San Javier Copper Project

Sonora, Mexico

NI 43-101 Technical Report
Mineral Resource Estimate

Resource Date: October 31, 2022
Report Date: November 21, 2022

Prepared For:
Barksdale Resources Corporation
Vancouver, BC Canada

Independent Mining Consultants, Inc.
Tucson, Arizona

Table of Contents

Tables

Figures

1 Summary

Barksdale Resources Corporation (Barksdale) requested Independent Mining Consultants, Inc. (IMC) to complete an updated mineral resources estimate of Cerro Verde deposit within the San Javier Project in Sonora, Mexico. The technical work by IMC commenced in March 2022 and was completed in October 2022. The effective date of the mineral resource is October 31, 2022. The updated mineral resource is shown in Table 1.1. The mineral resource documented in this report is on the Cerro Verde deposit of the San Javier Project and will be referred to as the San Javier Mineral Resource.

Table 1.1 San Javier Mineral Resource

	Ktonnes & Grades Above Cutoff (1)					Copper Pounds x 1000 (2)	
	Ktonnes	Tcu, %	As+Cn Cu, %	AsCu, %	CnCu, %	Total Contained	Soluble Contained
Measured	12,485	0.278	0.203	0.172	0.032	76,573	55,938
Indicated	57,664	0.270	0.184	0.148	0.037	342,669	233,504
Total M&I	70,149	0.271	0.187	0.152	0.036	419,242	289,442
Inferred	5,965	0.240	0.152	0.114	0.038	31,563	19,923

1) AsCu+CnCu cutoff vary by oxidization type: leach cap & oxide = 0.04%, mixed = 0.07%, sulfide = 0.08%
2) Contained pounds = ktonnes x TCu x 22.04
   Soluble pounds = ktonnes x AsCu+CnCu x 22.04
3) Mineral Resource tonnage and grades is restricted to the Cerro Verde Deposit
4) Total pit shell tonnage = 95,175 ktonnes; ratio of ktonnes below cutoff to above cutoff = 0.25
5) Numbers may not add due to rounding.

The San Javier Project Mineral Resources meet the current CIM definitions for classified mineral resources ("CIM Estimation of Mineral Resource and Mineral Reserves Best Practice Guidelines", adopted by the CIM Council on November 29, 2019). It should be noted that:

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the inferred portion of the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

The qualified person for the mineral resource is Herbert E. Welhener of IMC.

1.1 Property Description and Ownership

The San Javier project is located in northwestern Mexico in the central part of Sonora, 140km east-southeast of Hermosillo. From Hermosillo, take Federal Highway 16 towards Chihuahua until approximately Km 141, where a junction to the north leads to San Javier village. Follow this winding paved road uphill for approximately 2.8 km before making a sharp turn southeast on an unmarked dirt road for approximately 1.6 km. The use of a four-wheel drive vehicle is advisable on the dirt road and at the project. Cerro Verde Mountain is due south of the town of San Javier, the capital of the municipality under the same name, with a population of 537 inhabitants in the 2020 census.

The project is comprised of 12 mining concessions optioned from San Javier del Cobre S.A. de C.V. by Estrella de Cobre, S.A. de C.V., a Barksdale Resources Corp. subsidiary. The mining claims cover 1,184.4345 hectares, forming four clusters with spaces between them occupied by mining concessions owned by third parties.

1.2 History

The project has been of interest to mining companies for a long time, as the green copper-stained cliffs of Cerro Verde are visible from a long distance. The earliest known modern exploration campaigns were completed by Servicios Industriales Peñoles S.A. De C.V. (“Peñoles”) from the late 1960s through the mid-1980s. Magma Copper Company (“Magma”) followed briefly in 1994. Also in 1994, the Finnish mining company Outukumpu Oyj (Outukumpu) participated in a brief joint venture with Orcana Resources Ltd (Orcana) and drilled nine holes at La Trinidad. Minera Corner Bay (“Corner Bay”), which held the mineral concession rights from late 1994 to 1999 and formed a joint venture with Phelps Dodge (“PD”) between 1995-1998. Constellation Copper Corporation (CONSTELLATION) acquired the project in 2004 and was active until 2008, when the company entered into bankruptcy protection. Tusk Exploration Inc (“Tusk”), a private company, acquired the project in a bankruptcy liquidation process in 2009. In 2014, Benz Capital Corp optioned the property from Tusk and completed a PEA, although no additional exploration work was completed on the property. Benz dropped its option within a year due to low copper prices. In 2019, Estrella del Cobre S.A. de C.V, a wholly owned subsidiary of Barksdale Resources Corp, optioned the property from Tusk.

1.3 Geology

The oldest lithologic package in the region is composed of sedimentary rocks in an Ordovician through Permian platform and a deep-water marine sequence comprised of limestone, shale and sandstone. This sequence was affected by several tectonic events that resulted in low-angle over thrusting of basin sedimentary facies rocks over shallow water, platform sedimentary rocks. This deep-water carbonate rock package is referred to as the San Antonio Formation, outcropping less than 2 km north of the project area.

On top of these rocks was the deposition of the Barranca Group rocks during the Late Triassic, with mixed facies of marine and marshy environments depositing conglomerates, quartz sandstone, carbonaceous shale and minor coal beds. The Barranca Group comprises the Late Triassic Arrayanes Formation (sandstone-siltstone), the Late Triassic Santa Clara Formation (carbonaceous shale, coal beds) and the indeterminate age Coyotes Formation (conglomerate).

San Javier exhibits many characteristics common to Iron Oxide Copper Gold (IOCG) deposits.

1.4 Exploration

Work on the property by Barksdale's Mexican subsidiary, Estrella de Cobre, commenced in February of 2021, setting up the infrastructure for the upcoming drilling campaign. In the months following, the advances in re-logging historic core and the delineation of major structural controls helped in the construction of a preliminary 3D model that was used to focus and target the initial part of the drill campaign trying to identify vertical feeder structures. Drilling started in August 2021 and was finished in November 2021.

The first four holes were metallurgical holes designed to replicate (twin) results of historic holes and/or testing areas with good control on the mineralization and geo-metallurgical zones in the central part of the Cerro Verde deposit, near the summit of the Cerro. The next ten holes or so were designed to try to define feeder zones to the primary gold and copper mineralization. As the core logging failed to identify these feeder zones, the rest of the holes were planned to augment information on copper and gold mineralization present in the zone of oxides and transition to sulfides.

Exploration has identified that the San Javier deposit is open is all directions away from the central area of the deposit. Section 9.3 discusses the opportunities for expansion.

1.5 Metallurgical Test Work

The metallurgical test work completed in 2022 for Barksdale was under the direction of SND Consulting and performed at the McClelland Laboratories, Inc located in Sparks, Nevada. This work consisted of four column leach tests and the results are the basis for the copper recovery and acid consumption used for the definition of the mineral resource.

1.6 Other Relevant Data

The San Javier project comprises four group of properties, Cerro Verde, San Carlos, Cobre Nuevo Norte and Cobre Nuevo Sur. Most of the historic drilling focused in the Cerro Verde area, but the San Carlos group of claims which includes the La Trinidad and Mesa Grande areas (Figure 24.1) also had some drilling, with mineralized intercepts over mineable widths. The Cobre Nuevo Norte and Cobre Nuevo Sur groups of claims have not been explored yet.

La Trinidad and Mesa Grande areas are separated by a steep winding creek with a general south-southeast orientation. The Tarahumara Formation volcanic rocks are in the upper plate of a low angle thrust fault, on top of the Barranca Group Triassic-Jurassic sedimentary rocks. Both the Santa Clara and Coyotes Formations are present below the fault. All holes at La Trinidad and Mesa Grande are collared in the Tarahumara volcanic rocks, and while none of those at Mesa Grande intercepted the underlying sedimentary rocks, 18 out of 24 holes at La Trinidad did.

In both areas the lithologic, alteration and mineralization assemblages are similar to those present at Cerro Verde and of IOCG style, above a low angle thrust fault. At Cerro Verde the sedimentary unit below the fault are conglomerates of the Coyotes Formation, whereas at La Trinidad below the volcanic rocks is the sequence of siltstone, shale and sandstone with interbedded coal seams of the Santa Clara Formation. The andesitic volcanic rocks present varying intensities of silicification, sericitization and chloritization, accompanied by specularite as disseminations and veinlets with minor siderite and barite, and are probably part of the same mineralizing system of the Cerro Verde deposit.

The San Javier mineral resource is defined by the heap leaching of the copper mineralization. Gold is also present at San Javier and is not part of the mineral resource as no definitive work has been completed to evaluate the potential for economic extraction of the gold. Within the San Javier deposit, which was modelled for the copper mineral resource, there is gold mineralization in the range of 250 to 400 thousand ounces occurring primarily in the oxide zone. No evaluation has been done to determine how it relates geometrically to the copper mineralization.

1.7 Recommendations

The following are recommendations to advance the San Javier Project:

- Continue relogging of the Constellation drill core to match the logging procedures and interpretation used for the Barksdale drill core.

- Do density test on the Barksdale drill core and on future dill campaigns.

- Additional drilling should be considered to explore for extensions to mineralization as well as to convert inferred resources to higher confidence categories.

- Explore and drill the adjacent deposits within and adjacent to the San Javier Project.

- Additional test work should be completed to further advance metallurgical understanding of the deposit.

- Evaluate the gold mineralization and potential for defining a gold mineral resource.

- Proceed with environmental base line studies.

- When appropriate, proceed to an updated PEA of the project.

2 Introduction

Barksdale Resources Corporation (Barksdale) requested Independent Mining Consultants, Inc. (IMC) to complete an updated mineral resources estimate of the Cerro Verde deposit within the Barksdale San Javier Project in Sonora, Mexico. The technical work by IMC commenced in March 2022 and was completed in October 2022. The mineral resource documented in this report is on the Cerro Verde deposit of the San Javier Project and will be referred to as the San Javier Mineral Resource.

2.1 Purpose of the Report

The purpose of this report is to present updated mineral resource information along with updates to the metallurgical testing information. This work includes additional drilling completed during 2021 by Barksdale and an updated geologic interpretation of the deposit. The last update to the mineral resource for San Javier was contained in the JDS Energy and Mining Corp. PEA report completed in 2014 for Benz Capital Corporation.

The effective date of the mineral resource is October 31, 2022.

2.2 Sources of Information

This report is based on data supplied by Barksdale and the use of historic data found in the public domain. The information presented, opinions, estimates and conclusions stated are based on the following information:

- Source documents as summarized in Section 27,
- Assumptions, conditions and qualifications as set forth in this report,
- Data, reports and opinions from third-party entities, and
- Personal inspection and reviews.

IMC has not independently conducted as title or other searches and has relied on Barksdale for information on the status of claims, property title, agreements, permit status and other pertinent conditions. In addition, IMC has not independently conducted any sampling, metallurgical test work, permitting or environmental studies on the Property.

Information provided by Barksdale include:

- Assumptions, conditions, and qualifications as set forth in the report.
- Drill hole records.
- Property ownership and history details.
- Sampling protocol details.
- Geological and mineralization setting.
- Data, reports, and opinion from prior owners and third-party entities; and
- Copper and other assays from original records and reports.

2.3 Consultants and Qualified Persons

Barksdale contracted two consultants, including IMC to provide a review of prior and new work on the Project. Herbert Welhener (SME-RM) is the principal author of this report and responsible for the updated mineral resource estimate. Mr. Welhener is responsible for preparation (in conjunctions with Barksdale) of the Property description, Property history, geological setting and mineralization, deposit types, exploration, drilling, sample preparation and security, data verification, and description of adjacent properties.

Steve Dixon is responsible for the review of the previous metallurgical test work and the current ongoing test work programs. Mr. Dixon is the author of Section 13.

The QP responsibilities mentioned above are summarized in Table 2.1.

Table 2.1 Qualified Person Responsibilities

Qualified Person	Registration	Company	Sections of Responsibility	Site Visit
Herbert Welhener	SME-RM	IMC	1-12, 14-27	July 12, 2022
Steve N. Dixon	SME-RM	SND Consulting	13	Has not been to site

Mr. Welhener accompanied Mr. Thomas Simpson (Senior Vice President – Exploration for Barksdale) and Jorge Cirett (Gambusino Prospector de Mexico) to site on July 12,2022. During the site visit the following tasks were completed:

- the logging and sampling protocols were reviewed (no drilling was occurring at the time of the site visit),

- the core for several holes was laid out and reviewed along with the drill logs,
- a tour of the site was performed.

2.4 Definitions of Terms

Unless explicitly stated, all units presented in this report are in the Metric.
All monetary values are in United States (U.S.) dollars unless otherwise stated.
Common units of measure and conversion factors used in this report include:

Analytical Values:

	percent	grams per metric tonne
1%	1%	10,000
1 gm/tonne	0.0001%	1.0
1 oz troy/short ton	0.003429%	34.2857
10 ppb		
100 ppm		

Frequently used acronyms and abbreviations:

ac-ft	=	acre feet
asCu	=	Acid Soluble Copper Assay
Ag	=	silver
Au	=	gold
Ag oz/t	=	troy ounces silver per short ton (oz/ton)
Au oz/t	=	troy ounces gold per short ton (oz/ton)
CIM	=	Canadian Institute of Mining, Metallurgical, and Petroleum
cnCu	=	Cyanide Soluble Copper Assay
EIS	=	Environmental Impact Statement
°F	=	degrees Fahrenheit
FA	=	Fire Assay
ft	=	foot or feet
ft^2	=	square foot or feet
ft^3	=	cubic foot or feet
GCL	=	Geosynthetic Clay Liner
g	=	gram(s)
gpl	=	grams per liter
gpm	=	gallons per minute
h	=	hour
HDPE	=	High Density Polyethylene
km	=	kilometer
kV	=	kilovolts
kWh	=	Kilowatt hour
kWh/t	=	Kilowatt hours per ton

l	=	liter
lb(s)	=	pound(s)
lbs/ft^3	=	pounds per cubic foot
LME	=	London Metal Exchange
MW	=	megawatts
NDEP	=	Nevada Division of Environmental Protection
NEPA	=	National Environmental Policy Act
NSR	=	net smelter return
PEA	=	Preliminary Economic Assessment
PFS	=	Preliminary Feasibility Study
PLS	=	Pregnant Leach Solution
PoO	=	Plan of Operations
ppm	=	parts per million
ppb	=	parts per billion
QLT	=	Quick Leach Test, also Ferric Soluble Copper
RC	=	reverse circulation drilling method
ROD	=	Record of Decision
SCFM	=	standard cubic feet per minute
SX/EW	=	Solvent extraction & electrowinning
TCu	=	Total Copper Assay
tph	=	tons per hour
tpy	=	tons per year
tpm	=	tons per month
tpd	=	tons per day
tph	=	tons per hour
µm	=	micron(s)
VLT	=	Vat Leach Tailings
%	=	percent

Abbreviations of the Periodic Table:

actinium = Ac	aluminum = Al	americium = Am	antimony = Sb	argon = Ar
arsenic = As	astatine = At	barium = Ba	berkelium = Bk	beryllium = Be
bismuth = Bi	bohrium = Bh	boron = B	bromine = Br	cadmium = Cd
calcium = Ca	californium = Cf	carbon = C	cerium = Ce	cesium = Cs
chlorine = Cl	chromium = Cr	cobalt = Co	copper = Cu	curium = Cm
dubnium = Db	dysprosium = Dy	einsteinium = Es	erbium = Er	europium = Eu
fermium = Fm	fluorine = F	francium = Fr	gadolinium = Gd	gallium = Ga
germanium = Ge	gold = Au	hafnium = Hf	hahnium = Hn	helium = He
holmium = Ho	hydrogen = H	indium = In	iodine = I	iridium = Ir
iron = Fe	juliotium = Jl	krypton = Kr	lanthanum = La	lawrencium = Lr
lead = Pb	lithium = Li	lutetium = Lu	magnesium = Mg	manganese = Mn
meltnerium = Mt	mendelevium = Md	mercury = Hg	molybdenum = Mo	neodymium = Nd

3 Reliance on Other Experts

IMC has not researched the mineral claims and surface ownership of the San Javier holdings by Barksdale Resources and its subsidiaries. IMC has relied on Barksdale Resources to provide the information regarding the ownership presented in Section 4.

This report has been prepared by IMC and co-authored by those listed in Section 2.3. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to the authors of this report up to and including the effective date of this report.
- Assumptions, conditions, and qualifications as set forth in this report.
- Data, reports, and other information supplied by Barksdale and other third-party sources.
- The drill hole database assembled by Claus Weise (I-Cube LLC) along with wire frames of the geologic zones.
- Data and reports available in the public domain.

Reports received from other experts have been reviewed for factual errors by Barksdale and IMC. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statements and opinions expressed in these documents are given in good faith and in the belief that such statements and opinions are not false or misleading at the date of these reports.

4 Property Description & Location

4.1 Location

The San Javier project is located in northwestern Mexico in the central part of Sonora, 140km east-southeast of Hermosillo. From Hermosillo, take Federal Highway 16 towards Chihuahua until approximately Km 141, where a junction to the north leads to San Javier village. Follow this winding paved road uphill for approximately 2.8 km before making a sharp turn southeast on an unmarked dirt road for approximately 1.6 km. The use of a four-wheel drive vehicle is advisable on the dirt road and at the project. Cerro Verde Mountain is due south of the town of San Javier, the capital of the municipality under the same name, with a population of 537 inhabitants in the 2020 census.

The summit of the Cerro Verde Mountain has latitude-longitude coordinates of 28.566 degrees North, -109.74 degrees East. Within UTM WGS-84 zone 12 N, the coordinates are 623,257 East, 3,160,610 North.

Figure 4.1 General location map of San Javier property.

The property consists of several concessions described below in Section 4.2. The principal mineralized areas are Cerro Verde, Mesa Grande and La Trinidad. Only Cerro Verde has a mineral resource discussed herein.

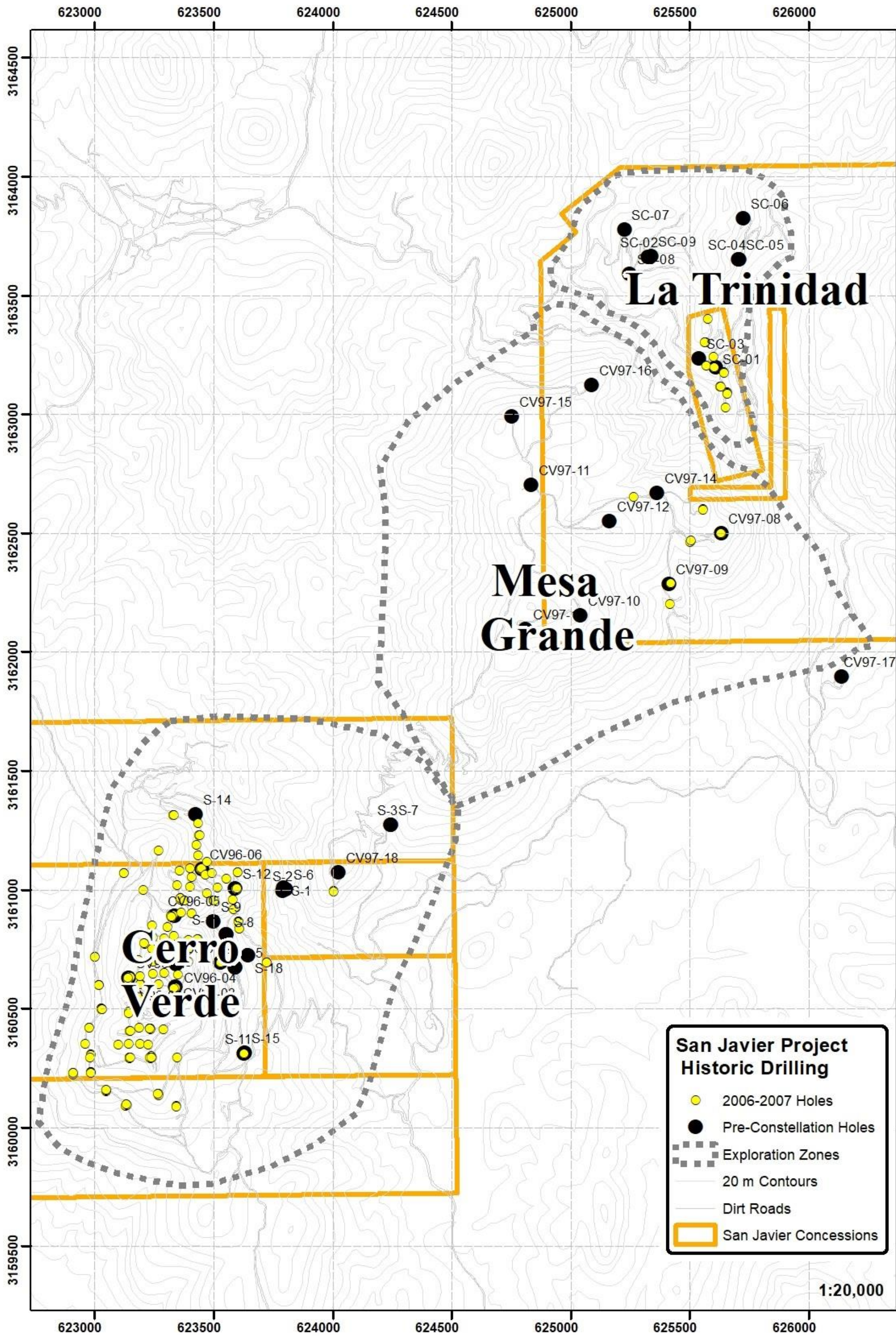


Figure 4.2 Plan map showing location of Cerro Verde, Mesa Grande and La Trinidad in relation to one another.

4.2 Property Ownership and Mineral Titles

The project is comprised of 12 mining concessions optioned from San Javier del Cobre S.A. de C.V. by Estrella de Cobre, S.A. de C.V., a Barksdale Resources Corp. subsidiary. The mining claims cover 1,184.4345 hectares, forming four clusters with spaces between them occupied by mining concessions owned by third parties, as shown in Figure 4.2 below.

Estrella de Cobre S.A. de C.V. acquired interest in these mining concessions through the signature of a contract with Tusk Exploration Ltd., the parent company of San Javier del Cobre S.A. de C.V. in August 2020.

Table 4.1 San Javier Mining Concessions

Concesiones Mineras / Mining concessions		
Name	**Title**	**Hectares**
Uno	218264	95.0000
Dos	213905	98.8900
Tres	213906	113.9200
Ampl. Cerro Verde	185768	32.0000
Cerro Verde	186010	40.0000
San Carlos	205558	287.5789
Trinidad Fracc 1	197350	13.3806
Trinidad Fracc 2	197676	6.5000
Las Tunas	226168	118.8464
Cobre Nuevo Sur	223877	312.6232
Cobre Nuevo Sur Fracc I	223983	62.4998
Cobre Nuevo Sur Fracc 2	223984	3.1956
	TOTAL	**1,184.4345**

Three of the mining concessions optioned by Estrella de Cobre S.A. de C.V. were previously cancelled but have been recovered and are now in good standing. Those concessions are San Carlos, T. 205558; Trinidad Fracc 1, T. 197350 and Trinidad Fracc 2, T. 197676.

Two more applications for mining concessions have been filed before the Dirección General de Minas by Estrella de Cobre S.A. de C.V. and awaiting title issuance. These are the “Barranca” and “SJ” applications which are intended to cover 163.00 hectares. When these applications are titled, the land controlled by the company will amount to 1,347.4345 hectares.

Table 4.2 San Javier Concession Applications

Solicitudes / Applications		
Name	File	Hectares
Barranca	82/40910	100.0000
SJ	82/40909	63.0000
	TOTAL	**163.0000**

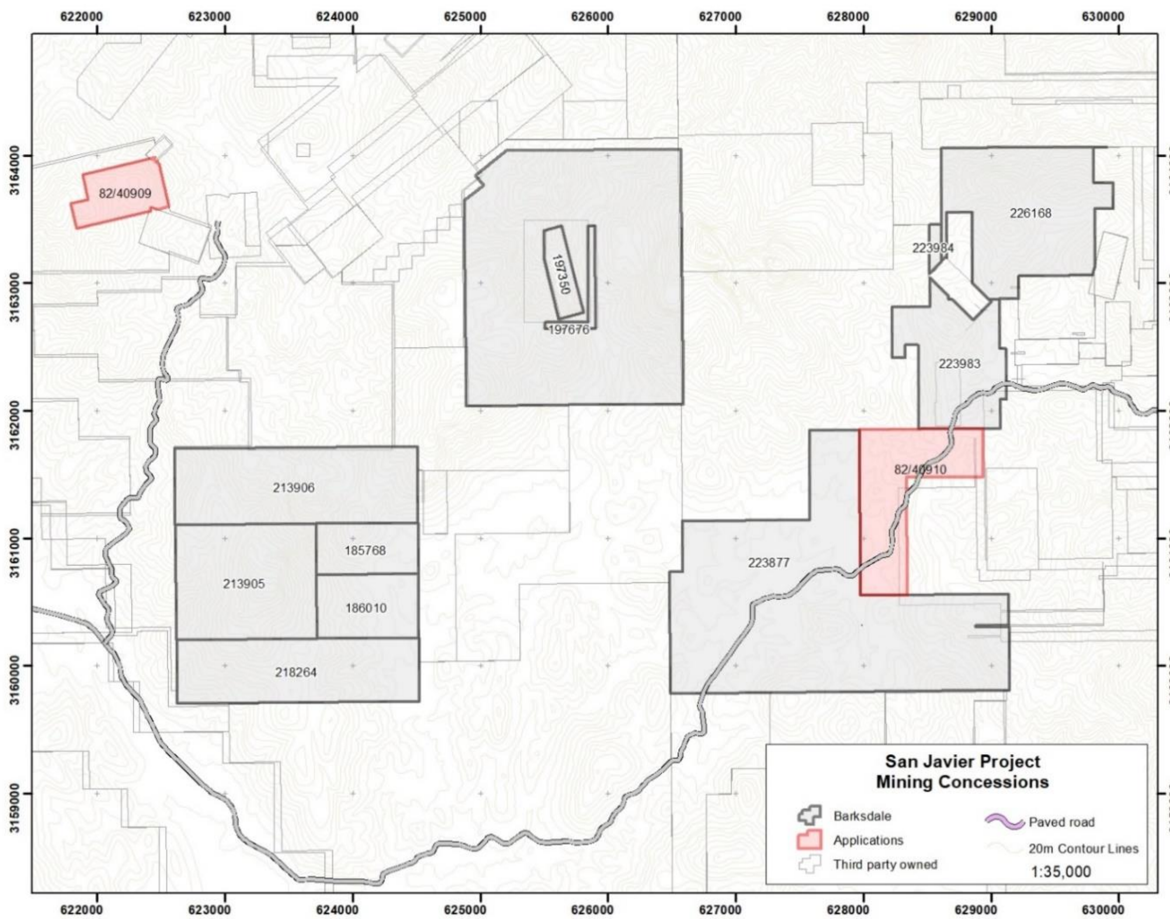


Figure 4.3 Plan map showing the San Javier existing mining concessions shown in gray; concessions in red are under application.

4.3 Land Access and Environmental Permit

Most of the land covered by the mining concessions and applications of Estrella de Cobre S.A. de C.V. is owned by the San Javier Ejido (local community government). Permission to work was sought in late 2020, and a written proposal delivered to the Ejido in October of the same year, but the Covid pandemic prevented the members from forming a valid assembly until the end of March 2021, when the company was granted permission to work. The permit granted in that assembly permitted the company to plan and accomplish the 2021 drilling campaign. In April 2022, the company was given permission by the Ejido to complete exploration work for five years, in exchange for the drilling of a water well for the San Javier community.

An environmental report (Informe Preventivo) was submitted to the federal environmental regulator, SEMARNAT (Secretaría de Medio Ambiente y Recursos Naturales), for the approval of the 2021 drilling program. The program was authorized on June 17, 2021, covering the drilling of up to 250 holes in a two-year period, with road rehabilitation and access to drill pads approved, but no new road construction allowed.

A second environmental report (Informe Preventivo) was submitted on May 17, 2022, with the aim of obtaining permission to drill at Cerro Verde, Mesa Grande and La Trinidad areas, including the construction of over 13 kilometers of roads. The program was authorized on August 15, 2022, covering the drilling of up to 113 holes with the construction approval for 13.1 kilometers of new roads and new drill pads.

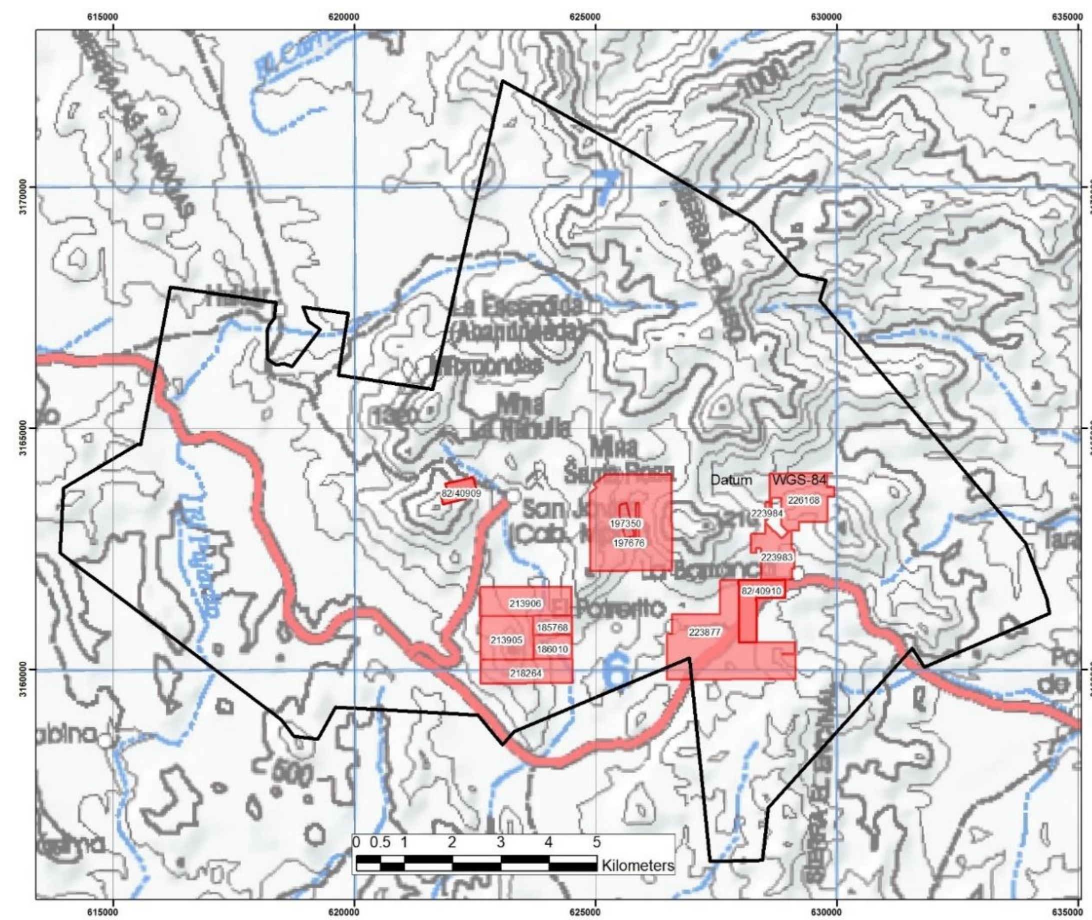


Figure 4.4 Topographic map showing the outline of the Ejido in relation to the mining concessions

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Access to the Property

On Highway 16 at approximately Km 141, there is a junction to the north that leads to San Javier. Follow this winding paved road uphill for approximately 2.8 km before making a sharp turn southeast on an unmarked dirt road for approximately 1.6 km. The use of a four-wheel drive vehicle is advisable. The Cerro Verde Mountain is approximately 3km due south of San Javier, the capital of the municipality under the same name, with a total population circa 550 inhabitants (Figure 4.1).

5.2 Climate

The climate is semi-arid with a pronounced monsoonal season from June through September and is extremely dry the remainder of the year. Precipitation varies between 300 to 700mm/yr. The annual temperature varies from +12°C to +35°C.

5.3 Physiography

The property topography is extremely rugged with the three deposits located on steep to very steep hills rising as much as 300m above the plain to the west. The elevation of the area around San Javier ranges from 400 to 1,300m.

5.4 Vegetation

Vegetation consists primarily of relatively thick scrub with small- to medium-sized trees lying along sheltered watercourses. The area is green during the three-month monsoon season and dry for the remainder of the year.

5.5 Local Resources & Infrastructure

The property lies between 2 and 3km from the town of San Javier. The San Javier workforce is small and almost fully employed by the many small coal-mining operations in the immediate vicinity and could be considered a resource for some of a probable workforce. The larger town of Tecoripa lies 25km west of the project area and is a source of fuel, supplies and labor. However, most major supplies, including labor, will come from the capital city of Hermosillo. Despite the steep topography, there are several areas of more moderate relief located on or near the mining concessions controlled by the company. Potential sites for leach pads and process facilities will need to be identified in due course.

Electrical power is available from an existing line owned by the Federal Power Agency (CFE). The power line passes within 2km of the property and has the capacity to supply a small-to medium-sized operation. Approximately 2km of unpaved road leading to the project from the highway will need to be upgraded to accommodate mine traffic. Water will need to be supplied from wells that will be drilled and developed in the project area.

6 History

6.1 Property History

The project has been of interest to mining companies for a long time, as the green copper-stained cliffs of Cerro Verde are visible from a long distance. The earliest known modern exploration campaigns were completed by Servicios Industriales Peñoles S.A. De C.V. (“Peñoles”) from the late 1960s through the mid-1980s. Magma Copper Company (“Magma”) followed briefly in 1994. Also in 1994, the Finnish mining company Outukumpu Oyj (Outukumpu) participated in a brief joint venture with Orcana Resources Ltd (Orcana) and drilled nine holes at La Trinidad. Minera Corner Bay (“Corner Bay”), which held the mineral concession rights from late 1994 to 1999 and formed a joint venture with Phelps Dodge (“PD”) between 1995-1998. Constellation Copper Corporation (CONSTELLATION) acquired the project in 2004 and was active until 2008, when the company entered into bankruptcy protection. Tusk Exploration Inc (“Tusk”), a private company, acquired the project in a bankruptcy liquidation process in 2009. In 2014, Benz Capital Corp optioned the property from Tusk and completed a PEA, although no additional exploration work was completed on the property. Benz dropped its option within a year due to low copper prices. In 2019, Estrella del Cobre S.A. de C.V, a wholly owned subsidiary of Barksdale Resources Corp, optioned the property from Tusk.

Historic drilling on the property was quite limited until Constellation began a large campaign in 2006. A summary of all historic work is listed below:

Table 6.1 Summary of recent Estrella de Cobre (Barksdale Resources) and historic drill programs at San Javier

San Javier Drill Campaigns				
Company	**Year**	**No. of Holes**	**Meters**	**Type**
Estrella de Cobre	2021	3	290.00	Core (PQ)
Estrella de Cobre	2021	1	261.00	Core (60.5m PQ/200.5m HQ)
Estrella de Cobre	2021	32	4,449.60	Core (HQ)
Sub-Total Estrella de Cobre		**36**	**5,000.60**	**Sub-Total**
Constellation	2007	92	12,567.69	Core
Constellation	2007	31	4,491.00	RVC
Constellation	2007	2	302.40	Core (BQ)
Constellation	2006	57	10,929.78	Core
Constellation	2006	21	3,085.00	RVC
Phelps Dodge	1996-97	18	4,952.30	Core
Orcana	1994?	9	1,260.20	Core
Peñoles	1960's-70's	14	2,029.25	Core
Sub-Total Historic Campaigns		**244**	**39,617.62**	**Sub-Total**
GRAND TOTAL			**44,618.22**	**Grand Total**

Peñoles is the first recorded company to have drilled in the area of Cerro Verde, working in the zone from the late 1960s to the mid-1980s, drilling 2,029m in 14 holes. Reportedly, Peñoles drilled 18 holes but data only exists for 14 of those holes. Orcana drilled 9 holes (1,260m) in the La Trinidad area in 1994. Phelps Dodge drilled 18 holes at Cerro Verde, Mesa Grande and La Trinidad in 1996/1997, totaling 4,952m. The largest drilling campaigns at San Javier were completed by Constellation, who drilled 31,376m in 203 holes during 2006 and 2007. In 2021, Barksdale added approximately 5,000m in 36 holes focused exclusively at the Cerro Verde zone.

Multiple NI 43-101 reports have been completed at San Javier over the years. In September 2006, Constellation published a technical report that did not include a resource estimate. A second NI 43-101 report was published in June 2007, completed by SRK Consulting Inc. (“SRK”) which included an inferred resource described further in Section 6.2. The 2007 SRK study was based on the 2006 drilling. Constellation also contracted with Independent Mining Consultants Inc., (“IMC”) of Tucson, AZ to prepare a Preliminary Economic Assessment (“PEA”) that was published in December of 2007. The IMC report incorporated the Constellation drilling from both 2006 and 2007. In 2014, Benz engaged JDS Energy and Mining Corp. to complete a PEA, which included an updated mineral resource estimate.

6.2 Historic Resource and Reserve Estimates

According to the 2007 SRK report, PD prepared an internal resource estimate for Cerro Verde utilizing cross-sectional polygonal methodology which incorporated both Peñoles and PD drill hole results. This resulted in an estimate of 96Mt at an average grade of 0.28% total copper. The basis for that resource estimate was not available for review by SRK. The PD estimate was not prepared according to NI 43-101 guidelines and the results could not be verified by SRK.

As mentioned above, Constellation contracted SRK of Denver, CO to prepare a resource estimate. That estimate was based on all drilling completed through December 31, 2006. That resource estimate was pit constrained at $2.40 copper and included only mineralization from the Cerro Verde zone. The resource was estimated using total copper, therefore acid soluble and recoverable copper resources were not independently calculated. The SRK resource is shown in Table 6.2.

Table 6.2 SRK Mineral Resource Statement for Cerro Verde, June 2007

Class	Tonnes (Mt)	Total Cu (%)	Cu (Mlbs)
Inferred	81.0	0.35	629.0

In 2007, Constellation contracted IMC to prepare a PEA at San Javier that included updated mineral resource estimates at both the Cerro Verde and La Trinidad zones. The PEA resources were based on a copper price of US$2.50 per pound using a 0.05%

recovered copper cutoff grade. The resource estimate also assumes conventional open pit mining and ore processing by crushing, heap leaching, and solvent extraction and electrowinning to recover the copper. The Cerro Verde Mineral Resource is contained in the design pit used to define potential ore for this evaluation. The La Trinidad Mineral Resource is contained within a floating cone geometry that was used to define La Trinidad potential ore.

Table 6.3 San Javier mineral resources using a 0.05% recovered copper cutoff

Resource Class	Ore Ktonnes	Total Copper (%)	Contained Cu (Mlbs)
Cerro Verde Indicated Mineral Resource	33,500	0.34	254
Cerro Verde Inferred Mineral Resource	52,500	0.32	376
La Trinidad Inferred Mineral Resource	3,700	0.54	43
Total Inferred Mineral Resource	56,200	0.34	419

As previously noted, JDS was commissioned by Benz to prepare another PEA in 2014. The updated resource estimate, shown in Table 6.4, was completed by Arseneau Consulting Services Inc. (ACS) and published in May 2014. Some cost estimates were adapted from the PEA Technical report published by Constellation in December 2007.

Table 6.4 Arseneau Consulting Services Inc. mineral resource statement for San Javier (includes Cerro Verde mineralization as well as from the La Trinidad area)

Deposit	Class	Cut-Off CuRec (%)	tonnes (000)	Total Cu (%)	CuOX (%)	CNCu (%)	Cu Rec(%)*
Cerro Verde	Indicated	0.05	47,700	0.32	0.16	0.05	0.21
Cerro Verde	Inferred	0.05	3,800	0.28	0.09	0.05	0.14
La Trinidad	Inferred	0.05	2,000	0.61	0.23	0.17	0.39

Note *: CuRec is recoverable soluble copper which is the sum of acid soluble copper (CuOX) and cyanide soluble copper (CNCu).

