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**PRELIMINARY ECONOMIC ASSESSMENT**  
**OF THE CERRO CALICHE PROJECT, SONORA, MEXICO**  
**LATITUDE 30 DEG 24' 55" N AND LONGITUDE 110 DEG 37'07" W**  
**UTM ZONE 12, 536,740E 3,365,100N (WGS84)**

**FOR SONORO GOLD CORP.**  
**NI 43-101 & 43-101F1 TECHNICAL REPORT**

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## **1. SUMMARY**

### **1.1. Introduction**

Sonoro Gold Corp. (Sonoro or Sonoro Gold), a TSX-V Exchange listed company (trading symbol: SGO), commissioned D.E.N.M. Engineering Ltd. (D.E.N.M.) and Micon International Limited (Micon) to prepare an independent Preliminary Economic Assessment for the Cerro Caliche Project (Cerro Caliche or Project) near Hermosillo, Sonora, Mexico. The work entailed a review of all past data compiled by Sonoro for the project. Such work included metallurgical review and testing, flowsheet review, operating and capital costs, and the present project economics. A proposed site plan for the project is shown in Section 18 of this report. This Preliminary Economic Assessment (PEA) report is prepared to the standard of NI 43-101 and NI 43-101F1.

Previous studies on the Project were carried out by Sonoro Gold and supplied to both D.E.N.M. and Micon. Micon undertook an independent study for a resource estimate in compliance with National Instrument (NI) 43-101 on the project from this previous work as well as updated drilling on the Cerro Caliche zones. The results from these are incorporated and included in this PEA report in specific sections noted and form the basis for the resource tonnages and grades for the Cerro Caliche Project.

Mr. David Salari, P. Eng., principal of D.E.N.M. Engineering Ltd. (who visited the site on July 28, 2021) is an Independent Qualified Person for matters relating to metallurgy and mineral processing. Mr. Salari is responsible for Sections 1.1, 1.5, 1.6, 1.9, 1.12, 1.13, 1.15 to 1.20, 2.1, 2.21, 2.3, 2.4, 3, 5.3, 12.4, 13, 17, 18, 20, 21, 22, 24, 25.4, 25.5, 26.2.2, and 26.2.4 of this report.

Micon's QP visited the site on December 9 and 10, 2020 by Rodrigo Calles-Montijo, CPG who is an Independent Qualified Person. Other Micon Independent Qualified Persons were engaged for matters relating to geology, mining, and resource estimates.

Micon QPs were responsible for Sections 1.2, to 1.4, 1.7, 1.8, 1.10, 1.11, 1.14, 2.2.2, 4 to 11, 12.1 to 12.3, 14 to 16, 19, 23, 24, 25.1 to 25.3, 26.1, 26.2.1 and 26.2.3 of this report.

This report provides an Independent Compliant NI 43-101 Technical Report entitled "Preliminary Economic Assessment of the Cerro Caliche Project, Sonora, Mexico" of the exploration and development potential of the Cerro Caliche Project, focusing on the initial investment of US \$32.2 million dollars for exploring, developing, mining and processing mineral with gold and silver values at Cerro Caliche.

The purpose of this report is to provide Sonoro and its investors with an independent opinion on the technical and economic aspects and mineral resources at Cerro Caliche.

This report provides a summary of the exploration and mining history, as well as a mineral resource estimate. It also includes a detailed description of proposed exploration, drilling, mining, and processing program along with a preliminary economic analysis that may sustain further investment in developing this mineral property.

## **1.2. Property Description and Ownership**

The Cerro Caliche Project is in the Cucurpe Municipality of Sonora State in northwestern Mexico, approximately 240 kilometers (km) northwest of the capital city of Hermosillo and approximately 160 km south of Tucson, Arizona. The Project is comprised of 15 contiguous mining concessions covering a total area of 1,350.10 hectares (ha) held under five option agreements by Sonoro's wholly owned Mexican subsidiary, Minera Mar De Plata, S.A. de C.V. (MMP), a company duly incorporated under the laws of Mexico.

### **1.2.1. Cerro Caliche Concessions Option Agreement**

On January 23, 2018, MMP entered into an option agreement with Juan Pedro Fernández Duarte, a resident of Hermosillo, Sonora, Mexico to acquire a 100% interest in 10 claim titles for total consideration of US \$2,977,000 payable in installments over 72-months.

The group of mining concessions covers a total area of 907.6 ha and consists of Abel (T-220838), Abel Fracc. I (T-220657), Abel Fracc. II (T-220658), El Huevo de Oro (T-220208), El Huevo de Oro (T-212857), Guadalupe (T-211715), Huevo de Oro No. 1 (T-222098) and Huevo de Oro No. 2 (222099), Teresita (T-222160), and Teresita (T-220210).

Under the option agreement, 66% of the Abel (T-220838) claim was held by Juan Pedro Fernández Duarte while the remaining 33% was held by José Arturo Gálvez Magallanes. In a subsequent agreement dated February 16, 2018, Juan Pedro Fernández Duarte acquired the remaining 33% interest from José Arturo Gálvez Magallanes' estate in consideration of a one-time payment of \$300,000 Mexican pesos.

Following exercise of the Option, Juan Pedro Fernández Duarte will hold a 2% net smelter returns royalty ("NSR") from the proceeds of the sale of minerals from the Cerro Caliche concessions. Under the agreement, MMP has the option to purchase the NSR at any time for US \$1,000,000 for each 1% of the 2% NSR.

### **1.2.2. Cabeza Blanca Concession Option Agreement**

On October 5, 2018, MMP entered into an option agreement with Hector Fernando Albelais Peral, a resident of Magdalena de Kino, Sonora, Mexico to acquire a 100% interest in the Cabeza Blanca claim title (T-175488) for total consideration of 250,000 common shares in Sonoro and US \$175,000 payable in installments over two-years.

In October 2020, MMP acquired a 100% interest in the Cabeza Blanca concession by making the final payment and securing 100% title to the concession through the execution of an "Assignment of Title to Mining Concession Agreement." There is no NSR royalty on the concession.

### **1.2.3. El Colorado Concession Option Agreement**

On August 10, 2018, MMP entered into an option agreement with the estate of the late Felipe Albelais Varela of Magdalena de Kino, Sonora, Mexico to acquire a 100% interest in the El Colorado claim title (T-177317) for total consideration of US \$100,000 with the initial payment of US \$50,000 issued on signing.

In February 2019, MMP acquired a 100% interest in the El Colorado concession by making the final payment and securing 100% title to the concession through the execution of an “Assignment of Title to Mining Concession Agreement.” There is no NSR royalty on the concession.

#### **1.2.4. Tres Amigos Concession Option Agreement**

On May 2, 2018, MMP entered into an option agreement with Jesús Héctor Pavlovich Camou and Raúl Ernesto Seym Gutiérrez, residents of Magdalena de Kino, Sonora, Mexico to acquire a 100% interest in the Tres Amigos claim title (T-166174) for total consideration of US \$130,000 payable in instalments over 48-months. There is no NSR royalty on the claim.

#### **1.2.5. Rosario Concessions Option Agreement**

On March 14, 2018, MMP entered into an option agreement with Edward Rivas Hoffman, a resident of Tucson, Arizona to acquire a 100% interest in two claim titles for total consideration of US \$1,600,000 payable in instalments over 72-months.

The Rosario claims cover a total area of 403.5 ha and consist of El Centro (T-221094) and El Rosario Fraccion I (T-221148). Following exercise of the Option, Edward Rivas Hoffman will hold a 2% net NSR from the proceeds of the sale of minerals from Rosario. Under the agreement, MMP has the option to purchase the NSR at any time for US \$1,000,000 for each 1% of the 2% NSR.

#### **1.2.6. Surface Rights**

Under Mexican law, mineral exploration rights are separate from surface rights and concession holders are required to negotiate with the landowner to access the land. Surface rights for the Cerro Caliche Project are controlled by the Rancho Cerro Prieto, a family-owned ranch and on July 1, 2018, MMP entered into a seven-year mineral exploration surface rights agreement in consideration of annual payments of US \$48,800. Should the Project proceed to a mining operation, an additional surface rights agreement with the owner of Rancho Cerro Prieto will be required.

### **1.3. Accessibility, Climate, Physiography, Local Resources, and Infrastructure**

The Cerro Caliche Project is accessible by flying into Tucson, Arizona and crossing into Mexico at the Nogales border crossing or by flying into Hermosillo, Sonora and driving north towards the property. The Project is accessed via the Mexican Federal Highway 15, a major transportation corridor between the US border to the north and major Mexican urban centers to the south. From the international border crossing at Nogales, Arizona, it is approximately 95 km to the town of Magdalena de Kino and from Hermosillo it is approximately 185 km.

A 40 km state highway connects Magdalena de Kino to the town site of Cucurpe. From here, a 14 km unsurfaced all-weather road continues to a locked gate where a three-kilometer passable dirt road leads to the central zones of the Cerro Caliche property. The various mineralized areas and historical workings distributed across the Project are accessible year-round by a network of trails and unpaved drill roads.

The Project is situated within the Sonoran Desert, an arid ecoregion that covers approximately 260,000 square kilometers (km<sup>2</sup>) of the southwestern United States and northwestern Mexico, including most of the state of Sonora. The climate is considered semi-dry with an average annual temperature of 16.5 °C varying from an average of 25.3 °C during the summertime to 8.3 °C during the wintertime. Annual precipitation is approximately 500 millimeters (mm) with the rainy season occurring between July and September. Exploration and mining activities are conducted year-round except during the occasional period of heavy rainfall resulting in a few of the unpaved dirt roads becoming temporarily impassable.

Located within the Sonoran Basin and Range Province, the Project's surrounding physiography is characterized by narrow, north-northwest trending, fault-bounded mountain chains separated by broad flat valleys of elongated, northwest-trending ranges separated by wide alluvial valleys.

Vertical relief is approximately 670 metres (m) with a maximum elevation of 1,750 m at the Cerro Caliche peak located in the northeast region of the property and a minimum elevation of 1,080 m in the arroyos draining system located in the southern region of the Project. A radial dendritic drainage pattern with moderate hill slopes can also be found within the Project's central region. Vegetation throughout the Project is dominated primarily by short grasses, mesquite and ocotillo shrubs and nopal cactus.

The nearby Municipality of Cucurpe is an established mining district with a skilled workforce and two high-capacity electric transmission lines, one of which extends to the Cerro Prieto mine located adjacent to the Project's western boundary and another line to the Mercedes Mine located 10 km to the southeast of the Project. The town of Magdalena de Kino offers basic services and provisions while the capital city of Hermosillo is a major supplier of equipment and services to the region's mining sector.

#### **1.4. History**

The Cerro Caliche Project has been the subject of exploratory work and artisan mining since the 1800s. Despite the scarcity of records, numerous small scale prospecting pits as well as shallow shafts and tunnels are evident throughout the property with several of the workings now overgrown with thick vegetation.

Early records from AGS Datafile and Anaconda Copper Co. indicate exploration activities at Cerro Caliche were carried out as early as the 1930s and although no public records exist, small scale artisanal mining continued until the early 1990s when Phelps Dodge Copper Co. began exploration at the Project as part of an expanded exploration program of its Santa Gertrudis gold deposit. Phelps Dodge abandoned the concession in 1994.

##### **1.4.1. Cambior Inc. - Exploration (1990s)**

Cambior Inc. (Cambior), a publicly listed Canadian mining and exploration company which was acquired by IAMGOLD in 2006, conducted a reverse circulation drilling campaign on two mineralized areas on the property between 1997 and 1998. Cambior also completed an extensive surface geochemical sampling program but ultimately abandoned the project in 1998. Sonoro acquired the data from 15 reverse-circulation (RC) drill holes in 2020.

#### **1.4.2. Sidney Mining and Exploration - Exploration (2000s)**

Sidney Mining and Exploration obtained an option on part of the concessions circa 2000 and conducted a surface sampling program on certain areas of the Project in the early 2000s. The data was obtained by Millrock Resources and acquired by Sonoro in 2019.

#### **1.4.3. Corex Gold Corp. - Exploration (2007 to 2008)**

Corex Gold Corporation (Corex), a publicly listed Canadian exploration company acquired by Minera Alamos in 2018, acquired most of the Project's concessions in 2007. Corex completed a 7,725 m RC drilling campaign including a detailed geologic mapping and sampling program with over 1,870 rock, channel, and continuous chip samples. Corex abandoned the project in 2008. In 2018, Sonoro acquired the drilling data, geologic mapping, and rock sample database from Corex.

#### **1.4.4. Paget Southern Resources - Exploration (2011)**

Paget Southern Resources (Paget), a wholly owned subsidiary of Pembroke Mining Corp. (Pembroke), acquired a number of the Project's concessions in 2011. Paget completed a 3,037 m drilling campaign with 18 diamond drill core holes, 1,627 rock chip samples and 1,250 soil samples. Pembroke sold Paget to Millrock Resources in 2014 and Sonoro acquired the drilling database in 2019.

#### **1.4.5. Sonoro Gold Corp. (2017 to Present)**

In 2017, Sonoro initiated a soil sampling program on four concessions adjacent to the southwestern region of the Project. Although these concessions were subsequently dropped, the work identified the potential mineralization of the area which led to the strategic acquisition of the Project's concessions.

In September 2018, Sonoro initiated a 10,000 m drilling program at Cerro Caliche with 96 RC drill holes and 2,845 rock samples. The program outlined a broadly mineralized low-sulphidation epithermal vein structure and confirmed the presence of at least 18 northwest trending gold mineralized zones along trend and near surface. On July 26, 2019, a NI 43-101 Technical Report<sup>1</sup> was filed with an estimated inferred resource (at a 0.25 g/t gold equivalent cut-off grade) of 11.5 Mt at an average grade of 0.495 g/t gold and 4.3 g/t silver amenable to open pit extraction methods.

In September 2020, Sonoro commenced a 25,000 m drilling program to demonstrate a material expansion of the concession's oxide gold mineralization and confirm sufficient resource to support a proposed Heap Leach Mining Operation (HLMO) with a proposed operating capacity of 15,000 tons per day (tpd). As of mid-2021, Sonoro has completed 266 reverse-circulation drill holes and 48 core drill holes, totaling 34,550 m drilled at the Project within three-years.

### **1.5. Environmental**

The Cerro Caliche Project is not included in any specially protected or federally designated ecological zones. At present, the Project has no outstanding environmental liabilities associated

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<sup>1</sup> NI 43-101 Technical Report on the Cerro Caliche Property, July 26, 2019, Strickland, D., Sim, R.C. prepared for Sonoro Metals; 11.5 Mt at avg 0.5 g/t Au + 4.3 g/t Ag containing 200,000 oz at 0.545 g/t AuEq.

with the concession and associated land mass. Baseline environmental studies are well-advanced to address regulatory requirements for the Project's development. The *Secretary of the Environment, Natural Resources and Fisheries* (SEMARNAT) is the primary regulatory authority for environmental matters related to the Mexican mining sector.

## **1.6. Permitting**

Under Mexican law, mining construction and operation activities require a "Manifiesto de Impacto Ambiental" (Environmental Impact Statement or MIA) as well as an "Autorizacion en Cambio de Uso de Suelo" (Change of Land Use or CUS) from SEMARNAT. On October 10, 2018, Sonoro was granted a two-year environmental permit for a 10,000 m exploration program and on December 2, 2020, the Company was granted a second environmental permit for a 50,000 m. exploration program.

## **1.7. Geology**

### **1.7.1. Regional and Property Geology**

The Sierra Madre Occidental (SMO) province lies approximately 100 km east of the Cucurpe district as a north-south trending Oligocene-Miocene volcanic belt with numerous epithermal precious metal mineralized areas. The SMO's northern termination is near the US-Mexico border with other epithermal precious metal mineralized areas occurring between the border and the Cucurpe district. These mineralized areas lie within the Basin and Range province where the epithermal mineralization timing is close to the age of development of many of the graben basins of the province.

The geological setting for the Project is comprised of numerous areas of Mesozoic metasedimentary rock units that have been subject to weak fold and thrust fault activity. Metasedimentary rock units in the Cerro Caliche area have been mapped by the *Servicio Geologico Mexicano* (SGM) and are classified as Jurassic in age, although a nearly identical Cretaceous metasedimentary sequence of the Bisbee group is well documented 20 km north in the Santa Gertrudis mine area. It is probable that part of the Cerro Caliche area contains outcrops of Cretaceous rock units. A large-scale mylonite zone, indicated to be 20 m thick, is a thrust fault that crosses the Cerro Caliche Project, which is crosscut by quartz veins, silicification, and felsic intrusives. However, further work regarding the mylonite zone is required.

Metasedimentary rocks are cut by three intrusive igneous types with the earliest being a coarse-grained biotite granodiorite ranging from irregularly foliated to weakly lineated. The granodiorite appears to grade into a quartz rich medium grained granite which is the prominent outcrop in and near the Project's El Colorado vein. Cross cutting these rocks, and occasionally into the metasedimentary rocks, are irregular bodies of an andesitic micro-diorite, with common coarser variations to diorite and gabbro. The intrusive units are in the lower elevations of the Project's western region, below the thrust fault. Rhyolitic intrusives, ranging from dikes and sills to irregular intrusives, occur extensively around all sides of Cerro Caliche, of which the youngest dikes follow the dominant northwest fault and vein orientation of the district.

### **1.7.2. Local Geology, Structure and Mineralization**

Rock types in most of the surface vein zones are comprised of Mesozoic quartzite and similar appearing silicified rhyolitic rock units. Much of the gold mineralization occurs in the intrusive bodies, dikes and sills as well as in the Mesozoic host metasediments. Mesozoic metasedimentary rock units of quartzite, shale, and lesser limestone and conglomerate are widespread through the Cucurpe district.

The gold mineralization throughout most of the Project is uniform and of silicification ranging from generally moderate silica in addition to intense pervasive silica flooding. Argillic alteration is seen as weak to moderate clay development in feldspars and the matrix of rhyolitic rocks. Limonite consisting of hematite with lesser goethite and jarosite are present and are developed from oxidized sulphides, mainly cubic pyrite.

Open structures are the most important aspect of low sulphidation epithermal gold mineralization and is the most complex aspect of gold silver mineralization. Structures at the Project are developed within a listric faulting regime producing a semi-parallelism of fracturing vein structure with a minimum width of five to six kilometers and a maximum length of over three kilometers. For this widespread structural fracture pattern to develop consistency across a large area, an at depth intrusive with a weakened carapace is required. The deep listric structures likely taps a source of hydrothermal fluid flow, while the structurally weakened carapace provides long lived refracturing of structures with concurrent depositing of massive silica in the open fracture parts of the system. The gold mineralization is typical low sulfidation epithermal precious metal hydrothermal systems.

The pattern of faulting with fissure fill silica deposition was described in the Taupo volcanic field, an active volcanic capped geothermal area in New Zealand and a potential structural setting analog for the Project's structural development. Aeromagnetic survey maps available from the Mexican Government, show a low level positive aeromagnetic anomaly extending beneath both the Project and the nearby Mercedes mine.

### **1.8. Exploration and Drilling Programs**

In September 2018, Sonoro initiated a multi-phase exploration program of drilling, geological mapping, and surface rock sampling. As of April 2021, the Company has drilled over 34,500 m including 266 reverse-circulation drill holes, 48 core drill holes and 2,845 surface samples. Sonoro has also acquired, reviewed, and catalogued data from all prior exploration programs since 1997. When combined with historical data, total exploration at the Cerro Caliche Project totals over 47,500 m in 433 drill holes and 9,365 surface samples.

### **1.9. Metallurgical Testing**

In 2019 and 2020, Sonoro performed preliminary metallurgical test work on superficial samples from two (2) specific areas, Cuervos and Japoneses East. The work was completed under the direction and supervision of Interminera, S.A. de C.V., a consulting engineering design and construction services company based in Hermosillo, Mexico and which is controlled by Sonoro's Vice President, Operations, Jorge Diaz.

As part of this PEA, a more detailed test program was initiated at McClelland Laboratories, Inc. (McClelland or MLI) in 2020 to 2021 to test for mineralogical characterization for the column test composites and load permeability testing of the column residues of the Cerro Caliche zones. The samples were selected by Sonoro on 52 drill core composites from the five (5) major areas: Japoneses, Cuervos, El Colorado, Cabeza Blanca, and Buena Suerte, including stockwork and vein-breccia material types.

The PEA metallurgical column testwork concentrated on two (2) crush sizes, -50 mm and 80% - 12.5 mm over 80–90-day leach cycles. The finer crush size proved to be the most positive with recoveries averaging 74% for gold and 27% for silver. Cyanide consumption averaged over the zones at NaCN 0.55 kg/mt.

Hydraulic conductivity tests were conducted on the -12.5 mm feed size leached residue to determine permeability under simulated heap stacks of up to 100 mt. Samples tested show adequate permeability for heap leaching to 100 m height, without agglomeration pretreatment. One exception was the Buena Suerte composite which had elevated clay content and would be limited to 40 mt. stack height without blending.

Further optimization testwork is recommended in terms of varying crush sizes from the zones, coarser crush sizes for low grade run of mine material, and cyanide and lime consumption rates.

## **1.10. Mineral Resource Estimate**

### **1.10.1. Supporting Data**

The updated resource estimate completed by the Micon QPs on the Project was prepared in conjunction with Sonoro's technical personnel. After receiving the final wireframes from Sonoro, Micon proceeded to analyze the data and models to create the six geological domains to be used for the resource estimation. The six domains are located relatively close to each other, and the major cluster that combines vein-breccia and stockwork is denominated by the Japoneses area.

The Cerro Caliche mineral resources have been estimated assuming oxide mineralization and surface mining scenarios only. The Project database was provided to Micon by Sonoro. It is comprised of 433 drill holes, totaling 47,558 m of drilling, containing a total of 30,185 samples. This database was the starting point from which the gold mineralized shell envelopes (wireframes) were modelled.

For the purposes of mineral resource estimation, Micon used only the data contained within the final wireframes. The effective number of drill holes and samples used were 419 drill holes, totaling 40,024 m of sampling, excluding 4 drill holes that were flagged to ignore.

The Project's topographic model was provided by Sonoro in the form of a digital terrain model (DTM), included as part of the Leapfrog Geo files. The mineralization has been interpreted to occur in a North-Northwest trending zone, which contain well-defined cross-cutting vein-breccias surrounded by stockwork mineralization. This has been modelled based on a combination of vein

mapping and a 0.1 g/t Au cut-off modelling grade. Large areas below 0.1 g/t outside the Vein-Breccia and Stockwork were also estimated to assist with optimizing the pitshells.

A total of 984 density measurements were provided by Sonoro. The overall average density for the entire Project is 2.579 g/cm<sup>3</sup>.

To identify grade true outliers, the data were assessed after compositing to constant intervals. This was undertaken to avoid potential short sample bias should shorter samples be taken near visible gold in core but it also was applied to the RC drilling data. The selected mineralized intercepts for the Project were composited to 1.5 m equal length intervals. The composite length selected was based on the most common original sample length. All outlier assay values were carefully analyzed, individually by zone, and globally, using log probability plots.

Variograms were successfully modelled for main mineralization domains D1, D2 and D3. Low grade domains D4, D5 and D6 were also analyzed, all six domains supported the use of the ordinary kriging (OK) interpolation method. The ranges modelled varied from 65 to 85 m and were used to establish the search parameters employed.

The Cerro Caliche mineralization presents a predominant bearing and dip within a well-defined broad geometry. This is supported by the geology, grades, surface mapping of structures, as well as sufficient drill hole intercepts to confidentially determine continuity along strike and down dip. On average the mineralization model has a 340° strike and variable steeply dipping structures.

The primary mineral/element of economic interest at the Cerro Caliche Project is gold with silver of secondary importance. The estimate of tonnes and grade was performed using solely Leapfrog Geo/EDGE software. A single block model was constructed to contain the wireframe zone codes, gold grades and density. A set of parameters were derived from the variographic analysis results to interpolate the composite grades into the blocks.

### **1.10.2. Economic Assumptions and the Updated Mineral Resource Estimate**

The updated mineral resource has been constrained using economic assumptions of surface open pit scenarios. The potentially minable portions of the block model are conceptual in nature with the mining limited to the oxide resources at the Cerro Caliche Project.

The gold price and operating costs used were supplied by Sonoro. In the QP's opinion, the economic parameters used are reasonable. The parameters were developed by Sonoro technical personnel who are knowledgeable regarding mining costs for open pit projects in Mexico and were developed over the last year during Sonoro's various modelling and planning exercises. Table 1:1 summarizes the economic assumptions on which the in-pit portion of the resource estimate for the Cerro Caliche Project is based.

Table 1:1 Economic Assumptions for Conceptual Open Pit

Scenario Description	Units	Value Used
Gold Price	USD\$/t	1,800.00
Silver Price	USD\$/t	25.00
Mining Cost Mineralized Material/Waste	USD\$/t	1.90
Mining Cost Waste	USD\$/t	1.70
UG Mining Cost	USD\$/t	N/A
Processing Cost	USD\$/t	6.47
General & Administration	USD\$/t	0.49
Gold Recovery (Metallurgical)	%	74.00
Silver Recovery (Metallurgical)	%	27.20
Slope Angle	Degrees (°)	50

The parameters in Table 1:1 was used to calculate the Gold Equivalent (AuEq) cut-off grade of 0.207 grams of gold per tonne (g/t Au) for the open pit portion of the Project.

Micon has categorized the updated mineral resource estimate at the Project in the Measured, Indicated and Inferred categories. Prior to finalizing the categorization of the mineral resources, a visual review of the categorization was undertaken by the Micon QPs to ensure not only continuity of classification but also to eliminate any “Spotted Dog Effect<sup>2</sup>.” The mineral resource statement for the Cerro Caliche Project is summarized in Table 1:2.

Table 1:2 Statement of Mineral Resources (Effective Date: August 24, 2021)

Category	Tonnes	Average Grade			Metal Content		
		Au-Eq	Au	Ag	Au-Eq	Au	Ag
	kt	g/t	g/t	g/t	koz	koz	koz
Measured	12,844	0.39	0.37	3.79	163	155	1,566
Indicated	13,851	0.45	0.44	3.10	201	194	1,378
<b>M+I</b>	<b>26,695</b>	<b>0.42</b>	<b>0.41</b>	<b>3.43</b>	<b>364</b>	<b>349</b>	<b>2,944</b>
Inferred	5,463	0.44	0.40	7.34	77	71	1,289

Note:

- Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
- The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
- The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), Definition Standards for Mineral Resources and Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 14, 2014.

<sup>2</sup> Stephenson, P.R., et al (2006), Mineral Resource Classification — It’s Time to Shoot the ‘Spotted Dog,’ 6th International Mining Geology Conference, Darwin, NT, 21 - 23 August 2006, 5 p.

- The pit constrained AuEq cut-off grade of 0.207 g/t Au was derived from US \$1,800/oz Au price, US \$25.00/oz Ag price, 74.0% Au and 27.2% Ag process recoveries, US \$1.90 mining, US \$6.47/tonne process and US \$0.49 G&A costs and 50-degree pit slopes for the optimized pits.
- The effective date of the mineral resource estimate is August 24, 2021 and the estimate is only for the oxide portion of the mineralization on the Cerro Caliche Project.
- Mineral resources were estimated by William Lewis, P.Geo. and Mr. Alan J. San Martin, MAusIMM (CP) of Micon International Limited. (Micon), a Toronto based consulting company, independent of Sonoro. Both Mr. Lewis and Mr. San Martin meet the requirements of a "Qualified Person" as established by the CIM.
- Micon has not identified any legal, political, environmental, or other risks that could materially affect the potential development of the mineral resource estimate.

### **1.10.3. Mineral Potential**

In addition to the mineral resources identified within the pit shells, there remains large areas of mineralization outside the pit shell. This is the case because, while some of the drilling outside the pit shells has identified the general trend of the major veins, or the veta-breccia, the exploration data remains insufficient in nature to conduct a mineral resource upon it.

The QPs have reviewed the mineralization outside the resource pit shells and believe that there is enough information upon which to outline a conceptual mineral potential for the Cerro Caliche Project based on the following:

- 1) The cut-off grade used that is the same as that used for the mineral resource estimate.
- 2) The mineralization is potentially amenable to open-pit mining and lies between surface and 120 m below the surface. The 120 m depth limit reflects that it is within the existing conceptual resource pit outlines of which the deepest pit is 140 m below surface.
- 3) The mineralization must be located along the existing mineralized trends previously identified on the Cerro Caliche property and identified to some extent by exploration, either by drilling or by surface sampling across the mineralized trend.

Based on these parameters, the QPs outlined the following potential range in tonnage as well as potentially contained gold and silver ounces:

- 19,250,000 to 34,370,000 tonnes containing between 204,000 to 365,000 ounces of gold and 1,683,000 to 3,005,000 ounces of silver.

The reader is cautioned that the potential mineralization ranges are conceptual in nature and that despite being based on the limited amount of exploration drilling and sampling outside the current pit shells, it is uncertain that further exploration will result in the mineralization targets being delineated as a mineral resource.

### **1.11. Mining Methods**

The long-term open pit mining evaluation for the Cerro Caliche Project will provide a nominal rate of 15,000 tpd of Run of Mine (ROM) production feed and average 62,746 ounces mined per year over seven (7) years for a total of 439,223 ounces mined. The overall waste/Mineralized Material ratio was calculated at 2.08:1 from a total of 97.0 million tonnes (Mt) of rock mined, of which 65.5 Mt is waste and the remaining 31.5 Mt is leach feed.

Assumed open pit mining methods will use front-end loaders and hydraulic excavator to load haul trucks for waste and mineralized material haulage. Mining activities will include site clearing, removal of growth medium (topsoil), free-digging, drilling, blasting, loading, hauling, and mining support activities.

Material within the pit will be generally blasted on a 6 m high bench. The stripped waste material will be placed in assigned dumps and lower-grade mineralized material will be placed into a designated stockpile area or areas as needed during operations despite there being no strategic stockpiling in the LOM production schedule.

The mine fleet equipment is assumed to be provided by the mining contractor. The exact fleet will be determined at the time of operation.

The mine will be scheduled to operate 360 days per year, with five days scheduled for non-operation (Scheduled Loss= SL); Utilized time equivalent will be approximately 262 full days of production after consideration for downtime due to mechanical unavailability (87.5% mechanical availability), and non-utilized time such as operating standby and no scheduled production time (20 of 24 hours used per day is equal to 83.3% planned utilization).

The mining of the Cerro Caliche pits will generally be executed in 6 m benches, using 3 m flitches when needed. The option of using 3 m flitches operationally gives the flexibility of better selectivity as needed. Six (6) m tall benches will be preferred where possible for improved productivity.

Based on pit design and preliminary evaluation template parameters, ramp widths were based on anticipated haul trucks of 78.3 tonne (t) capacity and sized at 15 m in width. One-way traffic haul roads were used at the pit bottom at a width of 10 m. It is expected that the mining faces will be 6 m high and catch bench berms placed every vertical 6 m.

Roads have a maximum gradient of 10% assigned to the shortest distance along the ramp, which prevents gradient rules being broken around corners. The inside circumference of a ramp may be greater than 8% if the gradient is applied to the ramp centerline or high wall.

The overall pit slope angles are all below the 50-degree maximum of the inter ramp angle defined by the face angle and the berm widths.

The mining of some of the pits will include phases or pushbacks. Particularly, the Japoneses/Buena Vista, Buena Suerte and El Colorado pits all have two phases otherwise known as pushbacks which help to control the amount of waste mined earlier in the Project so as to improve the net present value of the Project and maintain a steadier stripping ratio throughout the various pits' lives.

The mining rate follows the approximate 15,000 tpd throughput capacity of the crushing circuit by which the mineralized material is reduced in size prior to being loaded onto the leach pad. This daily rate adds up to an annual total of 5.04 Mt of leach pad feed that is planned to be drilled, blasted, mined, crushed, and leached annually.

Whereas there is 2.5% dilution planned and 2.5% mineralized material loss planned, the tonnes of in-situ mineral mined (31.49 Mt) is approximately the same as the adjusted tonnes of feed that will end up on the leach pad (31.47 Mt). The in-situ grade of 0.413 g/t is adjusted for the dilution down to 0.403 g/t to account for the estimated 2.5% of sterile rock dilution of the leach feed.

The open pit mine development plan consists of fifteen (15) pit development phases expanding to eleven different open pits (twelve if Japoneses and Buena Vista are considered separate). These different phases will be mined sequentially with overlap phases. In addition to the total of 31.5 Mt of mineralized material that will be mined, a total of 65.5 Mt of waste will be mined and placed on the assigned dump(s).

In the LOM production plan, several active pits are mined simultaneously thus minimizing the impact of equipment congestion in the pit and on haul roads. This also increases the flexibility of the mine plan during rain or other operational constraining events.

The mine will operate as a conventional truck and shovel operation. The typical production cycle will be drilling, blasting, grade control, loading and hauling. Primary loading units will be one hydraulic shovel and 2 front-end loaders, two drills as well as the balance of the equipment will be diesel powered with support equipment used to provide development access, road maintenance and equipment servicing capability.

The mine will operate 20 hours per day for the 360 planned days per year. Shift employees will work 10-hour shifts. Major equipment is expected to have an initial 87.5% mechanical availability and decline with age.

As leach feed is processed on a heap leach pad, there are no tailings pond and the spent heap leach pad at the end of the LOM schedule. Both the waste dump and leach pad will be sloped and revegetated at the end of the mine life as part of the reclamation and closure plan.

### **1.12. Recovery Methods**

The Cerro Caliche plant design was based on a nominal 15,000 tpd of mineralized material with average grades of 0.41 g/t Au and 4.05 g/t Ag.

The process plant flowsheet design comprises of three (3) stage conventional crushing, material handling of crushed product and loading onto the lined heap pads. Solution ponds and pumping system will allow for irrigation of loaded mineralized material and subsequent collection of the pregnant solution. The pregnant solution will be pumped to two (2) trains of carbon in column tanks for loading of the gold and silver onto the carbon. Standard carbon in column processing will take place in terms of carbon advancement, carbon addition, carbon recovery, and bagging for shipment.

The Cerro Caliche Project does not currently plan to operate carbon stripping, electrowinning, and doré refinery at the plant. The loaded carbon will be shipped to North American carbon refiners where the gold and silver will be stripped and recovered for payment.

The Cerro Caliche plant will include an analytical laboratory for mining, exploration, and process control requirements. Water will be supplied by in-ground wells on the property and power via a new 33 kV transmission line installed by the power supplier.

### **1.13. Project Infrastructure**

The Project's current infrastructure consists of a nearby high voltage powerline, access roads, and sounding active mining operations. There is a 14 km gravel access road from the site to the town of Cucurpe and a 40 km two-lane highway from Cucurpe to the regional hub of Magdalena de Kino, Sonora. A 33 kV transmission line is located approximately 24 km from the proposed Cerro Caliche Project and will be the planned source of power for the project. Initial discussions between Sonoro and the *Commission Federal de Electricidad* (CFE) are underway for the installation of the power line and associated switch gear. The estimated capital and operating costs for power are included within the report.

Water for the Project will be supplied by drilled wells on the property.

With multiple active mining operations and developed infrastructure within close proximity, D.E.N.M. is of the opinion that there are no infrastructure challenges to developing the Cerro Caliche open pit mine, heap leach facility, and process recovery plant.

### **1.14. Market Studies and Contracts**

This preliminary economic assessment was based on metal prices of US \$1,750 per ounce of gold and US \$22.00 per ounce of silver. Sonoro plans to utilize contract mining and to transport loaded carbon product from its processing facilities to Idaho for further refining. At date of publication, Sonoro has not contracted mining, processing or refining services for the Cerro Caliche Project.

### **1.15. Environmental Studies, Permits, & Social or Community Impacts**

During 2020 and 2021, Sonoro in coordination with *HRL Servicio Ambiental S.A. de C.V.* (HRL), *A-GEOMMINING*, *Morales Geophysics* and *ALS-Indequim* undertook environmental baseline studies to confirm the site's conservation status and assess the Project's potential environmental impact. A social-economic study was also completed on the nearby communities of Cucurpe and Magdalena de Kino. The Project is located approximately 14 km from the Cucurpe town site, the closest urban center with a population of 863 people. Mining is one of the main employment-generating activities in Cucurpe, along with agriculture and cattle farming.

Under Mexican law, mining construction and operation activities require an Environmental Impact Statement (MIA) as well as a Land Use Change (CUS) permit obtained from SEMARNAT.

### **1.16. Capital and Operating Costs**

The estimated capital costs for the Project are based on a 15,000 tpd open pit mining and conventional heap leach operation. Yearly processing will be five million tonnes utilizing contract mining. The initial capital costs for the Project are estimated at US \$32.2 million for construction including a 15 % contingency factor. This is summarized in Table 1:3.

Table 1:3 Initial Capital Costs

<b>Initial Capital Costs</b>	<b>Costs (US \$M)</b>
Direct Facility Costs	\$19.1
Indirect Facility Costs	\$1.4
Engineering and Procurement	\$3.4
Pre-Stripping and Mine Development	\$0.2
Infrastructure	\$4.2
Subtotal	\$28.4
Contingency	\$3.8
<b>Total Initial Capital Costs</b>	<b>\$32.2</b>

Source: Sonoro Gold & D.E.N.M. (2021)

Table 1:4 Operating Cost Summary

<b>Item</b>	<b>\$US/t Processed</b>
Mining – Mineralized Material	\$1.90
Mining – Waste (Variable S/R)	\$1.90
Crushing	\$0.77
Process	\$5.70
G & A	\$0.49
<b>Total</b>	<b>\$12.81</b>

Source: D.E.N.M. (2021)

*\*Note - Factored in for the Life of Mine Strip Ratio of 2.0*

The operating costs over the LOM is estimated at US \$1,227/oz AuEq. With an all-in sustaining cost (AISC) of US \$1,351/oz AuEq.

### **1.17. Economic Analysis**

The Project’s economic analysis are summarized in Table 1:5 through Table 1:7. Utilizing base metal prices of US \$1,750 Au oz and US \$22 Ag oz, after-tax net present value at a 5% discount (NPV<sub>5</sub>) is estimated at US \$41.5 million and after-tax internal rate of return (IRR) is estimated at 32.4% with a 2.2-year payback.

Table 1:5 Economic Evaluation Summary

<b>Item</b>	<b>Pre-Tax</b>	<b>After Tax</b>
NPV 0 % (\$M)	94.2	61.0
NPV 3 % (\$M)	77.9	48.5
NPV 5 % (\$M)	68.7	41.5
IRR (%)	52.7	32.4

Source: D.E.N.M. (2021)

Table 1:6 Project Cash Flow Summary

<b>Assumption / Results</b>	<b>Value</b>
Total Tonnes Processed	31.5 Mt
Total Tonnes Waste	65.5 Mt
Strip Ratio	2.1
Gold Grade (g/t)	0.41
Silver Grade (g/t)	4.05
Gold Recovery	74%
Silver Recovery	27%
Gold Price (US\$/oz)	\$1,750
Silver Price (US\$/oz)	\$22
Annual Gold Equivalent Production (Ounces)	45,700
Total Gold Equivalent Production (Ounces)	323,500
Net Revenue (Gold and Silver) (US \$m)	\$556.2
Initial Capital Costs (US \$m)	\$32.2
Sustaining Capital Costs (US \$million)	\$4.8
LOM Operating Costs (US \$million)	\$396.9
Operating Cash Cost per AuEq ounce	\$1,227
All in Sustaining Cost per AuEq ounce	\$1,351
Mine Life	7 years
Average Process Rate (tonnes per day)	15,000
Pre-Tax NPV (5% discount) (US \$million)	\$68.7
After-Tax NPV (5% discount) (US \$million)	\$41.5
Pre-Tax IRR	52.7%
After-Tax IRR	32.4%
Payback Period	2.2 years

Source Sonoro Gold & D.E.N.M. (2021)

Table 1:7 Gold and Silver Price Sensitivities

<b>Sensitivity</b>	<b>US \$1,700 Au US \$20 Ag</b>	<b>US \$1,750 Au US \$22 Ag</b>	<b>US \$1,800 Au US \$24 Ag</b>	<b>US \$1,900 Au US \$26 Ag</b>	<b>US \$2,000 Au US \$28 Ag</b>
After-Tax NPV <sub>5</sub> (US \$m)	\$32.6	\$41.5	\$50.4	\$67.1	\$83.9
Pre-Tax NPV <sub>5</sub> (US \$m)	\$55.0	\$68.7	\$82.5	\$108.3	\$134.1
After-Tax IRR	26.8%	32.4%	37.9%	48.1%	58.0%
Pre-Tax IRR	43.9%	52.7%	61.3%	77.1%	92.4%
After-Tax Payback (yrs)	2.6	2.2	1.9	1.5	1.2

Source: Sonoro Gold and D.E.N.M. (2021)

## **1.18. Risks and Opportunities**

Overall, the Cerro Caliche Project is considered medium risk at the time of this report.

Potential risks for the Project include open pit mining and associated dilution, heap leaching performance and recovery of the metal, capital costs, operating costs and metal prices. Metal prices and recovery having the highest effect on the Project's revenue.

Potential opportunities for the Project include additional acquisition and exploration potential in the Project's concession, increased metal prices, capital cost reduction via leased or remanufactured equipment, and metallurgical recoveries.

### **1.19. Conclusions**

Micon completed the updated Mineral Resource Estimate for the Project based on a 0.207 g/t Au Cut-Off. The classification of Measured, Indicated, and Inferred Mineral Resources conforms to CIM (2014) Definition Standards of CIM Best Practices (2019). The results of the estimate are as follows:

- Measured & Indicated Mineral Resources of 349,000 ounces of gold at 0.41 g/t Au
- Updated Inferred Mineral Resources of 71,000 ounces gold at 0.40 g/t Au

The Project is planned as a conventional open pit operation with front-end loaders and hydraulic excavator to load haul trucks for waste and mineralized material haulage. Mining activities will include site clearing, removal of growth medium (topsoil), free-digging, drilling, blasting, loading, hauling, and mining support activities.

The Cerro Caliche plant design was based on a nominal 15,000 tpd of mineralized material with average grades of 0.41 g/t Au and 4.05 g/t Ag. The process plant flowsheet design comprises of three (3) stage conventional crushing to P80 – 50 mm crush size, material handling of crushed product and loading onto the lined heap pads. Solution ponds and pumping system will allow for irrigation of loaded mineralized material and subsequent collection of the pregnant solution. The pregnant solution will be pumped to two (2) trains of carbon in column tanks for loading of the gold and silver onto the carbon. Standard carbon in column processing will take place in terms of carbon advancement, carbon addition, carbon recovery, and bagging for shipment.

Global Recovery for the Project zones as per the recent detailed testwork is estimated as 74% gold and 27% silver.

The estimated capital costs for the Project are based on an open pit mining and heap leach operation processing five million tonnes per year (tpy) and utilizing contract mining. An initial capital expenditure is estimated at US \$32.2 million for the construction period, including 15% contingency. An additional US \$4.8 million is estimated for sustaining capital and US \$2.9 million is estimated for reclamation.

Cash costs for the LOM are estimated at US \$396.9 million or US \$1,227 AuEq oz include mining, crushing and processing as well as maintenance and administration. All-in Sustaining Costs (AISC) for the LOM are estimated at US \$437.0 million or US \$1,351 AuEq oz including operating costs, sustaining capital, reclamation, taxes, royalties, and refining charges.

The economic analysis for the Project, using a gold price of US \$1,750 per ounce and a silver price of US \$22.00 per ounce, estimates a pre-tax NPV<sub>5</sub> of US \$68.7 million and an IRR of 52.7%. After-tax NPV<sub>5</sub> is estimated at US \$41.5 million and IRR of 32.4%. Payback period is calculated at 2.2 years.

The Mexican Income tax rate is calculated at 30% plus 7.5% for a specific mining tax.

Project sensitivities as shown in Section 22 outline the impact of metal prices on the Project's economics as well as operating and capital costs.

## **1.20. Recommendations**

With the positive results of this PEA, Micon and D.E.N.M. recommends further exploration and metallurgical work be continued on the Cerro Caliche Project. This will allow for further project development into front end engineering (FEED) of the process. The estimated budget of US \$3.8 million for further work is proposed and presented in Table 1:8.

Table 1:8 Budget for Further Work

<b>Description</b>	<b>\$USD</b>
Exploration Drilling (10,000 mt.)	\$1,931,000
Metallurgical Testing	\$350,000
Pre-Feasibility Study	\$1,000,000
Sub-Total	\$3,281,000
Contingency (15%)	\$492,150
<b>Total</b>	<b>\$3,773,150</b>

Source: D.E.N.M. (2021)

## **2. INTRODUCTION**

### **2.1. General**

This NI 43-101 Preliminary Economic Assessment (PEA) has been prepared in accordance with the requirements of National Instrument 43-101 by D.E.N.M. Engineering Ltd. of Burlington, Ontario (D.E.N.M.), with an updated resource estimation completed by Micon International Limited. of Toronto, Ontario (Micon) and metallurgical testing completed by McClelland Laboratories Inc. of Sparks, Nevada (MLI or McClelland). This PEA was completed at the request of Sonoro Gold Corp. (SGO).

Input on the specific Project details and parameters was provided by Sonoro's information and database.

The Project is 100% held by Minera Mira Plata, S.A. de C.V. (MMP), a Mexican subsidiary company that is wholly owned by Sonoro Gold Corp, a Canadian company registered in the province of British Columbia.

Sonoro Gold Corp. is a public, TSX Venture Exchange listed, mining exploration and development company trading under the symbol "SGO" with its head office located at:

Suite # 408 – 470 Granville Street,  
Vancouver, British Columbia  
CANADA  
V6C 1V5

Micon is an independent firm of senior geologists, mining engineers, metallurgists, geostatisticians and environmental specialists which has provided consulting services to the world's mining industry since 1988.

This Technical Report has an effective date of September 15, 2021

### **2.2. Qualified Persons, Site Visit, and Areas of Responsibility**

The authors of this report and Qualified Persons (QPs) are:

- David J. Salari, P. Eng., President of D.E.N.M. Engineering Ltd.
- William J. Lewis, B.Sc., P.Geo. a Director and Senior Geologist with Micon.
- Nigel Fung, B.Sc.H, B.Eng., P.Eng., VP, & Senior Mining Engineer with Micon.
- Ing. Alan San Martin, MAusIMM (CP), Mineral Resource Specialist with Micon.
- Rodrigo Calles-Montijo, CPG, General Administrator and Principal Consultant with the firm Servicios Geológicos IMEx, S.C.

### **2.2.1. D.E.N.M. Site Visit**

Mr. David J. Salari, P.Eng. visited the Cerro Caliche Project Site on July 28, 2021 with Sonoro personnel to review the total site area and infrastructure. Project areas reviewed included, but were not limited to:

- Location of all associated Mineralized zones within the resource area
- Proposed crushing, leach pad and plant areas
- Site access
- Power lines and accessibility
- Project Water: drilled wells
- General overall surrounding areas and adjacent properties

Subsequent discussions after the site visit were held with Sonoro personnel at the Company's Hermosillo office.

Figure 2:1 Overview of Cerro Caliche Project



Source: D.E.N.M. (2021)

Figure 2:2 Heap Leach Pad and Processing Areas



Source: D.E.N.M. (2021)

Figure 2:3 Access Roads: Cerro Caliche Zones



Source: D.E.N.M. (2021)

### **2.2.2. Micon Site Visit**

The Micon site visit to the Cerro Caliche property was completed on December 9 and 10, 2020 by Rodrigo Calles-Montijo, CPG, who is an independent consultant and Certified Professional Geologist (CPG), as well as a member of the *American Institute of Professional Geologists* (AIPG). Mr. Calles-Montijo is based in Hermosillo, México. Mr. Calles-Montijo was requested by William J. Lewis of Micon, to complete the site visit as required by NI 43-101 due to the situation and travel restrictions imposed by the Covid-19 pandemic. Prior to the site visit, a Skype meeting was organized with the participation of Mr. Lewis and Mr. Calles-Montijo, to delineate the objectives during the site visit. Mr. Calles-Montijo visited different areas within the property, as well as the core shack facilities located in the nearby village of Cucurpe, Sonora. During the

site visit, Mr. Calles-Montijo was accompanied by Melvin Herdrick, Sonoro’s VP of Exploration and Oscar Gonzalez, Chief Geologist of Sonoro.

On December 9, Messrs. Calles-Montijo, Herdrick and Gonzales, visited the Cerro Caliche site. Several of the most recent sites drilled in 2020 were inspected, as well as representative outcrops in different areas on the property. Four rock samples were collected along the main mineralized zones reported in the area. During the site visit, RC drilling equipment was operating, and some time was spent by Mr. Calles-Montijo to verify the drill, sampling, and chip logging procedures on site. Also, exploration track-drill holes were in place at the time of the site visit, and a field geologist was present to update the mapping of main the mineralized structures.

On December 10, Mr. Calles-Montijo was accompanied by Mr. Gonzales to visit the core shack facilities located in the Village of Cucurpe, located approximately 14 km to the southwest of the Project. The core shack facilities were inspected, and Mr. Calles-Montijo had the opportunity to discuss the core logging, sampling, and QA/QC procedures directly with the geologist in charge and verify the conditions of the facilities and core samples. Representative sections of three mineralized diamond drill holes were inspected by Mr. Calles-Montijo during the site visit. At the end of the site visit, Mr. Calles-Montijo and Mr. Gonzales returned to the Project, to collect several duplicates of chips samples from the current RC drilling program, as part of the data verification process. Chips and rocks samples were retained in the custody of Mr. Calles-Montijo, and personally transported and delivered to the laboratory facilities of ALS-Chemex (ALS), located in the city of Hermosillo, Sonora.

### **2.3. Other Information and Sources**

Table 2:1 present the authors and associated co-authors of the Technical Report as Qualified Persons as defined by NI 43-101. All details are outlined in Appendix A - QP Certificates.

Table 2:1 Report of Authors and Co-Authors

<b>Qualified Person</b>	<b>Employer</b>	<b>Technical Report Sections</b>
Mr. David J. Salari, P.Eng.	D.E.N.M. Engineering Ltd	<b>Sections:</b> 1.1, 1.5, 1.6, 1.9, 1.12, 1.13, 1.15 to 1.20, 2.1, 2.21, 2.3, 2.4, 3, 5.3, 12.4, 13, 17, 18, 20, 21, 22, 24, 25.4, 25.5, 26.2.2, and 26.2.4
Mr. William Lewis, P.Geo.	Micon International Limited	<b>Sections:</b> 1.2, 1.3, 1.4, 1.7, 1.8, 1.10, 1.11, 1.14, 4, 5, 6, 9, 10, 14.1 to 14.4, 14.6.3, 14.6.4, 14.7, 14.9, 14.10, 19, 23, 24, 25.1 to 25.3, 26.1, 26.2.1 and 26.2.3
Mr. Nigel Fung, P.Eng.	Micon International Limited	<b>Sections:</b> 15 and 16
Mr. Alan San Martin, MAusImm (CP)	Micon International Limited	<b>Sections:</b> 14.5 to 14.6.2 and 14.8
Mr. Rodrigo Calles-Montijo, CPG	Sevicios Geologicos IMEx	<b>Sections:</b> 2.2.2, 7, 8, 11 and 12.1 to 12.3

## 2.4. Units and Currency

All currency amounts are stated in US dollars (USD) or Mexican pesos (MXN), as specified, with costs and commodity prices typically expressed in US dollars. Quantities are generally stated in metric units, the standard Canadian and international practice, including metric tons (tonnes, t) and kilograms (kg) for weight, kilometers (km) or metres (m) for distance, hectares (ha) for area, grams (g) and grams per metric tonne (g/t) for gold and silver grades (g/t Au, g/t Ag).

Wherever applicable, Imperial units have been converted to Système International d'Unités (SI) units for reporting consistency. Precious metal grades may be expressed in parts per million (ppm) or parts per billion (ppb) and their quantities may also be reported in troy ounces (ounces, oz), a common practice in the mining industry. A list of abbreviations is provided in Table 2:2.

Table 2:2 List of Abbreviations

<b>Name</b>	<b>Abbreviation</b>
Agnico Eagle Mines Ltd.	Agnico Eagle
ALS-Chemex or ALS Laboratories or ALS Global	ALS
Anaconda Copper Co.	Anaconda
Bureau Veritas	BVI
Cambior Inc.	Cambior
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument 43-101	NI 43-101
Canadian Securities Administrators	CSA
Centimetre(s)	cm
Copper	Cu
Corex Gold Corporation	Corex
Degree(s), Degrees Celsius	°, °C
D.E.N.M. Engineering Ltd.	D.E.N.M.
Digital terrain model	DTM
Freeport-MacMoran Copper	Freeport
Gold	Au
Grams per metric tonne	g/t
Hectare(s)	ha
Hour	h
Inch(es)	in
Inductively Coupled Plasma – Emission Spectrometry	ICP-ES
Internal diameter	ID
Kilogram(s)	kg
Kilometer(s)	km
Laboratorio Tecnológico de Metalurgía	LTM
Layne de Mexico S.A. de C.V.	Layne
Lead	Pb
Life-of-mine	LOM
Litre(s)	L
McClelland Laboratories Inc.	McClelland
Metre(s)	m

**NI 43-101 Preliminary Economic Assessment Study for the Cerro Caliche Project, Sonora, Mexico  
Sonoro Gold Corp.**

<b>Name</b>	<b>Abbreviation</b>
Mexican peso	MXN
Micon International Limited	Micon
Million (eg million tonnes, million ounces, million years)	M (Mt, Moz, Ma)
Milligram(s)	mg
Millimetre(s)	mm
Millrock Resources	Millrock
Net present value, at discount rate of 5%/y	NPV, NPV <sub>5</sub>
Net smelter return	NSR
Not available/applicable	n.a.
Ounces (troy)/ounces per year	oz, oz/y
Paget Southern Resources S. de R.L. de C.V.	Paget
Parts per billion, parts per million	ppb, ppm
Pembroke Mining Corp.	Pembroke Mining
Percent(age)	%
Phelps Dodge Copper Co.	Phelps Dodge
Professional Engineer	P.Eng.
Quality Assurance/Quality Control	QA/QC
Qualified Person	QP
Reverse Circulation	RC
Rocklabs Ltd.	Rocklabs
Rock Quality Determination(s)	RQD
Run of mine	ROM
Sidney Mining and Exploration	Sidney
Sierra Madre Occidental	SMO
Servicio Geologico Mexicano	SGM
Sonoro Gold Corp.	Sonoro
Specific gravity	SG
Square kilometer(s)	km <sup>2</sup>
Standard Reference Materials	SRM
Système International d'Unités (SI)	SI
System for Electronic Document Analysis and Retrieval	SEDAR
Three-dimensional	3-D or 3D
Tonne (metric)/tonnes per day, tonnes per hour	t, tpd, t/hr
Tonne-kilometer	t-km
Tonnes per cubic metre	t/m <sup>3</sup>
TSL Laboratories Inc.	TSL
United States Dollar(s)	USD
US Securities and Exchange Commission	SEC
Universal Transverse Mercator	UTM
Value Added Tax (or IVA)	VAT or IVA
Year	y

The review of the Cerro Caliche Project was based on published material researched by D.E.N.M. and Micon, as well as data, professional opinions and unpublished material submitted by the professional staff of Sonoro or its consultants. Much of these data came from reports prepared and provided by Sonoro.

D.E.N.M. and Micon do not have, nor have they previously had any material interest in Sonoro or related entities. The relationship with Sonoro and related entities is solely a professional association between the client and the independent consultants. This report is prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this report.

This report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, neither D.E.N.M. nor Micon consider them to be material.

The conclusions and recommendations in this report reflect the QPs best independent judgment considering the information available to them at the time of writing. The QPs, D.E.N.M. and Micon reserve the right, but will not be obliged, to revise this report and conclusions if additional information becomes known to them after the date of this report. Use of this report acknowledges acceptance of the foregoing conditions.

This report is intended to be used by Sonoro subject to the terms and conditions of its agreement with D.E.N.M. and Micon. That agreement permits Sonoro to file this report as a Technical Report with the Canadian Securities Administrators pursuant to provincial securities legislation or with the SEC in the United States. Except for the purposes legislated under provincial securities laws, any other use of this report, by any third party, is at that party's sole risk.

The descriptions of geology, mineralization and exploration used in this report are taken from reports prepared by various organizations and companies or their contracted consultants, as well as from various government and academic publications. The conclusions of this report are based in part on data available in published and unpublished reports supplied by the companies which have conducted exploration on the property, and information supplied by Sonoro. The information provided to Sonoro was supplied by reputable companies. Neither D.E.N.M. nor Micon have any reason to doubt its validity and have used the information where it has been verified through its own review and discussions.

D.E.N.M. and Micon are pleased to acknowledge the helpful cooperation of Sonoro's management and consulting field staff, all of whom made all data requested available and responded openly and helpfully to all questions, queries and requests for material.

Some of the figures and tables for this report were reproduced or derived from historical reports written on the property by various individuals and/or supplied to D.E.N.M. and Micon by Sonoro or its personnel for this current report. Several photographs were taken by Mr. Calles-Montijo during his 2020 site visit. In the cases where photographs, figures or tables were supplied by other individuals or Sonoro, they are referenced below the inserted item. Most figures supplied by Sonoro were generally produced by Oscar Gonzalez, Chief Geologist of Sonoro.

### **3. RELIANCE ON OTHER EXPERTS**

In this report, discussions regarding royalties, permitting, taxation and environmental matters are based on material provided by Sonoro. D.E.N.M. and Micon QPs are not qualified to comment on such matters and have relied on the representations and documentation provided by Sonoro for such discussions.

All data used in this report were originally provided by Sonoro. Both D.E.N.M. and Micon QPs have reviewed and analyzed this data and have drawn their own conclusions therefrom, augmented by their direct field examinations during the various site visits.

D.E.N.M. and Micon offer no legal opinion as to the validity of the title to the mineral concessions claimed by Sonoro and has relied on information provided by it. Sonoro has also provided to D.E.N.M. and Micon, a summary of the title opinions that were conducted by Justo Rafael Romero Diaz an independent lawyer with expertise in mining laws and regulations located in Mexico City.

## 4. PROPERTY DESCRIPTION AND LOCATION

### 4.1. General Information

The Cerro Caliche Project is located in the Cucurpe Municipality of Sonora State in northwestern Mexico, approximately 240 km northwest of the capital city of Hermosillo and approximately 160 km south of Tucson, Arizona. Figure 4:1 shows the location of the Cerro Caliche Project.

The centre of the mineralized zone has the following Universal Transverse Mercator (UTM) coordinates in 3,365,200 N, 536,600 E and the datum used was NAD 27, UTM Zone 12.

The mineralized area consists of repeating northwest trending vein zones that march from the western side of the property to the eastern side of the property. Locally known historic vein-mine names have been retained during the exploration program. Several of these zones are shown in the district map's illustration Figure 51 with subsequent listing of veins in the "Cucurpe Mining District" of the Geological-Mining Monograph for the State of Sonoro (Cendejas, F., et al., 1994).

Figure 4:1 Location Map for the Cerro Caliche Project

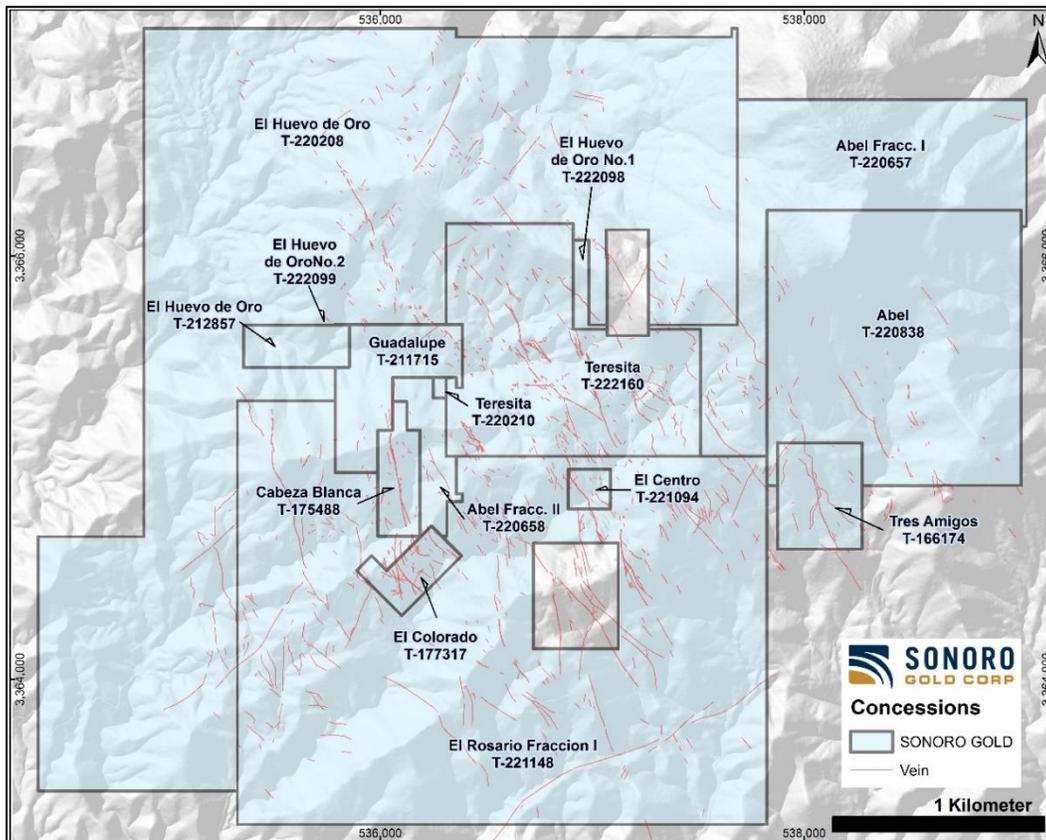


Source: Sonoro Gold (2021)

#### 4.2. Property Description and Ownership

The Cerro Caliche Project is comprised of 15 contiguous mining concessions covering a total of 1,350.10 ha. Figure 4:2 shows the location of the mineral concessions in relationship to each other. Table 4:1 summarizes the 15 mining concessions held under Option to Purchase or Assignment of Title agreements. Sonoro controls the mining concessions through its wholly owned Mexican subsidiary, Minera Mar De Plata, S.A. de C.V. (MMP), a company duly incorporated under the laws of Mexico.

Figure 4:2 Concession Map of the Cerro Caliche Project



Source: Sonoro Gold (2021)

The surrounding area is used primarily for cattle ranching and is punctuated by numerous historical inactive mine workings comprised mainly of small pits and tunnels with some underground development.

*NI 43-101 Preliminary Economic Assessment Study for the Cerro Caliche Project, Sonora, Mexico*  
*Sonoro Gold Corp.*

Table 4:1 Cerro Caliche Concessions

Option Agreement	Concession Name	Title Number	Area (Ha)	Royalty (%)	Concession Holder(s)	Location Date	Expiry Date	Bi-Annual Fees (MXN)
Cerro Caliche	Abel	220838	147.98	2	Juan Pedro Fernández Duarte	15-Oct-2003	14-Oct-2053	52,063
	Abel Fracc II	220658	11.89		Juan Pedro Fernández Duarte	9-Sep-2003	8-Sep-2053	4,187
	Abel Fracc I	220657	99.09		Juan Pedro Fernández Duarte	9-Sep-2003	8-Sep-2053	34,864
	El Huevo de Oro	220208	510.84		Juan Pedro Fernández Duarte	24-Jun-2003	23-Jun-2053	179,715
	El Huevo de Oro	212857	10.00		Juan Pedro Fernández Duarte	31-Jan-2001	30-Jan-2051	3,520
	Guadalupe	211715	24.59		Juan Pedro Fernández Duarte	30-Jun-2000	29-Jun-2050	8,655
	Huevo de Oro No.1	222098	3.30		Juan Pedro Fernández Duarte	11-May-2004	10-May-2054	1,164
	Huevo de Oro No. 2	222099	0.03		Juan Pedro Fernández Duarte	11-May-2004	10-May-2054	23
	Teresita	222160	99.33		Juan Pedro Fernández Duarte	25-May-2004	24-May-2054	34,949
	Teresita	220210	0.59		Juan Pedro Fernández Duarte	24-Jun-2003	23-Jun-2053	210
Cabeza Blanca	Cabeza Blanca	175488	10.00	NA	Hector Fernando Albelais Peral	31-Jul-1985	30-Jul-2035	3,520
El Colorado	El Colorado	177317	9.00	NA	Felipe Albelais Varela	18-Mar-1986	17-Mar-2036	3,169
Tres Amigos	Tres Amigos	166174	20.00	NA	Jesús Héctor Pavlovich Camou (50%), Raúl Ernesto Seym Gutierrez (50%)	9-Apr-1980	8-Apr-2030	7,038
Rosario	El Centro	221094	3.77	2	Edward Rivas Hoffman	19-Nov-2003	18-Nov-2053	1,332
	El Rosario Fraccion I	221148	399.69		Edward Rivas Hoffman	3-Dec-2003	2-Dec-2053	140,615
		<b>Total:</b>	<b>1,350.10</b>				<b>Total:</b>	<b>475,024</b>

Source: Sonoro Gold (2021)

#### 4.2.1. Option Agreements

##### 4.2.1.1. Cerro Caliche Concessions Option Agreement

On January 23, 2018, Sonoro’s subsidiary MMP entered into an Option to Purchase agreement with Juan Pedro Fernández Duarte, a resident of Hermosillo, Sonora, Mexico to acquire a 100% interest in 10 claim titles for total consideration of US \$2,977,000 payable in installments over 72-months (Table 4:2)

Table 4:2 Cerro Caliche Concessions Payment Plan

Payment Date	Payment Amount (USD)	Payment Status
19-Dec-2017	10,000	Paid
23-Jan-2018	117,000	Paid
23-Jan-2019	200,000	Paid
23-Jan-2020	300,000	Paid
23-Jul-2020	200,000	Paid
23-Jan-2021	200,000	Paid
23-Jul-2021	250,000	Paid
23-Jan-2022	250,000	
23-Jul-2022	300,000	
23-Jan-2023	300,000	
23-Jul-2023	400,000	
23-Jan-2024	450,000	
<b>Total:</b>	<b>2,977,000.00</b>	

Source: Sonoro Gold (2021)

The group of mining concessions covers a total area of 907.6 has and consists of Abel (T-220838), Abel Fracc. I (T-220657), Abel Fracc. II (T-220658), El Huevo de Oro (T-220208), El Huevo de Oro (T-212857), Guadalupe (T-211715), Huevo de Oro No. 1 (T-222098) and Huevo de Oro No. 2 (222099), Teresita (T-222160), and Teresita (T-220210).

Under the option agreement, 66% of the Abel (T-220838) claim was held by Juan Pedro Fernández Duarte while the remaining 33% was held by José Arturo Gálvez Magallanes. In a subsequent agreement dated February 16, 2018, Juan Pedro Fernández Duarte acquired the remaining 33% internet from José Arturo Gálvez Magallanes estate in consideration of a one-time payment of \$300,000 Mexican pesos.

Following exercise of the Option, Juan Pedro Fernández Duarte will hold a 2% net smelter returns royalty (NSR) from the proceeds of the sale of minerals from Cerro Caliche concessions. Under the agreement, MMP has the option to purchase the NSR at any time for US \$1,000,000 for each 1% of the 2 % NSR.

On June 14, 2021, a Title Opinion provided by Justo Rafael Romero confirmed payments for mining rights are in good standing and an application to record the Purchase Option agreement in favor of MMP is currently pending with the *Mining Public Registry* (MPR). On June 4, 2021, the MPR certified all 10 claims as valid.

#### **4.2.1.2. Cabeza Blanca Concession Option Agreement**

On October 5, 2018, MMP entered into an Option to Purchase agreement with Hector Fernando Albelais Peral, a resident of Magdalena de Kino, Sonora, Mexico to acquire a 100% interest in the Cabeza Blanca claim title (T-175488) for total consideration of 250,000 common shares in the Company and US \$175,000 payable in installments over two-years (Table 4:3).

Table 4:3 Cabeza Blanca Concession Payment Plan

<b>Payment Date</b>	<b>Payment Amount (USD)</b>	<b>Payment Status</b>
5-Oct-2018	5,000	Paid
5-Nov-2018	20,000	Paid
5-Jan-2019	10,000	Paid
5-Oct-2019	70,000	Paid
5-Oct-2020	70,000	Paid
<b>Total:</b>	<b>175,000</b>	

Source: Sonoro Gold (2021)

In October 2020, MMP acquired the 100% interest in Cabeza Blanca concession by making the final payment and securing 100% title to the concession through the execution of an “Assignment of Title to Mining Concession Agreement.”

A Title Opinion provided by Justo Rafael Romero on June 14, 2021, confirms payment for mining rights are in good standing and an application to record the Purchase Option agreement in favor of MMP is currently pending with the MPR. On June 4, 2021, the MPR certified the Cabeza Blanca concession as valid.

There is no NSR royalty on the concession.

#### **4.2.1.3. El Colorado Concession Option Agreement**

On August 10, 2018, MMP entered into an Option to Purchase agreement with the estate of the late Felipe Albelais Varela of Magdalena de Kino, Sonora, Mexico to acquire a 100% interest in the El Colorado claim title (T-177317) for total consideration of US \$100,000 with the initial payment of US \$50,000 issued on signing.

In February 2019, MMP acquired the 100% interest in El Colorado by making the final payment and securing 100% title to the concession through the execution of an “Assignment of Title to Mining Concession Agreement.”

A Title Opinion provided by Justo Rafael Romero on June 14, 2021, confirms payment for mining rights are in good standing and an application to record the Purchase Option Agreement in favor of MMP is currently pending with the MPR. On June 4, 2021, the MPR certified the El Colorado claim as valid.

The is no NSR royalty on the concession.

**4.2.1.4. Tres Amigos Concession Option Agreement**

On May 2, 2018, MMP entered into an Option to Purchase agreement with Jesús Héctor Pavlovich Camou and Raúl Ernesto Seym Gutiérrez, residents of Magdalena de Kino, Sonora, Mexico to acquire a 100% interest in the Tres Amigos claim title (T-166174) for total consideration of US \$130,000 payable in instalments over 48-months (Table 4:4).

Table 4:4 Tres Amigos Concession Payment Plan

<b>Payment Date</b>	<b>Payment Amount (USD)</b>	<b>Payment Made</b>
29-May-2018	14,444	Paid
2-Nov-2018	14,444	Paid
2-May-2019	14,444	Paid
2-Nov-2019	14,444	Paid
2-May-2020	14,444	Paid
2-Nov-2020	14,444	Paid
2-May-2021	14,444	Paid
2-Nov-2021	14,444	
2-May-2022	14,444	
<b>Total:</b>	<b>130,000</b>	

Source: Sonoro Gold (2021)

A Title Opinion provided by Justo Rafael Romero on June 14, 2021, confirms payment for mining rights are in good standing and the Purchase Option Agreement in favor of MMP has been recorded with the MPR. On June 4, 2021, the MPR certified the Tres Amigos claim as valid.

There is no NSR royalty on the claim.

**4.2.1.5. Rosario Concessions Option Agreement**

On March 14, 2018, MMP entered into an Option to Purchase agreement with Edward Rivas Hoffman, a resident of Tucson, Arizona to acquire a 100% interest in two claim titles for total consideration of US \$1,600,000 payable in instalments over 72-months (Table 4:5).

The Rosario claims cover a total area of 403.5 hectares and consist of El Centro (T-221094) and El Rosario Fraccion I (T-221148). Following exercise of the Option, Edward Rivas Hoffman will hold a 2% NSR from the proceeds of the sale of minerals from Rosario.

Under the agreement, Sonoro has the option to purchase the NSR at any time for US \$1,000,000 for each 1% of the 2% NSR.

Table 4:5 Rosario Concession Payment Plan

<b>Payment Date</b>	<b>Payment Amount (USD)</b>	<b>Payment Status</b>
14-Mar-2018	60,000	Paid
14-Mar-2019	75,000	Paid
14-Mar-2020	90,000	Paid
14-Mar-2021	150,000	Paid
14-Mar-2022	300,000	
14-Mar-2023	375,000	
14-Mar-2024	550,000	
<b>Total:</b>	<b>1,600,000</b>	

Source: Sonoro Gold (2021)

A Title Opinion provided by Justo Rafael Romero on June 14, 2021, confirms payment for mining rights are in good standing and the Purchase Option Agreement in favor of MMP has been recorded with the MPR. On June 4, 2021, the MPR certified the Rosario claims as valid.

#### **4.2.2. Surface Rights**

Under Mexican law, mineral exploration rights are separate from surface rights and concession holders are required to negotiate with the landowner to access the land. Surface rights for the Cerro Caliche Project are controlled by the Rancho Cerro Prieto, a family-owned ranch owned by Sr. Fernando Padres Egurrola and legally represented by Sr. Carlos Matin Padres Contreras. On July 1, 2018, MMP entered into a seven-year surface rights agreement in consideration of annual payments of US \$48,800. Should the Project proceed to the mining operation stage, an additional surface rights agreement with the current property owner will be required.

The QPs have not independently verified surface ownership and have accepted the representations made by Sonoro which states that the landowner acquired the ranch on February 10, 2011. The notarized contract for the purchase is registered as public deed number 7656 book no. 59, volume XXI by public notary #49 Jose Alvarez Llera.

#### **4.3. Mexican Mining Law**

When the Mexican mining law was amended in 2006, all mineral concessions granted by the *Dirección General de Minas* (DGM) became simple mining concessions and there was no longer a distinction between mineral exploration or exploitation concessions. A second change to the mining law resulted in all mining concessions being granted for a period of 50 years, provided that the concessions remained in good standing. As part of the second change, all former exploration concessions which were previously granted for a period of 6 years became eligible for the 50-year term.

For any concession to remain valid, the bi-annual fees must be paid, and a report filed during the month of May of each year covering work conducted during the preceding year. Concessions are extendable, provided that the application is made within the five-year period prior to the expiry of the concession and the bi-annual fee and work requirements are in good standing. The bi-annual

fees, payable to the Mexican government to hold the group of contiguous mining concessions for the Cerro Caliche Project is approximately MXN \$475,024.

