

NI 43-101 Technical Report Mineral Resource Estimate for the Cerro de Oro Project Zacatecas State, Mexico

Report Prepared for:

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1 SUMMARY

1.1 Project Overview

The Cerro de Oro Project (Cerro de Oro or the Project) is located in the Concepción del Oro mining district, 3 kilometres (km) from the town of Melchor Ocampo in the State of Zacatecas, Mexico. The Project is near the Zacatecas–Coahuila state line at 24.84° north latitude, 101.62° west longitude or in Universal Transverse Mercator (UTM) coordinates, Zone 14N, 234837 east, 2749794 north (NAD 27). The Project can be reached by road from Saltillo, the state capital of Coahuila (population 984,000 in 2020), 165 km northeast. The City of Monterrey (population 4,874,000 in 2020) is 242 km northeast and is a major urban centre with an international airport. The capital of the state is Zacatecas City (population 146,000 in 2015), 310 km south.

The climate is semi-arid, with warm to hot summers and mild, dry winters. Average annual rainfall is about 338 millimetres (mm), with the heaviest rains occurring between June and September—the rainy season. Exploration, development, and operations can be conducted year-round, although the rainy season has the potential to create some short-term difficulties with respect to accessibility.

Exploration and small-scale development activities are believed to have occurred in the early 1900s. These initial activities primarily included a series of exploration pits, shafts, and adits around the Cerro de Oro hill that lies in the centre of the concession area. Two adits were developed into the Cerro de Oro hill. The longest of these, the Zacatecas adit, was developed 156 metres (m) and shown possibly to connect to irregular shafts that follow mineralized chimneys. The second adit, denoted Occidental, is approximately 119 m long and does not have any internal workings. Detailed surveys and sampling from these early works were not completed until the second half of the 1900s.

Minerales Noranda S.A. de C.V. completed exploration activities on the property in the 1990s. Noranda completed mapping, trenching, and a series of drill programs that included both reverse circulation (RC) and diamond drilling. Following the completion of Noranda's programs only a limited amount of sampling, mapping, and data compilation was completed on the property until 2017, when Minera Mexico Pacific optioned the property. Between 2017 and 2018 Minera Mexico Pacific completed additional trench sampling and two RC drilling programs totalling 4,272 m. Minera Alamos Inc. (Minera Alamos or the Company) acquired the property on August 4, 2020.

1.2 Geology and Mineralization

Cerro de Oro is in the Sierra Madre Oriental and lies within the geological province of the Mexican Fold and Thrust Belt (Ortega-Gutierrez, 1992). This region is characterized by synclines and anticlines with east-to-west orientations and north-northeast vergence, composed of Mesozoic sedimentary marine sequences that were cut by late Eocene to mid-Oligocene intrusive rocks.

Mineralization at the Project occurs within a granodioritic porphyritic stock and within its enclosing sedimentary country rocks. The sedimentary rocks that host mineralization mostly belong to the Indidura and Caracol Formations, and include calcareous siltstone and shale, sandstone, and limestone. Much of the mineralization is hosted by the metamorphosed equivalents of these

sedimentary rocks, hornfels and skarn that have been uplifted by the intrusion of the granodiorite stock. Mineralization consists dominantly of pyrite that is widely disseminated throughout the porphyritic granodiorite, and in hornfels and skarns developed at contact with the predominately limestone sedimentary rock units.

The Cerro de Oro deposit is typical of a porphyry system and is characterized by the development of magnetite and quartz veins (A and B veins). These veins developed during an early potassic alteration phase and were later overprinted by silica and sericite (phyllic overprinting) within the inter-mineral porphyritic intrusive phases. These phases form part of the overall intrusive complex, with the gold resources at the Project primarily hosted by the porphyritic granodiorite.

1.3 Exploration Status

Minera Alamos has not carried out exploration activities at Cerro de Oro since acquiring the rights to the Project. The Company is in the process of updating access agreements for the Project prior to the start of new exploration campaigns.

1.4 Mineral Resource Estimates

1.4.1 Data

Extensive quality assurance and quality control (QA/QC) and data validation were performed to thoroughly verify the data from the Noranda drilling campaigns in the 1990s and the drilling campaigns completed by Minera Mexico Pacific in 2017 and 2018. Sample certificates from these programs were reviewed in their entirety, and data comparisons were conducted to verify the results. The Noranda drilling campaign used appropriate methods at the time, including QA/QC procedures. The Minera Mexico Pacific drilling campaigns used modern techniques and QA/QC procedures. The author finds that the data are reliable for the purposes of this Technical Report (the "Report").

1.4.2 Resource Estimate

This Report represents the first Mineral Resource estimate for the Cerro de Oro Property. The estimate has been prepared with the assistance of Leonardo de Souza, MAusIMM (CP) and has been reviewed and verified by Scott Zelligan, P.Geo., an independent Qualified Person (QP) as defined in NI 43-101. Mr. Zelligan is the QP for the estimate of the Mineral Resources contained in this Report, which has an effective date of November 16, 2020.

The Resource was classified according to the 2014 Canadian Institute of Mining, Metallurgy and Petroleum (CIM) *CIM Definition Standards for Mineral Resources & Mineral Reserves* (CIM Definition Standards). The classification considered the drill and sample spacing, QA/QC, deposit type, the absence of representative density measurements, and the need to develop a lithological model. The estimate used an indicator model and the inverse distance squared (ID²) method to interpolate gold grades. The density used for the oxide zone is 2.55 tonnes per cubic metre (t/m³), based on reference to the El Castillo mine.

The model for Cerro de Oro was prepared using Leapfrog GEO (version 5.1.0) and Datamine Studio RM (version 1.6.87.0). Leapfrog was used for the mineralized solid modelling via gold-grade indicator interpolation. Datamine was used for the grade estimation, which consisted of three-dimensional (3-D) block modelling and the ID² interpolation method.

As part of the review and verification process, Mr. Zelligan was provided with the original or raw data set that included all collar, survey, and assay files, as well as the Leapfrog Project and Datamine files created by Mr. de Souza for estimation purposes. This information was used to confirm the selection of composite length, approach to grade capping, parameters used to create the indicator model, the approach to density modelling, the interpolation, and to recreate the resource model and estimation. Further verification work included the creation of a declustered data set from the drill hole files to check the impacts of grade smearing, additional model runs to evaluate the sensitivity to changes to input parameters, and visual validation by review of plan and vertical sections (on 25m spacing) against the original drill holes, composites, the declustered data set, and the final model. Mr. Zelligan's review confirmed the estimate of Mineral Resources provided by Leonardo de Souza and satisfies the QP requirements of NI-43-101 and the CIM Definition Standards.

The Inferred Mineral Resource estimate for Cerro de Oro is shown in Table 1-1.

Table 1-1: Cerro de Oro Project, Estimate of Mineral Resources

| Resource Category | Material Type | Au Cut-off (g/t) | Tonnage (Mt) | Au (g/t) | Au (oz 000s) |
|-------------------|---------------|------------------|--------------|----------|--------------|
| Inferred | Oxide | 0.18 | 48 | 0.41 | 630 |

Notes:

- The independent QP for the Mineral Resource estimate, as defined by NI 43-101, is Scott Zelligan, P.Geo. The effective date of the 2020 Mineral Resource estimate is November 16, 2020.
A gold price of \$1,450/oz was used in the calculation of the Mineral Resources.
The estimate is reported for a potential open pit/heap leach scenario.
- The limits of the Resource-constraining pit shell assumed a mining cut-off based on a total operating cost (mining, milling, and general and administrative [G&A]) of \$8.80/t stacked, a metallurgical recovery of 70%, and a constant open pit slope angle of 45°. This constraining pit shell contained a total volume of 59 million tonnes (Mt). Inferred Resources are too speculative geologically to have economic considerations applied to them.
- The gold cutoff grade applied to oxide mineralized material is 0.18 grams per tonne (g/t) Au
- These Mineral Resources are not Mineral Reserves, as they do not have demonstrated economic viability.
- The Mineral Resource estimate follows CIM Definition Standards.
- Results are presented in situ. Calculations use SI units: metres, grams, tonnes.
- The number of tonnes has been rounded to the nearest million.
- The QPs of this Report are not aware of any known environmental, permitting, legal, title-related, taxation, sociopolitical, marketing, or other relevant issues that could materially affect the Mineral Resource estimate other than those disclosed in this NI 43-101 compliant Technical Report.

1.5 Metallurgy

1.5.1 Historical Testwork

Minera Mexico Pacific completed the majority of the metallurgical testwork at the Cerro de Oro Project from 2016 to 2018. This testwork consisted predominantly of standard bottle roll cyanidation studies on RC exploration chips (<2 mm particle size). A few coarse rock bottle and column tests were also

completed on surface materials. Samples were taken from both of the main mineralized lithological units (endoskarns and hornfels), predominately from the oxide zone. A limited number of sulphide transition zone samples were tested.

1.5.2 Metallurgical Testwork Programs

The main findings of the metallurgical studies to date can be summarized as follows:

- Gold mineralization appears to be well disseminated through the host rock, with little correlation to rock particle size distributions.
- Oxide gold mineralization responds positively to gold cyanidation, with residual gold contents (unrecovered gold) typically in the range of 0.10 grams per tonne (g/t) Au or lower, regardless of variations in sample head grades.
- Bottle roll test samples had an average head grade of 0.42 g/t Au (similar for oxide and mixed sulphide transition material), corresponding to a metallurgical recovery of in excess of 75%.
- Bottle roll test leach recovery kinetics were generally rapid (majority of gold extracted from RC chips in less than 24 hours).
- Bottle roll tests using coarse particle sizes (minus 2" material) produced gold recoveries similar to those observed with RC chip samples.
- Three column samples (minus 2" material) resulted in leach extractions consistent with those performed using coarse bottle roll methods.
- Reagent consumptions were consistently in the low to moderate range expected for heap leach gold projects.
- While the majority of the historical testwork focused on the oxide mineralization, the results from a limited number of mixed/sulphide transition samples did not appear significantly different from what was observed with the oxide material.

1.6 Environmental and Permitting

Currently there are no known existing environmental liabilities associated with the Project. The Project is located in a region of Zacatecas State where mining has been carried out in the past (small scale underground mines) and where it is currently being pursued on an adjacent claim.

The Company has initiated and will continue to have ongoing discussions with landowners, the municipality of Melchor Ocampo, and other stakeholders, with the goal to update and finalize a new land access and surface use agreement.

The Company will continue to work with its consultants on the preparation of two permit applications for submission to the federal government's Secretariat of Environment and Natural Resources (SEMARNAT), namely the Environmental Impact Statement (Manifestación de Impacto Ambiental or MIA), and the Technical Justification Study (Estudio Técnico Justificativo or ETJ), which also includes the Change of Land Use (Cambio de Uso de Suelo or CUS).

1.7 Development and Operations

Over the last decade, small miners and/or prospectors (known locally as gambusinos) have been drawn to the area by the presence of high-grade gold mineralization. While the presence of their activities is visible from surface, there are no existing records that document how long these activities have been occurring, nor any record of metal production.

There have not been any recent development activities or any commercial-scale operations conducted on the Property.

1.8 Interpretation and Conclusions

The authors of this Technical Report conclude the following.

1.8.1 Geology

- Mineralization at the Cerro de Oro deposit is typical of a porphyry system, characterized by the development of A and B veins. These veins developed during an early potassic alteration phase and were later overprinted by silica, sericite, and pyrite (phyllic overprinting) within the inter-mineral porphyritic intrusive phases. These phases form part of the overall intrusive complex.
- The porphyry system at Cerro de Oro, according to Sillitoe (1979), can be defined as a gold-rich system because it has a typical gold content of ≥ 0.40 g/t Au.
- Minera Alamos has completed no exploration or drilling activities on the Cerro de Oro Project since acquiring the Project on August 4, 2020.

1.8.2 Mineral Resource

- The Cerro de Oro Project has an inferred Mineral Resource of 630,000 oz of contained gold (48 Mt grading 0.41 g/t Au).
- The grade interpolations for gold were carried out using conventional methods commonly used in the industry, and applied with reasonable geological inference and controls.
- The existing sample data have been collected using protocols that are consistent with industry best practices. The sampling completed on the Project to date has been appropriate for the mineralization type and the samples are representative of the deposit.
- All samples collected were transported in a secure manner and a chain of custody was followed.
- Assays were carried out in a well-managed facility using conventional methods commonly used in the industry. During previous drilling campaigns, suitable levels of independent QA/QC samples were submitted to the laboratory to ensure reasonable results were returned.
- The QP is of the opinion that the analytical work performed by the various laboratories was suitable for use in the resource estimation.

- The assumptions, parameters, and methodology are appropriate for the Mineral Resource estimation, consistent with the style of mineralization, and applicable for an open pit / heap leach operation.

1.8.3 Metallurgical Recovery

- Metallurgical testwork demonstrated the amenability of oxide mineralization to gold recovery using cyanidation.
- A limited number of positive metallurgical tests completed on samples of transition/sulphide material indicated that additional testing is warranted.
- Gold mineralization appears to be well disseminated through the host rock, with little correlation to rock particle size distributions.
- Oxide gold mineralization responded positively to gold cyanidation, with residual gold contents (unrecovered gold) typically in the range of 0.1 g/t Au or lower, regardless of variations in sample head grades.
- Bottle roll test samples had an average head grade of 0.42 g/t Au (similar for oxide and mixed sulphide transition material), corresponding to a metallurgical recovery in excess of 75%.
- Leach recovery kinetics were generally rapid (majority of gold extracted from RC chips in less than 24 hours).
- Bottle roll tests using coarse particle sizes (minus 2" material) produced gold recoveries similar to those observed with RC chip samples.
- Three column samples (minus 2" material) resulted in leach extractions consistent with those performed using coarse bottle roll methods.
- Reagent consumptions were consistently in the low to moderate range expected for heap leach gold projects.

1.8.4 Project Risks

- The Mineral Resource estimate is based on the results of the Noranda and Minera Mexico Pacific field programs that included trenching, RC drilling, and some limited diamond drill holes. It is recommended that additional drilling and testing be undertaken to further delineate the known zones of mineralization.
- Metallurgical work completed to date for the Project remains limited. Additional studies are required to better evaluate the particle size/gold recovery relationships for the different zones of mineralization.
- Environmental, permitting, legal, title, taxation, socioeconomic, marketing, and political or other relevant issues have the potential to materially affect access, title, or the right or ability to perform the work recommend in this Technical Report. At the present time the QPs are unaware of any such potential issues affecting the Project.
- Potential challenges and risks are related to the low-grade nature of the deposit. Follow-up programs to improve the confidence of Resource estimates and projected metallurgical performance can reduce these risks.

1.8.5 Project Opportunities

Opportunities that could enhance the Project include:

- The known zones of gold mineralization appear to remain open.
- There is potential to leach transition/sulphide mineralization. Further metallurgical work should continue to evaluate the amenability of leaching this material, followed by additional drilling to better delineate the extents of these zones if warranted.

1.9 Recommendations

The QPs of this Report have reviewed the Cerro de Oro Project data provided by Minera Alamos, including the drill-hole database, as well as historical sampling, analytical procedures, and security. Mr. Lawrence Segerstrom, CPG, visited the site on October 20 to October 22, 2020. The QPs believe the data presented by Minera Alamos to be an accurate and reasonable representation of the Project mineralization. In the QPs' opinions, the Project has the potential to be a heap leach/open pit operation, and warrants continued advancement of the Project towards a Preliminary Economic Assessment (PEA).

The QPs responsible for this Technical Report make the following recommendations:

1.9.1 Exploration and Geology

- An exploration program for the Cerro de Oro Project area involving drilling (infill and step-out), further mapping and rock outcrop sampling, soil sampling (100 m grid), soil spectral analysis (with Terraspec), and possible geophysical studies, i.e., magnetic and electromagnetic/induced polarization surveys.
- Topographic work to provide additional accurate positions and directional details for historical holes.
- Prepare plans for an additional phase of exploration drilling aimed at defining disseminated sulphide extensions of known oxide mineralization, and also potential high-grade mineralization at depth along the skarn contacts.
- As a short-term priority, complete an infill drilling program (Phase 1) for resource modelling purposes and to collect samples for additional metallurgical testwork and studies.
- Plan for a second phase of drilling (Phase 2) at an appropriate time that is based on additional geologic work and the results of Phase 1 (step-out drilling).

1.9.2 Mineral Resources

- Compile new exploration results into a more advanced geological model for the Project, to increase the confidence level in the current resources (Inferred), and also potential extensions of the known mineralization along strike and at depth.
- Undertake in situ rock density studies during future drilling campaigns to better define the densities of each of the main rock types.

- Evaluate the potential of the silver mineralization at the Project, and if warranted establish a compliant silver resource estimate.
- Expand the Project geological model to include lithological information and other details that may impact engineering studies, including metallurgical evaluations.

1.9.3 Metallurgical

- Coarse bottle roll (and possibly column) optimization studies to examine crush-size/gold-recovery relationships for primary lithological zones within the Project mineralization
- Leach variability studies to specifically examine areas of reduced rock permeability and elevated copper contents
- Sulphide mineralization leach studies
- Hardness/abrasivity studies for major rock lithologies
- Evaluate the potential silver recoveries.

1.9.4 Environmental and Permitting

- Complete environmental baseline studies.
- Complete a hydrogeological survey of the concession to prioritize locations for process water access.
- Advance basic engineering studies required for permitting a heap leach gold recovery facility.
- Work proactively with government agencies to submit all necessary permit and license applications to advance the Project towards a construction decision.

A preliminary budget for the recommended work activities is provided in Table 1-2.

Table 1-2: Preliminary Budget for Recommend Work Activities

| Work Activity | Budget (US\$) |
|--|------------------|
| Mapping and Sampling | 170,000 |
| Phase 1 Drilling (Infill: 5,000–6,000 m) | 1,000,000 |
| Phase 2 Drilling (Step out: 5,000–6,000 m) | 1,000,000 |
| Geophysical Studies | 150,000 |
| Hydrological Studies | 100,000 |
| Metallurgical Studies | 200,000 |
| Engineering Studies | 150,000 |
| Environmental and Permits | 100,000 |
| Total | 2,870,000 |

2 INTRODUCTION

2.1 Issuer

The Qualified Persons (QP) of this Report were retained to prepare a Mineral Resource estimate for the Cerro de Oro Gold Project (Cerro de Oro or the Project) and a supporting Technical Report. Minera Alamos Inc. (Minera Alamos or the Company) is a publicly traded company listed on the TSX Venture exchange under the symbol MAI. The Company is focused on acquiring, exploring, and developing base and precious metals projects in Mexico. The Cerro de Oro property that is the subject matter of this Report was acquired by Minera Alamos under the terms of an option agreement on August 4, 2020.

Minera Alamos' current and principal place of business is 55 York Street, Suite 402, Toronto, Ontario, M5J 1R7.

2.2 Terms of Reference

This Technical Report has an effective date of November 16, 2020, and was prepared by the QPs listed in Section 2.4 to support the disclosure of the Project's Mineral Resource estimate. This Technical Report provides a full description of the study work that has been completed in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) *CIM Definition Standards for Mineral Resources & Mineral Reserves* (CIM Definition Standards), referred to in *NI 43-101 Standards of Disclosure for Mineral Projects*. This Technical Report has been prepared in accordance with the requirements of Form 43-101F1 and Companion Policy 43-101CP.

This Report has been prepared to establish a Resource Estimate on the Cerro de Oro Project. It represents the first Technical Report and Resource estimate for the Project. The Mineral Resource estimate in this Technical Report will be used to further evaluate the scope and potential of the Project by the Company.

Minera Alamos's technical staff have reviewed draft copies of this Report for factual errors. Any changes made because of these reviews did not include alterations to the interpretations and conclusions made by the authors. The statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading as of the date of this Report.

2.3 Sources of Information

This Report has been prepared by the Independent QPs through discussions with Minera Alamos employees and by review of the existing drill-hole database; geologic reports; available maps and cross sections; metallurgical test data; government reports; miscellaneous documentation (reports and scientific papers); and other public and private information.

Table 2-1 shows the Minera Alamos employees who provided information to the Independent QPs responsible for this Report. The QPs have taken reasonable steps to verify the information provided where possible. The QPs have reviewed the land tenure, but have not independently verified the

mineral title status or compliance of the underlying inter-company agreements and title transfers with Mexican laws and regulations (see Section 3, Reliance on Other Experts).

Table 2-1: Minera Alamos

| Minera Alamos | Information Provided for Report Section |
|--|---|
| Miguel Cardona | 7, 8, 9, 10, 11, 12, 25, and 26 |
| Chris Sharpe, P.Eng. (Non-Independent QP) | 1, 3, 4, 5, 6, 25, and 26 |
| Darren Koningen, P.Eng. (Non-Independent QP) | 13, 25, and 26 |

The authors consider that they have seen the most relevant reports and data. A list of the documents reviewed, and other sources of information, can be found in Section 27 of this Report.

2.4 Qualified Persons and Property Inspections

This Technical Report has been prepared under the supervision of Independent QPs as defined by the Canadian Securities Administrator's National Instrument 43-101 (NI 43-101). Table 2-2 provides details regarding each QP and their respective sections of responsibility.

Table 2-2: List of Qualified Persons and Section Responsibility

| Qualified Person | Report Section Responsibility |
|---|--|
| Scott Zelligan, P.Geo | 1, 2, 3, 14, and parts of 25 and 26 |
| Lawrence Segerstrom, M.Sc. (Geology), CPG | 4, 5, 6, 7, 8, 9, 10, 11, 12, and parts of 25 and 26 |
| Peimeng Ling, P.Eng. | 13, and parts of 25 and 26 |

Mr. Lawrence Segerstrom, CPG (Certified Professional Geologist #11557 American Institute of Professional Geologists), who is independent of the Company and a QP of this Technical Report, visited the Cerro de Oro Project site from Tuesday, October 20 to Thursday October 22, 2020. Mr. Segerstrom was accompanied during his site visit by Minera Alamos personnel Miguel Cardona (Vice President Exploration), Chris Sharpe, P.Eng. (Vice President Project Development), and Darren Koningen, P.Eng. (Chief Executive Officer). The authors of this Report consider the site visit to be current under Section 6.2 of NI 43-101.

2.5 Currency, Abbreviations, and Units of Measurement

A list of the abbreviations used in this Technical Report is provided in Table 2-3 and Table 2-4. All currency units are stated in US dollars, unless otherwise specified. Quantities are generally expressed in the International System (SI) of units (metric system), including tonne (t), kilogram (kg), and gram (g) for weight; kilometre (km), metre (m), centimetre (cm), and millimetre (mm) for length; hectare (ha) for area; and grams per tonne (g/t) for gold grades. Metal grades may also be reported in parts per million (ppm), and gold grades in parts per billion (ppb). Quantities of gold may be expressed in troy ounces (oz).

Table 2-3: Mexican Acronyms and Abbreviations

| Abbreviation | Definition |
|--------------|---|
| CRM-SGM | Consejo de Recursos Minerales-Servicio Geológico Mexicano |
| CUS | Cambio de Uso de Suelo |
| ETJ | Estudio Técnico Justificativo (Technical Justification Study) includes the Change of Land Use (CUS) |
| IMMSA | Industrial Minera Mexico S.A. de C.V. |
| MIA | Manifiesto de Impacto Ambiental (Environmental Impact Statement) |
| SGM | Servicio Geológico Mexicano |
| SEMARNAT | Secretaría de Medio Ambiente y Recursos Naturales (Ministry of the Environment and Natural Resources) |
| TNM | Tierra Nueva Minería S.A. de C.V. |

Table 2-4: List of Abbreviations

| Abbreviation | Description |
|-----------------|--|
| % | percent |
| >, < | greater than, less than |
| ± | plus or minus |
| ° | degree |
| °C | degree Celsius |
| 3-D | three-dimensional |
| a | annum (year) |
| AA | atomic absorption |
| A and B veins | magnetite and quartz veins |
| AAS | atomic absorption spectrophotometer |
| AES | atomic emission spectrometry |
| Ag | silver |
| ARD | aqua regia digestion |
| Au | gold |
| BKGD | background correction |
| Cerro de Oro | Cerro de Oro Project |
| CIM | Canadian Institute of Mine, Metallurgy and Petroleum |
| cm | centimetre |
| Company | Minera Alamos Inc. |
| CPG | Certified Professional Geologist (American Institute of Professional Geologists) |
| Cu | copper |
| DDH | diamond drill hole |
| E | east |
| F ₈₀ | 80% passing |
| g | gram |
| G&A | general and administrative |
| g/t | grams per tonne |

| Abbreviation | Description |
|------------------|-------------------------------------|
| g/t Au | grams per tonne gold |
| Geo. | geologist |
| GPS | Global Positioning System |
| h | hour |
| ha | hectare |
| ICP | inductively coupled plasma |
| ID ² | inverse distance squared |
| kg | kilogram |
| km | kilometre(s) |
| kV | kilovolt |
| LLD | lower limit of detection |
| m | metre |
| m ³ | cubic metre |
| Ma | million years ago |
| MAI | Minera Alamos Inc. trading symbol |
| min | minute |
| Minera Alamos | Minera Alamos Inc. |
| mm | millimetre |
| Moz | millions of troy ounces |
| Mt | million tonnes |
| N | north |
| NI 43-101 | Canadian National Instrument 43-101 |
| oz | troy ounce |
| P.Eng. | Professional Engineer (Canada) |
| P.Geo. | Professional Geologist (Canada) |
| PEA | Preliminary Economic Assessment |
| ppb | parts per billion |
| ppm | parts per million |
| Project | Cerro de Oro Project |
| QA/QC | quality assurance/quality control |
| QP | Qualified Person |
| RC | reverse circulation |
| Report | Technical Report |
| s | second |
| S | south |
| SGS | Société Générale de Surveillance |
| t | tonne |
| t/m ³ | tonnes per cubic metre |
| US\$ | United States dollar |
| UTM | Universal Transverse Mercator |
| W | west |

3 RELIANCE ON OTHER EXPERTS

The authors of this Technical Report have not independently verified the ownership or mineral title with respect to the Project's concessions and/or mining claims. The Property description presented in this Report (Section 4) is not intended to represent a legal, or any other, opinion as to title. The QPs have relied upon an August 20, 2020 audit prepared by Mr. Carlos Galvan Pastoriza (Mexican attorney) on behalf of Minera Alamos, for information concerning the Cerro de Oro mining concessions.

Mr. Pastoriza obtained information on the title and concessions based on a search conducted at the General Bureau of Mines and the Public Registry of Mining, a division within the Mexican Ministry of Economy. The authors of this Report have reviewed the information provided by Mr. Pastoriza, and believe it to be reasonable and reliable.

Except for the purposes legislated under provincial securities laws, any use of this Report by any third party is at that party's sole risk.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Project Location

The Cerro de Oro Project is in the State of Zacatecas, Mexico (Figure 4-1).

The Project area is approximately 3 km northeast of the town of Melchor Ocampo, and approximately 90 km southwest of the city of Saltillo, the state capital of Coahuila. The Project coordinates in decimal degrees are latitude 24.84° N, longitude 101.62° W, or in Universal Transverse Mercator (UTM) Zone 14, 234837 N, 2749794 E (NAD 27).

Figure 4-1: Property Location



4.2 Mineral Tenure and Area of Property

The Cerro de Oro Project consists of five mining concessions that total over 6,500 ha (Table 4-1). Three mining concessions totalling 6,423 ha were acquired by Minera Alamos as part of the business combination with Corex Gold Corporation that closed on April 13, 2018. These concessions are shown as red outlines on Figure 4-2 and surround the recently acquired core concessions of Zacatecas and

Zacatecas II (shown in red) to the north and south. The total package of five concessions provides all the necessary land that would be required to facilitate development of the deposit.

Figure 4-2: Cerro de Oro Concession Map

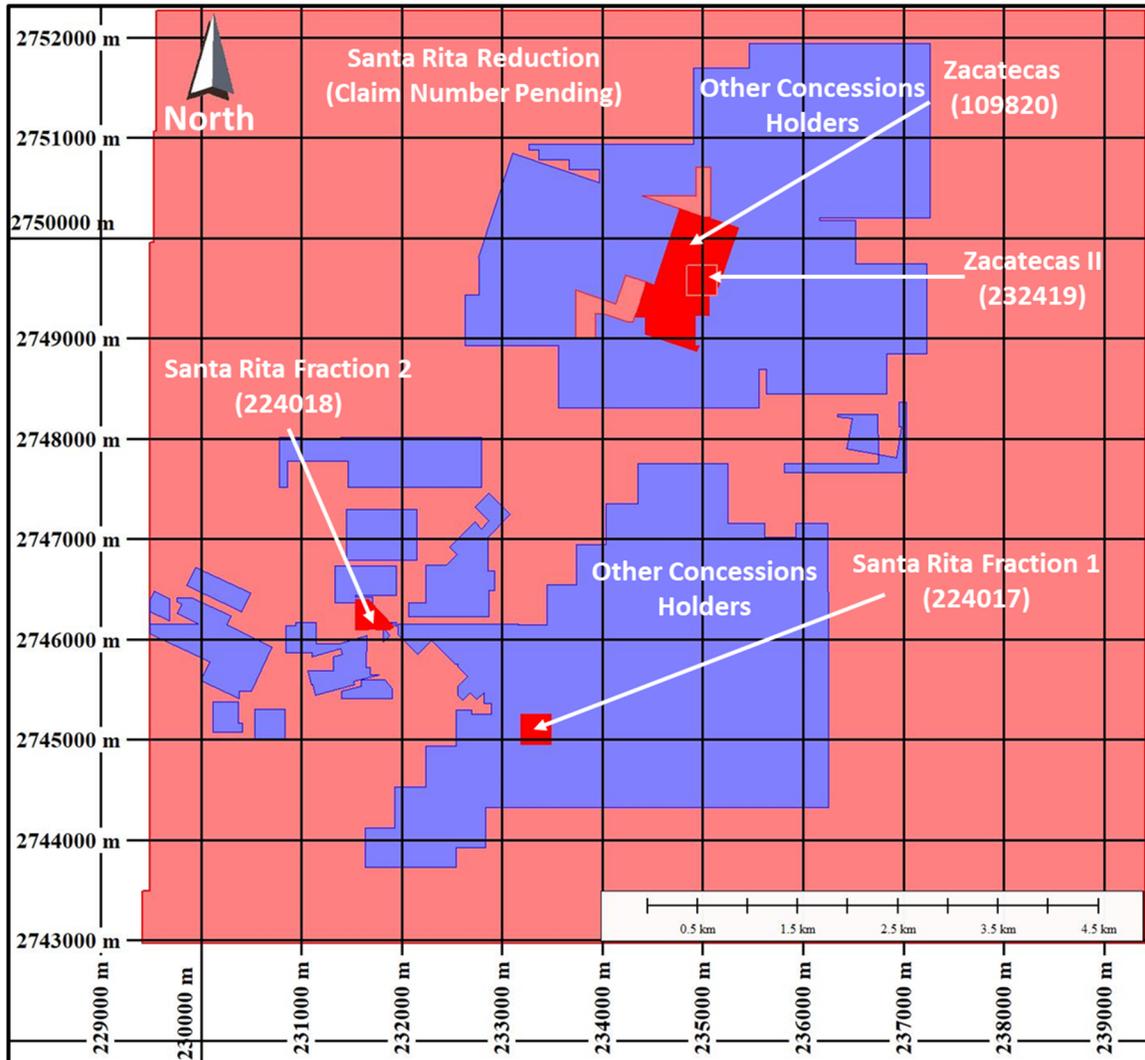


Table 4-1: Summary of Current Cerro de Oro Project Mining Concessions

| Title Name | Title Number | Surface (ha) | Date of Application | Validity | | Current Holder | Municipality | State |
|-----------------------------------|--------------|--------------|---------------------|------------|------------|----------------------------|----------------|-----------|
| | | | | Start | End | | | |
| Santa Rita Fraction 1 | 224017 | 9.00 | 04/22/2004 | 03/23/2005 | 02/22/2055 | Corex Global | Melchor Ocampo | Zacatecas |
| Santa Rita Fraction 2 | 224018 | 7.96 | 04/22/2004 | 03/23/2005 | 02/22/2055 | Corex Global | Melchor Ocampo | Zacatecas |
| Zacatecas | 109820 | 9.00 | 03/30/1946 | 12/19/1961 | 12/18/2061 | Minera Placor ¹ | Melchor Ocampo | Zacatecas |
| Zacatecas II | 232419 | 69.92 | 11/24/1997 | 08/08/2008 | 07/08/2058 | Minera Placor ¹ | Melchor Ocampo | Zacatecas |
| Santa Rita Reduction ² | Pending | 6,406 | 05/09/2013 | 03/23/2005 | 03/22/2055 | Corex Global | Melchor Ocampo | Zacatecas |
| Total | | 6,502 | | | | | | |

Notes: ¹ The Zacatecas and Zacatecas II titles are in the process of having the registered ownership transferred from Minera Placor to Minera Mirlos, a subsidiary of Minera Alamos.

² The Santa Rita Reduction title represents a claim adjustment from an original Santa Rita title (title# 224016) that had an original size of 19,610 ha.

4.3 Tenure Agreements and Encumbrances

4.3.1 Agreements and Royalties

On August 4, 2020, Minera Alamos announced the finalization of definitive agreements to acquire 100% of the Cerro de Oro Project, comprising the Zacatecas and Zacatecas II concessions.

As part of the definitive agreement, Minera Alamos and the Vendor established a schedule of payments to acquire the property (Table 4-2). In addition to the earn-in commitments in Table 4-2, a final bonus payment of \$1 million will be payable to the Vendor upon the production of the first 50,000 oz of gold from the Project.