6.3 Historic Mining

The Mexican government encouraged small-scale mining for silver, copper, and gold in the region. The only production within the San Javier concessions was from small surface glory holes and underground workings. Old workings are found at Cerro Verde, Mesa Grande and at La Trinidad. No production data is available for any of these operations and it is unknown when they were active.

6.4 Historic Metallurgical Test Work and Mineral Processing

Multiple evaluations of copper mineralization have occurred at San Javier by multiple entities. These evaluations have focused on sequential leach assaying, various column leach tests, as well as comminution test work. Most of this work has focused on extraction of copper via leaching methods.

6.4.1 Historic Bottle Roll Test Programs

Metcon Research, Inc. ran bottle roll tests on 33 drill core composites and four surface samples. Six bulk samples of were later supplied by Constellation which were used for both bottle roll testing as well as column leach testing. Results of the bottle roll testing is summarized in Tables 6.5 and 6.6.

Table 6.5 San Javier Bulk Samples – Bottle Roll Test Recoveries (JDS PEA, 2014)

Sample ID	Head Grade				Recovery	
	Total Cu%	Acid Soluble Cu%	CN Soluble Cu%	Soluble Cu%	Soluble Cu	Total Cu
Average	1.65	1.35	0.24	1.59	88%	85%

Table 6.6 San Javier Drill Core – Bottle Roll Test Recoveries (JDS PEA, 2014)

Sample ID	Head Grade				Recovery	
	Total Cu%	Acid Soluble Cu%	CN Soluble Cu%	Soluble Cu%	Soluble Cu	Total Cu
Average	0.44	0.23	0.06	0.29	95%	63%

6.4.2 Historic Column Leach Test Work

The primary objective of the column leach test program was to evaluate the leaching characteristics of six surface bulk samples. The samples were identified as S-5, PER-500-N, SJ-02, CV-02, CV-06 and CV-07. These samples consisted of several tonnes and were thought to represent the bulk of the mineralization of the deposit. The primary objective of this program was to generate copper extraction and sulfuric acid consumption data at three different crush sizes. The leach tests were conducted utilizing bottle roll and column leach techniques in open cycle. The leaching tests consisted of bottle roll, mini-column and larger diameter column leach tests. Table 6.7 shows the test parameters for the bulk samples and Table 6.8 shows the results of the column tests.

Table 6.7 Test Parameters for the Bulk Samples

Test Objective	No of Tests	Column Size Diam. X Height
Bottle Roll Leach Tests	6	NA
Acid Cure Dosage and Leach Solution Type Evaluations	36	3-inch x 1.5 m
80 Percent passing 2 inches	6	8-inch x 1.7 m
80 Percent passing 3/4 inch	6	6-inch x 1.7 m
80 Percent passing 3/8 inch	6	6-inch x 1.7 m

Table 6.8 Bulk Samples Column Tests Results

Composite Number	Cu Head Assay	Leach Time Days	P80 2" Recovery	P80 0.75" Recovery	P80 0.375" Recovery	Average Recovery
S-5	0.81%	128	61%	66%	72%	66%
Per-500N	0.24%	51	72%	78%	79%	76%
SJ-2	1.39%	51	71%	91%	91%	84%
CV-2	0.54%	51	74%	86%	88%	83%
CV-6	0.69%	51	46%	63%	68%	59%
CV-7	0.55%	51	80%	88%	91%	86%

6.4.3 Hazen Research Test Work

Hazen Research Inc. of Golden Colorado completed Bond abrasion index, crusher impact and ball mill work index on six surface bulk samples from San Javier. The average for the Bond abrasion index was 0.1244. The average crusher work index was 10.573 and the average value for the ball mill work index was 15. Hazen concluded that the samples submitted are not considered unusually hard or abrasive.

7 Geologic Setting and Mineralization

7.1 Regional Geology

The oldest lithologic package in the region is composed of sedimentary rocks in an Ordovician through Permian platform and a deep-water marine sequence comprised of limestone, shale and sandstone. This sequence was affected by several tectonic events that resulted in low-angle over thrusting of basin sedimentary facies rocks over shallow water, platform sedimentary rocks. This deep-water carbonate rock package is referred to as the San Antonio Formation, outcropping less than 2 km north of the project area. On top of these rocks was the deposition of the Barranca Group rocks during the Late Triassic, with mixed facies of marine and marshy environments depositing conglomerates, quartz sandstone, carbonaceous shale and minor coal beds.

7.2 Local Geology

The Barranca Group comprises the Late Triassic Arrayanes Formation (sandstone-siltstone), the Late Triassic Santa Clara Formation (carbonaceous shale, coal beds) and the indeterminate age Coyotes Formation (conglomerate). The Coyotes Formation does not bear fossils, and probably lies unconformably on the Santa Clara Formation, hence its lack of assigned age.

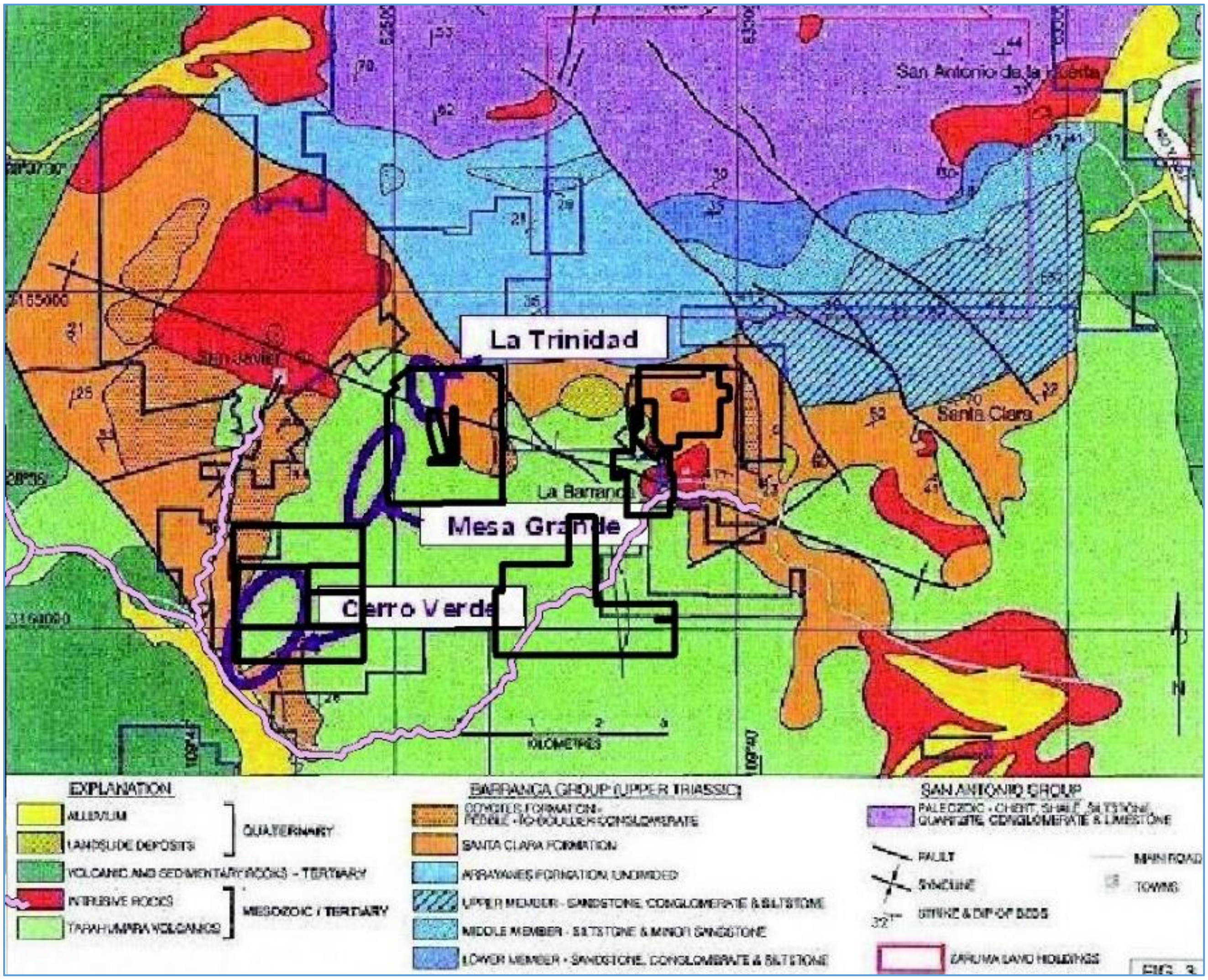


Figure 7.1 District Geology Map, based in part on Wilson and Rocha (1949) and Avila Santiago (1960), modified by J.H. Stewart and J. Roldán-Quintana, 1991.

These lithologic sequences are overlain by late Cretaceous age units of the greater Tarahumara Formation, composed mainly of intermediate volcanic and volcano-sedimentary rocks with minor limestone beds. These volcanic rocks and the underlying sedimentary packages were affected by the later-stage intrusions of diorite stocks and a granodiorite batholith ranging in age between late Cretaceous and the Eocene, and by porphyritic rocks of likely Oligocene age of dioritic, rhyolitic and quartz monzonitic composition. Most mineralization in the western margin of Mexico is related to this episode.

This region is a few tens of kilometers west from the Oligocene volcanic cover of the Sierra Madre Occidental, and as such, some felsic volcanic rocks in the region have been assigned to this age. During the Miocene at least two volcanic and one sedimentary sequence were deposited, and later affected by the basin and range tectonics during the late Miocene. Lastly, several sedimentary units have been deposited in the basin and range valleys during the Quaternary.

7.3 Property Geology

The following overview is a compilation of the work focused mainly within the Cerro Verde area and including minor inputs on the Mesa Grande and La Trinidad areas. There is information from reports by Dr. Murray W. Hitzman, Dr. William Rehrig and Paula Hansley, technical reports by the companies Constellation on Cerro Verde and by Red Tiger on the adjacent San Antonio de La Huerta property, and the Servicio Geológico Mexicano (SGM) reports for the H12-D64 and H12-D65 1:50 K sheets.

7.3.1 Sedimentary and Volcanic Units Barranca Group

The Barranca Group is comprised by three formations: Arrayanes, Santa Clara and Coyotes.

Arrayanes Formation. This is the lowermost unit in the Group, comprised of fine- to medium-grained sandstone, which is often interbedded with conglomerate, siltstone and shale that ranges in thickness up to approximately 1,150 m. This unit rests unconformably on Paleozoic sedimentary rocks. The depositional environment is regarded as fluvial to deltaic sedimentation. The Arrayanes Formation does not outcrop in the Cerro Verde, Mesa Grande and Trinidad areas.

Santa Clara Formation. This sequence consists of late Triassic to Jurassic age fossil plant-bearing and marine fossil-bearing lithologies, ranging in thickness up to 1400 m. The Santa Clara Fm. is comprised of fine-grained sandstone, siltstone, shale, alternating coarse-grained sandstone, conglomerate, carbonaceous shale and coal beds. The depositional environment may represent a progradational deltaic sequence. This unit has been identified in drill holes at La Trinidad area, with sandstone and coal beds below the volcanic rocks.

Coyotes Formation. The uppermost unit assigned to the Barranca Group crops out to the west and south of the Cerro Verde area. The Coyotes Formation is made up of well-cemented, coarse pebble and boulder conglomerate consisting of rounded quartzite and chert clasts as well as sparse limestone fragments in a fine- to coarse-grained sand matrix ranging up to 600 m in thickness. Clast sizes range from >1 cm up to 50 cm. This unit is interpreted to represent high-energy alluvial fan deposits. The contact with the underlying Santa Clara Formation is unconformable, and no fossils have been found, therefore the age is uncertain. Previous workers state that the upper contact with the volcanic rocks of the Tarahumara Formation is a major unconformity, but recent mapping and logging by Barksdale personnel has found several outcrops and one diamond drill hole where the contact appears to be gradational.

Figure 7.2 Coyotes Formation. Conglomerate with oxidized sulfides in matrix.

Tarahumara Formation

Like many volcanic sequences, the Tarahumara Formation displays rapid facies changes that at Cerro Verde and La Trinidad are obscured by alteration, mineralization and extensive low-angle faulting. As a result, this environment makes the mapping of different lithologies difficult.

According to Tedeschi, in his 2009 thesis, at Cerro Verde the volcanic rocks in the area display prominent potassium feldspar crystals and based on whole-rock XRF analysis (which in our opinion is not reliable due to extensive alteration) suggested a trachyandesitic to trachydacitic composition, and an overall decrease in silica, sodium and calcium content and an increase in potassium, iron and volatiles. Tedeschi recognized four units, from bottom to top: a fine-grained dacite breccia (Unit 4), a block and ash flow tuff (Unit 3), a lahar (Unit 2) and a porphyritic dacite flow (Unit 1). He also dated by U-Pb in zircons the uppermost dacite breccia at Cerro Verde, with an age of 95.9 +/- 0.5 Ma, and two intrusive rocks from the San Antonio de La Huerta district with very similar ages (within 2 Ma). These results are at odds with prior dating of a diorite by Damon et al (1983), by K-Ar, in San Javier at 62.0 Ma and three intrusive rocks in the San Antonio de La Huerta district, in the 52 Ma to 59 Ma range.

Petrographic work by Paula Hansley in 2006-2007 supports a more andesitic composition (more plagioclase than K-feldspar) iron-potassium metasomatism, with accessory biotite, amphibole and sparse fine-grained quartz grains.

The work to date by Barksdale has concentrated in the Cerro Verde area, where re-logging of historic core and logging of the 2021 drill campaign have identified two units that can be recognized when alteration is not too pervasive: a monomictic andesite breccia and a polymictic lahar below. Even with only those two units, it proved difficult to assign a rock type from core of adjacent drill holes.

The volcanic package is complex and several other rock types are present on the eastern side of Cerro Verde, La Trinidad, Mesa Grande and elsewhere, but the effort to define lithologies from outcrop exposures is deemed difficult in this volcanic package due to facies variations obscured by alteration and poor exposure in a complex structural setting. The contact with the underlying Coyotes Formation on the western side of Cerro Verde seems gradational at several points, although at some sites is clearly controlled by low-angle faults. Even when the contact is interpreted as a low-angle fault, quartzite fragments from the Coyotes Formation are commonly caught up in the base of the volcanic rocks and are relatively rare further up the volcanic column.

Figure 7.3 Pictures of andesite breccia

In Figure 7.3 the picture on the left is a typical andesite breccia composed of subangular monomictic fragments of mostly porphyritic texture. This is the uppermost unit at Cerro Verde. On the right is lower andesite lahar breccia consisting of subround to subangular polymictic fragments.

7.3.2 Intrusive Rocks

Other than a fine-grained intermediate dike exposed for a few meters along the flank of a road on the southern part of the Cerro Verde area, no intrusive rocks have been identified at Cerro Verde or in the Mesa Grande and La Trinidad areas, which are the only ones to have seen minor mapping by Estrella de Cobre to date. Previous reports of dikes in historic logging have not been confirmed in the re-logging. Intrusive rocks are present in the district, as described in a previous section, including a fine-grained diorite in San Javier, 3 kilometers to the north, and porphyritic monzonitic dikes in the zone of coal mines in the Santa Clara Formation, 1 km to the west of the Cerro Verde deposit. An andesite porphyry was mapped by the SGM less than 1 km to the east of Cerro Verde, but it has not been reviewed yet.

Figure 7.4 Pictures of a fine-grained diorite and a monzonite porphyry

Figure 7.4 shows an example of the fine grained diorite at San Javier town site on the left. On the right is monzonite porphyry found to the east of Cerro Verde near some coal mines. Field of view in both photos is approximately 7cm x 5cm.

Andesite Dike(s?). This unit consists of a fine-grained intrusive rock with small white crystals (plagioclase?) in fine-grained greenish-gray matrix. The dike is not well exposed but probably is one and a half meters wide. The outcrop runs at an acute angle on the low bank of a dirt road for approximately 5 meters, with an azimuth of 229 degrees and a dip of 54 degrees, located at approximately 623,330 E, 3,160,255 N. It is pre-mineral, with secondary chlorite, disseminated specularite and minor thin quartz veinlets; it is locally brecciated and the hanging wall presents shearing and strong development of hematite. It is interpreted as co-genetic with the volcanic pile.

Figure 7.5 Fine-grained andesite dike; field of view is approximately 3.5 x 3.5 cm.

7.3.3 Structure

Dr. William A. Rehrig produced two reports in the project, centered in the Cerro Verde area, a preliminary one in December of 2006 and a final report on August 2007.

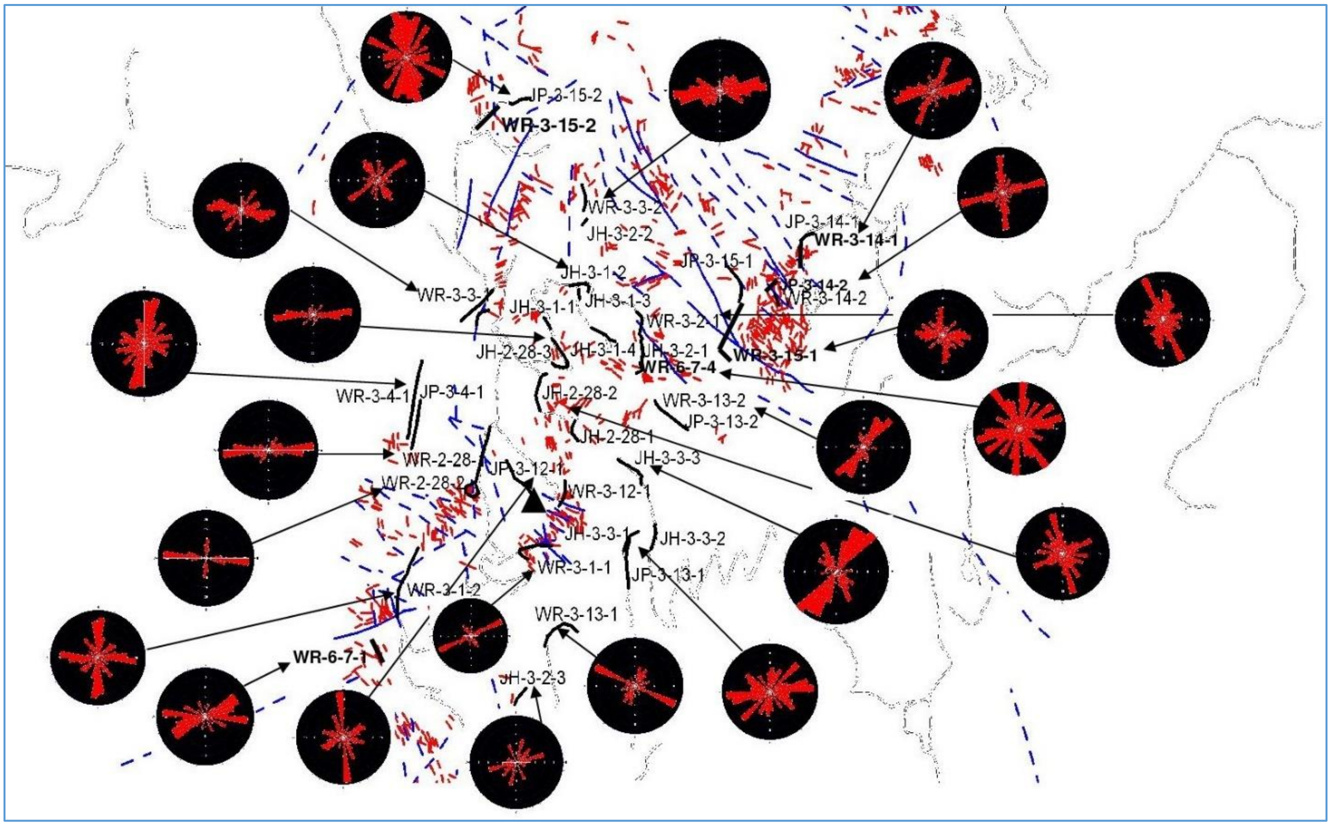


Figure 7.6 Cumulative Rose diagram for all structures >60°, from Rehrig report dated December 2006

Murray Hitzman's October 2006 site evaluation report mentions Gary Parkinson and David Brown's mapping work highlighting north-south and northwest-southeast mineralized structures, and already points to the probable importance of low-angle structures, suggesting the Cerro Verde deposit could be allochthonous.

The review of Cerro Verde outcrops on drilling roads by Estrella de Cobre to gather a sense of the structural environment supports Hitzman's (2006) interpretation on the importance of the low-angle faulting. No significant hypogene alteration and mineralization was observed to be related to low-angle structures, and only at one spot was possible a high-angle structure (north-south) cutting a low-angle structure. At least ten low-angle structures are present from the bottom of the creek east of Cerro Verde to the top of the mountain. These can be seen as plain straight structures, and as anastomosing where steep cliff walls permit the observation. The lower contact of the Tarahumara Formation with the underlying Coyotes conglomerate is interpreted as transitional, with a low-angle structure inferred, and locally exposed, along the western and southern slopes of Cerro Verde. At La Trinidad core re-logging has shown the contact between the volcanic rocks of the Tarahumara Formation and the sedimentary rocks of the Barranca Group, (in this case the coal-bearing carbonaceous shales of the Santa Elena Formation) to be a prominent low-angle fault zone, dipping to the west. These observations support the view that low-angle structures play an important role in the area and might have displaced the orebody an unknown distance from its original location.

Figure 7.7 Photo taken on the northeast side of Cerro Verde showing low-angle fault. looking west

Figure 7.8 Photo taken at the drill site for SJ06-24, 25 and 26

Figure 7.8 shows a low- angle fault cut by a high-angle fault. To-date this is the only know location where a low-angle structure is cut by a high-angle fault. Note hammer for scale.

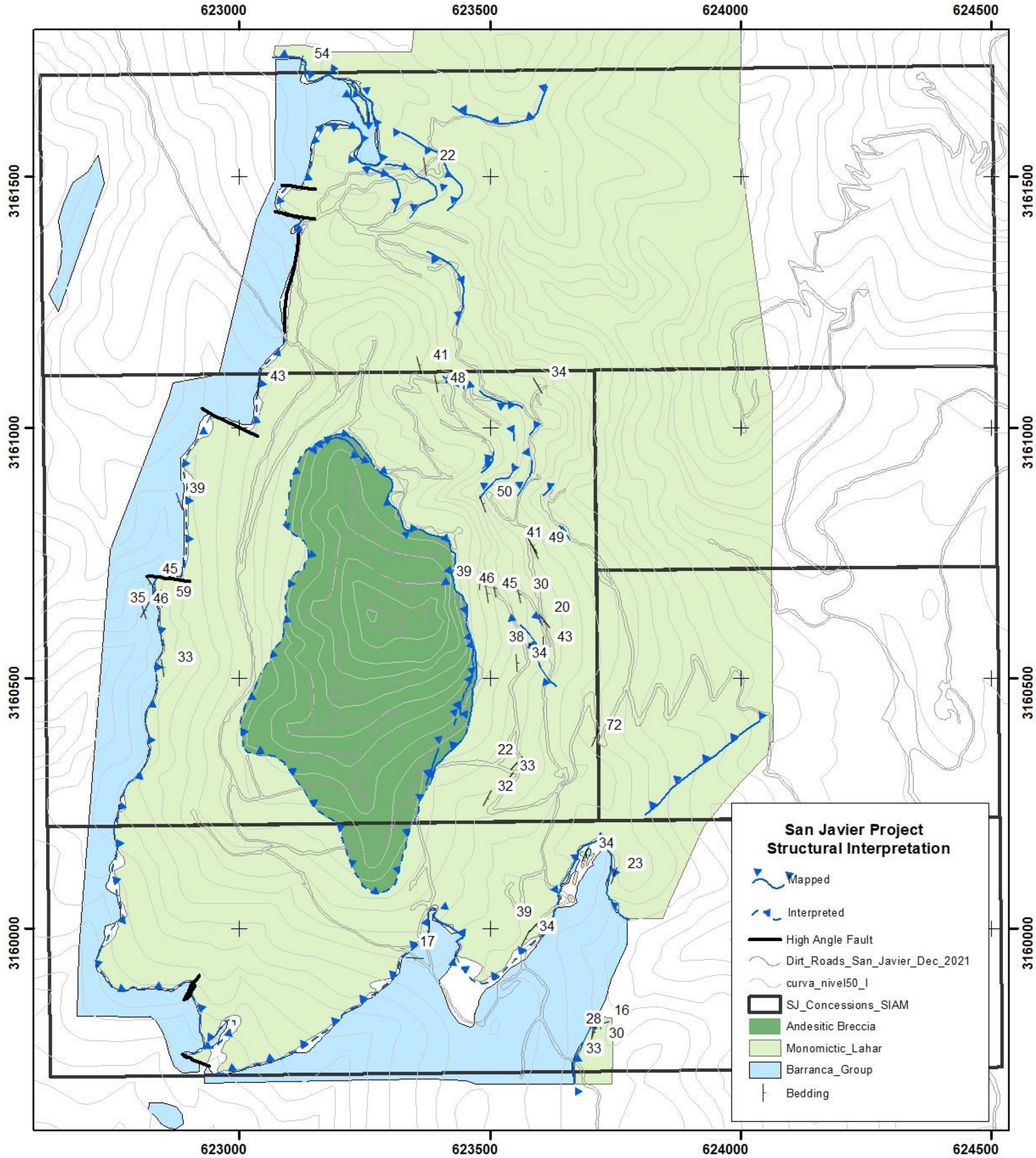


Figure 7.9 Structural Interpretation Map of Cerro Verde

Note that the principal difference compared to previous interpretations is the late setting of low-angle vs. high-angle faulting.

7.4 Alteration and Mineralization

7.4.1 Alteration and Sulfide Mineralization

There are geological reports that address alteration and mineralization by companies that have worked in the area, but the master's thesis by Michael Tedeschi in 2010 is the most complete and thorough. The following is a summary of information included in the thesis, from petrography work by Paula Hansley (2006) and observations from the most recent drilling and re-logging done, also done in 2021.

The first alteration phase consists of extensive potassic alteration in the form of microcline replacing plagioclase. This event resulted in replacement of the groundmass and plagioclase by microcline (or sanidine in XRDF tests) in the andesite breccia and the polymictic lahar, and adularia veins identified by Hansley. This alteration phase was later overprinted by extensive sericite alteration, which tends to obliterate most hand-sample size visual evidence of the earlier phase. Paula Hansley was able to identify relicts of potassic feldspars in the majority of samples she reviewed. Tedeschi stained some core with sodium cobaltinitrite, obtaining a strong response with intense and thorough yellow staining of the samples. On the re-logging of core, what appears to be secondary potassic feldspar is observable on SJ07-92, at 6.10 m of depth, near a sharp specularite flooding front.

While there is no doubt regarding the existence of an extensive phase of potassic alteration, the assays from drilling show a decrease on the potassium percentage present from the 6-10% range in the oxidation zone, to a 3-6% range in the sulfide and non-mineralized zones at Cerro Verde. This geochemical behavior is puzzling, and difficult to resolve as potassic alteration at the project is mostly visually unrecognizable. An explanation could be the change, either by structural juxtaposition or by alteration zonation into the chlorite-pyrite zone which did not undergo a potassic alteration phase. In the table below, please see the paragenetic hypogene mineral deposition according to Tedeschi. Recent re-logging and logging of new core points to a more complex scenario, with specularite, quartz, pyrite and chalcopyrite deposition in several stages.

Figure 7.10 Paragenesis diagram of alteration and mineralization at Cerro Verde from Tedeshi 2010

After potassic alteration, hydrothermal fluids continued to interact with the rocks, altering most of the potassic feldspar and other constituent minerals into sericite, with specularite and siderite in veinlets, in the matrix of breccias and as a pervasive influx into the matrix of the rocks. This stage is complex, with multiple veining events reflecting an evolving mineralization system, and rendered even more complex by the low-angle faulting which makes identifying specific trends more difficult. Concurrent mineralization is also complex, with different stages of chalcopyrite, minor pyrite and rare bornite deposition in *specularite* ± *siderite-barite* veinlets and disseminations. Tedeschi (2010) suggests siderite partially replaces specularite and in a minor degree muscovite. Pervasive siderite is observed mainly in the sulfide and mix zones, probably reflecting the leaching of carbonate in the oxide zone. This effect can be detected in the geochemical profiles in drill holes, where calcium depletion on the oxide zone is evident. Silicification and quartz veining are spatially restricted and linked by Tedeschi to chalcopyrite mineralization and minor sphalerite deposition.

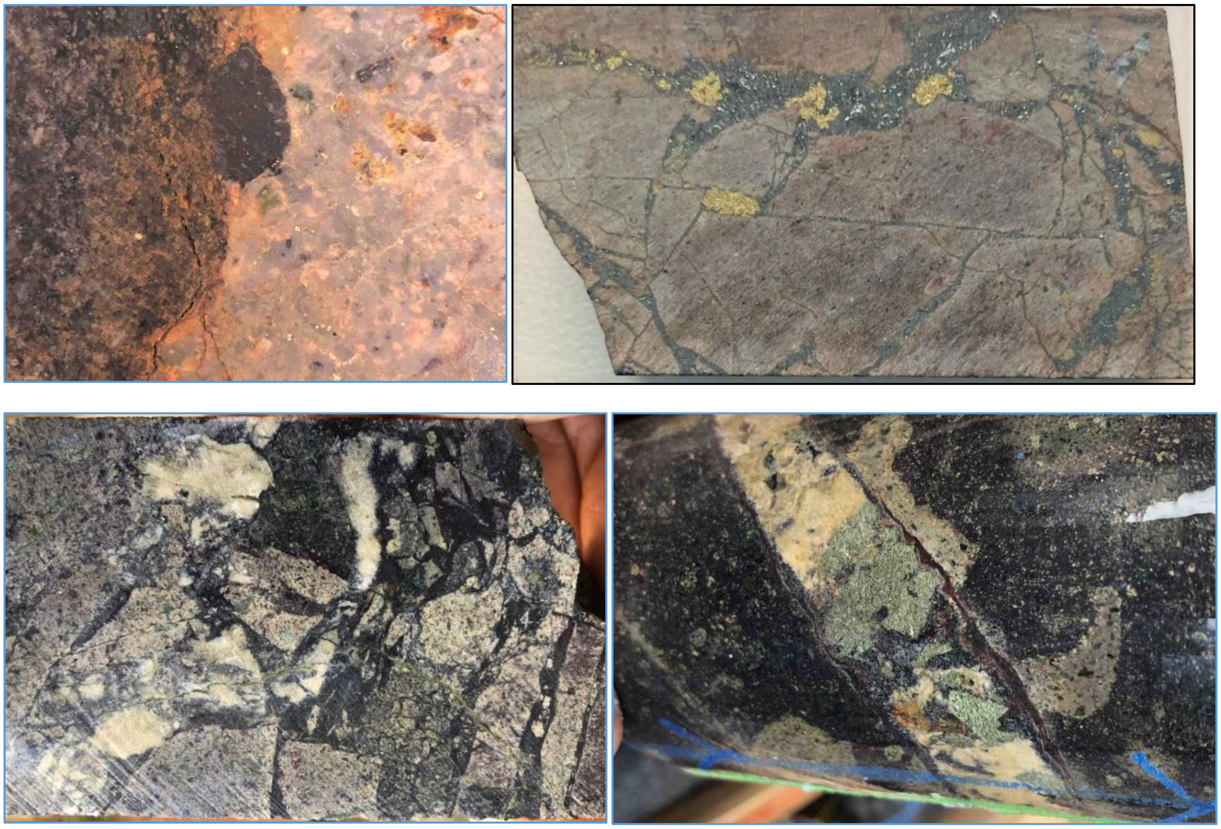


Figure 7.11 Photos of Alteration types

In Figure 7.11 the photo at upper left shows potassic alteration at 6.10 m in hole SJ07-92 with specularite flooding on the left side. Photo at upper right shows specularite-chalcopyrite veins in brecciated siderite altered andesite in drill hole SJ06-10 at 223.50 m. Photo at lower left shows brecciated volcanic clasts with pervasive siderite alteration in a specularite matrix with minor chalcopyrite and late siderite veins and aggregates. The photo at lower right shows a siderite-chalcopyrite veinlet in a specularite flooded andesite in hole SJ21-07 at 151.70 m. All photos are of HQ 63.5 mm diameter core.

Chlorite alteration can be identified at any elevation within the deposit, but it is the predominant alteration phase in the lower elevation levels. Chlorite is clearly the latest alteration in the main zone of Cerro Verde, although it is suspected it also could have been present in the outer zones of the system during the main alteration-mineralization phase. Some of the drill core at Cerro Verde shows potassic feldspar alteration with superimposed sericite-specularite-siderite alteration being cut by late quartz-pyrite(-) veinlets with a clear chlorite halo several centimeters in width.

Figure 7.12 Chalcopyrite-siderite vein in andesite with pervasive specularite alteration. Drill hole SJ21-07 at 152.50 m.

Below is a list of veinlet types identified and described during logging, ranging in order from more abundant (top) less common (bottom):

- Specularite
- Specularite-barite
- Specularite-chalcopyrite-pyrite
- Quartz
- Quartz-chalcopyrite
- Siderite
- Siderite-chalcopyrite-pyrite
- Barite
- Quartz-chlorite-pyrite
- Pyrite
- Chalcopyrite
- Chlorite
- Calcite (rare)

7.4.2 Supergene Mineralization

Supergene alteration is pervasive within the Cerro Verde area. Importantly, the low primary sulfide concentration and overall low pyrite content impeded a more thorough leaching and enrichment. On the southern part of Cerro Verde, surface oxidation averages approximately 150 m in thickness and ranges up to 200 m thick at the summit. North from the summit oxidation is locally greater than 50 m in thickness. In several areas, oxidation has been intersected in drill holes along structures exceeding these depths.

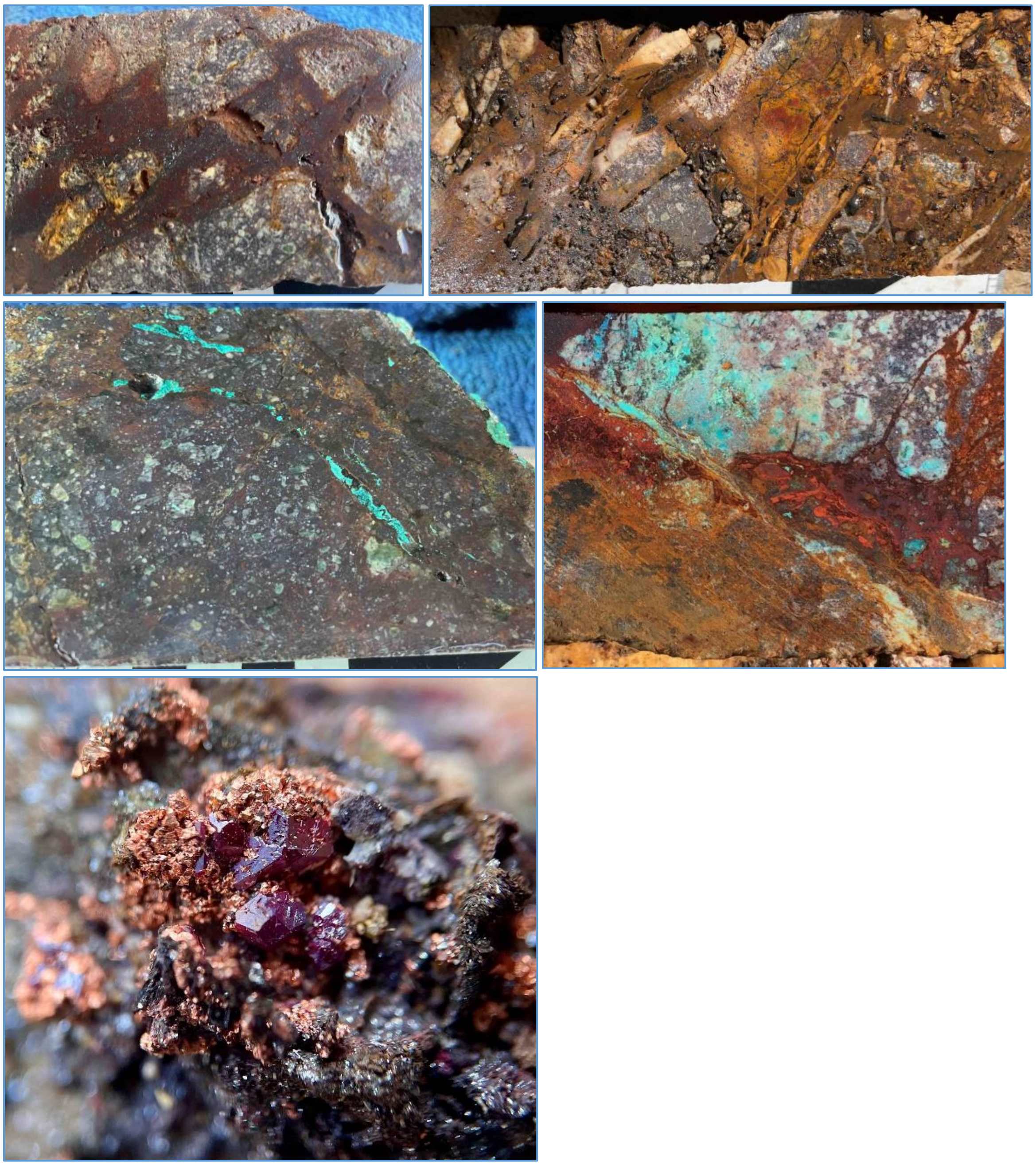


Figure 7.13 Photos of HQ core (63.5 mm diameter) showing secondary oxide mineralization

In Figure 7.13 The top left photo shows andesite breccia in a matrix of specularite partially weathered to hematite, in hole SJ06-23 at 42.00 m. The top right photo shows quartz veining in andesite breccia with partially oxidized specularite in hole SJ06-23 at 146.60 m. The middle left photo is andesite breccia with malachite in hole SJ06-26 at 72.00 m. The middle right photo is a polymictic andesite agglomerate with malachite in SJ06-24 at 48.50 m. The bottom left photo shows cuprite crystals on native copper deposited in a vug within the mixed (transition) zone.

The main effect of oxidation is observed as the decomposition of specularite into goethite or bright-red fine-grained hematite. Secondary clays are scarce due to the original low sulfide content of the rocks involved. Chalcopyrite and pyrite have been oxidized, with copper redeposited as malachite and tenorite, and minor amounts of chrysocolla, brochantite and tennantite. Commonly there is a thin zone of mixing with some copper enrichment above the sulfide zone, where varying amounts of chalcocite, covellite and native copper deposited. These mixed zones are mostly discontinuous, generally 10 to 20 m in thickness, rarely up to 50 m thick and non-existent in some areas.

By plotting elements on drill hole sections and comparing the different element abundances to the classified geo-metallurgical units defined from logging shows a clear depletion of manganese, calcium, magnesium and zinc in the oxide zone. It is interpreted that the calcium depletion can be related to the leaching of siderite. Elements enriched in the oxide zone include barium, potassium and strontium, although neither the mechanism nor the minerals involved are known.

