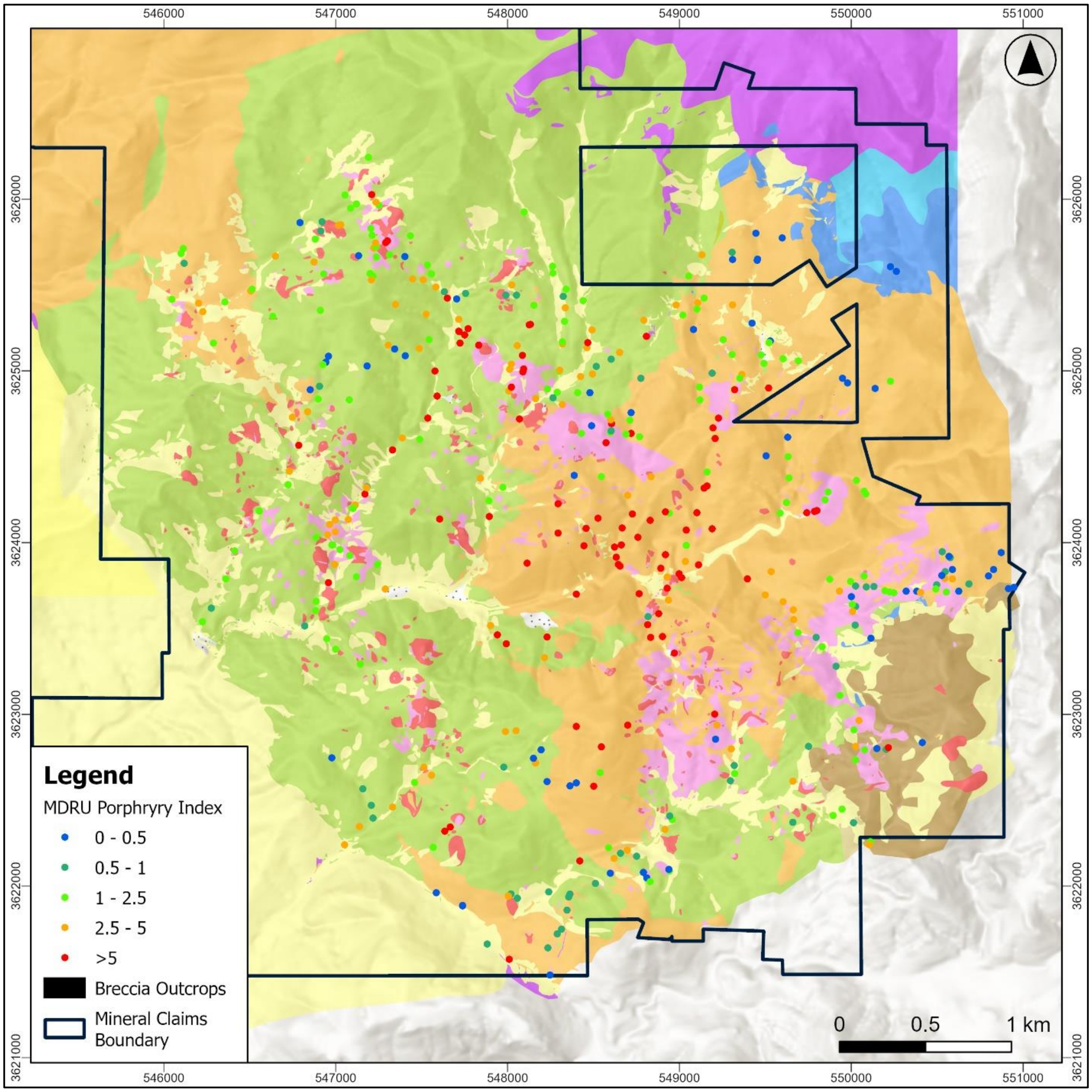
Figure 9-5: Surface Geochemical Data over the Copper Creek Area



Note: Data are gridded using an inverse distance weighting algorithm at a 15-m cell size. Data shown are aqua regia ICP-AES data collected prior to 2013. For Cu, Mo, and Sb, analytical values were used. Mn+Zn shows the sum of logged Z-score values. Source: Faraday, 2023

Compared to earlier datasets, the 2015 data include a more-complete element suite and mostly lower detection limits. Porphyry proximal versus distal or shallow environments can be delineated using a series of trace elements enriched near the core or the shallow portions, respectively, of porphyry systems. Figure 9-6 shows the Mineral Deposit Research Unit (MDRU) porphyry index, which is defined as ((Cu/10)+Mo+10W+20Sn)/(5Sb+20Tl+Ag+As+Li) (Bouzari et al., 2020). This ratio highlights areas with geochemical characteristics consistent with proximity to porphyry mineralization.

Figure 9-6: Surface Geochemical Data (4-Acid ICP-MS) from 2015

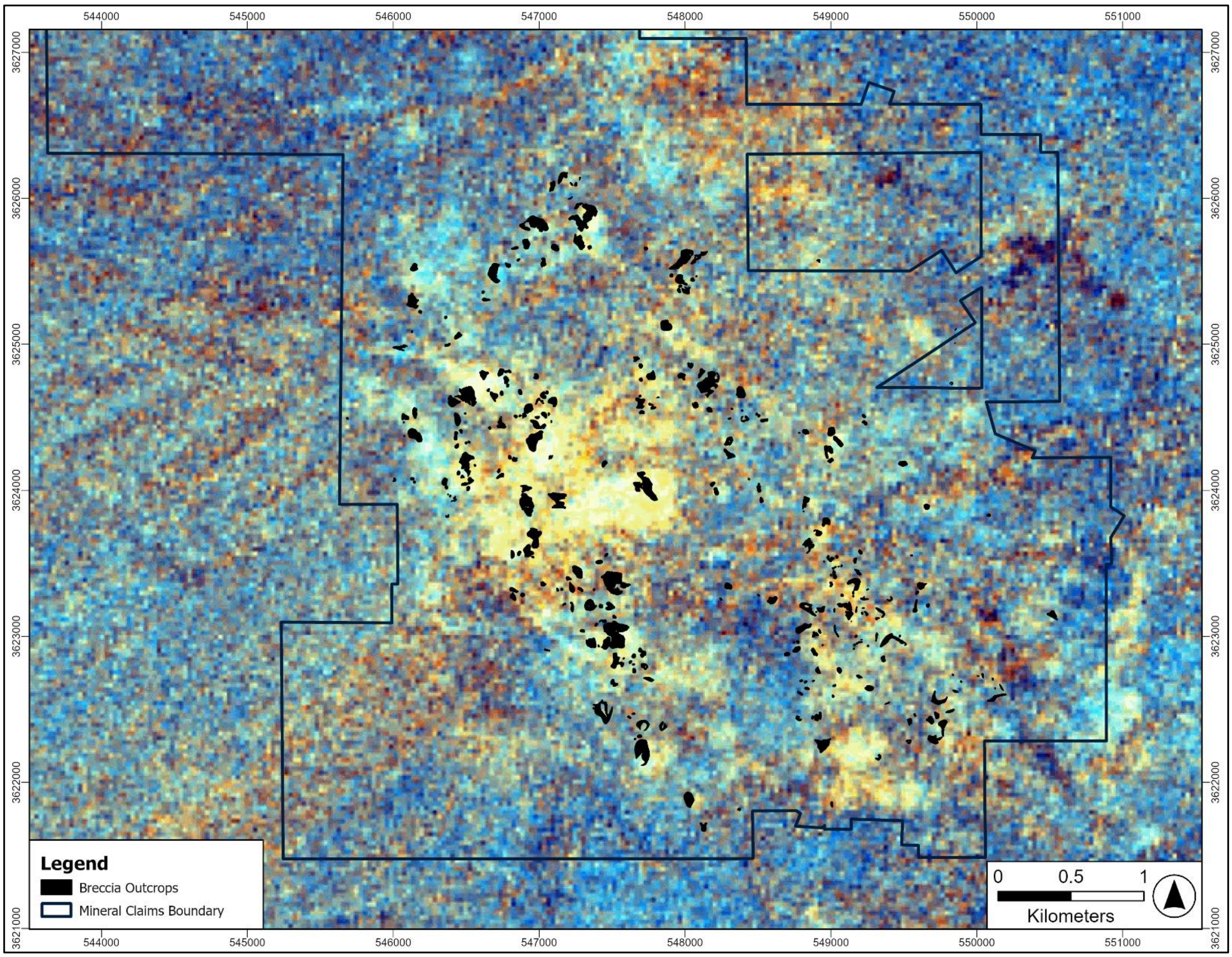


Source: Bouzari et al., 2020. See Figure 7-3 for geological legend.

9.4 Remote Sensing Data

Spectral analysis of satellite-borne Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) data was processed and used to map out mineralogy over the Project area by Respot Consultants in 2021. Respot Consultants generated georeferenced images showing RGB spectral band ratios as defined by the Geoscience Australia ASTER processing manual (2004). Figure 9-7 shows an alteration-enhanced image primarily showing clay and sericite alteration in yellow-to-white colours. Faraday is planning an airborne spectral survey that includes both short wave infrared and long wave infrared detectors. This will provide higher spatial and spectral resolution that can reveal more detailed mineralogical information.

Figure 9-7: Alteration-Enhanced ASTER Data

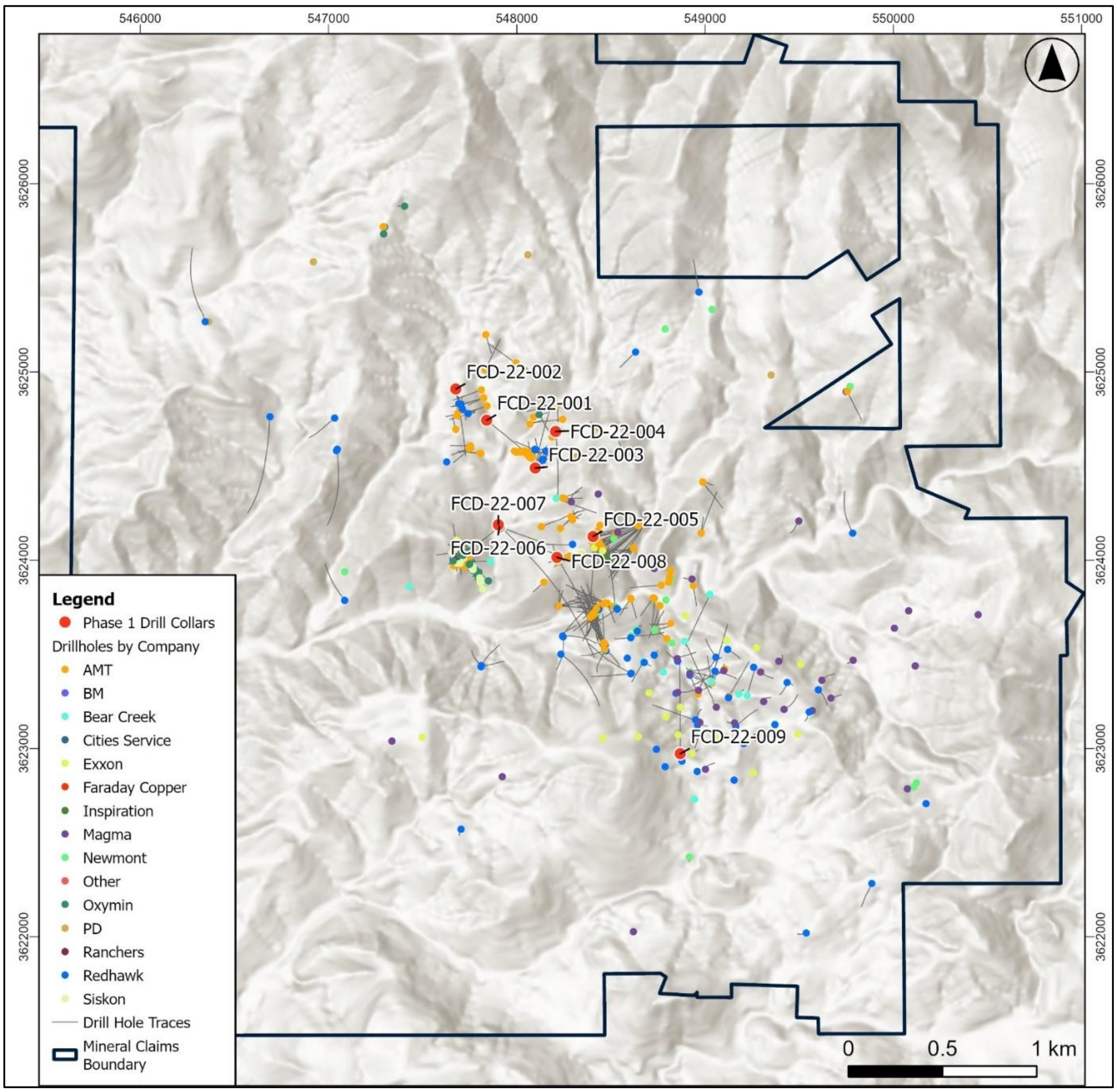


Note: The image shows intense clay and sericite alteration in yellow-to-pale yellow colours. Source: Respot, 2021

10 DRILLING

Historically, over 200,000 m of drilling was completed on the Copper Creek property between 1914 and 2016. The historical drilling is documented in detail in Section 6 and summarized herein. Figure 10-1 shows the spatial distribution of drilling from previous drill campaigns in relation to Faraday's Phase 1 drilling.

Figure 10-1: Drillholes and Drill Traces in the Copper Creek Area



Note: Collars are coloured by company. Source: Faraday, 2023

Table 10-1 summarizes drilling activities from 1914 to 2016. Many drillholes pierce the irregularly shaped mineralized breccias at oblique angles. Note that drilling and sampling lengths are not equivalent to true thickness of breccia-hosted mineralization in most cases.

Table 10-1: Historical Drilling Activities, Copper Creek

Company	Date	Number of Holes	Total Drilling (m)
Calumet & Arizona Mining Company (C&A)	1914	14	1,649
Bureau of Mines	1942 to 1943	31	893
Siskon Corporation (Siskon)	1956 to 1958	25	1,227
Bear Creek Mining Company	1959 to 1962	15	8,865
Newmont Exploration Limited (NEL)	1966	22	9,223
Occidental Minerals Corporation (Oxymin)	1968 to 1970	49	2,810
Ranchers Exploration and Mining Company			
(Ranchers)	1971	3	239
Magma Copper	1971 to 1972	38	28,734
Exxon Corporation	1971 to 1972	21	22,412
Inspiration Consolidated Copper Company			
(Inspiration)	1973	6	227
Phelps Dodge	1972 to 1974	9	7,756
AMT International Mining Corporation (AMT)	1995 to 2001	238	58,646
Redhawk Resources Inc. (Redhawk)	2006 to 2012	78	58,030
Redhawk	2013 to 2014	3	4,132
Copper Creek Project, LLC	2014 to 2016	6	7,572
Others		2	311
Total		**560**	**212,726**

Faraday undertook a diamond drilling program in the first half of 2022 totalling 5,923 m (Table 10-2). The geological model and MRE presented herein took all holes of this program into consideration, with the exception of FCD-22-001 for which geochemical data was pending at the date of data cut-off. This drillhole was drilled from the Glory Hole breccia area towards the southeast covering a gap in historical drilling and did not intersect significant mineralized intervals.

Table 10-2: Faraday Drillholes Completed, Q1 Through Q2 2022

Hole ID	Azimuth (°)	Dip (°)	Target	Depth (ft)	Depth (m)	Data used for MRE
FCD-22-001	130	-45	Copper Prince	1,588	484.02	Logging only
FCD-22-002	170	-45	Glory Hole	1,777	541.63	Logging and assays
FCD-22-003	012	-45	Copper Giant	1,748	532.93	Logging and assays
FCD-22-004	175	-45	Copper Prince	1,628	496.21	Logging and assays
FCD-22-005	180	-50	Mammoth	2,678	816.25	Logging and assays
FCD-22-006	230	-50	OR	1,519	462.99	Logging and assays
FCD-22-007	135	-45	Keel	3,997	1,310.64	Logging and assays
FCD-22-008	150	-45	Mammoth	1,580	518.15	Logging and assays
FCD-22-009	000	-45	American Eagle	2,319	760.48	Logging and assays
Total				**18,834**	**5,923.3**	

Faraday's Phase 1 drilling program had several objectives, including increasing knowledge in areas of limited drilling between breccias, to collect geotechnical information for pit and underground mine design, and to confirm and potentially expand on known mineralized areas. The following sections summarize the drilling procedures utilized during the recent Phase 1 drilling campaign at Copper Creek.

Faraday initiated its ~10,000 m Phase 2 drilling program on October 30th, 2022. This program is focused on confirming and expanding known mineralized areas as well as reconnaissance drilling of targets outside the known resource. No results of this program were used for the MRE or PEA. Table 10-3 provides a list of drillholes completed as of April 25th, 2023. Additional holes are planned.

Table 10-3: Faraday Drillholes Completed Q4, 2022 Through April 25th , 2023.

Hole ID	Azimuth (°)	Dip (°)	Target	Depth (ft)	Depth (m)	Data used for MRE
FCD-22-010	198	-45	Holly	880	288.65	None
FCD-22-011	255	-45	Glory Hole	782	256.64	None
FCD-22-012	055	-55	Copper Giant	518	170.08	None
FCD-22-013	180	-45	Copper Prince	889	291.69	None
FCD-22-014	010	-45	Copper Giant	467	153.31	None
FCD-22-015	010	-45	Copper Giant	477	156.6	None
FCD-22-016	160	-68	Copper Knight	566	185.56	None
FCD-22-017	080	-45	Copper Knight	430	141.12	None
FCD-22-018	260	-45	Copper Prince	671	220.04	None
FCD-22-019	200	-53	Gin	611	200.44	None
FCD-22-020	245	-50	Gin	762	249.94	None
FCD-23-021	230	-45	Hilltop	457	150.04	None
FCD-23-022	278	-45	Hilltop	385	126.25	None
FCD-23-023	045	-45	Childs Aldwinkle	814	267	None
FCD-23-024	150	-70	Keel West	3,510	1,151.53	None
FCD-23-025	110	-60	American Eagle	3,196	1,048.51	None
FCD-23-026	255	-55	Copper Knight	1,219	399.9	None
FCD-23-027	045	-72	Childs Aldwinkle	1,598	524.26	None
FCD-23-028	185	-52	Copper Prince	1,090	357.47	None
FCD-23-029	056	-78	Copper Giant	677	222.2	None
FCD-23-030	335	-46	Rye	897	294.38	None
FCD-23-031	193	-48	Rye	821	269.35	None
FCD-23-032	150	-50	Pole Breccia	290	167.27	None
Total				**22,006**	**7219.96**	

10.1 Type and Extent of Drilling

10.1.1 Historical Drilling

Most of the previous operators of the Project conducted exploration drilling on the property. Table 10-4 summarizes the historical drilling by type. Note that the individual totals exceed 545 drillholes because certain drillholes were completed with a combination of drilling methods. All drilling at Copper Creek since 2012 has been diamond core drillholes.

Table 10-4: Historical Statistics by Drilling Type, 1914 to 2012

	Diamond Core	RC	Rotary/ Percussion	Drifts/ Raises	Not Classified	Total
Number of Drillholes	358	75	93	56	21	545
Total Drilling (ft)	476,877	35,787	86,891	3,056	30,050	632,660
Assayed for Cu (ft)	351,245	29,748	56,779	2,878	26,695	467,345
Percent Complete	74%	83%	65%	94%	89%	74%
Total Assay Intervals	38,524	3,009	5,837	577	2,896	50,843
Average Assay Interval (ft)	9.1	9.9	9.7	5.0	9.2	9.2
Assayed for Mo (ft)	249,467	17,758	43,172	110	25,735	336,241
Percent Complete	52%	50%	50%	4%	86%	53%
Total Assay Intervals	27,391	1,776	4,332	22	2,800	36,311
Average Assay Interval (ft)	9.1	10.0	10.0	5.0	9.2	9.3

Source: IMC, 2012

10.1.2 Faraday Drilling

Recent Faraday diamond drilling was conducted by Ruen Drilling, Clark Fork, Idaho, U.S., using a track-mounted LF-70 diamond core rig, except for Drillholes FCD-22-007, FCD-22-009, FCD-23-024 and FCD-23-025 for which the larger RD6000 rig was used. Drill core was drilled as HQ, which is 63.5 mm (2.5 inches) in diameter. Where required (parts of holes FCD-22-005 and FCD-22-018), the drill core was reduced to NQ size (47.6 mm; 1.9 inches).

SRK visited all the drill pads planned for the 2022 campaign. Level drilling platforms were installed by heavy equipment, where necessary, with the appropriate disturbed dimensions for the drilling and accessory equipment. Sufficient space was provided for mud/cuttings sumps and, to conserve water and reduce volume of cuttings for disposal, a solids removal unit (SRU) was in the process of being implemented. SRK visited FCD-22-003 during active drilling. The drill site appeared adequate with industry-standard safety measures in place, including spill containment under the rig, lined sump guarded with hefty cattle fencing, and appropriate separated flammable storage. Drilling is carried out by a professional independent contractor. SRK considers the drilling protocols observed during the site visit to be satisfactory. Figure 10-2 depicts an example of a core drilling platform at Copper Creek.

Figure 10-2: Core Drilling Platform Example

Source: SRK, 2023

10.2 Collar and Downhole Survey

10.2.1 Historical Drilling

Collar and downhole surveys are recorded in an electronic drillhole database that Faraday has reviewed and updated. Approximately 81% of the drillholes by metres drilled possess a downhole deviation survey in the Copper Creek database. Measured deviation is minimal across the Project site with less than 5-percent dip change from the collar common for most drillholes.

Downhole surveys have been conducted on the majority of drillholes. Certain historical drillholes do not have downhole survey information but are typically short in length. Historical downhole survey methods included multi-shot and single-shot surveys of typical standards for the time of drilling. Historical paper driller cards and Sperry-Sun survey sheets are available for many drillholes in the Copper Creek archives.

10.2.2 Faraday Drilling

Recent downhole surveys were done using the north-seeking gyroscope Reflex EZ-GYRO. Single-shot measurements were recorded every approximately 32.7 m (100 ft) as drilling progressed. Recent collar locations were surveyed by differential global positioning system (GPS) equipment. For the Project, all coordinates were translated (historical) to Universal Transverse Mercator (UTM) coordinate system, World Geodetic System 1984 (WGS-84) datum, Zone 12 N.

10.3 Core Processing and Sampling

10.3.1 Historical Drilling

Specific drillhole processing and sampling methods do not exist prior to AMT in 1995. Historical exploration was conducted by established and well-regarded historical operators (e.g., Bear Creek, Newmont, Oxymin, Magma, and Exxon). It is assumed that industry-standard practices for the time period were used by all historical Copper Creek operators. SRK reviewed certain historical sampled drillholes stored on-site and confirmed appropriate splitting and/or cutting of halved drill core and regular intervals. Some historical operators only sampled the drillholes selectively in mineralized areas. Redhawk and Copper Creek have sampled historically drilled but unsampled intervals when encountered during relogging campaigns.

From 1995 onward, it is reported that AMT and Redhawk followed industry-standard sampling procedures (IMC, 2012). Drillhole core or cuttings were logged for geological and geotechnical data. Drillholes were either sawed or split mechanically, and half-core samples were sent for assay at commercial laboratories. Specific information on splitting of RC drillholes at the rig and during sample preparation is not known; however, these drillhole types are relatively limited compared to diamond core drillholes.

10.3.2 Faraday Drilling

Drill core runs were removed from the core tube by the drill crew and placed into metal troughs. Drill core was oriented using accelerometer-based core orientation with a Reflex ACT III tool. Orientation lines were drawn on the bottom of the core at the drill site. A cut line was drawn about 15° clockwise from the orientation line. Wooden run blocks were inserted by the drill crew in the core at the end of every drill interval. These blocks allowed the geologists to add metre marks directly on the core, which are added prior to core boxing.

The on-site geologists clean and align the core with the bottom-line orientation mark and fit the core pieces together in the metal troughs. Then, a quick log of the drillhole is conducted by the rig geologists. Mechanical hammer breaks are indicated, if required, when placing the drill core in the boxes. The core boxes are labelled with the drillhole identification number, from/to depth, and box number and are transported by pickup truck to the core logging facility in San Manuel.

Wax-coated cardboard boxes were used that can accommodate five rows of 0.61 m (2-ft)-long sections of HQ core (up to 3.27 m or 10 ft per box). Drill core boxes were photographed using a high-resolution digital single-lens reflex (DSLR) camera and photographs are stored in a cloud-based photograph storage system (Imago) where photographs are available for viewing remotely.

Core was logged by BRE and Faraday personnel to systematically record geological information. Call and Nicholas Inc. (CNI) mining consultants from Tucson recorded geotechnical information, such as rock quality designation (RQD) and fracture frequency.

Information was recorded in MX Deposit, a cloud-based geological database. Database entries include lithology, alteration, mineralization features, structures, and veins. Along with observational data, physical property measurements, such as density and magnetic susceptibility, were collected in regular downhole intervals. Short wave infrared spectral data were collected using a Terraspec Halo instrument to aid logging of hydrothermal minerals. Measurements were taken approximately every 2 m directly on a representative section of drill core. The spectral data were analysed using the aiSIRIS cloud-based artificial intelligence (AI) spectral interpretation system. Core logging procedures were the same for new core and relogged historic core.

New drill core was sampled in 2-m intervals for geochemical analysis. Sample lengths were adjusted where necessary to accommodate for lithology and mineralization breaks. Therefore, sample intervals may vary from 0.3 to 2.5 m in length.

Sampling was done using a Corewise automated diamond core saw, or a 14-inch Husqvarna diamond blade wet saw. Core was cut lengthwise, and half core was sampled. The preserved half of the core includes the orientation line on the core. This procedure ensures that the same side (the left side, when looking down the core axis) of the core was always sampled and sent to the laboratory. This procedure aims to minimize biased sampling.

10.4 Chain of Custody and Geochemical Laboratory

10.4.1 Historical Drilling

Specific records are limited for chain of custody and analytical procedures used by historical Copper Creek operators prior to AMT (1995). It is reported that the majority of testing facilities were commercial laboratories that used typical industry-standard procedures for the time period (IMC, 2008). Original signed and stamped laboratory records from the 1960s and beyond are available for some drillholes in the San Manuel office. To the extent possible, Faraday has scanned these paper records to have them stored electronically. The only known non-commercial laboratory used for Copper Creek samples was the Magma laboratory at the nearby San Manuel mine (IMC, 2008), likely in the early 1970s when Magma was active on the Project.

All Copper Creek drillhole samples since Redhawk (2006 to present) have been analysed at ALS facilities in either Reno, Nevada, USA (Redhawk) or North Vancouver, British Columbia, Canada (Faraday (formerly CopperBank)). Industry-standard chain of custody protocols were utilized.

10.4.2 Faraday Drilling

After processing, core samples were stored in plastic totes on pallets holding up to 1,000 lb each. Samples were stored at the Company’s locked facility at San Manuel, Arizona, and batches were couriered or delivered by BRE and Faraday personnel to the sample preparation facility at ALS in Tucson, Arizona. The pulverized samples were then shipped to ALS in North Vancouver, British Columbia, Canada, for analysis.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Overview

All Copper Creek drillhole samples since Redhawk (2006 to present) have been analysed at ALS facilities in either Reno, Nevada, USA (Redhawk) or North Vancouver, British Columbia, Canada (CopperBank and Faraday). ALS is a third-party, commercial geochemical laboratory that operates independent of Faraday and previous project operators. The ALS analytical facilities are International Organization for Standardization (ISO) 170525 certified.

Specific records are limited for sample preparation and analytical procedures used by historical Copper Creek operators prior to AMT (1995). Historical exploration was conducted by established and well-regarded historical operators (e.g., Bear Creek, Newmont, Oxymin, Magma, and Exxon). In the San Manuel office, historical paper laboratory certificates are available from laboratories such as Jacobs Assay Office – Registered Assayers, Tucson from the mid-1970s. The only known non-commercial laboratory used for Copper Creek samples was the Magma laboratory at the nearby San Manuel mine (IMC, 2008), likely in the early 1970s when Magma was active on the Project. No known bias exists in the earlier sample grades versus later analyses that would indicate the historical laboratories were not following established preparation and analytical protocols.

11.2 Security Measures

11.2.1 Historical Drilling

Security measures used by historical Copper Creek operators prior to AMT (1995) have not been documented previously. Approximately 95% of historical and recent drillholes at Copper Creek have been preserved and are stored on-site currently at the San Manuel drill core storage facility. This is a positive indication of the diligence of all historical Project operators in maintaining security of the sampled drill core.

11.2.2 Modern Drilling

For all recent drilling (1995 to present), core was delivered daily from the Project site to the logging warehouse in San Manuel. Currently, the exploration office, logging facility, and adjacent laydown yard are monitored by a close-circuit security camera system. Additionally, the San Manuel facility is located directly adjoining to the Pinal County Sheriff's office property.

Most of the historical drill core is stored on metal racks in covered buildings. Additional split-core boxes from the current and historical drilling campaigns are stored temporarily in a secured, barbed-wire topped, fenced area with controlled access. At the time of the SRK site visit in March 2022, additional historical core was being moved and reorganized for development of a new, expanded core storage facility. Pallets of core were covered with tarpaulins that were temporarily staged outside. Fine pulps from historical drill programs are boxed and stored securely in the exploration office.

11.3 Sample Preparation for Analysis

11.3.1 Historical Drilling

Prior to 1995, detailed sample preparation methods are unknown. It is reported that the majority of testing facilities were commercial laboratories that used typical industry-standard procedures for the time period (IMC, 2008). Review of the available paper geologic logs and assay certificates that are on file at the San Manuel office indicate that data were collected and handled with good practices (IMC, 2012).

11.3.2 Modern Drilling

Previous samples during Redhawk's tenure (2006 to 2012) were delivered to Jacobs Assay for pulp preparation prior to shipping to ALS in Reno. IMC reports the following specific industry-standard sample preparation procedures used by Redhawk (IMC, 2012), which are assumed to be similar for other historical operators:

- Upon delivery to Jacobs Assay, samples were checked against the dispatch list from Redhawk and then logged into the laboratory records in the same order.
- The entire sample was processed through a jaw crusher three times to reduce the sample size to minus one-half inch. The jaw crusher was brushed off and blown clean with compressed air between samples.
- The sample was mixed, pan to pan, six times and then poured through a Jones splitter. One quarter of the sample was retained for further processing, and the remaining three quarters were placed back in the bag as a reject sample, which were retained for future use. The Jones splitter was cleaned with compressed air between samples.
- The reduced one-quarter sample split was processed through a second jaw crusher and roller (one pass), mixed, and further crushed, if needed, to reduce the sample size to minus-10 mesh size.
- The sample passed through a Jones splitter to get a 250-gram split, which was pulverized to minus-150-mesh size. The Jones splitter was cleaned between samples, and the pulveriser was cleaned with silica sand after each sample.
- The pulverized 250-gram sample was mixed on rolling cloth 25 times from each corner and then placed into the pulp sample bag for shipment to the assay laboratory.
- The rejected minus-10-mesh sample that was not pulverized is returned to the reject bag.

Additionally, Jacobs prepared a second pulp from the sample reject material for every tenth sample. These samples were returned to Redhawk. When several batches of reject pulps are collected, these were check pulps that were sent to ALS in Reno for assay.

Recent samples from Faraday's Phase 1 drilling program were handled by the ALS preparation facility in Tucson, Arizona. Then, the pulverized samples were sent to ALS in North Vancouver. The ALS samples follow a similar preparation procedure as detailed above at Jacobs, including:

- Sample log-in, organization, and entry into laboratory information system, ALS Methods LOG 22 and LOG-24, then weighing of received samples (ALS Method WEI-21).
- Crushing to 70% less than 2 mm, pulverizing up to 250 g to 85% less than 75 µm, and splitting samples with a riffle splitter (ALS Method PREP-31) prior to delivery of pulps to assay laboratory.

11.3.3 Molybdenum Correction

Faraday discovered that sample preparation during 2010 to 2012 sampling used an alloy of nickel (Ni)-molybdenum and lower chromium (Cr)-tungsten (W) that contaminated certain samples during the grinding process. Somewhat anomalous values were visible in geochemical plots for nickel and molybdenum, and to a lesser extent chromium and tungsten. Of these, only molybdenum is of economic interest at Copper Creek, and Faraday adjusted molybdenum values. The other elements (nickel, chromium, and tungsten) with potential contamination are not economic at Copper Creek, and no further analysis was considered.

For molybdenum samples with evidence of slight contamination from the Ni-Mo-Cr-W-bearing steel used in sample preparation, the values were corrected in the database prior to estimation. The molybdenum correction affected 60 laboratory certificates from the 2010 to 2012 period. To arrive at a correction factor, Faraday compared analytical batches that exceeded typical minimum molybdenum values of 1 g/t (0.0001%) in uncontaminated batches. The sample batches with suspected contamination had minimum molybdenum values in the range of 8 to 10 g/t. For these sample batches, molybdenum assays were reduced so that the minimum values were approximately 1 g/t, and the corrected molybdenum values were stored in the database.

11.4 Sample Analysis

Samples were assayed for copper and molybdenum using standard four-acid digestion assay techniques (ME-MS61 and lesser by ME-ICP61). Copper values from the ICP exceeding 10,000 g/t were re-assayed using an additional mineralized material grade assay method. Assays with the following ALS laboratory codes exist within the assay database:

- Cu-OG62: Four-acid overlimit
- Cu-OG46: Aqua regia overlimit
- ME-MS61: Four-acid digestion with ICP-MS finish
- ME-ICP61: Four-acid digestion with ICP-AES finish
- Cu-AA46: Copper by aqua regia digestion, ICP-AES, or AAS finish
- ME-MS41: Aqua regia with ICP-MS finish
- ME-ICP41: Aqua regia with ICP-AES finish
- Cu-AA62: Copper by four-acid digestion and ICP-AES

Table 11-1, Table 11-2, and Table 11-3list analytes and detection ranges for the most common historical and recent ALS assay methods used at Copper Creek.

Table 11-1: Analytes and Detection Ranges for Cu-OG62 and Cu-OG46

Cu-OG62	Lower Limit of Detection (%)	Upper Limit of Detection (%)
Cu-OG62	0.001	50
Cu-OG46	0.001	50

Table 11-2: Analytes and Detection Ranges for ME-MS61

Element	Lower Limit of Detection	Upper Limit of Detection	Element	Lower Limit of Detection	Upper Limit of Detection
Silver (Ag) (g/t)	0.01	100	Sodium (Na) (%)	0.01	10
Aluminium (Al) (%)	0.01	50	Niobium (Nb) (g/t)	0.1	500
Arsenic (As) (g/t)	0.2	10,000	Nickel (Ni) (g/t)	0.2	10,000
Barium (Ba) (g/t)	10	10,000	Phosphorus (P) (g/t)	10	10,000
Beryllium (Be) (g/t)	0.05	1,000	Lead (Pb) (g/t)	0.5	10,000
Bismuth (Bi) (g/t)	0.01	10,000	Rubidium (Rb) (g/t)	0.1	10,000
Calcium (Ca) (%)	0.01	50	Rhenium (Re) (g/t)	0.002	50
Cadmium (Cd) (g/t)	0.02	1,000	Sulphur (S) (%)	0.01	10
Cerium (Ce) (g/t)	0.01	500	Antimony (Sb) (g/t)	0.05	10,000
Cobalt (Co) (g/t)	0.1	10,000	Scandium (Sc) (g/t)	0.1	10,000
Chromium (Cr) (g/t)	1.0	10,000	Selenium (Se) (g/t)	1.0	1000
Cesium (Cs) (g/t)	0.05	500	Tin (Sn) (g/t)	0.2	500
Copper (Cu) (g/t)	0.2	10,000	Strontium (Sr) (g/t)	0.2	10,000
Iron (Fe) (%)	0.01	50	Tantalum (Ta) (g/t)	0.05	500
Gallium (g/t)	0.05	10,000	Tellurium (Te) (g/t)	0.05	500
Germanium (Ge) (g/t)	0.05	500	Thorium (Th) (g/t)	0.01	10,000
Hafnium (Hf) (g/t)	0.1	500	Titanium (Ti) (%)	0.005	10
Indium (In) (g/t)	0.005	500	Thallium (Tl) (g/t)	0.02	10,000
Potassium (K) (%)	0.01	10	Uranium (U) (g/t)	0.1	10,000
Lanthanum (La) (g/t)	0.5	10,000	Vanadium (V) (g/t)	1.0	10,000
Lithium (Li) (g/t)	0.2	10,000	Tungsten (W) (g/t)	0.1	10,000
Magnesium (Mg) (%)	0.01	50	Yttrium (Y) (g/t)	0.1	500
Manganese (Mn) (g/t)	5	100,000	Zinc (Zn) (g/t)	2	10,000
Molybdenum (Mo) (g/t)	0.05	10,000	Zirconium (Zr) (g/t)	0.5	500

Table 11-3: Analytes and Detection Ranges for ME-ICP61

Element	Lower Limit of Detection	Upper Limit of Detection	Element	Lower Limit of Detection	Upper Limit of Detection
Ag (g/t)	1.0	200	Mo (g/t)	10	50,000
Al (%)	0.05	30	Na (%)	0.05	30
As (g/t)	50	100,000	Ni (g/t)	10	100,000
Ba (g/t)	50	50,000	P (g/t)	50	100,000
Be (g/t)	10	10,000	Pb (g/t)	20	100,000
Bi (g/t)	20	50,000	S (%)	0.05	10
Ca (%)	0.05	50	Sb (g/t)	50	50,000
Cd (g/t)	10	10,000	Sc (g/t)	10	50,000
Co (g/t)	10	50,000	Sr (g/t)	10	100,000
Cr (g/t)	10	100,000	Th (g/t)	50	50,000
Cu (g/t)	10	100,000	Ti (%)	0.05	30
Fe (%)	0.05	50	Tl (g/t)	50	50,000
Gallium (g/t)	50	50,000	U (g/t)	50	50,000
K (%)	0.1	30	V (g/t)	10	100,000
La (g/t)	50	50,000	W (g/t)	50	50,000
Mg (%)	0.05	50	Zn (g/t)	20	100,000
Mn (g/t)	10	100,000			

11.5 Quality Assurance/Quality Control Procedures

Historical QA/QC results have been reviewed extensively in previous technical reports by IMC (IMC, 2008 and IMC, 2012). Additionally, in 2012, Redhawk commissioned an independent review of the Copper Creek QA/QC program from 2006 forward by Geochemical Applications International, Inc. (GAII). Dr. Jeffrey Jaacks examined all controls and procedures related to QA/QC monitoring and concluded that the overall quality assurance program contained no fatal flaws and were of acceptable accuracy and precision for resource calculations (GAII, 2012).

Drillhole sampling conducted by Faraday followed industry-accepted methods for quality assurance/ quality control (QA/QC), including the use of standards, blanks, and duplicate samples. For every 25 samples, one standard, two quarter-core duplicates, and three blanks were inserted into the sample stream, and expected values were blind to the laboratory. An appropriate mix of matrix-matched certified reference material (CRM) standards with a spread of copper, molybdenum, and silver grades were selected for the Faraday's drilling program. Both fine and coarse blanks were alternated in the QA/QC batches. Limited third-party check assay results were available for the recent drilling program. The following sections summarize historical and modern QA/QC results.

11.5.1 Historical Standards

In 2007, Jacobs Assay prepared five standards with various copper grades from material sourced on site at Copper Creek (IMC, 2012). Either 5 or 10 samples from each standard created were sent to three separate laboratories for copper, molybdenum, and silver assays. The results from each laboratory were compared, and an average value for the standard was created from the round robin results. The standards varied from 0.014% to 5.678% Cu and from 0.00032% to 0.0092% Mo.

During Redhawk's sampling, one of the five internal standards was selected at random and inserted in with the pulps sent to ALS for assaying. The standards were inserted at the rate of about one standard for every 10 samples. Table 11-4 and Table 11-5 summarize the results of the standard comparisons for copper and molybdenum compiled by IMC, respectively. Additionally, Figure 11-1 through Figure 11-5 provide GAII-compiled charts of standard performance over time for copper (GAII, 2012).

Table 11-4: Assays on Redhawk Copper Standards

Cu (%)	Standard 1	Standard 2	Standard 3	Standard 4	Standard 5
Expected grade (%)	0.042	-	-	-	-
±0.009	0.964	-	-	-	-
±0.056	0.550	-	-	-	-
±0.036	5.678	-	-	-	-
±0.273	0.014	-	-	-	-
±0.002	-	-	-	-	-
Count	411	612	547	387	191
Minimum	0.025	0.69	0.438	2.584	0.012
Maximum	0.133	1.14	0.655	6.07	0.023
Mean	0.038	0.955	0.535	5.538	0.0144
Standard deviation (SD)	0.01	0.034	0.022	0.266	0.0012
Relative standard deviation (RSD)	25.8	3.5	4.1	4.8	8.5
Mean + 3 SD	0.067	1.056	0.602	6.336	0.018
Mean – 3 SD	0.009	0.855	0.469	4.74	0.0107
Failures > 3 SD	10	5	8	4	4
% Failures > 3 SD	2.4	0.8	1.5	1.0	2.1

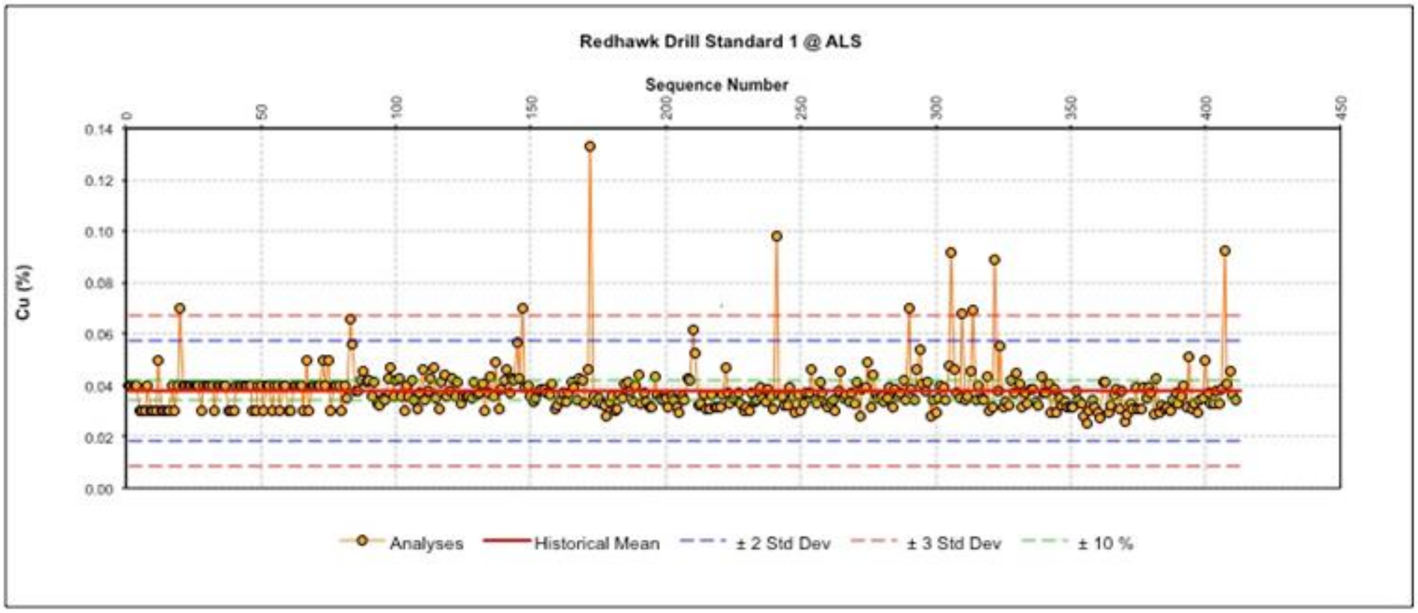
Source: GAII, 2012

Table 11-5: Assays on Redhawk Molybdenum Standards

Redhawk Standard	Expected Grade (%)	Number of Readings	Mean	SD	Median	Mean/ Expected (%)	Median/ Expected (%)
1	0.0030	319	0.0031	0.0024	0.0028	+3	-20
2	0.0075	470	0.0073	0.0018	0.0070	-3	-7
3	0.0092	410	0.0088	0.0021	0.0087	-4	-5
4	0.0010	347	0.0014	0.0004	0.0014	+40	+40
5	0.0003	79	0.0004	0.0001	0.0004	+33	+33

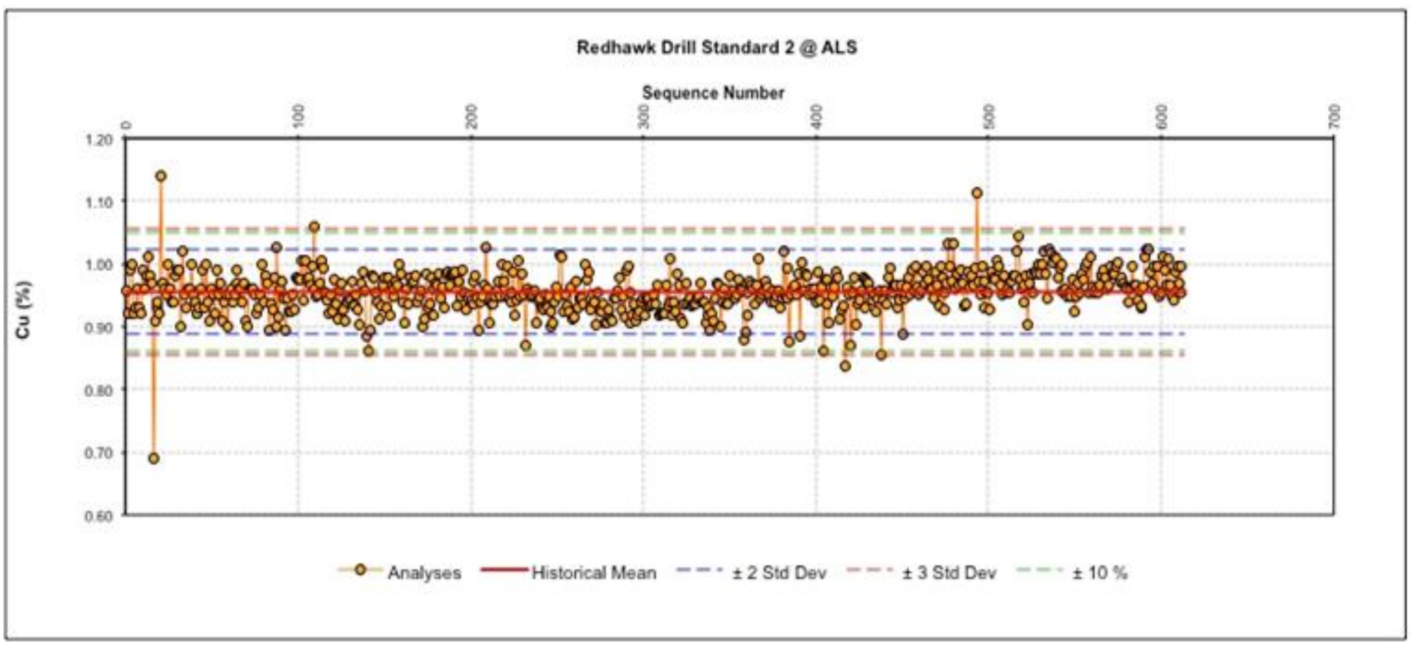
Source: IMC, 2012

Figure 11-1: Redhawk Standard 1 Results, 2006 to 2012, Expected Value 0.042% Cu



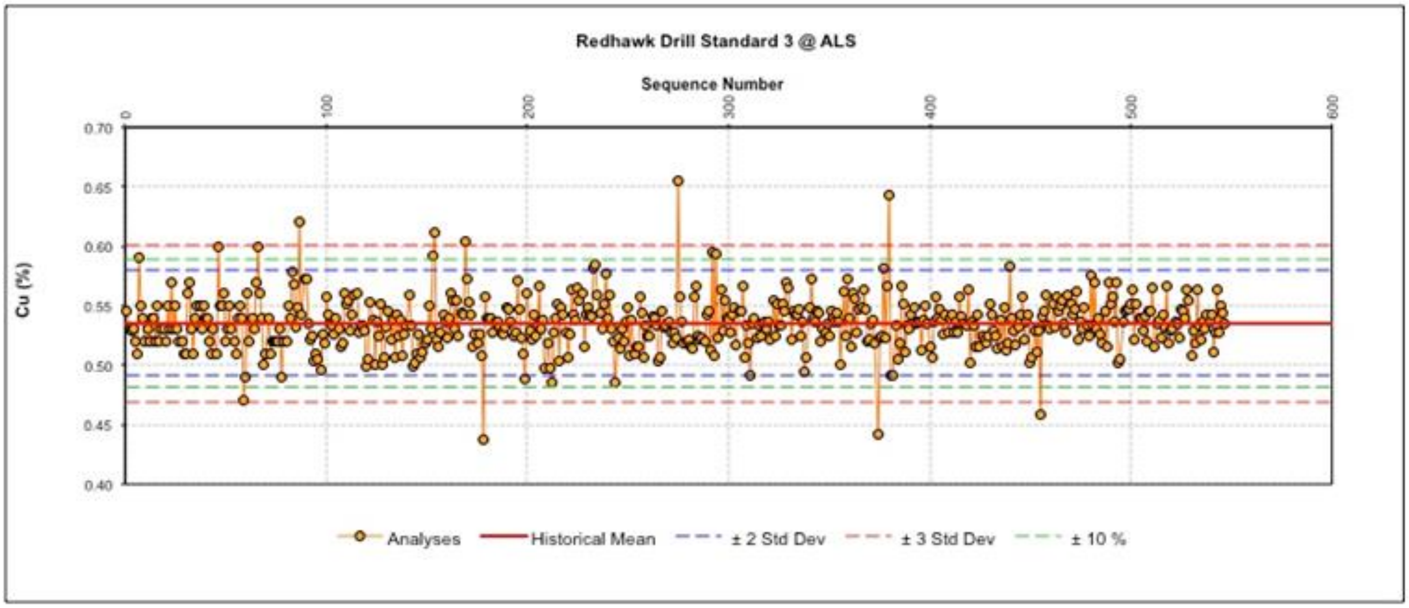
Source: GAII, 2012

Figure 11-2: Redhawk Standard 2 Results, 2006 to 2012, Expected Value 0.964% Cu



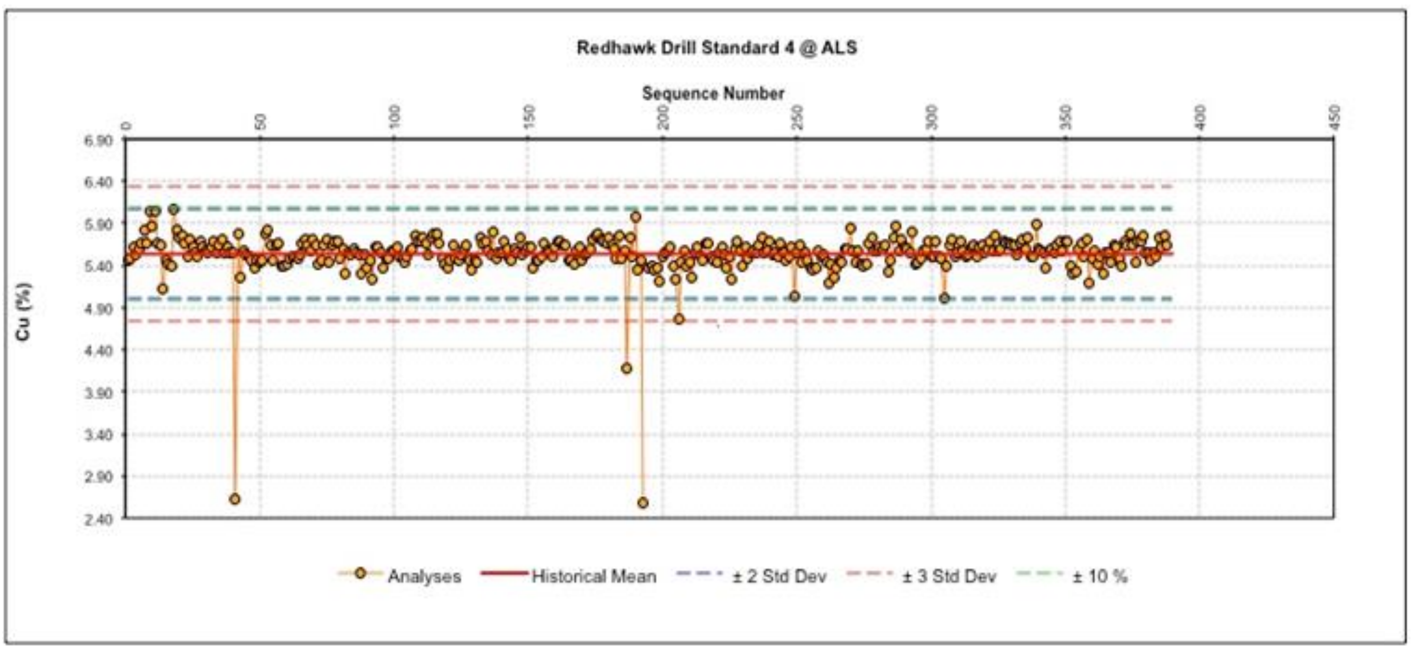
Source: GAII, 2012

Figure 11-3: Redhawk Standard 3 Results, 2006 to 2012, Expected Value 0.550% Cu



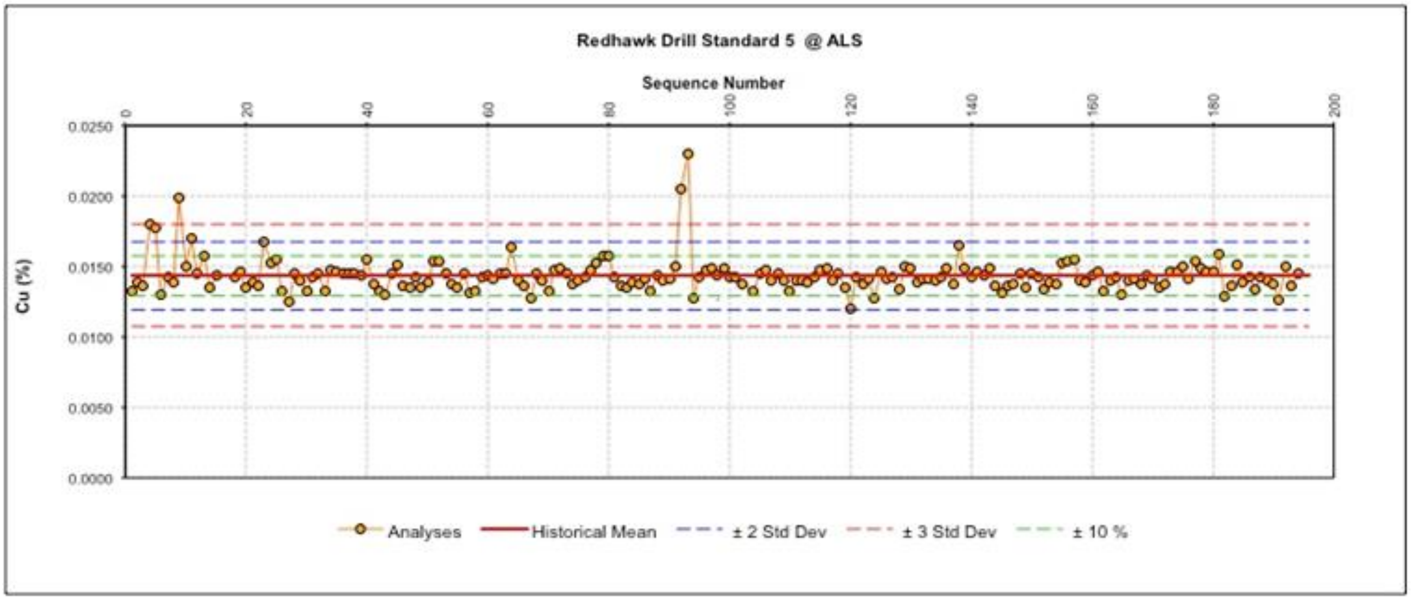
Source: GAII, 2012

Figure 11-4: Redhawk Standard 4 Results, 2006 to 2012, Expected Value 5.678% Cu



Source: GAII, 2012

Figure 11-5: Redhawk Standard 5 Results, 2006 to 2012, Expected Value 0.014% Cu



Source: GAII, 2012

11.5.2 Modern Standards

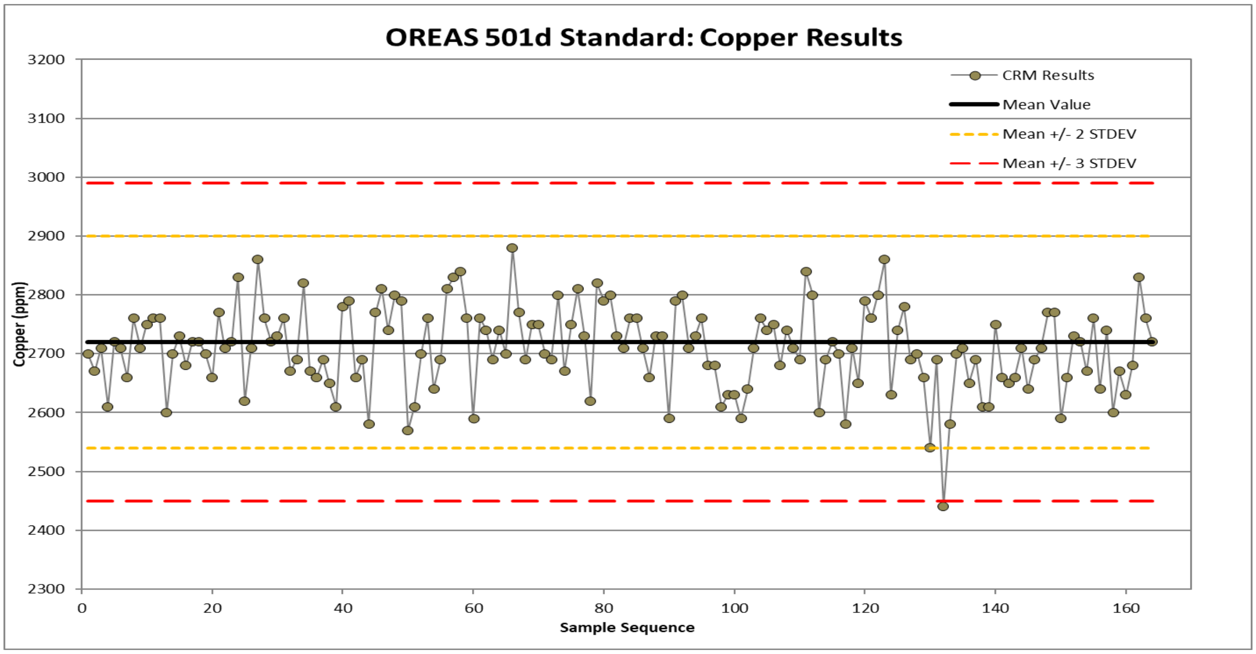
Faraday recorded and charted performance of commercially available copper, silver and molybdenum reference standards in MX Deposit software and accessory Excel spreadsheets. CRMs are sourced from OREAS. A total of 208 standards were provided and represent an insertion rate of 5.4% for all samples (n=3,822). When comparing against all samples, the total number of CRMs are near the industry-standard threshold of 5%. Table 11-6 summarizes the CRMs used for Copper Creek QA/QC.

Faraday considered CRM results greater than three standard deviations from the expected value to represent a QA/QC failure. Minimal QA/QC failures were observed with less than a 0.5% failure rate for standards with a statistically significant number of results. Due to the early stage of the QA/QC program, the results are not statistically significant for three of the four CRMs used (i.e., OREAS 503d, 504c, 906) due to the limited number of analyses (i.e., less than 30 control analyses). SRK did not detect any material systematic bias in the Copper Creek-provided standard data.

Table 11-6: Summary of QA/QC Standards

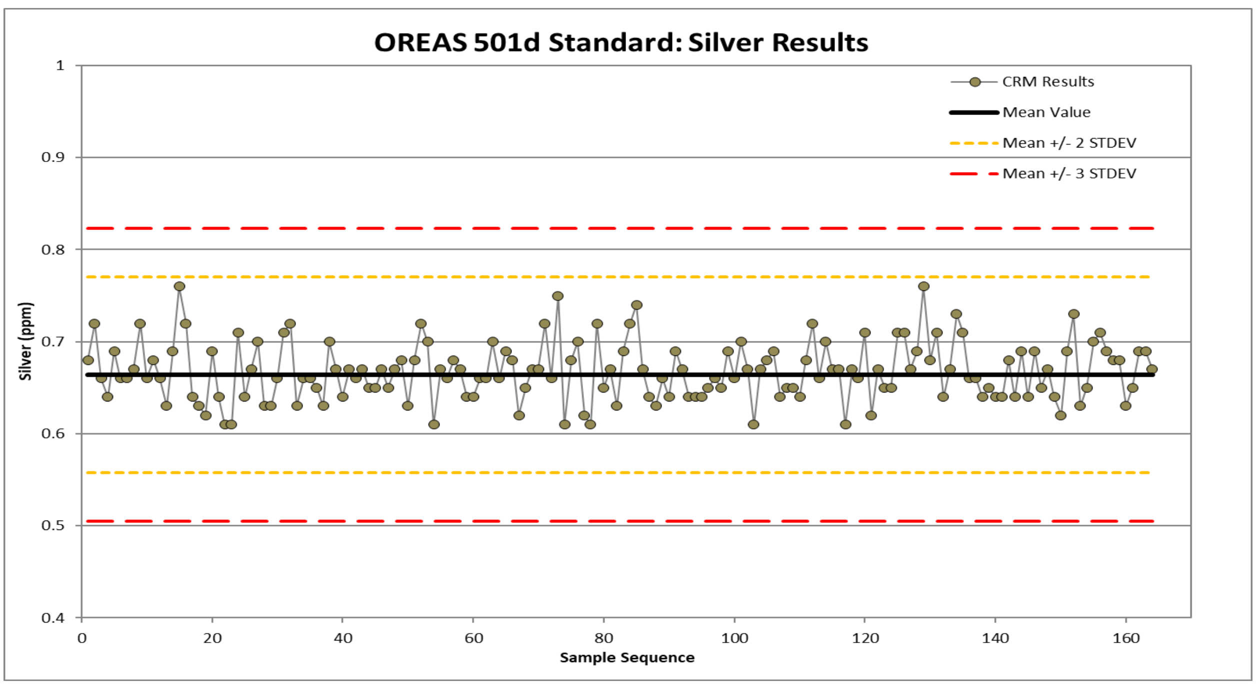
CRM Name	Number of Samples	Expected Value			Number of Failures			Failure Rate (%)		
		Cu (g/t)	Ag (g/t)	Mo (g/t)	Cu	Ag	Mo	Cu	Ag	Mo
OREAS 501d	164	2720	0.664	95.0	1	0	0	0.6	0	0
OREAS 503d	22	5240	1.34	348	0	0	0	0	0	0
OREAS 504c	20	11,100	4.22	512	0	0	0	0	0	0
OREAS 906	2	3100	0.754	4.05	0	0	0	0	0	0

Figure 11-6: Faraday OREAS 501d Results – Cu



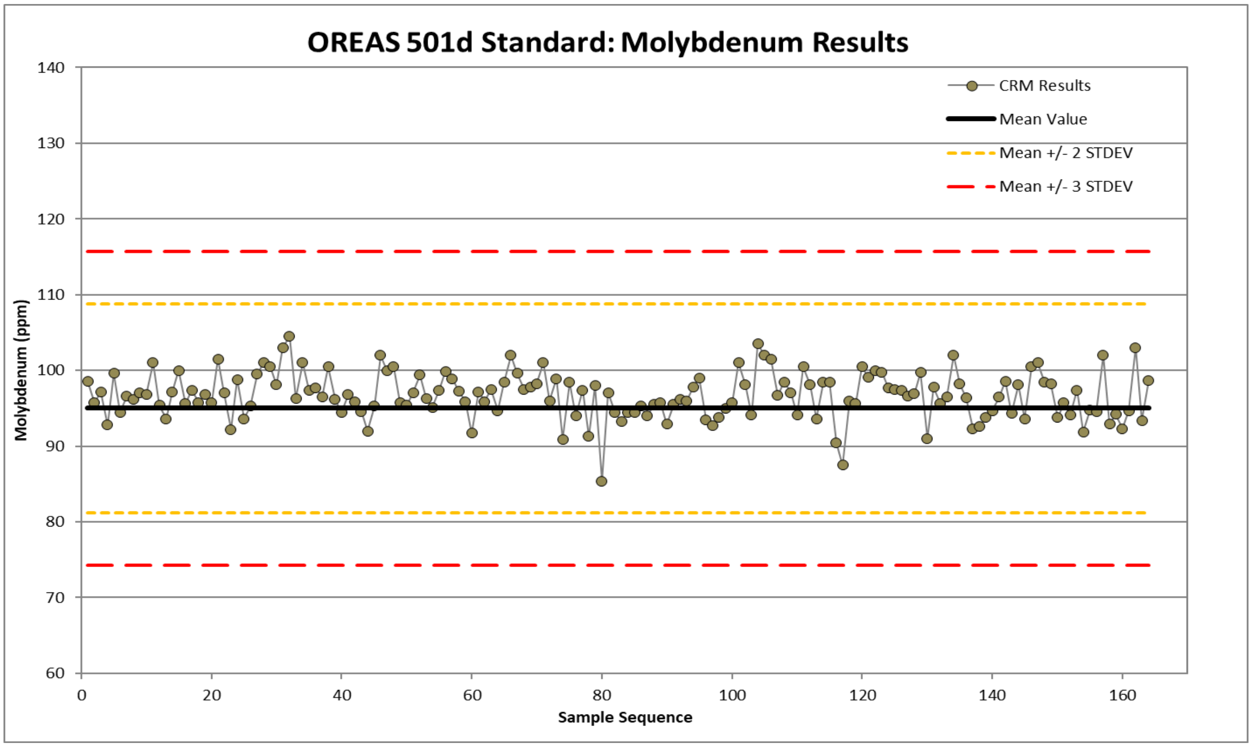
Source: SRK, 2023

Figure 11-7: Faraday OREAS 501d Results – Ag



Source: SRK, 2023

Figure 11-8: Faraday OREAS 501d Results – Mo



Source: SRK, 2023

11.5.3 Historical Blanks

Faraday's QA/QC procedures include insertion of three blanks for every 25 samples, which are blind to the laboratory. Prior to 2012, no blank material was inserted into the sample stream during historical sampling programs. Instead, historical QA/QC programs relied on internal standards and extensive check assays at independent laboratories.

11.5.4 Modern Blanks

Faraday provided data for 291 blank samples as summarized in Table 11-7. The overall blank insertion frequency was 7.6%, which is above typical acceptable rate for industry standards. Both coarse matrix blanks and fine "dirty" blanks were utilized.

Internally, Faraday considered blank results greater than three standard deviations from the expected value to represent a QA/QC failure. The "dirty" blanks had certified values for Cu, Ag, and Mo. Results for the "dirty" blanks showed poor performance, albeit the sample populations were relatively small. The three standard deviation threshold is more conservative than the typical confidence limit of five times the lower laboratory detection limit (LLDL) for assessing blank results. Faraday followed up with the laboratory on QA/QC failures, which reported no laboratory bias was detected that affected Copper Creek assay samples. The majority of failures are for low magnitude threshold grades and are not considered to represent ongoing material bias in the blank results reviewed to date.

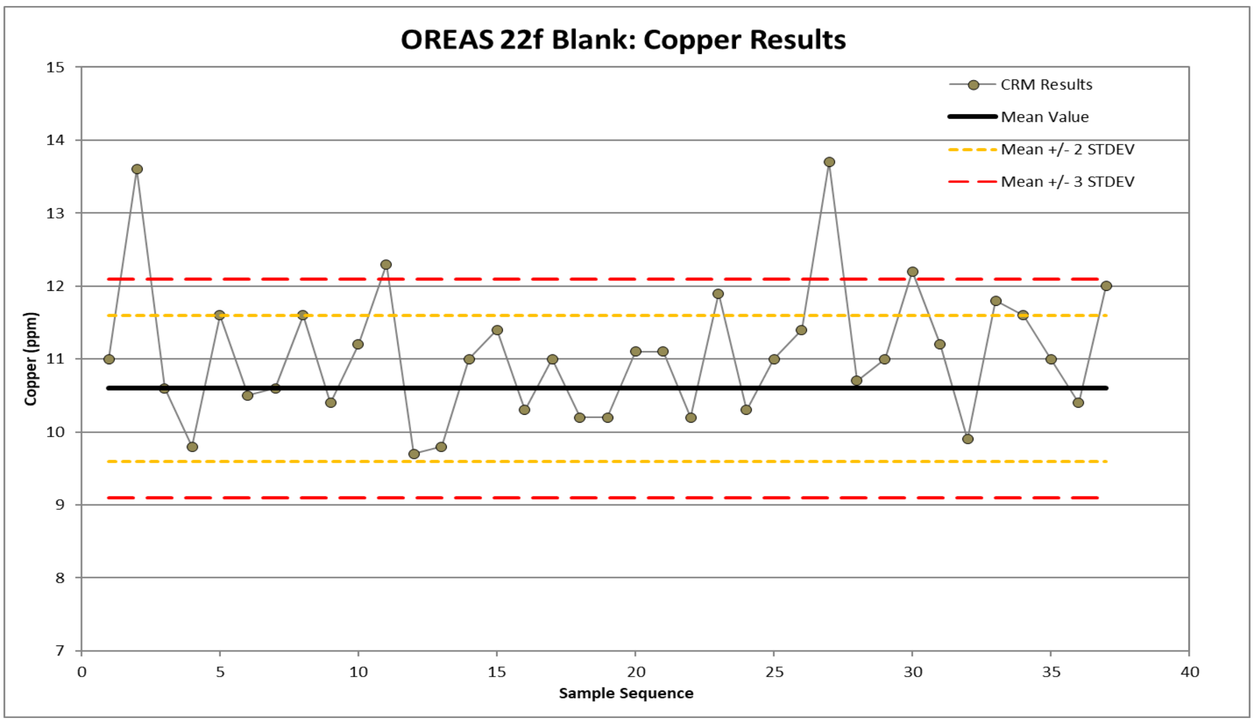
The OREAS coarse silica blank did not have a certified value and used the typical 5-times LLDL confidence limits for reviewing results. Minimal QA/QC failures were observed with less than a 5.4% failure rate of coarse blanks observed during the SRK review. The control chart shows an increase in failures near the end of the reporting period which may be related to a series of high-grade copper samples in that period. This should, be monitored closely by Faraday as ongoing drilling programs progress.

Table 11-7: Summary of QA/QC Blank Samples

Blank Type	Number of Samples	Expected Value (or 5XLLDL)			Number of Failures			Failure Rate (%)		
		Cu (g/t)	Ag (g/t)	Mo (g/t)	Cu	Ag	Mo	Cu	Ag	Mo
OREAS 22f, quartz	37	10.6	0.05	2.00	4	0	0	10.8	0	0
OREAS 22h, quartz	49	6.2	0.05	0.60	27	1	9	55.1	2.0	18.4
OREAS 27e, rhyodacite	20	14.1	0.149	2.44	9	11	6	45.0	55.0	30.0
OREAS coarse silica	185	25.0	1.00	5.00	10	0	2	5.4	0	1.1

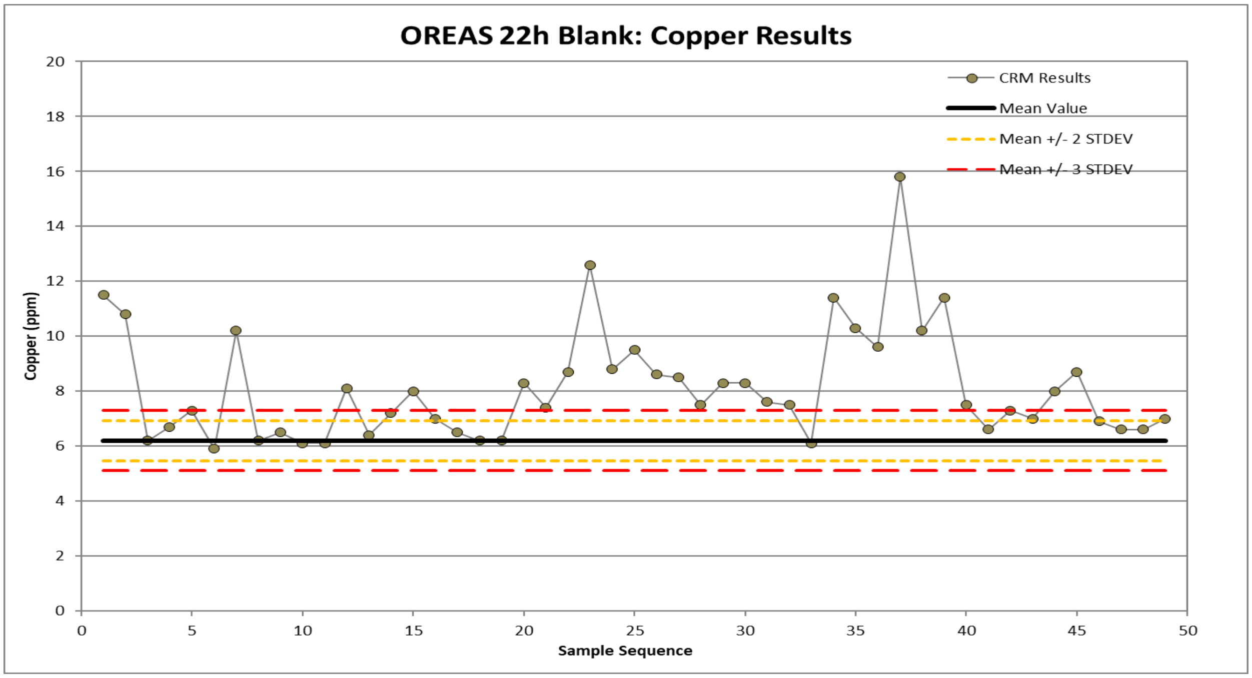
Figure 11-9 through Figure 11-12 show the detailed results of the copper blank samples over time.

Figure 11-9: OREAS 22f Blank Results – Cu



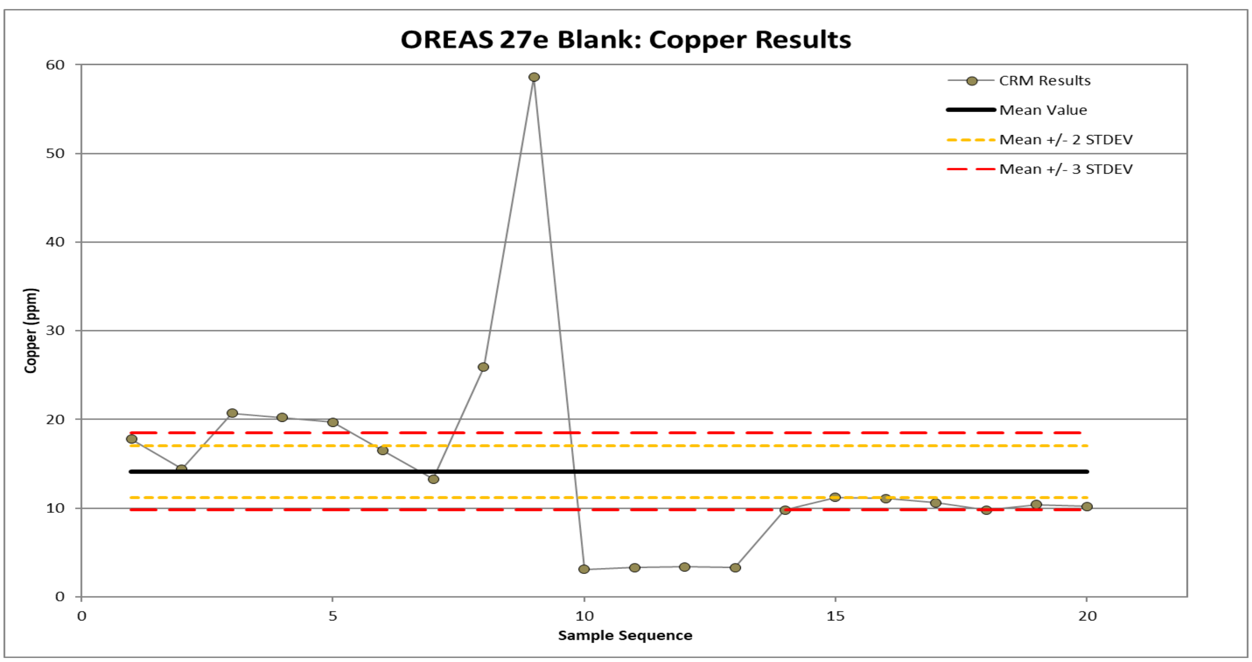
Source: SRK, 2023

Figure 11-10: OREAS 22h Blank Results – Cu



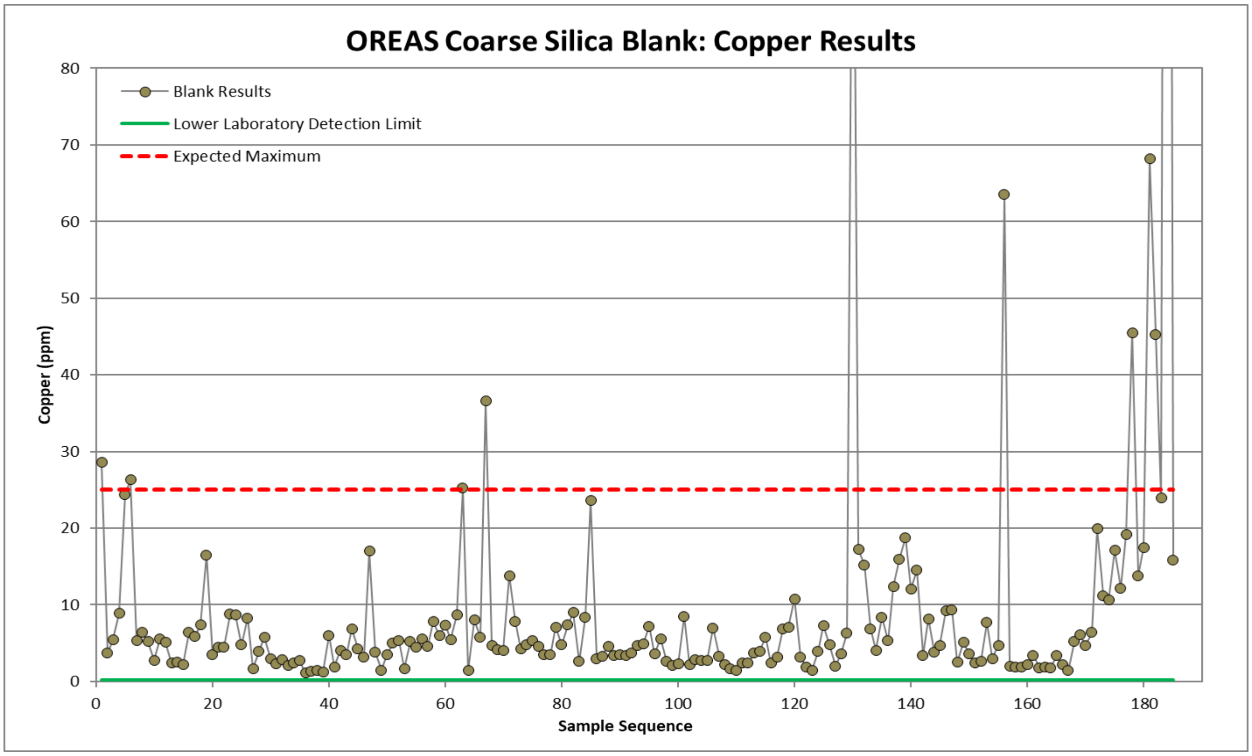
Source: SRK, 2023

Figure 11-11: OREAS 22e Blank Results – Cu



Source: SRK, 2023

Figure 11-12: OREAS Coarse Silica Blank Results – Cu



Source: SRK, 2023

11.5.5 Historical Duplicates

Historically, duplicates and check assays were used to monitor performance of the primary assay laboratory. Check assays were reviewed by IMC in previous technical reports (IMC, 2008 and IMC, 2012). Additionally, Dr. Jeffrey Jaacks examined all Redhawk duplicates from 2006 to 2012 (GAII, 2012). Crush duplicates were prepared from selected drill intervals by Jacobs Assay in Tucson to evaluate preparation precision. The total number of crush duplicates was 919 samples, which is about 10% of the original assay samples during the Redhawk drilling programs.

Table 11-8, Figure 11-13, and Figure 11-14 summarize the GAII-compiled results of the crush duplicate comparisons.

Table 11-8: Statistics of Crush Duplicates Analysed at ALS, 2006 to 2012

Statistics	Cu Samples	Cu Crush Duplicates	Statistics	Cu Overlimits	Cu Crush Duplicate Overlimits
Count	921	919	Count	101	101
Minimum (g/t)	31	35	Minimum (%)	0.21	0.21
Maximum (g/t)	9,880	9,700	Maximum (%)	6.92	6.87
Mean (g/t)	1,337	1,299	Mean (%)	0.66	0.65
SD (g/t)	1,612	1,521	SD (%)	0.71	0.70
Precision	-	16	Precision	-	8.1
% bias	-	3.2	% bias	-	2.2
Correlation	-	0.98	Correlation	-	0.99
% < 20%	-	90	% < 20%	-	92

Source: GAII, 2012

Figure 11-13: Crush Duplicates Analysed at ALS for Copper, 2006 to 2012

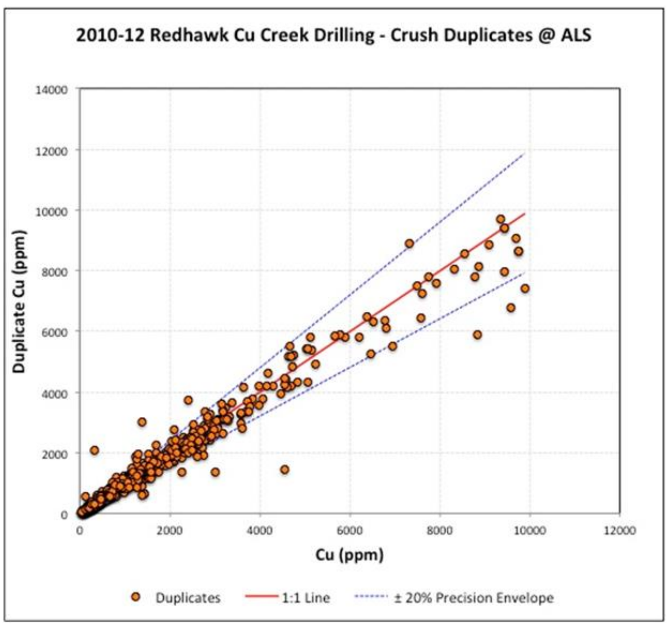
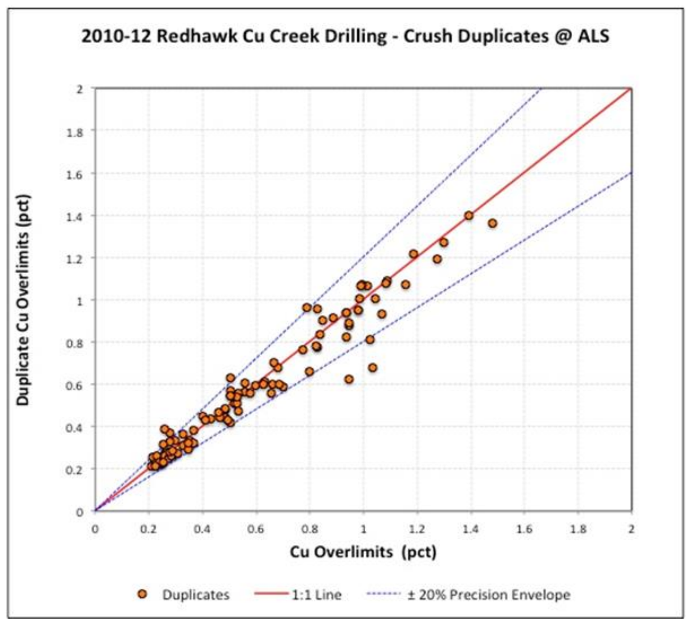


Figure 11-14: Crush Duplicates Analysed at ALS for Copper Overlimits, 2006 to 2012



Source: GAII, 2012

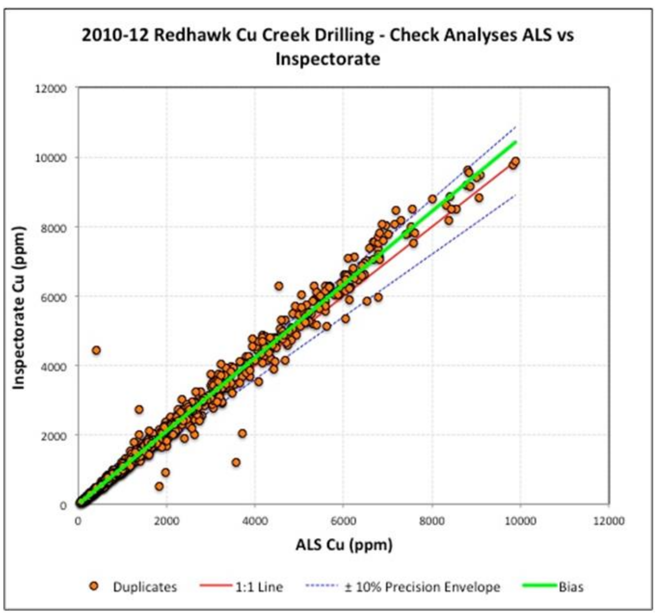
Approximately 14% of original pulps were selected for check assays by Redhawk. The pulps were created at Jacobs Assay in Tucson during the original sample preparation. The check samples were assayed by Inspectorate Lab in Reno. Table 11-9, Figure 11-15, and Figure 11-16 summarize the GAII-compiled results of the check assay comparisons.

Table 11-9: Statistics of Check Assays Analysed at ALS, 2006 to 2012

Statistics	ALS Cu	Inspectorate Lab Cu	Statistics	ALS Cu Overlimits	Inspectorate Lab Cu Overlimits
Count	740	739	Count	35	35
Minimum (g/t)	45	46	Minimum (%)	0.91	1.00
Maximum (g/t)	9,880	9,883	Maximum (%)	3.80	3.86
Mean (g/t)	2,403	2,541	Mean (%)	1.47	1.52
SD (g/t)	2,040	2,161	SD (%)	0.67	0.72
Precision		10.00	Precision		5.10
% bias		-5.30	% bias		-3.50
Correlation		0.99	Correlation		0.99
% < 10%		67	% < 10%		86
% < 15%		89	% < 15%		97

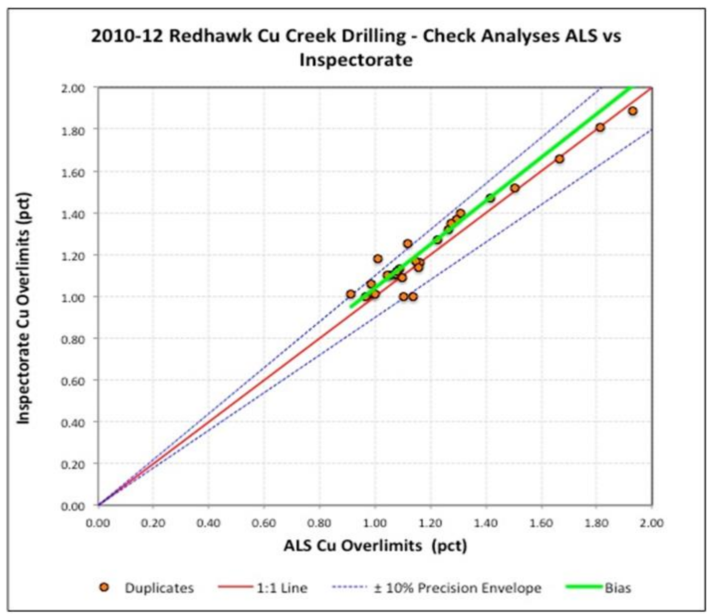
Source: GAII, 2012

Figure 11-15: Crush Duplicates Analysed at ALS for Copper, 2006 to 2012



Source: GAII, 2012

Figure 11-16: Crush Duplicates Analysed at ALS for Copper Overlimits, 2006 to 2012



Source: GAII, 2012

11.5.6 Modern Duplicates

Faraday provided data for 172 duplicate samples as summarized in Table 11-10. Faraday's procedures include sampling of two quarter-core duplicates for every 25 samples. In addition to preparation duplicates. The overall duplicate insertion frequency was 4.5%, which is slightly below but acceptable compared to industry standard of 5% of samples. Duplicate material consisted of fine pulps and quarter drill core field duplicates.

Table 11-10: Summary of QA/QC Duplicate Samples

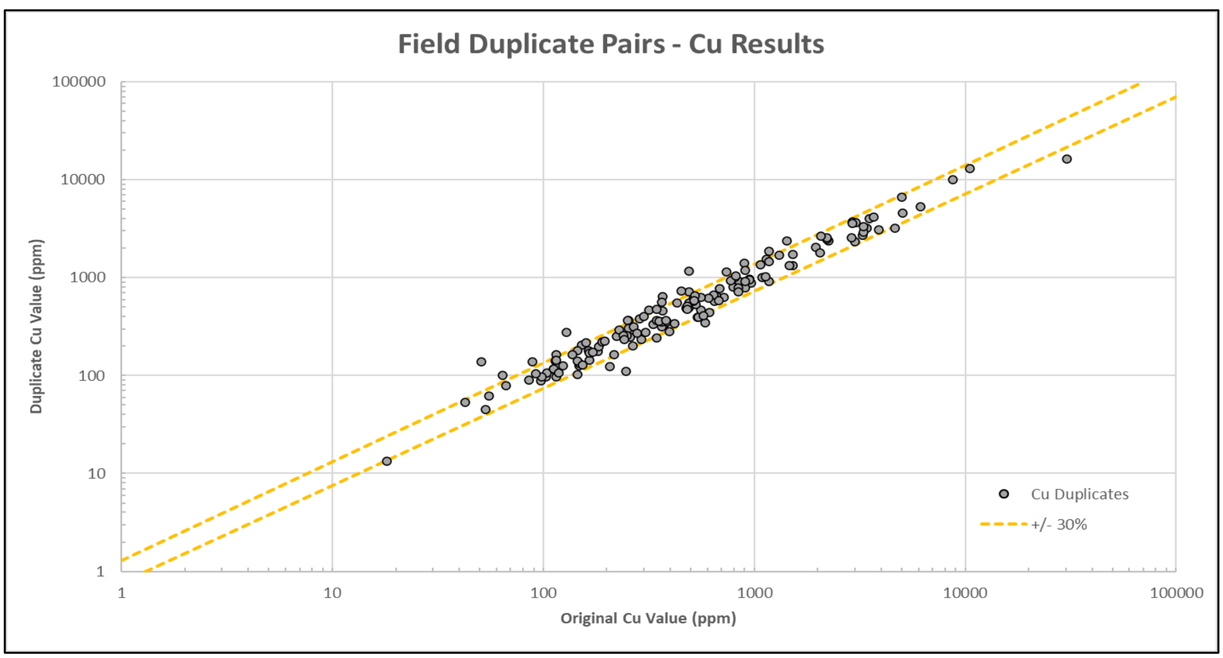
Duplicate Type	Number of Samples
Pulp	13
Quarter drill core	159

In general, the duplicate results reasonably demonstrate the repeatability of analytical results for the different sample types. Although limited in number, the pulp duplicate pairs are within the ±10% confidence limits reviewed. Quarter-core field duplicate pairs are generally near the ±30% confidence limits at higher grades with more spread at lower grades near the lower laboratory detection limits, reflecting adequate analytical and sampling precision. Drill core duplicate results demonstrate more variability than available pulp duplicate results, which represents natural variations in the samples inherent within these types of deposits. SRK cautions that this variability can be exacerbated by potentially inconsistent splitting practices and recommends Faraday remain attentive to careful and proper representative sample splitting.

SRK recommends adding coarse or crush duplicates into future QA/QC programs to test for potential sample preparation inconsistencies. Further, additional pulp duplicates should be analyzed to arrive at a statistically significant number of sample pairs for comparison. In addition, copper grades above 1% (10,000 g/t) should be increased in the duplicate pairs to test quarter-core precision in the higher-grade ranges.

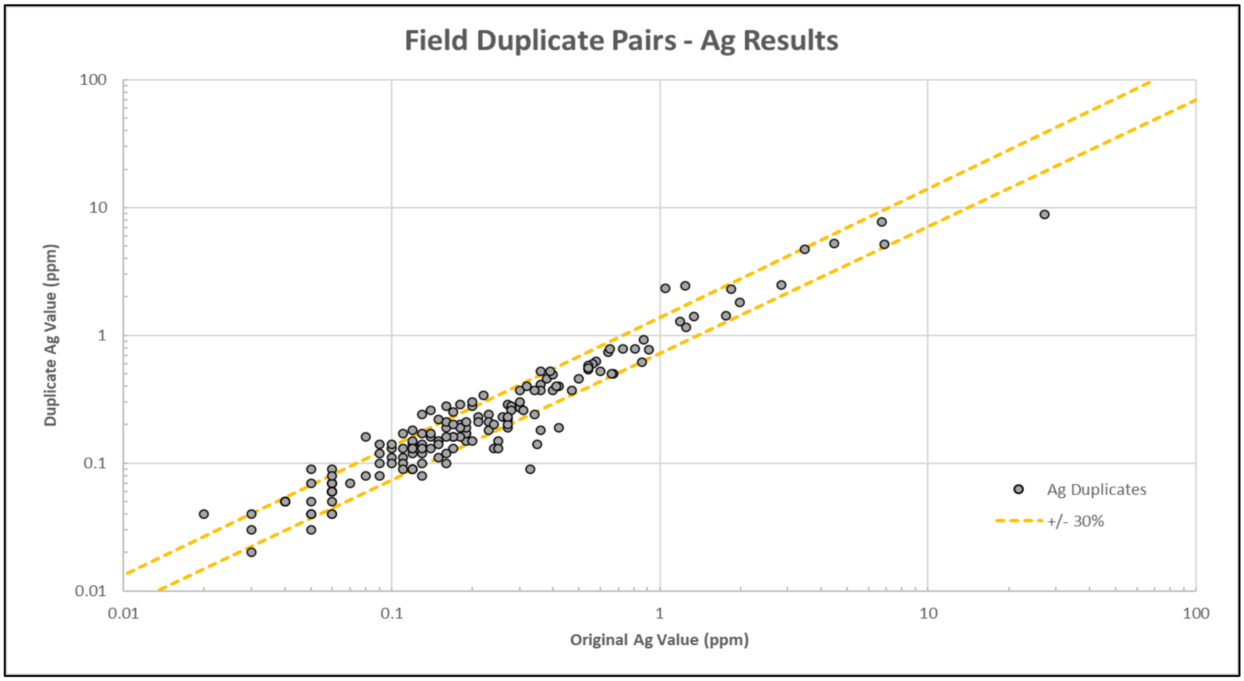
Figure 11-17 through Figure 11-19 show the detailed results of the quarter-core sample duplicates.

Figure 11-17: Summary of Quarter-Core Duplicates – Cu



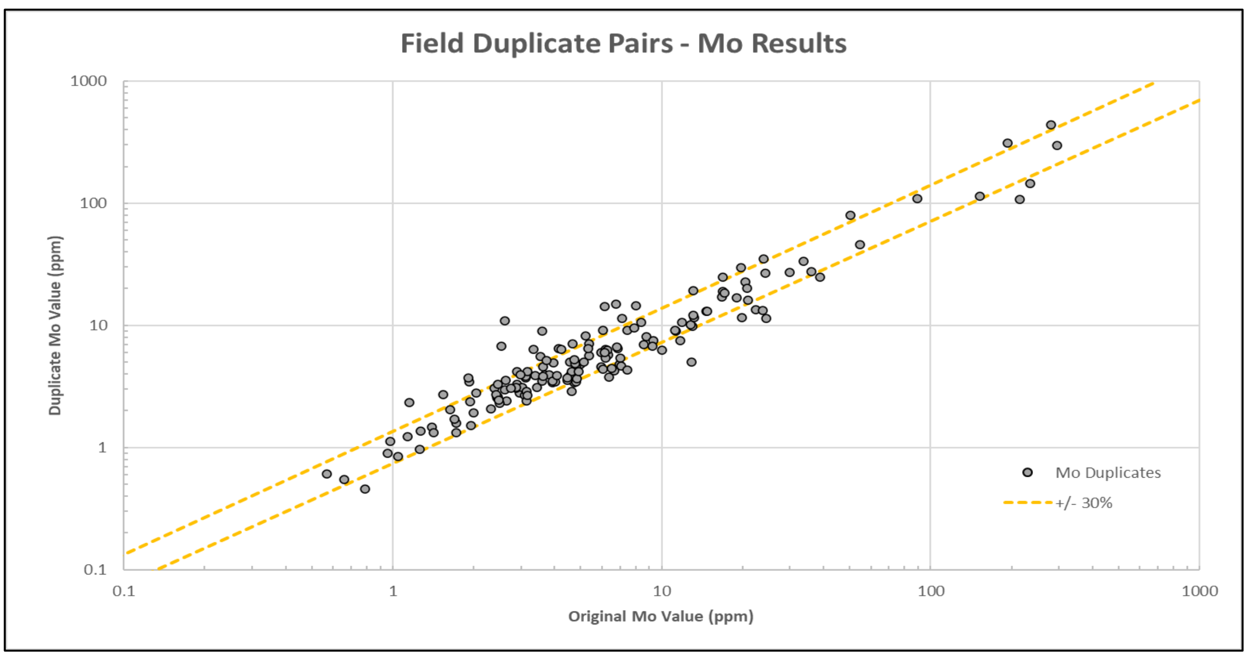
Source: SRK, 2023

Figure 11-18: Summary of Quarter-Core Duplicates – Ag



Source: SRK, 2023

Figure 11-19: Summary of Quarter-Core Duplicates – Mo



Source: SRK, 2023

11.5.7 Modern Check Assays

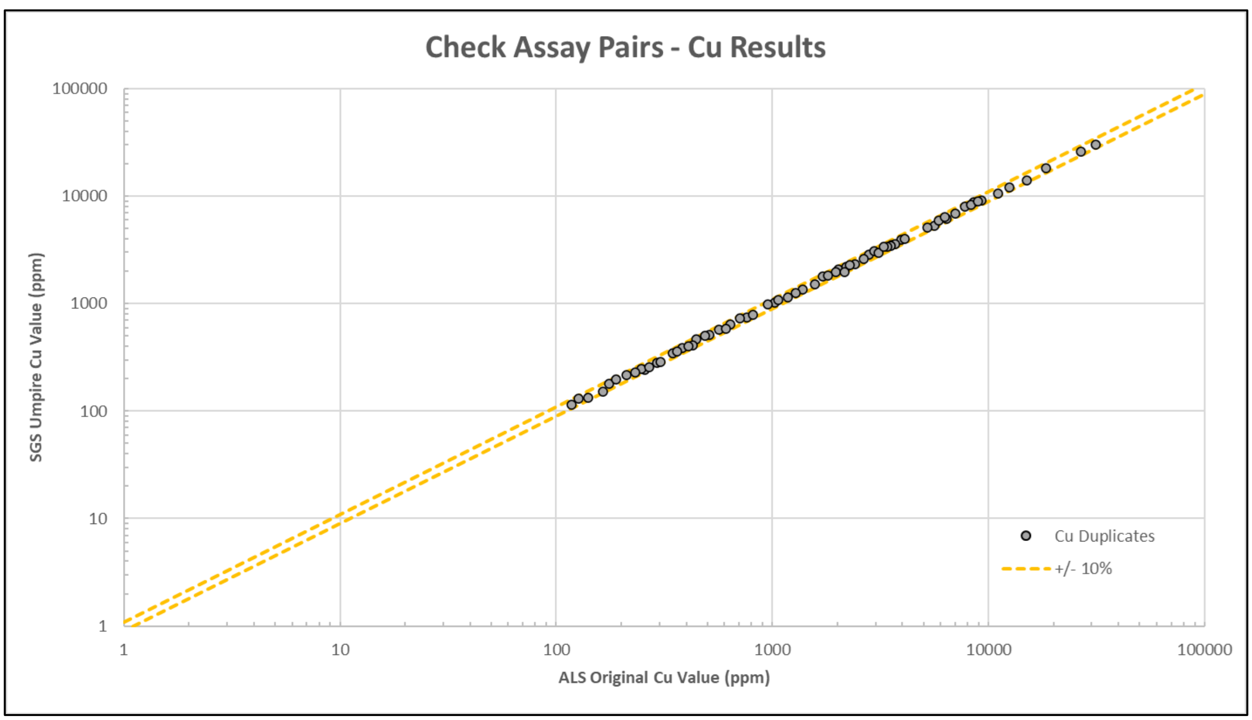
Faraday provided initial data for 70 check assay data pairs which were selected from sample pulps returned to Faraday from ALS by the end of 2022, but additional samples will be selected for umpire assays once pulps are available. The external umpire laboratory SGS in Vancouver was utilized to check the original ALS sample pulps. The overall check assay frequency compared to total samples was 1.8%, which currently is below the targeted 5% of samples. This QA/QC methodology is recommended to evaluate the precision and accuracy of the primary testing laboratory by comparison to a second independent laboratory. Faraday plans to proceed with additional check assay analyses to achieve typical industry-standard frequency as the Project advances.

Overall, the check assay results adequately demonstrate the repeatability of analytical results between laboratories. The precision and accuracy of the copper results is excellent. Silver and molybdenum results show slight high and low bias, respectively, for the SGS data compared to ALS. Control samples submitted with the check assay batches also show that the SGS data appears to be slightly high for silver and slightly low for Mo compared to the expected values, which has triggered reanalysis of multiple check assay samples at SGS. Comparisons of the check assays samples will be updated in future disclosure to reflect any changes from sample reanalysis.

SRK recommends continuing to analyze and review external check assays for future QA/QC programs to test for laboratory inconsistencies.

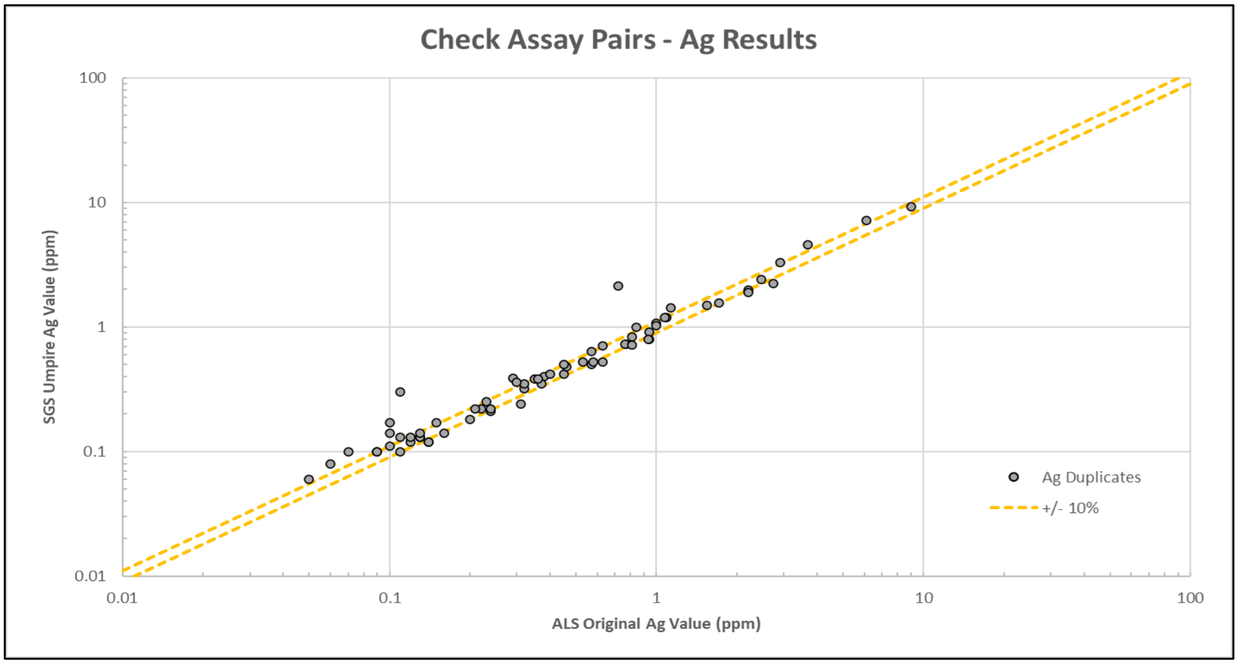
Figure 11-20 through Figure 11-22 summarize the initial results of the check assays.