Table 4-2: Transaction Terms

| Amount (\$) | Instalment Due Date |
|---|------------------------|
| 400,000 cash + 2,000,000 MAI shares ² | Closing (paid in full) |
| 300,000 cash ¹ + 500,000 MAI shares ² | 12 months from Closing |
| 400,000 cash ¹ + 500,000 MAI shares ² | 24 months from Closing |
| 400,000 cash ¹ + 500,000 MAI shares ² | 36 months from Closing |
| 400,000 cash ¹ + 500,000 MAI shares ² | 48 months from Closing |

Notes: ¹ Instalment payments will be in the form of cash. Alternatively, should both parties agree, a portion or all of the cash amount can be replaced with the issuance of an equivalent dollar value of shares; shares, if issued, will be priced at the 20-day VWAP on the Exchange, ending on the instalment date listed in this table, and in accordance with the rules and requirements of securities laws and the TSX Venture Exchange.

² There are no royalties associated with the agreement discussed above, nor are there any other existing royalties or encumbrances on the Project, or on the land surrounding the Cerro de Oro Project that is already owned by the Company.

4.3.2 Surface Rights

The Company has not finalized any surface use agreements with local land owners or community representatives for the Cerro de Oro Project.

Surface rights in the Project area are primarily controlled by the municipality of Melchor Ocampo and in the adjacent areas to the north and east by local Ejido groups. The previous Project optionee that was exploring the site had negotiated a three-year surface access agreement with the municipality in October 2017.

The Company has initiated a dialogue with the municipality to prepare an updated surface rights agreement that allows the Company to explore, mine, and process mineralization from the Project.

4.3.3 Permits

No permits have been granted for the development of the Cerro de Oro Project. The Company intends to advance efforts related to the application for these documents prior to a decision being made to develop the Project. The primary applications under consideration include:

- The Environmental Impact Statement (Manifestación de Impacto Ambiental or MIA)
- The Technical Justification Study (Estudio Técnico Justificativo or ETJ) which includes the Change of Land Use (Cambio de Uso de Suelo or CUS).

When appropriate, the Company will submit these applications to the appropriate government agencies, including the Secretariat of Environment and Natural Resources (SEMARNAT). A prerequisite for these submissions is the completion of a surface access agreement that covers the development areas of interest.

4.4 Environmental Liabilities

The Project is in northeastern Zacatecas State, where limited small-scale underground mining has been carried out in the past. There are no known existing environmental liabilities associated with the Cerro de Oro Project.

4.5 Other

To the authors' knowledge there are no other significant factors or risks that may affect access, title, or the right or ability to advance the Project at this time.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

The Cerro de Oro Project is accessible by road from the city of Saltillo in neighbouring Coahuila State, a driving distance of approximately 165 km, about a two-hour drive (Figure 5-1). The exit to Melchor Ocampo is off Federal Highway 54 approximately 5 km northeast of the town of Concepción del Oro. After taking the exit, the Project is accessible via the paved Bonanza and Terminal–Matamoros roads toward the town of Melchor Ocampo. The site access road is approximately 2.5 km east of Melchor Ocampo, and itself is a 3 km gravel road that provides access to the Project site. All roads to the town are paved and in good condition.

Monterrey (Nuevo Leon State) has a large regional airport that has regularly scheduled commercial flights to Mexico City and direct flights to the United States of America and Canada. Monterrey is also accessible via paved highway from Saltillo, and approximately 242 km from Melchor Ocampo, about a three-hour drive.

Figure 5-1: Cerro de Oro Project Location



Source: Google Maps

5.2 Climate

This region of Zacatecas State around Melchor Ocampo is classified as an upland desert. The climate is semi-arid, with warm to hot summers and mild, dry winters. The mean temperature in the summer is 27°C, with typical temperatures ranging between 20°C and 30°C. The mean temperature in the winter months is 17°C, with temperatures ranging from 0°C to 20°C. On occasion in the winter months, temperatures can hover around or drop below 0°C. The average annual rainfall in the area is approximately 338 mm according to the San Jeronimo Weather Station (00032179). The heaviest rainfall occurs during the rainy season (June to September), with maximal rain events affected by tropical storms or hurricanes. Exploration, development, and operations can be conducted year-round, although the rainy season can create some difficulties with respect to accessibility.

5.3 Local Resources and Infrastructure

The municipality of Melchor Ocampo is located in the prolific Concepción del Oro mining district and serves as the local administrative centre to the Project. While the town itself has a small population (569 in 2010) it is well supported by the surrounding municipality (population 2,662 in 2010) and regional centres that can provide skilled labour, fuel, and other supply requirements that are specific to the mining industry.

Nearby regional centres include the town of Concepción del Oro (population 7,210 in 2020) that is located 40 km southeast of the Project; Saltillo, the state capital of Coahuila (population 984,000 in 2020), 165 km northeast; Monterrey (population 4,874,000 in 2020), 242 km northeast; and the capital of Zacatecas, Zacatecas City (population 146,000 in 2015), 310 km south.

Reasonable accommodation and basic services can be obtained in Concepción del Oro, a 50-minute (min) drive from the Property. A 3.2 kilovolt (kV) transmission line carried into Melchor Ocampo is operated by CFE electric service (part of the national power grid), with the nearest tie-in point about 2 km away from the Project. Rail service also exist near the Project with a north–south line passing about 40 km west.

The Project area is believed to have sufficient water for exploration and mining purposes. While water supply in the immediate Project area is underdeveloped, water will be obtained primarily from the operation of a series of wells.

There is currently no significant existing infrastructure in the Project area. Additional facilities will be required in the future to accommodate site personal during construction and future operations.

5.4 Physiography

The Project and town of Melchor Ocampo are in the synclinal valley between the Sierra de Zuloaga and Sierra Sombrereteillo (Figure 5-2). Total relief within the Project area is on the order of 150 m, with a mean elevation of about 2,000 metres above sea level. The topography is gentle to moderate, and characterized by a series of small basins, low-relief hills, and small ridges incised by dry arroyos.

Vegetation in the Project area is scrub consisting of mesquite, lechugilla (an agave-like plant), small cacti, barretas (a type of yucca known as Spanish bayonet), magueys, ashen (also called Texas sage), and guayule.

Figure 5-2: Typical Project Area Physiography and Vegetation



Source: Minera Alamos Inc., 2020, Looking East, photo taken from Cerro de Oro.

6 HISTORY

6.1 Introduction

North Central Mexico, including the area around the Cerro de Oro Property, is famous for its mineral production. Within the Concepción del Oro mining district and the municipality of Melchor Ocampo it is believed that some of the mineral occurrences were originally discovered in the 1530s, with production in the district beginning in 1861 and occurring continuously until today. Production was notably from high-grade copper–gold veins and lower-grade disseminations in porphyry stock.

The Cerro de Oro Property contains a few historical pits, trenches, adits, and various types of other underground workings. Some site activity appears to be from more than 75 years ago. The most significant period of recorded activity was the early 1900s, including completion of a series of exploration pits, shafts, and adits around the Cerro de Oro hill, which lies in the centre of the concession area. Two areas of high-grade underground structures were mined in this area using adits from surface. The Zacatecas adit is the longest underground development, measuring about 156 m long, and has been shown to connect to irregular shafts that follow mineralized chimneys based on available historical information. These shafts extend up and down from the adit using a series of internal raises and cross-cuts. The maximum depth of these shafts is estimated to be 160 m below surface. The second adit, denoted Occidental, is approximately 119 m long and does not have any associated internal workings.

More recently, the Property was explored by Minerales Noranda S.A. de C.V. in the 1990s. During this time Noranda completed mapping, trenching, and a series of drill programs to further advance the Property. Following completion of Noranda's work in 1998, only a limited amount of sampling, mapping and data compilation was completed on the Property. Structured exploration works restarted on the Property in 2017, when Minera Mexico Pacific completed trenching and drilling programs that continued into 2018.

To date, a NI 43-101 compliant Mineral Resource estimate has not been issued for the Property. While there are a few unpublished estimates regarding the size and potential of possible resources for the Property, these estimates have not been included in this Report because they are not NI 43-101 compliant, and insufficient information is available to describe the differences between these reports and the current estimate of Mineral Resources contained in this Report.

The general history of the Project is not well document. Based on information available, the Project history and ownership status can be summarized as follows:

- 1531: Mineral occurrences are discovered in the Melchor Ocampo and Cerro de Oro mining district.
- 1946: Mr. Ernesto Estrada (Zacatecas Claim) stakes the first mineral claim in the district.
- 1954: John Barry undertakes geological mapping and sampling from the existing underground developments at Cerro de Oro (Andrade, 1981).
- 1993: Noranda options the Property and completes trench sampling, RC and diamond drilling programs, and a new geologic interpretation.

- 2001: Industrial Minera Mexico S.A. de C.V. (IMMSA), a wholly owned subsidiary of Grupo Mexico, carries out a detailed mapping and sampling program on a large block of ground adjacent to the Cerro de Oro Property. A total of 201 surface and underground samples are collected.
- 2010: Tierra Nueva Minería S.A. de C.V. (TNM) completes a report on the Property that discusses the geologic setting and outlines the exploration potential of the Property.
- 2012: Minera Placor SA de CV buys the concessions from Juan Manuel Gonzalez Ferrara through an option-to-purchase agreement.
- 2016: Minera Mexico Pacific options the Property from Minera Placor, and completes a data review, confirmatory trench sampling, and a two-phase RC drilling program (total of 4,272 m) to expand mineralization in the North and South zones of the Property. Minera Mexico Pacific also initiates a series of metallurgical test programs.
- 2020: Minera Alamos Inc. enters into an agreement to purchase the Project from Minera Placor S.A. de C.V.

6.2 Early Exploration of the Cerro de Oro Project (1950s to 1980s)

There are few technical reports detailing the results of previous work on the Cerro de Oro Property. The earliest documentation is John Barry's 1954 short report, summarized in Andrade (1981). Barry was prepared for Minera Bonanza S.A. and discusses the results of mapping and sampling work he carried out in November and December 1954. Barry's work included a simple surface plan of the main workings around Cerro de Oro, as well as sketch maps of the underground development completed on the Zacatecas and Occidental adit zones. Figure 6-1 shows the locations of these adits.

The existing information for the Project does not reveal when this underground development was undertaken or finished, but Barry described and sampled it in the 1950s (Andrade, 1981); it was probably constructed 30 years or more prior to Barry's description (Herdrick, 2015).

Underground maps of the tunnels and some internal levels were included in Andrade's (1981) descriptive report based on Barry's work, published in the Consejo de Recursos Minerales-Servicio Geológico Mexicano (CRM-SGM) archives. Figure 6-2 shows a cross section Barry prepared for the Zacatecas adit. The total development is noted to be approximately 550 m.

Andrade (1981) notes sampling for gold, silver, lead, zinc, and copper, as well as the following description of the two principal zones that were developed in the Zacatecas adit:

1. A narrow sub-vertical, hydrothermal breccia exposed at the end of the adit was mined by a steep decline from surface to a vertical depth of 160 m (94 m below the adit level).
2. A northwest-trending, silica-rich, friable, breccia/shear zone about 100 m from the portal; the zone was traced by a series of raises, declines, and cross-cuts over a vertical range of 50 m and strike length of about 60 m.

Figure 6-1: Zacatecas and Occidental Adit Locations

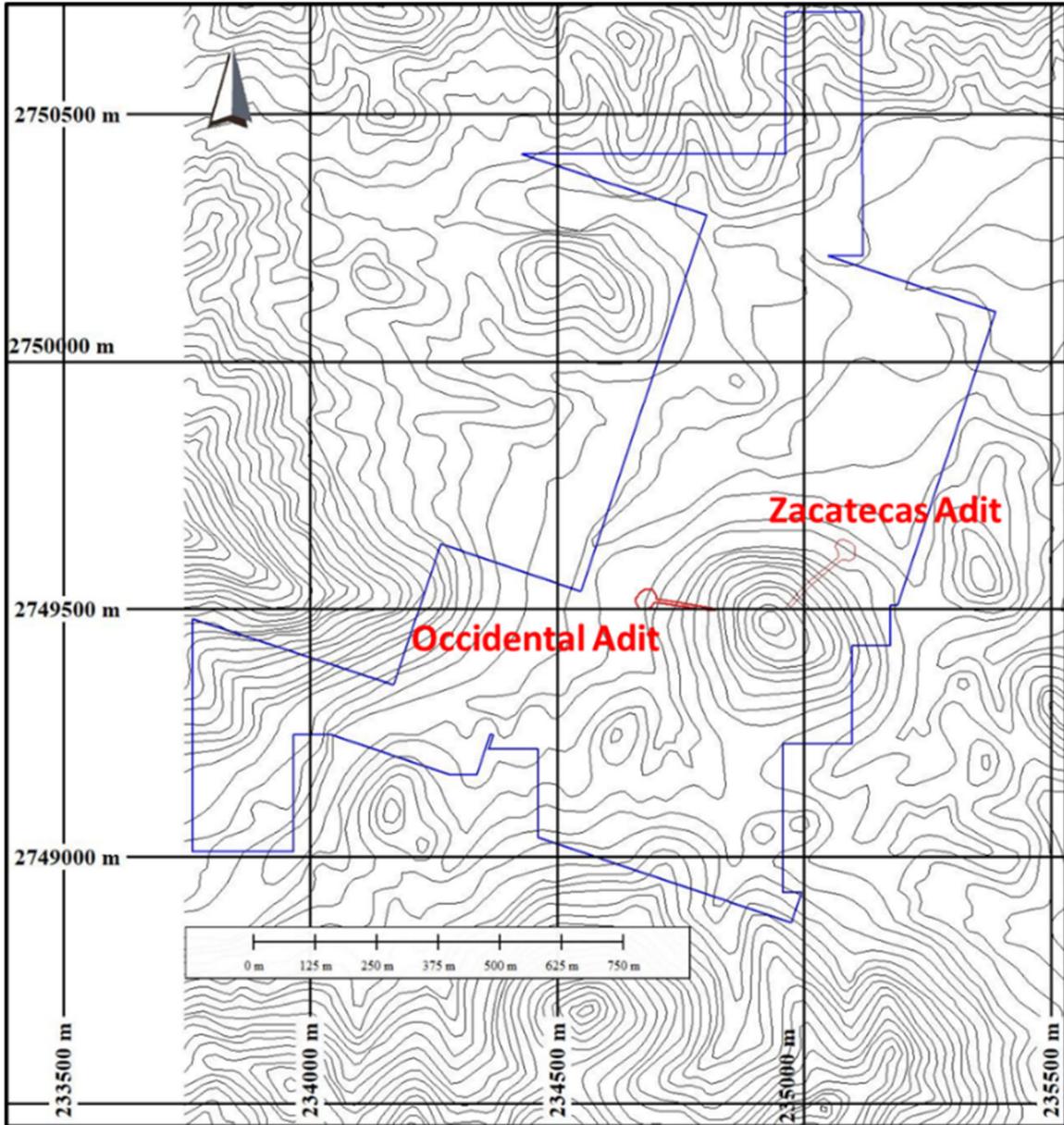
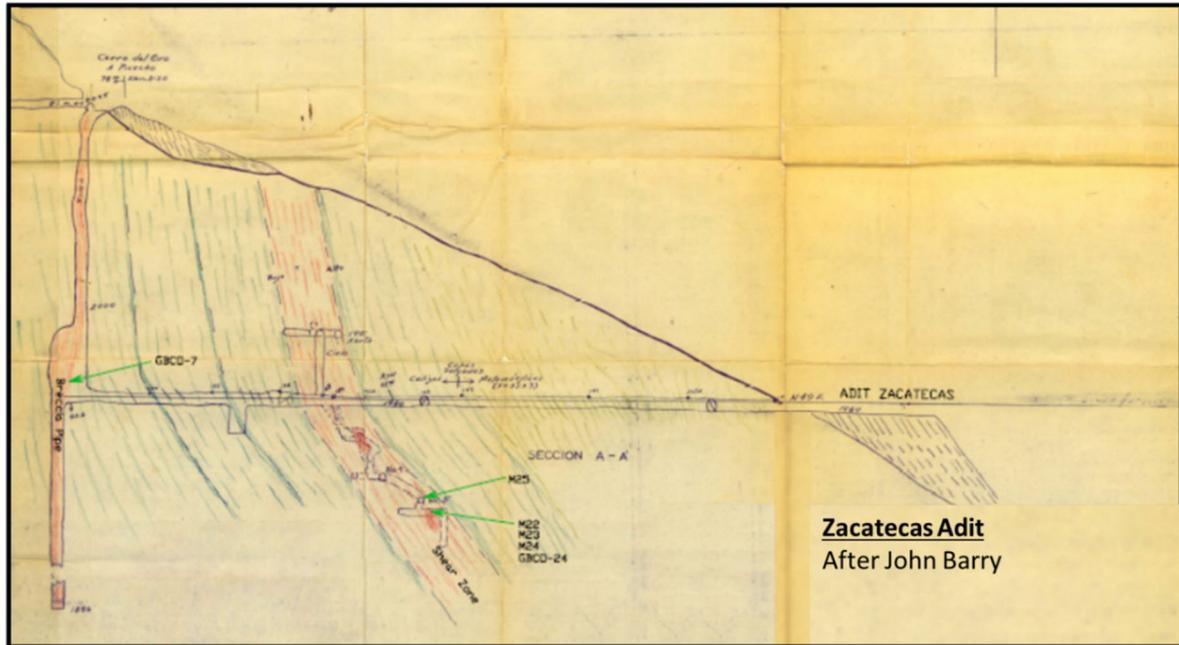


Figure 6-2: Zacatecas Adit Section



The breccia pipe-like body was described to be composed of coarse angular clasts of skarn with a sulphide (sphalerite-rich) matrix. The width of the pipe ranges from a few metres to about 10 m. The pipe appears to have been largely mined out, as no assay data were provided in Barry's report.

A shear zone that was exposed in the Zacatecas adit is up to 12 m wide and dips about 45° to the northeast. A series of 34 samples Barry collected from the zone returned values ranging up to 31 ppm Au and 1,631 ppm Ag. Most values ranged from 1 ppm Au to 4 ppm Au, and 20 ppm Ag to 200 ppm Ag.

The portal of the Occidental adit is about 400 m southwest of the Zacatecas adit portal and was driven 119 m on a bearing of S82E (Figure 6-1). There is no internal development, and the adit appears to have been driven purely for exploration purposes. Barry mapped the adit, but did not collect any samples.

Barry concluded the silica structure exposed in the Zacatecas adit is, overall, too low-grade to be economically viable, and did not recommend further work to be completed on the Property. Following Barry's report, no further work appears to have been carried out in either adit or on the Property until Andrade's work in 1981.

In 1981, CRM mapped and sampled the Occidental adit. Belik (2010) noted that the results from a series of channel samples ranged from trace to 1.1 g/t Au (1,210 ppb) with an overall average of about 0.05 g/t (55 ppb), which is considerably lower than the results IMMSA, TNM, and Belik obtained later in the 2000s, which ranged from 0.277 g/t (a random sample collect at the end of the adit) to 0.868 g/t (weighted average of nine samples collected from the end of the portal). TNM, which sampled the entire length of the adit in 2009, reported a weighted-average gold grade of 0.751 g/t. Belik (2010) noted that the reasons for the discrepancy were unclear, but concluded that the analytical technique may have

been unsuitable for accurate determinations of gold values in the 0.1 g/t to 1.0 g/t range, as the assay work was principally focused on base metal mineralization at that time.

No other documentation of further work or development within the Property area occurred until 1993, when Minerales Noranda, S.A. de C.V. obtained an option on the Property.

6.3 Minerales Noranda S.A. de C.V. (1993–1998)

Minerales Noranda S.A. de C.V., a subsidiary of former Noranda Mines Inc., optioned the concessions on and surrounding the Cerro de Oro Project from 1993 to 1998. During this time, exploration activities included geological mapping, trenching, and both RC and diamond drilling. The RC drilling campaigns generally penetrated to shallow depths that ranged between 60 m and 100 m because they were targeting the north and south oxide zones. Deeper diamond drill holes (DDH) were completed up to about 645 m that showed widespread, variable gold mineralization from surface to depth.

The diamond drill program comprised 14 holes in the area, of which 12 were drilled on the Cerro de Oro concessions. The remaining holes were drilled to the immediate west and east of the Property. The following sections highlight the results from the trenching and drilling programs.

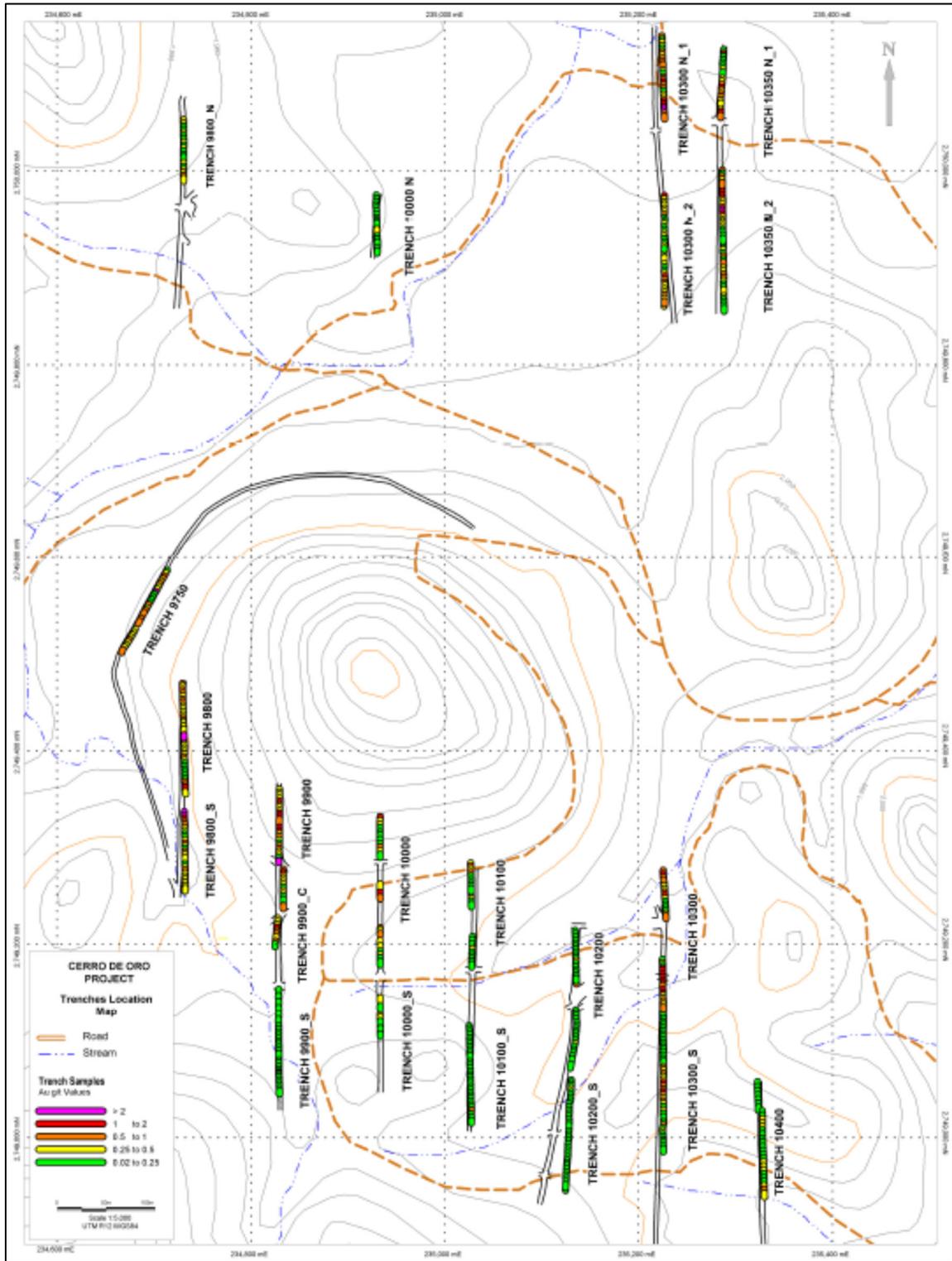
6.3.1 Trenching

During their holding period, Noranda excavated twelve trenches, for a total of 1,961 m, and collected and tested 605 samples. The trench locations are shown in Figure 6-3 (*overleaf*), and the sample results are shown in Table 6-1 as a weighted-average gold grade from all samples collected from each trench.

Table 6-1: Noranda Trench Results (1993–1994)

| Trench ID | UTM Zone 14N Coordinates (NAD 27) | | Azimuth (°) | Length (m) | No. of Samples | Avg. Gold Grade (g/t) |
|-----------|-----------------------------------|------------|-------------|------------|----------------|-----------------------|
| | East | North | | | | |
| 10400 | 235290.86 | 2749260.25 | 180 | 118.66 | 29 | 0.18 |
| 10300 | 235195.41 | 2749479.82 | 180 | 249.43 | 80 | 0.51 |
| 10200 | 235104.38 | 2749417.85 | 180 | 231.14 | 73 | 0.11 |
| 10100 | 234999.12 | 2749466.56 | 180 | 178.13 | 56 | 0.16 |
| 10000 | 234901.28 | 2749534.91 | 180 | 119.45 | 31 | 0.36 |
| 9900 | 234797.40 | 2749563.85 | 180 | 238.14 | 76 | 0.49 |
| 9800 | 234699.09 | 2749674.70 | 180 | 196.95 | 63 | 0.54 |
| Road | 234680.89 | 2749790.00 | 203 | 90.85 | 29 | 0.47 |
| P-10300 | 235184.48 | 2750344.75 | 180 | 200.95 | 63 | 0.52 |
| P-10350 | 235251.51 | 2750059.19 | 180 | 216.52 | 68 | 0.49 |
| P-10000 | 234899.90 | 2750178.67 | 180 | 56.99 | 17 | 0.17 |
| P-9800 | 234698.64 | 2750256.62 | 180 | 63.51 | 20 | 0.28 |

Figure 6-3: Trench Locations



6.3.2 Reverse Circulation Drilling

Thirty-four RC drill holes were completed, for a total of 2,840 m. The locations of the RC holes are shown in Figure 6-4, and a summary of the drill-hole program is highlighted in Table 6-2.

Sample quality for this program is typical of the early 1990s, and the drills that were available during this period had interchange-type downhole percussion bits that operated at much lower air volumes and pressures in comparison to today's equipment. This earlier equipment is noted to have often downgraded supergene oxidized zones of gold mineralization by between 20% and 50%. Modern face-centred bits have less gold separation and loss in an air column due to the faster and shorter distance traveled for entry of the drill sample material into the inner tube, where it is then lifted by air pressure to the surface. In Section 12.2.4 a table compares three holes from this program against three nearby holes that were completed in 2017. The results are reasonably comparable, indicating that the differences due to changes in RC drill technology for the Cerro de Oro Project seem insignificant.

The original drill-hole and trench surveys were completed in the 1990s, and used a local grid coordinate system. The trench data and the drill-hole collars were converted later to the NAD 27 UTM system and reported in the historical documentation. While the drill-hole collar data sets and plots of the trenches are available in both coordinate systems, the process of how they were converted from the local coordinate system was not documented. One historical image that is available indicates a simple XY translation, with the grid N-S axis appearing to be exactly parallel to the NAD 27 UTM axis. After acquiring a new satellite survey from PhotoSat in April 2020 it became apparent that there were discrepancies between with the NAD 27 locations used to report the trench and drill-hole locations from the Noranda programs.

Minera Alamos has corrected the coordinates represented in this section (shown in the tables). The reasoning, methodology, and adjusted coordinates are discussed and reported in Section 12.

Table 6-2: Noranda RC Drilling (Corrected Coordinates from Local Grid)

| Hole ID | UTM Coordinates (NAD 27) | | | Azimuth (°) | Dip (°) | Total Depth (m) | Sampled (m) | No. Samples | Avg. Gold Grade (g/t) |
|---------|--------------------------|---------|-------|----------------|------------|--------------------|----------------|----------------|--------------------------|
| | East | North | Elev. | | | | | | |
| CO93-01 | 234868 | 2748971 | 2026 | 180 | -60 | 98 | 98 | 49 | 0.04 |
| CO93-02 | 234845 | 2749330 | 2030 | 20 | -45 | 150 | 150 | 75 | 0.35 |
| CO93-03 | 235216 | 2748959 | 1992 | 20 | -45 | 150 | 150 | 75 | 0.47 |
| CO93-04 | 234939 | 2749926 | 1962 | 160 | -60 | 80 | 80 | 40 | 0.31 |
| CO93-05 | 235350 | 2750081 | 1944 | 160 | -60 | 150 | 150 | 75 | 0.10 |
| CO93-06 | 234972 | 2749563 | 2038 | 180 | -60 | 120 | 120 | 60 | 0.28 |
| CO93-07 | 235073 | 2749280 | 2008 | 20 | -60 | 70 | 70 | 35 | 0.28 |
| CO93-08 | 234949 | 2749750 | 1960 | 180 | -60 | 134 | 134 | 67 | 0.08 |
| CO93-09 | 235090 | 2750413 | 1970 | 0 | -60 | 96 | 96 | 48 | 0.28 |
| CO94-10 | 235270 | 2749064 | 2010 | 0 | -45 | 70 | 69 | 45 | 0.32 |
| CO94-11 | 235271 | 2749123 | 1995 | 0 | -45 | 70 | 70 | 46 | 0.35 |
| CO94-12 | 235274 | 2749173 | 1985 | 0 | -45 | 70 | 70 | 46 | 0.19 |
| CO94-13 | 235276 | 2749277 | 1991 | 180 | -45 | 70 | 70 | 46 | 0.05 |
| CO94-14 | 234974 | 2749161 | 1999 | 0 | -45 | 70 | 70 | 46 | 0.25 |
| CO94-15 | 234975 | 2749209 | 2002 | 0 | -45 | 70 | 70 | 46 | 0.79 |
| CO94-16 | 234978 | 2749255 | 2011 | 0 | -45 | 70 | 70 | 46 | 0.56 |
| CO94-17 | 235290 | 2749962 | 1951 | 0 | -45 | 101 | 101 | 66 | 1.01 |
| CO94-18 | 235169 | 2748896 | 2005 | 0 | -45 | 101 | 85 | 56 | 0.14 |
| CO94-19 | 235296 | 2750027 | 1948 | 0 | -45 | 70 | 70 | 46 | 0.44 |
| CO94-20 | 235282 | 2749898 | 1956 | 0 | -45 | 70 | 69 | 45 | 0.31 |
| CO94-21 | 235273 | 2749827 | 1961 | 0 | -45 | 78 | 78 | 51 | 0.29 |
| CO94-22 | 235349 | 2749902 | 1964 | 0 | -45 | 64 | 64 | 42 | 0.53 |
| CO94-23 | 234774 | 2749435 | 2015 | 0 | -45 | 70 | 70 | 46 | 0.76 |
| CO94-24 | 234775 | 2749366 | 2005 | 0 | -45 | 70 | 70 | 46 | 0.34 |
| CO94-25 | 234773 | 2749304 | 2002 | 0 | -45 | 70 | 70 | 46 | 0.41 |
| CO94-26 | 234741 | 2749545 | 1996 | 0 | -45 | 52 | 52 | 34 | 0.21 |
| CO94-27 | 234876 | 2749294 | 2029 | 0 | -45 | 70 | 70 | 46 | 0.28 |
| CO94-28 | 234875 | 2749251 | 2017 | 0 | -45 | 70 | 70 | 46 | 0.39 |
| CO94-29 | 234864 | 2749182 | 2011 | 0 | -45 | 70 | 70 | 46 | 0.32 |
| CO94-30 | 235111 | 2749306 | 2010 | 0 | -45 | 72 | 70 | 46 | 0.53 |
| CO94-31 | 235081 | 2749476 | 2029 | 180 | -45 | 70 | 67 | 44 | 0.40 |
| CO94-32 | 234979 | 2749311 | 2032 | 0 | -45 | 102 | 102 | 67 | 0.24 |
| CO94-33 | 235073 | 2749200 | 1991 | 0 | -45 | 70 | 70 | 46 | 0.39 |
| CO94-34 | 235678 | 2749118 | 1956 | 0 | -30 | 32 | 32 | 21 | 0.17 |

6.3.3 Diamond Drilling

Noranda completed diamond drilling in 1996, 1997, and 1998 as a follow-up to the RC program. The program included a total of fourteen holes, of which eleven (3,324 m) were drilled within the concession boundary, and three—DDH96-3, DDH97-5, and MOR-98-10—that were drilled outside the current concession area. Information available for DDH96-3 is limited to around 40 m of assay intervals. The locations of the DDHs are shown in Figure 6-4 and a summary of the DDH program is shown in Table 6-3.

Table 6-3: Noranda Diamond Drill Holes (Corrected from Local Grid)

| Hole ID | UTM Coordinates (NAD 27) | | | Azimuth (°) | Dip | Total Depth | Sampled (m) | No. of Samples | Avg. Gold Grade (g/t) |
|-----------|---|---------|-------|----------------|-----|-------------|----------------|-------------------|--------------------------|
| | East | North | Elev. | | | | | | |
| DDH96-1 | 234099 | 2749261 | 1990 | 80 | -55 | 270.1 | 232.3 | 131 | 0.21 |
| DDH96-2 | 235058 | 2749473 | 2058 | 350 | -80 | 81.7 | 75.0 | 50 | 0.35 |
| DDH96-3 | This hole was drilled outside of the claim area; limited results available | | | | | | | | |
| DDH96-4 | 235200 | 2749694 | 1965 | 255 | -55 | 433.5 | 254.1 | 159 | 0.27 |
| DDH97-5 | 233976 | 2749222 | 1992 | 90 | -60 | 461.9 | 200.6 | 93 | 0.04 |
| DDH97-6 | 233876 | 2749123 | 1994 | 90 | -60 | 645.8 | 410.7 | 176 | 0.03 |
| DDH97-7 | 233836 | 2749022 | 1986 | 180 | -60 | 598.8 | 241.4 | 81 | 0.02 |
| MOR-98-1 | 234853 | 2749259 | 2014 | 15 | -45 | 264 | 264 | 101 | 0.12 |
| MOR-98-5 | 234221 | 2749433 | 1997 | 270 | -45 | 280 | 284 | 140 | 0.16 |
| MOR-98-6 | 234291 | 2749598 | 2019 | 260 | -45 | 202 | 202 | 73 | 0.06 |
| MOR-98-7 | 234419 | 2749465 | 1977 | 270 | -50 | 152 | 140 | 59 | 0.13 |
| MOR-98-8 | 234651 | 2749653 | 1968 | 123 | -45 | 198 | 198 | 33 | 0.06 |
| MOR-98-9 | 234974 | 2749662 | 1988 | 180 | -45 | 198 | 198 | 43 | 0.17 |
| MOR-98-10 | This hole was drilled outside of the claim area and there are limited results available | | | | | | | | |

Note: DDH96-3 was drilled approximately 1,900 m northwest of the claim area. Most of the results from this hole are not available.
 MOR-98-10 was drilled outside the claim area and there are limited results available for this hole. DDH97-5 was drilled outside the claim area.