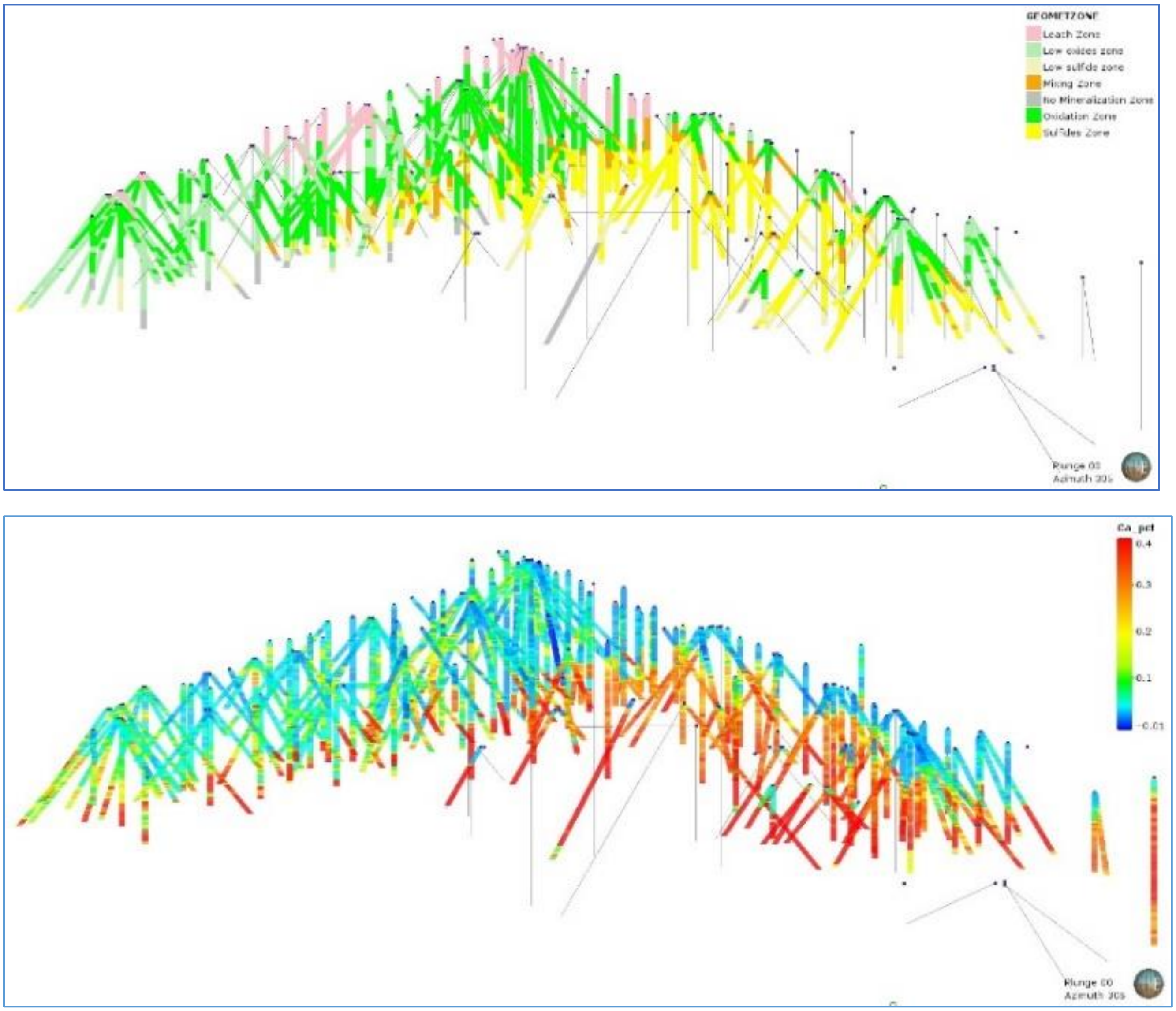


Figure 7.14 Typical cross-sectional view looking north showing the geometallurgical units found at Cerro Verde

In Figure 7.14 The top section shows the leached cap in pink; the secondary oxides in green; the mixed, or transitional, zone in orange and primary sulfides in yellow. The bottom section is percent calcium plotted on drill hole traces showing the depletion of calcium mimicking the leached cap and oxide zones.

8 Deposit Type

San Javier exhibits many characteristics common to Iron Oxide Copper Gold (IOCG) deposits.

In October of 2006, Dr. Murray Hitzman spent approximately two days on-site at the San Javier project. Dr. Hitzman examined reports and drill core (Cerro Verde) and made site visits to La Trinidad, the edge of Cerro Colorado, Mesa Grande, and Cerro Verde. At that time, Dr. Hitzman was with the Colorado School of Mines and was the thesis advisor for Mr. M. Tedeschi who completed his master’s thesis on San Javier in 2010. Dr. Hitzman was asked to examine the properties and compare them with other known IOCG deposits and to provide recommendations for further exploration. Dr. Hitzman’s report, dated October 2006, is summarized below:

“The Cerro Verde, La Trinidad, and Mesa Grade prospects do appear to be members of the IOCG (iron oxide-copper-gold) class of deposits. Brief review of available data suggests that the Cerro Verde area may be part of a larger IOCG district that extends to the Yaqui River to the northeast and includes copper and gold deposits and prospects of the San Antonio district including Luz del Cobre, though these have traditionally been thought of as porphyry related.

Copper-gold mineralization occurs within hematitized intermediate to felsic extrusive, probably subaerial, volcanic rocks of the early Tertiary (?) Tarahumara Volcanic unit. These volcanic rocks overlie terrestrial to lacustrine (?) sediments of the Barranca Group. The sediments appear to consist of siltstones and sandstones with coal layers that grade upwards into coarse conglomerates immediately below the Tarahumara volcanic rocks. It is unclear from drill core and map patterns whether the Tarahumara volcanic rocks rest unconformably or conformably on the Barranca sedimentary rocks. In some instances, it appears the contact may be occupied by a low-angle structure (thrust or extensional normal fault). Mineralization appears to be both structurally and lithologically controlled. The Cerro Verde deposit, as currently understood, contains a major resource of low-grade (~0.35-0.4% Cu) copper oxide mineralization.

The prospects observed at San Javier (Cerro Verde, La Trinidad, and Mesa Grande) all appear to have similar characteristics. All display moderate to intense hydrolytic alteration (carbonate-sericite) with associated hematite mineralization. There is little evidence of earlier sodic or potassic alteration, though P. Henley notes the presence of “adularia” in a number of samples and whole rock analyses show enhanced K2O values suggesting that a precursor potassic alteration event may be present. Little to no evidence was seen of magnetite mineralization.

The alteration suite and the lack of magnetite suggest that these prospects represent very high levels of an IOCG system. The absence of discrete magnetic anomalies in the area of Constellation's properties suggests that these prospects may be structurally detached from the lower portions of the hydrothermal systems that would be expected to have large areas of sodic alteration.

Though the San Javier systems display abundant veining and faulting, it is unclear from the available data what the fundamental structural controls are for hypogene mineralization. The available geological mapping does not suggest the presence of a major (crustal scale) fault zone in the area, though such zones are associated with the majority of IOCG deposits. A fresh look at the regional geology may help understand the setting of the system."

"The overall grade of Cerro Verde is low relative to other mined IOCG deposits worldwide. The general lack of pyrite, combined with the relative abundance of carbonate in high-level systems, means that supergene blankets are generally not developed. Thus, a supergene deposit must rely on the existing in-situ copper grade. The average grade at Cerro Verde (approximately 0.35% Cu) is about what would be expected in many IOCG systems. This grade can only be raised through definition of higher-grade structural zones."

Michael Tedeschi in his 2010 master's thesis came to the same conclusion after detailed review of drill core and the alteration assemblages:

"The San Javier prospect is located 150 km southeast of Hermosillo in the Mexican State of Sonora and contains an iron oxide-copper-gold (IOCG) type system. IOCG type deposits are typified by a dominance of iron oxide minerals such as hematite and magnetite with significant copper and gold. They are structurally controlled and usually associated with crustal-scale faulting."

"The alteration assemblage at Cerro Verde is mineralogically similar to the hydrolytic (or HCCS - hematite-chlorite-carbonate-sericite) alteration associated with the giant IOCG deposits of the Gawler Craton, Australia (Olympic Dam, Prominent Hill)."

9 Estrella de Cobre Exploration

9.1 Discussion

Work on the property by Barksdale's Mexican subsidiary, Estrella de Cobre, commenced in February of 2021, setting up the infrastructure for the upcoming drilling campaign. In the months following, the advances in re-logging historic core and the delineation of major structural controls helped in the construction of a preliminary 3D model that was used to focus and target the initial part of the drill campaign trying to identify vertical feeder structures. Drilling started in August 2021 and was finished in November 2021. As the new drilling progressed and more information was available, a re-interpretation of the influence of low-angle faults aided in the programming of further holes.

The logging and analytical results of the 2021 drilling campaign along with the re-logging of the 2006 and 2007 campaigns confirm the results from previous work that assign the alteration and mineralization style found in the Cerro Verde, Mesa Grande and La Trinidad areas to the iron oxide-copper-gold (IOCG) category of ore deposits.

Early-stage potassic alteration is overprinted by strong sericite-siderite with several stages of specularite-chalcopyrite-quartz-siderite-pyrite mineralization. Also, a logged peripheral (?) late quartz-chlorite alteration overprint support previous observations.

Re-logging also permitted the interpretation of the extent of the oxide, mixed and sulfide domains, which is to serve as base for the resource estimation at the Cerro Verde deposit in the San Javier project.

Mapping of the low-angle structures along the contact between the Barranca Group sedimentary formations and the Tarahumara Formation volcanic rocks, along with the strong difference in alteration and mineralization domains between these, supports the interpretation that the Tarahumara volcanic package has been decoupled from the mineralization feeder, previously suggested by Hitzman (2006). This view is also supported by the lack of strong magnetic highs close to the areas of copper mineralization in the volcanic rocks; IOCG deposits are usually close to magnetic highs, pointing to a detachment surface measured in kilometers. As the nearby San Antonio de La Huerta gold deposit, 10 km to the east-northeast, contains magnetite and actinolite associated with mineralization, it possibly represents a deeper portion of the same system, which coupled with the presence of strong magnetic highs could denote a potential feeder zone for the copper mineralization in the San Javier project.

9.2 The 2021 Drilling Program

The first four holes were metallurgical holes designed to replicate (twin) results of historic holes and/or testing areas with good control on the mineralization and geo-metallurgical zones in the central part of the Cerro Verde deposit, near the summit of the Cerro. The next ten holes or so were designed to try to define feeder zones to the primary gold and copper mineralization. As the core logging failed to identify these feeder zones, the rest of the holes were planned to augment information on copper and gold mineralization present in the zone of oxides and transition to sulfides.

Drilling commenced on August 3, 2021, and ended on November 23, 2021, totaling 5,000.60 meters in 36 holes. The first hole, SJ21-01, was drilled with PQ3 sized tools; holes SJ21-02 to SJ21-04 at 60.0 m of depth, were drilled using PQ sized tools; hole SJ21-04 from 60.0 m depth and the rest of the holes were all drilled with HQ sized tools. Rock quality is considered good to moderate at Cerro Verde. However, the large number of fractures, helpful to form a secondary mineralization deposit, meant that some open spaces were encountered, and one hole (SJ-21-27) had to be abandoned at 63.00 m, after 4.5 meters of open space drilling environment left the tools in danger of loss. Historically the project has presented good recoveries, in this campaign averaging 95%, with only a few intervals tens of meters long with moderate to poor recoveries. The rig had some down time due to repairs and water supply issues, which were all dealt with in a timely fashion and with good support from their Hermosillo headquarters. Water supply issues can be reduced in the future by the use of high-pressure hoses which will make the use of a relay pumping station unnecessary.

Table 9.1 Drill hole collar table of the 2021 drilling at Cerro Verde

2021 Drill Campaign, San Javier Project

Hole	Northing	Easting	Elevation	Hole size	Depth	Azimuth	Dip	Start	Finish
SJ21-01	3,160,798.30	623,291.51	941.60	PQ3	100	0	-90	08/03/2021	08/13/2021
SJ21-02	3,160,631.16	623,138.48	967.34	PQ	100	0	-90	08/08/2021	08/11/2021
SJ21-03	3,160,622.07	623,139.75	966.54	PQ	90	180	-45	08/11/2021	08/15/2021
SJ21-04	3,160,587.95	623,341.50	1,007.23	PQ/HQ	261	0	-90	08/15/2021	08/21/2021
SJ21-05	3,160,601.89	623,341.22	1,005.70	HQ	260	90	-72	08/22/2021	08/27/2021
SJ21-06	3,160,597.64	623,258.20	1,018.80	HQ	250	45	-50	08/26/2021	09/01/2021
SJ21-07	3,160,790.75	623,432.44	921.63	HQ	200	90	-70	09/02/2021	09/04/2021
SJ21-08	3,160,598.69	623,554.41	828.94	HQ	285	270	-50	09/05/2021	09/09/2021
SJ21-09	3,160,563.09	623,462.40	892.81	HQ	150	270	-55	09/10/2021	09/13/2021
SJ21-10	3,160,482.07	623,229.15	959.53	HQ	231	45	-50	09/12/2021	09/18/2021
SJ21-11	3,160,641.06	623,439.75	903.16	HQ	175.5	0	-90	09/19/2021	09/21/2021
SJ21-12	3,160,343.95	623,015.69	869.09	HQ	180	90	-51	09/22/2021	09/26/2021
SJ21-13	3,160,400.69	623,331.77	895.85	HQ	120	0	-90	09/27/2021	09/29/2021
SJ21-14	3,160,400.62	623,331.33	895.88	HQ	140.1	270	-55	09/29/2021	09/30/2021
SJ21-15	3,160,530.01	623,125.53	930.73	HQ	155	90	-70	10/01/2021	10/05/2021
SJ21-16	3,160,746.68	623,532.33	820.45	HQ	52.5	270	-51	10/05/2021	10/06/2021
SJ21-17	3,160,748.25	623,533.70	819.84	HQ	55	0	-55	10/06/2021	10/07/2021
SJ21-18	3,160,407.47	623,432.86	872.55	HQ	60	0	-90	10/08/2021	10/08/2021
SJ21-19	3,160,407.35	623,432.56	872.61	HQ	80	245	-55	10/08/2021	10/09/2021
SJ21-20	3,160,848.40	623,530.31	768.46	HQ	170	270	-45	10/10/2021	10/15/2021
SJ21-21	3,160,849.44	623,532.01	768.25	HQ	30	0	-45	10/15/2021	10/16/2021
SJ21-22	3,160,880.75	623,653.26	697.82	HQ	30	225	-50	10/16/2021	10/17/2021
SJ21-23	3,160,912.36	623,583.39	770.76	HQ	30	260	-55	10/17/2021	10/18/2021
SJ21-24	3,161,003.35	623,412.40	848.89	HQ	120	90	-64	10/19/2021	10/20/2021
SJ21-25	3,161,007.36	623,599.98	785.48	HQ	195	90	-55	10/21/2021	10/25/2021
SJ21-26	3,160,756.61	623,192.05	959.47	HQ	120	270	-80	10/25/2021	10/27/2021
SJ21-27	3,160,550.19	623,200.33	969.48	HQ	63	0	-90	10/27/2021	10/28/2021
SJ21-28	3,160,556.80	623,255.90	1,008.81	HQ	185	0	-90	10/29/2021	11/02/2021
SJ21-29	3,160,552.70	623,305.91	996.26	HQ	140	0	-90	11/03/2021	11/05/2021
SJ21-30	3,160,559.74	623,354.13	1,002.70	HQ	185	0	-90	11/05/2021	11/08/2021
SJ21-31	3,160,437.99	623,314.30	920.07	HQ	147	0	-50	11/08/2021	11/10/2021
SJ21-32	3,160,594.06	623,136.19	950.60	HQ	166.5	0	-90	11/11/2021	11/14/2021
SJ21-33	3,160,496.82	623,025.77	846.48	HQ	165	270	-50	11/14/2021	11/17/2021
SJ21-34	3,160,597.62	623,016.58	849.99	HQ	130	270	-60	11/17/2021	11/19/2021
SJ21-35	3,160,642.01	623,006.49	848.76	HQ	84	270	-60	11/19/2021	11/20/2021
SJ21-36	3,160,011.01	623,200.01	789.29	HQ	95	0	-90	11/20/2021	11/22/2021

Coordinates in UTM, Datum WGS-84. Elevation in meters above sea-level

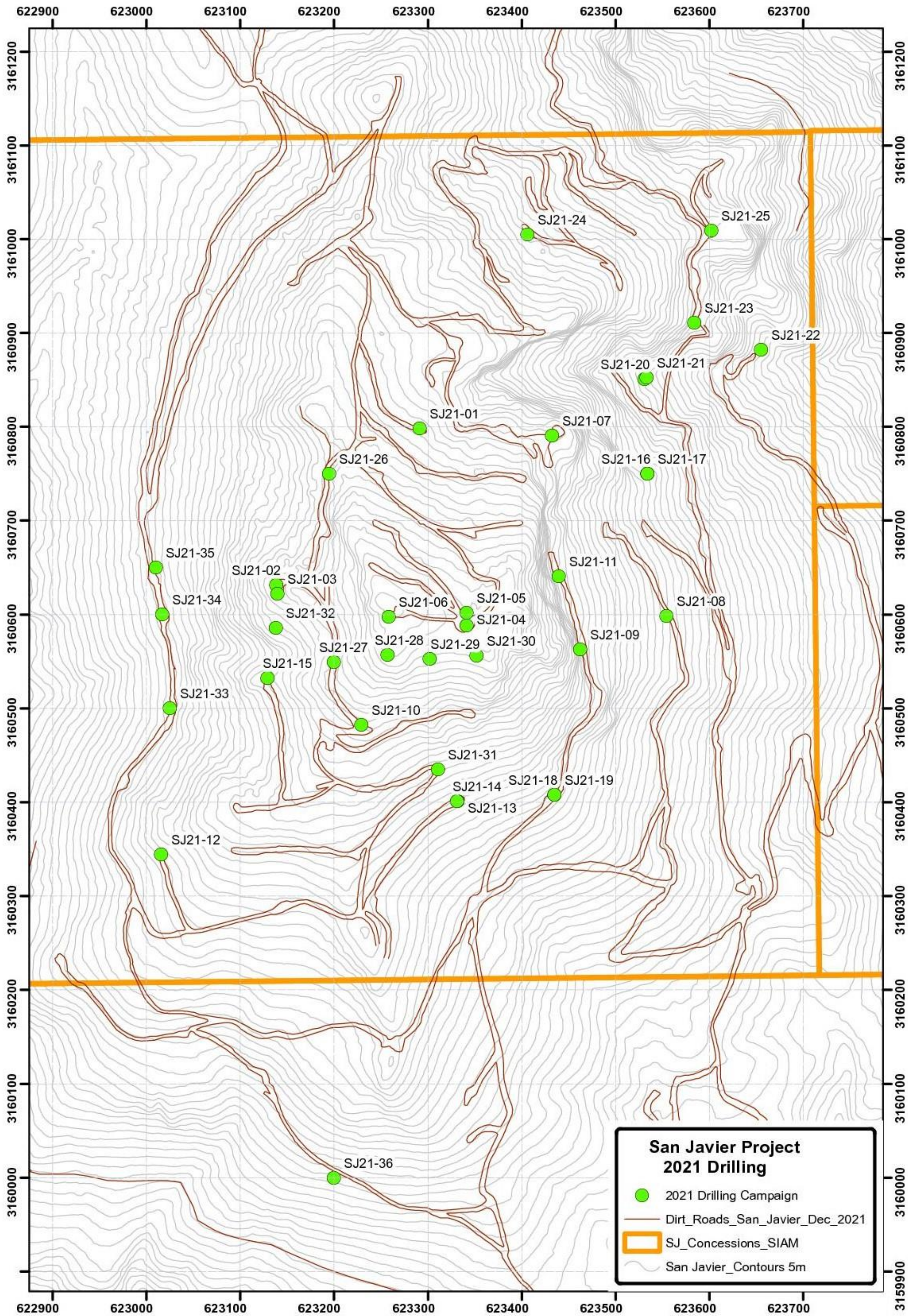


Figure 9.1 Plan map showing the location of all the 2021 drill holes at Cerro Verde

The drilling by Estrella de Cobre confirmed the previous exploration results by Constellation, with good correlation between close-by holes. Significant results are shown below in Table 9.2.

Table 9.2 Significant Drill Intercepts in the 2021 Drill Program

Significant drilling intervals, 0.2% cutoff

Hole	From	To	m	% Cu
SJ21-01	39.00	51.00	12.00	0.42
SJ21-02	50.00	60.00	10.00	0.60
SJ21-03	57.00	72.00	15.00	0.39
SJ21-04	45.00	54.00	9.00	0.64
SJ21-04	60.50	99.00	38.50	0.38
including	*75.00*	*93.00*	*18.00*	*0.49*
and	117.00	168.00	51.00	0.32
SJ21-05	30.00	42.00	12.00	0.42
and	66.00	171.00	105.00	0.63
including	*90.00*	*162.00*	*72.00*	*0.72*
and	231.00	255.00	24.00	0.25
SJ21-06	180.00	250.00	70.00	0.60
SJ21-07	0.00	15.00	15.00	1.47
and	72.00	183.00	111.00	0.64
including	*156.00*	*183.00*	*27.00*	*1.68*
SJ21-08	6.00	45.00	39.00	0.50
and	57.00	66.00	9.00	0.26
SJ21-09	0.00	57.00	57.00	0.78
including	*3.00*	*30.00*	*27.00*	*1.27*
and	135.00	150.00	15.00	0.27
SJ21-10	171.00	213.00	42.00	0.53
SJ21-11	15.00	87.00	72.00	0.36
SJ21-13	75.00	87.00	12.00	0.32
SJ21-14	102.00	108.00	6.00	0.91
SJ21-15	42.00	114.00	72.00	0.46

Hole	From	To	m	% Cu
SJ21-16	27.00	42.00	15.00	0.28
SJ21-17	0.00	27.00	27.00	0.29
SJ21-18	30.00	42.00	12.00	0.45
SJ21-19	24.00	33.00	9.00	0.63
SJ21-21	3.00	18.00	15.00	0.32
SJ21-23	12.00	30.00	18.00	0.38
SJ21-24	21.00	60.00	39.00	0.61
SJ21-25	24.00	51.00	27.00	0.26
including	*24.00*	*36.00*	*12.00*	*0.34*
and	72.00	90.00	18.00	0.38
and	129	153	24.00	0.32
and	183.00	195.00	12.00	0.52
SJ21-26	90.00	117.00	27.00	0.33
SJ21-27	45.00	58.50	13.50	0.35
SJ21-28	138.00	185.00	47.00	0.76
including	*141.00*	*156.00*	*15.00*	*0.95*
SJ21-30	54.00	75.00	21.00	0.61
SJ21-30	150.00	168.00	18.00	1.27
SJ21-31	90.00	138.00	48.00	0.54
SJ21-32	0.00	51.00	51.00	0.30
and	75.00	88.00	13.00	0.74
and	99.00	165.00	66.00	0.33
including	*99.00*	*120.00*	*21.00*	*0.54*
SJ21-33	0.00	29.00	29.00	0.34
SJ21-35	45.00	60.00	15.00	0.35

Significant Intervals, 100 ppb Au cutoff

Hole number	From	To	m	Au ppb
SJ21-04	45	54	9	379
SJ21-04	81	150	69	916
including	*93*	*120*	*27*	*1,974*
SJ21-05	18	138	120	467
including	*42*	*63*	*21*	*550*
including	*117*	*135*	*18*	*1,768*
SJ21-06	111	120	9	233
SJ21-09	6	12	6	495
and	144	150	6	292
SJ21-10	0	18	18	147
and	186	198	12	194
SJ21-11	111	117	6	217
and	138	141	3	528
SJ21-16	9	12	3	736
SJ21-18	15	36	21	389
including	*24*	*36*	*12*	*550*
SJ21-19	19.5	27	7.5	388
SJ21-23	12	21	9	113
SJ21-25	24	63	39	271
including	*45*	*60*	*15*	*455*

Hole number	From	To	m	Au ppb
SJ21-26	105	108	3	504
SJ21-27	9	18	9	371
SJ21-28	18	27	9	287
SJ21-28	36	51	15	262
SJ21-29	3	87	84	353
including	*21*	*69*	*48*	*532*
which includes	*21*	*36*	*15*	*727*
and	*51*	*60*	*9*	*841*
SJ21-30	3	96	93	355
including	*36*	*57*	*21*	*473*
and	105	126	21	551
including	*117*	*126*	*9*	*1,117*
and	135	147	12	258
and	168	180	12	318
SJ21-31	12	90	78	584
including	*27*	*60*	*33*	*1,192*
SJ21-33	51	75	24	172
including	*66*	*75*	*9*	*297*
SJ21-34	72	90	18	209

9.3 Areas for Expansion at Cerro Verde

The Cerro Verde deposit has not yet been constrained in most direction; only at depth is the deposit limited by faulting. Proposed areas for expansion drilling are shown below in Figure 9.2. The Tarahumara volcanic rocks are limited by a low-angle fault contact in the north, west and south, and the presence of bare exposed outcrops of rock signaling alteration is limited to the east. The northeast zone holds the potential to define larger-sized extensions of copper oxide mineralization.

North Zone. This area is 600 m long by 300-400 m in width. The two nearest drill holes south of this area intersected 9 m @ 0.12 % Cu (SJ06-39) and 21 m @ 0.21% Cu (SJ06-40), respectively. In addition, the topographic relief points to a Tarahumara lithologic sequence of at least 100 m thick. An area near the San Javier creek shows bare rock with specularite veining. Several low-angle faults are present in this area. On the downside, alteration seems to decrease to the north.

Northeast Zone. This target area consists of a 1,000 m long by 500 m wide zone that exhibits the most potential to increase copper oxide resources. The five historic holes by Peñoles, the one by Phelps Dodge and the two by Constellation drilled in this area, all returned mineralized intervals in copper, as can be seen in Table 9.1 below. There is also some gold endowment in the zone, as shown by CV97-18 with 13.3 m @ 0.74 gpt Au, 6 m @ 1.29 gpt Au and 14 m @ 0.10 gpt Au; S-2 with 21.65 m @ 0.50 gpt Au; SJ06R-13 with 9 m @ 0.47 gpt Au and 21 m @ 0.18 gpt Au and SJ06R-14 with 33 m @ 0.25 gpt Au.

Table 9.3 Historic copper intercepts in the Northeast zone of Cerro Verde

NE Zone.- Drilling intervals over 0.1% Cu				
Hole	From	To	m	Cu_%
CV97-18	2.7	18	15.3	0.28
CV97-18	54	60	6	0.51
S-1	0	98.62	98.62	0.10
S-2	0	16.7	16.7	0.22
S-2	16.7	39.65	22.95	1.27
S-2	39.65	47.5	7.85	0.23
S-2	47.5	120.2	72.7	0.1
S-2	141.85	152.95	11.1	0.19
S-3	0	23.18	23.18	0.3
S-3	23.18	73.94	50.76	0.11
S-3	88.58	105.33	16.75	0.47
S-3	251.84	297.67	45.83	0.12
S-4	0	28.85	28.85	0.35
S-4	28.85	87.5	58.65	0.1
S-5	0	14.15	14.15	0.17
S-5	14.15	36.85	22.7	0.71
S-5	36.85	118.4	81.55	0.21
S-5	130.75	164.7	33.95	0.16
S-5	173.7	194.85	21.15	0.3
S-5	194.85	268.1	73.25	0.1
S-6	30.32	86.26	55.94	0.11
S-6	109.94	130.07	20.13	0.3
S-7	0	24.38	24.38	0.33
S-7	66.14	92.66	26.52	0.1
SJ06R-13	3	39	36	0.45
SJ06R-13	96	138	42	0.37
SJ06R-14	0	12	12	0.30
SJ06R-14	30	42	12	0.14

West Zone. This area is 1,000 m long by 150 to 300 m in width, elongated in north-south direction. It is limited to the west and at depth by the contact of the Tarahumara volcanic rocks with the Coyote Formation conglomerate. The favorable Tarahumara volcanic rocks attain a maximum of 50 to 100 m in this zone. Nearby holes have returned up 84 m of 0.19% Cu in SJ07-45, and 105 m @ 0.30% Cu in SJ07-48, both in oxide material.

East Zone. Located on the eastern slopes of Cerro Verde Mountain, the potential of oxide material seems limited to near-surface. The nearest two holes display 42 m @ 0.20% Cu and 36 m @ 0.22% Cu from the surface, in SJ07-31 and SJ07-32 respectively.

South Zone. This area is 500 m long by 250 m in width, limited to the west, southwest and southeast by fault contact between the Tarahaumara Formation volcanic rocks and the Coyotes Formation conglomerate. Volcanic rocks can be up to 100 m in thickness on its northeast limit, mostly in oxides, although some bordering holes have not intersected significant copper. Significant intercepts in nearby holes include 60 m @ 0.38% Cu in SJ07-22, 60 m @ 0.23% Cu in SJ07-21, 69 m @ 0.28% Cu in SJ07-37 and two intervals of 27 m @ 0.37% Cu and 24 m @ 0.55 % Cu in SJ07-40.

Southeast zone. Oval shaped 400 m by 300 m area limited at the south by low-angle fault contact between Tarahumara Formation volcanic rocks and Coyotes Formation conglomerate. Nearby historic hole S-11 intercepted 9 m @ 0.48% Cu. Constellation holes SJ07-35, SJ07-55 and SJ07-56 intercepted 6 m @ 0.40% Cu, 12 m @ 0.12% and 12 m @ 0.11% respectively.

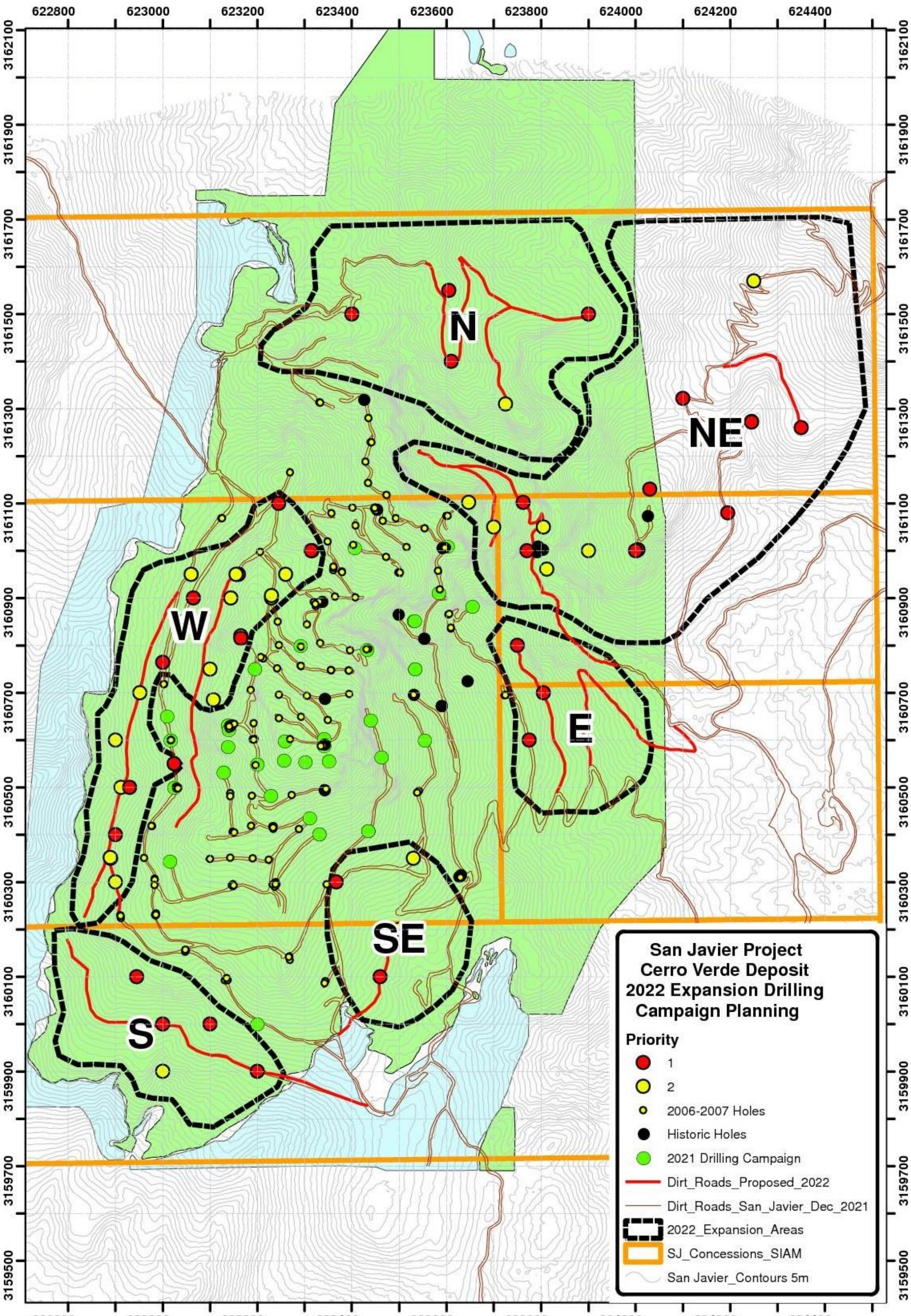


Figure 9.2 Plan map highlighting areas for expansion

10 Drilling

10.1 Drill Contractor

Given the steep nature and tight turns of some of the roads in the project area, a small rig capable of drilling 400 meters of HQ size core (track-mounted if possible) was recommended. Five drill companies were invited to tour the property and bid on the project. Based on the equipment needed, and availability Globe Explore of Hermosillo, Sonora, was selected as the drill contractor.

The equipment used was a man-portable diamond core Discovery MP500 made by Multi Power Products Ltd., in Canada. The rig has the capacity to drill 200 m in PQ, 300 m in HQ, 500 m in NQ and 800 m in BQ sizes.

Drilling started in August 2021 and was finished in November 2021. The first three holes and part of the fourth were drilled for metallurgical samples with PQ diameter core. Subsequently, from 60.5 m in the fourth hole (SJ21-04) to the end of the 2021 campaign, all holes were HQ diameter core.

The man-portable rig was operated continuously by a three-man crew in two 12-hour shifts starting and ending at 7:00 am and 7:00 pm respectfully. The drill pad preparation and build up was handled by a one-shift five-man crew. The total size of the crew was 19, based in a field camp established at San Javier.

Figure 10.1 Man-Portable drilling rig at site of SJ21-01

10.2 Water

Water for drilling was sourced from a historic drill hole that has flowing artesian water near the bottom of San Javier creek. A small retention pond was built in the stream bed to collect the water, which was then pumped uphill near the summit of Cerro Verde Mountain. The difference in elevation is close to 500 m, and a relay pumping station was used to get the water to the upper temporary storage, from which it was then pumped to the different drill site locations.

10.3 Access and Drill Pads

The historic drill access roads from previous campaigns at Cerro Verde needed some rehabilitation, after more than a decade without maintenance. A Caterpillar D6 bulldozer was contracted to repair and clean roads for Cerro Verde and the adjoining Mesa Grande and La Trinidad target areas. Approximately 19,750 m of roads were repaired/maintained at Cerro Verde, 2,900 m at Mesa Grande, 8,500 m at La Trinidad and 6,650 m of access roads between these areas, for a total of 37,800 m. In addition, 325 m of new access was built from roads to new drill pads. The portable rig installation required only 4.5 x 4.5 m area drill platforms, which meant many of the holes could be drilled using existing roads. Only five holes required new access to be opened by the dozer, whereas ten more required the levelling by hand of the drill pads on which the man-portable core rig was to be transported.

10.4 Core Orientation and Handling

Orientated core was used in order to identify important structures. The drillers used a REFLEX ACT III. Drilling runs were generally 1.5 m long, after which the core was extracted and put on an iron rail by a driller’s helper. The Estrella de Cobre field assistant marked the orientation of the core at the end of the run, arranged the core, marked the orientation line along the core (if possible) and then transferred the core to a wooden core box. A wooden block with the run from to information was inserted and marked on the side of the box every time core was extracted, not only at barrel lengths. The core box was labelled with hole number, from – to meterage, box number, and an aluminum tag attached with ticks to the front face. The wooden core box was sealed with a plywood lid held by screws for transport, and temporarily held at the rig site until the morning shift change, when the boxes were transported to San Javier.

The core was then received by a geologist and a field assistant at the San Javier warehouse and placed on the tables for logging.

10.5 Core Logging

During the day the depth markings and recoveries were checked by a geologist before the core was passed on to be logged. Structural measurements were recorded with a Reflex IQ-LOGGER made by Reflex, with Bluetooth data transfer capabilities. Logging was directly entered into Samsung Android tablets running MX Deposit Software. MX Deposit software was leased from Seequent of Vancouver, BC. After core logging, the samples were marked in the box with a sample tag pinned to the wall at the end of the samples. The core lid was placed back on place and the boxes taken from the tables and temporarily stored in the warehouse.

10.6 Down Hole Surveying

To check for hole deviation, all holes were surveyed by the driller every 50 m of penetration depth, and the measurements passed on to the geologists in Excel files. The equipment used was a Reflex EZ-SHOT, which features tri-axial solid-state accelerometers and Tri-axial solid state fluxgate magnetometers.

10.7 Drill Collar Surveying

The 2021 campaign drill holes were surveyed by a contract landsman. The first 14 holes (SJ21-01 to SJ21-14) were surveyed during the drilling campaign and the remaining holes (SJ21-15 to SJ21-36) just after its completion. The equipment utilized was a three-band total station GPS EMLID REACH RS2, base and rover.

The coordinates from a control point from the Mining Geodesic Subgrid were adjusted to those of INEGI's fixed station in Hermosillo, part of the National Passive Geodesic Grid. The obtained coordinates at each hole were adjusted post-process. The precision is between 0.001 m and 0.007 m for the Eastings and Northings and between 0.001 and 0.014 m in elevation.

11 Sample Preparation, Analysis and Security

11.1 Core Sampling

Samples of core were almost always three meters in length. Occasionally, there were shorter or longer intervals at the beginning or the end of a hole to adjust for poor recovery at the start or to accommodate a short interval at the end of the hole.

All core was split using a diamond bladed core saw. A warehouse 10 m by 10.5 m and 5 m in height was rented in San Javier for use as the core-sawing facility. A core-saw powered by a 5 HP electric motor was purchased from a local provider in Hermosillo, transported and installed at the San Javier core-sawing facility.

Geologists made a list of samples per hole and the micropore bags were marked numerically without drill hole IDs nor footages. Core boxes were put in a table by side of the core-saw, from where each piece of core was taken to be sawed in half, at 90 degrees from the orientation mark, starting from the bottom of the sample to the shallower part, to avoid mixing of intervals. One half returned to the box and the other to the sample bag. A water-resistant paper sample tag number was included with each sample and the bag closed and temporarily stored in the warehouse.

A standard and/or control sample was inserted every 20 samples as described in the chapter on QA/QC.

Figure 11.1 Core Storage and Preparation

The photos in Figure 11.1 show at top left is the core saw setup; photo at top right shows temporary sample storage after being cut and waiting transport to the preparation facility in Hermosillo. The bottom photo shows core cutting in progress.

11.2 Core Photography

Once the core of the complete hole was logged and the samples marked, it was transported to the core-sawing facility in San Javier. The lid was removed (to be used on the next holes) and the core placed on an iron-made base to be photographed in groups of three boxes at a time. The boxes have markings on the side facing the camera with the hole number, box number and depth to reduce mistakes. A digital camera was fixed on a mount to take pictures, and LED lights shone on a wall with a white tarp to have reflected light on the core and reduce the glare. The photographed core was placed next to the core-saw for sampling and the digital pictures downloaded to a computer, renamed and trimmed if necessary.

Figure 11.2 Core Photography

The photo on the left in Figure 11.2 is the core photography setup. The right hand photo is a photo of boxes 14, 15, and 16 from drill hole SJ21-07.

11.3 Chain of Custody

The samples remained in the San Javier warehouse, where the core-sawing facilities are located, and were under lock and key during non-working hours. Samples were delivered to the preparation facilities in Hermosillo either by Gambusino Prospector trucks and employees or picked up directly at San Javier by the sample preparation company.

11.4 Sample Preparation and Assaying

Samples were prepared at Sonora Sample Preparations S.A. de C.V. facilities in Hermosillo by crushing 75% to minus 80 mesh, then split and pulverized 95% to minus 150 mesh. The pulps were sent for assay at Skyline laboratories in Tucson, Arizona.

All samples were assayed by the methods shown in Table 11.1 below. The first couple of holes were also assayed by TE-3, which includes digestion by aqua regia, but the use of the technique was discontinued because Constellation samples were assayed by multi-acid dissolution and thus the results from the two methods could not be directly compared. All the previous samples analyzed using TE-3 methodology were re-analyzed with the TE-5 protocol.