Figure 11-20: Summary of Check Assays – Cu



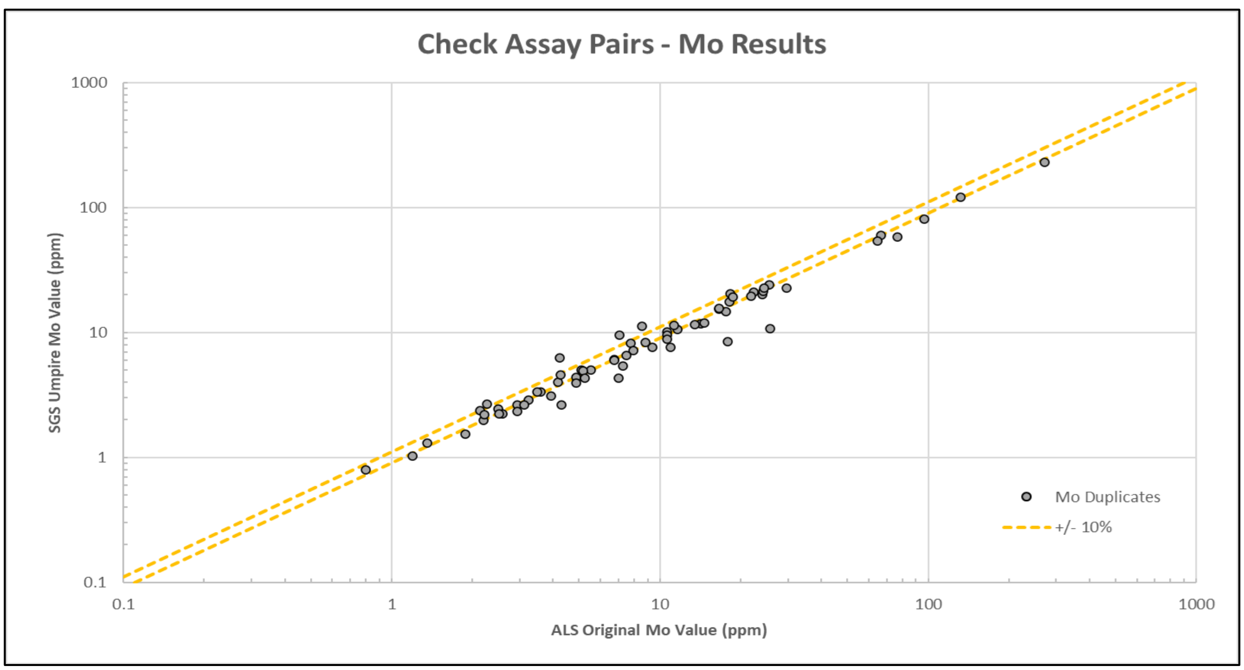
Source: SRK, 2023

Figure 11-21: Summary of Check Assays – Ag



Source: SRK, 2023

Figure 11-22: Summary of Check Assays – Mo



Source: SRK, 2023

11.5.8 Results

Review of the historical and modern QA/QC plots indicated there are a limited number of standards that failed against typical control limits of three-sigma standard deviation from the expected values. The maximum percentage of failures was for Standard 1, which equalled 10 (or about 2.4%) of the standards analysed. Only one failure for copper (OREAS 501d) was detected in the 208 modern CRMs that were analysed for copper, silver, and Molybdenum. The QA/QC data show no significant bias and do not indicate any systematic errors in the 2006 to 2012 Redhawk assays or the modern Faraday drilling results.

The majority of quarter-core field duplicate pairs are within ±30% of one another. Although less data exists, both pulp duplicate results show good precision at less than 10% variance between pairs. The duplicate results indicate acceptable preparation precision and repeatability of assays between laboratories.

SRK recommends adding coarse or crush duplicates into future QA/QC programs to test for potential sample preparation inconsistencies. Further, additional pulp duplicates should be analyzed to arrive at a statistically significant number of sample pairs for comparison. In addition, copper grades above 1% (10,000 g/t) should be increased in the duplicate pairs to test quarter-core precision in the higher-grade ranges.

11.6 Opinion on Adequacy

Specific records are limited for sampling procedures of the historical drilling programs; however, no known bias exists in the earlier sample grades compared to recent assay results. The available QA/QC results documented by previous technical reports have been reviewed by the QP for mineral resources. The SRK review indicated reliability of the key economic variables of copper and molybdenum based on standards, crush duplicates, and check assays. QA/QC results for silver were not documented in previous technical reports; however, this variable is a minor component of the overall resources.

Future campaigns can be improved with additional third-party check assays, higher CRM insertion frequency, addition of coarse blank material to the sampling protocols, and development of formal written QA/QC protocols. Faraday has followed industry-accepted methods for QA/QC, including the use of standards, blanks, and duplicate samples in the 2022 Phase 1 drilling program.

The security, sample preparation, and analytical procedures have been audited by the QP and are consistent with generally accepted industry standards. It is the QP’s opinion that the QA/QC program reported by previous Copper Creek operators is adequate for an acceptable level of confidence in analytical data for the reporting of mineral resources as per CIM (2014).

12 DATA VERIFICATION

Data verification has been an integral part of Faraday's work on Copper Creek. The archive of historical paper data on-site is substantial and impressive for a long-lived exploration property. Additionally, almost all historical drill core has been preserved and is stored on-site. Faraday continues to organize, digest, and corroborate the available historical data. All drill cores, pulps, and rejects are properly stored on metal shelving located in covered, dedicated warehouses and available for third-party review. All recent activities related to sample collection, QA/QC, and laboratory dispatch were carried out under supervision of Faraday staff in charge of field activities.

Drilling data (e.g., assays and drillhole logs) are stored in an access-controlled relational database, which is managed by a corporate database manager and backed up on secure cloud servers. The Copper Creek drillhole databases supplied to SRK for review had a cut-off date of April 30, 2022. SRK received comma-separated value (.csv) files for collar, survey, assay, and lithology data exported directly from the MX Deposit™ database.

12.1 Site Visit

In accordance with NI 43-101 guidelines, Berkley Tracy, PG, CPG, Pgeo, Principal Consultant at SRK, visited the Project from March 7 through March 10, 2022. During the site visit, SRK toured the property with Dr. Thomas Bissig, Faraday's Vice President of Exploration, and reviewed general operations, drilling procedures, and sampling practices, examined available drill core, and conducted detailed data validation with available historical paper records. During the site visit, relevant information was collected for the preparation of this technical report and for review of exploration potential for planning future work programs. SRK was given full access to relevant data. Interviews were conducted with site personnel to understand the procedures used to collect, record, store, and analyse the exploration data.

12.1.1 Discussions on Geological Attributes

During the site visit, SRK reviewed the geology, available outcrop exposures, and the general geological understanding of the Copper Creek deposit. The discussions between the Faraday geology team and SRK focused on understanding geological data for use in modelling assistance, which included the genesis of the deposit, the main trends of mineralization, visible indications of breccias at the surface, and the role played by the lithology and structural setting. SRK considers the current Copper Creek geological interpretations of mineralization continuity, controls, and host lithologies adequate for an exploration project. Multiple outcrops and field locations were examined, as well as active drilling locations and exploration work carried out by Faraday.

12.1.2 Examination of Drillholes

SRK examined available drill core intervals and outcropping breccia pipes that were characteristic of mineralization styles for the deposit. The presence of copper mineralization was confirmed in historical and recent drill core. The locations of historical drillholes were observed in the field, and an overview of the claim/property boundaries was given.

Drillholes are logged for lithology, structure, alteration, mineralization, and geotechnical information. At the time of the site visit, most logging was performed by contractors (BRE and CNI) under the direction of Faraday. Current logging procedures were observed by SRK during the site visit and are considered adequate. Independently, SRK audited several high-grade historical drillholes (CA28+4, LM-2, LM-8, RPE-08-33, and G-4). The detailed drillhole logs and assay results were compared against the core, and SRK confirmed that historical logging was accurate and sufficiently detailed.

12.1.3 Sampling Techniques and Data Collection

SRK observed the process of cutting and sampling drillholes from start to finish during the 2022 site visit. Faraday follows acceptable internal procedure for assay sampling and data collection.

Based on geological criteria, sample intervals are marked on the inside of each core box with stapled sample tags, which include the sample number, interval, and a barcode. Core sample lengths target 2.0 m or less. The sample intervals are measured to the hundredths and chosen by the geologists based on lithological and mineralization breaks observed during logging.

SRK observed drillhole assay cutting and sampling while on-site during March 2022. Core sampling was completed by sawing the drillholes in half along a cutline with a 14-inch Husqvarna diamond blade wet saw. At the time of the site visit, a Corewise Pty Ltd. Automated diamond core saw was being installed. Samples are placed in a plastic cartridge and oriented along the cutline drawn by the geologists. After splitting, the sample half without the orientation mark is placed in a plastic sample bag. In intervals with intensely fractured rock, the splitting procedure involves dividing the core sample to obtain a representative fraction for assay and leaving the remainder in the core box. The sample bags contain a stapled, duplicate sample tag and large sample numbers written in permanent marker. A third sample tag is retained in a booklet used to record the sample intervals. Sample bags with numbers that represent QA/QC samples are collected to the side and later filled with the appropriate control samples. All sample bags are sealed with heavy-duty zip ties. Multiple bags are collected into a rigid plastic pallet box for delivery to ALS in Tucson, Arizona. A sample dispatch sheet accompanies each sample delivery and outlines the desired analytical procedures. Pulps are sent for chemical analysis at ALS facilities in Reno, Nevada, or Vancouver, Canada.

SRK recommends developing detailed, written sampling protocols for the current and future drilling campaigns. These procedures are useful for documentation and can be checked during third-party audits. Additionally, SRK mentions that photographing the core boxes a second time to show the split core and sample tags in each box would be a useful addition to the current workflow. Overall, SRK considers the sampling protocols observed during the site visit to meet generally accepted industry practice.

12.2 QA/QC Analysis

Drillhole sampling conducted by Faraday followed industry-accepted methods for QA/QC, including the use of standards, blanks, and duplicate samples. For every 25 samples, one standard, two quarter-core duplicates, and three blanks are inserted into the sample stream, and expected values are blind to the laboratory. An appropriate mix of matrix-matched CRM standards with a spread of copper, molybdenum, and silver grades have been selected for the current program. Both fine and coarse blanks are alternated in the QA/QC batches.

QA/QC data and results from the recent drilling program were summarized and reviewed by the QP for mineral resources and historical QA/QC results in previous technical reports also were reviewed. SRK recommends adding an additional CRM into the typical QA/QC batch, potentially replacing one of the “dirty” fine blanks, to maintain the industry-standard insertion rate targeting 5% CRM standards relative to all samples. Additionally, third-party external check assays should be conducted on approximately 5% of all sample pulps. Faraday has obtained initial check assay data for Phase I drill results with additional check assays planned for future programs. SRK recommends that Faraday develop formal written internal protocols for triggering enhanced data review and reanalysis based on QA/QC reporting in future sampling programs. Documentation of QA/QC procedures should be available to provide for independent audits.

Historical and modern QA/QC programs are discussed in Section 11. The results have been reviewed by the QP for mineral resources and considered acceptable for use in the MRE.

12.3 Database Verification

12.3.1 Previous External Audits

In 2006, IMC audited approximately 6,000 check assays completed by Copper Creek historical operators between 1968 and 1999. Details of the review are provided in the 2008 Copper Creek mineral resource technical report (IMC, 2008). IMC also completed database checks in 2006 and 2008. In summary, after detailed review, IMC found the data to be acceptable for the development of a resource estimate and noted some areas that required additional attention as the Project continues.

In 2012, IMC reviewed QA/QC results of the 2010 to 2012 Redhawk drilling campaign (IMC, 2012). The material conclusions of the IMC review were that ALS's assaying procedures for copper, molybdenum, and silver are acceptable.

In 2012, Redhawk commissioned an independent review of the Project QA/QC program from 2006 forward by Geochemical Applications International, Inc. Dr. Jeffrey Jaacks examined all controls and procedures related to sample preparation and security, internal standard samples, duplicates, inter-laboratory check analyses, and ongoing QA/QC monitoring. The report concluded that the overall quality assurance program contained no fatal flaws and indicated that the 2006 to 2012 drill program analyses were of acceptable accuracy and precision for resource calculations (GAII, 2012).

12.3.2 Internal Audits and Database Compilation

In December 2021, Faraday verified 24,713 m (81,080 ft) of drilling back to original source data, which represents approximately 12% of total drilling footage. Minor inconsistencies have been noted during previous database verification by Faraday. These instances were corrected, as needed, and do not represent material errors.

In 2022, Faraday converted the historical spreadsheet-based drillhole tables into a relational database. The MX Deposit database used for the current MRE was rebuilt from a combination of the 2015 and 2016 database exports from Redhawk. The 2015 export files were used to import collars, surveys, lithology, and sample data for 556 drillholes drilled by Redhawk and prior operators. The 2016 export was used to import collar, survey, lithology, and sample data for the five Redhawk-Anglo American drillholes drilled in 2016.

Faraday reviewed all historical laboratory data to determine a hierarchy for best assay values based on ranking within the new database. All samples that were assayed during the Redhawk era were assayed at ALS; this included their own drilling and select additional sampling of drillholes drilled by previous operators. In the case of ALS assays, data was imported directly from the data files supplied by ALS. In cases where there was more than one assay for a sample, the priority ranking was given in this order (using copper as an example element):

1. Cu-OG62: Four-acid overlimit
2. Cu-OG46: Aqua regia overlimit
3. ME-MS61: Four-acid digestion with ICP-MS finish
4. ME-ICP61: Four-acid digestion with ICP-AES finish
5. Cu-AA46: Copper by aqua regia digestion, ICP-AES, or AAS finish
6. ME-MS41: Aqua regia with ICP-MS finish
7. ME-ICP41: Aqua regia with ICP-AES finish
8. Cu-AA62: Copper by four-acid digestion and ICP-AES

In assaying done prior to the Redhawk era, assays were imported in a bulk historical format and given lower priority ranking to any samples that had been assayed later by an ALS laboratory.

12.3.3 Independent QP Review

During the March 2022 site visit, SRK compared a portion of original laboratory data certificates, geological logs, and downhole deviation surveys to entries in the current database. In the San Manuel office, SRK was able to source original signed, stamped laboratory records from the 1960s and beyond, hand-drawn paper drill logs, and in most cases, original downhole survey interval cards from drillers.

The Faraday database was compared line-by-line to the fundamental data, and only a few minor inconsistencies were discovered. For example, some assay data were originally given in parts per million and have been rounded in the database to percent values with slightly less precision. Two samples had very minor errors in assay values, such as 0.03% copper on the laboratory certificate and 0.04% copper in the database. In all instances, the observed inconsistencies were for low-grade samples, are not considered material, and have negligible impact on the suitability of the database for resource estimation.

The verification data subset was chosen randomly to be representative of the entire database. The following 13 drillholes were audited by SRK: AH-4, B-20, CA-3, CA32+3, CA32+4, CC-06, CU-10, EN 1, HN-17, RAE-11-054, REX-10-048, RMK-07-015, and RMK-08-044. The detailed data verification included 10,377 m (34,044 ft) of drilling, which represents approximately 5% of total drilling footage.

The QP for Mineral Resources die not observe any material errors or major discrepancies during review of the existing database provided by Faraday. The lack of any significant errors being uncovered during data verification is relatively rare and provides evidence that the Faraday database is maintained adequately and accurately represents the original collected sample data.

Additionally, SRK validated the final drilling database using Leapfrog Geo™ software for all required data elements, including verification that:

- collar locations match topographic elevation and are in the correct location;
- collar locations are unique for all drillholes;
- downhole surveys are oriented to project below ground surface;
- drilling data have consistent total depth (i.e., same ending depth in survey, collar, and assay files, as appropriate);
- no overlapping and missing sample intervals exist (i.e., from-to depths are correct in assay and geology data); and
- geologic unit names are unique and applied the same for identical lithologies.

12.4 Limitations

No material errors were observed during SRK's review of the database provided by Faraday. Minor inconsistencies have been noted during previous database checking exercises. These instances were corrected by the Faraday database manager and do not represent material errors.

The primary limitation on the current drillhole database is the relative completeness of the assay data, which are known, in some cases, to not be representative of all mineralized intercepts due to historical practices of selective sampling.

Unsampled core intervals are an understood deficiency in the data and will be dealt with accordingly in the mineral resource estimation process. Resampling of existing drill core should be continued by Faraday and incorporated into future versions of the geological model and resource estimates.

12.5 Opinion on Data Adequacy

SRK independently reviewed the core sampling, cutting, logging, sample preparation, security, and laboratory analytical procedures followed at Copper Creek during the March 2022 site visit. SRK recommends adding an additional CRM into the typical QA/QC batch, potentially replacing one of the “dirty” fine blanks, to maintain the industry-standard insertion rate targeting 5% CRM standards relative to all samples. Additionally, third-party external check assays should be conducted on approximately 5% of all sample pulps. SRK recommends that Faraday develop formal written internal protocols for triggering enhanced data review and reanalysis based on QA/QC reporting in future sampling programs.

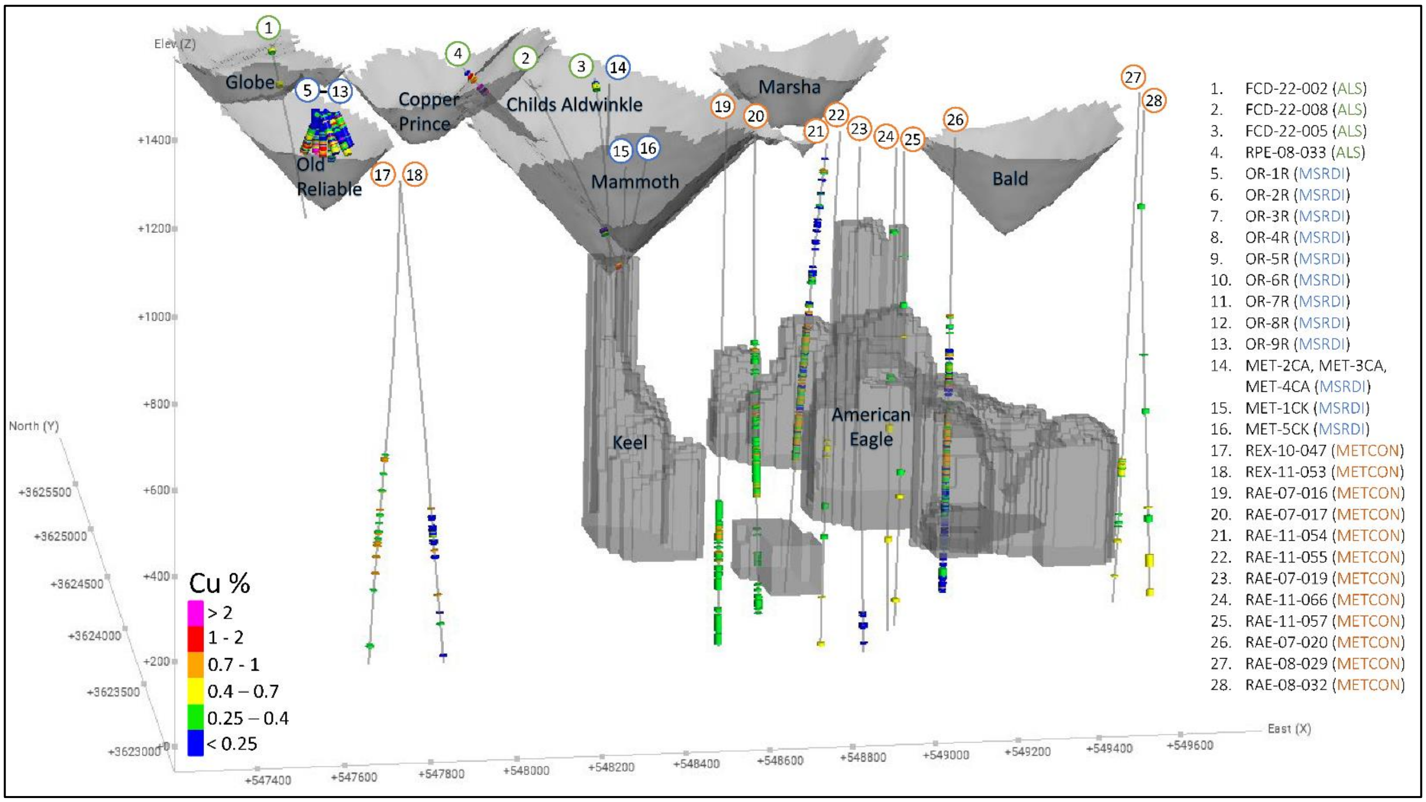
The exploration and sampling protocols practiced at Faraday are consistent with or exceed generally accepted industry guidance and are deemed adequate for the project stage. It is the QP’s opinion that data verification checks performed internally by Faraday staff in combination with historical external audits and independent checks by the QP have resulted in sufficient validation of the fundamental drilling database at Copper Creek. The data is acceptable and adequately reliable for use in geological modelling and calculation of mineral resources.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

A number of metallurgical test work programs have been undertaken to quantify metallurgical performance for the Copper Creek Project. Two programs were undertaken by MSRDI in 1995 and 1997, two more were undertaken by METCON in 2008 and 2012, and the most recent test work program, undertaken by ALS Metallurgy, was completed in March 2023. This section discusses all known metallurgical testing and mineral processing aspects of the Project.

Figure 13-1 shows the locations of the drillholes for which samples were derived for all metallurgical testing done to date with the most recent ALS sample locations in green annotation, METCON sample locations in red and MSRDI sample locations noted in blue.

Figure 13-1: Spatial Drill Hole Locations of All Copper Creek Metallurgical Samples (isometric view from the South West)



Source: Faraday, 2023.

As has been described in Sections 7 and 8 of this report, the Project consists of multiple centres with two main mineralization zones:

- Breccia-hosted: mostly shallow and amenable to open pit mining
- EH-porphyry-style and magmatic cupola-style: deeper and amenable for UG bulk mining

Table 13-1 presents the characteristics of some of the larger Copper Creek mineral deposits.

Table 13-1: Characterization of the Main Copper Creek Mineral Deposits

Deposit Name	Deposit Type	Vertical Extent (m RL)
Globe	Breccia	+1,300 to +930
Copper Prince	Breccia	+1,315 to +990
Old Reliable	Breccia	+1,250 to +1,000
Childs Aldwinkle	Breccia	+1,310 to +900
Mammoth	Breccia	+1,250 to +950
Keel	Porphyry- and cupola-style)	+800 to 0
American Eagle	Porphyry	+1,100 to +290

13.1 Historical Metallurgical Test Work Campaigns

At least four known historical metallurgical campaigns have been conducted to quantify metallurgical performance for the Copper Creek materials. These test work programs investigated different processing approaches to develop potential flowsheets, including the following: head assays and minerology; comminution testing; flotation testing; leach tests; and column leach tests. The following lists the historical metallurgical test reports previously completed for other studies which are applicable to the Copper Creek Project and this technical report.

- Preliminary Testing and Processing Engineering for the Old Reliable Mine prepared for AMT International Mining Corporation by MSRDI (September 1995).
- Report of Metallurgical Testing on Copper Sulphide Resources of the Copper Creek Property prepared for AMT International Mining Corporation by MSRDI (January 1997).
- Copper Creek Project Preliminary Flotation Study prepared for Redhawk Copper Inc. by METCON Research (November 2008).
- Copper Creek Project Preliminary Open Cycle Flotation Study (Variability Flotation Testing) prepared for Redhawk Copper Inc. by METCON Research (June 2012).

13.1.1 Mineralogy

In MSRDI's 1997 report copper sulphide minerals were characterized as more or less completely liberated from the gangue and from each other at 147 µm or coarser noting that chalcocite occurs on the upper portions within the oxide and transitional zone, typically within 40 m from surface and locally deeper along fractures. Bornite in this upper zone may be supergene in origin. Chalcopyrite forms the main hypogene zone and occurs with bornite and pyrite. Bornite occurs together with chalcopyrite at depth in the American Eagle and the Keel cupola zone.

MSRDI indicates that some tennantite occurs, usually overprinting chalcopyrite and bornite, in samples that originated below 1.055 m depth. Above this elevation, the tennantite content is generally at trace levels.

13.1.2 Historical Comminution Test Work

MRSDI reports Bwi (bond work index) of 14.6 kWh/t and 12.7 kWh/t on two composite samples of Copper Creek mineralization presumably taken from the Childs Adwinkle & Mammoth deposits. The 2013 PEA reports of additional comminution test work where crushing work index (Cwi), Bond rod mill work index (Rwi), Bwi, Ai, and JKSimMet parameters A, b, and ta were conducted by Phillips Enterprises and SGS Lakefield. Table 13-2 summarizes the results from these past comminution tests.

Table 13-2: Historic Comminution Test Work

Parameter	Sample RAE 08-45*		Sample RMK 11-065*	
	Imperial Unit (kilowatt-hour per short ton (kWh/st))	Metric Unit (kWh/t)	Imperial Unit (kWh/st)	Metric Unit (kWh/t)
Phillips Entreprises, LLC				
Cwi	6.92	7.63	8.77	9.67
Rwi	12.88	14.20	11.97	13.20
Bwi	14.22	15.73	13.62	15.01
Ai (grams (g))	0.2479	0.3112		
SGS Lakefield				
Axb	30.0		30.0	
ta	0.23		0.27	

*Note: drill core samples identified as RAE-08-45 and RMK-11-065 (from American Eagle & Keel deposits, respectively) reside the mineable envelope and are not shown in Figure 13-1.

13.1.3 Historical Flotation Test Work

The following section summarizes the historical flotation test work details from past test work conducted by MSRDI (1997) and METCON (2008 and 2012) for the Copper Creek Project.

13.1.3.1 MSRDI Test Work

The flotation test program at MSRDI focused predominantly on the Childs Aldwinkle Breccia and is summarized below:

- In general, copper recovery and rougher concentrate grades realized by MSRDI were both excellent ranging from plus 90% for lower-grade composites up to 99% for higher-grade mineralization, rougher concentrate grades ranging from 22% to 42% copper depending on the bornite content in the feeds. The test work was conducted at a P_{80} equal to 140 µm.
- In general, MSRDI test work showed that grind size had a minimal effect on molybdenum recovery.
- A second series of tests conducted by MSRDI to evaluate cleaning the rougher concentrate demonstrated cleaner concentrate grades averaging over 40% copper. Locked cycle test results indicated concentrate grades between 32% and 62% copper were obtainable, all with copper recoveries above 95%.

- Molybdenum recoveries to the rougher were generally proportional to the molybdenum head grade, with the higher-grade samples giving ~95% recovery and the lower-grade samples giving ~35% recovery.
- The overall flotation response of all the various mineralization types (as well as grades) averaged over 97% for copper and 72% for molybdenum.
- MSRDI investigated Cu-Mo separation testing, however the feed mass used for testing was quite low and the tests would be considered scoping in nature. Conventional copper depressants (such as NaHS, ferro-cyanide, and hypochlorite) were used but the separations were unsuccessful, partially due to the strong collectors utilized in the bulk Cu-Mo circuit. Copper depression was achieved when bulk flotation tests were repeated using a xanthate collector, achieving a rougher molybdenum concentrate grade of 29.8%. These tests were conducted on samples with an average copper grade of 1.28% and molybdenum grade of 0.10%

13.1.3.2 METCON Test Work

In 2008, METCON conducted rougher flotation testing and Cu-Mo separation flotation testing which illustrated that copper recovery is a function of oxidation. Head grades reported for METCON 2008 test work are well outside the current mine plan. In 2008, METCON also attempted a Cu-Mo separation on a concentrate from the Keel & American Eagle composite sample using NaHS. The test feed mass was too low to produce sufficient molybdenite concentrate masses through the separation process and the results were inconclusive.

In 2012, METCON conducted preliminary variability flotation test work on 14 composite samples across the deposit, as well as Cu-Mo separation flotation testing on open pit and underground composite samples. Grind sizes for this test work ranged from 105 to 175 µm. The Cu-Mo second cleaner tests were conducted with a product P_{80} of 66 µm.

Other test conditions and reagent concentrations also varied from sample to sample. Review of METCON's metallurgical data for cleaner flotation testing is as follows:

- Copper recovery obtained in the Cu-Mo second cleaner ranged from approximately 77% to 93%.
- Molybdenum recovery to Cu-Mo concentrate ranged from approximately 38% to 97%.
- Nine of the 14 samples reported copper concentrates above 25%.

METCON completed additional Cu-Mo separation test work on two bulk samples representing both open pit and underground material in late 2012. Three bulk flotation tests using approximately 250 kg of feed sample each were conducted to generate bulk Cu-Mo concentrates, two tests were completed on the open pit composite. The back calculated feed grade of the open pit composite was 0.34% Cu and 0.008% Mo and the underground composite feed grade was calculated at 0.52% Cu and 0.009% Mo. The molybdenum concentrate grades following 5 stages of open circuit cleaning were approximately 30% Mo and appeared to be mostly diluted with non-sulphide gangue. Metallurgical balances compiled from the test data are presented in Table 13-3.

Table 13-3: METCON Cu-Mo Separation Testing – 2012 Bulk Samples

Test ID	Reagents in Cu-Mo Flotation	Stream	Mass recovery %	Assay (%)				Distribution (%)		Cu-Mo Circuit Recovery %
				Cu	Mo	S_T	Insol.	Cu	Mo	Mo
UG-05	-	Mo 5th Cleaner Con	0.017	2.71	30.9	18.4	9.8	0.09	56.6	64.2
	-	Mo Cleaner Tails	0.221	26.4	1.19	22.2	11.9	11.2	27.9	31.6
	S-5741	Mo Ro Con	0.238	24.7	3.34	21.9	11.8	11.3	84.5	95.8
	Z-11	Mo Ro Tails	1.42	30.5	0.024	23.8	8.8	83.1	3.7	4.2
	N 9743	Bulk Cu-Mo Con	1.66	29.6	0.501	23.5	9.3	94.4	88.2	-
	-	Cu-Mo Cleaner Tails	1.34	0.283	0.004	1.23	79.2	0.73	0.53	-
	-	Cu-Mo Rougher Tails	97.0	0.026	0.0011	0.29	86.4	4.90	11.31	-
	-	Feed	100	0.521	0.009	0.69	85.0	100	100	-
OP-01	-	Mo 5th Cleaner	0.018	4.60	31.5	18.8	18.7	0.23	67.2	70.1
	-	Mo Cleaner Tails	0.159	19.3	1.36	20.1	26.3	8.7	26.0	27.1
	-	Mo Ro Con	0.177	17.8	4.38	19.9	25.6	8.9	93.1	97.3
	S-5741	Mo Ro Tails	1.35	22.6	0.016	26.5	15.0	86.6	2.6	2.7
	N 9743	Bulk Cu-Mo Con	1.53	22.0	0.521	25.7	16.2	95.5	95.8	-
	-	Cu-Mo Cleaner Tails	1.60	0.297	0.010	8.90	68.3	1.3	1.9	-
	-	Cu-Mo Rougher Tails	96.9	0.012	0.0002	0.78	85.1	3.2	2.3	-
	-	Feed	100	0.353	0.008	1.29	83.8	100	100	-
OP-02	A-238	Mo 5th Cleaner	0.022	2.60	28.2	16.4	20.7	0.17	80.4	85.8
		Mo Cleaner Tails	0.138	18.6	0.62	18.9	28.7	7.6	11.3	12.1
		Mo Ro Con	0.159	16.4	4.36	18.6	27.6	7.8	91.7	97.9
		Mo Ro Tails	1.25	23.7	0.012	24.0	15.1	87.7	2.0	2.1
		Bulk Cu-Mo Con	1.41	22.9	0.504	23.4	16.5	95.5	93.6	-
		Cu-Mo Cleaner Tails	1.41	0.360	0.017	11.0	62.2	1.5	3.2	-
		Cu-Mo Rougher Tails	97.2	0.011	0.0003	0.79	86.2	3.0	3.2	-
		Feed	100	0.338	0.008	1.25	84.9	100	100	-

A modest application of regrinding was applied to each bulk concentrate prior to the Cu-Mo separation process. This may not have provided sufficient liberation as the moly rougher tails sized between 52 and 58µm P_{80} had elevated levels of insoluble materials which may have contributed to achieving less than optimal molybdenum concentrate grades. Additionally, the bulk flotation circuits utilized collectors that may not have responded well to depression by NaHS compared to xanthates. Molybdenum recovery across the moly rougher stage was quite high, ranging from 96 to 98%, high mass recoveries across this stage may have contributed to upgrading challenges. The tests were run in open circuit and between 12 and 32% of the molybdenum entering the circuit exited in cleaner tails streams, which would normally return through recirculation.

13.2 ALS Metallurgy (2022) Test work Program

An updated metallurgical test work program was initiated using more recent drill samples (from the Faraday 2022 Phase 1 exploration campaign) with the primary focus to obtain metallurgical data on open pit materials. The 2022 test work program objectives included measuring comminution properties and flotation response on variability samples representing both transitional and sulphide materials and generate a representative tailings sample for dewatering testing.

13.2.1 Sample Preparation

The availability of samples suitable for metallurgical testing were somewhat limited due to the scale of the phase 1 drilling program, therefore not all sources indicated in the mine plan were represented. A listing of the open pit mine sources and the respective metallurgical samples is shown in Table 13-4.

- 5 sulphide samples were provided: 2 from OP1, 1 from each of OP2, OP4, and OP5.
- 4 transitional samples were provided: 1 from each of OP1 and OP2, 2 from OP4.

The samples were received at ALS Metallurgy in September 2022 and lightly jaw crushed in preparation for comminution testing. MET samples 01 through 07 were received as ½ drill core but MET 08 and 09 were received as already coarse crushed assay rejects, so comminution testing on these two samples was limited.

Following completion of the comminution testing, comminution rejects were recombined with each respective sample and crushed to -6 mesh in preparation for metallurgical testing.

Portions of each variability sample were used to assemble separate sulphide and transitional master composites. The sulphide master composite was assembled from a weighted distribution to somewhat represent the mine plan sulphide tonnages, resulting in a greater mass of the two Mammoth pit samples. A transitional master composite was assembled from the equal portions of the four transitional samples. A blend composite was created from the two master composites and variability samples to target a distribution of 78% sulphide materials.

Table 13-4: Mine Plan Data and 2022 Met Samples

Open Pit Sources	Transitional		Sulphide		Cu Distribution %		Met Samples	
	tonnes	Cu %	tonnes	Cu %	Transitional	Sulphide	Transitional	Sulphide
OP1 – Copper Prince	6,861,410	0.589	12,674,741	0.546	7.5	12.8	CC-MET-06	CC-MET-04, 05
OP2 – Globe (Glory Hole)	6,459,121	0.412	5,462,274	0.391	4.9	4.0	CC-MET-07	CC-MET-01
OP3 – Old Reliable	5,305,674	0.277	5,188,245	0.586	2.7	5.6	-	-
OP4 – Mammoth Ph1	4,372,462	0.262	10,680,105	0.419	2.1	8.3	CC-MET-08, 09	CC-MET-02
OP5 – Mammoth Ph2	2,129,887	0.223	35,682,147	0.294	0.9	19.5	-	CC-MET-03
OP6 – Mammoth Ph3	146,570	0.162	21,479,031	0.583	0.0	23.2	-	-
OP7 – Railroad	245,292	0.167	5,157,177	0.587	0.1	5.6	-	-
OP8 – Bald	2,474,414	0.287	2,400,847	0.303	1.3	1.4	-	-
Total	**27,994,830**	**0.378**	**98,724,567**	**0.439**	**19.6**	**80.4**	**-**	**-**

13.2.2 Chemical and Mineralogical Characterization

Head assays on the samples and composites are shown in Table 13-5. QEMSCAN mineralogical analyses were completed on the samples, the distribution of copper by mineral form is summarized in Table 13-6.

The sulphide variability samples measured very low acid-soluble copper levels, indicated by the CuOx assay. These samples contained modest levels of sulphur, at a Cu:S ratio averaging 0.5:1. In contrast, the transition variability samples measured elevated acid-soluble copper levels, averaging 39%. Sulphur levels in the transition samples were relatively low, with an average Cu:S ratio of approximately 2:1.

The samples contained relatively low levels of molybdenum, with only two samples near 60 g/t. Arsenic contents were generally low, with the exception of MET-03. Zinc contents were on average below 0.02% and would not be expected to affect concentrate quality. Silver contents averaged approximately 1.5 g/t.

Table 13-5: Head Assay Data

Composite	Assay - %					Assay – g/t			
	Cu	CuOx	CuCN	Fe	S(t)	Ag	As	Mo	Zn
CC-MET-01	0.47	0.01	0.02	3.5	2.70	1.8	6	10	137
CC-MET-02	0.48	0.01	0.03	3.1	1.51	1.7	18	16	87
CC-MET-03	1.03	0.03	0.05	3.7	1.82	1.2	139	57	184
CC-MET-04	0.61	0.02	0.03	3.2	1.07	1.3	6	10	78
CC-MET-05	1.09	0.05	0.12	5.1	1.33	2.6	5	16	129
CC-MET-06	1.07	0.59	0.17	2.6	0.29	2.0	13	11	59
CC-MET-07	0.62	0.33	0.18	3.9	0.32	0.1	3	8	117
CC-MET-08	0.25	0.07	0.07	3.5	0.15	1.1	5	18	216
CC-MET-09	0.46	0.09	0.08	2.3	0.43	1.4	4	55	153
Sulphide MC	0.71	0.02	0.04	3.2	1.49	1.6	57	29	129
Transition MC	0.57	0.25	0.12	3.1	0.30	1.1	6	23	136

Table 13-6: Copper Distribution by Mineral Form – Precent

Mineral	Sulphide Samples						Transitional Samples				
	MET-01	MET-02	MET-03	MET-04	MET-05	Master Comp	MET-06	MET-07	MET-08	MET-09	Master Comp
Chalcopyrite	99	97.8	92.9	96.2	87.5	89.8	20	4.3	30.5	66.6	36.4
Bornite	0	1.7	6.2	0.9	4.3	5.6	0.8	0.4	1	2.1	1.4
Chalcocite/Covellite	0	0.3	0.1	2.9	8.2	3.9	17.1	47.8	50.6	17.2	26.9
Tetrahedrite/Tennantite/ Enargite	1	0.2	0.8	0	0	0.6	0	0	0	0.1	0
Malachite/Azurite/Cuprite	0	0	0	0	0	0	48.9	26.2	0.2	7.6	13.9
Copper Bearing Iron Oxides	0	0	0	0	0	0.1	11.7	16.8	17.5	6.1	17.9
Other Copper Bearing Minerals	0	0	0	<0.1	<0.1	0	1.4	4.4	0.2	0.4	3.5

The host mineral assemblage varied across the samples somewhat, higher quartz contents generally corresponded to longer laboratory grind times. The total sulphide mineral content of the sulphide samples was 2% on average, with the exception of MET-01 which had a higher pyrite content. Sulphide mineral contents of the transition samples averaged approximately 0.4%.

Chalcopyrite accounted for most of the copper observed in the sulphide samples. Copper mineral forms varied across the transition samples, which generally included elevated chalcocite/covellite levels, some malachite/azurite, as well as some copper bearing iron oxides that would not be recoverable by froth flotation.

Detailed Particle Mineral Analyses (PMA) were conducted on the master sulphide and transition composites to accurately measure liberation characteristics and mineral contents. Copper sulphides in the sulphide composite were approximately 71% liberated at a primary grinding size of 155 µm P_{80}, which suggests that effective rougher flotation could be conducted at a significantly coarser grind size.

Copper sulphides in the transition composite were approximately 47% liberated at a primary grinding size of 158 µm P_{80}, which is still sufficient for effective rougher flotation. Chalcocite/covellite minerals measured lower liberation levels than chalcopyrite. Copper present in form of copper bearing iron oxides is likely a greater challenge to recovery than liberation characteristics in this lithology.

Generally low levels of copper sulphides in both the sulphide and transition composites were present in the coarse feed fraction (>150 µm) in grains with less than 15% surface exposure. As these grains are typically the target of coarse particle flotation techniques, the low amount suggests that conventional flotation is a suitable means for processing. However, should primary grinds coarser than 300 µm be considered, the distribution of copper sulphides in low quality coarse grains would likely be greater.

Only 3% of the copper sulphides in the sulphide master composite were associated with pyrite in either binaries or in multiphase form. This suggests that regrinding requirements to depress pyrite would be moderate.

13.2.3 Comminution

Each of the variability samples was individually tested for comminution properties, returning the measurements shown in Table 13-7. Testing was limited on selected samples either due to received crush size or sample mass.

The average Drop Weight Index value of 6.3 kWh/m^3 (and predicted Axb value of 41) for the sulphide samples suggests that these materials are of average hardness with respect to grinding in a SAG mill. The hard drop weight result measured on the transition MET-07 sample could be misleading as it may only represent a limited set of hard specimens remaining after coarse crushing.

The average bond ball mill work index (BMWi) value of 14.3 kWh/t for the sulphide samples indicates that they are of medium hardness with respect to ball mill grinding. The transition samples measured lower BMWi values on average, which agrees with the shorter laboratory grind times required for bench-scale flotation testing.

Table 13-7: Comminution Test Data Summary

Mineralized Material Type	Sample ID	Dwi	SCSE	A x b	BMWi	Abrasion Index
		kWh/m³			kWh/t	
Sulphide	CC-MET-01	6.8	9.9	38.0	15.2	0.066
	CC-MET-02	7.1	10.1	36.8	15.6	0.156
	CC-MET-03	6.7	9.9	38.7	15.6	-
	CC-MET-04	5.0	8.7	50.5	12.2	0.168
	CC-MET-05	6.1	9.5	42.3	13.1	-
Transition	CC-MET-06	4.4	8.3	57.7	11.3	0.138
	CC-MET-07	9.0	11.3	29.8	-	0.091
	CC-MET-08	-	-	-	14.9	-
	CC-MET-09	-	-	-	14.0	-

13.2.4 Flotation Test work

A series of rougher and cleaner flotation tests were conducted on the metallurgical samples. Rougher flotation performance on the sulphide and transition samples is summarized in Table 13-8 and Table 13-9. Copper recovery relative to mass recovery is presented in Figure 13-2 and Figure 13-3 for selected tests.

Initial testing was conducted using a target primary grind size of 150µm P_{80}. As testing progressed, it became evident that a coarser primary grind size could be applied to the sulphide samples. The coarsest flotation feed size tested on the sulphide master composite was 225 µm P_{80} and rougher copper recoveries were maintained at 98%. Variability testing indicated that most of the sulphide samples could be processed at a coarse sizing at or above 200µm P_{80}.

The primary grind sizing of the transition samples was maintained at approximately 150 µm P_{80}, as the required grinding energy was generally lower than the sulphide samples. Rougher copper recoveries varied considerably due to mineral assemblage, so the effect of grind size on transition copper recovery was not further investigated.

The two lithologies had significantly different reagent requirements. Sulphide samples could be treated with low dosages of a selective collector, although MET-05 benefited from PAX addition. The natural pulp pH of approximately 8.0 was sufficient for flotation, so no lime was required. However, MET-05 did appear to benefit from a small addition of lime.

The transition samples benefited from lime addition to achieve a pulp pH of 9.0. The natural pH of the transition master composite was 6.5 after grinding in the lab mill. The samples required a dosage of approximately 600 g/t to achieve the pulp pH target. PAX dosages were also elevated, between 60 to 120 g/t were applied. After recovering sulphides in the initial rougher stages, sodium hydrosulphide (NaHS) was added as a sulphidizing agent to recover oxide copper minerals. After the initial rougher test observations, all subsequent transition tests were conducted at a lower pulp density, with the exception of a repeat rougher test at 35% solids (Test 43).

Rougher mass recoveries were higher on the sulphide samples, ranging from 6.4 to 12.4% at the target 200µm grind size. The transitional mass recoveries were lower, ranging from 1.6 to 4.6% for tests conducted at the lower pulp density.

These results for sulphide samples are shown in Table 13-8 while results for transitional samples are presented in Table 13-9

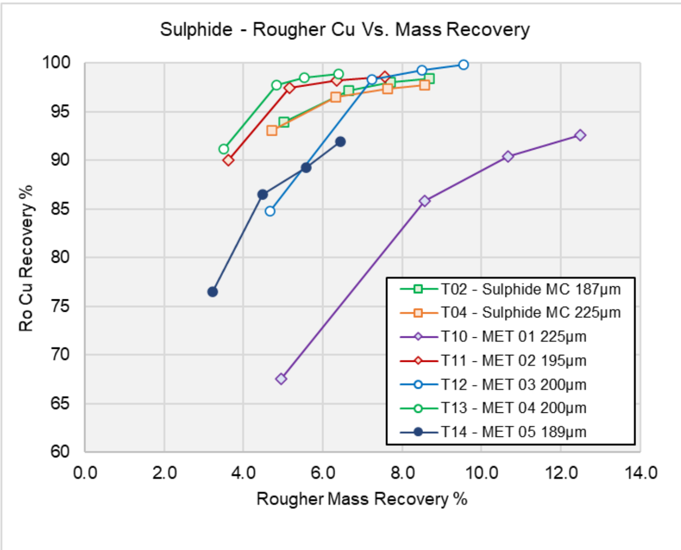
Table 13-8: Rougher Flotation Results – Effect of Grind Size and Chemistry – Sulphide Samples

Test No.	Sample ID	Primary Grind		Pulp pH	Lime g/t	3418A g/t	PAX g/t	Calculated Head			Rougher Tail		Recovery % to RoCon			
		minutes	P80					Cu %	Mo %	S %	Cu %	S %	Mass	Cu	Mo	S
01R	Sulphide MC	12	155	8.2	-	4	4	0.79	0.003	1.86	0.02	0.06	8.5	98.1	83.9	97.0
02R		10	187	8.1	-	8	-	0.88	0.002	1.84	0.02	0.06	8.7	98.4	81.0	97.0
04R		9	225	8.5	-	8	-	0.86	0.002	2.00	0.02	0.12	8.6	97.8	79.3	94.5
10R	MET-01	11	225	7.8	-	8	-	0.51	0.001	3.13	0.04	0.24	12.5	92.6	60.8	93.3
20R		12	180	7.8	-	8	-	0.52	0.001	3.11	0.03	0.30	10.8	96.3	58.8	91.4
21R		12	180	9.0	150	8	2	0.51	0.001	3.24	0.02	0.08	12.4	99.3	59.8	97.8
11R	MET-02	11	195	8.3	-	8	-	0.53	0.001	1.65	0.01	0.07	7.6	98.6	69.1	96.1
12R	MET-03	10	200	7.9	-	8	-	1.12	0.006	2.08	0.02	0.06	9.5	98.2	92.1	97.4
13R	MET-04	7	200	7.9	-	8	-	0.61	0.001	1.07	0.01	0.05	6.4	98.9	35.0	96.2
14R	MET-05	7.5	189	7.4	-	8	-	1.11	0.002	1.38	0.10	0.17	6.4	91.9	73.3	88.5
22R		9	143	7.5	-	8	2	1.21	0.001	1.56	0.06	0.09	6.3	95.7	57.2	94.6
24R	Blend Comp	10	192	9.0	150	4	10	0.62	0.002	1.52	0.06	0.06	6.1	90.3	75.0	96.3

Table 13-9: Rougher Flotation Results – Effect of Chemistry Conditions – Transitional Samples

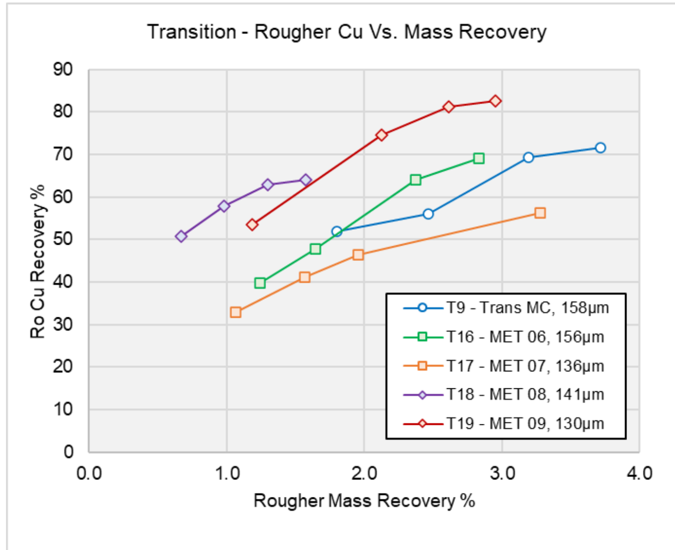
Test No.	Sample ID	Primary Grind		Pulp pH	Lime g/t	NaHS g/t	PAX g/t	Calculated Head			Rougher Tail		Recovery % to RoCon			
		min	P80					Cu %	Mo %	S %	Cu %	S %	Mass	Cu	Mo	S
03R	Transitional MC	10	158	6.5	-	-	80	0.65	0.002	0.32	0.56	0.26	7.3	20.7	56.1	23.9
05R		10	158	9.0	490	-	120	0.62	0.002	0.34	0.26	0.04	2.6	58.9	47.6	88.4
08R		10	158	9.0	600	-	160	0.62	0.002	0.34	0.25	0.03	4.2	61.3	56.0	91.4
09R		10	158	9.0	600	300	120	0.65	0.002	0.37	0.19	0.05	3.7	71.7	56.7	87.0
42R		10	158	9.0	700	700	120	0.64	0.002	0.39	0.18	0.06	4.6	73.4	55.5	85.4
43R		10	158	9.0	725	250	100	0.68	0.002	0.37	0.21	0.03	6.2	71.1	53.7	92.5
16R	MET-06	7	156	9.0	500	550	90	1.19	0.001	0.41	0.37	0.05	2.8	69.7	15.9	88.3
27R		7	156	9.1	500	350	90	1.20	0.001	0.40	0.36	0.04	3.1	71.0	15.6	90.4
17R	MET-07	20	136	9.0	630	450	100	0.60	0.001	0.36	0.27	0.05	3.3	56.3	22.4	86.7
18R	MET-08	9	141	9.0	900	350	100	0.27	0.002	0.19	0.10	0.04	1.6	64.1	48.3	78.8
19R	MET-09	11	130	9.1	500	450	60	0.51	0.004	0.48	0.09	0.04	3.0	82.6	88.3	92.0

Figure 13-2: Rougher Copper Kinetic Results – Sulphide Samples



Source: Ausenco, 2023

Figure 13-3: Rougher Copper Kinetic Results – Transitional Samples



Source: Ausenco, 2023

Open circuit cleaner tests were conducted on the samples using the developed rougher conditions. A modest amount of regrinding was applied to the sulphide composites, targeting a regrind discharge size of approximately 30µm P80. No regrinding was applied to the transitional samples, in order to minimize cleaner circuit losses. Three stages of dilution cleaning were applied to the sulphide samples, however performance after two stages was generally acceptable. Two stages of cleaning were applied to the transitional samples, excluding MET-06 in which the rougher concentrate was of final concentrate quality.

The developed conditions were applied to the Sulphide master composite in a locked cycle test protocol to demonstrate closed circuit cleaner performance. The locked cycle test results indicate bulk concentrate recoveries of 95.4% and 71.7% for copper and moly, respectively, to a concentrate grading 30% Cu and 0.08% Mo. The concentrate contained 0.6 g/t gold and 45 g/t silver.

A locked cycle test was not conducted on the Transitional Master Composite as it was uncertain whether this composite adequately represented average transitional material. Since the 2nd and 3rd cleaner tail losses in the open circuit test were relatively low, it is not likely that closed circuit performance would be much different.

A hybrid set of conditions was applied in rougher and open circuit cleaner tests on the Blend composite, in preparation to conduct a 20 kg locked cycle test for representative tails generation. The cycle test was conducted using 5 x 4 kg feed charges and the tails streams were retained in slurry form. Slurry cuts of these streams were extracted for assaying and mass balance purposes, which introduces a sub-sampling error not associated with typical dried and prepared test products.

A summary of locked cycle test results is presented in Table 13-10.

Table 13-10: Locked Cycle Test Results

Sample	Test #	Primary Grind µm P80	Regrind µm P80	Head Assay %		Con Grade %		Recovery %	
				Cu	Mo	Cu	Mo	Cu	Mo
Sulphide Master Comp	23	187	33	0.79	0.003	30.0	0.077	95.4	71.7
Blend Composite	26	192	30	0.62	0.003	30.3	0.072	83.8	49.2

The test program did not include copper-molybdenum separation due to the limitation of the metallurgical testing scope.

Figure 13-4: Copper Cleaner Performance – Sulphide Samples

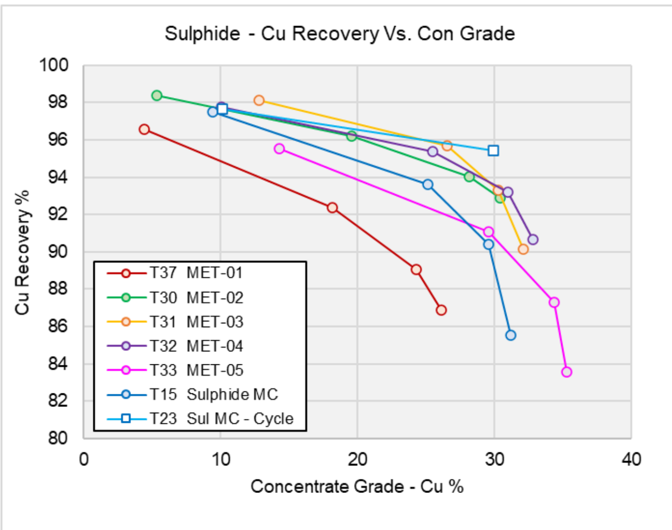
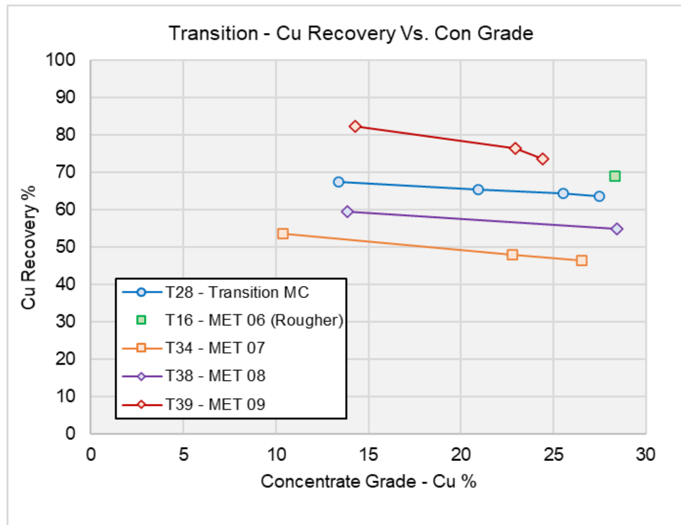


Figure 13-5: Copper Cleaner Performance – Sulphide Samples



Source: Ausenco, 2023

13.2.5 Concentrate Quality

Final concentrates produced from locked cycle test on the sulphide master and Blend composites, and an open circuit cleaner test on the Transitional Master Composite (Transitional MC) were analysed for minor elements. Deleterious element levels measured in the concentrates are presented in Table 13-11, along with typical penalty limits. All minor elements of specific interest were below levels that would be expected to trigger penalties from smelters. Smelter penalty terms specific to these concentrates should be confirmed with a concentrate marketing specialist.

While it is understood that some arsenic bearing minerals, enargite and tennantite, are present in the resource at depth, the average arsenic content in the resource is expected to be approximately 20 g/t. Extrapolation of metallurgical data suggests that feed grades of 70 g/t arsenic would be required to produce concentrates with arsenic levels at the penalty level threshold. Localized higher arsenic occurrences would be managed by concentrate blending.

Table 13-11: Master Composite Concentrates – Minor Elements

Element	units	Final Concentrate Assays			Typical Penalty Limit
		Sulphide MC	Blend MC	Transitional MC	
Arsenic	%	0.16	0.10	0.01	0.2
Antimony	g/t	25	38	90	500
Bismuth	g/t	52	74	75	200
Cadmium	g/t	34	26	18	300
Cobalt	g/t	115	104	142	-
Fluorine	g/t	60	80	180	300
Lead	%	0.04	0.06	0.06	1
Mercury	g/t	2	2	1	5
Nickel	g/t	121	87	51	-
Nickel + Cobalt	%	0.02	0.02	0.02	0.5
Selenium	g/t	40	40	70	300
Zinc	%	0.17	0.16	0.11	3

13.2.6 Tailings Dewatering Testing

A series of dewatering tests were conducted by Base Metallurgical Laboratories on a slurry sample of Blend composite flotation tails, which had been ground to a flotation feed sizing of approximately 190 µm P_{80}. The final tails included the cleaner tails, which accounted for 5% of the tails mass and had been reground to approximately 30 µm P_{80}. The tests included static settling, dynamic settling, pressure filtration, underflow viscosity measurements and Proctor testing. Results from selected conditions are summarized in Table 13-12.

The results suggest that the tailings are well suited to a dry stack impoundment design. Thickening and filtration rates are favourable, and the Proctor test optimum moisture content can easily be achieved by conventional filtration.

Table 13-12: Dewatering Test Results – Blend Composite Tails

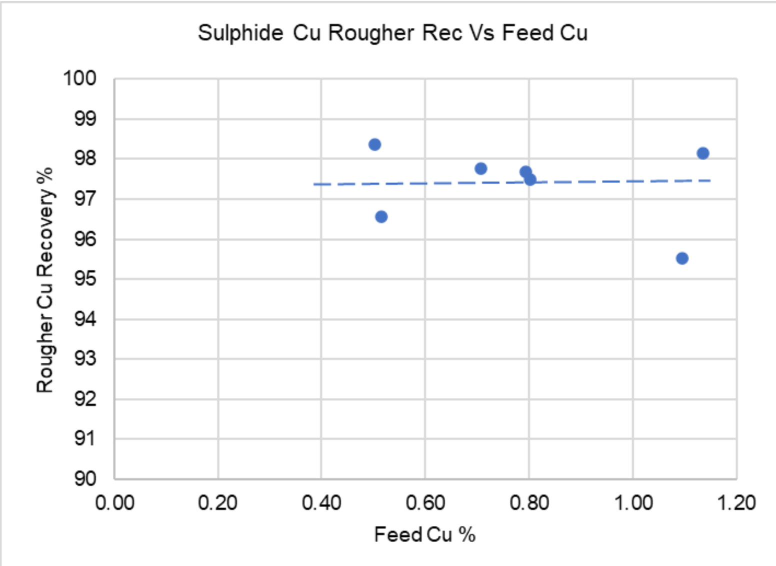
Test Type	Parameter	Results	
Static Settling	Free Settling Velocity	38.4	m/hr
	Floc dosage (MF10)	60	g/t
	slurry pH	11.3	
	Final Density	57.7	% solids
Dynamic Settling	Loading Rate	0.7	$t/m^2/hr$
	Floc Dosage (MF10)	60	g/t
	slurry pH	11.0	
	U/F Density	55.4	% solids
	Bed Formation Time	11.5	min
	Unsheared Yield Stress	71.8	PA
	Turbidity	22	FAU
Pressure Filtration	Chamber Thickness	35	mm
	Feed Density	66.2	% solids
	Feed Pressure	75	psi
	Cake Press Pressure	130	psi
	Cake Moisture	12.8	%
	Blow Time	3	min
	Filtration Rate	394	$kg/m^2/hr$
Proctor Test	Optimum Water Content	0.152	Mw/Ms
	Max. Dry unit Weight	110.4	lbf/ft^3
	Max Dry Specific Gravity	1.77	$tonnes/m^3$

13.3 Forecasted Recovery Estimates

13.3.1 Sulphide Copper

Figure 13-6 shows the rougher copper recovery versus copper feed grade for sulphide samples, based on the rougher points of cleaner tests presented in Figure 13-3. Since the rougher copper recoveries do not trend with head grade, an average value of 97.3% was selected. A cleaner circuit recovery of 97% was then applied, since a circuit recovery of 97.7% was measured in the Sulphide master composite locked cycle test. This results in a constant value of 94.4% copper recovery to final copper concentrate.

Figure 13-6: Rougher Copper Recovery vs. Head Grade – Sulphide



Source: Ausenco, 2023

13.3.2 Transitional Copper

A copper recovery equation for transitional material was determined through a staged geometallurgical type approach.

- Rougher copper recovery was first related to copper mineral assemblage and head grade. A recovery was estimated for each copper bearing mineral species and the weighted recovery was factored by head grade. These estimates were refined using solver techniques to minimize the error between predicted and actual recoveries for each sample.
- A suitable weighting of the copper mineral assemblage of each tested sample was determined for the overall Transitional resource, following a review of available drill data and geological knowledge. The recovery factors were then applied to this estimated copper mineral distribution. The head grade factor was used to adjust recovery for copper head grade, and a logarithmic trendline was fit to the calculated values.

The result of this exercise was that higher recoveries were estimated for chalcopyrite, bornite and enargite; and consecutively lower recoveries were estimated for chalcocite/covellite and malachite/azurite. No recovery was applied to copper in species that would not respond to froth flotation. A cleaner circuit recovery of 96% was then applied to this final copper recovery result. A summary of the input data and criteria is presented in Table 13-13.

Table 13-13: Transitional Copper Recovery Estimated Criteria

Mineral	Copper Distribution by Mineral					Predicted Mineral Recovery
	Transitional Variability Samples				LOM Average	
	MET-06	MET-07	MET-08	MET-09		
Chalcopyrite	20.0	4.3	30.5	66.6	50.3	95.0
Bornite	0.8	0.4	1.0	2.1	1.6	95.0
Chalcocite/Covellite	17.1	47.8	50.6	17.2	28.7	79.9
Tetrahedrite/Tennantite/Enargite	0.0	0.0	0.0	0.1	0.0	95.0
Malachite/Azurite/Cuprite	48.9	26.2	0.2	7.6	8.4	52.8
Copper Bearing Iron Oxides	11.7	16.8	17.5	6.1	10.3	0
Other Copper Bearing Minerals	1.4	4.4	0.2	0.4	0.6	0
LOM Mineral Distribution	**0.05**	**0.05**	**0.30**	**0.60**	1.00	**76.8**
Cleaner Circuit Recovery %	-	-	-	-	-	96.0
Cu Recovery to Final Concentrate % (at 0.4% Cu head grade)				-	-	**73.7**

After applying the head grade factor to this copper recovery value, the transitional copper recovery equation becomes:

Transitional Cu Recovery = 10.84 * ln(Cu in feed %) + 84.8 – limited to a maximum value of 90%.

13.3.3 Sulphide Molybdenum

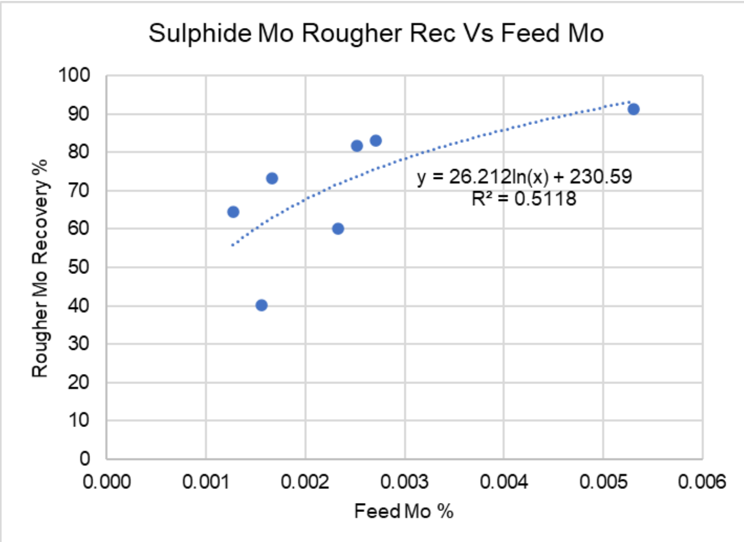
Figure 13-7 shows the molybdenum rougher recovery versus molybdenum feed grade for the tested sulphide samples. Two factors are then applied to achieve an equation of molybdenum recovery to final molybdenum concentrate:

- 86.4% bulk cleaner circuit recovery, similar to that measured in the locked cycle test.
- An estimated 90% recovery across a Cu-Mo separation circuit.

The resulting final equation becomes:

Sulphide Mo Recovery = 20.3 * ln(Mo in feed %) + 178.5 – limited to a maximum value of 86%

Figure 13-7: Sulphide Molybdenum Rougher Recovery vs. Head Grade



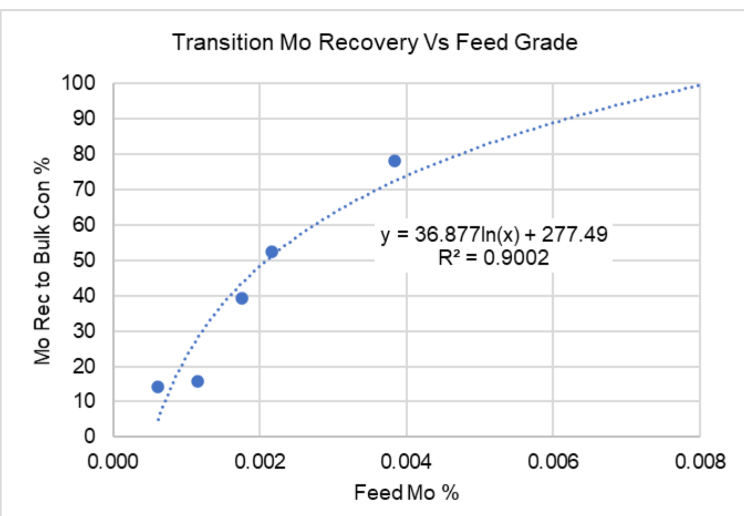
Source: Ausenco, 2023

13.3.4 Transitional Molybdenum

Open circuit tests provided a reasonable estimate of molybdenum recovery to final bulk concentrates, as per Figure 13-8. Similar to the Sulphide Mo equation, a 90% Cu-Mo circuit recovery was then applied to obtain the final equation as:

Transitional Mo Recovery = 33.2*ln(Mo in feed %) + 249.8 – limited to a maximum value of 81%.

Figure 13-8: Transitional Molybdenum Recovery to Bulk Concentrate



Source: Ausenco, 2023

It should be noted that the molybdenum levels in these samples was quite low, resulting in molybdenum contents in the rougher tails streams that were below the laboratory detection limits. For this reason, molybdenum recoveries may be subject to analysis errors.

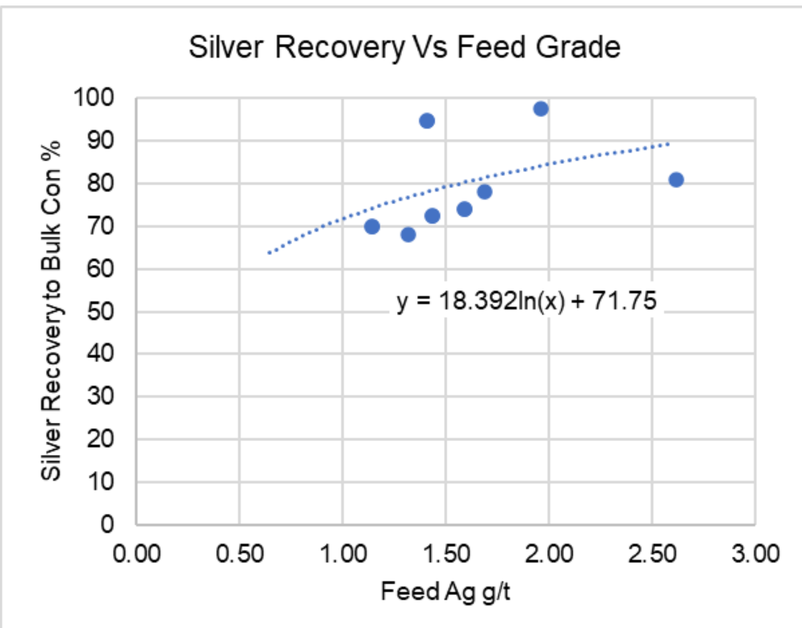
13.3.5 Silver

A combination of locked cycle and open circuit test results were used to estimate silver recovery as a function of feed grade on a global basis.

A global equation for silver recovery to the final bulk concentrate was determined as follows:

Global Ag Recovery = 18.4*ln(Ag in feed g/t) + 71.75 – limited to a maximum value of 90%.

Figure 13-9: Silver Recoveries to Bulk Concentrate



Source: Ausenco, 2023

13.4 Leach Studies

A review past studies and test work programs conducted for the Copper Creek mineral deposit samples found only two instances where copper recovery from the oxide materials were investigated. For example, in 1971, a company called Ranchers operated a very low-tech leach operation on a section of Old Reliable for 10 years and reportedly produced 12 Mlb of copper. In 1995, MSRDI prepared and tested the following composite samples of RC drill cuttings thought to represent the oxide, mixed (transitional) and sulphide zones characterized for the Old Reliable breccia:

- Composite 1 – Highly Oxidized
- Composite 2 – Mixed Oxide-Sulphide

- Composite 3 – High Sulphide (Chalcocite)

MSRDI reported acid consumption rates of less than 15 kg/t for bottle roll tests conducted on the composite sample characterized as “highly oxidized.” The mineralogy of Composite 1 was characterized as predominantly chrysocolla with minor amounts of malachite and Cu-bearing hydrated iron oxides. The mineralogy of Composite 2 was similar to Composite 1 but also contained fine-grained and disseminated chalcocite. The mineralogy of Composite 3 was characterized as predominantly discrete chalcocite on fracture fillings and coating pyrite minerals.

All testing was conducted at the “as-received” size distribution of minus half inch. The bottle roll leach tests were run to obtain pertinent data on acid consumption and leach kinetics for the three “zones” identified for samples taken from the Old Reliable deposit (one of many breccias making up the current Copper Creek Project). Column leach tests were run on each composite sample to predict recoveries and acid consumption over time. Results from column leach tests are more reflective of a heap leach operation whereas results from the bottle roll test and bottle roll leach tests are more reflective of a vat leaching operation.

MSRDI’s test program also included chemical analysis of acid-soluble, cyanide soluble and total copper (Cu) measurements on 350 drill core samples representing ten or five-foot intervals from the nine drill holes. Leachable Cu measurements for the five-foot interval samples ranged from 22% to nearly 100% of the total Cu measured for each sample, with the average reported by MSRDI to be ~90%. Head assays of the composite samples are presented in Table 13-14. For the three composite samples, leachable copper or acid-soluble copper plus cyanide soluble copper ranges from 86 for the high sulphide sample to 92% for the mixed oxide composite sample.

Table 13-14: MSRDI Oxide Leach Composite Samples – Head Assay Results

Composite Sample No.		Comp 1	Comp 2	Comp 3
Analysis	**Unit**	**High Oxide (chalcocite)**	**50% Oxide, 50% Sulphide**	**High Sulphide**
Total Cu	%	0.81	0.62	0.84
Acid-Soluble Cu	%	0.68	0.32	0.16
Cyanide Soluble Cu	%	0.05	0.25	0.56
Leachable Cu	%	90	92	86

Bottle leach tests were run at 50% solids with sulphuric acid addition to maintain a pH of 1.5 for 24 and 72 h. A subsequent series of tests were conducted using ferric iron in solution, but these results are not presented. The addition of ferric iron improved leach performance on Composite 2 and 3 but was not tested on Composite 1.

Table 13-15: MSRDI Bottle Roll Test Results at pH 1.5

Composite Sample No.	Time (h)	Cu Recovery (%)	Net Acid Consumption (kg/t)
Composite 1	24	70.6	11.5
Composite 2	24	45.7	7.8
Composite 3	24	33.4	8.0
Composite 1	72	72.1	13.0
Composite 2	72	57.6	7.8
Composite 3	72	35.3	9.0

Copper recoveries and net sulphuric acid consumption values for the bottle roll tests as calculated by MSRDI are presented in Table 13-16. Composite 1, the high oxide sample, returned the highest extraction and acid consumption. Copper extraction after 72 hours improved by ~2 to 12% for all samples, with the mixed sample (Composite 2) demonstrating the greatest improvement in recovery over time.

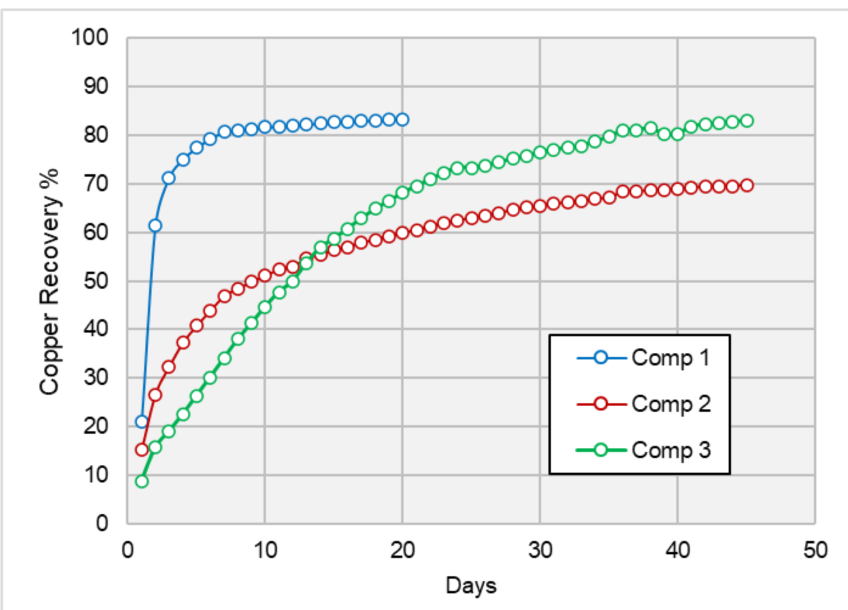
Column leach tests were conducted using 100 mm diameter by 1 m tall columns loaded with approximately 9 kg of each sample. Each test charge received an acid cure of 25 kg/t by agglomeration prior to loading in each column. The charge surface was irrigated with a leach solution containing 1.5 gpl acid and 3.0 gpl ferric iron. Composites 2 and 3 leach charges were inoculated with a bacteria strain after 23 days of leaching to promote sulphide mineral oxidation. It is not certain if the bacteria presence improved leach kinetics after this point.

Table 13-16: MSRDI Column Leach Tests

Composite Sample No.	Days	Cu Recovery (%)	Net Acid Consumption (kg/t)
Composite 1	20	83.3	9.4
Composite 2	45	69.6	18.2
Composite 3	45	83	18.5

Copper recoveries and net sulphuric acid consumption values for the column leach tests as calculated by MSRDI are presented in Table 13-15. In these tests, Composite 1 measured 83% copper extraction after 20 days and had the lowest acid consumption. Leach kinetics are shown in Figure 13-10.

Figure 13-10: Copper Recovery Vs. Time – Old Reliable Oxide Column Leach Tests



Source: Ausenco, 2023.

13.4.1 Forecasted Oxide Copper Recovery

Due to the limited leaching test work data available for Copper Creek oxide materials, a conservative leaching recovery of 75% copper with an average gangue sulphuric acid consumption of 20 kg/t is forecasted for this project. These values are estimated using a crush size of 100 % passing 50 mm.

13.5 Comments on Mineral Processing and Metallurgical Testing

The metallurgical performance represented by these Copper Creek samples appears to be quite favourable for those zones dominated by copper sulphide mineralization. The copper sulphide mineralization appears to be quite coarse and has good liberation characteristics, there may still be opportunity to apply coarser primary grinds to improve tailings dewatering performance. It is the understanding of Ausenco that the only processing factors or deleterious elements that could affect potential economic extraction are the presence of non-flotatble copper mineral species in transition material and arsenic bearing copper sulphides within hypogene material at depth. Ausenco's current understanding is that these contents are both relatively low and would not have a significant effect on potential economic extraction.

Transitional mineralization is currently believed to represent favourable metallurgical performance, however further test work is deemed to be beneficial to understanding and de-risking recoveries in the future.

14 MINERAL RESOURCE ESTIMATES

14.1 Introduction

This section describes the mineral resource estimation methodology and summaries the key assumptions adopted by SRK. In the QP's opinion, the MRE reported herein is a reasonable representation of the mineral resources found at the Project with the current level of sampling, data quality, and understanding.

The mineral resources and a classification of resources were prepared in accordance with the CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines (CIM, 2014) and CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019). Mineral resources are reported in accordance with NI 43-101. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves.

The MRE was completed by Mr. Berkley Tracy, an independent QP, as this term is defined pursuant to NI 43-101, for mineral resources. The resource estimation is based on the current drillhole database, revised lithology from relogging, discrete breccia wireframe domain models, and current detailed topographic data provided by Faraday. The resource estimation is supported by logging, drilling, and sampling current to an October 27, 2022, data cut-off date. SRK undertook the technical work on the geological model and grade estimates between November 2022 and January 2023, with the final assessment for RPEEE completed at the start of February 2023. Based on this assessment, the effective date of the resource statement is February 9, 2023.

As of the data cut-off date, the current drillhole database contained validated assay data from the majority of Faraday Phase 1 drilling, except FCD-22-001, which was pending results. Geological logging data was available from all nine of the Phase 1 drillholes. Between the end of October 2022 and May 2023, SRK conducted the technical work reflected in this disclosure, including incorporation of recovery data and consideration of potential mining scenarios for resource reporting, which resulted in the May 3, 2023 effective date of this report.

The estimation of mineral resources was completed utilizing a geological domain model and resource block model constructed in Leapfrog Geo™ and Leapfrog Edge™ software (Version 2021.2.5). The resource estimation methodology involved the following procedures:

- database and geological model review;
- data conditioning for statistical analysis (i.e., capping review and compositing);
- block modelling and grade interpolation;
- resource classification and validation;
- assessment of RPEEE;
- application of Faraday-provided reporting CoG for conceptual open pit and underground mining scenarios; and
- preparation of the mineral resource statement.

14.2 Drillhole Database

The Faraday-provided drillhole database consisted of 556 drillholes on the Copper Creek property, which total 217,145.2 m of drilling. Within the resource area, the breccia units were defined by a total of 320 drillholes with a total of 34,913.9 m of sampled drillhole intercepts within the modelled wireframes. The remaining drillholes and sampled assay intervals exist in areas outside of the breccias and deeper in the porphyry-style mineralized zone. In total, there are 176,108.9 m of sampled intercepts in 492 drillholes across both mineralized zones within the resource area.

Historically, selective sampling occurred that resulted in a significant number of unsampled intervals; approximately 18.9% of the drilling metres in the database have no assay values. The majority of the unsampled intervals are located outside of the breccia domains.

Redhawk and other previous operators have sampled missing zones encountered during relogging campaigns. Faraday will continue logging and resampling drilling intersections which are inferred to be continuations of the modelled breccia units but were unsampled for assay in previous programs. Faraday reports that the majority of the previously unsampled intervals are mineralized to some degree, especially within the breccia units. Therefore, for modelling and estimation, intervals with missing assay values were ignored instead of assigned a null value.

Minor modifications to the estimation drillhole database were required prior to compositing and exploratory data analysis (EDA). SRK performed the following procedures to the Copper Creek drillhole database:

- An alphanumeric character variable was added to sample intervals in the ‘EstDom’ field by using an estimation domain model to flag samples defining the individual breccia wireframe domain boundaries. All areas outside of the modelled breccias, including halos around near-surface breccia units and the deeper porphyry-style mineralized zone, are included in the ‘Outside Breccia’ estimation domain.
- A CuEq value was calculated. The CuEq pricing was defined by Faraday as copper at $3.80/lb, molybdenum at $13.00/lb, and silver at $20.00/oz. Variable metallurgical recovery by metal and material type are considered in the CuEq calculation:
  - Copper recovery: 92% in sulphide, 85% in transitional, and 60% in oxide.
  - Molybdenum recovery: 78% in sulphide, 68% in transitional, and none in oxide.
  - Silver recovery: 50% in sulphide, 40% in transitional, and none in oxide.
  - CuEq is calculated by domain based on the above variable recovery. For example, sulphide CuEq = [(Cu grade/100 * 0.92 Cu recovery * 2,204.62 * 3.8 Cu price) + (Mo grade/100 * 0.78 Mo recovery * 2,204.62 * 13 Mo price) + (Ag grade * 0.50 Ag recovery * 20 Ag price/31.10348)]/(0.92 Cu recovery * 2,204.62 * 3.8) * 100.

The key economic variable is copper, with molybdenum and silver reported as additional components of the resource. Relatedly, more copper assay values exist compared to the other elements due to selective historical sampling practices. Within the resource area, molybdenum values (n=50,091) exist for 79% of the copper values (n=63,357), while silver assays (n=30,949) number only 49% relative to the total number of copper assays. Consequently, most of the following discussions and summary documentation are focused on copper mineralization, grade, and continuity. Based on reviews of the database and QA/QC provided, as discussed in previous sections, the QP for Mineral Resources is of the opinion that the assay data is adequately reliable to support mineral resource estimation.

14.3 Geological Model

The Copper Creek mineralization is hosted within Palaeocene volcanic (GHv) and Proterozoic to Palaeozoic sedimentary rocks. The underground resource occurs largely in EH-porphyry-style veins and magmatic cupola zones, while the open pit resource is dominantly hosted in magmatic-hydrothermal breccias. Hypogene copper is predominantly contained in chalcopyrite and bornite. During deposit formation, the near-surface mineralized breccias were subjected to partial in-situ oxidization that transformed part of the hypogene sulphides into secondary copper oxides.

The current geological model is based on recent work by Faraday, including relogging approximately 15,000 m of historical core covering the breccia-style mineralization, observations from new drilling, short wave infrared spectral data, multi-element geochemistry, and detailed relogging of core from the Keel and American Eagle porphyry-style mineralization completed by Redhawk geologists. Moreover, the Copper Creek geological model and MRE are delineated at surface by newly acquired detailed 1 m contour topography. The individual breccia domains were implicitly modelled in Leapfrog Geo™ software (Version 2021.2.5) based on interval selection coding derived from geological logging and assay data. As needed, the explicit models were controlled via polylines and points to enable wireframe construction to match the geological interpretation.

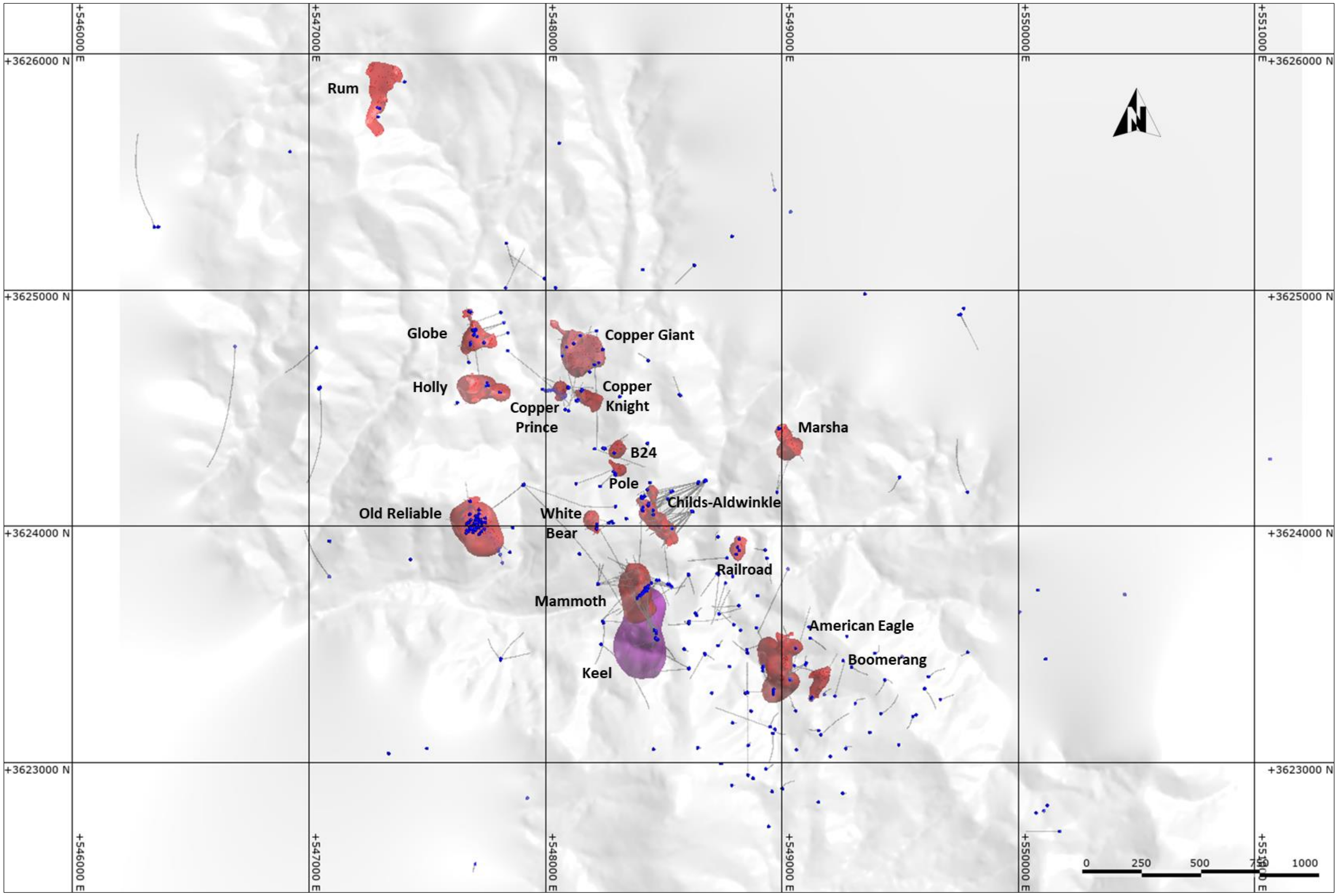
In total, 17 individual breccias were modelled by Faraday. SRK reviewed the geological model in detail and verified that the modelled domains were suitable for mineral resource estimation. The geological model wireframes were used to constrain the mineralization in the estimation. All of the modelled breccias contained mineralization above CoG and were included in the MRE summary.

Table 14-1 summarizes the wireframes used for Copper Creek estimation domains, and Figure 14-1 shows them in plan view.

Table 14-1: Summary of Copper Creek Breccia Wireframes

Domain	Volume (cubic metres (m^3))	Number of Drillholes
American Eagle	7,842,700	12
B24	495,700	5
Boomerang	768,750	2
Childs	2,312,500	45
Copper Giant	3,321,700	9
Copper Knight	524,600	11
Copper Prince	383,370	27
Globe	1,684,000	21
Holly	4,789,900	7
Keel	25,158,000	15
Mammoth	6,217,000	48
Marsha	1,630,200	4
Old Reliable	5,568,200	108
Pole	155,050	6
Railroad	708,240	4
Rum	1,155,800	2
White Bear	427,390	6
Outside Breccia	---	381

Figure 14-1: Plan View of Copper Creek Geological Model Domains



Source: SRK, 2023

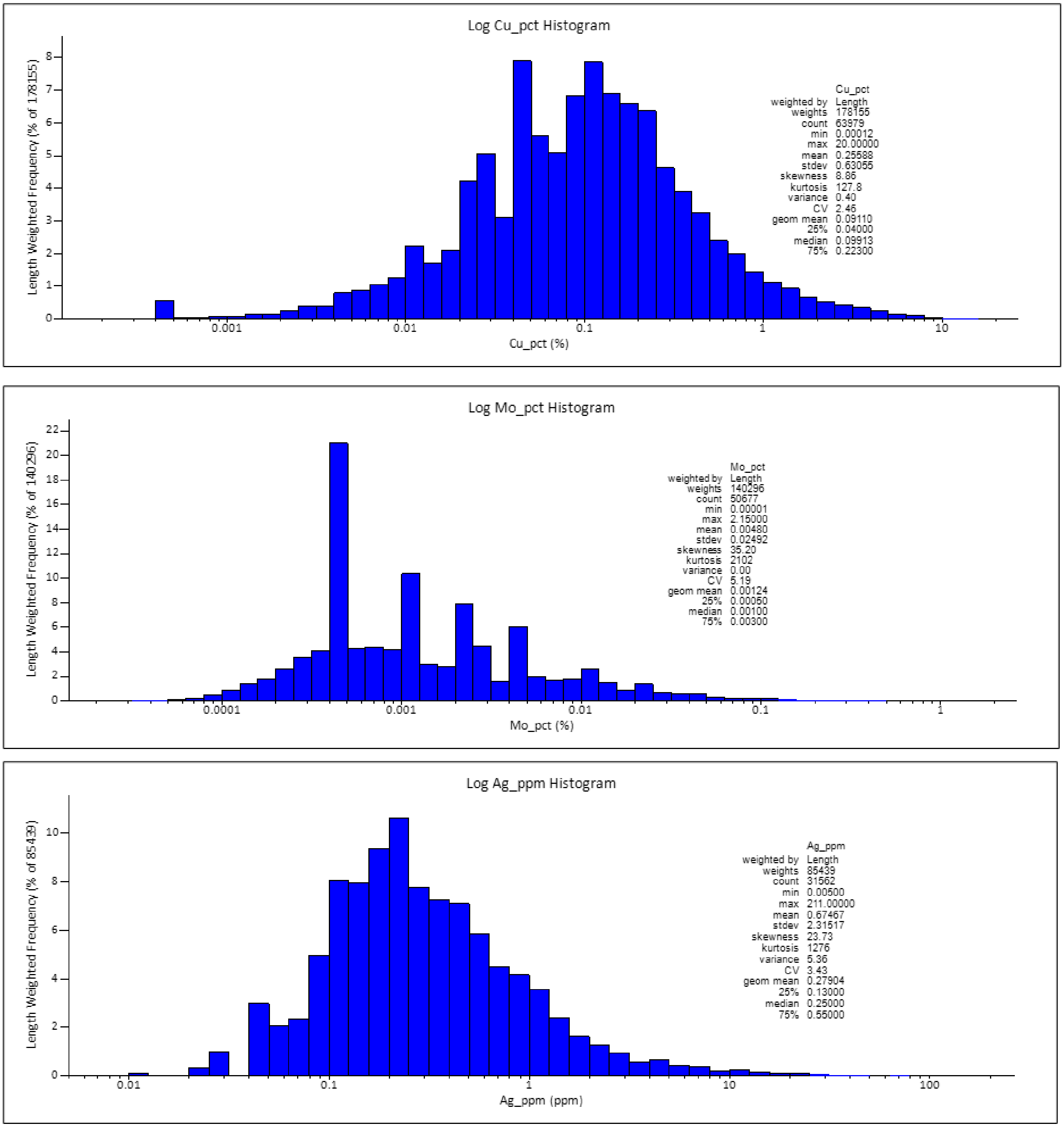
Additionally, three domains are recognized within the Open Pit resource that define the partial in-situ oxidation of near-surface mineralization, referred to as oxide, transitional/ mixed, and sulphide. From the surface, these zones extend in broad horizontal layers sub-parallel to existing topography and transitions with depth to hypogene sulphide mineralization. The material types were modelled in 3D from visual logging information and ratios of total copper grade to limited acid solubility assay data. Less than 10% of copper assays have corresponding acid-soluble copper data to form a solubility ratio. Where copper solubility ratios were able to be calculated from paired assays, material types were defined as oxide at 75+%, mixed oxide/transitional at 50-75%, transitional at 25-50%, and sulphide at less than 25% acid-soluble to total copper ratios. The relatively sparse analytical data was combined with available logging data to interpret material types via interval selection in Leapfrog Geo.

The minerals comprising these supergene zones represent diverse copper mineralogy and metallurgical extraction properties. Variable metallurgical recovery is applied to the open pit resources using the 3D material type model. The current material type model is an early-stage concept to understand and quantify processing changes likely to be encountered while mining the near-surface mineralization. SRK recommends the continued collection of solubility data, such as acid and cyanide soluble copper assays, copper mineral species reports, and related recovery data. This will enable development of a robust geometallurgical model as the Project advances.

14.4 Assay Capping and Compositing

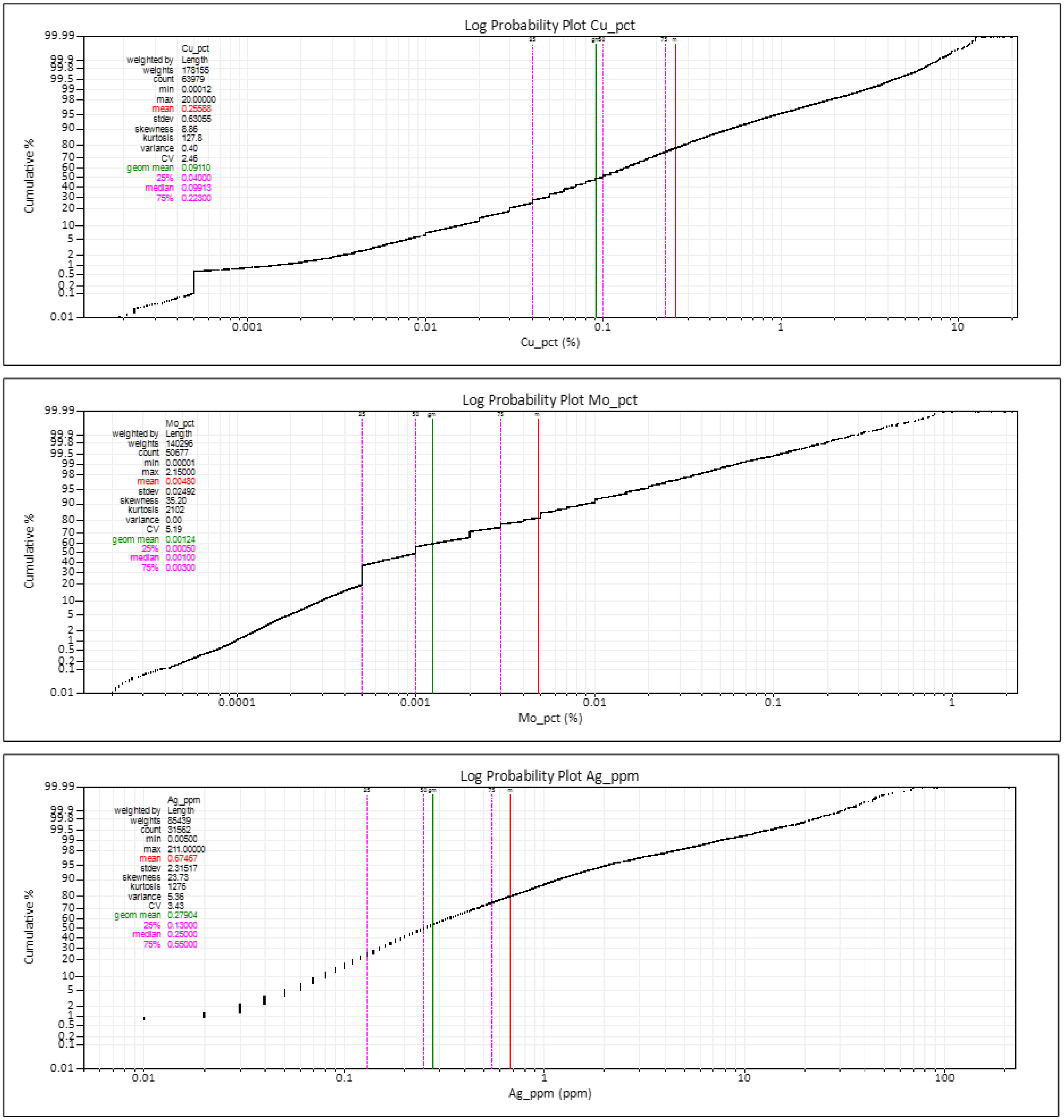
The assay sample data were plotted on histogram and cumulative distribution graphs to review the population statistical distribution. Data plotted below are raw and not filtered for inclusion within any specific domain. Figure 14-2 and Figure 14-3 are histograms and log probability plots that show an overall distribution skewed to lower grades for copper, molybdenum, and silver data populations.

Figure 14-2: Raw Sample Data Histogram Plots of Cu, Mo, and Ag



Source: SRK, 2023

Figure 14-3: Raw Sample Data Cumulative Probability Plots of Cu, Mo, and Ag



Source: SRK, 2023

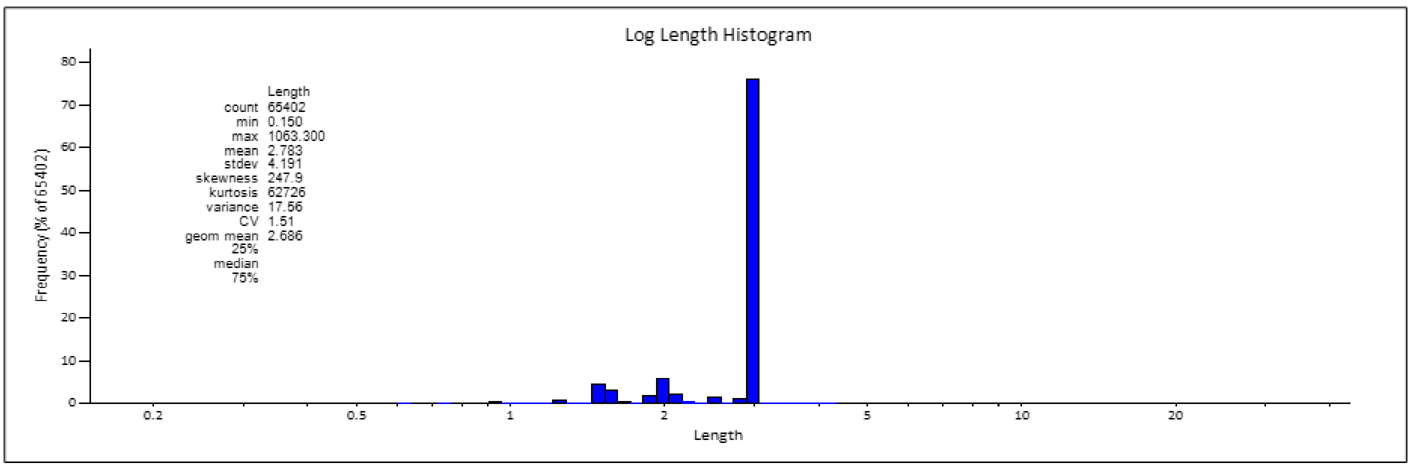
14.4.1 Compositing

SRK analysed the mean length of the core drilling samples to determine appropriate composite lengths. Historical sample collection was in imperial units and averaged 3.05 m (10 ft) per sample, with approximately 76.1% of all data sampled at the approximately 3-m length. Raw assay samples were averaged into 6.10 m composites broken on breccia domain boundaries, with residual lengths up to 3.05 m added to the previous interval.

Certain historical drillholes were selectively sampled within the breccias during previous drilling campaigns, and any unsampled intervals were ignored during primary compositing. Additional composite sets were generated that tested assigning null values equal to one-half of the LLDL or nominal 0.1% Cu values to unsampled intervals. Further, 12-m full block height composites were created for nearest neighbour (NN) estimation comparison.

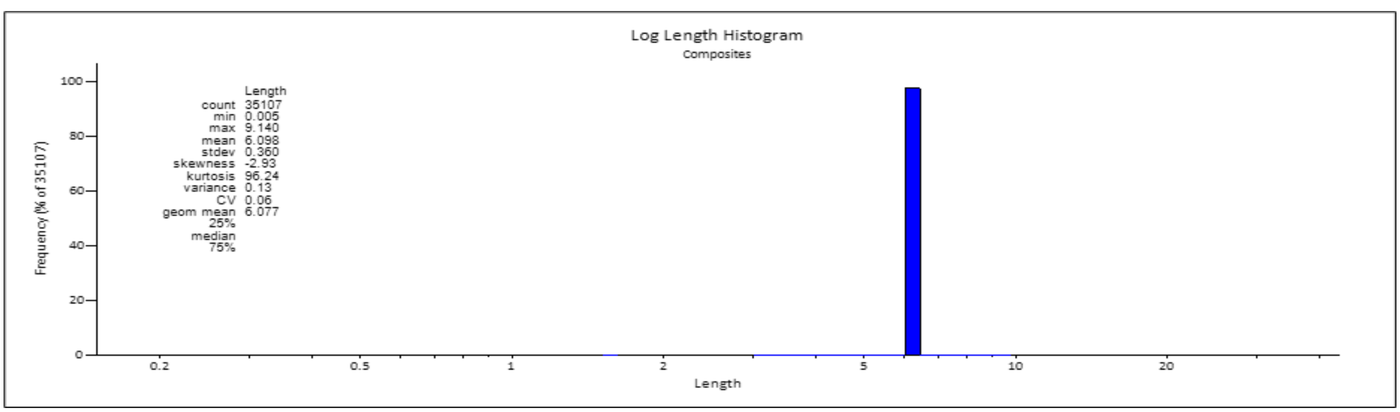
The mean composited interval length is 6.10 m (20 ft). Figure 14-4 and Figure 14-5 depict histograms of sample length before and after compositing, respectively.

Figure 14-4: Raw Sample Data Histogram Plot of Drillhole Sample Length



Source: SRK, 2023

Figure 14-5: Histogram Plot of Length after Compositing



Source: SRK, 2023

14.4.2 Outlier Capping

SRK used Phinar Software's X10-Geo (X10) software to complete a detailed capping analysis for Copper Creek sample values on a global basis, independent of individual wireframe domains. To assess capping levels, the X10 software enables multiple levels of capping to be evaluated both visually and statistically. This capping analysis was supported by log probability plots that were reviewed for breaks in slope or composite distribution.

SRK analysed the percentage of composites capped, total metal reduction, impact on the mean grades, and reduction in the coefficient of variation (CV) to evaluate potential capping levels for copper, molybdenum, and silver. A small subset of mineralized intervals appeared to potentially require capping. However, SRK reviewed the high-grade outlier composite intervals in 3D. The high-grade copper mineralization was grouped into several breccia units, especially the upper zone of the Mammoth breccia. The high-grade molybdenum was concentrated in the Childs Aldwinkle breccia. The high-grade silver was clustered in the Mammoth and Keel breccias. SRK determined that these samples actually record locally consistent, high-grade mineralization. Therefore, after samples were analysed for potential outlier capping by metal on a global basis, no top cuts were applied.

14.5 Bulk Density

Specific gravity (SG) test work has been completed by Copper Creek site personnel during the historical and recent drilling campaigns. A total of 2,352 SG sample intervals are in the compiled bulk density database. However, the brecciated rocks are variably porous with common vuggy cavities that make assessing bulk density difficult.

SG measurements are performed by Archimedes procedures on-site using a scale and water bucket. Due to the vuggy nature of some of the breccia deposits, the samples are wrapped in plastic wrap for a dry measurement. For comparison, an additional wet sample is measured every fifth SG sample without any coating. SG samples are measured approximately every 20 m downhole, and a significant database is being developed for comparison to earlier bulk density test work.

Faraday evaluated the data statistically by sample type and domain tested, ignoring outlier and spurious data, to arrive at the current bulk densities used in the MRE. Measurements on whole HQ core are the most reliable in the database, while split-core testing results are less consistent. During the recent drilling program, Faraday sent samples to ALS for paraffin wax-coated SG measurements. The results of the third-party laboratory testing were compared to the current in-house SG results to provide additional validation for the chosen bulk densities. Bulk densities are assigned by domain to the block model, as follows:

- Near-surface breccias: 2.47 g/cm^3
- Mammoth and Keel breccias, porphyry mineralization, and all other areas: 2.60 g/cm^3

Based on review of the available data and supporting analysis, SRK considers the bulk density data reasonable and consistent with the general host lithologies encountered at Copper Creek. At this point in the Project, SG data is not sufficient to determine if material density variability exists between different named breccias or across the transitional from oxidized to fresh rocks. The QP considers the density values suitable for use in resource tabulation.

14.6 Variogram Analysis

Spatial continuity through variography analysis by domain was attempted. Due to inconsistent drillhole spacing, fan drilling patterns, clustered data, and relatively limited sample data for certain domains, the spatial models are rough and often poorly formed. Variograms were used as a guide on general continuity within breccias and to inform anisotropy and distance of the estimation search neighbourhood. SRK has also based assumptions on continuity at distances from drillholes on experience with similar deposits in Arizona.

14.7 Block Model

The estimation was constrained within discrete breccia domains interpreted by Faraday based on geological logging and assay grades. Grade estimation was based on parent block dimensions of 20 m in X-Y and 12 m in Z and sub-blocked along the domain boundaries to 1 m in X-Y-Z. The parent block dimensions are based on roughly one-third of the general drilling grid spacing. The sub-block size was selected to best represent and improve the accuracy between estimation domain wireframes and the block volumes while minimizing dilution between domains.

The sub-blocked resource models and block grade estimates were created using Leapfrog Edge™ software (Version 2021.2.5). Table 14-2 presents the block model parameters and extents.

Table 14-2: Block Model Parameters Summary

	X (m)	Y (m)	Z (m)
Origin	546,250	3,621,800	1,520
Offset	4,800	4,200	1,824
Number of Blocks	240	210	152
Parent Block	20	20	12
Sub-Block	1	1	1
Rotation	None		

Visual comparisons between the geological model (wireframes) and the block model demonstrate an acceptable fit for the equivalent domains with less than 0.1% difference. It is the QP's opinion that the block model volumes are satisfactory representations of the original wireframe volumes. Table 14-3 shows the volumetric comparison between the wireframes and blocks at Copper Creek.

Table 14-3: Volume Comparisons Between Wireframes and Block Models

Domain	Wireframe Volume (m^3)	Block Volume (m^3)	Percent Difference (%)
American Eagle	7,842,700	7,843,068	0.005%
B24	495,700	495,710	0.002%
Boomerang	768,750	769,073	0.042%
Childs	2,312,500	2,312,527	0.001%
Copper Giant	3,321,700	3,322,412	0.021%
Copper Knight	524,600	524,632	0.006%
Copper Prince	383,370	383,418	0.013%
Globe	1,684,000	1,684,304	0.018%
Holly	4,789,900	4,790,120	0.005%
Keel	25,158,000	25,158,007	0.000%
Mammoth	6,217,000	6,217,225	0.004%

Domain	Wireframe Volume (m^3)	Block Volume (m^3)	Percent Difference (%)
Marsha	1,630,200	1,630,303	0.006%
Old Reliable	5,568,200	5,568,907	0.013%
Pole	155,050	155,077	0.017%
Railroad	708,240	708,340	0.014%
Rum	1,155,800	1,156,549	0.065%
White Bear	427,390	427,480	0.021%

14.8 Grade Estimation Methodology

The 17 modelled breccia units and the porphyry domain were estimated for copper, molybdenum, silver, and arsenic using an inverse distance weighting cubed (IDW3) estimation methodology with bulk density scripted by domain. Due to inconsistency in the variography, kriging was not deemed appropriate at this stage. Arsenic was included for both exploration guidance and metallurgical characterization (as it has the potential to be a deleterious element) but was not reported in the mineral resource. All block grade estimates were made in Leapfrog Edge™ software using 6.10-m composites.