All mineral concessions must have their boundaries orientated astronomically north-south and east-west and the lengths of the sides must be 100 m or multiples thereof, except where these conditions cannot be satisfied because they border on other mineral concessions. The locations of the concessions are determined on the basis of a fixed point on the land, called the starting point, which is either linked to the perimeter of the concession or located thereupon. Prior to being granted a concession, the applicant must submit a topographic survey, completed by a DGM authorized licensed surveyor, to the DGM within 60 days of staking. Once this is completed the DGM will usually grant the concession.

Concessions may be granted to or acquired by Mexican individuals, local communities with collective ownership of the land, known as ejidos, and companies incorporated pursuant to Mexican law, with no foreign ownership restrictions for such companies. While the Mexican Constitution makes it possible for foreign individuals to hold mining concessions, the Mining Law does not allow it. This means that foreigners wanting to engage in mining in Mexico must establish a Mexican corporation or enter into a joint venture with a Mexican national or entity.

Mexican Mining Law also imposes a 7.5% annual tax on any profits from the extraction and sale of mineral commodities, and there is an additional 0.5% gross sales tax on mining production of gold, silver, and platinum.

Both taxes are in addition to the national corporate income tax rate of 30%.

#### **4.4. Permitting and Environmental**

Exploration and mining regulations in Mexico are controlled by the *Secretaria de Economia* (Secretariat of Economy) while required environmental permits are regulated and approved by the *Secretaria de Medio Ambiente y Recursos Naturales* (Secretary of the Environment and Natural Resources or SEMARNAT). As the Cerro Caliche Project is not included in any specially protected, federally designated ecological zones, basic exploration activities for the Project are regulated under NORMA Oficial Mexicana NOM-120-ECOL-1997 (NOM-120). NOM-120 permits the following activities: mapping, geochemical sampling, geophysical surveys, mechanized trenching, road building, and drilling. NOM-120 also defines impact-mitigation procedures to be followed for each activity. All exploration work conducted by Sonoro has adhered to NOM-120.

Mining construction and operation activities require a “Manifiesto de Impacto Ambiental” (Environmental Impact Statement or MIA). as well as an “Autorizacion en Cambio de Uso de Suelo” (Change of Land Use Authorization or CUS), although the CUS is sometimes included as part of the MIA. Applications for a CUS must include a report summary of the biological and ecological characteristics of the affected area as well as compensation for the National Forestry Commission of Mexico. The amount of compensation is determined by the type of vegetation, degree of impact, and estimated cost to reclaim the disturbed surface area.

On October 10, 2018, Sonoro announced it had been granted a two-year “Informe Preventivo Environmental Permit,” in accordance with the NOM-120-SEMARNAT-2011, by SEMARNAT to drill 87 reverse-circulation holes, equivalent to approximately 10,000 m. The permit also granted approval for the construction of new drill pads and roads as well as approval to reuse earlier pads for new drill holes.

On December 2, 2020, Sonoro announced it had been granted a second environmental permit called “Cerro El Caliche 2da Etapa” to drill 258 reverse-circulation and core drill holes, equivalent to approximately 50,000 m. The permit also granted approval for the construction of new drill pads and roads as well as approval to reuse earlier pads for new drill holes (Figure 4:3). Sonoro applied for Change of Land Use (CUS) permit in 2021.

Figure 4:3 El Colorado Roads and Drill Pads



Source: Sonoro Gold (2021)

#### **4.5. QP Comments**

D.E.N.M. and Micon QPs are not aware of any significant factors or risks besides those discussed in this report that may affect access, title or right or ability to perform work on the property by Sonoro or any other party which may be engaged to undertake work on the property by Sonoro. It is D.E.N.M. and Micon QPs understanding that further permitting and environmental studies would be required if the Project were to advance beyond the current exploration stage.

The Cerro Caliche Project is large enough to accommodate the necessary infrastructure to support a mining operation, should the economics of the mineral deposits be sufficient to warrant

proceeding with that decision. No significant environmental liability was observed by the QP during the 2020 site visit. All exploration (drilling) access roads were still active and drill sites appeared clean, but not yet fully reclaimed. Some vestiges of plastic bags and black-cover plastic were observed and need to be removed during the reclamation period.

Several historical adits and trenches were observed in different regions of the property. Historic workings located in areas not being utilized by Sonoro, need to be surveyed and noted in the database prior to being properly closed and reclaimed. No evidence of recent mining work activity of the historic sites was observed during the 2020 site visit.

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

### **5.1. Accessibility**

The Cerro Caliche Project is accessible by flying into Tucson, Arizona and crossing into Mexico at the Nogales border crossing or by flying into Hermosillo, Sonora and driving north towards the property. The Project is accessed via the Mexican Federal Highway 15, a major transportation corridor between the US border to the north and major Mexican urban centres to the south. From the international border crossing at Nogales, Arizona, it is approximately 95 km to the town of Magdalena de Kino and from Hermosillo it is approximately 185 km to the town of Magdalena de Kino.

From Magdalena de Kino, travel 40 km southeast via a two-lane highway to the town site of Cucurpe, then another 14 km northeast on an unsurfaced all-weather road to a locked gate, From the gate, continue 4.8 km along a dirt road to reach the centre of the Project. Driving time from Magdalena de Kino to the Project area is one hour and 30 minutes and driving time from Hermosillo is three hours and 30 minutes. The various mineralized areas and historical workings across the Project are accessible year-round by a network of trails and unpaved drill roads. (Figure 5:1) The access roads within the Project will need to be upgraded to support any future mining operations. Road access through the adjacent Cerro Prieto mine property, currently granted to MMP personnel, will likely require a future detour should the Project develop into an operation.

Figure 5:1 Access Road Near the Project



Source: Micon (2020)

## 5.2. Climate and Physiography

### 5.2.1. Climate

The Project is situated within the Sonoran Desert, an arid ecoregion that covers approximately 260,000 km<sup>2</sup> of the southwestern United States and northwestern Mexico, including most of the state of Sonora. The climate is considered semi-dry with an average annual temperature of 16.5 °C. During the summer months of June, July and August, the temperature averages 25.3 °C with extreme values registered as high as 49 °C. During the winter months of December and January, the temperature averages 8.3 °C with extreme values registered as low as -7 °C.

Annual precipitation is approximately 500 mm with the rainy season occurring between July and September with maximum rainfall in July reaching 142.2 mm. Exploration and mining activities are conducted year-round except during the occasional period of heavy rainfall resulting in a few of the unpaved dirt roads becoming temporarily impassable.

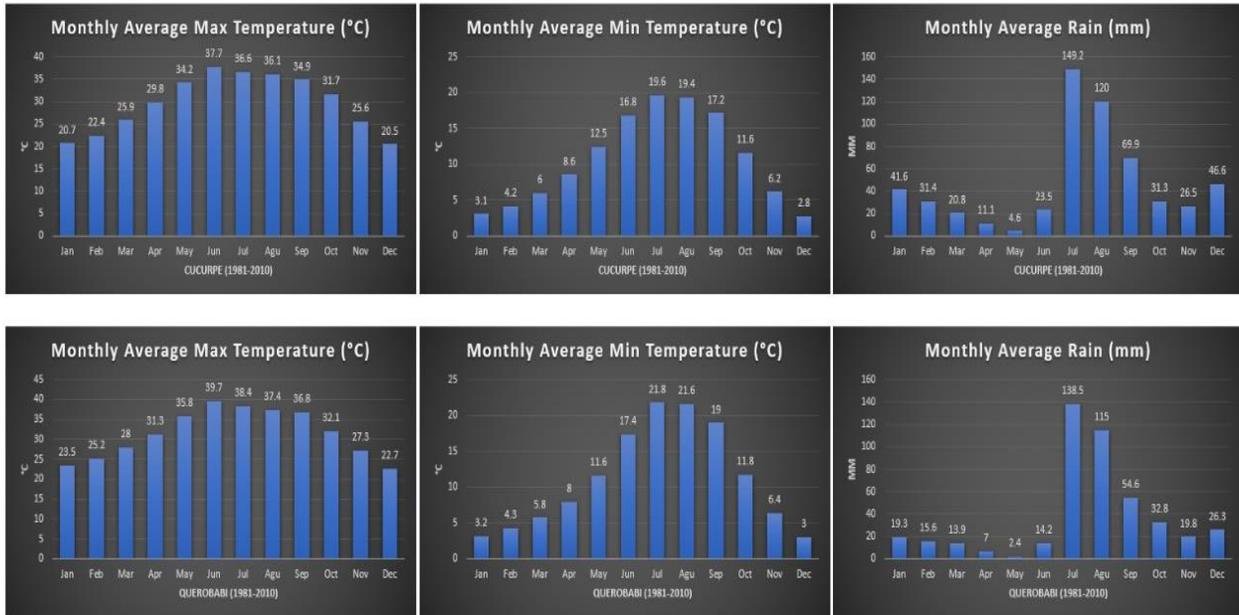
Basic temperature as well as monthly temperature and precipitation statistics are shown in Table 5:1 and Figure 5:2. The data corresponds to the 1981-2010 period and is from nearby weather stations at Cucurpe, located 14 km to the southwest and Querobabi, located 53 km to the southwest.

Table 5:1 Monthly Average Minimum and Maximum Temperatures and Average Rainfall

Temperatures (°C)		Monthly Average Max Temperature (°C)												
Weather Station	Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Agu	Sep	Oct	Nov	Dec	Annual
Cucurpe	1981-2010	20.7	22.4	25.9	29.8	34.2	37.7	36.6	36.1	34.9	31.7	25.6	20.5	29.7
Querobabi	1981-2010	23.5	25.2	28	31.3	35.8	39.7	38.4	37.4	36.8	32.1	27.3	22.7	31.5
Temperatures (°C)		Monthly Average Min Temperature (°C)												
Weather Station	Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Agu	Sep	Oct	Nov	Dec	Annual
Cucurpe	1981-2010	3.1	4.2	6	8.6	12.5	16.8	19.6	19.4	17.2	11.6	6.2	2.8	10.7
Querobabi	1981-2010	3.2	4.3	5.8	8	11.6	17.4	21.8	21.6	19	11.8	6.4	3	11.2
Average Rain (mm)														
Weather Station	Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Agu	Sep	Oct	Nov	Dec	Annual
Cucurpe	1981-2010	41.6	31.4	20.8	11.1	4.6	23.5	149.2	120	69.9	31.3	26.5	46.6	576.5
Querobabi	1981-2010	19.3	15.6	13.9	7	2.4	14.2	138.5	115	54.6	32.8	19.8	26.3	459.4

Source : <https://smn.conagua.gob.mx/tools/RECURSOS/Normales8110/NORMAL26074.TXT>  
<https://smn.conagua.gob.mx/tools/RECURSOS/Normales8110/NORMAL26025.TXT>

Figure 5:2 Minimum and Maximum Average Temperature & Rainfall



Source : <https://smn.conagua.gob.mx/tools/RECURSOS/Normales8110/NORMAL26074.TXT>  
<https://smn.conagua.gob.mx/tools/RECURSOS/Normales8110/NORMAL26025.TXT>

Weather conditions allow for exploration and mining operations year-round, with occasional work restrictions during the heavier rains of summer. However, given the current drought conditions throughout the Southern US and Northern Mexico due to climate change, hotter and dryer conditions as well as wetter periods could potentially occur in the coming decades.

### 5.2.2. Physiography

Located within the Sonoran Basin and Range Province, the Project’s surrounding physiography is characterized by narrow, north-northwest trending, fault-bounded mountain chains separated by broad flat valleys of elongated, northwest-trending ranges separated by wide alluvial valleys.

Vertical relief is approximately 670 m with a maximum elevation of 1,750 m at the Cerro Caliche peak located in the northeast region of the Property and a minimum elevation of 1,080 m in the arroyos draining system located in the southern region of the Project. A radial dendritic drainage pattern with moderate hill slopes can also be found within the Project’s central region. Vegetation throughout the Project is dominated primarily by short grasses, mesquite and ocotillo shrubs, and nopal cactus.

### 5.3. Local Resources and Infrastructure

The state of Sonora has a well-established transportation infrastructure, skilled labour force and developed industries including mining, agribusiness and renewable energy. The state is also a major manufacturing hub due to its strategic location along the trade corridor between the US and Mexico as well as the North American Free Trade Agreement (NAFTA) and subsequently revised United States-Mexico-Canada Trade Agreement (USMCA)

The nearby Municipality of Cucurpe, 14 km southwest of the Project, is an established mining district with a skilled workforce and two high-capacity electric transmission lines, one of which extends to the Cerro Prieto mine located adjacent to the Project's western boundary and a second transmission line which extends to the Mercedes Mine, located 10 km to the southeast of the Project. The town of Magdalena de Kino, 54 km to the northeast, offers basic services and provisions, including telecommunication, accommodation, restaurants and gasoline. The capital city of Hermosillo, 240 km to the southeast is a major supplier of equipment and services to the region's mining sector with additional supplies shipped from Tucson, Arizona if needed.

Due to Mexico's well established mining sector, the Project can attract and retain skilled labour and mining professional for both exploration activities and future mining operations.

The Cerro Caliche Project and the surrounding area belong to the Rio San Miguel aquifer, identified with the code 2625 by the *National Commission of Water* (CONAGUA, or Comisión Nacional del Agua). The water balance completed in 2020 by CONAGUA indicates that the annual recharge of this aquifer is 68.7 hm<sup>3</sup> per year. Total underground water extraction was calculated (2020) in 64.2 hm<sup>3</sup> per year, while the natural discharge was estimated at 2.2 hm<sup>3</sup>. The analysis concludes that the amount of 2.3 hm<sup>3</sup> per year remains available for new concessions for underground water extraction.

Cerro Caliche will be a water user as typically expected from a heap leach operation in the Sonora region of Mexico. The main make-up water requirement demands will be determined by the loaded heap pad wetting and irrigation evaporation in the area. The expected evaporation rate in the area is high and has been factored into the preliminary water balance.

Annual precipitation in the area is 500 mm, as noted above, with precipitation experienced in July of 142 mm. Water diversion and management will be important as a means of collection but also limit the dilution within the pads and ponds for the gold and silver bearing solution.

Process make-up water requirements will be via surface drilled wells located on the property. The calculated water make-up requirements for the Cerro Caliche Project will be 623k cu.mt per year for the 15,000 tpd processing rate.

The power source for the Project will be via a new line from a 33 kV transmission line located approximately 24 km from the Cerro Caliche property. *Commission Federal de Electricidad* (CFE) controls this main high voltage line. Electricity consumption for the process plant is estimated (based on the preliminary flowsheet and equipment list) to be 16,958 MWh per year.

## **6. HISTORY**

### **6.1. Sonoro Gold Corp., Company History**

Sonoro Gold Corp. was incorporated in Ontario in November of 1944 under the name Independent Mining Corporation Limited. In 1997, the Company was listed on the Canadian Dealing Network (CDN) and traded under the symbol “IDEI.” In 2000, the Company changed its name to “Independent Enterprises Ltd.” and commenced trading on the TSX Venture Exchange under the symbol “YID.”

In 2003, the Company changed its name to Becker Gold Mines Ltd. and traded under the symbol “YBG” until early 2004 when the symbol changed to “BGD.” In 2007, the Company continued into British Columbia and traded under the symbol “BGD” on the NEX Exchange until early 2009 when the symbol changed to “BDF.”

In 2011, the Company acquired Cap Capital Corp. (“Cap Capital”), a company incorporated under the laws of British Columbia. Cap Capital holds 99% of the issued and outstanding shares of the subsidiary MMP which controls the Cerro Caliche Project.

In 2012, the Company changed its name to Sonoro Metals Corp. and traded on the TSX Venture Exchange under the symbol “SMO.” In September 2020, the Company changed its name to “Sonoro Gold Corp.” and commenced trading on the TSX Venture Exchange under the symbol “SGO.”

### **6.2. General Project Area**

The Mexican State of Sonora was an historically important mining area and until the start of the Mexican war of Independence in 1810, was one of the largest contributors to the Spanish Crown. Mexico gained independence in 1821 and in 1824 Sonora became a state under the Mexican Constitution. But the war left the state economically and militarily weak. Many of the workings and mining communities were destroyed and those still operating were often raided and abandoned. The sector began to revive towards the end of the 19<sup>th</sup> century when large investments from US companies reopened many of the gold, silver and copper mines.

The Cerro Caliche Project has been the subject of exploratory work and artisan mining since the 1800s. Despite the scarcity of records, numerous small scale prospecting pits as well as shallow shafts and tunnels are evident throughout the property with several of the workings now overgrown with thick vegetation.

Figure 6:1 Old Adit Entrance and Surface Mining Works, Cabeza Blanca Area



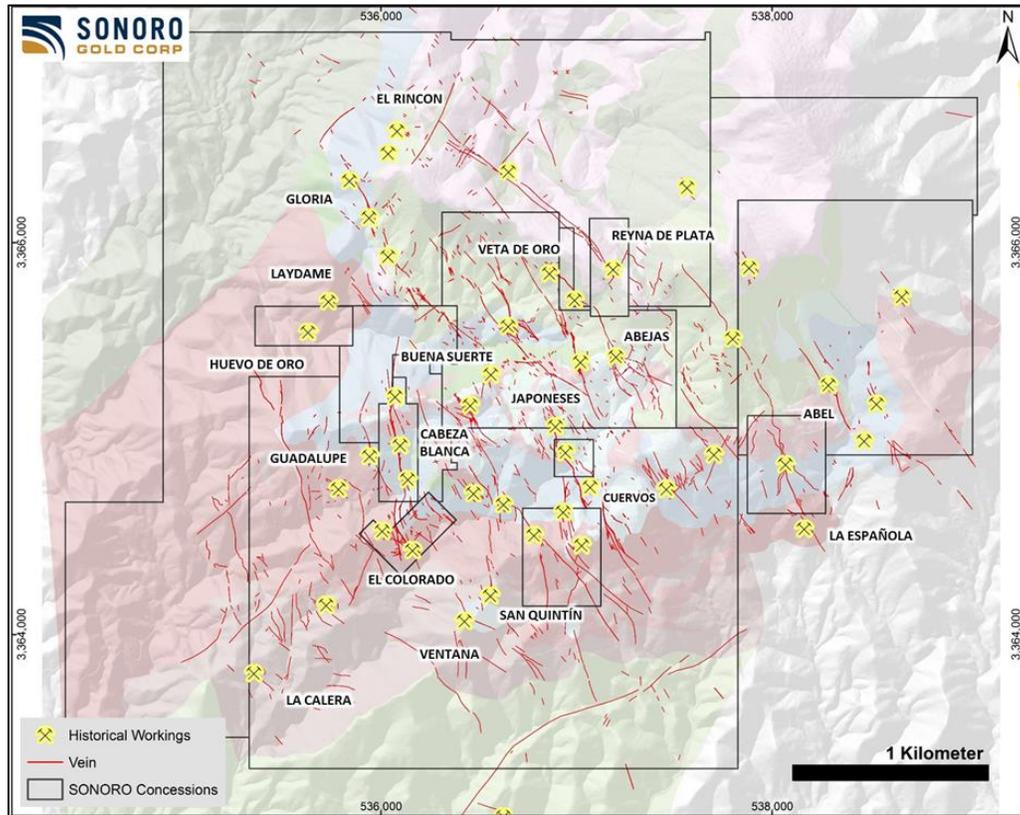
Source: Micon (2020)

Early records from AGS Datafile and Anaconda Copper Co. (Anaconda) indicate exploration activities at Cerro Caliche were carried out as early as the 1930s. In 1992, the federal Mexican government’s publication “Geological-Mining Monograph of the State of Sonora” listed numerous veins identified in the Cucurpe District including the following historical workings from the Cerro Caliche Project: Cabeza Blanca, Los Japoneses, El Colorado, and Buena Suerte (Figure 6:2).

Exploration work performed by members of the Albelaís family within the Cabeza Blanca and El Colorado zones consisted of gambusino mining from the early 1950’s through 1990. Small scale underground mining in the areas of the two concessions yielded minor production which involved truckloads of selected quartz vein mineralized material being hauled to smelters at Cananea and sold as precious metal bearing quartz flux.

Phelps Dodge Copper Co. (Phelps Dodge, now Freeport-McMoran Copper (Freeport)) briefly denounced a large concession, La Vista, over a large part of Cerro Caliche circa 1994 as part of the expanded exploration around the Santa Gertrudis mine. The Santa Gertrudis gold deposit was discovered by Phelps Dodge in 1986 and developed into a heap-leach mine that began production in 1991. Phelps Dodge sold part of the mine to Campbell Resources in 1994. The La Vista concession was dropped after part of the mine was sold in 1994. Before the Santa Gertrudis mine was shut down in 2000 due to low gold prices, it had produced 564,000 oz. gold. Agnico Eagle Mines Ltd. (Agnico Eagle) acquired the Santa Gertrudis mine in 2017 and continues to conduct exploration activities at the property.

Figure 6:2 Historical Workings at Cerro Caliche



Source: Isidro Flores, Cerro Caliche (2018)

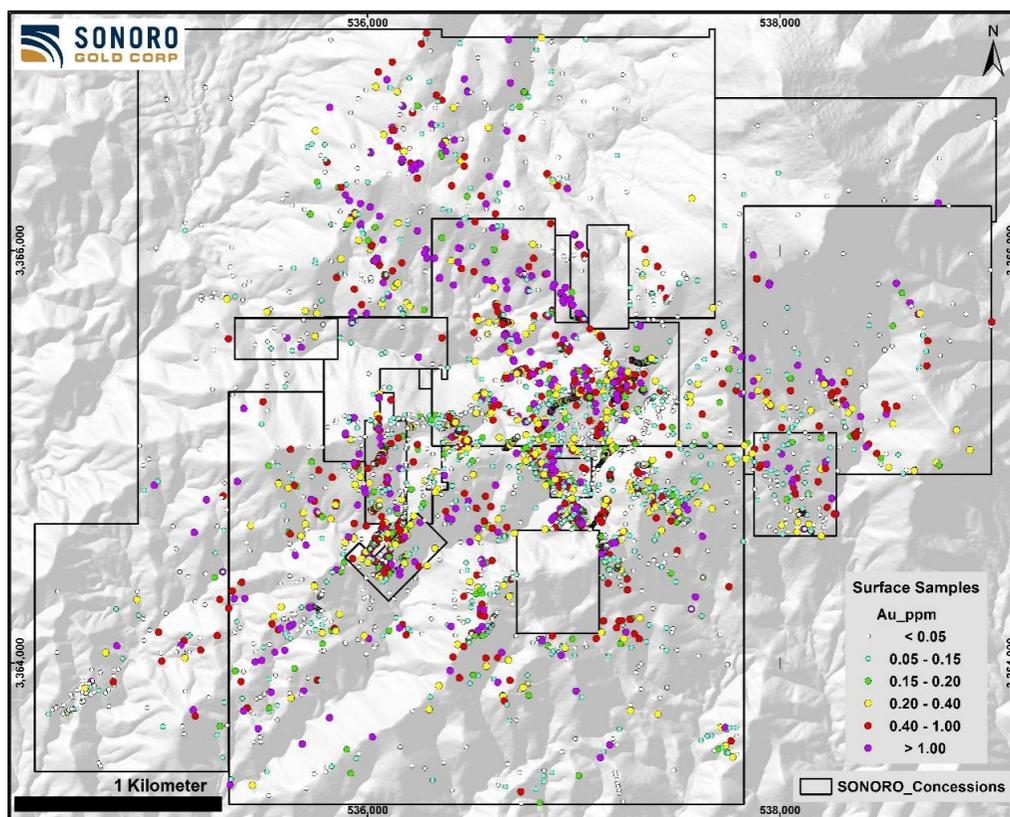
### 6.3. Project History

#### 6.3.1. Cambior Inc. Exploration (1990s)

Cambior Inc. (Cambior), a publicly listed Canadian mining and exploration company acquired by IAMGOLD in 2006, conducted an exploration campaign on two mineralized areas of the Project. Between 1997 and 1998, Cambior drilled 27 RC holes and conducted an extensive surface geochemical sampling program at El Colorado and Los Japoneses mineralized zones. Figure 6:3 shows historical sampling completed on the property as well as the distribution of gold throughout the Project.

Despite identifying large quantities of gold mineralization, Cambior abandoned the Project in 1998. Sonoro acquired the data from 15 RC drill holes in 2020.

Figure 6:3 Historical Surface Samples at Cerro Caliche



Source: Sonoro Gold (2021)

### **6.3.2. Sidney Mining and Exploration, Exploration (2000s)**

Sidney Mining and Exploration (Sidney) obtained an option on part of the concessions circa 2000 and conducted a surface sample program on certain areas of the Project in the early 2000s. The data was obtained by Millrock Resources and acquired by Sonoro in 2019.

### **6.3.3. Corex Exploration (2007 to 2008)**

Corex Gold Corporation (Corex), a publicly listed Canadian exploration company acquired by Minera Alamos in 2018, acquired most of the Project's concessions in 2007. Through its wholly owned subsidiary, Corex Global S.A. de C.V., Corex completed a 7,725-m RC drilling campaign including a detailed geologic mapping and sampling program with over 1,870 rock, channel and continuous chip samples. Corex abandoned the Project in 2008. In 2018, Sonoro acquired the drilling data, geologic mapping and rock sample database.

### **6.3.4. Paget Southern Resources, Exploration (2011)**

Paget Southern Resources S. de R.L. de C.V. (Paget) a wholly owned subsidiary of Pembroke Mining Corp. (Pembroke Mining) acquired a number of the Project's concessions in 2011. Paget completed a 3,037-m drilling campaign with 18 diamond drill core holes, 1,627 rock chip samples and 1,250 soil samples.

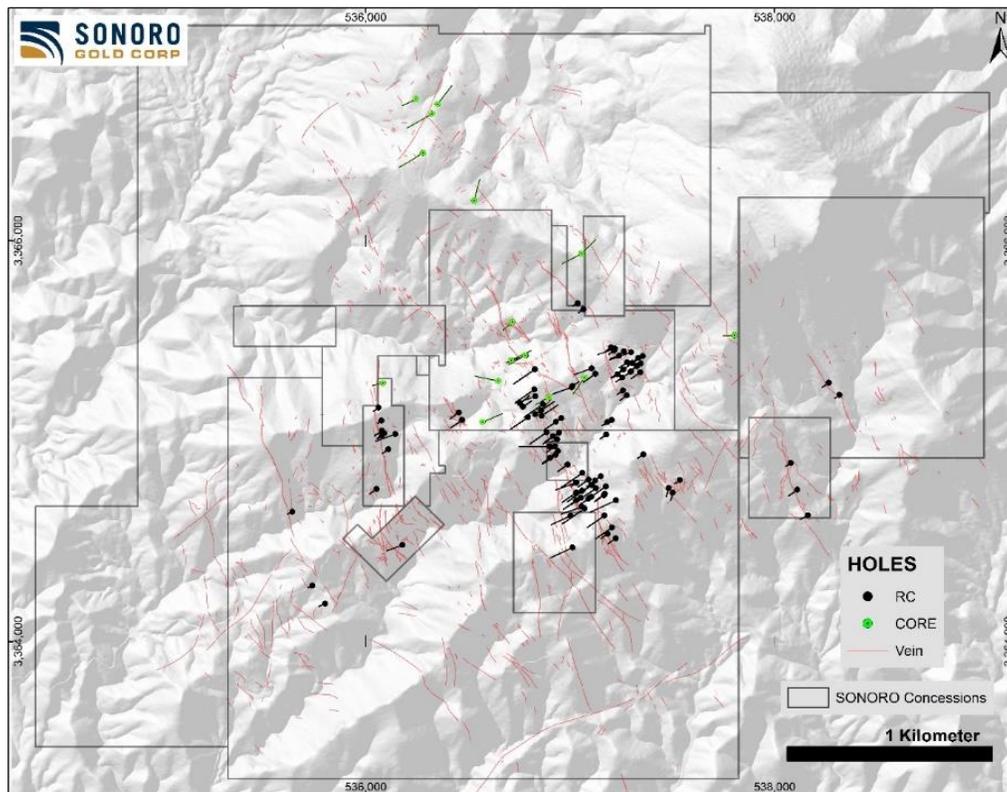
Exploration was focused on the Los Japoneses mineralized zone with additional drilling completed in the adjacent Batamote zone located 300 m outside the Project's northwest boundary. Pembroke sold Paget to Millrock Resources (Millrock) in 2014 and in 2018, Sonoro acquired the drilling database from Millrock.

### **6.3.5. Sonoro Gold Corp. (2017 to Present)**

In 2017, Sonoro initiated a soil sampling program on four concessions adjacent to southwestern region of the Project. Although these concessions were dropped, the work identified the potential mineralization of the area which led to the strategic acquisition of the Project's current concessions.

In September 2018, Sonoro initiated a 10,000 m drilling program at Cerro Caliche with 96 RC drill holes and 2,845 rock samples. The program outlined a broadly mineralized low-sulphidation epithermal vein structure and confirmed the presence of at least 18 northwest trending gold mineralized zones along trend and near surface. In September 2020, Sonoro commenced a 25,000 m drilling program to demonstrate a material expansion of the concession's oxide gold mineralization and confirm sufficient resource to support a heap leach operation. As of mid-2021, Sonoro has completed 266 reverse-circulation drill holes and 48 core drill holes, totaling 34,550 m drilled at the Project within three-years.

Figure 6:4 Historical Drill Holes at Cerro Caliche



Source: Sonoro Gold (2021)

Table 6:1 Historical Drill Hole Location Data

Drill Hole ID	Drill Hole Location and Parameters					Company
	Nad27 East	Nad27 North	Azimuth	Dip	EOH (m)	
141-97-01	537,013	3,364,468	245	-45	173.74	Cambior
141-97-02	537,225	3,364,704	245	-45	201.17	Cambior
141-97-03	537,002	3,364,627	245	-45	152.4	Cambior
141-97-04	537,057	3,364,672	250	-45	152.4	Cambior
141-97-05	537,028	3,364,792	250	-45	149.35	Cambior
141-97-06	536,937	3,365,008	250	-45	62.48	Cambior
141-97-07	536,180	3,364,481	250	-45	121.92	Cambior
141-97-08	536,145	3,365,034	250	-45	149.35	Cambior
141-97-09	536,830	3,365,223	250	-45	152.4	Cambior
141-97-10	537,008	3,365,268	250	-48	149.35	Cambior
141-97-11	537,105	3,365,363	250	-45	131.06	Cambior
141-97-12	537,219	3,365,462	250	-45	128.02	Cambior
141-97-13	537,298	3,365,443	250	-45	164.59	Cambior
141-97-14	536,900	3,364,974	270	-45	213.36	Cambior
141-97-15	536,784	3,365,427	250	-45	143.26	Cambior
CC-009	537,057	3,365,936	242	-60	234.5	Paget
CC-010	537,057	3,365,936	44	-55	173.4	Paget
CC-011	536,247	3,366,707	244	-60	148.35	Paget
CC-012	536,282	3,366,439	238	-55	237	Paget
CC-013	536,896	3,365,219	240	-55	124.45	Paget
CC-017	537,805	3,365,528	270	-60	116.2	Paget
CC-018	537,805	3,365,528	280	-75	56.95	Paget
CC-019	536,531	3,366,199	14	-60	233.8	Paget
CC-020	537,071	3,365,318	214	-60	188.85	Paget
CC-021	536,649	3,365,300	282	-55	202.3	Paget
CC-022	536,712	3,365,403	63	-55	186.2	Paget
CC-023	536,780	3,365,428	240	-55	161.7	Paget
CC-024	536,718	3,365,593	230	-55	109.05	Paget
CC-025	536,325	3,366,633	240	-50	222.65	Paget
CC-026	536,573	3,365,095	66	-55	194.5	Paget
CC-027	536,352	3,366,682	37	-55	204.1	Paget
CC-029	536,851	3,365,143	40	-50	118.4	Paget
CC-030	536,085	3,365,290	256	-60	125.1	Paget
CCR-01	536,868	3,365,183	235	-45	163.07	Corex
CCR-02	537,304	3,365,389	235	-45	182.88	Corex
CCR-03	537,124	3,365,335	235	-45	102.11	Corex
CCR-04	536,885	3,365,043	235	-45	144.78	Corex
CCR-05	536,930	3,364,932	235	-45	111.25	Corex
CCR-06	536,825	3,365,257	235	-50	172.21	Corex
CCR-07	536,794	3,365,119	235	-45	144.78	Corex
CCR-08	536,988	3,364,882	235	-45	86.87	Corex
CCR-09	537,071	3,364,663	235	-45	184.4	Corex
CCR-10	536,957	3,365,114	235	-45	144.78	Corex
CCR-11	536,946	3,365,041	235	-50	150.88	Corex

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Sonoro Gold Corp.**

Drill Hole ID	Drill Hole Location and Parameters					Company
	Nad27 East	Nad27 North	Azimuth	Dip	EOH (m)	
CCR-12	537,168	3,364,628	235	-45	144.78	Corex
CCR-13	537,205	3,364,568	235	-45	138.68	Corex
CCR-14	537,106	3,364,781	235	-45	205.74	Corex
CCR-15	537,061	3,364,841	235	-45	175.26	Corex
CCR-16	536,828	3,365,358	235	-45	181.36	Corex
CCR-17	536,830	3,365,133	55	-45	108.2	Corex
CCR-18	536,859	3,365,153	55	-45	105.16	Corex
CCR-19	537,012	3,365,275	55	-45	53.34	Corex
CCR-20	536,080	3,365,027	235	-50	47.24	Corex
CCR-21	536,111	3,364,959	235	-45	53.34	Corex
CCR-22	537,241	3,365,427	250	-45	65.53	Corex
CCR-23	537,260	3,365,356	235	-45	65.53	Corex
CCR-24	537,183	3,364,537	235	-45	59.44	Corex
CCR-25	537,031	3,364,704	235	-50	120.4	Corex
CCR-26	537,030	3,364,743	235	-45	117.35	Corex
CCR-27	537,104	3,364,781	235	-65	114.3	Corex
CCR-28	537,176	3,365,032	235	-45	50.29	Corex
CCR-29	537,215	3,365,451	235	-50	50.29	Corex
CCR-30	537,255	3,365,318	235	-50	59.44	Corex
CCR-31	537,327	3,365,374	235	-50	59.44	Corex
CCR-32	536,769	3,365,171	55	-45	71.63	Corex
CCR-33	537,127	3,364,765	235	-45	99.06	Corex
CCR-34	537,090	3,364,808	235	-50	99.06	Corex
CCR-35	537,066	3,365,657	235	-45	41.15	Corex
CCR-36	537,183	3,365,096	235	-50	53.34	Corex
CCR-37	537,537	3,364,805	235	-50	50.29	Corex
CCR-38	537,502	3,364,743	195	-50	62.48	Corex
CCR-39	537,482	3,364,765	195	-45	65.53	Corex
CCR-40	536,754	3,365,188	50	-45	86.87	Corex
CCR-41	538,265	3,365,291	235	-45	56.39	Corex
CCR-42	538,317	3,365,230	235	-50	44.2	Corex
CCR-43	537,223	3,364,514	235	-45	62.48	Corex
CCR-44	537,358	3,364,933	235	-50	53.34	Corex
CCR-45	537,263	3,365,447	235	-50	94.49	Corex
CCR-46	537,232	3,365,334	235	-45	42.67	Corex
CCR-47	536,456	3,365,142	235	-45	76.2	Corex
CCR-48	536,472	3,365,105	235	-50	103.63	Corex
CCR-49	538,079	3,364,891	235	-50	51.82	Corex
CCR-50	538,163	3,364,630	240	-50	67.06	Corex
CCR-51	538,112	3,364,756	235	-50	82.3	Corex
CCR-52	537,258	3,365,252	235	-50	54.86	Corex
CCR-53	537,037	3,365,687	245	-55	48.77	Corex
CCR-54	537,200	3,365,468	235	-45	45.72	Corex
CCR-55	536,080	3,365,051	235	-50	67.06	Corex
CCR-56	537,058	3,364,752	235	-45	77.72	Corex

Drill Hole ID	Drill Hole Location and Parameters					Company
	Nad27 East	Nad27 North	Azimuth	Dip	EOH (m)	
CCR-57	537,165	3,364,729	235	-50	85.34	Corex
CCR-58	536,063	3,365,167	235	-50	48.77	Corex
CCR-59	536,054	3,364,760	235	-50	67.06	Corex
CCR-60	536,916	3,365,023	235	-50	73.15	Corex
CCR-61	537,334	3,365,414	235	-50	91.44	Corex
CCR-62	536,902	3,364,916	235	-50	67.06	Corex
CCR-63	537,122	3,364,803	235	-65	115.82	Corex
CCR-64	537,343	3,365,343	235	-50	85.34	Corex
CCR-65	537,052	3,364,716	235	-50	91.44	Corex
CCR-66	536,091	3,365,039	235	-50	60.96	Corex
CCR-67	535,739	3,364,279	245	-55	42.67	Corex
CCR-68	535,802	3,364,189	245	-50	51.82	Corex
CCR-69	535,641	3,364,646	245	-50	42.67	Corex
CCR-70	536,078	3,365,101	235	-45	28.96	Corex
CCR-71	537,031	3,364,793	235	-50	51.82	Corex
CCR-72	536,927	3,364,973	235	-45	73.15	Corex
CCR-73	537,090	3,364,713	235	-45	76.2	Corex
CCR-74	536,862	3,365,126	55	-45	134.11	Corex
CCR-75	537,297	3,365,346	235	-45	108.2	Corex
CCR-76	537,170	3,364,737	235	-65	121.92	Corex
CCR-77	537,175	3,364,773	235	-55	152.4	Corex
CCR-78	537,104	3,364,722	235	-55	85.34	Corex
CCR-79	537,279	3,365,393	235	-45	67.06	Corex
CCR-80	537,346	3,365,387	235	-50	76.2	Corex
CCR-81	536,931	3,365,096	235	-45	97.54	Corex
CCR-82	537,355	3,365,424	235	-50	102.11	Corex
CCR-83	536,940	3,364,949	235	-50	92.96	Corex
CCR-84	537,204	3,365,105	235	-65	99.06	Corex
CCR-85	537,277	3,365,227	235	-45	59.44	Corex

Source: Sonoro Gold, (2021)

#### **6.4. Historical Resource Estimate**

On July 26, 2019, Sonoro filed a Technical Report entitled “NI 43-101 Technical Report on the Cerro Caliche Gold Project, Cucurpe Mining District of Sonora State, Northwestern Mexico”. The Report was authored by Derrick Strickland, P.Ge. and Robert C. Sim, P.Ge. with an effective date of July 26, 2019. According to the Report the “*mineral resources for the Cerro Caliche deposit were classified in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (May, 2014)*”

The prior 2019 resource estimates are superseded by resource estimates contained in Section 14 of this Technical Report and therefore, the details for the prior mineral resource estimates will not be discussed further in this report.

## **6.5. Historical Mining**

The Cerro Caliche Project contains various historical mineral workings including small scale prospecting pits, shallow shafts, adits and tunnels. No records of production are available from any of the historical sites on the Project.

## **7. GEOLOGICAL SETTING AND MINERALIZATION**

### **7.1. Regional and Property Geology**

The Sierra Madre Occidental (SMO) province lies approximately 100 km east of the Cucurpe district as a north south trending Oligocene-Miocene volcanic belt with numerous epithermal precious metal mineralized areas. The SMO's northern termination is near the US Mexico border with other epithermal precious metal mineralized areas occurring between the border and the Cucurpe district. These mineralized areas lie within the Basin and Range province where the epithermal mineralization timing is close to the age of development of many of the graben basins of the province. Radiometric age determination puts porphyry copper type mineralization in the region older by 30 million years.

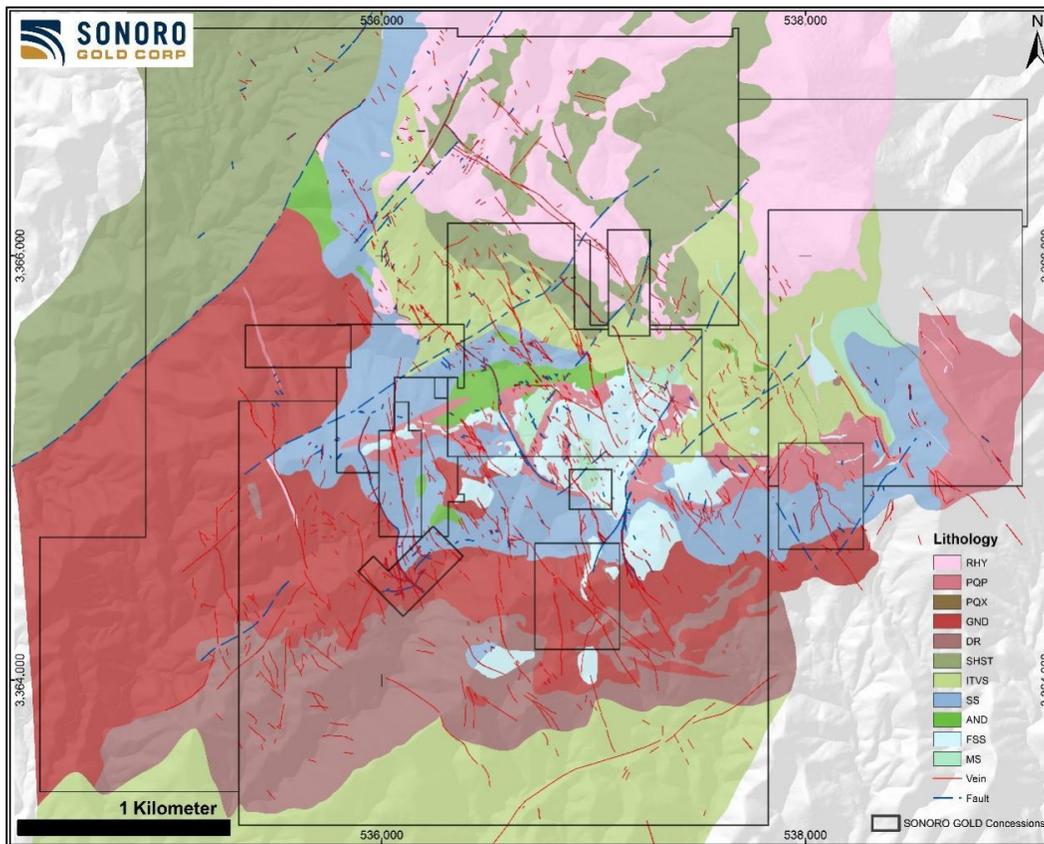
The geological setting for the Cerro Caliche Project is comprised of numerous areas of Mesozoic metasedimentary rock units that have been subject to weak fold and thrust fault activity. Metasedimentary rock units in the Cerro Caliche area mapped by the *Servicio Geologico Mexicano* (SGM) are classified as Jurassic in age, although a nearly identical Cretaceous metasedimentary sequence of the Bisbee group is well documented 20 km north in the Santa Gertrudis mine area. It is probable that part of the Cerro Caliche area contains outcrops of Cretaceous rock units. A large-scale mylonite zone, indicated to be 20 m thick, is a thrust fault that crosses the Cerro Caliche Project, which is crosscut by quartz veins, silicification, and felsic intrusives. However, further work regarding the mylonite zone is required to eliminate other possible explanations.

Metasedimentary rocks are cut by three intrusive igneous types with the earliest being a coarse-grained biotite granodiorite ranging from irregularly foliated to weakly lineated. The granodiorite appears to grade into a quartz rich medium grained granite which is the prominent outcrop in and near the Project's El Colorado vein. Cross cutting these rocks, and occasionally into the metasedimentary rocks, are irregular bodies of an andesitic micro-diorite, with common coarser variations to diorite and gabbro. The intrusive units are in the lower elevations of the Project's western region, below the thrust fault. Rhyolitic intrusives, ranging from dikes and sills to irregular intrusives occur extensively around all sides of the Property, of which the youngest dikes follow the dominant northwest fault and vein orientation of the district (Figure 7:1).

### **7.2. Local Geology and Structure**

Rock types in most of the surface vein zones are comprised of Mesozoic quartzite and similar appearing silicified rhyolitic rock units. Much of the gold mineralization occurs in the intrusive bodies, dikes and sills as well as in the Mesozoic host metasediments. Mesozoic metasedimentary rock units of quartzite, shale, and lesser limestone and conglomerate are widespread through the Cucurpe district.

Figure 7:1 Property Geology Map



Source: Sonoro Gold (2021)

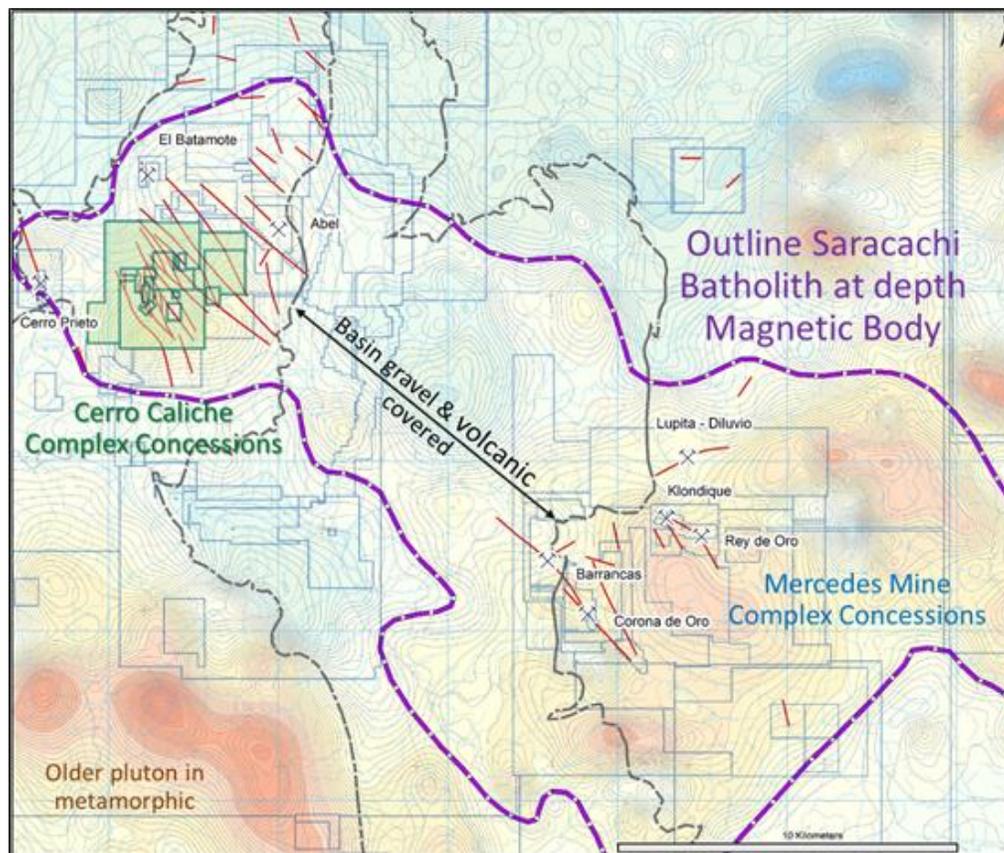
The gold mineralization throughout most of the Project is uniform and silicified, ranging from general moderate silica addition to intense pervasive silica flooding. Argillic alteration is seen as weak to moderate clay development in feldspars and matrix of rhyolitic rocks. Limonite consisting of hematite with lesser goethite and jarosite are present and developed from oxidized sulphides, mainly cubic pyrite.

Open structures are the most important aspect of low sulphidation epithermal gold mineralization and is the most complex aspect of gold silver mineralization. The structures at the Project are developed within a listric faulting regime producing a semi-parallelism of fracturing vein structure with a minimum width of five to six kilometers and a maximum length of over three kilometers. For this widespread structural fracture pattern to develop consistency across a large area, an at depth intrusive with a weakened carapace is required. The deep listric structures likely taps a source of hydrothermal fluid flow, and the structurally weakened carapace provides long lived refracturing of structures with concurrent depositing of massive silica in the open fracture parts of the system.

The gold mineralization is typical low sulfidation epithermal precious metal hydrothermal systems. The pattern of faulting with fissure fill silica deposition was described in the Taupo volcanic field, an active volcanic capped geothermal area in New Zealand and a potential structural setting analog for the Project's structural development. Aeromagnetic survey maps available from

the Mexican government, show a low level positive aeromagnetic anomaly extending beneath both the Project and the adjacent Mercedes mine area (Figure 7:2).

Figure 7:2 Aeromagnetic Anomaly Map

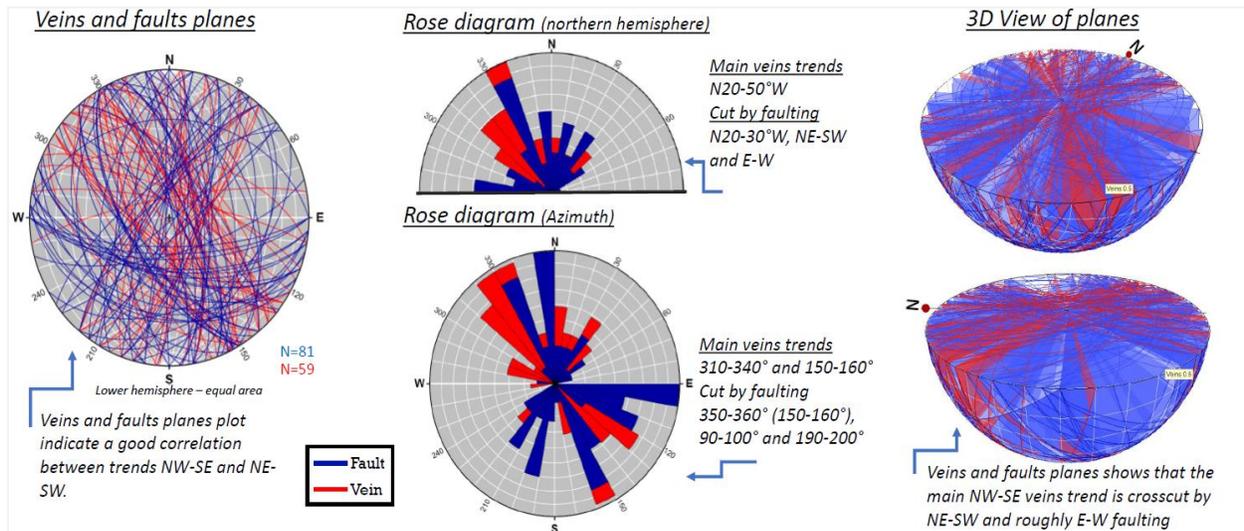


Source: Sonoro Gold (2021); Derived from Carta Magnética Saracachi H12-B72. SGM,( 1977)

Detailed structural geological mapping and analysis completed in 2021 on the central portion of the Project concludes that the main trend of quartz veins is oriented north 20-50° west (Azimuth 310-340°) with a secondary quartz vein system oriented north 30-50° east (Azimuth 30-50°). Identified faults show a similar orientation to the main veins trend, implying faulting activation along veins plains.

A second faulted trend, with general orientation northeast 20-50° east (Azimuth 200-300°), is coincident with orientation of some veins but is likely a post-mineralization fault trend. A third fault system trends east-west to west-northwest east-southeast (N60-90° W; Azimuth 90-120°) (Figure 7:3). This trend cross cuts the mineralized veins. Analysis of the fault kinematics data yielded a fault slip solution with a north-south strike and an east-west extension related to the normal faulting. This could imply a relaxation pattern or weakness/stability zone in those same directions.

Figure 7:3 Veins and Faults Plots



Source: IMEx, (2021)

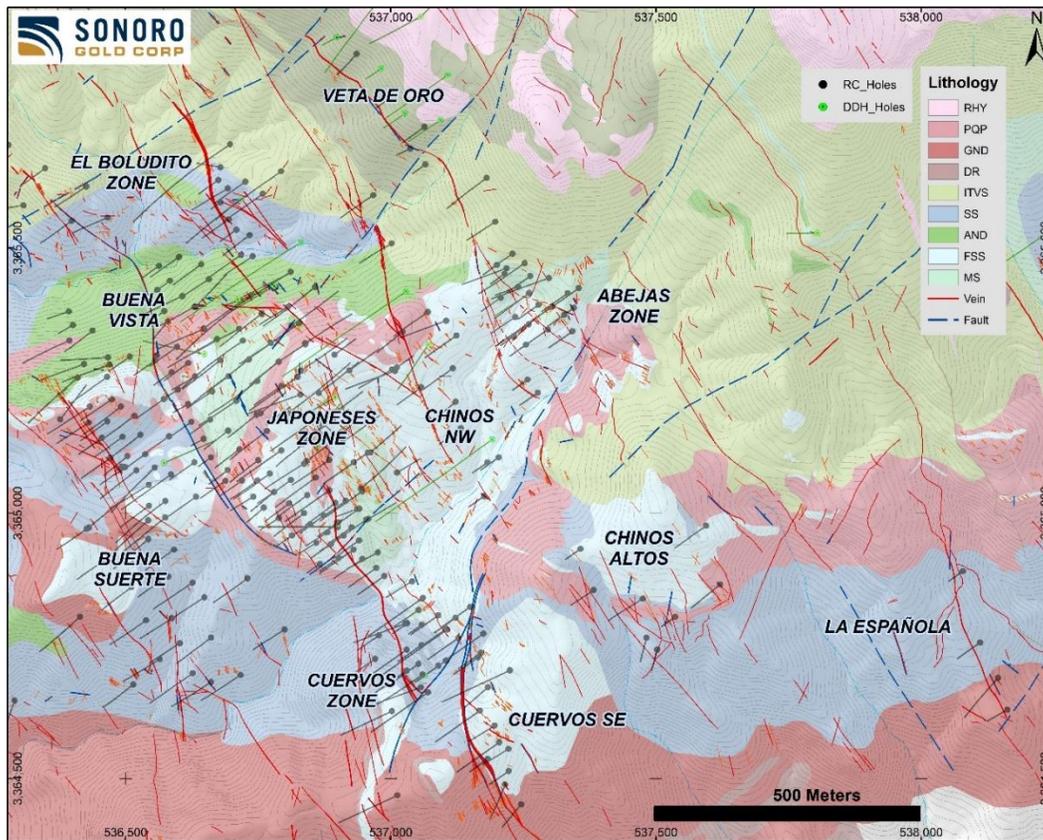
### 7.3. Mineralization, Important Vein Zones

Drilling focused on following the main vein zones named after their historic mine sites: the Los Japoneses mineralized zone with the related extensions of the Cuervos and Buena Vista mineralized zones, the Buena Suerte mineralized zone, the Chinos NW mineralized zone, the Abejas mineralized zone with the extensions of the Veta de Oro and El Rincón mineralized zones and possibly the Chinos Altos mineralized zones; and the Cabeza Blanca mineralized zone with adjacent and connected Guadalupe and El Colorado mineralized zones. Located on the same northwest trending lineament approximately one kilometer apart are the relatively isolated vein zones of La Española and El Bellotoso. Exploration at these two mineralized zones has been minor but drilling results indicate favorable gold content.

The following grouped vein zones are physically connected on strike or adjacent and form from the same structure (Figure 7:4).



Figure 7:5 Central Zone Vein Map



Source: Sonoro Gold (2021)

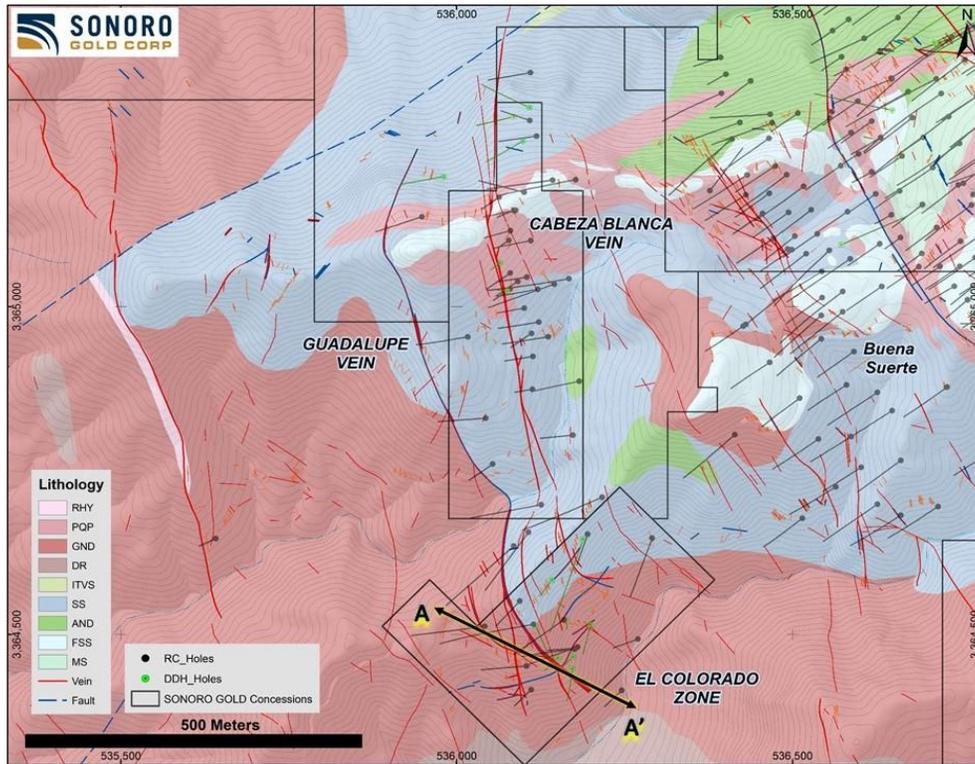
### 7.3.3. Cabeza Blanca, Guadalupe, and El Colorado

The Cabeza Blanca vein zone is a north south trending vein with a steep easterly dip. The Guadalupe vein zone is a sub-parallel gold bearing vein with a lower dip angle of approximately 55 to 60 degrees to the east. Both veins are about one kilometer long and continue south into El Colorado confirming El Colorado as a southern extension. Figure 7:7 shows cross-section A to A’ as noted on Figure 7:6.

At El Colorado, the Guadalupe and Cabeza Blanca veins are closest together in contrast to the wider spacing of the veins in the northern part of the zone.

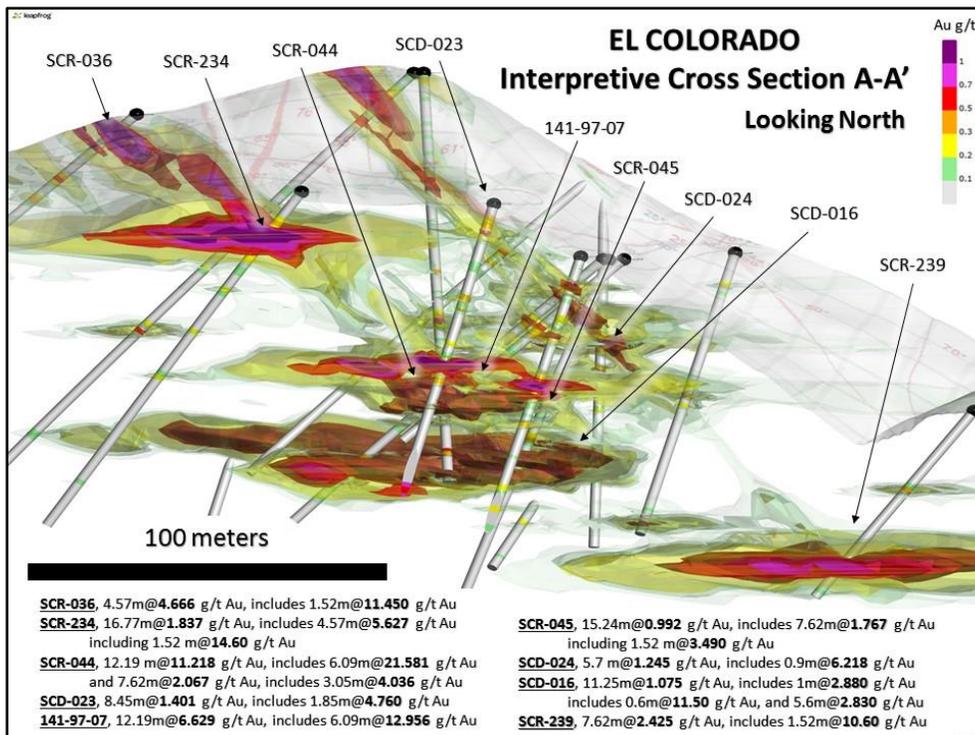
The El Colorado zone contains normal quartz vein dominant style gold mineralization with sericitic alteration, as well as veins and veinlets of hematitic (formerly sulphide) stringers and bunches in the structures that include a flat higher grade quartz vein first identified in drill hole SRC-044 with 12.19 m grading 11.22 g/t Au and 5.9 g/t Ag. This low angle vein has been named the “El Colorado Vein” by Sonoro geologists.

Figure 7:6 Cabeza Blanca and El Colorado Vein Map



Source: Sonoro Gold (2021)

Figure 7:7 El Colorado Cross Section (A-A' in Figure 7:6)



Source: Sonoro Gold (2021)

In the core drill hole that passed beneath the El Colorado flat vein structure, it cuts similarly flat lying foliated coarse biotite granodiorite that is strongly propylitic altered with numerous calcite veinlets. The same zone also has numerous dikes of chloritic altered andesitic to basaltic composition, locally showing gabbroic character. The combination of mafic intrusive rocks and foliated granodiorite is also observed in the deepest parts of diamond drill holes SCD-1, SCD-2, and SCD-3 which intersected the Los Japoneses vein at a depth of over 200 m.

#### **7.3.4. La Española Zone**

Figure 7:8 shows a sampler in the centre of the image standing at the 8 m wide La Española vein with the silicified footwall structure to the northwest. The top 100 m of the Cerro Caliche ridge in the distance displays the exposed altered rhyolite flow on the cliff face. Host rocks for La Española vein are both altered rhyolite dikes and quartzite.

Figure 7:8 Española Vein and Structural Zone being Sampled in the Centre of Photograph



Source: Sonoro Gold (2021)

*\*Note: In front of the pickup is the location of Corex drill hole, SCR-49, that was drilled at a -50-degree inclination to cross-cut the vein structure. The hole intersected 6 m grading 0.977 g/t Au. The vein outcrop is approximately 10 m in width.*

The La Española vein structure continues as a lineament northwesterly across the shoulder of Cerro Caliche into the El Bellotoso zone, which was explored with three drill holes in 2021. The northwest continuation is marked with anomalous rock samples and prospect pits with vein material. The vein displays variation in width and in the vicinity of the former Española mine, lead and zinc content are also present and display variations with more than 1% combined base metal levels. Additional drilling is recommended at La Española and El Bellotoso vein zones.

## **8. DEPOSIT TYPES**

### **8.1. Geological Deposit Model**

Mineral deposits at the Project and the surrounding area are classified as silver and gold, low to intermediate sulphidation, epithermal systems. These are typical of many local deposits in northeastern Sonora including the nearby Santa Elena Silver/Gold mine (First Majestic Silver Corp.), Las Chispas Silver/Gold mine (Silvercrest Mines) and the Mercedes mine (Equinox Gold Corp.). In the state of Chihuahua to the east, other low sulfidation epithermal deposits include the Dolores Silver/Gold mine (Pan American Silver) and the Pinos Altos Silver/Gold mine (Agnico-Eagle Mines Ltd.).

These low sulfidation epithermal deposits form in predominantly brittle and/or porous subaerial felsic volcanic complexes in extensional and strike-slip structural regimes. Local groundwater dilutes and cools, mixing with upwelling magmatic-derived hydrothermal brines within extensional setting related to local rifts or detachment faulting related to evolving metamorphic complex formation. Mineralization is typically deposited as multi-zoned veins, stockwork and breccia due to episodic events. Deposit formation occurs in near-surface environments, typically between 200 and 600 m, and down to a one-kilometer depth from surface, within temperature gradients of 150°C and 300°C. Indicative textures of mid- to high-level deposits can include open quartz lined fractures, miarolitic cavities, comb structure, drusy/crustiform, or colloform banding, and platy/bladed calcite. Minerals with silver and gold tenure can precipitate as deposits within these conditions depending on the concentration of the metals in the brines, with sudden changes to local pressure gradients, and local pH conditions, as well as fluid flow dynamics.

Deposit alteration ranges from weak to pervasive from near-neutral pH of the hydrothermal fluids. Silicification is generally pervasive in proximity to mineralization followed by sericite-illite-kaolinite assemblages. Advanced argillic alteration (kaolinite-alunite) may form locally along the tops of mineralized zones. Propylitic alteration, including pyrite and epidote, are formed as alteration haloes laterally surrounding the veins at depth (Figure 8.1).

The Cerro Caliche deposits are considered a Low Sulfidation Epithermal Precious Metal mineral deposit type as are the nearby Mercedes (Burtner, 2013) and Cerro Prieto (Giroux, Bain, 2013) gold mines. A working field model adapted from Buchanan ((1981) in Figure 8.1 includes field identifiable vein textures in quartz veins which have been adapted to the model. Textures suggesting boiling include lattice and bladed, that developed in partial quartz replacement of carbonate minerals along cleavage planes showing an indication of boiling that produces local acidic conditions. Adularia is also tentatively identified by its pink colored vein material which is also indicative of boiling fluid deposition. Also present are numerous bands of coarse to fine quartz in near rhythmic wall parallel bands that also surround fragments in the vein. The veins of the western side of the property, located near to and west of the Zorillo veins, are formed of white glassy quartz that do not contain more than geochemically anomalous gold (less than 50 ppb Au).

Figure 8:1 Low Sulfidation Epithermal Model

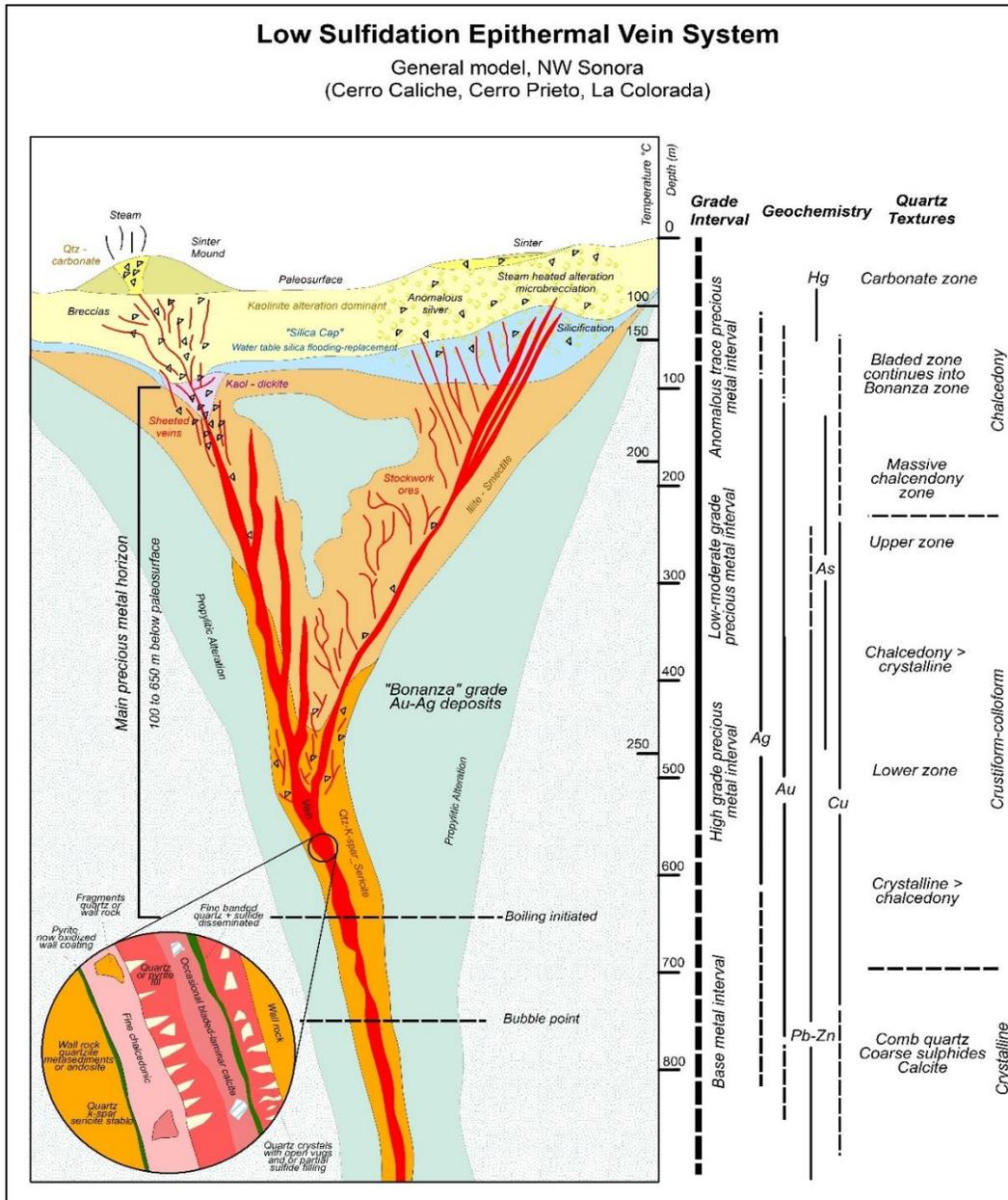


Figure modified from Buchanan (1981).

## 8.2. QP Comments

The QPs have conducted a number of discussions with Sonoro personnel and note that the exploration programs at the Cerro Caliche Project were planned and executed on the basis of the deposit model discussed above. The QPs have also reviewed the various stages of the drilling programs for the various mineralized areas or zones on the Cerro Caliche Project and note that those programs have always appeared to have been conducted according to the deposit model which has been proposed for the Project.

## **9. EXPLORATION**

### **9.1. General Information**

Exploration methods employed by Sonoro and its subsidiaries on the Cerro Caliche Project and neighbouring properties consist of a sequence of geological visual assessment followed by soils and rock sampling. This includes continuous chip or channel sampling of outcropping mineralization which is the most reliable method to determine surface metal content in veins and associated sheeted and stockwork quartz veining typically within close proximity to larger vein structures. Neither soils nor rocks have been transported except within drainage water courses where small scale local particle transport may occur.

In 2017 Sonoro began exploration of the Manuel and Amol concession group located adjacent to southwestern region of the Project. The area was evaluated for outcropping gold mineralization using the soil sampling method of rapid information acquisition while negotiations were initiated for the adjacent and now current Cerro Caliche property.

The soil sample grid dimension chosen was of 200 m spaced lines running east-west and 50-m sample spacing in lines. The grid was established from a north south baseline on UTM grid lines utilizing Garmin handheld GPS instruments. Soils are generally thin in the area and were taken from surface material to eight centimetres depth. Total soil samples collected and processed were 156 with nine continuous rock chip samples of one metre length taken across mineralized structures with quartz vein and silicified metasediments or rhyolite. All samples were delivered to ALS-Chemex sample preparation laboratory in Hermosillo for processing and shipment to the company's analytical laboratory in Vancouver, B.C. ALS-Chemex processing involved screening soil samples to pass 100 mesh. Rock samples were crushed followed by grinding of a 200-gram split to pass 100 mesh. The fine prepared sample split was sent to Vancouver B.C. for chemical dissolution and passing through instruments, AA to determine gold and ICP to read the element contents.

Several northwest trending anomalous structures were located cutting the Mesozoic hosting sedimentary rocks. A near horizontal rhyolite sill is also present with apparent thickness of 20 to 30 m that is also cut by the structures. The structures were determined to be too restricted to continue exploration and the Manuel and Amol concession group was abandoned.

Within the Cerro Caliche Project, continuous rock chip sampling and channel sampling of rock and vein outcrops were the main means of sampling of surface exposures. Further sampling to depth below the surface consisting of mainly RC drilling and some core drilling. Drilling included 266 reverse-circulation drill holes and 48 core drill holes, totaling 34,550 m. RC chips were bagged at regular drill length intervals of five feet, or 1.52 m. Every three days, samples were collected and transported by ALS or Bureau Veritas (BVI)-Inspectorate from the drill site to the preparation laboratory for the processing. Sample processing and analysis ranged from 15 to 40 days depending on the laboratory workload.

Approximately 500 m of 3.345 inches (85.0 mm) diameter PQ size core was completed to obtain larger sample sizes for metallurgical testing. The PQ cores were boxed, logged and transported directly to McClelland Laboratories Inc. in Sparks, NV for metallurgical testing.

HQ core samples were boxed with thin wood or cardboard markers denoting the depth in metres at the end of each drill run. All the cores were transported to the core logging and cutting facility in Cucurpe where geologists were responsible for inspecting, making descriptive logs, and recording standard Rock Quality Determinations (RQD) by measuring and recording percentages of certain size pieces. An electronic photographic record is also done of each core box. Following the data collection, the core was cut in half along the core axis with half bagged for assay analysis. For Quality Assurance and Quality Control (QA/QC) analysis of analytical laboratory procedures and accuracy, blank samples (barren), mineralized known gold standard samples, and duplicate samples are inserted in all the core and RC sample stream at regular repeating intervals.

In addition to the data collected from the Company’s exploration campaigns, Sonoro also acquired data from previous exploration programs completed by three prior operators. Some of the data was acquired at no cost while other data was acquired through a purchase agreement.

Sonoro geologists have extensively reviewed and analyzed the historical data acquired from previous operators since 1997. Total historical data collected on the Project includes 13,009 m of drilling in 119 drill holes and 4,338 surface samples on the Property. Discussions with past workers from the programs was also done to confirm industry wide standards and protocols were followed.

Surface samples and assays by Sonoro are compiled below in Table 9:1 and Figure 9:1 and Figure 9:2.

