



Southern Silver Exploration Corp.

NI 43-101 Technical Report

Mineral Resource Estimate for Cerro Las Minitas Project, Durango State, Mexico

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1 SUMMARY

The Cerro Las Minitas property is located 70km northeast of the City of Durango, the capital of the state of Durango, and 6 km northwest of the town of Guadalupe Victoria, in the municipality of Guadalupe Victoria, Durango. The claims are located in the Minitas mining district in the Guadalupe Victoria mining region. The property consists of 25 mining concessions encompassing 34,450.35 ha.

From 2010-2021 Southern Silver completed programs of geological mapping, surface geochemical sampling and airborne and ground geophysical surveys in support of 80,650 metres of core drilling in 186 holes resulting in the delineation of six mineral deposits: the Blind; El Sol, Las Victorias, Skarn Front, South Skarn and Mina La Bocona deposits on the Cerro Las Minitas Property.

The Blind, El Sol and Las Victorias deposits comprise multiple sub-vertical northwest-southeast trending zones of semi-massive to massive sulphide mineralization. Mineralization is hosted in the skarnoid- and hornfels-altered margins of monzonite and felsite dykes and may be localized along through-going structures or occur as replacements within stratigraphic units. The mineralized zones can be traced for up to 1000 metres along strike and up to 800 metres down dip.

Sulphide mineralization in the Skarn Front deposit is localized at the outer boundary of the skarnoid alteration zone surrounding the Central Monzonite Intrusion at or near the transition to the recrystallized/marbleized carbonate sediments (marmorized zone). The Skarn Front deposit can be traced for up to 1100 metres along strike and up to 1000 metres depth. Geological modelling suggests that intersections between the sub-vertical, northwest-trending Blind and El Sol mineralized zones and the generally more shallowly dipping Skarn Front may localize higher-grade shoots of mineralization.

Drilling in 2020-21 confirmed laterally extensive skarn-style mineralization in both the South Skarn and La Bocona deposits which are located on the eastern side of the Central Monzonite Intrusion. In both deposits, mineralization occurs adjacent to the central intrusion, features similar replacement styles and variability in metal assemblage, but tends to be more galena biased and is generally associated with elevated silver values when compared to the Skarn Front mineralization.

Drilling also identified manto-styled mineralization within the La Bocona deposit which occurs as replacements in the hanging wall of the skarnoid mineralized zone within variably altered marble-skarn-hornfels. The mineralization is strongly silver enriched with elevated lead, arsenic and gold values. The upper portion of the mineralized zone is strongly oxidized and makes up in part the small oxide resource identified in the current mineral resource update.

Several phases of metallurgical test work have been conducted on mineralization from the Cerro Las Minitas project on behalf of Southern Silver including Locked Cycle testing in late 2019 on an updated Skarn Front sulphide composite which returned:

- Copper concentrate after 3 stages of cleaning: 27% Cu grade at 60.2% Cu recovery and 6.5% Ag recovery at a grade of 1255 g/t.
- Lead Concentrate after 3 stages of cleaning: 65.08% Pb grade at 83.6% Pb recovery and 5504 g/t Ag at 77.3% Ag recovery.
- Zinc Concentrate after 3 stages of cleaning: 53.95% Zn grade at 94.7% Zn recovery.

These results not only improved base metal grades, but also improved deportment of silver into the lead concentrate. Concentrate values on a US\$/t concentrate were improved for all 3 concentrates from earlier test work.

Further variability test work on the composite confirmed: the ability of the flowsheet to deal with large variations in grade; the ability of the flowsheet to reject pyrite; the ability of the lead concentrate to collect silver; and provided confirmation that the proposed flowsheet is well suited to a ROM feed from multiple stopes with only minor stockpile grade control being required.

In the case of the CLM material, three distinct sulphide concentrates are produced (Copper, Lead and Zinc) and each is processed at a different smelting and refining combination, in different locations, using different processes, with differing metal recoveries and operating costs. An NSR valuation technique is used to account for these differences and provides an NSR value to mineralization in the Resource Update.

The NSR calculations utilize reasonable market terms. In each case the specific terms offered for the Smelter Treatment charges (TC's) and refining charges (RC's) including sea freight to overseas refinery are included.

A summary of all of the applicable recovery and off-site factors that influence the NSR valuation for sulphide and oxide rock types and for typical Skarn Front or Blind-El Sol type sulphides is shown below.

TABLE 1-1: NSR FACTORS USED IN BLOCK VALUATIONS FOR RESOURCE ESTIMATES

Item	Sulfides				Oxides	
	Pb Concentrate		Zn Concentrate		Cu Conc.	Ag-Au leach
Ore type	Skarn	BESS	Skarn	BESS	Skarn	
Pb Recovery	84%	90%				
Zn Recovery			95%	78%		
Cu Recovery					60%	
Ag Recovery	77%	79%	8%	12%	7%	74%
Au Recovery						70%
Payable Metals	Pb, Ag	Pb, Ag	Zn, Ag	Zn, Ag	Cu, Ag	Au, Ag
Concentrate grade, (primary base metal)	65%	70%	54%	52%	27%	
Transport, Treatment, Penalty charges, \$ dmt	230	267	358	364	183	
Base metal Concentrate Grade Deduction	3 units	3 units	8 units	8 units	1 units	
Ag Concentrate Grade Deduction, g/t	50	50	93	93		
Ag Refining charge, \$/oz	0.6	0.6			0.4	
Base metal Refining, \$/lb					0.107	
Ag payable					90%	

Source: Kirkham 2021

Exploration in 2020-21 has fulfilled a number of the recommendations of the 2019 NI43-101 technical report. Two new higher grade mineral deposits were identified on the eastern side of the Central Monzonite Intrusion which added to the Mineral Resource base and further drilling was conducted on the Las Victorias target. Metallurgical and variability test work was advanced significantly, to allow the development of a robust metallurgical process flowsheet and the updated mineral resource estimate to be expressed on a NSR valuation basis. Further engineering work and some additional metallurgical test work is in process to further de-risk the project and advance the project toward a Preliminary Economic Assessment.

More claims were added to the CLM West claim group in 2018 which now totals 34,450 hectares. Over 6400 float and rock chip samples have been collected in the CLM West claims to date and identify a +12-kilometre northwest-southeast trending corridor of anomalous precious metal and pathfinder values that display a distinct zoning pattern consistent with modelled vertical and lateral zonation within a large epithermal vein system. Multiple distinct clusters and trends are seen in the metal distribution in the samples which provide potential future targets for further exploration on the property. 10 holes were drilled on the larger property for a total of 3,525 metres resulting in the discovery of several zones of anomalous precious and pathfinder elements. The highlight of this drilling was hole 18CLMW-007 which intercepted a 3-metre downhole interval of 168g/t silver.

Since acquisition of the property in 2010, Southern Silver, both self-funded and funded by option partners, has completed diamond drilling; geological mapping; geochemical rock, soil and acacia sampling; shallow and deep-seeing IP surveys; a ground gravity survey; and an airborne magnetic survey.

In April 2015, Southern Silver granted The Electrum Group LLC (“Electrum”) the right to earn an indirect 60% interest in the Cerro Las Minatas property by funding exploration and development expenditures of US\$5 million on the Property over a maximum four-year period. Electrum completed its earn-in in October 2016. The project operated on a joint venture basis to June 2020, when Southern Silver reacquired 100% interest from The Electrum Group LLC (“Electrum”) and is now sole owner and operator of the project.

Core drilling took place between 2011 through 2021 and was contracted out to BD Drilling Mexico, S.A. de C.V. (BDD) of EL Salto, Jalisco up to 2018 and by Intercore Operaciones, S de RL de CV (Intercore) of Tlajomulco de Zuniga, Jalisco Mexico during 2020 and 2021 Drilling was completed using both NQ and HQ coring equipment capable of recovering a core 45.1 to 61.1 millimetres in diameter. The 186 drill holes in the database were supplied in electronic format by Southern Silver. This included collars, downhole surveys, lithology data and assay data (i.e., Ag g/t, Au g/t, Cu%, Pb%, Zn%).

MINERAL RESOURCE ESTIMATE

The updated Mineral Resource estimate features increased sulphide resources from two new mineral deposits, a small oxide resource in one of the new deposit areas and an update of the previously reported deposits utilizing new metal pricing and metallurgical recoveries. Resource reporting now utilizes an NSR cut-off, as detailed in Table 1-2 and 1-3, and reports average grades on a AgEq, ZnEq and \$US/t NSR basis.

TABLE 1-2: BASE-CASE SULPHIDE MINERAL RESOURCES AT A US\$60 NSR CUT-OFF

Indicated Resources		Average Grade							
Zone	Tonnes (Kt)	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)	AgEq (g/t)	ZnEq (%)	NSR (US\$/t)
Blind Zone	2,347	97	0.04	1.9	2.1	0.11	295	7.2	108
El Sol Zone	1,154	80	0.04	2.2	2.0	0.09	279	6.8	100
Skarn Front Zone	7,254	108	0.06	0.8	4.2	0.19	383	9.3	140
La Bocona Zone	1,571	132	0.19	2.2	1.6	0.17	302	7.3	136
Total	12,325	106	0.07	1.3	3.3	0.16	347	8.4	130

Inferred Resources		Average Grade							
Zone	Tonnes (Kt)	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)	AgEq (g/t)	ZnEq (%)	NSR (US\$/t)
Blind Zone	1,347	83	0.14	1.4	1.8	0.06	248	6.0	88
El Sol Zone	863	65	0.03	1.8	2.3	0.05	263	6.4	90
Las Victorias Zone	1,083	148	0.66	2.1	2.6	0.14	431	10.5	145
Skarn Front Zone	11,466	115	0.05	0.7	2.7	0.32	318	7.7	126
South Skarn Zone	3,789	140	0.18	2.0	1.3	0.09	309	7.5	130
La Bocona Zone	1,057	106	0.20	1.3	2.2	0.18	293	7.1	117
Total	19,605	117	0.12	1.2	2.3	0.23	314	7.6	123

Source: Kirkham 2021

Notes:

- 1) The current Resource Estimate was prepared by Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd.
- 2) *All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").*
- 3) Mineral resources were constrained using continuous mining units demonstrating reasonable prospects of eventual economic extraction.
- 4) Silver Equivalents were calculated from the interpolated block values using relative recoveries and prices between the component metals and silver to determine a final AgEq value. The same methodology was used to calculate the ZnEq value.
- 5) Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
- 6) An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- 7) All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
- 8) The \$60/t NSR cut-off value was calculated using average long-term prices of \$20/oz. silver, \$1,650/oz. gold, \$3.25/lb. copper, \$1.0/lb. lead and \$1.20/lb. zinc. Metallurgical work from locked cycle testwork produced three saleable concentrates for the Skarn zone and testwork on a composite of the Blind, El Sol and Las Victorias Zones produced two saleable concentrates. This work, along with marketing studies were used to decide the NSR cut-off value. Concentrate grades and other parameters used to calculate the cut-off and NSR values are shown in Table 3. All prices are stated in \$USD.

TABLE 1-3: OXIDE MINERAL RESOURCE ESTIMATE FOR CLM PROJECT UTILIZING A US\$60/T NSR CUT-OFF VALUE

La Bocona		Average Grade			Contained Metal	
	Tonnes (kt)	Ag (g/t)	Au (g/t)	NSR (US\$/t)	Ag TrOz (koz)	Au TrOz (koz)
Indicated	65	28	2.2	93	58	4.5
Inferred	219	120	0.8	88	844	5.6

Source: Kirkham 2021

Notes: The \$60/t NSR cut-off value was calculated using average long-term prices of \$20/oz. silver, \$1,650/oz. gold. Base metals were not recovered in the leach circuit. Metallurgical work from batch test work recovered 74% silver from oxidized composites from the Blind – El Sol zones. Gold recovery was not assessed and is estimated at 70% for the purposes of this report. This work, along with marketing studies were used to decide the NSR cut-off value. All prices are stated in \$USD.

CONCLUSIONS AND RECOMMENDATIONS

Potential risks related to the project include metallurgy, continuity of the structures and continued ability to expand resources. Further metallurgical testing is required in order to clearly understand recoveries. In addition, although the mineralized zones appear to be relatively continuous and predictable, faults and other structures may be encountered that would pose interpretation challenges. The Skarn zone appears to be amenable to more bulk underground mining methods. However, thickness can vary particularly in the Blind and El Sol zones which may require more selective mining methods which will increase costs and require higher cut-off grades to justify.

Opportunities related to the project are reflected in the fact that Cerro Las Minitas has potential as a district play with a variety of deposit types which poses excellent exploration and expansion potential.

The exploration completed by Southern Silver between 2010 and 2021 on the Cerro Las Minitas property indicates that the presence of Indicated and Inferred resources justifies the cost of ongoing exploration and development.

Metallurgical and variability test work was advanced significantly between 2019 to 2021, to allow the development of a robust metallurgical process flowsheet and the updated mineral resource estimate to be expressed on a NSR valuation basis. Further engineering work and some additional metallurgical test work is in process to further de-risk the project and advance the project toward a Preliminary Economic Assessment.

The author recommends continued focus on the Area of the Cerro, to build additional mineral resources on the project and to advance the project through to a Preliminary Economic Assessment level of study. To further advance the project, Southern Silver should conduct:

- Step-out drilling to the southeast and down dip on the Las Victorias target to test the on-strike potential of the Skarn Front and Blind zone extensions.
- Infill drilling in order to better define the specific mineralized zones;
- Further drilling on the eastern margin of the central Intrusion to delineate potential additional resources in the South Skarn and La Bocona target areas;
- Further drill in order to de-risk areas of high variability within the Skarn Front deposit;
- Engineering studies and metallurgical testing to prepare the project for a Preliminary Economic Assessment;
- Complete a Preliminary Economic Assessment.

Table 1-4 presents an ongoing exploration and development program for the Cerro Las Minitas property. Approximate expense items are listed with a description where appropriate and a total cost. The length of this program is approximately twelve months from inception through to completion of a status report.

TABLE 1-4: PROPOSED 2022 PROGRAM BUDGET

Budgetary Period:	12	months
Cummulative Exploration Days	250	
Diamond Drilling - Area of the Cerro	15,000	m
Core and Rock Samples collected	3000	
Claim and Property	US \$	155,000
Field Program		
Project Infrastructure	\$	142,200
Assaying	\$	178,200
Drilling	\$	2,079,250
Travel	\$	3,750
Field Presonnel	\$	396,000
Field Program Subtotal	\$	2,799,400
IVA	\$	447,904
Field Program Expenses	US \$	2,703,554
Oversite / Technical Reporting		
Project Oversight	\$	207,600
Technical Report (PEA)	\$	500,000
Engineering and Met Work	\$	34,000
Project Mngmt Travel	\$	21,000
Oversite and Reporting Expenses	US \$	762,600
Project Total	US \$	3,621,154
Say	US \$	3,625,000

Source: Kirkham 2021

2 INTRODUCTION

The Cerro Las Minitas Project is an exploration and resource development project located in Mexico, 70 km northeast of the City of Durango, capital of the state of Durango, and 6km northwest of the town of Guadalupe Victoria, in the municipality of Guadalupe Victoria, Durango. The project encompasses several prospects on a 34,450.35 ha. property that is 100% owned and operated by Southern Silver Exploration Corp. (Southern Silver).

This report represents an update of the technical report “Mineral Resource Estimate for the Cerro Las Minitas Project, Durango State, Mexico” with effective date of 9th of May, 2019 (“Technical Report”) prepared for Southern Silver Exploration Corporation, Vancouver, B.C. A previous technical report (effective date February 2010) documented the exploration work completed by Silver Dragon Resources Inc. (Silver Dragon). In addition, Southern Silver Exploration Corp, published three previous resource estimates for the Cerro Las Minitas Property entitled “Mineral Resource Estimate for the Cerro Las Minitas Project, Durango State, Mexico” with effective date of 21st of March, 2016 and “Updated Mineral Resource Estimate for the Cerro Las Minitas Project, Durango State, Mexico” with effective date of 22nd of February, 2018 and “Mineral Resource Estimate for the Cerro Las Minitas Project, Durango State, Mexico” with effective date of 8th of May, 2018 which were also authored by Kirkham Geosystems Ltd.

During 2021, Southern Silver commissioned Garth Kirkham, P.Geo. of Kirkham Geosystems Ltd., to update the technical report to include the exploration work and additional drilling completed by Southern Silver during 2020 and 2021. This technical report also includes an updated Mineral Resource Statement prepared by Kirkham Geosystems Ltd. during the second quarter of 2021.

The updated Mineral Resource Statement was prepared following the guidelines of the Canadian Securities Administrators’ National Instrument 43-101 (NI 43-101) and Form 43-101F1. The Mineral Resource Statement reported herein was prepared in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (2019)*.

2.1 SCOPE OF WORK

The scope of work consisted of the preparation of an independent technical report in compliance with NI 43-101 and Form 43-101F1 guidelines. The technical report was compiled by Garth Kirkham, P.Geo., Principal, Kirkham Geosystems Ltd., and it included the mineral resource estimate and the preparation of the Mineral Resource Statement.

2.2 SITE VISITS

Garth Kirkham, P. Geo., visited the property several times between March 31 through April 2, 2015, then again on January 14 through January 19, 2019 and most recently on August 16, 2021. The site visits included an inspection of the property, offices, drill sites, outcrops, trenches, drill collars, core storage facilities, core receiving area, and tours of major centres and surrounding villages most likely to be

affected by any potential mining operation. In addition, the January 2019 site visit included a tour of the Puro Corazon site and processing facilities.

The tour of the office and storage facilities showed a clean, well-organized, professional environment. On-site staff led the author through the chain of custody and methods used at each stage of the logging and sampling process. All methods and processes are up to industry standards and reflect best practices, and no issues were identified.

A visit to the collar locations showed that the collars were well marked and labelled; therefore, they were easily identified. The previous drill holes were cased.

In 2015, the author selected four complete drill holes at random from the database and they were laid out at the core storage area. Site staff supplied the logs and assay sheets for verification against the core and the logged intervals. The data correlated with the physical core and no issues were identified. In addition, the author toured the complete core storage facilities, selecting and reviewing core throughout. No issues were identified, and recoveries appeared to be very good. For the 2019 site visit, all significant intersections encountered in the 2017 and 2018 drill programs were laid out, inspected and compared against drill logs and assay sheets. For the 2021 site visit, all significant intersections encountered in the 2021 drill programs were laid out, inspected, and compared against drill logs and assay sheets. In addition, the methods and procedures for specific gravity measurements were reviewed and approved.

The core is accessible, and the core is stored in a secure warehouse. The core facilities are clean and well organized for easy access and analysis by way of a core map.

Mr. Kirkham was given full access to the property and all relevant data.

3 RELIANCE ON OTHER EXPERTS

The authors of this technical report are not qualified to provide extensive commentary on legal issues associated with the Cerro Las Minitas property. As such, portions of Section 4 that deal with the types and numbers of mineral tenures and licenses; the nature and extent of Southern Silver's title and interest in the Cerro Las Minitas property; and the terms of any royalties, back-in rights, payments or other agreements and encumbrances to which the property is subject are only descriptive in nature and are provided exclusive of a legal opinion.

This report has been prepared by the author for Southern Silver. The information, conclusions, opinions, and estimates contained herein are based on:

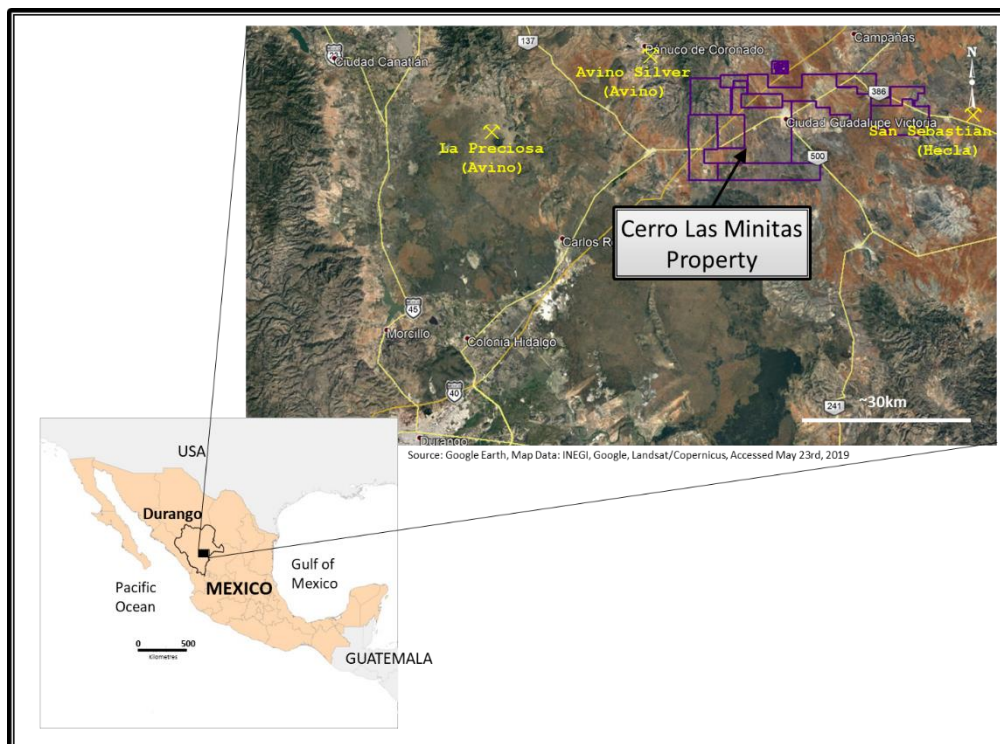
- information available to the author at the time of preparation of this report;
- assumptions, conditions, and qualifications as set forth in this report; and
- data, reports, and other information supplied by Southern Silver and other third-party sources.

Southern Silver reported to the author that, to the best of its knowledge, there are no known litigations that could potentially affect the Cerro Las Minitas Project.

4 PROPERTY DESCRIPTION AND LOCATION

The Cerro Las Minitas property is located 70 km northeast of the City of Durango, the capital of the state of Durango, and 6 km northwest of the town of Guadalupe Victoria, in the municipality of Guadalupe Victoria, Durango, Mexico (Figure 4-1). The claims are located in the Minitas mining district in the Guadalupe Victoria mining region. The property consists of 25 mining concessions encompassing 34,450.35 ha (Figure 4-2). Table 4.1 shows the details of the 25 concessions.

FIGURE 4-1: CERRO LAS MINITAS LOCATION MAP



Source: Southern Silver 2021

4.1 MINERAL TENURE

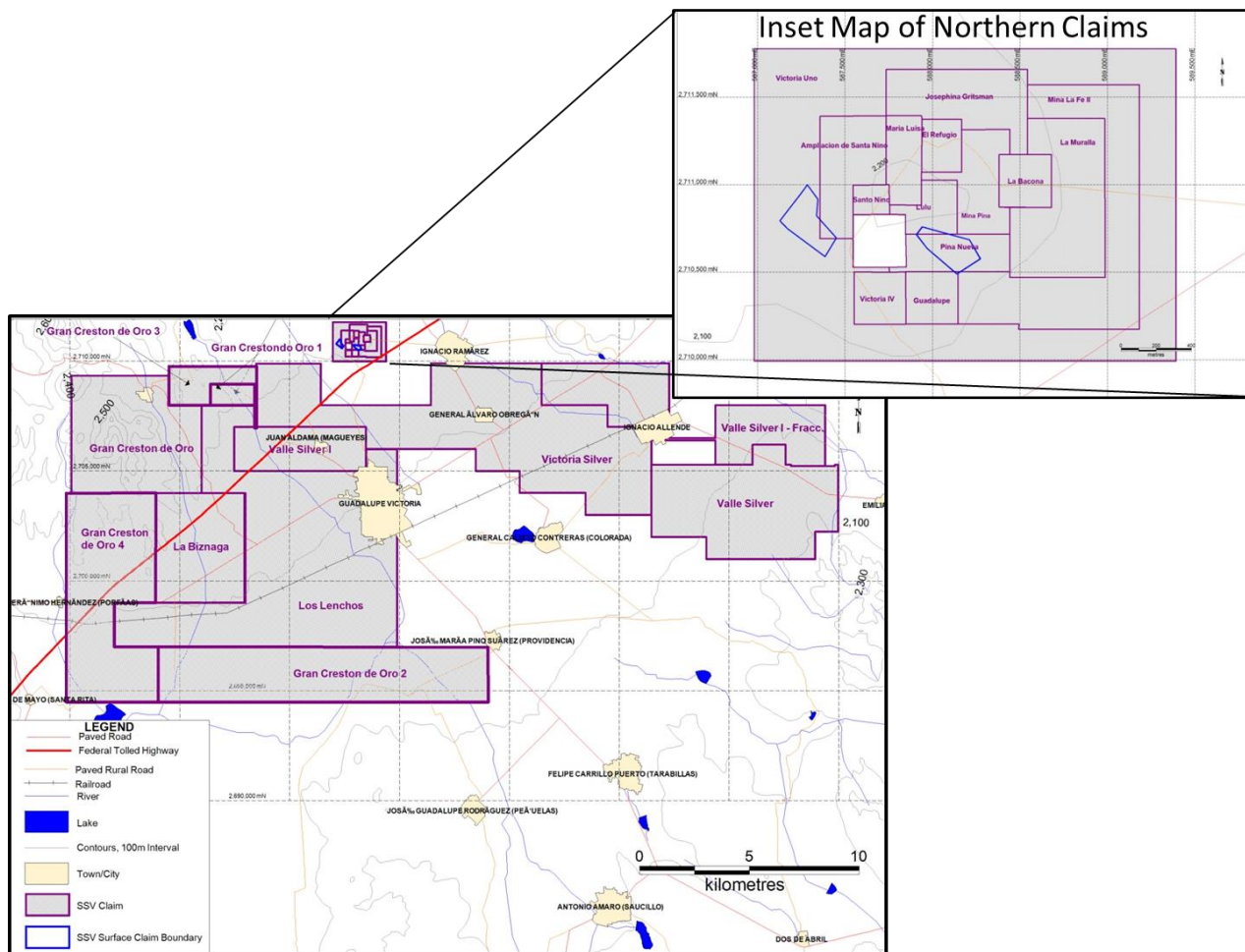
In December 2010, Southern Silver announced its agreement with a private vendor that granted Southern Silver the right to acquire 100% interest in the project by making scheduled payments totalling US\$4 million over a three-year period. Initial consideration was a US\$300,000 cash payment with escalating payments every six months for the term of the option.

In December 2012, the Company re-negotiated the option to extend certain payments to November, 2013 and also to reduce total payment to US\$3,600,000 in the event that the optionor fails to deliver registered title to a claim adjacent to the core group of claims. To date, title to that claim has not been delivered.

In November 2014, the Company announced that, through its subsidiary Minera Plata del Sur, S.A. de C.V. ("MPS"), it had completed the final payment to acquire a 100% interest in the claims. MPS is now the registered title holder of the claims.

In 2017/18, the company acquired seven contiguous concessions by staking. One of these claims is subject to a finder's fee whereby minimum payments are due on a semi-annual basis accelerating from US \$5,000 to US \$25,000 over a ninety-six month period and a 1% NSR with such periodic payments being credited to NSR payments. After payment of US \$5,000,000 in NSR payments the royalty is reduced to 0.5%. These claims are in the process of being registered and do not yet have title numbers.

The individual claims are summarized in Table 4.1.

FIGURE 4-2: CERRO LAS MINITAS CONCESSION MAP

Source: Southern Silver 2021

TABLE 4-1: CONCESSION SUMMARY

TITLE #	TYPE	FILE #	CLAIM NAME	AREA (Ha)	DATE ISSUED	EXPIRY DATE
164061	EXPLOIT.	09/4375	LA BOCONA	9.00	21/02/1979	20/02/2029
191775	EXPLOIT.	321.1/2-602	MINA PIÑA	17.02	19/12/1991	18/12/2041
186434	EXPLOIT.	321.1/2-603	PIÑA NUEVA	12.73	30/03/1990	29/03/2040
193482	EXPLOIT.	321.1/2-482	LULU	8.36	19/12/1991	18/12/2041
193483	EXPLOIT.	321.1/2-472	VICTORIA UNO	189.33	19/12/1991	18/12/2041
213288	EXPLOR.	025/25591	VICTORIA IV	9.00	04/10/2001	04/09/2051
214313	EXPLOR.	025/25543	LA MURALLA	39.10	09/06/2001	09/05/2051
196146	EXPLOIT.	321.1/2-069	JOSEFINA GRISSTMAN	26.44	16/07/1993	15/07/2043
209851	EXPLOR.	025/23151	MINA LA FE II	61.67	17/08/1999	16/08/2049
227317	MINING	025/32609	GUADALUPE	9.00	09/06/2006	08/06/2056
167210	EXPLOIT.	025/4133	EL SANTO NIÑO	3.32	22/10/1980	21/10/2030
167906	EXPLOIT.	09/14559	EL REFUGIO	6.95	16/12/1980	15/12/2030
167212	EXPLOIT.	025/4374	AMPLIACION DE SANTO NIÑO	21.36	22/10/1980	21/10/2030
167211	EXPLOIT.	025/4134	MARIA LUISA	9.85	22/10/1980	21/10/2030
233341	MINING	025/33338	VICTORIA SILVER	6171.62	13/02/2009	12/02/2059
233343	MINING	025/33413	VALLE SILVER	3394.09	13/02/2009	12/02/2059
241477	MINING	025/38052	VALLE SILVER - I	1200.00	19/12/2012	18/12/2062
241649	MINING	025/38052	VALLE SILVER - I FRACC.	2451.89	30/01/2013	29/01/2063
PENDING	MINING	025/39062	LA BIZNAGA	2000.00	PENDING	PENDING
PENDING	MINING	025/39063	LOS LENCHOS	7600.00	PENDING	PENDING
PENDING	MINING	025/39112	GRAN CRESTON DE ORO	2966.40	PENDING	PENDING
PENDING	MINING	025/39149	GRAN CRESTON DE ORO 1	194.20	PENDING	PENDING
PENDING	MINING	025/39150	GRAN CRESTON DE ORO 2	3800.00	PENDING	PENDING
PENDING	MINING	025/39158	GRAN CRESTON DE ORO 3	596.00	PENDING	PENDING
PENDING	MINING	025/39157	GRAN CRESTON DE ORO 4	3590.00	PENDING	PENDING
			Total	34450.35		

Source: Southern Silver 2021

A small inlying claim known as the Puro Corazon claim (9 hectares) is not owned or controlled by Southern Silver (see Inset Map of the Northern claims in Figure 4-2). This is the site of the historic small-scale Puro Corazon mine.

On October 24, 2011, Minera Plata del Sur, S.A. de C.V., entered into a Property Purchase Agreement with Mr. Julio Cesar Rosales Badillo to acquire a 100% interest in a 5-hectare surface lot which overlies a portion of the mineral claims. The property was acquired to provide a site for construction of a mill or other facilities if warranted and was acquired in consideration for a cash payment of \$US40,000 and issuance of 50,000 common shares of the company. Title to this property is now registered in Southern Silver's name.

In October 2012, the Southern Silver granted Freeport-McMoRan Exploration Corporation ("FMEC") the right to earn an indirect 70% interest in the property.

FMEC had the option to earn respective 51% and 19% indirect interests in the property through the acquisition of common shares of a subsidiary of the Company which has the right to purchase a 100% interest in the property.

On September 11, 2014, the Southern Silver received notice from FMEC of termination of the earn-in agreement. As part of the termination, FMEC assigned to the Company, for no consideration, its option to acquire a 100% interest in the El Sol Concession, which is situated contiguous to the northwest boundary of Cerro Las Minitas. On July 20, 2015, the Company relinquished its interest in the option of the El Sol concession. Pursuant to agreements dated July 7 and July 8, 2015, Southern Silver through its Mexican subsidiary, Minera Plata del Sur, S.A. de C.V., signed an Equipment and Property Purchase Agreement with Sr. Jaime Muguero Peña to acquire 100% interest in a 5.9 hectare surface lot partially covering the Blind and El Sol Deposits for staged payments totaling US\$200,000. Final Payment has been made and the deed registered with the Mexican authorities.

In April 2015, Southern Silver granted The Electrum Group LLC (“Electrum”) the right to earn an indirect 60% interest in the Cerro Las Minitas property by funding exploration and development expenditures of US\$5 million on the Property over a maximum four-year period. Electrum would earn indirect interests in the Property through the acquisition of common shares of a Southern Silver subsidiary company which owns the Mexican company (“MPS”) holding a 100% interest in the Property.

Electrum completed their earn-in in October 2016 and the project operated as a joint venture with Southern Silver Exploration Corp. (“Southern Silver”) at 40% interest and Electrum Global Holdings LP (“Electrum”) at a 60% interest with Southern Silver acting as operator of the project.

In 2017/18, seven additional claims were staked totalling 20,746.60 ha to the south and west of the existing claims to cover prospective, gravel-covered ground discovered by local prospectors. These claims are collectively called the CLM West claims and are composed of the Las Biznagas claim, the Los Lenchos claim and the Creston de Oro claims.

In June 2020, Southern Silver announced an agreement to purchase Electrum’s 60% indirect working interest in the CLM project for payment of US\$15 million, payable in cash and Southern Silver common shares. Payments were in three tranches as follows:

- At closing (on or about September 9, 2020): US\$5.0M in cash and US\$2.0M ((based on the greater of the prior 20-day VWAP and the DMP)
- Six months from closing: US\$2.0M in cash and US\$2.0M in shares (based on the greater of the prior 20-day VWAP and the DMP).
- 12 months from closing: US\$2.0M in cash and US\$2.0M in shares (based on the greater of the prior 20-day VWAP and the DMP).

In September 2021, the company announced that it had completed final payment to Electrum and therefore increased its working interest in the Project from 40% to 100%.

4.2 PERMITTING

Throughout the exploration process, Minera Plata del Sur (MPS) has negotiated and executed Exploration Access agreements with Ejidos having jurisdiction over lands contained within original Cerro Las Minitas claim group and the newly staked CLM West Claim Group. This is a time-consuming process requiring strict adherence to Mexican Law pertaining to the manner of conduct of a series of meetings allowing the respective populace to give informed consent to access and use of the surface of Ejido lands for exploration purposes of the underlying mineral claims. The Consent Agreements are submitted, together with other information and documents such as an Environmental Report (re: Permit application) to SEMARNAT, the relevant Mexican permitting authority.

Exploration on the original Cerro las Minitas claim group operated under a four-year SEMARNAT permit. The permit was issued on October 20, 2016 and allows for 150 drill holes and 40 trenches.

Exploration on the Cerro las Minitas claim group now operates under an eight-year SEMARNAT permit. The permit was issued on October 08, 2020 and allows for 155 core holes, 74 RC holes and 68 trenches. The project remains in good standing and continues to follow the reclamation and environmental plan laid out in the permit.

Exploration on the CLM West claim group operates under two four-year SEMARNAT permits. The permits were issued in March and April of 2018.

The Cerro Las Minitas West permit, effective March 13, 2018 and which covers portions of the Guadalupe Victoria and Librado Rivera Ejidos, allows for 150 core and RC drill holes, 40 trenches and 12.5km of new roads.

The Cerro Las Minitas West II permit, effective April 10, 2018 and which covers portions of the Francisco I. Madero and Geronimo Hernandez Ejidos, allows 36 core and RC holes and 22 trenches.

4.3 ENVIRONMENTAL AND SOCIO-ECONOMIC

The surface access to the area of the mineral resource is controlled by the Ejidos of Guadalupe Victoria and Ignacio Ramirez. Southern Silver's Mexican subsidiary Minera Plata del Sur S.V. has 25-year surface access exploration agreements covering the common ground of the Guadalupe Victoria Ejido and the Ignacio Ramirez Ejido that lies within the Cerro Las Minitas concessions. Agreements with individual Ejido landowners are negotiated as needed to cover deeded lands.

On the CLM West claims, surface rights are owned by the Ejido communities of Francisco I Madero, Geronimo Hernandez, Librado Rivera and Guadalupe Victoria. Exploration agreements with these Ejido communities are in the process of being finalized and are summarized below. Similarly, agreements with individual Ejido landowners are negotiated as needed to cover deeded lands.

The status of the agreements with each relevant stakeholder is as follow:

- **Guadalupe Victoria:** Signed and registered 25-year Exploration Access Agreement, 2016. This was completed as part of permitting for core drilling in the Area of the Cerro Las Minitas Project.
- **Ignacio Ramirez:** Signed and registered 25-year Exploration Access Agreement, 2018. This was completed as part of permitting for core drilling in the Area of the Cerro Las Minitas Project.
- **Librado Rivera:** Signed and registered 5-year Exploration Access Agreement, Dec 2017.
- **Francisco I Madero:** Signed and registered (submitted, notice of registration pending) 5-year Exploration Access Agreement, January 2018.
- **Geronimo Hernandez:** Signed and registered 5-year Exploration Access Agreement, Feb 2018.
- Discussions with the private ranch owners are ongoing. Exploration activity is approved in most cases.

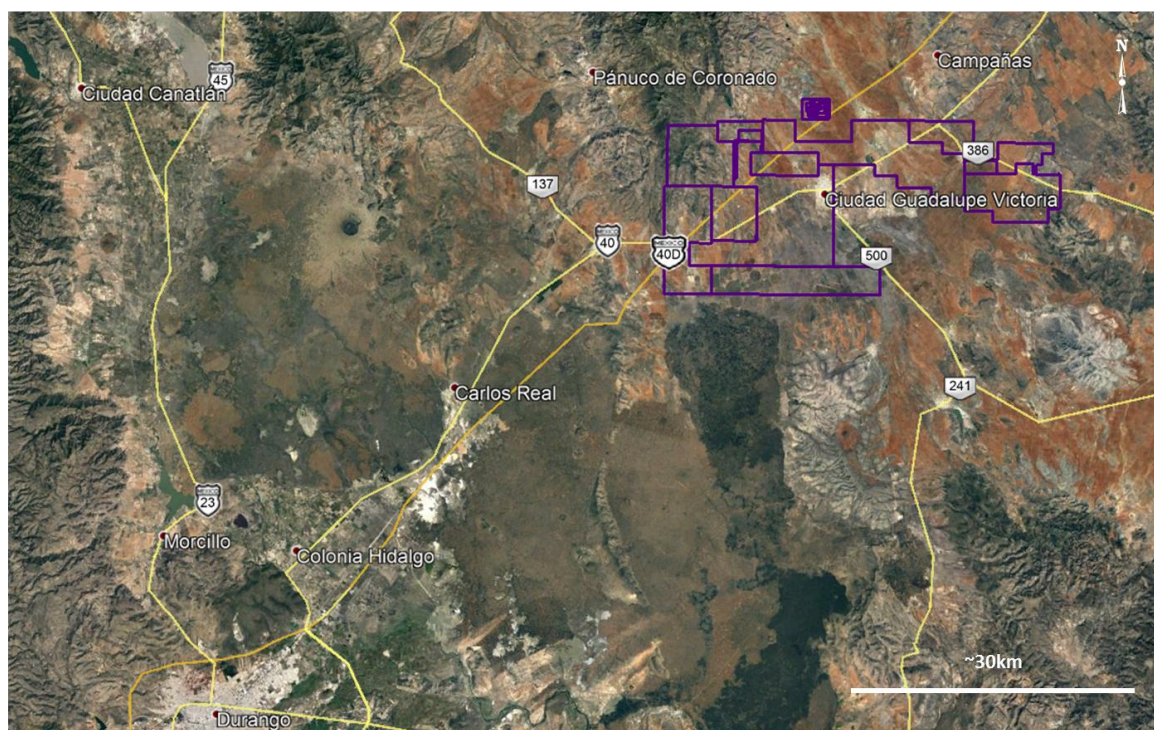
The Qualified Person is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

The Cerro Las Minitas property is located in the Minitas mining district, approximately 6 km northwest of the town of Guadalupe Victoria, Durango and 70 km northeast of the City of Durango, the capital of the state of Durango. The property can be reached from the City of Durango via Interstate Highway 40 (toll road) and Highway 40 (free access), the road from Francisco I. Madero to Cuencamé (Figure 5-1). There is no access to Interstate Highway 40 from Cerro Las Minitas, although the highway bisects the property. A small overpass affords access between the northern and southern portions of the property. From Guadalupe Victoria, a graded dirt road leads north to the property. The property is transected by Interstate Highway 40 (a limited-access freeway) and an overpass over the highway affords access between the north and southern portions of the property.

FIGURE 5-1: CERRO LAS MINITAS LOCATION



Source: Google Earth, Map Data: INEGI, Google, Landsat/Copernicus, Accessed May 23rd, 2019

Source: Southern Silver 2021

5.2 CLIMATE

The climate is generally dry with sporadic, occasionally violent rainstorms in the hot summer months (between June and September). The average precipitation in the property area between May and October is about 600 mm. The winter months are cool and dry, and snow is rare, but nighttime temperatures below the freezing mark are common in December and January. The average annual temperature is about 25°C. Grasses, small trees and shrubs, and several varieties of cacti make up most of the vegetation on the steep hillsides, and larger trees are found near springs and streams.

5.3 LOCAL RESOURCES AND INFRASTRUCTURE

The broad valley south of the Cerro Las Minitas property is relatively densely populated and well developed. The town of Guadalupe Victoria is a growing farm community (population of about 27,000) that offers most basic services. The quality of infrastructure improves, and the population density increases towards the City of Durango, 70 km to the southwest.

The nearby towns of Guadalupe Victoria and Ignacio Ramirez are serviced by the commercial electrical grid and a regional transmission line of the Comisión Federal de Electricidad (CFE) follows Interstate Highway 40. A 33,000-kVA power drop has been extended from the CFE line to the Mina Piña shaft, and it is serviceable but in need of minor repair.

Any of the materials, supplies, and labour required to support exploration and mining activities are available in the City of Durango and the surrounding region. Telephone service, Internet access, and necessities are available in Guadalupe Victoria.

5.4 PHYSIOGRAPHY

The Cerro Las Minitas property lies near the western edge of the Mexican Altiplano, an extensive volcanic plateau characterized by narrow, northwest-trending fault-controlled ranges separated by wide flat-floored basins. In the Durango area, the basins have elevations of 1,900 m to 2,100 m, and the higher peaks rise to 3,000 m.

5.5 WATER RESOURCES

Potable water is readily available in nearby towns, and water for drilling and other exploration activities can be obtained from old workings on the property.

6 HISTORY

Minimal documentation exists regarding the history and production at Cerro Las Minitas; however, the local legend is that Spaniards from the city of Victoria de Durango (now the City of Durango) originally discovered the silver mineralization at Cerro Las Minitas. The historical information presented herein has been gleaned from discussions with local miners and operators and information found in existing reports relating to the property (Minas de Bacis, 1995; Enriquez, 2005; Proyectos Mineros y Topografía, 2001).

No reliable record of historical production has been found, but local miners and operators report that the mines have been intermittently active since the early 1960s. The properties have passed from hand to hand without documentation. However, concessions that cover the properties have been maintained in good standing since the early 1960s.

The only two areas with significant exploitation in the district are the Santo Niño-Puro Corazón and Mina Piña-La Bocona areas. Informal estimates have been made based on historical and non-verifiable information so they are not included here.

In 1960, Carlos Villaseñor discovered silver-lead-zinc-copper mineralization in the Santo Niño-Puro Corazón area. He explored the deposits and conducted minor exploitation until 1971 when he built a small mill in the Velardeña district. When the mill became operational, mining efforts were stepped up and ore was shipped to the Velardeña mill to be processed. The operations at Villaseñor generated interest in the area, resulting in the discovery of the deposits in the Mina Piña-La Bocona area to the east.

The majority of the mining at Cerro Las Minitas is reported to have occurred between 1970 and 1981, but intermittent mining continues to this day. From 1997 to 2002, the mines were idle due to problems with mine water and a drop in metal prices. Intermittent, small-scale exploitation of the deposits in the Santo Niño-Puro Corazón area continued until 2005 and operations in the Mina Piña-La Bocona area continued into late 2006. Based on the size of the mine workings and the limited sampling, Enriquez (2005) estimated that 0.7 million tonnes were produced from the Santo Niño-Puro Corazón area, and 0.5 million tonnes were produced from the Mina Piña-La Bocona area, for a total production of 1.2 million tonnes.

Since 1977, the Consejo de Recursos Minerales (CRM) has supported miners in the area. In 1979, CRM completed 834.55 m of diamond drilling in seven holes in the Mina Piña area, which belonged, at that time, to Santiago Valdez. Valdez exploited the mine until 1997, when he suspended operations due to a drop in metal prices. CRM discovered additional mineralization in its drilling, but no further exploration or development was completed. CRM delivered drilling and assay data to the operators in the district without interpretation.

