INDEPENDENT TECHNICAL REPORT AND RESOURCES ESTIMATION ON THE EL ALACRAN COPPER GOLD DEPOSIT

Department of Cordoba, Colombia

For
Cordoba Minerals, 200 Burrard Street, Suite 650, Vancouver, British Columbia, Canada, V6C 3L6

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1 SUMMARY

At the request of Cordoba Minerals Corp. (Cordoba), this report on the El Alacran Deposit was prepared by Mr Ian A Taylor, AusIMM(CP) and Dr. Stewart D. Redwood, FIMMM, independent Qualified Persons. The terms of reference were to produce a Technical Report as defined in Canadian Securities Administrators' National Instrument 43-101, and in compliance with Form 43-101F1 (Technical Report) and Companion Policy 43-101CP for El Alacran Deposit in Colombia.

Cordoba Minerals has entered into a binding agreement dated 31 July 2013, as amended on 17 September 2013, to acquire a 100% interest in the Cordoba Project from the Minatura Group of companies, of which it already owned 11%, and the adjacent San Matias Property from Sabre Metals Inc. (Sabre). This agreement consolidates a package of mining rights covering multiple porphyry copper-gold targets. Collectively, this package of mining rights is now called the San Matias Project. This Technical Report has been prepared for the mineral resource of El Alacran deposit situated within the original Cordoba Project (7°44'28"N, 75°44'07"W). The effective date of the report is 27 October 2017.

The San Matias Copper-Gold Project comprises a 20,000 hectare land package on the inferred northern extension of the richly endowed Mid-Cauca Belt in the Department of Cordoba, Colombia, an area where access and infrastructure are considered favorable. The project contains several known areas of porphyry copper-gold mineralization, copper-gold skarn mineralization and hydrothermal vein-hosted gold-copper mineralization. Porphyry mineralization at the San Matias Project incorporates high-grade zones of copper-gold mineralization hosted by diorite porphyries containing secondary biotite alteration and various orientations of sheeted and stock-work quartz-magnetite veins with chalcopyrite and bornite. The copper-gold mineralization at El Alacran is associated with stratabound replacements and veining of a marine volcano-sedimentary sequence near diorite intrusions. The nature of mineralization encountered at San Matias is similar to other large high-grade copper-gold deposits.

El Alacran Location and Geology

The Alacran copper-gold deposit is located within the Company's San Matias Copper-Gold Project.at 7°45' N, 75°44'W. Topographic relief is moderate with altitude ranging between 100 m and 350 m above mean sea level. El Alacran deposit system is located on a topographic high in gently rolling topography, optimal for potential open-pit mining. Copper-gold mineralization at Alacran is mostly hosted in a marine volcano-sedimentary package on the west-dipping limb of a faulted antiformal fold structure and partly in dioritic and felsic intrusions with sill-like geometries. The deposit comprises moderately to steeply-dipping copper-gold mineralized zones, broadly concordant with host lithostratigraphic and intrusive contacts. Copper-gold mineralization consists of chalcopyrite-pyrrhotite-pyrite veins, replacements (including massive sulfides) and disseminations that locally overprint hydrothermal magnetite-rich zones that are most strongly developed near intrusion contacts. Mineralization occurs over a strike length of more than 1,300 metres with horizontal widths up to 355 metres and has been drill-intersected to depths of 300 metres from surface. The deposit is broadly divided into a northern zone, Mina Norte, and southern zone Mina Seca. In Mina Norte the host stratigraphy appears to steepen and mineralization is dominated by pyrrhotite-pyrite-chalcopyrite, Mina Seca is dominated by magnetite-chalcopyrite mineralization.

El Alacran Mineral Resource

The Mineral Resource estimate was prepared by Mining Associates Limited ("MA"), a leading global geological, resource and mining consultancy, and is reported in accordance with National Instrument 43-101 ("NI 43-101") and the 2014 CIM Definition Standards.

Table 1.1. El Alacran Mineral Resource as at October 27, 2016

Inferred	Material	Grade		Metal		Copper Equivalent	
	(Mt)	Copper (%)	Gold (g/t)	Copper (Mlb)	Gold (Koz)	CuEq (%)	CuEq (Mlb)
>0.3 CuEq	53.52	0.70	0.37	827	644	0.95	1,121
>1.0% Cu	7.37	2.14	0.41	348	98	2.42	393

** Mineral resources are reported within in a conceptual Whittle pit shell. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate. Mt: millions of tonnes; Mlb: millions of pounds; Koz: thousands of ounces.*
***Copper equivalent grades are based on estimated copper and gold values using metal prices of $2.50/lb Cu and $1300/oz gold (Au). Metal prices are not constant and are subject to change.*
**** Mineral resources are reported at a copper equivalent cut-off of 0.3% and applying assumed metal recoveries of 90% for Cu and 80% for Au. Note no metallurgical test work has been undertaken by Cordoba and the recoveries are estimates only.*

Mineral Resource Parameters

The drilling database utilized in resource estimation was closed on October 27, 2016 and comprises 76 diamond drill-holes totaling 20,197 metres (see Table 3 for holes drilled by Cordoba). A total of 19,958 assay samples were used to constrain the resource estimation, of which 4,705 samples are copper-gold mineralized, providing 2,202 two-metre assay composites used to form the resource estimate.

Composite lengths and high-grade cuts based on spatial distribution and probability plots were applied as follows:

- Copper and gold assay data was composited to two metres down hole within geological domains; a copper grade cap was applied at the 97.5th percentile in high-copper domains and 98th percentile in the lower grade domains.
- Gold assays were composited to two metres down hole within copper domains and were capped near the 98th percentile.

Block model block-size selection (XYZ 20 x 20 x 10 m) was based on approximately ½ the drill hole spacing in Mina Norte. Sub-blocking was permitted to 5 x 5 x 2.5 m for volumes. The block model was screened for LIDAR–based topography by sub-blocks.

The resource was constrained by seven wireframes ("grade shells") in domains based on lithology, structure and a minimum sample grade of 0.3% CuEq and may include minor internal dilution (e.g. Figures 3, 4, 5 & 6). Gold, iron and sulfur were constrained by the low-grade CuEq shells, iron and sulfur were also estimated unconstrained to inform the waste blocks. Separate grade-shells were created for high-grade copper and gold based on grade >1% Cu and > 1g/t Au respectively.

Constraining grade shells were modelled within a corridor, elongate approximately 1.3 km north-south, of up to 355 m horizontal width and interpolated/extrapolated to depths locally reaching 300 m from surface (Figures 2 and 3).

Copper, gold iron and sulphur grades were interpolated into the constrained block model by domain using ordinary krige techniques. Kriging parameters were derived from a study of variography by domain. The block model was validated by statistical and visual comparison of data and estimated grades and by alternate estimation methods.

Routine bulk density measurements (747) show some variation with an average bulk density of 3.01 t/m^3. Bulk density within each block was calculated based on a regression with estimated Fe grade, (density=0.0292 x Fe% + 2.5599).

Mineral Resources have been classified as Inferred. Resource classification was based on confidence in grade continuity and geological models of the primary commodities (Cu, Au). The inferred resource lies above -30 mRL and within a conceptual Whittle pit shell (Figures 2, 5, & 6). Drill spacing in Mina Norte approximates a 40 x 40 m grid, drilling at Mina Seca has one to two holes per section.

Mineral Resources are reported at various copper grade ranges, within the 0.3% CuEq shell, clearly identifying the proportion of mineralization below 0.3% copper that is enriched in gold in the resource (Table 2) in both resource domains (Mina Norte & Mina Seca, Figure 3). Tonnages are rounded to the nearest million tonnes, copper and gold grades are rounded to two decimal places. Rounding as required by reporting guidelines reflect the accuracy of the estimates and may result in apparent summation differences between tonnes grade and contained metal.

Table 1.2. Inferred Mineral Resource at El Alacran resource at various Copper Cut-offs (total inferred resource above 0.3% CuEq and within conceptual pit)*

Inferred	Copper	Material	Grade		Metal		Copper Equivalent	
Deposit	Cut Off	(Mt)	Copper (%)	Gold (g/t)	Copper (Mlb)	Gold (Koz)	CuEq (%)	CuEq (Mlb)
Mina Norte	0.0 to 0.3	0.69	0.27	0.31	4	7	0.47	7
	0.3 to 1.0	28.82	0.52	0.27	328	255	0.70	445
	> 1.0	4.65	1.98	0.34	203	51	2.21	226
Sub Total		**34.16**	**0.71**	**0.28**	**535**	**313**	**0.90**	**678**
Mina Seca	0.0 to 0.3	4.35	0.24	0.65	23	91	0.68	65
	0.3 to 1.0	12.29	0.46	0.49	125	193	0.79	214
	> 1.0	2.72	2.41	0.54	145	47	2.78	167
Sub Total		**19.36**	**0.69**	**0.53**	**293**	**331**	1.04	**444**
Total	**> 0.3% CuEq**	**53.52**	**0.70**	**0.37**	**827**	**644**	**0.95**	**1,122**

**Mineral Resources are not Mineral Reserves do not have demonstrated economic viability. Mineral resources are reported above a conceptual pit shell, and using a copper equivalent cut-off of 0.3% and apply assumed metal recoveries of 90% for Cu and 80% for Au. No metallurgical test work has yet been undertaken by Cordoba.*

Outside of the Inferred Mineral Resource, there is unclassified copper-gold mineralization identified in the grade shell models that either lacks confidence in grade and geological continuity or is at depth below the -30 m RL This mineralization provides immediate drilling targets for potential mineral resource additions.

Further drilling may be expected to increase the confidence levels in, and also potentially add, mineral resources. Alacran mineralization remains open to depth along much of its strike length and surface copper-gold geochemical anomalies indicate the potential for largely untested mineralized zones to the east and west of current mineral resources.

Alacran Option Agreement

The Alacran Option Agreement entitles Cordoba to purchase 100% of the tenements from Sociedad Ordinaria de Minas Omni ("OMNI") by completing the following commitments:

- A US$250,000 payment to Sociedad Ordinaria de Minas Omni ("OMNI") on the 24-month anniversary of signing the Letter of Intent (“LOI”).
- A US$1,000,000 payment to OMNI on the 24-month anniversary of completion of the Definitive Agreement.
- Cordoba will file with the Colombian government for the relevant approvals to conduct activities of construction and commercial production at Alacran before June 30, 2018.
- A US$14,000,000 payment to OMNI when the environmental license and all other approvals, permits or licenses required to commence the construction and operation of a commercial mine at Alacran have been granted on a final basis by the Colombian government.

OMNI will retain a 2% net smelter royalty with advance royalty payments of US$500,000 commencing three years after receipt of approvals to commence construction at Alacran or six years after filing for approval to commence construction at Alacran. HPX has previously purchased a 50.1% interest in OMNI.

Conclusions

The author conclude that the mineral resources have the potential for bulk mineable copper and gold deposits. Before further evaluation of the current resource, work should include mineralogical and metallurgical studies to determine the deportment of both copper and gold mineralization, metallurgical recoveries, work indexes, and preliminary consideration of processing routes.

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in Columbia in terms of environmental, permitting, taxation, socio economic, marketing and political factors.

Potentially significant upside potential may reasonably be construed to exist including:

- the resource area is open to further expansion with additional step-out drilling;
- the continuing discovery of additional mineralized occurrences to the east of the deposit area (Mina Este) and additional drilling along strike
- Finally, outside the scope of the immediate resource area (El Alacran Deposit), the project is significantly underexplored, and consists of several exploration targets.

2 INTRODUCTION

2.1 PURPOSE OF REPORT

Mr Ian A. Taylor (MA Consulting Geologist) and Dr. Stewart D. Redwood (independent Consulting Geologist), prepared this independent Technical Report of the El Alacran Deposit for Cordoba Minerals Corp. (Cordoba Minerals), a Canadian company based in Vancouver whose shares are listed for trading on the Toronto Stock Exchange's (TSX) Venture Exchange.. El Alacran is situated in the Municipality of Puerto Libertador, Department of Córdoba, Republic of Colombia.

This technical report is a disclosure of mineral resources at the El Alacran Deposit, the major deposit within the company's San Matias Project and is based on information known to the authors as of 27th October 2016, which is the effective date of the report.

2.2 TERMS OF REFERENCE AND PURPOSE

The terms of reference were to prepare a Technical Report as defined in Canadian Securities Administrators' National Instrument 43-101, Standards of Disclosure for Mineral Projects, and in compliance with Form 43-101F1 (Technical Report) and Companion Policy 43-101CP.

2.3 INFORMATION USED

The report has been prepared using data and reports supplied by Cordoba Minerals, and the author's own observations on the personal inspections. The authors considers that they have seen relevant reports and data and that there are no significant omissions of information. The reports that were consulted, as well as other published government reports and scientific papers, are listed in Section 19 "References" of this report.

The following previous NI 43-101 Technical Reports have been written for the properties:

- Redwood, 2011. "Technical Report for the Córdoba Project, Department of Córdoba, Republic of Colombia." for Wesgold Minerals Inc. (now Cordoba Minerals Corp.).
- Mosher, 2012. "Technical Report on the El Alacran Copper-Gold Property, Colombia." by Tetra Tech Wardrop for Ashmont Resources Corp.
- Redwood, 2013. "Technical Report for the San Matias Porphyry Copper-Gold Project, Department of Córdoba, Republic of Colombia" for Cordoba Minerals Corp.

Investors should note that the statements and diagrams in this report are based on the best information available at the time, but may not necessarily be absolutely correct. Such statements and diagrams are subject to change or refinement as ongoing exploration makes new data available, or new research alters prevailing geological concepts. Appraisal of all available information forms the basis for this report. The views and conclusions expressed are solely those of MA. When conclusions and interpretations credited specifically to other parties are discussed within the report, then these are not necessarily the views of MA.

2.4 SITE VISIT BY QUALIFIED PERSONS

Mr Taylor made a current personal inspection 16th to the 19th of February 2016. Mr Ian Taylor viewed the geological setting, saw the recently commenced drill program, inspected drill core, sample storage facilities, and artisanal workings.

Dr Redwood made a current personal inspection of the El Alacrán Deposit on 9th to 11th February 2016. The author also made prior visits on 6th to 7th July 2011, 1st to 3rd August 2013, and 15th November 2013.

Dr Redwood saw the recently commenced drill program, the drill core and other work carried out since his previous visits.

3 RELIANCE ON OTHER EXPERTS

The author has not relied on reports, opinions or statements of legal or other experts who are not Qualified Persons for information concerning legal, environmental, political or other issues and factors relevant to this report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY LOCATION

The San Matias Project is located in the Municipality of Puerto Libertador, Department of Córdoba, Republic of Colombia as shown in Figure 4.1. The coordinates for the El Alacran deposit are 7°44’28”N, 75°44’07”W (UTM zone 18N 418916 mE, 855766 mN, WGS 84 datum)). Altitudes in the project are between about 100 m and 350 m above mean sea level.

Figure 4.1. Location map of San Matias Project, Department of Córdoba, Colombia

4.2 PROPERTY DESCRIPTION

4.2.1 Legal Framework

Mining in Colombia is governed by Mining Law 685 of 2001. It was modified by Mining Law 1382 of 9 February 2010 but this was annulled on 11 May 2011 and expired in 2013 after a two-year deadline to pass a new law lapsed, and Mining Law 685 of 2001 regained full force and effect. In addition, the new National Development Plan (Law 1450 of 2011) included some of the changes of the annulled Law 1382, specifically article 108 regarding the extension of exploration periods. In lieu of a new mining law, a series of decrees (035, 943, 1300) and resolutions (428, 551) were issued in 2013 to regulate mining.

All mineral resources belong to the State and can be explored and exploited by means of concession contracts granted by the State. The mining authority is the Ministry of Mines and Energy, and mining is regulated by the National Mining Agency (*Agencia Nacional Minería or ANM*). There is a single type of concession contract covering exploration, construction and mining which is valid for 30 years and can be extended for another 30 years.

Concession contract areas are defined on a map with reference to a starting point (*punto arcifinio*) with distances and bearings, or map coordinates.

The application process for a concession contract is as follows:

1. Purchase a PIN number (one per concession application). Each PIN costs one minimum salary which is currently about Colombian pesos (COP) 737,717 (about US$258.58) plus VAT
2. Submit the application on the internet at the ANM website at www.anm.gov.co.
3. File paper copies of the annexes to the application. These comprise legal, economic and technical documents including demonstration of the economic capacity of the applicant and the exploration proposal for the requested area.
4. A Technical Study is carried out by ANM to determine whether there is any overlap with other contracts or applications. The applicant is notified of the "free areas". The full area of the application may be not granted in its entirety if there is overlap with existing mining rights.
5. A legal and financial study is made by ANM.
6. The contract is prepared and signed.
7. The contract is inscribed in the National Mining Registry (*Registro Minero Nacional, RMN*). The contract comes into effect on the date of registration.

A surface tax (*canon superficial*) has to be paid for concession contracts annually in advance during exploration and construction phases. The first payment is due when the concession contract is registered in the RMN. The surface tax varies with the size of the concession contract and is one minimum daily wage per hectare (ha) (about US$8.62) for areas up to 2,000 ha, two minimum daily wages per hectare (about US$17.24) for areas between 2,000 and 5,000 ha, and three minimum daily wages per hectare (about US$25.86) for areas above 5,000 ha. The minimum daily wage in 2017 is COP24,590.56 (about US$8.62) and it is adjusted annually

The concession contract has three phases:

1. Exploration Phase:
   - Starts once the contract is registered in the National Mining Registry.

- Valid for 3 years plus up to 4 extensions of 2 years each, for a maximum of 11 years.
- Annual surface tax payments required.
- Requires an annual Environmental Mining Insurance Policy for 5% of the value of the planned exploration expenditure for the year.
- Present a mine plan (PTO) and an Environmental Impact Study (*Estudio de Impacto Ambiental or EIA*) for the next phase.

2. Construction Phase:

- Valid for 3 years plus a 1 year extension.
- Annual surface tax payments continue.
- Requires an annual Environmental Mining Insurance Policy for 5% of the value of the planned investment as defined in the PTO for the year.
- Environmental License issued on approval of Environmental Impact Study.

3. Exploitation Phase:

- Valid for 30 years minus the time taken in the exploration and construction phases, and is renewable for 30 years.
- An annual Environmental Mining Insurance Policy required equivalent to 10% of the estimated production in the PTO.
- No annual surface tax.
- Pay a royalty based on regulations at time of granting of the Contract.

Royalties payable to the state are 4% of gross value at the mine gate for gold and silver and 5% for copper (Law 141 of 1994, modified by Law 756 of 2002). For the purposes of royalties, the gold and silver price is set by the government and is typically 80% of the average of the London afternoon fix price for the previous month.

4.2.2 El Alacran Property Acquisition

The two wholly owned Colombian subsidiaries (Colombia: Minerales Cordoba S.A.S. and Exploradora Cordóba S.A.S) hold 100% of the San Matias tenements while the Alacran Project is subject to an earn-in Option Agreement.

The Alacran Option Agreement entitles Cordoba to purchase 100% of the tenements from Sociedad Ordinaria de Minas Omni ("OMNI") by completing the following commitments:

- US$250,000 payment to OMNI on signing of the Binding Letter of Intent (LOI) and additional US$250,000 payments on completion of the Definitive Agreement and 24-month anniversary of signing the LOI
- A 3,000-metre drill program to commence within 90 days and completion of a total of 8,000 metres within two years from signing of LOI
- US$1,000,000 payment to OMNI on the 24-month anniversary of completion of the Definitive Agreement
- Cordoba will file with the Colombian government for the relevant approvals to conduct activities of construction and commercial production at Alacran before June 30, 2018.
- US$14,000,000 payment to OMNI when the environmental license and all other approvals, permits or licenses required to commence the construction and operation of a commercial mine at Alacran have been granted on a final basis by the Colombian government

- OMNI will retain a 2% net smelter royalty with advance royalty payments of US$500,000 commencing three years after receipt of approvals to commence construction at Alacran or six years after filing for approval to commence construction at Alacran.

The entire San Matias Project, including Alacran, and an area of interest, is part of a Joint Venture Agreement ("Joint Venture") with High Power Exploration Inc. ("HPX"), a private mineral exploration company, whereby HPX can earn up to a 65% interest in the project by carrying it to feasibility as follows:

- Phase One HPX can earn a 25% interest by spending C$6 million (completed)
- Phase Two HPX can earn a 51% interest by spending an additional C$10.5 million (completed)
- Phase Three HPX can earn up to a 65% interest by the project through feasibility (current status)

4.2.3 San Matias & El Alacran Deposits Mining Rights and Applications

The mining rights and applications of the San Matias Project cover an area of 25,735.768 ha in 32 properties, including El Alacran. These comprise 23 concession contracts with a total area of 14,557.575 ha and 9 applications with the free areas declared and a total area of 11,178.190 ha. The mining rights are listed in Table 4 1 and are shown in Figure 4 2. The mining rights are identified by their Claim Numbers (Código Expediente) in the ANM and the RMN. San Matias Project concession applications are listed in Table 4.2

The contracts and applications are held by Minerales Cordoba S.A.S. (Minerales Cordoba) which is owned by Cordoba Minerals.

The El Alacran Deposit is covered by mining concession no. III-08021 of 391.021 ha (3.9 km2) registered on 1 July 2009 (Figure 4.3). It is valid for 30 years until 30 June 2039 and may be renewed for another 30 years. It is owned by Compañía Minera El Alacrán S.A.S. (90%) and Omni (10%) and is in the process of being transferred to Cobre Minerales S.A.S. as per the terms of the option agreement described in section 4.2.2. Artisanal miners of the Asociación de Mineros del Alacrán are mining illegally at El Alacran. The Asociación filed a lawsuit against Omni for annulment of the concession contract in 2015 which the company considers to have no legal basis and to be a very low risk. The company maintains a good relationship with the miners and the plan is that the miners will leave when the company builds a mine.

Cordoba Minerals has two companies in Colombia: Minerales Cordoba S.A.S. which carries out exploration on the San Matias Project, and Exploradora Cordóba S.A.S. which carries out exploration of the El Alacran Deposit.

Table 4.1. Description of the San Matias & El Alacran Deposit mining properties.

	Claim Number	Date of Application	Date of Registration	Date of Expiry	Status	Concessionaire	Granted Area (hectares)
1	HI6-15311	06 September 2006	02 May 2008	01 May 2038	Concession contract	Minerales Córdoba S.A.S.	5,418.064
2	JJ9-08091	09 October 2008	19 November 2012	18 November 2042	Concession contract	Minerales Córdoba S.A.S.	1,282.050
3	JJ9-08092X	09 October 2008	19 November 2012	18 November 2042	Concession contract	Minerales Córdoba S.A.S.	80.444
4	JJ9-08093X	09 October 2008	19 November 2012	18 November 2042	Concession contract	Minerales Córdoba S.A.S.	97.738
5	LCP-08142	25 March 2010	02 February 2015	01 February 2045	Concession contract	Minerales Córdoba S.A.S.	3,063.276
6	LCP-08143X	25 March 2010	30 January 2015	29 January 2045	Concession contract	Minerales Córdoba S.A.S.	0.075
7	LCP-08144X	25 March 2010	02 February 2015	01 February 2045	Concession contract	Minerales Córdoba S.A.S.	138.430
8	LCP-08145X	25 March 2010	30 January 2015	29 January 2045	Concession contract	Minerales Córdoba S.A.S.	0.080
9	LCP-08146X	25 March 2010	30 January 2015	29 January 2045	Concession contract	Minerales Córdoba S.A.S.	0.044
10	LCQ-16171	26 March 2010	17 February 2015	16 February 2015	Concession contract	Minerales Córdoba S.A.S.	583.420
11	LCQ-16172X	26 March 2010	14 May 2014	13 May 2044	Concession contract	Minerales Córdoba S.A.S.	305.596
12	LCQ-16173X	26 March 2010	14 May 2014	13 May 2044	Concession contract	Minerales Córdoba S.A.S.	329.330
13	LEB-08491	11 May 2010	25 January 2012	24 January 2042	Concession contract	Minerales Córdoba S.A.S.	1,184.158
14	LED-10191	13 May 2010	24 May 2012	23 May 2042	Concession contract	Minerales Córdoba S.A.S.	233.639
15	LEQ-15161	26 May 2010	17 October 2012	16 October 2042	Concession contract	Minerales Córdoba S.A.S.	290.737
16	LEQ-15162X	26 May 2010	10 May 2013	09 May 2042	Concession contract	Minerales Córdoba S.A.S.	368.169
17	LEQ-15163X	26 May 2010	10 May 2013	09 May 2042	Concession contract	Minerales Córdoba S.A.S.	4.810
18	LG6-08061	06 July 2010	04 April 2012	03 April 2042	Concession contract	Minerales Córdoba S.A.S.	196.949
19	LG6-08063X	06 July 2010	06 May 2015	05 May 2045	Concession contract	Minerales Córdoba S.A.S.	2.865
20	LG6-08064X	06 July 2010	14 May 2012	13 May 2042	Concession contract	Minerales Córdoba S.A.S.	55.608
21	LG6-08065X	06 July 2010	14 May 2012	13 May 2042	Concession contract	Minerales Córdoba S.A.S.	47.211
22	LJT-10551	29 October 2010	25 January 2012	24 January 2042	Concession contract	Minerales Córdoba S.A.S.	483.864
23	III-08021	18 September 2007	01 July 2009	30 June 2039	Concession contract	Compañía Minera El Alacrán S.A.S	391.021
						Title Area	14,557.578

Table supplied by Cordoba Minerals dated 7 February 2017.

Table 4.2. Description of the San Matias Project concession applications.

	Claim Number	Date of Application	Date of Registration	Date of Expiry	Status	Applicant	Requested / Free Area (hectares)
1	LK8-09321	08 November 2010			Application	Proyecto Coco Hondo S.A.S.	3,720.034
2	OG2-08098	02 July 2013			Application	Minerales Córdoba S.A.S.	1,130.261
3	OG2-08106	02 July 2013			Application	Minerales Córdoba S.A.S.	8.520
4	OG2-08107	02 July 2013			Application	Minerales Córdoba S.A.S.	274.219
5	OG2-081210	02 July 2013			Application	Minerales Córdoba S.A.S.	384.522
6	OG2-08254	02 July 2013			Application	Minerales Córdoba S.A.S.	2,479.181
7	OJN-08531	23 October 2013			Application	Minerales Córdoba S.A.S.	114.599
8	OKQ-08171	26 November 2013			Application	Minerales Córdoba S.A.S.	114.739
9	RD1-16281	01 April 2016			Application	Minerales Córdoba S.A.S.	2,952.115
						Application Area	11,178.190

Table supplied by Cordoba Minerals dated 7 February 2017.
OG2-08254 has the free area declared. The others show the requested area which may be reduced in size when the free area is declared.
Proyecto Coco Hondo S.A.S. is a subsidiary of Cordoba Minerals and the claim will be transferred to Minerales Cordoba upon registry.

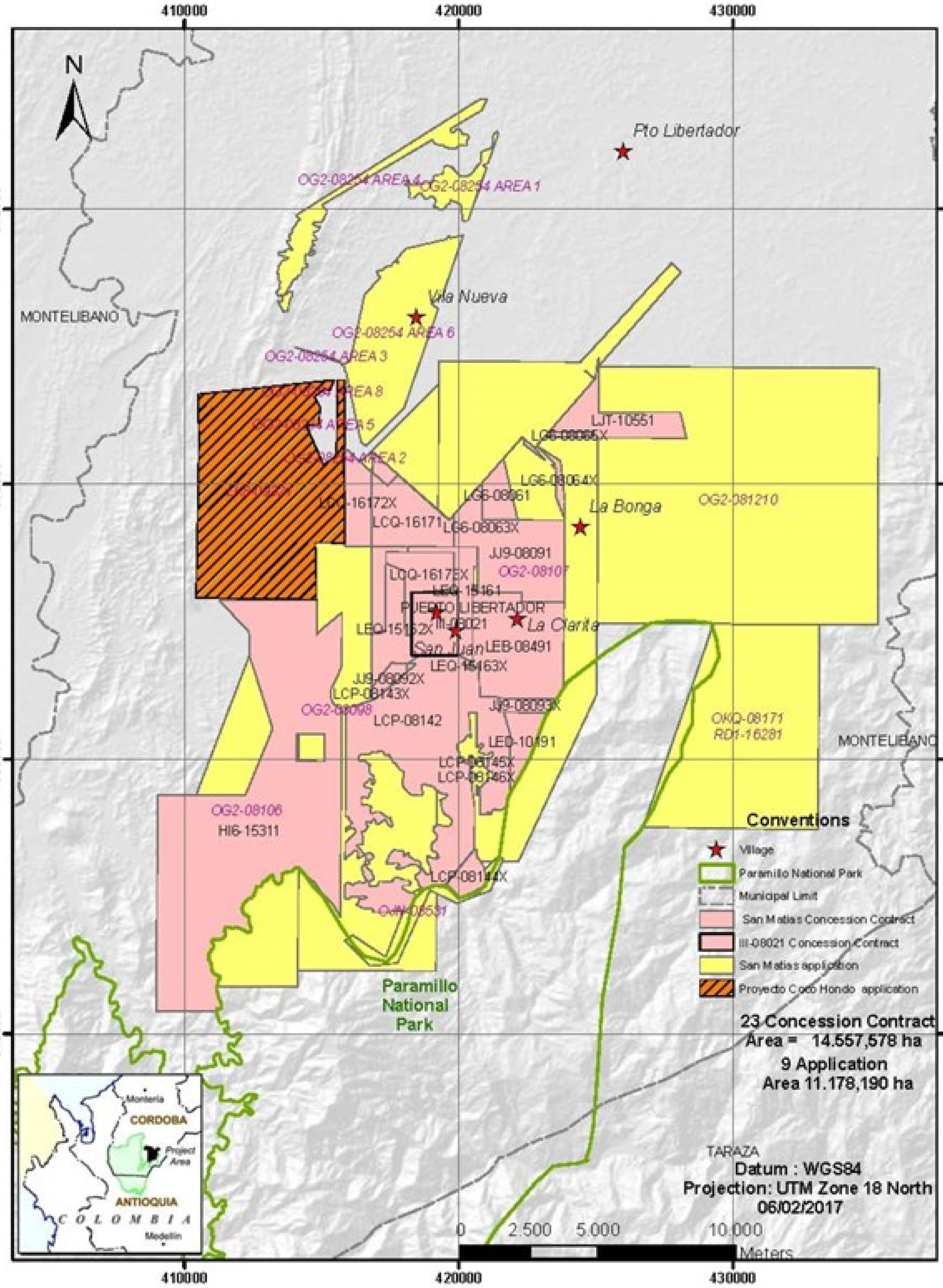


Figure 4.2. Map of the San Matias and El Alacrán Projects mining properties.

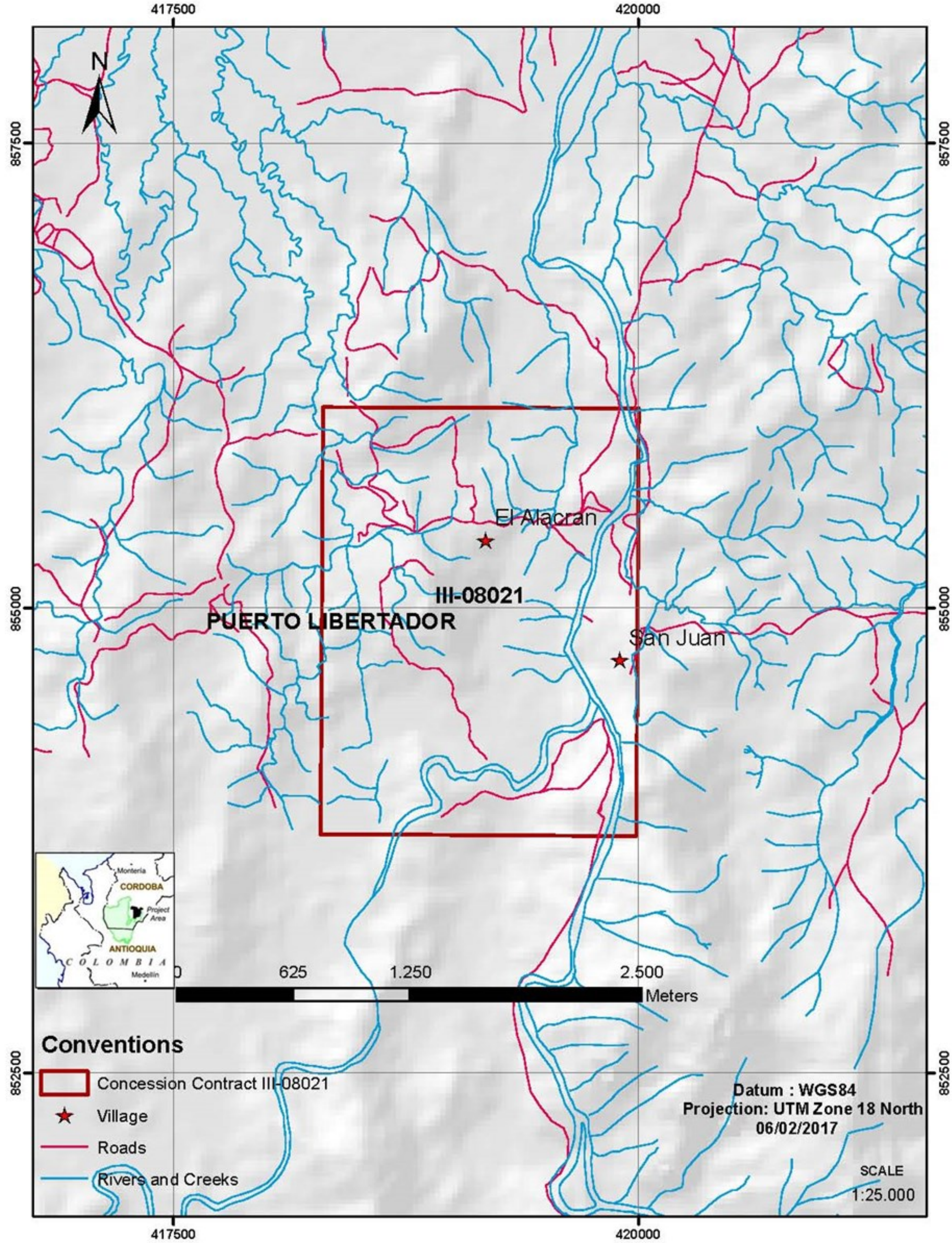


Figure 4.3. Detailed location map of the El Alacran concession contract.

4.3 ENVIRONMENTAL REGULATIONS AND PERMITS

The Mining Law 685 of 2001 requires an annual Environmental-Mining Bond to be posted for each concession contract. Cordoba Minerals has done this for each concession contract. Exploration activities require an Environmental Management Plan (*Plan de Manejo Ambiental* or PMA), which has been submitted for each concession contract and application.

At the end of the Exploration Phase an Environmental Impact Study (EIA) has to be presented if the concession is to proceed to the Construction Phase. This must be approved and an Environmental License issued before the Exploitation Phase can begin, subject to a PMA. In addition, exploitation requires a Permit for Springs, Forest Use Permit, Certificate of Vehicular Emissions, Emissions Permit, and River Course Occupation Permit.

Under Colombian mining and environmental laws, companies are responsible for any environmental remediation and any other environmental liabilities based on actions or omissions occurring from and after the entry into force and effect of the relevant concession contract, even if such actions or omissions occurred at a time when a third party was the owner of the relevant mining title. On the other hand, companies are not responsible for any such remediation or liabilities based on actions or omissions occurring before the entry into force and effect of the relevant concession contract, from historical mining by previous owners and operators, or based on the actions or omissions of third parties who carry out activities outside of the mining title (such as illegal miners).

The San Matias Project has potential environmental liabilities due to informal artisanal mining in the past and the present by alluvial, open pit, hydraulic and underground mining activities, including:

- Surface disturbance and degradation including deforestation.
- Waste rock and tailings from mining operations.
- Possible contamination of soil and water by mercury, cyanide, arsenic, acid drainage, heavy metals and solids from artisanal mining operations.

The company has carried out environmental base line studies and monitoring since the start of the project.

The Paramillo National Natural Park, created in 1977, is located in the forested mountains on the south side of the San Matias Project and is shown in Figure 4.2. There is a buffer zone to the park in which mining operations are permitted subject to certain environmental restrictions.

All of the mining properties that comprise the San Matias Project are located at low elevations and well below the altitude of the "*páramo*" (moorland) ecosystem where exploration and mining are prohibited. The páramo is defined as an ecosystem above 3,200 m altitude consisting of glaciated uplands with lakes and peat bogs.

4.4 LEGAL ACCESS AND SURFACE RIGHTS

The granting of a concession contract in Colombia does not include a legal right of surface access, for which permission has to be obtained from the land owners or community. Cordoba Minerals has made lease agreements for land use for mineral exploration. It has also started a process to purchase land in the area of the San Matias and El Alacran Deposits.

The Mining Law provides the mining servitudes and the possibility of expropriation of the surface, in case it is required, since mining activity is considered to be in the public interest.

4.5 INDIGENOUS RESERVES AND COMMUNITIES

The San Pedro Indigenous Reserve (*Resguardo Indígena*) of Zenú Indians is located on concession contract LEQ-15161. There are also several Zenú and Embera Katío Indian Communities in the project area, including a Zenú Community on El Alacran. The company has engaged in a process of Prior Consultation (*consulta previa*) with them as stipulated by law.

There are no Black, Afrocolombian, Raizal or Palenquero Communities in the project area.

4.6 WATER RIGHTS

Exploration activities require a Surficial Water Concession if a natural resource is required to be used, especially for drilling. Surficial Water Permits have been granted for drilling.

4.7 OTHER RISKS

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

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The El Alacran Deposit is located 390 km northwest of Bogotá, the capital of Colombia, 170 km north of Medellin, the capital of the Department of Antioquia and the second largest city in Colombia, and 112 km south of Montería, the capital of the Department of Córdoba. Access to the project is by road from Medellin, Caucasia or Montería. The distances are listed in Table 5.1 and the routes are shown in a plan in Figure 5.1.

There are daily scheduled flights from Medellin to the city of Caucasia (population about 90,000), where there is a surfaced airstrip, by ADA (Aerolineas de Antioquia), with a flight time of 40 minutes. From Caucasia it is 71 km by road to Puerto Libertador (1 hour drive). There are also more frequent scheduled flights from Medellin and Bogota to the city of Montería (population about 410,000) by ADA and other airlines. From Monteria it is 170 km by road (3.5 hour drive) to Puerto Libertador. The nearest town to the project, Puerto Libertador (population about 13,425), has basic services and is used as a field base. From here it is 21 km to the San Matias camp by an unsurfaced track (about 30 minute drive), and another 15 minutes to the El Alacran core shack.

Table 5.1. Access to the El Alacran Deposit.

From	To	Road	Distance (km)	Time (hours)
Medellin	Caucasia	Surfaced	280	6 h 0 m
Caucasia	Montelíbano	Surfaced	33	0 h 30 m
Montelíbano	Puerto Libertador	Unsurfaced, graded	38	0 h 30 m
Puerto Libertador	San Matias Camp	Unsurfaced track	21	0 h 30 m
San Matias Camp	El Alacran	Unsurfaced track	5	0 h 15 m
Total			377	7 h 45 m

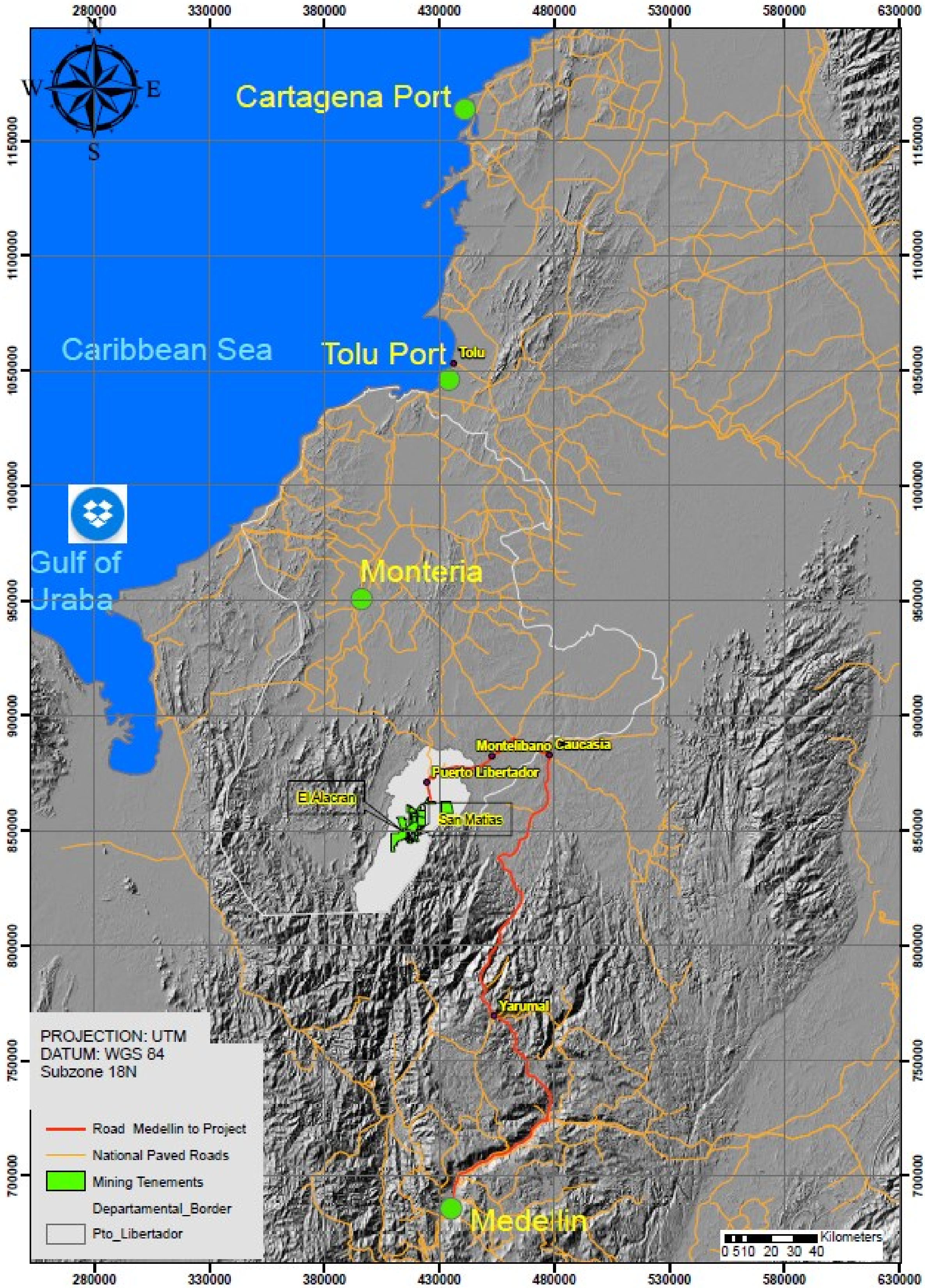


Figure 5.1. Access to the El Alacran Deposit.

On a digital terrain model base map

5.2 CLIMATE

The El Alacran Deposit has a tropical wet climate with an average temperature of 27.4°C and annual rainfall of approximately 2,228 mm (data for Puerto Libertador,Table 5.2). The highest rainfall is between May and September. The driest month is January, with 30 mm of rain, and the wettest month is September, with 298 mm of rain. Mineral exploration and drilling can be carried out all year round. The warmest month is March with an average of 28.3°C. The coolest month is October with an average of 26.9°C. The variation in average temperature throughout the year is only 1.4°C.

The El Alacran Deposit is mostly within the tropical, premontane wet forest ecological zone (bh-T) of the Holdridge Life Zone climatic classification system. Most of the original forest cover has been cleared. Land use is mainly for agriculture, cattle grazing and mining.

Table 5.2. Climate data for Puerto Libertador

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Rainfall (mm)	30	42	57	185	260	293	286	289	298	253	145	90
Ave temp (°C)	27.5	27.7	28.3	27.8	27.5	27.4	27.3	27.2	27.0	26.9	27.2	27.1
Min temp (°C)	22.0	22.1	22.7	22.6	22.7	22.6	22.4	22.4	22.4	22.4	22.7	22.1
Max temp (°C)	33.1	33.4	33.9	33.1	32.3	32.2	32.3	32.1	31.7	31.4	31.8	32.2

Source: Climate-Data.org, http://en.climate-data.org/location/32092/

5.3 LOCAL RESOURCES AND INFRASTRUCTURE

The Municipality of Puerto Libertador has a population of about 34,000. The main population center is the town of Puerto Libertador. There are a number of small villages within the project area. There are indigenous Zenú and Embera settlements on concession contract LEB-08491.

Hotel accommodation and field supplies are available in the towns of Puerto Libertador and Montelíbano. Puerto Libertador is used as a base for the project. The company has a small field camp and core shack at San Matias (Figure 5.2), and a core shack at El Alacran (**Error! Reference source not found.**Figure 5.3).

Figure 5.2. San Matias core shack

Figure 5.3. El Alacran core shack.

Field personnel for the exploration program are available locally from artisanal mines and from the nearby towns and villages. The district is expected to be able to supply the basic workforce for any future mining operation.

There is an airstrip at Puerto Libertador which can be used by helicopters, and an airstrip at Montelíbano which can be used by both light aircraft and helicopters. There are airports with sealed runways and scheduled national flights at Caucasia and Monteria.

The El Alacran Deposit is about 220 km due east of the Pacific Ocean and 115 km due east of the Gulf of Uraba on the Caribbean Sea. The nearest ports are at Tolú (220 km by road) and Cartagena (360 km by road) on the Atlantic Ocean. Caucasia is situated on the navigable Cauca River, part of the Magdalena River system which enters the Atlantic Ocean at Barranquilla. The nearest railway is at Medellin, 170 km to the south.

The national electricity grid supplies the towns of Puerto Libertador and Montelíbano and the Cerro Matoso mine. The national gas grid also supplies the Cerro Matoso mine.

A major thermal power station was recently completed by Gecelca (Generadora y Comercializadora de Energia del Caribe S.A.), a Colombian public utility company, near Puerto Libertador, and uses locally mined sub-bituminous coal. The 414 megawatt (MW) project comprises two parts. The Gecelca 3 unit (164 MW) was brought online in September 2015, while the second unit, the Gecelca 3.2 unit (250 MW), is due for completion in 2017 (www.gecelca.com.co).

The Cerromatoso sub-station is the starting point for the proposed Colombia-Panama electrical interconnector power transmission line which will connect the electrical grids of South America and Central America and is currently at the planning and environmental study stage.

The region has high rainfall and there are ample water resources available. Water rights belong to the state and are governed by Decree 1541 (1978).

Surface rights in the project area are privately owned by individuals. Cordoba Minerals does not own any surface rights in the project area and Cordoba Minerals has started a process to buy land in the project area. It will need to complete these purchases and buy additional land prior to constructing any possible future mining operation.

5.4 PHYSIOGRAPHY

The El Alacran Deposit is located in the northern foothills of the Western Cordillera and the southern side of the Caribbean lowlands where north-south trending mountains die out and pass under extensive plains with altitudes of less than 100 m.

Hydrographically the project is situated in the Upper San Jorge river basin. The project lies between the north-flowing San Pedro River to the east and the north-flowing San Jorge River to the west. These are part of the Magdalena River system which drains into the Atlantic.

The Paramillo National Park is situated in the forested mountains to the southeast of the El Alacran Deposit. No part of the project lies in the paramo zone above 3,400 m altitude where mining is banned throughout the country.

The physiography of the project area comprises low hills with flat plains nearby and is favourable for open pit mining with plenty of room to select sites for processing plant, waste rock dumps, tailings storage areas and other mine infrastructure (Figure 5.4).

Figure 5.4. Physiography of El Alacran looking south from the North Zone (Mina Norte) to the South Zone (Mina Seca) with El Alacran miners' village.

6 HISTORY

6.1 COLOMBIAN GOLD MINING HISTORY

Colombia was historically the top gold producer in South America with total recorded gold production of about 104.4 million ounces (Moz) or 3,246 tonnes (1514 to 2016-1st quarter). Colombian gold production between 1514 and 1934 was 49 Moz (1,524 tonnes) which made Colombia the number one producer in South America during this period with 38% of the total production (Emmons, 1937). Gold production from 1935 to the present (2016-1st quarter) was 55.4 Moz (1,722 tonnes; ANM. Colombia ranked 15th worldwide in 2014 and fourth in South America, with 1.9% of world production (United States Geological Survey Minerals Yearbook 2014). Recent annual gold production was 1.82 to 2.12 Moz (57-66 tonnes) in 2012-2015

6.2 EL ALACRAN HISTORY

6.2.1 Dual Resources 1987-1989

Exploration was carried out at El Alacran by Dual Resources Inc. (Dual Resources), a Canadian junior company, in 1987-1989 with the Colombian consulting company Geotec Ltda. Exploration is described in reports by Vargas (1998, 2001, 2002, 2014) and Shaw (2002).

The Dual Resources exploration program included pits, trenches, rock sampling, underground sampling, geological mapping and a ground magnetic survey, followed by 15 diamond drill holes for 2,407.75 m (holes SJ 1 to SJ 19). Dual Resources held the claims until 1994.

The property was staked in 1995 by Sociedad Ordinaria de Minas Santa Gertudis and Sociedad Minera El Alacrán S.O.M., both private Colombian companies. No significant exploration work was carried out between 1995 and 2009.

In 2002 a historical mineral resource estimate was made by Vargas (2002) using the Dual Resources exploration data. Vargas estimated “mineable underground sulphide reserves” of 7.5 Mt grading 1.3 g/t Au and 1.9 % Cu in “proven”, “probable” and “possible” categories, plus “open pitable laterite reserves” of 484,575 t grading 3.3 g/t Au (Table 6.1). The categories used by Vargas are not equivalent to those specified in NI43-101 and CIM definition standards because insufficient work was undertaken to demonstrate economic viability. The resource was estimated by a polygonal method. “Proven reserves” were projected to 40 m down dip of the drill holes, “probable reserves” to 40 m down dip of the “proven reserves”, and “possible reserves” to 150 to 250 m down dip of the “probable reserves.” These estimates are historical in nature and a qualified person has not done sufficient work to classify the historical estimate as current minerals resources or mineral reserves, Cordoba Minerals are not treating the historical estimates as current mineral resources or mineral reserves and they are quoted for information purposes only.

Table 6.1. Historical mineral resource estimate at El Alacrán (Vargas, 2002).

"Mineable underground sulphide reserves"					
Category	Tonnes	Au (g/t)	Cu (%)	Au (ounces)	Cu (tonnes)
"Proven"	2,113,883	1.42	1.87	96,507	87,148,747
"Probable"	921,752	1.10	1.66	32,599	33,732,936
"Possible"	4,488,227	1.28	2.00	184,704	197,897,984
Total	**7,523,862**	**1.30**	**1.92**	**313,810**	**318,777,463**
"Open pitable laterite reserves"					
	484,575	3.32		51,655	

This is a historical mineral resource estimate that does not conform to NI 43-101 standards. The original categories are given in quotation marks.

6.2.2 Ashmont 2010-2012

A concession contract was granted in 2009 to Sociedad Ordinaria de Minas Omni S.O.M. (Omni) and was optioned in 2010 to Ashmont Resources Corp. (Ashmont), a private company based in Vancouver. Ashmont carried out geological mapping at 1:2,000 scale, underground mapping and sampling, a ground magnetic survey, and two programs of diamond drilling. The first drill program was carried out in 2010-11 and comprised 11,271.25 m in 42 holes (hole numbers ASA-01 to ASA-42). The second drill program was carried out in 2011-12 and comprised was 2,258.20 m in 10 holes (hole numbers ASA-43 to ASA-52). The total drilling of the two programs was 13,429.45 m in 52 holes. The average depth was 258 m and the maximum depth was 367.30 m.

Ashmont earned a 90% interest in the concession contract which it held through Ashmont Omni S.A.S., ownership of which reverted to Omni on termination of the option and it was renamed Compañía Minera El Alacrán S.A.S. in 2014.

Tetra Tech Wardrop carried out a resource estimate for Ashmont in 2012 based on the first phase of drilling using 42 holes (Mosher, 2012). The indicated resource was 8.8 Mt at 0.306 g/t Au and 0.44% Cu, and the inferred resource was 88.8 Mt at 0.259 g/t Au and 0.42% Cu (Table 6.2). The estimate used inverse distance (ID^2 and ID^5) methods. The estimate was reported in accordance with CIM and NI43-101 standards, but a qualified person has not done sufficient work to classify the historical estimate as current mineral resources. Cordoba Minerals are not treating the historical estimate as a current mineral resource and it is quoted for information purposes only.

Table 6.2. Historical mineral resource estimate for El Alacran by Tetra Tech Wardrop (Mosher, 2012).

Category	Tonnes	Au (g/t)	Cu (%)	Au (oz.)	Cu (lb.)
Indicated	8,767,845	0.306	0.44	82,259	85,051,088
Inferred	88,823,524	0.259	0.42	739,637	822,454,013

Cut-off grade 0.20% Capped Cu equivalent based on prices of $1,271/oz Au and $3.00/lb Cu. Au and Cu grades capped. Estimate made using ID^2 method.

6.2.3 OMNI 2014

Vargas (2014) made a mineral resource estimate for Omni in 2014 of 46.4 Mt at 0.59% Cu and 0.34 g/t Au (Table 6.3). The mineral resource category is not stated in the report. It was modelled on a grade shell of 0.2% Cu-equivalent using ordinary kriging. The estimate was not reported in accordance with CIM and NI43-101 standards, and a qualified person has not done sufficient work to classify the historical estimate as current mineral resources. Cordoba Minerals are not treating the historical estimate as a current mineral resource and it is quoted for information purposes only

Table 6.3 Historical mineral resource estimate for El Alacran by Omni (Vargas, 2014).

Category	Tonnes	Au (g/t)	Cu (%)	Au (oz.)	Cu (lb.)
Not stated	46,400,000	0.34	0.59	507,331	603,675,649

Cut-off grade 0.2% Cu equivalent based on prices of $950/oz Au and $2.50/lb Cu. Estimate made by ordinary krige method.