14.8.1 Estimation Parameters

The grade estimation evaluated all parent blocks with centroids within the estimation domains and sub-blocks are coded based on the parent block centroid. Estimation within the breccias considered only the composites and blocks within each unique domain and assumed hard boundary conditions at the breccia unit outer contacts to constrain smearing of often high grades in the breccias. Estimation outside of the defined breccia units, within the deeper porphyry-style mineralization and halo zones around the near-surface breccias, considered a 5-m soft boundary with the breccia units. The soft boundary for areas surrounding the breccia is applied in recognition of typical gradual transition at the breccia contacts and relative uncertainty of the exact breccia boundary. Bulk density was scripted by general domain, based on analysis of specific gravity measurements collected by Faraday and previous project operators.

A two-pass search was used to optimize block estimation so that well-informed blocks are interpolated using a tighter search ellipse. The estimation search neighbourhood was defined for individual breccia units based on reviewing the copper data population as the key economic variable with the most data. Estimation parameters for the minor elements were identical to copper. To assess the potential impact of missing data, additional copper variables were estimated using null and nominal assignments for unsampled data.

The selection criteria used for search ellipsoid size, number of samples, and other conditions are derived based on data spacing to ensure appropriate interpolation, as well as visual and statistical evaluation, during iterative trial estimation runs. Across all breccias, the two-pass estimation is informed by an average of eight composites from at least two drillholes with average sample distance of 49 m, although this varies for individual estimation domains. Outside of the breccias, the two-pass estimation is informed by an average of 11 composites at average sample distance of 126 m. Table 14-4 lists the estimation parameters.

Table 14-4: Estimation Parameters for Copper Creek Mineral Resources

Domain	Pass 1						Pass 2						Dip (°)	Dip Az (°)	Pitch (°)
	X	Y	Z	Min. Sample	Max. Sample	Min. Drill holes	X	Y	Z	Min. Sample	Max. Sample	Min. Drill holes			
American Eagle	100	75	50	4	8	2	200	150	100	2	8	1	0	0	112
B24	50	50	25	4	8	2	100	100	50	2	8	1	20	260	90
Boomerang	100	50	50	4	8	2	200	100	100	2	8	1	45	205	90
Childs	80	40	40	4	8	2	160	80	80	2	8	1	5	332	90
Copper Giant	50	50	30	4	8	2	90	90	60	2	8	1	20	140	22
Copper Knight	40	30	20	4	8	2	80	60	60	2	8	1	20	160	22
Copper Prince	35	35	35	4	8	2	70	70	70	2	8	1	0	0	110
Globe	100	50	50	4	8	2	200	100	100	2	8	1	15	337	68
Holly	50	50	25	4	8	2	100	100	50	2	8	1	10	90	90
Keel	125	100	50	6	12	2	250	200	150	3	12	1	7	267	20
Mammoth	125	50	50	6	12	2	250	100	100	3	12	1	7	90	155
Marsha	50	50	50	4	8	2	100	100	100	2	8	1	0	0	90
Old Reliable	60	30	15	6	12	2	120	100	60	3	12	1	10	322	45
Pole	40	30	20	4	8	2	80	60	60	2	8	1	5	138	110
Railroad	50	50	50	4	8	2	100	100	100	2	8	1	0	0	90
Rum	40	40	15	4	8	2	80	80	30	2	8	1	25	90	90
White Bear	40	30	20	4	8	2	80	60	40	2	8	1	0	0	90
Outside Breccias	200	200	75	6	12	2	250	250	125	3	12	1	15	225	90

Note: For Pass 2 of the Outside Breccia domain, an outlier restriction was applied to clamp any grades above 1.0% Cu at 50% of the Pass 2 search ellipse (if not previously estimated in Pass 1). Az = Azimuth.

14.8.2 Post-Estimation Scripting

A series of post-estimation scripts were run on the model using Leapfrog Edge™ software to assign additional variables, as follows:

- Density values were assigned by domain (see Section 14.4).
- Coding of historical depletion (see Section 14.8).
- Background one-half LLDL grade assigned to unestimated blocks beyond search parameters:
  - Copper at 0.0005%, molybdenum at 0.0005%, and silver at 0.005 g/t.
- CuEq calculation from estimated block grades based on economic inputs from Faraday.
- Pre-classification script based on search pass, number of samples, and distance.
- Final classification assignments based on separate classification models (see Section 14.10).

14.8.3 Estimation Summary

It is the opinion of the QP for Mineral Resources that the methodology and search neighbourhood used to estimate the Project resource model are consistent with industry standards, acceptable for the level of sample data, and results in quality estimation results in well-informed areas. Some portions of the deposit are considered poorly informed in terms of drilling and certainty of geological interpretation and should be targeted for future drilling to improve confidence in both geological continuity and grade estimation. The relative confidence in grade estimations based on estimation quality are considered in resource classification, as discussed in Section 14.10.

14.9 Depletion

Limited historical mining has occurred at Copper Creek, mainly in the Old Reliable and Childs Aldwinkle breccias. Block grades were depleted in the model according to available records of historical mining, which have inherent limitations. No 3D stope volumes exist to record exact location of historical mining. Some paper records of production levels and stopes were available in the Faraday office files; however, correct digitization will be a laborious process. SRK recommends that Faraday attempt to recreate the historical mining volumes in 3D, if possible. Additional unknown mining potentially exists in areas that were not identified in historical records, which, given the small size of the artisanal operations, is considered a minor concern with respect to the overall interpreted mineralization volumes.

Historical documentation indicates that 12,077,000 lb (~5,478 t) of cement copper were recovered from the Old Reliable in-situ leach (ISL)operation in the 1970s. The Old Reliable breccia pipe was blasted above the 1,140 masl elevation to increase permeability. Recovery of the ISL operation was reported as approximately 20%. Using aerial imagery, SRK digitized a 3D wedge that incorporated the approximate volume of previous leaching visible at surface and extending to the appropriate level below surface. Within this wedge, copper grades were depleted at 20.5% in the oxide and transitional material. Other metals were not depleted as they are not susceptible to weak leaching solutions. Overall, the depletion of Old Reliable removed 12,503,846 lb (~5,672 t) of copper from the block model, which is a close approximation of the historical reported production. Note that drilling used for estimation in Old Reliable occurred post-ISL mining activity.

For Childs Aldwinkle, underground mining during the 1930s resulted in 298.5 thousand metric tonnes (kt) total production. Historical recovery of the room-and-pillar mining method was likely on the order of 65% to 70%. The two southernmost fingers of the breccia were mined, and the subsidence cavities are visible at surface. The deepest mined-out level is reported at 158 m (520 ft) below the haulage level. SRK created two 3D depletion columns by digitizing the surface expression of the Childs Aldwinkle mine and extending the wireframes to a 1,063 masl elevation, which is 158 m below surface, to approximate the reported base of production. This gives a mined volume of 463 kt, which equates to about 64% recovery to reach the reported 298.5 kt historical mining volume. All grade within the Childs Aldwinkle depletion wireframes were set to one-half the LLDL for all elements.

14.10 Model Validation

Multiple techniques were implemented to evaluate the validity of the resource block model, including the following:

- Interpolated block grades were visually checked by domain for comparison to capped composite assay grades.
- Estimation parameter results were reviewed to evaluate the overall performance of the grade estimation methodology by estimation pass and by block, including average number of composites, average number of drillholes, and average distance to samples.
- Statistical and graphical comparisons between resource block grades estimated by IDW3 were compared by domain to composite assay grades and to NN estimates.

14.10.1 Estimation Parameter Results

Estimation parameter results were reviewed to evaluate the overall performance of the grade estimation methodology and evaluate the distribution of supporting data. Multi-pass estimation was conducted to aid in assigning confidence of grade estimates on a per block basis. Most blocks are estimated using a combination of the two passes with lesser blocks at the wireframe edges not estimated and assigned one-half LLDL.

SRK reviewed the number of composites, average distance to samples, and total block count used for each estimation pass. For this analysis, domains are grouped into all breccia units versus outside of the breccias. Across all breccias, the two-pass estimation is informed by an average of eight composites from at least two drillholes with average sample distance of 49 m, although this varies for individual estimation domains. Outside of the breccias, the two-pass estimation is informed by an average of 11 composites at average sample distance of 126 m. Table 14-5 presents a summary of the estimation parameter results. Figure 14-6 and Figure 14-7 show histogram distributions of the average distance for estimates by estimation pass, ignoring lesser blocks with assigned values.

Table 14-5: Model Validation by Estimation Parameter Results Per Block

Block Model	Estimation Pass	Average Number of Composites	Average Distance to Samples (m)	Blocks Estimated (%)
Breccias	1	8	43	58.5
	2	9	54	41.5
Outside Breccias	1	11	98	56.8
	2	11	154	43.2

Figure 14-6: Average Distance for Estimated Blocks by Estimation Pass, Breccias

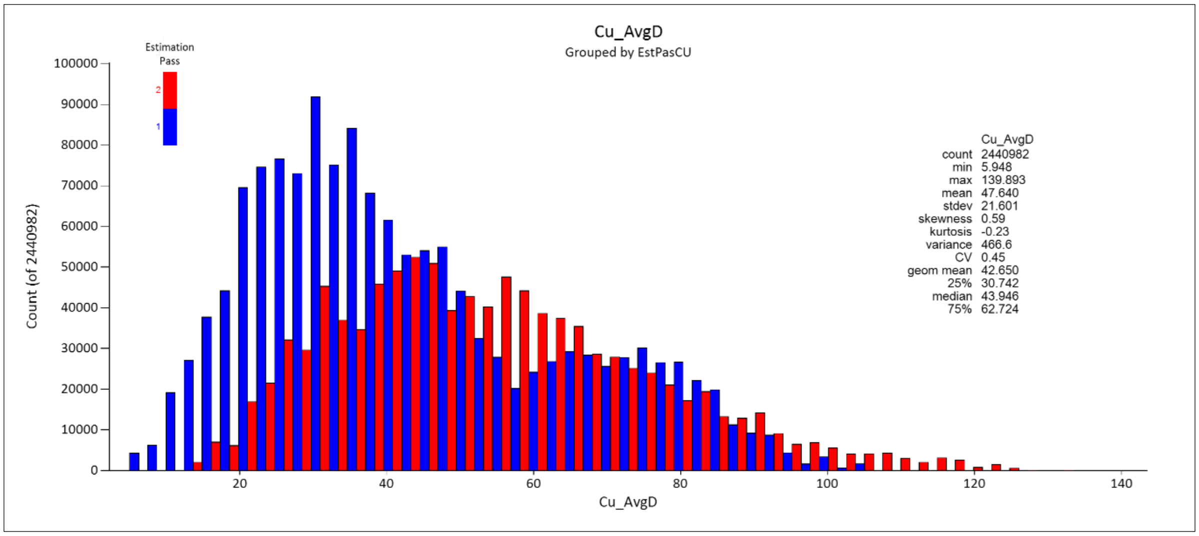
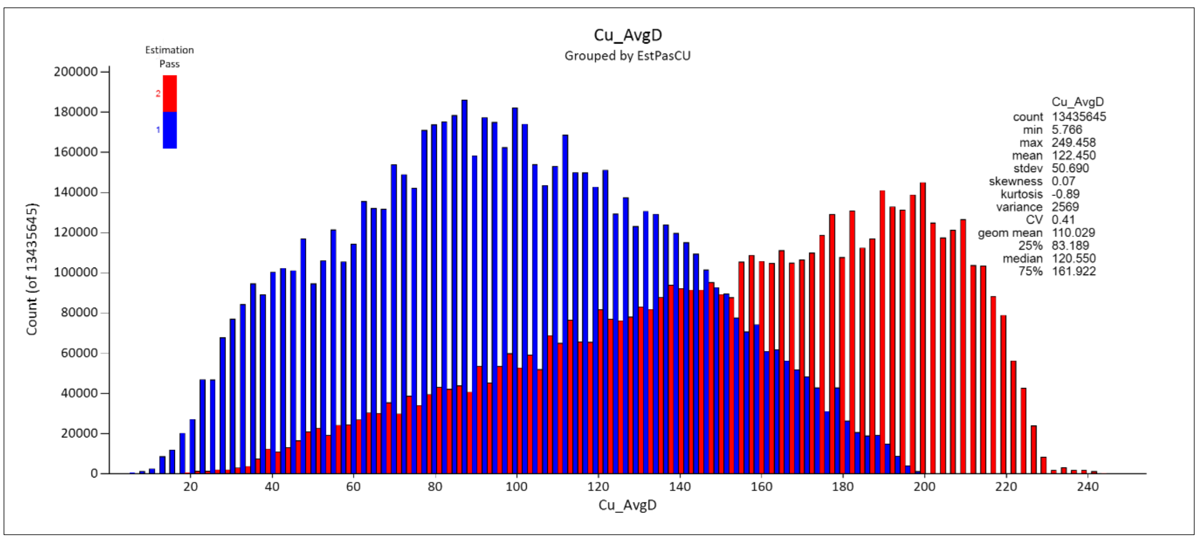


Figure 14-7: Average Distance for Estimated Blocks by Estimation Pass, Outside Breccias



14.10.2 Comparative Statistics

SRK reviewed statistics of mean grades of composited assay data and estimated copper block grades. Due to data clustering and the often-irregular drilling grid, mean composite grades appear to be significantly lower than estimated mean block grades. However, mean grades between the NN estimates (on 12-m block height composites) and block grades are similar and within an acceptable range globally for the estimation to be considered appropriate. In general, bias observed for estimated blocks versus composites is caused by clustering effects from non-standardized sample spacing relative to the wireframe generation, which locally results in larger volumes of blocks being informed by relatively smaller population of samples. Table 14-6 provides a summary of the model validation by statistical analysis.

Table 14-6: Model Validation by Statistical Analysis for Copper

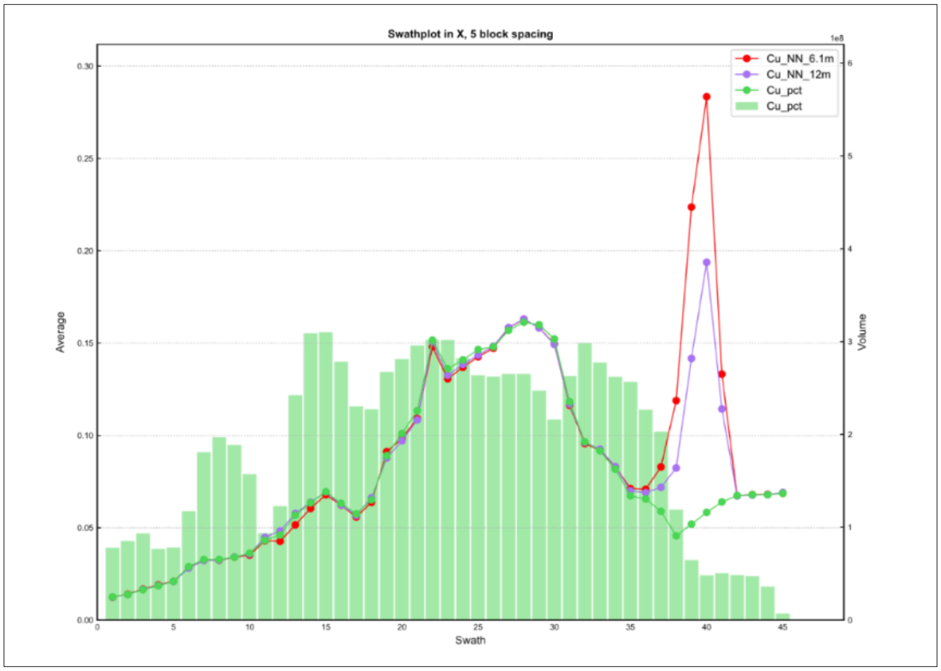
Domain	Copper (%)			Difference Blocks to Composites (%)	Difference Blocks to NN Estimate (%)
	Composite Mean	NN Mean	Block Mean		
American Eagle	0.33	0.32	0.32	-3.4%	0.5%
B24	0.18	0.19	0.19	2.1%	0.2%
Boomerang	0.13	0.08	0.08	-54.6%	3.2%
Childs Aldwinkle	1.67	1.02	1.01	-65.9%	-1.5%
Copper Giant	0.24	0.20	0.20	-19.5%	0.8%
Copper Knight	1.62	0.93	0.90	-81.0%	-4.2%
Copper Prince	1.27	1.19	1.12	-13.0%	-5.9%
Globe	0.48	0.34	0.36	-34.7%	3.5%
Holly	0.10	0.09	0.07	-33.7%	-16.9%
Keel	0.65	0.45	0.46	-42.2%	2.8%
Mammoth	0.84	0.66	0.65	-29.1%	-0.8%
Marsha	0.26	0.28	0.28	7.8%	0.3%
Old Reliable	0.60	0.40	0.42	-42.5%	4.8%
Outside Breccia	0.14	0.10	0.09	-49.4%	-3.1%
Pole	0.35	0.36	0.33	-5.7%	-6.3%
Railroad	0.20	0.20	0.20	-0.4%	1.6%
Rum	0.61	0.28	0.27	-126.0%	-2.1%
White Bear	0.33	0.24	0.26	-25.6%	8.5%

Globally across all domains, the results indicate that the SRK estimates report an unweighted average of -0.8% of the NN grade estimate, with individual domain estimates reporting above or below the input composite means. This in an indication of an acceptable estimate with an appropriate amount of grade smoothing. Individual domain differences between the NN estimate and blocks are related to clustering of higher or lower grades on an individual breccia basis. Some domains were not filled completely during estimation, such as Holly breccia that lacks significant sample support at depth. Areas of the wireframes without estimated blocks received scripted one-half LLDL values, which lower the block mean for these domains versus the composite mean. Also, the highest variance domains are within small volume breccias. SRK reviewed areas of the block model with discrepancies and considers the estimation fit-for-purpose and appropriate at the stated resource classification.

14.10.3 Swath Plots

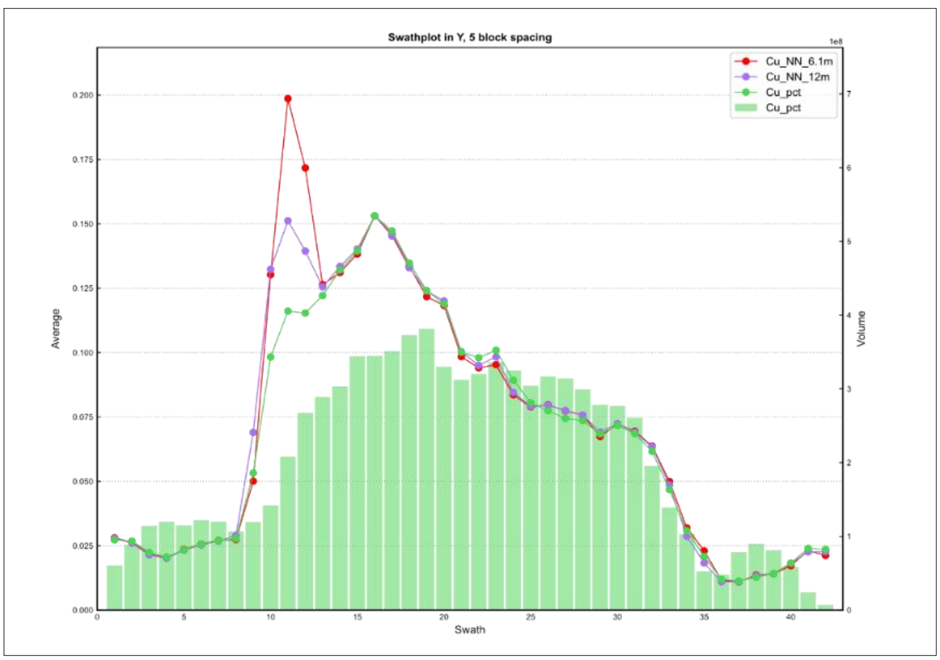
Swath plots for copper were generated to validate the model globally by comparison to NN estimates. Both 6.1- and 12-m block height composites were interpolated by NN. The sectional profiles compare mean block grades and NN values by northing (X), easting (Y), and elevation (Z) (Figure 14-8 to Figure 14-10). The swath plots illustrate an acceptable correlation between block grades and the unbiased NN estimator.

Figure 14-8: Sectional Profile (Northing, X) of Block Grade Versus NN Estimates



Source: SRK, 2023

Figure 14-9: Sectional Profile (Easting, Y) of Block Grade Versus NN Estimates



Source: SRK, 2023

Figure 14-10: Sectional Profile (Elevation, Z) of Block Grade Versus NN Estimates

Source: SRK, 2023

14.11 Resource Classification

The mineral resources are classified under categories referenced in the CIM Definition Standards (CIM, 2014) and reflect the relative confidence of the grade estimates and the continuity of the mineralization. This classification is based on several factors, including geological understanding and uncertainty, confidence in the geological continuity of the mineralized structures, the quality and quantity of fundamental exploration data supporting the estimates, geostatistical confidence in the tonnage and grade estimates, data QA/QC and verification to original sources, bulk density determinations, accuracy of drill collar locations, accuracy of topographic surface, quality of the assay data, spatial representativity of supergene zone interpretations, and many other factors, which influence the confidence of the resource estimation. No single factor controls the resource classification; rather, each factor influences the result.

Specific records are limited for sample preparation and analytical procedures used by historical Copper Creek operators prior to AMT (1995). Historical exploration was conducted by established and well-regarded historical operators using commercial laboratories. Most of the historical drilling has been validated by nearby modern drilling. No known bias exists in the earlier sample grades versus later analyses that would indicate the historical laboratories were not following established preparation and analytical protocols. It is the QP's opinion that data verification checks performed internally by Faraday staff in combination with historical external audits and independent checks by the QP have resulted in sufficient validation of the fundamental drilling database at Copper Creek. Therefore, the source or time period of the drilling is not considered material to data quality and is not considered in the current classification of resources.

For mineral resource classification, a confidence variable (pre-class) was scripted to each block to represent the relative confidence in the estimate quality, defined as follows:

- Class 1 reflects the highest confidence in grade and potential Measured classification. These blocks were estimated in Pass 1 with seven or more composites in three or more drillholes. The average distance to samples is 40 m or less within breccia domains and 60 m outside. Additionally, estimates of the additional copper variables from compositing null and nominal assignments for unsampled data were evaluated as a risk factor, targeting less than 15% difference between copper grades greater than or equal to 0.2%.
- Class 2 reflects moderate-high confidence in grade and potential Indicated classification. Blocks are estimated in Pass 1 or 2 inside the breccia domain, or in Pass 1 outside of the breccia domains, with four or more composites from two or more drillholes. The average distance to samples is 80 m or less within breccia domains and 100 m outside.
- Class 3 reflects low-moderate confidence in grade and potential Inferred classification. Blocks are estimated with two or more composites from at least one drillhole. The average distance to samples is 200 m or less.
- Class 4 delineates blocks within the modelled estimation domains that are not classified as mineral resources. These areas of the model may have exploration potential following additional drilling.

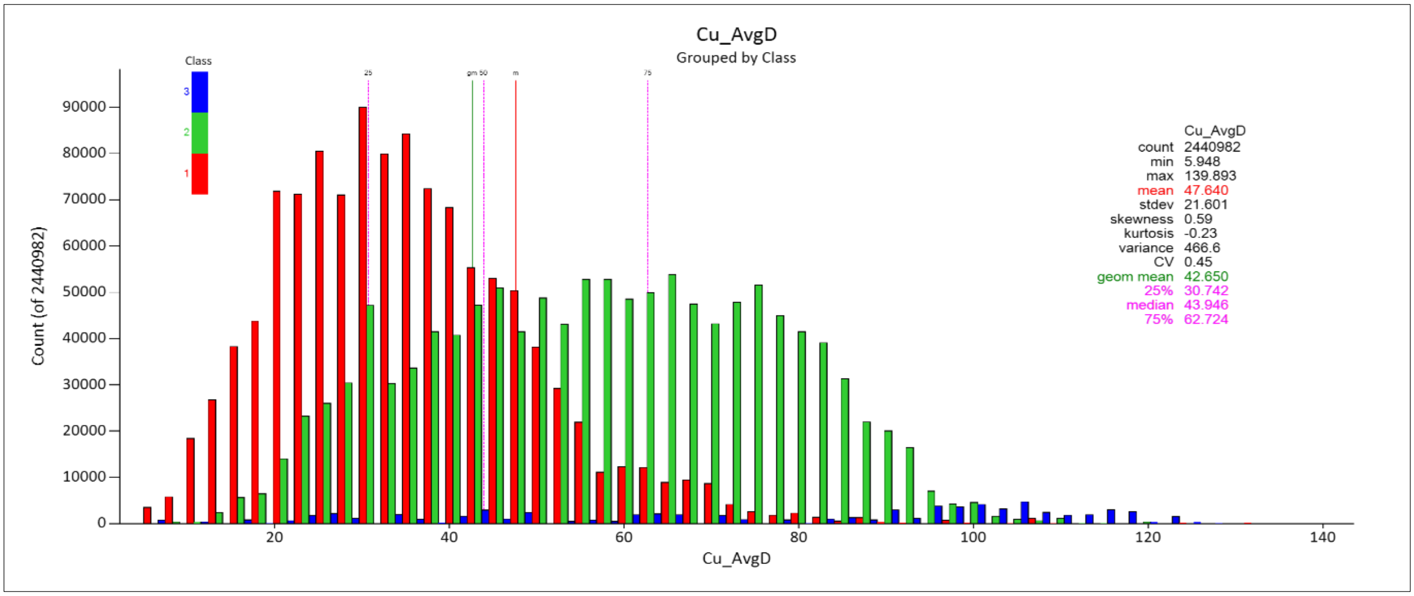
The pre-class variables were evaluated and smoothed to create a classification wireframe model that defined contiguous areas of confidence in the estimation. Then, blocks were back-coded, with a final mineral resource classification evaluated on the sub-blocks based on inclusion with the classification wireframes.

The application of classification categories is tighter within the near-surface breccia domains versus the deeper porphyry-style mineralization. Additionally, the breccias are drilled with closer spacing than the general areas outside of the breccia. This results in a larger proportion of breccias classified as Measured and Indicated versus the larger external domain that has more Inferred blocks. Table 14-7 summarizes the average distance to blocks by classification by the two primary domain groupings. Figure 14-11 and portray histograms of the average distance to blocks categorized by classification.

Table 14-7: Average Distance to Estimated Blocks by Classification

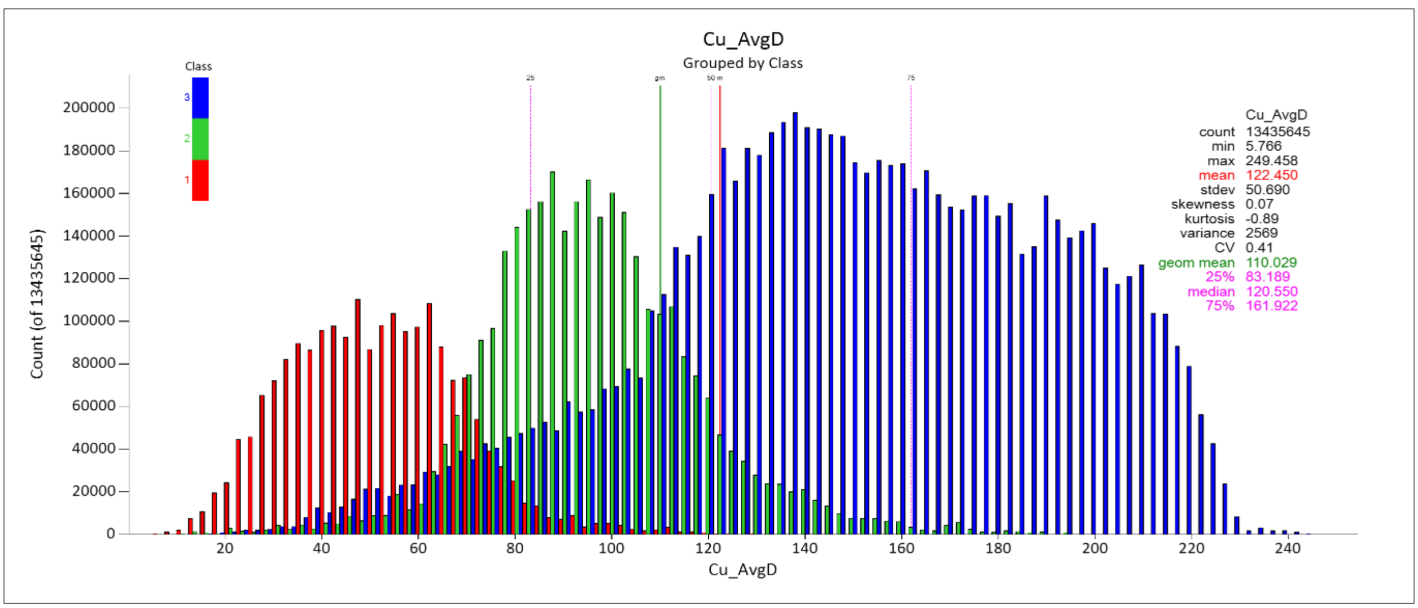
Block Model	Class	Average Distance to Samples (m)	Blocks Estimated (%)
Breccias	1	35	47.3
	2	58	49.9
	3	78	2.9
Outside Breccias	1	51	14.9
	2	96	23.7
	3	150	61.4

Figure 14-11: Average Distance for Estimated Blocks by Classification, Breccias



Source: SRK, 2023

Figure 14-12: Average Distance for Estimated Blocks by Classification, Outside Breccias



Source: SRK, 2023

14.12 Mineral Resource Statement

CIM Definition Standards for Mineral Resources and Mineral Reserves (CIM, 2014) defines a mineral resource as follows:

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

Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals. The RPEEE requirements generally imply that the quantity and grade estimate meet certain economic thresholds and that the mineral resources are reported at an appropriate CoG, considering extraction scenarios and processing recoveries.

SRK has defined the mineral resource based on variable CoG derived from assumed economics for both open pit and underground (UG) mining potential. SRK has applied a CoG that accounts for benchmarked operational costs based on the assumed mining method proposed, assumed processing costs, assumed G&A costs, metallurgical recovery, and market-driven metal pricing, as discussed in Section 14.11.1. Table 14-8 presents the Project mineral resource statement. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

Table 14-8: Combined Open Pit and Underground MRE, Copper Creek Project, as of the February 9, 2023 Effective Date, SRK Consulting (U.S.), Inc.

Category	Tonnage (Mt)	Grade				Contained Metal			
		Cu (%)	Mo (%)	Ag (g/t)	CuEq (%)	Cu (Mlb)	Mo (Mlb)	Ag (Moz)	CuEq (Mlb)
Open Pit									
Measured	67.2	0.48	0.008	1.2	0.51	710.5	12.5	2.6	751.1
Indicated	59.9	0.31	0.008	0.6	0.33	412.9	10.1	1.1	440.5
Measured and Indicated	**127.1**	**0.40**	**0.008**	**0.9**	**0.43**	**1,123.4**	**22.6**	**3.8**	**1,191.6**
Inferred	48.1	0.28	0.006	0.5	0.30	298.4	6.4	0.7	316.0
Underground									
Measured	34.5	0.47	0.011	1.6	0.51	359.8	8.0	1.7	388.0
Indicated	260.3	0.47	0.008	1.2	0.50	2,720.6	43.9	10.0	2,876.8
Measured and Indicated	**294.8**	**0.47**	**0.008**	**1.2**	**0.50**	**3,080.4**	**52.0**	**11.8**	**3,264.8**
Inferred	35.5	0.42	0.009	0.8	0.45	329.7	7.1	0.9	353.0
Total (Open Pit and Underground)									
Measured	101.6	0.48	0.009	1.3	0.51	1,070.3	20.5	4.4	1,139.1
Indicated	320.2	0.44	0.008	1.1	0.47	3,133.5	54.0	11.2	3,317.3
Measured and Indicated	421.9	0.45	0.008	1.1	0.48	4,203.8	74.6	15.5	4,456.4
Inferred	83.6	0.34	0.007	0.6	0.36	628.2	13.4	1.7	669.0

Source: SRK, 2023
CuEq: Copper equivalent; g/t: grams per tonne; Mlb: Million pounds; Moz: million troy ounces; Mt: million tonnes
Notes: The mineral resources in this estimate were prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions and Guidelines (CIM, 2014) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.
All dollar amounts are presented in U.S. dollars.
Pit shell constrained resources with RPEEE are stated as contained within estimation domains defined by the following cut-off grades: 0.13% CuEq for oxide material, 0.14% CuEq for transitional material, and 0.13% CuEq for sulphide material. Pit shells are based on an assumed copper price of $3.80/pound (lb), assumed molybdenum price of $13.00/lb, assumed silver price of $20.00/troy ounce (oz), and overall slope angle of 47 degrees (°) based on preliminary geotechnical data. Operating cost assumptions include OP mining cost of $2.25/t (t), processing cost of $7.60/t for milling transitional and sulphide material, $4.56/t for oxide processing, general and administrative (G&A) costs of $1.00/t, and treatment charges and refining charges (TCRC) and freight costs dependent on product and material type.
Underground constrained resources with RPEEE are stated as contained within estimation domains above 0.31% CuEq CoG. Underground bulk mining footprints are based on an assumed copper price of $3.80/lb, assumed molybdenum price of $13.00/lb, assumed silver price of $20.00/oz, underground mining cost of $7.30/t, processing cost of $7.60/t, G&A costs of $1.00/t, and TCRC and freight costs of $6.50/t. Cave footprint optimization was completed in Geovia's Footprint Finder software and applied a 700m maximum height of draw.
Average bulk density assigned by domain is as follows: 2.47 grams per cubic centimetre (g/cm^3) for all near-surface breccias, 2.60 g/cm^3 for the deeper Mammoth and Keel breccias, porphyry mineralization, and all other areas outside of breccias.
Variable metallurgical recovery by metal and domain are considered for CuEq as follows: copper recovery of 92%, 85%, and 60% within sulphide, transitional, and oxide material, respectively; molybdenum recovery of 78% and 68% for sulphide and transitional material, respectively; and silver recovery of 50% and 40% for sulphide and transitional material, respectively.
CuEq is calculated by material type domain based on the above variable recovery. For example, sulphide CuEq = [(Cu grade/100 * 0.92 Cu recovery * 2,204.62 * 3.8 Cu price) + (Mo grade/100 * 0.78 Mo recovery * 2,204.62 * 13 Mo price) + (Ag grade * 0.50 Ag recovery * 20 Ag price/31.10348)]/(0.92 Cu recovery * 2,204.62 * 3.8) * 100.
Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves in the future. The estimate of mineral resources may be materially affected by environmental permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
All quantities are rounded to the appropriate number of significant figures; consequently, sums may not add up due to rounding.

During deposit formation, the near-surface mineralized breccias were subjected to partial in-situ oxidization that transformed part of the sulphides into secondary copper oxides. Three domains are recognized within the open pit resource, referred to as oxide, transitional, and sulphide. The underground resources stated in Table 14-8 are comprised of only sulphide mineralization. Table 14-9 reports the Copper Creek open pit mineral resources by domain.

Table 14-9: Open Pit MRE by Domain, Copper Creek Project

Category	Domain	Tonnage (Mt)	Grade				Contained Metal			
			Cu (%)	Mo (%)	Ag (g/t)	CuEq (%)	Cu (Mlb)	Mo (Mlb)	Ag (Moz)	CuEq (Mlb)
Measured	Oxide	5.9	0.36	0.006	0.9	0.36	47.0	0.8	0.2	47.0
	Transitional	11.0	0.42	0.006	0.8	0.44	101.6	1.5	0.3	106.4
	Sulphide	50.3	0.51	0.009	1.3	0.54	561.9	10.2	2.2	597.7
	Total	**67.2**	**0.48**	**0.008**	**1.2**	**0.51**	**710.5**	**12.5**	**2.6**	**751.1**
Indicated	Oxide	7.1	0.29	0.009	0.6	0.29	45.7	1.4	0.1	45.7
	Transitional	10.8	0.31	0.008	0.6	0.34	74.4	1.8	0.2	80.0
	Sulphide	42.1	0.32	0.007	0.6	0.34	292.8	6.8	0.8	314.8
	Total	**59.9**	**0.31**	**0.008**	**0.6**	**0.33**	**412.9**	**10.1**	**1.1**	**440.5**
M&I	Oxide	13.0	0.32	0.008	0.8	0.32	92.7	2.2	0.3	92.7
	Transitional	21.7	0.37	0.007	0.7	0.39	176.0	3.3	0.5	186.4
	Sulphide	92.3	0.42	0.008	1.0	0.45	854.7	17.0	2.9	912.6
	Total	**127.1**	**0.40**	**0.008**	**0.9**	**0.43**	**1,123.4**	**22.6**	**3.8**	**1,191.6**
Inferred	Oxide	8.1	0.25	0.005	0.4	0.25	44.3	0.8	0.1	44.3
	Transitional	12.6	0.30	0.005	0.4	0.32	84.0	1.3	0.2	88.1
	Sulphide	27.5	0.28	0.007	0.5	0.30	170.2	4.2	0.5	183.7
	Total	**48.1**	**0.28**	**0.006**	**0.5**	**0.30**	**298.4**	**6.4**	**0.7**	**316.0**

Notes: Refer to the notes following Table 14.8.

14.12.1 Demonstration of Potential for Eventual Economic Extraction

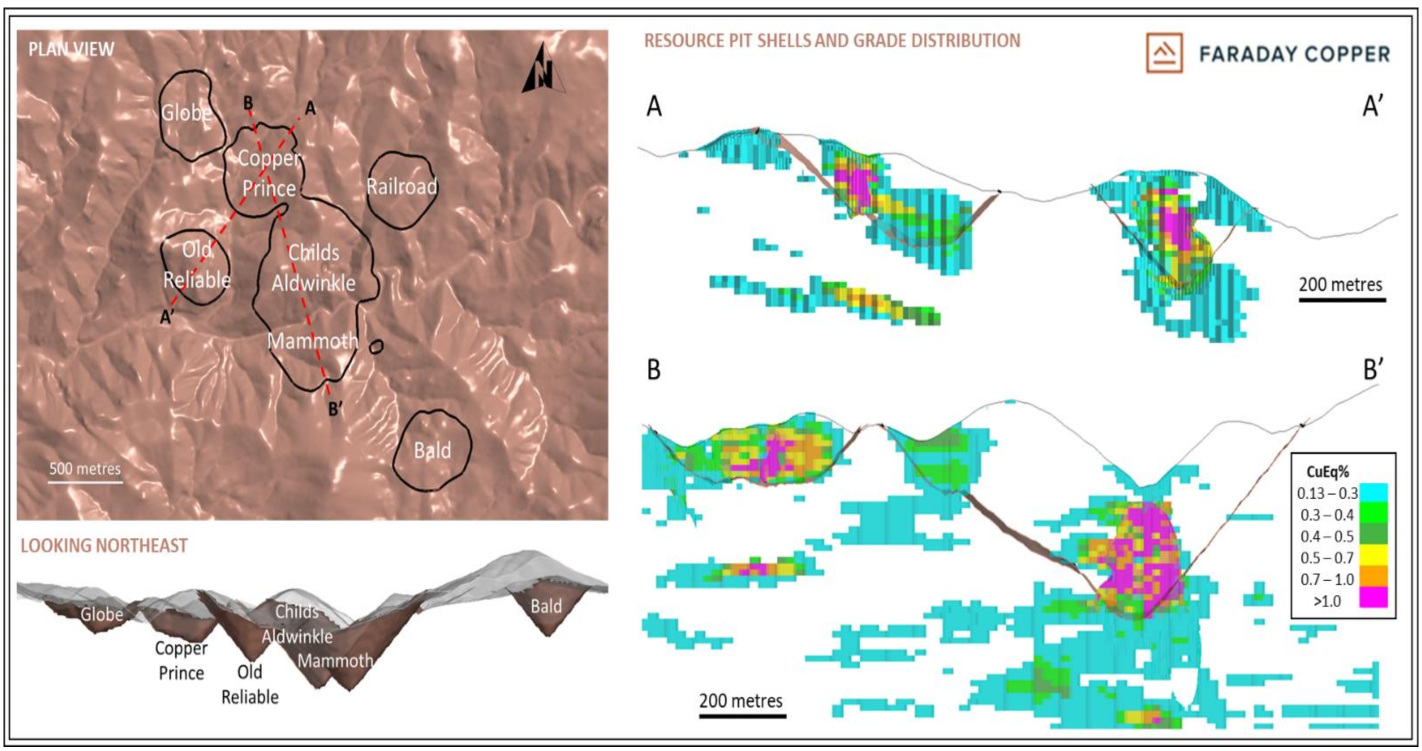
As per CIM (2014), mineral resources must demonstrate RPEEE. To satisfy this implication, SRK has applied CoG that account for operational costs based on the assumed mining method proposed, assumed processing costs, assumed G&A costs, metallurgical recovery, and market-driven metal pricing. The conceptual mine plan envisioned a 30 thousand metric tonne per day (kt/d) open pit and underground operation. The following technical and economic parameters are assumed and accounted for in the determination of CoG:

- Metal pricing was defined by Faraday as copper at $3.80/ lb, molybdenum at $13.00/lb, and silver at $20.00/oz.
- Metal pricing was defined by Faraday as copper at $3.80/ lb, molybdenum at $13.00/lb, and silver at $20.00/oz.
- Variable metallurgical recovery by metal and material type are considered in the CuEq calculation:
  - Copper recovery: 92% in sulphide, 85% in transitional, and 60% in oxide.
  - Molybdenum recovery: 78% in sulphide, 68% in transitional, and none in oxide.

- Silver recovery: 50% in sulphide, 40% in transitional, and none in oxide.
- Open Pit
  - Overall slope angle of 47° based on preliminary geotechnical data.
  - Operating cost assumptions include the open pit mining cost of $2.25/t, processing cost of $7.60/t for milling transitional and sulphide material, $4.56/t for oxide processing, G&A costs of $1.00/t, and TCRC and freight costs dependent on product and material type.
- Underground
  - UG mining assumes block caving bulk methods at a cost of $7.30/t, processing cost of $7.60/t, G&A costs of $1.00/t, and TCRC and freight costs of $6.50/t.

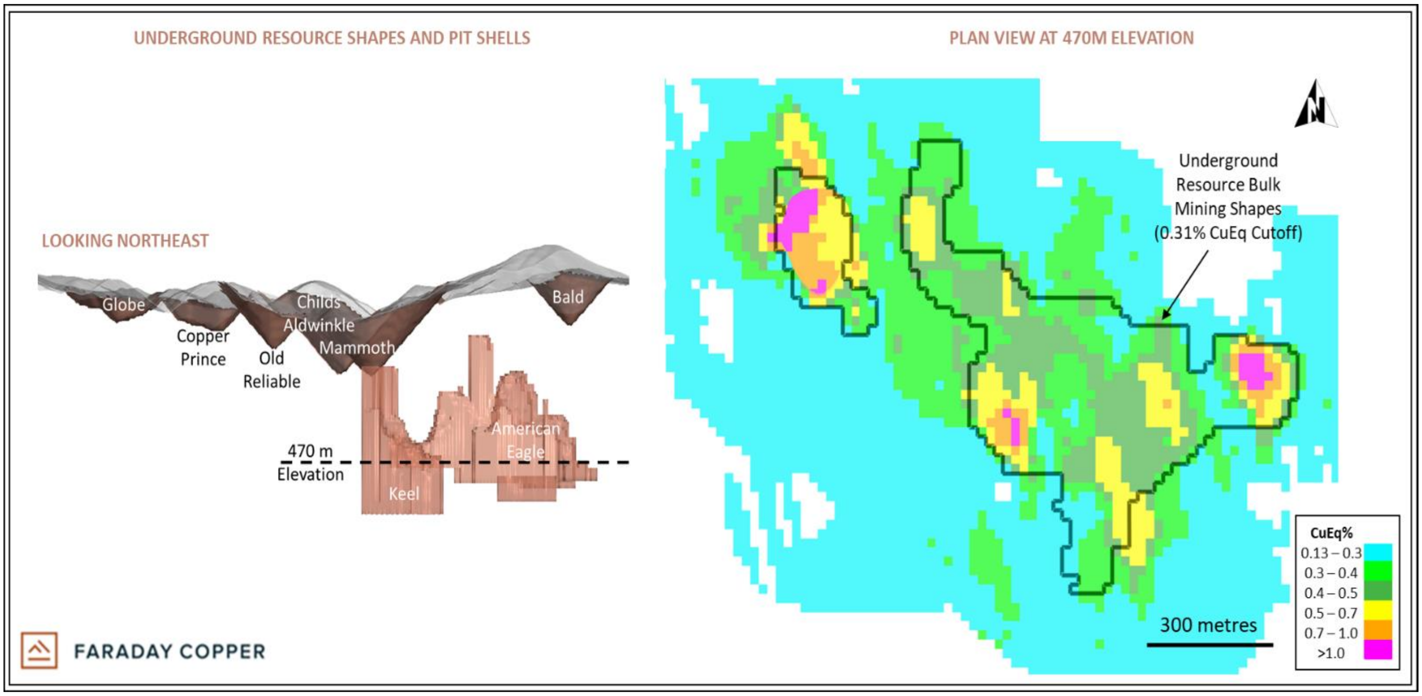
Using these metrics, pit shell constrained resources with RPEEE are stated as contained within estimation domains defined by the following cut-off grades: 0.13% CuEq for oxide material, 0.14% CuEq for transitional material, and 0.13% CuEq for sulphide material. An underground CoG of 0.31% was used for reporting mineral resources at Copper Creek. Additionally, both the open pit and underground resources were constrained within wireframes derived from the economic parameters noted above and show the RPEEE pit shells and underground shapes used to constrain the respective estimates, as well as CuEq grade distributions.

Figure 14-13: RPEEE Open Pit Shells Constraining MRE with Grade Legend Above 0.13% CuEq



Source: Faraday, 2023

Figure 14-14: RPEEE Underground Shapes Constraining MRE with Grade Legend Above 0.31% CuEq



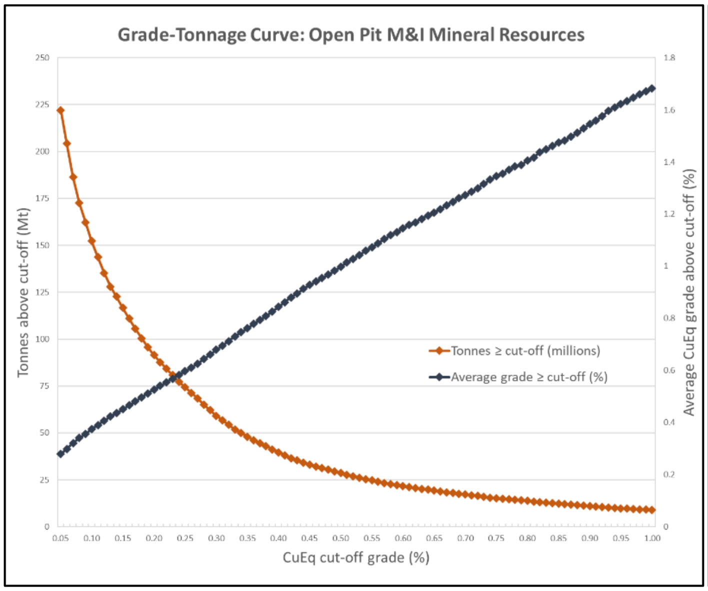
Source: Faraday, 2023

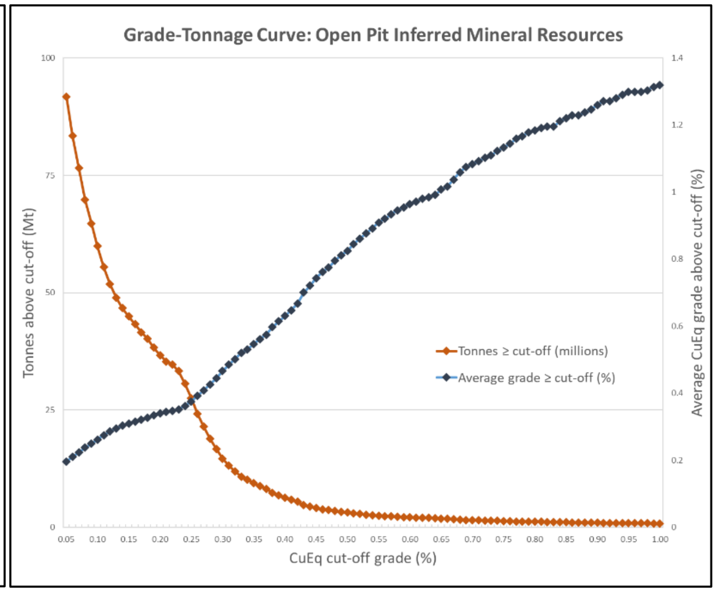
14.13 Mineral Resource Sensitivity

The results of grade sensitivity analysis are presented below to illustrate the continuity of the grade estimates at various cut-off increments and the sensitivity of the potentially minable resource to changes in CoG. The reader is cautioned that figures in the following tables should not be misconstrued as mineral resource or confused with the mineral resource statement reported above. These figures are only presented to show the sensitivity of the block model estimated grades and tonnages to the selection of CoG. The sensitivity analysis for Measured and Indicated blocks have been separated from Inferred blocks for reporting.

The grade-tonnage data presented below for open pit sensitivity reports tonnes and grade of the pit constrained mineral resource (i.e., meets RPEEE) at various cut-off increments. Figure 14-15, Table 14-10, and Table 14-11 show combined material type (oxide, transitional, and sulphide) sensitivity results by classification category for the open pit mineral resource. The assumed open pit CuEq CoG used in these tabulations (0.13% CuEq) is an approximation for all material types and is highlighted in bold font within the sensitivity results.

Figure 14-15: Grade-Tonnage Curves for Open Pit M&I and Open Pit Inferred Mineral Resources





Source: SRK, 2023
Notes: See notes to Table 14-8 (mineral resources statement) for the calculation of copper equivalency.

Table 14-10: Grade-Tonnage for Open Pit Measured and Indicated Mineral Resource

Measured and Indicated, Open Pit			
CuEq (%)	Tonnage (Mt)	CuEq Grade (%)	Contained Metal CuEq (Mlb)
0.05	222.1	0.28	1,365.7
0.10	152.3	0.37	1,255.5
0.13	128.0	0.42	1,194.5
0.20	91.5	0.53	1,063.1
0.30	59.1	0.68	886.2
0.40	39.7	0.84	737.8
0.50	28.7	1.00	630.2
0.60	21.6	1.15	544.9

Table 14-11: Grade-Tonnage for Open Pit Inferred Mineral Resource

Inferred, Open Pit			
CuEq (%)	Tonnage (Mt)	CuEq Grade (%)	Contained Metal CuEq (Mlb)
0.05	91.7	0.20	396.6
0.10	59.9	0.26	345.9
0.13	48.9	0.30	318.5
0.20	36.7	0.34	274.5
0.30	14.6	0.47	150.4
0.40	6.3	0.63	88.2
0.50	3.2	0.82	57.5
0.60	2.1	0.96	45.1

The underground resource has been constrained using commercial software packages to define the potential mineable limits (i.e., block cave footprint volumes) applicable to the resource using defined economic assumptions. Multiple footprint volumes were optimized at different costs to approximate sensitivity of the resource to changes in CuEq CoG. As bulk underground mining is not selective, all material within each of the underground footprints are reported. Table 14-12 and Table 14-13 show sensitivity results by classification category for the underground resource. The assumed underground CuEq CoG used in this report (0.31% CuEq) is highlighted in bold font within the sensitivity results.

Table 14-12: Grade-Tonnage for Underground Measured and Indicated Mineral Resource

Measured and Indicated, Underground			
CuEq (%)	Tonnage (Mt)	CuEq Grade (%)	Contained Metal CuEq (Mlb)
0.2	767.4	0.37	6,180.4
0.31	294.8	0.50	3,080.4
0.4	153.5	0.61	2,063.3
0.5	58.3	0.78	1,008.2

Table 14-13: Grade-Tonnage for Underground Inferred Mineral Resource

Inferred, Underground			
CuEq (%)	Tonnage (Mt)	CuEq Grade (%)	Contained Metal CuEq (Mlb)
0.2	626.5	0.28	3,816.7
0.31	35.5	0.45	329.7
0.4	3.6	0.50	41.9
0.5	1.2	0.66	17.3

14.14 Relevant Factors

SRK notes that future economic assessment could result in a change in the CoG, which would result in a change in the tonnage of available minable material. Mineralization represented by the resource block model was evaluated for RPEEE for both open pit and Underground mining methods. SRK did not independently audit recovery, processing costs, or other assumptions for deriving CoG but does consider the inputs to be reasonable.

The current supergene zone interpretations (e.g., oxide, transitional, and sulphide) applied to estimate variable metallurgical recovery are preliminary and represent a minor risk to the existing mineral resources that was considered during classification. Actual supergene zone boundaries are likely more complicated than can be modelled with the current spacing of solubility data. Less than 10% of copper assays have corresponding acid-soluble copper data to form a solubility ratio. Further drilling and solubility testing are needed to define metallurgical material type boundaries and determine variability for grade and recovery within these areas.

Historically, selective sampling occurred that resulted in a significant number of unsampled intervals; approximately 18.9% of the drilling metres have no assay values. The majority of the unsampled intervals are located outside of the breccia domains. Null and nominal assignments for unsampled data were evaluated as a risk factor in separate compositing runs estimated into the block model, which was considered during classification. Similarly, more copper assay values exist compared to other elements due to selective historical sampling practices. SRK recommends that Faraday continue logging and sampling drilling intersections that are inferred to be continuations of the modelled breccia units but were unsampled for assay in previous programs and that a full suite of analytical results is run for all samples.

Portions of the deposit remain sparsely drilled, including some high-grade zones that should be investigated through more closely spaced sample intervals (including twin or wedged drillholes), which would improve understanding of the grade distribution and continuity. Currently, no grade capping is applied for the MRE, as high grades occur in clusters and are not deemed to be outliers. In the future, potential grade capping levels should continue to be thoroughly reviewed and analysed as additional data becomes available. With subsequent study and modelling, individual breccias or portions of the deposit may possess different grade continuity characteristics and require variable capping levels to reduce possible bias of high-grade samples.

With the exception of these potential risks to mineral resources, SRK is not aware of any other factors to which the mineral resource estimates could be materially affected, such as environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors.

15 MINERAL RESERVE ESTIMATES

This section is not relevant to this report.

16 MINING METHODS

16.1 Introduction

The Copper Creek Project will be mined by both conventional truck and shovel open pit methods at surface, and block caving methods underground to achieve a base annual throughput of 11 Mt. Early years of mining will be confined to the open pits, which will continue until Year 11. A four-year open pit ramp down coincides with the underground ramping up, achieving full throughput by Year 12 and continuing until Year 29. Current mine plan optimization has applied an open pit stockpiling strategy whereby low-grade material mined from the pits would be stockpiled and processed as supplementary mill feed or fed to the mill at the end of the mine life.

The base annual throughput would be primarily of sulphide material, with some transitional material mined from the open pits. Oxide material recovered near-surface in the early years of the anticipated mine life would be segregated and processed separately in a HLF, in addition to the 11.0 Mt base annual throughput. All open pits will be mined with truck and shovel mining methods by experienced mine contractors. Mineralized and waste material will be drill and blasted in 12 m benches, loaded using hydraulic front-end shovels and then hauled by rigid body trucks to the run-of-mine (ROM) pad southwest of the pits. Haul roads are two-way except for the bottom 2-3 benches of each pit, which are one-way.

Open pit waste rock will be stored in external and internal (backfill) storage facilities.

The underground operations will be accessed by a twin decline system providing access, mineralized material conveying and exhaust air routing. Electric-drive loaders will deliver mineralized material from cave drawpoints to mineralized material passes, which will connect to truck loading stations. Trucks will then haul mineralized material to one of three primary crushers to be crushed, and then conveyed to the surface via a dedicated conveyor decline to the stockpile at the process plant.

16.2 Geotechnical Considerations

A PEA-level geotechnical study was undertaken by Call & Nicholas (CNI, 2023) wherein technical analyses were completed to provide mining parameters for use in design of both open pit and underground mining targets. RPEEE 2022 mining shapes were utilized for this work, which included geotechnical assessments of pit slope stability and underground mining, including assessments of cavability, fragmentation, subsidence, and ground support. This work utilized geotechnical characterizations based on core logging, downhole televiewer data, and laboratory rock strength testing from the Faraday Phase I exploration drilling program (holes drilled between February and June 2022; 5,620 metres).

The geotechnical program was further supported by historic core logging data and prior geomechanical studies of the pit and underground deposits. This work included the following:

- 2006 – 2007: Geotechnical logging, 10 drill holes.
- 2008: Additional core drilling.
- 2007: Geomechanical laboratory testing: 11 small-scale direct shear tests; 16 triaxial and 15 uniaxial compression; rock types: bleached granodiorite, fresh granodiorite, quartz breccia.
- 2011: Oriented core drilling, 5 drill holes: RAE-11-058; RAE-11-059; RMK-11-065; RMK-11-072; RM-11-068.

- 2012:
  - Cell mapping of rock outcrops and roadcuts in the area to obtain jointing characteristics (71 cells, 390 joint sets).
  - 10 triaxial and 14 small-scale direct shear tests on granodiorite from RAE and RMK drill holes.
  - Catch bench reliability geotechnical analysis to determine pit slope angles.
  - Room & pillar design constraints (June 2012 memorandum).
  - Block cave versus open pit options (presentation, April 2012).
- 2013:
  - PEA report – Post-Pillar Cut & Fill (April 2013).
  - Preliminary shaft guidance based on subsidence estimates.

The geotechnical parameter assessment included multiple mining methods and was conducted to determine parameters and suitability of open pit mining, block caving, sub-level caving, and longhole open stoping (Section 16.5.1). The parameters from this assessment were used to support the selection of open pit extraction for near-surface deposits (predominantly breccia) and extraction of the underground resource (porphyry) via block caving. Underground mining interaction with the open pits was also assessed to ensure mine sequencing accounts for adequate phasing and realistic operability. Upon method selection for the PEA, a comprehensive geotechnical design parameter report was developed to guide an optimal and practical mine plan.

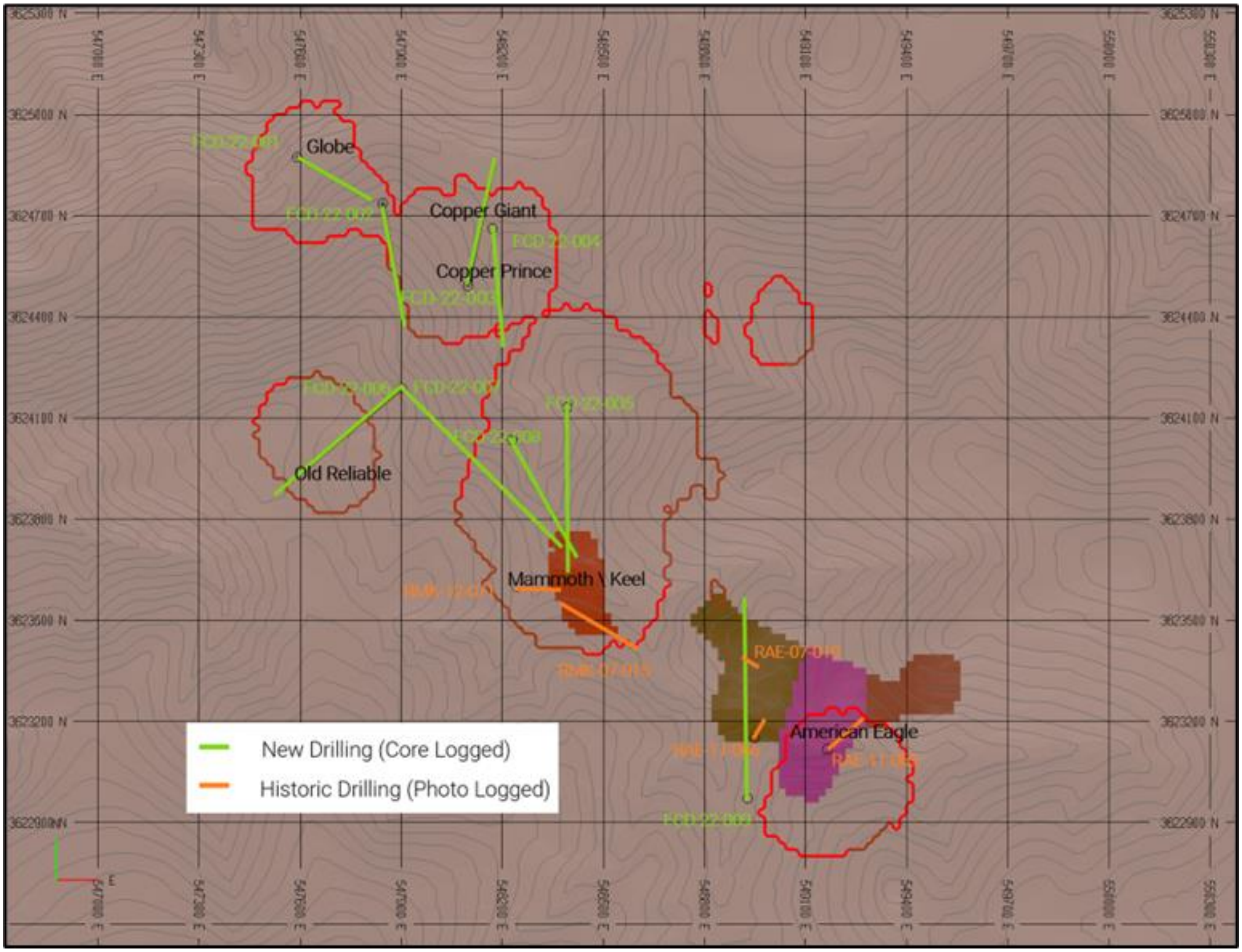
16.2.1 Geotechnical Data Overview

The PEA study commenced with a data collection program aimed at supplementing the previous drilling and mapping database to obtain a data set sufficient for a PEA and consisted of the following:

1. Geomechanical core photo logging (Q') of 2000 m of mineralized intervals (Q') from historic drill holes (RTK, AE holes).
2. Geomechanical (Q') core logging from 9 2022 drill holes (FCD-22-001 through FCD-22-009) as shown in Figure 16-1 and in section view in Figure 16-2.
3. Joint orientations from Reflex IQ logger data from 8 2022 drill holes (FCD-22-001; FCD-22-002; FCD-22-003; FCD-22-005; FCD-22-006; FCD-22-007; FCD-22-008; and FCD-22-009).
4. Joint orientations from acoustic televiewer (ATV) survey data from 5 2022 drill holes (FCD-22-001, FCD-22-006, FCD-22-007, FCD-22-008, and FCD-22-009).
5. Geotechnical laboratory testing including small-scale direct shear testing of fractures and uniaxial and triaxial compression testing of core samples.
6. Vibrating-wire piezometer installations in 2 drill holes (FCD-22-007 and FCD-22-009).

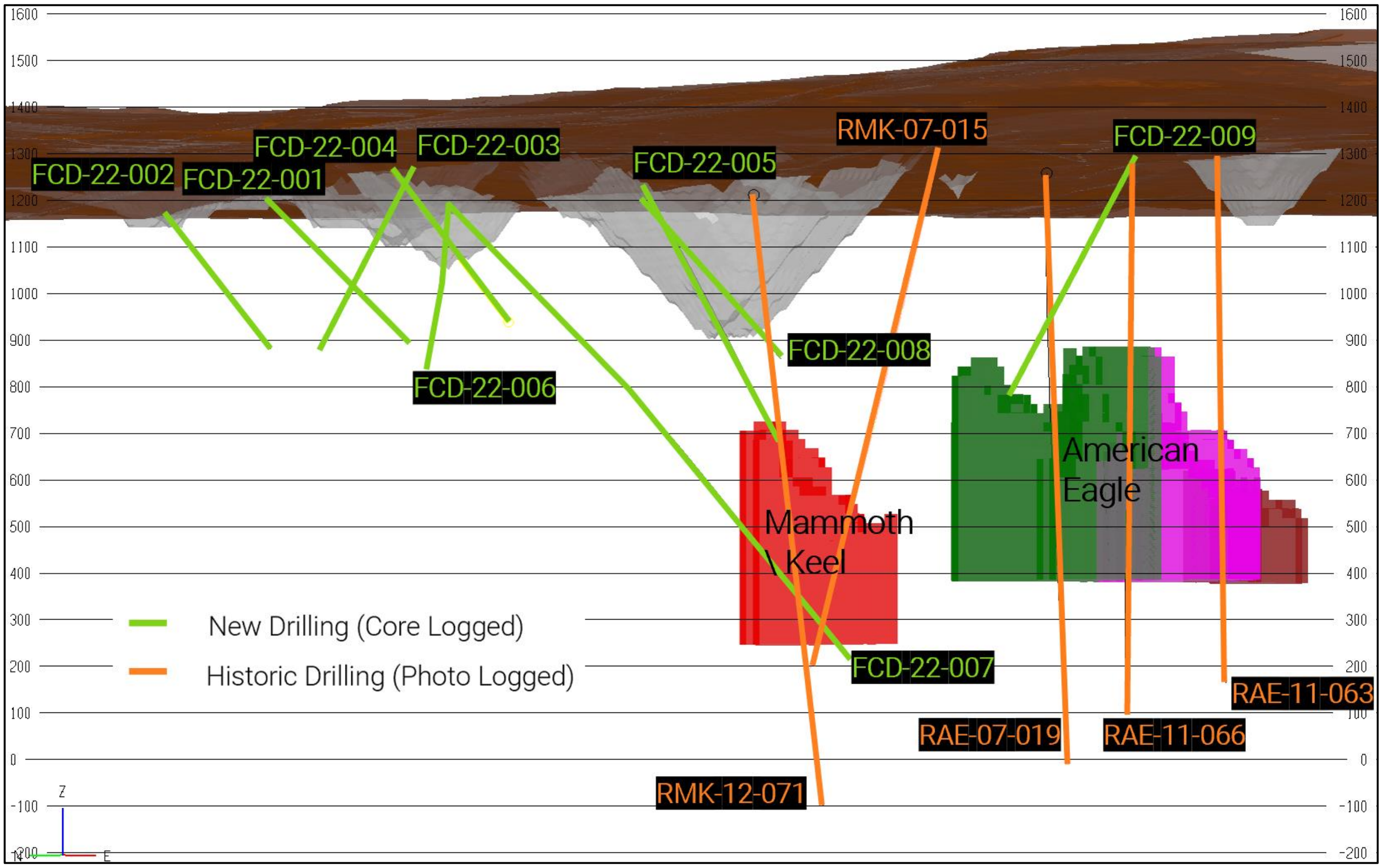
The geotechnical drilling and data collection program is ongoing and involves multiple experienced personnel from CNI with supervision from both CNI and Faraday.

Figure 16-1: Plan View of 2022 ("New") and Past Drilling



Source: Faraday, 2023

Figure 16-2: Section View of 2022 ("New") and Past Drilling (Looking North)

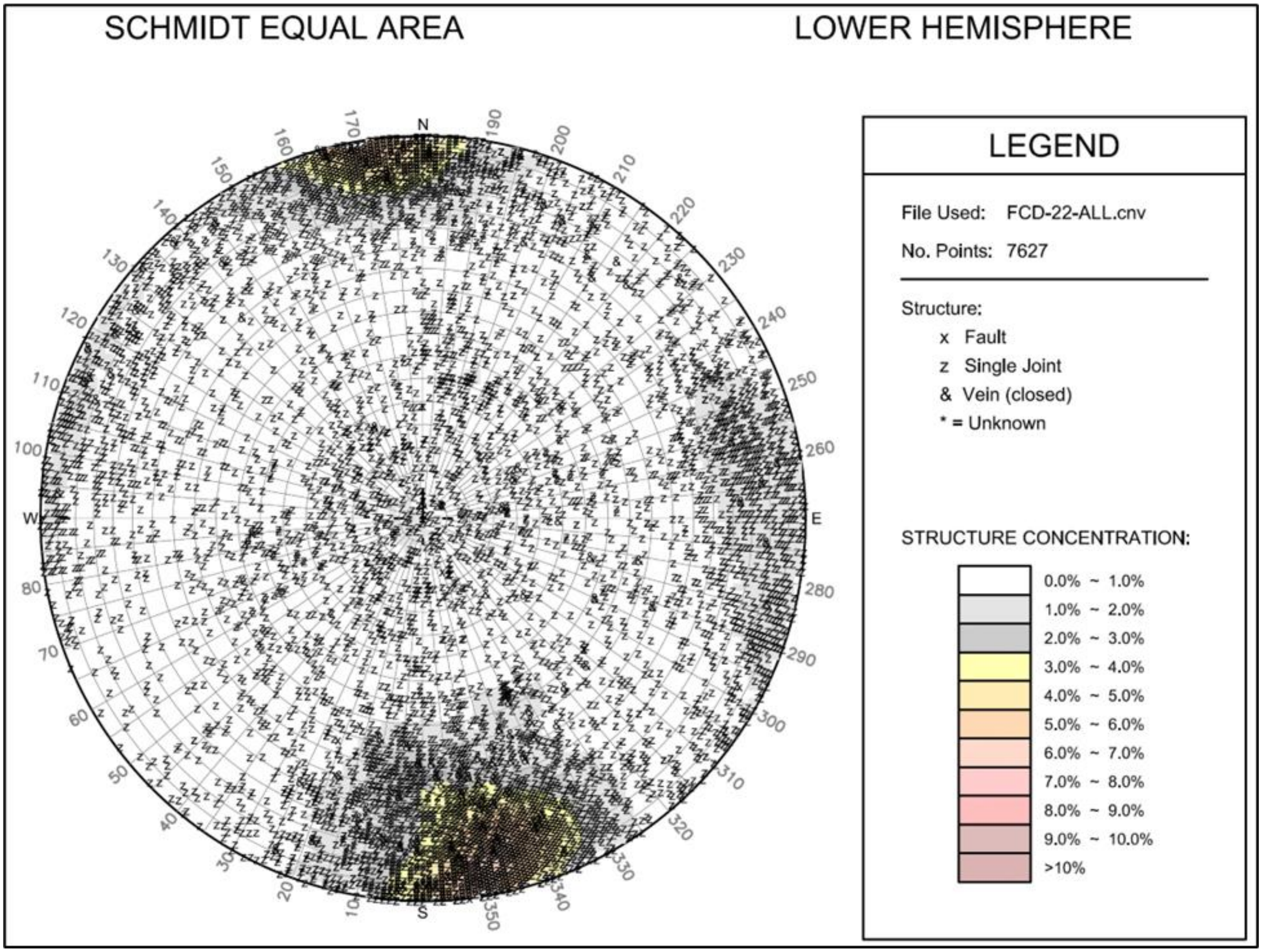


Source: Faraday, 2023

The following general conclusions can be made based on review of all geotechnical data sources:

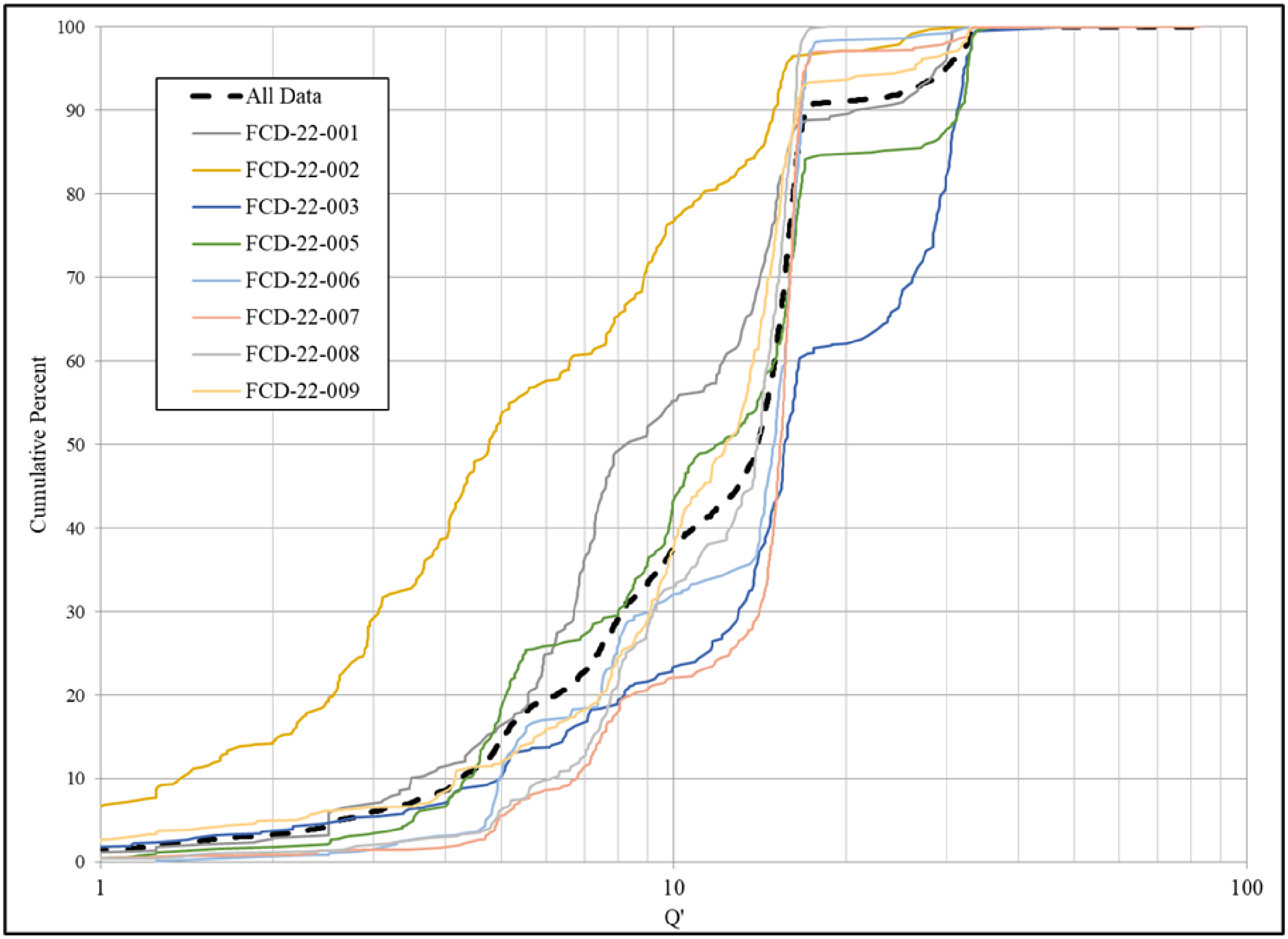
1. Similarities in orientation data from oriented core, televiewer survey, and cell mapping data sets throughout the project site indicate a single structural domain for all planned mining areas represented by the stereonet plot shown on Figure 16-3.
2. Geomechanical rock quality data indicates fair to good rock quality for the granodiorite, which comprises the underground mining targets, and for the surface breccias, which comprise the surface mining targets (Figure 16-4, Table 16-1).
3. Vibrating-wire piezometer data indicates a phreatic surface level at approximately 200m below ground surface. This level was utilized to assess the impact of pore pressure on pit slope stability.

Figure 16-3: All 2022 Copper Creek ATV Data



Source: CNI, 2023

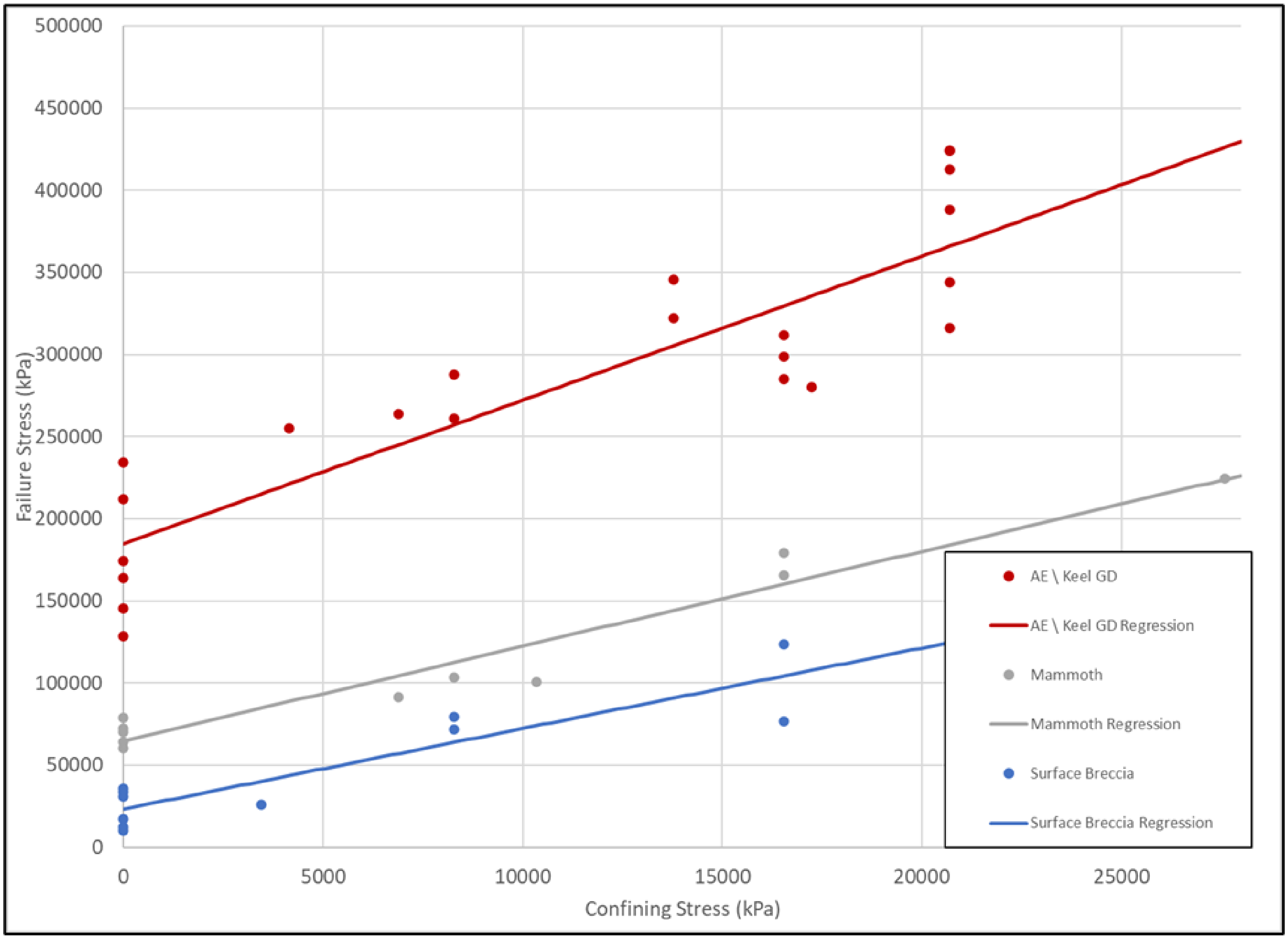
Figure 16-4: Q' Distributions for 2022 Drill Holes



Source: CNI, 2023

Intact shear strengths were determined for three mining targets (Surface Breccias, Mammoth, and Keel) with the use of uniaxial and triaxial compression test data. The intact strength parameters are used in determining the rock mass shear strength. Figure 16-5 presents the intact shear strength regressions. This figure indicates the shear strengths for the American Eagle and Keel underground targets have the strongest rock, followed by the Mammoth and the Surface Breccia areas, with the Surface Breccia area having the weakest rock. However, it should be noted that the surface breccia is a relatively small zone of sulphide and quartz dominated rock which is surrounded by far more competent granodiorite of similar strength to the Mammoth granodiorite.

Figure 16-5: Intact Shear Strength Summary



Source: CNI, 2023

Rock mass strengths used in overall pit slope stability analyses (Table 16) were evaluated by applying a linear approximation to a Hoek-Brown strength envelope for each target mining area by depth using laboratory strength data. This was done to incorporate shear strength anisotropy into stability analyses. Confining stress (σ3max) was limited to a nominal 70% of the mining depth by target as follows and assumes (σ3=σ1):

- Surface Breccias – 275 metres
- Mammoth – 500 metres
- American Eagle/Keel – 700 metres

Table 16-1: Rock Mass Strength Summary

Target Area	Surface Breccias	Mammoth	American Eagle/Keel
No. of Samples	11	11	21
UCS (Mpa)	22.3	64.5	180
Mi	17.6	15.7	22.4
GSI (80% reliability)	60	60	64
Σ3 max (Mpa)	7.2	13	18.1
Friction Angle, Φ (deg)	36.2	39.2	49.1
Cohesion (Mpa)	1.8	3.7	7.7

16.2.2 Open Pit Geotechnical Assessment

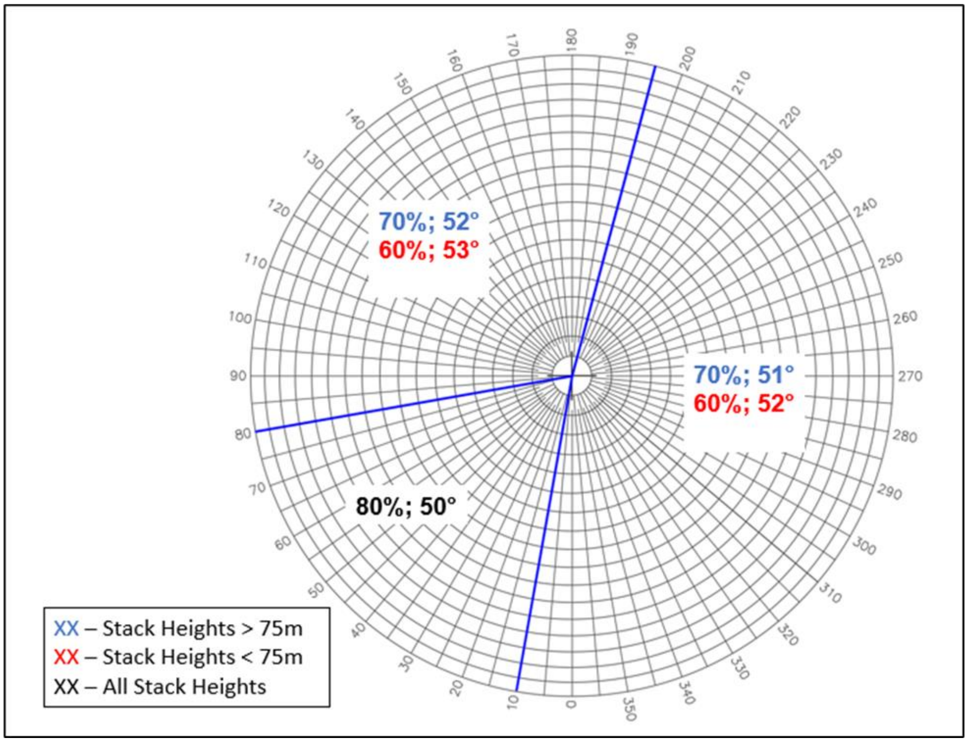
Anisotropic limit-equilibrium slope stability analyses incorporating expected pore pressures result in high factors of safety with respect to overall stability for planned pit slopes up to 400m in height. Therefore, pit slope angles are limited by bench-scale design criterion and interramp rather than overall slope angle. Bench-scale structural analyses of wedge and planar failures indicate that acceptable reliabilities of obtaining sufficient catch bench widths result in interramp angles ranging from 50 to 53 degrees depending on wall orientation. The design criterion for this work is a 70-80% reliability of maintaining a 9.3m catch bench for a 24m double bench configuration. The reliability is reduced to 60% for interramp slope segments (stacks) less than 75m.

Table 16-2 and Figure 16-6 present pit slope angles. All slope angles presented are interramp angles based on a double bench mining configuration (12-metre mining increment, 24-metre double bench height) and are presented by multi-bench stack height and by wall orientation range (wall dip direction) to account for the impact of geologic structure on bench-scale stability. Figure 16-6 presents a slope angle rosette, whereby the indicated azimuths represent pit wall orientation. These angles apply to all pits identified in the planned Copper Creek mining area.

Table 16-2: Open Pit Mining Interramp Slope Angles

Wall Dip Direction (Deg.)		Interramp Slope Stacks Greater than 75m Height		Interramp Slope Stacks Less than 75m Height	
From	To	Interramp Slope Angle (deg.)	Reliability	Interramp Slope Angle (deg.)	Reliability
010	080	50	80%	50	80%
080	195	52	70%	53	60%
195	010	51	70%	52	60%

Figure 16-6: Interramp Slope Angle Rosette by Wall Dip Direction



Source: CNI, 2023

16.2.3 Underground Geotechnical Assessment

Geotechnical analyses were conducted to determine preliminary mining parameters for the different underground mining methods being considered including block caving, sub-level caving, and longhole open stoping (CNI, 2023).

16.2.3.1 Cavability

Cavability was estimated using Laubscher's cavability chart (Laubscher, 1994). Rock quality estimates used in the cavability prediction were based on two classification systems: Laubscher's RMR (Laubscher, 1990) and Q' (Barton, Lien, and Lunde, 1974) values from logged core. Q' was calculated based on parameters logged by the drill run, whereas RMR estimates were correlated from the logged Q' data and other fracture statistics.

Table 16-3 presents ranges and most likely parameters for mine planning using a block cave mining method and includes hydraulic radius to induce caving and other parameters. Laubscher RMR values range from 61 to 72 with a median of 66 (Table 16-4). Adjustments to the RMR (MRMR) were applied based on joint orientation and the orientation of development relative to major structures. Logged Q' values are summarized in Table 16-5, and RMR76 estimates were calculated using the RMR76=9logeQ'+44 relationship. The distribution shows a median RMR of 68 and an 80% reliability RMR of 69. Laubscher's curves for predicting critical hydraulic radii for caving are shown in Figure 16-7. Both of the rock mass classification systems (Laubscher RMR and logged Q') are in agreement and indicate an estimated adjusted average rock mass rating (MRMR) of 50 which results in a hydraulic radius of 30 to 38 metres for caving as is shown in Figure 16-7.

Both the American Eagle and Keel zones have footprints greater than 1.5x the cavability prediction, and, as a result, are considered viable block cave mining targets. Furthermore, the extraction level and undercut developments should continue after the 30 – 38m hydraulic radius has been established to the full panel extents.

Table 16-3: Block Cave Mining Parameters

Design Parameter	Range		Most Likely
Undercut Hydraulic Radius (m) to Sustain a Cave, Fs=1.3	30	38	32
*Extraction Drift Spacing (Centreline to Centreline in m)	30	35	32
*Drawpoint Drift Spacing (Centreline to Centreline in m)	17	21	20
Secondary Fragmentation: Median Side Piece Length (m)	0.8	1.3	1.0
Cave Rate (cm per day)	10	45	15
Undercut Direction (Deg.)	20/200	60/240	40/220
**Surface Subsidence Limits (Composite Angle in Deg.)	55	75	65

*Based on fragmentation, 5-metre-wide drift, 30° entrance angle. **Estimated Glory Hole = 80°; Crack Limits = 70°; Zone of Influence = 65°

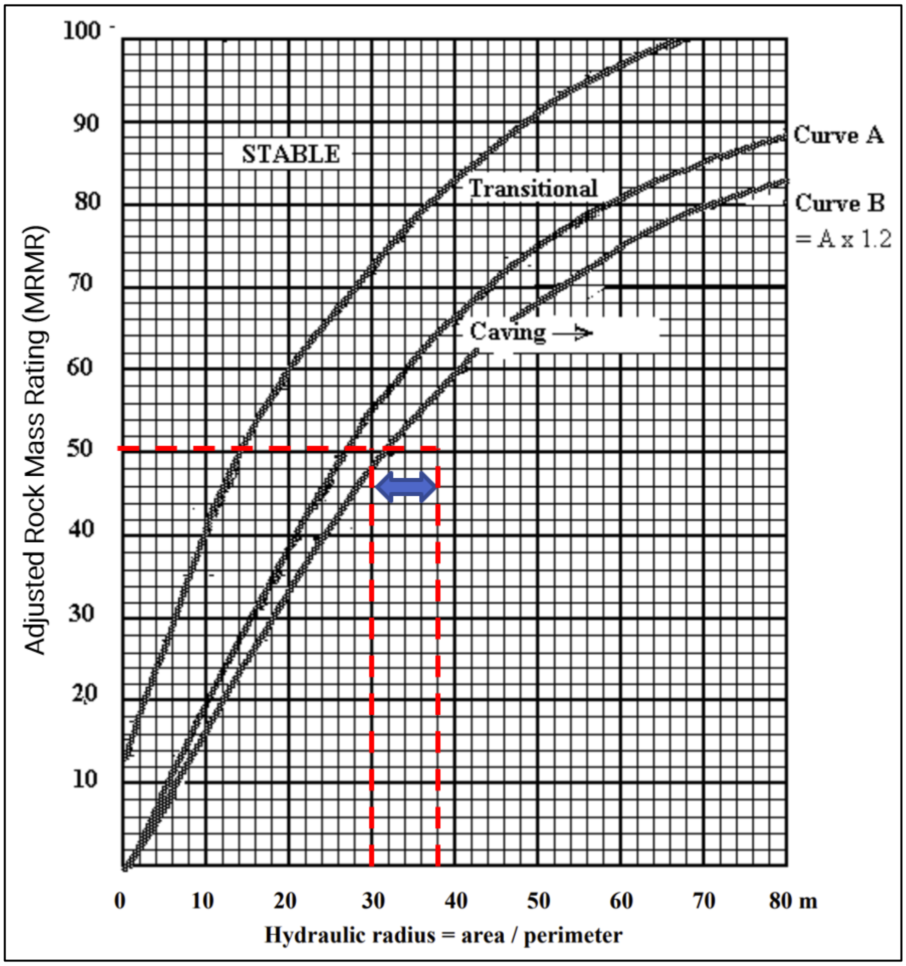
Table 16-4: Hydraulic Radius to Cave from Laubscher 1990 RMR

Laubscher 1990 RMR		
PARAMETER	MIN	MAX
IRS (Mpa)	16	18
RQD	12	15
FRACTURE FREQ.	16	
JOINT COND	17	23
RMR:	**61**	**72**
Joint Orientation Adjustment:	**90%**	**90%**
Shear Zone Orientation Adjustment:	**90%**	**90%**
Adjusted Rock Mass Rating (MRMR):	**49**	**58**
H.R. for CAVING:	**30**	**38**

Table 16-5: Hydraulic Radius to Cave from Q'-RMR

Based on Barton Q'				
	Q'	**RMR**	**MRMR**	**Hydraulic Radius (m)**
20% Rely	9	64	52	33
Median	14	68	55	36
80% Rely	16	69	56	37
Based on Laubscher (1990) – No Adjustments Applied				
	MRMR			**Hydraulic Radius (m)**
Minimum	49			30
Maximum	58			38

Figure 16-7: Laubscher Cavability Chart



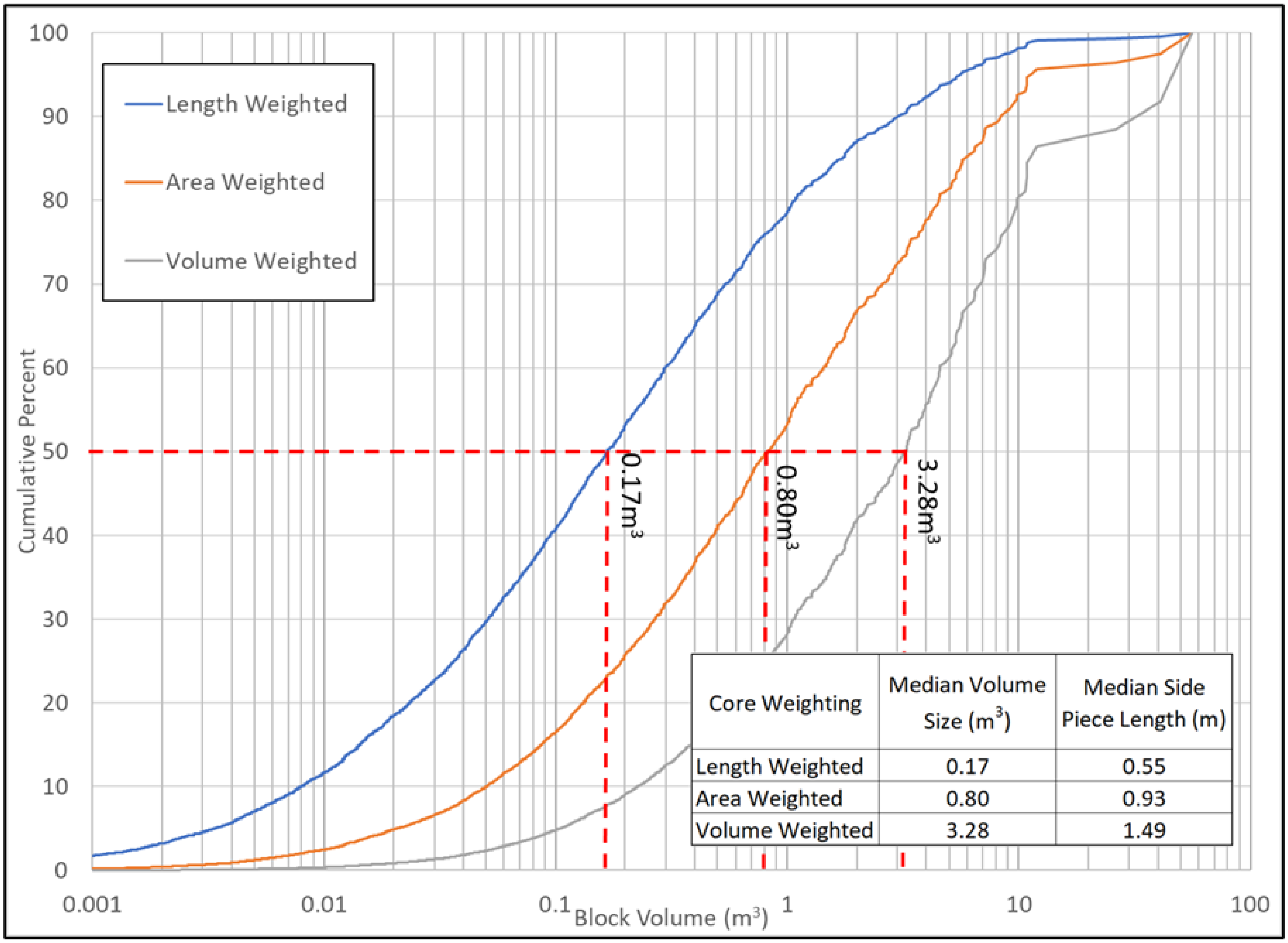
Source: Laubscher, 2000

16.2.3.2 Fragmentation Estimate and Drawpoint Spacing

Fragmentation estimates are based on measured core piece lengths from photo logged core and physically logged core from the 2022 drilling program (FCD-22 holes). Because a drill hole does not intersect the centre of rock blocks, the measured length was increased by a factor of 1.4 to better represent the side length of primary blocks. The factored piece lengths were then weighted by length, area, and volume for cubic volume estimates. A distribution of the cubic piece volume estimates by weighting type is presented in Figure 16-8. All data is limited to within the RPEEE underground resource shapes. The area weighted distribution is the best estimate of primary block size from drill core data. The median area weighted volume size based on core logged from photos is 0.56 m3 (cube with side length of 0.82 metres) whereas the median area weighted volume based on physically logged drill core is 0.8 m^3 (cube with side length of 0.93 metres). Both data sets suggest that fragmentation will be coarse. A 1.0-metre fragment size was utilized to predict draw cone diameter. The distributions indicate a high percentage of primary piece sizes greater than 2 m^3. The actual secondary fragmentation is expected to have fewer oversize pieces.

Figure 16-9 presents a plot of fundamental width (draw cone diameter when combined with the drawpoint drift width) by fragment size based on other block cave operations. A 5- to 6-metre drawpoint width results in a nominal 20-metre drawpoint spacing (centreline to centreline, lintel to lintel).

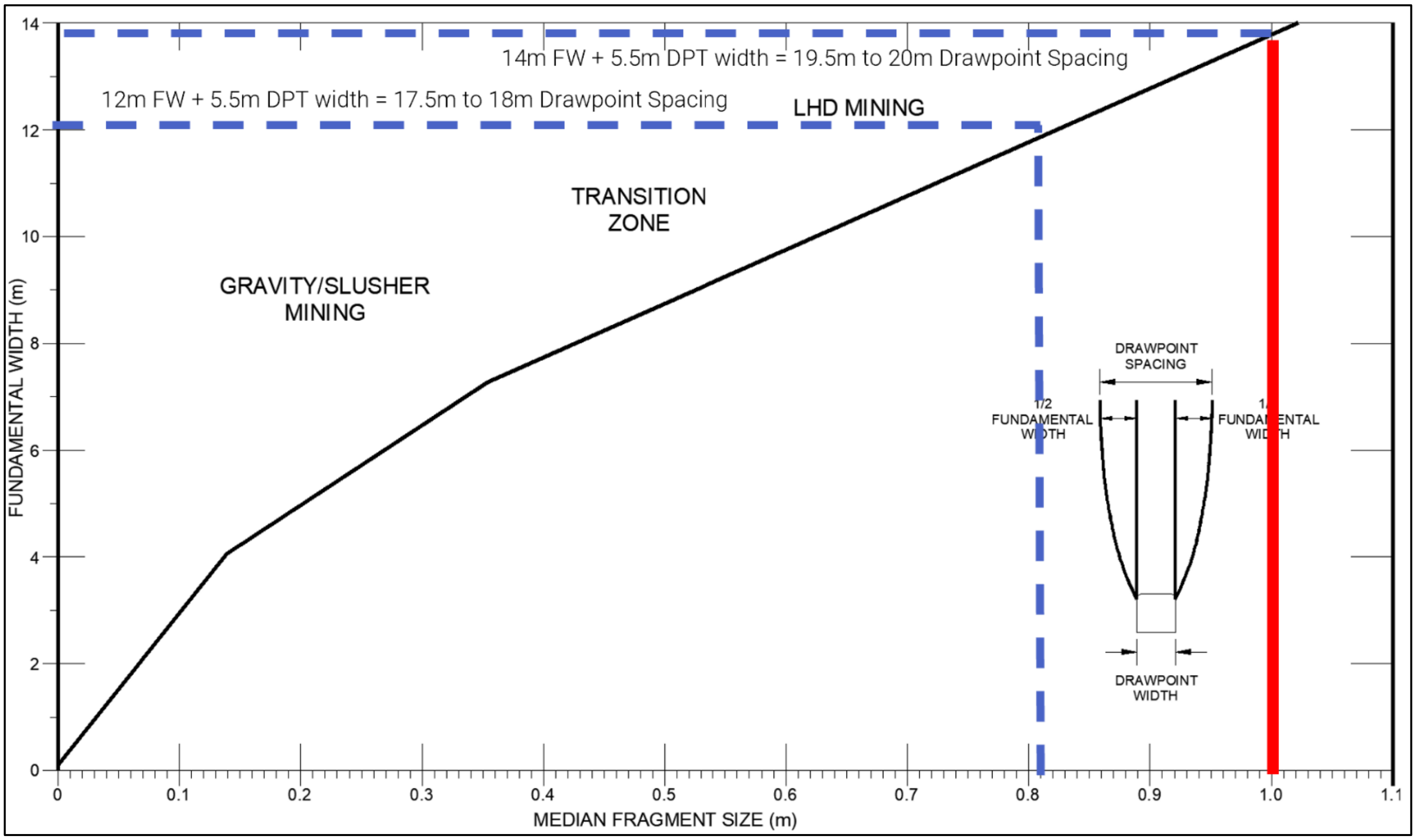
Figure 16-8: Fragmentation Estimate



Core Weighting	Median Volume Size (m^3)	Median Side Piece Length (m)
Length Weighted	0.17	0.55
Area Weighted	0.80	0.93
Volume Weighted	3.28	1.49

Source: CNI, 2023

Figure 16-9: Drawpoint Spacing Estimate

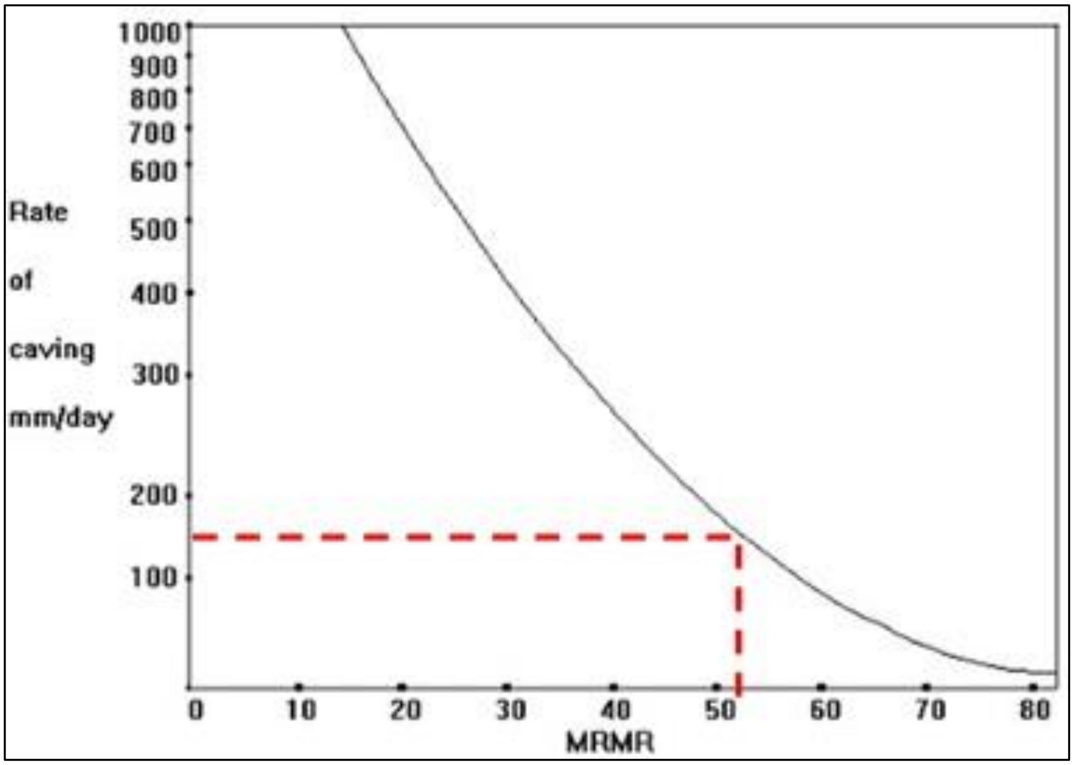


Source: CNI, 2023

16.2.3.3 Caving Rate and Production Rate Forecast

Caving rates between 10-45 cm per day should be used for determining production rate. Caving rate is a function of coarseness of the deposit. Since Copper Creek is expected to have coarse fragmentation, a 15 cm/day rate is likely (Figure 16-10). Using the 0.29% CuEq cut-off grade, the likely production rate is in the range of 30,000 to 45,000 t/d.

Figure 16-10: Estimated Caving Rate



Source: Laubscher, 2000

16.2.3.4 Undercut Strategy

From a stress perspective, the undercut is most optimally oriented in the direction of the major horizontal principal stress (σh1) which is assumed to be in the 40/220° azimuth direction. CNI assumed the orientation of σh1 to be perpendicular to mapped faults documented in historical geology reports (Guthrie and Moore, 1978; Marsh, 2001) where faults were mapped at N50°W, which also aligns with the general arrangement of the breccias and mineralized areas. Furthermore, this orientation has the undercut advancing across the narrower dimension, which is also preferable.

16.2.3.5 Ground Support Estimation

Ground support at the minimum will include 2.4m rebar (minimum #7 gauge, Grade 60 steel) on 1.2m by 1.2m spacing and welded wire mesh. In cycle split sets (SS39) at the same length and spacing can replace #7 gauge rebar bolts (permanent support) so long as the permanent support is installed in the back within a nominal distance of the advancing face. Additional ground support (shotcrete) is recommended in zones of poor ground. A summary of the two ground support categories is presented in Table 16-6.

Table 16-6: Ground Support Categories

Support Category	Q Range	Estimated RMR76/GSI	Estimated % of Development	Advance Length (m)	Support Type
Category 1	>2.0	>50	95%	3.0	2.4m #7 Rebar on 1.2mx1.2m spacing with welded mesh (10cm/ 6Ga.) to within 1.5m of sill
Category 2	<2.0	<50	5%	2.5	2.4m #7 Rebar on 1.2mx1.2m spacing with welded mesh (10cm/ 6Ga.) and 5cm of shotcrete to within 1.5m of sill

Ground support specifications in intersections and passing/muck bays are in addition to the bolting standard for advance drifting. Because of the increased spans, secondary (deep) bolt lengths of 3.65m on 1.8-metre by 1.8-metre spacing are recommended. Deep support should include either cable bolts (single or double strand) or #8 rebar (minimum Grade 60 steel) to provide the additional capacity to support deeper wedges which are more likely in wider spans.