In 1981, CRM continued to support the development of the district, completing 77 m of shaft and 80 m of crosscut to cut the upper, oxidized portion of the La Bocona deposit. Following that work, Jaime Muguero deepened the Mina Piña shaft by 59 m to reach the 210 m level. A 140 m crosscut was driven,

encountering a number of thin mineralized horizons and the Huisache mineralized chimney. Muguero then suspended operations due to problems with water inflow.

From 1999 to 2000, Minerales Noranda, S.A. de C.V. (Noranda) optioned the properties and completed an exploration program, including 861 soil and rock samples, an aeromagnetic survey covering the entire district, and seven widely spaced diamond drill holes (3,886 m in total) within the Cerro Las Minitas dome. Results were encouraging but fell short of Noranda's expectations, so it abandoned the property. Unfortunately, none of the original Noranda data have been found, except for fragmented data presented in a summary report by Proyectos Minerales y Topografía, S.A. de C.V. (2001).

In 2005, Minera Real Victoria (MRV) acquired leases on concessions in the Santo Niño-Puro Corazón area and began an exploration and development program. In May 2005, MRV began driving a 2.5 m × 2.5 m decline into the old Santo Niño-Puro Corazón workings to develop the expected resources. MRV drove 170 m of workings to connect to Level 2 of the Puro Corazón workings and conduct a preliminary exploration of the near-surface portion of the La Chiva mineralized zone. That work was halted in November 2005 when MRV entered into negotiations with Silver Dragon Resources Inc. (Silver Dragon) to acquire the property.

In December 13, 2005, Silver Dragon announced that it had entered into agreements to purchase 100% interest in the Cerro Las Minitas property. In March 2006, Silver Dragon consolidated landholdings in the district, and the claims were held by Silver Dragon Mining de Mexico, S.A. de C.V., a wholly owned Mexican subsidiary of Silver Dragon Resources Inc. by virtue of the fifteen mining concession "Agreements to Purchase."

Work by Silver Dragon in 2006-07 consisted of sampling and mapping of the old workings in the Santo Niño – Puro Corazón area, as well as limited diamond drilling to test the continuity at depth of the mineralized contact zone that historically has hosted the bulk of the known deposits around the Cerro Las Minitas Dome. Eleven holes were drilled for an approximate total depth of 2,915 meters. Reconnaissance mapping revealed evidence of both contact metasomatic and manto mineralization in a number of areas surrounding the central intrusive complex. The work concluded that the newly discovered manto mineralization may offer substantial potential for high-grade Ag production in the district and that further work was required to delineate that style of mineralization on the property. Furthermore, the work concluded that additional skarnoid and chimney deposits remain to be discovered in the contact skarn zone at surrounding the Cerro Las Minitas Dome.

In June 2009, Silver Dragon signed a toll-milling agreement with Besmer S.A. de C.V. of Mexico to process up to 12,000 tonnes of ore over 12 months from Cerro las Minitas. During the first two months of toll-milling, 790 tons of ore were processed, yielding 28.382 tons of silver/lead concentrates and 15.618 tons of zinc concentrates.

In October 2010 Silver Dragon was made aware of land title issues regarding the Cerro las Minitas project and related concessions. In December 2010, Silver Dragon Mining de Mexico S.A. de C.V. counsel filed motions with a tribunal in Durango State court to unseal the judicial file of the foreclosure proceedings initiated by Mr. Jaime Muguero Pena. SDMM instructed its counsel to assert a Constitutional Rights Claim before the Federal Court in the City of Durango, premised on procedural irregularities in the foreclosure proceedings, for the purposes of re-opening the case. As a result of the foreclosure proceedings, Mr. Muguero obtained rights to the concessions.

On December 1, 2010, Southern Silver Exploration Corp. announced that it had entered into an option agreement to acquire the mining concessions with Mr. Muguero.

6.1 SGS METALLURGICAL REPORT

Although artisanal miners have been producing ore from Cerro Las Minitas since the early 1960s, no reliable records of either production or mineral processing data have been found. Enriquez (2005) reported that historical recoveries from sulfide ores treated by flotation are on the order of 85% for silver, 75% for gold, 65% for lead, and 75% for zinc. Enriquez did not present any supporting data for the recoveries.

In 1995, Minas de Bacis completed a 30-day review of available data. It reported metal recovery data for sulfides from the La Bocona Mine, and sulfides and oxides from the Puro Corazón Mine. It is uncertain how they obtained this data, but local operators say it was obtained from the artisanal mills that were treating the ore in the Velardeña district. These data are not considered reliable and are reported as historical data (Table 6.1).

TABLE 6-1: HISTORICAL METAL RECOVERY DATA FOR SELECTED MINES AT CERRO LAS MINITAS

	<i>La Bocona Mine Sulfide Ores</i>	<i>Puro Corazón Mine Sulfide ores</i>	<i>Puro Corazón Mine Oxide Ores</i>
	<i>% Recovery</i>		
<i>Au</i>	<i>51</i>	<i>-</i>	<i>-</i>
<i>Ag</i>	<i>80</i>	<i>75</i>	<i>70</i>
<i>Pb</i>	<i>65</i>	<i>75</i>	<i>91</i>
<i>Cu</i>	<i>82</i>	<i>77</i>	<i>44</i>
<i>Zn</i>	<i>88</i>	<i>92</i>	<i>68</i>

Source: Minas de Bacis, 1995

Silver Dragon commissioned a metallurgical testing program to support the decision to purchase a crushing and flotation plant. The report indicates over 70% recovery for sulfide silver using a conventional two-stage crushing and flotation facility. The report indicated that cyanide extraction will yield similar recoveries for oxide ore.

Silver Dragon Mining de Mexico, S.A. de C.V. commissioned the metallurgical laboratory, SGS de Mexico, S.A. de C.V., to perform metallurgical testing on samples from the Cerro Las Minitas property. Six drill samples were received from Silver Dragon de Mexico, S.A. of C.V. to the laboratory facility in Durango, Mexico. The samples were dried at 50°C and crushed to ~80% passing -¼-in. in a two-stage process using a jaw crusher and a cone crusher. Two composites were formed, one sulfide and one oxide. Samples were reduced to -10 mesh.

Silver head assays for both composites were greater than 300 g/t, with very little gold, which is representative of Cerro Las Minitas mineralization.

Results for the sulfide flotation were much more favourable than the oxide flotation. Recoveries for the sulfide flotation were 75% for silver, 84% for lead, and 76% for zinc. Recoveries for the oxide cyanide flotation were moderately favourable, with silver recovery of 73% with reagent consumption of 8.25 kg/t sodium cyanide and 1.05 kg/t for lime.

6.2 HISTORICAL RESOURCES

There are no historical resource estimates for the property.

7 GEOLOGICAL SETTING AND MINERALIZATION

Cerro Las Minitas Property straddles the geomorphic provinces of the Sierra Madre Occidental and the Mesa Central (Altiplano) of Mexico in the State of Durango. In Durango, the Mesa Central is an elevated plateau at about 2,000 meters elevation traversed by NW-trending mountain ranges and separated by broad NW-trending valleys. Within this province, Cerro Las Minitas occurs within a belt of prolific Au, Ag, Pb, Zn and Cu deposits that stretches from the highly productive vein deposits of Fresnillo in Zacatecas to the south, to the massive manto deposits of Santa Eulalia in Chihuahua to the north. This belt includes the productive replacement deposits of San Martin, Valerdena, Santa Eulalia and Naica as well as the rich vein deposits of Fresnillo, El Bote, San Jose, Cerro Los Gatos and various others.

Terrane terminology in Mexico has evolved over the last several decades. Recent interpretations as adopted by the Servicio Geologico Mexicano (in the Geological-Mining Monograph of the State of Durango, 2013) have the Cerro Las Minitas property located within the Guerrero Terrane near the regional fault which marks its eastern boundary with the Sierra Madre Occidental Terrane. Basement rocks are not exposed in the area, but are now known to be composed of an assemblage of tectono-stratigraphic terranes derived from the Paleozoic Appalachian orogeny and the Mesozoic of the Atlantic and Gulf of Mexico combined with basement rocks of the North American Cordillera (Campa & Coney, 1983, 1987; Figure 7.1) The assemblage includes deformed Pre-Cambrian intrusive and sediments, deformed Lower to Middle Paleozoic sediments and Lower Mesozoic sediments which are all covered with a thick succession of Mesozoic-Cenozoic sedimentary and volcanic strata.

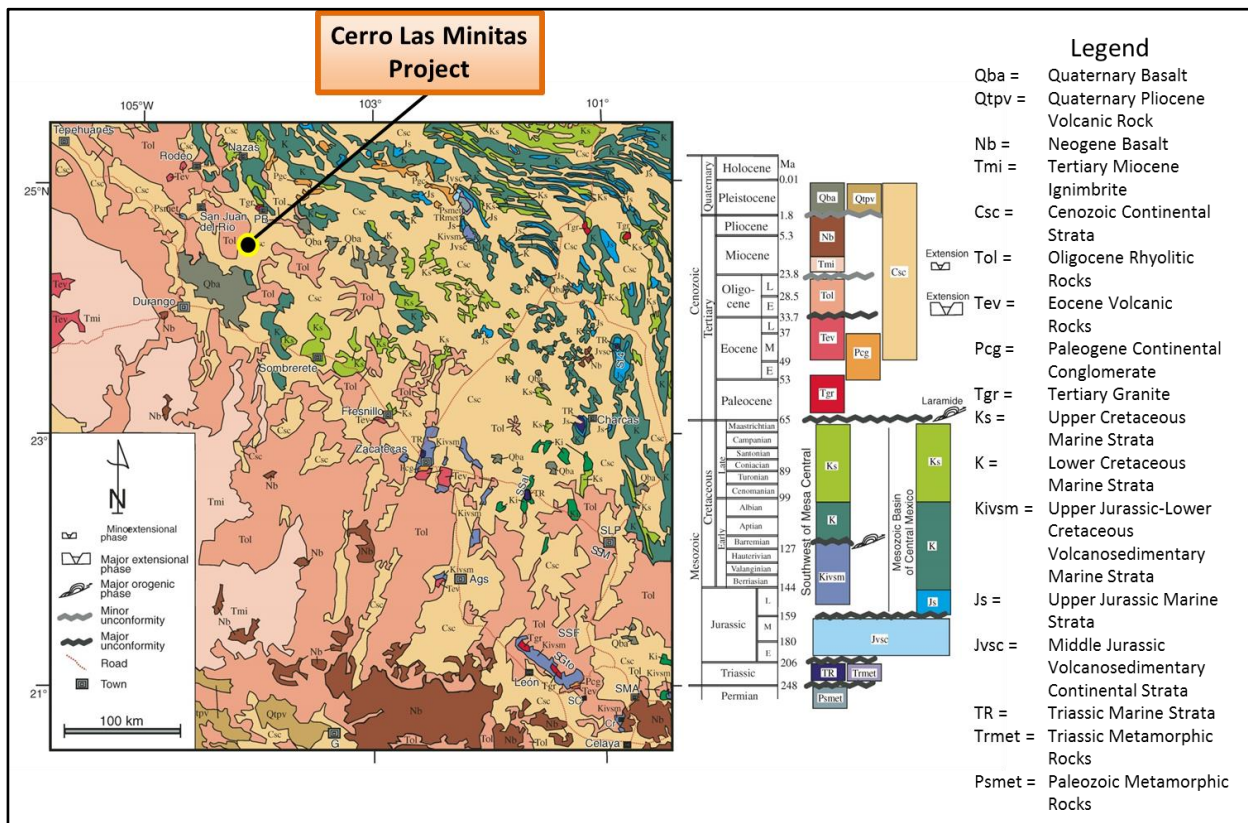
The Tertiary rocks are considered a shared cover (overlapping the Guerrero Terrane) and includes continental sedimentary sequences, rocks associated with the Sierra Madre Occidental magmatism and later Quaternary Magmatism (SGM Monograph of Durango, 2013).

The Guerrero Terrane is the largest exposed in the state of Durango and is considered a tectono-stratigraphic element that was part of a series of Mesozoic inter-oceanic island arcs. The Terrane is characterized by a thick Cenozoic sequence of continental volcanics and related sediments, overlying an Upper Mesozoic platformal carbonate sequence deposited on Lower Mesozoic, (arc-related) sedimentary and volcanic strata and is host to some of Mexico's more significant Au, Ag, Pb, Zn and Cu replacement deposits/districts, including San Martin, Valerdena and La Parilla. Geological evidence suggests that the arc was accreted to the continent during the Laramide Orogeny.

FIGURE 7-1: TECTONO-STRATIGRAPHIC TERRANES OF MEXICO (CAMPA AND CONEY, 1983, 1987)

The Cerro Las Minitas project is located within the Guadalupe Victoria Mining Region, which includes the districts of Avino (Avino Gold and Silver Mines Ltd.), San Sebastian (Hecla Mining Ltd.) and Cerro Las Minitas that constitute a trend of deposits and workings along a 50-kilometer northwest trend. The Cerro Las Minitas property lies within the Minitas Mining District.

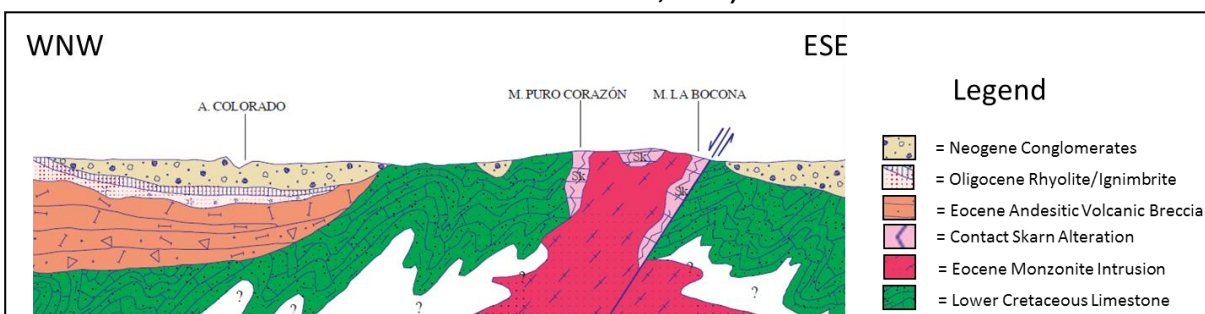
The Cerro Las Minitas property sits within a broad W-NW–trending valley and is covered with a thick succession of Tertiary continental deposits and gravel. The valley is flanked on the north and south by Eocene andesite flows and Oligocene to Miocene felsic volcanic rocks and to the southwest by Miocene – Pliocene basalt flows. Except for the later basalt flows, the volcanic rocks consist principally of dacites, rhyolites and various volcanic breccias and ash flows with minor andesite units (Figure 7.2).

FIGURE 7-2: REGIONAL GEOLOGIC MAP (FROM NIETO-SAMANIEGO ET AL., 2007)

Within the valley, marine sediments of the Lower to Mid Cretaceous Mezcalera and Baluarte Formations crop out locally. Calcareous and clastic rocks of the Baluarte Formation have been structurally uplifted around a central intrusive neck at Cerro Las Minitas that rises about 150 meters above the surrounding plain. The intrusive consists of an unknown number of phases that range in composition from diorite to quartz-monzonite, associated with numerous dikes that range in composition from andesite to rhyolite (Figure 7.3)

An aureole of contact metasomatic and replacement deposits of Au, Ag, Pb, Zn, and Cu was produced during the emplacement of the intrusives and is the subject of past mining activities and exploration currently underway at the Cerro Las Minitas Project.

FIGURE 7-3 GEOLOGICAL CROSS-SECTION ACROSS THE NORTHERN PART OF THE PROPERTY (MODIFIED FROM BAÑALES ET AL, 2003)



7.1 MINITAS MINING DISTRICT GEOLOGY

Portions of the geology of the northern portion of the Cerro Las Minitas concessions were mapped by the Consejo de Recursos Minerales (CRM) in 1988 and Noranda in 1999 and modified by Erme Enriquez in 2005 and Southern Silver's consultants from 2011-18 (Figure 7.4). The geological setting and stratigraphy were originally defined by the Consejo de Recursos Minerales (1993) and later modified when the distinctions within the Cretaceous sedimentary stratigraphy became better defined (Consejo de Recursos Minerales (1998).

No outcrops are known in the much larger southern portion of the property and the claims in this area covers fields under cultivation that are part of the Guadalupe Victoria Ejido. Prospecting following biogeochemical sampling conducted by Freeport MacMoran, identified significant volcanic float in both the western and eastern portions of the claims likely related to Cenozoic cover rocks. Drilling in 2018 identified Eocene Andesitic volcanic rocks and Oligocene rhyolites and ignimbrites underlying between 10-250 metres of quaternary alluvium in the western part of the claims and Neogene conglomerates underneath 100 metres of quaternary alluvium in the eastern part of the claims.

The northern portion of the property is dominated by a NW-SE elongated domal uplift of Cretaceous marine sediments cored by an intrusive porphyry complex. Contact metasomatic (skarnoid) deposits of Au, Ag, Zn, Pb, Cu and W are known to occur at various locations in the contact zone around the central intrusive complex, as well as at the margins of some dikes that emanate from the main intrusive complex. More distal from the main intrusive contact, manto-style Ag, Pb, Zn deposits have been discovered replacing recrystallized carbonate strata.

The domal uplift of Cretaceous sediments is the principal topographic feature on the property and has been the focus of all previous exploration and production there. Past production has occurred principally from contact deposits in the Puro Corazón – Santo Niño and Mina Piña – La Bocona areas. The stratigraphic units in the region of Cerro Las Minitas are described below (Figure 7.5)

FIGURE 7-4: GEOLOGIC MAP OF THE NORTH PORTION OF CERRO LAS MINITAS PROPERTY, DURANGO, MEXICO (SOUTHERN SILVER 2019)

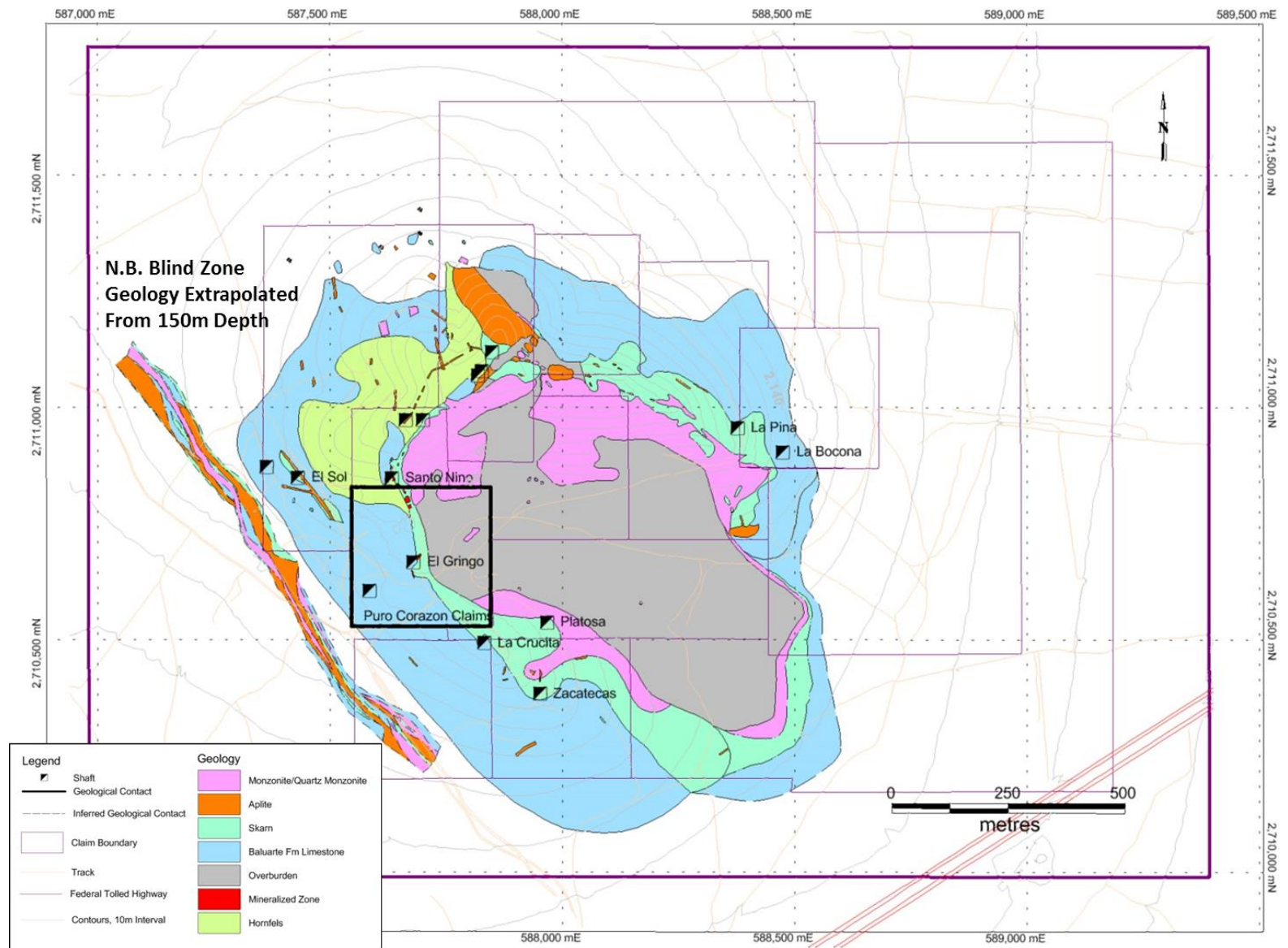
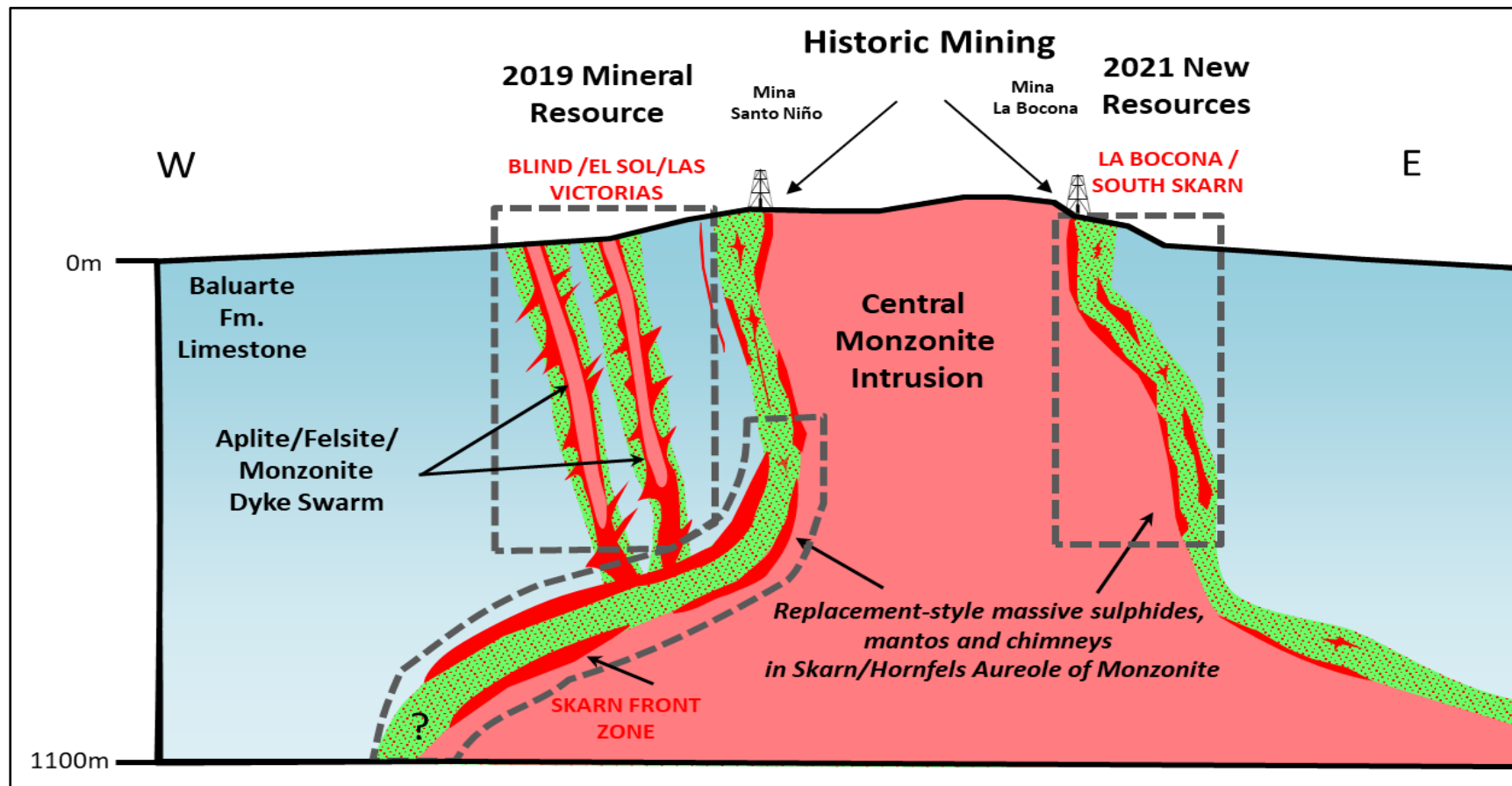


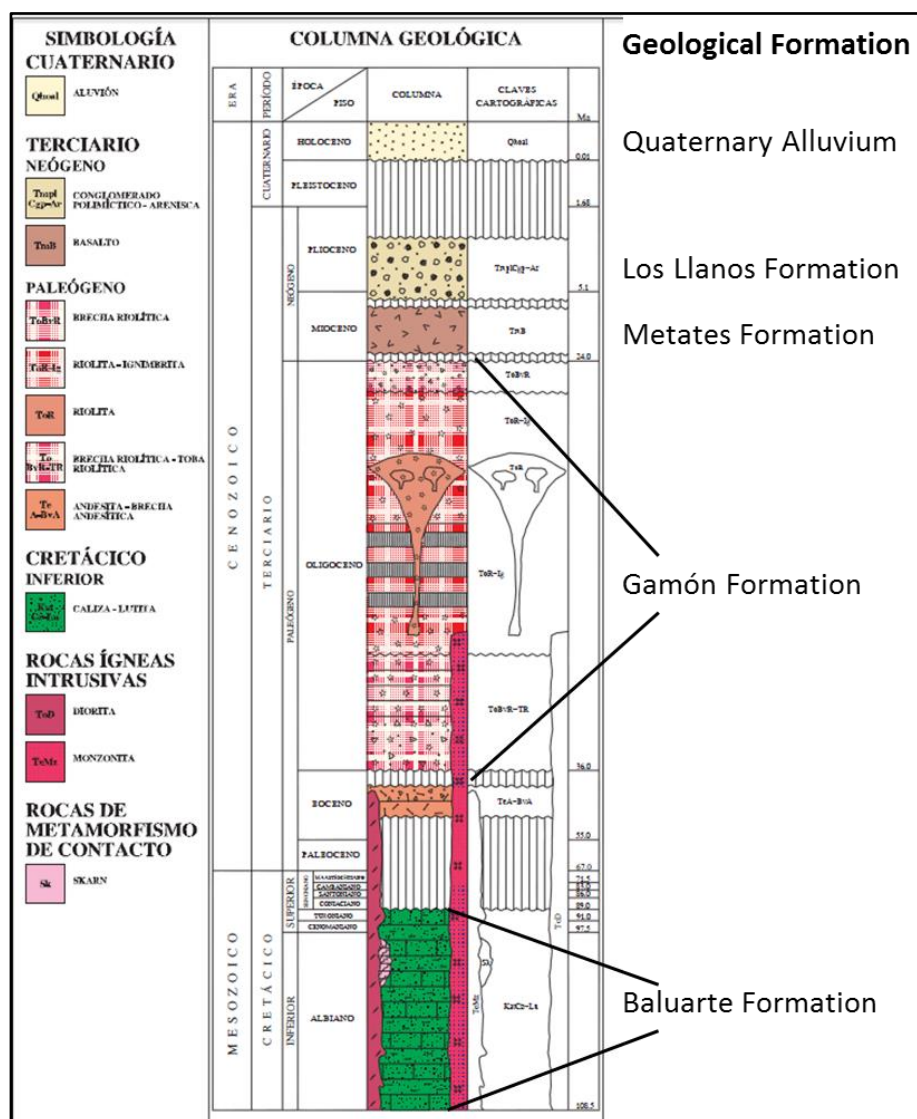
FIGURE 7-5: SCHEMATIC GEOLOGIC CROSS-SECTION OF THE NORTH PORTION OF CERRO LAS MINITAS PROPERTY, DURANGO, MEXICO (SOUTHERN SILVER 2021)



7.2 PROPERTY GEOLOGY

Stratigraphy in the Cerro Las Minitas property has not been defined in detail. Detailed mapping, as well as detailed study of drill cores available, will be necessary to define the stratigraphic units and their relationships. Inspection of underground workings indicates that there is a strong stratigraphic control of mineralization on the property, especially in regard to the manto-style mineralization.

FIGURE 7-5: STRATIGRAPHY IN THE REGION OF CERRO LAS MINITAS (AFTER BAÑALES ET AL, 2003)



Regional stratigraphy has been defined by the 2003 1:50,000 geological map covering the northern claims (G13D63) and provides a starting point for definition of the stratigraphy in the Minitas District.

7.2.1 Baluarte Formations

Strata currently assigned to the Baluarte formation are the oldest rocks exposed in the Minitas Mining District (CRM, 1998). Limestone of the formation is black to light grey in colour, very fine-grained and predominantly massive. The limestone units appear to transition outboard from the central intrusion into a mixed carbonate-siliciclastic sequence that contains increasing amounts of thin to medium bedded shales and sandstones which seems to represent lateral facies change from a carbonate platformal to clastic, deeper water environment. Siltstone and shale interbeds are generally 1-20cm and convoluted in places. Diagenetic pyrite is common.

Where affected by contact metamorphism, the limestone beds are typically recrystallized and bleached and are the preferred hosts for both contact metasomatic and manto-style mineralization. More siliceous units are hornfelsed. Limestones containing a quartz sand component have been metamorphosed to garnet (predominantly grossularite) - pyroxene – wollastonite - epidote aggregates. Some of the more siliceous units are hornfelsed and their mineralogic composition is yet to be determined. At the intrusive contact, small amounts of hedenbergite and diopside have been identified, but only rarely. Metamorphism of the calcareous sediments typically only reaches the grade properly described as skarnoid, which is typical of zinc skarns.

Siltstone and shale inter-beds in the limestone are generally darker and contains an increased amount of tiny bioclasts. It is commonly graphitic and individual beds range from 1mm to ~10cm.

7.2.2 Intrusive Rocks

Monzonite with minor phases of quartz monzonite and diorite occur as an intrusive stock (Central Intrusion) in the core of the domal uplift and as dykes or sills associated with felsic intrusives within the limestone outboard of Central Intrusion. Contact skarn/hornfels alteration, from several 10s to +100 metres in thickness, wraps around the intrusive neck and hosts most of the historically mined mineralization in the area and forms the weather resistant “cerro” in the topography. Similarly, skarn/hornfels margins also form along dyke contacts.

The monzonite and associated phases are light grey in colour and exhibit mainly porphyritic texture which varies to holocrystalline locally. Phenocrysts range in size from ~0.5mm to almost 1cm in size and consist of quartz, (generally larger) plagioclase laths, alkali feldspar, hornblende and biotite (both primary and secondary). Areas of the monzonite that are richer in quartz phenocrysts have a quartz monzonite composition.

The central monzonite contains broad areas of potassic alteration (chlorite-magnetite-biotite) with areas of argillic alteration (clay alteration of feldspars) occasional phyllic alteration (quartz-sericite-pyrite) and a common propylitic overprint (carbonate-chlorite-epidote veins.) Logging and mapping has not been completed in sufficient detail to distinguish alteration zoning patterns at this time.

Disseminated and vein pyrite with minor chalcopyrite and molybdenite occur throughout the intrusive. Pyrite content can range up to 10% locally but chalcopyrite and molybdenite content is generally low throughout the intrusive.

Several phases of veining are present throughout the porphyry, including chlorite-epidote-pyrite+/-chalcopyrite+/-calcite veins, quartz+/-pyrite+/-chalcopyrite+/-molybdenite veins, pyrite veinlets. Veining is low to medium density with rare areas of developed stockwork veining.

7.2.3 Felsite and Monzonite Intrusions Outboard of the Central Monzonite

Various intrusions occur outboard of the Central Intrusive stock. Where traceable, they are sub-vertical, northwest-trending and range from 1 centimetre to +100 metres in thickness. A series of monzonite/felsite dykes form along the full 1000 metre projection of the Blind zone with much of the modelled mineralization associated with the Blind zone hosted in the skarn/hornfels margins of the dykes and to a lesser extent in fractures and possible endoskarn within the intrusions.

The Aplite/Felsite intrusions are light grey to white in colour and mostly aphanitic. Some areas contain feldspar phenocrysts altered to calcite. Veining is confined to sporadic late calcite veins as well as kspars veins.

Alteration in the aplite/felsite consists of silicification, local kaolinization (clay alteration of feldspars,) weak chlorite alteration as well as iron oxidation of sulphides to hematite and MnOx+/-AsOx, which stains the rock orange and red along fractures. Much of the aplite is heavily fractured.

Mineralization in the aplite/felsite consists of disseminate pyrite, oxidized in most areas+/-disseminate galena/sphalerite up to ~2% sometimes slightly more in areas as well as massive sulphides, commonly near the margins, up to 30% combined galena/sphalerite.

The monzonite intrusions particularly in the Blind Zone are light green in colour and similar in composition and texture to the central monzonite intrusion with a mixture of quartz monzonite and monzonite. Alteration consists of kspars in fractures as well as retrograde chlorite-calcite and hematite in fractures with disseminate magnetite in some areas. Mineralization in the monzonite consists of disseminate pyrite+/-pyrrhotite with galena/sphalerite varying from trace to up to ~5% combined. Locally, sulphide-rich structures form at the edges of the monzonite in contact with the aplite with up to ~20% combined galena/sphalerite. Veining comprises late calcite veinlets as well as occasional quartz+/-pyrite veinlets.

7.2.4 Post-mineral Andesite Dykes

Throughout the drill core, several dark green aphanitic andesite dykes intrude the limestone, some with feldspar phenocrysts. They are weakly altered to chlorite as well as hematite in some areas and heavily oxidized nearer the surface. Mineralization consists of weak disseminate pyrite.

7.2.5 Alluvium

The alluvium is composed principally of red soil overlying caliche deposits that conceal underlying rocks in the areas of lower relief on the property. The alluvium contains gravel to boulder sized clasts of weathered rock. In some areas, the clasts seem to be derived from underlying rocks and in other areas they appear to be alluvium derived from upslope. Mapping on the property is of insufficient detail to distinguish those areas.

7.3 STRUCTURE

Detailed mapping of the Cerro Las Minitas property has been initiated but is not complete. Existing mapping was done by CRM in 1980 and modified by Noranda geologists in 1999 and consultants to Silver Dragon Mining de Mexico, S.A. de C.V. in 2006. However, the current detail of mapping is insufficient to define structural relationships or other possible ore controls on the property. Detailed mapping of the Cerro Las Minitas dome will be necessary for effective exploration of the property.

Accordingly, to CRM (1993), the Minitas district, like the neighboring districts Avino, La Preciosa and San Sebastian, lie in a graben formed by the NW-trending Rodeo fault to the west and the NW-trending San Lorenzo fault to the east. Faults were formed by post-Laramide extensional stress that affected the western margin, and in some cases, the central part of Mexico.

Locally, Upper Cretaceous strata were folded about northwest trending axes when they were emplaced as a regional allochthon during Laramide compression. Injection of the Tertiary (?) intrusive complex that forms the core of Cerro Las Minitas further deformed the rocks locally into an elliptical, NW-SE trending dome. As the invading intrusives shouldered aside the sediments, substantial radial and low-angle faulting as well as intense folding of the sediments occurred. Map data from underground workings shows that the faulting at Cerro Las Minitas occurred before, during and after the mineralizing events. Although faults of almost every orientation occur on the property, the dominant trends are northwest and northeast, reflecting the prominent regional structures. The northeast trending faults appear to be most closely associated with mineralization.

7.4 ALTERATION

Three distinct alteration assemblages have been recognized at Cerro Las Minitas.

Skarnoid. The skarnoid alteration assemblage is a contact metasomatic phenomenon that is genetically intermediate between a purely metamorphic hornfels and a purely metasomatic, coarse-grained skarn and includes variants of both end-members.

At Cerro Las Minitas, high-grade skarn minerals are more rarely seen and usually in only very small quantities. The most prominent assemblage seen in field and underground exposures is a conversion of carbonate rocks to a garnet-pyroxene-wollastonite-epidote assemblage, with minor accessory

minerals. In many places it is evident that the garnetized rocks contained a primary quartz-sand component, but in others it appears that silica was introduced during metasomatism.

Accompanying the garnetization of the rocks is a widespread recrystallization of carbonaceous carbonate rocks (marmorization), generally accompanied by moderate to intense bleaching. In many drill intersections, the original carbon content of the rocks is seen to have migrated, at least in part, into abundant stylolites. The intensity of garnetization and marmorization of the carbonate rocks decreases with distance from the contact with the central intrusive complex as well as away from the contacts of some larger dikes.

Marmorization. It is clear that much recrystallization of carbonate rocks occurred during the intrusion of the central intrusive complex at Cerro Las Minitas. However, there are numerous field exposures of recrystallized carbonate rocks at considerable distance from intrusive contacts and it is not clear that the recrystallization seen there is associated with the primary metasomatic event. Marmorization has therefore been recognized as a distinct form of alteration at Cerro Las Minitas. Two types of marmorization have been recognized.

Non-selective marmorization. This is seen as a widespread recrystallization of carbonate rocks which shows little or no preference for individual strata. It is a bulk recrystallization most closely associated with the primary metasomatic event.

Selective marmorization. This is a visually distinct form of marmorization that is commonly seen to be very bed-selective. Even though it may be confined to thin beds within carbonate rocks that have been only very weakly recrystallized, it is a very strong form of recrystallization that may produce very large grain sizes. When this form of marmorization is well-advanced, a central core of dark brown recrystallized calcite is often seen in the middle of the affected bed. This form of marmorization has now been recognized to be present lateral to Ag-Pb-Zn manto mineralization discovered on the property.

Marmorization is an important exploration guide at Cerro Las Minitas as the preponderance of mineralization that has been seen there is a replacement of recrystallized carbonate rocks.

Late-Stage Alteration. This is a form of alteration that is as yet poorly defined at Cerro Las Minitas. It has been seen only in few drill intersections and in poor field exposures. It has been distinguished from other forms of alteration there because it features strong silicification, sericitization of feldspars and pyritization. Little study of late-stage alteration has been made yet, but it appears to represent a later stage of alteration that occurred in a very near-surface environment. It is currently unknown if this form of alteration is associated with mineralization of interest.

8 DEPOSIT TYPES

To date, mineralization seen at Cerro Las Minitas has been classified into four types based on surface and underground field observations and the examination of drill core. Although production records from the area are incomplete, sufficient sampling of core dumps, underground exposures and drill core has been completed to estimate typical grades in each of the four deposit types: skarnoid, chimney, manto, and dike margin.

Skarnoid:

Skarns can form during regional or contact metamorphism and from a variety of metasomatic processes involving fluids of magmatic, metamorphic, meteoric, and/or marine origin. They are found adjacent to plutons, along faults and major shear zones, in shallow geothermal systems, on the bottom of the seafloor, and at lower crustal depths in deeply buried metamorphic terrains.

What links these diverse environments, and what defines a rock as skarn, is the mineralogy. This mineralogy includes a wide variety of calc-silicate and associated minerals but usually is dominated by garnet and pyroxene. Skarns can be subdivided according to several criteria. Exoskarn and endoskarn are common terms used to indicate a sedimentary or igneous protolith, respectively.

Skarnoid is a descriptive term for calc-silicate rocks which are relatively fine-grained, iron-poor, and which reflect, at least in part, the compositional control of the protolith (Korzkinskii, 1948; Zharikov, 1970). Genetically, skarnoid is intermediate between a purely metamorphic hornfels and a purely metasomatic, coarse-grained skarn.

At Cerro Las Minitas, contact metasomatic gold, silver, zinc, lead and copper mineralization formed within the altered sediments adjacent to contacts with the central intrusive complex or larger dikes. These deposits are characterized by substantial pyrite content, higher copper content, zinc levels that are greater than lead levels, and sphalerite with high iron content. The deposits have been exploited mainly for silver, zinc, lead, and copper by artisanal miners at Cerro Las Minitas, especially in the Santo Niño-Puro Corazón area. The deposits occur as massive replacements of remnant carbonate bodies and disseminated calcite present in the garnet-wollastonite-pyroxene-epidote skarnoid assemblage. The mined bodies were variable in form and distribution. Typical grades in the skarnoid mineralization were 80–300 g/t silver, 2–8% zinc, 2–4% lead, and 0.5–2% copper. Characteristics of this style of mineralization suggest that it is properly classified as zinc skarn (Megaw, 1998).

Drilling in 2016/17 by Southern Silver discovered that skarnoid mineralization is more continuous at depth, beneath the projections of the Blind and El Sol mineralized zones. Mineralization is localized at the outer boundary of the garnet-pyroxene-wollastonite-epidote skarnoid assemblage at or near the transition to the recrystallized/marmorized carbonate sediments (marmorized zone) in an area referred to as the Skarn Front. Mineralization at the outer edge of the Skarn Front tends to be more lead and silver-enriched while mineralization deeper in the skarnoid zone (and adjacent to the central intrusion) more

zinc enriched. Approximately 75% of the 2019 resource estimate is contained within this newly-defined Skarn Front deposit.

Drilling in 2020-21 confirmed laterally extensive skarnoid-style mineralization within the altered halo around the central intrusion in both the South Skarn and La Bocona deposits. In both deposits mineralization occurs adjacent to the central intrusion and features similar replacement styles as is observed in the Skarn Front deposit. The skarnoid-style mineralization in the La Bocona and South Skarn deposits show a similar variability in metal assemblages as is identified in the Skarn Front deposit, but tends to be more galena biased and is generally associated with elevated silver values when compared to the Skarn Front mineralization.

Chimney: Pipe-like bodies of massive to semi-massive zinc, copper, and lead sulfides, often with high silver values, that have been found in and near the intersection of high-angle mineralized structures and the more moderately dipping skarnoid zone. These produced the richer ores in the Santo Niño-Puro Corazón area. Mineralogically, these deposits show characteristics of both the skarnoid and manto styles of mineralization and are believed to have been formed by multiple mineralizing events. The ores consisted mainly of massive to semi-massive aggregates of pyrite, sphalerite, galena, chalcopyrite and bornite replacing recrystallized calcite or filling open spaces. Typical grades in the chimneys were 200–400 g/t silver, 2–10% zinc, 2–6% lead, and 0.5–1.5% copper.

Portions of the newly identified hangingwall lens of the South Skarn deposit has similarity with the chimney-style deposits. Mineralization occurs at or just outboard of the lower Skarnoid alteration zone and is characterized by both replacement textures and mineralized hydrothermal breccias.

Manto: Manto-style silver, lead, zinc, and copper deposits as replacements of carbonate strata peripheral to or outside of the skarnoid aureole. The deposits are typically restricted to selected carbonate strata (favourable beds) that have been replaced by massive to semi-massive lead and zinc sulfides with accessory pyrite, and small amounts of copper sulfides. Drilling in 2020-21 identified manto-styled mineralization within an area of the La Bocona deposit known as the Muralla Chimney. Mineralization occurs as replacements in the hanging wall of the skarnoid mineralized zone within variably altered marble-skarn-hornfels. The thickest zone of sulphide mineralization occurs in the footwall of a thick monzonite dyke. The mineralization is strongly silver-enriched with elevated lead, arsenic and gold values. The upper portion of the mineralized zone is strongly oxidized and makes up in part the small oxide resource identified in the current mineral resource update.

Dike Margin: Replacement mineralization located alongside dikes of various compositions outside the skarnoid aureole of the central intrusive complex. Massive to disseminated sulfides of lead, zinc, and copper are seen replacing carbonate and carbonate-bearing rocks, with or without associated skarnoid alteration. This is a dominant style of mineralization occurring with the Blind, El Sol and Las Victorias deposits.

Of these four deposit types, the skarnoid and chimney deposits have been reported to have produced the bulk of ore exploited in the district and such observation appears to be born out in the most recent drilling and resource modelling by Southern Silver.