Table 9:1 Surface Samples May 2021

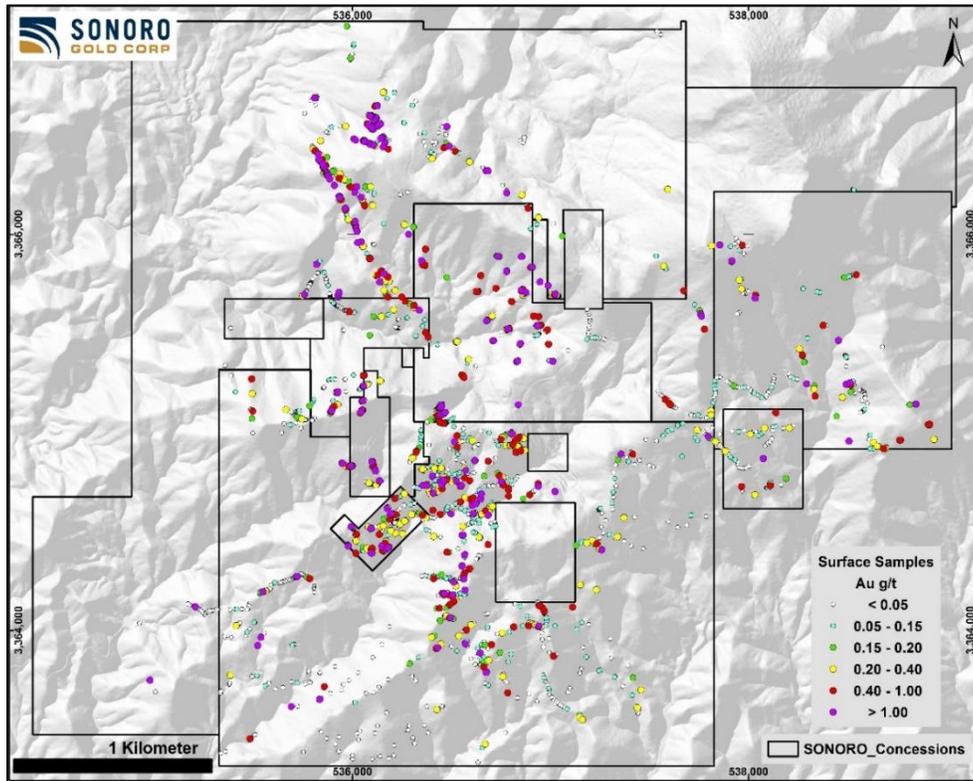
<b>Sonoro Gold in Surface Samples</b>		
<b>Range of Values Au (g/t)</b>	<b>Number of Samples</b>	<b>Percentage (%)</b>
More than 3.0	59	2
More than 1.0 to 3.0	139	5
More than 0.5 to 1.0	172	6
More than 0.2 to 0.5	371	13
More than 0.05 to 0.2	774	27
Less than 0.05	1,330	47
<b>Total:</b>	<b>2,845</b>	<b>100</b>

Source: Sonoro Gold (2021)

The principal gold mineralization at the Project is evident in surface outcrops as quartz-veined zones in the form of a thick swarm of NA330 to NA350 trending veins carrying gold and silver mineralization with oxidized former sulphides. The northwest-trend of veining is generally consistent throughout the region.

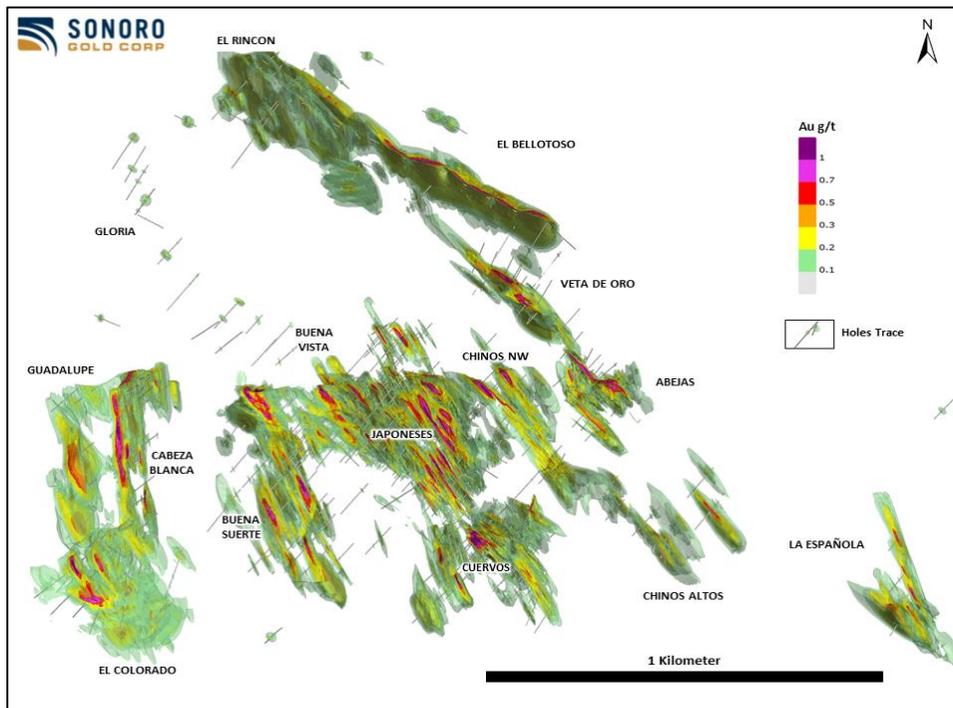
However, smaller scale veins, exemplified by the Cabeza Blanca vein, turn to a nearly north-south strike. Most veins dip to the east or northeast where drilling shows an evolving pattern of a deeper basal shear footwall vein zone with other steeper vein splays which dip more steeply eastward. This horse-tailing has near-vertical, multiple vein attitudes that join the deeper lower angle structure. Figure 9:2 illustrates the 3D model for the mineralized zones based on assays greater than 0.10 g/t gold.

Figure 9:1 Gold in Surface Samples on the Property.



Source: Sonoro Gold (2021)

Figure 9:2 Gold in Surface Samples on the Property



Source: Sonoro Gold (2021)

Weak anomalies of arsenic and much lesser antimony are also present in numerous gold-bearing vein areas. Many gold-bearing intervals will often show only traces of silver with gold-bearing zones. The silver and gold have minor coincidences of elevated values in the same sample, although silver may be elevated in a nearby higher gold-bearing sample. Manganese is often elevated in the gold-bearing areas.

In 2018, Sonoro conducted a differential global positioning survey to accurately locate historical drilling completed by previous operators, Cambior, Corex Gold and Paget. This information was integrated into Sonoro's database.

## **9.2. QP Comments**

Through its surface exploration program, Sonoro has been able to expand on the prior exploration programs by previous companies and has begun to identify the true extent of the mineralization at the Cerro Caliche Project.

Sonoro has benefited from the acquisition of the previous operators' databases which it has been able to verify and incorporate into its own databases. Some of this data may be able to be used in future resource estimates once it is critically reviewed. Some of the types of information that could be used in future estimates include continuous chip sampling from rock outcrops either in trenches, along road cuts or in underground workings, if the sample information is surveyed and recorded in a similar method to logging and sampling drill holes.

In general, the exploration programs have been conducted using best practices within the industry as outlined in the 2018 "CIM Mineral Exploration Best Practices Guidelines" and can be used as the basis for undertaking further drilling and exploration programs that will used as the basis for future mineral resource estimates.

## **10. DRILLING**

### **10.1. General Information**

Sampling to depth at the Cerro Caliche Project has consisted of RC and core drilling. As of mid-2021, Sonoro has completed 266 reverse-circulation drill holes and 48 core drill holes, totaling 34,550 m at the Project.

The RC drilling machine and crew was contracted through Layne de Mexico, S.A. de C.V. (Layne), a Granite Company, and included an all-terrain Prospector Buggy truck mounted drill capable of up to 40-degree angled drill holes. The on-board air compressor integrated system delivers 1,050 CFM free air at 480 PSI. Dual tube drill pipe with up to 300 m total length is on site when drilling. A face centred 5.25-inch diameter drill bit is matched to the down hole hammer. All RC drilling on the property was done dry in surface oxidized rock and the water table was not encountered.

Drill samples were collected as RC chips that are passed by closed tubing through a cyclone to collect fine airborne particles, then into a three-tiered Jones splitter where the final sample was a quartered sample of the total original material from the drill interval. Samples were bagged for each regular drill length intervals of 5 feet or 1.52 m and collected and transported by ALS or BVI from the drill site every 3 days. The trucks hauled the RC samples immediately to the respective preparation laboratory for the process of sample preparation to begin.

The core drilling machine, a CT-1500 track mounted long stroke core drill, was also supplied by Layne to produce HQ and PQ core samples at high recovery rates. Ten drill holes of 673 m at larger sized PQ of 3.345 inches (85.0 mm) diameter were completed for metallurgical testing. PQ core was boxed, logged and sent directly to McClelland Laboratories in Sparks NV. The remainder of the core drilling was completed as HQ size core.

HQ core samples were stored in fabricated plastic core boxes, with inserted thin wood or cardboard markers denoting the depth in metres from the collar at the end of each drill run. when the core tube was pulled and cleared with the contained core deposited in the box. HQ Core and tubing size is of 2.5 inches (63.5 mm) diameter, with 10 feet long drill tubing.

All core was taken to the core logging and cutting facility in Cucurpe, where the Sonoro geologists were responsible for inspecting the cores, including detailed descriptive rock type logs, and recording standard RQD by measuring and recording percentages of certain size pieces. An electronic photographic record of each core box was also done. Following the data collection, the HQ core was cut in half along the core axis with a diamond impregnated rock saw, with half bagged for assay analysis and the remaining core half retained in storage for future review. For QA/QC analysis of analytical laboratory procedures and accuracy, blank samples (barren), mineralized known gold standard samples, and duplicate samples are inserted in all the core and RC sample streams at regular repeating intervals.

Sonoro also acquired data from three prior exploration companies for a total of 3,008 m of drilling, 119 drill holes and 4,338 surface samples. Discussions with prior operators confirmed normal mining industry wide standards and protocols were followed.

Table 10:1 summarizes the Project’s total drilling and surface sampling contained in the Sonoro database including prior drilling campaigns by the previous operators.

Table 10:1 Total Exploration Drilling and Surface Samples

Company	Year	Drilling Programs			Surface Sample Type	
		Drill Type	Total Drill Holes	Total Drill Metres	Number of Rock	Number of Soil
Cambior	1997-98	RC	15	2,244.85	1,625	
Sidney	Circa 2000		0	0	176	
Corex	2007	RC	74	6,509.02	1,872	
Corex	2008	RC	12	1,216.15		
Paget.	2011	Core	13	2,172.75	406	1,250
Paget	2012	Core	5	864.75		
Sonoro	2017		0	0		140
Sonoro	2018	RC	45	4,603.97	2,845	
Sonoro	2019	RC	51	5,724.19		
Sonoro	2020	RC	62	8,029.95		
Sonoro	2020	Core	35	4,662.5		
Sonoro	2021	RC	108	10,176.62		
Sonoro	2021	Core	13	1,352.4		
<b>Totals</b>			<b>433</b>	<b>47,557.15</b>	<b>8,314</b>	<b>1,390</b>

Source: Sonoro Gold (2021)

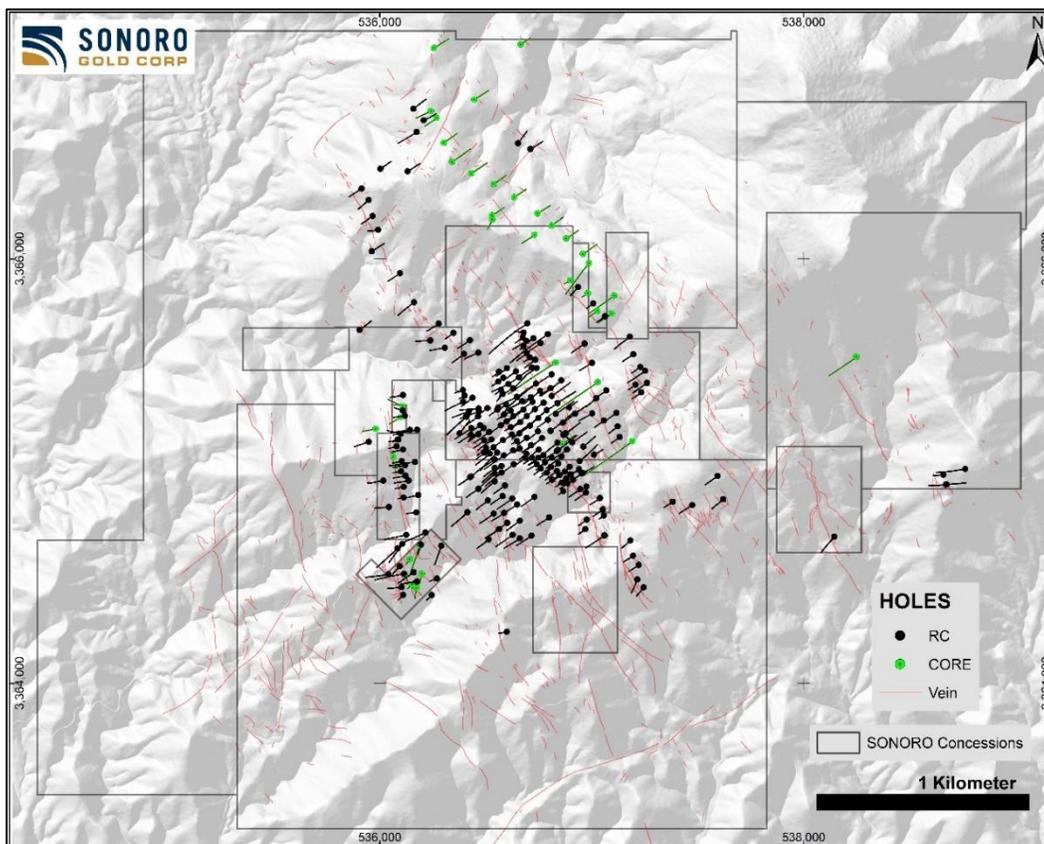
The analyses of previous work completed on the Project allowed Sonoro to gain a deeper understanding of the vein zone geology and develop strategic drilling campaigns to define and expand the Project’s mineralization.

## **10.2. Sonoro (2018 to 2021)**

Sonoro has carried out extensive drilling at Cerro Caliche since obtaining the Project. Between 2018 and 2019, the company completed 96 drill holes and another 218 drill holes between 2020-2021 for an overall total of 34,549.63 m within three-years. Exploration was focused on 14 named vein zone areas with drilling having defined a large area of mineralized material greater than 0.1 g/t Au. The following tables and figures show the extent of the drilling campaign.

Figure 10:1 shows the location of drill holes from 2018 to 2021 and Table 10:2 summarizes the drill hole parameters.

Figure 10:1 Sonoro Drill Holes from 2018 to 2021



Source: Sonoro Gold (2021)

Table 10:2 2018-2021 Drill Hole Location Data

Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCD-001	537,191	3,365,139	234	-45	372.75
SCD-002	537,029	3,365,418	236	-45	401.2
SCD-003	536,830	3,365,510	238	-45	383.1
SCD-004	536,900	3,364,980	237	-45	50.4
SCD-005	537,261	3,365,414	237	-45	105.5
SCD-006	537,061	3,364,695	237	-50	52
SCD-007	537,064	3,364,694	0	-90	63.15
SCD-008	536,117	3,364,514	157	-67	140
SCD-009	536,075	3,365,024	275	-42	25
SCD-010	536,065	3,365,067	234	-44	24.15
SCD-011	537,108	3,365,826	235	-50	221.2
SCD-012	536,878	3,365,174	54	-45	62.5
SCD-013	536,807	3,365,187	50	-45	50
SCD-014	536,862	3,365,127	55	-45	100
SCD-015	536,987	3,365,978	219	-45	260.4
SCD-016	536,188	3,364,645	199	-45	221.5
SCD-017	538,250	3,365,537	234	-45	224.2

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Sonoro Gold Corp.**

Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCD-018	536,242	3,366,695	245	-45	110.2
SCD-019	536,269	3,366,663	235	-45	101.1
SCD-020	536,302	3,366,546	55	-45	106.8
SCD-021	536,342	3,366,455	55	-45	158.1
SCD-022	536,405	3,365,253	222	-45	60.25
SCD-023	536,151	3,364,464	226	-74	101.85
SCD-024	536,162	3,364,523	158	-84	116.6
SCD-025	536,199	3,364,515	194	-62	100.15
SCD-026	536,173	3,364,466	225	-73	89.85
SCD-027	536,173	3,364,448	188	-60	103.1
SCD-028	536,142	3,364,583	218	-77	143.4
SCD-029	535,981	3,365,198	260	-45	90.5
SCD-030	536,099	3,365,253	240	-45	90.2
SCD-031	536,108	3,365,304	295	-45	109.95
SCD-032	537,094	3,365,741	235	-60	149.1
SCD-033	536,982	3,365,838	235	-65	85.3
SCD-034	537,027	3,365,753	235	-55	87.9
SCD-035	536,899	3,365,897	241	-70	101.1
SCD-036	536,530	3,366,204	57	-45	100.6
SCD-037	536,745	3,366,213	57	-45	104.5
SCD-038	536,730	3,366,111	237	-45	100.2
SCD-039	536,959	3,366,022	55	-45	119
SCD-040	536,432	3,366,401	56	-45	130.2
SCD-041	536,538	3,366,351	55	-45	104
SCD-042	536,635	3,366,290	56	-45	100.1
SCD-043	536,811	3,366,156	54	-45	98.2
SCD-044	536,880	3,366,095	56	-45	101
SCD-045	536,531	3,366,185	206	-45	76.6
SCD-046	536,256	3,366,993	58	-45	122.2
SCD-047	536,665	3,367,009	56	-45	80.4
SCD-048	536,446	3,366,749	57	-45	115.4
SCR-001	536,837	3,365,000	233	-45	111.25
SCR-002	536,887	3,364,942	235	-45	70.1
SCR-003	536,912	3,364,958	237	-45	80.77
SCR-004	536,901	3,364,983	235	-45	70.1
SCR-005	536,896	3,365,019	233	-45	100.58
SCR-006	536,907	3,365,135	315	-45	120.4
SCR-007	536,806	3,365,189	54	-45	219.46
SCR-008	536,878	3,365,178	55	-45	123.44
SCR-008B	536,867	3,365,170	55	-45	30.48
SCR-009	536,910	3,365,135	55	-45	120.4
SCR-010	536,947	3,364,914	235	-45	94.49
SCR-011	536,941	3,365,009	235	-45	91.44
SCR-012	536,954	3,364,988	235	-45	91.44
SCR-013	536,973	3,364,897	235	-45	91.44

*NI 43-101 Preliminary Economic Assessment Study for the Cerro Caliche Project, Sonora, Mexico  
Sonoro Gold Corp.*

Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCR-014	537,058	3,364,790	235	-45	42.67
SCR-015	537,053	3,364,818	235	-45	79.25
SCR-016	536,971	3,364,726	235	-45	60.96
SCR-017	537,253	3,365,471	235	-45	146.3
SCR-018	537,230	3,365,489	235	-64	115.82
SCR-019	537,208	3,365,406	235	-45	64.01
SCR-020	536,978	3,364,770	235	-45	70.1
SCR-021	537,060	3,364,696	235	-50	152.4
SCR-022	537,261	3,365,415	234	-45	115.82
SCR-023	536,088	3,365,147	258	-45	70.1
SCR-024	536,111	3,365,101	259	-45	79.25
SCR-025	536,104	3,365,045	260	-45	67.06
SCR-026	536,167	3,365,043	260	-45	170.69
SCR-027	536,177	3,365,194	259	-45	167.64
SCR-028	536,100	3,365,174	285	-45	97.54
SCR-029	537,235	3,365,370	236	-45	76.2
SCR-030	536,017	3,364,954	260	-45	109.73
SCR-031	536,137	3,364,954	260	-45	100.58
SCR-032	536,114	3,364,924	260	-45	60.96
SCR-033	536,113	3,364,874	260	-45	39.62
SCR-034	536,122	3,364,977	260	-45	88.39
SCR-035	536,183	3,364,886	258	-45	100.58
SCR-036	536,042	3,364,513	262	-45	158.5
SCR-037	536,114	3,364,515	260	-48	222.5
SCR-038	536,414	3,364,805	228	-45	146.3
SCR-039	536,216	3,364,709	246	-45	185.93
SCR-040	536,121	3,365,026	260	-45	88.39
SCR-041	536,101	3,364,998	260	-45	57.91
SCR-042	536,173	3,364,804	264	-45	70.1
SCR-043	536,600	3,364,242	260	-45	70.1
SCR-044	536,176	3,364,478	263	-45	112.78
SCR-045	536,177	3,364,479	265	-70	121.92
SCR-046	536,160	3,364,523	235	-45	131.06
SCR-047	536,175	3,366,597	238	-45	152.4
SCR-048	536,132	3,366,412	57	-45	100.58
SCR-049	536,004	3,366,423	55	-45	88.39
SCR-050	535,915	3,366,330	237	-55	128.02
SCR-051	535,948	3,366,276	230	-55	121.92
SCR-052	535,966	3,366,201	235	-55	121.92
SCR-053	535,993	3,366,135	263	-60	109.73
SCR-054	536,693	3,365,612	239	-45	109.73
SCR-055	536,672	3,365,328	240	-45	152.4
SCR-056	537,064	3,365,728	235	-55	91.44
SCR-057	537,008	3,365,789	235	-62	91.44
SCR-058	536,936	3,365,866	222	-62	128.02

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Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCR-059	537,070	3,365,379	235	-45	114.3
SCR-060	535,948	3,365,137	251	-45	103.63
SCR-061	536,043	3,364,830	265	-45	103.63
SCR-062	536,431	3,365,171	237	-45	100.58
SCR-063	536,520	3,365,081	232	-45	121.92
SCR-064	536,813	3,365,353	55	-45	155.45
SCR-065	536,831	3,365,268	55	-45	149.35
SCR-066	537,132	3,365,160	233	-45	73.15
SCR-067	537,595	3,364,976	235	-45	106.68
SCR-068	538,145	3,364,690	222	-45	140.21
SCR-069	537,621	3,364,866	231	-45	100.58
SCR-070	537,476	3,364,839	238	-45	109.73
SCR-071	537,383	3,364,855	236	-45	76.2
SCR-072	536,944	3,365,046	50	-45	176.78
SCR-073	536,961	3,365,114	50	-45	109.73
SCR-074	536,842	3,365,098	53	-45	164.59
SCR-075	536,836	3,365,093	238	-45	128.08
SCR-076	536,865	3,365,226	53	-45	140.21
SCR-077	536,922	3,365,269	54	-45	100.58
SCR-078	537,023	3,365,342	231	-45	91.44
SCR-079	537,117	3,365,273	235	-45	100.58
SCR-080	537,123	3,365,210	230	-45	76.2
SCR-081	536,767	3,365,155	233	-45	124.97
SCR-082	536,709	3,365,212	235	-45	126.49
SCR-083	536,695	3,365,258	235	-45	137.16
SCR-084	536,774	3,365,321	235	-45	103.63
SCR-085	536,807	3,365,389	238	-45	91.44
SCR-086	537,040	3,364,872	238	-45	82.3
SCR-087	536,958	3,364,989	60	-45	88.39
SCR-088	537,012	3,365,076	59	-45	73.15
SCR-089	537,003	3,365,271	241	-45	103.63
SCR-090	537,058	3,365,237	235	-45	79.25
SCR-091	536,894	3,365,299	53	-45	73.15
SCR-092	536,647	3,365,349	55	-45	128.02
SCR-093	536,631	3,365,388	45	-45	121.92
SCR-094	536,630	3,365,389	242	-45	106.68
SCR-095	536,740	3,365,484	237	-45	91.44
SCR-096	536,555	3,365,086	226	-45	163.07
SCR-097	536,544	3,365,054	238	-45	126.49
SCR-098	536,432	3,365,201	236	-45	134.11
SCR-099	536,839	3,365,320	57	-45	152.4
SCR-100	537,002	3,365,509	239	-45	100.58
SCR-101	536,967	3,365,599	236	-45	106.68
SCR-102	536,794	3,365,644	235	-45	301.75
SCR-103	536,697	3,365,695	236	-45	313.94

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Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCR-104	536,721	3,365,325	235	-45	201.17
SCR-105	536,839	3,365,318	237	-60	301.75
SCR-106	536,738	3,365,411	232	-45	252.98
SCR-107	536,811	3,365,455	237	-50	170.69
SCR-108	536,857	3,365,426	231	-45	170.69
SCR-109	536,410	3,365,256	229	-45	184.4
SCR-110	536,648	3,365,347	247	-45	140.21
SCR-111	536,734	3,365,524	233	-45	91.44
SCR-112	536,607	3,365,409	245	-45	128.02
SCR-113	536,657	3,365,441	237	-45	91.44
SCR-114	536,679	3,365,288	232	-45	131.06
SCR-115	536,663	3,365,230	236	-45	82.3
SCR-116	536,660	3,365,177	234	-45	67.06
SCR-117	536,694	3,365,156	232	-45	82.3
SCR-118	536,715	3,365,121	233	-45	82.3
SCR-119	537,216	3,364,488	203	-45	100.58
SCR-120	537,246	3,364,451	220	-45	82.3
SCR-121	537,196	3,364,600	238	-45	82.3
SCR-122	537,222	3,364,556	238	-45	82.3
SCR-123	537,183	3,364,672	229	-45	82.3
SCR-124	536,544	3,365,014	234	-45	100.58
SCR-125	536,575	3,364,992	231	-45	146.3
SCR-126	536,466	3,365,173	234	-45	91.44
SCR-127	536,494	3,365,144	234	-45	91.44
SCR-128	536,504	3,365,108	231	-45	82.3
SCR-129	538,672	3,364,935	266	-45	121.92
SCR-130	538,676	3,364,936	85	-45	131.06
SCR-131	538,660	3,364,982	264	-60	100.58
SCR-132	538,763	3,365,009	261	-45	201.17
SCR-133	536,794	3,365,240	235	-45	91.44
SCR-134	536,747	3,365,186	231	-45	100.58
SCR-135	536,772	3,365,075	234	-45	121.92
SCR-136	536,749	3,365,062	235	-45	88.39
SCR-137	536,750	3,365,100	233	-45	100.58
SCR-138	536,780	3,365,040	231	-45	82.3
SCR-139	536,812	3,365,063	234	-45	115.82
SCR-140	536,749	3,365,249	234	-48	161.54
SCR-141	536,575	3,365,023	232	-45	170.69
SCR-142	536,543	3,364,987	228	-45	131.06
SCR-143	536,543	3,364,951	230	-45	121.92
SCR-144	536,789	3,365,286	232	-50	97.54
SCR-145	536,733	3,365,290	232	-48	170.69
SCR-146	536,714	3,365,347	243	-45	140.21
SCR-147	536,757	3,365,377	232	-45	140.21
SCR-148	536,422	3,365,281	250	-45	121.92

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Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCR-149	536,394	3,365,325	246	-45	134.11
SCR-150	536,808	3,365,019	233	-45	82.3
SCR-151	536,843	3,365,034	234	-45	106.68
SCR-152	536,859	3,365,068	234	-45	131.06
SCR-153	536,584	3,365,438	234	-45	97.54
SCR-154	536,643	3,365,469	233	-45	94.49
SCR-155	536,884	3,365,101	235	-45	121.92
SCR-156	537,197	3,365,549	237	-50	100.58
SCR-157	537,181	3,365,632	233	-45	131.06
SCR-158	536,511	3,364,861	233	-45	100.58
SCR-159	536,581	3,364,881	237	-45	100.58
SCR-160	536,587	3,364,802	237	-45	100.58
SCR-161	536,648	3,364,841	237	-45	106.68
SCR-162	536,661	3,364,766	233	-45	115.82
SCR-163	536,730	3,364,877	234	-45	112.78
SCR-164	536,565	3,364,725	238	-45	109.73
SCR-165	536,515	3,364,677	232	-45	100.58
SCR-166	536,800	3,364,781	238	-45	100.58
SCR-167	536,717	3,364,695	236	-45	121.92
SCR-168	536,661	3,364,682	237	-45	121.92
SCR-169	535,963	3,366,034	57	-45	103.63
SCR-170	536,096	3,365,931	237	-45	100.58
SCR-171	536,162	3,365,794	233	-45	137.16
SCR-172	536,426	3,365,616	237	-45	100.58
SCR-173	536,279	3,365,694	238	-45	100.58
SCR-174	536,208	3,366,651	62	-50	109.73
SCR-175	536,160	3,366,706	52	-45	112.78
SCR-176	536,398	3,365,551	234	-45	100.58
SCR-177	536,307	3,365,580	261	-45	106.68
SCR-178	536,466	3,365,557	247	-45	100.58
SCR-179	536,349	3,365,650	234	-45	70.1
SCR-180	536,239	3,365,615	268	-45	100.58
SCR-181	535,905	3,365,664	52	-45	100.58
SCR-182	536,653	3,366,544	36	-45	100.58
SCR-183	536,712	3,366,516	58	-45	100.58
SCR-184	536,470	3,365,280	250	-45	140.21
SCR-185	536,427	3,364,970	235	-45	100.58
SCR-186	536,467	3,365,293	266	-45	129.54
SCR-187	536,431	3,364,973	50	-45	103.63
SCR-188	536,761	3,365,010	229	-45	60.96
SCR-189	536,838	3,365,133	231	-45	100.58
SCR-190	536,790	3,364,991	237	-45	60.96
SCR-191	536,438	3,365,344	232	-45	91.44
SCR-192	536,874	3,364,996	233	-45	82.3
SCR-193	536,401	3,365,355	240	-52	51.82

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Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCR-194	536,474	3,365,215	236	-45	100.58
SCR-195	536,393	3,365,380	251	-45	60.96
SCR-196	536,631	3,365,258	240	-45	73.15
SCR-197	536,618	3,365,206	241	-45	48.77
SCR-198	536,599	3,365,233	238	-45	42.67
SCR-199	536,647	3,365,140	241	-45	41.15
SCR-200	536,661	3,365,105	234	-45	42.67
SCR-201	536,491	3,365,201	232	-45	121.92
SCR-202	536,693	3,365,081	233	-45	64.01
SCR-203	536,517	3,365,184	233	-45	131.06
SCR-204	536,719	3,365,061	235	-45	71.63
SCR-205	536,528	3,365,148	232	-45	121.92
SCR-206	536,741	3,365,031	239	-45	73.15
SCR-207	536,465	3,365,257	234	-45	121.92
SCR-208	536,814	3,364,958	235	-45	51.82
SCR-209	536,592	3,364,932	234	-45	100.58
SCR-210	536,849	3,364,979	238	-45	76.2
SCR-211	536,626	3,364,869	236	-45	131.06
SCR-212	536,860	3,364,944	238	-45	54.86
SCR-213	536,602	3,364,755	237	-45	100.58
SCR-214	536,881	3,364,964	238	-45	68.58
SCR-215	536,867	3,364,904	235	-45	42.67
SCR-216	536,976	3,364,926	242	-45	94.49
SCR-217	536,466	3,364,915	236	-45	100.58
SCR-218	536,587	3,365,266	235	-45	60.96
SCR-219	536,539	3,364,798	235	-45	121.92
SCR-220	536,618	3,365,283	234	-45	82.3
SCR-221	536,627	3,364,699	235	-45	140.21
SCR-222	536,597	3,365,313	235	-45	91.44
SCR-223	536,379	3,365,175	39	-45	115.82
SCR-224	536,582	3,365,358	216	-45	64.01
SCR-225	536,095	3,364,551	221	-72	170.69
SCR-226	536,571	3,365,380	234	-45	51.82
SCR-227	536,720	3,365,485	234	-45	100.58
SCR-228	536,559	3,365,421	232	-45	39.62
SCR-229	536,194	3,364,654	202	-73	173.74
SCR-230	536,562	3,365,463	235	-45	54.86
SCR-231	536,601	3,365,485	229	-45	94.49
SCR-232	536,678	3,365,650	278	-45	64.01
SCR-233	536,678	3,365,627	233	-45	67.06
SCR-234	536,103	3,364,453	266	-56	121.92
SCR-235	536,728	3,365,624	233	-45	103.63
SCR-236	536,115	3,364,416	229	-67	91.44
SCR-237	536,683	3,365,588	235	-45	33.53
SCR-238	536,699	3,365,556	236	-45	88.39

Drill Hole ID	Drill Hole Parameters				
	Nad27 East	Nad27 North	Azimuth	Dip	Depth (m)
SCR-239	536,269	3,364,491	251	-55	70.1
SCR-240	536,109	3,364,656	220	-55	192.02
SCR-241	536,763	3,365,599	233	-50	143.26
SCR-242	536,709	3,365,533	235	-50	60.96
SCR-243	536,085	3,364,632	229	-45	192.02
SCR-244	536,626	3,365,171	234	-45	67.06
SCR-245	536,111	3,365,357	258	-45	91.44
SCR-246	536,125	3,364,696	260	-45	152.4
SCR-247	536,560	3,365,296	0	-90	51.82
SCR-248	536,111	3,365,281	291	-65	109.73
SCR-249	536,121	3,365,259	260	-55	100.58
SCR-250	536,246	3,364,414	228	-45	51.82
SCR-251	536,148	3,365,191	276	-52	140.21
SCR-252	536,291	3,364,646	203	-48	143.26
SCR-253	536,088	3,365,145	246	-73	94.49
SCR-254	536,556	3,365,285	237	-45	70.1
SCR-255	536,509	3,365,293	237	-45	70.1
SCR-256	536,083	3,365,112	253	-50	64.01
SCR-257	536,684	3,365,055	236	-45	82.3
SCR-258	536,630	3,365,029	232	-45	91.44
SCR-259	536,582	3,365,145	235	-45	82.3
SCR-260	536,534	3,365,113	236	-45	88.39
SCR-261	536,491	3,365,087	235	-45	19.81
SCR-261B	536,495	3,365,089	234	-45	82.3
SCR-262	536,572	3,365,214	234	-45	91.44
SCR-263	536,628	3,365,095	235	-45	82.3
SCR-264	536,586	3,365,073	234	-45	163.07

Source: Sonoro Gold (2021)

Most drill holes are inclined to 45 degrees to the southwest to cut as close as possible across the prevailing vein trends in the Cerro Caliche property. The true inclination of the mineralized zones is not precisely known and the common use of 45 degrees inclined drill holes with the azimuth of 225 is considered the best orientation to minimize intercept corrections. However, it is possible that some reported drill hole intercepts may have reductions of interval length by 10 to 15 percent to obtain true thickness of intervals. Drill holes that have orientations with azimuths of 50 to 80 were done to utilize roads to test areas without current access. These drill holes were considered to cut near vertical zones of mineralization. All drilling completed by the programs are considered to have good quality samples from the drilling programs that with the large quantity of drill holes reliably represent the mineralized size and mineralization values of the mineralized material.

Table 10:3 is a selection of reported drill intercepts with an assay level of 0.15 as a cutoff for reporting intervals of gold and silver mineralization from drilling in 2020 and 2021.

Table 10:3 Cerro Caliche Project, Drill Hole Composites with Cut-Off 0.15 g/t Gold

Drill Hole	Target		Mineralized Interval (m)			Grade (g/t)		
			From	To	Total	Au	Ag	AuEq
SCR-096	BUENA SUERTE		105.16	121.92	16.76	0.841	7.7	0.951
		includes	105.16	109.73	4.57	2.419	7.3	2.523
SCR-104	JAPONESES		19.29	22.86	4.57	1.894	81.6	3.060
		includes	21.34	22.86	1.52	5.300	211.0	8.314
		and	41.15	56.39	15.24	1.278	4.0	1.335
SCR-105	JAPONESES		32.00	41.15	9.14	1.130	1.7	1.154
		includes	33.53	35.05	1.52	3.260	3.5	3.310
SCR-106	JAPONESES		56.39	73.15	16.76	0.853	1.1	0.869
		includes	64.01	67.06	3.05	1.810	1.4	1.830
SCR-109	BUENA SUERTE		3.05	48.77	45.72	0.972	4.0	1.029
		includes	7.62	22.86	15.24	2.101	9.7	2.240
		and	53.34	54.86	1.52	2.680	0.7	2.690
SCR-110	BUENA VISTA		102.11	114.30	12.19	0.941	3.2	0.987
		includes	103.63	109.73	6.1	1.470	2.5	1.506
SCR-111	EL BOLUDITO		51.82	53.34	1.52	2.260	34.5	2.753
SCR-117	BUENA VISTA		30.48	35.05	4.57	1.033	6.0	1.119
		includes	33.53	35.05	1.52	2.640	6.0	2.726
SCR-118	BUENA VISTA		50.29	70.10	19.81	0.566	5.0	0.637
		includes	62.48	64.01	1.53	2.340	17.0	2.583
SCR-124	BUENA SUERTE		71.63	77.72	6.09	3.987	9.0	4.116
		includes	76.20	77.72	1.52	7.803	15.0	8.017
SCR-125	BUENA SUERTE		91.44	102.11	10.67	1.363	31.7	1.816
		includes	91.44	94.49	3.05	4.196	96.8	5.579
		including	91.44	92.96	1.52	6.729	153.0	8.915
SCR-127	BUENA SUERTE		41.15	51.82	10.67	0.958	13.0	1.144
		includes	44.20	45.72	1.52	2.811	30.0	3.240
SCR-136	JAPONESES		0.00	24.38	24.38	0.747	1.7	0.771
		includes	10.67	12.19	1.52	5.280	3.4	5.329
		and	35.05	56.39	21.34	0.813	0.9	0.826
		includes	42.67	48.77	6.1	2.028	0.7	2.039
SCR-141	BUENA SUERTE		68.58	71.63	3.05	1.479	0.8	1.490
		includes	68.58	70.10	1.52	2.591	0.8	2.602
SCR-142	BUENA SUERTE		50.29	57.91	7.62	1.322	18.8	1.590
		includes	54.86	57.91	3.05	2.150	38.6	2.701
		and	74.68	86.87	12.19	0.965	19.5	1.243
		includes	77.72	80.77	3.05	2.650	69.9	3.649
SCR-143	BUENA SUERTE		41.15	44.20	3.05	1.015	41.0	1.601
		includes	41.15	42.67	1.52	1.798	71.9	2.825
		and	99.06	111.25	12.19	0.687	2.1	0.717

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Drill Hole	Target		Mineralized Interval (m)			Grade (g/t)		
			From	To	Total	Au	Ag	AuEq
		includes	99.06	100.58	1.52	1.741	10.9	1.897
SCR-146	JAPONESES		67.06	80.77	13.71	0.599	8.0	0.713
		includes	77.72	79.25	1.53	2.479	43.8	3.105
SCR-148	BUENA SUERTE		16.76	44.20	27.44	1.170	2.4	1.204
		includes	25.91	27.43	1.52	3.101	2.2	3.132
		includes	39.62	42.67	3.05	4.696	3.4	4.745
SCR-151	JAPONESES		6.10	33.53	27.43	0.694	1.4	0.714
		includes	27.43	30.48	3.05	3.355	7.6	3.464
SCR-158	BUENA SUERTE		53.34	59.44	6.1	0.731	18.2	0.992
		includes	56.39	59.44	3.05	1.354	26.7	1.735
SCR-159	BUENA SUERTE		19.81	27.43	7.62	3.088	7.3	3.192
		includes	19.81	22.86	3.05	6.839	10.5	6.989
		and	30.48	33.53	3.05	0.981	6.0	1.067
SCR-167	BUENA SUERTE	and	103.63	106.68	3.05	2.325	1.7	2.348
SCR-186	BUENA SUERTE		73.15	97.54	24.39	1.206	1.5	1.227
		includes	73.15	86.87	13.72	1.853	1.1	1.868
SCR-201	BUENA SUERTE		71.63	80.77	9.14	0.740	32.8	1.208
		includes	74.68	76.20	1.52	2.096	37.4	2.630
SCR-204	JAPONESES		10.67	21.34	10.67	1.355	0.7	1.364
		includes	12.19	13.72	1.53	6.329	2.6	6.366
SCR-211	BUENA SUERTE		42.67	45.72	3.05	4.766	1.8	4.791
SCR-214	JAPONESES		3.05	21.34	18.29	0.577	11.5	0.741
		includes	4.57	6.10	1.53	1.546	36.7	2.070
		includes	10.67	12.19	1.52	1.972	39.0	2.529
SCR-219	EL QUINCE		64.01	80.77	16.76	1.427	6.6	1.522
		includes	67.06	68.58	1.52	6.475	20.6	6.769
		includes	73.15	79.25	6.1	1.867	10.4	2.016
SCR-220	JAPONESES		35.05	57.91	22.86	0.534	1.8	0.560
		includes	50.29	51.82	1.53	1.843	8.4	1.963
SCR-221	BUENA SUERTE		42.67	45.72	3.05	2.483	3.3	2.529
		includes	42.67	44.2	1.53	4.397	4.5	4.461
		and	111.25	117.35	6.1	2.301	0.7	2.312
		includes	112.78	114.3	1.52	6.955	1.0	6.969
SCR-222	BUENA VISTA		39.62	54.86	15.24	2.039	1.7	2.063
		includes	45.72	51.82	6.1	3.150	2.8	3.189
		including	47.24	48.77	1.53	3.994	3.3	4.041
SCR-223	BUENA SUERTE		0	4.57	4.57	0.851	3.7	0.903
		includes	0	1.52	1.52	1.533	7.0	1.633
		and	41.15	115.82	74.67	0.605	3.1	0.654
		includes	79.25	80.77	1.52	1.536	12.5	1.715
		includes	82.3	83.82	1.52	3.677	12.2	3.851

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Drill Hole	Target		Mineralized Interval (m)			Grade (g/t)		
			From	To	Total	Au	Ag	AuEq
		includes	94.49	96.01	1.52	2.305	9.8	2.445
SCR-225	EL COLORADO		45.72	47.24	1.52	2.049	9.5	2.185
		and	131.06	138.68	7.62	1.164	0.7	1.174
		includes	132.59	135.64	3.05	2.314	0.8	2.324
		including	134.11	135.64	1.53	3.114	0.9	3.127
SCR-227	JAPONESES		16.76	19.81	3.05	1.743	16.3	1.977
		includes	16.76	18.29	1.53	2.538	28.2	2.941
SCR-229	EL COLORADO		25.91	28.96	3.05	1.332	1.5	1.353
		includes	25.91	27.43	1.52	2.513	2.5	2.549
SCR-234	EL COLORADO		9.14	25.91	16.77	1.837	1.2	1.897
		includes	13.72	18.29	4.57	5.627	4.7	5.693
		including	15.24	16.76	1.52	14.600	1.5	14.664
SCR-237	EL BOLUDITO		9.14	19.81	10.67	0.629	9.8	0.769
		includes	13.72	15.24	1.52	2.090	39.2	2.650
SCR-239	EL COLORADO		56.39	64.01	7.62	2.425	2.4	2.459
		includes	56.39	57.91	1.52	10.600	5.0	10.671
SCR-245	CABEZA BLANCA		7.62	10.67	3.05	1.118	0.4	1.123
		includes	7.62	9.14	1.52	1.990	0.6	1.999
SCR-247	BUENA VISTA		7.62	33.53	25.91	0.578	3.3	0.624
		includes	16.76	19.81	3.05	1.784	13.1	1.971
		including	16.76	18.29	1.53	2.371	18.5	2.635
		and	36.58	45.72	9.14	0.904	1.2	0.921
		includes	44.20	45.72	1.52	3.377	3.2	3.423
SCR-249	CABEZA BLANCA		21.34	22.86	1.52	1.890	0.5	1.897
SCR-251	EL COLORADO		7.62	12.19	4.57	1.045	2.1	1.075
		includes	10.67	12.19	1.52	1.831	3.0	1.874
SCR-253	CABEZA BLANCA		64.01	76.20	12.19	0.792	5.1	0.865
		includes	67.06	68.58	1.52	2.159	2.8	2.199
SCR-256	BUENA VISTA		33.53	45.72	12.19	1.067	5.7	1.148
		includes	36.58	41.15	4.57	2.102	5.2	2.176
		including	38.10	39.62	1.52	3.701	7.3	3.805
SCR-264	BUENA SUERTE		4.57	6.10	1.53	1.588	135.0	3.517
		and	138.68	153.92	15.24	0.764	7.5	0.871
		includes	140.21	141.73	1.52	2.402	1.7	2.426
SCD-008	EL COLORADO		101.95	113.65	11.7	0.917	2.0	0.942
		includes	108.05	112.60	4.55	1.837	2.0	1.870
SCD-015	VETA DE ORO		182.5	185.5	3	2.094	1.0	2.109
SCD-016	EL COLORADO		156.85	168.10	11.25	1.075	2.8	1.116
		and	178.50	184.10	5.6	2.831	2.5	2.867
SCD-020	EL RINCON		67.2	88.15	20.95	0.496	25.0	0.847
		includes	81.3	82.95	1.65	2.499	124.0	4.270

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Drill Hole	Target		Mineralized Interval (m)			Grade (g/t)		
			From	To	Total	Au	Ag	AuEq
SCD-021	EL RINCON		116.4	137.4	21	0.880	18.0	1.130
		includes	120.9	123.8	2.9	3.863	48.0	4.546
SCD-023	EL COLORADO		49.7	58.15	8.45	1.401	1.6	1.409
		includes	52.3	54.15	1.85	4.760	3.4	4.809
SCD-024	EL COLORADO		49.9	55.6	5.7	1.245	3.6	1.297
		includes	51.15	52.05	0.9	6.218	6.9	6.317
SCD-034	VETA DE ORO		33.60	38.50	4.90	1.221	18.5	1.488
		includes	36.50	38.50	2.00	2.352	24.4	2.701
SCD-039	EL BELLOTOSO		14.10	16.30	2.20	1.661	39.6	2.227
		includes	15.10	16.30	1.20	2.800	59.9	3.656
SCD-044	EL BELLOTOSO		24.00	34.50	10.5	0.690	12.3	0.866
		includes	24.00	25.00	1	2.325	41.1	2.912
		and	56.25	57.60	1.35	2.913	10.4	3.062
SCD-046	EL BELLOTOSO		75.45	78.50	3.05	2.257	2.3	2.290
		includes	75.45	77.00	1.55	4.241	3.5	4.291

Source: Sonoro Gold (2021)

Mining industry standards and practices were implemented to provide good quality samples representing the rock material being cut by the drill holes. High quality drill machines were utilized to high recoveries and quality of samples. Good quality handling and chain of custody procedures were used to guard against sample loss and maintain sample identification and integrity during transfer to the analytical laboratory.

## **11. SAMPLE PREPARATION, ANALYSIS, AND SECURITY**

### **11.1. Procedure for Handling, Logging, and Preparing Samples**

All the data in the database come from the different drilling campaigns that has been conducted on the Project since 1997. Information related to historical drill campaign was extracted from the NI 43-101 prepared by Strickland et al, in 2019. There is no information available related to sampling procedures and QA/QC established by Cambior Inc. in the 1990's.

#### **11.1.1. Paget (2011)**

Paget (2011) drill samples were collected from split core over 1.5 m lengths, except where restricted by geology. Assays were completed by two independent laboratories, ALS Chemex (ALS) and Laboratorio Tecnológico de Metalurgia (LTM) both in Hermosillo, Mexico. ALS samples were assayed by fire assays and ICP. LTM samples were assayed by fire assays for only gold and silver. Due to the presence of coarse visible gold in some samples, numerous check samples were submitted to ALS for screened metallic assays. All samples were submitted with blanks and standards inserted every 10 m. LTM is an ISO/IEC 17025:2017 accredited laboratory at the time of this Technical Report. ALS accreditations will be discussed later in this Section.

#### **11.1.2. Sonoro (2018 to 2021)**

Sonoro has undertaken an intensive drilling camping since 2018. Up to the effective date of this report, data from 48 diamond drill holes and 266 reverse circulation holes are included in the available dataset. Sonoro prepared a Work Procedure for both diamond and reverse circulation drilling, which established general guidelines for the drilling process, from when the drill hole is first outlined up to the time the core or chips samples are delivered to the laboratory for processing.

##### ***11.1.2.1. RC Drilling***

Sonoro's work procedure establishes that the hole's location will be based on the previously defined drilling program. A drill hole is located in the field by a field geologist, with use of a handheld GPS and provides the drillers with basic information regarding location and programmed azimuth and inclination. The drill hole collar location is preliminarily marked using a compass, wood stick and flagging tape. Once the drill rig has been set up on the drill hole, the geologist verifies that the rig is correctly leveled and oriented, as well as the hole inclination is correct using a compass. Two sample bags are pre-marked for each sample, one bag will remain as a witness sample and the other bag will be sent to the laboratory. Control sample insertions are pre-defined and prepared prior to drilling start up.

Samples are collected from the RC rig cyclone, at 1.5 m intervals, and split at a 50:50 ratio using a large capacity rock riffle splitter. One half of the rock is split again, to obtain two samples which each represent 25% of the whole sample. The remaining 50% of the initial split is discarded at the site. The resulting two samples are bagged with heavy density plastic bags for dry samples, or micropore bags for wet samples (Figure 11:1). A small representative sample is collected in a sieve, the fines sifted, washed with water and any remaining rock chips used for logging. Once the chips are logged, they are placed in a sample compartment in a chip tray. All information related to the samples and chip logging are registered in pre-defined logging formats.

Figure 11:1 Cerro Caliche Project, RC Drilling and Sampling Procedure



Source: Micon (2020)

Control samples are inserted into their corresponding pre-defined locations and transferred into sacks. The sacks are identified with the name of the Project and sample intervals in each sack. A photographic record of the samples in each sack is retained for reference purposes. Once the sample batch for each hole is completed, the assay forms, provided by the laboratory are written up. The assay laboratory form includes the number of samples per batch with individual sample numbers and suite of analysis that the laboratory should perform on the batch.

The sample duplicates are stored at each drill pad.

#### ***11.1.2.2. Core Drilling***

Sonoro's work procedures prepared for core drilling establishes a similar procedure to that of the RC drilling for the location and setup of the diamond core rig.

The work procedure has established that the drill rig should be inspected daily by a field geologist, to verify the progress, sign daily reports and collect and core boxes. The downhole survey reports, prepared by the driller, are inspected during the daily site visits, to verify any potential deviation in the hole direction. The procedure also establishes general guidelines for core box handling and transportation from the drill site to the core-logging facilities.

Once core boxes arrive at the core logging facilities, the core boxes are arranged in progressive order and the depth marks are inspected and verified that they match the depths. Core recovery and RQD are determined after the depth marks have been verified. The work procedures establish the basic criteria for the determination of such parameters. The field geologist then proceeds to conduct the detailed core logging, describing lithological and structural features, such as rock type, alteration, mineralogy observed, and structural features observed. The entire core is photographed, following a described procedure.

Once the core logging is completed and core photographed, the field geologist proceeds to mark the samples along selected portions of the core. Sampling procedures establish the length of core samples should be no longer than 200 cm, with a minimum length of 50 cm. Sample length is

determined following geological criteria, such as changes in lithologies, mineralization alteration and structural features, or transition from oxides into sulphides. Once marked and recorded the core samples are split in half with the use of a diamond saw. Half of the sample is bagged and sent to the assay laboratory, while the second half remains in the core box as a witness sample.

Figure 11:2 Results of Core Splitting and Sampling



Source: Micon (2020)

The following is a description by Sonoro of the steps undertaken to ensure the security of the samples taken during its exploration and drilling programs.

- 1) Samples produced during the RC drilling are bagged and transferred into sacks at the drill site. A photographic record of each sack, showing the samples contained, is retained.
- 2) For the diamond drill samples, these are prepared at the core logging facilities, packed and bagged, under the supervision of the geologist in charge.
- 3) Samples are collected at the drill site (RC) or core logging facilities (DDH) by transportation designated by the corresponding laboratory (ALS or BVI) Samples are then transported by the freight company to the laboratory facilities located in the city of Hermosillo.
- 4) The geologist manager is informed by the field geologist of the samples being transported by the freight company. The geologist manager prepares the corresponding work order, indicating the number of samples shipped and analysis requested.
- 5) The laboratories prepare a sample reception form, which is mailed directly to the Chief Geologist.
- 6) Witness samples comprised of half of the core remain safely stored at the core shack facilities, located in the village of Cucurpe. Duplicates of the RC samples remain temporarily stored at each drill site, where they are stored and covered by plastic for longer preservation.

- 7) Assays certificates in a PDF format as well as a CVS file with assay results are delivered by electronic mail from the laboratory to the management team of Sonoro. Files are stored on an external hard-drive, with a backup existing in the exploration computer of the Chief Geologist.

Assays of samples for the early drilling campaigns were conducted by ALS Global (ALS). The most recent drill samples have been assayed by BVI, who offer a shorter turn around. Both laboratories are independent ISO-Certified Laboratories. ALS’s QMS framework follows the most appropriate ISO Standard for the service at hand i.e. ISO 9001:2015 for survey/inspection activity and ISO/IEC 17025:2017 UKAS ref 4028 for laboratory analysis.

As of January 2021 with the full alignment of the ISO 9001 and 17025 standards BVI has decided to maintain only ISO 17025 accreditation for its minerals facilities. The sample preparation and main assaying procedures at the laboratories are summarized in Table 11:1.

Table 11:1 ALS and BVI Assaying Methodologies

Laboratory	Stage	Method Code	Description
ALS	Sample Preparation	PREP-31	Crush to 70% less than 2 mm, riffle split off 250 g, pulverize split to better than 85% passing 75 microns.
	Gold Determination	AU-AA23	Au 30 g Fire Assays AA finish
	Multi-Element	ME-ICP41	35 elements Aqua Regia ICP-AES
	Silver (>100 ppm)	AG-OG62	Ag by HF-HNO3-HClO4 digestion with HCl leach, ICP-AES or AAS finish. 0.4 g sample
BVI	Sample Preparation	PRP70-250	Crush, split and pulverize 250 g rock to 200 mesh
	Gold Determination	FA430	30 g, Fire assay, AAS finish
	Multi-Element	AQ300	Two acid/aqua regia digestion/ / ICP-OES package (34 elements)
	Silver (>100 ppm)	FA530	30 g / fire Assay / gravimetric

## 11.2. Quality Assurance and Quality Control

The dataset of the 2021 Cerro Caliche Project drilling contains data from 32,728 RC Chips and core samples, and includes all samples collected since the drilling campaigns completed in the late 1990’s. There is no information related to what control samples were inserted during the earliest drill campaigns, which consist of 10,267 samples in the database. Since Sonoro began its intensive drill campaigns on the property in 2018, a total of 22,460 RC chip and core samples have been analyzed. A QC protocol established by Sonoro has protocols for the systematic insertion of coarse blanks, Standard Reference Materials (SRM) and duplicates. In addition to the 22,460 RC and core samples, Sonoro inserted a total of 1,995 control samples, equivalent to nearly 9% of the assays completed. Table 11:2 summarizes the distribution of control samples.

Table 11:2 Distribution of Control Samples Inserted by Sonoro

Control Sample Type	Number	Percentage of Assayed Samples
Coarse Blanks	828	3.7%
Standard Reference Materials		
OXF125	171	2.9 %
OXB130	170	
OxH139	41	
OxL118	36	
OxL159	112	
OxH163	112	
Duplicates		
Core	81	2.6%
RC Chips	444	
<b>Totals</b>	<b>1,995</b>	<b>8.9%</b>

Source: Sonoro Gold (2021)

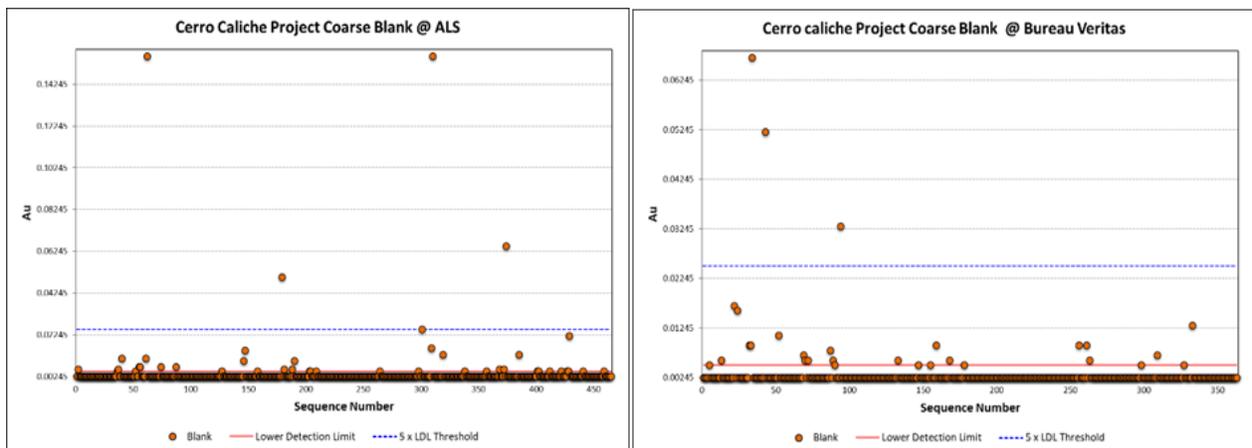
### 11.2.1. Coarse Blanks

The non-certified coarse blank used by Sonoro, since the drilling campaign of 2018, comes from a barren tuff hosted in the upper conglomeratic sequence (Baucarit Formation) which outcrops five kilometers to the northwest of the Project.

The coarse blanks are systematically inserted on the basis of one for each 30 samples, regardless of any evidence of mineralization. At the time of this report, a total of 828 blanks samples have been assayed, 465 of them at ALS and 363 at BVI laboratories. Approximately 91% of blanks assayed at both laboratories reported values below the detection limit (0.005). Four assays (1.1% of total) reported by ALS are considered outside the limit of tolerance (5xLDL), with a maximum value of 0.16 ppm Au, while BVI reported three samples (0.8% of total) out of the limit of tolerance, with maximum value of 0.067 ppm Au.

Graphs displaying the coarse blanks values are shown in Figure 11:3. Assay results for the coarse blanks do not indicate any significant cross contamination during the assaying process.

Figure 11:3 ALS and BVI Coarse Blank Assays



**11.2.2. Standard Reference Materials (SRM)**

Sonoro has used six different commercial SRMs since the beginning of the drill campaign in 2018. All six of the SRMs used were produced by the New-Zealand laboratory Rocklabs Ltd. (Rocklabs). All consist of a matrix constituted by basalt and feldspar minerals, with minor gold-containing minerals, that have been screened to ensure there is no gold nugget effect. Rocklabs is an independent ISO-Certified Laboratory (ISO 9001:2015) which is known for supplying SRMs to the mining industry.

The procedure used by Sonoro indicates that the SRMs should be inserted in a systematic order, one SRM for each 40 samples, regardless of any evidence of mineralization. The grade of the standard is randomly selected. To date, a total of 642 SRM of the various grades have been included in the existing dataset. The SRMs are summarized in Table 11:3.

Table 11:3 SRMs at the Cerro Caliche Project

SRM	Number	Historical Mean	Certificate Mean	Relative Difference
OxF125	171	0.791	0.806	1.9%
OXB130	170	0.124	0.125	0.8%
OxH139	41	1.310	1.312	0.2%
OxL118	36	5.830	5.828	0.0%
OxL159	112	5.795	5.849	0.9%
OxH163	112	1.307	1.313	0.5%
<b>Total:</b>	<b>642</b>			

Graphs showing the behavior of the assay results for the SRMs are shown in Figures 11:4 to 11:10.

Figure 11:4 SRM OxF125 Assays at ALS and BVI

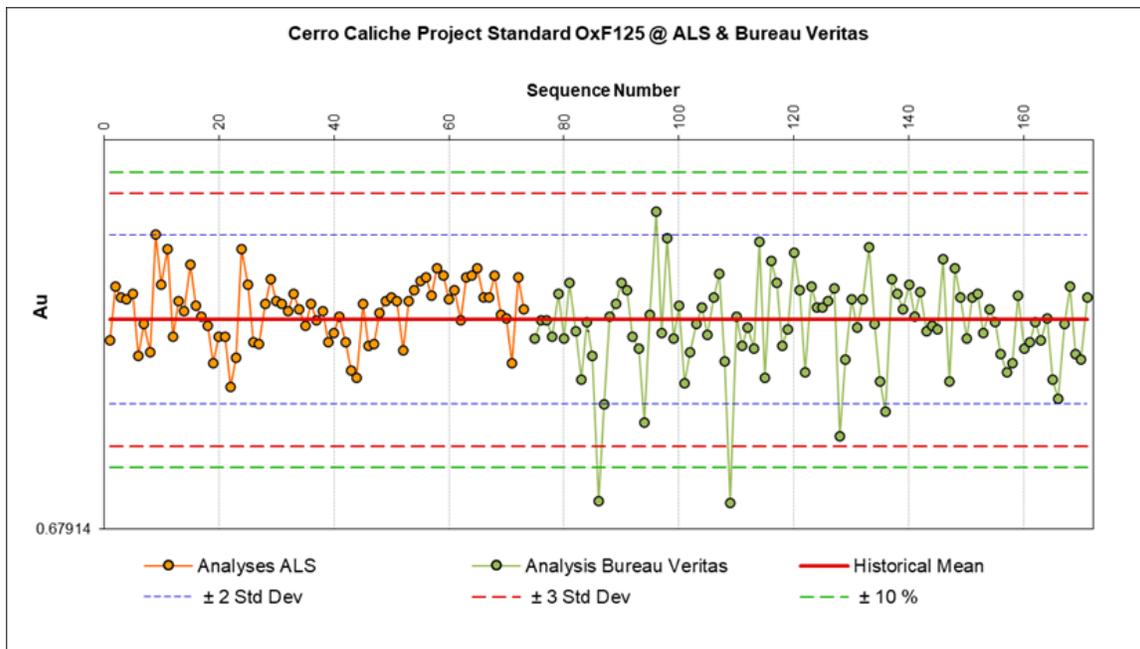


Figure 11:5 SRM OxF130 Assays at ALS and BVI

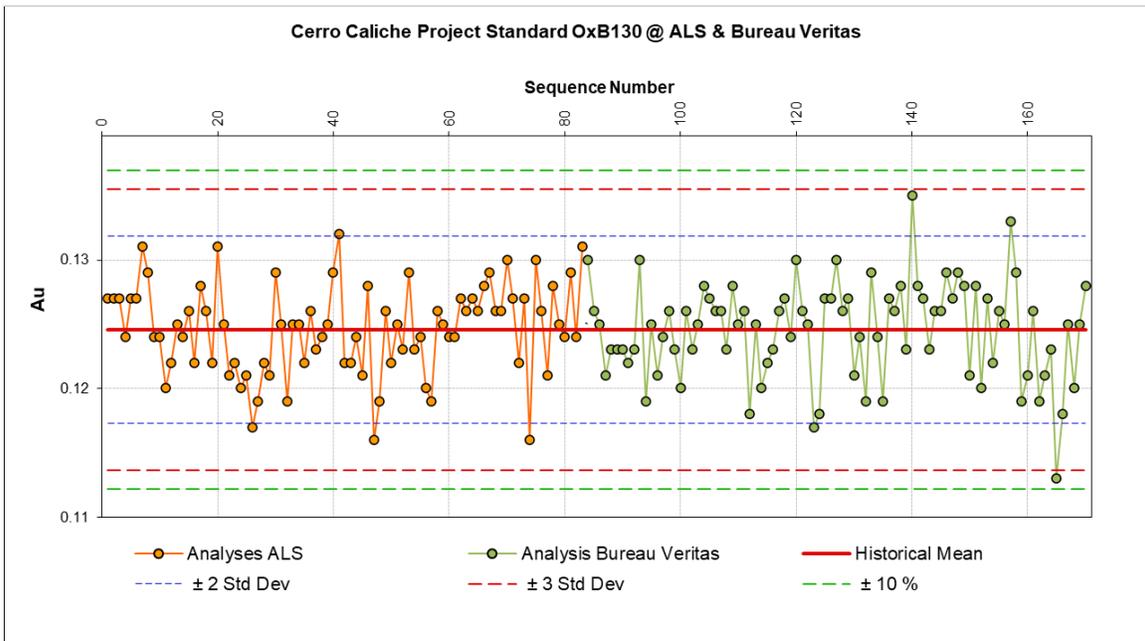


Figure 11:6 SRM OxF139 Assays at ALS

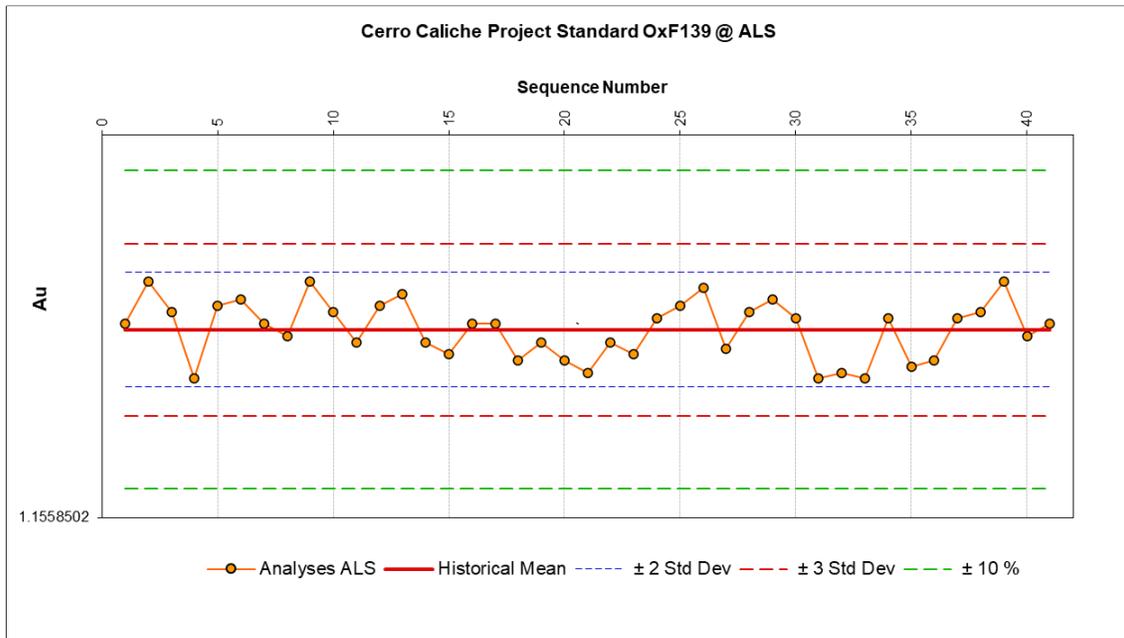


Figure 11:7 SRM OxF139 Assays at ALS

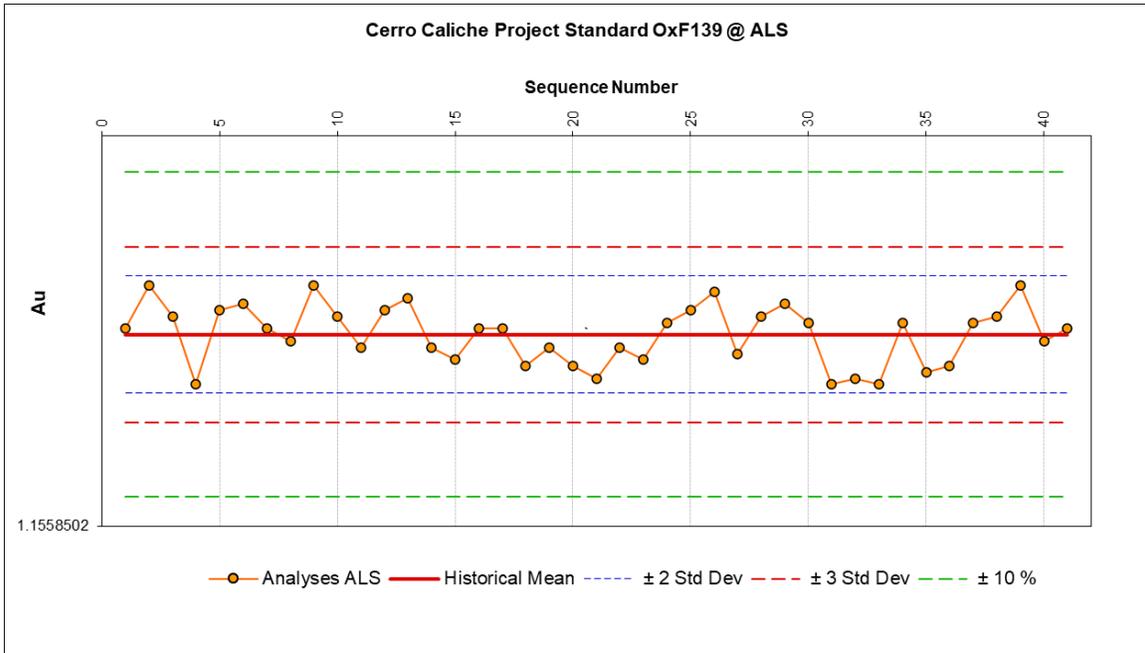


Figure 11:8 SRM OxL118 Assays at ALS

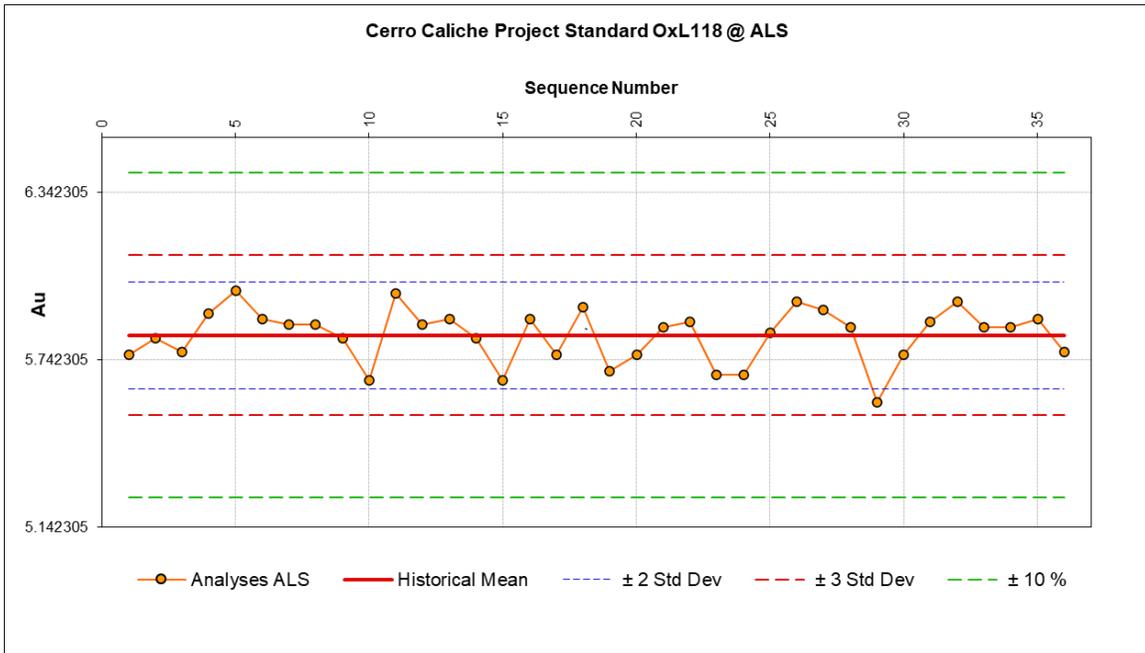


Figure 11:9 SRM OxL159 Assays at ALS and BVI

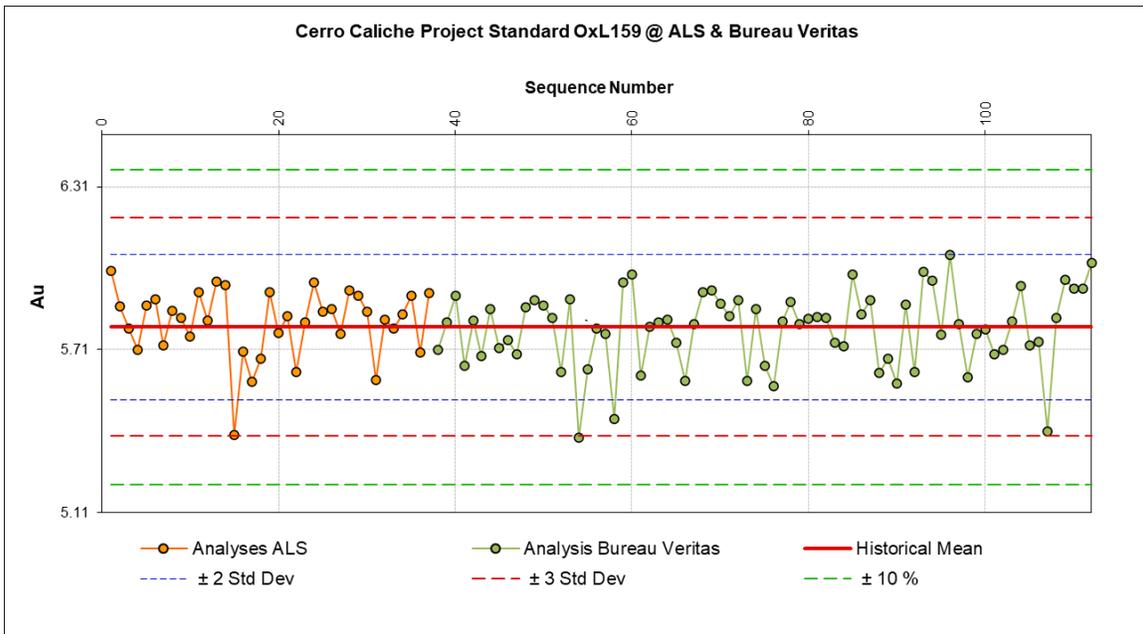
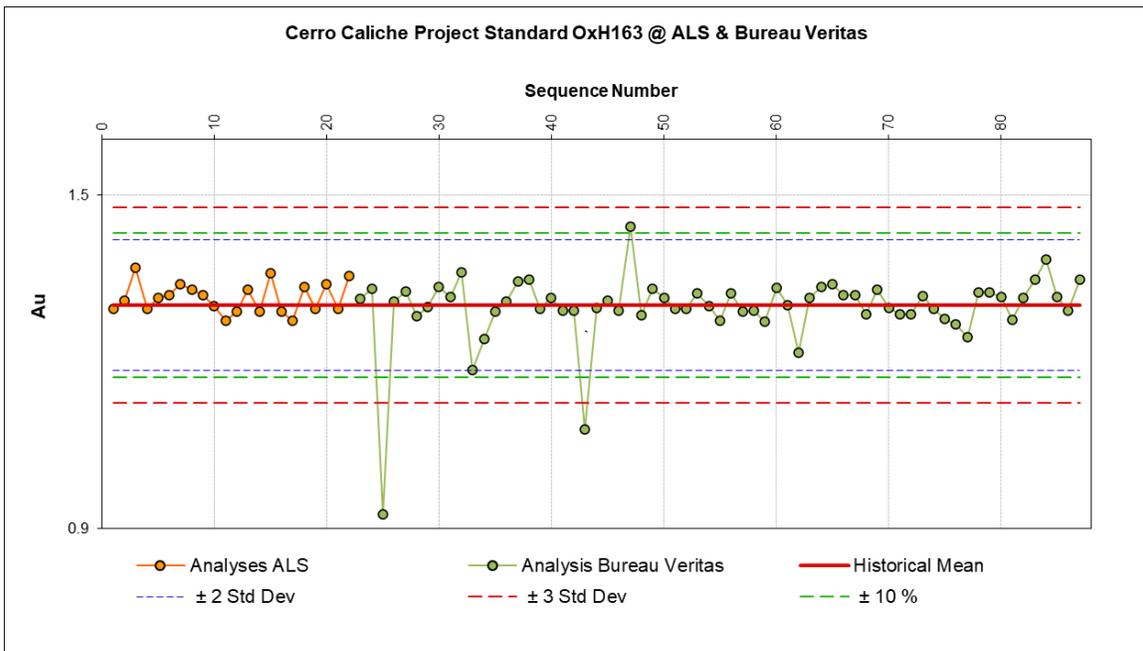


Figure 11:10 SRM OxH163 Assays at ALS and BVI



The accuracy of the assays was considered acceptable and in accordance with the common parameters used in the industry (Values Mean  $\pm 10\%$  and/or  $\pm 2\sigma$ ), and the values are randomly distributed above and below the historical mean value. Sporadic values can be observed that exceed the common tolerance limit, such as in the graph for OXF125 where 2 samples are slightly below the tolerance limit. In the graph of this standard, it can be observed that, even when the values are still within the tolerance limits, assay values reported by BVI indicated a large level of

dispersion compared with the assay reported for this standard at ALS. Considering that the tolerance parameter is the historical mean  $\pm 2\sigma$ , it was noticed that 26 samples out of the total SRMs analyzed do not comply with this quality criteria. This represents almost 5% of the SRM samples. It was also noted that for the failed assays, 80.8% correspond to SRMs analyzed by BVI, and the remaining 19.2% are samples analyzed at ALS. In most of the cases, the failed samples are underestimated values, with reference to the historical mean.

