

# Condor Project

## NI 43-101 Technical Report on Preliminary Economic Assessment

Zamora-Chinchipe, Ecuador

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Prepared for: Luminex Resources

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# 1 SUMMARY

## 1.1 Introduction

The Condor Project is located in Zamora-Chinchiipe province in southeast Ecuador, approximately 149 km southeast of the city of Loja, and 76 km east of the city of Zamora (see Figure 1-1). Parts of the Condor Project are 90 percent owned by Luminex through its indirectly-held local subsidiaries Condormining Corporation S.A. (Condormining) and Bestminers Ecuador S.A. (Bestminers) and 10 percent owned by the Instituto de Seguridad Social de Las Fuerzas Armadas (ISSFA), which is the pension fund for Ecuador's armed forces personnel. Other areas of the Condor Project are 100% owned by Luminex through its indirectly-held local subsidiary Corporación FJTX Exploration S.A. (FJTX). For the purposes of this Report, Luminex is used interchangeably for the parent and subsidiary company, unless specified (see Table 4-1).

The Condor Project consists of Condor North area, Condor Central area and Condor South area. Condor North area consists of the deposits at Los Cuyes, Soledad, Enma, Camp, and the Prometedor Prospect. Condor Central area consists of the copper-gold and copper-molybdenum porphyries at Santa Barbara and El Hito. Condor South area consists of the newly identified Nayumbi Prospect as shown in Figure 4-2.

Figure 1-1: Project Location



Source: Luminex, 2020.

MTB Enterprises Inc. (MTB) was commissioned by Luminex to prepare an updated Technical Report for the Condor Project, including a Preliminary Economic Assessment (PEA) for the Condor North Area (Los Cuyes, Camp, Soledad, and Enma deposits), Condor Central area (Santa Barbara deposit) is a gold-copper deposit and will require a different project flow sheet from that considered in this study, likely involving gravity and cyanide leaching recovery of gold and the production of a copper concentrate. Due to these differences, it was not included in the economic portion of this study, and the Condor South Area (Nayumbi prospect) there is insufficient information to include in the economic assessment. This technical report summarizes the results of the PEA and is prepared in according to the guidelines of the Canadian Securities Administrator’s National Instrument 43-101 (NI 43-101 and Form 43-101F1).

MTB was assisted by SIM Geological Inc. (SIM), Independent Mining Consultants Inc. (IMC), Ausenco Engineering Canada, Inc. (Ausenco), ND King Consulting LLC (NDK), BD Resource Consulting, Inc. (BDRC), Wyllie & Norrish Rock Engineers, Inc. (W&N), and Robert Michel Enterprises (RME), who provided the Qualified Persons (QPs) responsible for the report.

## 1.2 Terms of Reference

This Technical Report supports the disclosure of Mineral Resources for the Project in the Luminex news release of July 28, 2021, entitled “Luminex Resources Announces Positive Condor North Preliminary Economic Assessment; US\$387 Million NPV, 12 Year Mine Life and Production of 187 Koz Gold Per Year.” All measurement units used in this Technical Report are metric unless otherwise noted. Currency is expressed in United States (“US”) dollars (“\$”).

Mineral Resources are reported in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Definition Standards for Mineral Resources and Mineral Reserves (May 2014; the 2014 CIM Definition Standards) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 2003; 2003 CIM Best Practice Guidelines).

## 1.3 Conclusions

### 1.3.1 Summary

The Condor Project PEA was initiated in early 2021 and was produced by a team of independent consultants that possess extensive expertise in their respective fields. Further details on the contributors can be found in the Qualified Persons section of this news release.

The economic assessment is only on the Condor North area. All amounts are in United States dollars unless otherwise specified. Base case economics were calculated using a gold price of \$1,600 per ounce and a silver price of \$21.00 per ounce. All figures are displayed on a 100% ownership basis. The effective date of the PEA is July 28, 2021 and a technical report for the Project including the PEA will be filed on the System for Electronic Document Analysis and Retrieval within 45 days of this news release.

The PEA’s highlights include the following estimates:

- Life of mine (“LOM”) average annual payable production of 187 koz gold and 758 koz silver
- 12-year mine life with a 25 ktpd processing operation
- After-tax Net Present Value (“NPV”) (5%) and Internal Rate of Return (“IRR”) of \$387 million and 16.0%
- After-tax NPV (5%) and IRR of \$562 million and 20.3% using \$1,760 per ounce gold (see Table 1)
- Average cash operating costs of \$748/oz and all-in sustaining costs of \$839/oz, net of by-product credits
- LOM processed grades of 0.72 grams per tonne (“g/t”) gold and 5.9 g/t silver
- LOM revenue mix of 95% gold and 5% silver
- Initial capital costs including working capital of \$607 million, not including refundable value added tax

The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that the PEA will be realized.

**Table 1-1: Summary of Economic Results by Gold and Silver Price**

Percentage of Base Case Prices	90%	100%	110%
Gold Price (per oz)	\$1,440	<b>\$1,600</b>	\$1,760
Silver Price (per oz)	\$18.90	<b>\$21.00</b>	\$23.10

Pre-Tax NPV (5%) (\$M)	\$375	\$640	\$904
Pre-Tax IRR	14.9%	21.0%	26.6%
Post-Tax NPV (5%) (\$M)	\$211	\$387	\$562
Post-Tax IRR	11.4%	16.0%	20.3%

**Table 1-2: Capital Expenditure Estimate Summary**

<b>Initial Capital (\$M)</b>	
Process Plant & Infrastructure	\$206
Equipment (Mining and Ancillary Facilities)	\$122
Pre-Production Mine Development	\$66
Subaqueous Tailings Storage Facility	\$24
Other Direct and Indirect Costs	\$95
<b>Sub Total</b>	<b>\$513</b>
Contingency (13.4% Allowance) <sup>(1)</sup>	\$69
Freight, Duties and Taxes	\$25
Refundable Value Added Tax	\$50
<b>Total Initial Capital</b>	<b>\$657</b>
<b>Sustaining Capital and Closure Costs (\$M)</b>	
Life of Mine Sustaining Capital	\$175
Average Annual Life of Mine Sustaining Capital	\$15
Net Closure Costs ( Closure, Severance and Salvage)	\$30

Note: Totals may not add up due to rounding. The contingency allowance was developed on an area-by-area cost centre assessment of estimate confidence. The assessment considered scope, quantification, and pricing factors to assign a contingency amount to each area.

**Table 1-3: Summary of Operating Cost Estimates and Cash Costs**

<b>Average Operating Costs</b>	<b>Years 1-5</b>	<b>Years 6-12</b>	<b>LOM</b>
Mining Costs per Tonne Mined – Underground	\$32.25	\$30.33	\$31.69
Mining Costs per Tonne Mined – Open Pit	\$1.59	\$1.47	\$1.53
<b>Per Tonne Milled</b>			
Mining Costs	\$8.52	\$4.25	\$6.00
Processing and Tailings Management Costs	\$8.38	\$8.30	\$8.33
General, Administrative, Environmental and Site Costs	\$1.91	\$1.47	\$1.65
<b>Total Operating Costs</b>	<b>\$18.81</b>	<b>\$14.02</b>	<b>\$15.98</b>
<b>Average Net Cash Costs per Ounce (1)</b>			
Operating Costs	\$744	\$780	\$763
Refining and Transport	\$18	\$23	\$20
By-Product Credits	(\$70)	(\$98)	(\$85)
Government 3% NSR Royalty	\$48	\$50	\$50
<b>C1 Cash Cost Net of By-products</b>	<b>\$741</b>	<b>\$755</b>	<b>\$748</b>

Sustaining Capital and Net Closure Costs	\$100	\$80	\$91
<b>All-in Sustaining Net Cash Cost</b>	<b>\$841</b>	<b>\$835</b>	<b>\$839</b>

Note: Totals may not add up due to rounding. By-products calculated using \$21.00 per ounce silver. Net Cash Cost: (Operating costs including transportation and refining costs + Royalties – By-product credits) / Payable Au oz. All-in Sustaining Cash Cost: Adds sustaining capital and closure costs to the Net Cash Cost.

**Table 1-4: Summary of the Mineral Resource Estimates for All Deposits Located at the Condor Project**

Deposit	Tonnes (million)	Average Grade			Contained Metal		
		AuEq(g/t)	Au (g/t)	Ag (g/t)	AuEq(koz)	Au (koz)	Ag (Moz)
Indicated							
Santa Barbara	39.8	0.83	0.67	0.8	1,057	859	1.0
Los Cuyes	50.8	0.71	0.65	5.2	1,161	1,059	8.5
Soledad	19.4	0.68	0.63	4.8	426	390	3.0
Enma	0.66	0.78	0.64	11.6	17	14	0.25
Total	110.7	0.75	0.65	3.6	2,660	2,321	12.8
Inferred							
Santa Barbara	166.7	0.66	0.52	0.9	3,534	2,768	4.9
Los Cuyes	36.4	0.65	0.59	5.3	761	687	6.2
Soledad	15.1	0.50	0.46	3.4	245	225	1.7
Enma	0.07	0.93	0.81	9.7	2	2	0.02
Camp	6.0	3.45	3.28	27.8	663	631	5.3
Total	224.3	0.72	0.60	2.5	5,205	4,313	18.1

Mineral Resource Estimate Notes:

(1) The mineral resource estimate has an effective date of July 28, 2021. (2) There are no known issues related to legal, political, or environmental issues that could materially affect the potential development of the mineral resources. (3) The quantity and grade of reported inferred mineral resources is based on limited geological evidence and sampling which is sufficient to imply but not verify geological and grade or quality continuity and there has been insufficient exploration to define these inferred mineral resources as an indicated or measured mineral resource. It is reasonable to expect that the majority of inferred mineral resources could be upgraded to indicated or measured mineral resources with continued exploration. (4) Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods at Santa Barbara, Los Cuyes, Soledad and Enma and using underground mining methods at the Camp deposit. At Los Cuyes and Soledad, the base case cut-off grade is 0.30 g/t AuEq and at Santa Barbara and Enma, the base case cut-off grade is 0.37 g/t AuEq. At Los Cuyes, Soledad, and Enma,  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$ , and at Santa Barbara,  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012) + (Cu\% \times 1.371)$ . The base case cut-off grade for the Camp resource is 1.33g/t AuEq, where  $AuEq = Au \text{ g/t} + Ag \text{ g/t} * 0.0062$ . (5) Totals may not add up due to rounding. Base metal values are not displayed: copper for Santa Barbara and copper, lead and zinc for Camp. Base metal values are excluded from Camp AuEq. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

### 1.3.2 Mining and Processing Facility

The Condor North area consists of three adjacent open pit mine areas and one underground mine. The open pit mine areas are named “Los Cuyes”, “Soledad”, and “Enma”; and the underground mine is “Camp.”

The Camp deposit consists of a series of steeply dipping, sub-parallel mineralized structures that will be mined using mechanized underground methods. The mining methods used will be longitudinal and transverse blasthole stoping with waste rock backfill, cemented where required. Access to the deposit will be through portals at the 1,200-metre elevation, then through a series of ramps to gain access to working levels on 20-metre vertical intervals ranging from elevations of 600 to 1,300 metres.

The mining rate from Camp will ramp up to 2,500 tpd (0.9 Mtpy) by the second year of the mine life and the deposit will operate until year eight. The lower grade open pit mill feed from Los Cuyes, Soledad and Enma will be blended with the higher-grade underground Camp mill feed, resulting in a combined mill feed of 25,000 tpd (9.1 Mtpy). Surface mining will move about 29,500 tpd (10.8 Mtpy) in preproduction and eventually ramp to a nominal mine production movement rate of 82,200 tpd (30 Mtpy). The combined open pit strip ratio is 1.94:1.00 (Ore + LG/waste). All material that is not directly trucked to the mill will be placed in a low-grade storage, saprolite storage, or one of two waste rock storage facilities.

The proposed processing facility for Condor North area is a conventional gravity concentration and carbon-in-leach (“CIL”) circuit. It has been designed to treat 25,000 tpd (9.1 Mtpa average) of mineralized material over the 12- year mining life.

The process flowsheet begins with a primary crusher located near the open pits and an overland conveyor to the plant. The plant consists of a semi-autonomous grinding (“SAG”) mill, pebble crusher and ball mill for grinding, gravity concentrators and an intensive cyanide leaching circuit, a CIL circuit for gravity tailings, a carbon treatment system, electrowinning cells and a detoxification circuit for CIL tailing. Detoxified tailings will be pumped to a wet tailings storage facility with process water recycled to the plant. The plant will produce gold and silver doré which will be shipped off-site for final refining.

**Table 1-5: Mined and Processed Material Summary**

Processed Material	Tonnes (kt)	Grade		Contained Metal		Contained Metal % Total	
		Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)	Au %	Ag %
Camp (Underground)	6,293	2.52	20.78	510	4,204	20.5%	20.6%
Los Cuyes (Open Pit)	72,104	0.62	5.24	1,431	12,149	57.5%	59.4%
Soledad (Open Pit)	27,467	0.60	4.26	529	3,765	21.3%	18.4%
Enma (Open Pit)	1,135	0.56	9.06	20	331	0.8%	1.6%
<b>Total Processed</b>	<b>106,999</b>	<b>0.724</b>	<b>5.94</b>	<b>2,490</b>	<b>20,449</b>	<b>100.0%</b>	<b>100.0%</b>
Waste Material (Open Pits)	194,998						
<b>Total Mined</b>	<b>301,997</b>						
Strip Ratio (Open Pits)	1.94						

The Camp deposit will require substantially more drilling and geotechnical evaluation to progress that deposit toward prefeasibility analysis. The results of that work will provide the basis for better accuracy in the estimated resource tonnage, head grades, and cost estimation.

The surface mine areas require more advance geotechnical data collection and evaluation. In particular, additional information regarding the depth and location of saprolite in the mine area will have a substantial impact on the estimation of mine development costs.

There are a number of areas in the surface deposits where surface samples indicate the presence of ore grade mineralization. Mineralization estimated by surface samples was not incorporated into the mineral resource or mine plan due to a lack of confidence in the surface sampling. Additional drilling in those areas could add near surface resources to the mineral resources and mine plan.

### 1.3.3 Mine Geotechnical

Geotechnical analyses were performed to develop design guidance for open pit slope development and for underground access and mining appropriate for the PEA stage for the Condor North area.

Summary conclusions with respect to pit slopes from this work included:

- Based on correlations of rock mass characteristics, the general rock quality at the Cuyes deposit appears to be lower than for the Camp underground deposit (away from the vein system). Data for the Enma and Soledad deposits are limited and therefore structural and rock quality conditions were assumed to mimic the Cuyes deposit.
- Major faults are predominantly steeply-dipping and inclined to the southeast. The steep inclination precludes large-scale fault-bounded planar or wedge-type wall instability for overall slopes.
- Structural analyses indicate that double benching (20 m vertical height) is feasible provided quadrant specific bench face angles and inter-ramp angles are implemented, along with safety benches at specified vertical intervals.
- Overall slope angles will be governed by ultimate height, rock mass strength, presence of shattered rock envelopes with degraded rock quality adjacent to major faults, structural fabric, and groundwater conditions. Sensitivity analyses for these parameters were used to develop allowable slope height – slope angle combinations at a stability factor of 1.3 to be used in design studies for all three pits.

Summary conclusions with respect to underground workings from this work included:

- Rock quality surrounding the mine was spatially segregated and analyzed to the categories of Hangingwall, Footwall and Mine, consistent with the rationale that the former two would apply to access development and the latter to stope development.
- Stress conditions and two cases for Inferred groundwater conditions were combined with rock quality data to develop mine access opening widths and support requirements as a function of mine depth using empirical methods.
- Recommendations for stopes were derived using the Stability Graph Method to determine hydraulic radii for hangingwalls, ends and back for both unsupported and cable bolt supported options.
- Design charts for pillar width as a function of pillar height and depth below surface were provided. As a practical matter, pillar width will be controlled by vein spacing and parallel open stopes should be avoided.
- Recommendations for crown pillar thickness (below the saprock/fresh rock contact) were related to opening width.

#### **1.3.4 Metallurgy**

Metallurgical test data shows that economically viable metal recovery processes are available for samples taken from Camp, Los Cuyes, Soledad and Enma deposits, which lie within the boundaries of the Condor North area.

From these four deposits, gold recoveries are estimated to range from 71% to 94% and silver recoveries from 30% to 49%. The life-of-mine gold and silver recoveries from all deposits are estimated to average 90% and 45%, respectively.

Future metallurgical testing should focus on collection of samples from each deposit representing variations in head grades and lithologies. Tests to determine the optimum process flowsheet, including not only the gravity and cyanidation process currently envisioned, but also flotation for base metals and cyanidation of flotation concentrates, should be performed.



Metallurgical tests were conducted on samples from the Santa Barbara deposit, located in Condor Central area, from 2013 to 2019. Results indicate that metal recoveries would be 87% for gold, 80% for copper and 60% for silver. Santa Barbara mineralized materials are not included in the mining and processing plans for Condor North area since it will require a different project flow sheet from that considered in the economic portion of this study. Also, there is insufficient information to include Condor South area (Nayumbi prospect) in the economic assessment at the time of the preparation of this report.

In the opinion of the QP, the samples used in the metallurgical tests are representative of the types and styles of mineralization and of the mineral deposits as a whole and, there are no identified processing factors or deleterious elements that could have a significant effect on the potential economic extraction.

### **1.3.5 Process and Infrastructure Design**

The process and infrastructure design that has been completed as the basis for the PEA is a conceptual design that has been completed to a scoping-level of accuracy. Process unit operations have been selected based on standard commercial processing techniques and the current understanding of the project resources. The conceptual processing scheme follows a conventional whole mineralized material gravity concentration/gravity tails cyanidation process to treat 25 ktpd of material and produce gold/silver doré. Infrastructure supporting the mine and plant operations is also conceptual and has been selected based on standard industrial designs and site-specific project requirements.

### **1.3.6 Infrastructure Geotechnical**

A geotechnical program was performed in 2020 including test pits and boreholes along with the collection of soil and rock samples, laboratory testing and geotechnical surface mapping and geophysical investigations to understand the foundation conditions for the Plant Site, Primary Crusher area, Waste Rock Storage Facility (WRSF), and Tailings Storage Facility (TSF).

This information was used to develop the conceptual designs for the site infrastructure. A limited field program was conducted, and additional geotechnical investigations will be required during the Prefeasibility study.

### **1.3.7 Water Supply**

The tailings deposition is sub-aqueous with a minimum of 4 meters of water cover (2Mm<sup>3</sup> to 8Mm<sup>3</sup>) in a net positive water balance and will provide an abundant water resource along with pit and underground dewatering to supply operations. Based on the water balance 120 l/s of fresh water is required for reagent mixing, gland seals, etc. that will be supplied from surface water entering the TSF, which is approximately 6% of the average annual stream of the Congüime River. The remainder of the process water will be supplied from water reclaimed from the east end of TSF.

### **1.3.8 Geochemistry**

Limited preliminary geochemical sampling and analyses of waste rock and tailings indicate that the mine waste rock is both non-acid generating and potentially acid generating, and mine tailings are likely to be the latter. Further analysis is required to confirm these conditions and associated waste rock volumes, and to determine if waste rock contact water quality will meet Ecuadorian standards for direct discharge to the environment, after sedimentation but without further treatment.

With respect to waste rock contact water, for the purposes of this PEA it is assumed that comingling surface water from the sub-basin above and the waste rock contact water in the TSF will improve water quality to the point that it could be directly discharged to the environment, which need to be verified with additional geochemical testing.

As preliminary testing indicates that tailings are likely to be acid generating and metal leaching, the tailings will be deposited sub-aqueously in the TSF to prevent oxidation.

#### 1.4 Recommendations

The outcome of this PEA is an overall recommendation to complete a Preliminary Feasibility Study (PFS) to advance the development of the Project.

The estimated costs to complete the Prefeasibility Study, as recommended by the Qualified Persons (QPs) and supporting consultants who completed this PEA, are summarized in Table 1-6.

**Table 1-6: Estimated Cost to Perform Prefeasibility Study**

Description	Estimated Cost (US\$ 000)
Project Management	400
Resource Drilling	16,800
Metallurgical Testing	460
Mine Design (Surface & Underground)	400
Mine Geotechnical Drilling	871
Mine Geotechnical	310
Process & Infrastructure Engineering	700
Infrastructure Geotechnical Program	500
TSF, WRSF, Access Road, Haul Road (outside of WRSF and pits), Plant Platform Design and Analysis	310
Geochemistry	170
Water Management and Water Balance	310
Closure Plan	20
Social Baseline Study	60
Environmental	214
Power supply	30
Transportation	50
Economics – Customs Study	50
General and Administrative	70
Subtotal	21,725
Contingency (15%)	3,259
Total to Complete a Prefeasibility Study	24,984

#### 1.5 Economic Analysis

To evaluate the potential economic viability of the Condor North area, Robert Michel Enterprises (RME) completed a Preliminary Economic Assessment (PEA) level economic evaluation and review of the Project for Luminex Resources.

### 1.5.1 General Criteria and Assumptions

The general assumptions and key inputs used for the cash flow projections are clearly laid out in the following sections. All currencies are in US dollars and no inflation was applied. Cost estimates were static (not escalated), and cash flow values were discounted to net present value using a 5% annual discount rate starting one calendar year from the data date. Metal prices were selected based on discussions with Luminex Resources, considering market activity up to the effective date of July 28, 2021, and publicly available price forecasts. Taxation rates applied were 15% profit tax, 22% corporate income tax, and 3% royalty to the Ecuadorian Government on Net Smelter Return. Depreciation was calculated using depreciation methods prescribed by Ecuadorian mining practices. Value added tax (VAT or IVA) of 12% was applied to all goods & services, including operating costs less labor and power, and was recaptured at a maximum of 12% of exported goods' value per year. Miscellaneous taxes, including business permit tax, gross asset tax, mining patent maintenance, superintendent tax, and local land and use taxes were also applied.

Summations of key project input data and assumptions along with key results are presented in tables extracted from the model. A listing of select model inputs and key results is given in Table 1-7. Totals may not add up due to rounding.

**Table 1-7: Economic Model Inputs**

<b>Economic Model Inputs</b>	
<b>DESCRIPTION</b>	<b>VALUES</b>
Construction Period	2 Years
Preproduction Period	1 Year
Mine Life (after preproduction)	11.9
LOM Mill Feed (kt)	106,999
LOM Payable Gold (koz)	2,242
LOM Payable Silver (koz)	9,095
<b>LOM GRADE</b>	
Gold (grams per tonne)	0.724
Silver (grams per tonne)	5.94
<b>AVERAGE ANNUAL PRODUCTION</b>	
Gold (koz)	187
Silver (koz)	758
<b>MARKET PRICES</b>	
Gold (\$/toz)	\$ 1,600
Silver (\$/toz)	\$ 21.00
<b>COST AND TAX BASIS</b>	
Estimate Basis	1-Jun-2021
Inflation	None
Leverage	100% Equity
Tax - Federal	22%
Profit Tax	15%
VAT (IVA) Recouped with Export	12%
Sovereign Adjustment Tax	Not Required
<b>ROYALTY</b>	

Ecuadorian Government	3%
Advance Royalty Agreement	-
<b>TRANSPORTATION</b>	
Doré (\$/oz doré) Mine to Smelter	\$ 3.53
<b>DORE PAYMENT TERMS</b>	
Advance	98%
Settlement	2%

### 1.5.2 Base Case Cash Flow Projections

The base case financial model was developed from information described above. The Condor North's after-tax cash flow is comprised of each year's revenue from projected recovered gold and silver minus each year's expenses, taxes, capital, and operating costs to arrive at a series of annual cash flows totaling \$731 M over the life of the Project. The resulting after-tax cash flow stream forms the basis of the following results:

- This Study estimates cash flow to pay back the initial \$658.5 M capital investment at the start of the fourth year of mine life, approximately 48 months after initial production starts. It estimates that the Condor North area will generate an after-tax IRR of 16.0%.
- Assuming a discount rate of five percent over an estimated mine life of 11.9 years, this Study estimates an after-tax NPV of \$387 M.

Additional Project results are presented in Table 1-8 below:

**Table 1-8: Condor North Area Key Results**

Condor North Area Key Results	Unit	Value
Total Material Produced	ktonnes	106,999
Gold Grade	g/t	0.724
Silver Grade	g/t	5.94
Gold Recovery	%	90%
Silver Recovery	%	45%
Gold Price	US \$/oz	1600
Silver Price	US \$/oz	21.00
Gold Payable	%	99.95%
Silver Payable	%	99.50%
Gold Revenue Split	%	94.9%
Silver Revenue Split	%	5.1%
Gross Revenue	US \$ (M)	\$ 3,778
Initial Capital Cost	US \$ (M)	\$ 607
Sustaining Capital Cost	US \$ (M)	\$ 175
Mine Operating Costs	US \$ (M)	\$ 642
Process Operating Costs	US \$ (M)	\$ 891
General and Administrative Operating Costs	US \$ (M)	\$ 177

Condor North Area Key Results	Unit	Value
Total Operating Costs	US \$ (M)	\$ 1,710
Operating Cash Costs (Gold Equivalent)	US \$/ EQ OZ	\$ 791
After Tax Payback Time - Initial Capital	Years	4.0
Cumulative Net Pre-Tax Cash Flow	US \$ (M)	\$ 1,110
Pre-Tax IRR	%	21.0%
Pre-Tax NPV (5% Annual Discount Rate)	US \$ (M)	\$ 640
Cumulative Net After-Tax Cash Flow	US \$ (M)	\$ 731
Post-Tax IRR	%	16.0%
Post-Tax NPV (5% Annual Discount Rate)	US \$ (M)	\$ 387

## 1.6 Execution Plan

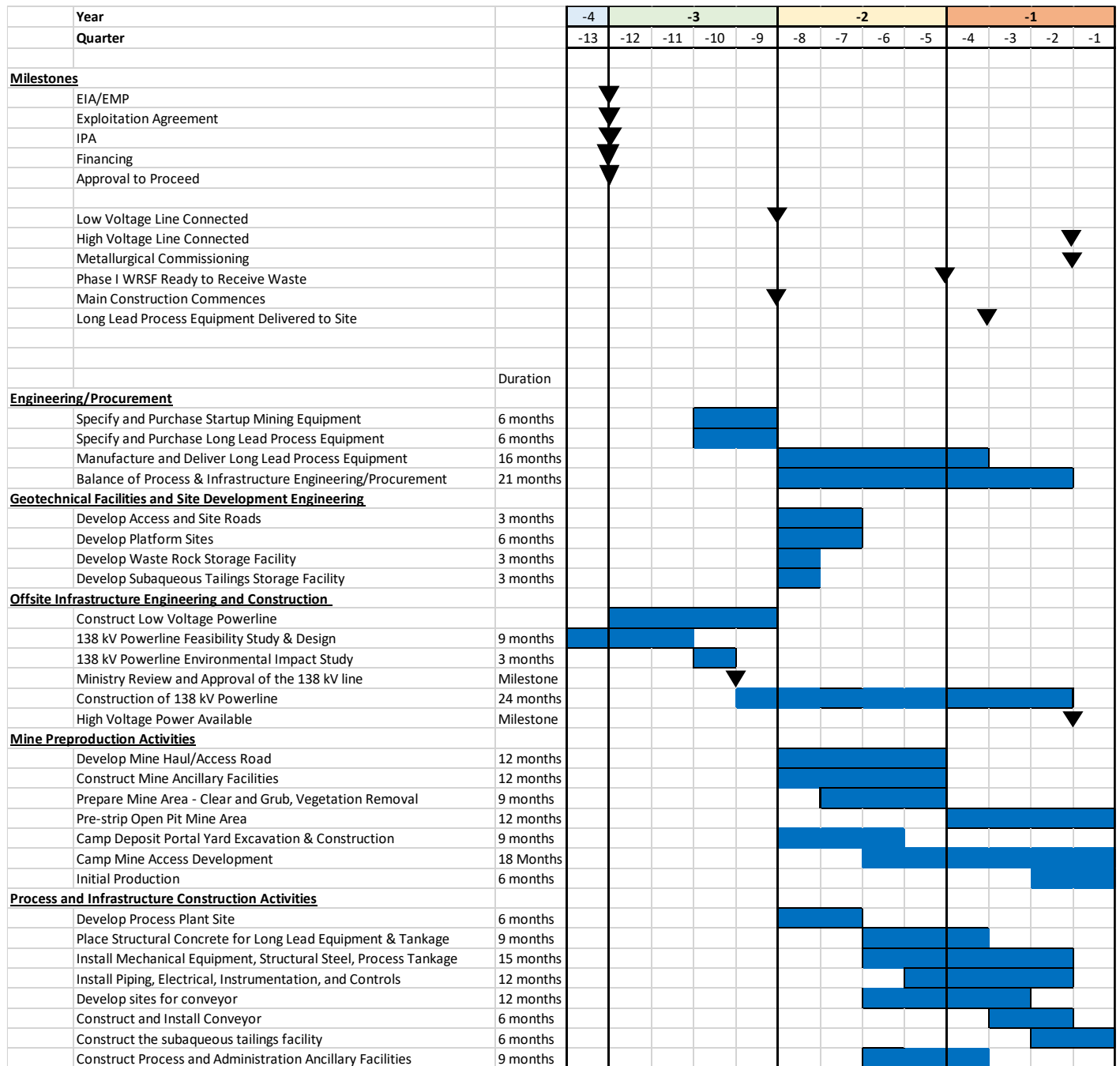
The execution plan assumes that the Condor North area will be developed after all the prerequisites are satisfied. A summary-level schedule was developed using logic and durations for major activities, including manufacturing and delivery durations for major mining and process equipment.

During a future Feasibility Study some early/basic engineering may be performed to facilitate early placement of purchase orders for the primary crusher, mills, and other long-lead items to reduce schedule risk due to vendor manufacturing/delivery delays. Early engineering of some of the site infrastructure, especially the high voltage powerline, during the permitting process will be advantageous if it facilitates an efficient start of construction on site after permit approvals are received.

Durations for completion of the power supply activities were provided by the Electric Power and Communications Company (EPTEC) in a report that is summarized in Section 18.1.

The summary Condor North area Execution Schedule is included below; see Section 24 for supporting details.

Figure 1-2: Condor North Area Preliminary Execution Schedule



## 1.7 Technical Summary

### 1.7.1 Property Description and Location

The Condor Project is located in the Province of Zamora Chinchipe, near the Ecuador – Peru border and the southern end of the Cordillera del Condor. The Project is approximately 400 km south-southeast of Quito, 149 km east of the city of Loja, and 76 km southeast of the town of Zamora. The approximate center of the Condor Project properties is located at 95523500m North and 768000m East (geographic projection: Provisional South American Datum 1956, UTM Zone 17M).

### 1.7.2 Land Tenure

The Condor Project consists of nine concessions in alphabetical order; Chinapintza, Escondida, FADGOY, FJTX, Hitobo, Santa Barbara Viche Congüime I, Viche Congüime II, and Viche Congüime III as depicted in Figure 4-2.

The Condor North area mining operations will be conducted within the three northernmost concessions (Viche Conguime I, Viche Conguime II, and Chinapintza) in Condormining and Bestminer's Condor Project concession package, as shown in Figure 4-3. Table 4-1 presents the legal descriptions and land areas of these concessions.

The maintenance of each mining concession requires an annual fee payment that is due before the 31st of March each year. These fees have been paid for 2021, and all Project concessions are in good standing.

Luminex owns surface rights for approximately 261 ha within the Condor North area mining concessions and over the mineralized zones, comprised of approximately 104 ha owned by Luminex and an additional 157 ha in surface easement rights. The remaining surface rights in these concessions as well as adjoining non-mining land needed for project infrastructure currently belong to the State, Shuar communities, and other private landowners. Condormining interacts regularly with these landowners in the North Condor area and expects to readily negotiate sales, long-term rentals, or easements of all land areas required for project infrastructure.

### 1.7.3 Existing Infrastructure and Accessibility

Current infrastructure at Condor Project consists of a fully equipped 70-man exploration camp, located directly above the Camp deposit. This camp is comprised of dormitories, a canteen, medical clinic, administrative offices, warehouse, emergency generator, water treatment plant, septic system, diesel storage tanks and fuelling station, a meteorological station, various security installations, and a large core logging and storage facility. Ancillary core storage, warehousing, and waste segregation/accumulation facilities are also located near the camp. The camp is connected to the national electrical grid and has full Internet and cellular telephone access. The Congüime River and numerous smaller streams and springs within the Project concessions can serve as sources of water for all anticipated Project requirements, including drilling, mining, mineral processing, and potable usage.

As previously noted, the Project is approximately 149 km southeast of the city of Loja and 76 km east of the town of Zamora (the regional capital). Access to the Project is by paved national highways and about 20 km of gravel road for final access to the site; the nearest airport connections are in the town of Catamayo (20 km west of Loja) and the city of Cuenca (238 km).

#### 1.7.4 History

Gold has been mined in the Project area since pre-Columbian times. Artisanal/small scale hard rock and alluvial mining by legal and illegal operators has occurred since the early 1980s. Modern exploration of the Condor Project area and adjacent concessions began as a joint venture between the ISSFA<sup>1</sup> and Prominex UK. This venture undertook a number of regional stream sediment sampling and geological mapping programs and resulted in the discovery of most of the mineralized prospects on the Project (and neighboring) concessions.

In 1991, Prominex UK withdrew from the venture, and was replaced by TVX Gold, Inc. (TVX) and Chalupas Mining in 1993. From 1993 to 2000, an extensive surface exploration program was completed, consisting of soil, rock and stream sampling, trenching, and geophysical and induced polarization (IP) surveys. Drilling programs tested epithermal gold showings as well as porphyry occurrences. In addition, TVX undertook a significant underground development specifically to explore the Chinapintza veins. TVX and Chalupas Mining withdrew from the joint venture in 2000.

Goldmarca formed a joint venture with ISSFA in 2002 and continued to explore the area of the Project and its adjacent concessions. Between 2002 and 2008, they completed reconnaissance mapping, IP and magnetic surveys, and drilled a number of gold deposits in and adjacent to the Project concessions. Goldmarca changed its name to Ecometals Ltd. in 2007.

From April 2008 to November 2009, the Ecuadorian government imposed a moratorium on mineral exploration, and no work was conducted in the Project area. In 2010, Ecometals sold its interest to Ecuador Capital, which was subsequently renamed Ecuador Gold and Copper Corp. (EGX). From 2012 to 2016, EGX conducted geological mapping and rock sampling as well as drilling campaigns in the Project area and adjacent concessions. EGX was acquired by Lumina Gold Corp. (Lumina) in November 2016.

From 2016 to 2018, Lumina completed additional geological mapping, soil and rock sampling and ground-based magnetic and IP geophysical surveys in an effort to identify and define drillable targets.

In May 2018, Lumina released an updated mineral resource estimate on four deposits in the Condor Project and adjacent concessions, and the corresponding technical report was released on July 10, 2018. Following this, Lumina spun out Luminex Resources Corp. (Luminex) to its shareholders (August 31, 2018). The Condor Project is 90% owned by Luminex and ISSFA maintain a 10% stake.

Since September 2018, Lumina has continued geologic mapping, and soil and rock sampling in the Project area and adjacent concessions. It conducted a property wide airborne ZTEM geophysical survey, which identified several anomalous targets. Rock and soil geochemical surveys resulted in the definition of a coherent, locally high-grade gold-silver-zinc geochemical anomaly underlying part of the camp facilities. This new zone was named the "Camp" deposit and drilling commenced in mid-2019.

From mid-2019 through 2020, Luminex drilled 44 holes totalling 23,473 m at the newly discovered Camp deposit as well as a few holes testing strike extensions to the northwest and to the southeast into the Soledad Baja area, and the Soledad deposit proper. The results form the basis of the mineral resource estimate for the Camp deposit discussed in this Technical Report. The Camp deposit remains open along strike and down dip.

Two holes (210 m) were drilled by Luminex in late 2020 to obtain metallurgical samples from the Cuyes deposit, drilled one hole (100 m) in early 2021 for metallurgical material from the Enma deposit and commenced drilling in the Nayumbi prospect in 2021.

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<sup>1</sup> ISSFA operates the pension fund for the Ecuadorian military forces, who had become aware of the potential mineral resources in the area of the Project during the border disputes with Peru in the early 1980s.



Additional historical detail is provided in Section 6.

### 1.7.5 Geology and Mineralization

The Condor Project is located in the Zamora copper-gold metallogenic belt which also hosts the Fruta del Norte epithermal gold deposit and the Luminex exploration camp, Mirador Norte, Panantza and San Carlos porphyry copper deposits.

The dominant geological feature of this belt is the Zamora batholith, a 100 km wide, Middle to Late Jurassic (153–169 Ma) calc-alkaline, I-type intrusion that is exposed along a 200 km north-northeast trend. The batholith consists of equigranular, medium-grained monzonites and granodiorites and younger subvolcanic porphyritic (plagioclase-hornblende ± quartz) intrusions of andesitic to rhyolitic composition. These porphyritic intrusions form about every 15 km to 20 km along the axis of the Zamora batholith and are commonly associated with copper and gold mineralization. The Zamora batholith intrudes Late Triassic to Lower Jurassic volcano-sedimentary formations and is unconformably overlain by Late Jurassic sediments and synchronous volcanic rocks. Lower Cretaceous sedimentary rocks further cover portions of the eroded Jurassic volcano-sedimentary sequence and the batholith. This sequence is locally overlain by rhyolitic to dacitic volcanoclastic rocks of the Lower Cretaceous Chinapintza formation. Upper Cretaceous felsic to intermediate stocks and dykes are aligned with regional fault structures.

North-south-trending detachment faults form the principal structural grain, precursors of which controlled the emplacement of the batholith and its subsequent uplift. A series of younger northeast-, northwest- and east-northeast-trending cross structures control the emplacement of younger intrusions.

Low- to intermediate-sulphidation epithermal gold occurrences associated with the Chinapintza formation occur in the northern part of the Condor Project. This includes the Chinapintza vein system which consists of a number of narrow (<0.3 to 2 m), northwest-trending, high-grade gold veins. These veins are characterized by open-space fillings, exhibit colloform and drusy textures, and are sulphide rich. The dominant sulphides are pyrite, sphalerite and galena. Gold occurs in its native form and associated with the alloy electrum. A series of gold-rich breccias, diatremes, and dykes are located immediately south of the Chinapintza vein system. The main occurrences are Los Cuyes, Soledad, Enma and Camp. Higher gold grades in these zones are associated with veins of massive sphalerite, pyrite and marcasite (although the average zinc grade in resources tends to be well below 1% zinc). A possible similar system has been prospected and is being readied for drilling at Prometedor.

Porphyry-style mineralization occurs in the central part of the Condor Project. This includes the Santa Barbara gold-copper deposit and El Hito zone of copper-molybdenum mineralization. At Santa Barbara, mineralization is hosted in alkali basalts and diorite dykes and is associated with a stockwork of quartz veins and potassic alteration consisting of secondary biotite and K-feldspar. High gold values are closely associated with B-type quartz veins which often carry sulphide vein minerals, typically chalcopyrite, surrounded by biotite alteration and disseminated pyrite. The mineralized zone has dimensions of 1.2 km north-south, 500 m east-west and extends to a depth of at least 500 m.

Mineralization at El Hito is hosted within a porphyritic granodiorite. Moderate to strong phyllic-argillic alteration consisting of illite-sericite-pyrite and an early potassic phase consisting of fine-grained secondary biotite and K-feldspar are present. Overall sulphide content is low (<5%), and chalcopyrite is the dominant sulphide with lesser amounts of pyrite, molybdenite and bornite. The mineralized zone is 2.5 km (north-south) by 1.0 km (east-west) and extends to vertical depths of at least 600 m.

An epithermal precious-metal target, perhaps a distal manifestation of the porphyries, has recently been identified at Nayumbi in the southern portion of the Condor Project. Geologically and geochemically Nayumbi can be characterized as a low sulfidation epithermal gold-silver prospect that is interpreted to have formed in permeable breccias and sandstones,

around a feeder structure that channeled mineralizing fluids from depth. Similar gold targets exist elsewhere on the property, and these are being actively explored. This prospect is now at the drill-ready stage.

#### **1.7.6 Exploration Status**

The Condor North area is part of a broader exploration project (the “Condor Project”) which has seen extensive geological, geochemical (e.g., streams, soils and rocks) and geophysical work dating back to the early 1980’s. Drilling has identified deposits with estimated mineral resources with the Condor North concessions (the Los Cuyes, Camp, Soledad, and Enma deposits) and has tested other zones of mineralization in adjacent concessions (the Santa Barbara, Chinapintza, and El Hito deposits). Additional exploration targets in or adjacent to the Condor North Area remain to be tested with future drilling. Drilling has commenced at the Nayumbi prospect in the southern portion of the Condor Project in 2021.

#### **1.7.7 Mineral Resources**

The mineral resource estimates were generated using drill hole sample assay results and the interpretation of geological models which relate to the spatial distribution of gold and silver and, in some deposits, relatively minor contributions of copper, lead and zinc.

Interpolation characteristics are defined based on the geology, drill hole spacing, and geostatistical analysis of the data.

Grade estimations for the Los Cuyes, Camp, Soledad and Enma (Condor North area), and Santa Barbara (Condor Central area) deposits are made from 3D block models based on geostatistical applications using commercial mine planning software.

The Project limits are based in the UTM coordinate system (PSAD56 UTM Zone 17S), and three-dimensional block models use nominal block sizes considered appropriate for the individual deposits at the level of exploration drilling currently available.

The block models for the Santa Barbara and Los Cuyes, Soledad, Enma deposits use a nominal block size measuring 10 × 10 × 10 m that is considered appropriate with respect to the current drill hole spacing as well as the selective mining unit (SMU) size typical of open pit extraction methods. The block model for the Camp deposit uses a smaller block size, measuring 5 × 1.5 × 5 m (X(northwest) × Y(northeast) × Z(vertical)); this is considered appropriate for underground mining extraction methods.

Grade estimates for gold and silver and copper at Santa Barbara (Condor Central) were estimated using ordinary kriging (OK). Grade estimates for the Camp deposit were estimated using the inverse distance cubed (ID3) interpolation method. SG data are only available for the Santa Barbara and Camp areas. The volume and distribution of SG data are considered sufficient to support the estimation of densities in the block models at Santa Barbara. Average SG values are used to determine mineral resource tonnages for the Los Cuyes, Soledad and Enma deposits. At the Camp deposit, average SG values were assigned based on lithology type.

Potentially anomalous outlier grades were identified, and their influences on the grade models are controlled during interpolation using a combination of traditional top-cutting and outlier limitations.

The results of the modelling process were validated using a series of visual and statistical methods to ensure the models are valid representations of the underlying sample data.

The mineral resources for the deposits at the Condor North area (Los Cuyes, Camp, Soledad and Enma), and Santa Barbara (Condor Central area) were classified in accordance with the Canadian Institute of Mining Metallurgy and Petroleum (CIM)

Definition Standards for Mineral Resources and Mineral Reserves (May 2014). The classification parameters are defined relative to the distance between gold sample data and are intended to encompass zones of reasonably continuous mineralization that exhibit the desired degree of confidence. These parameters are based on visual observations and statistical studies and are based primarily on the nature of the distribution of gold data because gold is the main contributor to the relative value of these polymetallic deposits. The criteria for each deposit are as follows:

### Indicated Mineral Resources

At Santa Barbara mineral resources in the Indicated category are estimated using three or more drill holes that are spaced at a maximum distance of 75 m. At Soledad, Los Cuyes and Enma, mineral resources in the Indicated category are estimated using at least three drill holes that are spaced at a maximum distance of 50 m. There are no resources in the Indicated category at the Camp deposit based on current drilling.

### Inferred Mineral Resources

Mineral resources in the Inferred category include model blocks that do not meet the criteria for Indicated resources but are within a maximum distance of 100 m from a drill hole at Santa Barbara or are within a maximum distance of 75 m from a drill hole at Los Cuyes, Camp, Soledad and Enma.

The economic viability of the mineral resources for the Santa Barbara, Los Cuyes, Soledad and Enma deposits was tested by constraining the deposits within floating cone pit shells.

These evaluations are based on the following projected economic and technical parameters:

	Los Cuyes (LC), Soledad, Enma	Santa Barbara
• Mining Cost (open pit)	\$1.61/t	\$2.00/t
• Process	\$9.25/t	\$11.50/t
• G&A	\$1.96/t	\$2.00/t
• Gold Price	\$1,500/oz	\$1,500/oz
• Silver Price	\$18.00/oz	\$18.00/oz
• Copper Price	n/a	\$3.00/lb
• Gold Process Recovery	89% LC, 90% Soledad, 71% Enma	87%
• Silver Process Recovery	48% LC, 30% Soledad, 49% Enma	70%
• Copper Process Recovery	n/a	80%
• Pit Slope	45 degrees	45 degrees

Using the metal prices and recoveries shown here, recoverable gold equivalent grades are calculated, and pit shells are generated using a floating cone algorithm. There are no adjustments for mining recoveries or dilution. This test indicates that some of the deeper mineralization may not be economic due to the increased waste-stripping requirements. Mineral

resources considered amenable to open pit extraction methods are calculated using gold equivalent (AuEq) cut-off grades using the following formulae:

Los Cuyes, Soledad, and Enma :  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$

Santa Barbara :  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012) + (Cu\% \times 1.371)$

Using the operating costs and recovery factors listed previously, the base case cut-off grade for mineral resources considered amenable to open pit extraction methods is determined to be 0.30 g/t AuEq for the Los Cuyes and Soledad deposits and 0.37 g/t AuEq for the Santa Barbara and Enma deposits.

The economic viability of the mineral resources for the Camp deposit was tested assuming it would be mined using a combination of underground mining methods including Transverse Stopping and Avoca.

The following parameters were used to establish a cutoff grade for the mineral resource:

- Mining Cost Average                      \$48.29/t ore
- Transport Portal to Crusher            \$0.50/t ore
- Process                                        \$9.25/t ore
- G&A    \$1.96/t ore
- Gold Price                                    \$1,500/troy ounce
- Silver Price                                  \$18.00/troy ounce
- Process Recovery                         \$94% gold, 49% silver
- Payable Metal                                99.5%
- Refining and Freight                      \$5.00/troy ounce gold, \$0.35/troy ounce silver

Based on these parameters, the net smelter (refining) return (NSR) is expressed in the following equation:

- $NSR \text{ \$/tonne} = Au \text{ g/t} \times 44.956 + Ag \text{ g/t} \times 0.277$
- When the same parameter is expressed in terms of equivalent gold grade (AuEq), the equation becomes:
- $AuEq \text{ for Mineral Resource} = Au \text{ g/t} + Ag \text{ g/t} \times 0.0062$

Process metallurgical work completed since the last resource has shown that it may not be economic to produce base metals from the Camp deposit. As a result, the mineral resource estimate is based on the economic credits of gold and silver only.

The stated mining cost is an average of the mining costs for each stoping method weighted by the tonnage from each stoping method. For mine planning purposes, each stoping method uses a unique cutoff grade.

Based on the parameters shown here, the average cutoff grade for the Camp deposit of \$60.00/t ore NSR or 1.33 g/t AuEq for mineral resources was based on weighting by the potentially mineable tonnage of each mine method.

The tabulation of material above cutoff was modified to address those blocks that have at least three other blocks above cutoff in contact with them. In other words, for each block above cutoff, it is in contact with at least three or more blocks that are also above cutoff. This process eliminates isolated blocks that would not be mineable. Application of the cutoff grade and application of the three blocks in contact provides a straightforward and simple approach to establish the component of the mineralization that meets the criteria for “reasonable prospects of economic extraction”.

It is important to recognize that these discussions of surface and underground mining parameters are used solely to test the “reasonable prospects for eventual economic extraction,” and they do not represent an attempt to estimate mineral reserves. There are no mineral reserves calculated for the Condor North area. These preliminary evaluations are used to prepare a mineral resource estimate and to select appropriate reporting assumptions.

There are no known factors related to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing, or political issues which could materially affect the mineral resource estimates contained in this report. Mineral resources in the Inferred category have a lower level of confidence than that applied to Indicated mineral resources, and, although there is sufficient evidence to imply geologic grade and continuity, these characteristics cannot be verified based on the current data. It is reasonably expected that the majority of Inferred mineral resources could be upgraded to Indicated (or Measured) mineral resources with continued exploration.

The estimates of mineral resources for the five deposits are shown in Table 1-9.

**Table 1-9: Estimate of Mineral Resources for the Condor Property**

Deposit	Tonnes (M)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Indicated							
Santa Barbara	39.8	0.83	0.67	0.8	1,057	859	1.0
Los Cuyes	50.8	0.71	0.65	5.2	1,161	1,059	8.5
Soledad	19.4	0.68	0.63	4.8	426	390	3.0
Enma	0.66	0.78	0.64	11.6	17	14	0.25
All	110.7	0.75	0.65	3.6	2,660	2,321	12.8
Inferred							
Santa Barbara	166.7	0.66	0.52	0.9	3,534	2,768	4.9
Los Cuyes	36.4	0.65	0.59	5.3	761	687	6.2
Soledad	15.1	0.50	0.46	3.4	245	225	1.7
Enma	0.07	0.93	0.81	9.7	2	2	0.02
Camp	6.0	3.45	3.28	27.8	663	631	5.3

Deposit	Tonnes (M)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
All	224.3	0.72	0.60	2.5	5,205	4,313	18.1

Notes: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods at Santa Barbara, Los Cuyes, Soledad and Enma and using underground mining methods at the Camp deposit. At Los Cuyes and Soledad, the base case cut-off grade is 0.30 g/t AuEq and at Santa Barbara and Enma, the base case cut-off grade is 0.37 g/t AuEq. At Los Cuyes, Soledad, and Enma,  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$ , and at Santa Barbara,  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012) + (Cu\% \times 1.371)$ . The base case cutoff grade for the Camp resource is 1.33 g/t AuEq, where  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.0062)$ . There are some additional copper resources at Santa Barbara that are not included in this table.

Mineral resources that are not mineral reserves do not have demonstrated economic viability

### 1.7.8 Mineral Reserves

This section is not relevant to this report.

### 1.7.9 Mining Methods

The Condor North area consists of three adjacent surface pit mine areas and one underground mine – the surface mine areas are Los Cuyes, Soledad, and Enma; and the underground mine is Camp. The terrain is steep over all surface deposits with jungle vegetation and saprolite rock overlying the pit areas.

#### 1.7.9.1 Open Pit

The surface pits will be mined with conventional hard rock surface pit mining methods. The initial development of each working area will be mined using a set of small drills, loaders and trucks. Once a large working area is opened up, the primary production fleet consisting of larger drills, shovels/loaders and trucks will be utilized for the surface mining. The Los Cuyes deposit consists of three phases, Soledad consists of two phases and Enma is just one phase. Los Cuyes will have the tallest highwall of approximately 700 m.

The mining rate from the underground Camp deposit will ramp up to 2,500 tpd (0.9 Mtpy) by the second year of the mine life and the deposit will operate until year eight of the mine life. The lower grade surface mill feed will be blended with the higher-grade underground Camp mill feed, resulting in a combined mill feed of 25,000 tpd (9.1 Mtpy). The surface mine will move about 29,500 tpd (10.8 Mtpy) in preproduction and eventually ramp to a nominal mine production movement rate of 82,200 tpd (30 Mtpy). All material that is not directly shipped to the mill will be placed in a low-grade storage, saprolite storage or one of two waste rock storage facilities. A summary of the mined and processed material based on all material types is provided in Table 1-10.

**Table 1-10: Mine and Mill Production Schedule – All Material Types**

Item	Units	Year												Total All Years	
		Prep	1	2	3	4	5	6	7	8	9	10	11		12
Underground Ore	Ktonnes	120	822	914	912	910	835	879	751	149	0	0	0	0	6,293
NSR	\$/tonne	\$126.31	\$129.94	\$144.49	\$113.62	\$97.71	\$122.77	\$112.83	\$118.23	\$149.36					\$120.68
Gold Grade	g/t	2.698	2.749	3.059	2.390	2.057	2.541	2.280	2.441	3.084	0.000	0.000	0.000	0.000	2.519
Silver Grade	g/t	12.5	16.8	18.4	16.8	14.2	24.5	30.8	24.4	30.9	0.0	0.0	0.0	0.0	20.8
Open Pit Cut-offs	NSR/t	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$13.00	\$13.00	\$13.00	\$11.21	\$11.21	\$11.21	\$11.21	
Open Pit Ore	Ktonnes	302	6,056	8,211	8,213	8,215	8,290	8,246	8,374	8,976	9,125	9,125	9,125	2,613	94,871
NSR	\$/tonne	\$20.01	\$37.81	\$30.97	\$29.93	\$32.82	\$30.04	\$24.75	\$24.74	\$25.20	\$28.97	\$29.60	\$41.43	\$36.47	\$30.56
Gold Grade	g/t	0.377	0.785	0.638	0.652	0.709	0.608	0.526	0.520	0.508	0.581	0.596	0.838	0.747	0.632
Silver Grade	g/t	5.8	4.4	4.7	4.1	5.1	5.4	4.6	4.9	4.5	5.2	5.1	6.9	8.0	5.1
Open Pit LG to Stock	Ktonnes	211	1,038	872	1,768	1,264	682								5,835
NSR	\$/tonne	\$13.96	\$14.01	\$14.03	\$13.97	\$13.97	\$14.01								\$13.99
Gold Grade	g/t	0.256	0.274	0.275	0.298	0.297	0.270								0.286
Silver Grade	g/t	4.7	3.3	3.6	3.1	3.2	4.1								3.4
OP LG Stock to Plant	Ktonnes													5,835	5,835
NSR	\$/tonne													\$13.99	\$13.99
Gold Grade	g/t													0.286	0.286
Silver Grade	g/t													3.4	3.4
Open Pit Waste		10,260	18,127	20,917	20,019	20,521	21,028	21,754	19,040	17,181	9,652	9,143	5,392	1,964	194,998
Open Pit Total		10,773	25,221	30,000	30,000	30,000	30,000	30,000	27,414	26,157	18,777	18,268	14,517	10,412	301,539
Total Process Plant Feed															
Ore	Ktonnes		7,300	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	8,448	106,999
NSR	\$/tonne		\$48.90	\$42.34	\$38.30	\$39.30	\$38.53	\$33.23	\$32.43	\$27.23	\$28.97	\$29.60	\$41.43	\$20.94	\$34.95
Gold	g/t		1.021	0.881	0.826	0.844	0.785	0.695	0.678	0.550	0.581	0.596	0.838	0.428	0.724
Silver	g/t		6.0	6.0	5.4	6.0	7.2	7.1	6.5	4.9	5.2	5.1	6.9	4.8	5.9

### 1.7.9.2 Underground

The Camp deposit, one of four deposits included in the Condor North area, is the only deposit planned to be mined by underground methods. The Camp deposit Mine will exploit a series of steeply dipping narrow veins of relatively high-grade gold mineralization. There are no existing workings in the deposit, it has been defined solely by diamond drilling.

Geotechnical conditions in the Camp deposit are expected to be good. Mining will be by mechanized mining methods; either longitudinal Modified Avoca or Transverse Open Stopping methods. Stopes will be backfilled with waste rock, either from waste development, or supplied from the open pit.

The mine will be developed from adits portaled at the 1,200-meter elevation, then by internal ramps in the footwall to the upper and lower levels. Mine ventilation will be by 2 main fans, in parallel, that will force fresh air down a series of raises to the extent of the mine. Exhaust air will be through the ramps and access adits/portals.

Mining will be done by in-house crews. Ecuadorian national staff and labor will be supplemented by expatriate personnel and trainers for the first few years of operations.

Production grades from Camp deposit will be much higher than from the open pits. For this reason, Camp mine planning and sequencing has concentrated on delivering as much metal to the mill as early as possible. A summary of Camp deposit production is presented in Table 1-11.



**Table 1-11: Camp Production Schedule**

Item	Units	Year											Total All Years	
		Yr -3	Yr -2	Yr -1	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8		Yr 9
<b>Production</b>														
Transverse – Primary	Ktonnes		-	69	326	250	146	141	85	53	93	1	-	1,163
Transverse – Secondary	Ktonnes		-		188	207	298	157	92	102	76	14	-	1,136
Modified AVOCA	Ktonnes		-		108	306	390	461	463	548	530	130	-	2,937
5-Spot – AVOCA	Ktonnes		-		57	37	13	96	46	70	9	0	-	328
<b>Total Stopping Tonnage</b>	<b>Ktonnes</b>		<b>-</b>	<b>69</b>	<b>680</b>	<b>800</b>	<b>847</b>	<b>855</b>	<b>686</b>	<b>774</b>	<b>707</b>	<b>145</b>	<b>-</b>	<b>5,563</b>
Development Ore	Ktonnes			51	142	114	65	56	149	105	44	4	-	729
<b>Total Ore</b>	<b>Ktonnes</b>		<b>-</b>	<b>120</b>	<b>822</b>	<b>914</b>	<b>912</b>	<b>910</b>	<b>835</b>	<b>879</b>	<b>751</b>	<b>149</b>	<b>-</b>	<b>6,293</b>
NSR	\$/tonne			\$126.31	\$129.94	\$144.49	\$113.62	\$97.71	\$122.77	\$112.83	\$118.23	\$149.36	\$ -	\$120.68
Au Grade	g/t			2.70	2.75	3.06	2.39	2.06	2.54	2.28	2.44	3.08	-	2.52
Ag Grade	g/t			12.48	16.76	18.37	16.76	14.24	24.48	30.79	24.42	30.89	-	20.78

Note: Production grades from Camp Deposit are fully diluted.

### 1.7.10 Metallurgical Testing

The projected metallurgical performance is based on evaluation of historic laboratory tests performed on Soledad deposit samples and tests recently performed by C.H. Plenge & C.I.A. S.A. (Plenge) on Camp, Los Cuyes and Enma deposit samples. Metallurgical tests that utilized whole mineralized material cyanidation and gravity concentration followed by cyanidation of gravity tails were assessed to project the silver and gold recoveries into a doré product for the Condor Project PEA. The metal recoveries for each deposit were estimated after comparing the silver and gold head grades in the Mine Plan to the head grades and recoveries experienced in the metallurgical tests.

Projected metal recoveries by deposit are:

- Soledad – 30% silver recovery, 90% gold recovery
- Camp – 48% silver recovery, 94% gold recovery
- Los Cuyes – 48% silver recovery, 89% gold recovery
- Enma – 49% silver recovery, 71% gold recovery

Metallurgical testing from 2013 to 2019 were conducted on sample from the Santa Barbara deposit, which is located in Condor Central area. Results are presented in Section 13 of this report and indicate that metal recoveries would be 87% for gold, 80% for copper and 60% for silver. Santa Barbara mineralized materials are not included in the mining and processing plans for the Condor North area since it will require a different project flow sheet and there is no metallurgical testing of the Nayumbi prospect.

### 1.7.11 Processing

The conceptual processing scheme for the Condor North area mineralized materials follows a conventional whole mineralized material gravity concentration/cyanide leach circuit design. Metallurgical testing supports the selection of this process for the PEA.

The selected process plant unit operations include:

- Primary Crushing
- Overland conveying to a stockpile
- SAG mill grinding
- Pebble Crushing
- Ball mill grinding and cyclone classification
- Gravity Concentration and Intensive Cyanidation
- Carbon-in-Leach (CIL) cyanidation of gravity tails

- Detoxification of CIL tailing
- Detoxed tails slurry pumped to the tailings storage facility with decant water recycle
- Carbon acid-washing, stripping and kiln regeneration
- Electro-winning
- Smelting and Dore' production

A summary of the conceptual process design criteria is provided in Table 1-12.

**Table 1-12: Process Design Criteria**

Criteria	Units	Value	Source
Plant Throughput	tpd	25000	Production Schedule
Plant Throughput	Mtpa	9.125	Production Schedule
Plant Operations	years	12	Production Schedule
Plant Availability (Crusher)	%	65	ONIX
Plant Availability (Other)	%	92	ONIX
Plant Throughput	tph	1132	calculated
Head Grade	gpt Au	0.724	Production Schedule
Head Grade	gpt Ag	5.94	Production Schedule
Total Au recovery	%	90	calculated from tests
Total Ag recovery	%	45	calculated from tests
Specific Gravity of material	g/cc	2.7	Plenge
SAG mill specific energy	kWh/t	8.4	JKTech SMC Test
Bond Ball Mill Work Index	kWh/t	12.5	Plenge
Bond Abrasion Index	g	0.088	Plenge
Primary Grind Size p80	microns	75	Plenge
CIL retention time	hours	24	Plenge
CIL tails detoxification	method	SO2/Air	Plenge
ADR carbon capacity	tpd	20	calculated

### 1.7.12 Project Infrastructure

The Condor North area includes all infrastructure required to support the mining and processing operations including:

- Mine truck shop, mine dry, warehouse, fuel storage and delivery, explosive storage

- Office buildings, warehouse, security gate
- Water Supply and water management facilities
- Power supply
- Mine access road

Ausenco performed a siting and tailings deposition methodology study for the PEA with the goal of balancing capital costs, operating costs, closure and post-closure costs and non-monetary considerations such as environmental and social impacts. The study identified several potential sites and deposition strategies and evaluated their suitability. The result of the study indicated that sub-aqueous tailings storage is the preferred option to mitigate any potential acid generation ("PAG") and metal leaching ("ML") of the tailings. The Tailings Storage Facility ("TSF") has positive environmental benefits mitigating both short and long term PAG/ML issues and water treatment compared to sub-aerial tailings deposition or dry stack tailings

The TSF has been designed to accommodate over 107 Mt of tailings produced over the life of mine. The proposed TSF will be located in the central valley downstream of the process plant site and rainwater runoff from the watershed above in order to help maintain submerged tailings. This also allows for simple access by the tailings deposition lines and water reclaim system. The TSF will be constructed using a shell of non-acid generating waste rock with an upstream impermeable layer. The construction of the TSF will utilize downstream construction methodology along with being built in multiple phases to ensure safety and long-term containment of the tailings. A spillway will be designed to regulate flow out of the TSF to maintain a downstream base flow while capturing peak runoff to maintain a water cover over the tailings.

Two Waste Rock Storage Facilities (WRSFs) and a Saprolite Storage Facility for the Condor North area are proposed to be located in closed drainage basins. The west WRSF near the Los Cuyes Open Pit and the south WRSF near Soledad Open Pit will store approximately 200 Mt of waste rock, saprolite and saprock according to the mine production schedule. The WRSF is planned to be constructed in multiple phases, initially from the top down to create the WRSF haul road and then waste rock placement from the bottom up. To the extent possible, saprolite and saprock will be stored away from the toe areas of the WRSF and at higher elevations to facilitate capping the facility with growth media during final reclamation and closure. As the facility loading levels rise, lower slopes are expected to be regraded, covered with growth media, and revegetated to minimize potential erosion, facilitate environmental recovery, and help with stability.

Results from an initial limited static acid-based accounting testing program indicates that the tailings and some waste rock are potentially acid generating. Additional characterization testing, including variability, static, and kinetic (barrel and/or humidity cell testing) will be required in the next phase to confirm these conditions, better define the volumes of potentially acid generating and non-acid generating waste materials, and map the distribution. This will support the further development of an effective waste management strategy for incorporation into the Project design, as well as the definition of any required mitigation measures.

### 1.7.13 Market Studies

To determine the market pricing for use in the economic model, the team reviewed recent forecast market values, current trading values, price forecasts from numerous financial institutions, and initiated discussions with Luminex Resources.

The following metal prices for this PEA cash flow model were selected as the basis:

- Gold - \$1,600/oz

- Silver - \$21.00/oz

The precious metal markets are highly liquid and benefit from terminal markets around the world (e.g., London, New York, Tokyo, and Hong Kong). The London PM fix for gold and silver on July 28, 2021, was \$1,796.60/oz and \$24.80/oz, respectively. As of July 28, 2021, year-to-date gold has traded between \$1,683.95/oz and \$1,943.20/oz and silver has traded between \$24.00/oz and \$29.59/oz using the London PM fix.

Long-term consensus price forecasts for gold and silver ranged between \$1,300/oz to \$1,800/oz for gold and \$16.50/oz to \$27.25/oz for silver. The mean price was \$1,587/oz and \$21.04/oz for gold and silver respectively.

#### 1.7.13.1 Transportation Costs: Doré

Doré requires special handling due to its inherent value. Industry sources provided typical doré freight and insurance costs of \$3.53/oz of doré. This estimated charge covers transportation and insurance costs to transport the doré from the mine site to the destination refinery.

#### 1.7.13.2 Treatment Charges, Refining Charges, Payment Terms & Penalties: Doré

Doré carries Treatment Charges (TCs) and Refining Charges (RCs) based on composition and weight. The model applies doré treatment and refining charges based upon industry sources available to the Condor North area. The treatment charges are estimated to be \$0.30 per oz. of doré. Doré payables are 99.95% for gold and 99.5% for silver. These values were derived by looking at several South American gold and silver producers actual terms for refinement and processing.

#### 1.7.13.3 Contracts

At this PEA stage of project development, no marketing contracts exist.

#### 1.7.13.4 Conclusion

The QP has reviewed the marketing studies and analyses and, in the QP's opinion, the results support the assumptions of this technical report.

### 1.7.14 Environmental, Permitting, and Social Considerations

#### 1.7.14.1 Environmental Considerations

The Condor Project is located in the Province of Zamora Chinchipe, near the Ecuador – Peru border and the southern end of the Cordillera del Condor, in steep terrain drained by several seasonally energetic streams. It is in the Congüime River sub-basin, which flows to the Nangaritza River, a main tributary of the Zamora River.

The Condor Project area is surrounded by secondary tropical forest, which has been heavily impacted by illegal mining and other intrusive anthropic activities for at least the last 30-40 years. The climate is highland tropical, with high rainfall and a distinct annual rainy season. Concession areas are dominated by naturally mineralized soils with high background metals concentrations that are considered unsuitable for agriculture. Stream water quality sampling upgradient of project exploration areas indicate generally acidic conditions, with pH values below the effluent limits established by Ecuadorian discharge regulations. Other transitory contaminants have been observed that are likely due to anthropic influences,

including human habitation and sporadic illegal mineral processing. The nearest biological reserve established under Ecuador's national system of protected areas (Sistema Nacional de Areas Protegidas or SNAP) is the Podocarpus National Park, about 20 km from the eastern boundary of the Project's environmental area of influence (AOI).

#### 1.7.14.2 Closure and Reclamation Considerations

Conceptual end-of-mine-life strategies for the physical closure of mining operations are presented in Section 20.5. These will be elaborated in a *Closure and Abandonment Plan* and *Restoration of Affected Areas Plan*, both of which will be periodically updated in keeping with applicable Ecuadorian regulations, as well as best international practices. These plans will address progressive, interim, and final closure actions. To the extent practicable, these will include actions to restore the site to approximate baseline environmental conditions; to minimize the attractiveness of the closed site for illegal mining; to eliminate any chemicals and toxic residues from the site and to prevent their future impacts to the environment or public health and safety; to support potentially beneficial uses of land, recycling, reuse, or sale of waste or scrap materials, as well as beneficial uses of selected parts of mine infrastructure; interim care and maintenance actions that may be taken in response to any temporary cessation of mining operations; and post-closure inspection and environmental monitoring actions leading to final closure.

Final closure actions will progress when mining economics or business conditions no longer support continuing production, and Project facilities are no longer needed. The operational phase environmental monitoring program will be modified to ensure compliance with the final *Closure and Abandonment Plan* and *Restoration of Affected Areas Plan*, with particular focus on the maintenance of regulatory compliance, achievement of intended physical closure conditions and social/stakeholder commitments, and effectiveness of revegetation and other specific closure actions.

At least one year prior to commencing the closure process, the *Closure and Abandonment Plan* and *Restoration of Affected Areas Plan* will be updated to incorporate final edits on closure planning and additional levels of procedural detail as necessary to guide required closure actions. It also will include a detailed closure schedule. Final closure is estimated to require approximately two years following the cessation of mineral processing. A period of at least five years is estimated to be required for post-closure monitoring and any maintenance needed to ensure environmental stability.

#### 1.7.14.3 Permitting Considerations

Luminex currently holds all necessary environmental permits for the advanced exploration phase and complies with all applicable legal and regulatory obligations for the Condor North area. Work is currently being conducted under the conditions of an advanced exploration environmental license granted in 2013. The license is based on approval of a 2006 environmental impact study (Estudio de Impacto Ambiental or EIA), which has been supported by independently conducted biennial environmental audits and periodically updated environmental management plans (Planes de Manejo Ambiental or PMAs). The Project is being developed in accordance with the Ecuadorian Constitution, the Ecuadorian Mining Law and its Regulations, the Environmental Organic Code and its Regulations, the Organic Law of Water Resources and its Regulations, other applicable Ecuadorian norms, standards, laws, and regulations, and international best management practices (BMPs). Based on the experience of similar scale projects in Ecuador, it is estimated major permitting actions will take a minimum of 24 months to complete.

#### 1.7.14.4 Social Considerations

The Condor North mineral concessions, field camp, and acquired properties are in the parish of Nuevo Quito in the upper reaches of the Canton of Paquisha. The Condor Project concessions also extend to the neighboring parish of Nankais in the Canton of Nangaritza. The Condor North area is on private land, as are five small mestizo settlements located within a

few kilometers of the camp. These settlements include: Puerto Minero (pop. 192), Chinapintza (pop. 52), La Herradura (pop. 282), La Pangui (pop. 130), and Conguime Alto (pop. 150). These settlements date back to the 1980s when the mestizo population was first attracted to the area in search of gold. In addition, lands under possession or ownership by four Shuar indigenous communities (centros) are located a few kilometers to the north and south of the current Project camp. Approximately 2000 Shuar live in these centros.