Table 11.1 List of Analytical Methods Used at Skyline Laboratories

Assays by Skyline Laboratories

Code	Description
SP-1	Crush to plus 75 % -10 mesh, split and pulverize with standard steel to plus 95% -150 mesh
SEA-Cu	Total Copper - AAS
SEA-CuSeq	Sequential Leach Copper - AAS
FA-01	Au Fire Assay - AAS (geochem) 5-5,000 ppb
CN-1	Au cyanide soluble 0.03-100 ppm 2 hour (performed only on FA-1 results over 99 ppb)
TE-5	47 Elements - Multi Acid Digestion (ICP/MS

11.5 Core and Sample Storage

Estrella de Cobre has three warehouses: one in Hermosillo holding the rejects and pulps from drilling by Constellation and Estrella de Cobre; one in San Javier holding all historical Constellation Copper core; and one more in San Javier, holding all the core from the most recent Estrella de Cobre, 2021 campaign. A larger warehouse (1,000 sq meters) has been rented in Hermosillo, where all the core and rejects from previous and upcoming campaigns are to be stored, and only one of the San Javier warehouses is to be kept as the core-sawing and temporary core-holding facility. All core sample boxes are wooden, with two to four rails depending on the core size, BQ, HQ and PQ.

12 Data Verification

IMC has completed an independent analysis of the Barksdale provided QA/QC data for the 2021 drilling and sampling program for San Javier. This process analyzes the Barksdale QA/QC data that was included in the 2021 drill program which will confirm there are no issues with the data added to the mineral resource database.

IMC completed a data verification study as part of the 2007 Technical Report published by IMC and K D Engineering (San Javier Copper Project, Sonora, Mexico, Technical Report dated December 20, 2007). This was a follow up to the data verification completed by SRK and described in its report (June 2007). The following is excerpts from the IMC 2007 report related to the QA/QC checks of the Constellation assay database.

12.1 Constellation Quality Assurance and Quality Control Program

In addition to International Plasma Labs Ltd. (IPL) internal QA/QA program, Constellation also developed their own QA/QC program consisting of a regular program of duplicate pulp analyses, standards and blanks.

12.1.1 Pulp Duplicates

The sample intervals chosen for preparation of duplicate pulps were generally based on set intervals for each hole but also modified to ensure that the duplicate samples were taken in mineralized intervals in the hole. The samples for the core duplicates were prepared by sawing one-half the core into two separate samples, resulting in two samples of one-quarter core each. In the case of the RC samples, two samples were collected at the drill rig and submitted to the lab. It should be noted that for the core samples, the procedure of cutting the half core in two for duplicated samples is introducing a lower assay precision than would be expected for a normal sample based on a half core.

The pulp duplicate samples were generally collected at intervals of between every 10th and 20th sample down the hole. In the database supplied to IMC, there are 496 total copper pulp duplicates, 214 acid soluble duplicate samples, and 213 cyanide soluble copper duplicates. Figures 12.1, 12.2, and 12.3 are XY scatterplots of the original assay and duplicate assay for total copper, acid soluble copper and cyanide soluble copper respectively. Overall, the results are quite good, with the points plotting very close to the 45 degree line on the graphs. This indicates a high assay precision.

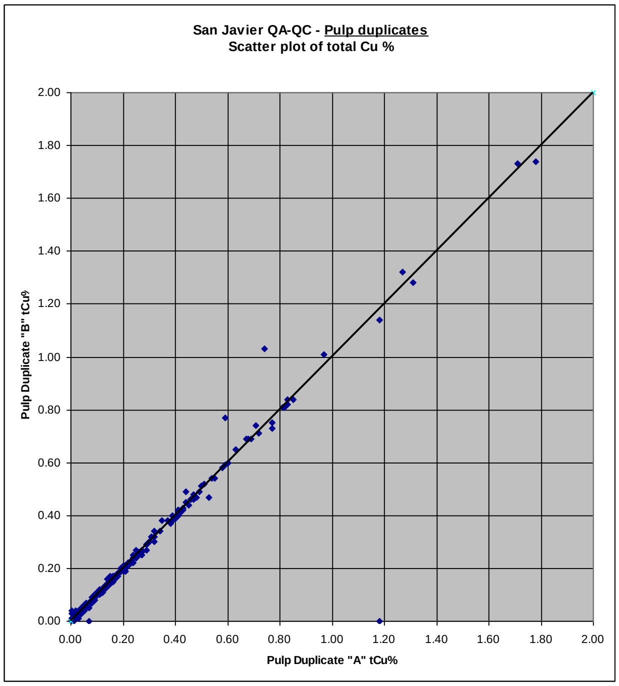


Figure 12.1 Total Copper – Pulp Duplicates

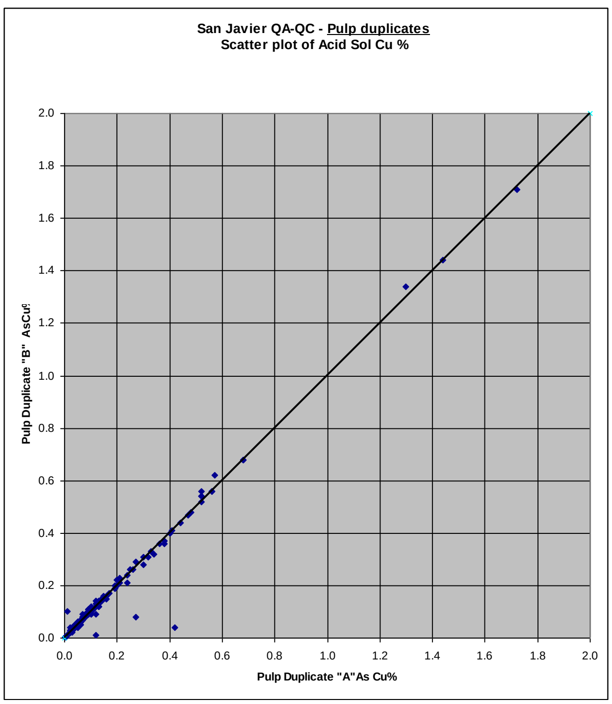


Figure 12.2 Acid Soluble Coper – Pulp Duplicates

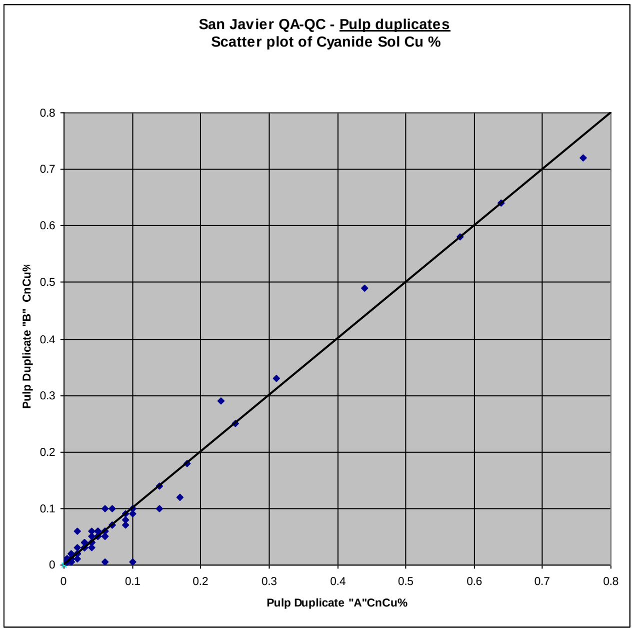


Figure 12.3 Cyanide Soluble Copper – Pulp Duplicates

12.1.2 Standards

There are five total copper and acid soluble standards in use with Constellation's current drilling program. Figure 12.4 shows assay results for the total copper standards. The X axis is the certified value, and the Y axis is the various IPL assays of the standards. It can be seen that most assays are within a reasonable tolerance of the certified value. Some of the larger errors may represent large lab discrepancies though the fact that these assays are near the mid-range value of other standards indicates a strong possibility that Constellation sample prep personnel sent different standards than intended in a few cases.

Figure 12.5 shows the results for acid soluble copper standard in this current drilling program. The plot below shows IPL lab results versus certified values. Again, there is a good chance the larger errors are actually related to sending a different standard than intended.

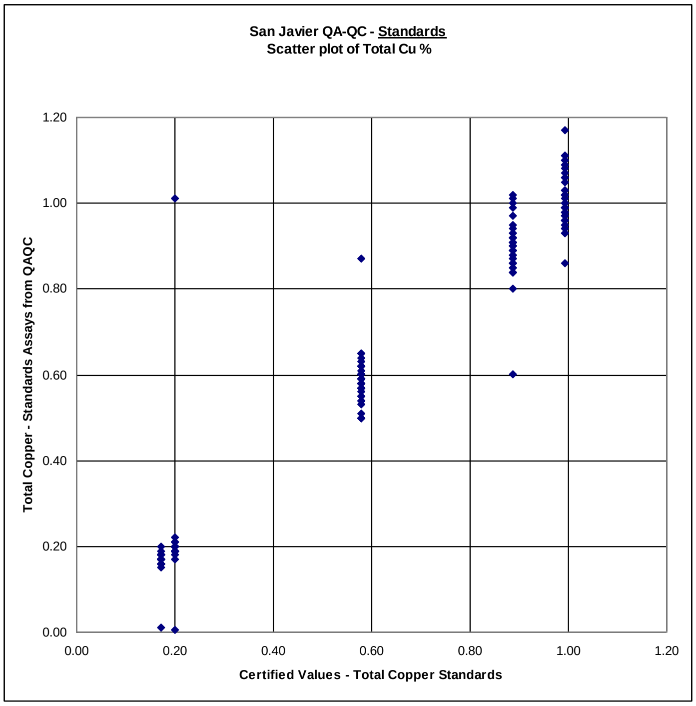


Figure 12.4 Total Copper Standards

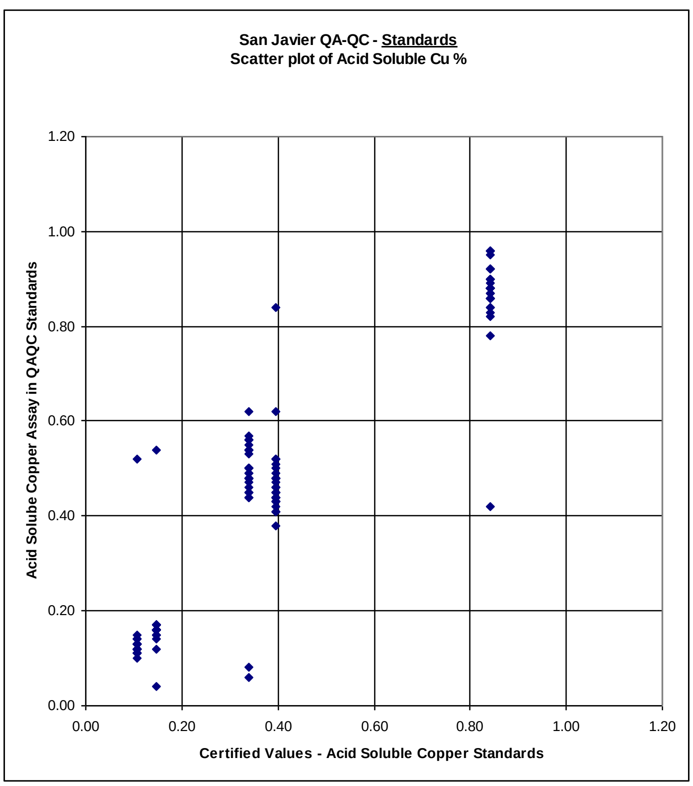


Figure 12.5 Acid Soluble Standards

12.2 Barksdale QA/QC Program

IMC has completed an independent analysis of the Barksdale provided QA/QC data for the 2021 drilling and sampling program at San Javier. This process analyzes the Barksdale and Skyline QA/QC data for the 2021 drill program confirmed there are no issues with the data added to the mineral resource database.

The procedures used by Barksdale and Skyline Assay Labs (SKY) for quality control on diamond drill samples are:

1. One type of control sample (CRM, Duplicate or Blank) was inserted every 20th samples. If a sample batch sent for assay contained less than 20 samples, then one control sample was included.

2. Blind standards (CRM) are inserted by Barksdale on approximately 1 in 20 basis for assay by SKY.

3. Duplicate samples were requested to be done in one of two ways. Figure 12.6 illustrates the

    a. A duplicate assay (DA) is a split of the original pulp and is are completed by SKY internally, as a precision or repeatability check on the assay results with duplicate prepared pulps.

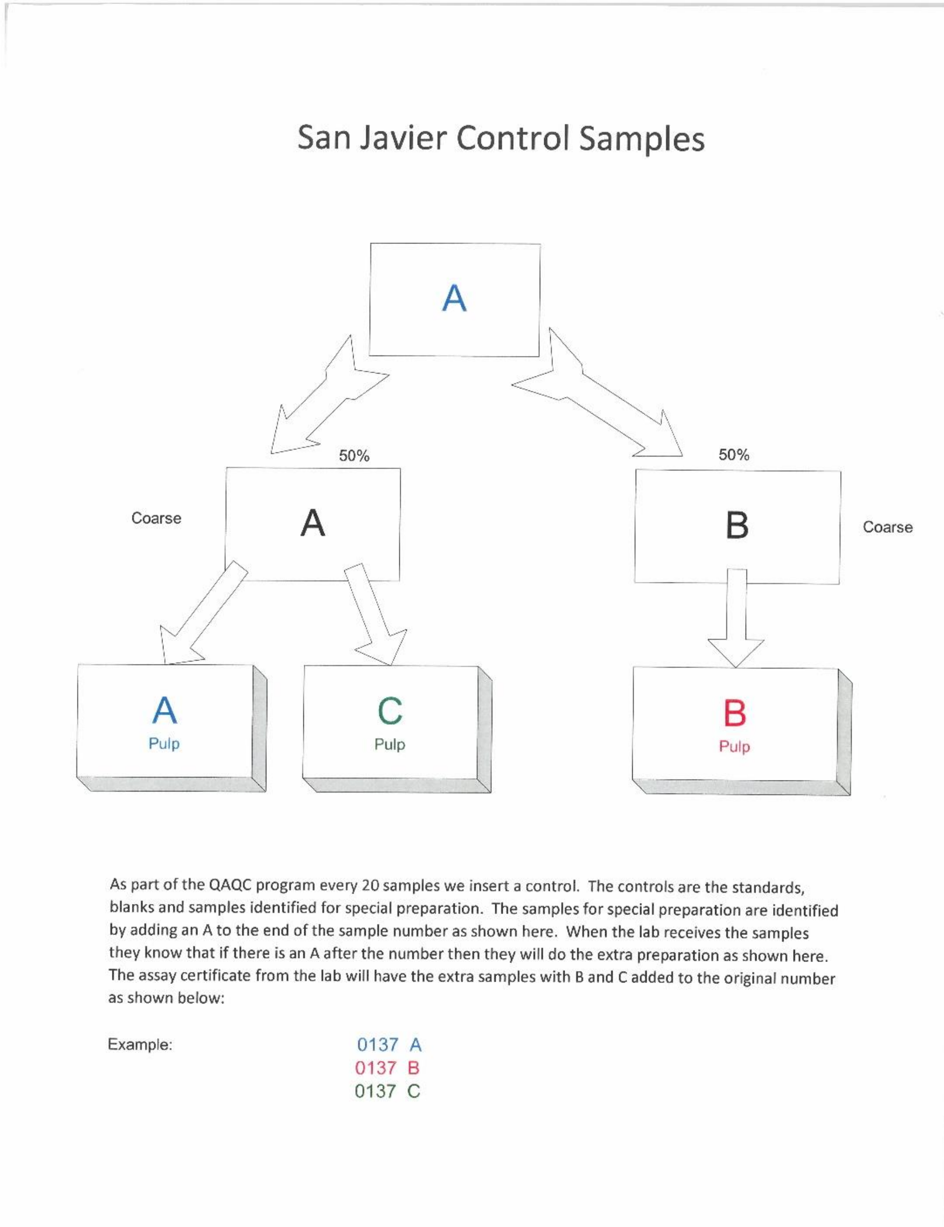
4. Duplicate rejects (DR) are completed by SKY. This was done as a check on the pulp preparation process when coarse duplicates are requested. Barksdale specified a coarse reject to be one of the, every 20 controls.

5. The Geology staff at San Javier submit blanks to Skyline in the same manner that standards are inserted. The purpose of blank insertions is to confirm that there is no contamination between samples due to sample preparation errors at the lab.

The samples for special preparation are identified by adding an “A” to the sample number as show below. When the lab received the samples they know that if there is an “A” after the number these sample will require extra preparation. A second pulp or “C” pulp will be the pulp duplicate. This is signified by adding a C to the sample number.

For the same pulp “A” a coarse duplicate will be generated from the coarse reject material, this is the “B” pulp. Figure 12.4 is an example of the Barksdale control sample insertions.

Figure 12.6 San Javier Control Samples



12.2.1Pulp Duplicate Assays

Barksdale ran duplicate assays or pulp duplicates (Pulp C) from the same pulp for total copper, sequential acid soluble copper, and sequential cyanide soluble copper intervals. This repeat analysis is used to measure the quality of the assay procedures and is conducted by the laboratory under direction of Barksdale personnel as part of their internal quality control.

The duplicate assay information from Barksdale for total copper, acid soluble, and cyanide soluble copper are presented on Table 12.1. The tables show the duplicate assays have very similar grades to the original copper assays.

Table 12.1 Pulp Duplicate Assay Statistics for Total Copper

San Javier Pulp Duplicates (Pulp C) Assay Method	Number	Original Mean (% Cu)	Duplicate Mean (% Cu)
Total Copper (% Cu)	8	0.275	0.266
Sequential Acid Soluble Copper	8	0.132	0.128
Sequential Cyanide Soluble Copper	8	0.059	0.058

12.2.2 Coarse Duplicate Assays

A coarse duplicate assay is the analysis of a pulp prepared from an additional split of coarse reject material. The "Pulp B" assays are intended to be a measure on the precision of the SKY pulverizing, pulp splitting, and assay procedure in combination. As with the pulp duplicate assays, only minor information can be obtained regarding sample bias from this work. However, the ability to replicate the pulp and pulp split processes are tested.

Table 12.2 illustrates the coarse duplicate results for total copper, acid soluble copper, and cyanide soluble copper. The acid soluble copper and cyanide soluble copper comparisons show good correlation between the initial assay and the duplicate. The duplicate mean from total copper is slightly higher than the original total copper grade.

Table 12.2 Coarse Duplicate Assay Statistics for Total Copper

San Javier Coarse Duplicates (Pulp B) Assay Method	Number	Original Mean (% Cu)	Duplicate Mean (% Cu)
Total Copper (% Cu)	11	0.328	0.450
Sequential Acid Soluble Copper	11	0.123	0.117
Sequential Cyanide Soluble Copper	11	0.093	0.090

12.2.3 Certified Reference Materials - Standards

Standards or "CRM" (Certified Reference Materials) samples were purchased by Barksdale from OREAS (now AnalytiChem). The value of a standard is established by a round robin analysis by multiple labs. Those certified values are compared against the results from Skyline for the standard pulps inserted into the sample sets sent to the lab.

The two Skyline standards are SKY5 and SKY6. There are 116 assays for SKY5 and 116 assays for SKY6 reviewed by IMC for AsCu and CnCu.

There was a total of 47 OREAS copper standard insertions by Barksdale that were checked for total copper. The standards are OREAS-905, OREAS-907, OREAS-59a and OREAS-59d.

The instructions for insertion of CRMs are issued to SKY by Barksdale personnel. SKY knows that the sample is a standard or blank, but Skyline informed IMC that they do not know the certified values of the Barksdale submitted OREAS standards. The submission rate of these standards is roughly 1 in 20. The results are as expected with good repeatability. There are no indications of sample swapping within the CRM data set. Figure 12.7 shows the results for the 47 OREAS standards results versus the certified value for total copper. Figure 12.8 are the SKY assay results versus the certified value for acid soluble copper and cyanide soluble copper.

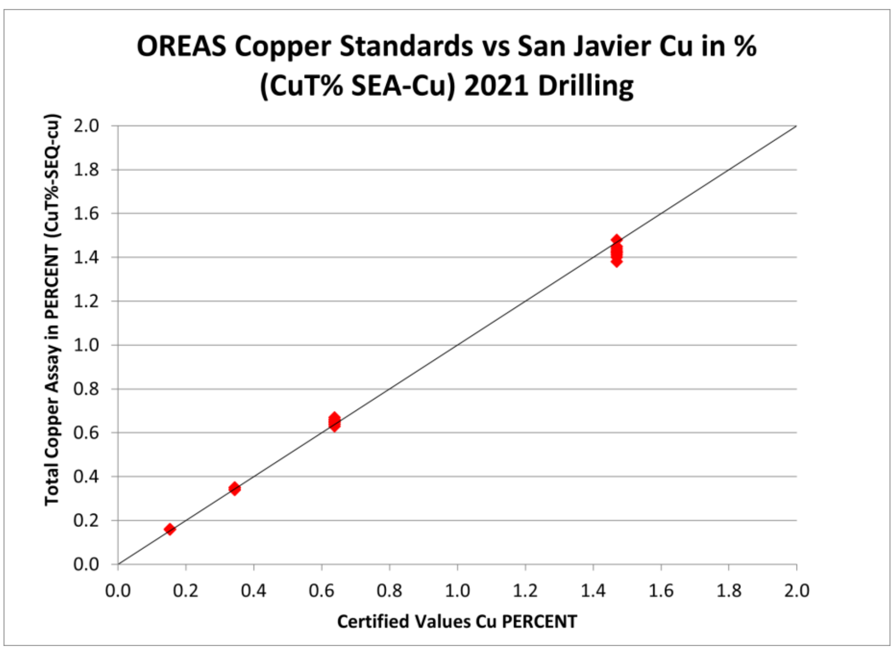
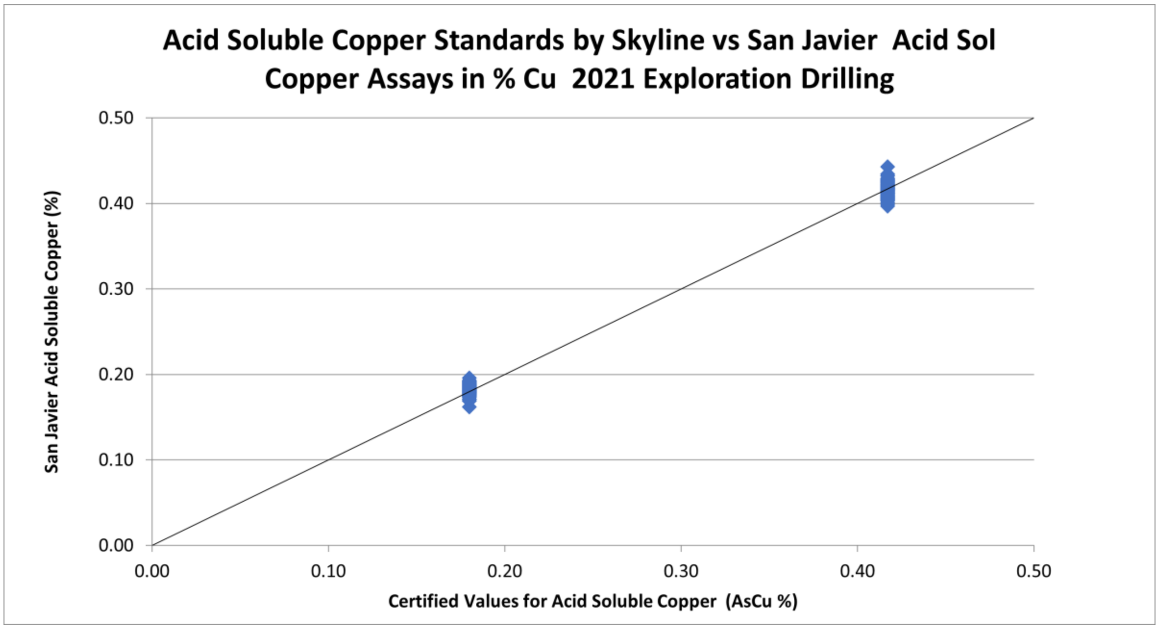


Figure 12.7 Results for the CDN Copper Standards



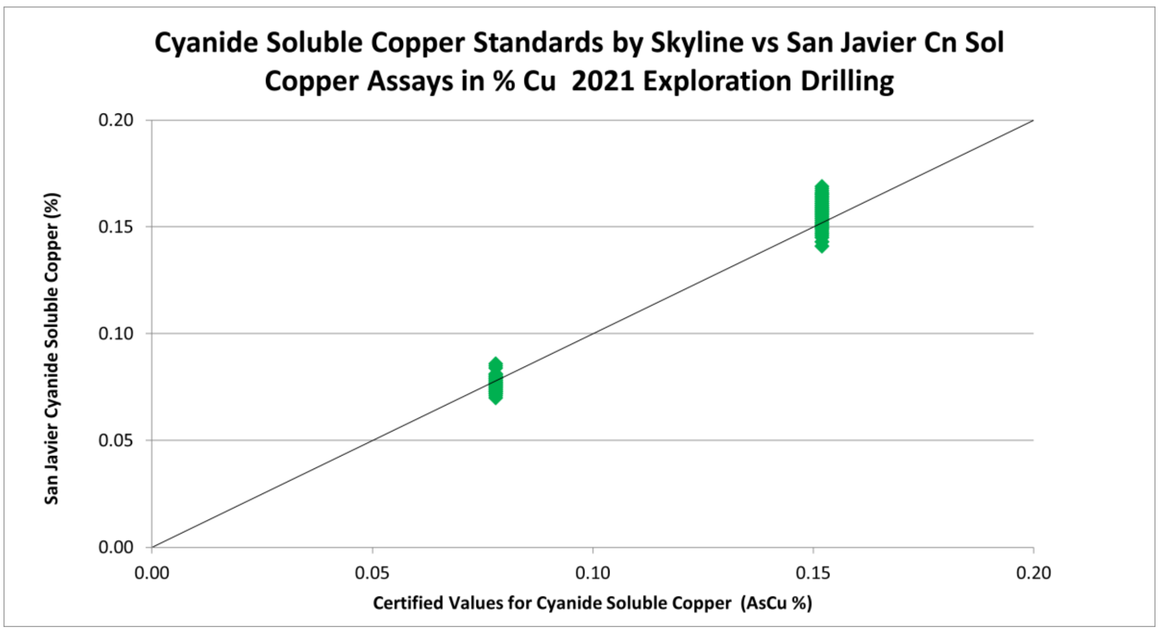


Figure 12.8 Results of Skyline Submitted Standards (CRM)

12.2.4 Barksdale Blanks

Blanks (material with no or below detection limit values) were submitted as part of the Barksdale insertion of control samples. A total of 18 blanks were included in the samples from the 2021 drill program. All of the assays for total copper, acid soluble copper and cyanide soluble copper were at or near the detection limits. Table 12.3 shows the results of the blanks analysis statistics.

Table 12.3 Blanks Statistics for Copper

Element	Assay Method	Number	Maximum
Acid Soluble Copper	CuAS-SEQ % Cu-Seq	18	0.008
Cyanide Soluble Copper	CuCN-SEQ % Cu-Seq	18	0.007
Total Copper	CuT % SEA-Cu	18	0.040

12.2.5 Assay Certificate Checks

IMC requested the original assay certificates from SKY for the 2021 drill program. These certificates were entered into a new database, and it was compared to the data base provided by Barksdale. For total copper assays, 1,713 assays were checked covering all or parts of 33 drill holes. No significant errors were identified. When the certificates had acid soluble copper or cyanide soluble copper assays, these were checked, and confirmed the values in the database.

12.3 Acceptance of the Drill Hole Database

The drill data as provided by Barksdale is accepted for use to develop a mineral resource. The checks of the Constellation and Barksdale drill hole data showed no significant errors in the development of the database. No checks were made on the Peñoles or Phelps Dodge drill hole data, but as mentioned in Section 14, this data was not used for the development of the mineral resource block model.

13 Mineral Processing and Metallurgical Testing

The metallurgical test work completed in 2022 for Barksdale was under the direction of SND Consulting and performed at the McClelland Laboratories, Inc located in Sparks, Nevada. Constellation had metallurgical test work completed in 2007 by METCON Research (METCON) and Hazen Research Inc. (Hazen). The METCON work consisted of bottle roll tests and column leach tests. The Hazen work included Bond abrasion index, crusher impact and ball mill work index determination on surface samples from San Javier. The metallurgical test programs are summarized in Constellation's 2007 Technical Report.

The 2022 metallurgical program will be the basis of the copper recovery and acid consumption for the Mineral Resource presented in this report. The program and its results are as follows.

The definition of the acid consumption and copper extraction (acid and cyanide soluble or 'soluble') in the primary leach cycle of 120 days was based on column tests using four composites from the 2021 San Javier drill program. Three of the composites were oxide material type. The fourth composite was classed as sulfide material type. The column tests evaluated the use of an acid cure or no acid cure. The result of the tests was documented in "Copper Extraction Final Report" of April 22, 2022. The conclusion of this report was the material should be processed without an acid cure. The recommended copper extraction and acid consumption by material type is presented in Table 13.1.

Table 13.1 Recommended Copper Extraction and Net Acid Consumption

Material Type	Leach Cap	Oxide	Mixed	Sulfide
% Extraction of Acid & NaCN Soluble	85%	85%	75%	60%
Acid Consumption, kg/tonne	2.5	2.5	10.0	10.0

The following observations are presented as results of the column leach tests:

1. The Leach Cap & Oxide material type should have an extraction of 85% of acid and NaCN soluble copper. This is for the primary leach cycle. There will be additional copper extracted in the second leach cycle.

2. The Sulfide should have an extraction of 60% of acid and NaCN soluble copper. The mixed Oxide-Sulfide will have 75% extraction. This is for the

primary leach cycle. There will be additional copper extracted in the second leach cycle.

3. Net acid consumption for the Oxide composites is 2.5 kg/t.

4. Net acid consumption for the Hypogene composite (4726-001) should be reduced from 20 kg/t to 10 kg/t.

5. There is no additional acid consumed after the primary leach cycle.

The four composites used for the column leach tests are defined in Table 13.2.

Table 13.2 Column Test Composites

Sample #	Column #	Drill Hole	From	To
4726-001	CL-1	SJ21-01	39	51
4726-002	CL-3	SJ21-02	50	60
4726-003	CL-5	SJ21-03	57	72
4726-004	CL-7	SJ21-04	45	54

The no acid cure column test conditions were a crush P80 of 2.5 cm, an acid concentration in the raffinate of 5 gpl and an irrigation rate of 6 L/hr/m^2.

Table 13.3 presents a summary of the no acid cure results of the four composites.

Table 13.3 Summary of Results Using No Acid Cure

		% Copper in Feed				Primary - 120 Day Cycle	
Sample #	Column #	Total	Acid	NaCN	Insol	% of Acid & NaCN	Net Acid Consumed, kg/t
4726-001	CL-1	0.416%	0.077%	0.147%	0.198%	60%	22.5
4726-002	CL-3	0.601%	0.531%	0.051%	0.033%	76%	2.4
4726-003	CL-5	0.388%	0.352%	0.013%	0.025%	89%	2.0
4726-004	CL-7	0.640%	0.519%	0.012%	0.124%	82%	2.7

Figure 13.1 presents the rate of copper extraction as a percent of the acid & NaCN soluble of the sample.

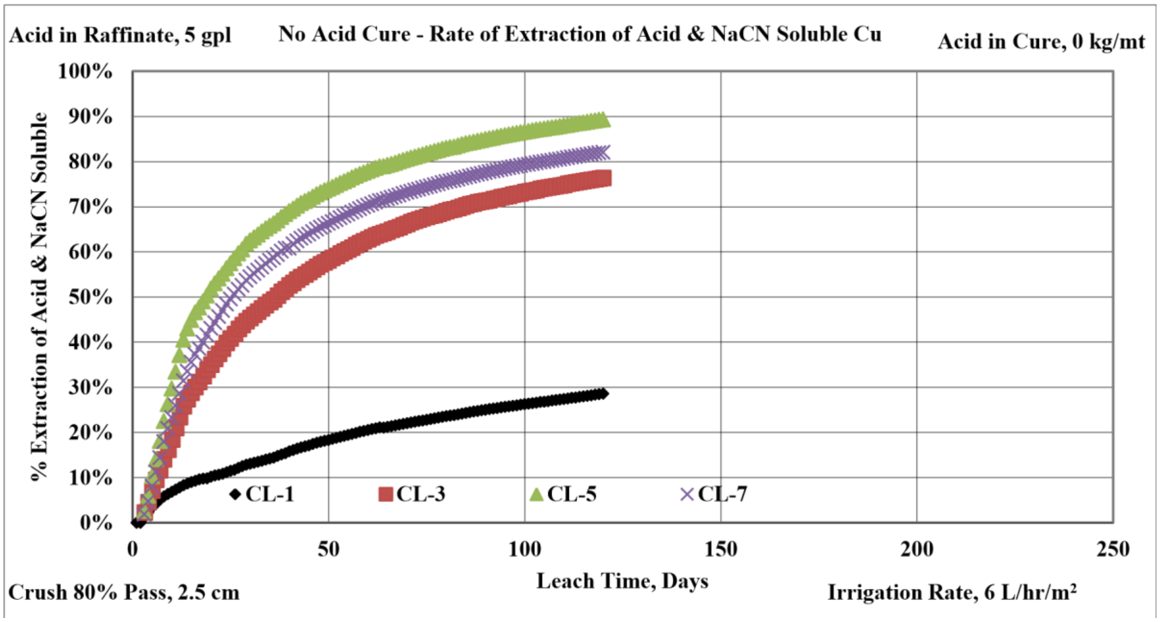


Figure 13.1 Copper Extraction as a Percent of Soluble Copper

The rates of copper extraction curves clearly show a continued extraction of copper beyond the primary leach cycle of 120 days. The second leach cycle was estimated using the rate cure of 90 to 120 days. The formula used is % Extraction of Acid & NaCN = a * ln(Days) + b

The estimation of additional copper extracted during the second leach cycle used the rate from 90 to 120 days. Figure 13.2 presents the estimation of copper extraction as a percent of the acid & NaCN soluble of the sample for a secondary leach cycle.

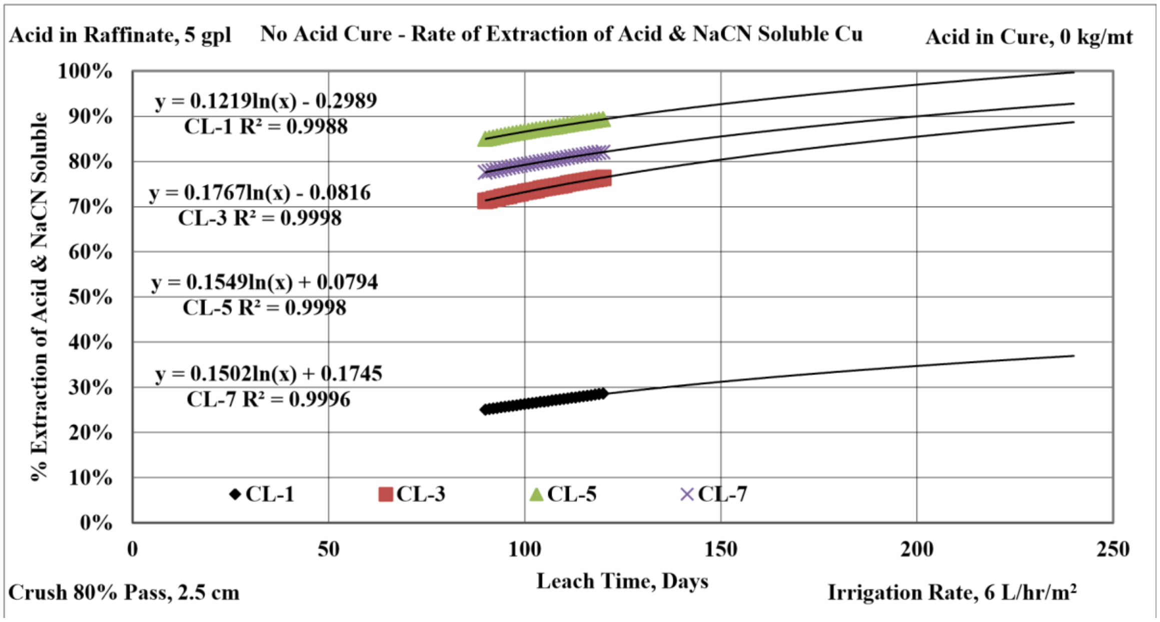


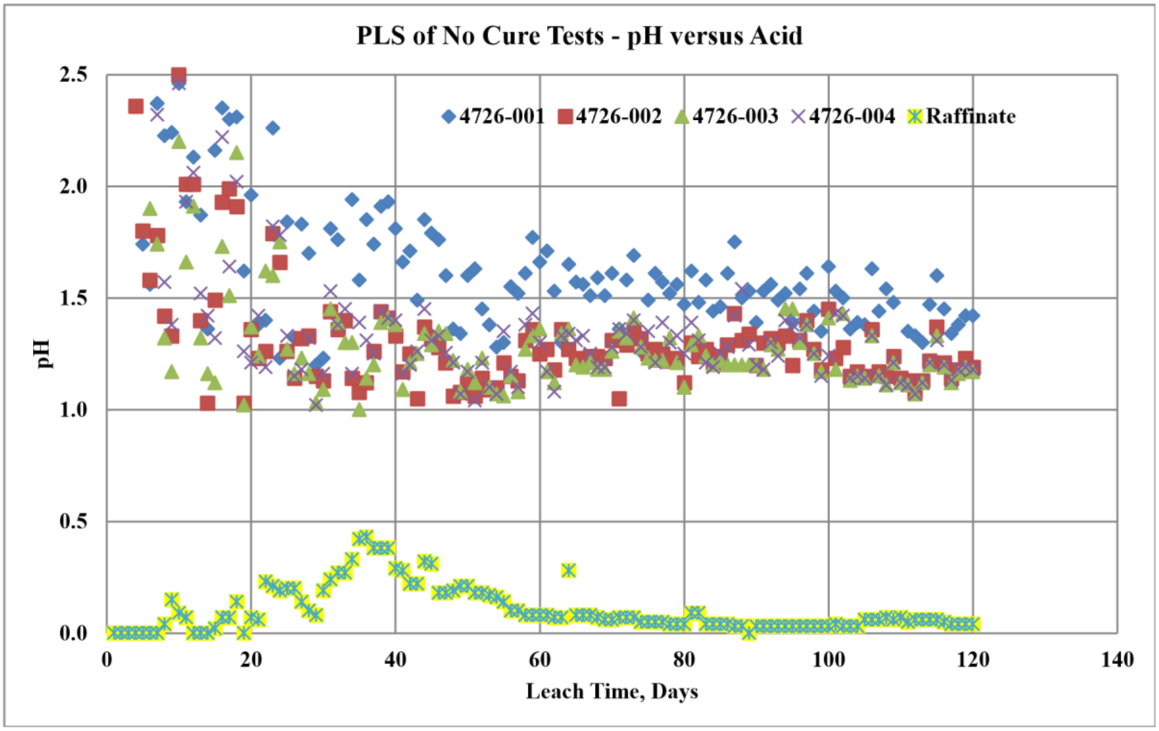
Figure 13.2 Estimate of Soluble Copper Extraction During Second Leach Cycle

Table 13.4 presents the rate parameters and the estimated copper extraction as a percent of the acid & NaCN soluble of the sample for a secondary leach cycle.

Table 13.4 Actual and Estimated Soluble Copper Extraction

Residual Rate Curve Day 90 to 120 % Acid & NaCN Cu Extr = a*ln(Days)+b						
		Rate Parameters			Actual	Estimated
Sample #	Column #	a	b	r2	120	240
4726-001	CL-1	0.2549	-0.6255	0.9988	60%	77%
4726-002	CL-3	0.1767	-0.0816	0.9998	76%	89%
4726-003	CL-5	0.1502	0.1745	0.9996	89%	100%
4726-004	CL-7	0.1549	0.0794	0.9998	82%	93%

The following graphs (Figures 13.3) present the pH of the PLS from each column using no acid cure over the leach cycle time the relationship of free acid versus pH. All columns had PLS less than 2.0 pH after 20 days of irrigation. The method used for determination of free acid resulted in zero free acid above a pH of 1.5. The procedure does not duplicate standard free acid titration method results. The result is higher than normal acid consumption. The 20 kg/t net acid consumption for the Sulfide composite (4726-001) should be reduced to 10 kg/t.