### **11.2.3. Duplicates**

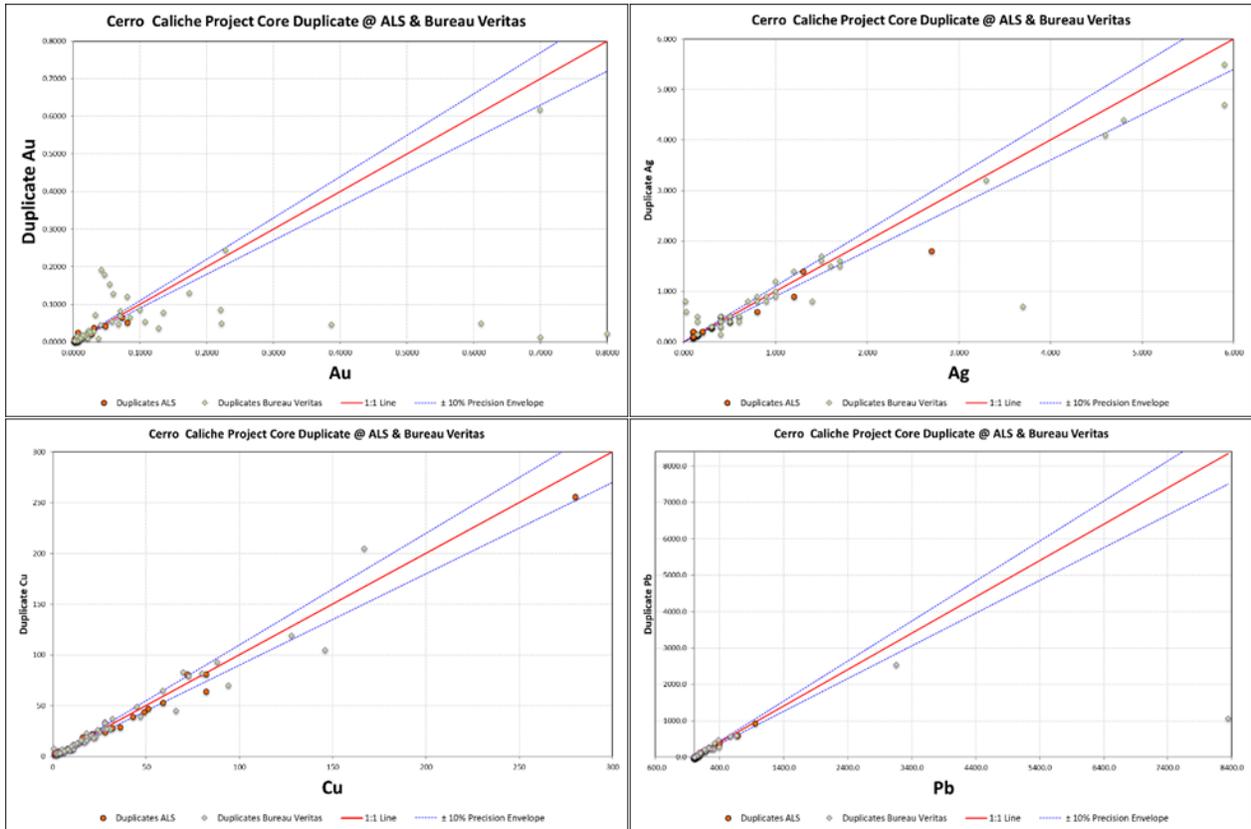
Sonoro QC protocols include the insertion of field duplicates for both RC and core drilling. General protocols established that field duplicates for RC or core should be systematically inserted every 50 samples, although some exceptions were applied where standards were inserted at a rate of every 20 or 30 samples. In both cases, the insertion of duplicates was based on a systematic approach and no consideration was taken into account for their location based on the mineralized intervals.

#### **11.2.3.1. Core Duplicates**

Core duplicates are selected by splitting the half core sample in two parts so that each represents one quarter of the core. One of the quarter core samples is prepared as the parent sample while the other quarter becomes the duplicate sample. A total of 81 core duplicates, out of 3,818 core samples assayed by Sonoro since 2019 are currently part of the dataset. This represents approximately 2.1% of the total of core samples assayed.

Duplicate samples are systematically labeled by a sample tag number 5 digits after the parent sample (example = Parent sample 622530 and its respective duplicate sample labeled as 622535). Figure 11.11 displays the behavior of the duplicate samples reported by both ALS and BVI laboratories, for different elements:

Figure 11:11 Core Duplicate Results for both ALS and BVI

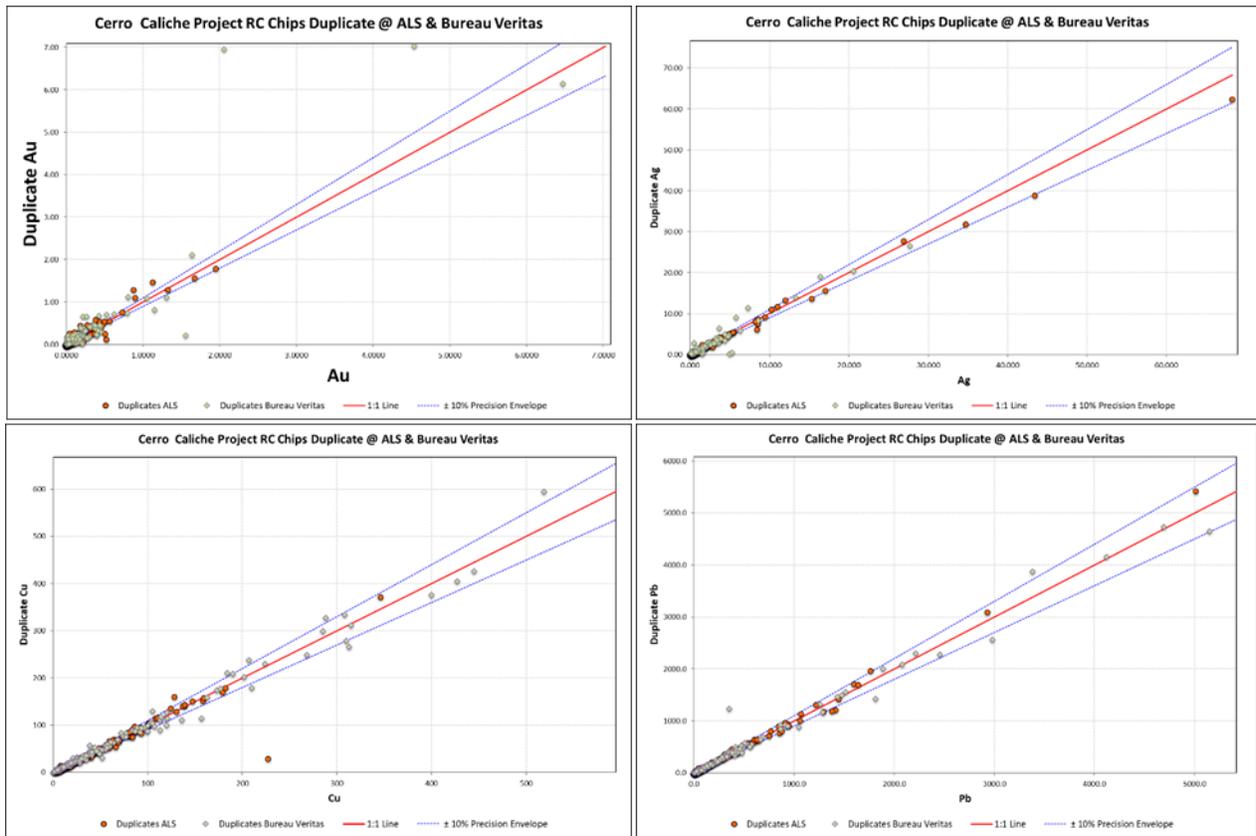


**11.2.3.2. RC Duplicates**

For RC samples, the duplicate sample is selected from the remaining 25% of the chips after the second split of the sample is collected from the cyclone. A total of 444 RC chips duplicates, out of 19,167 RC samples assayed by Sonoro since 2018, are currently part of the dataset. This represents the approximately 2.3% of the total of RC-chips samples assayed.

Each duplicate sample is systematically labeled by a sample tag number 5 digits after the number of the parent sample. Figure 11.12 displays the behavior of the duplicate samples reported by both ALS and BVI laboratories for different elements.

Figure 11:12 RC Duplicate Results for both ALS and BVI



In both cases (core and RC samples) the precision for the gold assays is considered low. For the core samples, 26% of the sample pairs comply with the quality criteria of RDP <10%, while in the RC duplicates, the numbers of sample pairs that comply with this quality criteria increases to 33%. The precision increase to 46% (core) and 54% (RC) when considering sample pairs with RDP <20%.

For the core duplicates, 14 of the sample pairs contain mean values of Au >0.1 ppm. These represent approximately 17% of the total of core duplicates. For the RC chip samples, 139 of the assayed duplicates (31%) reports mean values of Au >0.1 ppm. Some of the high-grade samples duplicated report significant differences, with 2.06 ppm on the parent sample, compared with 6.95 ppm on the duplicate.

Silver assays in sample pairs show similar behavior to the gold assays. The number of pair samples in core samples with RDP <10% represents approximately 57% of the duplicates, while in RC chip samples increase to 67%. The number of pair samples with RDP <20% is 72% for core samples, and 83% in RC chip samples.

Other elements, such as copper and lead (currently not considered to be of economic interest) show better accuracy for the duplicate samples. For the core samples, the number of pair samples, analyzed for Cu and Pb with RDP <10% increases to 71% and 43%, respectively, while for the RC chip sample pairs the precision increases to 74% Cu and 68% Pb.

It was observed that a significant difference exists when the average mean value of the pair of samples are compared, this occurs in samples pairs with mean values in grade that could be considered of economic interest ( $> 0.1$  ppm). For the 14 pairs of duplicate samples from core, the mean value in the parent sample is 0.3144 ppm, while in the duplicate sample, the mean value is 0.1416 (RD=76%). In the RC samples, for the 139 samples pairs, with mean value  $>0.1$  ppm, the mean value of the parent samples is 0.4131, while for the duplicate it is 0.4787 (RD=15%).

### **11.3. QP Comments**

The QP has reviewed Sonoro's QA/QC procedures for the 2018-2021 drilling campaign at the Cerro Caliche Project. The QP believes that the program was conducted in line with the industry best practices as outlined by the CIM. The QP recommends standardization of the sampling length between RC and diamond drilling. At this time, RC chips are sampled at 1.5 m intervals, while drill core is generally sampled at 2.0 m intervals.

The QP also recommends the secure storage of a duplicate of the RC samples, at a minimum storage of the most representative and significant intervals should be considered. At this time, a duplicate of the RC chip sample is temporally stored at the drill pad. The plastic bags are damaged by weather conditions or in some cases animals and when that occurs the samples are discarded. These duplicate samples could be useful for future checking/duplicate of assays results, or for specific metallurgical testing.

The QP recommends that Sonoro conducts a detailed review of the established procedures and protocols, oriented to improve the results and reduce uncertainty reflected by the low accuracy observed in the results. Particularly, the QP recommends that a review of the insertion order of control samples be conducted in order to improve the quality control within the zones that may result in areas of economic interests. It is also recommended that a detailed analysis be conducted to define the source of the low accuracy in the results and establish adequate protocols to improve the results. This difference may reflect the effect of coarse gold in the deposit, but the low accuracy in the other metals reviewed, such as Ag, Cu and Pb suggests that part of the sampling process may be impacting the results. The observed differences could have an impact on the resource estimations since the current set of data indicate that the relative difference between the mean value of parent samples is 14% below the mean value in the duplicate (negative bias) this indicates that the parent samples may be "underestimating" the grade. Further work is necessary to understand the potential reasons for this bias.

## **12. DATA VERIFICATION**

### **12.1. 2020 Micon Site Visit General Information**

The current site visit to the Cerro Caliche property was completed on December 9 and 10, 2020 by Rodrigo Calles-Montijo, CPG, who is an independent consultant and Certified Professional Geologist (CPG), as well as a member of the American Institute of Professional Geologists (AIPG). Mr. Calles-Montijo is based in Hermosillo, México. Mr. Calles Montijo was requested by William J. Lewis (Micon), to complete the site visit, as required by NI 43-101 and which was unable to be executed by Micon due to the situation and travel limitations created by the COVID-19 pandemic. Prior to the site visit, a Skype meeting was organized with the participation of William J. Lewis (Micon) and Rodrigo Calles-Montijo, in order to delineate the objectives during the site visit. Mr. Calles-Montijo visited the different areas along the property, as well as the core shack facilities located in the nearby village of Cucurpe, Sonora. During the site visit, Mr. Calles-Montijo was accompanied by Melvin Herdrick, VP of Exploration and Oscar Gonzalez, Chief Geologist of Sonoro.

On December 9, Messrs. Calles-Montijo, Herdrick and Gonzales visited the Project area. A number of recent 2020 drill sites were inspected, as well as representative outcrops along the different areas in the property. Four rock samples were collected along main mineralized zones reported in the area. During the site visit RC drilling equipment was in operation, and some time was spent by Mr. Calles-Montijo to verify the drill, sampling, and chip logging procedures on site. Also, exploration track-drill holes were in place at the time of the site visit, and a field geologist was present to update the mapping of main mineralized structures.

On December 10, Mr. Calles Montijo was accompanied by Mr. Gonzales on a visit to the core shack facilities located in the Village of Cucurpe, which is located approximately 13 km to the southwest of the Project. The core shack facilities were inspected, and Mr. Calles-Montijo had the opportunity to discuss the core logging, sampling and QA/QC procedures directly with the geologist in charge as well as verifying the conditions of the facilities and core samples. Representative sections of three mineralized diamond drill holes were inspected by Mr. Calles-Montijo during the visit. At the end of the site visit, Mr. Calles-Montijo and Mr. Gonzales returned to the Project area, to collect several duplicates of chips samples from the current RC drilling, as part of the data verification process. Chips and rocks samples were in the permanent custody of Mr. Calles-Montijo, and personally transported and delivered to the laboratory facilities of ALS, located in the city of Hermosillo, Sonora.

### **12.2. Micon Site Visit Geology, Sampling and QA/QC Review**

During the site visits, Mr. Calles-Montijo focused the inspection on the verification of the general geological setting, and site conditions. It was observed that the local geology corresponds to the general description reported in previous works and with the sections observed in the inspected core of holes drilled in 2020.

During the 2020 site visit, four surface chip samples were collected along representative outcrops and diverse types of mineralized rocks in the area of El Colorado, Cabeza Blanca, and Los Japanese. Samples were sent to the ALS laboratory facilities in Hermosillo Sonora, to verify the

surface values. Figure 12:1 shows the surface samples taken at the El Colorado and Cabeza Blanca areas. Figure 12:2 shows the surface samples taken at the Los Japanesees area. Table 12:1 summarizes the surface samples collected during the site visit.

Figure 12:1 El Colorado and Cabeza Blanca Surface Samples



El Colorado (left) and Cabeza Blanca (Right). Source: Micon (2020)

Figure 12:2 Los Japanesees Surface Samples



Source: Micon (2020)

Table 12:1 Micon Visit Surface Samples

Sample ID	X (NAD27)	Y (NAD27)	Au (ppm)	Description
CC-001	536,139	3,364,459	1.165	Vein with abundant FeOx and scarce silicification. N55°W dipping 45°NE
CC-002	536,072	3,365,022	0.404	Higly silicified zones with intense quartz stockwork
CC-003	536,905	3,364980	4.36	Fault zone. Strong oxidation and silicification (vuggy silica) and Mn. N20°W dipping 65°SW
CC-004	536,830	3,365,115	0.6	Strong silicified rock with prescence of FeOx

Ten out of the 85 holes drilled in 2020 were inspected during the site visit. The inspection included five out of the 11 holes drilled to obtain samples for the metallurgical testwork at the Los Japoneses, Cabeza Blanca and El Colorado areas. Collar locations of visited drillholes were verified using a handheld GPS and compared with coordinates provided by Sonoro. In most of the cases, coordinates were within the accuracy range of the handheld GPS (<5 m), with only one hole that reported a displacement up to 8 m. Figure 12:3 shows drill hole SCD-012, the location of which was verified during the site visit.

Figure 12:3 Verification of Drill Hole SCD-012 Location



Source: Micon (2020)

During the site visit, Mr. Calles-Montijo had the opportunity to spend some time observing the RC drilling, sampling and chip logging procedures at drill-site SRC-151. It was observed that geological control for the chip sample, subdivision of the sample and sample handling is aligned with standard exploration practices and maintaining adequate control of the information. The applied methodology for RC samples was in accordance with the document provided by Sonoro as “Sampling Procedures in Reverse Circulation Drilling” (Sonoro, 2019). Figure 12:4 shows the RC chip logging at the Cerro Caliche Project.

Figure 12:4 RC Chip Logging at the Cerro Caliche



Source: Micon (2020)

A total of 13 RC chip sample (Figure 12:5) duplicates were selected for data verification. Samples were directly collected by Mr. Calles-Montijo at the drill pad, re-bagged and re-labeled. The 13 chip sample duplicates were in the permanent custody of Mt. Calles-Montijo, and personally delivered to the ALS facilities located in the city of Hermosillo, México. Table 12:2 summarizes the RC duplicate samples collected during the site visit.

Figure 12:5 Field RC-Chips Duplicates Collected in 2020



Source: Micon (2020)

Table 12:2 RC Site Visit Collection of Duplicate Samples

RC Drill Hole ID	Original Sample ID	Duplicate ID	Au Original (ppm)	Au Duplicate (ppm)	Relative Difference
SCR-111	831088	625501	2.26	2.24	1%
	832094	625502	0.226	0.15	40%
	832099	625503	0.01	0.006	50%
SCR-134	833714	625504	0.205	0.231	12%
	833684	625505	1.43	1.31	9%
	833675	625506	0.331	0.936	96%
SCR-136	833865	625507	3.443	3.69	7%
	833863	625508	1.404	1.22	14%
SCR-109	831839	625509	0.67	0.736	9%
	831882	625510	0.091	0.044	70%
SCR-125	833018	625511	0.292	0.412	34%
	832976	625512	0.335	0.337	1%
	832968	625513	0.106	0.117	10%
<b>AVERAGE</b>			<b>0.831</b>	<b>0.879</b>	<b>6%</b>

During the 2020 site visit, a half day was spent at the core shack facilities of the company, located in the village of Cucurpe, at 14 km to the SW of the Project area. The core and sample warehouse are of an adequate sheet metal construction with steel frame, with steel racks to allocate core boxes (Figure 12:6). No chip samples from the RC drilling are stored on this facility. Contiguous to the main building is a core logging and sampling area, which contain a large core boxes rack for core-logging, and the core saw (Figure 12:6). Water and electricity, as well as cell phone are available in the facility. The building was observed to be well ordered and clean. The stored core boxes appear to be properly marked with basic information, such as Hole ID, top and bottom of each core box. It was observed that the stack of core boxes is quite high (up to 12 boxes per pile) and the weight of the boxes is causing damage to boxes located at the bottom of some of the piles. The current capacity of the steel racks appears to be at their limit, and additional racks will be required in the near future, as the diamond core drilling progresses.

Figure 12:6 Core Shack Facilities



Source: Micon (2020)

Mr. Calles-Montijo had the opportunity to observe and discuss the core logging and sampling procedures applied by the Sonoro geological staff. In general, the methodology used agrees with best practices for exploration projects. Sonoro has begun to record geological information directly into a standardized computer template. The template records lithological, alteration and structural data as well as basic geotechnical parameters. Sampling information and QC control samples are directly loaded into the computer. Figure 12:7 shows the core logging and sampling facilities at the village of Cucurpe.

Figure 12:7 Core-Logging and Sampling Facilities



Source: Micon (2020)

Sonoro's geological staff are currently collecting some basic geotechnical parameters during the core logging, which includes core recovery, RQD, fracture intensity and hardness. Nevertheless, some of the criteria used for data collection were not fully in line with geotechnical criteria and need to be revised. A list of the corrected parameters was submitted to the field crews after the site visit for future implementation.

All core boxes are photographed at the end of the logging process in order to maintain an adequate record of the core.

The diamond drill cores drilled for metallurgical purposes were sent as whole core to the laboratory. For the remaining holes, half of the cores retained as witness cores are kept guarded at the core shack. During the 2020 site visit, three of the holes were selected for a quick review. Generally, drilled sections in most of the inspected holes seem to be very heterogeneous in lithological features, and show structural complexity.

The lithology descriptions on the inspected sections of the drill holes agreed with the core log sheet provided by Sonoro.

Six reject samples (Figure 12.8) were selected from the DDH for assay verification. Three of these reject samples were directly acquired by Mr. Calles-Montijo at the sample preparation facilities of BVI and other three reject samples collected at the preparation laboratory of ALS. Both laboratory facilities are located in the city of Hermosillo, Mexico. The samples were re-bagged and re-labeled and inserted into the same batch with the surface chips samples and duplicate RC chips.

All of the samples were then personally delivered by Mr. Calles-Montijo to the ALS facility in Hermosillo. Assays for the reject samples are listed in Table 12.3.

Figure 12:8 Reject Samples for Assay Verification



Source: Micon (2020)

Table 12:3 RC Reject Samples Results

RC Hole ID	Primary Laboratory	Original Sample ID	Duplicate ID	Au Original (ppm)	Au Duplicate (ppm)	Relative Diference
SCD-003	BVI	623064	625514	0.623	0.536	15%
		623127	625515	0.978	0.949	3%
		623270	625516	0.224	0.209	7%
SCD-016	ALS	623643	625517	0.789	0.726	8%
		623663	625518	1.477	1.47	0%
		623774	625519	9.753	8.33	16%
<b>AVERAGE</b>				<b>2.307</b>	<b>2.037</b>	<b>12%</b>

The samples sent to ALS were assayed according with the methods described in Table 12:4.

Table 12:4 ALS Sample Preparation and Assay Methodology

Stage	Method Code	Description
Sample Preparation	PREP-31	Crush to 70% less than 2 mm, riffle split off 250 g, pulverize split to better than 85% passing 75 microns
Gold Determination	Au-AA23	Au by fire assay and AAS. 30g
Multi-Element	ME-ICP41	Multi-Element analysis by Aqua Regia Digestion and ICP-AES Finish.

Source: ALS Geochemistry Fee Schedule 2020

Micon was satisfied that its 2020 check sampling of the mineralization in both surface and core samples confirmed the presence of gold mineralization with a similar tenor to that reported by Sonoro.

The QPs selected the assay methodology described in Table 12.4 to be consistent with the assay suite currently used by Sonoro. Nevertheless, the QPs suggest that Sonoro use a fire assay methodology that involves using a larger sample (50 g) and a digestion method using four acid for multi-element ICP-AES assays. The use of a screen metallic assay technique for significant samples/intervals is recommended in order to increase the level of confidence in assays, due the possible presence of coarse-free gold.

The dataset provided by Sonoro and used for the internal Resource Estimation were reviewed. The Database consists of three \*.csv files, which contains the collar, survey and sample data. Additionally, a lithology table (\*.xslm format) was incorporated and reviewed, but not considered during the generation of the geological model.

Data included in the \*.csv and/or \*.xslm files were reviewed by comparing the data with information provided in the field core logs and chips Tray/core boxes photos. Data were loaded in Target (Geosoft®) for ArcGIS® and a QA/QC routine applied. All findings were reviewed and corrected, when applied, before being delivered for the Resource Estimation model review.

Nineteen percent of the data contained in the collar table were revised and, in some cases, figures related to the hole depths were corrected. Ten percent of the survey data were revised with only minor differences identified.

Samples assays contained in the sample file were reviewed by comparing the entered values with values on the assay certificates. Approximately 16% of sample assays were revised for Au, with only minor differences identified.

### **12.3. Micon QP Comments**

In general, the QP's review of the material provided by Sonoro, its discussions with technical staff of Sonoro and the 2020 site visit observations in the field as well as several meetings in the offices in Hermosillo, found that the data provided were adequate for the purposes of preparing Technical Reports for the Cerro Caliche Property.

During the December 2020, site visit, the QP observed the heterogeneity in the lithologies as well as the structural complexity at the Project. The potential impact of these factor in both, metallurgical and mine design/planning are in process of being addressed by Sonoro.

The surface sampling conducted during the site visit confirmed the presence of Au mineralization on the surface, with values up to 4.36 ppm. Verification assays completed on RC chip duplicate samples collected from the field, and reject samples selected from both labs (ALS and BVI) indicate significant relative difference in results, up to 96% for field duplicates and averaging 12% in rejects from the laboratories. These differences need further study and to be rigorously evaluated, to define the source and apply corrective action, if necessary. This may be done by conducting a round robin with a well-controlled set of samples to evaluate the performance of both laboratories.

RC and diamond drilling, logging and sampling procedures observed during the site visit in 2020, appear to be aligned with the standard procedures currently used in the industry and in line with exploration best practices. The QP recommends a review of existing standard operative procedures to adjust the QA/QC procedures and include some additional topics related to rock mechanics and determination of bulk density.

It was noted that data related to bulk density were not part of the regular protocols during core logging. The lack of this information was resolved after the site visit, with the collection of data on both existing witness core holes and by collecting samples from historical mining workings in the area. Due to the importance of bulk density in the evaluation of the mineral resources, it was suggested to include a systematic collection of bulk density data in any future core drilling programs.

Lithological descriptions from diamond and RC samples appear to be incongruent, describing the intercalation of granitoids with sediments. Based on the observed geological setting during the site visit, it is quite possible that rocks described as granitoids could be related to cataclastic rocks (mylonites) derived from the metasediments. It is recommended that a petrographic study be undertaken in order to further define the diverse rock types that occur in the Project area.

The current dataset is contained in excel and/or \*.csv files. The current system results are highly vulnerable to incidental changes, deleting or unwanted modification and are not really adequate at the current level of the Project given the amount of information being generated. The system of storage for the QC data results are impractical for an adequate and timely evaluation. In addition, some relevant information collected during the core and/or RC chip logging, has not been properly organized. Several of that information (alteration, structural, lithologies, etc.) should be of relevant importance to the definition of domains, for both the adequate estimation of resources/reserves, as well as the mine design/mine plan and metallurgical process. The QP recommend the establishment of a well-supported database and data management system for the optimization of all the current and future information that will be generated at the Project.

#### **12.4. D.E.N.M. Site Visit**

During the July 28, 2021 site visit, discussions were held with Sonoro as to location and details of the selected metallurgical core for the PEA testing carried out at McClelland. Visual inspection of some of the metallurgical drill locations was done during this time.

The testing program was conducted on 52 drill core composites made from 428 lineal metres of PQ drill core (10 drill holes). The drill core represented material from five (5) major zones and included stockwork and vein breccia material. These zones included:

- Japoneses
- Cuervos
- El Colorado
- Cabeza Banca
- Buena Suerte

Mineralization at Cerro Caliche consists of a low sulfidation epithermal system consisting of numerous veins accompanied by structural stockwork zones along the veins. Mineralization structures are characterized by pervasive silicification, replacement and open space filling silica veining and brecciation. This vein-stockwork system strikes NW 330 to 350 deepening to the NE. North striking veins of lesser width and length crosscut the northwest striking veins.

Current exploration drilling done by Sonoro has confirmed, in this structurally controlled zone, shallow oxidized potentially economic gold-silver mineralization in volumes potentially minable. The drilling has shown that oxidization is pervasive well beyond 100 metres depth.

The mineralization characteristics of Caliche zones calls to distinguish between two distinct metallurgical domains hosting precious metal mineralization:

- Vein quartz structures of variable thickness, from 0.10 to 5 mt, with variable textures, from massive and closed quartz with some vuggy quartz zones to gray quartz with scarce presence of sulfides, mostly pyrite and occasionally galena. Most of the times the vein structures are related to fault zones creating breccia and silicified zones at the roof and floor of the structures.
- Stockwork mineralization with relative lower gold grade average. These are zones with erratic and irregular quartz narrow veinlets from 0.01 to 0.20 mt width, sometimes with breccia and cracked textures. These veinlets or stockwork are commonly related to silicified and oxidized zones in the hosted rock and occasionally with disseminated fresh or oxidized pyrite.

Position differentiation between these two domains:

- Close to surface mineralization.
- Deeper mineralization.

Oxides

- Caliche RC and Core Drilling has shown that mineralization throughout the zone is oxidized as deep as the drilling has gone.

During the year 2019 column testing was done on samples from the two domains obtained from sites on or close to the surface. These specifics of these are detailed in Section 13 of this report. In general, these tests found that the mineralization tested was susceptible to cyanide leaching, showing consistent gold recoveries in the level of 72% in the rock crushed to minus ½”.

As part of the PEA metallurgical 2020-2021 program, it was decided to conduct a metallurgical program to test the response to cyanidation of deeper mineralization samples obtained from a core drilling program.

With that purpose a total of 428 mts from 10 PQ core holes drilled in 6 major zones to obtain representative samples at depth from the two previously described domains. A total of approximately 5,700 kg of mineralized material were obtained from these 10 PQ holes. Table 12:5 shows the identification of each sample, including domain and length of each sample.

Table 12:5 Metallurgical Core Sample Details

Groups	Area	Hole ID	From	To	Structure	Length
			m	m		m
<b><u>Group 1</u></b>	JAPONESES	SCD-004	0.00	7.30	VEIN-BRECCIA	7.30
			7.30	16.90	STOCKWORK	9.60
			16.90	18.42	VEIN-BRECCIA	1.52
			18.42	27.40	STOCKWORK	8.98
			27.40	35.10	VEIN-BRECCIA	7.70
			35.10	44.30	STOCKWORK	9.20
<b><u>Group 2</u></b>	CUERVOS	SCD-006	0.00	13.40	STOCKWORK	<b>13.40</b>
			13.40	15.80	VEIN-BRECCIA	<b>2.40</b>
			15.80	22.80	STOCKWORK	<b>7.00</b>
			22.80	26.60	VEIN-BRECCIA	<b>3.80</b>
	CUERVOS	SCD-007	35.50	48.90	VEIN-BRECCIA	<b>13.40</b>
			48.90	52.10	STOCKWORK	<b>3.20</b>
<b><u>Group 3</u></b>	EL COLORADO	SCD-008	52.10	55.10	VEIN-BRECCIA	<b>3.00</b>
			36.35	41.70	VEIN-BRECCIA	5.35
			81.50	97.80	STOCKWORK	16.30
<b><u>Group 4</u></b>	CABEZA BLANCA	SCD-009	97.80	113.65	VEIN-BRECCIA	15.85
			0.00	4.35	STOCKWORK	<b>4.35</b>
			4.35	7.80	VEIN-BRECCIA	<b>3.45</b>
	CABEZA BLANCA	SCD-010	7.80	10.00	STOCKWORK	<b>2.20</b>
			0.00	2.95	STOCKWORK	<b>2.95</b>
			2.95	9.85	VEIN-BRECCIA	<b>6.90</b>
<b><u>Group 5</u></b>	JAPONESES	SCD-012	9.85	24.15	STOCKWORK	<b>14.30</b>
			0.00	62.50	STOCKWORK	<b>62.50</b>
	JAPONESES	SCD-013	0.00	35.65	STOCKWORK	<b>35.65</b>
			35.65	38.95	VEIN-BRECCIA	<b>3.30</b>
			38.95	50.00	STOCKWORK	<b>11.05</b>
JAPONESES	SCD-014	0.00	101.00	STOCKWORK	<b>101.00</b>	
<b><u>Group 6</u></b>	BUENA SUERTE	SCD-022	0.00	38.00	STOCKWORK	<b>38.00</b>
			51.00	59.05	STOCKWORK	<b>8.05</b>

Source: Sonoro Gold (2021)

## **13. MINERAL PROCESSING AND METALLURGICAL TESTING**

### **13.1. Summary of Metallurgical Testing**

Sonoro Gold Corp. had performed preliminary metallurgical test work on the Cerro Caliche material completed by Interminera, Hermosillo, Mexico in 2019 – 2020. The study areas for this testing were superficial samples from two (2) specific areas, Cuevos and Japoneses East zones. The highlights of this are noted in the following section below and referenced accordingly. In this test program, it should be noted that no attention to silver recovery was addressed.

As part of this PEA, a more detailed test program was instigated at McClelland in 2020 to 2021 to test for mineralogical characterization for the column test composites and load permeability testing of the column residues of the Cerro Caliche zones. The samples for this work were selected by Sonoro Gold Inc. on 52 drill core composites from the five (5) major areas – Japoneses, Cuervos, El Colorado, Cabeza Banca, and Buena Suerte and included stockwork and vein breccia material types. The detailed results of this program at McClelland are noted again, in the following sections.

### **13.2. Summary of Column Leach Study**

#### **Superficial Samples of Mineralized Material (2019 – 2020)**

The study areas for the testing were from only two (2) areas as noted, Cuevos and Japoneses East, and conducted on standard leach cyanide procedures. The scope of work completed at Interminera included site sampling, associated sample preparation and assays, particle size analysis, and cyanide column leaching testing.

Column testing started with twelve (12) columns with approximately 800 kg of samples loaded in each column. Prior to loading, all material was two (2) stage crushed to – 1-in. (-25.4 mm) and analyzed for particle size distribution and assays. Two sizes of columns were utilized in the testing:

- 32-in. dia. (0.85 mt.) for the veinlet samples – high capacity and low grade
- 22-in. dia. (0.58 mt.) for the vein samples – less capacity and high grade.

As per standard practice, bottle rolls testing was completed to determine base operating parameters for the columns.

Column Testing parameters were as follows:

- Solution pH of 10.5-11.0, sodium cyanide (NaCN) addition of 0.5 gm/L (500 ppm)
- Irrigation rate of 3.4 liters per hour per square metre
- Daily analysis of solution for gold assay, free cyanide, and pH
- Columns operated for 55-67 days plus 5 days for drain and wash cycles.
- Leached residues were screened and assayed accordingly.

### 13.2.1. Cyanide Test Column Results

A results summary of the column test columns is shown in Table 13.1 below:

Table 13:1 Results of Column Cyanidation Tests

Zone	Japoneses						Cuervos					
Mineralization	Veinlets			Veins			Veinlets			Veins		
Sample	A	B	C	D	E	F	J	K	L	G	H	I
Leaching days	55	55	67	67	67	67	67	67	67	67	67	67
Au Recovery - process	31.2%	33.5%	44.7%	61.9%	67.5%	63.4%	76.4%	66.0%	71.2%	59.1%	61.9%	65.4%
Au Recovery - balance	46.8%	44.2%	31.1%	80.4%	81.5%	82.9%	83.2%	80.8%	75.4%	80.9%	84.4%	72.7%
CN – kg/t	0.42	0.51	0.43	0.88	0.79	0.90	0.65	0.67	0.72	0.96	0.87	0.88
NaOH – L/t	0.59	0.67	0.68	1.55	1.57	1.57	0.92	0.92	0.93	1.27	1.26	1.39
Sample size <1/2"	44.7%			67.5%			76.4%			65.4%		
Gold - g/t	1.261			4.506			1.395			3.311		

Source: Interminera (2020)

- Japoneses and Cuervos veins and Cuervos veinlets recoveries ranged from 59.1 % to 76.4 % (solution based).
- Japoneses veinlets low recovery of approximately 36 % can be attributed to the particle size distribution this indicating a strong correlation between gold recovery and crush size – i.e particle size distribution.

### 13.2.2. Particle Size Distribution – Head Analysis

As noted above, the samples were crushed to a one-inch size (25.4 mm) and screened accordingly. Head size distribution and gold content of the samples are shown in Table 13:2 to Table 13:5 showing elevated grades of the veins and veinlets.

Table 13:2 Japoneses Veinlets - Particle Size Distribution & Gold Content

Screen Analysis - Head		Certificate BV - HMS19000305			
Size	Weight (kg)	%	FA Assay (g/t) Au	Content (g) Au	Content (%) Au
+1/2"	1389	42.08	1.37	1.899	45.61%
+1/4"	864.99	26.20	1.14	0.986	23.68%
+1/8"	266.01	8.06	1.11	0.295	7.09%
-1/8"	780.99	23.66	1.26	0.983	23.62%
Total =	3300.99	100	1.261	4.163	100%

Source: Interminera (2020)

Table 13:3 Japanese Veins - Particle Size Distribution and Gold Content

Screen Analysis - Head		Certificate BV - HMS19000305			
Size	Weight (kg)	%	FA Assay (g/t) Au	Content (g) Au	Content (%) Au
+1/2"	462.00	34.53	5.798	2.679	44.43%
+1/4"	420.00	31.39	3.048	1.280	21.23%
+1/8"	111.00	8.30	3.865	0.429	7.12%
-1/8"	345.00	25.78	4.756	1.641	27.22%
<b>Total =</b>	<b>1338.00</b>	<b>100</b>	<b>4.506</b>	<b>6.029</b>	<b>100%</b>

Source: Interminera (2020)

Table 13:4 Cuervos Veins - Particle Size Distribution and Gold Content

Screen Analysis - Head		Certificate BV - HMS19000305			
Size	Weight (kg)	%	FA Assay (g/t) Au	Content (g) Au	Content (%) Au
+1/2"	327.00	26.08	4.00	1.307	31.48%
+1/4"	483.00	38.52	3.20	1.548	37.28%
+1/8"	96.00	7.66	2.93	0.281	6.76%
-1/8"	348.00	27.75	2.92	1.016	24.48%
<b>Total =</b>	<b>1254.00</b>	<b>100</b>	<b>3.311</b>	<b>4.152</b>	<b>100%</b>

Source: Interminera (2020)

Table 13:5 Cueros Veinlets - Particle Size Distribution and Gold Content

Screen Analysis - Head		Certificate BV - HMS19000305			
Size	Weight (kg)	%	FA Assay (g/t) Au	Content (g) Au	Content (%) Au
+1/2"	810.00	30.79	1.24	1.004	27.34%
+1/4"	816.00	31.01	1.25	1.018	27.74%
+1/8"	219.00	8.32	1.49	0.326	8.87%
-1/8"	786.00	29.87	1.68	1.324	36.05%
<b>Total =</b>	<b>2631.00</b>	<b>100</b>	<b>1.395</b>	<b>3.671</b>	<b>100%</b>

Source: Interminera (2020)

- During the sample preparation and crushing it was noted the rock was “hard” with difficult production of – ¼ -in material.

### 13.2.3. Tail Size Distribution and Gold Content

The resultant tails residue was screened and assayed for remaining gold content in each of the zones and average accordingly for the zone columns. The results are shown in Table 13:6 – Table 13:9.

Table 13:6 Japanese Veinlets - Tail Sample Size Distribution and Gold Content

Screen Analysis - Tails		Certificate BV - HMS19000597			
Size	Weight (kg)	%	FA Assay (g/t)	Content (g)	Content (%)
			Au	Au	% Au
+1/2"	312.83	43.66	0.88	0.275	19.83%
+1/4"	168.17	23.47	0.73	0.122	8.81%
+1/8"	28.67	4.00	0.58	0.017	1.19%
-1/8"	236.17	32.96	0.62	0.146	10.54%
<b>Total =</b>	<b>745.83</b>	<b>Ley =</b>	<b>0.751</b>	0.560	40%

Source: Interminera (2020)

Table 13:7 Japanese Veins - Tail Sample Size Distribution and Gold Content

Screen Analysis - Tails		Certificate BV - HMS20000609			
Size	Weight (kg)	%	FA Assay (g/t)	Content (g)	Content (%)
			Au	Au	% Au
+1/2"	156.67	37.04	0.86	0.135	6.72%
+1/4"	22.67	5.36	0.81	0.018	0.91%
+1/8"	141.83	33.53	0.91	0.129	6.41%
-1/8"	152.87	36.14	0.73	0.112	5.57%
<b>Total =</b>	<b>474.03</b>	<b>Ley =</b>	<b>0.831</b>	0.394	20%

Source: Interminera (2020)

Table 13:8 Cuervos Veins - Tail Sample Size Distribution and Gold Content

Screen Analysis - Tails		Certificate BV - HMS20000609			
Size	Weight (kg)	%	FA Assay (g/t)	Content (g)	Content (%)
			Au	Au	% Au
+1/2"	112.53	27.56	0.843	0.095	6.85%
+1/4"	21.83	5.35	0.554	0.012	0.87%
+1/8"	130.67	32.00	0.585	0.076	5.52%
-1/8"	134.50	32.94	0.707	0.095	6.87%
<b>Total =</b>	<b>399.53</b>	<b>Ley =</b>	<b>0.697</b>	0.278	20%

Source: Interminera (2020)

Table 13:9 Cuervos Veinlets - Tail Sample Size Distribution and Gold Content

Average Screen Analysis - Tails **Certificate BV - HMS19000597**

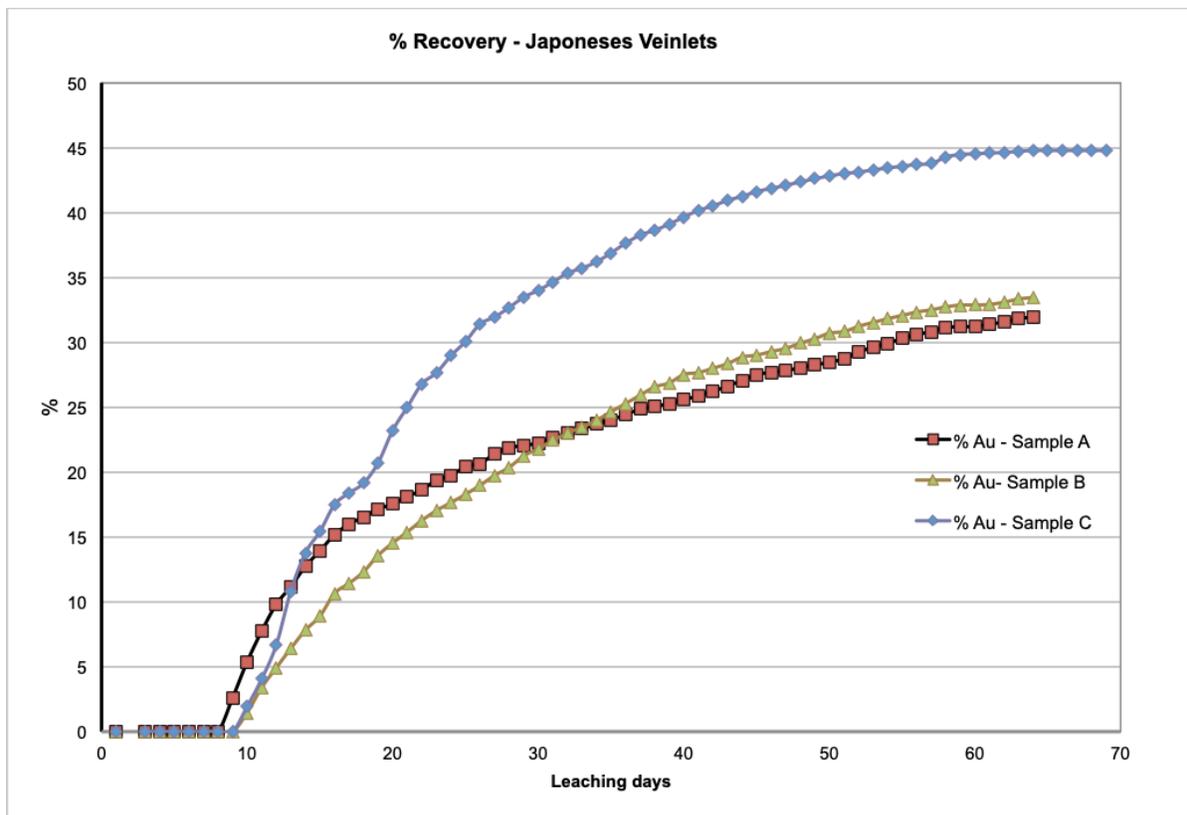
Size	Weight (kg)	%	FA Assay (g/t)		Content (%)	
			Au	Au	Au	% Au
+1/2"	169.33	23.36	0.25	0.042	3.46%	
+1/4"	246.83	33.88	0.28	0.068	5.59%	
+1/8"	34.83	4.78	0.66	0.023	1.86%	
-1/8"	273.83	37.59	0.29	0.078	6.41%	
<b>Total =</b>	<b>724.83</b>	<b>Ley =</b>	<b>0.292</b>	<b>0.212</b>	<b>17%</b>	

Source: Interminera (2020)

### 13.2.4. Column Test Results

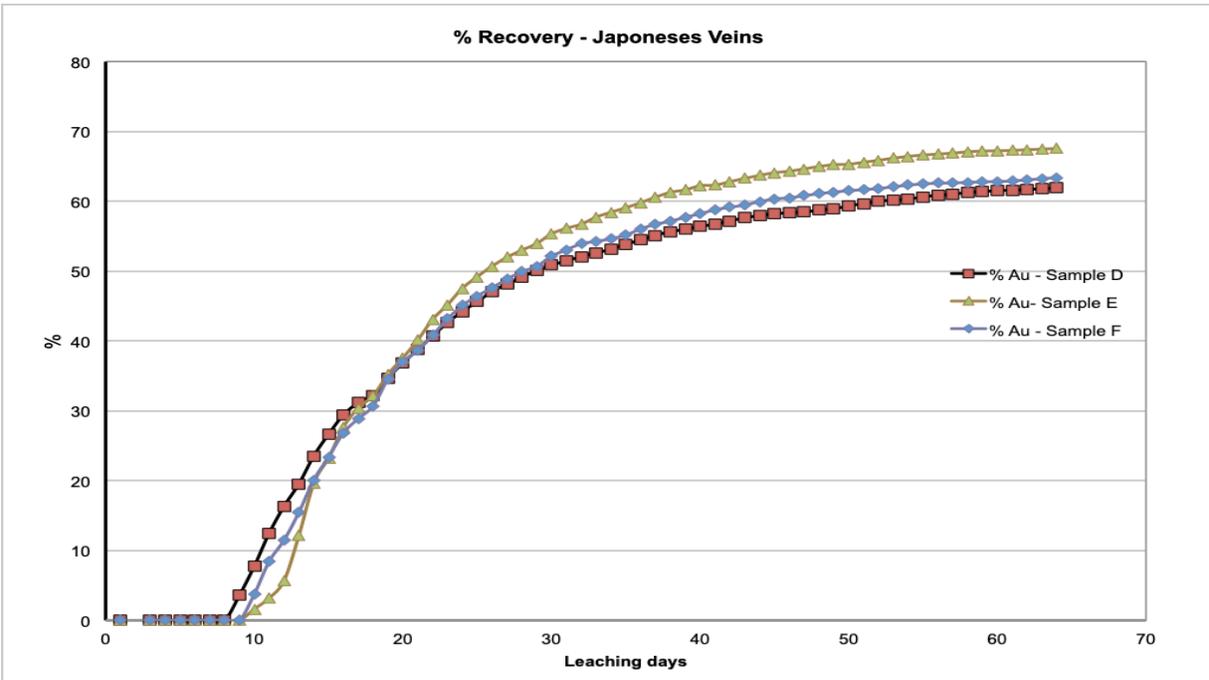
The following figures present gold recovery over the leach cycle time for the four (4) zones and types.

Figure 13:1 Column Leach Study on Japanese Veinlets Samples



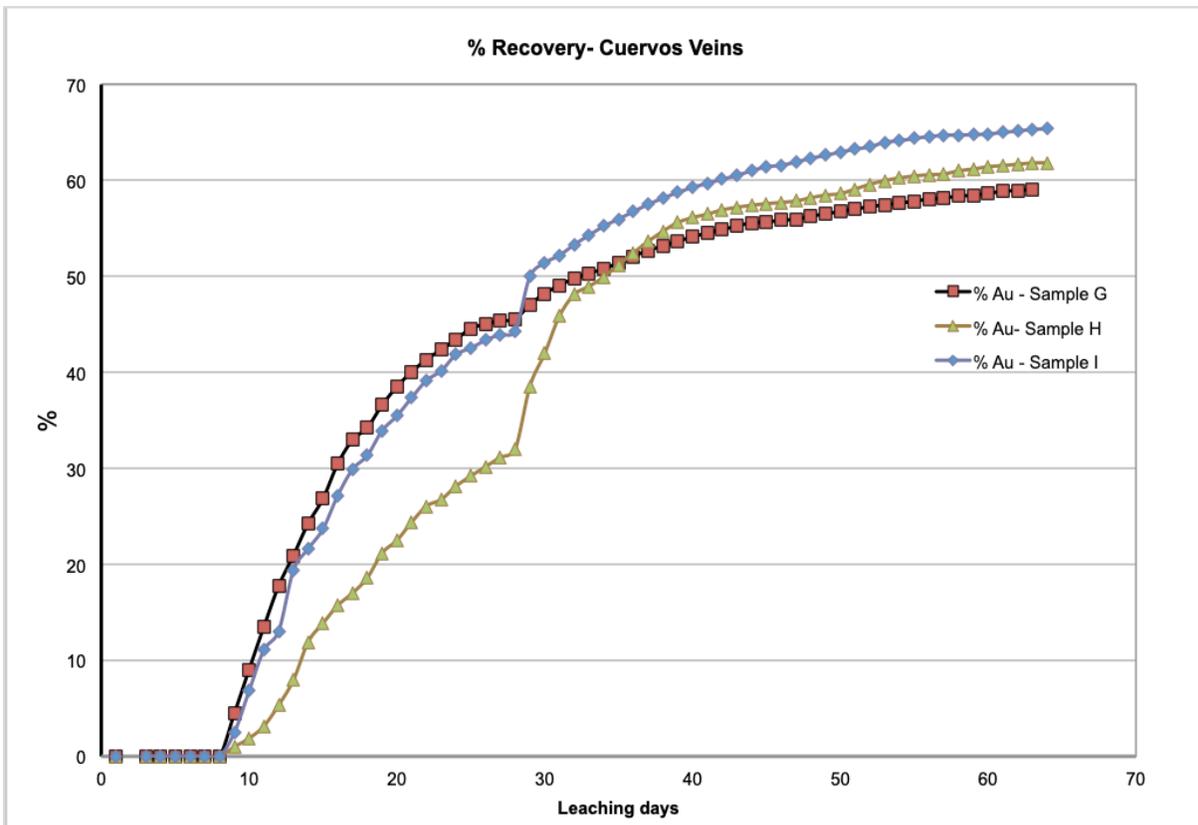
Source: Interminera (2020)

Figure 13:2 Column Leach Study on Japanese Vein Samples



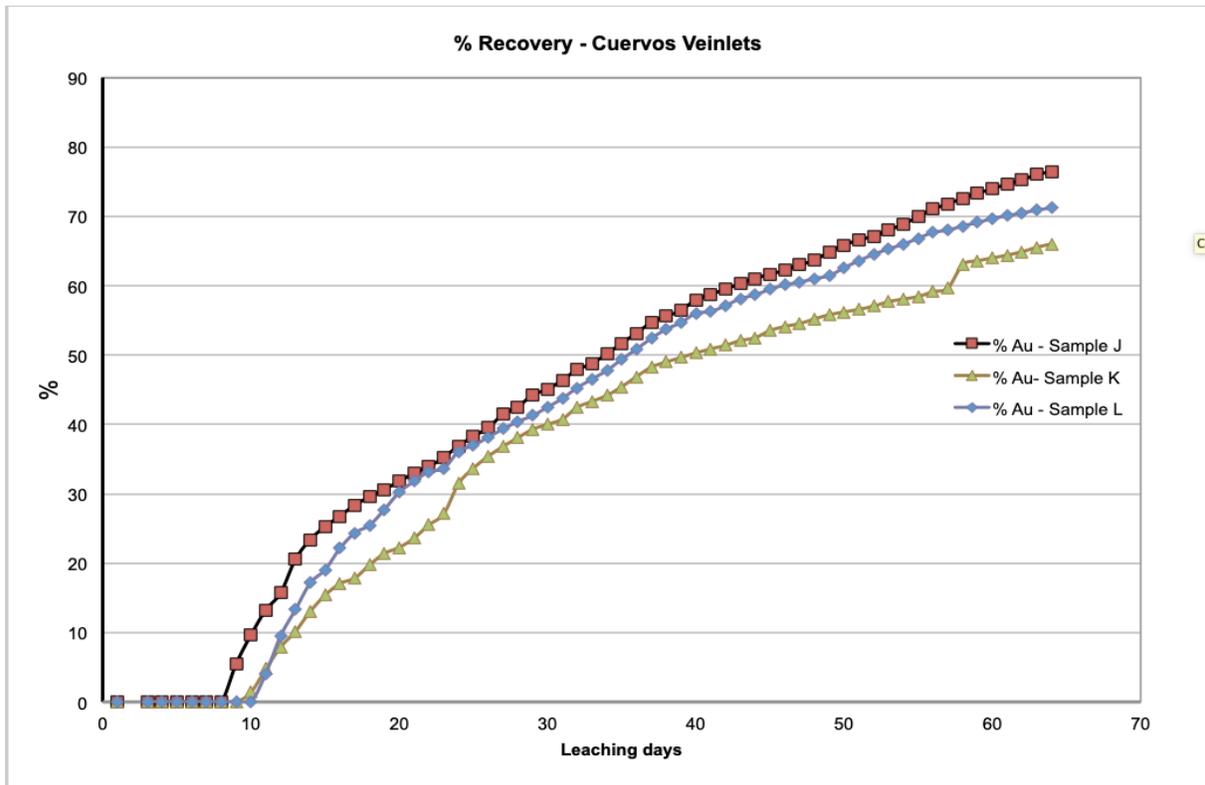
Source: Interminera (2020)

Figure 13:3 Column Leach Study on Cuervos Vein Samples



Source: Interminera (2020)

Figure 13:4 Column Leach Study on Cuervos Veinlets Samples



Source: Interminera (2020)

### 13.2.5. Conclusions and Recommendations – Interminera (2020)

- Crushing size did impact gold liberation and its extraction as expected. It is recommended to crush at particle size P80 ½” for higher gold recovery.
- Due to rock hardness, it is recommended to do comminution testing such as:
  - Abrasion Index test for Crusher Liners.  $(Ai+0.22)/11=lb/KWh$
  - Crushability Index test to calculate net power requirements.
- Gold content by size fraction shows that gold liberation is proportional to crushing rate. Mineralogical testing could confirm that gold is not refractory, free and fine.
- Solution percolation through the heap is good. Solution obstructions were not observed on any of the columns.
- Low irrigation flow rate (around 3.4 liters per hour per square metre) is recommended for this mineral due to the low grade to fines generated. This will allow an optimal contact time with the mineralized material.
- Crushed rock presented good porosity despite its hardness.
- Low compaction rate of 2% resulted on studied mineralized materials, it is beneficial for heap leaching operations.
- Medium and high consumption of reagents (NaCN – 0.65 kg/t – 0.90 kg/T) (NaOH – 0.65 L/t – 1.56 l/T) is due to the other minerals presented on the mineralization such as

Fe, Mn, Mg and Zn.

- This mineralized material has a good response to cyanidation and it has good conditions for a heap leaching process albeit additional optimization testwork is very prudent for the project.
- Additional metallurgical testing of gold adsorption in activated carbon is recommended to cover the evaluation of gold extraction for the whole process.
- Recovery rate for vein samples (high gold grade) shows that 80% of the extraction is done within the first 30 days and the rest is extracted within the next 30 days.
- Recovery rate for veinlets samples (low gold grade) shows that there is constant extraction that continues after 60 days. It is recommended to extend testing for 90 days to determine the total extraction. More recovery is expected for Cuervos Veinlets samples.

Complete details of the Interminera results are illustrated in the noted reference.

### **13.3. McClelland Heap Leach Testing (2020-2021)**

Sonoro commenced work on a PEA in 2020 to qualify the Cerro Caliche resources as well as advance and determine the metallurgy from previous testing completed by Interminera. A metallurgical testing program was developed and carried out at McClelland. Specific attention for the PEA testing was to determine specific crushing and heap leaching parameters of the resource. The testing program was conducted on 52 drill core composites made from 428 lineal metres of PQ drill core (10 drill holes). The drill core represented material from five (5) major zones and included stockwork and vein breccia material.

These zones included:

- Japoneses
- Cuervos
- El Colorado
- Cabeza Banca
- Buena Suerte

Core was hand sampled, crushed, split, and assayed in 2-metre lengths to determine both, gold and silver content. Any intervals over > 0.15 gm/m<sup>3</sup> Au were analyzed using the cyanide shake procedure to determine cyanide soluble gold and silver content.

Bottle roll testing on forty-three (43) variability composites were prepared from drill core intervals for detailed head analysis at an 80 % - 1.7 mm. feed size. Again, the bottle roll work was to obtain preliminary information for amenability for heap leaching and associated variability. Column leach tests were conducted on nine (9) composites (after bottle roll testing) at two specific feed sizes – a.) – 50 mm and b.) 80 % - 12.5 mm. The finer crush size was recommended from the Interminera testwork to increase overall recovery.

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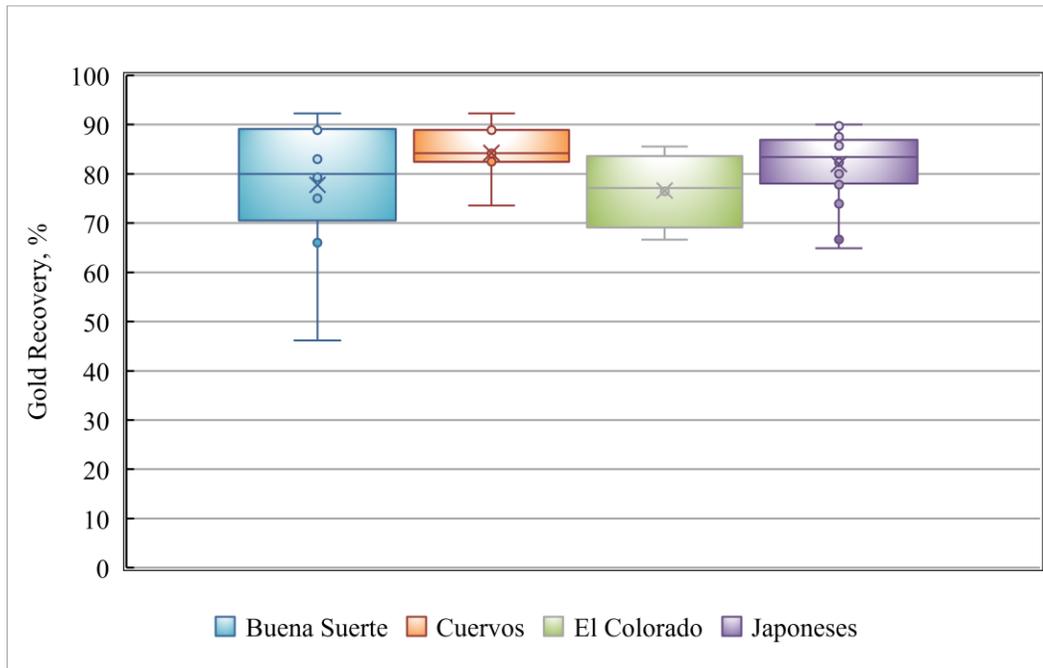
Summary results from the variability composite bottle rolls are shown in Table 13:10 and Figure 13:5 and Figure 13:6. Overall composite summary results from column leach tests and bottle roll tests are shown in Table 13:11.

Table 13:10 Variability Bottle Roll Test Results Summary

Composites, 80% - 1.7 mm feed Size									
Ore Zone/	Number	Drill		Au Rec.,	Head Grade,	Ag Rec.,	Head Grade,	NaCN Cons.,	Lime, Added
Ore Type	Comps.	Holes		%	gAu/mt	%	gAg/mt	kg/mt	kg/mt
Buena Suerte	7	1	Maximum:	89.3	2.09	57.1	21.6	0.20	5.3
			<b>Average:</b>	<b>74.1</b>	<b>0.73</b>	<b>26.8</b>	<b>4.3</b>	<b>0.14</b>	<b>3.1</b>
			Minimum:	46.2	0.13	11.1	0.7	<0.10	1.1
Cuervos	7	2	Maximum:	92.3	2.46	58.1	11.7	1.98	2.8
			<b>Average:</b>	<b>73.6</b>	<b>0.90</b>	<b>43.2</b>	<b>6.2</b>	<b>0.42</b>	<b>2.0</b>
			Minimum:	82.3	0.13	29.4	3.2	<0.10	1.0
El Colorado	5	1	Maximum:	85.6	0.90	29.8	4.7	0.28	3.2
			<b>Average:</b>	<b>75.8</b>	<b>0.44</b>	<b>18.0</b>	<b>2.6</b>	<b>0.15</b>	<b>2.1</b>
			Minimum:	66.7	0.11	9.1	1.3	<0.10	1.3
Japoneses	24	3	Maximum:	90.0	2.21	39.2	24.7	0.27	6.0
			<b>Average:</b>	<b>82.0</b>	<b>0.48</b>	<b>24.5</b>	<b>5.7</b>	<b>0.16</b>	<b>1.8</b>
			Minimum:	64.9	0.03	9.1	1.1	<0.10	0.7
Stockwork	33	6	Maximum:	92.3	2.09	58.1	21.6	0.22	6.0
			<b>Average:</b>	<b>80.1</b>	<b>0.43</b>	<b>25.3</b>	<b>4.6</b>	<b>0.14</b>	<b>2.1</b>
			Minimum:	46.2	0.03	9.1	0.7	<0.10	0.7
Vein Breccia	18	2	Maximum:	89.7	2.46	44.4	24.7	0.28	4.2
			<b>Average:</b>	<b>80.2</b>	<b>1.31</b>	<b>31.6</b>	<b>7.9</b>	<b>0.19</b>	<b>2.1</b>
			Minimum:	73.6	0.18	9.1	1.9	<0.10	1.2
All Samples	43	7	Maximum:	92.3	2.46	58.1	24.7	1.98	6.0
			<b>Average:</b>	<b>80.4</b>	<b>0.59</b>	<b>27.2</b>	<b>5.2</b>	<b>0.19</b>	<b>2.1</b>
			Minimum:	46.2	0.03	9.1	0.7	<0.10	0.7

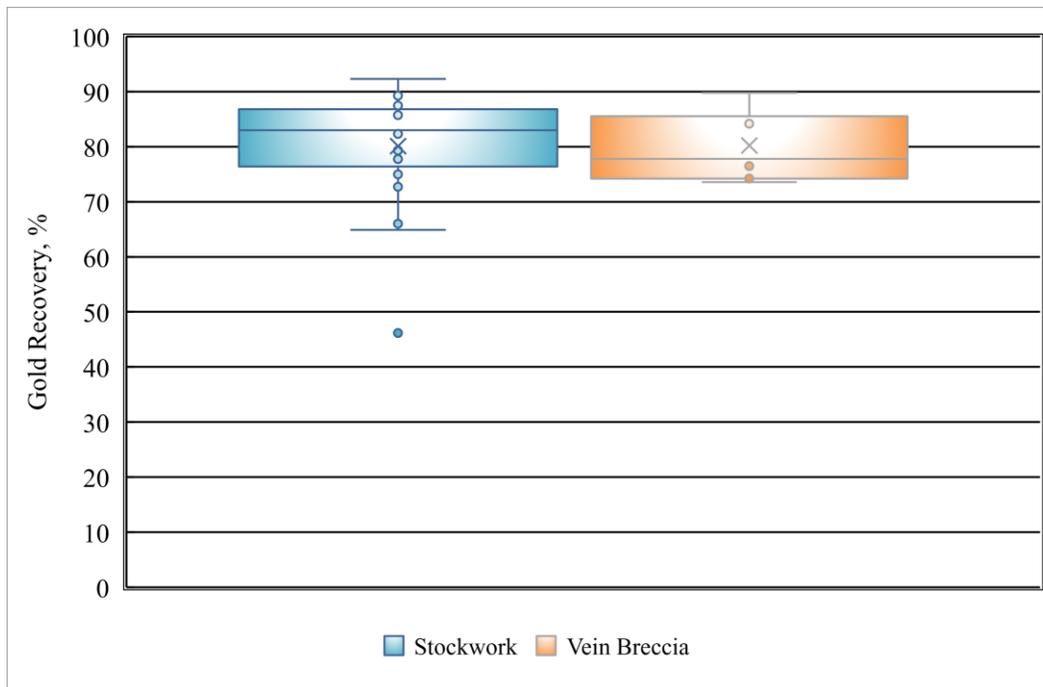
Source: MLI (2021)

Figure 13:5 Au Recovery - Bottle Roll Tests  
 (Variability Composites, 80% - 1.7mm Feed Size)



Source: MLI (2021)

Figure 13:6 Au Recovery, Bottle Roll Tests  
 (Variability Composites, 80 % -1.7 mm Feed Size)



Source: MLI (2021)

Bottle Roll Testing and Variability Testing Summary and Conclusions as follows:

- Variable head grades – 0.03 to 2.29 gm/T Au, 5.0 gm/T Ag
- Five composites were greater than 10 gm/T Au
- Gold cyanide solubility was greater than 40 % for all composites and averaged 64.4%
- Mineralogical analysis on the nine composites showed predominantly quartz with lesser amount of feldspar.
- Bottle roll testing that all composites were amenable to cyanide leaching with gold recovery over 65 % except in one composite. The variability composites contained little to no sulphide sulphur and little to no organic carbon. No signs of refractory behavior or preg-robbing were observed during the testing.
- Average gold recovery was 80.4 % but with elimination of the low-grade composites (0.15 g/t Au), average recovery improved to 81.3%
- Gold recoveries for the four (4) major mineralized zones were consistently high with an average of 74% or greater.
- Silver recoveries were low and average 27.2%
- Reagent additions were generally low – NaCN addition averaged 0.16 kg/T (with one exception) with lime addition between 1.8-2.1 kg/T

Table 13:11 Column Test Drill Core Composites Results

Feed Size	Test Type	Leach/Rinse Time, Days	Au Rec., %	gAu/mt Mineral Zone				Reagent Req., kg/mt Mineral Zone	
				Ext'd.	Tail	Calc'd. Head	Avg. Head	NaCN Cons.	Lime Added
<b>Comp. 044, Vein Breccia Mineralization Type, El Col./Jap. Mineral Zone, Drill Hole SCD-004 / 008, Only Vn Comp.</b>									
100%-50mm	CLT	99	57.6	0.57	0.42	0.99	0.77	0.95	2.3
80%-12.5mm	CLT	89	78.4	0.58	0.16	0.74	0.77	0.80	2.3
80%-1.7mm	BRT	4	80.6	0.58	0.14	0.72	0.77	0.13	2.1
<b>Comp. 045, Stockwork Mineralization Type, Cuervos Mineral Zone, Drill Hole SCD-006 / 007</b>									
100%-50mm	CLT	98	55.8	0.29	0.23	0.52	0.45	0.41	2.4
80%-12.5mm	CLT	90	72.3	0.34	0.13	0.47	0.45	0.53	2.4
80%-1.7mm	BRT	4	85.7	0.36	0.06	0.42	0.45	0.61	1.9
<b>Comp. 046, Mixed Mineralization Type, Cuervos Mineral Zone, Drill Hole SCD-006 / 007</b>									
100%-50mm	CLT	98	67.3	0.72	0.35	1.07	1.30	0.56	1.9
80%-12.5mm	CLT	90	61.3	1.03	0.65	1.68	1.30	0.77	1.9
80%-1.7mm	BRT	4	83.6	1.07	0.21	1.28	1.30	1.01	1.2
<b>Comp. 047, Stockwork/Mixed Mineralization Type, Cabeza Blanca Mineral Zone, Drill Hole SCD-009, Only CB Comp.</b>									
100%-50mm	CLT	91	66.1	0.41	0.21	0.62	0.64	0.34	2.1
80%-12.5mm	CLT	97	78.6	0.44	0.12	0.56	0.64	0.44	2.1
80%-1.7mm	BRT	4	84.1	0.53	0.10	0.63	0.64	<0.10	1.6
<b>Comp. 048, Stockwork Mineralization Type, Japoneses Mineral Zone, Drill Hole SCD-012</b>									
100%-50mm	CLT	110	81.5	0.22	0.05	0.27	0.24	0.35	1.8

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Feed Size	Test Type	Leach/Rinse Time, Days	Au Rec., %	gAu/mt Mineral Zone				Reagent Req., kg/mt Mineral Zone	
				Ext'd.	Tail	Calc'd. Head	Avg. Head	NaCN Cons.	Lime Added
80%-12.5mm	CLT	97	83.3	0.20	0.04	0.24	0.24	0.40	1.8
80%-12.5mm	CLT	97	77.8	0.21	0.06	0.27	0.24	0.46	1.8
80%-1.7mm	BRT	4	78.3	0.18	0.05	0.23	0.24	0.14	1.6
<b>Comp. 049, Stockwork/Mixed Mineralization Type, Japaneses Mineral Zone, Drill Hole SCD-013</b>									
100%-50mm	CLT	103	69.2	0.27	0.12	0.39	0.41	0.32	1.3
80%-12.5mm	CLT	89	71.4	0.30	0.12	0.42	0.41	0.42	1.3
80%-1.7mm	BRT	4	85.7	0.36	0.06	0.42	0.41	0.13	1.2
<b>Comp. 050, Stockwork Mineralization Type, Japaneses Mineral Zone, Drill Hole SCD-014, Shallow</b>									
100%-50mm	CLT	89	53.6	0.15	0.13	0.28	0.32	0.47	1.7
80%-12.5mm	CLT	89	71.0	0.22	0.09	0.31	0.32	0.52	1.7
80%-1.7mm	BRT	4	76.9	0.30	0.09	0.39	0.32	0.16	1.7
<b>Comp. 051, Stockwork Mineralization Type, Japaneses Mineral Zone, Drill Hole SCD-014, Deep</b>									
100%-50mm	CLT	96	71.4	0.15	0.06	0.21	0.21	0.30	1.4
80%-12.5mm	CLT	95	78.9	0.15	0.04	0.19	0.21	0.36	1.4
80%-1.7mm	BRT	4	85.7	0.18	0.03	0.21	0.21	0.15	1.4
<b>Comp. 052, Stockwork Mineralization Type, Buenas Suerte Mineral Zone, Drill Hole SCD-022, Only Buenas Suerte Comp.</b>									
100%-50mm	CLT	98	70.1	0.47	0.20	0.67	0.76	0.74	3.1
80%-12.5mm	CLT	90	71.1	0.54	0.22	0.76	0.76	0.64	3.1
80%-1.7mm	BRT	4	74.7	0.62	0.21	0.83	0.76	0.12	3.3

Source: MLI (2021)

Column Leach Testing Summary and Conclusions as follows:

- All nine (9) composites were amenable to simulated heap leach cyanide treatment and as noted above, contained little to no sulfide sulphur and little to no organic carbon. No signs of refractory behavior or preg-robbing.
- Gold recoveries obtained at the -50 mm (coarse) feed size ranged from 53.6% - 81.5 % with an average of 65.8% after 100 days of leaching and rinsing.
- Gold recoveries obtained at the 80% -12.5 mm (fine) feed size ranged from 61.3% - 80.6% with an average of 73.7% after 90 days of leaching and rinsing.
- The finer crush size improved average gold recovery by 8 %
- Gold recovery rates (profiles) were moderate and was very slow when leaching was terminated – longer leaching cycles should improve gold recovery albeit incrementally.
- Cyanide consumption was < 0.5 kg/T for the -50 mm feed while consumption for 12.5 mm feed ranged from 0.36 kg/T – 0.80 kg/T and average 0.55 kg/mt
- Silver recovery was low and averaged 27 %
- Hydraulic conductivity tests were conducted on the 12.5 mm feed size leached residue to determine mineralization permeability under simulated heap stacks of up to 100 mt. Samples tested show adequate permeability for heap leaching to 100 metre height, without

agglomeration pre-treatment. One exception was the Buena Suerte composite which had elevated clay content and would be limited to 40 mt. stack height without blending.