6.2.4 Artisanal Mining

Gold in gossan is mined artisanally at El Alacrán by the Asociacion de Mineros de El Alacrán (El Alacrán Miners Association). About 80 miners work in 30 shallow pits and adits and process material in numerous small stamp mills and small ball mills called *cocos*. The artisanal miners have no legal mining rights. Cordoba Minerals has a good relationship with the miners and has made an agreement such that they are allowed to keep mining until mine construction starts.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY AND MINERALIZATION

The San Matias Project is located in an accreted oceanic terrane of the Western Cordillera, described as the Western Andes Terrane by Restrepo & Toussaint (1988), and as Terrane 4b in the most recent tectonic synthesis by Kennan & Pindell (2009). The host rocks are the Upper Cretaceous Cañasgordas Group which is subdivided into the Barroso Formation of basalts, and the Penderisco Formation of turbidites, chert and limestone. The basalts and pelagic sediments formed on the ocean floor and are interpreted to be fragments of an oceanic plateau called the Caribbean Large Igneous Province which were transported a long distance from the west (Kennan & Pindell, 2009). The age of the plateau basalts is about 90 Ma (Turonian; Kennan & Pindell, 2009). On the eastern side, the oceanic terranes are separated from Paleozoic Cajamarca Group schists in the Central Cordillera, which represent the continental margin, by the Cauca-Almaguer Fault Zone, also called the Cauca-Patia Fault or the Romeral Fault, which has large scale right lateral movement. The suture is marked by isolated outcrops of peridotite interpreted to be ophiolites, such as that which hosts the Cerro Matoso nickel laterite deposit, 25 km northeast of the San Matias Project (Gleeson et al., 2004). The age of accretion was between the latest Maastrichtian and Early Eocene. Small granitoid plutons of Upper Cretaceous to Early Eocene age pre- and post-date accretion (Kennan & Pindell, 2009). The San Matias Project is located close to the eastern edge of the oceanic terrane near to the Cauca-Almaguer Fault Zone

The Cajamarca and Cañasgordas Groups are overlain unconformably by Cenozoic age sediments the northern part of the San Matias Project. The sediments are accretionary prisms of Paleocene to Oligocene age forming the San Jacinto Fold Belt, and accretionary prisms of Oligocene to Pliocene age forming the Sinú Fold Belt to the west, as well as extensive Quaternary sediments (Cediel & Cáceres, 2000).

There are differences in the definition of some of the Western Cordillera terranes between different maps. The San Matias Project is located in Terrane 4b as defined by Kennan & Pindell (2009). On the widely used Geotec geological map of Colombia at 1:1 million scale shown in Figure 7.1 (Cediel & Cáceres, 2000; Cediel et al., 2003), the project is located in the San Jacinto Terrane, which includes Cretaceous oceanic rocks as well as the San Jacinto Fold Belt. It is grouped together with the Sinú Terrane as the Caribbean Terranes, which form the northern part of their Western Tectonic Realm.

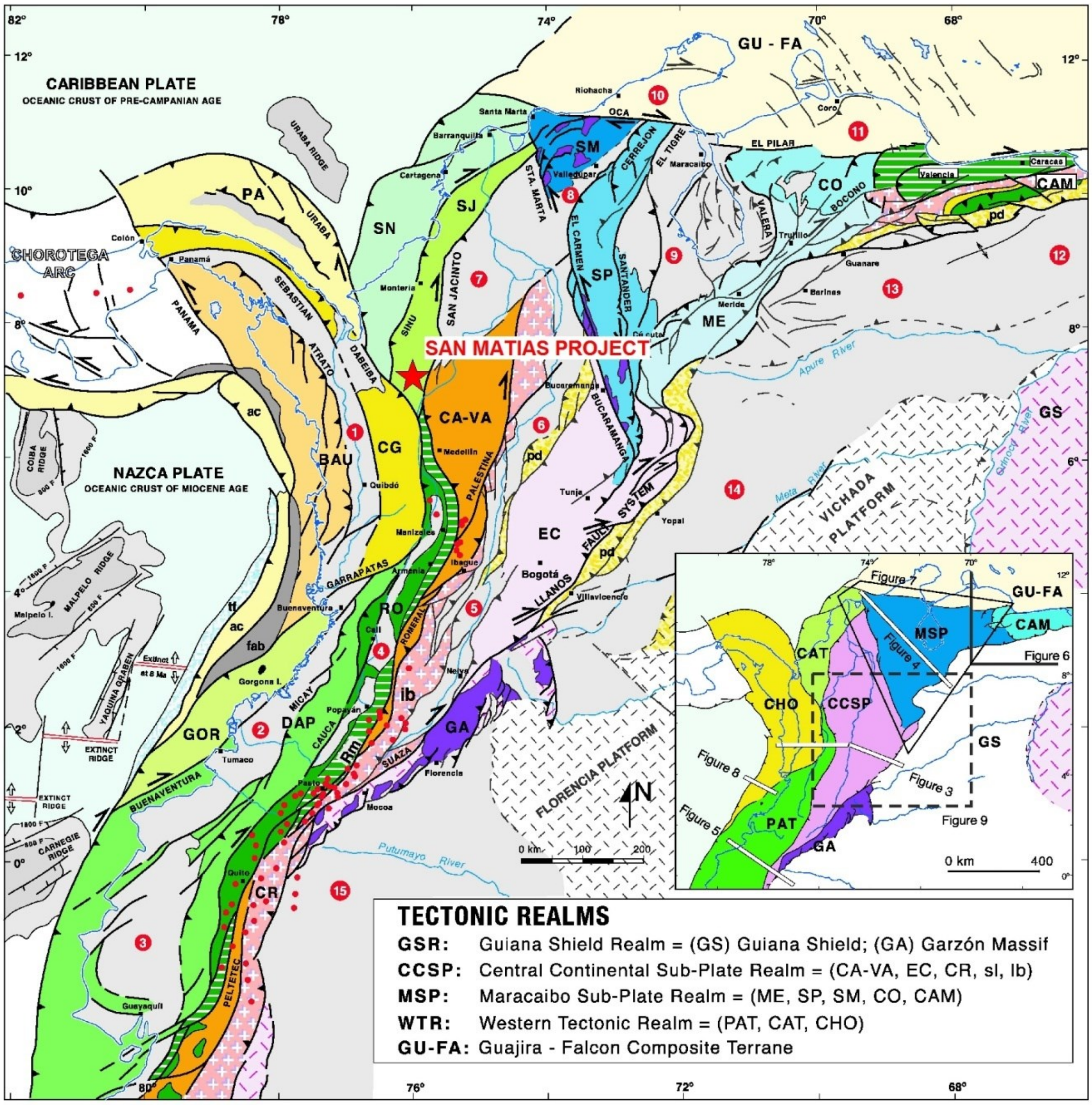
The San Matias Project is interpreted to be located at the northern end of the Middle Cauca Gold Belt (Redwood, 2011), also called the Central Porphyry sub-belt (Sillitoe et al., 1982), which is shown in Figure 7.2. Gold and copper mineralization in the belt is related to the emplacement of porphyry stocks of Late Miocene age. The porphyry intrusions at the San Matias Project have not yet been dated but they are considered to be of a similar age. An older age is also possible as the deposits are close to the suture zone, although this is considered less likely since no older arc-related rocks are mapped. Radiometric dating of the porphyry intrusions is recommended to determine their age. Magmatism and mineralization in the Middle Cauca Gold Belt are interpreted to be related to eastward-dipping subduction of the Nazca Plate beneath the Northern Andes. There is also shallow, amagmatic subduction of the Caribbean Plate to the southeast beneath northwestern Colombia (Kennan & Pindell, 2009).

Gold and copper mineralization in the Middle Cauca Gold Belt is younger than terrane accretion and so the mineral belt straddles the suture and occurs in both the accreted oceanic terranes of the Western Cordillera and the continental basement of the Central Cordillera.

The known extent of the Middle Cauca Gold Belt is for about 365 km south from the San Matias Project to La Colosa. Mineralization is of gold-rich porphyry style and intermediate sulphidation epithermal style with gold, silver and zinc. The San Matias Project appears to host the most copper-rich gold porphyries in the belt. San Matias lies 120 km north of the next known deposit in the belt, the Buriticá intermediate sulphidation epithermal vein gold deposit. This has NI 43-101 measured and indicated resources of 12.89 Mt grading 10.8 g/t Au, 34 g/t Ag and 0.4% Zn containing 4.48 Moz Au, plus an inferred resource of 15.6 Mt grading 9.0 g/t Au, 29 g/t Ag and 0.3% Zn and containing 4.5 Moz gold (Vigar & Taylor, 2015). The qualifying person has not verified the resource information for this and other projects quoted in this section, and the information is not necessarily indicative of the mineralization on the San Matias Project. The Buriticá andesite porphyry host rock has been dated at 7.41 ± 0.40 Ma and intrudes volcanic and sedimentary rocks of the Cretaceous Barroso Formation and the Buriticá stock (Lesage et al., 2013).

The largest porphyry deposit in the Middle Cauca Gold Belt is La Colosa, near Cajamarca, Department of Tolima, 360 km south of San Matias, which has a JORC indicated plus inferred mineral resource of 1,064.2 Mt grading 0.83 g/t Au and containing 28.46 Moz gold (AngloGold Ashanti Mineral Resource and Ore Reserve Report, 31 December 2015). The other major gold deposit in the belt is Marmato, Department of Caldas, located 250 km south of San Matias. Marmato is an intermediate sulphidation epithermal deposit with a NI 43-101 compliant measured and indicated mineral resource of 409.7 Mt grading 0.90 g/t Au and 6.10 g/t Ag containing 11.8 Moz Au and 80.3 Moz Ag, plus an inferred resource of 79.1 Mt grading 1.02 g/t Au and 3.71 g/t Ag and containing 2.6 Moz Au and 9.4 Moz Ag (Parsons, 2012).

While the porphyry deposits in the belt are generally gold rich, several also have copper resources, such as the La Mina (Antioquia) porphyry gold-copper deposit which has a NI 43-101 indicated resource of 28.2 Mt grading 0.74 g/t Au, 1.77 g/t Ag and 0.24% Cu, and an inferred resource of 12.4 Mt grading 0.65 g/t Au, 1.75 g/t Ag and 0.27% Cu (Wilson, 2016). The nearby Cerro Vetas porphyry gold-copper deposit at Titiribi (Antioquia), has a NI 43-101 measured and indicated mineral resource of 184 Mt at 0.48 g/t gold and 0.16% copper, plus an inferred resource of 153 Mt at 0.57 g/t Au and 0.064% Cu (Kantor & Cameron, 2013). The Nuevo Chaquiro, Quebradona porphyry gold-copper deposit has a JORC indicated plus inferred resource of 565.7 Mt grading 0.31 g/t Au, 4.34 g/t Ag, 0.64% Cu and 127 ppm Mo containing 5.66 Moz Au, 78.88 Moz Ag, 7,968 Mlb Cu and 157.83 Mlb Mo (AngloGold Ashanti Mineral Resource and Ore Reserve Report, 31 December 2015).



Legend. Lithotectonic and morphostructural map of northwestern South America. GS = Guiana Shield; GA = Garzón massif; SP = Santander massif–Serranía de Perijá; ME = Sierra de Mérida; SM = Sierra Nevada de Santa Marta; EC = Eastern Cordillera; CO = Carora basin; CR = Cordillera Real; CA-VA = Cajamarca-Valdivia terrane; sl = San Lucas block; ib = Ibagué block; RO = Romeral terrane; DAP = Dagua-Piñón terrane; GOR = Gorgona terrane; CG = Cañas Gordas terrane; BAU = Baudó terrane; PA = Panamá terrane; SJ = San Jacinto terrane; SN = Sinú terrane; GU-FA = Guajira-Falcon terrane; CAM = Caribbean Mountain terrane; Rm = Romeral mélange; fab = fore arc basin; ac = accretionary prism; tf = trench fill; pd = piedmonte; 1 = Atrato (Chocó) basin; 2 = Tumaco basin; 3 = Manabí basin; 4 = Cauca-Patía basin; 5 = Upper Magdalena basin; 6 = Middle Magdalena basin; 7 = Lower Magdalena basin; 8 = Cesar-Ranchería basin; 9 = Maracaibo basin; 10 = Guajira basin; 11 = Falcon basin; 12 = Guarico basin; 13 = Barinas basin; 14 = Llanos basin; 15 = Putumayo-Napo basin; Additional Symbols: PALESTINA = fault/suture system; red dot = Pliocene-Pleistocene volcano; Bogotá = town or city. Drawn by S. Redwood, 4-12-13

Figure 7.1. Tectonic setting of the San Matias Project.

Base map from Cediel et al., 2003.

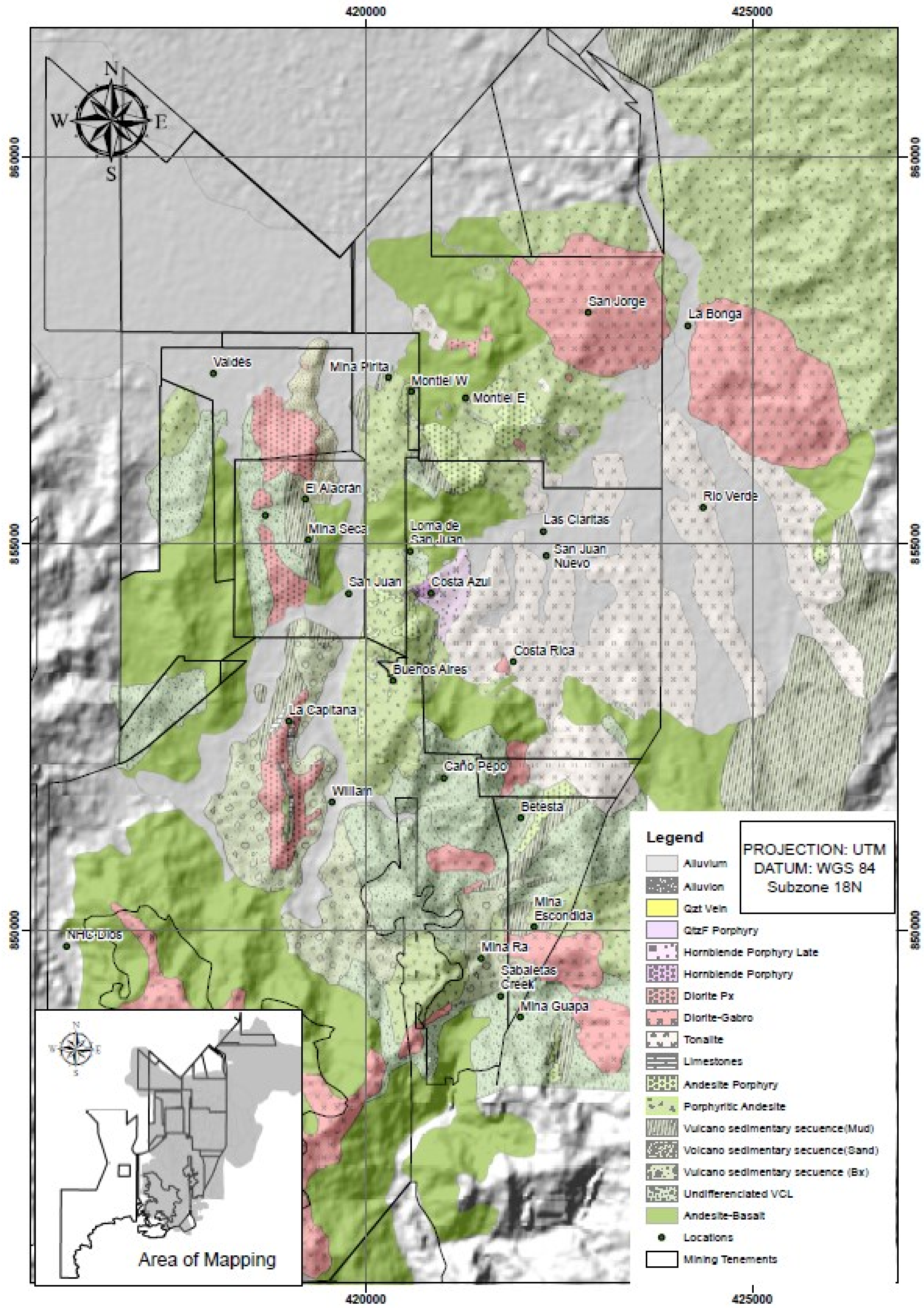


Figure 7.2. District scale geological map of the San Matias Project and El Alacran.
Based on INGEOMINAS / SGC Atlas Geológico de Colombia, Sheet 5-05, 1:500,000 scale, 2007.

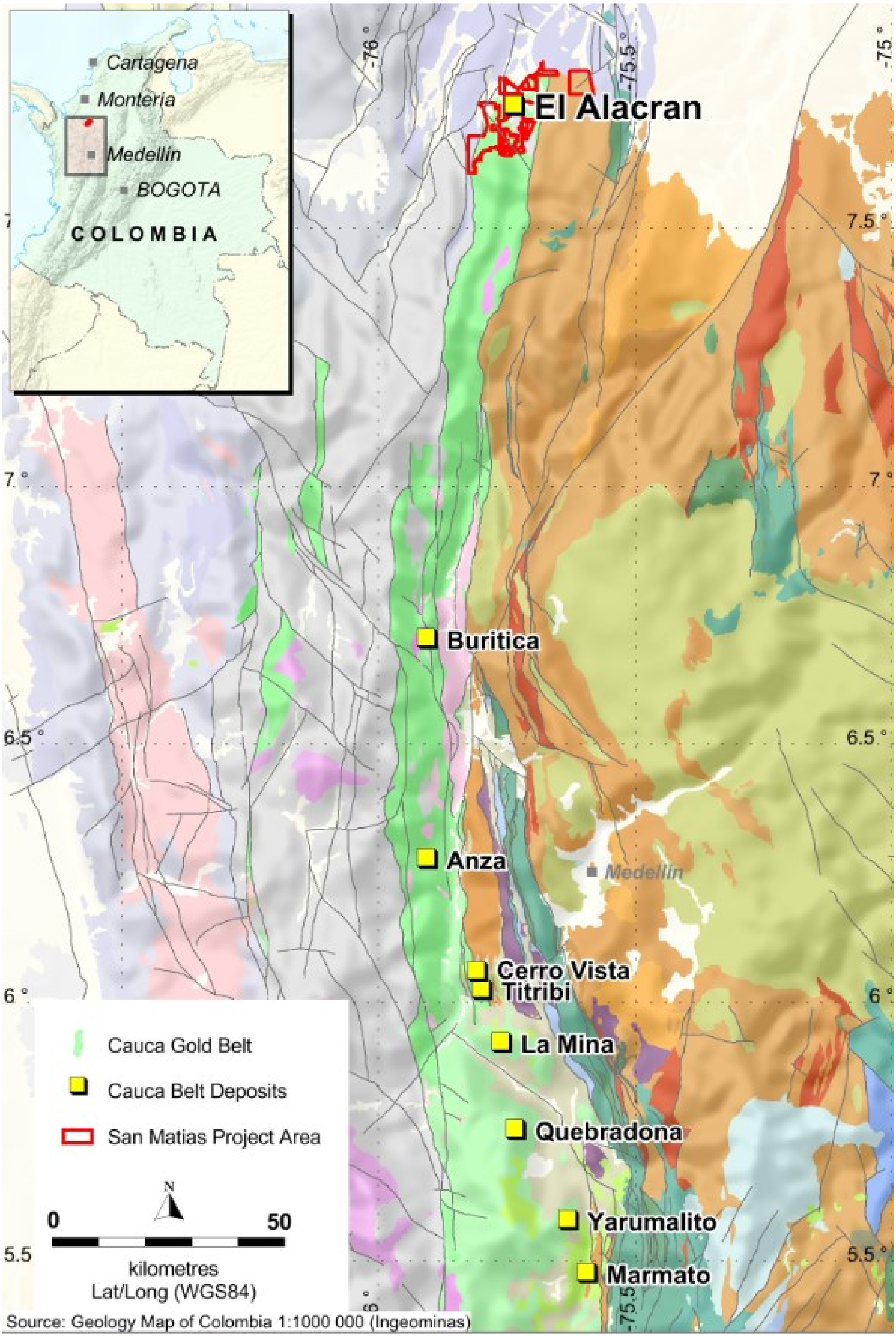


Figure 7.3. The Middle Cauca Gold belt showing the geology and principal deposits.
Base map: Geological Map of Colombia (2007) by INGEOMINAS / SGC, 1:1,000,000 scale.

7.2 EL ALACRAN DEPOSIT GEOLOGY AND MINERALIZATION

7.2.1 Geology

The El Alacran copper-gold mineralization is hosted by a west-dipping Cretaceous succession comprising mafic volcanic rocks overlain by a metasedimentary-volcaniclastic sequence and capped by pre- to syn-mineral, sill-like diorite and felsic sub-volcanic bodies. The sequence is about 550 m thick and the sills are about 200 m thick. The concession scale surface geology is shown in Figure 7.4 and was made by Cordoba geologists from core logging and lithogeochemistry, together with soil geochemistry and outcrop mapping, with faults inferred from ground magnetics and apparent displacements in the 3D geological model. However strong alteration associated with mineralization makes the recognition of protoliths difficult. Lithostratigraphy was modeled in 3D in LeapFrog software. A typical cross section is shown in Figure 7.5.

Copper-gold mineralization occurs throughout the metasedimentary-volcaniclastic package, except the lower mafics, and is most strongly developed in the mid to upper part of this package.

The mineralized zones are known as Mina Norte (North Mine) to the north of the east-draining valley where El Alacran artisanal miners' village is located, and Mina Seca (Dry Mine) to the south.

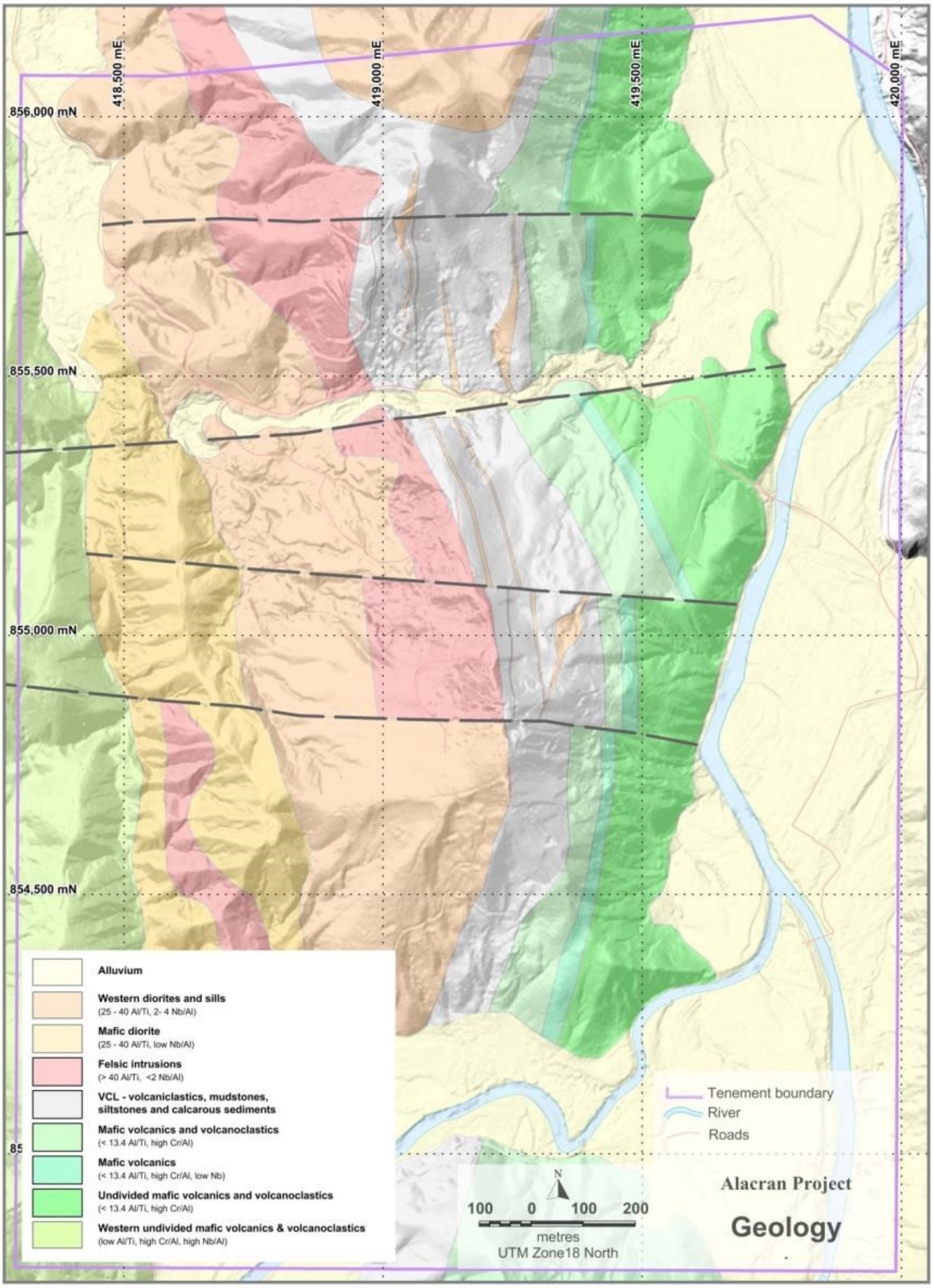


Figure 7.4. Geological interpretation map of El Alacran.
Interpretation by V.Wall, Consultant to Cordoba. Drafted by Cordoba 09-02-17. Datum WGS84.

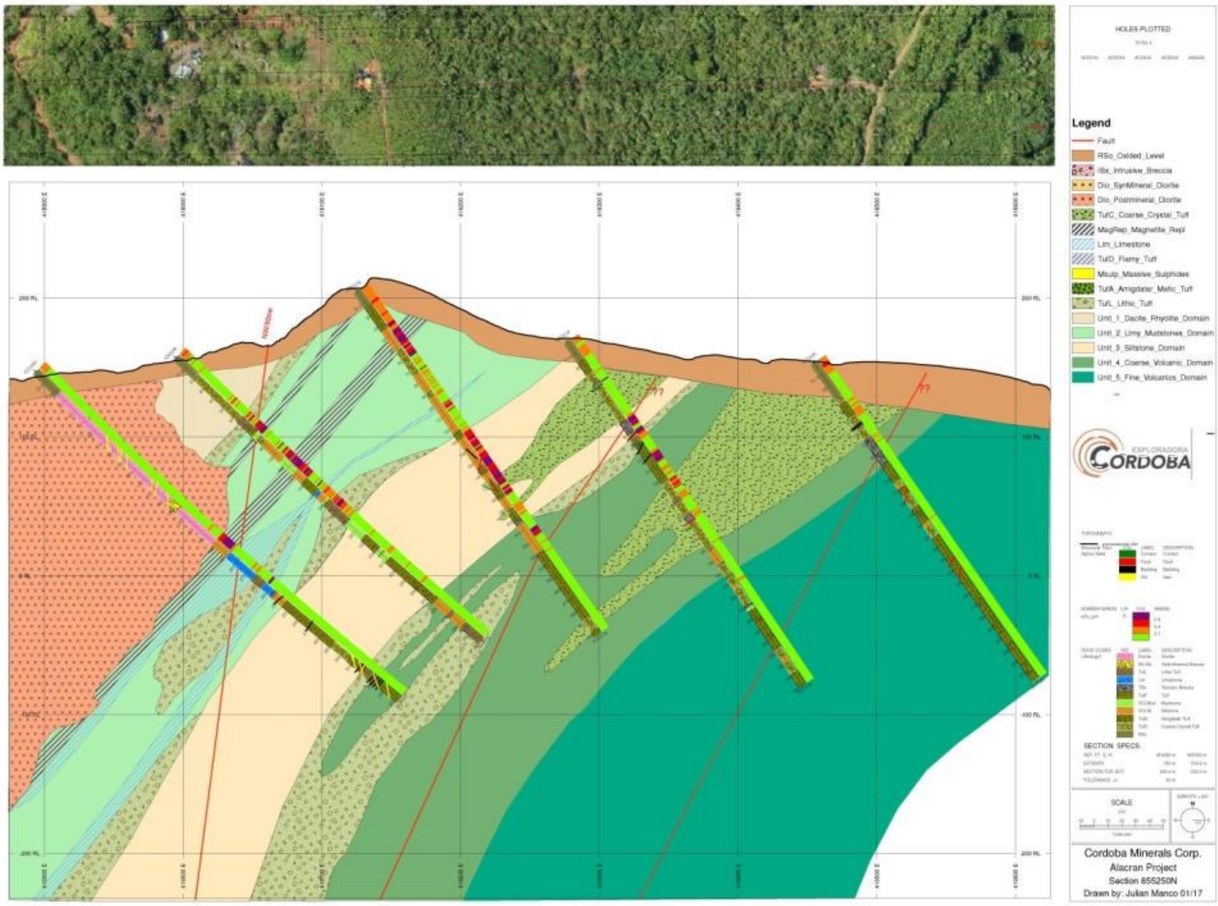


Figure 7.5. Cross section 855250 N looking north with drill hole geology, Cu equivalent grades and interpreted geology.

7.2.2 Lithostratigraphy

Lithological units in the El Alacran area can be broadly divided into a volcano-sedimentary sequence and a set of later intrusions. The volcano-sedimentary sequence comprises three mafic volcanic-volcanoclastic units at the base, overlain by a metasediment-volcaniclastic succession (VCL). A summary lithostratigraphic column is shown in Figure 7.6.

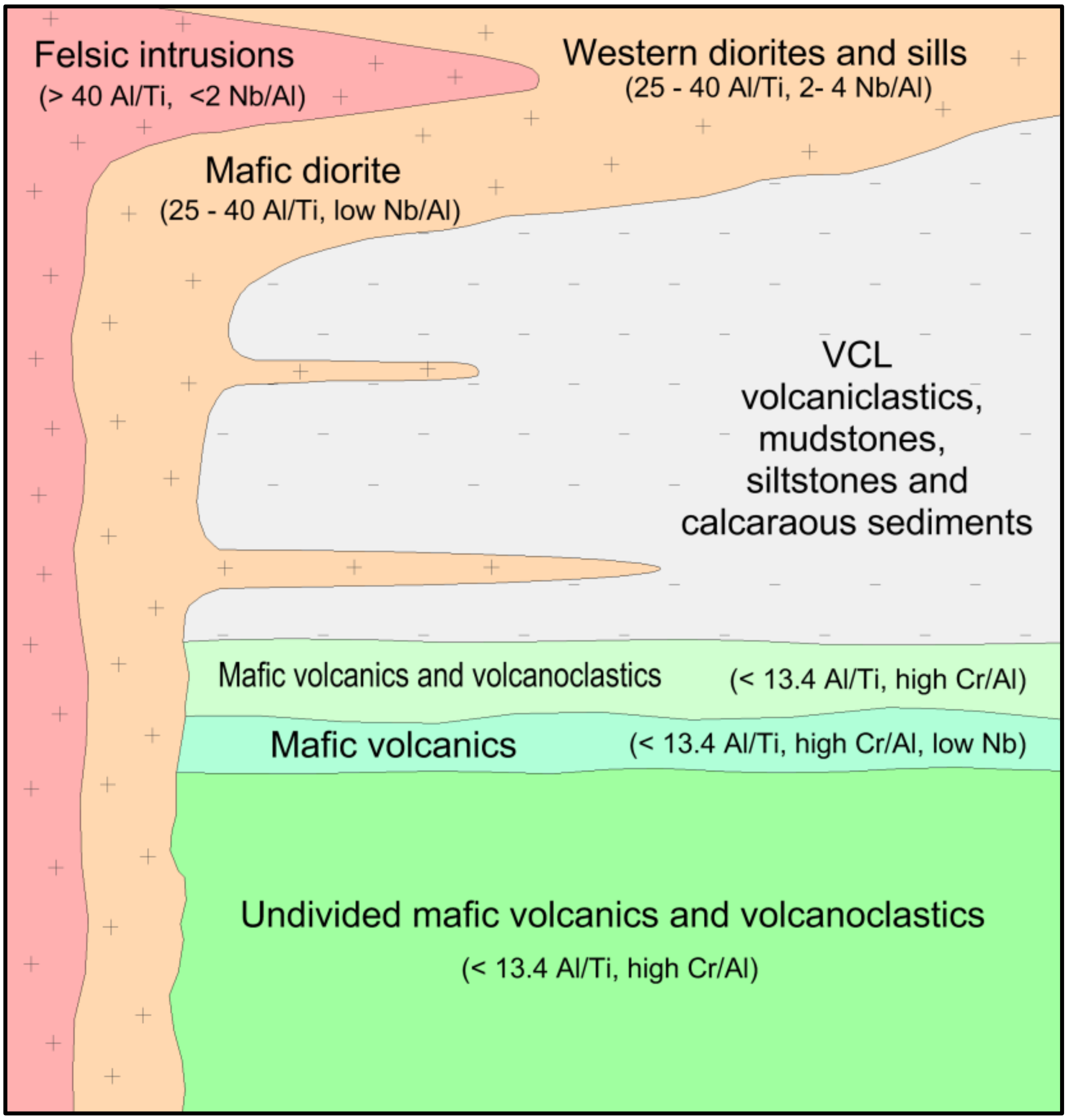


Figure 7.6. Summary lithostratigraphic column for El Alacran with lithogeochemical characteristics.

Interpretation by V. Wall, Consultant to Cordoba.

7.2.2.1 Volcano-sedimentary Sequence

The lowest stratigraphic units in the El Alacran area consist of interlayered mafic to intermediate volcanic rocks, fragmental or volcaniclastic rocks (locally showing remants of vitroclastic and pepperitic textures) and lesser silty epiclastic or fine grained tuffaceous sediments. The base of the mafic-dominated succession is not encountered in the project area and its stratigraphic thickness exceeds 300 m. Within the mafic unit, at least six coherent subunits can be recognized by textures in drill core and by their distinctive low Al/Ti and high Cr/Al ratios, plus their Ni, Co and Nb contents. These subunits persist through the full length of the El Alacran concession. The two uppermost mafic units are depicted on the local geology map (Figure 7.4), but the lower part of the mafic succession is currently undivided as few holes intersect it. An additional mafic volcanic/volcaniclastic unit occurs to the west of the western diorites but its stratigraphic situation is not yet established and it may overlie the main VCL. A subaqueous environment is inferred for deposition of the El Alacran mafic units and their geochemistry is broadly consistent with an oceanic plateau or early arc setting, in contrast with earlier Cretaceous tholeiitic and ophiolitic assemblages of the Cañasgordas Group to the south and east of El Alacran.

The overlying metasediment-volcaniclastic succession is a composite unit that includes a variety of volcaniclastic rocks, mudstones, siltstone and calcareous sediments. The lower-most 50 m comprises thin bedded volcaniclastic(?) siltstones and sandstones overlain by black, thin-bedded to laminated mudstones. Except where strongly mineralized this succession is geochemically distinguishable by higher Al/Ti, lower Cr/Al and relatively low Ni and Co compared with the underlying mafic succession. The ~200 m of stratigraphy above the lower siltstones comprises mudstones and thin to thick-bedded lapilli and lithic tuffs. Several thin, bioclastic calcareous units with fossil shells occur in the upper part of this unit and are succeeded upwards by thick-bedded lithic “tuffs”, conglomerates and volcaniclastic breccias.

Dacitic to rhyolitic bodies in the west of Mina Norte may be the upper volcanic part of the stratigraphic package, or they may be intrusive and co-magmatic with dioritic intrusions.

7.2.2.2 Intrusions

Intrusions are recognized at El Alacran by their hypabyssal igneous textures in core and surface mapping and also by their high Al/Ti (25 to >100), low Nb/Al (<4), low Zr/Al & Cr/Al and other geochemical features consistent with intermediate to felsic igneous rocks. Mainly on the basis of Al/Ti four chemically distinct groups of intrusions are recognized, although the very high Al/Ti groups can be gradational.

In the west of the El Alacran system broad hornblende-pyroxene (micro)diorite bodies (Al/Ti 25-35 and 35-45) intrude the metasedimentary-volcaniclastic succession in a broadly north-south zone up to 2 km long (Figure 7.4). The eastern contacts of these diorites generally dip moderately to steeply west, broadly concordant with the stratigraphy, but locally discordant.

More felsic igneous bodies (Al/Ti >45), up to 400 m in north-south extent, occur to the east of the western diorites but also occur within these diorites (Figure 7.6). Contact relations are not clear but the western diorites may be intruded by the high Al/Ti bodies and these display sill-like geometries against the metasedimentary-volcaniclastic succession.

Further to the east the latter succession is intruded by up to five microdioritic sills, which are lenticular in form and locally up to 20 m in thickness. Intrusions have not yet been observed in the underlying mafic succession.

A large dioritic body occurs in northern-most El Alacran where it intrudes and/or is faulted against the metasedimentary-volcanic succession. The lithostratigraphic units diverge to the east and west of this diorite, which appears to be discordant.

El Alacran intrusions are remarkably geochemically similar to discordant porphyry bodies, sills and other intrusions in the Montiel and Costa Azul areas and therefore are regarded as co-magmatic with these and of similar age. El Alacran intrusions were thus emplaced after regional folding & low grade regional metamorphism and probably post-dating the Cenozoic sedimentary succession that unconformably overlies the Cretaceous basement in the San Matias project area. However the absolute age of the magmatic suite is yet to be established.

All of the El Alacran intrusions are at least locally overprinted by magnetite- and sulphide-stage mineralization and therefore are regarded as pre- to syn-mineral, although the western diorites and the northern diorites are largely unmineralized. Hydrothermal magnetite-rich bodies are clustered around the margins of the western intrusions, but also overprint sills further east. The Alacran intrusions likely relate to larger fractionated and / or multiply recharged plutons at depth. Geochemically the El Alacran intrusives belong to the low to medium K,calc-alkaline suite of a magmatic arc.

7.2.2.3 Structure

The Cretaceous succession of the El Alacran area is situated on the moderately dipping western limb of a faulted, regional anticlinorial zone with N-S to NNW trending axial surfaces, which is cored further to the east by mafic and ultramafic rocks correlated with the Cañasgordas Group, and by dismembered Cretaceous ophiolites. Mesoscopic folds observed in outcrop and drilling are responsible for local changes in dip, are shallowly plunging and are inferred to represent parasitic folds syn-kinematic with the regional post-Cretaceous deformation. This deformation was of relatively low strain and produced a steep, weak cleavage in the Cretaceous metasediments at lower greenschist facies metamorphic grades. As noted above, intrusive activity is inferred to postdate this regional deformation.

Cenozoic successions to north and west of El Alacran generally dip shallowly and are folded about N-S to NNE- axes. The Cenozoic successions are faulted against or unconformably overly the Cretaceous succession and are inferred to have been eroded from the El Alacran area.

Sets of steeply dipping WNW-, ENE- and ~E-W faults transect the El Alacran area and are mapped from their topographic expressions and inferred from ground magnetics and aeromagnetic images. In the area of the El Alacran deposit, the E-W faults are post-mineral and displace lithostratigraphic and mineralized packages by less than 50 metres.

7.2.3 Alteration and Mineralization

Three main stages of hydrothermal alteration and mineralization are distinguished on the basis of structural and textural overprinting relations, from oldest to youngest:

i) Early magnetite stage;
ii) Main copper-gold, sulphide-rich stage;
iii) Late stage carbonate-base metal (CBM) style, auriferous veining.

7.2.3.1 Magnetite stage

The largest magnetite-quartz rich zones (where not overprinted by iron-rich sulphides) are in the west of the El Alacran mineralized system in the Mina Seca (south-central) area. These zones strike around N-S and dip moderately- to steeply west, and are broadly concordant with the layered volcaniclastic succession and the internal and external contacts of dioritic to felsic intrusions around which the main magnetite-rich bodies are clustered. Individual magnetite-rich bodies may persist along several hundred meters of strike length, and the western magnetite-rich zones over strike lengths of around 700 m (between 854900N and 855600N) over a depth range in excess of 200 m.

Locally assaying more than 40% Fe, the magnetite-rich bodies commonly exhibit a banded appearance caused by alternations of magnetite and quartz-rich zones, the former commonly showing magnetite replacing bladed minerals (hematite and/or actinolite). Magnetite-rich zones are enriched in V, Co, Ni and P compared with their Al, Sc and Ti contents and exhibit high V/Sc in high Fe rocks. Except where veined and partially replaced by sulphides, the magnetite-rich bodies are copper and sulphur poor. Their low Al, Ti & Sc contents compared with adjacent lithologies indicate that the magnetite-rich zones were dilatant, in other words the magnetite and quartz were deposited by open space filling. Major and trace element geochemistry is consistent with formation from relatively high temperature, saline hydrothermal (probably magmatic) fluids in intrusion-proximal situations. El Alacran magnetite-quartz zones are similar to smaller bodies found in association with the San Matias porphyries.

To the north in the Mina Norte area (and to the east in Mina Seca), iron-enrichment (>10% Fe) is evident in the volcaniclastic package but rarely in the underlying mafic rocks and also locally overprints intrusions. Zones of iron-enrichment are broadly concordant with layering but locally broaden over strike and dip extents of 50 to 100 m. In Mina Norte Fe contents rarely exceed 20% and the high V/Sc and marked dilation, characteristic of the magnetite rich-zones in Mina Seca, are uncommon. The highest Fe contents in Mina Norte are associated with zones of relatively massive sulphide (pyrite-pyrrhotite) but these and other sulphide-rich zones locally exhibit remnants of magnetite. The northerly and easterly zones of iron-enrichment are interpreted as largely replacement of host rocks with lesser dilation than evident in the Mina Seca magnetite-rich zones. However iron-enrichment may occur at hydrothermal sulphide stages, as noted below.

7.2.3.2 Copper-gold sulphide stage

Hypogene copper-gold mineralization, in Mina Norte and eastern Mina Seca, takes the form of lenticular zones with broadly north-south strikes that dip moderately to the west, broadly concordant with host stratigraphy and intrusion contacts. The copper-gold zones, however, locally broaden in vertical and horizontal extents (reaching horizontal widths up to 300 m) around steep N-S surfaces and these broader zones and high grade subzones plunge relatively shallowly. Copper-gold zones commonly remain open to depth but are largely restricted to the main volcaniclastic package, although drilling has intersected mineralization in the upper part of the mafic package in northern and central El Alacran.

Copper-gold mineralization comprises veins and disseminations of chalcopyrite-pyrite±pyrrhotite with quartz and carbonate and locally forms massive sulphides. Apatite is common. Gold correlates semi-logarithmically with copper and molybdenum and is most anomalous in lower grade areas. Ni, Co, Cr, LREE and P are typically enriched to highly enriched in sulphide-mineralized zones.

Drill core-scale and petrographic observations show that copper-gold sulphide mineralization forms veins and partially to completely replaces magnetite-stage alteration. Pyrrhotite dominates early copper-gold mineralization and may be intergrown with or partially replace actinolitic amphibole. The pyritic assemblage commonly overprints pyrrhotite, and much of the chalcopyrite apparently formed at this stage, associated with chlorite-carbonate±sericite alteration. This alteration is magnesian and sodic-calcic, and locally overprints potassic alteration and apparently phyllic (sericitic) alteration in its later stages.

In western Mina Seca copper-gold mineralization generally exhibits high Au/Cu and some high grade gold (>5g/t gold) intercepts exhibit low copper values. These gold-rich zones commonly occur in and around the magnetite-rich bodies but vein and overprint these and also occur as veins in the western dioritic intrusions and locally overprint dioritic and more felsic sills. The gold-rich zones are characterized by anomalous arsenic and molybdenum but exhibit low zinc contents and commonly lack carbonates; the main sulphide is pyrrhotite, partially overprinted by pyrite.

Apparent enrichment of sulfidic copper-gold zones in Ni, Co, Cr, LREE and P is consistent with the involvement of relatively saline hydrothermal fluids. Associated chlorite-carbonate, albitic and sericitic alteration is indicative of low to moderate temperatures, and the sulfidic stages overprint higher temperature magnetite stages. Mineralising fluids are interpreted to have been magmatic hydrothermal and caused alteration that in porphyry environments would be characterized as propylitic to phyllic in pluton-distal settings.

7.2.3.3 Carbonate-base metal (CBM) vein stage

In Mina Norte sphalerite-rich, pyrite-carbonate-quartz veins are more widely distributed than in Mina Seca. Such CBM veins are generally auriferous and may carry high grade gold e.g. 14 g/t Au over 3 m (ACD-009), and 4,440 g/t Au over 0.9 m (ACD-036) associated with visible gold. The CBM veins overprint the copper-gold stage mineralization and maybe somewhat discordant to this mineralization, but their orientations are not yet confidently established.

8 DEPOSIT TYPES

Several different deposit models have been proposed for El Alacran including banded iron formation, volcanogenic massive sulphide (Vargas, 1998, 2002), skarn (Vargas, 2002), and iron oxide copper-gold (Mosher, 2012), although the mineralization style does not readily fit with any of these models. It has most similarities with low temperature, distal replacement parts of IOCG systems. It may be classified among "Andean style" IOCG systems (Sillitoe, 2003) and resembles some deposits in the Cretaceous Coastal Batholith terrane in Peru and Chile (summarized by Sillitoe, 2003).

El Alacran is characterized by an early, relatively high temperature, hydrothermal magnetite-rich stage and broadly stratabound iron-enrichment of a submarine volcanosedimentary sequence that includes carbonates and carbon-rich mudstones, with dolerite and felsic intrusions. The magnetite-stage is overprinted by auriferous pyrite-pyrrhotite-chalcopyrite mineralization as veins and replacements and is accompanied by sodic-calcic, magnesian- and locally sericitic alteration, the product of lower temperature, saline hydrothermal fluids, probably also intrusion-related. Finally, there is a late stage of epithermal, auriferous carbonate-base metal style veining. The inferred causative dolerite intrusion has not been encountered. El Alacran mineralization is broadly coeval with porphyry style mineralization and vein systems elsewhere in the San Matias project.

Magmatic hydrothermal iron oxide-copper-gold deposits are defined by their high concentration of iron mainly as the iron oxides magnetite and/or hematite, with relatively minor iron sulphides. They may contain economically important enrichments of Cu ± Au ± U ± REE (rare earth elements) ± Co. They have broad zones of high-temperature (~600-400°C) sodic (albite, amphibole, pyroxene), sodic-calcic (magnetite-actinolite-apatite) or potassic (K-feldspar-magnetite-biotite-amphibole) alteration. Lower temperature alteration zones (<400°C) such as hematite-chlorite-sericite-carbonate are characterised by near-neutral to only mildly acidic conditions, in contrast to porphyry systems (Richards & Mumin, 2013). A model comparing IOGC and porphyry systems (Richards & Munin, 2013) is shown in Figure 8.1, showing the interpreted locations of the El Alacran and San Matias deposits.

Andean IOCG deposits were reviewed by Sillitoe (2003). The IOCG belt is located in the Coastal Cordillera of northern Chile and southern Peru, where it is part of a volcanoplutonic arc of Jurassic to Early Cretaceous age. The arc is characterized by voluminous tholeiitic to calc-alkaline plutonic complexes of gabbro through granodiorite composition and primitive, mantle-derived parentage. The IOCG deposits display close relations to the plutonic complexes and broadly coeval fault systems and occur in several styles: veins, hydrothermal breccias, replacement mantos, calcic skarns and composite deposits. The vein-type deposits tend to be hosted by intrusive rocks, especially equigranular gabbrodiorite and diorite, whereas the larger, composite deposits occur within volcano-sedimentary sequences up to two km from pluton contacts and in intimate association with major orogen-parallel fault systems. The deposits formed in association with sodic, calcic and potassic alteration, and show an upward and outward zonation from magnetite-actinolite-apatite to specular hematite-chlorite-sericite and possess a Cu-Au-Co-Ni-As-Mo-U-LREE (light rare earth element) signature.

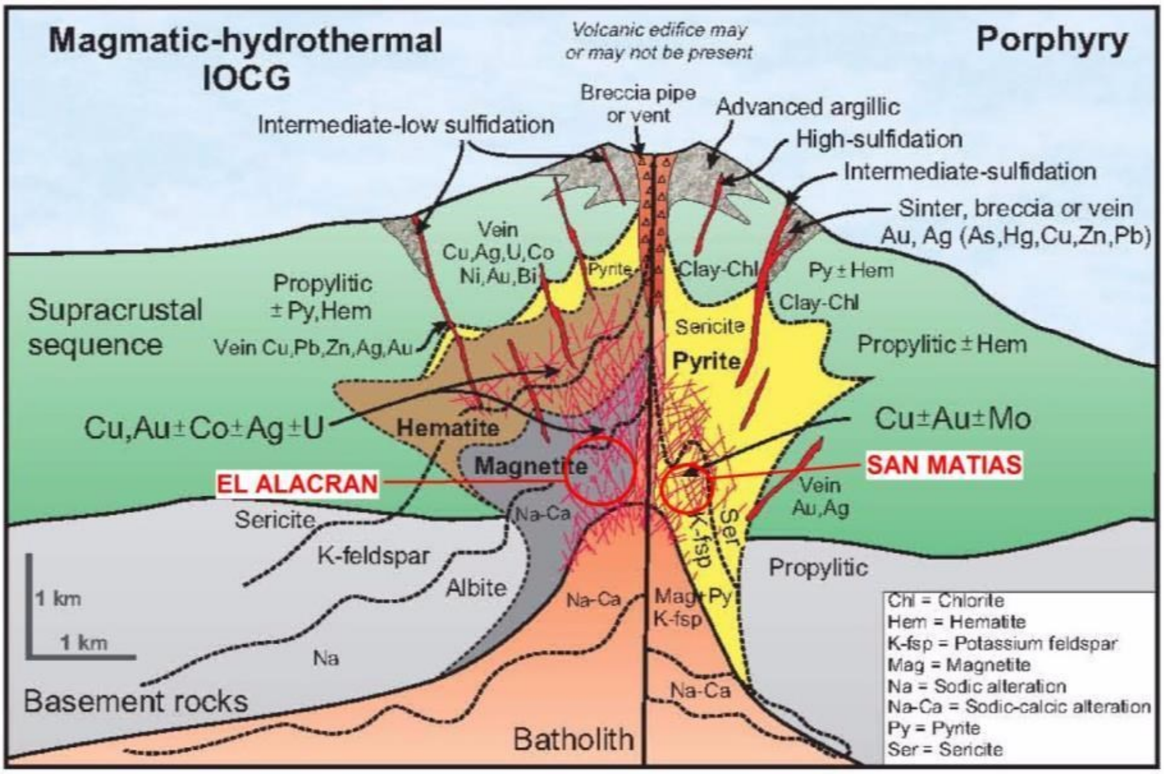


Figure 8.1. Schematic model comparing IOGC (left) and porphyry Cu-Au-Mo systems (right) of Richards & Mumin (2013) showing the interpreted positions of the El Alacran and San Matias deposits, respectively.

9 EXPLORATION

Exploration techniques used at El Alacran by Cordoba Minerals are topographic surveys, geological mapping, mapping and sampling of mine workings, geochemistry (soil grids and channel sampling), drilling and geophysics.

9.1 TOPOGRAPHY

Cordoba Minerals acquired high resolution ALOS PALSAR satellite radar imagery for the San Matias project area including El Alacran. Cordoba Minerals also carried out a LIDAR survey of El Alacran to generate a high resolution digital topographic model and topographic contour map.

9.2 GEOLOGICAL MAPPING

Geological mapping of the El Alacran concession was carried out at 1:2,000 scale. Interpretation was aided by soil sampling, sectional interpretation of drill holes and lithogeochemistry.

9.3 GEOCHEMISTRY

The geochemical samples were taken by standard methods and are considered to be representative samples with no sample biases.

9.3.1 Rock Geochemistry

Cordoba Minerals carried out rock channel sampling in the artisanal mines. Samples were taken by hammer and chisel in continuous channels with each sample being about 1.0 m long by 0.3 m wide. Surface rock sampling was carried out due of the limited outcrops.

9.3.2 Soil Geochemistry

Cordoba Minerals carried out a soil survey at El Alacran in 2016. Samples were spaced at 50 m on E-W grid lines 100 m apart. Samples were taken of the B horizon with an auger at an average depth of 1.0-1.5 m. The entire soil sample was collected with no sieving in the field or laboratory. This identified a 1,300 m NS by 800 m wide soil anomaly of Cu (Figure 9.1) and Au (Figure 9.2) on the eastern side of El Alacran.

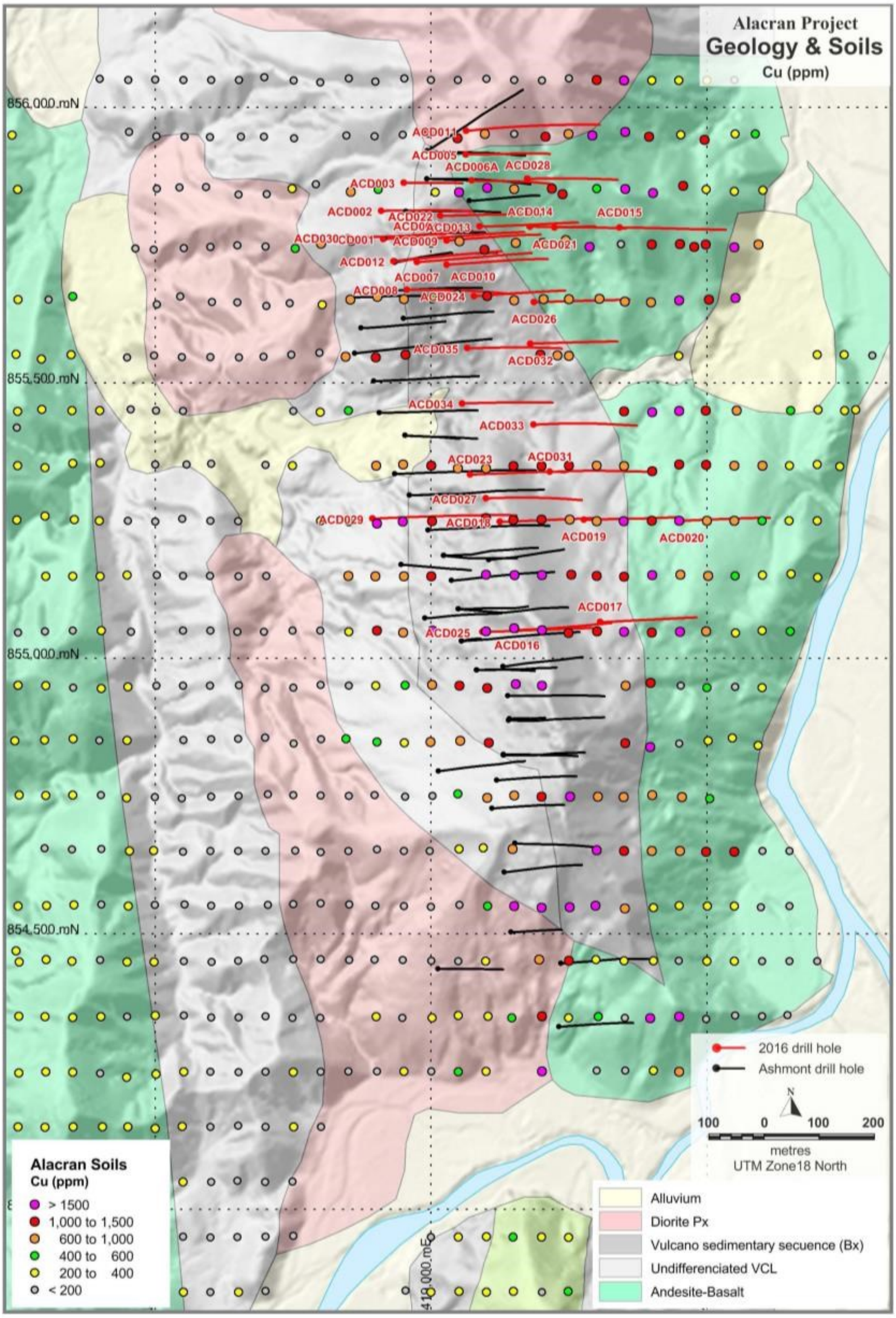


Figure 9.1. Cu in soils at El Alacran, with geology and drill holes.
Datum WGS 84. Map by Cordoba Minerals, December 2016.