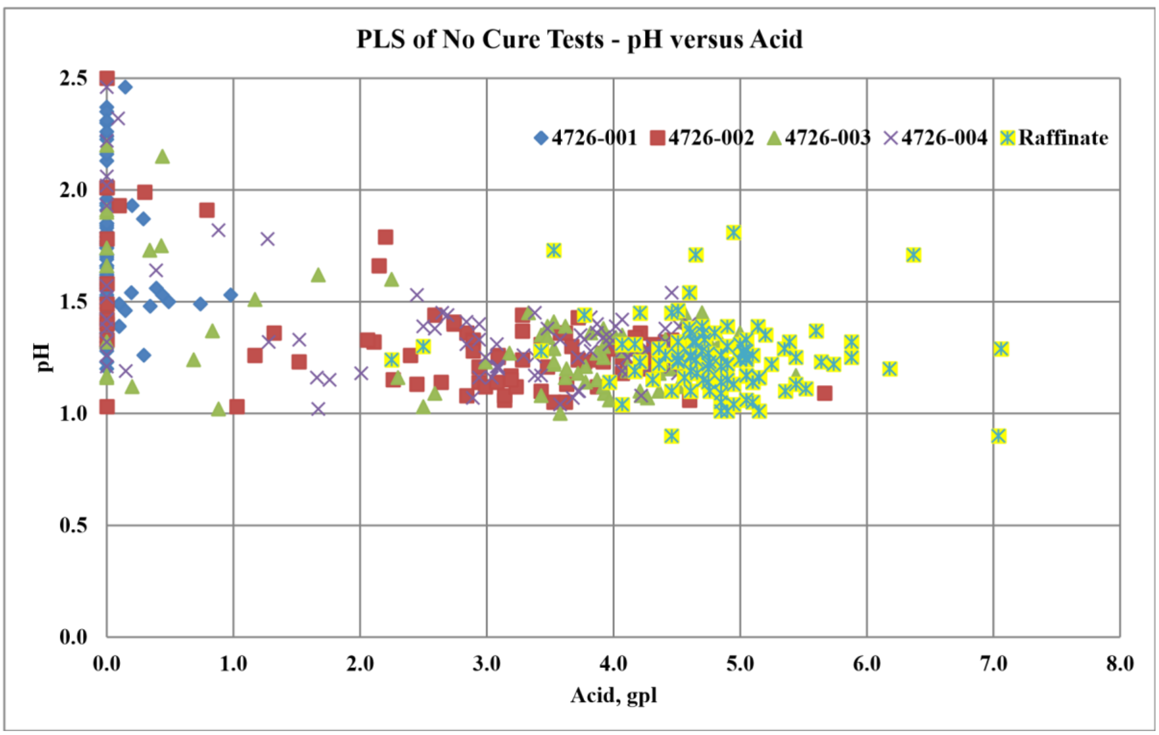


Figure 13.3 PLS of No Cure Tests

14 Mineral Resource Estimates

The mineral resource estimate for the San Javier Project is tabulated within a pit shell based on $4.00/lb copper price and is presented in Table 14-1. The mineral resource is the sum of tonnage and grades about a soluble copper (acid soluble plus cyanide soluble grades) cutoff grade which varies depending on the oxidization type. Additional information regarding the definition of the pit shell and the tabulation within it is included in Section 14.12.

Table 14.1 San Javier Mineral Resource

	Ktonnes & Grades Above Cutoff (1)					Copper Pounds x 1000 (2)	
	Ktonnes	Tcu, %	As+Cn Cu, %	AsCu, %	CnCu, %	Total Contained	Soluble Contained
Measured	12,485	0.203	0.278	0.172	0.032	76,573	55,938
Indicated	57,664	0.184	0.270	0.148	0.037	342,669	233,504
Total M&I	70,149	0.187	0.271	0.152	0.036	419,242	289,442
Inferred	5,965	0.152	0.240	0.114	0.038	31,563	19,923

1) AsCu+CnCu cutoff vary by oxidization type: leach cap & oxide = 0.04%, mixed = 0.07%, sulfide = 0.08%
2) Contained pounds = ktonnes x TCu x 22.04
   Soluble pounds = ktonnes x AsCu+CnCu x 22.04
3) Mineral Resource tonnage and grades is restricted to the Cerro Verde Deposit
4) Total pit shell tonnage = 95,175 ktonnes; ratio of ktonnes below cutoff to above cutoff = 0.25
5) Numbers may not add due to rounding.

The San Javier Project Mineral Resources meet the current CIM definitions for classified mineral resources. It should be noted that:

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the inferred portion of the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

The qualified person for the mineral resource is Herbert E. Welhener of IMC. The geologic interpretation was updated in early 2022 by Barksdale and includes the 2021 Barksdale drilling.

14.1 Model Limits

The resource block model covers the area of the San Javier deposit with an east-west distance of 2,000 m, a north-south distance of 1,800 m for an ariel coverage of 360 hectares. Table 14.2 shows the limits of the block model. The model coordinate system is UTM WGS-84 zone 12 N.

Table 14.2 Resource Model Limits

San Javier Resource Block Model Limits May 2022				
	Southwest	Northwest	Northeast	Southeast
Easting	622,400	622,400	624,400	624,400
Northing	3,159,800	3,161,600	3,161,600	3,159,800
Elevation Range		197	1,037	
Model Rotation, Primary Axis =			0.0 degrees	
Model			200 Blocks in Easting (columns)	
Size			180Blocks in Northing (rows)	
Block Size 10 x 10 meters in plan, 7 meter high			120 Levels	

The assembly of the drill hole data base and geometry solids of mineral zones, lithology and alteration zones was completed by Claus Wiese of I-Cubed LLC (Tucson, AZ) between February and April 2022. IMC has reviewed this work and accepts it as inputs to the resource block model used for the mineral resource estimation.

14.2 Drill Hole Database

The drill hole database provided to IMC includes 240 drill holes, representing 38,923 meters of drilling. Table 14.3 shows the drill data by time period and company and Figure 14.1 is a map of the drill hole locations. The drill holes are within the resource model limits and thus some historic drill holes are not included in the IMC database.

Table 14.3 San Javier Drill Holes

Year	Operator	Type	Number of	Total Meters
1970	Peñoles	Core	18	2,881.36
1996-1997	Phelps Dodge (PD)	Core	8	2,496.80
2006-2007	Constellation Copper Corp. (CCC)	Core	133	21,800.28
2006-2007	Constellation Copper Corp. (CCC)	RC	45	6,744.00
2021	Barksdale Resources	Core	36	5,000.60
Total			**240**	**38,923.04**

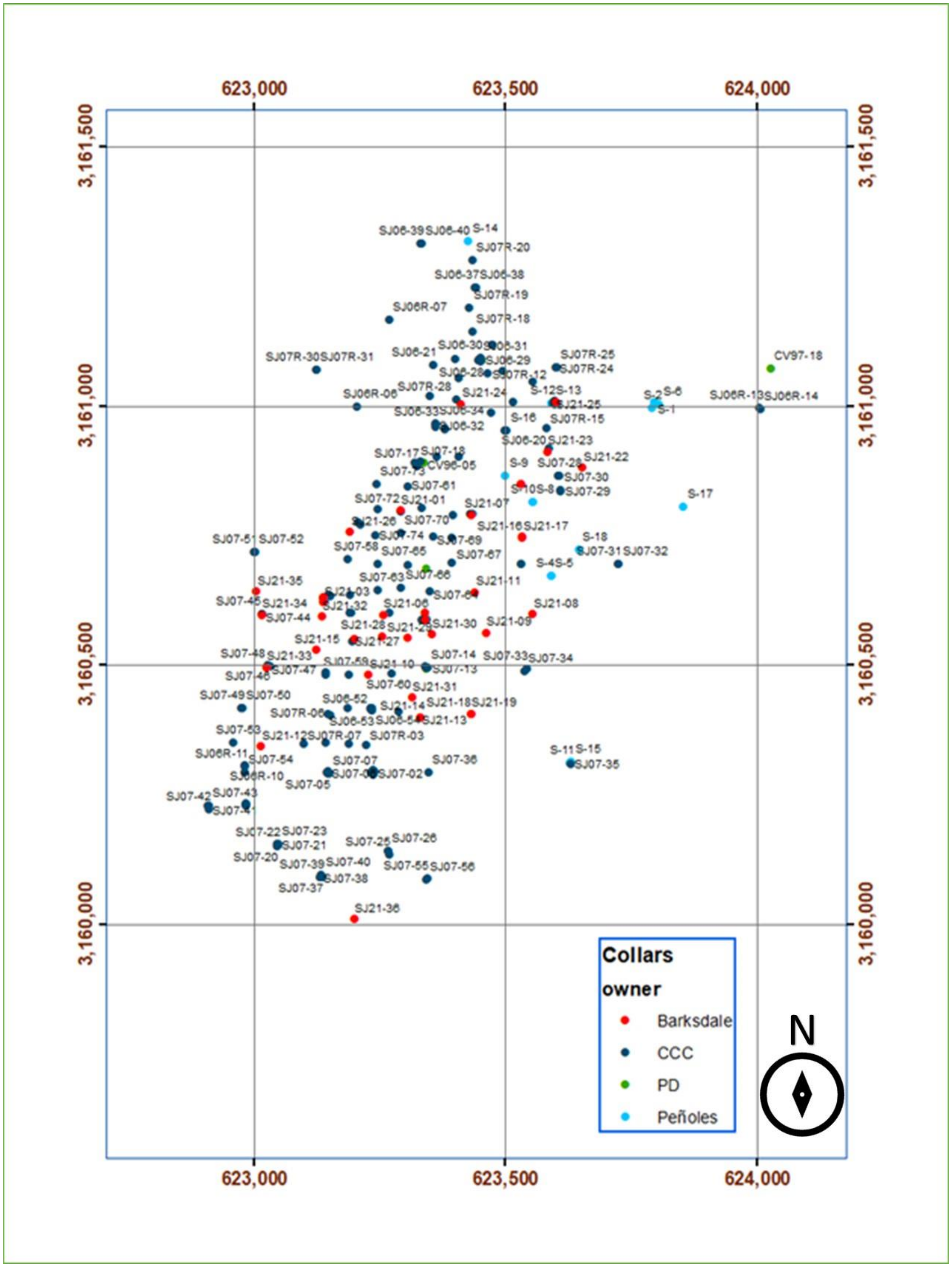


Figure 14.1 San Javier Drill Hole Location Map

14.2.1 Drill Hole Survey Data

The downhole survey information controls the paths of the drill hole in 3D space. The survey is more critical for angle holes versus vertical holes as angle holes have a greater chance of deviation from their intended direction. Downhole surveys for the Barksdale drillholes have been recorded as 'gyro' type surveys (listed as EZ-TRAC) and the values were measured values at multiple intervals down each hole where azimuth and dip values vary, showing the actual path of these drillholes.

Downhole surveys for the Constellation Copper drillholes generally have recorded readings for only one or two positions down the hole thus creating a simplified downhole path of the drill hole. Two drillholes have downhole surveys that define the drillhole as having been drilled horizontal or sub-horizontal (SJ07B-01 and SJ07B-02). This was verified as being the case.

Downhole survey data for the Peñoles and Phelps Dodge holes are based on single azimuth and dip values taken at the collar location. This information will produce a perfectly straight path for the drillhole which in general may not be a true representation.

14.2.2 Drill Hole Geological Logging

Barksdale geologists logged and sampled all 36 drillholes from their 2021 campaign. In addition, at the time of this report, some 118 drillholes completed by Constellation Copper Corp (CCC) were re-logged by Barksdale geologists. This re-logging comprised observations of lithology, mineral zones and alteration for a total of 154 completely logged drillholes.

Therefore 154 drillholes from a total of 240 were used in the subsequent modeling of the lithology, alteration and mineralization zones. As the re-logging of as many of the remaining 86 old drillholes (if core still exists) continues, the creation of updated models could change the current interpretations and mineral resource distributions.

14.2.3 Drill Hole Assay Data

All assays were received from Barksdale Resources in a variety of formats. Pre-Barksdale assays were collected from data originally organized by Constellation Copper Corp. The assays produced by Barksdale were acquired from a database that is maintained by the Company. The data format was standardized and validated using an assortment of independent data sources as received from the Company. Table 14.4 tabulates the drill hole data included in the San Javier database for copper.

Assay data for the Peñoles holes were in places composited over very long lengths and therefore assay support is in these cases not consistent with the other data. Individual assays for these holes were not available. As noted later, the Peñoles and Phelps Dodge drill data will not be used for the mineral resource estimate.

Table 14.4 Drill Hole Assay Data

		Assays						
Operator	Number	Number	Total	Minimum	Maximum	Maximum Values		
	Holes	Intervals	Length	Length	Length	Tcu	AsCu	CnCu
Barksdale	33*	1,551	4,623.50	1.00	6.00	3.31	2.03	2.24
CCC	178	9,493	28,393.51	0.64	6.50	9.18	6.32	3.20
Phelps	8	1,213	2,494.10	0.60	3.70	4.05	0.25	0.27
Peñoles	12	54	2,030.66	6.70	165.51	1.27	-	-
Total	231	12,311	37,541.77					

*Barksdale holes SJ21-01,02,03 were drilled for metallurgical samples and are not included in the database provided.

14.3 Topography

Topography contours were created by Barksdale in June 2021 by means of flight path recovery acquired through an airborne drone flight. The contours were extracted at 2m contour intervals. This contour data was used to fit and create the final 3D surface to cover the limits of the resource block model.

This topography surface was used to ‘adjust’ the collar elevations (Z values) as found in the original drill logs (Z_orig) to fit to the current topography so all the drill hole collar elevations (z) are registered exactly to the surface used for this study. This procedure found that a maximum difference between [orig_z] and [z] was 13.44m and the minimum difference was -7.3m. A wide range of elevation data discrepancies was seen from this analysis and hence justified this important step.

14.4 Geologic Modeling

3D solid models of lithology, mineral zones and alteration at the San Javier project was created directly from the drillhole intercepts and using an ‘implicit modeling’ software package known as Leapfrog® Geo.

The drillhole database consisting of collars, downhole surveys, lithology, mineral zones and alteration were loaded into Leapfrog. Independent data validation occurs during input to the system. Some issues were found with the original data and those were identified and corrected using available resources. The current topography was also loaded into the modeling system.

14.4.1 Lithological Model

Building the lithology (geology) model using Leapfrog Geo requires that contacts between units be initially created. The chronological order of these units needs to be defined at the outset to determine how these contacts (and what type of contacts) are made. This chronological order can be oldest to youngest or youngest to oldest, but consistency matters. The procedure also accurately clips the contacts to other objects as in this case, topography, where necessary.

The geologic chronology at San Javier was defined based on the interpreted grouping herein know as units. Table 14.5 shows the lithology units as related to the project. The drillholes with no lithologic data were ignored in the modeling processes. Cross section through the Leapfrog lithology model were compared to the geologists' hand drawn sections with good correlation.

Table 14.5 Modeled Lithology Units

Lithologic Unit	Interpreted Geology	Chronology
Unit1	Monomictic Andesite Breccia	1
Unit2	Laharic Ashy Blocky Polymictic Breccia	2
Unit3	Quartz Comglomerate	3

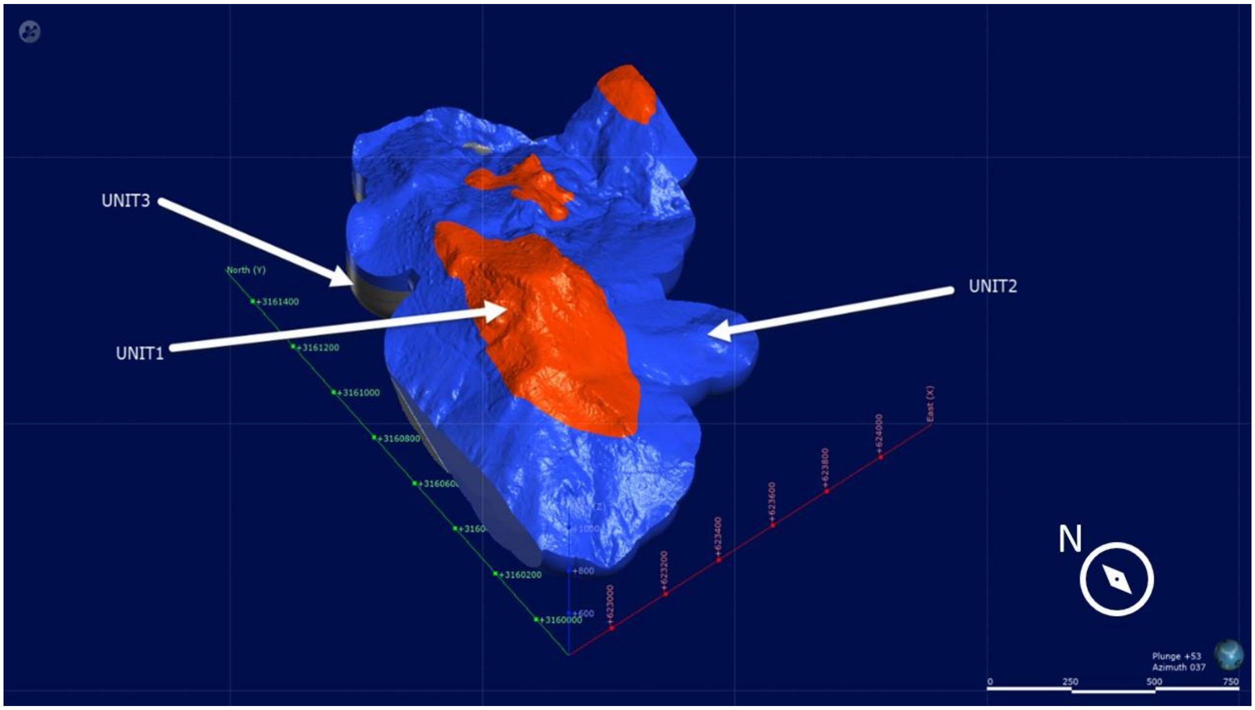


Figure 14.2 Lithologic Units in 3D View

14.4.2 Mineralization Model

The procedures used to create the mineral zone models follow the same concepts as for the lithological models described previously. An oblique 3D view of the resultant mineral zone model is shown in Figure 14.3 and are listed in Table 14.6. The colors in Table 14.6 correspond to the surface expression of the zones in Figure 14.2. Cross sections through the Leapfrog mineralization model were compared to the geologists' cross sections with good correlation.

Table 14.6 Mineralization Zones

Mineral Zone	Chronology
Leach	1
Oxidation	2
Mixed	3
Sulphide	4
none	5

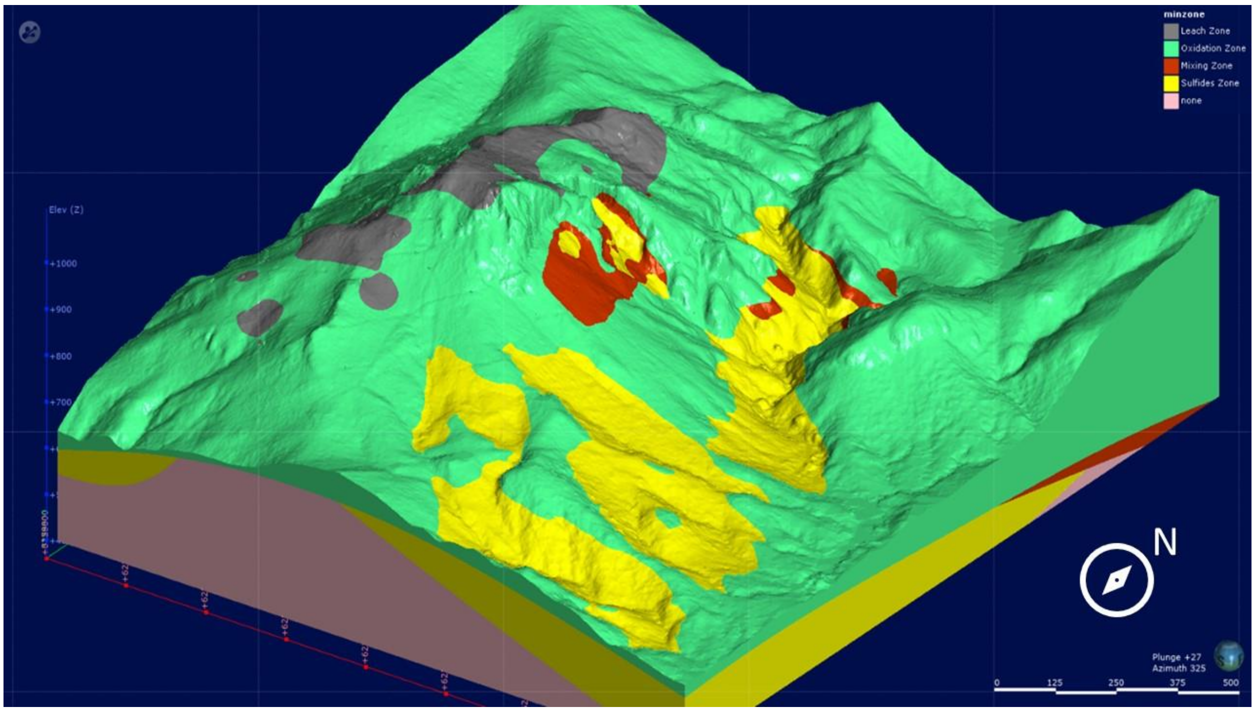


Figure 14.3 Mineralization Zones Surface Expression as a 3D View

14.4.3 Alteration Model

The procedures used to create the alteration zone models follow the same concepts as for the lithological and mineral zone models described previously. For the alteration model, the concept of paragenesis was used to order the chronology. Various logged observations were lumped together to fit into the interpreted paragenesis/chronology scheme. The logged alteration observations for the drill logs were compiled into more simplistic lumped units which are listed in Table 14.7. The colors of the units in Table 14.7 correspond to the units shown in Figure 14.4. No hand drawn cross sections of alteration were available for comparison.

Table 14.7 Alteration Units

Paragenesis/Chronology	Logged Alteration	Alteration Lumped
-1	Magnetite	None
-1	Calcite	None
2	Specularite	Specularite
2	Reddish Hematite	Specularite
2	Sericite	Specularite
3	Siderite/Ankerite	Carbonate
4	Silicification	Silicification
4	Quartz	Silicification
5	Yellow Clay	Clays
5	White-Greenish Clays	Clays
5	Chlorite	Clays
5	Barite	Clays

Alteration Lumped	Unit Number
None	-1
Specularite	2
Carbonate	3
Silicification	4
Clays	5

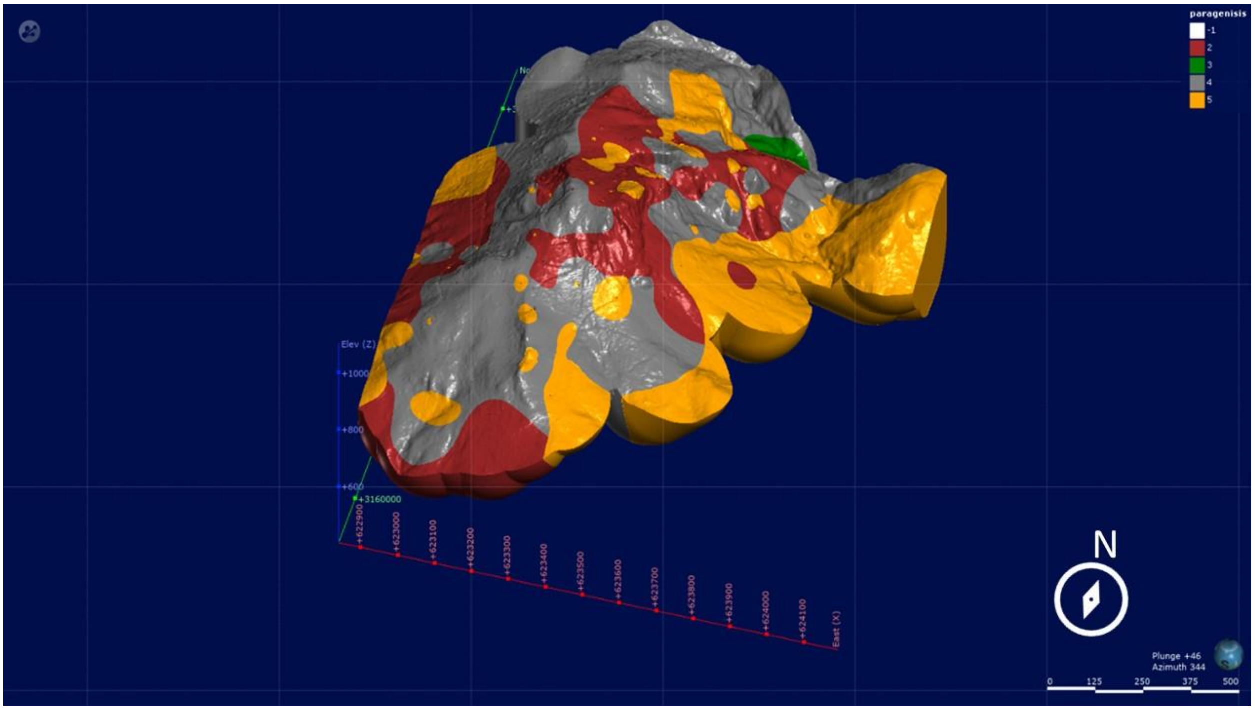


Figure 14.4 Surface Expression of Alteration Units

14.5 Block Model Mineralization Zones

The most important geologic control, particularly for copper mineralization, are the oxidation zones. Table 14.8 shows the zone names, codes used in the block model, and a description of the zones assigned to the block model. The leach cap (LC) is a highly oxidized domain where the copper mineralization has largely been dissolved in acids over time and transported to the underlying supergene zones. The supergene domain has been divided into oxide dominant oxide (OX) and mixed (Mix) and sulphide dominant supergene sulfide (Sulf). Copper from the LC has been deposited in those zones, elevating the copper grade in the OX and Mix domains, compared to the other domains. The sulphide (Sulf) zone underlies the LC, OX, and Mix zones. Mineralization here is sulphide in nature and the percent of oxidation is very low, typically less than 10%.

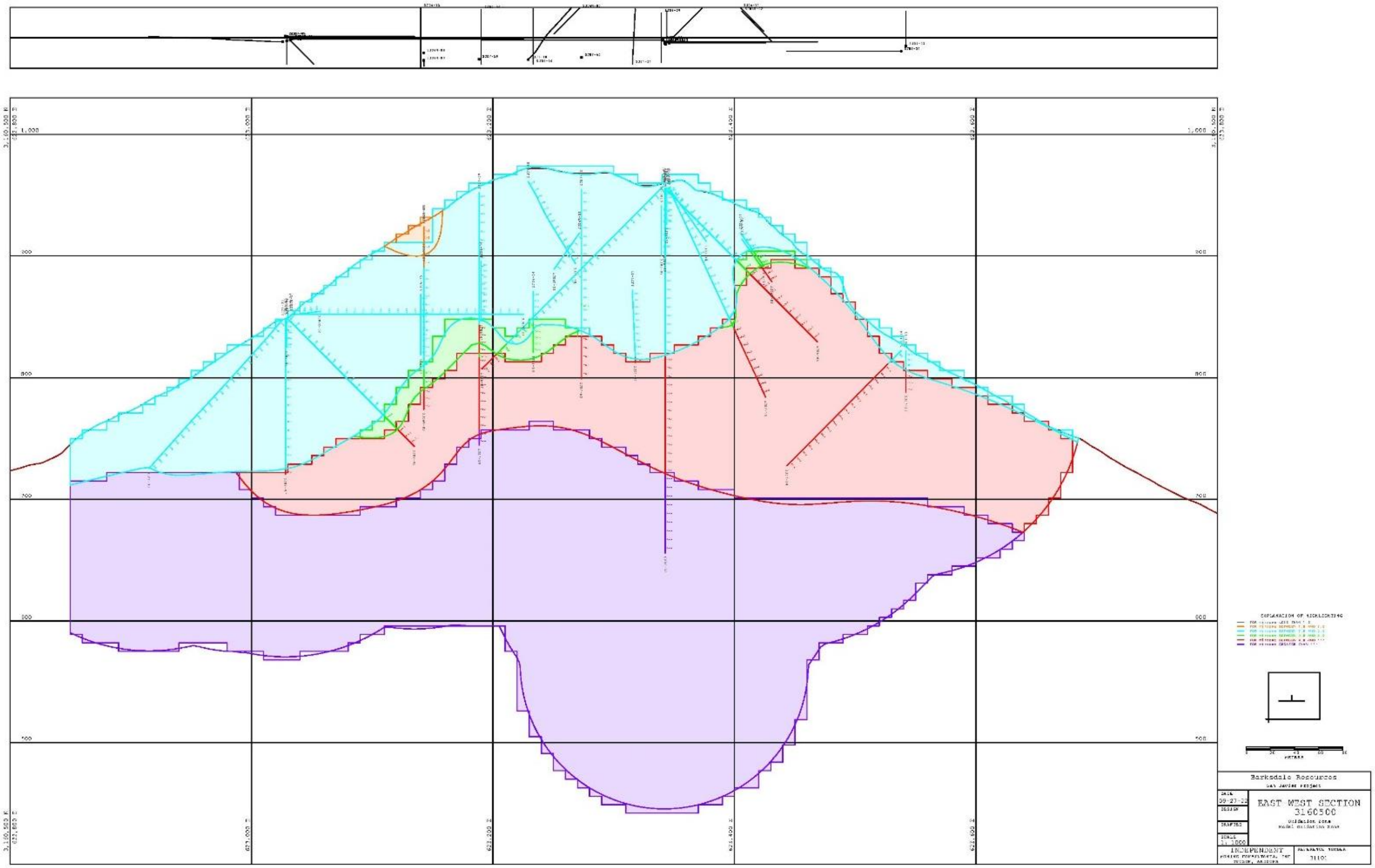
Barksdale personnel provided IMC with Leapfrog solids (as presented in Section 14.4 to represent the LC, OX, Mix, and Sulf domains. IMC used these solids to assign oxidation zone types to model blocks. A surface (code 10) was provided to denote the bottom of modeled mineralization (Undefined below). The solids of the oxidization zones were assigned to the block model on a whole block basis. The lithology solids were also assigned to the block model but have not been used for controls to the copper grade estimates in the block model.

Table 14.8 Mineralization (Oxidization) Zones in Block Model

Zone	Code	Description
LC	1	Leach Cap
Oxide	2	Supergene Oxide
Mixed	3	Mixed
Sulfide	4	Sulphide
WST	10	Undefined - Below Solids

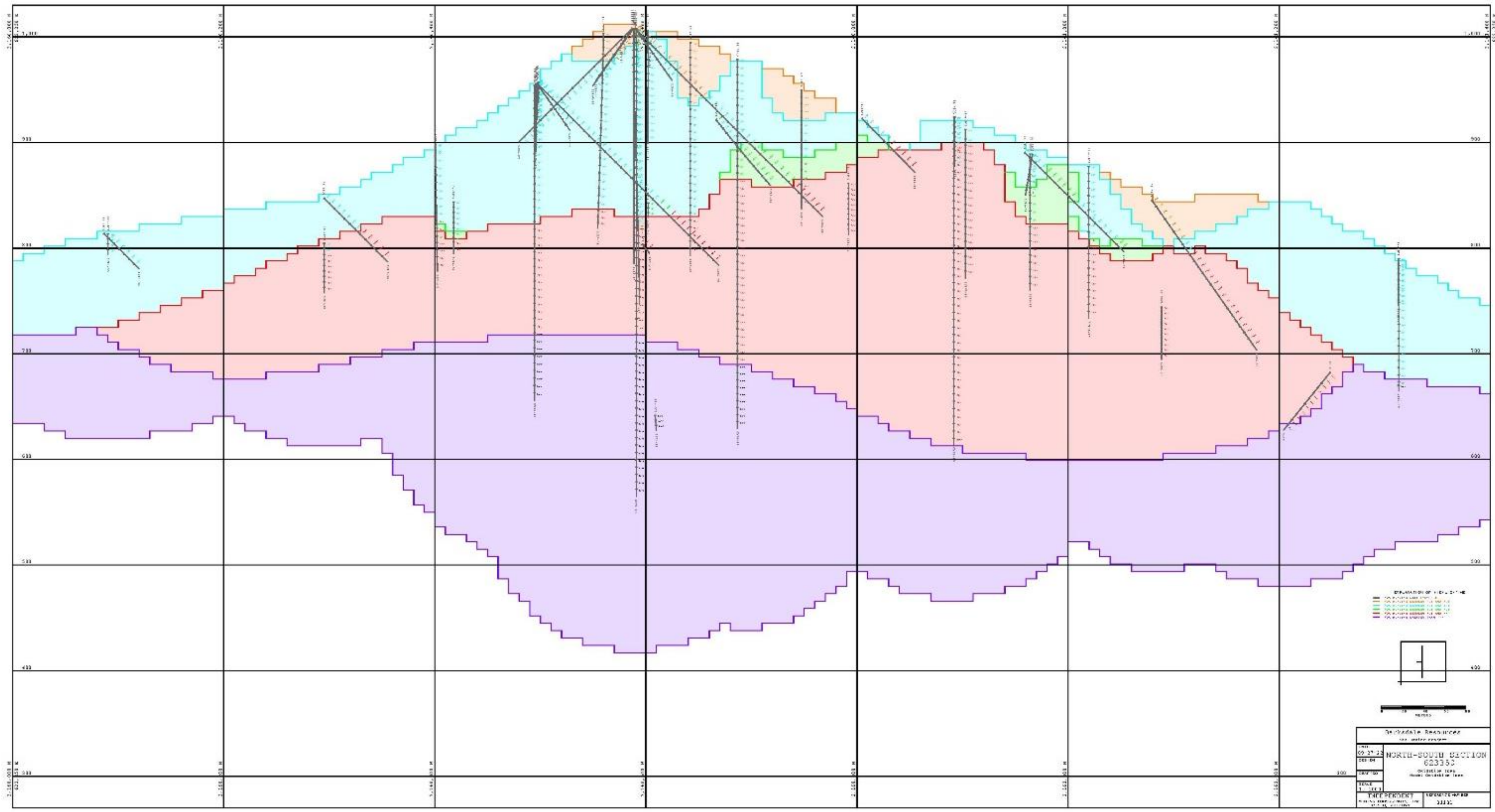
The solids were used to back-assign the oxide domain codes to the assay database. It is noted that the assay database did include an oxide domain assignment from logging, but the back-assigned values from the model were used so assay intervals would be consistent with the model domains. A comparison of the logged domains and the block model domains showed a good correlation. Based on the model domains between 92 to 98 percent of the logged domain for the assay intervals being contained within the corresponding model domain.

Figure 14.5 and Figure 14.6 show the oxide zones assigned to the block model on east-west and north-south cross sections, respectively. The outlines of the solids are shown with respect to the block model assignments to the nearest whole block.



Colors: Leach Cap – orange, Oxide – blue, Mixed – green, Sulfide – red, Undefined – purple

Figure 14.5 East-West Cross Section (at 3,160,500N) Showing Block Model Oxidization Zones



Colors: Leach Cap – orange, Oxide – blue, Mixed – green, Sulfide – red, Undefined – purple

Figure 14.6 North-South Cross Section (at 623,350E) Showing Block Model Oxidization Zones

14.6 Assays, Grade Caps and Composites

The drill hole data base was reviewed with Barksdale personnel to determine if the drill data from all sources would be used for the grade estimation work. It was decided that the older Peñoles and Phelps Dodge drill data would not be used as no core remains and there is an incomplete set of certificates of assay. Also, noted in Section 14.2, there are no down hole surveys for these holes. Thus, only the Barksdale and Constellation drill data is used for the grade estimation work and all tables and references to the drill data in this section and subsequent sections will only present data from these two data sets.

The assay database was reviewed to determine if cap grades for the total copper are required. The distribution of the length of sample intervals, when copper is assayed, is approximately as follows:

- About 2.4% are less than 3 m in length,
- About 94% are 3 m or 3.05 m (10 US ft),
- About 3.3 % are longer than 3.05 m.

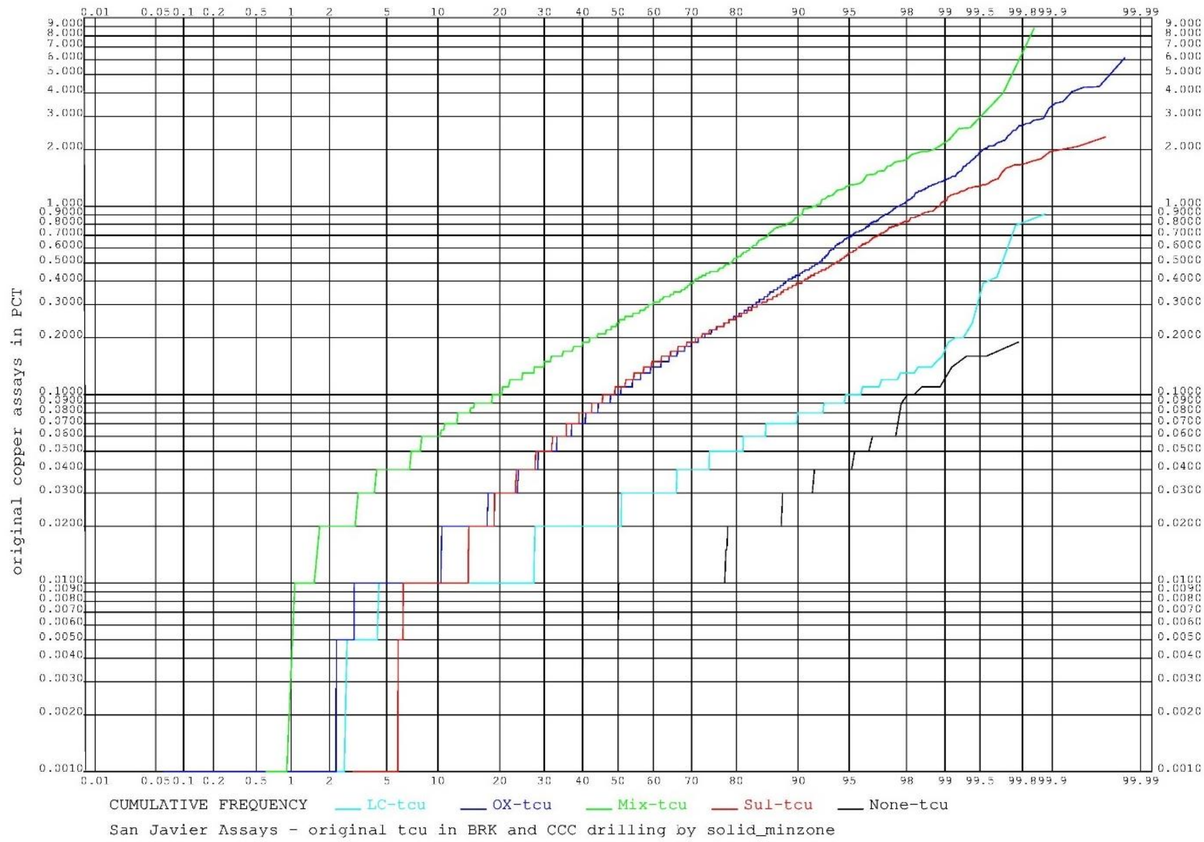
Probability plots and sorted lists of the higher-grade assay intervals for total copper by oxidation zones were reviewed to determine cap grades. Figure 14.7 is a probability plot of the total copper assays by oxidation zones. Table 14.9 shows the cap grades in the upper portion of the table and number of assays capped in the lower portion of the table. Only a small number of assays were capped for each metal in each population. The cap grades generally correspond to the upper 99.8 to 99.9 percentile of the populations. Table 14.10 shows the number of assay intervals in each mineralization zone (based on the zone solids) and the statistics of the uncapped and capped assays.