Ground support categories for 5-metre-wide development tunnels were estimated using the distribution for all Q' data from recent drilling (Figure 16-13) and using the ground support chart developed by Grimstad and Barton (1993). Based on the cumulative distribution of drill data, 5% of development will require shotcrete (Category 2 support) in addition to bolts and mesh. Because the decline is intended to be permanent infrastructure, fully grouted resin rebar bolts are recommended over a friction-type bolt. Friction-type bolts, such as Swellex or Split Sets, are susceptible to corrosion in environments which are rich in sulphide mineralization.

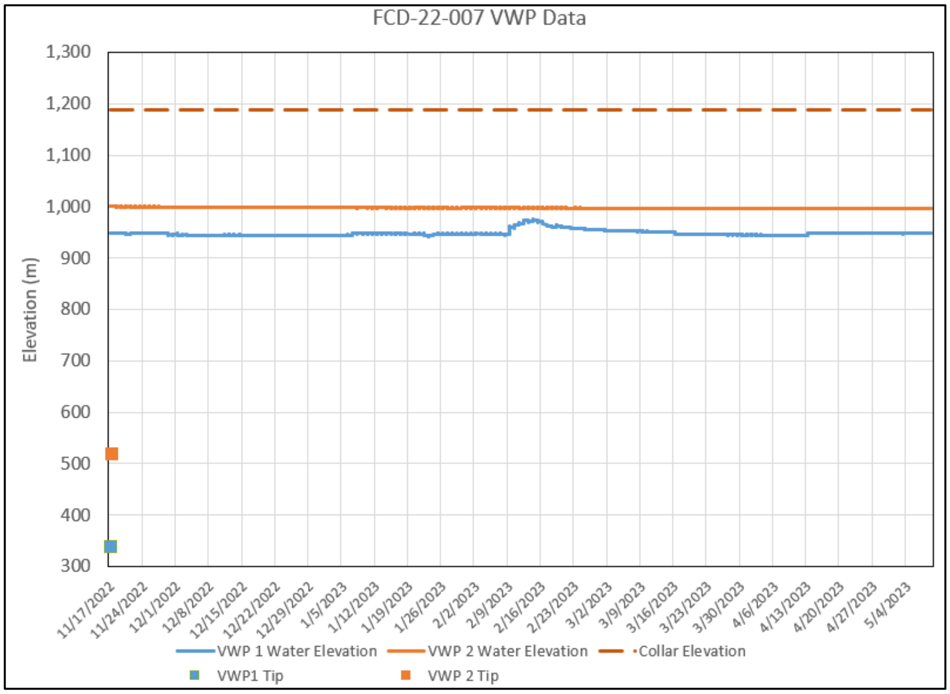
Bolt lengths (2.4m) and spacing are based on the results of both kinematic wedge deterministic analyses and empirical analysis. Wedge stability was evaluated at various tunnel azimuth orientations based on joint orientations from acoustic televiewer data (ATV).

16.3 Hydrogeological Considerations

Vibrating-wire piezometer data indicates an equivalent phreatic surface level at an estimated 200 m below ground surface (Figure 16-11). Note that pressure head elevation as measured from vibrating-wire transducers does not directly equate to phreatic surface level.

For open pit mining operations, mine dewatering costs have been assumed to be included in the contractor mining cost. These included costs for pumps, sumps and piping. For underground mining operations, in the absence of specific inflow estimates, capital and operating costs have been included for general mine dewatering of the underground workings. At a further stage of study, when inflow estimates become available, these costs will be reviewed and adjusted if deemed insufficient or excessive.

Figure 16-11: Vibrating-Wire Piezometer Hydrograph



Source: CNI, 2023

16.4 Open Pit

The open pits at Copper Creek are characterized by one large pit – Mammoth pit, and seven satellite pits of various sizes, including Copper Prince, Globe, Old Reliable, Marsha, Rum, Bald and Jailhouse pits.

SRK performed pit optimizations to generate pit shells that are used for strategic planning and pit design. Strategic planning efforts had the primary aim of forwarding high-grade material in the schedule, by stockpiling lower-grade material, which is fed when mill capacity is available – most particularly at the end of mine life.

The open pits and mining infrastructure were designed to recognize the complexities of the stockpiling and haulage aspects. All facilities were designed with closure in mind.

Consideration was made of the interaction between the open-pit and underground where necessary.

16.4.1 Pit Optimization

Optimization software employs the Lersch-Grossman algorithm, which considers the revenue and cost of mining blocks in sequence. Pit optimization analyses result in a series of nested pit shells, generated at increments of base metal price, that are used for strategic planning and mine design. While these shells resemble potential pit areas, they are not pit designs.

The main inputs for pit optimization include the resource model (which feeds into a mining model), metal price, geotechnical parameters, operating costs, mineral processing recoveries, and off-site costs and charges.

The pit optimization analyses were completed in Datamine Studio NPVS.

16.4.1.1 Mining Model

SRK created a mining model based on the resource model generated for Faraday by SRK geologists, described in Section 14. Steps included:

- To reduce file size and improve processing speeds, fields unnecessary for optimization were filtered out, along with blocks above topography.
- as the resource model is a sub-blocked model with parent blocks of 20 x 20 x 12 m, with sub-blocks as small as 1 x 1 x 1 m, SRK regularized the model into 20 x 20 x 12 m blocks for processing and mine planning efficiencies.
- A new class item (Class_rk) was created to segregate resource class (measured, indicated and inferred) by rock type (oxide, transitional and sulphide) for mine planning and scheduling purposes.
- While the optimizations used separate grade items for each of Cu (%), Mo (%) and Ag (g/t), a CuEq (%) grade item was included in the model for reporting purposes to confirm inputs were entered correctly.

16.4.1.2 Exclusions

Pit optimizations were not constrained by any boundary. Although SRK did perform a high-level open pit underground cross-over analysis, the open pit was not constrained to the underground as there was little open pit interaction with underground cave mining.

16.4.1.3 Input Parameters

Table 16-7 includes the cost and cashflow parameter assumptions. TCRC/freight costs include truck concentrate freight, treatment and refining charges, and deduction for each of copper, molybdenum and silver.

Table 16-7: Open Pit Optimization Input Financial Parameters

Parameter	Unit	Value
Metal Prices		
Cu	$/lb	3.80
Mo	$/lb	13.00
Ag	$/oz	20.00
Operating Costs		
OP Mining Cost – rock	$/t mined	2.25
Incremental Cost – up	$/t mined/10m	0.03
Incremental Cost – down	$/t mined/10m	0.02
Reference Level	mRL	1,196
OP Milling Cost	$/t mineralized material	7.60

Parameter	Unit	Value
OP Oxide Cost	$/t mineralized material	4.56
OP G&A	$/t mineralized material	1.00
Selling Costs		
TCRC/Freight	$/t Cu Concentrate	1,180
TCRC/Freight	$/t Mo Concentrate	4.625
TCRC/Freight	$/g Ag Concentrate	0.016
Cashflow Parameters		
OP Production Rate	Kt/d	30
Discount Rate	%	7.0

No dilution or mineralized material loss was used in the pit optimizations.

Table 16-8 shows the metal recoveries by rock type.

Table 16-8: Open Pit Optimization Metal Recoveries

Rock Types	Recovery (%)		
	Cu	Mo	Ag
Oxide	60	n/a	n/a
Transitional	85	68	40
Sulphide	92	78	50

16.4.1.4 Pit Slopes

SRK utilized the interramp slope angle (ISA) guidance (Table 16-9) provided by CNI to generate overall slope angles (OSAs) on a pit-by-pit basis (CNI, 2023). Guidance was determinant on stack heights greater or less than 75 m, which is dependent on ramping strategy.

Table 16-9: ISAs Provided by CNI

Azimuth	>75m Stack	<75m Stack
010-080	50°	50°
080-195	52°	53°
195-280	51°	52°
280-010	51°	52°

SRK estimated the amount of ramping required for each pit phase and then, utilizing geometry (including the total height of ramping in each pit) and CNI's ISA guidance by stack height, derived OSAs applicable for pit optimization (Table 16-10).

Table 16-10: OSAs for Pit Optimization

Azimuth	Unit	Copper Prince	Globe	Old Reliable	Mammoth	Martha	Bald/ Jailhouse	Rum
010-080	degrees	40	42	40	40	36	39	38
080-195	degrees	37	43	41	42	37	41	40
195-280	degrees	46	43	33	41	37	40	40
280-010	degrees	46	43	33	41	37	40	40
Ramp Depth	m	140	75	140	305	140	190	50

16.4.1.5 Pit and Phase Selection

Early optimizations were conducted site-wide, but later runs were constrained to each pit phase to optimize on a pit-by-pit basis.

Using the input parameters described previously, SRK performed optimization exercises on each pit phase. Using an incremental price of $0.09/t Cu (or 2.5% of the base $3.80/t Cu price), a series of pit optimizations were generated up to revenue factor 1.5 (150% of the base $3.80/t Cu price).

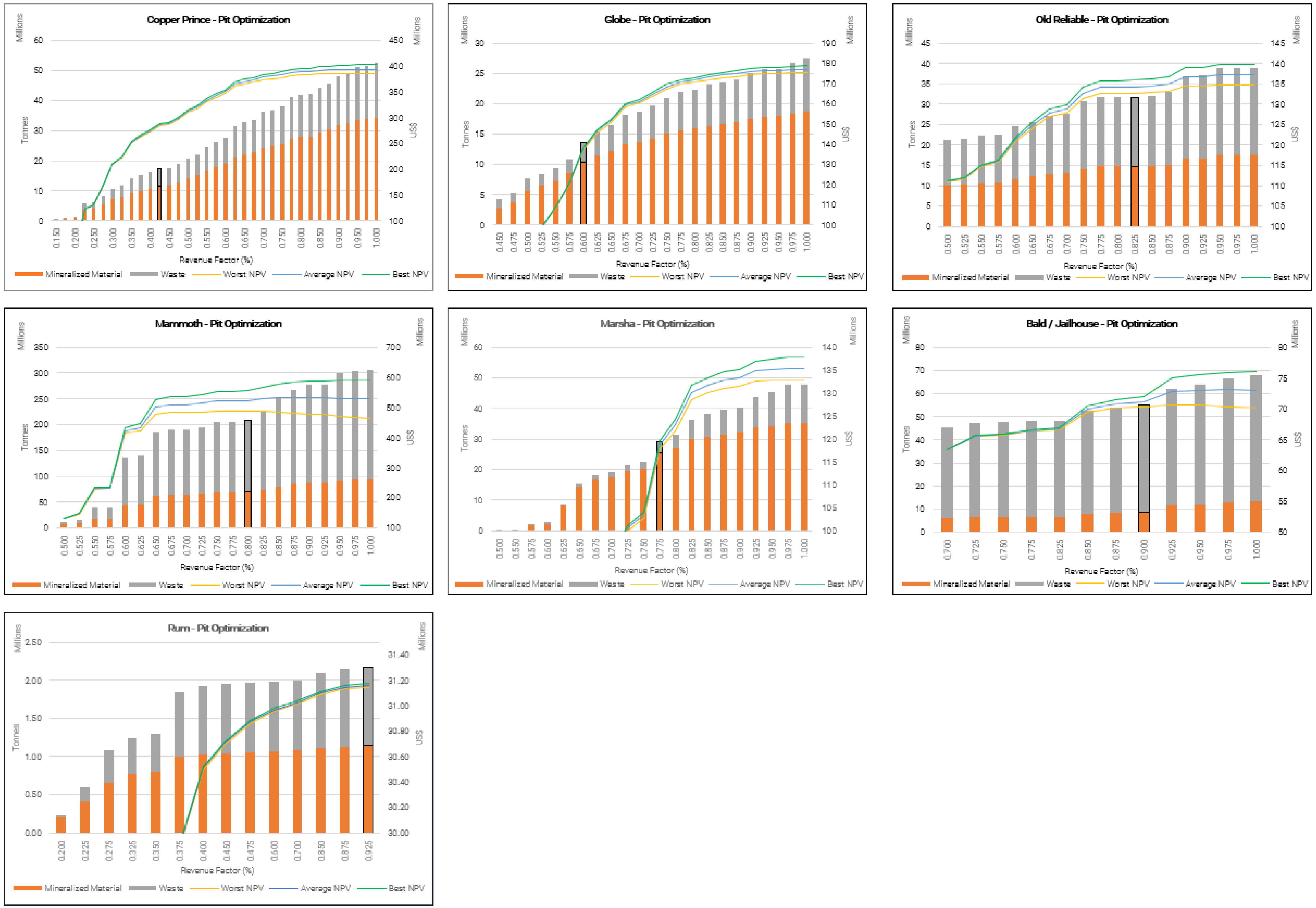
The average NPV, derived from the Best Case and Worst Case NPV, was the primary factor in identifying the appropriate pit shell, along with balancing waste and strategic grade targets.

Figure 16-12 shows the results of nested pit analyses for the seven pits. The charts plot mineralized material and waste of each shell, along with the corresponding Best Case, Worst Case NPV and Average NPV. The black outline indicates the selected pit shell for the given pit.

Figure 16-13 shows the pit optimization solids for each selected shell and Table 16-11 lists those pit shells. The revenue factor and associated Cu price pit shell in relation to the base price is shown, along with the average Cu grade and tonnages for the chosen shell. Mineralized material includes sulphide, transitional and oxide material.

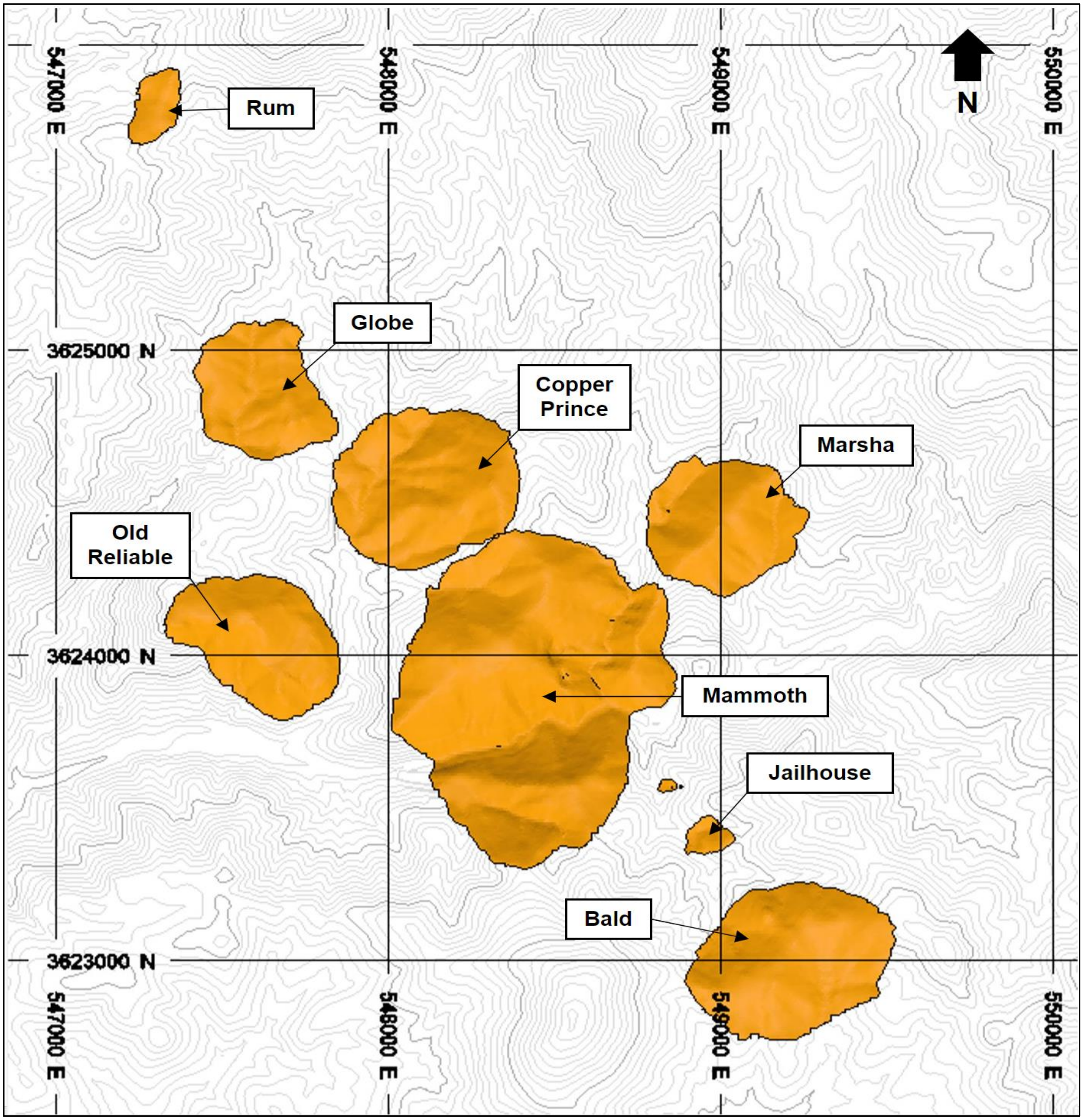
The weighted average Cu price shell for all pits is $3.06/t, which reflects a revenue factor of 0.805. Bald and Jailhouse were considered a single pit as they will be mined together. Mammoth, due to its size, was subsequently split into three phases to forward high-grade mineralized material and delay waste stripping.

Figure 16-12: Nested Pit Analysis



Source: SRK, 2023

Figure 16-13: Plan view of Pit Optimization Solids



Source: SRK, 2023.

Table 16-11: Optimization Pit Shells

Pit	Revenue Factor*	Cu Price ($/t Cu)	Average Cu Grade (%Cu)	Mineralized Material (t)	Waste (t)	Total Tonnage	Strip Ratio
Copper Prince	0.775	2.95	0.44	27,311,439	13,686,916	40,998,354	0.50
Globe	0.650	2.47	0.40	13,669,639	4,945,651	18,615,290	0.36
Old Reliable	0.825	3.14	0.34	14,815,194	16,851,917	31,667,111	1.14
Mammoth	0.800	3.04	0.37	70,067,911	138,341,194	208,409,106	1.97
Marsha	0.775	2.95	0.24	25,415,263	3,643,972	29,059,234	0.14
Bald/Jailhouse	0.900	3.42	0.48	8,537,025	46,343,884	54,880,909	5.43
Rum	0.925	3.52	0.66	1,139,381	1,031,492	2,170,873	0.91
Total			**0.37**	**160,955,852**	**224,845,026**	**385,800,877**	**1.61**

*Rev 1.0 Cu Price = $3.80/t

Mammoth is the largest pit shell, containing over half the open pit total material and 44% of the open pit mineralized material, as contained in the selected pit shells.

Copper Prince is a high value phase providing some of the highest average grades with a low strip ratio, and it is a good source of oxide material. Globe and Old Reliable are slightly lower value pits.

Marsha has an extremely low strip ratio but has a large amount of low-grade material. Bald is the inverse, having a large amount of waste overlaying high-grade material. Jailhouse, adjacent to Bald, was grouped with the latter as they will be mined together.

16.4.2 Open Pit Design

Pits were designed to best follow the selected pit shells and reduce waste mining without sacrificing mineralized material. In some cases, pits were designed to provide access to other areas. This was done to optimize the haulage network and efficiency, while at the same time minimizing the requirement for additional ex-pit haulage roads.

16.4.2.1 Bench Geometry Inputs

SRK generated bench geometry guidance for pit designing based on CNI's 2022 and 2023 reports (CNI, 2022; CNI, 2023), which recommended bench widths of 10.5 m and ISA guidance.

To achieve both of these, utilizing 12 m double benching (24 m total height), SRK calculated bench face angles (BFAs) to guide pit design, summarized in Table 16-12.

Table 16-12: Bench Face Angle Guidance for Pit Designs

Wall Dip Direction		Stack Heights Greater than 75 m		Stack Heights Less than 75 m	
From	To	ISA	BFA	ISA	BFA
10	80	50	68	50	68
80	195	52	71	53	72
195	10	51	70	52	71

16.4.2.2 Haul Road Widths and Gradients

SRK assumed a truck fleet of 136-t trucks (equivalent of a CAT 785 model), which dictated haul road width and gradients summarized in Table 16-13. Most roads will facilitate two-way traffic; however, lower traffic areas in the bottom 2-3 benches of each pit will offer one-way traffic at steeper grades.

Table 16-13: Haul Road and Truck Assumptions

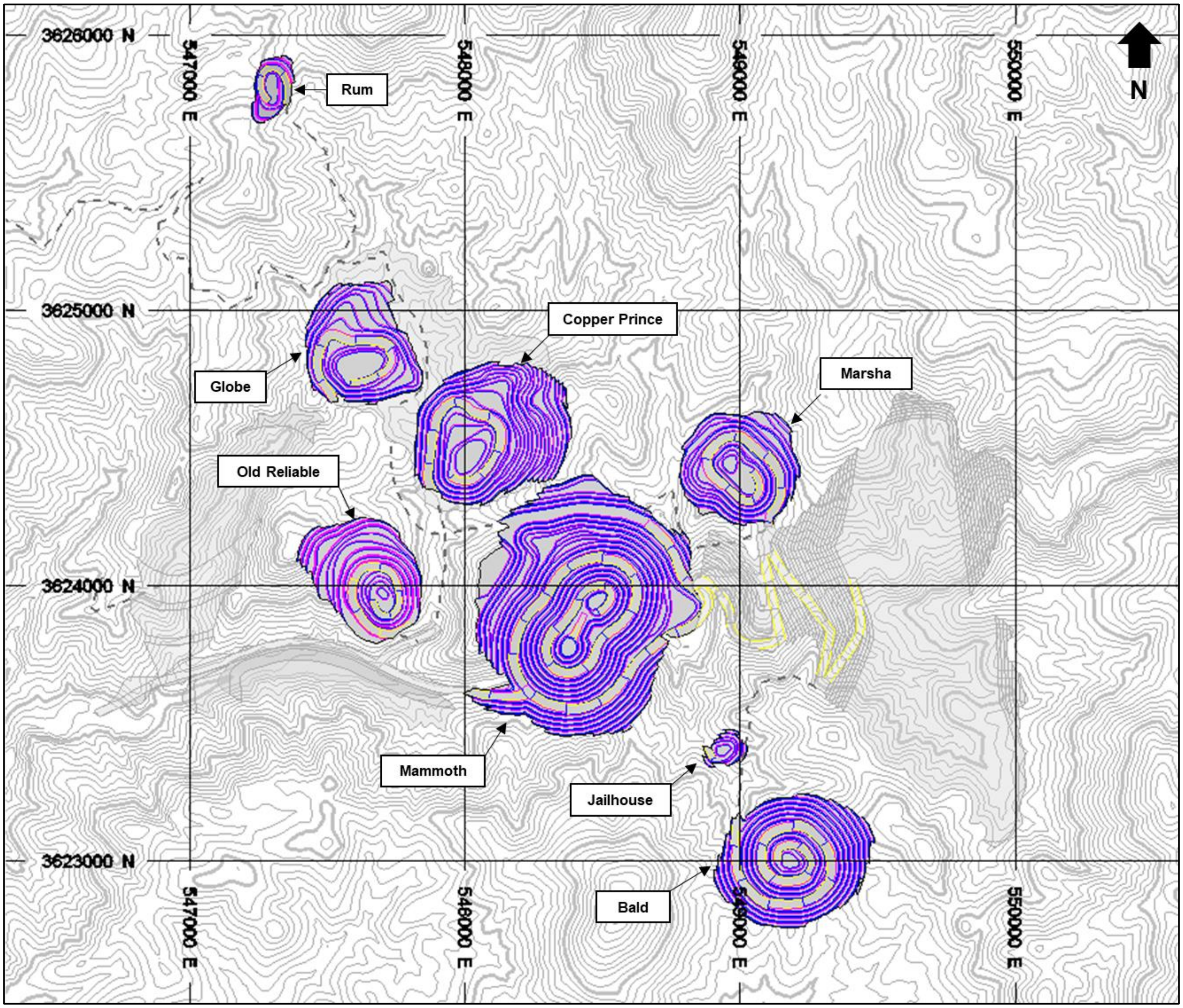
Truck Model/Capacity	Ramp	Width (m)	Grade (%)
CAT 785 (example)/136 t	2-way	28	10%
	1-way	21	12%

16.4.2.3 Ultimate Pit Designs

The pit shells generated from the pit optimization exercise (Section 16.4.1.5) were used to guide pit designs. Where possible, opportunities were identified to reduce waste mining, without sacrificing mineralized material.

Figure 16-14 shows the ultimate pit phases of seven distinct pits.

Figure 16-14: Ultimate Pit Design of Copper Prince, Globe, Old Reliable, Mammoth, Martha, Jailhouse, Bald and Rum



Source: SRK, 2023.

Table 16-14 summarizes the materials mined from all pits at Copper Creek.

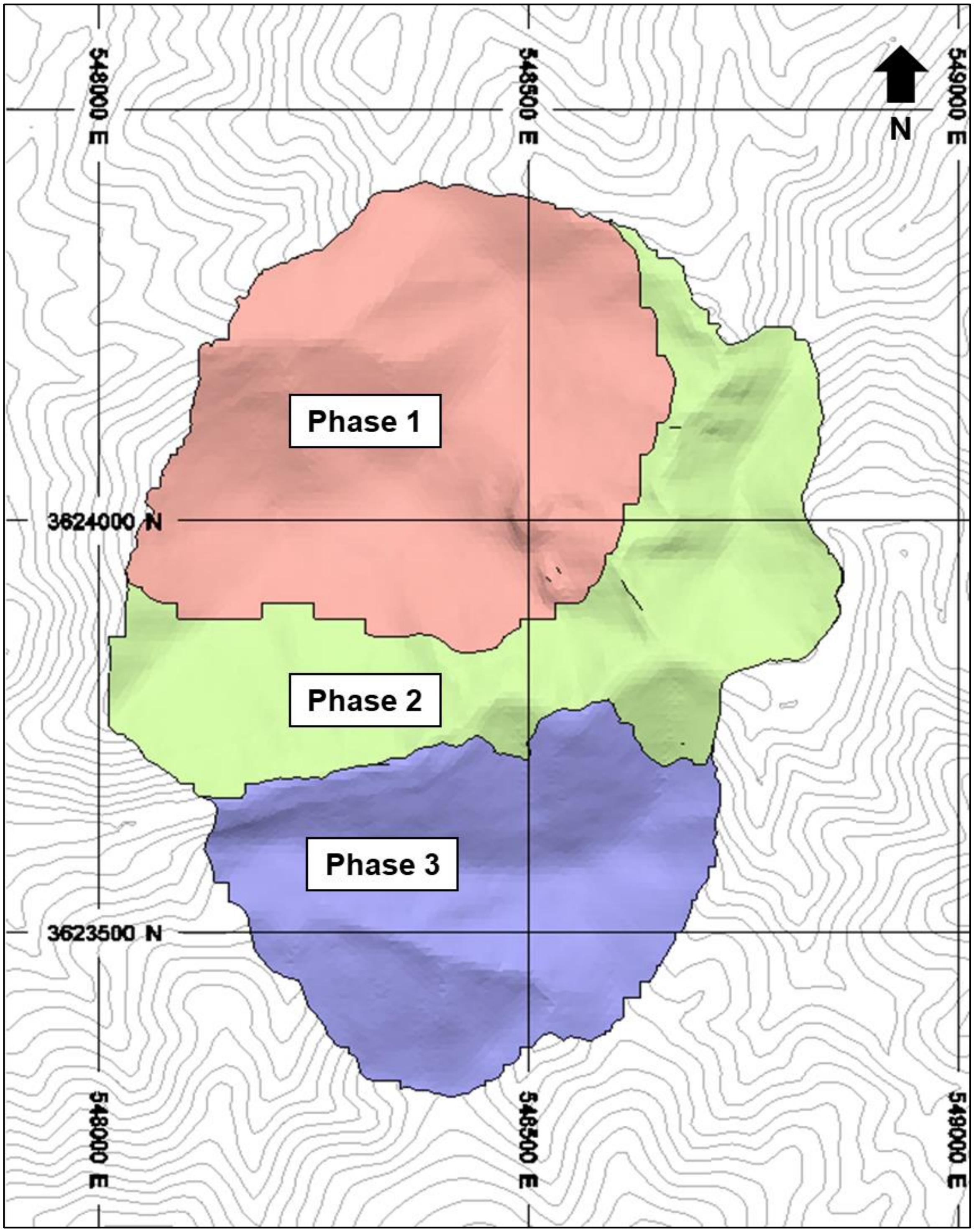
Table 16-14: Pit Design Summary by Pit and Rock Type

Open Pit	Processed Tonnage (Mt)		Processed Grade (% Cu)		Waste (Mt)	Strip Ratio
	Sulphide/Transitional	Oxide	Sulphide/Transitional	Oxide		
Copper Prince	20.72	5.89	0.45	0.36	11.53	0.43
Globe	9.88	2.71	0.40	0.37	4.97	0.40
Old Reliable	12.94	3.98	0.36	0.20	10.94	0.65
Mammoth	59.89	2.88	0.37	0.25	109.58	1.75
Marsha	21.06	4.28	0.24	0.25	3.15	0.12
Bald / Jailhouse	8.48	0.01	0.48	0.16	41.72	4.92
Rum	0.96	0.04	0.73	0.44	1.04	1.04
Total	**133.93**	**19.79**	**0.37**	**0.29**	**182.94**	**1.19**

Compared to the pit optimization exercise, pit designs were successfully able follow the pit shells. In all cases pit designs were able to mine less waste than expected and therefore result in a strip ratio of 1.2:1 (compared to the average pit shells ratio of 1.6:1 described in Section 16.4.1.5). The pits were designed utilizing less ramping (and therefore a steeper OSA) than the pit optimizations assumed. A future study should incorporate the steeper OSAs achieved in the pit designs in future pit optimization exercises.

To facilitate production scheduling, SRK identified opportunities to phase Mammoth to forward near-surface higher-grade material and delay waste stripping (Figure 16-15).

Figure 16-15: Plan View of Mammoth Phasing



Source: SRK, 2023

16.4.3 Cut-Off Grades

Cut-off grades (CoG) are dictated by metal price, and consider material type, processing costs, recovery, and selling costs. The direct feed CuEq CoG for oxide and sulphide material is 0.13% CuEq, while transitional material is 0.14% CuEq. Material reporting to a stockpile has a slightly higher CoG to account for rehandling costs.

Grade bins for sulphide and transitional material were established to aid in open pit mine planning, including low-grade (LG), medium-grade (MG) and high-grade (HG) bins.

Medium and high-grade material are directly fed to the mill or otherwise held in small stockpiles on the ROM pad. Low-grade material is only directly fed to the mill when capacity permits but are otherwise hauled to long-term stockpiles.

The grade bins are defined by %Cu for sulphide and transitional material, as indicated in Table 16-15.

Table 16-15: Grade Bins for Sulphide and Transitional Material

Grade Bin	Sulphide	Transitional
Low-Grade	0.13 – 0.25 %Cu	0.14 – 0.27 %Cu
Medium-Grade	0.25 – 0.45 %Cu	0.27 – 0.48 %Cu
High-Grade	>=0.45 %Cu	>=0.48 %Cu

16.4.4 Open Pit Mining Operations

The following describes the main open pit mining activities at Copper Creek. Equipment unit and fleet sizes are referenced but will be determined by the selected mining contractors to ensure they are able to meet production requirements.

16.4.4.1 Drilling and Blasting

It is envisioned that two rotary blasthole drills would be capable of meeting the drilling needs at Copper Creek. Hole size required would be 251 mm diameter (e.g., Epiroc).

Blasting is to be accomplished with an explosives contractor responsible for manufacture and delivery of explosives and accessories “at the hole”. It is envisioned that a mix of bulk and packaged explosives is to be adopted.

16.4.4.2 Loading

One hydraulic waste shovel of 16 m^3 bucket size is to be accompanied by two 25 m^3 front-end loaders, which will mine waste, mineralized material, and the LG stockpiles (LGSP). A third loader will operate at the ROM Pad. Once waste mining is complete, the shovel will work the LGSP.

16.4.4.3 Hauling

A fleet of 136-t trucks is envisioned for Copper Creek. Trucks would be loaded and then hauled to the ROM pad, waste facilities, or LGSP, depending on the material.

16.4.4.4 Support Equipment

Copper Creek will require an assortment of equipment to support the open pit mining operations, including track dozers, graders and water carts. Furthermore, various maintenance vehicles and equipment, light vehicles and personnel buses would be required by the mine contractor.

16.4.4.5 Dewatering

The mining contractor would be responsible for in-pit dewatering. This includes pit sumps, pumps and water lines as well as near horizontal drains for slope depressurization.

16.4.4.6 Grade Control and Production Monitoring

A grade control program would be required at Copper Creek. This would include activities such as sampling of blast holes, on-site assaying and grade control modelling.

16.4.5 Open Pit and Underground Cross-Over Analysis

A high-level open pit and underground cross-over analysis was conducted to determine whether any interaction between them would occur.

There is no potential interaction between the pits and underground while the pits are still in production. There is some subsidence from underground caving activities that affects parts of some pits and the external WSF; however, this would not occur until many years after open-pit mining has concluded.

16.5 Underground

16.5.1 Underground Mining Method Selection

Various underground mining methods were considered to develop the deep mineral resources at Copper Creek, including longhole open stoping (LHOS), sub-level retreat (SLR), sub-level open stoping (SLOS), sub-level caving (SLC) and block caving. Each of these has its own advantages and disadvantages related to selectivity, productivity, capital cost and operating cost.

A high-level trade-off study was conducted to determine the best underground mining method(s) for the Keel area (immediately below the Mammoth pit) and the American Eagle area (east of Keel). Based on the size and configuration of the Keel mineralized material, both subsidence and non-subsidence methods were considered (block caving for the deeper material and SLC for the shallower material). For the American Eagle material, block caving was considered the best method. Following additional open pit optimization work related to the open pit and underground cross-over analysis, it was determined that the shallower Keel material is best developed via the Mammoth open pit and the deeper material in Keel and American Eagle was best developed via block caving.

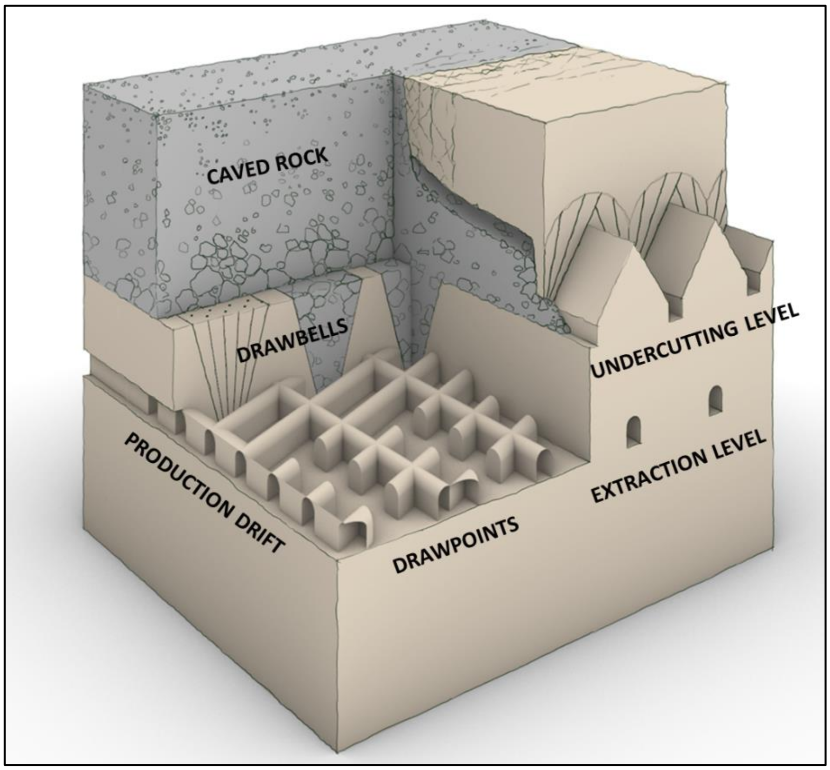
16.5.2 Mining Method Description

Block caving is a bulk underground mining method that typically has the lowest operating cost per tonne of mineralized material for all underground methods. This low cost advantage is offset by lower selectivity, reduced flexibility and higher upfront capital costs compared to other underground mining methods.

The low cost and limited selectivity make block caves best suited to massive deposits with both lateral and vertical continuity. The low cost allows for the inclusion of low-grade material and internal dilution that would be uneconomic using higher cost underground methods.

BC works by undercutting the deposit and creating an unsupported expanse that is large enough to induce caving. Figure 16-16 shows a cross-section through a typical block cave layout.

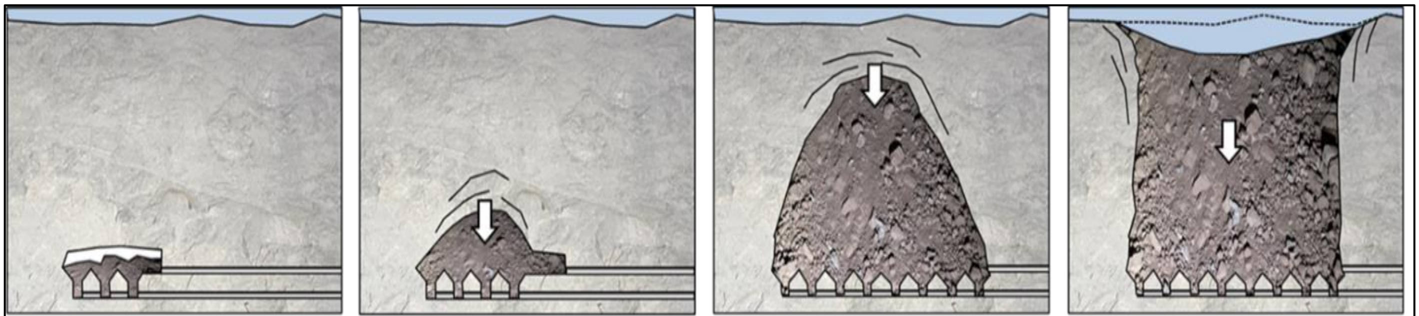
Figure 16-16: Illustration of a Block Cave



Source: Jakubec, 2023

The caving process is illustrated in Figure 16-17. The caved mineralized material is extracted from an array of drawbells excavated into the rock beneath the undercut. As the caved material is extracted from the drawbells on the extraction level the void beneath the deposit is maintained and the cave continues to progress vertically to surface where it will form a subsidence zone.

Figure 16-17: Caving Process



Source: Jakubec, 2023

16.5.3 Minable Inventory

A mineable inventory represents the estimate of the production tonnes and grades extracted from a mining operation, exclusive of any development tonnes. For block cave the mineable inventory is comprised of the extracted tonnes and grades from a caving simulation. Simulation models the impact of mixing and dilution on the extracted tonnes and grades based on the caving footprint and height of draw.

The simulations were done using GEOVIA's Footprint Finder application.

16.5.3.1 Input and Assumptions

The Footprint Finder optimizations were based on the resource block model with file name CopperCreek_1m_Sub-blocked_Model_12Z_Nov14.csv. This is the same resource model that was used for the NI 43-101 mineral resource reporting in the spring of 2023. The same mining model described in Section 16.4.1.1 for the open pit was utilized by Footprint Finder for the underground minable inventory.

16.5.3.1.1 NSR Parameters

Revenue, TCRC and NSR (all expressed in $/t) were calculated for all blocks in resource categories Measured, Indicated, and Inferred (block attribute "Class" equal to 1, 2 or 3). The input parameters used for the NSR calculations are shown in Table 16-16.

Table 16-16: NSR Calculations Inputs

Parameter	Unit	Value
Metal price, Cu	$/lb	3.80
Metal price, Ag	$/oz	20.0
Metal price, Mo	$/lb	13.0
Cu processing recovery, oxide	%	60
Cu processing recovery, transitional	%	85
Cu processing recovery, sulphide	%	92
Mo processing recovery, oxide	%	-
Mo processing recovery, transitional	%	68
Mo processing recovery, sulphide	%	78
Ag processing recovery, oxide	%	-
Ag processing recovery, transitional	%	40
Ag processing recovery, sulphide	%	50
TCRC, Cu	$/t product	1,180
TCRC, Mo	$/t product	2,123
TCRC, Ag	$/t product	16

*= Based on $7.3/t mining, $7.6 milling, $1.0 G&A for a total $15.9/t.

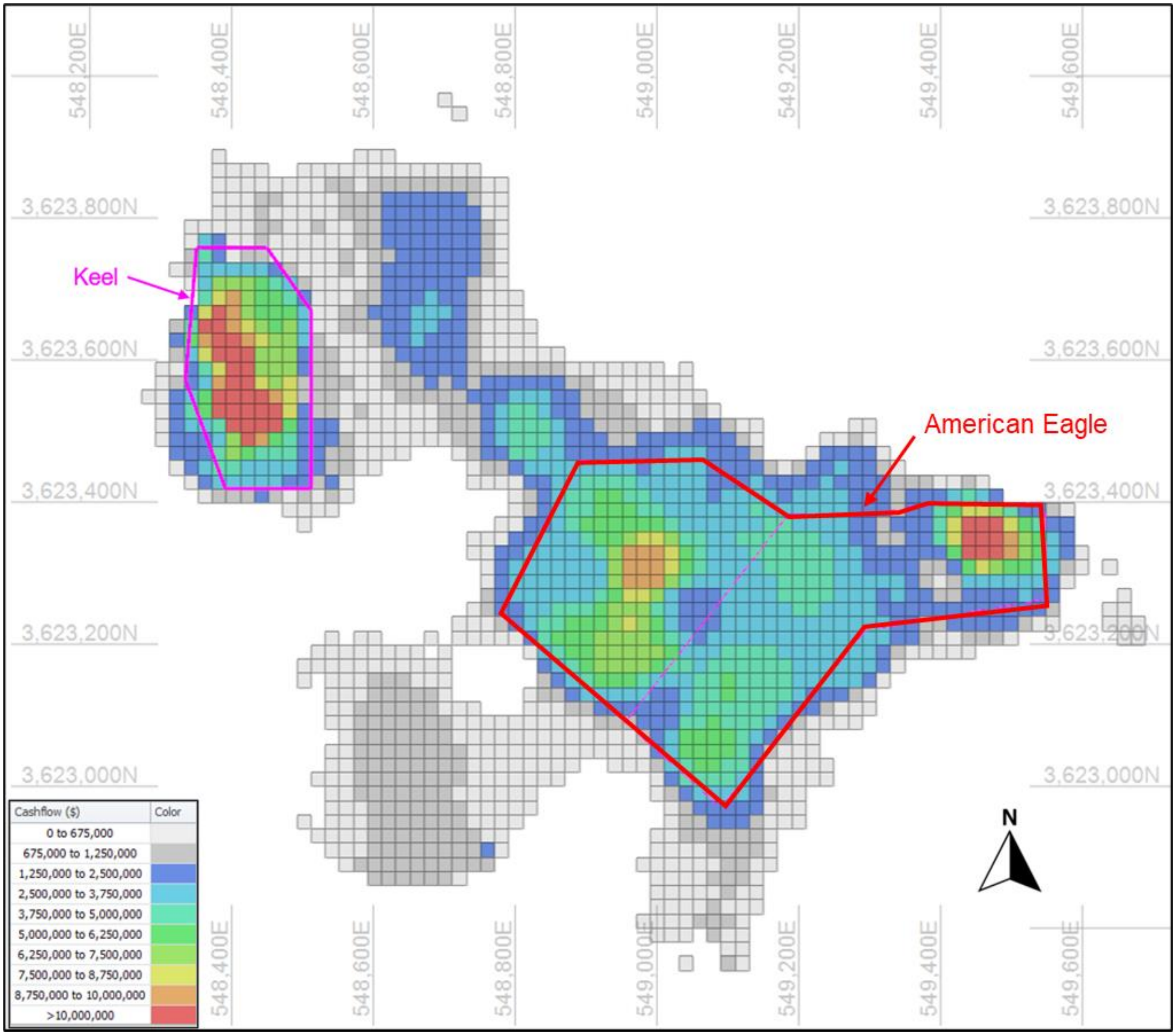
The operating cost of $20/t used for the Footprint Finder simulations is 26% higher than the estimated operating cost for the Project and was applied in order to: (I) constrain the columns to the MRE resource envelope, which was optimized using an operating cost of $20/t, and to (II) raise the operating margin of the mineralized material inventory by removing the lowest-grade parts of the columns. The columns were reviewed manually to ensure mining practicality.

The maximum allowed height of draw (HOD) for the potential footprint columns was constrained to 500 m.

16.5.3.2 Footprint Finder Analysis

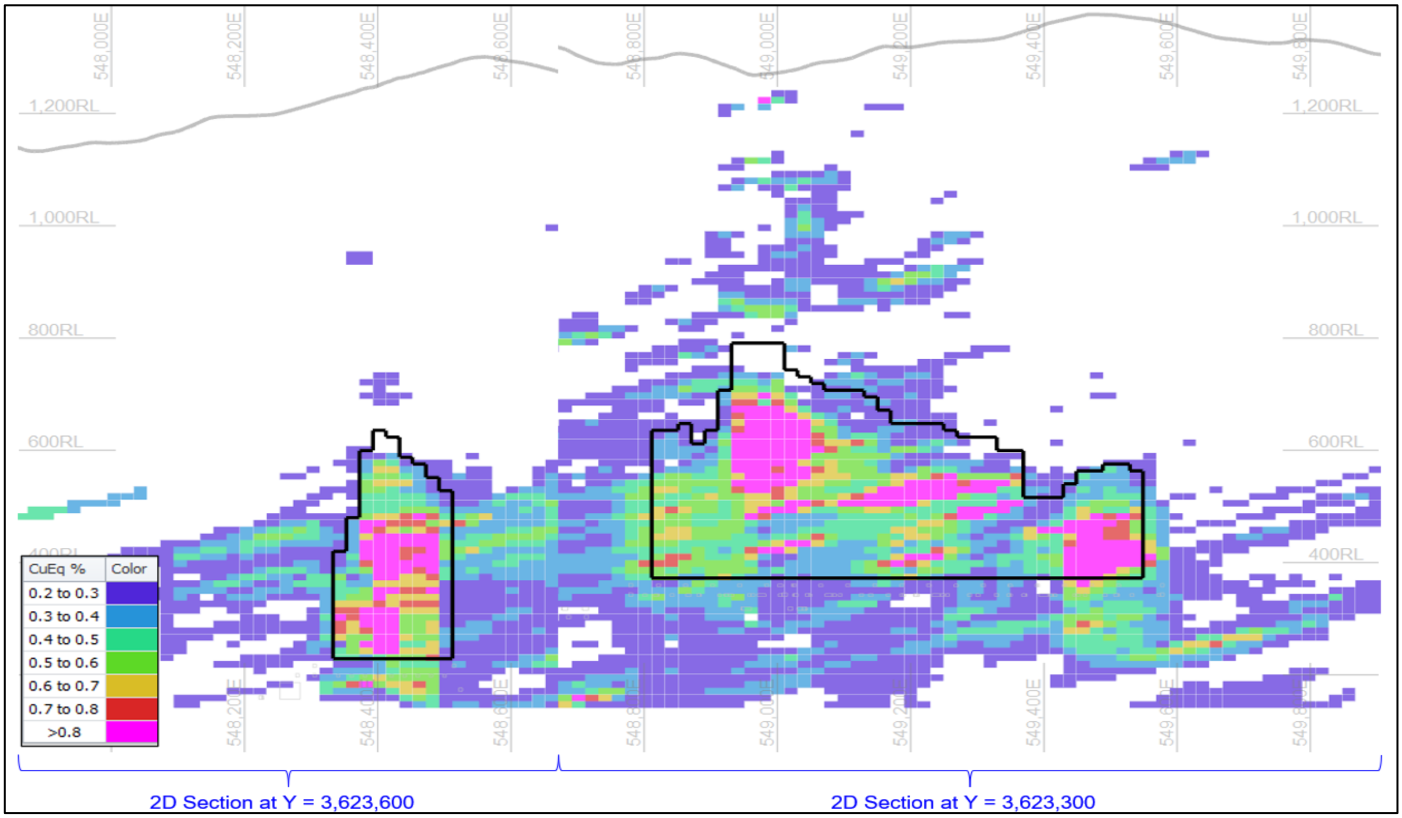
Two footprints with individual extraction levels were identified; the Keel footprint in the western parts of the deposit with an optimum extraction level at z=228 m RL, located below the Mammoth open pit. The second footprint, which is located to the southeast of Keel, is called American Eagle and has its optimum extraction level at z=372 m RL. These footprint boundaries are shown in Figure 16-18 and Figure 16-19.

Figure 16-18: Keel (purple) and American Eagle (red) Footprints, Plan View



Source: SRK, 2023.
Notes:
1. Blocks represent all economical columns (assuming operating cost of $15.9/t)
2. Cashflow ($) is calculated in Footprint Finder as [Revenue] – [Opex] – [Footprint Development Cost]

Figure 16-19: Keel and American Eagle Footprints, Section View (looking north)



Source: SRK, 2023.

The footprint physicals, using a $20/t operating cost in the Footprint Finder simulation and after manual trimming of the columns, are shown in Table 16-17.

Table 16-17: Footprint Physicals

	Unit	Keel	American Eagle	Total
Mineralized material mass	Mt	47.0	154.6	201.6
Cu Grade	%	0.548	0.492	0.505
Mo Grade	%	0.014	0.007	0.008
Ag Grade	%	3.278	0.858	1.422
Cu Eq Grade	%	0.602	0.515	0.535
Base Elevation	m RL	228	372	N/A
Footprint Area	m^2	51,900	194,600	246,600
Hydraulic Radius	m	56	95	N/A
HOD, average	m	375	337	346

16.5.4 Underground Mine Design

16.5.4.1 Input and Assumptions

A mine design was completed to demonstrate how to access and mine the footprints. The main design concept includes accessing the production areas through two main declines; one service decline for personnel and equipment, and one conveyor decline for material handling.

The tunnel profiles assigned to the development drifts are listed in Table 16-18.

Table 16-18: Development Drift Profiles

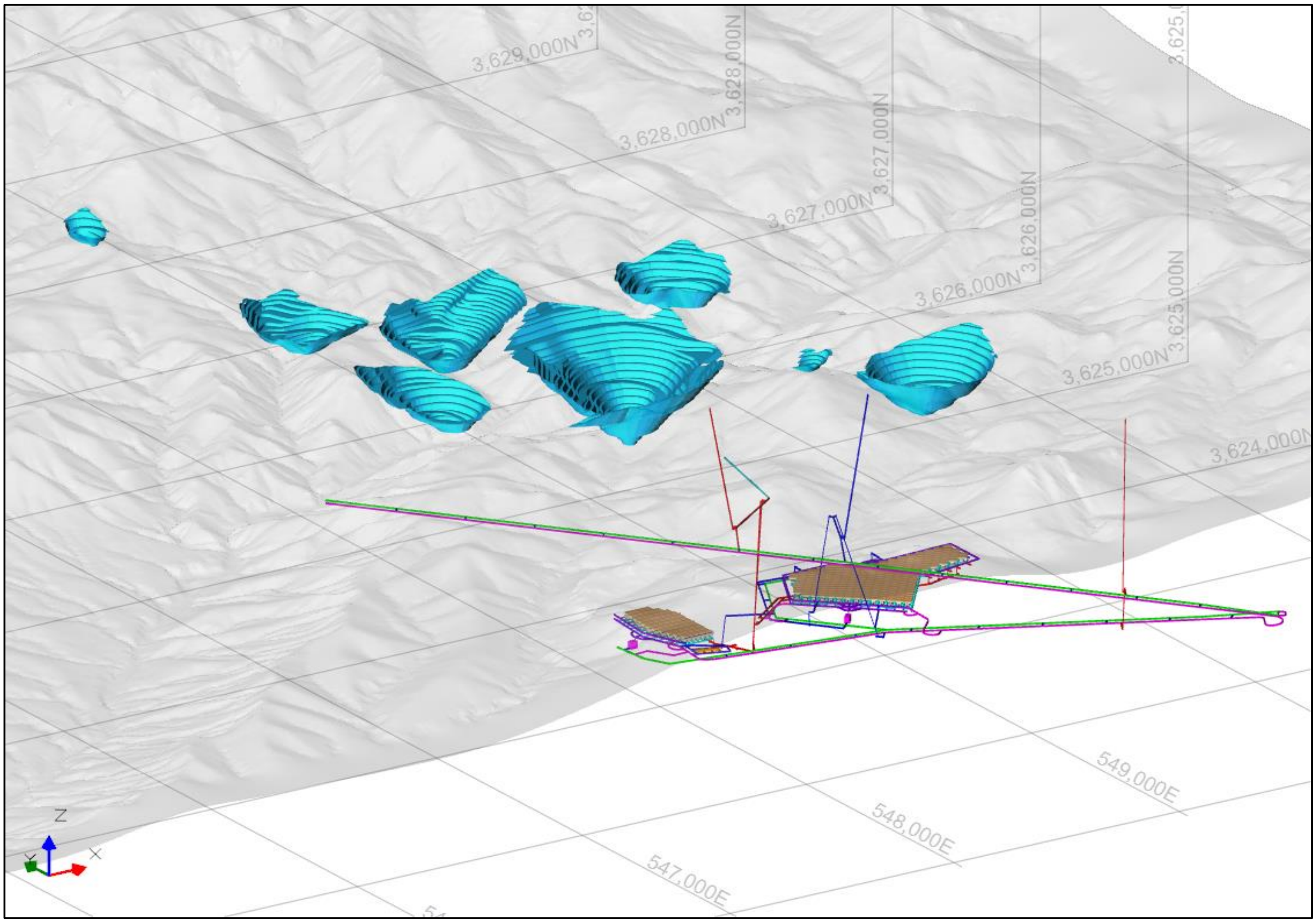
		Dimension, m (W x H)	Dimension, m (ø)
Lateral	Access Decline	5.5 X 6.0	-
	Conveyor Decline	5.5 X 6.7	-
	Crosscut	5.0 X 4.6	-
	Drawpoint	5.0 X 4.6	-
	Exploration	5.0 X 5.5	-
	Fresh Air Drive	5.5 X 6.0	-
	Level Access	5.5 X 6.0	-
	Mineralized Material Pass Access	5.5 X 6.0	-
	Perimeter Drive	5.5 X 6.0	-
	Remuck	5.5 X 6.0	-
	Return Air Drive	5.5 X 6.0	-
	Undercut Drive	5.0 X 4.6	-
Vertical	Fresh Air Raise	-	3.5 / 4.5
	Mineralized Material Pass	-	3.5
	Return Air Raise	-	3.5 / 4.5

16.5.4.2 Development and Access

The service decline and the conveyor decline are collared within 30 m of each other at a portal located 2.1 km east of the processing plant by conveyor and some 1.5 km west of the Keel footprint. It is envisaged that the two declines are developed in parallel, which would allow for one of the drifts to serve as ventilation fresh air supply during the development phase. The service decline is designed at an average gradient of 15.3% and the conveyor decline has an average gradient of 15.6%.

The declines have a south-eastern azimuth for the first 3.6 km before turning to the north-west and accessing the American Eagle footprint after an additional 1.5 km. From American Eagle, the declines continue 1.0 km laterally and 140 m vertically before reaching the Keel footprint. The declines are connected by crosscuts spaced 250 m apart, which serve as both ventilation connections and as a means of moving equipment and personnel between the two tunnel faces (Figure 16-20).

Figure 16-20: Open Pit and Underground Mine Layout (Isometric Looking East)



Source: SRK, 2023.

From the main service decline, local declines connect to the undercut and production levels of the individual footprints. A horizontal conveyor drift branches off from the main conveyor decline as it reaches the target elevation for the American Eagle footprint and wraps around the footprint on the western side and continues around to the northeastern side.

To account for ancillary development, such as 227rojec stations, pump sumps and electrical cut-outs, factors were applied to the designed drift metres. The following development factors were applied to the different drift types:

- +20%: Level access drifts, service decline, and perimeter drifts
- +15%: Mineralized material pass access drifts
- +10%: Conveyor declines, fresh air drifts, return air drifts
- +7.5%: Undercut drifts

For these drift types, the designed quantities and the factored quantities were summed up to form total planned quantities. In effect, the factor acts as a design quantity contingency to cover the cost of some development unknowns that will not be obvious until development commences. The planned quantities for the drift types where no factor is listed were taken straight from the designs without applying any factors.

16.5.4.3 Production Area Layout

The Keel footprint has perimeter drifts going in a south-north direction along the western side of the footprint. From the perimeter drifts, production drifts and undercut drifts are developed in a west-east direction (90° azimuth) across the footprint.

The American Eagle footprint has perimeter drifts going around most of the footprint to allow material to be hauled from two directions. The production drifts and undercut drifts are oriented in a southwest to northeast direction (38° azimuth).

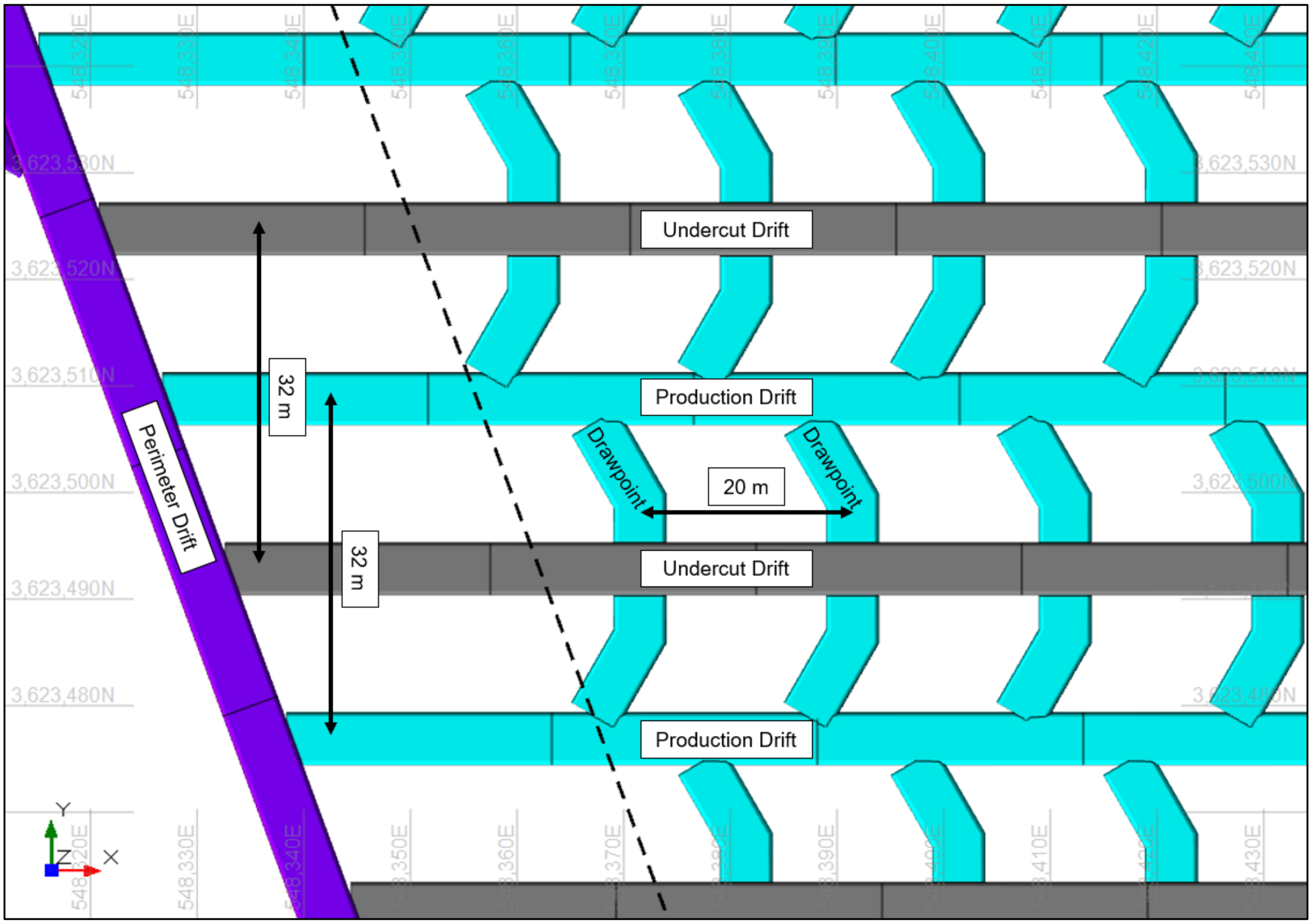
The production drift and extraction drift spacings are both 32 m. Drawpoint accesses are designed with 20 m spacing in a herringbone configuration.

Undercut and production levels are spaced 17 m vertically from each other. Conveyor drifts are located 40 m below the production levels and are offset 60 m horizontally from the perimeter drifts. Ventilation drifts are located 25 m below the production levels and remove exhaust air from the production areas through ventilation drop raises.

The Keel footprint has a single crusher located at a central location on the west side of the footprint. The American Eagle footprint has two crushers; one on the southwest side and one on the opposite (northeast) side.

Figure 16-21 shows an example of a production and undercut drift and drawpoint spacing.

Figure 16-21: Production Drift, Undercut Drift and Drawpoint Spacing



Source: SRK, 2023.
Notes:
1. Plan view
2. Figure shows example from the Keel footprint

16.5.4.4 Mine Design Results

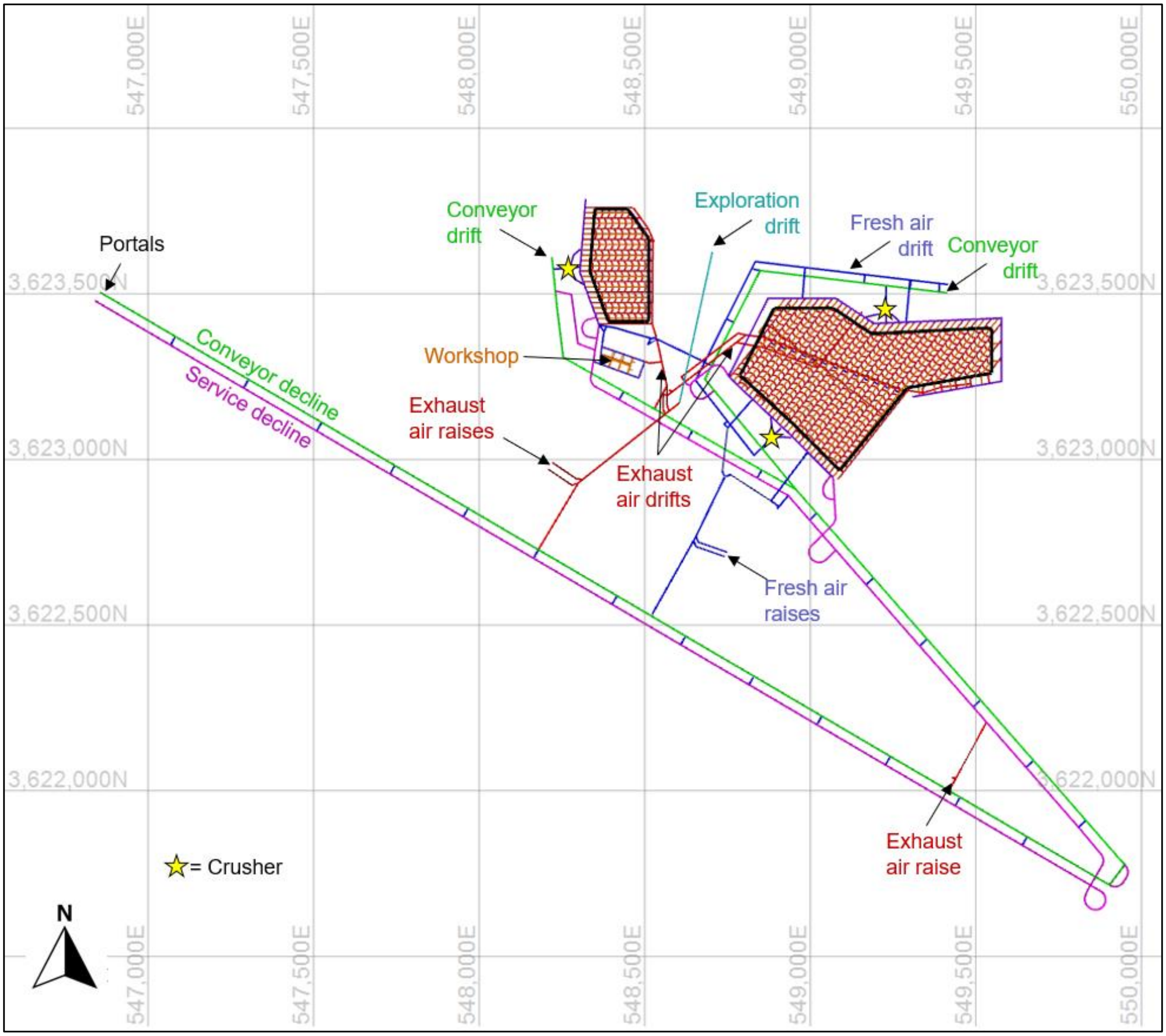
A summary of the mine design physicals is shown in Table 16-19.

Table 16-19: Underground Mine Design Physicals

Item	Unit	Value
Lateral Development	km	64.1
Lateral Development: Capital	km	32.2
Lateral Development: Operating	km	31.8
Vertical Development	m	6,400
Vertical Development: Fresh Air	m	2,500
Vertical Development: Return Air	m	3,800
Vertical Development: Mineralized Material pass	m	100
Total Tonnes	Mt	214.4
Total Mineralized Material Tonnes	Mt	211.4
Production Mineralized Material Tonnes	Mt	201.6
Development Mineralized Material Tonnes (incl. undercutting and drawbells)	Mt	9.7
Development Waste Tonnes (Incl. undercutting and drawbells)	Mt	3.0
Undercutting	m^2	252,000
Undercutting	Mt	4.5
Drawbell Development	# of	409
Drawbell Development	Mt	3.1
Crusher Chamber	# of	3

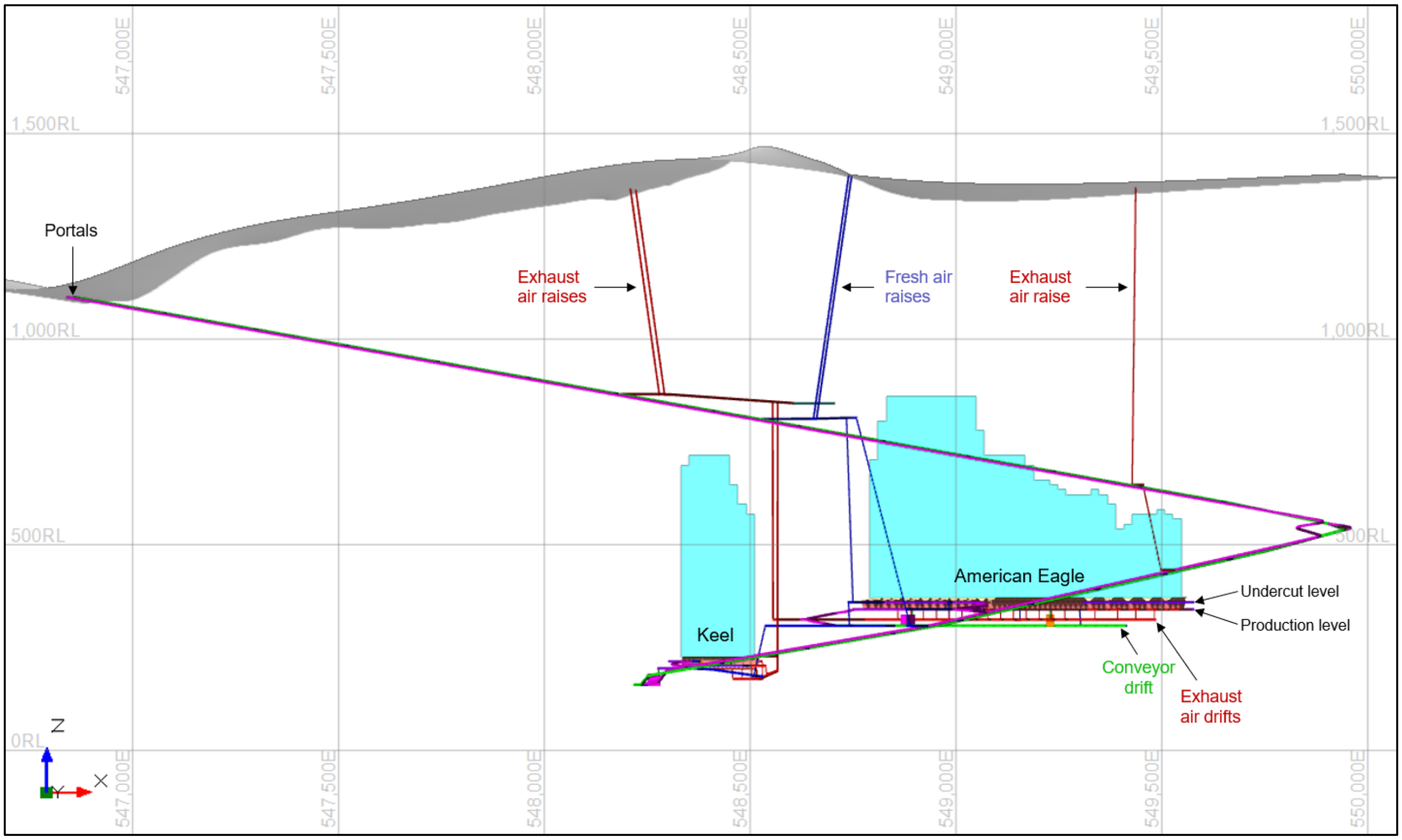
The block cave columns were imported into Deswik where they were combined with the development designs to form a full underground design. An overview of the complete underground mine design is shown in plan view in Figure 16-22 and in section view in Figure 16-23.

Figure 16-22: Mine Design (Plan View)



Source: SRK, 2023.

Figure 16-23: Mine Design (Section view; looking north)

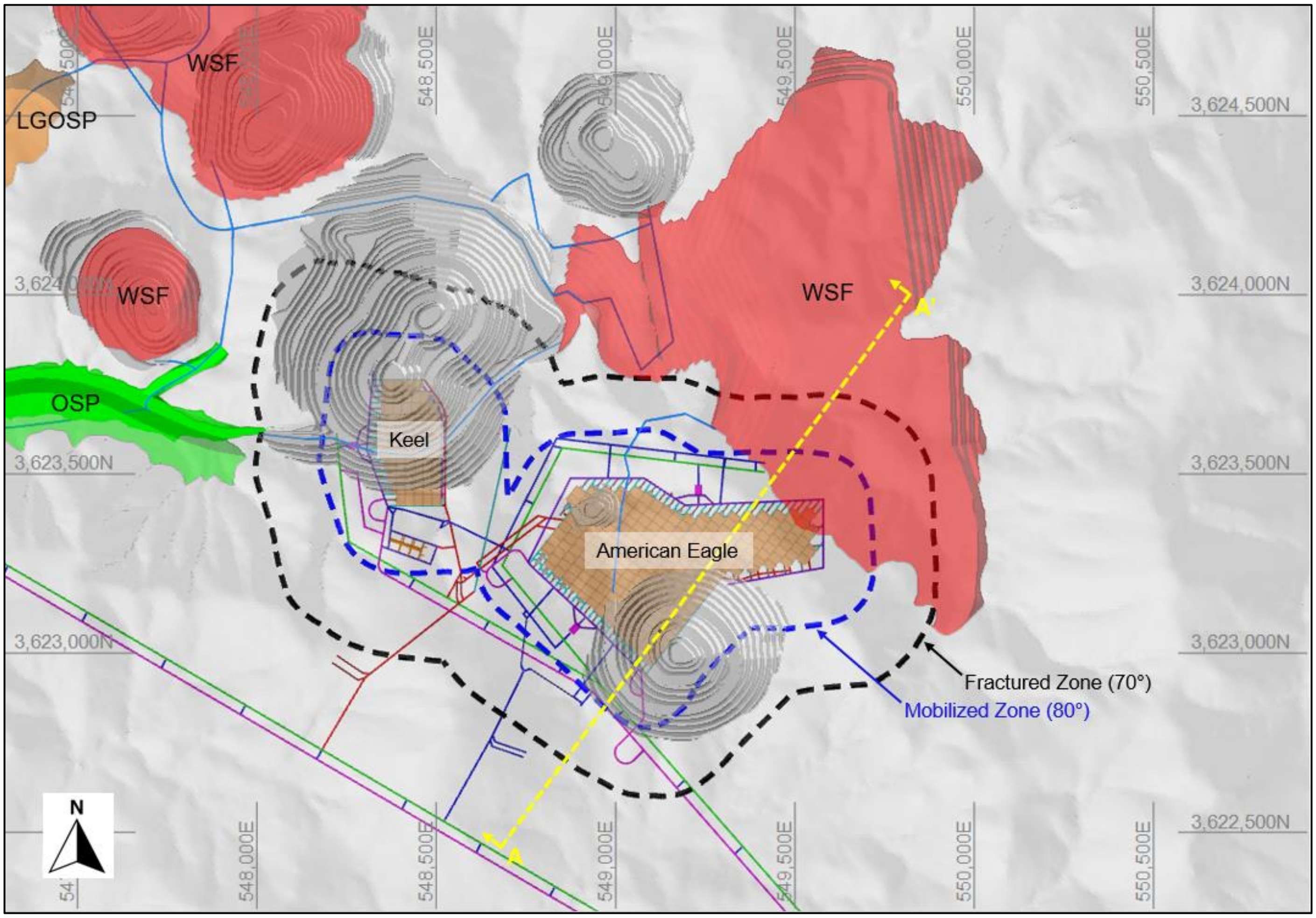


Source: SRK, 2023.

16.5.5 Zone of Surface Influence

The extent of surface influence caused by the block cave mining was estimated by projecting the footprint boundaries up to surface. The extent of the mobilized zone was estimated by projecting the boundaries up at an angle of 80° and the extents of the fractured zone was estimated using a 70° projection angle. During future stages of project development, these assumptions will be re-evaluated and adjusted if necessary. The mobilized zone covers a surface area of some 936,000 m^2 and the fractured zone (including the mobilized zone) covers an area of 1,884,000 m^2. The extents of these two zones are shown in Figure 16-24.

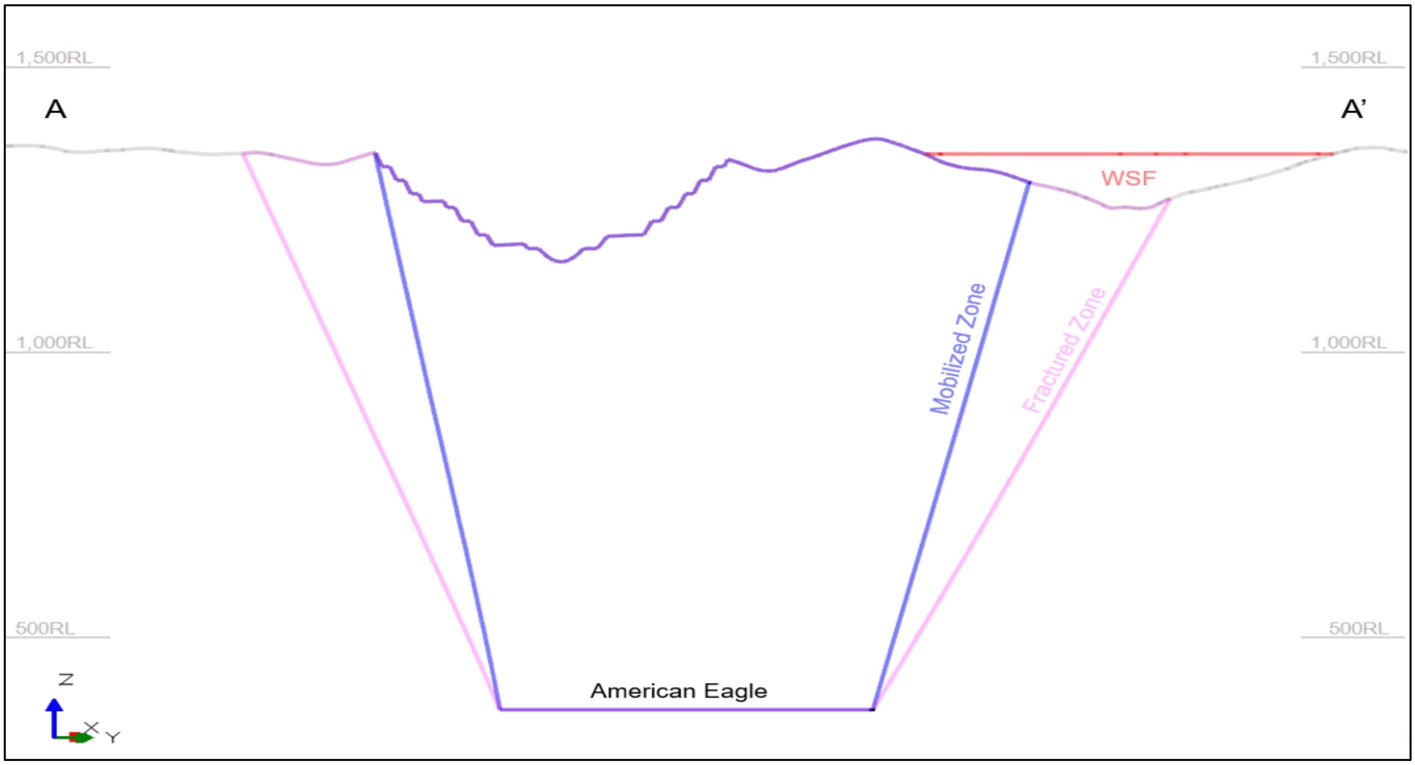
Figure 16-24: Surface Influence Zones Caused by Caving



Source: SRK, 2023.
Notes:
1. Plan View.
2. The yellow dashed line represents the location of cross-section in Figure 16-21.

The influence zone for the American Eagle footprint partially overlaps with the eastern WSF, which is shown in Figure 16-25. The majority of the overlap takes place outside of the mobilized zone, and placement of waste rock in the WSF is considered feasible using standard operational practices.

Figure 16-25: American Eagle Influence Zone and Waste Rock Dump



Source: SRK, 2023.
Notes:
1. Section view looking north-west
2. Section location is shown as a dashed yellow line in Figure 16-24.

16.6 Mine Scheduling

16.6.1 Introduction

Scheduling was completed by SRK in Deswik scheduling software.

Annual production schedules were completed for all open pits and two underground footprints to achieve a mill feed of 11 Mt/a.

Production scheduling has three components:

- Open Pit Mining – Includes all mining schedule production from seven open pits to the mill, ROM pad, LGSPs, and waste storage facilities, considers the maximum contractor productivity in each pit.
- Underground Mining – Includes mining schedule production from two underground mines to the mill.
- Processing – Includes schedule production from open pits, underground mines, and stockpiles to the mill.

16.6.2 Assumptions and Input Parameters

16.6.2.1 Open Pit Mining

The inputs for pit scheduling, including the block model, grade binning and recoveries, are the same as used for pit optimization, detailed in Section 16.4.1.

Open pit mining assumes one year of pre-production, with a maximum mining rate of 27 Mt/a (all material mined), followed by full production years with mining rates up to 45 Mt/a.

Scheduling priority was placed on achieving the highest net revenue, followed by the highest CuEq%. A maximum sinking rate of 12 benches per year (per pit) was assumed.

16.6.2.2 Underground Mining

The underground mining scheduling assumptions are listed in Table 16-20.

Table 16-20: Underground Scheduling Assumptions

Parameter	Unit	Value
Total mineralized material mined, max	t/d	30,000
Development jumbo crews, capex	Number of	2
Development jumbo crews, opex	Number of	1
Vertical development crews	Number of	2
Advance rate, capex jumbo crew	m/month/crew	300
Advance rate, opex jumbo crew	m/month/crew	320
Advance rate, vertical development crew	m/month/crew	120
Advance rate, high priority capex headings	m/month/heading	150
Advance rate, capex headings	m/month/heading	75
Advance rate, opex headings	m/month/heading	80
Advance rate, vertical development	m/month/heading	120
Cave undercutting rate	m^2 /month	1,920
Drawbell development rate	Number of/month	4
Caving rate	m/year	55

Due to the relatively high grades in the Keel footprint, the schedule was produced to prioritize bringing the Keel footprint into production as soon as possible and as high-rate as possible. Undercutting of the American Eagle footprint is scheduled to start once the Keel footprint has been completely undercut.

16.6.3 Open Pit Mine Production Schedule

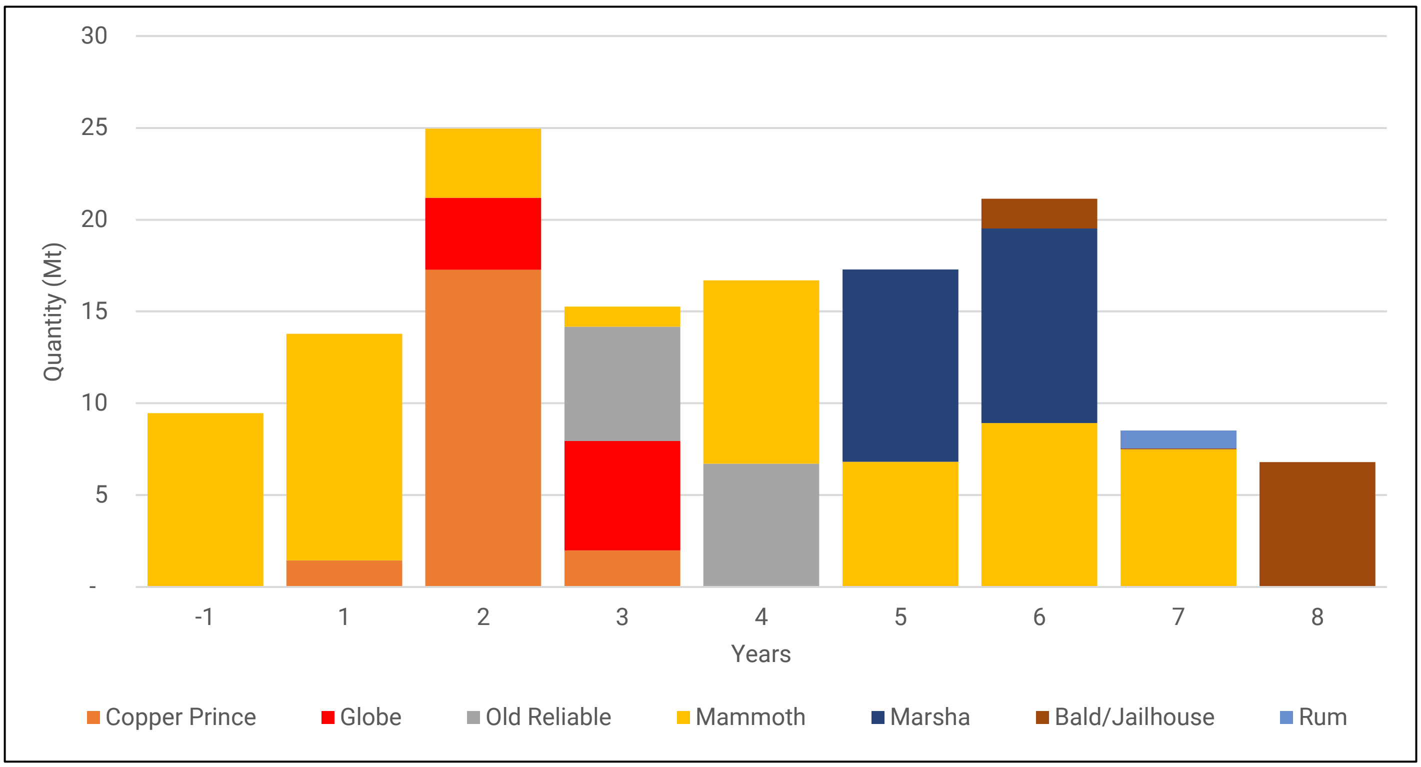
16.6.3.1 Production Scheduling

The open pit mining production schedule has four potential material destinations that are dictated by both material type and scheduling, including:

- Waste rock storage – waste material is sent to one of three waste facilities (external or backfill facilities).
- Oxide material – oxide material is sent to the ROM pad for crushing to then be conveyed to the heap leach pad.
- Direct mill feed – mineralized material is sent directly to the ROM pad for crushing and then conveyed to the mill. MG and HG material is stockpiled in temporary ROM piles if the mill does not have capacity.
- LGSP – when there is no available mill capacity for low-grade material, the material is sent to the LGSP. Rehandling costs are considered.

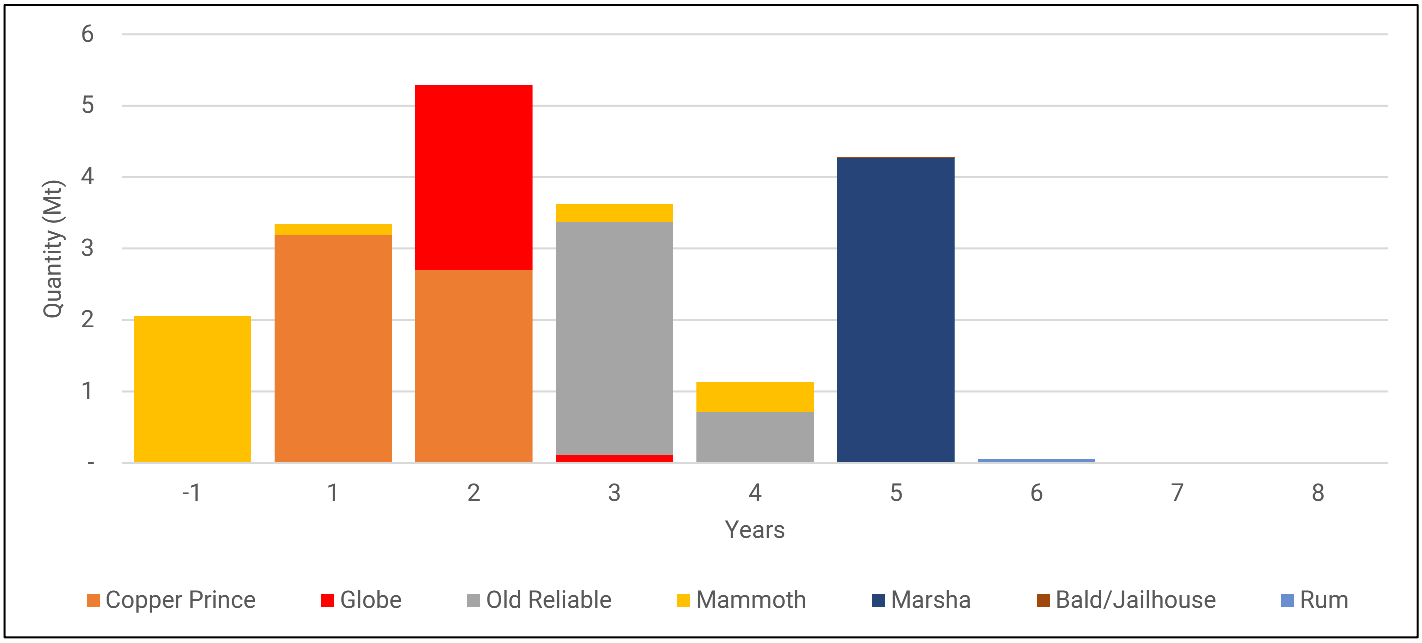
Figure 16-26 to Figure 16-28 show the mineralized transitional and sulphide material, oxide material, and waste mined by pit, respectively.

Figure 16-26: Mineralized Transitional and Sulphide Material Mined by Pit



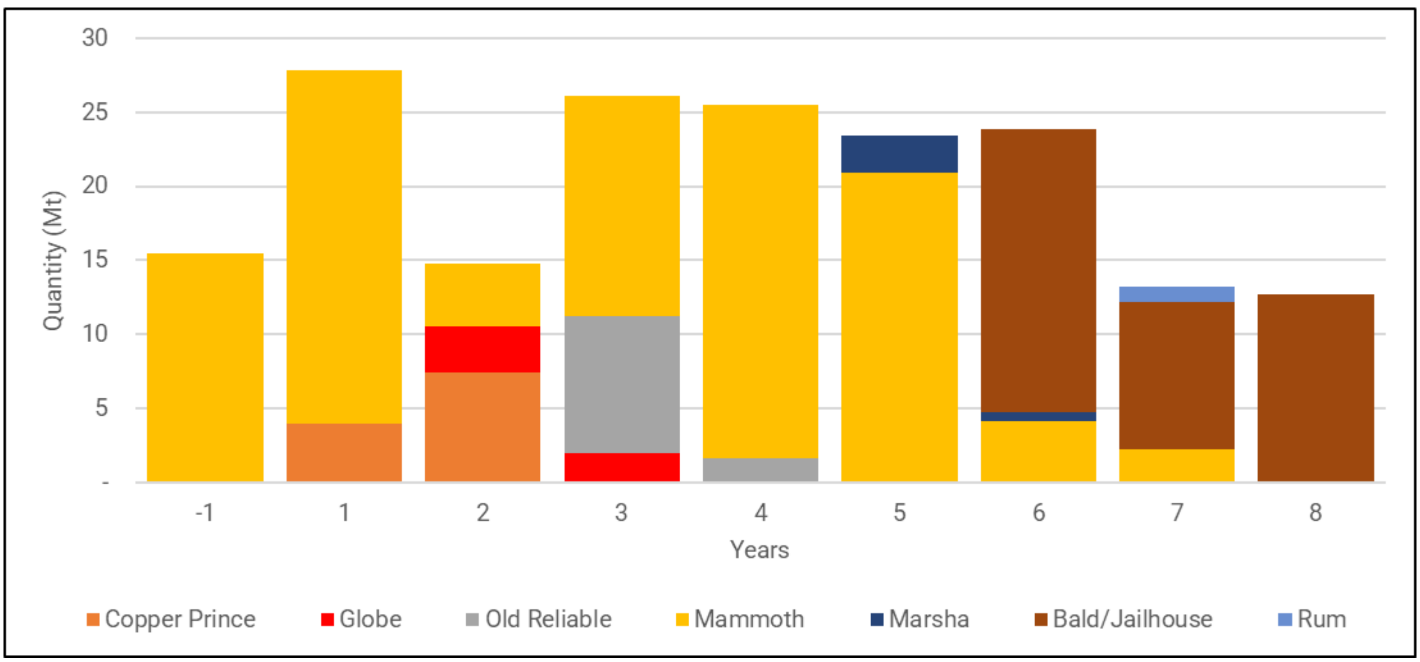
Source: SRK, 2023.

Figure 16-27: Mineralized Oxide Material Mined by Pit



Source: SRK, 2023.

Figure 16-28: Waste Material Mined by Pit



Source: SRK, 2023.

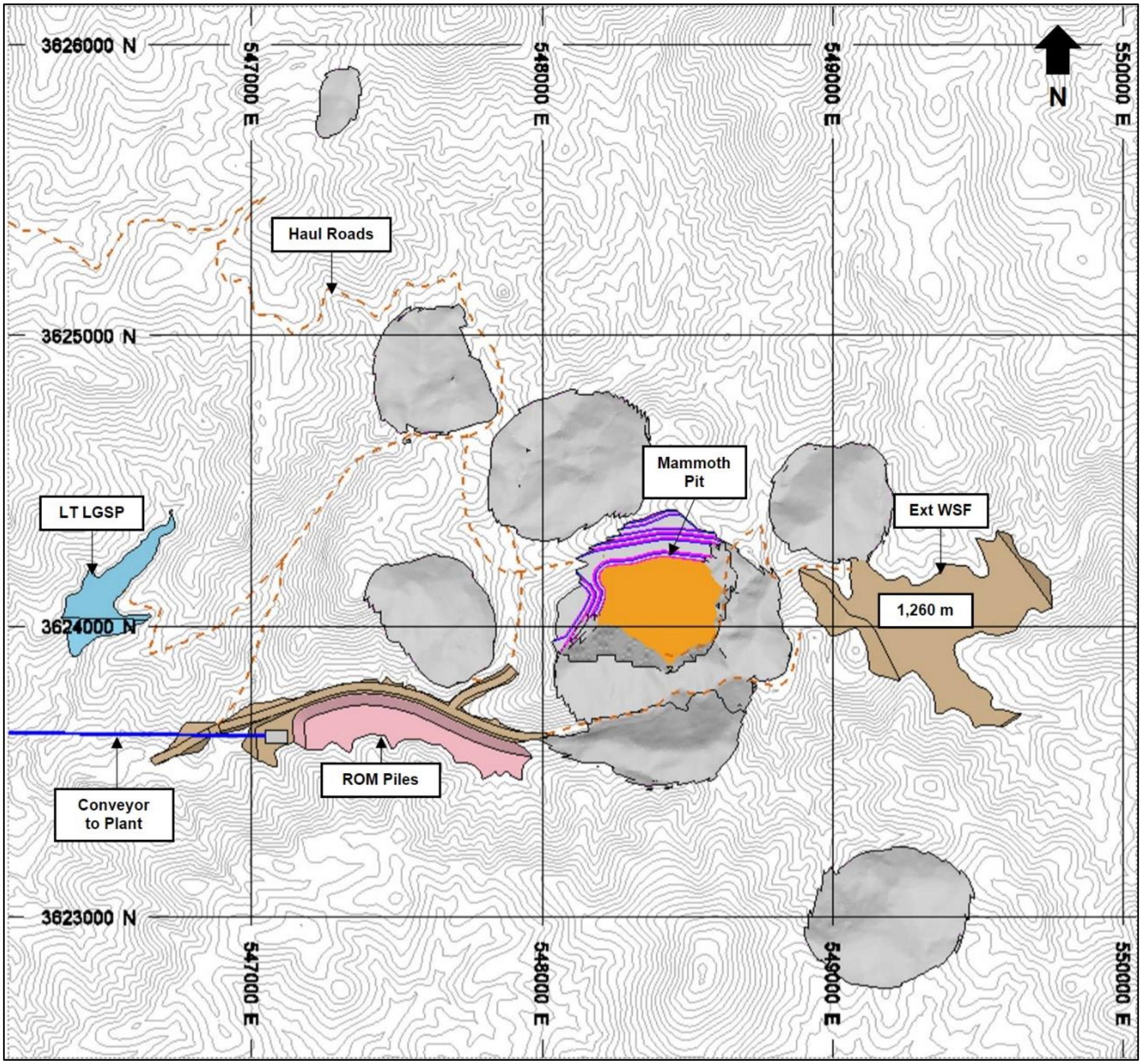
16.6.3.2 Open Pit Period Plans

Figure 16-29 to Figure 16-31 are a selection of period plans that show the open pit mining sequence and mine infrastructure progression.

Footprints of future mining are in grey, while active mining is in orange. Waste facilities, LGSPs and ROM piles are brown, blue and pink, respectively. Dotted centrelines indicate access roads. Claims boundaries are not shown. Oxide material which is sent to the HLF located adjacent to the processing plant is not shown. Contours are in 10 m intervals.

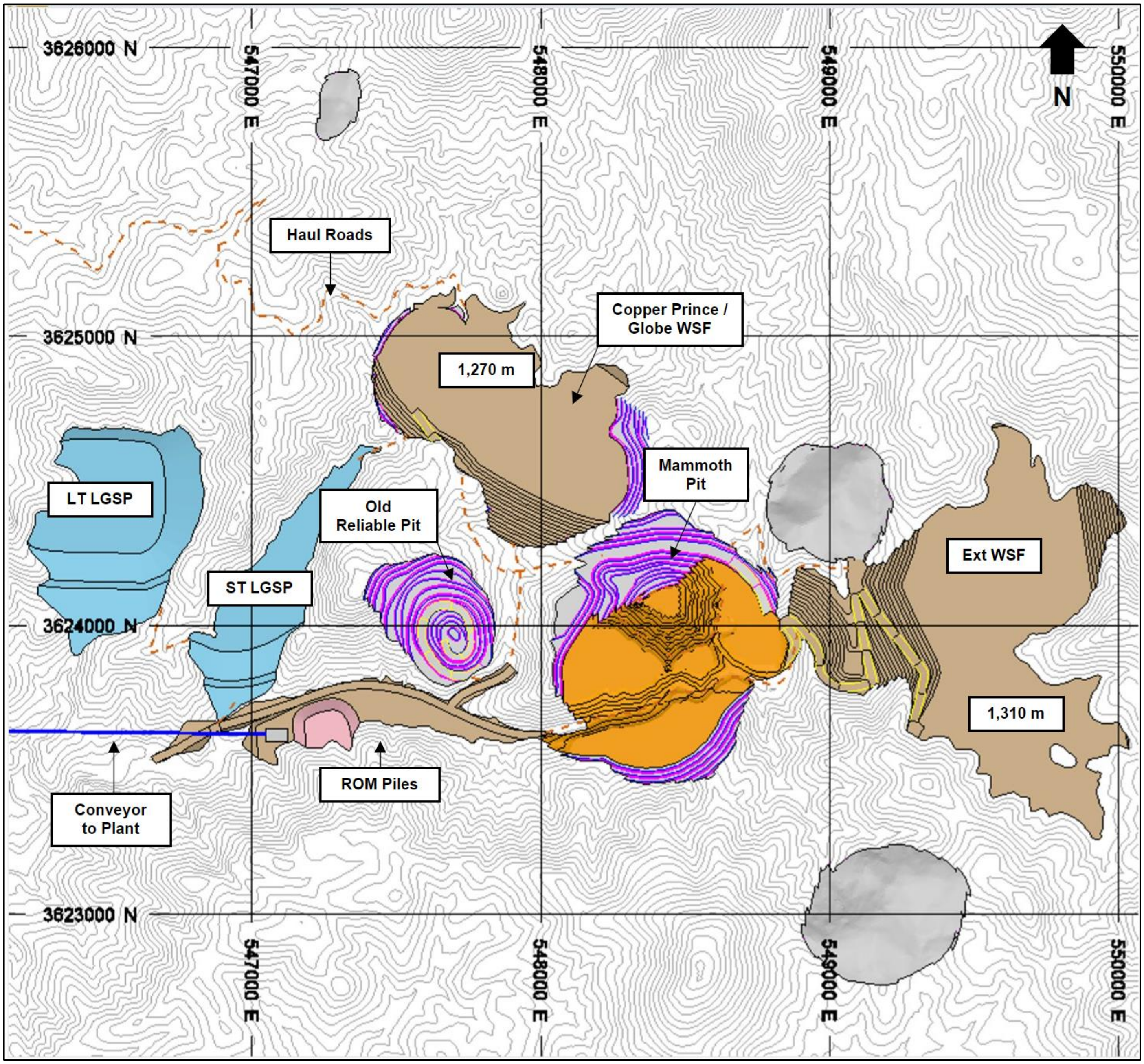
As mentioned previously, Mammoth pit phases were not designed (only the ultimate pit design was completed), so only pit optimization solids for those phases are shown.

Figure 16-29: Year 1 Period Plan



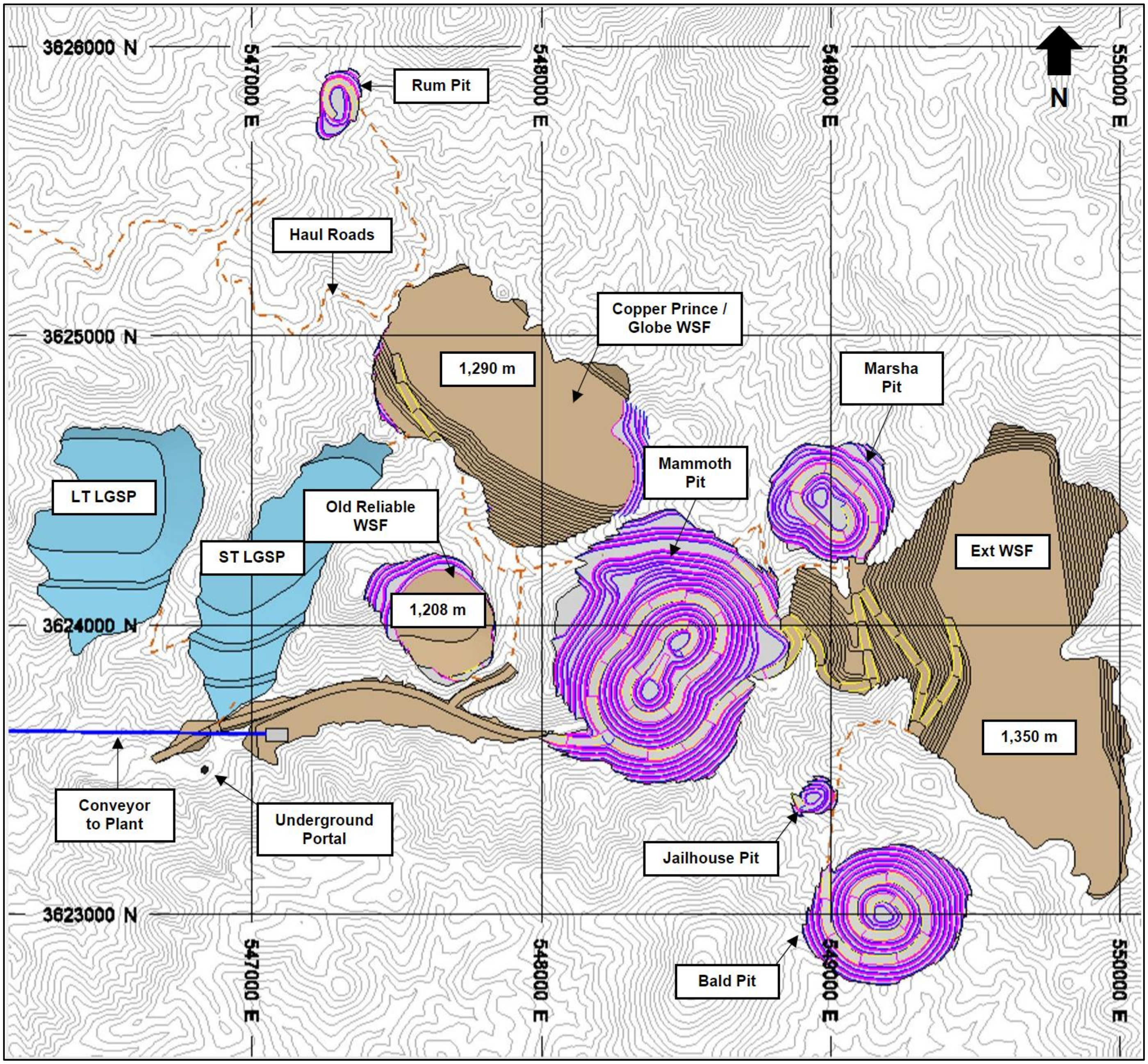
Source: SRK, 2023.

Figure 16-30: Year 4 Period Plan



Source: SRK, 2023.

Figure 16-31: Year 8 Period Plan



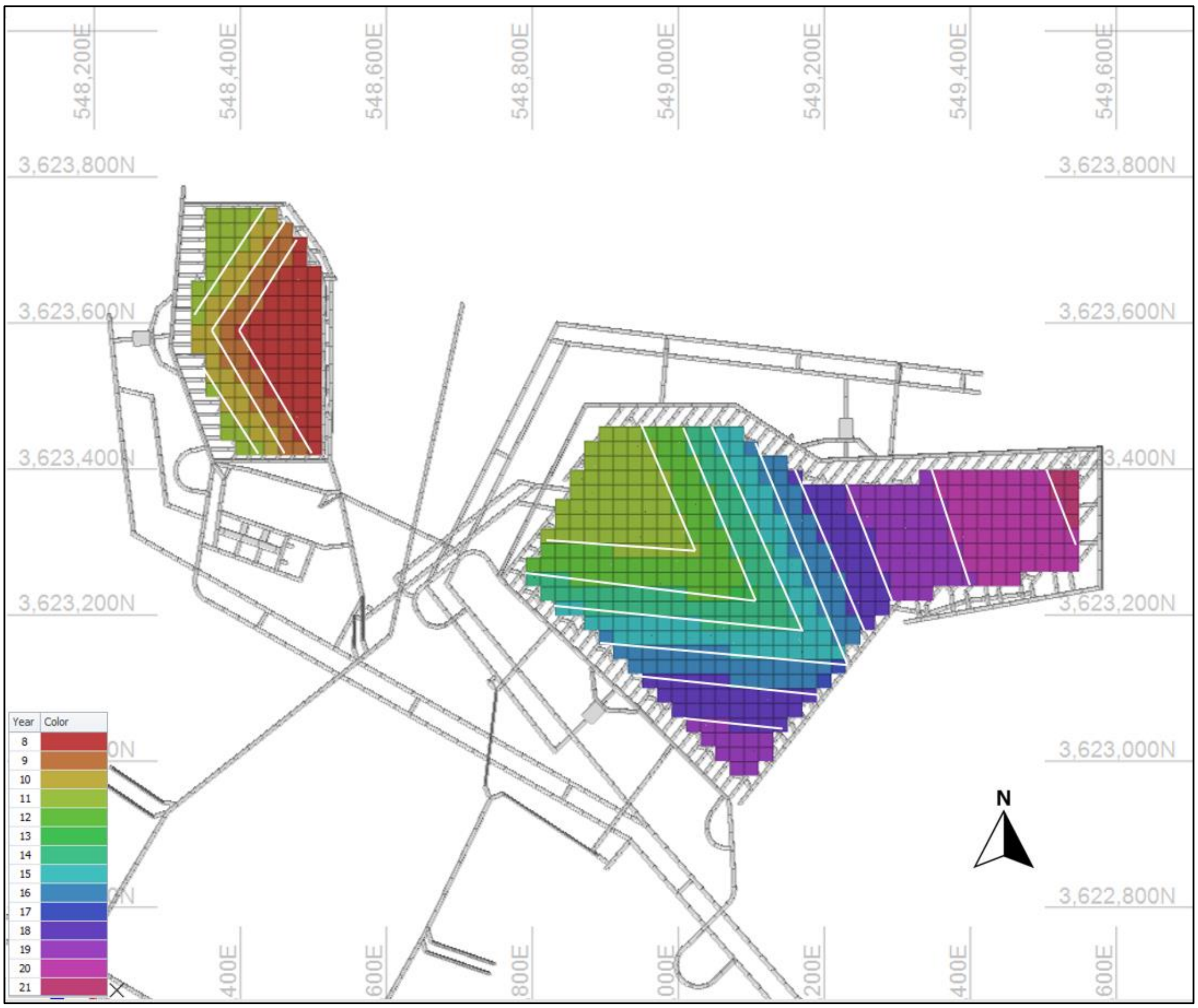
Source: SRK, 2023.