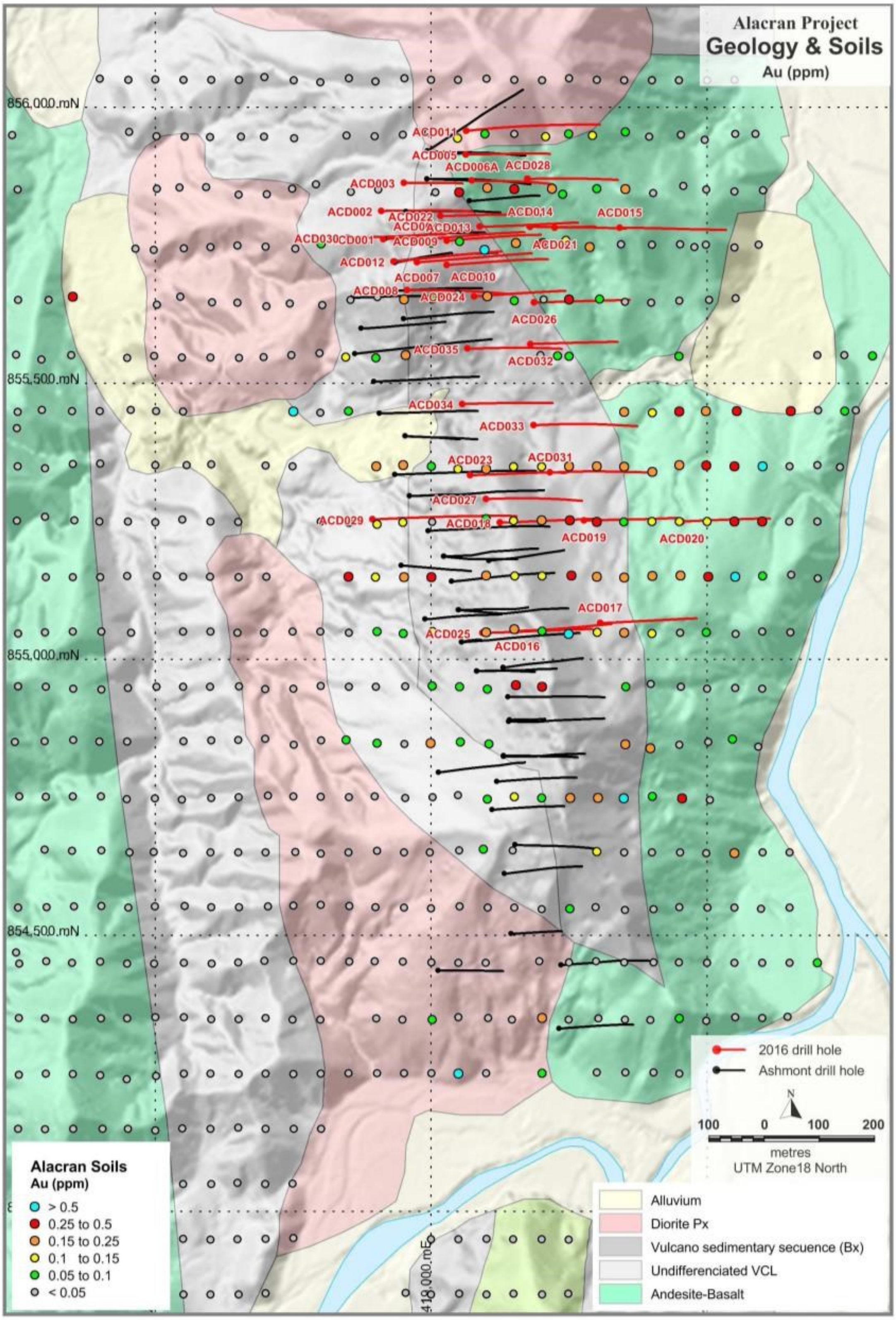


Figure 9.2. Au in soils at El Alacran, with geology and drill holes.
Datum WGS 84. Map by Cordoba Minerals, December 2017.

9.4 GEOPHYSICS

9.4.1 Helicopter Magnetic and Radiometric Surveys

Helicopter-borne magnetic and radiometric surveys were carried out of the San Matias Project including El Alacran by Cordoba Minerals in 2011 and Sabre in 2012. Both surveys were carried out by MPX Geophysics Ltd., Canada (MPX) and are described in reports by MPX (2011, 2012). The two surveys were subsequently merged.

The Cordoba Minerals 2011 survey was 1,310 line km over an area of 216 km^2 with a terrain clearance of 70 m. The flight lines were oriented E-W and spaced 200 m apart, with N-S tie lines every 2,000 m. The Sabre 2012 survey was 4,408.6 line km over an area of 785 km^2 with a terrain clearance of 30 m. The flight lines were oriented E-W and spaced 200 m apart, with N-S tie lines every 2,000 m. The area over the Montiel targets was flown in more detail with flight lines at 100 m spacing and tie lines 1,000 m apart. An image of the aeromagnetic survey over the central part of the project is shown in Figure 9.3.

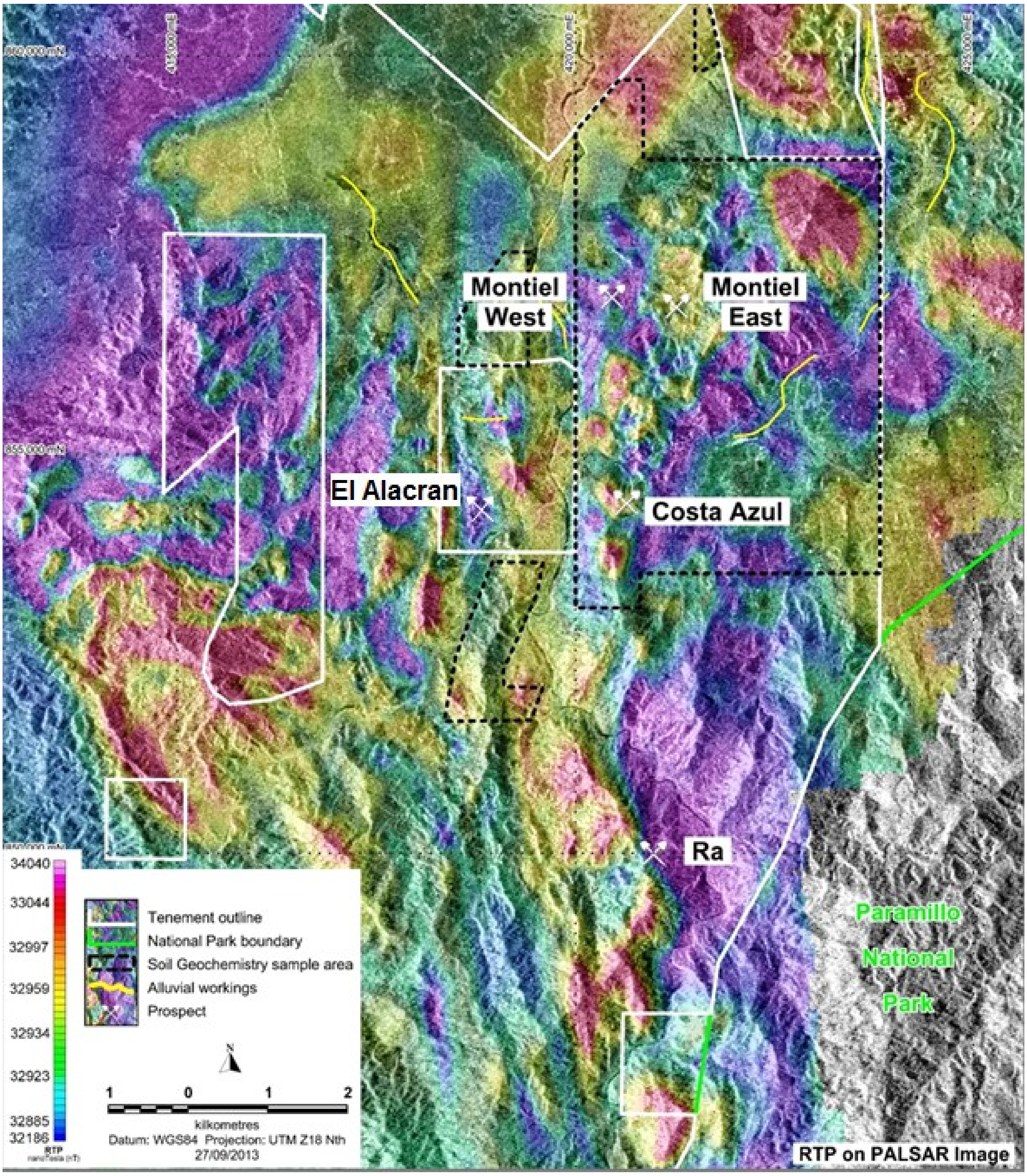


Figure 9.3. Aeromagnetic map (reduced to pole) on radar satellite (Palsar) digital topographic model of the San Matias Project including El Alacran.

9.4.2 Ground Magnetic Surveys

Ground magnetic surveys were carried out over El Alacr an by Ashmont in 2011 and by Cordoba Minerals in 2016. The Ashmont survey was carried out by Mibex and is described in a report (Mibex, 2011). The survey was carried out on 100m E-W lines with readings every 10 m.

The Cordoba Minerals survey was carried out by the company. The survey was made on 47 E-W lines of 1,680 m length spaced at 50 m, with continuous readings every 5 seconds. The first vertical derivative magnetic image of the Cordoba Minerals survey is shown in Figure 9.4.

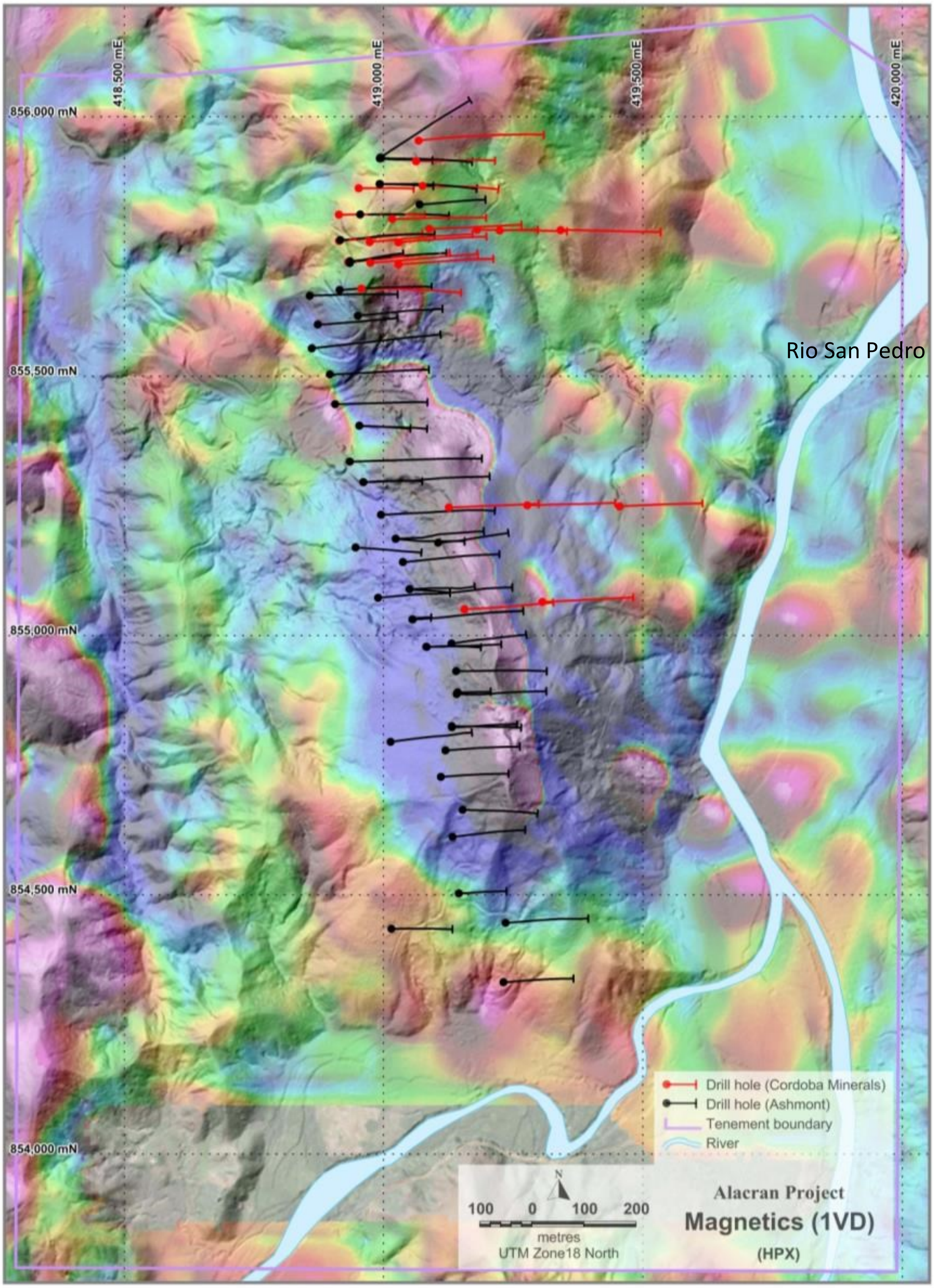


Figure 9.4. Ground magnetic survey (first vertical derivative) of El Alacran by HPX.
Datum WGS84.

9.4.3 Typhoon IP and EM Survey

Induced polarization (IP) and time domain electromagnetic (TDEM) surveys were carried out using the Typhoon™ system over the San Matias Project including El Alacran in two phases in 2016, described in reports by Roberson (2016) and Williams et al. (2016). Typhoon™ is a proprietary, high powered, three-dimensional, deep, induced polarization and electromagnetic system with a high signal-to-noise ratio which is owned and operated by HPX. The Phase 1 IP survey covered an area of about 7.5 km^2 (370.4 line km) and Phase 2 an area of 16.4 km^2 (923.0 line km). Lines were 100 m apart with stations at 50-100 m intervals. The survey was carried out by S.J. Geophysics Ltd of Vancouver using a Volterra acquisition system, with the Typhoon 2 transmitter supplied and operated by HPX. The IP survey was a 3D pole pole-dipole system. Three-dimensional conductivity and chargeability models were generated by Computational Geosciences Inc., Vancouver. The results show several zones of high chargeability which may be due to sulphides. A chargeability high and resistivity low at El Alacran correspond with the mineralized ridge. The chargeability map is shown in Figure 9.6.

The EM survey was carried out as a test over 8.05 line km in Phase 1. It was concluded that EM is unlikely to be an effective and reliable tool for mapping mineralization in this area, and that IP is the preferred geophysical targeting method.

Figure 9.5. The Typhoon IP equipment at San Matias, February 2016.

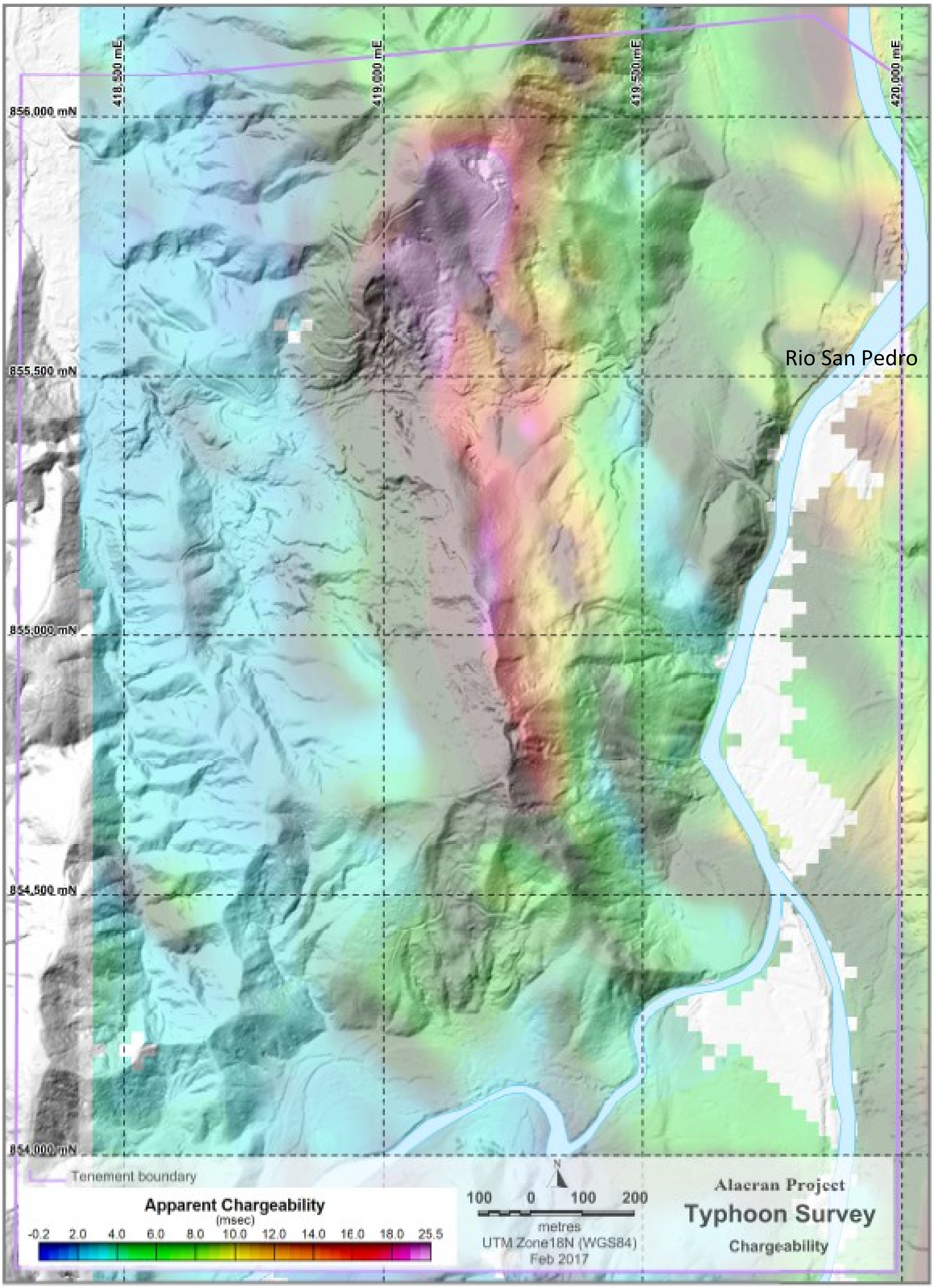


Figure 9.6. Map of the chargeability survey results at El Alacran at 0 m elevation (about 200 m depth).

10 DRILLING

Cordoba Minerals carried out a diamond drill program of 6,766.20 m in 24 holes (ACD001 to ACD022 including two redrilled holes) in 2016. These holes were used for the resource estimate. Since the effective date of 27th October 2016, a further 20 holes for 5,905.50 m were drilled to December 2016 but are not used in the resource estimate

The drill contractor for the Al Alacran program was Logan Drilling Colombia S.A.S., part of the Logan Drilling Group of Canada. Drill rigs used were Track Mounted Durilite T600Hs. The diamond drill rigs are capable of drilling PQ, HQ and NQ_2 core sizes, Figure 10.1 and Figure 10.2. In July 2016 an addition three additional drill rigs were mobilised to the San Matias Project increasing the total drills on the project to four. The four rigs were utilised on both El Alacran Deposit and the Montiel Porphyry target (two km east of El Alacran).

Figure 10.1. Drill Pad, ACD005, Duralite T600H diamond drill rig in operation at El Alacran.

(Photo I.Taylor)

Figure 10.2. Duralite T600H diamond drill rig, Off siders recovering core, Hole ACD005

(Photo I.Taylor)

Drill collar locations were surveyed by differential GPS during a topographic survey of the property. For the resource estimate, collar location elevations were corrected to exactly match the the Lidar topographic survey elevations at the same x-y coordinates. After completion of dilling, collars were marked by cemented plastic pipe. A cement base was added with a plaque with drill hole number and other information. Downhole directional surveys were carried out during drilling using a Reflex ACT II RD Gyro instrument with readings at 3 m intervals. The down hole survey type for Ashmont holes are recorded as "unknown", however the data appears to be from a digital Eastman style single shot camera every 50m downhole.

Average recoveries were 87% (average of individual sample recoveries), Rock Quality Determinations (RQD) were also collated and average RQD was 30%. Lower sample recoveries were obtained in saprolite and oxide zones and samples obtained for these intervals were not necessarily representative. In three cases no sample was recovered. However, the saprolite and oxide zones are thin and the majority of the mineralization intersected is in the primary zone where recovery is generally 100%, with 68% of recoveries recorded as 100%, 7% of all measurements showed less than 50% recovery. Inspected Ashmont core trays show similar recoveries to the Cordoba drilling.

10.1.1 Drill collar plan and representative section

The Project drill collar plan is shown in Figure 10.4 and the representative cross section in Figure 10.3.

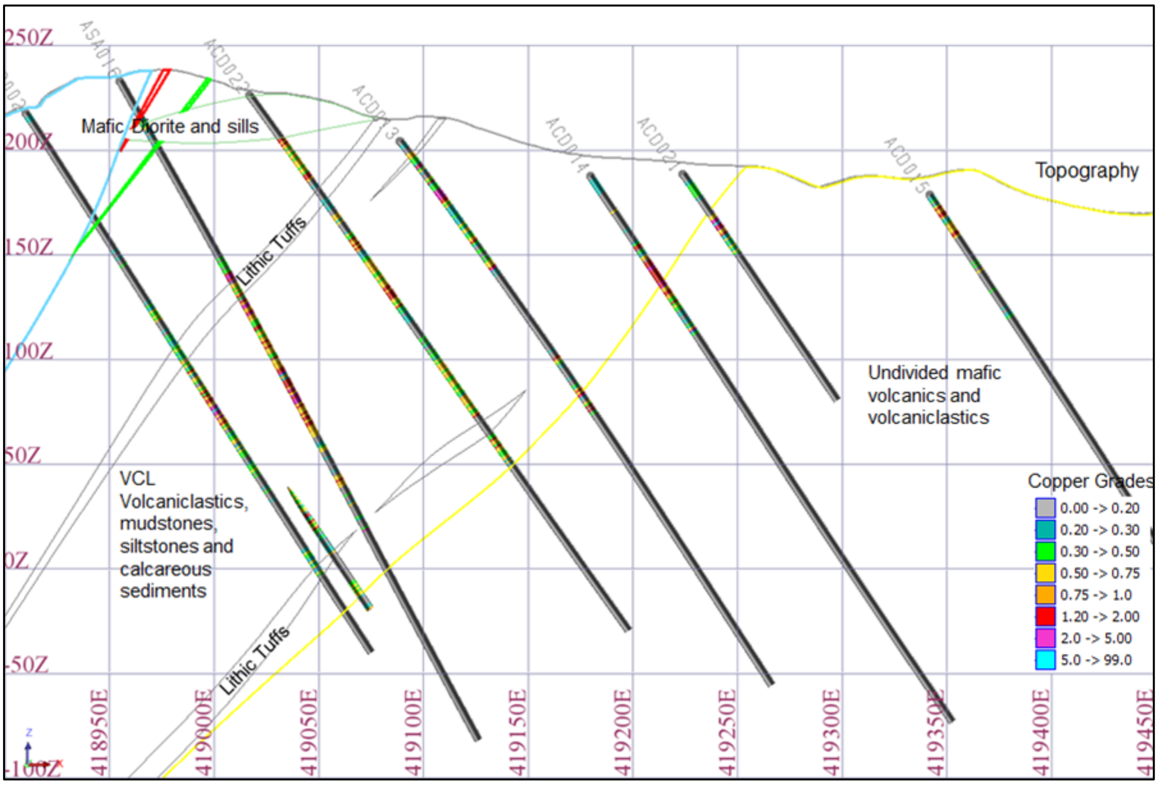


Figure 10.3. Project representative cross section (855800 mN ±50m)

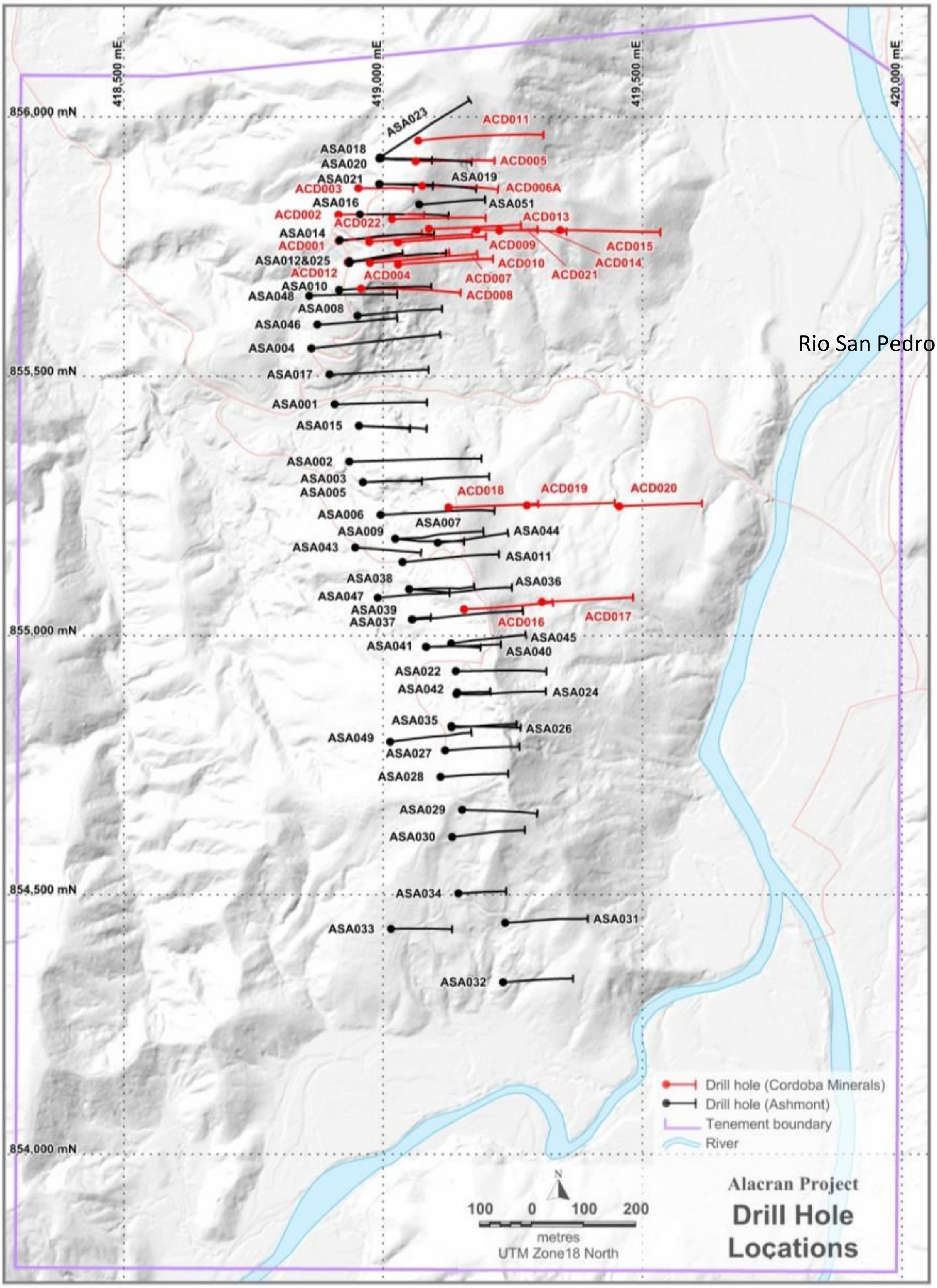


Figure 10.4. Project Drill Collar Plan

The drilling campaign at El Alacran has shown that the mineralization dips moderately to the west, conformable to the host stratigraphy, confirming significant mineralization at Mina Norte and adding additional shallow mineralization up-dip to the east of Mina Seca (Figure 10.4). Moving from north to south, the host stratigraphy appears to steepen while the mineralization changes from pyrrhotite-pyrite-chalcopyrite to magnetite-chalcopyrite. Based on magnetic and induced polarization surveys, attractive exploration targets remain down-plunge and along strike**.**

There are no other drilling, recovery or sampling factors that could materially impact the accuracy and reliability of the results.

10.2 ACCURACY AND RELIABILITY

10.2.1 Twinned Holes

Cordoba twined two Ashmont drill holes, to confirm their validity, ACD001 twinned ASA014 E-NE 2.5m (Figure 10.5) and ACD012 twinned ASA012 ENE 2.7m (Figure 10.6).

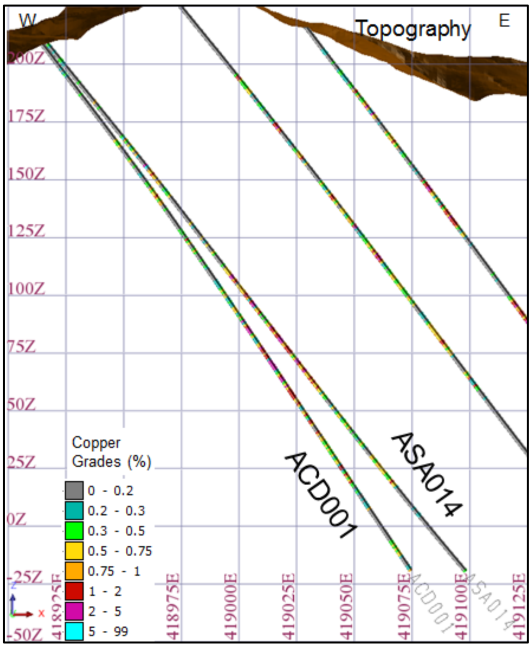


Figure 10.5.Twinned Holes ACD001 and ASA014

(Section 855775mN±25m)

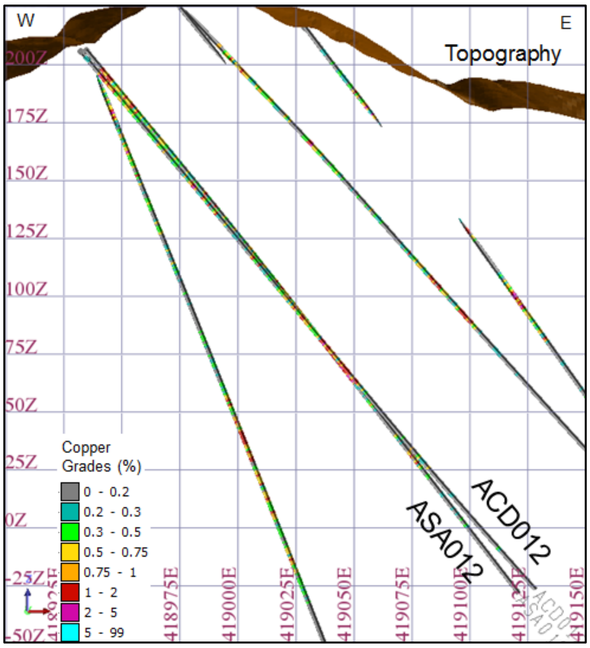


Figure 10.6. Twinned Holes ACD012 and ASA012

(Section 855725mN±25m)

ASA014 showed some shallow (50 m down hole) enrichment of copper (Figure 10.7) not well reflected in the more recent ACD001 drill hole. The dominant copper mineralization between 125 m and 180 m down hole is represented reasonable well in both holes, however individual samples at specific down hole depths are quite variable, indicating a nugget effect is present for copper. Anomalous gold is present in both holes from 50m down hole (Figure 10.8). From 100 m down hole both holes show a similar increase in back ground gold mineralization with the main gold mineralization occurring approximately 125 m down hole, within the dominant gold mineralization zone the individual values are quite erratic over short ranges, a common feature of gold mineralization a result of the nugget effect. The Ashmont hole shows greater spikes in copper and gold mineralization.

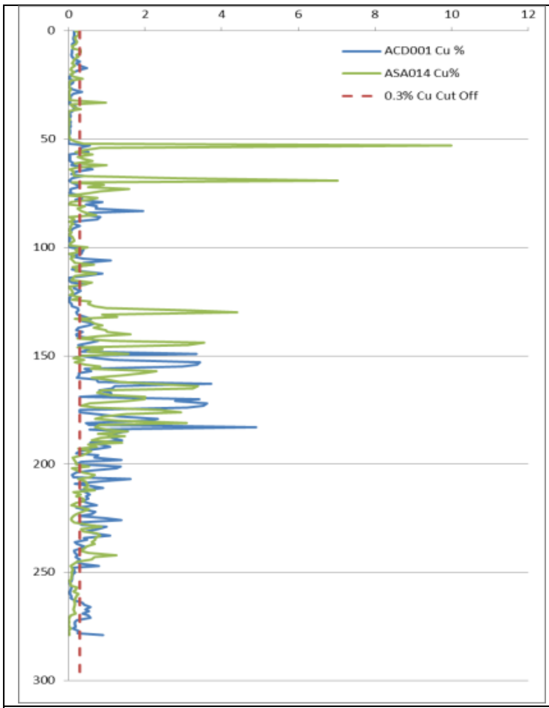


Figure 10.7.Twin Holes – Copper ACD001 & ASA014

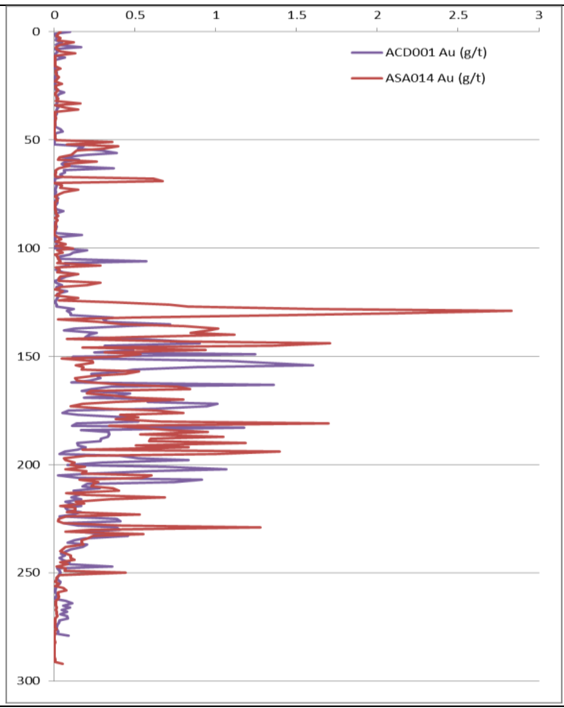


Figure 10.8.Twin Holes – Gold ACD001 & ASA014

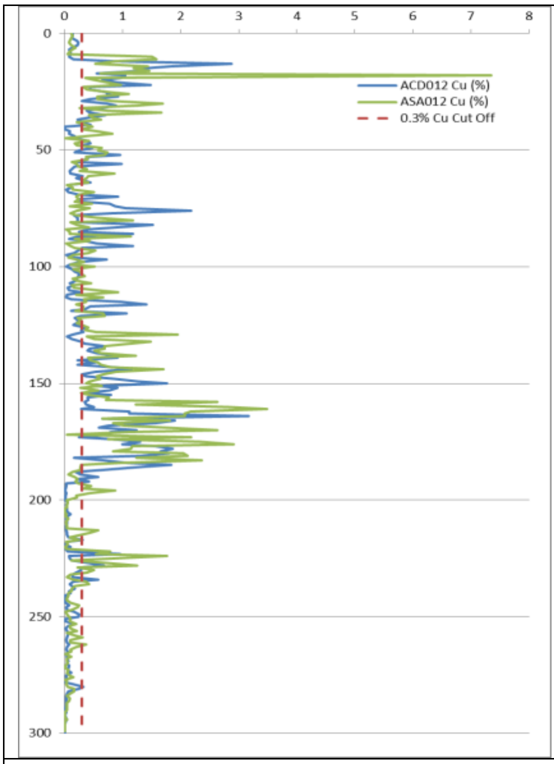


Figure 10.9.Twin Holes – Copper ACD012 & ASA012

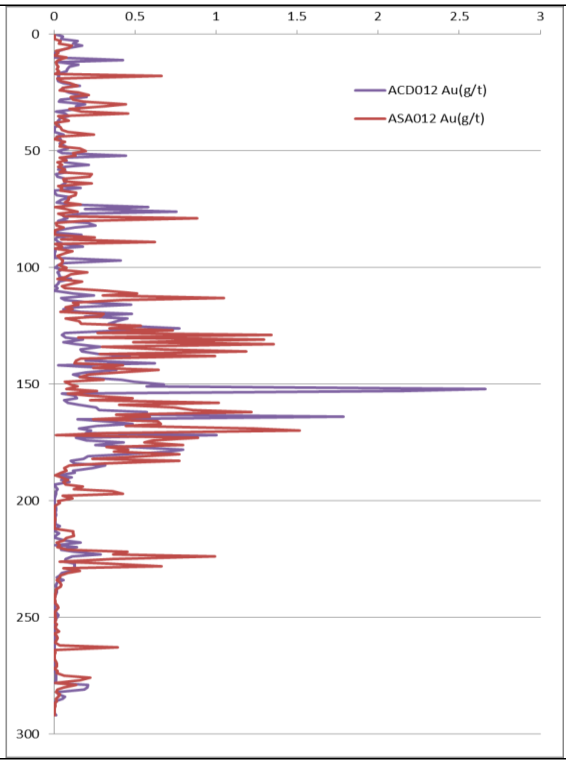


Figure 10.10. Twin Holes – Copper ACD012 & ASA012

Near surface enrichment of copper is present in both ACD0102 and ASA012 (Figure 10.9), the assay results follow the same trend however individual assays are erratic. In general, the ASA hole reports higher copper values than ACD hole. Gold mineralization is well represented in ASA around 120m to 130m down hole but not in ACD012 (Figure 10.10) the highest gold spikes are present in ACD012.

In both examples, the mean copper and gold grade of ASA holes is higher than the ACD holes when considering total mineralized intercepts (Table 10.1). There is significant scatter in the data and considering the expected nugget effect, this could conceivably be chance. The variance between each pair was considered and while there are significant differences between individual assays the over bias is appeared minor.

Table 10.1. Mineralized Copper and Gold cumulative length dwon hole above 0.3g/t CuEq

Hole		Mineralized length	Cu (%)	Au (g/t)	Relative Error (%)	
					Cu	Au
Twin	ACD001	166	0.75	0.27		
	ASA014	164	0.88	0.38	16%	35%
Twin	ACD012	176	0.62	0.21		
	ASA012	190	0.74	0.27	18%	23%

Although Table 10.1 shows significant positive bias in the Ashmont drill data, and caution is required when using Ashmont holes, further investigation is required. There are apparent offsets of start and end for mineralization, this is potentially the effects of differing downhole distances due to not intersecting mineralization perpendicular to the orientation of the mineralization.

The investigation should focus on individual samples and re-assaying at least two Ashmont holes to ascertain if this is a sampling bias or drilling bias. Additional investigation should consider the geology logs to determine if the major lithostratigraphic units are equivalent in both holes. QAQC results are available for Ashmont Drilling, see Section 11.2.1

This bias will be have a greater impact in Mina Seca where there are fewer Cordoba drill holes. The impact is reduced in Mina Norte where the majority of Cordoba holes are drilled.

There does not appear to be any specific drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results of this study in the context of an inferred resource.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 SAMPLE PREPARATION SAMPLE SECURITY

11.1.1 Ashmont Drill Core

The Ashmont drill core was stored in metal core boxes by Ashmont in a store in Monteria and was transported to Cordoba Minerals' secure core store and core logging shack at El Alacran when it acquired the project. The sample rejects and pulps were stored by Ashmont in a store in Puerto Libertador and were likewise transferred to the El Alacran core store by Cordoba Minerals. The core shack, core store and office were built by Ashmont and are located outside of the village of El Alacran.

The sampling methods, sample preparation, analysis, security and QAQC were described by Mosher (2012). Drill core was collected from the drill site several times per day by Ashmont personnel and delivered to the secure core shack at El Alacran. Core was first measured for recovery and RQD and then was marked for sampling in 1.0 m intervals, without priority for lithological contacts or mineralisation. The core was photographed prior to osampling. It was then logged geologically and geotechnically. Data collection was done on paper forms and observations were subsequently transferred to an Excel database.

Core was split with a mechanical splitter. One half was placed in pre-marked plastic sample bags and the other half was returned to the core box. The core was weighed prior to sampling and the bagged samples were weighed after splitting to ensure that the splits approximate half the core. Sample bags were sealed to ensure sample integrity.

All samples were shipped to ALS Minerals in Medellin for preparation. ALS Minerals is a laboratory certified to International Standards ISO/IEC 17025:2005 and ISO 9001:2015. Analyses were done at ALS Minerals labs in Chile, Peru and Canada. The samples were dried, crushed to 70% passing 2 mm, riffle split and a 250 g split pulverized to 85% passing 75 microns (method PREP-31). Gold was analyzed by fire assay on a 50 g aliquot with an AAS finish (method Au-AA24). Samples above the upper limit of detection (10.0 ppm) were reanalysed by fire assay on a 50 g aliquot with a gravimetric finish (method Au-GRA22). Multielements were analyzed by 4 acid digestion of a 0.25 g sample with ICP emission spectrometry (ICP-AES) finish for 33 elements (method ME-ICP61). Samples above the upper limit of detection of gold (10.0 ppm) were reanalysed by fire assay on a 50 g aliquot with a gravimetric finish (method Au-GRA22). Samples above the upper detection limit of copper (10,000 ppm) were reanalyzed by 4 acid digestion with ICP-AES finish (method Cu-OG62).

11.1.2 Cordoba Minerals Drill Core

Drill core from each run was placed in metal core boxes by the drillers with wooden markers to indicate the depth. Core boxes were taken from the rig to the core shack by company vehicle.

At the core shack the core boxes were cleaned, fully labelled, photographed, and geotechnical and geological logs made. Logs were made initially on paper and later directly in an on-line acQuire database. Sample intervals were marked with a nominal length of 1.0 m, without priority for lithological or mineralisation contacts.

Core samples were numbered using consecutive sample numbers, with a sample label stuck to the core box with hole number and the sample interval. The core was cut lengthwise by a diamond saw along a cut line marked by a geologist. One half of the sample was put in a plastic sample bag, double-bagged, labelled and sealed with a cable tie, and the other half returned to the core box for reference. Fabric bags, also sealed by cable tie, were used to hold about 4 samples each for transportation. Samples were securely stored in the core shack at El Alacran were then transported by courier to the laboratory in Medellin.

The core samples were prepared and analyzed by ALS Minerals. Sample preparation was carried out in Medellin and the sample pulp was sent for analysis at their laboratory in El Callao, Lima, Peru. The samples were dried, crushed to 70% passing 2 mm, riffle split and a 1 kg split pulverized to 85% passing 75 microns (method PREP-31B). Gold was analyzed by fire assay on a 50 g aliquot with an AAS finish (method Au-AA24). Samples above the upper limit of detection (10.0 ppm) were reanalysed by fire assay on a 50 g aliquot with a gravimetric finish (method Au-GRA22). Multielements were analyzed by 4 acid digestion of a 0.25 g sample with ICP emission spectrometry (ICP-AES) finish for 48 elements (method ME-MS61). Samples with grades above the 2,000 ppm copper were reanalyzed by 4 acid digestion with ICP-AES finish (method Cu-OG62). Samples above the upper limit of detection for Ag (100 ppm), Zn (10,000 ppm) and S (10.0%) were reanalyzed by 4 acid digestion with ICP-AES finish (methods Ag-OG62, Zn-OG62, S-OG62).

11.2 QUALITY ASSURANCE & QUALITY CONTROL (QA-QC)

11.2.1 Ashmont Drill Core

The Ashmont QAQC was described in a detailed report by Arenas (2012) and summarised by Mosher (2012). The company inserted one certified standard reference material (CSRM) for every 13 samples approximately, one coarse blank or fine blank every 50 samples, one core duplicate (half core) for every 40 samples, one coarse reject duplicate or pulp duplicate every 20 samples. The total is about 16% of all samples which is above the industry standard. The company also analysed duplicates at a second laboratory, Acme Analytical Laboratories Colombia S.A.S.

11.2.1.1 Certified Reference Material

The Certified Reference Material (CRM) wae supplied by ORE Research and Exploration Pty Ltd of Australia (OREAS) and were numbers OREAS 502, 66a and 12a, certified for gold and copper.

The first batch of OREAS 502 had low copper and high gold values that was due to a labelling error by OREAS (Arenas, 2012). This was fixed in the second and subsequent batches (Figure 11.1, Figure 11.4). Otherwise, the copper analyses mostly fall within the range of mean ± two standard deviations with few outliers. The gold analyses have a low bias and quite a number of outliers.

The gold analyses for OREAS 66a have a low bias with many negative outliers (Figure 11.2). The copper analyses fall within two standard deviations of the expected mean with several outliers (Figure 11.5).

Gold values for OREAS 12a are close to the recommended mean but have several outliers (Figure 11.3).

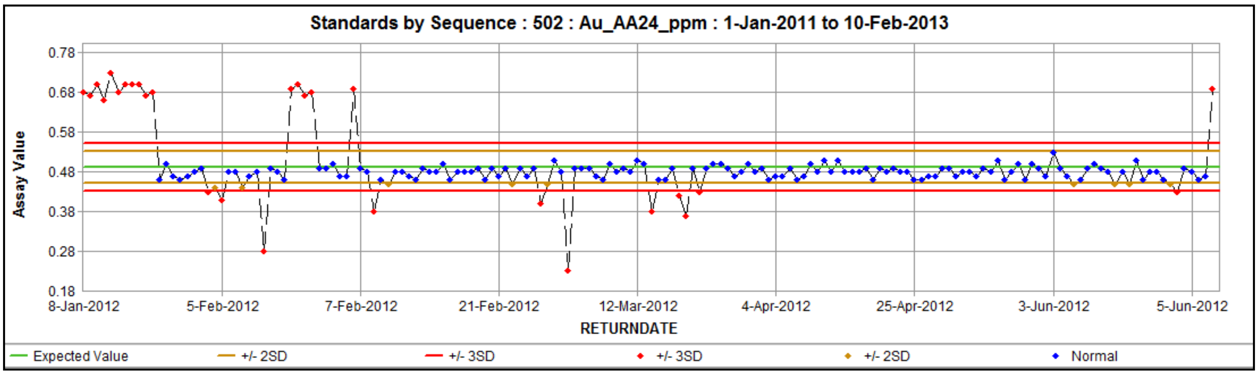


Figure 11.1. Scatter plot of Au for CSRM OREAS 502.

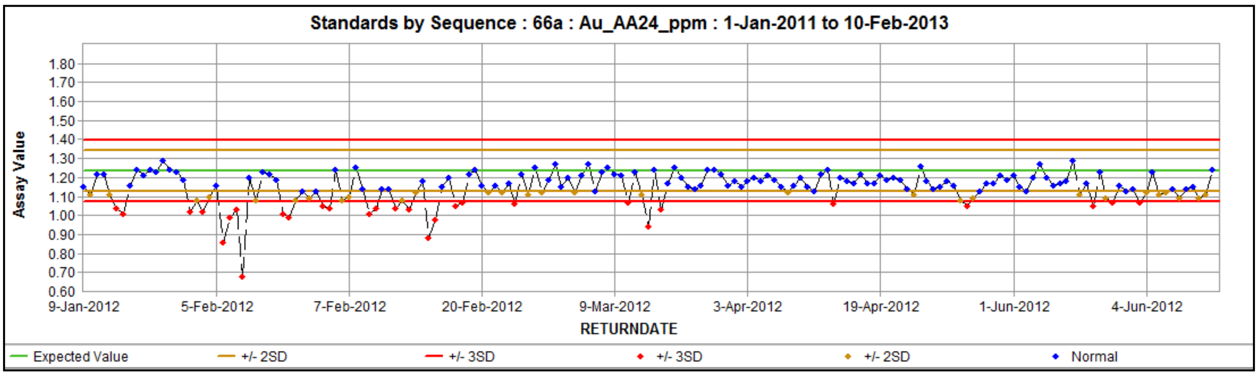


Figure 11.2. Scatter plot of Au for CSRM OREAS 66a.

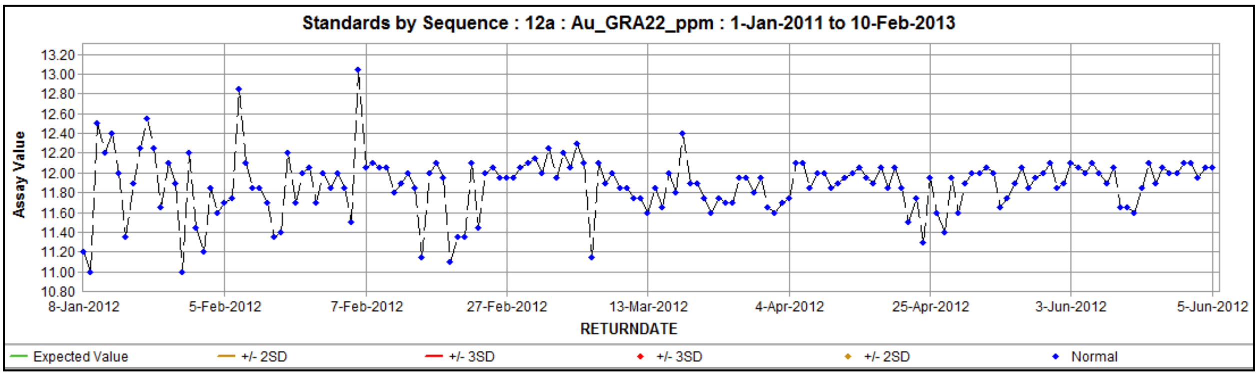


Figure 11.3. Scatter plot of Au for CSRM OREAS 12a.

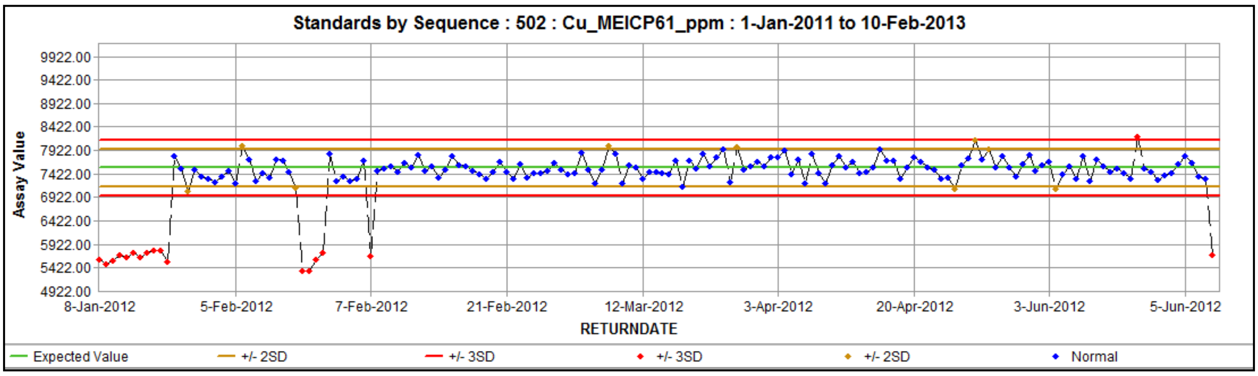


Figure 11.4. Scatter plot of Cu for CSRM OREAS 502.

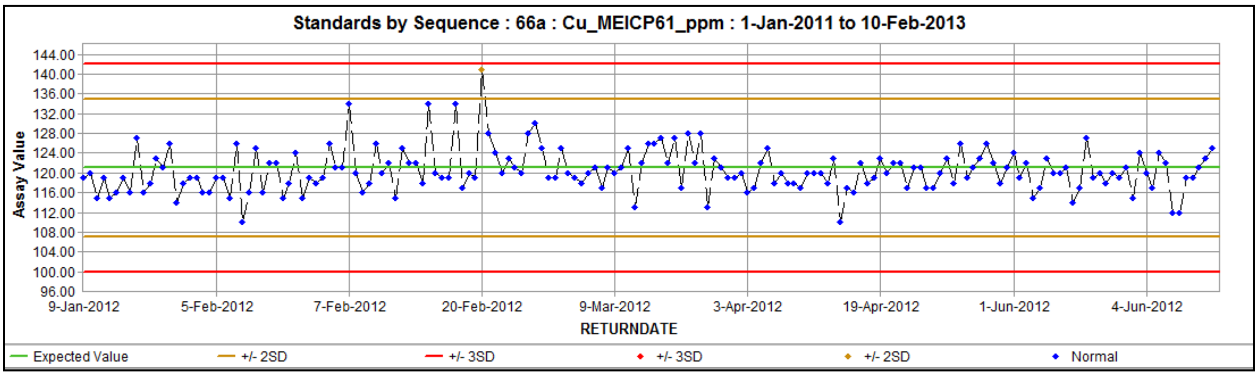


Figure 11.5. Scatter plot of Cu for CSRM OREAS 66a.

11.2.1.2 Blanks

Ashmont inserted coarse and fine blanks. The results for gold are acceptable with three outliers in the coarse blank and two outliers in the fine blank (Figure 11.6, Figure 11.7). The results for copper show many outliers in both blanks which need to be investigated.

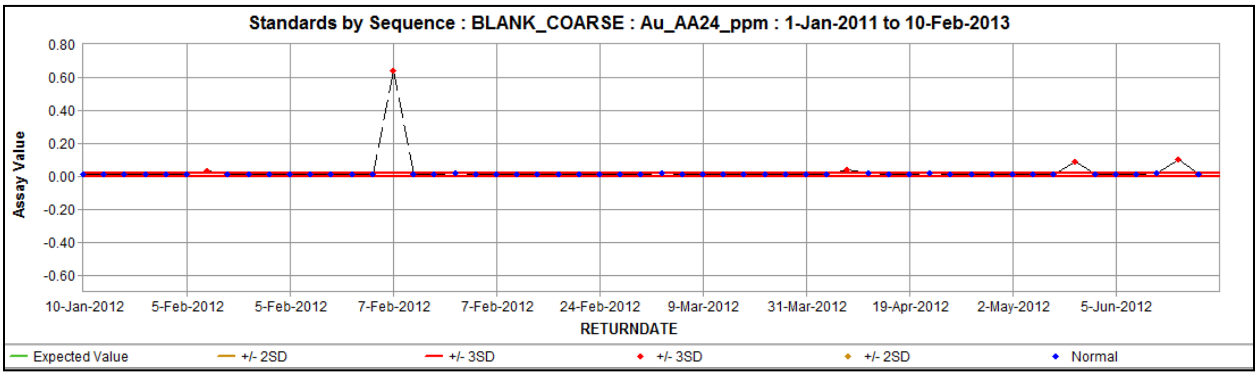


Figure 11.6. Scatter plot of Au for coarse blank.