9 EXPLORATION

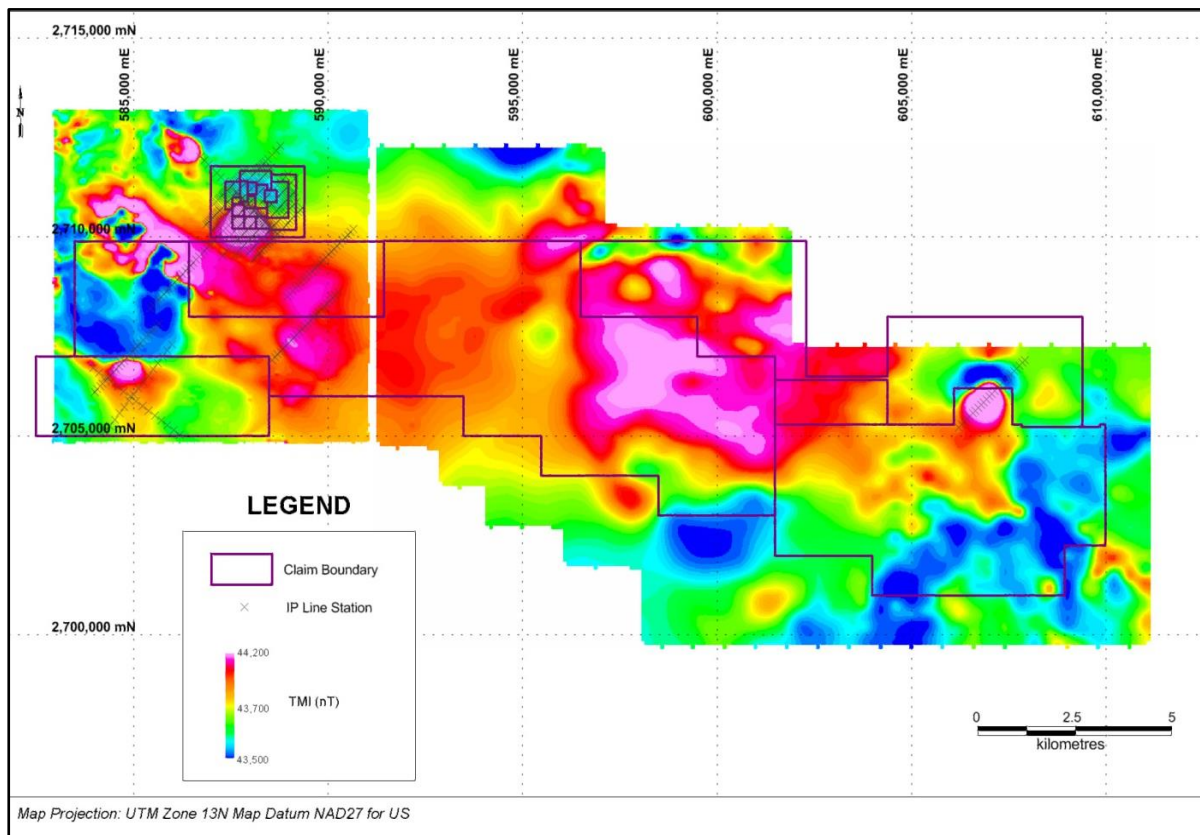
9.1 EXPLORATION ON THE CERRO LAS MINITAS PROPERTY

Since acquisition of the property in 2010, Southern Silver, both self-funded and funded by option partners, has completed diamond drilling; geological mapping; geochemical rock, soil and acacia sampling; shallow and deep-seated IP surveys; a ground gravity survey; and an airborne magnetic survey.

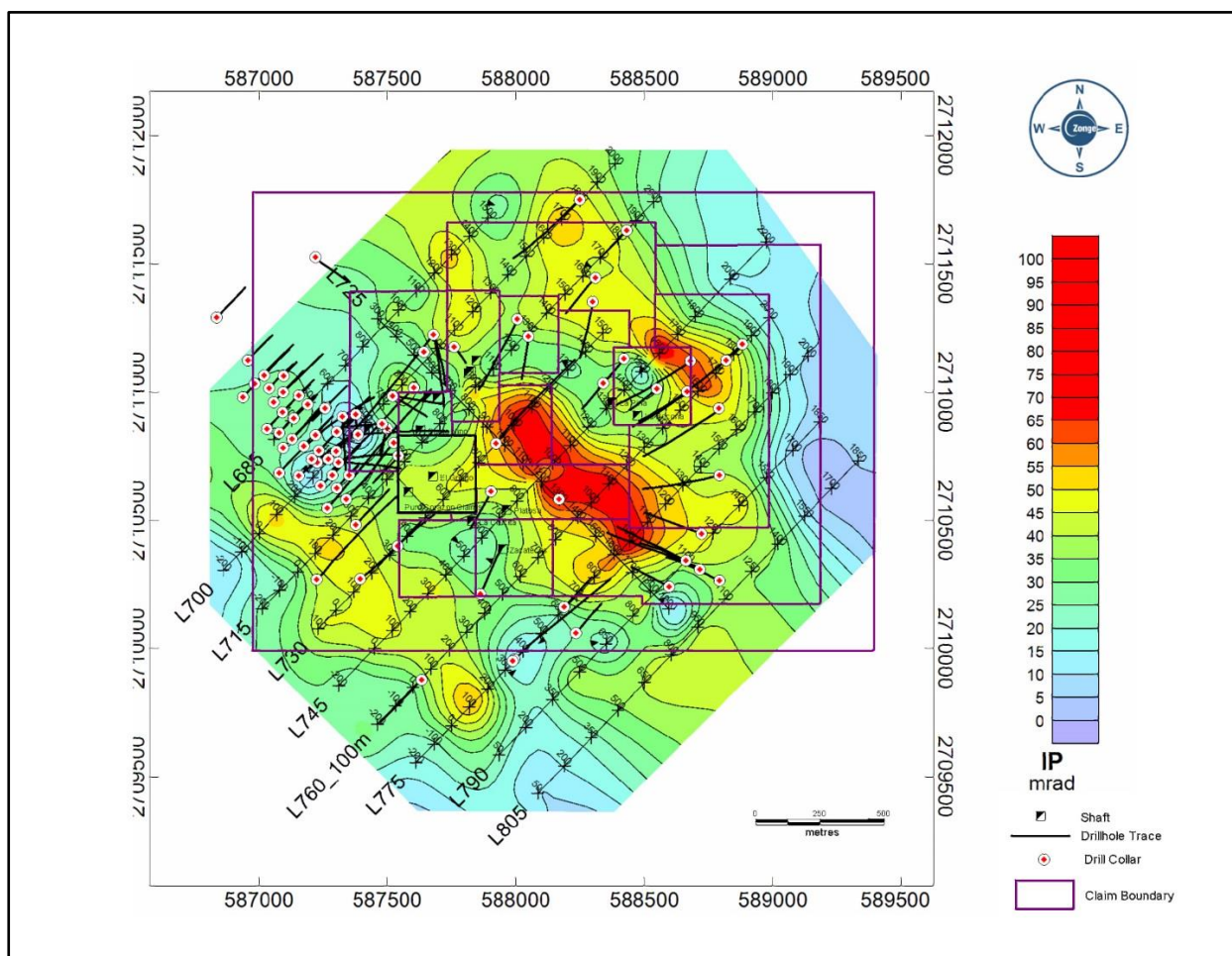
Between 2011 and 2012, Southern Silver explored the property without an option partner. Initially, a program of geophysics and geological mapping was conducted to define and delineate targets for exploration drilling.

The property was surveyed between February 19 and February 22, 2011 with a three-axis helicopter-borne magnetic gradiometer (Geotech Ltd., 2011). A total of 1,191 line-km of data was acquired during this survey, which was split into the west block and the east block. The west block (over the Cerro) was flown with north-south lines 100 m apart and east-west tie lines 1,025 m apart. The east block (over the majority of the property) was flown with north-south lines 400 m apart and east-west tie lines 200 m apart (Figure 9-1).

Six magnetic targets were delineated on the property; the most prevalent was the Cerro in the northern block. A series of northeast-southwest IP lines with a northwest-southeast baseline was designed to further explore the magnetic target over the Cerro and delineate targets for drilling. Between February 23 and April 21, 2011, Zonge International Inc. collected dipole-dipole complex resistivity data on 13 lines for a total of 30.6 line-km and 244 receiver stations (Zonge, 2011). Of these 13 lines, 10 were in the area of the Cerro and three were over other magnetic targets on the property. The majority of the IP lines crossing the Cerro were conducted using 100 m dipoles, with 2 lines conducted using 150 m dipoles. The other exploratory lines were conducted using 200 m dipoles. The IP survey delineated several targets which were subsequently drilled (Figure 9-2).

FIGURE 9-1: GEOPHYSICS - MAGNETIC

Source: Southern Silver 2016

FIGURE 9-2: GEOPHYSICS – INDUCED POLARIZATION AT 250M DEPTH

Source: Southern Silver 2016

From 2011 to 2012, Southern Silver completed 62 core holes on the property totalling 15,845 m. Drilling focused on an early new discovery outboard of the central intrusion and zones of historic mineralization known as the *Blind Zone*: a gravel covered, previously unrecognized mineral zone which was then delineated to an approximate 600 m strike-length and to depths of up to 350 m. Other drilling targeted the Mina Piña-La Bocona area, the north skarn and south skarn targets, resulting in several notable silver-gold-lead-zinc-copper mineralized intervals. The details of the drill program are discussed in Section 10.

In October 2012, Freeport optioned the property, and, between 2013 and 2014, it conducted additional diamond drilling, deep penetrating IP surveys, 3D inversions on existing geophysics and gravity surveys. It also collected soil samples and initiated a property-wide acacia biogeochemical survey.

A soil geochemical survey was conducted over three of the pre-existing lines at 25 m intervals, where possible, to investigate whether the Blind Zone had a surface geochemical expression. A total of 125 samples were taken, resulting in a significant surface expression of silver, lead and zinc above many of the known zones of mineralization. The soil survey was followed by an IP survey, where three pre-existing IP lines were surveyed with a deep penetrating 300 m spaced dipole-dipole survey, which confirmed continuity of the IP anomalies at depth. A ground gravity survey was conducted on a 3,000 m x 2,000 m area centred on the Cerro, which outlined gravity highs corresponding to the mapped skarn around the central intrusion. Interestingly, the hornfels mapped to the northwest of the central intrusion also shows a distinct gravity high, suggesting the potential for buried sulfide mineralization. (Robles et al., 2013)

On the larger property, a reconnaissance IP survey was conducted employing three different dipoles. Anomalous responses were detected, but major roads and cultural features might have influenced the results, so caution should be taken during interpretation.

Freeport completed an orientation biogeochemical survey over the area of the Cerro and then expanded the program to cover the entire property. A total of 311 samples were taken from acacia trees with encouraging results. Several anomalies were outlined that warranted follow-up.

The central intrusion and south skarn areas were drilled by Freeport in 2013–14 to investigate the potential for a copper porphyry source to the shallower silver-lead-zinc-enriched mineralization as well as extending the known zones of mineralization to depth. Freeport completed 13 core holes and two holes were extended for a total of 7,877 m. In October 2014, Freeport terminated the option agreement with Southern Silver because it discovered only weak copper mineralization in the central intrusion after drilling to a vertical depth of 1,000 m.

In May 2015, Electrum Global Holdings L.P. signed an option agreement to earn a 60% indirect interest in the Cerro Las Minitas property. In the subsequent 2015 exploration program, additional rock, soil and acacia samples were collected and further diamond drilling was conducted.

In the area of the Cerro, an additional 595 soil samples were collected to identify additional geochemical targets for drilling. The survey was highly successful in outlining areas of known mineralization with silver,

lead, and zinc anomalies as well as defining a gold anomaly outboard of the known mineralization, the source of which is yet to be discovered. A total of 45 rock samples were collected in targeted areas, which were again successful in identifying targets for drilling.

Diamond drilling in 2015 consisted of 11 holes and the extension of three earlier holes for a total of 9,135 m of drilling. The focus was large offsets of the known mineralization in the Blind Zone and the El Sol Zone with the goal of aggressively expanding the property potential. The maiden resource estimate on the property, based on all drilling up to this point on the Blind, El Sol and Santo Nino zones (later discovered to be part of the Skarn Front Zone) was released on March 1st, 2016.

Follow-up was also conducted on the regional acacia survey conducted in 2011. An additional 321 soil samples were collected over the geochemically anomalous areas at 25 m spacing in 7 lines across the property. An additional 118 acacia samples were collected over the rest of the property, resulting in several supplementary targets that warrant follow-up.

Follow-up drilling was conducted between 2016 and 2017 on the Blind Zone, the El Sol Zone and the Bocona Zone, which resulted in the discovery of the Las Victorias Deposit and the Skarn Front Deposit, where a maiden resource estimate was released on January 8th, 2018.

Aggressive step-out drilling was conducted in 2018 to expand the resource and fill in holes in the block model, which resulted in an updated resource estimate for the Blind Zone, the El Sol Zone, the Skarn Front Zone and the Las Victorias Zone, which was released on May 9th, 2019.

In July 2020, a surface trenching program consisting of seven trenches across the strike length of the skarnoid alteration in the Bocona zone was conducted to define the surface trace of the mineralization at the Bocona Zone. Details of this trenching program are discussed in section 10.

On June 22nd, 2020, Southern Silver signed an agreement to purchase Electrum's 60% indirect working interest on the Cerro Las Minatas property. In the subsequent exploration program, an additional 53 holes totaling approximately 20,914 metres which resulted in the delineation of the South Skarn Zone and the La Bocona Zone. Details for drilling are discussed in section 10.

9.2 EXPLORATION ON THE CLM WEST AND CLM EAST CLAIMS

Southern Silver conducted surface float and rock chip sampling on the Gran Creston de Oro, Los Lenchos and Biznagas claims (collectively known as the CLM West claim group), throughout the latter part of 2017 and into 2018. Work in the claims involved initial reconnaissance float sampling followed by grid float sampling over targeted areas on a 100m x 100m pattern. Where encouraging geochemistry was discovered, smaller areas were sampled on a 25m x 25m pattern.

During 2018, an extensive regional scale surface sampling, mapping and VLF-EM geophysical exploration program, followed by an exploratory drill program, was conducted on the CLM West and CLM East Claims.

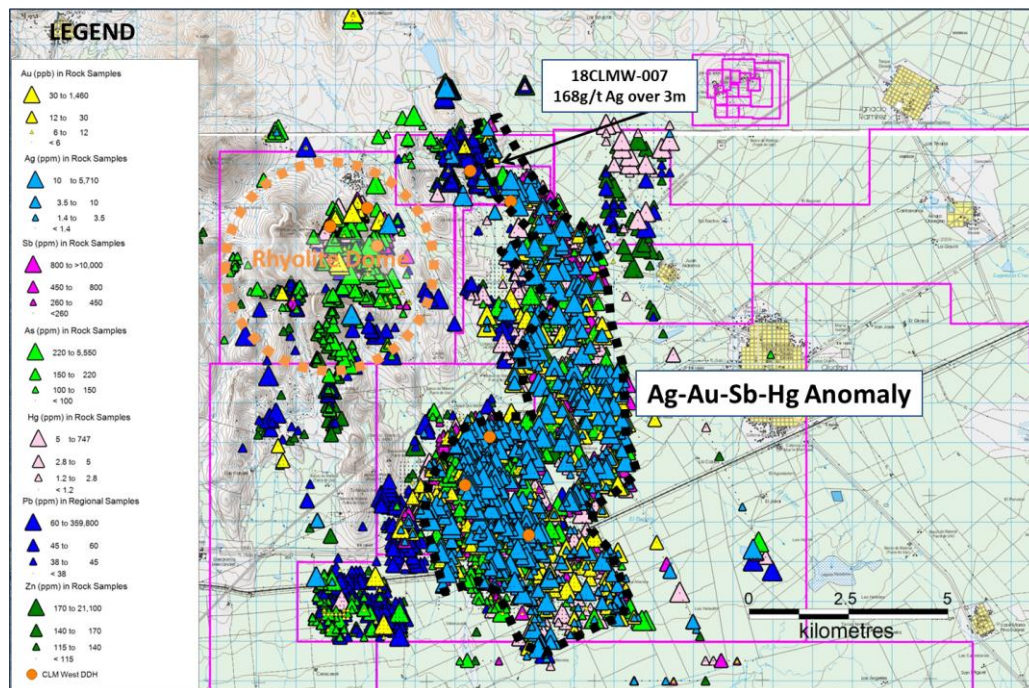
The objective of this program was to assess the potential for epithermal vein systems in the Tertiary stratigraphy similar to the nearby deposits at Avino, San Sebastian and La Preciosa.

A total of >6400 samples and 94.3-line kilometres of VLF-EM readings were taken throughout the property. VLF-EM lines were run taking readings every 25 metres with 100 metre line spacing over the most promising geochemical targets, resulting in a >12-kilometre-long northwest-southeast-trending corridor of anomalous precious-metal and pathfinder values that display a distinct zoning pattern consistent with modelled vertical and lateral zonation within large epithermal vein systems. Results were encouraging, with maximum silver values reaching 5,710g/t and gold reaching 1.48g/t as well as very high pathfinder values with As reaching 5,550ppm, Sb reaching >10,000ppm and Hg reaching 747,000ppb.

See Figure 9-3 for the distribution of these results.

Subsequent drill testing of the best anomalies in 2018 produced several interesting pathfinder anomalies as well as a shallow downhole intercept of 3 metres of 168g/t Ag in hole 18CLMW-007 which warrants follow-up in subsequent exploration programs.

FIGURE 9-3: SURFACE SAMPLING ON THE CLM WEST CLAIM GROUP

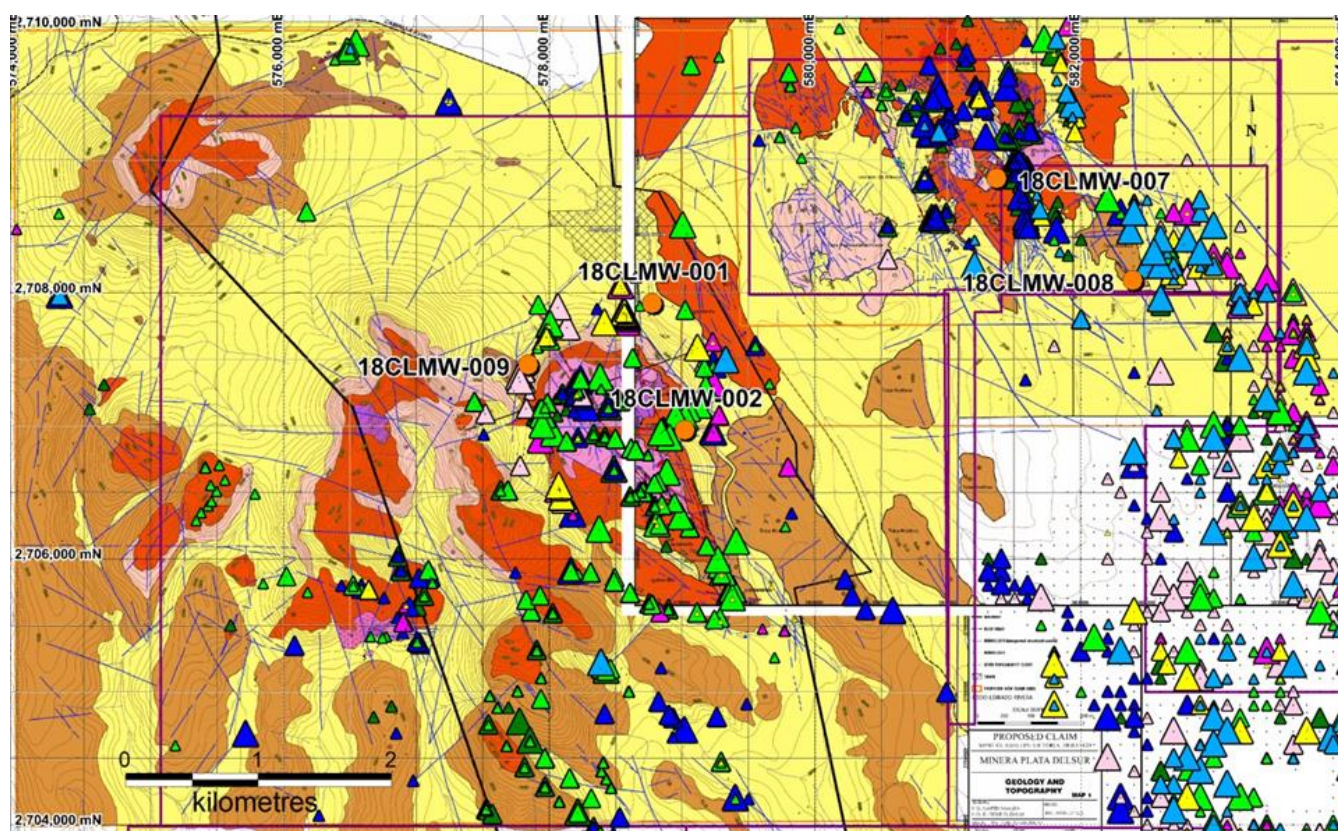


Source: Southern Silver 2019

The results of this initial exploration program identified several promising drill targets. Follow-up drilling was conducted in the form of 9 drillholes on the CLM West claims for a total of 3,171.5 metres and a single drillhole on the easternmost claim for a total of 354 metres.

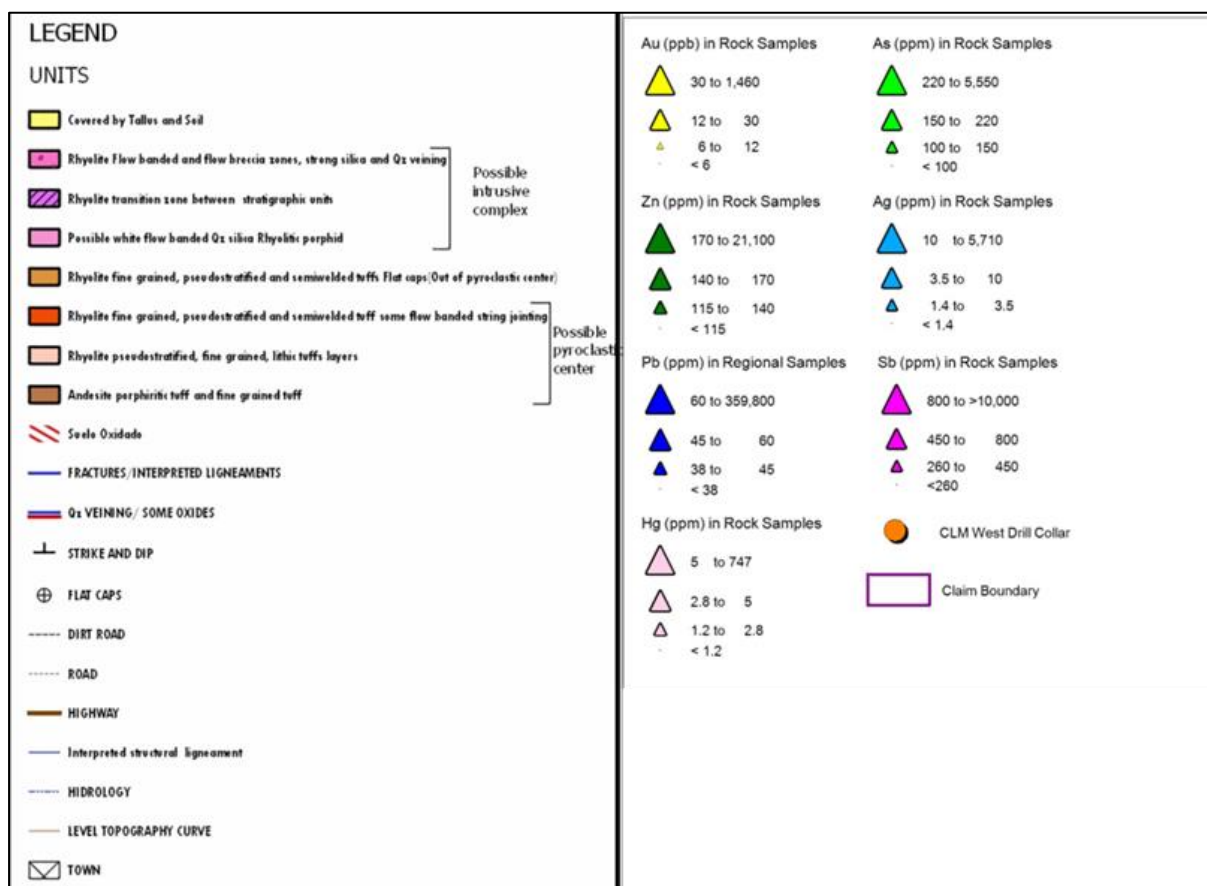
Although the majority of the larger property is covered in quaternary gravel, the far northwestern area of the claims contains more exposures. This area was mapped in detail in 2018. Figure 9-4 is a geological map of the northwestern area of the claims.

FIGURE 9-4: SURFACE GEOLOGY AND SURFACE SAMPLING RESULTS OF THE NORTHERN CLM WEST CLAIM GROUP



Source: Southern Silver 2019

FIGURE 9-4: LEGEND FOR FIGURE 9-3



Source: Southern Silver 2019

The northern area of the CLM West claim group is underlain by an early to mid-Tertiary bimodal felsic-intermediate volcanic sequence of the Gamon formation which has been affected by regional north-northwest and east-west fault structures.

The stratigraphic package includes a basal polymict conglomerate; a lower Tertiary andesite with crystal rhyolite tuff layers overlain by mid-Tertiary rhyolitic to rhyo-dacitic ignimbrites, flows, breccias and tuffs.

Three predominant structural zones were mapped and sampled on surface, ranging in strike length between 1.5 – 5.0km. The Marro Breccia was targeted by hole 18CLMW-007 and the El Durazno breccia with hole 18CLMW-008. Holes CLMW-001, -002 and CLMW-009 targeted quartz veins and projected vein intersections in the more southwesterly structural zone. Drilling targeted the down-dip projections of the veins particularly as they extend into the lower andesitic volcanic sequence as this is the stratigraphic position of the Avino vein systems located several kilometres to the northwest. None of the drillholes tested the veins within the lower andesite rock package.

Results of the 2018 regional exploration program identified several targets worthy of follow-up and several geochemical anomalies remain untested by drilling.

10 DRILLING

Core drilling from 2011 through 2018 and was contracted out to BD Drilling Mexico, S.A. de C.V. (BDD) of EL Salto, Jalisco. Core drilling from 2020 and 2021 was contracted out to Intercore Operaciones, S de RL de CV (Intercore) of Tlajomulco de Zuniga, Jalisco Mexico. Drilling was completed using both NQ and HQ coring equipment capable of recovering core 45.1 to 61.1 millimetres in diameter. Table 10-1 shows the drilling by year, the number of drillholes and meterage achieved.

The purpose of the drilling programs was to identify new mineral deposits on the property and to replace and expand on the results of historic drilling performed by previous operators including CRM, Noranda and Silver Dragon Resources as the historic data could not be adequately validated and verified particularly for inclusion for a current resource estimate. The drilling focused on delineating and expanding the known structures at the El Sol, Santo Nino, Mina La Bocona, South Skarn and the North Skarn zones. In addition, exploration drilling was performed to expand upon interesting results from the surface exploration programs which included soil and rock chip sampling, and Induced Polarization and gravity geophysics.

Initial drilling in 2011 targeted skarn and replacement deposits in the margin of the central Intrusion in the Santo Nino, Mina La Bocona and the North Skarn zones and also tested several Induced Polarization geophysical targets both within the Central Intrusion and outboard of the known zones of mineralization in gravel covered areas. This initial 11-hole drill program successfully identified extensions to the Santo Nino zone mineralization approximately 100m vertically underneath the lowest historic workings, confirmed previous drill results at the North Skarn and Mina La Bocona targets and resulted in the discovery of the Blind zone, a new high-grade target outboard of the El Sol shaft in a gravel covered field.

The Blind Zone was initially discovered with hole 11CLM-008, which intersected a 10.9 metre down hole interval averaging 268g/t Ag, 4.5% Pb and 3.8% Zn of polymetallic mineralization adjacent to an aplite-monzonite dyke complex outboard of the central intrusion. Subsequent drilling resulted in the discovery in hole 11CLM-011 of a similar sub-parallel zone underneath the El Sol surface showing, which soon developed into the El Sol Zone. The majority of the 2011-12 drillholes were designed to offset these discovery holes at 50-100m intervals.

Other notable targets that returned high-grade polymetallic mineralization include the North Skarn Zone, (discovery hole 11CLM-003), the South Skarn Zone (discovery hole 12CLM-055), which was offset by Freeport McMoran Exploration Corp in 2013-14.

Drilling in 2015 continued to expand the overall size of the Blind and El Sol deposits and identify new zones of high-grade mineralization. Noteworthy milestones from the 2015 drilling program include: the identification of new high-grade Ag-Pb-Zn discoveries in the Mina La Bocona area (eg: 15CLM-078) and outboard of the Blind–El Sol zone (eg: 15CLM-081); the identification of potential new extensions to high-grade mineralization at the Santo Niño Mine (eg: 15CLM-023A); and the identification of thick zones of massive and semi-massive sulphide at depth in the Blind – El Sol zone (eg: 15CLM-077, 15CLM-081 and 11CLM-025).

Drilling in 2016/17 by Southern Silver completed 20 core holes totaling approximately 16,647 metres and successfully outlined the Skarn Front as a zone of mineralization, located at depth beneath the Blind and

El Sol Zones. Mineralization occurs on the outer edge of the skarn alteration zone surrounding the Central Monzonite Intrusion at or near the transition into marble and forms the primary geological control on the distribution of sulphide mineralization. Geological modelling suggests that intersections between the sub-vertical, northwest-trending Blind and El Sol mineralized zones and the generally more shallowly dipping Skarn Front may localize higher-grade shoots of mineralization which may be in part responsible for higher grade intervals identified in some of the 2017 drilling.

Drilling in 2018 by Southern Silver completed 25 holes totaling approximately 10,388 metres and successfully extended the Skarn Front Zone into the Las Victorias and North Skarn areas as well as infilling areas of the 2018 resource model with inadequate drill spacing. Subsequent geological modelling confirmed the architecture of the skarn wrapping around the central monzonite intrusion.

Drilling in 2020 and 2021 completed 53 holes totaling approximately 20,914 metres which confirmed the and extended the La Bocona Zone and characterized the South Skarn Zone. Three holes were completed on the west side of the intrusive in an effort to extend the Las Victorias Zone. Geological modelling confirmed the architecture of the skarn wrapping around the central monzonite intrusion.

Borehole locations were planned and marked by Southern Silver geologists using a handheld GPS and subsequently surveyed with a differential GPS at the end of each year. A compass was used to determine borehole azimuth and inclination. Boreholes were drilled at an angle of between 90 and 45 degrees from the horizontal, depending upon the target. Downhole surveys were completed for all boreholes using a Reflex EZ-Shot® electronic single shot (magnetic) device. Downhole deviation of boreholes was measured using these tools at nominal 50-metre intervals.

The drill core is retrieved from boreholes, boxed at the drill site by the Southern Silver geologists and moved to a secure core warehouse on the property. Once at the warehouse, the core is quick logged, photographed, measured and, if the geologist deems it necessary, marked for sampling. Once logging is completed, the core that has been marked for sampling is sawn in half at the warehouse by labourers employed by Southern Silver and placed in sample bags, which are marked and secured by the sampler and checked by the geologist.

All descriptive information was captured digitally on-site using a Microsoft Access database. A plan view of Southern Silver drilling is shown in Figure 10-1 along with a detailed listing of drillholes and locations in Table 10-2.

In addition to the drilling, seven trenches were built in the La Bocona area with cumulative length of 440m. 222 rock chip samples were collected with intervals of 2m throughout the trenches collected for assays. A detailed geological map was created around the area of the trenches. The trenches were used to project the Bocona zone to surface. See Table 10-4 and Figure 10-2 for details of the trench locations, lengths and the geology of the trenched area.

Table 10-4 lists the significant intervals encountered during the 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2020 and 2021 drilling campaigns.

TABLE 10-1: DRILL HOLE SUMMARY BY YEAR

Year	# Holes	Drilling (m)
2011	29	7,958
2012	33	7,887
2013	11	5,950
2014	2	1,771
2015	13	9,135
2016	5	4,415
2017	15	12,232
2018	25	10,388
2020	17	7,470
2021	36	13,444
Total	186	80,650

Source: Kirkham 2021

TABLE 10-2: CERRO LAS MINITAS DRILL HOLE SUMMARY

DDH Name	Easting	Northing	Elevation	Azimuth	Dip	Depth
11CLM-001	587926	2710799	2147.6	37.94	-60	928.5
11CLM-002	588342	2711032	2170.6	217.94	-48	198
11CLM-003	587682	2711222	2206.6	162.94	-65	453
11CLM-004	587682	2711221	2206.6	167.94	-45	400
11CLM-005	587762	2711174	2214.6	140.94	-71	223
11CLM-006	587389	2710834	2153.6	87.94	-55	600
11CLM-007	587907	2710611	2132.6	207.94	-45	237
11CLM-008	587275	2710739	2133.6	40.94	-60	243
11CLM-009	588880	2711185	2088.6	224.94	-45	147.1
11CLM-010	588818	2711122	2091.6	227	-60	843
11CLM-011	587239	2710771	2134.6	42.94	-45	327
11CLM-012	587290	2710675	2130.6	42.94	-45	261
11CLM-013	587179	2710789	2132.6	42.94	-45	225
11CLM-014	587161	2710672	2125.6	51.94	-50	393
11CLM-015	587308	2710845	2138.62	42.94	-45	261
11CLM-016	587307	2710626	2128.62	42.94	-55	208.7
11CLM-017	587345	2710582	2128.62	42.94	-45	186
11CLM-018	587135	2710817	2132.62	42.94	-45	240
11CLM-019	587211	2710739	2131.62	42.94	-55	271
11CLM-020	587524	2710986	2189.62	123.94	-45	220
11CLM-021	587264	2710940	2147.62	222.94	-45	105
11CLM-022	587083	2710840	2130.62	42.94	-45	270
11CLM-023	587271	2710547	2122.62	42.94	-45	339
11CLM-024	587381	2710481	2125.62	42.94	-45	291
11CLM-025	587400.9	2710272	2110.94	53	-45	620
11CLM-026	587099	2710998	2136.62	42.94	-45	168
11CLM-027	587528	2710800	2168.62	222.94	-68	468
11CLM-028	587026	2711065	2133.62	42.94	-45	227.5
11CLM-029	587261	2710935	2147.62	42.94	-45	171
12CLM-030	587246	2710633	2125.62	42.94	-55	381
12CLM-031	588192	2710161	2103.62	42.94	-50	246
12CLM-032	587099	2710781	2128.62	42.94	-55	468
12CLM-033	588237	2710060	2094.62	42.94	-55	261
12CLM-034	587329	2710904	2143.62	177.94	-45	309
12CLM-035	588421	2711127	2134.62	218.94	-56	287
12CLM-037	588549	2711011	2120.62	228.94	-45	345
12CLM-038	587550	2710750	2159.62	222.94	-55	281.5
12CLM-039	588309	2711442	2126.62	222.94	-45	258

DDH Name	Easting	Northing	Elevation	Azimuth	Dip	Depth
12CLM-040	587867	2710213	2119.62	24.94	-50	315
12CLM-041	587141	2710896	2136.62	42.94	-45	162
12CLM-042	587544	2710400	2126.62	42.94	-45	204
12CLM-043	587097	2710921	2134.62	42.94	-45	210
12CLM-044	587503	2710857	2179.62	197.94	-45	147
12CLM-045	587063	2710960	2134.62	42.94	-50	399
12CLM-046	587503	2710858	2179.62	197.94	-65	237
12CLM-047	587044	2711014	2133.62	42.94	-50	204
12CLM-048	587484	2710875	2179.62	264.94	-45	210
12CLM-049	586989	2711032	2131.62	42.94	-45	231
12CLM-050	587524	2710984	2189.62	97.94	-50	288.7
12CLM-051	587159	2710986	2140.62	42.94	-45	117
12CLM-052	588431	2711628	2110.62	222.94	-45	210
12CLM-053	587100	2711062	2137.62	42.94	-45	104
12CLM-054	586962	2711122	2133.62	42.94	-45	195
12CLM-055	588663	2710341	2086.3	297.94	-45	421.5
12CLM-056	587355	2710676	2133.62	42.94	-45	87
12CLM-057	586942	2710980	2129.62	42.94	-45	372
12CLM-058	588051	2711215	2171	186.94	-45	240
12CLM-059	587194	2710950	2142.62	42.94	-45	75
12CLM-060	587305	2710768	2138	42.94	-45	90
12CLM-061	587224	2710832	2139	42.94	-45	120
12CLM-062	587037	2710856	2130	42.94	-45	303
13CLM-063	588793	2710263	2080.3	297.74	-65	531
13CLM-064	588171	2710581	2119	0	-90	456
13CLM-065	587638	2709879	2095	222.74	-45	321
13CLM-066	587315	2710725	2135	90	-70	690
13CLM-067	588598	2710240	2086.7	297.74	-65	387
13CLM-068	588725	2710445	2086	290.74	-50	369
13CLM-069	588722.4	2710310	2083.36	292.74	-55	456
13CLM-070	587220.7	2711526	2132.18	132.74	-50	256
13CLM-071	587228.8	2710719	2126.88	81	-69	816
13CLM-072	586840.3	2711288	2132.95	42.74	-45	231
13CLM-073	588000.7	2709956	2091.03	42.74	-65	1314
14CLM-074	588719	2710307	2083.45	297.64	-65	829
14CLM-075	587992.6	2709953	2091.22	0	-90	942
15CLM-023A	587271	2710547	2122.58	42.94	-45	879
15CLM-076	587085.2	2710685	2118.84	42.55	-60	750

DDH Name	Easting	Northing	Elevation	Azimuth	Dip	Depth
15CLM-077	587604.85	2711015.91	2196.66	222.5	-61	986
15CLM-078	588668.89	2710994.09	2099.99	237.4	-61	531
15CLM-079	588793.31	2710672.95	2084.81	257.6	-61	621
15CLM-080	588301.28	2711350.64	2128.45	192.6	-60	474
15CLM-081	587233.63	2710267	2104.4	41.34	-55	834
15CLM-082	588792.79	2710929.59	2088.64	237.5	-60	702
15CLM-083	588678.6	2711115.79	2098.05	236.34	-60	648
15CLM-084	587673.86	2711211.18	2202	219.24	-48.5	894
15CLM-085	588251.78	2711751.75	2111.76	221.96	-45	492
15CLM-086	588007.9	2711279.07	2171.74	207.5	-57	570
16CLM-087	587231.04	2710073.34	2099.02	43.34	-50	850
16CLM-088	587233.21	2710266.83	2104.41	39.64	-75	798
16CLM-089	587221.86	2709923.41	2093.9	42	-55	1052
16CLM-090	588641.63	2711092.44	2101.79	229.14	-60	403.5
16CLM-091	587305.17	2710480.61	2117.01	42.3	-75	775
17CLM-092	588490.05	2711179	2116.34	195	-55	444
17CLM-093	588676.76	2711118.32	2098.28	202.04	-60	705
17CLM-094	587176.77	2710396.74	2108.89	42.54	-75	935
17CLM-095	587272.14	2710545.4	2118.37	45	-75	1017.5
17CLM-096	587190.19	2710225.42	2102.47	37	-85	1021
17CLM-097	587001.68	2710424.5	2106.76	37	-75	1206
17CLM-098	586977.57	2710609.55	2112.47	38	-60	1168
17CLM-099	586971.61	2710782.17	2119.17	40	-60	752.5
17CLM-100	587265.31	2710933.07	2143.35	92	-70	846
17CLM-101	587568.51	2710232.4	2109.24	46.04	-60	528
17CLM-102	587660.23	2711168.28	2213.03	100	-56	436
17CLM-103	587178.37	2710788.33	2128.66	85	-76	1035
17CLM-104	587659.67	2711168.74	2212.99	60	-57	426.8
17CLM-105	587511.67	2710187.64	2105.24	42	-60	601
17CLM-106	587078.72	2710838.14	2125.91	96	-72	1110.5
18CLM-107	587569.18	2710230.09	2109.12	38.3	-45	480
18CLM-108	587602.51	2710100.42	2101.45	38.5	-45	528
18CLM-109	587602	2710099.92	2101.38	38.5	-60	579
18CLM-110	587383.18	2710480.2	2120.84	80	-70	489
18CLM-111	587321.53	2711014.96	2151.41	100	-54	654
18CLM-112B	587407.07	2710891.06	2157.89	92	-51	445
18CLM-113	587320.88	2711013.18	2151.11	94.5	-64.3	684
18CLM-114	587328.96	2711217.11	2150.02	110.5	-51	714

DDH Name	Easting	Northing	Elevation	Azimuth	Dip	Depth
18CLM-115	587180.4	2710397.67	2108.97	63	-70.5	747
18CLM-116	587275.1	2710571.32	2119.42	77	-67	640.4
18CLM-117	587570.2	2710025.62	2097.12	33.9	-63	689.5
20CLM-118	588635.9	2710613.14	2093.57	258	-55	280
20CLM-119	588636.1	2710613.71	2093.54	284	-66	360
20CLM-120	588825.6	2710525.11	2081.44	268.7	-51	473.4
20CLM-121	587511.5	2709877.19	2090.15	43	-50	756.25
20CLM-122	588825.1	2710525.46	2081.47	285.5	-47	501
20CLM-123	587527.2	2710268.92	2110.82	33.9	-49.5	453.7
20CLM-124	588827.5	2710525.7	2081.4	269.9	-60	579.1
20CLM-125	588706	2710939.32	2095.97	269	-60.5	360.2
20CLM-126	588826.5	2710527.69	2081.45	285	-64.5	636.45
20CLM-127	588705.8	2710939.32	2095.97	269	-53	330.5
20CLM-128	588503.6	2711099.06	2119.1	209.5	-60	372.55
20CLM-129	588503.8	2711099.18	2119.08	202.9	-62	350
20CLM-130	588826.3	2710529.46	2081.47	260	-65	606.7
20CLM-131	588504	2711099.75	2119.08	201.6	-66	369
20CLM-132	588504.2	2711098.83	2119.04	199.5	-56	309
20CLM-133	588607.4	2710696.88	2099.53	285	-67.5	352.5
20CLM-134	588670.2	2710992.33	2099.84	249.2	-59	379.15
21CLM-135	588559.9	2711143.63	2109.35	210	-59.5	464.35
21CLM-136	588752	2710938.78	2091.93	270	-58	399.8
21CLM-137	588753.7	2710939.13	2091.72	230	-45	243.25
21CLM-138	588559.8	2711142.36	2109.31	200	-49	345
21CLM-139	588754.2	2710939.55	2091.69	230	-60	222.9
21CLM-140	588707	2710899	2098	276.7	-61	364.35
21CLM-141	588562	2711144.77	2109.02	217.5	-61.5	513.5
21CLM-142	588705.1	2710895.68	2095.62	269	-62.5	411
21CLM-143	588745.3	2710939.31	2092.52	264	-59.5	414
21CLM-144	588563	2711144.04	2109.06	205	-59.5	430.75
21CLM-145	588589.4	2711280.16	2104.4	200	-49	277.1
21CLM-146	588702.5	2711084.29	2096.03	234	-55	382.8
21CLM-147	588683.7	2711117.63	2097.63	227.2	-60	462.5
21CLM-148	588701.6	2711084.06	2096.13	232	-63	419.45
21CLM-149	588684.1	2711117.51	2097.61	218.8	-66	483

DDH Name	Easting	Northing	Elevation	Azimuth	Dip	Depth
21CLM-150	588667.2	2710771.5	2096.61	235.8	-64	400.65
21CLM-151	588562.2	2711147.6	2108.91	207	-63.5	539.05
21CLM-152	588668.2	2710770.61	2096.49	232	-71	456
21CLM-153	588875.4	2710860.9	2082.47	283	-52	555.8
21CLM-154	588811.3	2710457.82	2081.57	270	-50	450
21CLM-155	588819.3	2710523.85	2081.8	252	-55.5	532.9
21CLM-156	588371.3	2711112.53	2142.79	208.2	-45.3	255
21CLM-157	588585.4	2710538.62	2093.67	270	-45	180.8
21CLM-158	588371.8	2711112.58	2142.71	190	-53	263.75
21CLM-159	588586.2	2710538.17	2093.63	241	-63.5	308.5
21CLM-160	588609.3	2710693.75	2099.23	256	-53	233.4
21CLM-161	588371.2	2711112.97	2142.78	225	-55	258
21CLM-162	588371.5	2711112.83	2142.77	215	-62	282
21CLM-163	588608.9	2710694.83	2099.23	297	-49	304
21CLM-164	588424.3	2711129.16	2129.98	215	-62	360.9
21CLM-165	588488.1	2711178.04	2116.39	208	-50	279
21CLM-166	588423.8	2711129.14	2129.99	231	-61.5	351.5
21CLM-167	588487.6	2711178.23	2116.41	225	-54.5	425.25
21CLM-168	588317.2	2711240.8	2136.19	210	-50	390
21CLM-169	587806.1	2710266.95	2119.72	19	-52	354
21CLM-170	588317.4	2711241.19	2136.18	210	-60	430.1