The economy of the mestizo and Shuar communities is largely driven by mining-related activities. Almost all other economic activity is related to subsistence agriculture. Artisanal/small scale gold mining (both legal and illegal) has existed around the Project since the early 1980s, and Condormining has interacted and coexisted with artisanal/small scale miners since the outset of its exploration operations. In addition to working outside the Project's concessions, miners have sometimes aggressively sought to illegally exploit resources within the Condor Project area. Condormining monitors site security closely and regularly files formal complaints against the incursions of illegal miners within its concessions; the government has taken limited measures in response to these complaints. In 2015 the government registered 32 operations near the Project's environmental AOI and approved their legal operations for ten years provided that they did not work below 1680 masl elevation. There are, however, several dozen illegal operations active around the Condor Project's concession perimeters. The number and level of activity of the illegal operations change over time with fluctuations in the price of gold, as well as the relative effectiveness of specific government actions. In practice, the government has not had the capacity to fully eliminate or effectively restrict the arrival of more illegal miners or enforce the obligation to mine only above the 1680 masl elevation. In recognition of these challenges, Condormining is consistently working to enhance its relationships with local communities, as well as local, regional and national authorities as part of its ongoing efforts to contain and roll back illegal mining and its associated social and environmental impacts, as well as to improve relationships with, and living conditions in, local indigenous and mestizo communities.

### **1.7.15 Capital Cost Estimate**

The capital cost estimate for the Condor North development includes the initial capital, sustaining capital, and expansion capital. The capital cost estimates include:

- Contracted Direct Costs
- Construction Indirect Costs
- Contracted Indirect Costs
- Owner's Direct and Indirect Costs

#### **1.7.15.1 Initial Capital Costs**

The capital costs were organized by area using a Work Breakdown Structure (WBS). Direct Capital Costs were estimated for the mine by IMC, for the processing plant by ONIX, and for the geotechnical infrastructure by Ausenco. Support was provided by MTB, RME and PLS. Construction Indirect Costs include construction equipment and temporary facilities required to complete the construction of the Project. Contracted Indirect Costs include services needed during construction such as Engineering, Procurement, and Construction Management (EPCM) services, Quality Control/Quality Assurance (QC/QA) support, vendor representatives and commissioning assistance, initial fills, and spare parts. Owner's Direct Costs include costs associated with the preproduction of the mine and support costs during the preproduction and construction periods. Finally, Owner's Indirect Costs include employment and training expenses, management costs, insurance, travel, employee meals, community development, and costs to retain outside consultants, among others.

In completing capital cost estimates during the early stages of project development, such as this PEA, it is impossible to define all costs that will be associated with construction of the Project. The anticipated costs that are not clearly defined but expected are covered by adding a contingency. For this PEA, the contingency was estimated on an area-by-area basis dependent upon the level of work completed to estimate the area costs and the level of accuracy. The total contingency for the initial Project is \$68.6 M, which is 13.4% of the direct and indirect capital costs. Freight, Duties, and Taxes are included in the capital costs. The total estimated costs for freight, duties and taxes are \$25.3 M for the initial capital bringing the total costs to \$658.5 M for the initial capital. The VAT is refundable after production commences; the total initial VAT is estimated to be \$49.6 M.

Table 1-13 summarizes the initial capital costs.

**Table 1-13: Initial and Expansion Capital Cost Estimates Including Contingency**

WBS	Description	Initial Capital (US\$ M)
0100	Mine	39.7
0200	Crushing and Conveying	39.5
0300	Grinding	73.8
0500	CIL / Detox	50.8
0600	Utilities	8.3
0700	Reagent Preparation & Storage	4.8
0800	Tailings Thickening, Filtration, Conveying, Storage	24.3
0900	Site & Off-site Infrastructure and Facilities	16.3
2000	Site Development	15.7
	<b>Total Direct Costs</b>	<b>273.2</b>
3000	Construction Indirect Costs	6.6
4000	Contracted Indirect Costs	42.9
	<b>Total Indirect Costs</b>	<b>49.5</b>
5000	Owner's Direct Costs	157.3
6000	Owner's Indirect Costs	33.4
	<b>Total Owner's Costs</b>	<b>190.7</b>
	Freight, Duty, and Taxes	25.3
	Total Contingency	68.6
	<b>Sub-total Capital Costs</b>	<b>607.3</b>
	Working Capital	1.6
	VAT	49.6
	<b>TOTAL CAPITAL COSTS</b>	<b>658.5</b>
	Contingency Percentage of Total Costs	13.4%



### 1.7.15.2 Sustaining Capital Costs

Sustaining capital costs include the costs required to maintain the operation over the life of the mine as the operation expands or equipment must be replaced. It includes costs for replacing surface and underground mine equipment, underground capital development, process capital expenses, new haul roads, expanding the TSF, WRSF, landfill, vegetation removal as the footprint of the operation expands, mobile equipment, and water management systems. The total estimated cost for Sustaining Capital over the mine life is \$174.8 M.

### 1.7.16 Operating Cost Estimate

Operating costs were estimated from first principles for mining, processing, and General and Administrative (G&A) costs. The life-of-mine operating costs are summarized in Table 1-14.

**Table 1-14: Life of Mine Operating Cost Summary**

Area	Total LOM Cost US\$ M	Average Unit Costs per t Processed		
		Years 1 – 5 US\$/t	Years 6 – 12 US\$/t	LOM US\$/t
Mining	642	852	4.25	6.00
Processing	891	8.38	8.30	8.33
G & A	177	1.91	1.47	1.65
Total	1,710	18.81	14.02	15.98

#### Cautionary Note Regarding Forward-looking Information and Statements

Certain statements and information herein, including all statements that are not historical facts are “forward-looking information” or “forward-looking statements” within the meaning of applicable securities laws. Examples of forward-looking statements in this Technical Report include, but are not limited to, information and statements with respect to: Luminex’s plans and expectations for the Project; estimates of mineral resources; possible related discoveries or extensions of new mineralization or increases or upgrades to reported mineral resources estimates; mined and processed material estimates for the Project; the internal rate of return of the Project; the annual production of the Project; the net present value of the Project; the life of mine of the Project; the capital costs, operating costs and other costs and payments estimated for the Project; the proposed infrastructure for the Project; projected metallurgical recoveries; the proposed equipment and employment for the Project; the potential upgrade of the Project to the pre-feasibility study stage; the timing for completion of the Project; plans to conduct further comprehensive engineering and metallurgical studies; anticipated environmental liabilities; anticipated royalty liabilities and budgets for recommended work programs. In certain cases, forward-looking statements can be identified by the use of words such as “budget”, “estimates”, or variations of such words or state that certain actions, events or results “may”, “would”, or “occur”.

These forward-looking statements are based, in part, on assumptions and factors that may change, thus causing actual results or achievements to differ materially from those expressed or implied by the forward-looking statements. Such factors and assumptions include, but are not limited to, assumptions concerning base metal and precious metal prices; cutoff grades; accuracy of mineral resource estimates and resource modelling; reliability of sampling and assay data; representativeness of mineralization; accuracy of metallurgical testwork; timely receipt of regulatory approvals; general business and economic conditions and anticipated costs and expenditures. The foregoing list of assumptions is not exhaustive.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Luminex to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such risks and other factors include, among others, fluctuation in the price of base and precious metals; expropriation risks; currency fluctuations; requirements for additional capital; government regulation of mining operations; environmental, safety and regulatory risks; risks related to inaccurate geological and engineering assumptions; risks relating to unanticipated operational difficulties, unavailability of materials and equipment, unanticipated reclamation expenses; title disputes or claims; limitations on insurance coverage; changes in project parameters as plans continue to be refined; failure of plant, equipment or processes to operate as anticipated; accidents, labour disputes; risks relating to adverse weather conditions; political risk and social unrest; the risks of global or localized pandemics or epidemics; other risks of the mining industry; competition inherent in the mining exploration industry; delays in obtaining governmental approvals or financing or in the completion of exploration, development or construction activities, as well as those factors discussed in the sections entitled "Risks and Uncertainties" in Luminex's annual Management's Discussion and Analysis. Although and the authors of this Technical Report have attempted to identify important factors that could cause actual actions, events or results to differ, perhaps materially, from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The forward-looking statements in this Technical Report are based on beliefs, expectations and opinions as of the effective date of this Technical Report. Luminex and the authors of this Technical Report do not undertake any obligation to update any forward-looking information and statements included herein, except in accordance with applicable securities laws.

## 2 INTRODUCTION

### 2.1 Purpose of the Technical Report

Luminex is a Vancouver, Canada based precious and base metals exploration and development company focused on developing the Condor Project, located in southeast Ecuador. Parts of the Condor Project are 90 percent owned by Luminex through its indirectly-held local subsidiaries Condormining Corporation S.A. (Condormining) and Bestminers Ecuador S.A. (Bestminers) and 10 percent owned by the Instituto de Seguridad Social de Las Fuerzas Armadas (ISSFA), which is the pension fund for Ecuador's armed forces personnel. Other areas of the Condor Project are 100% owned by Luminex through its indirectly-held local subsidiary Corporación FJTX Exploration S.A. (FJTX). For the purposes of this Report, Luminex is used interchangeably for the parent and subsidiary company, unless specified. Condormining, Bestminers and FJTX are the local subsidiaries of Luminex based in Ecuador.

The Condor Project is located 149 km from the city of Loja and 76 km east of the city Zamora in the province of Zamora Chinchipe. The Project is in the southeast end of the Cordillera del Condor in steep, high-relief terrain near the Peru Border. The Condor Project consists of Condor North, Condor Central and Condor South. Condor North consists of the deposits at Los Cuyes, Soledad, Enma, Camp, and the Prometedor Prospect. Condor Central consists of the copper-gold and copper-molybdenum porphyries at Santa Barbara and El Hito. Condor South consists of the newly identified Nayumbi Prospect.

MTB Enterprises Inc. (MTB) was commissioned by Luminex Resources (Luminex) to prepare an updated Technical Report for the Condor, including a Preliminary Economic Assessment (PEA) for the Condor North area that includes Los Cuyes, Soledad, Enma and Camp deposits. Santa Barbara deposit is not considered in the economic analysis since it requires a different processing method. A number of consultants were retained to support completion of this Study, as outlined in Section 2.2. The purpose of this report is to disclose the results of the PEA. The Condor North area processing rate is 25,000 tpd for the 12-year mine life. The processing scheme follows a conventional whole mineralized material gravity concentration/gravity tails cyanide leach circuit design.

### 2.2 Terms of Reference

The Report will be used in support of Luminex Resources' press release dated 28 July, 2021, that is entitled "Luminex Resources Announces Positive Condor North Preliminary Economic Assessment; US\$387 Million NPV, 12 Year Mine Life and Production of 187 Koz Gold Per Year."

The firms and consultants who are providing Qualified Persons (QPs) responsible for the content of this Report are in alphabetical order: Ausenco Engineering Canada, Inc., BD Resource Consulting, Inc., Independent Mining Consultants Inc., JC Barber LLC, Luminex Resources Corp., ND King Consulting LLC, Robert Michel Enterprises, SIM Geological Inc., and Wyllie & Norrish Rock Engineers Inc.

Part of the Condor Project is 90 percent owned by Luminex through its indirectly-held local subsidiaries Condormining and Bestminers and 10 percent owned by the Instituto de Seguridad Social de Las Fuerzas Armadas (ISSFA), which is the pension fund for Ecuador's armed forces personnel. Other areas of the Condor Project are 100% owned by Luminex through its indirectly-held local subsidiary FJTX. For the purposes of this Report, Luminex is used interchangeably for the parent and subsidiary company, unless specified.

Luminex was previously owned and operated by Lumina Gold Corporation (Lumina), and Ecuador Gold and Copper Corporation. Currency is expressed in US dollars unless stated otherwise; units presented are typically metric units, such as metric tonnes, unless otherwise noted.

Calendar years are used in some sections of the Report, in relation to the proposed mine plan and execution plan. The years shown are for illustrative purposes; the actual timing may vary.

### **2.3 Sources of Information**

The following Qualified Persons (QPs) are responsible for the information provided in the indicated sections. All of the QPs are independent within the meaning of Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects (NI 43-101). They are responsible for the preparation of this Technical Report on the Condor Project, which has been prepared in accordance with NI 43-101 and Form 43-101F1 Technical Report (Form 43-101F1). This Technical Report is based on information known to the QPs as of August 24, 2021.

- Robert Sim, P.Geo. of SIM Geological Inc. (SIM) is responsible for Sections 7, 8, 9, 10, 14.1, and portions of Sections 1, 14.3, 24, 25, 26, and 27.
- Bruce M. Davis, FAusIMM of BD Resource Consulting, Inc. (BDRC) is responsible for Sections 11 and 12 and portions of Section 1, 14, and 25, 26 and 27.
- Norman I. Norrish, P.E. of Wyllie & Norrish Rock Engineers Inc. (W&N) is responsible for portions of Sections 1, 16, 25, 26, and 27.
- Nelson King, SME Registered Member of ND King Consulting, LLC (NDK) is responsible for Section 13, 17 and portions of Sections 1, 21, 25, 26, and 27.
- Scott Efen, P.E. of Ausenco Engineering Canada, Inc. (Ausenco) is responsible for Section 4, 5, 6, 18, 20 and portions of Sections 1, 2, 3, 21, 24, 25, 26, and 27.
- Robert S. Michel, SME Registered Member of Robert Michel Enterprises (RME) is responsible for Sections 19, 22 and portions of Sections 1, 21, 24, 25, 26, and 27.
- John Marek, P.E., Independent Mining Consultants Inc. (IMC) is responsible for sections 14.2, 14.3 and portions of Section 1.
- Joseph McNaughton, P.E., Independent Mining Consultants Inc. (IMC) is responsible for sections 15, 16 and portions of sections 1, 24, 25, 26, 27.
- John Barber, P.E., JC Barber LLC (Barber) is responsible for portions of sections 1, 16, 25, and 26.
- Leo Hathaway, P. Geo., Luminex Resources Corp. is responsible for portions of sections 1, 23, 25, and 26.

### **2.4 Personal Inspection of Condor Project**

Mr. Robert Sim visited the Condor Project from November 28 to 29, 2017. He visited a number of drilling sites and the core storage facility and inspected drill core from numerous holes at the Los Cuyes, Soledad and Enma deposits located at the

Condor North area and at the Santa Barbara deposit located in the Condor South area part of the Condor Project along with reviewing core and log for geology and mineralization for the Condor Project.

Mr. John Marek visited the Condor Project on the week of October 22, 2018. He visited the Los Cuyes, Soledad, Camp and Enma deposits along with reviewing core and logs from those deposits for mine development for the Condor Project.

Mr. Leo Hathaway visited the Condor Project numerous times, most recently on February 19-20, 2020 and October 2-4, 2019 and June 12-14, 2019 to supervise the exploration drilling program along with reviewing core and QC/QA for the Camp deposit.

Bruce Davis, Scott Elfen, Joe McNaughton, John Barber, Nelson King, Norm Norrish, and Robert S. Michel have not conducted personal inspections of the Condor Project.

Neither Robert Sim, John Marek nor other independent QPs have not conducted a site visit to the Condor Project within the last two years as it has not been possible for the qualified persons stated above to access the site in 2020 and 2021 due to international and regional travel restrictions in light of the COVID-19 pandemic.

## 2.5 Previous Technical Report

Al Maynard, Allen J. Maynard, Philip A. Jones, and Robert U. Suda, 2013: NI 43-101 Technical Report on the Condor Gold and Copper Project located in Zamora, Ecuador, Prepared for Ecuador Gold and Copper Corp., effective date July 23, 2013.

Al Maynard, Allen J. Maynard, Philip A. Jones, and Robert U. Suda, 2014: NI 43-101 Technical Report on the Condor Gold and Copper Project located in Zamora, Ecuador, Prepared for Ecuador Gold and Copper Corp., effective date March 24, 2014.

Michael Short, Allen J. Maynard, and Philip A. Jones, , 2015: NI 43-101 Technical Report Preliminary Economic Assessment of the Santa Barbara Gold and Copper Project in Zamora, Ecuador, Prepared for Ecuador Gold and Copper Corp., effective date May 19, 2015.

Robert Sim and Bruce Davis, 2018: Amended and Restated NI 43-101 Technical Condor Project in Ecuador, Prepared for Lumina Gold Corp., effective date May 14, 2018.

Robert Sim, Bruce Davis and Bruce Davis, 2020: NI 43-101 Technical Condor Project in Zamora-Chinchipec, Ecuador, Prepared for Luminex Resources Corp., effective date March 4, 2020.

## 2.6 Abbreviations

Abbreviations used throughout this report are shown in Table 2-1 and Table 2-2.

**Table 2-1: Name Abbreviations**

Abbreviation	Description
AOI	Area of Influence
ARCRNNR	Agencia de Regulación y Control de Energía y Recursos Naturales No Renovables
ARCOM	Agencia de Regulación y Control Minero

Abbreviation	Description
BMP	Best Management Practice
CIL	Carbon in Leach
Condormining	Condormining Corporation S.A.
DE	Decreto Ejecutivo (Executive Decree)
DINE	Dirección Industrial del Ejército (Industrial Directorate of the Army)
EIA	Estudio de Impacto Ambiental (Environmental Impact Study)
ESMS	Environmental and Social Management System
FS	Feasibility Study
HSE	Health, Safety and Environment
HSES	Health, Safety, Environmental and Social
ICE	Internal Combustion Engine
ICMC	International Cyanide Management Code
ICMM	International Council for Mining and Metals
IFC	International Finance Corporation
ILO	International Labor Organization
INAMHI	Instituto Nacional de Meteorología e Hidrología (National Institute of Meteorology and Hydrology)
INPC	Instituto Nacional de Patrimonio Cultural (National Institute of Cultural Patrimony)
ISSFA	Instituto de Seguridad Social de las Fuerzas Armadas del Ecuador (Social Security Institute of the Armed Forces of Ecuador)
MAATE	Ministerio de Ambiente y Agua y Transición Ecológica (Ministry of Environment, Water and Ecological Transition)
MERNNR	Ministerio de Energía y Recursos Naturales No Renovables (Ministry of Energy and Non-Renewable Natural Resources)
NIOSH	National Institute of Occupational Safety and Health
PAE	Plan Ambiental Estudio
PDAC	Prospector & Developers' Association of Canada
PEA	Preliminary Economic Assessment
PFS	Prefeasibility Study
PMA	Plan de Manejo Ambiental (Environmental Management Plan)
PS	Performance Standard (IFC)
QP	Qualified Person
RO	Registro Oficial (Official Register)
ROM	Run of Mine
ROS	Registro Oficial Suplemento (Supplement to the Official Register)
SCRIP	Strategic Community Relations Plan
SNAP	Sistema Nacional de Areas Protegidas (National System of Protected Areas)
SUIA	Sistema Unico de Información Ambiental (Unique System of Environmental Information)
ToR	Terms of Reference
TSF	Tailings Storage Facility

Abbreviation	Description
TULSMA	Texto Unificado de Legislación Secundaria de Medio Ambiente (Unified Text of Environmental Secondary Legislation)
WAD	Decreto Ejecutivo (Executive Decree)
WRSF	Waste Rock Storage Facility

**Table 2-2: Unit Abbreviations**

Abbreviation	Description
\$	United States dollar
°C	Degree Centigrade
°F	degree Fahrenheit
%	percent
μ	micro
μm	micrometre
C\$	Canadian dollar
cm	centimetre
dB	Decibel
ft	feet
ft <sup>2</sup>	square feet
g	gram
g/t	grams per tonne
ha	hectare
hr	hour
HP	horsepower
km	kilometre
koz	thousand ounces
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
kWh/t	Kilowatt-hour per tonne
kN/m <sup>3</sup>	kilonewton per cubic metre
kPa	kilopascal
kcmil	thousand circular mills
kN	kilonewton
masl	metres above sea level
mamsl	metres above mean sea level
MW	megawatt
L/s	litre per second
M	Million

Abbreviation	Description
m	metre
m/a	meters per annum
m <sup>2</sup>	square metre
m <sup>3</sup>	cubic metre
mm	millimetres
Mtpy	Million tonnes per year
t	metric tonne
Mt	million tonnes
oz	ounce
Moz	million ounces
Mt	mega tonne
pH	Potential of Hydrogen
ppb	parts per billion
ppm	parts per million
ton	short ton
t/hr	tonnes per hour
t/d	tonnes per day
t/y	tonnes per year
w/w/ w/s	gravimetric moisture content (weight of water/weight of soil)
wt	weight



### 3 RELIANCE ON OTHER EXPERTS

This report has been prepared at the request of Luminex Resources Corp. (Luminex or the Company). The information, conclusions, opinions, and estimates contained herein are based on:

- Information available at the time of preparation of this report.
- Assumptions, conditions, and qualifications as set forth in this report.
- Data, reports, and opinions supplied by Luminex and other third-party sources.

## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Property Location

The Condor Project is located in the Province of Zamora-Chinchipe, near the Ecuador-Peru border and the southern end of the Cordillera del Condor (Figure 4-1). The Project is approximately 400 km south-southeast of Quito, 149 km east of the city of Loja, and 76 km east of the town of Zamora. The approximate center of the Project properties is located at 95523500 m North and 768000 m East (geographic projection: Provisional South American Datum 1956, UTM Zone 17M).

Figure 4-1: Project Location

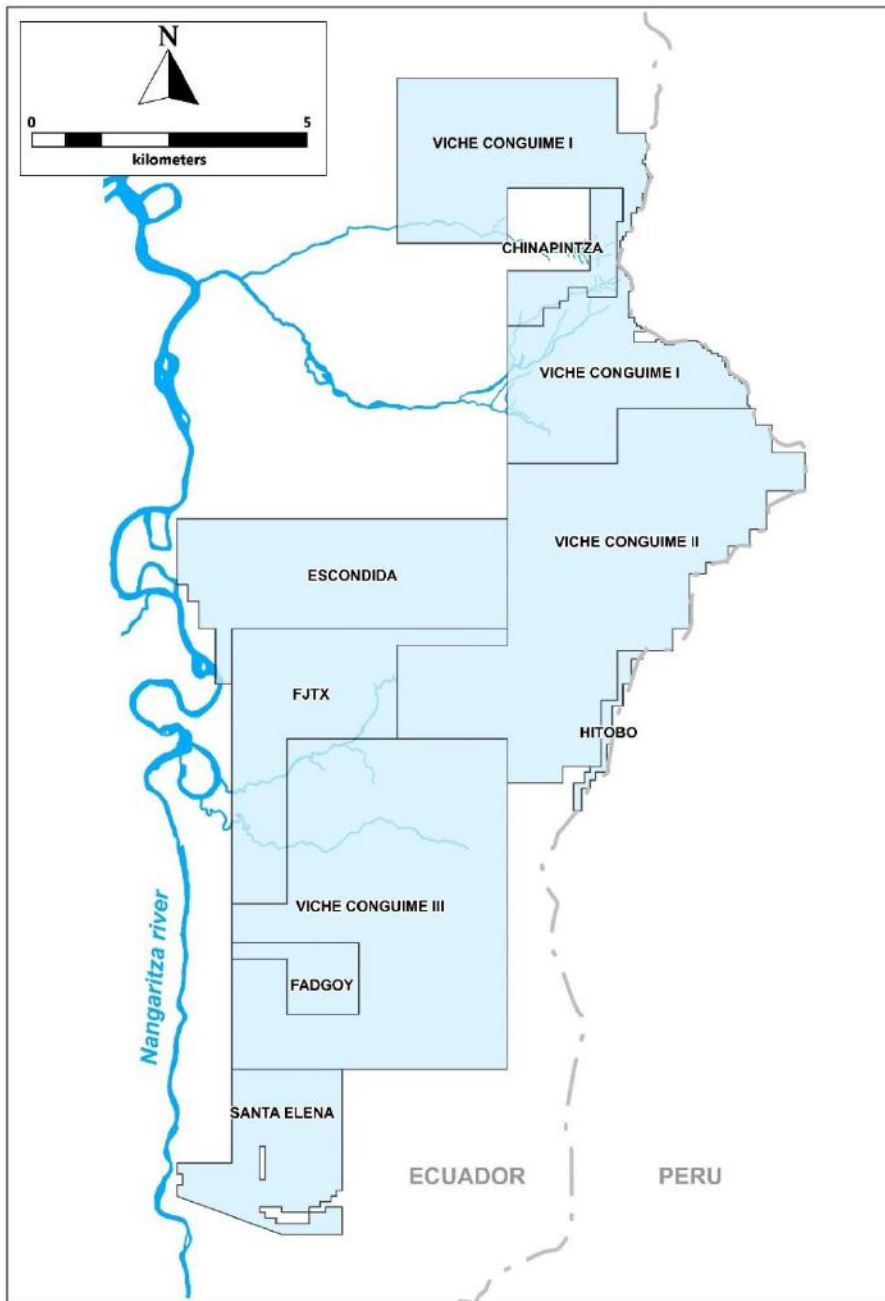


Source: Luminex, 2020.

## 4.2 Project Ownership and Agreements

The Condor Project consists of nine concessions in alphabetical order; Chinapintza, Escondida, FADGOY, FJTX, Hitobo, Santa Barbara Viche Conguime I, Viche Conguime II, Viche Conguime III as depicted in Figure 4-2.

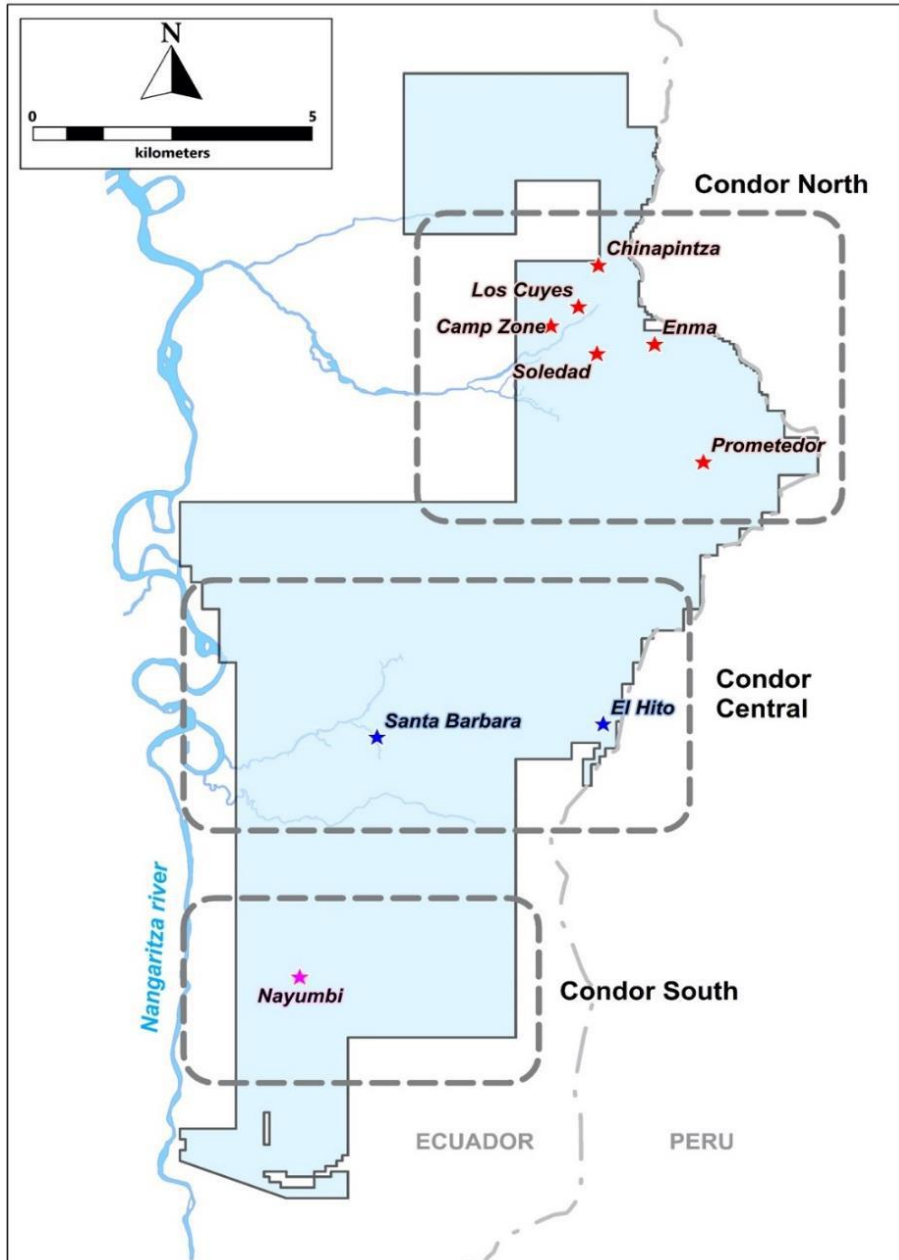
Figure 4-2: Condor Concessions



Source: Luminex, 2021.

The Condor North area mining operations include the Los Cuyes, Soledad, Enma and Camp deposits, and will be conducted within the boundaries of the three northernmost concessions in (Viche Conguime I, Viche Conguime II, and Chinapintza), as depicted in Figure 4-3. The Condor Central area concessions include the Santa Barbara deposit. The Condor South area includes the Nayumbi prospect. Table 4-1 presents the legal descriptions and land areas of these concessions.

**Figure 4-3: Condor Project Concessions**



Source: Luminex, 2021.

**Table 4-1: Condor Project Concessions**

File Number	Concession	Owner	Luminex Ownership (%)	Date of Registration (dd/mm/yyyy)	Area (ha)	Phase	Date of Expiration* (dd/mm/yyyy)
2024 <sup>2</sup>	Viche Congüime I (Condor North)	Condormining	90**	23/04/2010	1,930.57	Small Mining	04/08/2031
2024.1 <sup>2</sup>	Chinapintza (Condor North)	Bestminers	90**	29/01/2014	210.02	Small Mining	31/08/2031
2024A <sup>2</sup>	Viche Congüime II (Condor North)	Condormining	90**	22/04/2010	2,410.00	Small Mining	04/04/2046
500802	Viche Congüime III	Condormining	90**	22/04/2010	2,501.00	Small Mining	27/03/2033
500115	Hitobo	Condormining	90**	27/04/2010	58.50	Small Mining	14/09/2031
500135	FJTX	FJTX	100	27/04/2010	960.00	Small Mining	14/09/2031
500245	FADGOY	FJTX	100	27/04/2012	199.00	Small Mining	22/08/2031
50000497	Escondida	FJTX	100	04/01/2017	1,204.00	Early Exploration	04/01/2042
50000655	Santa Elena	FJTX	100	23/12/2016	628.00	Early Exploration	23/12/2041

\* Mining concessions can be renewed for multiple 25-year periods.

\*\* The Instituto de Seguridad Social de las Fuerzas Armadas del Ecuador (ISSFA) currently holds a 10% stake in the noted concessions. ISSFA operates the pension fund for the Ecuadorian military forces. ISSFA participation in the original Condormining concessions began with an association contract with TVX in December 1993. Since then, multiple companies have partnered with ISSFA under the same participation structure; see Section 6 for more detailed discussion of exploration history.

The maintenance of each mining concession requires an annual fee payment that is due before the 31st of March each year. For 2021, this amounted to \$36,404.72 for the three Condor North area concessions. These fees have been paid, and all concessions are in good standing.

Luminex owns surface rights over approximately 261 ha within the Condor North area mining concessions and over the mineralized zones, comprised of approximately 104 ha owned by Luminex and an additional 157 ha in surface easement rights. The remaining surface rights in these concessions as well as adjoining non-mining land needed for Project infrastructure currently belong to the state, Shuar communities, or other private landowners. Luminex interacts regularly with these landowners and expects to readily negotiate sales, long-term rentals, or easements of all land areas required for project infrastructure.

### 4.3 Environmental Regulations, Permitting, and Liabilities

The Condor Project is being developed in accordance with the Ecuadorian Constitution, the Ecuadorian Mining Law, and an array of other applicable Ecuadorian norms, standards, laws, and regulations. These include:

- The Environmental Organic Code and its Regulations;

<sup>2</sup> Highlighted concessions comprise the Condor North Project.

- The Organic Law of Water Resources and Water Use and the Regulation for the Organic Law of Water Resources and Water Use, issued by Decreto Ejecutivo (DE) No. 650 on March 31, 2015 and published in the First Supplement to Registro Oficial (RO) No. 483 April 20, 2015;
- The Organic Law of Rural Lands and Ancestral Territories and the Regulation for the Organic Law of Rural Lands and Ancestral Territories, issued December 16, 2016 by DE No. 1283 and published in the Supplement to RO No. 920 January 11, 2017;
- General Regulation of the Mining Law, issued by DE No. 119 November 4, 2009, published in RO Supplement No. 67 November 16, 2009; last updated January 31, 2019;
- Environmental Regulation for Mining Activities, issued by Ministerial Agreement No. 37 of March 24, 2014, published in the Registro Oficial Suplemento (ROS) 213 of March 27, 2014 and last updated June 12, 2019;
- Regulation for Mining Workplace Health and Safety, issued by Resolution ARCOM 020-INS-DIR-ARCOM-2014 April 25, 2014, published in RO No. 247 May 16, 2014;
- Regulation for the Control of Mineral Exports issued under Resolution No. 002-005-2019-DIR-ARCOM August 6, 2019 and published in Official Gazette No. 23 on August 22, 2019;
- Regulation of the Organic Health Law, issued through DE No. 1395 and published in RO No. 457 October 30, 2008; last amended May 8, 2012;
- General Regulation for the Application of the Organic Law of Ground-based Transport, Transit and Roadway Safety, issued by DE No. 1196 June 11, 2012, published in Second Supplement to RO No. 7 31 June 25, 2012; last amended September 13, MA2017;
- Environmental Regulation for Hydrocarbon Operations in Ecuador, issued by DE No. 1215 and published in RO No. 265 February 13, 2001;
- Regulations for Workers' Health and Safety and the Improvement of the Work Environment, issued by DE No. 2393, published in RO No. 565 November 17, 1986; last amended February 21, 2003; and
- Unified Text of Secondary Legislation of the Ministry of Environment (TULSMA), entered into force in RO No. 725 December 16, 2002, ratified by DE No. 3516, and published fully in the EE of RO No. 51 March 31, 2003; last updated April 21, 2019.

The Mining Law recognizes distinct Exploration and Exploitation phases. The Exploration phase is further divided into three discrete periods:

- Initial Exploration (up to four years),
- Advanced Exploration (up to four years), and
- Economic Evaluation of the Deposit (up to two years, with the possibility of requesting an extension for two additional years).

However, as the Condor Project concessions are in the Small Mining Regime, these timelines do not currently apply to it. They would apply after the Company processes a change to the Large Mining Regime, depending on what stage of Exploration the regulator deems the project to be applicable.

The mineral resources of the Condor North area are contained in the three northernmost contiguous concessions identified in Figure 4-3. Pursuant to Ministry of Energy and Non-Renewable Natural Resources [Ministerio de Energía y Recursos Naturales No Renovables (MERNNR)] and Ministerio de Ambiente y Agua y Transición Ecológica (MAATE) regulations, the advanced exploration work at these concessions has been conducted in compliance with an approved EIA (Ambienconsul, 2006), biennial environmental audits, and periodically updated PMAs.

The Mining Law allows concessionaires to enter into pre-negotiation agreements with the Government of Ecuador that relate to the development of the exploitation contract. Such discussions may be initiated following a formal request during the Economic Evaluation Period.

Prior to mine construction and commencement of mineral production, the Condor North Project will be subject to additional permitting and related support actions as required by current Ecuadorian laws and regulations. Considering prior experience with similar scale projects in Ecuador, it is estimated that in aggregate, major permitting actions will take at least 24 months to complete. These actions are summarized in the following paragraphs along with estimated schedule requirements for completion.

- **Mining Regime Change** – Small Scale to Large Scale Mining Regime (estimated minimum duration of approximately six months): Prior to conducting a detailed, final economic evaluation and pre-feasibility study of the deposit), Condormining must obtain regulatory approval of a change from the "small scale" to "large scale" mining regimes.
- **Mining Phase Change** - Permitting for Initiating Production Phase (estimated minimum duration of approximately eight months): In order to move Condor North into the production phase, Condormining must also submit an application supported by a technical report based on guidelines issued by the Agencia de Regulación y Control de Energía y Recursos Naturales No Renovables (ARCERNNR) and specific MERNNR instructions for exploration, exploitation, negotiation, and execution of exploitation agreements. It will also be necessary to negotiate and develop a production contract defining the royalties for Condor North. Negotiation of contract approval is estimated to require at least six months after formal initiation of the production phase.
- **Environmental Licensing Process** (estimated minimum duration of approximately twelve months): Under Ecuadorian law the licensing process may commence prior to the submission of the petition for exploitation. The registration of the Condor North area and its associated production contract in the governmental information management system [the Sistema Único de Información Ambiental (SUIA)] formally initiates the change from advanced exploration to exploitation status. A comprehensive exploitation phase EIA/PMA must then be developed using MAATE approved consultants, who must prepare and upload the proposed Terms of Reference (ToR) for the EIA/PMA and obtain MAATE approval prior to initiating their work. A biotic investigation permit will also be required in order to conduct an updated biotic and forestry baseline study. Biotic samples must be managed in compliance with specific guidelines. An updated archaeological study must also be performed in the proposed AOI and submitted for Instituto Nacional de Patrimonio Cultural (INPC) concurrence, and, if warranted, authorization of archaeological rescue activities. All scientific study results must be submitted for MAATE approval.

Once the draft EIA/PMA documents are prepared in accordance with the approved ToR, they must be uploaded to the SUIA for MAATE review and approval. Condor North must also arrange for a documented Public Participation Process (PPP) with timing, locations, and scope as defined by the ToR. The MAATE will review results of the PPP, and if acceptable, will issue a favorable approval. A Forest Inventory must also be separately reviewed and approved by MAATE.

After resolution of MAATE review comments, the final version of the EIA/PMA must be uploaded to the SUIA. Required fees, including ecosystem services loss fees for lands predicted to be impacted by the mining process must be paid, and an PMA compliance insurance policy or bank guarantee submitted. When these actions are complete and approved, the MAATE will issue an exploitation-phase Environmental License for Condor North.

- **Water Permits** (estimated minimum duration of approximately twelve months): A detailed technical report will be prepared describing the overall water management approach for Condor North, as well as identifying all potential impacts to water bodies and any use of groundwater or surface water for mining processes and other human needs. Abstraction and usage permits must be negotiated with MAATE in parallel with the early phases of the Environmental Licensing process. Results and specific ongoing water management actions must be reflected in the exploitation phase EIA/PMA.
- **Health and Safety Planning Actions** (estimated minimum duration of approximately two months): An appropriately detailed occupational health and safety system must be prepared to support mine construction and operation. Local workers must be registered with the Ecuadorian Institute of Social Security, and a joint (management and workforce) Health and Safety Committee established and registered. An internal Workplace Health and Safety Regulation must be developed and submitted for Ministerio del Trabajo approval. Industrial safety and medical service units must be established within the Condor North management organization and a comprehensive Emergency Preparedness and Response Plan prepared. Such planning should also be completed during the early development of the exploitation phase EIA/PMA and results reflected therein.
- **General Environmental Permits** (estimated minimum duration four months): Other general environmental permits need to be negotiated with MAATE, typically within two to three months prior to the end of the Environmental Licensing process. Condor North must seek authorization for any stationary air emission sources not already addressed in the exploitation phase EIA/PMA. Separate discharge and disposal permits for liquid effluents may be also required if not already addressed in the EIA/PMA. Condor North will also need to register as a Hazardous Waste Generator. All reagents and other hazardous chemical substances employed in construction and mineral production must be identified, registered and supported by a Reduction, Elimination, or Replacement Plan for restricted or prohibited substances. Controlled substances subject to periodic inspection need to be registered and transport guides prepared. Authorizations are also required for the storage of chemical substances and/or hazardous wastes.
- **Electricity Related Permits** (estimated minimum duration twelve months): Permits need to be negotiated with the MERNNR and the Agencia de Regulación y Control de Electricidad for the construction of the electrical substations and transmission lines required to serve the infrastructure defined by final mine and plant designs. Permit application/approval actions may take up to twelve months. Such actions should be planned so they can be completed no later than two to three months from the end of the environmental licensing process.
- **Transport and Road Related Permits** (estimated minimum duration: approximately three months): Permits issued by the Ministerio de Transportes y Obras Públicas and MAATE will also be required for the construction of roads and the transport of heavy machinery to the Project site. Permit applications and approvals should be completed within three months of the end of the Environmental Licensing process.



- **Mine Patent** (estimated minimum duration two months): A patent to build the proposed mine will need to be obtained from the ARCERNNR and the Vice-Ministry of Mines.
- **Other Municipal Permits** (estimated minimum duration two months): An operating permit from the Paquisha fire brigade is required. Permit applications and approval actions should be completed within the two months prior to the end of the environmental licensing process.
- **Fuel Permit** (estimated minimum duration: approximately two months): A permit from the Agencia de Regulación y Control de Hidrocarburos is required for the purchase, transport, and safe controlled storage of fuel. The fuel permit should be completed within two months prior to the end of environmental licensing.
- **Explosives Permit** (estimated minimum duration: approximately two months): A permit will be required from the Oficina de Control de Armas de Fuego del Comando Conjunto de las Fuerzas Armadas in Quito for the purchase, transport, and the safe, secure, and controlled storage and usage of explosives. This permit should be obtained within the two months prior to the end of Environmental Licensing.
- **Heliport** (estimated minimum duration: approximately six months): If the final design requires location of a heliport at Condor North, authorization from the Autoridad de Aviación Civil should be sought early in the Environmental Licensing process.
- **Internal Revenue Service Tax Authorizations** (estimated minimum duration: approximately one month): Servicio de Rentas tax registration documents must be updated to accommodate the change to the Production Phase. Since sale and export of minerals or concentrates may not proceed until these updates are approved, they must be submitted well before the start of production.
- **Customs Permits for Outgoing Product** (estimated minimum duration to be determined): Permitting for exportation of doré or concentrates related to large scale mining is not defined in the regulatory framework. Regulatory changes in this area should be monitored and new permitting needs addressed well before the projected date for any export of doré and concentrates.
- **Telecommunications** (estimated minimum duration: approximately six months): An “Enabling Title of Use” with the Agencia de Regulación y Control de las Telecomunicaciones may be required to support Project radio communications. Negotiations should be completed in parallel with the early phases of Environmental License development.
- **Easements and Rights of Way** (estimated minimum duration: approximately twelve months): Negotiation of land purchases, long term rentals, or easements with (or governmental directives to) surface property owners required by final design must be completed before the early phase of the environmental licensing process.

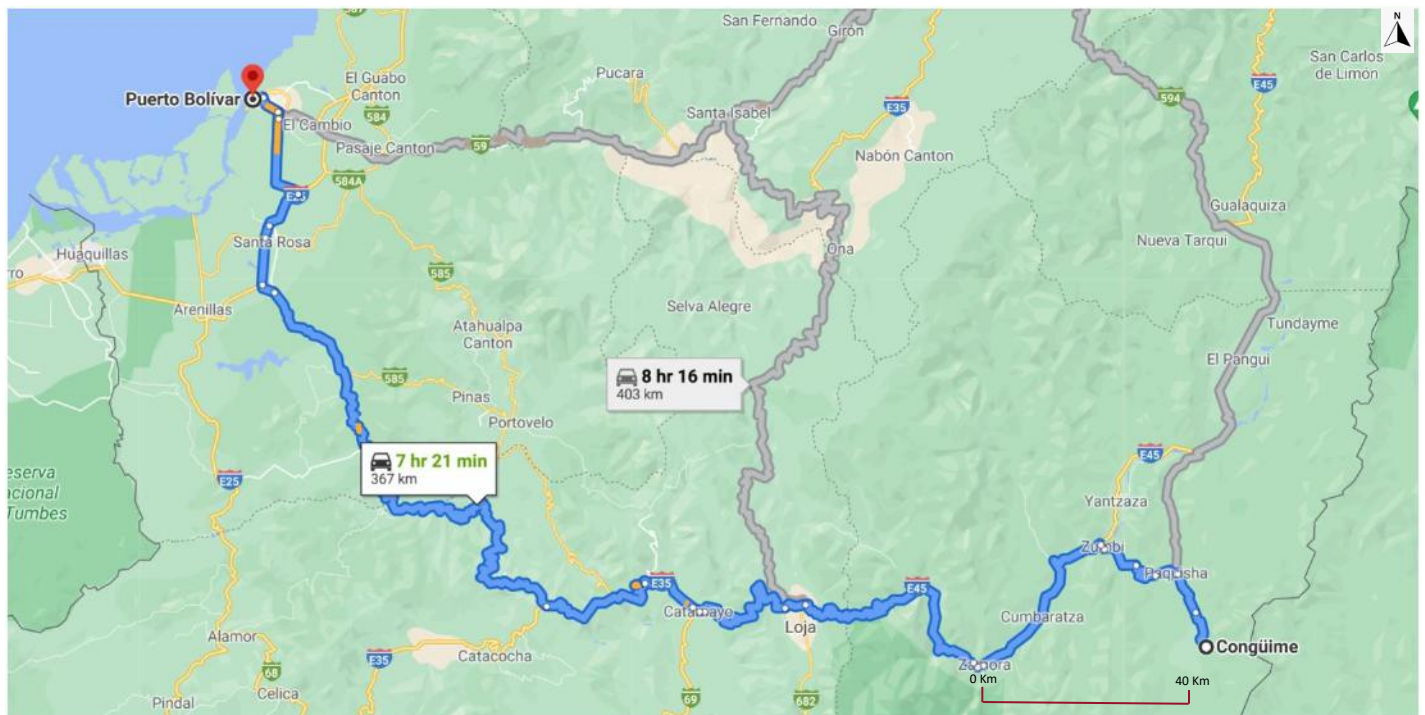
The Qualified Professional (QP) is not aware of any environmental liabilities in the Condor Project concessions that are attributable to Condormining’s exploration operations; intrusive actions of illegal miners present potential environmental and operational risks, but in the QP’s opinion any such risks are being effectively managed on an ongoing basis in full compliance with governing regulations through Condormining’s implementation of security measures and consistent collaboration with ARCERNNR and local police and military forces in response to any incursion. Condormining has all necessary permits required to conduct mineral exploration on the property and has the planning and resources in place to complete the pre-mining permitting process noted above; neither Luminex nor the QP are aware of any other significant factors or risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

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

### 5.1 Accessibility

The Condor Project is located along the Ecuador-Peru border in southeast Ecuador, approximately 149 km southeast of the City of Loja and 76 km east of the town of Zamora in the province of Zamora-Chinchipe. Access is provided by paved and gravel roads (Figure 5-1).

Figure 5-1: Access to Condor Project



Source: Ausenco, 2021.

### 5.2 Climate

The climate in the Project area is highland tropical, with an average daily temperature ranging from 21°C to 24°C, and an average annual rainfall of approximately 2,000 mm to 3,000 mm. There is a distinct annual rainy season that typically occurs between January and June. A meteorological station has been fully operational at Condor Camp (at 1,456 masl) since January 2021. Relevant historical rainfall data are also available from the National Institute of Meteorology and Hydrology [Instituto Nacional de Meteorología en Hidrología (INAMHI)] stations in Yantzaza and El Pangui; however, neither station is currently operational.

### **5.3 Local Resources and Infrastructure**

#### **5.3.1 Local Resources**

The city of Loja (population ~181,000) is the largest regional centre in the area of the Project and will be a major source of basic goods and services for advanced phases of exploration as well as mine construction and operation. Loja is served by regular daily flights with Quito via Ciudad de Catamayo Airport, located 20 km to the west. Skilled labour can be retained in Loja and Zamora and towns closer to the Project; unskilled labour is typically sourced in the smaller villages nearest to the Project.

The Project is connected to Loja, Zamora (population ~14,000) and other regional centres via the national highway network (see Figure 5-1).

Initial estimates indicate that the national electric grid is capable of providing all necessary power to the Project.

#### **5.3.2 Mine Site Infrastructure**

Current infrastructure at the Condor Project consists of a fully equipped 70-man exploration camp, located at 1,456 masl directly above the Camp deposit. The camp consists of dormitories, canteen, medical clinic, administrative offices, warehouse, emergency generator, water treatment plant, septic system, diesel storage tanks and fuelling station, a meteorological station, various security installations, and a large core logging and storage facility. Ancillary core storage, warehousing, and waste segregation/accumulation facilities are also located near the camp. The camp is connected to the national grid and has full internet and cellular telephone access.

The Congüime River and numerous smaller streams and springs within the Project concessions can serve as sources of water for all anticipated mining, mineral processing, potable usage, and other Project requirements.

### **5.4 Physiography**

The Condor Project is located in steep, high-relief terrain, near the southern end of the Cordillera del Condor. Elevations range between 960 m and 1,830 m above sea level. The Project drains into the Congüime River, which flows to the Nangaritza River, a main tributary of the Zamora River.

The Condor Project area is surrounded by secondary tropical forest, which has been heavily impacted by illegal mining and other intrusive anthropic activities for at least the last 30-40 years. The Condor Project area is subject to frequent landslides and mudflows, due to the steepness of terrain, underlying geology, periodically extreme precipitation events, and the accumulated exacerbating impacts of illegal mining clearances.

## 6 HISTORY

A summary of the exploration activities conducted in the Condor Project concessions is provided in this Section and in Table 6-1.

**Table 6-1: History of Exploration in Project Area**

Dates	Company	Exploration Activities
1984–present day	None	Legal and illegal artisanal/small scale miners work the area in and around the Project concessions
1988–1991	Instituto de Seguridad Social de las Fuerzas Armadas del Ecuador (ISSFA)/Prominex UK	Regional stream sediment sampling and geological mapping programs; most of the mineralized prospects in the Project and the greater Condor exploration area are discovered.
1988–1991	TVX/ISSFA/Chalupas Mining	Soil and rock sampling, geophysics, construction of drill-access roads and trails, and diamond drilling (172 holes; 36,617.1 m) of the Los Cuyes, San Jose, Soledad, Guayas and Enma breccia pipes; and Santa Barbara and El Hito porphyries; and underground development (1,081 m) and sampling of the Chinapintza epithermal veins.
1994–1998	TVX/ISSFA/Chalupas Mining	Work at Chinapintza is discontinued, but exploration continues at Santa Barbara and El Hito (soil, rocks, stream sampling, IP survey, trenching).
1999–2000	TVX/Valerie Gold	Drilling at Santa Barbara (19 holes; 4,296.1 m) and El Hito (4 holes; 1,188.3 m).
2000	TVX	TVX withdraws from joint venture.
2002–2004	Hydromet/ISSFA	Hydromet acquires control of the Project and resamples drill holes and trenches; Hydromet was renamed Goldmarca in 2004.
2004–2007	Goldmarca	Reconnaissance mapping, IP and magnetic surveys were conducted at Los Cuyes, Soledad, San Jose, Guayas, and the Enma breccia pipes; magnetic survey conducted at Santa Barbara; drilling continues (124 holes; 21,612.2 m); Goldmarca was renamed Ecometals in 2007.
2007–2008	Ecometals	Drilling at Chinapintza, Los Cuyes, Soledad and Santa Barbara (30 holes; 11,710.7 m).
2008–2011	Ecometals	Government of Ecuador imposed a country-wide moratorium on exploration; accordingly, no work was completed in this timeframe. Ecometals sells interest to EGX in 2010.
2012–2016	EGX	Geological mapping and rock sampling at Santa Barbara and El Hito; drilling at Los Cuyes, Soledad, El Hito, and Santa Barbara (37 holes; 22,051.7 m); Preliminary Economic Assessment (PEA) for Santa Barbara prepared in 2015. Lumina acquired EGX in 2016.

Dates	Company	Exploration Activities
2016–2018	Lumina	Geological mapping, soil and rock sampling, geophysical surveys and drilling in the Santa Barbara area (9 holes; 1,907.4 m); updated NI 43-101 mineral resource on Santa Barbara, Los Cuyes, Enma and Soledad. Mapping and sampling were carried out at Los Cuyes and Camp deposits in February 2017.
2018–2020	Luminex	Geological mapping, soil and rock sampling, and core drilling at the Camp deposit (28 holes; 14,801.40 m); conducted property wide Z-Axis Tipper Electromagnetic (ZTEM) airborne geophysical survey.

Gold has been identified in the area around the Condor Project since pre-Columbian times. Artisanal/small scale hard rock and alluvial mining has been conducted by legal and illegal operators in the area since the early 1980s. In 1988, modern exploration of the Condor Project area and adjacent concessions began with the establishment of a joint venture between the ISSFA<sup>3</sup> and Prominex UK. This venture undertook a number of regional stream sediment sampling and geological mapping programs that resulted in the discovery of most of the mineralized prospects on the Project (and neighboring) concessions.

In 1991, Prominex UK withdrew from the venture, and was replaced by TVX Gold, Inc. (TVX) and Chalupas Mining in 1993. From 1993 to 2000, an extensive surface exploration program was completed, consisting of soil, rock and stream sampling, trenching, and geophysical and induced polarization (IP) surveys. Drilling programs (195 holes, 42,101.5 m) tested the Chinapintza, Los Cuyes, San Jose, Soledad, Guayas and Enma epithermal gold showings as well as the Santa Barbara and El Hito porphyry occurrences. In addition, TVX completed 1,081 m of underground development specifically to explore the Chinapintza veins. In 2000, TVX and Chalupas Mining withdrew from the joint venture.

In 2002, Goldmarca (formerly Hydromet Technologies Ltd.) formed a joint venture with ISSFA and continued to explore the area of the Project and its adjacent concessions. Between 2002 and 2008, Goldmarca completed reconnaissance mapping, IP and magnetic surveys, and drilled the Los Cuyes, Soledad, Enma, Chinapintza, and other gold deposits (154 holes; 33,322.9 m). In 2007, Goldmarca changed its name to Ecometals Ltd.

From April 2008 to November 2009, the Ecuadorian government imposed a country-wide moratorium on mineral exploration; no work was completed on the Condor Project during that period.

In 2010, Ecometals sold its interest in the Condor Project to Ecuador Capital, which was subsequently renamed Ecuador Gold and Copper Corp. (EGX). From 2012 to 2016, EGX completed geological mapping and rock sampling at Santa Barbara and El Hito and completed diamond drilling (37 holes; 22,051.7 m) at Los Cuyes, Soledad, El Hito and Santa Barbara.

In 2015, a PEA was completed for the Santa Barbara Project (Short et al., 2015). On November 1, 2016, EGX was acquired by Lumina Gold Corp (Lumina).

From 2016 to 2018, Lumina completed additional geological mapping, soil and rock sampling and ground-based magnetic and IP geophysical surveys in an effort to identify and define drillable targets. Based on these efforts, Lumina drilled nine holes (1,907.4 m) to test soil and IP chargeability anomalies peripheral to the Santa Barbara deposit in 2017 and early 2018. Mapping and sampling by Warren Pratt in January 2017 (Pratt, 2017) identified what later became the Camp deposit, and early drilling was recommended.

<sup>3</sup> ISSFA operates the pension fund for the Ecuadorian military forces, who had become aware of the potential mineral resources in the area of the Project during the border disputes with Peru in the early 1980s.

In May 2018, Lumina released an updated mineral resource estimate on four deposits (Santa Barbara, Los Cuyes, Soledad and Enma) and adjacent concessions, and the corresponding technical report on July 10, 2018. Following the release of the updated mineral resource estimate, Lumina spun out Luminex Resources Corp. (Luminex) to its shareholders on August 31, 2018, after which time the Condor Project became 90% owned by Condormining a subsidiary of Luminex while ISSFA maintained a 10% stake.

Since September 2018, Luminex has continued with geologic mapping, and soil and rock sampling. It conducted a property wide airborne ZTEM geophysical survey, which identified several anomalous targets. Rock and soil geochemical surveys resulted in the definition of a coherent, locally high-grade gold-silver-zinc geochemical anomaly underlying part of the camp facilities. This new zone was called the “Camp” deposit and was drilled in mid-2019.

From mid-2019 through March 2020, Luminex drilled 28 holes totalling 14,801 m at the newly discovered Camp deposit; these results contribute to the estimate for the Camp deposit discussed in this Technical Report. The Camp deposit remains open along strike and down dip.

Results from Condor Project drill programs are provided in Section 10 (Drilling) of this Technical Report. To date, there has been no commercial mineral production from the Project or any other Luminex concessions, but artisanal miners have been illegally and legally extracting gold from the Chinapintza veins since the 1980s. This activity continues, but no production records exist.

Additional detail on the historical exploration of Condor North and the other concessions in the greater Condor Project exploration area is discussed in greater detail in (Ronning, 2003), (Maynard et al., 2013), (Maynard and Jones, 2014), and (Short et al., 2015).

## 7 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 Regional Geology

The Condor Project is located in the Cordillera del Condor in the Zamora copper-gold metallogenic belt. The Project area comprises epithermal gold-silver, porphyry copper-gold  $\pm$  molybdenum, and numerous alluvial gold deposits (Morrison, 2007; Williams, 2008). The Fruta del Norte and Mirador Mines, and the San Carlos-Panantza and Warintza deposits are also located within the Zamora copper-gold metallogenic belt (Drobe et al., 2013).

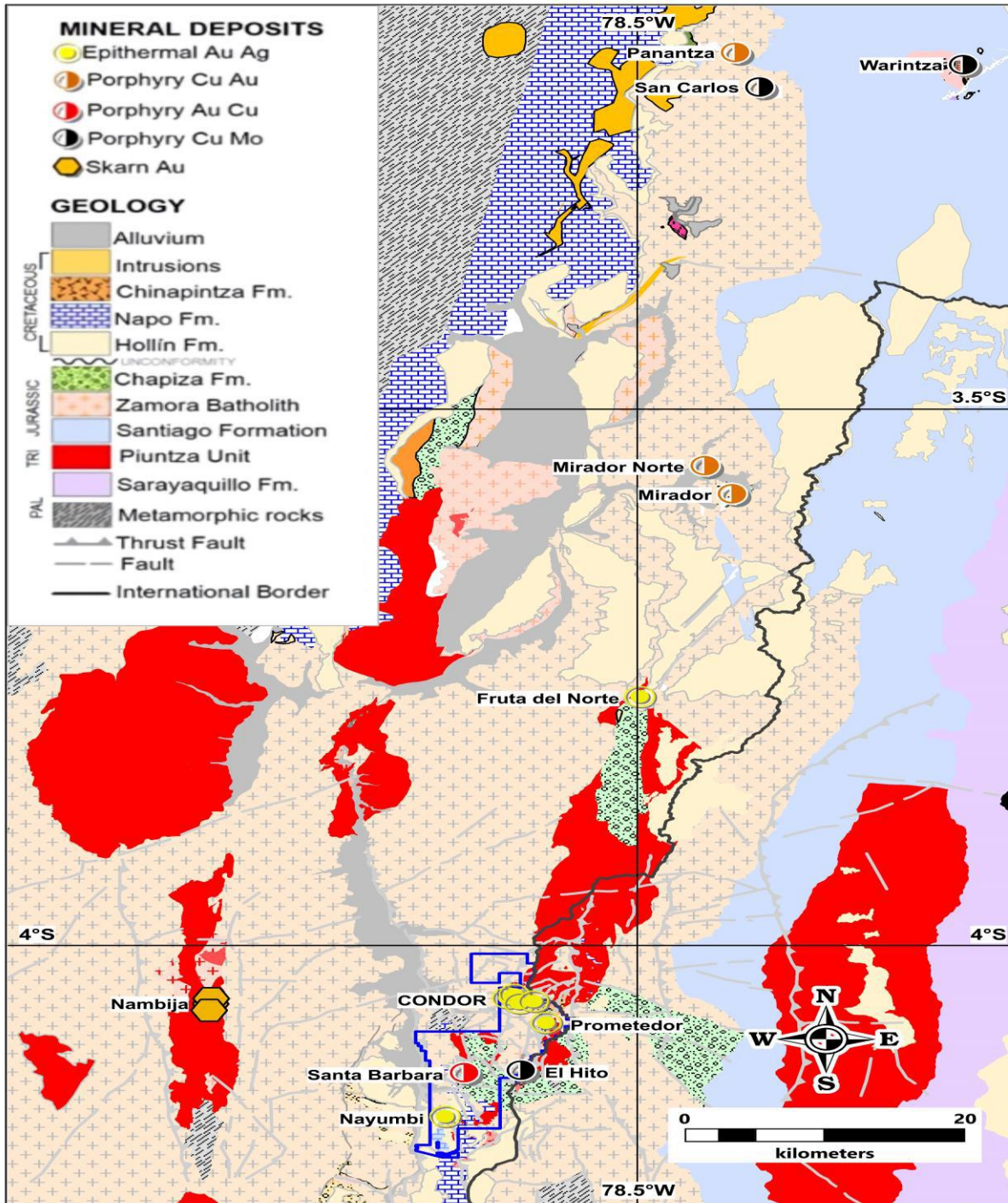
The regional stratigraphy is shown in Table 7-1, and the regional geology and key mineral deposits are shown in Figure 7-1.

**Table 7-1: Regional Stratigraphy Zamora Copper-Gold Metallogenic Belt**

Formation	Age	Description
Intrusions	Late Cretaceous	Monzonite, granodiorite and associated sub-volcanic and extrusive rocks
Chinapintza	Early Cretaceous	Rhyolite, dacite volcanics and intrusions
Napo	Early Cretaceous	Limestones, lutites, sandstones, black shales
Hollín	Early Cretaceous	Quartz arenite and coals
Unconformity		
Misahuallí	Late Jurassic	Andesite volcanics; arc dominated
Chapiza	Late Jurassic	Conglomerates, red bed sandstones, turbidites, shales and continental shelf sediments
Zamora Batholith	Middle Jurassic	Granodiorite, monzonite, diorite, granite
Santiago	Late Triassic to Early Jurassic	Calc-alkaline volcanics of the Piuntza Unit

Source: Drobe et al., 2013, Easdon and Oviedo, 2004.

Figure 7-1: Regional Geology Southern Ecuador



Source: Quispesivana, 1996; Drobe et al., 2013; Leary et al., 2016

Note: Blue polygon outlines the Condor properties group of concessions



The geologic make-up of the Cordillera del Condor is dominated by the Middle to Late Jurassic Zamora batholith, dated between 153–169 Ma (Litherland et al., 1992; Drobe et al., 2013). Calc-alkaline, I-type batholith lithologies form components of a continent-scale remnant magmatic arc emplaced along an Andean-type continental margin. Batholith magmas intrude supra-crustal sequences of Palaeozoic to Mesozoic sedimentary and arc-related igneous and volcanic rocks. The Zamora batholith is exposed along a 200 km north-northeast trend, is over 100 km wide, and is dissected by predominantly north-south faults forming part of a laterally extensive fold and thrust belt.

Batholith magmas are typically composed of equigranular, medium-grained monzonites and granodiorites along with younger sub-volcanic porphyritic (plagioclase-hornblende  $\pm$  quartz) intrusions, the latter spanning rare gabbroic to more commonplace andesitic to rhyolitic compositions. Porphyritic intrusions form every 15 km to 20 km along the north-northeast axis of the Zamora batholith and are commonly associated with copper and gold mineralization.

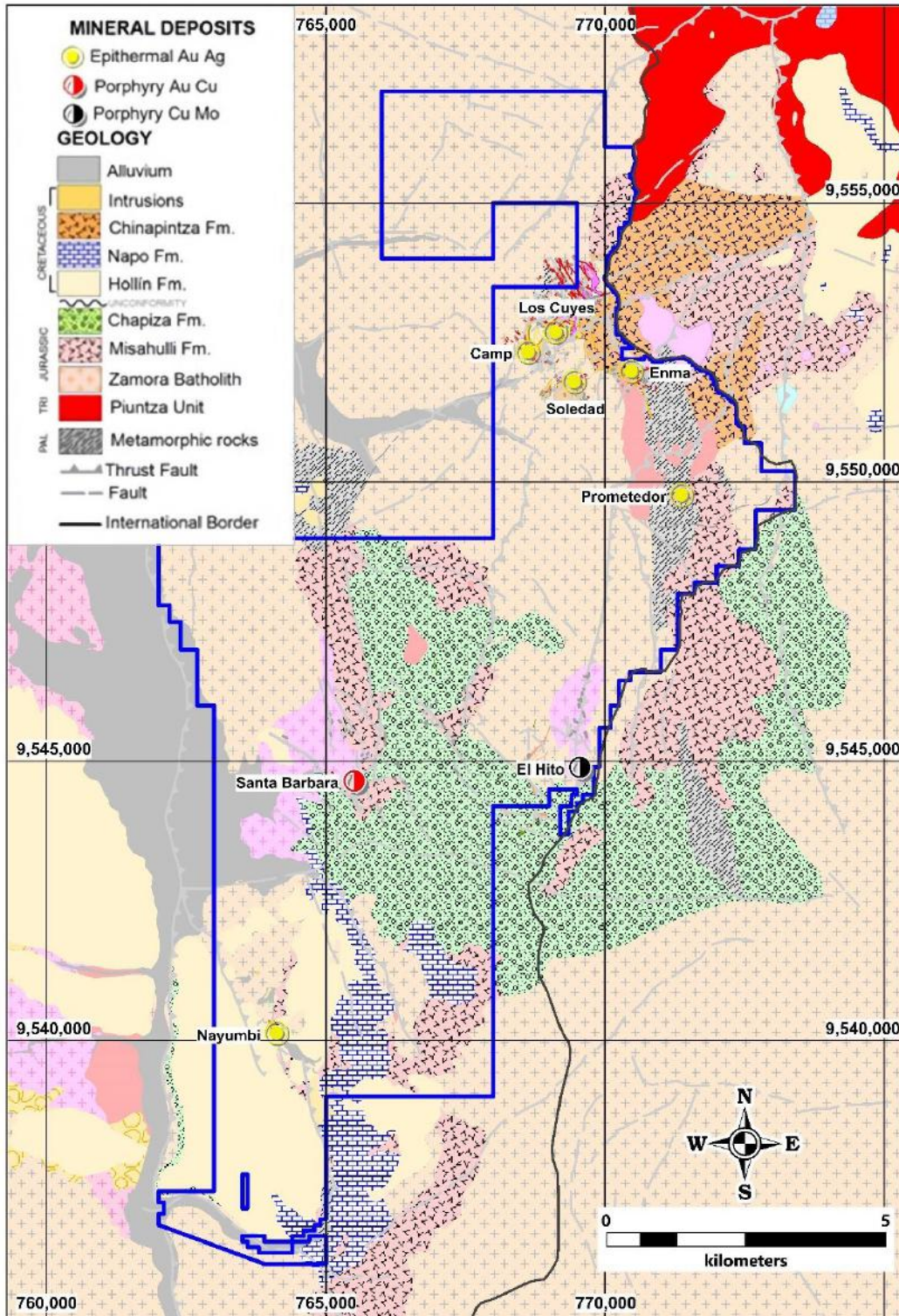
The Zamora batholith intrudes Late Triassic to Early Jurassic Santiago Formation sedimentary and volcanic rocks, locally incorporating them as faulted blocks or roof pendants. Late Jurassic Chapiza Formation sedimentary rocks and Misahuallí volcanic rocks unconformably overlie the batholith. Early Cretaceous quartz arenites of the Hollín Formation as well as sandstones, mudstones and limestones of the Napo Formation further cover portions of the eroded Jurassic volcano-sedimentary sequence and the batholith (Hedenquist, 2007; Drobe et al., 2013). This sequence is locally overlain by rhyolitic to dacitic volcanoclastic rocks of the Early Cretaceous Chinapintza Formation. Late Cretaceous felsic to intermediate stocks and dykes are aligned with regional fault structures.

North-south-trending detachment faults form the principal structural grain, precursors of which controlled the emplacement of the batholith and its subsequent uplift. A series of younger northeast-, northwest- and east-northeast-striking cross structures control the emplacement of younger intrusions.

## **7.2 Local and Property Geology**

The concession-scale geology of the Condor Project is shown in Figure 7-2, comprising at least three distinctive mineral sub-districts; namely the Condor North area epithermal gold and silver vein district including the Los Cuyes, Camp, Soledad, and Enma deposits (subject of the current PEA), and the Prometedor prospect, the Condor Central area porphyry copper-gold and copper-molybdenum district (Santa Barbara and El Hito), and the Condor South area epithermal gold-silver area where recent exploration has identified a possible “Fruta Del Norte-style”, high-grade, structurally controlled target at Nayumbi.

Figure 7-2: Local Geology Condor Project



Source: Luminex, 2021.

Note: The Condor properties is outlined in blue.

## **7.2.1 Condor North Area**

### **7.2.1.1 Chinapintza Vein District**

Low- to intermediate-sulphidation epithermal vein swarms are located in the northern part of the Condor North area. These form a series of north-northwest-striking, narrow, high-grade gold and electrum-bearing manganese carbonate, often with base-metal veins hosted in dacite porphyry (Williams, 2008; Morrison and Worsley, 2008). The Chinapintza vein district extends along strike for 1.5 km over a zone 0.6 km wide, traversing the former Jerusalem concession (lapsed in 2018), and continues into Peru.

TVX conducted more than 45,000 m of drilling followed by underground trial mine development and exploration of the Chinapintza veins in the 1990s. Insufficient geologic and drill-hole assay data have been collected to support an accurate mineral resource evaluation. However, artisanal mining continues to exploit these veins.

### **7.2.1.2 Condor Breccia, Dyke and Dome**

The Condor breccia, dyke and dome complex is located immediately south of the Chinapintza vein district. Host rocks are the Early Cretaceous rhyodacite to dacite intrusions and volcanoclastics of the Chinapintza Formation, surrounded by the Zamora Batholith. A number of diatreme breccias, dykes, plugs and sub-volcanic domes are associated with these intrusions. Dykes, in particular rhyolites, are important in localizing vein mineralization. The Condor breccia, dyke and dome complex can be sub-divided into four main zones: Los Cuyes, Soledad, Enma and Camp. These main zones comprise Condor North. Gold-silver mineralization is associated with sphalerite-pyrite/marcasite veins which customarily occur within the component breccias, along the contacts of rhyolite dykes, and also as replacements and disseminations. These are often disrupted by a series of post-mineral extensional faults.

The Prometedor precious-metal prospect exhibits many similarities to the deposits in the Condor Breccia, Dyke and Dome complex and it is being readied for drill testing in 2021.

## **7.2.2 Condor Central Area**

The southern porphyry zone is located 7.5 km south of the epithermal vein and diatreme system. The Santa Barbara gold-copper porphyry and the El Hito copper-molybdenum porphyry system make up the southern porphyry zone. Alkali basalts of unknown age form the principal host unit at Santa Barbara. These are intruded by diorite and surrounded by the Zamora Batholith. These host units are capped by a veneer of conglomerates of the Chapiza Formation and in turn overlain by quartz arenites of the Hollín Formation.