Table 14.9 Cap Grades for Total Copper

Assay	Units	Leach Cap	Oxide	Mixed	Sulfide
		Cap Grades			
Copper	%	None	2.5	2.5	1.5
		Number of Assays Capped			
Copper	%	0	17	6	13

Table 14.10 Total Copper Assay Data by Mineralization Zone

		Uncapped Assays, Tcu %			Capped Assays, Tcu %		
Mineralization	Number	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Leach Cap	845	0.037	0.001	0.910	0.037	0.001	0.910
Oxide	6,149	0.188	0.001	6.750	0.186	0.001	2.500
Mixed	601	0.418	0.001	9.180	0.393	0.001	2.500
Sulfide	3,245	0.182	0.001	2.520	0.180	0.001	1.500



Colors by mineralization zone
Leach Cap – light blue, Oxide – dark blue, Mixed – green, Sulphide – red, Outside - black

Figure 14.7 Probability Plot for Total Copper Assay Intervals (uncapped)

14.6.1 Acid Soluble Copper and Cyanide Soluble Copper Ratios

In the San Javier assay data base, there are unequal numbers of acid soluble copper and cyanide soluble copper values as compared with total copper assays. Constellation assays have been performed for total copper (TCu) and 32 element analysis by ICP. Constellation assay intervals with total copper grades above 0.10 % have been followed by sequential analysis for acid soluble and cyanide soluble copper to provide information on the spatial distribution of acid solubility for an SX-EW process.

Barksdale completed a sequential copper analysis for all samples using Skyline assay labs. The procedure used by Skyline was the TE-3 Trace Elements by Aqua Regia leach, ICP-OES/ICP-MS (49 elements). Total Copper procedures are SEQ-Cu (Total Copper – AAS). The procedures for sequential copper assays by Skyline are SEA-CuSeq (Sequential Leach Copper – AAS).

Table 14.11 shows the number of assay intervals and uncapped copper grades by the mineralization (oxidization) zones. This table illustrates the lack of coverage of the acid soluble and cyanide soluble assays and the need to estimate ratios of acid soluble to total copper and cyanide soluble to total copper. If the raw assays for acid soluble and cyanide soluble were used for block grade estimation, there can be occurrences where these grades would be higher than total copper in a block due to the no assay values for acid soluble and cyanide soluble in drill hole intervals when total copper is less than 0.10% (Constellation drilling). Table 14.11 illustrates this situation as the mean grade of the acid soluble copper is higher than the mean of total copper in the leach cap and oxide zones. The percent of acid soluble and cyanide soluble assays compared to total copper assays is lowest (13%) in the leach cap due to its lower mean grade and Constellation's approach of not doing the soluble assays for total copper less than 0.10%. The other zones have higher percentages of soluble assays: oxide 58%, mixed 85% and sulfide 61%.

Table 14.11 Assay Intervals by Mineralization Zone

Mineralization Zone	Total Copper (uncapped)		Acid Soluble Copper		Cyanide Soluble Copper	
	# of Assays	Mean, %	# of Assays	Mean, %	# of Assays	Mean, %
Leach Cap	845	0.037	110	0.047	110	0.007
Oxide	6,149	0.188	3,545	0.190	3,549	0.130
Mixed	601	0.418	511	0.176	512	0.156
Sulfide	3,245	0.182	1,967	0.032	1,971	0.043

In the assay data base, variables were added to calculate the acid soluble to total copper ratio and cyanide soluble to total copper ratio. These ratios were used during the compositing of the assay database to create the drill hole composite file. The compositing methodology will be discussed in the next section. Table 14.12 is an excerpt from drill hole SJ06-15 in the oxide zone where there is missing soluble copper assays when the total copper is less than 0.10%.

Table 14.12 Drill Hole SJ06-15 – Assay Intervals 69 - 100

From	To	TCu, %	AsCu, %	CnCu, %	AsCu/TCu	CnCu/TCu
69	72	0.38	0.37	0.001	0.974	0.003
72	75	0.59	0.58	0.001	0.983	0.002
75	78	0.07	-	-	-	-
78	81	0.09	-	-	-	-
81	84	0.07	-	-	-	-
84	87	0.25	0.24	0.001	0.960	0.004
87	91	0.16	0.15	0.001	0.938	0.006
91	94	0.94	0.20	0.200	0.213	0.213
94	97	1.59	1.50	0.020	0.943	0.013
97	100	2.09	2.08	0.001	0.995	0.000

14.6.2 Drill Hole Composites

The assay database was composited to nominal 7 meter (m) irregular composites, respecting the oxidation zones. It is noted this is the 7 m bench height used for the model which would be a reasonable match to mining equipment sizes anticipated for the next step in the project development. This composite length allows the capturing some of the narrower zones and tends to result in less grade smoothing during block grade estimation. Composited values included the total copper (TCu), ratio of acid soluble copper weighted by TCu, ratio of cyanide soluble copper weighted by TCu, and the oxidation zone codes matched to the oxidation zones in the block model.

The ratios of acid soluble copper to total copper and cyanide soluble copper to total copper were composited when both TCu and the soluble assays were present. For the compositing, ratios in the assay intervals were weighted by total copper grade, as well as the interval length. Table 14.13 is an example of the calculation of the ratio for a group of equal length assays with a missing AsCu assay.

Table 14.13 Example Calculation of AsCu/TCu Ratio During Compositing

				Both Assays Available	
Assay	TCu, %	AsCu, %	Ratio	TCu, %	AsCu, %
1	1.00	0.50	0.500	1.00	0.50
2	0.50	0.20	0.400	0.50	0.20
3	0.25	0.10	0.400	0.25	0.10
4	0.10	-			
Average	0.463	0.267	0.433	0.583	0.267
Equal length intervals					
Assay Interval 4 is not used in the ratio calculation.					Ratio
Correct ratio = 0.267/0.583 (AsCu/TCu, when both present)					0.457
Arithmetic average ratio is too low					0.433
Average AsCu/average of TCu is too high (0.267/0.463)					0.577

The composites respect the oxidation zone boundaries, and the assay intervals are composited into nominal 7 m lengths. Composites within a zone are divided into equal length composites as close as possible to the 7 m target length. For example, a 28 m length in a single zone is composited into four 7 m composites. If the zone was 31 m of length, then the average length of the four composites would be 7.75m. With this algorithm 98% of the composites are between 6 and 8 meters in length. IMC does not consider the slight difference in the lengths of the composite's material for grade estimation purposes.

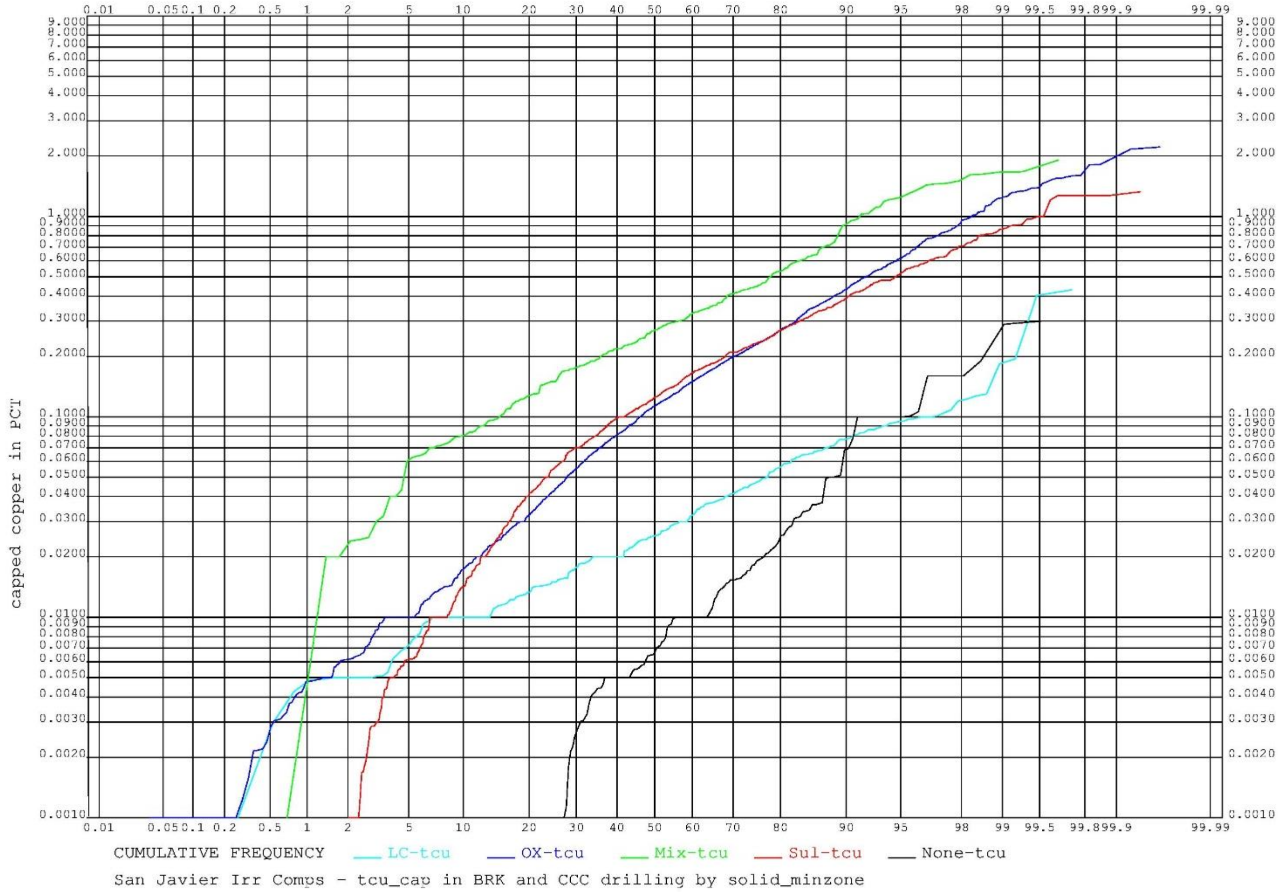
Table 14-14 shows the number of composite intervals in the database used for the block model grade estimation Figure 14-8 is probability plot of total copper composites by mineralization domain. Table 14-15 shows the composite intervals for the assay interval shown in Table 14-13 with the soluble copper ratios calculated for the composite intervals incorporating assay intervals with missing assays. The soluble copper ratios will be estimated into the block model.

Table 14-14 Drill Hole Composites by Mineralization Domain

		Composite Grades, TCu %		
Mineralization	Number	Mean	Minimum	Maximum
Leach Cap	375	0.037	0.001	0.569
Oxide	2,654	0.185	0.001	2.267
Mixed	270	0.396	0.001	2.070
Sulfide	1,388	0.181	0.001	1.330

Table 14.15 Drill Hole SJ06-15 Composite Intervals 70 - 98

From	To	TCu, %	Ratios	
			AsCu/TCu	CnCu/TCu
70	77	0.381	0.980	0.002
77	84	0.079	-	-
84	91	0.199	0.947	0.006
91	98	1.384	0.742	0.068



Colors by mineralization zone

: Leach Cap – light blue, Oxide – dark blue, Mixed – green, Sulphide – red, Outside - black

Figure 14.8 Probability Plot of Total Copper Composite Grades

14.7 Variography

A variogram analyses of total copper by oxidation type domains was completed. The analysis was based on the 7 m irregular composites. The oxide, mixed and sulphide domains are relatively flat lying and the distribution of copper mineralization appears to not vary much by orientation. Figure 14.9 and Figure 14.10 show variograms for oxide and mixed respectively. These variograms are calculated as the average of all horizontal directions which is consistent with the relatively flat lying mineralization in these domains. The ranges of the first variogram structures are 170 m for oxide and 263 m for mixed zone.

For the sulphide, variograms were run in many directions. The various directional variograms tended to be similar, indicating a somewhat isotropic distribution of copper mineralization. Figure 14.11 shows the variogram for sulphide copper calculated as the average in all directions. The variogram shows the range of the first structure is 163 m and the second structure range of 397m. The variograms were calculated with the pairwise relative variogram method. The variogram values shown on the graphs would be multiplied by the mean squared to convert them to % total copper units.

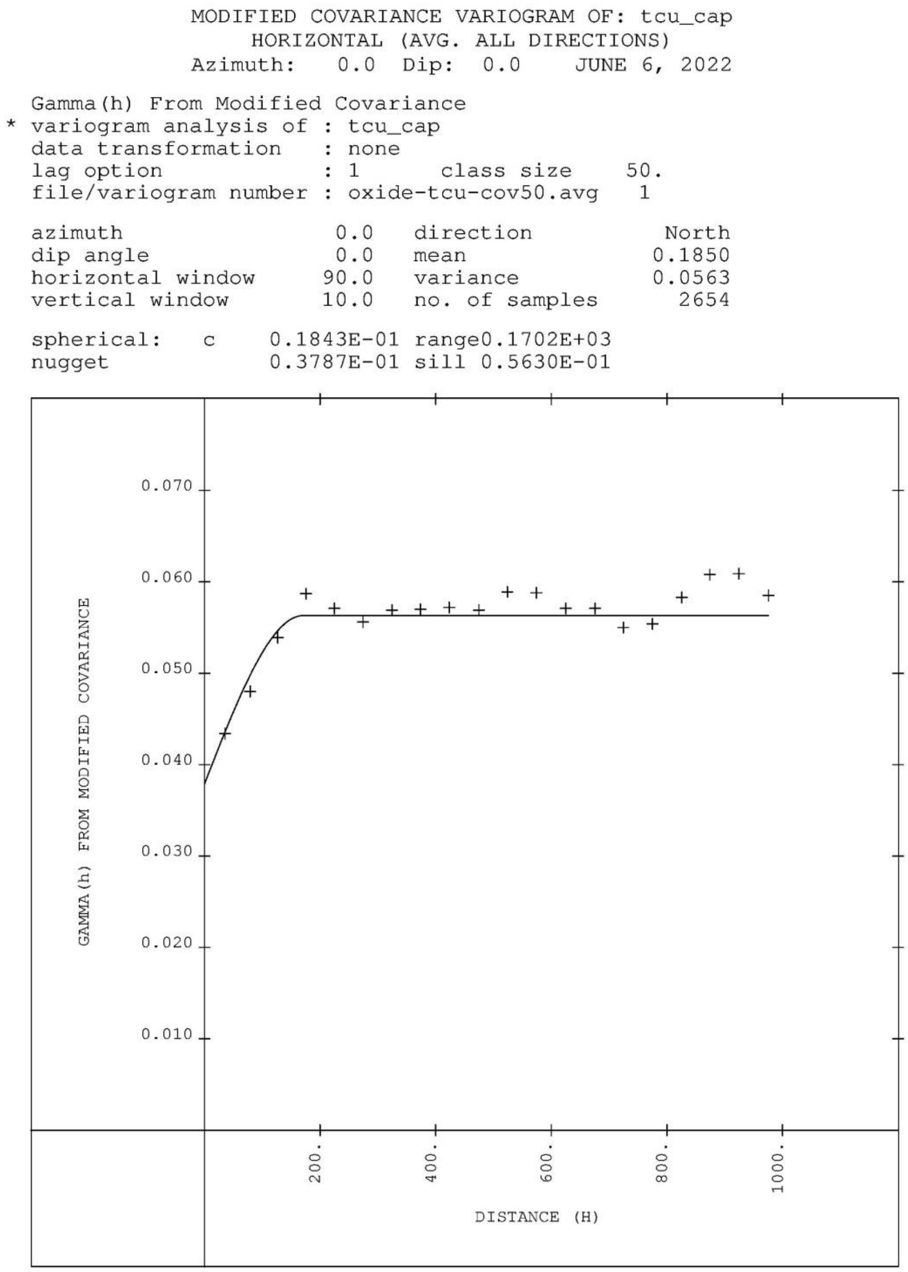


Figure 14.9 Oxide Domain Variogram

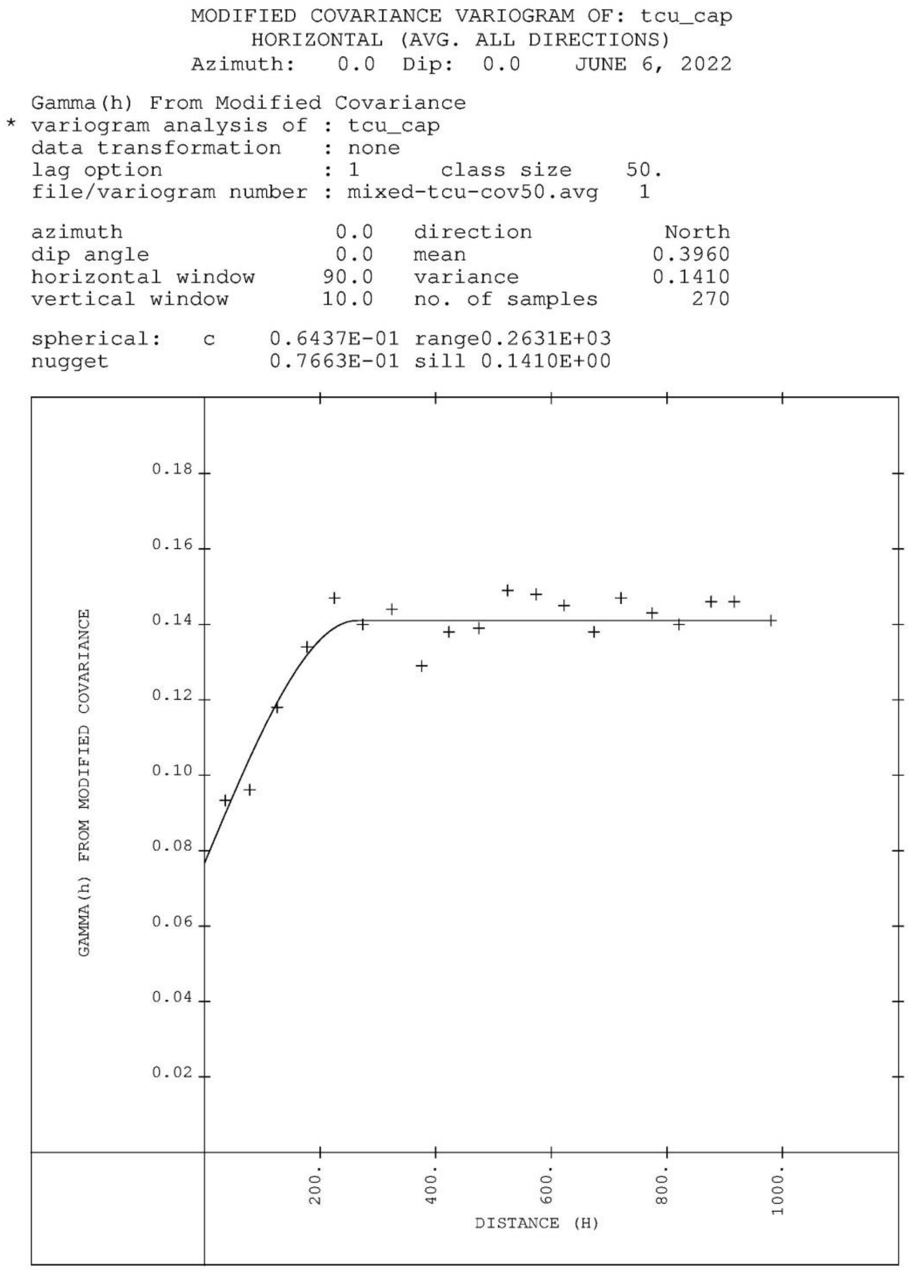


Figure 14.10 Mixed Domain Variogram

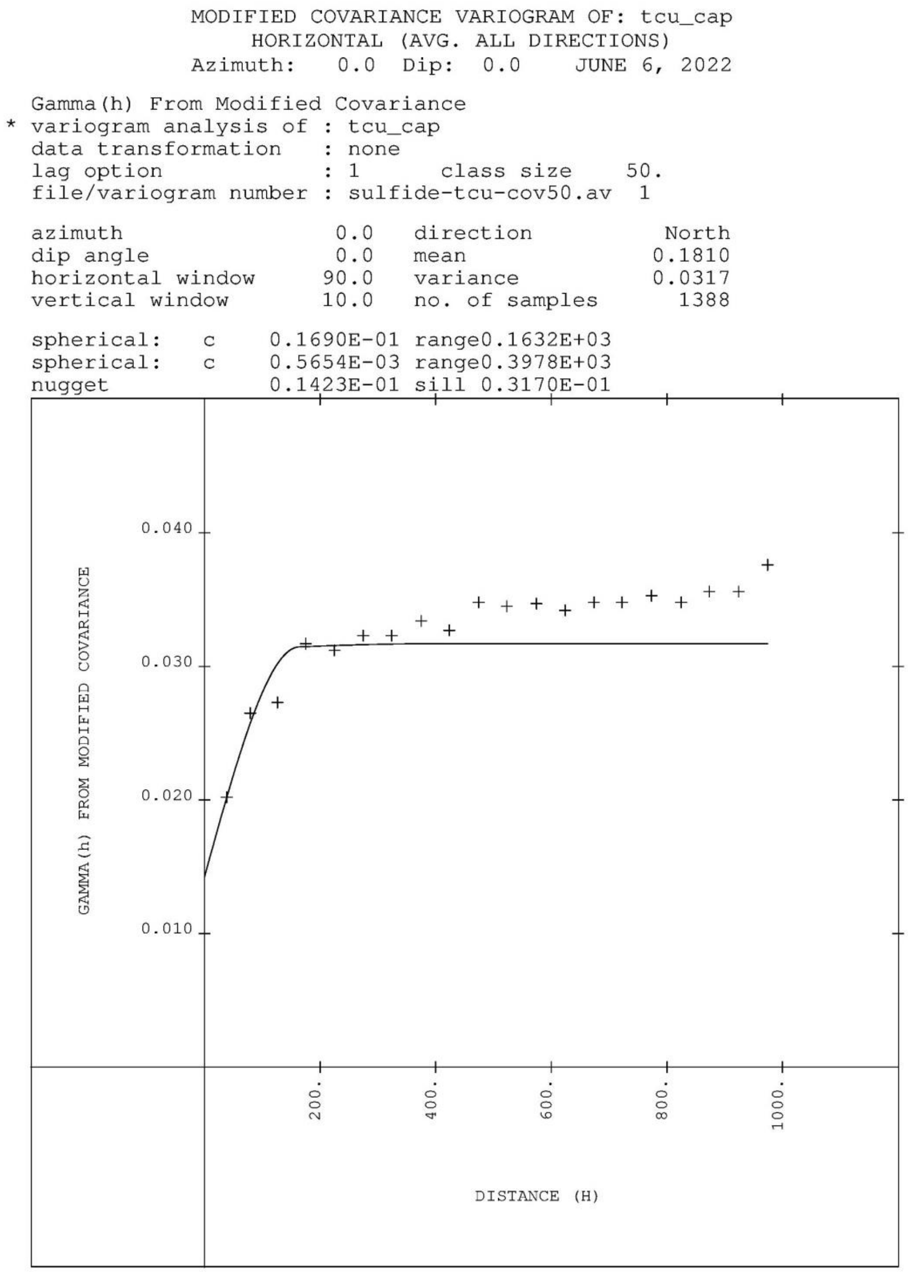


Figure 14.11 Sulphide Domain Variogram

14.8 Block Grade Estimation

Block grades for total copper, acid soluble copper ratio and cyanide soluble copper ratio were estimated with inverse distance with a power weight of 2 (ID2). The ID2 method was chosen because it generally results in less grade smoothing (smearing). IMC also completed a nearest neighbour (NN) estimate for comparison purposes.

The leach cap and sulphide oxidation type boundaries were all considered hard boundaries for the estimation of total copper acid soluble copper ratio and cyanide soluble copper ratio. The boundary between the oxide and mixed zones was treated as a soft bound.

The acid soluble copper and cyanide soluble copper block grades were estimated indirectly from the soluble copper ratios. The sum of the two ratios were normalized to not exceed 100% and then multiplied by the total copper block grade estimates to obtain the final acid soluble copper and cyanide soluble copper block grades.

For leach cap, oxide, and mixed zones the search radii for the estimations were 150 m (circular) in the horizontal direction and 30 m in the vertical direction. These search radii are well within the variogram ranges and are adequate to fill in the block grades. A maximum of 12 composites, a minimum of one composite, and a maximum of three composites per hole were used.

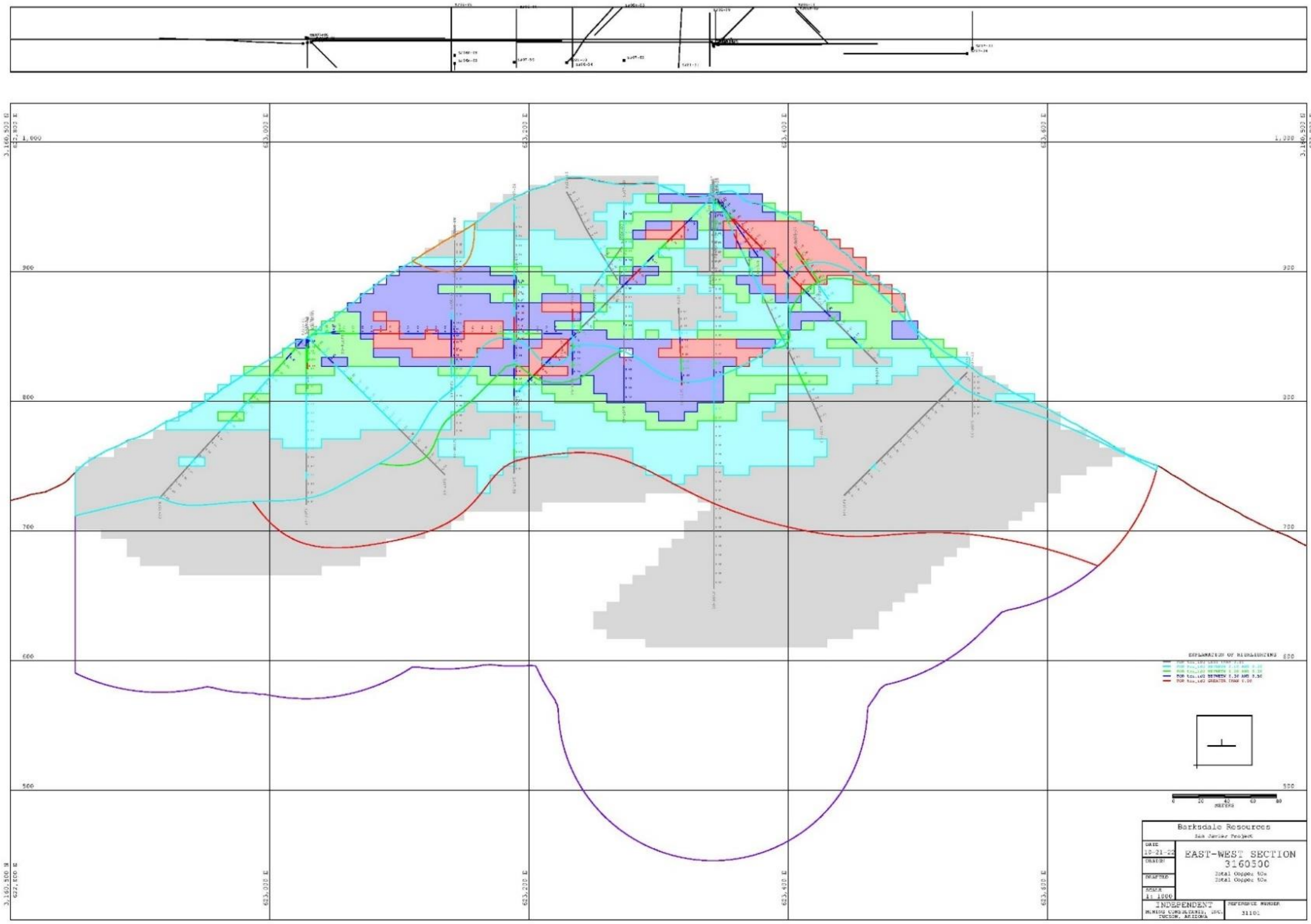
For sulphide the search radii were 150 m in the east-west direction, 150 m in the north-south direction, and 50 m in the vertical direction. A maximum of 12 composites, a minimum of one composite, and a maximum of three composites per hole were used.

Figures 14.12 and 14.13 show TCu grades on an east-west and north-south cross section respectively. Figures 14.14 through 14.17 show the distribution of TCu grades on benches 890, 876, 855 and 841.

Table 14.16 shows the distribution of the block model grades compared to the capped assay database and the drill hole composite database. At a zero-cutoff grade, the TCu grades are similar, but at higher cutoff grades, the block model grades are lower than the assays and composites due to the combining of drill holes (including those below the cutoff grade) into larger representative volumes in the blocks. As the cutoff is raised, the percent above cutoff becomes higher for the model blocks than for the assays or composites. The results of multiplying the percent above cutoff times the average grade shows a close comparison between the assays, composites and model blocks. The comparison is within the mineral resource pit shell for the oxide and mixed mineralization zones.

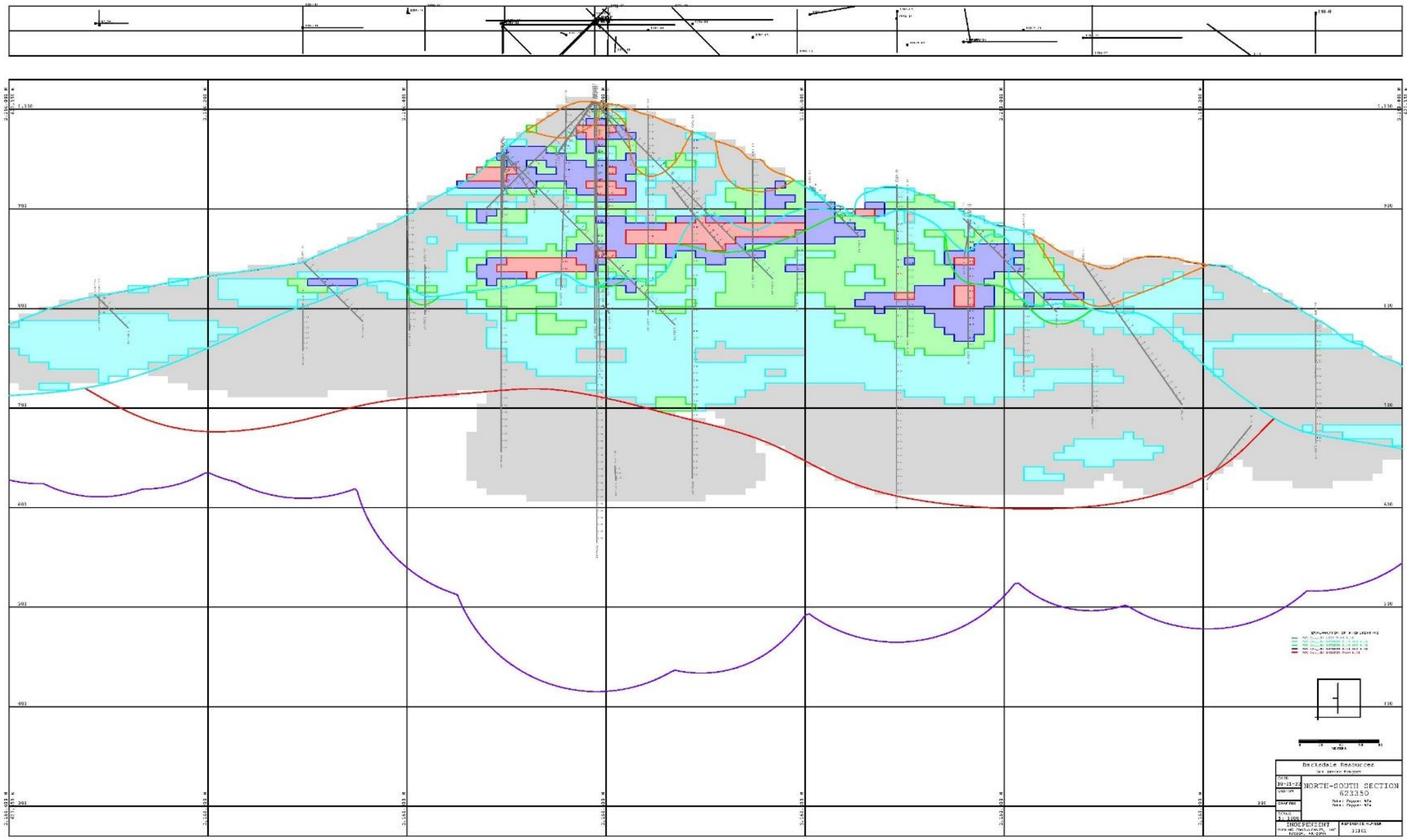
Table 14.16 Comparison of Assay Intervals, Composites and Block Model Grades

	Assays, number = 4,385			Composites, number = 1,859			Block Model			
Cutoff Grade	Percent above cutoff grade	Average TCu, %	Percent above x Average TCu	Percent above cutoff grade	Average TCu, %	Percent above x Average TCu	ktonnes	Percent above cutoff grade	Average TCu, %	Percent above x Average TCu
Oxide Zone										
0.001	99.25%	0.239	0.237	100.00%	0.236	0.236	69,623	100.00%	0.228	0.228
0.10	59.04%	0.368	0.217	64.28%	0.341	0.219	56,291	80.85%	0.267	0.216
0.20	35.55%	0.512	0.182	40.18%	0.457	0.183	33,487	48.10%	0.345	0.166
0.30	22.58%	0.663	0.150	24.15%	0.598	0.144	16,445	23.62%	0.452	0.107
Mixed Zone										
0.001	100.00%	0.442	0.442	100.00%	0.453	0.453	7,356	100.00%	0.398	0.398
0.10	85.71%	0.504	0.432	93.78%	0.479	0.449	7,248	98.53%	0.402	0.396
0.20	63.74%	0.624	0.397	72.02%	0.576	0.415	6,664	90.59%	0.424	0.384
0.30	47.69%	0.748	0.357	51.81%	0.702	0.364	4,786	65.06%	0.491	0.319



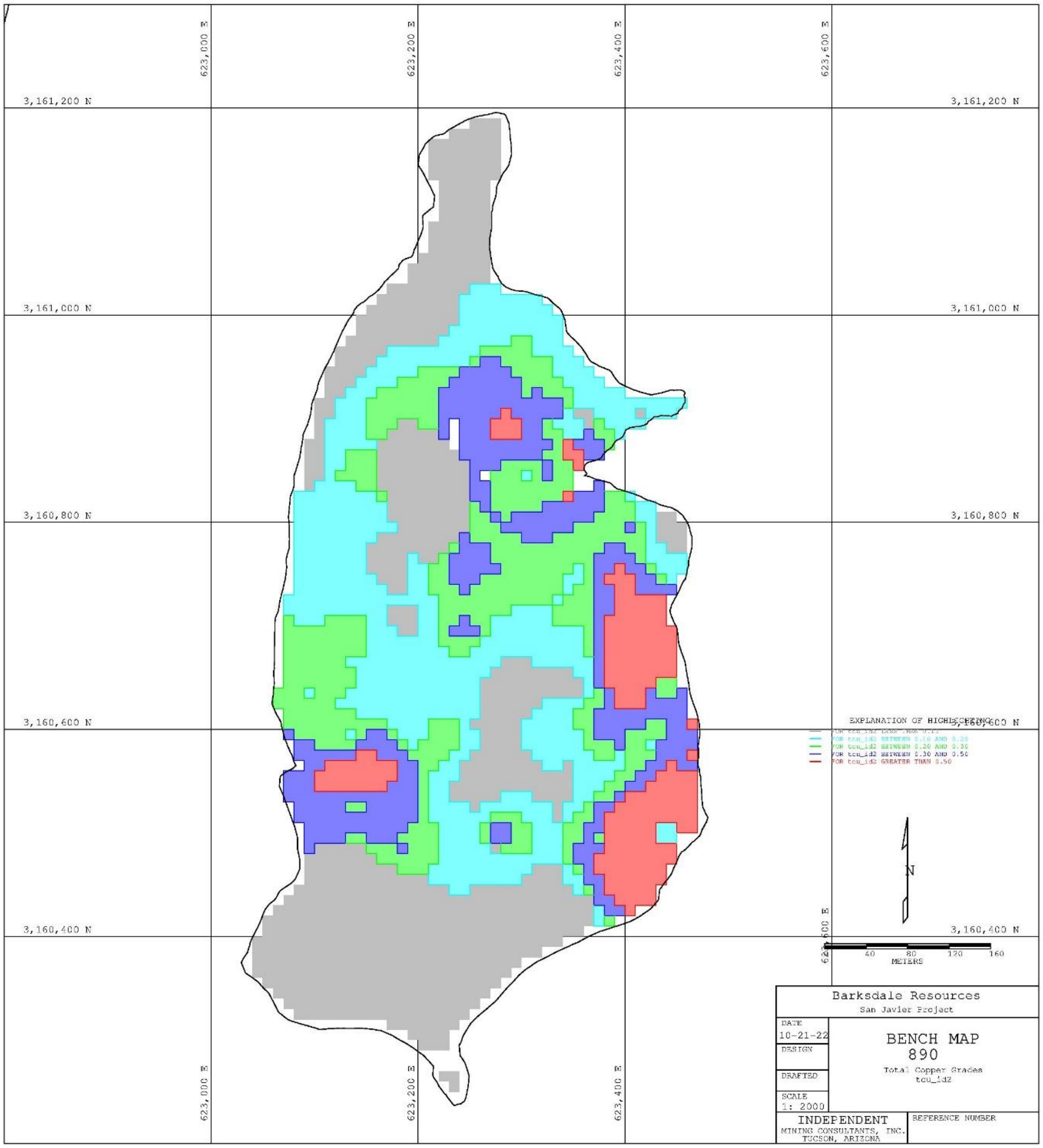
Colors: gray < 0.10, light blue 0.10-0.20, green 0.20-0.30, dark blue 0.30-0,50, red >= 0.50 Tcu