### 13.3.1. Head Analysis Results and Cyanide Solubility Results

Table 13:12 Cyanide Solubility Variability Composites Results

Composite	gAu/mt Mineralization		CN Sol	gAg/mt Mineralization		CN Sol
	Assay	CN Sol	%, Au	Assay	CN Sol	%, Ag
4628-001	2.56	1.92	75.0	24.7	19.35	78.3
4628-002	1.25	1.00	80.0	10.1	5.94	58.8
4628-003	0.21	0.09	42.9	6.3	3.14	49.8
4628-004	0.38	0.23	60.5	4.5	1.75	38.9
4628-005	0.62	0.37	59.7	2.4	0.63	26.3
4628-006	0.24	0.10	41.7	2.5	0.72	28.8
4628-007	0.53	0.35	66.0	10.4	7.66	73.7
4628-008	0.13	0.03	23.1	2.9	1.86	64.1
4628-009	0.43	0.37	86.0	7.6	4.82	63.4
4628-010	0.49	0.37	75.5	4.8	2.66	55.4
4628-011	1.30	0.79	60.8	6.0	3.52	58.7
4628-012	1.53	1.17	76.5	4.9	2.94	60.0
4628-013	0.89	0.47	52.8	3.2	1.55	48.4
4628-014	1.05	0.79	75.2	4.8	2.56	53.3
4628-015	0.27	0.13	48.1	2.1	0.58	27.6
4628-016	0.95	0.66	69.5	1.8	0.80	44.4
4628-017	0.16	0.12	75.0	2.5	0.95	38.0
4628-018	0.14	0.06	42.9	1.1	0.34	30.9
4628-019	0.50	0.34	68.0	4.4	1.47	33.4
4628-020	0.10	0.10	100.0	2.3	0.55	23.9
4628-021	0.12	0.10	83.3	1.4	0.30	21.4
4628-022	0.26	0.19	73.1	2.1	0.59	28.1
4628-023	0.31	0.18	58.1	3.1	0.83	26.8
4628-024	0.97	0.42	43.3	5.7	1.33	23.3
4628-025	0.31	0.14	45.2	3.7	0.57	15.4
4628-026	0.16	0.19	100.0	2.9	1.57	54.1
4628-027	0.03	<0.01	100.0	1.1	0.44	40.0
4628-028	0.09	0.08	100.0	2.2	1.56	70.9
4628-029	0.35	0.19	54.3	8.0	3.26	40.8
4628-030	0.29	0.20	69.0	4.4	2.00	45.5
4628-031	0.50	0.26	52.0	7.7	4.64	60.3
4628-032	0.12	0.09	75.0	3.7	1.71	46.2
4628-033	0.16	0.11	68.8	3.9	2.14	54.9
4628-034	0.16	0.14	87.5	3.5	2.20	62.9
4628-035	1.69	1.14	67.5	13.3	9.72	73.1
4628-036	0.31	0.26	83.9	7.0	4.24	60.6
4628-037	0.72	0.46	63.9	2.2	0.12	5.5
4628-038	1.73	1.17	67.6	22.3	10.74	48.2
4628-039	1.14	0.55	48.2	2.5	0.59	23.6

Composite	gAu/mt Mineralization		CN Sol	gAg/mt Mineralization		CN Sol
	Assay	CN Sol	%, Au	Assay	CN Sol	%, Ag
4628-040	0.25	0.14	56.0	0.9	0.23	25.6
4628-041	0.08	0.05	62.5	1.0	0.16	16.0
4628-042	0.29	0.17	58.6	0.8	0.20	25.0
4628-043	0.20	0.09	45.0	0.7	0.26	37.1

Source: MIL (2021)

Table 13:13 Cyanide Solubility Column Composites Results

Composite	gAu/mt Mineralization		CN Sol.	gAg/mt Mineralization		CN Sol.
	Assay	CN Sol.	%, Au	Assay	CN Sol.	%, Ag
4628-044	0.78	0.76	97.4	5.5	4.46	81.1
4628-045	0.26	0.27	100.0	3.8	2.94	77.4
4628-046	1.59	0.78	49.1	9.7	7.28	75.1
4628-047	0.72	0.63	87.5	25.8	24.39	94.5
4628-048	0.30	0.26	86.7	2.7	1.27	47.0
4628-049	0.40	0.36	90.0	6.2	3.68	59.4
4628-050	0.25	0.26	100.0	2.9	2.67	92.1
4628-051	0.25	0.23	92.0	1.6	0.70	43.8
4628-052	0.64	0.49	76.6	2.9	1.34	46.2

Source: MLI (2021)

Table 13:14 Comminution Testing: Crusher Work Index & Abrasion Index

Composite	Ore Zone	Crusher Work Index			Abrasion Index	
		kWh/st	kWh/mt	Classification	(grams)	Classification
COM-001	Cuervos	7.75	8.54	Very Soft	0.3603	Abrasive
COM-002	El Colorado*	4.74	5.23	Very Soft	0.3670	Abrasive
COM-003	Japoneses	5.01	5.52	Very Soft	0.6585	Very Abrasive
COM-004	Buena Suerte	5.40	5.95	Very Soft	0.1725	Moderately Abrasive

Source: MLI (2021)

#### 13.4. Bottle Roll Test Procedure and Results

Direct agitated cyanidation (bottle roll) tests were conducted on the 43 variability and nine column test composites at an 80 % -1.7 mm (10 mesh) feed size to determine recoveries, rates, reagent requirements, and mineralization variability. Rolling of the pulps in the bottles was conducted for 96 hours. Analysis over the time, cyanide concentrations, and pH adjustment were done during the testing procedure.

The summary of the results is shown in Tables 13:15 – 13:18 for the specific zones.

Table 13:15 Buena Suerte Zone Composites Bottle Roll Tests Results

80% - 1.7 mm Feed Size											
Composite	Drill Hole	Interval, m		Mineralization Type	Au Rec., %	gAu/mt Mineralization				Reagent Requirements, kg/mt Mineralization	
		from	to			Ext'd.	Tail	Calc'd. Head	Head Assay	NaCN Cons.	Lime Added
4628-037	SCD-022	0	6	Stockwork	79.3	0.92	0.24	1.16	0.71	0.17	5.0
4628-038	SCD-022	6	12	Stockwork	66.0	1.38	0.71	2.09	1.99	0.18	5.3
4628-039	SCD-022	12	18	Stockwork	83.0	0.83	0.17	1.00	1.19	0.20	5.2
4628-040	SCD-022	18	24	Stockwork	80.0	0.16	0.04	0.20	0.23	0.09	1.5
4628-041	SCD-022	24	30	Stockwork	46.2	0.06	0.07	0.13	0.08	0.09	1.7
4628-042	SCD-022	30	36	Stockwork	89.3	0.25	0.03	0.28	0.33	<0.10	1.8
4628-043	SCD-022	36	55	Stockwork	75.0	0.18	0.06	0.24	0.26	<0.10	1.1

Source: MLI (2021)

Table 13:16 Cuervos Zone Composites Bottle Roll Tests Results

80% - 1.7 mm Feed Size											
Composite	Drill Hole	Interval, m		Mineralization Type	Au Rec., %	gAu/mt Mineralization				Reagent Requirements, kg/mt Mineralization	
		from	to			Ext'd.	Tail	Calc'd. Head	Head Assay	NaCN Cons.	Lime Added
4628-007	SCD-006	0	6	Stockwork	88.9	0.48	0.06	0.54	0.53	<0.10	2.8
4628-008	SCD-006	6	12	Stockwork	92.3	0.12	0.01	0.13	0.13	0.09	2.8
4628-009	SCD-006	12	18	Blended*	84.0	0.42	0.08	0.50	0.44	0.24	2.8
4628-010	SCD-006	18	24	Blended*	82.5	0.47	0.10	0.57	0.54	0.07	1.9
4628-011	SCD-007	35.5	41.5	Vn Breccia	84.2	1.17	0.22	1.39	1.43	0.19	1.7
4628-012	SCD-007	41.5	47.5	Vn Breccia	73.6	1.81	0.65	2.46	1.73	0.22	1.2
4628-013	SCD-007	47.5	53.5	Blended*	84.5	0.60	0.11	0.71	0.77	1.98	1.0

Source: MLI (2021)

Table 13:17 El Colorado Zone Composites Bottle Roll Tests Results

80% - 1.7 mm Feed Size											
Composite	Drill Hole	Interval, m		Mineralization Type	Au Rec., %	gAu/mt Mineralization				Reagent Requirements, kg/mt Mineralization	
		from	to			Ext'd.	Tail	Calc'd. Head	Head Assay	NaCN Cons.	Lime Added
4628-014	SCD-008	36.35	98.45	* Vn Breccia	85.6	0.77	0.13	0.90	0.95	0.28	1.3
4628-015	SCD-008	98.45	104.45	Vn Breccia	77.8	0.14	0.04	0.18	0.21	0.13	2.4
4628-016	SCD-008	104.45	110.45	* Vn Breccia	76.5	0.65	0.20	0.85	0.79	0.09	1.7
4628-017	SCD-008	81.5	87.5	Stockwork	66.7	0.12	0.06	0.18	0.16	<0.10	1.8
4628-018	SCD-008	87.5	93.5	Stockwork	72.7	0.08	0.03	0.11	0.12	0.13	3.2

Source: MLI (2021)

### 13.5. Column Percolation Leach Test Procedures and Results

Column percolation leach tests were conducted on the nine (9) composites at the two crush sizes outlined – 100 % - 50 mm and 80 % - 12.5 mm. No pre-treatment agglomeration of the mineralization was required. Other procedures were as follows:

- Lime was mixed with the mineralization prior to loading at a rate of 1.3 to 3.1 kg/T
- 3 mt. high columns were used in the testing to minimize particle segregation and compaction.
- - 50 mm feed was leached in 30,25, or 20 cm. diameter columns
- 80 % - 12.5 mm was leached in 15 or 10 cm. diameter columns
- Cyanide application rate – 6 Lph/sq.mt. (0.0025 usgpm/sq.ft) – with cyanide @ 0.50 gm/L
- Solution analysis over the time, cyanide concentrations, and pH adjustment were done during the testing procedure
- Drain down tests were conducted after rinsing was complete
- At the completion of leaching, rinsing, and draining, the residue was removed and sampled for moisture content and further dried for tails screen analysis.

The summary of the results is shown in Tables 13:18 to 13:21 and in Figures 13:7 to 13:9 for the specific zones.

Table 13:18 Drill Core Composites Column Leach Tests Results

<b>Composite:</b>	<b>4628-044</b>		<b>4628-045</b>		<b>4628-046</b>	
<b>Drill Hole:</b>	<b>SCD-004/008</b>		<b>SCD-006/007</b>		<b>SCD-006/007</b>	
<b>Mineralize Zone:</b>	<b>El Col./Jap.</b>		<b>Cuervos</b>		<b>Cuervos</b>	
<b>Mineralization Type:</b>	<b>Vein Breccia</b>		<b>Stockwork</b>		<b>Mixed</b>	
<b>Feed Size</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>
<b>Metallurgical Results</b>	<b>CL-1</b>	<b>CL-10</b>	<b>CL-2</b>	<b>CL-11</b>	<b>CL-3</b>	<b>CL-12</b>
Extraction: % of total						
1st Effluent	4.8		7.1	22.4	8.3	16.9
in 5 days	20.6	11.8 <sup>2)</sup>	19.5	32.0	26.5	29.2
in 10 days	33.4	49.2	30.6	49.7	39.2	45.4
in 15 days	39.4	57.4	36.0	55.2	45.3	49.9
in 20 days	42.9	61.8	39.5	58.9	49.3	52.4
in 30 days	47.1	66.9	43.9	64.0	54.8	55.8
in 40 days	50.4	70.2	47.2	67.0	58.6	57.8
in 50 days	52.3	72.7	49.6	69.2	61.3	59.0
in 60 days	53.5	74.5	51.7	69.6	63.6	59.6
in 70 days	54.7	75.8	53.1	69.6	65.2	59.8
in 80 days	56.0	77.2	53.2	71.2	66.4	60.3
in 90 days	56.8	--	54.5	72.3	67.2	61.3
End of Leach/Rinse	57.6	78.4	55.8	72.3	67.3	61.3
Extracted, gAu/mt Mineralized Material	0.57	0.58	0.29	0.34	0.72	1.03
Tail Screen, gAu/mt	0.42	0.16	0.23	0.13	0.35	0.65
Calculated Head, gAu/mt Mineralized Material	0.99	0.74	0.52	0.47	1.07	1.68
Average Head, gAu/mt Mineralization	0.77	0.77	0.45	0.45	1.30	1.30
Ag Extraction, % of Total	15.6	20.7	21.7	31.5	18.5	24.3
Extracted, gAg/mt Mineralized Material	1.0	1.2	1.5	1.7	1.7	2.8

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<b>Composite:</b>	<b>4628-044</b>		<b>4628-045</b>		<b>4628-046</b>	
<b>Drill Hole:</b>	<b>SCD-004/008</b>		<b>SCD-006/007</b>		<b>SCD-006/007</b>	
<b>Mineralize Zone:</b>	<b>El Col./Jap.</b>		<b>Cuervos</b>		<b>Cuervos</b>	
<b>Mineralization Type:</b>	<b>Vein Breccia</b>		<b>Stockwork</b>		<b>Mixed</b>	
<b>Feed Size</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>
<b>Metallurgical Results</b>	<b>CL-1</b>	<b>CL-10</b>	<b>CL-2</b>	<b>CL-11</b>	<b>CL-3</b>	<b>CL-12</b>
Tail Screen, gAg/mt	5.4	4.6	5.4	3.7	7.5	8.7
Calculated Head, gAg/mt Mineralized Material	6.4	5.8	6.9	5.4	9.2	11.5
Average Head, gAg/mt Mineralized Material	6.3	6.3	5.2	5.2	10.9	10.9
NaCN Consumed, kg/mt Mineralized Material	0.95	0.80	0.41	0.53	0.56	0.77
Lime Added, kg/mt Mineralized Material	2.3	2.3	2.4	2.4	1.9	1.9
Final Solution pH	10.0	10.3	10.7	10.3	10.6	10.1
pH After Rinse	10.1	10.6	10.8	10.6	10.5	10.3
Leach/Rinse Cycle, Days	99	89	98	90	98	90

Source: MLI (2021)

Table 13:19 Drill Core Composites Column Leach Tests Results

<b>Composite:</b>	<b>4628-047</b>		<b>4628-048</b>			<b>4628-049</b>	
<b>Drill Hole:</b>	<b>SCD-009/010</b>		<b>SCD-012</b>			<b>SCD-013</b>	
<b>Mineralize Zone:</b>	<b>Cabeza Blanca</b>		<b>Japoneses</b>			<b>Japoneses</b>	
<b>Mineralization Type:</b>	<b>Stockwork/ Mixed</b>		<b>Stockwork</b>			<b>Stockwork/ Mixed</b>	
<b>Feed Size</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>		<b>100%- 50mm</b>	<b>80%- 12.5mm</b>
<b>Metallurgical Results</b>	<b>CL-4</b>	<b>CL-13</b>	<b>CL-5</b>	<b>CL-14</b>	<b>CL-15</b>	<b>CL-6</b>	<b>CL-16</b>
Extraction: % of total							
1st Effluent	6.7		11.2			15.5	
in 5 days	20.9	9.7 <sup>2)</sup>	26.8	9.9 <sup>2)</sup>	23.2 <sup>3)</sup>	27.5	16.7 <sup>2)</sup>
in 10 days	38.0	55.1	44.5	53.1	51.1	39.1	47.3
in 15 days	45.1	62.6	52.1	62.3	59.9	45.0	54.1
in 20 days	49.5	66.6	57.2	67.7	64.6	49.0	58.1
in 30 days	55.4	71.1	63.7	74.3	69.8	53.9	63.3
in 40 days	59.0	73.3	68.4	77.9	72.6	57.8	66.3
in 50 days	61.5	74.8	71.7	79.6	74.2	61.0	68.5
in 60 days	63.3	74.8	74.0	79.6	74.2	63.6	68.5
in 70 days	64.1	76.5	74.2	82.2	76.7	65.7	70.7
in 80 days	64.1	76.0	77.4	82.2	76.7	65.7	70.7
in 90 days	66.1	77.9	77.9	83.3	77.8	67.7	--
in 100 days	--	--	79.6	--	--	68.8	--
End of Leach/Rinse	66.1	78.6	81.5	83.3	77.8	69.2	71.4
Extracted, gAu/mt Mineralized Material	0.41	0.44	0.22	0.20	0.21	0.27	0.30
Tail Screen, gAu/mt	0.21	0.12	0.05	0.04	0.06	0.12	0.12
Calculated Head, gAu/mt Mineralization	0.62	0.56	0.27	0.24	0.27	0.39	0.42
Average Head, gAu/mt Mineralized Material	0.64	0.64	0.24	0.24	0.24	0.41	0.41
Ag Extraction, % of Total	7.0	25.0	11.1	11.1	28.6	18.8	23.9
Extracted, gAg/mt Mineralized Material	0.8	1.7	0.3	0.4	0.4	0.6	1.1

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<b>Composite:</b>	<b>4628-047</b>		<b>4628-048</b>			<b>4628-049</b>	
<b>Drill Hole:</b>	<b>SCD-009/010</b>		<b>SCD-012</b>			<b>SCD-013</b>	
<b>Mineralize Zone:</b>	<b>Cabeza Blanca</b>		<b>Japoneses</b>			<b>Japoneses</b>	
<b>Mineralization Type:</b>	<b>Stockwork/ Mixed</b>		<b>Stockwork</b>			<b>Stockwork/ Mixed</b>	
<b>Feed Size</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>		<b>100%- 50mm</b>	<b>80%- 12.5mm</b>
<b>Metallurgical Results</b>	<b>CL-4</b>	<b>CL-13</b>	<b>CL-5</b>	<b>CL-14</b>	<b>CL-15</b>	<b>CL-6</b>	<b>CL-16</b>
Tail Screen, gAg/mt	10.6	5.1	2.4	3.2	1.0	2.6	3.5
Calculated Head, gAg/mt Mineralized Material	11.4	6.8	2.7	3.6	1.4	3.2	4.6
Average Head, gAg/mt Mineralized Material	13.2	13.2	2.9	2.9	2.9	5.3	5.3
NaCN Consumed, kg/mt Mineralized Material	0.34	0.44	0.35	0.40	0.46	0.32	0.42
Lime Added, kg/mt Mineralized Material	2.1	2.1	13.2	1.8	1.8	1.3	1.3
Final Solution pH	10.8	11.1	11.0	10.8	10.8	10.6	11.2
pH After Rinse	10.5	11.1	11.2	11.2	11.0	11.0	10.9
Leach/Rinse Cycle, Days	91	96	110	96	96	103	89

Source: MLI (2021)

Table 13:20 Drill Core Composites Column Leach Tests Results

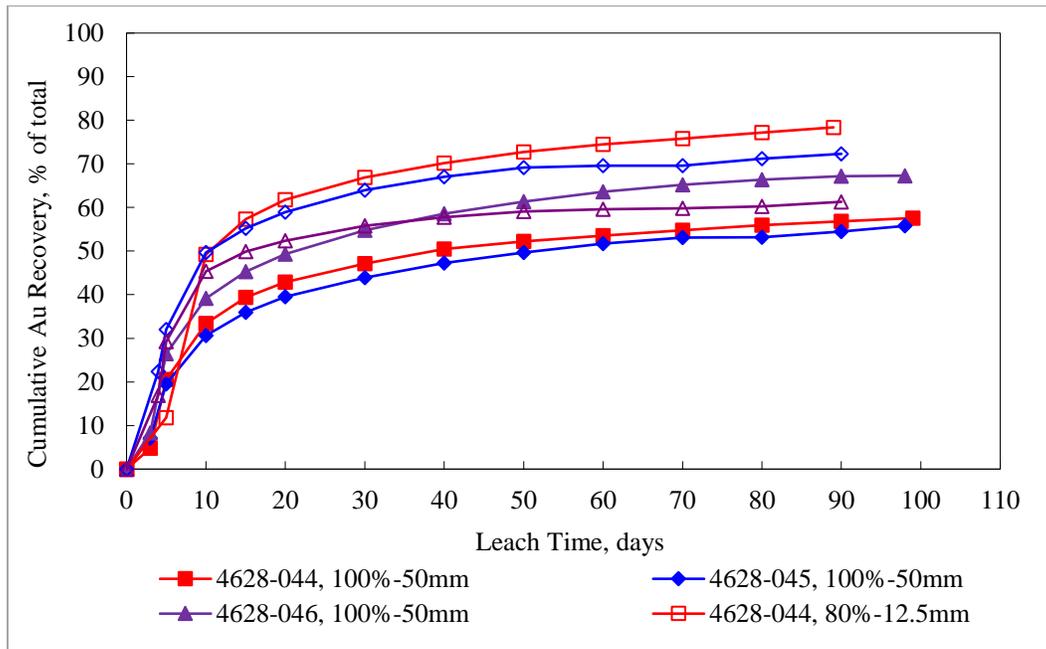
<b>Composite:</b>	<b>4628-050</b>		<b>4628-051</b>		<b>4628-052</b>	
<b>Drill Hole:</b>	<b>SCD-014</b>		<b>SCD-014</b>		<b>SCD-022</b>	
<b>Mineralize Zone:</b>	<b>Japoneses</b>		<b>Japoneses</b>		<b>Buena Suerte</b>	
<b>Mineralization Type:</b>	<b>Stockwork</b>		<b>Stockwork</b>		<b>Stockwork</b>	
<b>Feed Size</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>	<b>100%- 50mm</b>	<b>80%- 12.5mm</b>
<b>Metallurgical Results</b>	<b>CL-7</b>	<b>CL-17</b>	<b>CL-8</b>	<b>CL-18</b>	<b>CL-9</b>	<b>CL-19</b>
Extraction: % of total						
1st Effluent	6.5		15.6		7.0	
in 5 days	13.1	11.2 <sup>2)</sup>	27.8	25.3 <sup>2)</sup>	24.4	8.5 <sup>2)</sup>
in 10 days	22.1	44.1	39.9	50.0	40.5	44.0
in 15 days	28.6	50.9	46.3	59.5	48.0	52.9
in 20 days	33.8	55.0	50.9	64.4	52.4	58.0
in 30 days	40.2	59.5	57.7	70.5	58.8	63.7
in 40 days	44.7	62.9	62.4	74.3	63.4	66.8
in 50 days	48.4	66.0	65.2	76.3	66.4	68.9
in 60 days	49.9	66.7	65.2	76.3	68.1	70.1
in 70 days	49.9	67.9	69.4	78.9	68.5	70.2
in 80 days	52.7	68.7	69.4	78.9	68.5	70.5
in 90 days	--	--	71.4	78.9	69.7	71.1
End of Leach/Rinse	53.6	71.0	71.4	78.9	70.1	71.1
Extracted, gAu/mt Mineralized Material	0.15	0.22	0.15	0.15	0.47	0.54
Tail Screen, gAu/mt	0.13	0.09	0.06	0.04	0.20	0.22
Calculated Head, gAu/mt Mineralized Material	0.28	0.31	0.21	0.19	0.67	0.76
Average Head, gAu/mt Mineralized Material	0.32	0.32	0.21	0.21	0.76	0.76
Ag Extraction, % of Total	21.4	31.3	5.6	16.7	22.6	42.9
Extracted, gAg/mt Mineralized Material	0.3	0.5	0.1	0.2	0.7	0.9
Tail Screen, gAg/mt	1.1	1.1	1.7	1.0	2.4	1.2

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Composite:	4628-050		4628-051		4628-052	
Drill Hole:	SCD-014		SCD-014		SCD-022	
Mineralize Zone:	Japoneses		Japoneses		Buena Suerte	
Mineralization Type:	Stockwork		Stockwork		Stockwork	
Feed Size	100%- 50mm	80%- 12.5mm	100%- 50mm	80%- 12.5mm	100%- 50mm	80%- 12.5mm
Metallurgical Results	CL-7	CL-17	CL-8	CL-18	CL-9	CL-19
Calculated Head, gAg/mt Mineralized Material	1.4	1.6	1.8	1.2	3.1	2.1
Average Head, gAg/mt Mineralized Material	2.7	2.7	1.6	1.6	3.5	3.5
NaCN Consumed, kg/mt Mineralization	0.47	0.52	0.30	0.36	0.74	0.64
Lime Added, kg/mt Mineralized Material	1.7	1.7	1.4	1.4	3.1	3.1
Final Solution pH	9.9	10.6	9.9	10.9	10.0	10.2
pH After Rinse	10.1	10.9	10.1	9.9	8.8	10.0
Leach/Rinse Cycle, Days	89	89	96	95	98	90

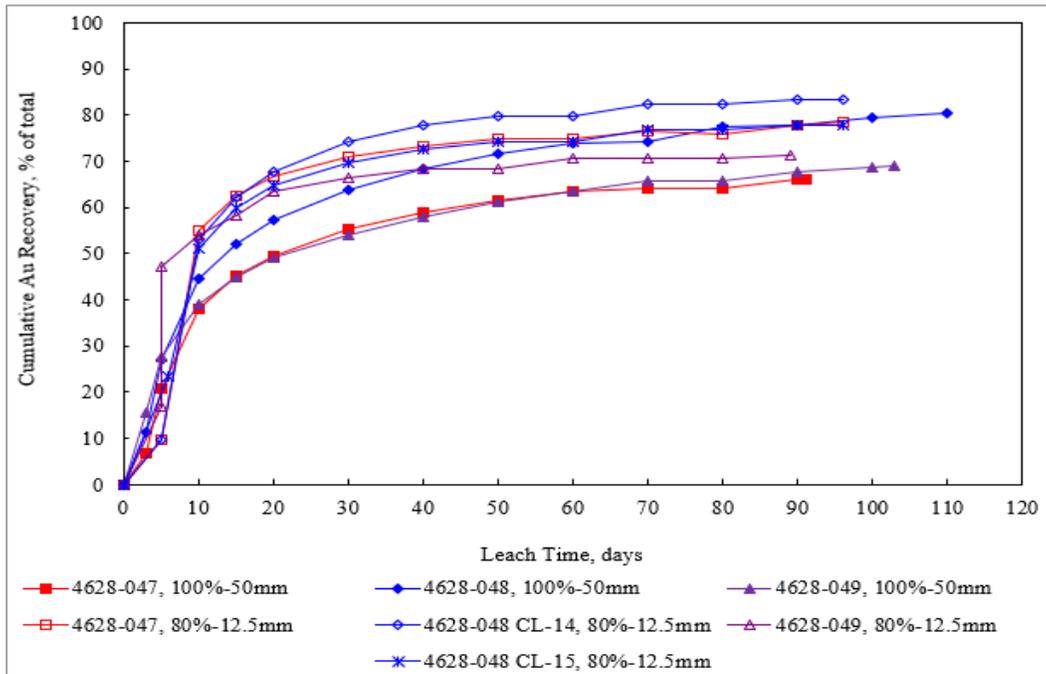
Source: MLI (2021)

Figure 13:7 Gold Leach Rate Profiles, Column Leach Tests, Drill Core Composites



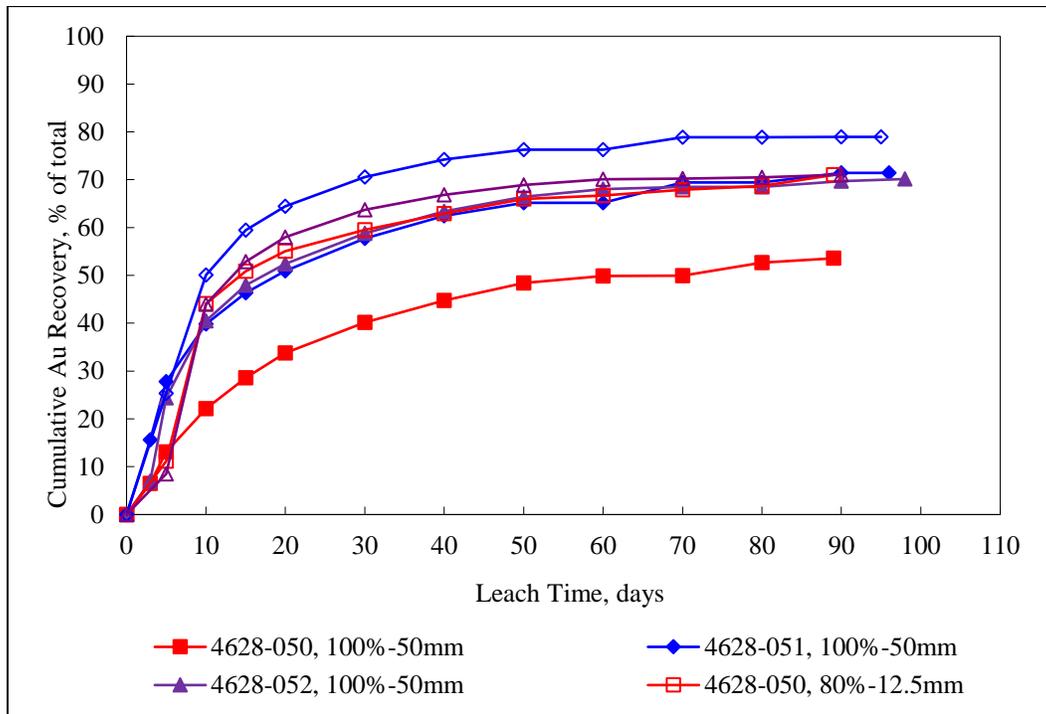
Source: MLI (2021)

Figure 13:8 Gold Leach Rate Profiles, Column Leach Tests, Drill Core Composites



Source : MLI (2021)

Figure 13:9 Gold Leach Rate Profiles, Column Leach Tests, Drill Core Composites



Source: MLI (2021)

Table 13:21 Major Summary of Cerro Caliche Test Results

<b>Item</b>	<b>Unit</b>	<b>Value</b>	<b>Source</b>
Gold Extraction	%	73.6	MLI-4628
Silver Extraction	%	26.7	MLI-4628
Crush Size – Option 1	mm	100 %-50mm	MLI-4628
Crush Size – Option 2	mm	80% -12.5 mm	MLI-4628
Lime Consumption, leaching	Kg/t	1.13	MLI-4628
NaCN consumption	Kg/t	0.59	MLI-4628
Cyanide Leach Cycle Times	Time, Days	90-100	MLI-4628

Source: D.E.N.M. (2021)

The drilling and sampling by Sonoro Gold and metallurgical testing by MLI for this Preliminary Economic Assessment (PEA) including the previous dated work conducted for the Cerro Caliche Heap Leach Project are sufficiently representative and complete to support this initial PEA. The process design criteria shown in Table 17.1 are reasonable and appropriate for use in this study’s process design and for the Project economics analysis.

## **14. MINERAL RESOURCE ESTIMATES**

### **14.1. Introduction**

The updated resource estimate completed by the Micon QPs for the Cerro Caliche Project was prepared in conjunction with Sonoro's technical personnel. The mineral resource estimate contained in this report, is compliant with the current CIM standards and definitions specified by NI 43-101 and supersedes all previous mineral resource estimates for the Cerro Caliche Project. The effective date of the current mineral resource estimate is August 24, 2021.

The process of mineral resource estimation includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, Micon and the QPs do not consider them to be material.

### **14.2. CIM Mineral Resource Definitions and Classification**

All resources and reserves presented in a Technical Report must follow the current CIM definitions and standards for mineral resources and reserves. The latest edition of the CIM definitions and standards was adopted by the CIM council on May 10, 2014, and includes the resource definitions reproduced below:

*“Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.”*

*“A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.”*

*“The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.”*

*“Material of economic interest refers to diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals.”*

*“The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors.”*

***“Inferred Mineral Resource”***

*“An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.”*

*“An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.”*

*“An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life-of-mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.”*

***“Indicated Mineral Resource”***

*“An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.”*

*“Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.”*

*“An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.”*

*“Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions.”*

***“Measured Mineral Resource”***

*“A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.”*

*“Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.*

*A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.”*

*“Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.”*

### **14.3. CIM Estimation of Mineral Resources Best Practices Guidelines**

The QPs have used the CIM Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines which were adopted by the CIM Council on November 29, 2019, in conducting the mineral resource estimate for the Cerro Caliche Project. The November, 2019, guidelines supersede the 2003 CIM Best Practices Guidelines.

### **14.4. General Description**

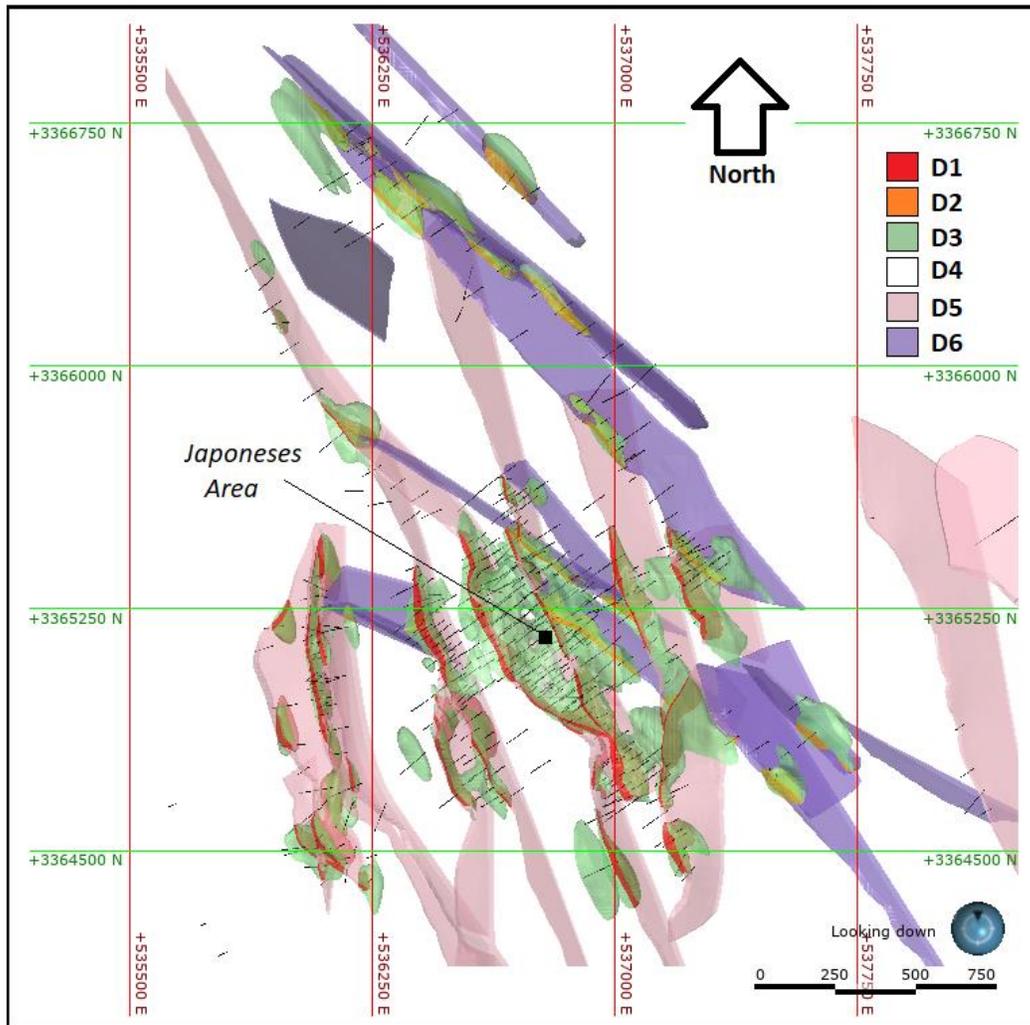
As part of the mineral resource estimate process Micon QPs guided Sonoro’s technical personnel with constructing the geological framework for the estimate. After receiving the final wireframes from Sonoro, Micon proceeded to analyze the data and models to create the geological domains to be used for the resource estimation as follows:

- Domain 1 (D1) North-South Trend Vein-Bx
- Domain 2 (D2) North-West Trend Vein-BX
- Domain 3 (D3) Disseminated-Stockwork Zone
- Domain 4 (D4) Outside Global
- Domain 5 (D5) North-South Trend Vein-Bx – Extended
- Domain 6 (D6) North-West Trend Vein-BX – Extended

The six domains are located relatively close from each other, and the major cluster that combines Vein-Breccia and Stockwork is denominated by the Japoneses area. The geological interpretation also accounts for some local faults where they have been identified and mapped. Figure 14.1 shows the location of all interpreted wireframes as originally constructed by Sonoro personnel and then modified by Micon with the approval of Sonoro for use as the geological basis for the updated mineral estimate.

The Cerro Caliche mineral resources have been estimated assuming oxide mineralization and surface mining scenarios only.

Figure 14:1 Cerro Caliche Project Mineralized Zone by Domains



Source: Micon, 2021

## 14.5. Mineral Resources Supporting Data

The Cerro Caliche Project database was provided to Micon by Sonoro. It is comprised of 433 drill holes, totaling 47,558 m of drilling, containing a total of 30,185 samples. This database was the starting point from which the gold mineralized shell envelopes (wireframes) were modelled.

For the purposes of mineral resource estimation, Micon used only the data contained within the final wireframes. The effective number of drill holes and samples used were 419 drill holes, totaling 40,024 m of sampling, excluding four drill holes that were flagged to ignore.

### 14.5.1. Topography

The Project topographic model was provided by Sonoro in the form of a digital terrain model (DTM), included as part of the Leapfrog Geo files. The DTM was of sufficient quality to be used for the pit optimization which constrained the reported mineral resources.

### **14.5.2. Geological and Mineralogical Data**

The Cerro Caliche Project geology and mineralization styles are discussed in detail in Sections 7 and 8 in this report. The mineralization has been interpreted to occur in a North-Norwest trending zones, which contain well-defined cross-cutting vein-breccias surrounded by stockwork mineralization. This has been modelled based on a combination of vein mapping and a 0.1 g/t Au cut-off modelling grade. Large areas below 0.1 g/t outside the Vein-Breccia and Stockwork were also estimated to assist with optimizing the pitshells.

### **14.5.3. Rock Density**

A total of 984 density measurements were provided by Sonoro. The overall average of density for the entire Project is 2.579 g/cm<sup>3</sup>. Micon assigned average density values by lithology, Table 14:1 summarizes the density averages.

Table 14:1 Cerro Caliche Average Density by Lithology

<b>Lithology</b>	<b>Count of Density Measurements</b>	<b>Avg. Density Value</b>
Mineralized Envelope	984	2.579
Sediments (SED)	351	2.562
Volcanics (VOL)	146	2.682
Hypabyssal (HYP)	193	2.506
Intrusives (INT)	164	2.633

### **14.5.4. Univariate Statistics**

Basic univariate statistics were estimated for the entire database at Cerro Caliche and for the selected intervals inside of the mineralized envelopes. The results are summarized in Table 14.2 and Table 14.3.

Table 14:2 Cerro Caliche Project Global Basic Statistics of Gold - Raw Samples

<b>Description</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>
Count	30,185	30,185
Length	46,079	46,079
Mean	0.14	1.60
Standard deviation	0.57	5.95
Coefficient of variation	4.04	3.72
Variance	0.33	35.44
Minimum	0.00	0.01
Lower quartile	0.01	0.15
Median	0.04	0.50
Upper quartile	0.12	1.30
Maximum	41.40	364.00

Table 14:3 Global Basic Statistics of Gold - Raw Samples Within Wireframes

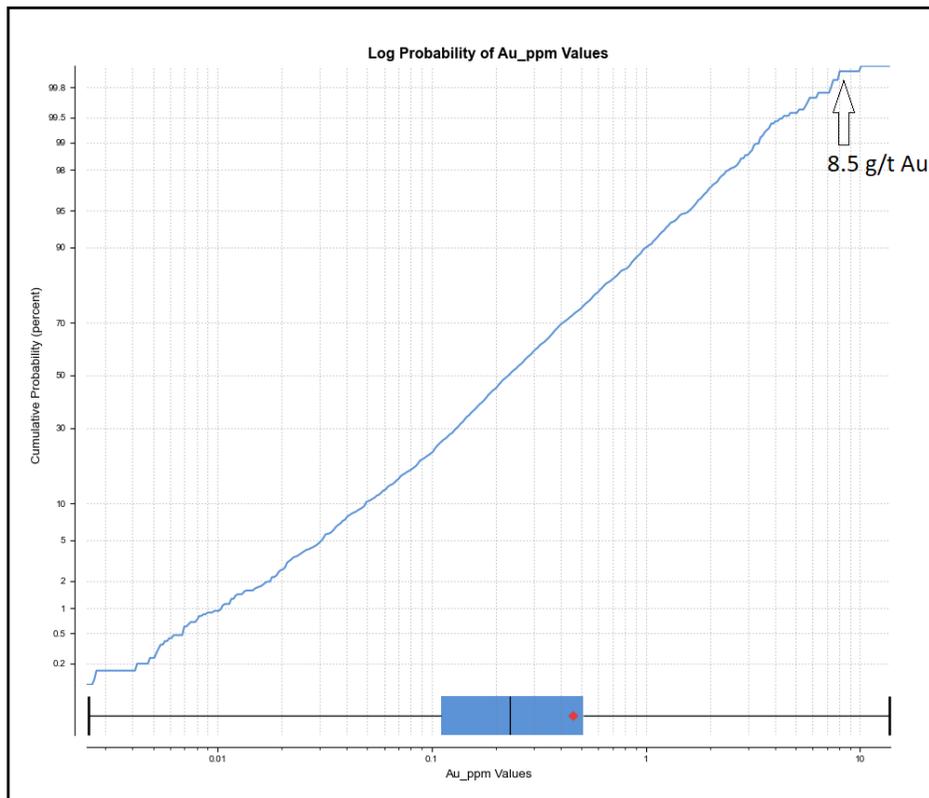
Description	Gold			Silver		
	All	Vein-Breccia	Stockwork	All	Vein-Breccia	Stockwork
Count	26,804	5,945	20,859	26,804	5,945	20,859
Length	39,135	8,139	30,996	39,135	8,139	30,996
Mean	0.16	0.31	0.12	1.76	3.51	1.30
Standard deviation	0.62	0.69	0.59	6.39	11.67	3.84
Coefficient of variation	3.84	2.24	4.85	3.62	3.32	2.95
Variance	0.38	0.47	0.35	40.80	136.13	14.77
Minimum	0.00	0.00	0.00	0.01	0.01	0.01
Lower quartile (Q1)	0.02	0.03	0.01	0.25	0.40	0.20
Median	0.05	0.11	0.04	0.60	1.00	0.50
Upper quartile (Q3)	0.14	0.31	0.11	1.50	2.60	1.30
Maximum	41.40	14.60	41.40	364.00	364.00	223.20

### 14.5.5. Data Processing

#### 14.5.5.1. Grade Capping/Restriction

All outlier assay values were carefully analyzed, individually by zone, and globally, using log probability plots. It was decided to restrict values to 50% the search range. Figure 14:3 shows an example of the probability plot of 1.5 m composites for the Cerro Caliche Domain 1.

Figure 14:2 Log Probability Plots for Domain 1



Source: Micon, 2021.

To identify grade true outliers, the data were assessed after compositing to constant intervals. This was undertaken to avoid potential short sample bias should shorter samples be taken near visible gold in core but it also was applied to the RC drilling data. Table 14.4 summarizes the grades restrictions used and the number of composites capped.

Table 14:4 Selected Capping Grades on 1.5 m Composites

<b>Domain</b>	<b>Max. Grade (Au g/t)</b>	<b>Capping Grade (Au g/t)</b>	<b>Capped Composites</b>	<b>Total Composites</b>
D1	13.74	8.5	3	2,670
D2	6.67	5.5	1	930
D3	34.2	20	3	7,753
D4	7.18	1.5	19	17,500
D5	10.79	3.0	2	1,489
D6	6.57	3.5	1	656

#### **14.5.5.2. Compositing**

The selected intercepts for the Cerro Caliche Project were composited to 1.5 m equal length intervals. The composite length selected was based on the most common original sample length. Table 14:5 summarizes basic statistics of the composited data.

Table 14:5 Statistics for 1.5 m Composites

<b>Description</b>	<b>Capped Composites</b>					
<b>Selection</b>	<b>D1</b>	<b>D2</b>	<b>D3</b>	<b>D4</b>	<b>D5</b>	<b>D6</b>
Count	2,670	930	7,753	17,500	1,489	656
Mean	0.44	0.35	0.25	0.04	0.08	0.11
Standard deviation	0.69	0.53	0.70	0.09	0.21	0.27
Coefficient of variation	1.57	1.52	2.75	2.21	2.60	2.53
Variance	0.48	0.28	0.49	0.01	0.04	0.07
Minimum	0.00	0.00	0.00	0.00	0.00	0.00
Median	0.22	0.18	0.13	0.02	0.03	0.03
Maximum	8.50	5.50	20.00	1.50	3.00	3.50

#### **14.5.5.3. Variography**

Variography is the analysis of the spatial continuity of grade for the commodity of interest. In the case of Cerro Caliche Project, the analysis was conducted on each domain using down-the-hole variograms and 3D variograms, to define the best parameters to interpolate grade.

Variography must be performed on regular coherent shapes with geological continuity support. First, down-the-hole variograms were constructed for each zone, to establish the nugget effect to be used in the modelling of the 3D variograms. Figures 14:4 to 14:6 show a summary of the gold variography within the fault-delineated zones.

Figure 14:3 Cerro Caliche Project Zone D1 Variography

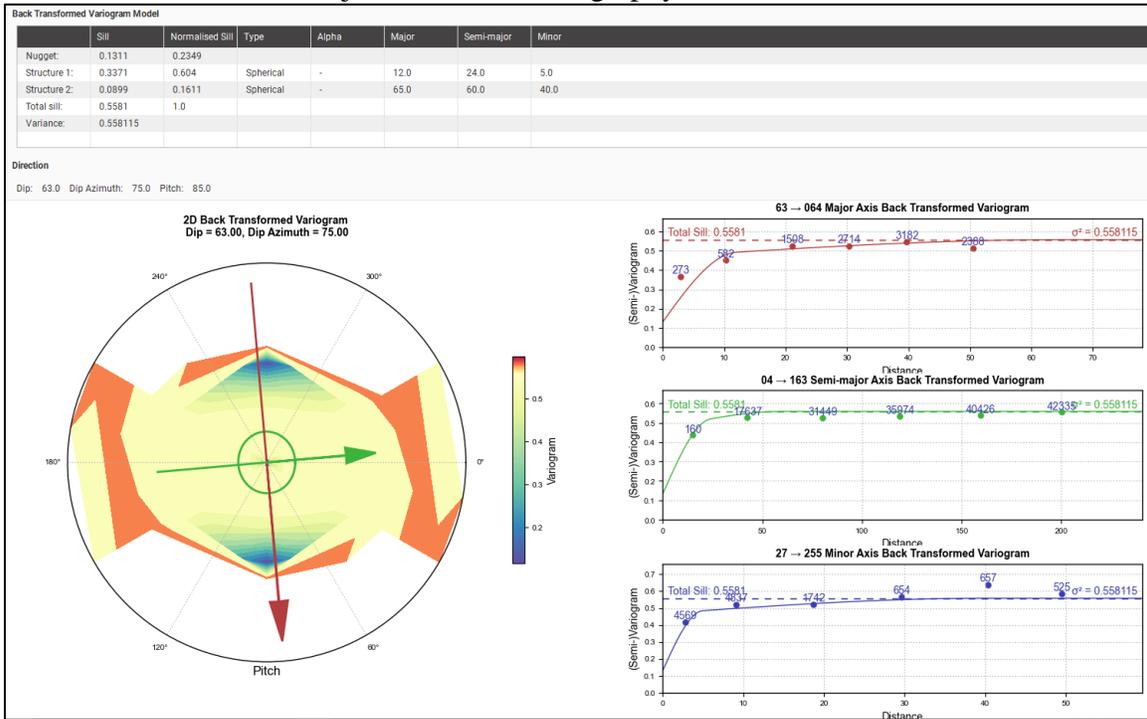


Figure 14:4 Cerro Caliche Project Zone D2 – Variography

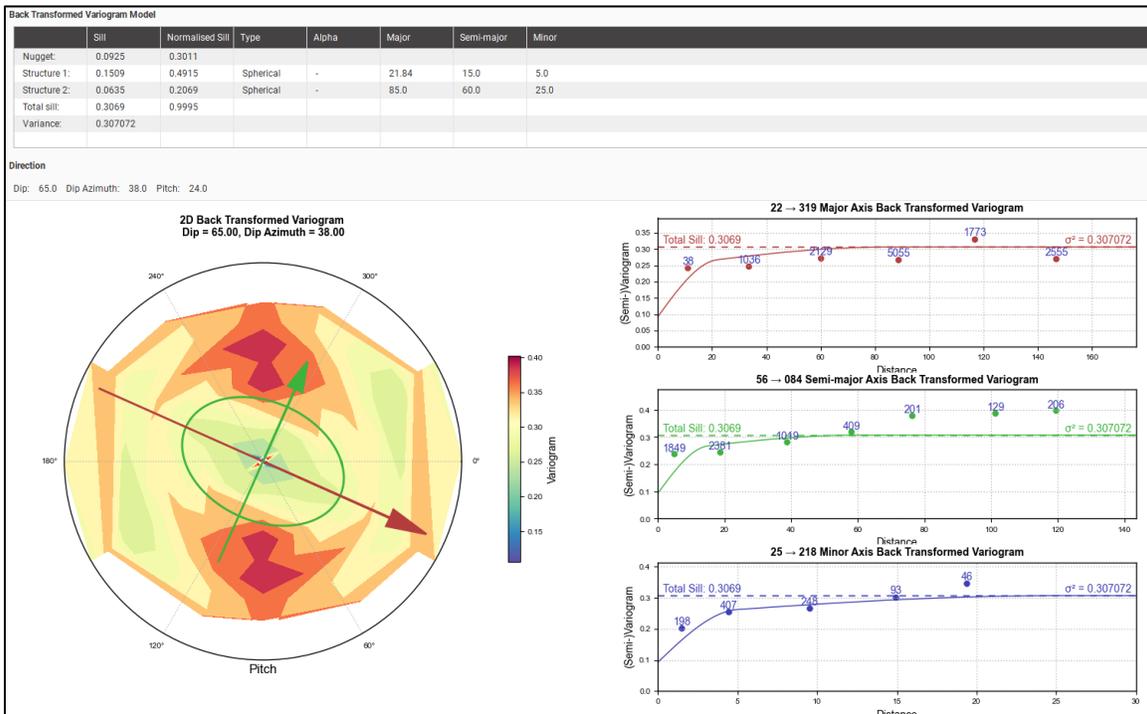
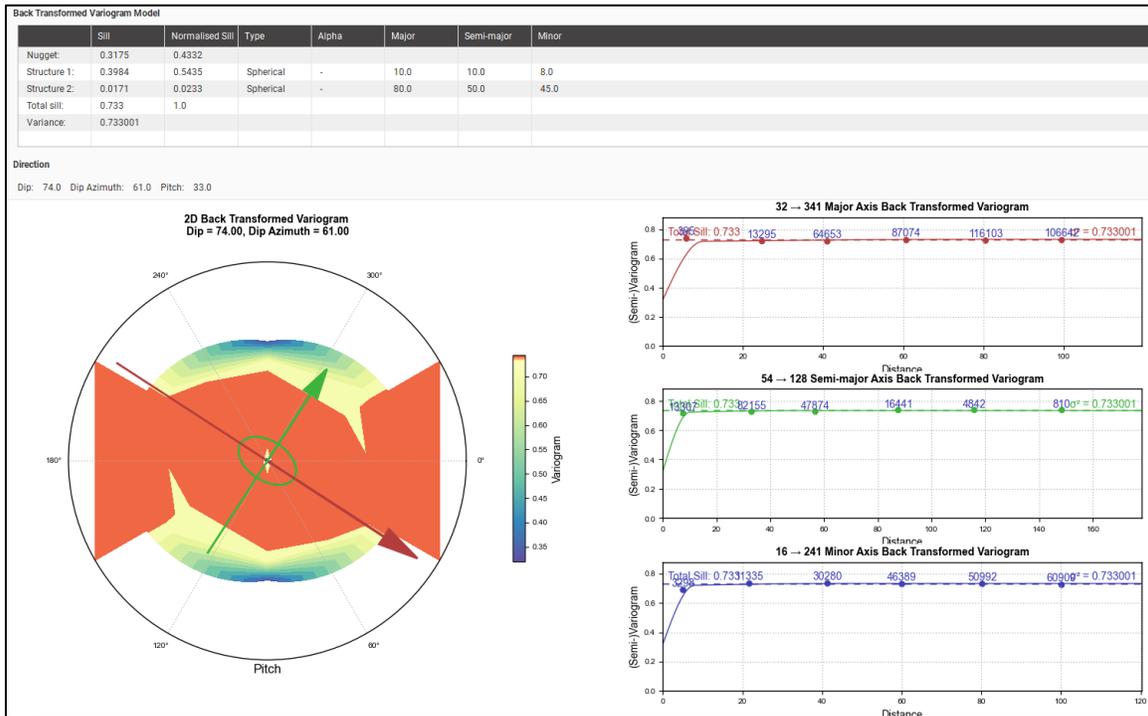


Figure 14:5 Cerro Caliche Project Zone D3 - Variography



Variograms were successfully modelled for main mineralization domains D1, D2 and D3. Low grade domains D4, D5 and D6 were also analysed, all six domains supported the use of the ordinary kriging (OK) interpolation method. The ranges modelled varied from 65 to 85 m and were used to establish the search parameters employed. Further detail is discussed in Section 14.4.2, Search Strategy and Interpolation.

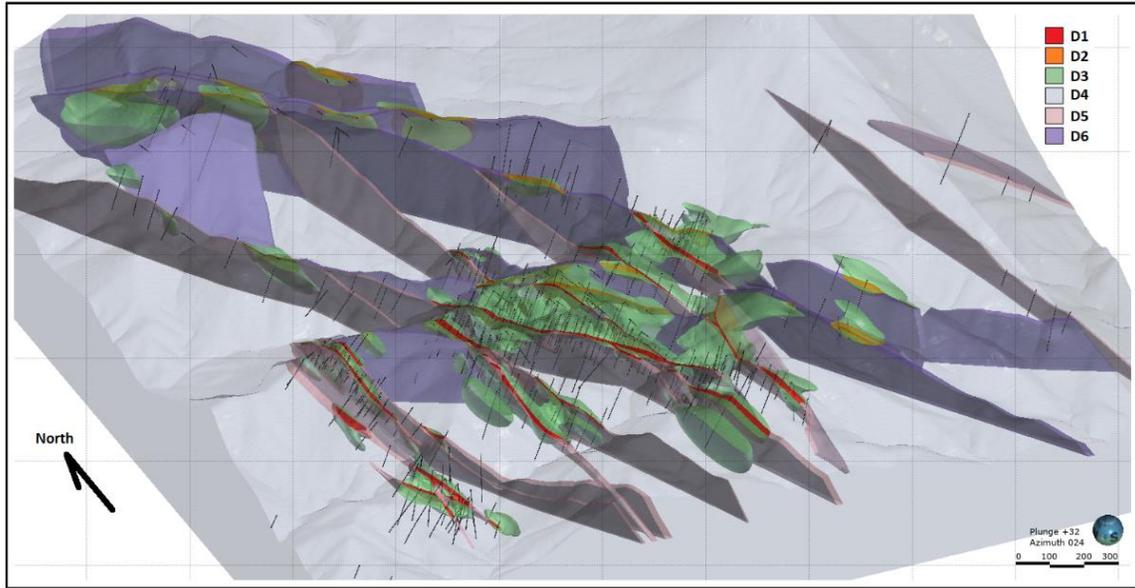
#### 14.5.5.4. Continuity and Trends

The Cerro Caliche mineralization presents a predominant bearing and dip within a well-defined broad geometry. This is supported by the geology, grades, surface mapping of structures, as well as enough drill hole intercepts to confidentially determine their continuity along strike and down dip. On average the mineralization model has a 340° strike and variable steeply dipping structures.

#### 14.5.1. Three-Dimensional (3D) Modelling

Sonoro provided Micon with the wireframes of the mineralized envelopes for the Cerro Caliche Project. Micon and Sonoro technical staff conducted various review sessions and discussions, via video chat technology, to achieve the final wireframes. Figure 14:2 illustrates the final wireframes for the multiple mineralized zones.

Figure 14:6 3D Isometric View of Cerro Caliche Mineral Envelopes



Source: Micon, 2021.

**14.6. Mineral Resources Estimation**

The primary mineral/element of economic interest at the Cerro Caliche Project is gold with silver of secondary importance. The estimate of tonnes and grade was performed using solely Leapfrog Geo/EDGE software.

**14.6.1. Block Model**

A single block model was constructed to contain the wireframe zone codes, gold grades and density. A summary of the definition data of the block model is shown in Table 14:6.

Table 14:6 Cerro Caliche Project Block Model Parameters

Description	Cerro Caliche Block Model (SABM)
Model Dimension X (m)	1,900
Model Dimension Y (m)	2,900
Model Dimension Z (m)	510
Origin X (Easting)	536175.00
Origin Y (Northing)	3363830.00
Origin Z (Upper Elev.)	1510
Rotation (°)	337
Parent Block Size X (m) - Across Strike	5
Parent Block Size Y (m) - Along Strike	5
Parent Block Size Z (m) - Down Dip	6

### 14.6.2. Search Strategy and Interpolation

A set of parameters were derived from the variographic analysis results to interpolate the composite grades into the blocks. A summary of the Cerro Caliche Project Ordinary Kriging interpolation parameters is shown in Table 14:7.

Table 14:7 Ordinary Kriging Interpolation Parameter Summary

Zone Code	Pass	Orientation			Search Parameters					
		Dip (°)	Pitch (°)	Dip Az (°)	Range Major Axis (m)	Range Semi-Major Axis (m)	Range Minor Axis (m)	Minimum Samples	Maximum Samples	Maximum Samples per Hole
D1	1	65	85	75	65	60	40	12	24	4
D2	1	68	25	38	85	60	25	12	24	4
D3	1	74	33	60	80	50	45	12	24	4
D4	1	67	103	55	95	80	20	12	24	4
D5	1	63	85	75	85	80	30	12	24	4
D6	1	65	24	38	85	60	25	12	24	4
All	2	Same as Pass 1			x 2	x 2	x 2	4	12	2
All	3				x 2	x 2	x 2	2	8	2

### 14.6.3. Prospects for Economic Extraction

The updated mineral resource has been constrained using economic assumptions of surface open pit scenarios. The potentially minable portions of the block model are conceptual in nature with the mining limited to the oxide resources at the Cerro Caliche Project.

The gold price and operating costs used were supplied by Sonoro. In the QP's opinion, the economic parameters used are reasonable. The parameters were developed by Sonoro technical personnel who are knowledgeable regarding mining costs for open pit projects in Mexico and were developed over the last year during Sonoro's various modelling and planning exercises. Table 14:8 summarizes the economic assumptions on which the in-pit portion of the resource estimate for the Cerro Caliche Project is based.

Table 14:8 Economic Assumptions of Conceptual Open Pit Scenario

Description	Units	Value Used
Gold Price	USD\$/t	1,800.00
Silver Price	USD\$/t	25.00
Mining Cost (Mineralized Mateial)	USD\$/t	1.90
Mining Cost Waste	USD\$/t	1.70
UG Mining Cost	USD\$/t	N/A
Processing Cost	USD\$/t	6.47
General & Administration	USD\$/t	0.49
Gold Recovery (Metallurgical)	%	74.00
Gold Recovery (Metallurgical)	%	27.20
Slope Angle	Degrees (°)	50

The parameters in Table 14:8 were used to calculate the AuEq cut-off grade of 0.207 g/t Au for the open pit portion of the Cerro Caliche Project.

#### 14.6.4. Categorization of Mineral Resources

Micon has categorized the present mineral resource estimate at the Cerro Caliche Project in the Measured, Indicated and Inferred categories. Prior to finalizing the categorization of the mineral resources, a visual review of the categorization was undertaken by the Micon QPs to ensure that not only was there continuity of the classification but also to eliminate any “Spotted Dog Effect”<sup>3</sup>.

#### 14.7. Mineral Resources Estimate for the Cerro Caliche Project.

The mineral resource statement for the Cerro Caliche Project is summarized in Table 14:9 with a resource effective date of August 24, 2021.

Table 14:9 Statement of Mineral Resources for Cerro Caliche Project

Category	Tonnes	Average Grade			Metal Content		
		Au-Eq	Au	Ag	Au-Eq	Au	Ag
	kt	g/t	g/t	g/t	koz	koz	koz
Measured	12,844	0.39	0.37	3.79	163	155	1,566
Indicated	13,851	0.45	0.44	3.10	201	194	1,378
<b>M+I</b>	<b>26,695</b>	<b>0.42</b>	<b>0.41</b>	<b>3.43</b>	<b>364</b>	<b>349</b>	<b>2,944</b>
Inferred	5,463	0.44	0.40	7.34	77	71	1,289

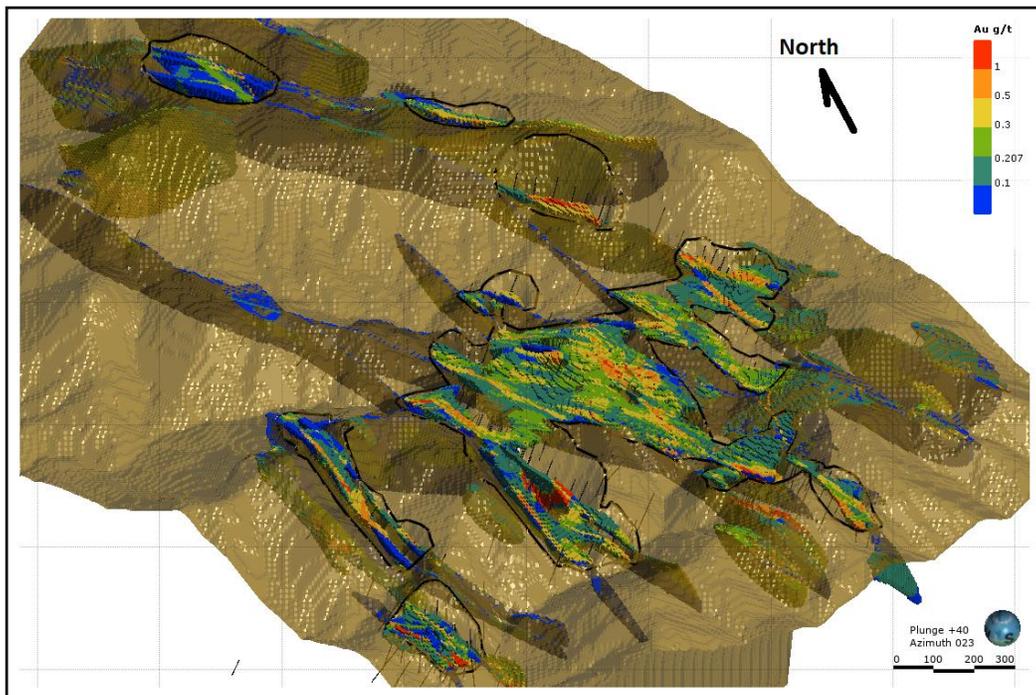
Notes:

- Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
- The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
- The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), Definition Standards for Mineral Resources and Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 14, 2014.
- The pit constrained AuEq cut-off grade of 0.207 g/t Au was derived from US \$1,800/oz Au price, US \$25.00/oz Ag price, 74.0% Au and 27.2% Ag process recoveries, US \$1.90 mining, US \$6.47/tonne process and US \$0.49 G&A costs and 50-degree pit slopes for the optimized pits.
- The effective date of the mineral resource estimate is August 24, 2021 and the estimate is only for the oxide portion of the mineralization on the Cerro Caliche Project.
- Mineral resources were estimated by William Lewis, P.Geol. and Mr. Alan J. San Martin, MAusIMM(CP) of Micon International Limited. (Micon), a Toronto based consulting company, independent of Sonoro. Both Mr. Lewis and Mr. San Martin meet the requirements of a "Qualified Person" as established by the CIM.
- Micon has not identified any legal, political, environmental, or other risks that could materially affect the potential development of the mineral resource estimate.

The mineral resources within the pit shells, summarized in Table 14:9 above, are shown graphically in Figures 14:7 and Figure 14:8.

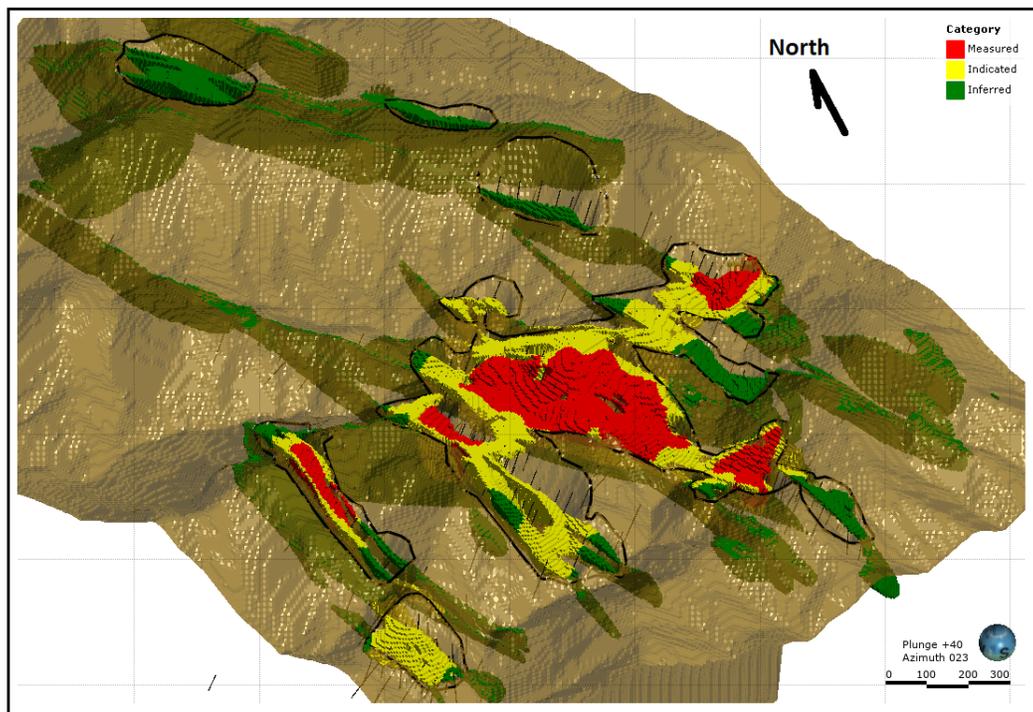
<sup>3</sup> Stephenson, P.R., et al (2006), Mineral Resource Classification — It’s Time to Shoot the ‘Spotted Dog,’ 6th International Mining Geology Conference, Darwin, NT, 21 - 23 August 2006, 5 p.

Figure 14:7 Resource Blocks by Grade: Isometric View



Source: Micon, 2021.

Figure 14:8 Blocks by Category: Isometric View



Source: Micon, 2021.

## **14.8. Mineral Resource Validation**

Micon has validated the block model using both statistical comparisons and visual inspections.

### **14.8.1. Statistical Comparison**

The average grade of the composites within each of the mineralized envelopes was compared to the average grade of all blocks therein. Table 14:10 summarizes the results of this comparison. The average composite grades and block grades compare reasonably close.

Table 14:10 Domains 1-3: Composite Grades vs. Block Grades

Zone	1.5 m Composites			Block Model		
	N° of Comps	Total Length (m)	Au (g/t)	N° of Blocks	Volume (m <sup>3</sup> )	Au (g/t)
D1	2,670	3,828	0.45	50,948	7,642,200	0.40
D2	930	1,340	0.36	30,512	4,576,800	0.33
D3	7,753	11,370	0.25	253,997	38,099,550	0.20

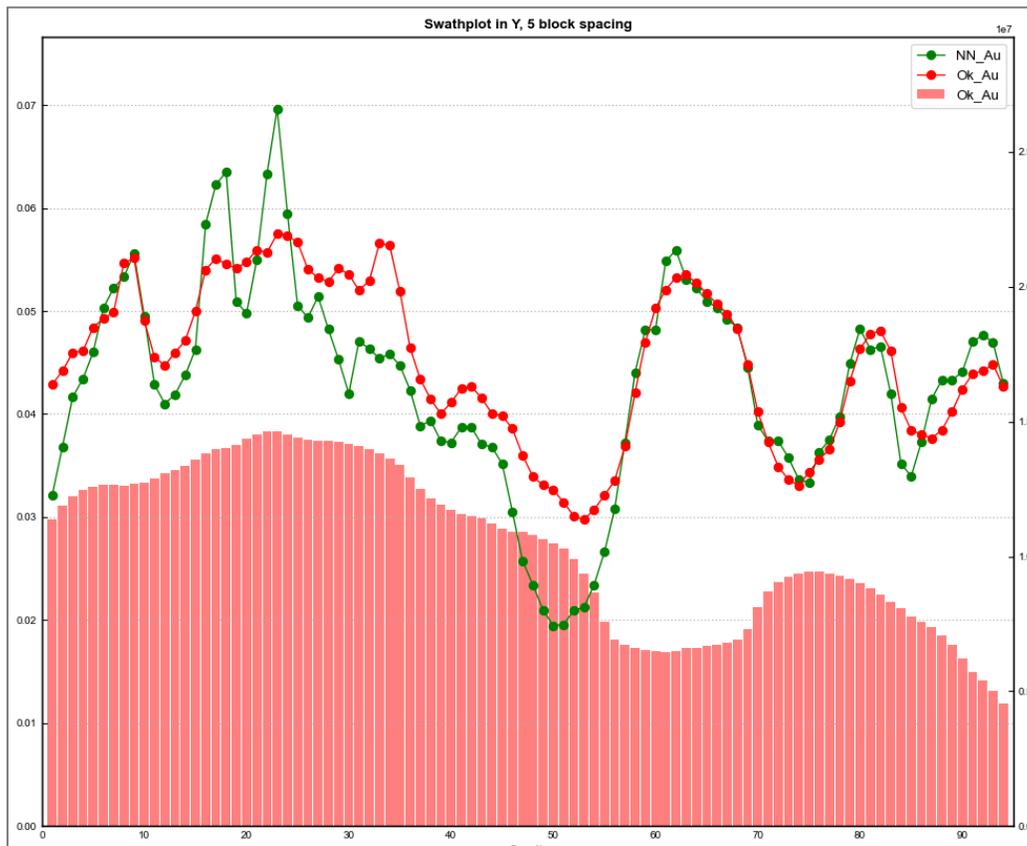
### **14.8.2. Visual Inspection**

The model blocks and the drill hole intercepts were reviewed interactively in three-dimensional mode within Leapfrog to ensure that the blocks were honouring the drill hole data. The agreement between the block grades and the drill intercepts of the Cerro Caliche Project was deemed to be satisfactory.

### **14.8.3. Swath Plots**

The average gold grades of the block model and the informing 1.5 m composites were compared in a profile along the strike (a swath plot). Figure 14:9 shows the swath plots for the entire block model.

Figure 14:9 North-South Swath Plot – 1.5 m Comps vs Block Grades at 25 m Spacing



Source: Micon, 2021.

### 14.9. Responsibility for Estimation

The updated mineral resources presented in this report have been prepared under the direction of William Lewis, P.Geo., of Micon. The estimates have been prepared with the assistance of Ing. Alan J. San Martin, MAusIMM (CP), also of Micon.

### 14.10. Mineral Potential for the Cerro Caliche Project

In addition to the updated mineral resources identified within the pit shells discussed in this section, there remains large areas of mineralization outside the pit shell. This is the case because, while some of the drilling outside the pit shells has identified the general trend of the major veins or the veta-breccia the exploration data remains insufficient in nature to conduct a mineral resource upon it.

The QPs have reviewed the mineralization outside the resource pit shells and believe that there is enough information upon which to outline a conceptual mineral potential for the Cerro Caliche Project based on the following:

- 1) The cut-off grade used that is the same as that used for the mineral resource estimate.

- 2) The mineralization is potentially amiable to open-pit mining and lies between surface and 120 m below the surface. The 120 m depth limit reflects that it is within the existing conceptual resource pit outlines of which the deepest pit is 140 m below surface.
- 3) The mineralization must be located along the existing mineralized trends previously identified on the Cerro Caliche property and identified to some extent by exploration, either by drilling or by surface sampling across the mineralized trend.

Based on the parameters, the QPs outlined the potential range in tonnage and gold and silver ounces that may be contained at the Cerro Caliche Project as follows:

- 19,250,000 to 34,370,000 t containing between 204,000 to 365,000 oz Au and 1,683,000 to 3,005,000 oz Ag.

The reader is cautioned that the potential mineralization ranges are conceptual in nature and that despite being based on the limited amount of exploration drilling and sampling outside the current pit shells it is uncertain that further exploration will result in the mineralization targets being delineated as a mineral resource.

## **15. MINERAL RESERVE ESTIMATE**

There are currently no mineral reserves at the Cerro Caliche Property.

## 16. MINING METHODS

### 16.1. Open Pit Mining

The long-term open pit mining evaluation for “Cerro Caliche Project” will provide a nominal rate of 15,000 tpd of ROM Leach Feed production and average 62,746 ounces mined per year over seven (7) years for a total of 439,223 ounces mined. The overall waste/mineralized material ratio was calculated at 2.08:1 from a total of 97.0 Mt of rock mined of which 65.5 tonnes is waste and the remaining 31.5 Mt is leach feed.

The contents of the resource block model when interrogated with the pit designs provided by Gildardo Vejar of ISM is summarized in Table 16:1 below.