6.4 Exploration Activities 1998 to 2016

Exploration activities from 1998 to 2001 were limited in scope and did not include any additional trenching or drilling. The fieldwork that was conducted generally comprised only random rock sampling from either outcrop around the Property or from the underground workings. Most of the work completed during this time was summarized in unpublished reports, except for *The Barahona Report, Cerro de Oro, April 10, 2010*, prepared for TNM (Belik, 2010). The following summary for the remainder of this subsection has been extracted from Belik (2010).

IMMSA, a wholly owned subsidiary of Grupo Mexico, holds claims adjoining the Cerro de Oro Property to the east and south (Ocampo 1 to 7 claims). During 2001 and 2004 IMMSA carried out detailed mapping and sampling over most of the surface showings and underground workings in the area. In total, IMMSA collected 201 surface and underground rock samples during this time from the Cerro de Oro Property as part of their program. Results are summarized in a brief report (IMMSA dated May

2004). The report included a recommendation that IMMSA option the Zacatecas claims, but apparently this was never carried out.

An IMMSA compilation map dated September 2001 shows 27 drill holes within the Cerro de Oro claim area. None of the holes appear to have been drilled by IMMSA (no mention of drilling in their summary reports). Most, if not all, are probably Noranda holes, but this has not been confirmed. Belik was able to locate most of the drill sites in the field during his visit to the Property.

No systematic exploration work has been carried out on the Property since 2004. J. M. Dawson carried out relatively minor rock sampling on some of the surface showings and underground workings in 2005 (6 samples); Porthorin and Barahona in 2007 (6 samples); and Barahona (for TNM) in 2005 and 2009 (32 samples).

Belik (2010) collected 26 samples on a site visit comprising grab and chip samples from surface and both underground adits. The samples were sent to ALS Chemex Hermosillo. At the time of his report it appears that Belik did not have access to all of the Noranda drill-hole database, as he noted in his report that the results were largely unavailable. Belik identified five zones on the Property that include Zones A and B, which are associated with copper-gold-porphyry intrusions; Zone C, which is copper-gold skarn mineralization; the Occidental adit zone; and the Zacatecas adit one. Zones A and B, the Occidental adit zone, and the Zacatecas adit zone, combine to form the North and South zones referred to in this Report. Zone C falls outside of the claim area, to the southwest. A summary of these zones, taken from Belik's report are as follows:

- Zones A and B are associated with late-stage granodiorite porphyry stocks, pervasively altered (quartz-clay-sericite-pyrite with and without biotite), and contain strong quartz stockwork veining. Rock samples from Zone A returned copper-gold-silver grades from 26 ppb to a high of 1,860 ppb. Rock samples from Zone B returned assays of 0.04% to 4.37% Cu, 52 ppb to 13,720 ppb Au, and up to 18.1 ppm Ag. Belik noted that 70% of the samples collected from Zone B assayed greater than 300 ppb Au.
- The Zacatecas adit zone hosts several styles of mineralization that included a breccia pipe, polymetallic-skarn, and gold skarn-type mineralization, as well as a silica-rich breccia/shear/vein zone that has epithermal characteristics. Grab samples from the breccia pipe (exposed at the end of the adit) contained up to 9.79% Zn, 1.77 g/t Au, and 81 g/t Ag. The silica-rich zone is cross-cut near the middle of the adit, and is about 12 m wide, dipping 45° to the northeast. This zone has been cross-cut by historical workings, and noted by Belik to appear to remain open in all directions. Historical samples from this zone have returned values up to 31 g/t Au and 1,631 g/t Ag. A sample collected by Belik in a cross-cut at the deepest level returned assay results of 3.44 g/t Au and 292 g/t Ag. A skarn zone exposed near the opening of the adit assayed 0.44 g/t Au, 23.4 g/t Ag, 0.21% Cu, and 0.08% Zn over an apparent width of 30 m. A 10 m chip sample collected by Belik 60 m from the audit portal assayed 7.28% Zn, 0.92 g/t Au, 6.9 g/t Ag, and 0.31% Cu.
- IMMSA sampled the full length of the Occidental adit (119 m), which returned a weighted average gold grade of 0.87 g/t.

Belik recommended further exploration work in the form of a two-phase drilling program. The first phase was to include 2,320 m of drilling, or 10 holes, and was designed to target each of the five zones of interest identified in his report. This work was never undertaken.

6.5 Minera Mexico Pacific (2017–2018)

Minera Mexico Pacific optioned the Property in 2016 and conducted exploration activities on the Property until 2018. Over this period Minera Mexico Pacific initiated and undertook the largest exploration campaign since Noranda in the 1990s. The field campaigns were completed in 2017 and 2018, and comprised 4,272 of m of shallow RC drilling that targeted the oxide zones; this served to infill and confirm drilling in the South zone, and to further exploration in the North zone that expanded known extensions. Highlights of the work completed in this period include:

- 2017:
 - Mapping and sampling program to further define the North gold zone.
 - Revised North gold zone geological map (May 2017).
 - Collected 50 rock samples from the North zone. Sampling showed widespread gold values connected with strong silicification, brecciation and FeOx oxides related to an intrusive epithermal gold system over an area of 700 m east–west by 400 m north–south, with gold values ranging from 0.11 g/t to 2 g/t.
 - Investigated areas that could be potentially provide sources of water.
 - Completed a surface use agreement.
 - Planned and started drilling the first phase that focused on the North zone.

- 2018:
 - Completed the first phase of drilling in February. The program included 30 RC holes (2,500 m) on the North gold zone.
 - Planned a second phase of drilling on the South zone.
 - Submitted 32 drill samples for bottle roll testing and three 600 kg surface samples for metallurgical testing.
 - Confirmed disseminated gold values in the southern area of the Project.
 - Exploration showed the continuation of gold mineralization in the North zone (north of the structural break between the two zones) that is like the South zone, with mineralization largely beginning at/near surface with many of the holes ending in mineralization.

The trench sampling conducted by Minera Mexico Pacific is shown in Table 6-4, and the location of the RC drill holes that were drilled are shown in blue on Figure 6-5. For comparison purposes, the Noranda RC drill holes are in red. Trench sampling and drill-hole results are shown in Table 6-4 to Table 6-6.

Table 6-4: Minera Mexico Pacific 2017 Trench Sampling

| Trench ID | UTM Coordinates (NAD 27) | | Azimuth (°) | Length (m) | No. of Samples | Avg. Gold Grade (g/t) | Zone |
|-----------|--------------------------|---------|-------------|------------|----------------|-----------------------|-------|
| | East | North | | | | | |
| CT-18-01 | 234720 | 2749266 | 220 | 8 | 4 | 0.17 | South |
| CT-18-02 | 234718 | 2749312 | 180 | 12 | 6 | 0.10 | South |
| CT-18-03 | 234719 | 2749318 | 0 | 2 | 1 | 0.07 | South |
| CT-18-04 | 234701 | 2749361 | 170 | 20 | 10 | 0.25 | South |
| CT-18-05 | 234667 | 2749377 | 110 | 4 | 2 | 0.18 | South |
| CT-18-06 | 234710 | 2749195 | 170 | 6 | 12 | 0.30 | South |
| CT-18-07 | 234675 | 2749229 | 180 | 6 | 3 | 0.17 | South |
| CT-18-08 | 234714 | 2749257 | 225 | 16 | 8 | 0.20 | South |
| CT-18-09 | 234685 | 2749226 | 180 | 18 | 9 | 0.45 | South |
| CT-18-10 | 234639 | 2749111 | 170 | 16 | 4 | 0.53 | South |
| CT-18-11 | 234586 | 2749209 | 170 | 46 | 23 | 0.22 | South |

Figure 6-5: Drill Hole Location Map (Noranda and Minera Mexico Pacific)

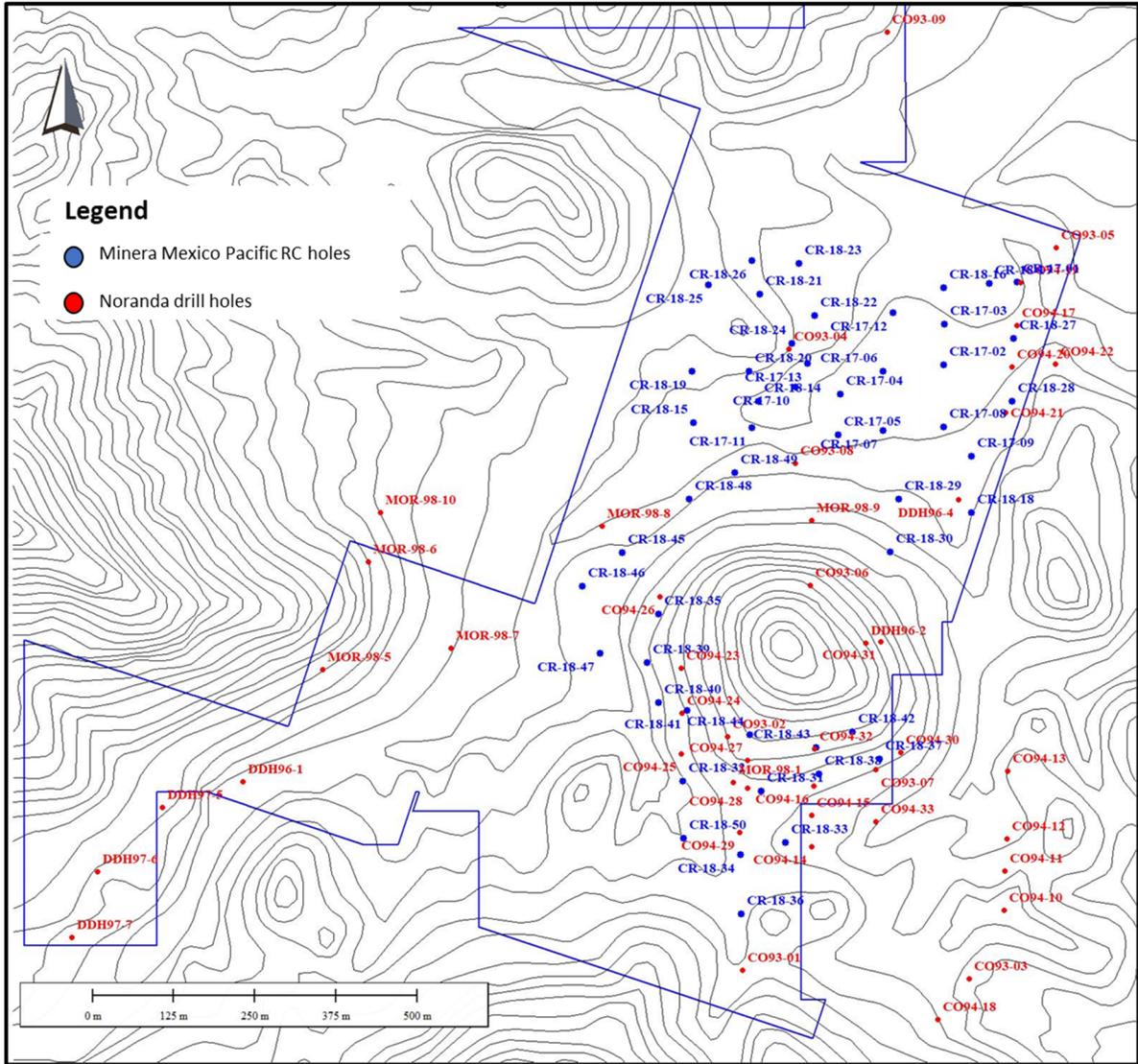


Table 6-5: Minera Mexico Pacific 2017 RC Drilling Program

| Hole ID | UTM Coordinates NAD 27 | | | Azimuth (°) | Dip (°) | Total Depth (m) | From (m) | To (m) | Interval (m) | Au Grade (g/t) | Zone |
|-----------|------------------------|---------|-------|-------------|---------|-----------------|----------|--------|--------------|----------------|-------|
| | East | North | Elev. | | | | | | | | |
| CR-17-01 | 235290 | 2750029 | 1947 | 0 | -70 | 54 | 6 | 54 | 48 | 0.70 | North |
| CR-17-02 | 235177 | 2749902 | 1951 | 0 | -70 | 102 | 10 | 102 | 92 | 0.13 | North |
| CR-17-03 | 235178 | 2749964 | 1949 | 0 | -70 | 70 | 6 | 70 | 64 | 0.15 | North |
| CR-17-04 | 235018 | 2749856 | 1956 | 0 | -70 | 122 | 10 | 122 | 112 | 0.42 | North |
| CR-17-05 | 235014 | 2749794 | 1957 | 0 | -70 | 132 | 12 | 132 | 120 | 0.28 | North |
| Including | | | | | | | 92 | 132 | 40 | 0.51 | |
| CR-17-06 | 235084 | 2749891 | 1954 | 0 | -70 | 158 | 10 | 158 | 148 | 0.18 | North |
| CR-17-07 | 235084 | 2749801 | 1955 | 0 | -70 | 114 | 10 | 114 | 104 | 0.16 | North |
| CR-17-08 | 235177 | 2749806 | 1957 | 0 | -70 | 78 | 4 | 78 | 74 | 0.18 | North |
| CR-17-09 | 235220 | 2749761 | 1961 | 0 | -70 | 90 | 6 | 90 | 84 | 0.28 | North |
| CR-17-10 | 234949 | 2749867 | 1949 | 0 | -70 | 66 | 2 | 66 | 64 | 0.38 | North |
| CR-17-11 | 234882 | 2749804 | 1953 | 0 | -70 | 96 | 8 | 96 | 88 | 0.23 | North |
| Including | | | | | | | 40 | 82 | 42 | 0.42 | |
| CR-17-12 | 235100 | 2749982 | 1952 | 0 | -70 | 84 | 8 | 84 | 76 | 0.12 | North |
| CR-17-13 | 234968 | 2749904 | 1948 | 0 | -70 | 102 | 2 | 102 | 100 | 0.42 | North |
| Including | | | | | | | 2 | 68 | 66 | 0.53 | |

Table 6-6: Minera Mexico Pacific 2018 Diamond Drilling Program

| Hole ID | UTM Coordinates (NAD 27) | | | Azimuth (°) | Dip (°) | Total Depth (m) | From (m) | To (m) | Interval (m) | Au Grade (g/t) | Zone |
|-----------|--------------------------|---------|-------|-------------|---------|-----------------|----------|--------|--------------|----------------|-------|
| | East | North | Elev. | | | | | | | | |
| CR-18-14 | 234892 | 2749845 | 1950 | 0 | -70 | 60 | 2 | 60 | 58 | 0.18 | North |
| CR-18-15 | 234793 | 2749812 | 1954 | 0 | -70 | 102 | 6 | 102 | 96 | 0.06 | North |
| CR-18-16 | 235177 | 2750020 | 1947 | 0 | -70 | 72 | 6 | 72 | 66 | 0.14 | North |
| CR-18-17 | 235248 | 2750026 | 1946 | 0 | -70 | 66 | 12 | 66 | 54 | 0.76 | North |
| CR-18-18 | 235219 | 2749674 | 1967 | 0 | -70 | 78 | 0 | 78 | 78 | 0.14 | North |
| CR-18-19 | 234790 | 2749892 | 1963 | 180 | -60 | 24 | 4 | 24 | 20 | 0.08 | North |
| CR-18-20 | 234878 | 2749892 | 1965 | 0 | -70 | 60 | 0 | 60 | 60 | 0.19 | North |
| CR-18-21 | 234894 | 2750010 | 1962 | 0 | -70 | 102 | 0 | 102 | 102 | 0.38 | North |
| Including | | | | | | | 0 | 70 | 70 | 0.44 | |
| CR-18-22 | 234979 | 2749977 | 1954 | 0 | -70 | 108 | 2 | 108 | 106 | 0.26 | North |
| CR-18-23 | 234955 | 2750057 | 1955 | 0 | -70 | 78 | 2 | 78 | 76 | 0.15 | North |
| CR-18-24 | 234944 | 2749934 | 1960 | 0 | -70 | 96 | 0 | 96 | 96 | 0.34 | North |
| CR-18-25 | 234815 | 2750024 | 1973 | 0 | -70 | 102 | 0 | 102 | 102 | 0.31 | North |
| CR-18-26 | 234882 | 2750061 | 1962 | 0 | -70 | 84 | 0 | 84 | 84 | 0.23 | North |
| Including | | | | | | | 0 | 34 | 34 | 0.35 | |
| CR-18-27 | 235284 | 2749942 | 1951 | 0 | -70 | 54 | 0 | 54 | 54 | 0.31 | North |
| CR-18-28 | 235282 | 2749846 | 1964 | 0 | -70 | 150 | 0 | 150 | 150 | 0.26 | North |

| Hole ID | UTM Coordinates (NAD 27) | | | Azimuth (°) | Dip (°) | Total Depth (m) | From (m) | To (m) | Interval (m) | Au Grade (g/t) | Zone |
|-----------|--------------------------|---------|-------|----------------|------------|--------------------|-------------|-----------|-----------------|-------------------|-------|
| | East | North | Elev. | | | | | | | | |
| Including | | | | | | | 2 | 40 | 38 | 0.38 | |
| CR-18-29 | 235108 | 2749695 | 1969 | 0 | -70 | 138 | 0 | 138 | 138 | 0.16 | North |
| CR-18-30 | 235094 | 2749614 | 1989 | 0 | -70 | 24 | 0 | 24 | 24 | 0.10 | North |
| CR-18-31 | 234896 | 2749247 | 2018 | 0 | -65 | 126 | 0 | 126 | 126 | 0.15 | South |
| Including | | | | | | | 0 | 24 | 24 | 0.29 | South |
| CR-18-32 | 234776 | 2749262 | 1996 | 0 | -65 | 72 | 0 | 72 | 72 | 0.47 | South |
| Including | | | | | | | 0 | 32 | 32 | 0.67 | South |
| CR-18-33 | 234933 | 2749167 | 2004 | 0 | -65 | 72 | 2 | 72 | 70 | 0.09 | South |
| CR-18-34 | 234864 | 2749149 | 2009 | 0 | -65 | 78 | 0 | 78 | 78 | 0.17 | South |
| CR-18-35 | 234739 | 2749519 | 1998 | 0 | -65 | 72 | 0 | 72 | 72 | 0.14 | South |
| CR-18-36 | 234865 | 2749058 | 2018 | 0 | -65 | 66 | 0 | 66 | 66 | 0.10 | South |
| CR-18-37 | 235079 | 2749296 | 2012 | 0 | -65 | 78 | 0 | 78 | 78 | 0.18 | South |
| Including | | | | | | | 38 | 60 | 22 | 0.29 | |
| CR-18-38 | 234985 | 2749273 | 2016 | 0 | -65 | 78 | 0 | 78 | 78 | 0.38 | South |
| Including | | | | | | | 2 | 58 | 56 | 0.47 | |
| CR-18-39 | 234721 | 2749444 | 1994 | 0 | -65 | 90 | 0 | 90 | 90 | 0.19 | South |
| Including | | | | | | | 0 | 28 | 28 | 0.42 | |
| CR-18-40 | 234738 | 2749382 | 1993 | 0 | -65 | 66 | 0 | 66 | 66 | 0.33 | South |
| Including | | | | | | | 0 | 24 | 24 | 0.62 | |
| CR-18-41 | 234783 | 2749370 | 2008 | 0 | -65 | 114 | 0 | 114 | 114 | 0.24 | South |
| Including | | | | | | | 2 | 58 | 56 | 0.30 | |
| CR-18-42 | 235037 | 2749337 | 2036 | 0 | -65 | 96 | 0 | 96 | 96 | 1.10 | South |
| Including | | | | | | | 0 | 64 | 64 | 1.33 | |
| CR-18-43 | 234981 | 2749314 | 2032 | 0 | -65 | 78 | 0 | 74 | 74 | 0.37 | South |
| Including | | | | | | | 0 | 42 | 42 | 0.50 | |
| CR-18-44 | 234879 | 2749333 | 2039 | 0 | -65 | 66 | 0 | 66 | 66 | 0.24 | South |
| Including | | | | | | | 0 | 26 | 26 | 0.38 | |
| CR-18-45 | 234683 | 2749613 | 1968 | 0 | -65 | 60 | 0 | 60 | 60 | 0.09 | South |
| CR-18-46 | 234621 | 2749561 | 1970 | 0 | -65 | 72 | 0 | 72 | 72 | 0.18 | South |
| CR-18-47 | 234649 | 2749458 | 1977 | 0 | -65 | 90 | 0 | 90 | 90 | 0.06 | South |
| CR-18-48 | 234786 | 2749695 | 1965 | 0 | -65 | 66 | 0 | 66 | 66 | 0.12 | South |
| CR-18-49 | 234856 | 2749736 | 1962 | 0 | -65 | 54 | 0 | 54 | 54 | 0.04 | South |
| CR-18-50 | 234777 | 2749175 | 1999 | 0 | -65 | 112 | 0 | 112 | 112 | 0.20 | South |

6.6 Minera Alamos Inc.

Minera Alamos acquired the Cerro de Oro Property on August 4, 2020 from Minera Placor, a private owner, through its Mexican subsidiary Minera Mirlos. Since the time of the acquisition Minera Alamos has not completed any new exploration activities on the Property.

6.7 Production History

While the Cerro de Oro Property hosts numerous historical pits, trenches, and underground workings, there are no existing records that document any metal production from the Property.

Over the last decade small miner and/or prospectors (known locally as gambusinos) have been drawn to the area by the presence of high-grade gold mineralization. While their activities are visible from surface, there are no existing records that document how long these activities have been occurring, nor any record of metal production.

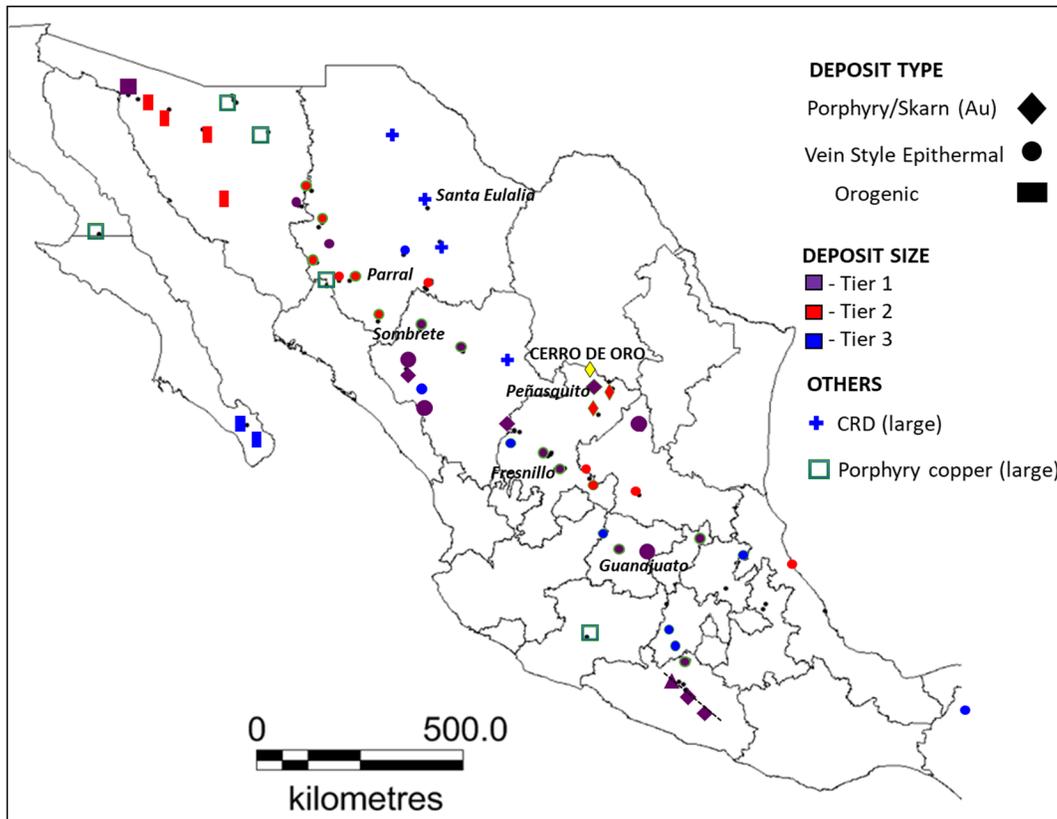
7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Geologic Setting

The Cerro de Oro Project lies along the northern border of Zacatecas state and the southern limits of Coahuila state in the mining district of Melchor Ocampo. This region is well known for a prolific late Eocene to mid-Oligocene magmatic-hydrothermal metallo-tectonic event. Historically, mining in the immediate area has been focused on high-grade gold-copper-lead-zinc skarn replacement type mineralization that includes both mantos and chimneys. The Melchor Ocampo area also falls within the larger Concepción del Oro “Mega-District,” which includes similar intrusive-related gold polymetallic mines and mineral deposits, such as Peñasquito, Noche Buena, Macocazac, and Salaverna.

The Cerro de Oro Project is in the physiographic province of the Sierra Madre Oriental, within the geological province of the Mexican Fold and Thrust Belt (Ortega-Gutierrez, 1992), which is characterized by synclines and anticlines with east-to-west orientations and north-northeast vergence, composed of Mesozoic sedimentary marine sequences that were cut by late Eocene to mid-Oligocene intrusive rocks. Figure 7-1 shows the location of the Cerro de Oro Project in relation to some of the known deposits of Mexico.

Figure 7-1: Location of the Cerro de Oro Project and Other Deposits of Mexico



7.2 Regional Geology

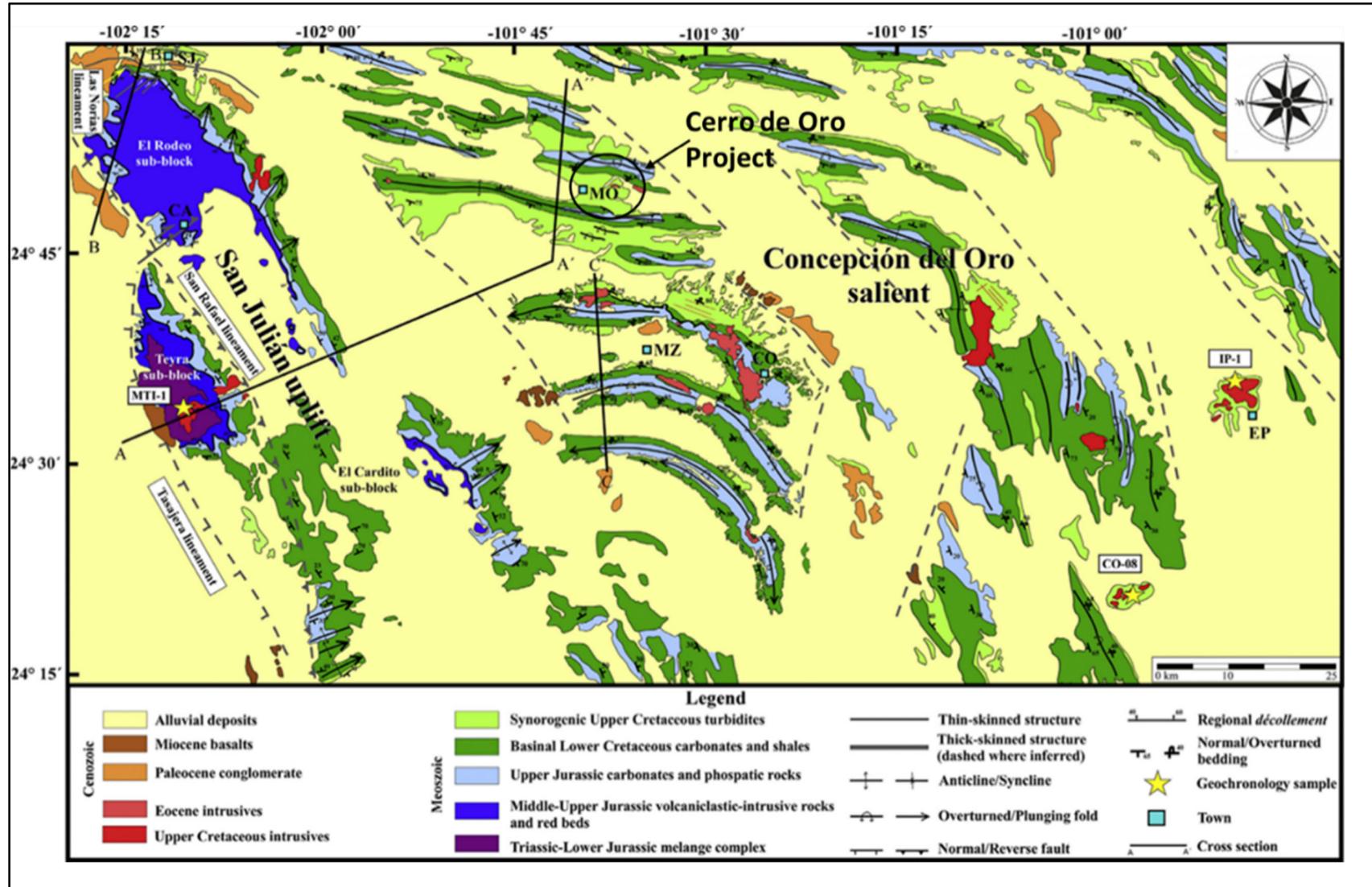
The regional geology is dominated by Mesozoic sedimentary rocks deposited during the Jurassic and Cretaceous periods and are characterized by a 2,000 m thick sequence of carbonaceous and calcareous turbiditic siltstones and interbedded sandstones. This unit is subsequently underlain by a 1,500 m to 2,000 m thick limestone sequence.

The oldest rocks in the area are the Upper Jurassic limestones and cherts of the Zuloaga Formation. These units have a low clastic content indicative of deposition in a shallow epicontinental sea. The Zuloaga Formation is overlain by the La Caja Formation. The La Caja is a variably fossiliferous series of thinly bedded phosphatic cherts and silty to sandy limestones that have potentially recorded periods of fluctuating sea levels. The La Caja Formation is in turn overlain by limestones and argillaceous limestones of the Taraises Formation. The Taraises Formation has increasing chert and disseminated pyrite near its top at the transition to the Cupido Formation. The Cupido Formation is overlain by the cherty limestones of the La Peña Formation deposited during the transition from the lower to upper Cretaceous Period. The La Peña Formation is in turn overlain by the thickly bedded limestones of the Cuesta del Cura Formation.

Notably, there is an abrupt change in sedimentation style at the base of the Indidura Formation that comprises a series of shales, calcareous siltstones, and argillaceous limestones that indicate a shallow marine depositional environment. Upper Cretaceous rocks of the overlying Caracol Formation consist primarily of interbedded shales and sandstones, and represent a change to dominantly clastic sediments within the depositional basin. Following a period of compressional deformation, uplift, and subsequent erosion, the Mesozoic marine sediments were overlain by the Tertiary Mazapil Conglomerate. The folded and faulted sedimentary units are cut by multiple intrusions that have been interpreted to be emplaced from the late Eocene to mid-Oligocene and dated at 33 million years ago (Ma) to 45 Ma.