Figure 14.12 East-West Section 3,160,500N Showing Total Copper Grades



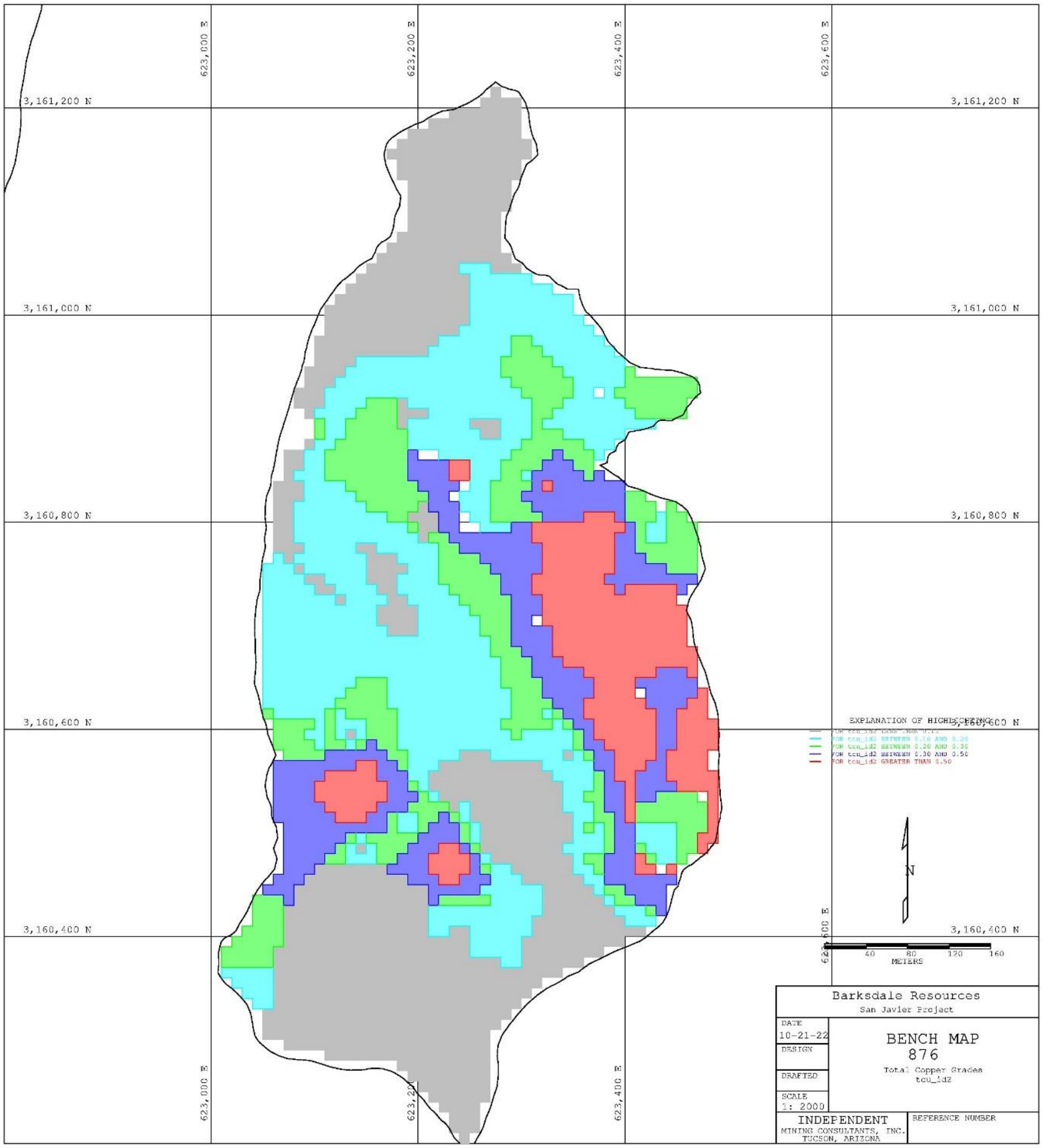
Colors: grey < 0.10, light blue 0.10-0.20, green 0.20-0.30, dark blue 0.30-0,50, red >= 0.50 TCu

Figure 14.13 North-South Section 623,300E Showing Total Copper Grades



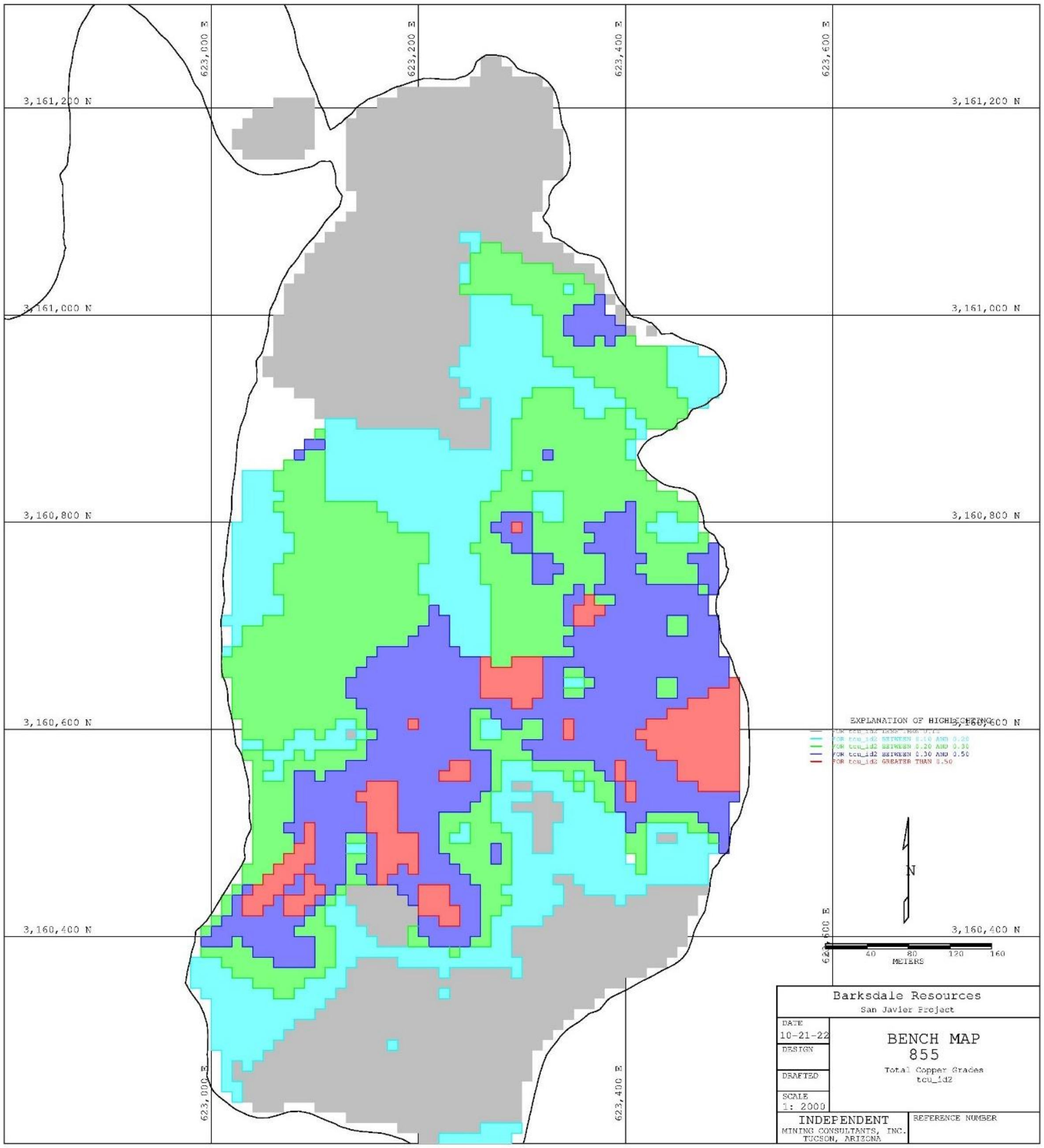
Colors: grey < 0.10, light blue 0.10-0.20, green 0. 20-0.30, dark blue 0.30-0,50, red >= 0.50 TCu

Figure 14.14 Bench Map at 890 Elevation Showing TCu Grades



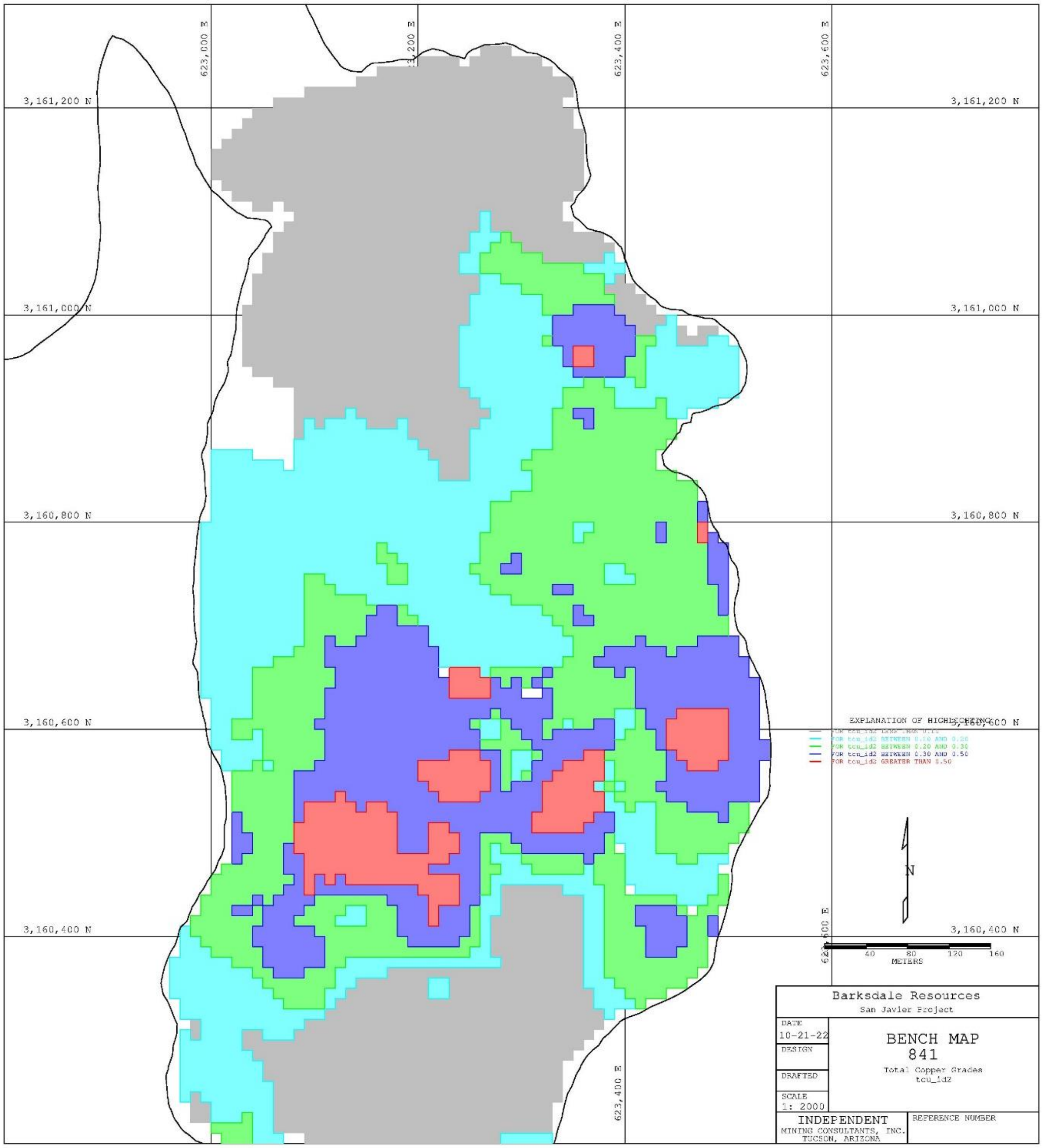
Colors: grey < 0.10, light blue 0.10-0.20, green 0. 20-0.30, dark blue 0.30-0,50, red >= 0.50 TCu

Figure 14.15 Bench Map at 876 Elevation Showing TCu Grades



Colors: grey < 0.10, light blue 0.10-0.20, green 0. 20-0.30, dark blue 0.30-0,50, red >= 0.50 TCu

Figure 14.16 Bench Map at 855 Elevation Showing TCu Grades



Colors: grey < 0.10, light blue 0.10-0.20, green 0. 20-0.30, dark blue 0.30-0,50, red >= 0.50 TCu

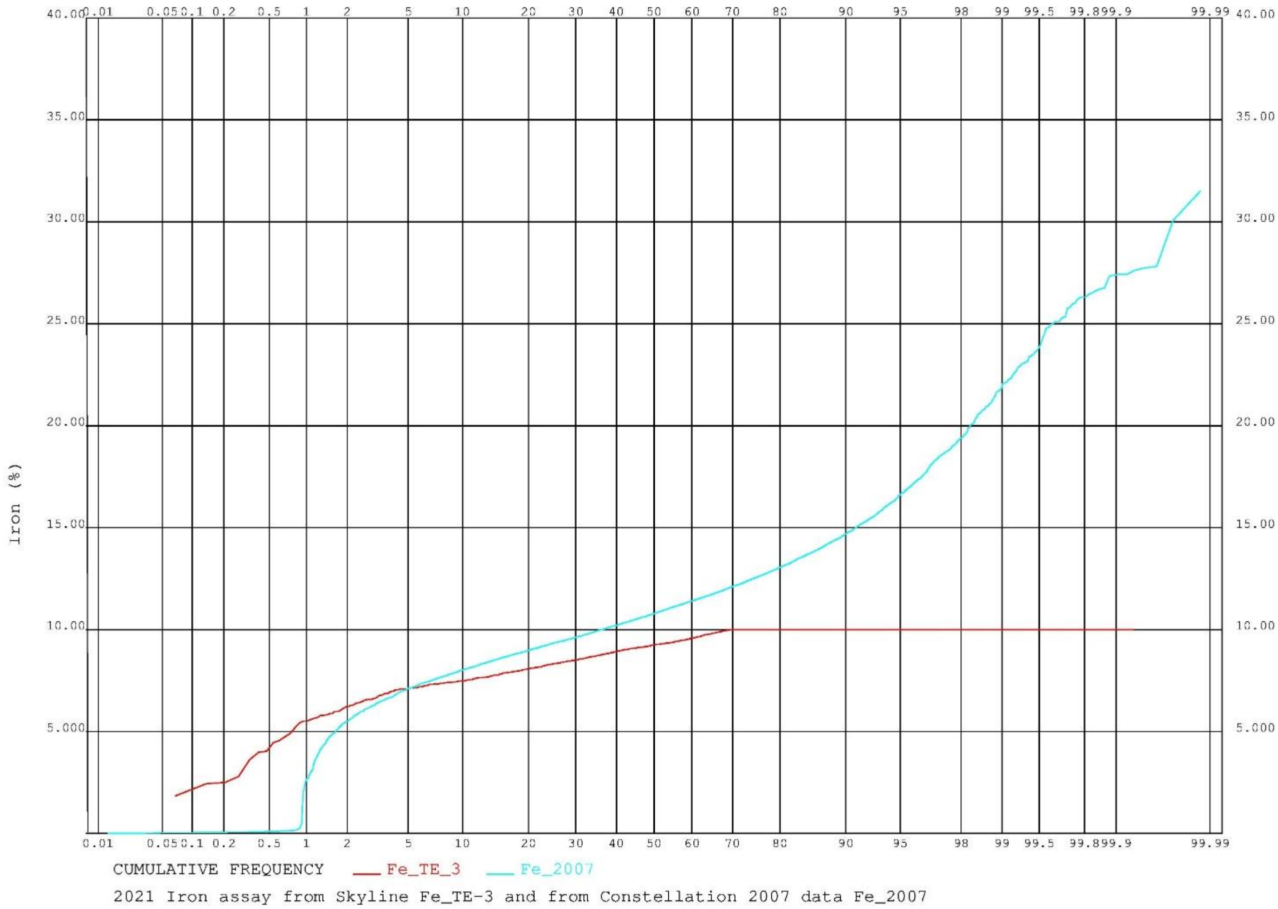
Figure 14.17 Bench Map at 841 Elevation Showing TCu Grades

14.9 Density Assignment

There are 100 specific gravity measurements on core samples were included with the 2007 Constellation assay database. To date, no specific gravity measurements by Barksdale have been done. The estimation of density therefore is the same as IMC used for the 2007 technical report which bases the specific gravity as related to the iron assays. The approach to assigning density and subsequently the tonnage per resource model block is as follows.

IMC constructed an assay data base that included the 2006/2007 Constellation iron assays. This historic iron data was extracted from the 2007 assay data base that was use by IMC during their 2007 review of the project (variable, Fe_2007). (IMC San Javier Technical Report 20 December 2007.pdf). The iron assay data by Barksdale was extracted from the Skyline assay certificates sent to IMC as Excel files. This data was merged with the assay data base into the variable (Fe_TE_3). These iron assays done at Skyline had an upper detection limit of 10.0 % Fe. While the historic iron assays exceeded 30.0 % in some cases.

A combined 2007 and 2021 iron assay variable was constructed (IMC_Fe). The historic values from CCC were added to the data base (7,741 intervals), then the 2021 BRK values added (1,473 iron assays). Since the historic iron data had almost 60% of the grades above 10.0 %, IMC choose to set the upper detection limit for the combined 2021 data to 13.0 %, (447 assays). This grade was selected as it was approximately the mean of the historic data. Figure14.18 shows the probability plots of the Iron assay grades in the CCC 2006/ 2007 data and the BRK 2021 data.



Constellation Fe assays – blue; Barksdale Fe assays - red

Figure 14.18 San Javier Iron Assay Data

For San Javier, iron grades were estimated for each block since there is a strong correlation between iron and specific gravity due to the abundance of specularite in the deposit. The ID2 estimation was done using a circular search of 150m in plan and a 30m vertical search. The mineralized zone was respected in the same manner as for copper. This estimate used the composited iron values from both the Constellation and Barksdale drilling.

Constellation assembled a database of 100 specific gravity samples with three different Specific gravity determinations for each sample:

1. An in-house measurement done by Constellation personnel based on the weight in water and weight in air of a core sample. The sample was not coated in wax.

2. A measurement done by SEI-Tetra, also based on the weight in water and weight in air of a core sample, but with a wax coated sample. The weight of the wax as a tare was accounted for.

3. A measurement by IPL based on the Le Chatelier method. The Le Chatelier SG approach is done on pulps and consequently represents a maximum value without consideration of natural void space in the rock.

The original specific gravity from 2006/2007 was retrieved from and IMC archive tape. The data was in an Excel Format. The SEI-Tetra measurements were extracted from the excel file: (3-way-comparison-of-SG.xlsx) and a PDF version of the file titled: (Corazones San Javier del Cobre.pdf). This information was added to the IMC data base in the variable (SEI-SG).

Figure 14.19 shows the specific gravity determinations by SEI-Tetra method versus iron. A positive correlation between iron and specific gravity is evident. The data is from a regression analysis (polynomial method) from the combined iron assay and the SEI-SG data.

The regression equation determined above is: SG = 2.547718 + (0.019125 * IMC_Fe)

The above regression equation was assigned to the IMC block model after doing an Inverse Distance Squared estimate on the combined iron grades (IMC_Fe).

Ktonnes are SG * ((10 * 10 * 7) / 1000)

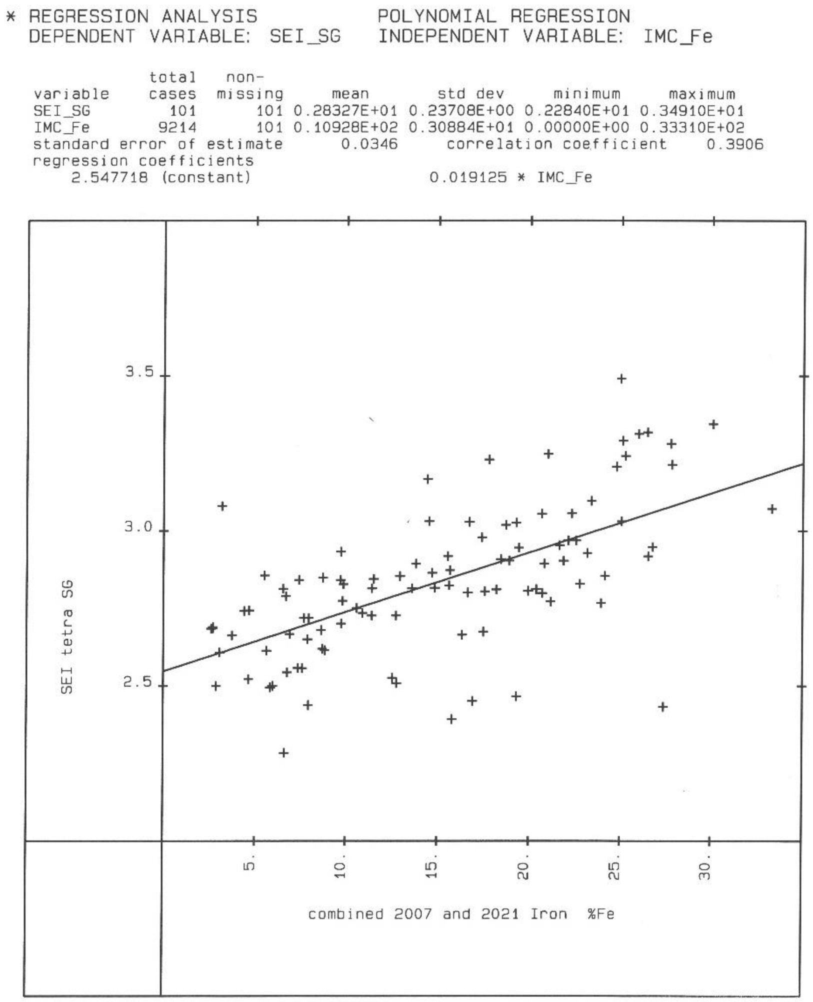


Figure 14.19 Specific Gravity Determinations by SEI-Tetra Method Versus Iron

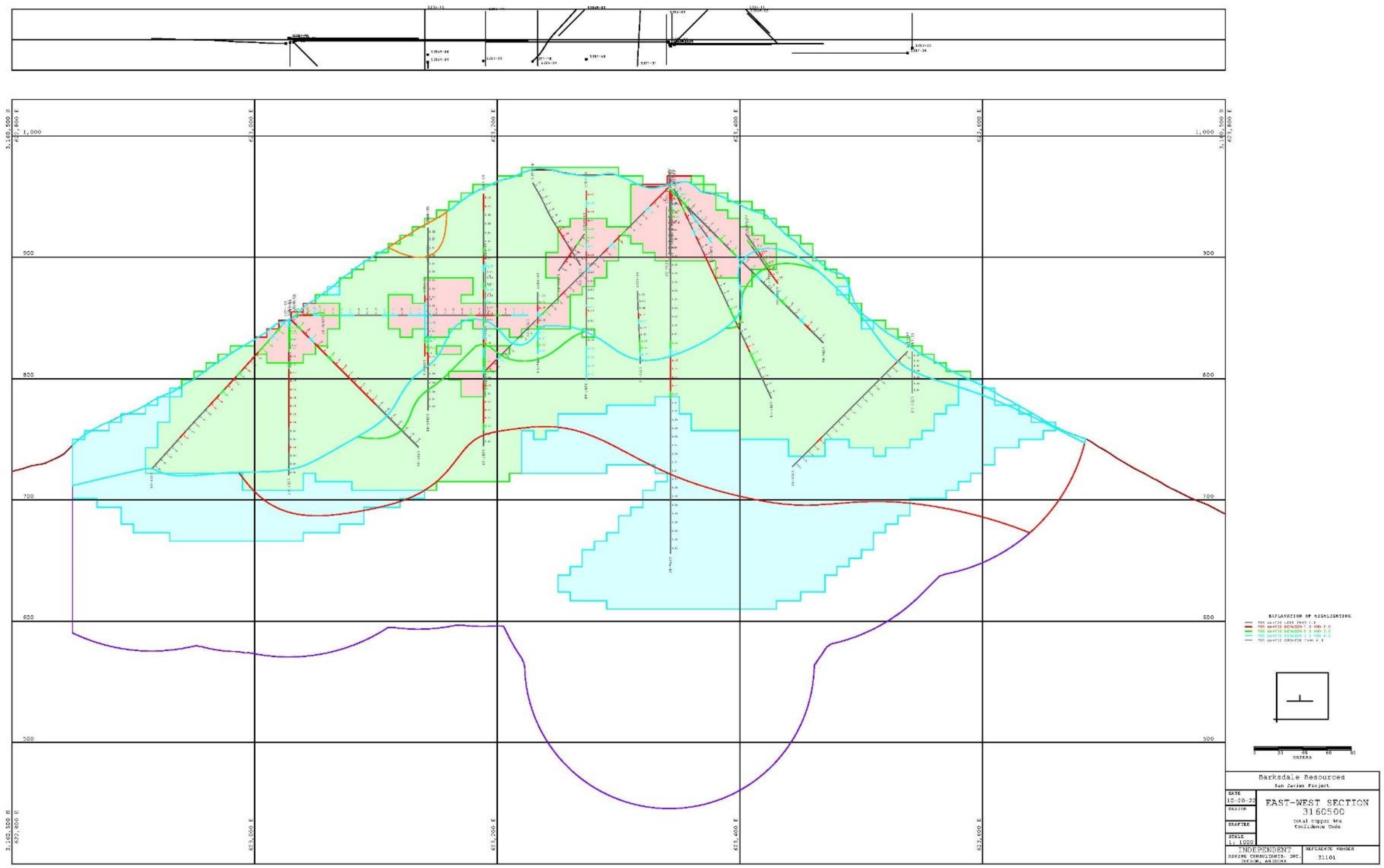
14.10 Resource Classification

For the purpose of classifying measured and indicated versus inferred mineral resources, two additional block estimates were done. These were based on the same search orientations and search radii as the grade estimates. The first estimate was based on a maximum of three composites, a minimum of three, and a maximum of one composite per hole. The second estimate was based on a maximum of four composites, a minimum of four, and a maximum of one composite per hole. These estimates provide the average distance to the nearest three holes or four holes to each block and both were put into the block model. Note the grades from this estimate were not used.

Blocks with an average distance to the nearest three holes less than 75 m were assigned as indicated mineral resource. Blocks with an average distance to four holes less than 30m assigned to measured mineral resource. Any block with an estimated total copper grade greater than zero was assigned inferred.

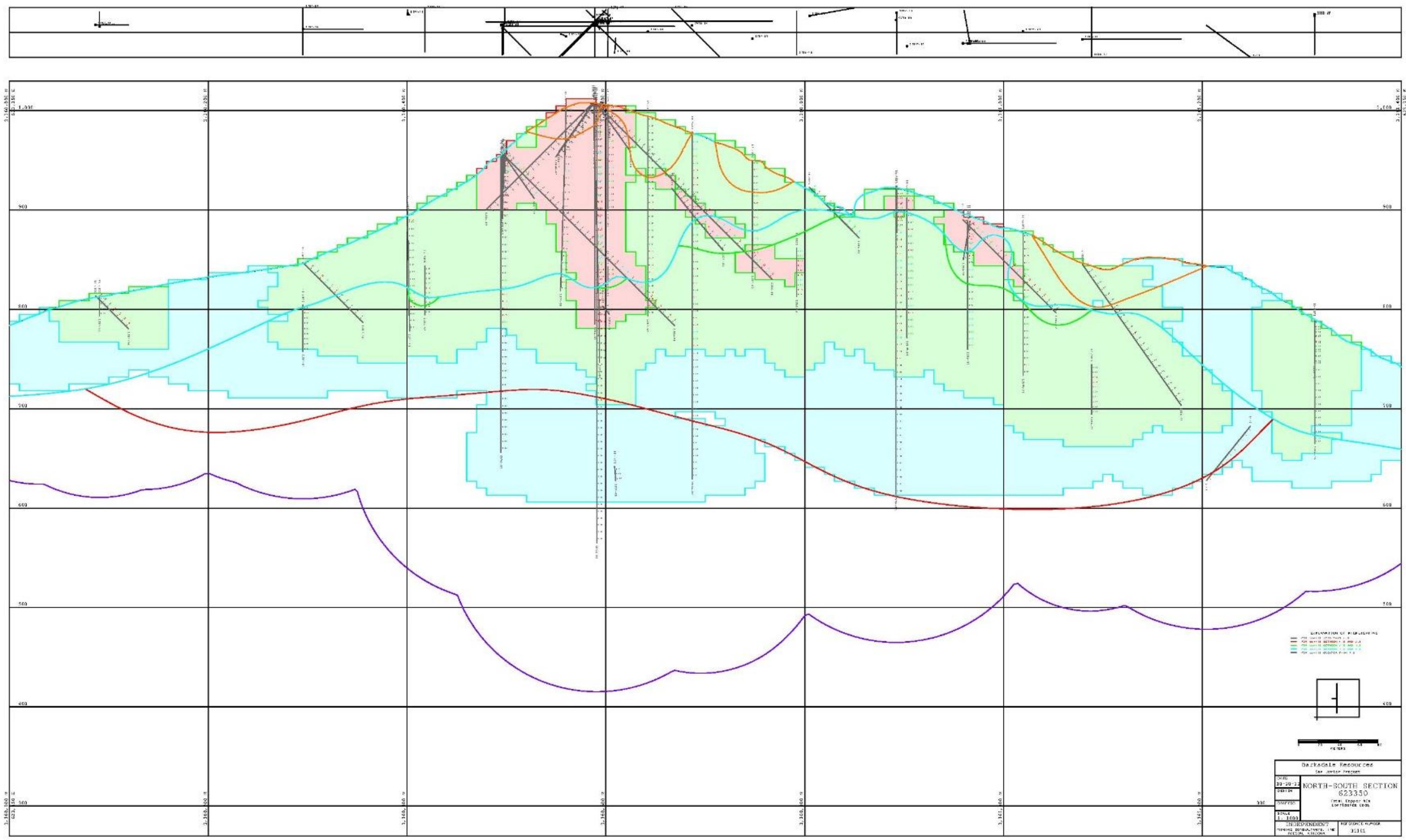
Generally (not specific to San Javier) an average distance to the nearest three holes of 75 m corresponds to an average drill spacing of about 100 m. These estimates are approximate. It is noted that the nominal spacing for much of the San Javier drilling is about 100 m.

Figures 14.20 and 14.21 show the distrubution of the resouce classification on the same east-west and north-south sections which show the TCu grades (Figures 14.12 and 14.13).



Colors: measured – red, indicated – green, inferred - blue

Figure 14.20 East West Cross Section at 3,160,500 N Showing Block Model Confidence Codes



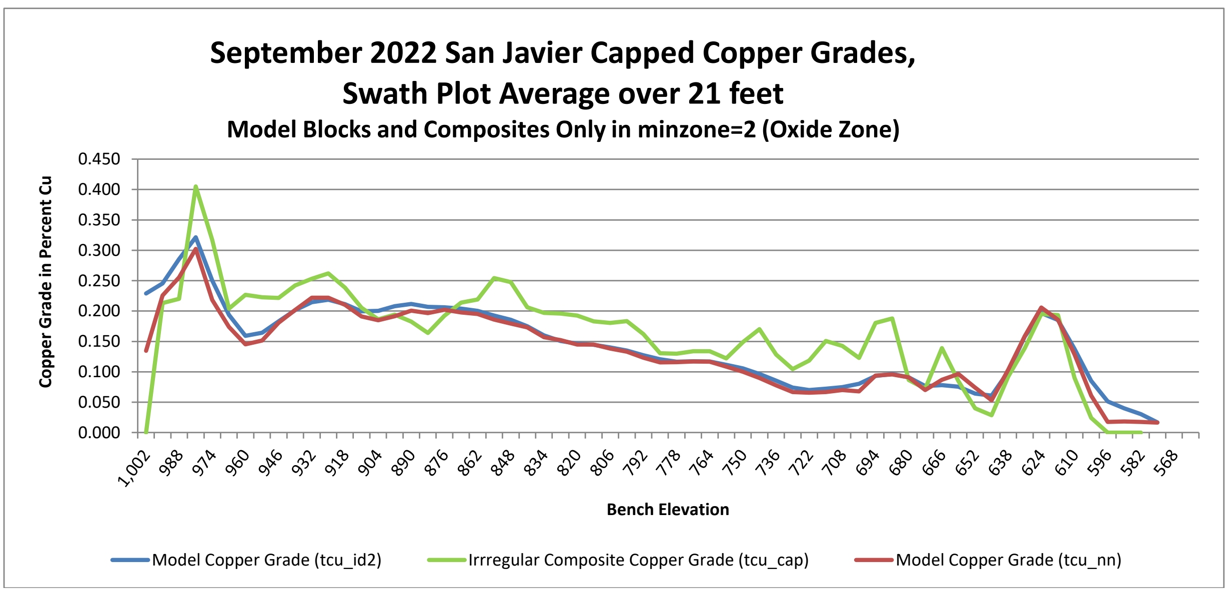
Colors: measured – red, indicated – green, inferred - blue

Figure 14.21 North South Cross Sections at 623,300E Showing Block Model Confidence Codes

14.11 Model Validation

A series of checks of the estimation of copper grades within the block model were completed including swath plots, nearest neighbor block grade estimates, composite to block grade comparisons and visual review of sections and levels of the block grade and the drill hole composite grades. These checks confirmed that the mineral resource block model can be used to generate a defendable mineral resource estimate.

IMC completed bias checks where the mean grade of composites was compared against the mean grade of the estimated blocks within the same mineralized domain. In all cases, the model grade is properly less than the grade of the contained composites, because the model block grade estimation utilizes composite data that is located outside of the shape being tested. If the model grades were higher than the grade of the contained composites, there would be indication of high bias within the model. Swath plots have been completed for the major grade bearing mineralized zone. Figure 14.22 illustrates the average grades of copper composites, versus model blocks within the Oxide Zone (minzone=2).



Composite Copper Grades – green; ID2 model grades – blue; Nearest Neighbor model grades - red

Figure 14.22 Swath Plot of Copper Grades

A number of tests were performed to confirm that the model is a reasonable representation of the data for the determination of mineral resources. Substantial time was spent checking cross sections and plans against the supporting composite data during the model assembly process.

A nearest neighbor estimate of copper was completed using the same domains and search radii that were applied to the inverse distance estimate. The comparison of the nearest neighbor and the selected method at a zero cutoff grade is a check designed to determine if the selected method has incorporated bias. Table 14.17 summarizes the results of the bias check within the important mineralized zones of the San Javier deposit.

Table 14.17 Bias Check Comparison of ID2 and Nearest Neighbor Estimates

Mineralization Zone	Number of Model Blocks	ID2 Average Grade, Cu%	Nearest Neighbor Average Grade, Cu%
Leach Cap	7,773	0.036	0.035
Oxide Zone	102,226	0.132	0.128
Mixed Zone	5,857	0.320	0.340
Sulphide Zone	121,990	0.107	0.101

The above information was further subdivided by cutoff grade to understand how well the block model followed local grade changes as measured by the contained composites. A range of cutoff grades was tested. At each cutoff the blocks above cutoff within the model were selected. All composites within those block cutoff outlines were found and compared to the block grades. For example, at San Javier, all copper bearing blocks above a cutoff were identified. All composites contained within that geometry were also selected. Table 14.18 illustrates the average grade of the contained composites versus the average grade of the blocks above several tested cutoffs within the Oxide Zone (minzone=2) at San Javier.

The column labeled “Percent less than cutoff” is a tabulation of the percentage of the composites within the selected blocks that are less than the selected cutoff. Values in the range of 25% or greater often indicate that the model would not provide a good local estimates of head grade versus cutoff. The low percentages for higher grade copper in the Oxide Zone indicate that the model has not over smoothed the deposit distribution and that grade – tonnage estimates should be indicative of the mining response to the application of a cutoff grade.

In addition, the average block grade on Table 14.18 should always be less than the average grade of the contained composites. This is because the block grades relied on some composites that are outside of the grade envelop in the estimation process.

Table 14.18 Comparison of Copper Block Grades Versus Contained Composites

Cutoff Grade, TCu%	% Composites Less Than Cutoff	Number of Composites within Selected Model Blocks	Composite Grade, TCu%	Number of Model Blocks	Average TCu Grade of Model Blocks
0.010	2.23	2,692	0.190	99,623	0.136
0.10	14.65	1,672	0.278	49,138	0.225
0.20	20.20	921	0.396	20,991	0.334
0.30	21.08	503	0.536	9,477	0.444
0.40	22.44	312	0.646	4,840	0.540
0.50	18.48	184	0.797	2,306	0.647
0.60	18.25	126	0.903	1,166	0.749
0.70	15.28	72	1.047	587	0.853
0.80	11.90	42	1.276	295	0.960

14.12 Mineral Resource

The San Javier mineral resource is tabulated within a $4.00/lb copper pit shell based on the input parameters in Table 14.19. Gold grades have been estimated in the block model, but at this time no economics have been established for the recovery of the gold present in the deposit, thus the mineral resource is only a copper resource. See Section 24 for additional comments on the gold mineralization.

The heap recovery and acid consumption are based on information provided in Section 13. A long-term acid price of $200/tonne is assumed. The process costs for SXEW, G&A and cathode transport are in a cost per recovered pound of copper. The heap management costs for liner, crushing & conveying material to the heap, dozing and piping are on a cost per tonne placed on the heap. The costs are based on recent projects in Mexico and the southwest United States. The mining costs assumes a mining contractor without maintaining a camp for staff. The related projects' costs are for 2021 and early 2022. The royalty cost was provided by Barksdale and is a percentage of the copper price. The cutoff grades used for the tabulations vary depending on the mineralization type and the copper price. At the $4.00/lb copper price the soluble copper cutoff grades are: leach cap = 0.04%, oxide = 0.04, mixed = 0.07%, sulphide = 0.08%.

The mineral resource is summarized in Table 14.20 and tabulated by mineralization zone in Table 14.21. Pit shells were run on sensitivity to copper price ranging from $2.50/lb to $$4.50/lb and Table 14.22 shows the response of a pit shell to different copper prices.

Figure 14.23 shows the limits of the $4.00/lb copper pit shell contours in plan view and Figure 14.24 is an isometric view looking to the northwest. Figure 14.25 illustrates the impact of different copper prices to the pit shell on the 855 bench. The pit shells do not encompass the sulfide zone even though it has similar copper grades because of the lower metallurgical recovery in the sulfide zone.

Table 14.19 Mineral Resource Pit Definition Inputs

	Leach Cap	Oxide	Mixed	Sulphide
Heap Recovery of Soluble Copper	85%	85%	75%	60%
Acid Consumption: kg./tonne	2.50	2.50	10.00	10.00
Acid Cost per heap tonne ($200/t)	$0.50	$0.50	$2.00	$2.00
Process cost per lb recovered Cu	$0.52	$0.52	$0.52	$0.52
Process cost per heap tonne	$1.74	$1.74	$1.74	$1.74
Mining cost per tonne moved	$2.25	$2.25	$2.25	$2.25
Overall pit slope angle	45 degrees			
Royalty (based on copper price)	1% up to $3.50/lb Cu; 2% over $3.50/lb Cu			

Table 14.20 Mineral Resource Within $4.00/lb Copper Pit Shell

	Ktonnes & Grades Above Cutoff (1)					Copper Pounds x 1000 (2)	
	Ktonnes	Tcu, %	As+Cn Cu, %	AsCu, %	CnCu, %	Total Contained	Soluble Contained
Measured	12,485	0.278	0.203	0.172	0.032	76,573	55,938
Indicated	57,664	0.270	0.184	0.148	0.037	342,669	233,504
Total M&I	70,149	0.271	0187	0.152	0.036	419,242	289,442
Inferred	5,965	0.240	0.152	0.114	0.038	31,563	19,923

1) AsCu+CnCu cutoff vary by oxidization type: leach cap & oxide = 0.04%, mixed = 0.07%, sulfide = 0.08%
2) Contained pounds = ktonnes x TCu x 22.04
   Soluble pounds = ktonnes x AsCu+CnCu x 22.04
3) Mineral Resource tonnage and grades is restricted to the Cerro Verde Deposit
4) Total pit shell tonnage = 95,175 ktonnes; ratio of ktonnes below cutoff to above cutoff = 0.25
5) Numbers may not add due to rounding.

The San Javier Project Mineral Resources meet the current CIM definitions for classified mineral resources. It should be noted that:

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the inferred portion of the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

The qualified person for the mineral resource is Herbert E. Welhener of IMC.