## **7.2.3 Condor South Area**

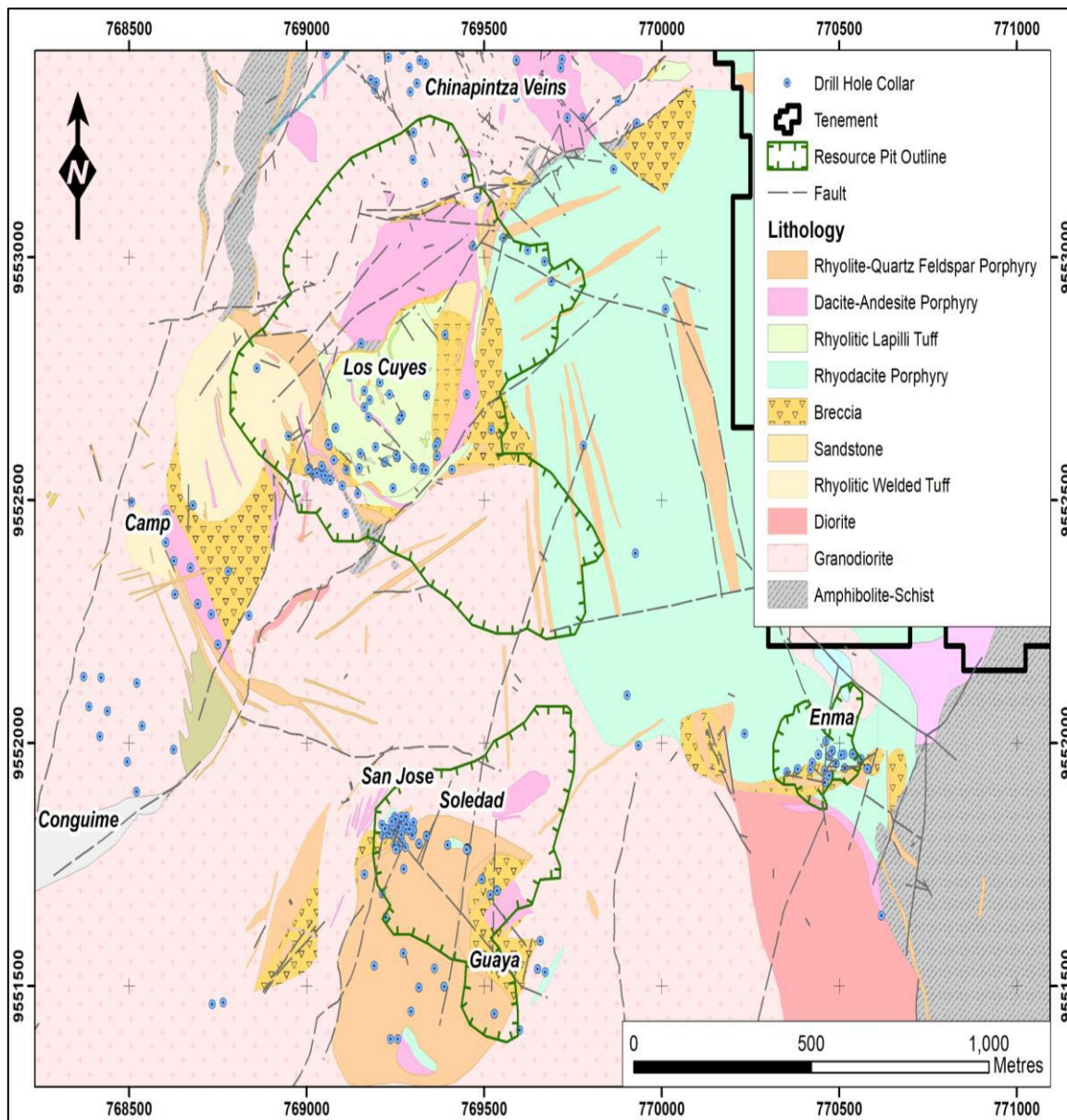
Recent work on the Nayumbi epithermal precious-metal prospect suggests it likely represents a distal, lower-temperature, structurally focused hydrothermal system related to the porphyries. The geology, geochemistry and geophysical signature of Nayumbi is broadly analogous to the Jurassic-age Fruta Del Norte Deposit located 45 kilometers north-northeast.

### 7.3 Mineralization

#### 7.3.1 Condor North Area

The Condor breccia, dyke and dome complex hosts the Camp, Los Cuyes, Soledad, Enma and the Chinapintza vein deposits and the un-drilled Prometedor prospect (Figure 7-3, Prometedor lies southeast of the area shown in the figure).

Figure 7-3: Condor Volcanogenic Breccia and Dome Complex



Source: Luminex, 2021.

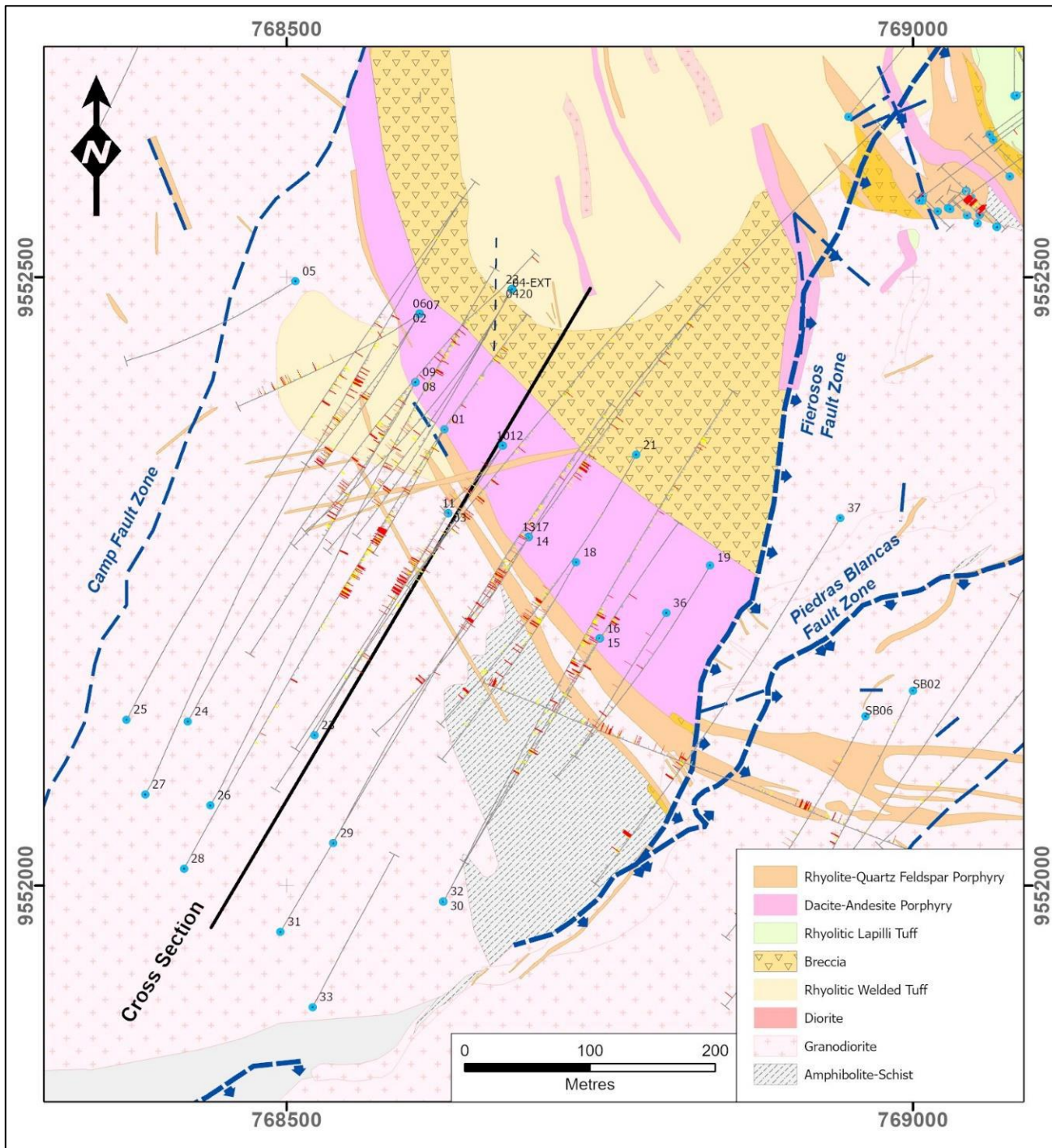
### 7.3.1.1 Camp

Gold and silver mineralization at Camp is related to a swarm of mostly northwest-striking rhyolite-dacite dykes. These may emanate from a larger buried rhyolite intrusion. The dykes are focused at the contact of the volcanic/intrusive complex with a major granodiorite intrusion. The known mineralized zone dips steeply at 85° to the northeast, is over 500 m in strike extent, and is approximately 80 m to 130 m wide, respective of internal dilution. Gold occurs within veins of pyrite, marcasite, iron-rich sphalerite (marmatite), galena ± chalcopyrite, pyrrhotite as well as quartz and rhodochrosite gangue. Host rocks are sericite-illite-smectite ± carbonate-altered weakly foliated granodiorites and related breccias as well as flow banded rhyolite and common lenses of phreatomagmatic breccia. A 30 m to 80 m thick cap of trachyte to rhyolitic welded tuff defines a ridge, through which gossanous veinlets locally permeate. The Camp ridge is bounded by high-angle reverse faults, namely the Camp Fault to the northwest and the Piedras Blancas Fault to the southeast. The Camp Fault cuts the northwest portion of the mineralized body. Highly anomalous surface copper mineralization occurs in the area around the Camp deposit. Clasts of stockworked porphyry with abundant molybdenite occur in the nearby Los Cuyes diatreme gold/silver deposit. This suggests a common deeper mineralized porphyry underlying part of the Condor breccia, dyke and dome complex.

Figure 7-4 shows a plan view of the geology and gold in drilling in the Camp deposit area.

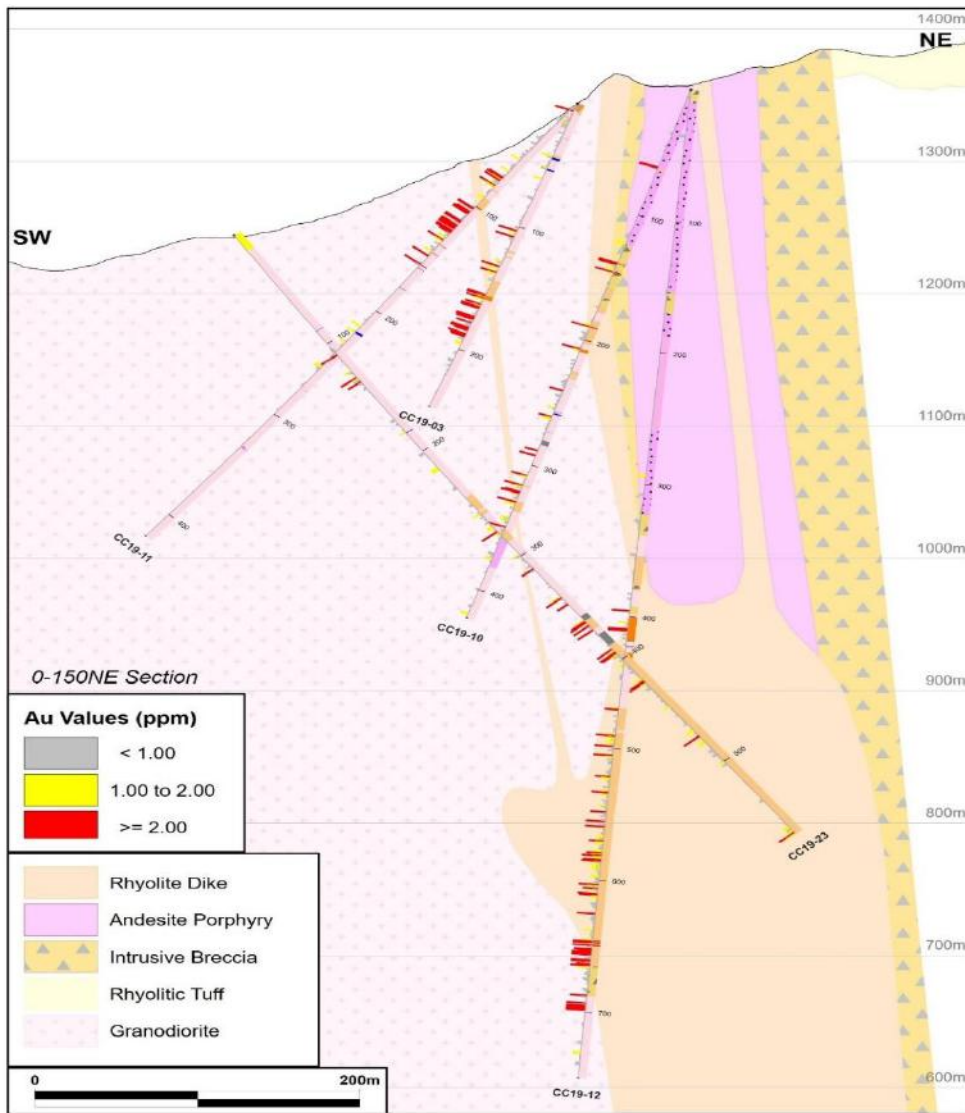
Figure 7-5 shows a southwest-northeast-oriented vertical cross section looking towards the northwest.

Figure 7-4: Camp – Plan Showing Geology and Gold in Drilling



Source: Luminex, 2021.

Figure 7-5: Camp – Vertical Southwest-Northeast Cross Section Showing Geology and Gold in Drilling



Source: Luminex, 2021.

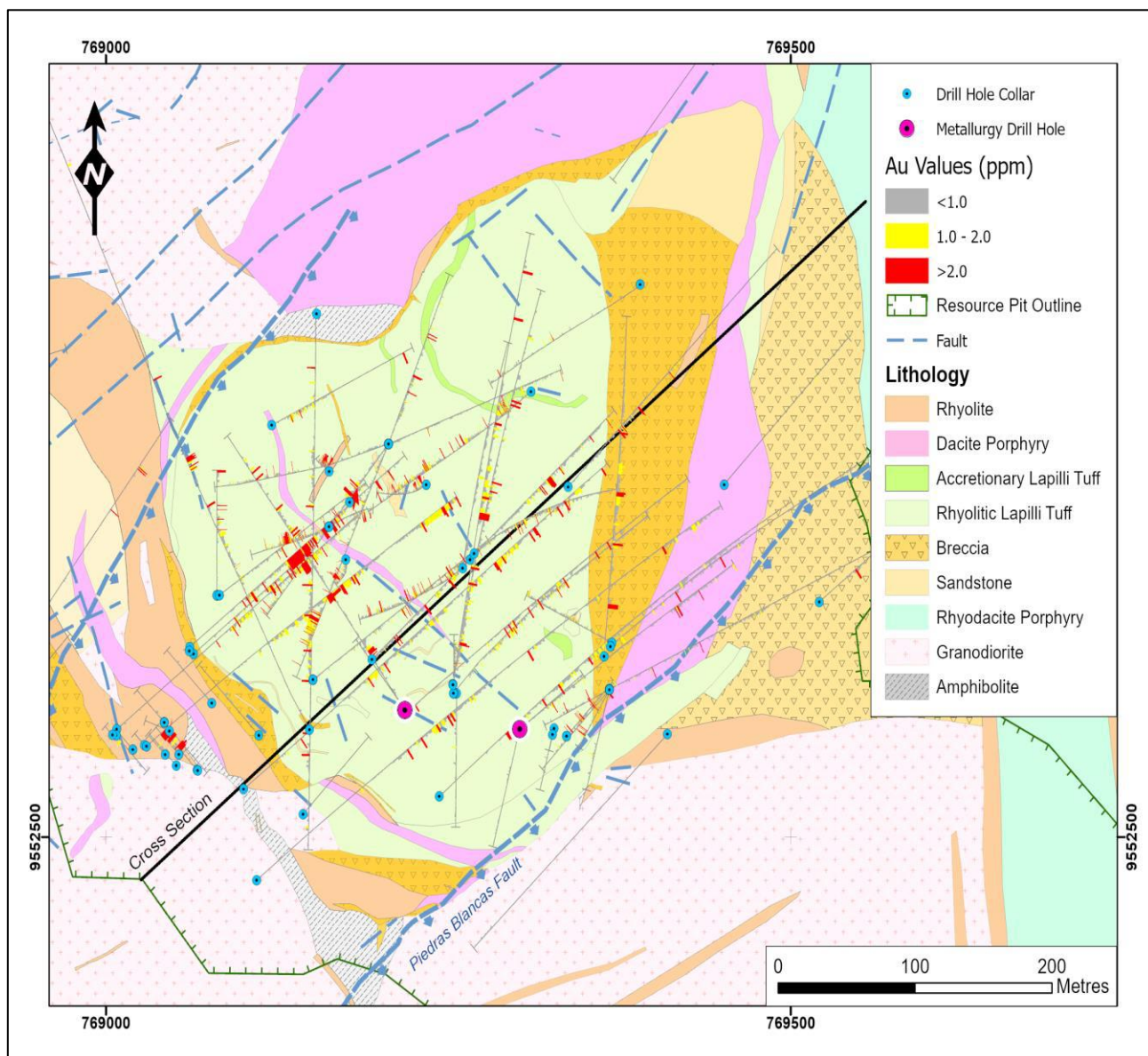
### 7.3.1.2 Los Cuyes

Los Cuyes is hosted in an oval-shaped diatreme measuring 450 m northeast-southwest, 300 m northwest-southeast and extending to depth for at least 350 m. The overall form is that of an inverted cone that plunges approximately 50° to the southeast. The diatreme consists of an outer shell of discordant, polymictic phreatomagmatic breccia and an internal fill of well-sorted, bedded rhyolitic lapilli tuffs, breccias, volcanic sandstones. Fragments, or large rafts, of amphibolite and quartz arenite occur around the periphery of the diatreme. Dacite and rhyolite dykes are intruded as ring dykes at the steep margin of the diatreme. Alteration within the diatreme is primarily sericite-illite, with carbonate locally. Intense phyllic alteration occurs in some places at the margin of the diatreme, implying focused hydrothermal fluid flow.

Gold and silver occur in veins of pyrite, sphalerite, galena, chalcocopyrite and pyrrhotite. There is a low level of background gold throughout the entire diatreme, with disseminated pyrite and sphalerite. The highest gold values occur in veins of massive sphalerite, pyrite and marcasite, with minor quartz, galena and rhodochrosite. These closely resemble the nearby Chinapintza veins. Lithological contacts, such as dykes which cut the diatreme and the outer breccia shell, favored the vein development. Mineralization and alteration at Los Cuyes post-dates all the local rock types; the diatreme includes Hollín Formation blocks, which implies that the mineralization is post-Early Cretaceous.

Figure 7-6 shows a plan view of geology and gold in drilling at Los Cuyes. Figure 7-7 shows a southwest-northeast-oriented vertical cross section looking towards the north.

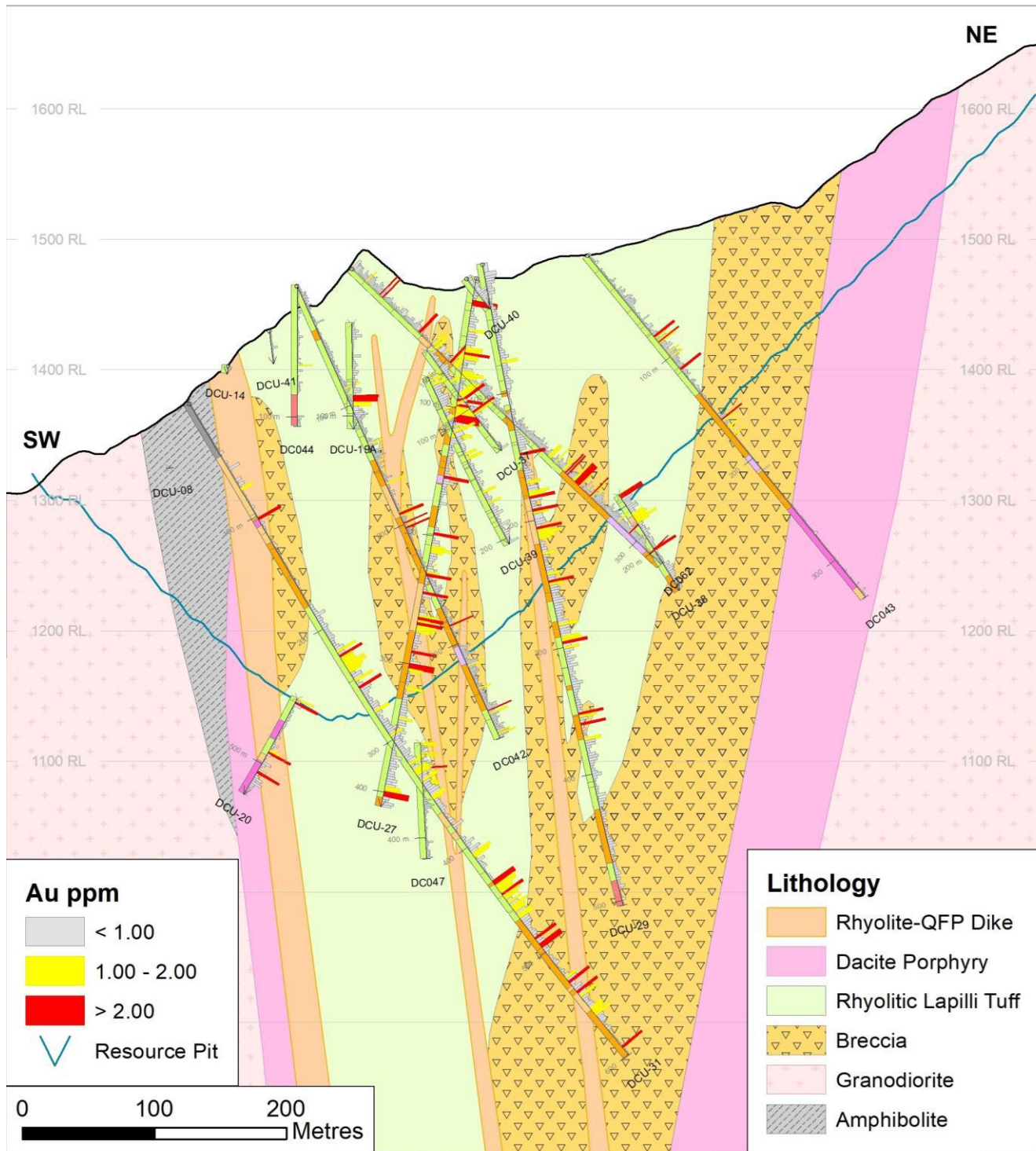
**Figure 7-6: Los Cuyes – Plan Showing Geology and Gold in Drilling**



Source: Luminex, 2021.



Figure 7-7: Los Cuyes – Vertical Southwest-Northeast Cross Section Showing Geology and Gold in Drilling



Source: Luminex, 2021.

As a generalization, the Los Cuyes diatreme is similar to other diatreme-related epithermal gold, silver and base metal deposits, such as Rosia Montana in Romania, Kelian in Indonesia, and Montana Tunnels in the USA.

### 7.3.1.3 Soledad

The Soledad Zone is a 700 m diameter oval-shaped rhyolite intrusion rimmed discontinuously by pyritic breccias, emplaced within the Zamora Batholith. The individual mineralized zones it encompasses are named Soledad, San Jose, Bonanza and Guayas. Epithermal gold-silver mineralization at Soledad shares certain similarities with Camp on account of the patchy matrix replacement with sulphides, grain-scale replacement of rhyolite feldspars by sphalerite and pyrite and irregular sphalerite veinlets. Unique to Soledad are the pyritic hydrothermal matrix breccias localized at the upper margins of the intrusion at San Jose and Guayas.

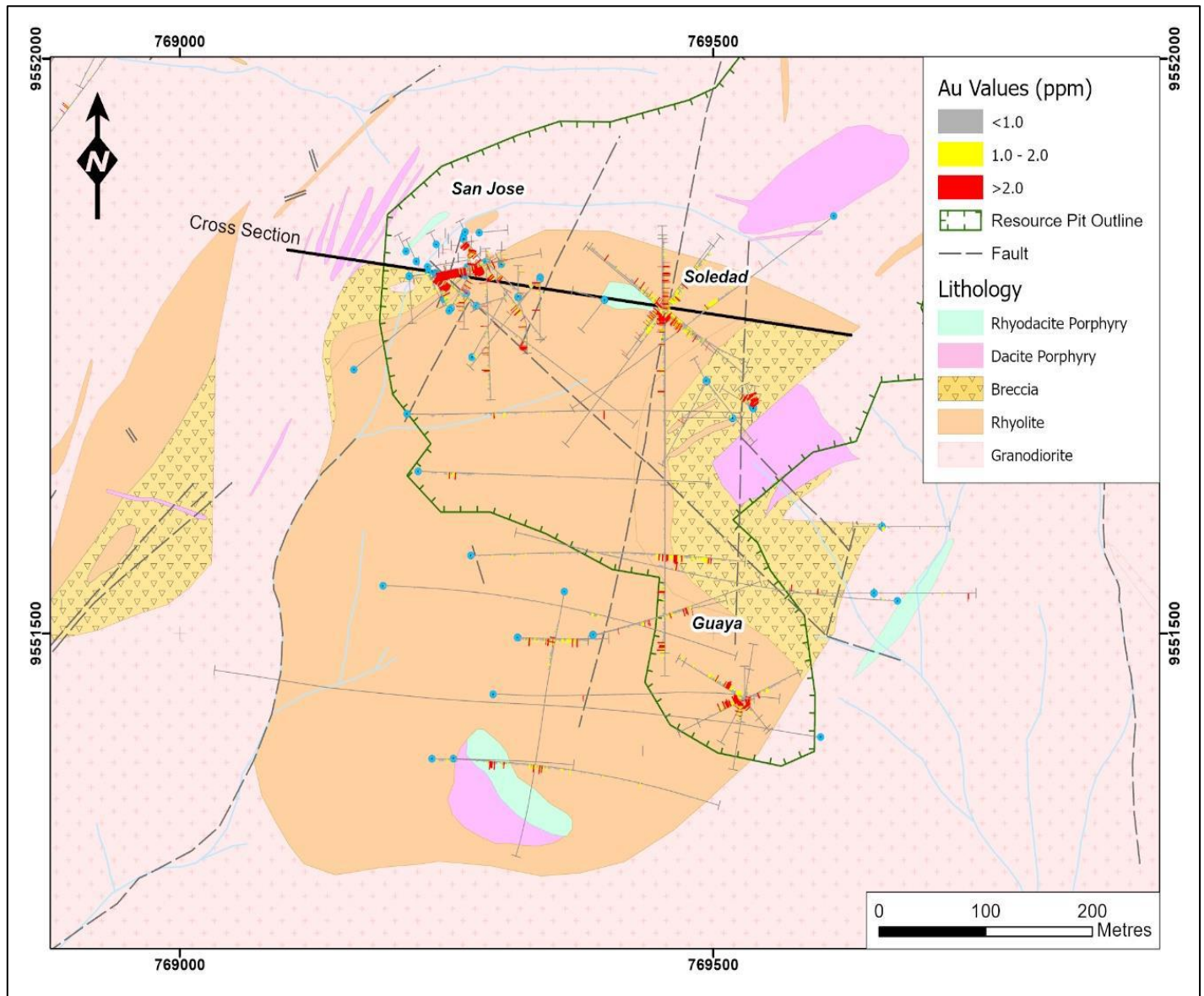
Morrison (2007) ascribes the overall form of mineralization specific to Soledad to a north-south elongated wine glass-shaped body that tapers away at 200 m to 300 m below surface, extending approximately 110 m northwest by 50 m northeast. Sphalerite gives way to pyrite as the dominant sulfide at ~100 m below surface, similar to Los Cuyes and hence gold and silver grades diminish accordingly.

San Jose mineralization consists of sphalerite-rich veins hosted within clast-supported breccias with a matrix filled by sulfides as well as patchy veinlets of sphalerite and pyrite in quartz-sericite-pyrite altered host rocks. The San Jose zone has dimensions of 100 m northwest-southeast, 50 m northeast-southwest and has a vertical extent of 120 m.

At Guayas, mineralization consists of pyrite-sphalerite veins hosted in a quartz-pyritic rhyodacite that is kaolinized, covering an area of 50 m by 20 m and extending to a vertical depth of 50 m.

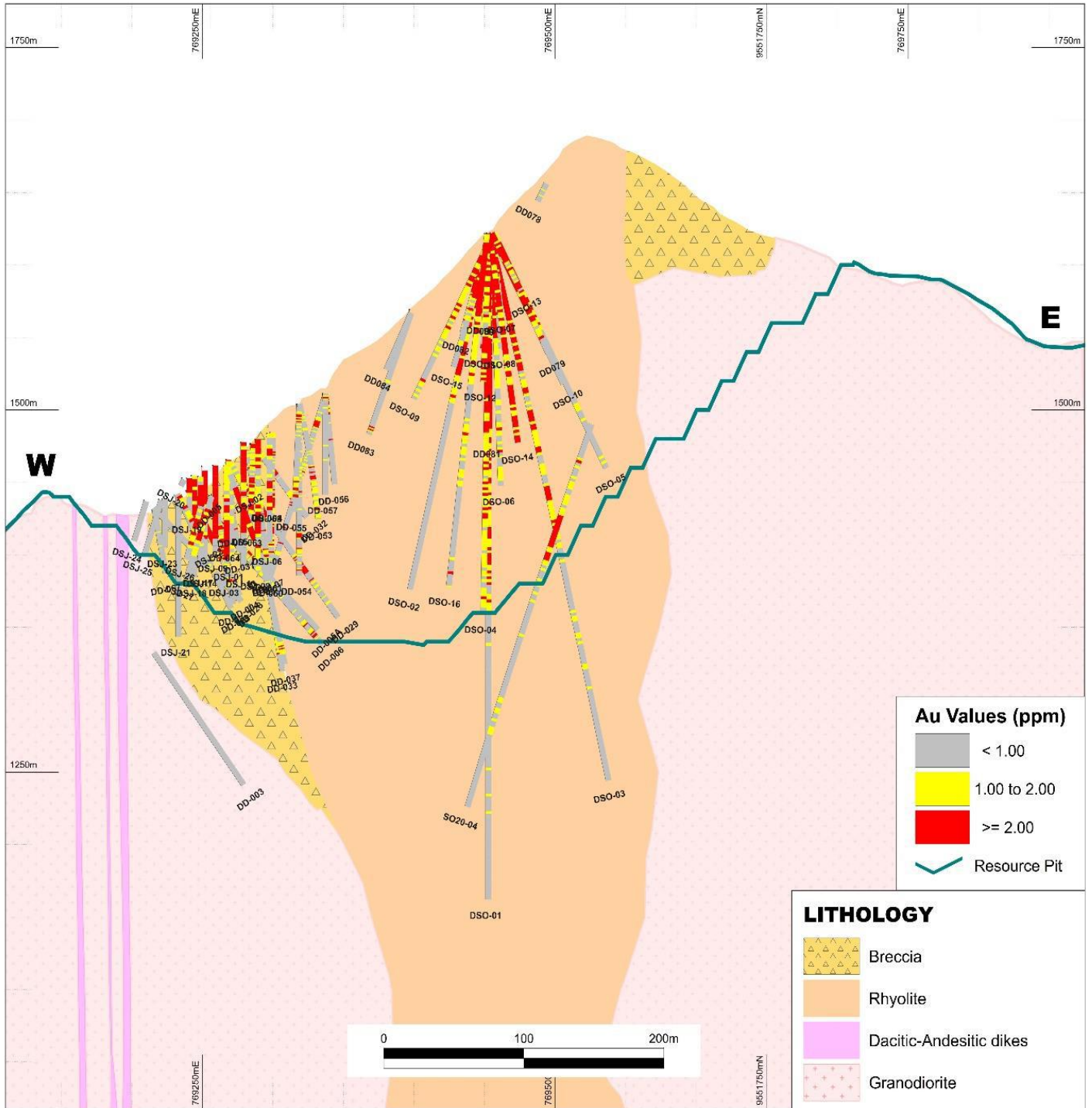
Figure 7-8 shows a plan view of the geology and gold in drilling at Soledad. Figure 7-9 shows a west-east-oriented vertical cross section looking towards the north.

Figure 7-8: Soledad – Plan Showing Geology and Gold in Drilling



Source: Luminex, 2021.

Figure 7-9: Soledad – Vertical West-East Cross Section Showing Geology and Gold in Drilling



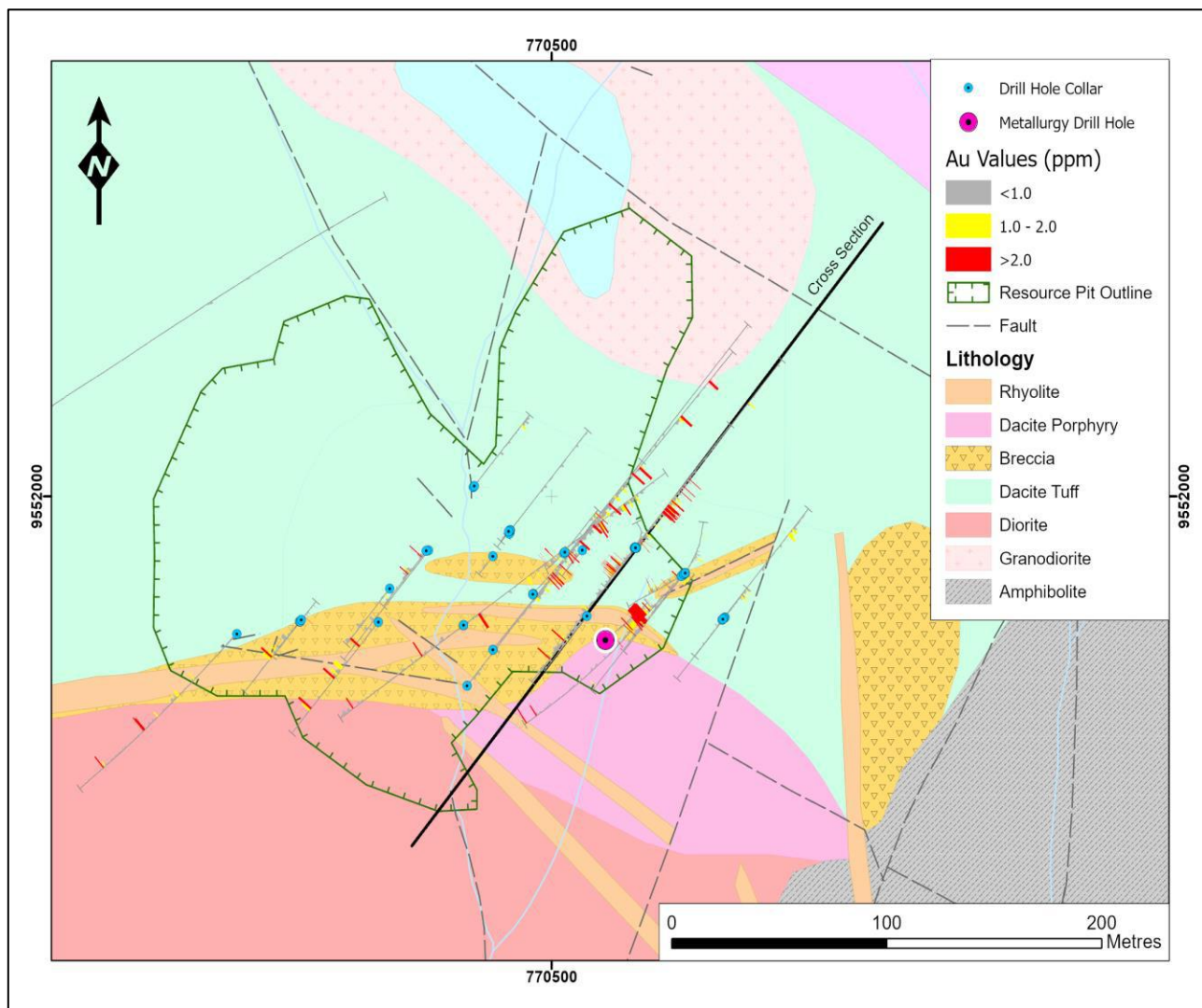
Source: Luminex, 2021.

### 7.3.1.4 Enma

Gold and silver mineralization at Enma are hosted in a west-northwest-trending rhyolitic breccia that occurs at the contact between andesite lapilli tuffs and the Zamora batholith. The deposit has dimensions of 200 m west-northwest, is approximately 10 m wide, and has a vertical extent of 350 m (Maynard and Jones, 2011). Alteration mineralogy is primarily chlorite with minor quartz-sericite ± alunite-kaolinite. Gold is associated with pyrite-sphalerite-quartz and locally rhodochrosite veins. At depths greater than 200 m, gold-poor, pyrite-pyrrhotite ± chalcopyrite veins are more dominant.

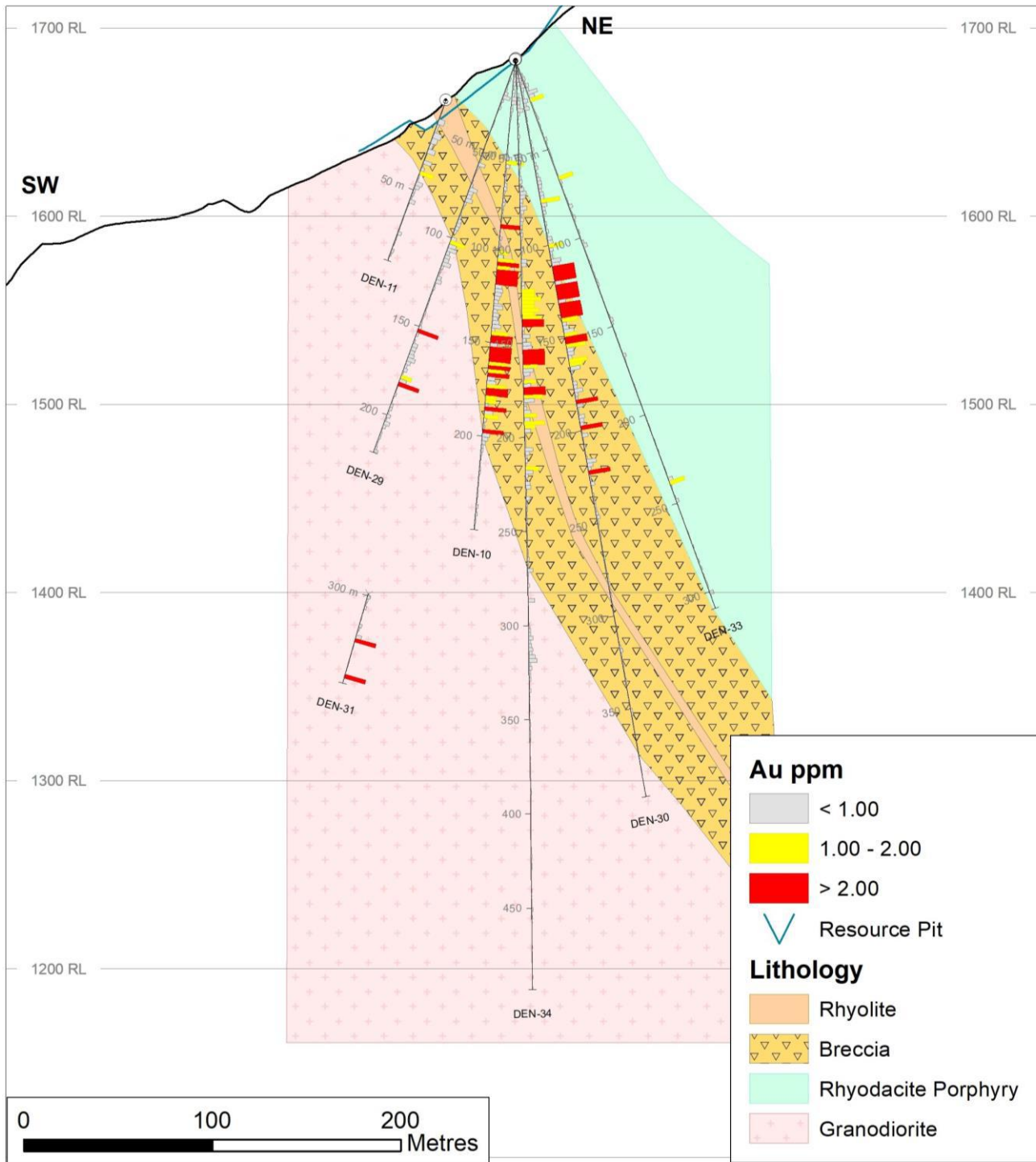
Figure 7-10 shows a plan view showing the geology and gold in drilling at Enma. Figure 7-11 shows a southwest-northeast-oriented vertical cross section looking towards the north.

**Figure 7-10: Enma – Plan Showing Geology and Gold in Drilling**



Source: Luminex, 2021.

Figure 7-11: Enma – Vertical Southwest-Northeast Cross Section Showing Geology and Gold in Drilling



Source: Luminex, 2021.

#### 7.3.1.4.1 Chinapintza Vein District

Epithermal gold veins of the Chinapintza vein district strike between 330° and 350° and are spatially associated with dacite and rhyodacite plugs and dykes. Individual veins are typically <0.3 m wide with exceptions of up to 2 m. Tensional veins and mineralized faults flare upward into wedge-shaped stringers, veinlets and breccias which locally yield bonanza gold grades. Secondary stockwork veinlets frequently permeate the wall rock at considerable distances from the primary source vein.

The Chinapintza veins occur within a broad area of phyllic and argillic alteration, which are in turn surrounded by a halo of propylitic alteration. The veins are characterized by open-space fillings and exhibit crustiform and drusy textures typical of epithermal veins. They consist of inter-banded and intergrown sulphides, carbonates, quartz and clay minerals. Gold occurs both in its native form and as electrum. Sulphides and other metal-bearing minerals include pyrite, sphalerite, galena, arsenopyrite, pyrrhotite, chalcopyrite, bornite, tennantite-tetrahedrite, pyromorphite, anglesite, covellite, chalcocite and malachite. The sulfosalts and rhodochrosite suggest Chinapintza is an Intermediate Sulfidation state epithermal.

#### 7.3.1.4.2 Prometedor Prospect

The Prometedor prospect exhibits many similarities with the Camp deposit and is being readied for initial drill testing in 2021. Precious-metals are associated with dike margins and disseminations within equigranular, as well as subvolcanic, intrusive rocks.

### 7.3.2 Condor Central Area

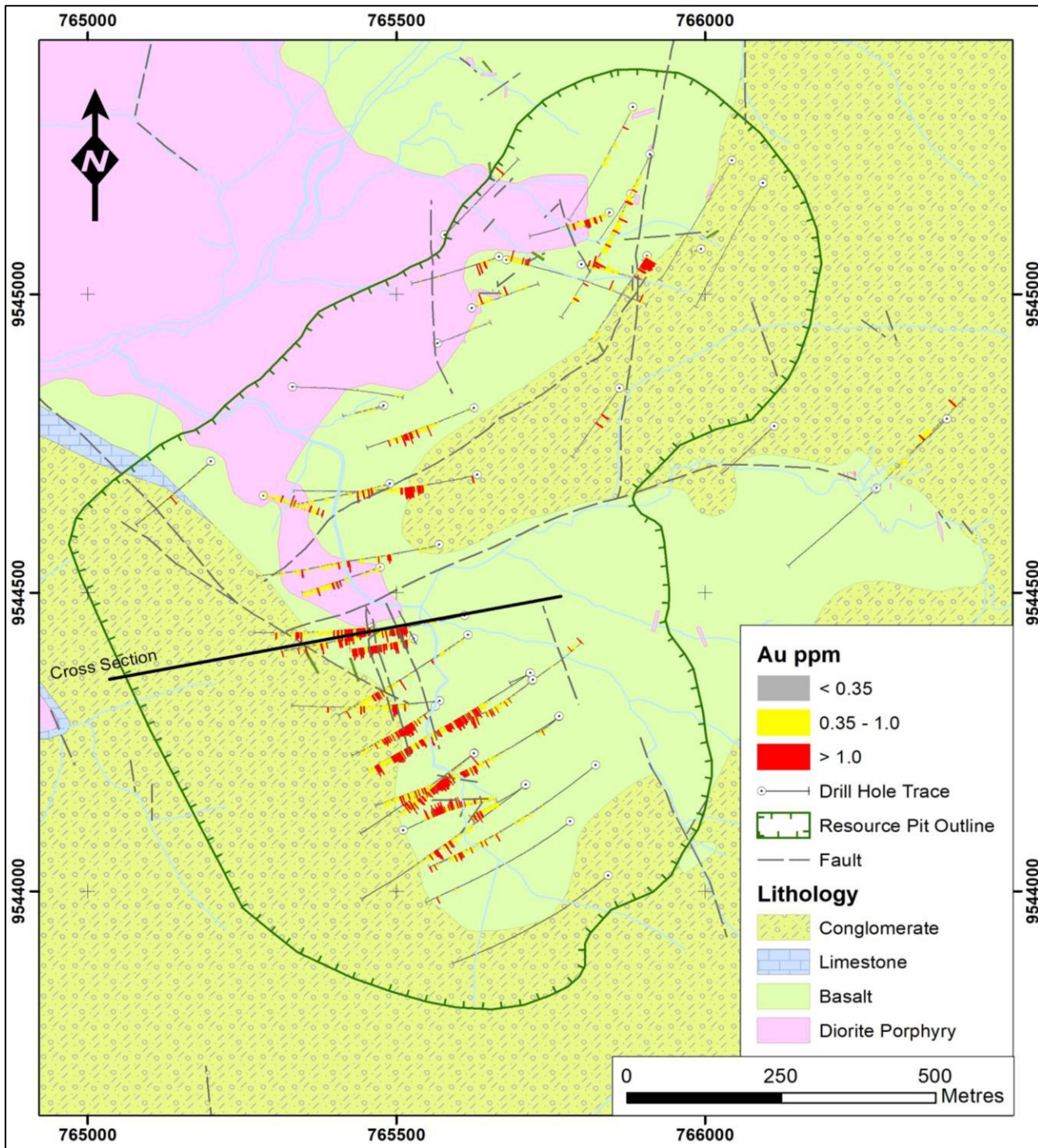
The Southern porphyry zone encompasses the Santa Barbara porphyry gold ±copper deposit and the El Hito porphyry copper-molybdenum center. The latter is not classified as a mineral deposit, because of the lack of drill hole data to constitute a mineral resource. The Santa Barbara - El Hito area is located approximately 8.3 km to the south of the Camp deposit. The area is for the most part covered in gently sloping sequences of Hollín Formation sandstone, typically 100 m thick, overlying conglomerates of the Chapiza Formation between 50 and 90 m thick.

#### 7.3.2.1 Santa Barbara

Gold and copper mineralization at Santa Barbara are hosted in alkali basalts and diorite dykes. The basalts are of unknown age but may belong to the Piuntza Unit of the Santiago Formation; this hosts epithermal gold at Nambija and Fruta del Norte. Aphanitic to 2-5% pyroxene-phyric alkali basaltic rocks are intruded by narrow feldspar porphyry diorite dykes. Owing to their inward dip, these dykes are interpreted as apophyses of a deeper porphyry intrusion. The northern part of the mineralized zone occurs near the contact between the basalts and a hornblende porphyritic diorite. Mineralization is associated with a quartz vein stockwork and potassic alteration (fine-grained secondary biotite and K-feldspar). High gold values coincide with B-type quartz veins, commonly with chalcopyrite, surrounded by biotite alteration and disseminated pyrite.

Propylitic alteration (chlorite-epidote-actinolite) occurs as a halo around the potassic alteration. The mineralized zone defined to date has dimensions of 1.2 km north-south, 500 m east-west and extends to a depth of at least 500 m. Figure 7-12 shows a plan view of Santa Barbara showing the local geology and gold in drilling. Figure 7-13 shows a west-east-oriented vertical cross-section looking towards the north.

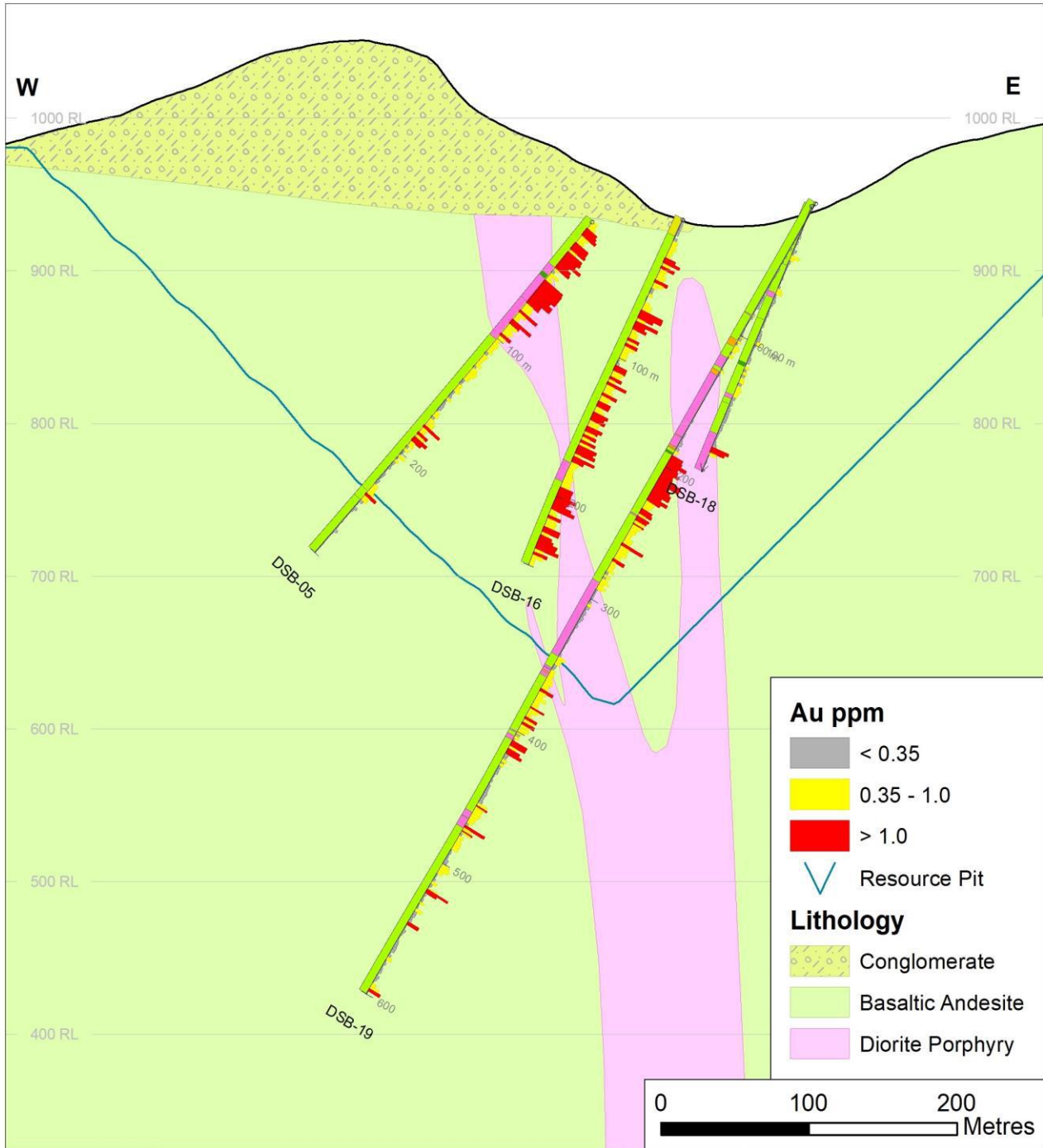
Figure 7-12: Santa Barbara – Plan Showing Geology and Gold in Drilling



Source: Luminex, 2021.



Figure 7-13: Santa Barbara – Vertical West-East Cross Section Showing Geology and Gold in Drilling

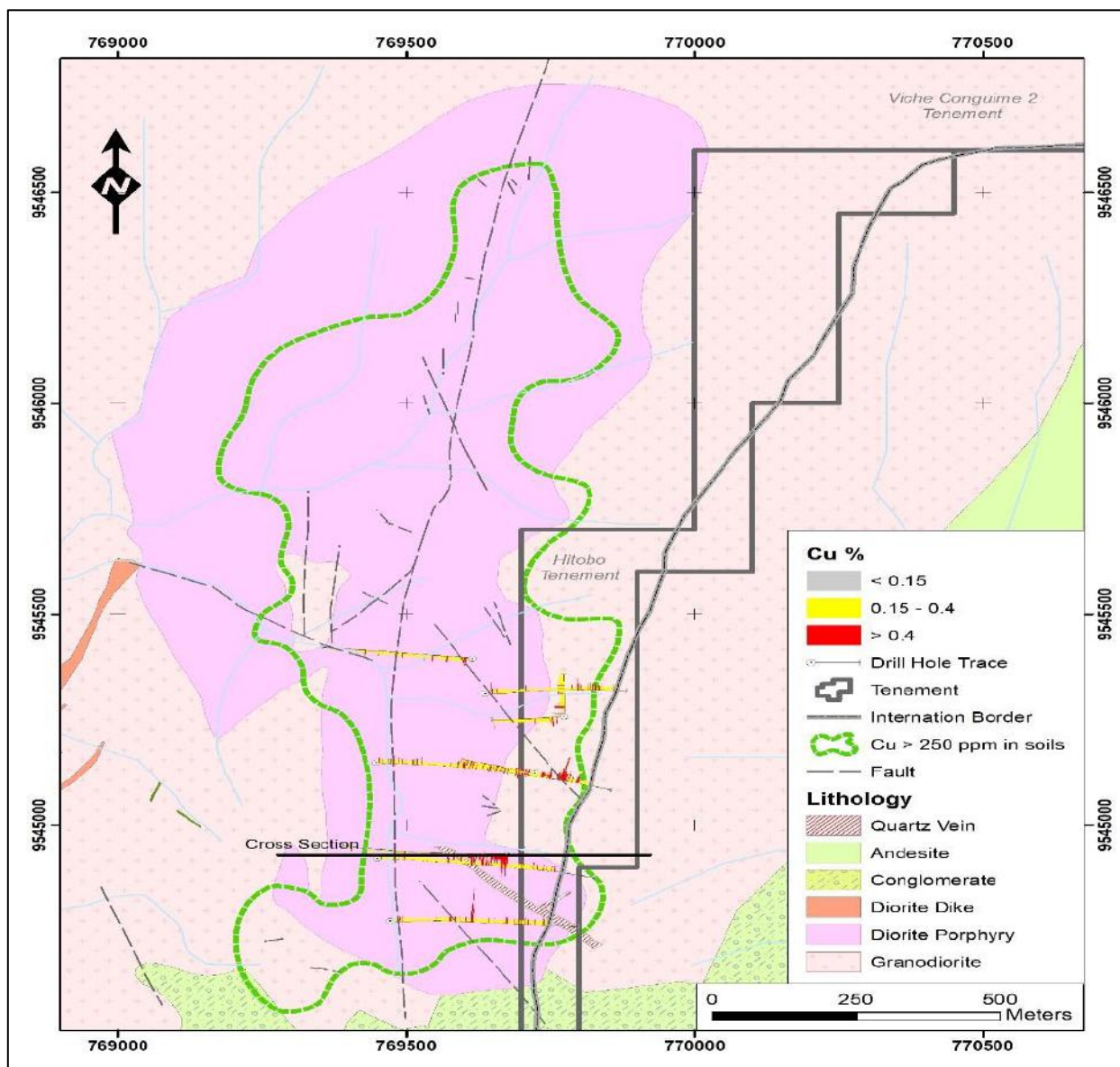


Source: Luminex, 2021.

### 7.3.2.2 El Hito

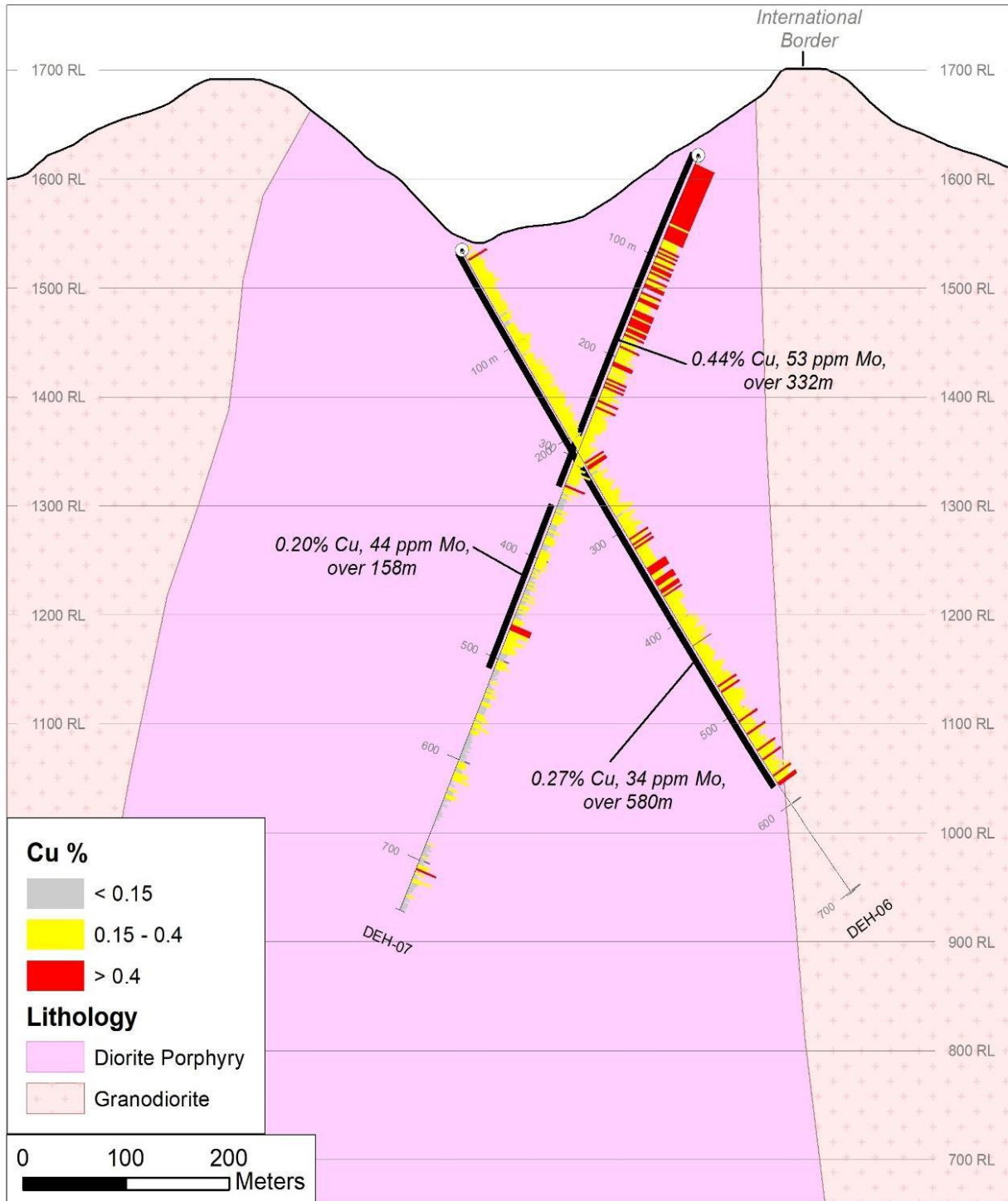
Porphyry copper mineralization at El Hito is hosted in porphyritic granodiorite developed within compositionally equivalent magmas of the Zamora batholith. Drilling, trenching and surface mapping have defined copper mineralization over 2.5 km (north-south) by 1.0 km (east-west), and extends to vertical depths of at least 600 m. Moderate to strong phyllic-argillic alteration consisting of illite-sericite-pyrite and an early potassic alteration phase consisting of fine-grained secondary biotite and K-feldspar further distinguishes the porphyry centre from the surrounding batholith. Overall sulphide content is low (<5%); chalcopyrite is the dominant sulphide with lesser amounts of pyrite, molybdenite and bornite. Oxides and silicate copper minerals are locally observed at surface.

Figure 7-14: El Hito – Plan Showing Geology and Gold in Drilling



Source: Luminex, 2021.

Figure 7-15: El Hito – Vertical West-East Cross Section Showing Geology and Gold in Drilling



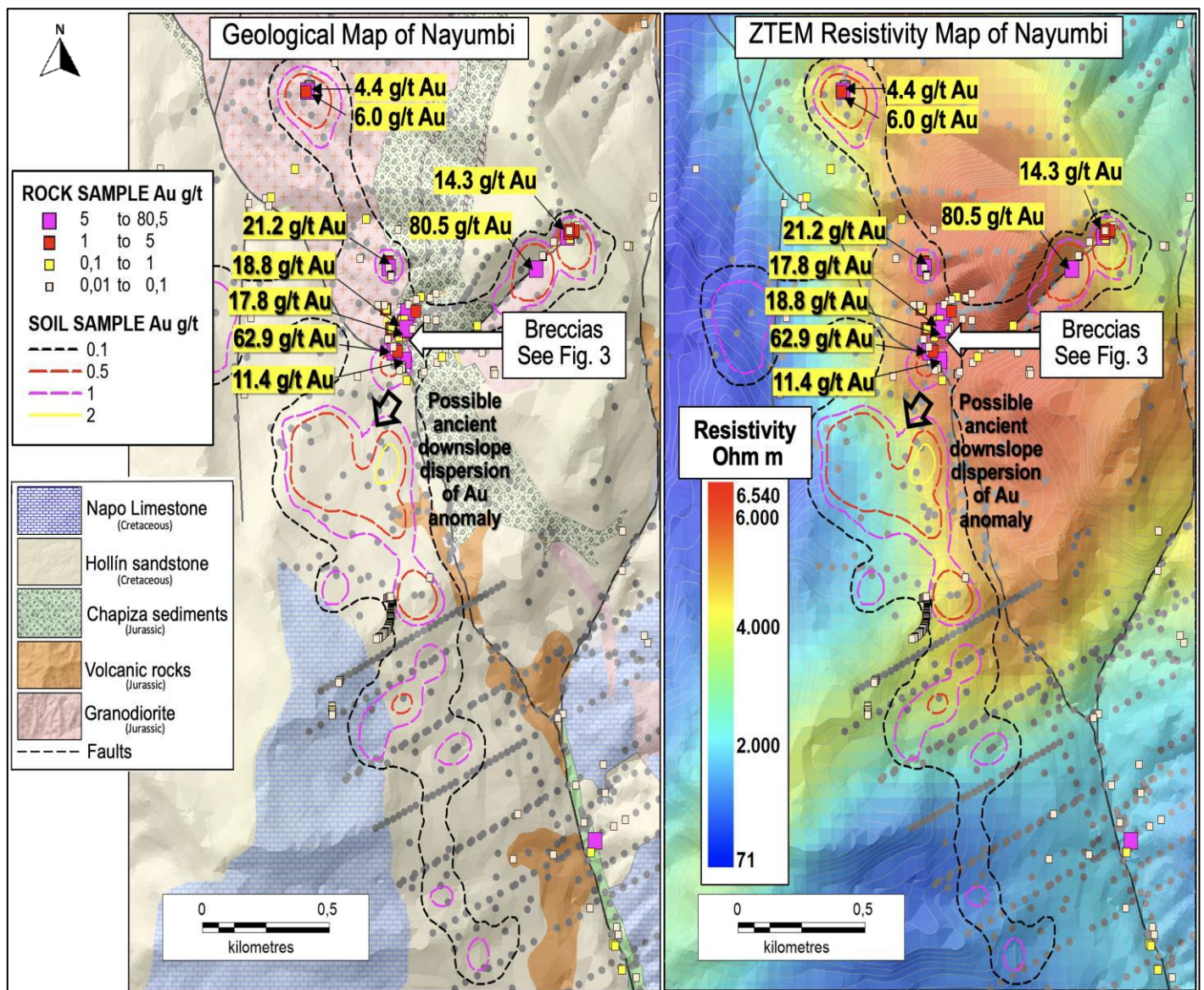
Source: Luminex, 2021.

7.3.3 Condor South Area

7.3.3.1 Nayumbi

Precious metals are hosted primarily by breccias created by hydrothermal activity as well as faulting. The principal near-surface target areas are brecciated Jurassic-age sandstones hosting low-temperature quartz infillings with sulphides principally marcasite. Structural zones at greater depth which focused the hydrothermal system would provide a secondary target. The Nayumbi prospect is broadly analogous to the Fruta Del Norte deposit located 45 km to the northeast in its epithermal pathfinder element association (As, Sb) as well as lying at a contrast boundary between resistive vs. conductive rocks.

Figure 7-16: Nayumbi – Plan Showing Geology, Surface Gold Geochemistry, and Geophysics



Source: Luminex, 2021.

## 8 DEPOSIT TYPES

In the Condor North area, gold and silver mineralization within the Condor breccia, dyke and dome complex, and the adjacent Chinapintza veins, as well as at the newly identified Nayumbi prospect located in the Condor South area, is consistent with low to intermediate sulphidation epithermal mineralization (Hedenquist et al., 1996). Notable examples of epithermal gold deposits include Fruta del Norte (Ecuador), McLaughlin (California), Hishikari (Japan), Waihi (New Zealand) and parts of Porgera (Papua New Guinea). Characteristics of low to intermediate sulphidation epithermal deposits (Sillitoe, 1993; White and Hedenquist, 1995; Leary et al., 2016) include:

- They occur principally at convergent plate tectonic settings, typified by calc-alkaline volcanic arcs.
- They form at shallow crustal depths, from surface to <2 km, from near neutral pH, sulphur-poor, reduced hydrothermal fluids. The hydrothermal fluid is normally a chloride water, mostly of meteoric origin. The origin of the metals is normally an underlying porphyry intrusion.
- Fluid over-pressuring triggered by the hydrothermal system creates structural permeability at variable scales; veins, stockworks, breccias, diatreme and other open-space features for the mineralized fluids to permeate. Boiling induced by brecciation or elevation change (with reduced pressure) is a likely gold-precipitating mechanism.
- Three sub-types have been identified: sulphide-poor deposits associated with rhyolites; sulphide (and base-metal-rich) deposits associated with andesites and rhyodacites, and sulphide-poor deposits associated with alkali rocks.
- Hydrothermal alteration around low sulphidation epithermal deposits is spatially zoned, aurally restricted and visually subtle. It is characterized by sericite, illite, smectite, and carbonate.
- Open-space quartz, quartz-carbonate and manganoan carbonate veins as well as textural replacement zones are typical and commonly display crustiform, colloform, bladed, and cockade textures.
- Carbonate veins are ubiquitous. Adularia, barite and/or fluorite are present locally.
- Sulphide content varies between 1% to 20% but is typically <5%. Pyrite is the dominant sulphide, but sphalerite, galena, tetrahedrite, acanthite, and arsenopyrite are common. Copper content is low and occurs mainly as chalcopyrite.
- Vein stock-works are common; disseminated and replacement mineralized material is rare.
- Low sulphidation gold systems have anomalously high gold, silver, arsenic, antimony, mercury, zinc, lead, selenium, potassium, silver-gold and anomalously low copper, tellurium, and selenium.

In the Condor Central area, the Santa Barbara gold ± copper deposit and the El Hito porphyry copper center display the geological characteristics typical of Andean porphyries (Lowell and Guilbert, 1970; Panteleyev, 1995). Diagnostic features of porphyry coppers include:

- Large zones (>10 km<sup>2</sup>) of hydrothermally altered rocks that commonly grade from a central potassic core outward to peripheral phyllic-, argillic-, and propylitic-altered zones.
- Generally low-grade mineralization consisting of disseminated, fracture, veinlet, and quartz stockwork-controlled sulphides. Deposit boundaries are determined by economic cut-off criteria that outline mineralized zones.
- Porphyry style mineralization is commonly zoned with a chalcopyrite-bornite-molybdenite core and peripheral chalcopyrite-pyrite and then pyrite. Enrichment of primary copper mineralization by late-stage hypogene, high-sulphidation events can sometimes occur.
- Important geological controls on porphyry mineralization include igneous contacts, cupolas, and the uppermost, bifurcating parts of stocks and dyke swarms. Intrusive and hydrothermal breccias and zones of intense fracturing, due to coincident, or intersecting fracture sets, coincide commonly with the highest metal concentrations.
- Metal grades in porphyries can be modified by near-surface oxidation and weathering. Low-pH groundwater is generated by the oxidation of iron sulphides; this leaches copper from hypogene copper sulphides and re-deposits it as secondary chalcocite and covellite immediately below the paleo water table in flat tabular zones. This process is referred to as supergene enrichment. It results in a copper-poor leached cap above a relatively thin, but high-grade supergene enrichment zone. This, in turn, caps a much thicker zone of lower grade, primary hypogene mineralization. However, the potential for supergene enrichment is very low in the deeply eroded, tropical environment of this part of the Andes.

In the Condor South area, the Nayumbi prospect can be characterized as a low sulfidation epithermal gold-silver prospect that is interpreted to have formed in permeable breccias and sandstones, around a feeder structure that channeled mineralizing fluids from depth. Similar gold targets exist elsewhere on the property, and these are being actively explored.

## 9 EXPLORATION

Since 1993, there has been extensive geological, geochemical and geophysical work completed at the Condor Project. The work conducted by the previous owners of the property is summarized in Section 6 (History) of this report and is described in more detail in previous technical reports (Easdon and Oviedo, 2004; Maynard et al., 2013; Maynard and Jones, 2014). Some of the more significant results of the work completed by previous owners is included in this section.

### 9.1 Geochemistry

There have been extensive geochemical surveys (e.g., streams, soils, rocks) completed on the Condor property. Well-defined gold-copper soil anomalies occur at Santa Barbara. El Hito has a copper-molybdenum soil anomaly. Other mineralized showings on the property also have somewhat less extensive anomalous gold and copper soil values.