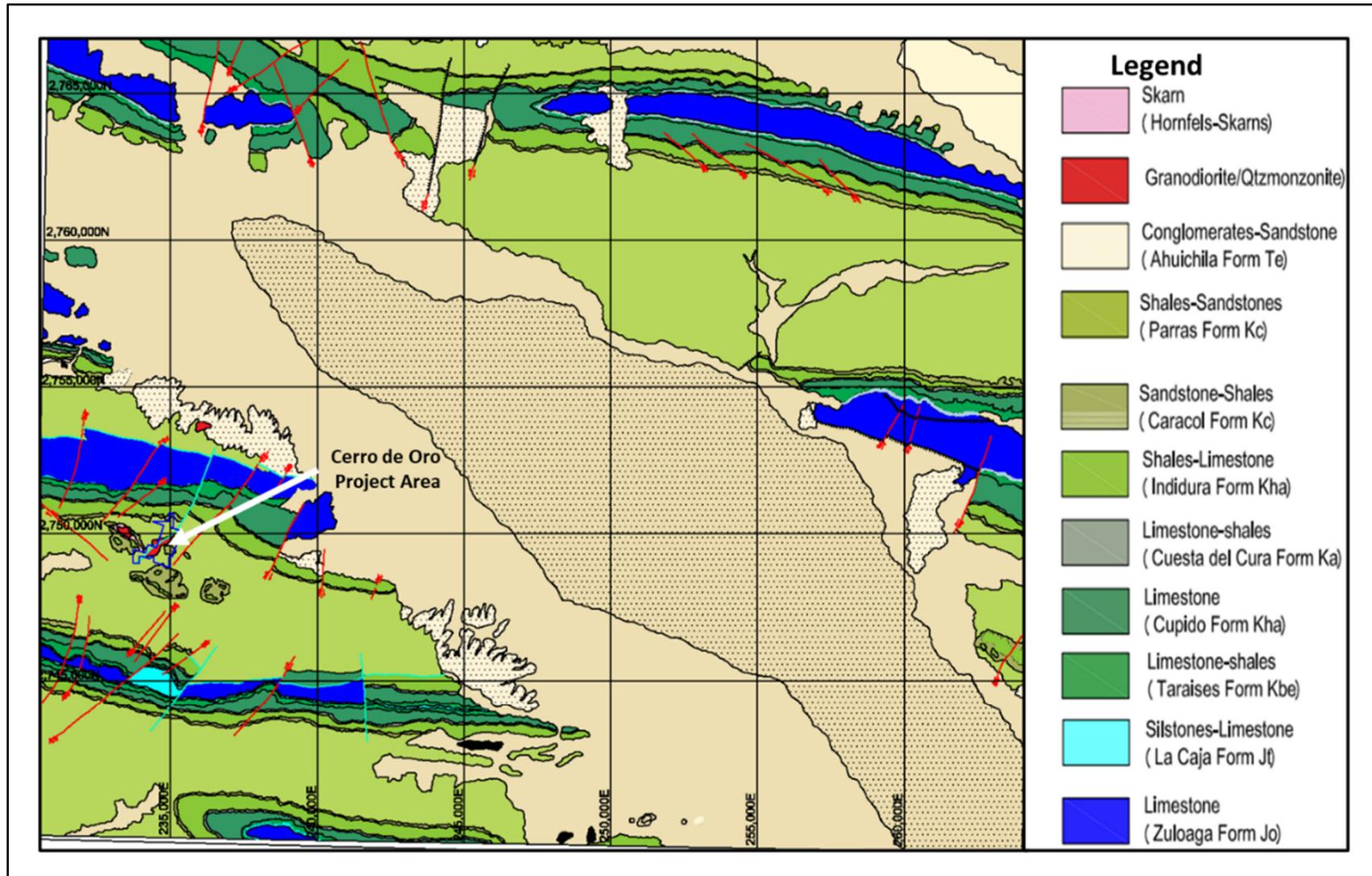
Figure 7-2 and Figure 7-3 show the regional geology maps on two district scales, namely the broader Concepción del Oro Mining District and Melchor Ocampo scales.

Figure 7-2: Generalized Regional Geological Map Concepción del Oro Mining District



Notes: Modified from Ramirez and Chaves, 2017. CO denotes Concepción del Oro, MO denotes Melchor Ocampo, and MZ denotes Mazapil.

Figure 7-3: Regional Geological Map Melchor Ocampo District



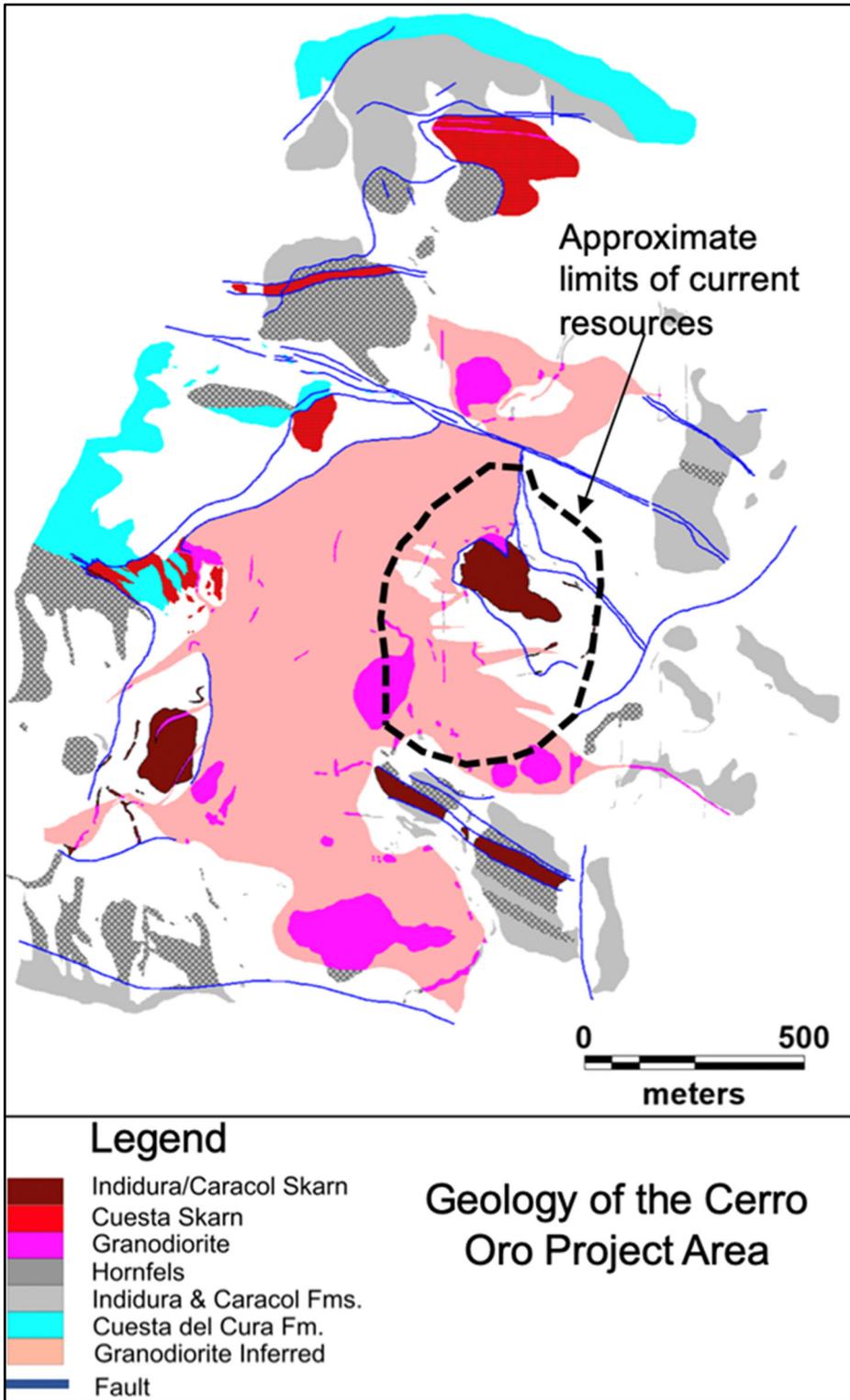
7.3 Local Geology

The rock formations covering the majority of the Cerro de Oro Project area are sedimentary rocks of Cretaceous age consisting of the Caracol and Indidura Formations. The Caracol Formation is mainly thinly bedded calcareous shale with locally fine interbedded limestone units and fine sandstone units. Older sedimentary rock units are present further to the north towards the axis of an east–west trending anticlinal structure. Conformably beneath the Caracol Formation is the Indidura Formation. All layered rock units in the area are steeply dipping to near vertical. Significant amounts of thicker bedded limestone are present in the Cerro de Oro area and further west, suggesting the Indidura Limestone is present possibly as rafted blocks that have been uplifted by the intrusive granodiorite porphyry, which has a diapiric form of emplacement. The Indidura Formation outcrops continuously nearby to the north of the Cerro de Oro mineralized zone, along the strike of the exposed units.

Rock units of the Melchor Ocampo area are seen to be folded into a large-scale set of anticlines and synclines that trend around N70NW, with bedding attitudes that are steeply dipping. A large syncline passes approximately through the Melchor Ocampo town site, parallel to the anticline located about 3 km north of the Project area. The Cerro de Oro mineralized zone is approximately midway between these two axial planes.

Figure 7-4 shows the geology of the Cerro de Oro Project area.

Figure 7-4: Geology of the Cerro de Oro Project Area



7.4 Project Geology

Mineralization at the Project scale occurs within a granodioritic porphyritic stock and within its calcareous host rocks (Figure 7-5). Within the calcareous host rock zone are blocks of highly garnetized limestone that are part of the Indidura Formation. These sedimentary rocks have been uplifted by the intrusion of the granodiorite stock.

Figure 7-5: Caracol Formation



The porphyry granodiorite outcrops in the central parts of the mineralized zone and in the creek beds that cut the concession area. The porphyry granodiorite can be described as light grey in colour, fine grained, with abundant plagioclase, and smaller, but about equal, amounts of quartz and orthoclase. Biotite is commonly present between 5% and 10% and appears as thick books. The biotite has been largely altered to the sericite pseudomorph, with plagioclase and much of the orthoclase also altered to sericite. These primary minerals are contained within a fine to microcrystalline matrix.

The age of the granodiorite porphyry at Cerro de Oro has been extrapolated to be the same as other granodiorite stocks in the Concepción del Oro district. Potassium–argon (K–Ar) radiometric ages published by Montanez and Torres-Duran (2003) for a similar intrusive rock located 20 km to the south of the Project reported an estimate age of 41 Ma ± 3 Ma.

A series of faults is observed cutting the mineralized granodiorite porphyry on its southern side. These faults trend approximately N75W, are steeply dipping, and are infilled with wide zones of gouge and breccia. A second fault series crosses the eastern side of the concession area trending around N15E.

The area between these two fault-series appears to be down-dropped on the northern side of the first fault series (N75W), hiding part of the mineralized zone beneath strongly altered shale and intrusive rock, and a large area of gravel cover.

The granodiorite intrusive rock typically occurs in areas of lower elevation due to its altered and fractured character. The porphyritic intrusive stock is semi-elliptical in plan view, with a maximum axis oriented to the NNE. The intrusion is around 1,500 m long and between 400 m and 700 m wide.

7.4.1 Mineralization

The current Mineral Resources are contained within a semicircular zone of about 1 km diameter; within this mineralized envelope the ore zones are mixed, with some lower-grade or barren zones. Most of the drilling is shallow, with an average depth of 100 m, roughly corresponding to the depth of supergene oxidation. The upper 70 m to 120 m of the mineralization has been oxidized with pyrite altered to hematite, goethite, and jarosite. The hypogene sulphide mineralization is open at depth, and along all directions.

Mineralization at Cerro de Oro consists dominantly of pyrite that is widely disseminated throughout the porphyritic granodiorite, and in hornfels and skarns developed at the contact with the sedimentary rocks. Occasionally the presence of chalcopyrite has been noted, but its presence is typically minor and erratic. Lead and zinc are associated in varying amounts with the pyritic mineralization and may correlate with gold mineralization within the skarn zones. In areas where gold is hosted within the porphyritic granodiorite, only pyrite is associated with gold mineralization. There are a few multi-element analyses available in the Project database that show anomalous amounts of bismuth, arsenic, antimony, silver, lead, zinc, copper, and molybdenum.

Gold resources reported in this document are primarily hosted by the porphyritic granodiorite, which is characterized by various forms of stockwork-controlled mineralization associated with the development of early potassic alteration that was later overprinted by a sericitic event. The observed veins are typical of porphyry systems including magnetite vein; magnetite and quartz veins (A and B veins) developed with potassic alteration; and later D veins associated with sericitic alteration. Figure 7-6 and Figure 7-7 show examples of stockwork quartz veining in the granodiorite intrusive.

The specimen in Figure 7-7 is altered porphyritic granodiorite with formerly high sulphide content evidenced by the jarosite-limonite filled veinlet. The porphyry is altered, with strong pervasive silicification and sericite. Fracturing is common, as is seen in the specimen. Minor quartz occurs as vein filling.

The mineralization at Cerro de Oro also occurs in the thinly bedded calcareous shale of the Caracol Formation and in its hornfels equivalent. It comprises iron sulphides like pyrite, now oxidized down to 70 m to 120 m from surface. The mineralization in the Caracol sediments and hornfels is partially disseminated, but is mostly distributed along bedding planes, fractures, and occasional veinlets and veins where it is often accompanied by quartz (Figure 7-8 and Figure 7-9). The vein-controlled sulphide mineralization was in places so intense and thick (up to at least 10 cm), that iron sulphides were oxidized to gossan (Figure 7-10).

Figure 7-6: Examples of Stockwork Quartz Veining in the Porphyritic Granodiorite Intrusive



Note: Collected from the southern end of Trench 9900 on the south side of the Cerro de Oro concessions.

Figure 7-7: Altered Porphyritic Granodiorite with High Sulphide Content



Figure 7-8: Mineralized Caracol Formation (Road Cut)



Figure 7-9: Caracol Formation with Goethite-Hematite



Note: After pyrite and bedding planes and fractures.

Figure 7-10: Sericitically Altered and Silicified Calcareous Siltstone of Caracol Formation

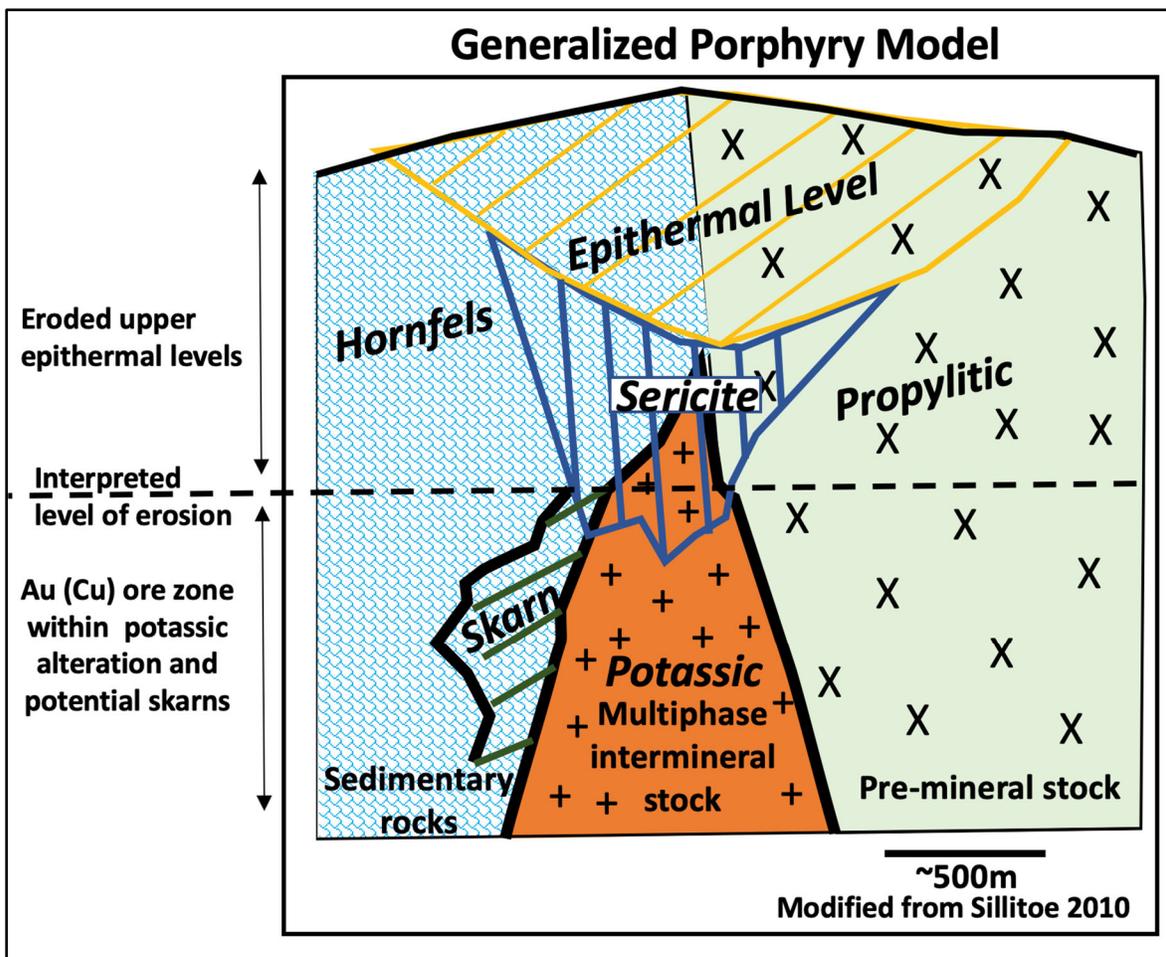


Note: With originally high pyrite now oxidized to goethite, hematite, and jarosite.

8 DEPOSIT TYPES

Mineralization at the Cerro de Oro deposit is typical of a porphyry system and is characterized by the development of A and B veins. These veins developed during an early potassic alteration phase and were later overprinted by silica and sericite (phyllitic overprinting) within the inter-mineral porphyritic intrusive phases. These phases form part of the overall intrusive complex. Figure 8-1 shows a generalized porphyry model that has been modified from Sillitoe (2010) for the Cerro de Oro deposit.

Figure 8-1: Generalized Porphyry Model Cerro de Oro



Sillitoe's model describes a number of geological attributes to be expected in association with gold-rich porphyry systems that are linked to the emplacement and crystallization of a deep magma chamber; the segregation of more water-rich dikes that are emplaced at the upper crustal level; and the final focused release of metalliferous fluids from the crystallizing magma chamber. Within the porphyry system the intrusive centres are often composed of pre-mineral, inter-mineral, and post-mineral intrusive phases. Seven types of alterations are described, including at deeper levels calcic-sodic;

potassic; propylitic; intermediate argillic; sericitic or phyllic alterations; and at shallower levels argillic and advanced argillic alteration mineral assemblages.

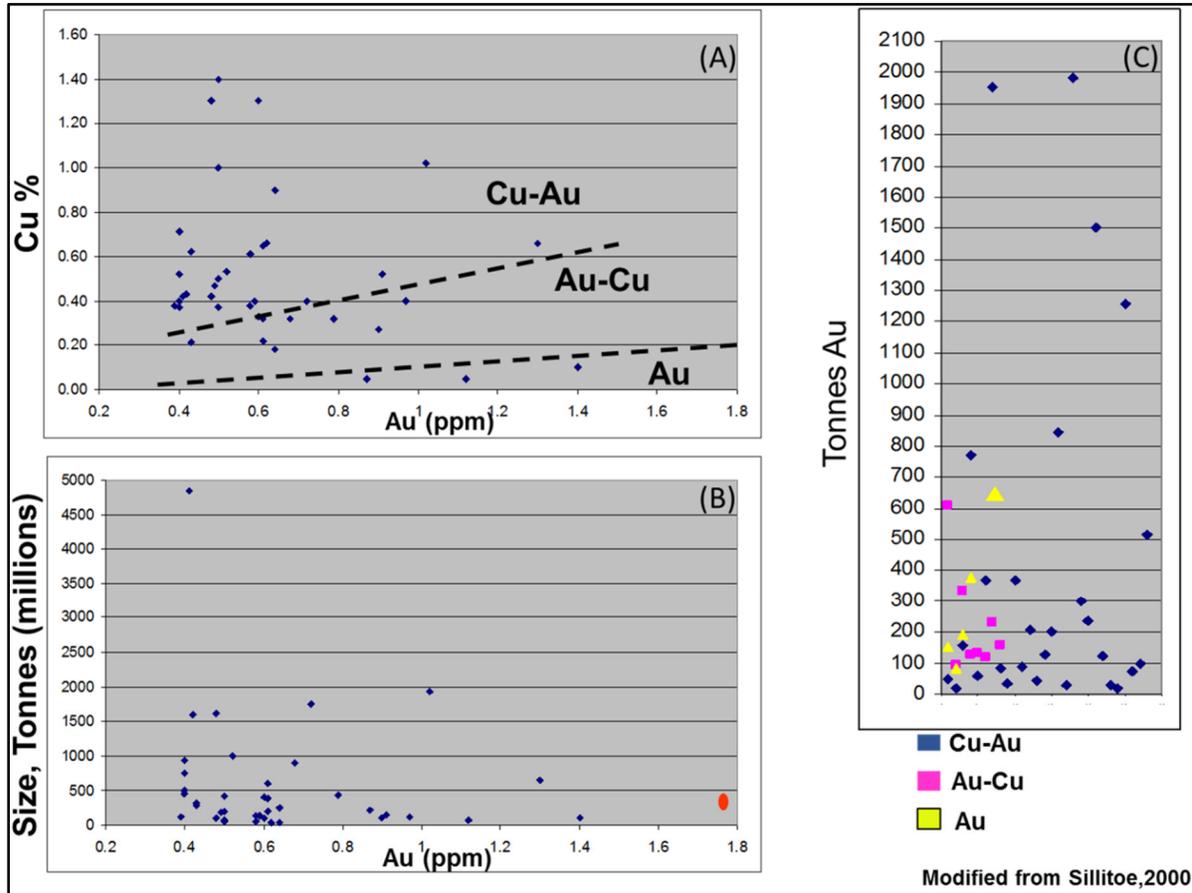
Alteration and mineralization occur in veins, within vein salvages, and can also be pervasive. There are some exceptions, but the best gold grades often occur within the potassic core, with gold contents commonly showing good correlation with the intensity of A and B veining. In many deposits, there is more than one inter-mineral intrusive phase, often with different average gold grades. The evaluation of the size and grades of the entire porphyry system requires detailed mapping of the intrusive stock—the granodioritic stocks in the case of Cerro de Oro—to separate the different intrusive phases, as they represent the main ore control.

The porphyry system at Cerro de Oro according to Sillitoe (1979) can be defined as a gold-rich system because it has a typical gold content of ≥ 0.40 g/t. Sillitoe (2000) provides examples of gold-rich porphyry deposits from around the world, and includes a description of the individual deposits and their respective genetic models. According to this work, porphyry deposits that have an average grade of ≥ 0.40 g/t Au can be further subdivided as either copper-rich or copper-deficient, and described within one of three main subgroups, defined as follows:

- Cu-Au porphyry provided average Cu grades are $\geq 0.40\%$
- Au-Cu porphyry for deposits where the Cu grade ranges between 0.10% and 0.40%
- Au-rich/Cu-deficient porphyry for all deposits with average Cu grades of less $< 0.10\%$.

There are not enough data currently available in the Cerro de Oro database to accurately estimate the copper contents of the hypogene sulphides, because most of the drilling completed at the Project has focused primarily on the near-surface oxide zone. Nevertheless, it is more likely that the copper grades average below 1,000 ppm based on the grades that have been reported in some of the drill holes that were sampled in the hypogene sulphide zone, and the very low copper grades reported in the transition zone. If significant copper grades occurred in the oxide zone (near surface) that has been subsequently leached, it would be expected that copper grades in the transition zone would be over 0.30% or 0.50% where the dissolved copper would be redeposited as secondary copper sulphide. Furthermore, metallurgical bulk samples that have been tested to date have copper grades that range up to 1,000 ppm, with a small group of grades reaching up to 3,000 and 4,000 ppm. For this reason, the Cerro de Oro deposit has been defined as a copper-deficient, gold-rich porphyry deposit. Figure 8-2 shows the classification system of the three gold-rich porphyry systems based on copper and gold grade.

Figure 8-2: Classification of the Three Gold-Rich Porphyry Systems



Source: Sillitoe, 2000.

Notes: A: shows the separation of the three subgroups of gold-rich porphyry systems based on copper and gold content.
 B & C: show the size and grade of some of the known gold-rich porphyry deposits around the world on the basis of production plus reserves versus Au content defined by Sillitoe for systems with ≥ 0.4 g/t Au.

Examples of Cu-deficient gold-rich porphyry deposits include: Marte, Lobo, Refugio, and Cerro Casale, which are all within the Maricunga belt of northern Chile, and Colosa in Central Colombia. These deposits typically have average gold grades of ≤ 1 g/t, but often contain between 1 and 8 million ounces (Moz) of gold, with the exception of Colosa, which has more than 30 Moz in resources. A large number of these deposit types have good metallurgical recovery within the oxide and sulphide zones, except for the cases where the upper high-sulphide level overprints the potassic core. These gold-rich porphyries typically comprise fine-grained gold that is commonly less than 20 μm , but typically less than 100 μm , and present as high-fineness (>800 μm) native metal. Small amounts of coarse gold are also present and are recoverable within a gravity circuit in some deposits.

Unlike Cerro de Oro, the gold-rich porphyry deposits in the Maricunga belt in Chile are largely hosted in coeval volcanic sequences. Rather, Cerro de Oro is emplaced in the basement rocks similar to Colosa in Colombia, implying deeper crustal emplacement and a different local tectonic environment within the larger convergent plate boundaries typical of the western cordillera of the Americas.

9 EXPLORATION

Minera Alamos has not completed any exploration work on the Cerro de Oro Project since acquiring the Property on August 4, 2020.

10 DRILLING

Minera Alamos has not completed any drilling programs on the Project since acquiring the Property on August 4, 2020.

11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

As of the effective date of this Report, Minera Alamos has conducted limited field exploration at the Cerro de Oro Project. Mineral exploration conducted by previous operators within the Property area is discussed in Section 6, and their sample collection, handling, preparation, and analytical procedures are described below. A summary of the amount of sampling and type of analyses that were organized by previous operators is shown in Table 11-1.

Table 11-1: Summary of Sampling Activities

| Company & Laboratory | Number of Samples | | | | |
|---|-------------------|--------------|--------------|--------------|--------------|
| | Gold FA | Silver ICP | Copper ICP | Lead ICP | Zinc ICP |
| Mineral Mexico Pacific (2017/2018) ALS Chemex | 2,068 | 2,068 | 2,068 | 2,068 | 2,068 |
| Noranda (1993/1998) | 2,941 | 1,256 | 2,941 | 1,162 | 2,941 |
| Total | 5,009 | 3,324 | 5,009 | 3,230 | 5,009 |

Notes: FA denotes fire assay; ICP denotes inductively coupled plasma.

11.1 Noranda Drill Programs 1993–1998

11.1.1 Method

Noranda conducted three drilling programs as part of their exploration activities at the Cerro de Oro Project. These programs can be summarized as follows:

- The first program, or phase, began in 1993 and focused on the main zones of the Project known as the North and South zones. The program included 34 RC drill holes for a total of 2,840 m. These holes had an average length of around 84 m and a maximum depth of 150 m because the program was designed to target the near-surface low-grade disseminated oxide zone.
- The second program was finished during 1997 and comprised seven DDHs (core holes) that were designed to explore for deeper zones of mineralization. The seven holes totalled 2,750 m of drilling, with the deepest hole having a total length of 646 m. Of the seven DDHs completed, only two (DDH96-3 and DDH97-5) were drilled outside of the current Cerro de Oro claim area. Excluding DDH96-3 and DDH97-5, a total of 2,030 m was drilled on the claim area.
- The final phase of drilling was completed by Noranda in 1998 (MOR series of holes). This program was also completed by diamond drilling, and totalled 1,800 m. Excluding MOR98-10, which was drilled off of the claim, the program totalled 1,294 m. The holes in this program were to the west of the Cerro de Oro claim and designed to investigate the deep base-metal skarn mineralization and the low-grade disseminated gold potential in this area. In general, the average sample widths were 2 m, with a few composite samples of 6 m.
- Detailed descriptions of the sample preparation, analysis, and security protocols and procedures that were used by Noranda were not available to the author of this section of this Report.

11.1.2 Sample Security

Information related to the security protocols and procedures that Noranda used were not available to the author of this section. The Noranda exploration programs were completed prior to the adoption of NI 43-101 in February 2001. Based on the available information, Noranda collected and stored all samples at the Cerro de Oro Project until they were shipped in various size allotments to ALS Chemex in Hermosillo for sample preparation.

11.1.3 Sample Preparation and Analysis

Noranda used ALS Chemex exclusively during each drilling campaign. Samples were shipped from the Project to ALS Chemex Hermosillo for sample preparation. The pulps were then shipped to ALS Vancouver, British Columbia, for analysis. Details of the sample preparation and analytical procedures and analyses are as follows:

- Sample Preparation:
 - Crushing to 70% <2 mm.
 - Riffle splitting and pulverization to 85% <75 mesh.
 - Preparation of 30 g pulp samples.

- Analytical Procedures:
 - Gold: 983 fire assay (FA)-atomic absorption spectrophotometer (AAS) in 30 g samples.
 - Silver: AAS-BKGD HNO₃-aqua regia digest.
 - Copper: AAS HNO₃-aqua regia digest.
 - Lead: AAS-BKGD HNO₃-aqua regia digest.
 - Zinc: AAS HNO₃-aqua regia.
 - Re-assay over limits of Ag >100 ppm, Cu, Pb and Zn >10,000 ppm.

- Analyses:
 - Gold analyses were completed by FA-AAS on 30 g samples.
 - Aqua regia digestion (ARD) followed by inductively coupled plasma (ICP) analyses were completed to determine the quantities of the secondary metals (copper and silver).
 - Copies of the assay results were stored at the Project site in each drill-hole file while the original assay certificates (paper and PDF formats) were kept at Noranda's Hermosillo office.

During the period of this analysis work, the ALS laboratories were not certified by ISO 9001. ALS Chemex was not certified until 2015.

It is the author's opinion that Noranda's sampling programs were conducted to industry standards applicable at the time the work was conducted.

11.1.4 Quality Assurance and Quality Control

Detailed descriptions of Noranda's quality assurance and quality control (QA/QC) program are not available, and therefore could not be provided to the author. Nevertheless, the QA/QC program that ALS Chemex used in 1998 remains very similar to the one that is in place today.

At the time of the Noranda work, ALS Chemex, as part of its routine analysis work, incorporated reference materials or standards for assay control purposes. All data generated from these standards were used to ensure that the analytical processes were in control. Statistically 99.7% of all the data generated for an individual element in a particular standard must fall within the "3-sigma" limits—3 standard deviations—if the analytical process is in control. ALS Chemex labs ensured that the results from the standards fell within a 2-sigma limit of the normal distribution, or to a higher standard.

From the records that are available, ALS Chemex analytical procedures comprised the following:

- A duplicate was added every 15th to 20th sample.
- The use of three Au standards (low, high, and an ALS Chemex CRM) per batch.
- One to three analytical blanks for Au, Ag, Cu, Pb, and Zn per batch.

The author believes that Noranda's QA/QC programs conducted at the time of testing were carried out to industry standards.

11.2 Minera Mexico Pacific Drill Programs (2017–2018)

11.2.1 Method

The geologist collected samples from RC drilling at the drill site. Rock chips from the drill interval were collected by a riffle splitter if dry and by a rotary hummed splitter if wet. Two bags were collected for every 1.52 m (5 feet), one for the lab and the second as a witness sample. When drilling dry, the secondary splitter was air cleaned between every sample run. During wet drilling (just a few holes hit water), the sample technicians cleaned the secondary splitter with water. To avoid any potential contamination problem, the drillers were instructed to diligently perform a thorough air/water wash of the rods and the rotary splitter at the end of each run.

Plastic samples bags with sample numbers written on the bag were prepared ahead of drilling to avoid numbering errors. Duplicate samples, when required, were collected at the drill site. When drilling dry, the collected samples were immediately sealed using a plastic tie-wrap to avoid losses and to prevent tampering during transport.

The witness samples that were used for logging were collected every 1.52 m of drill run and were stored in specially made RC chip trays labelled with the interval (From–To) and the corresponding sample numbers for each run. The drill-hole and chip-tray numbers were written on the top of each box. Each chip-tray box was collected and brought to the exploration office daily for geological logging.

A geologist supervised sampling, although the drilling crew and Minera Mexico Pacific technicians were jointly responsible for ensuring proper QA/QC procedures were followed at the drill site.

Standard and blank samples were inserted in the sampling stream before shipping. No recovery measurements were calculated for the RC samples, but they can be calculated by the sample weights recorded at the ALS Chemex preparation lab in Zacatecas.

11.2.2 Sample Security

Established sample security procedures began at the drill and can be summarized as follows:

- Two plastic bags were labelled with the same sample number; one was used to send a sample to the lab, and the other was used to store the witness sample (stored at the camp).
- The two bags were filled directly from the RC cyclone, which split the sample in half (50%) for each bag. The bags were filled under a geologist's supervision.
- The chip tray was filled with one small sample from the witness bag at the drill, and was logged at the camp.
- When a hole was finished, the entire sample set was sent from the drill site to the camp.
- A chain-of-custody document was filled out and signed by the geologist, and the samples were tracked back to the camp.
- All samples were delivered to the storage facility in Melchor Ocampo, Zacatecas. A chain-of-custody document was used for shipping purposes, and reviewed and signed upon delivery.
- The chips trays were logged geologically and photographed.
- A geologist inserted blanks and standards as part of the sample-checking process.
- The geologists followed an established protocol to decide on the sample to be split for shipment to the laboratory. To split the sample the geologist used a riffle splitter to make a representative sample.
- Larger bags were used to bundle together groups of samples and were labelled appropriately.
- Shipment log sheets were generated to track each larger bag.
- The geologist signed the chain-of-custody document with a respected courier.
- When the courier arrived at the ALS Chemex lab in Zacatecas, the lab signed the chain-of-custody document.
- All samples tested were sent to the ALS Chemex laboratory in Zacatecas, Mexico.

11.2.3 Sample Preparation and Analysis

The 2017/2018 drill program was typically sampled at intervals of 1.52 m (5 feet). All samples were sent to ALS Chemex Zacatecas for preparation by crushing (70% <2 mm), splitting (by riffle splitter), and pulverization (85% <75 mesh). Samples were then shipped to ALS in Vancouver, British Columbia, for analysis. Gold was analyzed using 30 g FA with AA measurement. Further analysis was also completed using ARD, followed by 35-element ICP analysis, to determine the quantities of the secondary metals, including silver and copper.

Test results were provided in digital format for data merging, while the original certified assay certificates were forwarded with invoices.

The ALS Chemex assaying package used by Minera Mexico Pacific can be summarized as follows:

- Gold: AA23-FA-AAS for results >10 g/t Au; second assay performed using gravimetric finish.
- Silver: AA45-ARD-AAS aqua regia digestion, atomic absorption spectrometry, for results >100 g/t, second assay performed using gravimetric finish.
- All other elements: ICP41-ARD-ICP-Atomic Emission Spectrometry (AES).

During the period of analysis, the ALS laboratory held the ISO 9001 certification (certified in 2015).

It is author's opinion that the 2017/2018 sampling programs were conducted to industry standards that were applicable at the time the work was conducted.

11.2.4 Quality Assurance and Quality Control

Three control samples were inserted in the sampling stream for each drill hole as follows:

- The 21st sample in the batch was a duplicate, taken as half of the 20th sample.
- The 6th sample in the sampling stream was one standard or blank (certified standards prepared in a small paper envelope). This was repeated in the next 6th sample.