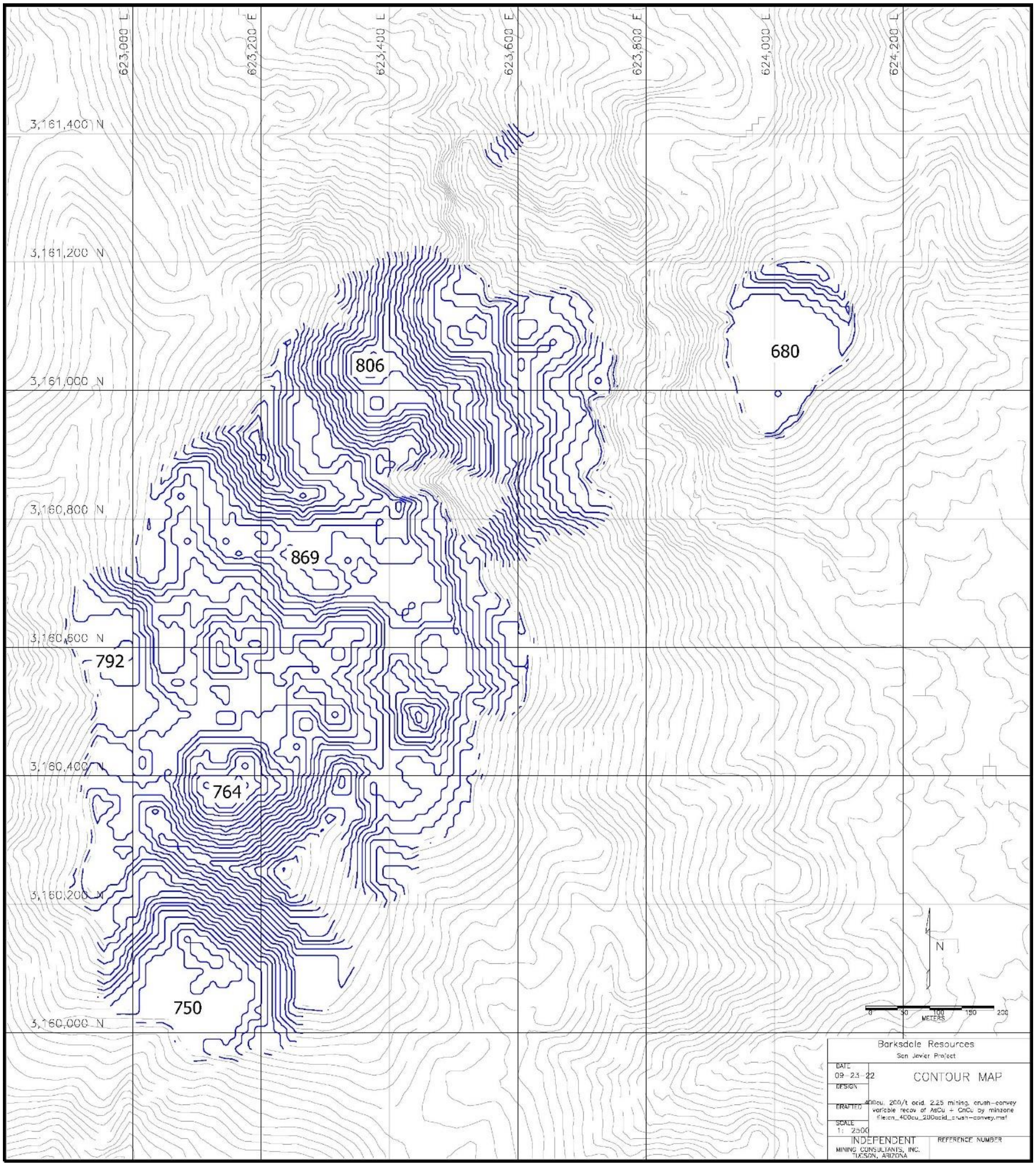
Table 14.21 Mineral Resource by Mineralization Zone

Mineralization Zone	AsCu+CnCu Cutoff	Ktonnes	AsCu+ CnCu, %	TCu, %	AsCu, %	CnCu, %
MEASURED						
Leach Cap	0.04	112	0.046	0.070	0.043	0.003
Oxide	0.04	11,154	0.198	0.265	0.173	0.025
Mixed	0.07	941	0.293	0.420	0.194	0.099
Sulphide	0.08	278	0.175	0.415	0.096	0.079
Total		12,485	0.203	0.278	0.172	0.032
INDICATED						
Leach Cap	0.04	551	0.056	0.094	0.045	0.011
Oxide	0.04	47,067	0.174	0.243	0.151	0.024
Mixed	0.07	5,757	0.282	0.401	0.179	0.103
Sulphide	0.08	4,289	0.175	0.408	0.080	0.095
Total		57,664	0.184	0.270	0.148	0.037
SUM OF MEASURED + INDICATED						
Leach Cap	0.04	663	0.054	0.090	0.045	0.010
Oxide	0.04	58,221	0.179	0.247	0.155	0.024
Mixed	0.07	6,698	0.284	0.404	0.181	0.102
Sulphide	0.08	4,567	0.175	0.408	0.081	0.094
Total		70,149	0.187	0.271	0.152	0.036
INFERRED						
Leach Cap	0.04	58	0.056	0.079	0.034	0.022
Oxide	0.04	5,403	0.140	0.224	0.111	0.029
Mixed	0.07	467	0.298	0.437	0.156	0.143
Sulphide	0.08	37	0.139	0.356	0.069	0.070
Total		5,965	0.152	0.240	0.114	0.038

Table 14.22 Sensitivity to Copper Price

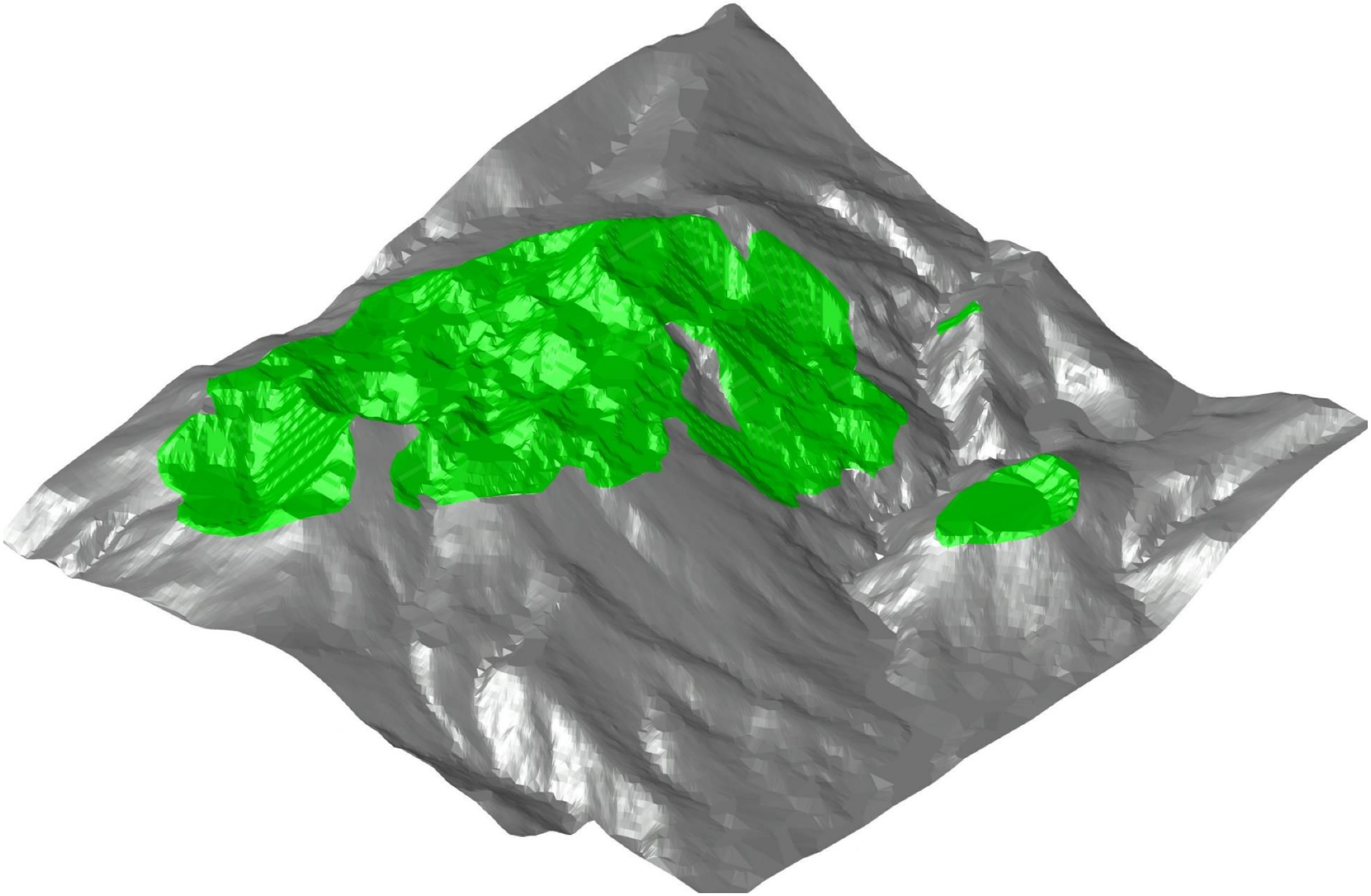
Copper Price	Cutoff Range	Measured			Indicated			Sum Measured + indicated			Inferred			Total Ktonnes
	Soluble Cu, %	ktonnes	Soluble Cu,%	TCu, %	ktonnes	Soluble Cu,%	TCu, %	ktonnes	Soluble Cu,%	TCu, %	ktonnes	Soluble Cu,%	TCu, %	
4.50	.03-.07	13,581	0.185	0.265	69,228	0.166	0.252	82,809	0.169	0.254	7,393	0.139	0.227	109,341
4.25	.03-.08	13,425	0.193	0.265	66,032	0.170	0.254	79,457	0.174	0.256	6,548	0.146	0.234	103,911
4.00	**.04-.08**	**12,485**	**0.203**	**0.278**	**57,664**	**0.184**	**0.270**	**70,149**	**0.187**	**0.271**	**5,965**	**0.152**	**0.240**	**95,175**
3.75	.04-.09	12,315	0.205	0.279	55,155	0.187	0.272	67,470	0.190	0.274	5,537	0.154	0.243	91,068
3.50	.04-.10	12,093	0.206	0.280	52,149	0.192	0.276	64,242	0.195	0.276	5,291	0.158	0.247	86,753
3.25	.04-.11	11,782	0.209	0.281	48,805	0.198	0.280	60,587	0.200	0.280	4,211	0.169	0.265	80,859
3.00	.05-.12	10,772	0.222	0.295	41,968	0.214	0.297	52,740	0.215	0.296	3,335	0.190	0.298	73,295
2.50	.06-.14	9,218	0.238	0.312	32,598	0.238	0.317	41,816	0.238	0.316	2,593	0.207	0.324	61,228

Soluble Cu = AsCu + CnCu
Tcu = total copper grade



Grey contours are the 7m block model topography
Blue contours are the limits of the $4.00/lb Cu pit shell

Figure 14.23 $4.00/lb Copper Pit Shell



Colors: grey = natural topography, green = $4.00/lb copper pit shell

Figure 14.24 $4.00/lb Pit Shell – Isometric View Looking Northwest

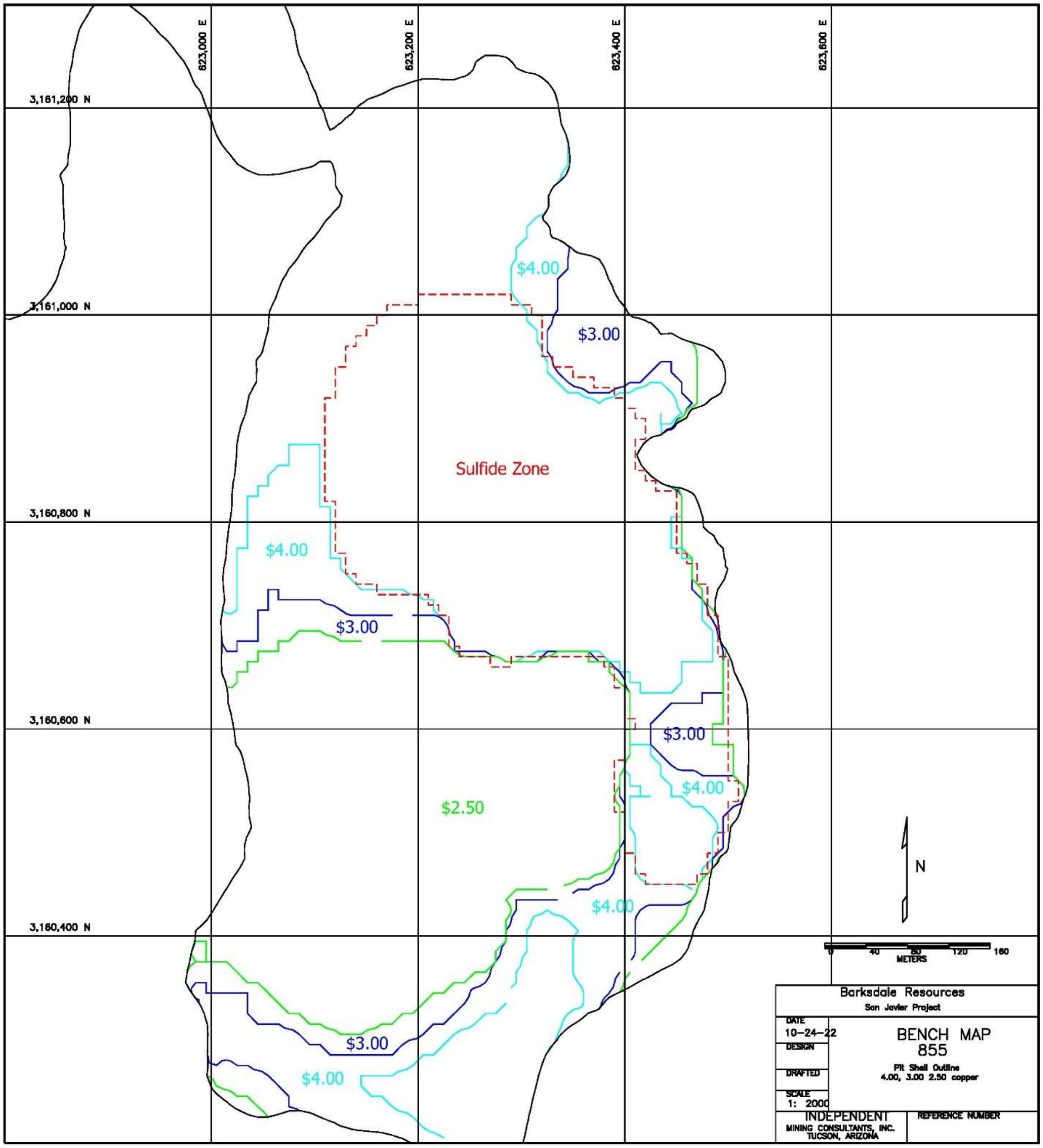


Figure 14.25 Selected Pit Shell Outlines on the 855 Bench

14.13 Factors Which Might Affect the Mineral Resource Estimate

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

- Changes to long-term metal price assumptions.
- Changes in geological interpretations including the size, shape and distribution of interpreted mineralization and lithology domains,
- Changes to metallurgical recovery assumptions,
- Changes to the input assumptions used to derive the conceptual open pit outlines used to constrain the estimate,
- Variations in geotechnical, hydrogeological and mining assumptions,
- Changes to environmental, permitting, and social license assumptions.

15 Mineral Reserve Estimates

Currently, the San Javier Project does not have any CIM definable mineral reserves.

16 Mining Methods

Previous studies presented mining of the San Javier deposit to be done by open pit methods utilizing a traditional drill, blast, load and haul sequence. Leachable copper bearing material will be delivered to a heap leach facility and waste rock will be deposited at the waste dumps located nearby the pit area. These studies were based on a previous mineral resource. No mine plan has been developed based on the current mineral resource.

17 Recovery Methods

Previous studies have presented the process facility planned for San Javier to include a heap leach facility to recover copper in a leach solution and a solvent extraction and electrowinning (SX/EW) facility to recover the copper from the leach solution and produce cathode quality copper for sale. The recovery methods have not been analyzed for the current mineral resource.

18 Project Infrastructure

The project infrastructure has not been developed for the current mineral resource.

19 Market Studies and Contracts

Copper is an internationally traded commodity with the price governed by the worldwide balance of supply and demand. The copper price is determined by the major metals exchanges consisting of the New York Mercantile Exchange (COMEX), the London Metals Exchange (LME) and the Shanghai Future Exchange (SHFE). A formal market study has not been conducted in this phase of the San Javier Project and there are no established contracts for the sale of copper in place at this time.

20 Environmental Studies, Permitting and Social or Community Impact

Most of the land covered by the mining concessions and applications of Estrella de Cobre S.A. de C.V. is owned by the San Javier Ejido (local community government). Permission to work was sought in late 2020, and a written proposal delivered to the Ejido in October of the same year, but the Covid pandemic prevented the members from forming a valid assembly until the end of March 2021, when the company was granted permission to work. The permit granted in that assembly permitted the company to plan and accomplish the 2021 drilling campaign. In April 2022, the company was given permission by the Ejido to complete exploration work for five years, in exchange for the drilling of a water well for the San Javier community.

An environmental report (Informe Preventivo) was submitted to the federal environmental regulator, SEMARNAT (Secretaría de Medio Ambiente y Recursos Naturales), for the approval of the 2021 drilling program. The program was authorized on June 17, 2021, covering the drilling of up to 250 holes in a two-year period, with road rehabilitation and access to drill pads approved, but no new road construction allowed.

A second environmental report (Informe Preventivo) was submitted on May 17, 2022, with the aim of obtaining permission to drill at Cerro Verde, Mesa Grande and La Trinidad areas, including the construction of over 13 kilometers of roads. The program was authorized on August 15, 2022, covering the drilling of up to 113 holes with the construction approval for 13.1 kilometers of new roads and new drill pads.

21 Capital and Operating Costs

No estimates of the capital and operating costs have been completed based on a new mining study on the current mineral resource. This work will require a new PEA or similar study. The costs used to determine the resource pit shell presented in Section 15 are costs from similar projects in Mexico and the southwest US.

22 Economic Analysis

No financial analysis has been completed based on the current mineral resource.

23 Adjacent Properties

The San Javier district has a long history of mining since the town foundation in 1706. Currently there are three significant company players and many artisanal miners exploiting placer gold on streams and coal seams (see Figure 23.1). Osisko Development is focused in the San Antonio de La Huerta area, Barksdale Resources at its San Javier project in the vicinity of the Cerro Verde and Mesa Grande-La Trinidad areas and Canuc Resources with its San Javier project focused on the Santa Rosa mine trend.

Osisko Development Corp. is taking the San Antonio project, 10 km to the Northeast of Cerro Verde, to the mining stage. A technical report released in July of 2022 discloses the presence of 14.9 M tonnes averaging 1.20 gpt Au, 2.9 gpt Ag containing 576,000 Oz Au and 1.37 M Oz Ag as indicated resources and 16.6 M tonnes averaging 1.02 gpt Au, 3.3 gpt Ag containing 544,000 Oz Au, 1.76 M Oz Ag as inferred resources. These resources are in a four deposits: Sapuchi, California, Golfo de Oro and High Life. The mainly gold property is considered as an IOCG (Iron Oxide Copper-Gold) type deposit based on the alteration and geochemical assemblages. In the technical report on San Antonio the Sapo Sur, Sapo Este, Sapo Norte and Carrizo Breccia areas are mentioned as carrying copper oxide and sulfide bodies, with some drilling having intercepted ore grade material over mineable widths.

Canuc Resources has been exploring for several years silver mineralization in veins 4.5 km north of Cerro Verde, and since 2021 has stressed the possibility to find copper-gold IOCG style mineralization. Placer gold has been exploited for a long time on an artisanal way in the San Antonio streams area, but this century has seen the wide use of heavy equipment to move and wash unconsolidated gravels and soils, disturbing over 20 km of streams on widths of up to 100 meters. Anthracitic coal is being exploited by over 40 small miners from seams in the Santa Clara Formation, mainly west of the Cerro Verde mountain and to the East of La Barranca community.

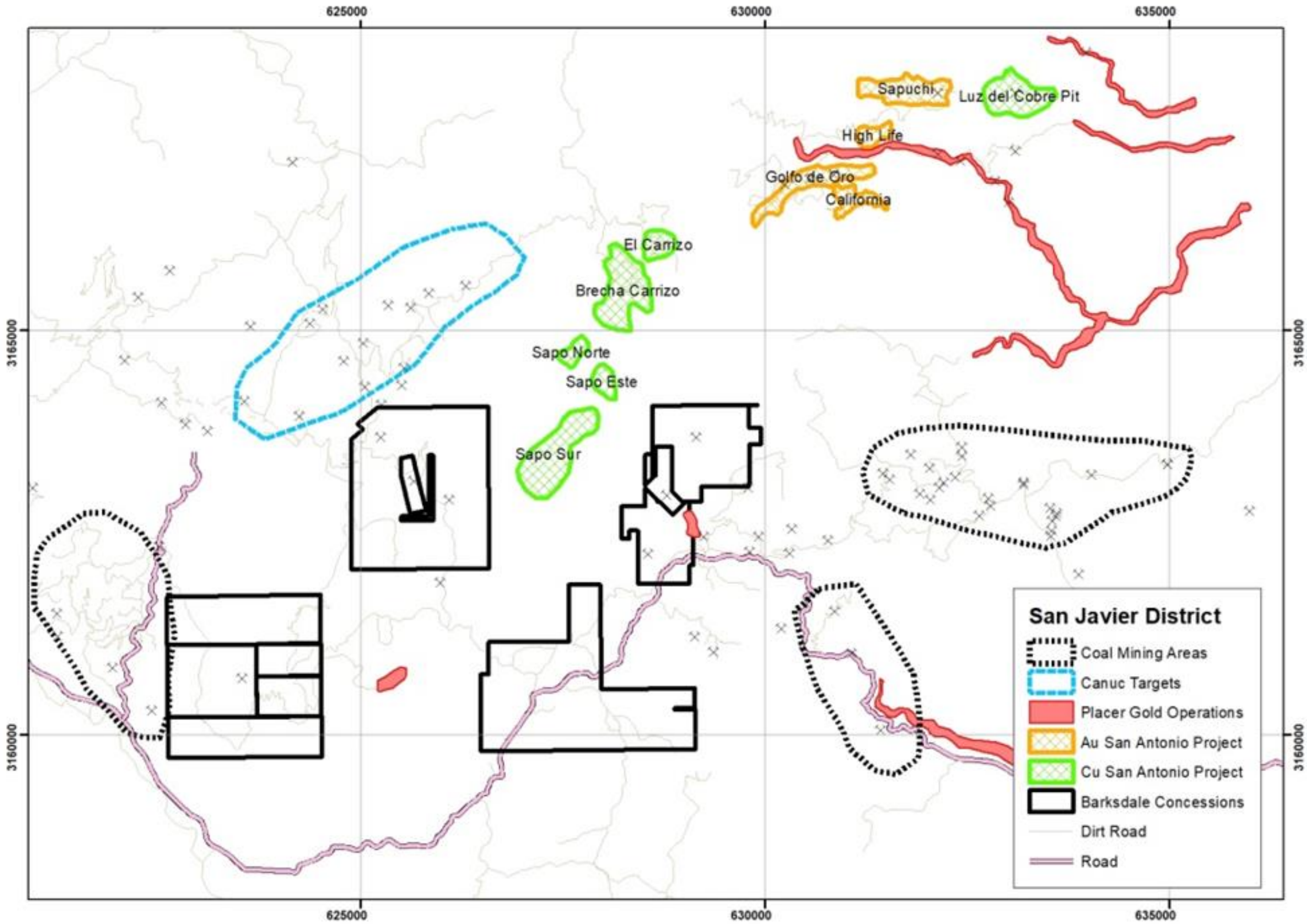


Figure 23.1 Active projects within the San Javier District

24 Other Relevant Data and Information

The San Javier project comprises four group of properties, Cerro Verde, San Carlos, Cobre Nuevo Norte and Cobre Nuevo Sur. Most of the historic drilling focused in the Cerro Verde area, but the San Carlos group of claims which includes the La Trinidad and Mesa Grande areas (Figure 24.1) also had some drilling, with ore grade intercepts over mineable widths. The Cobre Nuevo Norte and Cobre Nuevo Sur groups of claims have not been explored yet.

La Trinidad and Mesa Grande areas are separated by a steep winding creek with a general south-southeast orientation. The Tarahumara Formation volcanic rocks are in the upper plate of a low angle thrust fault, on top of the Barranca Group Triassic-Jurassic sedimentary rocks. Both the Santa Clara and Coyotes Formations are present below the fault. All holes at La Trinidad and Mesa Grande are collared in the Tarahumara volcanic rocks, and while none of those at Mesa Grande intercepted the underlying sedimentary rocks, 18 out of 24 holes at La Trinidad did.

In both areas the lithologic, alteration and mineralization assemblages are similar to those present at Cerro Verde and of IOCG style, above a low angle thrust fault. At Cerro Verde the sedimentary unit below the fault are conglomerates of the Coyotes Formation, whereas at La Trinidad below the volcanic rocks is the sequence of siltstone, shale and sandstone with interbedded coal seams of the Santa Clara Formation. The andesitic volcanic rocks present varying intensities of silicification, sericitization and chloritization, accompanied by specularite as disseminations and veinlets with minor siderite and barite, and are probably part of the same mineralizing system of the Cerro Verde deposit.

24.1 La Trinidad

La Trinidad area has received more attention due to the bright red color of the north-south hill and the higher-grade copper mineralization outcropping there. It is a roughly triangular zone about 100 meters wide in the south and 850 m wide in the north, with a longitude (triangle height) of 950 meters, bounded by streams on the eastern, western and north sides. The terrain is steep, with a difference in elevation of 200 meters between the streams and the top of the hill, which is at 880 meters above sea level. Orcana drilled 1,260.50 meters in 9 HQ size diamond holes. Among the best intercepts are 40 m @ 0.98% Cu, 48 m @ 0.69% Cu, 24 m @ 0.50% Cu, 51 m @ 0.92% Cu, 150 m @ 0.48% Cu, 57 m @ 0.52% Cu, 123 m @ 0.63% Cu, 33 m @ 0.58% Cu, 48 m @ 0.98% Cu and 15 m @ 1.66 % Cu. As at Cerro Verde, not all the samples from drilling have been assayed for gold, but interesting results have been obtained in the area, like 40 m @ 0.16 gpt Au, 33 m @ 0.10 gpt Au, 24 m @ 0.10 gpt Au, 27 m @ 0.31 gpt Au, 63 m @ 0.31 gpt Au (including 15 m @ 0.64 gpt Au), 18 m @ 0.36 gpt Au, 9 m @ 0.54 gpt Au, 6 m @ 0.23 gpt Au, 31.5 m @ 0.23 gpt Au, 12 m @ 0.30 gpt Au and 18 m @ 0.64 gpt Au.

24.2 Mesa Grande

At Mesa Grande the mountain has a low relief top compared with the rest of the rugged terrain, but it is not the classic tabletop mountain. There is a 300 meter difference between the top at 940 meters above sea level and the stream that straddles the east of the mountain. While all sides of Mesa Grande are steep, the eastern and southern parts present prominent cliffs. The area is 1,000 meters wide in the south and about 500 meters wide in the north, and 1,400 meters in the north-south direction. The first holes were drilled by Phelps Dodge in 1996-1997, and Constellation drilled a few more in 2006-2007. Best intercepts include 30 m @ 1.38% Cu, 36 m @ 0.32% Cu, 27 m @ 0.37% Cu, 81 m @ 0.31% Cu, 39 m @ 0.28% Cu, 48 m @ 0.31% Cu and 27 m @ 0.55% Cu. There are also some interesting gold intervals, like 38 m @ 0.14 gpt Au, 36 m @ 0.55 gpt Au and 38 m @ 0.12 gpt Au.

Recent geological mapping is extending the exploration area to the southeast of Mesa Grande, in the slopes of Cerro La Aguja, where the same specularite bearing alteration assemblage in the volcanic rocks has been identified above the thrust fault, and specularite identified in the Coyotes Formation conglomerates, in an area roughly 500 m long by 350 m wide.

24.3 Gold Occurrence at San Javier – Cerro Verde Deposit

The San Javier mineral resource is defined by the heap leaching of the copper mineralization. Gold is also present at San Javier and is not part of the mineral resource as no definitive work has been completed to evaluate the potential for economic extraction of the gold. Within the San Javier deposit, which was modelled for the copper mineral resource, there is gold mineralization in the range of 250 to 400 thousand ounces occurring primarily in the oxide zone. No evaluation has been done to determine how it relates geometrically to the copper mineralization.

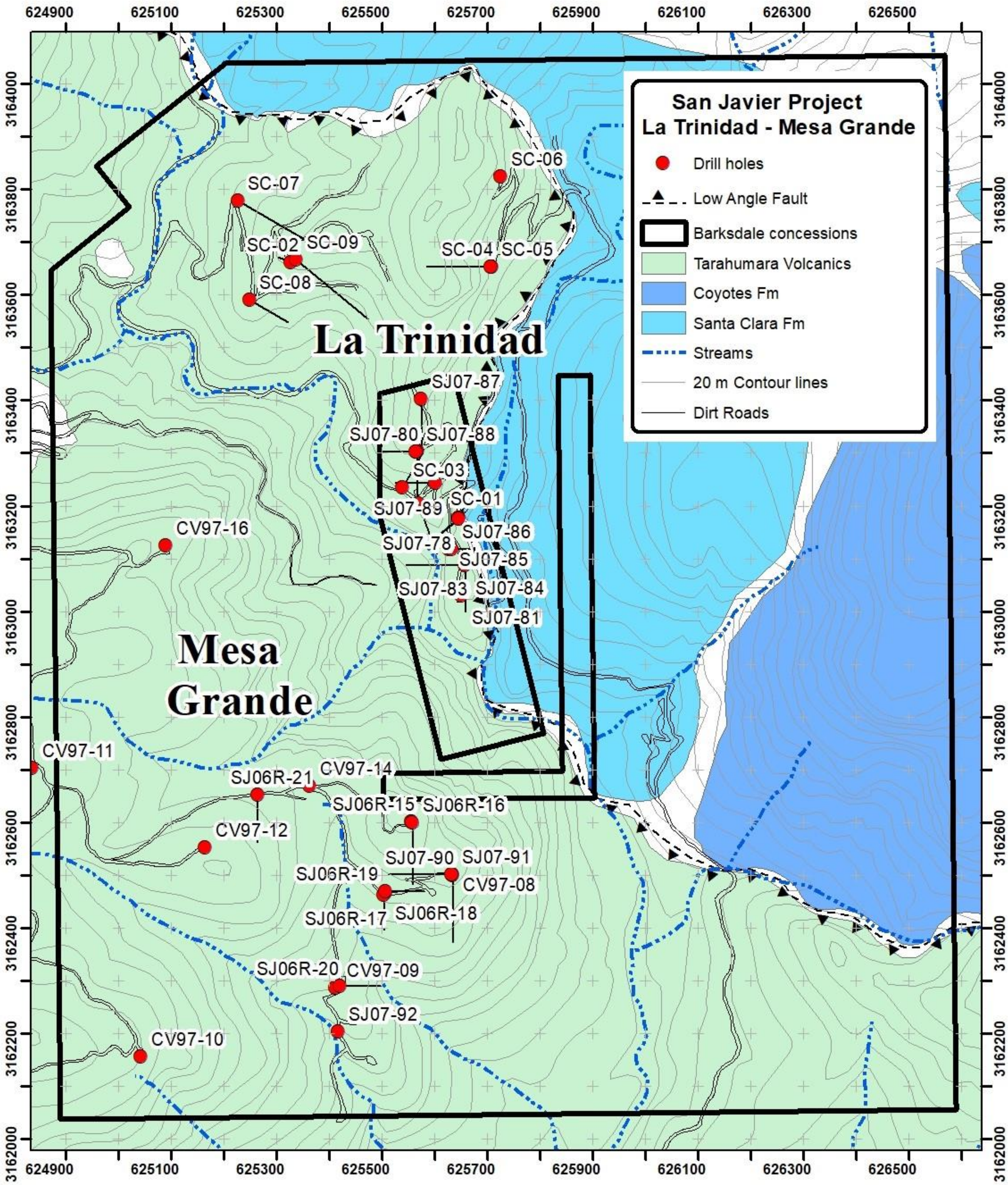


Figure 24.1 Map showing drill hole locations at Mesa Grande and La Trinidad.

25 Interpretation and Conclusions

The intent of this report is to update the previous mineral resource based on additional drilling and geologic interpretation. It is the opinion of the author that the mineral resource presented in this report has been completed in accordance with all requirements of NI 43-101 and has the potential to be expanded with additional drilling.

25.1 Mineral Resource

The mineral resource is updated with the drilling and geological interpretations current through May 2022. Continued evaluation of the deposit may increase the size of the mineral resource.

25.2 Metallurgy

The 2021 – 2022 metallurgical work (4 column tests) defined the recovery of soluble copper and the acid consumption by mineralized domain. Additional work in this area is needed as the project moves forward.

25.3 Risks and Opportunities

The risks and opportunities related to the current mineral resource estimate and metallurgy as presented in this report include:

- Further drilling may identify increases or decreases in mineral resource tonnage and mineralized material grade.
- Further metallurgical testing may demonstrate variable recoveries and acid consumption, resulting in changes to the economic inputs to the definition of the mineral resource.
- Changes in future costs and copper prices could have a positive or negative impact on the current mineral resource tonnage and grade; and
- Changes to the permitting requirements could impact the timing or required work for the permit application and regulatory approvals.

26 Recommendations

The following are recommendations to advance the San Javier Project:

- Continue relogging of the Constellation drill core to match the logging procedures and interpretation used for the Barksdale drill core.

- Do density test on the Barksdale drill core and on future dill campaigns.

- Additional drilling should be considered to explore for extensions to mineralization as well as to convert inferred resources to higher confidence categories.

- Explore and drill the adjacent deposits within and adjacent to the San Javier Project.

- Additional test work should be completed to further advance metallurgical understanding of the deposit.

- Evaluate the gold mineralization and potential for defining a gold mineral resource.

- Proceed with environmental base line studies.

- When appropriate, proceed to an updated PEA of the project.

27 References

References Cited

Corral-Gastélum R. and Guzman-Espinoza J. B., 2003, Carta Geológico-Minera Tecoripa, H12D64 Escala 1:50,000 Estado de Sonora, Consejo de Recursos Minerales.

Corso, W.T. and Arseneau, G., 2014, NI 43-101 Technical Report Benz Capital Corp., Preliminary Economic Assessment San Javier Copper Project, Sonora, Mexico.

Dixon, Steve, 2022, Memo to Tom Simpson – Barksdale Resources, "Definition of Copper Extraction and Acid Consumption for Primary Leach Cycle of 120 Days", July 18,2022

Garcia-Cortez J. A., and Aldana-Hernandez Margarita, 2003, Carta Geológico-Minera Tonichi, H12D65 Escala 1:50,000 Estado de Sonora, Consejo de Recursos Minerales.

Hansley, P., 2006, San Javier Samples: Petrographic Descriptions Oct 2006.

Hester M. G. and Keane, J.M., 2007, NI 43-101 Technical Report Constellation Copper Corp., San Javier Copper Project Sonora Mexico: Tucson, AZ, Independent Mining Consultants.

Hitzman, M.W., 2006, Observations from a Visit to Constellation Copper Corporation's San Javier Project, Sonora, Mexico.

Mach, L., and Moran, A., 2007, NI 43-101 Technical Report Constellation Copper Corp. San Javier Copper Project, San Javier, Sonora, Mexico: Lakewood, CO, SRK Consulting.

McClelland Laboratories, Inc., Report on Heap Leach Testing – San Javier Composites – MLI Job No. 4726, April 22,2022

Puritch E. et al, 2009, Technical Report, Resource Estimate and Preliminary Economic Assessment on the Sapuchi Gold Property and Resource Estimate Update on the Luz del Cobre Copper Property Sonora State, Mexico: P & E Mining Consultants Inc.

Puritch E. et al, 2013, Independent Technical Report for Resource and Reserve Disclosure for the San Antonio properties Sonora State, Mexico: NI-43-101 & 43-101F1, P & E Mining Consultants Inc., Report No. 273.

Rehrig, W. A., 2007, A Preliminary Structural Analysis of the Cerro Verde Copper Deposit, Sonora, Mexico.

Stewart, J. H., and Roldan-Quintana, J., 1991, Upper Triassic Barranca Group; nonmarine and shallow-marine rift-basin deposits of northwestern Mexico: Special Paper - Geological Society of America, v. 254, p. 19-36.

Tanaka, W.F., 2006, NI 43-101 Technical Report Constellation Copper Corp., San Javier Copper Project, San Javier, Sonora, Mexico.

Tedeschi, M., 2010, Geology of the Cerro Verde Iron Oxide-copper-gold Prospect, Sonora Mexico, M.S. Thesis, Colorado School of Mines.

Wilson, I. F., and Rocha, V. S., 1949, Coal deposits of the Santa Clara District, near Tonichi, Sonora, Mexico: U. S. Geological Survey Bulletin, Report, p. 1-80.

Appendix A – QP Certificates

Certificates of Qualified Persons (QP) and Consent of Authors

CERTIFICATE OF AUTHOR

HERBERT E. WELHENER

I, Herbert E. Welhener of Tucson, Arizona, do hereby certify that as the author of the Technical Report entitled “San Javier Copper Project – Sonora, Mexico NI43-101 Technical Report – Mineral Resource Estimate” (Technical Report) dated November 21, 2022; I hereby make the following statements:

1. I am currently employed by and carried out this assignment for Independent Mining Consultants, Inc. (IMC) located at 3560 E. Gas Road, Tucson, Arizona, USA, phone number (520) 294-9861.
2. This certificate applies to the Technical Report entitled “San Javier Copper Project – Sonora, Mexico NI43-101 Technical Report – Mineral Resource Estimate” dated November 21, 2022 (the “Technical Report”).
3. I graduated with the follow degree from the University of Arizona: Bachelor of Science – Geology, 1973.
4. I am a Registered Member of the Society of Mining, Metallurgy, and Exploration, Inc. (# 3434330RM), a professional association as defined by NI 43-101. I am a Qualified Professional Member (Mining and Ore Reserves) of the Mining and Metallurgical Society of America (#01307QP).
5. I have worked as a mining engineer or geologist for 49 years since my graduation from the University of Arizona.
6. I am familiar with NI 43-101 and by reason of my education, experience and affiliation with a professional association (as defined in NI 43-101) and I am a Qualified Person (as defined in NI 43-101). I am a Vice President of Independent Mining Consultants, Inc. since 1983.
7. I am responsible for Sections 1-12, 14-27 of the technical report entitled “San Javier Copper Project – Sonora, Mexico NI43-101 Technical Report – Mineral Resource Estimate” dated November 21, 2022. I last visited the property on July 12, 2022.
8. I have not had prior involvement with the property that is the subject of this Technical Report.
9. I am independent of Barksdale Resources as defined by Section 1.5 of NI 43-101.
10. That, as of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all the scientific and technical information that is required to be disclosed to make this Technical Report not misleading.
11. I have read NI 43-101 and I certify that the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites assessable by the public.

Signed and dated 21st day of November 2022 at Tucson, Arizona

Signed “*Herbert E. Welhener*”
Herbert E. Welhener, SME-RM

CERTIFICATE OF AUTHOR

STEVE N DIXON

I, Steve N Dixon of Tucson, Arizona, do hereby certify that as the author of the Technical Report entitled "San Javier Copper Project – Sonora, Mexico NI43-101 Technical Report – Mineral Resource Estimate" (Technical Report) dated November 21, 2022; I hereby make the following statements:

1. I am currently self-employed as SND Consulting 5101 N Amapola Dr, Tucson, Arizona, USA, phone number (520) 245-6391.
2. This certificate applies to the Technical Report entitled "San Javier Copper Project – Sonora, Mexico NI43-101 Technical Report – Mineral Resource Estimate" dated November 21, 2022 (the "Technical Report").
3. I graduated with the follow degree from the University of Utah: Master of Science – Metallurgy, 1977 and New Mexico Tech: Bachelor of Science – Chemistry, 1975.
4. I am a Registered Member of the Society of Mining, Metallurgy, and Exploration, Inc. (# 815600RM), a professional association as defined by NI 43-101.
5. I have worked as a metallurgical engineer since my graduation from the University of Utah.
6. I am familiar with NI 43-101 and by reason of my education, experience and affiliation with a professional association (as defined in NI 43-101) and I am a Qualified Person (as defined in NI 43-101).
7. I am responsible for Section 13 of the technical report entitled "San Javier Copper Project – Sonora, Mexico NI43-101 Technical Report – Mineral Resource Estimate" dated November 21, 2022. I have not visited the property.
8. I have not had prior involvement with the property that is the subject of this Technical Report.
9. I am independent of Barksdale Resources as defined by Section 1.5 of NI 43-101.
10. That, as of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all the scientific and technical information that is required to be disclosed to make this Technical Report not misleading.
11. I have read NI 43-101 and I certify that the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites assessable by the public.

Signed and dated 21st day of November 2022 at Tucson, Arizona

Signed "*Steve N Dixon*"

Steve N Dixon, SME-RM