16.6.4 Underground Mine Production Schedule

16.6.4.1 Production Scheduling

The undercutting sequence for the Keel footprint is scheduled to start in the centre-eastern side and progress towards the west in a chevron shape. The American Eagle footprint is scheduled to start in the northwest corner and will progress in a chevron shape towards the southeast. The undercutting sequence is shown in Figure 16-32. SRK currently assume that advanced undercut will be utilized to minimize abutment stress damage. SRK also recognize that the cave initiation point and undercutting directions will have to be finalized based on more detailed future geotechnical studies and stress modelling when minimum lead-leg between the undercut tunnels will be optimized.

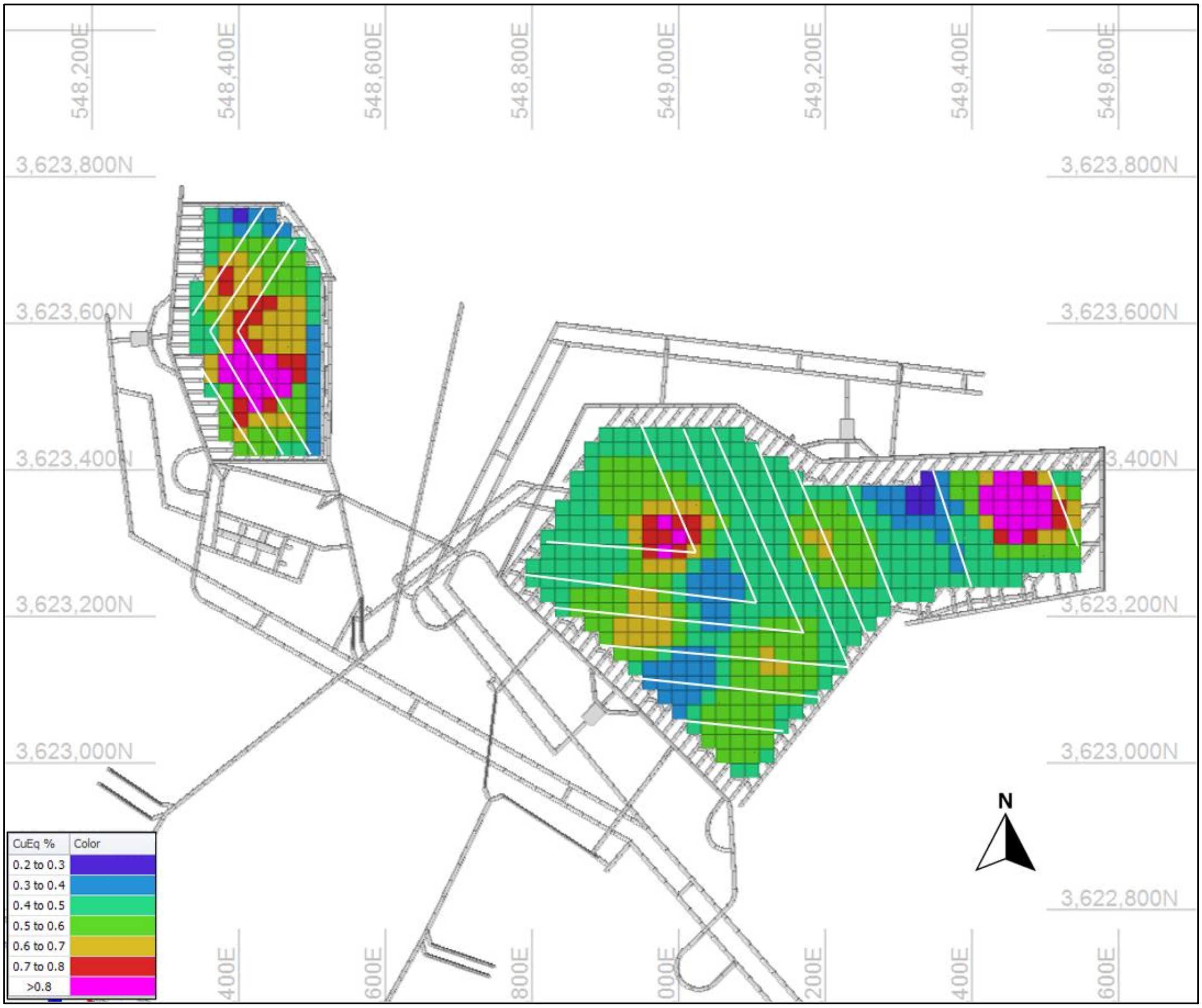
Figure 16-32: Footprint Undercutting Sequences (plan view)



Source: SRK, 2023.

The undercutting sequence together with the column grades are shown in Figure 16-33.

Figure 16-33: Footprint Column Grades and Undercutting Sequence



Source: SRK, 2023
Notes: Plan view
White lines indicate the undercutting sequence

16.6.4.2 Development Scheduling

The development starts in Year 3, with the service decline and the conveyor decline mined in parallel at an advance rate of 150 m/month for each of the headings. Crosscuts connecting the two declines, ventilation drifts and exploration drifts along the declines are all mined as soon as they become available. The service decline reaches the ramp turnout towards the American Eagle footprint early in Year6, and then continues and reaches the Keel footprint later the same year. The timing of the main capital development drifts is shown in Figure 16-34.

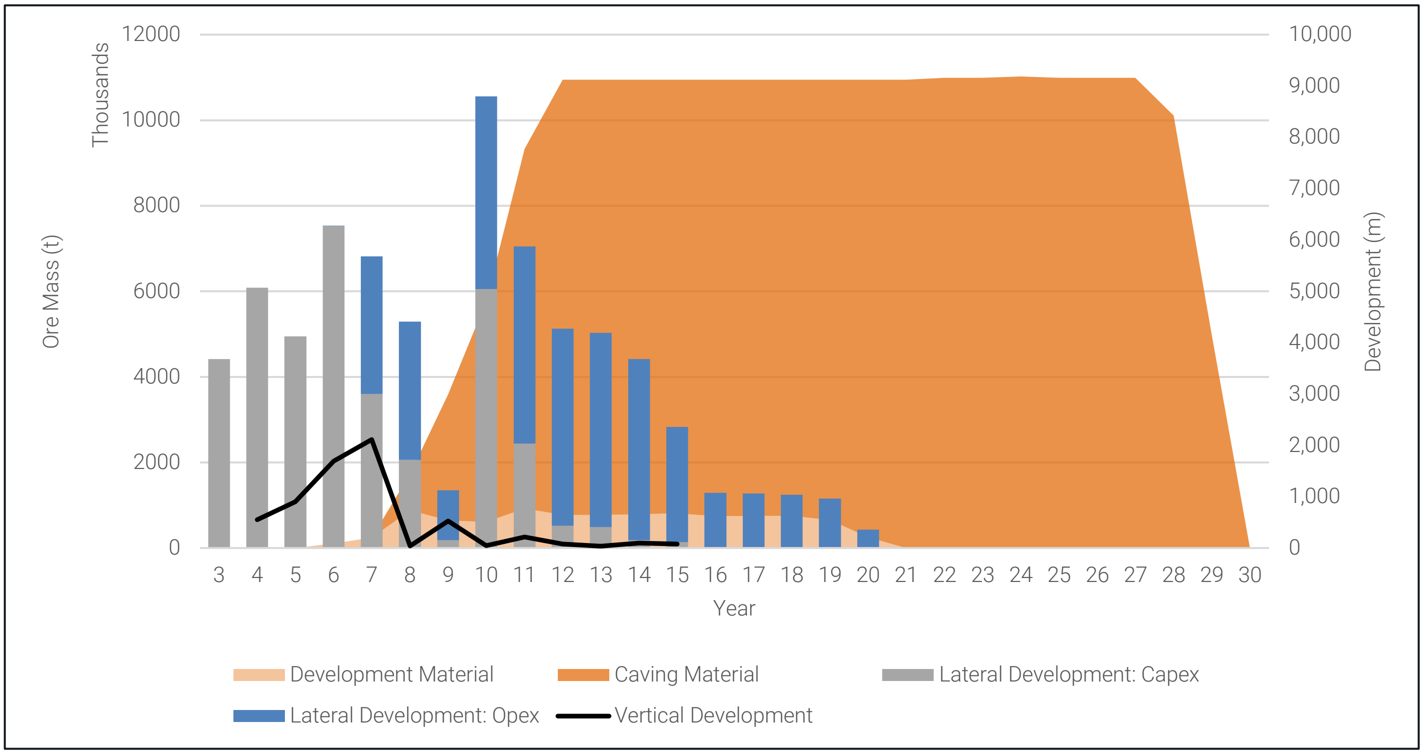
Figure 16-34: Capital Development Timing (plan view)

Source: SRK, 2023.

16.6.4.3 Underground Mine Scheduling Summary

With the development of the decline starting in Year 3, the first development material will be mined in Year 6 and the first caving material will be mined in Year 8. The combined development and production schedule is shown in Figure 16-35. The schedule has a lower amount of development metres in Year 9, when the Keel footprint has been fully developed but development of the American Eagle footprint has not yet commenced at full scale. SRK notes that from an operational point of view it might be worth considering bringing forward some of the development metres from Year 10 into Year 9 as it would result in a more uniform development profile, but at the expense of having capital costs appearing sooner in the schedule.

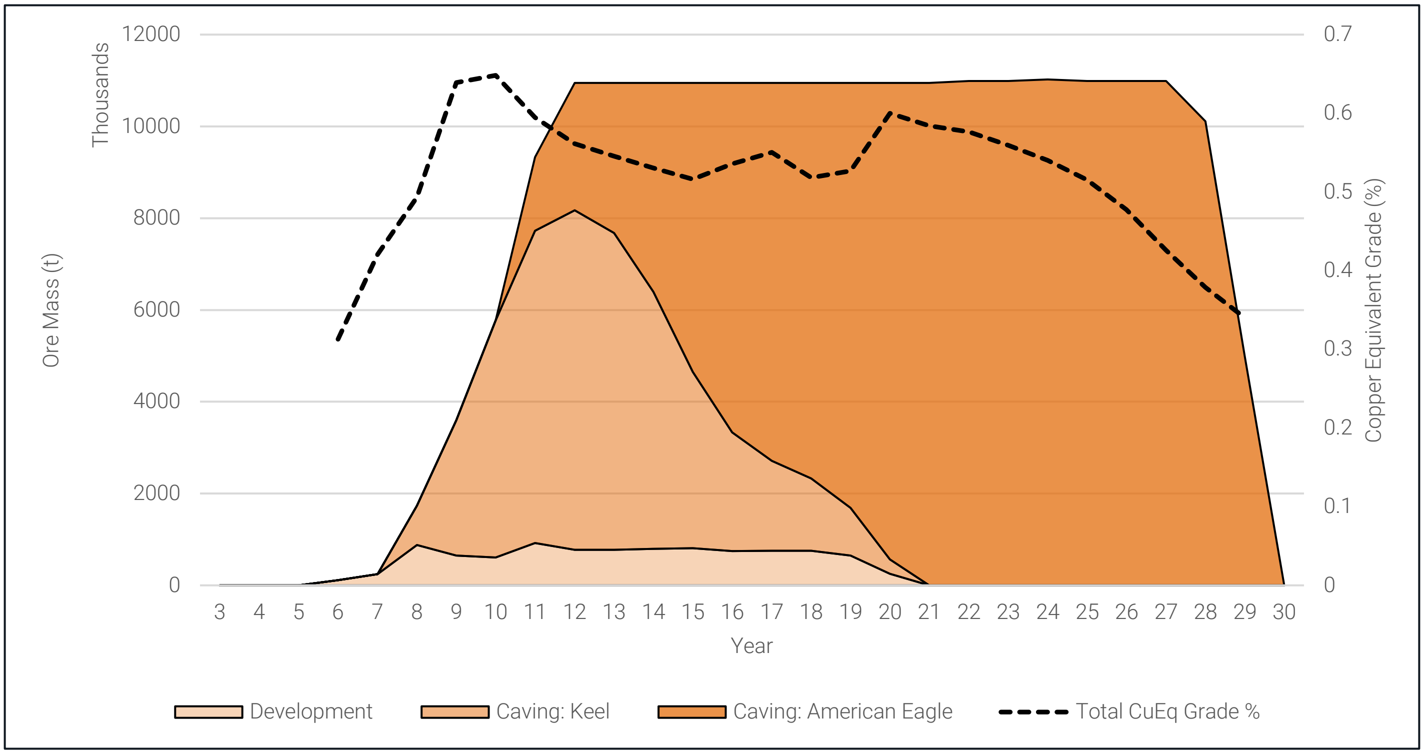
Figure 16-35: Underground LOM Schedule; Development Metres and Mineralized Material Tonnes



Source: SRK, 2023.
Notes: “Lateral Development: Opex” is defined as the drifts inside the footprints; production drifts, drawpoint access drifts and undercut drifts.

Production of the caving material starts in the Keel footprint in Year 8, which is active until Year 20. Production from the American Eagle footprint takes place from Year 11 through to Year 30. The Keel footprint does not have sufficient active drawpoints to achieve the desired mill feed rate on its own, and material from the American Eagle footprint will have to be mined in parallel with Keel to reach full production. A production schedule showing the mineralized material mined by source is shown in Figure 16-36.

Figure 16-36: Underground LOM Schedule; Mineralized Material mined by Footprint and Total Copper Equivalent Grade



Source: SRK, 2023.

16.6.5 Mill Feed Production

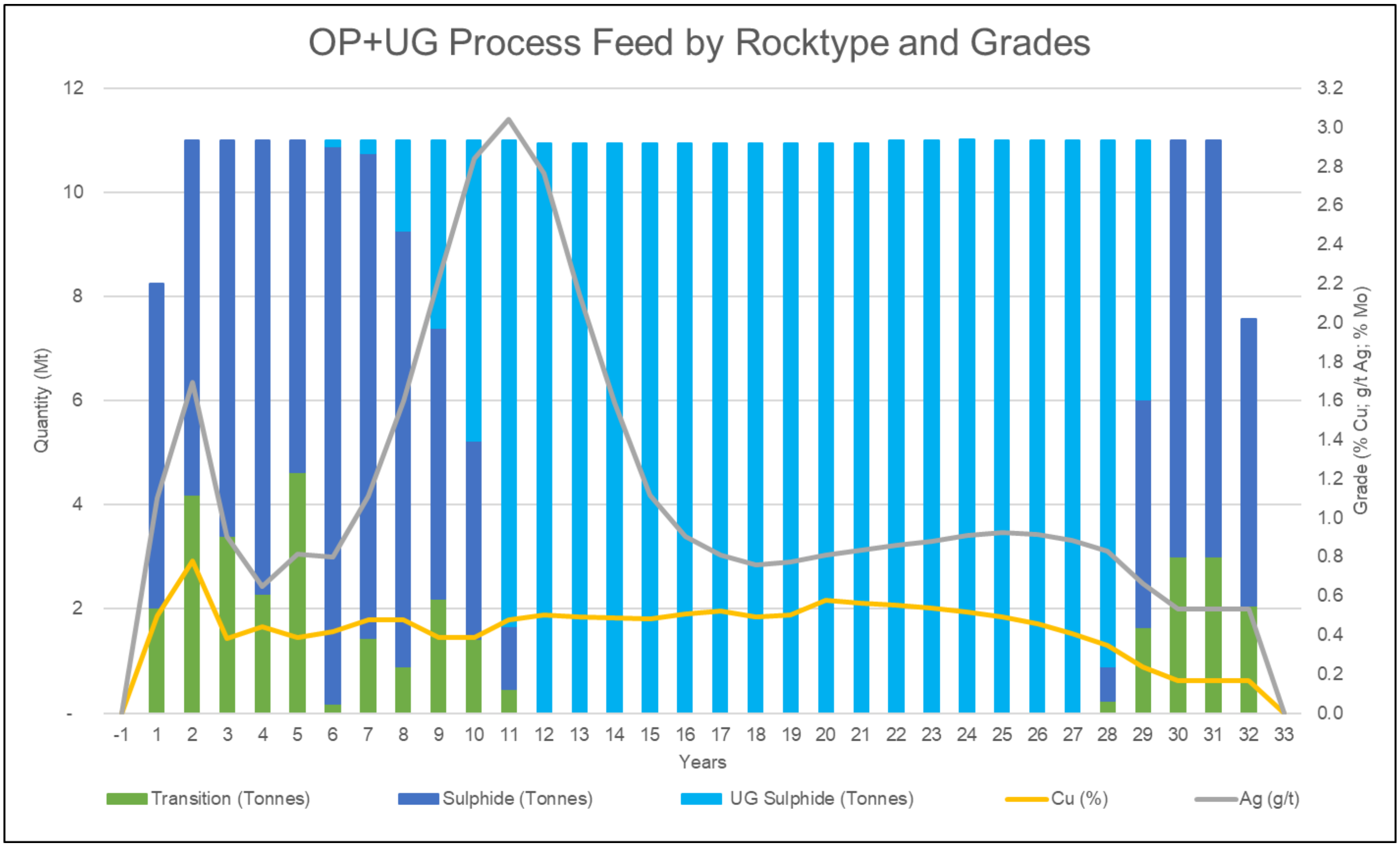
Table 16-21 details the mill feed assumptions used for scheduling.

Table 16-21: Mill Feed Schedule Assumptions

Target	Description
Mill Feed	11 Mt mineralized material/Y First year of production: 75% of full capacity
Low-Grade Stockpile	Prioritize HG and MG mill feed from pits Stockpile LG mineralized material Material balance of OP/UG/Stockpiles to feed the mill
Cash Flow	The basis of sequencing is to maximise the value based on defined: Mining cost, hauling cost, rehandling cost, processing cost, and revenue in the block model
Discount rate	7%

Figure 16-37 shows the total mill feed by rock type and grades for copper and silver. A distinction is made between open-pit and underground sulphide mineralized material. As oxide mineralized material is processed via the HLF, it is not considered in the 11 Mt annual mill throughput. The integrated mine production schedule is summarized in Table 16-22.

Figure 16-37: Total Mill Feed by Rock Type and Grades



Source: SRK, 2023.

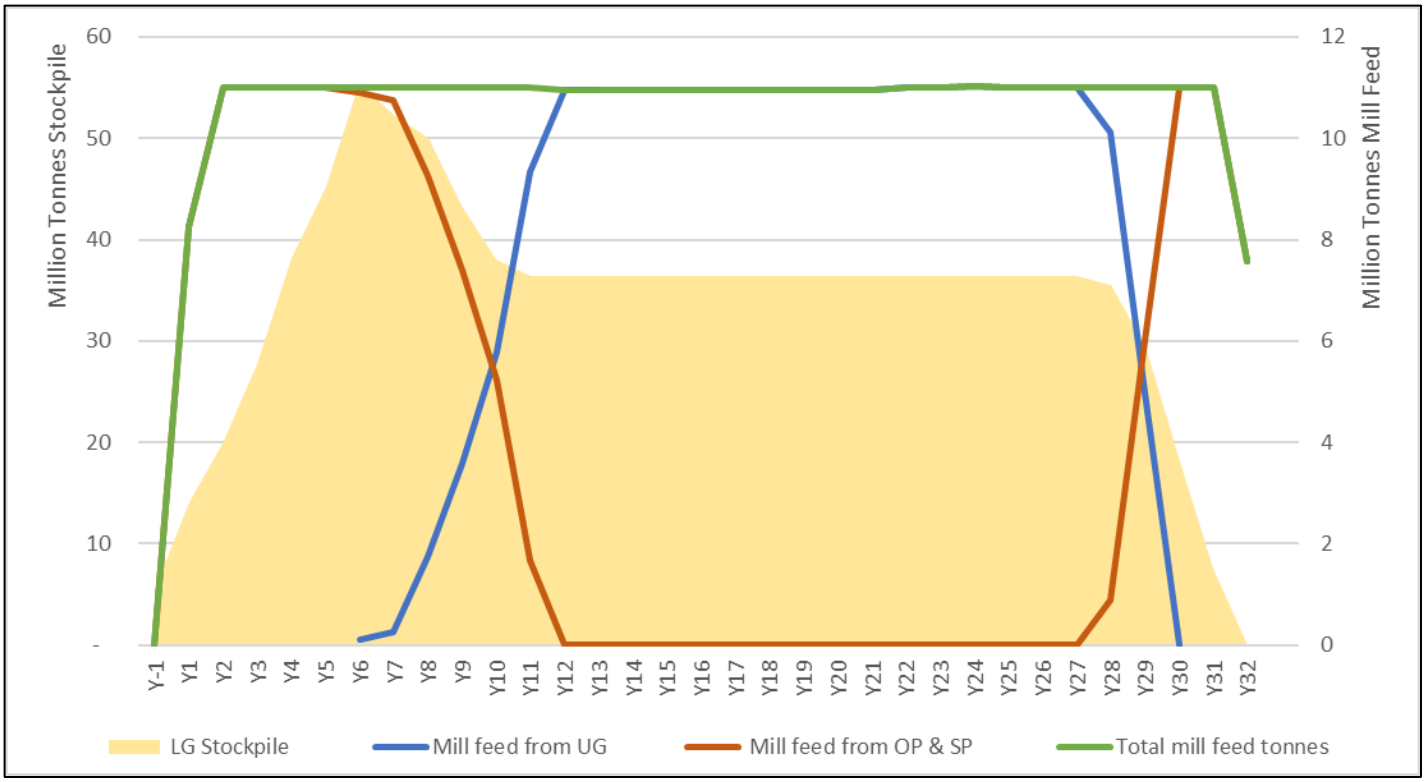
Table 16-22: Integrated Mine Production Schedule

Production Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Mill Feed (Mt)	8.25	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.99	10.99	11.02	10.99	10.99	10.99	11.00	11.00	11.00	11.00	7.56
Open pit (Mt)	4.74	11.00	7.35	6.12	10.28	10.89	7.14	6.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stockpile (Mt)	3.51	0.00	3.65	4.88	0.72	0.00	3.61	3.01	7.40	5.23	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	6.02	11.00	11.00	7.56
Underground (Mt)	0.00	0.00	0.00	0.00	0.00	0.11	0.25	1.73	3.60	5.77	9.33	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.95	10.99	10.99	11.02	10.99	10.99	10.99	10.11	4.98	0.00	0.00	0.00
Cu (%)	0.50	0.78	0.38	0.44	0.39	0.42	0.48	0.48	0.39	0.39	0.48	0.50	0.49	0.49	0.48	0.51	0.52	0.49	0.50	0.58	0.56	0.56	0.54	0.52	0.49	0.46	0.41	0.34	0.24	0.17	0.17	0.17
Ag (g/t)	1.10	1.69	0.90	0.65	0.81	0.80	1.11	1.60	2.23	2.84	3.04	2.76	2.15	1.59	1.12	0.90	0.81	0.76	0.78	0.81	0.84	0.86	0.88	0.91	0.93	0.92	0.89	0.83	0.66	0.53	0.53	0.53
Mo (%)	0.007	0.011	0.005	0.010	0.008	0.016	0.005	0.005	0.007	0.009	0.014	0.016	0.015	0.012	0.010	0.009	0.008	0.007	0.006	0.007	0.006	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.006	0.006	0.006	0.006
Cu Content	41,199	85,819	42,082	48,900	42,665	45,781	52,752	52,691	42,427	42,859	52,746	55,204	53,986	53,396	52,764	55,521	57,357	54,172	55,289	63,158	61,607	61,030	59,185	57,196	54,324	50,265	44,764	37,943	26,044	18,174	18,170	12,494
Ag Content	9,083	18,639	9,946	7,118	8,951	8,783	12,236	17,614	24,528	31,241	33,486	30,261	23,487	17,371	12,224	9,890	8,862	8,301	8,491	8,851	9,164	9,435	9,692	10,009	10,169	10,081	9,747	9,130	7,297	5,868	5,867	4,034
Mo Content	571	1,241	588	1,048	866	1,712	537	507	811	1,019	1,532	1,727	1,633	1,361	1,123	941	869	763	702	748	683	662	656	664	650	621	571	557	610	687	687	472

16.6.6 Stockpile Material Balance

Figure 16-38 shows the stockpile material balance against the mill feed. Oxide mineralized material is not included here. Distinction should be made between LGSPs (Section 18.2.2) which hold material for longer periods and incur rehandle costs; and the HG and MG ROM piles (Section 18.1.1.1) which are smaller facilities where material is only temporarily stored. ROM pile material is still considered "direct feed" but is utilized as surge capacity to ensure mill throughput is achieved.

Figure 16-38: Stockpile and Mill Feed Material Balance



Source: SRK, 2023.

16.7 Mining Equipment

16.7.1 Open Pit Mining Equipment

Open pit mining equipment will be operated by contractors. Equipment capacities and fleet sizes are approximate and will depend on both future study results and contractor equipment availabilities.

Table 16-23 includes equipment at steady-state mining. The truck count is a brief peak (two years), but otherwise a maximum of 19 trucks are required.

Table 16-23: Open Pit Mining Equipment

Description	Units in Fleet
Trucks	23
Waste Shovel	1
Loaders (including ROM Loader)	3
Drill	2
Wheel Dozer	1
Track Dozer	6
Grader	3
Water Truck	3

16.7.2 Underground Mining Equipment

Criteria used in the selection of underground mining equipment include:

- Mining method and preliminary development plan;
- Mineral deposit geometry and dimensions;
- Mine production rate; and
- Reliability and availability of after-sales support.

The size of the equipment fleet was based on the scheduled quantities of work, estimated from first principles cycle times and productivities, benchmarking and practical experience.

The following input factors were considered to calculate the required number of operating units:

- Development and production schedule.
- Shift efficiency of 83% on 12 hours shift length to account for non-productive time due to shift change, equipment inspection and fuelling, lunch and coffee breaks, equipment parking and reporting.
- An operational hour efficiency of 83% accounting for 50 minutes of usable time in one operating hour.
- Equipment operation efficiency, such as: 75% efficiency for the second boom on the drill jumbo, fill factors for LHD bucket and truck box.
- Additional time for travel, setup and teardown.

Then the estimated number of operating units was converted to a fleet size by accounting for equipment mechanical availability of 80% to 90% depends on type of equipment.

During pre-production period a mining contractor will use own mobile equipment fleet for mine development, haulage and services. It was assumed that all underground development will be done by contractor. Underground mining contractor mobile equipment list and maximum units in the equipment fleet are presented in Table 16-24.

Table 16-24: Underground Contractor Mobile Equipment List

Description	Units in Fleet
Development Equipment	
Jumbo, 2 boom	2
Rockbolter	3
Cablebolter	1
Emulsion Loader, Development	2
Shotcrete Sprayer	1
Transmixer	2
LHD, 8.6 m^3, 17 t	2
Haulage Truck, 51 t	4
Auxiliary Equipment	
Grader	1
Scissor Lift	2
Boom Truck	2
Flat-Deck Truck	2
Toyota Flat-Deck Truck	2
Mechanics Truck	2
Fuel/Lube Truck	2
Water Sprayer	1
Personnel Carrier 22-seats	1
Personnel Carrier 8-seats	1
Supervisor Vehicle	4
Forklift/Telehandler	1
Cassettes System Prime Mover	1
Cassettes Attachments	1

Table 16-25: Underground Mine Owner Mobile Equipment List

Description	Units in Fleet
Production Equipment	
Production Drill	2
Aries ITH Drill with V30 Reamer	1
Emulsion Loader, Production	2
Water Cannon	1
Mobile Rockbreaker	4
Blockholer	1
LHD, 10.7 m^3, 21 t	10
Auxiliary Equipment	
Grader	1
Scissor Lift	2
Boom Truck	2
Flat-Deck Truck	2
Toyota Flat-Deck Truck	2
Mechanics Truck	3
Fuel/Lube Truck	2
Water Sprayer	1
Personnel Carrier 22-seats	2
Personnel Carrier 8-seats	4
Supervisor Vehicle	10
Forklift/Telehandler	2
Cassettes System Prime Mover	2
Cassettes Attachments	1

The following stationary equipment will be installed and used for underground mine development and production:

- Primary and auxiliary ventilation
- Primary crushing
- Underground conveying
- Mechanical shop
- Mine water management
- Underground electrical
- Communication
- Mine safety

- Explosives storage
- Engineering equipment
- Miscellaneous

16.8 Personnel

Open pit mining personnel count was not developed for the PEA as this will be a contractor mining cost.

Underground mining employees are divided into two categories: salaried and hourly personnel.

Owner’s salaried personnel include engineering, technical, and supervisory staff with the majority of these working 8-hour shifts on a 5-days on/2-days off rotation.

The owner’s hourly personnel will work 12-hour shifts on a 2-week on/1-week off rotation schedule. Hourly personnel include labour for mine production, services, and maintenance.

A mining contractor would be used for all development and major stationary equipment installation such as main ventilation fans, conveyor system, mineralized material/waste pass system and primary crushers. Contractor labour used for the infrastructure installation is not included in this section. It was assumed that contractor hourly personnel will work 12-hour shifts on a 2-weeks on/2-weeks off rotation schedule.

The required number of employees on site will vary during mine development and production. Underground personnel requirements peak is shown in Table 16-26.

Table 16-26: Underground Mine Labour

Description	Peak Personnel per Day	Peak Total Payroll
Contractor’s Labour		
Contractor operating staff	10	18
Contractor maintenance staff	3	5
Contractor operating workers	31	62
Contractor maintenance workers	10	20
Raisebore development	10	20
Contractor’s personnel peak	64	125
Owner’s Labour		
Mine operating and technical staff	43	65
Mine maintenance staff	12	19
Mine operating workers	58	104
Mine maintenance workers	44	79
Owner’s personnel peak	157	267

17 RECOVERY METHODS

17.1 Overview

Based on the results of past metallurgical laboratory testing, discussed in Section 13, and Ausenco's process design expertise, two process flowsheets have been developed to treat the mineralized materials from the various Copper Creek deposits.

The main process will beneficiate copper, molybdenum and silver from both transitional and sulphide materials by froth flotation. Key process design parameters for flotation include:

- a total of 345 Mt of mineralized material processed at a nominal rate of 30,000 t/d;
- bulk rougher flotation to be conducted 80 percent passing 160 μm for the transitional material and 80 percent passing 190 μm for the sulphide material; and
- a plant designed to achieve the mineralized material grades and recoveries shown in Table 17-1.

Table 17-1: Flotation Grades and Recoveries

Description	Design Feed Grade	Design Metal Recovery
Copper	0.78%	94.4%
Silver	5.56 g/t	78.1%
Molybdenum	158 g/t	83.3%

The flotation flowsheet includes primary crushing, SAG and ball milling, bulk rougher flotation, regrinding, cleaner flotation, molybdenum separation flotation circuit, copper and molybdenum concentrate thickening and filtration, and tailings thickening and filtration.

The second process will extract copper from oxide materials by heap leaching with solvent extraction and electrowinning to produce copper cathode. Key process design parameters for the HLF include:

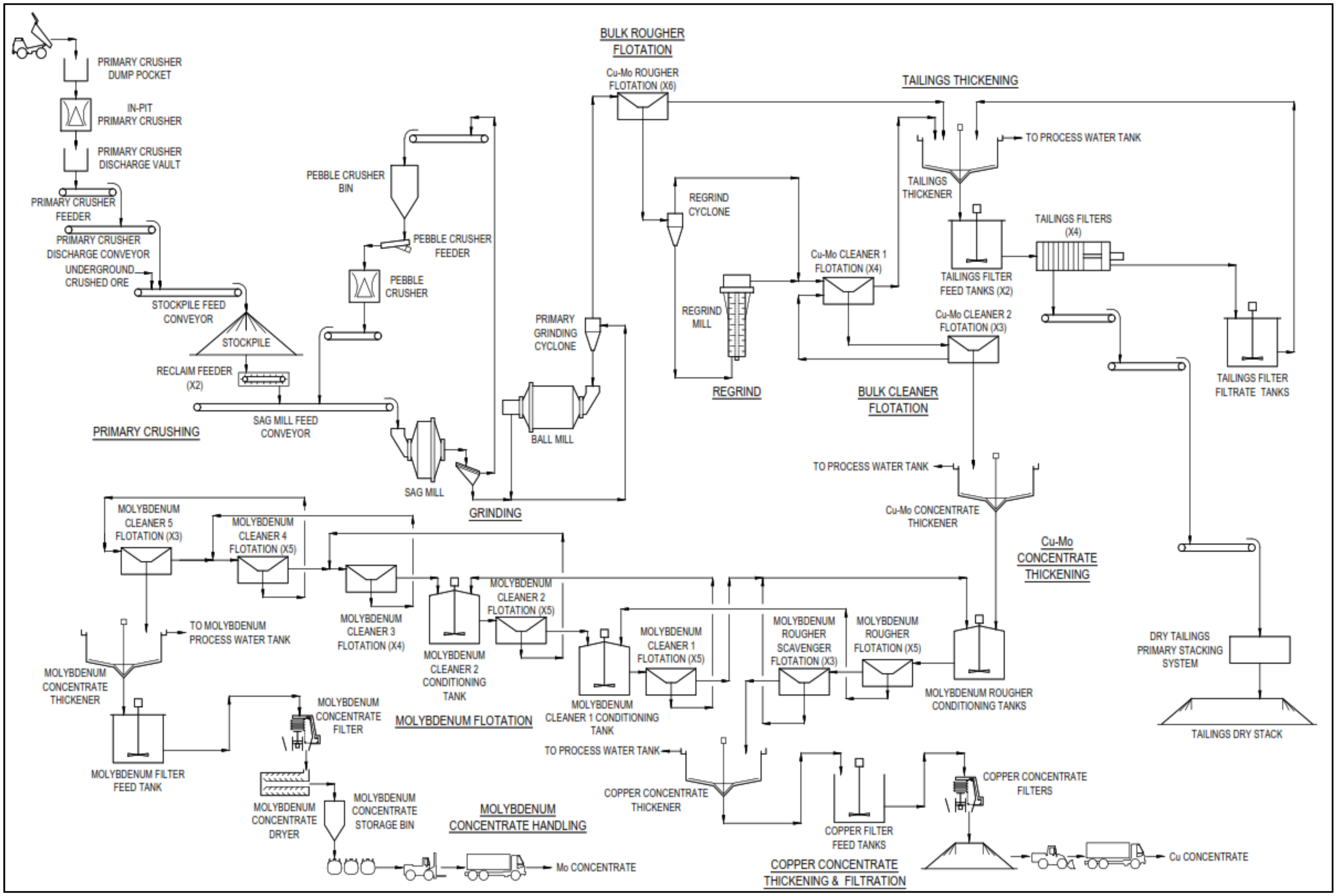
- a total of 20 Mt of mineralized material processed at a nominal rate of 6,850 t/d;
- material product size of 80 percent passing 13.5 mm reporting to the heap leach stockpile;
- average copper grade of 0.38%;
- average copper recovery of 75%; and
- average gangue sulphuric acid consumption of 20 kg/t.

The leaching flowsheet includes primary, secondary and tertiary crushing, agglomeration and stacking, leaching, solvent extraction and electrowinning.

17.2 Process Flowsheets

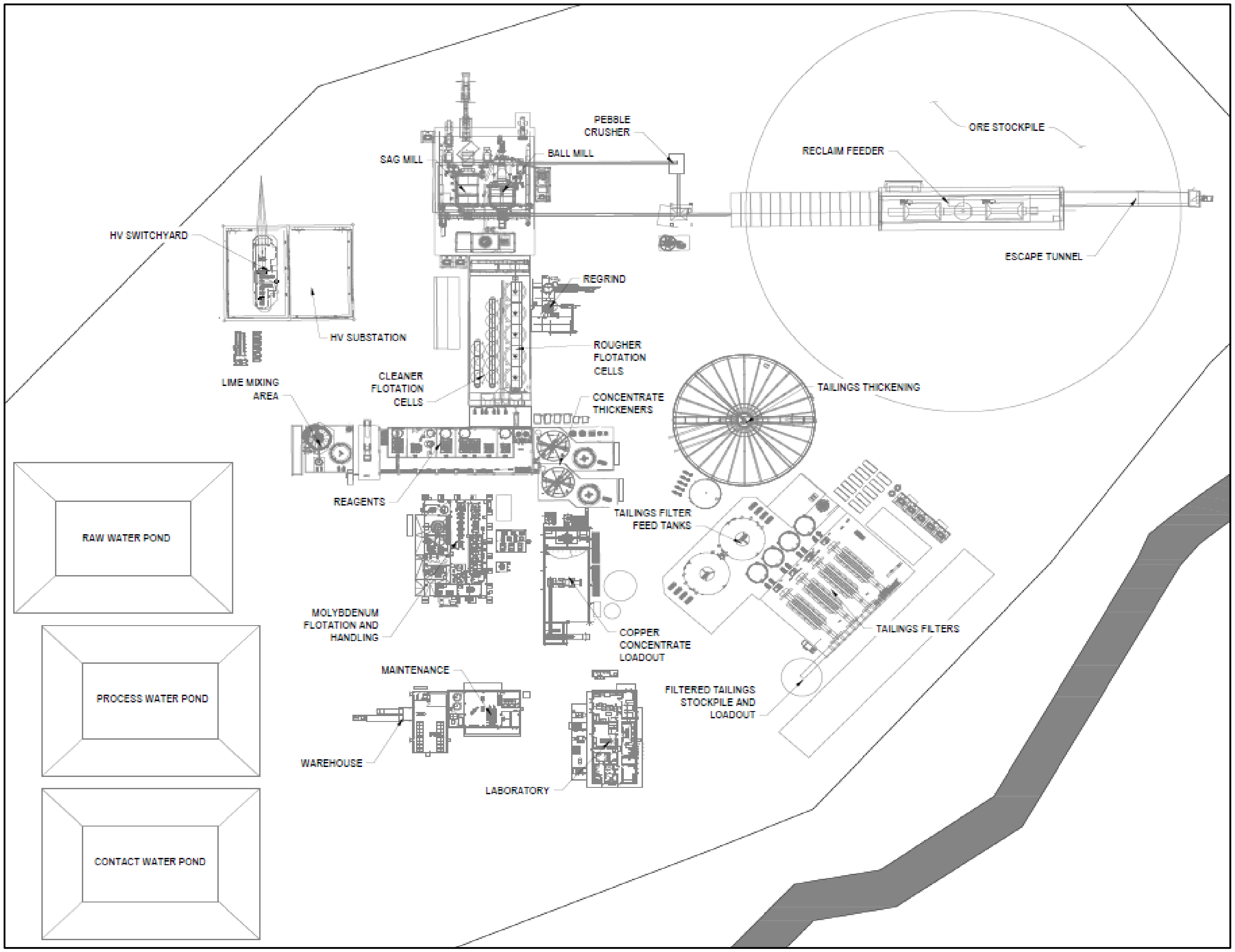
The process flowsheet for the flotation of transitional and sulphide materials is shown in Figure 17-1. The layout of the concentrator facilities including the molybdenum plant is shown Figure 17-2. The heap leaching flowsheet is shown in Figure 17-3.

Figure 17-1: Concentrator Flow Diagram for Sulphide & Transitional Materials



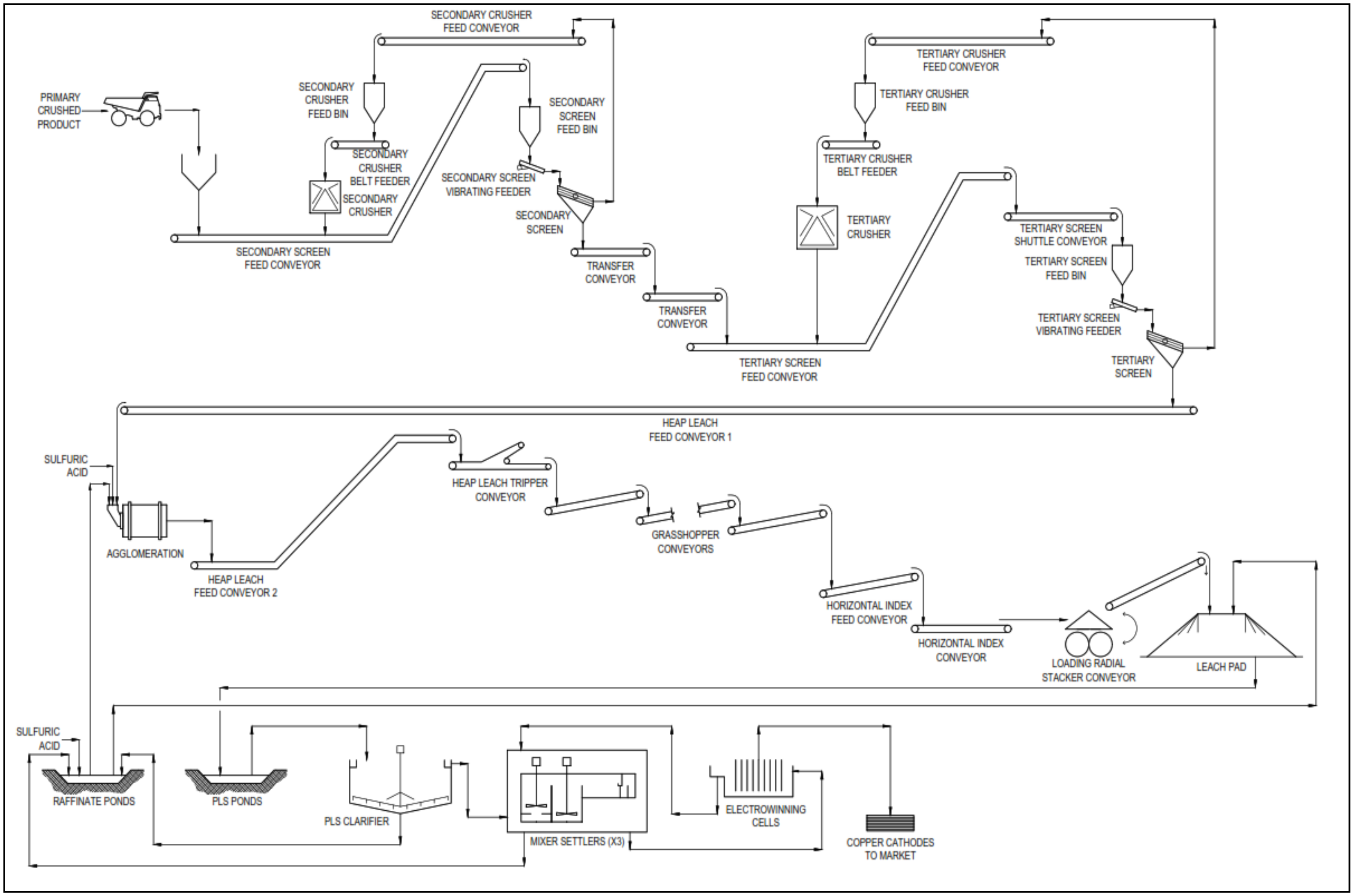
Source: Ausenco, 2023

Figure 17-2: Concentrator Processing Facility Layout



Source: Ausenco, 2023

Figure 17-3: Oxide Heap Leach Process Flow Diagram



Source: Ausenco, 2023

17.3 Plant Design

A description of the two processing facilities is described in the following subsections.

17.3.1 Flotation

Along with the design parameters listed in Section 17.1, Table 17-2 presents additional design criteria developed for the copper/molybdenum flotation plant.

Table 17-2: Flotation Design Criteria

Parameter	Unit	Value
Plant design capacity	Mt/y	11
	t/d	30,000
Operating days per year	d/y	365
Crushing & grinding circuit	-	SABC
Crushing availability	%	75
Grinding and flotation availability	%	92
Concentrate filter availability	%	83
Tailings filtration availability	%	83
Crushing plant capacity, for design (dry)	t/h	2,000
Primary crusher	type	Gyratory (1,270 x 1,651)
ROM feed size F_{100}	mm	1,000
Bond crushing work index	kWh/t	23
Crusher product size P_{80}	mm	95
Stockpile live capacity at reclaim rate	h	12
Grinding plant capacity, for design (dry)	t/h	1,495
SAG Mill specification	dia (m) X EGL (m)	10.97 X 6.1
Grinding circuit product size, P_{80} – Sulphide	µm	190
Grinding circuit product size, P_{80} – Transitional	µm	160
SAG Mill specific energy	kWh/t	9
Ball Mill specification	dia (m) X EGL (m)	7.01 X 10.36
Bond ball mill work index	kWh/t	14
Bond abrasion index	g	0
Ball Mill specific energy	kWh/t	7
Copper rougher	#	1 operating line of 6
Residence time, design	min	25
Regrind mill	type	stirred
Regrind circuit product size, P80	µm	31

Parameter	Unit	Value
Specific energy	kWh/t	15
Copper cleaner	# stages	2
Copper concentrate moisture	% (w/w)	8
Final Cu concentrate grade	%Cu	30
Tailings thickener	diameter	52 m
Feed rate, max for design (dry)	t/h	1,340
Tailings unit area thickening rate	t/m²/h	1
Tailings filter	Type	Horizontal Plate & Frame
Number (duty/standby)		3/1
Feed rate, max for design (dry)	t/h	1,488
Filter cake moisture, design	% (w/w)	15
Molybdenum rougher		1 operating line of 5 cells
Residence time, design	min	48
Molybdenum rougher scavenger		1 operating line of 3 cells
Residence time, design	min	24
Molybdenum cleaner	# stages	5
Moly concentrate moisture	% (w/w)	8
Final Mo concentrate grade	%Mo	50

17.3.1.1 Open Pit Primary Crushing

Primary crushing will be conducted near the pit boundary limits and reduce run-of-mine (ROM) feed material from 80 percent (F80) passing 529 mm to a P80 of 95 mm. ROM material will be truck dumped into the primary crusher dump pocket which will feed the primary gyratory crusher. The crushing circuit is designed for an annual operating time of 6,570 h or 75% availability. The circuit is sized for a maximum throughput of 2000 t/h from the outset of the Project. The near-pit crusher layout is depicted in Figure 17-2.

Crushed material will fall into the primary crusher discharge vault and onto the primary crusher discharge conveyor feeder. The feeder will deliver crushed material to the primary crusher discharge conveyor which will deliver material to the stockpile feed conveyor. Crushed material from the underground primary crusher will also feed onto the stockpile feed overland conveyor. The stockpile feed conveyor will feed the conical stockpile with a live capacity of 16 kt.

Primary crushed material will be drawn from the stockpile by two variable speed apron reclaim feeders. The feeders will discharge onto the semi-autogenous grinding (SAG) mill feed conveyor.

The crushing and stockpile circuits specified for the Copper Creek Project includes the following major equipment and facilities:

- ROM crusher dump pocket (1.5 truckloads, 225t);
- primary gyratory crusher (600 kW);
- a rock breaker;
- primary crusher discharge conveyor (1200 mm belt width, 370 m long);

- two segments of overland conveyor (1200 mm belt width, totalling 1.6 km in length); and
- an uncovered feed stockpile (12 h live capacity, approx. 16,300 t).

17.3.1.2 Underground Primary Crushing

A total of three crushers have been scoped to crush waste and mineralized materials generated during the development and operations of the underground mine. These materials will then be conveyed to the surface.

It is assumed that three underground primary crushers will be operating during full commercial production. One installed on the low extraction level with the tip points on elevation 195 m and two additional crushers on the opposite sides of the upper extraction level with the tip points on elevation 340 m. Each crusher will be a 1100 x 1800 gyratory crusher driven by a 450 kW motor and has an operating capacity of 1,200 t/hour. Each crusher will have three tip points allowing tipping by 21-t LHDs tramming material directly from drawpoints.

The crushers will be operated 348 days per year, assuming one maintenance day per month plus five days additional annual maintenance downtime.

The underground primary crushers discharge onto the planned primary crusher discharge conveyor. The underground primary crusher discharge conveyor discharges onto the decline conveyor for continued transport to the mill or to a temporary waste stockpile and haul via truck to the permanent Waste Rock Storage (WRS) facility. The transfer point of the underground primary crusher discharge conveyor has a magnet to remove tramp metal. From here, the mineralized materials will be transferred to the overland conveyor to the sulphide stockpile for processing.

A stationary rock breaker will be installed adjacent to the crusher to break oversize material.

17.3.1.3 Grinding

The grinding circuit is designed for an annual operating time of 7,998 h or 91.3% availability. The circuit is sized for a

maximum throughput of 1,595 t/h and an average throughput of 30 kt/d. Material will be ground to a rougher flotation feed size of 80 percent passing 190 µm and 160 µm for the sulphide and transitional materials, respectively. Grinding will consist of SAG mill primary grinding and ball mill secondary grinding, all of which were sized using the comminution test results from the most recent ALS test work program.

The SAG mill feed conveyor will deliver crushed material to the grate discharge SAG mill. Milled product will report to the SAG mill discharge trommel screen. Trommel screen undersize will flow by gravity to the primary cyclone feed pump box. Trommel screen oversize will be transported by conveyors to the pebble crusher feed bin. Tramp iron and broken media will be removed by self-cleaning magnets installed over the pebble conveyor ahead of the pebble crusher. Pebbles will be withdrawn from the feed bin by the pebble crusher feeder and delivered to the pebble cone crusher. Crushed pebbles will be conveyed onto the SAG mill feed conveyor.

Secondary grinding will be completed with a single ball mill operating in closed circuit with hydrocyclones. Ball mill discharge will be combined with trommel screen undersize in a cyclone feed pump box and pumped to the cyclone cluster. Cyclone underflow will report to the ball mill feed by gravity. Cyclone overflow will report by gravity to the flotation circuit.

The SABC circuit consists of the following major equipment and facilities:

- SAG mill feed conveyor (1200 mm belt width, 210 m long);
- SAG mill (15 MW, 10.97 m diameter x 6.1 m EGL);
- a pebble cone crusher and conveyors (600 mm belt width, 78 m long);
- ball mill (10 MW, 7.3 m diameter x 11.3 m EGL);
- a cyclone cluster;
- a lube room;
- an electrical room; and
- a control room.

17.3.1.4 Bulk Copper-Moly Flotation

The copper-moly bulk flotation circuit will consist of rougher flotation cells, a concentrate regrind circuit, and copper-moly first and second cleaner flotation cells.

Rougher flotation will consist of six conventional forced air flotation cells (300 m^3). Rougher flotation tailings will report to the tailings thickener. Rougher flotation concentrate will report to the regrind cyclone cluster. Regrind cyclone underflow will report to a high intensity grinding mill. Reground material and regrind cyclone overflow will report to the first copper-moly cleaner flotation cells consisting of five conventional cells. Tailings from the first cleaner flotation cells will report to the tailings thickener. Concentrate from the first cleaner flotation cells will report to the second copper-moly cleaner flotation cells consisting of three conventional cells. Second cleaner flotation tailings will report to the first cleaner flotation cells. Second cleaner flotation concentrate will report to a 15 m diameter, elevated, copper-moly concentrate thickener of bolted steel construction.

17.3.1.5 Molybdenum Flotation

The molybdenum flotation circuit will consist of three conditioning tanks, rougher flotation, scavenger flotation and five stages of cleaner flotation.

Underflow flow from the copper-moly concentrate thickener will be pumped to the molybdenum rougher conditioning tank. After conditioning, copper-moly concentrate will be pumped to molybdenum rougher flotation consisting of five self-aspirated cells (28 m^3). The concentrate from rougher flotation will be delivered to the molybdenum first cleaner conditioning tank. The tailings from rougher flotation will report to scavenger flotation. Scavenger flotation will consist of three self-aspirated cells (28 m^3). Tailings from scavenger flotation will report back to the molybdenum rougher conditioning tank. Concentrate from scavenger flotation will report to the copper concentrate thickener.

Conditioned slurry from the molybdenum first cleaner conditioning tank will be pumped to molybdenum first cleaner flotation. First cleaner flotation will consist of five self-aspirated cells (8,5 m^3). Tailings from the first molybdenum cleaner cells will report back to the molybdenum rougher conditioning tank. Concentrate from the first cleaner flotation will be pumped to the molybdenum second cleaner conditioning tank.

Conditioned concentrate slurry from the molybdenum second cleaner conditioning tank will be pumped to the molybdenum second cleaner flotation cells (4.2 m^3). Second cleaner flotation will consist of five self-aspirated cells.

Tailings from the second cleaner flotation will report to the molybdenum first cleaner conditioning tank. Concentrate from the second cleaner flotation will flow by gravity to the third stage of molybdenum cleaning.

The third stage of molybdenum concentrate cleaning will consist of four self-aspirated flotation cells (4.2 m^3). Tailings from the third stage of cleaning will be pumped to the molybdenum second cleaner conditioning tank. Concentrate from the third stage of cleaning will flow by gravity to the fourth stage of cleaning.

The fourth stage of molybdenum concentrate cleaning will consist of five self-aspirated flotation cells (1.7 m^3). Tailings from the fourth stage of cleaning will be pumped to the third cleaner flotation cells. Concentrate from the fourth stage of cleaning will flow by gravity to the fifth stage of cleaning.

The fifth stage of molybdenum concentrate cleaning will consist of three self-aspirated flotation cells (1.1 m^3). Tailings from the fifth stage of cleaning will be pumped to the fourth cleaner flotation cells. Concentrate from the fifth stage of cleaning will flow by gravity to the molybdenum concentrate thickener.

17.3.1.6 Copper Concentrate Handling

Copper concentrate will be thickened to approximately 60 percent solids in the high-rate copper concentrate thickener. Thickener overflow will report to the process water tank. Copper thickener underflow will be pumped to the copper filter feed tank. Copper concentrate slurry will be pumped from the feed tank to the copper concentrate filter. The copper concentrate filter will be a horizontal press filter. Filtrate from the copper concentrate filter will be pumped back to the copper concentrate thickener. Copper concentrate filter cake at 8 percent moisture (w/w) will discharge to a covered concentrate loadout stockpile. Copper concentrate will be reclaimed by front-end loader and loaded into containerized highway haulage trucks.

17.3.1.7 Molybdenum Concentrate Handling

Molybdenum concentrate will to thickener to approximately 60 percent solids in the high-rate molybdenum concentrate thickener. Thickener overflow will report to the molybdenum process water tank. Molybdenum thickener underflow will be pumped to the molybdenum filter feed tank. Molybdenum concentrate slurry will be pumped from the feed tank to the molybdenum concentrate filter. The molybdenum concentrate filter will be a horizontal press filter. Filtrate from the molybdenum concentrate filter will be pumped back to the molybdenum concentrate thickener. Molybdenum concentrate filter cake will report to the molybdenum concentrate dryer. Dried molybdenum concentrate, containing 5 percent moisture, will report to the molybdenum concentrate storage bin. Molybdenum concentrate will be withdrawn from the storage bin into a packaging system. Molybdenum concentrate will be bagged for transport by truck.

17.3.1.8 Tailings Handling

Flotation tailings will be thickened to approximately 60 percent solids in the tailings thickener. Thickener overflow will report to the process water tank. Thickener underflow will report to a pair of tailings filter feed tanks. Tailings slurry will be pumped from the tailings filter feed tanks to four tailings filters. These filters will be horizontal plate and frame filters. Filtrate from the filter presses will flow by gravity to the tailings filter filtrate tanks and pumped back to the tailings thickener. Tailings filter cake, containing 15 percent moisture, will discharge to conveyors. Tailings will be conveyed to the dry tailings primary stacking system and deposited in the DSTF.

Major equipment selection for the tailings thickening and filtration circuits include the following:

- tailings thickener (52 m diameter);

- four tailings plate and frame filter presses (3 operating, one on standby, 141 plates, 4.8m x 4.15m);
- filter feed and filtrate tanks (all 13.16 m diameter x 15.80 m tall);
- three filter feed pumps (400 kW each);
- a radial stacker;
- four filtered tailings conveyors (120 kW each); and
- filtered tailings conveyor.

17.3.1.9 Flotation Reagent Handling and Storage

The mixing and storage area for each reagent will be located proximate to various addition points throughout the flotation plant. Reagents delivered in bulk bags will be moved from storage to the mixing area by forklift. Electric hoists servicing in the reagent area will lift the reagents to the respective reagent bag braker that will be located above the reagent mixing area.

The reagent handling system will include unloading and storage facilities, mixing tanks, stock tanks, transfer pumps, and feeding equipment. Table 17-3 shows the reagents used in the flotation plant.

Table 17-3: Flotation Reagents

Reagent	Preparation Method	Use
Lime	Delivered as powdered quicklime, stored in silo, dosed dry to regrind mill, also slaked and dosed as a slurry	pH control
Fuel Oil (Diesel)	Delivered by truck and transferred into a storage tank for dosing into flotation.	Enhancer
Aerophine 3418A	Delivered in totes and dosed neat into flotation.	Collector
Methyl Isobutyl Carbinol	Delivered in 55-gallon drums and dosed neat into flotation.	Frother
Sodium hydrosulphide	Delivered at a 40% concentration, diluted to 20% and dosed at various points in molybdenum flotation.	Copper depressant
Flocculant	Delivered as dry powder in bulk bags, dissolved in a mixing tank and dosed to thickeners.	Sedimentation

17.3.2 Heap Leach

Along with the design parameters listed in Section 17.1, Table 17-4 lists the design criteria used to complete the design of the heap leaching plant.

17.3.2.1 Crushing

Oxide materials will be mined according to the mine plan and sent to the primary crusher where it will be crushed to 80 percent passing 95 mm using the same primary crusher proposed for the transitional and sulphide materials. Primary crushed oxide material will be conveyed overland to the process plant where it will be diverted off the main conveyor belt to a temporary stockpile. Here, it will be loaded onto a mobile feed conveyor and fed to a bin which will discharge onto a vibrating feeder. The vibrating feeder will deliver material to the secondary vibrating screen with top and bottom deck screen apertures of 90 mm and 30 mm, respectively.

Table 17-4: Heap Leaching Design Criteria

Parameter	Units	Value
Plant throughput	t/d	6,850
Stacked material bulk density	t/m^3	1.62
Secondary crusher product size, 80% passing	mm	37
Tertiary crusher product size, 80% passing	mm	13.5
Irrigation flux	$L/h/m^2$	10
Raffinate pond residence time	h	2
PLS pond residence time	h	12
Solvent extraction organic to aqueous ratio	O:A	0.9 – 1.1
Settler settling rates	$m^3/h/m^2$	4.5
Maximum linear velocity	cm/s	1.5
Electrowinning operating voltage	V	2
Current efficiency	%	90
Cathode area	m^2	350
Current density	A/m^2	95.7

Secondary screen oversize material will report to the secondary crusher feed conveyor. Oversize material will be delivered from the secondary crusher feed conveyor to the secondary crusher feed bin. Material will exit of the bottom of the bin onto the secondary crusher belt filter. The belt filter will deliver secondary screen oversize material to the secondary cone crusher. Crushed material will report from the secondary crusher to the tertiary screen feed conveyor.

Secondary screen undersize material will report to two transfer conveyors and onto the tertiary screen feed conveyor. Material will be transferred from the tertiary screen feed conveyor to the tertiary screen shuttle conveyor and from the shuttle conveyor into the tertiary screen feed bin. Material will exit the bottom of the bin onto the tertiary screen vibrating feeder. The vibrating feeder will deliver material to the tertiary screen. This screen will be a banana vibrating screen with top and bottom deck screen apertures of 20 mm and 10 mm, respectively.

Tertiary screen oversize material will report to the tertiary crusher feed conveyor. Oversize material will be delivered from the tertiary crusher feed conveyor to the tertiary crusher feed bin. Material will exit of the bottom of the bin onto the tertiary crusher belt filter. The belt filter will deliver tertiary screen oversize material to the tertiary cone crusher. Crushed material will report from the tertiary crusher to the tertiary screen feed conveyor.

Tertiary screen undersize material will be crushed product at 80 percent passing 13.5 mm and will report to the first heap leach feed conveyor. The first heap leach feed conveyor will discharge material into the agglomeration drum.

17.3.2.2 Agglomeration/Stacking

Agglomeration will be conducted in a single rotating rubber lined drum. Both high strength sulphuric acid and raffinate will be sprayed into the drum to effect agglomeration of the crushed material. Agglomerated material will discharge from the drum onto the second heap leach feed conveyor.

The second heap leach feed conveyor will deliver agglomerated material onto the heap leach tripper conveyor which will in turn deliver the agglomerated material to a series of portable grasshopper conveyors. The grasshopper conveyors will deliver material onto the horizontal index feed conveyor which delivers material to the horizontal index conveyor. Agglomerated material will be transferred from the horizontal index conveyor to the loading radial stacker conveyor which will construct the heap leach pad in 4 m lifts.

17.3.2.3 Leaching

Copper leaching will be accomplished using raffinate acidified to contain 7 g/L sulphuric acid. The leach pile will be irrigated with acidified raffinate pumped from the raffinate pond. Pregnant leach solution emanating from the bottom of the pad will report to the PLS pond. There will be no provisions to collect and reapply intermediate leach solutions. PLS will be pumped from the PLS pond to the PLS pinned bed clarifier to remove suspended solids to minimize crud formation in the solvent extraction process. Clarifier underflow will report to the raffinate pond. The raffinate pond will contain a boom to allow skimming of organic solution entrained in the raffinate during the solvent extraction process. PLS clarifier overflow will report to solvent extraction.

17.3.2.4 Solvent Extraction/Electrowinning (SX/EW)

Copper will be extracted from the PLS and into stripped organic solution comprised of diluent and extractant using two solvent extraction mixer/settlers in series. The raffinate exiting the second solvent extraction mixer/settler will report to the raffinate pond. The loaded organic will report to a single solvent extraction mixer/settler to strip the copper from the organic and into the aqueous rich electrolyte solution. The barren organic will report back to the extraction circuit. The rich electrolyte will report to rich electrolyte tank. The mixer/settlers will have dedicated nozzles and piping to allow overflow to the crud storage tank. Crud will be treated using centrifuge and clay treatment.

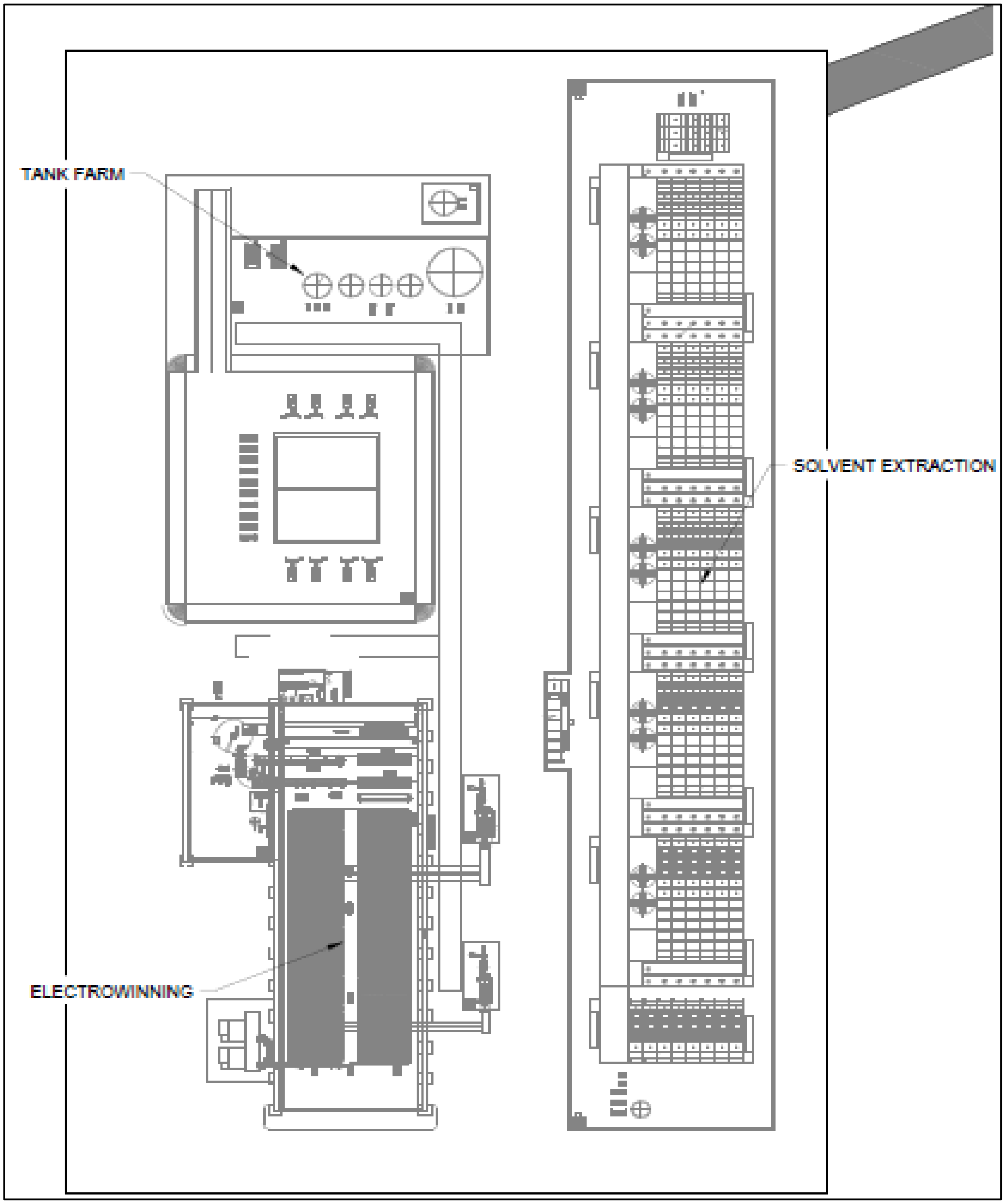
Electrolyte will be filtered using a dual media filter to minimize crud formation. Rich electrolyte will be heated by a spent/rich electrolyte heat exchange with a steam trim heat exchanger prior to entering the electrowinning cells. Metallic copper will be plated from the rich electrolyte onto copper cathode sheets. Mist suppression from the electrowinning cells will be by way of plastic beads and forced ventilation to scrubbers. The spent electrolyte will report back to the stripping solvent extraction circuit though a fraction will be bled to the raffinate solution to keep the electrolyte iron concentration below 2 g/L. The copper cathode will be harvested, bundled and transported by truck. Listed in Table 17-5 are the reagents for the heap leach SX/EW operation.

Table 17-5: Heap Leach & SX/EW Reagents

Reagent	Preparation Method	Use
Sulphuric acid (≥96%)	Stored in tanks and dosed neat to agglomeration and raffinate	Leaching agent
Escaid 110, or equivalent	Stored in a tank and pumped to solvent extraction	Organic diluent
LIX 984N, or equivalent	Delivered in totes and pumped into settler organic launder	Copper extractant
Bentonite clay & diatomaceous earth	Delivered in bags, stored on pallets	Crud management

The SX/EW plant layout is shown in Figure 17-4.

Figure 17-4: SX/EW Plant Layout



Source: Ausenco, 2023

17.4 Reagents, Comminution Consumables, Power, Water and Air Requirements

17.4.1 Reagents and Comminution Consumables

A summary of the estimated reagent consumptions for processing the sulphide and transitional materials by froth flotation is shown in Table 17-6.

Table 17-6: Sulphide and Transitional Material Reagent Consumption

Reagent	Unit Consumption (kg/t)	Annual Consumption (t/a)
Lime	0.150	1,643
Collector (3418A)	0.010	110
Frother (MIBC)	0.077	843
Diesel to Cyclone Feed Hopper	0.010	110
Diesel to Regrind	0.002	22
Moly Collector (Diesel)	0.0008	9
Depressant (NaHS)	0.0819	897
Frother (Moly flotation)	0.0002	2
Flocculant (Cu/Mo thickener)	0.819	9
Flocculant (Cu thickener)	0.819	9
Flocculant (Mo thickener)	0.006	0.1
Flocculant (Tailings thickener)	0.039	432

A summary of the estimated reagent consumptions for processing the oxide material by heap leach is shown in Table 17-7.

Table 17-7: Oxide Material Reagent Consumption

Reagent	Unit Consumption (kg/t)	Annual Consumption (t/a)
Sulphuric acid (≥96%)	20	50,000
Diluent (Escaid 110)	0.025	64
Extractant (LIX 984N)	0.144	361

Sulphuric acid will be delivered to site and stored proximate to the two locations where it will be used, agglomeration and raffinate acidification. Solvent extraction reagents will be stored in tanks and on pallets in dry storage. All heap leaching reagents are dosed neat to the process.

A summary of the estimated crushing and screening wear material consumptions for processing the oxide material is shown in Table 17-8.

Table 17-8: Oxide Material (Heap Leach) Comminution Consumables

Equipment	Annual Consumption (sets/a)
Secondary Crusher Liners	1
Tertiary Crusher Liners	1
Secondary Screen Deck Panels	4
Tertiary Screen Deck Panels	4

The estimated crusher and mill liner consumptions for processing the transitional and sulphide material are shown in Table 17-9.

Table 17-9: Transitional and Sulphide Material (Flotation) Liner Consumption

Equipment	Annual Consumption (sets/a)
Primary Crusher Liners	3
SAG Mill Liners	2
Ball Mill Liners	1
Regrind Mill Liners	1

The estimated grinding media consumption for processing the transition and sulphide material are shown in Table 17-10.

Table 17-10: Sulphide and Transitional Material Grinding Media Consumption

Equipment	Unit Consumption (kg/t)	Annual Consumption (t/a)
SAG Mill Media	0.275	3,011
Ball Mill Media	0.255	2,792
Regrind Mill Media	0.007	76

17.4.2 Power Requirements

The power requirements for processing the oxide material by heap leach are summarized in Table 17-11.

Table 17-11: Oxide Material (Heap Leach) Power Requirements

Area	Installed Power (kW)	Annual Consumption (MWh/a)
Secondary Crushing	1,239	8,134
Tertiary Crushing	591	3,682
Heap Leach	673	4,719
SX/EW	2,974	24,760
Total	**5,477**	**41,295**

The power requirements for processing the transitional and sulphide material by flotation are summarized in Table 17-12.

Table 17-12: Transitional and Sulphide Material (Flotation) Power Requirements

Area	Installed Power (kW)	Annual Consumption (MWh/a)
Primary Crushing	1,218	6,162
Stockpile & Reclaim	1,901	10,494
Process Plant Building	100	690
Grinding (Transitional Material)	27,813	153,109
Grinding (Sulphide Material)		179,454
Copper-Moly Flotation	5,687	37,495
Moly Flotation	2,958	19,942
Copper Concentrate Thickening and Filtration	706	4,448
Moly Concentrate Thickening and Filtration	535	3,032
Reagents	341	1,037
Moly Reagents	186	648
Process Services and Utilities	1,251	7,988
Tailings	365	2,131
Tailings Thickening and Pumping	250	1,542
Tailings Filter Plant	5,497	26,250
Total (Transitional Material)	**48,808**	**274,968**
Total (Sulphide Material)		**301,313**

17.4.3 Fresh Water

Fresh water will be used for the following process duties:

- Reagent mixing and preparation;
- Cathode washing;
- Gland water; and
- Fire water.

Fresh water will also be used to supply potable water, and as process make-up water. Wherever possible, process water will be used to minimize freshwater consumption. Fresh water consumption for the process is estimated around 200 m^3/h and will be pumped to the process plant from a well field to be located on the project site.

17.4.4 Process Water

Process water in the flotation plant will consist of tailings thickener overflow, copper/molybdenum concentrate thickener overflow, and copper concentrate thickener overflow in the grinding, bulk flotation circuits and molybdenum rougher and scavenger flotation circuits. A separate process water circuit will collect water from the molybdenum concentrate cleaning circuit.

17.4.5 Compressed Air

Compressors, receivers, and dryers will provide air for process control, filter press operations, flotation and general plant operation and maintenance.

18 INFRASTRUCTURE

18.1 Introduction

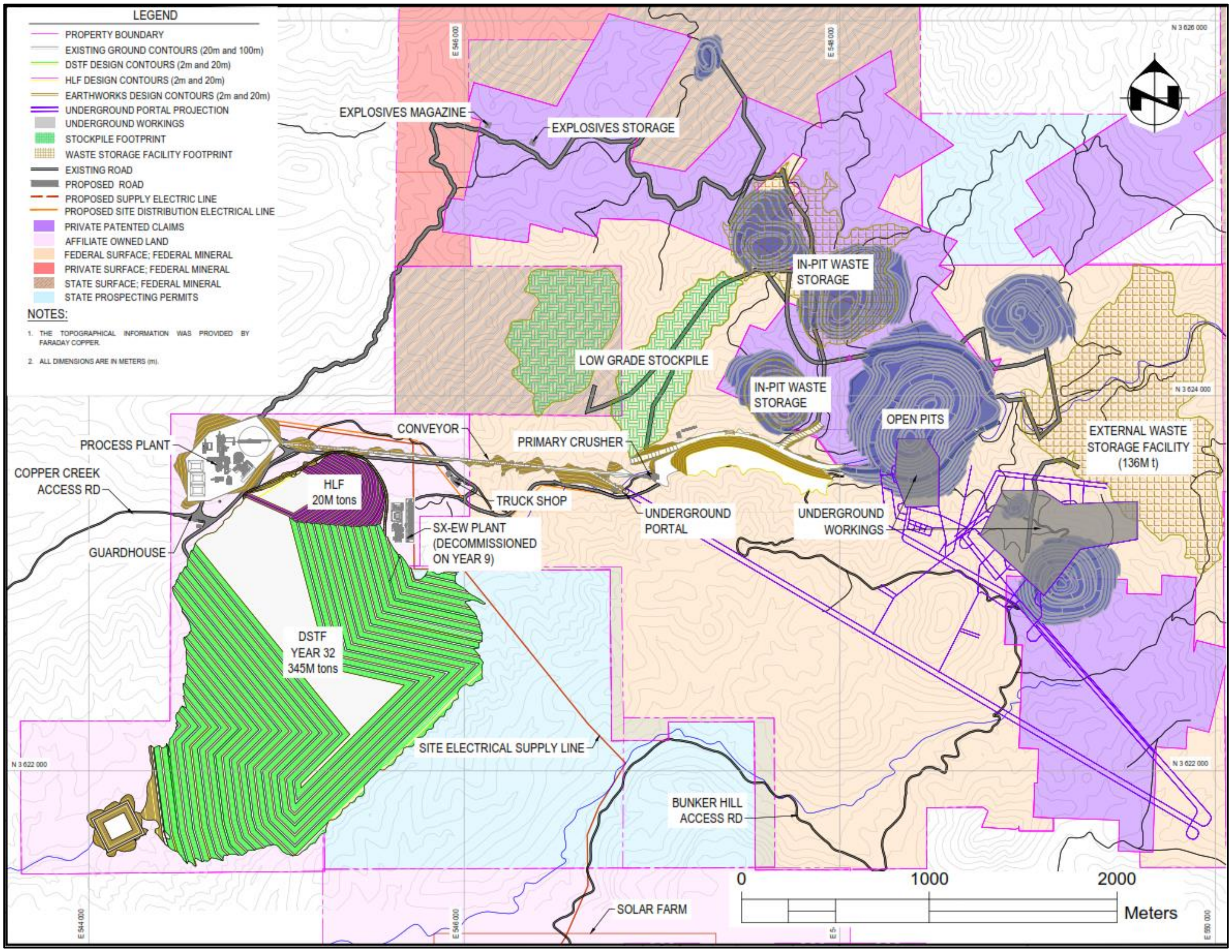
Infrastructure at the Copper Creek Project includes on-site infrastructure such as earthworks development, site facilities and buildings, on-site roads, water management systems, a heap leach pad, a tailings storage facility and site electrical power facilities. Off-site infrastructure includes the site access road, fresh water supply including off-plot piping, and power supply. The site infrastructure includes:

- mine facilities, including truck shop & wash bay and mine office, explosive storage facilities, a diesel fuel island and a mine dries/ operations building, WSF, low-grade stockpiles, ROM (run-of-mine) pad, pits and Underground portals, Underground crushing & conveying to surface;
- common facilities, including an entrance/exit guard shack which will house site security and medical/health & safety personnel, an overall site administration building, fire and fresh or raw water distribution systems, compressed air, a main substation and associated power generation and distribution facilities, communications area, and sanitation systems;
- sulphide materials processing facilities, coarse crushed materials storage, grinding and classification, copper flotation, product regrind, copper concentrate thickening, filtering, storing and handling, tailings thickening and filtering a separate molybdenum processing facility consisting of flotation and concentrate thickening, filtering, drying and bagging systems, a covered reagent mixing and distributing facility, assay laboratory and process plant workshop and warehouse;
- oxide materials heap leaching and SX/EW facilities, including a heap leach pad, a temporary stockpile, secondary and tertiary crushing, PLS, raffinate and stormwater ponds, tank farm and acid storage
- tailings management including conveyor belts, radial stacker and a DSTF; and
- a near-pit crushing facility with associated electrical infrastructure.
- The overall site layout was developed using the following criteria and factors:
  - The processing facilities described above must be located on Copper Creek/Faraday property to the greatest extent possible.
  - The location of the process plant be as close to the Copper Creek open pits and underground mine to reduce haul distance but outside of the 500 m blast radius.
  - The location of the WSF must be close to the open pits to reduce haul distance.
  - The location of the primary crushing and ROM stockpile must be close to the Copper Creek deposits to reduce haul distance.
  - The DSTF should be located as close to the process plant as possible, situated predominantly on Faraday's land position, takes advantage of the sloped natural terrain, down-gradient from tailings filtering facilities, and surface runoff managed accordingly.
  - An underdrain system is proposed to capture surface drainage in Copper Creek and mitigate potential impacts to the DSTF.

- The arrangement of the administration buildings, mine workshops, processing plant, and additional offices should be optimized for foot and vehicle traffic.

The Copper Creek Project layout is shown in Figure 18-1.

Figure 18-1: Copper Creek Project Overall Site Layout



Source: Ausenco, 2023

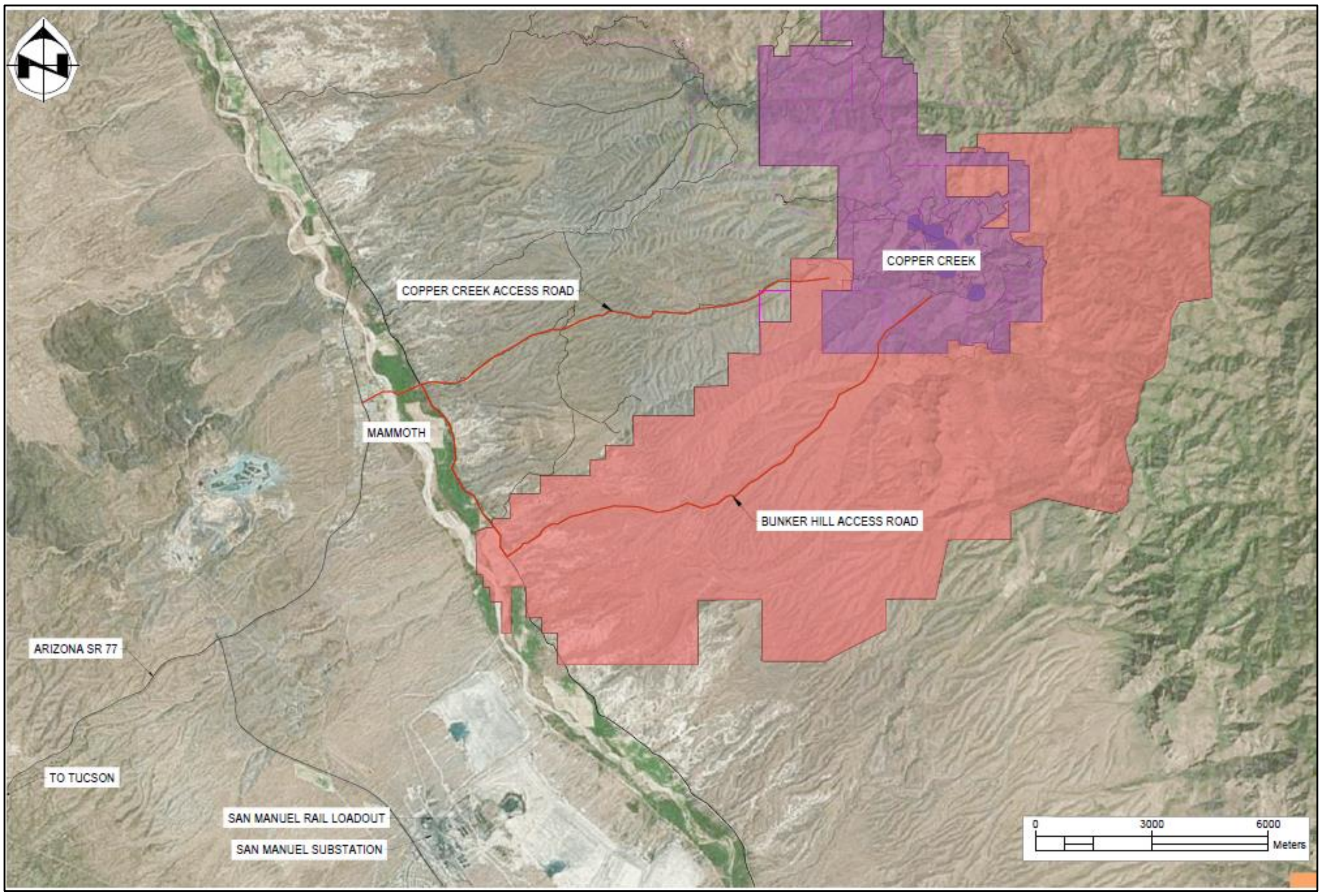
18.2 Off-site Infrastructure

18.2.1 Site Access

The Copper Creek Project is located approximately 70 kilometres northeast of Tucson, AZ via Arizona state highway AZ-77N. Surface access site is currently via E. Copper Creek Road, a 15 km existing dirt road off Main Street in Mammoth, AZ (Figure 18-2). The site can also be accessed from the south via the Bunker Hill road, a 17 km existing dirt road off Main Street in Mammoth, AZ. E. Copper Creek Road will be improved to meet operational requirements and allow for the transport of concentrate produced at the mine to rail loadout facility and the delivery of bulk freight to the mine site by tractor-trailer units; these improvements will include widening the road from the current 4-m width to 10 m.

Alternatively, Bunker Hill Road serves as an alternate egress for light four-wheel drive vehicles.

Figure 18-2: Site Access



Source: Ausenco, 2023

18.2.2 Water Supply

To meet freshwater needs for the proposed mining operations, it is expected that a well field located on or near private lands, such as the Bell Ranch area, or near the proposed solar plant on Faraday property will serve as the primary source. It is anticipated that freshwater will be pumped to the processing facility situated on the Bell Ranch via a 200 mm diameter HDPE pipeline. The company intends to complete a hydrogeological model and water balance study to inform the ideal location for the well field in order to minimize impacts to water resources (for more information on water resources see section 20.2.1 of this report). Potable water is expected to be sourced from the town of Mammoth, AZ.

18.2.3 High Voltage Power Supply

Permanent electrical power is provided by a transmission line from the solar power plant, currently envisaged to be located approximately 4.8 km south of the Copper Creek Project, to the site's substation. The Project will connect to both the electrical grid and solar power plant. A 138 kV transmission line will run along Bunker Hill Rd approximately 2 km then traverse 2.8 km of state-owned land (Section 16, Township 08S, Range 18E). The 138 kV transmission line will connect at the site main substation located near the process plant before being stepped down to 25 kV for distribution to meet the different power requirements across the project site.

18.2.4 Logistics

The proposed logistics concept is to use containerized bulk handling to move the concentrates from the mine. In Containerized Bulk Handling, material is loaded into sealed containers at the site until it is dumped directly into a shipping vessel using proprietary equipment (RAM Revolvers). Empty containers are returned to the mine site and refilled. This process minimizes dust and other product loss.

Assuming standard truck, trailer and container weight the total load that can be loaded into a container load is limited to 21 tonnes. This would require approximately 32 trips per day. Trucking of the containers is a contract operation. The operating cost includes purchase of haul vehicles.

The number of containers that are required will be a function of the distance travelled and the transportation modes. If concentrate is loaded onto ships, a full parcel of containers will be stored at the port at the time of loading. There must also be enough containers to hold the concentrate in transit. Containers would be loaded onto rail cars for transportation at a transload facility located in San Manuel, AZ and transported to the Port of Guaymas in the State of Sonora, Mexico. At the port, the containers will be unloaded from the rail and stored until emptied into a vessel hull for overseas shipping to smelter. Empty containers are then returned to the transload facility via the railroad offloaded and returned to site via truck.

18.3 On-site Infrastructure

18.3.1 Site Preparation

All infrastructure areas will be cleared of vegetation, and the topsoil will be removed and stockpiled for closure use. Drains, safety bunds, and backfilling with granular material and aggregates for road construction are all elements of the initial site development.

Site civil work includes design for the following infrastructure:

- on-site roads for light vehicles and heavy equipment;
- site access roads;
- stockpile areas;
- mine and process facilities pads;
- ROM stockpile and crusher wall;
- WSF areas;
- Water management facilities, including ditches, underdrains and diversion channels; and
- HLF and DSTF.

18.3.2 On-site Roads

The project site has unpaved roads connecting the access road to the gatehouse. In addition to the existing roads on site, new roads will be constructed linking the guard house, the administration building, the process plant, the explosive storage buildings, the underground portals, the primary crusher, the SX/EW plant and the DSTF.

18.3.3 Fuel

The diesel storage facility and fuel dock are located near the primary crusher outside of the pit blast radius. Fuel facilities consists of five bulk storage tanks. Each tank has a 100,000 L of capacity, for a total storage capacity of 500,000 L.

18.3.4 Mine Ancilliaries

18.3.4.1 Truck Shop/Wash

The truck shop/wash is a pre-engineered building with a concrete floor, overhead crane, and overhead doors with fire protection and alarm systems. There will be a total of four maintenance bays. Two maintenance bays will be assigned to preventative maintenance, one will be for corrective maintenance, and the last bay will be multipurpose. Additionally, a single welding bay and truck wash will be located at the front of the truck workshop building.

18.3.4.2 Mine Office

The mine office is a modular building shared by both open pit and underground operations. The building is sized to accommodate 60 people; 40 for underground operations and 20 for open pit operations.

18.3.4.3 Mine Dry & Operations Building

The mine dry facility for the underground mine has the capacity for 190 personnel. There are 140 lockers, washrooms, and showers for men and another 50 lockers, washrooms, and showers in a separate area for women.

18.3.5 Process Plant Infrastructure

18.3.5.1 Plant Warehouse

The plant warehouse/shop is a pre-engineered building with concrete floor, overhead doors, fire protection, and alarm systems. This building will be used for general storage, storing equipment spares for the process plant.

18.3.5.2 Maintenance Shop

The maintenance shop is a pre-engineered building used for maintaining light vehicles assigned to the plant and repairing/maintaining process plant equipment as necessary.

18.3.5.3 Control Rooms

The main process plant control room is a modular office situated near the concentrator and sized for 18 employees. The crusher area control room is situated near the primary crusher outside of the 500 m blast zone buffer approximately 1.2 km from the main process plant control room and is a modular office building.

18.3.6 On-site Infrastructure

18.3.6.1 Guard House and Truck Scale

The gate house is a security trailer office with a lockable gate and communications to the main site. The truck scale is located adjacent to the main access road by the guard house.

18.3.6.2 Security/Medical Facilities

The security/medical facilities are a modular building located near the Gate House. The security facilities include rooms for personnel screening during rotations in and out of site. The medical facilities consist of first aid and emergency response rooms for on-site treatment and headquarters for mine rescue team. These facilities are equipped with fire protection and an alarm system.

18.3.6.3 Main Administration Building

The main administration building is a modular, multiple level building comprised of a change/lunch facility, offices, meeting rooms, washrooms, desks, fire protection, and alarm systems. The offices will have space for 41 employees. There will be 20 processing plant offices and 21 general and administrative offices.

Table 18-1: On-site Buildings Description

WBS	Building Name	Building Type	L (m)	W (m)	H (m)	Area (m^2)
1300	Truck Shop	Pre-Engineered	50	20	16	1,000
1300	Wash Bay	Pre-Engineered	20	14	-	280
1300	Mine Office	Modular	22	18	4	396

WBS	Building Name	Building Type	L (m)	W (m)	H (m)	Area (m^2)
1300	Explosive Storage	Modular	30	20	10	600
1300	Diesel Fuel Island	Modular	20	17	6	340
1350	Mine Drys & Operations Building	Pre-Engineered	22	19	4	418
2100	Crusher MCC	Modular	27	4	-	-
2100	Crusher Substation	Modular	5	4	-	-
2100	Crusher Lube Room	Modular	-	-	-	-
2400	Electro Winning Building	Pre-Engineered	100	30	6	300
3100	Maintenance Shop	Pre-Engineered	20	15	9	300
3200	Main Substation	-	-	-	-	-
	HV Substation	Modular	35	25	-	875
	HVSwitch Yard	Modular	35	25	-	875
3400	Moly Plant	Pre-Engineered	38	23	9	874
5200	Grinding Area Control Room	Modular	-	-	-	-
5200	Grinding Area MCC	Modular	-	-	-	-
5200	Grinding Area Lube Room	Modular	-	-	-	-
5200	Copper Concentrate Building	Pre-Engineered	37	16	9	592
5200	Administration	Modular, multiple levels	24	15	4	360
5200	Crusher Control Room	Modular	15	6	4	90
5200	Warehouse	Modular	24	12	9	288
5200	Guard House	Modular	7	4	4	28

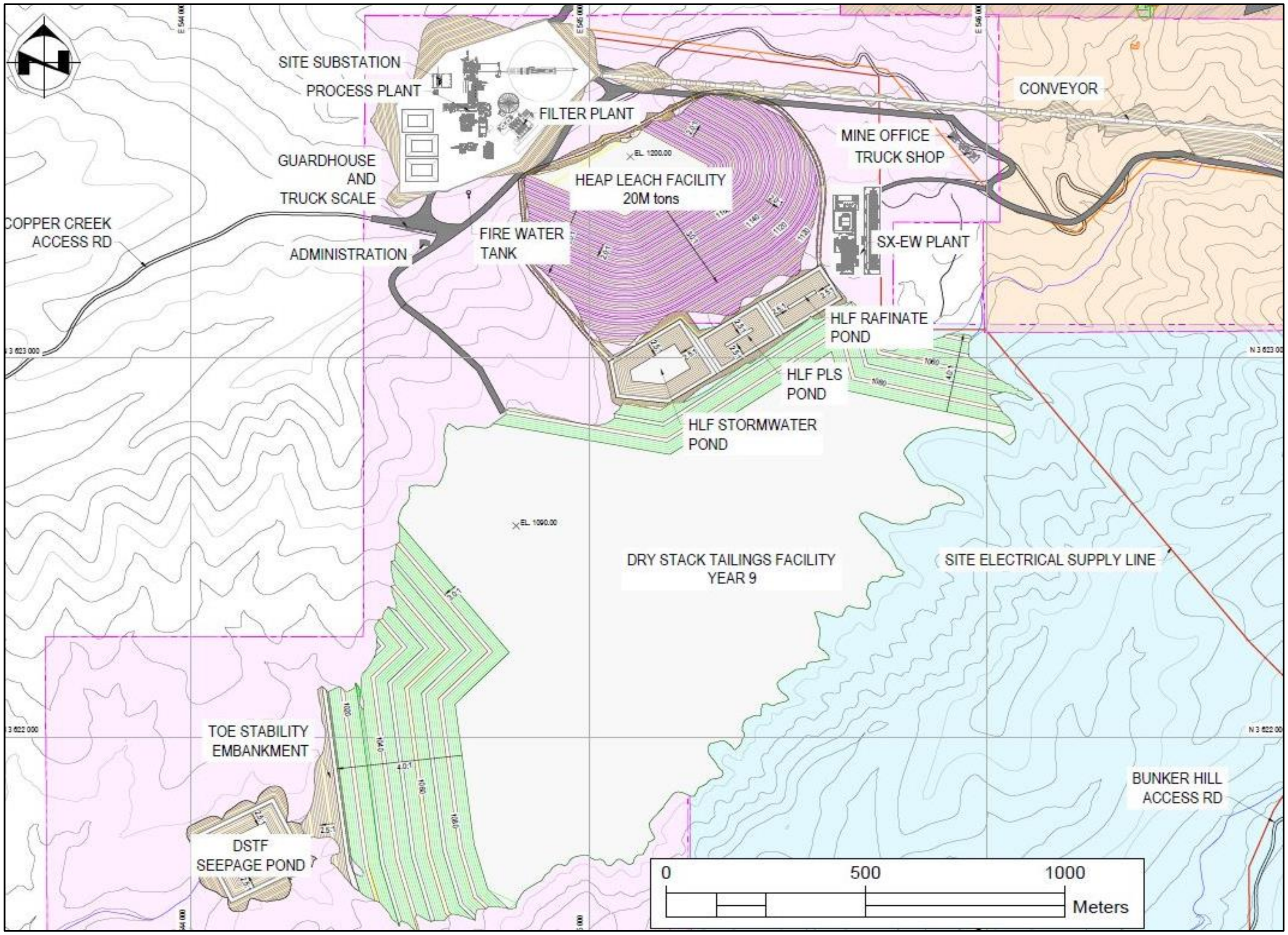
18.3.7 Heap Leach Facility (HLF)

The HLF for the Copper Creek Project will be located east of the process plant and north of the DSTF. The HLF consist of the following components:

- heap leach pad;
- liner system;
- solution collection system;
- perimeter berm and access road;
- process ponds; and
- surface water controls.

The HLF has been designed in one phase to a total capacity of 20 Mt of crushed oxide materials. Construction activities include construction of perimeter berm and access road, preparation of pad foundation, installation of liner system, installation of solution collection system, and construction of ponds and surface water controls. Mineralized material leaching is expected to occur from the start of production through Year 7 of operations according to the mine plan. After cessation of leaching activities, the HLF and process ponds will be decommissioned, to allow further expansion of the DSTF covering the south slopes of the HLF. Figure 18-3 shows the fully stacked HLF and the DSTF at the end of Year 9.

Figure 18-3: Heap Leach Facility General Arrangement (Year 8)



Source: Ausenco, April 2023.

18.3.7.1 Heap Leach Pad

The leach pad has an approximate final footprint area of 330,000 m^2. The heap leach pad is designed to be operated as a fully drained system with no leachate solution storage within the pad. The leach has a composite liner system liner to prevent seepage into the environment. Above the liner is a series of solution collection pipes encapsulated in an overliner to rapidly collect pregnant solution and transport it the double lined pregnant leach solution pond. In addition, there is also a double lined raffinate pond and a single lined stormwater. Crushed oxide materials will be stacked in 10 m lifts and leached with sulphuric acid using drip lines for 60 days prior to stacking the next lift. The materials will be stacked to a maximum height of 100m with in exterior slopes of 3:1. The collected the pregnant solution will be being pumped to the SX/EW circuit.

Prior to the start of construction, the pad foundation must be prepared. Foundation preparation involves stripping the topsoil and vegetation and removing oversize rocks. The topsoil will be stockpiled at a convenient location and used for reclamation of the HLF at closure. The underlying soils will be excavated down to a competent, stable foundation to provide a uniform and graded surface for the pad liner. Grading and backfill will be used to level the surface and promote solution flow towards the collection piping system and ponds. A minimum pad grade of 2.5% is required.

18.3.7.2 Liner System

A liner system is planned to maximize solution recovery and minimize environmental impacts. The liner system consists of a combination of synthetic and natural materials to provide solution containment that meets the accepted standards for leach pad design.

A liner system has been developed for the pad using an engineered composite single liner design. The liner system is designed to be installed as the primary liner system under the entirety of the heap leach pad. The liner system consists of the following components (from top to bottom):

- 0.5 m thick overliner layer (crushed ROM) along with solution collection pipes;
- 2.5 mm smooth high-density polyethylene (HDPE) geomembrane liner;
- 0.5 m thick low permeability layer; and
- prepared subgrade.

A protective overliner layer of approximately 0.5 metres of coarse crushed mineralized material/waste will be placed over the liner system footprint to protect the liner's integrity from damage during mineralized material placement. The overliner acts as the drainage layer, allowing solution drainage into the solution pipe collection system. The overliner material must be competent and free from fines.

The liner system will extend to the top of the perimeter berms to provide full containment. The synthetic liner will be anchored and backfilled in a trench along the heap leach pad perimeter and perimeter berms to ensure that mineralized material loading does not compromise the liner coverage of the heap leach pad footprint. The perimeter berm will be constructed as part of the liner tie-in around the perimeter of the pad footprint to ensure that heap solution is contained within the pad and to prevent surface runoff entering the pad collection system.

18.3.7.3 Heap Leach Facility Solution Collection System

Collection and recovery of solution is facilitated by the solution collection system in conjunction with the heap leach liner and overliner. The collection systems consist of the following pipe and sump components:

- Lateral collection pipes.
- Header pipes; and
- Process ponds:
    - Pregnant leach solution (PLS) pond; and
    - Raffinate pond.

The proposed solution collection system is designed to facilitate quick and efficient solution conveyance off the pad to reduce the potential risk of solution losses through the liner system. The entire piping system will be constructed from perforated corrugated Advanced Drainage Systems (ADS) plastic piping, embedded within the overliner layer.

Lateral collection pipes of 100 mm will be spaced approximately 20 metres apart under the entire pad footprint and will feed directly into the 300 mm collection header pipes which then flow into the 450 mm main header. The main header pipes will be positioned along the centreline of the heap leach pad and terminate at the upstream toe of the perimeter berm by the toe of the stacked mineralized material. Solution will then be conveyed to the process ponds through solid HDPE.

PLS and raffinate ponds are designed to provide storage for solution to be pumped to and from the SW-EW plant. The ponds are situated immediately down-gradient of the HLF to facilitate gravity flows. Excess solution flows to any of these ponds will be diverted to the stormwater pond via spillways. The process ponds are designed to meet the following design criteria:

- Process ponds are designed to contain up to 24 hours of solution at the maximum heap discharge rate;
- 1.5 m freeboard;

The liner system for the PLS and raffinate ponds will include a leak collection and recovery system (LCRS) and consists of the following components (from top to bottom):

- 2.0 mm single-sided textured HDPE geomembrane liner;
- 1.5 mm double-sided textures HDPE geomembrane liner;
- 0.5 m thick low permeability layer; and
- prepared subgrade.

18.3.7.4 Heap Leach Facility Underdrain System

An underdrain system will be installed underneath the pad and process ponds to capture any groundwater flows and act as a leak detection system for the heap leach pad. The underdrain system will consist of lateral 100 mm perforated ADS pipes and 300 mm header perforated ADS pipes installed in excavated trenches. The trenches with the pipes are then backfilled with drain gravel to allow the flow of water. The header underdrain pipe is connected to the underdrain collection sump downstream of the process ponds.

18.3.7.5 Heap Leach Facility Stormwater Pond

The stormwater pond is designed to provide storage for excess solution and runoff generated because of rainfall events. The pond is situated immediately down-gradient of the HLF, and pond flows are conveyed via a stormwater pond pipe from the heap leach pad or via spillways from the process ponds. The stormwater pond is designed to meet the following design criteria:

- Storage capacity to contain the excess solution and surface runoff from the 100 mm 100-year, 24- hour storm event without discharge;
- 1.5 m freeboard;
- The liner system for the stormwater pond consists of the following components (from top to bottom):
    - 2.0 mm single-sided textured HDPE geomembrane liner;
    - 0.5 m thick low permeability layer; and
    - prepared subgrade.

18.3.7.6 Heap Leach Facility Diversion Channel

The surface water management system proposed for the HLF consists of a diversion channel constructed around the north perimeter of the HLF to intercept overland surface runoff around the HLF pad and to convey surface water away from the active site.

Lining and protection of the ditch channels from erosion and scouring may be required for all permanent ditches.

18.3.8 Dry Stack Tailings Facility (DSTF)

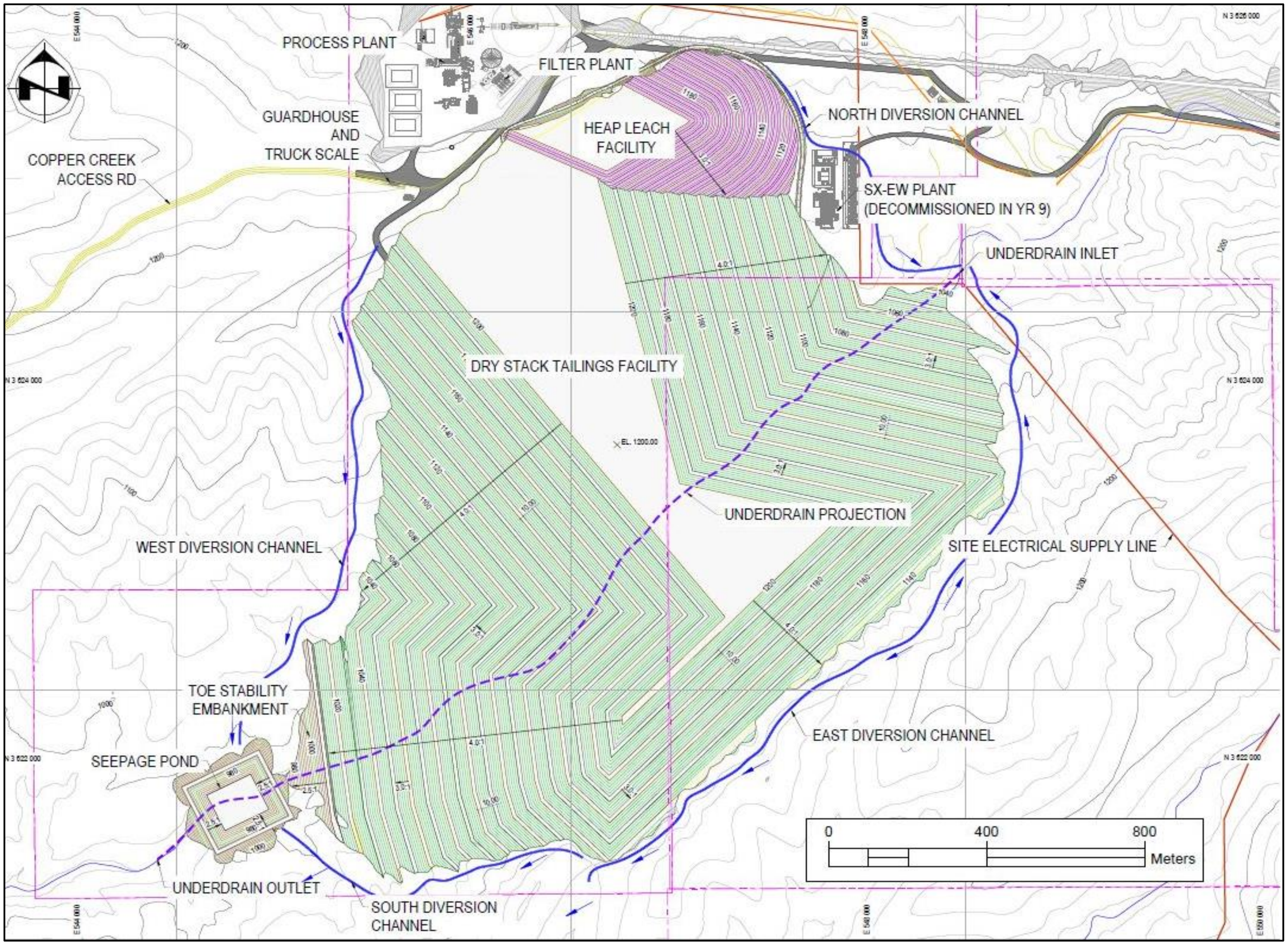
A preliminary siting and deposition technology study was performed and due to water and area constraint, filtered tailings placed in a DSTF is the preferred option. The DSTF provides secure confinement of tailings and the protection of the regional groundwater and surface water during mine operations and closure. The design of the DSTF was in accordance with Global Industry Standard on Tailings Management. The facility will be constructed in stage over the life of mine to optimize the economics of the facility. The design of the DSTF considered the following:

- Staged development of the facility over the LOM.
- Unlined dry stack foundation with a seepage collection system to limit possible constituents of concern migrating outside the facility.
- Control, collection, and removal of water from the facility during operations for recycle as process water to the maximum practical extent.
- Progressive reclamation in the form of tailings slope cover.

Approximately 345 Mt of tailings will be stored in the DSTF. Construction of the DSTF has been divided in three (3) phases and the ultimate footprint will occupy approximately 232 ha.

The general arrangement of the DSTF is shown on Figure 18-4.

Figure 18-4: Ultimate Dry Stack Tailings Facility General Arrangement



Source: Ausenco, April 2023.