The geologist and the technicians were responsible for ensuring proper insertion of the control samples. Two different standards (0.45 g/t and 0.61 g/t) were used during Minera Mexico Pacific's drill programs that corresponded closely to the expected assayed grades (Figure 11-1 to Figure 11-4).

Figure 11-1: Standard Assay Results (0.45 g/t Au)

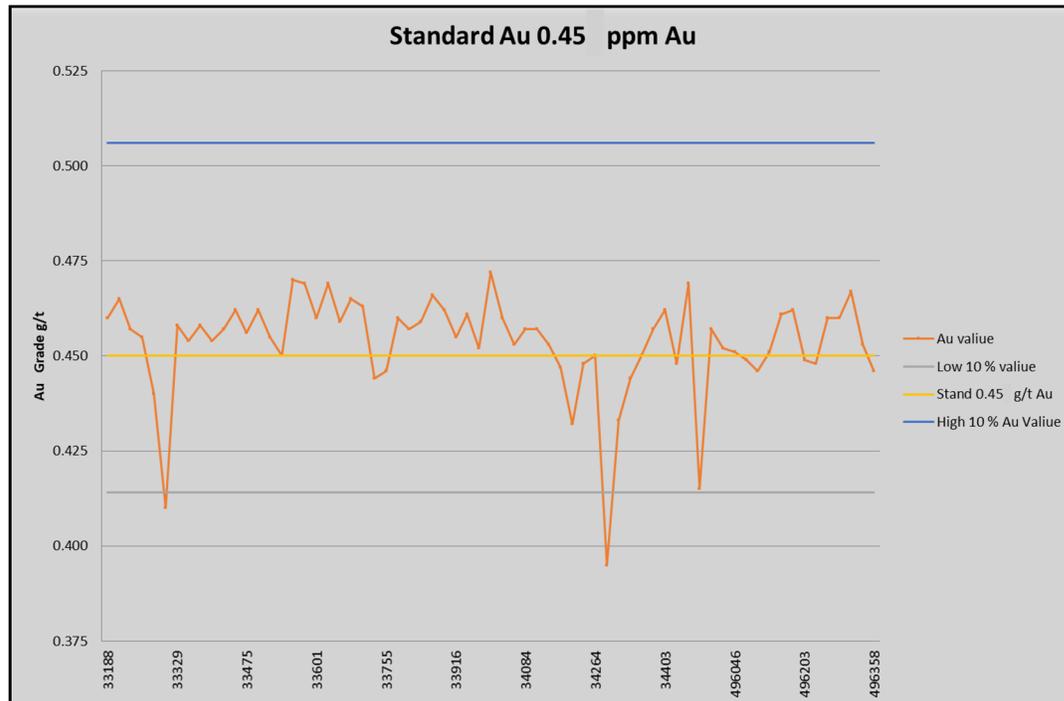


Figure 11-2: Standard Assay Results (0.61 g/t Au)

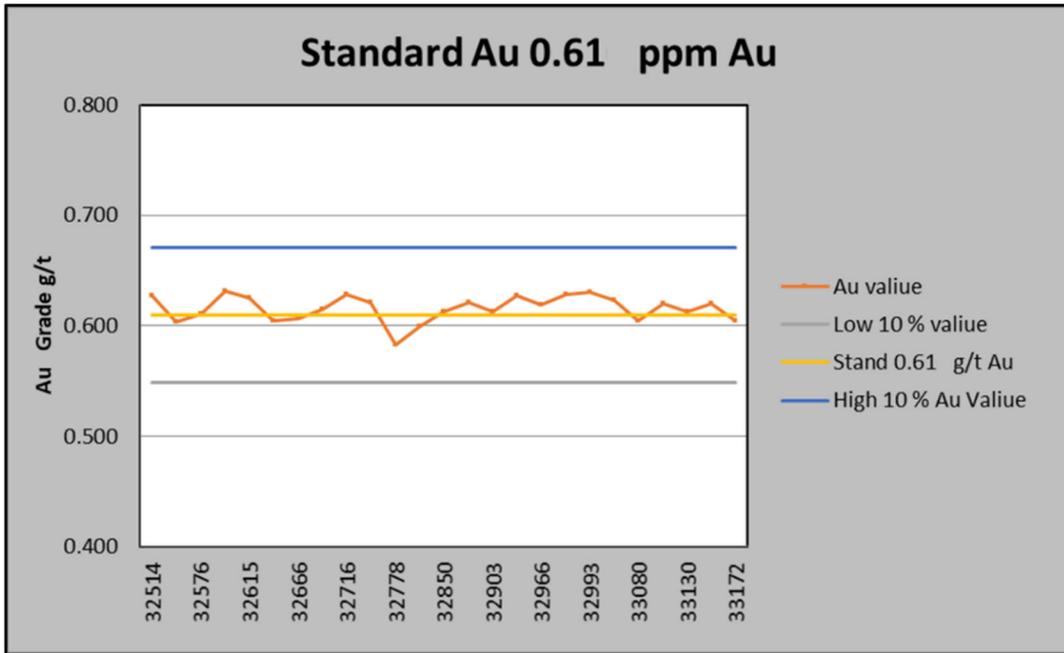


Figure 11-3: Field Blank Samples

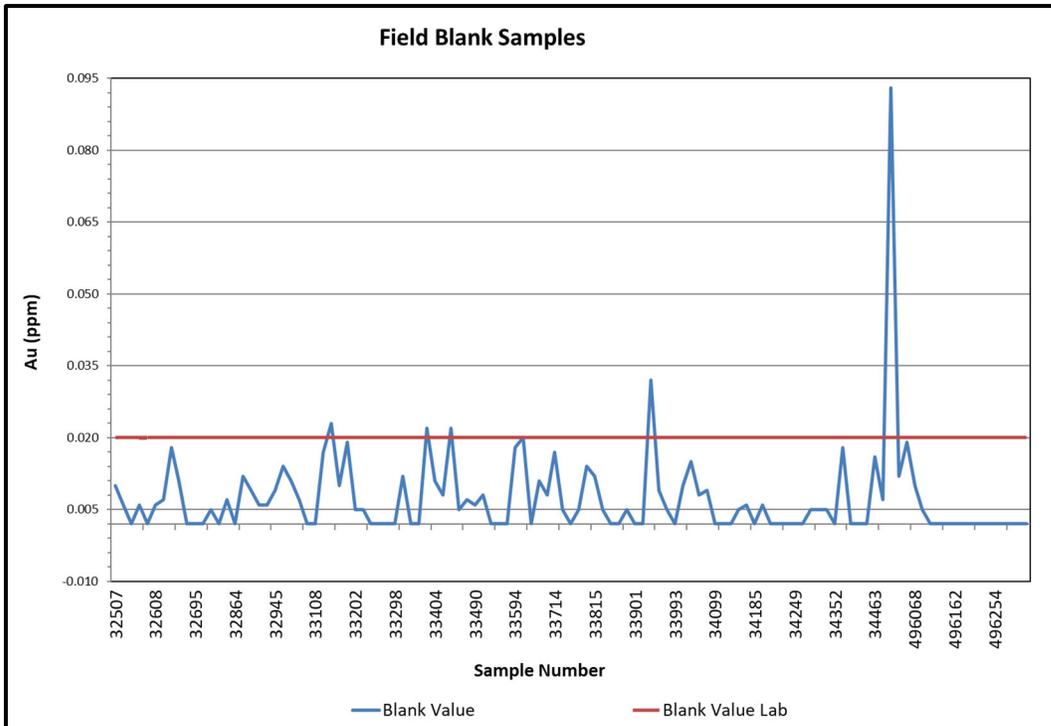
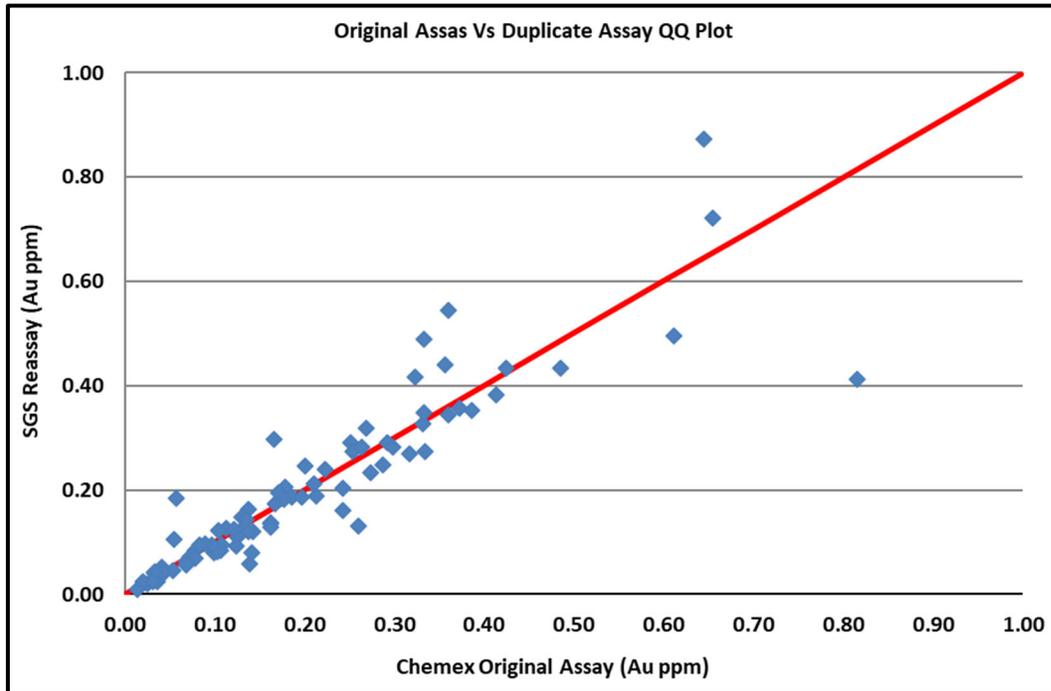


Figure 11-4: Original Gold Assays Vs. Duplicate Assays QQ Plot



The ALS standards and blanks performed within acceptable ranges. The failures from the standards and blanks are not significant. The Pearson coefficient for the duplicated samples was 0.94 for gold (Figure 11-4), which confirms the results were within acceptable ranges on the aggregate. In the author's opinion, these data are therefore reliable for use in the Mineral Resource estimation that has been completed as part of this Technical Report.

11.3 Conclusions

The author finds that, despite small discrepancies, the data discussed in this section are reliable for Mineral Resource estimation and the purposes of this Report. The Minera Mexico Pacific protocols were thorough and fall within the exploration guidelines as laid out by *CIM Mineral Exploration Best Practice Guidelines* (CIM, 2000).

12 DATA VERIFICATION

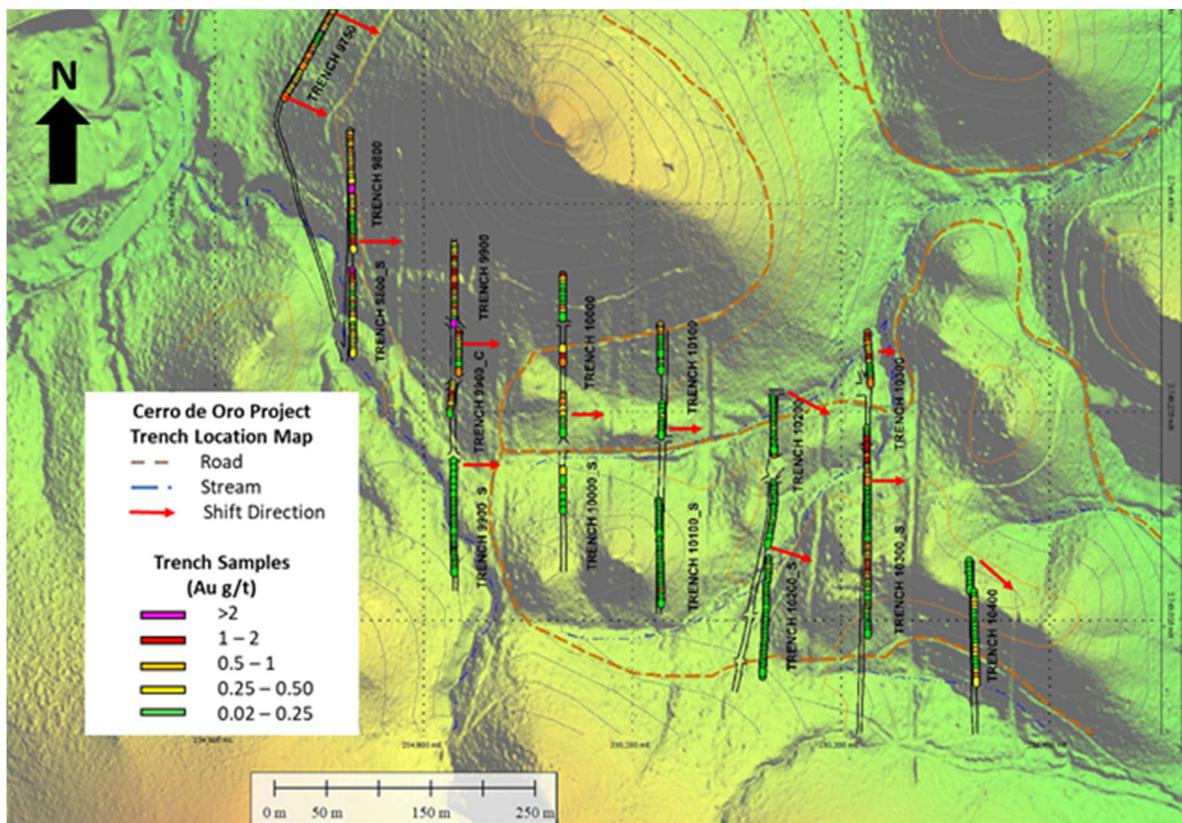
12.1 Noranda Drill Programs Data Verification

12.1.1 Collar Locations

The surveys Noranda completed in the 1990s used a local grid network that was subsequently converted to UTM (NAD 27). However, the conversion Noranda applied was incorrect, and Minera Alamos has amended it based on the location of Noranda's historical trenches and a new topographical data set purchased from PhotoSat (Vancouver). The trenches Noranda excavated can be identified both in the field and in the purchased topographical data set.

As part of the review process, the trench and drill-hole locations were converted to UTM NAD 27 coordinates using a relatively simple three-point rectification to match obvious trench locations visible on both the PhotoSat survey and the old trench/drill plan maps that used Noranda's local coordinate system. Figure 12-1 shows the location of the uncorrected trench locations versus the location of the trenches in the PhotoSat imagery; the red arrows show the direction of the shift that was applied to correct the Noranda trench and drill hole locations.

Figure 12-1: Noranda Trench Location Corrections



The overall translation was an adjustment of 40 m to 60 m in the east–west direction and –5 m to 25 m in the north–south direction. Following the translation, the drill holes that are located along trench lines were spot checked to confirm the location was in agreement with the location in the old plots/images in Noranda’s local grid. This check showed all trenches and drill holes to be reasonably well positioned.

At the end of the correction process the drill holes and trench locations from the historical Noranda work appeared to be correctly located, with an overall accuracy of ± 5 m to 10 m in the horizontal direction. Following this adjustment, the Noranda collars were moved vertically to match topography. Minera Mexico Pacific drill-hole collars that were surveyed using high-precision Global Positioning System (GPS) were used as ground control-points to correct the elevations in the topographical surface provided by PhotoSat.

12.1.2 Quality Assurance/Quality Control

The analytical data from the corrected drill-hole collars (see Section 12.1.1) that included survey and assay data were evaluated for anomalies and atypical results. Both visual and geostatistical comparisons of the data were performed to verify the results and to identify any data that appeared erroneous. Any points that were outliers, or questionable, were compared back to the original laboratory assay certificates.

12.2 Data Verification Minera Mexico Pacific Drill Programs (2017, 2018)

12.2.1 Collar Locations

Data verification began with a check of the collar coordinates of a few randomly selected drill holes against the coordinates reported for each hole in the database. The drill-hole collars were surveyed by high-precision GPS during the drill campaigns, and the coordinates have been found to be reliable in the field and in the database.

The author checked a few collars in the field and found them to be well marked by a cement monument that surrounded each drill-hole casing, with the respective hole number engraved. The actual recorded locations of the collars were checked in the field using a handheld GPS unit. The collars checked were found to be reasonably close, as the results were within 5 m to 8 m of the collar coordinates recorded by Minera Mexico Pacific using high-precision GPS at the time of drilling (see Section 12.3).

12.2.2 Electronic Database Verification

The analytical data (collars, surveys, and assays) were evaluated for anomalies and atypical results (visually and geostatistically), and were checked to see if they appeared erroneous against the original laboratory certificates. Table 12-1 provides a summary of the assay verification for both the Noranda and the Minera Mexico Pacific exploration programs.

Table 12-1: Cerro de Oro Summary of Assay Verification

| Program | No. of Drill Holes | No. of Intervals | Metres | Percentage of Program |
|-----------------------------------|--------------------|------------------|---------------|-----------------------|
| Minera Mexico Pacific (2017/2018) | 50 | 2,075 | 4,272 | 100 |
| Noranda (1993/1998) | 49 | 1,579 | 7,400 | 100 |
| Total | 99 | 3,654 | 11,672 | |

The full database was also checked for overlapping assay intervals and abnormally high or unexplained negative values. No errors were found during this review.

12.2.3 Quality Assurance/Quality Control

As part of its QA/QC activities, Minera Mexico Pacific's metallurgical test program re-assayed some of the RC witness samples. The re-assayed results are shown in Table 12-2. Figure 12-2 and Figure 12-3 show duplicate comparisons for gold and copper, respectively. The duplicate assays from ALS Chemex are compare against those received from Société Générale de Surveillance (SGS).

Table 12-2: Summary of Re-Assay Results

| ALS Chemex | | | SGS (Re-Assay) | | |
|----------------|----------------|----------------|----------------|----------------|----------------|
| Drill Hole No. | Au Assay (g/t) | Cu Assay (ppm) | Sample No. | Au Assay (g/t) | Cu Assay (ppm) |
| CR-17-01 | 0.55 | 267 | 32504 | 0.68 | 310 |
| CR-17-02 | 0.29 | 481 | 32570 | 0.28 | 497 |
| CR-17-04 | 0.60 | 370 | 32625 | 0.68 | 424 |
| CR-17-04 | 0.39 | 1,130 | 32650 | 0.41 | 1,140 |
| CR-17-05 | 0.33 | 433 | 32707 | 0.34 | 515 |
| CR-17-05 | 0.46 | 1,195 | 32735 | 0.48 | 1,150 |
| CR-17-06 | 0.18 | 626 | 32779 | 0.19 | 632 |
| CR-17-07 | 0.29 | 292 | 32841 | 0.31 | 296 |
| CR-17-09 | 0.40 | 115 | 32956 | 0.39 | 126 |
| CR-17-10 | 0.54 | 183 | 33008 | 0.36 | 200 |
| CR-17-12 | 0.23 | 279 | 33096 | 0.21 | 279 |
| CR-17-13 | 0.54 | 695 | 33149 | 0.55 | 692 |
| CR-18-16 | 0.19 | 242 | 33281 | 0.14 | 250 |
| CR-18-17 | 0.44 | 381 | 33308 | 0.38 | 330 |
| CR-18-17 | 0.62 | 190 | 33316 | 0.73 | 190 |
| CR-18-18 | 0.16 | 49 | 33347 | 0.17 | 60 |
| CR-18-20 | 0.12 | 129 | 33395 | 0.15 | 10 |
| CR-18-21 | 0.51 | 424 | 33432 | 0.51 | 440 |
| CR-18-21 | 0.63 | 527 | 33462 | 0.59 | 480 |
| CR-18-22 | 0.24 | 617 | 33489 | 0.34 | 57 |

| ALS Chemex | | | SGS (Re-Assay) | | |
|------------|------|-------|----------------|------|-------|
| CR-18-22 | 0.64 | 436 | 33510 | 0.71 | 420 |
| CR-18-23 | 0.45 | 232 | 33572 | 0.44 | 230 |
| CR-18-24 | 0.55 | 519 | 33610 | 0.55 | 550 |
| CR-18-25 | 0.73 | 583 | 33651 | 0.66 | 730 |
| CR-18-25 | 0.30 | 457 | 33667 | 0.33 | 500 |
| CR-18-26 | 0.39 | 1,390 | 33712 | 0.37 | 1,330 |
| CR-18-26 | 0.26 | 322 | 33734 | 0.29 | 340 |
| CR-18-27 | 0.38 | 63 | 33760 | 0.35 | 70 |
| CR-18-28 | 0.61 | 29 | 33787 | 0.61 | 30 |
| CR-18-28 | 0.45 | 43 | 33810 | 0.36 | 40 |
| CR-18-28 | 0.48 | 206 | 33838 | 0.48 | 220 |
| CR-18-29 | 0.23 | 136 | 33878 | 0.18 | 150 |
| CR-18-32 | 0.40 | 913 | 34037 | 0.35 | 880 |
| CR-18-32 | 0.33 | 2,520 | 34056 | 0.29 | 1,870 |
| CR-18-34 | 0.24 | 894 | 34126 | 0.23 | 1,000 |
| CR-18-34 | 0.23 | 3,030 | 34141 | 0.22 | 2,240 |
| CR-18-37 | 0.31 | 371 | 34245 | 0.29 | 400 |
| CR-18-37 | 0.45 | 2,120 | 34261 | 0.65 | 3,070 |
| CR-18-38 | 0.27 | 576 | 34295 | 0.20 | 600 |
| CR-18-38 | 0.60 | 821 | 34310 | 0.59 | 740 |
| CR-18-39 | 0.31 | 1,255 | 34335 | 0.28 | 1,230 |
| CR-18-39 | 0.09 | 438 | 34362 | 0.10 | 560 |
| CR-18-41 | 0.32 | 805 | 34427 | 0.28 | 660 |
| CR-18-41 | 0.34 | 1,655 | 34430 | 0.31 | 1,540 |
| CR-18-42 | 0.44 | 1,080 | 34483 | 0.31 | 920 |
| CR-18-42 | 2.27 | 4,270 | 496003 | 2.62 | 4,820 |
| CR-18-42 | 0.79 | 956 | 496019 | 0.47 | 930 |
| CR-18-43 | 0.89 | 1,209 | 496045 | 0.88 | 1,160 |
| CR-18-43 | 0.64 | 569 | 496056 | 0.39 | 440 |
| CR-18-44 | 0.37 | 1,450 | 496082 | 0.35 | 970 |
| CR-18-45 | 0.16 | 380 | 496141 | 0.16 | 350 |
| CR-18-48 | 0.31 | 484 | 496259 | 0.21 | 450 |
| CR-18-50 | 0.28 | 1,105 | 496309 | 0.19 | 1,080 |
| CR-18-50 | 0.22 | 719 | 496317 | 0.20 | 740 |
| CR-18-50 | 0.29 | 776 | 496330 | 0.23 | 800 |
| CR-18-50 | 0.48 | 3,170 | 496352 | 0.44 | 3,110 |

Figure 12-2: Gold Q-Q Plot of ALS Chemex Assay vs. SGS Duplicate Assays

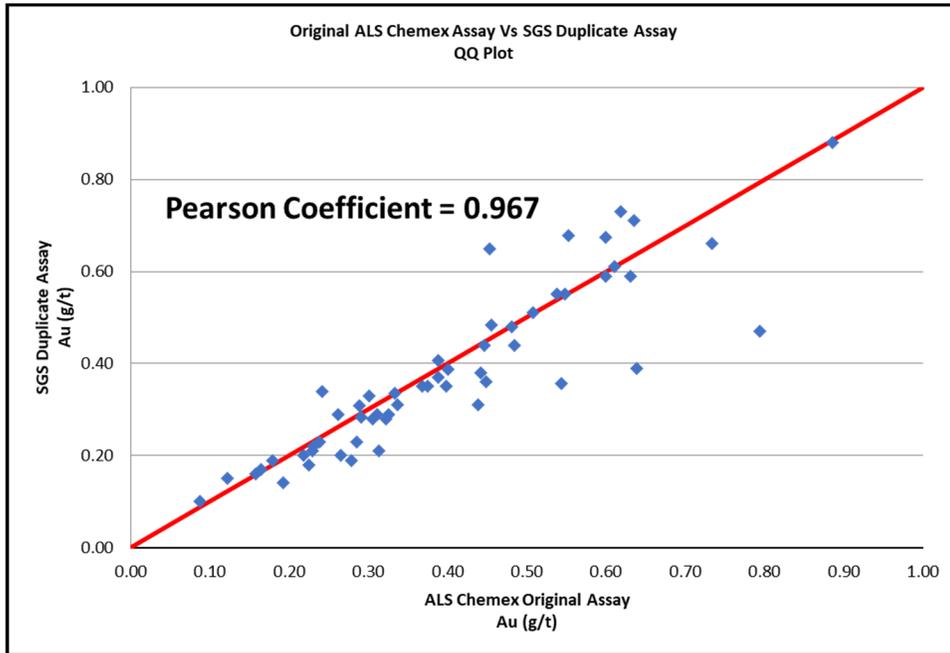
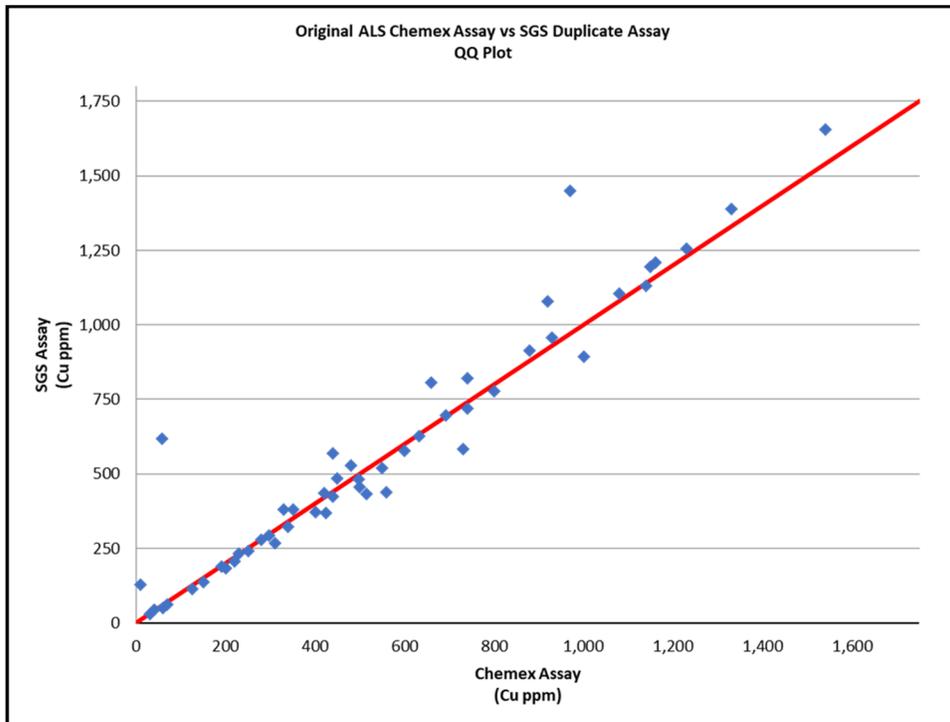


Figure 12-3: Copper Q-Q Plot ALS Chemex Assay vs. SGS Duplicate Assays



The author has reviewed the protocols and results of the Minera Mexico Pacific QA/QC program. Based on that review, it is evident that the QA/QC program was designed and completed to acceptable industry standard practices and that the results demonstrate the assays are reproducible and suitable for the estimation of Mineral Resources. The number of outliers in Figure 12-2's Q-Q plot for gold are not significant, which shows that the duplicated sample assays are close to the original assay results, having a Pearson coefficient of 0.97.

12.2.4 Reference Drilled Holes

During the Minera Mexico Pacific drilling programs three RC holes were drilled close to three Noranda RC holes. Minera Alamos has treated these as reference holes; they are compared in Table 12-3 through Table 12-5. The author notes that these holes are not twin holes by definition, because of differences in dip, the distance between the reference holes and the Noranda holes, and the total depth drilled.

Table 12-3 shows the location of the Noranda holes, and includes the hole depth, dip, and azimuth. Table 12-4 provides the location, depth, dip, and azimuth of the Minera Mexico Pacific reference holes and provides a variance in the hole locations relative to the corrected Noranda hole locations. For clarity, the comparison in Table 12-4 has been done in sequential order; for example, Noranda hole number CO-94-19 should be compared to Minera Mexico Pacific hole number CR-17-01, and so forth.

Table 12-3: Noranda RC Drill Holes

| Noranda | Easting (m) | Northing (m) | Elevation (m) | Depth (m) | Dip (°) | Azimuth (°) |
|----------|-------------|--------------|---------------|-----------|---------|-------------|
| CO-94-19 | 235296 | 2750027 | 1,948 | 70 | -45 | 0 |
| CO-94-24 | 234775 | 2749366 | 2,005 | 70 | -45 | 0 |
| CO-94-32 | 234979 | 2749311 | 2,032 | 102 | -45 | 0 |

Table 12-4: Minera Mexico Pacific RC Drill Holes

| Minera Mexico Pacific | Easting (m) | Northing (m) | Elevation (m) | Depth (m) | Dip (°) | Azimuth (°) | Variance (E, N) | |
|-----------------------|-------------|--------------|---------------|-----------|---------|-------------|-----------------|-------|
| CR-17-01 | 235290 | 2750029 | 1,947 | 54 | -70 | 0 | 6.2 | (1.2) |
| CR-18-41 | 234783 | 2749370 | 2,008 | 114 | -70 | 0 | (7.8) | (4.1) |
| CR-18-43 | 234981 | 2749314 | 2,032 | 78 | -70 | 0 | (2.3) | (2.5) |

Based on the hole coordinates and the variances shown in Table 12-4, the reference holes lie within 2 m to 8 m of the Noranda holes. The Minera Mexico Pacific holes were drilled at an angle of 70°, whereas the Noranda holes were drilled using an angle of 45°.

Within the three reference holes, 203 m of mineralized intercepts were compared to the corresponding intercepts of the original Noranda holes. Based on this comparison, there is a reasonably close comparison between the cumulative grade thicknesses of the reference holes (Table 12-5).

Table 12-5: Minera Mexico Pacific RC Drill Holes

| Drill Hole ID | Minera Mexico Pacific Reference Holes | | | | Drill Hole ID | Original Holes Noranda | | | | Variance | |
|---------------|---------------------------------------|------|-------------------|--------|---------------|------------------------|------|-------------------|--------|-------------------|--------|
| | Interval (m) | | Sample Length (m) | Au ppm | | Interval (m) | | Sample Length (m) | Au ppm | Sample Length (m) | Au ppm |
| | From | To | | | | From | To | | | | |
| CR-17-01 | 0 | 48.0 | 48.0 | 0.70 | CO-94-19 | 0 | 48.8 | 48.8 | 0.58 | (2%) | 23% |
| CR-18-41 | 0 | 64.0 | 64.0 | 0.29 | CO-94-24 | 0 | 70.1 | 70.1 | 0.34 | (9%) | (17%) |
| CR-18-43 | 0 | 48.0 | 48.0 | 0.45 | CO-94-32 | 0 | 30.5 | 30.5 | 0.45 | 57% | - |

12.3 Site Visit

Mr. Lawrence Segerstrom, C.P.G. (M.Sc. Geology) visited the Project site from October 20 to 22, 2020. Mr. Segerstrom was accompanied during his site visit by Minera Alamos employees Miguel Cardona (Vice President Exploration), Chris Sharpe, P.Eng. (Vice President Project Development), and Darren Koning, P.Eng. (Chief Executive Officer). Messrs. Sharpe and Koning are non-independent QPs.

The site visit included visual inspections of some of the Noranda trenches and a series of drill-hole collars from the Minera Mexico Pacific RC drill programs that were conducted in 2017 and 2018. During the site visit the locations of three Minera Mexico Pacific RC drill holes were inspected using a Garmin handheld GPS unit or Global Mapper Mobile Pro App. Table 12-6 shows the locations measured during the site visit versus the locations in the drill-hole database that are based on high precision GPS. Based on this comparison, the locations of the selected holes compare well given the accuracy of the handheld units used during the site visit.

Table 12-6: Minera Mexico Pacific RC Drill-Hole Validation

| Drill Hole Number/ Survey Device | Site Visit Measurement (Easting, Northing, Elevation [m]) | Drill-Hole Database (Easting, Northing, Elevation [m]) |
|-------------------------------------|--|---|
| CR18-29 (Hand-Held GPS) | 235116, 2749695, 1,957 | 235108, 2749695, 1,969 |
| CR18-24 (Global Mapper) | 234946, 2749937, 1,948 | 234944, 2749934, 1,960 |
| CR18-40 (Global Mapper) | 234743, 2749385, 1,985 | 234738, 2749382, 1,993 |

Figure 12-4 shows a photograph of one of the drill-hole collars that was checked in the field.

Figure 12-4: Minera Mexico Pacific RC Drill Collar (CR18-24)



12.4 Conclusion

In the QP's opinion, the various steps taken by Minera Alamos and Minera Mexico Pacific to ensure the integrity of analytical data are consistent with standard industry practice. The sampling procedures are appropriate for the style of mineralization and structural controls for the Cerro de Oro Project, and are adequate for the estimation of Mineral Resources.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

The majority of metallurgical studies completed to date on samples from the Cerro de Oro Project were performed from 2016 to 2019, when the Project was under option to a private group. The work consisted of a series of bottle roll tests followed later by some limited column leach testwork. The results of all the available testwork programs have been reviewed, including a single recent test completed in 2020; these are discussed in more detail in this section.

13.2 Historical Testwork

To the QP's knowledge, no material testwork was completed on the Cerro de Oro property prior to the 2016 program.