Source: Kirkham 2021

TABLE 10-3: CLM WEST AND CLM EAST DRILL HOLE SUMMARY

DDH Name	Easting	Northing	Azimuth	Dip	Depth	Elevation
18CLME-001	608340	2707324	220	-50	354	2100.0
18CLMW-001	578783	2707912	245	-45	384	2214.0
18CLMW-002	579030	2706958	280	-45	350	2223.4
18CLMW-003	582855	2699670	275	-45	329.5	2011.0
18CLMW-004	582855	2699670	235	-55	300	1928.0
18CLMW-005	581250	2700925	90	-45	259	2000.0
18CLMW-006	581870	2702146	45	-45	250	2000.0
18CLMW-007	581375	2708850	90	-50	507	2165.0
18CLMW-008	582400	2708084	50	-50	354	2096.0
18CLMW-009	577852	2707451	55	-50	438	2230.0

Source: Kirkham 2021

TABLE 10-3: TRENCH SUMMARY

Trench	Easting	Northing	Elevation	Azimuth	Dip	Depth
T-1	588664.23	2710838.38	2099.1	17.4	-0.8	35.9
T-2	588412	2710873	2147.9	67.3	-11.5	35.62
T-3	588423.66	2710844.15	2139.5	103.1	-16.8	39.44
T-4	588426.94	2710782.27	2128.2	278.8	9.7	56.84
T-5	588384.07	2710896.17	2162.5	46	-12.3	79.17
T-6	588300.88	2710928.8	2184	35.3	17.4	90.25
T-7	588262.57	2710964.19	2198.3	32.1	15.9	102.94

Source: Kirkham 2021

TABLE 10-4: CERRO LAS MINITAS SIGNIFICANT ASSAY INTERVALS

2011 Drill Highlights										
Hole No.	From m	To m	Interval m	Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	Zone
11CLM-003	419.6	436.2	16.6	UNK	55	0.0	0.8	0.3	1.5	North Skarn
inc.	428.8	430.3	1.5	UNK	72	0.0	1.5	0.5	1.6	
11CLM-006	424.2	427.9	3.7	2.0	184	0.0	2.0	0.3	18.4	Skarn Front
11CLM-008	168.4	179.3	10.9	5.5	268	0.1	0.0	4.5	3.8	Blind Zone
inc.	169.6	171.4	1.8	0.9	1400	0.3	0.0	19.7	14.5	
11CLM-011	131.6	136.6	5.0	3.6	224	0.4	0.0	4.2	5.8	Blind Zone
inc.	134.5	135.6	1.2	0.8	540	0.5	0.1	9.5	18.7	
11CLM-011	311.0	319.2	8.2	6.4	46	0.0	0.1	2.1	2.6	El Sol Zone
inc.	316.7	319.2	2.4	1.9	75	0.0	0.1	3.6	4.2	
11CLM-016	152.4	164.1	11.7	6.5	114	0.0	0.2	3.3	4.9	Blind Zone
inc.	158.2	159.8	1.6	0.9	390	0.1	0.5	11.9	17.1	
11CLM-023	300.1	312.5	12.4	8.5	134	0.1	0.2	4.0	4.5	Blind Zone
inc.	310.0	311.6	1.6	1.1	404	0.0	0.4	13.2	11.5	
11CLM-027	0.6	25.4	24.8	9.3	124	0.0	0.1	1.9	2.1	El Sol Zone
inc.	9.0	11.8	2.8	1.1	404	0.0	0.0	1.4	2.5	

2012 Drill Highlights										
Hole No.	From m	To m	Interval m	Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	Zone
12CLM-034	170.7	172.2	1.5	0.7	338	0.0	0.5	11.1	15.9	Blind Zone
12CLM-041	138.5	143.1	4.6	3.1	203	0.0	0.3	4.9	4.2	Blind Zone
inc.	141.9	143.1	1.2	0.8	499	0.1	0.4	10.4	10.4	
12CLM-044	57.6	83.6	26.1	17.3	67	0.0	0.1	2.8	3.3	El Sol Zone
inc.	78.3	80.7	2.5	1.6	153	0.1	0.1	6.3	7.5	
12CLM-047	162.6	167.0	4.4	3.0	186	0.0	0.2	5.6	4.6	Blind Zone
inc.	162.6	165.5	2.9	1.9	254	0.0	0.2	7.8	4.9	
12CLM-051	50.9	70.9	20.0	14.7	143	0.0	0.0	2.4	0.6	Blind Zone
12CLM-055	224.1	228.4	4.3	2.7	89	1.4	1.8	0.1	0.2	South Skarn
12CLM-056	12.7	18.4	5.7	4.0	335	0.1	0.8	16.3	4.5	Blind Zone
inc.	13.6	17.8	4.2	2.9	409	0.1	1.0	20.5	4.0	
12CLM-061	86.3	96.8	10.6	8.6	114	0.0	0.0	2.8	0.9	Blind Zone
inc.	86.3	87.5	1.3	1.0	382	0.0	0.2	9.9	5.1	

2013/14 Drilling Highlights

Hole No.	From m	To m	Interval m	Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	Zone
13CLM-063	228.6	230.2	1.6	UNK	160	1.0	0.1	3.3	0.4	South Skarn
13CLM-066	88.4	97.5	9.2	3.1	401	0.1	0.1	8.5	5.1	Blind Zone
inc.	92.9	95.0	2.1	0.7	1190	0.2	0.0	21.6	13.0	
and	534.6	585.2	50.6	8.9	41	0.0	0.0	0.7	5.3	El Sol Zone
inc.	573.0	585.2	12.2	2.1	45	0.0	0.0	1.7	10.8	
and	633.3	642.6	9.3	1.6	9	0.0	0.1	0.1	13.0	El Sol Zone
inc.	638.2	640.4	2.1	0.4	14	0.0	0.4	0.0	20.6	
13CLM-068	285.4	299.3	13.9	8.4	136	0.2	0.0	2.4	1.3	South Skarn
inc.	285.4	287.8	2.4	1.5	546	0.2	0.1	10.3	3.8	

2015 Drill Highlights

Hole No.	From m	To m	Interval m	Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	
15CLM-077	712.6	714.2	1.6	0.9	569	0.1	0.0	3.4	1.1	Blind Zone
inc.	712.6	713.3	0.6	0.3	1380	0.1	0.0	7.9	2.4	
15CLM-078	77.8	85.6	7.8	3.9	37	13.5	0.0	2.2	1.7	La Bocona
inc.	77.8	79.7	1.9	1.0	74	27.7	0.0	6.4	3.5	
and	195.0	211.5	16.5	8.2	150	0.5	0.0	3.4	0.7	La Bocona
inc.	196.1	196.9	0.8	0.4	1170	1.1	0.0	21.9	1.2	
and	222.2	231.5	9.3	4.6	275	0.9	0.0	4.3	1.9	La Bocona
inc.	222.2	224.2	2.0	1.0	808	2.3	0.0	12.4	3.0	
and	255.4	259.9	4.5	2.2	903	0.2	0.1	16.1	2.2	La Bocona
inc.	256.3	258.0	1.7	0.8	1180	0.4	0.1	20.5	2.1	
and	326.7	331.7	4.3	2.2	405	0.2	0.0	10.0	1.1	La Bocona
inc.	330.9	331.7	0.8	0.4	903	0.8	0.1	20.8	1.1	
15CLM-079	395.0	396.0	1.0	UNK	41	11.7	0.0	0.1	0.0	South Skarn
15CLM-081	616.1	632.9	16.8	8.7	136	0.0	0.5	0.3	4.5	Blind Zone
inc.	616.1	625.1	9.0	4.7	167	0.0	0.7	0.4	8.2	
15CLM-082	184.3	186.9	2.6	1.3	322	5.0	0.2	5.7	7.7	La Bocona
15CLM-083	484.3	490.1	5.8	3.1	275	0.2	0.5	1.1	3.4	La Bocona
inc.	487.4	488.3	0.9	0.5	1050	1.0	1.2	4.3	7.7	
15CLM-084	800.2	808.5	8.4	5.0	112	0.2	0.0	0.5	0.4	Blind Zone
11CLM-010 (extension)	503.5	509.3	5.8	3.5	130	0.4	1.1	1.3	9.3	La Bocona
	503.5	506.5	3.0	1.8	196	0.1	1.1	2.3	15.1	
15CLM-023A	284.7	299.5	14.8	10.1	231	0.3	0.2	4.5	3.7	Blind Zone
inc.	284.7	286.0	1.3	0.9	891	0.6	0.1	11.3	5.7	
and	677.0	685.4	8.4	5.7	143	0.1	0.3	1.2	6.2	Skarn Front
inc.	681.9	685.4	3.5	2.4	263	0.1	0.3	2.4	12.2	
11CLM-025 (extension)	488.9	499.7	10.8	6.9	181.7	1.0	0.5	1.6	6.4	El Sol Zone
inc.	493.55	496.0	2.4	1.5	534.0	0.1	1.8	4.6	14.2	

2016-18 Drill Highlights										
Hole No.	From m	To m	Interval m	Est. Tr. Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	
16CLM-088	683.7	714.0	30.4	29.5	107	0.1	0.4	1.1	2.3	Skarn Front
inc.	683.7	691.0	7.3	7.1	190	0.1	0.4	3.4	5.5	
16CLM-091	662.8	677.9	15.1	14.8	39	0.0	0.05	0.1	10.2	Skarn Front
inc.	667.5	672.3	4.8	4.7	39	0.0	0.12	0.1	23.2	
17CLM-094	788.8	798.6	9.8	6.8	65	0.0	0.02	0.3	5.0	Skarn Front
inc.	794.2	798.6	4.4	3.1	92	0.0	0.02	0.4	7.1	
17CLM-095	691.3	700.3	9.0	8.0	602	0.1	0.05	7.1	17.9	Skarn Front
	693.0	700.3	7.3	6.5	737	0.0	0.06	8.6	21.8	
17CLM-098	1086.5	1101.0	14.5	8.7	288	0.0	2.03	0.8	1.2	Skarn Front
	1092.6	1096.7	4.1	2.5	686	0.1	3.65	1.0	1.7	
17CLM-101	229.9	247.4	17.6	12.5	154	2.0	0.21	3.2	3.9	Las Victorias
inc.	235.4	241.0	5.7	4.0	261	4.0	0.2	6.0	6.9	
and	452.5	462.6	10.1	9.2	220	0.0	0.3	3.6	5.4	Skarn Front
inc.	456.9	459.2	2.3	2.1	373	0.1	0.88	7.4	10.3	
17CLM-103	859.3	864.4	5.2	3.3	27	0.0	0.01	0.4	2.6	Skarn Front
inc.	859.3	860.2	1.0	0.6	126	0.0	0.00	1.7	8.2	
17CLM-105	356.9	367.8	10.9	6.8	194	0.8	0.12	4.4	2.0	Las Victorias
inc.	358.2	359.1	0.9	0.6	1100	1.5	0.4	23.2	5.9	
and	507.6	520.9	13.3	13.0	105	0.1	0.1	0.5	0.4	Skarn Front
inc.	510.6	513.2	2.5	2.5	318	0.1	0.41	1.4	0.8	
17CLM-106	889.3	891.7	2.5	2.1	88	0.0	0.04	0.2	10.3	Skarn Front
and	921.3	930.4	9.1	7.7	22	0.0	0.0	0.0	3.6	
inc.	926.2	930.4	4.2	3.5	30	0.0	0.0	0.1	5.8	
and	941.6	943.4	1.8	1.5	30	0.1	0.11	0.0	20.7	
18CLM-107	353.8	354.6	0.9	0.6	79	0.4	1.2	0.1	14.1	Skarn Front
18CLM-110	450.0	468.9	18.9	15.1	260	0.0	0.18	0.9	0.1	Skarn Front
inc.	450.0	455.5	5.5	4.4	598	0.1	0.40	2.1	0.1	
18CLM-111	256.9	257.5	0.6	0.4	506	0.2	0.1	14.1	15.1	El Sol Zone
18CLM-112	387.5	390.9	3.4	2.8	191	0.0	0.86	3.7	9.4	Skarn Front
inc.	387.5	388.7	1.1	1.0	260	0.0	0.81	5.6	16.4	
18CLM-113	398.5	399.5	1.0	0.8	154	0.0	0.23	7.3	9.2	El Sol Zone
and	643.5	645.9	2.4	1.7	139	0.0	0.39	0.4	4.1	Skarn Front
18CLM-115	649.6	652.3	2.6	2.0	409	0.6	0.9	0.8	8.4	Skarn Front
inc.	649.6	650.2	0.6	0.5	477	2.2	3.7	0.6	32.3	
and	664.2	674.1	10.0	7.5	55	0.4	0.3	0.1	1.0	
inc.	671.2	672.6	1.5	1.1	140	0.0	1.1	0.1	5.3	
and	683.2	684.2	1.0	0.8	640	0.0	1.03	16.7	22.4	
18CLM-116	528.3	529.3	1.0	0.9	195	0.0	0.1	1.6	8.7	Skarn Front
18CLM-117	461.7	463.9	2.3	1.2	202	1.6	0.01	3.8	1.8	Las Victorias
inc.	462.7	463.9	1.2	0.7	333	2.7	0.02	6.6	3.2	

2018 CLM West Drill Highlights

Hole No.	From m	To m	Interval m	Est. Tr. Thck. m	Ag g/t	As g/t	Sb g/t	Au g/t
18CLMW-007	126.0	129.0	3.0	UNK	168.0	31	-	-
and	164.2	182.0	17.9	UNK	0.4	144	49	-
and	333.7	366.0	32.3	UNK	-	1073	771	-
inc.	351.0	354.0	3.0	UNK	4.9	1145	676	-
18CLMW-008	333.0	354 (EOH)	21.0	UNK	0.8	136	7	-
18CLMW-009	341.0	438 (EOH)	97.0	UNK	-	205	50	0.014
inc.	345.7	351.3	5.6	UNK	2.1	629	68	0.063

2020 Drill Highlights										
Hole No.	From m	To m	Interval m	Est. Tr. Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	
20CLM-118	170.1	177.0	6.9	4.0	109	0.1	0.0	1.8	2.1	South Skarn
inc.	174.2	175.4	1.2	0.9	412	0.1	0.1	7.8	9.2	
20CLM-119	226.1	235.1	9.0	6.7	625	0.1	0.03	11.8	7.5	South Skarn
inc.	226.1	228.4	2.3	1.7	1338	0.2	0.04	25.9	17.6	
and inc.	232.0	233.3	1.3	0.9	1480	0.1	0.04	26.5	16.8	
20CLM-120	429.0	432.6	3.7	2.7	511	0.1	0.13	5.0	3.7	South Skarn
inc.	431.8	432.6	0.9	0.6	902	0.1	0.16	7.8	8.4	
and	450.8	452.9	2.1	1.6	182	0.2	0.21	4.4	4.1	
20CLM-121	678.6	679.1	0.5	0.4	155	1.8	2.28	0.1	22.8	Skarn Front
20CLM-122	435.0	442.8	7.8	5.8	66	0.0	0.02	0.4	0.2	South Skarn
inc.	442.1	442.8	0.6	0.5	237	0.1	0.02	0.9	0.2	
20CLM-124	397.2	402.1	5.0	3.3	304	0.1	0.18	4.8	1.9	South Skarn
inc.	400.1	401.0	0.8	0.6	607	0.2	0.49	11.0	3.4	
and	475.0	490.6	15.6	10.4	172	0.1	0.15	3.8	3.7	South Skarn
inc.	475.0	483.7	8.7	5.8	286	0.1	0.27	6.4	5.8	
inc.	475.0	475.9	0.9	0.6	975	0.1	1.3	21.2	18.5	
and	498.0	499.9	1.9	1.2	303	0.0	0.0	7.1	5.8	South Skarn
inc.	499.0	499.9	0.9	0.6	544	0.0	0.02	13.1	9.1	
20CLM-125	23.8	80.6	56.8	30.9	24	0.9	0.02	0.6	0.4	Oxide Gold/Silver
	31.4	34.1	2.8	1.5	72	5.1	0.08	1.0	0.5	
and	216.8	267.4	50.6	33.2	224	0.3	0.03	3.6	1.8	Bocona
inc.	221.8	227.8	6.1	4.0	421	0.5	0.01	5.5	1.9	
and inc.	237.8	247.1	9.3	6.1	344	0.6	0.04	5.7	3.9	
and	326.7	328.2	1.4	1.0	1070	0.1	0.12	23.3	3.2	Bocona
20CLM-126	559.2	565.8	6.6	4.4	95	0.1	0.06	0.7	1.2	South Skarn
inc.	564.8	565.8	1.0	0.7	398	0.2	0.24	2.7	4.0	
20CLM-127	44.7	56.1	11.4	7.0	24	0.9	0.01	0.5	0.7	Oxide Gold/Silver
and	132.5	175.7	43.2	26.5	26	0.4	0.0	0.5	0.4	Oxide Gold/Silver
inc.	132.5	134.6	2.1	1.3	131	2.6	0.2	4.3	3.6	
and	214.2	224.2	10.0	6.1	162	0.6	0.01	3.2	1.3	Bocona
20CLM-128	254.2	255.1	0.9	0.6	460	0.2	0.24	9.4	12.6	Bocona
and	265.8	267.0	1.3	0.8	423	0.2	0.2	7.5	2.9	Bocona
and	284.9	291.3	6.4	4.3	146	0.2	0.0	2.9	1.6	Bocona
inc.	290.5	291.3	0.8	0.5	809	0.4	0.11	17.1	9.1	

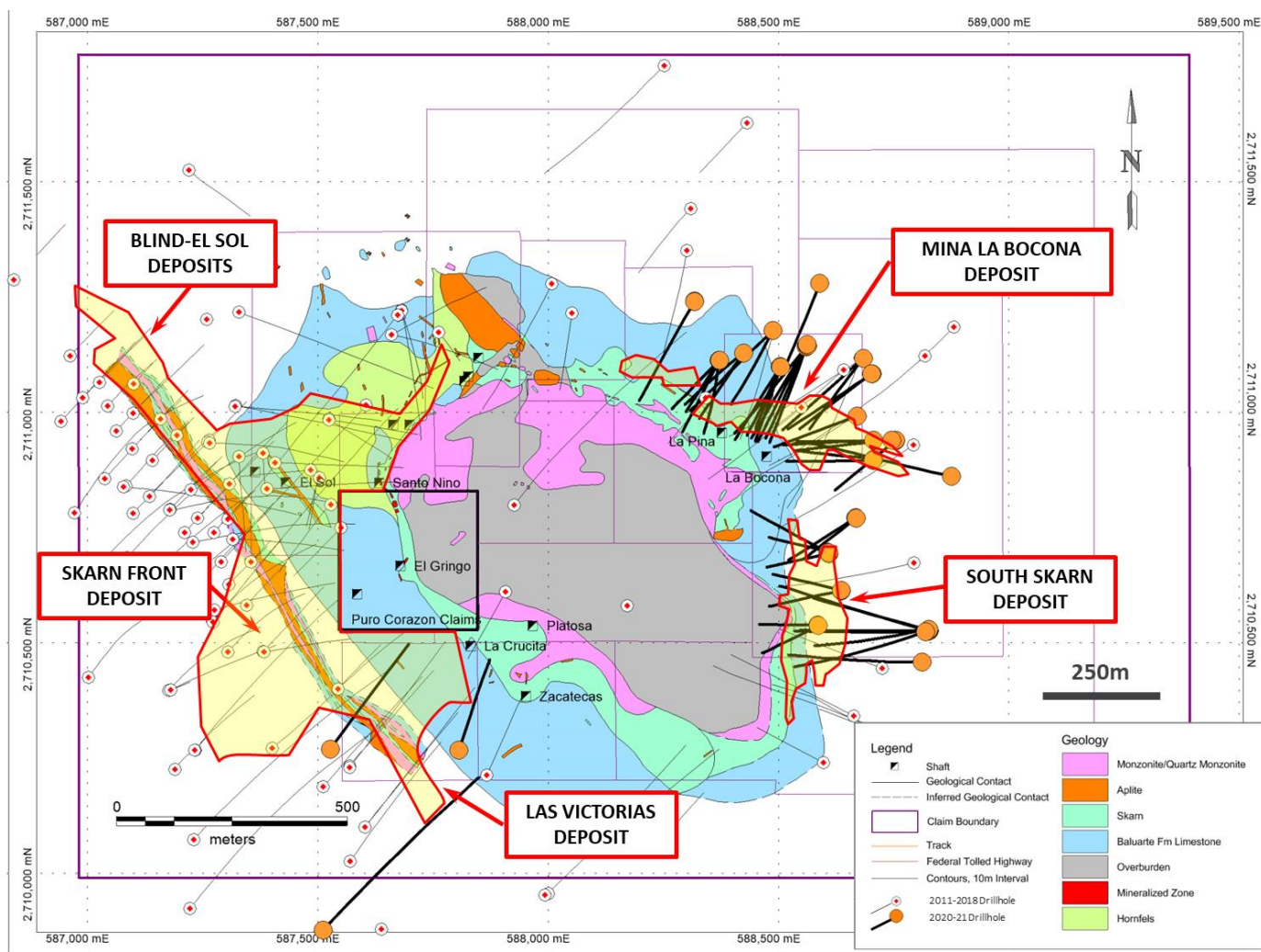
2020 Drill Highlights (Continued)										
Hole No.	From m	To m	Interval m	Est. Tr. Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	
20CLM-129	244.3	265.2	20.9	9.0	212	0.6	0.06	3.7	3.3	Bocona
inc.	248.3	255.7	7.4	3.2	287	1.6	0.09	4.6	4.8	
20CLM-130	207.8	209.3	1.6	1.0	327	0.0	0.03	5.6	11.5	South Skarn HW
and	563.1	571.7	8.6	5.5	58	0.0	0.09	0.1	2.3	South Skarn
inc.	563.7	564.1	0.5	0.3	89	0.1	0.16	0.1	9.0	
20CLM-131	299.9	315.0	15.1	8.0	1072	0.6	0.39	18.8	7.5	Bocona
inc.	303.4	307.6	4.3	2.3	1084	1.6	0.5	20.2	12.9	
and inc.	310.7	311.8	1.1	0.6	3180	0.3	0.3	58.8	2.3	
and	319.3	335.4	16.1	8.5	121	0.1	0.1	2.5	2.5	Bocona
inc.	330.7	333.7	3.0	1.6	413	0.2	0.4	8.7	9.3	
and	347.1	351.4	4.3	2.3	36	0.2	1.47	0.1	0.1	Bocona
20CLM-132	238.4	241.6	3.2	2.0	20	0.0	0.1	0.0	6.5	Bocona
20CLM-133	228.0	229.3	1.3	0.8	373	0.5	0.04	3.9	3.6	South Skarn
and	232.4	233.2	0.8	0.5	281	0.1	0.09	2.8	4.2	South Skarn
20CLM-134	69.5	73.6	4.1	1.8	46	1.9	0.01	3.4	2.3	Oxide Gold/Silver
inc.	72.0	73.6	1.6	0.7	85	4.3	0.0	7.4	5.4	
and	215.1	215.5	0.4	0.2	1230	0.1	0.1	28.9	8.5	Bocona
and	248.4	257.6	9.2	4.1	205	0.2	0.0	4.0	0.9	Bocona
inc.	251.7	252.9	1.3	0.6	575	0.1	0.01	9.9	2.2	

2021 Drill Highlights										
Hole No.	From m	To m	Interval m	Est. Tr. Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	
21CLM-135	384.0	396.1	12.1	6.3	134	0.5	2.3	0.3	0.6	Bocona
inc.	385.9	388.0	2.1	1.1	567	2.3	11.2	0.6	2.0	
21CLM-136	170.3	176.3	6.0	4.2	241	1.4	0.05	7.3	2.5	Bocona
inc.	174.5	176.3	1.8	1.3	525	3.5	0.01	15.1	2.4	
and	291.0	296.5	5.4	3.8	217	0.3	0.06	3.3	0.7	Bocona
21CLM-137	37.1	41.5	4.4	2.5	10	1.6	0.00	0.9	0.2	Oxide Gold/Silver
inc.	37.6	38.7	1.2	0.7	9	4.6	0.01	0.9	0.3	
21CLM-139	50.3	53.1	2.8	1.4	31	1.1	0.01	1.2	0.7	Oxide Gold/Silver
inc.	50.3	51.6	1.3	0.7	53	2.2	0.02	2.1	0.5	

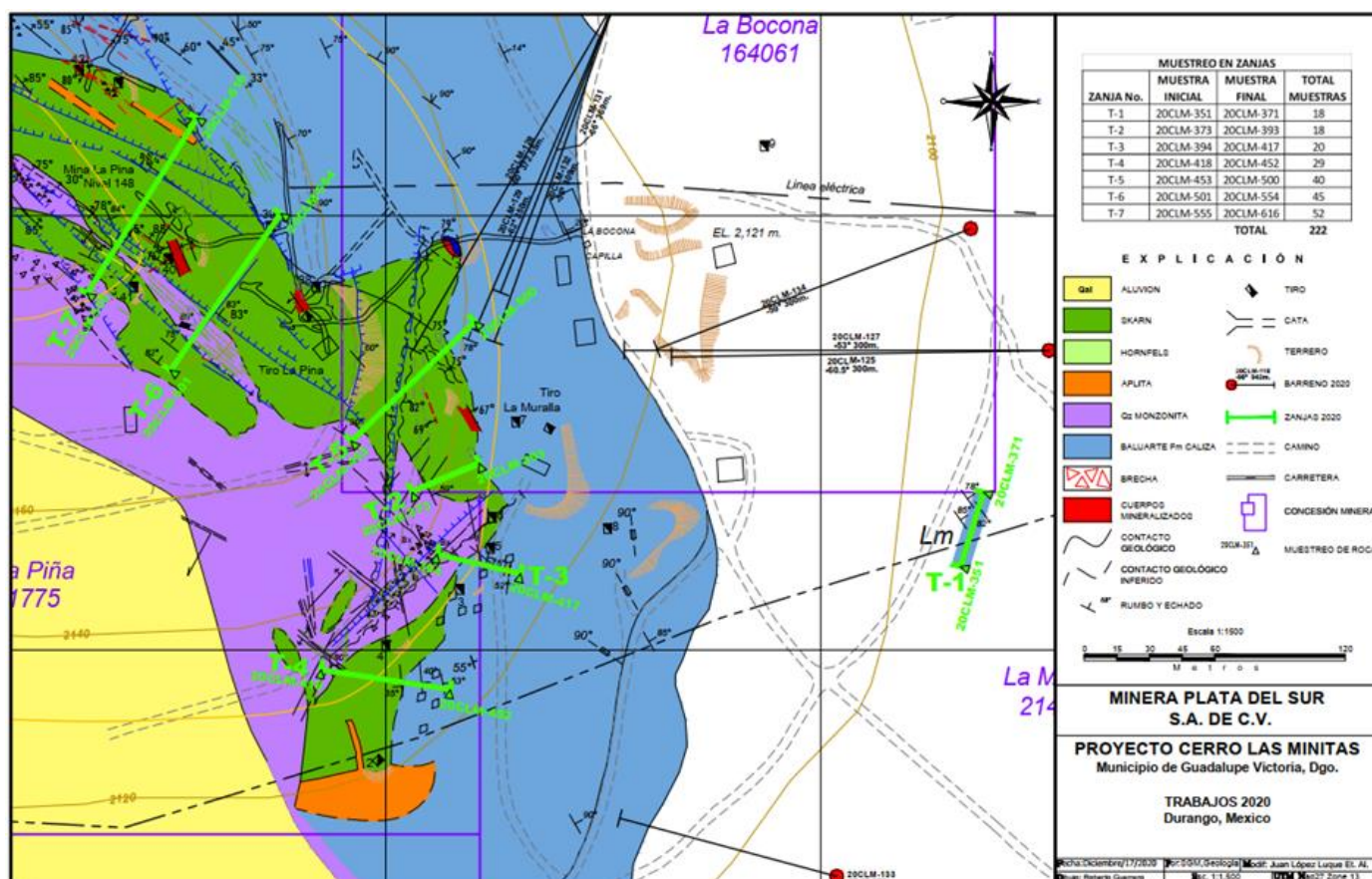
2021 Drill Highlights (Continued)										
Hole No.	From m	To m	Interval m	Est. Tr. Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	
21CLM-140	329.4	338.0	8.6	7.5	261	0.1	0.02	7.0	1.7	Bocona
inc.	331.8	336.9	5.1	4.5	324	0.2	0.02	8.8	2.4	
21CLM-141	397.4	417.8	20.4	12.5	51	0.1	0.88	0.0	0.1	Bocona
inc.	399.5	412.4	12.9	7.9	60	0.2	1.16	0.0	0.1	
21CLM-143	110.4	117.5	7.1	4.0	57	2.2	0.1	2.3	0.9	Oxide Gold/Silver
and	137.5	138.0	0.5	0.3	770	0.2	0.1	17.9	11.1	Bocona
and	159.7	168.0	8.3	4.7	58	2.2	0.0	1.7	1.6	Bocona
inc.	162.8	165.8	2.9	1.7	108	5.2	0.05	3.2	3.3	
and	275.3	282.4	7.1	4.0	161	0.2	0.01	3.1	0.4	Bocona
inc.	281.9	282.4	0.5	0.3	594	0.0	0.01	10.5	1.6	
and	368.9	373.1	4.2	2.4	335	0.2	0.26	5.3	2.4	Bocona
inc.	371.7	373.1	1.4	0.8	636	0.4	0.45	10.5	2.8	
and	390.4	393.6	3.2	1.8	167	0.3	0.33	4.0	3.3	Bocona
inc.	391.8	392.2	0.5	0.3	696	1.3	1.91	20.6	11.0	
21CLM-144	363.0	366.5	3.6	2.9	174	0.6	0.14	4.3	5.0	Bocona
inc.	363.0	363.9	0.9	0.8	361	1.5	0.32	8.9	11.7	
21CLM-146	236.4	240.3	3.9	1.5	118	0.1	0.01	1.8	0.8	Bocona
inc.	239.8	240.3	0.5	0.2	528	0.6	0.00	9.3	4.5	
21CLM-147	279.4	282.3	2.9	1.7	116	0.0	0.02	2.4	2.0	Bocona
inc.	281.9	282.3	0.4	0.2	358	0.0	0.1	7.9	8.5	
and	424.6	438.1	13.5	7.9	74	0.1	0.1	1.2	1.8	Bocona
inc.	432.1	435.8	3.8	2.2	149	0.3	0.22	2.3	3.4	
21CLM-148	353.3	357.6	4.3	2.6	159	0.1	0.07	2.4	3.5	Bocona
inc.	353.3	353.8	0.5	0.3	428	0.2	0.1	6.1	1.5	
and	379.1	388.3	9.2	5.6	59	0.2	0.1	1.4	1.9	Bocona
inc.	379.1	382.0	2.9	1.7	139	0.4	0.09	3.1	3.8	
21CLM-149	344.7	346.3	1.6	1.0	375	0.2	0.14	7.3	0.4	Bocona
and	429.7	438.8	9.1	5.4	121	0.0	0.39	0.7	0.5	
21CLM-150	348.0	349.5	1.6	1.1	311	0.2	0.0	0.3	0.0	South Skarn
21CLM-151	385.0	387.2	2.1	1.8	161	0.1	0.0	4.9	3.0	Bocona
inc.	386.7	387.2	0.5	0.4	422	0.4	0.1	13.2	9.1	
and	420.5	449.3	28.8	24.1	17	0.0	0.3	0.0	0.1	Bocona
inc.	424.7	426.9	2.2	1.8	69	0.1	1.85	0.0	0.2	
21CLM-152	212.5	214.4	1.9	1.1	71	0.1	0.12	1.2	2.4	South Skarn
inc.	212.5	213.1	0.6	0.3	172	0.1	0.19	2.8	5.1	
21CLM-153	311.8	313.4	1.6	0.9	333	0.2	0.0	0.1	0.2	Bocona

2021 Drill Highlights (Continued)										
Hole No.	From m	To m	Interval m	Est. Tr. Thck. m	Ag g/t	Au g/t	Cu %	Pb %	Zn %	
21CLM-154	133.3	138.3	5.0	3.3	57	0.4	0.0	4.2	1.1	South Skarn
inc.	134.5	137.2	2.7	1.8	61	0.4	0.0	6.9	1.4	
and	400.7	403.6	2.9	2.5	106	0.2	0.0	2.8	1.3	South Skarn
and	413.6	415.8	2.3	1.9	159	0.1	0.0	1.2	1.0	South Skarn
inc.	413.6	414.6	1.0	0.9	289	0.1	0.07	1.8	0.7	
21CLM-155	319.3	320.7	1.4	1.1	149	8.8	0.0	1.5	1.1	South Skarn
and	345.1	363.2	18.1	14.0	162	0.2	0.0	1.4	0.5	South Skarn
inc.	362.7	363.2	0.6	0.4	1150	0.1	0.3	6.0	2.7	
and	485.4	488.2	2.8	2.3	118	0.0	0.2	1.0	1.2	South Skarn
inc.	485.4	486.3	0.9	0.7	231	0.1	0.52	1.3	2.5	
21CLM-156	168.9	170.9	1.9	1.4	37	0.0	0.19	1.2	6.8	Bocona
and	177.0	185.6	8.6	6.1	32	0.1	0.05	1.1	0.8	
21CLM-157	95.6	103.6	8.0	6.3	41	0.1	0.0	1.7	0.7	South Skarn
21CLM-158	102.0	102.8	0.8	0.5	452	0.5	0.1	2.8	0.6	Bocona
21CLM-159	174.7	176.7	2.0	1.4	184	0.3	0.1	3.3	2.7	South Skarn
and	181.2	186.2	5.0	3.6	93	0.1	0.0	2.0	1.6	South Skarn
and	190.0	192.0	2.0	1.4	719	0.0	0.0	14.2	16.0	South Skarn
inc.	190.0	191.5	1.5	1.1	946	0.0	0.0	18.7	21.1	
and	195.2	199.2	4.0	2.8	97	0.2	0.0	1.6	2.7	South Skarn
and	205.4	208.2	2.8	2.0	144	0.1	0.0	2.2	1.2	South Skarn
inc.	207.7	208.2	0.5	0.4	541	0.0	0.09	8.8	4.0	
21CLM-160	154.1	155.2	1.1	0.7	99	0.1	0.0	1.2	1.2	South Skarn
21CLM-161	128.0	131.7	3.7	2.5	132	0.1	0.51	2.0	0.3	Bocona
inc.	130.3	131.7	1.3	0.9	312	0.1	0.80	5.3	0.3	
and	181.7	190.0	8.3	5.6	55	0.1	0.03	1.2	0.5	Bocona
21CLM-162	154.5	156.4	1.9	1.5	602	0.1	2.0	0.7	0.3	Bocona
21CLM-164	285.1	286.5	1.3	0.9	414	0.1	0.15	8.2	3.6	Bocona
and	293.7	309.9	16.3	10.8	102	0.0	0.05	1.8	1.7	Bocona
inc.	297.5	299.7	2.1	1.4	383	0.1	0.13	7.9	10.2	
21CLM-165	143.0	143.7	0.7	0.4	149	0.2	0.0	3.9	2.9	Bocona
21CLM-166	279.2	280.4	1.2	0.8	96	0.1	0.1	1.1	0.2	Bocona
21CLM-167	239.4	241.0	1.7	1.3	263	0.2	0.01	6.0	1.2	Bocona
inc.	240.3	241.0	0.7	0.6	543	0.4	0.02	12.7	1.0	
21CLM-168	326.5	330.9	4.4	3.7	69	0.0	0.11	0.7	0.2	Bocona
inc.	329.8	330.9	1.1	1.0	173	0.0	0.11	0.5	0.2	
21CLM-170	328.7	331.4	2.8	2.5	7	0.0	0.13	0.0	10.6	Bocona

Source: Kirkham 2021

FIGURE 10-1: CERRO LAS MINITAS DRILL HOLE LOCATIONS

Source: Southern Silver 2021

FIGURE 10-2: BOCONA TRENCHING DETAILED GEOLOGY MAP

Source: Southern Silver 2021

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 CHAIN OF CUSTODY

The drill core is retrieved from boreholes, boxed at the drill site by the Southern Silver geologists and moved to a secure core warehouse on the property where it is quickly logged, photographed, measured and marked for sampling. Once logging is completed, the core that has been marked for sampling is sawn in half at the warehouse by labourers employed by Southern Silver. The core is placed in sample bags, which are marked and secured by the sampler and checked by the geologist. Blanks are inserted at a rate of 1 blank for every 20 samples. The blank material is taken from a local outcrop of barren limestone. Core duplicates are taken at a rate of 1 for every 20 samples by quarter-splitting the sampled half core and inserting each quarter into a separate sample bag. Blank, marked bags are prepared and inserted into the sample stream at a rate of 1 in every 10 samples for insertion of standards in the North Vancouver laboratory. Note: In Mexico, there are export restrictions that prohibit this final *standards* step, so it must occur out of country; therefore, once the samples arrive at the laboratory, the standards, which are stored at the Southern Silver offices, are delivered and inserted into the sample stream.

In Mexico, samples are stored in the secure warehouse. When enough samples have been taken, the samples are driven to ALS Minerals laboratories, Lomas Bizantinas, Zacatecas, Mexico and delivered by the Southern Silver geologist. The samples are bar-coded, weighed and pulverized to 70% passing 2 mm, where a 250 g sample is split and pulverized to 85% passing 75 microns.

The prepared pulps are then shipped by ALS Minerals to its laboratory in North Vancouver, Canada. All core, trench, and grab samples collected between 2011 and 2017 were submitted to ALS Minerals for preparation and assaying. The management system of the ALS Group of Laboratories is accredited ISO 9001:2000 by QMI–Management Systems Registration. Samples were crushed and pulverised by the Zacatecas preparation facility and shipped to North Vancouver for assaying. The North Vancouver laboratory is accredited ISO/IEC 17025:2005 by the Standards Council of Canada for certain testing procedures, including those used to assay samples submitted by Southern Silver.

Standards manufactured by CDN Resource Laboratories Ltd. (CDN), Langley, BC, Canada, and prepared blanks manufactured by OREAS (Ore Research & Exploration Pty Ltd) of North Bayswater, Australia that have been securely stored at the head office of Southern Silver in Vancouver, Canada, are then inserted into sample bags, marked and secured by the Southern Silver geologist in Vancouver and sent by corporate courier to ALS Minerals in North Vancouver for insertion into the pulp sample stream.

Prepared samples are then transferred to ALS Minerals laboratory in North Vancouver where they are assayed for gold using a conventional fire assay procedure (ICP-AES) on 30 g subsamples. The samples are also submitted for a suite of 35 elements using a four-acid digestion and ICP-AES finish on 0.25 g subsamples.

11.2 QUALITY ASSURANCE AND QUALITY CONTROL

At the Cerro Las Minitas Project, inserting quality control samples takes place in the core shack before samples are shipped to the lab, with the exception of the standards for the reasons discussed in Section 11.1. These samples are routinely inserted and are used to check for accuracy, precision and cleanliness in the analytical laboratory. At the beginning of the sampling process, sample tags are pre-marked before logging with locations for standards, core duplicates, and field blanks.

The process is as follows:

- Core duplicate samples are taken every 20 samples within the sample series (5%). Core duplicate samples are used to evaluate combined field, preparation and analytical precision. The core duplicate samples are quarter-spilt cores sampled on site before the samples leave camp.
- Field blanks are non-mineralized limestone material collected from a local source, broken with a hammer, and inserted into the sample series every 20 samples (5%). Field blanks are inserted to test for any potential carry-over contamination which might occur in the crushing phase of sample preparation, as a result of poor cleaning practices.
- Standards and prepared blanks are used to test the accuracy of the assays and to monitor the consistency of the laboratory over time. Commercially available multielement assay standards were purchased from CDN. Prepared blanks were purchased from Analytical Solutions Ltd. These standards and prepared blanks are inserted into the sample sequences approximately once every 10 samples (10%). The standards and prepared blanks are stored at the Southern Silver offices in Vancouver and delivered to the laboratory and inserted into the sample stream. This is due to Mexican export restrictions and must occur out of country.

Commercial standards sourced from CDN and prepared blanks from Oreas North America Inc. (Formerly Analytical Solutions Ltd.) are used to test the accuracy of the assays and to monitor the consistency of the laboratory over time. All standards listed here are multielement standards with recommended values (between-lab mean $\pm$ 3 standard deviations) for silver, copper, gold, lead and zinc. All prepared blanks are certified values with absolute and relative standard deviations, as well as 95% confidence intervals. In the case of the certified blanks, 3 standard deviations was chosen as a guide to flag samples for QAQC analysis. Looking at the surrounding samples, a sample bleed of <1% was used as a tolerance level for reanalysis. These standards and prepared blanks were randomly inserted into the sample sequences approximately once every 10 samples. Table 11-1 show the standards and prepared blanks used for the Cerro Las Minitas Project, along with their recommended mean metal concentrations.

For the collection of surface rock samples, the same procedure is followed as above but the insertion rates are approximately 1 standard, 1 prepared blank, 1 field duplicate and 1 field blank for every 60 samples.

TABLE 11-1: RECOMMENDED METAL CONCENTRATIONS OF STANDARDS USED AT CERRO LAS MINITAS

STANDARD	Gold (g/t)	Silver (g/t)	Copper (%)	Lead (%)	Zinc (%)
CDN-ME-5	1.07**	205.6	0.84	2.13	0.579
CGS-26	1.64		1.58		
CDN-ME-1605	2.85	274	0.38	4.45	2.15
CDN-ME-1302	2.412	418.9	0.579	4.68	1.2
CDN-ME-17	0.452**	38.2	1.36	0.676	7.34
CDN-ME-1414	0.284	18.2	0.219	0.105	0.732
CDN-ME-1413	1.01	52.2	0.452	0.698	0.604
CDN-ME-1201	0.125**	37.6	1.572	0.465	4.99
CDN-ME-1901	7.85	373	0.637	2.56	2.89
OREAS 22e (Blank)	<0.001	<0.05	0.000797	<0.0001	0.000433
OREAS 22h (Blank)	<0.001	<0.05	0.00062	0.000083	0.000269
** Provisional Value Only					

Source: Kirkham 2021

Analytical Laboratory Procedures

Prepared samples are then transferred to ALS Minerals laboratory in North Vancouver where they are assayed for gold using a conventional fire assay procedure (ICP-AES) on 30-gram subsamples. The samples are also submitted for a suite of 35 elements using a four-acid digestion and ICP-AES finish on 0.25-gram subsamples.

Evaluation of QA/QC Results

Standards, field blanks, and duplicate samples are discussed in the following subsections.

Standards

Failure of a standard implies that all routine samples within its sphere of influence are also considered to have failed and must be re-analyzed at the same primary laboratory. Standards are considered to have failed if the reported gold, silver, copper lead or zinc assay concentration is greater or less than 3 standard deviations from the recommended mean value for that standard.

In the case of failure of any standard, the failure is recorded and a determination is made as to whether the failure is within the proximity of any mineralized intervals. If so, the procedure is to re-assay the block of samples within its sphere of influence. In practice, this means that all consecutively listed samples, down list from the failing standard to the next passing standard, and up list from the failing standard to the next prior passing standard, are considered to have failed, and must be re-assayed. Table 11.2 shows the standards performance listing number of failures for all metals.

TABLE 11-2: STANDARDS PERFORMANCE – FAILURES

STANDARD	#	GOLD (g/t)	%	SILVER (g/t)	%	COPPER (%)	%	LEAD (%)	%	ZINC (%)	%
CDN-ME-5	53	5	9%	3	6%	1	2%	0	0%	5	9%
CGS-26	47	0	0%	N/A	N/A	1	2%	N/A	N/A	N/A	N/A
CDN-ME-1302	86	1	1%	6	7%	11	13%	0	0%	6	7%
CDN-ME-17	116	10	9%	1	1%	1	1%	2	2%	2	2%
CDN-ME-1413	16	0	0%	2	13%	2	13%	1	6%	1	6%
CDN-ME-1414	40	2	5%	2	5%	1	3%	1	3%	4	10%
CDN-ME-1605	95	3	3%	0	0%	14	15%	0	0%	2	2%
CDN-ME-1901	45	6	13%	0	0%	5	11%	0	0%	0	0%
CDN-ME-1201	76	8	11%	1	1%	0	0%	0	0%	0	0%
OREAS 22e (Blank)	175	5	3%	0	0%	3	2%	13	7%	6	3%
OREAS 22h (Blank)	38	4	11%	0	0%	0	0%	0	0%	0	0%

Source: Kirkham 2021

There seems to be a relatively high failure rate which appears to be attributable to two specific standards: the CDN-ME-5 standard with a failure rate of 9% gold, 9% zinc, and 6% silver, and the CDN-1302 standard with a failure rate of 5% silver, 13% copper, 14% lead, and 9% zinc. In addition, CDN-ME-1605 has a failure rate of 15% copper only. CDN-ME-5 and the CDN-1302 standard is no longer used at the project. In addition, the laboratory has been informed of the failures in order to address potential quality assurance and quality control problems at the lab as all identified failures are not all attributable to problems with the standards.