18.3.8.1 Topography and Drainage

The proposed DSTF site is in the Copper Creek natural drainage southeast of the process plant. In general, the site and surrounding area has a mountainous topography with some bedrock exposed or near ground surface in upland and hill areas, and alluvial soils in lowlands and valleys. It is assumed that surface soil conditions throughout the site consist primarily of silty sands alluvial material with fractions of gravel and cobbles.

At this time, near-surface ground water has not been thoroughly investigated and a comprehensive analysis of Copper Creek expected flows after the construction of the north diversion has been completed.

18.3.8.2 Hazard Classification

The design standards for the DSTF are based on the relevant federal and international guidelines for construction of tailings facilities. The following regulations and guidelines were used to determine the hazard classification and suggested minimum target levels for some design criteria, such as the inflow design flood (IDF) and seismic criteria:

- International Council on Mining and Metals' 2020 Global Industry Standard on Tailings Management (GISTM, 2020).

The DSTF has been classified as significant under the GISTM guidelines. The recommended IDF during operations is defined as the 1/1000-year return period flood for a significant consequence classification. Seismic parameters have been determined for the DSTF from previous studies in the property. The design earthquake is characterized as the one in 1,000-year return period seismic events for a significant consequence classification facility.

18.3.8.3 Basis of Design

The DSTF design was developed by Ausenco using designs and methods that will protect against impacts to ground water in accordance with state and federal environmental regulations. The design as presented also meets geotechnical and hydrologic design criteria of GISTM (2020) for a very high Failure Consequence facility. An earth and rockfill stability berm spanning a shallow valley will be the main structure that impounds tailings. The tailings will be stacked using concepts that will provide a safe and stable facility. A seepage collection system will be placed over the unlined basin to capture any potential seepage and limit the outflow of potential constituents of concern, if any. Tailings will be delivered to the facility via mobile conveyor belts and a radial stacker at approximately 87% solids (by weight).

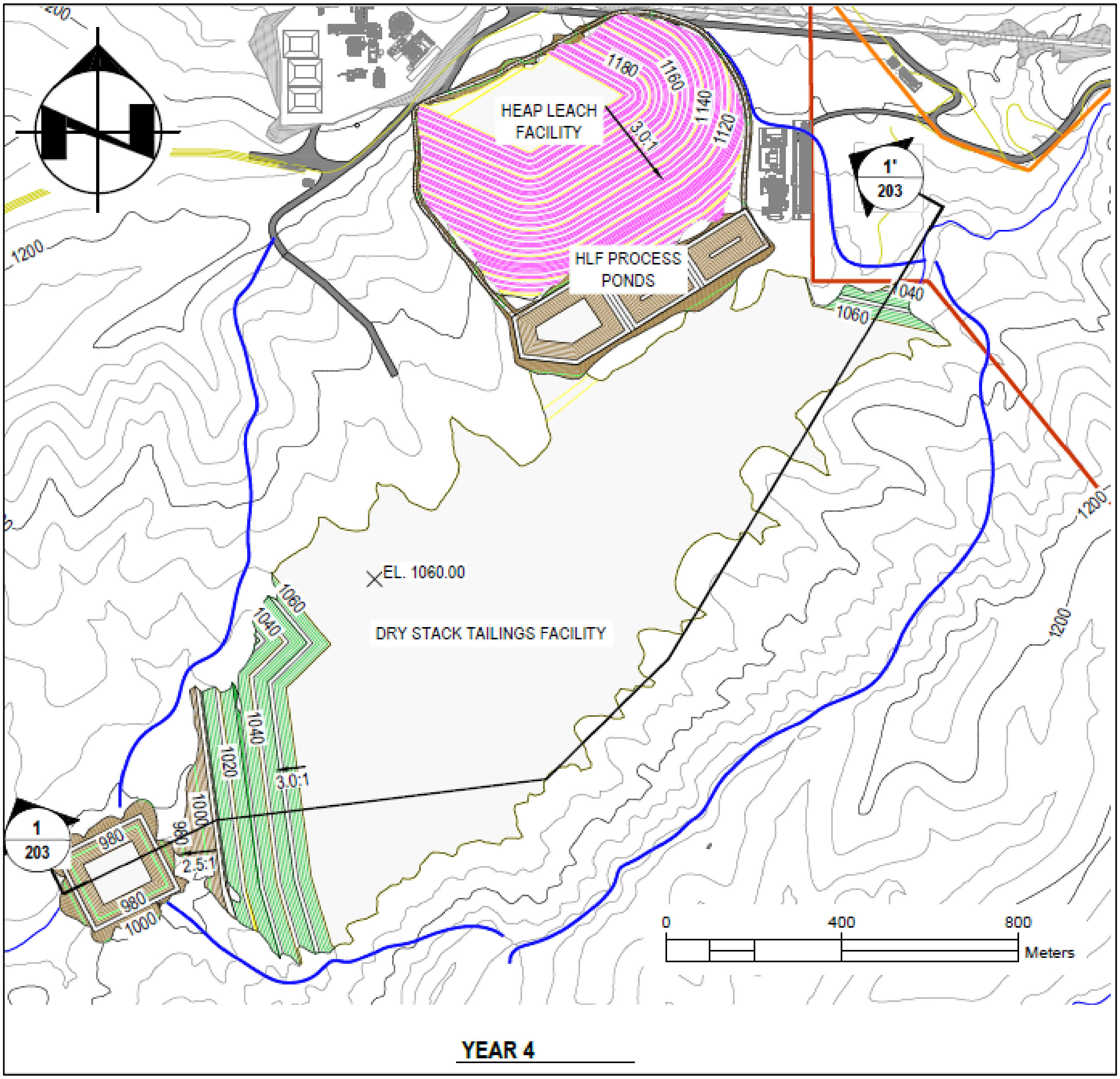
The DSTF footprint will be cleared and grubbed for foundation preparation and stability berm construction. Basin preparation will include removal of overburden material from low points within the topography and placement over any rock outcrops. Overburden materials will be removed beneath the stability berm foundations prior to fill placement. It is assumed that an average 1 m of overburden removal will be required over the footprint of the facility.

The DSTF stability berm will be constructed using ROM rock generated from open-pit mining operations. During construction, rock will be transported by the contractor from the staging area to the embankment location(s) and placed as engineered fill in controlled and compacted lifts. The stability berm slope angles for both upstream and downstream slopes will be 2.5H:1V.

Phase 1 of the DSTF will allow filtered tailings to reach a maximum elevation of 1,060 masl and will store 49 Mt of tailings. Phase 2 will reach an ultimate elevation of 1,090 masl and will store 66 Mt tons of tailings. Phase 3 will reach an ultimate elevation of 1,200 masl and will store 229 Mt tons of tailings. Phasing of the DSTF is shown in Figure 18-5 through Figure 18-7.

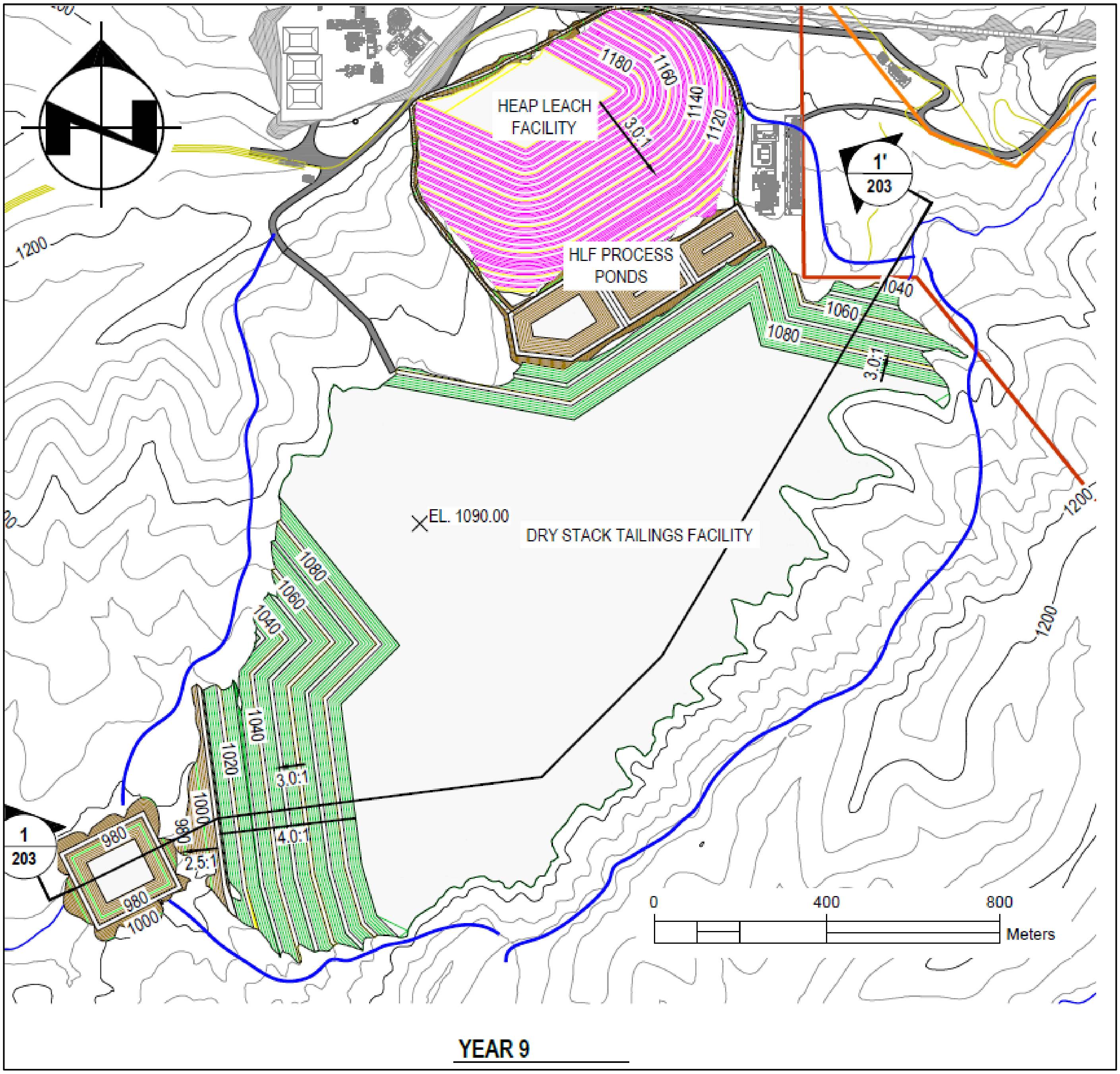
Within the foundation of the facility, a series of 100 mm and 300 mm PCPE pipes will be installed to collect any seepage and convey it to the seepage collection pond at the toe of the facility.

Figure 18-5: Dry Stack Tailings Facility Arrangement Year 4



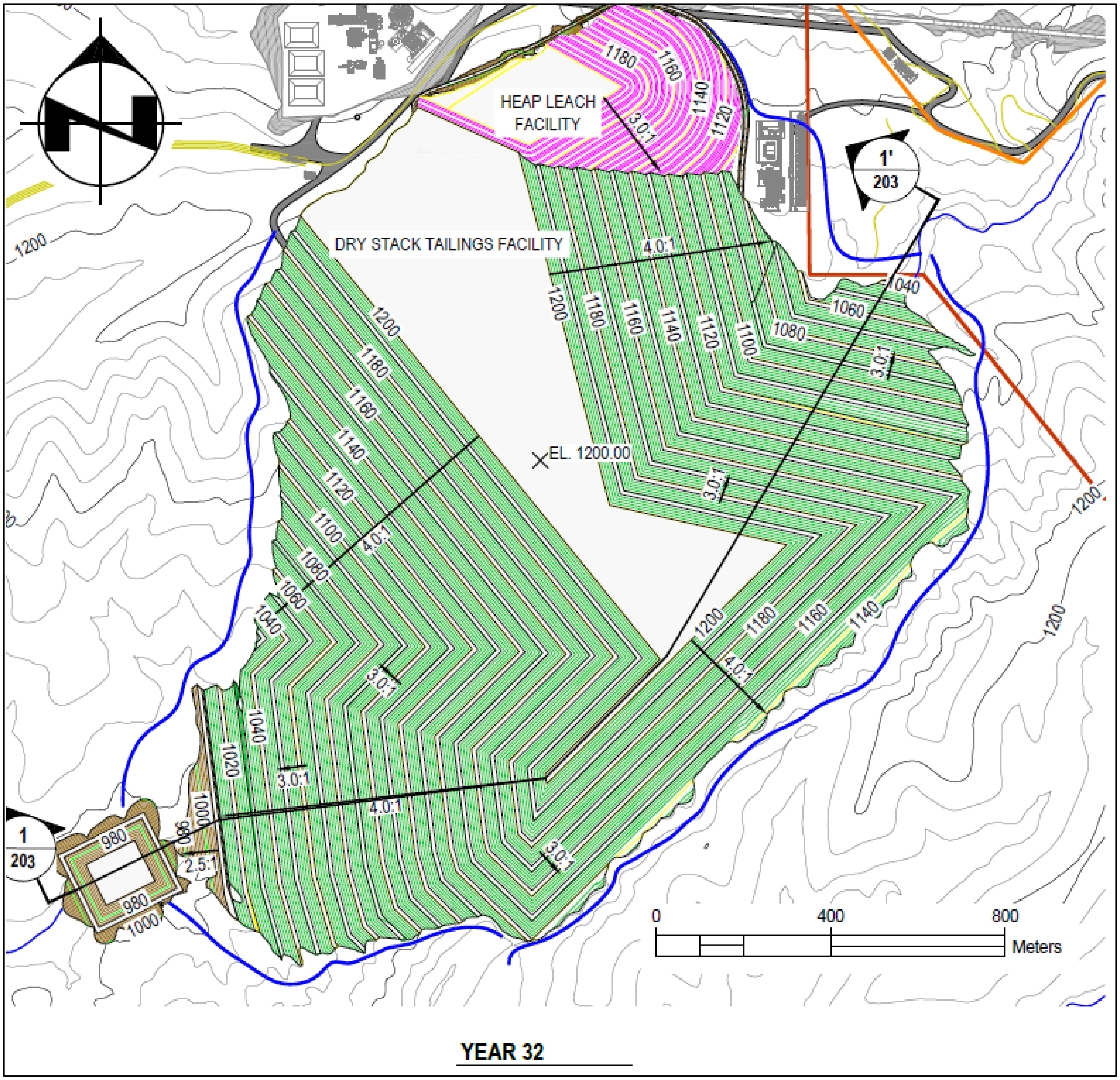
Source: Ausenco, April 2023.

Figure 18-6: Dry Stack Tailings Facility Arrangement Year 9



Source: Ausenco, April 2023.

Figure 18-7: Dry Stack Tailings Facility Arrangement Year 32



Source: Ausenco, April 2023.

18.3.8.4 DSTF Stability

Three sections through the highest portion of the dry stack were selected as the critical section for slope stability analysis. Analyses were undertaken for both static and pseudo-static (earthquake loading) conditions with the calculated factors of safety (FOS) higher than the minimum required values of 1.5 FOS for static and 1.0 FOS for pseudo-static. The DSTF is designed to withstand potential dynamic displacement without release of tailings during the maximum design earthquake event.

18.3.8.5 Tailings Deposition and Return Water

Filtered tailings will be transported to the DSTF via mobile conveyor belts and stacked using a radial stacker. Filtered tailings will be deposited in the facility, spread by a dozer into controlled lifts, and compacted by a vibratory roller. Tailings slopes will be covered with a 5-metre-wide trapezoidal waste rock cover. This cover will serve as erosion protection and will increase stability of the overall facility. The cover will also serve as progressive reclamation reducing closure costs at the end of the LOM.

Return water from the seepage pond will be pumped back to the process plant for reuse.

18.3.8.6 DSTF Surface Water Management

During operations, permanent storm water diversion channels on the perimeter of the facility will be constructed to convey runoff around the DSTF ultimate footprint. Permanent stormwater diversion channels will remain in place during the life of the DSTF and into long-term closure. Stormwater diversion channels will be constructed at a minimum 1% grade. Channels will be lined with 20 cm of riprap. Any precipitation that runs off downslope of the diversion channels and within the slopes of the DSTF will report to the impoundment area. Diversion channels will discharge non-contact water into natural drainages.

The DSTF will cover the Copper Creek drainage. An underdrain system will be constructed to capture non-contact water from the upstream side of the DSTF. The underdrain system will extend the full length of the DSTF underneath the tailings and seepage collection pond. Non-contact water will be discharged downstream of the facility into the natural Copper Creek drainage. The underdrain system will consist of two 760mm solid HDPE pipes running in parallel for redundancy. The pipes will be placed in a trench excavated prior to placement of tailings.

18.3.8.7 DSTF Monitoring

To support construction-level design and permitting, a detailed geotechnical monitoring plan will be prepared that defines the roles and responsibilities of key stakeholders (Owner, operator, engineer) for safe and stable DSTF construction and operation. Monitoring will be accomplished through both measurements of monitoring points (e.g., survey monuments, piezometers readings), and visual observations of surface conditions.

18.3.8.8 DSTF Closure

The general closure design strategy includes placing a 0.5 m waste rock cover on the top surface to limit infiltration of precipitation. Growth medium stripped during DSTF construction should be stockpiled for future placement over the waste rock surface during reclamation.

The external slopes of the DSTF have been designed with a 4H:1V global slope that is sufficiently flat for effective revegetation. For this PEA study, Ausenco selected a 60 cm-thick topsoil cover or growth medium layer above the covered tailings. The closure cover will be graded with drainage swales to convey surface runoff away from the facility. Surface water will be conveyed and discharged into natural drainages. Maintenance may be required to provide repairs for any damage created by larger or more intense storms.

18.3.9 Power and Electrical

The HV transmission line from the grid/solar plant will be connected by distribution line to a 138kV/25kV substation on site. The substation will distribute power to various areas of the Project including the process plant, administration building, the DSTF, the crushing/conveying facilities, the underground portal, the truck shop and the mine drys and operations building.

18.3.10 Site Water Management

This section discusses site-wide water management, the design of water management structures, hydrology, and water balance.

18.3.10.1 Climate and Hydrology

Climate data used was obtained from the Oracle State Park weather station located 27 km southwest of Copper Creek. The stations' climate normal are presented in Table 18-2 and the storm events of the various return periods are presented in Table 18-3.

Table 18-2: Oracle State Park Precipitation Data

Parameter	Precipitation (mm)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max	31.8	40.6	40.6	33.0	11.7	48.5	122.7	114.3	66.0	30.5	46.2	27.4
Min	0.0	0.0	1.8	0.0	0.0	0.0	12.2	1.8	0.0	0.0	0.0	4.1
Average	18.6	15.2	12.5	8.9	2.6	8.3	29.7	35.4	24.2	10.4	13.8	16.3

Table 18-3: Oracle State Park Design 24-hour Storm Event

Return Period	Precipitation (mm)
2	53
3	68
5	86
10	110
20	133
50	163
100	185
200	207

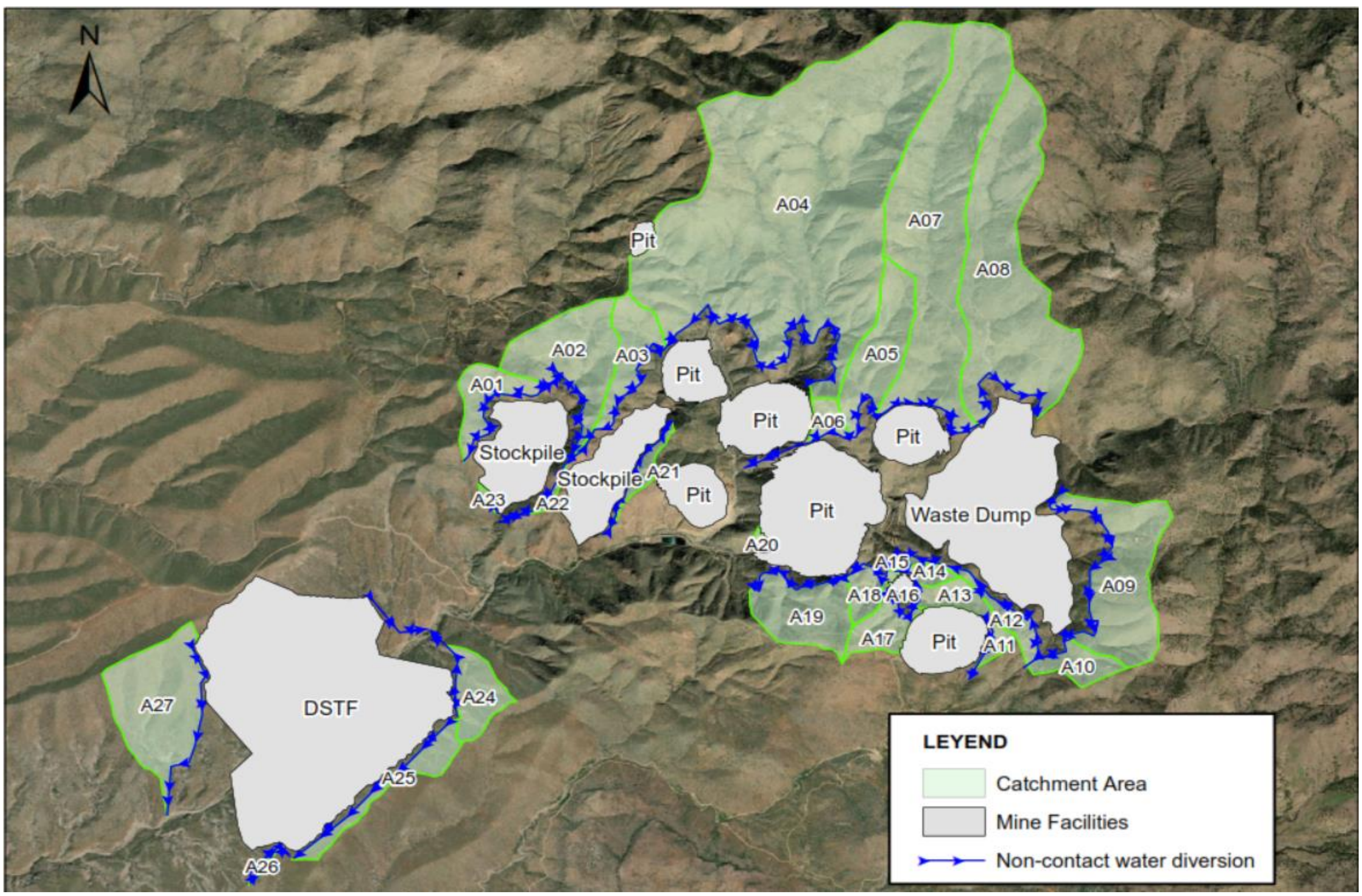
18.3.10.2 Water Management Structures

The following water management structures are anticipated to be used in Copper Creek:

- Diversion Ditches – diversion ditches are required to divert clean runoff away from the facilities and to minimize the amount of runoff to be collected and managed. The design criterion for the diversion ditches was the conveyance of 1:100-year peak flow without overflow.
- Collection Ditches – collection ditches collect runoff that is not diverted by the diversion ditches. The design criterion for collection ditches was the conveyance of 1:100-year peak flow without overflow.
- Collection Ponds – collection ponds are accumulation points for stormwater runoff from the collection ditches. The collection ponds' design criteria were to store 1:100-year 24hr flood with a minimum freeboard of 0.5m. The ponds will provide a point for stormwater reuse for processing purposes or discharge outfalls for sampling and management.

Figure 18-8 shows the non-contact diversion ditches around major mine facilities.

Figure 18-8: Diversion Structures Layout



Source: Ausenco, 2023

18.3.10.2.1 Rainfall-Runoff Modelling

To estimate design flows along the water management system, flood from the design event was routed along the alignments using HEC-HMS (Hydrologic Engineering Centre – Hydrologic Modelling System). Catchments of all ditch-segments were delineated, and lag times were estimated using spatial analysis. Flow rates were modelled using the Soil Conservation Service (SCS) curve number (CN) method. Curve numbers were defined based on available landcover data and global CN datasets.

18.3.10.2.2 Conceptual Design of Diversion Ditches

Ditches and ponds were sized using estimated peak flow rates and flood volumes from the Rainfall-Runoff model. Collection and diversion ditches were designed trapezoidal or triangular of 2:1 (H:V) side slopes.

18.3.10.2.3 Site-wide Water Balance

A site-wide water balance has not been completed for the Copper Creek Project. A comprehensive hydrogeology model needs to be developed to estimate the open pit and underground dewatering rates. Besides dewatering rates, the water balance will consider the following items:

- Surface runoff from precipitation on WSF, HLF, DSTF, stockpiles, process plant area and pits,
- Evaporation from ponds and pits; and
- Process water requirements.

18.4 Open Pit Mining Infrastructure

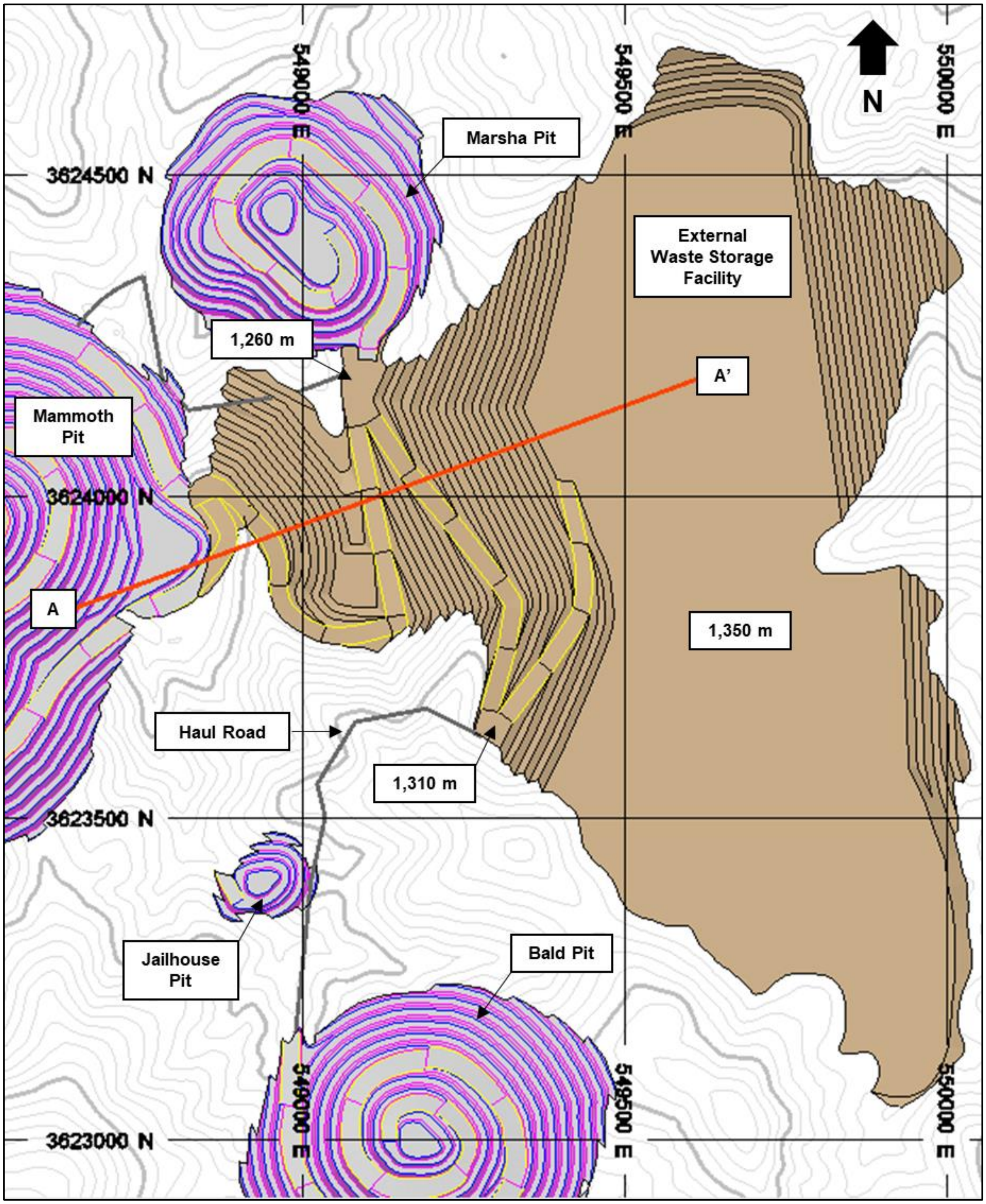
18.4.1 Waste Storage Facilities

Waste will be stored in both external and internal (backfill) WSFs.

18.4.1.1 External Waste Storage Facility

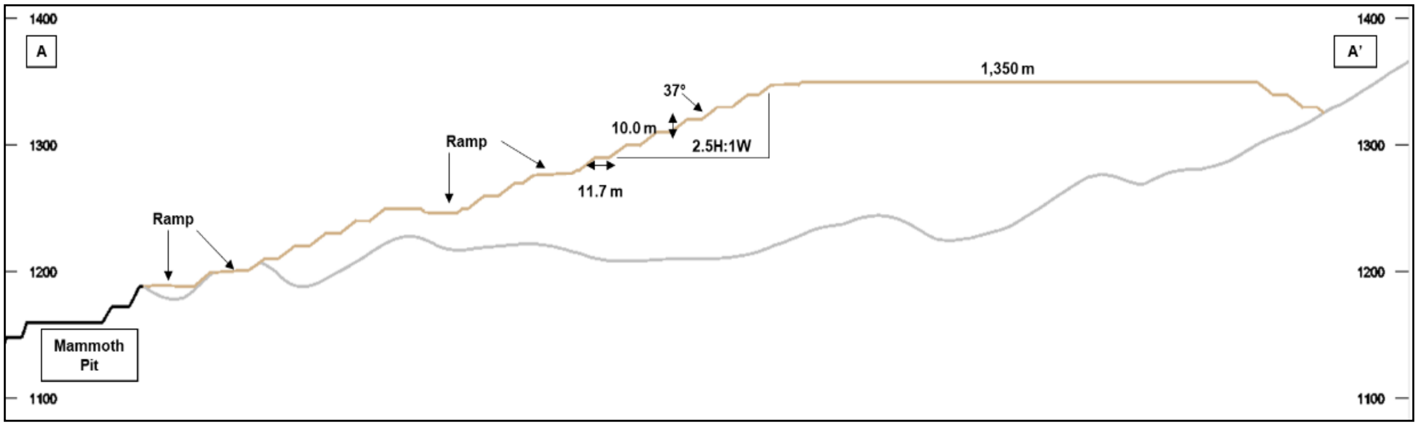
The majority of waste will be stored in the external WSF located east of the Mammoth pit (Figure 18-9).

Figure 18-9: External Waste Storage Facility



Source: SRK, 2023.

Figure 18-10: Cross-section view of External WSF



Source: SRK, 2023

The external WSF is constructed mostly bottom-up in 10 m lifts, dumped at angle of repose (37°), with 11.7 m benches resulting in a minimum 2.5H:1W facility slope. A ramp facilitates a pit exit from Mammoth pit and is built up from there via a 10% grade ramp.

All early mine waste from Mammoth, Copper Prince and Globe will be sent to the external WSF until backfill capacity is available. Later, pits in close proximity to the external WSF utilize the short haulage opportunity. These pits also utilize the external WSF ramps for mineralized material haulage to the ROM pad, via the Mammoth in-pit ramps. Once backfill capacity is filled, late in the open-pit LOM, waste from Mammoth is once again sent to the external WSF.

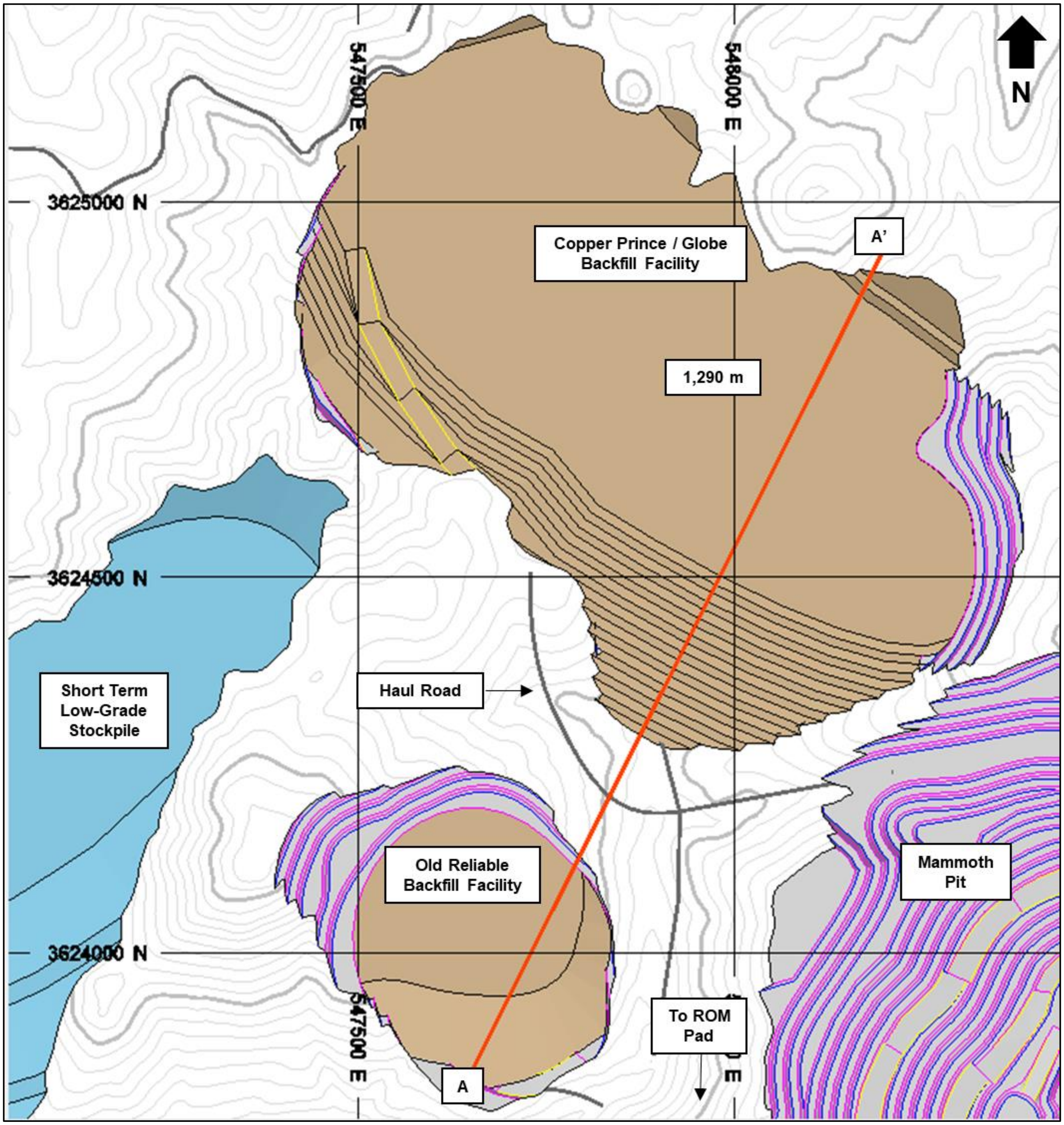
18.4.1.2 Backfill Waste Storage Facilities

Copper Prince, Globe and Old Reliable pits were identified as good candidates for waste backfill facilities (Figure 18-11) due to the timing they are mined in the schedule along with their proximity to other waste mining.

Waste material will be end-dumped at the pit crests until the pits are filled. From there, the backfills merge into a single larger facility, built bottom-up in 10 m lifts, dumped at angle of repose (37°) with 11.7 m benches resulting in a minimum 2.5H:1W facility slope. Waste material will fill in the gap between the pits and in some areas exceed the pit footprint slightly. A 10% ramp-up the southwestern face facilitates both WSF construction as well as access to the Rum pit, located to the northwest.

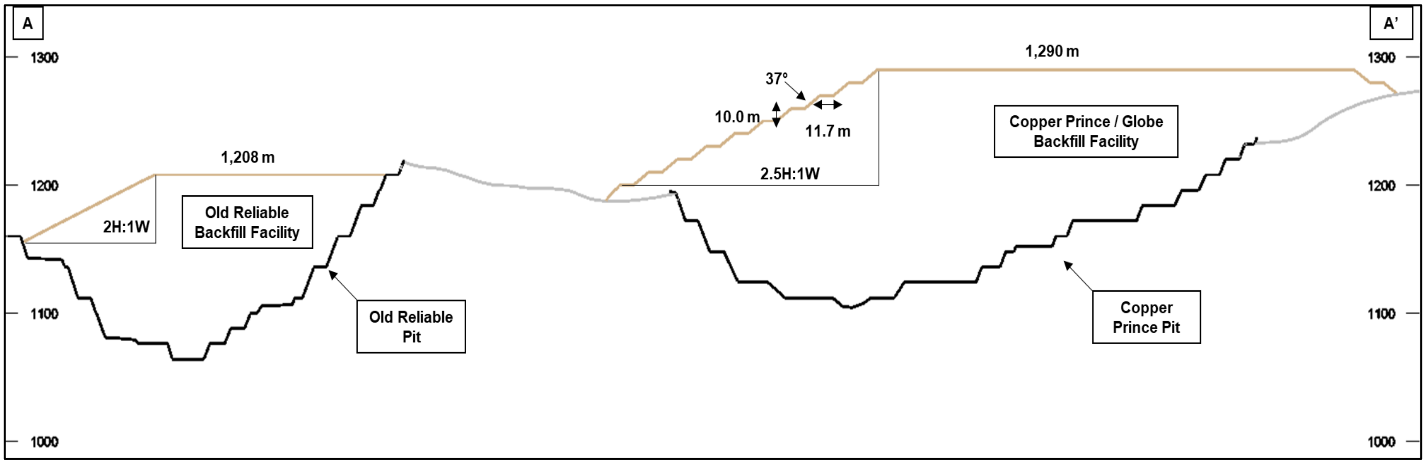
The Old Reliable backfill WSF facilitates waste from Mammoth and will be end-dumped from 1,208 m at the northeastern pit crest. Material will be dumped at angle of repose, designed to stay within the footprint of the pit. Potential for progressive reclamation is possible once the facility is at capacity by re-sloping the face to 2H:1W, as shown in Figure 18-12.

Figure 18-11: Copper Prince / Globe Backfill Facility



Source: SRK, 2023.

Figure 18-12: Cross-section View of Copper Prince / Globe and Old Reliable Backfill Facilities



Source: SRK, 2023.

18.4.1.3 Waste Facility Capacities

Table 18-4 summarizes the waste destinations by pit and waste facility capacities. For this exercise, an average waste SG of 2.52 and swell factor of 30% was assumed.

Table 18-4: Waste Destinations

Pit	Waste Destination (t)		
	External WSF	CP/Globe Backfill	Old Reliable Backfill
Copper Prince	14,988,441	-	-
Globe	3,998,161	2,465,198	-
Old Reliable	-	14,226,504	-
Mammoth	64,966,077	63,631,972	13,860,000
Marsha	4,096,894	-	-
Bald / Jailhouse	54,236,693	-	-
Rum	-	1,346,895	-
Total	**142,286,266**	**81,670,569**	**13,860,000**

Note: Waste tonnages assumed a 30% swell, tonnages will not align with in-situ tonnages described elsewhere

The external WSF holds 60% of the total waste generated, with the rest going to backfill facilities.

Waste facilities were designed with closure in mind. All waste facilities will be re-sloped to 2H:1W surfaces to facilitate reclamation, although there are progressive reclamation opportunities to re-slope and reclaim before the facilities are at full capacity.

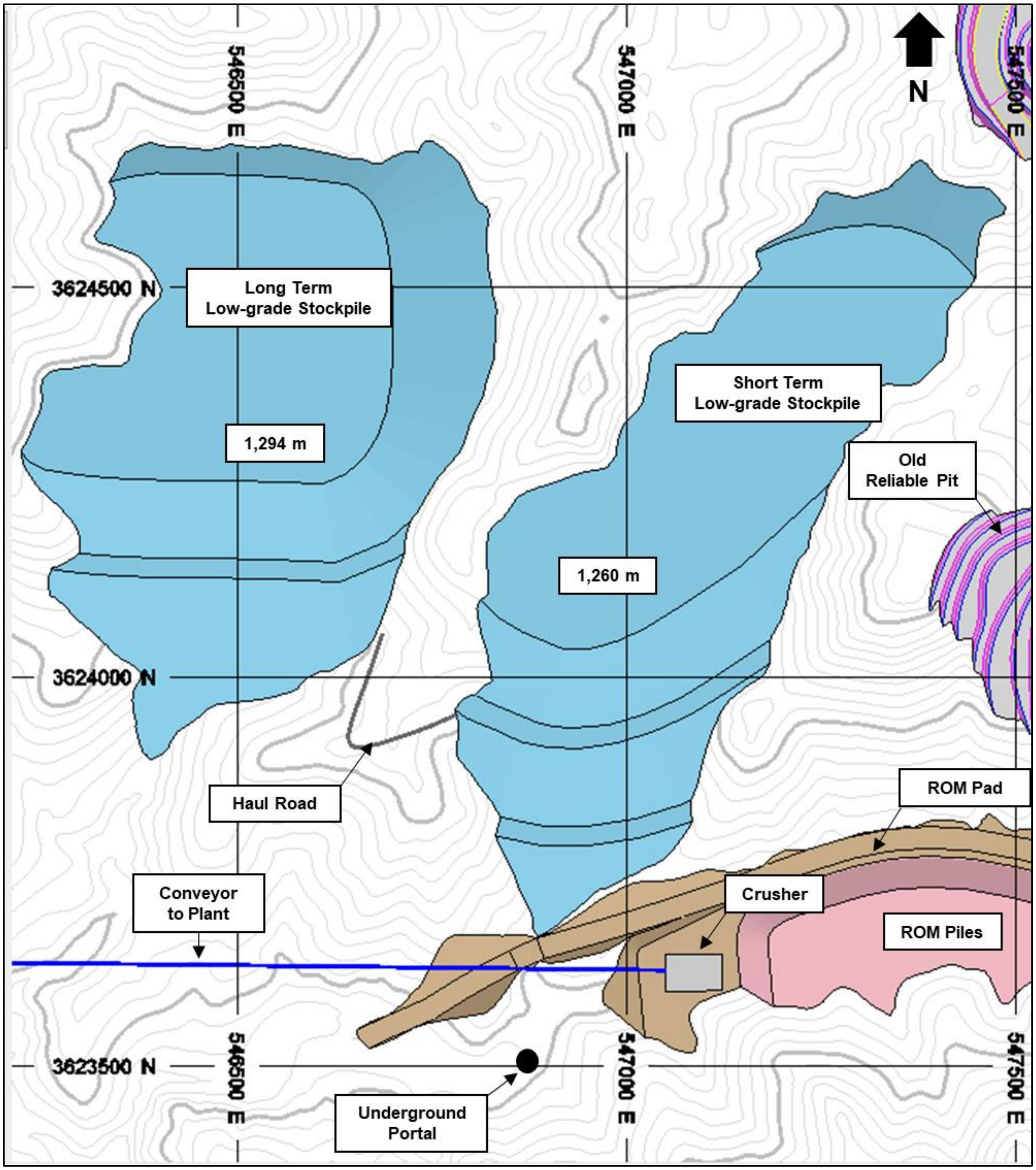
18.4.2 Low-Grade Stockpiles

Copper Creek will have two LGSPs which result from the grade-forwarding exercise completed during scheduling. Only sulphide or transitional material in the LG grade bin will report to the LGSPs (i.e., no oxide material). LG material will be reclaimed and fed to the mill when throughput is available in two general periods – when the open-pit production is ramping down, or during and after underground production ramps down.

The western LGSP facility (Long-Term LGSP) will be established first (36 Mt mineralized material), as access will be through the footprint of the eastern facility, via a haul road coming from south of the Globe pit. The eastern facility (Short-Term LGSP) will fit 20 Mt of mineralized material once the western facility is complete. The eastern facility will be recovered prior to the western facility – see Figure 18-13 below.

As the LGSPs will not exist beyond the LOM, no re-sloping in closure will be required, although typical reclaiming activities on disturbed areas and haul roads will be necessary.

Figure 18-13: Long-term and Short-term Low-grade Stockpiles, Plan View



Source: SRK, 2023.

18.4.3 Access

Access to the open-pit area is via a haul road from the west, near the mill, which continues to the ROM pad located south of the Old Reliable pit. A network of permanent and temporary roads connects the pits and mining infrastructure.

Some access is facilitated through other means – the Mammoth pit provides throughfare east-west access to both the ROM pad and external WSF via its dual ramps. The external WSF provides ramping for Marsha, Bald and Jailhouse pits via Mammoth pit to the ROM pad. The CP / Globe backfill provides access to Rum pit and the explosives facilities to the northwest.

18.4.4 Explosive Bulk Storage and Packaging Plant

A modular building will house the explosive magazine that will be shared between both the open pit and underground operations. The magazine stores boosters, detonators, and packaged explosives. The magazine sits on a 30 m x 30 m pad and is sized for the operational requirements proposed in the PEA mine plan. Magazine storage is kept separate from all other infrastructure. The bulk emulsion, which is stored in another modular building, is located closer to the mine operations but outside the 500 m blast zone buffer (see Figure 18-1).

Explosives would be delivered to site by an explosives contractor to the bulk transfer site, accessed via a road north of the processing plant. The contractor would then deliver bulk explosives, along with any blasting accessories, “to the hole”. A haul road that travels east from the area facilitates access to the pits, first between Globe and Copper Prince pits, later utilizing the CP/Globe backfill ramp.

18.5 Underground Mining Infrastructure

18.5.1 Primary Crushing

The primary crusher will be used to crush mineralized materials or waste as required for transport to surface.

It is assumed that three underground primary crushers will be operating during full commercial production. One crusher will be installed on the low extraction level with the tip points on elevation 195 m and two crushers on the opposite sides of the upper extraction level with the tip points on elevation 340 m. Each crusher will be a 1100 x 1800 gyratory crusher driven by a 450 kW motor and has an operating capacity of 1,200 t/hour. Each crusher will have three tip points allowing tipping by 21 t LHDs tramming mineralized material directly from drawpoints.

The crushers will be operated 348 days per year assuming one maintenance day per month plus five days additional annual maintenance downtime.

The primary crusher discharges onto the primary crusher discharge conveyor. The primary crusher discharge conveyor discharges onto the decline conveyor for transport to the processing plant or to a waste stockpile. The transfer point of the primary crusher discharge conveyor has a magnet to remove tramp metal.

A stationary rock breaker will be installed adjacent to the crusher to break oversize material.

18.5.2 Underground Conveying

The underground conveyor system requires a series of conveyors to transport the material from three underground primary crushing stations. No detailed design of the conveyor system was performed during this study. The preliminary estimates of the conveyor power requirements were performed based on required capacity of 2,000 t/hour for main decline conveyors, designed length and vertical lift for each conveyor.

Design assumptions were made based on benchmarking from similar projects. More detailed conveyor system design is recommended in future studies to verify the selection of conveyors.

The summary of the proposed underground conveying system is presented in Table 18-6 Table 18-5.

Table 18-5: Underground Conveying System

Conveyor	Length (m)	Gradient (%)	Power (kW)
Decline conveyor #1	3,600	16%	3,200
Decline conveyor #2	90	18%	100
Decline conveyor #3	1,350	15%	1,600
Conveyor #1 to Lower Crusher	820	15%	800
Conveyor #2 to Low Crusher	300	8%	200
Conveyor #1 to Upper Crusher #1	440	2%	150
Conveyor #1 to Upper Crusher #2	370	2%	150
Conveyor #2 to Upper Crusher #2	460	2%	150
Crusher Discharge Conveyor (each of 3 total)	50	6%	75

Conveyor numbering in the above table starts from the portal down to each of the underground crusher.

It is proposed that the conveyor structures would be of modular construction and suspended from the back of the decline.

The underground conveyors require lighting along the full length and are generally mounted directly above the conveyor upon the structural suspension system.

18.5.3 Underground Electrical Reticulation

The major electrical power consumption in the underground mine will be from the following:

- Main and auxiliary ventilation fans (6,500 kW total);
- Primary crushers (1,350 kW total);
- Conveyors (6,425 kW total);
- Mine dewatering pumps;
- Air compressors;
- Drilling equipment; and
- Maintenance shop.

Power at 13.8 kV would be fed to the underground workings from isolating switchgear located at the portal site. High voltage cable will enter the mine via the conveyor decline to the main underground substation which will reduce power to 4.16 kV to be distributed to the portable substations located on each extraction level. The power cables would be suspended from the back of development headings. Additional transformers and switchgear would be installed as required at suitable locations accessible from the declines.

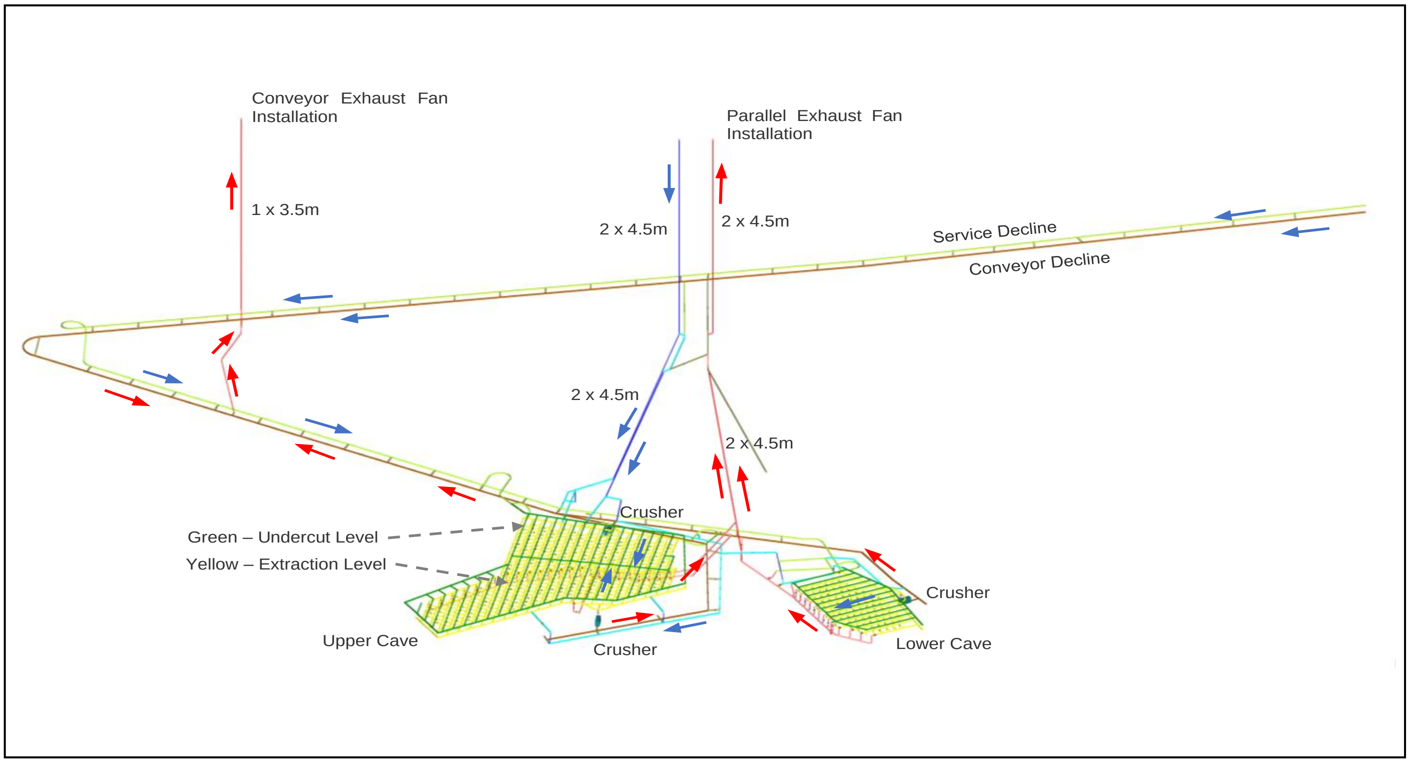
All power will be three-phase. Lighting and convenience receptacles will be single phase 127 kV power. All equipment and cables will be fully protected to prevent electrical hazards to personnel.

18.5.4 Ventilation

18.5.4.1 Ventilation Layout

The ventilation layout for the mine is shown in Figure 18-14 and incorporates the conveyor and service declines, parallel 4.5 m exhaust raises to surface, single 3.5 m conveyor exhaust raise, and twin 4.5 m fresh air raises. There will be three exhaust fan installations on surface. There has been no allowance for refrigeration for this study based upon both the proposed electric equipment load and non-elevated virgin rock temperatures. The twin access declines (service and conveyor) will be developed in parallel with joining crosscuts, a temporary exhaust fan will be installed on one of the portals to provide an elevated airflow through the tunnels for development activities.

Figure 18-14: Overall Ventilation System Layout (Isometric looking West)



Source: SRK, 2023

18.5.4.2 Airflow Requirement

Because heat has not been deemed an issue, the airflow requirement for the mine has been developed based upon a combination of diesel exhaust dilution and air velocity considerations. An overall value of 0.06 m^3/s/kW was used for diesel dilution because the exact equipment load has not been specified for this project, however, the majority of the equipment load will consist of electric equipment. This should represent an average airflow requirement for modern Tier 4 equipment. Minimum air velocities were used for the conveyors (1.5 m/s) and extraction drive (0.5 m/s) airflow requirements. Although the minimum perceptible air velocity is 0.3 m/s, a slightly higher value is used for dust dilution.

18.5.4.2.1 Initial Decline Development (Diesel Dilution)

The initial decline development and general area development is based on; 2 haul trucks, 2 LHDs, 2 service vehicles, and 2 miscellaneous vehicles.

18.5.4.2.2 Crusher Ventilation (Assumption)

Each crusher is assumed to be ventilated with approximately 25 m^3/s to provide heat and dust dilution.

18.5.4.2.3 Fixed Facilities (Assumption)

The fixed facilities include pump stations, fuel bays, shops and offices. An allowance of 45 m^3/s was allocated to these areas.

18.5.4.2.4 Upper Conveyor Ventilation (Air Velocity)

The upper conveyor will be ventilated by drawing airflow from the portal down to the mid-conveyor exhaust raise. An air velocity of 1.5 m/s was identified for this section because of the antitropal flow of the downcasting the conveyor decline. The lower section of the conveyor will be ventilated by airflow drawn from the crushers and from general leakage.

18.5.4.2.5 Lower Cave Undercut Level (Diesel Dilution)

The lower cave undercut will be ventilated to support the development activities. As the undercut is developed the airflow requirement will be phased out. The airflow is based on; 1 LHD, 1 service vehicle, and 1 miscellaneous vehicle.

18.5.4.2.6 Upper Cave Undercut Level (Diesel Dilution)

The upper cave undercut will be ventilated to support the development activities. As the undercut is developed the airflow requirement will be phased out, however, the airflow requirement will be required for a much longer period of time than the lower cave. The airflow is based on; 1 LHD, 1 service vehicle, and 2 miscellaneous vehicles.

18.5.4.2.7 Lower Extraction Level Development (Diesel Dilution)

The lower cave extraction level will be ventilated to support both the development and production activities. The initial development will be accomplished with diesel equipment. As the extraction level is developed the airflow requirement for development will be phased out. The airflow is based on; 1 LHD, 1 service vehicle, and 1 miscellaneous vehicle. There will be other activities required for the development each extraction drive, however, once each drive is developed it will be transitioned to a flow through arrangement and assigned to be ventilated based upon air velocity.

18.5.4.2.8 Upper Extraction Level Development (Diesel Dilution)

The upper cave extraction level will be ventilated to support both the development and production activities. The initial development will be accomplished with diesel equipment. As the extraction level is developed the airflow requirement for development will be phased out. The airflow is based on; 2 LHDs, 1 service vehicle, and 2 miscellaneous vehicles. There will be other activities required for the development each extraction drive, however, once each drive is developed it will be transitioned to a flow through arrangement and assigned to be ventilated based upon air velocity.

18.5.4.2.9 Lower Extraction Level Production (Air Velocity)

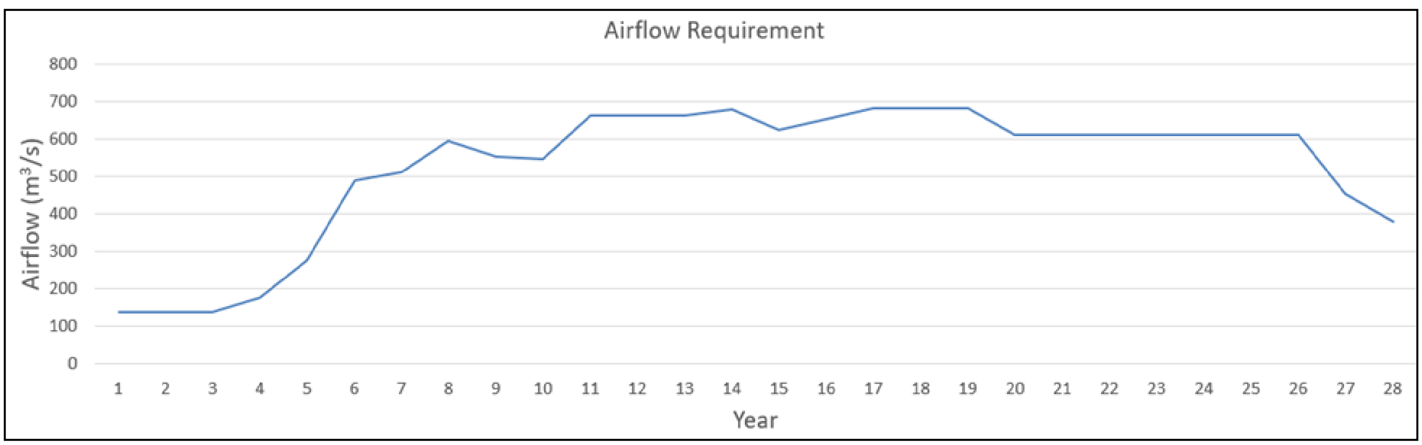
The lower cave extraction level will be ventilated based on air velocity. A minimum air velocity will be maintained in all open extraction drifts which will provide a flow through ventilation circuit.

18.5.4.2.10 Upper Extraction Level Production (Air Velocity)

The upper cave extraction level will be ventilated based on air velocity. A minimum air velocity will be maintained in all open extraction drifts which will provide a flow through ventilation circuit. Because of the length of the majority of the extraction drifts on the level the drifts are split in half with fresh air provided from the fringe to the centre of the drift to a common exhaust plenum. By ventilating the two segments of the extraction drift separately two LHDs can work simultaneously in a single drift without being required to operate downstream of each other. Even though electric LHDs are considered for this project, operating in the dust cloud developed by the active draw points would provide both a visibility and a health hazard.

The general airflow 301rojectement for the ventilation system based on the summation of each mining and development zone is identified in Figure 18-15.

Figure 18-15: Airflow requirement over the life of mine



Source: SRK, 2023

18.5.4.3 Ventilation Model

A basic ventilation model was developed to establish the operating duty of the main fan installations. The ventilation model was developed with the VentSIM™ simulation program and was based on the overall mine design. The resistance values for the branches in the ventilation model were calculated using friction factors and planned airway geometry. The friction factors and general airway dimensions are identified in Table 18-6.

Table 18-6: Airway Friction Factors

Airway Type	Friction Factor (kg/m^3)	Approximate Dimensions
Service Decline	0.012	5.5 m x 6.0 m
Conveyor Decline	0.012	5.5 m x 6.7 m
Exhaust Collection Drift	0.012	5.5 m x 6.0 m
Undercut Drifts	0.012	5.0 m x 4.6 m
Extraction Drifts	0.012	5.0 m x 4.6 m
Raisebore	0.005	Various

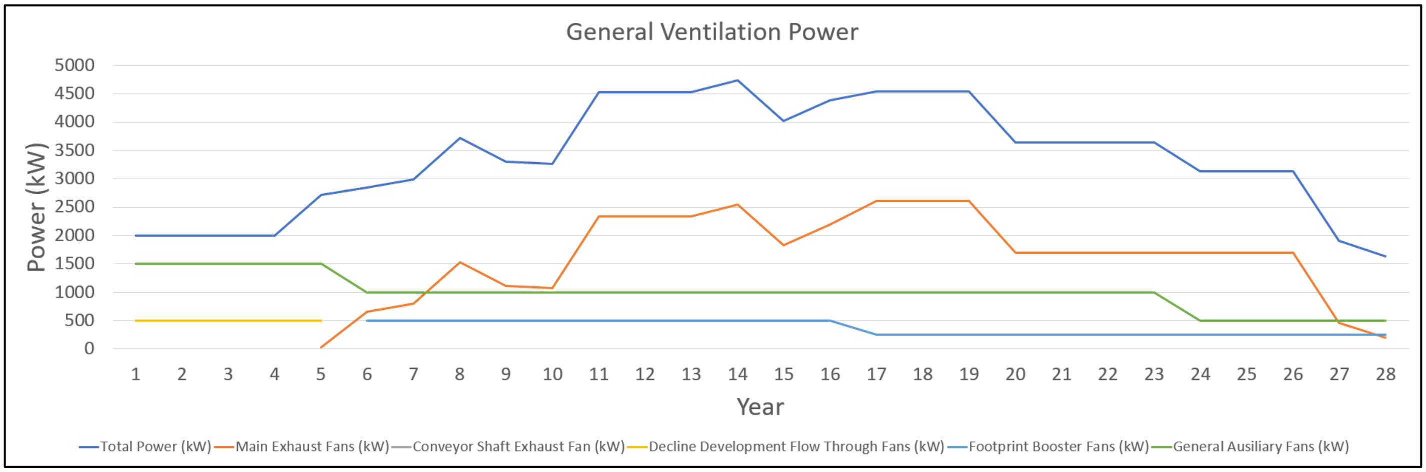
Fixed resistances are also required in several specific areas such as airlock equipment doors, personnel doors, and isolation bulkheads. The airlocked equipment doors are required between the upper undercut level access, both upper extraction level accesses, all crusher accesses, and lower exhaust access. A value of 20 Ns^2/m^8 was used for each door which represents a conservative resistance value. The isolation bulkheads are used to limit leakage between the accesses, each bulkhead was assumed to have a resistance of approximately 250 Ns^2/m^8 which is representative of a shotcrete mesh construction with negligible leakage. If a personnel door is added to the bulkhead (escapeway access and fresh air raise access), then the resistance should be lowered to 70 Ns^2/m^8.

The basic fan operating points for the principal fan systems were developed through the ventilation modelling for a single operating phase. The fan points were then modulated based upon the airflow requirements over the life of mine. General assumptions were made with respect to the development auxiliary ventilation systems, and decline ventilation systems. The overall ventilation power build up is shown in Figure 18-16 and is based upon a general fan system efficiency of 70%.

The main fan installation would include two exhaust fans operating in parallel to provide a minimum level of redundancy. Each fan would have a collar performance requirement of 300 m^3/s at 3.15 kPa. The conveyor exhaust fan installation would include two fans operating in parallel each performing at approximately 90 m^3/s at 3.10 kPa collar pressure.

The auxiliary ventilation systems have been assumed to incorporate 1.4m diameter duct and properly paired fans. In general a basic diesel equipment has been assumed for development activities.

Figure 18-16: General Ventilation System Power



Source: SRK, 2023

18.5.5 Communications

It is proposed that a fibre optic cable will provide video and data communication between key underground facilities and a control room on surface. Motor control centres in the pump stations would be monitored and controlled remotely. Video monitors would be installed at appropriate locations. Wireless radio communication would be provided to all underground equipment and to key personnel. Telephones will be located at key infrastructure locations such as the underground crusher stations, underground maintenance shops, electrical substations, refuge areas, lunchrooms, and pumping stations. Key personnel (such as shift bosses, crew leaders, and mobile mechanics) and mobile equipment operators (such as loader, truck, and utility vehicle operators) will be supplied with underground radios.

The main functions provided by the fibre optic network include:

- Data communications – process control, automation, and computer network; and
- Voice communications – fixed and mobile phones.

Functions are deployable in both hardwire and wireless formats.

The extraction level production LHD mucking operation will be controlled using a system such as Sandvik's AutoMine Lite system.

The Sandvik Optimine Monitoring & Location Tracking Package will be used for scheduling, task management, data collection and reporting, and location trucking.

The geotechnical monitoring systems will be installed to allow monitoring of cave propagation, surface subsidence, pillar and drive deformation. A production management system will be used for monitoring of the tonnage mucked from each drawpoint to control caving draw.

18.5.6 Compressed Air

Compressed air will be required for the underground mobile drilling equipment such as jumbos, rockbolters, cablebolters and production drills, shotcreting equipment, face dewatering pumps, maintenance shop, and miscellaneous use.

Compressed air will be distributed via steel piping suspended with other mine services in the upper corners of development headings. A 6” diameter pipe will be required in the main decline, with 4” to 2” diameter pipes in secondary headings. Flexible hoses will be used to connect the compressed air pipelines to the equipment. The underground maintenance shop will have a dedicated permanently installed compressor.

All mobile drilling equipment will be equipped with onboard compressors. The mobile booster compressors will be used to meet the pressure and flow requirements for ITH drilling equipment. Two portable compressors will be available to satisfy compressed air consumption for miscellaneous underground operations.

18.5.7 Maintenance and Workshop Facilities

For the underground project start up, the development contractor will set up a temporary shop near the portal to service the contractor’s equipment during the initial development of the decline and production levels.

The main underground workshop will be located at 200 mRL. The maintenance shop facilities will include four service bays, welding bay, wash bay, tire repair bay, office, and warehouse. Each bay will be 6 mW x 6 mH. A 50 m long and 2.5 m wide slash of the maintenance shop access will provide a parking area for mobile equipment. One double bay will be equipped with a 20 t overhead crane spanning the width and running the length of the bay. The welding bay will have a 5 t monorail crane.

The304rojecte area will be equipped with a stationary compressor and airlines to power air tools and provide compressed air as needed. Roll-up doors will separate the maintenance bays from the rest of the mine.

The workshop flow through ventilation will be provided from the access decline with exhaust to the return air raise and dedicated return airways to surface. Fire doors at both accesses to the workshop will be used to control ventilation during normal and emergency situations. The workshop will also be equipped with a fire suppression system.

A satellite shop will be developed at 340 mRL.

The equipment operators will provide equipment inspection at the beginning of the shift and perform small maintenance and repairs as required. A mechanics truck will be used to perform emergency repairs underground. The major rebuilds will be conducted on surface and off site.

18.5.8 Fuel Storage and Distribution

A fuel station for underground mobile equipment is planned to be located near the decline portal. Haul trucks, personnel carriers and majority of utility vehicles will be refuelled on surface. Only equipment not travelling to surface as part of their daily routine will be fuelled underground.

In order to provide refuelling facilities for diesel scoops and drilling equipment, underground fuel bays will be provided. The bay will be located adjacent to the dedicated return airway on the production levels of each caving footprint. The bays will be constructed with a concrete floor and fitted with fire suppression equipment. Fuel and oils will also be stored and dispensed from transportable self-contained refuelling and oil supply units. These units provide for full containment of fuel and oil in the event of leakage of the transportable module. Diesel fuel to the permanent storage tanks will be delivered by a fuel truck.

18.5.9 Explosives Storage and Handling

The permanent underground explosives and detonator magazines will be prepared on the 200 mRL and 340 mR. Flow though ventilation will be provided with fresh air coming from main access decline and exhaust air going directly to the exhaust ventilation raise. Each explosives magazine will be equipped with fire suppression, concrete floors, and secure steel locked gates.

Explosives will be transported from the surface to the underground magazines in the mine supply trucks. Explosive handling, loading and initiation will be carried out by trained and authorised personnel using the owner's procedures and industry best practices.

During twin decline and per-production development, blasting in the development headings will be undertaken at any time during the shift when the face is loaded and ready for blast. All personnel underground will be required to be in a designated Safe Work Area during blasting. During caving footprint development period and production blasting, a central blast system will be used to initiate blasts for all loaded development headings and production longhole rings at the end of the shift.

18.5.10 Transportation of Personnel and Materials

Supplies and personnel will access the underground via the main access decline.

A fleet of 22-person and 8-person personnel carriers will be used to transport men from the mine dry located on surface to the underground workings and back during shift changes. Supervisors, engineers, geologists, and surveyors will use diesel-powered trucks as transportation underground. Mechanics and electricians will use the mechanics' truck and maintenance service vehicles.

Materials will be transported underground using boom trucks, flat-deck trucks. Transmixers will be used for shotcrete and concrete transportation. Two cassette system prime movers with various cassettes will be used for different transportation purposes.

Explosives will be transported underground using approved vehicles, with explosives and accessories transported separately.

18.5.11 Underground Water Management

18.5.11.1 Service Water Supply

Service water for the underground operations will be used mainly for drilling, dust control, workshops, washing and for fire fighting purposes. The major water consumption will be by drilling equipment such as jumbos, longhole production drills, rockbolters, cablebolters, and exploration drills.

Industrial-quality water will be supplied from a service water tank located near the decline portal by gravity-flow through the conveyor decline pipeline and distributed in 100 mm and 50 mm diameter pipelines throughout the underground workings. Flexible hoses will be used to connect water pipelines to drilling equipment at the working faces. Pressure reduction valves will be installed as required.

18.5.11.2 Potable Water

Potable water will not be supplied to the underground mine by a separate piping system. Instead, bottled potable water will be delivered to each refuge station and lunchroom. Mine operators will also carry their own supply of potable water.

18.5.11.3 Mine Dewatering

The main sources of water inflow during underground mine development will be groundwater, water from drilling operations and service water. Additional source of water inflow from rainfall will be introduced during mine production when caving will propagate to surface. There is currently no information available on the required water quantities to be pumped from underground. A hydrogeological study is required to estimate underground water inflow rates.

It is assumed that the modular pumping stations with all components mounted on transportable steel skids will be used during twin decline development. The pumping stations will include the water tank, slurry pumps and motors, and electrical power and control units. Each station includes one line of active pumps and a second line of back-up pumps. This allows for pumping to continue during extended maintenance. Submersible pumps will be used at the decline faces to pump the water to the closest pump station and from there to the surface pond.

Development of two main sumps with permanent pumping stations is assumed below each caving footprint on the 155 mRL and 300 mRL levels. The main sumps will typically be a two-bay design to allow suspended solids to settle out of the water before pumping. Another small permanent sump will be located at the bottom of the first leg of the conveyor decline at 530 mRL elevation to collect water from the decline.

18.5.12 Mine Safety

18.5.12.1 Fire Prevention

A water tank located in the vicinity of the conveyor decline portal will serve as water source for fire fighting. From there the water will be supplied by gravity fed into the conveyor decline pipeline and distributed in 100 mm and 50 mm diameter pipelines throughout the underground workings.

Fire extinguishers will be provided and maintained in accordance with legislative requirements and best practices at the underground crusher station, transformer substation, conveyor drive stations, electrical installations, pump stations, workshop, fuelling stations, explosive and detonator magazines, refuge chambers, and wherever a fire hazard exists. A suitable amount of sand and shovels will be provided beside the fire extinguishers. Every vehicle will carry at least one fire extinguisher of adequate size and proper type.

Underground mobile vehicles, permanent fuelling stations, workshop, explosive and detonator magazines, and conveyor drive stations will be equipped with automatic fire suppression systems.

A mine-wide automatic stench gas warning system will be installed at the main intake mine entries to alert underground workers in the event of an emergency.

18.5.12.2 Mines Rescue

A mine rescue Emergency Response Plan will be developed, kept up to date, and followed in an emergency. Mines rescue teams and a training facility will be established at the mine site. The mine rescue teams will be trained for surface and underground emergencies. The team rosters will account for the work cycle to ensure that two full teams are available on site at any time.

A mine rescue room will be provided in the administration building. Mines rescue equipment including a fire tender, ambulance, and all supporting testing and maintenance equipment for mine rescue purposes will be available and specific underground mine rescue equipment would include self-contained breathing apparatuses (e.g. Drager BG4).

18.5.12.3 Refuge Stations and Escapeway

The mobile refuge chambers will be used during underground development and will be moved as the working areas advance. Two permanent refuge chambers of 6.0 mW x 4.0 mH x 13 mL will be located near the production levels at 200 mRL and at 340 mRL. The main refuge chambers will also serve as the lunch rooms.

The refuge stations will be equipped with compressed air, potable water, and first aid equipment; they will also be supplied with a fixed telephone line, compressed air, and emergency lighting. The stations will be capable of being sealed to prevent the entry of gases.

The main access and conveyor declines will provide primary access and auxiliary exits.

19 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

Unlike refined copper, there is no terminal market, such as the LME, for copper concentrates. This is because copper concentrates vary widely in chemical composition and require further smelting and refining to produce the high purity cathodes required by end users.

Market prices of contained copper and any precious metals present are used to calculate the gross value of a shipment of copper concentrate. However, the net value is derived by deducting treatment and refining charges (TCRCs). Industry convention is that the treatment charge (TC) element is expressed in US dollars per dry metric tonne of concentrate and the copper refining charge (RC) is expressed as cents per pound of payable copper.

Like any other commodity market, TCRCs for copper concentrate are cyclical. At times when copper concentrates are scarce terms then will tend to be lower than when the market is well supplied. A copper concentrate sales contract will typically include a treatment charge (TC) and refining charges (RCs) for copper. Any payable silver will also attract a separate refining charge. Other clauses may include payables for copper and silver, penalties for impurities (e.g., arsenic, bismuth, fluorine, etc.), quotational periods, payment terms and delivery (e.g. CIF major Chinese port). At this time, Faraday does not have contracts in place for the sale of copper concentrates.

The TCRCs reference below are ‘benchmarked’ based on the reported annual settlement between major mining Companies and Chinese and Japanese smelters.

19.1.1 Trucking Logistics and Container Loading

Transportation from the mine site will be by truck. The Arizona Department of Transportation limits the total Gross Vehicle Weight (GVW) to 80,000 lbs. This limit applies to all loads that are divisible, or that can be divided into smaller parcels as is the case with concentrate transportation. The proposed logistics concept is to use Containerized Bulk Handling to move the concentrates from the mine. In Containerized Bulk Handling, material is loaded into sealed containers at the source and remains in the containers until dumped directly at the destination or into a vessel hold using proprietary equipment (RAM Revolvers). The containers are returned to the mine site and refilled. This process minimizes dust and other product loss.

Assuming standard truck, trailer and container weight the total load that can be loaded into a container load is limited to 21 t. This would require approximately 37 trips per day. Containers will be loaded by front-end loaders at the mine site. A forklift is used to remove the lid before loading. Trucking of the containers would be done as a contract operation. The operating cost would include purchase of haul vehicles.

19.1.2 Rail Logistics

Containers would be loaded onto rail cars for transportation at the concentrate shed in located in San Manuel, 15 km from the site and transported to the port of Guaymas, Mexico. From here, concentrate will be transported along the Copper Basin Railway south to connect to the Union Pacific Railroad. The Union Pacific Railroad connects to FerroMex at the border town of Nogales, Mexico, a rail network that connects Nogales, Mexico to the Port of Guaymas, Mexico.

The Copper Basin Railway is operated by ASARCO but has not been operational for the past 7 years since Capstone changed to trucking to deliver concentrate to the Port of Guaymas, Mexico. An inspection of the 22 wooden trestles along the track would be required before resuming operations, as well as making any repairs resulting from the inspection.

At the Port of Guaymas, the containers will be unloaded from the rail and stored until emptied into a shipping vessel hull which will subsequently be transported by sea to clients. Concentrates will be sold into the general market to North American, European, or Asian smelters and refineries. Empty containers are then returned to the transload facility via the railroad. The QP is of the opinion that the marketing and commodity price information is suitable to be used in cashflow analyses to support this report.

19.2 Commodity Price

For this technical report, the metal prices presented below in Table 19-1 were used for financial modelling. The metal prices reflect analyst long-term consensus forecasts over three years. The QP considers the prices used in this study to be consistent with the range of inputs in alignment with long-term price consensus and similar studies.

Table 19-1: Price Projections

Metal	Commodity Unit	Unit Price (USD)
Copper	Pound (lb)	3.80
Molybdenum	Pound (lb)	13.00
Silver	Troy ounce (oz)	20.00

19.3 Contracts

There are currently no sales contracts or refining agreements in place for the Project. The metal payables used in the marketing study are given below in Table 19-2. A summary of the treatment, refining, and transportation costs is provided in Table 19-3 and Table 19-4.

There are no known deleterious elements that could significantly affect a potential future economic extraction. The QP is of the opinion that the information presented here is suitable for use in cashflow analyses to support this assessment.

19.4 Payabilities, Transport and Refining Charges

Table 19-2: Metals Payables

Metal	Unit	Concentrate
Copper Concentrate	%	96.5%
Silver (in Cu Concentrate)	%	95.0%
Molybdenum Concentrate	%	98.5%
Copper Cathode	%	98.0%

Table 19-3: Transportation and Treatment Cost

Concept	Value (USD)	Unit
Transportation Cost	46.35	per wmt
Treatment Charge	80.00	per dmt

Table 19-4: Refining Charge

Refining Charge	Value (USD)	Unit
Copper	0.08	per lb
Molybdenum	5.00	per lb
Silver	0.40	per troy oz

20 ENVIRONMENTAL STUDIES PERMITTING AND SOCIAL AND COMMUNITY IMPACT

20.1 Introduction

This Section provides an overview of the environmental and social setting for the Copper Creek Project. It outlines existing biological and physical baseline conditions, potential risks, and proposed new baseline studies to support future permitting applications. This section also describes existing permits, and future regulatory and permitting requirements. Mine waste and water management strategies are also included in this section. In addition to the above, this section also discusses socio-economic baseline conditions, the status of community consultation and engagement, and conceptual mine closure and reclamation planning for the Project. Recommendations are also provided in the event that the decision is made to progress the Project through future phases of development.

The Copper Creek Project is located in the historical Bunker Hill mining district developh has undergone mining activities dating back to the 1880s to as recently as the 1980s (detailed historical mining activities at Copper Creek are described in Section 6 of this report). The Project lies on the western flank of the Galiuro Mountains and is characterized as steeply sloped mountainous terrain transected by narrow valleys. The Project is approximately 70 km northeast of Tucson, Arizona and accessed via a public gravel road maintained by Pinal County through the town of Mammoth and via Bunker Hill mine road, which is a secondary egress private access gravel road through Faraday-owned ranch lands.

The Project will potentially be developed by surface and underground mining methods in a two-phased mine plan resulting in a proposed 32-year mine life incorporating dry stack tailings, as well as the potential utilization of renewable solar power. Planned infrastructure includes a series of open pits, underground operations, waste rock storage areas, mineralized material storage areas, process plant, roads, powerline and other ancillary supporting infrastructure as discussed and illustrated in Section 18 of this report. The Copper Creek Project is 100% controlled by Faraday on a group of private patented mining claims, unpatented mining claims on lands managed by the Bureau of Land Management (“BLM”), private land and Arizona State Land Department (“ASLD”) prospecting permits, covering an area of approximately 40.5 km of mineral tenure within the 65 km^2 Faraday-controlled land package.

Since portions of the Project are located on lands managed by the BLM, a Mine Plan of Operations (MPO) will be required for development of the Project. Permits issued for the Project will generally need to meet specific design and monitoring requirements as outlined by the respective regulatory agencies including the BLM, Arizona Department of Environmental Quality (ADEQ), Arizona Department of Water Resources (ADWR) and the U.S. Army Corps of Engineers (USACE).

Faraday works collaboratively with local communities, stakeholders and tribal communities. This includes continuing annual open house meetings in the tri-communities of San Manuel, Mammoth and Oracle, ongoing relationship building with local tribes, and participating in community investment programs.

20.2 Environmental Setting

A limited number of environmental baseline studies and reports were completed between 2007 to 2013 by Redhawk Copper in support of the 2013 PEA (Preliminary Economic Assessment 25,000 TPD Mill with an Underground Mine for Development of the Copper Creek Resource) prepared for Redhawk Copper by SGS METCON and KD Engineering. The property also had an Aquifer Protection Permit (APP) as part of the previous operator planned mine design for the development of rock disposal facility, which was issued in 2009 but was voluntarily cancelled due to the Project not advancing as planned for the permit application. The programs involved the collection of baseline data within the proposed 2013 project footprint areas which envisaged a 25,000 t/d solely underground development project. The results of previous baseline studies are relevant to the current mine plan, however, will be expanded to cover the full mining footprint and all necessary components.

Due to the historical nature of the Project and modest past production, there are legacy tailings and waste rock piles, adits, and an evaporation catchment settling pond system, which are primarily located on BLM lands (see Section 4). Faraday would consider voluntarily reclaiming and mitigating these historic impacts as part of the future MPO to ensure the property is reclaimed to modern mine reclamation standards.

Since resuming exploration drilling activities at the Project site in 2022, the Company has initiated a series of environmental baseline monitoring programs including surface and groundwater sampling and monitoring, updated biological evaluations (as described in Section 20.2.2) and a waterway assessment to clarify WOTUS (Waters of the U.S.) classification (if at all applicable).

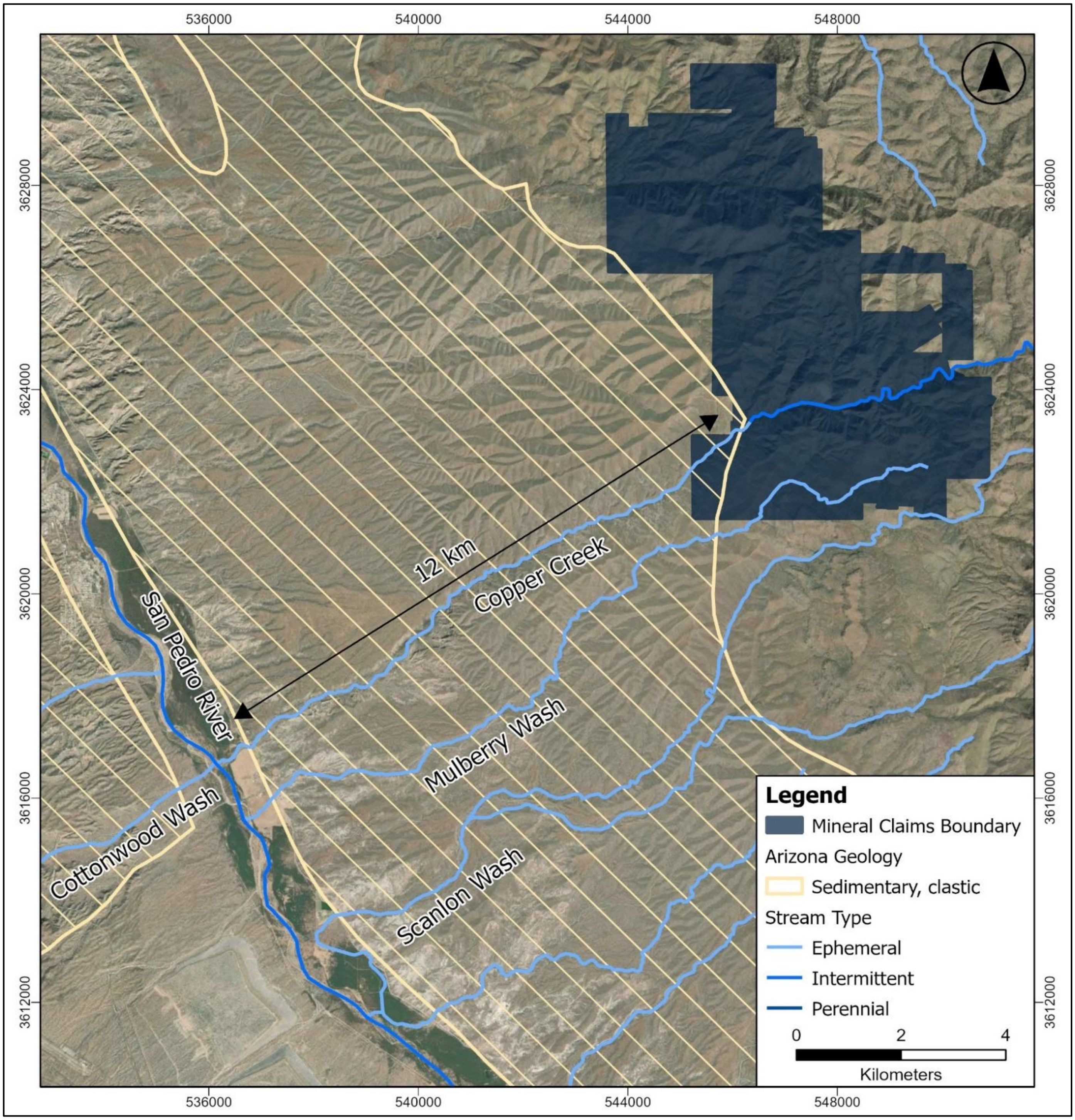
Post-PEA, the Company intends to engage third-party hydrogeological subject matter experts to conduct an audit and data review of previous hydrogeological work, as well as provide a strategic regulatory roadmap and scalable baseline monitoring program appropriate for the Company's updated mining development plans included in this PEA. This work is expected to inform future regulatory permitting processes.

20.2.1 Water Resources

The Project is located along the intermittent and ephemeral Copper Creek. Most of the proposed mine facilities would be adjacent to the upper reach which is 10.5km long and runs east to west from the headwaters to Prospect Canyon.

Copper Creek is a tributary to the San Pedro River which drains the Lower San Pedro Basin. The ADEQ has designated both Copper Creek and the portion of the San Pedro River immediately downstream of its confluence as impaired waterways, indicating that these waters do not meet established surface water quality criteria. In particular, Copper Creek is impaired with cadmium, copper, iron, selenium and zinc while the San Pedro River is locally impaired with selenium. Since the Project is located outside of an Active Management Areas (AMA) administered by the ADWR, groundwater use is not subject to certain state statutory and administrative regulations (Golder, 2008).

Figure 20-1: Project Waterways



Source: Faraday, 2023

20.2.1.1 Hydrology

The Copper Creek watershed is 54.4 km^2 and ranges in elevation from 488 m above sea level (asl) at its confluence with the San Pedro River to 1,829 m asl at the basin divide. The Lower San Pedro Basin is 4,144 km^2 with elevations along the valley floor ranging from 1,036 m asl at the basin's southern end to 585 m asl at its northern end where it joins the Gila River, approximately 32 km downstream of the Copper Creek and San Pedro River confluence. The Rincon, Santa Catalina, Black, Tortilla, Dripping Springs and Galiuro mountains form its boundaries (Golder, 2008).

Streamflow measurements, field observations and aerial photographs show that surface water along upper Copper Creek is intermittent, with flows declining during the spring and early summer. Creek flows can rapidly increase in response to summer and winter precipitation events and more gradually rise during late fall and winter when the local vegetation goes dormant. Flow in Copper Creek normally does not reach San Pedro River except following large storm events. This is due to its crossing of the northwest-east south trending Range front fault which has caused down-dropping of bedrock on the western side to be filled in with gravels. This causes Copper Creek to infiltrate to the aquifer through the gravels at the fault location (Guthrie & Moore, 1978).

Since the Company resumed exploration activities in 2022, it has initiated baseline data collection programs including the installation of six streamflow metres – three along upper Copper Creek and one along each of three side drainages of Saloon Gulch, Mulberry Wash and Scanlon Wash.

Neither Copper Creek nor the San Pedro River is classified as traditional navigable waterways (TNWs) as defined by the EPA and USACE under the Clean Water Act (CWA).

20.2.1.2 Hydrogeology

The Lower San Pedro River Basin contains two major groundwater-bearing zones – (a) streambed Holocene alluvium that forms the San Pedro River channel and its floodplain and (b) underlying basin-fill deposits composed of younger and older basin-fills and a basal conglomerate. Of the two, the basin-fill deposits comprise the region's primary aquifer due to their relatively high permeability and large groundwater storage.

As is typical for basins throughout Arizona, groundwater flows from higher elevations in the mountains towards the valley floor. In the Lower San Pedro Basin, groundwater flows toward the centre of the basin and then northwest, sub-parallel to the river, as indicated by ADWR well and water depth information. Mountain-front recharge is considered the main source of recharge for the basin-fill aquifer, and it is likely focused along stream courses that drain off the highlands.

The Project area is underlain by a bedrock aquifer system that is separated from the primary basin-fill aquifer by west-dipping, mountain-bounding faults. Most groundwater occurs locally within igneous rocks including crystalline granodiorite and volcanic andesite. Although flow through these rocks is typically low compared to other hydrogeologic units, fracturing and geologic structures can enhance their permeability and result in well yields of at least a few gallons per minute.

Groundwater is also encountered locally in alluvium and weathered bedrock that underlie site streams including Copper Creek, Mulberry Wash and Saloon Gulch. In 2007, five shallow monitoring wells were installed along these streams with drill depths ranging from 19.5 m to 51.2 m. Discharge and drawdown data collected from these wells during water quality testing indicates that each would have a long-term yield of less than 5 gpm.

Water levels in the monitoring wells were recorded by the previous operator on a bi-monthly basis from March 2007 through February 2008 and again during December 2009 and March 2010. More frequent, monthly measurements began by the Company in November 2022. Observed water level measurements suggest that groundwater fluctuations can vary significantly along site streams during the summer and winter from precipitation events. The presence of tritium (H+3) in water sampled by the Company from two of the monitoring wells completed along Copper Creek is further evidence of groundwater recharge from recent storm events.

As part of the Company's baseline data collection program and to better understand the occurrence of groundwater in the local bedrock, five deep (up to 670 m) piezometers have been installed in two drill holes considered representative of future open pit and underground mine footprints. The piezometers record both groundwater flow and temperature gradients. Additional piezometers are scheduled to be installed to depths as great as 1,100 m as drilling activities progress.

Typically, the direction of groundwater flow in bedrock aquifer systems mimics the surface topography. This observation is consistent with groundwater level data from the site which indicate flow occurs from elevated terrain downslope to the canyon floors and then regionally to the west following the general watershed direction. A pronounced drop in the groundwater level across the mountain-front fault that separates the basin-fill and bedrock aquifer systems (and the upper and lower reaches of Copper Creek) suggests that the fault is a local impediment to groundwater flow and results in a steep groundwater flow gradient.

20.2.1.3 Water Quality

Quarterly surface water sampling along Copper Creek (Figure 20-2), and Scanlon Wash was initiated in 2022, and includes analytical monitoring of antimony, arsenic, beryllium, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, thallium and zinc (total and dissolved analysis) as well as temperature, dissolved oxygen, conductivity, pH and flow metrics at field sample locations. In addition to surface water sampling, the Company is required to conduct analytical compliance sampling bi-annually as part of the Multi-Sector General Permit (MSGP) through ADEQ at four outfall locations and weekly drill pad monitoring when the Project is deemed an "active and staffed site" during drilling activities.

The ADEQ deems both Copper Creek and the portion of San Pedro River which Copper Creek connects to as impaired waterways, which means these waters do not meet the established surface water quality criteria. Copper Creek is impaired with copper, cadmium, iron, selenium and zinc while the San Pedro River is impaired with selenium.

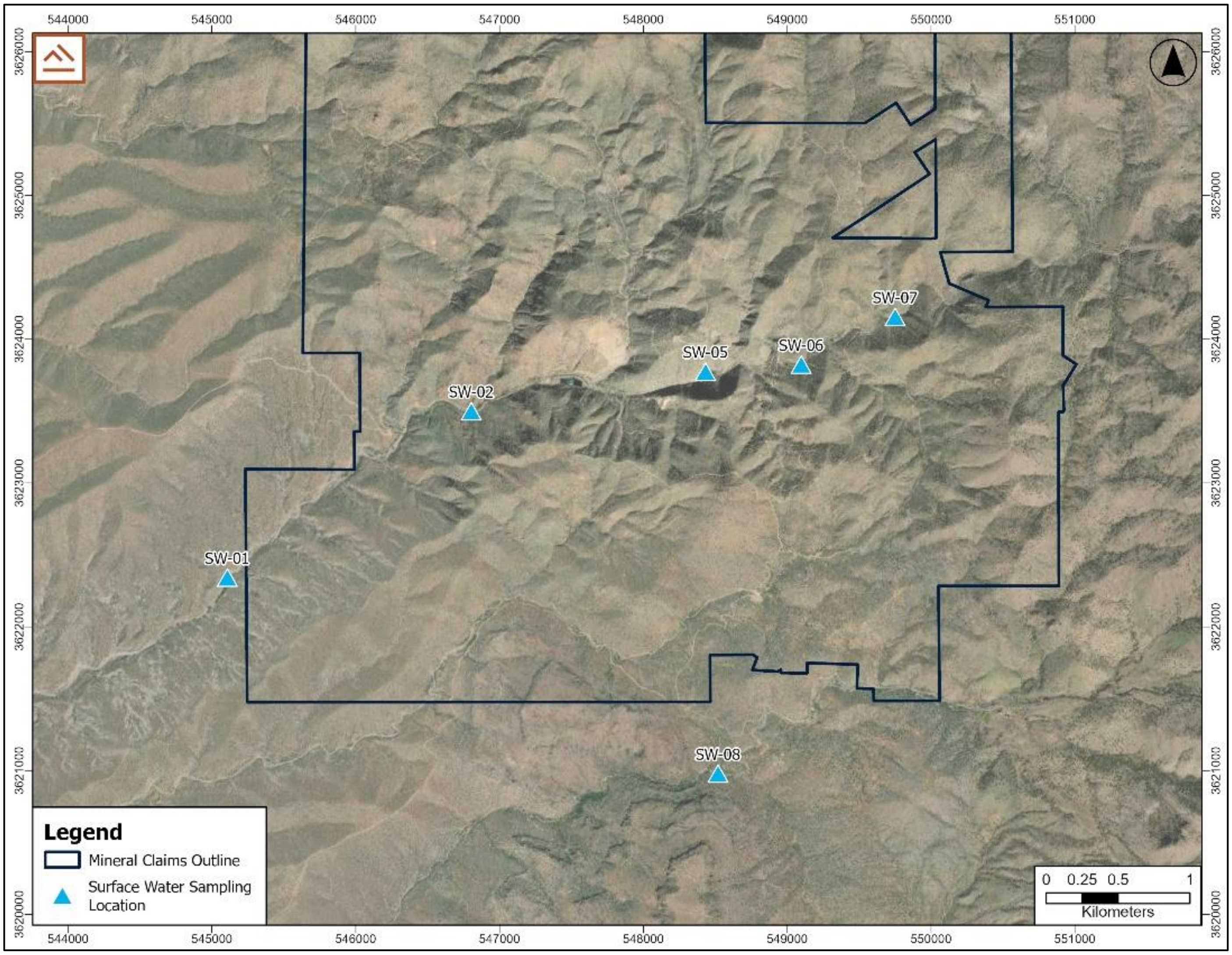
A total of six (6) surface water sampling locations were selected. Five (5) of the locations are strategically situated along Copper Creek in order to understand surface water chemistry at its upper and lower reaches around the main resource area. These are located at the Copper Creek spring (SW-01), lower Copper Creek (SW-02), central Copper Creek (SW-05), the wetlands below the dam (SW-06), and upper Copper Creek (SW-07). Furthermore, one (1) additional surface water sampling location is in Scanlon Wash (SW-08) which runs parallel to and approximately 2.5 km south of Copper Creek and also has a confluence with the San Pedro River (Figure 20-2). The Company intends to augment its existing surface water sampling program in tandem with ongoing mining studies, taking into consideration the necessity and relevance to the proposed mining footprint.

Surface water sampling in 2023 at six (6) stations indicates the following:

Average pH is 8.2 and average dissolved copper measurements, as reported by Turner Laboratories, for the recent sampling event excluding one sampling location was 8 µg/L below the 13.4 µg/L ADEQ Water Quality Standards (WQSs) set for chronic warmwater and ephemeral aquatic and wildlife designated use for dissolved copper for water with a hardness of 100 mg/L. Three of the six samples were above this standard, with one sampling location reporting a dissolved copper content of 520 µg/L.

Cadmium, iron, selenium and zinc as reported by Turner Laboratories were all below ADEQ's WQS set for both dissolved and total levels set for chronic warmwater & ephemeral aquatic and wildlife designated use for dissolved copper for water with a hardness of 100 mg/L.

Figure 20-2: Surface Water Sampling Locations



Source: Faraday, 2023

20.2.2 Biological Features

20.2.2.1 Flora

The project area is mapped within a vegetation community transitional area, including Arizona Upland subdivision of the Sonoran Desert scrub biotic community, Semidesert Grassland biotic community, Interior Chaparral biotic community, and Madrean Evergreen Woodland biotic community (The Nature Conservancy 2012). Observations on the ground support this assessment, with a range of different communities observable within the project area (WestLand 2012).

Within Arizona upland portions of the project area, foothill palo verde (*Parkinsonia microphylla*) is the dominant tree, though numerous other species are well represented, including woody perennials such as mesquite (*Prosopis velutina*), whitethorn acacia (*Vachellia constricta*), catclaw acacia (*Senegalia greggii*), and ocotillo (*Fouquieria splendens*) in the tree and shrub layers, and brittlebush (*Encenosa*), triangle-leaf bursage (*Ambroide* weed (*Isocoma tenuisecta*), and fairy duster (*Calliandra eriophylla*) in the sub-shrub layer. Cactus species present include saguaro (*Carnegiea gigantea*), barrel cactus (*Ferocactus wislizeni*), chain-fruit cholla (*Cylindropuntia fulgida*) and prickly pear (*Opuntia* spp.).

In areas identified as primarily semidesert grassland, typically at higher elevations and cooler (i.e., northerly) than Arizona upland, whitethorn acacia appears to be the dominant woody perennial and prickly pear cactus is very common in places. Red brome (*Bromus rubens*), three-awn (*Aristida* spp.), and grama (*Bouteloua* spp.) are common grasses. Interior chaparral species mix in at still higher elevations and cooler, northern slopes. Juniper (*Juniperus* sp.), shrub live oak (*Quercus turbinella*), and to a lesser extent emory oak (*Q. emoryi*) are often associated with northern aspects, while on southern aspects, common species include mesquite, ocotillo weed, snakeweed (*Gutierrezia sarothrae*), sotol (*Dasylirion wheeleri*), Palmer's agave (*Agave palmeri*), and banana yucca (*Yucca baccata*).

Portions of Copper Creek support vegetation of mesoriparian nature, suggesting shallow groundwater, and plant communities dominated by upland species with some preferential riparian plant species. A nearly continuous string of mesoriparian vegetation occurs along Copper Creek near its confluence with Saloon Gulch. The mesoriparian vegetation is dominated by mesquite, with preferential riparian plant species including netleaf hackberry (*Celtis reticulata*), Goodding willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), Arizona ash (*Fraxinus velutina*), desert broom (*Baccharis sarothroides*), seep willow (*B. salicifolia*), and dock (*Rumex* sp.), with a sparsely vegetated understory.

Ephemeral drainages in the project area generally support a discontinuous xeroriparian vegetation community, mainly upland species that were sometimes larger and at a higher density than those that occurred in adjacent upland areas.

20.2.2.2 Fauna

Within the project area, lowland leopard frog (*Rana yavapaiensis*), black-necked gartersnake (*Thamnophis curtopsis*), and common black hawk (*Buteogallus anthracinus*) were observed in association with riparian habitats. Additional common wildlife species and evidence of common wildlife species observed across the landscape within and around the project area during field reconnaissance in 2012 (WestLand 2012) included deer (*Odocoileus* sp.), mountain lion (*Felis concolor*), black bear (*Ursus americanus*), raccoon (*Procyon lotor*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), Harris' antelope ground squirrel (*Ammospermophilus harrisii*), rock squirrel (*Spermophilus variegatus*), Townsend's big-eared bat (*Corynorhinus townsendii*), myotis (*Myotis* sp.), pallid bat (*Antrozous pallidus*), California leaf-nosed bat (*Macrotus californicus*), canyon wren (*Catherpes mexicanus*), Bell's vireo (*Vireo bellii*), Gila woodpecker (*Melanerpes uropygialis*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), canyon towhee (*Pipilo fuscus*), whiptail lizard (*Cnemidophorus* sp.), collared lizard (*Crotaphytus collaris*), lesser earless lizard (*Holbrookia maculate*), spiny lizard (*Sceloporus* sp.), Sonoran mud turtle (*Kinosternon sonoriense*), and non-native mosquito fish (*Gambusia affinis*) and crayfish (*Infraorder Astacidea*).

20.2.2.3 Listed Species

Given the location of the project area and the nature of the on-site habitat, two federally-listed species may have reasonable potential to occur on the project area and may require Section 7 consultation: yellow-billed cuckoo (*Coccyzus americanus* [western Distinct Population Segment]) and monarch butterfly (*Danaus plexippus plexippus*). These species have not been observed in the proposed mining footprint to date. The southwestern willow flycatcher (*Empidonax traillii extimus*; SWFL) is not likely to occur within the project area but there may need to be Section 7 consultation considerations related to designated critical habitat that includes several kilometres on the San Pedro River, including at the Copper Creek confluence.

20.2.3 Environmental Liabilities

The Project is located in a historical mining jurisdiction dating back to the 1860s (detailed historical mining activities at Copper Creek are described in Section 6 of this report). Redhawk Copper has closed many of theundergroundmine adits; however, due to the historical nature of the Project area, there is potential for undocumented adits. The primary historical underground mines are Childs Aldwinkle , Old Reliable , Copper Prince, and Globe/Glory Hole. Underground mining at Childs Aldwinkle has resulted in two collapsed features and a minor amount of waste rock associated with these features. There is no point discharge from the waste rock to a receiving water source.

The Old Reliable Mine was initially mined via underground methods and later by surface blasting and in-situ leaching. Siskon Mining controlled Old Reliable and the surrounding district, which was optioned to Newmont Exploration Corporation in 1966. Siskon assigned its mining right at Old Reliable to Occidental Minerals Corporation (Oxymin) in 1968, who entered into an agreement with Ranchers Exploration and Mining Company (Ranchers) in 1970. Ranchers assumed Siskon's and Oxymin's obligations under the agreement with respect to Old Reliable. Magma constructed an evaporation settling pond catchment system in 1986 to minimize the discharge of pollutants into Saloon Gulch. Costs borne by Magma were largely recovered from Hecla Limited (then known as Hecla Mining Company) (Hecla) (Ranchers' successor) via a Settlement Agreement dated June 16, 1989, among Magma Copper Company, Exxon Corporation, Newmont (collectively referred to as the MEN Joint Venture), and Hecla (Siskon is also a named party in the Settlement Agreement). The Settlement Agreement further provides that Hecla is responsible to pay to the MEN Joint Venture 80% of the costs incurred for the ongoing operation and maintenance of the collection and evaporation system installed at the OR Mine, while the MEN Joint Venture is responsible for the balance of such operation and maintenance costs. There are no other known liabilities, environmental or otherwise, within the Project claim boundaries.

20.3 Mine Waste and Water Management

20.3.1 Geochemical Considerations

20.3.1.1 Properties of Development Rock

A report on the analysis of the geochemical properties of the mine development rock from the Mammoth and Childs Aldwinkle breccia areas was performed by Golder (2007). Test results indicated that the country rock in the vicinity of the initial breccia mining operation had a low potential for acid generation, and drainage from the development rock is expected to be of good quality. Similar testing has not been performed for development rock in the vicinity of the deeper porphyry mineralization of the Keel and American Eagle deposits.

Some development rock is likely to be consumed in mine construction operations while the rest will be stored in a surface facility or used as pit backfill. Geochemical characterization of development rock in accordance with Arizona Mining Guidance standards is likely to be required as a condition of permitting.

20.3.1.2 Geochemical Properties of Tailings

To date, an analysis of the geochemical properties of the future tailings has not been performed. The material is expected to contain residual pyrite and could exhibit acid generating potential. While the arsenic mineral tennantite is also known to occur at Copper Creek, its distribution in the initial breccia mining targets is estimated to be limited. While tennantite is reported to be insoluble under neutral to alkaline pH conditions, oxidation of tennantite following tailings disposal could result in the mobilization of arsenic.

Initial, pre-start-up characterization of process tailings, development rock and process water will be required in accordance with Arizona Mining Guidance Tier 1 and 2 testing standards. The need to conduct extended kinetic testing to evaluate acid generating potential is assumed. A geochemical characterization study can be expected to require 30 to 40 weeks to complete if conventional kinetic testing is undertaken. The time required to complete geochemical characterization studies could be considerably longer if the bench and pilot scale studies must be conducted to produce representative samples.

20.3.2 Mine Waste Management

The Project will create waste rock from mine development and tailings as a by-product of mineral processing. At this time, since lime will be added to the processed materials, it is assumed the tailings will be initially basic along with constant deposition of fresh tailings. Further geochemical testing of tailings is required to confirm if they are non-acid generating (NAG), potentially acid generating (PAG) or acid generating (AG). The main waste management consideration for the project is the prevention and control of potential metal leaching/acid rock drainage (ML/ARD) from the tailings, and any NAG or PAG waste rock that could potentially be produced during mine development or operations.

All tailings will be deposited into the same DSTF to reduce the risk of ARD and to facilitate the development of any design mitigation measure, if required, in the future. The DSTF includes a seepage collection system that will be used to limit ground infiltration and enable water quality monitoring. With respect to waste rock, a low risk of ARD is suggested by the geochemical testing performed to date. However, contingent measures will be included to manage a small amount of PAG waste rock. These contingent measures could be encapsulation, blending with non-PAG or other mitigation strategies. These mitigation measures are "ll "at so"rce". The WSFs will be kept as small as possible and within the same catchment area. Waste rock produced, will be used as partial backfill for exhausted pits to further limit potential seepage. Appropriate monitoring of surface water and groundwater as required by permit will be performed to ensure that seepage and runoff from the DSTF and WSF are detected. In that respect, a water quality management plan will be prepared to specify the locations, sampling frequency and parameters to be sampled.