13.3 Testwork Program (2016)

Summary information was available from a series of preliminary bottle roll leach tests that were completed in 2016 on samples of coarse mineralized material. Data related to the testwork program are extremely limited and include the following:

- Eight standard bottle roll tests with an ultimate leach time of 72 hours (h).
- Samples were leached at sizes of -1".
- Results from the testwork indicated average recoveries of 63% in 3 h and 83% over 72 h.

The samples taken as part of this program were from undisclosed locations, and for this reason no gold head grades were available for review. Given the state of the Project development at the time of the testwork it appears likely that the samples were taken from existing trenches that are exposed on the Cerro de Oro site.

Due to the extremely limited information available regarding this early program the results are included for basic reference purposes only and should not be relied upon.

13.4 Bottle Roll Test Program (2018 and 2019)

Three bottle roll test campaigns were completed at SGS Durango using chip samples from the RC drilling exploration completed on the Project. The first two programs (March/July 2018) consisted of 32 samples taken from the North zone of mineralization at the Project. The final program (January 2019) was performed using 16 samples from the South zone of mineralization. The samples were primarily oxide material, with a few containing mixed (sulphide/oxide) material. Samples were taken to cover both of the major mineralized lithological units—endoskarns and hornfels. The overall summary of the samples used for testing is summarized in Table 13-1. With the exception of a wider variation in gold assays seen with the larger number of oxide samples, the overall average gold content in the oxide and mixed samples was quite similar.

Table 13-1: 2018 and 2019 Test Campaign Sample Summary

| | Oxide | Mixed |
|-------------------|--------------|--------------|
| Number of Samples | 56 | 7 |
| Average (g/t Au) | 0.42 | 0.41 |
| Min. (g/t Au) | 0.10 | 0.16 |
| Max. (g/t Au) | 2.62 | 0.65 |

The basic testwork program for each campaign was similar, and consisted of the following stages:

- The selection of a subsample suitable for head analysis (Au, Cu)
- Size and gold/copper distribution analysis prior to leaching
- Leaching in 4 L bottle rolls for 96 h with intermittent solution samples removed for the evaluation of leach kinetics (750 ppm NaCN/pH 10.5–11).

13.4.1 2018 Bottle Roll Test Program (SGS Durango, March 2018)

Standard bottle roll tests were completed on 12 samples consisting of RC drill chips that were collected as part of a 2018 drill program. Results from this phase of testwork are summarized as follows:

- Gold content in the samples ranged from 0.2 g/t to 0.7 g/t Au, and from 200 ppm to 1,000 ppm Cu.
- Leach sample F₈₀ (80% passing) size of approximately 2 mm (ranging from 1.4 mm–2.7 mm).
- Gold content appears to be relatively evenly disseminated, with no obvious concentration correlation to size fractions in the samples.
- Typical gold recoveries in the range of 85% to 95%, with less than 10% copper leached.
- Rapid leach kinetics with majority of recovery in less than 24 h.
- Gold content in leach residues typically less than 0.1 g/t (the majority of the residues ranges from 0.02 g/t Au to 0.05 g/t Au).

Results from this phase of testwork are shown in Table 13-2 and Figure 13-1 and Figure 13-2.

Table 13-2: Leach Sample Head Grades (SGS—March 2018)

| Sample Number | Sample ID | Assay (g/t Au) | Assay (g/t Cu) |
|---------------|-----------|----------------|----------------|
| 1 | 32504 | 0.678 | 310 |
| 2 | 32570 | 0.283 | 497 |
| 3 | 32625 | 0.675 | 424 |
| 4 | 32650 | 0.407 | 1140 |
| 5 | 32707 | 0.336 | 515 |
| 6 | 32735 | 0.484 | 1150 |
| 7 | 32779 | 0.189 | 632 |
| 8 | 32841 | 0.309 | 296 |
| 9 | 32956 | 0.388 | 126 |
| 10 | 33008 | 0.356 | 200 |
| 11 | 33096 | 0.210 | 279 |
| 12 | 33149 | 0.550 | 692 |

Figure 13-1: Gold Leaching Kinetics, Sample Numbers 1 to 6 (SGS—March 2018)

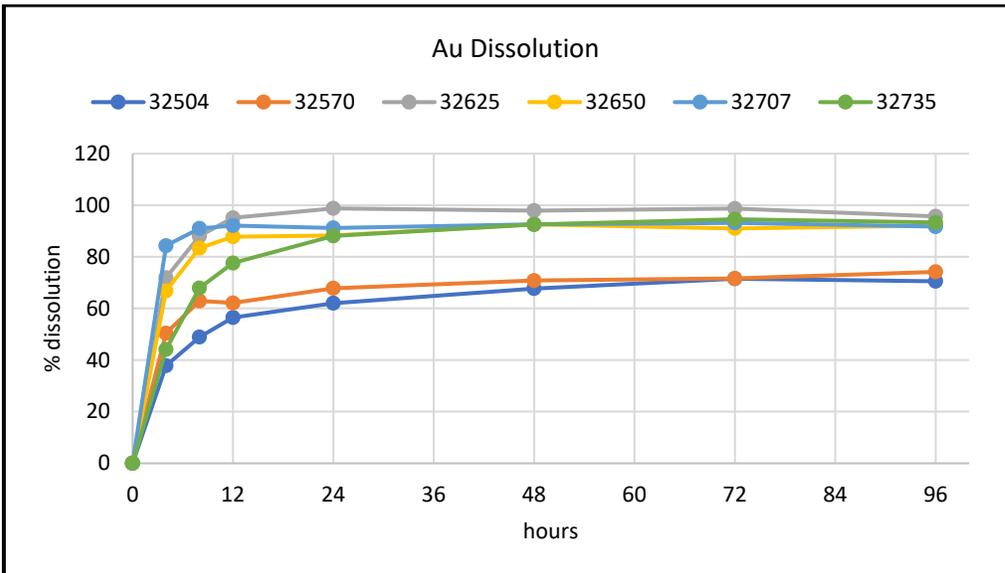
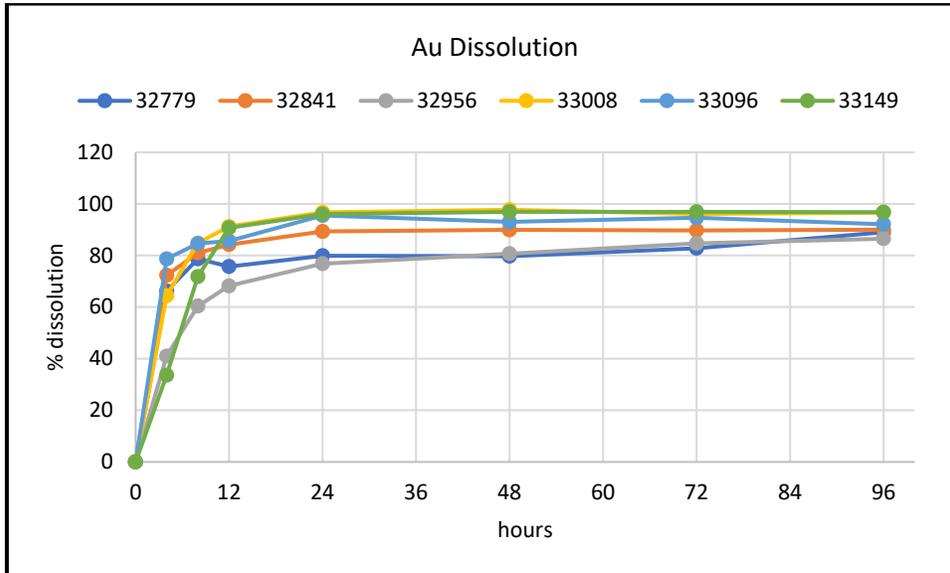


Figure 13-2: Gold Leaching Kinetics, Sample Numbers 7 to 12 (SGS—March 2018)



13.4.2 2018 Bottle Roll Test Program (SGS Durango, July 2018)

Standard bottle roll tests were completed on 20 samples consisting of RC drill chips that were collected as part of the 2018 drill program. Results from this phase of testwork can be summarized as follows:

- Gold content in the samples ranging from 0.2 g/t Au to 0.7 g/t Au, and copper content from as low as 10 ppm to 700 ppm (one sample at 1,300 ppm).
- Leach sample F_{80} approximately 2 mm.
- Gold content appears to be relatively evenly disseminated, with no obvious concentration correlation to size fractions in the samples.
- Typical gold recoveries are in the range of 80% to 90%, with less than 10% Cu leached.
- Gold content in leach residues is typically less than 0.1 g/t (the majority of the residues range from 0.02 g/t Au–0.08 g/t Au).
- Rapid leach kinetics with the majority of recovery in less than 24 h.

Table 13-3 and Figure 13-3 to Figure 13-7 show the results of this test program.

Table 13-3: Leach Sample Head Grades (SGS—July 2018)

| Sample Number | Sample ID | Au (g/t) | Cu (%) |
|---------------|-----------|----------|--------|
| 1 | 33281 | 0.14 | 0.03 |
| 2 | 33308 | 0.38 | 0.03 |
| 3 | 33316 | 0.73 | 0.02 |
| 4 | 33347 | 0.17 | 0.01 |
| 5 | 33395 | 0.15 | 0.00 |
| 6 | 33432 | 0.51 | 0.04 |
| 7 | 33462 | 0.59 | 0.05 |
| 8 | 33489 | 0.34 | 0.06 |
| 9 | 33510 | 0.71 | 0.04 |
| 10 | 33572 | 0.44 | 0.02 |
| 11 | 33610 | 0.55 | 0.06 |
| 12 | 33651 | 0.66 | 0.07 |
| 13 | 33667 | 0.33 | 0.05 |
| 14 | 33712 | 0.37 | 0.13 |
| 15 | 33734 | 0.29 | 0.03 |
| 16 | 33760 | 0.35 | 0.01 |
| 17 | 33787 | 0.61 | 0.00 |
| 18 | 33810 | 0.36 | 0.00 |
| 19 | 33838 | 0.48 | 0.02 |
| 20 | 33878 | 0.18 | 0.02 |

Figure 13-3: Gold Leaching Kinetics, Sample Numbers 1 to 5 (SGS—July 2018)

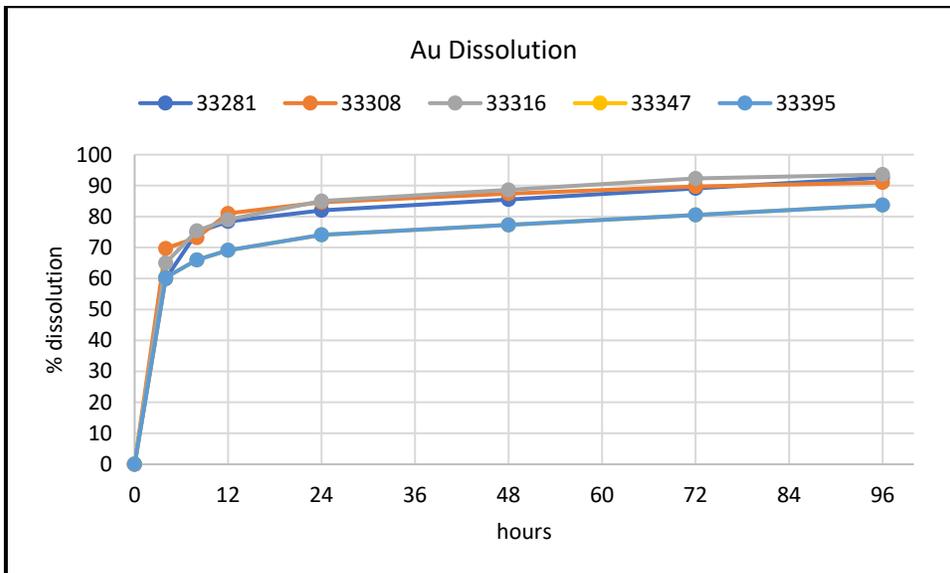


Figure 13-4: Gold Leaching Kinetics, Sample Numbers 6 to 10 (SGS—July 2018)

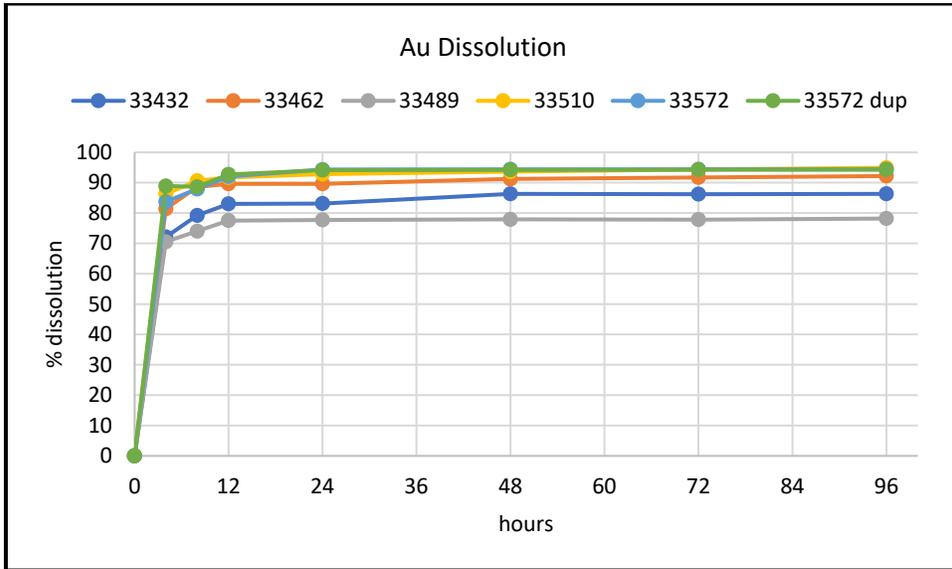


Figure 13-5: Gold Leaching Kinetics, Sample Numbers 11 to 16 (SGS—July 2018)

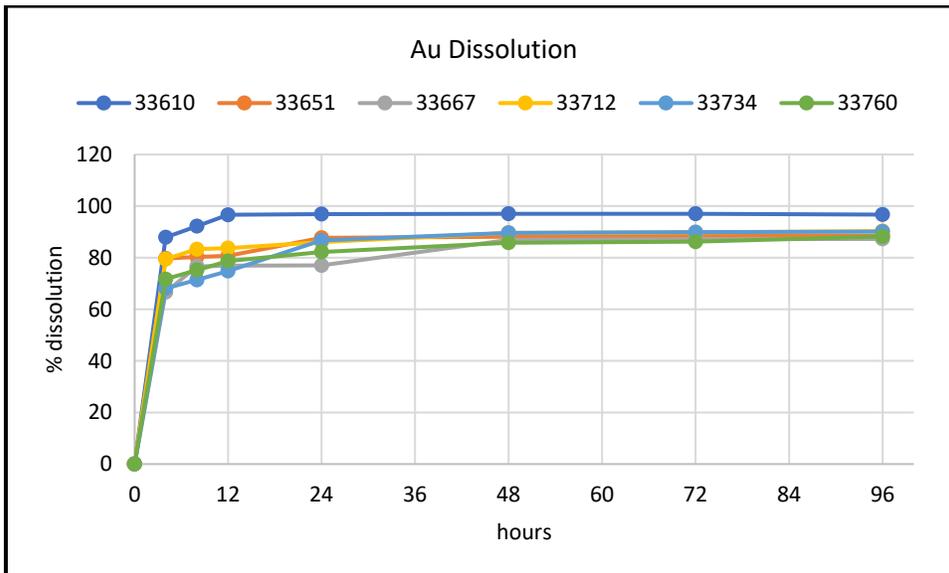


Figure 13-6: Gold Leaching Kinetics, Sample Numbers 17 to 20 (SGS—July 2018)

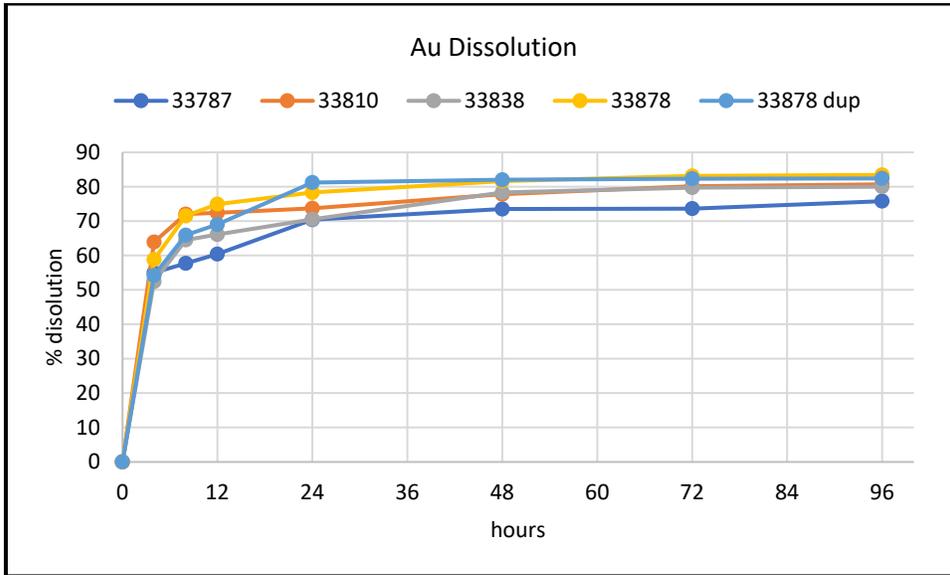
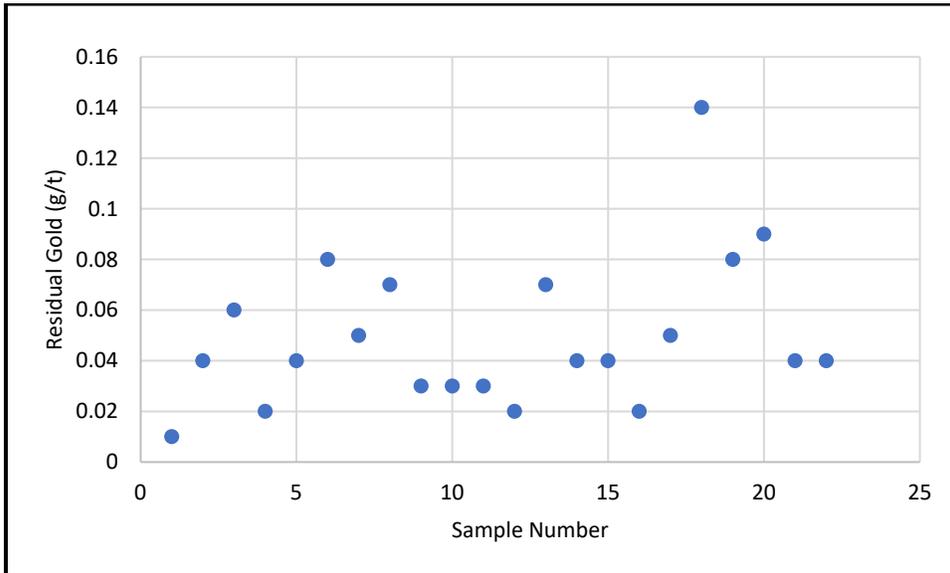


Figure 13-7: Gold Content in Leach Test Residues (SGS—July 2018)



13.4.3 2019 Bottle Roll Test Program (SGS Durango, January 2019)

Standard bottle roll tests were completed on 24 samples consisting of RC drill chips that were collected as part of the 2018 drilling campaign. Results from this phase of testwork can be summarized as follows and are illustrated in Table 13-4 and Figure 13-8 to Figure 13-12:

- Gold content in the samples ranged from 0.2 g/t Au to 0.9 g/t Au (one sample at 2.6 g/t Au). Copper contents in the samples used for this program were generally higher than in previous studies and ranged up to 3,000 ppm.
- Leach sample F₈₀ of approximately 2 mm.
- Gold content appears to be relatively evenly disseminated, with no obvious concentration correlation to size fractions in the samples.
- Typical gold recoveries in the range of 70% to 85%, although more variation is present than in previous campaigns.
- Copper dissolution typically in the range of 3% to 20%, although some values up to 40% to 60% were present.
- Gold content in leach residues typically averaging around 0.10 g/t or lower (few values up to 0.20 g/t or higher).
- Although some samples exhibited rapid leach kinetics (<24 h), many samples displayed slower dissolution than with previous campaigns. Possible explanations include less porous host rock for the mineralization and/or free cyanide deficiency due to the presence of significant soluble copper in some of the samples (interferes with free cyanide determination in the lab).

Table 13-4: Leach Sample Head Grades (SGS—January 2019)

| Sample Number | Sample ID | Au (g/t) | Cu (%) |
|---------------|-----------|----------|--------|
| 1 | 34037 | 0.35 | 0.09 |
| 2 | 34056 | 0.29 | 0.19 |
| 3 | 34126 | 0.23 | 0.10 |
| 4 | 34141 | 0.22 | 0.22 |
| 5 | 34245 | 0.29 | 0.04 |
| 6 | 34261 | 0.65 | 0.31 |
| 7 | 34295 | 0.20 | 0.06 |
| 8 | 34310 | 0.59 | 0.07 |
| 9 | 34335 | 0.28 | 0.12 |
| 10 | 34362 | 0.10 | 0.05 |
| 11 | 34427 | 0.28 | 0.07 |
| 12 | 34430 | 0.31 | 0.15 |
| 13 | 34483 | 0.31 | 0.09 |
| 14 | 496003 | 2.62 | 0.48 |
| 15 | 496019 | 0.47 | 0.09 |
| 16 | 496045 | 0.88 | 0.12 |
| 17 | 496056 | 0.39 | 0.04 |
| 18 | 496082 | 0.35 | 0.10 |

| Sample Number | Sample ID | Au (g/t) | Cu (%) |
|---------------|-----------|----------|--------|
| 19 | 496141 | 0.16 | 0.04 |
| 20 | 496259 | 0.21 | 0.05 |
| 21 | 496309 | 0.19 | 0.11 |
| 22 | 496317 | 0.20 | 0.07 |
| 23 | 496330 | 0.23 | 0.08 |
| 24 | 496352 | 0.44 | 0.31 |

Figure 13-8: Gold Leaching Kinetics, Samples 1 to 6 (SGS—January 2019)

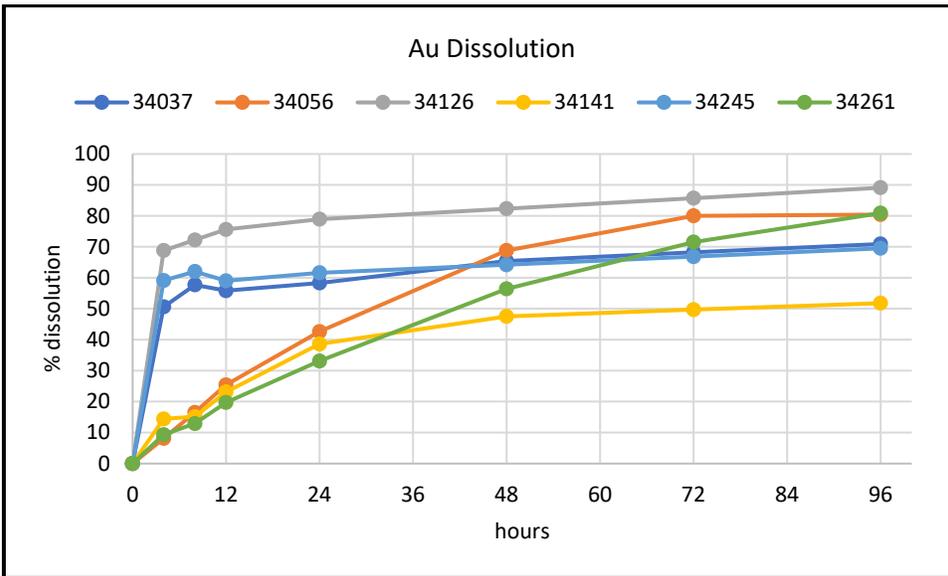


Figure 13-9: Gold Leaching Kinetics, Samples 7 to 12 (SGS—January 2019)

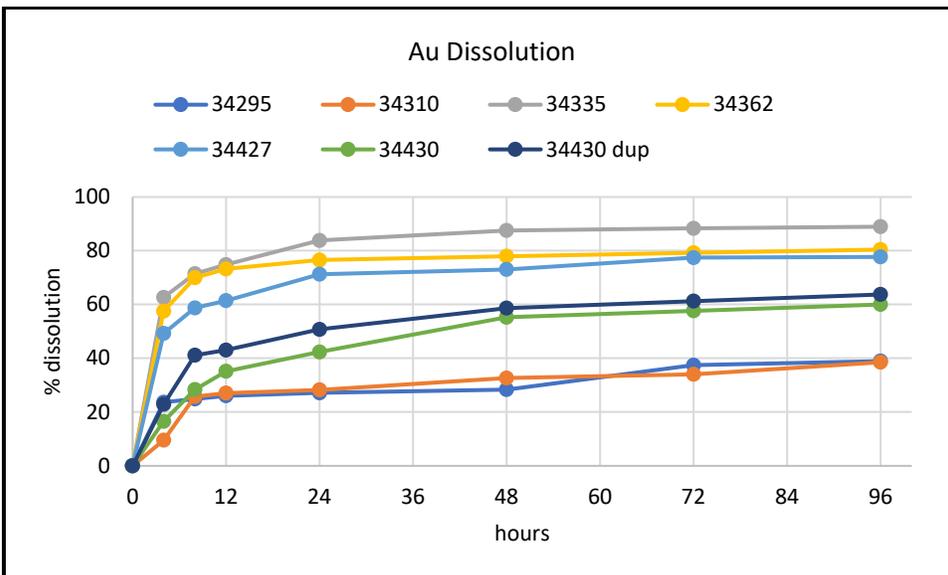


Figure 13-10: Gold Leaching Kinetics, Samples 13 to 18 (SGS—January 2019)

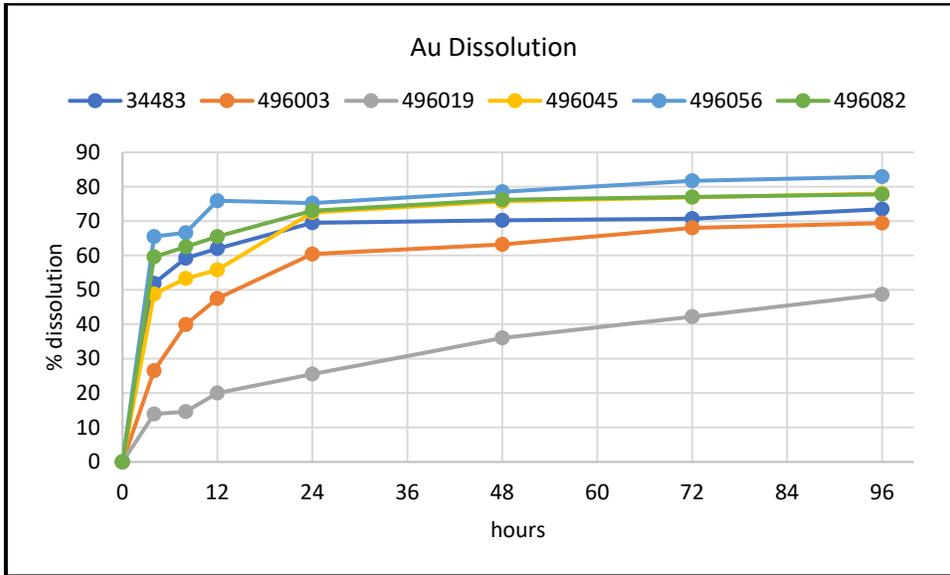


Figure 13-11: Gold Leaching Kinetics, Samples 19 to 24 (SGS—January 2019)

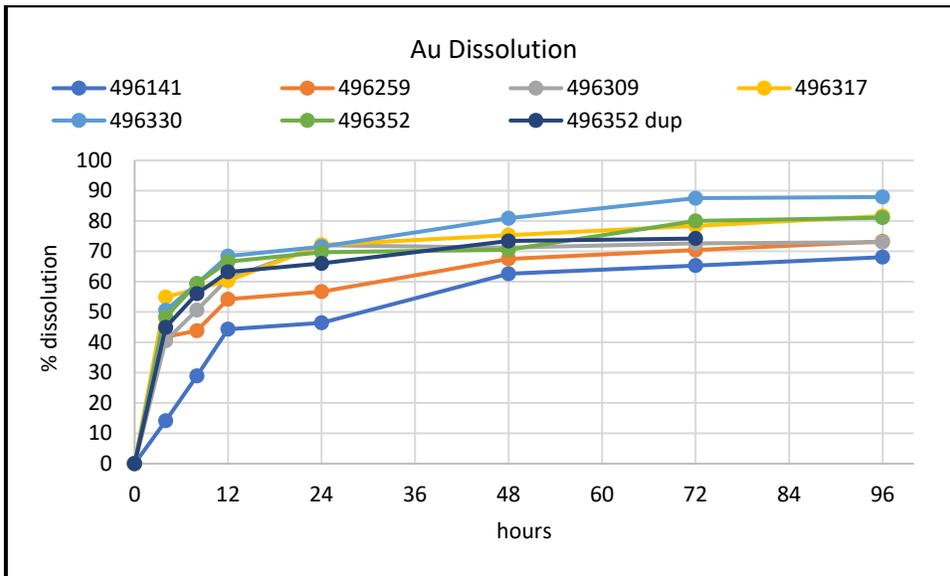
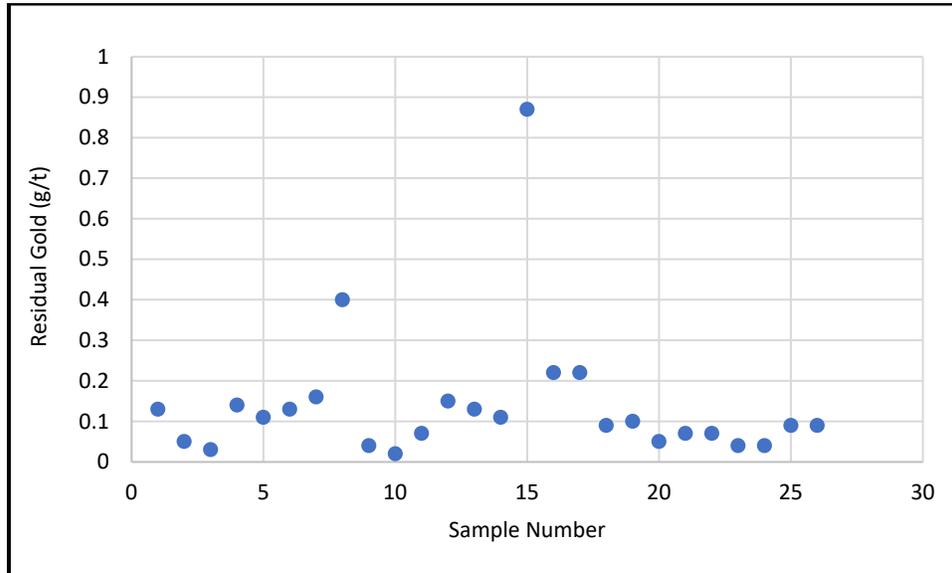


Figure 13-12: Gold Content in Leach Test Residues (SGS—January 2019)



13.5 Column Test Program (SGS Durango, February 2019)

Three 300 kg surface samples were taken from the Cerro de Oro Project for a series of preliminary column tests. The testwork program stages were somewhat unconventional and consisted of the following:

- Screening of sample to remove -10 mesh fines that were rejected (30%–40% of original sample).
- Crush remaining coarse sample material to minus 2" top size.
- Size and gold distribution analysis of crushed test feed material.
- Coarse bottle tests on 10 kg of minus 2" to +1¾" material from each of the samples to examine gold dissolution via bottle roll (500 ppm NaCN/144 h/pH 10.5–11.5) for comparison to column test results.
- Column leach tests on 200 kg of crushed material (-2" to +1¾") for up to 80 days (d) (500 ppm NaCN).
- Size and gold distribution of leach residues.

Due to the fact that the fine material (<10 mesh) in the original samples from the Project were removed prior to the preparation of bottle/column leach samples, it is likely that the leach results are conservative. These fines would typically experience rapid leach kinetics versus the coarser crushed material. A significant fraction of the original samples (30%–40%) was represented by the fine material, and if it had been included in the leaching tests (as with more standard procedures) the ultimate recoveries would be expected to be higher than those achieved in this limited program. The sample head grades and fines content that comprised the 2019 leach samples are shown in Table 13-5.

Table 13-5: Leach Sample Head Grades and Fines Content (SGS—February 2019)

| Sample Number | MMP-1 | | MMP-2 | | MMP-3 | |
|-----------------|----------|----------|----------|----------|----------|----------|
| | Au (g/t) | Cu (ppm) | Au (g/t) | Cu (ppm) | Au (g/t) | Cu (ppm) |
| Assay Head | 0.50 | 387 | 0.35 | 59 | 0.34 | 91 |
| Calculated Head | 0.55 | 401 | 0.29 | 63 | 0.32 | 99 |

Note: Calculated head assays are from coarse bottle roll tests.