Table 16:1 Resources by Class contained in the 11 Design Open Pits

PIT #	PIT NAME	RESOURCE CLASS	Mass tonnes	Au K Oz	Au g/t	Ag K Oz	Ag g/t
1	Japoneses-Buena Vista	Measured	8,889,415	102	0.36	922	3.23
		Indicated	6,372,413	69	0.34	481	2.35
		Inferred	46,174	0	0.28	9	6.13
2	Cuervos	Measured	1,086,322	18	0.52	152	4.35
		Indicated	239,720	4	0.50	36	4.72
		Inferred	362,414	4	0.33	35	2.98
3	El Colorado	Measured	0	0	-	0	-
		Indicated	611,969	18	0.92	50	2.56
		Inferred	22,512	1	1.17	1	1.89
4	Buena Suerte	Measured	838,085	11	0.41	165	6.12
		Indicated	4,077,277	72	0.55	463	3.53
		Inferred	360,928	5	0.45	23	2.02
5	Veta de Oro	Measured	0	0	-	0	-
		Indicated	0	0	-	0	-
		Inferred	629,584	12	0.59	305	15.05
6	Abejas	Measured	765,927	11	0.45	151	6.13
		Indicated	404,491	6	0.45	89	6.82
		Inferred	245,872	4	0.46	39	4.95
7	Cabeza Blanca	Measured	536,922	9	0.53	97	5.62
		Indicated	1,296,648	30	0.71	128	3.08
		Inferred	481,294	7	0.45	52	3.36
8	El Boludito	Measured	0	0	-	0	-
		Indicated	184,580	2	0.38	12	1.96
		Inferred	384	0	0.44	0	1.52
9	Chinos NW	Measured	0	0	-	0	-
		Indicated	826,129	8	0.32	106	3.99

PIT	PIT	RESOURCE	Mass	Au	Au	Ag	Ag
#	NAME	CLASS	tonnes	K Oz	g/t	K Oz	g/t
		Inferred	1,162,549	11	0.29	82	2.20
10	El Rincon	Measured	0	0	-	0	-
		Indicated	0	0	-	0	-
		Inferred	2,011,163	27	0.42	698	10.80
11	El Bellotoso	Measured	0	0	-	0	-
		Indicated	0	0	-	0	-
		Inferred	398,555	5	0.37	63	4.92
PITS	PITS	RESOURCE	Mass	Au	Au	Ag	Ag
ALL	ALL	CLASS	tonnes	K Oz	g/t	K Oz	g/t
Total	ALL	Total Measured	12,116,671	151	0.39	1,487	3.82
Total	ALL	Total Indicated	14,013,227	210	0.47	1,365	3.03
Total	ALL	Total M&I	26,129,898	361	0.43	2,852	3.40
Total	ALL	Total Inferred	5,721,429	76	0.41	1,308	7.11

The total combined tonnes from the M&I categories and Inferred category add up to within 1% of the 31.5 Mt included in the LOM mine plan presented later in this section of the report.

#### **16.1.1. Mining Battery Limits**

The scope of the mining section of the technical study begins with the resource and ends with the delivery of the mineralized material to the primary crusher.

The mining section of the study includes the economic parameters for calculating the cut-off grade, economic and physical parameters for the pit optimisation, selection of the pit shell for the basis of the pit design, the pit design itself and the mining schedule which is based upon mining the leach feed and waste inside of the pit design.

Mining capital and operating costs are also included within the battery limits and include allowances for dewatering, auxiliary operational equipment, and technical team equipment. Preliminary haul roads and waste dump designs as well as surface and mine water management are not included within the scope of this PEA but are recommended as areas that should be engineered at the PFS level of study.

#### **16.1.2. Open Pit Mining Method**

Assumed open pit mining methods will use front-end loaders and/or hydraulic excavator to load haul trucks for waste and mineralized material haulage. Mining activities will include site clearing, removal of growth medium (topsoil), free-digging, drilling, blasting, loading, hauling, and mining support activities.

Material within the pit will be generally blasted on a 6 m high bench. The stripped waste material will be placed in assigned dumps and lower-grade mineralized material will be placed into a designated stockpile area or areas as needed during operations despite there being no strategic stockpiling in the LOM production schedule.

The fleet will be comprised of 5.2 and 10.7 cubic metre (m<sup>3</sup>) capacity excavators and loaders respectively that will load 78.3 tonne capacity dump trucks.

The mine equipment requirements and costing were based on Caterpillar equipment. The mine operation schedule is proposed to include two 10 -hour shifts per day, seven days per week for 360 days per year which translates into 300 operational days after allowing for downtime delays, weather condition delays, and mining operation issues. Further deration for mechanical downtime further reduces productive time available.

### **16.1.3. Mining Fleet**

The mine fleet equipment is assumed to be provided by the mining contractor. The exact fleet will be determined at the time of operation.

The following is a suggested fleet of mobile equipment for executing the mine plan and the basis upon which ISM based their evaluation of the Cerro Caliche mine project. However, the mine evaluation was created based with the following equipment enumerated in Table 16:2.

Table 16:2 Estimated Mobile Mining Equipment Fleet Requirements

<b>Equipment</b>	<b>Number</b>	<b>Size</b>	<b>Units</b>
Hydraulic Shovels	1	5.2	cubic metres
Front-end Loaders	2	10.7	cubic metres
Rear-dump Trucks	15	78.3	metric tonne
Rotary Drill	2	15.2	cm
Bulldozers	1	310	HP
Bulldozers	1	240	HP
Graders	1	145	HP
Water Tankers	1	9,500	liter
Fuel Tankers	1	44,326	K liter
Service/Tire Trucks	1	1800 kg	gvw
Light Plants	3	8.9	Kw
Pickup Trucks	4	680	k

The hydraulic shovel will be focused on the mineral (leach feed) production to develop a strategy to selectively mine to reduce the dilution as well as applying an appropriate procedure of mineralization control. Front end loaders will be used primarily in a waste production capacity. Six (6) metre tall benches have been selected for mining in mineralization and waste zones.

### **16.1.4. Production Requirements and Parameters**

This mine is an open pit mine producing 70,050 ounces per year. Operating conditions, wage scales, and unit price are typical for the standard mining operations.

The key design criteria such bench height, operating schedule, powder factors, average haul distances and schedule, along with overall tonnes and annual target Au production are all presented in Table 16:3.

Table 16:3 Cerro Caliche Production Requirements

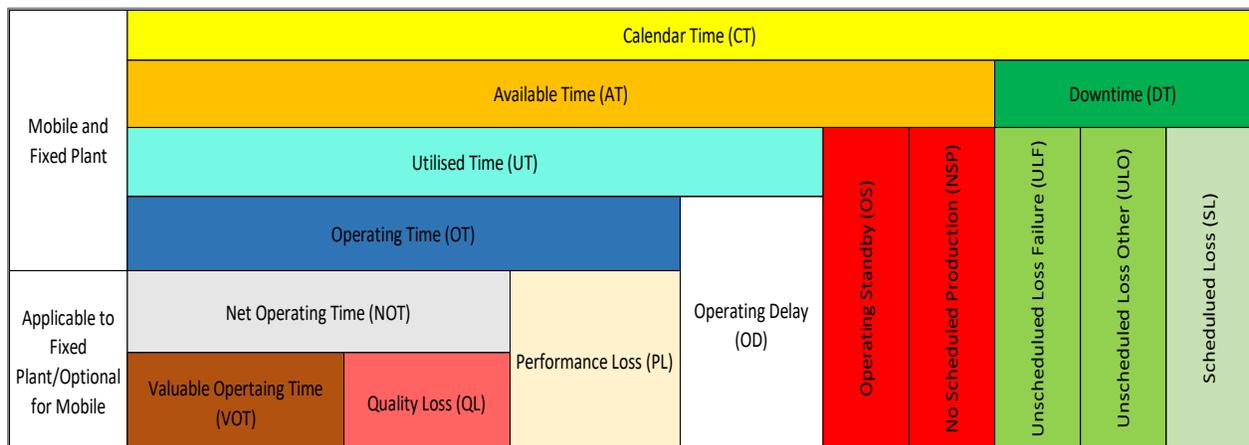
Parameters	Unit	Value
Mine Type:	Open Pit Mine	
Stripping Ratio	Waste: Leach Feed	2.83
RoM Leach Feed Production/Year	M tonnes	4.4
Waste Production/Year	M tonnes	12.4
Ounces/Year	K Oz	70.05
Avg. Haul Distance - Leach Feed	km	5.2
Avg. Haul Distance - Waste	km	3.2
Total Tonnes	M tonnes	83.7
Hours per shift	h/s	10
Shifts per day	#/d	2
Planned Days per year	d/y	360
Planned Avg. Mechanical Availability	%	87.5
Planned Avg. Utilisation	%	83.3
Bench height – Mineralization	metres	6
Bench height - Waste	metres	6
Powder factor - Mineralization	kg/mt	0.20
Powder factor - Waste	kg/mt	0.20

**16.1.5. Time Allocation**

The allocation of time, categories for the mine schedule, and equipment productivity will follow the definitions presented in Figure 16:1.

The mine will be scheduled to operate 360 days per year, with five days scheduled for non-operation (Scheduled Loss= SL); Utilised time equivalent will be approximately 262 full days of production after consideration for downtime due to mechanical unavailability (87.5% mechanical availability), and non-utilized time such as operating standby and no scheduled production time (20 of 24 hours used per day is equal to 83.3% planned utilisation). Unplanned mechanical downtime and unplanned non-utilized time will decrease production below the production planned.

Figure 16:1 Time Allocation Definitions



The assumed planned overall deration of available time to Net Operating Time is approximately 73% due to the deration factors of 87.5% mechanical availability and 83.3% equipment utilization.

### **16.1.6. Unit Rates**

For reference purposes the cost of diesel and gasoline in Mexico at the time of this study are reported below. Fuel is typically the largest cost to the mining operation and a large portion of the contractor’s unit costs. A significant increase in fuel prices can greatly affect the unit mining cost of a tonne of waste or leach feed. The cost of diesel in Mexico is presented in Table 16:4 and cost of gasoline are presented in Table 16:5

Table 16:4 Mexico Diesel Prices

<b>Currency</b>	<b>Litre</b>	<b>Gallon*</b>
MXN	21.780	82.446
USD	1.096	4.149

(Sept-13-2021)

Table 16:5 Mexico Gasoline Prices

<b>Currency</b>	<b>Litre</b>	<b>Gallon*</b>
MXN	22.210	84.074
USD	1.117	4.228

(Sept-13-2021)

*\*U.S. Gallon*

*Gasoline prices per litre, octane-95: prices for Mexico from 14-Jun-2021 to 13-Sep-2021. The average value for Mexico during that period was 22.12 Mexican Peso with a minimum of 21.99 Mexican Peso on 14-Jun-2021 and a maximum of 22.21 Mexican Peso on 06-Sep-2021. For comparison, the average price of gasoline in the world for this period is 31.79 Mexican Peso.*

Table 16:6 Mexican Electricity Prices

<b>Currency</b>	<b>Household kWh</b>	<b>Business kWh</b>
MXN	1.635	3.072
USD	0.082	0.155

(Sept-13-2021)

While the cost of electricity is typically very important to the cost of processing leach feed the cost of electricity for mining operations is typically dominated by the costs for ventilation in underground mining, however in open pit mining it primarily effects the cost of dewatering the pit and lighting of the pit and or building associated with technical support and maintenance unless there are electric shovels used in the pit. There are no electric shovels anticipated to be used at Cerro Caliche.

### **16.1.7. General Arrangements for Mining**

The mining of the Cerro Caliche pits will generally be executed in 6 m benches, using 3 m flitches if and when needed. Whereas the block model has 6 m x 6 m x 6 m (height) dimensions, the mine planning work is based on mining full 6 m benches throughout.

The option of using 3 m flitches operationally gives the flexibility of better selectivity as needed. Six (6) metre tall benches will be preferred where possible for improved productivity. Where drilling is required, 6 m benches will be drilled with 0.60 m subgrade.

### **16.2. Open Pit Optimization**

The basis for the open pit designs are based upon an optimized pit shells. The execution of the Pit Optimisation exercise was carried out using Whittle Software. The software uses the Lerchs-Grossmann algorithm to generate the optimised pit shell/s according using the resource block model and the selected input parameters.

#### **16.2.1. Optimization Parameters**

The Economic Parameters used for the cut-off grade calculation and the pit optimisation are presented in

Table 16:7. The break-even cut-off grade intrinsic to the optimisation process (including mining and processing costs) was 0.21 g/t for when using a gold price of US \$1,800.

The leach cut-off grade which determines if mineralized rock will be sent to the crusher or the waste dump after it has been mined and is at the pit's edge (excludes mining cost as this is a sunk cost when the decision is made) is 0.17 g/t.

Table 16:7 Parameters for Lerchs-Grossmann Pit Optimization and CoG

<b>Mining Costs</b>	<b>Unit</b>	<b>Value</b>
Waste Mining Reference Cost	\$/t mined	1.90
Mineralization Mining Reference Cost	\$/t mined	1.90
Total Reference Mining Costs	\$/t mined	1.90
<b>Mineralized Material Based Cost</b>		
Process Cost	\$/t stacked	6.43
Selling Cost & Credits	\$/t tacked	0.20
G&A	\$/t tacked	0.49
Total Mineralized Material Based Costs	\$/t tacked	7.12
<b>Economic Parameters</b>		
Au Price	US\$/oz	1,800
Au Price	US\$/g	57.86
Au Process Recovery	%	74%
Ag Process Recovery	%	26.5%
<b>Cut-off Grade</b>		
Au Only Marginal (Leach) Cut-Off	g/t	0.17
Au Only Break-Even Cut-Off	g/t	0.21
Final Pit Slope Angle	degrees	50°

### **16.2.2. Optimization Results**

The details of the combined nested Lerchs-Grossmann optimised pit shells for incremental price factors using the parameters in Table 16:7 are presented in Table 16:8.

The reader should note that Cerro Caliche West is comprised of the Cabeza Blanca and El Colorado Pits, while the remainder of the pits are all considered part of Cerro Caliche Central. The pit shell identified as numbered 41 is highlighted as it was the pit selected for use as the template for the final pit design in this study.

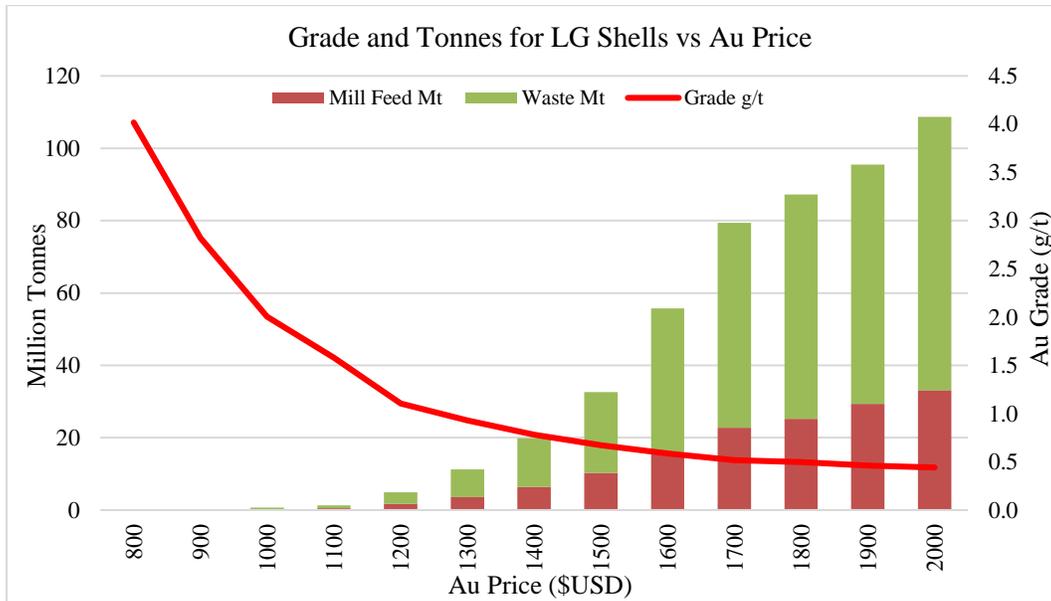
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Table 16:8 Cerro Caliche Combined Results for Optimized LG Pits Summary vs Au Price

Gold Price	US\$	\$800	\$900	\$1,000	\$1,100	\$1,200	\$1,300	\$1,400	\$1,500	\$1,600	\$1,700	\$1,800	\$1,900	\$2,000
Combined Pits		Cerro Caliche Central												
Leach Feed	Mt	0.0	0.1	0.2	0.4	1.5	3.0	5.4	8.4	13.1	18.9	21.0	24.6	27.9
Grade	g/t	3.94	2.71	1.92	1.54	1.08	0.9	0.76	0.65	0.57	0.5	0.48	0.45	0.43
In-situ Ounces	K oz	3	7	14	21	53	87	130	176	241	304	324	353	382
Waste	Mt	0	0.13	0.33	0.61	2.64	5.26	9.61	15.45	28.88	42.43	46.74	50.22	57.6
Total Material	Mt	0.03	0.21	0.55	1.03	4.16	8.27	14.95	23.81	42.02	61.33	67.71	74.83	85.46
Strip Ratio	SR	0.18	1.67	1.47	1.43	1.74	1.75	1.8	1.85	2.2	2.24	2.23	2.04	2.07
Cut-off	g/t	1.03	0.82	0.66	0.55	0.46	0.39	0.34	0.29	0.26	0.23	0.22	0.2	0.19
Combined Pits		Cerro Caliche West												
Leach Feed	Mt	0.01	0.01	0.03	0.07	0.21	0.6	1.08	1.95	2.92	3.9	4.23	4.76	5.3
Grade	g/t	4.3	3.68	2.71	1.85	1.25	1.09	0.9	0.75	0.67	0.6	0.58	0.54	0.52
In-situ Ounces	K oz	1	1	2	4	8	21	31	47	62	75	78	83	88
Waste	Mt	0.02	0.02	0.08	0.19	0.52	2.38	3.8	6.84	10.84	14.19	15.28	15.93	17.9
Total Material	Mt	0	0	0.1	0.3	0.7	3	4.9	8.8	13.8	18.1	19.5	20.7	23.2
Strip Ratio	t:t	2.41	2.19	3.03	2.76	2.48	3.96	3.52	3.5	3.72	3.64	3.61	3.35	3.38
Cut-off	g/t	1.03	0.82	0.66	0.55	0.46	0.39	0.34	0.29	0.26	0.23	0.22	0.2	0.19
ALL PITS		Cerro Caliche Central + West												
Leach Feed	Mt	0.04	0.1	0.3	0.5	1.7	3.6	6.4	10.3	16.1	22.8	25.2	29.4	33.2
Grade	g/t	4.02	2.82	2	1.58	1.11	0.93	0.78	0.67	0.59	0.52	0.5	0.46	0.44
In-situ Ounces	K oz	5	8	16	25	62	108	161	222	304	381	405	435	469
Au Recovery*	%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
Recoverable Au	K oz	4	6	12	19	46	80	119	164	225	282	300	322	347
Waste	Mt	0.02	0.15	0.4	0.8	3.16	7.64	13.41	22.29	39.72	56.62	62.02	66.15	75.5
Total Material	Mt	0.05	0.24	0.65	1.29	4.89	11.26	19.84	32.6	55.77	79.42	87.22	95.52	108.66
Strip Ratio	t:t	0.65	1.73	1.63	1.61	1.83	2.11	2.09	2.16	2.48	2.48	2.46	2.25	2.28
Cut-off Grade	g/t	1.03	0.82	0.66	0.55	0.46	0.39	0.34	0.29	0.26	0.23	0.22	0.2	0.19

Table 16:8 is presented graphically in Figure 16:2 for waste and leach feed tonnes on the primary Y axis and leach feed Au grade on the secondary Y axis.

Figure 16:2 Grade & Tonnes for LG Shells vs Au Price

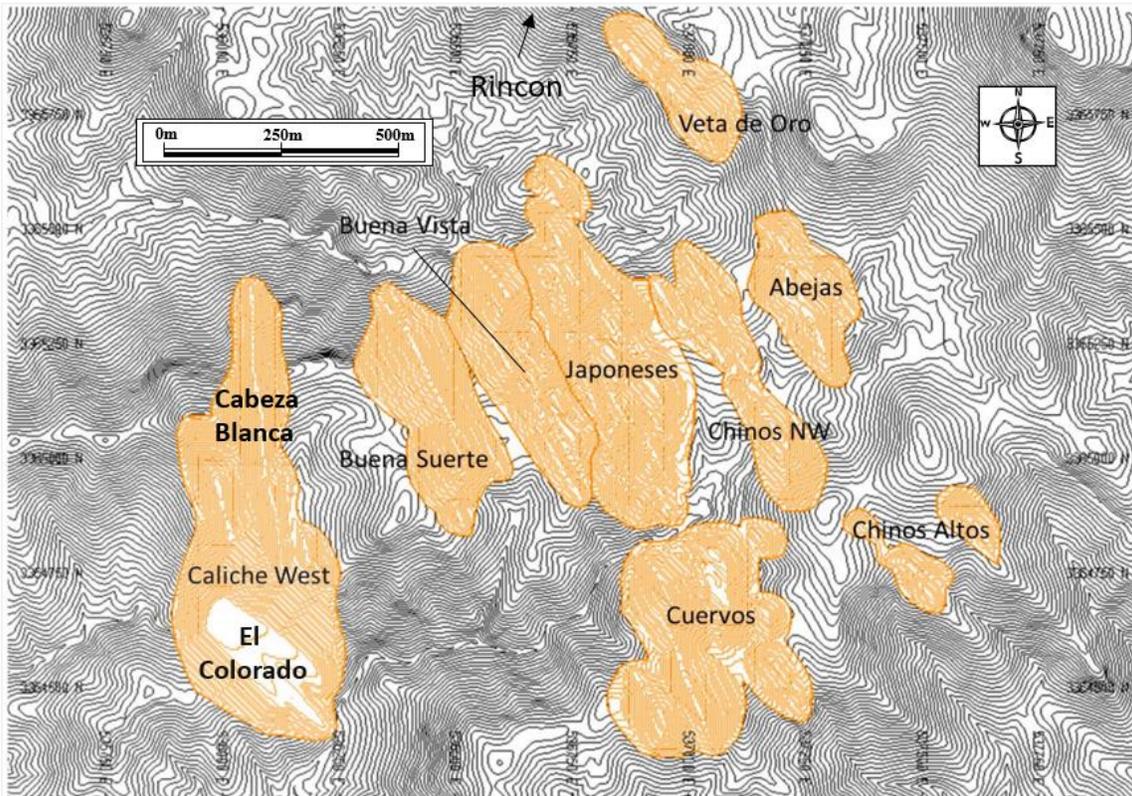


### 16.2.3. Selected Optimized Pit Shells

The LG pit shell selected for use as the basis of the design pits mine in the LOM production schedule corresponds to the one corresponding to \$1,800 Au price.

This shell contains 25 Mt of mineralized rock with an average grade of 0.50 g/t and 62 Mt of waste. The designed pits based on the selected pit shell adds additional waste and mineralized material due to the inclusion of ramps and catch benches in the designs which make them larger than the selected LG pit shell. The optimized pit shells used as the basis for the pit designs are illustrated in Figure 16:3.

Figure 16:3 Optimized Pit Shells



Source: Sonoro Gold (2021)

### 16.3. Open Pit Design Parameters

Based on pit design and preliminary evaluation template parameters, ramp widths were based on anticipated haul trucks of 78.3 t capacity and sized at 15 m in width. One-way traffic haul roads were used at the pit bottom at a width of 10 m. It is expected that the mining faces will be 6 m high and catch bench berms placed every vertical 6 m.

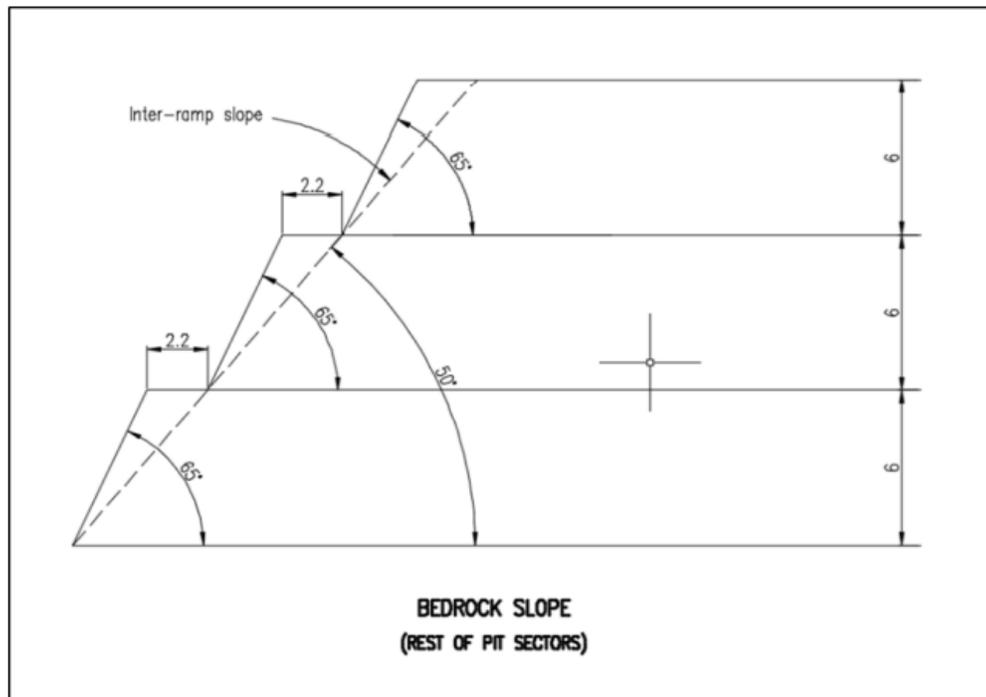
Roads have a maximum gradient of 10% assigned to the shortest distance along the ramp, which prevents gradient rules being broken around corners. The inside circumference of a ramp may be greater than 8% if the gradient is applied to the ramp centreline or high wall.

The summary of geotechnical design parameters used for the pit design are presented in Table 16:9 and a schematic of bench design parameters are illustrated in Figure 16:4.

Table 16:9 Open Pit Design Parameters

Parameter	Unit Symbol	Value
Maximum bench height in overburden and waste	m	6
Maximum bench height in mineralization	m	6
Face angle (Batter Angle)	°	65
Berm width	m	2.2
Ramp width – 2-way traffic	m	15
Ramp width – 1 way traffic	m	10
Ramp gradient (steepest)	%	10
Overall pit slope angle	°	50
Minimum mining width	m	20

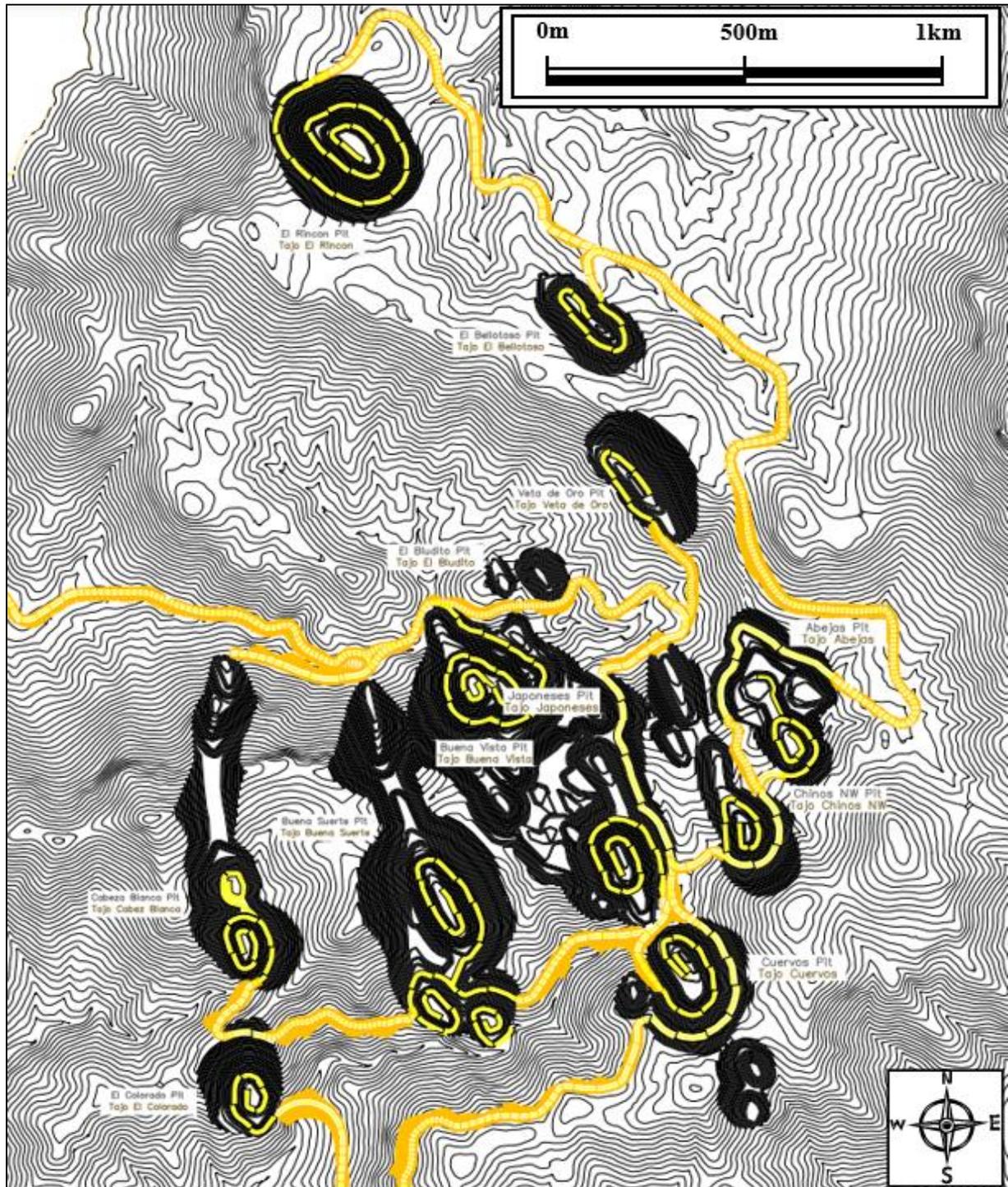
Figure 16:4 Bench Design Parameters



### 16.3.1. Pit Designs

The final pit designs are presented in Figure 16:5 . The overall pit slope angles are all below the 50-degree maximum of the inter ramp angle defined by the face angle and the berm widths.

Figure 16:5 Final Pit Designs



Source: Sonoro Gold (2021)

The details of the mineralized leach feed inside of the pit design is presented in Table 16:10.

Table 16:10 Details of Mineralized Leach Feed inside Pit Design

AU Sell Price/oz	Au net (\$/g)	Ore (Mt)	Au (g/t)	Ag (g/t)	AuEQ (g/t)	K Oz.	Waste	S.R.
Japoneses	57.86	10.65	0.34	3.19	0.36	123	12.47	1.17
Cuervos	57.86	1.61	0.48	4.09	0.50	26	3.31	2.05
Abejas	57.86	1.51	0.43	5.79	0.46	22	3.24	2.15
Veta de Oro	57.86	0.66	0.58	14.23	0.65	14	2.89	4.35
El Bellotoso	57.86	0.53	0.35	4.42	0.37	6	1.52	2.87
El Boludito	57.86	0.22	0.37	1.98	0.38	3	0.60	2.71
El Rincon	57.86	1.98	0.42	10.84	0.48	30	8.65	4.36
Buena Vista	57.86	4.27	0.36	2.02	0.37	51	7.04	1.65
Buena Suerte	57.86	5.65	0.51	3.76	0.53	96	14.51	2.57
Chinos NW	57.86	1.90	0.30	2.93	0.32	19	2.53	1.33
<b>Total Resource Caliche Central</b>	<b>57.86</b>	<b>28.99</b>	<b>0.40</b>	<b>4.09</b>	<b>0.42</b>	<b>390</b>	<b>56.76</b>	<b>1.96</b>
Caliche West (Cabeza Blanca)	57.86	1.45	0.48	4.33	0.50	24	5.90	4.06
Caliche West (El Colorado)	57.86	1.05	0.74	2.60	0.75	25	2.77	2.64
<b>Total Resource Caliche West</b>	<b>57.86</b>	<b>2.50</b>	<b>0.59</b>	<b>3.60</b>	<b>0.61</b>	<b>49</b>	<b>8.67</b>	<b>3.46</b>
<b>Total Resource Caliche Total</b>	<b>57.86</b>	<b>31.49</b>	<b>0.41</b>	<b>4.05</b>	<b>0.43</b>	<b>439</b>	<b>65.43</b>	<b>2.08</b>

*Note: The Buena Vista Pit is separated in this Table but is sometimes combined with Japoneses pit as they are adjacent and fall within a continuous pit rim.*

The breakdown of the contents of the individual pit designs by resource class is presented in Table 16:11. (\$1,800 USD/oz Restricted) Cut-off 0.21, by Resource Class.

Table 16:11 Resource Estimate in Pit Design

Pit Name	Resource Class	Au net (\$/g)	Ore (tonnes)	Au (g/t)	Ag (g/t)	AuEQ (g/t)	Ounces
Japoneses	Measured	57.86	6,131,048	0.366	3.642	0.384	75,733
	Indicated	57.86	4,520,495	0.312	2.574	0.325	47,220
	Inferred	57.86	1,106	0.220	1.510	0.228	8
Cuervos	Measured	57.86	1,053,977	0.518	4.338	0.540	18,288
	Indicated	57.86	218,768	0.499	4.645	0.523	3,676
	Inferred	57.86	340,572	0.335	2.984	0.350	3,830
Abejas	Measured	57.86	795,427	0.435	5.886	0.465	11,897
	Indicated	57.86	441,155	0.423	6.369	0.456	6,465
	Inferred	57.86	273,298	0.434	4.571	0.457	4,016
Veta de Oro	Measured	57.86	-	-	-	-	0
	Indicated	57.86	-	-	-	-	0
	Inferred	57.86	664,502	0.578	14.234	0.651	13,904
El Bellotoso	Measured	57.86	-	-	-	-	0
	Indicated	57.86	-	-	-	-	0

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Pit Name	Resource Class	Au net (\$/g)	Ore (tonnes)	Au (g/t)	Ag (g/t)	AuEQ (g/t)	Ounces
	Inferred	57.86	527,506	0.350	4.420	0.373	6,317
El Boludito	Measured	57.86	-	-	-	-	0
	Indicated	57.86	222,910	0.374	1.983	0.384	2,755
	Inferred	57.86	296	0.440	1.524	0.448	4
El Rincon	Measured	57.86	-	-	-	-	0
	Indicated	57.86	-	-	-	-	0
	Inferred	57.86	1,982,064	0.420	10.843	0.476	30,301
Buena Vista	Measured	57.86	2,480,780	0.330	2.162	0.341	27,198
	Indicated	57.86	1,743,557	0.408	1.720	0.417	23,370
	Inferred	57.86	40,877	0.285	6.313	0.318	418
Buena Suerte	Measured	57.86	905,323	0.402	5.894	0.432	12,574
	Indicated	57.86	4,273,092	0.538	3.480	0.556	76,357
	Inferred	57.86	473,913	0.429	2.167	0.440	6,707
Chinos NW	Measured	57.86	-	-	-	-	0
	Indicated	57.86	789,832	0.319	3.965	0.339	8,619
	Inferred	57.86	1,108,112	0.288	2.198	0.299	10,645
<b>Total Resource Caliche Central</b>	<b>ALL</b>	<b>57.86</b>	<b>28,988,610</b>	<b>0.398</b>	<b>4.087</b>	<b>0.419</b>	<b>390,302</b>
Caliche West (Cabeza Blanca)	Measured	57.86	551,840	0.522	5.508	0.550	9,756
	Indicated	57.86	345,684	0.541	4.266	0.563	6,257
	Inferred	57.86	555,582	0.404	3.212	0.421	7,511
Caliche West (El Colorado)	Measured	57.86	-	-	-	-	0
	Indicated	57.86	1,032,024	0.730	2.609	0.744	24,673
	Inferred	57.86	19,851	1.130	1.909	1.139	727
<b>Total Resource Caliche West</b>	<b>ALL</b>	<b>57.86</b>	<b>2,504,981</b>	<b>0.589</b>	<b>3.604</b>	<b>0.607</b>	<b>48,925</b>
<b>Total Resource Caliche Project</b>	<b>ALL</b>	<b>57.86</b>	<b>31,493,591</b>	<b>0.413</b>	<b>4.048</b>	<b>0.434</b>	<b>439,227</b>

### 16.3.2. Pushbacks

The mining of some of the pits will include phases or pushbacks. In particular, the Japoneses/Buena Vista, Buena Suerte and El Colorado pits all have two phases otherwise known as pushbacks which help to control the amount of waste mined earlier in the Project so as to improve the net present value of the Project and maintain a steadier stripping ratio throughout the various pits' lives.

### 16.4. Mining Production Schedule

The mine production scheduling was carried out by Gildardo Vejar of ISM and was verified by Micon using Datamine's NPVS software. The total quantities of leach feed, waste and grades coming from each pit in the mining LOM Production Schule is summarized in Table 16:12.

The quantities will not be exactly the same as the tonnes reported in Table 16:10 and

Table 16:11 whereas the exact tonnes mined may be slightly less than all tonnes available and there is also consideration for mineralized material loss and dilution.

Table 16:12 LOM Production Schedule Totals by Pit

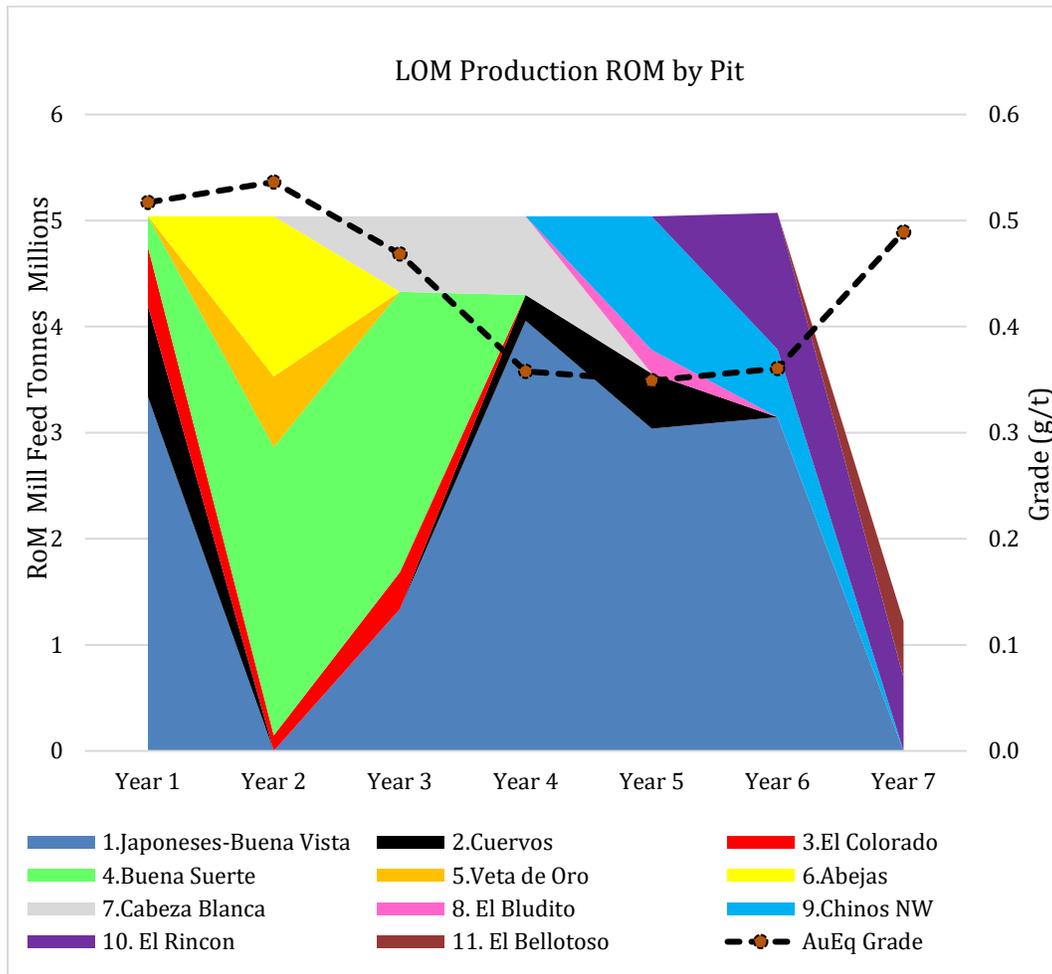
<b>MINE SCHEDULE TOTALS</b>		<b>Parameter/ Unit Costs</b>	<b>Total</b>
Japoneses- Buena Vista	Mineralized Material Tonnes	Mt	14,917,899
	Au Grade	g/t	0.348
	Ag Grade	g/t	<u>2.855</u>
	AuEq Grade	g/t	0.363
	Au Contained Oz	Oz	173,944
Cuervos	Mineralized Material Tonnes	Mt	1,613,313
	Au Grade	g/t	0.476
	Ag Grade	g/t	<u>4.094</u>
	AuEq Grade	g/t	0.497
	Au Contained Oz	Oz	25,797
El Colorado	Mineralized Material Tonnes	Mt	1,051,876
	Au Grade	g/t	0.738
	Ag Grade	g/t	<u>2.596</u>
	AuEq Grade	g/t	0.751
	Au Contained Oz	Oz	25,400
Buena Suerte	Mineralized Material Tonnes	Mt	5,652,327
	Au Grade	g/t	0.507
	Ag Grade	g/t	<u>3.757</u>
	AuEq Grade	g/t	0.526
	Au Contained Oz	Oz	95,637
Veta de Oro	Mineralized Material Tonnes	Mt	664,501
	Au Grade	g/t	0.578
	Ag Grade	g/t	<u>14.234</u>
	AuEq Grade	g/t	0.651
	Au Contained Oz	Oz	13,905
Abejas	Mineralized Material Tonnes	Mt	1,509,880
	Au Grade	g/t	0.431
	Ag Grade	g/t	<u>5.789</u>
	AuEq Grade	g/t	0.461
	Au Contained Oz	Oz	22,379
Cabeza Blanca	Mineralized Material Tonnes	Mt	1,453,107
	Au Grade	g/t	0.481
	Ag Grade	g/t	<u>4.335</u>
	AuEq Grade	g/t	0.504
	Au Contained Oz	Oz	23,524
El Boludito	Mineralized Material Tonnes	Mt	223,207
	Au Grade	g/t	0.374
	Ag Grade	g/t	<u>1.982</u>
	AuEq Grade	g/t	0.385
	Au Contained Oz	Oz	2,759
Chinos NW	Mineralized Material Tonnes	Mt	1,897,942

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<b>MINE SCHEDULE TOTALS</b>		<b>Parameter/ Unit Costs</b>	<b>Total</b>
	Au Grade	g/t	0.301
	Ag Grade	g/t	<u>2.933</u>
	AuEq Grade	g/t	0.316
	Au Contained Oz	Oz	19,263
El Rincon	Mineralized Material Tonnes	Mt	1,982,064
	Au Grade	g/t	0.420
	Ag Grade	g/t	<u>10.843</u>
	AuEq Grade	g/t	0.475
	Au Contained Oz	Oz	30,298
El Bellotoso	Mineralized Material Tonnes	Mt	527,504
	Au Grade	g/t	0.350
	Ag Grade	g/t	<u>4.420</u>
	AuEq Grade	g/t	0.373
	Au Contained Oz	Oz	6,318
Total Mined	Mineralized Material	Mt	31,493,620
	Au Grade	g/t	0.413
	Ag Grade	g/t	<u>4.048</u>
	AuEq Grade	g/t	0.434
	Au Contained Oz	Oz	439,223
	Waste	Mt	65,505,140
	Total Tonnes	Mt	96,998,760
	SR		2.08
<b>PRODUCTION ASSUMPTIONS</b>			<b>Total</b>
Days			2,097
Total tonnes/day			15,016
Total tonnes/month			31,493,620
Total In-situ Ounces/Day			209
Total In-situ Ounces/month			439,223

The mining rate follows the approximate 15,000 tpd throughput capacity of the crushing circuit by which the mineralized material is reduced in size prior to being loaded onto the leach pad. This daily rate adds up to an annual total of 5.04 Mt of leach feed that is planned to be drilled, blasted, mined, crushed, and leached annually. The source pits of the annual 5.04 Mt per year of ROM leach feed is illustrated by pit in Figure 16:6.

Figure 16:6 Source of ROM Leach Feed by Pit for LOM Mine Schedule



Whereas there is 2.5% dilution planned and 2.5% mineralized material loss planned the tonnes of in-situ mineral mined (31.49 Mt) is approximately the same as the adjusted tonnes of leach feed that will end up on the leach pad (31.47 Mt). The in-situ grade of 0.413 g/t is adjusted for the dilution down to 0.403 g/t in order to account for the estimated 2.5% of sterile rock dilution of the leach feed.

The open pit mine development plan consists of fifteen (15) pit development phases expanding to eleven different open pits (twelve if Japanese and Buena Vista are considered separate). These different phases will be mined sequentially with overlap phases.

In addition to the total of 31.5 Mt of mineralized material that will be mined, a total of 65.5 Mt of waste will be mined and placed on the assigned dump/s. The scheduling for the LOM production plan was performed on a monthly basis for the first two years after which it continued on a yearly basis until the end of the mine life in year seven (7). The Cerro Caliche Mine Project LOM Production Schedule prepared by Gildardo Vejar of ISM and reviewed by Micon is presented in Table 16:13.



#### **16.4.1. Mine Plan Sequence**

The pit development phases were reviewed pit by pit for the entire mine plan in a detailed bench by bench schedule in a file provided by Gildardo Vejar of ISM.

In the LOM production plan, there are generally several active pits being mined at any time thus minimizing the impact of congestion of equipment in the pit and on haul roads, which also increases the flexibility of the mine plan during rain or other operational constraining events.

Year one (1) starts off its first month by mining 420 Kt from the Japoneses-Buena Vista pit after which the schedule principally mines from Japoneses-Buena and ramps up mining in the Cuervos pit from month two until month twelve. El Colorado phase 1 pit is mined in the second half of the years with the Buena Suerte pit starting in month eleven and makes up the majority leach feed mined at the end of the first year of the mine's schedule. In total, Year one mines 5.040 Kt of leach feed with an average AuEq grade of 0.517 g/t and 12.285 Kt of waste

Year two (2) of the mine plan begins by focusing mining on the Buena Suerte pit and some relatively small tonnage (145 Kt) from the El Colorado pit in months 13, and 22 to 24. The Buena Suerte pit is mined throughout year two providing 2.72 Mt of leach feed with a grade of 0.52 g/t Au of the 5.04 Mt with a grade of 0.51 g/t Au in the second year of the mine plan schedule. The Veta de Oro pit is mined in its entirety from month 18 to 24 providing 0.66 Mt at a grade of 0.58 g/t Au to the schedule while the Abejas pit rounds out the second year of mine production providing 1.51 Mt of leach feed with a grade of 0.43 g/t Au.

Year three (3) primarily mines from the Buena Suerte pit which provide 2.64 Mt at a grade of 0.50 g/t Au of the 5.04 Mt with a grade of 0.45 g/t Au in the plan. Year three also sees the return of mining in the Japoneses-Buena Vista pit (1.34 Mt @ 0.31 g/t Au) and the completion of the last 0.35 Mt with a grade of 0.49 g/t Au from the final few benches of the Phase 2 design for the El Colorado pit. Finally, the Cabeza Blanca pit immediately adjacent and to the north of the El Colorado pit is started in year three and provides 7.1 Mt with a grade of 0.54 g/t Au to the schedule.

Year four (4) primarily mines the Japoneses-Buena Vista pit which provides 4.06 Mt at a grade of 0.33 g/t Au of the 5.04 Mt at a grade of 0.34 g/t Au in the plan. This marks a significant drop in overall grade of the leach feed in year four versus the initial three years. Year four finishes off the bottom half of the Cabeza Blanca pit which contributes 0.74 Mt at a grade of 0.43 g/t Au. Year four also mines a relatively small amount from the Cuervos pit which is responsible for 0.24 Mt at a grade of 0.32 g/t Au.

Year five (5) sees the completion of the Cuervos pits' final 0.52 Mt of leach feed with a grade of 0.38 g/t Au sent to plant, while the Japoneses-Buena Vista pit continues to be mined in substantial quantities providing 3.04 Mt at a grade of 0.34 g/t Au of the total 5.04 Mt at a grade of 0.34 g/t Au planned for the whole year five of the mine plan. The balance of the leach feed comes from the small El Boludito pit which is mined in its entirety to provide 0.22 Mt at grade of 0.37 g/t Au and the initial planned mining from the Chinos NW pit which 1.26 Mt at a grade of 0.31 g/t Au.

Year six (6) sees the completion of mining in the Japoneses-Buena Vista pit which provides its final 3.15 Mt at a grade of 0.34 g/t Au to help support the 5.04 Mt at a grade of 0.34 g/t planned.

The balance of the mine plan is provided by the initial mining of the El Rincon pit in the north of the Project which contribute 1.29 Mt at a grade of 0.37 g/t Au and the completion of the Chinos NW pit which contributes its final 0.64 Mt at a grade of 0.28 g/t Au.

The seventh and final year of the mine plan includes the mining of the last 0.69 Mt at a grade of 0.51 g/t Au from the EL Rincon pit and the starting and completion of the entire 0.53 Mt at a grade of 0.35 g/t Au in the El Bellotoso pit. In total, the mine plan for year seven is estimated to only run for less than half of the year and will mine a total of 1.22 Mt at a grade of 0.44 g/t Au.

## **16.5. Mining equipment Fleet**

The mine will operate as a conventional truck and shovel operation. The typical production cycle will be drilling, blasting, grade control, loading and hauling. Primary loading units will be one hydraulic shovel and 2 front-end loaders, two drills will be diesel powered and the balance of the equipment will be diesel powered with support equipment providing development access, road maintenance and equipment servicing capability.

The primary activities on a mining site consist of loading the materials from one or multiple sources and hauling the materials using transportation systems. The size of the mining mobile equipment is important to consider when analyzing haulage systems.

### **16.5.1. Major Mine Equipment Operating Parameters**

The mine will operate 20 hours per day for the 360 planned days per year. Shift employees will work one 10-hour shifts. In general, it is expected that major equipment will have 87.5% mechanical availability initially, declining with age. Detailed equipment productivity calculations have been made on an annual basis for drills, shovels, and trucks. Support equipment operating time has been factored on an annual utilization basis.

### **16.5.2. Loading**

The loading fleet will consist of one 5.2 m<sup>3</sup> hydraulic shovel, and two 10.7 m<sup>3</sup> wheel loaders. The wheel loader will be available to work in stockpile areas, low face conditions, and where required to meet production objectives during periods of unscheduled shovel downtime. The hydraulic shovel and the wheel loader will be required in Year -1 pre-production for road pit access.

The loading equipment will operate two ten hour shifts per day. Initial loading equipment availability is expected to be 87.5%, declining at a rate of 1%/year as equipment ages. The productivity calculations assume good digging conditions, five to six passes loading of the trucks with an overall cycle time around 28 minutes to process plant and 20 minutes to waste dump material. The four hours of planned downtime per day will be utilized for scheduled maintenance, tire changes, refuelling and other administrative activities required for operators such as safety and/or other operational and corporate training initiatives.

### **16.5.3. Haulage**

Rear-dump trucks (78.3 t) will be used to move material to the pre-concentration area and to the waste dump and stockpiles. The haulage trucks will operate two ten hour shifts per day. Equipment availability is expected to be 87.5% declining at a rate of 1% per year to approximately 75% as equipment ages.

The cycle times for mineralized material or waste were calculated for each year of production and were based on haul distances and road grades. These were then used to calculate haul truck productivities and fleet requirements. It is estimated that a total of 15 haulage units on average are required during the mine production through the seven operational years modelled.

### **16.5.4. Mine Support**

The mining support equipment includes track dozers, graders, water truck, fuel truck and service/tire truck required for road, bench and dump maintenance. Miscellaneous ancillary equipment is also required to service, maintain the major equipment and support ongoing pit operations.

Track dozers will operate on active benches pushing back break and performing heavy dozer operations around operating shovels. In the open pit, track dozers will also build roads, prepare sinking cut faces, clean berms, scale walls and rip hard toes. On waste dumps and stockpiles the track dozers will maintain positive grades on the bench surfaces near the crest and provide safe berms for truck dumping.

Road graders will maintain road, dump surfaces, and bench surfaces to provide level running surfaces. Water trucks will be used in the road maintenance program to provide dust control and safer conditions from an air quality and driver visibility perspective.

A complement of ancillary equipment will also be available to perform service functions including fueling, provide work area lighting, excavation capability for ditching etc. as required to ensure a safe self-sufficient mining operation.

Pick-up trucks and crew-cabs will be required for transportation of supervisors, technical staff and maintenance personnel.

Explosives will be delivered to the blasthole. The blasting crew will require support equipment to pump wet holes, deliver blasting accessories and stem holes. The bulk delivery truck and storage facilities will be provided by the contractor supplying the explosives.

### **16.5.5. Truck and Loader Cycle Time Calculations**

In general, the loading time cycle for the backhoes and the calculations for the required truck fleets are presented in Table 16:14 for waste and Table 16:15 for leach feed.

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Table 16:14 Loading Cycle Times & Waste Truck Fleet Estimates

<b>Haul Off Road Trucks Calculation</b>								
Loader: 988H								
Truck: 775 Rock Truck		<b>Budget</b>						
Assigned Area: <b>Waste Dump</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>
Specific Gravity Bank Material	s.g.	2.500	2.500	2.500	2.500	3.500	4.500	2.500
Swell Factor	%	30%	30%	30%	30%	130%	230%	30%
Bucket Loader Capacity (heaped)	m <sup>3</sup>	6.4	6.4	6.4	6.4	7.4	8.4	6.4
Bucket Fill Factor	%	90%	90%	90%	90%	190%	290%	90%
Cycle Time Contingency	min.	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Spot Time	min.	0.70	0.70	0.70	0.70	0.70	0.70	0.70
1st Bucket Loaded	min.	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Loading Time	min.	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Loading Protection	%	10%	10%	10%	10%	110%	210%	10%
Truck Target Payload Heaped Capacity	t	79.9	79.9	79.9	79.9	80.9	81.9	79.9
Days to Work	days	279	279	279	279	279	279	279
Shift /day	ss/day	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Hour/shift	hrs	12.0	12.0	12.0	12.0	12.0	12.0	12.0
<b>Waste Material</b>	<b>Mt</b>	<b>7.2</b>	<b>13.4</b>	<b>12.3</b>	<b>8.9</b>	<b>8.5</b>	<b>12.2</b>	<b>2.9</b>
Total Loading Time	min.	6.24	6.24	6.24	6.24	6.24	6.24	6.24
Specific Gravity Loose Material	s.g.	1.92	1.92	1.92	1.92	1.52	1.36	1.92
Cubic Metre/ Bucket	m <sup>3</sup>	5.72	5.72	5.72	5.72	13.97	24.22	5.72
Tonnage Bucket Capacity	tonnes	10.99	10.99	10.99	10.99	10.99	10.99	10.99
Bucket Required Average No. of Passes	#	7.27	7.27	7.27	7.27	7.36	7.45	7.27
Bucket Required Final No. of Passes	#	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Average Truck Loaded	tonnes	87.92	87.92	87.92	87.92	87.92	87.92	87.92
Scheduled hour/shift	hr/ss	10.80	10.80	10.80	10.80	10.80	10.80	10.80
Scheduled hour/day	hr/day	21.60	21.60	21.60	21.60	21.60	21.60	21.60
Operating hours/shift	hr/ss	9.18	9.18	9.18	9.18	9.18	9.18	9.18
Operating hours/day	hr/day	18.36	18.36	18.36	18.36	18.36	18.36	18.36
Total Hours Required	hrs	25,318	47,090	42,821	36,669	34,997	49,941	11,391
No. of Trucks Required/day	unit	4.94	9.19	8.35	7.15	6.83	9.74	2.22
No. of Trucks Assigned per day	unit	<b>5.00</b>	<b>10.00</b>	<b>9.00</b>	<b>8.00</b>	<b>7.00</b>	<b>10.00</b>	<b>3.00</b>
Total Tonnes per Hour	t/hr	286.2	285.3	291.3	244.0	243.9	243.9	254.8
Total Tonnes per Day	tpd	<b>26,272</b>	<b>52,387</b>	<b>48,135</b>	<b>35,832</b>	<b>31,352</b>	<b>44,789</b>	<b>14,034</b>
Total Tonnes per year Capacity	Mt/year	<b>7.3</b>	<b>14.6</b>	<b>13.4</b>	<b>10.0</b>	<b>8.8</b>	<b>12.5</b>	<b>3.9</b>
Waste Truck Capacity/year	Mt	<b>7.3</b>	<b>14.6</b>	<b>13.4</b>	<b>10.0</b>	<b>8.8</b>	<b>12.5</b>	<b>3.9</b>

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Table 16:15 Loading Cycle Times & Leach Feed Truck Fleet Estimates

<b>Haul Off Road Trucks Calculation</b>								
Excavator: Cat 390D L								-
Truck: 775 Rock Truck		<b>Budget</b>						
Assigned Area: Mineralized Material Zone		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>
Specific Gravity Bank Material	s.g.	2.500	2.500	2.500	2.500	3.500	4.500	2.500
Swell Factor	%	30%	30%	30%	30%	130%	230%	30%
Bucket Loader Capacity (heaped)	m <sup>3</sup>	6.0	6.0	6.0	6.0	7.0	8.0	6.4
Bucket Fill Factor	%	90%	90%	90%	90%	190%	290%	90%
Cycle Time Contingency	min.	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Spot Time	min.	0.70	0.70	0.70	0.70	0.70	0.70	0.70
1rst Bucket Loaded	min.	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Loading Time	min.	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Loading Protection	%	10%	10%	10%	10%	110%	210%	10%
Truck Target Payload Heaped Capacity	t	79.9	79.9	79.9	79.9	80.9	81.9	79.9
Days to Work/year	days	279	279	279	279	279	279	279
Shift /day	ss/day	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Hour/shift	hrs	12.0	12.0	12.0	12.0	12.0	12.0	12.0
<b>Mineralized Material</b>	<b>Mt</b>	<b>5.04</b>	<b>5.04</b>	<b>5.04</b>	<b>5.04</b>	<b>5.04</b>	<b>5.07</b>	<b>1.2</b>
Total Loading Time	min.	6.24	6.24	6.24	6.24	3.24	2.49	6.24
Specific Gravity Loose Material	s.g.	1.92	1.92	1.92	1.92	1.52	1.36	1.92
Cubic Metre/ Bucket	m <sup>3</sup>	5.40	5.40	5.40	5.40	13.30	23.20	5.72
Tonnage Bucket Capacity	tonnes	10.38	10.38	10.38	10.38	20.24	31.64	10.99
Bucket Required Average No. of Passes	#	7.69	7.69	7.69	7.69	4.00	2.59	7.27
Bucket Required Final No. of Passes	#	8.00	8.00	8.00	8.00	4.00	3.00	8.00
Average Truck Loaded	tonnes	83.08	83.08	83.08	83.08	80.96	94.91	87.92
Scheduled hour/shift	hr/ss	10.80	10.80	10.80	10.80	10.80	10.80	10.80
Scheduled hour/day	hr/day	21.60	21.60	21.60	21.60	21.60	21.60	21.60
Operating hours/shift	hr/ss	8.10	8.10	8.10	8.10	8.10	8.10	8.10
Operating hours/day	hr/day	16.20	16.20	16.20	16.20	16.20	16.20	16.20
Total Hours Required	hrs	26,514	28,283	28,283	30,292	31,085	26,687	6,934
No. of Trucks Required/day	unit	5.86	6.25	6.25	6.70	6.87	5.90	1.53
No. of Trucks Assigned per day	unit	<b>6.00</b>	<b>7.00</b>	<b>7.00</b>	<b>7.00</b>	<b>7.00</b>	<b>6.00</b>	<b>2.00</b>
Total Tonnes per Hour	t/hr	190.1	178.2	178.2	166.4	162.1	190.1	176.1
Total Tonnes per Day	t/day	<b>18,477</b>	<b>20,208</b>	<b>20,208</b>	<b>18,868</b>	<b>18,386</b>	<b>18,476</b>	<b>5,705</b>
<b>Total Tonnes per Year Capacity</b>	<b>Mt/year</b>	<b>5.8</b>	<b>6.3</b>	<b>6.3</b>	<b>5.9</b>	<b>5.8</b>	<b>5.8</b>	<b>1.8</b>
<b>Mineralized Material Truck Capacity/Year</b>	<b>Mt</b>	<b>5.8</b>	<b>6.3</b>	<b>6.3</b>	<b>5.9</b>	<b>5.8</b>	<b>5.8</b>	<b>1.8</b>

#### **16.5.6. Haulage Distance**

The average one-way haulage distances from the centroid of each pit to the crusher and the waste dump average the following for the LoM Production schedule:

Haul Distance – Mineralized Material: 5,214 m

Haul Distance – Waste: 3,232 m

#### **16.5.7. Drilling and Blasting**

In total the LOM Production Schedule will require the drilling of approximately 250K blast holes over the life of the mine plan and will require 19.4K tonnes of ANFO over the same period.

The primary blasthole drills will be rotary machines capable of single pass drilling 146 mm diameter holes for a 6 m bench height plus sub-grade. These drills will be used for production and wall control drilling. These drills can also be used for drilling sub horizontal drain holes for wall slope depressurization.

Blasthole drilling requirements have been estimated on an annual basis according to the production schedule and wall control drilling requirements for trim blasting. Material will be drilled on a 6 m bench using on a 5.0 m x 5.0 m blast pattern. Subgrade drilling will be 0.60 m to allow even breakage to the design bench elevation.

Blasthole cuttings will be sampled and assayed for grade control. The wall control blasting will consist of trim rows at reduced spacing of the production pattern. These control blasts will be drilled with the production drill. The sub-grade drilling depth will be reduced in areas of final berm locations.

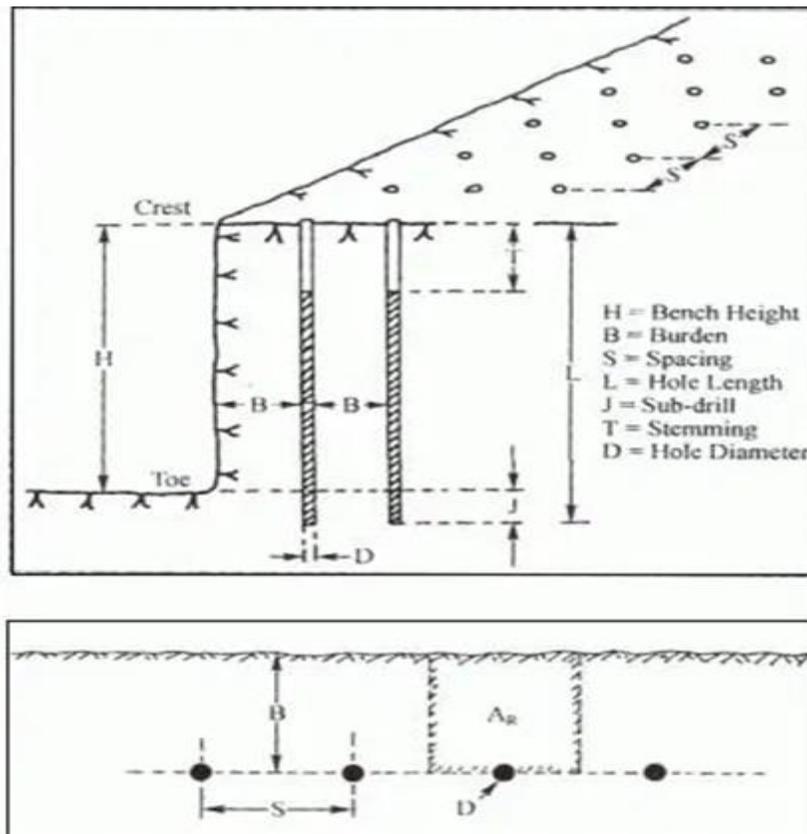
Blasting will be carried out with heavy ammonium nitrate fuel oil (AN/FO) with an estimated density of 1.1 tonnes per cubic metre. The overall production blasting agent consumption is expected to be 0.20 kg per tonne of rock blasted. To achieve this powder factor, each hole will be filled to a depth of 4.2 m with ANFO which will be covered with 2.2 m of stemming which will consist of crushed gravel or other appropriate material. Most (if not all) of the blastholes will be single primed and initiated using non-electric methods. An explosive supply contractor will deliver bulk explosives to the borehole. The mine blasting crew supervised by the Mine Supervisor will work closely with the Drill & Blast Engineer provided by the contractor.

Where drilling and blasting is needed to fragment the leach feed and waste rock for loading and hauling, the parameters are estimated as those presented in . Drilling and Blast Parameters definitions are illustrated in Figure 16:7.

Table 16:16 Conceptual Drilling and Blasting Parameters

Parameter	Units	Value
Burden	m	5.00
Spacing	m	5.00
Depth	m	6.00
sub level	m	0.60
Rock Volume Blasted/hole	m <sup>3</sup>	150
Density	t/m <sup>3</sup>	2.58
t/hole	t	387
Diameter	mm	146
BH area	m <sup>2</sup>	0.017
BH volume	m <sup>3</sup>	0.110
Exp. SG	kg/m <sup>3</sup>	1100
capacity	kg	122
PF if Full	kg/t	0.31
desired PF	kg/t	0.20
load/hole	kg	77.4
Fill depth	m	4.20
Stemming	m	2.40

Figure 16:7 Drilling Parameter Dimensions



Source: P.D Sharma (<https://miningandblasting.wordpress.com/2012/10/>)

## **16.6. Overall Estimated Mobile Fleet**

The overall estimated equipment fleet required to meet the production requirements are estimated in Table 16:17

Table 16:17 Estimated Mobile Fleet Requirements

<b>Equipment Type</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>
<b>Mining Trucks</b>	11	17	16	15	14	16	5
Front loader	1	1	1	1	1	1	1
Hydraulic Excavator	2	2	2	2	2	2	2
Drill	2	2	2	2	2	2	2
Explosive Truck	1	1	1	1	1	1	1
Dozer	3	3	3	3	3	3	3
Motor Grader	2	2	2	2	2	2	2
Water Truck	1	1	1	1	1	1	1
<b>Total</b>	<b>23</b>	<b>29</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>28</b>	<b>17</b>

## **16.7. Mining Personnel Requirements**

The personnel requirement directly involved with the mining operations consists of the Owner's Team and the Contractor's Team. The Owner's Team enumerated in Table 16:18 are generally a part of the Technical Team which is comprised of engineers, geologists, technicians, surveyors, the mine superintendent, and the mine manager at the helm.

Table 16:18 Personnel Requirements: Owners Team

<b>Owner's Geology and Mining Team</b>	<b># Of Positions</b>	<b>Day Shift</b>	<b>Afternoon Shift</b>	<b>Off</b>
Mine manager	1	1	-	-
Mine superintendent	1	1	-	-
Mine planning engineer	2	1	1	-
Mine planning technician	2	1	1	-
Surveyor	2	1	1	-
Surveyor technician	6	2	2	2
Dispatch system operator	3	1	1	1
Senior geologist	1	1	-	-
Production geologist	3	1	1	1
Geological technician	6	2	2	2
<b>Total</b>	<b>27</b>	<b>12</b>	<b>9</b>	<b>6</b>

Each piece of equipment requires its distinct selection of operators on the payroll. Table 16:19 estimates of the number of operators per piece of equipment to meet development and production targets in the LOM production schedule.

Table 16:19 Contractor Personnel Required per Unit Equipment

<b>Equipment</b>	<b>Personnel /Equipment</b>
Articulated Truck	3
Front loader	3
Hydraulic Excavator	3
Drill	2
Explosive Truck	2
Dozer	3
Motor Grader	2
Water Truck	2

The Contractor’s Team estimated in Table 16:20 are primarily equipment operators, maintenance personnel, shift supervisors and a Project manager.

Table 16:20 Estimated Manpower Requirements for Contractor Team

<b>Contractor Personnel</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>
Truck operators	33	51	48	45	42	48	15
Front loader operator	3	3	3	3	3	3	3
Hydraulic Excavator operator	6	6	6	6	6	6	6
Drill operator	4	4	4	4	4	4	4
Explosive Truck operator	2	2	2	2	2	2	2
Dozer operator	6	9	9	9	9	9	9
Motor Grader operator	4	4	4	4	4	4	4
Water Truck operator	2	2	2	2	2	2	2
<b>Total - Equipment Operators</b>	<b>60</b>	<b>81</b>	<b>78</b>	<b>75</b>	<b>72</b>	<b>78</b>	<b>45</b>
Operations Manager	1	1	1	1	1	1	1
Shift Supervisors	3	3	3	3	3	3	3
Maintenance Supervisor	2	2	2	2	2	2	2
Maintenance Planner	2	2	2	2	2	2	2
Mechanics	8	12	12	12	12	12	4
Maintenance Support	4	6	6	6	6	6	2
<b>Total Mining Operations Team</b>	<b>80</b>	<b>107</b>	<b>104</b>	<b>101</b>	<b>98</b>	<b>104</b>	<b>59</b>

### **16.8. Waste Rock and Tailings**

The Cerro Caliche Pits will produce 65.5 M tonnes of waste (26.2 m<sup>3</sup> in-situ) which will occupy a volume of less than 34.1 m<sup>3</sup> assuming an average loose density of approximately 1.95 t/m<sup>3</sup> or less (assumed swell factor is 1.3 = 30% swell). Since all of the leach feed is processed on a heap leach pad there is no tailings pond, but rather just the spent heap leach pad at the end of the LOM schedule.

Both the waste dump and the leach pad will be sloped and revegetated at the end of the mine life as part of the reclamation and closure plan.

**16.8.1. Waste Rock Storage and Management Facility**

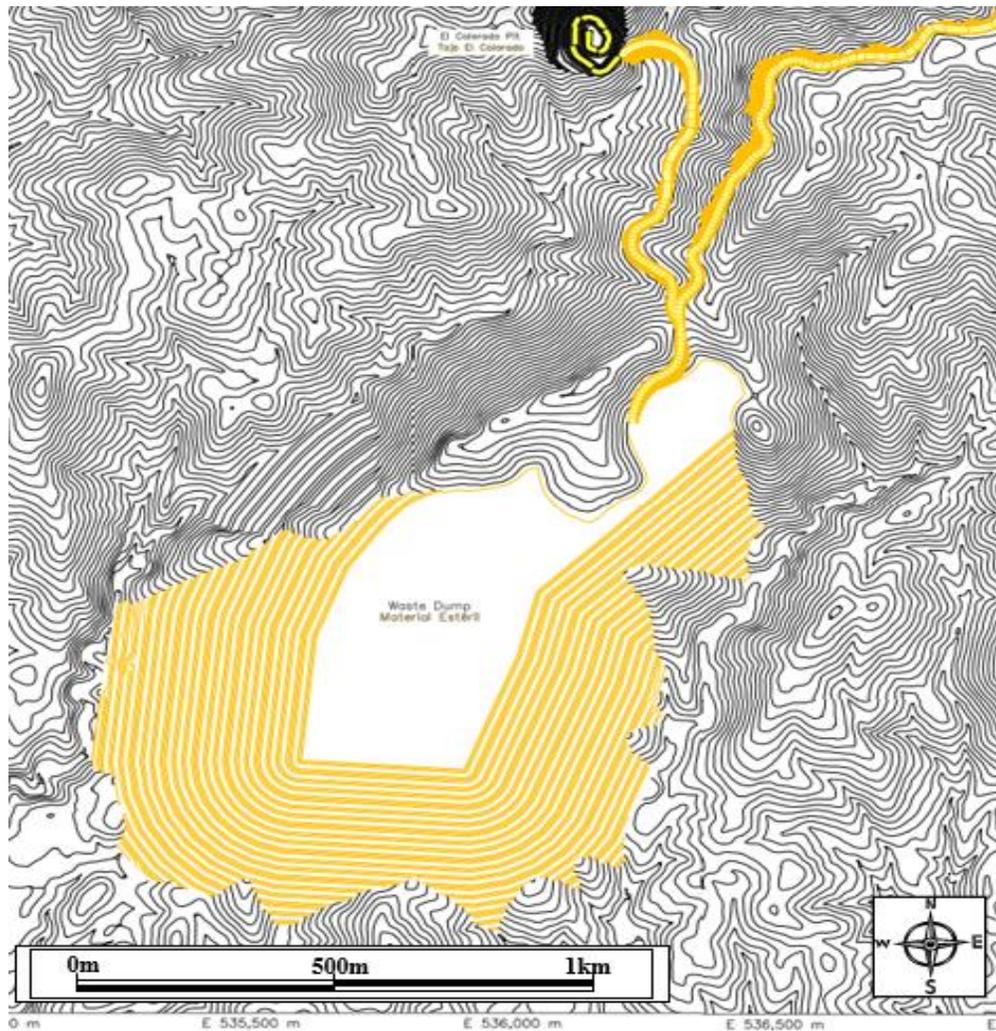
The waste dump has been designed to hold up to 65.5 Mt of waste, at this size the waste dump will be able to handle the planned volume. The waste dump entrance is located 600-700 m south of the El Colorado pit and generally to the south – south/west of the pits. The waste dump covers an area of approximately 1.5 km West to East and 1.0 km North to South within the local coordinates presented in Table 16:21.

Table 16:21 Waste Dump Location

RANGE	MINIMUM	MAXIMUM
X Coordinate	535,000	536,500
Y Coordinate	3,362,500	3,363,500

A plan view of the waste dump which has a footprint of 93.7 ha and a maximum height of 140 m is illustrated in Figure 16:8.

Figure 16:8 Waste Dump Design



Source: Sonoro Gold (2021)

## **16.9. Mining Operating Costs**

The mining operating costs are broken down by area in Table 16:22

Table 16:22 Mining Operating Costs Breakdown

<b>Cost Summary</b>		
<b>Total Mining Unit Cost</b>	<b>\$/mt</b>	<b>1.90</b>
Explosives	\$/mt	0.18
Drilling	\$/mt	0.20
Loading	\$/mt	0.22
Hauling	\$/mt	0.66
Auxiliar Equipment	\$/mt	0.62
Operating Expenses	\$/mt	0.02

The mining operating cost estimate includes all the cost associated with production such as:

- 1) Mining cost: drilling, blasting, loading, hauling, auxiliary equipment, auxiliary equipment
- 2) Pit dewatering and other rents.
- 3) Pre-production: access road construction and initial pre-stripping.
- 4) Mine administration & support: environmental, health & safety, and ejido (community).
- 5) Community relations, camp, security, purchasing, warehouse, transportation, and logistics.
- 6) Communication IT, administration, human resources, and accounting.
- 7) Site service including water management, general and administration cost for the operation, including head office costs; and supply electrical power, including damage charges.