20.3.3 Water Management

Mine water can be divided into the following categories depending on the potential for impact to the water from operations:

- Non-contact water from upstream diversions or catchments that has not been in contact with mine workings or process water, will be kept separate from water that has been in contact with mine workings or process water and discharged to the environment with no treatment.

- Contact water that has been in contact with potential sources of contamination, such as seepage from the DSTF, process water, HLF runoff, and pit dewatering will be collected for reuse in the process plant to the extent possible. Excess contract water will be managed including testing and treatment in accordance with regulatory requirements. Options have been studied to effectively manage the Copper Creek waterflow to ensure that water upstream of mining operations is channelized around the mining footprint. The conceptual plan for the purpose of this PEA, considers diverting Copper Creek at a location above the pre-existing dam on Copper Creek and releasing flow into Mulberry Wash, which also has a confluence with the San Pedro River. This will result in flow from Copper Creek remaining non-contact of mining operations during the life of mine and continuing to reach the San Pedro River.

The following water management structures will be used (see Section 18 for details):

- Diversion Ditches and Underdrains – Diversion ditches are required to divert clean runoff away from the facilities and to minimize the amount of runoff to be collected and managed.
- Collection Ditches – Collection ditches collect runoff that is not diverted by the diversion ditches. Even though stormwater could be discharged as per permit, it is recommended that it be collected to be analyzed priorto discharge. Additional studies related to the site-wide water balance and resulting water quality will allow for adjustments in the water management strategy.
- Collection Ponds – Collection ponds are accumulation points for stormwater runoff from the collection ditches. The ponds will provide a point for stormwater reuse for processing purposes or discharge outfalls for sampling and management.

A site-wide water balance has not been completed at this time. Strategies for water management include the following:

- expand the use of diversion structures to the greatest extent practicable;
- manage surface erosion;
- recycle water whenever possible;
- treat water if required; and
- monitor water quality to ensure standards are met.

Additional hydrologic, environmental and engineering studies are required and planned as the Project progresses into the pre-feasibility stage to determine the most effective water management strategies which are both environmentally sound and create the lowest impact to water resources. A capital allowance of $50 million (including EPCM and contingency) has been incorporated in this PEA to cover costs associated with the Copper Creek conceptual diversion strategy. Additional funds will be expanded for water management.

20.4 Permitting

20.4.1 Existing Permits

The Project currently holds a MSGP with an expiration date of December 31, 2024, as well as a corresponding storm water pollution prevention plan (SWPPP) with ADEQ. Mandatory inspections and analytical compliance sampling are conducted bi-annually (once per wet season) by the Company as part of the MSGP permit at four outfall locations when the Project is deemed an “active and staffed site” during drilling activities (SWPPP, 2022).

Additionally, through Pinal County, the Project maintains a Dust Permit (DUSTGEN-22-097) in good standing for land stripping and/or earthmoving for up to 40 ha in support of exploration platform building and road maintenance on private property.

On May 20, 2022, the Company submitted an EPO to the U.S. Department of the Interior (DOI), BLM, Gila District Office, Safford Field Office. This permit was accepted by the BLM and is currently under review for approval. The permit requests a total of 12 ha (29.41 acres) of disturbance on BLM land, which includes 2.26 ha (5.58 acres) for 67 drill pads and 9.6 ha (23.83 acres) for approximately 26,370 m (86,514 linear ft) of access roads. Of the 12 ha (29.41 acres) proposed for disturbance, 5.3 ha (13.13 acres) of pads and re-established access roads are proposed for reclamation.

In May 2023 a Geologic Field Operations Plan for Activities was submitted to the ASLD Minerals Section. The plan includes a total of 12 drill pads and one access road for a total of 2.54 acres of disturbance on Arizona state land (Township 08 South, Range 18 East, Sections 03, 09, 12, 13, 15). All except two of the proposed drill pads are adjacent to existing roads.

20.4.2 Anticipated Environmental Permits

This section provides a discussion of potential environmental permitting considerations for the Project.

20.4.2.1 BLM Approvals

Because portions of the Project are located on lands managed by the BLM, it is assumed that a MPO will be required for development of the Project. Once the MPO has been submitted, the BLM will begin its review process under NEPA.

NEPA analysis includes a number of resource areas (e.g., endangered species, historic properties, air quality, groundwater, surface water, etc.) and requires public involvement. In general, a given project will fall into one of three categories, described below in ascending order of difficulty level.

- **Categorical Exclusion -** Projects in this category are small and extensive public review process is not required. For categorical exclusions, the BLM is required to document that the impacts of the proposed project will not result in significant effects to the environment, and that the activity conforms with a prescribed set (“category”) of low-impact actions.
- **Environmental Assessment (EA) -** An EA requires a full analysis of impacts to a host of environmental resource areas, as well as, in some cases, public scoping to determine additional potential environmental resources to be evaluated. In order for a project to be approved, the EA must result in a Finding of No Significant Impact (FONSI) to the evaluated environmental resources. Note that a FONSI can be achieved through mitigation efforts proposed by the project proponent.
- **Environmental Impact Statement (EIS) -** An EIS is an expanded EA, for projects in which a FONSI is not anticipated to be acquired. The EIS results in a Record of Decision (ROD) outlining the evaluated impacts of the Project, along with the mitigation responsibilities of the project proponent.

Given the nature and size of the Project, it is assumed for the purposes of this analysis that an EIS will be required. Following submittal of the MPO, public scoping is initiated by the lead federal agency (in this case, BLM) in order to identify potential environmental concerns. The impacts of the Project are then evaluated for a suite of environmental resources, both from a standard BLM list and those resources identified during scoping. These resource areas include, but are not limited to:

- Access and recreation;

- Agriculture and grazing;
- Visual resources;
- Air quality;
- Geology;
- Soils;
- Groundwater;
- Surface water;
- Vegetation;
- Wildlife;
- Special interest species;
- Cultural resources;
- Socio-economic resources;
- Environmental justice;
- Infrastructure; and
- Traffic/transportation.

Alternatives to the proposed project are developed as part of the EIS process in order to identify other ways to the meet the project purpose and need. These alternatives may be derived from comments received during public and agency scoping. These alternatives are all evaluated for the same environmental parameters. In addition, because the approval of a Mine Plan of Operations is a federal action, compliance with the Endangered Species Act (ESA, Section 7) and National Historic Preservation Act (NHPA, Section 106) is required (see below).

Faraday is currently engaged with the BLM for the EPO and will maintain a robust level of coordination through the MPO development and NEPA processes for the mine project.

20.4.2.2 Clean Air Act

Air quality is regulated at the federal level by the EPA under the Clean Air Act (CAA). The CAA requires maintenance of ambient air quality, as indicated by concentrations of six "criteria pollutants" (ozone, carbon monoxide, nitrogen dioxide, sulphur dioxide, particulate matter less than 2.5 microns and less than 10 microns [PM2.5 and PM10], and lead). National Ambient Air Quality Standards (NAAQS) have been established for each of the criteria pollutants. The CAA requires that each state develop a State Implementation Plan (SIP) describing how these standards will be met. Air quality control regions (AQCRs) within each state are designated to assist in evaluating ambient air quality. Each AQCR is evaluated to determine if the NAAQS are met, and areas not meeting the standards are designated as "non-attainment" for the particular criteria pollutant that exceeds the relevant standard. The SIP must explain how the non-attainment areas will be managed in order to meet any standards not attained.

ADEQ has also developed a State Implementation Plan (SIP) to address regional haze, in concert with other states in the southwestern U.S. The regional haze SIP was finalized and submitted to the EPA on March 2, 2011, last revised in 2022 and includes the Galiuro Wilderness Area (a Class I airshed).

Air emissions are regulated under the CAA in the context of the NAAQS. The law and regulations differentiate between mobile and stationary sources, as well as between new and existing facilities. Mobile sources are typically vehicles, and regulated emissions from vehicles include both engine emissions and dust generation. Exhaust emission standards have been established by the EPA based on the NAAQS. New or modified existing stationary sources must meet performance standards, referred to as New Source Performance Standards (NSPS), established by the EPA for certain categories of sources. The standard of performance for a particular facility is based on the application of the best available system of emission reduction, taking into consideration cost. New major sources are subject to preconstruction review, with different standards and levels of review applied to facilities proposed within attainment areas ("Prevention of Significant Deterioration" requirements) and non-attainment or non-classifiable areas ("New Source Review" requirements).

The permitting components of the CAA for major stationary sources are described in Title V of the Act; thus, air emission operating permits for major sources are commonly referred to as Title V permits. These permits comprehensively address all relevant air emissions limitations, and monitoring and reporting requirements. Mining operations may qualify as Class I major sources but may also be minor (Class II) non-Title V or synthetic minor sources and would be permitted accordingly.

The project area is located within or very near proximity to the San Manuel Sulphur Dioxide Maintenance Area, originally designated as a result of emissions from BHP's copper smelter stack and fugitive emissions. Operations at the San Manuel smelter ceased in 1999. In June 2002, ADEQ submitted to EPA the San Manuel Sulphur Dioxide Non-attainment Area State Implementation and Maintenance Plan showing attainment of the federal standard was reached and requesting redesignation to attainment. Included in the plan are emission limits for the smelters as codified in Arizona Administrative Code R18-2-715 and 715.01. This area was redesignated to maintenance/attainment in 2008 and the maintenance plan has been renewed for a second 10-year period through 2028. The Project would need to comply with the SIP for the San Manuel Sulphur Dioxide Maintenance Plan. The Project area is less than 3 km from the Galiuro Wilderness Area, a Class I airshed. The air permit application for this facility would be subject to preconstruction review under the New Source Review provisions, and the permit would have to comply with the Arizona regional haze SIP.

For the Copper Creek Project, it is anticipated that CAA permitting will be performed by Pinal County Air Quality Control District and would consist of application for a new Title V, non-Title V (Class II), or synthetic minor source permit for the project operations. Dispersion modelling of emissions will require site meteorological data (including wind rose data), along with operations information and emission control data. The modelling exercise can only be accomplished through utilization of technical data from a specified project plan; modelling based on surrogates can be useful for identifying key issues but does not substitute for site-specific data and equipment specifications. Thus, a highly developed project plan is required to complete this analysis. Issuance of a CAA permit, if a complete application is submitted, is anticipated to take approximately one year.

20.4.2.3 Clean Water Act Section 404 Permit

A CWA Section 404 permit is required if a project will result in the discharge of dredged or fill material into jurisdictional waters of the U.S. (WOTUS). USACE administers the Section 404 program. The definition of waters has been a source of confusion for the regulated community for several years, and a new rule defining WOTUS was promulgated in January 2023. A jurisdictional waters determination will be completed for the project area to determine the extent of federal jurisdiction, though it is anticipated that at the very least Copper Creek itself is likely jurisdictional.

Two primary Section 404 permitting avenues are available to project proponents: the Individual Permit (IP) and the Nationwide Permit (NWP). NWPs are available for certain specified categories and sizes of disturbance that result in only "minimal impact to the aquatic environment." Individual Permits are required for larger projects or projects whose activities are not covered by the NWP program or other general permits. The effort to obtain a Section 404 permit varies considerably both in time and cost, depending on the type and extent of the impacts. The need for either permit type constitutes a federal nexus that requires compliance with the ESA and NHPA (see below).

It is reasonable to assume that an Individual Permit will be required for the Project. The following steps are required to obtain the Individual Permit.

- **CWA Section 404 Application -** The USACE requires completion and submittal of Form ENG 4345, the CWA 404 permit application form. Supplementary information, including a complete project description and graphical representation of proposed activities and their relation to waters, is usually required as part of the application package.
- **404(b)(1) Alternatives Analysis -** A 404(b)(1) Alternatives Analysis is an evaluation of the proposed project's purpose and need, and demonstration of the least environmentally damaging practicable alternative (LEDPA). Development of alternatives for the 404(b)(1) analysis would ideally be utilized to inform the development of the 'BLM's EIS (see above).
- **Habitat Mitigation and Monitoring Plan (HMMP) -** The USACE requires the applicant to provide a plan describing compensatory mitigation for the loss of waters. Generally, the project proponent may mitigate for loss of waters by replacing them with constructed wetland projects or planned enhancements of riparian areas, or by negotiating a fee in-lieu of mitigation arrangement. Current rule requires that the USACE and the applicant to first consider a mitigation bank (though none currently exists in Arizona) or an in-lieu fee (ILF) payment to a current sponsored project.
- **Public Notice -** For Individual Permits, the USACE is required to publish a Public Notice (PN) describing the Project and its anticipated impacts to environmental resources. Public comments are solicited during a 15- to 30-day public comment period which follows the publication of the PN. The applicant is then required to draft a response to any comments received by the USACE as part of the PN process. The PN process would ideally be completed to coincide with the scoping phase of the EIS.
- **NEPA Compliance -** Preparation of an Environmental Assessment (EA) (or, less commonly, an EIS) is required by the USACE to satisfy their obligation for environmental review under NEPA. Review and incorporation of responses to comments received during the required public review process is required. This analysis assumes that the USACE's obligations will be achieved through a cooperating agency arrangement with the BLM's NEPA process.
- **CWA Section 401 State Water Quality Certification -** Under Section 401 of the CWA, states (in this case, the ADEQ) review proposed projects for surface water quality compliance. ADEQ may grant or deny certification for any Section 404 permit based on the anticipated water quality impact of the Project, and typically provides conditions for protecting water quality that the USACE then incorporates as conditions into the 404 permit.

Once the jurisdictional waters determination has been completed and approved by the USACE, the scope of the Section 404 permitting effort will be determined. Faraday has begun mapping of surface water features within the project area in support of a jurisdictional waters determination, and has initiated engagement with the USACE.

20.4.2.4 Endangered Species Act Compliance

Section 7 of the ESA requires that, for any federally permitted action, the permitting authority must evaluate the potential impact of a project to federally-listed species. If the lead federal agency determines that the Project may affect a listed species, consultation with the U.S. Fish and Wildlife Service (USFWS) will be required. For the development of the Copper Creek Project, consultation with USFWS would be required for either the CWA Section 404 permit or the Mine Plan of Operations for the BLM. It is anticipated that the BLM would act as the lead federal agency for the purpose of the Section 7 consultation.

Even in the absence of a federal nexus, listed species are protected under the Section 9 'take' provision, which prohibits the harming, harassing, injuring, or killing of a federally-listed threatened or endangered species. However, take applies only to wildlife (property of the state), not plants (which are owned by the property owner). In the absence of a federal nexus, federally-listed plants on private property are protected by state and local plant protection laws and ordinances.

Given the location of the project area and the nature of the on-site habitat, two federally-listed species may occur on the project area and may require Section 7 consultation: yellow-billed cuckoo (Coccyzus americanus [western Distinct Population Segment]) and monarch butterfly (Danaus plexippus plexippus). These species have not been observed in the proposed mining footprint to date. The southwestern willow flycatcher (Empidonax traillii extimus; SWFL) is not likely to occur within the project area but there may need to be Section 7 consultation considerations related to the SWFL designated critical habitat that includes several kilometres on the San Pedro River, including at the Copper Creek confluence.

20.4.2.5 National Historic Preservation Act Compliance

As with the ESA, federal permitting authorities are required to evaluate the potential for any proposed project to adversely impact properties listed, or eligible for listing, on the National Register of Historic Places (NRHP). Typically, a Class III (pedestrian) cultural resources survey is completed within the proposed project area to identify any register-eligible properties. If a proposed project may adversely affect such a property, under Section 106 of the NHPA, the lead federal agency must consult with the State Historic Preservation Officer and selected Native American tribes. Mitigation for most impacts is typically accomplished through the development and implementation of a Historic Properties Treatment Plan, which must be reviewed and approved by all consulting entities.

20.4.2.6 Aquifer Protection Permit

An APP will be required for the Copper Creek Project. The APP application process generally requires extensive hydrologic characterization, engineering (i.e., BADCT demonstration), geochemical characterization, and reclamation design. Issuance of an APP, if a complete application is submitted, is anticipated to take 15 months.

20.4.2.7 ASLD Right-of-Way Access

It is assumed that the existing access roads will need to be upgraded beyond the current condition in order to accommodate the anticipated increase in the volume and type of traffic required for the mining effort. In that case, a revision to the right-of-way will be required through coordination with ASLD. State Trust lands are also within the MPO area and may be leased for the Project. As part of the right-of-way or other ASLD application process, the following will need to be conducted:

- Native plant invent–ry - In essence, ASLD requires a stumpage fee for impacts to native vegetation throughout the leased ASLD lands. This task includes an inventory of native woody and succulent species on the ASLD list that will be impacted by the proposed project, conducted by completing a sample survey of the vegetation if more that 20 acres are impacted. The state uses this inventory to calculate the amount of the stumpage fee.
- Cultural resources sur–ey - A full pedestrian (Class III) cultural resources survey is required in those areas that will be impacted on state lands.

The results of the native plant inventory and the cultural resources survey are submitted to ASLD for processing along with the applicable Use or Right-of-Way permit application. Although the inventory and survey are relatively straightforward efforts, the processing time can be as long as a year. If cultural resources will be adversely affected by the proposed project the process will likely take longer due to the consultation and data recovery processes. If State Trust lands are purchased, only the cultural resources step applies.

20.4.2.8 State Reclamation Plan

The State of Arizona requires that mining projects greater than five contiguous acres on private lands submit a reclamation plan to the State Mine Inspectors Office. This plan must outline planned reclamation activities and costs. The reclamation requirements under this program are different than those for the APP program and MPO.

20.4.2.9 Storm Water Permit (MSGP)

Under the Arizona Pollutant Discharge Elimination System (AZPDES) MSGP storm water program administered by the ADEQ, mine facilities (including associated pre-mining exploration and construction activities) are required to obtain coverage for discharges of storm water from their operations. This program requires a project proponent to prepare a storm water pollution prevention plan (SWPPP), submit a notice of intent (NOI) to discharge storm water, install appropriate best management practices (BMPs), and conduct regular inspections of the site and analytical monitoring during construction and operations, in accordance with the SWPPP.

The Copper Creek operations are currently covered under the MSGP for the historic mining operations within the project area. The associated SWPPP is continually updated with the ADEQ with each phase of drilling as drilling platform locations change. The MSGP is structured so that exploration activities are covered by the same permit as operations, the SWPPP will be updated for project construction and operations as appropriate based on on-site activities.

20.4.2.10 Individual AZPDES Permit

Discharges of certain industrial process waters are covered by individual permits under the AZPDES program. Anticipated process water discharges from a mine site include water treatment plant discharges, wastewater from mill operations, or other mine drainage not covered under the MSGP.

An issued AZPDES permit includes effluent limitations, usually consisting of both numeric and narrative standards. The numeric limitations typically restrict quantities, rates, and concentrations of pollutants that may be present in the discharge and can be either technology- or water quality-based. Technology-based standards require usage of available pollution control technology, while water quality-based standards protect ambient water quality by requiring the discharger to achieve the applicable numeric standard (as mentioned above). If both technology- and water quality-based standards exist for a particular constituent, the more restrictive standard applies.

It is anticipated that the proposed project will not require coverage under an individual AZPDES permit.

20.4.3 Permitting Considerations

Critical path items related to environmental permitting for the Project are:

- BLM approvals (including NEPA, ESA, and NHPA compliance);
- Clean Air Act permitting;
- CWA Section 404 permit (including NEPA, ESA, and NHPA compliance), and
- Aquifer Protection Permit.

In general, other approvals are readily acquired within the critical path. A summary of environmental permitting requirements is provided in the table below.

Table 20-1: Environmental Permitting Requirements

Permit Effort	Agency	Description/Assumptions	Estimated Timeframe	Schedule Start Point
MPO/NEPA	Bureau of Land Management (BLM)	Assumes that level of impacts will require an Environmental Impact Statement (EIS)	2 to 5+ years	Availability of location and operating information for federal land facilities
Air permit	ADEQ/Pinal County	Up to Title V permit for the mill project with new source review (NSR), and Prevention of Significant Deterioration (PSD) requirements; includes quality assurance and collection of ≥1 year meteorological data; some modelling	2 to 3 years	Availability of detailed emissions and ambient air information, submittal of modelling protocol.
CWA Section 404/NEPA	U.S. Army Corps of Engineers	For all discharges of fill to waters; assumes an individual permit will be required for tailings facilities and reroute of Copper Creek. Does not include cost for mitigation.	18 to 24 months	Completion of JD and availability of project impacts to WOTUS.
Endangered Species Act Compliance	Lead Federal Agency	Required for all federal actions; assumes informal consultation for potential impacts to one or more species.	6 months	Availability of locations of operations and Phase I design information.
National Historic Preservation Act Compliance	Lead Federal Agency and SHPO	Includes Class I and Class III survey, treatment plan, and coordination. Data recovery not included.	12 months	Availability of disturbance boundary.
Aquifer Protection Permit	ADEQ	APP needed for waste rock, heap leach, ponds, and tailings facilities; monitoring well installation required	12 to 15 months	Submittal of application with baseline data and basic engineering
Right-of-Way Access	Arizona State Land Department	Assumes that roadway widening or other modification will be required for access; includes resource surveys	12 months	Availability of road designs
Reclamation Plan	State Mine Inspector	Needed for mining disturbances over 2 ha (5 acres) on private land	3 months	Availability of general arrangement, and geotechnical and geochemical information
Dam Safety Permit	ADWR	Needed for jurisdictional impoundments (greater that 7.6 m (25 ft) embankment height or greater than 6.2 ha-m (50 ac-ft) storage capacity); assumed not required for the Copper Creek Project.	NA	NA
Stormwater General Permit	ADEQ	Triggered by having qualifying stormwater discharges to Waters of the US; requires updating SWPPP and submitting revised NOI	2 months	Availability of general arrangement
Total			**Approx. 5 years**	

The timeframe for regulatory approvals of key permit applications is anticipated to take approximately 5 years.

20.5 Closure and Reclamation Planning

Faraday assumes responsibility for reclamation of surface disturbances which are directly attributed to the Project. Reclamation and closure of non-federal lands are regulated by ADEQ and the Arizona State Mining Inspector (ASMI). As part of a potential construction decision, Faraday anticipates submitting a Mine Plan Reclamation Plan (MLRP) which will describe how Faraday intends to reclamation any surface disturbances and facilities associated with the Copper Creek Project on private lands for review and approval by ASMI in future stages of the Project. Faraday will also submit a Conceptual Closure Plan as part of their APP application to ADEQ for the proposed closure and monitoring of any discharging facilities. A Reclamation and Closure Plan will be developed during the permitting phase of the Project to cover all federal remediation requirements for the site. The estimated closure and reclamation costs presented herein will be updated at that time. The Closure and Reclamation Plan will detail and apportion costs attributable to each respective agency for bonding purposes.

20.5.1 Reclamation and Closure Strategy

The proposed reclamation/closure design elements for the Project include following concepts:

- The design intent is to selectively place materials in their final configuration throughout the life of the Project wherever possible. For example, the DSTF slopes will be constructed at final reclamation slopes. The HLF and associated process solution ponds are lined facilities. Eventually, over the life of the mine they will be covered with sufficient dry stacked tailings to minimize future infiltration. The final reclaimed surfaces of these facilities will consist of either suitable waste rock or salvaged topsoil materials and they will be revegetated.
- The waste rock storage facilities will be recontoured to minimize erosion, covered with topsoil and hydroseeded with a native seedbank to promote revegetation.
- Facility grading and stormwater controls will be designed to route stormwater runoff off away from the reclaimed surfaces as practicable, this includes if applicable the installation of an underdrain to divert the Copper Creek watershed catchment away from the DSTF at the very start of the Project.
- Building facilities within the Plant Site will be decommissioned, demobed and intact, reusable equipment and structural components salvaged to the extent possible. The disturbed areas will be regraded to route stormwater runoff to down-gradient drainages. Reclaimed areas will be covered with growth media as needed (i.e., soil salvaged from the facility footprints) and revegetated.
- Reclamation of the planned utilities includes the removal of such facilities (e. g. water and power lines and pump station at the well field) regrading and revegetating these disturbed areas.
- Perimeter fencing will remain intact, especially around pit areas. Additionally, the plan is to backfill some of the pits over the course of the mine life.
- Top surfaces of the post-mining reclaimed facilities will be used for grazing of ongoing ranching and wildlife habitat once vegetation is re-established.

Additionally, the following post-closure site monitoring and activities are anticipated:

- Management of drain-down solutions from the combined HLF and DSTF facilities (active management followed by passive management).
- Groundwater monitoring at point of compliance (POC) wells.
- Surface water monitoring at outfall locations.

- Reclamation success monitoring and maintenance, including stormwater conveyance monitoring and maintenance (includes erosion monitoring and maintenance).

Drain-down solution management and monitoring of the DSTF facility could be long-term depending on performance monitoring to be conducted over the course of the Project. Reclamation success monitoring and maintenance is anticipated to occur for five years once final covers and/or reclamation activities occur. Reclamation will be staged as needed.

Additional post-closure monitoring and mitigation activities will be defined during development of the final EIS and will be incorporated into the MPO. Other anticipated post-closure monitoring may include:

- regional groundwater level and water quality monitoring;
- regional surface water monitoring (flow and quality);
- management of wildlife watering locations;
- groundwater and pit lake geochemical model updates, including pit lake water quality; and
- special-status species monitoring.

20.5.2 Closure Costs

Closure and reclamation activities would occur during the last five years of the mine life. A cost of $170 million has been estimated to cover all reclamation activities and accounts for the earthworks associated with reclaiming all surface disturbance areas as anticipated in the design proposed for the Copper Creek Project, re-establishing the native vegetation, demolition of surface features, closure of the underground mine workings and closure/post-closure monitoring and maintenance activities.

20.5.3 Financial Assurance

Certain permits require financial assurance to ensure the success of mitigation, while others are solely to ensure that adequate funds are available at closure. The requisite bonds for the Project are expected to be obtained from the surety market with an estimated annual bond fee of 0.9% of the bond's notional value.

Bonds will be required for ADEQ (closure of discharging facilities) and for ASMI (reclamation of disturbances, including the removal of facilities) and BLM to cover reclamation and closure activities on federal lands. Reclamation and closure costs would be developed for each phase of the Project and apportioned appropriately to the respective agency to avoid double-bonding.

A United States Army Corps of Engineers (USACE) bond, if required, is expected to be a performance bond with a long-term management component to ensure that any proposed mitigation is successful.

20.6 Social Considerations

20.6.1 Socio-Economic and Cultural Setting

The Copper Creek Project is located in Pinal County, Arizona. The area is primarily used for livestock grazing, hunting, dispersed recreation and mineral exploration accessed through the town of Mammoth, Arizona. Mammoth and San

Manuel are the two closest communities to the Project that have been impacted by the closure of mining operations, leading to economic challenges. The Project aims to provide local employment and economic stimulus without burdening the community. Although not on Native American reservations, Faraday has successfully engaged with the local tribal communities.

A number of the historic mining features within the project area have been identified by archaeological consultants as eligible for listing, either separately or as a single site.

20.6.1.1 Administrative Location

The Copper Creek Project is zoned as a General Rural Zone (GR) administered in unincorporated Pinal County in portions of Sections 03, 04, 10, 11 and 14 of Township 08 South, Range 18 East, Gila and Salt River Meridian and Baseline. Portions of the Project are covered by agricultural leases for livestock grazing which are controlled by the Company.

20.6.1.2 Land Use

The Project is located approximately 14 km east of Arizona State Route 77, the Town of Mammoth, and the San Pedro River. Land use is predominately livestock grazing, hunting, dispersed recreation, and mineral exploration accessed via the public gravel road of Copper Creek Road from Mammoth, which is maintained by the county.

20.6.1.3 Socio-Economic Indicators

Mammoth and San Manuel were both purpose-built for historic and modern mining activities. Combined, the towns have a 2020 population census of approximately 5,200 people. The town of San Manuel was constructed in the mid-1950s by Magma Copper to support mining operations at the San Manuel Copper mine, which produced approximately 3.3 billion pounds of copper utilizing underground block cave mining operations producing over 700 mt of copper over a 45 plus year mine life. BHP acquired Magma Copper in 1996 and continued operations until 1999 when operations were ceased due to low copper prices. Since then, the closure of the mine has had significant impact on the local economy and employment opportunities in the area. Both communities are currently identified as under-resourced as they meet specific criteria as outlined by the EPA's Environmental Justice Screening tool (EJScreen) which assesses social vulnerability and susceptibility factors such as determinants of health, living conditions, demographics, income, education, ethnicity, and employment data.

As the project progresses through development, local employment opportunities and economic stimulus to the local communities would result. Based on the current proposed mine pan, it is anticipated that approximately 200 plus individuals would be employed during construction of the project and more than 500 persons (including a head count of approximately 300 persons for mining, 150 persons for process operations, and the remainder administrative staff) at peak sustained operations over the 30-plus year mine life planned for the Project. Additionally, reclamation and closure efforts would employ approximately 20 individuals. The project would not require a camp facility as the location is easily accessible from the townsites of Mammoth, San Manuel and Oracle, as well as being approximately 80 road km northeast from the city of Tucson.

The Company is dedicated to continue transparent, inclusive dialogue with all stakeholders, adhere to social and environmental standards, respect human rights and collaborate with community members to address concerns and prioritize sustainability development of the Project. The Company is committed to ensuring the community is not subjected to any negative impacts related to hazardous waste, or any other environmental justice concerns by adhering to strict environmental standards and regulations.

20.6.1.4 Native American Tribes

The Project is not located on any Native American Reservations, however outreach to the local tribal communities was initiated in 2022 as outlined in more detail below. These tribal communities were selected based on the Arizona State Historic Preservation Office (SHPO) consultation toolkit. The Project was partially surveyed for cultural resources (Hooper, 2011 & Dolan 2007) by WestLand Resources Inc., and the Company intends to update these cultural resource surveys as part of baseline data gathering and share information that is located on private lands with the local tribes.

20.6.2 Ongoing Consultation and Engagement

20.6.2.1 Community Outreach

In October 2022, community public open houses occurred in San Manual, Mammoth and Oracle. Faraday introduced the company/management team, presented an update on current drilling and baseline monitoring activities as well as plans forward for Phase II/III drilling and answered questions from the community.

The next round of communication public open houses are scheduled to occur in fall 2023.

20.6.2.2 Tribal Engagement

In August 2022, Faraday sent introductory letters via mail and followed up with emails to 12 tribes with potential interest in the Project, including:

- The four Southern Tribes (which include: Ak-Chin Indian Community, Gila River Indian Community, Tohono O'odham Nation, Salt River Pima-Maricopa Indian Community);
- Hopi Tribe;
- Mescalero Apache Tribe;
- Pascua Yaqui Tribe;
- Pueblo of Zuni;
- Tonto Apache Tribe;
- San Carlos Apache Tribe;
- White Mountain Apache Tribe; and
- Yavapai-Apache Nation.

Meetings and presentations were given to those tribes who responded, and subsequent site visits occurred in May 2023. Follow-up emails were sent in March 2023 to those tribes who did not respond to initial letters in the hopes of scheduling introductory meetings/presentations and site visits. Faraday will continue to outreach and engage with the local tribal communities.

21 CAPITAL AND OPERATING COSTS

21.1 Introduction

Capital and operating costs for the Copper Creek Project were developed by Ausenco and SRK. These estimates are based on a combined open pit and underground mining operation, the construction of a copper concentrator process plant with the addition of a molybdenum circuit in mine life Year 3, a dry stacked tailings storage facility, the infrastructure required to support these operations, owner's costs, indirect costs and contingency. The processing plant nameplate capacity is 30,000 t/d (11.0 Mt/a), with a life of mine of 32 years. The proposed oxide heap leaching facility for the Project has a nameplate capacity of 6,850 t/d (3.1 Mt/a).

21.2 Capital Cost

The cost estimate for the Project is presented in USD with a base date of the first quarter of 2023 and does not include provisions for forward escalation.

Metric units are used throughout the estimate.

The total initial capital cost (mine and plant) for the Copper Creek Project is $798 million and combined expansion & sustaining capital cost is $1,859 for a total capital cost for the Project of $2.7 billion as illustrated in Table 21-1.

Table 21-1: Summary of Capital Costs

Item	Initial Capital ($M)	Sustaining & Expansion Capital ($M)	Total Capital ($M)
Mining	80	1,376	1,457
Installed Process Plant [a]	280	48	328
Crushing and Materials Handling [b]	108	7	115
Tailings	117	9	126
Site Infrastructure	67	50	117
Owners Cost	23	2	25
Contingency	122	197	319
Closure and Reclamation	-	170	170
Total [c]	**798**	**1,859**	**2,657**

Notes:
[a] Includes indirect costs.
[b] Includes costs for the oxide heap leach operation.
[c] Totals may not sum due to rounding.

21.2.1 Basis of Capital Cost Estimate

The capital cost estimate conforms to Class 5 guidelines for a PEA-level estimate with a +50%/-30% accuracy according to the AACE International guidelines.

The data for the estimate is derived from the following sources:

- Preliminary mining development plan.
- Contractor mining labour and equipment lease rates (open pit and underground).
- Underground mining equipment list.
- Budget quotes for major underground mining equipment (obtained from equipment manufacturers).
- Budgets quotes from mining contractors for underground vertical development.
- The process design criteria and corresponding Mechanical and Electrical Equipment lists developed for the Project.
- Historical data & historical factoring (benchmarking).

The actual estimate accuracy is defined by the stated maturity of the information available.

21.2.1.1 Estimate Structure

Initial Capital and Expansion, Sustaining and Closure cost estimates were developed for the Copper Creek Project to reflect the phased approach to the plan of operations and the availability of the mineral resources mined.

The estimate is broken out into Capital cost (direct and indirect costs), Sustaining cost and Closure cost. Initial and expansion capital cost are broken out into direct costs and indirect costs.

The structure of the process and infrastructure related direct cost estimates is built up from quantities of equipment, material and labour requirements developed for the design proposed for the Project; this includes the installation/construction hours, unit labour rates and contractor distributable costs, bulk and miscellaneous material and equipment costs, any subcontractor costs, freight, and growth.

Process and associated infrastructure indirect costs include all costs associated with implementation of the plant and incurred by the owner, engineer or consultants in the design, procurement, construction, and commissioning of the Project, including construction contractor’s indirect costs and contingency.

Open pit mining related costs include contractor, mobilization/demobilization, pre-production development and an allowance for miscellaneous owner’s capital expenditures. Underground mining related costs include the following, which are dispersed throughout the mine life:

- Contractor mobilization and associated indirect costs.
- Mine building and associated surface infrastructure (explosives magazine and storage).
- Underground Mine Development (lateral and vertical).
- Underground Mine Infrastructure (crusher chamber, workshop, refuge station, etc.).
- Underground Mobile Equipment Purchase & Rebuilds.

A design quantity contingency has been applied to the underground development physical as described in Section 16.4.3.

Process and associated infrastructure costs related to expansion and sustaining capital are costs associated with equipment requirements for the molybdenum plant, the underground mining expansion costs, and materials or services required to sustain production and operations over the life of the mine.

Closure costs are the capital costs associated with the closure of the mine at or near the end of the mine life and typically includes the earthwork associated with infilling, restricting access, recontouring areas of disturbance, re-sloping pit bank, placing topsoil where needed, ripping existing topsoil, revegetation as well as the costs associated with facilities demolition & salvage and establishing an ongoing monitoring and maintenance program.

Variable contingencies were applied for processing and mining capital costs in accordance with the level of engineering and design used to build up each estimate. On aggregate, the total initial capital cost estimation has a 15% contingency consideration.

21.2.2 Mining Capital Cost Estimates

21.2.2.1 Open Pit Mine Capital Cost Estimate

As the open pit operations are to be performed by mining contractor, that contractor will be responsible for all mine equipment and mining infrastructure. These costs have been built into the contract mining rates. Mob/De-mob for the mining contractor was estimated at $6.2 million, split equally between mobilization and de-mobilization.

An allowance was made for the pre-production development of the individual open pits to allow for access construction, water management, topsoil salvage and initial pit establishment. For these activities, $2 million is assumed for each pit other than Mammoth. For Mammoth, $4 million was assumed. The expenditures are timed to the year before a new pit is scheduled for development and totals $16 million over the life of mine.

To account for miscellaneous owner’s capital expenditures, an allowance of 5% of the mine equipment value was used, totalling $1.0 million over the life of mine.

21.2.2.2 Underground Mine Capital Cost Estimate

21.2.2.2.1 Summary of Estimate

The underground mine capital cost estimate was prepared at a PEA level of accuracy of ±35%. No allowances for escalation, inflation or interest during construction were used in the estimates.

The mining capital cost estimated was based on the following:

- Preliminary project development plan.
- Mining equipment list.
- Budget quotes for the major equipment obtained from equipment manufacturers.
- Contractor equipment lease.
- Contractor labour rates.

- Budget quotes from the mining contractors for vertical development.
- SRK in-house database.

The summary of the underground mine capital costs is presented in Table 21-2.

Table 21-2: Underground Mine Capital Cost Summary

Cost Item	Initial Cost ($M)	LOM Cost ($M)
Contractor Mobilization & Indirects	130	286
Mine Buildings and Surface Infrastructure	29	29
Underground Mine Development	243	480
Underground Mine Infrastructure	137	186
Underground Mobile Equipment Purchase & Rebuilds	39	228
Owner's Cost	151	151
Total Underground Mine Development Capital Cost	**729**	**1,370**
Contingency	89	185
Total Underground Mine Development Capital Cost with Contingency	**818**	**1,555**

Note: Totals may not sum due to rounding.

All underground mine development costs are included in the capital cost estimate. It is assumed that all mine development will be done by a contractor. Underground lateral development costs per metre were estimated from first principles and compared to SRK's database for mine development by a contractor. Vertical development costs are based on the recent quotes from the contractors from the similar projects.

Underground development is divided into the following categories:

- Lateral development.
- Vertical development.
- Infrastructure excavations.

The contractor will provide all labour, equipment, and supplies, which is not provided by the owner. The estimated lease rates for the contractor equipment are based on the equipment budget price, assumed equipment depreciation period of 60 months, 3% interest rate and 1.5% insurance. A 15% markup has been applied to all contractor expenses.

Contractor's indirect cost includes contractor management, supervision and services, which is not accounted for in the direct costs per unit of development. The operating costs of the contractor's support equipment and facilities are also included in the contractor's indirect cost.

The following cost items considered for the development cost estimate are:

- Contractor mobilisation cost.
- Unit cost per metre of development.
- Contractor indirect labour cost.

- Contractor equipment lease.
- Contractor support equipment and facilities.

The contractor will demobilise from the mine site after completion of their work.

Purchase of a permanent mining equipment fleet will be required for the mine production activities performed by the owner.

Mobile equipment costs are developed from estimated fleet requirements and vendor budgetary quotations. Unless provided by each vendor, the following assumptions were made for the additional expenses at initial equipment purchase:

- 5% of equipment budgetary price to cover initial parts stock.
- 4% of equipment budgetary price to cover freight and on-site assembly.
- 2% of equipment budgetary price to cover equipment commissioning and training.

Equipment life-cycle operating hours are based on manufacturer recommendations and SRK project experience. Recommended life-cycle operating hours were used to calculate equipment replacement requirements.

The schedule for major equipment rebuilds and replacement are based on equipment operating hours and anticipated equipment life. It is assumed that all equipment will have one major rebuild (70% of initial price) prior to replacement.

Underground infrastructure costs are based on the preliminary estimated amount of required underground infrastructure, equipment quotes, and benchmarking of underground infrastructure taken from similar projects. The underground mine infrastructure costs include equipment purchase and installation.

Mining related Owner's costs include all the Owner expenses to support and execute the development of the underground mine. It is assumed that the Project will be managed by the Owner. All Owner's labour in underground mine pre-production period is included in the Owner's capital cost. The mining operation costs during pre-production underground development and production ramp-up period is included in the initial capital costs as an Owner's cost.

A contingency of 15% was applied to all underground mine capital costs.

21.2.3 Process Capital Costs

The conceptual process flowsheets and PDC developed for the Copper Creek Project were used to generate specifications for the process equipment and to estimate materials and supply requirements. Budget estimates from ongoing and recently completed projects comparable to the Copper Creek Project were used to determine the costs for mechanical equipment and building supplies, which were then factored for the size specified for the Project in the PDC. When applicable, costs have been escalated to Q1 2023 pricing using the Consumer Price Index (CPI).

A breakdown of the direct cost estimate developed for primary crushing circuit, 1.6 km overland conveyor, 2-stage cone crushing and screening for the oxide heap leach operation and SX/EW is shown in Table 21-3. Likewise, a breakdown summary of the direct cost estimate developed for the copper and molybdenum concentrator is presented in Table 21-4.

Table 21-3: Primary Crushing, Conveying & Heap Leach Operations Direct Costs Summary

Primary Crushing, Conveying & Heap Leach Operations	Initial Capital Costs ($M)	Expansion Capital Cost ($M)
Crushing Circuit	16	-
Conveying, Stockpile & Reclaim	38	5
2-Stage Oxide Crushing	19	-
SXEW Facility	35	-
Total Direct Costs	**108**	**5**

Table 21-4: Concentrator/Process Plant Direct Cost Summary

Concentrator/Process Plant	Initial Capital Costs ($M)	Expansion Capital Cost ($M)
Process Plant Building	-	1.3
Grinding	86	-
Copper-Moly Flotation	40	-
Moly Flotation	-	17
Copper Concentrate Thickening, Filtration & Storage & Loadout	11	-
Moly Concentrate Thickening, Filtration & Storage & Loadout	-	12
Reagents	9	1.5
Process Services & Utilities	24	5.4
Process Control System	-	0.3
Total Direct Costs	**171**	**38**

21.2.3.1.1 Process Equipment Pricing

This estimate is based on the compiled priced mechanical equipment list for the major process equipment specified for the Project with 65% of this equipment priced from recently quoted equipment of identical size acquired from other projects or from historical costs for similar sized equipment which were escalated to Q1 2023 prices. Where applicable, some equipment costs were factored based on similar sized equipment (e.g., tanks, chutework, feed boxes, other platework items, pumps, etc.) used for similar projects to achieve a complete installed mechanical equipment cost. A similar exercise was undertaken for the major electrical equipment.

Field installation/construction hours were applied using Ausenco’s historical unit manhours and an aver“ge "All-In” regional labour rate of $212/hr to develop a total installed cost (TIC) for the mechanical equipment. Freight costs are also included.

Each major process area has been built up with costs by separately addressing the following additional disciplines where applicable:

- Concrete
- Structural steel
- Piping

- Platework
- Architectural (buildings)
- Electrical bulks
- Instrumentation

Costs for the above disciplines have been developed by applying historical factors (percentages of TIC of mechanical equipment) to each. The various factors (percentages) are based on Ausenco's historical data for similar type work and benchmarked against other Ausenco studies and executed projects of similar scope and size.

21.2.3.2 Process Freight Costs

Freight costs for transportation of plant equipment from ex-works factory to the work site have been included in the Project directs cost determined by applying a percentage to the material and equipment supply costs by line item.

Table 21-5: Freight Percentages

Estimating Code	Description	Freight %
FT1	Process Equipment Freight	12.5%
FT2	Bulks	10.0%

21.2.4 Infrastructure Capital Costs

21.2.4.1 Quantity Development

High-level Material Take-Offs were quantified specifically for the project infrastructure/facilities:

- Earthworks for Civil Pads
- Access Road Improvements
- Surface Water Management
- Dry Stack Tailings Facility
- Process Solution Ponds
- Overhead Power Line
- Raw Water Supply Pipeline
- Project Closure

Costs for these items are built up using regional unit labour rates and contractor distributable costs, and reflect current unit costs (Q1, 2023) for bulk and miscellaneous material as applicable.

Cost for the HLF is benchmarked against heap leach facilities of similar size and scope developed for other projects.

The costs for demolition during closure is estimated at 10% the project direct costs for the process plant and ancillary facilities.

The off-site and on-site infrastructure costs (as presented in Table 21-6)developed for the Project include the costs for civil earthworks, ancillary administrative mine buildings, explosive storage, truckshop, fuel depot, process administrative buildings, warehouses and maintenance facilities, electrical rooms, control rooms, substations, transformers, overhead power line and the diversion underdrain channel planned for the DSTF. The off-site infrastructure cost estimate includes costs for the Copper Creek Road improvements and off-plot piping which totals less than $4 million. On-site infrastructure costs are included in the expansion estimate for the molybdenum circuit as they are minimal with respects to electrical and civil infrastructure.

Table 21-6: On-site Infrastructure Direct Costs

On-Site Infrastructure	Initial Capital Costs ($M)
On-Site Infrastructure	30
Mine Buildings	4
On-Site Buildings	3
On-Site Utilities Includes Power Supply	29
Diversion Channel	2
Total On-Site Infrastructure	**67**

Note: Totals may not sum due to rounding.

21.2.5 Tailings Facility Capital Costs

The direct initial capital cost estimate developed to process and stack tailings materials is present in Table 21-7 and includes costs for the thickener. Tails will flow by gravity to the filter plant for dewatering prior to stacking at the DSTF. Costs also include earthworks to initially build the DSTF and associated underdrain to divert Copper Creek flows.

Table 21-7: Tailings Direct Costs

Tailings	Initial Capital Costs ($M)
Tailings Thickening	9.7
Tailings Filter Plant	81
Under Drain	7.8
Tailings Storage Facility	19
Total Tailings	**117**

Note: Totals may not sum due to rounding.

21.2.6 Growth Factor

Each line item of the estimate is developed initially at a base quantity and cost. A growth allowance has been applied to each line item in the estimate to reflect the level of design and pricing strategy applied. Due to the level of the estimate prepared, the equipment and material take-offs do not necessarily reflect all minor items that will be incorporated into the eventual final design. As such, a growth allowance has been included to fill this gap between the base cost estimate and the expected final pricing.

A growth allowance was not applicable to line items in the estimate for which factoring was the basis of the cost.

Growth has been calculated at the line-item level by evaluating the status of the engineering scope definition and maturity and the ratio of the various pricing sources for equipment and materials used to compile the estimate as detailed in Table 21-8. The overall estimate growth allowance is below the typical range for a PEA-level estimate reported by Ausenco.

Table 21-8: Growth Factor

Description	Total Growth ($M USD)	Total Growth
Design/Quantity & Price Growth	29.3	6.3% (Blended)

21.2.7 Indirect Capital Costs

Indirect costs include all costs associated with implementation of the plant and incurred by the owner, engineer or consultants in the design, procurement, construction, and commissioning of the Project, including construction contractor's indirect costs and contingency. These costs are not related to the direct construction costs but are required to provide support during the construction period. These items are as follows:

- Common Construction Facilities and Services

  The field indirect costs have been based on Ausenco's historical project costs of similar nature and include, but not limited to, the following:

  - construction facilities - temporary facilities & utilities;
  - operations & maintenance of temporary facilities;
  - commissioning reps & assistance;
  - spares; and
  - initial fills.
- Engineering, Procurement & Construction Management

EPCM services costs cover such items as engineering and procurement services (home office based), construction management services (site based), project office facilities, IT, staff transfer expenses, secondary consultants, field inspection and expediting, commissioning, corporate overhead and fees.

The EPCM cost has been calculated based on Ausenco's historical project costs of similar nature and totals approximately $110 million in initial capital and $10 million in expansion capital. These costs are included in the Installed Processing Plant cost reported in Table 21-1.

21.2.8 Owner's Capital Costs

An allowance of 5% of the total direct cost has been included as an estimate of the Owner's Costs.

Such Owner's costs would typically include the following:

- project staffing and expenses;
- pre-production labour;
- home office project management;
- home office financials, legal, insurances; and
- bonds, licenses and fees.

21.2.9 Sustaining & Closure Costs Summary

The total sustaining capital cost estimate is $61.6 million and includes costs for new anodes in Year 4 as well as the cost for construction of the DSTF over the life of mine. These values include project contingency and other project indirect costs.

A progressive closure and reclamation approach is expected to be adopted for the Project, totalling $170 million (including 20% contingency), spread over the last 5 years of the mine life. These costs are driven by surface disturbance calculations related to all mining, processing infrastructure and stockpiling. The estimation considers recontouring, revegetation activities, decommissioning costs, ongoing monitoring and maintenance activities and covers the costs of earthwork involved in pit and stockpile re-sloping & recontouring, topsoil cover, demolition of processing facilities & salvage, and includes an allowance to cover the costs to maintain an ongoing environmental monitoring plan.

21.2.10 Estimate Contingency

Variable contingencies were developed for processing and mining capital costs due to the detailed method of estimation for both. The initial capital cost estimation for the processing infrastructure has a 20% contingency application. On aggregate, the total initial capital cost estimation has a 15% contingency consideration. The following contingencies were applied to project capital costing:

- 25%: Contractor mobilization/demobilization.
- 20%: Open pit mining related capital costs, underground mining infrastructure excavations (crusher chamber, workshop, refuge station, sump, etc.), crushing and materials handling, process plant direct costs, DSTF, on-site and off-site infrastructure, process plant indirect costs, owners cost and underground large excavations.
- 15%: Lateral and vertical underground mine development, crushers and conveyors, ventilation hardware and installation, mine services (pumping, power, air, safety), mobile equipment/rebuilds and mine buildings.

21.3 Operating Costs

21.3.1 Overview

The process plant operating cost estimate was developed to a level of accuracy of ±50% with a base date of Q1 2023 using Ausenco's in-house database of projects and studies and experience from similar operations. The estimate includes processing of sulphide, transitional and oxide materials, dry stack tailings disposal, and general and administration (G&A). Open pit mining costs reflect expected contract mining costs. Underground mine operating costs are built up from first principles, with references to appropriate benchmark costs and operational proxies, and applied to the PEA mine production schedule.

The unit operating costs used in the PEA are summarized in Table 21-9.

Table 21-9: Summary of Operating Costs

Operating Costs	Units	Open Pit	Underground
Mining [a]	$/t mined	2.43	7.30
Processing [b]	$/t processed	6.26	6.30
Off-site charges [c]		2.51	2.51
General and administrative (non-mill) [d]		1.45	1.45
Total unit costs [e]	**$/t processed**	**13.01**	**17.56**

Notes:
[a] Open pit mining unit costs apply to both mineralized material and waste, but exclude stockpile rehandle costs of $1.47/t rehandled. Underground mining unit costs exclude capitalized development and mill feed generated from mine development.
[b] Includes processing-related general & administrative costs.
[c] Off-site charges are based on land transportation costs of $46.35 per wet metric tonne, treatment charges of $75.00 per dry metric tonne, refining charges of $0.080/lb, $0.50/oz, and $1.30/lb for copper, silver, and molybdenum, respectively.
[d] Includes $0.45/t average cost over the life of mine related to Arizona property tax.
[e] Amounts will not sum as mining costs are presented on a per tonne mined basis.

21.3.2 Open Pit Mining Operating Costs

The open pit mining costs are based on mining contractor rates. Mining operating costs were developed from a combination of first principles costing for open pit haulage and project benchmarking against appropriate open pit operations, factored for contract mining. The contractor costs include contractor rates, overhead, profit and equipment capital repayment. To this, owner supervision/technical costs are added.

On a unit cost basis, the total mining cost has been estimated at $2.43/t mined and $1.47/t for stockpile rehandling costs. This results in an overall LOM average total open pit mining operating cost of $2.68/t mined. The total open pit mining operating cost is the sum of the total contractor mining cost, the capital repayment, and the owner overhead.

21.3.3 Underground Mining Operating Costs

The underground mine operating cost estimate was prepared at a PEA level of accuracy of ±35%.

Underground mining operating costs were developed based on an annual LOM schedule for an owner-operated scenario. Productivity, equipment operating hours, labour, supply requirements, and costs were calculated for each cost activity, such as: mine production drilling and blasting, mucking, secondary breaking, underground crushing and conveying, mine services, and maintenance. The cost of mine operating, technical and maintenance staff was estimated as separate cost items based on staff roster.

The cost was estimated using a combination of first principles calculations, experience, and factored costs. The underground operating costs have been estimated at $7.30/t mined, as presented in Table 21-10.

Table 21-10: Underground Mining Operating Cost Summary

Description	Life of Mine ($M)	Life of Mine ($/t)*
Production Drilling and Blasting	48	0.23
Production Mucking	287	1.39
Secondary Breaking	84	0.41
Crushing	123	0.60
Conveying	196	0.95
Mine Services and Maintenance	482	2.34
Definition Drilling	21	0.10
Rehabilitation	26	0.13
Underground Mine Operating & Maintenance Staff	235	1.14
Total Operating Cost	**1,501**	**7.30**

* Underground mining unit costs exclude capitalized development and mill feed generated from mine development. For the purpose of mining operating cost estimations, a fuel cost of $3.80/gal was considered based on a 3 yr trailing average and a power cost of $0.07/kWh was applied. Totals may not sum due to rounding.

The input data used for estimation of underground mining productivity, equipment requirements, labour requirements, and costs are presented in Table 21-11.

Table 21-11: Underground Mine Schedule Inputs

Operating Factors	Units	Quantity
Days/Year	days/year	365
Mine Operating Days	days/year	348
Mine Production Rate	tonnes/year	11,000,000
Working Days per Week	days/week	7
Shifts per Day	shifts/day	2
Shift Length	Hours/shift	12
Shift Change	hours	0.5
Equipment Inspection	hours	0.25
Lunch / Coffee Breaks	hours	1.0
Equipment Parking/Reporting	hours	0.25
Subtotal Non-Productive Time / Shift	hours	2
Usable Time / Shift	hours	10
Shift Efficiency	%	83%
Usable Minutes per Work Hour	min	50
Operational Efficiency (50 min in hour)	%	83%
Effective Work Time / Shift	hours	8.3
Work Time Efficiency	%	69%

Material costs were based on estimated consumables consumption and recent supplier's prices for drill and steel supplies, explosives, ground support, and services supplies. Consumables costs were increased by 10% to account for material wastage and miscellaneous use.

Maintenance consumables, such as parts, tires, etc., as well as fuel, lube and power were included in equipment operating costs and are part of mine development, production, and services costs.

Production drilling and blasting costs were estimated from first principles. It includes drilling and blasting costs to create initial slot and costs for drilling and blasting of undercut and drawbells.

No contingency was applied to the mine operating cost estimates.

21.3.4 Process Operating Costs

The process operating cost estimate is based on a 30,000 t/d mill, which includes the following operations: crushing, grinding, bulk rougher flotation, regrind, bulk cleaner flotation, copper-molybdenum separation, copper concentrate dewatering, molybdenum concentrate handling, and tailings handling.

The process operating cost estimate is also based on a 6,850 t/d oxide process facility, which consists of crushing, heap leaching, and an SX-EW circuit.

The average LOM process operating cost is estimated to be \$6.30/tonne for processing sulphide material and \$6.13/tonne for processing transition material. For oxide material heap leach and SXEW operation, the LOM average process operating cost is estimated to be \$6.71/t Table 21-12 through Table 21-14 summarize the expected LOM operating costs for the process area and includes the additional \$0.39/tonne to recover molybdenum concentrate.

Table 21-12: Summary of Process Plant Operating Costs – Sulphide Material

Cost Centre	Annual Cost ($M/a)	Unit Cost ($/t)
Reagents & Consumables	22.0	2.01
Plant Maintenance	6.80	0.62
Power	19.6	1.79
Labour	12.2	1.11
DSTF Opex	5.10	0.47
G&A - Expenses	3.20	0.29
Total (LOM) – Mill Plant Feed	**68.9**	**6.30**

Table 21-13: Summary of Process Plant Operating Costs – Transition Material

Cost Centre	Annual Cost ($M/a)	Unit Cost ($/t)
Reagents & Consumables	21.9	2.00
Plant Maintenance	6.80	0.62
Power	17.9	1.63
Labour	12.2	1.11
DSTF Opex	5.20	0.47
–&A - Expenses	3.20	0.29
Total (LOM) – Mill Plant Feed	**67.1**	**6.13**

Table 21-14: Summary of Process Plant Operating Costs – Oxide Material

Cost Centre	Annual Cost ($M/a)	Unit Cost ($/t)
Reagents & Consumables	8.70	3.49
Plant Maintenance	1.10	0.43
Power	2.70	1.08
Labour	3.20	1.30
G&A – Expenses	1.00	0.41
Total (LOM) – Oxide Plant Feed	**16.8**	**6.71**

21.3.4.1 Reagents and Consumables

Reagents, grinding media, and various consumables are required for processing mineralized materials. The consumption rates of each of the consumable item are based on the metallurgical test work outlined in Section 13 and are dependent on the planned process plant throughput of 30,000 t/d. A detailed breakdown of the reagents (including molybdenum) and consumables costs for processing sulphide and transitional material is presented in Table 21-15 by process area. Note: Numbers may not sum due to rounding.

Table 21-16 summarizes the reagents and consumables required for processing oxide material at an oxide plant throughput of 6,850 t/d.

Table 21-15: Processing Reagent & Consumables – Sulphide & Transitional Materials

Mineralized Materials	Sulphide		Transitional	
Area/Item	Annual Cost ($M/a)	Cost ($/t)	Annual Cost ($M/a)	Cost ($/t)
Crushing	0.24	0.02	0.24	0.02
Grinding	14.5	1.32	13.9	1.27
Copper-Moly Bulk Flotation	4.57	0.42	5.01	0.46
Moly Flotation Subtotal	0.47	0.04	0.47	0.04
Copper Concentrate Thickening, Filtration & Storage & Loadout	0.09	0.01	0.09	0.01
Moly Concentrate Thickening, Filtration & Storage & Loadout	<0.01	<0.01	<0.01	<0.01
Tailings Thickening & Pumping	2.17	0.20	2.17	0.20
Total – all areas	**22.0**	**2.01**	**21.9**	**2.00**

Note: Numbers may not sum due to rounding.

Table 21-16: Processing Reagent & Consumables – Oxide Materials

Item	Annual Cost ($M/a)	Cost ($/t)
Oxide Crushing	0.24	0.09
Heap Leaching Acid Consumption	7.25	2.90
SX/EW	1.25	0.50
Total-All Areas	**8.73**	**3.49**

Note: Numbers may not sum due to rounding.

21.3.4.2 Labour Costs

Labour costs for the process plant were determined by referencing benchmarks from similar projects, incorporating salaries and hourly wages based on comparable projects in Arizona, and considering expected local industry rates. Approximately 150 staff are estimated for the process operations proposed, 113 for the process plant and 28 for the heap leaching operation. Annual labour costs total $12.2 million at a unit cost of $1.11/t processed for concentrator and $3.24 million at a unit costs of $1.30/t material leached.

21.3.4.3 Power Costs

Power operating costs are calculated based on an estimate of annual power consumption using a unit cost of $0.065/kWh based on a portion of expected power requirements coming from a proposed solar and battery facility. The annual power consumption estimated for the Cu-Mo concentrator and the oxide heap leaching operation were derived from the average utilization of each motor on an electrical load list that was developed for the Project. Table 21-17 summarizes the installed electrical power, usage, and costs for each mineralized material.

Table 21-17: Power Operating Cost Summary – Sulphide Material

Mineralized Material	Installed (kW)	Operating (kW)	Consumption (MWh/a)	Cost ($M/a)	Unit Cost ($/t)
Sulphide	48,809	38,418	301,313	19.6	1.79
Transitional	48,809	38,418	274,968	17.9	1.63
Oxide	5,477	5,153	41,495	2.70	1.08

21.3.4.4 Dry Stack Tailings Facility Operating Costs

The operating cost estimate for the DSTF considers the power cost for tailings transport and stacking, heavy equipment cost for spreading and compacting the tailings, and construction of the outer slope protection. Operating costs were determined by referencing benchmarks from similar projects, incorporating hourly wages, power costs, and diesel costs based on comparable projects in Arizona, and considering expected local industry rates. The annual costs to operate the DSTF is estimated at $5.15 million at a unit cost of $0.47/t material processed.

21.3.4.5 Processing Facility General and Administrative Operating Costs

The processing G&A costs were estimated, taking into account the laboratory operational cost. The laboratory operational cost is based on the estimated number of samples and tests conducted. Annual processing G&A cost was estimated at $3.2 million during production for the mill, which equated to a G&A cost of $0.29/t of mill plant feed. The total processing G&A cost was estimated at $1.0 million during production for the oxide material process plant, which equated to a G&A cost of $0.41/t of oxide material process plant feed.

21.3.5 General and Administrative Operating Costs

G&A operating costs covered the on-site administrative and other expenses related to the Project and exclude G&A costs that were separately determined as part of the processing costs. G&A cost was estimated to average $1.45/t processed (exclusive of process plant related G&A) over the life of mine. The cost is comprised of $1.00/t processed based on regional benchmarks of comparative operational scale, plus $0.45/t processed average over the life of mine related to Arizona property tax (see Section 22.4). The Project would not require a camp facility as the location is easily accessible from the townsites of Mammoth, San Manuel and Oracle, as well as being approximately 80 road km northeast from the city of Tucson.

Overall, the G&A costs were estimated to consider:

- Human resources: Included training and recruiting;
- Health and safety: Included personal protective equipment;
- Administrative expenses: Included general administration, contractor services, insurance, legal and accounting services, travel, communication, services/supports, permits obligations, and engineering consulting;
- Operating and supplies expenses: Included costs associated with employment such as telephones, information technology equipment (computers and software); and
- Arizona property taxes (see section 22.4).

22 ECONOMIC ANALYSIS

22.1 Economic Analysis

The pre-tax NPV discounted at 7% is $846 million, the internal rate of return (IRR) is 16.5%, and payback period is 3.9 years. On a post-tax basis, the NPV discounted at 7% is $713 million; the IRR is 15.6%, and the payback period is 4.1 years. A summary of project economics is shown graphically in in Table 22-1. The analysis was done on an annual cashflow basis. The cashflow output is shown Table 22-3.

Table 22-1: Economic Analysis Summary Table

General		LOM Total / Avg.
Copper Price ($/lb)		3.80
Silver Price ($/oz)		20.00
Molybdenum Price ($/lb)		13.00
Mine Life (years)		31.7
Total Mill Feed Tonnes, Non-Oxide (kt)		345,292
Total Mill Feed Tonnes, Oxide (kt)		19,789
Production		**LOM Total / Avg.**
Mill Head Grade - Cu, Non-Oxide (%)		0.44
Mill Head Grade - Ag, Non-Oxide (g/t)		1.17
Mill Head Grade - Mo, Non-Oxide (%)		0.008
Mill Head Grade, Oxide - Cu (%)		0.29
Mill Head Grade, Oxide - Ag (g/t)		0.63
Mill Head Grade, Oxide - Mo (%)		0.006
Mill Recovery Rate (Concentrate) - Cu (%)		89.7%
Mill Recovery Rate (Concentrate) - Ag (%)		75.2%
Mill Recovery Rate (Concentrate) - Mo (%)		71.4%
Mill Recovery Rate (Cathode) - Cu (%)		75.0%
Mill Recovery Rate (Cathode) - Ag (%)		-
Mill Recovery Rate (Cathode) - Mo (%)		-
Total Mill Recovered - Cu (mlb)		3,276
Total Mill Recovered - Ag (koz)		10,214
Total Mill Recovered - Mo (mlb)		45.7
Average Annual Production - Cu (mlb)[c]		106
Average Annual Production - Ag (koz)[c]		325
Average Annual Production - Mo (mlb)[c]		1.4
Operating Costs	**Open Pit LOM Total / Avg.**	**Underground LOM Total / Avg.**
Mining Cost ($/t Mined)	2.43	7.30
Average Processing Cost ($/t processed)	6.26	6.30
G&A Cost ($/t processed)	1.45	1.45
Total Operating Costs ($/t processed)	13.01	17.56

Total Operating Costs		LOM Avg.
Cash Costs ($/lb Cu)[a]		1.67
All-in Sustaining Cost (AISC) ($/lb Cu)[b]		1.85
Capital Costs		**LOM Total / Avg.**
Initial Capital ($M)		797.9
Sustaining Capital ($M)		68.8
Expansion Capital ($M)		1,620.6
Closure Costs ($M)		169.8
Financials	**Pre-Tax**	**Post-Tax**
NPV (7%) ($M)	846.5	713
IRR (%)	16.5%	15.6%
Payback (years)	3.9	4.1

[a] Cash costs consist of mining costs, processing costs, mine-level G&A and refining charges and royalties
[b] All-in sustaining costs (AISC) includes cash costs plus sustaining capital and closure costs.
[c] Average annual production considers the period of active mining during Years 1 – 29, Year 30 – 32 includes processing of stockpiles only.

Contributions to the total project value are evaluated independently and presented in Table 22-2. The standalone open pit operations shows a pre-tax NPV discounted at 7% of $337 million.

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

Table 22-2: Pre-Tax NPV Contributions

Pre-Tax NPV Contributions	$M
Mill Initial Capital	(640)
Open Pit	977
Underground	509
Total	**846**
Standalone Open Pit[a]	**337**

Notes: [a] Standalone open pit includes mill initial capital

22.2 Forward-Looking Information Cautionary Statements

The results of the economic analyses discussed in this section represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here.

Information that is forward-looking includes the following:

- mineral resource estimates;
- assumed commodity prices and exchange rates;
- the proposed mine production plan;

- projected mining and process recovery rates;
- assumptions as to mining dilution and ability to mine in areas previously exploited using mining methods as envisaged the timing and amount of estimated future production;
- sustaining costs and proposed operating costs;
- assumptions as to closure costs and closure requirements; and
- assumptions as to environmental, permitting, and social risks.

Additional risks to the forward-looking information include:

- changes to costs of production from what is assumed;
- unrecognized environmental risks;
- unanticipated reclamation expenses;
- unexpected variations in quantity of mineralized material, grade, or recovery rates;
- accidents, labour disputes and other risks of the mining industry;
- geotechnical or hydrogeological considerations during mining being different from what was assumed;
- failure of mining methods to operate as anticipated;
- failure of plant, equipment, or processes to operate as anticipated;
- changes to assumptions as to the availability of electrical power, and the power rates used in the operating cost estimates and financial analysis;
- ability to maintain the social licence to operate;
- changes to interest rates; and
- changes to tax rates.

22.3 Methodologies Used

The Project has been evaluated using a discounted cash flow analysis based on a 7% discount rate. Cash inflows consist of annual revenue projections. Cash outflows consist of capital expenditures, including pre-production costs; operating costs; taxes; and royalties. These are subtracted from the inflows to arrive at the annual cash flow projections. Cash flows are taken to occur at the end-point of each period. It must be noted that tax calculations involve complex variables that can only be accurately determined during operations and, as such, the actual post-tax results may differ from those estimated. A sensitivity analysis was performed to assess the impact of variations in metals price, discount rate, head grade, recovery, total operating cost, and total capital costs.

The capital and operating cost estimates were developed in the first quarter of 2023 and are presented in Section 21 of this report in USD. The economic analysis has been run on a constant dollar basis with no inflation.

22.4 Financial Model Parameters

22.4.1 Assumptions

The economic analysis was performed assuming the copper price of $3.80/lb, silver price of $20.00/oz and molybdenum price of $13.00/lb; these metal prices were based on consensus analyst estimates and recently published economic studies. The forecasts used are meant to reflect the average metals price expectation over the life of the Project (31.7 years). No price inflation or escalation factors were taken into account. Commodity prices can be volatile, and there is the potential for deviation from the forecast.

The economic analysis also used the following assumptions:

- construction period of two years;
- cost estimates in constant Q1 2023 USD with no inflation or escalation factors considered;
- results based on 100% ownership with royalties due to both South32 and Franco;
- capital cost funded with 100% equity (no financing cost assumed);
- all cash flows discounted to start of construction period using end of period discounting convention;
- all metal products are sold in the same year they are produced;
- project revenue is derived from the sale of copper concentrate, molybdenum concentrate, and copper cathode; and
- no contractual arrangements for refining currently exist.

22.5 Taxes

The Project has been evaluated on a post-tax basis to provide an approximate value of the potential economics. The tax model was compiled by Mining Tax Plan LLC and included U.S. federal income taxes, state income taxes and state severance taxes, based on the Internal Revenue Code of 1986, as amended and the regulations thereunder, and the Arizona Revised Statutes in effect as of the date of the PEA technical report. Total income payments of $542.3 million were estimated over the life of mine, comprised of $351.8 million of U.S. federal income taxes, $109.5 million of Arizona state income taxes, and $81.0 million of Arizona state severance taxes.

In addition, Arizona property taxes, which are included separately under G&A costs of $162.9 million were estimated over the life of mine.

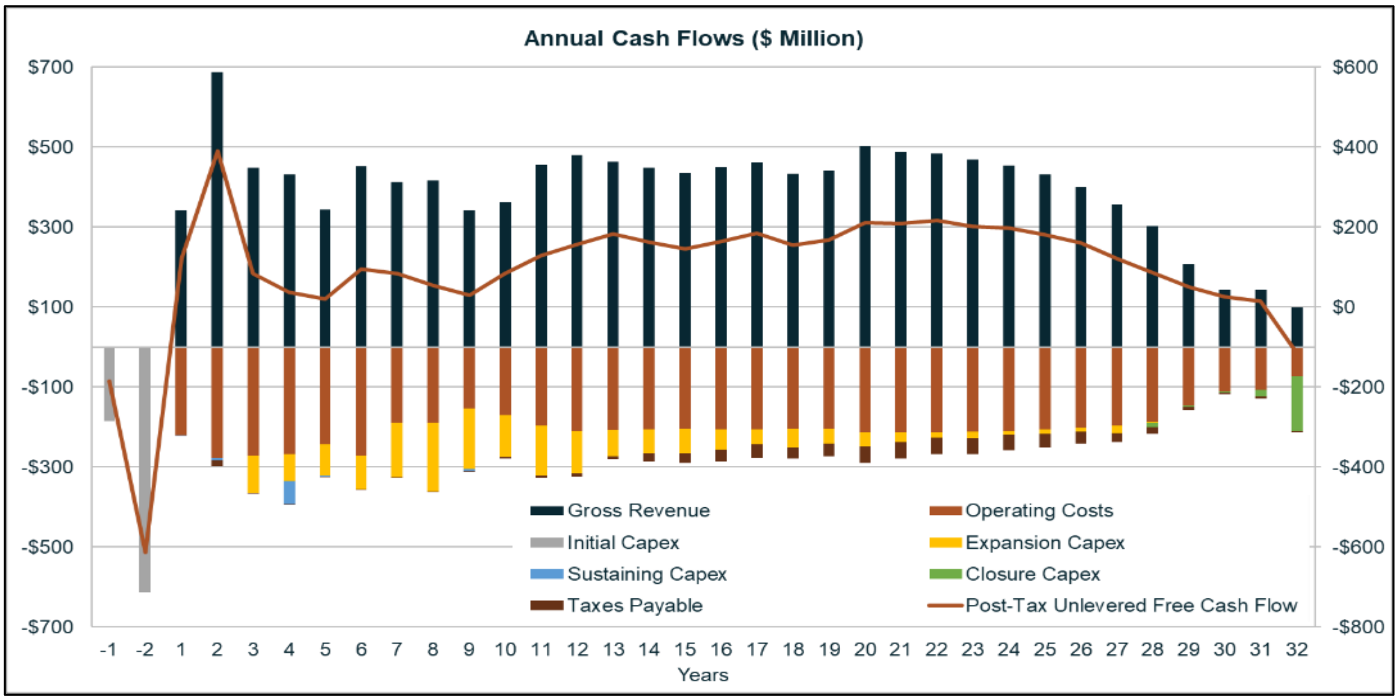
The LOM expected effective income tax rate of 14.4%, excluding Arizona property taxes. Amounts were calculated based on modelling expected future cash flows with the following assumptions:

- The open pit and underground mines would be treated as separate depletable properties under Section 614.
- The Project would deduct mine development costs as incurred under Section 616(a) subject to Section 291(b)(2) adjustment for corporate taxpayers.
- The Project would elect to depreciate long-lived assets under the unit of production basis under Section 168(f)(1) and all other assets would be depreciated under Modified Accelerated Cost Recovery System in accordance with Rev. Proc. 87-56.

- All metal sales would be delivered outside of the U.S. and are therefore expected to be eligible for the Foreign Derived Intangible Income deduction under Section 250. The Project would use a third party outside of the U.S. for concentrate treatment and refining.
- No section 382 ownership change would occur during the construction or operation of the mine.
- The severance tax liability has been computed in accordance with the Arizona Department of Revenue guidelines. The tax rate is 2.5% and is applied to 50% of the gross margin on metal sales.
- Arizona property taxes were determined based on the current Arizona Department of Revenue guidelines, discussions with the State and observable market precedents. The valuation of the Project uses the cost approach for years 1 through 5, a 60% / 40%, a blend of the income and cost approaches for years 6 through 27, and the cost approach again for years 28 - 32 of the mine life.

The analysis was done on an annual cashflow basis; the cashflow output is shown in Figure 22-1.

Figure 22-1: Annual Cash Flow



Source: Ausenco, 2023

Table 22-3: Project Cash Flow

Macro Assumptions	Units	Total / Avg.	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062
Copper Price	$/lb	$3.80	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8	$3.8
Silver Price	$/oz	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00
Molybdenum Price	$/lb	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00	$13.00
Revenue	**$mm**	**$12,796.5**	**--**	**--**	**$342.2**	**$687.4**	**$449.4**	**$431.3**	**$344.6**	**$452.1**	**$412.2**	**$417.1**	**$342.9**	**$362.5**	**$456.0**	**$479.6**	**$463.7**	**$448.9**	**$435.3**	**$449.7**	**$461.1**	**$433.5**	**$440.5**	**$502.0**	**$488.5**	**$483.7**	**$469.6**	**$454.8**	**$432.6**	**$400.8**	**$357.3**	**$303.6**	**$207.8**	**$143.5**	**$143.6**	**$98.7**	**--**	**--**	**--**	**--**	**--**
Off-Site Costs	$mm	($916.1)	--	--	($22.3)	($45.8)	($23.8)	($29.0)	($24.1)	($30.1)	($30.0)	($30.2)	($24.9)	($26.3)	($33.4)	($35.4)	($34.4)	($33.3)	($32.2)	($33.2)	($34.0)	($31.9)	($32.3)	($36.8)	($35.8)	($35.4)	($34.4)	($33.3)	($31.7)	($29.3)	($26.2)	($22.2)	($15.4)	($10.8)	($10.8)	($7.4)	--	--	--	--	--
Royalties	$mm	($337.8)	--	--	($8.8)	($12.2)	($9.4)	($12.5)	($10.1)	($13.1)	($11.4)	($11.5)	($9.5)	($10.0)	($12.6)	($13.2)	($12.8)	($12.4)	($12.0)	($12.4)	($12.7)	($12.0)	($12.1)	($13.8)	($13.5)	($13.3)	($12.9)	($12.5)	($11.9)	($11.1)	($9.9)	($8.4)	($5.7)	($4.0)	--	--	--	--	--	--	--
Operating Cost	$mm	($5,130.2)	--	--	($190.2)	($219.3)	($238.8)	($225.1)	($208.8)	($228.3)	($147.8)	($146.9)	($119.3)	($133.1)	($151.3)	($160.8)	($160.1)	($159.6)	($159.2)	($159.6)	($159.4)	($159.2)	($159.9)	($162.7)	($164.1)	($164.3)	($163.8)	($163.7)	($162.7)	($161.8)	($161.1)	($155.6)	($125.4)	($96.0)	($96.0)	($66.0)	($0.0)	($0.1)	($0.1)	($0.1)	($0.1)
EBITDA	**$mm**	**$6,412.4**	**--**	**--**	**$120.9**	**$410.1**	**$177.4**	**$164.7**	**$101.6**	**$180.6**	**$223.0**	**$228.5**	**$189.2**	**$193.1**	**$258.7**	**$270.2**	**$256.4**	**$243.7**	**$231.8**	**$244.5**	**$255.0**	**$230.4**	**$236.1**	**$288.6**	**$275.1**	**$270.6**	**$258.5**	**$245.2**	**$226.3**	**$198.6**	**$160.2**	**$117.4**	**$61.3**	**$32.8**	**$36.8**	**$25.3**	**($0.0)**	**($0.1)**	**($0.1)**	**($0.1)**	**($0.1)**
Initial Capex	$mm	($797.9)	($184.7)	($613.2)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Expansion Capex	$mm	($1,620.6)	--	--	--	--	($91.8)	($68.5)	($78.5)	($84.3)	($136.4)	($172.0)	($151.9)	($104.7)	($124.0)	($107.5)	($66.6)	($60.3)	($61.6)	($51.4)	($37.0)	($46.6)	($37.0)	($34.9)	($24.7)	($12.8)	($17.9)	($9.5)	($10.2)	($8.5)	($18.2)	($3.5)	--	--	--	--	--	--	--	--	--
Sustaining Capex	$mm	($68.8)	--	--	($0.3)	($4.5)	--	($56.8)	($2.3)	--	($0.0)	--	($4.8)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Closure Capex	$mm	($169.8)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	($11.3)	($2.5)	($2.5)	($16.9)	($136.6)	--	--	--	--	--
Change in Working Capital	$mm	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pre-Tax Unlevered Free Cash Flow	**$mm**	**$3,755.4**	**($184.7)**	**($613.2)**	**$120.6**	**$405.6**	**$85.6**	**$39.3**	**$20.8**	**$96.3**	**$86.6**	**$56.5**	**$32.5**	**$88.4**	**$134.7**	**$162.7**	**$189.8**	**$183.4**	**$170.2**	**$193.0**	**$217.9**	**$183.8**	**$199.1**	**$253.7**	**$250.5**	**$257.9**	**$240.5**	**$235.7**	**$216.1**	**$190.1**	**$141.9**	**$102.5**	**$58.8**	**$30.3**	**$19.9**	**($111.3)**	**($0.0)**	**($0.1)**	**($0.1)**	**($0.1)**	**($0.1)**
Pre-Tax Unlevered Free Cash Flow - Excl. Expansion Capital	$mm	$5,375.9	($184.7)	($613.2)	$120.6	$405.6	$177.4	$107.9	$99.3	$180.6	$223.0	$228.5	$184.4	$193.1	$258.7	$270.2	$256.4	$243.7	$231.8	$244.5	$255.0	$230.4	$236.1	$288.6	$275.1	$270.6	$258.5	$245.2	$226.3	$198.6	$160.2	$106.1	$58.8	$30.3	$19.9	($111.3)	($0.0)	($0.1)	($0.1)	($0.1)	($0.1)
Corporate Income Tax	$mm	($542.3)	--	--	--	($15.4)	($2.0)	($1.3)	($0.4)	($1.6)	($2.1)	($2.6)	($2.5)	($3.8)	($5.8)	($6.7)	($7.1)	($20.9)	($24.3)	($28.9)	($33.8)	($28.1)	($31.2)	($41.9)	($40.7)	($41.9)	($39.1)	($38.2)	($34.9)	($30.1)	($21.5)	($15.7)	($7.8)	($4.3)	($4.9)	($2.8)	--	--	--	--	--
Post-Tax Unlevered Free Cash Flow	**$mm**	**$3,213.0**	**($184.7)**	**($613.2)**	**$120.6**	**$390.2**	**$83.6**	**$38.0**	**$20.3**	**$94.8**	**$84.5**	**$53.9**	**$30.0**	**$84.6**	**$129.0**	**$156.0**	**$182.7**	**$162.5**	**$146.0**	**$164.2**	**$184.1**	**$155.8**	**$167.9**	**$211.9**	**$209.8**	**$215.9**	**$201.4**	**$197.5**	**$181.3**	**$160.0**	**$120.5**	**$86.8**	**$50.9**	**$26.0**	**$14.9**	**($114.1)**	**($0.0)**	**($0.1)**	**($0.1)**	**($0.1)**	**($0.1)**
Post-Tax Unlevered Free Cash Flow - Excl. Expansion Capital	$mm	$4,833.6	($184.7)	($613.2)	$120.6	$390.2	$175.4	$106.6	$98.8	$179.1	$220.9	$225.9	$181.9	$189.3	$253.0	$263.6	$249.3	$222.7	$207.5	$215.6	$221.2	$202.4	$204.9	$246.8	$234.5	$228.7	$219.4	$207.0	$191.4	$168.4	$138.7	$90.3	$50.9	$26.0	$14.9	($114.1)	($0.0)	($0.1)	($0.1)	($0.1)	($0.1)
Production Summary																																									
Total Open Pit Material Mined	kt	153,716	--	11,521	17,139	30,249	18,893	18,339	21,056	21,173	8,543	6,804	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Underground Material Mined	kt	182,936	--	15,475	27,853	14,747	26,092	26,030	22,942	23,815	13,262	12,719	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Waste Mined	kt	211,364	--	--	--	--	--	--	--	111	246	1,735	3,595	5,773	9,331	10,950	10,949	10,950	10,950	10,949	10,949	10,949	10,949	10,949	10,949	10,993	10,992	11,023	10,992	10,992	10,992	10,108	4,987	--	--	--	--	--	--	--	--
Project Life	yrs	31.7	--	--	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	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	1.0	0.7	--	--	--	--	--
Mill Feed (Open Pit, Oxide)	kt	19,789	--	--	2,057	3,349	5,293	3,627	1,632	3,766	24	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mill Feed (Open Pit, Non-Oxide)	kt	133,928	--	--	8,250	11,000	11,000	11,000	11,000	10,889	10,754	9,265	7,405	5,227	1,669	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	892	6,016	10,997	11,000	7,564	--	--	--	--	--
Mill Feed (Underground)	kt	211,364	--	--	--	--	--	--	--	111	246	1,735	3,595	5,773	9,331	10,950	10,949	10,950	10,950	10,949	10,949	10,949	10,949	10,949	10,949	10,993	10,992	11,023	10,992	10,992	10,992	10,108	4,987	--	--	--	--	--	--	--	--
Mill Head Grade (Cu, No Oxide)	%	0.44%	--	--	0.46%	0.66%	0.39%	0.38%	0.36%	0.37%	0.48%	0.48%	0.39%	0.39%	0.48%	0.50%	0.49%	0.49%	0.48%	0.51%	0.52%	0.49%	0.50%	0.58%	0.56%	0.56%	0.54%	0.52%	0.49%	0.46%	0.41%	0.34%	0.24%	0.17%	0.17%	0.17%	--	--	--	--	--
Mill Head Grade (Ag, No Oxide)	g/t	1.17	--	--	1.01	1.60	0.97	0.53	0.73	0.60	1.11	1.60	2.23	2.84	3.04	2.76	2.15	1.59	1.12	0.90	0.81	0.76	0.78	0.81	0.84	0.86	0.88	0.91	0.93	0.92	0.89	0.83	0.66	0.53	0.53	0.53	--	--	--	--	--
Mill Head Grade (Mo, No Oxide)	%	0.008%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	--	--	--	--	--
Oxide Head Grade (Cu)	%	0.29%	--	--	0.29%	0.27%	0.41%	0.20%	0.21%	0.25%	0.16%	0.44%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oxide Head Grade (Ag)	g/t	0.63	--	--	0.63	1.31	1.10	0.19	0.14	0.03	0.30	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oxide Head Grade (Mo)	%	0.006%	--	--	0.001%	0.003%	0.003%	0.012%	0.004%	0.012%	0.002%	0.001%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mill Recovery (Cu) - Concentrate	%	89.7%	--	--	79.3%	81.2%	57.8%	78.9%	80.9%	77.9%	92.7%	92.9%	90.8%	92.7%	94.0%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.4%	94.1%	91.3%	86.2%	86.2%	86.2%	--	--	--	--	--
Mill Recovery (Ag) - Concentrate	%	75.2%	--	--	64.4%	66.0%	44.2%	58.1%	73.9%	66.9%	74.6%	81.0%	88.7%	89.3%	89.8%	90.0%	85.8%	80.2%	73.8%	69.9%	67.9%	66.7%	67.1%	67.8%	68.5%	68.9%	69.4%	70.0%	70.3%	70.2%	69.5%	68.4%	64.4%	60.2%	60.2%	60.2%	--	--	--	--	--
Mill Recovery (Mo) - Concentrate	%	71.4%	--	--	--	--	56.0%	59.4%	72.4%	67.4%	71.0%	69.9%	79.8%	83.7%	85.4%	85.5%	85.5%	85.5%	85.5%	81.9%	80.3%	77.7%	76.0%	77.3%	75.4%	74.7%	74.5%	74.7%	74.3%	73.4%	71.7%	71.3%	73.6%	76.2%	76.2%	76.2%	--	--	--	--	--
Mill Recovery (Cu) - Cathode	%	75.0%	--	--	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mill Recovery (Ag) - Cathode	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mill Recovery (Mo) - Cathode	%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Recovered Copper - Concentrate	mlb	3,181	--	--	82	170	81	98	82	95	108	108	85	88	109	115	112	111	110	116	119	113	115	131	128	127	123	119	113	105	93	79	52	35	35	24	--	--	--	--	--
Recovered Silver - Concentrate	koz	10,214	--	--	215	488	224	146	218	191	294	459	699	897	967	876	648	448	290	222	193	178	183	193	202	209	216	225	230	227	218	201	151	114	114	78	--	--	--	--	--
Recovered Molybdenum - Concentrate	mlb	45.7	--	--	--	--	0.9	1.9	1.5	3.2	0.8	0.8	1.4	1.9	2.9	3.3	3.1	2.6	2.1	1.7	1.5	1.3	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.9	1.0	1.2	1.2	0.8	--	--	--	--	--
Recovered Copper - Cathode	mlb	95	--	--	10	15	36	12	6	16	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Recovered Silver - Cathode	koz	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Recovered Molybdenum - Cathode	mlb	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dry Cu Concentrate Produced	kt	4,809	--	--	124	257	123	148	124	144	163	164	128	133	165	174	170	168	166	175	180	170	174	199	194	192	186	180	171	158	141	119	79	52	52	36	--	--	--	--	--
Dry Mo Concentrate Produced	kt	41.5	--	--	--	--	0.9	1.8	1.3	2.9	0.8	0.7	1.3	1.7	2.6	3.0	2.8	2.3	1.9	1.5	1.4	1.2	1.1	1.2	1.0	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.9	1.0	1.0	0.7	--	--	--	--	--
Moisture Content	%	8.0%	--	--	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	--	--	--	--	--

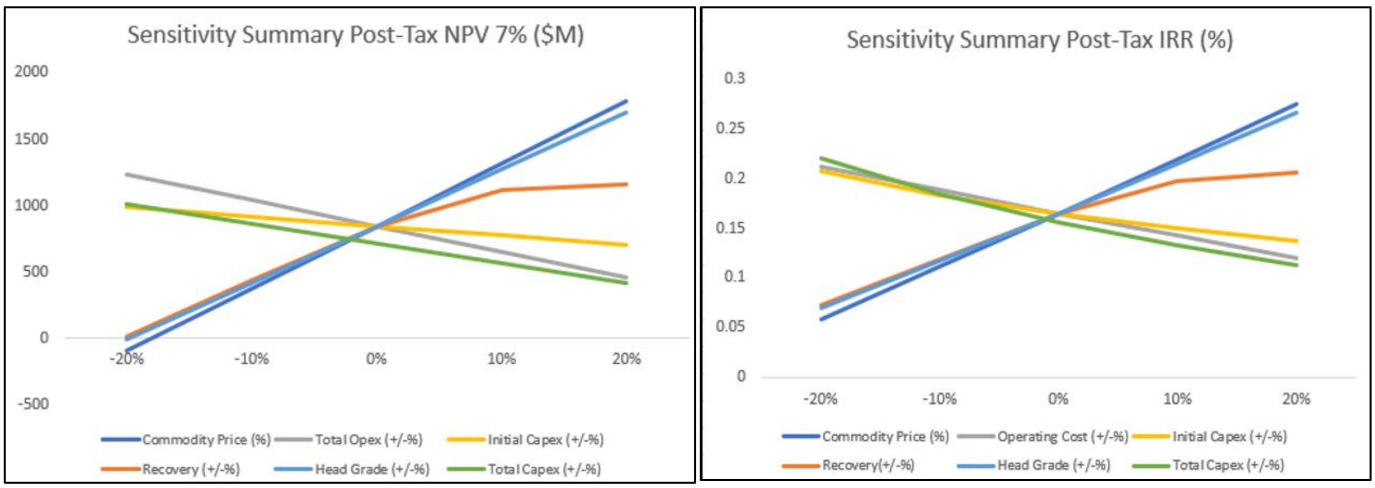
Macro Assumptions	Units	Total / Avg.	2024		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062
Wet Cu Concentrate Produced	kt	5,228	--		--	135	279	134	161	135	156	177	178	140	144	180	189	185	183	180	190	196	185	189	216	211	209	202	196	186	172	153	129	86	57	57	39	--	--	--	--	--
Wet Mo Concentrate Produced	kt	45.1	--		--	--	--	0.9	1.9	1.5	3.2	0.8	0.8	1.4	1.9	2.8	3.2	3.0	2.5	2.1	1.7	1.5	1.3	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.9	1.0	1.1	1.1	0.8	--	--	--	--	--
Total TC, RC & Penalties	$mm	($669.7)	--		--	($15.8)	($32.6)	($16.8)	($21.2)	($17.6)	($22.3)	($21.8)	($21.9)	($18.3)	($19.5)	($25.0)	($26.5)	($25.7)	($24.7)	($23.8)	($24.3)	($24.8)	($23.2)	($23.5)	($26.8)	($26.0)	($25.7)	($25.0)	($24.2)	($23.0)	($21.3)	($19.0)	($16.2)	($11.3)	($8.1)	($8.1)	($5.6)	--	--	--	--	--
Transportation	$mm	($246.4)	--		--	($6.5)	($13.2)	($7.0)	($7.8)	($6.4)	($7.7)	($8.3)	($8.3)	($6.5)	($6.8)	($8.5)	($8.9)	($8.7)	($8.6)	($8.5)	($8.9)	($9.2)	($8.6)	($8.8)	($10.1)	($9.8)	($9.7)	($9.4)	($9.1)	($8.7)	($8.0)	($7.1)	($6.0)	($4.0)	($2.7)	($2.7)	($1.8)	--	--	--	--	--
Payable Copper	**mlb**	**3,162**	**--**		**--**	**89**	**178**	**114**	**106**	**85**	**107**	**104**	**105**	**82**	**85**	**105**	**111**	**108**	**107**	**106**	**112**	**115**	**109**	**111**	**127**	**124**	**123**	**119**	**115**	**109**	**101**	**90**	**76**	**51**	**33**	**33**	**23**	**--**	**--**	**--**	**--**	**--**
Payable Silver	**koz**	**9,704**	**--**		**--**	**204**	**464**	**213**	**139**	**207**	**182**	**279**	**436**	**664**	**852**	**918**	**832**	**615**	**426**	**275**	**211**	**184**	**169**	**174**	**183**	**192**	**199**	**206**	**214**	**218**	**216**	**207**	**191**	**143**	**108**	**108**	**74**	**--**	**--**	**--**	**--**	**--**
Payable Molybdenum	**mlb**	**45.1**	**--**		**--**	**--**	**--**	**0.9**	**1.9**	**1.5**	**3.2**	**0.8**	**0.8**	**1.4**	**1.9**	**2.8**	**3.2**	**3.0**	**2.5**	**2.1**	**1.7**	**1.5**	**1.3**	**1.2**	**1.3**	**1.1**	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**0.9**	**0.9**	**1.0**	**1.1**	**1.1**	**0.8**	**--**	**--**	**--**	**--**	**--**
Payable Copper Equivalent	**mlb**	**3,367**	**--**		**--**	**90**	**181**	**118**	**113**	**91**	**119**	**108**	**110**	**90**	**95**	**120**	**126**	**122**	**118**	**115**	**118**	**121**	**114**	**116**	**132**	**129**	**127**	**124**	**120**	**114**	**105**	**94**	**80**	**55**	**38**	**38**	**26**	**--**	**--**	**--**	**--**	**--**
Copper Revenue	**$mm**	**$12,017**	**--**		**--**	**$338**	**$678**	**$433**	**$404**	**$322**	**$407**	**$396**	**$398**	**$311**	**$321**	**$401**	**$421**	**$412**	**$407**	**$403**	**$424**	**$438**	**$413**	**$422**	**$482**	**$470**	**$466**	**$452**	**$436**	**$415**	**$384**	**$342**	**$289**	**$192**	**$127**	**$127**	**$87**	**--**	**--**	**--**	**--**	**--**
Silver Revenue	**$mm**	**$194**	**--**		**--**	**$4**	**$9**	**$4**	**$3**	**$4**	**$4**	**$6**	**$9**	**$13**	**$17**	**$18**	**$17**	**$12**	**$9**	**$6**	**$4**	**$4**	**$3**	**$3**	**$4**	**$4**	**$4**	**$4**	**$4**	**$4**	**$4**	**$4**	**$4**	**$3**	**$2**	**$2**	**$1**	**--**	**--**	**--**	**--**	**--**
Molybdenum Revenue	**$mm**	**$586**	**--**		**--**	**--**	**--**	**$12**	**$25**	**$19**	**$41**	**$11**	**$10**	**$18**	**$24**	**$37**	**$42**	**$39**	**$33**	**$27**	**$22**	**$20**	**$17**	**$15**	**$16**	**$15**	**$14**	**$14**	**$14**	**$14**	**$13**	**$12**	**$11**	**$13**	**$15**	**$15**	**$10**	**--**	**--**	**--**	**--**	**--**
Total Revenue	**$mm**	**$12,796**	**--**		**--**	**$342**	**$687**	**$449**	**$431**	**$345**	**$452**	**$412**	**$417**	**$343**	**$362**	**$456**	**$480**	**$464**	**$449**	**$435**	**$450**	**$461**	**$434**	**$440**	**$502**	**$489**	**$484**	**$470**	**$455**	**$433**	**$401**	**$357**	**$304**	**$208**	**$144**	**$144**	**$99**	**--**	**--**	**--**	**--**	**--**
Royalties	$mm	($338)	--		--	($9)	($12)	($9)	($13)	($10)	($13)	($11)	($12)	($9)	($10)	($13)	($13)	($13)	($12)	($12)	($12)	($13)	($12)	($12)	($14)	($13)	($13)	($13)	($13)	($12)	($11)	($10)	($8)	($6)	($4)	--	--	--	--	--	--	--
Total Operating Costs	$mm	($5,130)	--		--	($190)	($219)	($239)	($225)	($209)	($228)	($148)	($147)	($119)	($133)	($151)	($161)	($160)	($160)	($159)	($160)	($159)	($159)	($160)	($163)	($164)	($164)	($164)	($164)	($163)	($162)	($161)	($156)	($125)	($96)	($96)	($66)	($0)	($0)	($0)	($0)	($0)
Mine Operating Costs	$mm	($2,308.7)	--		--	($109.5)	($109.6)	($109.5)	($108.0)	($107.1)	($109.5)	($58.4)	($57.8)	($31.4)	($45.4)	($63.8)	($74.3)	($74.3)	($74.2)	($74.0)	($74.5)	($74.4)	($74.4)	($75.2)	($78.1)	($79.9)	($80.2)	($80.2)	($80.5)	($80.2)	($80.2)	($80.2)	($75.1)	($45.2)	($16.1)	($16.1)	($11.1)	--	--	--	--	--
Mill Processing (No Oxides)	$mm	($2,160.7)	--		--	($48.4)	($64.3)	($68.7)	($68.9)	($68.5)	($69.2)	($69.0)	($69.1)	($68.9)	($69.0)	($69.2)	($68.9)	($68.9)	($68.9)	($68.9)	($68.9)	($68.9)	($68.9)	($68.9)	($68.9)	($68.9)	($69.2)	($69.2)	($69.4)	($69.2)	($69.2)	($69.2)	($69.2)	($69.0)	($68.7)	($68.7)	($47.3)	--	--	--	--	--
Mill Processing (Oxides)	$mm	($132.8)	--		--	($13.8)	($22.5)	($35.5)	($24.3)	($11.0)	($25.3)	($0.2)	($0.3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G&A Costs	$mm	($528.0)	--		--	($18.5)	($23.0)	($25.1)	($23.8)	($22.3)	($24.3)	($20.2)	($19.7)	($19.0)	($18.7)	($18.3)	($17.6)	($16.9)	($16.5)	($16.3)	($16.2)	($16.1)	($15.9)	($15.8)	($15.7)	($15.3)	($14.9)	($14.3)	($13.8)	($13.2)	($12.4)	($11.7)	($11.3)	($11.2)	($11.1)	($11.1)	($7.6)	($0.0)	($0.1)	($0.1)	($0.1)	($0.1)
Operating Costs per Tonne Processed	*$/t Processed*	*$14.05*	--		--	*$18.46*	*$15.28*	*$14.66*	*$15.39*	*$16.53*	*$15.46*	*$13.41*	*$13.30*	*$10.84*	*$12.10*	*$13.75*	*$14.69*	*$14.63*	*$14.57*	*$14.54*	*$14.58*	*$14.56*	*$14.54*	*$14.61*	*$14.86*	*$14.99*	*$14.95*	*$14.90*	*$14.85*	*$14.80*	*$14.72*	*$14.66*	*$14.14*	*$11.40*	*$8.73*	*$8.72*	*$8.73*	--	--	--	--	--
Cash Costs (By-Product Basis)		* Cash costs consist of mining costs, processing costs, mine-level G&A and refining charges																				** AISC includes cash costs plus sustaining capital, royalties, and closure costs																				
Cash Cost *	$/lb Cu	$1.67	--		--	$2.34	$1.43	$2.16	$2.13	$2.48	$1.99	$1.55	$1.51	$1.37	$1.40	$1.23	$1.24	$1.32	$1.41	$1.50	$1.50	$1.48	$1.57	$1.56	$1.42	$1.47	$1.48	$1.52	$1.56	$1.62	$1.72	$1.91	$2.14	$2.48	$2.70	$2.70	$2.70	--	--	--	--	--
All-in Sustaining Cost (AISC) **	$/lb Cu	$1.85	--		--	$2.44	$1.53	$2.24	$2.78	$2.63	$2.11	$1.66	$1.62	$1.55	$1.52	$1.35	$1.36	$1.43	$1.53	$1.61	$1.61	$1.59	$1.68	$1.67	$1.52	$1.58	$1.59	$1.63	$1.67	$1.73	$1.83	$2.02	$2.40	$2.64	$2.89	$3.20	$8.66	--	--	--	--	--
Total Initial Capital	**$mm**	**($798)**	**($185)**		**($613)**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
OP Mine Pre-Strip	$mm	($65.7)	--		($65.7)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OP Mine	$mm	($10.5)	($4.0)		($6.5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OP Mine Contingency	$mm	($2.1)	($0.8)		($1.3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Process Plant direct costs	$mm	($466.5)	($116.6)		($349.9)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Process Plant indirect costs	$mm	($109.8)	($27.5)		($82.4)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Owners Costs	$mm	($23.3)	($5.8)		($17.5)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Processing Contingency Costs	$mm	($119.9)	($30.0)		($89.9)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Expansion Capital	**$mm**	**($1,620.6)**	**--**		**--**	**--**	**--**	**$91.8**	**$68.5**	**$78.5**	**$84.3**	**$136.4**	**$172.0**	**$151.9**	**$104.7**	**$124.0**	**$107.5**	**$66.6**	**$60.3**	**$61.6**	**$51.4**	**$37.0**	**$46.6**	**$37.0**	**$34.9**	**$24.7**	**$12.8**	**$17.9**	**$9.5**	**$10.2**	**$8.5**	**$18.2**	**$3.5**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Mine	$mm	($1,370.0)	--		--	--	--	$22.7	$60.7	$69.3	$74.6	$120.4	$151.9	$137.4	$96.9	$107.6	$93.2	$57.9	$52.4	$53.5	$44.7	$32.2	$40.5	$32.1	$30.3	$21.3	$11.1	$15.6	$8.3	$8.9	$7.4	$15.8	$3.1	--	--	--	--	--	--	--	--	--
Mine Contingency	$mm	($185.2)	--		--	--	--	$3.7	$7.9	$9.2	$9.7	$16.0	$20.1	$14.5	$7.8	$16.4	$14.3	$8.7	$7.9	$8.0	$6.7	$4.8	$6.1	$4.8	$4.6	$3.4	$1.7	$2.3	$1.2	$1.3	$1.1	$2.4	$0.5	--	--	--	--	--	--	--	--	--
Total Process Plant direct costs	$mm	($42.3)	--		--	--	--	$42.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Process Plant indirect costs	$mm	($10.1)	--		--	--	--	$10.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Owners Costs	$mm	($2.1)	--		--	--	--	$2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Processing Contingency Costs	$mm	($10.9)	--		--	--	--	$10.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Sustaining Capital	**$mm**	**($68.8)**	**--**		**--**	**($0.3)**	**($4.5)**	**--**	**($56.8)**	**($2.3)**	**--**	**($0.0)**	**--**	**($4.8)**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Mine	$mm	($6.5)	--		--	($0.3)	($4.1)	--	--	($2.1)	--	($0.0)	--	($0.0)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mine Contingency	$mm	($0.6)	--		--	($0.0)	($0.4)	--	--	($0.2)	--	($0.0)	--	($0.0)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DSTF	$mm	($61.6)	--		--	--	--	--	($56.8)	--	--	--	--	($4.8)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Closure Cost	$mm	($169.8)	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	($11.3)	($2.5)	($2.5)	($16.9)	($136.6)	--	--	--	--	--
Total Capital Expenditures Including Salvage Value	**$mm**	**($238.6)**	**--**		**--**	**$0.3**	**($4.5)**	**--**	**($56.8)**	**($2.3)**	**--**	**($0.0)**	**--**	**($4.8)**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**($11.3)**	**($2.5)**	**($2.5)**	**($16.9)**	**($136.6)**	**--**	**--**	**--**	**--**	**--**

22.6 Sensitivity Analysis

A sensitivity analysis was conducted on the base case pre-tax and post-tax NPV and IRR of the Project, using the following variables: metal prices, discount rate, head grade, recovery, total operating cost, and initial capital cost.

Table 22-4 and Figure 22-2 show the post-tax sensitivity analysis for NPV and IRR, respectively; pre-tax sensitivity results are shown in Table 22-5 and Table 22-6.

Figure 22-2: Post-Tax NPV and IRR Sensitivity Results



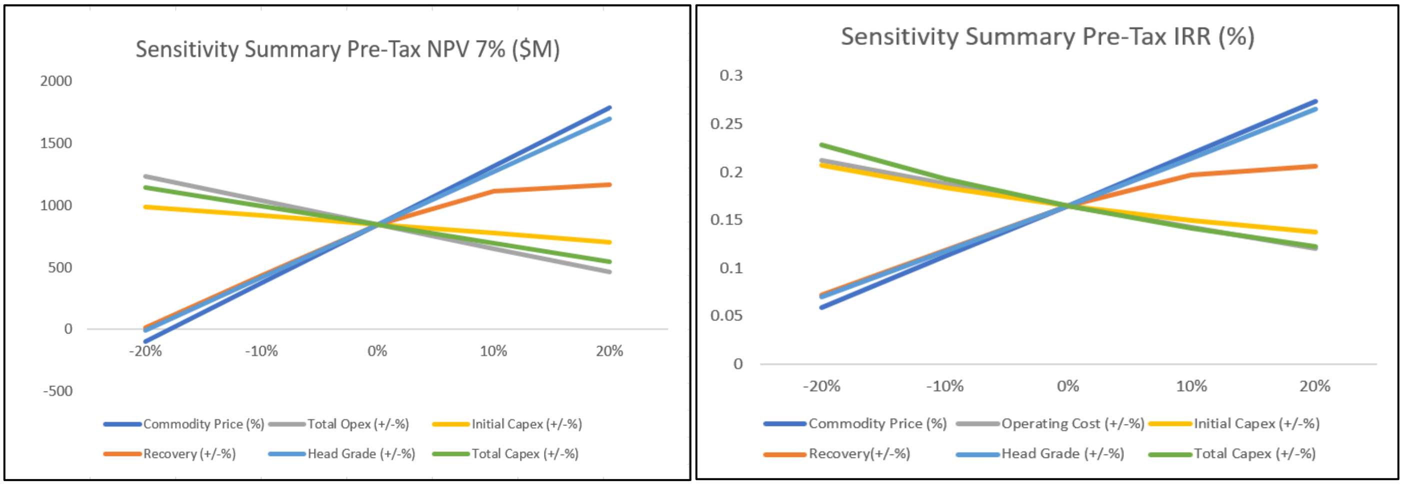
Source: Ausenco, 2023

As shown in Figure 22-2 and Table 22-4 the post-tax sensitivity analysis revealed that the Project is most sensitive to changes in commodity price, recovery, and head grade, and less sensitive to total operating cost, and capital costs.