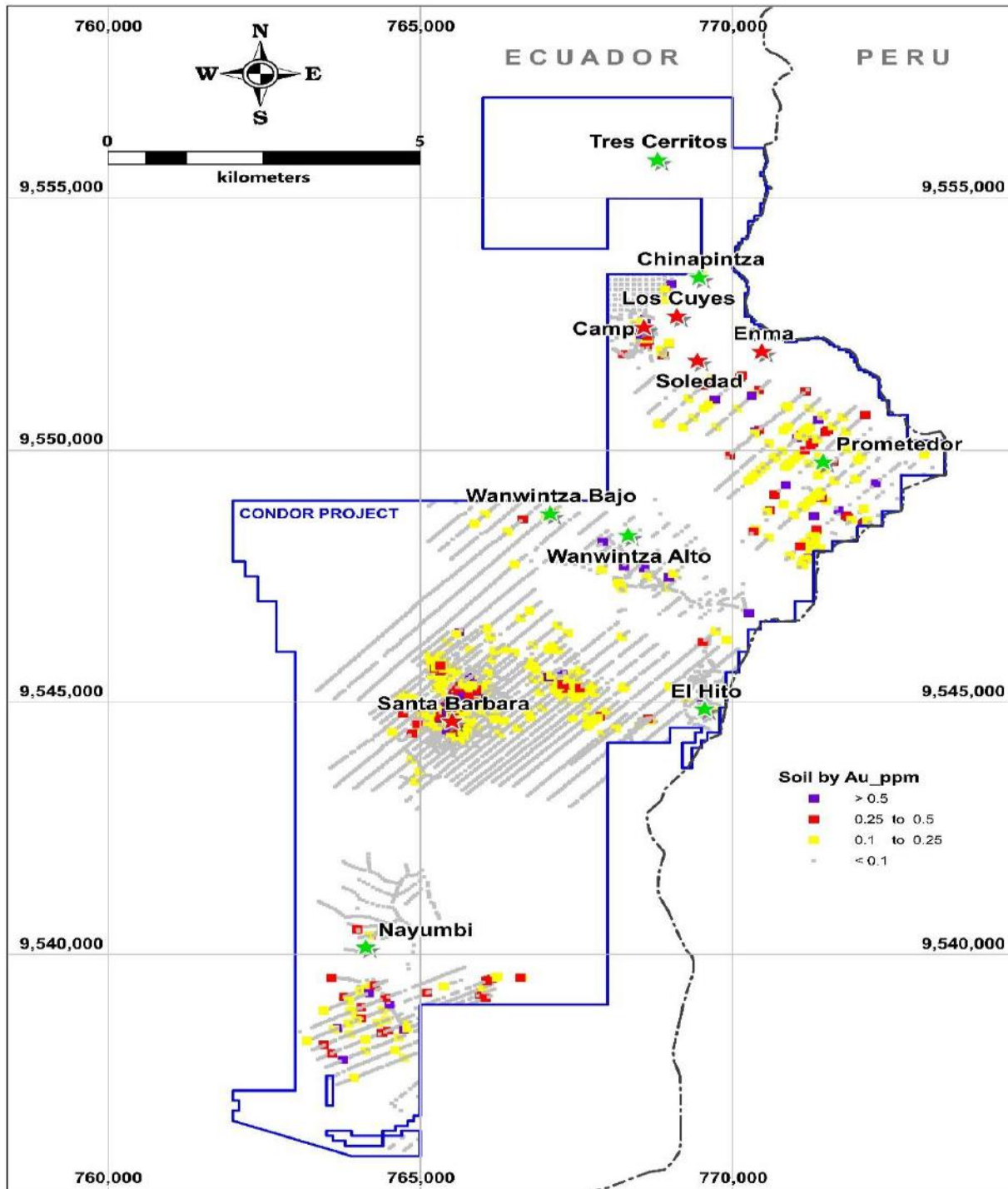
In addition to the soil and rock geochemical surveys, an extensive amount of trenching (703 trenches/14,650 m) and channel sampling was completed by previous operators, primarily in the vicinity of the Condor breccia pipes.

In 2017–2018, Luminex carried out soil surveys at Santa Barbara, Prometedor, Camp, Wanwintza Bajo and Wanwintza Alto. Details of the sampling in these areas can be found in the 2018 Technical Report (Sim and Davis, 2018). In 2019, Luminex carried out two soil sampling grids totalling 110 samples which targeted the Camp area.

Since 2018, Luminex has continued property-wide sampling activities and have now brought two additional prospects to the drill-ready stage, namely at Prometedor and Nayumbi.

Figure 9-1 to Figure 9-3 show the combined historical and recent soil geochemistry results for gold, copper, and molybdenum, respectively. Most deposit areas and other mineralized showings have associated soil geochemical anomalies.

Figure 9-1: Condor Soil Geochemistry Plan – Gold

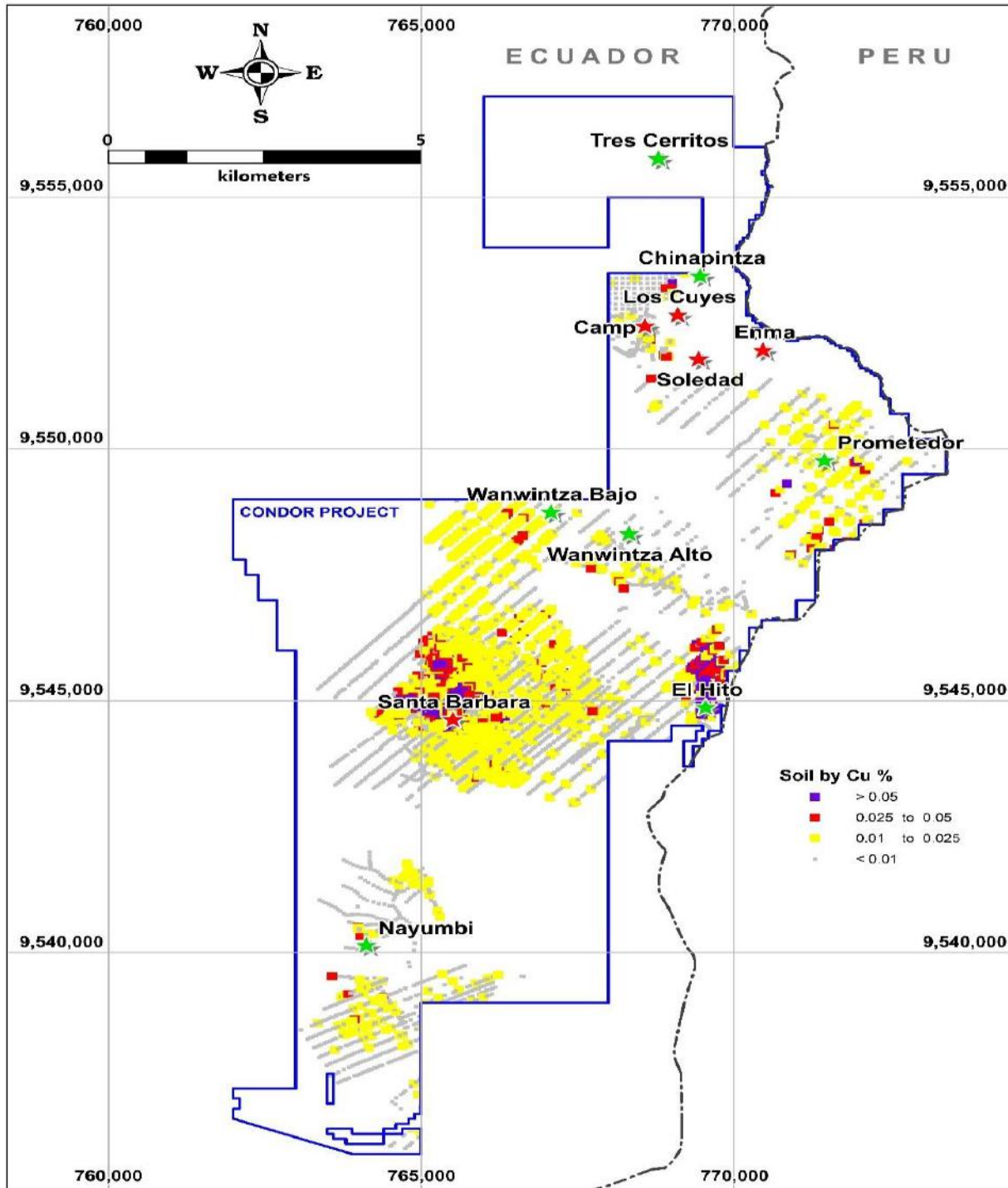


Source: Luminex, 2021.

Note: The Condor Project is outlined in blue; showings with mineral resources (this report) are red stars; mineral showings are green stars.



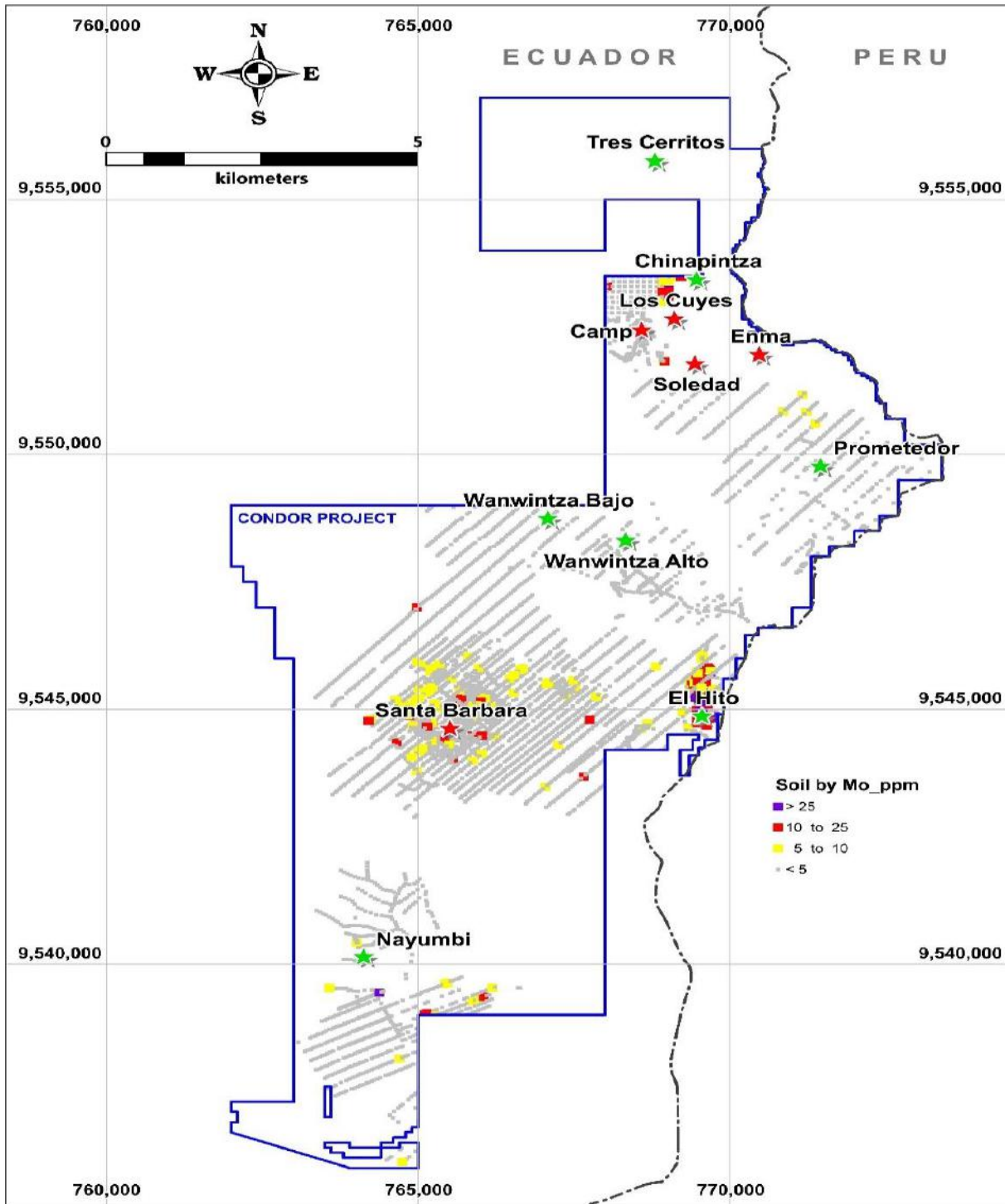
Figure 9-2: Condor Soil Geochemistry Plan – Copper



Source: Luminex, 2021.

Note: Condor Project is outlined in blue; showings with mineral resources (this report) are red stars; mineral showings are green stars.

Figure 9-3: Condor Soil Geochemistry Plan - Molybdenum



Source: Luminex, 2021

Note: Condor Project is outlined in blue; showings with mineral resources (this report) are red stars; mineral showings are green stars.

## 9.2 Geophysical Surveys

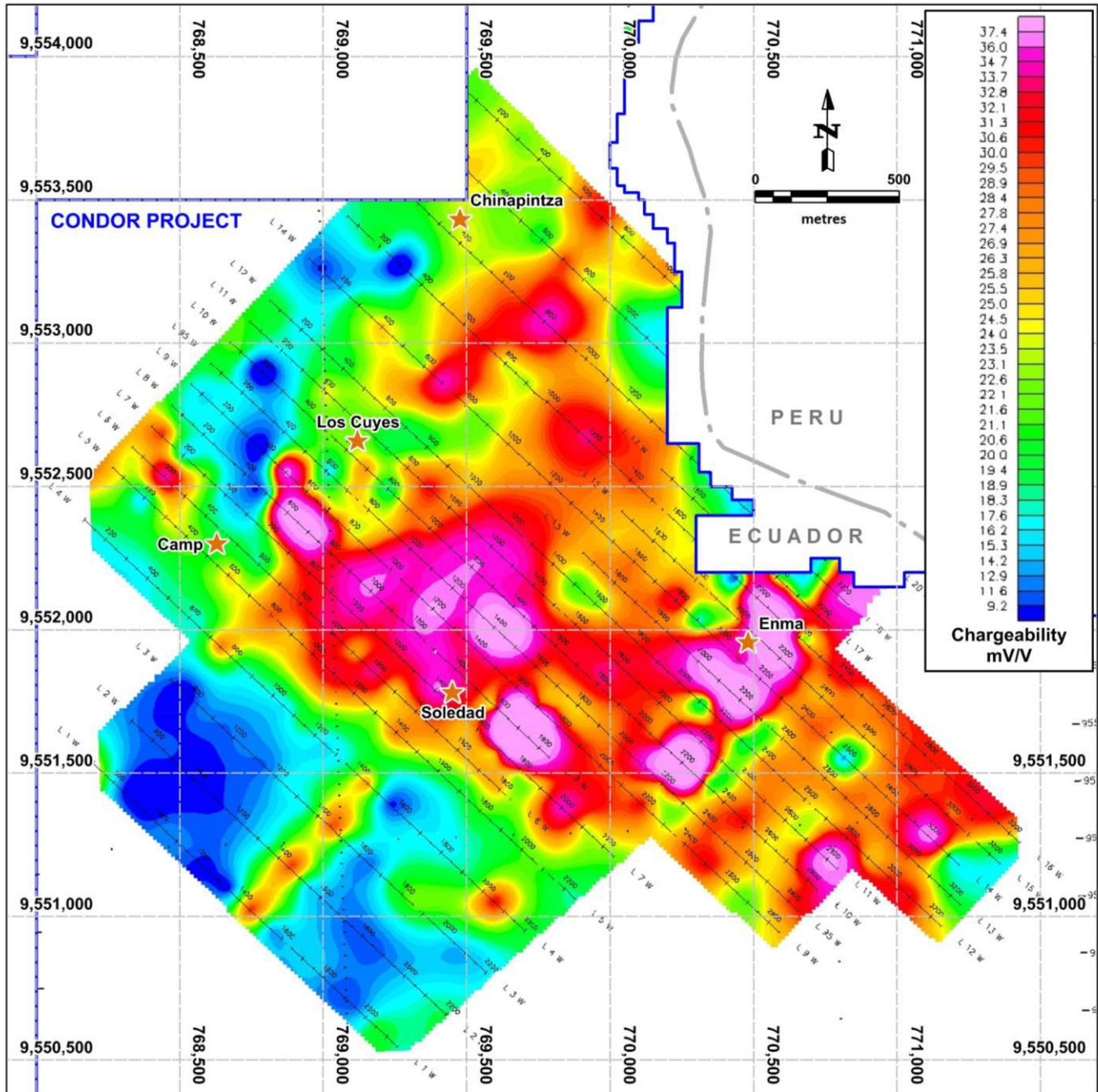
Geophysical surveys on the Condor North and Central areas, including surveys conducted by previous owners, are summarized in Table 9-1. The magnetic surveys did not provide much useful data. The CSAMT surveys located areas of low resistivity which correlate with the sulphide-rich Chinapintza veins (McMullan, 2007). Results from the ZTEM survey helicopter-borne revealed several conductive zones that correlate with precious-metal showings.

**Table 9-1: Geophysical Surveys Conducted on the Condor Project**

Year	Company	Type of Survey	Kilometres	Area Covered
1995	Zonge	CSAMT	8.0	Chinapintza
1995	Zonge	CSAMT	2 test lines	Los Cuyes
1999	Geodatos	Magnetics / IP	17.6	Santa Barbara
2006	Goldmarca (Geofísica Consultores S.A.C.)	IP	46.0	Condor Breccias
2006	Geofísica Consultores S.A.C.	Magnetics	51.9	Condor Breccias
2007	Geofísica Consultores S.A.C.	Magnetics / IP	24.2	Santa Barbara
2017	Luminex (Arce Geofísicos)	Magnetics / IP	29.0	Santa Barbara
2019	Geotech – EcoCopter	ZTEM	780.0	All Condor

In 2006, a pole-dipole IP survey with a spacing of 100 m was completed on northwest-trending lines spaced at 100 m or 200 m intervals over the Condor breccias (Figure 9-4). Only the Enma breccia deposit had high-chargeability values which reflect sulphide mineralization. The high-chargeability zones peripheral to the other breccia zones remains untested.

Figure 9-4: Plan Showing IP Chargeability  $n=2$  in the Area of the Condor Breccias

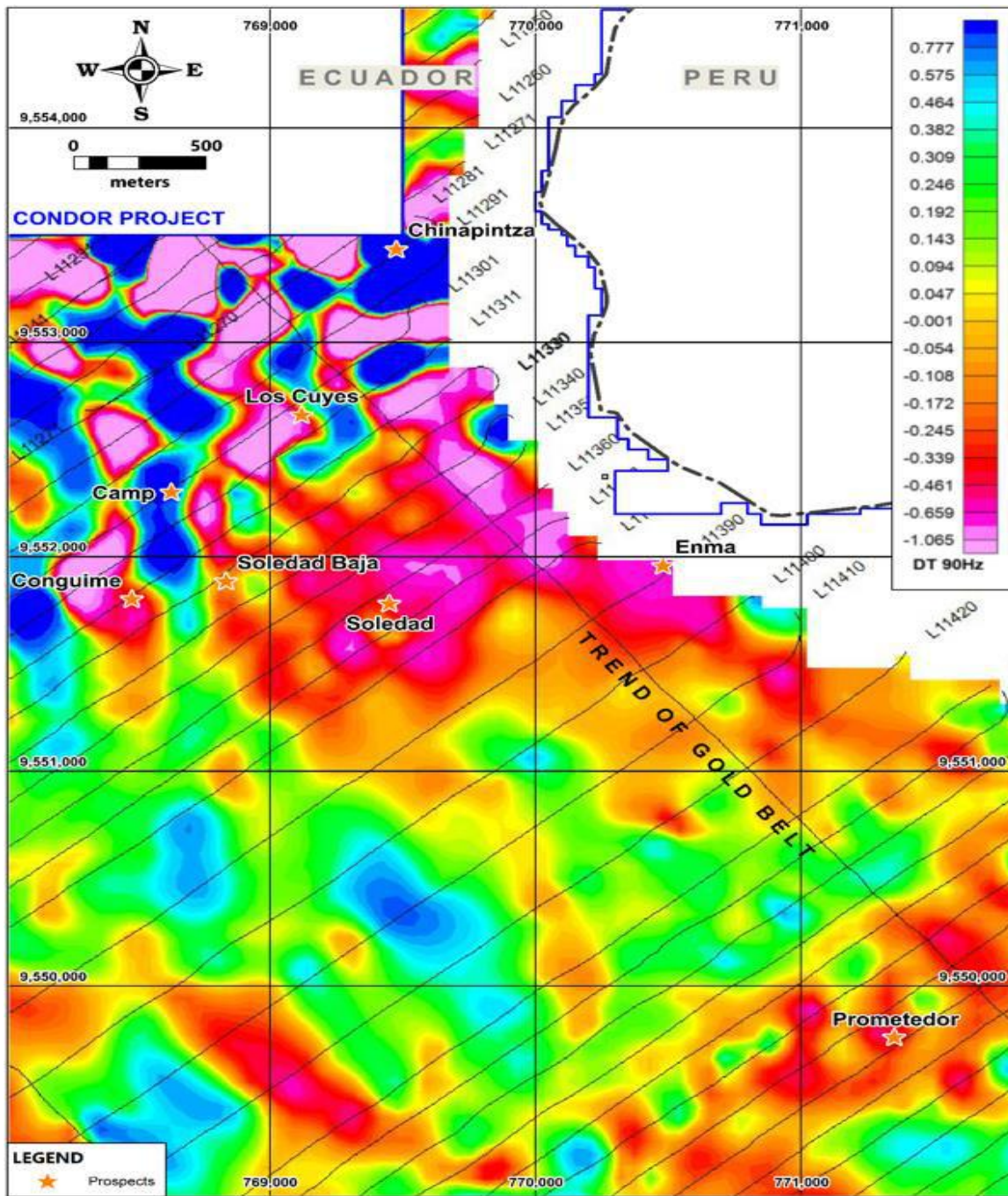


Source: Luminex, 2021; Geofisica Consultores, 2007.

A helicopter supported ZTEM survey covering the majority of the Condor North area was completed by Geotech Ltd. in December 2019. A total of 780-line kilometres were flown in the survey.

Results from the ZTEM survey along the epithermal gold belt on the Condor North area (Figure 9-5) reveal several conductive zones that correlate with precious-metal showings. The conductive zone at Prometedor and the zone extending to the northwest from Soledad appear to line up with the Camp discovery. This conductive zone is the Soledad Baja target. Prometedor is another target of interest. Additional exploration targets are described in Table 9-2.

Figure 9-5: Condor North Area Plan Showing ZTEM 90 Hertz



Source: Luminex, 2021; Geotech, 2020.

**Table 9-2: Summary of Exploration on Untested Targets at the Condor Properties**

Target	Geochemistry	Geology	Geophysics
Prometedor	Anomalous gold ± silver and copper: soils, rocks.	Rhyolite dykes, volcanic flow and tuff, Zamora batholith, porphyry intrusions.	Conductive anomaly
Soledad Baja	Anomalous gold and silver in rocks, conductivity anomaly.	Veins and fracture-fillings hosted in granodiorite and rhyolite dykes.	Conductive anomaly
Congüime	Anomalous gold and silver in rocks.	Veins and fracture-fillings hosted in granodiorite.	Conductive anomaly
Wanwintza Alto	Anomalous gold: silts, soils.	Mesothermal quartz veins in diorite.	None
Wanwintza Bajo	Anomalous gold: silts, soils, rocks.	Andesites, diorite; similar to Santa Barbara.	None
Santa Barbara (east and west of known zone)	Anomalous gold and copper: soils, rocks.	Andesites, sediments, diorite; porphyry-type target.	Chargeability high
Nayumbi	Anomalous gold and silver in soils and rocks.	Breccias and veins in sandstone and granodiorite.	Structure marked by contrast zone between conductive and resistive rocks.

## 10 DRILLING

This section describes all drilling completed on the Condor Project, including drilling completed by previous owners of the Project. Since 1994, there has been an extensive amount of drilling conducted on the Condor Project. This work is summarized in Table 10-1 and Table 10-2.

**Table 10-1: Drilling by Company at the Condor Project**

Company	Years	# of Drill Holes	Metres
TVX	1994–2000	195	42,102
Goldmarca	2004–2007	124	21,612
Ecometals	2007–2008	30	11,711
EGX	2012–2014	37	22,052
Lumina	2017–2018	9	1,907
Luminex	2019–2020	46	23,683
Luminex	2021	1	100
<b>TOTAL</b>		<b>442</b>	<b>123,167</b>

**Table 10-2: Drilling by Deposit at the Condor Project**

Deposit	# of Drill Holes	Metres
Los Cuyes	80	21,935
Soledad	124	19,684
Enma	48	8,435
Others	5	1,681
Chinapintza	76	21,246
El Hito	9	4,687
Santa Barbara	56	22,027
Camp	44	23,474
<b>TOTAL</b>	<b>442</b>	<b>123,168</b>

Initial drilling was carried out by TVX between 1994 and 2000. Most of this work tested the Chinapintza veins (75 holes; 20,489 m), but they also drilled a number of holes on the Condor breccias (97 holes; 16,128 m), Santa Barbara (19 holes; 4,296 m) and El Hito (4 holes; 1,188 m).

From 2004 to 2007, Goldmarca tested the Condor breccia pipes (124 holes; 21,612 m).

In 2008, Ecometals tested the Condor breccias (29 holes; 11,111 m) and Santa Barbara (1 hole; 600 m).

In 2012 and 2013, EGX tested the Chinapintza veins (1 hole; 757 m), the Los Cuyes and Soledad breccias (4 holes; 2,574 m), Santa Barbara (27 holes; 15,223 m) and El Hito (5 holes; 3,498 m).

In 2017 to 2018, Lumina tested geochemical and IP anomalies peripheral to Santa Barbara (9 holes; 1,907 m).

Since 2019, Luminex completed 44 holes (23,474 m) testing geochemical anomalies and follow-up delineation drilling at the Camp and Soledad deposits. In 2020 and 2021, Luminex also drilled 3 holes to recover metallurgical material from Cuyes and Enma.

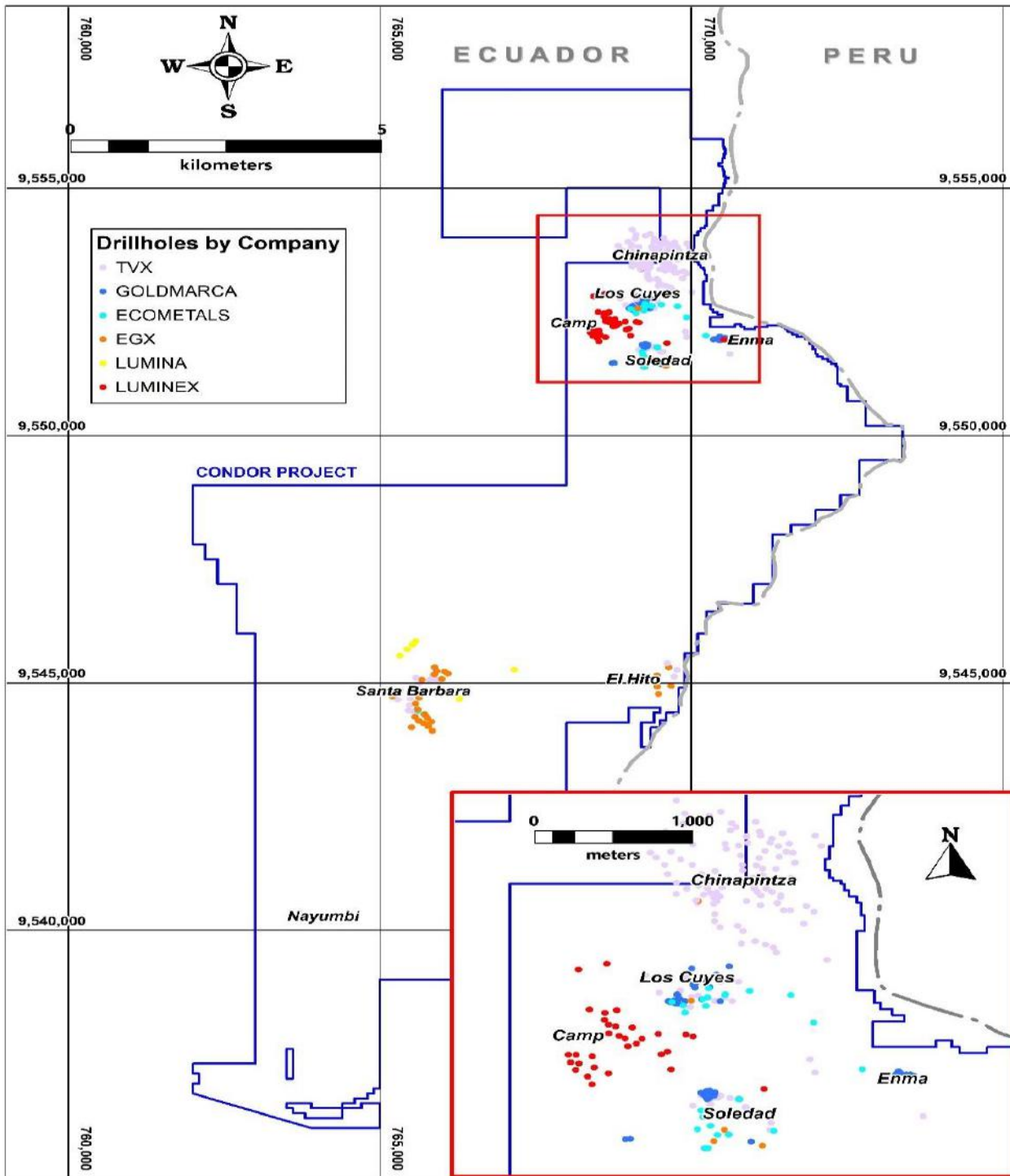
The majority of the drill core from the Condor Project is stored in a dry, secure building at Luminex's exploration camp. Some of the older core, drilled by previous operators, is stored in a building located near the Soledad deposit.

Drilling completed on the Project is shown in Figure 10-1. All holes were initially located using a handheld Garmin GPS unit, and approximately one third of the holes have been surveyed using a total station GPS.

For representative examples of drill sections for Santa Barbara, Los Cuyes, Camp, Soledad, and Enma, refer to Section 7 (Geological Setting and Mineralization) of this Technical Report.



Figure 10-1: Drill Collar Plan Map Condor Properties



Source: Luminex, 2021.

### **10.1 TVX Gold Inc. (1994-2000)**

TVX carried out several drill programs on the Condor Project between 1994 and 2000. It used worker-portable drills that produced HQ- or NQ-size core. Downhole surveys were completed, but the specific method is unknown, except at Santa Barbara where a Pajari instrument was used. Most of the collars are marked with a concrete pad.

### **10.2 Goldmarca Ltd. (2004-2007) / Ecometals Ltd. (2007-2008)**

Goldmarca and Ecometals carried out several drill programs between 2004 and 2008. One hole was drilled at Santa Barbara in 2008, but the remaining 153 drill holes tested the Condor breccias (Los Cuyes, Soledad, Enma, Guayas, San Jose). All holes were drilled using HQ-size core, reducing to NQ as needed. Holes were located using a handheld Garmin GPS.

Downhole surveys were completed for 33 of the drill holes using a FLEXIT instrument which takes readings at 3 m or 6 m intervals.

Core recoveries for holes drilled by Goldmarca and Ecometals were generally >90% (Hughes, 2008).

### **10.3 Ecuador Gold and Copper Corp. (2012-2014)**

EGX completed three phases of drilling from August 2012 until January 2014 (Maynard and Jones, 2014) (37 holes; 22,052 m). Two contractors were used for this drilling: Roman Drilling Corp. S.A. and Hubbard Perforaciones Cia., Ltda. (Hubbard); both are based in Cuenca, Ecuador. All holes were drilled using HTW-size (HQ) core, reducing to NTW (NQ) as needed. The Hubbard drills were worker-portable and similar to Hydracore 4000 rigs. Holes were located using a handheld Garmin GPS. When a hole was completed, the hole location was marked with a cement monument displaying the hole number, azimuth and dip.

A Reflex EZ-SHOT™ was used to provide downhole orientation data at 50 m intervals.

Core recoveries during this period of drilling average approximately 93%.

One drill hole (756.6 m) tested the Chinapintza veins; one drill hole (638.5 m) tested the Los Cuyes deposit; three drill holes (1,935 m) tested the Soledad deposit; five drill holes (3,498 m) tested the El Hito porphyry target; and 27 drill holes (15,223 m) tested the Santa Barbara southern porphyry zone and associated targets.

### **10.4 Lumina Gold Corp. (2017-2018)**

Lumina used Hubbard Perforación Cia. Ltda. to complete nine HTW (HQ) drill holes (1,907 m) in the Santa Barbara area. Three targets peripheral to the main Santa Barbara mineralization were tested: Santa Barbara northwest, northeast, and southeast. A Hydracore 2000 drill was used, and the drill was moved using a small tractor. Drill holes were located using a handheld Garmin GPS.

A Reflex EZ-SHOT™ was used to provide downhole orientation data at 50 m intervals.

Core recoveries in holes drilled by Lumina average just over 91%.

## 10.5 Luminex Resources Corp. (2019-2020)

Luminex drilled 44 exploration holes (23,474 m) at the Camp and Soledad deposits as well as two short holes (210 m total) at Cuyes to obtain metallurgical test material. Drilling was completed by two contractors, Kluane Drilling Ecuador S.A. and Rumi Drilling Services Ecuador (RDSEC) S.A. Each used a Hydracore 2000. All holes were collared with HQ-size (or HTW) core and reduced to NQ (or NTW) when needed. Access trails to drill pads were constructed by hand as well as using a small excavator. Rig movements were facilitated by a Bobcat and, where possible, a larger Morooka all-terrain vehicle was used.

All holes were drilled as oriented core via Reflex ACT II or III equipment with downhole surveys completed by either DeviShot™ or Reflex EZ-TRACT™ XTF tools. Data from downhole surveys were collected at 30 m to 50 m intervals.

Core recoveries average 98% for drilling conducted by Luminex.

Drill collar locations, orientations and depths at Camp are shown in Table 10-3. Those holes drilled at Cuyes are plotted on Figure 10-1. Collars were initially spotted via handheld Garmin GPS and later surveyed using a total-station theodolite (Sokkia model 105) to a 5 mm accuracy.

In the authors' opinion, the current core handling, logging, sampling and core storage protocols on the Condor Project meet or exceed common industry standards, and the authors are not aware of any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of these results.

## 10.6 Luminex Resources Corp (2021)

Early in the year Luminex completed one short hole (100 m) for metallurgical samples at the Enma deposit. Drilling was completed by Rumi Drilling and under the same protocols as prevailed during the 2020 program.

**Table 10-3: Drill Collar Locations Luminex 2019-2021**

Hole	East PSAD56	North PSAD56	Elevation	Azimuth	Dip	Depth (m)
CC19-01	768626	9552375	1390	210	-70	316.99
CC19-02	768606	9552470	1415	210	-60	295.66
CC19-03	768629	9552306	1344	210	-70	240.79
CC19-04ext	768680	9552490	1420	217	-70	651.07
CC19-05	768507	9552497	1413	235	-70	450.19
CC19-06	768606	9552470	1415	210	-70	497.24
CC19-07	768606	9552470	1415	235	-70	440.52
CC19-08	768603	9552414	1427	210	-75	532.12
CC19-09	768603	9552414	1427	210	-55	452.81
CC19-10	768672	9552361	1354	210	-70	422.15
CC19-11	768629	9552306	1344	210	-50	421.54

Hole	East PSAD56	North PSAD56	Elevation	Azimuth	Dip	Depth (m)
CC19-12	768672	9552361	1354	210	-85	750.10
CC19-13	768693	9552286	1295	210	-60	406.19
CC19-14	768693	9552286	1295	210	-80	447.27
CC19-15	768750	9552203	1224	210	-50	294.60
CC19-16	768750	9552203	1222	210	-75	211.57
CC19-17	768693	9552286	1295	30	-50	620.27
CC19-18	768731	9552266	1251	210	-65	451.84
CC19-19	768838	9552263	1250	210	-70	642.45
CC19-20	768680	9552490	1420	210	-62	584.58
CC19-21	768779	9552354	1289	210	-65	579.50
CC19-22	768680	9552490	1420	210	-75	725.00
CC19-23	768522	9552124	1244	30	-55	756.02
CC19-24	768421	9552135	1244	30	-50	687.37
CC19-25	768372	9552136	1211	30	-50	699.15
CC20-26	768439	9552066	1241	30	-50	689.05
CC20-27	768387	9552075	1219	30	-50	721.87
CC20-28	768410	9552014	1203	30	-55	831.85
CC20-29	768537	9552035	1203.00	30	-60	851.00
CC20-30	768625	9551987	1173.00	30	-60	849.85
CC20-31	768495	9551962	1191.00	30	-55	775.23
CC20-32	768625	9551987	1173.00	30	-55	535.10
CC20-33	768535	9551932	1157.00	30	-45	195.85
CC20-34	768631	9552829	1344.00	30	-45	410.02
CC20-35	768436	9552815	1430.00	210	-45	301.12
CC20-36	768800	9552208	1228.00	210	-65	318.38
CC20-37	768942	9552302	1258.00	210	-50	504.50
SO20-01	769162	9552282	1338.00	210	-60	542.53
SO20-02	769000	9552160	1336.00	210	-60	390.00
SO20-03	769104	9552316	1311.16	210	-60	844.77
SO20-04	769613	9551863	1702.00	235	-65	707.00
SO20-05	769025	9552019	1330.00	290	-65	814.56
SO20-06	768963	9552147	1300.00	210	-70	631.50

## 10.7 Qualified Person's Opinion on Drilling Procedures

In the QPs' opinion, the core handling, logging, sampling, and core storage protocols in place on the Condor Project meet or exceed common industry standards, and the QPs are not aware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of these results.

## **11 SAMPLE PREPARATION, ANALYSES, AND SECURITY**

This section discusses the sample preparation, analysed and security for the Condor Project.

### **11.1 TVX Gold Inc. (1994-2000)**

There is no detailed description of TVX's sampling procedures or security measures for its drill programs on the Condor North and Central areas. Ronning (2003) had access to the TVX files, and brief descriptions of the sampling were included in his report. Ronning stated that in 1995, TVX contracted two sampling consultants to review its procedures (Pitard and Magri, 1995), and it concluded that the sampling was done properly, and the results were generally reliable.

The first eight holes on the Chinapintza veins were continuously sampled at 1.0 m intervals, but, in subsequent holes, only potentially mineralized core was sampled. These samples have variable lengths, sometimes less than 10 cm. At the Enma, Los Cuyes, San Jose and Soledad Breccias, the entire hole was sampled with sample intervals ranging from 1.0 m to 2.5 m. Core was cut in half using a diamond saw. One half was sent for analysis, and the other half was returned to the core box.

TVX sent its samples to Bondar Clegg or SGS in Ecuador for sample preparation. A sample of 100 g of pulverized material was sent for analysis to the SGS laboratories in Canada. From 1994 until 1996, SGS used a 30 g sample to analyze for gold using a fire assay with an atomic absorption finish. In February 1996, the sample size was increased to 50 g. In 1999, TVX used ALS Chemex to analyze the drill samples from Santa Barbara. Gold was analyzed by fire assaying a 30 g sample. Copper and 33 other elements were analyzed using ICP (Easdon and Oviedo, 2004).

From 2003 to 2004, Goldmarca re-assayed 1,219 samples of TVX core from Los Cuyes, San Jose and Santa Barbara and analyzed for gold using a screen fire assay method on a 50 g sample. There is good correlation with the original assay results (Easdon and Oviedo, 2004).

### **11.2 Goldmarca Ltd. (2004-2007) / Ecometals Ltd. (2007-2008)**

During the Goldmarca/Ecometals drill programs, the entire hole was sampled at 2 m intervals using a diamond saw. Half the core was put into a marked sample bag which was sealed with tape and put into a rice bag. The other half of the core was returned to the core box and stored in the warehouse facility. Samples were taken by truck to Loja and then shipped to the ALS Chemex preparation lab in Quito or Acme's preparation lab in Cuenca, Ecuador. When broken sample bags arrived at the lab, the sample was taken out of the process stream, Goldmarca was notified, and the sample was retaken. Goldmarca inserted blanks and certified standards into the sample stream as part of its QA/QC program.

The Acme samples were shipped to Vancouver, Canada for analysis. Gold and silver were analyzed by fire assay with an ICP finish on a 30 g sample. Zinc, copper and lead were analyzed using AA.

In 2008, Ecometals completed a QA/QC report on the 2004–2008 sampling from the various drill and trenching programs (Toledo and Toledo, 2008; Maynard and Jones, 2011).

### **11.3 Ecuador Gold and Copper Corp. (2012-2014)**

During the EGX drill programs, the drillers put core into core boxes, and intervals were marked with wooden blocks and permanent markers. The boxes stored in EGX's secure core-logging facility located at its Luminex exploration camp.

At the core facility, the core boxes were marked with intervals and hole numbers. Core was cleaned and then photographed in two box sets, and then it was examined by EGX geologists and technicians who prepared geotechnical (RQD, core recovery, hardness, fracture density) and geological logs. Specific gravity measurements were taken every 10 m to 15 m.

Sample intervals were determined by the geologist. The core was sampled at regular 1.0 m, 2.0 m or 2.5 m intervals. The core was cut in half using a diamond saw. Half of the core was put in a labelled plastic sample bag along with a numbered sample tag, and the bag was secured with a tamper-proof zip tie. The other half was returned to the core box and stored in a secure warehouse adjacent to the logging facility. Individual samples were packaged into large containers or sealed poly woven bags and transported by EGX employees or a bonded courier to Acme Lab's sample preparation facility in Cuenca, Ecuador.

At the preparation lab, each sample was crushed so that >80% passed through a 10-mesh screen. A 250 g split was pulverized so that >85% passes a 200-mesh screen. This was then shipped to the Acme Lab in Santiago, Chile for analysis. All samples were analyzed for gold using a fire assay technique with an AA finish on a 30 g sample. Any sample with >10 g/t Au was re-assayed using a gravimetric method. Samples were analyzed for silver and copper by ICP-ES after a four-acid digestion.

Three types of control samples were inserted after every 20 samples as part of the QA/QC procedure. These include certified reference standards, from CDN Resource Laboratories Ltd. (CDN) or OREAS, a blank (OREAS), and a quarter core duplicate sample.

### **11.4 Lumina Gold Corp. (2017-2018)**

During Lumina's 2017–2018 drill program, drillers initially placed the HQ drill core in plastic boxes (four rows; total of approximately 2.5 m per box). Wooden tags, marked with the downhole depth, were placed in the box. Lids were placed on the box and taped shut. The core was then transported to the nearest road and trucked to Lumina's core facility at the Luminex exploration camp. Once unloaded on core inspection racks, Lumina field assistants checked the depth and core recovery and recorded the "FROM and TO" intervals on the outside of the boxes. The core was washed, and wet and dry photos were taken of the whole core. Lumina geologists examined the whole core first and prepared geotechnical and geological logs. The geotechnical log recorded RQD, core recovery, fracture and vein quantity, and vein angles. Point-load and specific gravity measurements were taken at 10 m intervals. Every 10th specific gravity measurement was shipped to MSALABS in Vancouver for a second density measurement using paraffin-coated samples. The results were then checked and compiled in a Microsoft Access database for each hole.

Core was cut at the core cutting facility in the Luminex exploration camp using a diamond saw at 2 m intervals. For each sample, half the core was put into a plastic bag with a bar-coded sample ticket and then secured with a tamper-proof plastic zip-tie. A duplicate sample tag was stapled into the core box. The other half of the core was returned to the core box and stored on site. Certified reference standards purchased from CDN were inserted into the sample stream after every six core samples. These included three certified standards (high, medium and low gold grades), a blank and a coarse and fine duplicate. Sample bags were then packed into larger mesh sacks which were also tied with a numbered, tamper-proof plastic zip-tie.

Drill core samples from the 2017–2018 drill program were assayed by MSALABS in Vancouver, Canada. Sample shipments were picked up from the Luminex exploration camp by representatives of Lac y Asociados Cia. Ltda. (MSALAB's preparation lab in Cuenca, Ecuador) and delivered directly to the lab in Cuenca. The secure tamper-proof plastic tags were checked against a list that had been e-mailed to the prep labs upon arrival of the samples. (Note: No irregularities were detected in any sample shipments.) The samples were then digitally registered, dried, crushed and pulverized.

For each sample, approximately 250 g of pulverized material was separated by riffle splitter, placed in a paper craft bag and shipped to MSALABS in Vancouver for analysis. All samples were analyzed for gold using a fire assay technique on a 30 g charge and a 34-element ICP-MS analysis was completed using a four-acid digestion.

Remaining reject and pulp material from the drill programs have been returned to Lumina and stored at its secure warehouse in Quito, Ecuador.

### **11.5 Luminex Resources Corp. (2019-2021)**

Core handling and sample preparation protocols used by Luminex for the 2019–2021 drill program mirrored those of Lumina with a few modifications. Drillers initially extracted the core from the drill onto a 4 m long angle iron installed at waist height at the rig site and orientated the last core run segment using a digital Reflex ACT II core orientation device. The orientation line was scribed on the re-assembled core before it was placed in slotted plastic core boxes, each having four rows for a total of approximately 2.5 m per box. Annotated plastic core tags, marked with the downhole depth, were placed inside the box. A 25 mm thick foam liner was then placed inside the boxes to prevent core segments from moving, and plastic lids were placed on each box and strapped shut. The core was then transported to the nearest road and trucked to Luminex's core handling facility at the Luminex exploration camp. Once unloaded on core inspection racks, Luminex field assistants checked the depth and core recovery and recorded the "FROM and TO" intervals on the outside of the box. The core was washed, and photos were taken of whole core in dry and wet conditions under a table-mounted camera using consistent artificial light. Luminex geologists examined the whole core first and prepared geotechnical and geological logs. The geotechnical log recorded RQD, core recovery, fracture and vein quantity. Core was re-assembled on an angle iron in order to recheck the orientation lines. If deemed satisfactory, geologists measured the alpha and beta angles of all veins, faults, contacts, foliations and flow banding. Point-load and specific gravity measurements using paraffin-coating were taken at 10 m intervals. Whole core was measured for magnetic susceptibility at every assay sample. Every 10th specific gravity sample was submitted to ALS Laboratories in Lima, Peru to validate the "in-house" measurements. The results were then checked and compiled in an Access database for each hole.

Core was cut at the core-cutting facility in the Luminex exploration camp. The sampling intervals were proportional to the geology and mineralization over 1 m to 2 m intervals. Sample lengths varied with respect to geological boundaries and veins. Certain intervals devoid of visible mineralization, as quantified from previous assays, were subsequently sampled as 2 m composites every 10 m or 20 m. In rare cases, no samples were taken from visually unaltered and unmineralized sections. For each sample, half the core was put into a plastic bag with a bar coded sample ticket and then tied with a zip-tie. A duplicate sample tag was stapled into the core box. The other half of the core was returned to the core box and stored on site. Certified reference standards were inserted after every six to ten core samples. These included three certified reference standards from CDN and OREAS (high, medium and low gold grades), a blank, and a coarse and fine duplicate. Blank material was comprised of crushed glass. Sample bags were sealed and secured with tamper-proof zip-ties and then packed into larger mesh sacks which tied with a numbered, tamper-proof nylon tie.

Sample shipments were picked up from the Luminex exploration camp by representatives of ALS Laboratories and delivered to their preparation lab in Quito. The secure tamper-proof plastic tags were checked against a list e-mailed to the prep labs upon arrival of the samples along with other chain of custody paperwork. (Note: No irregularities were detected in any sample shipments.) The samples were then digitally registered, dried, crushed and pulverized. For each sample,



approximately 250 g of pulverized material was separated by riffle splitter, placed in a paper craft bag and shipped to ALS Laboratories in Lima for analysis. All samples were analyzed for gold using a fire assay technique on a 50 g charge, and a 34-element ICP-MS analysis was completed using a four-acid digestion.

Remaining reject and pulp material from the prep lab was returned to Luminex and stored at its secure warehouse in Quito.

In the authors' opinion, the analytical procedures used for all the drill programs completed on the Condor Project are appropriate and consistent with common industry practices. The laboratories are recognized, accredited commercial assayers who are independent from Luminex and previous operators. Luminex analyzed its samples using ALS Analytical Laboratories in Lima, Peru which has ISO/IEC 17025:2017 accreditation. Luminex used MSALABS in Vancouver, Canada which had ISO/IEC 17025:2005 accreditation. EGX and Goldmarca/Ecometals used Acme Labs in Santiago, Chile which then had ISO 9001:2000 accreditation at the time the work was done. TVX used Bondar Clegg (now ALS Chemex) which has ISO/IEC 17025:2017 accreditation and SGS Canada Inc. which has ISO/IEC 17025 and ISO 9000 accreditation. The sampling has been carried out by trained technical staff under the supervision of a QP and in a manner that meets or exceeds common industry standards. Samples were properly identified and transported in a secure manner from site to the lab.

Drilling is recently underway on the Nayumbi prospect in Condor South area. Protocols for core handling and sampling are the same as those used by Luminex in other areas of the project.

## 12 DATA VERIFICATION

### 12.1.1 Collar Coordinate Validation

The locations of approximately one third of the drill hole collars were validated using a total station GPS. There were no significant differences found between these results and the original surveyed locations. The surveyed collar locations correlate well with the digital elevation model (DEM).

### 12.1.2 Downhole Survey Validation

The downhole survey data were validated by identifying any large discrepancies between sequential dip and azimuth readings. No significant discrepancies were found.

### 12.1.3 Drill Data Verification

All the collars, surveys, geology, and assays were exported from Excel® files into MinePlan™ software. No identical sample identifications exist; all FROM\_TO data are either zero or a positive value, and no interval exceeds the total depth of its hole.

To validate the data, the following checks were confirmed:

- The maximum depth of samples was checked against the depth of the hole.
- The less-than-the-detection-limit values were converted into a positive number equal to one half the detection limit.
- Gold values greater than 0.1 g/t from each drill hole were checked against the original assay certificate.

The core recoveries for the 2019–2020 drill program averaged just over 98%. Core recoveries for previous drill programs were also >90%. There is no indication that grade is related to core recovery.

### 12.1.4 Assay Database Verification

Sixteen holes scattered over the Condor North area deposits, prior to the Camp deposit discovery, were selected at random. The sample assay database values in these holes were checked against assay certificates. Subsequently, four drill holes from the 2019–2020 drilling were selected at random. The sample assay values in the selected holes were checked against original assay certificates. The review confirmed the electronic database contains correct information and can be used for mineral resource estimation.

## 12.2 Geological Data Verification and Interpretation

Several geological variables were captured during core logging. The geological data were verified by confirming that the geological designations were correct in each sample interval.

This process included the following:

- Examine FROM\_TO intervals for gaps, overlaps and duplicated intervals.
- Look for collar and sample identification mismatches.
- Verify correct geological codes

A geological legend was provided, and it was used to compare the values logged in the database. The geological model was found to be a reasonable interpretation of the underlying lithologic, alteration and structural information and was adequate to use for mineral resource estimation.

### 12.3 QA/QC Protocol

A comprehensive review of QA/QC from drilling and trench sampling programs prior to 2014 is provided in Maynard and Jones (2011 and 2014) and Hastings (2013). The reviews indicated that no QA/QC data were available for the TVX drilling; however, very little of those drilling results in the deposit were the subject of this report.

Lumina completed a resampling of the TVX holes from Los Cuyes as described in the 2018 Technical Report (Sim and Davis, 2018). Drill programs from 2004–2007 had a higher failure rate for gold in certified reference standards than would normally be acceptable; however, duplicate samples validated original assays. The failure rate for the 2007–2008 program was also higher than acceptable. Failures were found to be related to sample labelling errors rather than repeatability in resampled assays. Quality control failures for programs from 2012–2015 were addressed with programs of remedial assay analysis. Following this extensive check program, quality control issues with drill programs carried out by previous operators were deemed by the authors to have been adequately addressed.

For the Lumina/Luminex drill programs, a review of the QA/QC protocols was conducted prior to drilling and formalized in a detailed QA/QC manual developed by Lumina/Luminex. Each drilling phase was reviewed by a QP who was on site during the drill program. The procedures for core processing and the insertion of blanks and standards were examined. The QA/QC program was conducted in accordance with industry best practices as described in Section 11 (Sample Preparation, Analyses and Security) of this Technical Report.

During the 2017–2018 drill program, 1,116 samples were analyzed: 55 were blanks, 55 were certified reference material, 56 were coarse duplicates, and the remaining 950 samples were drill core. After each batch of analytical results came in, the QA/QC samples were reviewed by a Lumina geologist. Lumina's QA/QC consultant also reviewed the data on a regular basis.

During the 2019–2021 drill program, 15,604 samples were analyzed: 571 were blanks, 397 were certified reference material, 384 were fine duplicates, 386 were coarse duplicates, and the remaining 13,866 samples were drill core. After each batch of analytical results came in, the QA/QC samples were reviewed by a Luminex geologist. Luminex's QA/QC consultant also reviewed the data on a regular basis.

Luminex's QA/QC consultant confirmed that the results from drill programs throughout the 2019–2020 program are acceptable.

## 12.4 Conclusion

No results are available at the time of this report from Nayumbi (Condor South area) drill samples. Sample preparation and assay protocols are the same as those used on project samples from other areas.

In the authors' opinion, the database management, validation and assay QA/QC protocols are consistent with common industry practices. Therefore, the database is sufficiently accurate and precise for use in the estimate of mineral resources.

## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

This section presents a summary of metallurgical test results performed on mineralized materials from the Camp, Los Cuyes, Enma and Soledad (which contains the San Jose Zone) deposits located within the Condor North area and the Santa Barbara deposit located within the Condor Central area. No results are available at the time of this report from Nayumbi within the Condor South area. Also included is a projection of metallurgical performance for each of the deposits when applying the selected conventional processing method: gravity concentration followed by intensive cyanidation of gravity concentrates and carbon-in-leach (CIL) of the gravity tailing.

### 13.1 Introduction

Metallurgical reports reviewed to prepare this PEA are as follows:

- Final Report, Project No. 934135, "Metallurgical Laboratory Testwork on the San Jose Gold Ores", dated March 1995 by CIMM (Centro de Investigación Minera y Metalúrgica) of Santiago, Chile;
- Breccias, San Jose, Ecuador, Direct Cyaniding Metallurgical Testwork, dated May 2004 by Goldmarca Mining Peru S.A.C.;
- Project No. 2418, San Jose Ore Evaluation Testwork, Condor Gold Project for Goldmarca Limited, dated May 2006 by IML (Independent Metallurgical Laboratories PTY LTD) of Welshpool, Western Australia;
- Report of Investigation No. 18525, Luminex, Condor North Project, Camp Zone Epithermal Au-Ag-Zn Deposit, Zamora Province, Southeast Ecuador, Progress Report, dated July 27, 2020, by C.H. Plenge & C.I.A. S.A. (Plenge) of Lima, Peru; and
- Report of Investigation No. 18525-73-89, Progress Report, Luminex Condor North Project, Camp, Los Cuyes, Enma Samples, Zamora Province, Southeast Ecuador, dated May 26, 2021, by C.H. Plenge & C.I.A. S.A. of Lima, Peru.

### 13.2 Metallurgical Samples and Test Results

#### 13.2.1 Historical Test Programs

In 1995, two composite samples of mineralization, weighing 350 kg, from the San Jose Zone were processed at CIMM in Santiago, Chile (CIMM 1995):

- SJ-1A – 180 kg, 4.6 gpt Au, 9 gpt Ag, 0.86% Zn, 0.02% Cu
- SJ-1B – 170 kg, 1.4 gpt Au, 9 gpt Ag, 0.39% Zn, 0.02% Cu

Tests included: grinding studies, column leach tests, direct cyanidation of the mineralized material and flotation tests followed by cyanidation of the concentrate. A summary of the work is as follows:

- The column cyanide leach tests on – ½ inch and – ¼ inch material, performed over a 30-day period, produced gold recoveries of 65% to 69% and 72% to 79%, respectively. Silver recoveries were lower, ranging between 15% and 47%. Metal extraction may be improved by using a finer mineralized material particle size. Cyanide consumption averaged 2.8 kg/t and lime consumption averaged 0.8 kg/t.
- Direct cyanidation of the mineralized material was tested using – 150 microns and – 75 microns particle sizes. Gold recoveries ranged between 84% and 91% for sample SJ-1A and averaged 93% for sample SJ-1B. Silver recoveries ranged between 22% and 38%. Cyanide consumption averaged 1.0 kg/t and lime consumption averaged 0.7 kg/t.
- A 20-minute flotation test provided a concentrate with 45 gpt Ag and 28 gpt Au (with recoveries of 15.4% in weight and 92.7% in gold) for sample SJ-1A, and 70 gpt Ag and 17 gpt Au (with recoveries of 5.6% in weight and 92.4% in gold) for sample SJ-1B. Cyanidation of the concentrate without regrinding yielded high gold recoveries (93% to 95% for SJ-1A and 93% to 97% for SJ-1B). This produced an overall gold recovery that ranged from 86% to 88% for SJ-1A and 89% to 90% for SJ-1B. Cyanide consumption averaged 0.4 kg/t and lime consumption averaged 0.35kg/t.
- Preliminary bond grinding indices were 12.1 kWh/t for SJ-1A and 12.7 kWh/t for SJ-1B.

In 2004, six composites, weighing 380 kg and comprising material from Los Cuyes (two Breccia and two Dike samples) and San Jose (two Breccia samples), were tested by direct cyanidation. The composite head assays ranged from 1 to 3 gpt Au and 18 to 71 gpt Ag. The samples were ground to 90% and 100% passing 75 microns and cyanide leached for 72 and 96 hours, respectively. Recoveries were high with Los Cuyes recoveries averaging 93% for gold and 87% for silver while San Jose recoveries averaged 95% for gold and 84% for silver. Cyanide consumptions averaged 2 kg/t and lime consumptions averaged 3.5 kg/t, both high.

In 2006, a San Jose composite sample, weighing 47 kg and assaying 4.4 gpt Au and 9 gpt Ag, was tested at IML in Western Australia. Whole mineralized material cyanide leaching, over a 48-hour period and after grinding to 80% passing 100 microns, yielded gold recoveries ranging from 63% to 73% and silver recoveries averaging 42%. Cyanide consumption averaged 1.6 kg/t and lime consumption averaged 6.3 kg/t. Higher gold recoveries (88% to 92%) were achieved using a combination of gravity and flotation, regrind and cyanide leaching.

### 13.2.2 Plenge Test Programs

Plenge performed metallurgical tests on the Camp, Los Cuyes and Enma deposits during 2020 and 2021. No additional tests have been performed on samples from the Soledad deposit since 2006.

The locations of the metallurgical samples tested by Plenge are presented in Figure 13-1.



Mineralogical examination by XRD of Los Cuyes material showed 41% as Quartz, 20% as Muscovite, 15% as Orthoclase and 4% as pyrite. AMICS analysis of head samples indicate that quartz, orthoclase and andalusite are the three main mineral phases. Minor mineral phases include pyrite and sphalerite with traces of galena and chalcopyrite. Brightness searches for gold and silver found silver particles (acanthite) sizes ranging from 5 to 20 microns associated with chalcopyrite and orthoclase and a gold particle of 20 microns in size associated with pyrite. Lithologies of the materials are stated as Rhyolite and Crystal Lapilli Tuff and Phreatomagmatic Breccia.

Mineralogical examination by XRD of Enma material showed 36% as Quartz, 31% as Muscovite, 7% as Illite and 14% as pyrite.

### 13.2.4 Head Assays

Table 13-1 presents the head assays for the Camp, Los Cuyes and Enma composite samples tested by Plenge. Gold assays for all samples ranged from 0.53 to 6.37 gpt Au and silver assays ranged from 2 to 60 gpt Ag. Zinc assays ranged from 0.02 to 1.5%, copper assays averaged about 0.05% and sulfide sulfur assays averaged about 3%.

Camp composites were prepared using 310 kg of mineralized material collected from 13 different drill holes. Los Cuyes composites were prepared using 131 kg of material selected from 2 different drill holes. The Enma composite was prepared using 151 kg of material collected from 1 drill hole.

**Table 13-1: Head Assays**

Item	Units	Camp				Los Cuyes				Enma
		Lo Grade	Med Grade	Hi Grade	Master	Lo Grade	Med Grade	Hi Grade	Master	Master
Gold	gpt	1.72	5.33	6.37	4.28	0.53	0.58	1.05	0.75	0.90
Silver	gpt	14.0	10.5	60.3	29.3	4.2	2.4	9.5	5.6	36.6
Cu	%	0.024	0.029	0.072	0.039	0.019	0.016	0.057	0.033	0.078
Fe	%	4.44	4.19	5.82	5.37	3.22	2.78	2.88	2.95	6.63
Pb	%	0.07	0.03	0.39	0.18	0.04	0.00	0.02	0.03	0.05
Zn	%	0.70	0.71	1.54	0.98	0.02	0.05	0.08	0.13	0.25
As	ppm	129	178	272	N/A	67	60	98	70	296
S total	%	3.52	2.48	7.04	4.23	2.63	2.09	2.41	2.29	7.48
S sulfide	%	3.11	2.02	6.33	3.64	2.00	1.60	1.79	1.80	6.08
Specific Gravity	g/cc	3.03	2.87	2.98	2.96	2.79	2.78	2.76	2.77	2.76

### 13.2.5 Comminution

Table 13-2 presents the comminution values for Camp, Los Cuyes and Enma composite samples. The grinding and abrasion indices indicate the materials are considered medium soft for SAG milling, medium hard for ball milling and have low abrasive characteristics. Combined with the historic Soledad values the average Bond Ball Mill Work Index for Condor North Project is about 12.5 kWh/t.



**Table 13-2: Comminution Tests**

Item	Units	Camp			Los Cuyes			Enma
		Lo Grade	Med Grade	Hi Grade	Lo Grade	Med Grade	Hi Grade	Master
Bond Work Index	kWh/t	14.22	16.57	13.83	13.30	12.18	12.05	11.71
JK SMC Test	A*b	N/A	N/A	N/A	47.60	54.60	68.60	80.90
SAG Specific Energy	kWh/t	N/A	N/A	N/A	8.99	8.49	7.77	7.45
Abrasion Index	g	N/A	N/A	N/A	0.1049	0.0872	0.0720	0.0886

### 13.2.6 Gravity Concentration

Bench-scale gravity concentration tests were performed on Camp, Los Cuyes and Enma composites with results as follows:

- Camp – Silver and gold recoveries averaged 11% and 32%, respectively, into concentrate that weighed 0.37% of the feed. Average concentrate assays were 796 gpt Ag and 421 gpt Au.
- Los Cuyes – Silver and gold recoveries were 10% and 23%, respectively, into concentrate that weighed 0.32% of the feed. Concentrate assayed 188 gpt Ag and 55 gpt Au.
- Enma - Silver and gold recoveries were only 3% and 5%, respectively, into concentrate that weighed 0.32% of the feed. Concentrate assayed 284 gpt Ag and 16 gpt Au.

Gravity concentrates were subjected to intensive cyanidation with silver recoveries ranging from 46% to 77% and gold recoveries from 83% to 99%.

### 13.2.7 Cyanidation and Flotation

Table 13-3 presents the Camp composite samples test results. Whole mineralized material cyanidation of lower grade samples, over 24 hours and at a grind of 80 $\mu$  passing 75 microns, yielded silver and gold recoveries of 46% and 92%, respectively. Higher grade samples yielded silver and gold recoveries of 44% and 97%, respectively. Finer grinding showed only slight improvements to gold recovery. Gravity concentration followed by cyanidation of concentrates and tailing yielded total silver and gold recoveries equal to the whole-mineralized material cyanidation tests.

Gravity concentration of the Camp Master Composite, followed by flotation of the gravity tails, yielded rougher flotation concentrates that recovered 96% of the silver and 98% of the gold remaining in the gravity tails. Cyanidation of the gravity and the flotation concentrates resulted in overall silver and gold recoveries of 55% and 95%, respectively, slightly lower in gold recovery than the Camp whole-material cyanidation tests.

One cyanidation test on the Camp Master Composite recovered 45% of the silver and 96% of the gold. The leach residues, which assayed 16 gpt Ag, 0.14% lead and 1% zinc, were subjected to flotation in the attempt to improve silver recovery while producing separate lead and zinc concentrates. Open circuit flotation testing yielded lead concentrates that assayed 3,348 gpt Ag and 44% lead while recovering 12% of the total silver and 38% of the lead. Zinc concentrates assayed 219 gpt Ag and 45% zinc while recovering 9% of the total silver and 60% of the zinc. Silver recoveries thus increased by 21% while the gold recovery increase was negligible. Further testing is required to determine optimum flotation conditions and evaluate whether production of lead and/or zinc concentrates would improve project economics.

**Table 13-3: Camp Deposit Metallurgical Test Results**

	Test	p80 grind	Heads	Heads	Residue	Residue	Extraction	Extraction	Reagent	Reagent
	Type	Microns	gpt Ag	gpt Au	gpt Ag	gpt Au	% Ag	% Au	CN kg/t	CaO kg/t
<u>Whole-Material Leach Tests</u>										
Lo Grade	Std	75	19.9	1.70	10.1	0.140	49.5	91.8	0.80	0.7
Lo Grade	CIL	75	21.9	1.77	12.8	0.140	41.5	92.1	0.98	0.7
Med Grade	Std	75	12.6	4.69	7.1	0.162	43.3	96.5	0.70	0.7
Med Grade	CIL	75	11.8	4.18	7.1	0.082	39.7	98.0	0.79	0.7
Hi Grade	Std	75	64.9	7.54	36.7	0.300	43.3	96.0	1.10	0.7
Hi Grade	CIL	75	60.6	8.14	31.2	0.248	48.5	97.0	1.07	0.7
Master	Std	75	31.6	4.48	17.8	0.126	43.5	97.2	1.30	0.4
Master	CIL	53	31.4	4.36	16.6	0.112	47.1	97.4	1.09	0.9
Master	CIL	38	31.1	4.31	17.4	0.092	44.0	97.9	1.13	0.9
<u>Gravity/ Int Leach/Tails Leach Tests</u>										
Lo Grade (Combined Result)	Int/Std	75	21.9	1.83	11.9	0.130	45.7	92.9	0.88	0.77
Med Grade (Combined Result)	Int/Std	75	11.4	4.41	6.4	0.134	43.9	97.0	0.89	0.71
Hi Grade (Combined Result)	Int/Std	75	62.0	7.37	35.5	0.306	42.7	95.8	0.75	0.80
Master (Combined Result)	Int/Std	75	29.3	4.48	17.5	0.139	40.4	96.9	0.90	0.80

Table 13-4 presents the Los Cuyes composite samples test results. Whole mineralized material cyanidation for 24 hours yielded silver and gold recoveries averaging 43% and 89%, respectively. Finer grinding improved recoveries slightly, but not enough to offset the projected increase in operating costs for additional grinding and higher reagent consumption. Gravity concentration followed by cyanidation of concentrates and tailing yielded total silver and gold recoveries of 54% and 86%, respectively.

Flotation of Los Cuyes leach residue produced a low-grade silver/lead concentrate that assayed 650 gpt Ag and 16% lead. Silver recovery increased by 18% while lead recovery was 62%. Due to the low metal assays in the residue it is unlikely production of flotation concentrates from Los Cuyes material would be economic.

**Table 13-4: Los Cuyes Deposits Metallurgical Test Results**

	Test	p80 grind	Heads	Heads	Residue	Residue	Extraction	Extraction	Reagent	Reagent
	Type	Microns	gpt Ag	gpt Au	gpt Ag	gpt Au	% Ag	% Au	CN kg/t	CaO kg/t
<u>Whole-Material Leach Tests</u>										
Lo Grade	Std	75	6.13	0.52	4.5	0.070	27.2	87.5	0.80	0.6
Med Grade	Std	75	2.85	0.59	1.8	0.050	37.5	90.8	0.70	0.7
Hi Grade	Std	75	9.09	1.07	3.9	0.130	57.4	87.9	0.70	0.5
Master	Std	75	5.30	0.76	2.7	0.100	49.4	87.1	0.70	0.6
Master	Std	45	5.30	0.75	2.4	0.070	55.1	91.2	1.30	1.1
<u>Gravity/ Int Leach/Tails Leach Tests</u>										
Master (Combined Result)	Int/Std	75	6.50	0.76	3.3	0.106	49.7	86.0	0.70	0.8

Table 13-5 presents the Enma composite samples test results. Whole mineralized material cyanidation for 24 hours yielded silver and gold recoveries of 68% and 74%, respectively. Finer grinding improved recoveries slightly, but not sufficient to offset the higher projected operating costs. Gravity concentration followed by cyanidation of concentrates and tailing yielded total silver and gold recoveries of 67% and 72%, respectively.

**Table 13-5: Enma Deposit Metallurgical Test Results**

	Test	P <sub>80</sub> grind	Heads	Heads	Residue	Residue	Extraction	Extraction	Reagent	Reagent
	Type	Microns	gpt Ag	gpt Au	gpt Ag	gpt Au	% Ag	% Au	CN kg/t	CaO kg/t
<u>Whole-Material Leach Tests</u>										
Master	Std	75	36.80	0.97	11.8	0.250	67.9	74.2	0.70	0.6
Master	Std	45	35.20	0.98	10.3	0.230	70.7	76.4	1.60	1.0
<u>Gravity/ Int Leach/Tails Leach Tests</u>										
Master (Combined Result)	Int/Std	75	35.40	0.99	11.7	0.282	67.0	71.5	0.90	0.6

### 13.2.8 Cyanide Detoxification

Cyanide detoxification tests, using the SO<sub>2</sub>/Air process, were performed on Camp and Los Cuyes leach tailing slurries. The tests were run for 90 minutes with the first 30 minutes in aeration and pH adjustment and the next 60 minutes in aeration and the addition of sodium metabisulfite (MBS), copper sulfate and lime. The detoxification of the slurries was completed by the end of the test periods with Free CN decreasing from 130 to <0.02 mg/L, WAD CN decreasing from 150 to 0.8 mg/L and SCN decreasing from 300 to 100 mg/L. Reagent consumptions averaged 0.9 kg/t MBS, 0.29 kg/t copper sulfate and 0.5 kg/t lime.

### 13.2.9 Tailing Sedimentation and Filtering

Camp detoxified leach tailing settled to 52% solids at the rate of 0.20 m<sup>2</sup>/tpd after adding 20 gpt flocculant. The tailing was pressure filtered at 80 psi, achieved a filtration rate of 0.98 m<sup>2</sup>/tph and obtained a moisture content of 16.8% by weight.