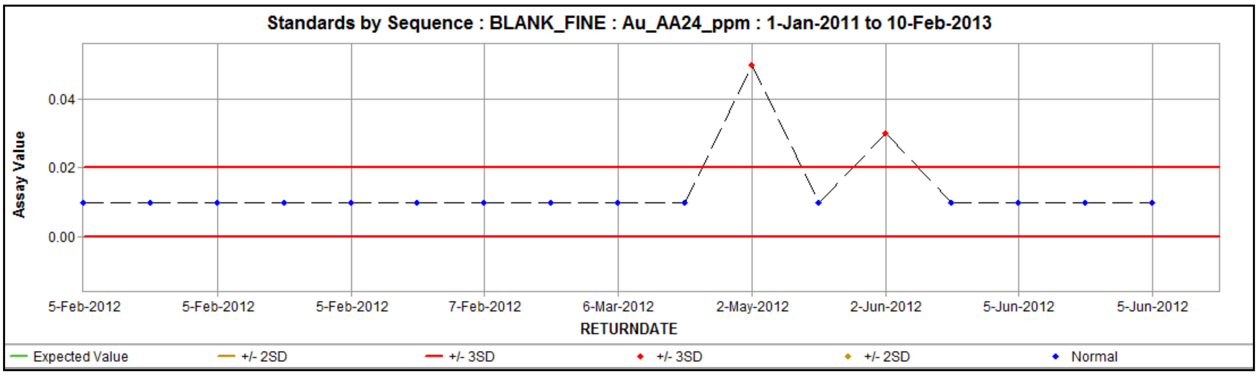


Figure 11.7. Scatter plot of gold for fine blank.

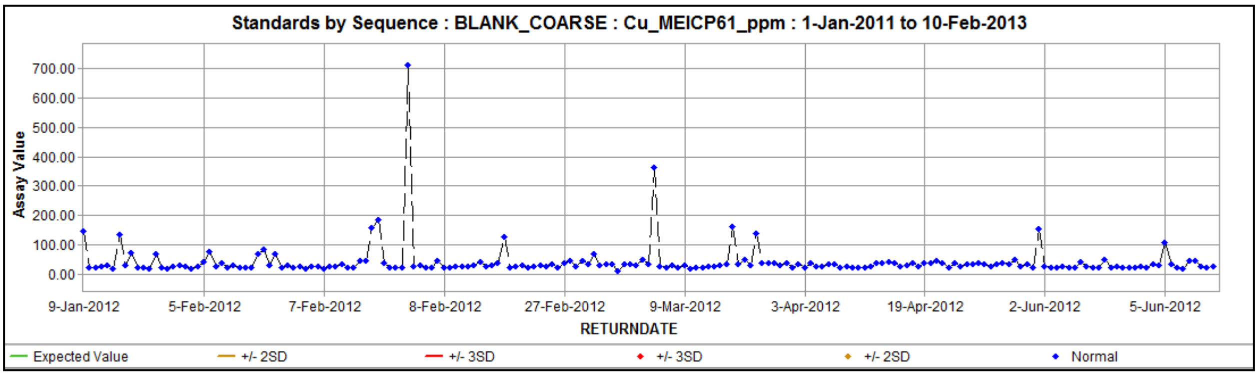


Figure 11.8. Scatter plot of Cu for coarse blank.

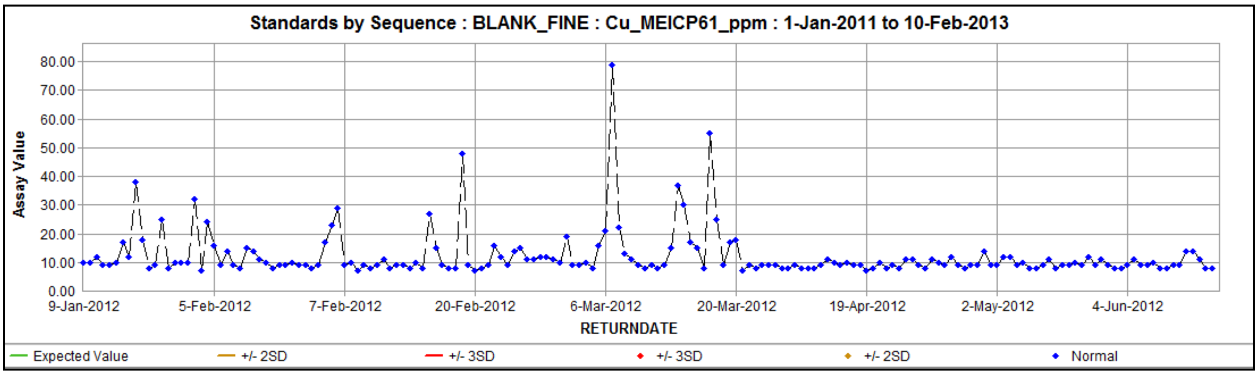


Figure 11.9. Scatter plot of Cu for fine blank.

11.2.1.3 Duplicates

Ashmont inserted field (core), coarse reject and sample pulp duplicates. The results for gold show wide scatter for both core and coarse duplicates, and a lack of data for the pulverized duplicates (Figure 11.10-Figure 11.12). These indicate heterogenous distribution of gold due to a nugget effect, which is discussed further in Section 11.2.2.3. In addition, the sub-sampling was inadequate to obtain a homogenous distribution of gold due to the small size of the sample split (250 g).

The results for copper show scatter for the core duplicates due to geological heterogeneity of the core, but that this is greatly reduced to give a good correlation for coarse and fine duplicates (Figure 11.13-Figure 11.15).

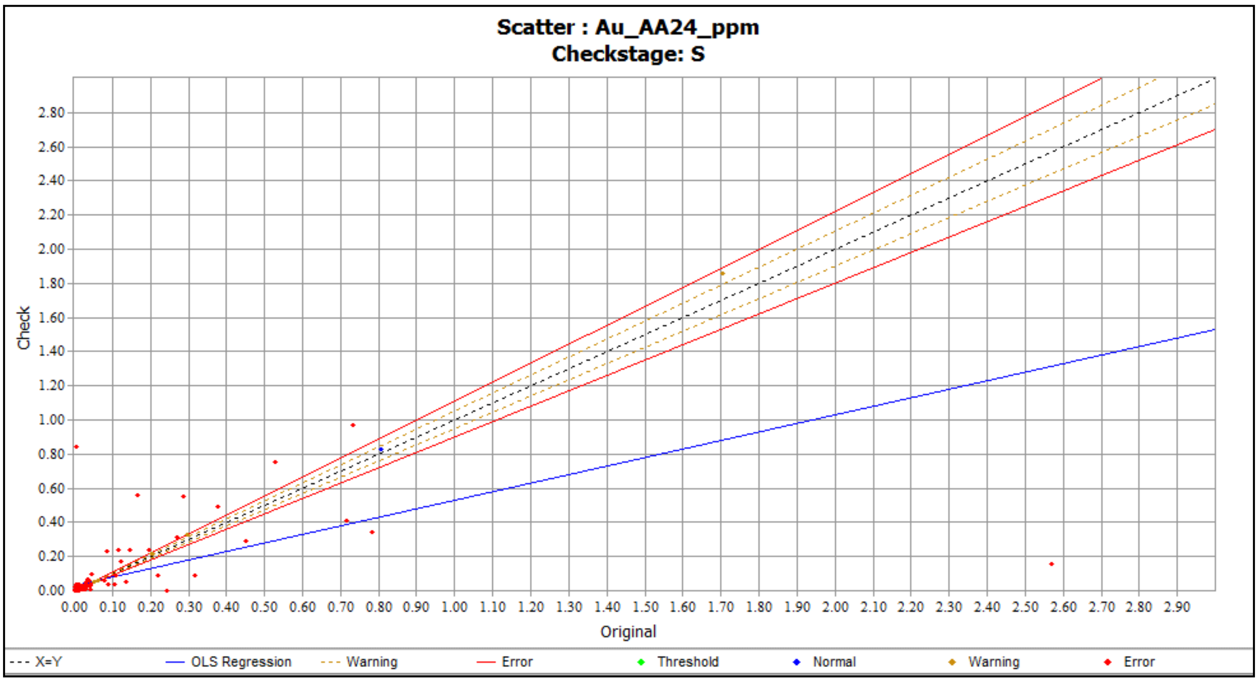


Figure 11.10. Scatter plot of Au for core duplicates.

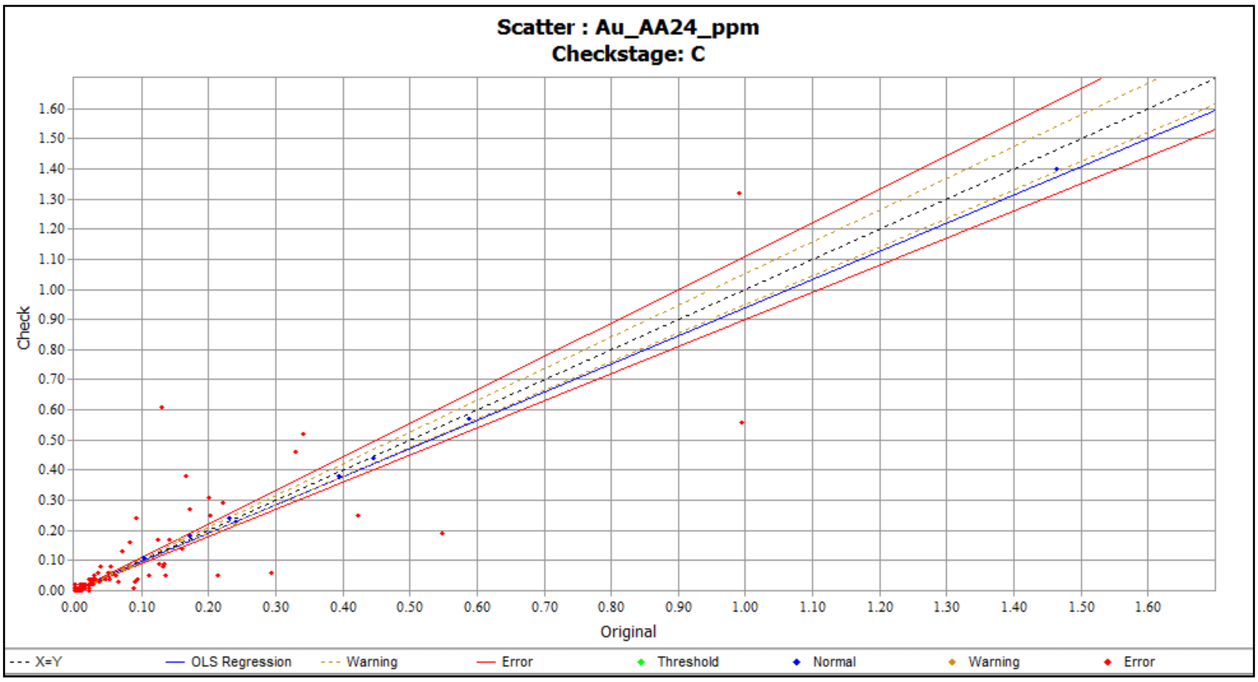


Figure 11.11. Scatter plot of Au for coarse duplicates.

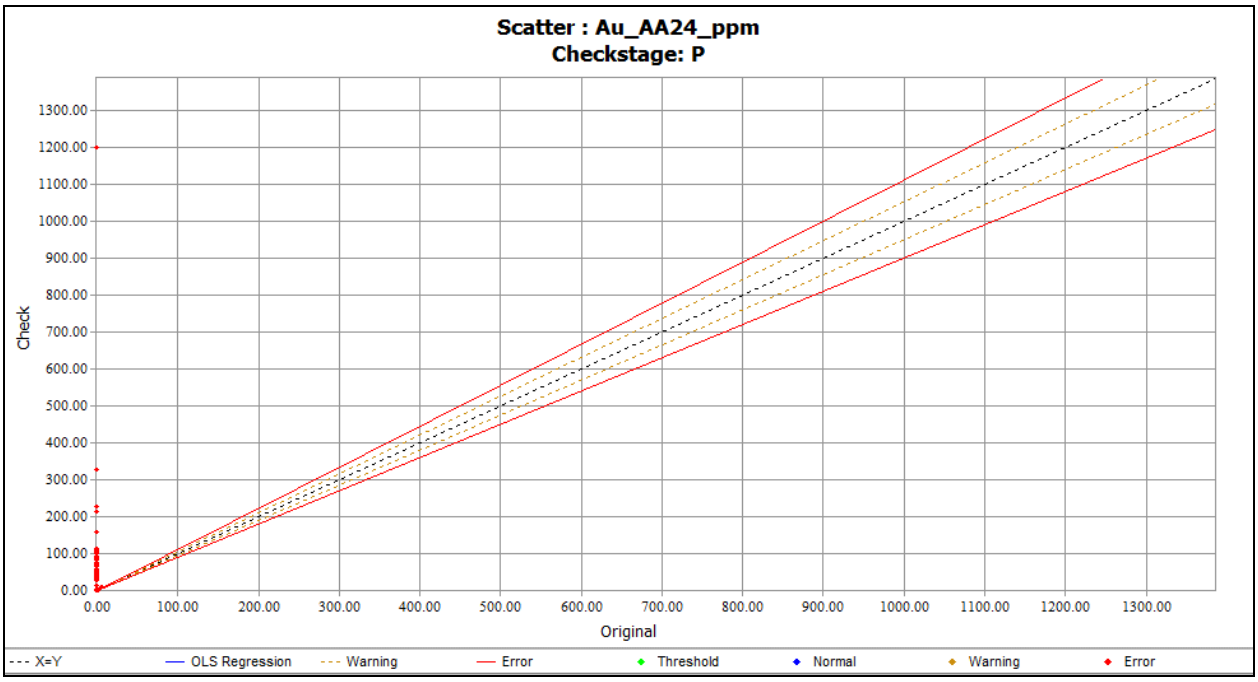


Figure 11.12. Scatter plot of Au for pulverised duplicates.

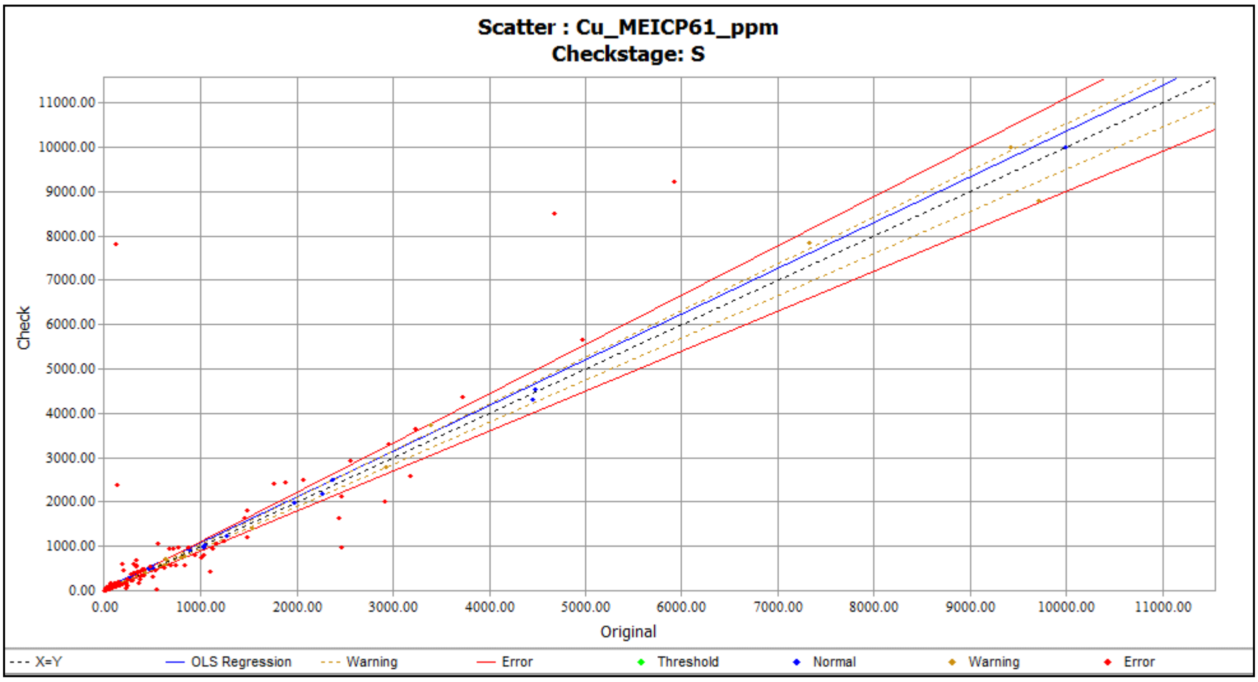


Figure 11.13. Scatter plot of Cu for core duplicates.

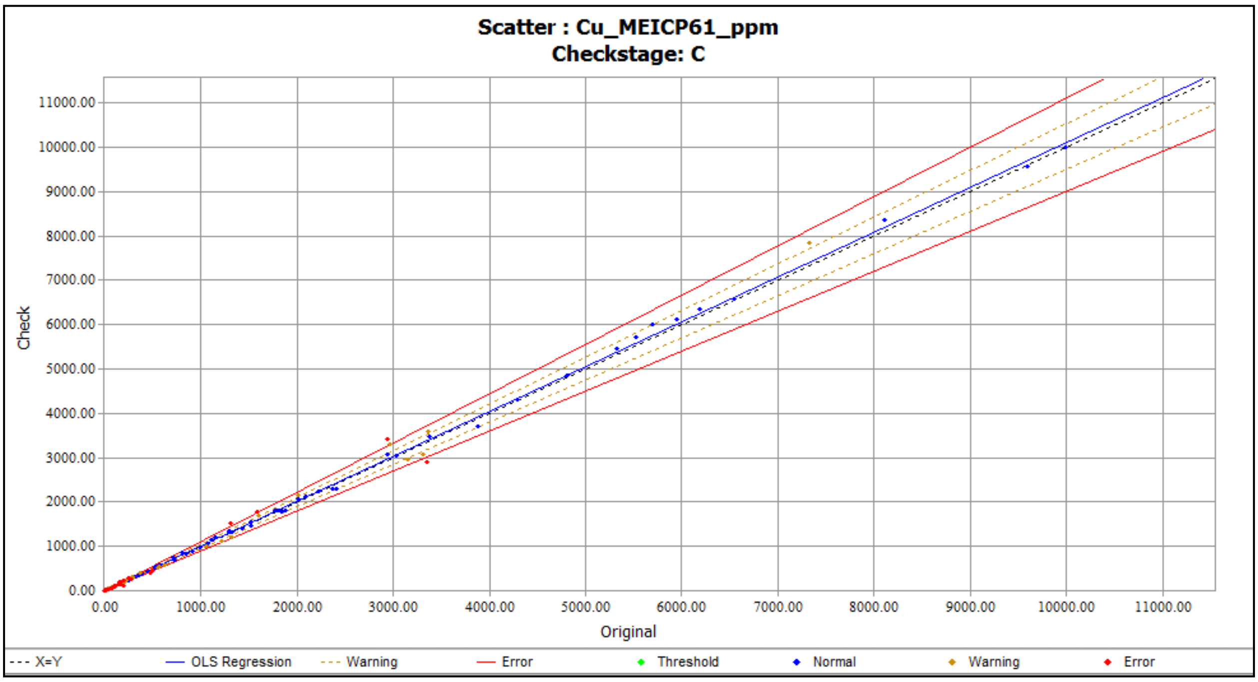


Figure 11.14. Scatter plot of Cu for coarse duplicates.

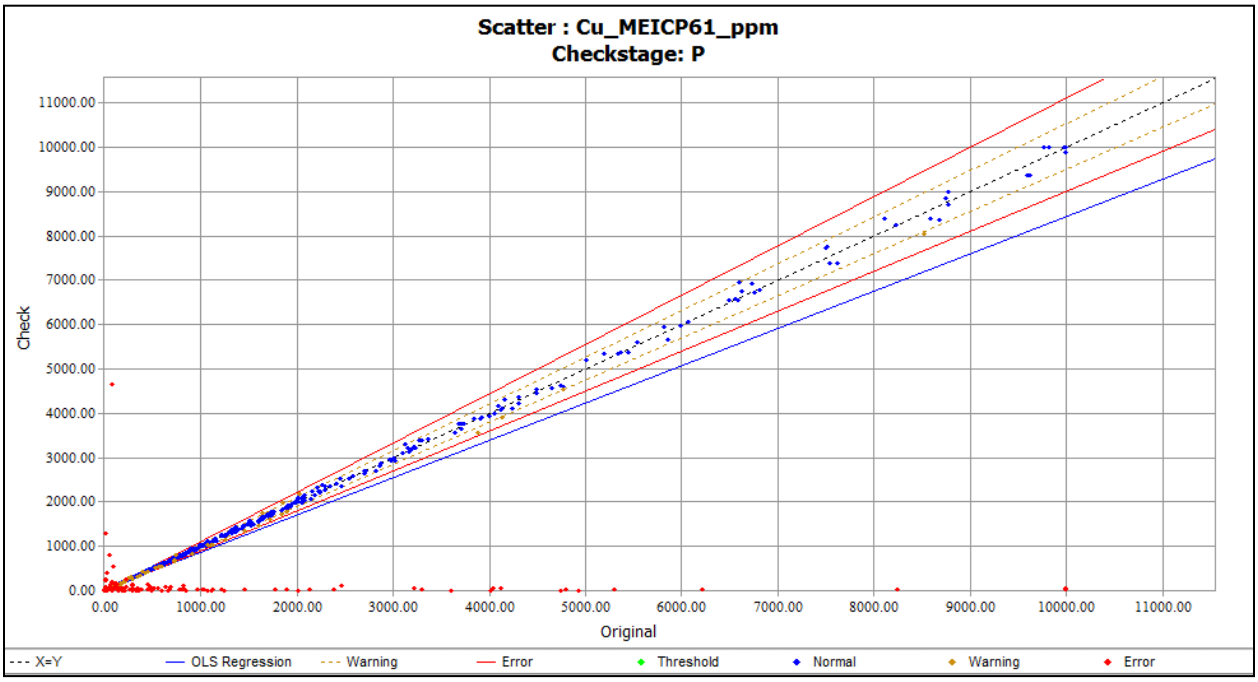


Figure 11.15. Scatter plot of Cu for pulverised duplicates.

11.2.2 Author's Opinion

It is the author's opinion that Ashmont carried out core processing, sample collection, security, preparation and analyses in accordance with best current industry standard practices. Sampling and analyses included detailed quality assurance and quality control procedures. All of the digital assay certificates are in Cordoba Minerals' database. Some of the CRM's returned unacceptable results for gold, and the blanks have outliers for copper, which require to be investigated by check sampling. Drill core duplicates show heterogeneity of gold, as do the Cordoba Minerals duplicates (below), and in addition, that the sub-sample size was too small.

The original QAQC data for the Ashmont drilling was located by Cordoba Minerals in January 2017 and a full review is recommended, focusing on the samples submitted during January and February 2012, the CRM appear more variable during this period, the CRM results are less variable between Late February and the end of the drill program, June 2012. The author recommends that a program of check sampling of the Ashmont coarse rejects and pulps be made, and notes that this was started in February 2017.

11.2.3 Cordoba Minerals Geochemical and Drill Core Samples

The company inserted one certified standard reference material (CSRM), one coarse blank and one field (core) duplicate in every batch of 25 samples, for a total of 12% of all samples. The company has a dedicated QAQC geologist who monitors the analytical results on receipt and produces written and graphic monthly reports. There is a protocol for reanalysis of failed samples.

11.2.3.1 CRM

The CRM were inserted at a rate of one per batch of 20 samples, which comprises 17 routine samples and three QC samples. The CSRM used are OREAS samples 501b, 502b, 503b, 504b, 501, 503, 504 and CDN-CM-35 which are certified for copper and gold. The results are monitored on scatter plots with performance gates. Results within ± 2 standard deviations (SD) from the recommended value are acceptable. Single values between ±2 SD and ±3 SD are acceptable but should be monitored, while two or more consecutive values in this range are a fail. Any value outside ±3 is a failure. Outlier values are flagged as follows:

- B: when a CSRM is outside of ±2 SD or ±3 SD, the surrounding samples are barren, and it is a single occurrence.
- S: when a CSRM is outside of ±2 SD, the surrounding samples are mineralised, and it is a single occurrence.
- R: repeat.
- Re-assaying is at the discretion of the QAQC Geologist pending application of exclusion criteria where failures are deemed to be insignificant.
- The scatter plots for gold and copper for the El Alacran drill program to 12 February 2017 are shown in the Figure 11.16 to Figure 11.32 and show acceptable results with very few outliers.

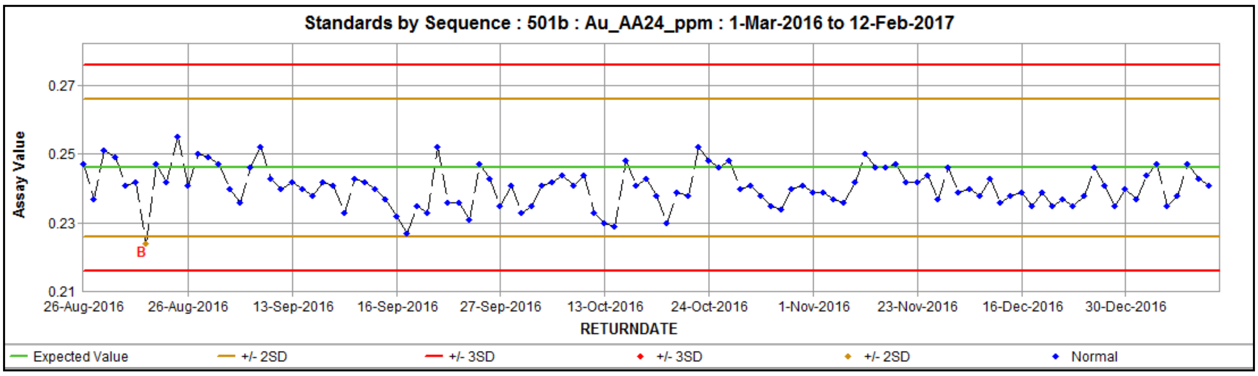


Figure 11.16. Scatter plot for Au for CSRM OREAS 501b.

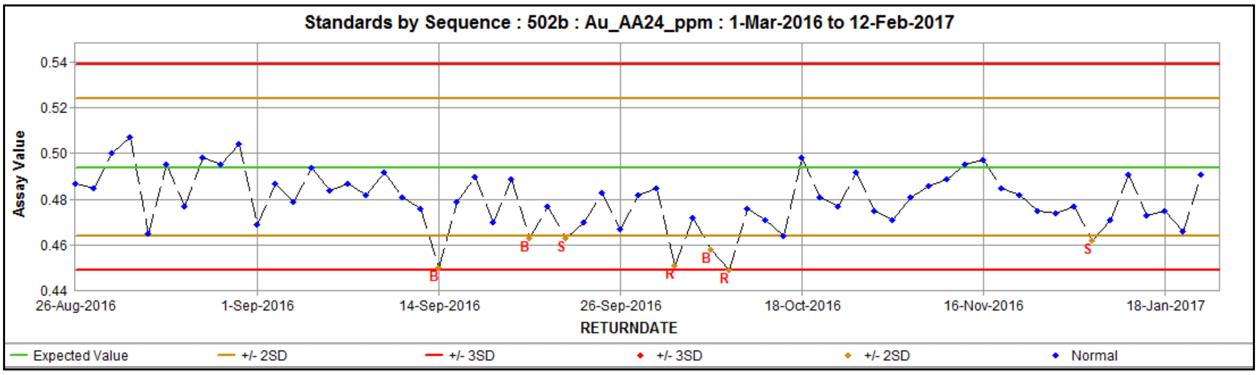


Figure 11.17. Scatter plot for Au for CSRM OREAS 502b.

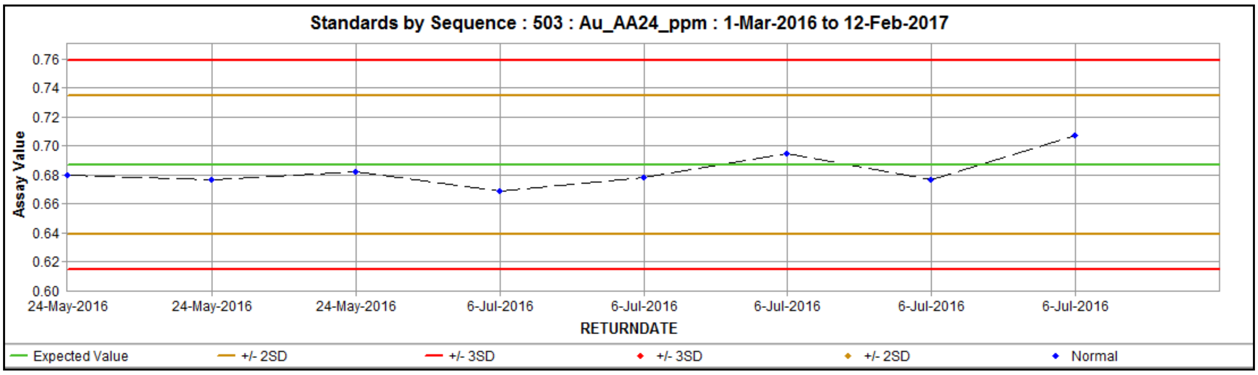


Figure 11.18. Scatter plot for Au for CSRM OREAS 503.

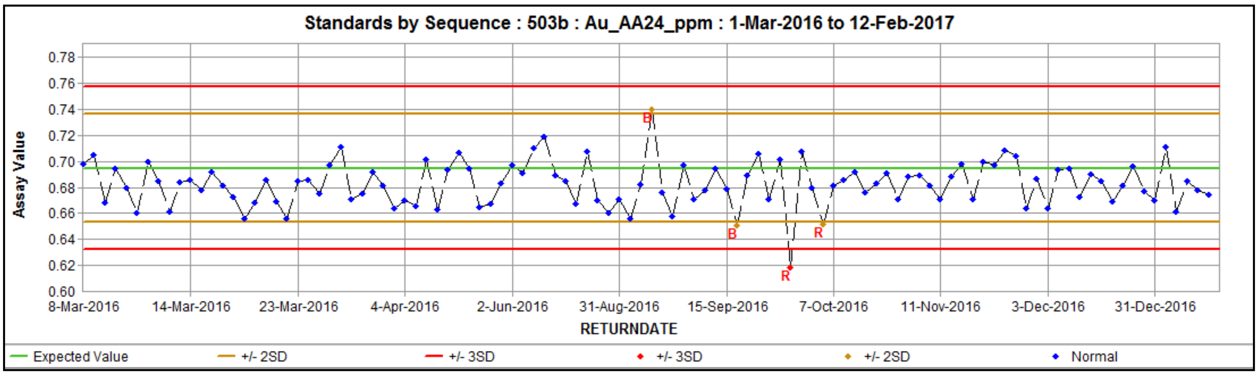


Figure 11.19. Scatter plot for Au for CSRM OREAS 503b.

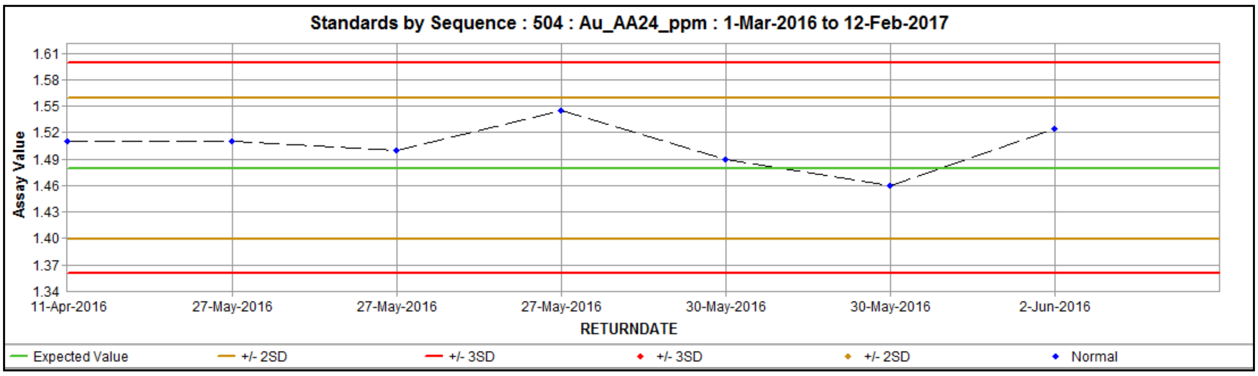


Figure 11.20. Scatter plot for Au for CSRM OREAS 504.

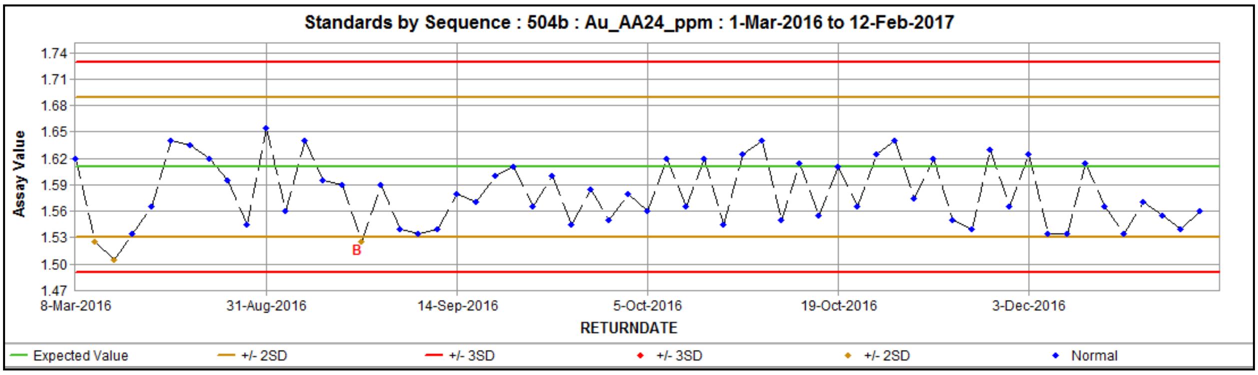


Figure 11.21. Scatter plot for Au for CSRM OREAS 504b.

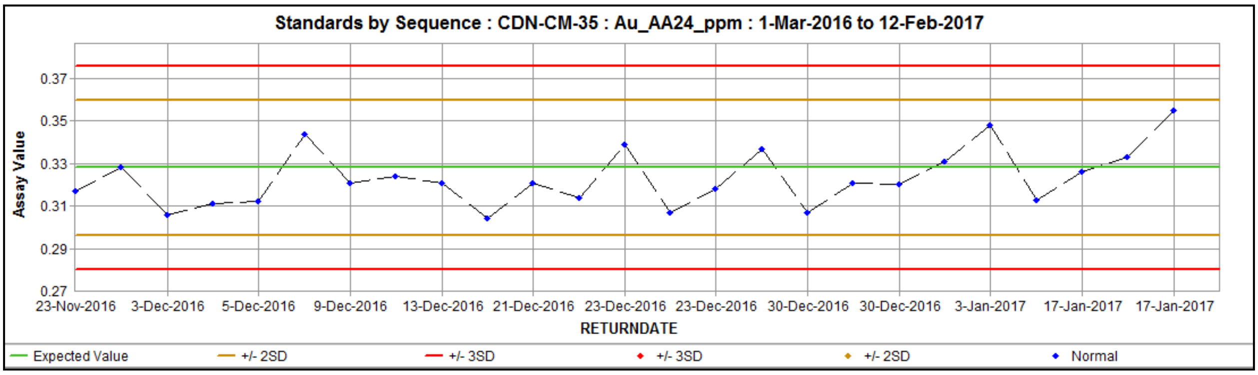


Figure 11.22. Scatter plot for Au for CSRM OREAS CDN-CM-35.

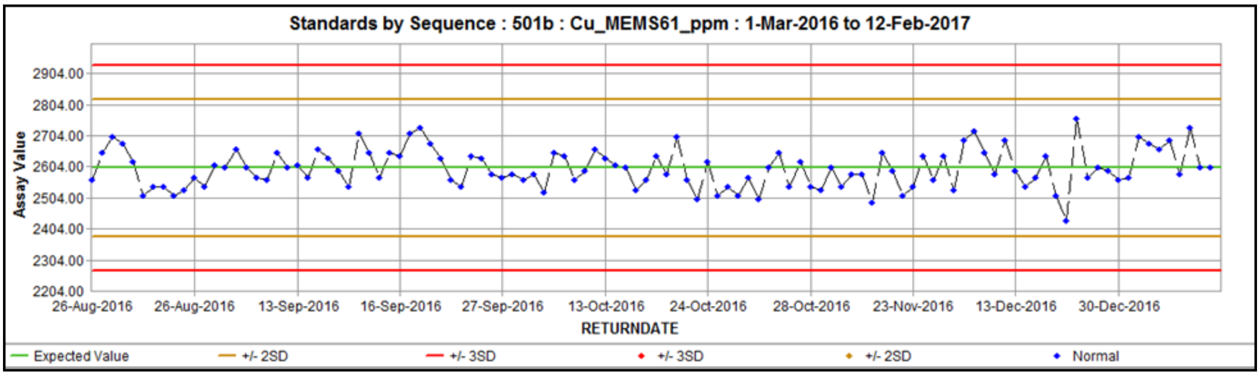


Figure 11.23. Scatter plot for Cu by ME-MS61 for CSRM OREAS 501b.

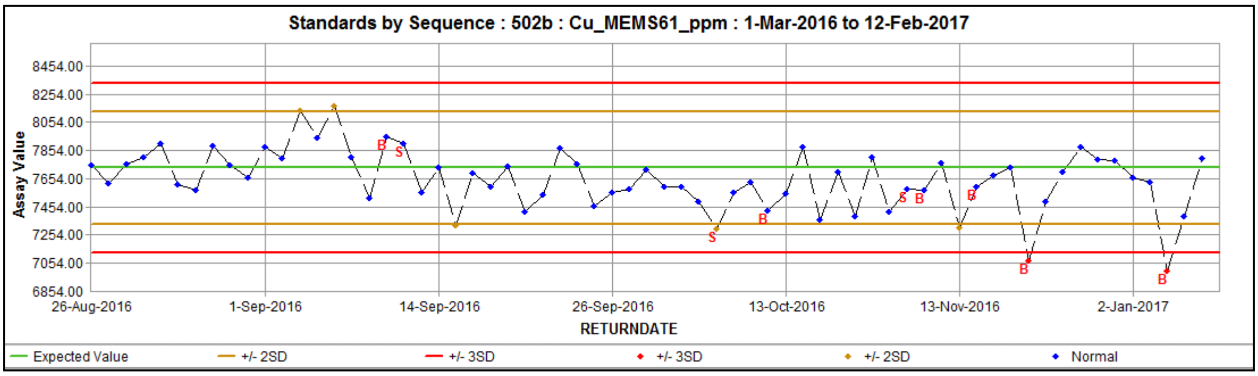


Figure 11.24. Scatter plot for Cu by ME-MS61 for CSRM OREAS 502b.

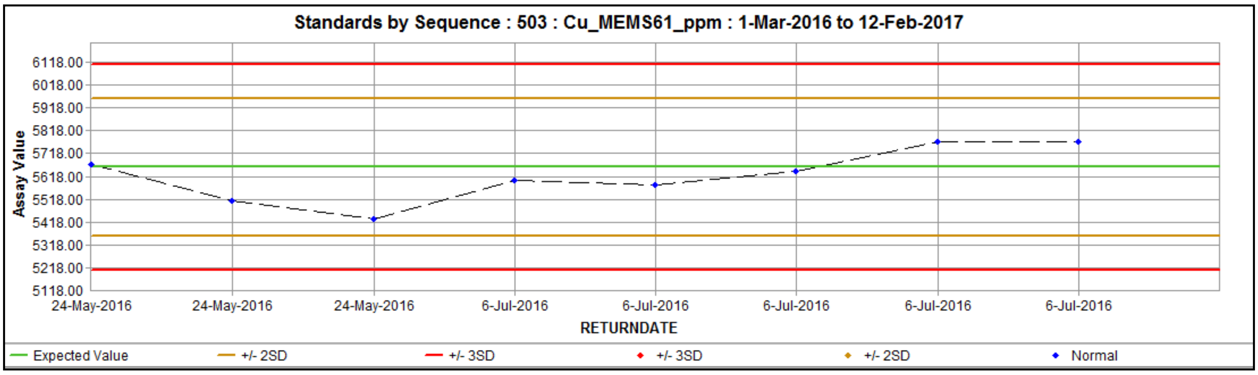


Figure 11.25 Scatter plot for Cu by ME-MS61 for CSRM OREAS 503.

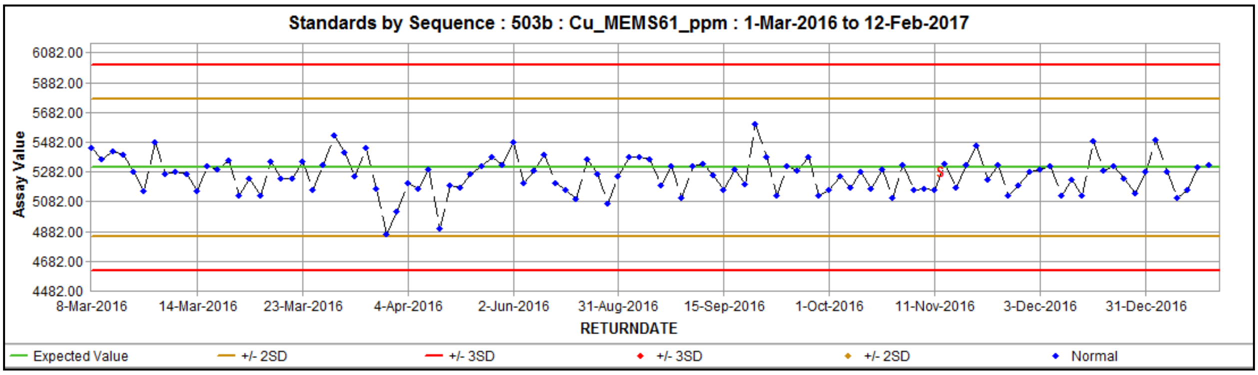


Figure 11.26. Scatter plot for Cu by ME-MS61 for CSRM OREAS 503b.

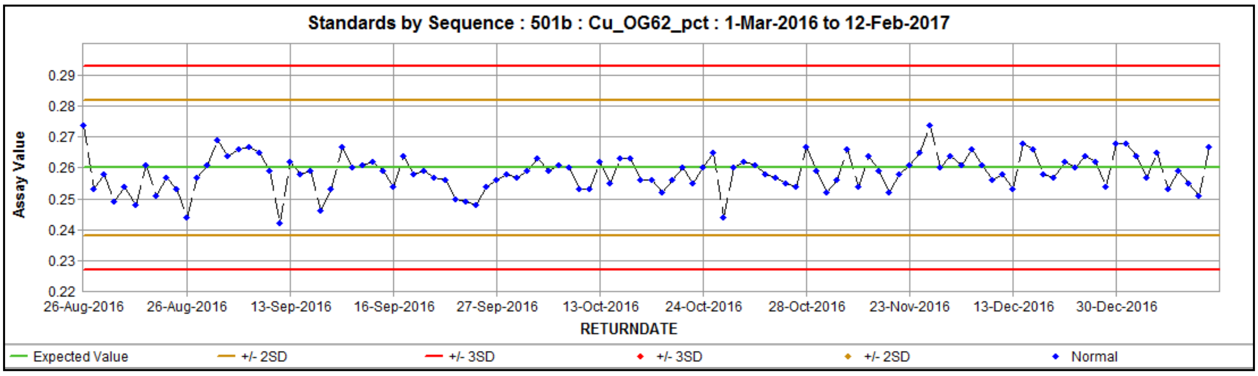


Figure 11.27. Scatter plot for Cu by Cu-OG62 for CSRM OREAS 501b.

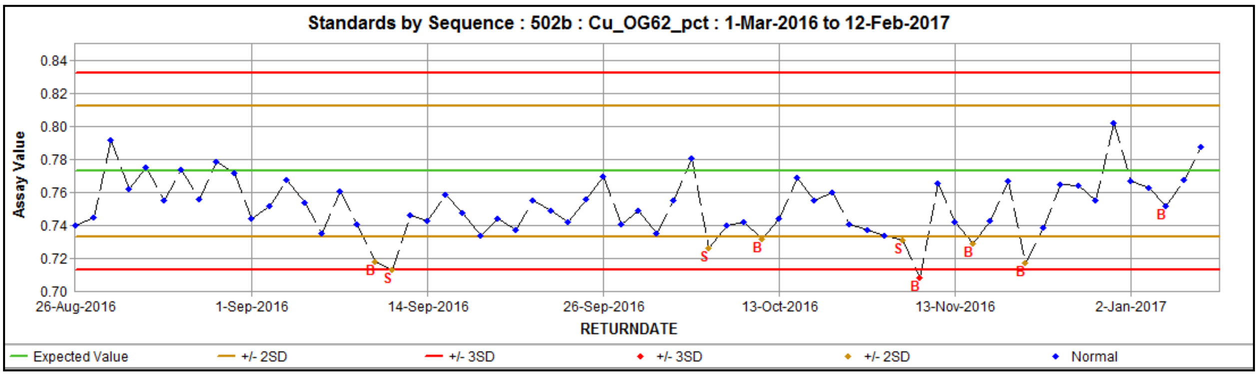


Figure 11.28. Scatter plot for Cu by Cu-OG62 for CSRM OREAS 502b.

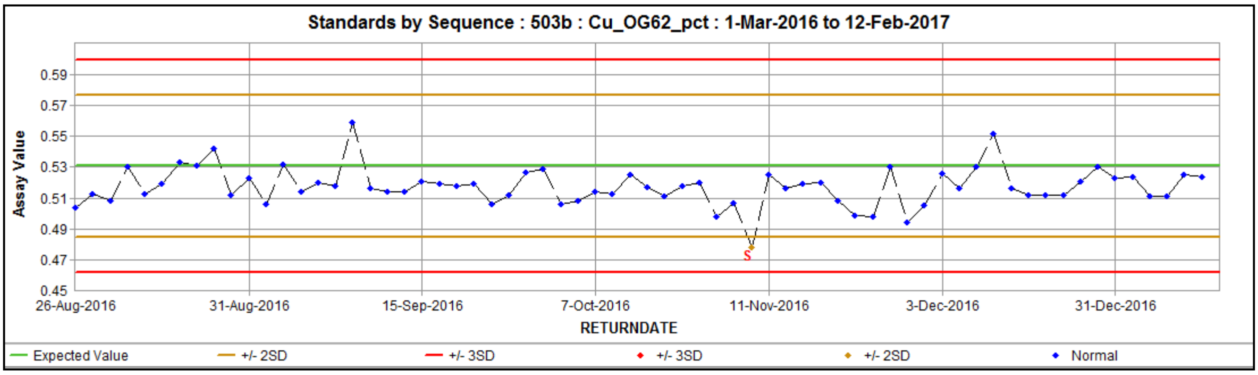


Figure 11.29. Scatter plot for Cu by Cu-OG62 for CSRM OREAS 503b.

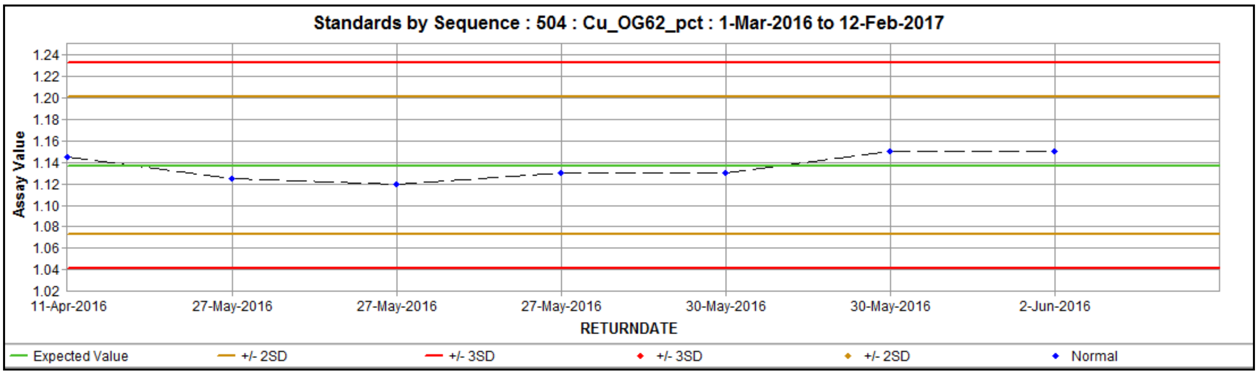


Figure 11.30. Scatter plot for Cu by Cu-OG62 for CSRM OREAS 504.

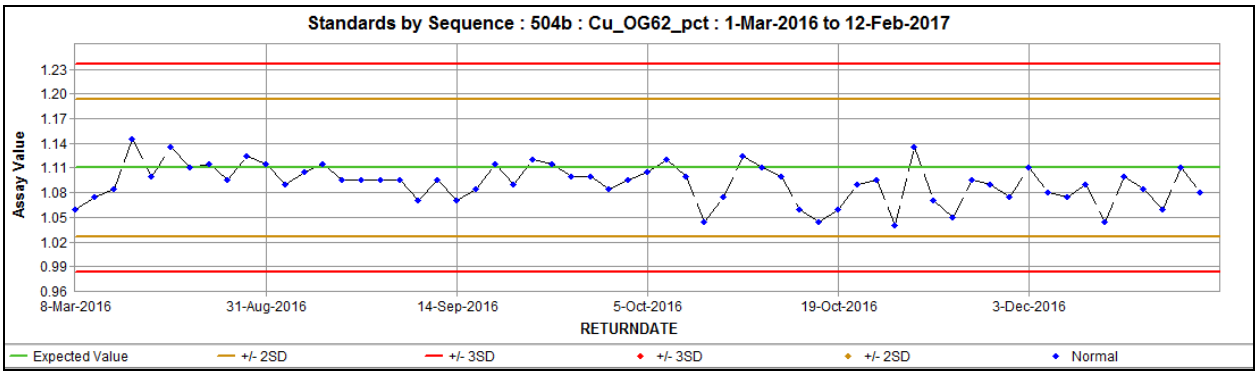


Figure 11.31. Scatter plot for Cu by Cu-OG62 for CSRM OREAS 504b.

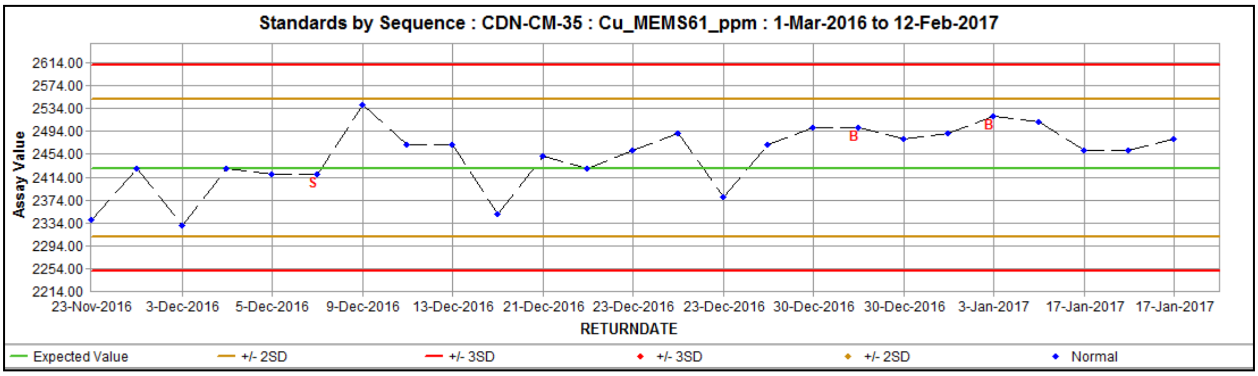


Figure 11.32. Scatter plot for Cu by Cu-OG62 for CSRM OREAS CDN-CM-35.

11.2.3.2 Blanks

The fine blanks used were CSRM OREAS 22c, 22d, 23a, 25a and company blanks BLANK and FB1. All samples were inserted at a rate of one per batch of 20 samples, which comprises 17 routine samples and three QC samples. Monitoring thresholds are 0.02 ppm for gold and 200 ppm for copper. Re-assaying is at the discretion of the QAQC Geologist pending application of exclusion criteria where failures are deemed to be insignificant.

Overall performance has been good for gold and copper and results do not reflect any contamination or sample mix-up issues. Scatter plots for gold and copper are shown in Figure 11.33 to Figure 11.44.

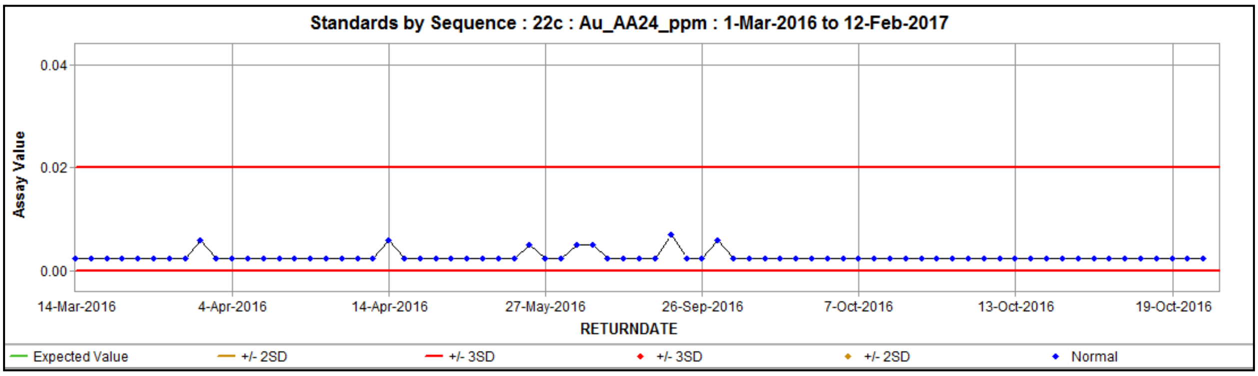


Figure 11.33. Scatter plot for Au for blank OREAS 22c.

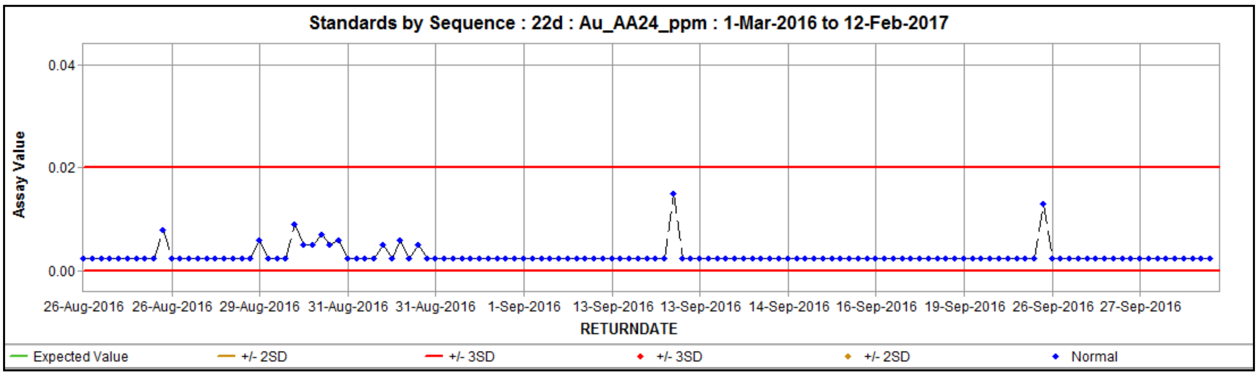


Figure 11.34. Scatter plot for Au for blank OREAS 22d.