Table 22-4: Sensitivity Summary Post-Tax NPV Full Year ($M)

Metal Prices	Post-Tax NPV (7%)	Total Capital Cost		Total Operating Cost		Head Grade	
	Base Case	-10.0%	10.0%	-10.0%	10.0%	-10.0%	10.0%
-20.0%	($142)	$6	($291)	$51	($336)	($459)	$173
-10.0%	$302	$449	$154	$494	$109	($52)	$632
--	$713	$861	$566	$906	$521	$343	$1,072
10.0%	$1,111	$1,257	$964	$1,302	$919	$712	$1,500
20.0%	$1,499	$1,645	$1,353	$1,691	$1,307	$1,069	$1,925
Metal Prices	**Post-Tax IRR**	**Total Capital Cost**		**Total Operating Cost**		**Head Grade**	
	Base Case	**-10.0%**	**10.0%**	**-10.0%**	**10.0%**	**-10.0%**	**10.0%**
-20.0%	5.3%	7.1%	3.7%	7.6%	2.8%	1.0%	9.1%
-10.0%	10.6%	12.8%	8.7%	12.9%	8.3%	6.4%	14.6%
--	15.6%	18.4%	13.2%	18.0%	13.2%	11.0%	20.1%
10.0%	20.5%	23.9%	17.7%	23.0%	18.1%	15.5%	25.3%
20.0%	25.2%	29.1%	22.0%	27.7%	22.8%	19.9%	30.4%

Figure 22-3: Pre-Tax NPV and IRR Sensitivity Results



Source: Ausenco, 2023

Table 22-5: Sensitivity Analysis Summary Pre-Tax NPV Full Year ($M)

Pre-Tax NPV Sensitivities					
Percent change (%)	(20.0%)	(10.0%)	--	10.0%	20.0%
Commodity Price (%)	($98)	$374	$846	$1,319	$1,791
Total Opex (+/-%)	$1,233	$1,040	$846	$653	$460
Initial Capex (+/-%)	$988	$917	$846	$776	$705
Recovery (+/-%)	$18	$436	$846	$1,114	$1,164
Head Grade (+/-%)	($5)	$420	$846	$1,273	$1,701
Total Capex (+/-%)	$1,144	$995	$846	$698	$549

Table 22-6: Sensitivity Analysis Summary Pre-Tax IRR (%)

Pre-Tax IRR Sensitivities					
Percent change (%)	(20.0%)	(10.0%)	--	10.0%	20.0%
Commodity Price (%)	5.9%	11.2%	16.5%	21.9%	27.4%
Total Opex (+/-%)	21.2%	18.8%	16.5%	14.2%	12.0%
Initial Capex (+/-%)	20.7%	18.3%	16.5%	15.0%	13.7%
Recovery (+/-%)	7.2%	11.9%	16.5%	19.7%	20.6%
Head Grade (+/-%)	6.9%	11.7%	16.5%	21.4%	26.5%
Total Capex (+/-%)	22.9%	19.3%	16.5%	14.2%	12.2%

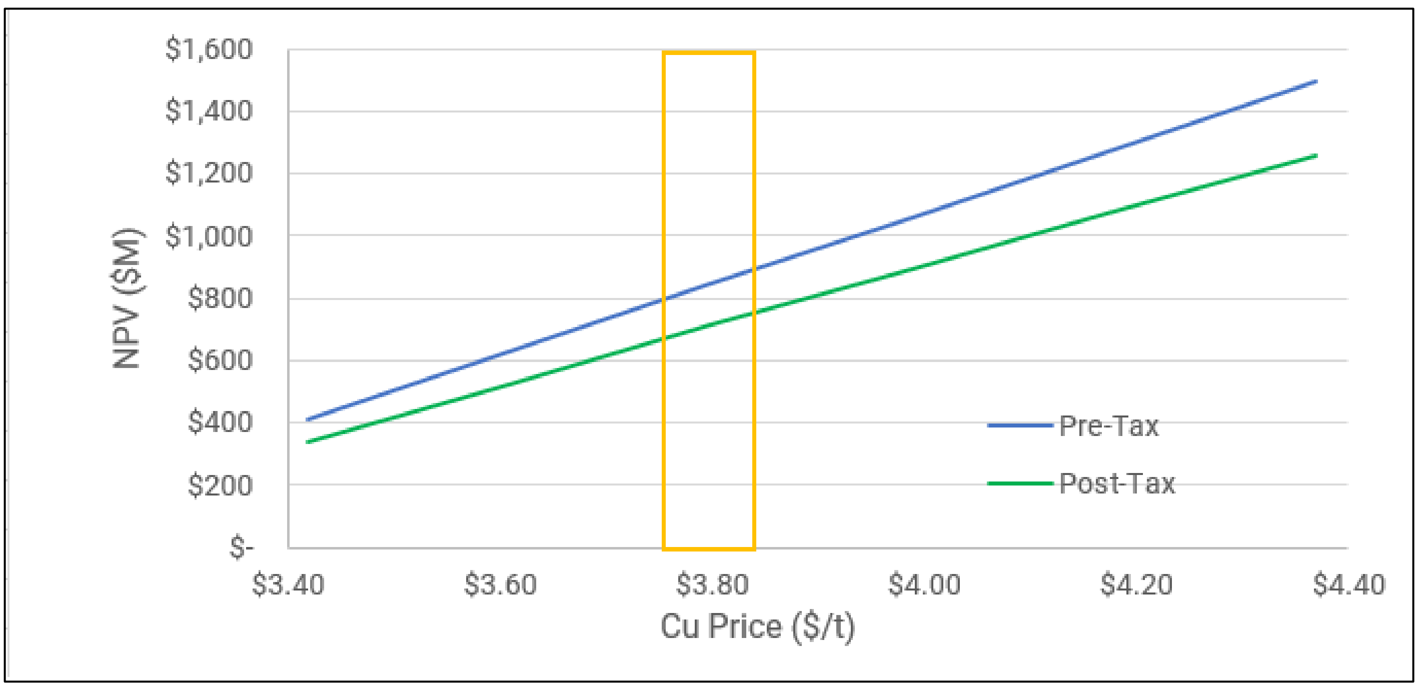
Table 22-7: Economic Sensitivity

Parameter	Unit	PEA	Alternative Copper Prices [a]	
Copper Price	$/lb	**3.80**	4.25	5.00
Molybdenum Price	$/lb	**13.00**	13.00	13.00
Silver Price	$/oz	**20.00**	20.00	20.00
Post-Tax NPV$_{(7\%)}$	$M	**713**	1,144	1,843
Post-Tax NPV$_{(8\%)}$	$M	**566**	951	1,576
Post-Tax IRR	%	**15.6%**	21.0%	29.6%
Post-Tax Payback Period	Years	**4.1**	2.9	2.1

Notes:
[a] An increase of $10/lb or $5/oz in molybdenum or silver price assumptions increases the post-tax NPV(7%) by approximately $129 million or $15 million, respectively.

Based on the assumptions and parameters in this report, the PEA shows positive post-tax economics of $713 million NPV (7%), 15.6% IRR, and a payback period of 4.1 years. The Project economics are most sensitive to commodity pricing, head grades, and recovery and less sensitive to initial Capex, total Capex and operating costs. Figure 22-4 illustrates the pre- and post- tax project NPV sensitivity to copper pricing. Base price used for the Project is $3.80/lb copper. The project value also demonstrates sensitivity to molybdenum pricing with a $10/lb increase resulting in a post-tax NPV$_{(7\%)}$ improvement of approximately $129 million (data not shown).

Figure 22-4: Project NPV Sensitivity to Cu Price



Source: Ausenco, 2023

23 ADJACENT PROPERTIES

Information on adjacent properties is not material to this technical report, and publicly available data is limited. There are no known adjacent exploration properties or operating mines with current mineral resources or mineral reserves in the immediate Copper Creek area.

The nearest commercial-scale mining occurred at the San Manuel-Kalamazoo deposit, which is located approximately 18 km southeast of Copper Creek. The San Manuel operation was a surface and underground mine targeting porphyry copper mineralization. Production began in 1955 under the direction of the Magma Copper Company, and mining continued until 2003, when BHP closed the mine and smelter. Over 635 million tonnes (700 short tons) and 84 million tonnes (93 short tons) of ore are reported to have been extracted from San Manuel via block caving methods and open pit mining, respectively (Wikipedia, 2022).

Copper Fox Metals operates an early-stage exploration project at Sombrero Butte targeting copper porphyry mineralization and breccia pipes. This project is located directly south of the Copper Creek Project area. Limited historical drilling intercepted copper mineralization at depth. Copper Fox has identified drill-ready targets based on geophysical anomalies.

The QP has not verified information outside of the Copper Creek area. The reported adjacent property data is not necessarily indicative of the mineralization or future potential mineral resources at Copper Creek.

24 OTHER RELEVANT DATA AND INFORMATION

This section is not relevant to this report.

25 INTERPRETATIONS AND CONCLUSIONS

25.1 Introduction

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

25.2 Mineral Tenure, Surface Rights, Water Rights, Royalties and Agreements

No significant factors or risks are known that affect access, title or right or ability to perform the exploration work recommended on the property.

25.3 Geology and Mineralization

Copper Creek represents an advanced-stage exploration project targeting multiple near-surface breccias and deeper porphyry-style copper mineralization. The modelled breccia units and porphyry areas are open in multiple directions and at depth in certain areas. Further drilling and additional sampling of historical drillholes has the potential to develop additional mineral resources and increase confidence in existing mineral resources. Additional step-out and regional exploration drilling at Copper Creek has the potential to discover economic mineralization in areas where no modern exploration has occurred in a prospective area.

Portions of the deposit remain sparsely drilled, including some high-grade zones that should be investigated through more closely spaced sample intervals (including twin or wedged drillholes), which would improve understanding of the grade distribution and continuity. The next exploration campaign should include a combination of infill drilling to improve known mineralization continuity and geological understanding and wider-spaced drilling to test the most prospective breccia systems.

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

To the extent known, there are no significant risks or uncertainties that could be expected reasonably to affect the reliability or confidence in the exploration and drilling information provided by Faraday. The historical and recent drilling programs appear to have been carried out in a prudent and careful manner. Historically, selective sampling occurred that resulted in a significant number of unsampled intervals, most of which are located outside of the breccia domains. Faraday should continue assaying unsampled core in areas where drillholes are projected near interpreted mineralized breccia wireframes. Future drilling campaigns should include continuous sampling of drillholes and run a full suite of analytical results for all samples. Additionally, further drilling and solubility testing are needed to define metallurgical material type boundaries and determine variability for grade and recovery within these areas.

In 2022, Faraday completed a 6,000m core drilling program designed to test previously undrilled areas between known breccia bodies and to collect structural, metallurgical, geotechnical, and hydrogeological information. As disclosed in periodic news releases by Faraday, further exploration and infill drilling has been completed since the data cut-off date for this report. These drillhole data will be incorporated into future model and estimation updates.

Specific records are limited for sampling procedures of the historical drilling programs; however, no known bias exists in the earlier sample grades compared to recent assay results. The available QA/QC results documented by previous technical reports have been reviewed by the QP for mineral resources and are considered adequate for an acceptable level of confidence in analytical data for the reporting of mineral resources as per CIM Definition Standards (CIM, 2014).

SRK independently reviewed the core sampling, cutting, logging, sample preparation, security, and laboratory analytical procedures followed by Faraday at Copper Creek during the March 2022 site visit. SRK recommends adding an additional CRM into the typical QA/QC batch, potentially replacing one of the blanks, to better approach the industry-standard insertion rate targeting 5% CRM standards relative to all samples. Additionally, third-party external check assays should be conducted on approximately 5% of all sample pulps. SRK recommends that Faraday develop formal written internal protocols for triggering enhanced data review and reanalysis based on QA/QC reporting in future sampling programs.

The exploration and sampling protocols practiced at Faraday are consistent with or exceed generally accepted industry guidance and are deemed adequate for the project stage. It is the QP's opinion that data verification checks performed internally by Faraday staff in combination with historical external audits and independent checks by the QP have resulted in sufficient validation of the fundamental drilling database at Copper Creek. The data is acceptable and adequately reliable for use in geological modelling and calculation of mineral resources.

25.5 Metallurgical Test work

Several historical (1995, 1997, 2008 & 2012) and one recent (ending March 2023) metallurgical test work programs have been conducted on samples taken from the various Copper Creek exploration drilling campaigns to quantify metallurgical performance and to develop feasible processes for project economics. Results from these beneficiation test work illustrated copper recoveries ranging from < 60% to > 95% with recoveries directly correlated to mineral grade and copper sulphide mineral content. Historical test work by MSRDI and METCON was performed on samples of significantly higher grades than that reported for the current resource. As such, the results from the recent test work were used to determine recovery potential and processing requirements.

Copper sulphides, primarily chalcopyrite, responded well to recovery by froth flotation in all samples tested. Mineralogical assessments indicated that the copper sulphides are coarse grained and are readily liberated from the host rock. This was confirmed by flotation tests conducted at primary grind sizes of 200µm which returned copper recoveries in excess of 90%, within a short flotation residence time. In samples obtained closer to surface, the presence of chalcocite/covellite, oxide copper minerals and other copper bearing minerals did not have a flotation response as favourable as the sulphide material. Alternate pulp chemistries were required to promote recovery via flotation, and some minerals could not be recovered in this manner. A better understanding of the extent and composition of the transitional materials is required to mitigate processing risks.

The deposits contain low levels of pyrite and some secondary copper minerals, therefore copper concentrate grades of 30% copper could be generated with modest cleaner circuit processing. The concentrates generated in the recent test program did not contain any deleterious elements that would incur penalties from a smelter. Elevated levels of arsenic were present in selected samples, but it is believed that this issue is localized and will not affect concentrate marketability.

Metallurgical testing to demonstrate copper-molybdenum separation performance was attempted in historical programs but was not effective. It is reasonable to estimate a Cu-Mo separation circuit recovery of 90% for this stage of study, however future studies will require that this separation is effectively demonstrated using sufficient sample mass.

Since most of the copper resource is associated with pure sulphide mineralization, the resource can generally be processed using a coarse primary grind size which is favourable for filtration and dry stacking of tailings. It may even be possible to coarsen the primary grind further with this downstream processing in mind.

Oxide processing estimates are based on limited historical leach test results. While this is generally a low-risk processing technique, the conservative estimates used in this study of crush size requirements, acid consumption and copper extraction need to be updated with more testing.

25.6 Mineral Resources Estimates

Mineral resources have been stated in this technical report for the Project and have been classified in accordance with NI 43-101 Companion Policy 43-101CP, the CIM Definition Standards on Mineral Resources and Mineral Reserves (CIM, 2014), and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (CIM, 2019), based on sampling density and confidence in the geological model and estimation.

25.7 Mine Plan

The Copper Creek property is amenable to conventional truck and shovel open pit mining, followed by block cave underground mass mining. Mining operations would be able to feed 11 Mt/a of mineralized material (averaging 0.44% Cu) for processing over a 32-year project life. Surface mining provides mill feed until Year 11. A four-year open pit ramp down coincides with the underground production ramp-up, achieving steady-state production by Year 12 and continuing until Year 29. The last three years of mill feed would be entirely from LGSP material.

Oxide material recovered near-surface in the early years of the anticipated mine life would be segregated and processed separately in a HLF, in addition to the 11.0 Mt base annual throughput.

From a mining perspective, there are no encumbrances to advancing the Copper Creek Project to the pre-feasibility level of study.

25.8 Recovery Plan

The recovery methods required for processing mineralized materials are supported by preliminary current and historical test work as well as financial evaluations and includes a copper-molybdenum concentrator for sulphide and transitional minerals and a heap leach with SX/EW operation for oxide minerals. The process flowsheet designs were based on test work results and industry-standard practices and developed to optimize recovery while minimizing capital expenditure and life of mine operating costs. These process methods are conventional and widely used in the industry.

The concentrator is designed to process, on average, 30,000 t/d (11 Mt/a) of mineralized material. Mined materials are crushed, conveyed, ground, and processed by bulk rougher flotation. Bulk rougher flotation concentrate is then reground and upgraded by bulk cleaner flotation. Both bulk rougher and cleaner tails are gravity fed to the tails thickener and bulk cleaner concentrate is further processed by copper-molybdenum separation circuit. Molybdenum rougher flotation tails or copper concentrate is thickened, filtered and loaded onto weighed trucks for transport by rail to port. Five stages of cleaning are required to upgrade the molybdenum rougher concentrate prior to shipment.

A 6,850 t/d heap leach operation was developed for the near-surface oxide materials and consists of three stage crushing, agglomeration, heap stacking, leaching with sulphuric acid and cathode production by a SX/EW Plant. Oxide materials, as designated in the preliminary mine plan, are run through the same primary crusher as the sulphide/transitional materials but a belt element analyzer will divert oxide materials to a separate temporary stockpile where it will be crushed to 3/8 inch to improve leach performance on the heap.

The average recoveries for copper, molybdenum and silver predicted for each type of material taken from results of the 2023 metallurgical test work program are shown in Table 25-1.

Table 25-1: Process Design Criteria – Average Metallurgical Recoveries Predicted for Material Type

Material Type	Sulphide	Transitional	Oxide
Copper Recovery	94.4%	74.7%	75.0%
Molybdenum Recovery	83.3%	78.7%	-
Silver Recovery	78.1%	66.9%	-

25.9 Infrastructure

The site layout is configured to optimize materials handling synergies between open pit and underground production, minimize environmental footprint, prioritize the utilization of private and patented land to ensure operational scalability upon resource expansion. The project plans will leverage existing infrastructure such as high voltage power provision near the property, dual site access roads (Copper Creek and Bunker Hill roads), major highway(s) for concentrate haulage and rail access with loadout facilities near the property.

Infrastructure planned for the mine facilities include a truck shop & wash bay, mine office, explosive storage facilities, a diesel fuel island, an operations building with change room, WSF, low-grade stockpiles, ROM (run-of-mine) pad, pits and two underground portals, and an underground crushing circuit with conveyance to the surface where it will connect to the overland conveyor that also services the a near-pit crushing facility. All associated crusher and mining electrical infrastructure will be located near this facility.

The infrastructure associated with the sulphide materials processing facilities include the following: coarse material storage, grinding and classification, copper flotation, product regrind, copper concentrate thickening, filtering, storing and handling, tailings thickening and filtering stored in a DSTF including conveyor belts and radial stacker.

A separate molybdenum processing facility consisting of flotation and concentrate thickening, filtering, drying and bagging systems, a covered reagent mixing and distribution facility, an assay laboratory, plant workshop and a warehouse. The infrastructure associated with the heap leaching operation includes an SX/EW facility, a secondary and tertiary crushing/screening circuit the heap leach pad, a temporary stockpile, pregnant leach solution (PLS), raffinate and stormwater ponds, a tank farm and acid storage. Both the DSTF and HLF have been designed in accordance with state, national and international standards for these two facilities.

Common facilities include including an entrance/exit guard shack which will house site security and medical/health & safety personnel, an overall site administration building, fire and fresh or raw water distribution systems, compressed air, a main substation and associated power generation and distribution facilities, communications area, and sanitation systems.

25.10 Environmental, Permitting and Social Considerations

As its namesake implies the Copper Creek Project is situated along Copper Creek in a historic mining (ca. 1860) district near the towns of Mammoth, AZ and San Manuel, AZ, the two closest communities purposefully built to sustain past mining activities. In addition to historical mining and mineral exploration activities, livestock grazing, hunting, dispersed recreation are the predominant land uses. The Company plans to continue to engage the local communities, Native Americans, and other stakeholders in the surrounding area.

25.10.1 Environmental Considerations & Permitting

In 2012, the Nature Conservancy mapped the vegetation surrounding the project area as transitional which included the Arizona Upland subdivision of the Sonoran Desert scrub biotic community, Semidesert Grassland biotic community, Interior Chaparral biotic community, and Madrean Evergreen Woodland biotic community. Stretches along the creek support vegetation of a mesoriparian nature whereas ephemeral drainages in the project area generally support a discontinuous xeroriparian vegetation community of mainly upland species. As such, it is not unreasonable to anticipate the occurrence of species and or designated critical habitats which may fall under the Endangered Species Act (ESA, ection 7) in the surrounding area. Notably, the yellow-billed cuckoo (*Coccyzus americanus* [western Distinct Population Segment]) and the monarch butterfly (*Danaus plexippus plexippus*). Neither species has been observed in the project area to date, but the surrounding vegetation is similar to their known habitat. Also notable are several miles along the San Pedro River, including at the Copper Creek confluence which are designated as critical habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*; SWFL)

In 2014, ADEQ designated the lower portion of Copper Creek and a downstream portion of its confluence at the San Pedro River as impaired waterways. Copper Creek is reported to be impacted with cadmium, copper, iron, selenium and zinc while the San Pedro River is locally impacted with selenium. The Project currently holds a valid MSGP and its corresponding SWPPP with ADEQ and maintains a Dust Permit (DUSTGEN-22-097) in good standing with Pinal County. Furthermore, in May 2022, the Company submitted an EPO to the U.S. DOI and BLM, Gila District Office, Safford Field Office. This permit is currently under review for approval. On January 24, 2023, the Company submitted two geological field operation plans (GFOP) to the ASLD for aerial geophysical surveys and geochemical ground sampling. The Company is also updating existing biological and cultural surveys, as well as proactive 'Waters of the U.S.' mapping, which will serve as the foundation for the appropriate regulatory permitting processes along with the results from ongoing baseline studies and previous studies which supported the 2013 PEA.

This project looks to circumvent further impacts to the Copper Creek watershed by maintaining a tight control over surface and ground water management. Faraday would also consider voluntarily reclaiming and mitigating historic impacts at the site as part of their future MPO to ensure the property is restored to the highest standard of modern mine reclamation.

Key considerations with regards to future permitting for the Copper Creek Project include:

- Proximity (less than 3 km) of the Galiuro Wilderness Area, a Class I airshed;
- Historic mining features throughout the project area;
- Location of Copper Creek and Mulberry Wash with respect to project elements;
- Land positions; and
- NEPA review requirements and associated public involvement.

Future permits issued for the Project will need to meet specific design and monitoring requirements set by regulatory agencies such as the BLM, ADEQ, ADWR and the U.S. Army Corps of Engineers (USACE). The Project has several favourable attributes which should be considered from a permitting perspective. These include proximity to existing mining districts and associated infrastructure and its remoteness from residential and urban centres.

The critical path anticipated to acquiring the necessary environmental permitting for the Project is as follows:

- BLM approvals (including NEPA, ESA, and NHPA compliance);
- Clean Air Act permitting;
- CWA Section 404 permit (including NEPA, ESA, and NHPA compliance); and
- Aquifer Protection Permit.

All other approvals are readily acquired within this critical path. The timeframe to acquire key permits and regulatory approvals is anticipated to take up to 5 years.

25.10.2 Mine Waste & Water Management Strategies

Some strategies proposed for mine waste and water management at the site are to expand the use of diversion structures and manage surface erosion in the design of earthen facilities, capture and recycle water, and monitor water quality to ensure standards are met. For instance, the plan is to install an underdrain at the DSTF to divert Copper Creek.

25.10.3 Closure and Reclamation Considerations

The proposed reclamation/closure design elements for the Project include the following general concepts:

- Selectively place materials in their final design configuration wherever possible.
- Reclaim all earthen facilities and disturbed surfaces with either suitable waste rock or salvaged topsoil materials.
- Hydroseed reclaimed surfaces with native seed to promote revegetation for wildlife habitat and grazing.
- Recontour sloped surfaces to minimize erosion.
- Route stormwater and implement controls to maintain runoff away from the reclaimed surfaces as practicable.
- All building facilities will be decommissioned, demolished, components of value salvaged.
- Remove installed utility lines, regrade and revegetate disturbed areas.
- Back fill pits and secure perimeter fencing including around the perimeter of the projected subsidence cone.
- Barricade decline portals with security fencing and locks.

Post-closure site monitoring and activities include continued surface and groundwater monitoring, stormwater conveyance and erosion monitoring and maintenance, drain-down solution management and monitoring of the DSTF and HLF facilities. Regional groundwater, pit lake, and surface water monitoring (quality and flows) including the management of wildlife watering locations and special-status species monitoring are also anticipated. Reclamation success monitoring and maintenance will be sustained for 5-years once final covers and/or reclamation activities occur. Reclamation will be staged as needed.

25.10.3.1 Closure Costs & Financial Assurance

For the purposes of this report, closure and reclamation activities are proposed to occur during the last five years of the mine life at an estimated cost of $170 million to cover all reclamation activities and closure/post-closure monitoring and maintenance activities.

The requisite bonds for the Project are expected to be obtained from the surety market with an estimated annual bond fee of 0.9% of the bond’s notional value. Bonds will be required for ADEQ, ASMI, BLM, and possibly, USACE.

25.10.4 Social Considerations

The Copper Creek Project area is zoned as GR (General Rural Zone) by Pinal County Assessor's Office and is used primarily for livestock grazing, hunting, dispersed recreation in addition to mineral exploration, with large portions of the Project covered by agricultural leases for livestock grazing. Combined, both Mammoth and San Manuel, AZ, towns have a 2020 population census of approximately 5,200 people. As the Project progresses through development, local employment opportunities and economic stimulus to the local communities is anticipated with more than 500 persons anticipated at peak sustained operations over the 30+ year mine life planned for the Project. A camp is intentionally not planned for the project site as it is anticipated that a local workforce will be sourced and will utilize existing resources from the neighbouring communities, towns and nearby cities surrounding the Project.

The Company will continue transparent, inclusive dialogue with all stakeholders, and adhere to social and environmental standards, respect human rights and collaborate with community members to address concerns and prioritize sustainable development of the Project. The Company has also demonstrated that outreach is paramount for the development of the Project.

25.11 Markets and Contracts

No formal market studies were completed in support of this Technical Report. The commodity prices for copper, molybdenum and silver used in the economic evaluation of the Project are $3.80/lb, $13/lb and $20/troy oz., respectively. The QP considers the prices used in this study to be consistent with the range of prices being used for other project studies. The proposed logistics concept is to utilize Containerized Bulk Handling to move concentrates from the mine to a regional smelter destination or into a vessel hold. A transportation charge of $46.35 per wmt was estimated to truck concentrate from site, load it onto rail in San Manuel and ship it to the Port of Guaymas, Mexico where it will be sold on the global market. Treatment charges were 'benchmarked' at $75.00 per dmt as were the refining charges used for this project (Table 25-2).

Table 25-2: Refining Charge

Refining Charge	Value	Unit
Copper	$0.08	per lb
Molybdenum	$1.30	per lb
Silver	$0.50	per troy oz

Metal payables used in this study are provided in Table 25-3.

Table 25-3: Metals Payables

Metal	Unit	Concentrate
Copper Concentrate	%	96.5%
Silver (in Copper Concentrate)	%	95.0%
Molybdenum Concentrate	%	98.5%
Copper Cathode	%	98.0%

There are currently no sale contracts or refining agreements in place for the Project.

25.12 Capital Cost Estimates

The cost estimate developed by both Ausenco and SRK for the Copper Creek Project conforms to AACE Class 5 guidelines for a PEA-level estimate with an accuracy of +50%/-30%. The estimate for the Project is presented in USD with a base date of Q1 2023. The estimate is broken out into initial capital costs, expansion costs, sustaining cost and closure cost. Initial capital costs total $798 million and, combined, the sustaining and expansion capital costs totals $1,859 million for a total LOM capital cost of $2,657 million which are summarized in Table 25-4. The Cu-Mo concentrator processing plant nameplate capacity is 30,000 t/d (11.0 Mt/a), with a life of mine of 32 years. The proposed oxide heap leaching operation for the Project has a nameplate capacity of 6,850 t/d, with a mine life of 8 years.

Table 25-4: Summary of Capital Costs

Item	Initial Capital ($ M)	Sustaining & Expansion Capital ($ M)	Total Capital ($ M)
Installed Process Plant [a]	280	48	328
Crushing and Materials Handling [b]	108	7	115
Tailings	117	9	126
Site Infrastructure	67	50	117
Mining	80	1,376	1,457
Owners Cost	23	2	25
Contingency	122	197	319
Closure and Reclamation	-	170	170
Total	**798**	**1,859**	**2,657**

Notes:
[a] Includes indirect costs.
[b] Includes costs for the oxide heap leach operation.
[c] Totals may not sum due to rounding.

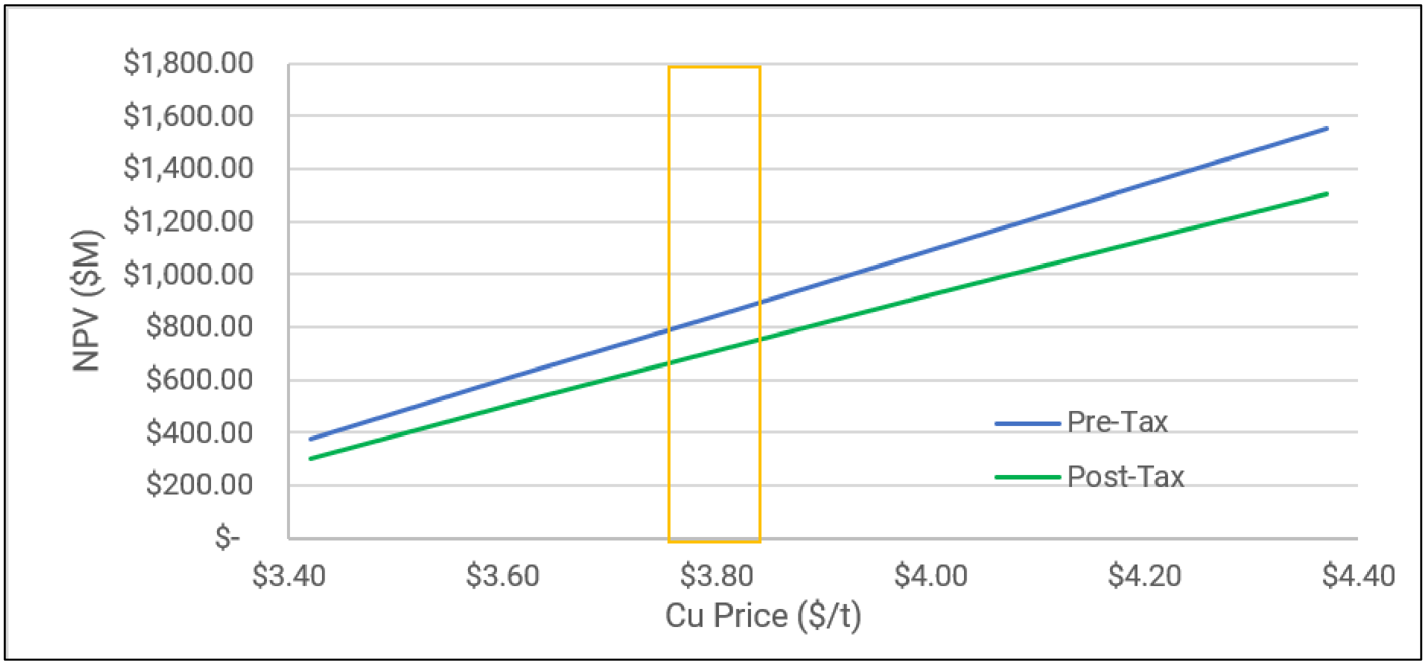
The initial capital costs for the installed processing plant includes the cost to complete the design, procurement, construction, and commissioning of all the identified facilities including, but not limited to the following: the proposed Cu-Mo concentrator, a primary crushing circuit, an overland conveyor, the initial development of the DSTF, and all other necessary site infrastructure to support the startup of the Project. Included in the crushing and materials handling estimate are the initial capital costs associated with the proposed heap leaching operation which totals $84 million (including 20% contingency). The initial capital costs associated with open pit mining totals $80 million and accounts for pre-stripping activities to move 17.5 Mt of waste movement and 9.5 Mt of low-grade material (sulphide and transitional) to be stockpiled for processing later in the mine life. After three years of operation, an expansion of the Project is planned to begin the development of the underground mine and to install a molybdenum circuit. Sustaining capital cost includes costs to divert Copper Creek and continued development of the DSTF and tie-in of the underground mine workings into the existing process flows. Closure costs are estimated at $170 million to reclaim disturbed surfaces.

25.13 Economic Analysis

The preliminary economic assessment is preliminary in nature, that 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.

Based on the assumptions and parameters in this report, the PEA shows positive post-tax economics of $713 million NPV (7%), 15.6% IRR, and a payback period of 4.1 years. The Project economics are sensitive to commodity pricing, initial capital and operating costs. Figure 25-1 illustrates the pre- and post- tax project NPV sensitivity to copper pricing. Base price used for the Project is $3.80/lb copper.

Figure 25-1: Project NPV Sensitivity to Cu Price



Source: Ausenco, 2023

25.14 Risks and Opportunities

25.14.1 Risks

25.14.1.1 Overview

Throughout the course of this technical evaluation, risks deemed to represent potential materiality were documented and considered during the various stages of assessment and engineering, such that the technical basis and development strategies proposed gave due consideration to risk mitigation where possible. The Copper Creek Project is considered to be of low technical risk in the context of other similar scale open pit and block/panel caving base metals projects.

25.14.1.2 Metallurgical Test work

Transitional samples tested may not accurately represent the deportment of copper to various mineral forms. Recoveries will be dependent on the type of copper bearing minerals present. Additional samples and associated testing are required to increase confidence in the metallurgical performance estimates of this material.

Although, some historical Cu-Mo separation testwork was performed, molybdenum recovery across a Cu-Mo separation circuit and potential molybdenum concentrate quality were not fully demonstrated in the previous studies due to low mass recoveries. As such, current design values for molybdenum are estimated from typical operating plants. A larger-scale test program is required to confirm the potential to economically produce a salable molybdenum concentrate.

Limited oxide leach testing has been completed. Conservative performance parameters have been estimated from leach test results obtained from only one zone of the oxide copper resource. Additional samples and associated testing are required to predict the heap leach performance with greater accuracy.

25.14.1.3 Geotechnical

The pit slopes considered in the PEA, although deemed sufficient for the level of study, are reflective of the drilling data available prior to the data cut-off date. Pit slope angles therefore represent some risk of localized reduction in overall angle if some domains prove to be of less favourable ground conditions (i.e., poor rock quality or unfavourable geologic structure) than modelled. Although the pit shells are not sensitive to minor changes in pit wall angle, a reduction in angle may represent a higher strip ratio and therefore require more consideration of footprint availability for storage (albeit temporary placement).

Underground cavability analysis is a key factor in the determination of productive capacity of the underground footprints. Although conservative factors have been applied to the geotechnical conclusions to account for uncertainties, some risks inherently remain regarding fragmentation, rate of cave propagation, hydraulic radius for sustained caving and dilution.

The ground conditions and stability of the proposed processing plant area, DSTF, HLF, and other infrastructure areas are unknown as a geotechnical program has not been completed. The slopes and heights of the stockpile, WSF, and HLF may change as detailed slope stability analysis was not completed at the time of this PEA.

There is a possibility for cost increase if the geotechnical or hydrogeological considerations for the DSTF and HLF are weaker than the criteria considered in this study impacting the capital, sustaining capital and operating costs of the Project.

25.14.1.4 Mining Engineering and Infrastructure

The following risks relate to mine engineering:

Open pits were designed to follow ISA and bench geometry guidance; however, once pit designs were completed they did not undergo geotechnical stability assessments or dynamic modelling. This should be conducted in a future study, which may determine that pit slopes should be adjusted, which will affect the production schedule.

Underground mineable inventory has been assessed using software applications that consider the impacts of dilution and the resulting recovered grades for each respective cave drawpoint. Cave dilution assumptions and/or models directly impact the recovered grades and schedule methodology, and therefore can represent risk to an underground operation. The PEA utilized the geotechnical and geological data available at the time, however, as new information is gathered these cave optimizations should be refreshed to ensure the most realistic modifying factors have been considered.

Mining infrastructure, including WSFs and LGSPs, have not undergone geotechnical stability assessments. This should be conducted in a future study, which may determine that facility slopes should be adjusted which could affect capacities.

The external WSF assumes that water from Copper Creek would be managed and diverted away from the facility. A future study may indicate additional water management engineering is required to achieve this, which could impact the available footprint and waste capacity and/or the selection of alternative location(s).

A waste characterization study was completed by Golder (2007) for the Mammoth and Childs Aldwinkle breccia areas which indicated a low potential for ARD. A similar study which encompasses the entire project area has not been completed. If a future waste characterization study determined the need to segregate and manage some or all of the waste to manage ARD or metal leaching potential, it would incur additional costs.

There has been no study on the effects of weathering on mineralized material stored in the LGSP, which could impact grades and mill feed.

25.14.1.5 Site Water Management

Hydrogeology data on the property is limited and/or does not reflect a continuous period of collection, and therefore cannot currently confirm the quantity of ground water in the pits and underground developments.

Acid base accounting tests are also required on waste rocks and stockpiles to determine the risk of contact water with acid generating or metals leaching.

A detailed site water balance has not been completed for the Project. The model, once developed, may result in additional make-up water required or water treatment prior to discharge of excess water.

The Copper Creek diversion strategy requires additional assessment(s) to verify the feasibility and associated cost of the project. The current strategy gives consideration to various options, including a diversion tunnel connecting Copper Creek to Mulberry Wash. Should this conceptual diversion tunnel be selected as the Project advances towards pre-feasibility, it will be essential to conduct comprehensive technical and baseline studies to assess constructability (including soil and rock properties). Furthermore, potential environmental impacts stemming from the diversion must be thoroughly evaluated and appropriate permits obtained to ensure compliance with regulatory agencies.

The DSTF current design utilizes an underdrain system to convey Copper Creek water from the upstream side of the facility to the downstream side. Poor design, construction or maintenance of underdrain systems can compromise their operation with access to the system restricted by the tailings stack. Additional surface water modelling and pipe design should be completed to support the current design or to define an alternate water management strategy.

25.14.1.6 Dry Stack Tailings Strategy

The dry stack tailings strategy will follow BATCT with available data suggesting a liner system may not be required on the footprint of the facility. Additional geochemical testing is required to confirm the ML/ARD potential of filtered tailings and further support the unlined strategy. Additional capital costs would be incurred if a liner system is required as part of the DSTF design, although available data suggest this is unlikely.

25.14.1.7 Environmental, Permitting and Social Considerations

The environmental risks associated with the project include the impacted status of Copper Creek waters in portions within the project footprint, past environmental legacy in the form of previous mine structures, and the potential presence of at-risk species also represents a risk. Additionally, the MPO will require a NEPA process, which requires interagency coordination between multiple federal, state and local regulatory agencies which may subject the Project and subsequent timelines to certain risks. These risks may include an evolving regulatory environment, differing interagency timelines due to priorities, and public and legal consultation. These risks along with the water management strategy also represent opportunities given the early stages of the Project.

25.14.2 Opportunities

25.14.2.1 Mining Engineering Optimization

The following opportunities relate to mine engineering:

- Mine Production and processing rate increase: The open pit mine plan demonstrates that the pit inventory can be extracted at a rate that currently exceed the proposed processing nameplate capacity (hence the stockpiling strategy of lower-grade pit material). Exploration upside form near-surface breccias may result in a material expansion to the future open pit endowment. The underground footprints and associated geotechnical assessment indicates that a production rate range of 30-45 kt/d. Therefore, future engineering assessments could evaluate the potential to increase production and processing rates to this upper range. These mine planning assessments should also be supported by metallurgical and processing evaluations to ensure flowsheets and tailings strategies are in alignment with a larger-scale mine plan concept.
- Benefits of preconditioning: The underground resource and mineable inventory suggests favourable cavability and therefore does not require preconditioning. However, the benefits of proactively preconditioning the cave production zone should be assessed in future as it may be an opportunity to enhance the performance of the cave zone resulting in a higher production rate and more efficient operating context, for a relatively low incremental capital cost.
- Underground Optionality: An opportunity exists to consider alternative underground extractive methods, such as longhole stoping and sub-level caving configurations, outside of the current underground block cave envelopes. As part of the PEA, SRK completed a high-level trade-off considering the extraction of the Mammoth Breccia via underground mining methods, as opposed to open pit. The current resource and commodity prices assumptions resulted in open pit being most optimal. However, future resource adjustments and other technical and strategic drivers may result in underground extraction of this breccia, or the lower portion of this breccia (ie: Phase 3 of the proposed pit), being viable and/or optimal. This concept should be re-evaluated for all mineralized material at or in proximity to all pit limits.
- Underground development profile: A future study may consider bringing forward some of the underground development metres from Year 10 into Year 9 as it would result in a more uniform development profile; however, this would result in forwarded capital costs.
- Contractor or owner-operated: In the event of mine production rate and processing increases, or material changes to cost assumptions, the trade-off between contractor or owner-operated, for the various mine stages, should be re-evaluated.
- Waste Haulage: There may be benefits in adjusting the distribution of waste between the external WSF and the Copper Prince/Globe backfill. The latter may have additional capacity beyond what was assumed in this study, which may provide shorter cycle times than the external WSF for some material.
- Backfill opportunities and sequencing: Future studies that provide new mining areas or major adjustments to the mining sequence should consider the backfill implications – more or less pits may be suitable for backfill which could affect haulage costs.

- Mine infrastructure: Additional site investigations for mine infrastructure, including WSFs and LGSPs, should be conducted as the Project evolves. Claim/property boundaries and future resource expansions may influence where some of these facilities are to be placed –some of these facility locations may be optimized which could affect capacities and haulage costs.

25.14.2.2 Potential Inclusion of Gold in the Resource

Gold is typically present in mineral systems similar to that of Copper Creek. However, historic assay coverage for gold is less than 12% of that for copper. Gold has therefore not been included in the current MRE. The existing data suggest that gold may be present in payable concentrations (i.e., > ~0.04 g/t Au) in some breccia and porphyry domains. Increasing data coverage and accompanying metallurgical test work has the potential to include gold in future MRE updates and ultimately increase project economics.

25.14.2.3 Metallurgical Test Work

Coarser primary grind sizes may contribute to a higher throughput project with improved economics. Metallurgical test work should be conducted to confirm the effect of coarser primary grind sizes on metal recoveries and tailings dewatering improvements. Coarse Particle Flotation should be investigated as a means to achieve higher throughputs while maintaining high metal recoveries.

The fines portion of the flotation tails of transitional material may contain elevated levels of leachable copper. Metallurgical testing should be completed to investigate the potential to dewater and acid leach these fines, providing a supplementary source of copper in solution to be recovered by the SX/EW plant.

Leach extraction as a function of crush size should be investigated on the oxide materials to reduce crushing requirements. Copper grade distribution by size following crushing should also be investigated as there may be an opportunity to reject a low-grade, coarse fraction and reduce heap leach operating costs. Considering the limited data used to estimate copper recovery from the heap leaching operation, opportunities exist to optimize acid consumption rates as conservative estimates from the available data were applied and need to be verified.

25.14.2.4 Historical Tailings Reclaim

Two historic tailings sites may represent an opportunity to generate revenue and/or commission the processing facility whilst mitigating legacy deposition of mine waste. These sites include:

Site A - Childs Aldwinkle: This location currently hosts hanging tailings near Child Aldwinkle breccia (on BLM surface) which was primarily the result of historic mining of an estimated 350Mt mineralized material (chapter 14.8 of July MRE). Records indicate that the mined material was 3%+ Cu avg as the operators were pursuing molybdenum-rich areas at the time. A survey of these tailings paired with grade confirming and metallurgical test work may qualify an opportunity to reprocess these tailings.

Site B - Bunker Hill: This location is on the southern bank of Mulberry Wash. Previous operators were reported to have mined a high-grade breccia and milled the material adjacent to the glory hole and waste pile. The tails currently sit on the banks of the wash, situated within the grazing lease area. Cultural reports suggest this site hosts ~28,000 m^3 of tails (Hooper, 2011).

25.14.2.5 Environmental, Permitting and Social Considerations

The environmental risks described in this report can not only be mitigated, but converted into opportunities through these additional studies that are recommended for implementation for the next phase:

- Expanded water quality monitoring;
- Extended geochemical program to cover waste rock and tailings, which will include kinetics and field barrels;
- Detailed site-wide water balance;
- Biological inventories targeting the presence of listed species;
- Phase 1 and 2 Environmental Site Assessments of legacy sites within the Project footprint.

25.14.2.6 Concentrate Sales

Given the Project proximity to the Freeport McMoRan's Miami Smelter north off Highway 77 in Miami-Globe, AZ or regionally at Southern Copper Corporation's La Caridad complex in Nacozari, Sonora, Mexico, it behooves the Project to engage in dialogue with these operations regarding the terms and condition of pursuing into a contract to smelt the Copper Creek concentrate locally. This not only will reduce the Project TCRCs but also reduces the Project's overall carbon footprint which aligns well with the Company ethos of providing US sourced critical metals in a sustainable manner.

26 RECOMMENDATIONS

26.1 Overall Recommendations

The results presented in this technical report demonstrate positive economics for the Copper Creek Project. Hence, it is recommended to continue developing the Project through subsequent mineral resource update(s) and studies. Table 26-1 summarizes the proposed budget to enable various technical optimization activities and to ultimately advance the Project through the next stage of study.

Table 26-1: Proposed Budget Summary for Recommended Work Program

Description	Cost ($)
Infill Drilling	4,500,000
District Exploration Drilling	4,700,000
Gold Program	300,000
Metallurgical Test Work	350,000
Mineral Resource Estimate	150,000
Mine Geotechnical Assessment	500,000
Mine Engineering	500,000
Process and Infrastructure Engineering	500,000
Site-wide Geotechnical Assessment	700,000
Water Management Studies	590,000
Site-wide Geochemical Assessment	200,000
Environmental and Permitting	200,000
Regional Asset Synergies	300,000
Total	**13,490,000**

26.2 Infill and District Exploration Drilling

Opportunity exists to both expand the current mineral resource and enhance confidence through additional drilling and sampling at Copper Creek. The next exploration campaign should include a combination of targets, including tighter-spaced infill drilling in areas of the deposit to improve known mineralization continuity and geological understanding. Wider-spaced drilling is recommended to test the extents of the most prospective mapped breccia units or the extent of porphyry-style mineralization based on geophysical and geochemical anomalies. Additionally, Faraday should continue assaying unsampled core in areas where drillholes are projected near interpreted mineralized wireframes.

Faraday Copper anticipates commencing a 20,000 m drill program in quarter four of 2023 (Phase III Campaign), with the objective of addressing both infilling drilling opportunities and district exploration upside.

26.2.1 Infill Drilling

Drill density is largely sufficient for classifying the resource as measured or indicated, with approximately 17% of the resource in the inferred category. It is recommended to plan an 10,000 m infill drilling program aimed at bringing inferred resources into the indicated category or above and improvement to the definition of high-grade zones in the underground footprint.

A budget of $4.50 million is estimated for the infill drilling activity required to elevate the current MRE to higher proportion of measured and indicated resource category and improve definition of high-grade zones in the underground footprint.

26.2.2 District Exploration

District exploration is to focus on testing new targets outside of the resource area and resource expansion. Most of the drilling to date was concentrated on the area containing the resource but despite the long history of mining and exploration, significant exploration upside remains at Copper Creek. Historic drilling in some areas was focused on deep mineralization (Keel, American Eagle) but the near-vertical drillholes may have missed shallow breccia-hosted mineralization. Conversely, areas where historic drilling was focused on shallow breccia-hosted mineralization, cupola-style mineralization may be present below. Large areas between known breccias remain untested.

It is recommended to carry out systematic interpretation of existing information from historic drilling, district mapping and geophysical datasets to design a program focused both near-resource opportunities and the district-wide exploration upside. An exploration program should encompass approximately 10,000 m of drilling and full geochemical characterization. Historical and recently collected exploration datasets such as geophysical and geochemical surveys are considered sufficient for exploration targeting. However, geological mapping, geochemical sampling and processing of geophysical datasets should continue.

Faraday should continue assaying unsampled core in areas where drillholes are projected near interpreted mineralized wireframes. Subsequent assay results from ongoing exploration drilling should be incorporated into an updated MRE. Additionally, it is recommended that Faraday continue collection of solubility data, copper mineral species reports, and related recovery data to enable development of a robust geometallurgical model as the Project advances. Further solubility testing will define metallurgical material type boundaries and determine variability for grade in recovery within these areas.

A budget of $4.70 million is estimated for the exploration drilling activity to target the potential resource upside described above. This includes the cost associated with the continued collection of geochemical, geological and geometallurgical data and reprocessing of existing datasets where appropriate.

26.3 Gold Program

Historic coverage of gold assay data is limited to approximately 12% of the data coverage that is available for copper, therefore gold has not been included in the current MRE. Existing data suggests that gold may be present in significant concentrations above estimated payability grade in some of the mineralized domains, including Childs Aldwinkle and Copper Prince. A gold assaying program of historical drill core samples has been initiated. This is initially targeting the Childs Aldwinkle and Copper Prince breccias, to determine the potential for inclusion of gold in future resource updates. All available archived pulps for mineralized domains in these areas are planned to be reanalyzed for gold and a full 4-acid ICP-MS 42 element suite. The result of this initial gold program testing these discrete breccia units, is expected to provide a roadmap for effective gold quantification within the resource but will also increase data coverage for molybdenum and silver, among others. It is recommended that the gold program be expanded to encompass the wider resource area (where deemed geologically applicable). It is also recommended that all drilling moving forward have gold assays completed within the mineralized domains and such samples also form the basis of future metallurgical test work.

A budget of $0.30 million is estimated for this gold program. This includes assaying of gold and, where applicable, a full multi-element suite utilizing historic core and pulps for Childs Aldwinkle and Copper Prince and expanding the gold program to other domains.

26.4 Metallurgical Test work

The metallurgical work outlined below is recommended for the next phase of the Project. Due to the limited drill core available for the metallurgical tests conducted for this study, it is recommended that additional core materials be made available for the following additional metallurgical test work:

- Confirm Transitional Material Recoveries

Results from the current test work program suggests a high degree of variability for the transitional samples. Further work is recommended to further develop criteria for Copper Creek material classification and corresponding recoveries throughout the mineral deposit. Work should include continued assessment of Cu: S ratios and, soluble copper characteristics for drill assays. Additional metallurgical flotation test work is also recommended to confirm "transitional" recoveries from samples taken from the Phase II drill program.

- Copper-Molybdenum Separation Test work

Molybdenum recoveries reported herein are based on process assumptions observed for similar materials ran under similar conditions and simulations. Cu-Mo separation test work on representative materials is limited. Ausenco is recommending the test work program for a future phase of work include this test work testing to confirm the assumed recoveries reported. This testing is known to be sample mass intensive and may require more planning to obtain suitable sample quantities.

- Acid Leaching Test work

Due to the limited acid leaching test work conducted to date, Ausenco recommends additional acid leaching test work be conducted on more "oxide" samples representative of the various breccia formations making up the mineral deposit. Work should also assess the acid-soluble copper content as correlated to mineralogy for the recent drill core assays to better define oxide materials over the entire Copper Creek deposit. The Old Reliable deposit, of which the historical test work was based on, is characteristically different than the other breccias making up the Copper Creek mineral resource. Leach test work should also optimize grind size and verify acid consumption rates.

- Coarse Particle Flotation

Testing has indicated that most of the resource can be processed at a relatively coarse primary grind sizing, however the Project could still benefit from evaluating Coarse Particle Flotation (CPF). This processing technique could mitigate throughput constraints associated with tailings dewatering and dry stacking. It would also provide some grinding energy savings and incremental improvements to metal recoveries.

- Transition Tails Recovery

Test work should include investigating the potential to dewater and acid leach the fines recovered in the flotation tails of transitional material with the copper recovered as anode by the SX/EW plant. Gold recovery during flotation

Limited data on gold distribution and recoveries are available. Future metallurgical testing should include gold assaying.

- Historic Tailings Reclamation

There are at least two locations on the property with historical tailings impoundment which are likely to be grade bearing. Both sites present an opportunity to be cleaned up as part of a potential Mine Plan of Operations as the mining footprint overtakes the first site and the water management strategy would benefit significantly from voluntarily cleaning up the second site. Upon further evaluation, an opportunity may exist to reprocess/leach these materials during mine development or even during mill commissioning and consolidate this waste in the planned DSTF.

It is recommended that these historic tails materials be surveyed for volume estimation and assayed for mineral content and sampled for metallurgical testing to qualify if there is a reprocessing business case for including these materials in future studies.

The estimated cost to evaluate the best reclamation approach for the historic tailings facilities is approximated at $0.05 million.

A budget of $0.35 million is estimated for the above metallurgical work programs (excluding the costs of drilling).

26.5 Mineral Resource Estimate

Initial results of Faraday's Phase II drilling program suggest that additional mineralization not currently captured in the MRE is present both near the Copper Prince open pit and at Keel underground resource. Likewise, potential upside from gold content within the mineralized domains has not been captured in the current MRE. An update of the MRE that takes the result of Phase II and potential future drill campaigns into consideration is recommended.

The estimated cost of an update MRE is $0.15 million.

26.6 Geotechnical Studies for Pit Slopes and Block Cave

Additional geotechnical engineering work for future phases of the Project should include the following:

- Open Pit
  - Targeted open pit geotechnical drilling using triple-tube HQ holes and televiewer with oriented cores.
  - Installation of vibrating-wire piezometers in select holes.
  - Laboratory testing for intact rock strength (unconfined compressive strength tests, point load tests, and indirect tensile strength tests) and for discontinuity strength (direct shear tests).
  - Confirmation of recommended bench widths (10.5 m) and ISA guidance.
- Block Cave
  - Targeted drilling of American Eagle/ Keel areas to expand the geotechnical database.
  - Analysis of primary and secondary fragmentation utilizing both mapping and drilling estimates.
  - Estimation of drawpoint hangup frequency.
  - Analysis of stress concentrations, ground support rehabilitation cycles and pillar stability.
  - Development of ground support plans for the drawpoints (brow sets) and for undercut, extraction, and haulage levels accounting for predictions of ground behaviour and deformation.

- Confirmation of hydraulic radius to induce caving.

A budget of $0.50 million is estimated for the above work programs and studies, including the cost of drilling.

A detailed hydrogeology program should be conducted in the next phase of work to confirm the pit and underground dewatering rates.

26.7 Mine Engineering

Open Pit Design: Future studies should incorporate the steeper OSAs that were achieved in the open pit designs into the open pit optimization work. Open pit design work should also include pit phase designs for Mammoth pit as only the ultimate pit shell was designed for the PEA.

Underground Geotechnical: The assumptions regarding the dimensions of the mobilized zone and fractured zone should be re-evaluated in light of the additional geotechnical test work recommended above and adjusted if necessary. Furthermore, the cave initiation point and undercutting directions will need to be finalized based on more detailed geotechnical studies and stress modelling.

Mine Production and Processing Rate Increase: evaluate the potential to increase production and processing rates to 40-45 kt/d. These mine planning assessments should also be supported by metallurgical and processing evaluations.

Benefits of Preconditioning: The benefits of proactively preconditioning the cave production zone should be assessed as it may be an opportunity to enhance the performance of the cave zone, resulting in a higher production rate and more efficient operating context, for a relatively low incremental capital cost.

Underground Optionality: Consider alternative underground extractive methods, such as longhole stoping and sub-level caving configurations, outside of the current underground block cave envelopes. For example, future resource adjustments and other technical and strategic drivers may result in underground extraction of the lower Mammoth breccia (i.e., Phase 3 of the proposed pit), being viable and/or optimal.

Mine Plan Optimizations: As a result of adjusted resources and/or outcomes of the assessments noted above, additional optimizations should include: underground development profile smoothing, contractor version owner operation trade-off to reflect revised operational scale, waste haulage optimization, revised backfill placement strategy aligned with adjusted pits and surface infrastructure.

A budget of $0.50 million is estimated for the above work programs and studies.

26.8 Process and Infrastructure Engineering

Engineering deliverables towards the next phase of study would include:

- Process trade-off studies (CPF, & leach grind size optimization studies).
- Flow diagrams (comminution, recovery processes, tails).
- Detailed equipment list.
- Power listing and consumption estimate.
- Architectural (building sizes) to estimate steel and concrete quantities.

- Detailed material and water balance.
- Detailed process design criteria.
- GA and Elevation drawings (for crushing/overland conveying, comminution, leaching, recovery, reagents).
- Electrical single line drawing.
- Equipment and supply quotations updated, and sources determined.
- Estimate of equipment and materials freight quantities.
- Capital cost estimate.
- Operating cost estimate.
- Major equipment spares and warehouse inventory cost estimate.
- Construction manpower estimate.
- Construction schedule.

The estimated cost for process and infrastructure engineering is $0.50 million.

26.9 Site-wide Geotechnical Assessment

Due to the conceptual nature of this study and the paucity of information available at the time of writing, assumptions have been made regarding the layout, MTOs, and construction of the proposed DSTF. Construction material geotechnical properties are required to perform slope stability analyses and other geotechnical assessments to confirm that the civil structures proposed can be built as designed. Detailed tailings and heap leach deposition and engineering plans will be required which may lead to adjustments to the conceptual design to contain the actual capacities.

Additional studies and data collection will be required to advance project development beyond the conceptual level. Some, but not necessarily all, of the current data gaps that would need to be addressed in future studies include the following:

- A geological and geotechnical site investigations and laboratory program should be carried out for infrastructure, the Process plant, the WRFs, the HLF and the DSTF, including drilling and in-situ and laboratory testing, to understand sub-surface soil and rock characteristics, construction material properties, and existing groundwater levels. Seepage analysis for the dry stacked tails and the heap leach material needs further investigation. Limited information and geotechnical testing has been completed for waste rock, and other site associated construction materials.
- More test work of this nature may be required additional information is obtained to verify and update the assumptions made in this study as the Project advances to the next level of design.

The cost of implementing the above recommendations is estimated at $0.70 million.

26.10 Water Management

- A detailed site-wide water balance model should be completed for the next phase of the study. This should include inflows and outflows of all mine facilities. This will inform of potential needs for additional water supply or water treatment. Estimated cost for this item is $0.04 million.

- Additional surface water hydraulic modelling to further develop the Copper Creek diversion strategy and the DSTF underdrain design. Estimated cost for this item is $0.05 million.
- Further site hydrogeological and hydrological characterization through drilling and testing to develop a detailed groundwater model. A hydrogeological model is not only essential for future permitting pursuits, such as MPO, but also allows for the derisking of the mine plan and associated infrastructure. Faraday has adequate data to commence early-stage modelling, however a minimum of two years of applicable baseline data is required in order to generate a robust model to support MPO permit submission.

  Estimated cost for this item is $0.50 million.

The total estimated cost for the water management scope is $0.59 million.

26.11 Geochemical Assessment

To realize having an unlined DSTF, it is necessary to establish whether or not there is an ML/ARD risk associated with the dry stacked tailing materials. The same applies for unlined WSF and the stockpiles. Typical testing would generally comprise:

- Range of tests to include:
  - Elemental analysis;
  - Acid base accounting;
  - Shake flask extraction (short-term leach);
  - Net acid generation pH;
  - Mineralogy; and
  - Humidity cell testing (minimum 40 weeks).

Provided below is a list of the types and quantities of samples needing to be tested:

- Around 200 – 300 waste rock samples;
- 6 to 12 tailings samples (if composition different);
- 6 to 12 oxide samples;
- 6 to 12 sulphide samples; and
- Several overburden samples.

Geochemical testing on expected tailings is key to support the current unlined design of the DSTF.

The estimated cost for the recommended lab test work is $0.10 million.

Historical tailings on site should be tested for ML/ARD to further refine the remediation strategy. If available, test results from historical mine wastes and site water quality data should be reviewed as this can provide useful supporting information to aid in assessing the existing site geochemistry data.

The estimated cost of historical materials on site assessment is $0.10 million.

The total cost for geochemical assessment is $0.20 million.

26.12 Environmental and Permitting

As future technical assessment modify and/or expand the mining footprint and associated infrastructure concept, it is recommended that environmental (flora and fauna), cultural and archaeological assessments be updated to reflect the relevant changes in the potential mine strategy.

The estimated cost of these updated assessments is $0.20 million.

26.13 Regional Asset Synergies

In addition to Project-centric study advancements and optimizations, it is recommended that desktop level study(s) be completed to qualify and quantify the potential of synergies with adjacent assets. This may involve the assessment of combined resources, staged approaches to project expansions, shared infrastructure, land use optimization and potential reduction in net environmental footprints. This would also include a detailed market study involving regional smelters.

The total cost for these desktop studies and evaluations is $0.30 million.

27 REFERENCES

Arizona Secretary of State, (2016). Notice Of Public Information, Department of Environmental Quality, Title 49. The Environment, Chapter 2. Water Quality Control, Article 2.1. Total Maximum Daily Loads: A.R.S. § 49-232. Lists of Impaired Waters; data requirements; rules. Vol. 22, Issue 40, September 30, 2016.

Alva-Jimenez, T., Tosdal, R. M., Dilles, J. H., Dipple, G., Kent, A. J., and Halley, S., (2020). Chemical variations in hydrothermal white mica across the Highland Valley porphyry Cu-Mo district, British Columbia, Canada. Economic Geology, 115(4), pp. 903-926.

ALS Metallurgy. (2022). Metallurgical Test Work on Composites from the Copper Creek Project, KM6849 ; June 6, 2023.

Anderson, E. D., Atkinson, W. W., Marsh, T., and Iriondo, A., (2009). Geology and geochemistry of the Mammoth breccia pipe, Copper Creek mining district, southeastern Arizona: evidence for a magmatic–hydrothermal origin. Mineralium Deposita, 44(2), pp. 151-170.

Bluemel, B., and van Geffen, P., (2015). Copper Creek geochemical data evaluation. Unpublished report for Redhawk Copper, pp. 93.

Bouzari, F., Bissig, T., Hart, C. J. R., Leal Mejía, H., and Smith, C., (2020). Porphyry mineral systems in the central Toodoggone district, British Columbia. CIM Special Volume 57, pp. 228-252.

Carter, L. C., and Williamson, B. J., (2022). Textural indicators of mineralization potential in porphyry magmatic systems–A framework from the archetypal Yerington district, Nevada. Ore Geology Reviews, 143, pp.104783.

Catchpole, H., Kouzmanov, K., Fontboté, L., Guillong, M., and Heinrich, C. A., (2011). Fluid evolution in zoned Cordilleran polymetallic veins—insights from microthermometry and LA-ICP-MS of fluid inclusions. Chemical Geology, 281(3-4), pp. 293-304.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), (2014). Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014.

CIM, (2019). Canadian Institute of Mining, Metallurgy and Petroleum: CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines, November 29.

Dolan, S. M. 2007. A Class III Cultural Resources Survey 765 Acres in the Bunker Hill Mining District. Pinal County. Arizona, Cultural Resources Report 2006-52, WestLand Resources Inc., Tucson.

Favorito, D. A., and Seedorff, E., (2018). Discovery of major basement-cored uplifts in the northern Galiuro Mountains, Southeastern Arizona: Implications for regional Laramide deformation style and structural evolution. Tectonics, 37(10), pp. 3916-3940.

Frikken, P. H., Cooke, D. R., Walshe, J. L., Archibald, D., Skarmeta, J., Serrano, L., and Vargas, R., (2005). Mineralogical and isotopic zonation in the Sur-Sur tourmaline breccia, Río Blanco-Los Bronces Cu-Mo deposit, Chile: Implications for ore genesis. Economic Geology, 100(5), pp. 935-961.

Geochemical Applications International, Inc. (GAII), (2012). QA/QC Results for the 2006-2012 Copper Creek Exploration Drilling Program, technical memorandum prepared for Redhawk Resources by Geochemical Applications International, Inc. (GAII), Dr. Jeffrey Jaacks, October 30, pp. 20.

Geoscience Australia ASTER processing manual, (2004). “Aster Processing Manual; Remote Sensing Applications” compiled by Aleks Kalinowski and Simon Oliver, October.

Gibbs and Jenkins, (2021). Minerals of the Old Reliable and Childs-Aldwinkle Mines, Copper Creek, Pinal County, Arizona. Rocks & Minerals Vol. 96 (2), pp. 148-157.

Gootee, B. F., Spencer, J. E., Ferguson, C. A., Richard, S. M., Cook, J. P., and Mac Farlane, B. J., (2018). Geologic Map of the Clark Ranch 7½ ’Quadrangle and west half of the Rhodes Peak 7 ½ ’ Quadrangle, Pinal and Graham Counties, Arizona: Arizona Geological Survey Digital Geologic Map 68 (DGM-68), version 2.0, 1 sheet, scale 1:24,000, with 18-p report.

Gustafson, L. B., and Hunt, J. P., (1975). The porphyry copper deposit at El Salvador, Chile. Economic geology, 70(5), pp. 857-912.

Guthrie, J. O., and Moore, D. G., (1978). The geology of the Copper Creek area, Bunker Hill mining district, Galiuro Mountains, Arizona. In Proceedings of the porphyry copper symposium. Ariz Geol Soc Dig (Vol. 11, pp. 25-31).

Halley, S., Dilles, J. H., and Tosdal, R. M., (2015). Footprints: Hydrothermal alteration and geochemical dispersion around porphyry copper deposits. SEG Discovery, (100), pp. 1-17.

Harris, A. C., Kamenetsky, V. S., White, N. C. and Steele, D. A., (2004). Volatile phase separation in silicic magmas at Bajo de la Alumbrera porphyry Cu-Au deposit, NW Argentina. Resource Geology, 54(3), pp. 341-356.

Hauck, W. R., (1985). Correlation and geochemical zonation of the mid-Tertiary volcanic and intrusive rocks in the Santa Teresa and northern Galiuro Mountains, Arizona. MSc thesis, The University of Arizona, pp. 156.

Hooper, J. M. D. 2011. A Cultural Resources Inventory of 4,300 Acres in the Bunker Hill Mining District Near Mammoth, Pinal County, Arizona. Cultural Resources Report 2011-49, WestLand Resources Inc., Tucson.

Independent Mining Consultants, Inc. (IMC), (2008). Copper Creek 2008 Mineral Resource, Pinal County, Arizona, USA, Technical Report prepared for Redhawk Resources, Inc. by Independent Mining Consultants, Inc., October 28, pp. 174.

IMC, (2012). Copper Creek 2012 Mineral Resource Update, Pinal County, Arizona, USA, Technical Report prepared for Redhawk Resources, Inc. by Independent Mining Consultants, Inc. June 25, pp. 138.

SGS, (2013). Preliminary Economic Assessment: 25,000 TPD Mill with and Underground Mine for Development of the Copper Creek Resource, prepared for Redhawk Copper, Inc. by SGG Metcon/KD Engineering, July 25, 2013, Amended October 28, pp. 298.

Kirwin, D. J., (2005). Unidirectional solidification textures associated with intrusion related Mongolian mineral deposits. In: Seltmann, R., Gerel, O., Kirwin, D.J. (Eds.), Geodynamics and metallogeny of Mongolia with special emphasis on copper and gold deposits: Society of Economic Geologists-International Association for the Genesis of Ore Deposits Field Trip, 2005: IAGOD Guidebook Series 11: London. Centre for Russian and Central EurAsian Mineral Studies, Natural History Museum, pp. 63–84.

Krieger, M. L. H., (1968). Geologic map of the Holy Joe Peak quadrangle, Pinal County, Arizona: United States Geologic Survey Map CQ-669, scale 1:24,000, with 4 p. report. DOI: 10.3133/gq669.

Kuhn, T. H., (1941). Pipe deposits of the Copper Creek area, Arizona. Economic Geology, 36(5), pp. 512-538.

Lambiotte, M. J., (2017). Laramide geology related to copper mineralization, Copper Creek district, AZ: COPPER CREEK DISTRICT, AZ: report prepared for Redhawk Copper, pp. 14.

Lavery, N., (1979). A Laramide Petrostructural Model for the Southwestern United States, Internal Exxon Minerals report, pp. 33.

Leveille, R. A. and Stegen, R. J., (2012). The Southwestern North America Porphyry Copper Province: Society of Economic Geologists Special Publication No. 16, pp. 361-402.

Liu, S. and Currie, C. A., (2016). Farallon plate dynamics prior to the Laramide orogeny: Numerical models of flat subduction. Tectonophysics, 666, pp. 33-47.

Lowell, J. D., (1968). Geology of the Kalamazoo orebody, San Manuel district, Arizona. Economic Geology, 63(6), pp. 645-654.

Lowell, J. D., and Guilbert, J. M., (1970). Lateral and vertical alteration-mineralization zoning in porphyry copper deposits. Econ. Geol, 65, pp. 373-408.

METCON Research (METCON), (2008). “Copper Creek Project Preliminary Flotation Study” prepared for Redhawk Copper Inc. METCON Research, Tucson, Arizona. Document No. Q718-02-028-01, METCON Project No. M718-02, November.

METCON, (2012). “Copper Creek Project Preliminary Open Cycle Flotation Study (Variability Flotation Testing)” prepared for Redhawk Copper Inc. METCON Research, Tucson, Arizona. Document No. Q718-03-028-01, METCON Project No. M718-02, June.

Mizer, J. D., (2018). Early Laramide magmatism in southern Arizona; U-Pb geochronology of key igneous units and implications for the timing of regional porphyry copper mineralization. Ph.D thesis, The University of Arizona, pp. 622.

Mountain States R&D International, Inc. (MSRDI), (1997). “Report of the Metallurgical Testing on Copper Sulphide Resource of the Copper Creek Property.” Vail Arizona. MSRDI Project # 5738, January.

Mountain States R&D International, Inc. (MSRDI), (1995). “Preliminary Testing and Process Engineering for the Old Reliable Mine” Vail Arizona. MSRDI Project # 5675, September.

Murakami, H., Seo, J. H., and Heinrich, C. A., (2010). The relation between Cu/Au ratio and formation depth of porphyry-style Cu–Au±Mo deposits. Mineralium Deposita, 45(1), pp. 11-21.

Perelló, J., Sillitoe, R. H., Mpodozis, C., Brockway, H., Posso, H., and Hedenquist, J. W., (2012). Geologic setting and evolution of the porphyry copper-molybdenum and copper-gold deposits at Los Pelambres, central Chile. Society of Economic Geologists, special publication No. 16, pp. 79-104.

Proffett, J. M., (2009). High Cu grades in porphyry Cu deposits and their relationship to emplacement depth of magmatic sources. Geology, 37(8), pp. 675-678.

Reed, M., Rusk, B. and Palandri, J., (2013). The Butte magmatic-hydrothermal system: One fluid yields all alteration and veins. Economic Geology, 108(6), pp. 1379-1396.

Riedell, K. B., Sandberg, R. J., Guthrie, J. O., Gorecki, A. D., Lambiotte, M. J., Reynolds, S. J., Proffett, J. M., Ybarra, S. J., and Poulter, J. E., (2013). Early Halo Type Porphyry and Breccia Cu-Mo Mineralization at Copper Creek, Pinal County, Arizona: Poster presentation and extended abstract, Society of Economic Geologists 2013 Conference, Whistler, BC, Canada, pp. 9.

Rusk, B. G., Reed, M. H., and Dilles, J. H. (2008). Fluid Inclusion Evidence for Magmatic-Hydrothermal Fluid Evolution in the Porphyry Coper-Molybdenum Deposit at Butte, Montana. Economic Geology, 103(2), pp. 307-334.

Ryan, J., Hollis, L., Castillo, A., Byrne, K., Bayliss, S. M., Cronin, N., and Grubisa, G., (2020). Geology of the Highland Valley porphyry Cu- (Mo) deposits, south-central British Columbia. CIKM Special Volume 57: Porphyry Deposits of the Northwestern Cordillera of North America: A 25-Year Update, pp. 668-689.

Seedorff, E., Dilles, J. H., Proffett, J. M., Einaudi, M. T., Zurcher, L., Stavast, W. J., Johnson, D. A., and Barton, M. D., (2005). Porphyry deposits: Characteristics and origin of hypogene features. Society of Economic Geologists, 100th Anniversary volume.

Seedorff, E., Barton, M. D., Stavast, W. J., and Maher, D. J., (2008). Root zones of porphyry systems: Extending the porphyry model to depth. Economic Geology, 103(5), pp. 939-956.

SGS Metcon/KD Engineering (2013). Copper Creek Project Preliminary Economic Assessment 25,000 TPD Mill with an Underground Mine for Development of the Copper Creek Resource Prepared For: Redhawk Copper, Inc. P.O. Box 10 San Manuel, Arizona 85631-0010 PREPARED BY: Mr. Joseph M. Keane, P.E. Mr. Herb Welhener, MMSA-QPM Mr. Steve Milne, P.E. Mr. Gene Muller, P.E. Mr. David Nicholas SGS Metcon/KD Engineering 7701 N. Business Park Drive Tucson, AZ 85743 25 July 2013, AMENDED 28 October 2013.

Sillitoe, R. H. (2010). Porphyry Copper Systems. Economic Geology and the Bulletin of the Society of Economic Geologists, 105(1), pp.3-41.

Sillitoe, R. H. (2012). Geology and Genesis of Major Copper Deposits and Districts of the World: A Tribute to Richard H. Sillitoe, Chapter 1: Copper Provinces. Society of Economic Geologists, Special Publication, 16(1), pp. 1-18.

SRK Consulting (U.S.), Inc. (2022). NI 43-101 Technical Report Mineral Resource Estimate Copper Creek Project, Arizona Effective Date: July 6, 2022 Report Date: August 18, 2022 Report Prepared for Faraday Copper Corp. 250 - 200 Burrard Street Vancouver, BC, Canada, V6C 3L6 Report Prepared by SRK Consulting (U.S.), Inc. 999 17th Street, Suite 400 Denver, CO 80202.

SWPPP, (2019). Stormwater Pollution Prevention Plan (SWPPP) Copper Creek Property. prepared for Redhawk Copper, Inc. by Golder Associates, Phoenix Inc. May 29, 2020. Multi-Sector General Permit (MSGP-2019) AZMS No. 72530.

Wikipedia, (2022). “San Manuel Copper Mine.” Wikipedia, Wikimedia Foundation, February 12, 2022, en.wikipedia.org/wiki/San_Manuel_Copper_Mine.

Appendix A – Mineral Claims

Redhawk Copper Inc. Patented Claims					
Name	**Legal**	**Owner**	**Mineral Survey No.**	**Patent No.**	**Assessor No.**
Fortuna	Patented	Redhawk Copper, Inc	4059	1045186	306-30-002A
Good Luck	Patented	Redhawk Copper, Inc	4059	1045186	306-30-002A
Wedge	Patented	Redhawk Copper, Inc	4059	1045186	306-30-002A
Old Reliable	Patented	Redhawk Copper, Inc	4059	1045186	306-30-002B
Gulch	Patented	Redhawk Copper, Inc	4059	1045186	306-30-002A
Mogul	Patented	Redhawk Copper, Inc	3263	693996	306-30-0010
Childs	Patented	Redhawk Copper, Inc	3263	693996	306-30-0010
Childs 1	Patented	Redhawk Copper, Inc	3263	693996	306-30-0010
Childs 2	Patented	Redhawk Copper, Inc	3263	693996	306-30-0010
Childs 3	Patented	Redhawk Copper, Inc	3263	693996	306-30-0010
Longstreet	Patented	Redhawk Copper, Inc	3263	693996	306-30-0010
Aldwinkle	Patented	Redhawk Copper, Inc	3263	693996	306-30-0010
Grand View	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Veta Rica	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Russett Dyke	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Rainbow Ledge	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Mineral Hill	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Four Metals	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Cuprite	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Lucky Joe	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Silver Saddle	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Iron Duke	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Deep Lode	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Golden Spur	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Mineral Reef	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Vulcan	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Jewel	Patented	Redhawk Copper, Inc	4179	1097104	306-31-0010
Buster	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Sallie	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Bonanza	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Big Bill	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010

Redhawk Copper Inc. Patented Claims					
Name	**Legal**	**Owner**	**Mineral Survey No.**	**Patent No.**	**Assessor No.**
Rolla	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Pawtucket	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Badger	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Prudential	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Michigan	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Minnesota	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Bay State	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Summit	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Nellie	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Assembly	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
American Girl	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Independence	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Superior	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Annie I	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Little Rhody	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Christopher	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Dorothy	Patented	Redhawk Copper, Inc	3118	490133	306-28-0010
Hoop Up	Patented	Redhawk Copper, Inc	2619	181370	306-28-0010
Eureka Mine	Patented	Redhawk Copper, Inc	2620	181371	306-28-0010
Globe Mine	Patented	Redhawk Copper, Inc	2620	181371	306-28-0010
Copper Giant Mine	Patented	Redhawk Copper, Inc	2620	181371	306-28-0010
Copper Prince Mine	Patented	Redhawk Copper, Inc	2620	181371	306-28-0010
Zilla	Patented	Redhawk Copper, Inc	4122	1053622	300-45-0010
Red Bird No. 1	Patented	Redhawk Copper, Inc	4123	1054110	306-27-0010
Red Bird No. 2	Patented	Redhawk Copper, Inc	4123	1054110	306-27-0010
Red Bird No. 3	Patented	Redhawk Copper, Inc	4123	1054110	306-27-0010
Red Bird No. 4	Patented	Redhawk Copper, Inc	4123	1054110	306-27-0010
Red Bird No. 5	Patented	Redhawk Copper, Inc	4123	1054110	306-27-0010
Red Bird No. 6	Patented	Redhawk Copper, Inc	4123	1054110	306-27-0010
Thornwood	Patented	Redhawk Copper, Inc	4123	1054110	306-27-0010

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	**Section**	**Township**	**Range**	**Name of Claim**	**Owner**
AMC33973	11, 14	08S	18E	Moose Claim 2	D&G Mining
AMC33974	11	08S	18E	Moose Claim 4	D&G Mining
AMC33975	11	08S	18E	Moose Claim 6	D&G Mining
AMC33976	11	08S	18E	Moose Claim 8	D&G Mining
AMC316095	1,2,11,12	8S	18E	Centre Star	Redhawk Copper Inc.
AMC316096	10	8S	18E	Navajo No. 7	Redhawk Copper Inc.
AMC316097	10	8S	18E	Navajo No. 8	Redhawk Copper Inc.
AMC316098	10	8S	18E	C.C. 12	Redhawk Copper Inc.
AMC316100	11,12	8S	18E	Mary #1	Redhawk Copper Inc.
AMC316101	11	8S	18E	Whippoorwill	Redhawk Copper Inc.
AMC316102	11	8S	18E	Redondo	Redhawk Copper Inc.
AMC316103	11	8S	18E	Paloma	Redhawk Copper Inc.
AMC316104	11	8S	18E	Paloma Fraction	Redhawk Copper Inc.
AMC316105	14	8S	18E	Morningside	Redhawk Copper Inc.
AMC316106	11	8S	18E	Minnesota	Redhawk Copper Inc.
AMC316107	11,12	8S	18E	Middle March	Redhawk Copper Inc.
AMC316108	11,12	8S	18E	Lone Trail	Redhawk Copper Inc.
AMC316109	11	8S	18E	Jay Bird	Redhawk Copper Inc.
AMC316110	11	8S	18E	Hercules	Redhawk Copper Inc.
AMC316111	10	8S	18E	H-N Fraction 1	Redhawk Copper Inc.
AMC316112	12	8S	18E	Clark No. 1	Redhawk Copper Inc.
AMC316113	14	8S	18E	Copper Reef No. 2	Redhawk Copper Inc.
AMC316114	14,15	8S	18E	Copper Reef No. 3	Redhawk Copper Inc.
AMC316115	14,15	8S	18E	Copper Reef No. 4	Redhawk Copper Inc.
AMC316116	14	8S	18E	North Star No. 1	Redhawk Copper Inc.
AMC316117	14,15	8S	18E	North Star No. 2	Redhawk Copper Inc.
AMC316118	14,15	8S	18E	North Star No. 3	Redhawk Copper Inc.
AMC316119	11	8S	18E	Buzzard No. 1	Redhawk Copper Inc.
AMC316120	11	8S	18E	Buzzard No. 2	Redhawk Copper Inc.
AMC316121	11	8S	18E	Buzzard No. 3	Redhawk Copper Inc.
AMC316122	11	8S	18E	Buzzard No. 4	Redhawk Copper Inc.
AMC316123	11	8S	18E	Buzzard No. 5	Redhawk Copper Inc.
AMC316124	11	8S	18E	Buzzard No. 6	Redhawk Copper Inc.
AMC316125	11	8S	18E	Buzzard No. 7	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	Section	Township	Range	Name of Claim	Owner
AMC316126	12	8S	18E	Albatross No. 1	Redhawk Copper Inc.
AMC316127	12	8S	18E	Albatross No. 2	Redhawk Copper Inc.
AMC316128	12	8S	18E	Albatross No. 3	Redhawk Copper Inc.
AMC316129	12	8S	18E	Albatross No. 4	Redhawk Copper Inc.
AMC316130	12	8S	18E	Albatross No. 5	Redhawk Copper Inc.
AMC316131	12	8S	18E	Albatross No. 6	Redhawk Copper Inc.
AMC316132	12	8S	18E	Albatross No. 7	Redhawk Copper Inc.
AMC316133	12	8S	18E	Albatross No. 8	Redhawk Copper Inc.
AMC316134	11,12	8S	18E	Albatross No. 17	Redhawk Copper Inc.
AMC316135	15	8S	18E	Siskon No. 40	Redhawk Copper Inc.
AMC316136	15	8S	18E	Siskon No. 42	Redhawk Copper Inc.
AMC316137	15	8S	18E	Siskon No. 44	Redhawk Copper Inc.
AMC316138	10	8S	18E	Siskon No. 53	Redhawk Copper Inc.
AMC316139	10,15	8S	18E	Siskon No. 56	Redhawk Copper Inc.
AMC316140	15	8S	18E	Siskon No. 57	Redhawk Copper Inc.
AMC316141	15	8S	18E	Siskon No. 58	Redhawk Copper Inc.
AMC316142	14,15	8S	18E	Siskon No. 83	Redhawk Copper Inc.
AMC316143	14,15	8S	18E	Siskon No. 84	Redhawk Copper Inc.
AMC316144	14	8S	18E	Siskon No. 85	Redhawk Copper Inc.
AMC316145	14	8S	18E	Siskon No. 87	Redhawk Copper Inc.
AMC335144	9	8S	18E	Crow 1	Redhawk Copper Inc.
AMC335145	9,10	8S	18E	Crow 2	Redhawk Copper Inc.
AMC335146	9	8S	18E	Crow 3	Redhawk Copper Inc.
AMC335147	9,10	8S	18E	Crow 4	Redhawk Copper Inc.
AMC335148	9	8S	18E	Crow 5	Redhawk Copper Inc.
AMC335149	9,10	8S	18E	Crow 6	Redhawk Copper Inc.
AMC335150	9	8S	18E	Crow 7	Redhawk Copper Inc.
AMC335151	9,10	8S	18E	Crow 8	Redhawk Copper Inc.
AMC335152	9	8S	18E	Crow 9	Redhawk Copper Inc.
AMC335153	9,10	8S	18E	Crow 10	Redhawk Copper Inc.
AMC335154	9	8S	18E	Crow 11	Redhawk Copper Inc.
AMC335155	9,10	8S	18E	Crow 12	Redhawk Copper Inc.
AMC335156	9,14	8S	18E	Crow 13	Redhawk Copper Inc.
AMC335157	3,4,9,10	8S	18E	Crow 14	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	Section	Township	Range	Name of Claim	Owner
AMC335158	4	8S	18E	Crow 15	Redhawk Copper Inc.
AMC335159	3,4	8S	18E	Crow 16	Redhawk Copper Inc.
AMC335160	9	8S	18E	Crow 17	Redhawk Copper Inc.
AMC335161	10	8S	18E	Crow 20	Redhawk Copper Inc.
AMC335162	10	8S	18E	Crow 21	Redhawk Copper Inc.
AMC335163	10	8S	18E	Crow 22	Redhawk Copper Inc.
AMC335164	10	8S	18E	Crow 23	Redhawk Copper Inc.
AMC335165	10	8S	18E	Crow 24	Redhawk Copper Inc.
AMC335166	3,10	8S	18E	Crow 25	Redhawk Copper Inc.
AMC335167	3	8S	18E	Crow 26	Redhawk Copper Inc.
AMC335168	15	8S	18E	Siskon 46	Redhawk Copper Inc.
AMC335169	15	8S	18E	Siskon 48	Redhawk Copper Inc.
AMC335170	14	8S	18E	Siskon 51	Redhawk Copper Inc.
AMC335171	15	8S	18E	Siskon 59	Redhawk Copper Inc.
AMC335172	15	8S	18E	Siskon 60	Redhawk Copper Inc.
AMC335173	10	8S	18E	Siskon 64	Redhawk Copper Inc.
AMC335174	9,10	8S	18E	Siskon 65	Redhawk Copper Inc.
AMC335175	10	8S	18E	Siskon 66	Redhawk Copper Inc.
AMC335176	9,10	8S	18E	Siskon 67	Redhawk Copper Inc.
AMC335177	10	8S	18E	Siskon 68	Redhawk Copper Inc.
AMC335178	9,10	8S	18E	Siskon 69	Redhawk Copper Inc.
AMC335179	10	8S	18E	Siskon 70	Redhawk Copper Inc.
AMC335180	9,10	8S	18E	Siskon 71	Redhawk Copper Inc.
AMC335181	15	8S	18E	Siskon 72	Redhawk Copper Inc.
AMC335182	10	8S	18E	C.C. 8	Redhawk Copper Inc.
AMC335183	3,10	8S	18E	C.C. 9	Redhawk Copper Inc.
AMC335184	3,10	8S	18E	C.C. 11	Redhawk Copper Inc.
AMC337099	9	8S	18E	Swallow 1	Redhawk Copper Inc.
AMC337100	9	8S	18E	Swallow 2	Redhawk Copper Inc.
AMC337101	9	8S	18E	Swallow 3	Redhawk Copper Inc.
AMC337102	9	8S	18E	Swallow 4	Redhawk Copper Inc.
AMC337103	9	8S	18E	Swallow 5	Redhawk Copper Inc.
AMC337104	9	8S	18E	Swallow 6	Redhawk Copper Inc.
AMC337105	9	8S	18E	Swallow 7	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	**Section**	**Township**	**Range**	**Name of Claim**	**Owner**
AMC33873	11	8S	18E	Granite Hill	Redhawk Copper Inc.
AMC33893	11	8S	18E	North Star	Redhawk Copper Inc.
AMC33894	10,11	8S	18E	Angusto Lode	Redhawk Copper Inc.
AMC33895	11,14	8S	18E	Aurora	Redhawk Copper Inc.
AMC33904	10	8S	18E	Camino Lode	Redhawk Copper Inc.
AMC33951	11	8S	18E	Copper Cliff	Redhawk Copper Inc.
AMC33955	14	8S	18E	Copper Reef No. 5	Redhawk Copper Inc.
AMC33956	11	8S	18E	Copper Ridge	Redhawk Copper Inc.
AMC33957	11,12	8S	18E	Copper Trail # 1	Redhawk Copper Inc.
AMC33958	11,12	8S	18E	Copper Trail # 2	Redhawk Copper Inc.
AMC33959	11,12,14	8S	18E	Copper Trail # 3	Redhawk Copper Inc.
AMC33960	11,12	8S	18E	Copper Trail # 4	Redhawk Copper Inc.
AMC33961	11	8S	18E	Fraction	Redhawk Copper Inc.
AMC33964	14	8S	18E	Jupiter	Redhawk Copper Inc.
AMC33965	11	8S	18E	Kimbro	Redhawk Copper Inc.
AMC33966	11	8S	18E	Kimbro Eastern	Redhawk Copper Inc.
AMC33968	11,14	8S	18E	Mars	Redhawk Copper Inc.
AMC33986	11,14	8S	18E	North Star	Redhawk Copper Inc.
AMC34022	10	8S	18E	Siskon No. 34	Redhawk Copper Inc.
AMC34023	10	8S	18E	Siskon No. 35	Redhawk Copper Inc.
AMC34024	11	8S	18E	Siskon No. 36	Redhawk Copper Inc.
AMC34025	10	8S	18E	Siskon No. 37	Redhawk Copper Inc.
AMC34026	15	8S	18E	Siskon No. 38	Redhawk Copper Inc.
AMC34027	14	8S	18E	Siskon No. 39	Redhawk Copper Inc.
AMC34029	14	8S	18E	Siskon No. 41	Redhawk Copper Inc.
AMC34036	14	8S	18E	Siskon No. 52	Redhawk Copper Inc.
AMC34038	10	8S	18E	Siskon No. 54	Redhawk Copper Inc.
AMC34039	10	8S	18E	Siskon No. 55	Redhawk Copper Inc.
AMC34066	14	8S	18E	Siskon No. 82	Redhawk Copper Inc.
AMC34071	14	8S	18E	Siskon No. 88	Redhawk Copper Inc.
AMC34072	11	8S	18E	Velasquez	Redhawk Copper Inc.
AMC34073	11	8S	18E	Velasquez Fraction	Redhawk Copper Inc.
AMC34074	11	8S	18E	Velascoquez Wedge	Redhawk Copper Inc.
AMC34075	10,11	8S	18E	Venus	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	**Section**	**Township**	**Range**	**Name of Claim**	**Owner**
AMC342788	3	8S	18E	Hawk #1	Redhawk Copper Inc.
AMC342789	3	8S	18E	Hawk #2	Redhawk Copper Inc.
AMC342790	2,3	8S	18E	Hawk #3	Redhawk Copper Inc.
AMC342791	2,3	8S	18E	Hawk #4	Redhawk Copper Inc.
AMC342792	3	8S	18E	Hawk #5	Redhawk Copper Inc.
AMC342793	3	8S	18E	Hawk #6	Redhawk Copper Inc.
AMC342794	3	8S	18E	Hawk #7	Redhawk Copper Inc.
AMC342795	3	8S	18E	Hawk #8	Redhawk Copper Inc.
AMC342796	3	8S	18E	Hawk #9	Redhawk Copper Inc.
AMC342797	3	8S	18E	Hawk #10	Redhawk Copper Inc.
AMC342798	3	8S	18E	Hawk #11	Redhawk Copper Inc.
AMC342799	3	8S	18E	Hawk #12	Redhawk Copper Inc.
AMC342800	3,4	8S	18E	Hawk #13	Redhawk Copper Inc.
AMC342801	4	8S	18E	Hawk #14	Redhawk Copper Inc.
AMC342802	4	8S	18E	Hawk #15	Redhawk Copper Inc.
AMC349078	14	8S	18E	Chapo #1	Redhawk Copper Inc.
AMC352161	15	8S	18E	Wren 1	Redhawk Copper Inc.
AMC352162	15	8S	18E	Wren 2	Redhawk Copper Inc.
AMC352163	15	8S	18E	Wren 3	Redhawk Copper Inc.
AMC352164	1,2	8S	18E	Parrot 1	Redhawk Copper Inc.
AMC352165	1	8S	18E	Parrot 2	Redhawk Copper Inc.
AMC352166	1	8S	18E	Parrot 3	Redhawk Copper Inc.
AMC352167	1,2	8S	18E	Parrot 4	Redhawk Copper Inc.
AMC352168	1	8S	18E	Parrot 5	Redhawk Copper Inc.
AMC352169	1	8S	18E	Parrot 6	Redhawk Copper Inc.
AMC352170	1,2	8S	18E	Parrot 7	Redhawk Copper Inc.
AMC352171	1	8S	18E	Parrot 8	Redhawk Copper Inc.
AMC352172	1	8S	18E	Parrot 9	Redhawk Copper Inc.
AMC352173	1,2,11,12	8S	18E	Parrot 10	Redhawk Copper Inc.
AMC352174	1,12	8S	18E	Parrot 11	Redhawk Copper Inc.
AMC352175	1,12	8S	18E	Parrot 12	Redhawk Copper Inc.
AMC352176	11	8S	18E	Buzzard No. 8	Redhawk Copper Inc.
AMC352300	11	8S	18E	PF	Redhawk Copper Inc.
AMC352301	14	8S	18E	NS #1	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	Section	Township	Range	Name of Claim	Owner
AMC371132	14	8S	18E	WREN-4	Redhawk Copper Inc.
AMC371133	14	8S	18E	WREN-5	Redhawk Copper Inc.
AMC371134	14	8S	18E	WREN-6	Redhawk Copper Inc.
AMC371135	14	8S	18E	WREN-7	Redhawk Copper Inc.
AMC371136	14	8S	18E	WREN-8	Redhawk Copper Inc.
AMC371137	14,15	8S	18E	WREN-9	Redhawk Copper Inc.
AMC371138	14,15	8S	18E	WREN-10	Redhawk Copper Inc.
AMC371139	14,15	8S	18E	WREN-11	Redhawk Copper Inc.
AMC371140	15	8S	18E	WREN-12	Redhawk Copper Inc.
AMC371141	15	8S	18E	WREN-13	Redhawk Copper Inc.
AMC371142	15	8S	18E	WREN-14	Redhawk Copper Inc.
AMC371143	15	8S	18E	WREN-15	Redhawk Copper Inc.
AMC371144	15	8S	18E	WREN-16	Redhawk Copper Inc.
AMC371145	15	8S	18E	WREN-17	Redhawk Copper Inc.
AMC371146	15	8S	18E	WREN-18	Redhawk Copper Inc.
AMC371147	15	8S	18E	WREN-19	Redhawk Copper Inc.
AMC371148	15,16	8S	18E	WREN-20	Redhawk Copper Inc.
AMC371149	15,16	8S	18E	WREN-21	Redhawk Copper Inc.
AMC371150	9	8S	18E	WREN-22	Redhawk Copper Inc.
AMC371151	9	8S	18E	WREN-23	Redhawk Copper Inc.
AMC371152	9	8S	18E	WREN-24	Redhawk Copper Inc.
AMC371153	3	8S	18E	WREN-44	Redhawk Copper Inc.
AMC371154	3	8S	18E	WREN-45	Redhawk Copper Inc.
AMC371155	3	8S	18E	WREN-46	Redhawk Copper Inc.
AMC371156	3	8S	18E	WREN-47	Redhawk Copper Inc.
AMC371157	3	8S	18E	WREN-48	Redhawk Copper Inc.
AMC371158	3	8S	18E	WREN-49	Redhawk Copper Inc.
AMC371159	3	8S	18E	WREN-50	Redhawk Copper Inc.
AMC371160	3	8S	18E	WREN-51	Redhawk Copper Inc.
AMC371161	2,3	8S	18E	WREN-52	Redhawk Copper Inc.
AMC373192	4	8S	18E	WREN-25	Redhawk Copper Inc.
AMC373193	4	8S	18E	WREN-26	Redhawk Copper Inc.
AMC373194	4	8S	18E	WREN-27	Redhawk Copper Inc.
AMC373195	4	8S	18E	WREN-28	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	Section	Township	Range	Name of Claim	Owner
AMC373196	4	8S	18E	WREN-29	Redhawk Copper Inc.
AMC373197	4	8S	18E	WREN-30	Redhawk Copper Inc.
AMC373198	4	8S	18E	WREN-31	Redhawk Copper Inc.
AMC373199	4	8S	18E	WREN-32	Redhawk Copper Inc.
AMC373200	4	8S	18E	WREN-33	Redhawk Copper Inc.
AMC373201	4	8S	18E	WREN-34	Redhawk Copper Inc.
AMC373202	4	8S	18E	WREN-35	Redhawk Copper Inc.
AMC373203	4	8S	18E	WREN-36	Redhawk Copper Inc.
AMC373204	4	8S	18E	WREN-37	Redhawk Copper Inc.
AMC373205	4	8S	18E	WREN-38	Redhawk Copper Inc.
AMC373206	4	8S	18E	WREN-39	Redhawk Copper Inc.
AMC373207	4	8S	18E	WREN-40	Redhawk Copper Inc.
AMC373208	4	8S	18E	WREN-41	Redhawk Copper Inc.
AMC373209	4	8S	18E	WREN-42	Redhawk Copper Inc.
AMC373210	3,4	8S	18E	WREN-43	Redhawk Copper Inc.
AMC408383	29	7S	18E	NCC 293	Redhawk Copper Inc.
AMC408384	28	7S	18E	NCC 294	Redhawk Copper Inc.
AMC408385	28	7S	18E	NCC 295	Redhawk Copper Inc.
AMC408386	28	7S	18E	NCC 296	Redhawk Copper Inc.
AMC408387	28	7S	18E	NCC 297	Redhawk Copper Inc.
AMC408388	28	7S	18E	NCC 298	Redhawk Copper Inc.
AMC408389	28	7S	18E	NCC 299	Redhawk Copper Inc.
AMC408390	28	7S	18E	NCC 300	Redhawk Copper Inc.
AMC408391	28	7S	18E	NCC 301	Redhawk Copper Inc.
AMC408392	28,29	7S	18E	NCC 302	Redhawk Copper Inc.
AMC408393	28,29	7S	18E	NCC 319	Redhawk Copper Inc.
AMC408394	28	7S	18E	NCC 320	Redhawk Copper Inc.
AMC408395	28	7S	18E	NCC 321	Redhawk Copper Inc.
AMC408396	28	7S	18E	NCC 322	Redhawk Copper Inc.
AMC408397	28	7S	18E	NCC 323	Redhawk Copper Inc.
AMC408398	28,33	7S	18E	NCC 324	Redhawk Copper Inc.
AMC408399	28,33	7S	18E	NCC 325	Redhawk Copper Inc.
AMC408406	29	7S	18E	NCC 285	Redhawk Copper Inc.
AMC408407	29	7S	18E	NCC 286	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	Section	Township	Range	Name of Claim	Owner
AMC408408	29	7S	18E	NCC 287	Redhawk Copper Inc.
AMC408409	29	7S	18E	NCC 288	Redhawk Copper Inc.
AMC408410	29	7S	18E	NCC 289	Redhawk Copper Inc.
AMC408411	29	7S	18E	NCC 290	Redhawk Copper Inc.
AMC408412	29	7S	18E	NCC 291	Redhawk Copper Inc.
AMC408413	29	7S	18E	NCC 292	Redhawk Copper Inc.
AMC408414	29	7S	18E	NCC 303	Redhawk Copper Inc.
AMC408415	29	7S	18E	NCC 304	Redhawk Copper Inc.
AMC408416	29	7S	18E	NCC 305	Redhawk Copper Inc.
AMC408417	29	7S	18E	NCC 306	Redhawk Copper Inc.
AMC408418	29	7S	18E	NCC 307	Redhawk Copper Inc.
AMC408419	29	7S	18E	NCC 308	Redhawk Copper Inc.
AMC408420	29	7S	18E	NCC 309	Redhawk Copper Inc.
AMC408421	29	7S	18E	NCC 310	Redhawk Copper Inc.
AMC408422	29	7S	18E	NCC 311	Redhawk Copper Inc.
AMC408423	29	7S	18E	NCC 312	Redhawk Copper Inc.
AMC408424	29	7S	18E	NCC 313	Redhawk Copper Inc.
AMC408425	29	7S	18E	NCC 314	Redhawk Copper Inc.
AMC408426	29	7S	18E	NCC 315	Redhawk Copper Inc.
AMC408427	29	7S	18E	NCC 316	Redhawk Copper Inc.
AMC408428	29	7S	18E	NCC 317	Redhawk Copper Inc.
AMC408429	29	7S	18E	NCC 318	Redhawk Copper Inc.
AMC408430	29,32	7S	18E	NCC 329	Redhawk Copper Inc.
AMC408431	29,32	7S	18E	NCC 330	Redhawk Copper Inc.
AMC408432	29,32	7S	18E	NCC 331	Redhawk Copper Inc.
AMC408433	29,32	7S	18E	NCC 332	Redhawk Copper Inc.
AMC408434	29,32	7S	18E	NCC 333	Redhawk Copper Inc.
AMC408435	29,32	7S	18E	NCC 334	Redhawk Copper Inc.
AMC408436	29,32	7S	18E	NCC 335	Redhawk Copper Inc.
AMC408437	29,32	7S	18E	NCC 336	Redhawk Copper Inc.
AMC408438	28,33	7S	18E	NCC 326	Redhawk Copper Inc.
AMC408439	28,33	7S	18E	NCC 327	Redhawk Copper Inc.
AMC408440	28,29,32,33	7S	18E	NCC 328	Redhawk Copper Inc.
AMC408441	32,33	7S	18E	NCC 337	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	**Section**	**Township**	**Range**	**Name of Claim**	**Owner**
AMC408442	33	7S	18E	NCC 338	Redhawk Copper Inc.
AMC408443	33	7S	18E	NCC 339	Redhawk Copper Inc.
AMC408444	33,34	7S	18E	NCC 366	Redhawk Copper Inc.
AMC408445	34	7S	18E	NCC 367	Redhawk Copper Inc.
AMC408446	34	7S	18E	NCC 368	Redhawk Copper Inc.
AMC408447	34	7S	18E	NCC 369	Redhawk Copper Inc.
AMC408448	34	7S	18E	NCC 370	Redhawk Copper Inc.
AMC408449	34	7S	18E	NCC 371	Redhawk Copper Inc.
AMC408450	34	7S	18E	NCC 372	Redhawk Copper Inc.
AMC408451	34	7S	18E	NCC 373	Redhawk Copper Inc.
AMC408452	34	7S	18E	NCC 374	Redhawk Copper Inc.
AMC408453	34	7S	18E	NCC 393	Redhawk Copper Inc.
AMC408454	34	7S	18E	NCC 394	Redhawk Copper Inc.
AMC408455	34	7S	18E	NCC 395	Redhawk Copper Inc.
AMC408456	34	7S	18E	NCC 396	Redhawk Copper Inc.
AMC408457	34	7S	18E	NCC 397	Redhawk Copper Inc.
AMC408458	34	7S	18E	NCC 398	Redhawk Copper Inc.
AMC408459	34	7S	18E	NCC 399	Redhawk Copper Inc.
AMC408460	34	7S	18E	NCC 400	Redhawk Copper Inc.
AMC408461	33,34	7S	18E	NCC 401	Redhawk Copper Inc.
AMC409380	35	7S	18E	NCC 375	Redhawk Copper Inc.
AMC409381	35	7S	18E	NCC 376	Redhawk Copper Inc.
AMC409382	35	7S	18E	NCC 377	Redhawk Copper Inc.
AMC409383	35	7S	18E	NCC 378	Redhawk Copper Inc.
AMC409384	35	7S	18E	NCC 379	Redhawk Copper Inc.
AMC409385	35	7S	18E	NCC 380	Redhawk Copper Inc.
AMC409386	35	7S	18E	NCC 381	Redhawk Copper Inc.
AMC409387	35	7S	18E	NCC 382	Redhawk Copper Inc.
AMC409388	35,36	7S	18E	NCC 383	Redhawk Copper Inc.
AMC420295	33,34	7S	18E	NCC 402	Redhawk Copper Inc.
AMC420296	34	7S	18E	NCC 403	Redhawk Copper Inc.
AMC420297	34	7S	18E	NCC 404	Redhawk Copper Inc.
AMC420298	34	7S	18E	NCC 405	Redhawk Copper Inc.
AMC420299	34	7S	18E	NCC 406	Redhawk Copper Inc.

Redhawk Copper Inc. BLM Unpatented Claims					
BLM Serial Number	Section	Township	Range	Name of Claim	Owner
AMC420308	27,34	7S	18E	NCC 433	Redhawk Copper Inc.
AMC420309	27,34	7S	18E	NCC 434	Redhawk Copper Inc.
AMC420310	27,34	7S	18E	NCC 435	Redhawk Copper Inc.
AMC420311	27,34	7S	18E	NCC 436	Redhawk Copper Inc.
AMC420312	27,28,33,34	7S	18E	NCC 437	Redhawk Copper Inc.
AMC420313	27,28	7S	18E	NCC 438	Redhawk Copper Inc.
AMC420314	27	7S	18E	NCC 439	Redhawk Copper Inc.
AMC420315	27	7S	18E	NCC 440	Redhawk Copper Inc.
AMC420316	27	7S	18E	NCC 441	Redhawk Copper Inc.
AMC420317	27	7S	18E	NCC 442	Redhawk Copper Inc.
AMC420326	27	7S	18E	NCC 451	Redhawk Copper Inc.
AMC420327	27	7S	18E	NCC 452	Redhawk Copper Inc.
AMC420328	27	7S	18E	NCC 453	Redhawk Copper Inc.
AMC420329	27	7S	18E	NCC 454	Redhawk Copper Inc.
AMC420330	27,28	7S	18E	NCC 455	Redhawk Copper Inc.
AMC420331	27,28	7S	18E	NCC 456	Redhawk Copper Inc.
AMC420332	27	7S	18E	NCC 457	Redhawk Copper Inc.
AMC420333	27	7S	18E	NCC 458	Redhawk Copper Inc.
AMC79732	3	8S	18E	Zella A	Redhawk Copper Inc.

Redhawk Copper Inc. ASLD Mineral Exploration Permits								
ASLD Mineral Exploration Permit	Land Number	Legal Description	Acreage	Section	Township	Range	Permittee	Expiration Date
008-122709-00-100	07.0-S-18.0-E-33-11-031-1001	E2 SW E2NW	560.00	33	07S	18E	Redhawk Copper Inc.	8-Dec-2026
008-122710-00-100	07.0-S-18.0-E-32-11-030-1001	ALL	640.00	32	07S	18E	Redhawk Copper Inc.	8-Dec-2026
008-122711-00-100	07.0-S-18.0-E-28-11-031-1001	E2	320.00	28	07S	18E	Redhawk Copper Inc.	8-Dec-2026
008-122712-00-100	07.0-S-18.0-E-21-11-031-1004	S2	320.00	21	07S	18E	Redhawk Copper Inc.	8-Dec-2026
008-122899-00-100	08.0-S-18.0-E-16-11-030-1001	ALL	640.00	16	08S	18E	Redhawk Copper Inc.	31-Mar-2027
008-122900-00-100	08.0-S-18.0-E-15-11-031-1001	SW	160.00	15	08S	18E	Redhawk Copper Inc.	31-Mar-2027
008-121785-00-100	08.0-S-18.0-E-21-12-031-1003	S2SW	80.00	12	08S	18E	Redhawk Copper Inc.	3-Mar-2026

Redhawk Copper Inc. ASLD Mineral Exploration Permits								
ASLD Mineral Exploration Permit	Land Number	Legal Description	Acreage	Section	Township	Range	Permittee	Expiration Date
008-121786-00-100	08.0-S-18.0-E-13-11-031-1001	NW	160.00	13	08S	18E	Redhawk Copper Inc.	3-Mar-2026
008-123024-00-100	08.0-S-18.0-E-02-11-030-1014	LOTS 5 6 10 12 13 14	108.79	2	08S	18E	Redhawk Copper Inc.	24-Apr-2027