Los Cuyes detoxified leach tailing settled to 52% solids at the rate of 0.13 sq m/tpd after adding 20 gpt flocculant. The tailing was pressure filtered at 80 psi, achieved a filtration rate of 0.75 m<sup>2</sup>/tph and obtained a moisture content of 15% by weight.

### 13.2.10 Acid Base Accounting Tests

Acid Base Accounting (ABA) tests were performed on samples of mineralized and waste rock materials from Camp, Los Cuyes and Enma as well as waste rock materials from the Soledad deposit.

- Net Neutralization Potentials (NNPs) for the mineralized materials ranged from – 53 to – 169 kg CaCO<sub>3</sub>/t (average of -90 kg, thus acid generating).
- Waste rock materials the NNPs ranged from + 85 to –143 kg CaCO<sub>3</sub>/t (average of -15 kg, thus potentially acid generating).

### 13.3 Projected Metallurgical Performance

The projected metallurgical performance for each deposit is based on evaluation of historic test results from the San Jose Zone completed during 1995 by CIMM and tests recently performed by Plenge on samples from Camp, Los Cuyes and Enma. Metallurgical tests that utilized whole mineralized material cyanidation, after grinding to 80% passing 75 microns and leaching for 24 hours, were assessed to project the silver and gold recoveries into doré products. The recoveries for each deposit were estimated after comparing the various deposit silver and gold head grades presented in the PEA Mine Plan to the head grades of the various metallurgical tests.

Projected metal recoveries by deposit are as follows:

- Soledad – 30% silver recovery, 90% gold recovery;
- Camp – 48% silver recovery, 94% gold recovery;
- Los Cuyes – 48% silver recovery, 89% gold recovery; and
- Enma – 49% silver recovery, 71% gold recovery.

### 13.4 Santa Barbara Metallurgy

Metallurgical tests were conducted on samples from the Santa Barbara deposit, which is located in Condor Central area, from 2013 to 2019. Results are presented in Section 13 of this report and indicate that metal recoveries would be 87% for gold, 80% for copper and 60% for silver. Santa Barbara mineralized material is not included in the mining and processing plans for Condor North area since it requires a different process flow sheet.

In 2013, samples from the Santa Barbara deposit were sent to Phillips Enterprises LLC in Golden, Colorado, U.S. for metallurgical testing (Phillips, 2013; Short et al., 2015). Seven drill holes, which are spatially distributed throughout the deposit, were used to make four composites (Table 13-6): a low-, medium- and high-grade sample of andesite and a low-grade sample of the diorite porphyry.

**Table 13-6: Composites at Santa Barbara for Metallurgical Testing (2013)**

Composite #	Weight (kg)	Rock Type	Au (g/t)	Ag (g/t)	Cu (%)
1	47.8	Andesite	1.1	2	0.136
2	30.6	Andesite	0.7	2	0.128
3	47.4	Andesite	0.4	2	0.104
4	16.7	Diorite porphyry	0.3	<1	0.074

These composites were used for grinding, mineralogy, cyanidation and flotation tests. Diagnostic leach testwork and additional flotation and leaching of flotation concentrate and tailings were completed at RDi in Denver, Colorado (Randall, 2013; Randall et al., 2014). QEMSCAN® mineral studies were conducted at Colorado School of Mines in Golden, Colorado. A summary of the results of this work is as follows:

- Bond mill grindability tests on composites 2 and 3 confirm that the rock is hard with ball mill work indices of 24.97 kWh/mt and 22.07 kWh/mt, respectively.
- CIL processing will extract 85.4% of the gold.
- Gold is not refractory and can be covered by cyanidation without the need for oxidation processes.
- Consumption of lime and cyanide are relatively low.
- Whole mineralized material cyanidation tests suggest that gold extraction is sensitive to grind size: finer grinding provides higher recoveries. Gold extraction at 48 hours is approximately 85% for all the composites. Silver content in the mineralized material is low, and silver recoveries of approximately 20% can be expected. Gold dissolves quickly with maximum extraction occurring between 12 – and 24- hours' residence time.
- Sequential copper analyses by RDi indicate that 4.6% of the copper is acid soluble (i.e., oxide), 4.0% of the copper is cyanide soluble (i.e., secondary), and the remaining 91.4% is primarily chalcopyrite.
- Rougher flotation tests produced a concentrate mass of 10.9% of the feed with recoveries of 65.3% for gold, 80.6% for copper, and 70.7% for silver.
- There are no deleterious elements present.

Follow-up testing of three composites from Santa Barbara in 2019 by Plenge confirmed these previous results with similar conclusions. However, this stage of testing includes gravity recovery which yielded unsatisfactory results with gold and silver recoveries at a grind of 80% passing 210 microns of only 8% and 2%, respectively. CIL yielded at the highest recoveries of 84% of gold and 69% of silver with reasonable reagent consumptions of 1.3 kg/t NaCN and 0.6kg/t CaO. Rougher flotation

concentrates produced after grind of 80% passing 75 microns showed similar gold and copper recoveries, with respect to the previous work, at 67% and 77%, respectively. Re-grinding the rougher concentrate to 80% passing 35 microns followed by cleaner flotation produced a commercial concentrate assaying 134 g/t Ag, 63 g/t Au, and 19% Cu.

The proposed processing method includes a flotation circuit to produce copper concentrate with gold credits followed by a CIP circuit for the flotation tailings to recover gold and silver. The loaded carbon would pass through an elution and acid wash, and gold and silver would be recovered by electrowinning and, subsequently, smelted to produce doré.

Based on this metallurgical work, overall recoveries for the Santa Barbara deposit are estimated to be 87% for gold, 80% for copper, and 60% for silver.

### **13.5 Conclusion**

Metallurgical test data shows that economically viable metal recovery processes are available for samples taken from Camp, Los Cuyes, Soledad and Enma deposits, which lie within the boundaries of the Condor North area.

From these four deposits, gold recoveries are estimated to range from 71% to 94% and silver recoveries from 30% to 49%. The life-of-mine gold and silver recoveries from all deposits are estimated to average 90% and 45%, respectively.

Future metallurgical testing should focus on collection of samples from each deposit representing variations in head grades and lithologies. Tests to determine the optimum process flowsheet, including not only the gravity and cyanidation process currently envisioned, but also flotation for base metals and cyanidation of flotation concentrates, should be performed.

Metallurgical tests were conducted on samples from the Santa Barbara deposit, located in Condor Central area, from 2013 to 2019. Results indicate that metal recoveries would be 87% for gold, 80% for copper and 60% for silver. Santa Barbara mineralized materials are not included in the mining and processing plans for Condor North area since it will require a different project flow sheet from that considered in the economic portion of this study. Also, there is insufficient information to include Condor South area (Nayumbi prospect) in the economic assessment at the time of the preparation of this report.

In the opinion of the QP, the samples used in the metallurgical tests are representative of the types and styles of mineralization and of the mineral deposits as a whole and, there are no identified processing factors or deleterious elements that could have a significant effect on the potential economic extraction.

## 14 MINERAL RESOURCE ESTIMATES

There are three parts to this section of the technical report; Section 14.1 describes the development of the mineral resource models for the four deposits that are considered amenable to open pit extraction methods (including Santa Barbara, Los Cuyes, Soledad and Enma). Section 14.2 describes the generation of the resource model for the Camp deposit. Section 14.3 describes the estimation of mineral resources for all of the deposits on the Condor Project.

### 14.1 Santa Barbara, Los Cuyes, Soledad, Enma Mineral Resource Models

This section of the Technical Report describes the mineral resource estimation methodology and summarizes the key assumptions considered by the QP to prepare the mineral resource models for Los Cuyes, Soledad, and Enma deposits located in the Condor North area and the Santa Barbara deposit, located in the Condor Central area of the Property. These mineral resource estimates were prepared under the direction of Robert Sim, P.Geo., with the assistance of Bruce Davis, PhD, FAusIMM. Robert Sim is an "independent qualified person" within the meaning of NI 43-101 for the purposes of mineral resource estimates contained in Section 14.3 of the Technical Report.

#### 14.1.1 Introduction

The mineral resources for these deposits were originally presented in a 2018 Technical Report and were restated in a subsequent Technical Report released May 14, 2020 (effective date March 4, 2020) using updated metal prices. There has been no new drilling on any of these deposits and, as a result, the grade estimates initially estimated into block models in 2018 remain current, but the estimates of mineral resources have been regenerated based on current projected metal prices, process recoveries and operating costs. The effective date of the mineral resources considered amenable to open pit extraction is July 28, 2021.

The Condor Project hosts a series of deposits containing primarily gold, plus accessory metals, silver and copper. The deposits also contain varying, but generally minor, amounts of lead and zinc which are too low to be considered economically viable and, therefore, are excluded from the estimates of mineral resources.

In the opinion of the QP, the mineral resource evaluation reported herein is a reasonable representation of the mineralization found at the Santa Barbara, Los Cuyes, Soledad, and Enma deposits at the current level of sampling. The mineral resources have been estimated in conformity with generally accepted CIM Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines (November 29, 2019) and are reported in accordance with NI 43-101. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Estimations are made from 3D block models based on geostatistical applications using commercial mine planning software (MinePlan™ v15.80-2). The Project limits are based in the UTM coordinate system (PSAD56 Zone17S). Drill holes penetrate the (generally) sub-vertical-trending deposits at a variety of orientations to depths approaching 800 m below surface. The mineral resource estimates were generated using drill hole sample assay results and the interpretation of geological models which relates to the spatial distribution of gold, silver and copper. Interpolation characteristics were defined based on the geology, drill hole spacing, and geostatistical analysis of the data. The mineral resources were classified according to their proximity to the sample data locations and are reported, as required by NI 43-101, according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

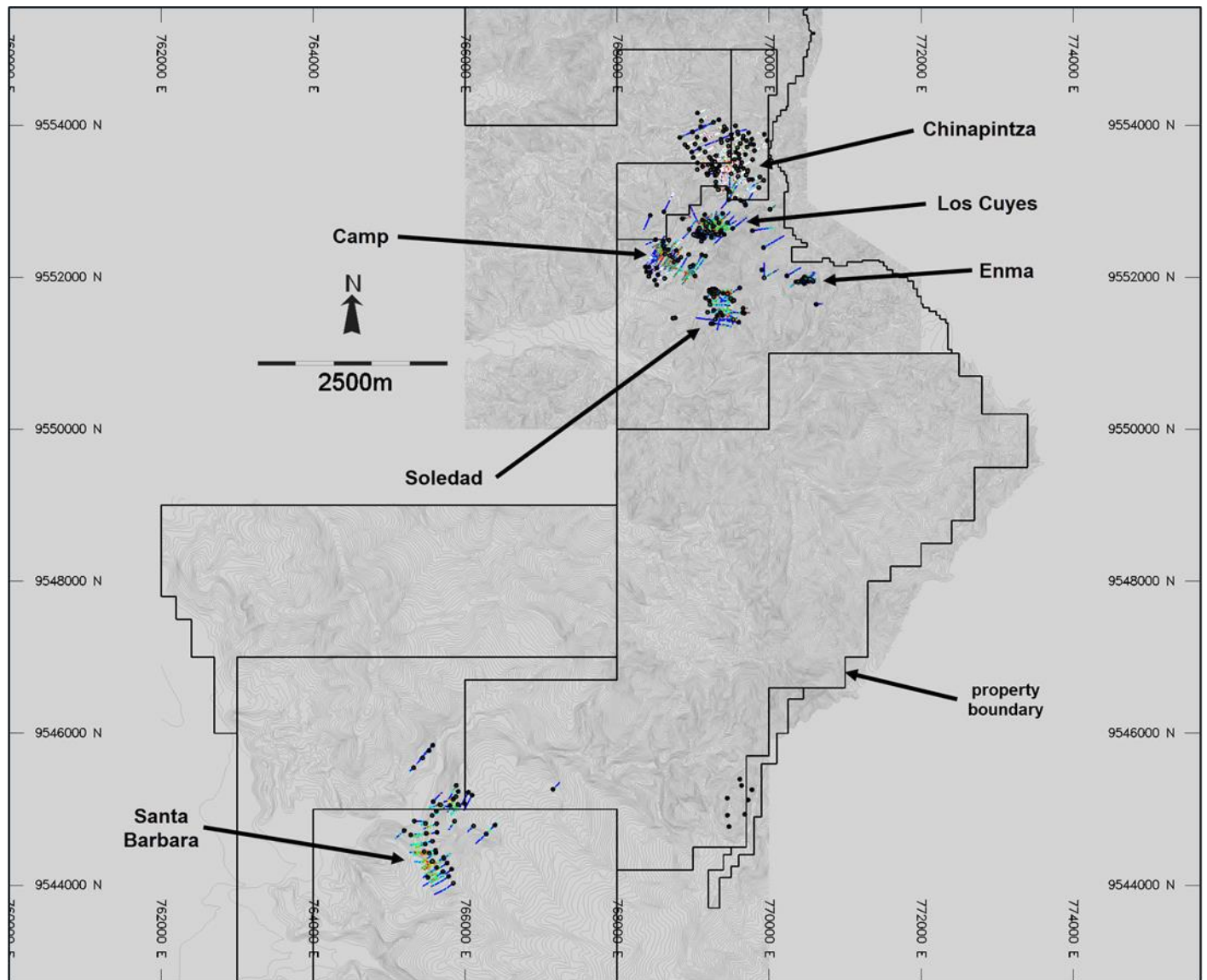
#### **14.1.2 Available Data**

Luminex Resources (Luminex) provided the drill hole sample data for the Santa Barbara, Los Cuyes, Soledad, and Enma deposits in a series of Excel® (spreadsheet) files containing collar locations, downhole survey results and geologic information derived through drill core logging. The distribution of sample data for the various deposits is shown in plan view in Figure 14-1. This section of the Technical Report contains estimates of mineral resources for four deposits: Santa Barbara (Condor Central area); Los Cuyes, Soledad, and Enma (Condor North area). Note the approach used to generate the estimate of mineral resources for the Camp deposit (Condor North area) is presented in Section 14.2 of this report. No data is available at the time of this report for Nayumbi within the Condor South area.

The Chinapintza deposit, which straddles the northern property boundary, comprises a series of narrow gold-bearing veins. Currently, there is insufficient information available to correlate the numerous mineralized veins, and as a result, the current data does not support an estimate of mineral resources for the Chinapintza deposit.



**Figure 14-1: Plan View of Drilling on the Condor Properties**



Source: SIM Geological Inc., 2021.

The sample database includes a series of chip/channel samples from trenches collected over the Soledad, Los Cuyes, and Enma deposits. Studies show that the trench samples are similar to proximal drill hole samples, and as a result, the trench sample data have been retained for use in the estimate of mineral resources in these deposits. The summary of available sample data in each of the deposit areas is summarized in Table 14-1.

**Table 14-1: Summary of Sample Data by Type and Deposit Area**

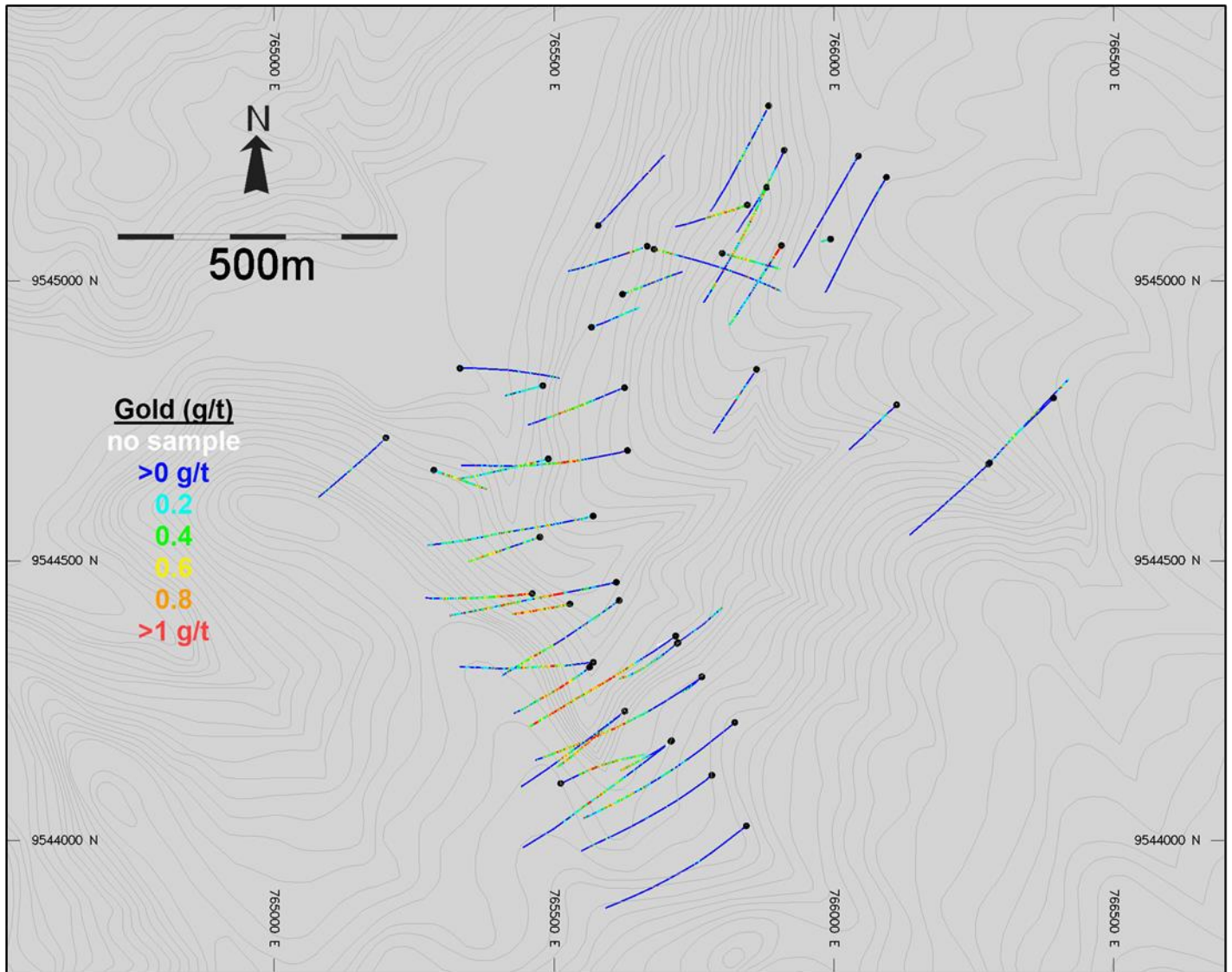
<b>Deposit</b>	<b># Drill Holes</b>	<b>Total Length of Drilling (m)</b>	<b>Total Length of Gold Samples in Drilling (m)</b>	<b># Trenches</b>	<b>Total Length of Trenches (m)</b>	<b>Total Length of Gold Samples in Trenches</b>
Santa Barbara	56	22,027	21,604	0	0	0
Los Cuyes	78	21,527	21,188	294	5,088	5,038
Soledad	124	19,684	19,291	140	6,511	6,404
Enma	47	8,335	8,293	110	1,896	1,859

Most of the drilling on the property was conducted by TVX and EGX as described in Section 10 (Drilling) of this Technical Report. In 2017, Luminex drilled nine exploration holes that tested soil and IP chargeability anomalies peripheral to the Santa Barbara deposit. And in 2019 and 2020, Luminex conducted the drilling on the Camp deposit.

Figure 14-2 and Figure 14-3 show the plan and isometric views, respectively, of the gold grades in drilling in the Santa Barbara deposit area.

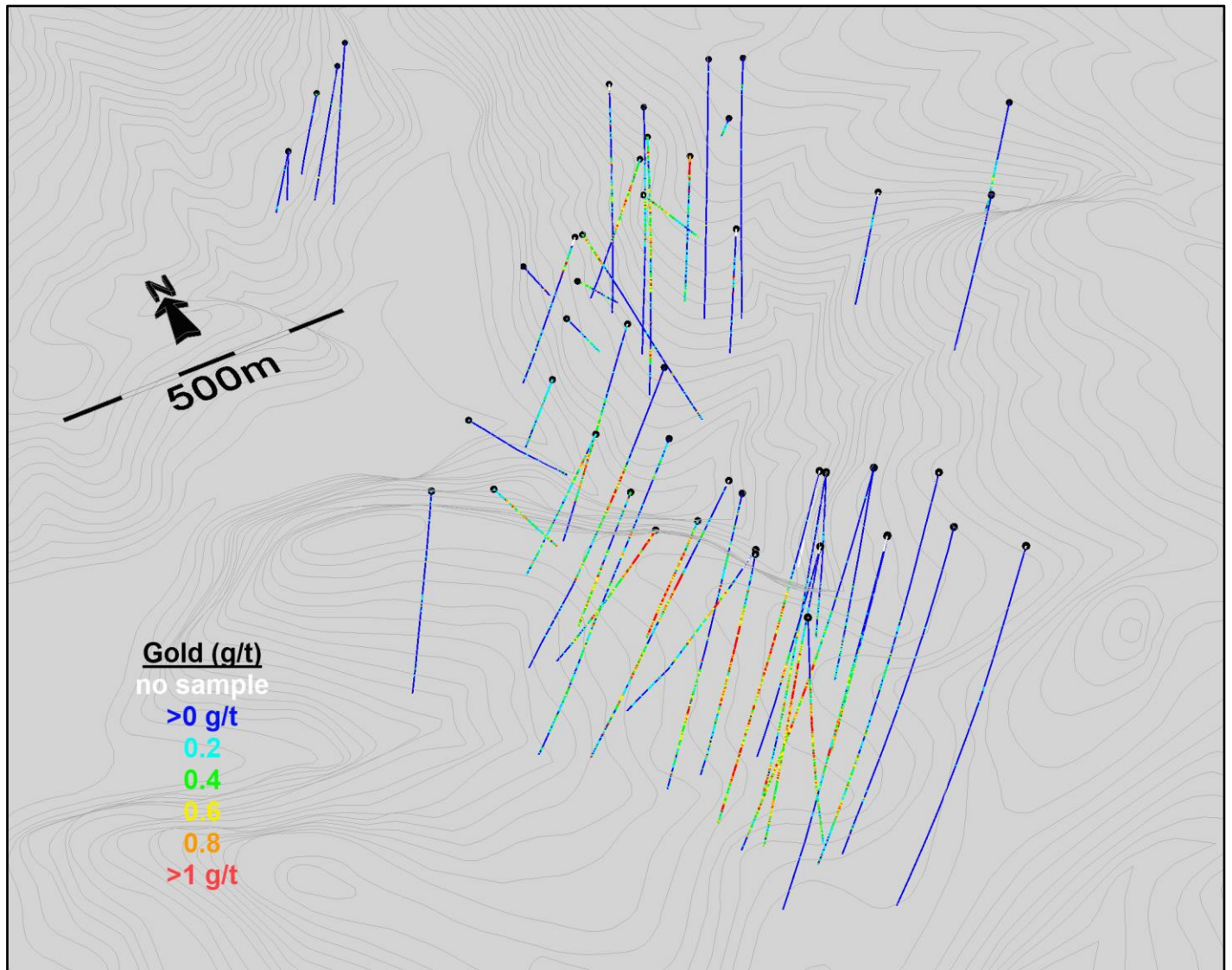
Figure 14-4 and Figure 14-5 show the plan and isometric views, respectively, of the gold grades in drilling and trench samples in the Los Cuyes, Soledad, and Enma deposit areas, including the drilling at the nearby Camp deposit. Figure 14-6 shows the distribution of drilling and trench sample data in the Los Cuyes, Soledad, Enma and Camp deposit areas.

Figure 14-2: Plan View of Gold Grades in Drilling in the Santa Barbara Deposit Area



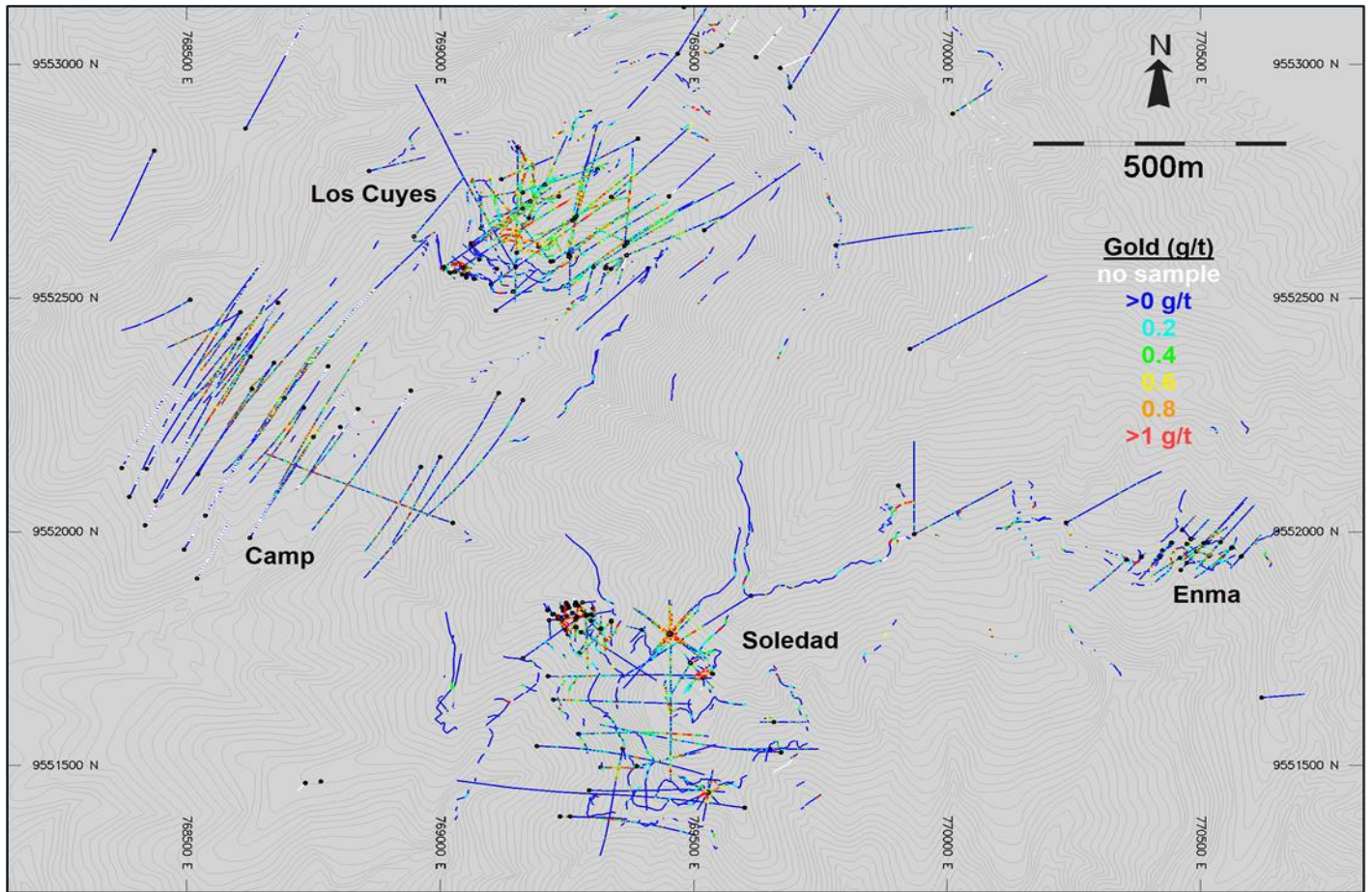
Source: SIM Geological Inc., 2021.

Figure 14-3: Isometric View of Gold Grades in Drilling in the Santa Barbara Deposit Area



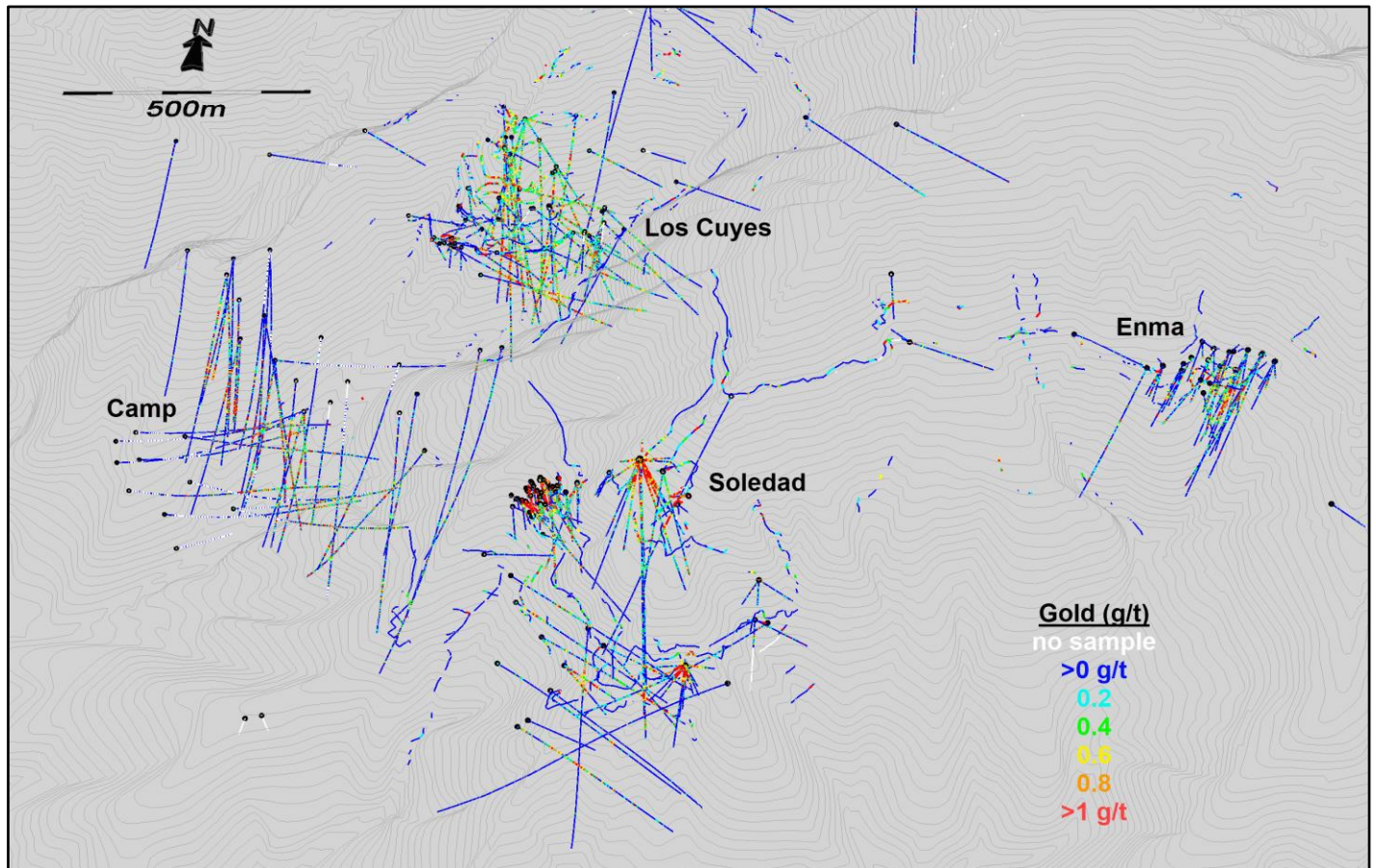
Source: SIM Geological Inc., 2021.

Figure 14-4: Plan View of Gold Grades in Drilling in the Los Cuyes, Soledad, Enma, and Camp Deposit Areas



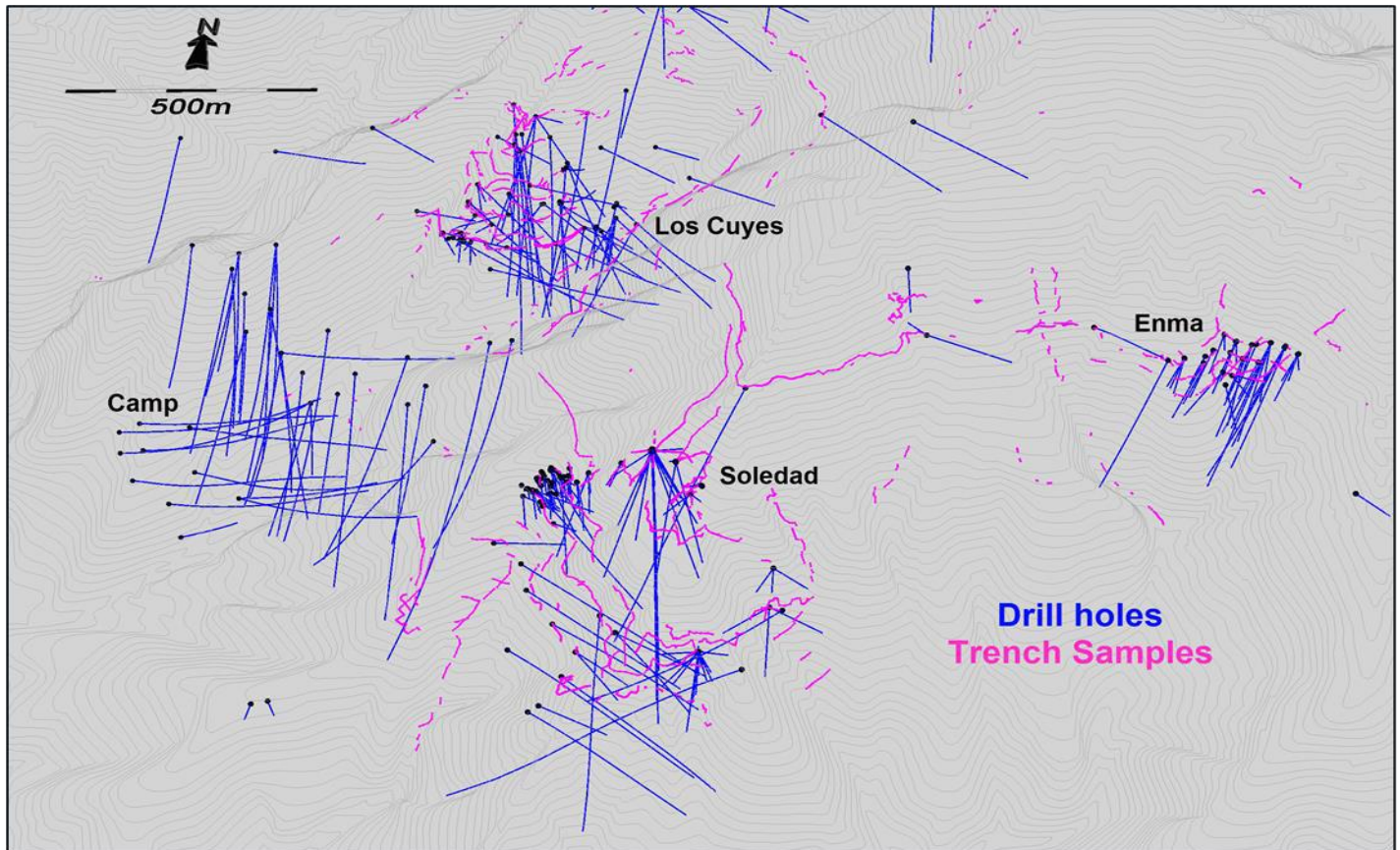
Source: SIM Geological Inc., 2021.

Figure 14-5: Isometric View of Gold Grades in Drilling in the Los Cuyes, Soledad, Enma, and Camp Deposit Areas



Source: SIM Geological Inc., 2021.

Figure 14-6: Isometric View of Sample Types in the Los Cuyes, Soledad, Enma, and Camp Deposit Areas



Source: SIM Geological Inc., 2021.

The basic statistical properties of the sample database in each of the deposit areas are shown in Table 14-2 to Table 14-5. Most of the samples were analyzed for a variety of elements (as part of a multi-element package) and the data for elements of interest (i.e., gold, silver and copper) were extracted and imported into MinePlan™ for resource modelling.

Essentially, all drill core intervals at Santa Barbara, Los Cuyes, Soledad, and Enma have been sampled and analyzed. Missing sample data in these deposit areas generally represent short intervals of overburden or (rare) abandoned drill holes. In some rare instances, there are drill holes that have not been analyzed for specific elements like copper. There have been no modifications to the database to account for missing data.

Table 14-2: Summary of Basic Statistics of Sample Data in the Santa Barbara Deposit Area

Element	# of Samples	Total Sample Length (m)	Min	Max	Mean	Std. Dev.
Gold (g/t)	21,146	21,604	0.003	6.825	0.280	0.4004
Silver (g/t)	21,146	21,604	0.1	125.6	0.75	2.512
Copper (%)	21,146	21,604	0	0.69	0.07	0.058

Note: Original sample data weighted by sample length.

**Table 14-3: Summary of Basic Statistics of Sample Data in the Soledad Deposit Area**

Element	# of Samples	Total Sample Length (m)	Min	Max	Mean	Std. Dev.
Gold (g/t)	15,702	26,226	0	109.190	0.508	1.9972
Silver (g/t)	15,648	26,097	0	1,024.1	4.80	15.16
Copper (%)	15,109	24,725	0	3.20	0.01	0.029

Note: Original sample data weighted by sample length.

**Table 14-4: Summary of Basic Statistics of Sample Data in the Soledad Deposit Area**

Element	# of Samples	Total Sample Length (m)	Min	Max	Mean	Std. Dev.
Gold (g/t)	13,572	25,695	0.003	25.170	0.482	1.198
Silver (g/t)	13,514	25,460	0.1	200.0	4.10	6.85
Copper (%)	12,906	23,960	0	2.00	0.01	0.036

Note: Original sample data weighted by sample length.

**Table 14-5: Summary of Basic Statistics of Sample Data in the Enma Deposit Area**

Element	# of Samples	Total Sample Length (m)	Min	Max	Mean	Std. Dev.
Gold (g/t)	5,269	10,151	0.003	256.660	0.4533	4.945
Silver (g/t)	5,269	10,151	0.1	1,799.0	7.57	35.44
Copper (%)	3,213	5,838	0	2.35	0.02	0.058

Note: Original sample data weighted by sample length.

Additional data used to determine mineral resource estimates include:

- Specific gravity data are only available for drill holes in the Santa Barbara and Camp deposit areas.
- Topographic data were provided in the form of 3D contour lines on 10 m (vertical) intervals as shown in Figure 14-1 through Figure 14-6. This information was used to generate a 3D digital terrain surface over the property. The topographic surface correlates well with the drill hole collar locations and the surface-trench sample data.
- Geologic information was derived from observations during core logging provide lithology code designations for the various rock units present on the property.
- Interpreted 3D domains were provided for lithologic units in the Santa Barbara, Los Cuyes, and Soledad deposit areas.
- Geology reports included Geological Mapping Program, Los Cuyes, Zamora-Chinchipec, Ecuador by Warren Pratt, Specialised Geological Mapping Ltd. (February 2017) and Mapping and Targeting at Camp, Cordillera del Condor, Ecuador by Warren Pratt, Specialised Geological Mapping Ltd. (December 2020).

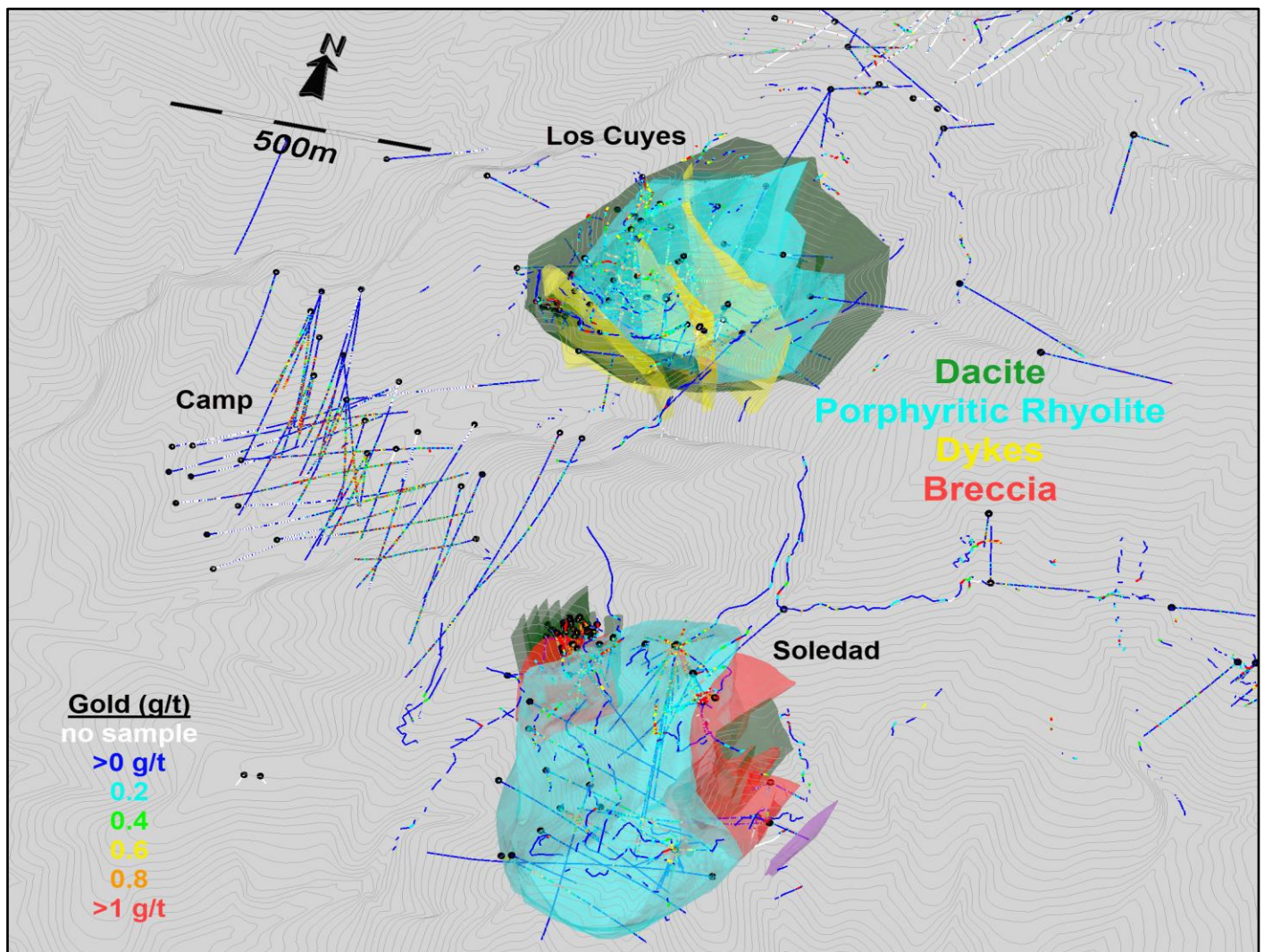


### 14.1.3 Geological Model and Domains

As described in Section 7 (Geological Setting and Mineralization) and Section 8 (Deposit Types) of this Technical Report, the Condor mineral deposits result from processes associated with the emplacement of intrusive volcanic rocks. Santa Barbara is interpreted to be a porphyry-type deposit. Mineralization at Los Cuyes, Soledad, and Enma is related to a series of felsic (rhyolitic) diatreme intrusions and associated breccias. As stated previously, the data package includes 3D domains that represent some of the lithologic units in the Los Cuyes and Soledad deposit areas (no interpreted domains were provided for the Enma deposit) and two very generalized lithology/structural domains at Santa Barbara.

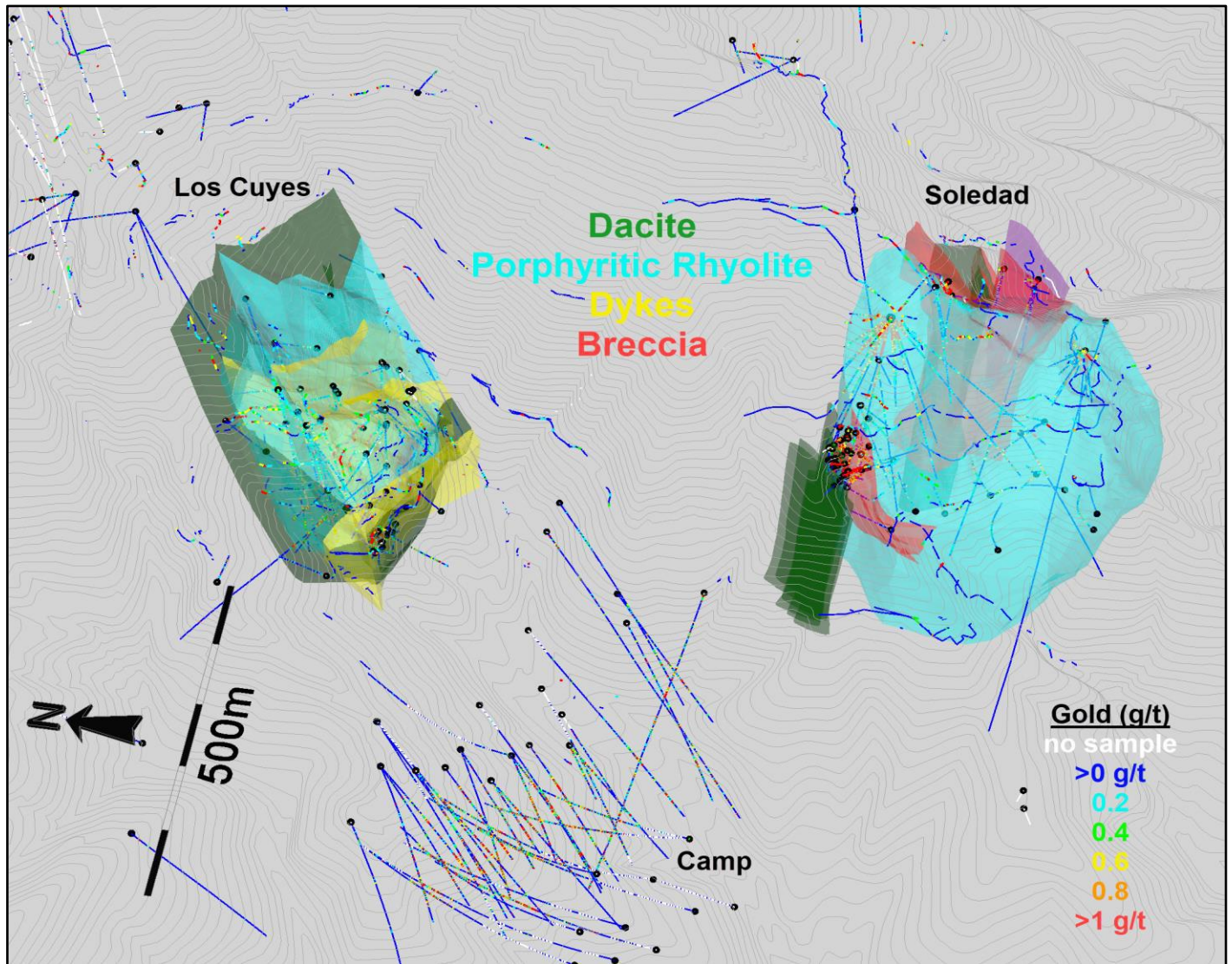
The distribution of the lithologic domains at Los Cuyes and Soledad are shown in Figure 14-7 and Figure 14-8. The drilling database also contains the underlying geologic information, including lithology code designations, derived from observations during core logging.

Figure 14-7: Isometric View of Interpreted Lithologic Domains at the Los Cuyes and Soledad Deposit Areas



Source: SIM Geological Inc., 2021.

Figure 14-8: Isometric View of Interpreted Lithologic Domains at the Los Cuyes and Soledad Deposit Areas



Source: SIM Geological Inc., 2021.

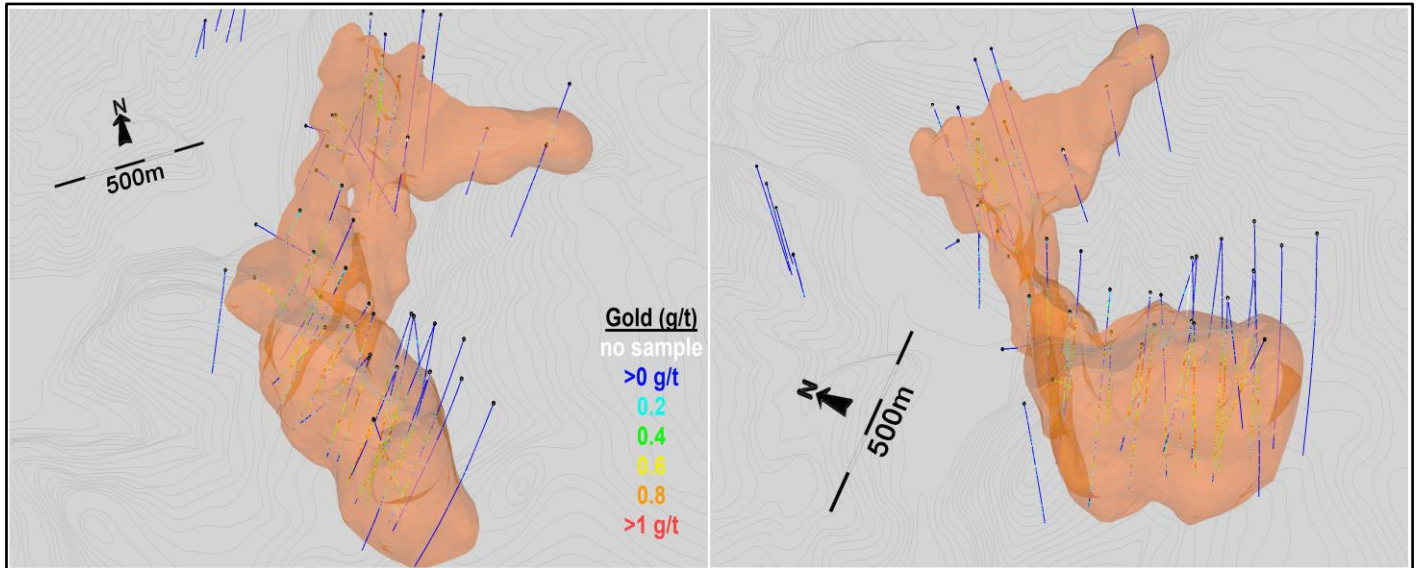
There is no indication of any significant overburden at the Los Cuyes, Soledad, Enma, and Camp deposits. Overburden has been intersected in only several drill holes in the Santa Barbara area, and when encountered, they were generally less than 2 m to 3 m thick. As a result, no adjustments were made to account for overburden in any of the mineral resource models.

Other than some thin surficial oxidation where sulphides occur at surface, there are no indications of significant oxidation of the rocks on the Condor North Project.

A series of grade shell domains have been interpreted for each deposit area that encompass zones of relatively continuous mineralization above a threshold grade of 0.1 g/t Au. These grade shell domains were manually interpreted and are influenced by available lithology domains as well as probability grade shells that represent areas where there is a >50% probability that the grade will be greater than 0.1 g/t Au.

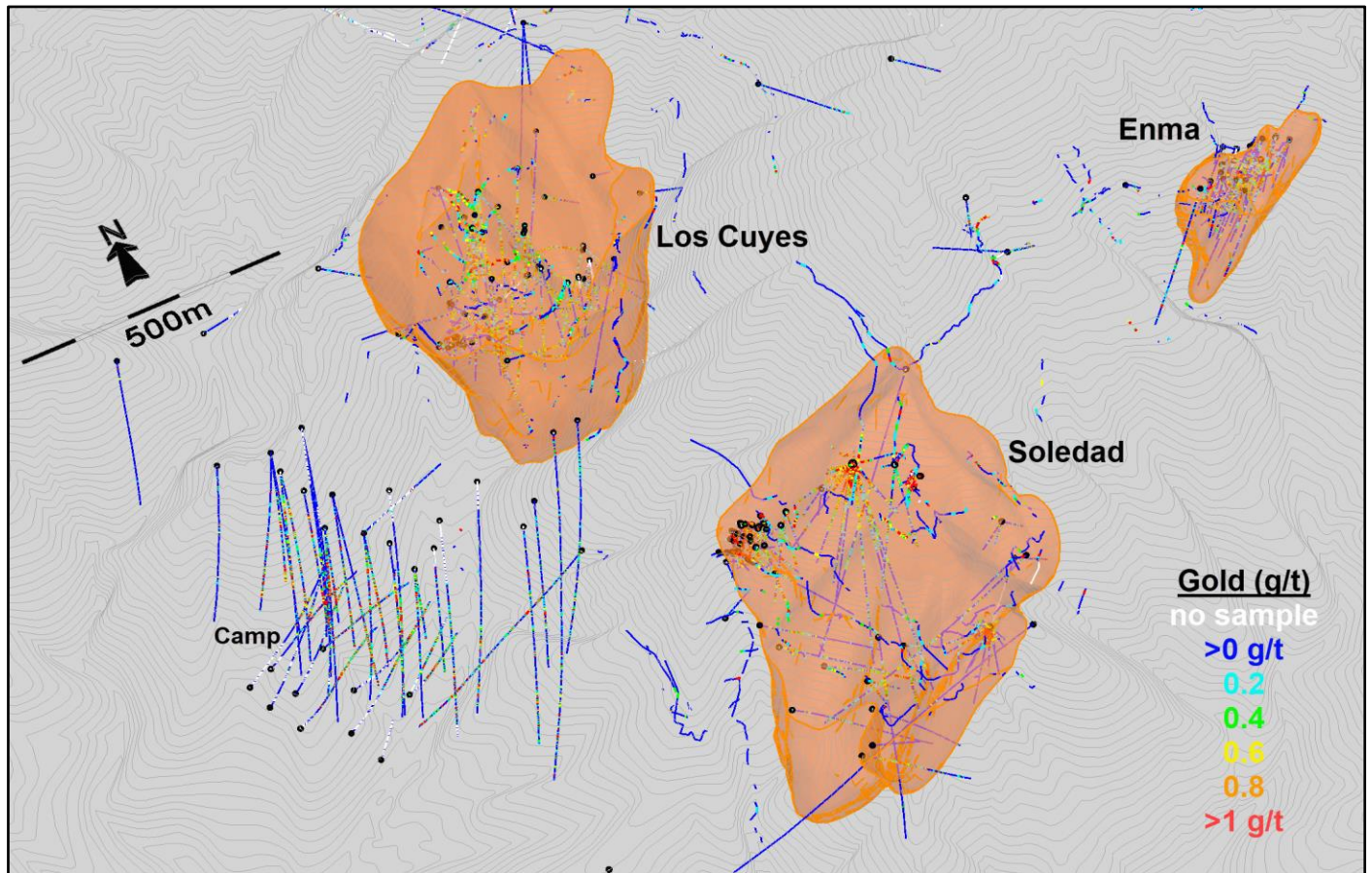
The shape and extent of the gold probability grade shell domains at the various deposits are shown in Figure 14-9, Figure 14-10 and Figure 14-11.

**Figure 14-9: Gold Grade Shell Domain at Santa Barbara**



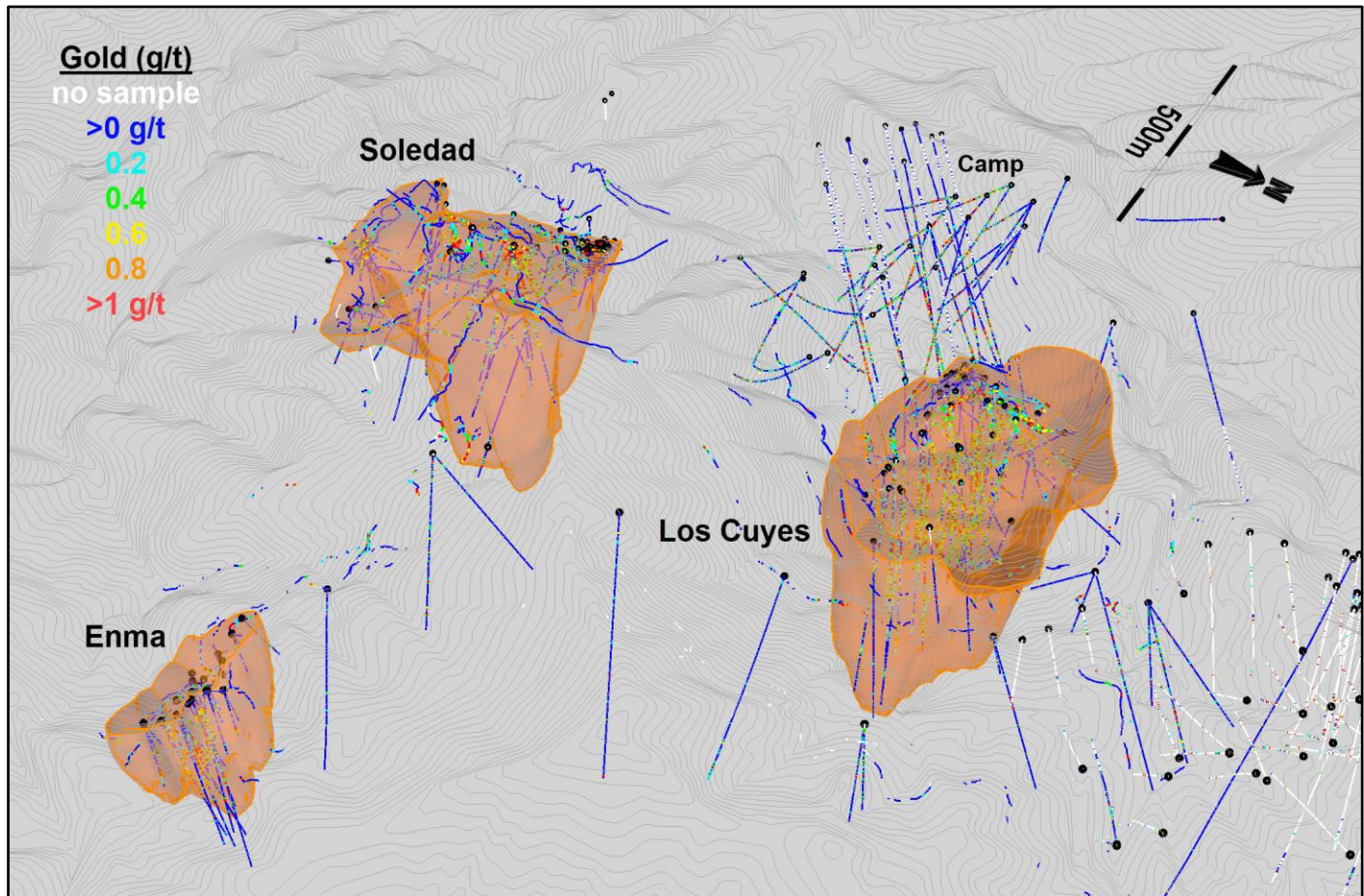
Source: SIM Geological Inc., 2021.

Figure 14-10: Gold Grade Shell Domains at Los Cuyes, Soledad, and Enma



Source: SIM Geological Inc., 2021.

Figure 14-11: Gold Grade Shell Domains at Los Cuyes, Soledad, and Enma



Source: SIM Geological Inc., 2021.

#### 14.1.4 Specific Gravity Data

Specific gravity (SG) data are only available for the Santa Barbara and Camp areas. SG measurements are determined using the water immersion method (weight in air versus weight in water). At Santa Barbara, there are 1,459 individual measurements of SG ranging from 1.31 to 5.37, with an average of 2.66.

Typically, SG measurements were conducted on samples spaced at 10 m intervals down each drill hole. At Santa Barbara, the distribution of SG data appears to be potentially suspect; there are a string of holes (DSP-23 through DSP-30) that have numerous SG values less than 2.0. Currently, it is not known what caused these low SG values but, since they occur in a string of holes, it suggests there may have been a “problem” with the measurement process during this portion of the drilling. Any SG data that were less than 2.0 or greater than 3.4 were not used in the estimate of mineral resources at Santa Barbara.

The volume and distribution of SG data are considered sufficient to support estimation of densities in the block models at Santa Barbara and Camp. An average SG value of 2.65 is used to determine mineral resource tonnages for the Los Cuyes, Soledad, and Enma deposits.

### 14.1.5 Compositing

Compositing the drill hole samples helps standardize the database for further statistical evaluation. This step eliminates any effect that inconsistent sample lengths might have on the data.

To retain the original characteristics of the underlying data, a composite length was selected that reflects the average original sample length. The generation of longer composites can result in some degree of smoothing which could mask certain features of the data. At Los Cuyes, Soledad, and Enma, the average sample length is 1.8 m with 40% of samples measuring 1 m long, and 48% of samples measuring exactly 2 m long. At Santa Barbara, sample intervals are more variable and are generally taken over shorter intervals. The overall average sample length is only 1.1 m, but about 18% of samples are exactly 2 m long.

A composite length of 2 m was selected for the Santa Barbara, Los Cuyes, Soledad, and Enma deposits.

Drill hole composites are length-weighted and were generated down-the-hole; this means that composites begin at the top of each hole and are generated at 2 m intervals down the length of the hole.

### 14.1.6 Exploratory Data Analysis

Exploratory data analysis (EDA) involves the statistical summarization of the database to better understand the characteristics of the data that may control grade. One of the main purposes of this exercise is to determine whether there is evidence of spatial distinctions in grade which may require the separation and isolation of domains during interpolation. The application of separate domains prevents unwanted mixing of data during interpolation and, therefore, the resulting grade model will better reflect the unique properties of the deposit. However, applying domain boundaries in areas where the data are not statistically unique may impose a bias in the distribution of grades in the model.

A domain boundary, which segregates the data during interpolation, is typically applied if the average grade in one domain is significantly different from that of another domain. A boundary may also be applied if there is evidence that a significant change in the grade distribution has occurred across the contact.

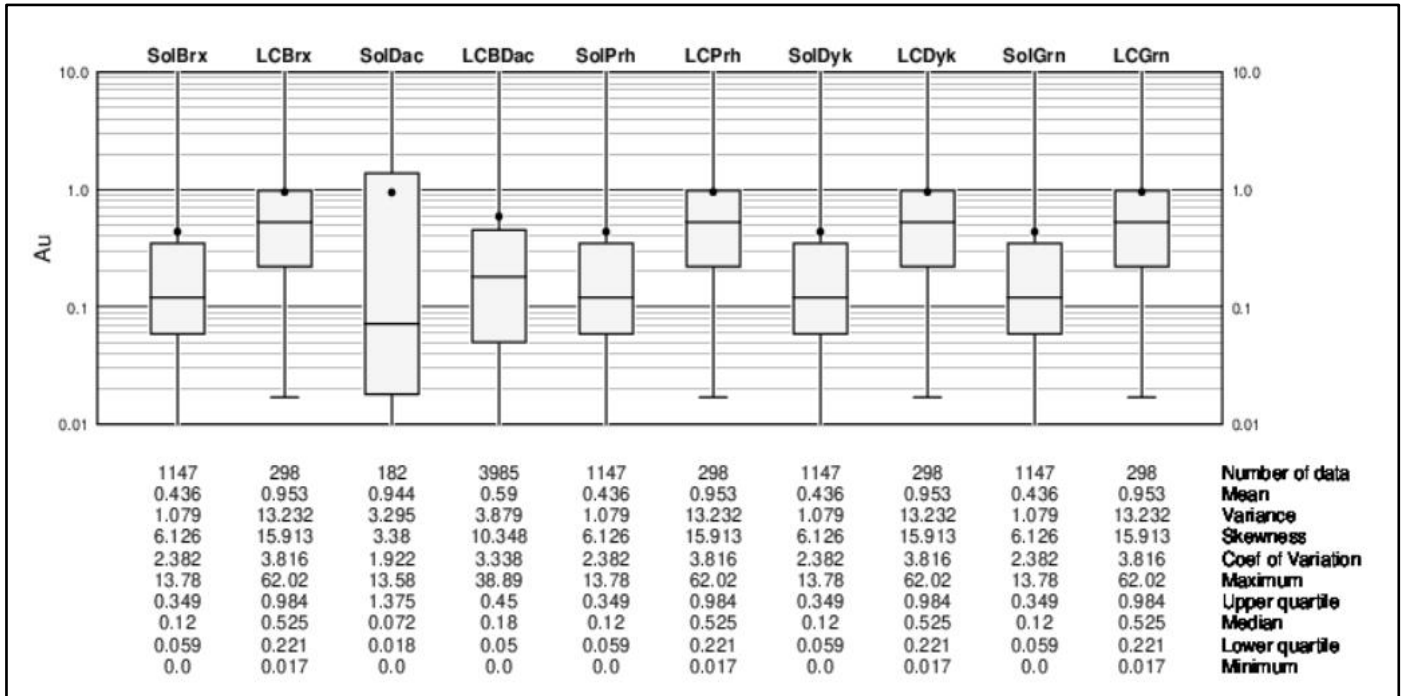
#### 14.1.6.1 Basic Statistics by Domain

The basic statistics for gold, silver, and copper samples were evaluated first by the logged lithology codes and then by the interpreted lithology domains. In both cases, the results show mineralization tends to occur, to some degree, in all rock types.

The boxplot in Figure 14-12 shows the distributions of gold between several of the lithologic domains at Los Cuyes and Soledad. Although the grades are somewhat variable, all of the lithologic units tend to host significant gold mineralization. Similar trends are seen in the distributions of copper and silver.

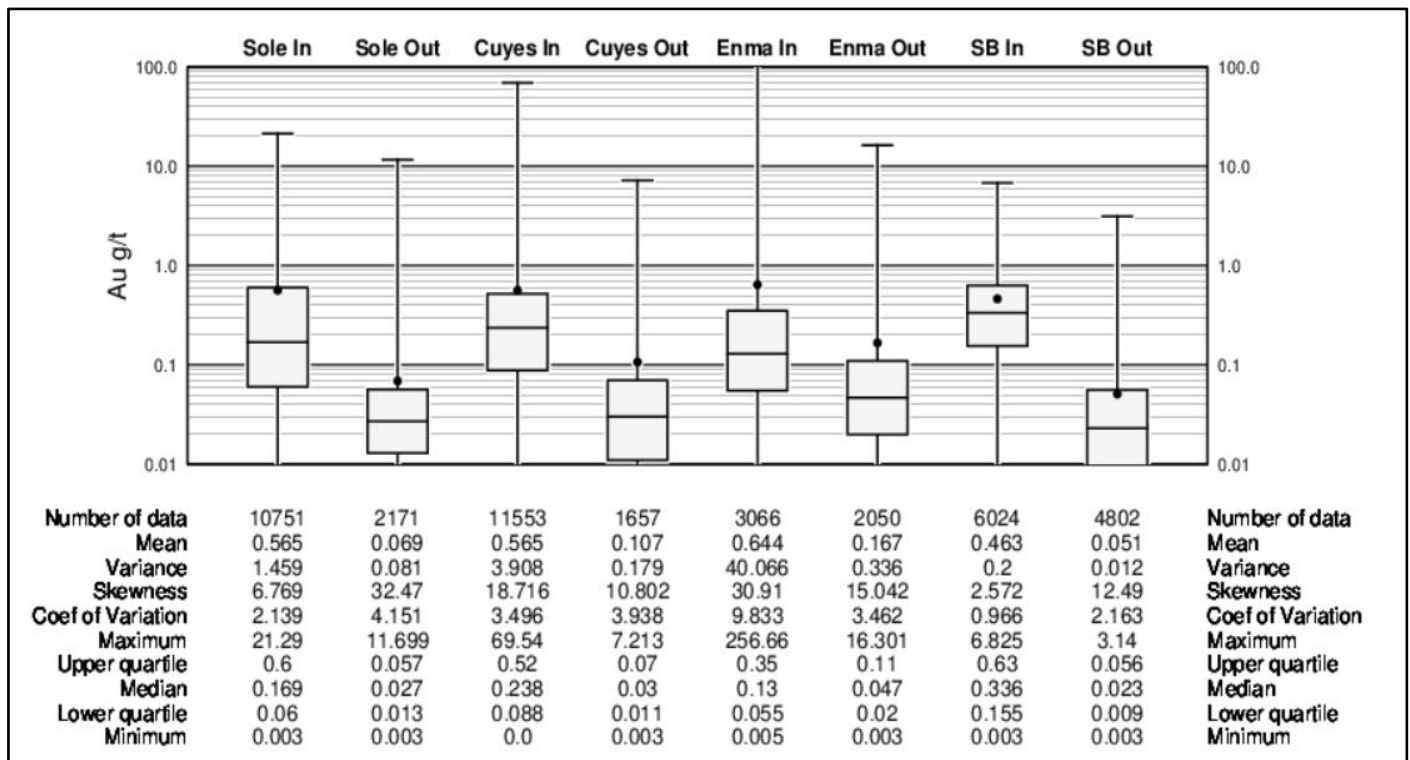
The boxplots in Figure 14-13 show the distributions of gold inside and outside of the interpreted grade shell domains at Santa Barbara, Los Cuyes, Soledad, and Enma. The differences between the gold distributions inside versus outside are quite apparent, with the majority of gold occurring inside the domains and very low gold grades present outside of the domains. The results for the other metals of interest are similar but not as well pronounced. Silver grades generally differ inside versus outside, but appreciable silver remains outside of the domains, especially at Enma and Santa Barbara. Copper grades are generally quite low but tend to be slightly higher inside the grade shell domains.

Figure 14-12: Boxplots Comparing Gold Sample Data Between Lithology Domains at Los Cuyes and Soledad



Source: SIM Geological Inc., 2021.

Figure 14-13: Boxplots Comparing Gold Sample Data Inside and Outside of the Grade Shell Domains



Source: SIM Geological Inc., 2021.