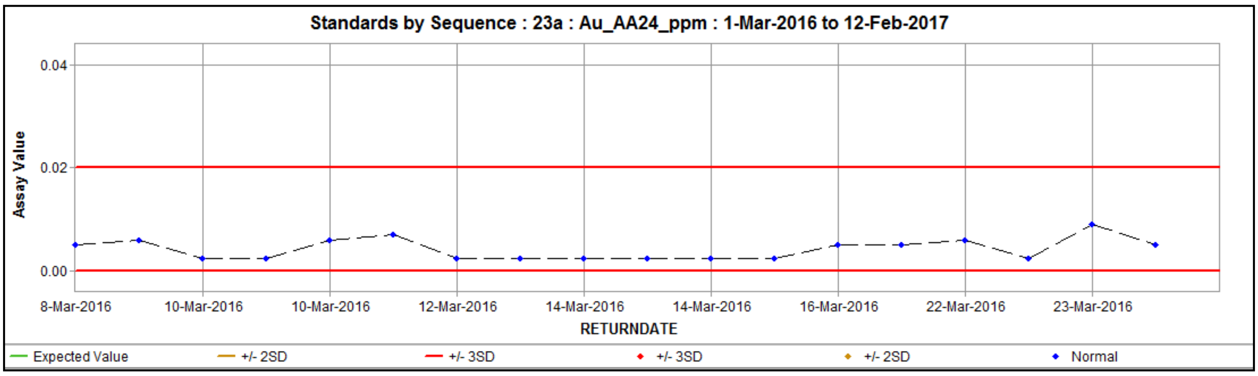


Figure 11.35. Scatter plot for Au for blank OREAS 23a.

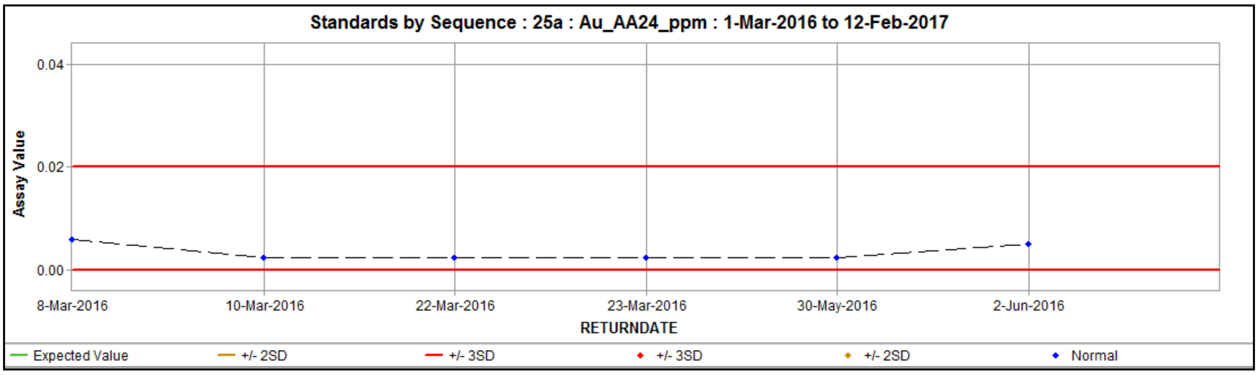


Figure 11.36. Scatter plot for Au for blank OREAS 25a.

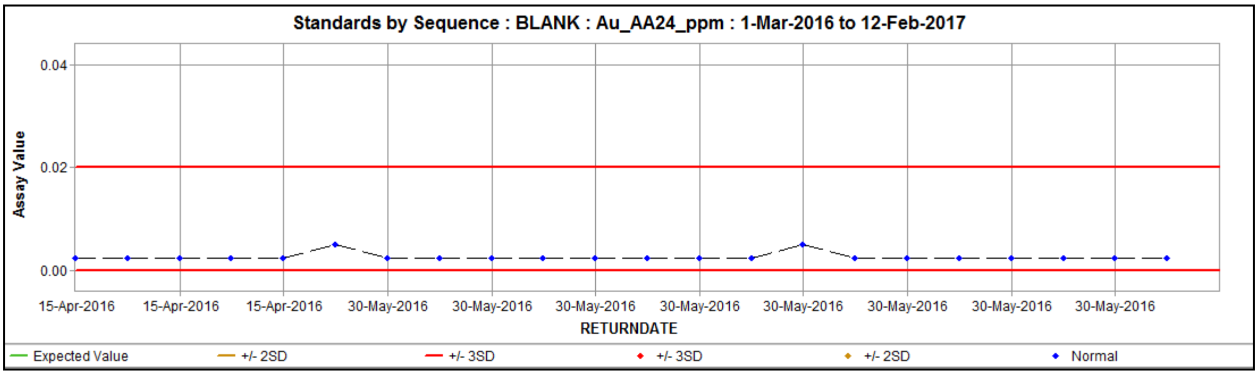


Figure 11.37. Scatter plot for Au for blank BLANK.

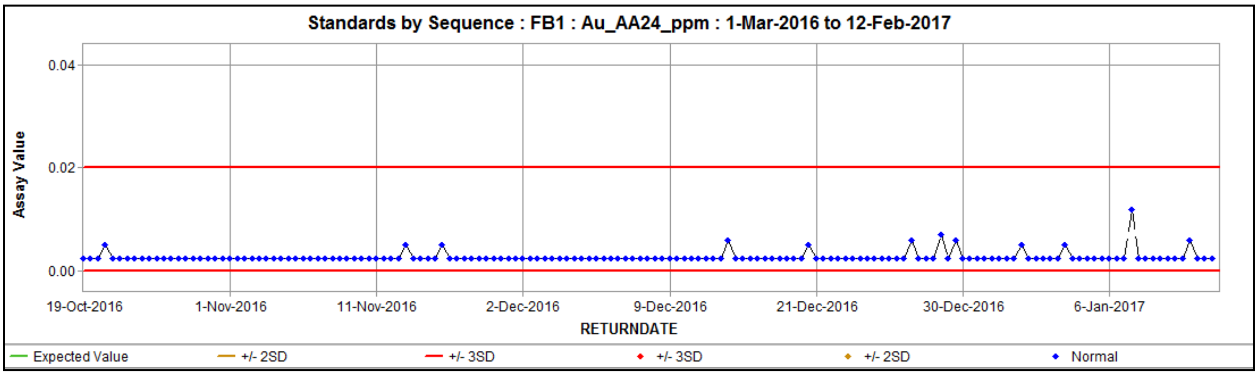


Figure 11.38. Scatter plot for Au for blank FB1.

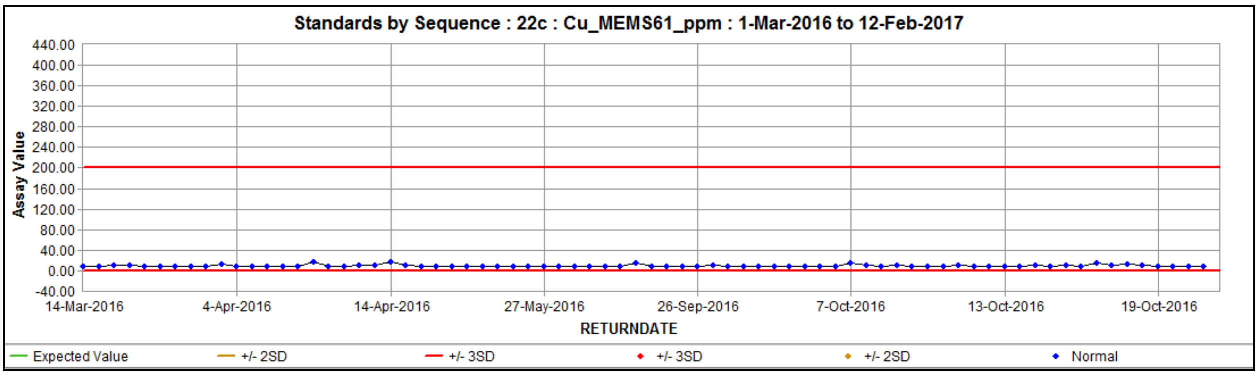


Figure 11.39. Scatter plot for Cu by ME-MS61 for blank OREAS 22c.

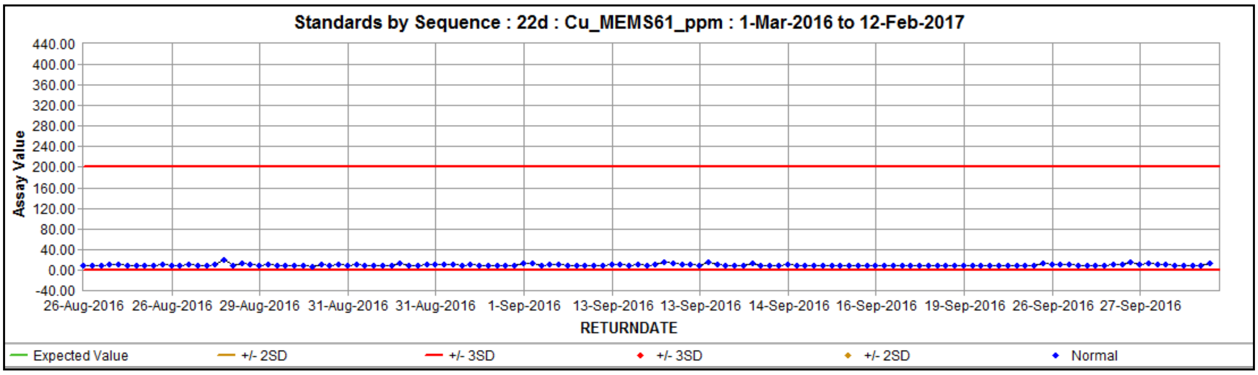


Figure 11.40. Scatter plot for Cu by ME-MS61 for blank OREAS 22d.

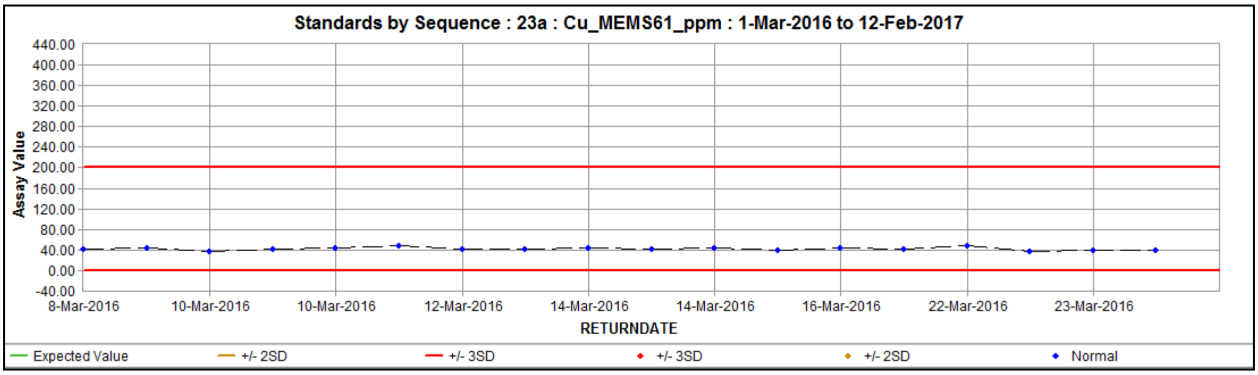


Figure 11.41. Scatter plot for Cu by ME-MS61 for blank OREAS 23a.

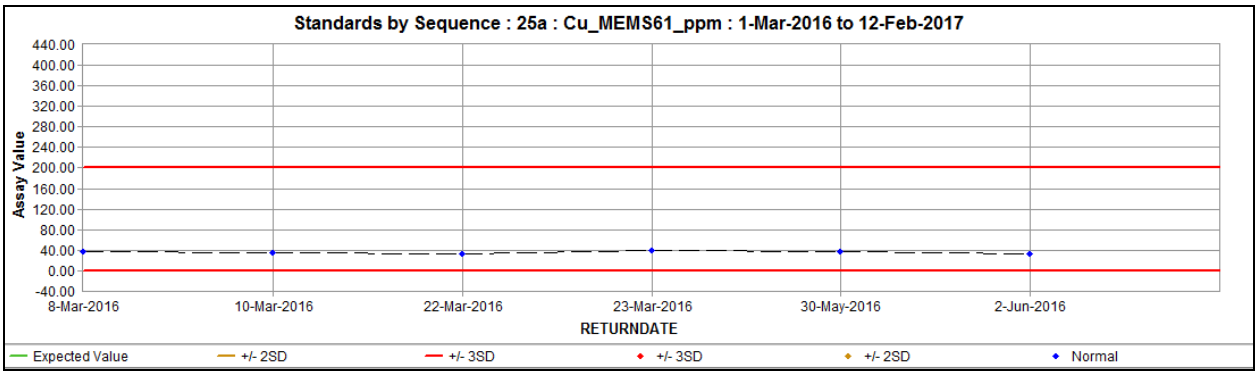


Figure 11.42. Scatter plot for Cu by ME-MS61 for blank OREAS 25a.

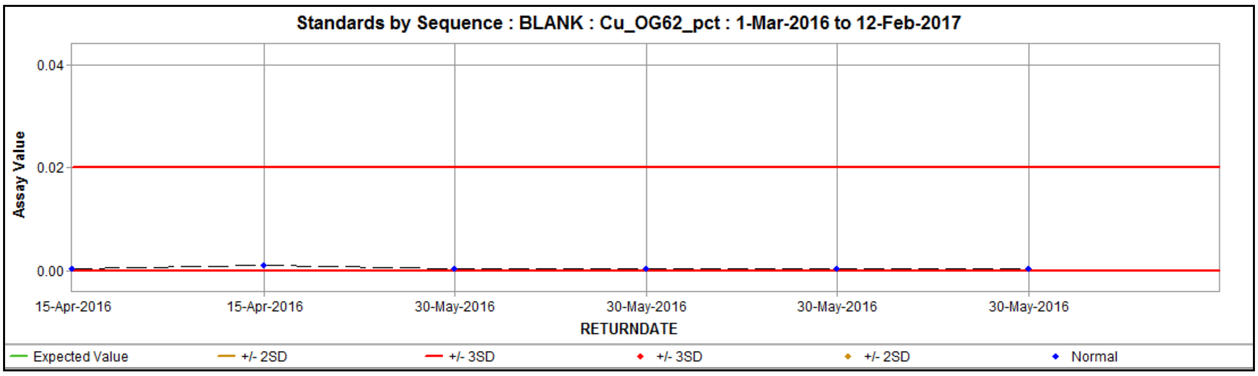


Figure 11.43. Scatter plot for Cu by Cu-OG62 for blank BLANK.

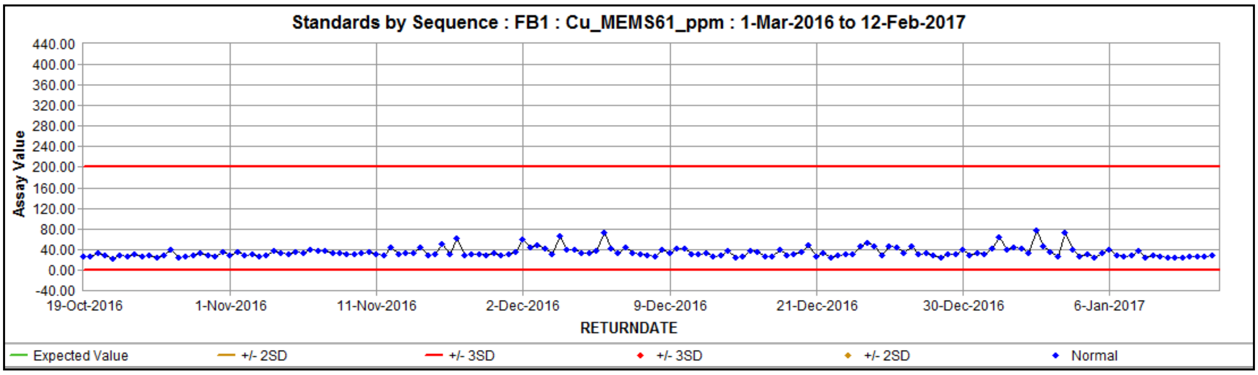


Figure 11.44. Scatter plot for Cu by ME-MS61 for blank FB1.

11.2.3.3 Duplicates

Sample duplicates monitor the precision at different stages of sample collection (drilling), subsampling and comminution. Three types of duplicates are monitored:

- Field (core) duplicates, which are a quarter core sample.
- Crush duplicates, which are duplicates of the coarse reject.

Pulverised duplicates, which are sample pulp duplicates

The field (core) duplicates for gold show considerable scatter indicating a nugget effect or irregular distribution of gold mineralisation, although the values are evenly distributed around the line of unity, indicating no sample bias (Figure 11.45). The coarse duplicates (Figure 11.46) and pulverized duplicates (Figure 11.47) much less scatter indicating that the sample preparation methods are appropriate.

The heterogeneity of gold has been investigated by HPX by the duplicates and screen metallic assays and concluded that there is considerable scatter above 0.2 g/t indicating the presence of coarse gold. The nugget effect is more pronounced for 30 g fire assay than 50 g fire assay, so it recommended to maintain the 50 g fire assay. It recommended larger sample sizes, screen metallic assays, and a study of gold grain size distribution.

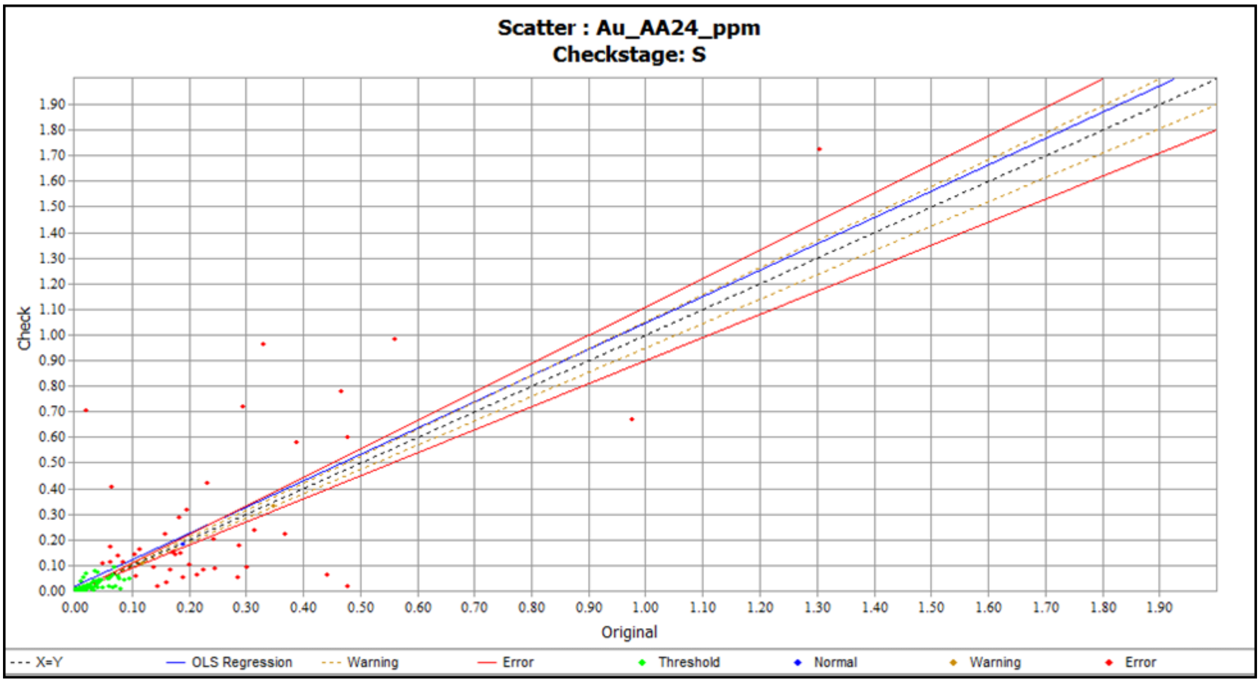


Figure 11.45 Scatter plot for Au for field (core) duplicates.

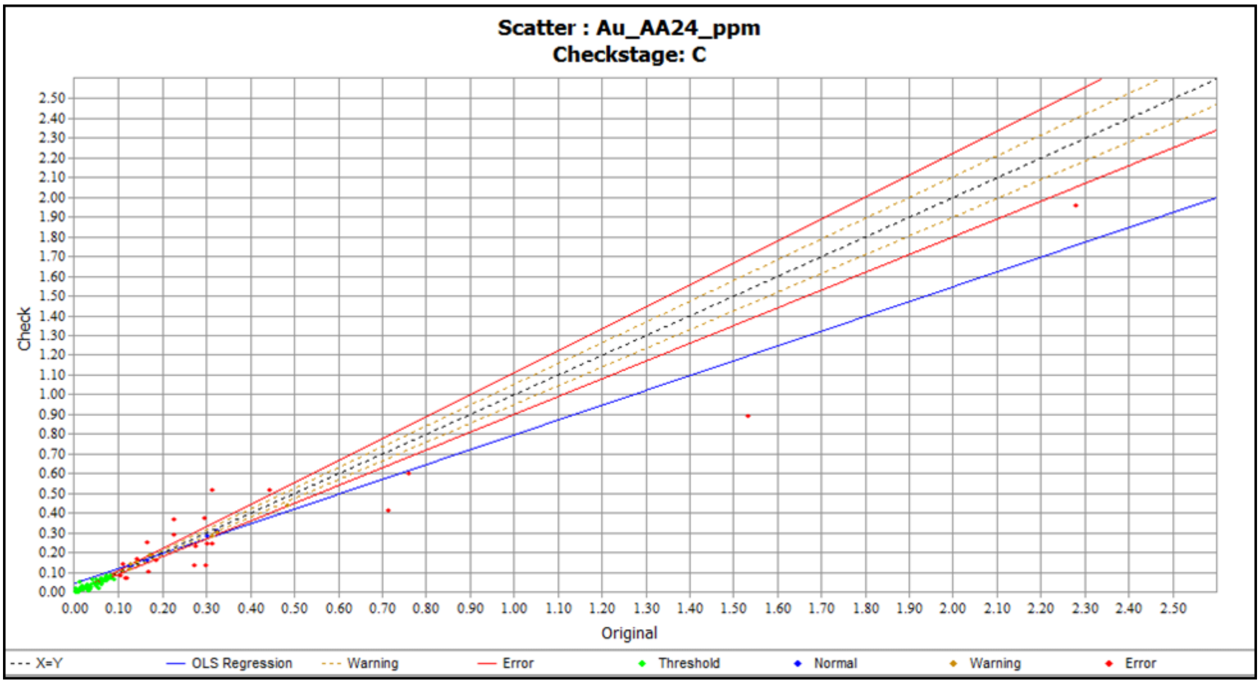


Figure 11.46 Scatter plot for Au for coarse duplicates.

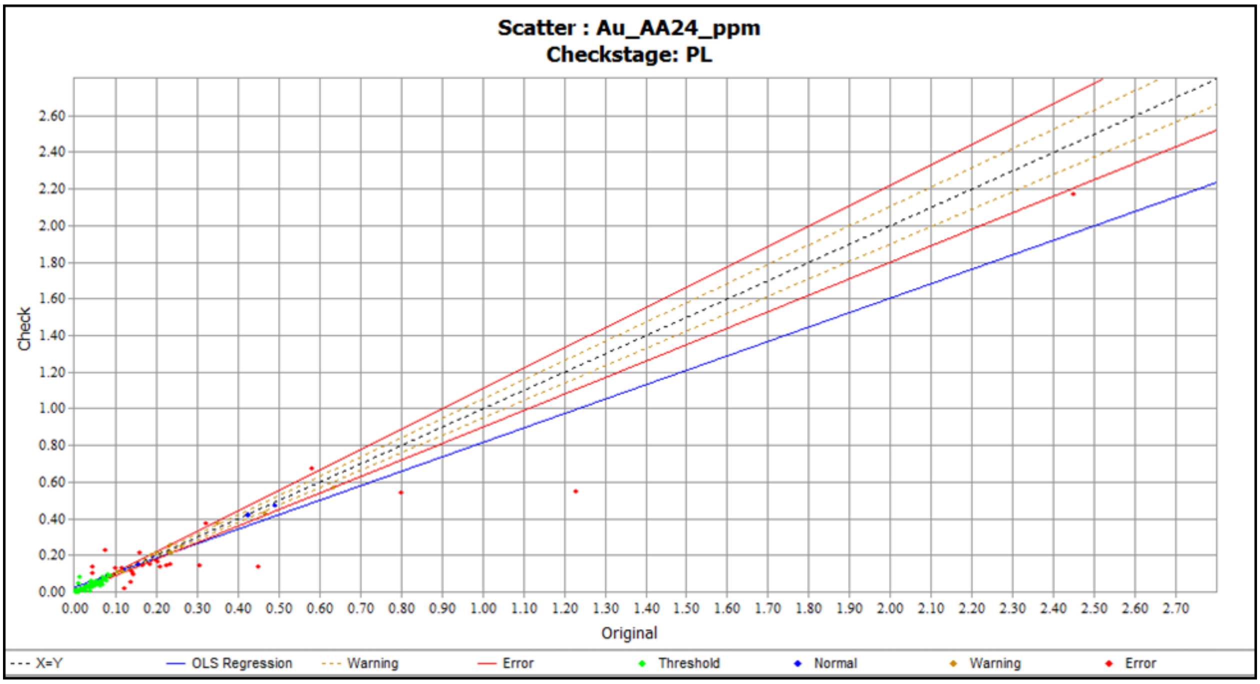


Figure 11.47 Scatter plot for Au for pulverised duplicates.

The field (core) duplicates for copper show considerable scatter indicating irregular distribution of copper mineralisation (Figure 11.48, Figure 11.49). The coarse duplicates (Figure 11.50, Figure 11.51) and pulverized duplicates (Figure 11.52, Figure 11.53) show very good correlation close to unity with very few outliers indicating that the sample preparation methods are appropriate.

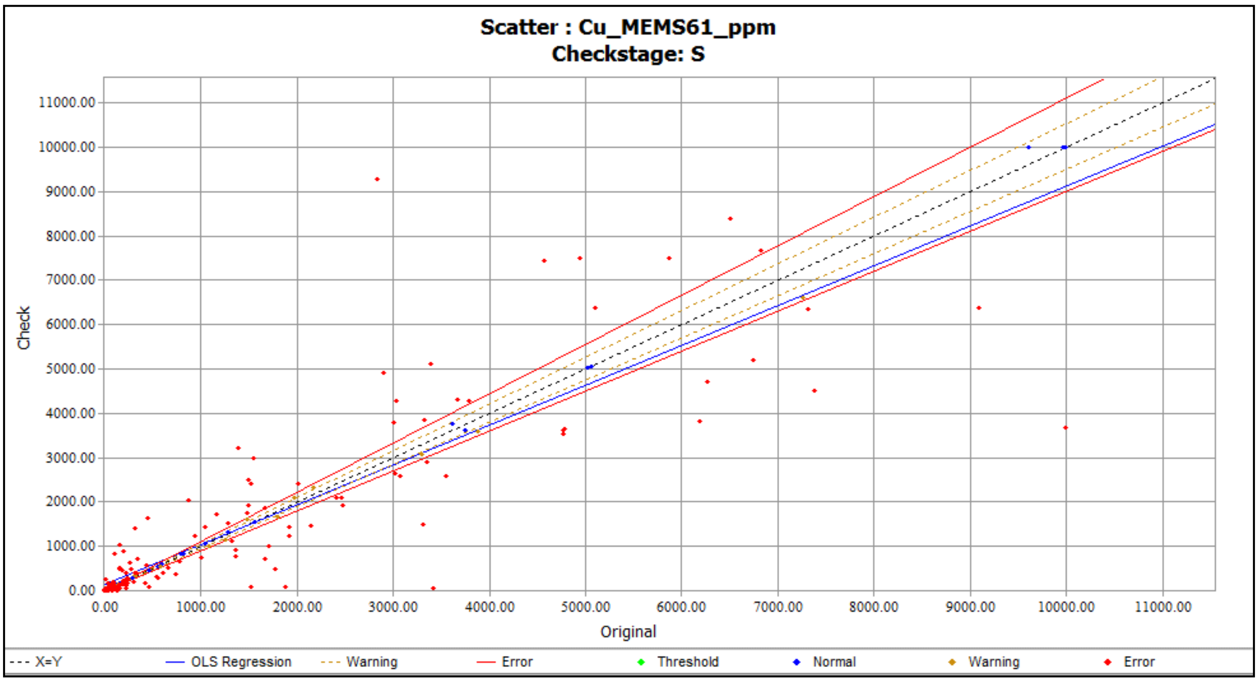


Figure 11.48 Scatter plot for Cu by ME-MS61 for field (core) duplicates.

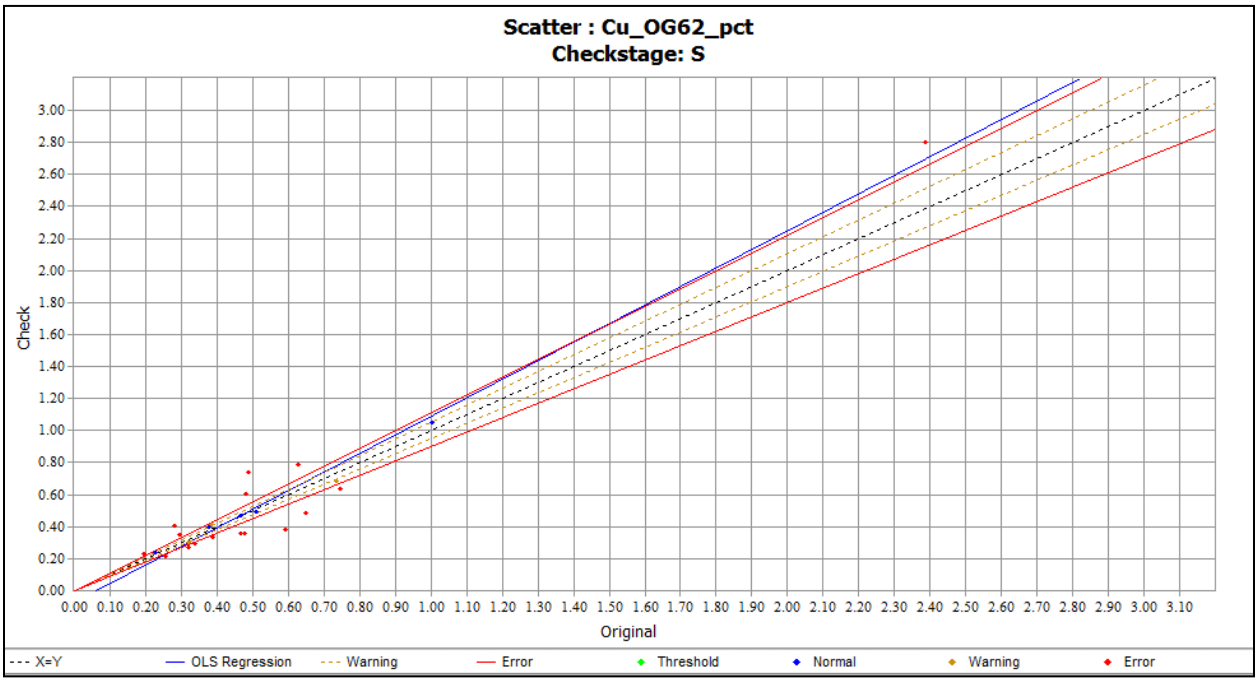


Figure 11.49 Scatter plot for Cu by Cu-OG62 for field (core) duplicates.

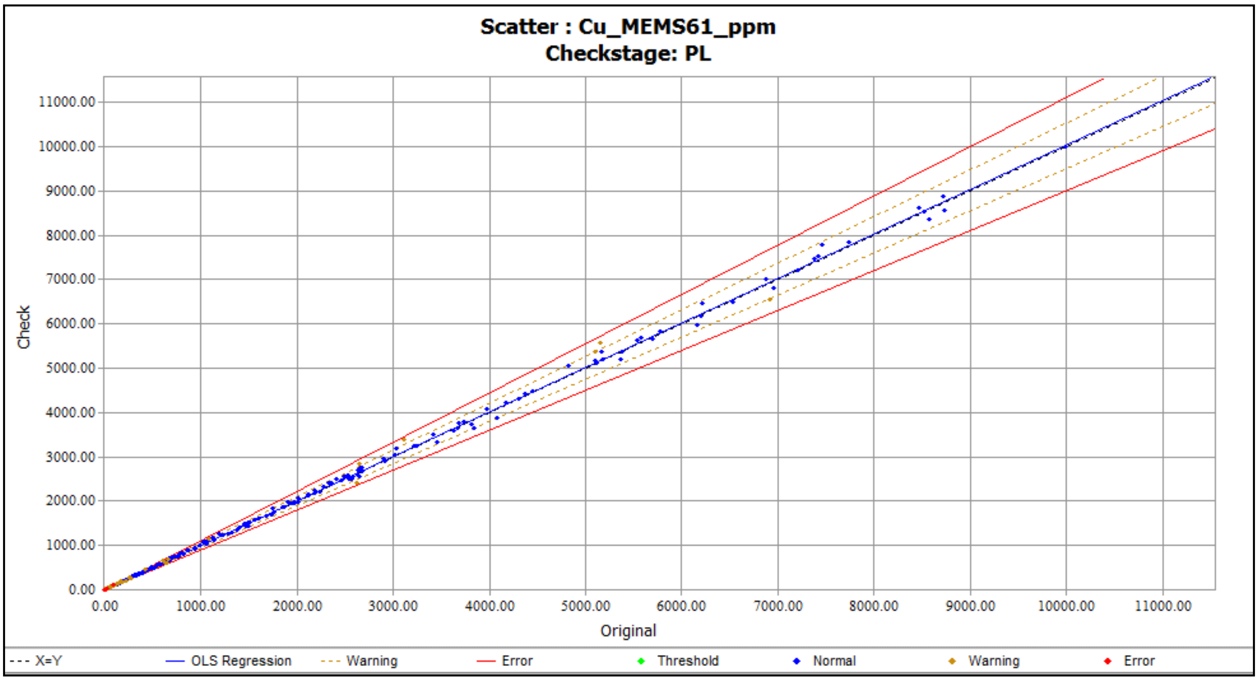


Figure 11.50 Scatter plot for Cu by ME-MS61 for coarse duplicates.

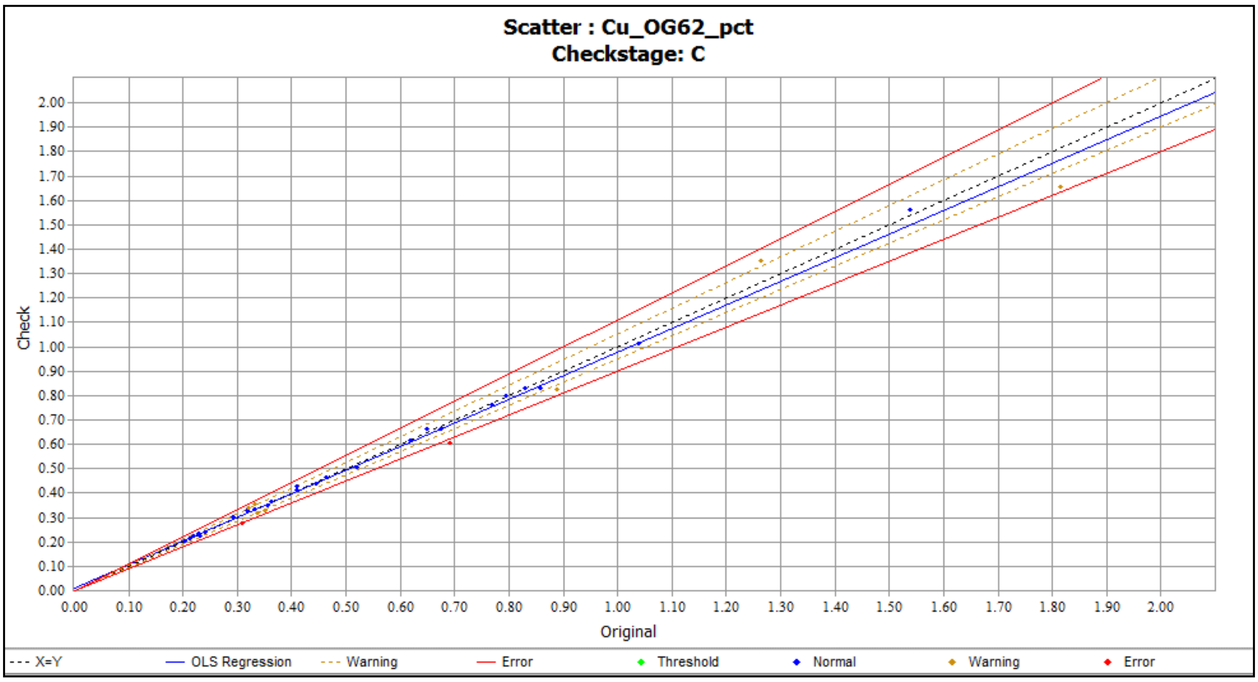


Figure 11.51 Scatter plot of Cu by Cu-OG62 for coarse duplicates.

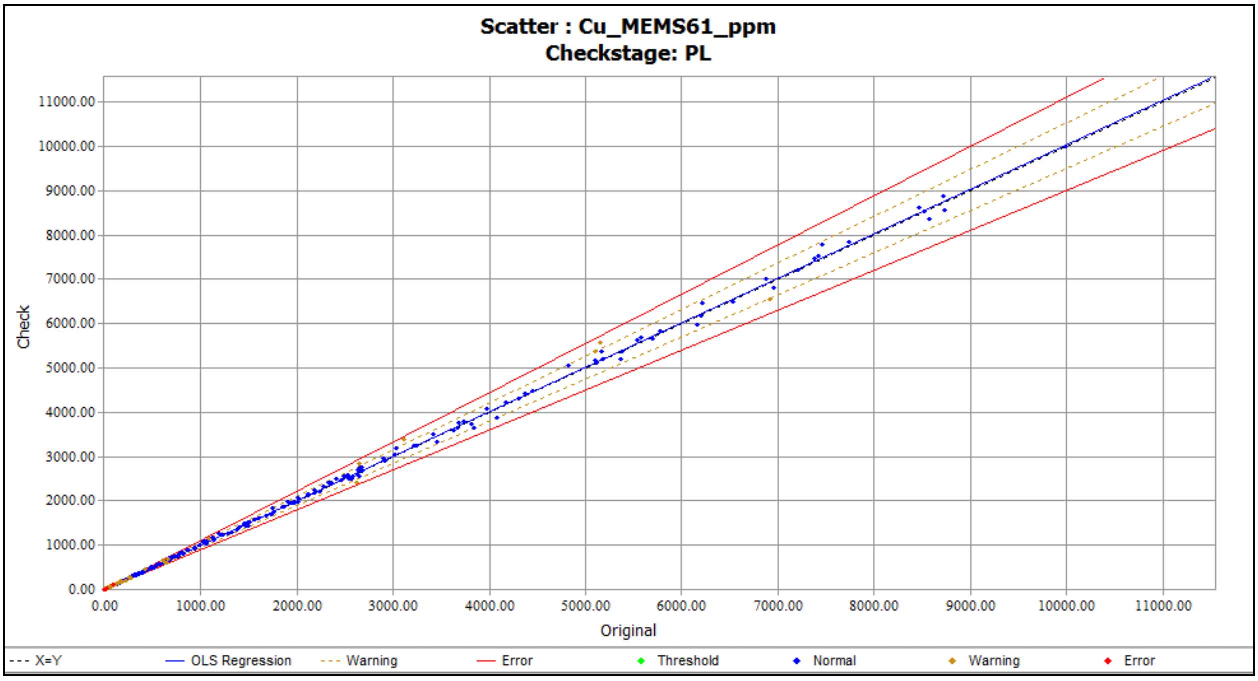


Figure 11.52 Scatter plot of Cu by ME-MS61 for pulverized duplicates.

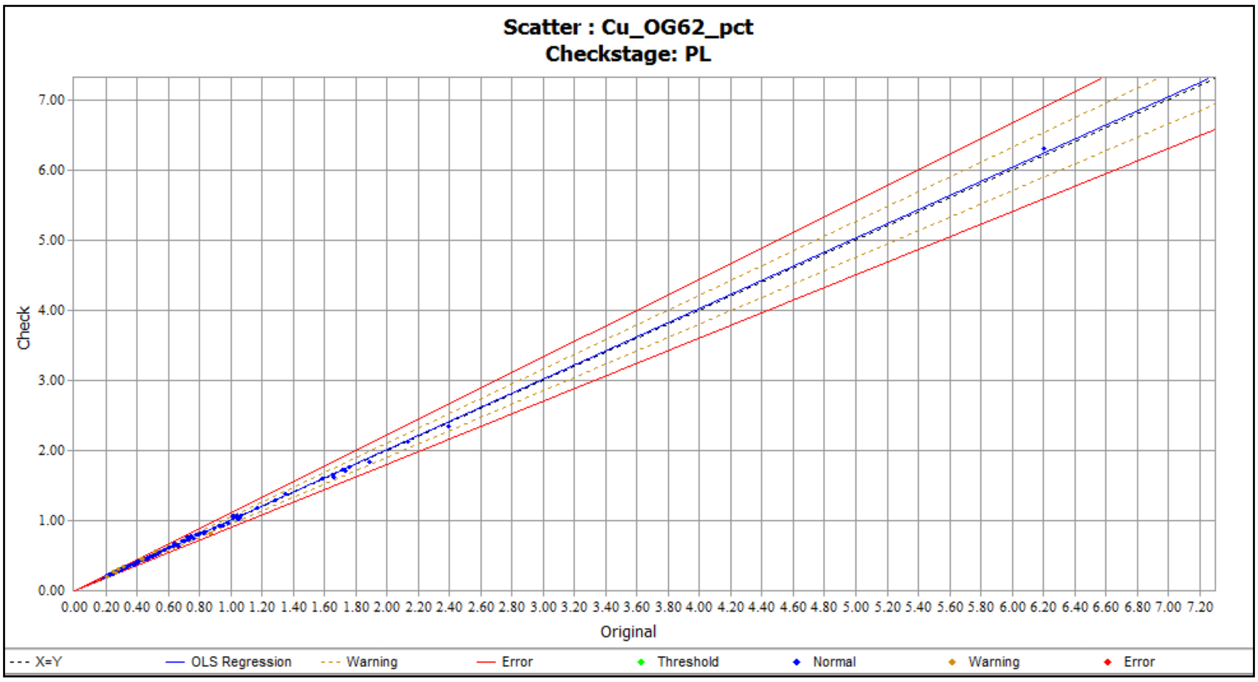


Figure 11.53 Scatter plot of Cu by Cu-OG62 for pulverized duplicates.

11.2.3.4 Author’s Opinion

It is the author’s opinion that Cordoba Minerals have carried out core processing, sample collection, security, preparation and analyses in accordance with best current industry standard practices. Sampling and analyses include quality assurance and quality control procedures. The exploration programs are well planned and executed and supply sufficient information to plan further exploration.

The author recommends that written protocols be made for all technical procedures, and that check analyses of coarse rejects and sample pulps should be carried routinely at a second, certified laboratory. The heterogenous distribution of gold and copper is a combination of geological heterogeneity and, in the case of gold, a nugget effect due to coarse gold, and needs to be addressed, for example by larger sample size (e.g. 2.0 m samples instead of 1.0 m), larger core diameter, or screen metallic assays for gold. A study should also be made of the grain size distribution of gold.

12 DATA VERIFICATION

12.1 DATA VERIFICATION PROCEDURES

Mr Taylor located several hole collars in the field (approximately 6%) and collar locations were checked by handheld GPS. All location were found to be consistent (within GPS error) with the listed surveyed coordinates and the number of drill collars seen is be consistent with the level of work described herein.

Data collection is managed by CDB Geological department. The data is stored off site in an Acquire™ database managed by PJW Geospatial Consulting.

Assay data was deemed verified if the original, signed assay certificate (or facsimile) was present (Ashmont and CDB) and the database reflected the assay certificate values accordingly. In addition, spot checks by Mr Taylor of approximately 5% of the samples were made and there were found to be no material deficiencies.

12.1.1 Site Visit

Mr Taylor visited Alacran site from 16th to 19th of February 2016. In the course of the site visit, Mr Taylor viewed mineralized drill core, located several drill hole collars in the field, and examined the drill core processing and storage facilities (Figure 12.1, Figure 12.2). He also viewed mineralized lode systems and outcrops associated with the artisanal miners. Technical discussions were held with both site geologists and the VP Exploration (Dr C. Grainger)

Figure 12.1. Cordoba Minerals Core Shack at Alacran

Figure 12.2. ACD006A box #33 91.42 to 94.15 Massive sulphide contact with pyrite blebs in volcaniclastic siltstones.

Copper mineralization is visible as vein and massive sulphides mineralization (Figure 12.3), consisting of pyrite, chalcopyrite and minor bornite, replacement of limestone and lithic tuffs. Numerous artisanal miners are recovering the gold (Figure 12.4) and discarding the copper sulphides.

Figure 12.3. Artisanal Mining (note Azurite staining in rock face)

Figure 12.4. Gold Amalgam sold by Artisanal Miners

Dr Redwood made a current personal inspection of the San Matias and El Alacrán projects on 9 to 11 February 2016. The author also made prior visits on 6 to 7 July 2011, 1 to 3 August 2013, and 15 November 2013.

12.1.2 Independent Samples

Dr. Redwood has verified the data used upon in this report by visiting the property and confirming the geology and mineralization, reviewing the database, assay certificates and QAQC, and by carrying out independent check sampling.

Four grab samples were taken by Mr Redwood of mineralization exposed on surface at several locations in the El Alacran Deposit on the field inspection on 10 February 2016. The samples were collected in plastic bags, a sample number was written on the bag, and the bag was sealed by zip-lock. The samples were kept in the author's custody and were hand carried by the author and delivered to a laboratory representative in Medellin.

The check samples (prefix AL-) were prepared and analyzed by ALS Colombia Ltda., part of ALS Minerals, at their laboratory in Medellin. The preparation was to crush to 70% passing 2 mm, split 250 g, and pulverize the split to 85% passing 75 microns (method PREP-31). The samples were analyzed for Au by fire assay on a 50 g subsample with AAS finish (method Au-AA24) and for 48 elements by four acid digestion and ICP-MS (method ME-MS61). Copper grades greater than 10,000 ppm were reanalyzed by four acid digestion and ICP-AES (method Cu-OG62).

The sample descriptions and summary of results are shown in Table 12.1. The assay certificate number MD16020613 is given in Appendix 1.

The results show that gold grades are between 434 and 3,880 ppb (0.43 to 3.88 g/t); copper values are between 7,730 and 30,300 ppm (0.77 to 3.03%); silver values are between 5.52 and 13.1 ppm; molybdenum values are 21 to 1,720 ppm; iron values are 20.2 to 38.3%; and sulfur values are >10%.

The results of the independent check sampling adequately confirm the presence of anomalous amounts of gold, silver and copper at the El Alacran Deposit in quantities similar to those reported by Cordoba Minerals.

In the opinion of the Mr Taylor, the information disclosed in this report was collected in a sound fashion and is of sufficient quality to make reliable and informed decisions upon, and is adequate for the purposes used in this technical report.

Table 12.1. Sample description and results of independent check sampling at the El Alacran Project.

Sample Number	UTM Easting	UTM Northing	Location	Description	Sample Type	Au ppb	Ag ppm	Cu ppm	Mo ppm
AL-001	418916	855766	Artisanal mine, North Zone, El Alacran	Semi-massive coarse pyrite with chalcopyrite, green sericite(?), minor chalcocite-covellite, goethite, and blue Cu oxides.	Grab	1,050	11.90	30,300	21.0
AL-002	418916	855766	Artisanal mine, North Zone, El Alacran	Coarse green sericite(?) with disseminated chalcopyrite. 2 m E of AL-001.	Grab	434	13.10	33,400	30.8
AL-003	419025	855610	Artisanal mine, North Zone, El Alacran	Magnetite and pyrite replacement of finely bedded sediments. Minor blue Cu oxides on surface.	Grab	926	5.52	5,730	1,720.0
AL-004	419021	855581	Artisanal mine, North Zone, El Alacran	Semi-massive stratiform pyrite replacement of finely bedded white tuffaceous sediments with coarse green sericite. Partial oxidation to goethite, blue Cu oxides.	Grab	3,880	3.11	11,150	295.0

Grid WGS 84, UTM Zone 18N.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing has been carried out on El Alacran Deposit.

14 MINERAL RESOURCE ESTIMATES

This is the first mineral resource estimate for El Alacran Deposit that is compliant with the current CIM standards and definitions required by the Canadian NI 43-101 "Standards for Disclosure of Mining Projects".

14.1 APPROACH

The following approach was undertaken by MA based on the observation that copper and gold mineralization is generally co-incident, with minor strike extents where gold propagates beyond the copper mineralization. A 0.3 % copper equivalent shell was generated to represent the low grade extents of the mineralization (for copper equivalent formula see section 14.12.1). A 3D model was created to cover the area of interest. Copper, gold, iron and sulphur were estimated using ordinary kriging techniques. Copper and gold are of primary economic interest, iron and sulphur are not considered to have significant economic impact.

14.2 SUPPLIED DATA

14.2.1 Drill Hole Database

PJW Geospatial Consulting (independent database manager) supplied MA with Cordoba's drill database. The provided database, Cordoba ALA Resource Drillhole Export20161027 .mdb had the following structure as shown in Table 14.1.

Table 14.1. Master Database Structure

Table Name	Description	# records
Assay_Best	Drill hole Assay intervals and associated copper gold iron and sulphur results	19958
Lithology	Drill hole logged lithological units	6304
RQD	Rock quality data from drill core	3232
Recovery	Drill core recovery data	4155
collar	Collar information associated with drill type and location	76
styles	Surpac Styles Table, stores graphic information used to render drillholes	111
survey	Down hole survey data	2459
zone_code_au	MA created drill hole flags used to define gold domains	459
zone_code_cu	MA created drill hole flags used to define copper domains	587

The Assay_Best table stores a ranked assay grade, where the preferred assay method is give priority if two or more methods exist for the same sample. Generally each sample has one Cu and Au assay per sample. A priority is given if a sample is assayed with both AA23 and AA24 for gold, the database will use AA24 over AA23 based on the rank. Also if Cu is determined by MEMS61 and OG62 for a sample, the database will select OG62 over MEMS61.

The drillhole database integrity was reviewed for internal inconsistencies, duplicate sample numbers, overlapping samples and assay reference numbers. Drill hole summary by company is presented in Table 14.2.

Table 14.2. Drill Hole Summary

Company	#of holes	Metres Drilled	Total # of Samples	Metres Sampled	# samples used to inform the resource estimate
Ashmont	52	13,429.45	13,251	13,252.85	2,691
Cordoba	24	6,766.2	6,707	6,708.6	2,014
Total	76	20,195.65	19,958	19,961	4,705

Drill records (including core), assay certificate and associated QAQC are available for the Cordoba and Ashmont drilling. Spot checks of logging and assay data were checked by the Qualified Person.

Drill hole collar and down-hole deviation were examined to check for location and orientation errors. Drill hole collars elevations were corrected to match LIDAR derived topography. Four outlier Cordoba Holes (ACD008, 8A, 9 and 10) required approximately 10 m reduction in RL. The absolute average difference between drill hole collars and the lidar survey of 3.76 m for Cordoba holes and 4.55m for Ashmont holes. The greatest reduction in elevation was ASA033 (16.42 m), a barren hole to the south west of the Mina Seca.

Two down hole dips at the start of drill hole ASA035 (0 m and 50 m depth) were changed from -48.3° to -68.3°. The following down hole readings show the hole steadily shallowing to -63° dip.

Historic holes drilled by Dual Resources (prefix SJ) were not used, the core poorly preserved, sampling appears selective and there are neither assay certificates nor associated QAQC records. No surface or trench data was used in the resource estimate.

In the authors opinion there are no significant errors that would preclude the use of the data in mineral resource estimation.

14.2.2 Topography

LIDAR topographic survey data was provided by Cordoba (Figure 14.1), and processed by REM to provide detailed spot heights from which a Surpac digital terrain model was generated (alacrandem2.dtm).

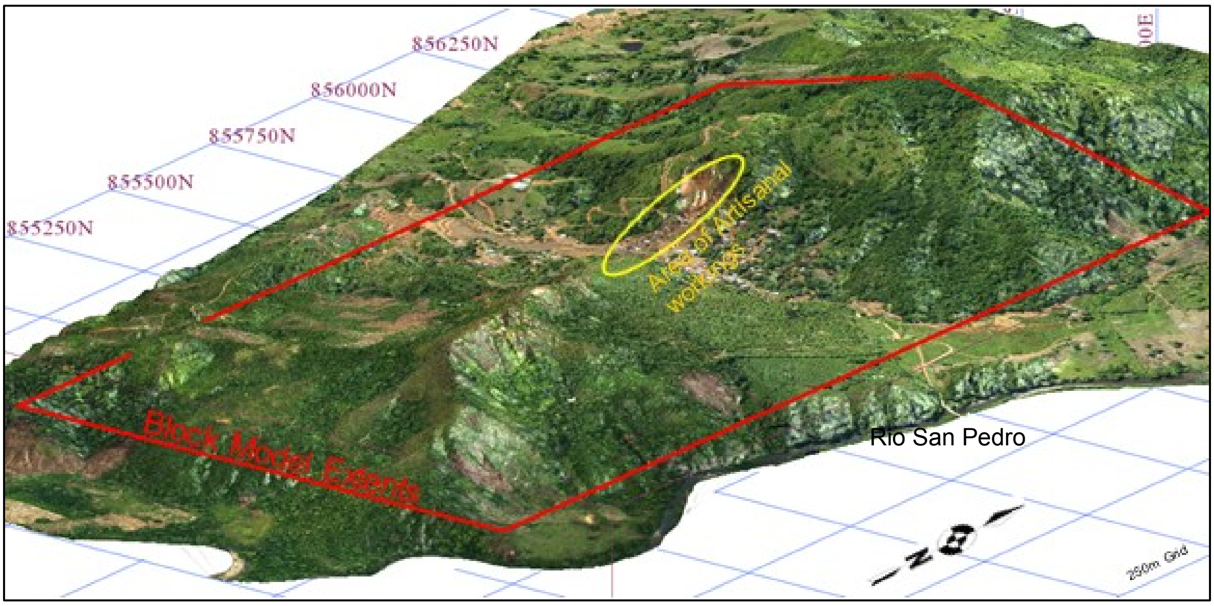


Figure 14.1. Lidar DTM over El Alacran

14.2.3 Weathering

A base of oxidation wireframe was utilised to code blocks within the block model with a weathering code. Blocks were flagged as OX above the base of weathering or FR below the base of weathering.