With the exception of the high failure rate of two standards, the author finds the levels of sampling, security, and analytical procedures to be satisfactory particularly as CDN-ME-5 is no longer in use.

Preparatory Blanks

For the 2016/17 field season and beyond, additional QAQC was inserted in the form of blind prepared blanks inserted in the same way as the standards at a rate of 1 for every 20 samples (5%). The blank was sourced from Oreas North America Inc. (Formerly Analytical Solutions Ltd.) and produced by OREAS (Ore Research & Exploration Pty Ltd) of North Bayswater, Australia.

Field Blanks

Field blanks are used to check the level of cleanliness at a laboratory, and more specifically to check for the presence of any carry-over contamination during the crushing phase of sample preparation. Proper cleaning of the coarse crushers between samples, and between sample batches, should ensure that there is no carry-over of material between samples that could produce negligible gold, silver, lead, zinc and copper results on a consistent basis. Field blanks are typically created from barren rock material, preferably of similar hardness to the target lithologies. At Cerro Las Minitas, non-mineralized rock is collected from a local source, and inserted into the sample series every 20 samples (5%).

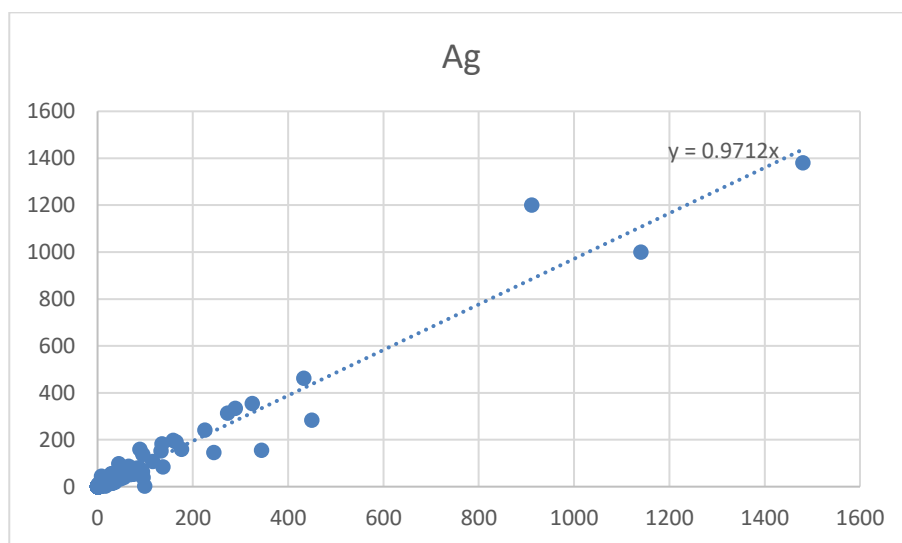
In general, field blanks exhibit a failure rate of 0% for silver analysis, 1% for gold, 2.1% for lead and 3.7% for copper and zinc which indicates that some carry-over contamination at the crusher stage might be occurring.

Towards the end of 2017, a procedure was introduced to request that the lab use preparation blanks in between samples with visible high-grade Cu-Pb-Zn sulphides. In 2018, there was only one copper failure. In general, current field blanks and related procedures exhibit acceptable results.

Duplicate Samples

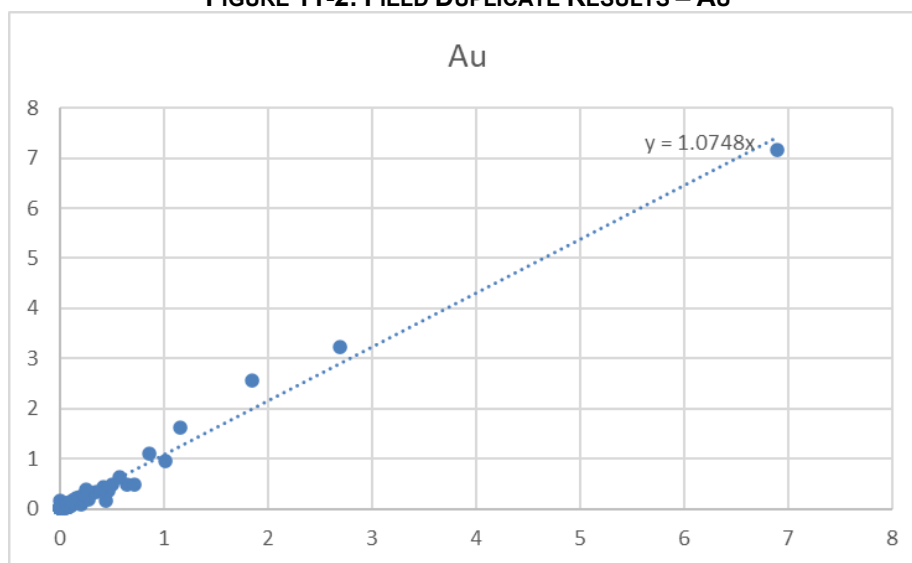
Field duplicate samples are added to the assay batches. ALS Minerals laboratories prepared pulp duplicates and inserted these at a rate of one every 20 samples. Figures 11-1 through Figure 11-5 show the results of the duplicate comparison for silver, gold, copper, lead, and zinc, respectively. All metals show an excellent correlation.

FIGURE 11-1: FIELD DUPLICATE RESULTS – AG

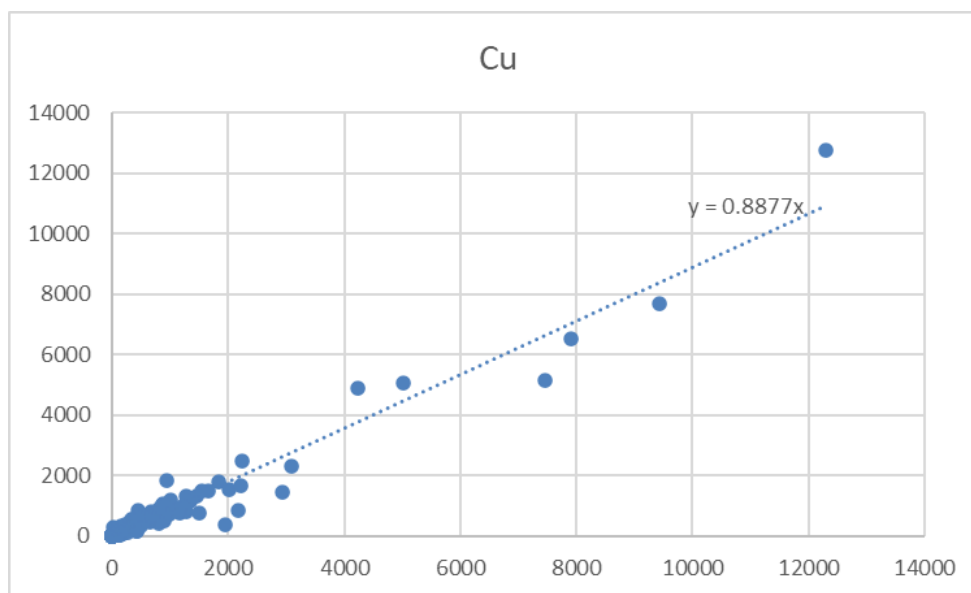


Source: Kirkham 2021

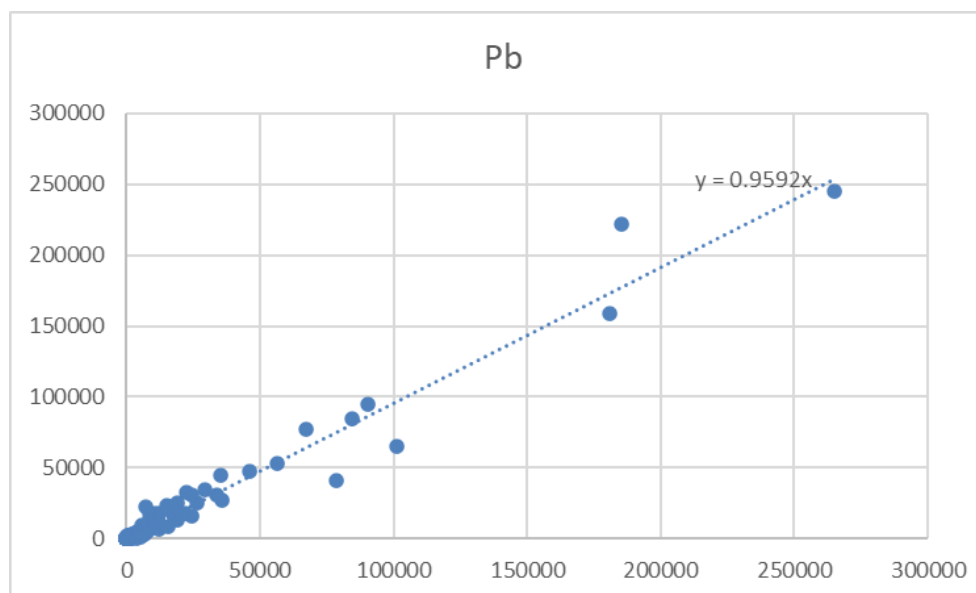
FIGURE 11-2: FIELD DUPLICATE RESULTS – AU



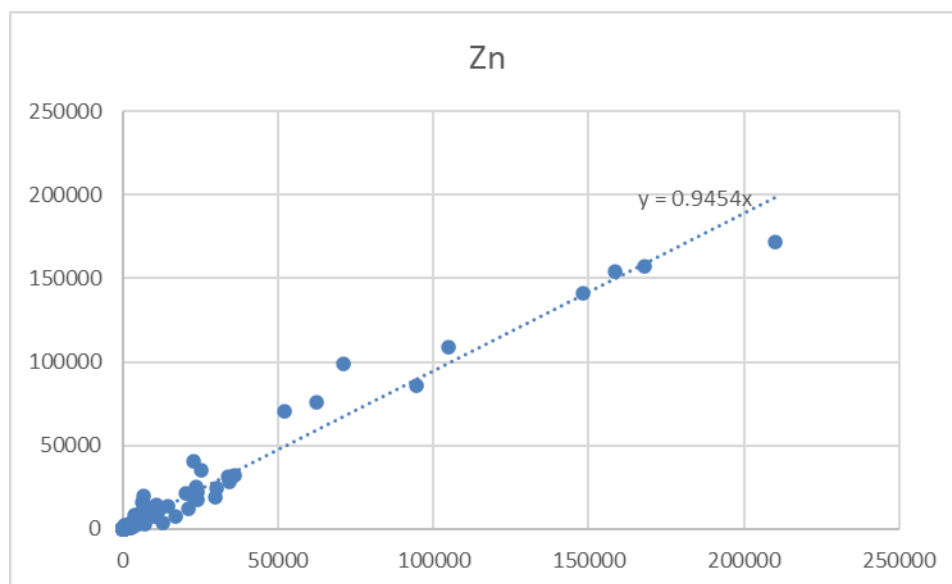
Source: Kirkham 2021

FIGURE 11-3: FIELD DUPLICATE RESULTS – Cu

Source: Kirkham 2021

FIGURE 11-4: FIELD DUPLICATE RESULTS – Pb

Source: Kirkham 2021

FIGURE 11-5: FIELD DUPLICATE RESULTS – ZN

Source: Kirkham 2021

11.3 COMMENTS

With the exception of the high failure rate of two standards, both of which are no longer used, the author finds the levels of sampling, security, and analytical procedures to be satisfactory. In the opinion of the author, the sample preparation, security, and analytical procedures used by Southern Silver are consistent with generally accepted industry best practices and are, therefore, adequate for the purpose of mineral resource estimation.

12 DATA VERIFICATION

Garth Kirkham, P. Geo., visited the property several times between March 31 through April 2, 2015, then again on January 14 through January 19, 2019 and most recently on August 16, 2021. The site visits included an inspection of the property, offices, drill sites, outcrops, trenches, drill collars, core storage facilities, core receiving area, and tours of major centres and surrounding villages most likely to be affected by any potential mining operation. In addition, the January 2019 site visit included a tour of the Puro Corazon site and processing facilities.

The tour of the office and storage facilities showed a clean, well-organized, professional environment. On-site staff led the author through the chain of custody and methods used at each stage of the logging and sampling process. All methods and processes are up to industry standards and reflect best practices, and no issues were identified.

A visit to the collar locations showed that the collars were well marked and labelled; therefore, they were easily identified. The previous drill holes were cased.

In 2015, the author selected four complete drill holes at random from the database and they were laid out at the core storage area. Site staff supplied the logs and assay sheets for verification against the core and the logged intervals. The data correlated with the physical core and no issues were identified. In addition, the author toured the complete core storage facilities, selecting and reviewing core throughout. No issues were identified, and recoveries appeared to be very good. For the 2019 site visit, all significant intersections encountered in the 2017 and 2018 drill programs were laid out, inspected and compared against drill logs and assay sheets. For the 2021 site visit, all significant intersections encountered in the 2021 drill programs were laid out, inspected, and compared against drill logs and assay sheets. In addition, the methods and procedures for specific gravity measurements were reviewed and approved.

Based on the site visit and an inspection of all aspects of the project, the author is confident that the data and results are valid, including all methods and procedures. It is the opinion of the independent author that all work, procedures, and results have adhered to best practices and industry standards required by NI 43-101. No duplicate samples were taken to verify assay results, but the author believes that the work is being performed by a well-respected, multi-national company that employs competent professionals that adhere to industry best practices and standards.

The core is accessible, and the core is stored in a secure warehouse. The core facilities are clean and well organized for easy access and analysis by way of a core map.

The author is confident that the data and results are valid based on the site visit and inspection of all aspects of the project, including methods and procedures used. It is the opinion of the independent author that all work, procedures, and results have adhered to best practices and industry standards required by NI 43-101. No duplicate samples were taken during either the April 2015, January 2019 or August 2021 site visit to verify assay results and the author was satisfied with the results from previous verification

sampling. In addition, there were no limitations with respect to validating the physical data or computer-based data. The author is of the opinion that the work was being performed by a well-respected, multi-national company that employs competent professionals that adhere to industry best practices and standards.

The data verification process did not identify any material issues with the Cerro Las Minitas sample and assay data. The author is satisfied that the assay data is of suitable quality to be used as the basis for this resource estimate.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 METALLURGICAL TESTING

Four phases of metallurgical test work have been conducted on mineralization from the Cerro Las Minitas project on behalf of Southern Silver. The work includes:

- Initial test work in 2015 on a high-grade sulphide composite of dump samples from shallow workings on the Blind zone. The work was performed at Dawson Metallurgical Laboratories of Midvale, Utah;
- More comprehensive test work in 2017-18 on representative composites of the Blind-El Sol sulphide mineralization, Blind-El Sol oxide mineralization and Skarn Front sulphide mineralization. The work included kinetic (grindability) tests, a series of batch flotation tests, probe-work and some ICP analyses to determine levels of deleterious metals within the composites and was performed by Blue Coast Research of Parksville, BC.
- Further test work, completed in 2018, which focused on optimizing the flotation sequence in order to upgrade the zinc concentrate by removing chalcopyrite and if possible, creating a separate copper concentrate.
- Locked Cycle testing in late 2019 on an updated Skarn Front sulphide composite corresponding to the average grade of the updated Indicated Skarn Front sulphides at the time of sampling. The testwork was performed using the optimised flotation sequence developed in 2018. In addition, 7 variability samples of Skarn Front sulphide were tested to confirm the robustness of the optimised flowsheet in handling extremes of grade and varying base metal ratios. The testwork returned improved grades and recoveries over previous results.
- In addition to the testwork already completed, additional testing of higher gold content oxide ore is currently underway to determine gold and silver recoveries by direct cyanidation. High arsenopyrite content sulphides are currently also being tested via the optimised circuit, to confirm arsenic elimination from base metal concentrates as well as the viability of gold recovery from pyrite and arsenopyrite-rich float tails. Preliminary results are very encouraging.

For the 2017-18 test work, representative samples of the Blind – El Sol oxides and sulphides as well as the Skarn Front sulphides were collected from drill core and combined into three distinct composites to represent the three different styles of mineralization currently identified on the project. Test work included sample characterization and batch flotation tests. A limited cyanidation test program was conducted on the Blind – El Sol oxide composite.

Sample characterization of the composites included head analyses, chemical characterization, modal mineralogy determinations (including microprobe work) and Bond Ball Work Index tests.

The dominant mineral phases in the sampled material are calcite and orthoclase, with significant quantities of garnet and quartz. Sulphide minerals represent 18.1% of the Skarn Front composite and 23.5% of the Blind-El Sol sulphide composite. Major sulphide minerals include sphalerite, pyrite and galena. Significant arsenopyrite is present in the Blind – El Sol sulphide composite but was effectively rejected during flotation.

A single Bond Ball Work test was conducted on each composite. Bond Work Mill Indices ranged from 12.3 to 12.8 (kWh/tonne) for the two sulphide composites.

The Blind - El Sol oxide composite was subjected to a limited test program. Whole ore cyanidation tests averaged 74% Ag recovery. Lack of sulphide minerals in the oxide material meant that flotation was ineffective and resulted in poor recoveries for lead and zinc.

Batch flotation test work was successful in separating lead and zinc concentrates from the Blind – El Sol deposits and copper, lead and zinc concentrates from the Skarn Front deposit and provided the following recoveries:

Blind – El Sol Zone:

- Lead Concentrate (avg of 2): 82% Ag, 90% Pb and 4% Zn recovery assaying 2880ppm Ag, 68% Pb and 2% Zn; and
- Zinc Concentrate: 78% Zn recovery at a grade of 52% Zn.

Skarn Front Zone:

- Copper Concentrate: 67.7% Cu and 15.1% Ag recovery assaying 27.9% Cu and 1661g/t Ag (3 stages of cleaning);
- Lead Concentrate: 85.2% Pb and 67.3% Ag recovery assaying 60.8% Pb and 4596g/t Ag (one stage of cleaning); and
- Zinc Concentrate: 89% Zn and 8.2% Ag recovery assaying 50.7% Zn and 111g/t Ag (3 stages of cleaning)

The combined results from the Blind – El Sol and the Skarn Front deposits provide very favorable recoveries and grades of silver, lead and zinc which form the initial basis for a metallurgical processing flowsheet which in turn, can be used in the further evaluation of the Cerro Las Minitas project. More advanced metallurgical test work should include variability tests of different parts of the CLM deposits and lock cycle tests to better define the processing flowsheet.

For the 2019 Locked- Cycle testing the 6-cycle test produced the following average results:

- Copper concentrate after 3 stages of cleaning: 27% Cu grade at 60.2% Cu recovery and 6.5% Ag recovery at a grade of 1255 g/t.

- Lead Concentrate after 3 stages of cleaning: 65.08% Pb grade at 83.6% Pb recovery and 5504 g/t Ag at 77.3% Ag recovery.
- Zinc Concentrate after 3 stages of cleaning: 53.95% Zn grade at 94.7% Zn recovery.

These results confirmed not only improved base metal grades, but also improved deportment of silver into the lead concentrate. Concentrate values on a \$/t concentrate were improved for all 3 concentrates.

Some highlights of the variability testing included:

- Confirmation of the ability of the flowsheet to deal with large variations in grade: from a low grade 0.4% Pb; 0.5% Zn; 29 g/t Ag; 1.8% S to a 0.9%Cu; 9.2%Pb; 23%Zn;18.1%S massive sulphide the flowsheet was able to deal with extremes using only reagent dosage adjustments and adjusted flotation times to achieve results comparable to the Locked Cycle Tests.
- The ability of the flowsheet to reject pyrite: VAR 6 sulphides were almost 80% pyrite, with low galena and silver content yet high copper and zinc recoveries (74.8% and 84.4% respectively were achieved at saleable grades. (26.4% Cu and 46.2%Zn respectively)
- The ability of the lead concentrate to collect silver: VAR2 contained only 0.78% Pb, 0.14% Cu but 236 g/t Ag. The Pb concentrate contained 81% of the Ag at a grade of 17883 g/t Ag.
- Confirmation that the proposed flowsheet is well suited to a ROM feed from multiple stopes with only minor stockpile grade control being required. Coupled with the LCT work the variability tests confirmed that the recycling of cleaner tails to the rougher circuit improves overall recoveries while dampening the effects of minor swings in feed grade and mineralisation.

Once the cyanidation tests and the float testing of higher arsenic content ore is complete, sufficient data is available to inform the design of the mill and concentrator plant at the level required for a PEA.

13.2 NSR VALUATION METHODOLOGY

13.2.1 Background

Mineral Resource estimates, expressed as an equivalent value, may not be the most accurate valuation method of a given deposit, especially when multiple pay metals are present, as is the case for the Cerro Las Minatas (CLM) deposits. Expressing resources in terms of “silver equivalent” (AgEq) is less suitable for evaluating ore blocks which differ in grade and composition from the “average” grade of the resource and may result in over-or-under valuing specific marginal grade blocks and create an incorrect picture of the true “exploitable” or “economically recoverable” resource, and faulty initial mine planning.

A “Net Smelter Revenue” or NSR valuation technique is used in this study. The valuation is calculated as “Net of Transport, Smelting and Refining” and considers each component pay metal in terms of the

specific sulphide concentrate into which it reports as well as the specific treatment steps required to convert the element in the concentrate to a level of purity sufficient to make it saleable. These steps include: transportation to the off-mine-site toll smelting or refining facility; drying, smelting, removal of tramp or diluent elements; refining and consolidation for market.

In the case of the CLM material, three distinct sulphide concentrates are produced (Copper, Lead and Zinc) and each is processed at a different smelting and refining combination, in different locations, using different processes, with differing metal recoveries and operating costs. The NSR valuation technique accounts for these differences while an AgEq method is unable to make this distinction.

13.2.2 Treatment Charges (Off-mine-site-costs)

The CLM metallurgical process facility is designed to process sulphide ore through milling and froth flotation to produce potentially three distinct concentrates:

- A copper-rich concentrate containing at least 25% Cu, a small fraction of the total silver and minimal amounts of Pb and Zn.
- A high grade Pb concentrate with the majority of the silver, and Cu and Zn levels as low as possible; and
- a Zn-rich concentrate, free of Cu and Pb and far lower in Ag grade than the other two.

On a tonnage basis, the Zn concentrate is the largest, while the Cu is by far the smallest. Gold was not recovered in the original metallurgical testwork and gold values are not considered in the current NSR calculations. Additional test work on gold-enrich mineralization is being conducted, the results of which are pending.

Oxide ore will be treated by direct cyanidation to leach Au and Ag but not any base metals.

The NSR calculations utilize indicative terms provided by Trafigura, a metals trading company with a strong presence in Mexico, for purchasing all three concentrates on a “free at warehouse in Mexico” basis which includes rail transport costs from mine-site to warehouse. In each case the specific terms offered for the Smelter Treatment charges (TC’s) and refining charges (RC’s) including sea freight to overseas refinery are included. The over-riding assumption is that the moisture content of any of the concentrates will not exceed a reasonable value (8%), and which is regarded as reasonably achievable on the basis of the particle sizes used in testwork.

Grades and recoveries of composites from each of the Skarn Front and the Blind-El Sol-Las Victorias (BESS) deposits were used to determine NSR valuations of the resource model as a function of deposit type. The terms quoted are tabled below for each concentrate of interest. (Tables 13.1 to 13.2)

TABLE 13-1: PENALTY CHARGES FOR TRAMP ELEMENTS

				CLM Grades						
Pb Concentrate				Skarn			Bess			
		Charge	unit	Above	Grade	Penalty	Deduction	Grade	Penalty	Deduction
Element	US\$	% or g/t	% or g/t	% or g/t	% or g/t	\$	% or g/t	% or g/t	\$	
Sb	1.5	0.1	0.7	0.01	0	0	4.45	3.75	56.25	
As	1.5	0.1	0.5	0.06	0	0	1.03	0.53	7.95	
Bi	2	0.1	0.25	1.6	1.35	27	0.2	0	0	
Se	2	100	500	144	0	0	425	0	0	
Cl+F	1.5	100	500	0	0	0	0	0	0	
Total Penalty						27			64.2	
Zn Concentrate										
		Charge	unit	Above	Grade	Penalty	Deduction	Grade	Penalty	Deduction
Element	US\$	% or g/t	% or g/t	% or g/t	% or g/t	\$	% or g/t	% or g/t	\$	
Cd	1.5	0.1	0.3	0.562	0.262	3.93	0.617	0.317	4.76	
As	1.5	0.1	0.5	0.06	0	0	0.87	0.37	5.55	
Co	1.5	100	500	300	0	0	54	0	0	
Fe	1.5	1	8	7.86	0	0	6.98	0	0	
SiO2	1.5	1	3.5	0.2	0	0	0.2	0	0	
Hg	1.5	100	300	1.04	0	0	3.96	0	0	
Cl+F	1.5	100	500	400	0	0	0	0	0	
Se	1.5	100	500	140	0	0	40	0	0	
Total Penalty						3.93			10.31	

TABLE 13-2: OFF-SITE TRANSPORT, SMELTING AND REFINING CHARGES

Item	type	US\$	% H2O	Cost /t dy conc
Concentrate Transport		/t shipped	(assumed)	US\$
	Copper	96	7	102.72
	Lead	96	7	102.72
	Zinc	106	7	113.42
Smelter Treatment charges		Range	Units	
	Copper	80	40-80	US\$/dry ton
	Lead	100	80-100	US\$/dry ton
	Zinc	240	220-240	US\$/dry ton
Refining Charges				
	Copper	0.107	Usc/lb Cu	
Silver	in copper con	0.4	US\$/g	
	in Pb con	0.6	US\$/g	
Grade Deducibles				
	Copper	1%		
	Lead	3%		
	Zinc	8%		

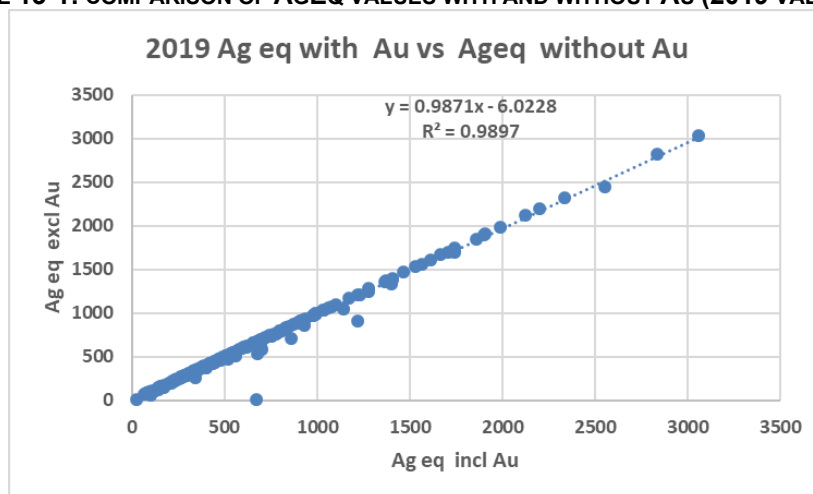
13.2.3 Comparison Between AgEq and NSR

While developing the NSR valuations it became evident that the relationship between NSR and silver equivalent was producing occasional discrepancies in block valuation. Closer investigation revealed two contributing factors:

1. The prices used in the original Ag eq, values for core intersections were based on 2015 prices, carried forward for consistency of reporting comparisons. The metal prices for the NSR calculation used 2019 metal prices.

2. The original Ag equivalent values included gold values. whereas the NSR calculation ignored gold values because the assay method used was previously was not accurate. The relatively high Ag eq value for Au (given Au=71x Ag) resulted in some very large outliers in the Ag eq. vs NSR comparison.

FIGURE 13-1: COMPARISON OF AGEQ VALUES WITH AND WITHOUT AU (2019 VALUATION)



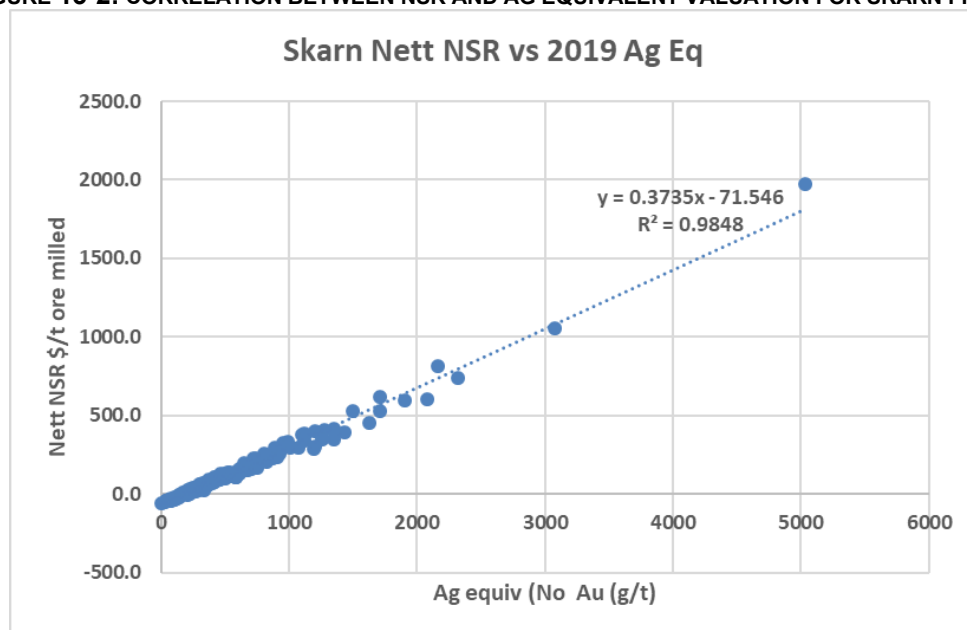
In most cases, because the Au levels are low, there is very little difference, but in cases where the gold content is above ~2ppm, the difference becomes significant. The outlier values in figure 13-1 are examples of such situations. Note that payment terms for Au in concentrates only apply for values above 1g/t in concentrate. For this reason, from a Resource valuation perspective the NSR method provides a slightly more realistic representation of the revenue earning potential of any given block than the AgEq method.

In principle, the Ag equivalent valuation method is an “in situ” maximum gross value of the material, free of any cost or recovery factors specific to the concentrate processing rate. For ease of comparison the calculated in-situ \$/t value is included in the NSR tables.

The success of the revised flowsheet, which recovers a separate copper concentrate, and which is an excellent collector for gold does minimize the gap between the earlier NSR values and the AgEq values for blocks containing gold.

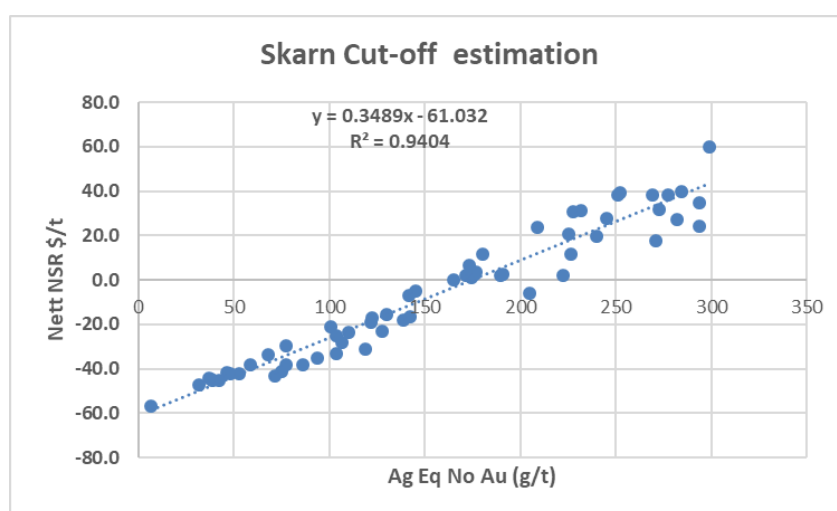
13.2.4 Comparison Between Methods (2019 Values)

The NSR valuation based on the NSR methodology outlined represents the best efforts to produce a realistic valuation of a mineral resource based on single sets of metallurgical test data using an NSR method. In spite of the limitations created by the limited metallurgical performance data, the results show a very high level of agreement with the results based on Ag equivalent Figure 13-2 below shows the correlation for Skarn Front material between the 2019 AgEq values and NSR values.

FIGURE 13-2: CORRELATION BETWEEN NSR AND AG EQUIVALENT VALUATION FOR SKARN FRONT

The validity of the NSR method is further confirmed by considering the economic cut-off grade: An NSR valuation of \$0 for a block implies that mining and processing of the block results in no net revenue or net cost, it breaks even. Similarly, processing of rock with 0 AgEq would result in the expenditure of \$58.50 in site costs, (estimated on the basis of the estimated on-site costs of similar operations in the region) but zero tonnage, as no concentrate is produced and hence no additional off-site TC's and RC's are incurred, resulting in an NSR value of -\$58.50.

The economic cut-off grade for Skarn material had previously been estimated at between 150 and 175 g/t AgEq. Figure 13-3 shows the correlation for Skarn front material based on 2019 values disregarding Au.

FIGURE 13-3: AGEQ CUT-OFF GRADE ESTIMATION USING NSR

13.2.5 Applicable Values for NSR Block Valuations

Metallurgical testwork performed using the optimized 3-stage sequential Cu-Pb-Zn flotation sequence confirmed that when copper content is low, no saleable copper concentrate is produced, and the need to apply a copper head grade cut-off value to blocks is eliminated, greatly simplifying the NSR calculation. Further testwork on BESS material currently underway indicates that BESS-type ore also benefits from the optimized circuit and will probably result in eliminating arsenic penalties previously applied to BESS Pb concentrates, although the final results have not been published.

Similarly additional cyanide leach testing of Au-bearing oxides is pending, and reagent consumption yet to be confirmed, so the on-site processing costs applied for oxide ore are currently assuming a conservative \$60/t to produce bullion.

Table 13-3 is a summary of all of the applicable recovery and off-site factors that influence the NSR valuation for sulphide and oxide rock types and for typical Skarn Front or Blind-El Sol type sulphides.

TABLE 13-3: NSR FACTORS USED IN BLOCK VALUATIONS FOR RESOURCE ESTIMATES

Item	Sulfides				Oxides	
	Pb Concentrate		Zn Concentrate		Cu Conc.	Ag-Au leach
Ore type	Skarn	BESS	Skarn	BESS	Skarn	
Pb Recovery	84%	90%				
Zn Recovery			95%	78%		
Cu Recovery					60%	
Ag Recovery	77%	79%	8%	12%	7%	74%
Au Recovery						70%
Payable Metals	Pb, Ag	Pb, Ag	Zn, Ag	Zn, Ag	Cu, Ag	Au, Ag
Concentrate grade, (primary base metal)	65%	70%	54%	52%	27%	
Transport, Treatment, Penalty charges, \$ dmt	230	267	358	364	183	
Base metal Concentrate Grade Deduction	3 units	3 units	8 units	8 units	1 units	
Ag Concentrate Grade Deduction, g/t	50	50	93	93		
Ag Refining charge, \$/oz	0.6	0.6			0.4	
Base metal Refining, \$/lb					0.107	
Ag payable					90%	

14 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

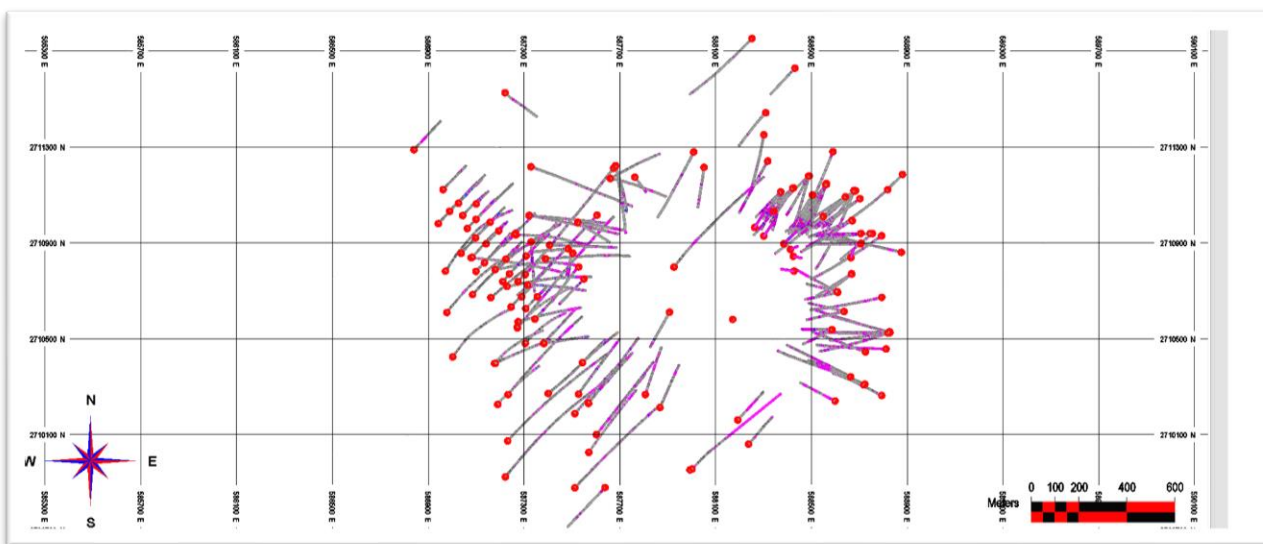
The purpose of this report is to document the resource estimations for the Cerro Las Minitas deposit. This section describes the work undertaken by Kirkham Geosystems, including key assumptions and parameters used to prepare the mineral resource models for Blind, El Sol, Las Victorias and Skarn Zones which were reported in 2019 however are updated herein to be reporting using Net Smelter Royalty (NSR) cut-offs based upon updated commodity pricing and operating costs.

In addition, this Technical Report serves as a first-time disclosure for mineral resources for the South Skarn and La Bocona Zones, together with appropriate commentary regarding the merits and possible limitations of such assumptions.

14.2 DATA

The 186 drill holes and seven (7) trenches in the database were supplied in electronic format by Southern Silver. This included collars, downhole surveys, lithology data and assay data (i.e., Ag g/t, Au g/t, Cu%, Pb%, Zn%, SG). Validation and verification checks were performed during importation of data to ensure there were no overlapping intervals, typographic errors or anomalous entries. Anomalies and errors were validated and corrected. Figure 14-1 shows a plan view of the supplied drill holes.

FIGURE 14-1: PLAN VIEW OF CERRO LAS MINITAS DRILL HOLES

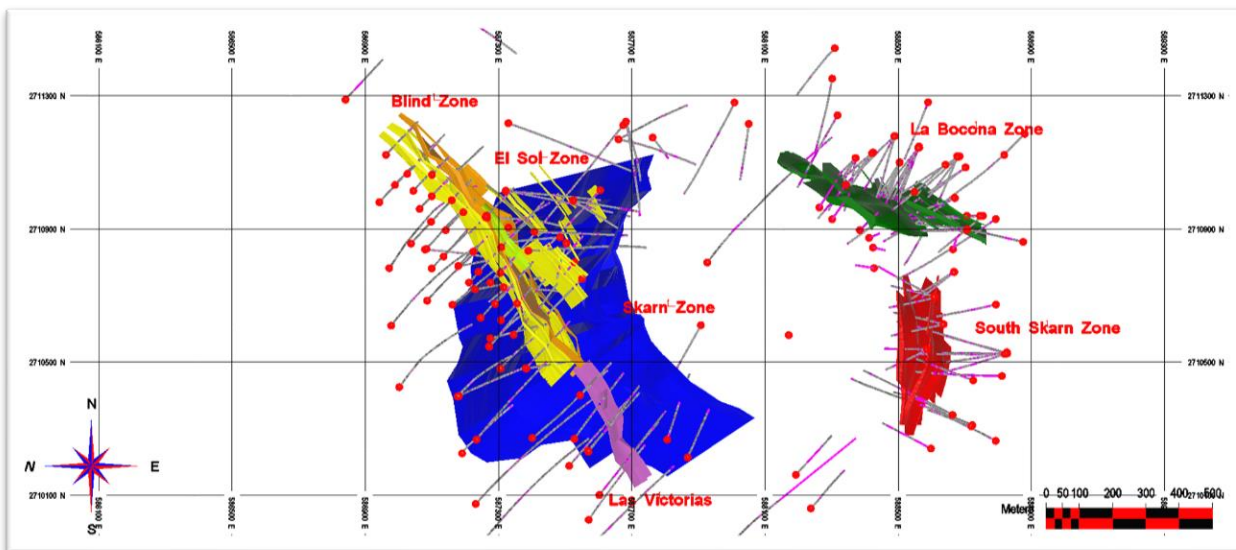


Source: Kirkham 2021

14.3 GEOLOGY MODEL

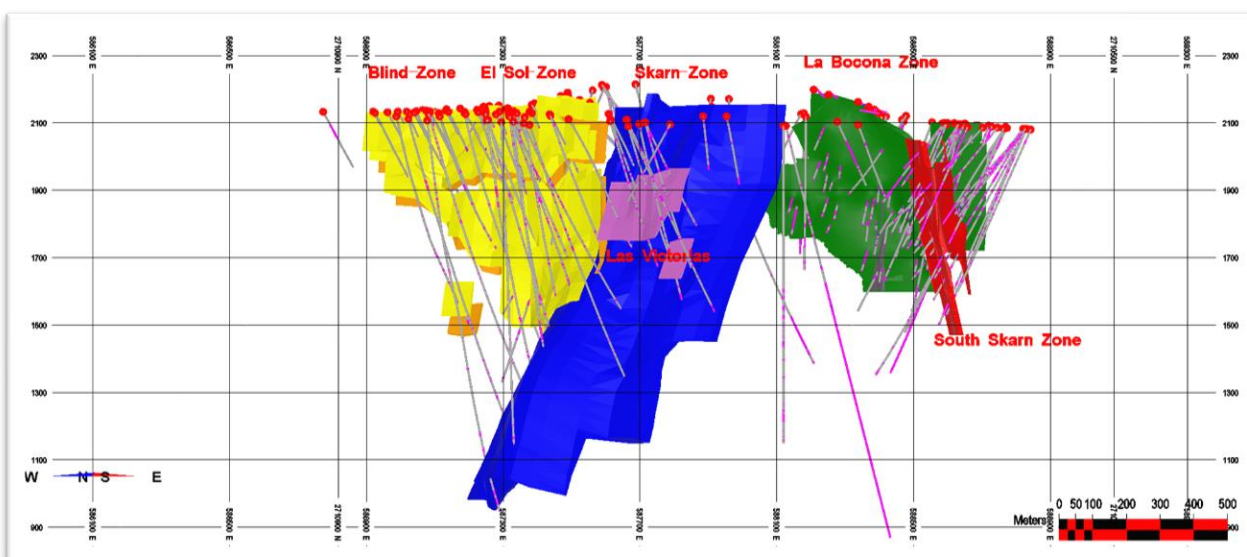
Solid models (Figure 14-2 and Figure 14-3) were created from sections and based on a combination of lithology, silver equivalent grades and site knowledge. It is important to note that the understanding and interpretation has evolved to be that of a significant Skarn Zone flanked by the El Sol, Blind and Las Victorias zones on the west side of the intrusion and the South Skarn and La Bocona zones to the east.

FIGURE 14-2: PLAN VIEW OF CERRO LAS MINITAS MINERALIZED ZONES AND DRILL HOLES



Source: Kirkham 2021

**FIGURE 14-3: SECTION VIEW OF CERRO LAS MINITAS MINERALIZED ZONES AND DRILL HOLES
LOOKING 325 DEGREES AZIMUTH**



Source: Kirkham 2021

All zones were modelled based on current drilling and assay data using LeapFrog™ and then imported into MineSight for interpretation and refinement. As the Skarn zone extends through the adjacent Puro Corazon property, the available data within that area is primarily the historic Silver Dragon drillhole data. It is important to note that the historic Silver Dragon drillholes were used to guide, confirm and ensure continuity of the Skarn zone through the Puro Corazon claims. The Puro Corazon volumes and tonnages are not reported as resources. In addition, at La Bocona, the historic underground workings were masked out to be excluded from the resource. This included a reasonable buffer to ensure sufficient pillars are accounted for.

Thirteen Silver Dragon drill holes were used to project the wireframe through the Puro Corazon claim; effectively tracing the contact with the central intrusion to identify the footwall of the Skarn Front zone. In four cases, where down hole data was not available, core photos were used to trace the contact. In other instances, down hole geology/mineralization was compared to geological projections from SSV drilling and known areas of mine activity at Santo Nino and Puro Corazon. This is the basis of the 2019 wireframe as it projects through the Puro Corazon claim. In comparison, the earlier 2017 wireframe typically projects 30 meters to 50 meters horizontally east of the identified Skarn Front zone in the Silver Dragon drilling, and as significantly, projects a similar distance east of the Rampa Guadalupe workings.