No allowances were made for the following:

- 1) Exchange rate fluctuations
- 2) Taxes
- 3) Exploration cost

## **16.10. Methodology**

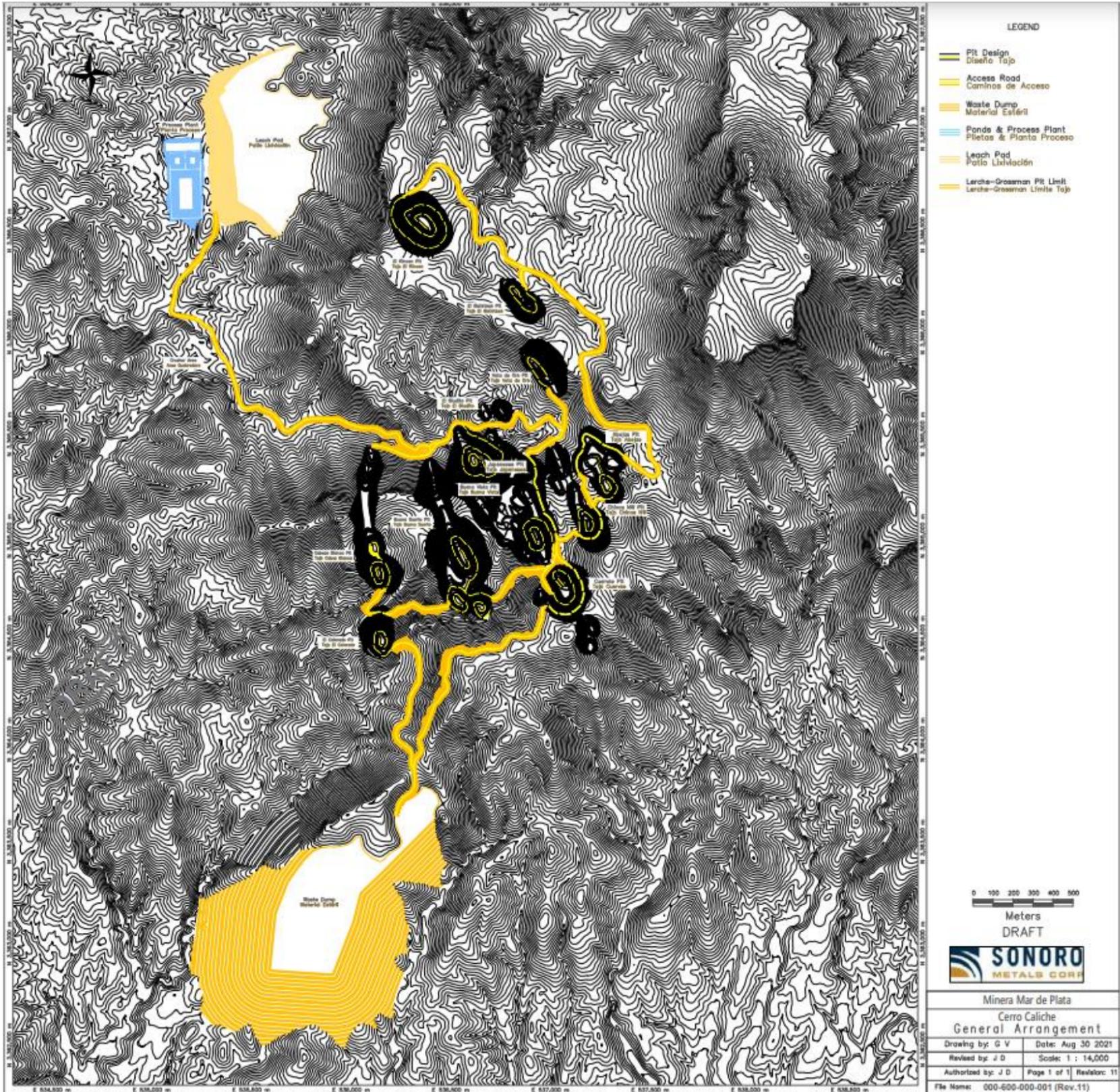
In general, the operating cost estimate was prepared by synthesis of operating and maintenance labour productivities, supplies consumption and energy consumption based on industry experience, and by benchmarking against other similar operations, where appropriate.

Operating and maintenance supply costs were based on in house data and vendor quotations and are exclusive of taxes. Consumables 'quantities (fuel, explosives, tires, blasting accessories, etc.) were estimated from expected unit consumption rates (per hour, per tonne).

## **16.11. General Arrangement**

The overall general arrangement of the mine site with haul roads to waste and leach feed destinations are illustrated in Figure 16:9.

Figure 16:9 Site Layout with Waste Dump, Leach Pad, Ponds and Process Plant



Source: Sonoro Gold (2021)

## **17. RECOVERY METHODS**

### **17.1. Summary**

The recovery methods used for the design of the Cerro Caliche crushing and process facilities are described in this section. The preliminary test work presented in Section 13 were used a basis for flowsheet development and design criteria. The plant design was based on a nominal 15,000 tpd of mineralized material more with average grades of 0.41 g/t Au and 4.05 g/t Ag.

The process plant flowsheet design comprises of three (3) stage conventional crushing, material handling of crushed product and loading onto the lined heap pads. Solution ponds and pumping system will allow for irrigation of loaded mineralized material and subsequent collection of the pregnant solution. The pregnant solution will be pumped to two (2) trains of carbon in column tanks for loading of the gold and silver onto the carbon. Standard carbon in column processing will take place in terms of carbon advancement, carbon addition, carbon recovery, and bagging for shipment.

The Cerro Caliche Project does not plan currently to operate carbon stripping, electrowinning, and doré refinery at the plant. The loaded carbon will be shipped to North American carbon refiners where the gold and silver will be stripped and recovered for payment.

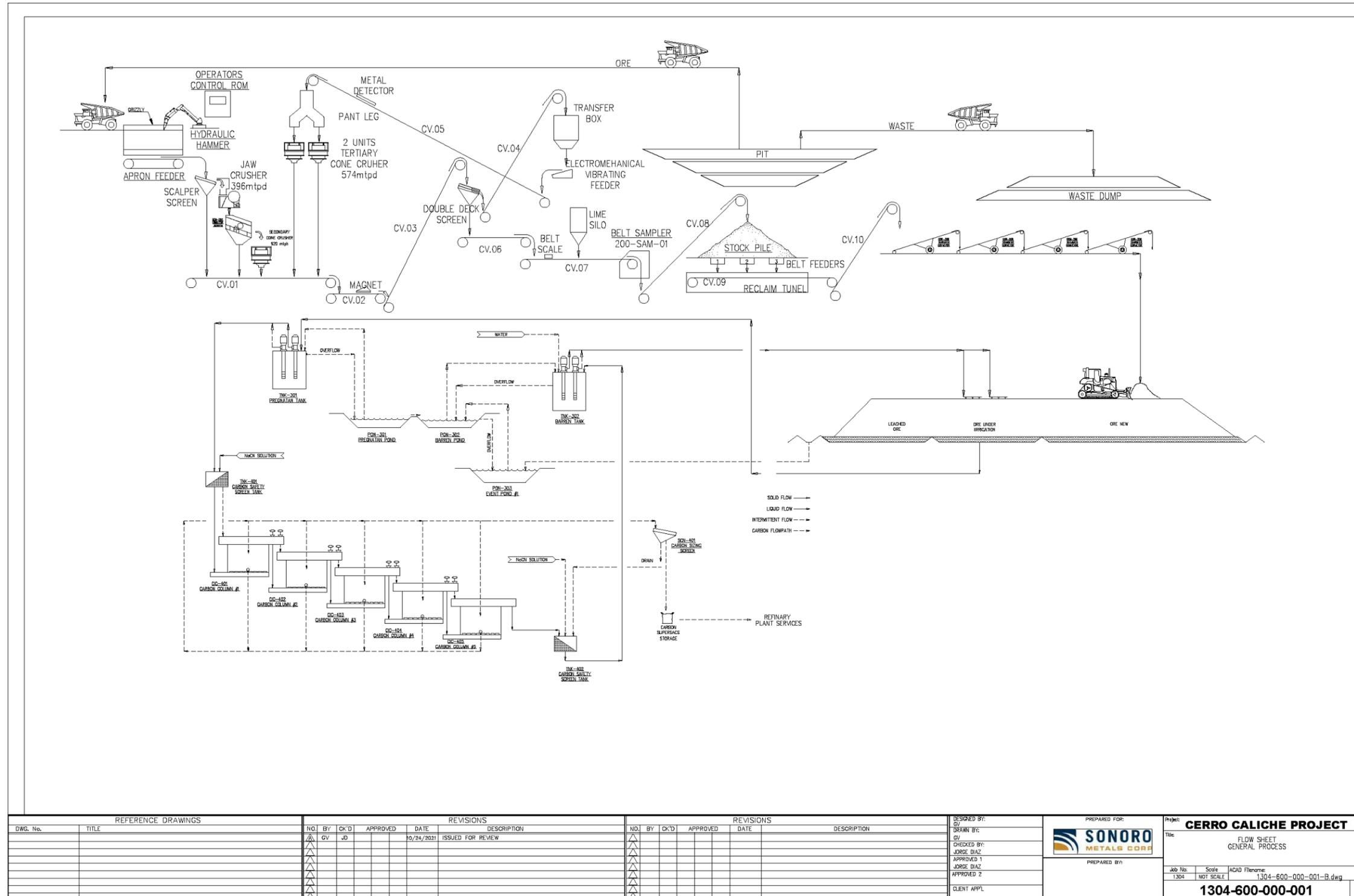
Make-up water required for the process (reagent mixing, water evaporation, general process requirements) is only available from one source – surface wells – and will be pumped to plant facility for use.

The Cerro Caliche 15,000 tpd process plant will consist of the following unit operations and support facilities:

- ROM material receiving and primary crushing
- Secondary cone crushers with screens
- Tertiary cone crushers with screens
- Material Handling of all internal closed circuit crushing and also heap leach pad loading – i.e. conveyors and stackers.
- Liner heap pads to handle Life of Mine resource
- Solution ponds adjacent to the heaps – barren, pregnant, and emergency pond complete internal pumping, piping and flow distribution
- Two (2) trains of 5 stage carbon in columns
- Process pumping, screening, and loaded and barren carbon handling
- Reagent preparation facilities (main plant)
- Metallurgical Laboratory
- Utilities

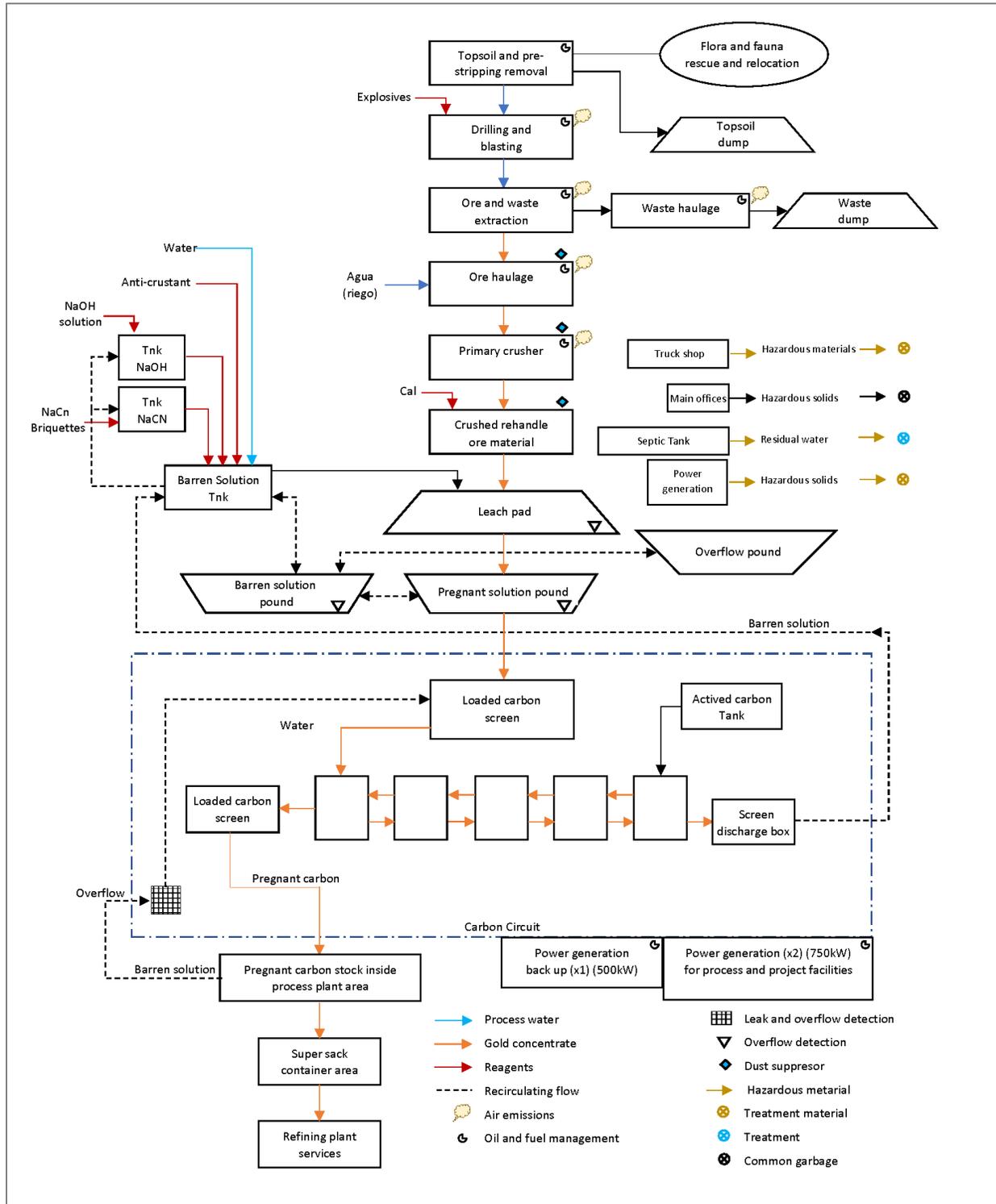
The Cerro Caliche simplified process flowsheet for 15,000 tpd is shown in Figure 17:1 and the flow schematic is shown in Figure 17:2.

Figure 17:1 Simplified Process Flowsheet (15,000 tpd)



Source: Sonoro Gold and D.E.N.M. (2021)

Figure 17:2 Simplified Process Flow Schematic



Source: Sonoro Gold (2021)

## 17.2. Plant Design

### 17.2.1. Design Criteria

The Cerro Caliche process plant has been designed to treat gold-silver bearing mineralized material at a nominal rate of 15,000 tpd (5,040,000 tpy). The preliminary key process criteria are shown in Table 17:1.

Table 17:1 Process Design Criteria

Criteria	Units	Value
<b><i>Ore Characteristics</i></b>		
Specific Gravity	g/cm <sup>3</sup>	2.65
Bulk Density	t/m <sup>3</sup>	1.65
Moisture Content	%	2.0
Work Index (Wi)		16.0
Abrasion Index (estimated)	g	0.75
<b><i>Plant Availability/Utilization</i></b>		
Overall Plant Feed-Nominal	t/y	5,040,000
Plant Feed- Nominal	t/d	15,000
Crushing Plant Feed	t/d	15,000
Crusher Plant- Plant Utilization	%	60.0
Leaching and Carbon Loading	%	92.0
Crushing Circuit Throughput Rate	t/h	1030
Crushing Product (to pad)	P80 - in. (mm)	½ - (12.5)
<b><i>Plant Production</i></b>		
<b><i>Plant Feed Characteristics</i></b>		
Gold Head Grade	g/t	0.41
Silver Head Grade	g/t	4.05
<b><i>Metal Recoveries</i></b>		
Anticipated Overall Gold Recovery- design	%	73.6
Anticipated Overall Silver Recovery- design	%	26.7
Pregnant Solution Loading Rate per day	tonnes	48,535
Solution Irrigation Flowrate – design	Lph/sq.mt.	10
Expected Solution Grade – Au	ppm	0.098
Expected Solution Grade – Ag	ppm	0.21

Source: D.E.N.M. (2021) and Section 13

### 17.2.2. Operating Schedule and Availability

The Cerro Caliche plant is designed to operate for two (2) 12-hour shifts per day, 360 days per year. Utilization expected for the specific circuits will be 60% for the primary crusher and 92% for the leaching and carbon adsorption. The factors applied here allow for sufficient downtime for maintenance – scheduled and unscheduled – within the crushing and processing areas.

### **17.3. Process Plant Description**

#### **17.3.1. Primary Crushing Circuit**

The proposed primary crushing circuit will reduce the run of mine mineralized material from a nominal top size of 600 mm to a product of 80 % passing (P80) – ½-in (12.5 mm) for the conveyor loading to the heap leach pads. The crushing circuit includes, but is not limited to, the following equipment:

- ROM feed hopper c/w feeder and vibrating grizzly screen
- Primary Jaw Crusher
- Associated conveyor belts to feed and discharge to primary crushed mineralization stockpile
- Belt Scale and Belt Magnet

The jaw crusher, 1500 mm x 1070 mm (59-in x 42-in.) – 200 kw will process a nominal 400 t/hr of oversized material based on the utilization factor noted in Table 17.1. The jaw crusher discharge will be conveyed to the crushed mineralization stockpile.

#### **17.3.2. Primary Crushed Mineralized Material Stockpile and Reclaim**

The stockpile will provide production surge capacity to ensure a steady rate to the secondary crushing circuit. The equipment in this area includes:

- Reclaim Vibrating Pan Feeders (4) – variable speed
- Associated conveyor belt feed system with belt scale

The pan feeders will discharge onto the secondary feed conveyor to feed crushed mineralization to the secondary screen unit. The feeders will reclaim the material from the stockpile and ensure a controlled feed rate to the secondary circuit t/hr. Feed control to the feeders will be ensured by the inline belt scale.

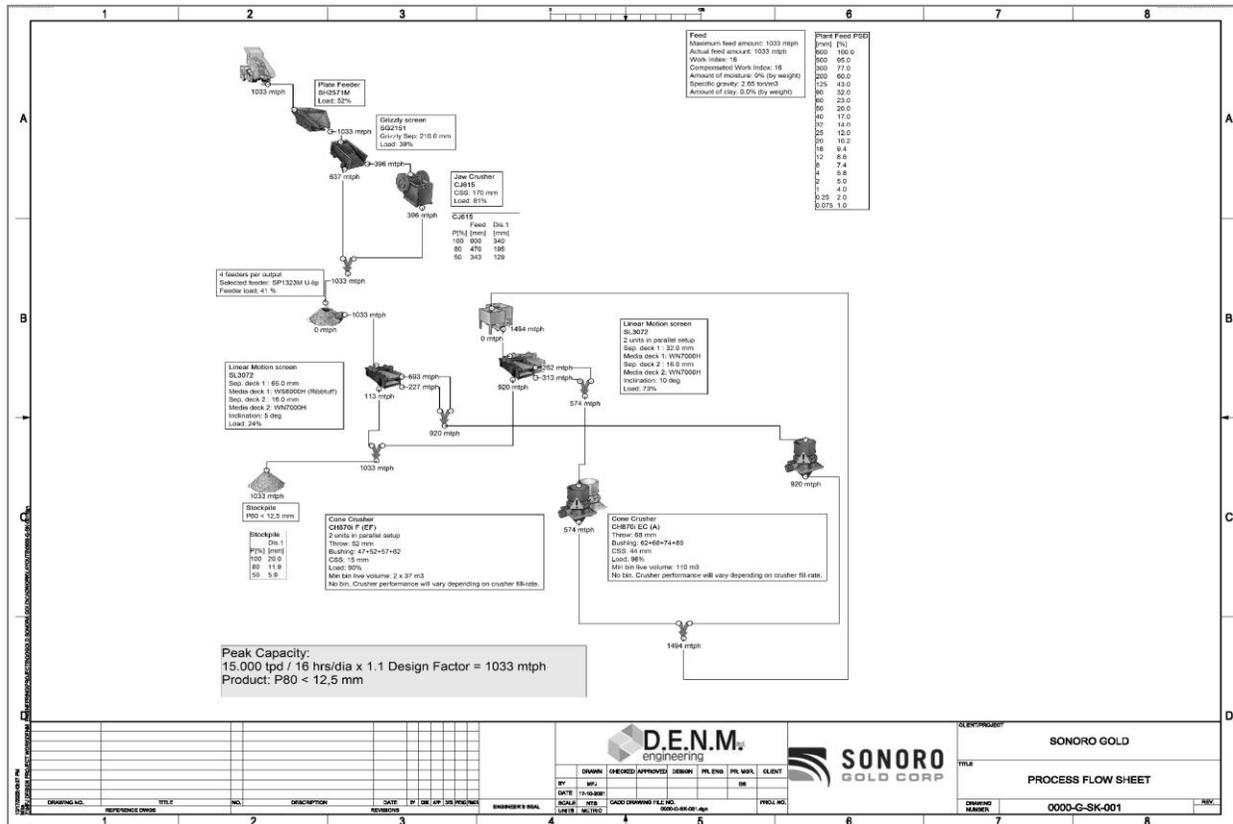
#### **17.3.3. Secondary and Tertiary Crushing Circuit**

The equipment in this area includes:

- Secondary Inclined Linear Screen – Double Deck
- Secondary Cone Crusher – 600 kw installed power – Closed Side Setting – 44 mm
- Tertiary Inclined Screens – two (2) units – parallel operation
- Tertiary Cone Crushers – two (2) units – 600 kw installed power – Closed side setting – 15 mm
- Associated conveyor belt feed and discharge systems for recirculation and discharge to crushed mineralization stockpile.

The crushing circuit will be located upstream of the heap leach pad facility and process plant and ponds. The crushed material will be loaded and trucked to the pads approximately x km and loaded systemically onto the lined pads. A crushing simulation is provided in Figure 17:3.

Figure 17:3 Crushing Simulation



Source: Sandvik and D.E.N.M. (2021)

### 17.3.4. Heap Leach Pad System and Solution Distribution

The Cerro Caliche heap leach pads will be built in two (2) phases over the LOM. Phase 1 construction will have a pad area covering 222,000 sq.mt of lined HDPE 60 mil LLDPE material. The pad area will be complete with all associated collection piping, geotextile, and supporting items.

Phase 2 planned expansion (Year 2 of operation) will be for an area of 246,00 sq.mt. All collection ponds will be integral to the process operation and complete with all pumping and piping distribution.

### 17.3.5. Carbon In Columns (CIC) Adsorption Circuit

The pregnant solution will be pumped to two (2) carbon in column circuits in parallel. Each train will consist of five (5) upflow design tanks with associated piping and valving. Carbon advancement pumping and handling are included as part of this circuit.

The equipment in this area includes:

- Two (2) trains of five (5) carbon adsorption leach tanks 3.6 mt. dia. by 3.8 mt. high—stepped on the pad and complete with solution up-flow piping. There is the option to bypass tanks as required.
- CIC area spillage control sumps.

The BLS (barren solution) will drain for these trains to the barren solution pond for reagent addition and recirculation.

#### **17.3.6. Carbon Forwarding and Recovery Circuit**

As noted, the Cerro Caliche Project will not install a carbon stripping, electrowinning, carbon regeneration, and refinery circuit. The proposed plan is to load and bag carbon and ship to North American refiners where the carbon will be stripped, metals recovered, and carbon returned to site for reuse.

Equipment in this area:

- Carbon forwarding pumps
- Dewatering screen c/w 28 mesh screens
- Super sac bagging and weighing

Carbon will be sampled and analysed prior to shipping as a matter of metallurgical accounting and revenue.

#### **17.3.7. Reagent Handling and Storage**

Water available for the Cerro Caliche Project is from several drilled wells on the property. The location of these wells is located approximately 3 km from the proposed processing site. This water will be utilized for all reagent mixing within the plant and for make-up water to the heap pads for account for evaporation and wetting of the fresh feed material. The main plant will have mixing area containment as well.

Main Plant required reagents: Lime (hydrated),- bulk dry Sodium cyanide (NaCN) – dry – super sacs, Caustic Soda bagged and dry, Activated Carbon (6 x 12 mesh) – dry – super sacs.

#### **17.3.8. Assay and Metallurgical Laboratory**

A fully equipped laboratory will be an integral part of the Cerro Caliche Project and located close to the main process facility. It will be equipped with the necessary analytics to provide all required data for the mining operation, main process facility, and environmental.

It will play an instrumental part in providing on-time process monitoring of said processes, daily production reporting, blast hole sampling, and any and all exploration samples.

#### **17.3.9. Water Supply**

All water for Cerro Caliche Project will be supplied from surface drilled wells. Any rain and run-off water during the rainy season will be diverted and collected as best as possible. As noted, these

wells are located 3 km from the Project. Multiple high head pumps will be installed mounted at the water sources to pump to the plant freshwater tank.

These wells will be used to supply all facets of the Project – make-up water from the process (loss from evaporation), reagent mixing, and emergency water. There is no camp facility planned for this site at this time.

Figure 17:4 Surface Drilled Wells



Source: D.E.N.M. (2021)

### **17.1.1 Air Supply**

An air distribution system will be included to supply required process air to the main CIC plant facility – Instrument air will be included for required instrumentation and controls.

## **18. PROJECT INFRASTRUCTURE**

The current infrastructure of the Cerro Caliche Project consists of a high voltage powerline nearby, access roads, and mining operations that are in operation. There is a 14 km gravel access road from the village of Cucurpe, located 40 km southeast of the regional hub of Magdalena de Kino, Sonora, which, in turn, is located 54 km from the Project. A 33 kV transmission line is located 24 km from the Cerro Caliche Project and will be the planned source of power for the project. Initial discussions between Sonoro and the *Commission Federal de Electricidad* (CFE) are underway for the installation of the power line and associated switch gear. The estimated capital and operating costs for power are included within the report.

As this area of Sonora has a number of active mines and infrastructure close to the Cerro Caliche project, D.E.N.M. Engineering is of the opinion that there appears to be no obvious major issues to building this open pit mine, heap leach facility, and process recovery plant in the proposed area.

### **18.1. Planned Infrastructure**

The Figures below (Figures 18:1 to 18:3) show the major infrastructure proposed for the Cerro Caliche Project, which included, but is not limited to, the following:

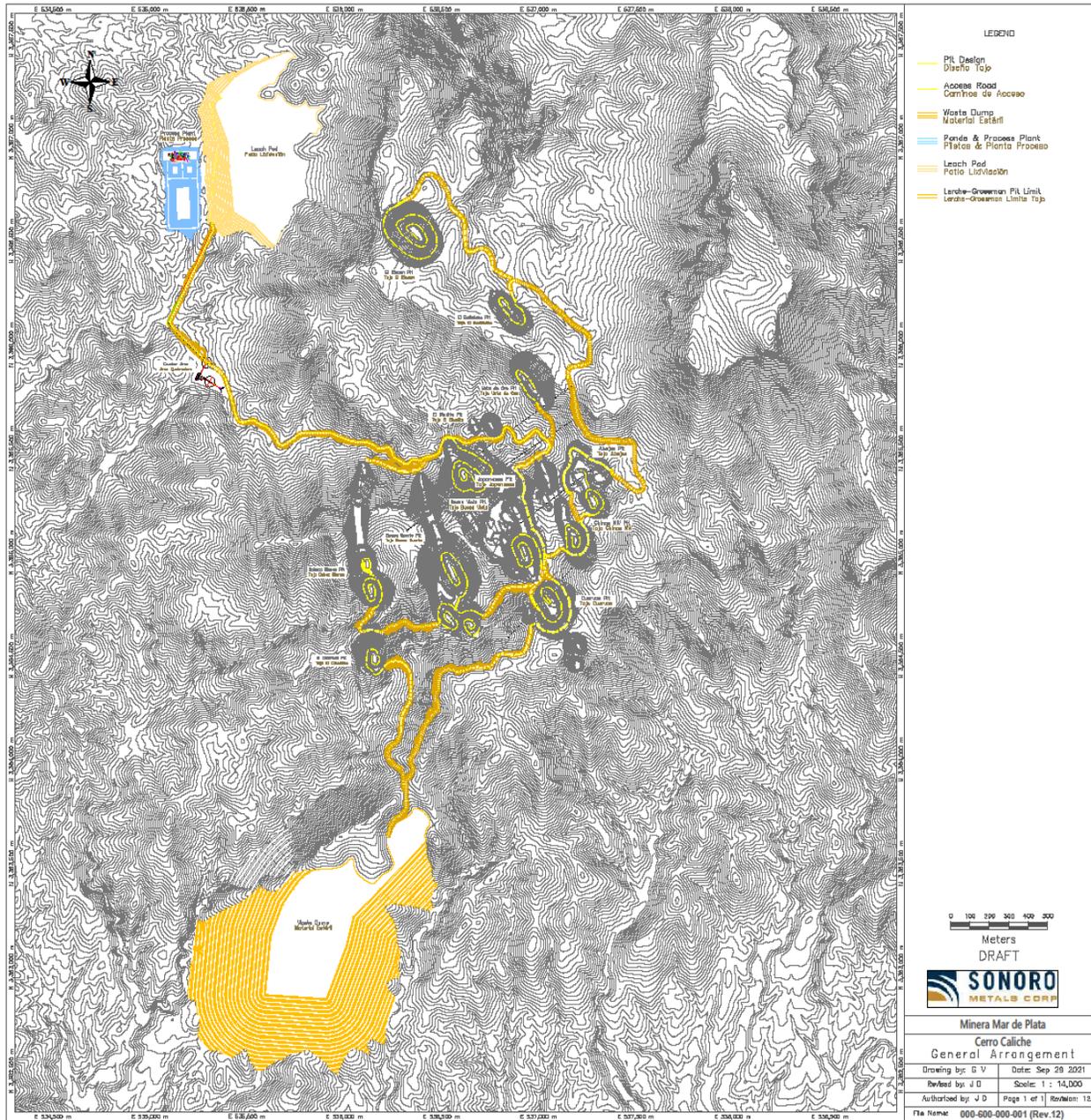
- Zone area based open pits based on the mine plan shown previously
- Crushing Plant and all associated material handling components
- Heap Leach pads and solution distribution system complete with pumping and piping
- Heap Leach ponds – pregnant, barren, and overflow complete with pumping and piping
- Carbon in Column (CIC) adsorption circuit for recovery of the gold and silver from the pregnant solution stream.
- Power Supply and Distribution
- Assay and Metallurgical Laboratory

Other items to be installed by the company during the pre-production period will be:

- Gatehouse and security on the main access road
- Main office to include all administration, purchasing, and technical personnel
- Warehouse for all mechanical and process plant parts
- Fuel storage facility
- Communications – telephone, cellular, and internet
- Other associated infrastructure – maintenance buildings, safety and human resources, water and sewage

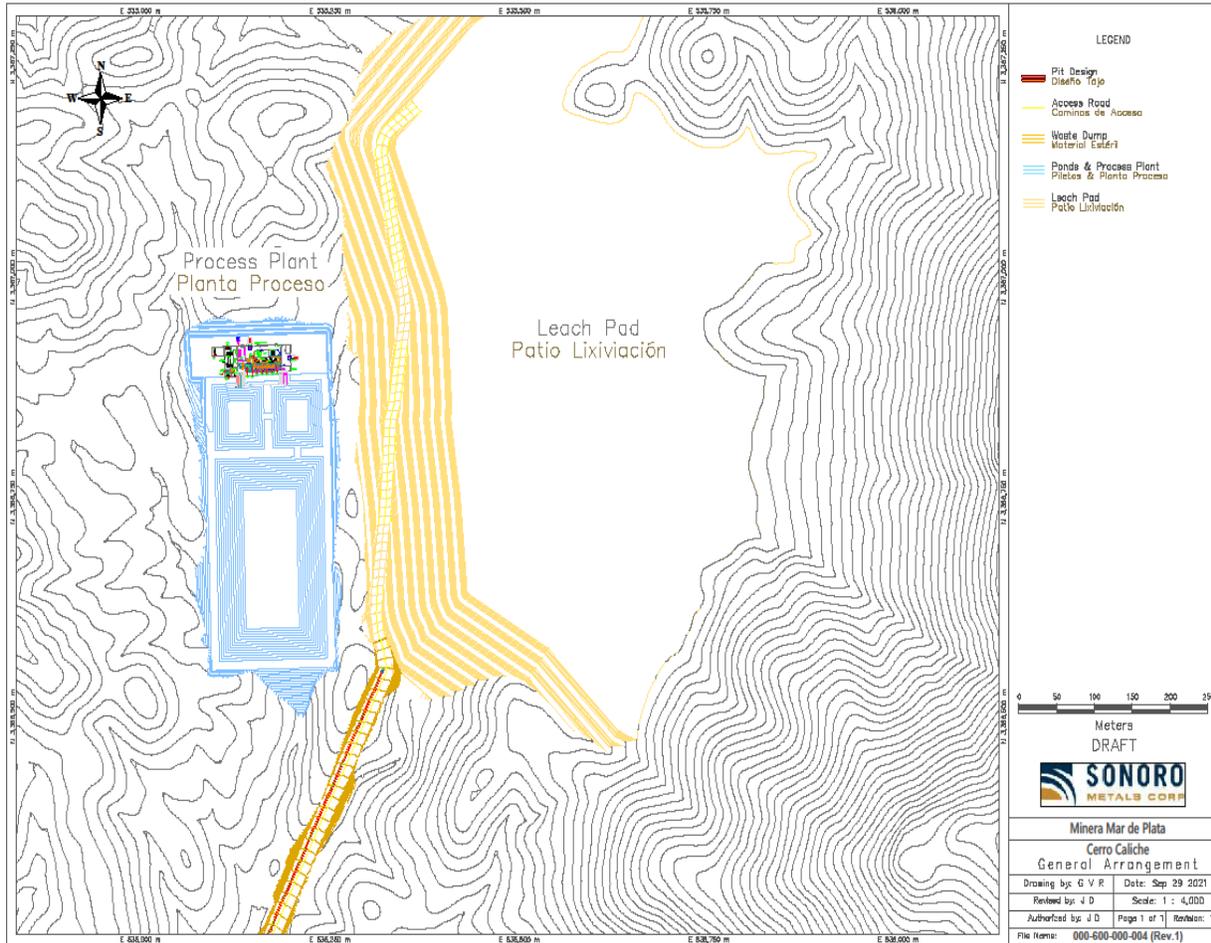
All water will be supplied by the drilled well water. There will be no on-site housing as all employees and contractors will commute from the nearby town locations.

Figure 18:1 Cerro Caliche Overall Site Plan



Source: Sonoro Gold (2021)

**Figure 18:2 Leach Pad and Process Area**



Source: Sonoro Gold (2021)

## **18.2. Water Management**

Cerro Caliche will be a water user as typically expected from a heap leach operation in the Sonora region of Mexico. The main make-up water requirement demands will be determined by the loaded heap pad wetting and irrigation evaporation in the area. The expected evaporation rate in the area is high and has been factored into the preliminary water balance.

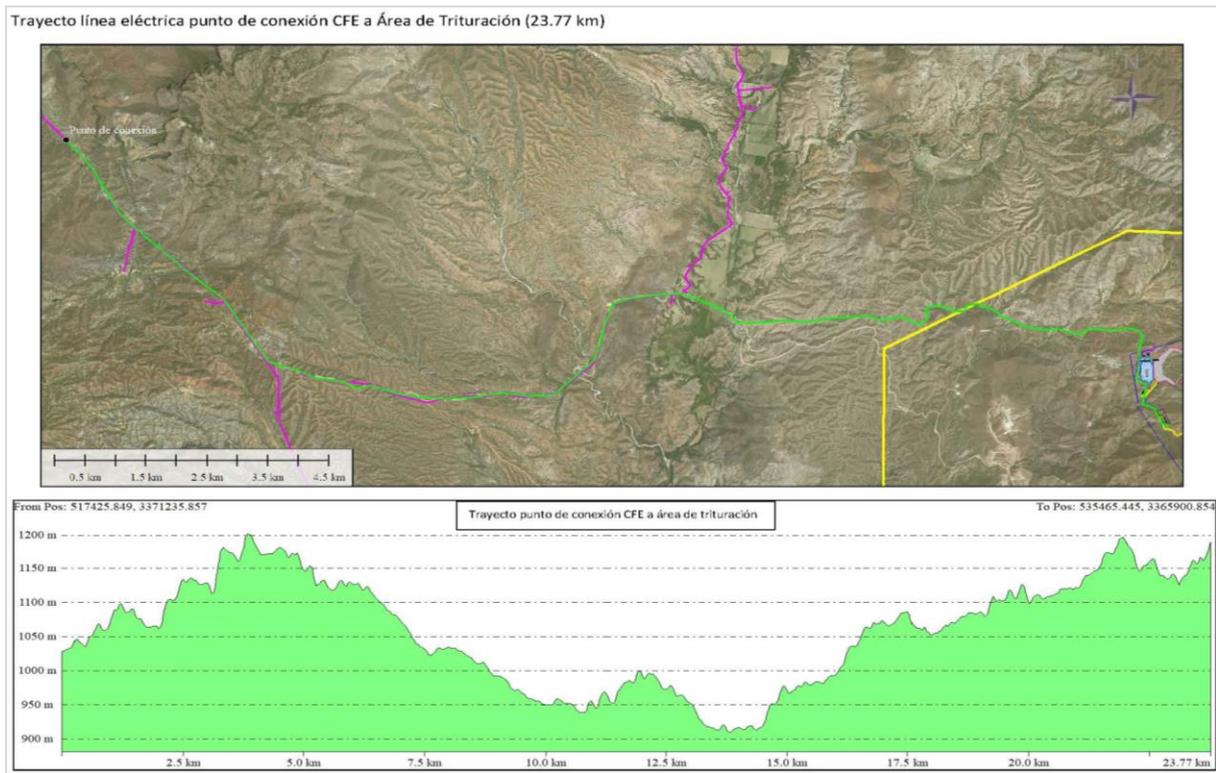
Annual precipitation on the area is 500 mm and is high in the summer months with July recording an average 160 mm. Water diversion and management will be important as a means of collection but will also limit the dilution within the pads and ponds of the gold and silver bearing solution.

### 18.3. Electrical Power and On-site Distribution

A 33 kV transmission line is located approximately 24 km from the Cerro Caliche Project and will be the planned source of power for the project. Initial discussions with *Commission Federal de Electricidad* (CFE) are underway for the installation of the power line and associated switch gear.

After the owner supplied sub-station, a series of internal distribution lines will be installed to serve the crushing, process plant, and offices. The proposed routing of the power line is shown in Figure 18:3.

Figure 18:33 - 3kV Power Line Routing



## **19. MARKET STUDIES AND CONTRACTS**

### **19.1. Market and Market Studies**

Gold is a metal that is traded on world markets, with benchmark prices generally based on the London market (London fix). Gold has two principal uses: product fabrication and bullion investment. Fabricated gold has a wide variety of end uses, including jewelry (the largest fabrication use), electronics, dentistry, industrial and decorative uses, medals, medallions and official coins. Gold bullion is held primarily as a store of value and as a safeguard against the depreciation of paper assets denominated in fiat currencies. Due to the size of the gold bullion market and the above-ground inventory of bullion, Sonoro’s production will not influence gold prices.

Silver is also a metal that is traded on world markets, with benchmark prices generally based on the London market (London fix). Silver has long been used in the manufacture of coins, ornaments, and jewelry. Silver has the highest known electrical and thermal conductivity of all metals therefore it is used in fabricating printed electrical circuits and as a vapour-deposited coating for electronic conductors. When silver is alloyed with such elements as nickel or palladium it is used in electrical contacts. Once again due to the size of the silver bullion market and above ground inventory of bullion, Sonoro’s production will not influence the silver price. Table 19:1 summarizes the high and low average annual London PM gold and silver price per ounce from 2000 to August 7, 2020.

Table 19:1 Annual High & Low London PM Fix for Au and Ag

Year	Gold Price (USD)			Silver Price (USD)		
	High	Low	Cumulative Average	High	Low	Cumulative Average
2000	312.70	263.80	279.11	5.45	4.57	4.95
2001	278.85	255.95	271.04	4.82	4.07	4.37
2002	349.30	277.75	309.73	4.85	4.20	4.60
2003	416.25	319.90	363.38	5.96	4.37	4.88
2004	454.20	375.00	409.72	7.83	5.49	6.67
2005	536.50	411.10	444.74	9.23	6.39	7.32
2006	725.00	524.75	603.46	14.94	8.83	11.55
2007	841.10	608.30	695.39	15.82	11.67	13.38
2008	1,011.25	712.50	871.96	20.92	8.88	14.99
2009	1,212.50	810.0	972.35	10.51	19.18	14.67
2010	1,421.00	1,058.00	1,224.53	15.14	28.55	20.19
2011	1,895.00	1,319.00	1,571.52	26.68	48.70	35.12
2012	1,791.75	1,540.00	1,668.98	37.23	26.67	31.15
2013	1,693.75	1,192.00	1,411.23	31.11	18.61	23.79
2014	1,385.00	1,142.00	1,266.40	22.05	15.28	19.08
2015	1,295.75	1,049.40	1,160.06	18.23	13.71	15.68
2016	1,366.25	1,077.00	1,250.74	20.71	13.58	17.14

***NI 43-101 Preliminary Economic Assessment Study for the Cerro Caliche Project, Sonora, Mexico  
Sonoro Gold Corp.***

Year	Gold Price (USD)			Silver Price (USD)		
	High	Low	Cumulative Average	High	Low	Cumulative Average
2017	1,346.25	1,151.00	1,257.12	18.21	15.22	17.04
2018	1,354.95	1,178.40	1,268.49	17.52	13.97	15.71
2019	1,546.10	1,269.60	1,392.60	19.31	14.38	16.21
2020	2,067.15	1,474.25	1,769.64	28.33	12.01	20.55
2021*	1,943.20	1,683.95	1,802.79	29.59	23.21	25.98

Source: www.kitco.com, London PM Fix – USD.

\* Data for 2021 is as of September 11, 2021.

Currently, Sonoro does not plan to produce either gold or silver bullion on site. Sonoro plans to ship the loaded carbon product from the processing facilities to be located on the Cerro Caliche Project to Idaho for further refining.

Sonoro may conduct further work at a later date to evaluate the potential cost benefits of producing gold or silver bullion on site.

## **19.2. Contracts**

At date of publication, Sonoro has not contracted mining, processing or refining services for the Cerro Caliche Project.

## **20. ENVIRONMENTAL STUDIES, PERMITTING, & SOCIAL OR COMMUNITY IMPACT**

### **20.1. Environmental Regulatory Framework**

#### **20.1.1. Mining Law and Regulations**

Mining in Mexico is regulated through the Mining Law, approved on June 26, 1992, and amended by decree on December 24, 1996, Article 27 of the Mexican Constitution, and includes:

- Article 6 of the Mining Law states that mining exploration, exploitation, and beneficiation are public utilities and have preference over any other use or utilization of the land, subject to compliance with laws and regulations,
- Article 19 specifies the right to obtain easements, the right to use the water flowing from the mine for both industrial and domestic use, and the right to obtain a preferential right for a concession of the mine waters; and,
- Articles 27, 37 and 39 rule that exploration, exploitation, and beneficiation activities must comply with environment laws and regulations and should incorporate technical standards in matters such as mine safety, ecological balance, and environmental protection.

The Mining Law Regulation of February 15, 1999, repealed the previous regulation of March 29, 1993. Article 62 of the regulation requires mining projects to comply with the General Environmental Law, its regulations, and all applicable norms.

#### **20.1.2. General Environmental Laws and Regulations**

Mexico's environmental protection system is based on the General Environmental Law known as LGEEPA approved on January 28, 1988 and updated December 13, 1996.

The Mexican federal authority over the environment is SEMARNAT. On November 30, 2000, the Federal Public Administration Law was amended giving rise to SEMARNAT, in conjunction with the movement of the fisheries subsector to the Secretaria de Agricultura, Ganaderia, Desarrollo Rural, Pesca y Alimentación (Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food), through which an increased emphasis was given to environmental protection and sustainable development.

SEMARNAT is organized into several sub-secretariats and the following main divisions:

- **IN CC:** *Instituto Nacional de Ecología y Cambio Climático* (National Institute of Ecology and Climate Change), an entity responsible for the coordination of technological and scientific research and development focus on environmental protection and conservation. This institute provides technical and scientific support to SEMARNAT for the development of the national environmental policy, to promote and distribute criteria, methods and technologies for environmental conservation and sustainable use of natural resources. It also evaluates compliance of the goals and actions of the Climate Change National Strategy.

- **PROFEPA:** *Procuraduría Federal de Protección al Ambiente* (Federal Attorney General for the Protection of the Environment) responsible for law enforcement, public participation and environmental education. PROFEPA is in charge of carrying out environmental inspections and negotiating compliance agreements. Voluntary environmental audits, coordinated through PROFEPA, are encouraged under the LGEEPA.
- **CONAGUA:** *Comisión Nacional del Agua* (National Water Commission), responsible for authorizing new water rights, water related licenses and assessing fees related to water use and discharges.
- **CONAFOR:** *Comisión Nacional Forestal* (National Forestry Commission), responsible of managing the policy for forestry sustainable development; and,
- **CONANP:** *Comisión Nacional de Areas Naturales Protegidas* (National Commission of Natural Protected Areas).

SEMARNAT regulates permitting or licenses under the regulations and standards derived from LGEEPA, divided in the following main topics:

- **Hazardous Materials and Wastes:** Registration of generators, management plans, authorization to manage hazardous waste, contaminated soil remediation, import/export permits, environmental risk assessments and approval of accident prevention programs.
- **Forest Management:** Authorizations, notices, reports, inscriptions and records regarding timber and non-timber forest exploitation, commercial forest plantations, collection of forest biological resources, phytosanitary certificates, land use change in forest land, forest product transportation, storage and transformation centers of forest products, forestry technical services and national forest register,
- **Wildlife:** Cites certificates for import and export, management units for wildlife conservation, extractive and non-extractive usage, authorizations, licenses for hunting, animal specimen register, scientific collections and wildlife conservation,
- **Air:** Authorizations and procedures for operation and environmental compliance, as well as alternative methodologies for air care and quality improvement,
- **Environmental Impact and Risk:** Environmental impact evaluation is a management instrument that guarantees, when approved, the sustainable development of investment projects, establishing the measures to protect the environment and for rational use of natural resources; and,
- **Maritime and Terrestrial:** Permit procedures for this zone are the instruments to give the rights to use and exploit beaches, federal zones and land gained to the sea, guaranteeing the organized and sustainable protection, conservation, and exploitation for integral development of this zones.

### **20.1.3. Regulations Specific to Gold and Silver Mining Projects**

The following Official Mexican Standards are specific for gold and silver mining projects:

- **NOM-023-STPS-2012**, regulates the aspects-conditions related to Mine Safety and Occupational Health in open pit and underground mines issued by the Secretary of Labor,
- **NOM-120-ECOL-2011**, specifies environmental protection measures for mining exploration activities in temperate and dry climate zones that would affect xerophytic brushwood (matorral xerofilo), tropical (caducifolio) forests, or conifer or oak (encinos) forests. The regulation applies to “direct” exploration projects,
- **NOM-157-SEMARNAT-2009**, establishes the elements and procedures to implement a Mining Waste Management Plan,
- **NOM-141-SEMARNAT-2003**, establishes the procedures to characterize tailings, and sets the criteria and specifications for site preparation and characterization, project construction, operation, and post operation of tailings impoundments; and,
- **NOM-155-SEMARNAT-2007**, establishes the environmental protection requirements for gold and silver leach pad systems.

### **20.1.4. PROFEPA “Clean Industry”**

PROFEPA administers a voluntary environmental audit program and certifies businesses with a “Clean Industry” designation if they successfully complete the audit process. The voluntary audit program was established by legislative mandate in 1996 with a directive for businesses to be certified once they meet a list of requirements including the implementation of international best practices, applicable engineering, and preventative corrective measures.

In the Environmental Audit, companies contract third-party PROFEPA-accredited auditors considered experts in the different fields of environmental law (air, water hazardous waste and materials, biodiversity, soil, risk, emergency response and environmental administration systems). During this audit, called “Industrial Verification,” auditors determine if facilities are complying with applicable environmental laws and regulations. If a site passes, it receives designation as a “Clean Industry” and can utilize the Clean Industry logo as a message to consumers and the community that it fulfills its legal responsibilities. If a site does not pass, an “Action Plan” has to be agreed to correct the irregularities found.

The Action Plan is established between the government and the business based on suggestions of the auditor from the Industrial Verification. It creates a time frame and specific actions a site needs to take to be in compliance and solve existing or potential problems. An agreement is then signed by both parties to complete the process. When a facility successfully completes the Action Plan, it is then eligible to receive the Clean Industry designation.

PROFEPA believes this program fosters a better relationship between regulators and industry, provides a green label for businesses to promote themselves and reduces insurance premiums for certified facilities. The most important aspect, however, is the assurance of legal compliance using the Action Plan, a guarantee that ISO 14001 and other Environmental Management Systems cannot make.

### **20.1.5. Mining Waste**

The works and activities of the CC Project consider the generation of mining waste, such as:

- Waste from mining operations: waste rock
- Waste from mineral processing: spent mineralized material from heap leach system
- Hydrometallurgical processing: spent activated carbon

The official Mexican Standard NOM-157-SEMARNAT-2009 establishes the elements and procedures to implement a Mining Waste Management Plan. Waste management measures will be defined and applied to assure the integral management of mining waste, considering administrative, economic, technological, social and environmental aspects. The Mining Waste Management Plan will establish the generation baseline with the purpose of defining the objectives, actions and goals for prevention, reduction and use of mining waste. The Waste Management Plan will be an integral part of the Manifest of Environmental Impact (MIA) which is being prepared to be submitted to the environmental authorities.

As explained earlier, during 2020-2021 a comprehensive geochemical characterization program was conducted to evaluate the environmental stability of the Project waste rock and leached mineralized material. The program focused on determining the potential for generation of acid rock drainage and metal leaching. The geochemical test program indicated that neither the waste nor the mineralized material are expected to be acid generating and do not contain solubilize metals in amounts that exceed Mexican standards.

The program for waste rock analysis was conducted following Mexican regulation NOM- 157-SEMARNAT-2009 which required analyzing each sample (dry base) for ten elements that include: antimony, arsenic, barium, beryllium, cadmium, chrome, mercury, silver, lead and selenium. If the total concentration of these elements is above the NOM-157 parameters, a mobility procedure test must be applied to the sample; in this case the method used was the meteoric water mobility test. According to regulations, if waste rock is produced during the mining process it must be analyzed for acid generation potential using the acid-base accounting (ABA) test under the terms of Official Mexican Standard NOM-141-SEMARNAT-2003.

Leached mineralized material was analyzed according to Official Mexican Standard NOM-155-SEMARNAT-2007. The laboratory analysis consisted of applying the meteoric water mobility test according to NOM-155. The extract concentration results for both samples are considered nontoxic because they did not exceed the permissible parameters of NOM-052-SEMARNAT-2005 applicable to the resulting extract (also listed in NOM- 155). Then, as this waste is produced during the mining process it has to be analyzed for acid generation potential using the ABA test under the terms of Official Mexican Standard NOM-141-SEMARNAT-2003.

During operations, Mexican regulations require the monitoring, on an annual basis, of a composite sample (two samples per month) of mining waste (waste rock and leached mineralized material) until the end of the Project life.

#### **20.1.6. Wastewater**

The Project design includes a zero-discharge process for mineralized material treatment. Sewage water will be treated using septic tanks that meet the specification of the Official Mexican Standard NOM-006-CNA-1997. The effluent of the septic tanks will be analyzed according to the Official Mexican Standard NOM-001-ECOL-1996 which establishes the permissible discharge parameters limits. A wastewater discharge permit from the Water National Commission (CONAGUA) will be requested for the Project, after obtaining the underground water right concession (requirement to obtain a discharge permit).

#### **20.1.7. Hazardous and Non-Hazardous Waste Management**

Non-hazardous waste will be managed in agreement with the municipal service. Trash containers will be strategically located on the Project premises, promoting the recycling of wood, cardboard, plastic, and scrap metals.

Hazardous waste management infrastructure is included in the Project to collect, transfer, and store the different types of waste that will be generated by the Project activities. The company will register as a Hazardous Waste generator with SEMARNAT. Hazardous waste will be identified using specific labels and containers that will be specific for each type of waste. A General Temporary Warehouse for hazardous waste will be constructed for the Project. Storage of any hazardous waste must not exceed three months in this warehouse. The company will use for transport and final destination of hazardous waste a SEMARNAT authorized company or service provider that will issue a manifest document for generation, transport and final destination movements. Control books will be put in place to control entrance and exits. The actions above meet the legal basis in the LGEEPA and its Regulation in Matter of Prevention and Integral Management of Waste.

#### **20.1.8. Other Laws and Regulations**

##### ***20.1.8.1. Water Resources***

Water resources are regulated under the National Water Law, December 1, 1992 and its regulation, January 12, 1994 (amended by decree, December 4, 1997). In Mexico, ecological criteria for water quality are set forth in the Regulation by which the Ecological Criteria for Water Quality are Established, CE-CCA-001/89, dated December 2, 1989. These criteria are used to classify bodies of water for suitable uses including drinking water supply, recreational activities, agricultural irrigation, livestock use, aquaculture use, and for the development and preservation of aquatic life. The quality standards listed in the regulation indicate the maximum acceptable concentrations of chemical parameters and are used to establish wastewater effluent limits. Ecological water quality standards are defined for water used for drinking water, protection of aquatic life, agricultural irrigation and irrigation water and livestock. Discharge limits have been established for some industrial sources, although limits specific to mining projects have not been developed. NOM-001-ECOL-1996, January 6, 1997, establishes maximum permissible limits of contaminants in wastewater discharges to surface water and national “goods” (waters under the jurisdiction of CONAGUA).

Daily and monthly effluent limits are listed for discharges to rivers used for agricultural irrigation, urban public use and for protection of aquatic life; for discharges to natural and artificial reservoirs

used for agricultural irrigation and urban public use; for discharges to coastal waters used for recreation, fishing, navigation and other uses and to estuaries; and discharges to soils and to wetlands. Effluent limitations for discharges to rivers used for agricultural irrigation, for protection of aquatic life, and for discharges to reservoirs used for agricultural irrigation have also been established. Specific measures and permissible parameters quality will be mentioned in the document where the discharge permit concession is given by CONAGUA.

#### **20.1.8.2. Ecological Resources**

In 2000, CONANP (formerly CONABIO, the National Commission for Knowledge and Use of Biodiversity) was created as a decentralized entity of SEMARNAT. As of November 2001, 127 land and marine Natural Protected Areas had been proclaimed, including biosphere reserves, national parks, national monuments, flora and fauna reserves, and natural resource reserves.

Ecological resources are protected under the Ley General de Vida Silvestre (General Wildlife Law). NOM-059-ECOL-2000 specifies protection of native flora and fauna of Mexico. It also includes conservation policy, measures and actions, and a generalized methodology to determine the risk category of a species.

Other laws and regulations include the Forest Law, December 22, 1992, amended November 31, 2001, and the Forest Law Regulation, September 25, 1998.

#### **20.1.9. Land**

Use and Exploitation of Land properties are subject to the provisions of agrarian laws. The following government agencies coordinate surface land management:

- **SEDATU** (Secretariat for Agrarian Development; Territorial and Urban): Is in charge of promoting land ownership legal compliance, especially in rural areas. This institution is in charge of making the public policies to access justice and agrarian development;
- **RAN** (National Agrarian Registry): Controls land ownership of ejidos and communities (communal landowners). This agency is in charge of all the legal procedures regarding land ownership legalization, issuing of land titles and certificates, regulation of land authorities (ejidos, communities), registration and validation of any process regarding land ownership and also ejidatarios deposit their succession lists; and,
- **PA** (Agrarian Prosecutor Agency): Social service institution that serves to protect the rights of agrarian individuals. Its services include legal counseling for possession's conciliation or legal representation.

#### **20.1.10. Environmental Regulatory Conditions**

Environmental planning in Mexico has its legal basis in the "Ley General del Equilibrio Ecológico y la Protección al Ambiente", (LGEEPA) or "General Law of Ecological Equilibrium and the Protection of the Environment", and its "Regulation in Matters of Ecological Planning" (ROE), which establish the objective of ecological zoning of the national territory through a "General Program for Ecological Zoning of the Mexican Territory" or "Programa de Ordenamiento Ecológico General del Territorio" (POEGT), identifying priority areas for attention and areas with sectorial competence. According to LGEEPA, ecological zoning is defined as an environmental policy instrument with the

purpose of zoning the land use and contributing to control and mitigate the environmental issues, to reach the environmental protection and the preservation and sustainable use of natural resources, based on the analysis of deteriorating trends and the potential uses of each respective area. The POEGT agreement approved by decree was published in the Official Federal Journal September 7th, 2012.

The ecological zoning defined a set of synthetic territorial units, according to the principal environmental biophysical factors such as climate, landform, vegetation and soil. Under this principle, the Mexican territory has been differentiated into 145 units called Biophysical Environmental Units (UAB). For each of these UABs, specific ecological guidelines and strategies have been designated.

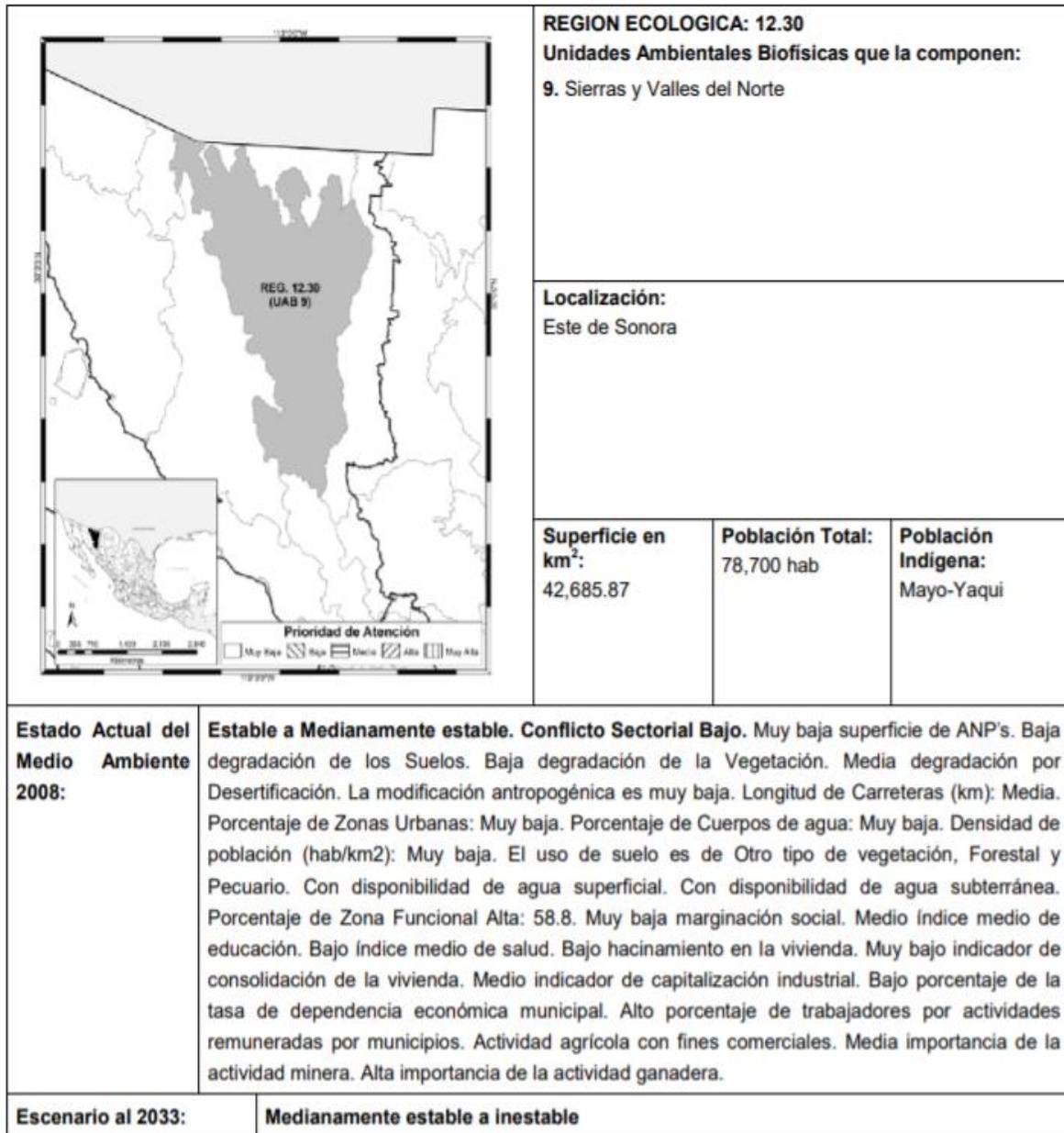
Considering the proposed ecological zoning in the POEGT, the Cerro Caliche Project is located in the ecological region 12.30 inside the UAB number 9 that corresponds to the Sierras and Valleys of the North.

According to the POEGT, the UAB 9 considers the following:

- Development Guide: Mining and preservation of flora and fauna
- Development Aids: Forestall
- Development Associates: Cattle growing
- Environmental Policy: Sustainable use and protection
- Level for Priority Attention: Very Low.

The POEGT in its technical specifications' details that in 2008 the environmental state for UAB 9 was considered as: stable to moderately stable with low sectorial conflicts, very low surface of protected areas, moderate degradation of soils, low degradation of vegetation, medium degradation for desertification, very low anthropological degradation, medium presence of roads-highways, medium percentage of urban zones, low percentage of surface water bodies, and low population density. The land use is classified as: other type of vegetation, forest and livestock, surface water available, underground water available, functional zone high percentage of 58.8, low social marginalization, medium educational index, low medium health index, low overcrowded housing, very low indicator of housing consolidation, medium industrial capitalization, low percentage of economic dependence rate on the municipality, high percentage of jobs paid by municipality, agricultural activities with commercial purpose, medium importance of the mining activity, and high importance of livestock activity.

Figure 20:1 UAB 9



*NI 43-101 Preliminary Economic Assessment Study for the Cerro Caliche Project, Sonora, Mexico  
Sonoro Gold Corp.*

<b>Política Ambiental:</b>		<b>Aprovechamiento Sustentable</b>			
<b>Prioridad de Atención:</b>		<b>Muy baja</b>			
<b>UAB</b>	<b>Rectores del desarrollo</b>	<b>Coadyuvantes del desarrollo</b>	<b>Asociados del desarrollo</b>	<b>Otros sectores de interés</b>	<b>Estrategias sectoriales</b>
<b>9</b>	Minería- Preservación de Flora y Fauna	Forestal	Ganadería	Industria	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 15 BIS, 16, 17, 28, 29, 31, 33, 37, 42, 43, 44
<b>Estrategias. UAB 9</b>					
A) Preservación		<ol style="list-style-type: none"> <li>1. Conservación <i>in situ</i> de los ecosistemas y su biodiversidad.</li> <li>2. Recuperación de especies en riesgo.</li> <li>3. Conocimiento, análisis y monitoreo de los ecosistemas y su biodiversidad.</li> </ol>			
B) Aprovechamiento sustentable		<ol style="list-style-type: none"> <li>4. Aprovechamiento sustentable de ecosistemas, especies, genes y recursos naturales.</li> <li>5. Aprovechamiento sustentable de los suelos agrícolas y pecuarios.</li> <li>6. Modernizar la infraestructura hidroagrícola y tecnificar las superficies agrícolas.</li> <li>7. Aprovechamiento sustentable de los recursos forestales.</li> <li>8. Valoración de los servicios ambientales.</li> </ol>			
C) Protección de los recursos naturales		<ol style="list-style-type: none"> <li>9. Propiciar el equilibrio de las cuencas y acuíferos sobreexplotados.</li> <li>10. Reglamentar para su protección, el uso del agua en las principales cuencas y acuíferos.</li> <li>11. Mantener en condiciones adecuadas de funcionamiento las presas administradas por CONAGUA.</li> <li>12. Protección de los ecosistemas.</li> <li>13. Racionalizar el uso de agroquímicos y promover el uso de biofertilizantes.</li> </ol>			
D) Restauración		<ol style="list-style-type: none"> <li>14. Restauración de ecosistemas forestales y suelos agrícolas.</li> </ol>			
E) Aprovechamiento sustentable de recursos naturales no renovables y actividades económicas de producción y servicios		<ol style="list-style-type: none"> <li>15. Aplicación de los productos del Servicio Geológico Mexicano al desarrollo económico y social y al aprovechamiento sustentable de los recursos naturales no renovables.</li> <li>15 bis. Consolidar el marco normativo ambiental aplicable a las actividades mineras, a fin de promover una minería sustentable.</li> <li>16. Promover la reconversión de industrias básicas (textil-vestido, cuero-calzado, juguetes, entre otros), a fin de que se posicionen en los mercados doméstico e internacional.</li> <li>17. Impulsar el escalamiento de la producción hacia manufacturas de alto valor agregado (automotriz, electrónica, autopartes, entre otras).</li> </ol>			
<b>Grupo II. Dirigidas al mejoramiento del sistema social e infraestructura urbana</b>					
C) Agua y Saneamiento		<ol style="list-style-type: none"> <li>28. Consolidar la calidad del agua en la gestión integral del recurso hídrico.</li> <li>29. Posicionar el tema del agua como un recurso estratégico y de seguridad nacional.</li> </ol>			
D) Infraestructura y equipamiento urbano y regional		<ol style="list-style-type: none"> <li>31. Generar e impulsar las condiciones necesarias para el desarrollo de ciudades y zonas metropolitanas seguras, competitivas, sustentables, bien estructuradas y menos costosas.</li> </ol>			
E) Desarrollo Social		<ol style="list-style-type: none"> <li>33. Apoyar el desarrollo de capacidades para la participación social en las actividades</li> </ol>			

	<p>económicas y promover la articulación de programas para optimizar la aplicación de recursos públicos que conlleven a incrementar las oportunidades de acceso a servicios en el medio rural y reducir la pobreza.</p> <p><b>34.</b> Integración de las zonas rurales de alta y muy alta marginación a la dinámica del desarrollo nacional.</p> <p><b>37.</b> Integrar a mujeres, indígenas y grupos vulnerables al sector económico-productivo en núcleos agrarios y localidades rurales vinculadas.</p>
<b>Grupo III. Dirigidas al fortalecimiento de la gestión y la coordinación institucional</b>	
A) Marco Jurídico	<b>42.</b> Asegurar la definición y el respeto a los derechos de propiedad rural.
B) Planeación del Ordenamiento Territorial	<p><b>43.</b> Integrar, modernizar y mejorar el acceso al catastro rural y la información agraria para impulsar proyectos productivos.</p> <p><b>44.</b> Impulsar el ordenamiento territorial estatal y municipal y el desarrollo regional mediante acciones coordinadas entre los tres órdenes de gobierno y concertadas con la sociedad civil.</p>

Inside the scenario trend, the POEGT considers that for 2012 the environmental state for UAB 9 was stable to moderately stable with a projection for 2033 to pass to a moderately stable to unstable. On account of the scenarios (context 2008, 2012 and 2033 trends) and based on ecological guidelines, 26 ecological strategies were established for UAB 9.

<b>Escenario al 2033:</b>	<b>Medianamente estable a inestable</b>
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These sectorial strategies describe the actions to obtain the environmental sustainability of the territory and are divided into three groups:

- Group I: Aims to achieve the sustainability of the territory
- Group II: Aims to improve the social system and urban infrastructure
- Group III: Aims to strengthen management and institutional coordination

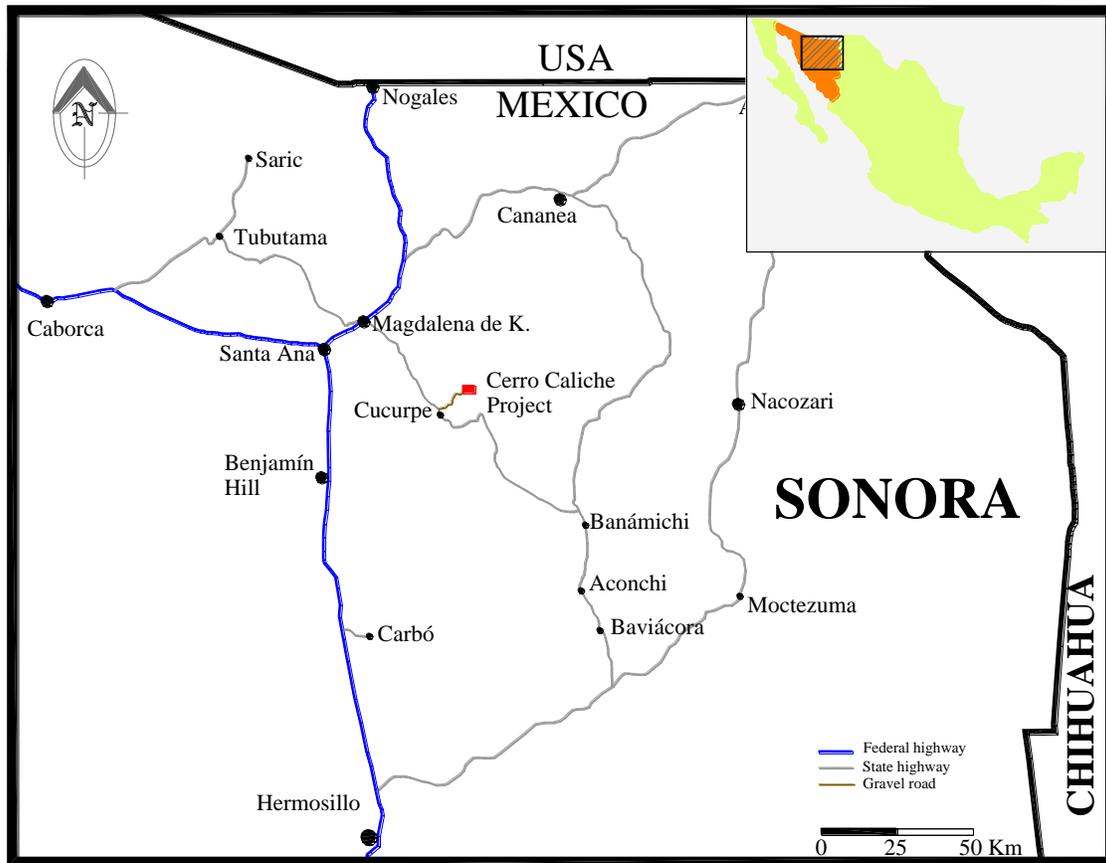
Within these sectorial strategies, strategies number 15 and 15 bis are relevant to the Cerro Caliche Project because they make the following statements: 15) “Employ the products of the Servicio Geologico Mexicano for economic and social development and sustainable use of non-renewable natural resources”; and 15bis) “Consolidate the environmental regulations framework that applies to mining activities to promote sustainable mining.”

This is defined in Group I, a group that establishes strategies that aim to achieve sustainable development of the territory. Therefore, actual regulations for mining operations indicate that the Cerro Caliche Project is compatible with the sectorial strategies defined for UAB 9.

## 20.2. Environmental Studies, Permitting, and Social Impact

The Project is located in the Cucurpe municipality in Sonora State, Mexico, inside of the Cerro Prieto ranch. The main access is through 40 km of paved road between Magdalena de Kino and Cucurpe town, then approximately 14 km of gravel road to N-NE. It is also located around 20 km to the southwest of the abandoned Mine Santa Gertrudis, and 10 km to the northwest of Las Mercedes-Klondike project.

Figure 20:2 Cerro Caliche Project Location Map



According to information from the *National Commission of Natural Protected Areas* (CONANP, 2014), there are no protected areas near the Project, nor within a radius of 190 km from the project. In December 2020 Sonoro Gold received authorization from the *Secretaría de Medio Ambiente y Recursos Naturales* (SEMARNAT) to construct 8.154 ha of new roads, build drill pads and drill 258 RC and core holes in order to continue exploration of the Cerro Caliche deposit.

### 20.2.1. Environmental Studies, Baseline Studies and Background Information

During 2020 and 2021, Sonoro in coordination with *HRL Servicio Ambiental S.A. de C.V.* (HRL), *A-GEOMMINING*, *Morales Geophysics and ALS-Indequim* conducted baseline studies for water, biodiversity, climate, geohydrology, geology, geomorphology, soil characterization, mining waste geochemistry (waste rock and leached mineralized material), and social-economic aspects.

Environmental baseline studies were conducted over 7,000 hectares to determine the actual conservation status. A social-economic study was done in the nearby communities of Cucurpe and Magdalena.

#### ***20.2.1.1. Baseline Studies Performed at the CC Project***

These studies were conducted over 7,000 hectares to determine the actual conservation status in the Project area and to assess the potential risks of environmental and social impact. The social and economic impact assessment was done in the nearby communities of Cucurpe and Magdalena.

#### ***20.2.1.2. Acid Drainage***

ABA and mobility tests on waste and mineral rock were conducted by ALS Indequim S.A. de C.V.; the tests were conducted according to the parameters of Mexican regulations and international standards. With this purpose three PQ core samples of mineral and seven PQ core samples of waste rock, (representative of areas with large proportion of mineable rock), were analyzed to determine their potential for acid rock drainage and metal liberation. Based on the test result, both waste and mineral can be classified as non-acid generating, with metals concentrations in leachate that are within the Mexican and international regulatory limits and guidelines.

#### ***20.2.1.3. Water Baseline***

Analitica del Noroeste conducted the water sampling and characterization from water collected in seven sites, five underground and two surface, including two water wells that could serve as potable water sources, all inside the study area. The results in general show good quality water, with some impact by the cattle farming in the area.

#### ***20.2.1.4. Soil Baseline***

Analitica del Noroeste conducted soil characterization studies on 18 soil samples from 9 sampling sites, all inside the study area. In general, the study shows that the soil in the area has no environmentally harmful elements.