14.2.4 Geology Models

Geological interpretation was carried out in Leapfrog ™ software (Figure 14.2). Geological logs combined with surface mapping and geochemistry were used to constrain the lithological boundaries. The footwall lithology is a mafic (Unit 4 and 5) and the hanging wall is dominantly undifferentiated diorite (Unit 0). The hanging wall also contains a weakly mineralized dacite to rhyolite crystal tuff (Unit 1). The dominant host to mineralization is dolomitic mudstones and volcaniclastic siltstones (Units 2 and 3). Several dykes were intruded into the sequence and are generally mafic in composition. The modelled footwall consists of mafic volcanics (Units 4 and 5). Table 14.3 lists the wireframes provided and the associate lithological units.

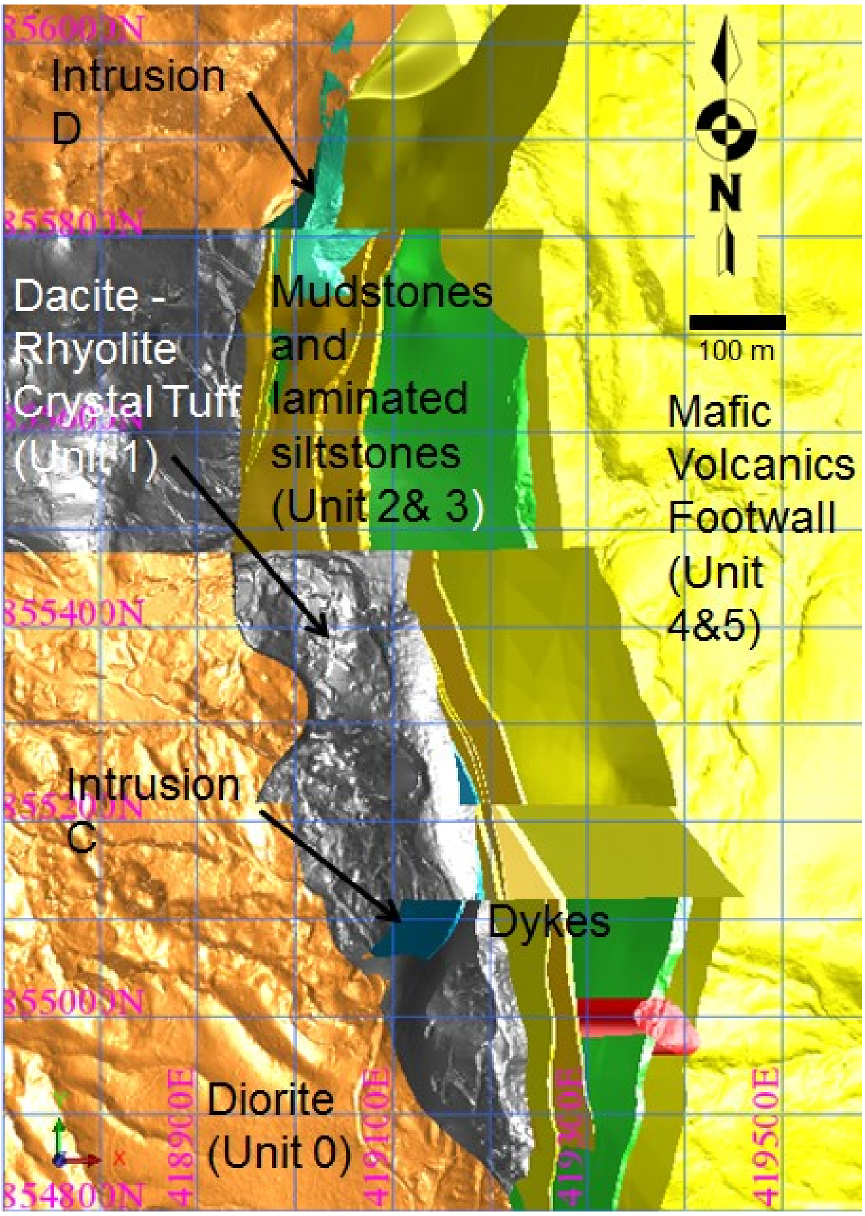


Figure 14.2. Lithological Model (Plan View)

Table 14.3. Lithological Wireframes Provided

Wireframe	Descrrption	Unit	Rock Code
NA	dolomitic mudstones and volcaniclastic siltstones	2 & 3	1
lithchem_i08.dtm	Mafic Dyke		8
lithchem_i10.dtm	Mafic Dyke		10
lithchem_i20.dtm	Mafic Dyke		20
lithchem_i25.dtm	Mafic Dyke		25
lithchem_i30.dtm	Mafic Dyke		30
lithchem_i40.dtm	Mafic Dyke		40
lithchem_i55.dtm	Mafic Dyke		55
lithchem_i60.dtm	Mafic Dyke		60
lithchem_intb11.dtm	Dacite - rhyolite crystal tuff	1	11
lithchem_intc12.dtm	Mafic intrusion	1	12
lithchem_intd13.dtm	Mafic intrusion	1	13
lithchem_intnorth15.dtm	Dyke		15
lithchem_intrusionwest16.dtm	Undifferentiated Diorite	0	16
lithchem_mafic5.dtm	Mafic Footwall Unit	4 & 5	5

14.3 GRADE SHELLS

Mineralization domains at El Alacran where defined by a copper equivalent (CuEq) value (see section 14.12.1 page 113). Broad shapes based on copper equivalent greater than 0.3% CuEq were split where assumed faults intersect the mineralization. Leapfrog grade shells use 2 m composite data, 4 m internal dilution and a 5 m resolution placed on the wireframes. Leapfrog wireframes were imported into Surpac and all trisolations less than 250 m^3 were deleted, removing the small isolated shells formed around individual composites.

The >0.3 % CuEq trisolation shapes were used to define low grade copper (<1.0 % Cu) and gold (< 1 g/t) mineralization (Figure 14.3, alacran_cueq_grt0p3.dtm, objects 31 to 36 and 38). Within the broad low grade CuEq domains unique wireframes were used to define areas of high-grade copper (>1.0% Cu, alacran_cu_pct1.dtm, objects 17 to 19) and one area of high grade gold (>1g/t, alacran_au_ppm1.dtm, object 29). Iron and sulphur were initially estimated as unconstrained estimates as iron and sulphur are not restricted to the copper mineralization. Subsequently the iron and sulphur were estimated within the low grade CuEq wireframes. Iron and sulphur are not considered to have economic significance and are not reported as part of the mineral resource.

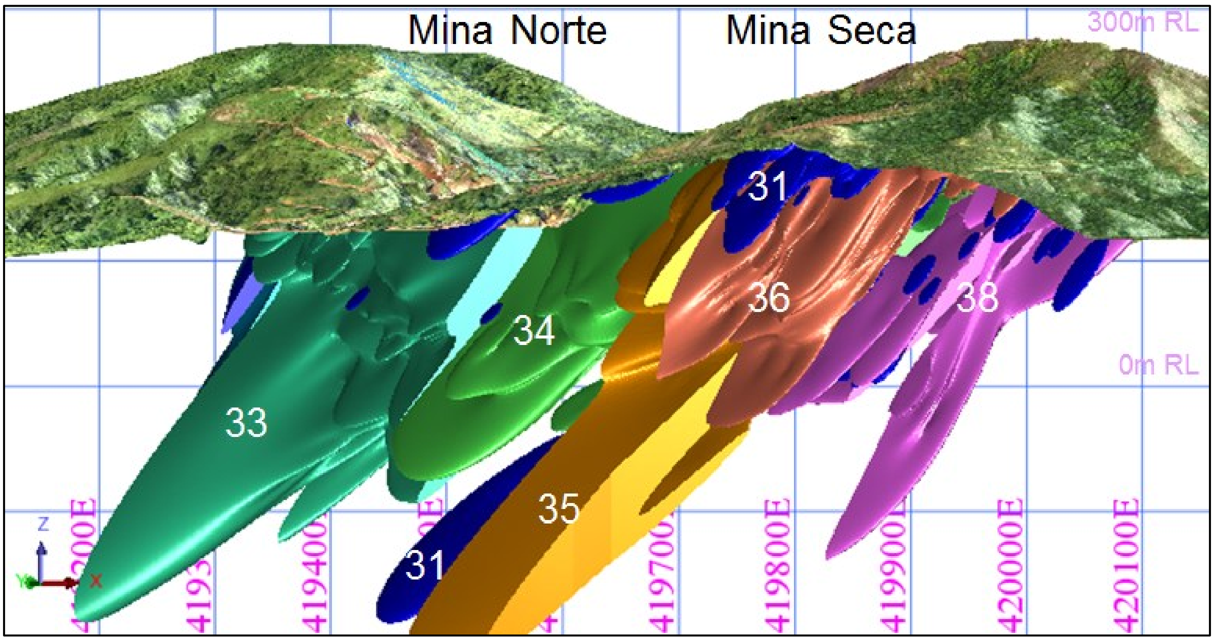


Figure 14.3. Wireframe Domains (looking NNE)

14.4 DIMENSIONS

The area of consideration is 1.7 km in the North-South orientation and 0.9 km in the East-West orientation (Table 14.4). There are numerous artisanal mines and pits over a zone 800 m long and 30 m wide on the northern portion of the deposit (Figure 14.1). Mineralization exposed in the artisanal workings is associated with silicification and comprises coarse magnetite, specularite, chalcopyrite, bornite and pyrite, with secondary chalcocite and covellite.

Table 14.4. Database Extents

	x	y	z	Hole depth
min	418857.6	854331.6	123	5.6
max	419454.8	855957	262.79	442.3

14.5 DATA PREPARATION AND STATISTICAL ANALYSIS

14.5.1 Drill Hole Spacing

Drill hole data spacing is variable within each domain. Two type sections exist, 855,800 mN through Mina Norte and 855240mN through Mina Seca. Section lines are loosely 40 m spaced in the north south, with holes drilled east (Azimuth 85° to 90°). Mina Norte deposit has several sections with 3 or more holes drilled, however Mina Seca commonly only has 1 hole per section (Figure 14.4). Mina Este is poorly drilled.

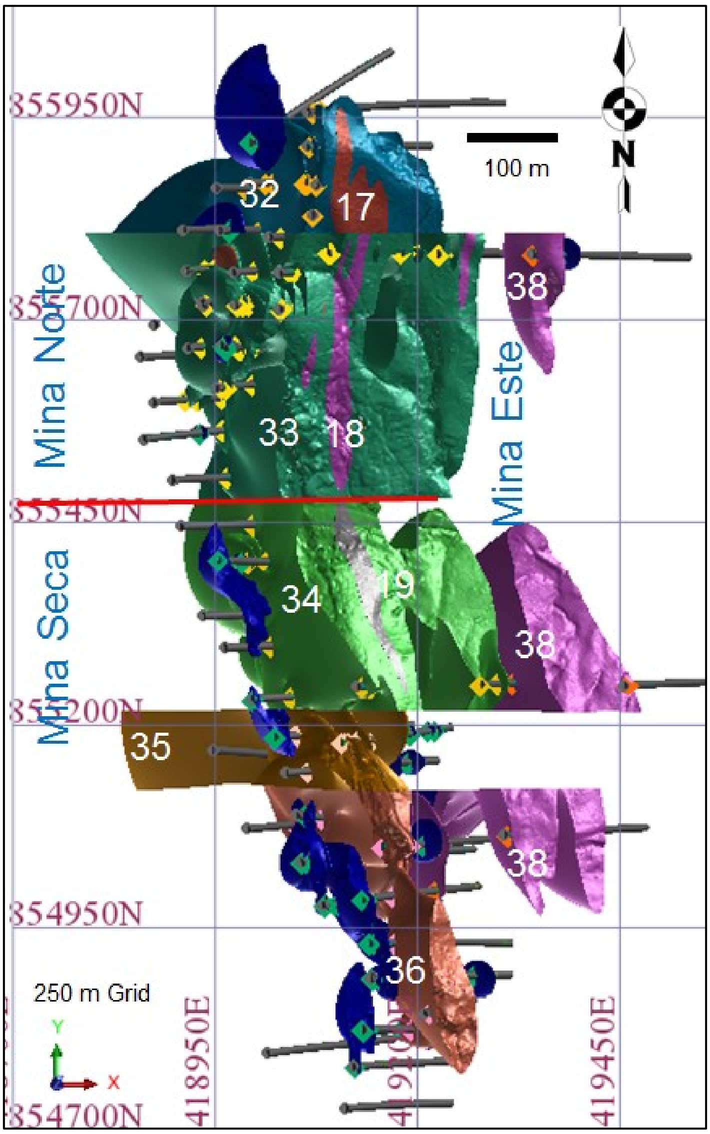


Figure 14.4. Drill hole Layout (plan view) highlighting drill intercepts

14.5.2 Domains & Stationarity

A domain is a three-dimensional volume that delineates the spatial limits of a single grade population, has a single orientation of grade continuity, is geologically homogeneous and has statistical and geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Typical controls that can be used as the boundaries to the domains include structural features, weathering, mineralization halos and lithology.

Due to the tight geological domaining, stationarity concerns are minimised with the resource estimation as each domain contains only one population of grade data.

14.5.3 Compositing

The objective of compositing data is to obtain an even representation of sample grades and to eliminate any bias due to sample length (volume variance). The dominant drill core sample length is 1 m. Surpac's "Fixed Length" was selected as the compositing method (minimum length set to 75%). The mean remains reasonably un-affected, and the coefficient of variation is significantly reduced with two and three metre composites. Increasing composite lengths slightly increases the average grade (Figure 14.5).

An important factor in compositing is the mining method and selected bench height, ideally the composite length would reflect the height of a flitch. At this stage of the project 2.5 m to 3 m flitches are likely thus a composite length of two metres was selected.

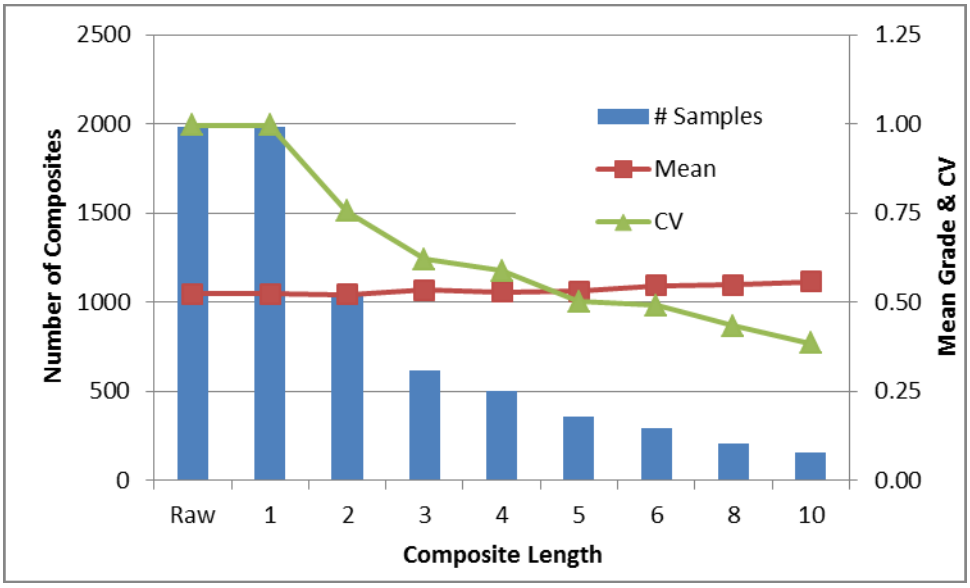


Figure 14.5. Schematic effect of Composite Length on Mean and CV

14.5.4 Summary Statistics

Summary statistics for the domains are presented in Table 14.5 copper, Table 14.6 gold, Table 14.7 iron and Table 14.8 sulphur.

Table 14.5. Summary Statistics for Copper

	Low Grade Copper Domains							High Grade Copper Domains		
Statistic	31	32	33	34	35	36	38	17	18	19
Samples	165	348	945	150	88.00	171	94	94	131	30
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.4
Maximum	1.5	2.1	5.4	4.5	2.2	2.1	2.8	16.1	4.9	9.6
Mean	0.34	0.49	0.53	0.53	0.40	0.47	0.58	2.08	1.82	2.33
Standard deviation	0.2	0.3	0.4	0.5	0.4	0.4	0.5	2.3	0.9	1.6
Variance	0.1	0.1	0.2	0.3	0.1	0.1	0.2	5.4	0.8	2.7
25 percentile	0.18	0.29	0.30	0.25	0.17	0.19	0.31	1.30	1.25	1.50
50 percentile	0.30	0.41	0.44	0.45	0.30	0.38	0.46	1.55	1.57	2.13
75 percentile	0.46	0.64	0.66	0.62	0.49	0.65	0.66	1.91	2.13	2.62
95 percentile	0.87	0.97	1.18	1.18	1.10	1.24	1.34	4.38	3.71	4.28
97.5 percentile	0.90	1.03	1.23	1.35	1.12	1.27	1.50	4.91	4.02	4.89
99 percentile	1.11	1.35	1.57	1.94	1.52	1.49	2.20	12.86	4.30	7.71
CV	0.72	0.60	0.76	0.95	0.94	0.81	0.78	1.11	0.48	0.71

Table 14.6. Summary Statistics for Gold

Statistic	Low Grade Gold Domains							HG Gold Domains
	31	32	33	34	35	36	38	29
Samples	165	454	1089	172	83	136	94	53
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Maximum	6.1	5.3	9.0	2.5	5.0	5.7	0.7	24.0
Mean	0.37	0.30	0.29	0.38	0.61	0.46	0.16	2.69
Standard deviation	0.7	0.4	0.5	0.4	0.9	0.7	0.2	3.6
Variance	0.5	0.2	0.2	0.2	0.7	0.5	0.0	12.6
25 percentile	0.08	0.10	0.08	0.11	0.14	0.11	0.04	1.03
50 percentile	0.19	0.20	0.17	0.22	0.31	0.20	0.11	1.59
75 percentile	0.41	0.38	0.34	0.51	0.61	0.54	0.20	3.07
95 percentile	1.04	0.79	0.88	1.15	2.21	1.64	0.55	7.25
97.5 percentile	1.26	0.88	0.98	1.19	2.57	1.75	0.58	7.35
99 percentile	2.63	1.25	1.44	1.57	3.49	2.69	0.61	12.89
CV	1.96	1.35	1.59	1.07	1.41	1.55	1.02	1.32

Iron and Sulphur were also considered for estimation but are not considered to have a significant economic effect thus are not reported in the resource figures, nor used in any equivalence formulas.

Table 14.7. Summary Statistics for Iron

	Iron Domains						
Statistic	31	32	33	34	35	36	38
Samples	165	454	1092	185	88.00	171	94
Minimum	4.7	3.5	2.4	4.8	7.4	6.4	2.7
Maximum	26.6	47.7	39.9	46.2	39.8	47.7	26.7
Mean	11.57	10.78	9.71	15.49	16.49	23.91	9.51
Standard deviation	4.6	4.6	3.8	8.6	8.1	10.8	4.9
25 percentile	8.44	7.64	7.27	9.29	9.89	14.21	5.65
50 percentile	10.65	9.79	8.79	12.15	13.12	22.53	8.27
75 percentile	13.68	13.13	11.51	20.15	22.43	32.58	12.06
95 percentile	20.27	18.48	16.67	31.39	31.86	41.58	17.75
97.5 percentile	20.87	18.63	17.46	32.37	32.03	41.95	18.76
99 percentile	25.44	22.69	20.54	40.42	33.54	46.10	22.79
CV	0.40	0.43	0.39	0.55	0.49	0.45	0.51

Table 14.8. Summary Statistics for Sulphur

	Sulphur Domains						
Statistic	31	32	33	34	35	36	38
Samples	165	454	1092	185	88	171	94
Minimum	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	8.8	10.0	10.0	10.0	9.2	10.0	10.0
Mean	1.55	3.69	3.29	4.40	3.15	4.16	2.55
Standard deviation	1.9	2.7	2.2	2.9	2.4	2.5	2.2
Variance	3.5	7.1	5.0	8.7	5.5	6.1	4.9
25 percentile	0.04	1.65	1.62	2.00	1.22	2.50	0.84
50 percentile	1.01	3.20	2.79	3.81	2.53	3.76	2.32
75 percentile	2.67	5.40	4.63	6.68	4.40	5.79	3.64
95 percentile	5.35	8.83	7.81	10.00	7.70	8.98	7.09
97.5 percentile	5.56	9.16	8.21	10.00	7.86	9.01	7.52
99 percentile	7.33	10.00	9.23	10.00	8.66	9.89	9.12
CV	1.21	0.72	0.68	0.67	0.75	0.59	0.87

Initial investigation of mineralization and the geological model determined the domains could be combined for statistical analysis based on deposit areas, rather than retaining individual domains within fault blocks that occur within the one deposit. Mina Norte consists of domains 32 and 33 and high-grade mineralization defined by domains 17 and 18, Mina Seca consists of domains 34, 35 and 36. Mina Seca high-grade copper domain is domain 19 and high grade gold domain is 29. Mina Menor comproses small discontinuous pods generally in the hanging wall of the main deposits (Domain 31). Mina Norte and Seca. Mina Este consists of domains 38.

Log Histograms for copper and gold composites (Figure 14.6 Mina Este, Figure 14.7 Mina Menor, Figure 14.8 Mina Norte and Figure 14.9 Mina Seca) composites show skewed distributions, with no significant bimodal distributions.

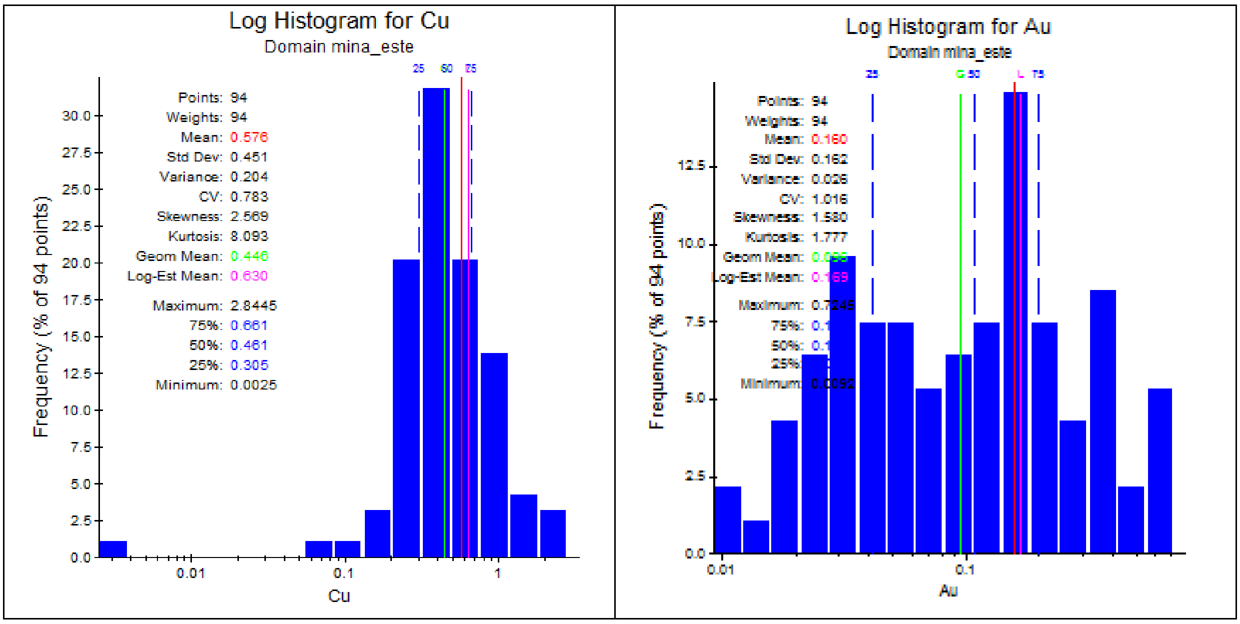


Figure 14.6. Mina Este Copper and Gold Log Histograms

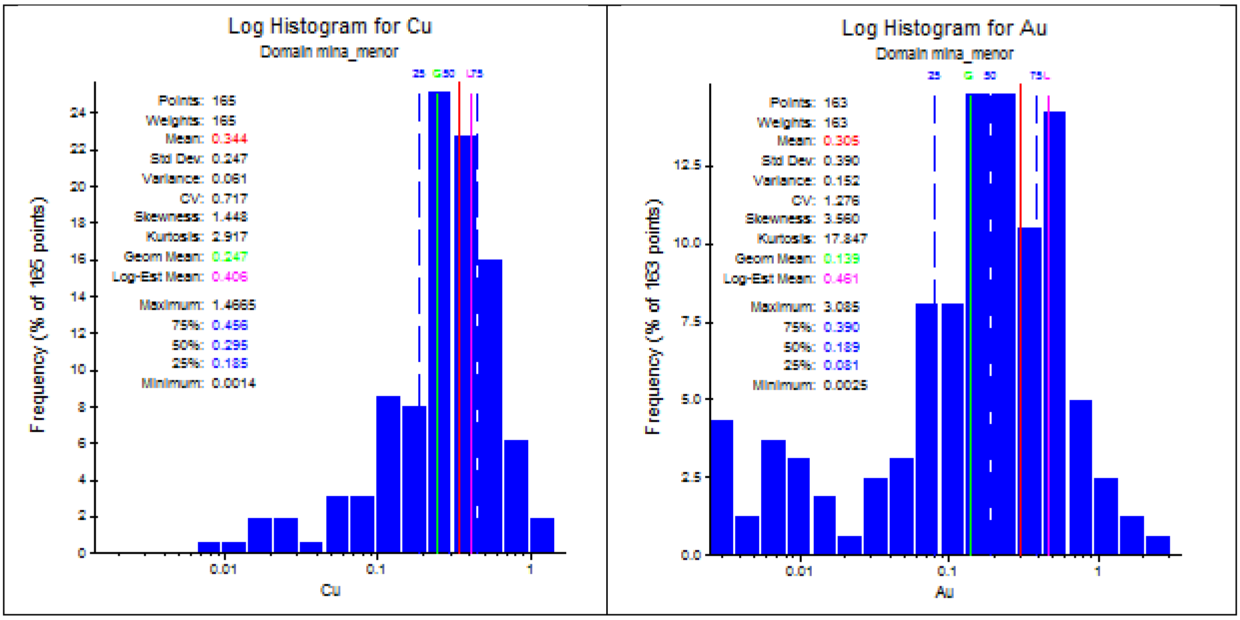


Figure 14.7. Mina Menor Copper and Gold Log Histograms

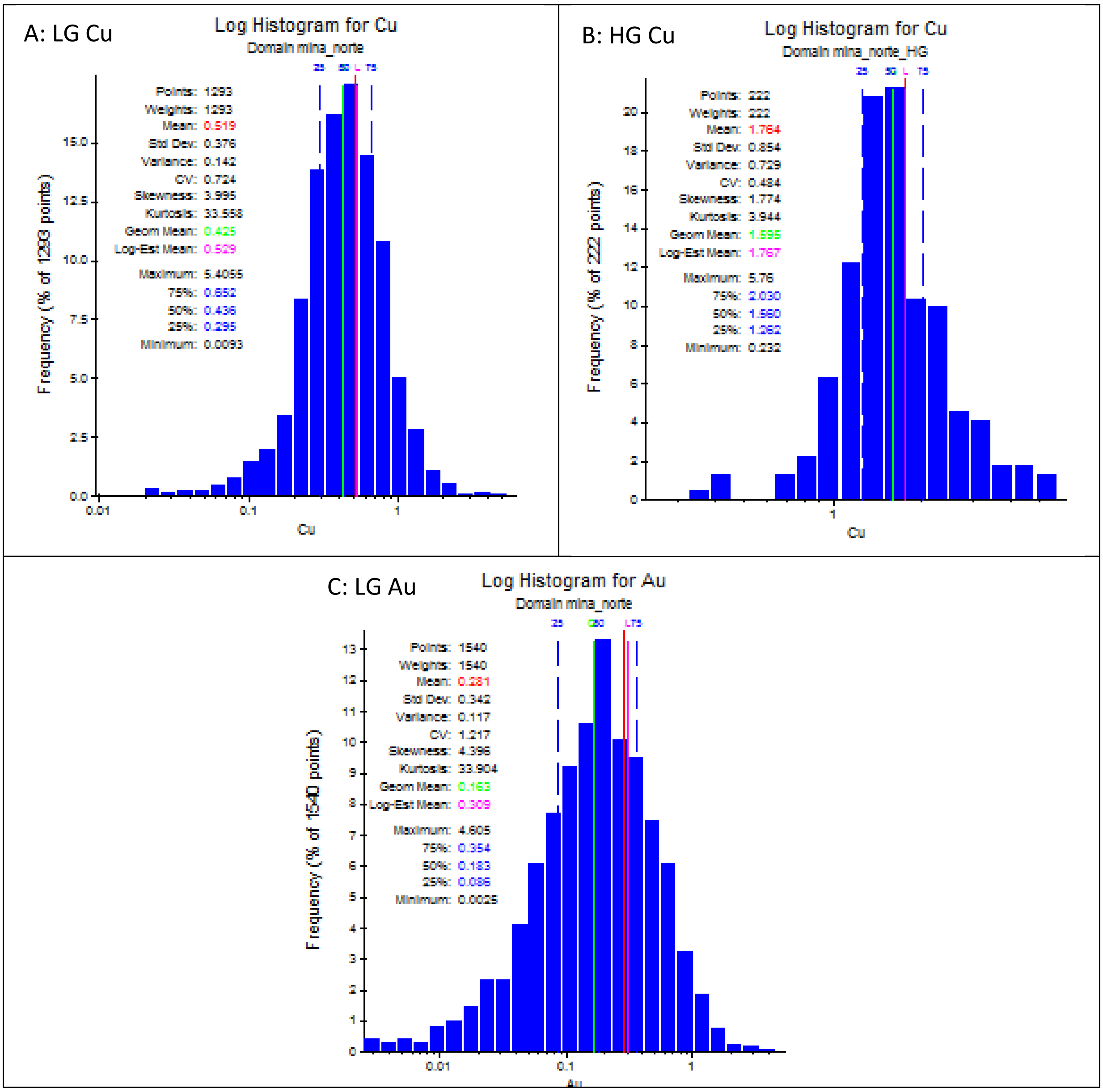


Figure 14.8. Mina Norte Copper and Gold Log Histograms

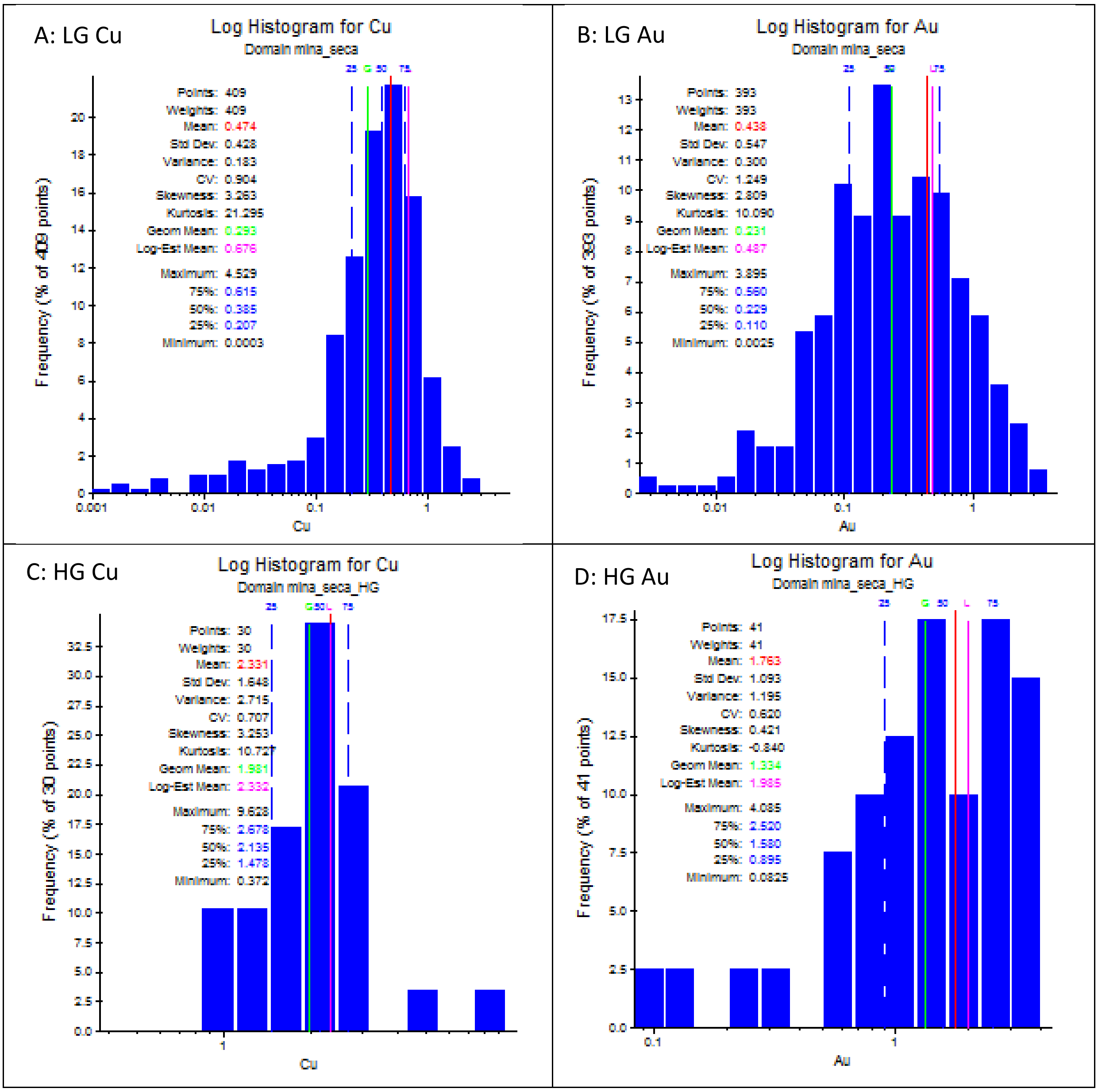


Figure 14.9. Mina Seca Copper and Gold Log Histograms

14.5.5 Evaluation of Outlier Grades

An outlier is an observation that lies an abnormal distance from other values in a random sample from a population, either spatially or analytically. Capping is the process of reducing the grade of the outlier sample to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value. At no stage are sample grades removed from the database if grade capping is applied.

Grade capping analysis of copper, gold, iron and sulphur was undertaken by viewing histograms, log probability plots to identifying values at which the population distributions started to become discontinuous. The effect of grade capping on the mean and CV of the sample population was considered, noting “metal loss” and reduction in CV.

Copper (Table 14.9) and gold (Table 14.10) were assessed by domains. Iron (Table 14.11) and sulphur (Table 14.12) did not include any defined high-grade mineralization, the large 0.3% CuEq domains were used to define individual iron and sulphur domains. Sulphur assays were not reported above “Over Grade” (10%); all domains were effectively capped at 10% S.

Table 14.9. Copper Grade Caps, by domain

Copper	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
Menor 31	165	0.34	1.47	0.72	3	0.34	**1.11**	0.7	1.82%	-1%
Norte 32	348	0.49	2.12	0.60	6	0.48	**1.35**	0.5	1.72%	-2%
Norte 33	945	0.53	5.41	0.76	15	0.52	**1.57**	0.6	1.59%	-3%
Seca 34	150	0.53	4.53	0.95	3	0.51	**1.94**	0.8	2.00%	-4%
Seca 35	88	0.40	2.24	0.94	2	0.39	**1.52**	0.9	2.27%	-2%
Seca 36	171	0.47	2.06	0.81	3	0.46	**1.49**	0.8	1.75%	-1%
Este 38	94	0.58	2.84	0.78	5	0.56	**1.82**	0.7	5.32%	-3%
Norte 17	94	2.08	16.05	1.11	3	1.95	**9.85**	0.9	3.19%	-6%
Norte 18	131	1.82	4.95	0.48	2	1.81	**4.30**	0.5	1.53%	-1%
Seca 19	30	2.33	9.63	0.71	1	2.22	**6.44**	0.5	3.33%	-5%

Table 14.10. Gold Grade Caps, by domain

Gold	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	Cap	CV	% Cap	% Δ
Menor 31	165	0.37	6.05	1.96	3	0.33	**2.63**	1.4	1.82%	-12%
Norte 32	454	0.30	5.29	1.35	10	0.28	**1.20**	0.9	2.20%	-8%
Norte 33	1089	0.29	8.98	1.59	17	0.27	**1.44**	1.1	1.56%	-7%
Seca 34	172	0.38	2.53	1.07	4	0.37	**1.49**	1.0	2.33%	-2%
Seca 35	83	0.61	5.01	1.41	2	0.59	**3.37**	1.3	2.41%	-4%
Seca 36	136	0.46	5.66	1.55	3	0.43	**2.69**	1.3	2.21%	-7%
Este 38	94	0.16	0.72	1.02	3	0.16	**0.60**	1.0	3.19%	-1%
Seca 29	53	2.69	23.95	1.32	1	2.48	**12.9**	1.0	1.89%	-8%

Table 14.11. Iron Grade Caps, by domain

Iron	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	**Cap**	CV	% Cap	% Δ
Menor 31	165	11.57	26.55	0.40	4	11.55	**25.1**	0.4	2.42%	-0.2%
Norte 32	454	10.78	47.65	0.43	7	10.65	**22.7**	0.4	1.54%	-1.2%
Norte 33	1092	9.71	39.90	0.39	11	9.67	**22.0**	0.4	1.01%	-0.4%
Seca 34	185	15.49	46.15	0.55	3	15.44	**40.4**	0.5	1.62%	-0.3%
Seca 35	88	16.49	39.75	0.49	1	16.46	**37.2**	0.5	1.14%	-0.2%
Seca 36	171	23.91	47.70	0.45	1	23.91	**47.6**	0.5	0.58%	0.0%
Este 38	94	9.51	26.73	0.51	1	9.49	**25.1**	0.5	1.06%	-0.2%

Table 14.12. Sulphur Grade Caps, by domain

Sulphur	Uncapped Composite Data				Capped Composite Data				Grade	
Domain	Count	Mean	Maximum	CV	# Capped	Mean	**Cap**	CV	% Cap	% Δ
Menor 31	165	1.55	8.76	1.21	0	1.55	**10.0**	0.0	0.00%	0%
Norte 32	454	3.69	10.00	0.72	0	3.69	**10.0**	0.7	0.00%	0%
Norte 33	1092	3.29	10.00	0.68	0	3.29	**10.0**	0.7	0.00%	0%
Seca 34	185	4.40	10.00	0.67	0	4.40	**10.0**	0.7	0.00%	0%
Seca 35	88	3.15	9.22	0.75	0	3.15	**10.0**	0.7	1.14%	0%
Seca 36	171	4.16	10.00	0.59	0	4.16	**10.0**	0.6	0.00%	0%
Este 38	94	2.55	10.00	0.87	0	2.55	**10.0**	0.9	1.06%	0%

14.6 VARIOGRAPHY

The most important bivariate statistic used in geostatistics is the semivariogram. The experimental semivariogram is modelled as half the average of squared differences between data separated by a distance vector. Semivariograms models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

Semivariogram analysis was undertaken for individual elements within each major grade domain that contain sufficient data to allow a semivariogram to be generated. Three dimensional (3-D) directional semivariograms are generated using three orthogonal principal directions. Where individual semivariograms could not be generated, due to insufficient pairs, a break along probable fault zones or discontinuous grade, the global semivariogram for that element was used, except global gold where the global copper variogram was borrowed.

14.6.1 Variogram Models and Parameters

Anisotropic nested spherical models were fitted to copper (Table 14.13), gold (Table 14.14), iron (Table 14.15) and sulphur (Table 14.16). Semivariograms were modelled with the fewest structures possible to reasonably reflect the experimental semivariograms. Copper and gold semivariograms were standardised to 1. Nugget effects were moderate ranging from 0.25 to 0.49 and the range (R2) varied from 188 m to 250 m. Experimental gold variograms were poorer, only gold at Mina Norte could be modelled (0.25 nugget and 190 m range), the other domains required the use of the global copper semi variogram to weight the estimate.

Modelled semi variograms for iron and sulphur were also used outside the grade shells to inform the waste blocks.

Table 14.13. Semi Variogram Models - Copper

Domain	Sub Domain	bearing	plunge	dip	C0	C1	R1	C2	R2	Semi fact 1	Minor fact1	Semi fact2	Minor fact2
Mina Menor	31	39	18.7	36	0.49	0.51	218	-	-	2.45	2.83	-	-
Mina Norte	32 ,33, 17, 18	29.5	14	43	0.3	0.35	70	0.35	250	1.75	5.83	1.82	4.00
Mina Seca	34, 35, 36, 19	2.7	-6.5	-39.5	0.4	0.6	188	-	-	2.14	2.14	-	-
Mina Este	38	39	18.7	36	0.49	0.51	218	-	-	2.45	2.83	-	-

Table 14.14. Semi Variogram Models - Gold

Domain	Sub Domain	bearing	plunge	dip	C0	C1	R1	C2	R2	Semi fact 1	Minor fact1	Semi fact2	Minor fact2
Mina Menor	31	38	18.7	36	0.49	0.51	218	-	-	2.45	2.83	-	-
Mina Norte	32, 33	74.4	14	43	0.25	0.38	60	0.37	190	1.50	30.00	1.90	2.11
Mina Seca	34, 35, 36, 29	38	18.7	36	0.49	0.51	218	-	-	2.45	2.83	-	-
Mina Este	38	38	18.7	36	0.49	0.51	218	-	-	2.45	2.83	-	-

Table 14.15. Semi Variogram Models - Iron

Domain	Sub Domain	bearing	plunge	dip	C0	C1	R1	C2	R2	Semi fact 1	Minor fact1	Semi fact2	Minor fact2
Mina Menor	31	30	0	60	0.21	0.25	85	0.54	350	1.70	1.70	2.33	2.33
Mina Norte	32, 33	35.5	12.7	38.3	0.23	0.57	90	0.2	200	1.50	2.25	2.00	2.50
Mina Seca	34, 35, 36	30	0	60	0.21	0.25	85	0.54	350	1.70	1.70	2.33	2.33
Mina Este	38	30	0	60	0.21	0.25	85	0.54	350	1.70	1.70	2.33	2.33

Table 14.16. Semi Variogram Models - Sulphur

Domain	Sub Domain	bearing	plunge	dip	C0	C1	R1	C2	R2	Semi fact 1	Minor fact1	Semi fact2	Minor fact2
Mina Menor	31	291.5	-29.5	5.7	0.3	0.37	63	0.33	202	1.00	2.52	1.00	2.02
Mina Norte	32, 33	197.7	-6.5	-39.6	0.3	0.3	75	0.4	160	1.67	5.00	1.60	2.67
Mina Seca	34, 35, 36	291.5	-29.5	5.7	0.3	0.37	63	0.33	202	1.00	2.52	1.00	2.02
Mina Este	38	291.5	-29.5	5.7	0.3	0.37	63	0.33	202	1.00	2.52	1.00	2.02

Experimental semivariograms created in direction one are presented in Appendix 2 (Section 23)

14.7 GRADE ESTIMATION

14.7.1 Methodology

Ordinary kriging ("OK") is a robust grade estimation technique and is the main algorithm used in geostatistics. The most common use of OK is to estimate the average grades into blocks approximating the scale of the available drill hole spacing.

The kriging algorithm uses the grade continuity information from the semivariogram to estimate grades into large blocks. It is also able to accommodate anisotropy within the data and is able to replicate this in block estimates. Another important feature of kriging is that it automatically deals with clustering of data which is important in areas where the data density is not uniform.

Due to variable non-stationary issues OK was used in preference to simple kriging as only local stationarity conditions are required for the OK algorithm. Inverse distance and nearest neighbour estimates were also run for cross validation checks within domains. OK is a globally unbiased estimator that produces the least error variance for grade estimates.

Kriging forms a sound basis for generating block grade estimates at a scale that is appropriate to the sample density.

14.7.2 Block Model

A three dimensional block model (Alacran2.mdl) was generated in GEOVIA Surpac software version 6.7.3 to enable grade estimation. The model block size was selected to best represent the available data, the data characteristics (variability as defined by variography) and the envisaged mining practises. A parent block size of 20 mE x 20 mN x 10 mRL was selected to approximate the current data spacing and limit the smoothing inherent in the selection of a small parent block size below the extent of the resource drilling. Sub-blocking to a 5 mE x 5 mN x 2.5 mRL cell size was undertaken to allow the effective volume representation of the interpreted wireframe models and allow sufficient detail should a Preliminary Economic Study be required.

The block model dimensions are presented in Table 14.17.

Table 14.17. Block Model Dimensions

Type	Y	X	Z
Minimum Coordinates	854275	418750	-250
Maximum Coordinates	856015	419650	280
User Block Size	20	20	10
Min. Block Size	5	5	2.5
Rotation	0.000	0.000	0.000

14.7.3 Parent Block Size

Cell declustering of the informing composites was used to guide the selection of a suitable block size. As a rule of thumb the block size should not be smaller than ½ the drill spacing. Drill spacing over El Aacran is variable, from well-defined 40 x 40m spacing over Mina Norte to less well defined drill spacing over Mina Seca. Means stabilise at approximately 20m in the Y direction (Figure 14.10), indicating that a 20 x 20 x 10 m block is suitable.

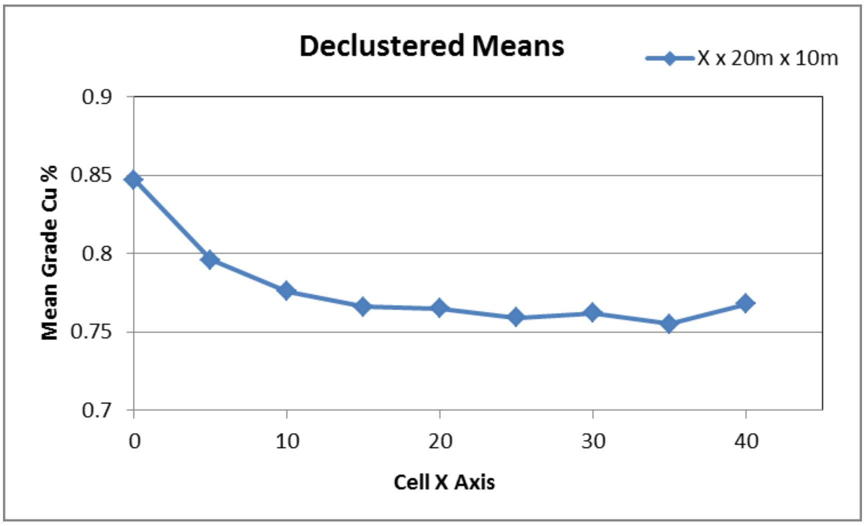


Figure 14.10. Declustered means, (Mina Norte)

14.7.4 Search Parameters and Informing Samples

Search radii are generally optimal at or near the distance that the variogram reaches the sill.

A kriging neighbourhood analysis was undertaken to determine the appropriate maximum number of samples to use. Ten blocks were selected for testing; six blocks within well informed areas and two blocks in poorly informed areas of Mina Norte (Figure 14.11) and two blocks were selected in Mina Seca (Figure 14.12). The analysis used a search ellipse of 200m, slightly shorter than the general range of the variograms; anisotropic ratios were set at 2 and 3.75 for the semi major and minor ellipse ratios. Variogram parameters were appropriate to the domain of the selected blocks. The number of samples per hole was restricted to four.

The well informed blocks showed over-smoothing occurs when using more than 15 to 20 informing composites. The conditional bias slope approaches the ideal (1) when a maximum of 18 to 20 samples is used. Blocks eight and the two selected blocks in Mina Seca did not reach the maximum of 30 samples within the 200 m search ellipse, and there is no evidence that the maximum number of samples gathered provided a stable estimate. Resulting estimates in Mina Seca are likely to have a high conditional bias due to the lack of samples available in this deposit.

The number of samples considered appropriate to Alacran is 12 composites and multiple passes were run to reduce the likelihood of over-smoothing the estimate. Considerable over-smoothing is likely to occur in Mina Seca due to the limited number of available drill holes.

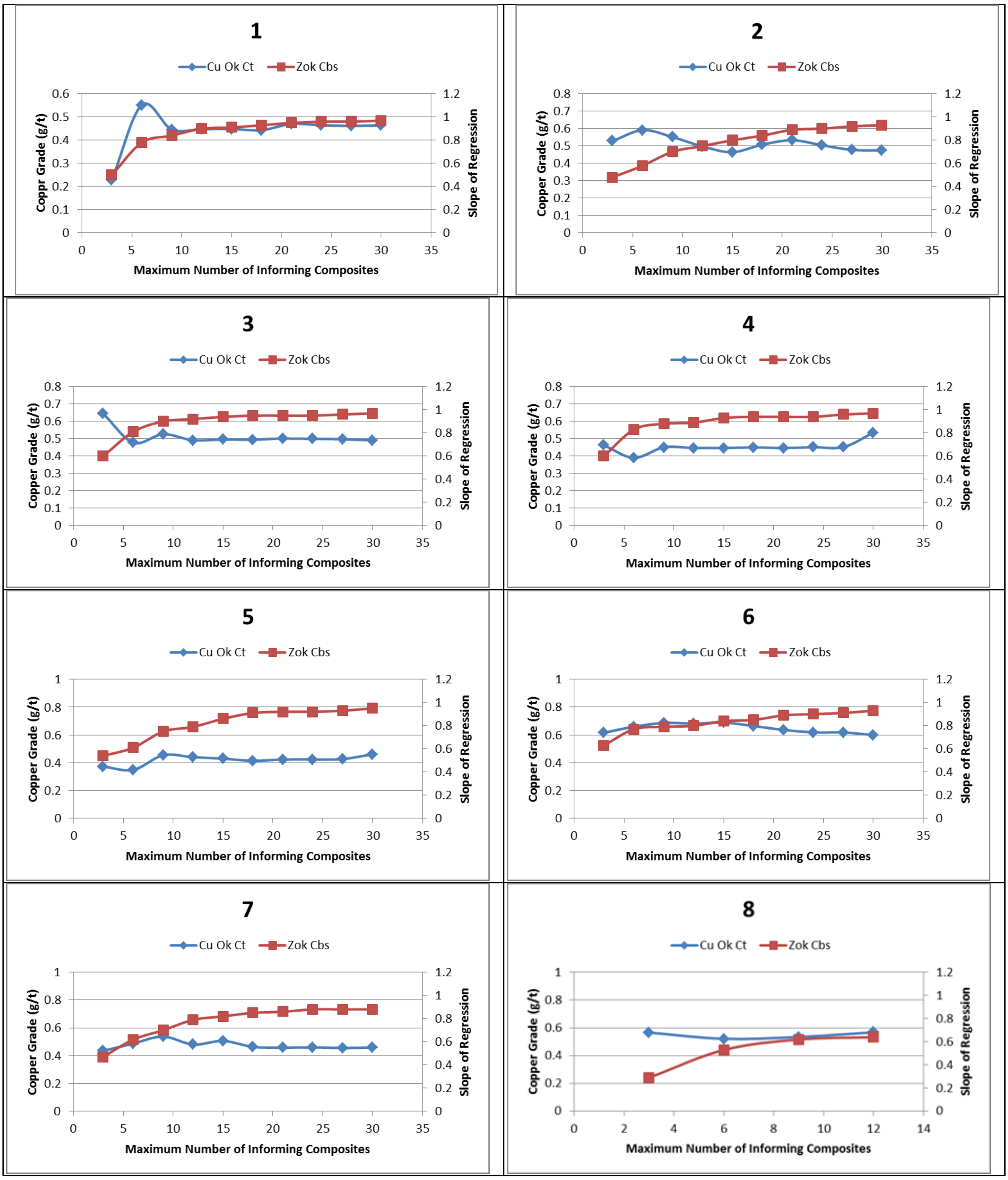


Figure 14.11. Informing Composite Optimisation – Mina Norte

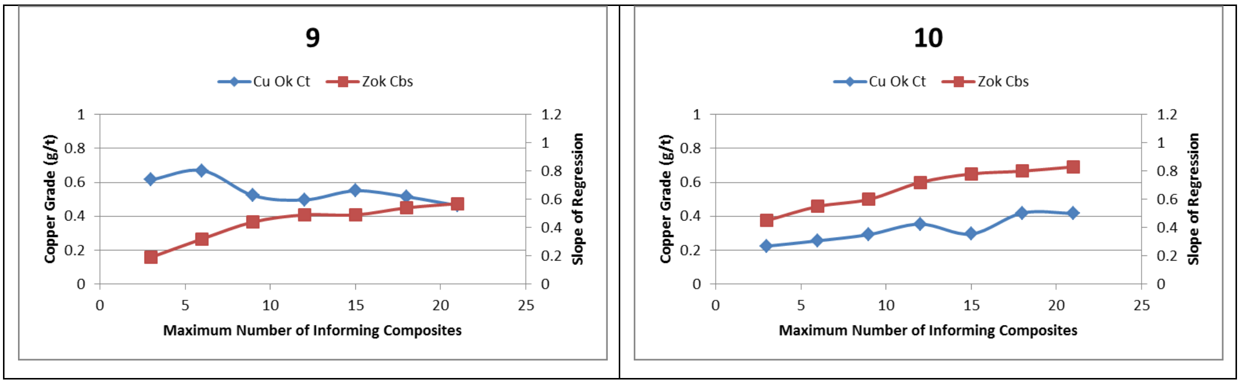


Figure 14.12. Informing Composite Optimisation – Mina Seca

Estimation is conducted in three passes, the first pass utilises search distances of 100 m along strike, similar to ½ the range of the semi-variograms with semi major and minor ratios for the search ellipse set to 2 and 3.75 the average of the anisotropic ratios defined from semi-variogram analysis.

Ellipse orientations were conformable to the general dip and strike of the mineralization. Where semivariogram analysis showed different orientations these were adopted. Defined search ellipses were generated in Surpac and checked against the respective deposits to ensure the parameters observed fitted the geological interpretation.

A minimum of 5 composites and maximum of 12 composites was used to inform the blocks, in addition a maximum of 4 composites per hole was allowed. The minimum and maximum for iron and sulphur estimates was 4 and 12 composites, including a restriction of a 4 composites per hole.

The second pass utilised search ellipses twice the first pass with the third pass having a maximum search distance 3 times the first pass and the minimum and maximum number of samples is reduced to 3 and 8 respectively. The lower minimum ensures the majority of blocks receive an estimate and the reduced maximum number of blocks increases the chance of conditional bias and reduces the chance of over- smoothing.

14.7.5 Discretisation

The OK estimate used a 4 x 4 x 2 discretisation (XYZ), giving discretisation nodes spaced evenly (5m grid) within the block.