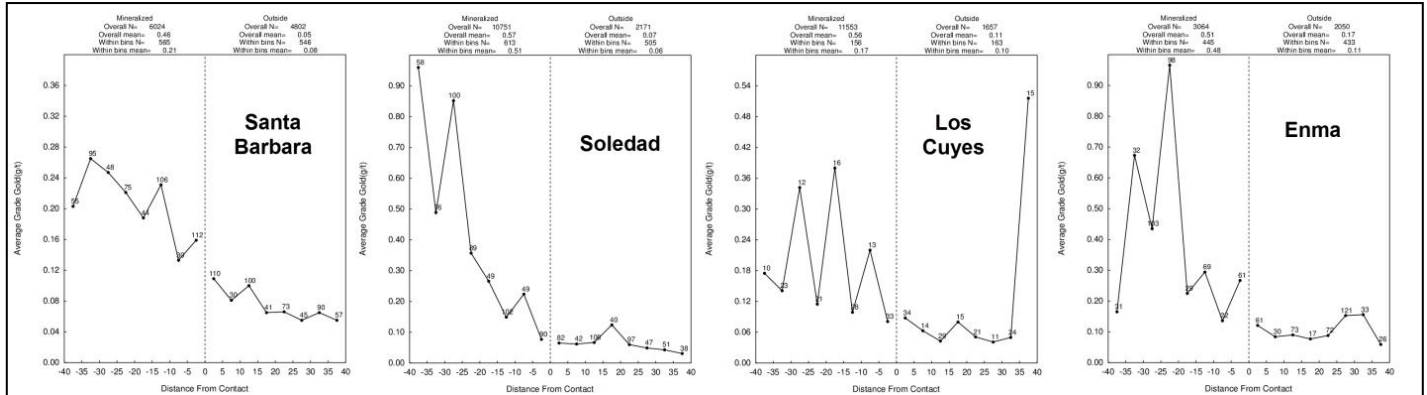
#### 14.1.6.2 Contact Profiles

Contact profiles evaluate the nature of grade trends between two domains: they graphically display the average grades at increasing distances from the contact boundary. Those contact profiles that show a marked difference in grade across a domain boundary indicate that the two datasets should be isolated during interpolation. Conversely, if a more gradual change in grade occurs across a contact, the introduction of a hard boundary (e.g., segregation during interpolation) may result in a much different trend in the grade model; in this case, the change in grade between domains in the model is often more abrupt than the trends seen in the raw data. Finally, a flat contact profile indicates no grade changes across the boundary; in this case, hard or soft domain boundaries will produce similar results in the model.

A series of contact profiles were generated to evaluate the nature of sample data across the various grade shell domain boundaries. Figure 14-4 shows the contact profiles for gold grades in the Santa Barbara, Los Cuyes, Soledad, and Enma deposits, and while the gold grade tends to transition somewhat across the boundaries, the average grades are significantly different between the samples inside and outside of these domains. Therefore, due to the extremely low average grade outside the boundary, a hard boundary or distinct contact should be applied to prevent mixing of these sets of data during grade interpolation in the block model.



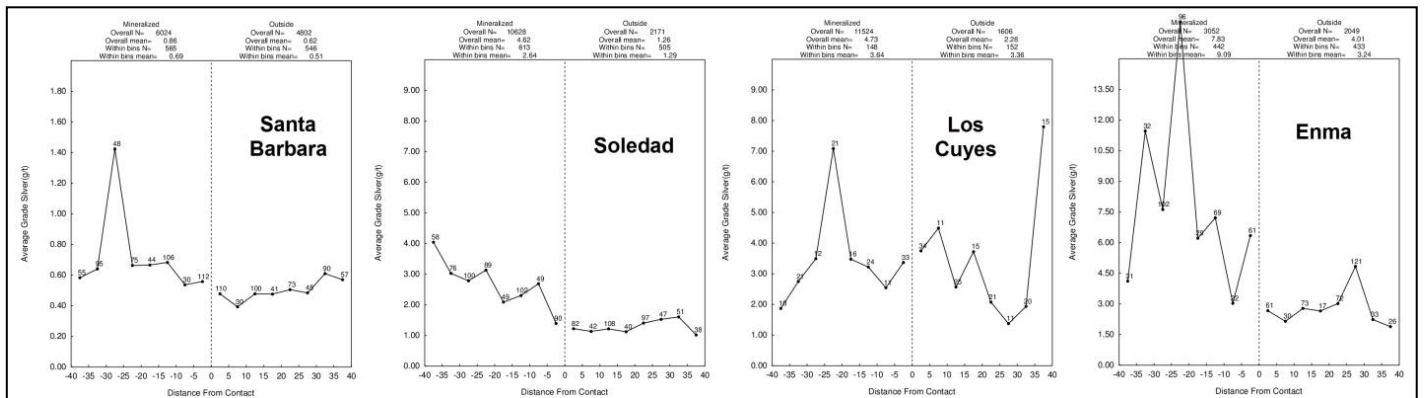
**Figure 14-14: Contact Profiles for Gold Inside vs. Outside Grade Shell Domains at Santa Barbara, Los Cuyes, Soledad, and Enma Deposits**



Source: SIM Geological Inc., 2021.

The change in silver grades across the grade shell domains is less apparent at the grade shell contacts as shown in Figure 14-15. Marginal increases for the average grades inside the shells can be seen at Santa Barbara, Soledad, and Enma, but there is no change in silver grades across the domain contact at Los Cuyes.

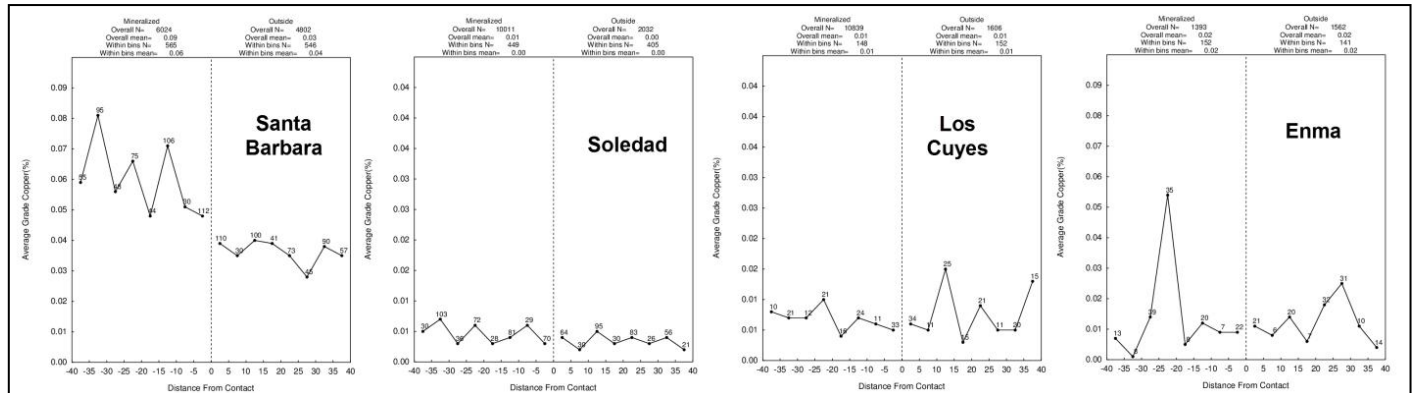
**Figure 14-15: Contact Profiles for Silver Inside vs. Outside Grade Shell Domains at Santa Barbara, Los Cuyes, Soledad, and Enma Deposits**



Source: SIM Geological Inc., 2021.

The contact profiles for copper, shown in Figure 14-16, are an indication of the generally low copper grades in these deposits, especially at Soledad, Los Cuyes, and Enma, where there is no change in grade evident across the grade shell domain contacts. There is, however, a minor jump in copper grades across the contact at Santa Barbara.

**Figure 14-16: Contact Profiles for Copper Inside vs. Outside Grade Shell Domains at Santa Barbara, Los Cuyes, Soledad, and Enma Deposits**



Source: SIM Geological Inc., 2021.

### 14.1.6.3 Conclusions and Modelling Implications

The results of the EDA are similar for all deposits. Gold grades within the interpreted grade shell domains are significantly different than those in the surrounding area, and this suggests that these domains should be treated as distinct or hard boundary domains during block grade estimations, eliminating the mixing of sample data during block grade interpolations. The silver and copper grades are generally quite low, but the distributions show a tendency for higher grades to occur inside the grade shell domains. A similar hard boundary approach to the grade shell domains is, therefore, applied during the estimation of these secondary metals in the mineral resource models.

### 14.1.7 Evaluation of Outlier Grades

Histograms and probability plots for the distribution of gold, silver, and copper were reviewed to identify the presence of anomalous outlier grades in the composited (2 m) database. Following a review of the physical location of potentially erratic samples in relation to the surrounding sample data, it was decided that these would be controlled during block grade interpolations using a combination of traditional top-cutting and the application of outlier limitations.

An outlier limitation controls the distance of influence of samples above a defined grade threshold. During grade interpolations, samples above the outlier thresholds are limited to a maximum distance-of-influence of 50 m at Santa Barbara and 15 m at Los Cuyes, Soledad, and Enma.

It should be noted that at Santa Barbara, Los Cuyes, Soledad, and Enma, essentially all potentially anomalous samples occur inside the grade shell domains. There are only limited sample data outside the grade shell domains, and in addition, what is present tends to be very low grade. The grade thresholds for gold, silver, and copper and the resulting effects on the models are shown in Table 14-6.

Higher losses of contained metal due to the treatment of outlier samples are often the result of skewed data distributions and increased drill hole spacing.

**Table 14-6: Treatment of Outlier Sample Data**

Deposit / Domain	Element	Maximum	Top-cut Limit	Outlier Limit	Metal Lost (%)
Santa Barbara	Gold (g/t)	6.825	-	2.700	2
	Silver (g/t)	125.6	-	14.0	14
	Copper (%)	0.69	-	2.00	2
Los Cuyes	Gold (g/t)	69.540	-	20.000	9
	Silver (g/t)	595.0	250.0	150.0	7
	Copper (%)	1.35	-	0.20	2
Soledad	Gold (g/t)	21.290	-	9.000	2
	Silver (g/t)	200.0	-	70.0	3
	Copper (%)	1.04	-	0.50	4
Enma	Gold (g/t)	256.660	30.000	15.000	20
	Silver (g/t)	1799.0	300.0	150.0	7
	Copper (%)	2.35	1.00	0.30	13

#### 14.1.8 Variography

The degree of spatial variability in a mineral deposit depends on both the distance and direction between points of comparison. Typically, the variability between samples increases as the distance between those samples increases. If the degree of variability is related to the direction of comparison, then the deposit is said to exhibit anisotropic tendencies which can be summarized with the search ellipse. The semi-variogram is a common function used to measure the spatial variability within a deposit.

The components of the variogram include the nugget, the sill, and the range. Often samples compared over very short distances, even samples compared from the same location, show some degree of variability. As a result, the curve of the variogram often begins at some point on the y-axis above the origin: this point is called the nugget. The nugget is a measure of not only the natural variability of the data over very short distances but also a measure of the variability which can be introduced due to errors during sample collection, preparation, and the assay process.

The amount of variability between samples typically increases as the distance between the samples increases. Eventually, the degree of variability between samples reaches a constant, maximum value: this is called the sill, and the distance between samples at which this occurs is called the range.

In this Technical Report, the spatial evaluation of the data was conducted using a correlogram rather than the traditional variogram. The correlogram is normalized to the variance of the data and is less sensitive to outlier values, generally giving better results.

Variograms were generated using the commercial software package Sage 2001© developed by Isaaks & Co. Multidirectional variograms were generated from the distributions of gold, silver, and copper located inside the grade shell domains. Note: The same variograms are used to estimate grades both inside and outside of the grade shell domains. The results are summarized in Table 14-7 through Table 14-10.

**Table 14-7: Variogram Parameters for the Santa Barbara Deposit**

Element	Nugget	Sill 1	Sill 2	1st Structure			2nd Structure		
				Range (m)	Azimuth (°)	Dip	Range (m)	Azimuth (°)	Dip
Gold	0.387	0.130	0.482	79	3	7	296	65	-65
	Spherical			38	115	72	162	13	16
				15	271	17	103	108	19
Silver	0.269	0.552	0.180	148	105	-35	485	265	-6
	Spherical			77	336	-42	66	177	18
				6	37	28	64	338	71
Copper	0.200	0.459	0.341	45	336	0	1141	276	63
	Spherical			29	246	89	222	18	6
				27	66	1	123	111	27

Note: Correlograms conducted on 2 m composite sample data.

**Table 14-8: Variogram Parameters for the Los Cuyes Deposit**

Element	Nugget	Sill 1	Sill 2	1st Structure			2nd Structure		
				Range (m)	Azimuth (°)	Dip	Range (m)	Azimuth (°)	Dip
Gold	0.450	0.442	0.108	25	6	-10	156	288	60
	Spherical			20	99	-20	108	172	14
				8	71	67	33	75	26
Silver	0.260	0.638	0.102	47	31	0	162	309	34
	Spherical			9	301	-43	84	195	32
				5	301	47	44	74	40
Copper	0.300	0.514	0.186	21	31	-0	317	48	31
	Spherical			7	316	56	225	128	-17
				7	116	32	159	193	54

Note: Correlograms conducted on 2 m composite sample data.

**Table 14-9: Variogram Parameters for the Soledad Deposit**

Element	Nugget	Sill 1	Sill 2	1st Structure			2nd Structure		
				Range (m)	Azimuth (°)	Dip	Range (m)	Azimuth (°)	Dip
Gold	0.350	0.464	0.187	91	125	-64	574	36	89
	Spherical			36	33	-1	83	69	-1

Element	Nugget	Sill 1	Sill 2	1st Structure			2nd Structure		
				Range (m)	Azimuth (°)	Dip	Range (m)	Azimuth (°)	Dip
				14	302	-26	35	339	0
Silver	0.350	0.337	0.313	84	264	50	397	16	84
	Spherical			29	111	37	40	169	5
				20	11	14	24	79	-3
Copper	0.350	0.406	0.244	16	54	0	213	265	72
	Spherical			15	33	-90	114	82	18
				13	144	0	38	172	1

Note: Correlograms conducted on 2 m composite sample data.

**Table 14-10: Variogram Parameters for the Enma Deposit**

Element	Nugget	Sill 1	Sill 2	1st Structure			2nd Structure		
				Range (m)	Azimuth (°)	Dip	Range (m)	Azimuth (°)	Dip
Gold	0.329	0.563	0.109	28	5	48	50	64	34
	Spherical			18	317	-31	14	226	54
				2	244	25	12	328	9
Silver	0.300	0.581	0.119	46	26	55	233	174	53
	Spherical			7	146	20	42	54	20
				6	67	-28	32	132	-29
Copper	0.107	0.682	0.212	51	86	-15	107	95	35
	Spherical			15	2	21	10	281	54
				4	142	64	9	7	-3

Note: Correlograms conducted on 2 m composite sample data.

#### 14.1.9 Model Setup and Limits

Two separate block models were initialized in MinePlan™, and the extents and dimensions of the models are defined in Table 14-11. The block models for the Santa Barbara and the Los Cuyes/Soledad/Enma deposits use a nominal block size measuring 10 × 10 × 10 m, which is considered appropriate with respect to the current drill hole spacing as well as the unit SMU size typical of open pit extraction methods.

**Table 14-11: Block Model Limits**

Direction	Minimum	Maximum	Block Size (m)	# of Blocks
<b>Santa Barbara Deposit</b>				
X (east)	764200	766800	10	260
Y (north)	9543300	9546000	10	270
Z (elevation)	150	1300	10	115
<b>Los Cuyes, Soledad, and Enma Deposits</b>				
X (east)	768500	770900	10	240
Y (north)	9550900	9554400	10	350
Z (elevation)	800	2000	10	120

Blocks in the model were coded on a majority basis with the grade shell domains. During this stage, blocks along a domain boundary are coded if more than 50% of the block occurs within the boundaries of that domain.

The proportions of blocks that occur below the topographic surface are also calculated and stored in the model as individual percentage items. These values are used as weighting factors to determine the in-situ mineral resources for the deposit.

#### 14.1.10 Interpolation Parameters

The block model grades for gold, silver, and copper were estimated using Ordinary Kriging (OK). The results of the OK estimation were compared with the Hermitian Polynomial Change of Support model (also referred to as the Discrete Gaussian Correction). This method is described in more detail in Section 14.1.11 of this Technical Report.

The OK models were generated using a relatively limited number of samples to match the change of support or Herco (Hermitian Correction) grade distribution. This approach reduces the amount of smoothing or averaging in the model and, while there may be some uncertainty on a localized scale, this approach produces reliable estimates of the recoverable grade and tonnage for the overall deposit.

The estimation parameters for the elements in the mineral resource block model are shown in Table 14-12 through Table 14-15. All grade estimations use length-weighted composite drill hole sample data.

**Table 14-12: Interpolation Parameters for the Santa Barbara Deposit**

Element	Search Ellipse Range (m)			# of Composites			Other
	X	Y	Z	Min/block	Max/block	Max/hole	
Gold	500	500	500	5	28	7	1 DH per octant
Silver	500	500	500	5	21	7	1 DH per octant
Copper	500	500	500	5	28	7	1 DH per octant

**Table 14-13: Interpolation Parameters for the Los Cuyes Deposit**

Element	Search Ellipse Range (m)			# of Composites			Other
	X	Y	Z	Min/block	Max/block	Max/hole	
Gold	75	75	200	7	28	7	1 DH per octant
Silver	75	75	200	8	28	7	1 DH per octant
Copper	75	75	200	8	28	7	1 DH per octant

Note: Ellipse orientation with long axis in the vertical direction.

**Table 14-14: Interpolation Parameters for the Soledad Deposit**

Element	Search Ellipse Range (m)			# of Composites			Other
	X	Y	Z	Min/block	Max/block	Max/hole	
Gold	75	75	200	7	21	7	1 DH per octant
Silver	75	75	200	8	28	7	1 DH per octant
Copper	75	75	200	8	28	7	1 DH per octant

Note: Ellipse orientation with long axis in the vertical direction.

**Table 14-15: Interpolation Parameters for the Enma Deposit**

Element	Search Ellipse Range (m)			# of Composites			Other
	X	Y	Z	Min/block	Max/block	Max/hole	
Gold	75	75	200	7	18	6	1 DH per octant
Silver	75	75	200	8	28	7	1 DH per octant
Copper	75	75	200	8	21	7	1 DH per octant

SG data are only available for drill holes in the Santa Barbara and Camp deposit areas. As stated previously, the SG data for Santa Barbara may be suspect or corrupted in a string of holes where numerous SG values are less than 2.0. As a result, only SG values between 2.0 and 3.4 were used in the Santa Barbara mineral resource model.

For the Santa Barbara deposit, an inverse distance weighted (ID2) estimate of SG was made into blocks using a search range of 250 m. The average SG of all estimated blocks following ID2 interpolation is 2.73. As a conservative approach, a default SG of 2.65 was assigned to all blocks in the Santa Barbara model without estimated SG values (outside of the 250 m search range).

For the Los Cuyes, Soledad, and Enma deposits, a default SG of 2.65 was used to calculate mineral resource tonnage.

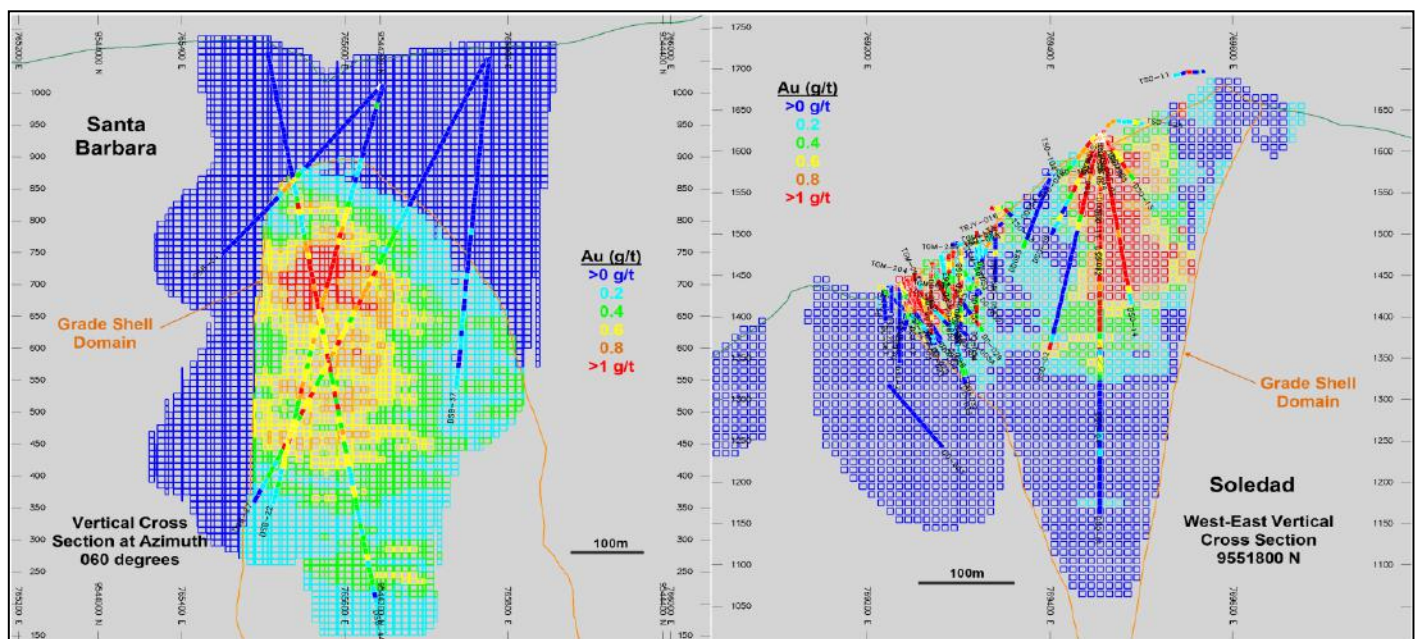
### 14.1.11 Validation

The results of the modelling process were validated using several methods. These include a thorough visual review of the model grades in relation to the underlying drill hole sample grades, comparisons with the change of support model, comparisons with other estimation methods, and grade distribution comparisons using swath plots.

#### 14.1.11.1 Visual Inspection

A detailed visual inspection of the block model was conducted in both section and plan to ensure the desired results following interpolation. This includes confirmation of the proper coding of blocks within the grade shell domains. The estimated gold, silver, and copper in the models appear to be valid representations of the underlying drill hole sample data. Examples of the gold models are shown in Figure 14-17 and Figure 14-18.

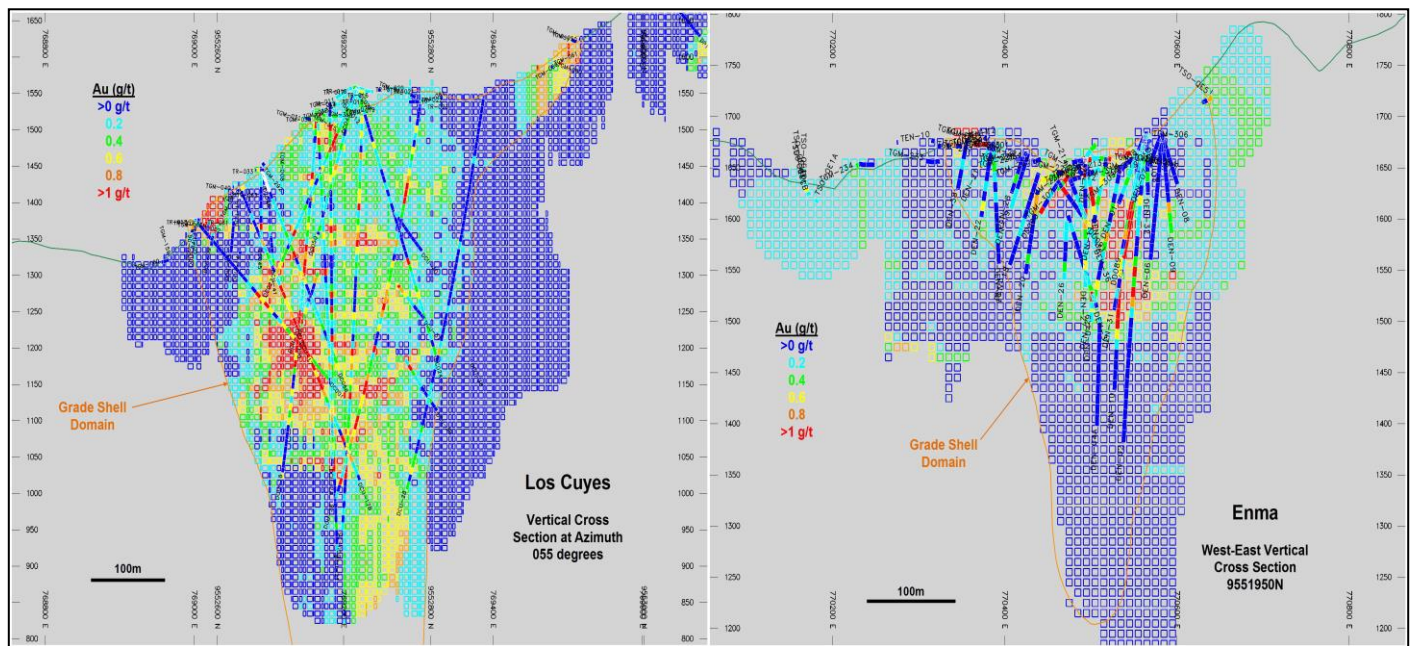
**Figure 14-17: Vertical Cross Sections Showing Gold Grades in Model Blocks and Drill Holes at Santa Barbara and Soledad**



Source: SIM Geological Inc., 2021.



**Figure 14-18: Vertical Cross Sections Showing Gold Grades in Model Blocks and Drill Holes at Los Cuyes and Enma**



Source: SIM Geological Inc., 2021.

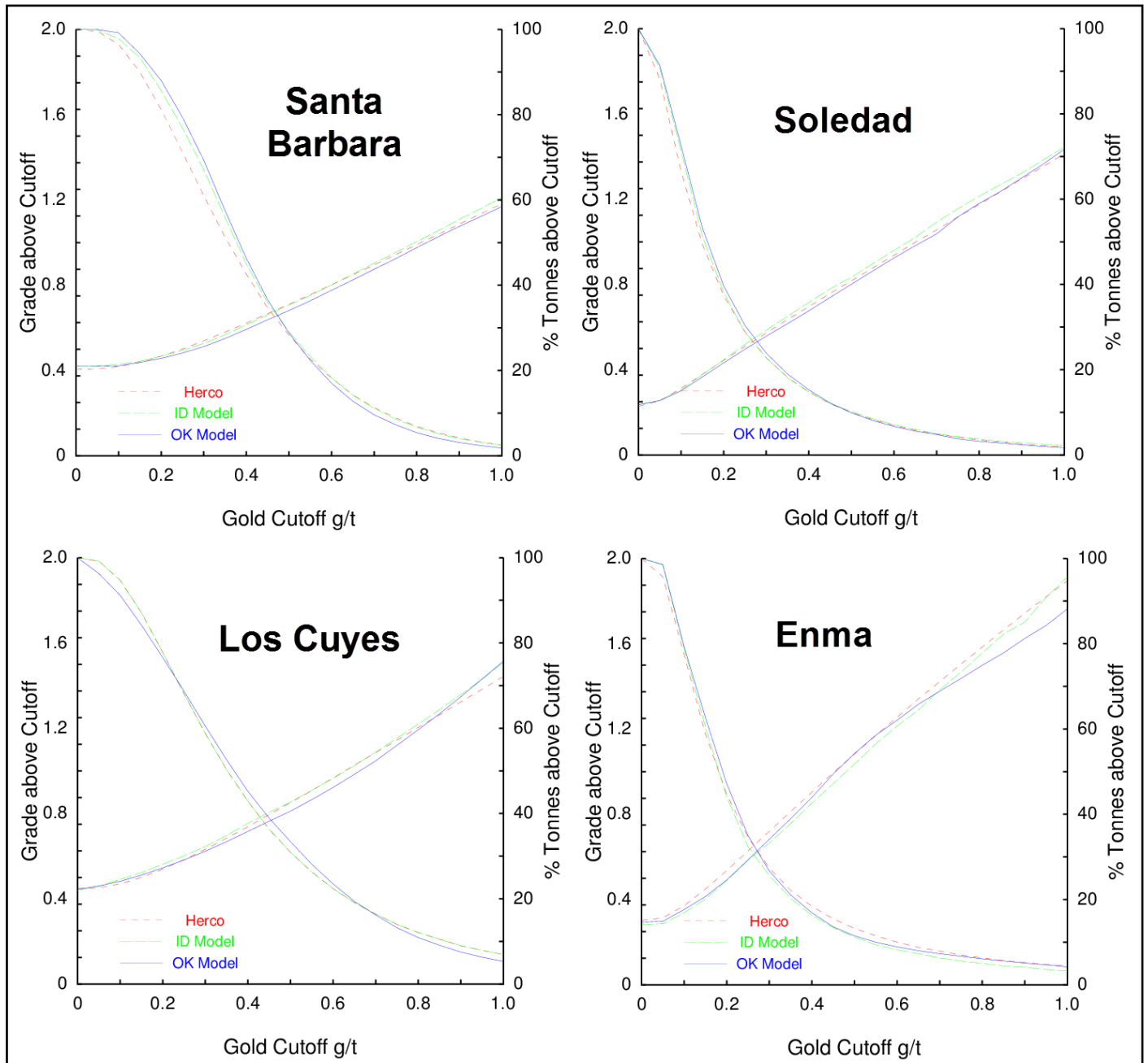
#### 14.1.11.2 Model Checks for Change of Support

The relative degree of smoothing in the block model estimates were evaluated using the Discrete Gaussian of Hermitian Polynomial Change of Support method (described by Rossi and Deutsch, Mineral Resource Estimation, 2014). With this method, the distribution of the hypothetical block grades can be directly compared to the estimated (OK) model through the use of pseudo-grade/tonnage curves. Adjustments are made to the block model interpolation parameters until an acceptable match is made with the Herco (Hermitian correction) distribution. In general, the estimated model should be slightly higher in tonnage and slightly lower in grade when compared to the Herco distribution at the projected cut-off grade. These differences account for selectivity and other potential ore-handling issues which commonly occur during mining.

The Herco distribution is derived from the declustered composite grades which were adjusted to account for the change in support, going from smaller drill hole composite samples to the large blocks in the model. The transformation results in a less skewed distribution but retains the same mean as the original declustered samples.

The Herco analysis was conducted on the distribution of gold, silver, and copper in the block models, and an appropriate level of correspondence was achieved in all cases. Figure 14-19 shows the Herco curves for the gold models in the four deposit areas.

Figure 14-19: Herco Grade/ Tonnage Plots for Gold Models



Source: SIM Geological Inc., 2021.

#### 14.1.11.3 Model Checks For Change of Support

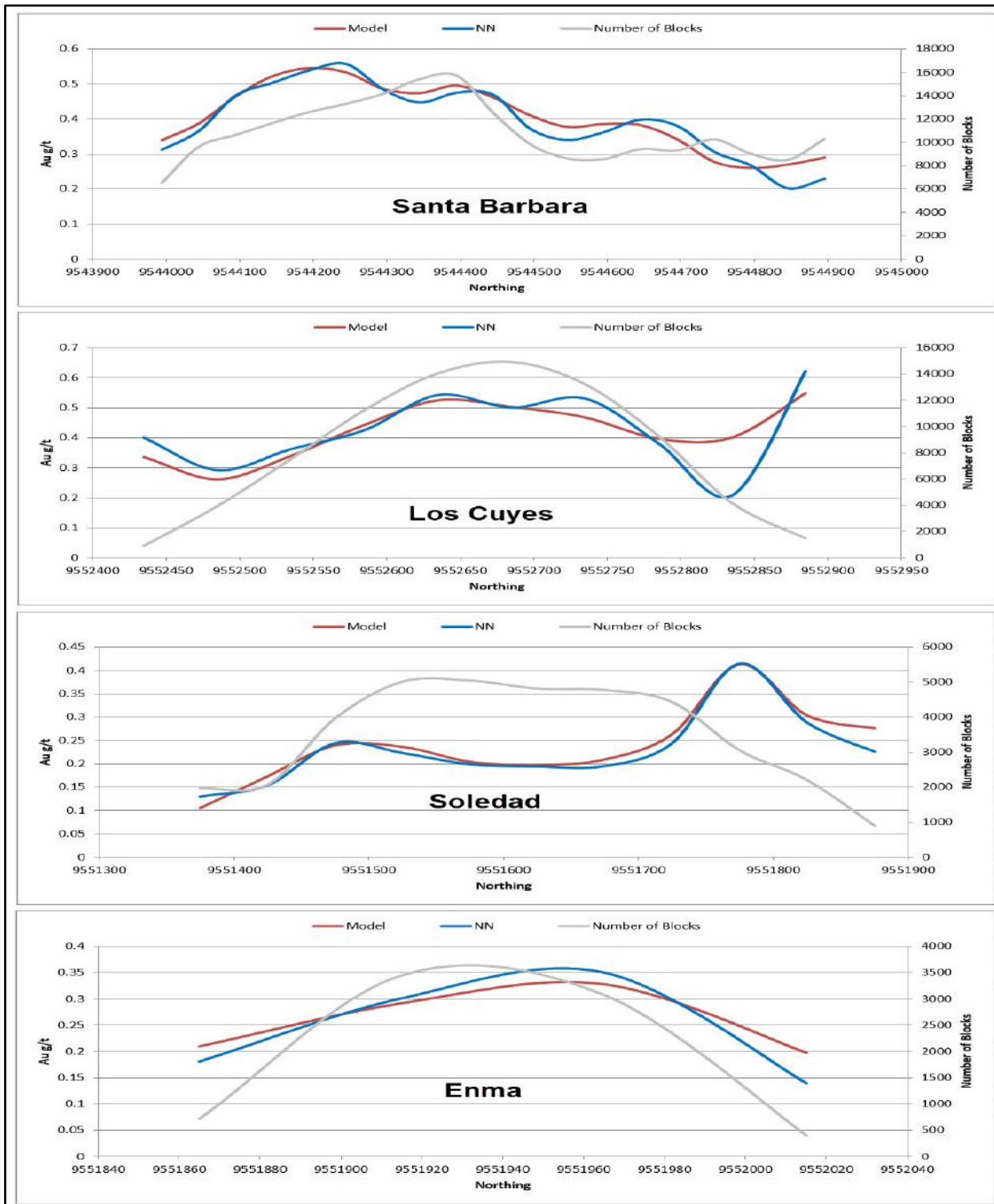
A swath plot is a graphical display of the grade distribution derived from a series of bands, or swaths, generated in several directions through the deposit. Using the swath plot, grade variations from the OK model are compared to the distribution derived from the declustered (NN) grade model.

On a local scale, the NN model does not provide reliable estimations of grade, but, on a much larger scale, it represents an unbiased estimation of the grade distribution based on the underlying data. Therefore, if the OK model is unbiased, the grade trends may show local fluctuations on a swath plot, but the overall trend should be similar to the NN distribution of grade.

Swath plots were generated in three orthogonal directions for all metals in all deposit areas. Examples showing gold models in west-east-oriented swaths from each of the deposits are shown in Figure 14-20.

There is good correspondence between the models in most areas. The degree of smoothing in the OK model is evident in the peaks and valleys shown in the swath plots. Areas where there are large differences between the models tend to be the result of "edge" effects, where there is less available data to support a comparison.

Figure 14-20: Swath Plots of Gold OK and NN Models by Northing



Source: SIM Geological Inc., 2021.

#### 14.1.12 Mineral Resource Classification

The mineral resources for the Condor Project were classified in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014). The classification parameters are defined relative to the distance between gold sample data and are intended to encompass zones of reasonably continuous mineralization that exhibit the desired degree of confidence. These parameters are based on visual observations and statistical studies. Classification parameters are based primarily on the nature of the distribution of gold data because gold is the main contributor to the relative value of this polymetallic deposit.

A drill hole spacing study was conducted for the Condor deposits to determine the reliability of mineral resource estimates at varying drill hole spacings. At Santa Barbara, the results indicate that the tonnes and grade of volumes equivalent to annual production (approximately 9M tonnes) can be estimated with  $\pm 15\%$  uncertainty 90% of the time when drill holes are spaced on a nominal 75 m grid pattern. At Soledad, Los Cuyes, and Enma, gold grades tend to be more variable, and as a result, drill holes are required on a 50 m grid pattern to provide annual estimates at  $\pm 15\%$  uncertainty 90% of the time. These results are consistent with the spatial continuity shown by indicator variograms built around the projected cut-off grade for these deposits.

At this stage of project evaluation, the data only supports mineral resources in the Indicated and Inferred categories for the Santa Barbara, Soledad, Los Cuyes, and Enma deposits, and there are no mineral resources included in the Measured category. As stated previously, the nature of gold mineralization differs somewhat between the Santa Barbara deposit and the other deposits located to the north, and as a result, there are differences in the classification criteria between these areas.

As also stated previously, the surface trench samples are similar to proximal drill hole samples, and as a result, the trench sample data have been retained for use in the estimate of mineral resources in these deposits. Classification of mineral resources is conducted based on the proximity to both drill hole and trench sample data, as long as the trench data is in close proximity to some additional (supporting) drilling. There are some mineralized trenches that have not been followed up with exploration drill holes, and in these instances, there are no mineral resources reported that are based only on trench sample data.

##### Indicated Mineral Resources

At Santa Barbara, mineral resources in the Indicated category are estimated using three or more drill holes that are spaced at a maximum distance of 75 m. At Soledad, Los Cuyes and Enma, mineral resources in the Indicated category are estimated using at least three drill holes that are spaced at a maximum distance of 50 m.

The spacing distances are intended to define contiguous volumes and allow for some irregularities due to actual drill hole placement. Some manual smoothing of these criteria is conducted that includes areas where the drill hole spacing locally exceeds the desired grid spacing but still retains continuity of mineralization or, conversely, excludes areas where the mineralization does not exhibit the required degree of continuity. This process results in a series of 3D domains that are used to assign mineral resource classification codes into model blocks.

##### Inferred Mineral Resources

Mineral resources in the Inferred category include model blocks that do not meet the criteria for Indicated class mineral resources but are within a maximum distance of 100 m from a drill hole at Santa Barbara or within a maximum distance of 75 m from a drill hole at Los Cuyes, Soledad, and Enma.

It is expected that a majority of mineral resources in the Inferred category will be upgraded to the Indicated (or Measured) category as a result of additional exploration.

## 14.2 Camp Deposit Mineral Resource Model

This section of the Technical Report describes the mineral resource estimation methodology and summarizes the key assumptions considered by the QP to prepare the mineral resource model for the Camp deposit located on the Condor North Project. These mineral resource estimates were prepared under the direction of John Marek, P.E. of Independent Mining Consultants, Inc. (IMC). John Marek, P.E. is an “independent qualified person” within the meaning of NI 43-101 for the purposes of mineral resource estimate contained in Section 14.3 of the Technical Report.

### 14.2.1 Introduction

The Camp mineralization is part of the Condor North area and is planned for production by underground stoping methods. The mineral resource at the Camp deposit was developed with a computer-based block model that reflects the multiple vein-like geometry and the potential mining methods that may be applied to the deposit.

The previous Camp deposit mineral resource (published May 14, 2020) listed a larger tonnage resource than is reported in this document. The previous estimate assumed a bulk mining approach to the deposit with minimal selectivity. Subsequent work indicated the potential for a small-tonnage selective mining approach to the Camp deposit. As a result, the revised mineral resource presented in this section has fewer tonnes at a higher grade, along with the relative higher costs of selective mining.

The Camp deposits located west of the Los Cuyes diatreme and pit centre, and it outcrops just west of the current exploration camp (hence the name). The mineralization strikes to the northwest (315 degree bearing) and generally dips to the northeast at about 85 degrees. Mineralization extends from outcrop to a depth of roughly 700 to 800 m below the camp elevation.

Luminex provided the drilling and geologic interpretation to IMC in late 2020. The data verification of the Camp deposit drill data was addressed in Section 12. The geologic interpretation was reviewed by IMC and applied to the development of the resource block model.

### 14.2.2 Model Location

The block size and the location of the block model is summarized in Table 14-16 and Table 14-17 and shown in Figure 14-21.

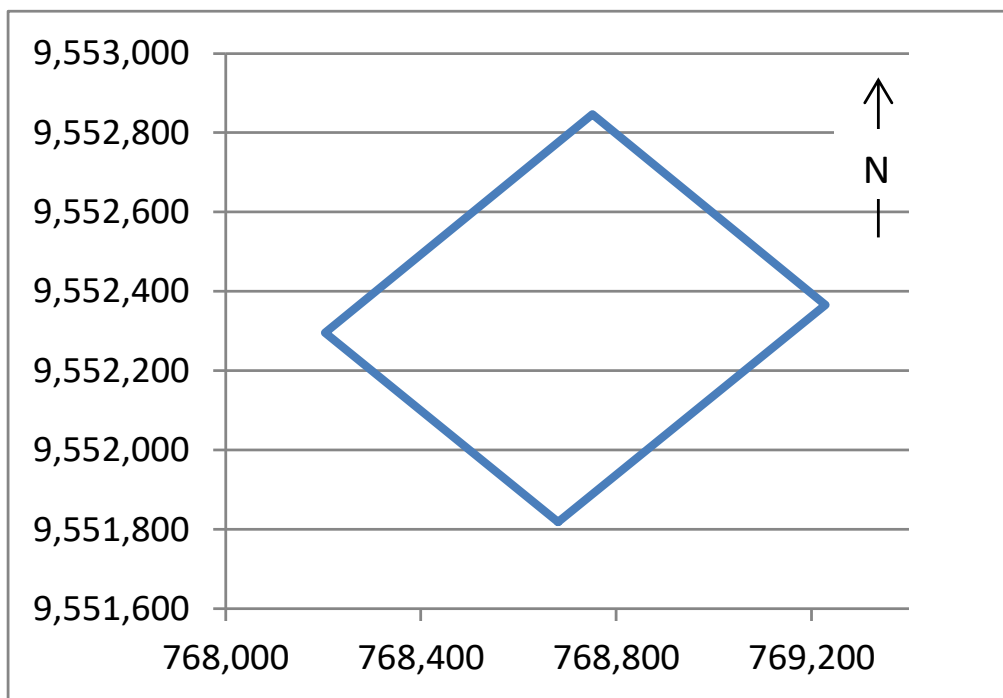
**Table 14-16: Camp Deposit Block Model Limits**

Block X	Block Size (m)	# of Blocks
X (northwest)	5	135
Y (northeast)	1.5	516
Z (vertical)	5	185

**Table 14-17: Camp Deposit Block Model Coordinates**

Block X	Block Y	North Coordinate	East Coordinate
1	1	9,551,818.68	768,681.32
135	1	9,552,295.98	768,204.02
135	516	9,552,846.28	768,751.32
1	516	9,552,365.98	769,228.62

**Figure 14-21: Camp Deposit Block Model Location**



Source: IMC, 2021.

### 14.2.3 Available Data

All drilling for the Camp deposit was HQ diamond core drilling. Sample preparation and assay procedures were described in previous sections of this PEA. The drill holes are typically angled holes drilled with northeast and southwest bearings to intercept the mineral-bearing structures. All drilling for the Camp deposit to date has collared on the surface. Table 14-18 summarizes the drill data available for the assembly of the Camp deposit resource model.

**Table 14-18: Camp Deposit Drill Hole Data**

Deposit	Number of Drill Holes	Total Length of Drilling (m)	Number of Drill Sample Intervals	Number of Intervals Assayed for Au, Ag, Cu, Pb, Zn, Mo, and As
Camp	38	19,883.80	11,667	11,313

#### 14.2.4 Geological Model

The Camp deposit host rock types are a series of intrusive units. The contacts between them strike northwest with a dip of about 85 degrees to the northeast. A rhyolite dike intruded between the other intrusive rocks, and it appears to have prepared the surrounding units for the hydrothermal mineralization. Weathering has formed saprolite to sap-rock in variable thicknesses immediately below topography. Valley floors tend to have greater thicknesses of saprolite and sap-rock than the ridge tops.

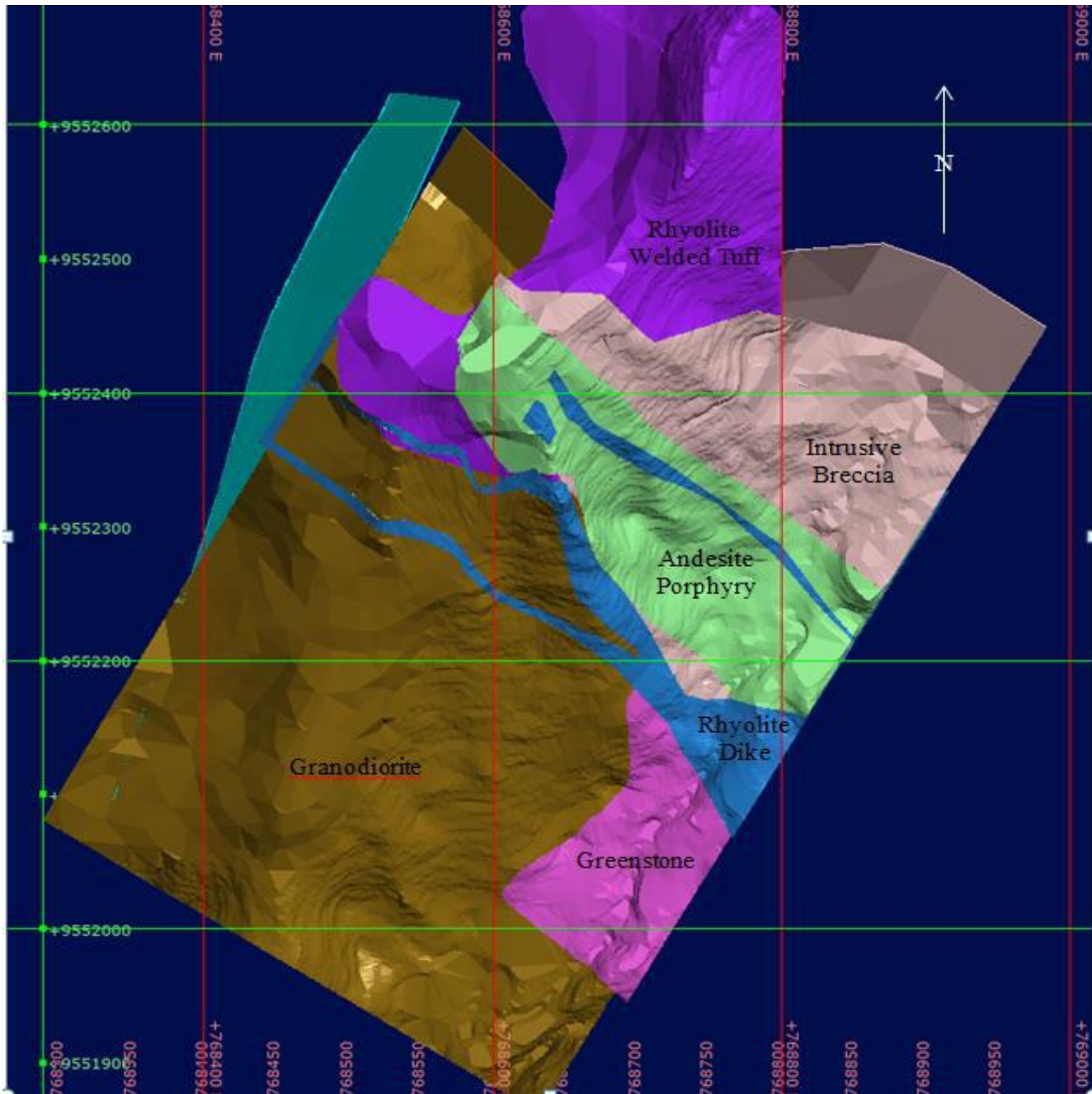
The mineralization generally centres at the contact between the granodiorite or greenstone at the footwall of the rhyolite dikes with similar strike and dip as the rhyolite-granodiorite contact. However, all rock units contain mineralization. As a result, there are no rock unit domain boundaries within the model.

Table 14-22 shows a plan view of the surface geology below the saprolite weathering. There is a northeast-striking fault on the northwest side of the deposit that appears to cutoff or bound mineralization (green surface shown in Figure 14-22). There are a few assay values northwest of that fault, but the continuity of the northwest-striking mineralization stops at the fault.

Figure 14-23 is a southwest to northeast cross section looking northwest along strike. The steep dip of the lithology and the mineralization to the northeast is apparent on Figure 14-22.

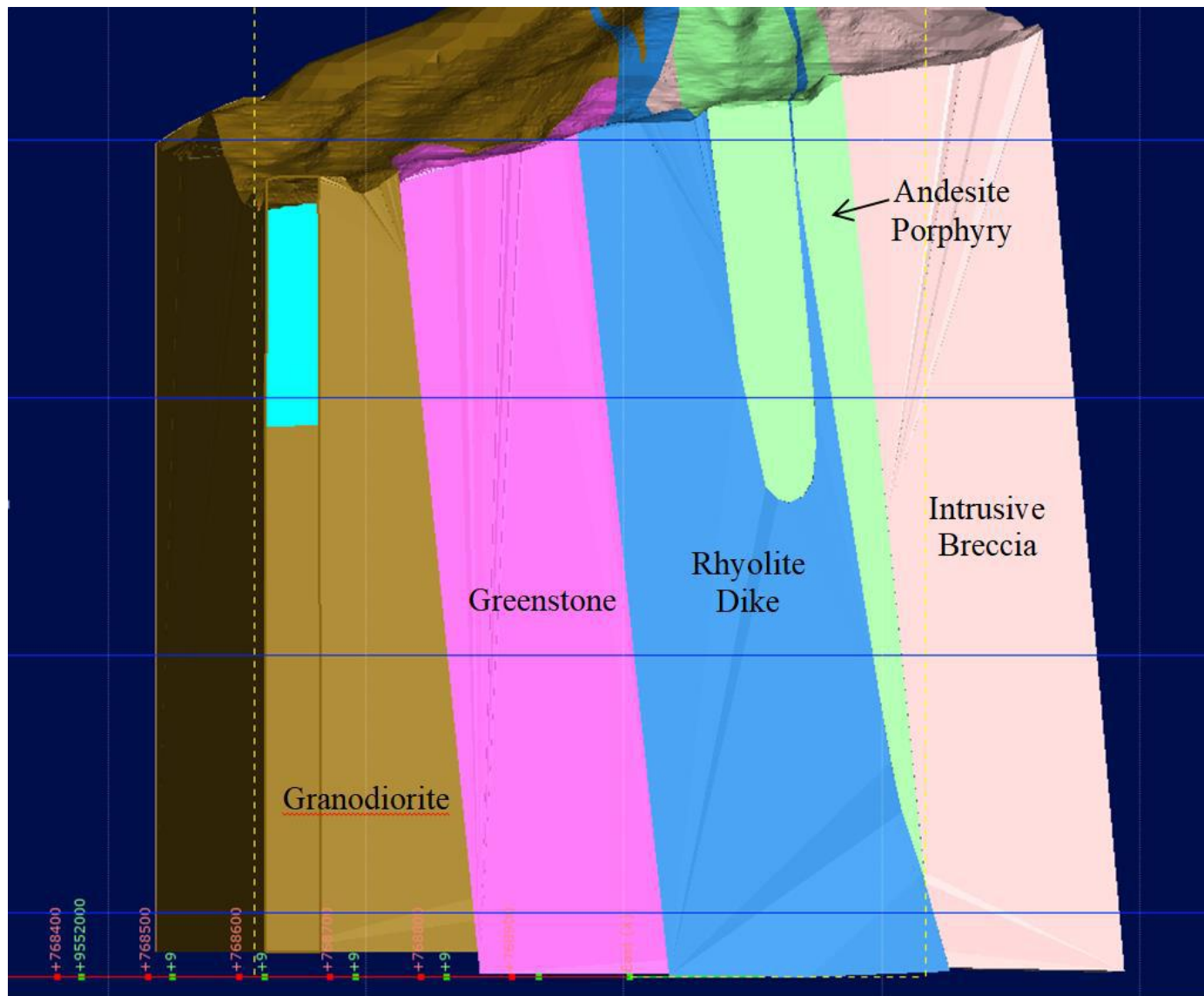


Figure 14-22: Plan View of Camp Geology, 200 m Grid



Source: IMC, 2021.

Figure 14-23: Cross Section Looking Northwest, 200 m Grid



Source: IMC, 2021.

The gold, silver, copper, and zinc mineralization is not confined by rock type, but there are distinct grade zones that form relatively cohesive vein-like geometries that run parallel to the footwall of the rhyolite. An indicator approach was used to establish the domain boundaries at the Camp deposit irrespective of the host rock type.

#### 14.2.5 Exploration Data Analysis

Basic statistical analysis was completed with the drill hole assay data and the composites of the drill hole data. The impact of rock type on the grade distribution was investigated to determine whether the host lithology was a grade-controlling

feature. The rhyolite carries more high-grade than the surrounding units, but the rhyolite rock type contact was not found to be a domain boundary on the mineralization.

The assay information was tested for outliers using cumulative frequency plots for each of the assayed metals. The shape of the curve was reviewed on log grade versus normal probability graphs. The top end of the distribution was capped when there was a departure from the linear character of the plot. Between 0.09% and 0.18% of the assays were capped.

Table 14-19 summarizes the basic statistics of the assay data and defines the grade cap level applied to each metal and the number of assays that were capped prior to compositing. The resulting statistics of the 2 m composites are also shown; these will be discussed later in this section.

The assay statistics of molybdenum and arsenic are shown on Table 14-19, even though they were not modelled. Early process work at Condor indicated that there is not enough economic benefit to produce sulphide concentrates containing either copper, lead, zinc, or molybdenum. As a result, there is limited interest in modelling arsenic with the selected process because it will report to the tailings.

#### 14.2.6 Compositing

The capped assay information was composited to 2 m down-hole composites prior to establishing grade domains and grade estimation. Due to the geometry of the mineralization, the likely mining methods will include stoping with mining widths as potentially narrow as 3 m. On that basis, the final block size was 5 m along strike, 5 m vertical, and 1.5 m perpendicular to strike.

The composite size was selected to be consistent with the size of mining block and took into account the assay lengths of raw assay data. Within the Camp deposit assay database, 48% of the intervals were 1 m long, and 43% were 2 m long. On that basis, a 2 m downhole composite interval was selected.

Table 14-19 summarizes the basic statistics of the resulting composites for each of the metals.

**Table 14-19: Basic Statistics of Assays, Cap Levels, and Composite Statistics**

Metal	Assay Statistics					2 m Composite Statistics		
	Number	Average	Standard Deviation	Cap Value	Number Capped	Number	Mean	Standard Deviation
Gold (g/t)	11,313	0.475	2.186	22 g/t	20	8,491	0.341	1.056
Silver (g/t)	11,313	5.44	23.69	300 g/t	13	8,491	4.36	11.75
Copper (%)	11,313	0.009	0.023	0.5 %	4	8,491	0.008	0.013
Lead (%)	11,313	0.025	0.140	3.2 %	8	8,491	0.019	0.072
Zinc (%)	11,313	0.224	0.674	10 %	10	8,491	0.170	0.378
Molybdenum (ppm)	11,313	1.27	2.77	40 ppm	10	8,491	1.19	1.77
Arsenic (ppm)	11,313	48.88	288.37	3,000 ppm	17	8,491	35.13	124.67

### 14.2.7 Domain

Domains for estimation were established based on the composite grades. The cumulative frequency plots of the metals that were modelled do not indicate breaks or abrupt changes in the population statistics of the 2 m composites. However, a review of drill hole cross sections indicates relatively abrupt changes in grade from the potentially economic mineral zones to the surrounding low-grade material.

Economics for stope design will likely require cutoff grades in the range of 1.32 to 1.55 g/t equivalent gold (AuEq). For domain definition, a simple equivalent gold grade calculation was developed that includes the potential for processing gold, silver, copper, lead, and zinc. The equation, including preliminary estimates of relative process recovery and price, is as follows:

- $\text{AuEq for Domains} = \text{Au} + 0.0093 \times \text{Ag} + 0.7617 \times \text{Cu} + 0.3047 \times \text{Pb} + 0.4441 \times \text{Zn}$

Where: gold and silver grades are expressed as g/t, and the base metals as a percent.

Table 14-20 shows drill hole CC19-08 which was drilled to the southwest across the mineral zone. CC19-08 is an example of a hole that crosses mineral zones of potential economic interest. Drill assay intervals greater than 1.50 g/t are highlighted in orange. Note that above the 340 m depth in the hole, the grade drops abruptly from 6.60 g/t AuEq to 0.13 g/t AuEq. The same is true below the 374 m depth; the grade drops from 2.13 g/t AuEq to 0.049 g/t AuEq in three drill intervals or 6 m.

The intent is to show the grade boundaries that are important to capture with domain boundaries to provide a reasonable estimate of potentially mineable tonnage in grade from stope mining at the Camp deposit. The drill intervals from 340 to 364 m are a potentially interesting target for stope mining. There are 24 m of composites that average 3.98 g/t AuEq. Using the average 72-degree plunge of the hole, this would represent a horizontal stope width of 7.5 m or five model blocks wide.

The “AuEq for Domains” equation includes credits from the base metals of copper, lead, and zinc. Early scoping work has indicated that the base metals are not sufficiently economic to warrant processing. However, using the combination of gold and silver along with the three base metals to set ore domains provides improved continuity of the estimate to define the zones that are mineral bearing.

As noted previously, stope cutoff grades could vary from 1.32 to 1.55 g/t AuEq. To establish grade domain boundaries, an indicator run was completed using a 1.50 g/t AuEq discriminator with the equivalent grade equation, inclusive of the base metals.

The indicator estimate was an inverse distance cubed estimate where composites greater than 1.50 g/t AuEq were assigned a value of unity, and those less than the 1.50 g/t discriminator were assigned a value of zero. The estimated fractions were stored in each block and labelled with the variable name “vein\_pct”.

**Table 14-20: Excerpt from Drill Hole CC19-08 as an Example of Mineralization Occurrence**

Hole-ID	From (m)	To (m)	AuEq (g/t)	Gold (g/t)	Silver (g/t)
CC19-08	330	332	0.031	0.010	0.80
CC19-08	332	334	0.066	0.045	0.47
CC19-08	334	336	0.438	0.380	1.75
CC19-08	336	338	0.514	0.406	6.83
CC19-08	338	340	0.113	0.084	1.95
CC19-08	340	342	6.608	5.835	34.65
CC19-08	342	344	0.667	0.492	3.55
CC19-08	344	346	8.199	7.560	27.65
CC19-08	346	348	0.589	0.442	5.70
CC19-08	348	350	0.193	0.102	3.15
CC19-08	350	352	10.954	10.489	11.75
CC19-08	352	354	2.176	2.063	4.72
CC19-08	354	356	0.152	0.130	1.27
CC19-08	356	358	1.323	1.213	3.65
CC19-08	358	360	3.457	2.760	48.35
CC19-08	360	362	11.966	8.640	169.17
CC19-08	362	364	1.498	1.225	11.60
CC19-08	364	366	0.557	0.460	2.70
CC19-08	366	368	0.361	0.278	2.35
CC19-08	368	370	0.765	0.644	1.55
CC19-08	370	372	0.781	0.605	1.02
CC19-08	372	374	2.135	1.592	16.35
CC19-08	374	376	1.131	0.937	2.65
CC19-08	376	378	0.161	0.146	0.50
CC19-08	378	380	0.049	0.031	0.25

Note: Average hole bearing = 215 degrees

Average hole plunge = 72 degrees

Intervals greater than 1.50 g/t AuEq are Highlighted

**Table 14-21: AuEq Indicator Estimation Parameters**

Estimated	Search Orientation				Search Distance			Composite Count		
	Bearing/Plunge	Strike Degrees	Down Dip Degrees	Cross Struct Degrees	Strike (m)	Down Dip (m)	Cross (m)	Maximum	Minimum	Max/Hole
AuEq Indicator	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3

The resulting fraction from the indicator ID3 must be in the range of 0.0 to 1.0. A simple determination of the mineral zone was established using an indicator result of 0.50. Blocks with an indicator fraction greater than 0.50 were assigned a separate code indicating that it was inside the grade boundary of 1.50 g/t AuEq (Vein = 1.0). Blocks with the vein\_pct less than 0.50 were assigned a code of 0.0 indicating that it was outside the grade boundary (Vein = 0.0).

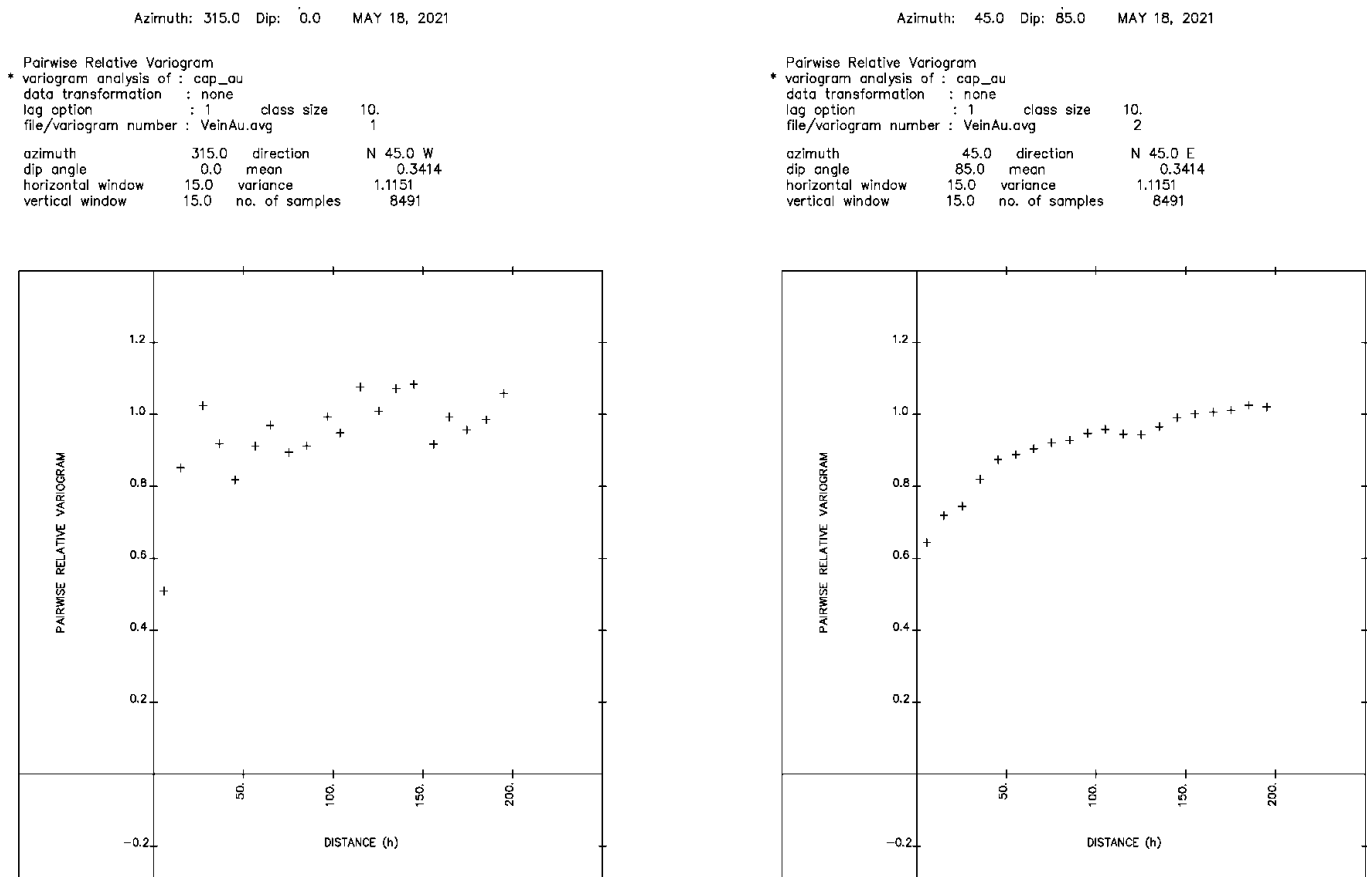
The 2 m composites were back-assigned the mineral boundary codes or vein boundary from the block model. Composites were coded with 1.0 if inside the grade boundary (Ind15 = 1) or 0.0 if outside the block-coded vein boundary (Ind15 = 0).

### 14.2.8 Variography

Variograms were used to determine and confirm reasonable estimates of search radius for the previously discussed indicator and the metal grades for assignment to the model. The known structural orientation of the model focused the variogram runs along strike and down dip. Figure 14-24 shows examples of variograms along strike and down dip using the gold composites.

The search radii and estimation parameters that were selected for grade estimation and based on the variogram work are summarized in the tables in the Grade Estimation in Section 14.2.9.

**Figure 14-24: Example Gold Variograms, Strike on Left, Down Dip on Right**



Source: IMC, 2021.

#### 14.2.9 Grade Estimation

Block grade estimation was completed in two steps:

- The first pass estimated grades inside the grade boundaries using the coded composites inside the grade boundaries.
- The second pass estimated block values for blocks outside the grade boundaries using the composites outside the vein boundaries.

The parameters for the estimations inside and outside of the grade boundary area are summarized in Table 14-22 and Table 14-23.

The selection of the inverse distance cubed (ID3) procedure was to ensure that the grade boundaries and the grade estimates followed the local data closely. The variability of the model and the variability of the grade zone boundaries are preserved so that future estimates of potentially mineable material will not be based on highly smoothed estimates of tonnage and grade.

Underground stope methods are highly selective in the definition of the stope location. The intent of this model is to provide a reasonable estimate of the mineral resource that could be amenable to selective stoping.

**Table 14-22: Block Grade Estimation Parameters Inside the 1.50 g/t AuEq Grade Boundaries**

Estimated	Search Orientation			Search Distance			Composite Count			Grade Limit	Search Limit (m)	
		Strike Degrees	Down Dip Degrees	Cross Struct Degrees	Strike Meters	Down Dip Meters	Cross Meters	Maximum	Minimum			Max/Hole
Au	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	13 g/t	18
Ag	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	none	none
Cu	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	none	none
Pb	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	none	none
Zn	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	none	none

**Table 14-23: Block Grade Estimation Parameters Outside the 1.50 g/t AuEq Grade Boundaries**

Estimated	Search Orientation			Search Distance			Composite Count			Grade Limit	Search Limit (m)	
		Strike Degrees	Down Dip Degrees	Cross Struct Degrees	Strike (m)	Down Dip (m)	Cross (m)	Maximum	Minimum			Max/Hole
Au	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	1.4 g/t	10
Ag	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	6.0 g/t	10
Cu	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	0.08%	10
Pb	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	0.12%	10
Zn	Bearing/Plunge	315/0	45/85	45/-5	50	70	12	12	1	3	0.40%	10



### 14.2.10 Density

Luminex collects density information on a regular basis. Within the Camp deposit dataset, there were 1,613 density samples that were used to estimate the in-situ density of the rock units. The data was sorted based on the block model rock-type codes and the average of each rock type assigned to that rock unit in the block model.

The block model density assignments are shown in Table 14-24.

**Table 14-24: Density Assignments by Model Rock Code**

Model Rock Unit		Tonnes / Cubic Metre	Ktonnes / Model Block
Rock Type	Code		
Andesite	11	2.6667	0.1000
Granodiorite	20	2.6720	0.1002
Greenstone	30	2.8293	0.1061
Intrusive Breccia	40	2.6293	0.0986
Rhyolite Dike	50	2.5627	0.0961
Rhyolite Welded Tuff	55	2.5627	0.0961
Default (if not mentioned here)	-	2.6587	0.0997

### 14.2.11 Mineral Resource Classification

The entire Camp deposit model has been classified as Inferred, due to the sparse drilling. The horizontal and vertical spacing is not sufficient to have confidence in the geometry of the ore-bearing structures on a scale that is sufficient for stope definition.

Stope definition will likely require drill spacing in the range of 10 to 15 m prior to production. That level of detailed drilling will likely be completed through underground access prior to production.

### 14.2.12 Validation

The following methods were used to validate the block model:

- Check for global bias between the selected method and nearest neighbour estimation
- Checks on change of support
- Check on the grade averaging or smoothing of the deposit to understand how well the model respects the local drill grade estimates

#### 14.2.12.1 Check for Global Bias

The check for global bias that was applied was a comparison of grade estimation methods within the vein or grade boundaries applied to the deposit. In most cases, the best unbiased estimate of the global mean of the deposit is the nearest neighbour or polygon method of estimation at a zero cutoff grade. The nearest neighbour approach is applied to remove

any clustering effect of drilling which often happens where high-grade zones receive more drilling than the rest of the deposit.

Table 14-25 compares the average grade of composites and block grades contained within the mineral zone boundary or vein boundary that was set at 1.50 g/t AuEq. The grade zone boundary was applied because the vast majority of the mineral resource is inside the boundary.

**Table 14-25: Global Bias Check, 2 m Composites, ID3 Blocks, and Nearest Neighbour Block Grades**

Metal	Composite Statistics		Block Statistics		
	Number	Mean	Number	ID3 Mean	NN Mean
Au g/t	549	2.670	69,457	3.102	3.273
Ag g/t	549	23.78	69,457	26.45	27.47
Cu %	549	0.028	69,457	0.031	0.033
Pb %	549	0.099	69,457	0.102	0.104
Zn %	549	0.869	69,457	0.978	1.013

The composites contained within the grade boundary averaged lower grade for all metals than either the ID3 or the nearest neighbour. In turn, the nearest neighbour averages higher grade than the ID3 result. This is an indication of the wide-spaced drilling within the deposit where high-grade intercepts within the vein are assigned a disproportionately larger area of influence in the nearest neighbour results.