Every intersection was inspected, and the solid was then manually adjusted to match the drill intercepts. Once the solid model was created, it was used to code the drill hole assays and composites for subsequent statistical and geostatistical analysis. The solid zone was used to constrain the block model by matching assays to those within the zones. The orientation and ranges (distances) used for search ellipsoids in the estimation process were derived from strike and dip of the mineralized zone, site knowledge and on-site observations by Southern Silver geological staff.

14.4 DATA ANALYSIS

The database was numerically coded by solids for the Blind, El Sol and Santo Nino mineralized zones. The database was then manually adjusted, drill hole by drill hole, to ensure accuracy of zonal intercepts. Table 14.1 shows the statistics for the silver equivalent, silver, gold, copper, lead and zinc assays. In addition, basic statistics for the La Bocona Sulphide, La Bocona Oxide and South Skarn zones are shown in Tables 14.2, 14.3 and 14.4, respectively.

Note that the Blind and Skarn zones have a high degree of variability which is evidenced by the high Coefficient of Variation (CV) which is a unit independent quantitative measure of variability. With CV's ranging for a moderately high value of >2 to very high values of approximately 3.5, the goal of compositing and grade cutting will be to reduce these to reasonable range of 1 to 2. It should be noted that CV's for gold are extremely high to a maximum of 6.0 however the gold is also extremely low grade and as such, using CV as a measure of variability is not recommended and not valid.

The Las Victorias and El Sol zones have CV's that range between 1 and 2 which are moderate and will also be reduced to more reasonable levels with a goal of tuning them to less than 1.

TABLE 14-1: STATISTICS SILVER, GOLD, COPPER, LEAD AND ZINC FOR THE BLIND, LAS VICTORIAS, SKARN AND EL SOL ZONES

CODE	Zone	Metal	#	Length (m)	Max	Mean	CV	CODE	Zone	Metal	#	Length (m)	Max	Mean	CV
1	BZ1	AG	185	443.52	1,040.00	24.03	2.8	12	ES2	AG	65	120.02	745	32.663	2.2
		AU	185	443.52	0.52	0.017	3.1			AU	65	120.02	0.181	0.0144	1.6
		CU%	185	443.52	1.12	0.0236	3.2			CU%	65	120.02	5.1	0.0909	4.5
		PB%	185	443.52	18.5	0.55	3.1			PB%	65	120.02	12.4	0.923	1.9
		ZN%	185	443.52	20.3	0.487	3.2			ZN%	65	120.02	12.85	0.924	1.8
2	BZ2	AG	273	596.18	1,380.00	38.041	2.9	13	ES3	AG	24	37.85	238	62.962	1.0
		AU	273	596.18	5.32	0.0519	5.6			AU	24	37.85	0.074	0.0214	1.0
		CU%	273	596.18	3.27	0.0478	3.3			CU%	24	37.85	0.605	0.1083	1.3
		PB%	273	596.18	28.35	0.976	2.9			PB%	24	37.85	7.84	2.581	1.0
		ZN%	273	596.18	17.1	0.833	2.6			ZN%	24	37.85	9.05	3.288	1.0
3	BZ3	AG	222	383.22	1,400.00	46.179	2.8	14	ES4	AG	23	41.38	391	90.833	1.1
		AU	222	383.22	0.555	0.0327	2.6			AU	23	41.38	0.247	0.0262	2.1
		CU%	222	383.22	1.105	0.0414	2.8			CU%	23	41.38	0.239	0.0748	1.1
		PB%	222	383.22	19.7	1.003	2.3			PB%	23	41.38	9.42	1.864	1.1
		ZN%	222	383.22	18.7	0.906	2.6			ZN%	23	41.38	8.12	1.996	0.9
4	BZ4	AG	79	152.1	247	12.433	2.1	15	ES5	AG	15	23.05	58.2	17.474	0.8
		AU	79	152.1	0.035	0.0053	1.0			AU	15	23.05	0.018	0.006	0.9
		CU%	79	152.1	0.335	0.0196	2.7			CU%	15	23.05	0.216	0.064	1.1
		PB%	79	152.1	6.46	0.384	2.2			PB%	15	23.05	2.85	0.732	0.9
		ZN%	79	152.1	5.06	0.361	2.2			ZN%	15	23.05	3.21	0.767	1.1
5	Las Victorias Zone	AG	49	71.5	1,100.00	89.836	1.8	16	ES6	AG	20	27.55	650	123.091	1.5
		AU	49	71.5	6.26	0.8146	1.6			AU	20	27.55	0.66	0.1027	1.7
		CU%	49	71.5	0.985	0.0909	1.9			CU%	20	27.55	0.321	0.0565	1.3
		PB%	49	71.5	23.19	1.765	1.9			PB%	20	27.55	16	2.641	1.7
		ZN%	49	71.5	8.69	1.591	1.5			ZN%	20	27.55	15.1	1.356	1.8
20	Skarn Zone	AG	643	1,054.46	1,415.00	43.984	2.6	17	ES7	AG	8	11.85	154	37.946	1.4
		AU	643	1,054.46	6.9	0.046	6.0			AU	8	11.85	0.023	0.0096	0.8
		CU%	643	1,054.46	5.56	0.1629	2.9			CU%	8	11.85	0.234	0.0361	1.7
		PB%	643	1,054.46	16.7	0.338	3.6			PB%	8	11.85	7.28	1.268	1.6
		ZN%	643	1,054.46	37.33	1.645	2.5			ZN%	8	11.85	9.23	1.179	2.1
11	ES1	AG	31	49.65	276	39.012	1.3	18	ES8	AG	5	8.8	214	30.699	1.9
		AU	31	49.65	0.1	0.0124	1.5			AU	5	8.8	0.01	0.0057	0.5
		CU%	31	49.65	0.326	0.0403	1.6			CU%	5	8.8	0.031	0.0086	1.4
		PB%	31	49.65	10.6	1.099	1.9			PB%	5	8.8	7.23	1.053	2.0
		ZN%	31	49.65	5.6	1.077	1.3			ZN%	5	8.8	3.51	0.902	1.5

Source: Kirkham 2021

**TABLE 14-2: STATISTICS FOR SILVER, GOLD, COPPER, LEAD AND ZINC BY VEIN AT THE LA BOCONA ZONE
SULPHIDE**

CODE	ZONE	METAL	#	Length (m)	Min	Max	Mean	CV
1	La Bocona HW1	AU	22	28.75	0.002	3.02	0.14	3.4
		AG	22	28.75	1.1	602	71.11	2.2
		CU%	22	28.75	0.003	1.965	0.30	1.6
		PB%	22	28.75	0	5.31	0.37	3.0
		ZN%	22	28.75	0.01	0.48	0.17	1.0
2	La Bocona HW2	AU	23	25.1	0.002	0.413	0.05	1.4
		AG	23	25.1	0.5	530	72.44	2.0
		CU%	23	25.1	0.002	0.54	0.07	1.9
		PB%	23	25.1	0	13.15	1.26	2.2
		ZN%	23	25.1	0.02	32.18	1.04	3.8
3	La Bocona HW3	AU	5	3.55	0.011	0.421	0.13	1.2
		AG	5	3.55	12.8	543	140.15	1.4
		CU%	5	3.55	0.005	0.022	0.01	0.7
		PB%	5	3.55	0.38	12.7	3.22	1.5
		ZN%	5	3.55	0.1	1.34	0.72	0.7
4	La Bocona Main Sulphide	AU	460	594.25	0.002	4.71	0.12	3.4
		AG	460	594.25	0.25	3,180	85.56	2.9
		CU%	461	601.85	0	11.2	0.19	3.8
		PB%	461	601.85	0	58.81	1.36	3.2
		ZN%	461	601.85	0	21.5	1.07	2.5
10	Muralla Gold Sulphide	AU	2	1.4	0.009	0.224	0.09	1.2
		AG	2	1.4	0.8	770	275.51	1.3
		CU%	2	1.4	0.004	0.096	0.04	1.2
		PB%	2	1.4	0.02	17.9	6.41	1.3
		ZN%	2	1.4	0.21	11.1	4.10	1.3
20	Muralla Main	AU	34	35.45	0	5.35	0.84	1.8
		AG	34	35.45	0	528	97.63	1.5
		CU%	34	35.45	0	0.254	0.04	1.7
		PB%	34	35.45	0	15.1	2.44	1.5
		ZN%	34	35.45	0	8.5	1.13	1.3
21	Muralla HW1	AU	71	78.6	0.002	2.7	0.20	2.2
		AG	71	78.6	0.6	1,190	169.93	1.6
		CU%	71	78.6	0.001	0.232	0.02	1.6
		PB%	71	78.6	0	23.44	3.09	1.6
		ZN%	71	78.6	0.02	29.5	0.90	2.3
22	Muralla HW2	AU	134	134.3	0.002	7.84	0.39	2.3
		AG	134	134.3	0.25	2,430	138.13	1.9
		CU%	134	134.3	0.001	0.365	0.02	1.7
		PB%	134	134.3	0	53.53	2.31	2.0
		ZN%	134	134.3	0	14.15	1.11	2.1

Source: Kirkham 2021

TABLE 14-3: STATISTICS FOR SILVER, GOLD, COPPER, LEAD AND ZINC BY VEIN AT THE LA BOCONA ZONE OXIDE

CODE	ZONE	METAL	#	Length (m)	Min	Max	Mean	CV
40	Muralla Gold Oxide	AU	92	121	0	34.6	1.70	2.5
		AG	92	121	0	107	25.00	1.0
		CU%	92	121	0	0.132	0.02	1.5
		PB%	92	121	0	8.74	0.78	1.8
		ZN%	92	121	0	5.98	0.56	1.6
41	Muralla HW1	AU	8	13.85	0.006	0.108	0.05	0.8
		AG	8	13.85	1.1	125	43.12	1.1
		CU%	8	13.85	0.001	0.011	0.00	0.8
		PB%	8	13.85	0	0.46	0.12	1.5
		ZN%	8	13.85	0.09	1.27	0.53	0.8
42	Muralla HW2	AU	13	18.8	0.021	2.82	0.55	1.4
		AG	13	18.8	6.8	236	28.50	1.7
		CU%	13	18.8	0.001	0.23	0.02	2.2
		PB%	13	18.8	0.01	6.25	0.58	2.5
		ZN%	13	18.8	0.05	5.44	0.55	2.2
44	La Bocona Main Oxide	AU	81	130.3	0.002	2.14	0.12	2.7
		AG	81	130.3	0.8	358	34.70	1.8
		CU%	81	130.3	0.001	1.875	0.09	3.0
		PB%	81	130.3	0	2.46	0.47	1.4
		ZN%	81	130.3	0.01	12	0.95	2.0

Source: Kirkham 2021

TABLE 14-4: STATISTICS FOR SILVER, GOLD, COPPER, LEAD AND ZINC BY VEIN AT THE SOUTH SKARN ZONE

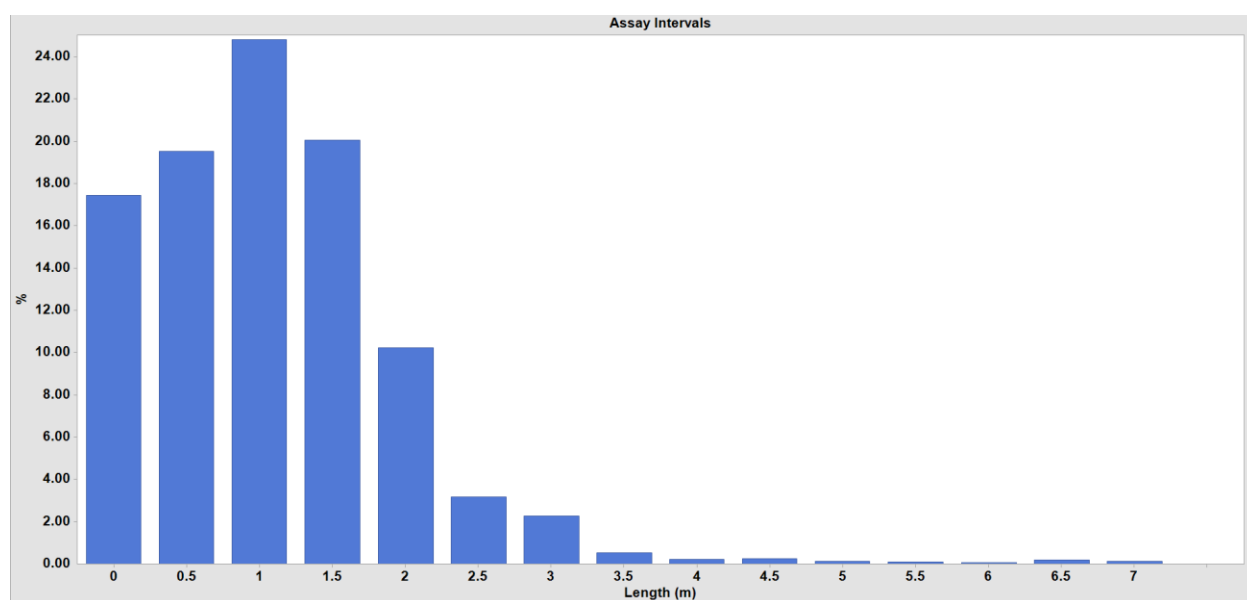
CODE	ZONE	METAL	#	Length (m)	Min	Max	Mean	CV
30	South Skarn FW1	AU	9	6.9	0.002	0.484	0.17	1.1
		AG	9	6.9	4.3	305	121.92	1.0
		CU%	9	6.9	0.004	1.08	0.29	1.4
		PB%	9	6.9	0.05	4.39	2.24	0.9
		ZN%	9	6.9	0.05	4.12	1.90	0.9
31	South Skarn HW1	AU	115	123.2	0.002	11.7	0.36	3.3
		AG	115	123.2	0.25	1,150	58.31	2.3
		CU%	115	123.2	0.001	0.516	0.02	2.9
		PB%	115	123.2	0.003	10.95	0.75	2.1
		ZN%	115	123.2	0.01	5.08	0.37	2.0
32	South Skarn Main	AU	392	402.4	0	2.04	0.08	2.4
		AG	392	402.4	0	1,480	73.09	2.5
		CU%	392	402.4	0	2.5	0.06	3.8
		PB%	392	402.4	0	26.52	1.11	3.0
		ZN%	392	402.4	0	22.6	0.98	2.9

Source: Kirkham 2021

14.5 COMPOSITES

It was determined that a 1.5 m composite length offered the best balance between supplying common support for samples and minimizing the smoothing of the grades with ~85% of the samples within the mineralized zones being <2 meters in length. The 1.5 m sample length also was consistent with the distribution of sample lengths within the mineralized domains as shown in the histogram of assay lengths in Figure 14-4.

FIGURE 14-4: ASSAY INTERVAL LENGTHS



Source: Kirkham 2021

Table 14.5 shows the basic statistics for the 1.5 m copper composite grades within the mineralized domains. It should be noted that although 1.5 m is the composite length, any residual composites of lengths greater than 0.5 m and less than 1.5 m were retained to represent a composite, while any composite residuals less than 0.5 m were combined with the previous composite.

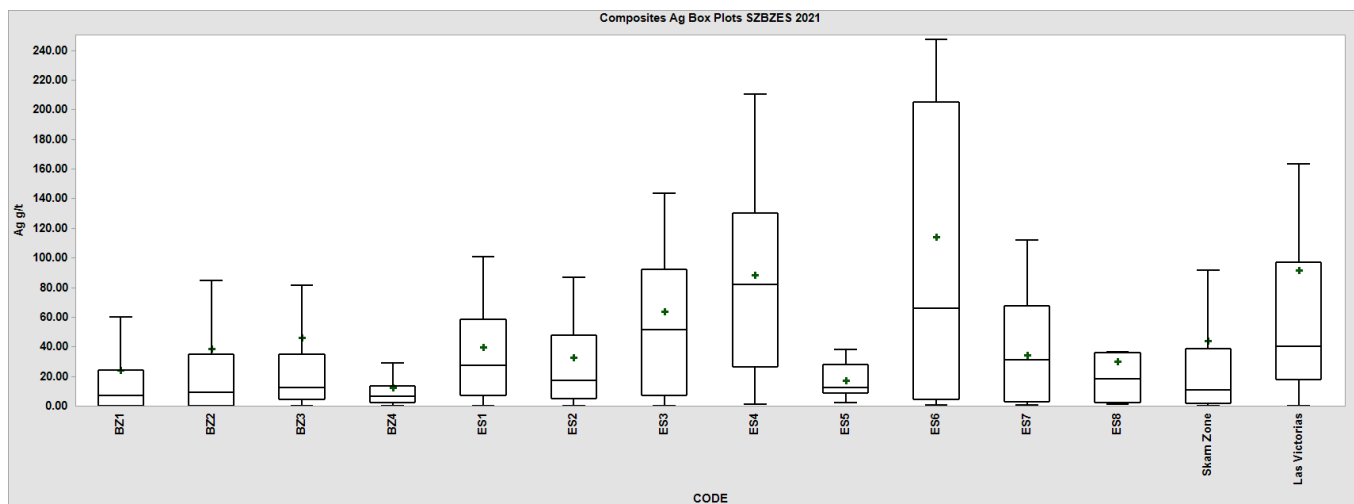
At the Blind, Las Victorias, Skarn and El Sol zones there is a total of 1,052, 49, 702 and 214 composites respectively, for a total of 2,017 as shown in Table 14.5.

The box plots for the silver, zinc and lead composites shown in Figures 14-5, 14-6 and 14-7 illustrate that the four Blind Zone units, the eight El Sol units, the Las Victorias and Skarn Front zone and their statistical relationship to each other. The box plots show that there are grade similarities within the zone groupings where the remaining Blind Zone solids and the El Sol Zone solids are similar, and, therefore, it is acceptable to treat them in a similar manner. The Skarn Front and Las Victorias zones are statistically different from all other zones and as such understandably that it is estimated separately.

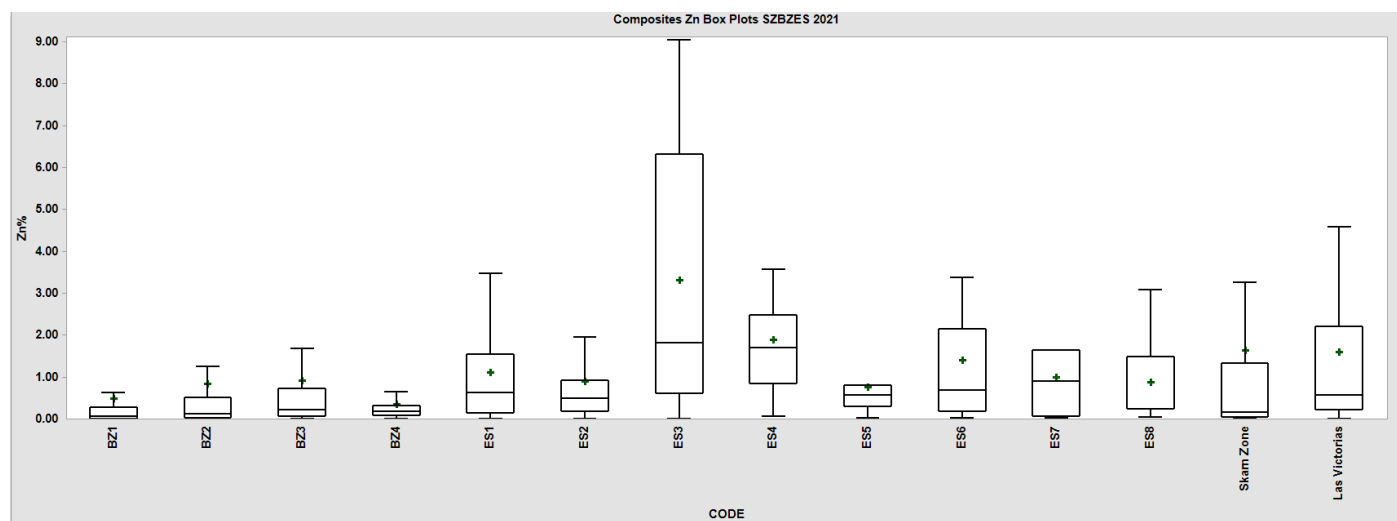
TABLE 14-5: COMPOSITE STATISTICS WEIGHTED BY LENGTH FOR THE BLIND, LAS VICTORIAS, SKARN AND EL SOL ZONES

CODE	Zone	Metal	#	Length (m)	Max	Mean	CV	CODE	Zone	Metal	#	Length (m)	Max	Mean	CV
1	BZ1	AG	296	443.52	409.37	24.03	2.0	12	ES2	AG	80	120.02	399.23	32.663	1.6
		AU	296	443.52	0.388	0.017	2.7			AU	80	120.02	0.122	0.0144	1.4
		CU%	296	443.52	0.447	0.0236	2.3			CU%	80	120.02	2.654	0.0909	3.3
		PB%	296	443.52	12.39	0.55	2.3			PB%	80	120.02	8.72	0.923	1.6
		ZN%	296	443.52	8.72	0.487	2.4			ZN%	80	120.02	9.05	0.923	1.4
2	BZ2	AG	398	596.18	1,152.41	38.041	2.5	13	ES3	AG	26	37.85	238	62.962	0.9
		AU	398	596.18	2.558	0.0519	4.2			AU	26	37.85	0.074	0.0215	0.9
		CU%	398	596.18	1.615	0.0478	2.8			CU%	26	37.85	0.445	0.1083	1.1
		PB%	398	596.18	26.27	0.975	2.7			PB%	26	37.85	7.1	2.581	0.9
		ZN%	398	596.18	12.56	0.833	2.3			ZN%	26	37.85	9.05	3.288	0.9
3	BZ3	AG	257	383.22	1,400.00	46.179	2.5	14	ES4	AG	28	41.38	391	90.832	0.9
		AU	257	383.22	0.541	0.0327	2.4			AU	28	41.38	0.226	0.0262	1.8
		CU%	257	383.22	1.105	0.0414	2.5			CU%	28	41.38	0.232	0.0748	0.9
		PB%	257	383.22	19.7	1.003	2.0			PB%	28	41.38	6.93	1.864	1.0
		ZN%	257	383.22	15.35	0.906	2.2			ZN%	28	41.38	6.02	1.996	0.8
4	BZ4	AG	101	152.1	80.5	12.433	1.4	15	ES5	AG	15	23.05	38.2	17.474	0.6
		AU	101	152.1	0.025	0.0053	0.8			AU	15	23.05	0.018	0.006	0.8
		CU%	101	152.1	0.275	0.0196	2.2			CU%	15	23.05	0.212	0.0641	1.0
		PB%	101	152.1	3.66	0.385	1.6			PB%	15	23.05	2.11	0.732	0.7
		ZN%	101	152.1	4.05	0.362	1.8			ZN%	15	23.05	2.22	0.767	0.9
5	Las Victorias Zone	AG	49	71.5	618.8	89.837	1.5	16	ES6	AG	18	27.55	551.86	123.091	1.1
		AU	49	71.5	5.623	0.8147	1.3			AU	18	27.55	0.555	0.1027	1.5
		CU%	49	71.5	0.985	0.0909	1.8			CU%	18	27.55	0.217	0.0565	1.0
		PB%	49	71.5	14.09	1.765	1.6			PB%	18	27.55	13.71	2.642	1.3
		ZN%	49	71.5	7.58	1.59	1.3			ZN%	18	27.55	6.77	1.356	1.2
20	Skarn Zone	AG	702	1,054.46	1,262.64	43.984	2.4	17	ES7	AG	8	11.85	111.94	37.946	0.9
		AU	702	1,054.46	5.819	0.046	5.3			AU	8	11.85	0.021	0.0096	0.7
		CU%	702	1,054.46	5.185	0.1629	2.6			CU%	8	11.85	0.106	0.0361	1.0
		PB%	702	1,054.46	13.15	0.338	3.3			PB%	8	11.85	3.23	1.268	1.0
		ZN%	702	1,054.46	27.06	1.645	2.3			ZN%	8	11.85	4.08	1.179	1.2
11	ES1	AG	33	49.65	164.93	39.012	1.1	18	ES8	AG	6	8.8	114.55	30.699	1.3
		AU	33	49.65	0.09	0.0125	1.3			AU	6	8.8	0.01	0.0057	0.4
		CU%	33	49.65	0.177	0.0403	1.1			CU%	6	8.8	0.027	0.0087	1.1
		PB%	33	49.65	6.22	1.099	1.7			PB%	6	8.8	3.87	1.055	1.4
		ZN%	33	49.65	4.26	1.077	1.1			ZN%	6	8.8	3.07	0.901	1.2

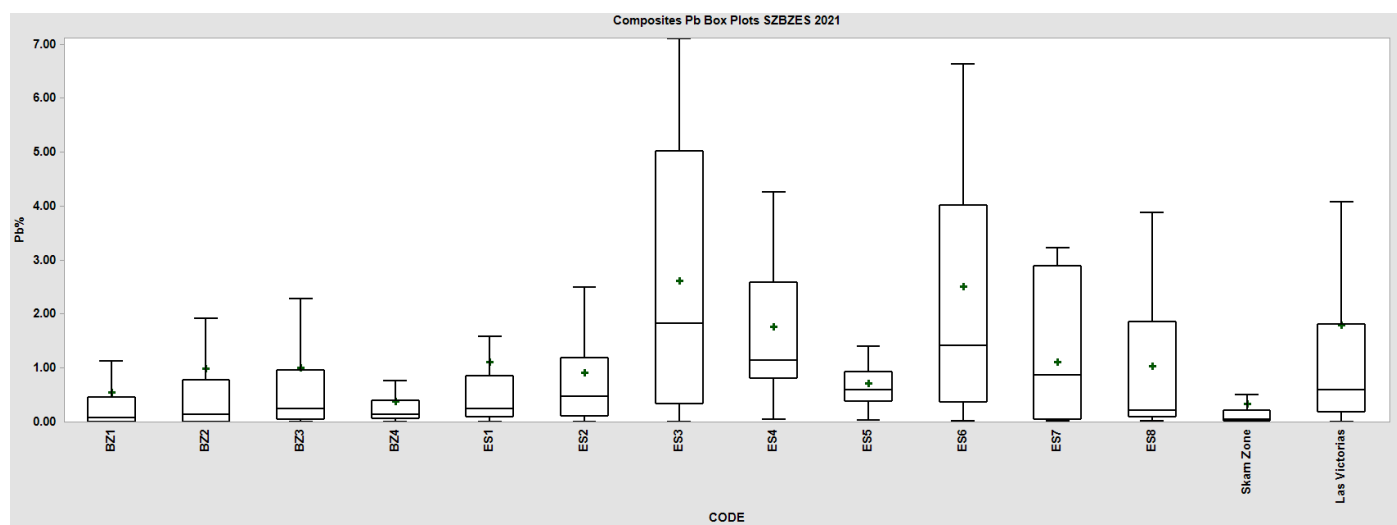
Source: Kirkham 2021

FIGURE 14-5: BOX PLOT OF AG COMPOSITES FOR THE BLIND, EL SOL AND SKARN ZONES

Source: Kirkham 2021

FIGURE 14-6: BOX PLOT OF ZN COMPOSITES FOR THE BLIND, EL SOL AND SKARN ZONES

Source: Kirkham 2021

FIGURE 14-7: BOX PLOT OF Pb COMPOSITES FOR THE BLIND, EL SOL AND SKARN ZONES

Source: Kirkham 2021

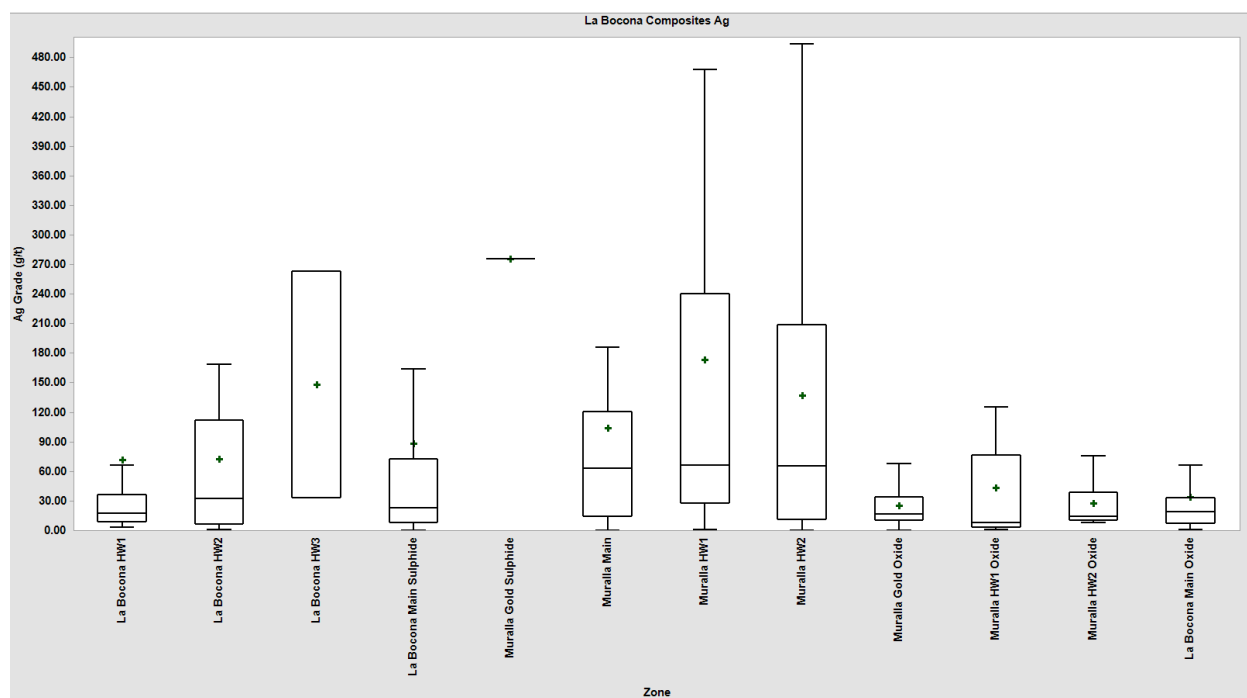
At the La Bocona Sulphide, La Bocona Oxide and South Skarn zones there are 585, 190 and 352 composites, respectively for a total of 1,127 composites, shown in Table 14-6, 14-7 and 14-8.

The box plots shown in Figures 14-8, 14-9, 14-10 and 14-11 illustrate that the La Bocona zone and their statistical relationship to each other for Ag, Cu, Pb and Zn, respectively. The box plots show that the relative distribution for Ag, Pb and Zn are relatively similar but not enough to conclude that they can be grouped together and are therefore estimated separately using hard boundaries. Furthermore, the copper grades are quite different however the copper grades do not contribute economically in significant quantities except for the La Bocona HW1 zone which is again estimated separately.

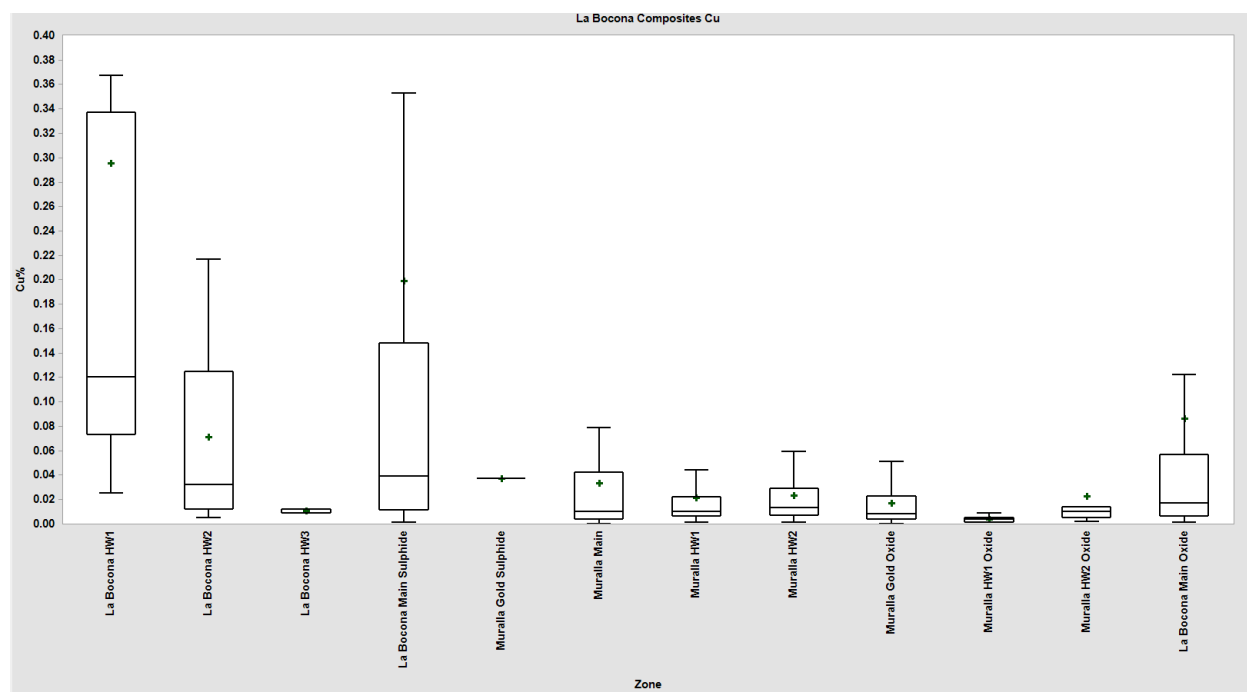
TABLE 14-6: COMPOSITE STATISTICS WEIGHTED BY LENGTH FOR THE LA BOCONA ZONE

CODE	ZONE	METAL	#	Length (m)	Min	Max	Mean	CV
1	La Bocona HW1	AU	19	28.75	0.003	1.556	0.14	2.6
		AG	19	28.75	3.4	482.28	71.11	1.8
		CU%	19	28.75	0.025	1.577	0.30	1.3
		PB%	19	28.75	0	4.79	0.37	2.8
		ZN%	19	28.75	0.01	0.48	0.16	0.9
2	La Bocona HW2	AU	16	25.1	0.002	0.147	0.05	0.8
		AG	16	25.1	0.54	364.53	72.44	1.3
		CU%	16	25.1	0.005	0.402	0.07	1.4
		PB%	16	25.1	0	5.85	1.26	1.4
		ZN%	16	25.1	0.02	7.09	1.04	1.7
3	La Bocona HW3	AU	2	3.55	0.076	0.185	0.13	0.4
		AG	2	3.55	33.16	263.36	140.15	0.8
		CU%	2	3.55	0.009	0.012	0.01	0.1
		PB%	2	3.55	0.79	6.02	3.22	0.8
		ZN%	2	3.55	0.32	1.19	0.72	0.6
4	La Bocona Main Sulphide	AU	383	574.85	0.002	4.71	0.12	3.0
		AG	383	574.85	0.25	2,323.83	88.34	2.4
		CU%	383	574.85	0.001	11.2	0.20	3.3
		PB%	383	574.85	0	42.79	1.43	2.7
		ZN%	383	574.85	0.01	16.56	1.11	2.1
10	Muralla Gold Sulphide	AU	1	1.4	0.086	0.086	0.09	0.0
		AG	1	1.4	275.52	275.52	275.52	0.0
		CU%	1	1.4	0.037	0.037	0.04	0.0
		PB%	1	1.4	6.41	6.41	6.41	0.0
		ZN%	1	1.4	4.1	4.1	4.10	0.0
20	Muralla Main	AU	23	35.45	0	5.13	0.84	1.7
		AG	23	35.45	0	525	97.63	1.3
		CU%	23	35.45	0	0.216	0.04	1.5
		PB%	23	35.45	0	15.1	2.44	1.3
		ZN%	23	35.45	0	3.3	1.13	1.0
21	Muralla HW1	AU	52	78.6	0.007	1.483	0.20	1.5
		AG	52	78.6	0.6	1,002.93	169.93	1.3
		CU%	52	78.6	0.001	0.145	0.02	1.3
		PB%	52	78.6	0	17.58	3.09	1.3
		ZN%	52	78.6	0.02	6.63	0.90	1.4
22	Muralla HW2	AU	89	134.3	0.002	6.528	0.39	2.0
		AG	89	134.3	0.25	892	138.13	1.2
		CU%	89	134.3	0.001	0.18	0.02	1.2
		PB%	89	134.3	0	14.9	2.31	1.3
		ZN%	89	134.3	0	11.7	1.11	1.8

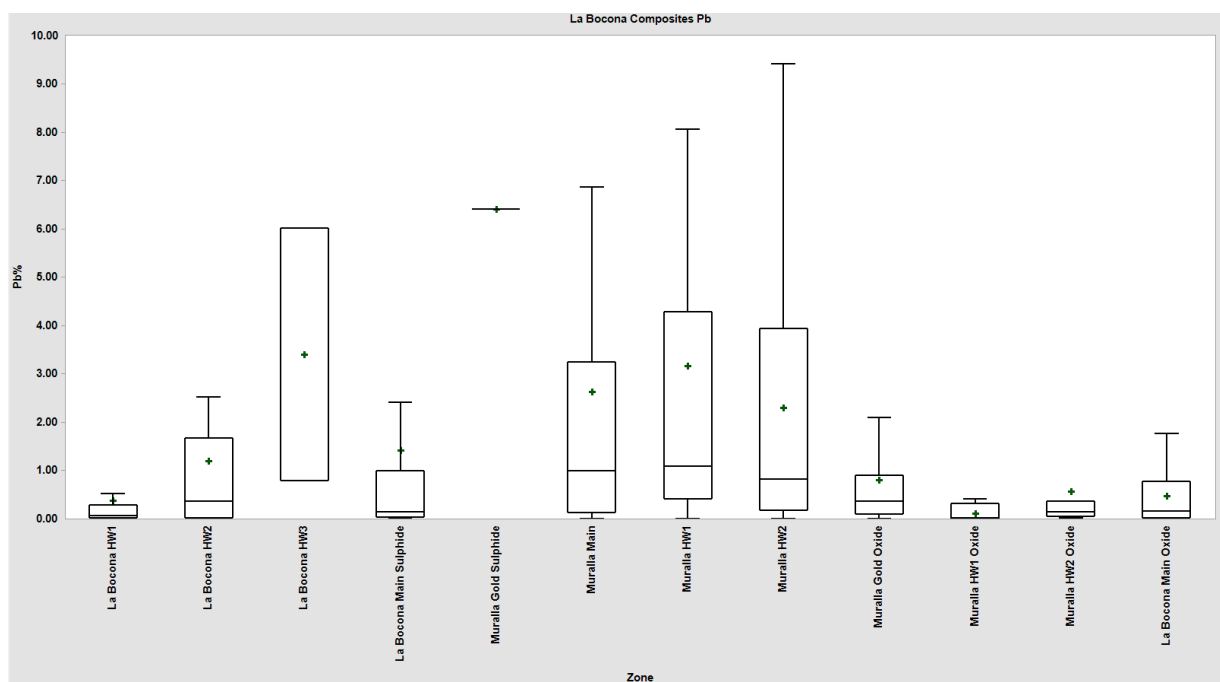
Source: Kirkham 2021

FIGURE 14-8: BOX PLOT OF AG COMPOSITES BY LA BOCONA ZONE

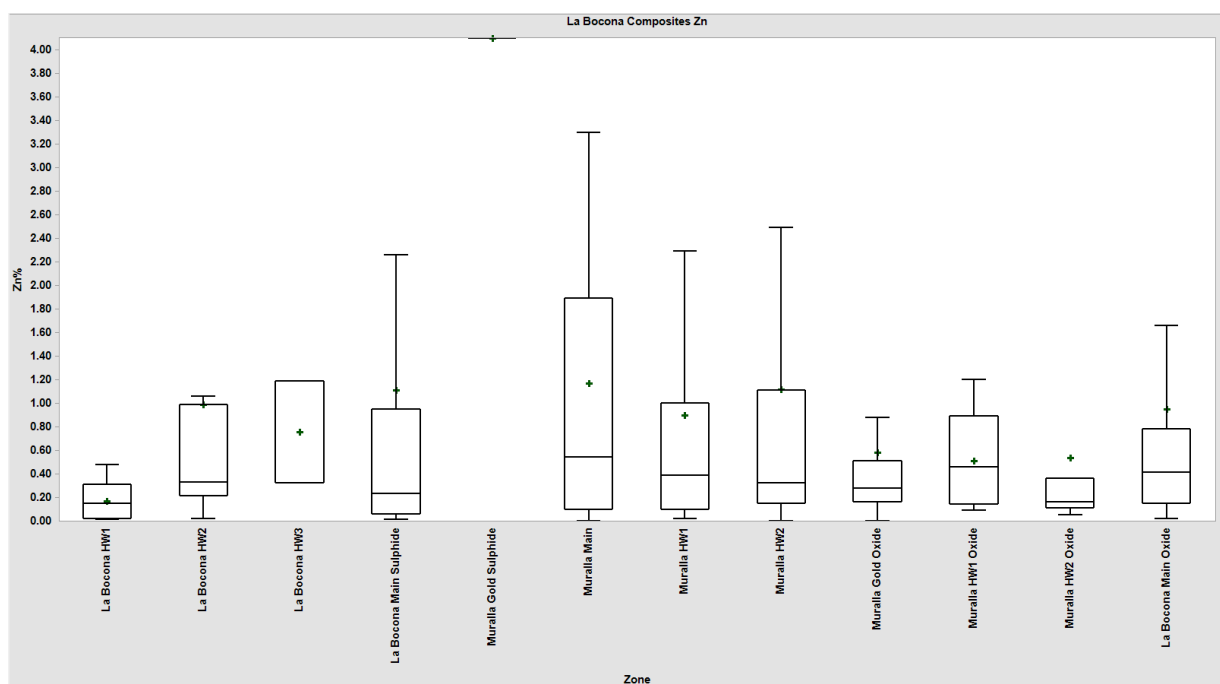
Source: Kirkham 2021

FIGURE 14-9: BOX PLOT OF CU COMPOSITES FOR LA BOCONA ZONE

Source: Kirkham 2021

FIGURE 14-10: BOX PLOT OF Pb COMPOSITES FOR LA BOCONA ZONE

Source: Kirkham 2021

FIGURE 14-11: BOX PLOT OF Zn COMPOSITES FOR LA BOCONA ZONE

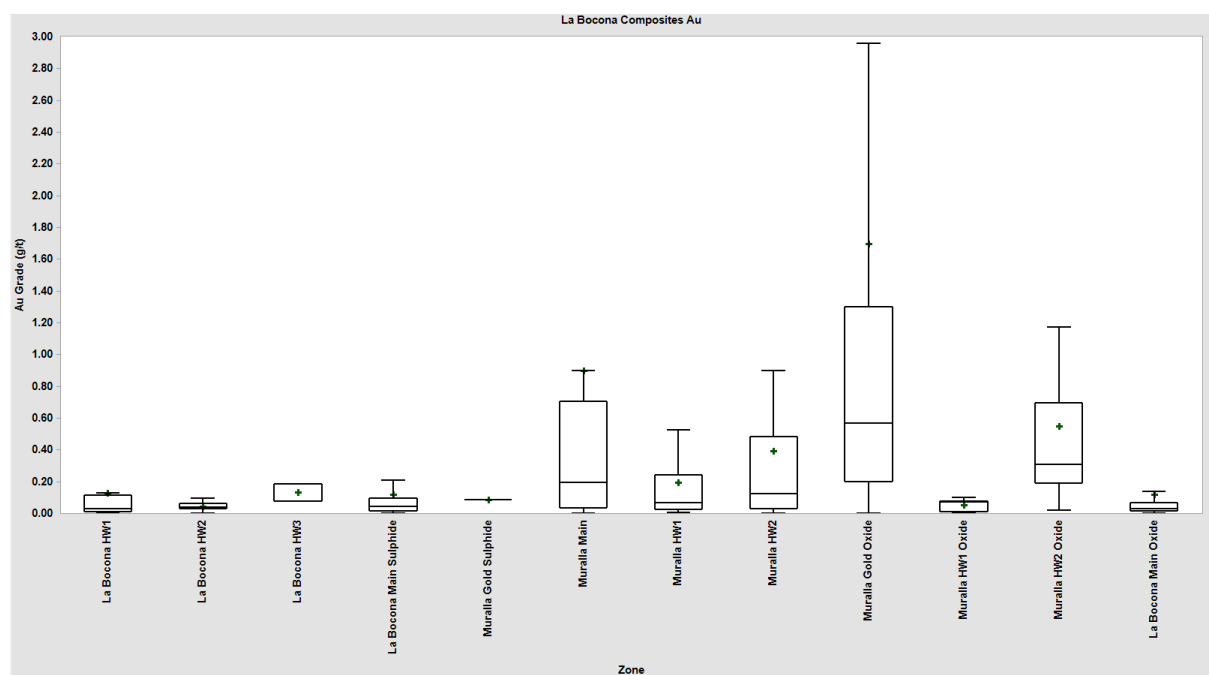
Source: Kirkham 2021

Gold concentrations within the La Bocona zone is relatively low with the exception of the La Bocona Oxide shown in Table 14-7 and illustrated in the Au box plot in Figure 14-12. As the oxide resource is likely to be a leach product, only the gold and silver, as shown in Figure 14-8, will be economic and therefore reported, herein.