14.8 MODEL VALIDATION

Block models were validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis. Initial comparisons occurred visually on screen, comparing block model grades with the drill hole data. Type sections through the model are in Appendix 1 (Page 130).

14.8.1 Global Bias check

A comparison of global mean values within the grade domains shows a reasonably close relationship with samples, composites and block model values (Figure 14.13, copper and Figure 14.14 gold). The higher copper averages for domain 19 in the estimated blocks is due primarily to the lack of high grade data (six drill holes) available in Mina Seca.

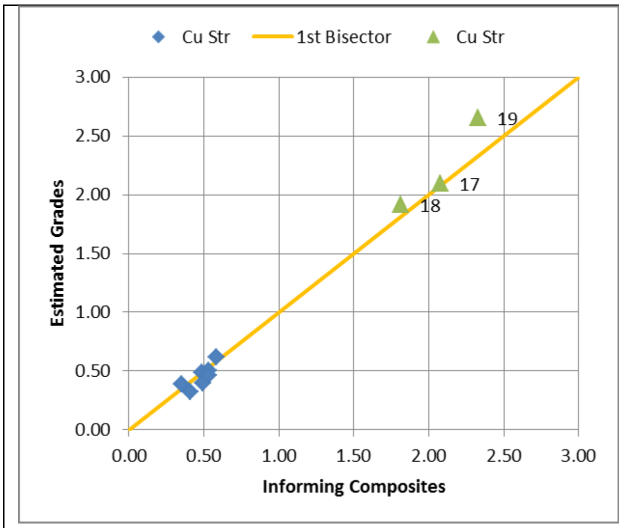


Figure 14.13. Global Bias Check – Copper

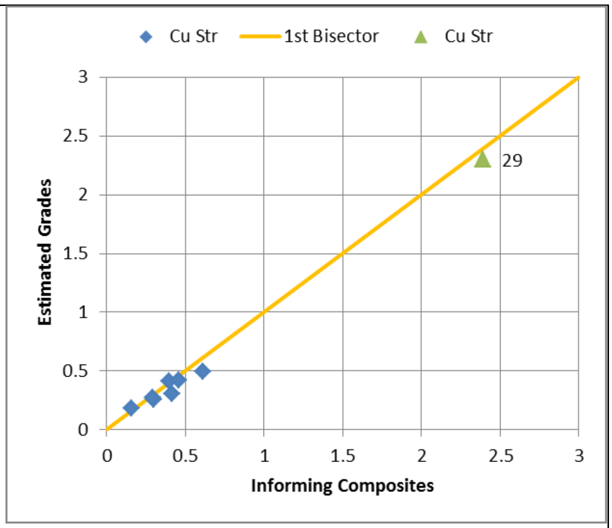


Figure 14.14. Global Bias Check - Gold

14.8.2 Local Bias Check

Swath plots were generated to assess the model or local bias by comparing the OK estimate with the informing composite file on swaths through the deposit. Results show no significant bias between the estimate and informing samples. (Figure 14.15 Mina Norte, Figure 14.16 Mina Seca & Figure 14.17 high grade copper domains). The charts show reasonable smooth swaths through both the informing composites and estimate (Figure 14.15). The model may undercall the grade between 855740 and 855880 mN, however the general tenor of the low grade copper domain is honoured.

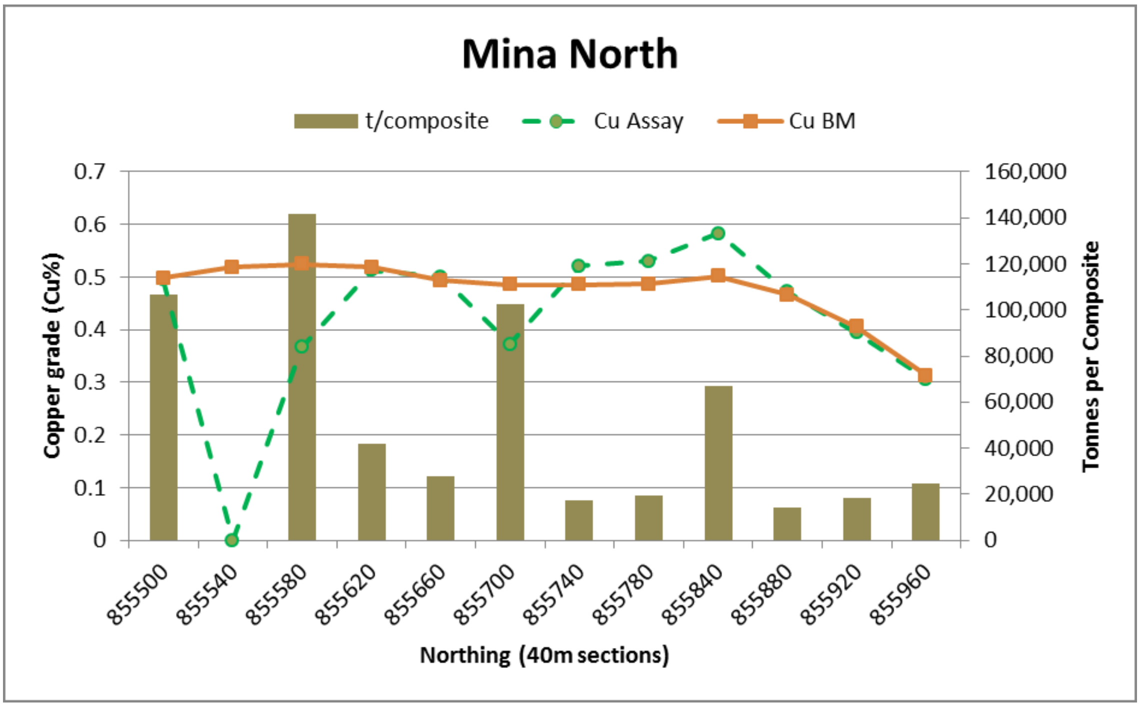


Figure 14.15. Swath Plot - Mina North low grade copper

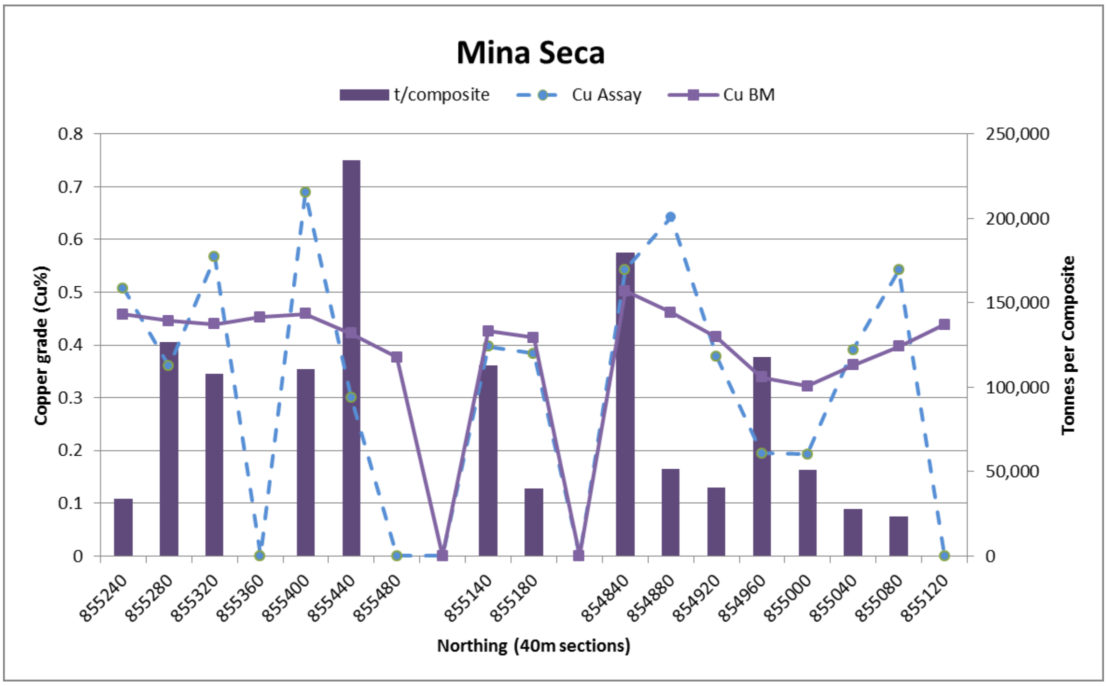


Figure 14.16. Swath Plot - Mina Seca low grade copper

At Mina Seca (Figure 14.16) the estimate is locally quite smoothed, particularly at the southern end of the deposit. Drilling though out Mina Seca is low. Note the tonnes per composite difference between Mina Norte (Figure 14.15) and Mina Seca (Figure 14.16).

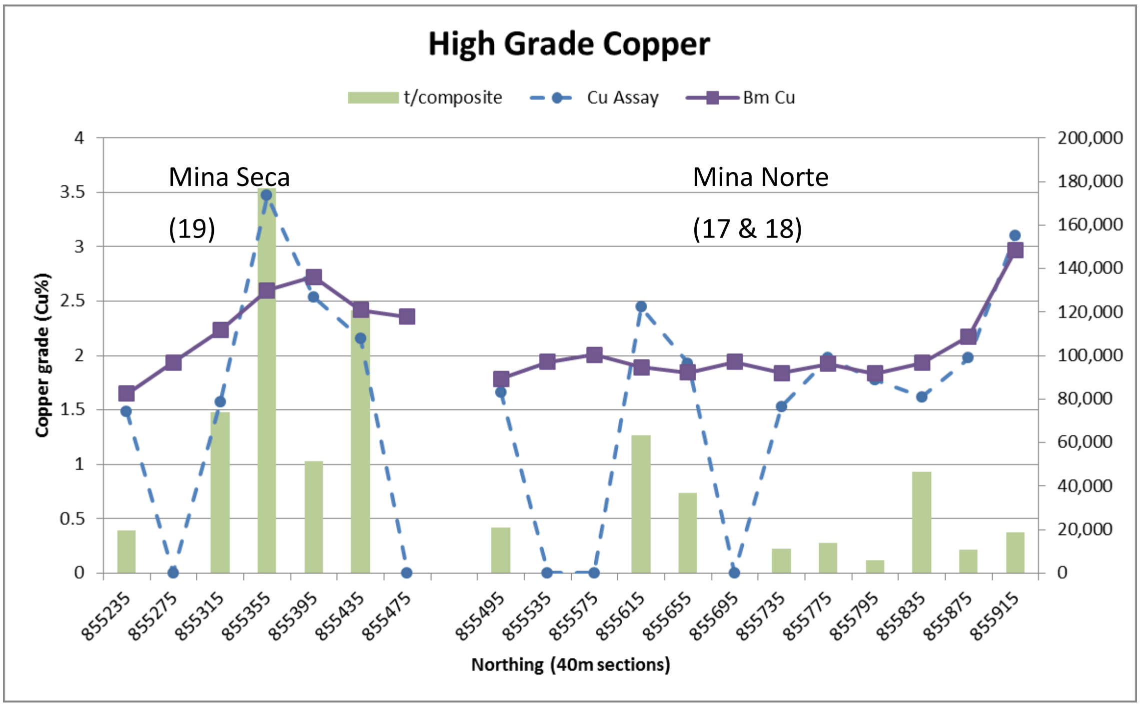


Figure 14.17. Swath Plot - High grade copper domains

14.8.3 Alternate estimation technique

The model was estimated with ID^2 and OK estimation techniques. The results are similar with the kriging result showing slightly more smoothing, resulting in more low grade tonnes and fewer high grade tonnes. Above 1% copper cut off both estimates are similar within the high grade copper domains.

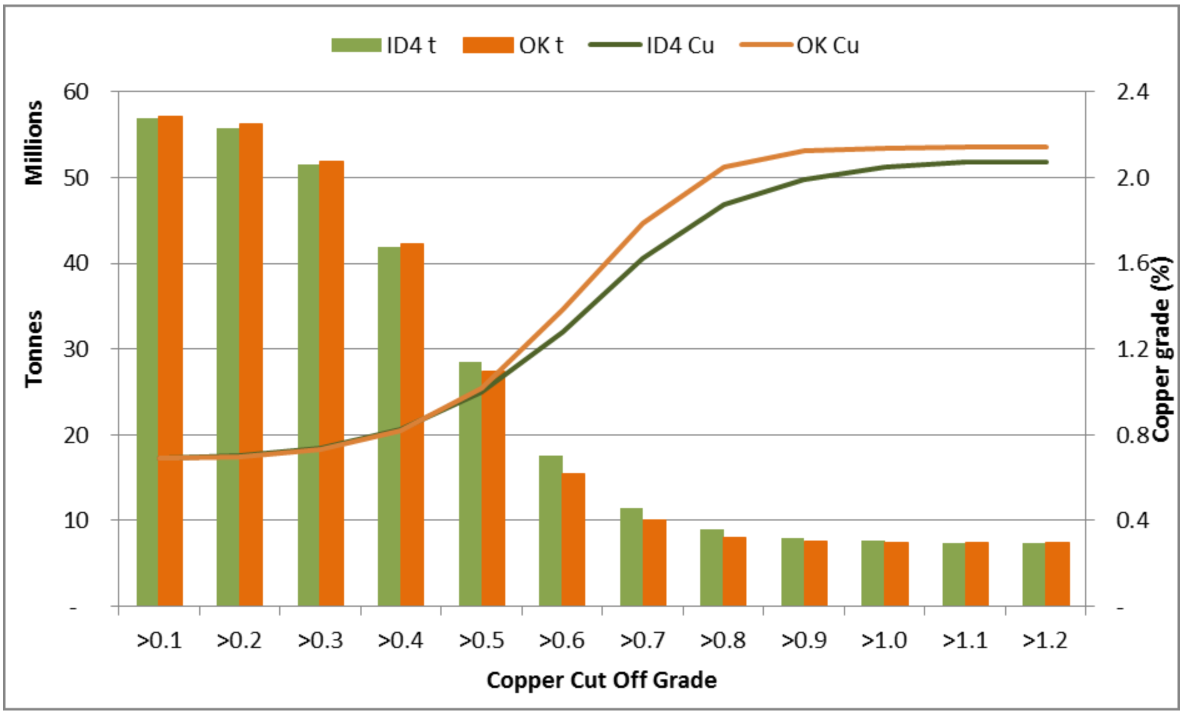


Figure 14.18. Grade tonnage curves for ID2 and OK estimates

Figure 14.18 is presented as information to provide a comparison of estimation techniques. The tonnes and grade represented in the chart cannot be considered mineral resources.

14.9 BULK DENSITY

Cordoba measured density on small (approximately 10 cm) representative samples of selected drill core rock type intervals using a water immersion technique. A total of 747 density readings were available from eight ASA holes and nine ACD holes. A histogram of density readings (Figure 14.9) shows density readings clustered around 2.88 t/m^3 (median value) with a positive skew, confirming that the use of a global density (average 3.01) will be too high. The host rocks at Alacran generally have a density 2.9 t/m^3 (Table 14.18), with some strongly magnetised units with densities up to 4 t/m^3.

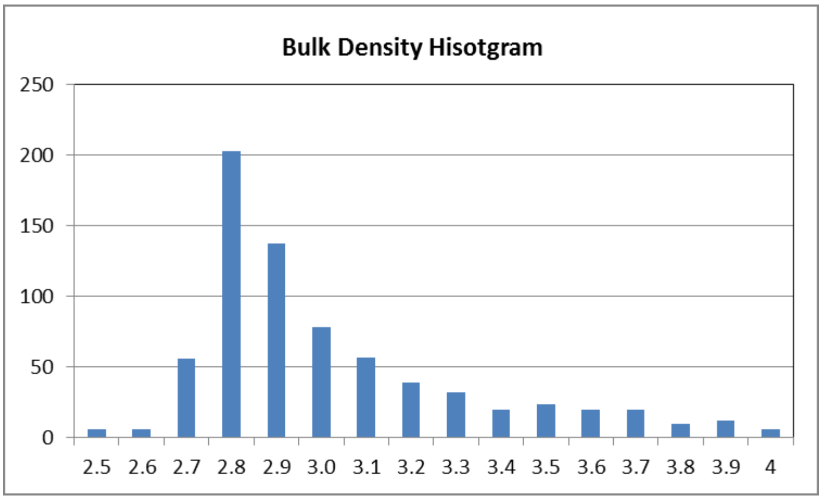


Figure 14.19. Bulk Density Histogram (all rock types)

Table 14.18. Lithological Densities

Lithology	Count	Density (t/m^3)
Breccia	24	2.82
Diorite	12	2.89
Lithic Tuff	14	2.94
Magnetite	50	3.43
Tuff	356	2.86
VCL	291	3.14
Total Average	747	3.01
Total Median	747	2.88

Magnetite alteration is pervasive to strong throughout the study area, with stronger magnetite alteration evident at Mina Seca. The relationship between Fe% (as assayed) and density was investigated (Figure 14.20). The dominant lithological units of volcanoclastics, tuff and magnetite were considered individually, linear regressions showed similar gradients and intersection points, thus a global formula for Fe and density was used to assign the individual blocks a density value.

Density = 0.0292 x Fe + 2.5599

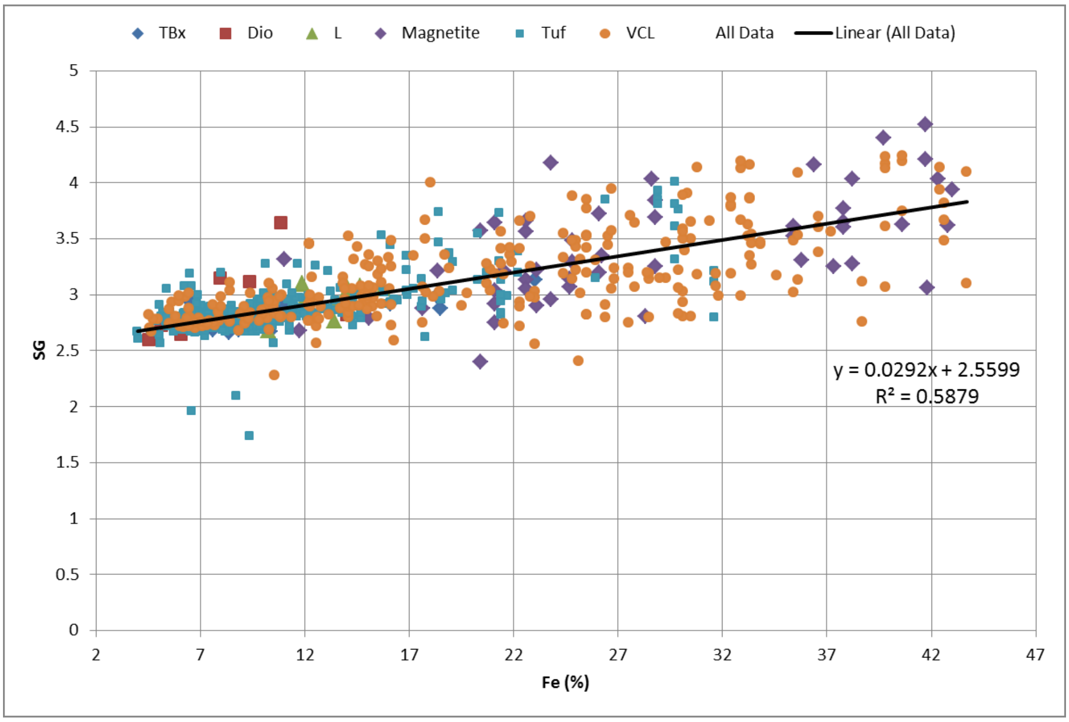


Figure 14.20. Bulk Density as a Function of Iron Grade

Mina Seca has an average density of 3.08 t/m^3 compared to Mina Norte with an average density of 2.85t/m^3. The entire block model has an average density 2.92 t/m^3.

Fe was estimated within the waste rock and generally distal waste blocks have a density calculation of 2.70t/m^3, while blocks without a Fe estimate are assigned a density of 2.56t/m^3. The densities of mineralized rock units are reported in Table 14.19.

Table 14.19. Modelled Densities by model lithology code

Model Lithology	Average Density based on Iron regression
VCL	2.92
lithchem_i10.dtm	2.84
lithchem_i20.dtm	3.03
lithchem_i25.dtm	3.16
lithchem_i30.dtm	2.99
lithchem_i40.dtm	2.98
lithchem_i55.dtm	2.81
lithchem_i60.dtm	2.82
lithchem_intb11.dtm	2.98
lithchem_intc12.dtm	3.08
lithchem_intd13.dtm	2.86
lithchem_intrusionwest16.dtm	3.05
lithchem_mafic5.dtm	2.89

14.10 MOISTURE

No measurements were recorded.

14.11 MINING & METALLURGICAL FACTORS

The reported in situ mineral resource estimates do not have mining factors applied, such as mining dilution or loss due to grade control or mining processes. No metallurgical factors have been applied to the reported in situ copper and gold grade estimates.

Assumed dilution and recovery where considered for the pit optimisation as described in section 14.12. Metallurgical recovery factors have been applied to the calculation of the copper equivalent values as described in Section 14.12.1.

14.12 ASSUMPTIONS FOR 'REASONABLE PROSPECTS FOR EVENTUAL ECONOMIC EXTRACTION'

Mining and processing is assumed to be an open cut mine with a conventional copper concentrator scenario and to use costs associated with deposits of this type and size. Conceptual Whittle pit shells were designed to:

1. provide a valid constraint for resource reporting
2. assist planning for future exploration programs, and
3. provide a conceptual assessment of the economic potential of the deposit.

Assumptions for reasonable prospects for eventual economic extraction applied to this deposit include but may not be limited to items listed in Table 14.20.

Table 14.20. Key project assumptions for conceptual pit shell

Physical inputs	Units	Metric
Mining Dilution		10% @ 0 grade
Mining Recovery		95%
Mining rate limit	Mtpa	Not required
Processing rate limit	Mtpa	5.0
Processing Recovery		
Copper	%	90
Gold	%	80
Mining Slopes	o	45
Financial Inputs		
Processing Cost	$/t	12.00
General & Amin Cost	$/t	1.25
Mining Costs	$/t	$2.00 Increasing at $0.01/m below 130mRL
Metal Price		
Copper	$/lb	2.50
Gold	$/oz	1300

The break even processing grade is 0.38 % Cu and taking mining costs into account, the break-even head grade is 0.42 % Cu.This equates to a resource copper equivalence cut-off grade of 0.30%.

Table 14.21. Cutoff Grade for Base Case assumptions

Metal	Cutoff Parameter	Unit	
Copper	Cut off head grade	% Cu	0.38
	Cut off resource grade	% Cu	0.42
	Cut off resource equivalence	**%CuEq**	**0.30**

All resources have been stated above a 0.3% CuEq cut-off. The Alacran Mineral Resource is an inferred resource that is not a mineral reserve and does not have demonstrated economic viability.

Table 14.22 show the sensitivity of the inferred resource to changes in CuEq cut off. The following reported material above 0.3% CuEq is the preferred scenario for El Alacran Inferred mineral resource.

Table 14.22. Sensitivity to Cut off Grade

Copper Equivalent Cut Off	Material (Mt)	Grade Copper (%)	Gold (g/t)	CuEq (%)	Metal Copper (Mlb)	Gold (koz)
> 0.2	53.52	0.70	0.37	0.95	827	644
> 0.3	**53.52**	**0.70**	**0.37**	**0.95**	**827**	**644**
> 0.4	53.00	0.71	0.38	0.96	824	641
> 0.5	49.29	0.73	0.39	1.00	798	617
> 0.6	39.79	0.82	0.42	1.10	718	541
> 0.7	28.26	0.97	0.48	1.29	601	438
> 0.8	18.75	1.19	0.56	1.57	492	337
> 0.9	13.07	1.46	0.63	1.89	422	263
> 1.0	10.10	1.71	0.67	2.17	380	219

14.12.1 Metal Equivalents

Copper equivalents (CuEq) have been used to define copper and gold mineralization that might be potentially economic to extract. Assumed prices and recoveries used in CuEq formula are shown in Table 14.23

Table 14.23. Factors Used in Copper Equivalent

Element	Assumed Price	Units	Assumed Recovery
Copper	$2.50 / lb	2204.623 lb/t	90%
Gold	$1300 / oz	31.103477 g/oz	80%

The formula for copper equivalent is CuEq(%) = Cu% + 0.674 x Au(g/t)

14.13 RESOURCE CLASSIFICATION

Based on the study herein reported, delineated mineralization of El Alacran is classified as a resource according to the CIM Definition Standards:

A ‘Mineral Resource’ is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.” (CIM Standing Commitee on Reserve Definitions, 2014)

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

14.13.1 Inferred Mineral Resource

An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

No part of the Mineral Resource was classified Indicated or Measured. El Alacran inferred mineral resource above a 0.3% CuEq is 53.52 Mt at 0.70 % Cu and 0.37 g/t Au for a contained metal content of 827 million pounds of copper and 644 thousand ounces of gold.

Table 14.24. Resource Categories of El Alacran including equivalents (>0.3% CuEq)

Inferred	Material	Grade		Metal		Copper Equivalent	
	(Mt)	Copper (%)	Gold (g/t)	Copper (Mlb)	Gold (koz)	CuEq (%)	CuEq (Mlb)
>0.3 Cu Eq	53.52	0.70	0.37	827	644	0.95	1,121
> 1.0% Cu	7.37	2.14	0.41	348	98	2.42	393

* * Mineral resources are reported within in a conceptual Whittle pit shell. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative. All composites have been capped where appropriate.
** Pit constrained mineral resources are reported at a copper equivalent cut-off of 0.3%. The cut-offs and metal equivalents are based on prices of US$2.50 per lb of copper, US$1,300 per ounce of gold, and assumed recoveries of 90% for copper, 80% for gold. Copper equivalent values included copper and gold and the metal equivalent formula is provided in section 14.12.1

Table 14.25 shows the inferred resource separated into the two deposits, Mina Norte and Mina Seca.

Table 14.25. El Alacran Deposit Inferred Mineral Resource by Deposit (> 0.3% CuEq)

Inferred > 0.3CuEq	Material	Grade		Metal		Copper Equivalent	
	(Mt)	Copper (%)	Gold (g/t)	Copper (Mlb)	Gold (koz)	CuEq (%)	CuEq (Mlb)
Mina Norte	34.16	0.71	0.28	535	313	0.90	678
Mina Seca	19.36	0.69	0.53	293	331	1.04	444
Total	53.52	0.70	0.37	827	644	0.95	1121

Table 14.26 shows a subset of the inferred resources above a 1% Copper cut off.

Table 14.26. El Alacran Inferred Resource Subset (> 1% Cu)

Inferred	Material	Grade		Metal		Copper Equivalent	
> 1.0 % Cu	(Mt)	Copper (%)	Gold (g/t)	Copper (Mlb)	Gold (koz)	CuEq (%)	CuEq (Mlb)
Mina Norte	4.65	1.98	0.34	203	51	2.21	226
Mina Seca	2.72	2.41	0.54	145	47	2.78	167
Total	7.37	2.14	0.41	348	98	2.42	393

14.14 DISCUSSION ON FACTORS POTENTIALLY AFFECTING MATERIALITY OF RESOURCES AND RESERVES

The following factors could potentially impact on the materiality of the mineral resource estimate:

- Commodity price assumption
- Metallurgical recovery assumptions
- Mining and Processing costs

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in Colombia in terms of environmental, permitting, taxation, socio economic, marketing and political factors

14.15 MINERAL RESOURCE ESTIMATE STATEMENT

The Mineral Resources for El Alacran Deposit have been classified as an Inferred Mineral Resource based on a spatial, areal and zone basis and are listed in Table 14.27.

Table 14.27. Inferred Resource Categories of El Alacran

Inferred	Material	Grade		Metal		Copper Equivalent	
	(Mt)	Copper (%)	Gold (g/t)	Copper (Mlb)	Gold (koz)	CuEq (%)	CuEq (Mlb)
>0.3 Cu Eq	**53.52**	**0.70**	**0.37**	**827**	**644**	**0.95**	**1,121**
> 1.0% Cu	7.37	2.14	0.41	348	98	2.42	393

14.15.1 Notes to accompany resource statement:

- Pit constrained mineral resources are reported in relation to a conceptual Whittle pit shell. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate. All composites have been capped where appropriate.
- It is reasonable to expect the majority of the inferred mineral resource could be upgraded to indicated mineral resource with continued exploration. There is no certainty that all or any part of the mineral resources will be converted into mineral reserves
- Pit constrained mineral resources are reported at a copper equivalent cut-off of 0.3%. The cut-offs and metal equivalents are based on prices of US$2.50 per lb of copper, US$1,300 per ounce of gold, and assumed recoveries of 90% for copper, 80% for gold.
- Mineral resources have an effective date of 20th October 2016, Mr I Taylor is the Qualified Person responsible for mineral resource estimates (section 14 of this report NI43-101)
- All quantities are rounded to the appropriate number of significant figures; consequently sums may not add up due to rounding.
- Resource estimate is based on Ashmont and CBD drill holes, no Duel holes were used, a total of 76 diamond holes for 20,196.65m have been drilled on the property. 19,958 samples are used to constrain the resource interpretation, of which 4,705 samples are mineralized and used to inform the resource estimate.
- MA did not conduct an audit of the drilling or sample collection procedures, relying on the work of co-auther and qualified person Mr S Redwood (PhD, FIMMM). MA has reviewed the CDB procedures and visited site during the course of the Cordoba drill program.
- Composite lengths and high grade cuts based on spatial distribution and probability plots were applied as follows,

- Copper and gold assay data was composited to two metres down hole within geological domains; a copper grade cap was applied informing composites 97.5th percentile in high copper domains and 98th percentile in the lower grade domains.
- Gold assays were composited to two metres down hole within copper domains and were capped near the 98th percentile.
- Block model block sizes selection of XYZ 20 x 20 x 10 m based on approximately ½ the drill hole spacing in Mina Norte. Sub-blocking was permitted to 5 x 5 x 2.5 m for volumes. The model was screened for topography by sub-blocks.
- Mineral resource is constrained within seven wireframes (57 trisolations) in grade domains based on lithology, structure, alteration, and a minimum sample grade of 0.3% CuEq, includes minor internal dilution. Gold, iron and sulphur are constrained by the low grade copper domains, iron and sulphur are also estimated unconstrained to inform the waste blocks. Separate domains were created for high grade copper and gold based on grade (>1% Cu and > 1g/t Au).
- Drill intercepts within each domain were flagged in a database table and composited to 2 m downhole giving 2,2016 informing 2 metre composites from 67 drill holes in total.
- Routine bulk density measurements (747) show some variation with an average bulk density of 3.01 t/m^3. Bulk density was calculated based on an iron regression, BD=0.0292 x Fe% + 2.5599
- Grade was interpolated into a constrained block model by domain using ordinary kriging techniques. Kriging parameters were derived from a study of variography by domain. The block model was validated by statistical and visual comparison of data and estimated grades and by alternate estimation methods.
- Ashmont and CDB drill core is preserved on site. All drill data was utilised in the copper estimate except for the Duel resources drill holes. MA has reviewed CDBs sample protocols and found the sampling program has been conducted in accordance with industry standards using appropriate quality assurance/quality control procedures.
- Resources have been classified as Inferred. Resource classification is based on confidence in grade continuity and geological models of the primary commodities (Cu, Au). The inferred resource lies above -25 mRL. Drill spacing in Mina Norte approximates a 40 x 40 m grid, drilling at Mina Seca has one to two holes per section.
- Tonnages are rounded to the nearest million tonnes, copper grades are rounded to two decimal places and accessory minerals are rounded to one decimal place. Rounding as required by reporting guidelines reflect the accuracy of the estimates and may result in apparent summation differences between tonnes grade and contained metal.

15 ADJACENT PROPERTIES

15.1 SAN MATIAS PROJECT

El Alacran is part of the greater San Matias Project of Cordoba Minerals and is surrounded by the company's mining rights. This includes porphyry copper-gold mineralization at Montiel East, Montiel West and Costa Azul, located 1 to 2 km east and northeast of El Alacran, as well as numerous other Au-Cu artisanal mines, prospects and geochemical anomalies. The San Matias Project is described in a technical report by Redwood (2013), which is currently being updated.

There are large open pit nickel and coal mines near to the El Alacran Deposit which show that major open pit mine operations can be developed in the district. The author has been unable to verify all of the information about these mines in the following sections and the reader is cautioned that the information is not indicative of the mineralization occurring on the El Alacran Deposit itself.

15.2 CERRO MATOSO NICKEL MINE

The Cerro Matoso nickel laterite mine and ferronickel smelter are located 27 km northeast of the El Alacran Deposit near Montelíbano. The geology of the deposit was described in a paper by Gleeson et al. (2004). The mine and smelter are operated by Cerro Matoso S.A., a subsidiary of South32 Limited (formerly BHP-Billiton) which owns 99.94%. Current and former employees own 0.02%, with the balance of shares held in a reserve account following a buy-back. Cerro Matoso is the world's second largest producer of ferronickel. Mining started in 1980. The process capacity is 50,000 tonnes per year of nickel in ferronickel form. Nickel production was 36,800 tonnes in the financial year ended 30 June 2016 (South32 Annual Report 2016). As of 30 June 2016 the JORC mineral resources in laterite, inclusive of reserves, were 48 Mt at 1.2% Ni measured resources, 130 Mt at 0.9% Ni indicated resources, and 42 Mt at 0.8% Ni inferred resources for total resources of 220 Mt at 0.9% Ni. In addition, there were 59 Mt at 0.91% Ni in measured and indicated resources in stockpiles, and 17 Mt @ 0.2% in measured resources in "MNR-Ore" (not defined). The proved ore reserve in laterites were 12 Mt at 1.1% Ni and the probable ore reserves in laterite were 4.9 Mt at 1.2% Ni, for a total of 17 Mt at 1.1% Ni with a reserve life of 13 years, plus proved and probable ore reserves of 25 Mt at 1.1% Ni in stockpiles (South32 Annual Report 2016). The cut-off grade is 0.6% Ni for resources and reserves in laterite and stockpiles, and 0.12% Ni in MNR-Ore. Metallurgical recovery is 84%. Ore mined is blended with ore from stockpiles. The qualified person has not verified the information.

The 2016 mineral resources include the new adjacent La Esmeralda deposit which has 9.4 Mt @ 1.59% Ni of measured and indicated mineral resources, comprising 7.0 Mt measured and 2.4 Mt indicated resources. This is based on a feasibility study which shows the project to be economically viable. The project was granted environmental approval in 2016 and the company plans to start mining in 2017.

15.3 LA GUACAMAYA COAL MINE

The Alto San Jorge coalfield is located the north of the San Matias Project. The geology, resources and reserves are described in a book on Colombian coal deposits by the Instituto Colombiana de Geología y Minería (2004). Coal seams are hosted by the Oligocene Cienaga de Oro Formation and the Miocene Cerrito Formation. The La Guacamaya open cast coal mine, located 4 km west of Puerto Libertador and 17 km north of El Alacran, is owned by Carbones del Caribe Ltda., part of Grupo Argos S. A. It has been in production since 1983 and currently produces 350,000 t coal per year. The coal is sold to Cerro Matoso S.A. and Cementos Caribe.

A major thermal power station was recently completed by Gecelca (Generadora y Comercializadora de Energía del Caribe S.A.) near Puerto Libertador, and uses coal from the Alto San Jorge coalfield.

The 414 megawatt (MW) project comprises two parts. The Gecelca 3 unit (164 MW) was brought online in September 2015, while the second, the Gecelca 3.2 unit (250 MW), is under construction and is due for completion in the first half of 2017 (www.gecelca.com.co/).

16 OTHER RELEVANT DATA AND INFORMATION

To the Authors' knowledge there are no other relevant data or information relevant to this technical report.

17 INTERPRETATION AND CONCLUSIONS

This independent review of the scientific and technical information provided by Cordoba Minerals and on El Alacran Deposit has identified three zones with of significant copper and gold mineralization at Mina Norte, Mina Seca and Mina Este. These zones have the characteristics of Magmatic-hydrothermal iron oxide copper-gold style mineralization. High grades of copper and gold have been encountered in drilling at Mina Norte and Mina Seca. Additional mineralization has been identified at Mina Este, however the exploration work to date is insufficient to classify this mineralization as a mineral resource.

The authors concludes that sample collection, security, preparation and analyses by Cordoba Minerals and Sabre have been carried out in accordance with best current industry practices and are suitable to plan further exploration work. Sampling and analyses include quality assurance and quality control procedures. The exploration programs are well planned and executed and supply sufficient information to plan further exploration and define further mineral resources.

The author concludes that these mineral resources have the potential for bulk mineable copper and gold deposits. Before further serious evaluation of the current resource can move forward, work should include mineralogical and metallurgical studies to determine the deportment of both copper and gold mineralization, metallurgical recoveries, work indexes, and preliminary consideration of processing routes.

There are no other known factors or issues that materially affect the estimate other than normal risks faced by mining projects in Columbia in terms of environmental, permitting, taxation, socio economic, marketing and political factors.

Potentially significant upside potential may reasonably be construed to exist including:

- the resource area is open to further expansion with additional step-out drilling;
- the continuing discovery of additional mineralized occurrences to the east of the deposit area (such as Mina Este) and additional drilling along strike;
- Finally, outside the scope of the immediate resource area, the property is significantly underexplored.

18 RECOMMENDATIONS

MA recommends that the shallow material of unclassified mineralization be infill drilled sufficiently to infer geological continuity and provide additional grade information. The primary target is Mina Este to the east of the two main deposits (Mina Norte and Mina Seca). Infill drilling is also required in Mina Seca to confirm the general dip and size of the mineralization in the southern half of the project.

Mineralogical and metallurgical studies to determine the deportment of copper species, metallurgical recoveries, work indexes, and preliminary consideration of processing routes and product quality should be commenced.

18.1 WORK PROGRAM AND BUDGET

The El Alacran deposit has potentially significant upside potential, to realise the deposit potential the following drill programs are recommended:

- the resource area is open to further expansion with additional step-out drilling, including infill drilling of both Mina Seca and Mina Norte. The required level of drilling is dependent on the desired resource categories. It is assumed that further infill drilling on 50 m sections is required and a minimum of two to three drill holes per section within the current mineralization halos will achieve sufficient confidence in grade and geological continuity to allow an increase in resource classification. A well planned budget of $2 M should achieve this goal. (40 holes for 10,000 m);
- the continuing discovery of additional mineralized occurrences to the east of the deposit area (such as Mina Este) and additional drilling along strike, initially a budget of $500,000 allowing for 10 holes totalling 2500m.

Drill costs are estimated at $200 per metre including access, logistics, geology and analysis.

A preliminary metallurgical test program is required to determine a viable processing route for the El Alacran deposit. Preliminary metallurgical budget of $150,000 for sampling and testing is recommended, (four composites samples).

19 REFERENCES

Arenas, C., 2012. QA QC Report for The Alacran Project. Report by South American Management S.A. for Ashmont Resources Corp., 5 p.

Cediel, F., Shaw, R. P. & Cáceres, C., 2003. Tectonic Assembly of the Northern Andean Block. In: Bartolini, C., Buffler, R. T. & Blickwede, J., eds, *The Circum-Gulf of Mexico and the Caribbean: Hydrocarbon habitats, basin formation, and plate tectonics*. American Association of Petroleum Geologists Memoir **79**, p. 815-848.

Cediel, F. & Cáceres, C., 2000. *Geological Map of Colombia*. Bogotá, Colombia, Geotec Ltda, 3rd edition. 7 thematic maps at 1:1,000,000 scale.

CIM Standing Commitee on Reserve Definitions. (2014, May 10). Standards & Guidelines for Resources & Reserves. Retrieved 12 03, 2016, from CIM ICM: http://web.cim.org/standards/menupage.cfm?sections=177&menu=178

Emmons, W. H., 1937. *Gold Deposits of the World*. New York & London, McGraw-Hill Book Company, Inc., 562 p.

Gleeson, S. A., Herrington, R. J., Durango, J., Velásquez, C. A. & Koll, G., 2004. The Mineralogy and Geochemistry of the Cerro Matoso S.A. Ni Laterite Deposit, Montelíbano, Colombia. *Economic Geology*, vol. **99**, p. 1197-1213.

Instituto Colombian de Geología y Minería, 2004. *El Carbón Colombiano: Recursos, Reservas y Calidad*. Ministerio de Minas e Energía, Instituto Colombian de Geología y Minería (INGEOMINAS), 470 p.

Kantor, J. A. & Cameron, R. E., 2013. Technical Report on the Titiribi Project, Department of Antioquia, Colombia. NI 43-101 technical report by Behre Dolbear & Company (USA), Inc. for Sunward Resources Limited, 9 September 2013, 187 p.

Kennan, L. & Pindell, J., 2009. Dextral shear, terrane accretion and basin formation in the Northern Andes: best explained by interaction with a Pacific-derived Caribbean Plate? In: James, K., Lorente, M.A. & Pindell, J. (eds), The Origin and Evolution of the Caribbean Plate. Geological Society of London, Special Publication, Vol. 328, p. 487 - 531.

Lesage, G., Richards, J. P., Muehlenbachs, K. & Spell, T. L., 2013. Geochronology, Geochemistry, and Fluid Characterization of the Late Miocene Buriticá Gold Deposit, Antioquia Department, Colombia. *Economic Geology*, vol. **108**, p. 1067-1097.

Manco, J. D. & Dávila Bolívar, C., 2012. Geology Report, Minerales Córdoba S.A.S. Internal company report, May 2012, 57 p.

Mibex, 2013. Estudio de Magnetometría Terrestre Proyecto "Minerales Córdoba", Municipio de Puerto Libertador Bijao, Departamento de Córdoba. Report for Minerales Córdoba S.A.S. by Mibex, Colombia, March 2013, 42 p.

Mosher, G. Z., 2012. Technical Report on the El Alacran Copper-Gold Property, Colombia. NI 43-101 technical report by Tetra Tech Wardrop, Vancouver for Ashmont Resources Corp., Vancouver, 26 July 2012, 58 p.

MPX, 2011. Helicopter-borne geophysical survey, Cordoba Project, Cordoba, Colombia. Report for Cordoba Minerals Corp. by MPX Geophysics Ltd., Canada, October 2011, 47 p.

MPX, 2012. Helicopter-borne geophysical survey, Cordoba Project, Cordoba, Colombia. Report for Sabre Minerals Sur SAS by MPX Geophysics Ltd., Canada, August 2012, 51 p.

Oliver, N., 2012. Preliminary structural appraisal of the San Matias Cu-Au porphyries. Report for Sabre Metals by HCO Associates PL, 28 p.

Parsons, B., 2012. A NI 43-101 Mineral Resource Estimate on the Marmato Project, Colombia, 21 June 2012. Report for Gran Colombia Gold Corp. by SRK Consulting (UK) Limited, 187 p.

Redwood, S. D., 2011. Technical Report for the Córdoba Project, Department of Córdoba, Republic of Colombia. NI 43-101 technical report for Wesgold Minerals Inc. (now Cordoba Minerals Corp.), Vancouver, 29 October 2011, 65 p.

Redwood, S. D., 2013. Technical Report for the San Matias Porphyry Copper-Gold Project, Department of Córdoba, Republic of Colombia. NI 43-101 technical report for Cordoba Minerals Corp., Vancouver, 30 November 2013, 103 p.

Restrepo, J. J. & Toussaint, J. F., 1988. Terranes and Continental Accretion in the Colombian Andes. *Episodes*, vol. **11**, p. 189-193.

Roberson, T., 2016. Logistics Report Prepared for Minerales Cordoba S.A.S. Volterra Induced Polarization and Volterra Time Domain Electromagnetic on the San Matias Project. Report by SJ Geophysics Ltd, March 2016, 36 p.

Shaw, R. P., 2002. A Technical Overview of the El Alacran Gold (Copper, Silver) Project, Municipality of Puerto Libertador, Department of Cordoba, Colombia. Report for Sociedad Minera El Alacran S.O.M., 14 p.

Sillitoe, R. H., 2010. Porphyry Copper Systems. *Economic Geology*, vol. **105**, p. 3-41.

Sillitoe, R. H., Jaramillo, L., Damon, P. E., Shafiqullah, M. & Escovar, R., 1982. Setting, Characteristics, and Age of the Andean Porphyry Copper Belt in Colombia. *Economic Geology*, vol. **77**, p. 1837-1850.

Starling, T., 2012. Structural review of the Cordoba Project, Colombia. Report by Telluris Consulting Ltd. for Cordoba Minerals Corp., 20 p.

Taylor, B. E., 2007, Epithermal gold deposits, *in* Goodfellow, W. D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, p. 113-139.

Vargas, H., 1998. Reservas y potencial en el proyecto El Alacrán, San Juan de Asis, Cordoba, Colombia. Report by Guacomo Ltda for Sociedad Minera El Alacran S.O.M., 24 p.

Vargas, H., 2001. Reservas Explotables en el Proyecto El Alacrán, San Juan de Asis, Cordoba, Colombia. Report for Sociedad Minera El Alacran S.O.M.

Vargas, H., 2002. El Alacrán Skarn Deposito de Cobre Oro Plata, Puerto Libertador, San Juan de Asis, Cordoba, Licencia No. 022-23, Colombia. Independent Reserves Report by Guamoco & Cia Ltda Minerals Exploration for Sociedad Minera El Alacran S.O.M., October 2002, 50 p.

Vargas, H., 2014. Sociedad Minera El Alacran Colombia. El Alacran Copper & Gold Project. Executive Summary. Unpublished report, 16 September 2014, 13 p.

Vigar, A. J. & Taylor, I., 2015. Independent Technical Report and Resource Estimate of the Buriticá Gold Project, Colombia. NI 43-101 technical report by Mining Associates Pty Limited for Continental Gold Limited, 186 p.

Wilson, S. E., 2012. Technical Report, Bellhaven Copper & Gold Inc., La Mina Project, Antioquia, Republic of Colombia. Report by Scott E. Wilson Consulting Inc. for Bellhaven Copper & Gold Inc., 15 August 2012, 144 p.

DATE AND SIGNATURE PAGE

The effective date of this technical report entitled "Independent Technical Report and Resources Estimation on the El Alacran Copper Gold Deposit. Department of Cordoba, Colombia" is 27th October 2016.

Dated 5th January 2017

Ian A. Taylor, AusIMM(CP)

Stewart D Redwood, FIMM

CERTIFICATE OF QUALIFIED PERSON

I, Ian A Taylor, hereby certify that:

a) I am an independent Consulting Geologist, business address, Level3, 445 Upper Edward Street, Springhill, Queensland 4004, Australia, and am employed by Mining Associates Pty Ltd based in Brisbane, Australia.

b) I am a co-author of the technical report titled "Independent Technical Report and Resource Estimates on the El Alacran Copper-Gold Deposit" (the Technical Report). (Effective Date 27/10/2016)

c) I graduated from James Cook University with a Bachelor of Science Degree (Honours) in 1993. I completed a Graduate Certificate Geostatistics from Edith Cowen University in 2014.

- I am a Member of the Australian Institute of Mining and Metallurgy (11090) and Chartered Professional under the Discipline of Geology (MAusIMM(CP)), Number 110090.
- I have over 20 years' experience in the minerals industry and have had direct experience in Australian and international mineral exploration, mine geology, project assessment and mineral resource estimation with practical experience from feasibility studies on projects in Australasia, Latin America, and SE Asia.

As a result of my experience, qualification and affiliation with a professional association, I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral projects ("NI43-101")

d) I visited site from the 16th to 19th of February 2016.

e) I am responsible for the preparation of Item 1, 2, 10, 12-14 and 16-19 of this Technical Report

f) I am independent of Cordoba Minerals as described in Section 1.5 of the Policy.

g) I have not had prior involvement with the property that is the subject of the Technical Report.

h) I have read the Instrument (NI43-101) and the sections of this technical report for which I am responsible have been prepared in compliance with NI43-101.

i) As of the effective date of the technical report, to the best of my knowledge, information and belief, the report contains all scientific and technical information that is required to be disclosed in order to make this report not misleading.

j) 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 company files on their websites accessible by the public, of the Technical Report

Dated at Brisbane this 5th January 2017.

Ian Taylor
BSc (Hons), MAusIMM(CP)
Qualified Person

CERTIFICATE OF QUALIFIED PERSON

I, Stewart D. Redwood, FIMMM, hereby certify that:

a) I am a Consulting Geologist and President of Redwood Exploration & Discovery Inc. (REDEX) with address at P.O. Box 0832-1784, World Trade Center, Panama City, Republic of Panama.
b) I am a co-author of the technical report titled "Independent Technical Report and Resource Estimates on the El Alacran Copper-Gold Deposit" (the Technical Report). (Effective Date 27/10/2016)
c) I graduated from Glasgow University with a First Class Honours Bachelor of Science degree in Geology in 1982, and from Aberdeen University with a Doctorate in Geology in 1986 (PhD).
   - I am a Fellow in good standing of The Institute of Materials, Minerals and Mining FIMMM), Number 47017
   - I have more than 30 years experience as a geologist working in mineral exploration, mine geology, mineral resource and reserve estimations and feasibility studies on projects in Latin America, North America, the Caribbean, Europe, Africa, Asia and Australia.

   As a result of my experience, qualification and affiliation with a professional association, I am a Qualified Person as defined in National Instrument 43-101 Standards of Disclosure for Mineral projects ("NI43-101")
d) I made personal inspections of the project on the 9th to 11th February 2016. I made previous personal inspections on 15 November 2013, 1 to 3 August 2013, and 6 to 7 July 2011
e) I am responsible for the preparation of Item 3 – 9,11 and 15 of this Technical Report
f) I am independent of Cordoba Minerals as described in Section 1.5 of the Policy.
g) My prior involvement with the property was to prepare NI 43-101 Technical Reports for Cordoba Minerals Corp. in 2011 and 2013.
h) I have read the Instrument (NI43-101) and the sections of this technical report for which I am responsible have been prepared in compliance with NI43-101.
i) As of the effective date of the technical report, to the best of my knowledge, information and belief, the report contains all scientific and technical information that is required to be disclosed in order to make this report not misleading.
j) 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 company files on their websites accessible by the public, of the Technical Report

Dated at Panama City this 5th January 2017.

Stewart D. Redwood

Stewart Redwood
PhD. BSc (Hons), FIMMM
Qualified Person

20 GLOSSARY OF ABRIVIATIONS AND TECHNICAL TERMS

This glossary comprises a general list of common technical terms that are typically used by geologists. The list has been edited to conform in general to actual usage in the body of this report. However, the inclusion of a technical term in this glossary does not necessarily mean that it appears in the body of this report, and no imputation should be drawn. Investors should refer to more comprehensive dictionaries of geology in printed form or available in the internet for a complete glossary.

Abbreviation	Description
AAS	Atomic absorption spectrophotometer
%	Percent(age)
‘	Minutes
<	Less than
>	Greater than
±	Plus or minus
ANM	National Mining Agency (*Agencia Nacional de Mineria*)
Au	chemical symbol for gold
block model	A block model is a computer based representation of a deposit in which geological zones are defined and filled with blocks which are assigned estimated values of grade and other attributes. The purpose of the block model (BM) is to associate grades with the volume model. The blocks in the BM are basically cubes with the size defined according to certain parameters.
bulk density	The dry in-situ tonnage factor used to convert volumes to tonnage. Bulk density testwork is carried out on site and is relatively comprehensive, although samples of the more friable and broken portions of the mineralized zones are often unable to be measured with any degree of confidence, therefore caution is used when using the data.
CDN$	Canadian Dollar
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	Centimetre(s)
Colombia	Republic of Colombia
COP	Colombian Peso
Copper Equivalent	(CuEq), the equivalent grade of copper and gold converted to a single metal figure, the formula uses metal prices and recoveries
Cordoba Minerals	Cordoba Minerals Corp.
CSRM	Certified Standard Reference Materials
cut-off grade	The lowest grade value that is included in a resource statement. Must comply with CIM Definition Standards “*reasonable prospects for eventual economic extraction*” the lowest grade, or quality, of mineralized material that qualifies as economically mineable and available in a given deposit and implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction.
diamond drilling, diamond core	Rotary drilling technique using diamond set or impregnated bits, to cut a solid, continuous core sample of the rock. The core sample is retrieved to the surface, in a core barrel, by a wireline.
down-hole survey	Drillhole deviation as surveyed down-hole by using a conventional single-shot camera and readings taken at regular depth intervals, usually every 50 metres.
drill-hole database	The drilling, surveying, geological and analyses database is produced by qualified personnel and is compiled, validated and maintained in digital and hardcopy formats..
DTM	Digital terrain model
Dual Resources	Dual Resources Inc.
Dollars “$”	US dollar
EIA	Environmental Impact Study (*Estudio de Impacto Ambiental*)
g	Gram(s)
g/cc	grams per cubic centimetre, (equivalent to tonnes per cubic metre)
g/t	Grams per metric tonne, equivalent to parts per million
gold assay	Gold analysis is carried out by an independent ISO17025 accredited laboratory by classical ‘Screen Fire Assay’ technique that involves sieving a 900-1,000 gram sample to 200 mesh

Abbreviation	Description
	(~75microns). The entire oversize and duplicate undersize fractions are fire assayed and the weighted average gold grade calculated. This is one of the most appropriate methods for determining gold content if there is a 'coarse gold' component to the mineralization.
grade cap, also called top cu	The maximum value assigned to individual informing sample composites to reduce bias in the resource estimate. They are capped to prevent over estimation of the total resource as they exert an undue statistical weight. Capped samples may represent "outliers" or a small high-grade portion that is volumetrically too small to be separately domained.
ha	Hectare(s)
HPX	High Power Exploration Inc.
ICP	Inductively coupled plasma spectrometer
ICP-AES or ICP-ES	Inductively coupled plasma atomic emission spectrometer
ICP-MS	Inductively coupled plasma mass spectrometer
Indicated Resource	That part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of economic viability of the deposit. Geolocial evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between point of observation.
Inferred Resource	That part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grad or quality continuity. The estimate is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes.
INGEOMINAS	Colombian Institute of Geology & Mining (*Instituto Colombiano de Geología y Minería*), now SGC
inverse distance estimation	It asserts that samples closer to the point of estimation are more likely to be similar to the sample at the estimation point than samples further away. Samples closer to the point of estimation are collected and weighted according to the inverse of their separation The inverse distance weights can also be raised to a power, generally 2 (also called inverse distance squared). The higher the power, the more weight is assigned to the closer value.
ISO	International Organization for Standardization
JORC	Australasian Code for Reporting of Mineral Resources and Ore Reserves (The JORC Code)
kg	Kilogram(s)
km	Kilometre(s)
km^2	Square kilometre (s)
kriging neighbourhood analysis, or KNA	The methodology for quantitatively assessing the suitability of a kriging neighbourhood involves some simple tests. It has been argued that KNA is a mandatory step in setting up any kriging estimate. Kriging is commonly described as a "minimum variance estimator" but this is only true when the block size and neighbourhood are properly defined. The objective of KNA is to determine the combination of search neighbourhood and block size that will result in conditional unbiasedness.
lb	Avoirdupois pound (453.59237 grams). Mlb = million avoirdupois pounds
LLD	Lower limit of detection
m	Meter(s)
Ma	Million years ago
Measured Resource	That part of a Mineral Resource or which quantity, grade or quality, densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.
MinAmbiente	Ministry of the Environment
Minatura	Minatura International LLC
Minatura Group	Minatura International LLC, Minatura Gold Ltd, and two minority shareholders
Mineral Resource	A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling." (CIM Standing Commitee on Reserve Definitions, 2014)
Minerales Cordoba	Minerales Córdoba S.A.S.