#### ***20.2.1.5. Biodiversity Baseline***

The analysis of the vegetation within the subject area regarding change of land use and authorization in terms of environmental impact, was focused on the type of vegetation that will be removed as a result of the project activities.

The project is surrounded by secondary oak forest vegetation, but the main classification of the proposed project area resulting from the field analysis is microphyllous desert scrub (MDM on the map below). The total floristic inventory of the site was compared with the Official Standard NOM-059-SEMARNAT-2010 (D.O.F., 2010) that determines the species and subspecies of flora and fauna that are: a) in danger of extinction; b) threatened and c) those subject to special protection; to identify those specimens with some status of risk. In the case of the area of the project there is only one species listed in the Official Standard, namely Saguaro (*Carnegiea gigantea*), which is subject to special protection.

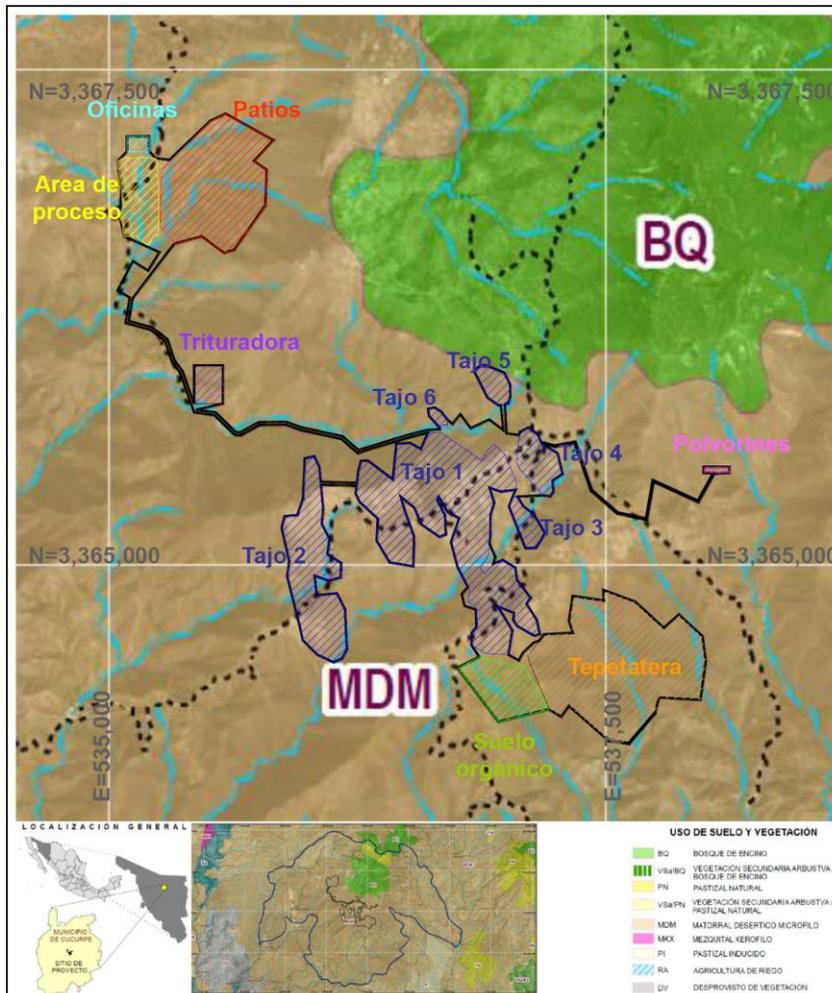
**Strata Considered**

- **Arboreal.** Stratum formed by elements of woody and elevated trunk, with branches at a certain height from the ground; with a single shaft and well-formed cup more than three metres in height.
- **Shrub and Cacti.** Formed by perennial plants, with lignified stem, but without predominant trunk, that is, with branching from the base, usually less than three metres in height.
- **Herbaceous.** Stratum represented by non-woody or small woody plant specimens, usually of short stature, that die after fruiting.

**Vegetation Affected**

- Microphyllous Desert Scrub (MDM).
- Oak Forest (BQ). Secondary.

Figure 20:3 Vegetation Types of the Cerro Caliche Project



Source: HRL (2021)

### Floristic Inventory

- **Saguaro (Carnegiea Gigantea).** Only species listed as subject to special protection in NOM-059-SEMARNAT-2010.

Table 20:1 Floristic Inventory of Project (subject to CUSTF AND MIA)

No.	Common name	Scientific Name	Stratum
1	Cumaro	<i>Celtis reticulata</i>	Tree
2	Mesquite	<i>Prosopis velutina</i>	Tree
3	Encino	<i>Quercus durifolia</i>	Tree
4	Mauto	<i>Lysiloma divaricatum</i>	Tree
1	Lechugilla	<i>Agave lechuguilla</i>	Shrubby
2	Estafiate	<i>Ambrosia confertiflora</i>	Shrubby
3	Chicurilla	<i>Ambrosia cordifolia</i>	Shrubby
4	Pintapan	<i>Anode cristata</i>	Shrubby
5	Mulatto stick	<i>Bursera laxiflora</i>	Shrubby
6	Gediondilla	<i>Cassia occidentalis</i>	Shrubby
7	Garambullo	<i>Celtis pallida</i>	Shrubby
8	Solitude	<i>Coursetia glandulosa</i>	Shrubby
9	Salvia	<i>Croton sonorae</i>	Shrubby
10	Palmilla	<i>Dasyilirion wheeleri</i>	Shrubby
11	Tarachico	<i>Dodonaea viscosa</i>	Shrubby
12	White branch	<i>Flourey encephaly</i>	Shrubby
13	Chilicote	<i>Erythrina flabelliformis</i>	Shrubby
14	Ocotillo	<i>Fouquieria splendens</i>	Shrubby
15	Torote papelillo	<i>Jatropha cordata</i>	Shrubby
16	Sangregado	<i>Jatropha cuneata</i>	Shrubby
17	Cosahui	<i>Krameria parvifolia</i>	Shrubby
18	Salicieso	<i>Lycium andersonii</i>	Shrubby
19	Gatuño	<i>Mimosa laxiflora</i>	Shrubby
20	Manioc	<i>Yucca schottii</i>	Shrubby
21	Bachata	<i>Ziziphus obtusifolia</i>	Shrubby
1	Saguaro	<i>Carnegiea gigantea</i>	Cactus
2	Old man	<i>Mamillaria grahamii</i>	Cactus
3	Nopal	<i>Opuntia engelmannii</i>	Cactus
4	Civiri	<i>Opuntia thurberi</i>	Cactus
5	Pitaya	<i>Stenocereus thurberi</i>	Cactus
1	Bad woman	<i>Solanum hindsianum</i>	Herbaceous
2	Buffel Zacate	<i>Cenchrus ciliaris</i>	Herbaceous
3	Zacate liebrero	<i>Bouteloua simplex</i>	Herbaceous
4	Mallow	<i>Malvastrum sp</i>	Herbaceous

Source: HRL (2021)

According to the floristic inventory obtained in the site through representative sampling, a total of 35 species of perennial terrestrial vascular flora were listed. All the species present in the study area are well represented in the Forestry Micro Watershed region.

In the tree stratum there are four (4) perennial floristic species in the area subject to change of land use and environmental impact. With a coverage of 40 ind/ha, represented mostly by the integration of Cumaro (12 per ha), Mesquite (11 per ha), Mauto (11 per ha) and Oak (6 per ha).

The shrub stratum has 21 perennial floristic species in the area subject to study, with a coverage of 131 ind/ha and a diversity of species in poor condition.

The group of cacti on the other hand, has five (5) perennial floristic species with a distribution in the subject area of 31 ind/ha and a diversity of species in poor condition.

Finally, in the herbaceous stratum the trend of better condition of attributes of diversity and abundance is maintained.

According to the natural environment of the Project area, it is considered that the diversity is very well defined within the category of microphyllous desert scrub and is considered of average diversity due to the characteristics of the strata.

The measures to be implemented during the development of the Project will be compensatory and will be designed to return to the ecosystem the natural resources (flora) in a technically feasible proportion for gradual implementation, as indicated in the Reforestation and Rescue Program of both flora and fauna species.

### **Faunal Composition on the Area**

In relation to Fauna, 66 sites of the area subject to study were analyzed, with the following results:

#### **Mastofauna**

For the group of mammals, 8 species were identified: Coyote (3 per ha), Kangaroo Rat (7 per ha), Antelope Hare (7 per ha), Skunk (3 per ha), Gray Fox (7 per ha), White-tailed Deer (3 per ha), Jabali (10 per ha), Desert Rabbit (7 per ha).

#### **Avifauna**

Aves was the faunal group with the highest number of identified species (15), as well as individuals recorded in the sampling and in the resulting inventory. None of the species in this group is listed in NOM-059-SEMARNAT-2010.

#### **Herpetofauna**

The herpetofauna group was the one with the lowest species richness, as compared to the other groups, with only 3 species identified: (Porohui 3 per ha; Culebra chirriona 3 per ha; Spiny lizard 3 per ha), for a total of 9 individuals/hectare. One species of this group is listed in the NOM-059-SEMARNAT-2010, the Chirriona Snake (*Masticophis flagellum*) which is in threatened status, non-endemic.

As part of the permitting process, the Company will identify a program for the rescue and relocation of species of Flora and Fauna that are subject to a protected status according to federal regulation NOM-59 SEMARNAT 2010.

#### **20.2.1.6. Socioeconomic Baseline**

**Population.** The closest urban center to the Project is Cucurpe village, which records a population of 863 persons or 0.1% of Sonora State's total. Proportionally, there are 119 men for each 100 females, with an average age of 38 years. There are 53 persons per each 100 depending economically on persons in a productive age.

**Territory.** Cucurpe county covers 1,577.9 sq/km or 0.9 % of Sonora State's surface area, with a population density of 0.5 individuals per sq/km.

**Agriculture.** This activity occurs over a surface area of 1,202 hectares; 420 hectares are irrigated with water from wells and 782 hectares with rainwater irrigation. Agriculture is the main jobs generator in the municipality, generating 246 direct jobs, which account for 70% of the employed population.

**Livestock.** Cattle farming is one of the main activities in Cucurpe, with mainly summer pastures utilizing 177,885 hectares. According to COTECOCA-SARH, the actual summer pasture ratio is 9.93 heads of cattle per hectare.

**Mining.** Mining is one of the main three employment-generating activities in Cucurpe, in recent decades, mining has, at times, been its number one employment activity. Recent information accounts for 350 direct jobs being occupied by this activity. It is expected that the Cerro Caliche Project will triple this number in its first year of operations.

#### **20.2.1.7. Geotechnical Environment**

A-GEOMMINING conducted geotechnical studies on rock from planned pit walls to assess their stability characteristics and also conducted the geotechnical heap leach basement studies. Hydrology studies and design flood calculation was developed by ISM.

#### **20.2.1.8. Climate**

A comprehensive climate characterization and hydrology study was conducted to establish weather variables (wind, rainfall, evaporation and temperature) and 24-hour storm events for different return periods (2 to 10,000 years). This information was used to design the hydraulic infrastructure needed to protect the open pit, waste rock dumps, leach pad and pond designs of the heap leach system.

#### **20.2.1.9. Water for Operation**

Morales Geophysics conducted geohydrological characterization studies for location of potential underground water in an area of 8 km<sup>2</sup> using a Magnetometry-VLF-Natural Source survey; 8 profiles were developed and 2 potential sites to drill production water wells were located.

CONAGUA locates the Project in the San Miguel Aquifer, which is administrated by the *Hydrological Region Organismo de Cuenca Noroeste*.

According to the data that was published in the CONAGUA December 2020 report on the San Miguel aquifer titled, “*Actualización de la Disponibilidad Media Anual de Agua en el Acuífero Río San Miguel (2625), Estado de Sonora.*”

The net annual groundwater availability for the (2625) San Miguel Aquifer is 2,297,630 cubic metres. As such, the aquifer does not have any restrictions and has water available for the concession. Accordingly, Sonoro Gold has started discussions with the local CONAGUA office to obtain the exploration water well permit, to continue with the acquisition of the water rights for the Project.

### **20.2.2. Land**

In 2021 Sonoro Gold initiated land negotiations with the principal private landowner Mr. Martin Padres for the use and temporary occupation of 1,865 hectares. Mr. Padres has expressed his acceptance of the development of the Project and both parties are currently negotiating the land occupation terms. There are currently no mining opposition groups in the region.

### **20.2.3. Air and Noise Emissions**

Smoke, dust and noise emissions will be present at the Project. Machinery and equipment operation during the different phases of the Project will result in smoke and noise emissions. mineralized material and waste rock haulage (trucks and belts), road operations and vegetation clearing are the main activities that will generate dust emissions. The level of emissions will not be significant as they occur in an open and wide space, however total suspended particles will be monitored by a certified laboratory to assure the levels comply with the Official Mexican Standard NOM-035-SEMARNAT-1993.

Noise related to machinery and equipment operation will occur away from population localities and monitoring is not required by environmental law. Considering current operations, noise levels will be in the range of 70 to 80 type-A decibels at a distance less than 60 metres from the equipment and this will be monitored to meet health and safety standards regulated by NOM-011-STPS-2001.

## 21. CAPITAL AND OPERATING COSTS

### 21.1. Capital Costs

Table 21:1 Capital Cost Summary

Project Area	Item	Total Capex (\$k)
000	CFE Power Line to Site	1,435
100	Crushing	12,747
300	Leaching	2,017
500	Carbon (Note 1)	0
600	Refinery (Note 1)	0
700	Reagents	266
800	Laboratories	546
900	Site and Utilities	1,458
1000	Truck Shop / Warehouse	208
1100	Mobile Equipment	274
1200	Water Distribution	224
	<b>Equipment and Materials Sub-Total</b>	<b>19,175</b>
	Other Infrastructure (Office, Computers, Administration)	405
	Light Vehicles	268
	Internal Engineering	534
	Access Roads	192
	Leach Pad – Phase 1 (Construction and Materials)	3,070
	Permits and Services	612
	Construction Directs	1,029
	<b>Sub-Total</b>	<b>6,083</b>
	<b>Sub-Total Fixed Investment</b>	<b>25,255</b>
	Contingency @ 15 %	3,788
	Total Fixed Investment	29,044
	Factored EPCM @ 12.5 %	\$3,157
	<b>TOTAL INVESTMENT</b>	<b>\$32,201</b>

Source: D.E.N.M. (2021)

*Note 1 – The Cerro Caliche Project will not install and operate a carbon stripping and refinery circuit as previously noted. The loaded carbon will be shipped off-site. Showing of these items is only as a matter of reference.*

#### 21.1.1. Open Pit Mining Capital Cost

The Cerro Caliche Project open pit mining operation will use local mining contractors who will supply all required direct mining, rolling stock and maintenance requirements. This will ensure delivery to the crushing plant a nominal tonnage of 15,000 tpd.

Any capital associated with the mining has been included in Table 21:1 in the areas of other infrastructure and light vehicles.

### **21.1.2. Process Plant Equipment Costs**

The major mechanical equipment cost for Cerro Caliche process is the three (3) stage crushing circuit. The quotation for this was supplied by a local vendor in Mexico based on the preliminary process design criteria generated in Section 13 and 17 of this technical report. The crushing system consisted of all crushers, screens, feeders, and material handling components. The other major items of capital was the CIC adsorption circuit and Phase 1 and Phase 2 leach pads which were determined from a database for similar local applications.

*Note – The capital cost for the power line installation was obtained from the major power supplier in Mexico (CFE) based on distance, capacity and loading.*

Costs for all other minor mechanical equipment such as bins, tanks, and structures were based on a current database.

### **21.1.3. Process Plant Direct Construction Costs**

Direct construction mainly associated with the CIC adsorption circuit and pads were based on factoring as well as expected pad installation costs on a \$ /sq.mt. basis. A database of previous adsorption circuits aided in the associated costs.

### **21.1.4. Process Plant Indirect Costs**

Factored costs were used in the process EPCM indirect costs. These are shown in Table 21.2

Table 21:2 Process Plant Indirect Capital Factors

<b>Item</b>	<b>Factor (%)</b>	<b>Factored Basis</b>
EP Section (Engineering and Procurement)	5.2	% Total Fixed Capital Cost
CM & PM Section (Construction and Project Management)	7.3	% Total Fixed Capital Cost

Source: D.E.N.M. (2021)

### **21.1.5. Process Plant Capital Cost Estimate**

The process plant described in Section 17 of this technical report and a summary of estimated capital costs for the same are shown in Table 21.3

Table 21:3 Process Plant Cost Estimate

<b>Area</b>	<b>Description</b>	<b>Cost US\$ k</b>
100	Crushing Circuit	12,747
300	Leaching Circuit	2,017
500	Carbon Stripping Circuit (Note 1)	N/A
600	Refinery Circuit (Note 1)	N/A
700	Reagents	266
800	Assay Laboratory and Sample Preparation	546
1200	Water Distribution	224
	Plant Capex Total (without contingency)	15,800

Source: D.E.N.M. (2021)

*Note 1 – The Project will not install and operate a carbon stripping and refinery circuit as previously noted. The loaded carbon will be shipped off-site. Inclusion listed above of these items is only as a matter of reference.*

### **21.1.6. Infrastructure Capital Costs**

The infrastructure capital cost is estimated at US \$3.1 million and includes access roads, warehouse, office, and the main electrical powerline to site.

#### **21.1.6.1. Contingency**

An overall contingency of 15 % was applied to all aspects of the capital cost estimate, less the factored EPCM costs. The total contingency on initial capital costs is US \$3.8 million.

#### **21.1.6.2. Sustaining Capital Costs**

Sustaining capital costs have been allowed for in the seven (7) year mine life for Cerro Caliche. This is indicated in the cash flow with the major allowance for the cost being the Phase II pad expansion in year two of operations. The sustaining capital for the Project is US \$4.8 million.

## **21.2. Operating Costs**

The overall Cerro Caliche mine operating costs include all costs from contract mining of mineralized material and waste, three (3) stage crushing and loading, processing costs, and associated general and administration costs. Table 21:4 summarize the estimated mine plant operating costs.

Table 21:4 Mine Plant Operating Costs

<b>Item</b>	<b>\$US/ Year</b>	<b>\$US/t Proceed</b>	<b>% Total</b>
Mining – Mineralized Material	\$9.6m	\$1.90	15%
Mining – Waste (Variable S/R)	\$13.8m - \$25.5m	\$1.90	*30%
Crushing	\$3.9m	\$0.77	6%
Process	\$28.7m	\$5.70	45%
G & A	\$2.5\$	\$0.49	4%
Total	\$58.4m - \$70.1m	\$12.81	100%

Source: D.E.N.M. (2021)

*\*Note - Factored in for the Life of Mine Strip Ratio of 2.0*

### **21.2.1. Labour**

Cerro Caliche process plant labour positions and rates were based on details of manpower rates supplied by Sonoro Gold for similar operations in the Sonora region of Mexico. It addressed senior process management, operating personal, and specific support staff. This included, but was not limited to, maintenance (mechanical, electrical, instrumentation), and assay laboratory. A burden rate for each position was applied based on the information supplied by Sonoro Gold.

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The preliminary schedule of positions, and quantity are provided in Table 21.5. To accommodate a 24-hour operation, the number of hourly employees and staff totals 139. The split on this total is as follows:

- Process including assay – 56
- Mining Support – 19
- Crushing – 32
- General and Administrative – 32

Table 21:5 Mine and Plant Operations Labour

Position	No.	Position	No.	Position	No.
<b>Plant Operations</b>		<b>Mine operations</b>		<b>General &amp; Administration</b>	
Process Plant Superintendent	1	Mine Superintendent	1	General Manager	1
Process Plant Supervisor	2	Mine Supervisor	3	General Manager Assistance	1
Process Plant Operator	3	Senior Geologist	1	Admin Manager	1
Process Plant Assistance	8	Jr. Geologist	3	Admin Assistance	1
<b>Leaching</b>		Mine Planner	1	Accountant Manager	1
Leaching Operator	2	Junior Mine Planner	1	Accountant Assistance	2
Leaching Helper	6	Ore-Control Assistance	4	Human Resources Manager	1
Crusher Operator	8	Surveyor	2	Human Resources Assistance	1
Crusher Helper	24	Surveyor Assistance	3	Purchasing Agent	1
<b>Laboratory</b>				Purchasing Assistance	2
Chief Laboratory	1	<b>Total Labour</b>	<b>19</b>	Warehouse Agent	1
Laboratory Supervisor	2			Warehouse Assistance	3
Laboratory Technician	1			IT	1
Laboratory Assistance	1			IT Assistance	1
Assayer	3			Community Relations	1
Sample Preparer	5			Safety & Environmental Manager	1
<b>Maintenance</b>				Safety & Environmental Supervisor	2
Maintenance Supervisor	2			Safety & Environmental Assistance	10
Maintenance Planner	1				
Maintenance Mechanic	1			<b>Total Labour</b>	<b>32</b>
Mobile Mechanic	1				
Diesel Mechanic	1				
Electrician	1				
Electrician Assistance	2				
Mechanic Instrumental	1				
Mechanic Instrumental Assistance	1				
Welder	2				
Mechanic Assistance	8				
<b>Total Labour</b>	<b>88</b>				

Source: Sonoro Gold (2021)

### **21.2.2. Reagents**

Reagent costings were supplied by Sonoro Gold and is in-line with operations in Sonora, Mexico. These included lime (hydrated), sodium cyanide (NaCN), activated carbon, anti-scalent.

Consumption of the same was calculated based on the preliminary Project testwork. Consumptions were calculated on an annual basis and \$US/t were determined based on 5,040 Mtpa mineralized material mine and process rate.

### **21.2.3. Power**

Power to the Cerro Caliche site will be supplied via a 33kV high voltage line located 23 km from the site. Electricity consumption for the site is estimated (based on the preliminary flowsheet and equipment list) to be 16,958 MWh per year

An electrical cost has been supplied by *Commission Federal de Electricidad* (CFE) and is stated to be \$ 0.125/kwh

## **21.3. Reclamation and Closure Costs**

Regulations in México require a preliminary closure program to be included in the MIA and a definitive program be developed and submitted to the authorities during the operation of the mine. While regulation requires the preparation of a reclamation and closure plan, as well as a commitment on the part of the operator to implement the plan, no financial bonding has been required of mining companies. Environmental damages, if not remediated by the owner/operator, can give rise to civil, administrative, and criminal liability, depending on the action or omission carried out. PROFEPA is responsible for the enforcement and recovery for those damages, although other persons or groups with an interest in the matter could take the initiative.

Reclamation and closure costs for the Project have been supplied by Sonoro Gold Corp. and are estimated to be \$ 2.9 million as presented in Table 21.6

Table 21:6 Closure Costs

<b>Activity</b>	<b>Closure Cost (\$M)</b>
Environmental	2.3
Engineering and Procurement	0.3
Subtotal	2.9
Contingency	0.3
Total Reclamation Costs	2.9

Source: D.E.N.M. (2021)

## 22. ECONOMIC ANALYSIS

### 22.1. Summary

A discounted cash flow model was prepared for the Cerro Caliche Project with a PEA model cashflow developed on a pre-tax and after-tax basis. The basis for the model was the outlined production schedule in Section 16 and operating cost parameters in Section 21.

The Cerro Caliche Project economic evaluation are summarized in Table 22.1. The base case metal prices utilized in the model were as follows:

- US \$1,750/ oz Au
- US \$22/ oz Ag

As reported, the Project has an estimated US \$41 million after-tax net present value (“NPV”) at a 5 % discount rate and an after-tax internal rate of return (“IRR”) of 32.4 %. The calculated payback period is 2.2 years.

Table 22:1 Economic Evaluation Summary

Item	Pre-Tax	After Tax
NPV 0 % (\$M)	94.2	61.0
NPV 3 % (\$M)	77.9	48.5
NPV 5 % (\$M)	68.7	41.5
IRR (%)	52.7	32.4

Source: D.E.N.M. (2021)

*Note 1 – The Cerro Caliche Project will not install and operate a carbon stripping and refinery circuit as previously noted. The loaded carbon will be shipped off-site. Showing of these items is only as a matter of reference.*

### 22.2. Cerro Caliche Assumptions

The analysis was prepared based on technical and cost inputs developed by D.E.N.M. Engineering Ltd. along with Sonoro Gold. All currency values are expressed in US\$ dollars and an exchange rate of MXN:USD of 19.5:1 was used to convert local pricing.

**Metal Prices** – (base) with associated sensitivities around the gold and silver prices were calculated.

- Au: US \$1,750/oz
- Ag: US \$22/oz

**Metallurgical Recoveries** – the process plant metallurgical recoveries were determined via the testwork and assumed to be:

- Au: 74%
- Ag: 27%

Capital Costs – Estimated to be US \$32.2 million as outlined in the Section 21 – Capital and Operating Costs. The initial capital costs are incurred in the pre-production phase of the Project with LOM sustaining costs estimated to be US \$4.8 million.

### **Income Tax Rate**

The income tax rate is calculated at 30% plus 7.5% for a specific mining tax.

### **22.3. Cash Flow Summary**

Post-tax IRR, payback, post-tax NPV (discounted at 5 %) have been calculated at the assumed metal prices. The LOM cashflows for the Cerro Caliche Project are summarized in Table 22:2. Further and as a matter of reference, the Cerro Caliche Project All-in-Sustaining Cost (AISC) have been presented in Table 22:3.

Table 22:2 Project Cash Flow Summary

<b>Assumption / Results</b>	<b>Value</b>
Total Tonnes Processed	31.5 M
Total Tonnes Waste	65.5 M
Strip Ratio	2.1
Gold Grade (g/t)	0.41
Silver Grade (g/t)	4.05
Gold Recovery	74%
Silver Recovery	27%
Gold Price (US\$/oz)	\$1,750
Silver Price (US\$/oz)	\$22
Annual Gold Equivalent Production (Ounces)	45,700
Total Gold Equivalent Production (Ounces)	323,500
Net Revenue (Gold and Silver) (US \$m)	\$566.2M
Initial Capital Costs (US \$m)	\$32.2
Sustaining Capital Costs (US \$m)	\$4.8
LOM Operating Costs (US \$m)	\$396.9
Operating Cash Cost per AuEq ounce	\$1,227
All in Sustaining Cost per AuEq ounce	\$1,351
Mine Life	7 years
Average Process Rate (tonnes per day)	15,000
Pre-Tax NPV <sub>5</sub> (US \$m)	\$68.7
After-Tax NPV <sub>5</sub> (US \$m)	\$41.5
Pre-Tax IRR	52.7%
After-Tax IRR	32.4%
Payback Period	2.2 years

Source Sonoro Gold and D.E.N.M. (2021)

Table 22:3 All-In-Sustaining Costs (AISC) Summary

<b>Operating Costs</b>	<b>LOM (US\$M)</b>	<b>US\$/oz AuEq</b>
Mining	\$174.7	\$540
Processing	\$204.9	\$633
Administration	\$17.3	\$53
<b>Total Cash Costs</b>	<b>\$396.9</b>	<b>\$1,227</b>
Refining	\$20.7	\$64
Royalties	\$11.7	\$36
Sustaining	\$4.8	\$15
Closure	\$2.9	\$9
<b>All-in Sustaining Costs (AISC)</b>	<b>\$437.0</b>	<b>\$1,351</b>

Source: Sonoro Gold (2021)

#### 22.4. Sensitivities – Cerro Caliche Project

An after-tax sensitivity analysis for Net Present Value (NPV) and Internal rate of Return (IRR) on the gold and silver price, metal recovery, operating costs and initial Capex at a +/- 10% increments are presented in the following Tables 22.4 and 22.5 and Figure 21.1

Table 22:4 Gold and Silver Price Sensitivities – US \$1,750 Au and US \$22 Ag Base Case

<b>Sensitivity</b>	<b>1,700 Au US \$20 Ag</b>	<b>US \$1,750 Au US \$22 Ag</b>	<b>US \$1,800 Au US \$24 Ag</b>	<b>US \$1,900 Au US \$26 Ag</b>	<b>US \$2,000 Au US \$28 Ag</b>
After-Tax NPV (5%)	\$32.6	\$41.5	\$50.4	\$67.1	\$83.9
Pre-Tax NPV (5%)	\$55.0	\$68.7	\$82.5	\$108.3	\$134.1
After-Tax IRR	26.8%	32.4%	37.9%	48.1%	58.0%
Pre-Tax IRR	43.9%	52.7%	61.3%	77.1%	92.4%
After-Tax Payback	2.6	2.2	1.9	1.5	1.2

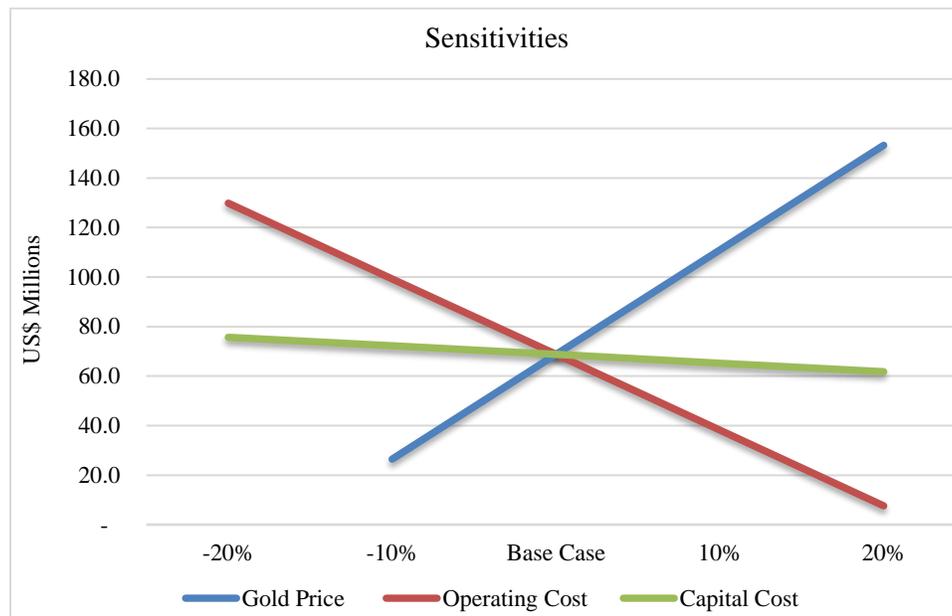
Source: Sonoro Gold and D.E.N.M. (2021)

Table 22:5 Capital and Operating Cost Sensitivities

<b>Sensitivity</b>	<b>-20%</b>	<b>-10%</b>	<b>Base Case</b>	<b>10%</b>	<b>20%</b>
Operating Costs – Pre-tax NPV (US\$ million)	\$129.8	\$99.3	\$68.7	\$38.1	\$7.6
Operating Costs – IRR	93.1%	73.2%	52.7%	31.7%	10.2%
Capital Costs – Pre-tax NPV (US\$ million)	\$75.7	\$72.2	\$68.7	\$65.2	\$61.7
Capital Costs – IRR	67.8%	59.6%	52.7%	47.0%	42.1%

Source: Sonoro Gold and D.E.N.M. (2021)

Figure 22:1 Capital and Operating Cost Sensitivities



Source: Sonoro Gold (2021)

As is the case, the after-tax base NPV's and IRR's are most sensitive to metal prices followed by operating costs and capital costs.

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Table 22:6 Cashflow Model Summary

Project	Investment	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
<b>PRODUCTION:</b>												
Ore Processed (Tonnes)		5,040,000	5,040,000	5,040,000	5,040,000	5,040,000	5,072,551	1,221,069				31,493,620
Ore Grade (g/t Au)		0.496	0.507	0.452	0.341	0.335	0.342	0.439				
Ore Grade g/t Ag)		4.103	5.757	3.276	3.356	2.777	3.610	9.883				
Recovery Rate (Au)	74%	74%	74%	74%	74%	74%	74%	74%				
Recovery Rate (Ag)	27%	27%	27%	27%	27%	27%	27%	27%				
<b>Recovered Gold (oz)</b>		<b>47,598</b>	<b>60,536</b>	<b>55,513</b>	<b>43,533</b>	<b>40,294</b>	<b>41,054</b>	<b>18,457</b>	<b>2,550</b>			<b>309,534</b>
<b>Recovered Silver (oz)</b>		<b>99,456</b>	<b>193,805</b>	<b>182,659</b>	<b>162,721</b>	<b>133,343</b>	<b>146,966</b>	<b>124,433</b>	<b>55,675</b>	<b>15,829</b>		<b>1,114,887</b>
<b>Recovered Gold Equivalent (oz)</b>		<b>48,848</b>	<b>62,972</b>	<b>57,809</b>	<b>45,579</b>	<b>41,970</b>	<b>42,901</b>	<b>20,021</b>	<b>3,250</b>	<b>199</b>		<b>323,550</b>
<b>REVENUE:</b>												
Gold Price (US \$/oz)	\$1,750	\$1,750	\$1,750	\$1,750	\$1,750	\$1,750	\$1,750	\$1,750	\$1,750	\$1,750	\$1,750	
Silver Price (US \$/oz)	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22	\$22	
Gold Revenue (USD)		\$83,296,187	\$105,937,794	\$97,148,118	\$76,182,559	\$70,514,284	\$71,843,649	\$32,299,418	\$4,462,915	\$0		\$541,684,923
Silver Revenue (USD)		\$2,188,034	\$4,263,717	\$4,018,489	\$3,579,873	\$2,933,536	\$3,233,246	\$2,737,521	\$1,224,856	\$348,237		\$24,527,509
<b>Total Gold &amp; Silver Revenues (USD)</b>		<b>\$85,484,221</b>	<b>\$110,201,511</b>	<b>\$101,166,608</b>	<b>\$79,762,431</b>	<b>\$73,447,819</b>	<b>\$75,076,894</b>	<b>\$35,036,939</b>	<b>\$5,687,771</b>	<b>\$348,237</b>		<b>\$566,212,432</b>
<b>Refining (USD)</b>		<b>\$2,132,282</b>	<b>\$3,687,948</b>	<b>\$3,453,491</b>	<b>\$2,990,688</b>	<b>\$2,517,728</b>	<b>\$2,726,279</b>	<b>\$2,071,899</b>	<b>\$844,270</b>	<b>\$229,520</b>		<b>\$20,654,105</b>
<b>Royalty (USD)</b>		<b>\$1,752,330</b>	<b>\$2,277,789</b>	<b>\$2,092,402</b>	<b>\$1,655,062</b>	<b>\$1,519,311</b>	<b>\$1,556,063</b>	<b>\$742,177</b>	<b>\$130,641</b>	<b>\$1,638</b>		<b>\$11,727,413</b>
<b>Net Revenues (USD)</b>		<b>\$81,599,609</b>	<b>\$104,235,774</b>	<b>\$95,620,714</b>	<b>\$75,116,680</b>	<b>\$69,410,780</b>	<b>\$70,794,552</b>	<b>\$32,222,863</b>	<b>\$4,712,861</b>	<b>\$117,079</b>		<b>\$533,830,914</b>
<b>OPERATING COSTS:</b>												
Mining Mineralization (USD)		\$9,576,000	\$9,576,000	\$9,576,000	\$9,576,000	\$9,576,000	\$9,637,847	\$2,320,031				\$59,837,878
Mining Waste (USD)		\$13,766,676	\$25,528,987	\$23,284,102	\$16,996,772	\$16,221,145	\$15,369,830	\$3,699,839				\$114,867,350
Crushing (USD)		\$3,880,800	\$3,880,800	\$3,880,800	\$3,880,800	\$3,880,800	\$3,905,864	\$940,223				\$24,250,087
Process (USD)		\$28,728,000	\$28,728,000	\$28,728,000	\$28,728,000	\$28,728,000	\$28,913,541	\$6,960,093	\$1,129,877			\$180,643,511
G&A (USD)		\$2,469,600	\$2,469,600	\$2,469,600	\$2,469,600	\$2,469,600	\$2,469,600	\$2,469,600				\$17,287,200
<b>Total Operating Costs (USD)</b>		<b>\$58,421,076</b>	<b>\$70,183,387</b>	<b>\$67,938,502</b>	<b>\$61,651,172</b>	<b>\$60,875,545</b>	<b>\$60,296,681</b>	<b>\$16,389,787</b>	<b>\$1,129,877</b>			<b>\$396,886,026</b>
<b>Cash Flow Before Capital</b>		<b>\$23,178,533</b>	<b>\$34,052,387</b>	<b>\$27,682,213</b>	<b>\$13,465,508</b>	<b>\$8,535,236</b>	<b>\$10,497,871</b>	<b>\$15,833,077</b>	<b>\$3,582,984</b>	<b>\$117,079</b>		<b>\$136,944,887</b>
<b>CAPITAL COSTS:</b>												
Capital Costs (USD)	\$32,201,460											\$32,201,460
Sustaining Capital (USD)		\$250,000	\$3,596,000	\$250,000	\$250,000	\$250,000	\$250,000					\$4,846,000
Change in WC (USD)		\$11,827,833	\$2,998,323	-\$927,106	-\$2,276,014	-\$582,759	\$86,319	-\$6,899,741	-\$3,666,500	-\$531,732	-\$28,622	\$0
Reclamation Cost (USD)								\$1,166,000	\$1,749,000			\$2,915,000
<b>Subtotal</b>	<b>\$32,201,460</b>	<b>\$12,077,833</b>	<b>\$6,594,323</b>	<b>-\$677,106</b>	<b>-\$2,026,014</b>	<b>-\$332,759</b>	<b>\$336,319</b>	<b>-\$5,733,741</b>	<b>-\$1,917,500</b>	<b>-\$531,732</b>	<b>-\$28,622</b>	<b>\$39,962,460</b>
Net Cash Flow Before Taxes	-\$32,201,460	\$11,100,700	\$27,458,064	\$28,359,319	\$15,491,522	\$8,867,995	\$10,161,552	\$21,566,818	\$5,500,484	\$648,812	\$28,622	\$96,982,428
Gov't Taxes & Royalty		-2,143,188	-3,121,723	-2,584,881	-1,378,807	-967,282	-1,125,382	-1,264,281	-152,913	-1,741		-12,740,199
Less Income Tax 30%		-4,489,637	-7,337,776	-5,587,777	-1,695,495	-477,925	-1,019,286	-2,578,178				-23,186,074
<b>Net Cash Flow</b>	<b>-\$32,201,460</b>	<b>\$4,467,875</b>	<b>\$16,998,564</b>	<b>\$20,186,661</b>	<b>\$12,417,219</b>	<b>\$7,422,788</b>	<b>\$8,016,884</b>	<b>\$17,724,359</b>	<b>\$5,347,571</b>	<b>\$647,071</b>	<b>\$28,622</b>	<b>\$61,056,154</b>
<b>Cumulative Cash Flow</b>	<b>-\$32,201,460</b>	<b>-\$27,733,584</b>	<b>-\$10,735,020</b>	<b>\$9,451,641</b>	<b>\$21,868,860</b>	<b>\$29,291,648</b>	<b>\$37,308,532</b>	<b>\$55,032,891</b>	<b>\$60,380,461</b>	<b>\$61,027,532</b>	<b>\$61,056,154</b>	

Source: Sonoro Gold and DENM (2021)

## **23. ADJACENT PROPERTIES**

Important properties adjacent to Cerro Caliche Project include the Cerro Prieto gold mine, located approximately two kilometers from the Project's western boundary; the Mercedes gold/silver mine, located approximately 10 km from the Project's southeastern boundary; and the re-developing Santa Gertrudis gold project, located approximately 20 km from the Project's northern boundary.

The closest property to the Project is the Cerro Prieto Gold mine, an operating open pit heap leach mine owned by Goldgroup Mining Inc (Goldgroup). Goldgroup, a public Canadian company listed on the TSXV, acquired the property in 2013 and commenced operations in 2014. Annual production for 2019 totaled 11,441 ounces of gold (Goldgroup March 31, 2021 AIF).

The Mercedes gold/silver mine is primarily an underground mining operation carried out in epithermal veins of the same age as the Cerro Caliche and Cerro Prieto properties. The mine is now owned by Equinox Gold Corp. (Equinox) as a result of a merger with the prior owner, Premier Gold Corp. (Premier Gold). Equinox is a TSX listed Canadian company. From 2011 to December 31, 2020, the Mercedes mine produced 5,646,000 tonnes grading 4.4 g/t gold and 49.5 g/t silver for a total of 781,800 oz of gold and 3,356,200 ounces of silver (Technical Report effective date December 31, 2020, Equinox website).

The Santa Gertrudis gold mine previously operated as a gold producer from gold hosted in calcareous shale as oxidized sulphide replacement zones, identified as Carlin style gold mineralization. Previous heap-leach production was initiated by Phelps Dodge Copper beginning in 1988 and continued through 1995. Phelps Dodge sold the Project to Campbell Resources who suspended operations in 2000. The Santa Gertrudis property produced approximately 565,000 ounces of gold between 1991 and 2000 (Agnico-Eagle website, 2021).

Agnico-Eagle Mines Ltd. (Agnico-Eagle) now owns the Santa Gertrudis mine and is conducting ongoing exploration. Agnico-Eagle expects to spend \$11 million in 2021 on a 30,000 m drilling campaign focused on expanding the mineral resource, testing the extensions of high-grade structures such as the Amelia deposit, exploring new targets and completing metallurgical test work. An updated mineral reserve and mineral resource estimate are expected to be completed in 2021 (Agnico-Eagle website, 2021).

The mineralization and deposits described in this Technical Report for the Cerro Caliche Project are entirely contained on the property and there are no adjacent mineral properties which directly affect the Cerro Caliche Project.

The QPs have not verified the information regarding the mineral deposits and showings described above that are outside the immediate area of the Cerro Caliche Project. The information contained in this section of the report, which was provided by Sonoro as well as independently researched, is not necessarily indicative of the mineralization at the Cerro Caliche Project.

## **24. OTHER RELEVANT DATA AND INFORMATION**

D.E.N.M. and Micon QPs note that all relevant data and information regarding the Cerro Caliche Project are included in other sections of this Technical Report.

D.E.N.M. and Micon QPs are not aware of any other data that would make a material difference to the quality of this Technical Report or make it more understandable, or without which the report would be incomplete or misleading.

### **24.1. Project Risks and Opportunities**

The Cerro Caliche Project is considered medium risk at the time of this PEA report.

#### **24.1.1. Project Risks**

Potential risks for the Project include:

- **Metallurgical Performance & Metal Production.** The sensitivity analysis indicates the Project is highly sensitive to metal production and any variations in the overall metal production (gold and silver) will affect the stated Project cash flow. In the metal revenues calculated, global recoveries were used for both gold and silver. Variation in the specific zone recoveries at Cerro Caliche should be investigated and confirmed as part of the planned metallurgical testing and design.
- **Metal Prices.** As with metal production, metal prices have a material effect on the project.
- **Water.** As typical of Mexican heap leach projects located in the Sonora region, water demand is high due to evaporation. Water for the process is to be supplied via surface drilled wells but further investigation is recommended to confirm well supply for the required make-up water.
- The report for the proposed production scenario uses Indicated and Inferred Mineral Resources for the mine zones. Mineral Resources do not have the same demonstrated economic viability as Mineral Reserves. Further development into a Pre-Feasibility Study (PFS) would lessen this risk.

#### **24.1.2. Project Opportunities**

Potential opportunities for the Project include:

- **Capital Costs.** A potential reduction of capital costs is in the area of a leased crushing plant, contract crushing, and possible utilization of remanufactured process equipment. This will, however, affect the processing operating costs and a trade-off study should be completed.
- **Metallurgical Recoveries and Metal Prices.** As stated previously, the Project is sensitive to metal production and metal prices. At present, with any increase toward higher metal prices (gold and silver), the Project viability increases at the preliminary economic assessment level (After-Tax NPV and IRR).
- The additional acquisition and exploration potential in the Cerro Caliche surrounding areas.

## **25. INTERPRETATIONS AND OVERVIEW**

### **25.1. Overview**

Sonoro has been in the process of conducting exploration and further studies at its Cerro Caliche Project in the State of Mexico which has resulted in an updated mineral resource estimate and a PEA based upon the results of the updated resource estimate. The results of both the updated mineral resource estimate and PEA have been disclosed in this report. Further studies and work by Sonoro will be needed to further unlock the economic potential of the mineralization at the Cerro Caliche Project.

### **25.2. Updated Mineral Resources**

#### **25.2.1. Supporting Data**

The updated resource estimate completed by the Micon QPs for the Cerro Caliche Project was prepared in conjunction with Sonoro's technical personnel. After receiving the final wireframes from Sonoro, Micon proceeded to analyze the data and models to create the six geological domains to be used for the resource estimation. The six domains are located relatively close to each other, and the major cluster that combines Vein-Breccia and Stockwork is denominated by the Japanese area.

The Cerro Caliche mineral resources have been estimated assuming oxide mineralization and surface mining scenarios only. The Cerro Caliche Project database was provided to Micon by Sonoro. It is comprised of 475 drill holes, totaling 51,272 m of drilling, containing a total of 32,432 samples. This database was the starting point from which the gold mineralized shell envelopes (wireframes) were modelled.

For the purposes of mineral resource estimation, Micon used only the data contained within the final wireframes. The effective number of drill holes and samples used were 419 drill holes, totaling 40,024 m of sampling.

The Project topographic model was provided by Sonoro in the form of a digital terrain model (DTM), included as part of the Leapfrog Geo files. The mineralization has been interpreted to occur in North-Norwest trending zones, which contain well-defined cross-cutting vein-breccias surrounded by stockwork mineralization. This has been modelled based on a combination of vein mapping and a 0.1 g/t Au cut-off modelling grade. Large areas below 0.1 g/t outside the Vein-Breccia and Stockwork were also estimated to assist with optimizing the pitshells.

A total of 984 density measurements were provided by Sonoro. The overall average of density for the entire Project is 2.579 g/cm<sup>3</sup>.

To identify grade true outliers, the data were assessed after compositing to constant intervals. This was undertaken to avoid potential short sample bias should shorter samples be taken near visible gold in core but it also was applied to the RC drilling data. The selected mineralized intercepts for the Cerro Caliche Project were composited to 1.5 m equal length intervals.

The composite length selected was based on the most common original sample length. All outlier assay values were carefully analyzed, individually by zone, and globally, using log probability plots.

Variograms were successfully modelled for main mineralization domains D1, D2 and D3. Low grade domains D4, D5 and D6 were also analyzed, all six domains supported the use of the ordinary kriging (OK) interpolation method. The ranges modelled varied from 65 to 85 m and were used to establish the search parameters employed.

The Cerro Caliche mineralization presents a predominant bearing and dip within a well-defined broad geometry. This is supported by the geology, grades, surface mapping of structures, as well as enough drill hole intercepts to confidentially determine their continuity along strike and down dip. On average the mineralization model has a 340° strike and variable steeply dipping structures.

The primary mineral/element of economic interest at the Cerro Caliche Project is gold with silver of secondary importance. The estimate of tonnes and grade was performed using solely Leapfrog Geo/EDGE software. A single block model was constructed to contain the wireframe zone codes, gold grades and density. A set of parameters were derived from the variographic analysis results to interpolate the composite grades into the blocks.

#### **25.2.2. Economic Assumptions and the Updated Mineral Resource Estimate**

The updated mineral resource has been constrained using economic assumptions of surface open pit scenarios. The potentially minable portions of the block model are conceptual in nature with the mining limited to the oxide resources at the Cerro Caliche Project.

The gold price and operating costs used were supplied by Sonoro. In the QP’s opinion, the economic parameters used are reasonable. The parameters were developed by Sonoro technical personnel who are knowledgeable regarding mining costs for open pit projects in Mexico and were developed over the last year during Sonoro’s various modelling and planning exercises. Table 25:1 summarizes the economic assumptions for the in-pit portion of the resource estimate.

Table 25:1 Economic Assumptions for Conceptual Open Pit Scenario

<b>Description</b>	<b>Units</b>	<b>Value Used</b>
Gold Price	USD\$/t	1,800.00
Silver Price	USD\$/t	25.00
Mining Cost (Mineralized Material)	USD\$/t	1.90
Mining Cost (Waste)	USD\$/t	1.70
UG Mining Cost	USD\$/t	N/A
Processing Cost	USD\$/t	6.47
General & Administration	USD\$/t	0.49
Gold Recovery (Metallurgical)	%	74.00
Gold Recovery (Metallurgical)	%	27.20
Slope Angle	Degrees (°)	50

*NI 43-101 Preliminary Economic Assessment Study for the Cerro Caliche Project, Sonora, Mexico*  
*Sonoro Gold Corp.*

The parameters in Table 25:1 were also used to calculate the AuEq cut-off grade of 0.207 g/t Au for the open pit portion of the Cerro Caliche Project.

Micon has categorized the present mineral resource estimate at the Cerro Caliche Project in the Measured, Indicated and Inferred categories. Prior to finalizing the categorization of the mineral resources, a visual review of the categorization was undertaken by the Micon QPs to ensure that not only was there continuity of the classification but also to eliminate any “Spotted Dog Effect<sup>1</sup>”.

The mineral resource statement for the Cerro Caliche Project is summarized in Table 25:2 with a resource effective date is August 24, 2021.

Table 25:2 Statement of Mineral Resources for Cerro Caliche Project

Category	Tonnes	Average Grade			Metal Content		
		Au-Eq	Au	Ag	Au-Eq	Au	Ag
	kt	g/t	g/t	g/t	koz	koz	koz
Measured	12,844	0.39	0.37	3.79	163	155	1,566
Indicated	13,851	0.45	0.44	3.10	201	194	1,378
<b>M+I</b>	<b>26,695</b>	<b>0.42</b>	<b>0.41</b>	<b>3.43</b>	<b>364</b>	<b>349</b>	<b>2,944</b>
Inferred	5,463	0.44	0.40	7.34	77	71	1,289

Notes:

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.
2. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
3. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), Definition Standards for Mineral Resources and Reserves, prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council on May 14, 2014.
4. The pit constrained AuEq cut-off grade of 0.207 g/t Au was derived from US \$1,800/oz Au price, US \$25.00/oz Ag price, 74.0% Au and 27.2% Ag process recoveries, US \$1.90 mining, US \$6.47/tonne process and US \$0.49 G&A costs and 50-degree pit slopes for the optimized pits.
5. The effective date of the mineral resource estimate is August 24, 2021 and the estimate is only for the oxide portion of the mineralization on the Cerro Caliche Project.
6. Mineral resources were estimated by William Lewis, P.Geo. and Mr. Alan J. San Martin, MAusIMM(CP) of Micon International Limited. (Micon), a Toronto based consulting company, independent of Sonoro. Both Mr. Lewis and Mr. San Martin meet the requirements of a "Qualified Person" as established by the CIM.
7. Micon has not identified any legal, political, environmental, or other risks that could materially affect the potential development of the mineral resource estimate.

### **25.2.3. Mineral Potential for the Cerro Caliche Project**

In addition to the mineral resources identified within the pit shells discussed in this section, there remains large areas of mineralization outside the pit shell. This is the case because, while some of the drilling outside the pit shells has identified the general trend of the major veins or the veta-breccia the exploration data remains insufficient in nature to conduct a mineral resource upon it.

The QPs have reviewed the mineralization outside the resource pit shells and believe that there is enough information upon which to outline a conceptual mineral potential for the Cerro Caliche Project based on the following:

- 1) The cut-off grade used that is the same as that used for the mineral resource estimate.
- 2) The mineralization is potentially amiable to open-pit mining and lies between surface and 120 m below the surface. The 120 m depth limit reflects that it is within the existing conceptual resource pit outlines of which the deepest pit is 140 m below surface.
- 3) The mineralization must be located along the existing mineralized trends previously identified on the Cerro Caliche property and identified to some extent by exploration, either by drilling or by surface sampling across the mineralized trend.

Based on the parameters, the QPs outlined the potential range in tonnage and gold and silver ounces that may be contained at the Cerro Caliche Project as follows:

- 19,250,000 to 34,370,000 tonnes containing between 204,000 to 365,000 ounces of gold and 1,683,000 to 3,005,000 ounces of silver.

The reader is cautioned that the potential mineralization ranges are conceptual in nature and that despite being based on the limited amount of exploration drilling and sampling outside the current pit shells it is uncertain that further exploration will result in the mineralization targets being delineated as a mineral resource.

### **25.3. Mining**

The long-term open pit mining evaluation for the Cerro Caliche Project will provide a nominal rate of 15,000 t/d of Run of Mine production feed and average 62,746 ounces mined per year over seven (7) years for a total of 439,223 ounces mined. The overall waste/Mineralized Material ratio was calculated at 2.08:1 from a total of 97.0 M tonnes of rock mined of which 65.5 M tonnes is waste and the remaining 31.5 M tonnes is leach feed.

The stripped waste material will be placed in assigned dumps and lower-grade mineralized material will be placed into a designated stockpile area or areas as needed during operations despite there being no strategic stockpiling in the LOM production schedule.

The mine fleet equipment is assumed to be provided by the mining contractor. The exact fleet will be determined at the time of operation.

The mine will be scheduled to operate 360 days per year, with five days scheduled for non-operation (Scheduled Loss= SL); Utilized time equivalent will be approximately 262 full days of production after consideration for downtime due to mechanical unavailability (87.5% mechanical

availability), and non-utilized time such as operating standby and no scheduled production time (20 of 24 hours used per day is equal to 83.3% planned utilisation).

The mining of the Cerro Caliche pits will generally be executed in 6 m benches, using 3 m flitches when needed. The option of using 3 m flitches operationally gives the flexibility of better selectivity as needed. Six (6) metre tall benches will be preferred where possible for improved productivity.

Roads have a maximum gradient of 10% assigned to the shortest distance along the ramp, which prevents gradient rules being broken around corners. The inside circumference of a ramp may be greater than 8% if the gradient is applied to the ramp centreline or high wall.

The overall pit slope angles are all below the 50-degree maximum of the inter ramp angle defined by the face angle and the berm widths.

The mining of some of the pits will include phases or pushbacks. In particular, Japoneses/Buena Vista, Buena Suerte and El Colorado pits all have two phases otherwise known as pushbacks which help to control the amount of waste mined earlier in the Project so as to improve the net present value of the Project and maintain a steadier stripping ratio throughout the various pits' lives.

The mining rate follows the approximate 15,000 t/d throughput capacity of the crushing circuit by which the mineralized material is reduced in size prior to being loaded onto the leach pad. This daily rate adds up to an annual total of 5.04 Mt of leach pad feed that is planned to be drilled, blasted, mined, crushed, and leached annually.

Whereas there is 2.5% dilution planned and 2.5% mineralized material loss planned the tonnes of in-situ mineral mined (31.49 Mt) is approximately the same as the adjusted tonnes of feed that will end up on the leach pad (31.47 Mt). The in-situ grade of 0.413 g/t is adjusted for the dilution down to 0.403g/t in order to account for the estimated 2.5% of sterile rock dilution of the leach feed.

The open pit mine development plan consists of fifteen (15) pit development phases expanding to eleven different open pits (twelve if Japoneses and Buena Vista are considered separate). These different phases will be mined sequentially with overlap phases.

In addition to the total of 31.5 M kt of mineralized material that will be mined, a total of 65.5 Mt of waste will be mined and placed on the assigned dump/s.

In the LOM production plan, there are generally several active pits being mined at any time thus minimizing the impact of congestion of equipment in the pit and on haul roads, which also increases the flexibility of the mine plan during rain or other operational constraining events.

The mine will operate as a conventional truck and shovel operation. The typical production cycle will be drilling, blasting, grade control, loading and hauling. Primary loading units will be one hydraulic shovel and 2 front-end loaders, two drills will be diesel powered and the balance of the equipment will be diesel powered with support equipment providing development access, road maintenance and equipment servicing capability.

The mine will operate 20 hours per day for the 360 planned days per year. Shift employees will work one 10-hour shifts. In general, it is expected that major equipment will have 87.5% mechanical availability initially, declining with age

As all of the leach feed is processed on a heap leach pad there will be no tailings pond, but rather just the spent heap leach pad at the end of the LOM schedule. Both the waste dump and the leach pad will be sloped and revegetated at the end of the mine life as part of the reclamation and closure plan.

#### **25.4. Processing**

The process plant flowsheet design comprises of three (3) stage conventional crushing, material handling of crushed product and loading onto the lined heap pads. Solution ponds and pumping system will allow for irrigation of loaded mineralized material and subsequent collection of the pregnant solution. The pregnant solution will be pumped to two (2) trains of carbon in column tanks for loading of the gold and silver onto the carbon. Standard carbon in column processing will take place in terms of carbon advancement, carbon addition, carbon recovery, and bagging for shipment.

The Cerro Caliche Project does not plan currently to operate carbon stripping, electrowinning, and doré refinery at the plant. The loaded carbon will be shipped to North American carbon refiners where the gold and silver will be stripped and recovered for payment.

Make-up water required for the process (reagent mixing, water evaporation, general process requirements) is only available from surface wells and will be pumped to the plant facility for use. Main power will be via a new 33 kV line installed by the power supplier.

The plant will include an analytical laboratory for mining, exploration, and process control requirements.

#### **25.5. Economic Analysis**

The initial capital investment of US \$32.2 million to commence production at Cerro Caliche and generate cash flow in Year 1 along with a relatively short payback period are positive aspects of the Project.

The estimated US \$4.8 million in sustaining capital over the life of mine will fund the planned Phase II heap leach pad expansion and related costs.

The Project's economics, both Pre-Tax NPV and After-Tax NPV, are highly sensitive to metal prices. The economic analysis was completed within the current metal price environment and any increase in metal prices will benefit the project's economics. Further optimization of capital and operating costs presented within this PEA will also help improve the project's economic potential.

There are no existing environmental liabilities on the Project at the time of this report and further advancement of permitting with SEMARNAT for construction, mining, and processing is a Project benefit.

## 26. RECOMMENDATIONS

### 26.1. Budget for Further Exploration

Sonoro is planning on conducting further exploration and infill drilling which will total approximately 10,000 m. This drilling will assist in fully defining the mineralized areas within the currently mapped southern and northeastern extensional areas. Sonoro estimates that this drilling program will require six months to complete with one RC drill rig. Table 26:1 summarizes the proposed budget for the exploration and infill drilling which is expected to commence in November 2021.

Table 26:1 Sonoro Budget for Further Exploration and Infill Drilling

<b>10,000 Metre Exploration Budget</b>	
<b>Category</b>	<b>\$USD</b>
RC Drilling 10,000 metres	554,480
Assaying & Sample Analysis	382,719
Geologists/ Field Crew	323,744
Concession Payments/ Mining Rights	321,455
Machinery Rental	239,656
G&A (Office, administrator, legal, accounting etc.)	45,600
Logistics (Storage, Accommodation, Fuel etc.)	39,324
Site Expenses & Supplies	24,360
<b>Subtotal (incl. IVA)</b>	<b>1,931,339</b>
Contingency (15%)	289,701
<b>Total</b>	<b>2,221,039</b>

Source: Sonoro Gold (2021)

D.E.N.M. and Micon QPs have reviewed and discussed Sonoro's proposal for further exploration program on the Cerro Caliche property. D.E.N.M. and Micon QPs recommend that Sonoro conducts the exploration program as proposed subject to funding and any other matters which may cause the proposed exploration program to be altered in the normal course of its business activities or alterations which may affect the program because of exploration activities themselves.

Considering the amount of exploration and infill drilling conducted by Sonoro to outline the current mineral resource at the Cerro Caliche Project, D.E.N.M. and Micon believe that further exploration drilling to assist in fully defining the mineralized areas within southern and northeastern extensional areas is warranted.

### 26.2. Recommendations

D.E.N.M. and Micon QPs agree with the general direction of Sonoro's exploration and development program for the property and makes the following additional recommendations:

**26.2.1. Database and Exploration**

- 1) Improve the database and data management system to increase the data integrity, flow, use and management of all information related to the Project.
- 2) Review and improve the QA/QC procedures for drilling, specifically items related to control samples insertion, to improve the correct assessment of potential cross contamination and insertion of duplicates within the mineralized zones. This includes improving procedures to evaluate laboratory results periodically during drilling programs to identify any potential issues immediately and apply corrective action.
- 3) Institute a systematic methodology to measure and record specific gravity (SG) along the entire drilled section during future core drilling programs.
- 4) Review logging techniques to incorporate adequate data information in some areas such as geotechnical logging as well as standardizing the terminology and, if necessary, introduce the use of applicable domains from the geological model.
- 5) Investigate the source and impact of any difference between the original and duplicate samples and take corrective action to minimize this effect, to maintain confidence in the dataset.

**26.2.2. Metallurgy/Processing**

Table 26:2 Budget for Further Metallurgical & Development Work

Description	\$USD
Metallurgical Testwork	350,000
Pre-Feasibility Study	1,000,000
Sub-Total	1,350,000
Contingency (15%)	202,500
<b>Total</b>	<b>1,555,500</b>

Source: D.E.N.M. (2102)

**26.2.3. Mining**

Conduct further optimization work to assist in potentially reducing costs and increasing efficiencies of mining related to the Project.

**26.2.4. Capital Cost**

Since the Initial capital cost is a significant component of the Project and has a major impact on the Project economics, D.E.N.M. recommends that further studies and optimizations be undertaken to reduce the initial capital costs, which could include, sourcing used equipment, exploring option to lease or rent the crushing circuit or investigate the opportunity to employ a third-party contractor for the crushing operations.

## 27. DATE AND SIGNATURE PAGE

D.E.N.M. ENGINEERING LTD.

*“David J. Salari” {signed and sealed as of the report date}*

David J. Salari, P.Eng.  
Metallurgical Engineer

Report Date: October 29, 2021  
Effective Date: September 15, 2021

MICON INTERNATIONAL LIMITED

*“William J. Lewis” {signed and sealed as of the report date}*

William J. Lewis, P.Geo.  
Senior Geologist

Report Date: October 29, 2021  
Effective Date: September 15, 2021

*“Nigel Fung” {signed and sealed as of the report date}*

Nigel Fung, B.Sc.H, B.Eng., P.Eng.  
Vice President and Senior Mining Engineer

Report Date: October 29, 2021  
Effective Date: September 15, 2021

*“Alan San Martin {signed and sealed as of the report date}*

Ing. Alan San Martin, MAusIMM(CP)  
Mineral Resource Specialist

Report Date: October 29, 2021  
Effective Date: September 15, 2021

SERVICIOS GEOLÓGICOS IMEX, S.C.

*“Rodrigo Calles-Montijo” {signed and sealed as of the report date}*

Rodrigo Calles-Montijo, CPG.  
General Administrator and Principal Consultant

Report Date: October 28, 2021  
Effective Date: September 15, 2021

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Sonoro Gold Corp.*

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**APPENDIX A – QP CERTIFICATES**

**CERTIFICATE OF QUALIFIED PERSON  
David J. Salari, P.Eng.**

I, David J. Salari, P.Eng., of 503-125 Bronte Road, Oakville, ON, L6L 0H1, do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment Study of the Cerro Caliche Project, Sonora, Mexico", with an effective date of September 15 2021, (the "Technical Report") prepared for Sonoro Gold Corp.
2. I am a metallurgical engineer with an office at Suite 300-10, 1100 Burloak Drive, Burlington, ON, L6L 2Y8;
3. I am a graduate of the University of Toronto with a Bachelor's of Applied Science (BASc) – Metallurgy and Material Science;
4. I have been actively involved in mining and mineral processing since 1980 with extensive experience in metallurgical and mill testing and design, mill capital and operating costs, construction, commissioning, and mill operations;
5. I am a member in good standing of the Professional Engineers Ontario - #40416505 and I am the designated P.Eng. for D.E.N.M. Engineering Ltd. – Certificate of Authorization – Professional Engineers Ontario - #100102038 and Designation as a Consulting Engineer – Professional Engineers Ontario - # 4012;
6. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of NI 43-101;
7. I have visited the Cerro Caliche Site on July 28, 2021 to review the total site area and mineralized zones. Also an overview of the proposed plant and pad areas, power lines, and water.
8. I am responsible for the review and preparation of Sections of 1.1, 1.5, 1.6, 1.9, 1.12, 1.13, 1.15 to 1.20, 2.1, 2.21, 2.3, 2.4, 3, 5.3, 12.4, 13, 17, 18, 20, 21, 22, 24, 25.4, 25.5, 26.2.2, and 26.2.4 of this report of this report.
9. I have had no prior involvement with the property this is subject to this Technical Report;
10. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be discussed to make the Technical Report not misleading;
11. I have read NI43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date : September 15 , 2021

Signing Date : this 29<sup>th</sup> day of October, 2021

*"David J. Salari" (original signed and sealed)*

David J. Salari, P.Eng.

**CERTIFICATE OF QUALIFIED PERSON**

**William J. Lewis, B.Sc., P.Geo.**

As the co-author of this report for Sonoro Gold Corp. entitled "Preliminary Economic Assessment Study of the Cerro Caliche Project, Sonora, Mexico" dated October 29, 2021 with an effective date of September 15, 2021, I, William J. Lewis do hereby certify that:

1. I am employed as a Senior Geologist by, and carried out this assignment for, Micon International Limited, Suite 900, 390 Bay Street, Toronto, Ontario M5H 2Y2, tel. (416) 362-5135, fax (416) 362-5763, e-mail [wlewis@micon-international.com](mailto:wlewis@micon-international.com);
2. This certificate applies to the Technical Report titled "Preliminary Economic Assessment Study of the Cerro Caliche Project, Sonora, Mexico" dated October 29, 2021 with an effective date of September 15, 2021;
3. I hold the following academic qualifications:

B.Sc. (Geology)	University of British Columbia	1985
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4. I am a registered Professional Geoscientist with the Association of Professional Engineers and Geoscientists of Manitoba (membership # 20480); as well, I am a member in good standing of several other technical associations and societies, including:
  - Association of Professional Engineers and Geoscientists of British Columbia (Membership # 20333)
  - Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories (Membership # 1450)
  - Professional Association of Geoscientists of Ontario (Membership # 1522)
  - The Canadian Institute of Mining, Metallurgy and Petroleum (Member # 94758)
5. I have worked as a geologist in the minerals industry for 35 years;
6. I am familiar with NI 43-101 and, by reason of education, experience and professional registration, I fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 4 years as an exploration geologist looking for gold and base metal deposits, more than 11 years as a mine geologist in underground mines estimating mineral resources and reserves and 20 years as a surficial geologist and consulting geologist on precious and base metals and industrial minerals;
7. I have read NI 43-101 and this Technical Report has been prepared in compliance with the instrument;
8. I have not visited the Cerro Caliche Project.
9. I have not written or co-authored previous Technical Reports for the mineral property that is the subject of this Technical Report;
10. I am independent of Sonoro Gold Corp. and its subsidiaries according to the definition described in NI 43-101 and the Companion Policy 43-101 CP;
11. I am responsible for Sections 1.2, 1.3, 1.4, 1.7, 1.8, 1.10, 1.11, 1.14, 4, 5, 6, 9, 10, 14.1 to 14.4, 14.6.3, 14.6.4, 14.7, 14.9, 14.10, 19, 23, 24, 25.1 to 25.3, 26.1, 26.2.1 and 26.2.3 of this Technical Report;
12. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this technical report not misleading;

Report Dated this 29<sup>th</sup> day of October, 2021 with an effective date of September 15, 2021.

*"William J. Lewis" {signed and sealed as of the report date}*

William J. Lewis, B.Sc., P.Geo.

**CERTIFICATE OF QUALIFIED PERSON  
Nigel Fung, B.Sc.H., B.Eng., P.Eng.**

As the co-author of this report for Sonoro Gold Corp. entitled “Preliminary Economic Assessment Study of the Cerro Caliche Project, Sonora, Mexico” dated October 29, 2021 with an effective date of September 15, 2021, I, Nigel Fung, do hereby certify that:

1. I am employed as a Mining Engineer by, and carried out this assignment for, Micon International Limited, 900 – 390 Bay Street, Toronto, Ontario M5H 2Y2. tel. (416) 362-5135, email: [nfung@micon-international.com](mailto:nfung@micon-international.com).
2. I hold the following academic qualifications:
  - Bachelor of Mining Engineering, McGill University, Montreal, Quebec, Canada, 2001.
  - Bachelor of Science, Honours in Biology, University of Toronto, Toronto, Ontario, Canada, 1993.
3. I am a registered Professional Engineer of Ontario (License #100173276); as well, I am a member in good standing of the Canadian Institute of Mining, Metallurgy and Petroleum (member #107148).
4. Also, I am a professional member in good standing of:
  - Ontario Society of Professional Engineers, ID# 12226235
  - Society of Mining Engineers, #4185435
5. I am familiar with NI 43-101 and by reason of education, experience and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes over 20 years directing long-term mine planning, permitting and implementation of innovation projects and coordinated mine feasibility studies in Canada and Mexico, as well as having an excellent understanding of the mining fleet requirements for efficient and cost-effective open pit operation with a major manufacturer of open pit mining equipment..
6. I have not visited the Property that is the subject of this report.
7. I am responsible for Sections 15 and 16 of this Technical Report.
8. I am independent of Sonoro Gold Corp. and its related entities, as defined in Section 1.5 of NI 43-101.
9. I have read NI 43-101 and the Sections of this report for which I am responsible have been prepared in compliance with the instrument.
10. As of the date of this certificate to the best of my knowledge, information and belief, the sections of this Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make this report not misleading.

Report Dated this 29<sup>th</sup> day of October, 2021 with an effective date of September 15, 2021.

*“Nigel Fung” {signed and sealed as of the report date}*

Nigel Fung, B.Sc.H., B.Eng., P.Eng.

**CERTIFICATE OF QUALIFIED PERSON  
Ing. Alan J. San Martin, MAusIMM(CP)**

As the co-author of this report for Sonoro Gold Corp. entitled “Preliminary Economic Assessment Study of the Cerro Caliche Project, Sonora, Mexico” dated October 29, 2021 with an effective date of September 15, 2021, I, Alan J. San Martin, do hereby certify that:

1. I am employed as a Mineral Resource Modeller by, and carried out this assignment for, Micon International Limited, whose address is 900 – 390 Bay Street, Toronto, Ontario M5H 2Y2. tel: (416) 362-5135, e-mail [asanmartin@micon-international.com](mailto:asanmartin@micon-international.com).
2. I hold a Bachelor Degree in Mining Engineering (equivalent to B.Sc.) from the National University of Piura, Peru, 1999;
3. I am a member in good standing of the following professional entities:
  - a) The Australasian Institute of Mining and Metallurgy (AusIMM), Membership #301778
  - b) Canadian Institute of Mining, Metallurgy and Petroleum, Member ID 151724
  - c) Colegio de Ingenieros del Perú (CIP), Membership # 79184
4. I have been working as a mining engineer and geoscientist in the mineral industry for over 20 years;
5. I am familiar with the current NI 43-101 and, by reason of education, experience and professional registration as Chartered Professional, MAusIMM(CP), I fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 5 years as Mining Engineer in exploration (Peru), 4 years as Resource Modeller in exploration (Ecuador) and 10 years as Mineral Resource Specialist and mining consultant in Canada;
6. I have read NI 43-101 and Form 43-101F1 and the portions of this Technical Report for which I am responsible have been prepared in compliance with that instrument and form.
7. I have not visited the property that is the subject of the Technical Report.
8. I have not co-authored previous reports for the property that is the subject of the Technical Report.
9. I am independent of Sonoro Gold Corp. and its related entities, as defined in Section 1.5 of NI 43-101.
10. I am responsible for Sections 14.5 to 14.6.2 and 14.8 of this Technical Report.
11. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this technical report not misleading.

Report Dated this 29<sup>th</sup> day of October, 2021 with an effective date of September 15, 2021.

*“Alan J. San Martin” {signed and sealed as of the report date}*

Ing. Alan J. San Martin, MAusIMM(CP)

**NI 43-101 Preliminary Economic Assessment Study for the Cerro Caliche Project, Sonora, Mexico  
Sonoro Gold Corp.**

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**CERTIFICATE OF AUTHOR  
Rodrigo Calles-Montijo**

As the co-author of this report for Sonoro Gold Corp. entitled “Preliminary Economic Assessment Study of the Cerro Caliche Project, Sonora, Mexico” dated October 29, 2021 with an effective date of September 15, 2021, I, Rodrigo Calles-Montijo do hereby certify that:

1. I am General Administrator and Principal Consultant of the firm Servicios Geológicos IMEx, S.C, located at Blvd. Morelos No. 639, Locales 13 y 14, Hermosillo, Sonora, México, C.P. 83148, Email: rodrigo.calles@sgimex.mx;
2. This certificate applies to the Technical Report titled “Preliminary Economic Assessment Study of the Cerro Caliche Project, Sonora, Mexico” dated October 29, 2021 with an effective date of September 15, 2021,
3. I hold the following academic qualifications:

B.Sc. (Geologist Engineer)	Autonomous University of Chihuahua	1986
M.Sc. (Economic Geology)	University of Sonora	1999
4. I am a Certified Professional Geologist in a good standing with American Institute of Professional Geologist with certificate number 11567 and member of the Association of Mining Engineers, Metallurgist and Geologist of Mexico, A.C., Membership 556;
5. I have 35 years of experience in exploration and evaluation of mineral deposits, including metallic and non-metallic deposits in several countries around the world; I have experience in evaluation of diverse types of gold deposits, including placer, skarn and disseminated deposits
6. I am familiar with NI 43-101 and, by reason of education, experience and professional registration, I fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 23 years as an exploration geologist looking for base metal and industrial mineral deposits and more than 12 years as consulting geologist on precious, base metals and industrial minerals and operative mines;
7. I have read NI 43-101 and this Technical Report has been prepared in compliance with the instrument;
8. I visited the Cerro Caliche Project on December 9 and 10, 2020 to review the drilling and QA/QC program and assess the exploration program.
9. I am independent of Sonoro Gold Corp. and its subsidiaries according to the definition described in NI 43-101 and the Companion Policy 43-101 CP;
10. I am responsible for Sections 2.2.2, 7, 8, 11 and 12.1 to 12.3 as well as the Micon site visit as described in Section 12 and other sections of this Technical Report;
11. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this technical report not misleading;

Report Dated this 29<sup>th</sup> day of October, 2021 with an effective date of September 15, 2021.

*“Rodrigo Calles-Montijo” {signed and sealed as of the report date}*

Rodrigo Calles-Montijo, M.Sc., CPG.