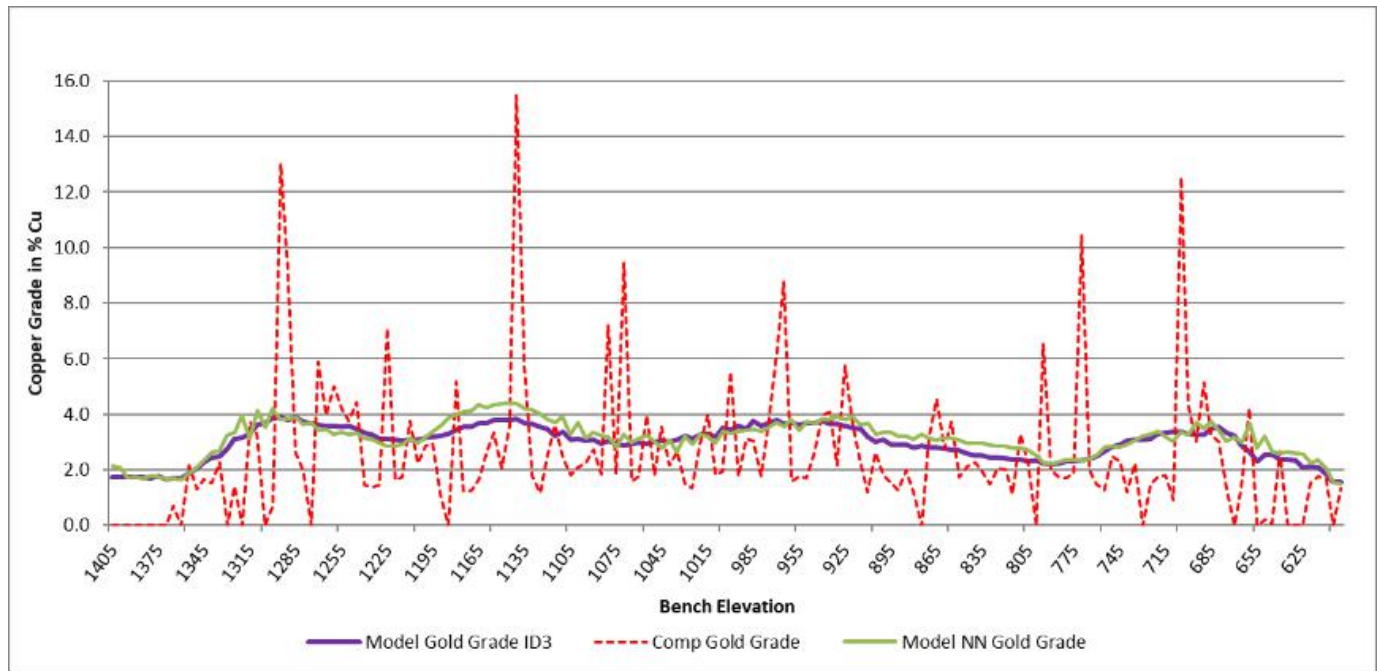
This result indicates that additional drilling would be required before components of the deposit could be upgraded to the Indicated category.

To check for local bias, a series of swath plots were prepared for gold and silver in the horizontal plane and in cross section perpendicular to strike. Both the ID3 and the nearest neighbour results are summarized in Figure 14-25 and Figure 14-26 for the horizontal slices and Figure 14-27 and Figure 14-28 for cross sections across the vein.

The horizontal swath plots through the vein or grade boundary show the average composite grades as well as the ID3 and nearest neighbour over 10 m vertical slices through the vein. The elevated spikes in the composite grades indicate the challenges related to modelling with sparse information. Note the occurrences where the nearest neighbour estimate exceeds the ID3 estimate when there is an isolated group of high-value composites.

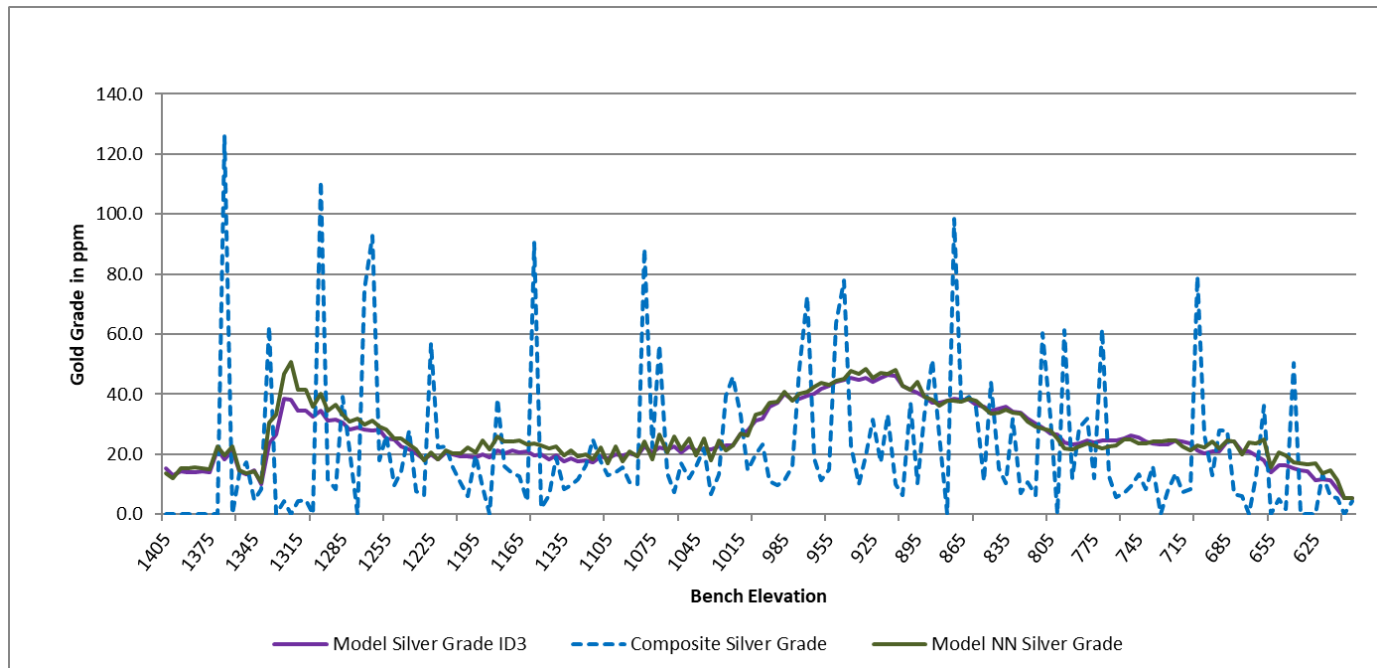
Figure 14-27 and Figure 14-28 show the swath plots that are a series of 25 m wide intervals that crosscut the veins. The plots show the results from the southeast end of the deposit through to the northwest. The same issue is evident in the northwestern portion of the deposit where the nearest neighbour exceeds the mean of the ID3 result.

Figure 14-25: Horizontal Swath Plot for Gold, Inside the Grade Boundary



Source: IMC, 2021.

Figure 14-26: Horizontal Swath Plot for Silver, Inside the Grade Boundary



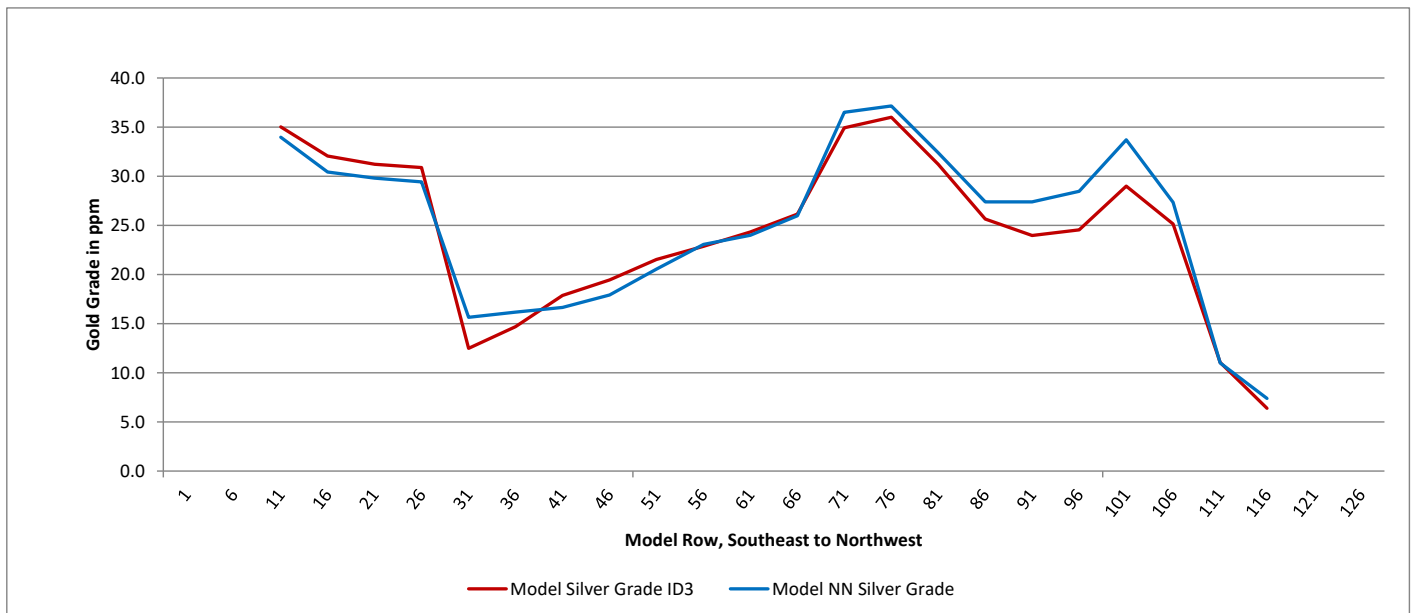
Source: IMC, 2021.

**Figure 14-27: Cross Section Swath Plot for Gold, Inside the Grade Boundary**



Source: IMC, 2021.

**Figure 14-28: Cross Section Swath Plot for Silver, Inside the Grade Boundary**



Source: IMC, 2021.

#### 14.2.12.2 Checks and Change of Support

Change of support tests were completed for gold and silver inside the grade boundary. The change of support procedure is intended to measure whether the block grade distribution provides a reasonable estimate of the variability of the deposit. The basis for the analysis starts from the nearest neighbour distribution of blocks which reflects the declustered variance of composites. Then a variance correction is applied based on the variogram to suggest a theoretical block variability for comparison against the actual block grade estimates. Many practitioners use the discrete Gauss transform using Hermite polynomials to complete the comparison.

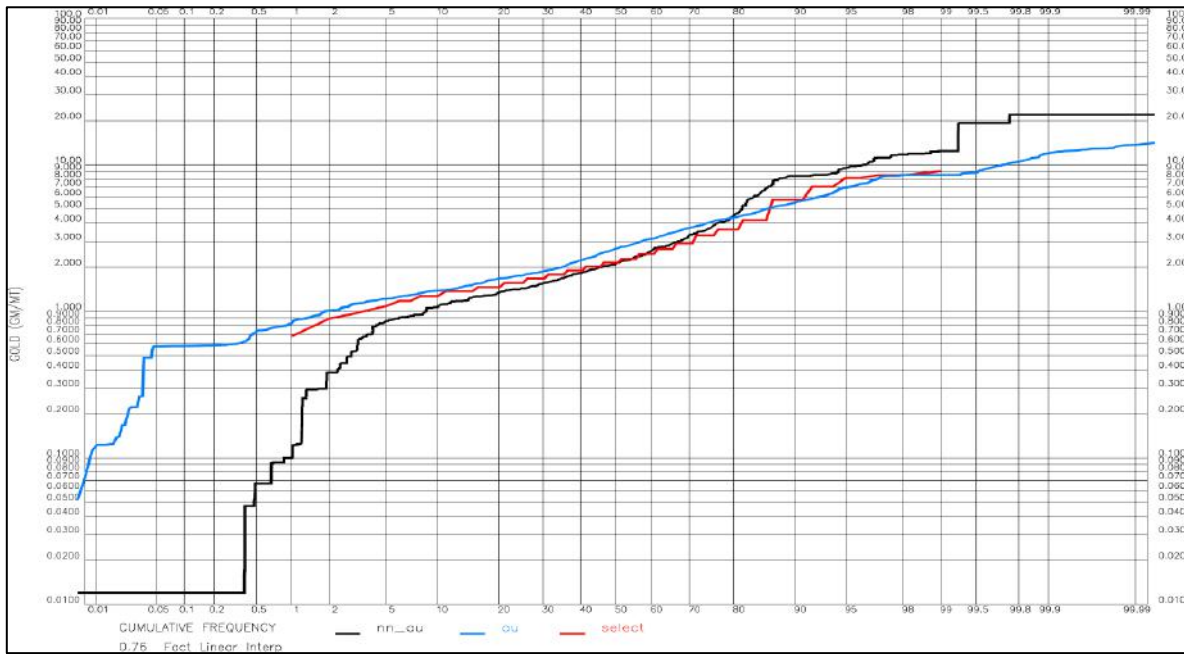
Figure 14-29 and Figure 14-30 show the change of support test on cumulative frequency plots. The original declustered distribution of composites is shown in black. The change of variance transform is shown in red, and the final ID3 estimate is shown in dark blue. The red line and the blue line should generally trace each other.

#### 14.2.12.3 Check for Grade Averaging or Smoothing

IMC performs an additional check to compare the block grades at a range of cut-offs with the grades of the contained composites within the block grade outlines.

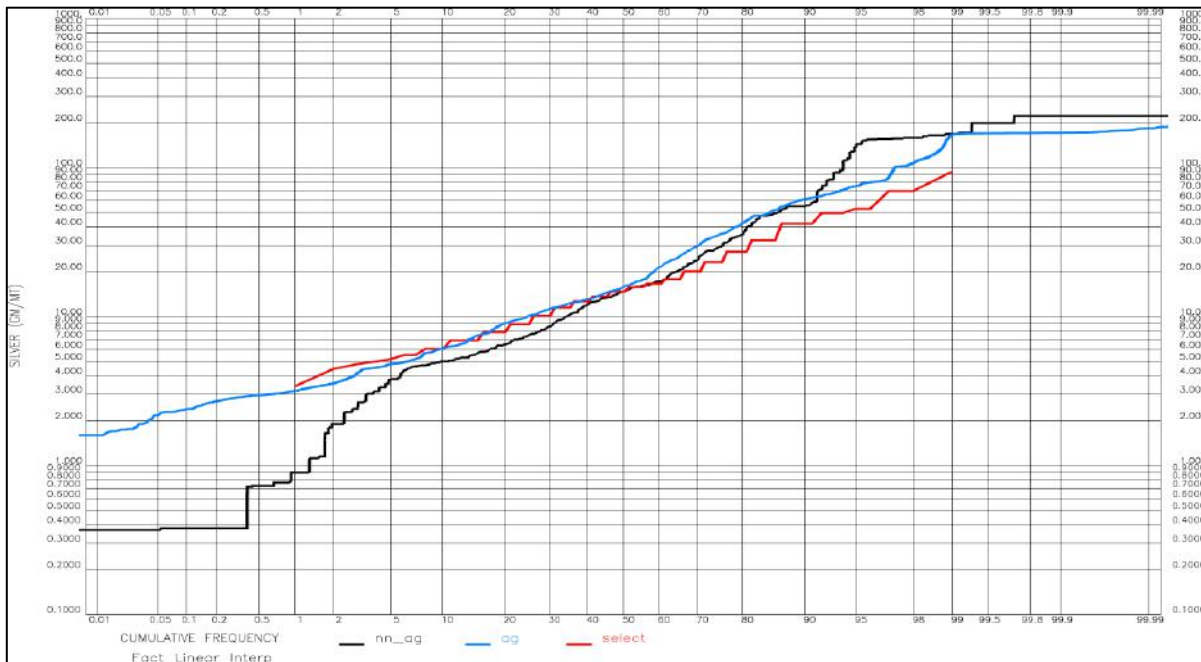
For each cutoff, the blocks above cutoff are identified. The composites contained within those blocks are identified, and their mean is tabulated to compare with the block mean. The block mean should be less than the mean of the contained composites because the block mean included composites from outside of the cutoff grade when block grades are estimated. In addition, the percentage of those composites that are less than the cutoff is determined. This is a measure of the smoothing of the block grades. In well-drilled and well-zoned deposits, the “% Less Than” can be around 6 to 8%. Percentages of 15 to 20% are common in many precious metal deposits. The “% Less Than” calculations in Table 14-26 and Table 14-27 are in the range of 20 to 28%. Considering the low number of drill holes and the search distance required to infill between drill holes, the percentages are understandable.

**Figure 14-29: Change of Support Check for Gold in the Grade Boundaries**



Source: IMC, 2021.

**Figure 14-30: Change of Support Check for Silver in the Grade Boundaries**



Source: IMC, 2021.

**Table 14-26: Gold Model Comparison of Block Grades to Contained Composite Grades**

Gold Model to Composite Check, Inside Grade Boundary					
Cutoff g/t	Number Composites	Composite Mean g/t	% Less Than Cutoff	Number of Blocks	Block Mean g/t
0.50	538	2.986	12.3	68,754	3.133
1.00	498	3.168	17.4	67,503	3.177
1.50	397	3.675	21.2	58,738	3.456
2.00	298	4.368	23.8	44,755	3.986
2.50	210	5.387	25.2	37,178	4.340
3.00	171	6.027	25.7	29,459	4.760
3.50	140	6.710	27.1	22,767	5.206
4.00	114	7.447	28.1	17,649	5.630
4.50	104	7.812	30.8	12,651	6.174
5.00	83	8.732	26.5	9,720	6.818

**Table 14-27: Silver Model Comparison of Block Grades to Contained Composite Grades**

Silver Model to Composite Check, Inside Grade Boundary					
Cutoff g/t	Number Composites	Composite Mean g/t	% Less Than Cutoff	Number of Blocks	Block Mean g/t
5.00	487	28.35	9.4	64,452	28.22
10.00	369	35.31	15.4	51,771	33.29
15.00	260	45.36	18.8	36,010	42.36
20.00	191	55.89	19.9	28,511	49.14
25.00	161	62.45	22.4	23,965	54.15
30.00	142	67.54	25.4	20,461	58.71

## 14.3 Mineral Resource Estimates

### 14.3.1 Introduction

This section of the report describes the approach used to determine the estimates of mineral resources that are considered amenable to either open pit or underground extraction methods.

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) define a mineral resource as: “[A] concentration or occurrence of solid material of economic interest, in or on the Earth’s crust in such form, grade or quality

and quantity, that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.”

The “reasonable prospects for eventual economic extraction” requirement generally implies that quantity and grade estimates meet certain economic thresholds and that mineral resources are reported at an appropriate cut-off grade considering account extraction scenarios and processing recovery. The economic viability of the mineral resources at the Condor North area, and in the Santa Barbara deposit area at the Condor Central area, were tested by constraining the deposits within floating cone pit shells, or, in the case of the Camp deposit, evaluate the potential economic viability of extraction using underground mining methods. The details of the approaches taken, and the resulting estimates of mineral resources are described in the following sections.

It is important to recognize that these discussions of surface and underground mining parameters are used solely to test the “reasonable prospects for eventual economic extraction,” and they do not represent an attempt to estimate mineral reserves. There are no mineral reserves calculated for the Condor Project. These preliminary evaluations are used to prepare a Mineral Resource Statement and to select appropriate reporting assumptions.

Mineral resources in the Inferred category have a lower level of confidence than that applied to Indicated mineral resources, and although there is sufficient evidence to imply geologic grade and continuity, these characteristics cannot be verified based on the current data. It is reasonably expected that the majority of Inferred mineral resources could be upgraded to Indicated (or Measured) mineral resources with continued exploration.

#### 14.3.2 Determination of Open Pit Mineral Resources

The potential economic viability of the Santa Barbara, Los Cuyes, Soledad and Enma deposits has been evaluated assuming these deposits would be mined using open pit extraction methods. These evaluations include the economic contributions from both gold and silver. The copper grades present in the Los Cuyes, Soledad, and Enma deposits are too low to be considered as exhibiting reasonable prospects for eventual economic viability and, as a result, there are no copper resources reported for these deposits. It is assumed that copper will be recovered at Santa Barbara.

These evaluations are based on the following projected economic and technical parameters:

	Los Cuyes (LC), Soledad, Enma	Santa Barbara
• Mining Cost (open pit)	\$1.61/t	\$2.00/t
• Process	\$9.25/t	\$11.50/t
• G&A	\$1.96/t	\$2.00/t
• Gold Price	\$1,500/oz	\$1,500/oz
• Silver Price	\$18.00/oz	\$18.00/oz
• Copper Price	n/a	\$3.00/lb
• Gold Process Recovery	89% LC, 90% Soledad, 71% Enma	87%
• Silver Process Recovery	48% LC, 30% Soledad, 49% Enma	70%
• Copper Process Recovery	n/a	80%
• Pit Slope	45 degrees	45 degrees



Using the metal prices and recoveries shown here, recoverable gold equivalent grades are calculated, and pit shells are generated using a floating cone algorithm. There are no adjustments for mining recoveries or dilution. This test indicates that some of the deeper mineralization may not be economic due to the increased waste-stripping requirements. Mineral resources considered amenable to open pit extraction methods are calculated using gold equivalent (AuEq) cut-off grades using the following formulas:

Los Cuyes, Soledad, and Enma :  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$

Santa Barbara :  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012) + (Cu\% \times 1.371)$

Using the operating costs and recovery factors listed previously, the base case cut-off grade for mineral resources considered amenable to open pit extraction methods is determined to be 0.30 g/t AuEq for the Los Cuyes and Soledad deposits and 0.37 g/t AuEq for the Santa Barbara and Enma deposits.

### 14.3.3 Determination of Underground Mineral Resources

The mineral resource for the Camp deposit at Condor North area was based on the model described previously and the concept that stope mining would be the most appropriate for this deposit.

Previous mineral resource estimates for the Camp deposit assumed a bulk mining approach to the deposit with minimal sensitivity. Additional evaluation of the deposit geometry has led to the conclusion that stope mining would be practical. The following three stope mining methods are described in Section 16 of this PEA:

- Transverse stoping with rock fill
- Avoca
- Modified Avoca with a blast drill pattern called “5 Spot or 5 Dice” to allow mining stopes as narrow as 3 m

The result of the change to more selective stope mining is a reduced mineral resource tonnage and an increased grade when compared to the previous resource of May 14, 2020.

The following parameters were used to establish a cutoff grade for the mineral resource:

- Mining Cost Average \$48.29/t ore
- Transport Portal to Crusher \$0.50/t ore
- Process \$9.25/t ore
- G&A \$1.96/t ore
- Gold Price \$1,500/troy ounce
- Silver Price \$18.00/troy ounce
- Process Recovery \$94% gold, 49% silver
- Payable Metal 99.5%
- Refining and Freight \$5.00/troy ounce gold, \$0.35/troy ounce silver

Based on these parameters, the net smelter (refining) return (NSR) is expressed in the following equation:

- $NSR \text{ \$/tonne} = Au \text{ g/t} \times 44.956 + Ag \text{ g/t} \times 0.277$

When the same parameter is expressed in terms of equivalent gold grade (AuEq), the equation becomes:

- $AuEq \text{ for Mineral Resource} = Au \text{ g/t} + Ag \text{ g/t} \times 0.0062$

Process metallurgical work completed since the last resource has shown that it may not be economic to produce base metals from the Camp deposit. As a result, the mineral resource estimate is based on the economic credits of gold and silver only.

The stated mining cost is an average of the mining costs for each stoping method weighted by the tonnage from each stoping method. For mine planning purposes (see Section 16), each stoping method uses a unique cutoff grade.

Based on the parameters shown here, the average cutoff grade for the Camp deposit of \$60.00/t ore NSR or 1.33 g/t AuEq for mineral resources was based on weighting by the potentially mineable tonnage of each mine method.

The tabulation of material above cutoff was modified to address those blocks that have at least three other blocks above cutoff in contact with them. In other words, for each block above cutoff, it is in contact with at least three or more blocks that are also above cutoff. This process eliminates isolated blocks that would not be mineable. Application of the cutoff grade and application of the three blocks in contact provides a straightforward and simple approach to establish the component of the mineralization that meets the criteria for “reasonable prospects of economic extraction”.

#### 14.3.4 Estimate of Mineral Resources

The estimates of open pit mineral resources are shown in Table 14-28 through Table 14-31. The estimate of underground mineral resources for the Camp deposit is shown in Table 14.32. The estimate of mineral resources for all of the mineral deposits at the Condor Project is shown in Table 14-33. The distribution of the base case mineral resources is shown from a series of isometric viewpoints in Figure 14-31 and Figure 14-32 for Santa Barbara and Figure 14-33 and Figure 14-34 for Los Cuyes, Soledad, and Enma.

Based on the current drilling information, the mineralization located below the pit-constrained mineral resources at Santa Barbara, Los Cuyes, Soledad, and Enma does not exhibit the continuity, thickness, and grade that could be considered amenable to underground extraction methods.

**Table 14-28: Estimate of Mineral Resources for the Santa Barbara Deposit**

Category	Tonnes (million)	Average Grade				Contained Metal			
		AuEq (g/t)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (koz)	Au (koz)	Ag (Moz)	Cu (Mlbs)
Indicated	39.8	0.83	0.67	0.8	0.11	1,057	859	1.0	93
Inferred	166.7	0.66	0.52	0.9	0.10	3,534	2,768	4.9	353

Note: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods. The base case cut-off grade is 0.37 g/t AuEq where:  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012) + (Cu\% \times 1.371)$

**Table 14-29: Estimate of Mineral Resources for the Los Cuyes Deposit**

Category	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Indicated	50.8	0.71	0.65	5.2	1,161	1,059	8.5
Inferred	36.4	0.65	0.59	5.3	761	687	6.2

Note: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods. The base case cut-off grade is 0.30 g/t AuEq where:  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$ .

**Table 14-30: Estimate of Mineral Resources for the Soledad Deposit**

Category	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Indicated	19.4	0.68	0.63	4.8	426	390	3.0
Inferred	15.1	0.50	0.46	3.4	245	225	1.7

Note: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods. The base case cut-off grade is 0.30 g/t AuEq where:  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$ .

**Table 14-31: Estimate of Mineral Resources for the Enma Deposit**

Category	Tonnes (thousand)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (koz)
Indicated	659	0.78	0.64	11.6	17	14	246
Inferred	66	0.93	0.81	9.7	2	2	20

Note: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods. The base case cut-off grade is 0.37 g/t AuEq where:  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$ .

**Table 14-32: Estimate of Mineral Resources for the Camp Deposit**

Category	Cutoff		Ktonnes	NSR (\$/tonne)	AuEq (g/t)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)	Contained Metal					
	NSR \$/t	AuEq (g/t)									AuEq (koz)	Au (koz)	Ag (koz)	Cu (klbs)	Pb (klbs)	Zn (klbs)
Inferred	60.00	1.33	5,981	155.09	3.45	3.28	27.8	0.03	0.11	1.00	663	631	5,344	4,351	14,504	131,858

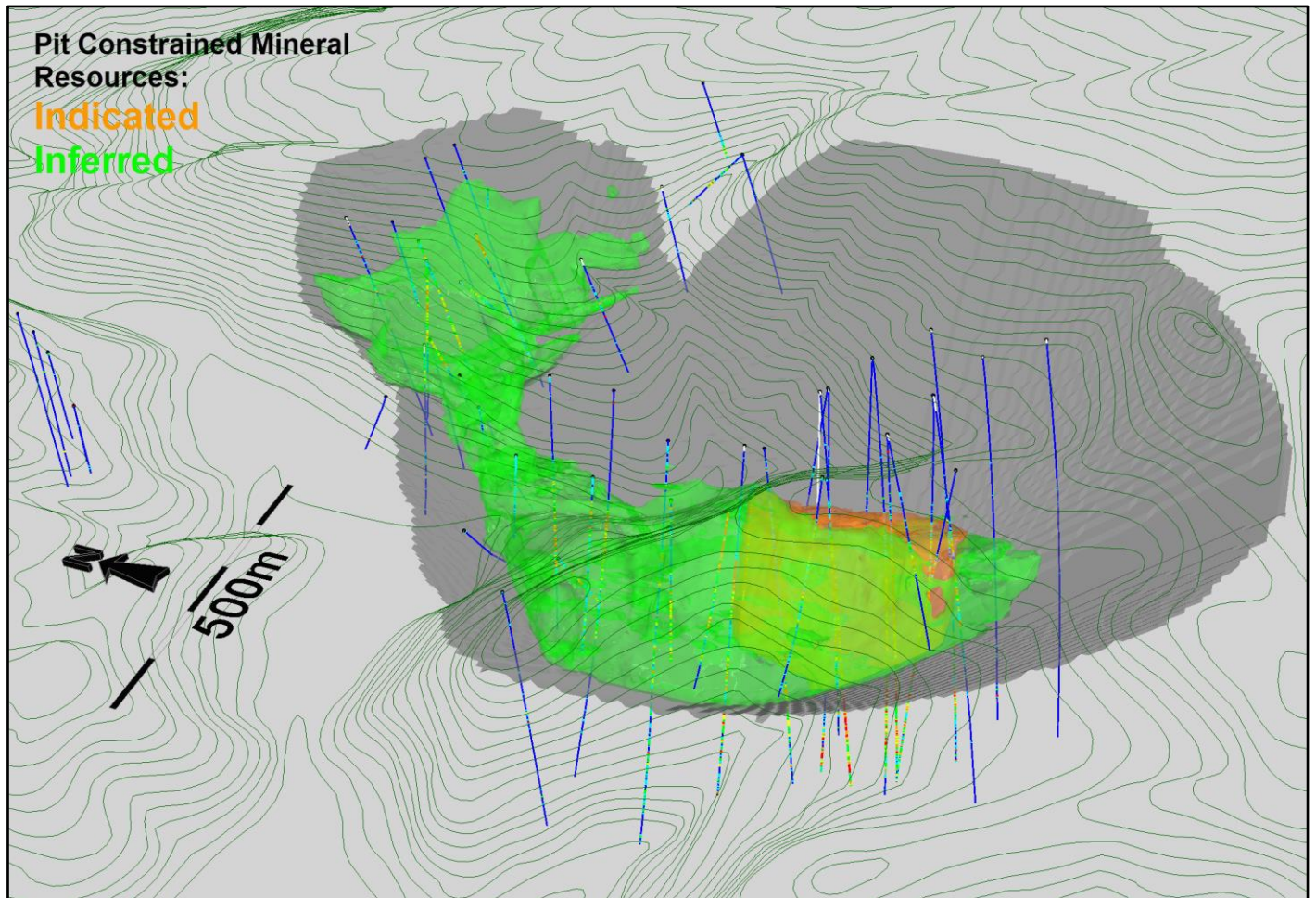
Notes: NSR = Au g/t × 44.956 + Ag g/t × 0.277  
 AuEq g/t = Au g/t + Ag g/t × 0.0062  
 Metal prices: \$1,500 / troy ounce gold and \$18.00 / troy ounce silver  
 No economic benefit has been applied to the base metals  
 The Camp mineral resource does not include mining dilution or recovery

**Table 14-33: Estimate of Mineral Resources for the Condor Project**

Deposit	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Indicated							
Santa Barbara	39.8	0.83	0.67	0.8	1,057	859	1.0
Los Cuyes	50.8	0.71	0.65	5.2	1,161	1,059	8.5
Soledad	19.4	0.68	0.63	4.8	426	390	3.0
Enma	0.66	0.78	0.64	11.6	17	14	0.25
All	110.7	0.75	0.65	3.6	2,660	2,321	12.8
Inferred							
Santa Barbara	166.7	0.66	0.52	0.9	3,534	2,768	4.9
Los Cuyes	36.4	0.65	0.59	5.3	761	687	6.2
Soledad	15.1	0.50	0.46	3.4	245	225	1.7
Enma	0.07	0.93	0.81	9.7	2	2	0.02
Camp	6.0	3.45	3.28	27.8	663	631	5.3
All	224.3	0.72	0.60	2.5	5,205	4,313	18.1

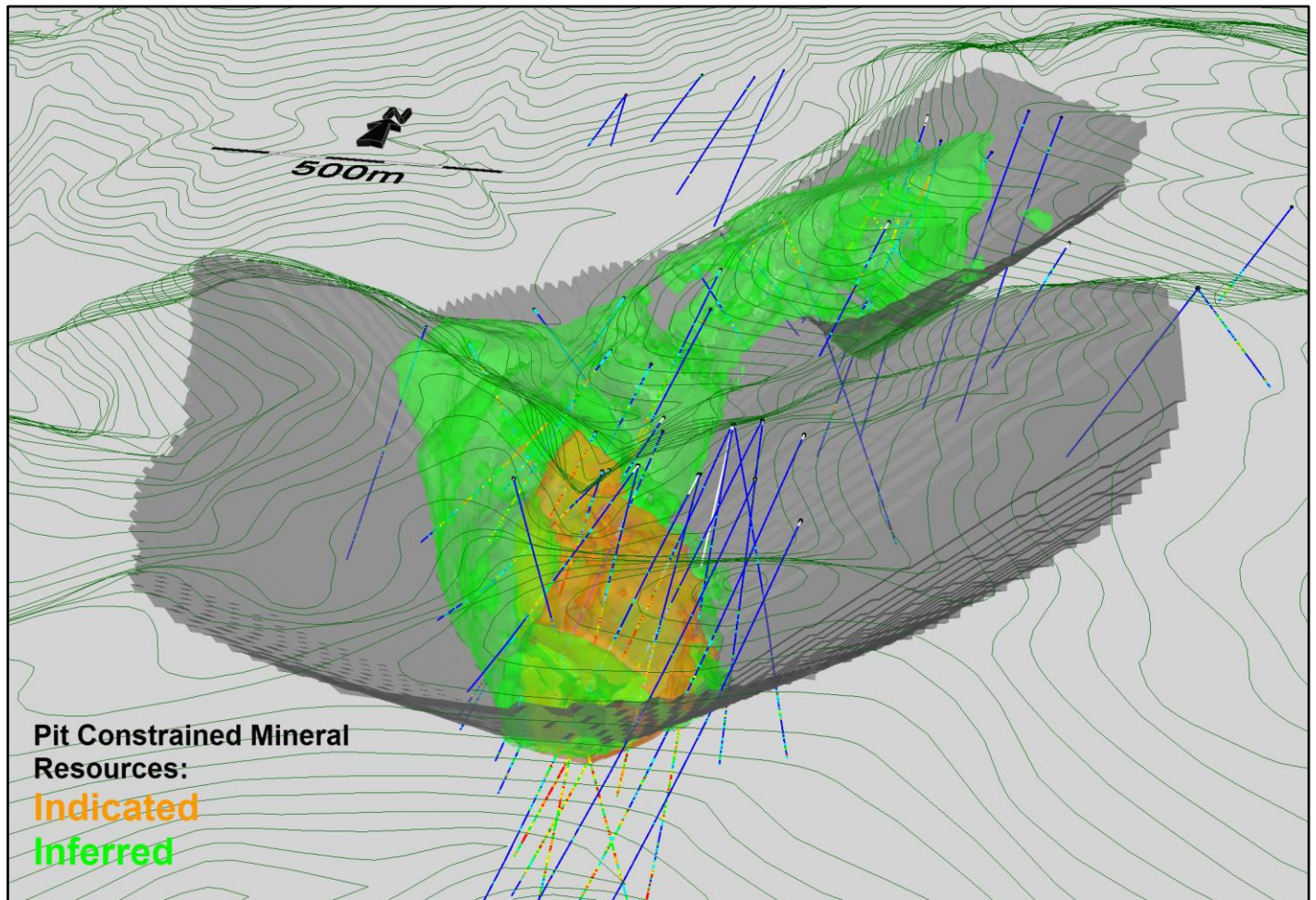
Notes: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods at Santa Barbara, Los Cuyes, Soledad and Enma and using underground mining methods at the Camp deposit. At Los Cuyes and Soledad, the base case cut-off grade is 0.30 g/t AuEq and at Santa Barbara and Enma, the base case cut-off grade is 0.37 g/t AuEq. At Los Cuyes, Soledad, and Enma,  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012)$ , and at Santa Barbara,  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012) + (Cu\% \times 1.371)$ . The base case cutoff grade for the Camp resource is 1.33g/t AuEq were  $AuEq = Au \text{ g/t} + Ag \text{ g/t} \times 0.0062$ . There are some additional copper resources at Santa Barbara that are not included in this table but are shown in Table 14-28.

Figure 14-31: Isometric View of Indicated and Inferred Mineral Resources at Santa Barbara



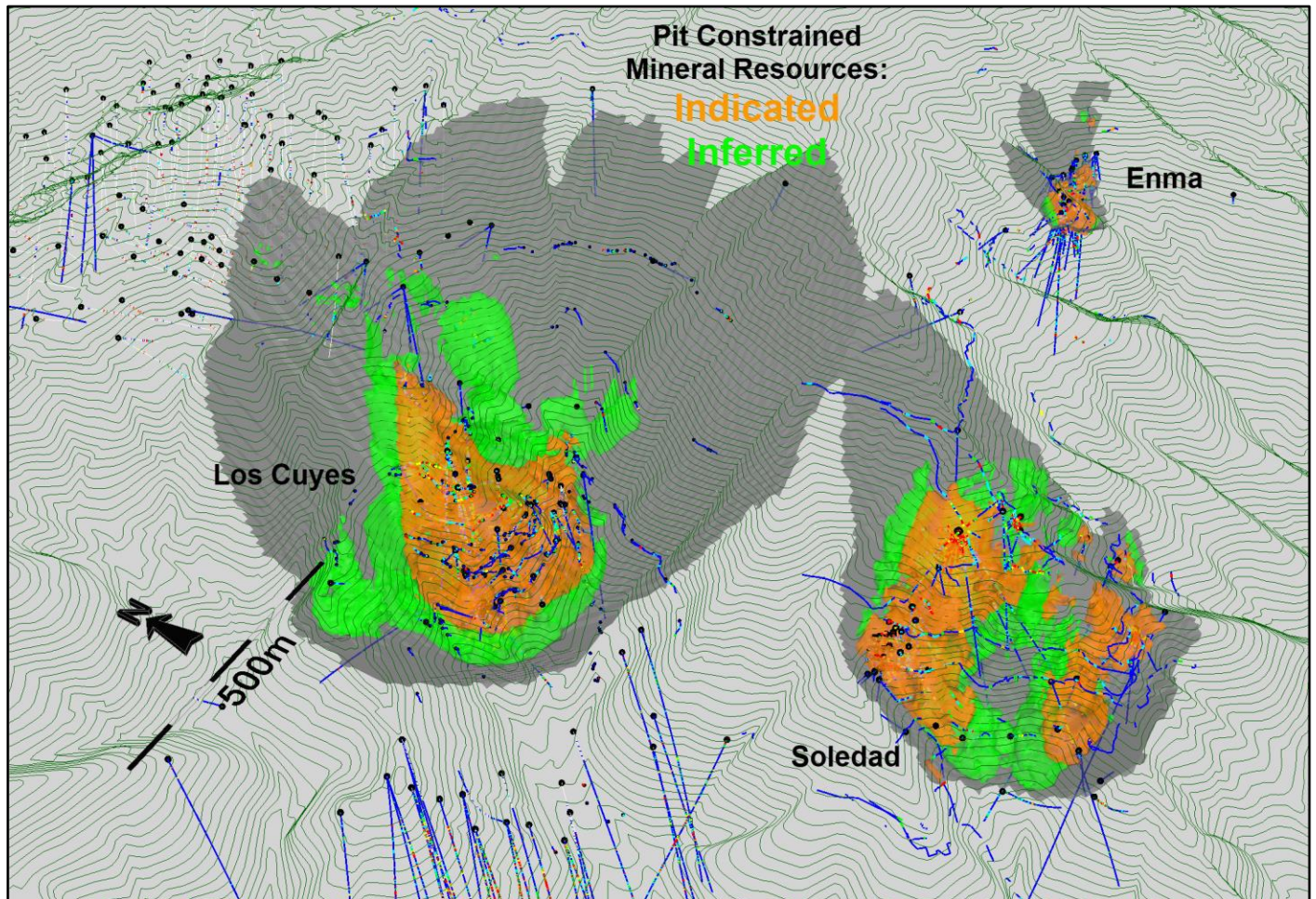
Source: SIM Geological Inc., 2021.

Figure 14-32: Isometric View of Indicated and Inferred Mineral Resources at Santa Barbara



Source: SIM Geological Inc., 2021.

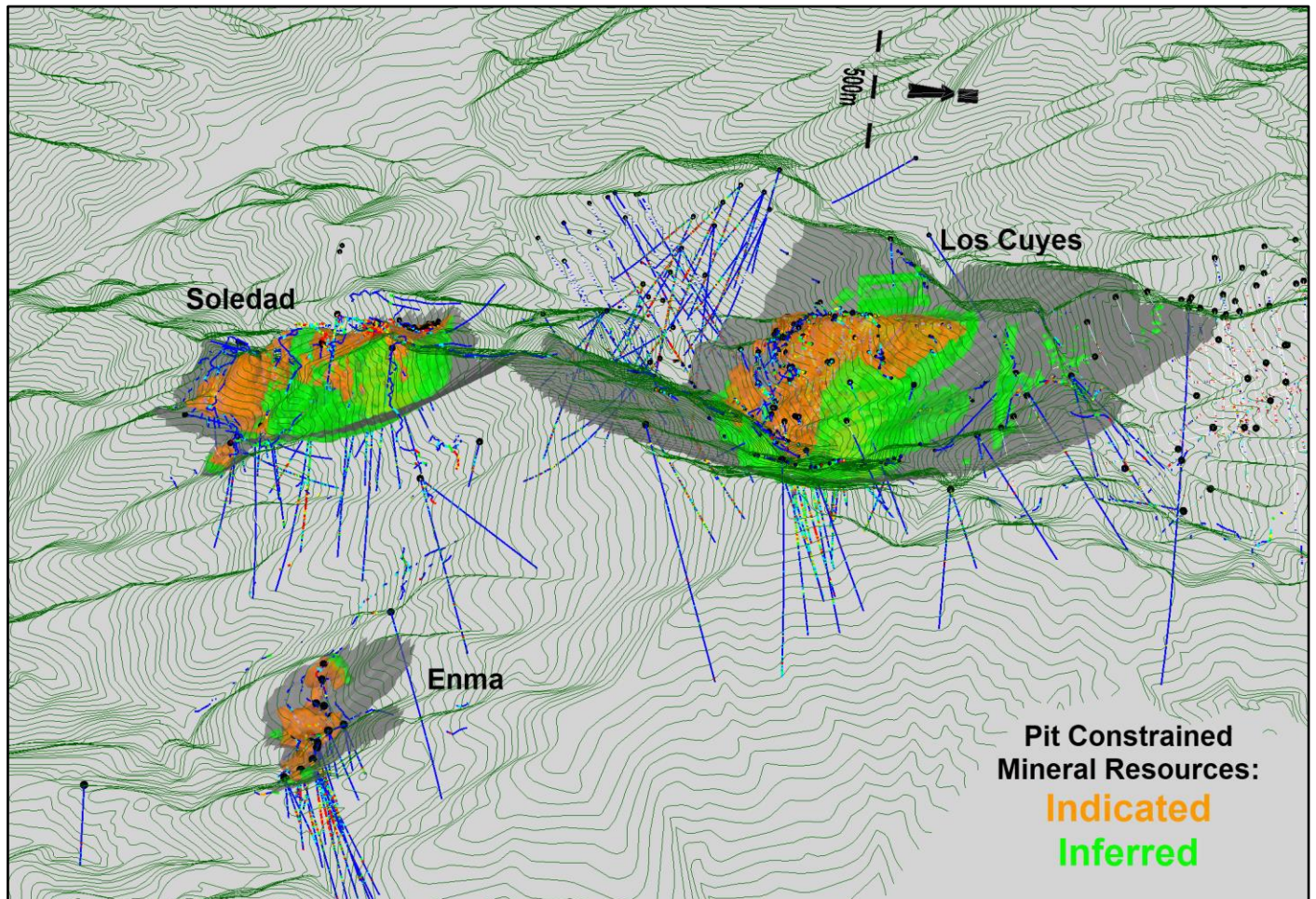
Figure 14-33: Isometric View of Indicated and Inferred Mineral Resources at Los Cuyes, Soledad, and Enma



Source: SIM Geological Inc., 2021.



Figure 14-34: Isometric View of Indicated and Inferred Mineral Resources at Los Cuyes, Soledad, and Enma



Source: SIM Geological Inc., 2021.

#### 14.3.4.1 Sensitivity of Mineral Resources

The sensitivity of pit-constrained mineral resources is demonstrated by listing the resources at a series of cut-off thresholds as shown in Table 14-34 through Table 14-37. These mineral resources are all restricted within the \$1,500/oz Au resource limiting pit shells.

**Table 14-34: Sensitivity of Open Pit Resources to Cut-off Grade for the Santa Barbara Deposit**

Cut-Off Grade AuEq (g/t)	Tonnes (million)	Average Grade				Contained Metal			
		AuEq (g/t)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (koz)	Au (koz)	Ag (Moz)	Cu (Mlbs)
Indicated									
0.2	48.5	0.73	0.59	0.7	0.10	1,135	915	1.2	103
0.25	45.5	0.76	0.61	0.8	0.10	1,114	900	1.1	100
0.3	42.9	0.79	0.64	0.8	0.10	1,091	884	1.1	98
0.35	40.7	0.82	0.66	0.8	0.11	1,067	867	1.0	94
0.37 Base Case	39.8	0.83	0.67	0.8	0.11	1,057	859	1.0	93
0.4	38.5	0.84	0.68	0.8	0.11	1,041	848	1.0	91
0.45	36.4	0.86	0.71	0.8	0.11	1,013	826	1.0	88
0.5	34.2	0.89	0.73	0.9	0.11	979	801	0.9	84
Inferred									
0.2	204.7	0.59	0.46	0.9	0.09	3,886	3,012	5.8	402
0.25	193.5	0.61	0.48	0.9	0.09	3,806	2,958	5.5	392
0.3	184.4	0.63	0.49	0.9	0.09	3,727	2,903	5.3	378
0.35	172.8	0.65	0.51	0.9	0.10	3,605	2,818	5.0	362
0.37 Base Case	166.7	0.66	0.52	0.9	0.10	3,534	2,768	4.9	353
0.4	157.3	0.68	0.53	0.9	0.10	3,418	2,686	4.7	336
0.45	140.1	0.71	0.56	0.9	0.10	3,183	2,516	4.2	309
0.5	122.9	0.74	0.59	1.0	0.10	2,921	2,321	3.8	276

Note: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods and are constrained in the pit shell made using a \$1,500/oz gold price. The base case cut-off grade is 0.37 g/t AuEq where:  $AuEq = Au \text{ g/t} + (Ag \text{ g/t} \times 0.012) + (Cu\% \times 1.371)$

**Table 14-35: Sensitivity of Open Pit Resources to Cut-off Grade for the Los Cuyes Deposit**

Cut-Off Grade AuEq (g/t)	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Indicated							
0.2	59.0	0.65	0.59	4.9	1,227	1,115	9.3
0.25	55.0	0.68	0.62	5.1	1,198	1,090	8.9
0.3 Base Case	50.8	0.71	0.65	5.2	1,161	1,059	8.5
0.35	46.4	0.75	0.68	5.4	1,115	1,018	8.1
0.4	41.8	0.79	0.72	5.6	1,060	969	7.6
0.45	37.4	0.83	0.76	5.8	999	915	7.0
0.5	33.0	0.88	0.81	6.0	932	856	6.4
Inferred							
0.2	51.4	0.53	0.47	4.9	879	783	8.0
0.25	42.4	0.60	0.54	5.1	815	731	6.9
0.3 Base Case	36.4	0.65	0.59	5.3	761	687	6.2
0.35	31.3	0.70	0.64	5.5	709	642	5.5
0.4	27.1	0.76	0.69	5.7	658	599	4.9
0.45	23.6	0.80	0.73	5.9	610	557	4.5
0.5	20.6	0.85	0.78	6.1	564	516	4.0

**Table 14-36: Sensitivity of Open Pit Resources to Cut-off Grade for the Soledad Deposit**

Cut-Off Grade AuEq (g/t)	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Indicated							
0.2	26.7	0.56	0.51	4.2	483	440	3.6
0.25	22.8	0.62	0.57	4.5	455	416	3.3
0.3 Base Case	19.4	0.68	0.62	4.8	426	390	3.0
0.35	16.6	0.74	0.68	5.0	396	364	2.7

Cut-Off Grade AuEq (g/t)	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
0.4	14.2	0.80	0.74	5.2	368	339	2.4
0.45	12.4	0.86	0.80	5.5	343	317	2.2
0.5	10.8	0.92	0.85	5.6	319	295	2.0
Inferred							
0.2	25.0	0.40	0.37	3.0	323	293	2.4
0.25	19.4	0.45	0.42	3.2	282	258	2.0
0.3 Base Case	15.1	0.50	0.46	3.4	245	225	1.7
0.35	11.9	0.55	0.51	3.7	211	194	1.4
0.4	9.4	0.60	0.56	3.8	181	167	1.1
0.45	7.4	0.65	0.60	3.9	154	143	0.9
0.5	5.7	0.70	0.65	3.9	129	120	0.7

Note: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods and are constrained in the pit shell made using a \$1,500/oz gold price. The base case cut-off grade is 0.30 g/t AuEq where:  $AuEq = Au\ g/t + (Ag\ g/t \times 0.012)$ .

**Table 14-37: Sensitivity of Open Pit Resources to Cut-off Grade for the Enma Deposit**

Cut-Off Grade AuEq (g/t)	Tonnes (thousand)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (koz)
Indicated							
0.2	996	0.61	0.50	9.8	20	16	313
0.25	900	0.65	0.53	10.3	19	15	298
0.3	793	0.71	0.57	10.9	18	15	279
0.35	687	0.76	0.63	11.5	17	14	253
0.37 Base Case	659	0.78	0.64	11.6	17	14	246
0.4	615	0.81	0.67	11.8	16	13	234
0.45	540	0.86	0.72	12.2	15	12	211
0.5	455	0.94	0.79	12.6	14	11	184

Cut-Off Grade AuEq (g/t)	Tonnes (thousand)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (koz)
Inferred							
0.2	91	0.75	0.64	8.7	2	2	25
0.25	85	0.78	0.68	9.0	2	2	24
0.3	74	0.86	0.75	9.2	2	2	22
0.35	69	0.90	0.78	9.4	2	2	21
0.37 Base Case	66	0.93	0.81	9.7	2	2	20
0.4	60	0.97	0.86	10.0	2	2	19
0.45	55	1.02	0.90	10.3	2	2	18
0.5	50	1.08	0.95	10.6	2	2	17

Note: Mineral resources exhibit reasonable prospects of eventual economic extraction using open pit extraction methods and are constrained in the pit shell made using a \$1,500/oz gold price. The base case cut-off grade is 0.37 g/t AuEq where:  $AuEq = Au\ g/t + (Ag\ g/t \times 0.012)$ .

#### 14.3.4.2 Comparison with the Previous Estimate of Mineral Resources

The mineral resource models for the Santa Barbara, Los Cuyes, Soledad, Enma and Camp deposits were initially generated in the spring of 2018 and were presented in a technical report dated July 10, 2018 (effective date May 14, 2018) and again, using updated metal prices and process recoveries, in a subsequent report dated May 14, 2020 (effective March 4, 2020). The previous estimates of mineral resources are shown in Table 14-38.

**Table 14-38: Previous Estimate of Mineral Resources for all Open Resources (Effective March 4, 2020)**

Deposit	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Indicated							
Santa Barbara	19.7	0.77	0.63	0.6	485	399	0.4
Los Cuyes	39.8	0.77	0.68	5.5	983	872	7.1
Soledad	12.3	0.80	0.72	5.3	315	283	2.1
Enma	0.5	0.87	0.72	11.6	13	11	0.17
All	72.1	0.77	0.67	4.2	1,796	1,564	9.7
Inferred							

Deposit	Tonnes (million)	Average Grade			Contained Metal		
		AuEq (g/t)	Au (g/t)	Ag (g/t)	AuEq (koz)	Au (koz)	Ag (Moz)
Santa Barbara	130.4	0.66	0.52	0.9	2,768	2,163	3.9
Los Cuyes	24.0	0.73	0.65	5.6	558	499	4.3
Soledad	3.3	0.61	0.56	3.2	64	59	0.3
Enma	0.04	1.22	1.09	10.1	1	1	0.01
Camp	11.9	2.95	2.26	19.5	1,126	864	7.4
All	169.6	0.83	0.66	2.9	4,518	3,586	16.0

Notes: The Base case cut-off is 0.35 g/t gold equivalent (AuEq) where  $AuEq = Au\ g/t + (Ag\ g/t \times 0.012) + (Cu\% \times 1.371)$  for pit-constrained resources at Soledad, Los Cuyes, Santa Barbara and Enma limited inside \$1,500/oz Au pit shells. The cut-off for underground mineral resources at Camp is 1.5 g/t AuEq where:  $AuEq = Au\ g/t + (Ag\ g/t \times 0.012) + (Cu\% \times 1.371) + (Pb\% \times 0.457) + (Zn\% \times 0.571)$ .

There has been no additional exploration drilling since 2018 on the Santa Barbara, Los Cuyes, Soledad, and Enma deposits, and as a result, the grade models generated in 2018 are still considered "current" for these deposits. There have been no changes to the metal prices used for mineral resources compared to the previous estimates but changes to the projected operating costs and process recoveries have resulted in significant increases in the mineral resources considered amenable to open pit extraction methods. The more significant changes to these parameters are as follows:

	Current	Previous (March 2020)
• Mining Cost (open pit)	\$1.61/t LC, S, E; \$2.00/t SB	\$3.00/t
• Process	\$9.25/t LC, S, E; \$11.50/t SB	\$11.00/t
• G&A	\$1.96/t LC, S, E; \$2.00/t SB	\$2.00/t
• Gold Process Recovery	87% SB; 89% LC; 90% S; 71% E	87%
• Silver Process Recovery	70% SB; 70% LC; 30% S; 49% E	60%
• Cut-Off Grade (AuEq)	0.37 g/t SB, E; 0.30 g/t LC, S	0.35 g/t

(SB=Santa Barbara, LC=Los Cuyes, S=Soledad, E=Enma)

These changes have resulted in a 54% increase in tonnage in the Indicated category and a 38% increase in Inferred tonnes compared to the previous estimates. This equates to a 48% increase in contained gold in the Indicated category and a 35% increase in the Inferred category compared to the previous estimates of mineral resources considered amenable to open pit extraction methods.

The Camp deposit mineral resource has reduced compared to previous work due to the application of selective stope mining methods as compared to non-selective bulk mining. This change was based on a detailed review of the deposit geometries versus the potential stope selectivity of alternative underground mining methods.

#### 14.3.4.3 Summary and Conclusions

Based on the current level of exploration, the Condor Project hosts four deposits that are considered amenable to open pit extraction methods and a fifth deposit considered amenable to underground extraction methods with a combined Indicated mineral resource comprising 111 M tonnes at 0.65 g/t Au and 3.6 g/t Ag for 2.3 M ounces of contained gold and 12.8 M ounces of contained silver, and an Inferred mineral resource comprising 224M tonnes at 0.60 g/t Au and 2.5 g/t Ag for an additional 4.3 M ounces of contained gold and 18.1M ounces of contained silver.

All deposits remain “open” for expansion at depth. The Santa Barbara deposit also remains open to the southeast and possibly to the north.

There are no known factors related to metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing, or political issues which could materially affect the mineral resource.

There are no mineral reserves calculated for the Condor Project. Mineral resources are not mineral reserves. Modifying factors and economic analysis have not been applied to a mineral resource. Inferred mineral resources are highly uncertain and may or may not be upgraded to the Indicated category with further exploration.

## 15 MINERAL RESERVE ESTIMATES

This section is not relevant to this report.



## 16 MINING METHODS

Only the Condor North area is considered in the PEA that consists of three adjacent surface pit mine areas and one underground mine – the surface mine areas are Los Cuyes, Soledad, and Enma; and the underground mine is Camp. The surface pits will be mined with conventional hard rock open pit mining methods. There will be two underground mining methods used depending on the local deposit geometry: modified Avoca and transverse stoping methods.

Condor North area has both a surface and underground mine that deliver ore to the crusher concurrently. The qualified person for the surface mine sections of this report is Joseph McNaughton PE, and the qualified person for the underground mine sections of this report is John Barber, P.E.

The terrain is steep over all deposits, and there is jungle vegetation, and saprolite rock overlying the pit areas. Dealing with the saprolite will present a challenge for mine operations, which has been anticipated with the mine schedule and mine equipment within this report.

The total mine life is expected to be 14 years with two years of preproduction and 12 years of production. Both the surface and the underground mine will begin producing ore in preproduction. Road pioneering for the surface pit areas will begin two years prior to production in Year 1. Primary preproduction development for the underground mine will begin two years prior to production. Surface preproduction stripping will take one year.

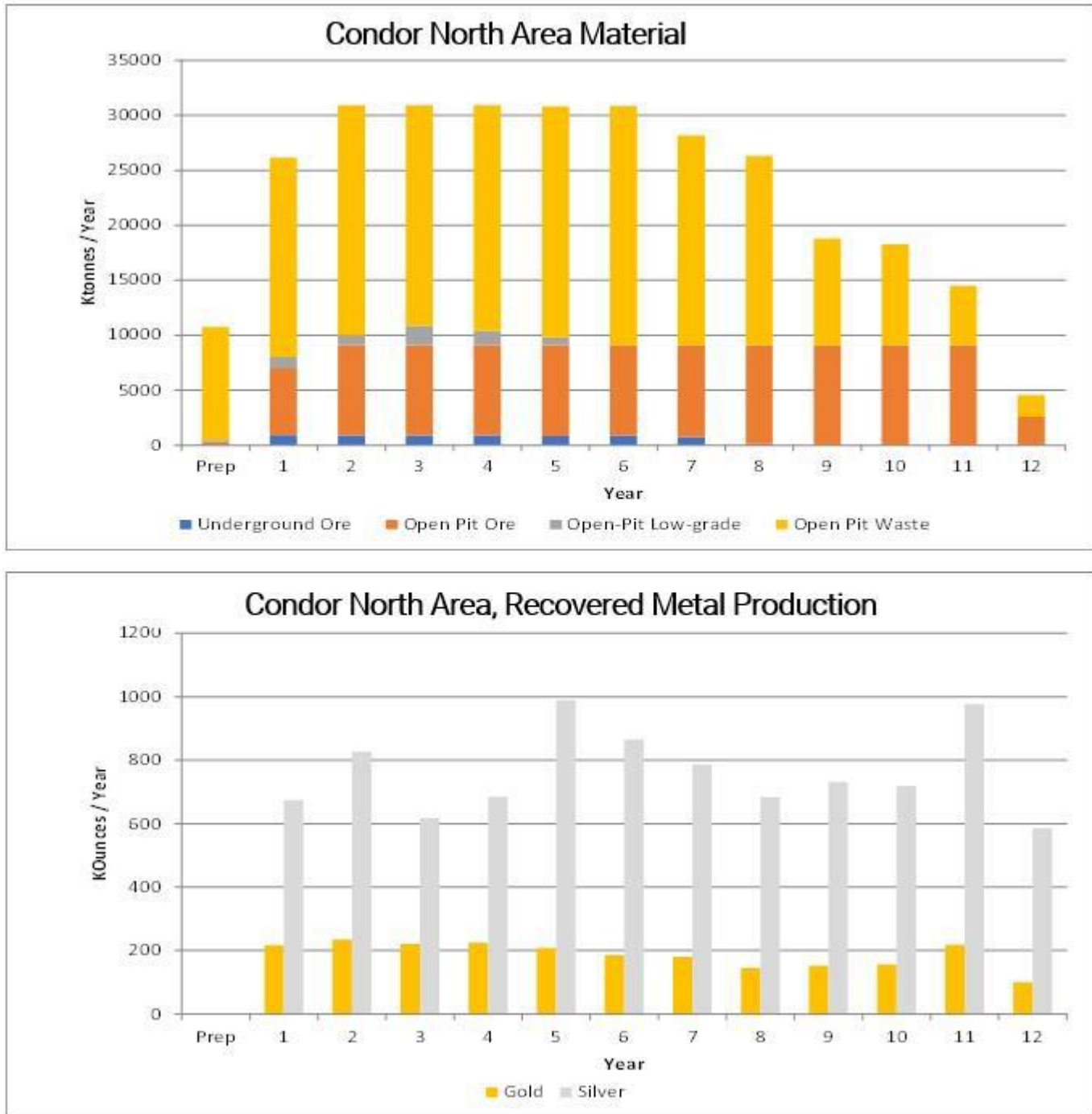
Preproduction surface and underground ore will be stockpiled until production in Year 1 when the plant is scheduled to be fed with direct feed and stockpiled ore. In Year 1, the process plant will operate at 80% of design capacity ramping up to the nominal rate of 25,000 tpd beginning Year 2. The surface pit ore will account for about 90% of plant feed until the underground mine exhausts its mine life in Year 8. From then on, the surface pit mine will be the sole source of ore for plant feed.

The Los Cuyes pit will compose most of the ore tonnage for the Condor North area at 67% of the total LOM plant feed, followed by the Soledad pit at 26%, the Camp Zone underground at 6%, and Enma pit at 1%. In terms of project net operating revenue, the Los Cuyes pit will roughly compose about 57%, followed by the Camp Zone underground at 28%, Soledad pit at 15%, and Enma pit at below 1%. Table 16-1 and Figure 16-1 summarize the mine production schedule which has resulted from this work. There is only indicated and inferred material at Condor North area. Thirty-seven percent of the potentially minable ore is inferred. As the surface mine reaches the last few years the percentage of inferred material approaches 25% in each year. Additional details of this schedule will be presented later in this section including monthly time periods during preproduction and illustrative annual drawings of the mine and dump plan.

**Table 16-1: Condor North Area Mine Production Schedule (Material Movement)**

Item	Units	Year												Total All Years	
		Prep	1	2	3	4	5	6	7	8	9	10	11		12
Underground Ore	Ktonnes	120	822	914	912	910	835	879	751	149	0	0	0	0	6,293
NSR	\$/tonne	\$126.31	\$129.94	\$144.49	\$113.62	\$97.71	\$122.77	\$112.83	\$118.23	\$149.36					\$120.68
Gold Grade	g/t	2.698	2.749	3.059	2.390	2.057	2.541	2.280	2.441	3.084	0.000	0.000	0.000	0.000	2.519
Silver Grade	g/t	12.5	16.8	18.4	16.8	14.2	24.5	30.8	24.4	30.9	0.0	0.0	0.0	0.0	20.8
Open Pit Cut-offs	NSR/t	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$13.00	\$13.00	\$13.00	\$11.21	\$11.21	\$11.21	\$11.21	
Open Pit Ore	Ktonnes	302	6,056	8,211	8,213	8,215	8,290	8,246	8,374	8,976	9,125	9,125	9,125	2,613	94,871
NSR	\$/tonne	\$20.01	\$37.81	\$30.97	\$29.93	\$32.82	\$30.04	\$24.75	\$24.74	\$25.20	\$28.97	\$29.60	\$41.43	\$36.47	\$30.56
Gold Grade	g/t	0.377	0.785	0.638	0.652	0.709	0.608	0.526	0.520	0.508	0.581	0.596	0.838	0.747	0.632
Silver Grade	g/t	5.8	4.4	4.7	4.1	5.1	5.4	4.6	4.9	4.5	5.2	5.1	6.9	8.0	5.1
Open Pit LG to Stock	Ktonnes	211	1,038	872	1,768	1,264	682								5,835
NSR	\$/tonne	\$13.96	\$14.01	\$14.03	\$13.97	\$13.97	\$14.01								\$13.99
Gold Grade	g/t	0.256	0.274	0.275	0.298	0.297	0.270								0.286
Silver Grade	g/t	4.7	3.3	3.6	3.1	3.2	4.1								3.4
OP LG Stock to Plant	Ktonnes													5,835	5,835
NSR	\$/tonne													\$13.99	\$13.99
Gold Grade	g/t													0.286	0.286
Silver Grade	g/t													3.4	3.4
Open Pit Waste		10,260	18,127	20,917	20,019	20,521	21,028	21,754	19,040	17,181	9,652	9,143	5,392	1,964	194,998
Open Pit Total		10,773	25,221	30,000	30,000	30,000	30,000	30,000	27,414	26,157	18,777	18,268	14,517	10,412	301,539
Total Process Plant Feed															
Ore	Ktonnes		7,300	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	8,448	106,999
NSR	\$/tonne		\$48.90	\$42.34	\$38.30	\$39.30	\$38.53	\$33.23	\$32.43	\$27.23	\$28.97	\$29.60	\$41.43	\$20.94	\$34.95
Gold	g/t		1.021	0.881	0.826	0.844	0.785	0.695	0.678	0.550	0.581	0.596	0.838	0.428	0.724
Silver	g/t		6.0	6.0	5.4	6.0	7.2	7.1	6.5	4.9	5.2	5.1	6.9	4.8	5.9

Figure 16-1: Mine Material Movement and Metal Production Illustration



Source: IMC, 2021

## 16.1 Surface Mine Mining Methods and Mine Design

The surface mine plan is based on a computer block model of the district prepared by Robert Sim of SIM Geological, Inc. (Sims) and delivered to IMC in February 2021. IMC has not audited or verified the block model. We have confirmed that our installation and calculations of tonnage and grade from the model match those calculated by Sim Geological, Inc.

A number of pit optimization trials were completed that addressed the overall pit size, production rate to the process plant, and mine production schedule. This section will summarize the final result of those evaluations.

### 16.1.1 Model Transfer

The block model received from SIM Geological is described in Section 14. The model blocks are sized 10 m x 10 m in plan with a bench height of 10 m. The 10 m bench height is appropriate for the production rate and equipment selected to achieve that production rate.

The model as installed by IMC covers the following area:

North	9,550,900 to	9,554,400	350 Blocks
East	768,500 to	770,900	240 Blocks

Coordinates are: UTM Provisional South America 1956, Zone 17S

The model variables that were supplied are:

- Gold : g/t
- Silver : g/t
- SG: specific gravity
- Class: measured, indicated, inferred
- Topography: provided by a topographic file on 1-m contours.

IMC installed the model and tabulated the contained tonnage within the resource pit that was developed by Sims. This check on the model installation was completed to confirm proper application and utilization of the block model variables.

Other planning variables were added to the model as required by IMC including NSR, and slope angle information that are discussed in later sub-sections.

## 16.2 Mining Methods Surface

### 16.2.1 Pit Optimization

Conventional pit optimization software was utilized to establish targets for design of the final pit and mine pushbacks or phases. It should be noted that the pit optimization work served as guidelines and that the mine schedule presented on Table 16-1 is the result of detailed mine planning including proper slope angles, operating geometries, and access roads.

Initial design parameters referred to as “ore definition parameters” by Luminex were established by IMC and Luminex working with the entire project team. Those parameters are presented on Table 16-2 and reflect initial estimates of costs

and recoveries. These initial estimates may not match the final costs, recoveries, and slope angle specifics that result from this overall study. However, they are sufficiently close to provide guidance for mine planning.

**Table 16-2: Ore Definition Parameters**

Luminex Resources, Condor North Area Ore Definition Parameters				
<b>Metal Prices</b>				
	Gold	\$1,500	/oz	
	Silver	\$18.00	/oz	
<b>Surface Mine Opex</b>				
		\$1.61	/ Tonne Material	
<b>Process Costs Direct Cyanidization: Assume Commingle with Open Pit Feed</b>				
	Mill Rate	Mill Cost	G&A Cost	Mill+G&A
	TPD	\$/tonne	\$/tonne	Cost/Tonne
	25000	9.25	\$1.96	\$11.21
<b>Process Recovery</b>				
		<u>Au Rec</u>	<u>Ag Rec</u>	
	Los Cuyes	95%	87%	
	Enma	92%	30%	
	Soledad	92%	30%	
	Camp	95%	53%	
<b>Refining or Smelting and Freight</b>				
	Gold	\$5.00	/oz	
	Silver	\$0.35	/oz	
<b>Payable</b>				
	Gold	99.5%		
	Silver	99.5%		
<b>Cutoff Grades</b>				
	Surface Mine	Internal	Breakeven	NSR/T
		\$11.21	\$12.82	

IMC has utilized Net Smelter Return (NSR) to combine the values of all economic metals at Condor North area. Simply put, NSR is the total sales value net of all off site costs for smelting and refining. Using the metal prices and costs summarized on Table 16-2, the equations for NSR are as follows based on the metal grade units provided in the model.

$$\text{Gold NSR} = \text{Au grade} \times \text{Recovery} \times (\text{Price} - \text{Au Refine}) \times 0.03215$$

$$\text{Silver NSR} = \text{Ag grade} \times \text{Recovery} \times (\text{Price} - \text{Ag Refine}) \times 0.03215$$

Total NSR in \$ per tonne

Where: The metal price and refining costs are in \$USD / troy ounce.

Gold makes up about 95% of the value while silver makes up the rest. The internal cutoff for NSR is \$11.21/tonne, the total of processing and G&A.

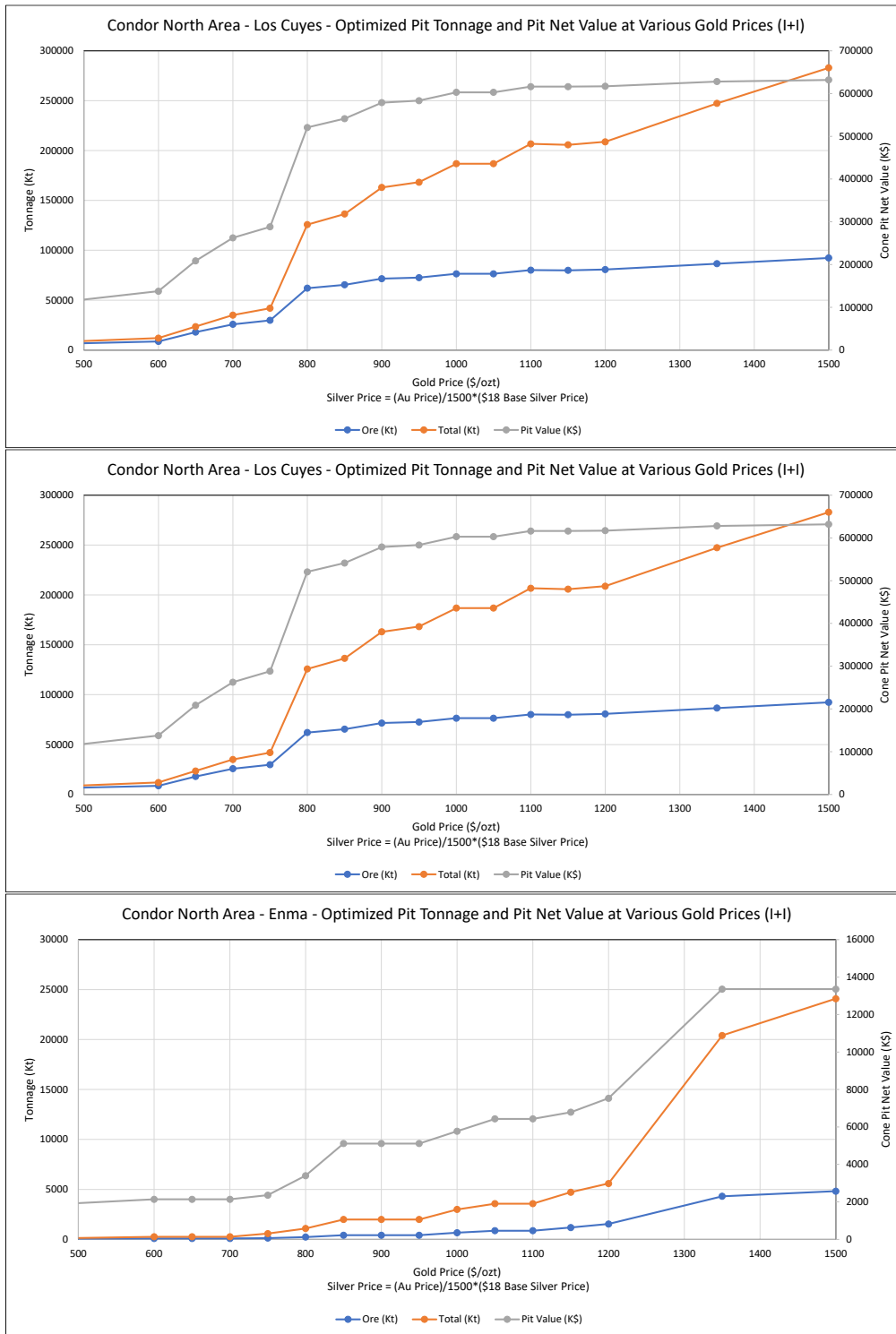
The base case NSR was calculated for every block in the model. Then in order to establish pit design guidance for smaller pits, the NSR was reduced by factoring downward on a percentage basis (revenue factors). Rather than report revenue factors for each cone, the resulting gold price from each factor is reported on the summary tables since gold is the most valuable metal of the two elements. The resulting graphics are presented in terms of metal price, but the reader should keep in mind that the value of all metals is included in the development of the computer-generated pit geometries.