Abbreviation	Description
mm	Millimetre(s)
MPX	MPX Geophysics Ltd.
n.a.	Not available/applicable
nearest neighbour estimation	Nearest Neighbour assigns values to blocks in the model by assigning the values from the nearest sample point to the block attribute of interest. that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes which may be limited or of uncertain quality and reliability.
NI 43-101	Canadian National Instrument 43-101
^{o}	Degree(s)
^{o}C	Degrees Celsius
Ordinary Kriging estimation, or OK	Kriging is an inverse distance weighting technique where weights are selected via the variogram according to the samples distance and direction from the point of estimation. The weights are not only derived from the distance between samples and the block to be estimated, but also the distance between the samples themselves. This tends to give much lower weights to individual samples in an area where the samples are clustered. OK is known as the "best linear unbiased estimator. The kriging estimates are controlled by the variogram parameters. The variogram model parameters are interpreted from the data while the search parameters are optimised during kriging neighbourhood analysis.
OREAS	Ore Research & Exploration Pty. Ltd.
oz	Troy ounce (31.103477 grams). Moz = million troy ounces
PMA	Environmental Management Plan (*Plan de Manejo Ambiental*)
ppb	Parts per billion
ppm	Parts per million
PTO	Mine Plan
QA/QC	Quality Assurance/Quality Control. The procedures for sample collection, analysis and storage. Drill samples are despatched to 'certified' independent analytical laboratories for analyses. Blanks, Duplicates and Certified Reference Material samples should be included with each batch of drill samples as part of the Company's QA/QC program.
QA-QC	Quality Assurance - Quality Control
RC drilling	Reverse Circulation drilling. A method of rotary drilling in which the sample is returned to the surface, using compressed air, inside the inner-tube of the drill-rod. A face-sampling hammer is used to penetrate the rock and provide crushed and pulverised sample to the surface without contamination.
REM	Resource & Exploration Mapping Pty. Ltd.
RMN	National Mining Registry (*Registro Minero Nacional*)
Sabre	Sabre Metals Inc.
SGC	Colombian Geological Survey (*Servicio Geológico Colombiano*)
SI	Système International d'Unités (International System of Units)
survey	Comprehensive surveying of drillhole positions, topography, and other cadastral features is carried out by the Company's surveyors using 'total station' instruments and independently verified on a regular basis. Locations are stored in both local drill grid and UTM coordinates.
t	Metric tonne (1 million grams) Mt million tonnes
t/m^3	Tonnes per cubic metre, units used to define bulk density
TSX	Toronto Stock Exchange

Abbreviation	Description
US$	United States' Dollar(s)
UTM	Universal Transverse Mercator
variogram	The Variogram (or more accurately the Semi-variogram) is a method of displaying and modelling the difference in grade between two samples separated by a distance h, called the "lag" distance. It provides the mathematical model of variation with distance upon which the Krige estimation method is based.
wireframe	This is created by using triangulation to produce an isometric projection of, for example, a rock type, mineralization envelope or an underground stope. Volumes can be determined directly of each solid.

21 APPENDIX 1 : CERTIFICATES OF ANALYSIS OF CHECK SAMPLES

ALS Minerals

ALS Colombia Ltda.
Carrera 48 B No. 99, Sur - 59
Bodega San Bartolomé, Bodega 3
Medellin ANTIOQUIA
Phone: +57 4 306 9122 www.alsglobal.com

To: EXPLORADORA CORDOBA S.A.S
CALLE 5A #39- 93 TORRE 2, OF 702, ED CORFIN
MEDELLIN ANTIOQUIA

Page: 1
Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 22- FEB- 2016
Account: MICODO

CERTIFICATE MD16020613

Project: ALACRAN

This report is for 4 Rock samples submitted to our lab in Medellin, ANTIOQUIA, Colombia on 12- FEB- 2016.

The following have access to data associated with this certificate:

CHRIS GRAINGER	STEWART REDWOOD	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- QC	Crushing QC Test
PUL- QC	Pulverizing QC Test
WSH- 22	"Wash" pulverizers
SPLIT- S	Create S split
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME- MS61	48 element four acid ICP- MS	
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Cu- OG62	Ore Grade Cu - Four Acid	VARIABLE
Au- AA24	Au 50g FA AA finish	AAS

To: EXPLORADORA CORDOBA S.A.S
ATTN: STEWART REDWOOD
CALLE 5A #39- 93 TORRE 2, OF 702, ED CORFIN
MEDELLIN ANTIOQUIA

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Rene Mamani, Laboratory Manager, Peru

ALS Minerals

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Page: 2 - A
Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 22- FEB- 2016
Account: MICODO

Project: ALACRAN

CERTIFICATE OF ANALYSIS MD16020613

Sample Description	Method	WEI- 21	Au- AA24	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.005	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
AL- 001		1.07	1.050	11.90	3.55	7.4	20	0.12	2.32	0.15	0.09	5.64	132.0	32	<0.05	>10000
AL- 002		0.75	0.434	13.10	5.70	10.0	90	0.12	1.27	0.02	0.14	9.47	110.0	13	0.08	>10000
AL- 003		1.18	0.926	5.52	0.51	29.3	10	0.19	0.87	0.07	<0.02	2.62	152.5	37	<0.05	5730
AL- 004		0.95	3.88	3.11	3.02	20.6	50	<0.05	0.88	0.03	<0.02	28.2	147.0	19	<0.05	>10000

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Account: MICODO

Project: ALACRAN

CERTIFICATE OF ANALYSIS MD16020613

Sample Description	Method	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61	ME- MS61
	Analyte	Fe	Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P
	Units	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm
	LOR	0.01	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10
AL- 001		20.2	12.20	0.23	1.1	0.965	0.06	2.2	7.8	1.41	1120	21.0	0.01	2.3	73.8	310
AL- 002		28.7	13.80	0.32	1.6	0.720	0.37	3.6	10.0	1.85	2360	30.8	0.01	3.8	181.5	890
AL- 003		38.3	18.20	0.45	0.2	0.366	0.01	1.2	2.2	0.15	194	1720	0.01	0.1	132.0	180
AL- 004		26.5	7.02	0.26	0.8	0.226	0.18	13.7	5.2	1.04	1080	295	0.01	2.2	78.8	90

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Project: ALACRAN

CERTIFICATE OF ANALYSIS MD16020613

Sample Description	Method Analyte Units LOR	ME- MS61 Pb ppm 0.5	ME- MS61 Rb ppm 0.1	ME- MS61 Re ppm 0.002	ME- MS61 S % 0.01	ME- MS61 Sb ppm 0.05	ME- MS61 Sc ppm 0.1	ME- MS61 Se ppm 1	ME- MS61 Sn ppm 0.2	ME- MS61 Sr ppm 0.2	ME- MS61 Ta ppm 0.05	ME- MS61 Te ppm 0.05	ME- MS61 Th ppm 0.01	ME- MS61 Ti % 0.005	ME- MS61 Tl ppm 0.02	ME- MS61 U ppm 0.1
AL- 001		2.0	1.4	0.043	>10.0	1.65	12.8	10	2.6	9.9	0.14	2.01	0.86	0.191	0.02	2.1
AL- 002		1.9	8.4	0.146	>10.0	1.40	3.7	13	2.2	4.5	0.20	1.58	0.74	0.245	0.10	2.2
AL- 003		1.2	0.1	3.25	>10.0	0.56	3.2	19	2.4	4.5	0.12	0.61	0.77	0.038	<0.02	2.1
AL- 004		1.4	3.4	0.259	>10.0	0.73	5.9	10	1.9	11.9	0.13	1.00	0.51	0.149	0.05	2.0

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Finalized Date: 22- FEB- 2016
Account: MICODO

Project: ALACRAN

CERTIFICATE OF ANALYSIS MD16020613

Sample Description	Method Analyte Units LOR	ME- MS61 V ppm 1	ME- MS61 W ppm 0.1	ME- MS61 Y ppm 0.1	ME- MS61 Zn ppm 2	ME- MS61 Zr ppm 0.5	Cu- OG62 Cu % 0.001
AL- 001		122	1.5	8.6	69	36.1	3.03
AL- 002		42	0.4	15.0	136	50.8	3.34
AL- 003		664	8.0	3.1	16	3.8	
AL- 004		56	4.4	12.4	58	29.4	1.115

***** See Appendix Page for comments regarding this certificate *****

ALS Minerals

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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 22- FEB- 2016
Account: MICODO

Project: ALACRAN

CERTIFICATE OF ANALYSIS MD16020613

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

REE's may not be totally soluble in this method.

Applies to Method: ME- MS61

LABORATORY ADDRESSES

Processed at ALS Lima located at Calle 1 LT- 1A Mz- D, esq. Calle A, Urb. Industrial Bocanegra Callao 01, Lima, Peru.

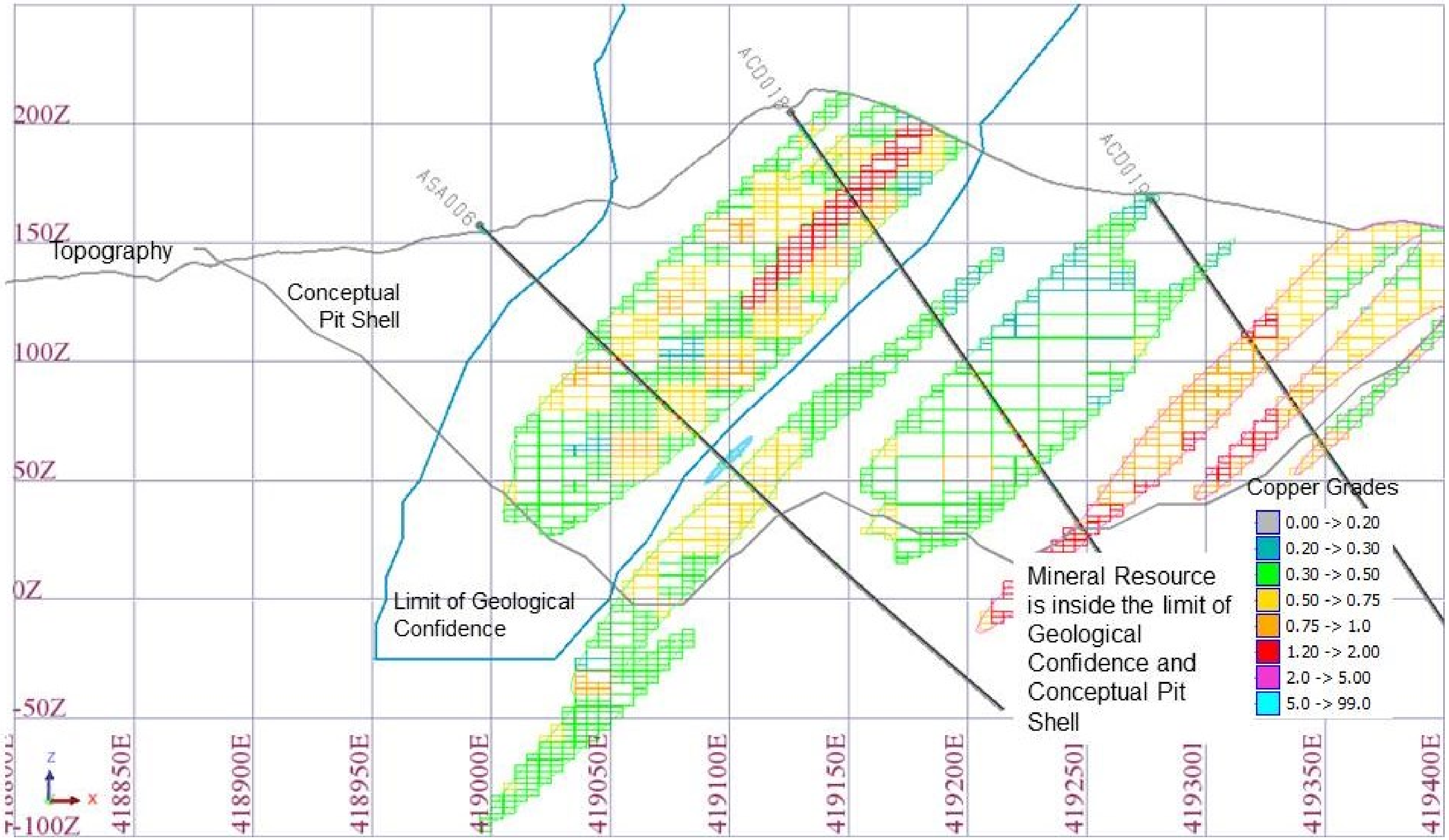
Applies to Method: Au- AA24, Cu- OG62, ME- MS61, ME- OG62

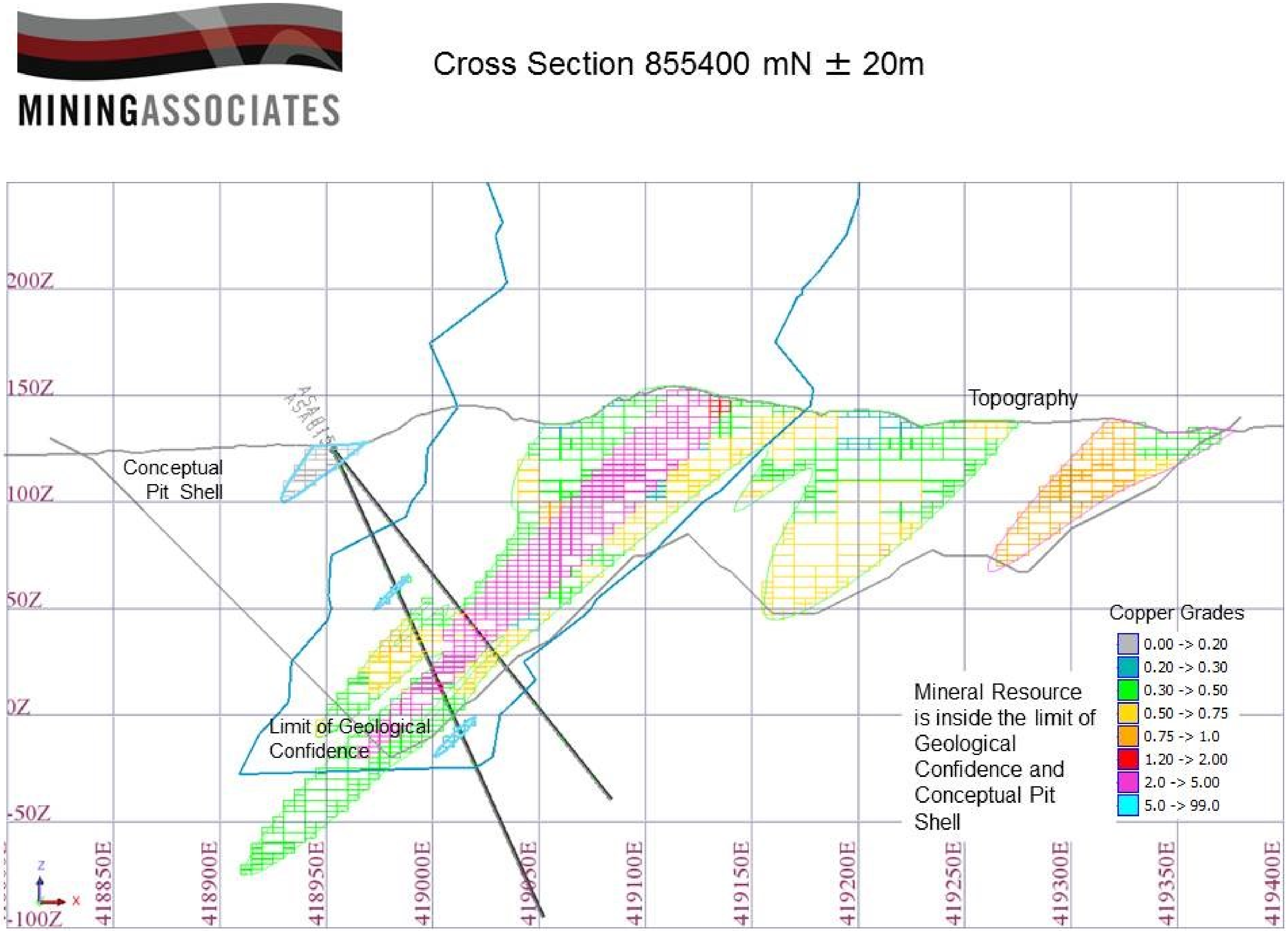
Processed at ALS Medellin located at Carrera 48 B No. 99, Sur - 59, Bodega San Bartolomé, Bodega 3, Medellin, ANTIOQUIA, Colombia.

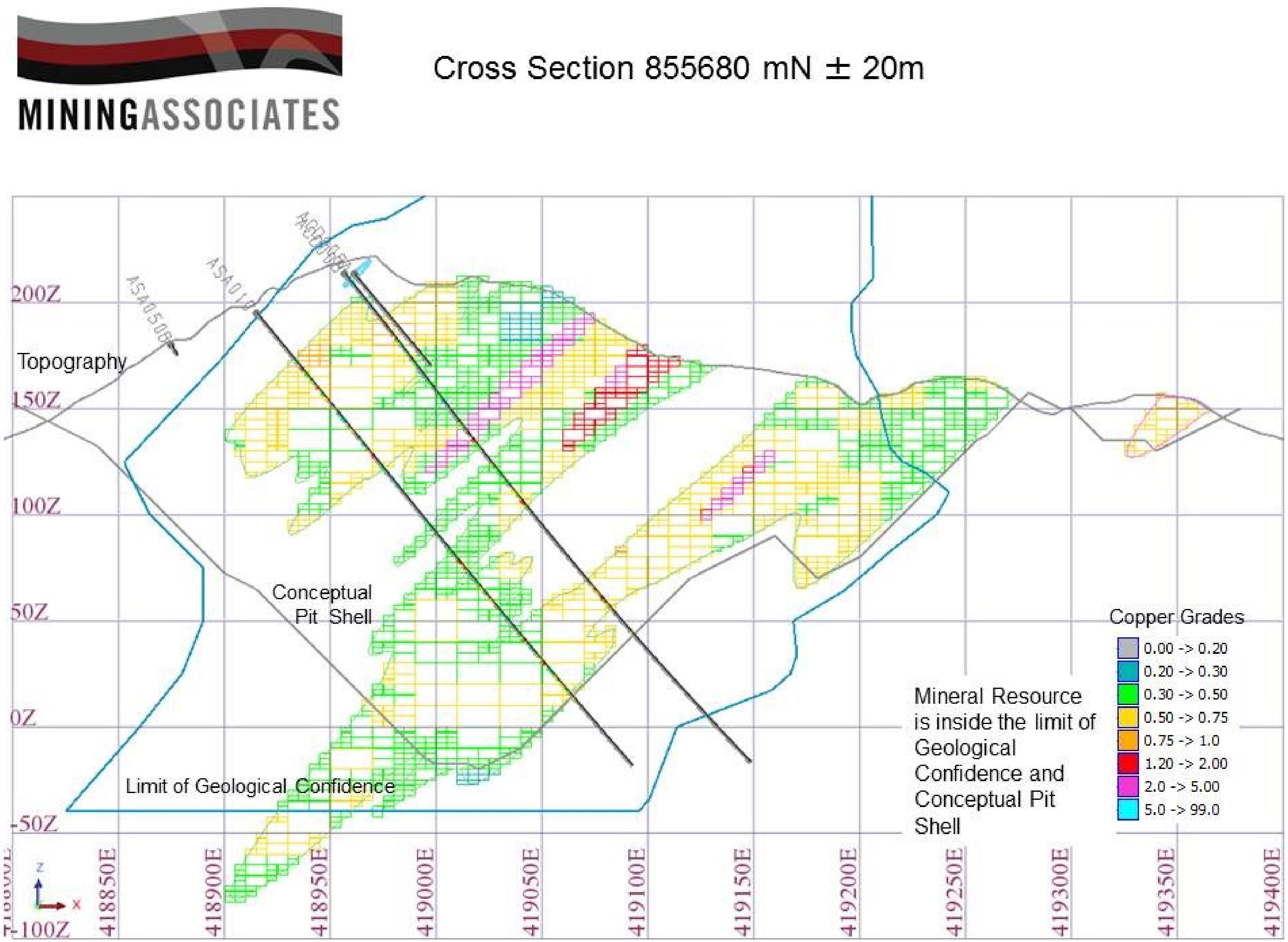
Applies to Method: CRU- 31, CRU- QC, LOG- 22, PUL- 31, PUL- QC, SPL- 21, WEI- 21, WSH- 22

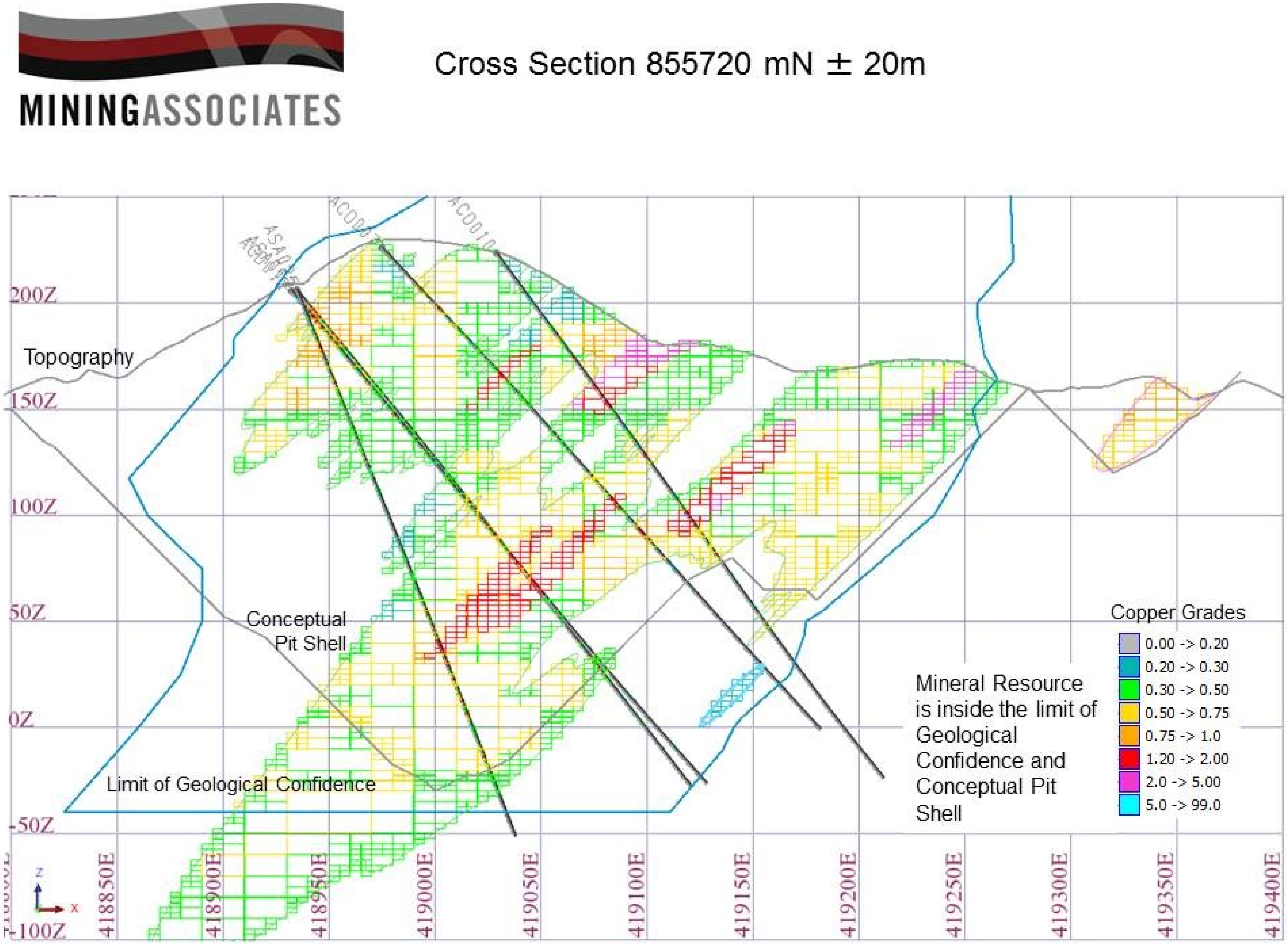
22 APPENDIX 2: MODEL SECTIONS

Cross Section 855250 mN ± 20m




MININGASSOCIATES
Cross Section 855400 mN ± 20m
200Z
150Z
100Z
50Z
0Z
-50Z
-100Z
418850E
418900E
418950E
419000E
419050E
419100E
419150E
419200E
419250E
419300E
419350E
419400E
Topography
Conceptual Pit Shell
Limit of Geological Confidence
Mineral Resource is inside the limit of Geological Confidence and Conceptual Pit Shell
Copper Grades
0.00 -> 0.20
0.20 -> 0.30
0.30 -> 0.50
0.50 -> 0.75
0.75 -> 1.0
1.20 -> 2.00
2.0 -> 5.00
5.0 -> 99.0


MININGASSOCIATES
Cross Section 855680 mN ± 20m
Topography
Conceptual
Pit Shell
Limit of Geological Confidence
Mineral Resource
is inside the limit of
Geological
Confidence and
Conceptual Pit
Shell
Copper Grades
0.00 -> 0.20
0.20 -> 0.30
0.30 -> 0.50
0.50 -> 0.75
0.75 -> 1.0
1.20 -> 2.00
2.0 -> 5.00
5.0 -> 99.0
200Z
150Z
100Z
50Z
0Z
-50Z
-100Z
418850E
418900E
418950E
419000E
419050E
419100E
419150E
419200E
419250E
419300E
419350E
419400E


MININGASSOCIATES
Cross Section 855720 mN ± 20m
Topography
Conceptual Pit Shell
Limit of Geological Confidence
Mineral Resource is inside the limit of Geological Confidence and Conceptual Pit Shell
Copper Grades
0.00 -> 0.20
0.20 -> 0.30
0.30 -> 0.50
0.50 -> 0.75
0.75 -> 1.0
1.20 -> 2.00
2.0 -> 5.00
5.0 -> 99.0
200Z
150Z
100Z
50Z
0Z
-50Z
-100Z
418850E
418900E
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419000E
419050E
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419200E
419250E
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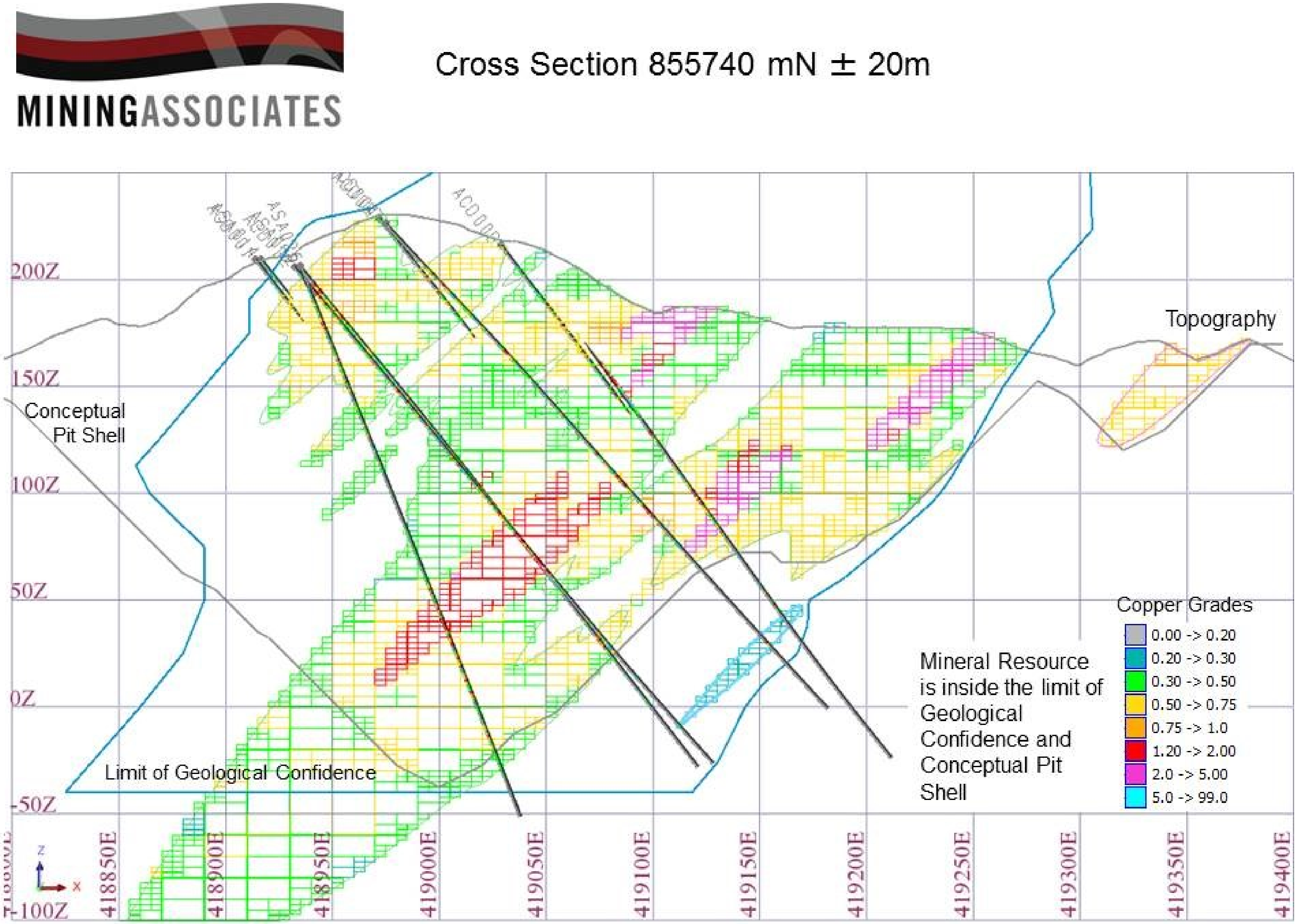
419400E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Cross Section 855740 mN ± 20m
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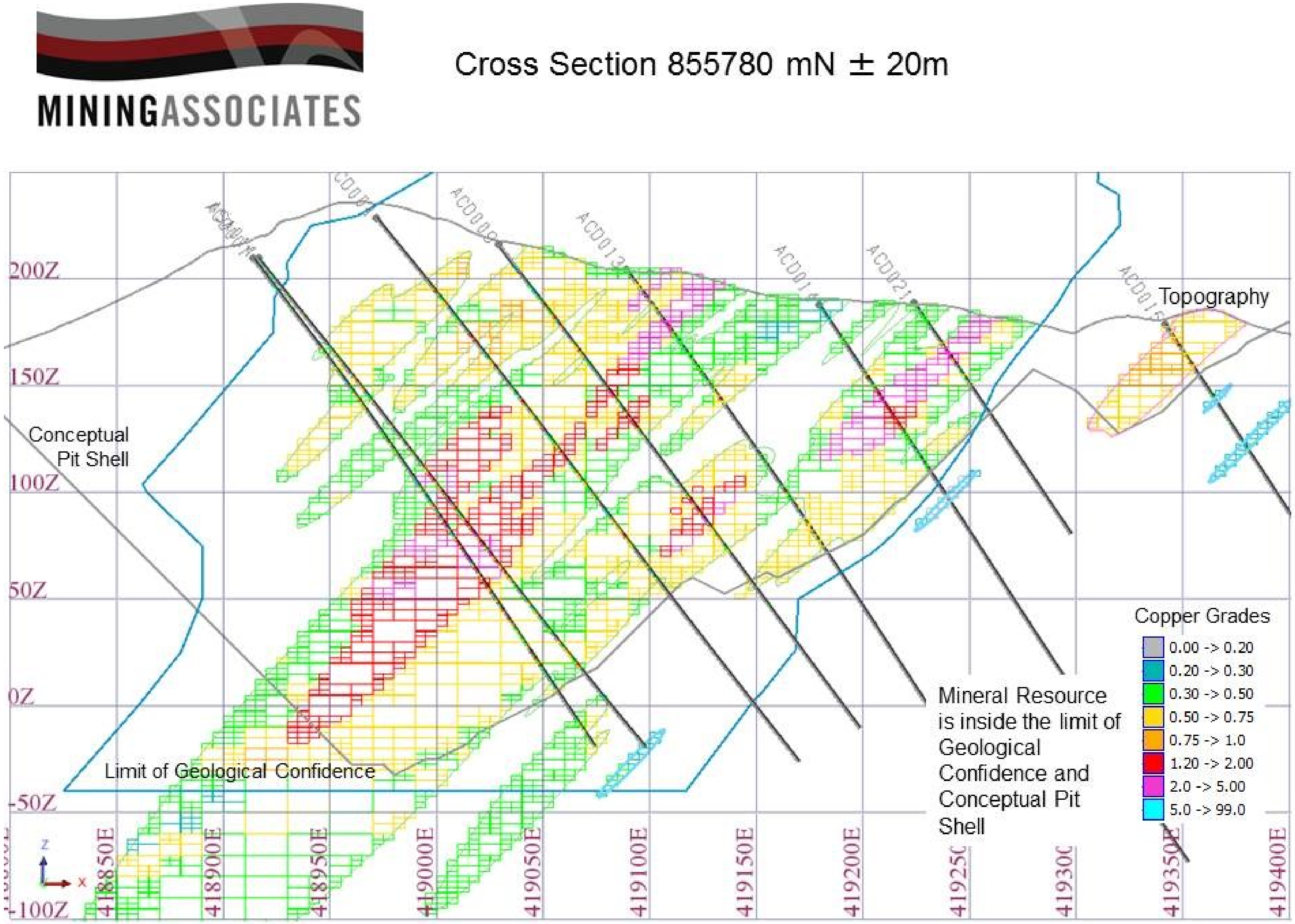
150Z
100Z
50Z
0Z
-50Z
-100Z
418850E
418900E
418950E
419000E
419050E
419100E
419150E
419200E
419250E
419300E
419350E
419400E
Conceptual Pit Shell
Topography
Limit of Geological Confidence
Mineral Resource is inside the limit of Geological Confidence and Conceptual Pit Shell
Copper Grades
0.00 -> 0.20
0.20 -> 0.30
0.30 -> 0.50
0.50 -> 0.75
0.75 -> 1.0
1.20 -> 2.00
2.0 -> 5.00
5.0 -> 99.0


MININGASSOCIATES
Cross Section 855780 mN ± 20m
200Z
150Z
100Z
50Z
0Z
-50Z
-100Z
Conceptual Pit Shell
Topography
Limit of Geological Confidence
Mineral Resource is inside the limit of Geological Confidence and Conceptual Pit Shell
Copper Grades
0.00 -> 0.20
0.20 -> 0.30
0.30 -> 0.50
0.50 -> 0.75
0.75 -> 1.0
1.20 -> 2.00
2.0 -> 5.00
5.0 -> 99.0
418850E
418900E
418950E
419000E
419050E
419100E
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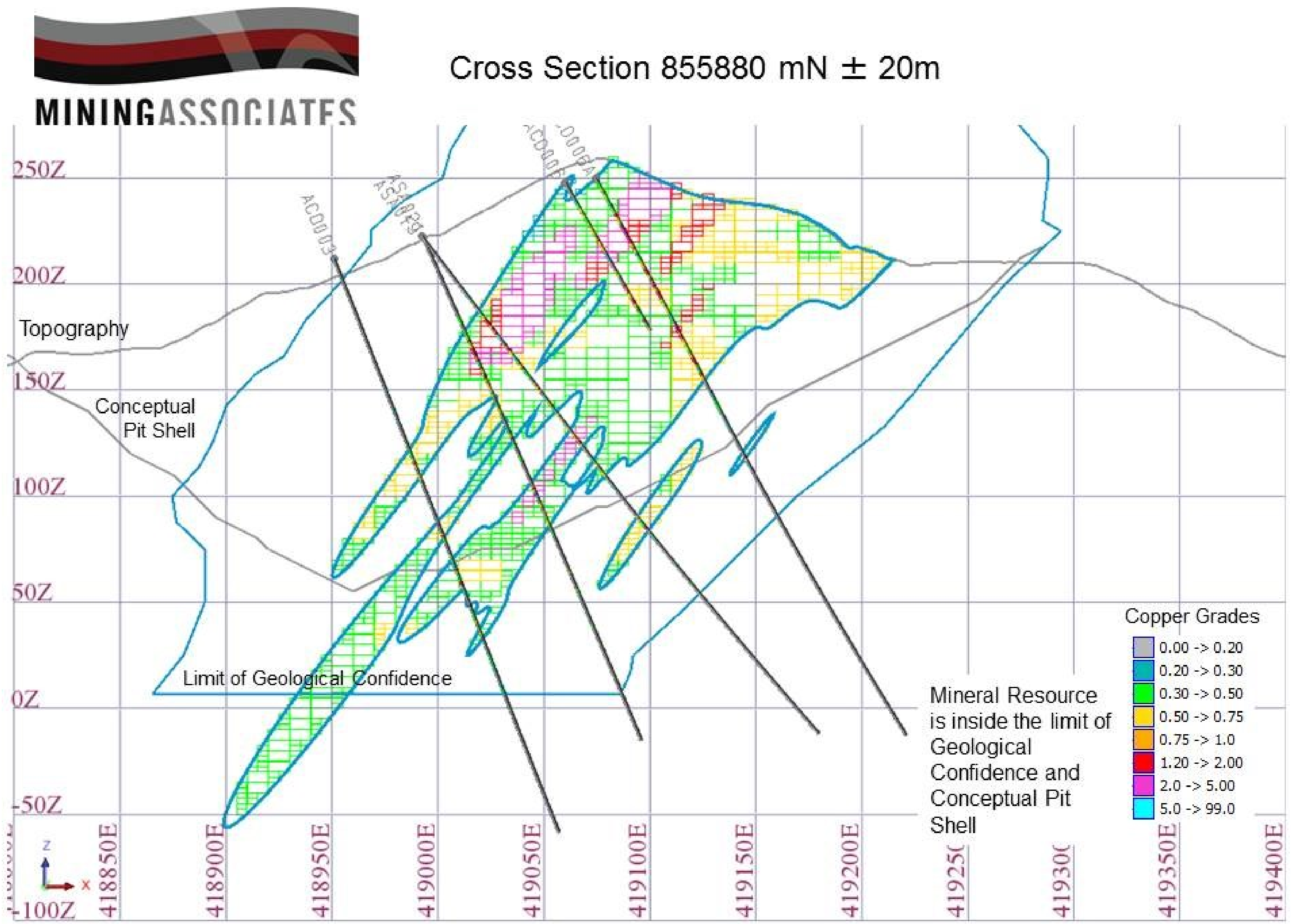
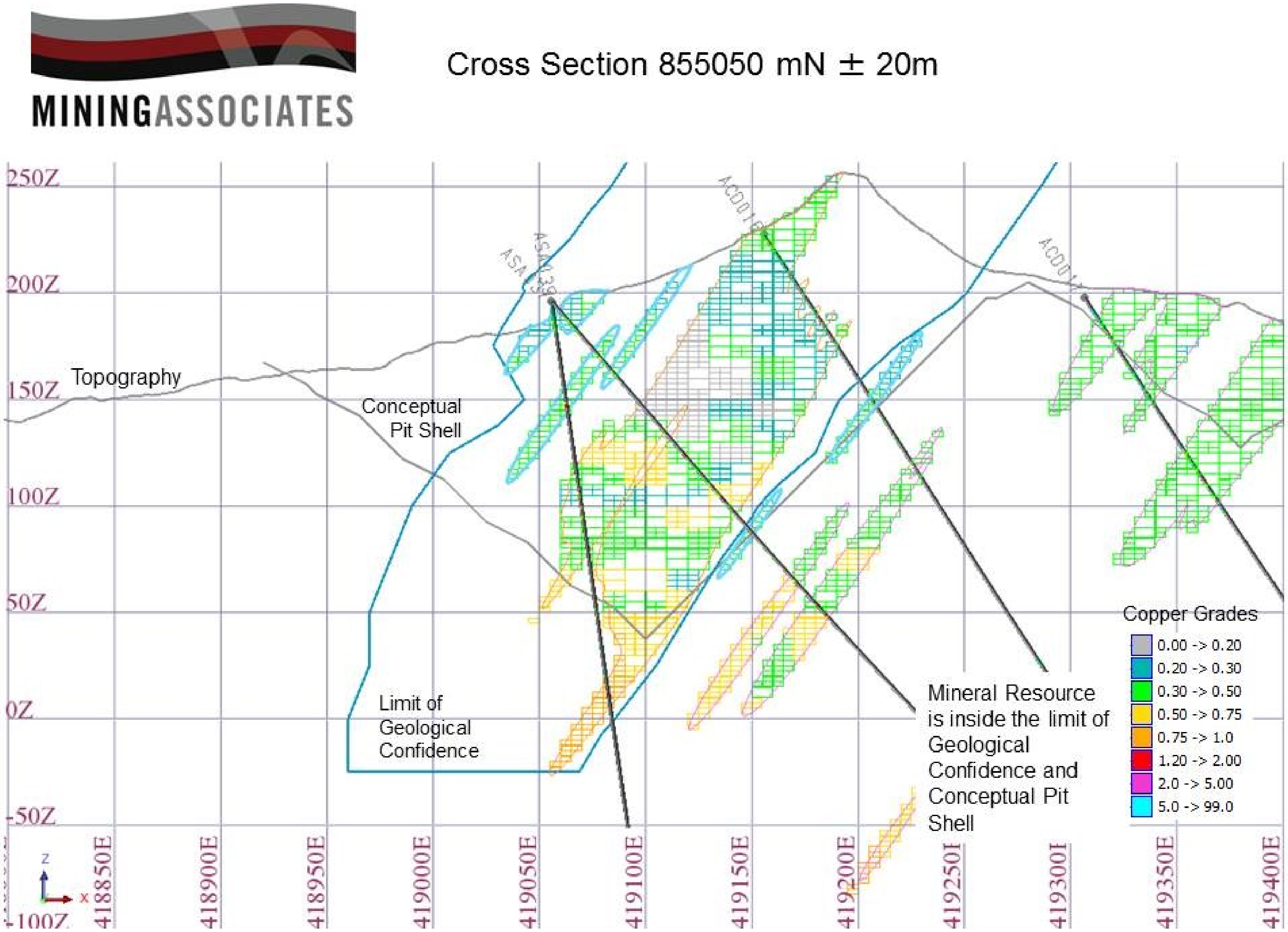
419200E
419350E
419400E


MININGASSOCIATES
Cross Section 855880 mN ± 20m
250Z
200Z
150Z
100Z
50Z
0Z
-50Z
-100Z
Topography
Conceptual
Pit Shell
Limit of Geological Confidence
418850E
418900E
418950E
419000E
419050E
419100E
419150E
419200E
419350E
419400E
Mineral Resource
is inside the limit of
Geological
Confidence and
Conceptual Pit
Shell
Copper Grades
0.00 -> 0.20
0.20 -> 0.30
0.30 -> 0.50
0.50 -> 0.75
0.75 -> 1.0
1.20 -> 2.00
2.0 -> 5.00
5.0 -> 99.0


MININGASSOCIATES
Cross Section 855050 mN ± 20m
250Z
200Z
150Z
100Z
50Z
0Z
-50Z
-100Z
Topography
Conceptual Pit Shell
Limit of Geological Confidence
Mineral Resource is inside the limit of Geological Confidence and Conceptual Pit Shell
Copper Grades
0.00 -> 0.20
0.20 -> 0.30
0.30 -> 0.50
0.50 -> 0.75
0.75 -> 1.0
1.20 -> 2.00
2.0 -> 5.00
5.0 -> 99.0
418850E
418900E
418950E
419000E
419050E
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419150E
419200E
419250E
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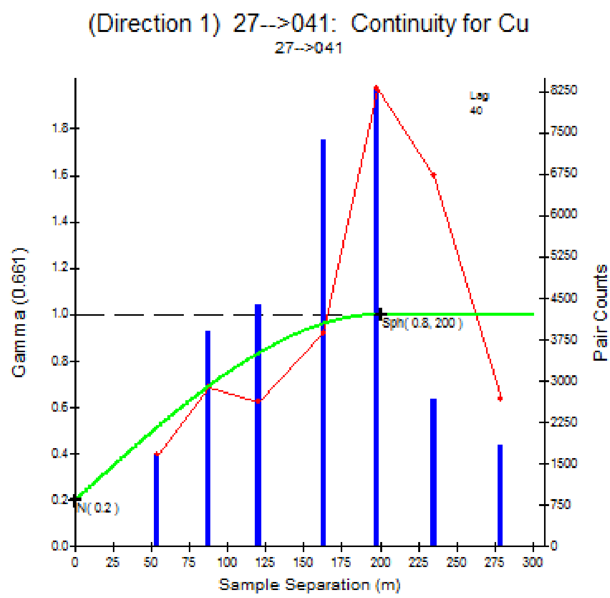
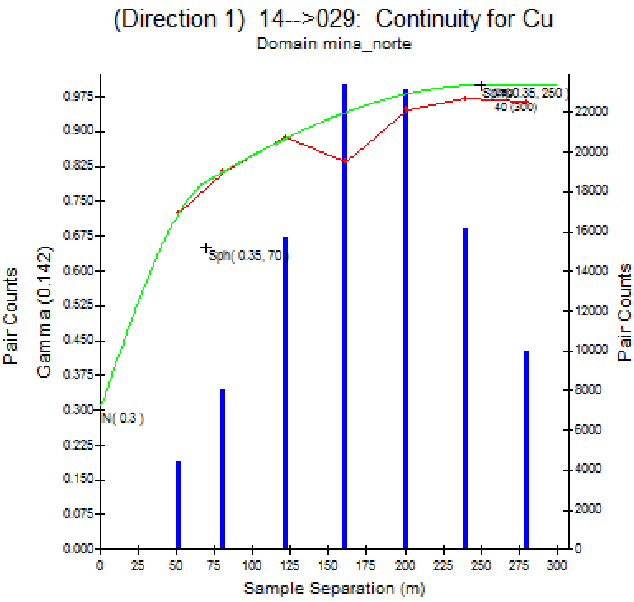
419400E

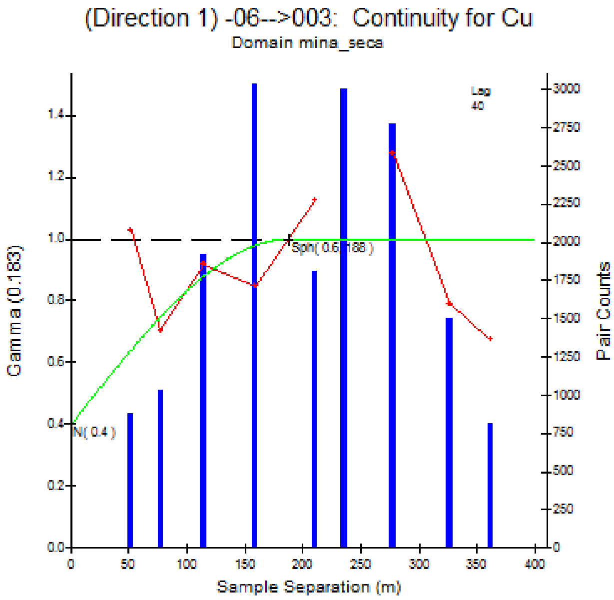
23 APPENDIX 3: VARIOGRAMS (DIRECTION 1)



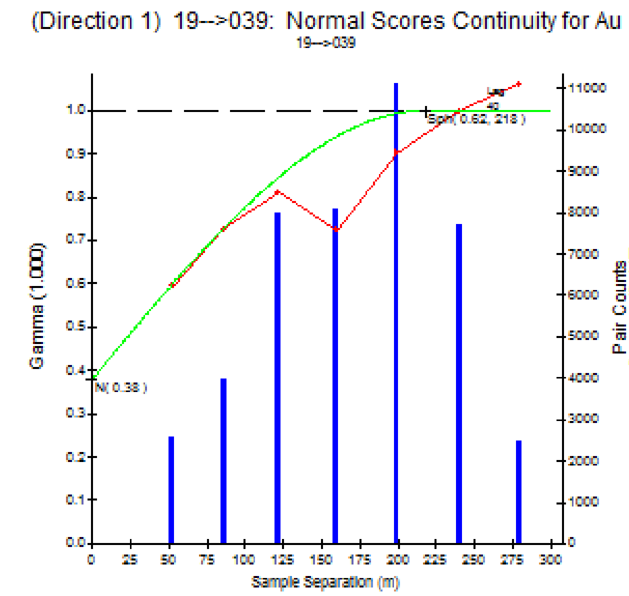
Copper Global



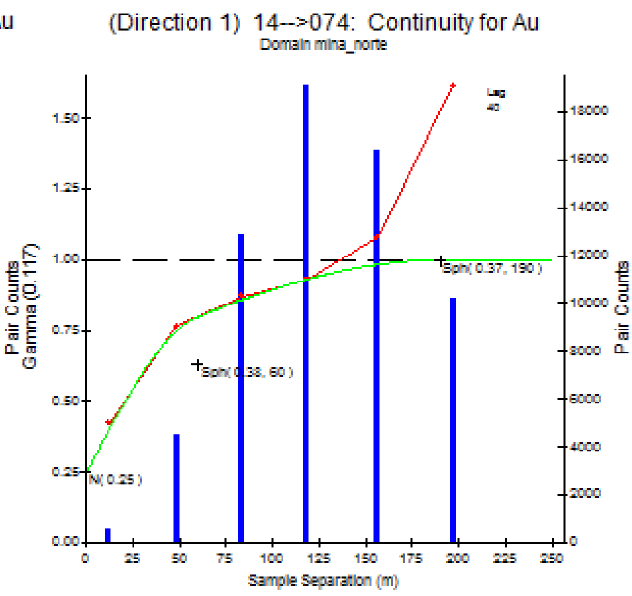
Copper Mina Norte



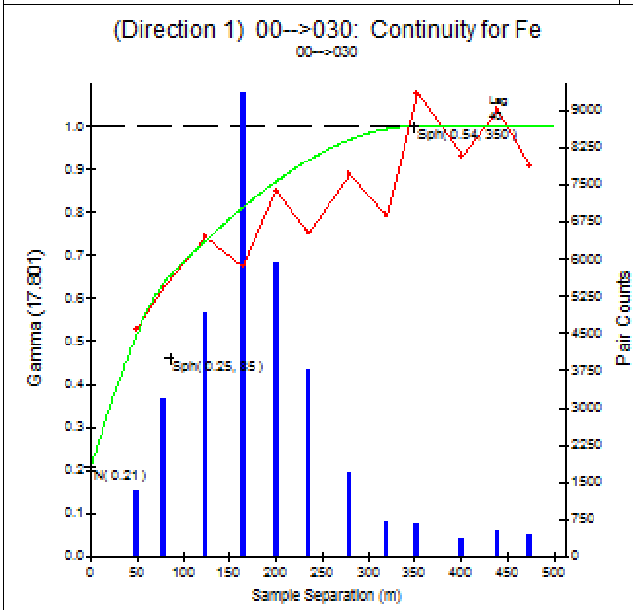
Copper Mina Seca



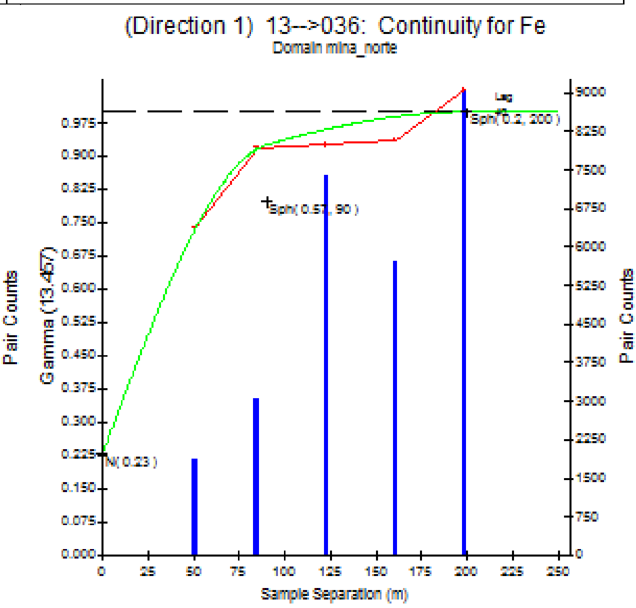
Gold Global



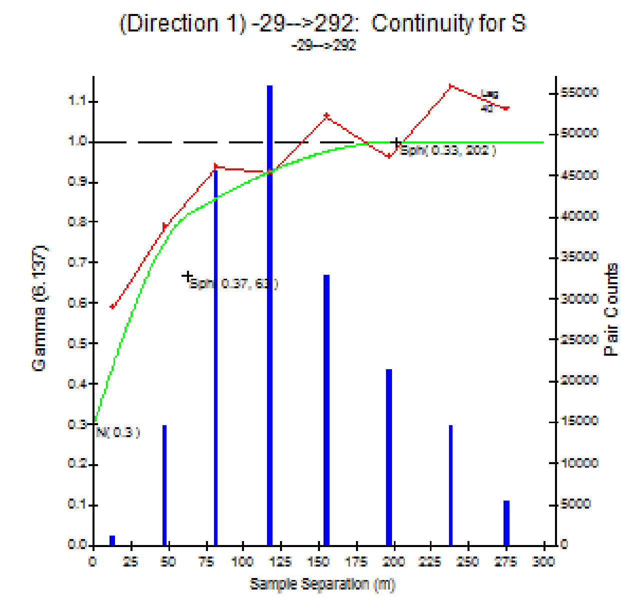
Gold Mina Norte

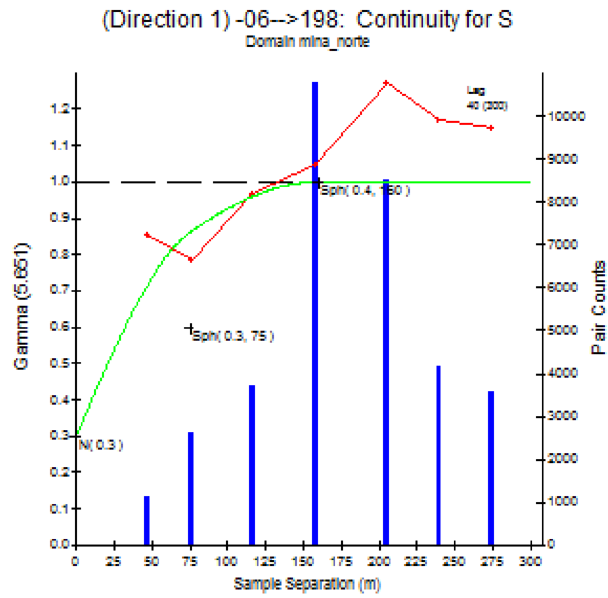


Iron Global



Iron Mina Norte





Sulphur Global	Sulphur Mina Norte