TABLE 14-7: COMPOSITE STATISTICS WEIGHTED BY LENGTH FOR THE LA BOCONA OXIDE ZONE

CODE	ZONE	METAL	#	Length (m)	Min	Max	Mean	CV
40	Muralla Gold Oxide	AU	82	121	0	31.258	1.699	2.3
		AG	82	121	0	107	25.003	0.9
		CU%	82	121	0	0.13	0.0172	1.4
		PB%	82	121	0	7.59	0.779	1.6
		ZN%	82	121	0	5.36	0.561	1.5
41	Muralla HW1	AU	10	13.85	0.006	0.1	0.0517	0.7
		AG	10	13.85	1.1	125	43.116	1.0
		CU%	10	13.85	0.001	0.009	0.004	0.7
		PB%	10	13.85	0	0.41	0.117	1.4
		ZN%	10	13.85	0.09	1.2	0.525	0.8
42	Muralla HW2	AU	12	18.8	0.021	2.63	0.5456	1.2
		AG	12	18.8	7.91	107.8	28.496	1.1
		CU%	12	18.8	0.002	0.136	0.0231	1.6
		PB%	12	18.8	0.01	3.86	0.579	1.9
		ZN%	12	18.8	0.05	3.18	0.55	1.6
44	La Bocona Main Oxide	AU	86	130.3	0.002	2.14	0.1222	2.5
		AG	86	130.3	1	358	34.697	1.7
		CU%	86	130.3	0.001	1.875	0.0862	2.7
		PB%	86	130.3	0	2.46	0.471	1.2
		ZN%	86	130.3	0.02	10.95	0.953	1.8

Source: Kirkham 2021

FIGURE 14-12: BOX PLOT OF AU COMPOSITES BY ZONE FOR LA BOCONA

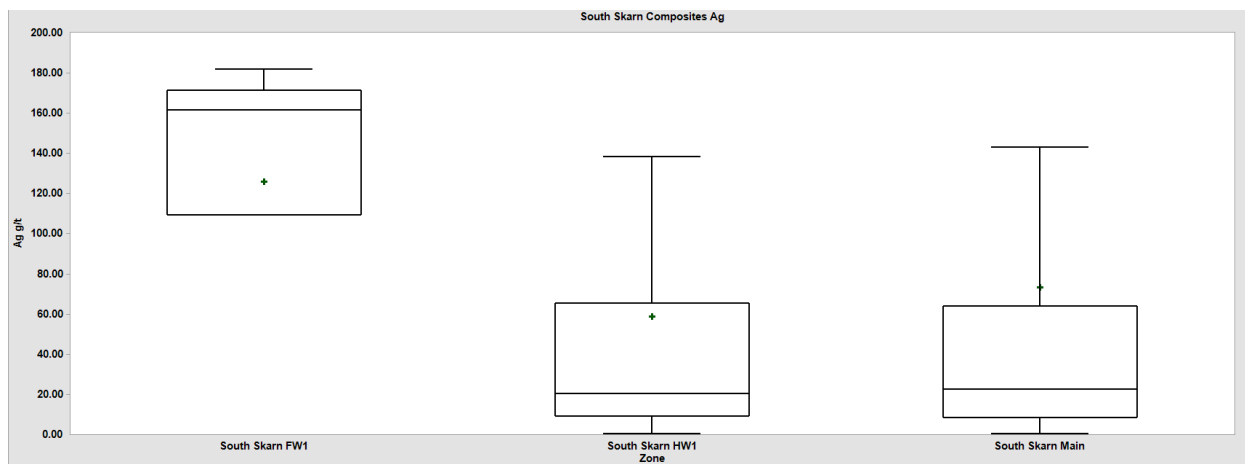
Source: Kirkham 2021

Table 14-8 shows the statistics for the South Skarn zone demonstrating significant silver, lead and zinc grades, particularly within the FW1 domain. Gold is also elevated within the HW1 domain. Based on the box plots as shown in Figures 14-13 through 14-17, the South Skarn Main and HW1 could be considered statistically similar enough to combine, however due to the few numbers of composites, they continue to remain segregated and estimated using hard boundaries. It is clear however that the FW1 is distinctly different and is treated as such.

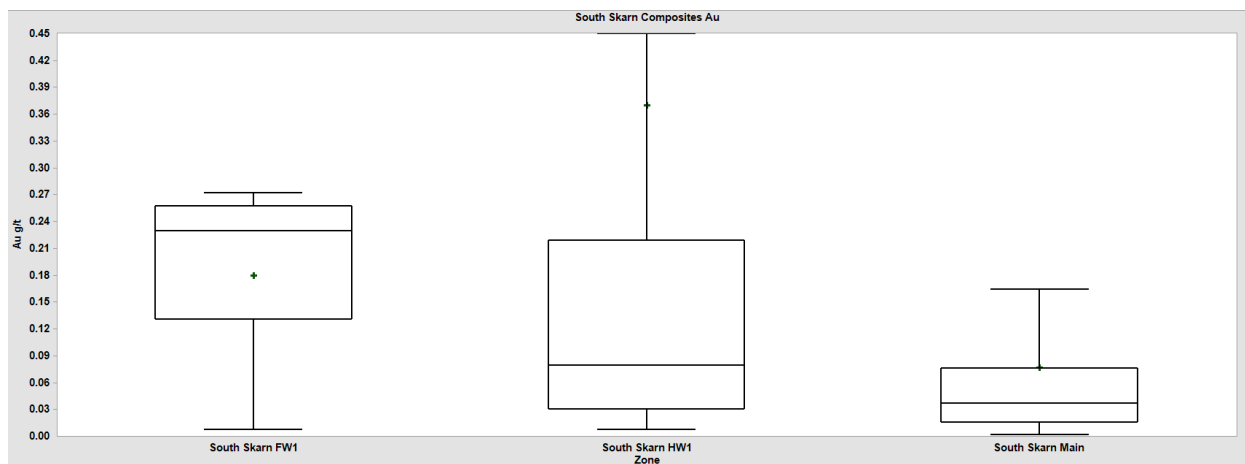
TABLE 14-8: COMPOSITE STATISTICS WEIGHTED BY LENGTH FOR THE SOUTH SKARN ZONE

CODE	ZONE	METAL	#	Length (m)	Min	Max	Mean	CV
30	South Skarn FW1	AG	5	6.9	4.95	182	121.92	0.5
		AU	5	6.9	0.007	0.272	0.17	0.6
		CU%	5	6.9	0.004	0.586	0.29	0.8
		PB%	5	6.9	0.1	4.39	2.24	0.6
		ZN%	5	6.9	0.27	4.12	1.90	0.7
31	South Skarn HW1	AG	79	121.1	0.25	555.14	59.18	1.7
		AU	79	121.1	0.007	7.997	0.36	2.8
		CU%	79	121.1	0.001	0.343	0.02	2.3
		PB%	79	121.1	0	7.7	0.76	1.7
		ZN%	79	121.1	0.01	3.34	0.38	1.6
32	South Skarn Main	AG	268	402.4	0.25	1,271.27	73.09	2.1
		AU	268	402.4	0.002	2.04	0.08	2.2
		CU%	268	402.4	0.001	2.5	0.06	3.5
		PB%	268	402.4	0	22.82	1.11	2.5
		ZN%	268	402.4	0.01	16.22	0.98	2.3

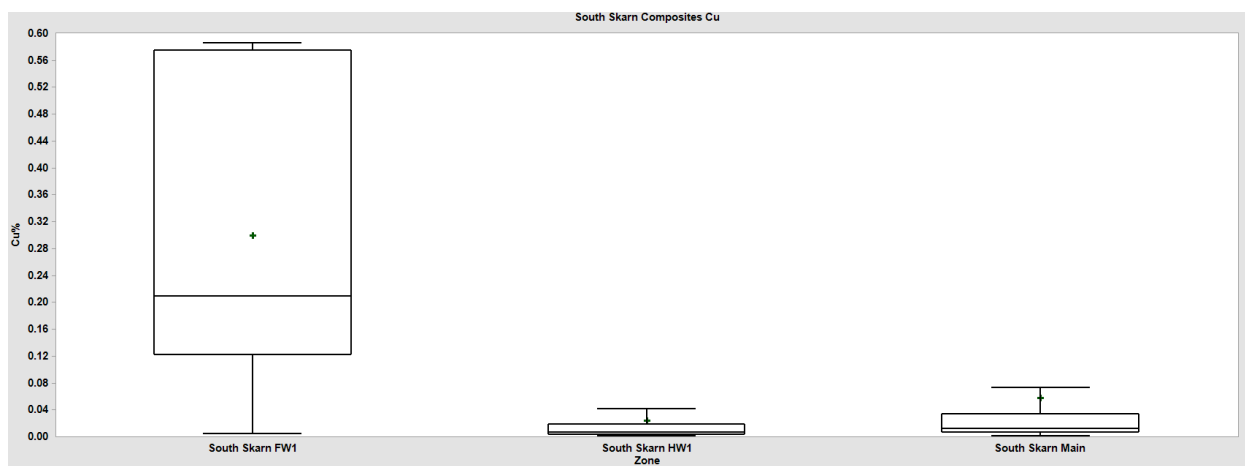
Source: Kirkham 2021

FIGURE 14-13: BOX PLOT OF AG COMPOSITES BY ZONE FOR SOUTH SKARN

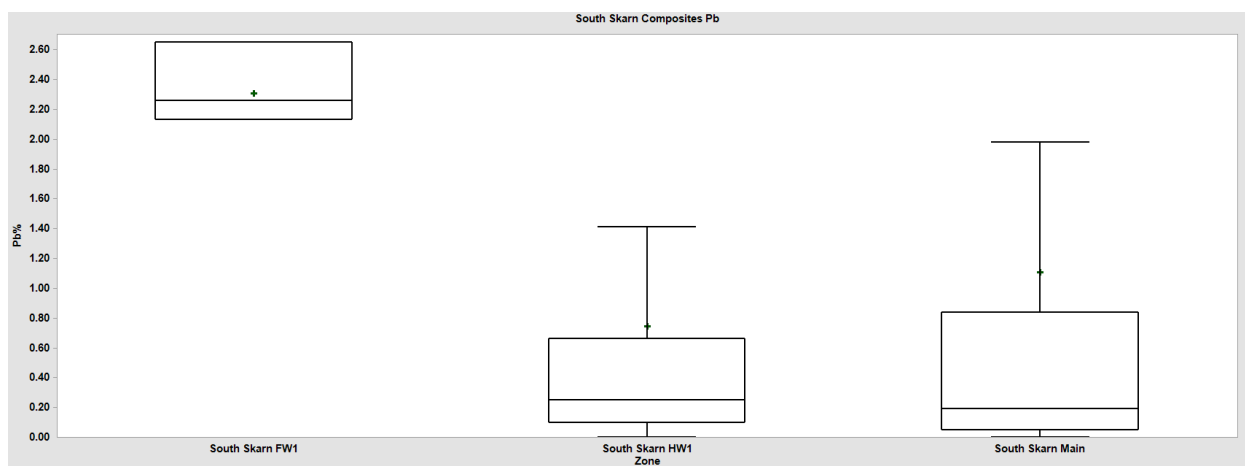
Source: Kirkham 2021

FIGURE 14-14: BOX PLOT OF AU COMPOSITES BY ZONE FOR SOUTH SKARN

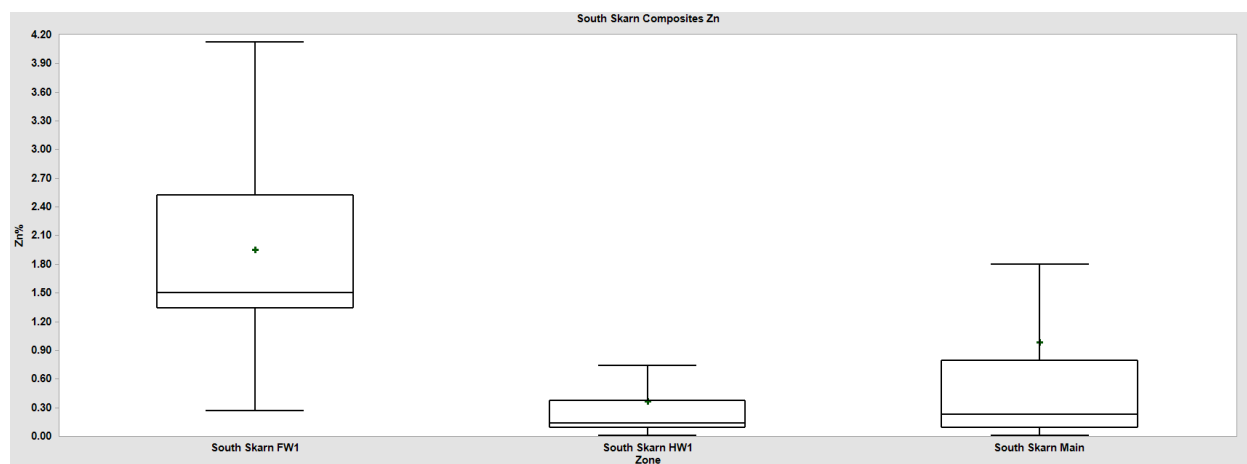
Source: Kirkham 2021

FIGURE 14-15: BOX PLOT OF CU COMPOSITES BY ZONE FOR SOUTH SKARN

Source: Kirkham 2021

FIGURE 14-16: BOX PLOT OF Pb COMPOSITES BY ZONE FOR SOUTH SKARN

Source: Kirkham 2021

FIGURE 14-17: BOX PLOT OF ZN COMPOSITES BY ZONE FOR SOUTH SKARN

Source: Kirkham 2021

14.6 EVALUATION OF OUTLIER ASSAY VALUES

An evaluation of the probability plots suggests that there may be outlier assay values that could result in an overestimation of resources. Although it is believed that this risk is relatively low, it was considered prudent to cut the silver, gold, copper, lead and zinc composites to 700 g/t, 1.5 g/t, 1.4%, 5% and 19%, respectively within the Skarn, El Sol and Blind zones to reduce the effects of outliers.

As previously discussed, the CV's, which are a unit independent measure of variability, were relatively high for the assay data. This may be mitigated or resolved by 1) compositing and 2) cutting or grade limiting. Table 14-9 illustrates the effect of each process from assay data, composites and cut composites along with the reduction in average grade and corresponding CV. Both the Blind Zone and the Skarn Zone show significant reductions in CV's however the gold remain very high. However, for the Blind, El Sol, Las Victorias and Skarn zones, the gold is extremely low grade to the point that CV is not a good indicator of error or variability. That stated, the other metals that are significant, also have elevated CV's and should be considered a risk due to the uncertainty that is present as a result.

Table 14-9 OUTLIER CUTTING ANALYSIS FOR THE BLIND, EL SOL AND SKARN ZONES

CODE	Zone	Metal	Max	Mean	CV	Max	Mean	CV	Max	Mean	CV	Mean	CV
1	BZ1	AG	1,040.00	24.03	2.8	409.37	24.03	2.0	409.37	24.03	2.0	0%	-30%
		AU	0.52	0.017	3.1	0.388	0.017	2.7	0.388	0.02	2.7	0%	-10%
		CU%	1.12	0.0236	3.2	0.447	0.0236	2.3	0.447	0.02	2.3	0%	-30%
		PB%	18.5	0.55	3.1	12.39	0.55	2.3	5	0.51	2.0	-7%	-34%
		ZN%	20.3	0.487	3.2	8.72	0.487	2.4	8.72	0.49	2.4	0%	-24%
2	BZ2	AG	1,380.00	38.041	2.9	1,152.41	38.041	2.5	700	36.88	2.3	-3%	-22%
		AU	5.32	0.0519	5.6	2.558	0.0519	4.2	1.5	0.05	3.4	-12%	-39%
		CU%	3.27	0.0478	3.3	1.615	0.0478	2.8	1.4	0.05	2.7	-1%	-18%
		PB%	28.35	0.976	2.9	26.27	0.975	2.7	5	0.72	1.8	-26%	-39%
		ZN%	17.1	0.833	2.6	12.56	0.833	2.3	12.56	0.83	2.3	0%	-14%
3	BZ3	AG	1,400.00	46.179	2.8	1,400.00	46.179	2.5	700	43.44	2.0	-6%	-27%
		AU	0.555	0.0327	2.6	0.541	0.0327	2.4	0.541	0.03	2.4	0%	-7%
		CU%	1.105	0.0414	2.8	1.105	0.0414	2.5	1.105	0.04	2.5	0%	-10%
		PB%	19.7	1.003	2.3	19.7	1.003	2.0	5	0.85	1.5	-15%	-33%
		ZN%	18.7	0.906	2.6	15.35	0.906	2.2	15.35	0.91	2.2	0%	-16%
4	BZ4	AG	247	12.433	2.1	80.5	12.433	1.4	80.5	12.43	1.4	0%	-33%
		AU	0.035	0.0053	1.0	0.025	0.0053	0.8	0.025	0.01	0.8	0%	-20%
		CU%	0.335	0.0196	2.7	0.275	0.0196	2.2	0.275	0.02	2.2	0%	-19%
		PB%	6.46	0.384	2.2	3.66	0.385	1.6	3.66	0.39	1.6	0%	-26%
		ZN%	5.06	0.361	2.2	4.05	0.362	1.8	4.05	0.36	1.8	0%	-19%
5	Las Victorias Zone	AG	1,100.00	89.836	1.8	618.8	89.837	1.5	618.8	89.84	1.5	0%	-16%
		AU	6.26	0.8146	1.6	5.623	0.8147	1.3	1.5	0.59	0.9	-28%	-44%
		CU%	0.985	0.0909	1.9	0.985	0.0909	1.8	0.985	0.09	1.8	0%	-3%
		PB%	23.19	1.765	1.9	14.09	1.765	1.6	5	1.34	1.2	-24%	-37%
		ZN%	8.69	1.591	1.5	7.58	1.59	1.3	7.58	1.59	1.3	0%	-11%
20	Skarn Zone	AG	1,415.00	43.984	2.6	1,262.64	43.984	2.4	700	42.40	2.2	-4%	-15%
		AU	6.9	0.046	6.0	5.819	0.046	5.3	1.5	0.04	3.1	-14%	-49%
		CU%	5.56	0.1629	2.9	5.185	0.1629	2.6	1.4	0.14	2.0	-14%	-30%
		PB%	16.7	0.338	3.6	13.15	0.338	3.3	5	0.30	2.6	-12%	-27%
		ZN%	37.33	1.645	2.5	27.06	1.645	2.3	19	1.60	2.2	-3%	-15%
11	ES1	AG	276	39.012	1.3	164.93	39.012	1.1	164.93	39.01	1.1	0%	-18%
		AU	0.1	0.0124	1.5	0.09	0.0125	1.3	0.09	0.01	1.3	1%	-13%
		CU%	0.326	0.0403	1.6	0.177	0.0403	1.1	0.177	0.04	1.1	0%	-27%
		PB%	10.6	1.099	1.9	6.22	1.099	1.7	5	0.98	1.5	-10%	-19%
		ZN%	5.6	1.077	1.3	4.26	1.077	1.1	4.26	1.08	1.1	0%	-15%

CODE	Zone	Metal	Max	Mean	CV	Max	Mean	CV	Max	Mean	CV	Mean	CV
12	ES2	AG	745	32.663	2.2	399.23	32.663	1.6	399.23	32.66	1.6	0%	-26%
		AU	0.181	0.0144	1.6	0.122	0.0144	1.4	0.122	0.01	1.4	0%	-14%
		CU%	5.1	0.0909	4.5	2.654	0.0909	3.3	1.4	0.08	2.2	-17%	-50%
		PB%	12.4	0.923	1.9	8.72	0.923	1.6	5	0.86	1.3	-7%	-31%
		ZN%	12.85	0.924	1.8	9.05	0.923	1.4	9.05	0.92	1.4	0%	-19%
13	ES3	AG	238	62.962	1.0	238	62.962	0.9	238	62.96	0.9	0%	-7%
		AU	0.074	0.0214	1.0	0.074	0.0215	0.9	0.074	0.02	0.9	0%	-13%
		CU%	0.605	0.1083	1.3	0.445	0.1083	1.1	0.445	0.11	1.1	0%	-18%
		PB%	7.84	2.581	1.0	7.1	2.581	0.9	5	2.35	0.8	-9%	-16%
		ZN%	9.05	3.288	1.0	9.05	3.288	0.9	9.05	3.29	0.9	0%	-9%
14	ES4	AG	391	90.833	1.1	391	90.832	0.9	391	90.83	0.9	0%	-14%
		AU	0.247	0.0262	2.1	0.226	0.0262	1.8	0.226	0.03	1.8	0%	-13%
		CU%	0.239	0.0748	1.1	0.232	0.0748	0.9	0.232	0.07	0.9	0%	-11%
		PB%	9.42	1.864	1.1	6.93	1.864	1.0	5	1.74	0.9	-7%	-21%
		ZN%	8.12	1.996	0.9	6.02	1.996	0.8	6.02	2.00	0.8	0%	-12%
15	ES5	AG	58.2	17.474	0.8	38.2	17.474	0.6	38.2	17.47	0.6	0%	-22%
		AU	0.018	0.006	0.9	0.018	0.006	0.8	0.018	0.01	0.8	0%	-9%
		CU%	0.216	0.064	1.1	0.212	0.0641	1.0	0.212	0.06	1.0	0%	-3%
		PB%	2.85	0.732	0.9	2.11	0.732	0.7	2.11	0.73	0.7	0%	-22%
		ZN%	3.21	0.767	1.1	2.22	0.767	0.9	2.22	0.77	0.9	0%	-18%
16	ES6	AG	650	123.091	1.5	551.86	123.091	1.1	551.86	123.09	1.1	0%	-27%
		AU	0.66	0.1027	1.7	0.555	0.1027	1.5	0.555	0.10	1.5	0%	-14%
		CU%	0.321	0.0565	1.3	0.217	0.0565	1.0	0.217	0.06	1.0	0%	-27%
		PB%	16	2.641	1.7	13.71	2.642	1.3	5	1.98	0.9	-25%	-44%
		ZN%	15.1	1.356	1.8	6.77	1.356	1.2	6.77	1.36	1.2	0%	-32%
17	ES7	AG	154	37.946	1.4	111.94	37.946	0.9	111.94	37.95	0.9	0%	-31%
		AU	0.023	0.0096	0.8	0.021	0.0096	0.7	0.021	0.01	0.7	0%	-5%
		CU%	0.234	0.0361	1.7	0.106	0.0361	1.0	0.106	0.04	1.0	0%	-40%
		PB%	7.28	1.268	1.6	3.23	1.268	1.0	3.23	1.27	1.0	0%	-40%
		ZN%	9.23	1.179	2.1	4.08	1.179	1.2	4.08	1.18	1.2	0%	-43%
18	ES8	AG	214	30.699	1.9	114.55	30.699	1.3	114.55	30.70	1.3	0%	-33%
		AU	0.01	0.0057	0.5	0.01	0.0057	0.4	0.01	0.01	0.4	0%	-10%
		CU%	0.031	0.0086	1.4	0.027	0.0087	1.1	0.027	0.01	1.1	1%	-19%
		PB%	7.23	1.053	2.0	3.87	1.055	1.4	3.87	1.06	1.4	0%	-31%
		ZN%	3.51	0.902	1.5	3.07	0.901	1.2	3.07	0.90	1.2	0%	-17%

Source: Kirkham 2021

The cut thresholds applied to La Bocona zone composites are 700 g/t silver, 5 g/t gold, 1.4% copper, 15% lead and 10% zinc and 700 g/t silver, 2.5 g/t gold, 0.5% copper, 15% lead and 8% zinc at the South Skarn zone.

In contrast, the variability that is evident at La Bocona and South Skarn, has been adequately addressed through the grade limiting strategy as shown in Table 14-10 and 14-11

Table 14-10 OUTLIER CUTTING ANALYSIS FOR THE LA BOCONA ZONE

CODE	ZONE	METAL	Max	Mean	CV	Max	Mean	CV	Max	Mean	CV	Mean	CV
1	La Bocona HW1	AG	602	71.11	2.2	482.28	71.11	1.8	482.28	71.11	1.8	0%	-19%
		AU	3.02	0.14	3.4	1.556	0.14	2.6	1.5	0.14	2.6	-3%	-24%
		CU%	1.965	0.30	1.6	1.577	0.30	1.3	1.4	0.29	1.2	-3%	-26%
		PB%	5.31	0.37	3.0	4.79	0.37	2.8	4.79	0.37	2.8	0%	-6%
		ZN%	0.48	0.17	1.0	0.48	0.16	0.9	0.48	0.16	0.9	-1%	-10%
2	La Bocona HW2	AG	530	72.44	2.0	364.53	72.44	1.3	364.53	72.44	1.3	0%	-35%
		AU	0.413	0.05	1.4	0.147	0.05	0.8	0.147	0.05	0.8	0%	-40%
		CU%	0.54	0.07	1.9	0.402	0.07	1.4	0.402	0.07	1.4	0%	-25%
		PB%	13.15	1.26	2.2	5.85	1.26	1.4	5.85	1.26	1.4	0%	-36%
		ZN%	32.18	1.04	3.8	7.09	1.04	1.7	7.09	1.04	1.7	0%	-55%
3	La Bocona HW3	AG	543	140.15	1.4	263.36	140.15	0.8	263.36	140.15	0.8	0%	-43%
		AU	4.71	0.12	3.4	4.71	0.12	3.0	0.185	0.13	0.4	9%	-87%
		CU%	0.022	0.01	0.7	0.012	0.01	0.1	0.012	0.01	0.1	-1%	-79%
		PB%	12.7	3.22	1.5	6.02	3.22	0.8	6.02	3.22	0.8	0%	-45%
		ZN%	1.34	0.72	0.7	1.19	0.72	0.6	1.19	0.72	0.6	0%	-20%
4	La Bocona Main Sulphide	AG	3,180	85.56	2.9	2,323.83	88.34	2.4	700	76.10	1.8	-11%	-36%
		AU	0.421	0.13	1.2	0.185	0.13	0.4	1.5	0.10	2.0	-19%	66%
		CU%	11.2	0.19	3.8	11.2	0.20	3.3	1.4	0.16	1.8	-15%	-52%
		PB%	58.81	1.36	3.2	42.79	1.43	2.7	15	1.26	2.2	-7%	-31%
		ZN%	21.5	1.07	2.5	16.56	1.11	2.1	10	1.06	2.0	-1%	-22%
10	Muralla Gold Sulphide	AG	770	275.51	1.3	275.52	275.52						
		AU	0.224	0.09	1.2	0.086	0.09						
		CU%	0.096	0.04	1.2	0.037	0.04						
		PB%	17.9	6.41	1.3	6.41	6.41						
		ZN%	11.1	4.10	1.3	4.1	4.10						
20	Muralla Main	AG	528	97.63	1.5	525	97.63	1.3	525	97.63	1.3	0%	-17%
		AU	5.35	0.84	1.8	5.13	0.84	1.7	1.5	0.46	1.2	-45%	-33%
		CU%	0.254	0.04	1.7	0.216	0.04	1.5	0.216	0.04	1.5	0%	-10%
		PB%	15.1	2.44	1.5	15.1	2.44	1.3	15	2.44	1.3	0%	-12%
		ZN%	8.5	1.13	1.3	3.3	1.13	1.0	3.3	1.13	1.0	0%	-22%
21	Muralla HW1	AG	1,190	169.93	1.6	1,002.93	169.93	1.3	700	158.21	1.2	-7%	-26%
		AU	2.7	0.20	2.2	1.483	0.20	1.5	1.483	0.20	1.5	0%	-33%
		CU%	0.232	0.02	1.6	0.145	0.02	1.3	0.145	0.02	1.3	0%	-19%
		PB%	23.44	3.09	1.6	17.58	3.09	1.3	15	3.00	1.3	-3%	-21%
		ZN%	29.5	0.90	2.3	6.63	0.90	1.4	6.63	0.90	1.4	0%	-40%
22	Muralla HW2	AG	2,430	138.13	1.9	892	138.13	1.2	700	135.99	1.2	-2%	-36%
		AU	7.84	0.39	2.3	6.528	0.39	2.0	1.5	0.31	1.3	-20%	-45%
		CU%	0.365	0.02	1.7	0.18	0.02	1.2	0.18	0.02	1.2	0%	-27%
		PB%	53.53	2.31	2.0	14.9	2.31	1.3	14.9	2.31	1.3	0%	-36%
		ZN%	14.15	1.11	2.1	11.7	1.11	1.8	10	1.09	1.7	-2%	-19%

Source: Kirkham 2021

TABLE 14-11 OUTLIER CUTTING ANALYSIS FOR THE SOUTH SKARN ZONE

CODE	ZONE	METAL	#	Length (m)	Min	Max	Mean	CV	Max	Mean	CV	Max	Mean	CV	Mean	CV
40	Muralla Gold Oxide	AU	92	121	0	34.6	1.70	2.5	31.258	1.70	2.3	5	1.16	1.3	-32%	-49%
		AG	92	121	0	107	25.00	1.0	107	25.00	0.9	107	25.00	0.9	0%	-11%
		CU%	92	121	0	0.132	0.02	1.5	0.13	0.02	1.4	0.13	0.02	1.4	0%	-6%
		PB%	92	121	0	8.74	0.78	1.8	7.59	0.78	1.6	7.59	0.78	1.6	0%	-9%
		ZN%	92	121	0	5.98	0.56	1.6	5.36	0.56	1.5	5.36	0.56	1.5	0%	-10%
41	Muralla HW1	AU	8	13.85	0.006	0.108	0.05	0.8	0.1	0.05	0.7	0.1	0.05	0.7	0%	-10%
		AG	8	13.85	1.1	125	43.12	1.1	125	43.12	1.0	125	43.12	1.0	0%	-7%
		CU%	8	13.85	0.001	0.011	0.00	0.8	0.009	0.00	0.7	0.009	0.00	0.7	3%	-16%
		PB%	8	13.85	0	0.46	0.12	1.5	0.41	0.12	1.4	0.41	0.12	1.4	0%	-9%
		ZN%	8	13.85	0.09	1.27	0.53	0.8	1.2	0.53	0.8	1.2	0.53	0.8	0%	-9%
42	Muralla HW2	AU	13	18.8	0.021	2.82	0.55	1.4	2.63	0.55	1.2	1.5	0.46	0.9	-17%	-35%
		AG	13	18.8	6.8	236	28.50	1.7	107.8	28.50	1.1	107.8	28.50	1.1	0%	-38%
		CU%	13	18.8	0.001	0.23	0.02	2.2	0.136	0.02	1.6	0.136	0.02	1.6	0%	-28%
		PB%	13	18.8	0.01	6.25	0.58	2.5	3.86	0.58	1.9	3.86	0.58	1.9	0%	-26%
		ZN%	13	18.8	0.05	5.44	0.55	2.2	3.18	0.55	1.6	3.18	0.55	1.6	0%	-28%
44	La Bocona Main Oxide	AU	81	130.3	0.002	2.14	0.12	2.7	2.14	0.12	2.5	1.5	0.11	2.3	-6%	-17%
		AG	81	130.3	0.8	358	34.70	1.8	358	34.70	1.7	358	34.70	1.7	0%	-6%
		CU%	81	130.3	0.001	1.875	0.09	3.0	1.875	0.09	2.7	1.4	0.08	2.4	-6%	-19%
		PB%	81	130.3	0	2.46	0.47	1.4	2.46	0.47	1.2	2.46	0.47	1.2	0%	-12%
		ZN%	81	130.3	0.01	12	0.95	2.0	10.95	0.95	1.8	10	0.94	1.8	-1%	-14%

Source: Kirkham 2021

14.7 SPECIFIC GRAVITY ESTIMATION

Bulk densities were based on a total of 1,201 individual measurements taken by Southern field personnel from key mineralized zones throughout the La Bocona and South Skarn zones along with the Skarn Front Zone, the Las Victorias Zone and to a lesser extent, the Blind and El Sol Zones. These density values ranged from 1.51 t/m³ to 5.33 t/m³ and average to 2.98 t/m³. Specific gravities were calculated on a block-by-block basis by interpolating the SG measurements using inverse distance to the second power and limited within the individual mineralized zone solids. A default density of 2.8 t/m³ was assigned to any blocks that were not assigned a calculated value.

14.8 VARIOGRAPHY

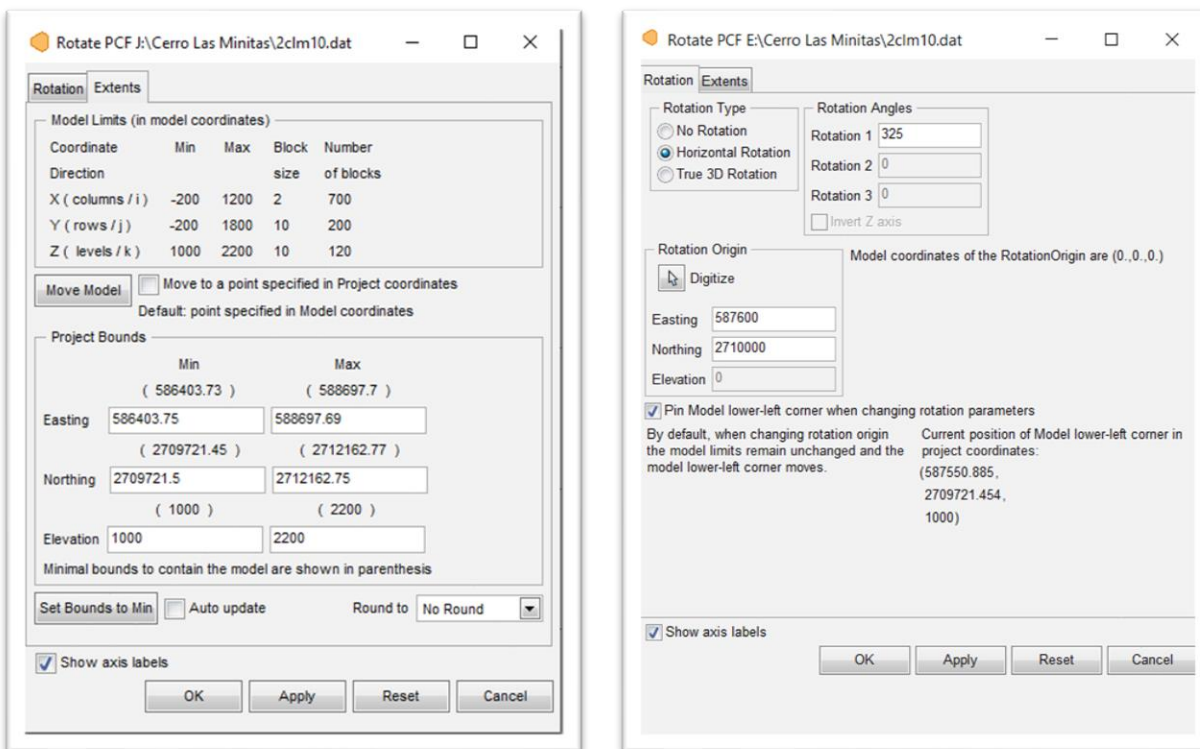
Experimental variograms and variogram models in the form of correlograms were generated for silver, gold, copper, lead and zinc grades. However, the individual zones do not have sufficient data to generate meaningful variogram results. For this reason, it was decided at this time to use inverse distance to the third power for the Skarn zone and inverse distance to the second power for all other zones as the interpolator.

14.9 BLOCK MODEL DEFINITION

The block model used to estimate the resources was defined according to the limits specified in Figures 14-18, 14-19 and 14-20. The block model is orthogonal and non-rotated, reflecting the orientation of the deposit. The chosen block size was 10 m by 10 m by 2 m, roughly reflecting the drill hole spacing (i.e., 4–

6 blocks between drill holes) which is spaced at approximately 50 m centres. Note: MineSight™ uses the centroid of the blocks as the origin.

FIGURE 14-18: DIMENSIONS, ORIGIN AND ORIENTATION FOR THE SKARN, BLIND AND EL SOL ZONE BLOCK MODEL



Rotate PCF J:\Cerro Las Minitas\2clm10.dat

Extents

Model Limits (in model coordinates)

Coordinate	Min	Max	Block size	Number of blocks
X (columns / i)	-200	1200	2	700
Y (rows / j)	-200	1800	10	200
Z (levels / k)	1000	2200	10	120

Move Model ☐ Move to a point specified in Project coordinates
Default: point specified in Model coordinates

Project Bounds

	Min	Max
Easting	586403.75 (2709721.45)	588697.69 (2712162.77)
Northing	2709721.5 (1000)	2712162.75 (2200)
Elevation	1000	2200

Minimal bounds to contain the model are shown in parenthesis

Set Bounds to Min ☐ Auto update Round to No Round

☒ Show axis labels

Rotate PCF E:\Cerro Las Minitas\2clm10.dat

Rotation

Rotation Type

☐ No Rotation
☒ Horizontal Rotation
☐ True 3D Rotation

Rotation Angles

Rotation 1 325
Rotation 2 0
Rotation 3 0

☐ Invert Z axis

Rotation Origin

Easting 587600
Northing 2710000
Elevation 0

Model coordinates of the RotationOrigin are (0.,0.,0.)

☒ Pin Model lower-left corner when changing rotation parameters

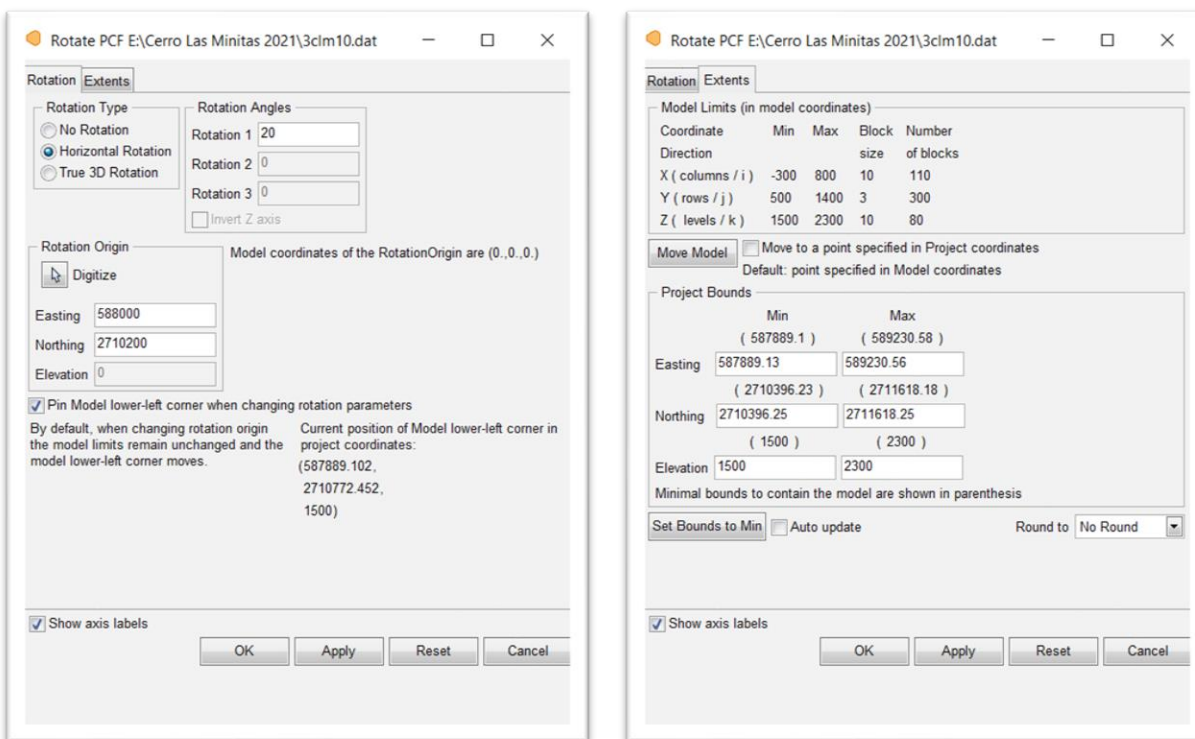
By default, when changing rotation origin the model limits remain unchanged and the model lower-left corner moves.

Current position of Model lower-left corner in project coordinates:
(587550.885,
2709721.454,
1000)

☒ Show axis labels

OK Apply Reset Cancel

Source: Kirkham 2021

FIGURE 14-19: DIMENSIONS, ORIGIN AND ORIENTATION FOR THE LA BOCONA ZONE BLOCK MODEL


Rotate PCF E:\Cerro Las Minitas 2021\3clm10.dat

Rotation | Extents

Rotation Type

- ☐ No Rotation
- ☒ Horizontal Rotation
- ☐ True 3D Rotation

Rotation Angles

Rotation 1: 20
Rotation 2: 0
Rotation 3: 0

☐ Invert Z axis

Rotation Origin

☒ Digitize

Model coordinates of the RotationOrigin are (0.,0.,0.)

Easting: 588000
Northing: 2710200
Elevation: 0

☒ Pin Model lower-left corner when changing rotation parameters

By default, when changing rotation origin the model limits remain unchanged and the model lower-left corner moves.

Current position of Model lower-left corner in project coordinates:
(587889.102,
2710772.452,
1500)

☒ Show axis labels

OK Apply Reset Cancel

Rotate PCF E:\Cerro Las Minitas 2021\3clm10.dat

Rotation | Extents

Model Limits (in model coordinates)

Coordinate	Min	Max	Block size	Number of blocks
X (columns / i)	-300	800	10	110
Y (rows / j)	500	1400	3	300
Z (levels / k)	1500	2300	10	80

Move Model ☐ Move to a point specified in Project coordinates
Default: point specified in Model coordinates

Project Bounds

	Min	Max
Easting	587889.13 (587889.1)	589230.56 (589230.58)
Northing	2710396.23 (2710396.23)	2711618.18 (2711618.18)
Elevation	1500 (1500)	2300 (2300)

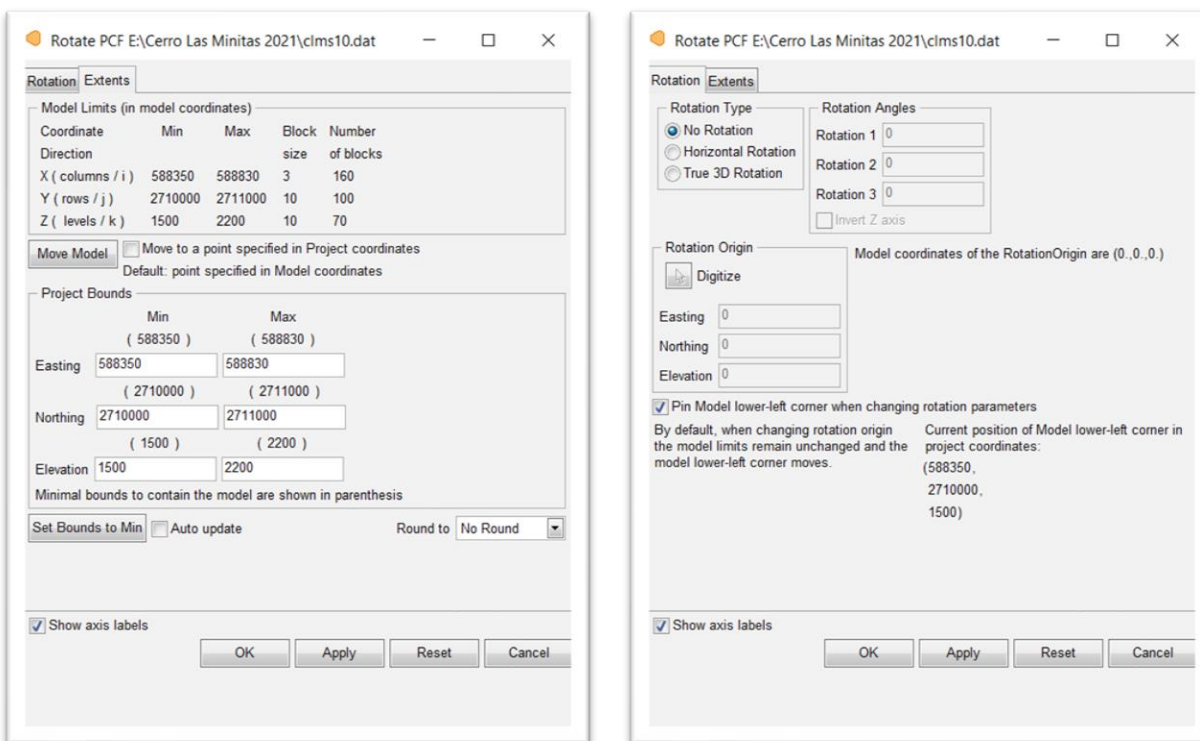
Minimal bounds to contain the model are shown in parenthesis

Set Bounds to Min ☐ Auto update Round to: No Round

☒ Show axis labels

OK Apply Reset Cancel

Source: Kirkham 2021

FIGURE 14-20: DIMENSIONS, ORIGIN AND ORIENTATION FOR THE SOUTH SKARN ZONE BLOCK MODEL


Rotate PCF E:\Cerro Las Minatas 2021\clms10.dat

Rotation | Extents

Model Limits (in model coordinates)

Coordinate Direction	Min	Max	Block size	Number of blocks
X (columns / i)	588350	588830	3	160
Y (rows / j)	2710000	2711000	10	100
Z (levels / k)	1500	2200	10	70

Move Model ☐ Move to a point specified in Project coordinates
Default: point specified in Model coordinates

Project Bounds

	Min	Max
Easting	588350 (588350)	588830 (588830)
Northing	2710000 (2710000)	2711000 (2711000)
Elevation	1500 (1500)	2200 (2200)

Minimal bounds to contain the model are shown in parenthesis

Set Bounds to Min ☐ Auto update Round to No Round

☒ Show axis labels

OK Apply Reset Cancel

Rotate PCF E:\Cerro Las Minatas 2021\clms10.dat

Rotation | Extents

Rotation Type

☒ No Rotation
☐ Horizontal Rotation
☐ True 3D Rotation

Rotation Angles

Rotation 1 0
Rotation 2 0
Rotation 3 0
☐ Invert Z axis

Rotation Origin

Model coordinates of the RotationOrigin are (0.,0.,0.)