The results from the coarse bottle roll phase of testwork can be summarized as follows:

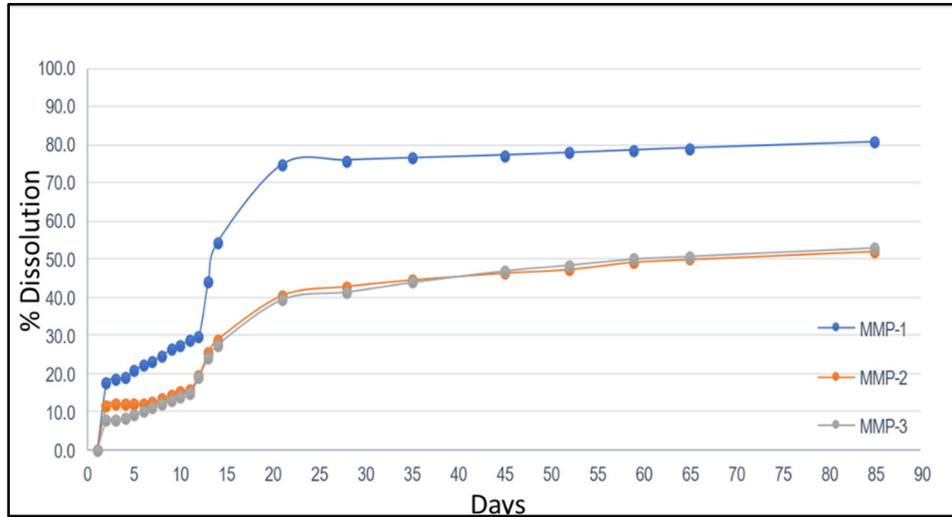
- Gold dissolution of 91% for MMP-1, 57% for MMP-2, and 52% for MMP-3
- Copper dissolution of 2% to 3% for all samples
- Rapid leach kinetics for MMP-1 (majority of recovery in less than 24 h)
- Slower leach kinetics for samples MMP-2 and MMP-3, with gold recovery still increasing at 144 h.

Results from the column leach testwork phase can be summarized as follows:

- Gold dissolution at 80 d of 86%, 67%, and 53% (based on calculated sample head grades) for samples MMP-1, MMP-2, and MMP -3, slowly increasing at the end of the tests.
- Excellent correlation between gold dissolutions in column tests and bottle roll tests.
- Rapid leach kinetics (bulk of gold recovery in 30–45 d).
- Approximately 10% to 15% Cu dissolution.
- Copper dissolved slowly over time (likely controllable by limiting free CN concentration in leach solutions).
- 0.5 kg/t to 0.8 kg/t NaCN consumed (low consumptions for column tests).
- Gold recoveries relatively consistent across range of sizes up to 2", except for one sample where recovery dropped for 1" to 2".
- Gold content in leach residues approximately 0.1 g/t or lower.

Figure 13-13 shows the results of the column leach test kinetics.

Figure 13-13: Column Leach Test Kinetics (SGS—February 2019)



Note: Dissolution calculated using an assayed head grade from grab sample from the column feed material.

13.6 2020 Bottle Roll Leach Test on Sulphide Mineralization (LTM, August 2020)

A single sample of sulphide mineralization was selected and sent to LTM laboratories in Hermosillo, Mexico, for standard bottle roll testwork to examine the potential for gold dissolution in August 2020. The sample consisted of RC chips taken from drill hole CR18-40, located in the South zone of Project area. This testwork program consisted of the following:

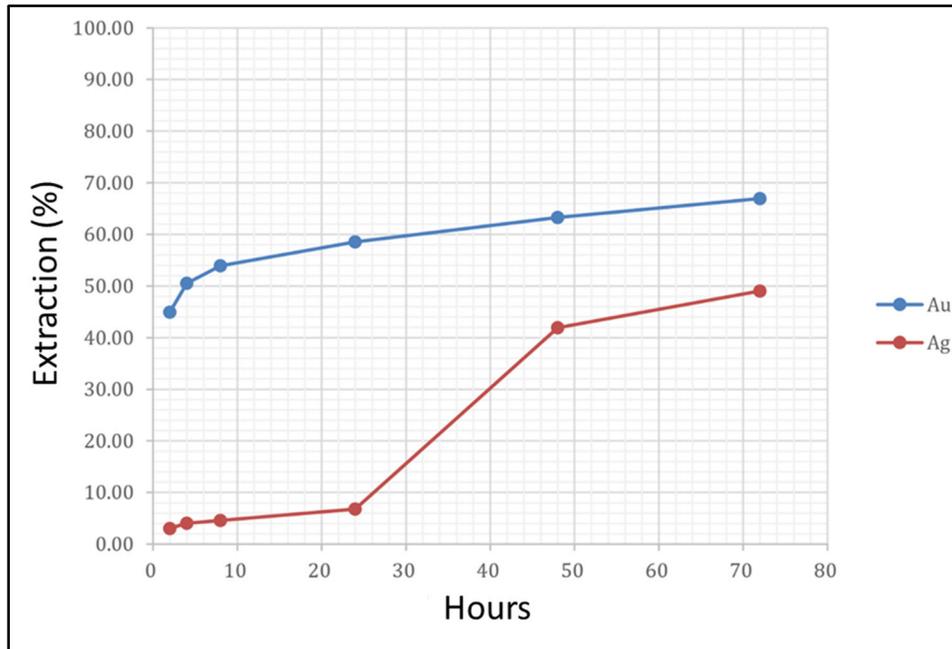
- Size distribution <2 mm (as received)
- 1,000 ppm NaCN/pH 10.5–11.0
- 72 h leach time.

The results from this testwork are shown in Figure 13-14, and can be summarized as follows:

- Sample head grade of 0.16 g/t Au (low grade)
- Gold dissolution of 67% at 72 h and still increasing.

Although positive results were achieved, additional testwork will be required to examine the results from further sulphide mineralization samples.

Figure 13-14: Gold Leaching Kinetics from Cerro de Oro Sulphide Sample (LTM, August 2020)



13.7 Metallurgical Results Summary and Conclusions

Most of the metallurgical testwork completed to date has been performed using RC chips (~2 mm and finer) from the exploration drilling at the Cerro de Oro Project. This has been supplemented by limited work on coarser surface/trench samples. The key observations from these preliminary programs include:

- Gold mineralization appears to be well disseminated, with little correlation to rock particle-size distributions. Soluble copper content was low in the majority of test samples, although some outliers were present and warrant further investigation.
- Gold mineralization in the deposit responds positively to gold cyanidation.
- Gold dissolution appears to be independent of dissolution of associated copper mineralization (where present).
- Leach kinetics from the majority of RC chip samples tested were rapid, with most of gold dissolution occurring in less than 24 h.
- Where slower leach kinetics were observed, gold recoveries were typically still increasing at the end of the test period, indicating possibly reduced host rock permeability and/or free cyanide deficiency due to elevated copper contents in solution.
- Residual gold contents following all types of leaching were typically around 0.1 g/t Au or lower and did not appear to correlate significantly with sample head grades or copper contents.
- Limited coarse sample bottle tests (minus 2" material) produced leach recoveries similar to those observed with RC chip samples.

- Column testwork (minus 2" material) confirmed recoveries consistent with those performed using coarse bottle test methods.
- Reagent consumptions observed with all the test programs were consistently in the low to moderate range for cyanidation of gold mineralization.
- A single leach test performed on RC chip samples of low-grade sulphide mineralization demonstrated that the gold mineralization was recoverable via cyanidation (follow-up work required with additional samples).

Overall, the following general conclusions can be derived from the preliminary test programs completed to date:

- Oxide gold mineralization in the deposit is amenable to heap leach cyanidation techniques.
- Overall average gold recoveries of approximately 70% or greater appear possible (<0.1 g/t Au in leach residues), although only limited testwork has been completed on coarse material (size greater than 2 mm RC chip samples).
- Gold mineralization is largely independent of copper mineralization (where present), allowing for copper control in leach solutions via optimization of free cyanide levels.
- Leach kinetics are rapid to moderate.
- Reagent consumptions (NaCN) appear to be low to moderate.
- Sulphide gold mineralization may be leachable, in addition to oxide material.

Additional metallurgical programs are recommended for the Cerro de Oro Project. These would include:

- Coarse bottle roll (and possibly column) optimization studies to examine crush size versus gold recovery relationships
- Leach studies to specifically examine areas of reduced rock permeability and elevated copper contents
- Sulphide mineralization leach studies
- Hardness/abrasivity studies for major rock lithologies
- Density testing on representative rock core samples.

14 MINERAL RESOURCE ESTIMATES

This Technical Report represents the first Mineral Resource estimate for the Cerro de Oro Property (2020 MRE). The estimate has been prepared with the assistance of Leonardo de Souza, MAusIMM (CP), and has been reviewed and verified by Scott Zelligan, P.Geo., an independent QP as defined in NI 43-101, using all available information to the effective date of this report (November 16, 2020).

The Resource was classified according to the CIM Definition Standards. The classification considered the drill and sample spacing, QA/QC, deposit type, the absence of representative density measurements, and the need to develop a lithological model. The estimate used an indicator model and the inverse distance squared (ID²) method to interpolate gold grades. The density used for the oxide zone is 2.55 tonnes per cubic metre (t/m³), based on reference to the El Castillo mine.

As part of the review and verification process, Mr. Zelligan was provided with the original or raw data set that included all collar, survey, and assay files, as well as the Leapfrog Project and Datamine files created by Mr. de Souza for estimation purposes. This information was used to confirm the selection of composite length, approach to grade capping, parameters used to create the indicator model, the approach to density modelling, the interpolation, and to recreate the resource model and estimation. Further verification work included the creation of a de-clustered data set from the drill-hole files to check the impacts of grade smearing, additional model runs to evaluate the sensitivity to changes to input parameters, and visual validation by review of plan and vertical sections (on 25 m spacing) against the original drill holes, composites, de-clustered data set, and the final model. Mr. Zelligan's review confirmed the estimate of Mineral Resources provided by Leonardo de Souza and satisfies the QP requirements of NI-43-101.

The Inferred Mineral Resource estimate discussed in this section considers only the oxidized portion of the deposit. This boundary will continue to be further defined as the Project advances.

14.1 Methodology

The 2020 MRE covers the deposits of Cerro de Oro with a strike length of about 1.0 km and a width of approximately 600 m, down to a vertical depth of 190 m below surface.

The model for the Cerro de Oro deposit was prepared using Leapfrog GEO (version 5.1.0) and Datamine Studio RM (version 1.6.87.0). Leapfrog was used for the mineralized solid modelling via gold-grade indicator interpolation. Datamine was used for the grade estimation, which consisted of three-dimensional (3-D) block modelling and the ID² interpolation method. Statistical studies were completed using Datamine and Excel. Capping and validations were carried out in Datamine and Microsoft Excel.

The main steps in the methodology were as follows:

- Compile and validate the drill-hole databases used for Mineral Resource estimation.
- Validate the geological model and interpretation of the mineralized zones, guided primarily by gold grade.

- Validate the drill-hole intercepts database, compositing database, and gold capping values for the purpose of geostatistical analysis.
- Perform and validate the block model and gold grade interpolation.
- Validate the classification of the block model.
- Assess the resources with “reasonable prospects for economic extraction” via open pit mining.
- Generate a Mineral Resource statement.

14.2 Database

The author was provided with the complete drill-hole database in comma-separated values (CSV) files and Microsoft Excel spreadsheet format (XLSX) that contained the collar, assay, and downhole survey data. Topography was provided by Minera Alamos as a wireframe in AutoCAD Drawing Exchange Format (DXF). The topography surface was produced by PhotoSat in 2020.

The drilling database that was used for resource estimation comprises diamond drill holes (DDH) and RC drill holes that were drilled from 1993 to 1998 and 2017 to 2018 (Figure 14-1). There are 15 DDHs containing 1,256 samples (25% of the total database), and 84 RC holes containing 3,753 samples (75% of the database). Table 4-1 shows the summary statistics of the assay database by type.

Table 14-1: Summary Statistics of the Assay Database by Drill hole Type

| Drill Hole Type | Number of Samples | Max (g/t Au) | Mean (g/t Au) | Standard Deviation (g/t Au) | COV |
|-----------------|-------------------|--------------|---------------|-----------------------------|------|
| RC | 3,753 | 27.5 | 0.30 | 0.68 | 2.29 |
| DDH | 1,256 | 14.6 | 0.13 | 0.50 | 3.75 |
| ALL | 5,009 | 27.5 | 0.26 | 0.65 | 2.52 |

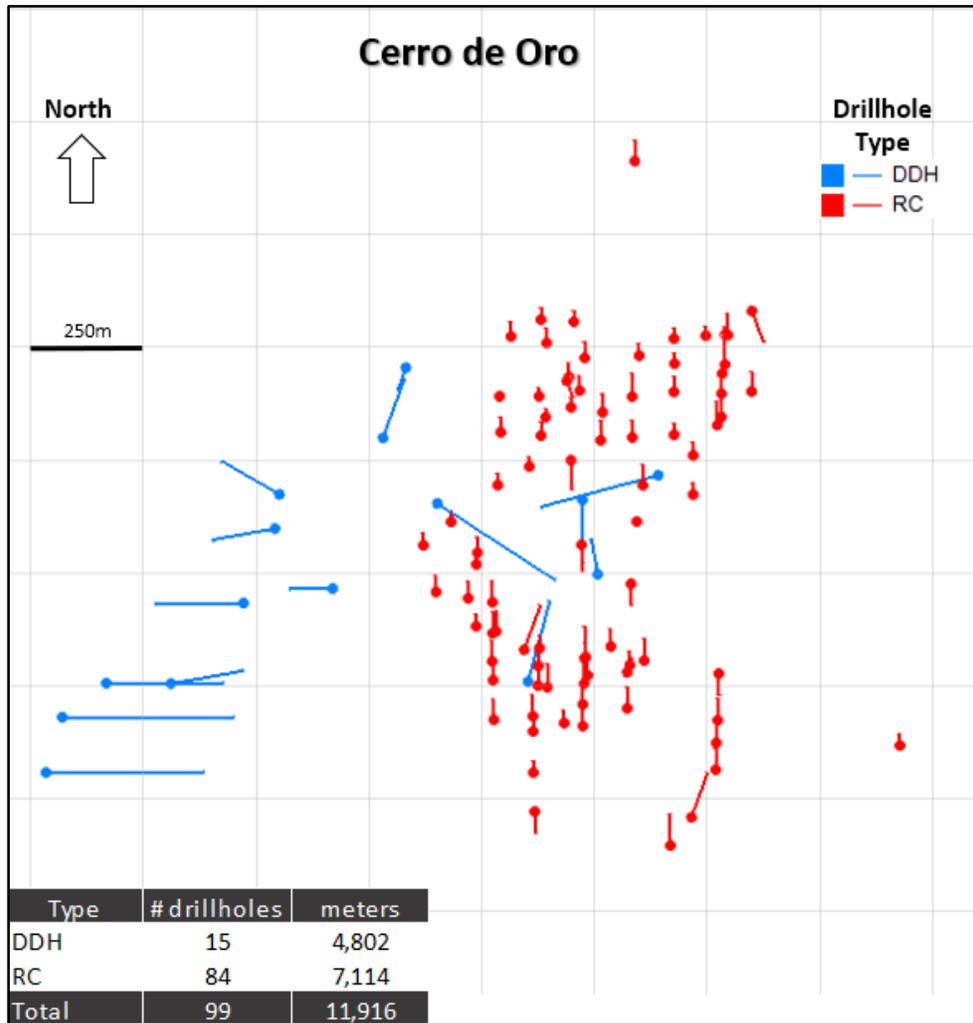
Note: Not all sampled intervals were used in the estimate of the mineral resource.

The drilling database includes gold assays for the Cerro de Oro deposit, but the lithological descriptions are not available. The database covers the length of the resource area at variable drill spacing, ranging from 50 m to 200 m for the deposit.

Previous reports and descriptions of the drill-hole programs indicated that most of the RC holes were stopped once they started to encounter the presence of some visible fresh rocks. Using this information, an estimated boundary was set to model the potential oxide to fresh-rock transition zone, from approximately the maximum depths of the RC holes to a depth 50 m below this contact surface.

Thus, the limit between oxides and fresh rock was defined 50 m below the depths of the RC holes, assuming that this vertical panel of 50 m contains a mix of oxide and/or transition material. Minera Alamos will be conducting additional drilling programs in the future to better delineate the contact between the current oxide and fresh-rock zones.

Figure 14-1: Drill Holes Used for 2020 Mineral Resource Estimation



14.2.1 Comments on Drill-Hole Database

The absence of the lithological descriptions in the drill holes prevents a better geometric control of the spatial distribution of the gold grades, and the limit between oxides and fresh rock is not clearly defined. These inconsistencies in the drilling database should be reviewed and repaired. For the above reasons, the Mineral Resource has been limited to the Inferred category.

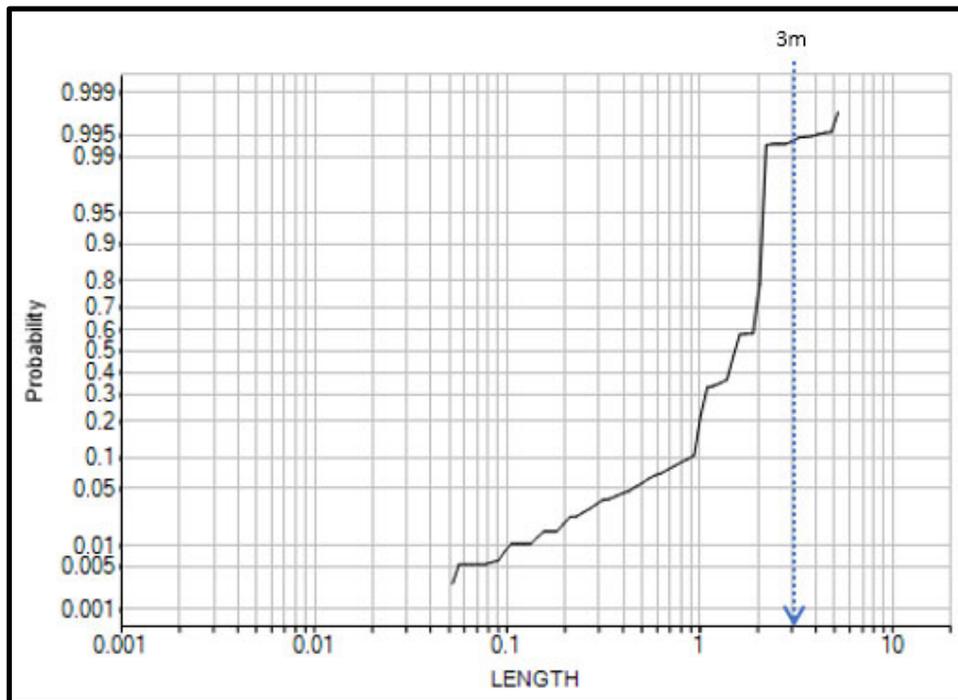
14.3 Geological Model

Cerro de Oro is being explored and drilled as a broad zone of porphyry-style mineralization, including gold-bearing disseminations, as well as quartz and fracture stockwork related to a granodiorite intrusive stock. Exploration has been focused on gold mineralization within the oxidized zone near surface, which is the focus of this estimation.

The domains used for this estimation were primarily driven by the gold grade distribution. This is due to the lack of reliable geological data, preventing the inclusion of geological limits in the geometric definition of mineralization.

Composites were created to support the estimation of gold indicators in Leapfrog and the length of 3 m was selected using a probability plot, using all the holes forming the resource estimation of the Cerro de Oro deposit (Figure 14-2).

Figure 14-2: Probability Plot Defining 3 m Length for Compositing



The geometric definition of the mineralized volume was carried out via gold indicator interpolation with the cut-off of 0.1 g/t Au in Leapfrog, using 3 m long composites. Mineralized zones were defined with probability equal to or greater than 50% to be above 0.1 g/t. The anisotropy directions considered a bulk mineralized volume guided by a theoretical porphyry gold system, with a search of up to 100 m laterally and 70 m vertically to avoid extending too far down within the fresh-rock zone (not considered in this resource estimation).

Figure 14-3 is the probability graph of the gold grades in 3 m composites. The cut-off grade of 0.1 g/t (used in this estimate to define the current mineralized volume) shows that about 40% of the composites are below this cut-off grade.

Figure 14-3: Gold Grade Probability Plot on 3 m Composites

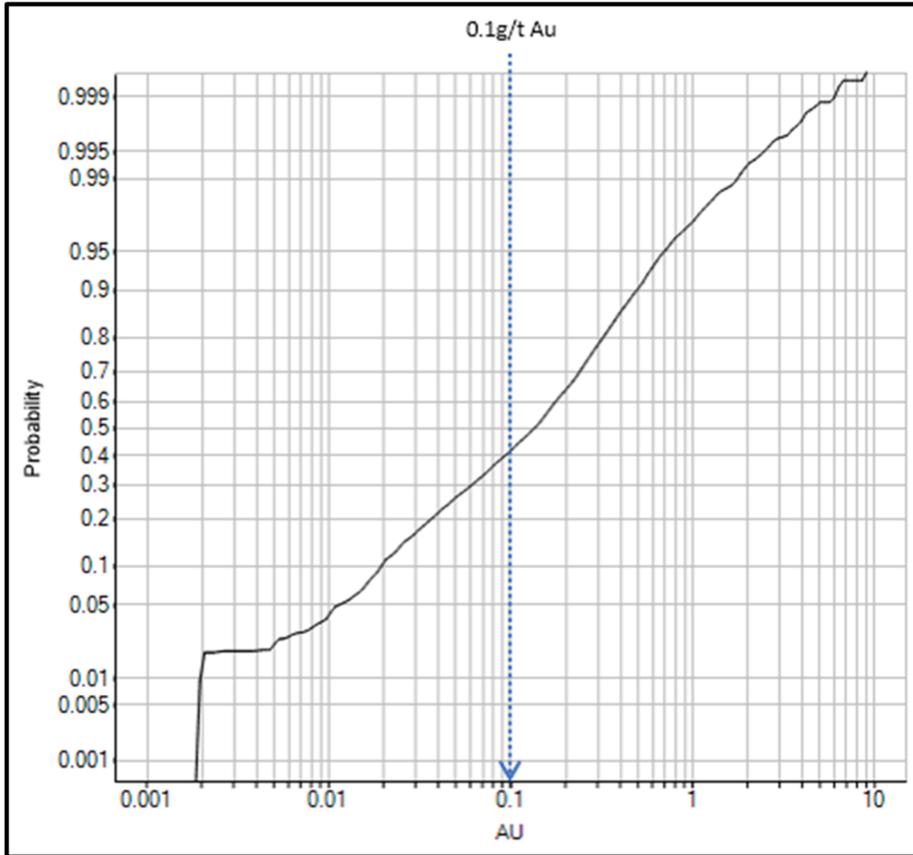
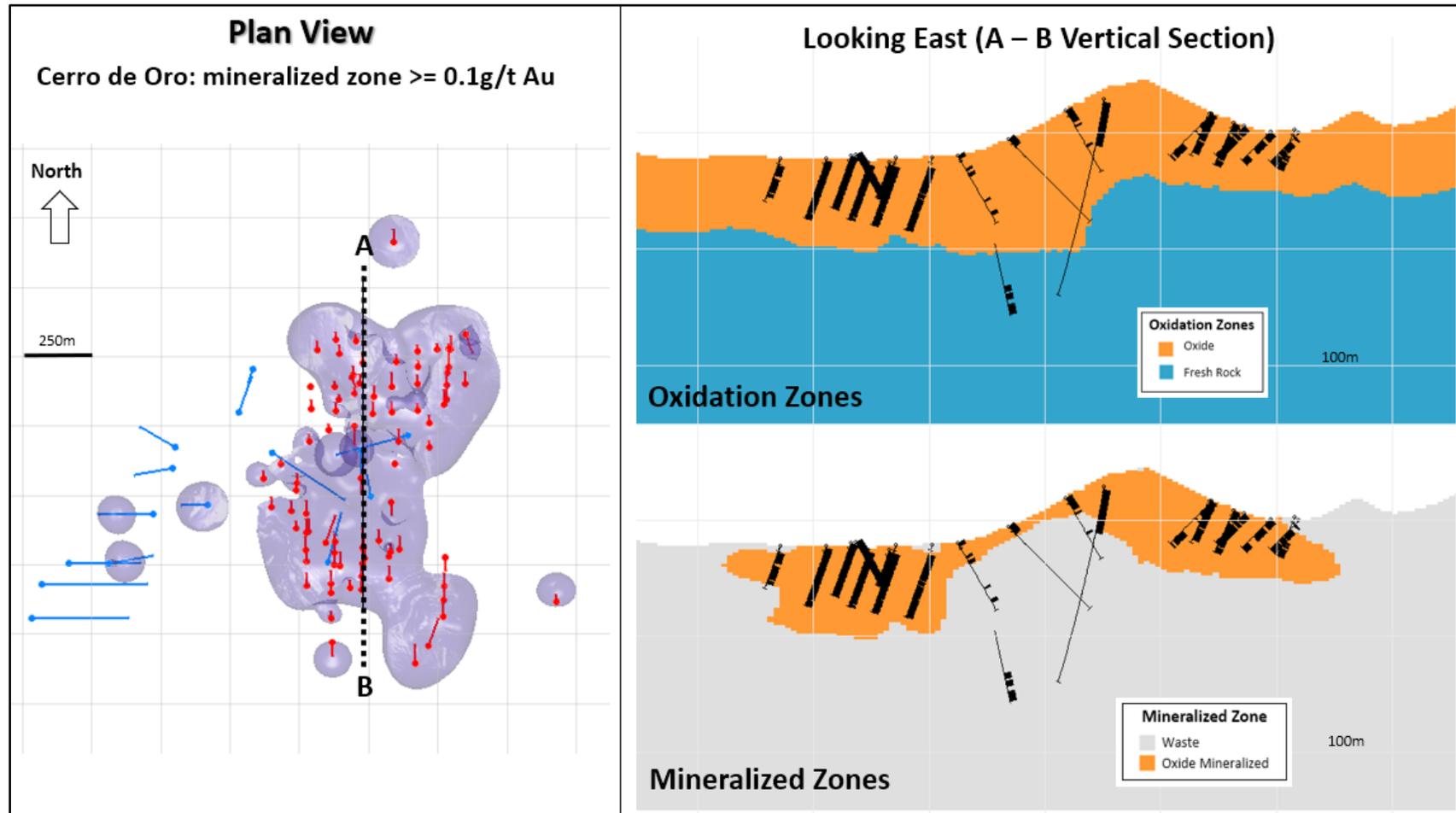


Figure 14-4 shows the mineralized volumes in plan, and cross sections of the oxidation zone and oxide-mineralized zone (with grade ≥ 0.1 g/t Au); in this Report, there is no definition of mineralized zone in fresh rock. Black bars in the drill holes illustrate intervals with gold grades ≥ 0.1 g/t.

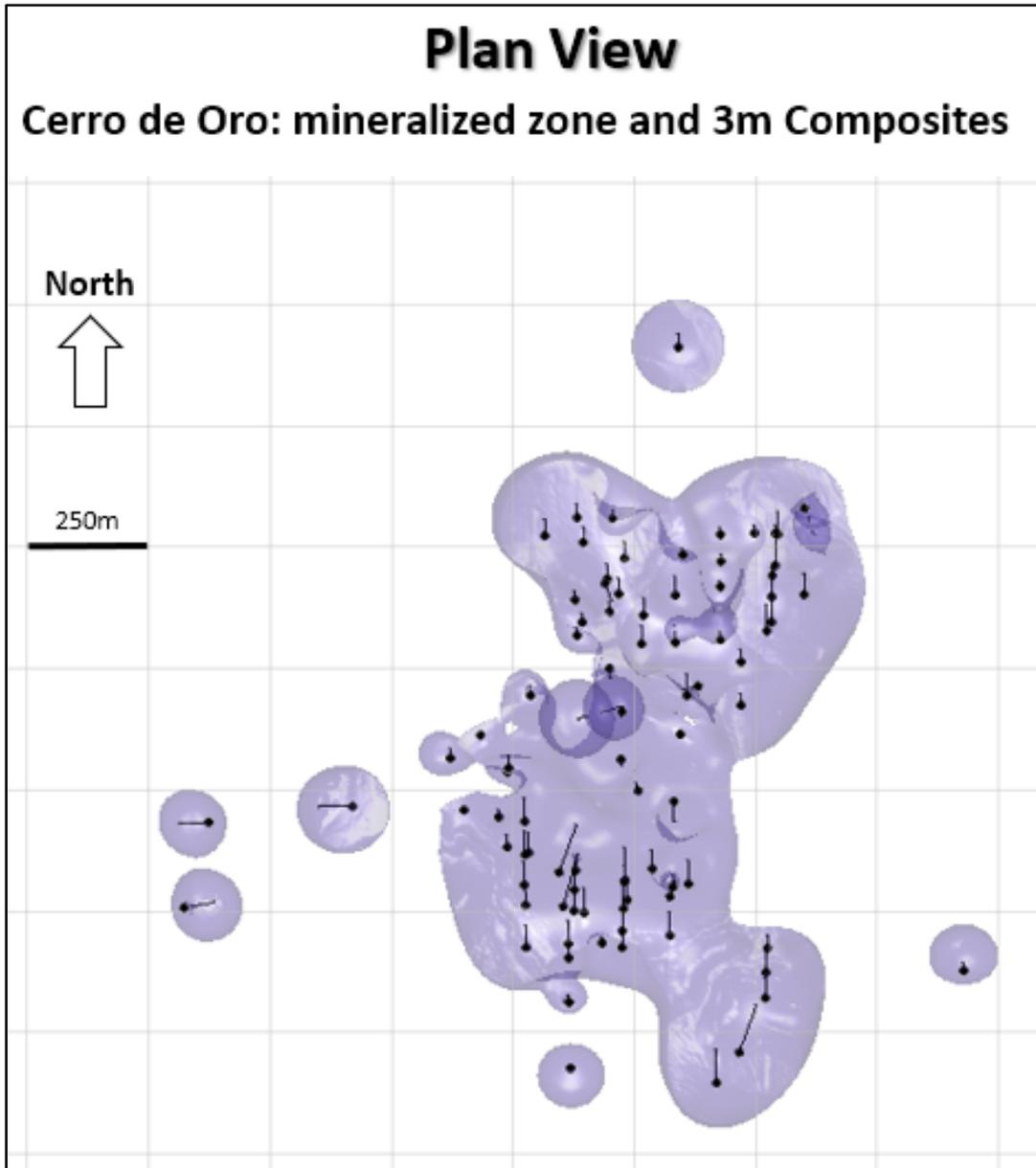
Figure 14-4: Mineralized Volumes Cerro de Oro Deposit



14.4 Composites for Resource Estimation

The 3 m composites selected to estimate the mineralized blocks are those contained within the mineralized zone, defined in Leapfrog from the indicator interpolation. These composites were then capped to limit the impact of local extreme grades. Missing sample intervals were replaced with zero grade for gold. Figure 14-5 shows a plan view of the mineralized zone with drill composites displayed.

Figure 14-5: Plan View of Mineralized Volumes Cerro de Oro Deposit



Codes were automatically attributed from the drill-hole assay intervals that were composited in 3 m lengths and intersect the mineralized volume defined from the indicator interpolation. These composites were then capped to limit the impact of local extreme grades.

Table 14-2 shows the Cerro de Oro deposit summary statistics for gold, using 3 m length composites before capping. Note that the coefficient of variance value for gold is below 2.0 for uncapped composites; this is relatively low and speaks for the well-behaved statistical grade distribution. Compositing has reduced the higher coefficient of variance (2.5) seen in the raw data, which may have been due to high-grade sampling bias.

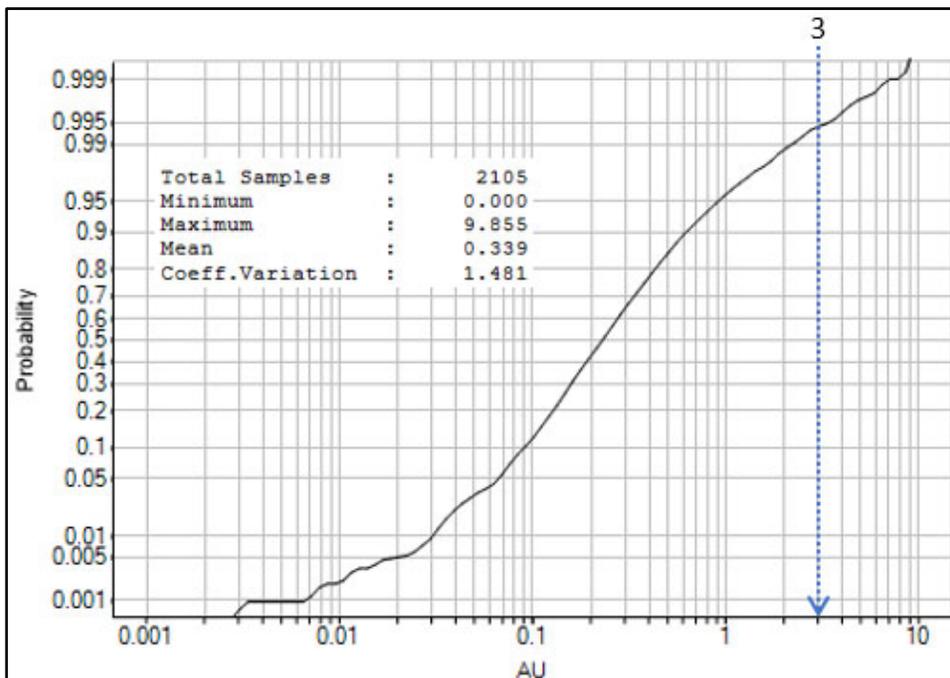
Table 14-2: Summary Statistics for Gold Composited Prior to Capping

| Number of Composites | Maximum (Au g/t) | Mean (Au g/t) | Standard Deviation (Au g/t) | Coefficient of Variation |
|----------------------|------------------|---------------|-----------------------------|--------------------------|
| 2,105 | 9.86 | 0.33 | 0.47 | 1.43 |

14.5 High-Grade Capping

After compositing, grade capping was investigated for gold, by oxidation zone. It was observed that capping at 3 g/t for Au is appropriate for all oxidation states. This grade also represents approximately 99.5% in probability plots. This capping value may vary by oxidation zone following collection of additional data. Figure 14-6 shows the probability plot for gold in the Cerro de Oro deposit. The similarity of grade distribution by oxidation state supports the decision to use a soft boundary between the different oxidation zones during the grade interpolation phase.