Easting 0
Northing 0
Elevation 0

☒ Pin Model lower-left corner when changing rotation parameters

By default, when changing rotation origin the model limits remain unchanged and the model lower-left corner moves.

Current position of Model lower-left corner in project coordinates:
(588350,
2710000,
1500)

☒ Show axis labels

OK Apply Reset Cancel

Source: Kirkham 2021

14.10 RESOURCE ESTIMATION METHODOLOGY

The resource estimation plan includes the following items:

- mineralized zone code and percentage of modelled mineralization in each block; and
- estimated block silver, gold, copper, lead, and zinc grades by inverse distance to the third power, using a two-pass estimation strategy for the mineralized zone. The two passes enable better estimation of local metal grades and infill of interpreted solids.
- interpolation of potentially deleterious elements; arsenic, antimony and iron.
- interpolation of important contributors to “potential acid mine drainage” such as Calcium% and Sulphur%.

Table 14-12 summarizes the search ellipse dimensions for the two estimation passes for each zone.

TABLE 14-12: SEARCH ELLIPSE PARAMETERS FOR THE CERRO LAS MINITAS DEPOSIT

Zone	Pass	Major Axis	Semi-Major Axis	Minor Axis	1 st Rotation Angle Azimuth	2 nd Rotation Angle Dip	3 rd Rotation Angle	Min. No. Of Comps	Max. No. Of Comps	Max. Samples per Drill Hole
Blind	1	100	100	20	50	-90	0	2	12	4
El Sol	1	100	100	20	225	-80	0	2	12	4
Las Victorias	1	100	100	20	225	-80	0	2	12	4
Skarn*	1	100	100	20	145	-75	0	2	12	4
La Boconas Sulphide	1	100	100	20	50	-90	0	3	9	3
La Boconas Oxide	1	60	60	60	0	0	0	3	9	3
South Skarn	1	100	100	100	0	0	0	2	12	4
La Boconas Sulphide	2	100	100	100	0	0	0	2	9	3
La Boconas Oxide	2	100	100	100	0	0	0	2	9	3
South Skarn	2	100	100	20	225	-80	0	2	12	4
Blind	2	150	150	25	50	-90	0	1	12	4
El Sol	2	150	150	25	225	-80	0	1	12	4
Las Victorias	2	150	150	25	-80	0	0	1	12	4
Skarn*	2	150	150	25	280	-75	0	1	12	4

Source: Kirkham 2021

*See Section 14.11

14.11 RELATIVE ELEVATION ESTIMATION FOR SKARN ZONE

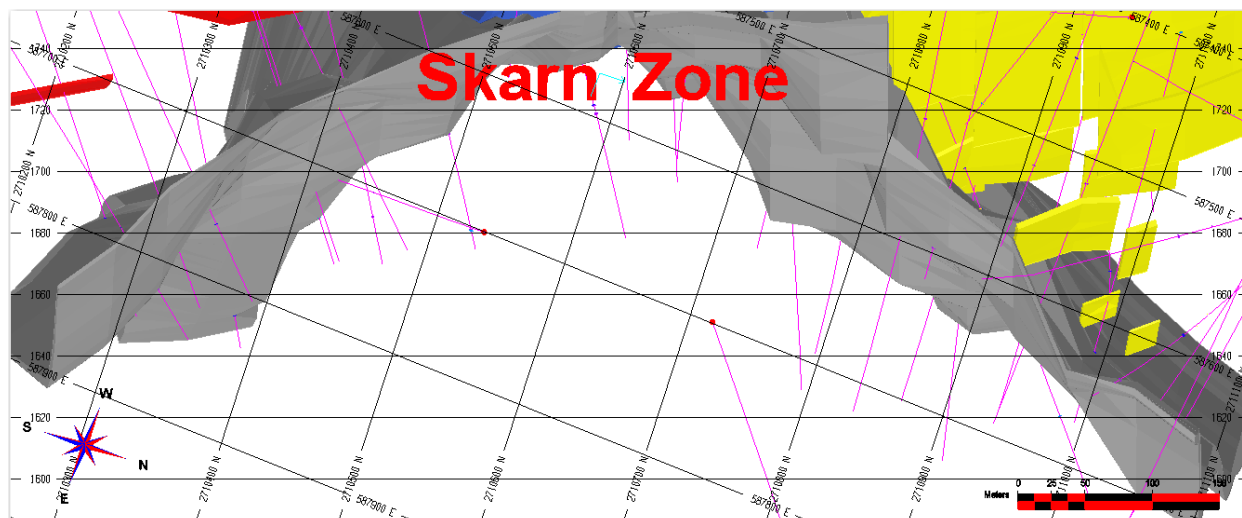
The Skarn Zone is a deposit that poses a number of challenges with respect to modeling and interpolation. The first challenge is that, based on data and observations, the mineralization, and more importantly, the grade is layered or banded. In addition, due to the abrupt change in strike of the deposit and undulations as shown in Figure 14-14, using a standard oriented ellipse to guide the estimation process does not account for, nor does it adequately deal with, significant changes in dip, and more importantly, the layered deposits that are angled.

Grades in the model have been estimated using inverse distance. In an attempt to adequately account for the changes in strike and dip, a *relative elevation* modeling approach has been used. Distances relative to the footwall contact of the domains are stored in both model blocks and composited drill hole samples. These Footwall Distance Values (FWDIS) are linked during interpolation to ensure that samples will only correlate with data within its stratigraphic position.

These relative elevations essentially *flatten out* the deposit for interpolation. Using relative elevations are a reflection of the continuity of the mineralization in relation to the orientation of the deposit.

The grade models have been developed using the relative elevation approach (as described in this section) and anisotropic search ellipses.

FIGURE 14-21: PLAN VIEW OF SKARN DEPOSIT ILLUSTRATING ESTIMATION CHALLENGES



Source: Kirkham 2021

14.12 RESOURCE VALIDATION

A graphical validation was completed on the block model. This type of validation serves the following purposes:

- checks the reasonableness of the estimated grades based on the estimation plan and the nearby composites;
- checks that the general drift and the local grade trends compare to the drift and local grade trends of the composites;
- ensures that all blocks in the core of the deposit have been estimated;
- checks that topography has been properly accounted for;
- checks against manual approximate estimates of tonnages to determine reasonableness; and
- inspects for and explains potentially high-grade block estimates in the neighbourhood of the extremely high assays.

A full set of cross sections, long sections and plans were used to digitally check the block model; these showed the block grades and composites. There was no indication that a block was wrongly estimated, and it appears that every block grade could be explained as a function of the surrounding composites and the applied estimation plan.

The validation techniques included the following:

- visual inspections on a section-by-section and plan-by-plan basis;
- use of grade-tonnage curves;
- swath plots comparing kriged estimated block grades with inverse distance and nearest neighbour estimates; and
- inspection of histograms showing distance from first composite to nearest block, and average distance to blocks for all composites (this gives a quantitative measure of confidence that blocks are adequately informed in addition to assisting in the classification of resources).

14.13 MINERAL RESOURCE CLASSIFICATION

Mineral resources were estimated in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* (2003). Mineral resources are not mineral reserves and do not have demonstrated economic viability.

The mineral resources may be impacted by further infill and exploration drilling that may result in an increase or decrease in future resource evaluations. The mineral resources may also be affected by subsequent assessment of mining, environmental, processing, permitting, taxation, socio-economic and other factors. There is insufficient information in this early stage of study to assess the extent to which the mineral resources will be affected by factors such as these that are more suitably assessed in a scoping or conceptual study. As such, a Preliminary Economic Assessment is recommended.

Mineral resources for the Cerro Las Minitas deposit were classified according to the *CIM Definition Standards for Mineral Resources and Mineral Reserves* (2014) by Garth Kirkham, P.Geo., an “independent qualified person” as defined by National Instrument 43-101.

Drill hole spacing in the Cerro Las Minitas deposit is sufficient for preliminary geostatistical analysis and evaluating spatial grade variability. Kirkham Geosystems is, therefore, of the opinion that the amount of sample data is adequate to demonstrate very good confidence in the grade estimates for the deposit.

The estimated blocks were classified according to the following:

- confidence in interpretation of the mineralized zones;
- number of data used to estimate a block;
- number of composites allowed per drill hole; and
- distance to nearest composite used to estimate a block.

The classification of resources was based primarily on distance to the nearest composite; however, all of the quantitative measures, as listed here, were inspected and taken into consideration. In addition, the

classification of resources for each zone was considered individually by virtue of their relative depth from surface and the ability to derive meaningful geostatistical results.

Blocks were classified as indicated if they were within approximately 50 m of a composite and were interpolated with a minimum of two drill holes. Note: There were no blocks classified as Measured resources. Blocks were classified as Inferred if the nearest composite was less than 100 m from the block being estimated. Furthermore, an interpreted boundary was created for the indicated and inferred threshold in order to exclude orphans and reduce “spotted dog” effect. The remaining blocks were unclassified and may be considered as geologic potential for further exploration.

Furthermore, in consideration for the requirement for resources to possess a “reasonable prospect of eventual economic extraction” (RP3E), underground mineable shapes were created that displayed continuity based on cut-off grades and classification. Additionally, these RP3E shapes also took into account must-take material that may fall below cut-off grade but will be extracted by mining in the event that adjacent economic material is extracted making below cut-off material by virtue of the mining costs being paid for.

14.14 NSR CALCULATION

As discussed within the Metallurgical Section 13, the reporting of mineral resources are based on the NSR \$US/tonne cut-off of US\$60. The parameters that were considered for the NSR calculation are listed in Table 14-13.

TABLE 14-13: NSR CALCULATION PARAMETERS

Item	Sulfides				Oxides	
	Pb Concentrate		Zn Concentrate		Cu Concentrate	
	Skarn	Replacement	Skarn	Replacement	Skarn	
Pb Recovery	84%	90%				
Zn Recovery			95%	78%		
Cu Recovery					60%	
Ag Recovery	77%	79%	8%	12%	7%	75%
Au Recovery						70%
Payable Metals	Pb, Ag	Pb, Ag	Zn, Ag	Zn, Ag	Cu, Ag	Au, Ag
Concentrate grade, (primary base metal)	65%	70%	54%	52%	27%	-
Transport, Treatment, Penalty charges, \$ dmt	230	267	358	364	183	-
Base metal Concentrate Grade Deduction	3%	3%	8%	8%	1%	-
Ag Concentrate Grade Deduction, g/t	50	50	93	93	-	-
Ag Refining charge, \$/oz	0.6	0.6	0	0	0.4	-
Base metal Refining, \$/lb	0	0	0	0	0.107	-
Ag payable	-	-	-	-	90%	-

Source: Kirkham 2021

14.15 SENSITIVITY OF THE BLOCK MODEL TO SELECTION CUT-OFF GRADE

The mineral resources are sensitive to the selection of cut-off grade. Table 14-14 shows the total resources for all metals at varying NSR cut-off grades. The reader is cautioned that these values should not be misconstrued as a mineral reserve. The reported quantities and grades are only presented as a sensitivity of the resource model to the selection of cut-off grades.

Note: The base case cut-off grades presented in Tables 14.5 and 14.6 are based on potentially underground, mineable resources at the base case of \$60 NSR.

TABLE 14-14: SENSITIVITY ANALYSES AT VARIOUS NSR CUT-OFF GRADES FOR INDICATED AND INFERRED RESOURCES

Indicated								
BZESS								
Cutoff	Tonnes	\$NSR	Ag g/t	Au g/t	Pb%	Zn%	Cu%	AgEq g/t
40	15,734,534	103.50	81.93	0.05	0.98	2.80	0.14	283.55
50	12,822,746	116.90	92.31	0.05	1.10	3.20	0.15	320.54
60	10,754,458	129.00	102.42	0.05	1.18	3.54	0.16	352.98
70	9,245,923	139.50	111.22	0.06	1.24	3.84	0.17	381.16
80	7,924,463	150.30	120.47	0.06	1.30	4.15	0.18	410.33
90	6,686,749	162.60	129.43	0.06	1.39	4.55	0.19	445.07
100	5,945,498	171.10	136.93	0.07	1.44	4.79	0.20	467.76
La Bocona								
40	2,047,863	116.27	111.91	0.16	1.84	1.39	0.18	266.73
50	1,811,986	125.61	121.27	0.18	2.01	1.50	0.18	281.75
60	1,570,866	136.49	132.43	0.19	2.23	1.62	0.17	302.44
70	1,341,070	148.85	145.48	0.21	2.47	1.75	0.17	324.88
80	1,154,029	160.93	157.54	0.22	2.68	1.91	0.17	348.84
90	977,392	174.87	172.86	0.25	2.97	1.98	0.17	372.37
100	873,678	184.47	182.43	0.26	3.15	2.08	0.18	389.52
Total								
40	17,782,397	104.97	85.38	0.06	1.08	2.64	0.14	281.61
50	14,634,732	117.98	95.90	0.07	1.21	2.99	0.15	315.74
60	12,325,324	129.95	106.24	0.07	1.32	3.29	0.16	346.54
70	10,586,993	140.68	115.56	0.07	1.39	3.58	0.17	374.03
80	9,078,492	151.65	125.18	0.08	1.47	3.87	0.18	402.51
90	7,664,141	164.16	134.97	0.09	1.59	4.22	0.19	435.80
100	6,819,176	172.81	142.75	0.09	1.66	4.44	0.20	457.74

Inferred								
BZESS								
Cutoff	Tonnes	\$NSR	Ag g/t	Au g/t	Pb%	Zn%	Cu%	AgEq g/t
40	21,912,315	97.90	88.00	0.09	0.76	2.11	0.24	257.13
50	18,522,793	107.80	97.76	0.10	0.84	2.31	0.25	282.17
60	14,759,386	121.50	111.72	0.10	0.93	2.60	0.26	316.32
70	12,720,476	130.70	121.18	0.11	0.99	2.76	0.28	338.94
80	10,472,784	142.70	133.24	0.12	1.07	3.00	0.30	369.16
90	8,227,003	158.60	147.34	0.13	1.20	3.39	0.32	411.79
100	6,461,741	176.20	165.24	0.15	1.35	3.75	0.33	455.88
La Bocona								
40	1,363,487	101.41	92.23	0.18	1.09	1.89	0.17	255.51
50	1,208,753	108.76	98.49	0.19	1.17	2.06	0.18	273.82
60	1,056,523	116.56	105.66	0.20	1.27	2.20	0.18	292.91
70	850,024	129.41	117.41	0.23	1.41	2.44	0.20	316.29
80	731,514	138.32	125.59	0.24	1.48	2.62	0.22	338.45
90	608,875	149.44	137.52	0.27	1.64	2.71	0.24	357.82
100	534,544	157.12	145.63	0.29	1.76	2.76	0.26	369.31
South Skarn								
40	5,488,076	105.16	112.90	0.16	1.61	1.08	0.08	250.62
50	4,644,540	116.13	125.09	0.17	1.77	1.19	0.08	276.34
60	3,789,440	130.00	139.60	0.18	2.00	1.34	0.09	309.11
70	2,873,051	150.87	161.30	0.13	2.40	1.58	0.07	353.18
80	2,354,938	168.01	179.18	0.13	2.71	1.74	0.08	391.92
90	1,891,863	188.60	201.58	0.12	3.05	1.94	0.09	438.25
100	1,670,778	201.08	214.04	0.12	3.29	2.07	0.09	466.88
Total								
40	28,763,878	99.45	92.95	0.11	0.93	1.90	0.21	255.81
50	24,376,086	109.44	103.00	0.12	1.03	2.09	0.22	280.65
60	19,605,350	122.88	116.78	0.12	1.16	2.34	0.23	313.67
70	16,443,551	134.16	127.99	0.12	1.26	2.54	0.24	340.26
80	13,559,236	146.86	140.81	0.13	1.38	2.76	0.26	371.46
90	10,727,741	163.37	156.35	0.14	1.55	3.10	0.28	413.39
100	8,667,063	179.82	173.44	0.15	1.75	3.37	0.28	452.66

Source: Kirkham 2021

Notes:

- 1) The current Resource Estimate was prepared by Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd.
- 2) All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").
- 3) Mineral resources were constrained using mainly geological constraints and approximate 10g/t AgEq grade threshold.
- 4) AgEq cut-off values were calculated using average long-term prices of \$16/oz silver, \$1,200/oz gold, \$2.75/lb Copper, \$1.00/lb lead and \$1.10/lb zinc and metal recoveries of 82% silver, 86% lead, 80% copper and 80% zinc. Base case cut-off grade assumed \$75/tonne operating and sustaining costs. All prices are stated in \$USD.
- 5) Contained metal calculations assume 100% recoveries.

- 6) An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- 7) Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

14.16 MINERAL RESOURCE STATEMENT

Table 14-14 shows the Mineral Resource Statement for the Cerro Las Minitas deposit.

The Qualified Person evaluated the resource in order to ensure that it meets the condition of “reasonable prospects of eventual economic extraction” as suggested under NI 43-101. The criteria considered were confidence, continuity and economic cut-off. The resource listed below is considered to have “reasonable prospects of eventual economic extraction”.

The Mineral Resource Estimate which updates the previously reported estimate, incorporates data from new drilling conducted in 2020-2021 that successfully delineated a major new deposit on the project and significantly increased the resource base in both the Indicated and Inferred Resource categories.

TABLE 14-15: BASE-CASE TOTAL MINERAL RESOURCES AT \$60 NSR CUT-OFF

Indicated Resources		Average Grade							
Zone	Tonnes (Kt)	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)	AgEq (g/t)	ZnEq (%)	NSR (US\$/t)
Blind Zone	2,347	97	0.04	1.9	2.1	0.11	295	7.2	108
El Sol Zone	1,154	80	0.04	2.2	2.0	0.09	279	6.8	100
Skarn Front Zone	7,254	108	0.06	0.8	4.2	0.19	383	9.3	140
La Bocona Zone	1,571	132	0.19	2.2	1.6	0.17	302	7.3	136
Total	12,325	106	0.07	1.3	3.3	0.16	347	8.4	130

Inferred Resources		Average Grade							
Zone	Tonnes (Kt)	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	Cu (%)	AgEq (g/t)	ZnEq (%)	NSR (US\$/t)
Blind Zone	1,347	83	0.14	1.4	1.8	0.06	248	6.0	88
El Sol Zone	863	65	0.03	1.8	2.3	0.05	263	6.4	90
Las Victorias Zone	1,083	148	0.66	2.1	2.6	0.14	431	10.5	145
Skarn Front Zone	11,466	115	0.05	0.7	2.7	0.32	318	7.7	126
South Skarn Zone	3,789	140	0.18	2.0	1.3	0.09	309	7.5	130
La Bocona Zone	1,057	106	0.20	1.3	2.2	0.18	293	7.1	117
Total	19,605	117	0.12	1.2	2.3	0.23	314	7.6	123

Source: Kirkham 2021

Indicated Resources		Contained Metal						
Zone	Tonnes (Kt)	Ag TrOz (000's)	Au TrOz (000's)	Pb (Mlbs)	Zn (Mlbs)	Cu (Mlbs)	AgEq TrOz (000's)	ZnEq Lbs (Mlbs)
Blind Zone	2,347	7,350	3	99	109	5.5	22,291	371
El Sol Zone	1,154	2,956	2	55	51	2.2	10,337	172
Skarn Front Zone	7,254	25,106	14	126	678	30.7	89,421	1,490
La Bocona Zone	1,571	6,688	10	77	56	6.0	15,275	255
Total	12,325	42,100	28	358	895	44	137,323	2,288

Inferred Resources		Contained Metal						
Zone	Tonnes (Kt)	Ag TrOz (000's)	Au TrOz (000's)	Pb (Mlbs)	Zn (Mlbs)	Cu (Mlbs)	AgEq TrOz (000's)	ZnEq Lbs (Mlbs)
Blind Zone	1,347	3,582	6	40	55	2	10,749	179
El Sol Zone	863	1,816	1	35	43	1	7,283	121
Las Victorias Zone	1,083	5,152	23	51	62	3	15,006	250
Skarn Front Zone	11,466	42,462	18	177	687	80	117,065	1,951
South Skarn Zone	3,789	17,007	22	167	112	7	37,660	628
La Bocona Zone	1,057	3,589	7	30	51	4	9,950	166
Total	19,605	73,610	78	500	1,009	98	197,712	3,295

Source: Kirkham 2021

Notes:

- 1) The current Resource Estimate was prepared by Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd.
- 2) *All mineral resources have been estimated in accordance with Canadian Institute of Mining and Metallurgy and Petroleum ("CIM") definitions, as required under National Instrument 43-101 ("NI43-101").*
- 3) Mineral resources were constrained using continuous mining units demonstrating reasonable prospects of eventual economic extraction.
- 4) Silver Equivalents were calculated from the interpolated block values using relative recoveries and prices between the component metals and silver to determine a final AgEq value. The same methodology was used to calculate the ZnEq value.
- 5) Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
- 6) An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
- 7) All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
- 8) The \$60/t NSR cut-off value was calculated using average long-term prices of \$20/oz. silver, \$1,650/oz. gold, \$3.25/lb. copper, \$1.0/lb. lead and \$1.20/lb. zinc. Metallurgical work from locked cycle testwork produced three saleable concentrates for the Skarn zone and testwork on a composite of the Blind, El Sol and Las Victorias Zones produced two saleable concentrates. This work, along with marketing studies were used to decide the NSR cut-off value. Concentrate grades and other parameters used to calculate the cut-off and NSR values are shown in Table 3. All prices are stated in \$USD.

TABLE 14-16: OXIDE MINERAL RESOURCE ESTIMATE FOR CLM PROJECT UTILIZING A US\$60/t NSR CUT-OFF VALUE

La Bocona		Average Grade			Contained Metal	
	Tonnes (kt)	Ag (g/t)	Au (g/t)	NSR (US\$/t)	Ag TrOz (koz)	Au TrOz (koz)
Indicated	65	28	2.2	93	58	4.5
Inferred	219	120	0.8	88	844	5.6

Source: Kirkham 2021

Notes: The \$60/t NSR cut-off value was calculated using average long-term prices of \$20/oz. silver, \$1,650/oz. gold. Base metals were not recovered in the leach circuit. Metallurgical work from batch test work recovered 74% silver from oxidized composites from the Blind – El Sol zones. Gold recovery was not assessed and is estimated at 70% for the purposes of this report. This work, along with marketing studies were used to decide the NSR cut-off value. All prices are stated in \$USD.

14.10 DISCUSSION WITH RESPECT TO POTENTIAL MATERIAL RISKS TO THE RESOURCES

The current political and socio-economic climate in Mexico poses risks and uncertainties that could delay or even stop development as reported within the Fraser Institute Annual Report, 2020. It is difficult to gauge or qualify the level or extents of the risks however, all companies working in Mexico must continue to be aware of the potential risks and develop mitigation strategies.

Apart from political and socio-economic risks there are no other known environmental, permitting, legal, taxation, title or other relevant factors that materially affect the resources.

15 MINERAL RESERVE ESTIMATES

There are no reserves at this time.

16 ADJACENT PROPERTIES

The Cerro Las Minitas property is located 70 km northeast of the City of Durango, capital of the state of Durango, and 6 km northwest of the town of Guadalupe Victoria, in the municipality of Guadalupe Victoria, Durango. All mineral ground surrounding the Cerro Las Minitas concessions is held under concessions of Industrias Peñoles. The closest projects adjacent to Cerro Las Minitas are the San Sebastian (Au-Ag) Project and the La Preciosa (Ag-Au) Deposit (Figure 16-1) and the Avino (Ag-Au-Cu) Project (not shown on the map).

FIGURE 16-1: LOCATION MAP OF ADJACENT PROPERTIES



Source: Kirkham 2021

The San Sebastian (Au-Ag) Project operated by Hecla Mining Company is located ~10 km to the east of the property and mining began in December 2015. Gold and silver mineralization is hosted in multiple structurally controlled low and intermediate sulfidation epithermal veins hosted in shales and fine-grained sandstones of the Cretaceous Caracol formation. At the end of 2018, the proven and probable reserves

on the San Sebastian Mine were 227,600 tons at a grade of 12.3 oz/ton silver and 0.10 oz/ton gold for total contained metal of 2,789,500 oz silver and 22,500 oz gold. (Source: Annual Report 2018, Hecla Mining Company).

La Preciosa (Au-Pb-Zn) Project, situated ~50 km to the west of the property, is an advanced gold and silver project owned by Avino Silver and Gold Mines Ltd. Precious metal mineralization is hosted in a series of Tertiary age low and intermediate sulfidation epithermal quartz veins hosted in Tertiary age polylitic conglomerates, arkosic sandstones as well as intermediate tuffs and agglomerates. Table 16.1 shows the resources for La Preciosa effective October 27th, 2021.

TABLE 16-1: LA PRECIOSA RESOURCES

La Preciosa Property - Mineral Resources Summary - Effective Date October 27, 2021										
All Veins	Classification	Tonnage kt	Grade			Metal Contents				
			Ag g/t	Au g/t	Cu %	AgEq g/t	Ag M oz	Au k oz	Cu %	AgEq M oz
	Total Measured	-	-	-	-	-	-	-	-	-
	Total Indicated	17,441	176	0.34	-	202	99	189	-	113
	Total M&I	17,441	176	0.34	-	202	99	189	-	113
	Total Inferred	4,397	151	0.25	-	170	21	35	-	24

1. The stated mineral resources comply with the disclosure requirements of NI 43-101 and are classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards – For Mineral Resources and Mineral Reserves".
2. Mineral resources for La Preciosa are estimated at a cut-off grade of 120 g/t AgEq.
3. Mineral resources for La Preciosa are estimated using a long-term silver price of US\$19.00/oz and a long-term gold price of US\$1,750/oz.
4. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
5. Tonnage and metal content figures are expressed in thousands and may not add up due to rounding.
6. Further details on the Avino Mine mineral resource estimate, effective October 31, 2020, are available on our website at <https://www.avino.com/operations/resources/> and on our SEDAR and Edgar profile.
7. A Technical Report for the updated NI 43-101 mineral resource estimate on La Preciosa is expected to be filed by Avino within 45 days of this news release.

Source: Avino website news release dated October 27th, 2021, accessed December 8th, 2021

Avino Silver and Gold Mines Ltd. also operates the Avino Project located in the Durango region of North Central Mexico in the heart of the Sierra Madre Silver Belt. Table 16.2 shows a summary of current mineral resources at the San Gonzalo and Avino Mines as well as the oxide tailings resource grouped into the Measured, Indicated and Inferred categories. The effective dates of the resource estimates are October 31st, 2020.

TABLE 16-2: AVINO PROJECT RESOURCES

Avino Mine Mineral Resources Summary as at October 31, 2020											
Measured & Indicated Mineral Resources				Grade				Metal Contents			
Resource Category	Deposit	Cut-off (AgEQ g/t)	Metric Tonnes	AgEQ (g/t)	Ag (g/t)	Au (g/t)	Cu (%)	AgEQ (million tr oz)	Ag (million tr oz)	Au (thousand tr oz)	Cu Tonnes
Measured	Avino - ET	60	4,760,000	120	74	0.63	0.55	18.4	11.3	97	26,300
Measured	San Gonzalo System	130	267,000	356	263	1.36	0.00	3.1	2.3	12	0
Total Measured	All Deposits		5,027,000	133	84	0.67	0.52	21.5	13.6	109	26,300
Indicated	Avino - ET	60	13,890,000	107	59	0.68	0.41	47.9	26.5	304	56,700
Indicated	San Gonzalo System	130	216,000	304	230	1.09	0.00	2.1	1.6	8	0
Indicated	Oxide Tailings	50	1,120,000	124	89	0.42	0.00	4.5	3.2	15	0
Total Indicated	All Deposits		15,226,000	111	64	0.67	0.37	54.5	31.3	327	56,700
Total Measured & Indicated	All Deposits		20,253,000	117	69	0.67	0.41	75.9	44.9	436	83,000

Inferred Mineral Resources				Grade				Metal Contents			
Resource Category	Deposit	Cut-off (AgEQ g/t)	Metric Tonnes	AgEQ (g/t)	Ag (g/t)	Au (g/t)	Cu (%)	AgEQ (million tr oz)	Ag (million tr oz)	Au (thousand tr oz)	Cu Tonnes
Inferred	Avino - ET	60	5,230,000	95	51	0.64	0.34	16.0	8.5	108	17,700
Inferred	San Gonzalo System	130	85,000	298	233	0.96	0.00	0.8	0.6	3	0
Inferred	Oxide Tailings	50	1,230,000	125	85	0.47	0.00	5.0	3.4	19	0
Total Inferred	All Deposits		6,545,000	103	59	0.61	0.27	21.8	12.5	129.0	17,700

Source: Avino website, accessed December 8th, 2021

The reader is cautioned that this information is supplied for information purposes only and in the interest of providing a complete report. However, there has been no work in the creation of this report to link these deposits or to draw definitive comparisons or associations. In addition, the author has not confirmed this publicly available disclosure and has not talked to companies to confirm the data.

17 OTHER RELEVANT DATA AND INFORMATION

There is no additional relevant data or information.

18 INTERPRETATION AND CONCLUSIONS

The Cerro Las Minitas property is located 70 km northeast of the City of Durango, the capital of the state of Durango, and 6 km northwest of the town of Guadalupe Victoria, in the municipality of Guadalupe Victoria, Durango, Mexico. The property consists of 25 mining concessions encompassing 34,450.35 ha.

Mineral resources on the Cerro Las Minitas project are hosted within a prominent domal uplift of Cretaceous marine sediments cored by an intrusive porphyry complex. Contact metasomatic (skarnoid) deposits of Ag, Zn, Pb, Cu and Au are known to occur at various locations in the contact zone around the central intrusive complex, as well as at the margins of some dikes that emanate from the main intrusive complex.

To date, mineralization seen at Cerro Las Minitas has been classified into four types based on surface and underground field observations and the examination of drill core: skarnoid, chimney, manto, and dike margin.

Since acquisition of the property in 2010, diamond drilling; geological mapping; geochemical rock, soil and acacia sampling; shallow and deep-seated IP surveys; a ground gravity survey; and an airborne magnetic survey have been completed. Geological mapping, sampling and some trenching has been conducted periodically to define and delineate targets for continued exploration drilling.

A total of 186 holes totaling 80,650 metres and seven have been drilled at Cerro Las Minitas resulting in the delineation of six mineral deposits: the Blind; El Sol, Las Victorias, Skarn Front, South Skarn and Mina La Bocona deposits and several additional target areas of high exploration potential.

The Blind and El Sol deposits comprise multiple sub-vertical northwest-southeast trending zones of semi-massive to massive sulphide mineralization. Mineralization is hosted in the skarnoid- and hornfels-altered margins of monzonite and felsite dykes may be localized along through-going structures or occur as replacements within stratigraphic units. The mineralized zones can be traced for up to 1000 metres along strike and up to 800 metres down dip.

Sulphide mineralization in the Skarn Front and parts of the South Skarn and La Bocona deposits is localized at the outer boundary of the skarnoid alteration zone surrounding the Central Monzonite Intrusion at or near the transition to the recrystallized/marmorized carbonate sediments (marmorized zone). Mineralization on the western side of the Central Monzonite Intrusion can be traced for up to 1300 metres along strike and up to 1000 metres depth. Similarly, mineralization on the eastern side of the Intrusion is localized within the Skarnoid zone and is traced laterally by drilling for up to 850 metres strike and up to 500 metres down dip.

Initial drilling in 2011 targeted skarnoid and replacement deposits in the margin of the central Intrusion in the Santo Nino, Mina La Bocona and the North Skarn zones and also tested several Induced Polarization geophysical targets both within the Central Intrusion and outboard of the known zones of mineralization

in gravel covered areas. This initial 11 hole drill program successfully identified extensions to the Santo Nino zone mineralization approximately 100m vertically underneath the lowest historic workings, confirmed previous drill results at the North Skarn and Mina La Bocona targets and resulted in the discovery of the Blind zone, a new high-grade target outboard of the El Sol shaft in a gravel covered field.

Drilling in 2015 continued to expand the overall size of the Blind and El Sol deposits and identify new zones of high-grade mineralization. This and subsequent drilling delineated these mineralized zones for up to 1000 metres strike and up to 650 metres depth.

Drilling in 2017 by Southern Silver successfully outlined the Skarn Front as a zone of mineralization, located at depth beneath the Blind and El Sol Zones. Mineralization occurs on the outer edge of the skarnoid alteration zone surrounding the Central Monzonite Intrusion at or near the transition into marble and forms the primary geological control on the distribution of sulphide mineralization.

Subsequent geological modelling suggests that intersections between the sub-vertical, northwest-trending mineralized zones of the Blind and El Sol deposits and the generally more shallowly dipping Skarn Front may localize higher-grade shoots of mineralization which may be in part responsible for higher grade intervals identified in some of the 2017 drilling.

Exploration in 2018 targeted two new step-out targets with further drill testing. Mineralization in the Skarn Front is open for approximately 300 metres along strike to the southeast of drill holes 18CLM-117 in what is now termed the Las Victorias zone and up to 250 metres along strike to the northeast, where the zone wraps around the northern margin of the Central Intrusion, in the North Skarn zone.

In 2017/18, seven additional claims were staked totalling 20,746.60 ha to the south and west of the existing claims to cover prospective, gravel-covered ground. These claims are collectively known as the CLM West claim group. Over 6400 rock chip and float samples have been collected in the CLM West claims to date and identify a >12 kilometre long northwest-southeast-trending corridor of anomalous precious-metal and pathfinder values that display a distinct zoning pattern consistent with modelled vertical and lateral zonation within a large epithermal vein system. Multiple distinct clusters and trends are seen in the metal distribution in the samples which provide potential future targets for further exploration on the property. Drill testing in 2018 successfully discovered silver mineralization as well as wide intercepts of anomalous pathfinder elements such as As and Sb which provide compelling follow-up targets.

Drilling in 2020-21 confirmed laterally extensive skarnoid-style mineralization in both the South Skarn and La Bocona deposits which are located on the eastern side of the Central Monzonite Intrusion. In both deposits, mineralization occurs adjacent to the central intrusion, features similar replacement styles and variability in metal assemblage, but tends to be more galena biased and is generally associated with elevated silver values when compared to the Skarn Front mineralization.

Drilling also identified manto-styled mineralization within the La Bocona deposit which occurs as replacements in the hanging wall of the skarnoid mineralized zone within variably altered marble-skarn-

hornfels. The mineralization is strongly silver-enriched with elevated lead, arsenic and gold values. The upper portion of the mineralized zone is strongly oxidized and makes up in part the small oxide resource identified in the current mineral resource update.

Several phases of metallurgical test work have been conducted on mineralization from the Cerro Las Minitas project. Metallurgical test work has identified three distinct sulphide concentrates (Copper, Lead and Zinc) and each is processed at a different smelting and refining combination, in different locations, using different processes, with differing metal recoveries and operating costs. An NSR valuation technique is used to account for these differences in applicable recovery and off-site factors that influence the NSR valuation for sulphide and oxide rock types for typical Skarn Front or Blind-El Sol type sulphides and oxides types and provides an NSR value to mineralization in the Resource Update.

The purpose of this Technical Report was to present an update of the 2019 resource estimate for the Cerro Las Minitas Project. In addition, it served as an update on the exploration activities.

Based on a US\$60 NSR cut-off, Indicated resources are 12,325,000 tonnes at a grade of US\$130 NSR, 347 g/t AgEq,, 106 g/t Ag, 0.07 g/t Au, 0.16% Cu, 1.3% Pb and 3.3% Zn while Inferred resources are 19,605,000 tonnes at a grade of US\$117 NSR, 334 g/t AgEq, 111 g/t Ag, 0.12 g/t Au, 0.23% Cu, 1.2% Pb and 2.3% Zn.

19 RECOMMENDATIONS

Potential risks related to the project include metallurgy, continuity of the structures and continued ability to expand resources. Further metallurgical testing is required in order to clearly understand recoveries. In addition, although the mineralized zones appear to be relatively continuous and predictable, faults and other structures may be encountered that would pose interpretation challenges. The Skarn zone appears to be amenable to more bulk underground mining methods. However, thickness can vary particularly in the Blind and El Sol zones which may require more selective mining methods which will increase costs and require higher cut-off grades to justify.

Opportunities related to the project are reflected in the fact that Cerro Las Minitas has potential as a district play with a variety of deposits types which poses excellent exploration and expansion potential.

The exploration completed by Southern Silver between 2010 and 2021 on the Cerro Las Minitas property indicates that the presence of Indicated and Inferred resources justifies the cost of ongoing exploration and development.

Metallurgical and variability test work was advanced significantly between 2019 to 2021, to allow the development of a robust metallurgical process flowsheet and the updated mineral resource estimate to be expressed on a NSR valuation basis. Further engineering work and some additional metallurgical test work is in process to further de-risk the project and advance the project toward a Preliminary Economic Assessment.

The author recommends continued focus on the Area of the Cerro, to build additional mineral resources on the project and to advance the project through to a Preliminary Economic Assessment level of study. To further advance the project, Southern Silver should conduct:

- Step-out drilling to the southeast and down dip on the Las Victorias target to test the on-strike potential of the Skarn Front and Blind zone extensions.
- Infill drilling in order to better define the specific mineralized zones;
- Further drilling on the eastern margin of the central Intrusion to delineate potential additional resources in the South Skarn and La Bocona target areas;
- Further drill in order to de-risk areas of high variability within the Skarn Front deposit;
- Engineering studies and metallurgical testing to prepare the project for a Preliminary Economic Assessment;
- Complete a Preliminary Economic Assessment.

Table 19-1 presents an ongoing exploration and development program for the Cerro Las Minitas property. Approximate expense items are listed with a description where appropriate and a total cost. The length of this program is approximately twelve months from inception through to completion of a status report.

TABLE 19-1: PROPOSED 2021-2022 PROGRAM BUDGET

Budgetary Period:		12 months
Cummulative Exploration Days		250
Diamond Drilling - Area of the Cerro		15,000 m
Core and Rock Samples collected		3000
Claim and Property	US \$	155,000
Field Program		
Project Infrastructure	\$	142,200
Assaying	\$	178,200
Drilling	\$	2,079,250
Travel	\$	3,750
Field Presonnel	\$	396,000
Field Program Subtotal	\$	2,799,400
IVA	\$	447,904
Field Program Expenses	US \$	2,703,554
Oversite / Technical Reporting		
Project Oversite	\$	207,600
Technical Report (PEA)	\$	500,000
Engineering and Met Work	\$	34,000
Project Mngmt Travel	\$	21,000
Oversite and Reporting Expenses	US \$	762,600
Project Total	US \$	3,621,154
Say	US \$	3,625,000

Source: Kirkham 2021

20 REFERENCES

Campa, M.F. and Coney P.M., 1983, Tectono-stratigraphic terranes and mineral resource distributions in Mexico., Can J. Earth. Sci., 20, p1040-1055.

Campa, M.F. and Coney P.M., 1983, Lithotectonic Terrane Map of Mexico: U.S. Geological Survey Miscellaneous Field Studies Map, MF-1874-D.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2014, CIM Definition Standards on Mineral Resources and Reserves. Adopted by CIM Council May 2014.

Canadian Institute of Mining, Metallurgy and Petroleum (CIM), 2019, CIM Best Practice Guidelines for Mineral Resources and Reserves Reporting. Adopted by CIM Council November 2019.

Consejo de Recursos Minerales (CRM), 1993. Monografía Geológica-Minera del Estado De Durango, Geology and Mining Monograph Series, Edited by Consejo de Recursos de Minerales, Pachuca, Hidalgo, Mexico, 204 pp.

Earth Science Australia. <http://earthsci.org/mineral/mindep/skarn/skarn.html>

The Fraser Institute. <https://www.fraserinstitute.org/studies/annual-survey-of-mining-companies-2020>

Geotech Ltd., 2011. Results of Geophysical Survey on Cerro Las Minitas Property.

Kelly A., 2018a, Southern Silver Cerro Las Minitas Metallurgical Testwork Report, Blue Coast Research Ltd., 77pp.

Kelly A., 2018b, Southern Silver Cerro Las Minitas Cu-Pb Separation Testwork Report, Blue Coast Research Ltd., 34pp.

Kirkham, G.D., 2016, "Mineral Resource Estimate for the Cerro Las Minitas Project, Durango State, Mexico" with effective date of 21st of March, 2016 prepared for Southern Silver Exploration Corporation, Vancouver, B.C.

Kirkham, G.D., 2018, "Updated Mineral Resource Estimate for the Cerro Las Minitas Project, Durango State, Mexico" with effective date of 22nd of February, 2018 prepared for Southern Silver Exploration Corporation, Vancouver, B.C.

Kirkham, G.D., 2019, "Updated Mineral Resource Estimate for the Cerro Las Minitas Project, Durango State, Mexico" with effective date of May 9, 2019 prepared for Southern Silver Exploration Corporation, Vancouver, B.C.

Meinert, L.D., 1992, Skarns and skarn deposits: Geoscience Canada, v. 19, p. 145- 162.

Meinert, L.D., 1997, Application of skarn deposit zonation models to mineral exploration. *Expl. And Mining Geol.* 6, 185-208.

Megaw, P.K.M., 1998, Carbonate-Hosted Pb-Zn-Ag-Cu-Au Replacement deposits: an Exploration Perspective: In *Mineralized Intrusion-Related Skarn Systems* (D.R. Lentz, ed.). Min. Assoc. Can. Short Course 26, p. 337-357.

Megaw, P. K. M., Ruiz, J., and Titley, S. R., 1988. High-temperature, carbonate- hosted Ag-Pb-Zn(Cu) deposits of northern Mexico. *Economic Geology*, 83, p. 1856-1885.

Minas de Bacis, 1995, Proyecto Cerro de Minitas, Guadalupe Victoria, Durango: Evaluación Preliminar. Unpublished private report for Minas de Bacis, 34 non-numbered pages.

Orman, M. and Wood, D., 2010, Updated National Instrument 43-101 Technical Report for Silver Dragon Resources, Inc. on the Cerro Las Minitas Property Guadalupe Victoria, Durango Mexico.

Parkinson, C. and Peevers, R., 2007, National Instrument 43-101 Technical Report for Silver Dragon Resources, Inc. on the Cerro Las Minitas Property Guadalupe Victoria, Durango Mexico.

Proyectos Mineros y Topografía, S.A. de C.V., 2001. Printed presentation that summarizes the work done by Noranda from 1999 to 2000, including the diamond drill holes data: Unpublished presentation for Minerales Noranda, S.A. de C.V., 26p.

Ray, G. E., 1995, Pb-Zn Skarns, in *Selected British Columbia Mineral Deposit Profiles, Volume 1 – Metallics and Coal*, Lefebvre, D.V. and Ray, G.E., Editors, British Columbia Ministry of Energy of Employment and Investment, Open File 1995-20, pages 61-62.

Robles, A. and Thoman, M., 2013, CLM Exploration for January – February 2013, Internal Company Memorandum, 6pp.

Starling, T., 2003. Structural Analysis of the San Sebastian Mine and Surrounding District, Durango, Mexico. Unpublished Telluris Consulting Report for Minera Hecla S.A. de C.V., 54pp.

Tetra Tech, 2013. Technical Report on the Avino Property, Durango, Mexico for Avino Silver & Gold Mines Ltd.

Zonge International Inc., 2011., Interpretive Report, Complex Resistivity Surveys on the Cerro Las Minitas Project, Durango, Mexico