Figure 14-6: Gold Probability Plot Cerro de Oro Deposit



14.6 Density

The Company reported that there are no density measurements in the drill-hole cores, the available density is measured only on surface samples, which are not representative of the deposit. The author used average values of 2.55 t/m³ for oxides and 2.7 t/m³ for fresh rock, which are acceptable values considering average values obtained in similar deposits that occur in the vicinity, such as Castle Gold's El Castillo mine.

The author emphasizes the need for measurements of bulk density to be taken in the deposit—well distributed spatially, and considering the different types of oxidation. The absence of density measurements is an additional contributing factor to limit the estimation of Mineral Resources to the Inferred category.

14.7 Block Model

A non-rotated block model was created for the Cerro de Oro deposit. No sub-blocks were used.

The origin of the block model is the lower-left corner. Block dimensions reflect the sizes of mineralized zones and plausible mining method (open pit). Table 14-3 shows the block model origin and block size.

Table 14-3: Cerro de Oro Block Model Origin and Block Size

| Direction (m) | Origin | Block Size (m) | Number of Blocks |
|---------------|-----------|----------------|------------------|
| Easting | 233,750 | 10 | 210 |
| Northing | 2,748,580 | 10 | 210 |
| Elevation | 1,500 | 5 | 140 |

Note: UTM Zone 14N (NAD 27).

14.8 Grade Interpolation

For the Cerro de Oro deposit, the mineralized blocks were estimated with an anisotropic three-pass search using capped composites to estimate all blocks within the mineralized zone. The directions of anisotropic searches for the gold grade interpolation used the dynamic anisotropy process of Datamine, guided by the mineralized volume carried out via gold indicator interpolation with the cut-off of 0.1 g/t Au in Leapfrog, representing the gold spatial grade connectivity.

The ID² method was selected for the final gold resource estimation for the Cerro de Oro deposit. The grade estimation parameters are summarized in Table 14-4.

Table 14-4: Gold Grade Estimation Parameters

| Pass | Minimum Composites | Maximum Composites | Minimum Drill Holes | Orientation | | |
|------|--------------------|--------------------|---------------------|-------------|-------|-------|
| | | | | X (m) | Y (m) | Z (m) |
| 1 | 4 | 12 | 2 | 25 | 25 | 12.5 |
| 2 | 4 | 12 | 2 | 75 | 75 | 37.5 |
| 3 | 4 | 12 | 2 | 125 | 125 | 62.5 |

14.9 Model Validation

The block model was validated visually and statistically. Visual validation confirmed that the block model honours the drill-hole composite data. Figure 14-7 illustrates the search process in the grade interpolation via dynamic anisotropy in Datamine, which uses locally the dip and the dip azimuth of the nearby triangles of the mineralized zone created in Leapfrog.

The ID² model was validated against the conditioning composites to check for local bias (Figure 14-8). The differences for gold grades are acceptable, with the expected smoothing in the ID² model characterizing well the change of support from composites to blocks. The trend and local variation of the estimated ID² versus composite data were compared using swath plots in three directions (east, north, and elevation) for gold (Figure 14-9).

Figure 14-7: Visual Validation of the Gold Grade Interpolation Search Process

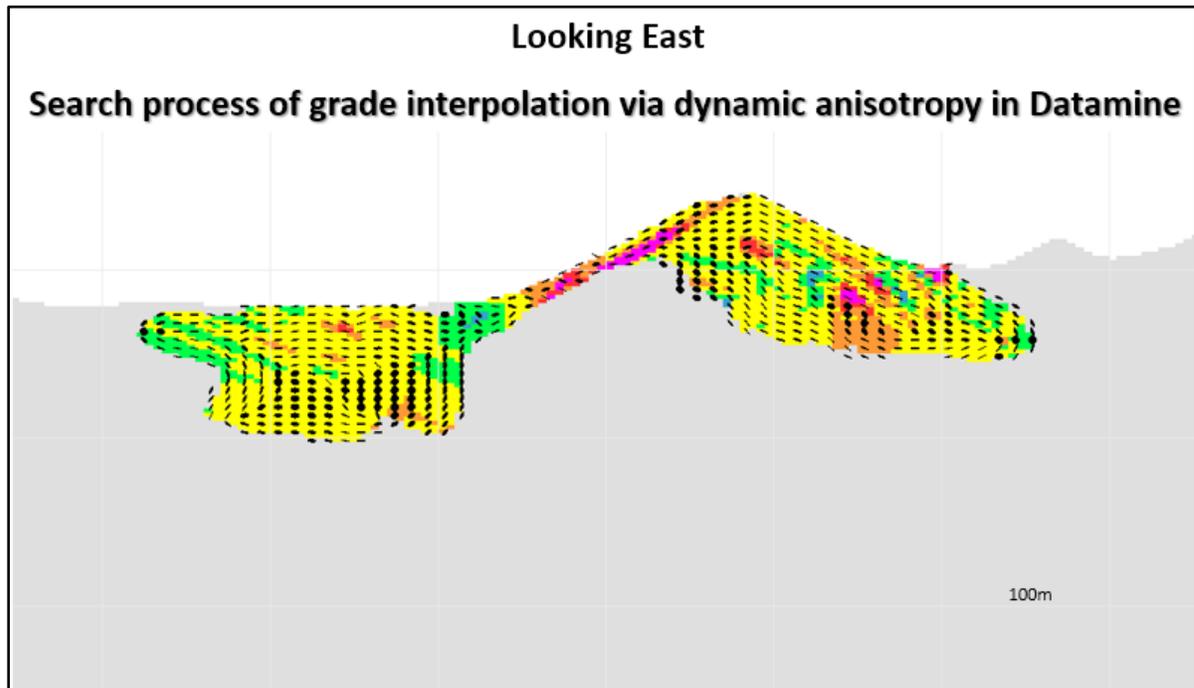


Figure 14-8: Visual Gold Grade Validation (ID²) For Cerro de Oro

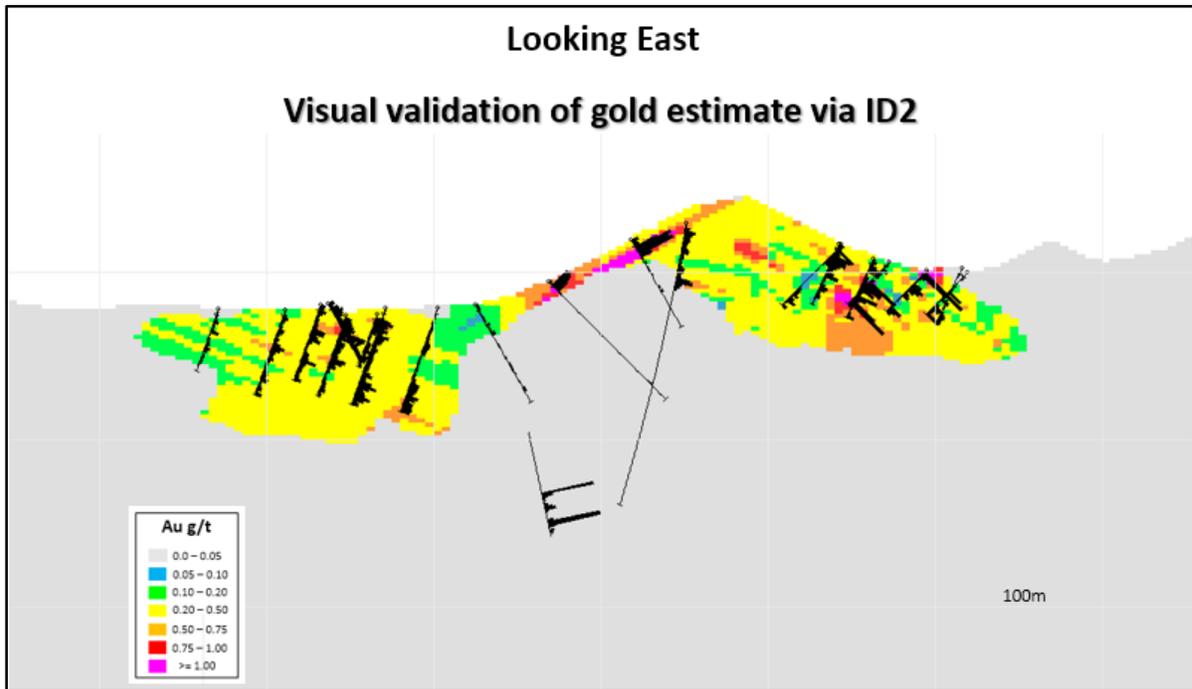
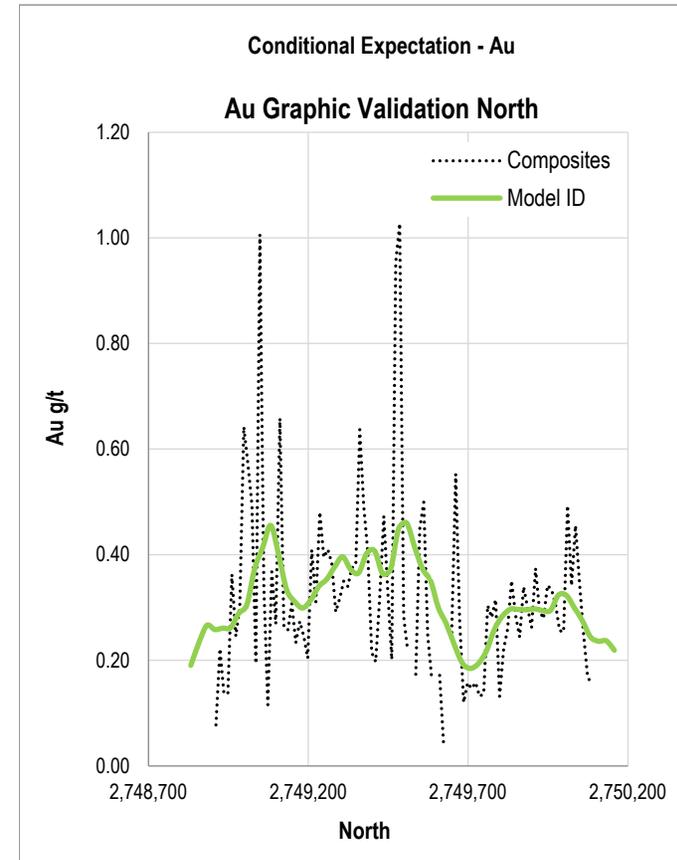
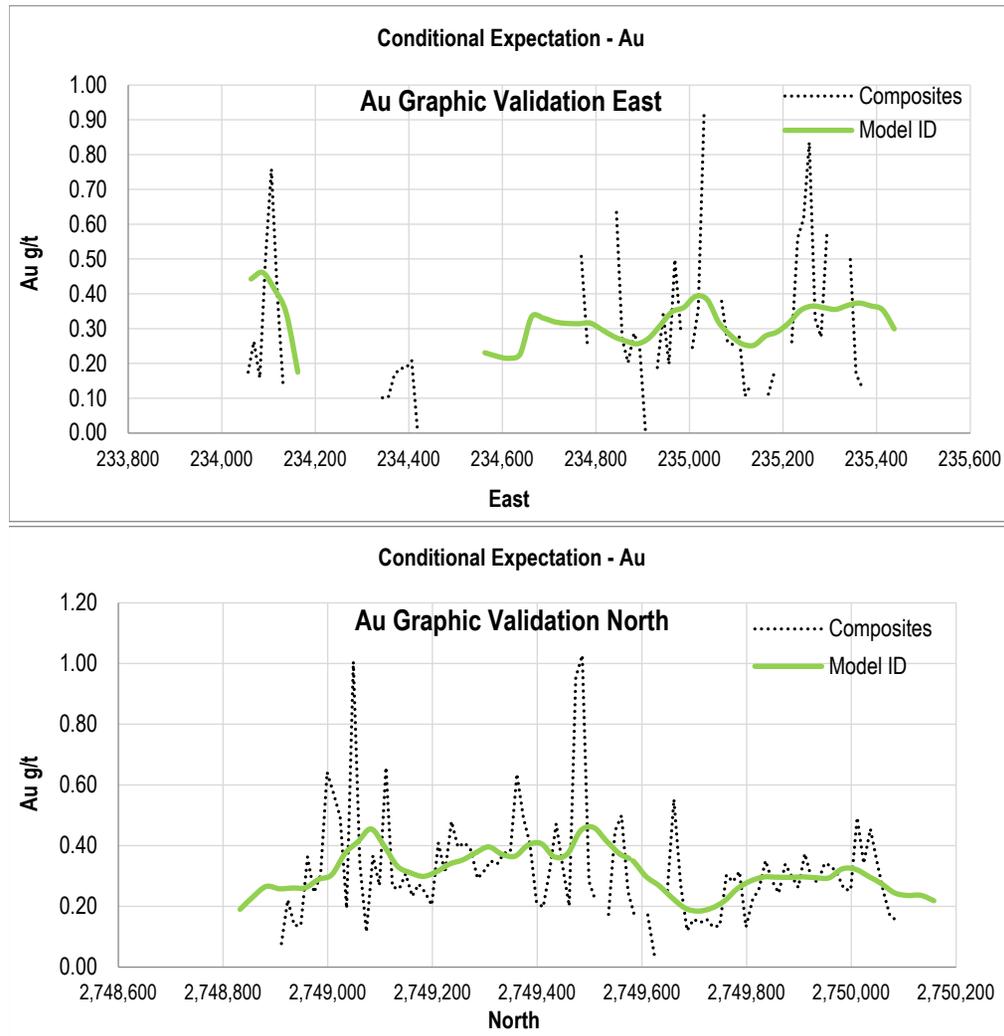


Figure 14-9: Gold Model Validation (Three-Direction Swath Plots)



Note: Gold model validation using three-direction swath plots comparing the different interpolation methods to the DDH composites.

14.10 Mineral Resource Classification

Mineral resource classification is the application of Measured, Indicated, and Inferred categories, in order of decreasing geological confidence to the resource block model. These are CIM Definition Standards, which are incorporated, by reference, in NI 43-101.

14.10.1 Measured 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.

14.10.2 Indicated 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.

14.10.3 Inferred Resource

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade (or quality) are estimated based on limited geological evidence and sampling. Geological evidence is sufficient to imply, but not verify geological and grade (or quality) continuity.

The author of this section has classified the current Mineral Resource estimation as Inferred for the oxidized portion of the Cerro de Oro deposit. Although drill spacing is locally sufficient for Indicated classification, there remain necessary revisions and updates to the geological logs; better definition of the limit between the oxides and fresh rock; understanding of mineralization controls; and bulk density measurements. The reported inferred resources are estimated with an average drilling grid of 85 m by 85 m.

14.11 Mineral Resource Estimate

To determine the quantities of materials with “reasonable prospects for eventual economic extraction,” the author determined economic pit constraining limits using the Lerchs–Grossmann algorithm for the oxidized portion of the Cerro de Oro deposit, considering heap leach processing. The result defines an economic pit shell that has the highest possible total value, while honoring the required surface mine slope and economic parameters.

The resources potentially mineable via open pit were defined using NPV Scheduler (version 4.30.145.0). Economic parameters used in the analysis are listed in Table 14-5.

Table 14-5: Parameters for Economic Pit Generation

| Parameter | Unit | Oxide Mineralization |
|--------------------------|--------------|----------------------|
| Gold Price | \$/oz | 1,450 |
| Refining Cost | \$/oz | 5 |
| Process Cost | \$/t stacked | 5 |
| Metallurgical Recovery | % | 70 |
| General & Administrative | \$/t stacked | 0.75 |
| Mining Cost | \$/oz | 2.50 |
| Gold Cut-Off Grade | g/t Au | 0.18 |
| Pit Slope Angle | degrees | 45 |

Notes: Dilution and mining losses were not applied to the economic pits, and the economic pits are undiscounted.

The parameters listed in Table 14-5 define a realistic basis to estimate the Mineral Resources for the Project. The processing scenario assumes heap leaching of the mineralized material source from open pit mining. The Mineral Resource has been limited to mineralized material that occurs within the economic pit shells. All other material within the defined pit shells was characterized as non-mineralized material.

Table 14-6 provides the Mineral Resource estimate for the Cerro de Oro Project.

Table 14-6: Estimate of Mineral Resources, Cerro de Oro

| Oxidation Zone | Category | Tonnes (Mt) | Gold Grade (g/t) | Contained Ounces ('000s) |
|----------------|----------|-------------|------------------|--------------------------|
| Oxide | Inferred | 48 | 0.41 | 630 |

Notes:

- The independent and QP for the mineral resource estimates, as defined by NI 43-101, is Scott Zelligan, P.Geo. The effective date of the 2020 mineral resource estimate is November 16, 2020.
- A gold price of \$1,450/oz was used in calculating the Mineral Resources.
- The estimate is reported for a potential open pit/heap leach scenario.
- The limits of the Resource-constraining pit shell assumed a mining cut-off based on a total operating cost (mining, milling, and general and administrative [G&A]) of \$8.80/t stacked, a metallurgical recovery of 70%, and a constant open pit slope angle of 45°. This constraining pit shell contained a total volume of 59 Mt. Inferred resources are too speculative geologically to have economic considerations applied to them.
- The gold cut-off grade applied to oxide mineralized material is 0.18 g/t Au
- These Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability.
- The Mineral Resource estimate follows CIM Definition Standards.
- Results are presented in-situ. Ounce (troy) = metric tonnes x grade / 31.103. Calculations used metric units (metres, tonnes, g/t). Rounding followed the recommendations as per NI 43-101.
- The number of tonnes has been rounded to the nearest million.
- The QPs of this Report are not aware of any known environmental, permitting, legal, title-related, taxation, socio-political, marketing, or other relevant issues that could materially affect the Mineral Resource estimate other than those disclosed in this NI 43-101 compliant Technical Report.

Table 14-7 shows the open pit constrained Mineral Resource sensitivity to the gold price. **The reader should be cautioned that the figures provided in Table 14-7 should not be interpreted as a Mineral Resource statement.** The reported quantities and grade estimates at different gold prices are presented for the sole purpose of demonstrating the sensitivity of the resource model to the selection of a reporting gold price. The gold price of \$1,450/oz that was used to report the Mineral Resources (the base case) for Cerro de Oro is highlighted in bold. **Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.**

Table 14-7: Sensitivity of the Mineral Resource to Gold Price

| Gold Price (\$/oz) | Category | Cut-Off Grade (Au g/t) | Tonnes (Mt) | Gold Grade (g/t) | Contained Ounces ('000s) |
|--------------------|-----------------|------------------------|-------------|------------------|--------------------------|
| 1,300 | Inferred | 0.20 | 38 | 0.45 | 540 |
| 1,400 | Inferred | 0.18 | 43 | 0.43 | 590 |
| 1,450 | Inferred | 0.18 | 48 | 0.41 | 630 |
| 1,500 | Inferred | 0.17 | 54 | 0.40 | 690 |
| 1,600 | Inferred | 0.16 | 60 | 0.38 | 740 |

Note: Mineral Resource is shown in bold.

The author is not aware of any known environment, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors that could materially affect the economics of this Mineral Resource, beyond those presented in this Report.

15 MINERAL RESERVE ESTIMATES

The Cerro de Oro Project is not an advanced property. No Mineral Reserves have been determined for the Project.

16 MINING METHODS

The Cerro de Oro Project is not an advanced property. Section 16 is not applicable to this Report.

17 RECOVERY METHODS

The Cerro de Oro Project is not an advanced property. Section 17 is not applicable to this Report.

18 INFRASTRUCTURE

The Cerro de Oro Project is not an advanced property. Section 18 is not applicable to this Report.

19 MARKET STUDIES AND CONTRACTS

The Cerro de Oro Project is not an advanced property. Section 19 is not applicable to this Report.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

The Cerro de Oro Project is not an advanced property. Section 20 is not applicable to this Report.

21 CAPITAL AND OPERATING COSTS

The Cerro de Oro Project is not an advanced property. Section 21 is not applicable to this Report.

22 ECONOMIC ANALYSIS

The Cerro de Oro Project is not an advanced property. Section 22 is not applicable to this Report.

23 ADJACENT PROPERTIES

Except for a privately held Company that operates a small underground mine and mill to the west of Cerro de Oro, there are no other significant properties adjacent to the Project.

24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information that should be included in this Technical Report.

25 INTERPRETATION AND CONCLUSION

The QPs reviewed the Cerro de Oro Project data provided by Minera Alamos (including the drill-hole database), reviewed historical sampling and analytical procedures and security; one of the QPs conducted a site visit. The QPs believe the data presented by Minera Alamos to be an accurate and reasonable representation of the Project mineralization.

The estimate of Mineral Resources for the Cerro de Oro Project was completed by Mr. Scott Zelligan, P.Geo. The Mineral Resource is based on the results of both the Noranda and Minera Mexico Pacific RC drill holes that were completed prior to the acquisition of the property by Minera Alamos.

The authors of this Technical Report make the following conclusions:

25.1 Geology

- Mineralization at the Cerro de Oro deposit is typical of a porphyry system and is characterized by the development of A and B veins. These veins developed during an early potassic alteration phase and were later overprinted by silica, sericite, and pyrite (phyllitic overprinting), within the inter-mineral porphyritic intrusive phases. These phases form part of the overall intrusive complex.
- The porphyry system at Cerro de Oro, according to Sillitoe (1979), can be defined as a gold-rich system because it has a typical gold content of ≥ 0.40 g/t Au.
- Minera Alamos has not completed any exploration or drilling activities on the Cerro de Oro Project since acquiring the Project on August 4, 2020.

25.2 Mineral Resource

- The Cerro de Oro Project has an Inferred Mineral Resource of 630,000 oz of contained gold (48 Mt grading 0.41 g/t Au).
- The grade interpolations for gold were carried out using conventional methods, commonly used in the industry, and applied with reasonable geological inference and controls.
- The existing sample data have been collected using protocols that are consistent with industry best practices. The sampling that has been completed on the Project to date has been appropriate for the mineralization type, and the samples are representative of the deposit.
- All samples collected were transported in a secure manner, and a chain of custody was followed.
- Assays were carried out in a well-managed facility using conventional methods commonly used in the industry. During previous drilling campaigns, suitable levels of independent QA/QC samples were submitted to the laboratory to ensure reasonable results were returned.
- The QP is of the opinion that the analytical work performed by the various laboratories was suitable for use in the Mineral Resource estimation.

- The assumptions, parameters, and methodology are appropriate for the Mineral Resource estimation, are consistent with the style of mineralization, and are applicable for an open pit and heap leach operation.

25.3 Metallurgical Recovery

- Metallurgical testwork demonstrated the amenability of oxide mineralization to gold recovery using cyanidation.
- A limited number of positive metallurgical tests completed on samples of transition/sulphide material indicated that additional testing is warranted.
- Gold mineralization appears to be well disseminated through the host rock, with little correlation to rock particle-size distributions.
- Oxide gold mineralization responded positively to gold cyanidation, with residual gold content (unrecovered gold) typically in the range of 0.1 g/t Au or lower, regardless of variations in sample head grades.
- Bottle roll test samples had an average head grade of 0.42 g/t Au (similar for oxide and mixed sulphide transition material) corresponding to a metallurgical recovery of in excess of 75%.
- Leach recovery kinetics were generally rapid (majority of gold extracted from RC chips in less than 24 h).
- Bottle roll tests using coarse particle sizes (minus 2" material) produced gold recoveries similar to those observed with RC chip samples.
- Three column samples (minus 2" material) resulted in leach extractions consistent with those performed using coarse bottle roll methods.
- Reagent consumptions were consistently in the low to moderate range expected for heap leach gold projects.

25.4 Project Risks

- The Mineral Resource estimate is based on the results of the Noranda and Minera Mexico Pacific field programs that included trenching, RC drilling, and some limited DDHs. It is recommended that additional drilling and testing be undertaken to further delineate the known zones of mineralization.
- Metallurgical work completed to date for the Project remains limited. Additional studies are required to better evaluate the particle size/gold recovery relationships for the different zones of mineralization.
- Environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant issues have the potential to materially affect access, title, or the right or ability to perform the work recommend in this Report. At the present time the QPs are unaware of any such potential issues affecting the Project.
- Potential challenges and risks are related to the low-grade nature of the deposit. Follow-up programs to improve the confidence of resource estimates and projected metallurgical performance can reduce these risks.

25.5 Project Opportunities

Opportunities that could enhance the Project include:

- The known zones of gold mineralization appear to remain open.
- There is potential to leach transition/sulphide mineralization. Further metallurgical work should continue to evaluate the amenability of leaching this material, followed by additional drilling to better delineate the extents of these zones if warranted.

26 RECOMMENDATIONS

To continue to advance the assessment of the Cerro de Oro Project toward a potential development decision, the QPs responsible for this Technical Report make the following recommendations:

26.1 Exploration and Geology

- An exploration program for the Cerro de Oro Project area involving drilling (infill and step-out); further mapping and rock outcrop sampling; soil sampling (100 m grid); soil spectral analysis (with Terraspec); and possible geophysical studies (i.e., magnetic and electromagnetic/induced polarization surveys).
- Topographic work to provide additional accurate positions and directional details for historical holes.
- Preparation of plans for an additional phase of exploration drilling aimed at defining disseminated sulphide extensions of known oxide mineralization, and potential high-grade mineralization at depth along the skarn contacts.
- As a short-term priority, complete an infill drilling program (Phase 1) for resource modelling purposes and to collect samples for additional metallurgical test work and studies.
- Plan for a second phase of drilling (Phase 2) at an appropriate time, based on additional geologic work and the results of Phase 1 (step-out drilling).

26.2 Mineral Resources

- Compile new exploration results into a more advanced geological model for the Project, to increase the confidence level in the current resources (Inferred) and potential extensions of the known mineralization along strike and at depth.
- Undertake in situ rock-density studies during future drilling campaigns to better define the densities of each of the main rock types.
- Evaluate the potential of the silver mineralization at the Project, and if warranted establish a compliant silver resource estimate.
- Expand the geological model for Project to include lithological information and other details that may impact engineering studies, including metallurgical evaluations.

26.3 Metallurgical

- Coarse bottle roll (and possibly column) optimization studies to examine crush size/gold recovery relationships for primary lithological zones within the Project mineralization.
- Leach variability studies to specifically examine areas of reduced rock permeability and elevated copper contents.
- Sulphide mineralization leach studies.
- Hardness/abrasivity studies for major rock lithologies.
- Evaluate the potential silver recoveries.

26.4 Environmental and Permitting

- Complete environmental baseline studies.
- Complete a hydrogeological survey of the concession to prioritize locations for process water access.
- Advance basic engineering studies required for permitting a heap leach gold recovery facility.
- Work proactively with government agencies to submit all necessary permit and license applications to advance the Project toward a construction decision.

Table 26-1 provides a preliminary budget for the recommended work activities.

Table 26-1: Preliminary Budget for Recommend Work Activities

| Work Activity | Budget (\$) |
|--|------------------|
| Mapping and Sampling | 170,000 |
| Phase 1 Drilling (Infill: 5,000-6,000 m) | 1,000,000 |
| Phase 2 Drilling (Step-Out: 5,000–6,000 m) | 1,000,000 |
| Geophysical Studies | 150,000 |
| Hydrological Studies | 100,000 |
| Metallurgical Studies | 200,000 |
| Engineering Studies | 150,000 |
| Environmental and Permits | 100,000 |
| Total | 2,870,000 |

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28 CERTIFICATES OF AUTHORS

28.1 Scott Zelligan, P.Geol.

I Scott Zelligan, P.Geol., as an author of this report titled *National Instrument (NI) 43-101 Technical Report, Mineral Resource Estimate for the Cerro de Oro Project, Zacatecas State, Mexico* with an effective date of November 16, 2020 (the "Technical Report") prepared Minera Alamos Inc. and dated December 17, 2020, do hereby certify that:

1. I am an independent Consulting Geologist residing at 3357 Beechwood Drive, Coldwater, Ontario, L0K 1E0.
2. I graduated with a degree in Bachelor of Science Honours, Earth Sciences, from Carleton University (Ottawa, Ontario) in 2008.
3. I am a Professional Geoscientist (P.Geol.) registered with the Professional Geoscientists Ontario (#2078).
4. I have practiced my profession as a geologist for a total of over twelve years since my graduation from university; as an employee of major and junior mining companies, as an employee of engineering consulting firms, and as an independent consultant, including: five months working underground in a producing gold mine; three years working in exploration for numerous commodities (including base, precious, and other minerals); and nine years of resource estimation work including modelling, estimating, and evaluating mineral properties of all types (including base, precious, and other minerals) throughout North America and occasionally globally. I have previously been a primary author on eight NI 43-101 technical reports as well as secondary author or contributor on several others. I have worked on numerous properties with similar or comparative mineralization styles to the Project.
5. I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of this NI 43-101.
6. I have not visited the Cerro de Oro Project site.
7. I am responsible for Sections 1 through 3, 14, and parts of sections 25 and 26 of this Technical Report.
8. I have been engaged previously as a resource geologist with the Issuer; I have not had prior experience with the Property that is the subject of this Report.
9. As of the Effective Date of this Technical Report (November 16, 2020), to the best of my knowledge, information, and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make this Technical Report not misleading.
10. I am independent of the Issuer and the Property, applying all the tests in section 1.5 of NI 43-101.
11. I have read NI 43-101 and Form 43-101F1, and this Technical Report has been prepared in compliance with that instrument and form.
12. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of this Technical Report.

Dated this 17th day of December 2020 in Coldwater, Ontario.

Original Signed and Sealed

Scott Zelligan, B.Sc., P. Geo.

28.2 Lawrence Segerstrom, CPG

I Lawrence Segerstrom, CPG, as an author of this report titled *National Instrument (NI) 43-101 Technical Report, Mineral Resource Estimate for the Cerro de Oro Project, Zacatecas State, Mexico* with an effective date of November 16, 2020 (the “Technical Report”) prepared Minera Alamos Inc. and dated December 17, 2020, do hereby certify that:

1. I am currently owner-operator of Segerstrom Consulting LLC, located at 190 W. Continental Rd, Suite 216-409, Green Valley, Arizona 85622.
2. I graduated with a Bachelor of Science degree in Geology from Colorado State University in Fort Collins in 1978, a Master of Science degree in Geosciences from the University of Arizona in Tucson in 1986, and a Master of Business Administration in international management from the Thunderbird School of Global Management in Glendale, Arizona in 2005.
3. I am a Certified Professional Geologist (#11557) in good standing with the American Institute of Professional Geologists. I am also a fellow in the Society of Economic Geologists and a member of several other geologic and mining societies.
4. Since 1983 I have worked as a geologist in the mining industry, predominantly in exploration and development, but also in mine geology and operations. I have worked in diverse metallic mineral deposit types and geologic settings, with emphasis on porphyry gold-copper, copper-gold, and copper-molybdenum deposits and associated skarns, as well as on low, medium and high-sulfidation epithermal deposits. My work locations have been mainly in South America, USA, Indonesia, and Serbia, as an employee or consultant for small, medium, and large companies, public and private.
5. I have read the definition of “qualified person” set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of this NI 43-101.
6. I visited the project site from October 20 to October 22, 2020.
7. I am responsible for sections 4 through 12 and parts of sections 25 and 26 of this Report.
8. As of the date of the certificate, to the best of my knowledge, information and belief, I am not aware of any material fact or material change with respect to the subjects in the sections of this Technical Report that I am responsible for, sections 4 through 12 and parts of sections 25 and 26, which is not reflected in this report, such that the exclusion of these facts would make this Technical Report misleading.
9. I have not been previously engaged by the Issuer; I have not had prior experience with the Property that is the subject of this Report.
10. I am independent of the Issuer, and the Property applying all the tests in section 1.5 of NI-43-101.
11. I have read National Instrument 43-101 and Form 43-101F1, and this Report has been prepared in compliance with that instrument and form.
12. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of this Technical Report.

Dated this 17th day of December 2020 in Green Valley, Arizona.

Original Signed and Sealed

Lawrence Segerstrom, CPG

28.3 Peimeng Ling, P.Eng.

I, Peimeng Ling, P.Eng., as an author of this report titled *NI 43-101 Technical Report, Mineral Resource Estimate for the Cerro de Oro Project, Zacatecas State, Mexico* with an effective date of November 16, 2020 (the "Technical Report") prepared Minera Alamos Inc. and dated December 17, 2020, do hereby certify that:

1. I am the Principal of Peimeng Ling & Associates Limited (CofA #100183418) with an office located at 39 Clovercrest Road, Toronto, Ontario, Canada, M2J 1Z5.
2. I am a graduate of Zhejiang University, PRC (B.Eng., Chem. Eng., 1982), University of Toronto, Canada (MSc Chem. Eng. 1994).
3. I am a registered Professional Engineer in good standing of Professional Engineers Ontario (Registration Number 90444985) and a member of The Canadian Institute of Mining, Metallurgy and Petroleum (CIM).
4. I have over 25 years of direct experience with precious and base metals mineral and hydrometallurgical processing in Canada, USA, Brazil, and Russia including testwork, project feasibility study, process design, plant design, environmental compliance, and financial evaluation with a variety of deposit types including gold, silver, copper, zinc, nickel, cobalt, vanadium, platinum-group metals and industrial minerals.
5. 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.
6. I have not visited the Cerro de Oro Project site.
7. I am responsible for Section 13, part of Sections 25 (Metallurgical Recovery) and 26 of this Technical Report.
8. I have been engaged previously as a mineral processing and metallurgical engineer with the Issuer; I have not had prior experience with the Property that is the subject of this report.
9. As of the Effective Date of this Technical Report November 16, 2020, to the best of my knowledge, information, and belief, the parts of this Technical Report for which I am responsible, contain all scientific and technical information that is required to be disclosed to make this Technical Report not misleading.
10. I am independent of the Issuer, and the Property applying all the tests in section 1.5 of NI 43-101.
11. I have read NI 43-101 and Form 43-101F1, and this Technical Report has been prepared in compliance with this instrument.
12. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public, of this Technical Report.

Dated this 17th day of December 2020 in Toronto, Ontario.

Original Signed and Sealed

Peimeng Ling, P.Eng.