Figure 16-2 summarizes the pit sizes and dollar values for the cone geometries at Los Cuyes, Soledad, and Enma. The peak value of each pit is approached at roughly the \$1,100 pit in Los Cuyes (73% rev factor) and \$1200 at Soledad and Enma (both 80% revenue factor). The values on the graph are calculated using the base case metal prices even though the pit was developed with a lower revenue factor price. The top graph for each pit indicates that the total material required continues to increase substantially for pits larger than the above reference \$1100/\$1200 pits (73/80% revenue factor).

Additionally, to further refine the final pit selection, the two primary pit areas, Los Cuyes and Soledad pits (57% and 15% of project value) were scheduled with various interim and final pit shells. Enma accounted for <1% of the project value and also ranked lower in economic return and so was excluded from this exercise. Pits were picked for starter, interim, and final phases based on expected mine/mill operational requirements. In this process, a total of 25 different high-level schedule variations were developed to compare and find the best economic (IRR, NPV) final and internal pit configuration to target. The result of this work resulted in further refined final pits for Los Cuyes targeting \$1,000 and Soledad/Enma pits targeting \$1,100-1,150.

Slope angles for the pit optimization were based on guidance provided by Wyllie & Norrish. IMC reduced the angles by a few degrees to provide an allowance for haul roads as input to the pit optimization software. An overall slope of 45 ° was used for all potential pit areas except for the northwest quadrant in Los Cuyes where the overall slope angle used is 42°.

**Figure 16-2: Pit Optimization Runs**



Source: IMC, 2021.

## 16.2.2 Mine Geotechnical Recommendations

Wyllie & Norrish Rock Engineers Inc. (W&N), with sub-consultant Dr. B. Fisher, P.E. of Fisher Rock Engineering, LLC, performed geotechnical analyses in support of PEA-level pit slope recommendations for the Condor North area. All data used in the analyses were developed by Luminex or its consultants, or by predecessor Project owners. Personnel from the W&N team have not visited the site.

Sources of data for the geotechnical study included:

- Exploration boreholes (126 count)
- Geologic mapping and interpretation performed by Luminex and Specialized Geologic Mapping Ltd. (Pratt, 2020)
- Field strength testing performed by Luminex.
- Groundwater interpretations provided by Hemmera (Ausenco)
- Background information and analyses provided by Luminex

### 16.2.2.1 Geotechnical Approach

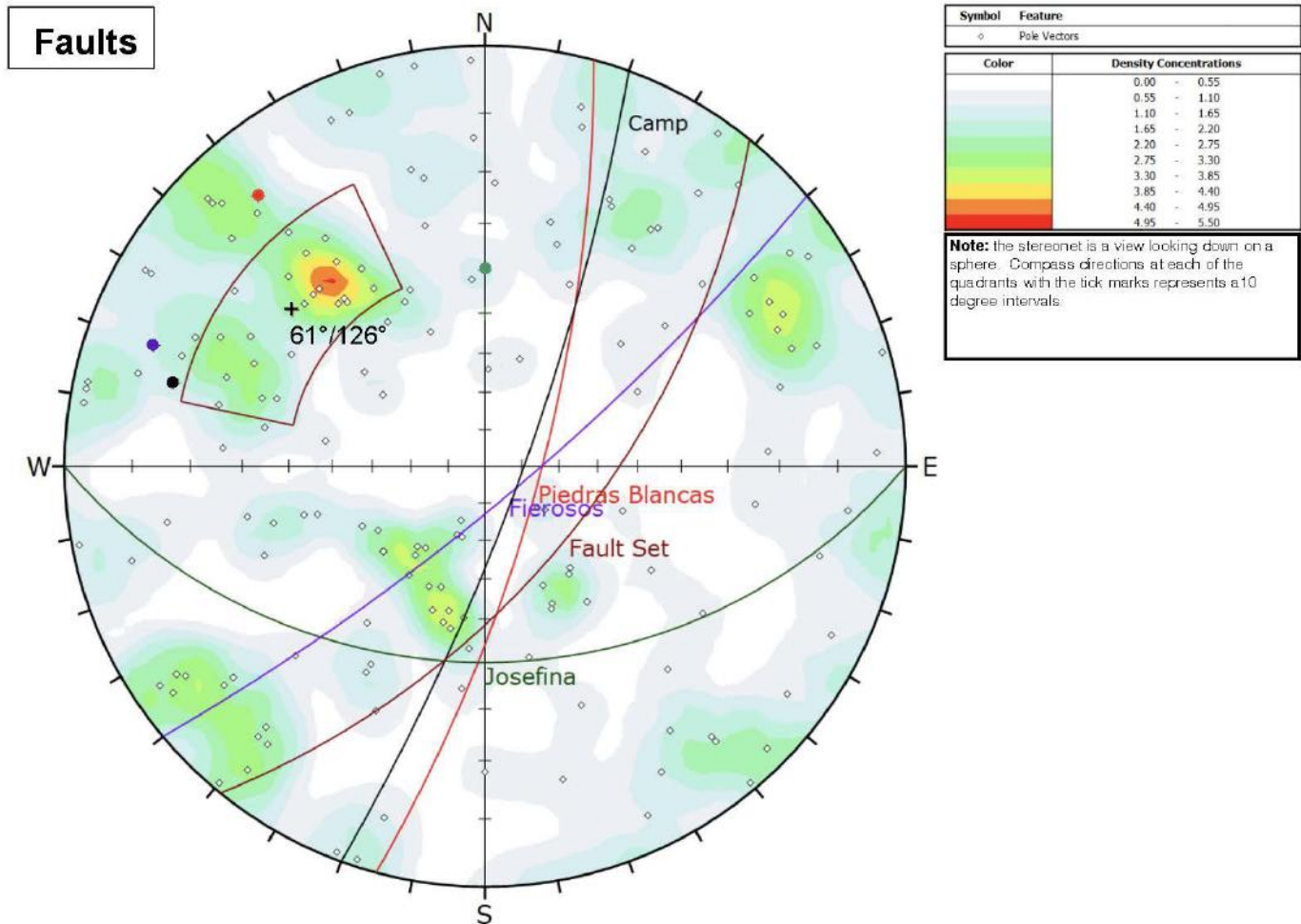
#### Structural Analysis

Structural analyses considered both major structures (i.e., faults) and structural fabric (joints, shears, foliation, contacts, etc.). Luminex provided wireframe models for the major regional faults; Piedras Blancas, Fierosos, Camp and Josefina. Except for the Josefina fault, the steep dips of major faults preclude potential large-scale fault-bounded planar or wedge-type wall failure. Conversely, for Josefina, the nominal 40-degree southward dip could potentially lead to planar failure or could combine with other structures to define large southwest or southeast plunging wedges. By virtue of the location of the Josefina Fault within the pit shell, it will not “daylight” the high north wall and thus does not represent a planar failure mechanism for ultimate slopes.

Structural fabric analyses utilized Rocscience Inc software “Dips” version 7.018 to demonstrate the predominance of steeply dipping structures for almost all compass directions. One shallower structural set comprised of minor faults and joint related structures and was defined with a nominal dip of 60° to the southeast. This minor fault set is similar in strike orientation to three of the major fault but is less steeply inclined. The Josefina Fault stands out as a unique feature without a sympathetic set of smaller scale faults. See Figure 16-3 for a completed model of the discussed structures.



Figure 16-3: Structural Fabric Analysis (Rocscience)



Sources: Wyllie & Norrish, 2021.

### Rock Mass Quality

Appropriate to the project exploration stage, dedicated geotechnical drilling investigations are not available. However, a subset of the exploration holes included logging of Rock Quality Designation (RQD) and a smaller subset included logging of all the parameters necessary to calculate RMR89, with the latter concentrated at the Camp Deposit. Accordingly, site specific correlations were developed to extrapolate the available data from Camp to generate RMR89 project-wide design values for the wall rock beyond the pit shells. Similarly, point load testing performed by Luminex was vetted and converted to unconfined compressive strength (UCS) using published relationships. The complex lithology precluded the direct analysis of rock mass quality and rock strength based on lithology or alteration. However, by segregating the geotechnical data in those boreholes that intersected the pit walls, the primary wall rock lithologies (granitoids and metamorphics) were preferentially included. Based on spatial analyses, a 50 m wide zone of reduced rock quality was inferred either side of the major faults (Figure 16-4). These fault-parallel degraded zones were incorporated into the stability model specific to each cross section analyzed.

Figure 16-4: Rock Quality Adjacent to Piedras Blancas Regional Fault



Source: Luminex, 2021

### Analytical Methodology

Stability analyses were performed using limit equilibrium (LEM) and finite element (FEM) methods using Rocscience Inc software "Slide2018" (8.032) and "RS2" (2019 10.012), respectively, as follows:

1. Specific cross sections from Los Cuyes pit were analyzed. These were judged "critical" cross sections based on overall slope height and included both the planned cut slopes and the natural slope topography above the pit crest.

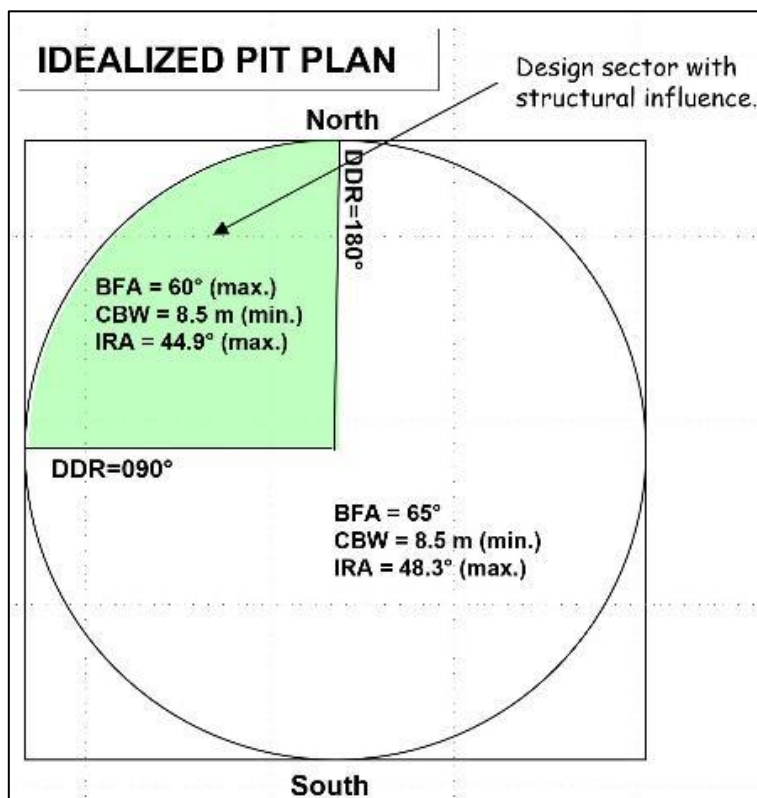
2. A generic slope incorporating project-wide rock mass strength parameters in which the geometric parameters were varied to develop slope height – slope angle relationships at a prescribed margin of safety of 1.3 (LEM Factor of Safety or FEM Strength Reduction Factor).

### Bench Geometry and Inter-Ramp Angle (IRA)

Bench face angles were selected to be flatter than, or sub parallel to, structural fabric. As shown in Figure 16-5, a quadrant-based segregation was selected to mitigate the southeast dipping fault and structural fabric population.

For the proposed 10 m vertical operating interval (bench height), it is recommended that double benching be adopted, for which the minimum catch bench width (CBW) should be 8.5m (per Ryan & Pryor, 2000). In recognition of the degraded rock quality proximal to major faults, it is recommended that triple benching not be considered at this PEA stage pending future geotechnical drilling and characterization. These bench design parameters define maximum inter-ramp angles (crest-to-crest or toe-to-toe) shown in Figure 16-5. The maximum inter-ramp vertical distance should not exceed 150 m, otherwise a 20 m min. (crest to toe width) safety bench should be incorporated.

**Figure 16-5: Bench Geometry and Inter-Ramp Recommendations**



Source: Wyllie & Norrish, 2021.

### Overall Slopes (Toe-to-Crest)

Overall slope inclinations will be governed by ultimate vertical height, rock mass strength, groundwater conditions, and the presence of major faults and structural fabric. These factors were incorporated into LEM and FEM models. The NW quadrant was identified as probable for the influence of structural fabric. Consequently, two sets of stability analyses were

performed; the first for the NW quadrant with the inclusion of structural fabric and the second for the other three quadrants that are absent the structural fabric. Theoretical curves relating allowable overall slope height – slope angle combinations for a stability factor of 1.3 were developed for saturated and drained groundwater conditions. The range in overall slope angles at a given slope height typically varied from 4° to 8° at the groundwater extremes. Given the lack of quantitative groundwater data at this PEA stage, an intermediate, partially drained condition was selected as the basis for design. Table 16-3 illustrates recommended values extracted from the theoretical curves to show the overall slope height – slope angle relationship for the PEA pit slopes and is applicable to all Condor North pits. A reduction in overall slope angle of approximately 3° to 5°, dependent on slope height, is due to the structural fabric present in the NW quadrant. The important conclusion is that successful partial drainage of pit walls will be required to achieve the preliminary designs, specifically for the higher Los Cuyes north and east walls.

**Table 16-3: Overall Pit Slopes Angles with Partial Drainage**

Overall Pit Wall Height (m)	NW Quadrant	NE – SE - SW Quadrants
400	47.5	53.5
500	45	50
600	43	47
700	41	44
800	39.5	42
900	n/a	40

### 16.2.3 Phase Design

A phase or pushback is a practical expansion of the surface pit that is not tied to time. The initial phase or pushback develops the highest value ore for initial production. The final pushback is the final pit design. Phase designs include all access roads required for practical production and incorporate appropriate operating room for the mine equipment. For this size of operation, mine phase designs are generally separated by at least 90 m from each other.

The inter-ramp slope angles are an important and integral part of the phase design. IMC followed the recommendations by Wyllie & Norrish as reported in a following sub-section.

Hard rock inter-ramp slopes follow the design angles at 48.3 IRA degree for all pit areas except for the northwest quadrant in Los Cuyes. The northwest Los Cuyes quadrant instead follows an IRA angle of 44°. Pit benches are planned in a double bench configuration. Bench face angles and relatedly catch bench widths differ if in the Los Cuyes NW quadrant – which is 60° bench face angle otherwise 65° in all other areas.

Additionally, every 150 vertical meters a wider 20-m safety catch bench per the slope recommendation was left in the hard rock slopes. Haul roads are 25 m wide including the ditch and the berm with a maximum gradient of 10%. A haul road if in the appropriate location could be used lieu of a safety bench. Taking into account roads and wider catch bench specifications actual designed pit hard rock overall slope angles range from 42° to 45° with the northwest Los Cuyes quadrant closer to 42°.

The stability of the slope walls and designed angle would follow a concurrent pit wall depressurization plan with horizontal drainage. As the specified 20-m catch benches are developed they will also be used to divert water and minimize water flowing into the pit areas.

In the Los Cuyes pit area, there are also other fault-related slope stability constraints to consider. The primary fault of concern is the shallower 40-degree dipping Josefina Fault which at this point is not expected to cross across the more vertical 80-degree dipping Fierosos Fault. Pit wall intersection with the Josefina Fault would cause pit wall stability concerns.

Phase 1 in Los Cuyes mines above the Josefina Fault and does not intersect it as a result. Phase 2 currently safely mines behind the Josefina Fault but could require a redesign in a later study if the Josefina is found to have extensions across the Fierosos fault. Los Cuyes Phase 1 and 2 influence the early release of high-grade ore for the surface operation.

Table 16-4 summarizes the contained tonnage and grade of the phase designs using the base case metal prices and the internal cutoff grade of \$12.81 NSR/tonne. The tabulations include the indicated, and inferred category mineralization.

**Table 16-4: Tonnage Tabulations within Phase Designs**

Phase Number	Phase Name	Potentially Minable Material at Internal Cutoff (\$11.21 NSR), MI+I				Waste ktonnes	TOTAL ktonnes	Strip Ratio	Net Value \$/t
		ORE ktonnes	NSR \$/t	Gold gpt	Silver gpt				
1	Los Cuyes Ph 1	11,723	32.88	0.674	4.6	8,523	20,247	0.73	19.04
2	Los Cuyes Ph 2	18,425	26.37	0.529	4.7	14,521	32,947	0.79	14.75
3	Soledad Ph 1	18,751	23.21	0.511	4.2	27,058	45,809	1.44	9.50
4	Soledad Ph 2	13,033	27.41	0.608	4.0	26,966	39,999	2.07	8.93
5	Soledad Ph 3	469	19.68	0.444	0.9	619	1,088	1.32	8.48
6	Los Cuyes Ph 3	47,511	29.54	0.592	5.4	103,850	151,361	2.19	9.27
7	Enma	1,135	26.05	0.557	9.1	3,360	4,495	2.96	6.58
Total		111,047	27.97	0.577	4.9	184,897	295,946	1.67	10.50

The phase tabulations do not match the ore tonnage on the production schedule because the mine production schedule utilized higher cutoff grades in the early years than the cut-offs reported on Table 16-4. One will note that the NSR/tonne generally declines from Phase 1 to Phase 7. The cash cost per equivalent ounce generally increases from Phase 1 to Phase 7.

Equivalent gold is an engineering calculation for simplified comparisons. The NSR value of every block is converted to an equivalent gold grade that would have the same value as the NSR once all recoveries and costs are applied.

The phase designs will not be shown as drawings in this text other than how they will appear in reality on the annual mine drawings later. At any time at least 2 and sometimes 4 phases are in operation, so the mine will never look like any one phase designs. The annual drawings illustrate the actual mine geometries with multiple phases and ample working room on each bench.

#### 16.2.4 Discussion of Surface Mine Production Schedule

The mine production schedule was developed using the phase designs to provide for a nominal 25,000 tpd of ore in combination with underground mine to the process plant throughout the mine life. The surface mine will move about 29,500

tpd (10.8 Mtpy) in preproduction, ramping up to 69,000 tpd (25.3 Mtpy) in Year 1, and then to the nominal mine production movement rate of 82,200 tpd (30 Mtpy) beginning Year 2 for 5 years. Years 7-8 will drop about 10% to 74,000 tpd (27 Mtpy). Years 9 -10 will move only about 50,700 tpd (18.5 Mtpy). Years 11-12 will be at further reduced rates as stripping requirements drop and low-grade material will be rehandled to the process plant as direct ore feed is exhausted. Refer to Table 16-1 for the mine production schedule.

The surface mine will nominally provide 90% of the ore feed for the years that the underground mine is in operation. Year 8 is the last year the underground mine produces ore.

Los Cuyes and Soledad will both be developed in preproduction to maintain an early stream of high-grade ore. The concurrent pre-stripping of Soledad will also provide a close suitable construction material for the truck shop / mine office, plant, and tailings storage facilities. Soledad will finish mining in Year 8. The Enma pit area is of lower-grade ore and will be mined later in the mine life following Los Cuyes beginning in Year 11 and ending with the mine life in Year 12. Surface low-grade material is rehandled and fed to the plant following the end of Enma.

During preproduction Los Cuyes will maintain a temporary plant feed stockpile near the crusher to be rehandled and fed to the process plant in Year 1. Los Cuyes and Soledad will each contribute excess low-grade ore to their respective stockpiles from Year 1 through Year 5. Enma ore will be all direct feed.

The challenge in this mountainous environment is to schedule sufficient waste removal to assure continuous ore release throughout the mine life. As each pushback is started, pioneering access must be developed up the steep mountains that Los Cuyes, Soledad, and Enma surface pits sit upon. Once access is assured, the mine production rate is somewhat limited until sufficient working room is developed on the pushback. Once developed, the vertical advance rate is limited by practicality. IMC has not exceeded 12 benches per year vertical advance rate throughout the production schedule.

The phase tabulations on Table 16-4 indicate that the initial phases have higher value per tonne than the later phases. This provides some opportunity to apply cutoff grade optimization to achieve a better time value of money for the Project than would be obtained at a fixed cutoff over the mine life. Multiple schedules were developed at elevated early cut-offs. Each of those schedules required a unique waste movement to assure release of the reduced tonnage of higher-grade material.

The trade-off of stripping cost versus economic ore benefit was evaluated using NPV analysis to measure the relative value of each case. Economic parameters were identical to those on Table 16-2 with one addition. A mine capital cost of \$2.50/tonne of mining capacity was applied based on the required production capacity to assure ore release. For example, if the total material requirement increased from Year 1 to Year 2 by 11,012 K tonnes/year, a capital cost of \$27,532 K would be added to the project cost in Year 1 when evaluating a schedule.

The resulting mine production schedule is summarized on Table 16-1. Beginning two years prior to production, the initial 12 months are for access pioneering only. Pioneering continues throughout the period of preproduction mining and through production to end of Year 2 after which the requirements for access development reduce.

### **16.2.5 Surface Low-Grade Storage**

The Los Cuyes and Soledad pit areas each will have their respective low-grade stockpiles. Los Cuyes pit low-grade will be delivered to the West Low-grade Storage Facility (WLGSF) while the Soledad pit low-grade will be delivered to the South Low-grade Storage Facility (SLGSF).

These low-grade storage facilities are temporary in nature and will be constructed at angle of repose. The facilities will be filled to capacity by the end of Year 5 and will remain static until the end of the mine life before they are recovered to the crusher at the end of pit life.

### 16.2.6 Saprolite Material Storage

Saprolite material will be present on the property. For this study the Saprolite will be comingled with the waste as it is stacked in the waste storage facilities. At this point, there is not yet a model for saprolite material estimation.

### 16.2.7 Waste Storage

At Condor North there will be two primary waste storage facilities each for Los Cuyes and Soledad/Enma. Due to the local climate and rainfall the waste storage facilities will generally be constructed in 20m lifts from the toe up.

The West Waste Rock Storage Facility (WWRSF) is located just west of the Los Cuyes pit. This waste storage facility will house only waste material from Los Cuyes. The waste storage facility is phased so that the closer higher elevation flatter portions of the valley encompassing the ultimate facility limits can be dumped earlier. This allows for shorter haul distances early in the mine life at Los Cuyes.

The South Waste Rock Storage Facility (SWRSF) is in a single steep valley and so there will be little opportunity to phase the dump. The facility will be built in lifts, up from the toe of the dump facility. Waste rock material from Soledad and Enma will be sent here. Later in the mine when Los Cuyes begins to fill up the nearby WWRSF waste material will instead be sent here.

Table 16-5 summarizes the waste and low-grade material delivery to each of the major waste/low-grade storage facilities.

**Table 16-5: Waste and Low-grade Facility Delivery Schedule**

Year	Tails Embankment	West Dump ktonnes	West Low-grade Ktonnes	South Dump ktonnes	South Low-grade ktonnes	Soledad Backfill ktonnes
Y00	3,860	2,702	211	3,703	0	0
Y01	3,180	5,821	933	8,368	105	0
Y02	1,500	16,563	688	3,622	184	0
Y03	2,000	1,773	317	17,516	1,451	0
Y04	1,590	6,426	261	9,028	1,003	0
Y05	750	19,116	586	1,244	95	0
Y06	1,000	11,258	0	9,793	0	0
Y07	2,100	10,362	0	3,477	0	0
Y08	0	17,009	0	161	0	0
Y09	3,000	9,663	0	0	0	0
Y10	1,260	0	0	0	0	4,883
Y11	0	0	0	0	0	5,396
Y12	0	0	0	0	0	1,960
<b>Total</b>	<b>20,240</b>	<b>100,693</b>	<b>2,996</b>	<b>56,912</b>	<b>2,383</b>	<b>12,239</b>

### 16.2.8 Surface Material Movement for Underground Mine

The underground Camp mine will need about 2.4 Mtonnes of external screened waste rock material for backfill. Surface Los Cuyes waste rock material will be delivered to the underground portal yard throughout the underground life of mine as ore is produced and backfill is required to continue production. A surface only wheel loader will rehandle the material onto underground haul trucks.

Additionally, underground ore will be also rehandled by the surface wheel loader as it is dropped off the by underground trucks at the portal yard. From there, the loader will load articulated trucks which will deliver the underground ore to the crusher.

### **16.2.9 Mine and Dump Layout Plans**

The following drawings illustrate the mine and waste storage facilities in selected time periods. Within the pit, the dark lines reflect the benches that have changes since the previous drawing.

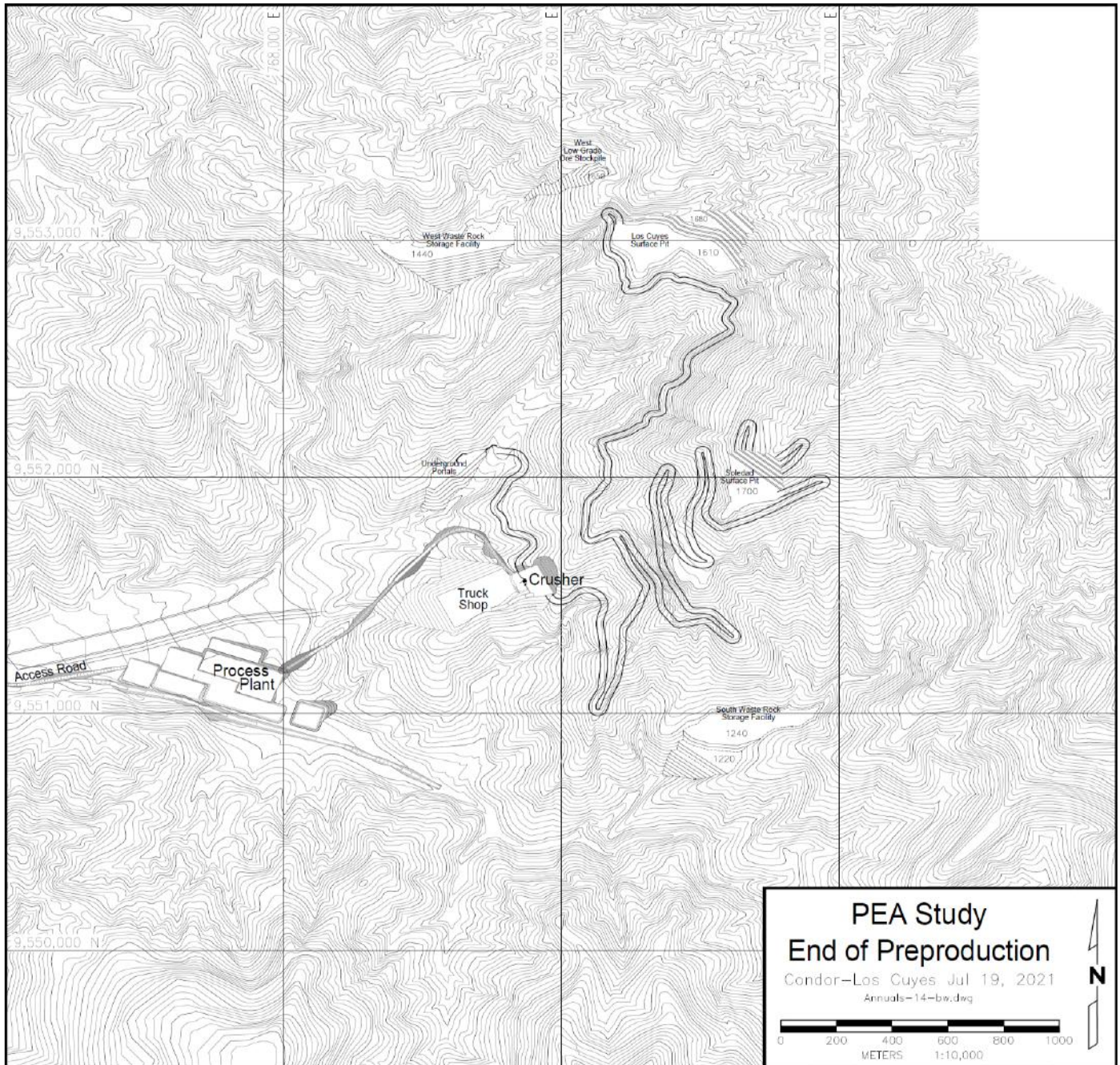
Waste storage facilities are toe and crest maps on actual contour elevations. Within the mine, the contours are at the bench centerline elevation, 5.0 m above the toe elevation. The bench flats are labeled with the bench toe elevation where the shovel sets.

Centerline contours in the pit are a common method of illustrating surface pit progress.

The annual mine plan and dump drawings are provided in Figure 16-6 through Figure 16-11.

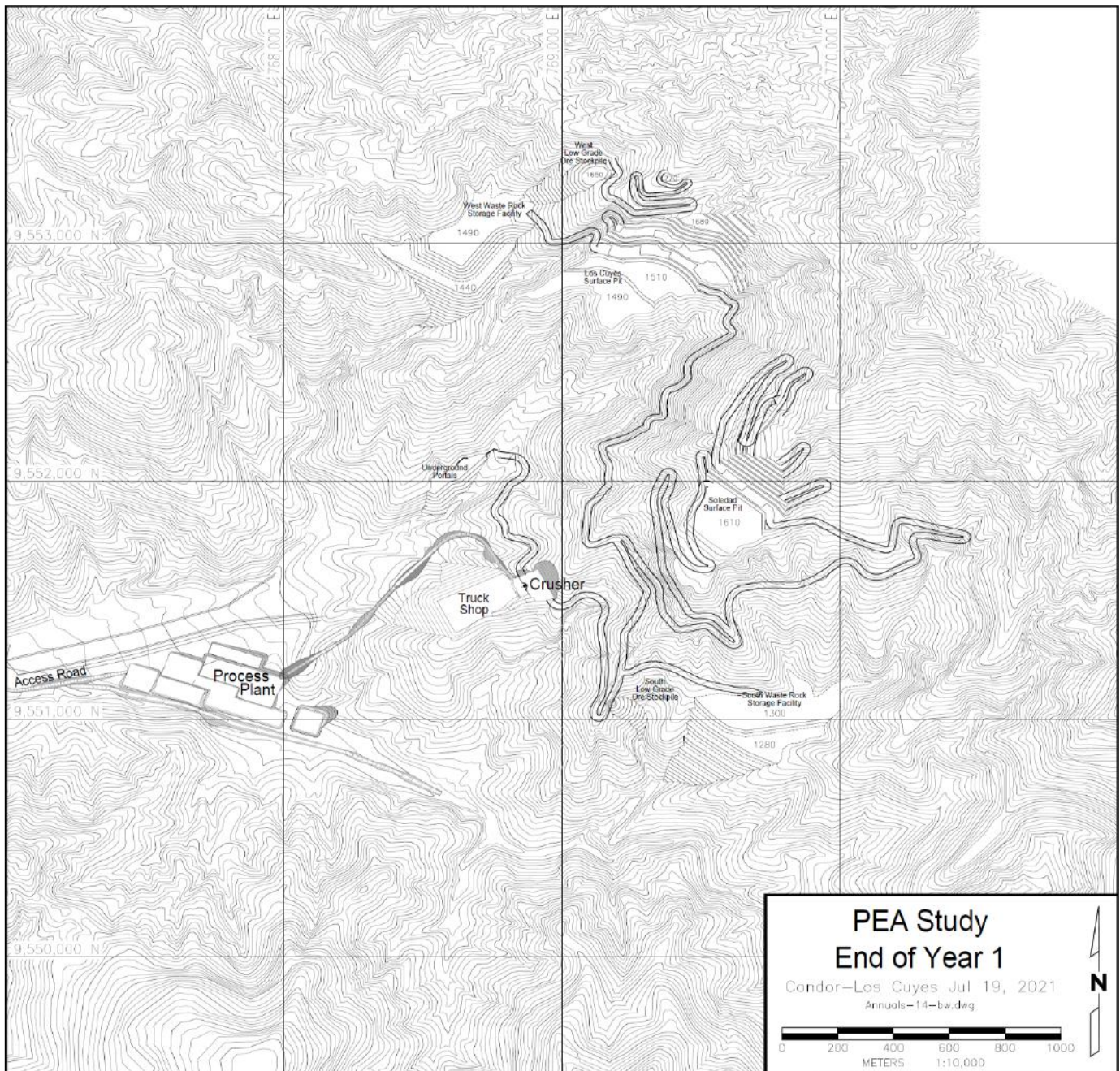


Figure 16-6: End of Preproduction



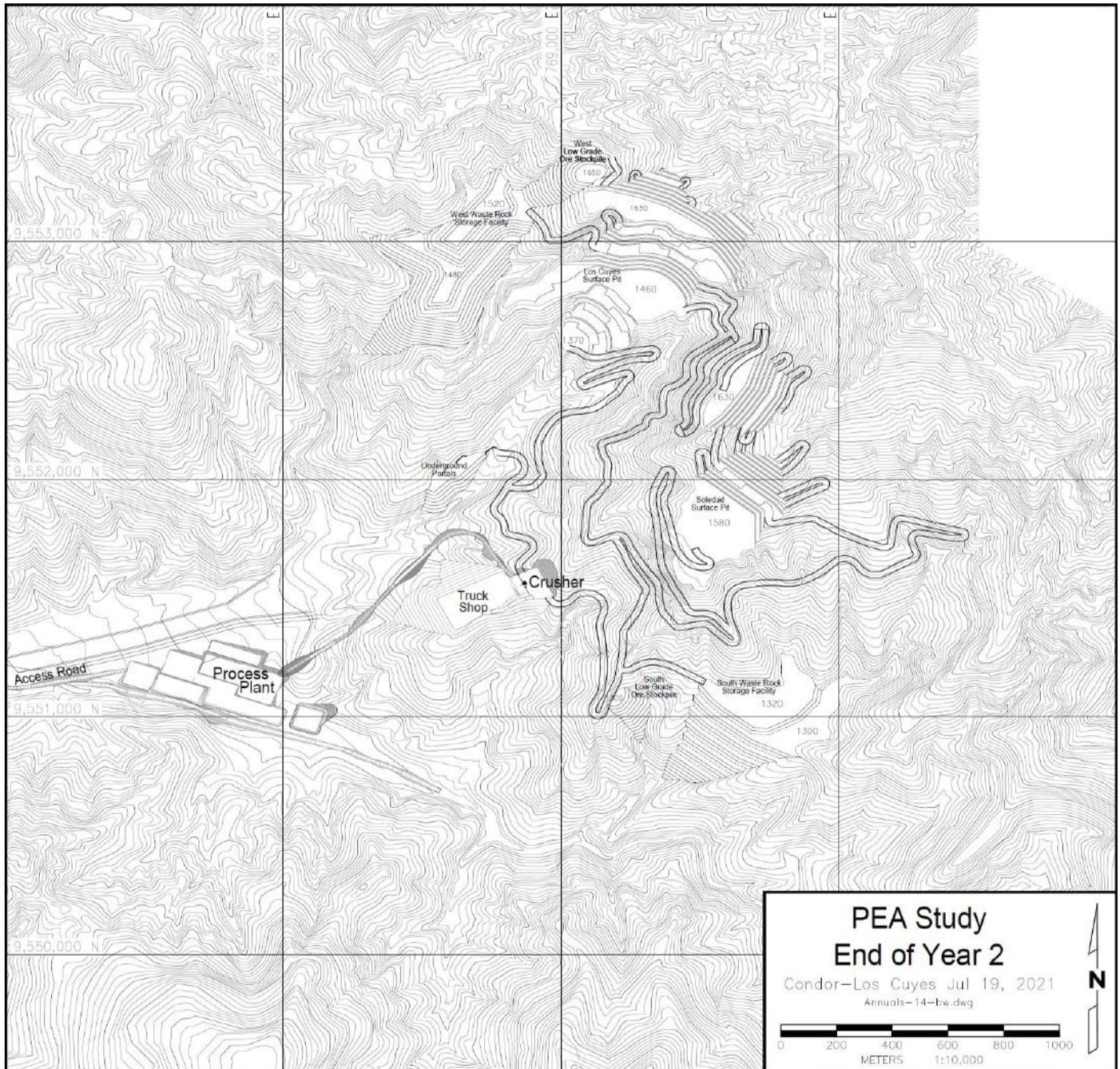
Source: IMC, 2021

Figure 16-7: End of Year 1



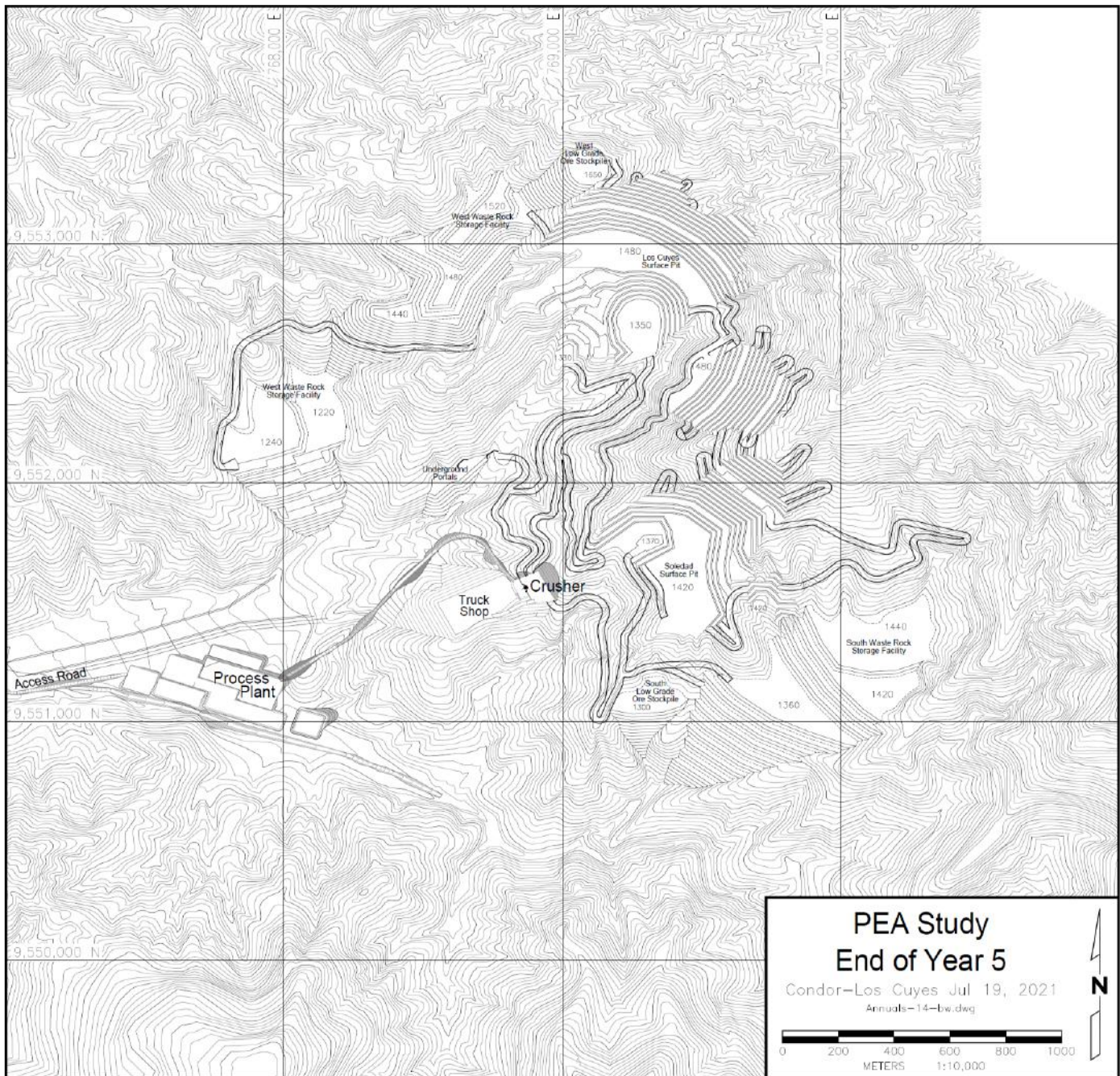
Source: IMC, 2021

Figure 16-8: End of Year 2



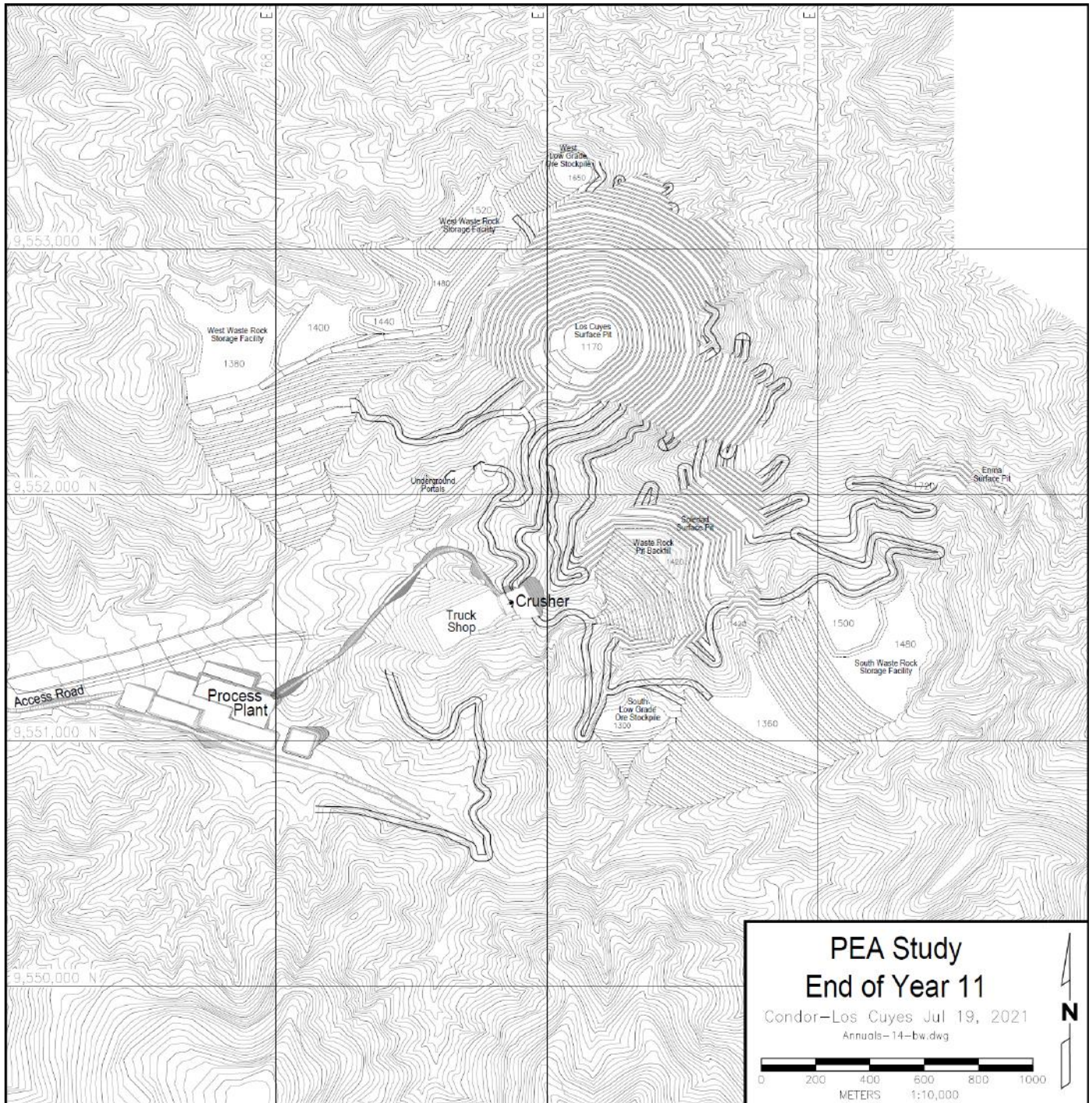
Source: IMC, 2021

Figure 16-9: End of Year 5



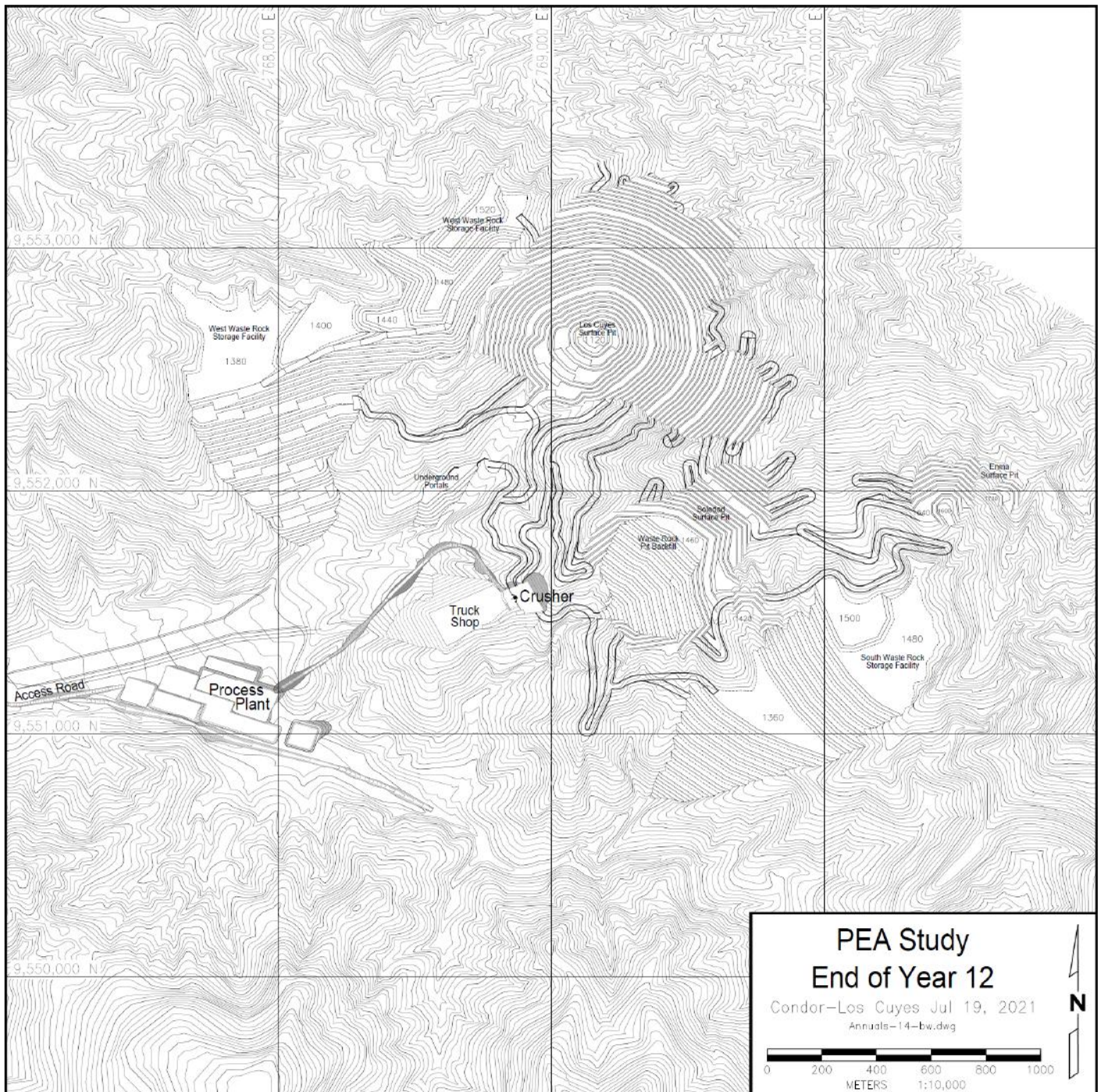
Source: IMC, 2021

Figure 16-10: End of Year 11



Source: IMC, 2021

Figure 16-11: End of Year 12



Source: IMC, 2021

### 16.2.10 Surface Mine Operations and Equipment

Surface mine equipment requirements were calculated based upon the mine production schedule and operating conditions at Condor North area. The steep terrain and intense rainfall establish mine operating conditions that can be challenging. In consideration of the operating conditions a preproduction period of two and a half years has been allotted to phase the mine into full production. Additionally, a number of unproductive shifts are planned for weather and other delays throughout the mine life.

Road pioneering will begin two years prior to production and will initially occur only during the daytime in 12-hour shifts due to inclement weather expected at site. The mine will move to a two shift/day surface operation once the pit mining areas are established beginning in prep Year -1. Heavy utilization of the auxiliary fleet will continue until Year 2 for additional road pioneering for other areas of the mine.

There will be two fleets at Condor North area – a primary production fleet and an auxiliary development and support fleet. The auxiliary fleet will be heavily utilized during road pioneering, preproduction, and during the initial pre-stripping of new pit areas to establish sufficient working operating widths for the primary production fleet. Additionally, the auxiliary fleet will be responsible for hauling underground ore from the portal yard to the crusher.

The primary production fleet will consist of D55SP drills, Cat 6030 shovels, Cat 992 loaders, and Cat 777 haul trucks. The auxiliary fleet will consist of D45 drills, Cat 349 excavators, Cat 988 loaders, and Cat D6/8/9 dozers. There is other miscellaneous support equipment such as rubber tire dozers, motor graders, and water trucks.

Table 16-6 shows the surface major mine fleet on hand throughout the mine life.

**Table 16-6: Mine Major Equipment Fleet on Hand**

Mine Major Equipment Fleet On Han (Units owned based on fleet build up and replacement)														
Equipment Type	Time Period (Years)													
	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09	Yr 10	Yr 11	Yr 12
D55SP DHD Drill	0	2	3	3	3	3	3	3	3	3	3	3	3	3
6030 Hydraulic Shovel	0	1	2	3	3	3	3	3	3	3	3	3	3	3
Cat 992 Loader	0	2	2	2	2	2	2	2	2	2	2	2	2	2
Cat 777 Haul Truck	0	23	23	23	23	23	23	23	23	23	23	23	23	23
Cat D9 Track Dozer	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cat D8 Track Dozer	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cat 834 RT Dozer	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Cat 16M Motor Grader	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cat 773G Water Truck	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Cat 740 Artic Truck	5	5	6	6	6	6	6	6	6	6	6	6	6	6
Epiroc D45	1	2	2	2	2	2	2	2	2	2	2	2	2	2
Cat 349 Excavator	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cat D6 Track Dozer	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cat 988 Loader	1	1	2	2	2	2	2	2	2	2	2	2	2	2
<b>TOTAL</b>	<b>19</b>	<b>48</b>	<b>54</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>	<b>55</b>

### 16.2.11 Surface Mine Labor and Staffing

The requirements for mine and maintenance labor were established based on the equipment fleet, operating schedule, and work requirements for the mine fleet. Mine salaried labor was estimated based on IMC experience working at other large mine projects of similar size to Condor North area.

The surface mine operations staff are summarized on Table 16-7. During the first five months of preproduction, the mine is scheduled to work 1 shift per day. Most of that effort is spent in pioneering access for larger mine equipment to follow. After the first five months of preproduction, the mine moves to a two 12-hour shift a day work schedule.

The mine maintenance labor was established to maintain a ratio of maintenance to operating personnel of approximately 65%. That ratio is slightly higher than what might be scheduled in North America where parts and vendor support are nearby. Due to the mine's locational distance from vendor and equipment parts support the mine will be expected to rely more so on their own personnel to maintain the equipment.

The surface mine salaried staff is summarized on Table 16-8. A few of the personnel are indicated as permanent expatriates and several others are planned to be expatriates initially who will phase out and be replaced by trained national staff. The mine and maintenance trainers are typical of the staff members who may start as expatriates and transition to nationals over time.

**Table 16-7: Mine hourly Labor Requirements**

Mine Hourly Labor Requirements														
JOB TITLE	Time Period (Years)													
	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09	Yr 10	Yr 11	Yr 12
<b>MINE OPERATIONS</b>														
Drill Operator	0	7	8	10	10	10	10	10	9	8	6	4	3	1
Shovel Operator	0	4	7	8	8	8	9	9	8	8	5	4	3	1
Loader Operator	0	7	2	2	2	2	2	2	2	2	1	1	2	4
Haul Truck Driver	16	111	113	112	110	100	99	99	85	71	61	48	45	42
Track Dozer Operator	22	14	14	14	14	11	11	11	11	11	11	11	11	13
Wheel Dozer Operator	2	3	4	5	5	5	5	5	5	5	3	3	3	3
Grader Operator	4	5	5	6	6	5	5	5	5	5	4	4	3	3
Service Crew	17	19	21	22	22	14	12	12	13	11	11	9	8	8
Blasting Crew	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Dispatch Operator	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Laborer	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Operations Total	77	186	190	195	193	171	169	169	154	137	118	100	94	91
<b>MINE MAINTENANCE</b>														
Mechanic	16	53	55	58	58	50	50	50	46	35	31	23	19	16
Mechanic's Helper	8	27	28	29	29	25	25	25	23	18	16	12	10	8
Welder	6	19	20	21	21	18	18	18	17	13	11	9	7	6
Fuel & Lube Man	8	8	8	8	8	8	8	8	8	8	8	8	8	8



Mine Hourly Labor Requirements														
JOB TITLE	Time Period (Years)													
	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09	Yr 10	Yr 11	Yr 12
Tire Man	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Laborer	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Maintenance Total	50	119	123	128	128	113	113	113	106	86	78	64	56	50
VS & A at 10.0%	13	31	31	32	32	28	28	28	26	22	20	16	15	14
TOTAL LABOR REQUIREMENT	140	336	344	355	353	312	310	310	286	245	216	180	165	155
Maint./Operations Ratio	0.65	0.64	0.65	0.66	0.66	0.66	0.67	0.67	0.69	0.63	0.66	0.64	0.60	0.55

**Table 16-8: Salaried Staff Labor Requirements**

Salaried Staff Labor Requirements														
JOB TITLE	Time Period (Years)													
	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09	Yr 10	Yr 11	Yr 12
Mine Manager	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Secretary	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MINE OPERATIONS:														
Mine Superintendent	1	1	1	1	1	1	1	1	1	1	1	1	1	1
FL Supervisors (Shift Foremen)	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Drill & Blasting Supervisor (Expat)	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Drill & Blasting Supervisor (Trainee)	2	2	2	2	0	0	0	0	0	0	0	0	0	0
Drill & Blasting Supervisor (Capacitated)	0	0	0	0	2	2	2	2	2	2	2	2	2	2
Mine Trainer (Expat)	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Mine Trainer (Trainee)	2	2	2	2	0	0	0	0	0	0	0	0	0	0
Mine Trainer (Capacitated)	0	0	0	0	2	2	2	2	2	2	2	2	2	2
Mine Operations Total	11	11	11	11	9	9	9	9	9	9	9	9	9	9
MINE MAINTENANCE:														
Maint. Manager (Expat)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Maintenance General Foreman	1	1	1	1	1	1	1	1	1	1	1	1	1	1
FL Supervisors MTN (Shift Foremen)	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Maintenance Planners	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Maintenance Trainer (Expat)	1	1	1	1										
Maintenance Trainer (Trainee)	2	2	2	2										
Maintenance Trainer (Capacitated)	0	0	0	0	2	2	2	2	2	2	2	2	2	2
Mine Maintenance Total	11	11	11	11	10	10	10	10	10	10	10	10	10	10

Salaried Staff Labor Requirements														
JOB TITLE	Time Period (Years)													
	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09	Yr 10	Yr 11	Yr 12
MINE ENGINEERING:														
Mine Engineering Manager (Expat)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chief Mining Engineer (Expat)	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Chief Mining Engineer (Trainee)	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Chief Mining Engineer (Capacitated)	0	0	0	0	1	1	1	1	1	1	1	1	1	1
Junior Mining Engineer	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ore Control Engineer	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Surveyor	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Clerk	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine Engineering Total	12	12	12	12	11	11	11	11	11	11	11	11	11	11
MINE GEOLOGY:														
Senior Mine Geologist	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Geologist	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Geotechnical Engineer	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Geo Tech – Sampler	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Samplers	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Mine Geology Total	10	10	10	10	10	10	10	10	10	10	10	10	10	10
TOTAL PERSONNEL	46	46	46	46	42	42	42	42	42	42	42	42	42	42

### 16.3 Camp Deposit (Underground Mine)

#### 16.3.1 Underground Summary & Mine Production Schedule

The Camp deposit is one of four deposits included in the Condor North area. The Camp deposit is the only deposit planned to be mined by underground methods.

The Camp mine will exploit a series of steeply dipping narrow veins of relatively high-grade gold mineralization. There are no existing workings in the deposit, it has been defined solely by diamond drilling. All resources in the Camp deposit are classed as “inferred” mineralization.

Based on the results of the drilling, geotechnical conditions in the Camp are anticipated to be good. Camp will be mined by mechanized mining methods using waste rock as backfill in the stopes. Ore and waste handling from the Camp portal will be done by the Open Pit mine crews.

Because Camp grades will be much higher than grades from the open pits, development and mining of the Camp are accelerated to provide as much high-grade material to the processing plant early in the project life as can be done. A summary of the Camp deposit production schedule is shown in Table 16-9.

**Table 16-9: Camp Production Schedule**

Item	Units	Year												Total All Years
		Yr -03	Yr -02	Yr-01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09	
<b>Production</b>														
Transverse – Primary	Ktonnes		-	69	326	250	146	141	85	53	93	1	-	1,163
Transverse – Secondary	Ktonnes		-		188	207	298	157	92	102	76	14	-	1,136
Modified AVOCA	Ktonnes		-		108	306	390	461	463	548	530	130	-	2,937
5-Spot – AVOCA	Ktonnes		-		57	37	13	96	46	70	9	0	-	328
<b>Total Stopping Tonnage</b>	<b>Ktonnes</b>		<b>-</b>	<b>69</b>	<b>680</b>	<b>800</b>	<b>847</b>	<b>855</b>	<b>686</b>	<b>774</b>	<b>707</b>	<b>145</b>	<b>-</b>	<b>5,563</b>
Development Ore	Ktonnes			51	142	114	65	56	149	105	44	4	-	729
<b>Total Ore</b>	<b>Ktonnes</b>		<b>-</b>	<b>120</b>	<b>822</b>	<b>914</b>	<b>912</b>	<b>910</b>	<b>835</b>	<b>879</b>	<b>751</b>	<b>49</b>	<b>-</b>	<b>6,293</b>
NSR	\$/tonne			\$126.31	\$129.94	\$144.49	\$113.62	\$97.71	\$122.77	\$112.83	\$118.23	\$149.36	\$ -	\$120.68
Au Grade	g/t			2.70	2.75	3.06	2.39	2.06	2.54	2.28	2.44	3.08	-	2.52
Ag Grade	g/t			12.48	16.76	18.37	16.76	14.24	24.48	30.79	24.42	30.89	-	20.78

Note: Production grades from Camp Deposit are fully diluted.

### 16.3.2 Geotechnical Recommendations – Camp

Geotechnical recommendations for underground openings are based on reduction of the data summarized in Section 16.2.2 and experience on similar projects in similar geotechnical units.

At the PEA development stage, empirical methods are typically used for designing underground openings. For this study, the following have been employed:

- Rock Mass Rating (RMR89) – rock characterization after Bieniawski (1989)
- Q system – Barton (1974, 2002)
- Stability Graph Method – slope design after Mathews et. al. (1981) and as updated by Potvin (1988)
- Pillar design – Potvin & Hudyma (1989)

#### *Mine Access Openings*

Mine access opening support is based on the rock mass quality, stress and water conditions. Potential mine depths to 800 m were used to determine in situ stress as a function of depth based on published procedures. The groundwater conditions for the mine are currently unknown and therefore dry and moderate inflow conditions were assumed.

Spans up to 8 m are desirable for the UG mine based on preferred mine excavation equipment.

Using (Q-System) design nomograms, the results for permanent access openings are:

#### *Access Drifts:*

- For depths greater than about 15 m and less than about 600 m for either groundwater condition, unsupported spans to 8m are feasible.
- For depths beyond 600 m:
  - Unsupported spans up to 5 m and associated intersections with ‘neat lines’ of 7.1 m or less are allowable.
  - Mine access spans greater than 5 m will require support.

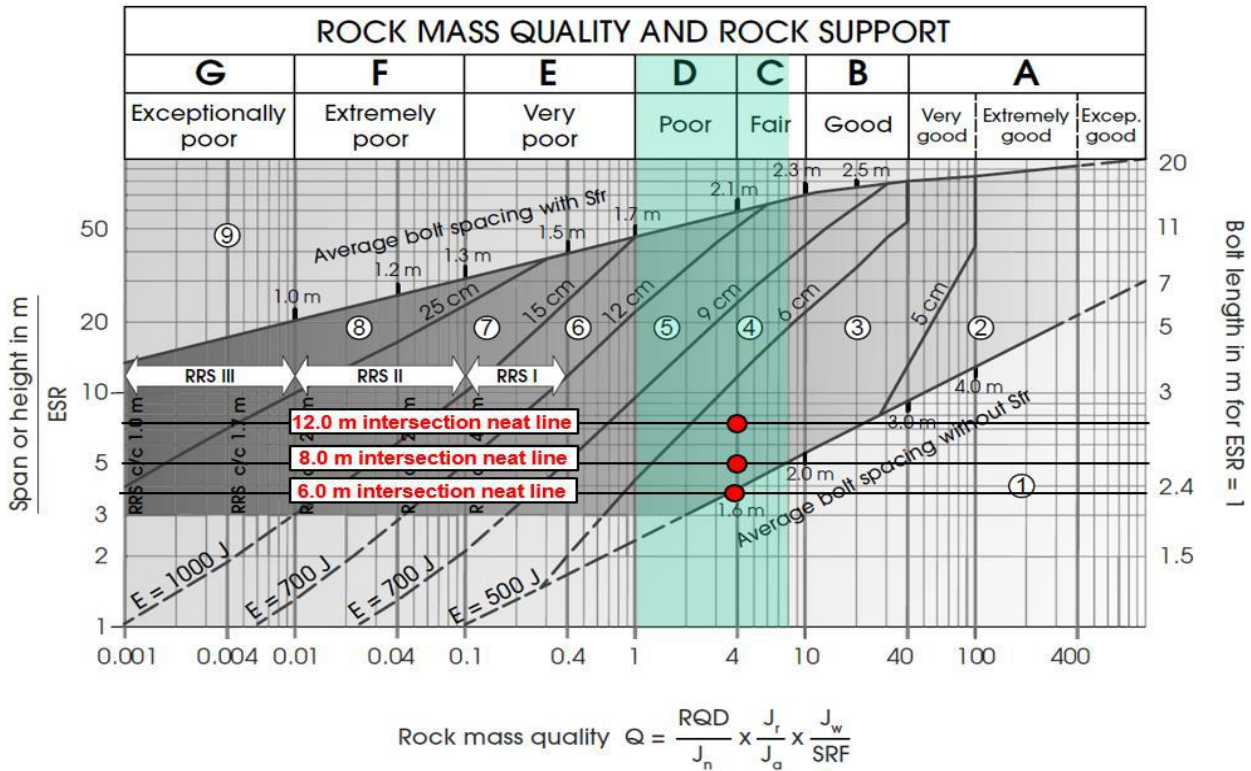
#### *Intersections:*

- For all depths, intersections for mine access openings greater than 5 m (‘neat line’ of 7.1 m or greater) will require support.

Where support is required, the Q-System nomogram suggests systematic bolts on about a 2.1 m spacing (lengths of about 1.25 to 1.75 m) with fibre reinforced shotcrete. For the smaller intersections (i.e., 8.0 m neat line), it would seem reasonable to replace the fibre reinforced shotcrete with welded wire mesh, if preferable from a constructability standpoint.

An example of a Q-Value design nomogram for intersections is provided in Figure 16-12.

Figure 16-12: Underground Geotechnical – Intersection Q-Value Nomogram



**Support categories**

- ① Unsupported or spot bolting
- ② Spot bolting, **SB**
- ③ Systematic bolting, fibre reinforced sprayed concrete, 5-6 cm, **B+Sfr**
- ④ Fibre reinforced sprayed concrete and bolting, 6-9 cm, **Sfr (E500)+B**
- ⑤ Fibre reinforced sprayed concrete and bolting, 9-12 cm, **Sfr (E700)+B**
- ⑥ Fibre reinforced sprayed concrete and bolting, 12-15 cm + reinforced ribs of sprayed concrete and bolting, **Sfr (E700)+RRS I+B**
- ⑦ Fibre reinforced sprayed concrete >15 cm + reinforced ribs of sprayed concrete and bolting, **Sfr (E1000)+RRS II+B**
- ⑧ Cast concrete lining, **CCA** or **Sfr (E1000)+RRS III+B**
- ⑨ Special evaluation

Bolts spacing is mainly based on Ø20 mm  
 E = Energy absorption in fibre reinforced sprayed concrete  
 ESR = Excavation Support Ratio  
 Areas with dashed lines have no empirical data

**RRS** - spacing related to Q-value

- I** **SI30/6 Ø16 - Ø20 (span 10m)**  
D40/6+2 Ø16-20 (span 20m)
- II** **SI35/6 Ø16-20 (span 5m)**  
**D45/6+2 Ø16-20 (span 10m)**  
D55/6+4 Ø20 (span 20m)
- III** **D40/6+4 Ø16-20 (span 5m)**  
**D55/6+4 Ø20 (span 10 m)**  
Special evaluation (span 20m)

SI30/6 = Single layer of 6 rebars,  
 30 cm thickness of sprayed concrete  
 D = Double layer of rebars  
 Ø16 = Rebar diameter is 16 mm  
 c/c = RSS spacing, centre - centre

**Range of Q Values**

Source: Wyllie & Norrish, 2021

## Stopes

Longitudinal Stopes geotechnical recommendations were developed using the Stability Graph Method and calculating the Modified Stability Number (N'). N' was then used to develop allowable hydraulic radii (area/perimeter) for the mine hanging walls, backs, footwalls and ends for both unsupported and cable bolt-supported stopes.

For the Camp Deposit, Table 16-10 lists the hydraulic radius values that were determined.

**Table 16-10: Maximum Stope Hydraulic Radii**

	Hydraulic Radius, m	
	w/o Cable Bolts	w/ Cable Bolts
Wall		
Hanging Wall	9.5	12.1
Ends	8.6	10.9
Back	10.3	13.1

## Pillars

Rib pillars will be required between the longitudinal stopes during transverse mining, pillars will be required between crosscut entries. In practical terms, the pillar width will be determined by vein spacing. Formal pillar design has not been completed for this PEA. To help facilitate pillar stability and for parallel stopes, the first stope will be backfilled prior to excavation of the next parallel stope; ensuring that no two parallel stopes will be open at the same time.

## Crown Pillar

As the mining levels approach the surface, one or more stopes may be open. Accordingly, recommendations for crown pillar thickness are:

- For openings less than 10m width, crown pillar thickness should be equal to the opening width + 10m, below the sap rock / fresh bedrock contact.
- For openings greater than 10m width, crown pillar thickness should be equal to the opening width + 20m, below the sap rock / fresh bedrock contact

## Mine Access Offset

Stope-parallel access drifts should be offset on the footwall side from the stope development by a minimum distance of 25m. Permanent access parallel to the stope alignment should be avoided on the hanging wall side.

### 16.3.3 Underground Hydrological

#### 16.3.3.1 Hydrology & Recharge

Very little hydrogeological information is available for the Camp deposit. Adits developed by artisanal miners in the district are known to make water, however quantities and source of the water is not well understood.

### 16.3.3.2 Local Groundwater Recharge Estimates

Recent work by Hemmera (Ausenco) estimate that continuous water inflow into the underground mine could range from 1,400 m<sup>3</sup>/d to 6,200 m<sup>3</sup>/day.

### 16.3.3.3 Mine Dewatering

For purposes of this PEA, a continuous water inflow rate of 3,800 m<sup>3</sup>/day (mid-range) (750 US gpm) was assumed.

## 16.3.4 Underground Mine Design

The Camp mine will exploit a number of subparallel, steeply dipping veins, that extend from surface outcrop to a depth of at least 800 m below surface (600 m amsl). The mine will be accessed by a single ramp/decline that extends from the portal at elevation 1200 m amsl down to the 660 m level (660 m amsl) and up to the 1300 m level. All level nomenclature reference elevation above mean sea level (amsl).

The veins vary in width from <1.0 m to 20 m. In some instances, veins may join or bifurcate, creating two sub-parallel veins from one. Individual ore shoots on the veins can vary between 20 and 300 meters along strike, with vertical extent varying from 20 m to over 200 m. Vein widths may vary along strike, such that mining method may be changed at different points along the strike of the vein.

### 16.3.4.1 Underground Mining Methods

A number of mining methods were considered during initial evaluation of the Camp deposit. The methods evaluated were based on vein geometry and initial understanding of the ground conditions. Labor intensive methods such as shrink stoping and conventional cut & fill were not considered because of safety and availability of the required skill sets.

The mining methods considered included:

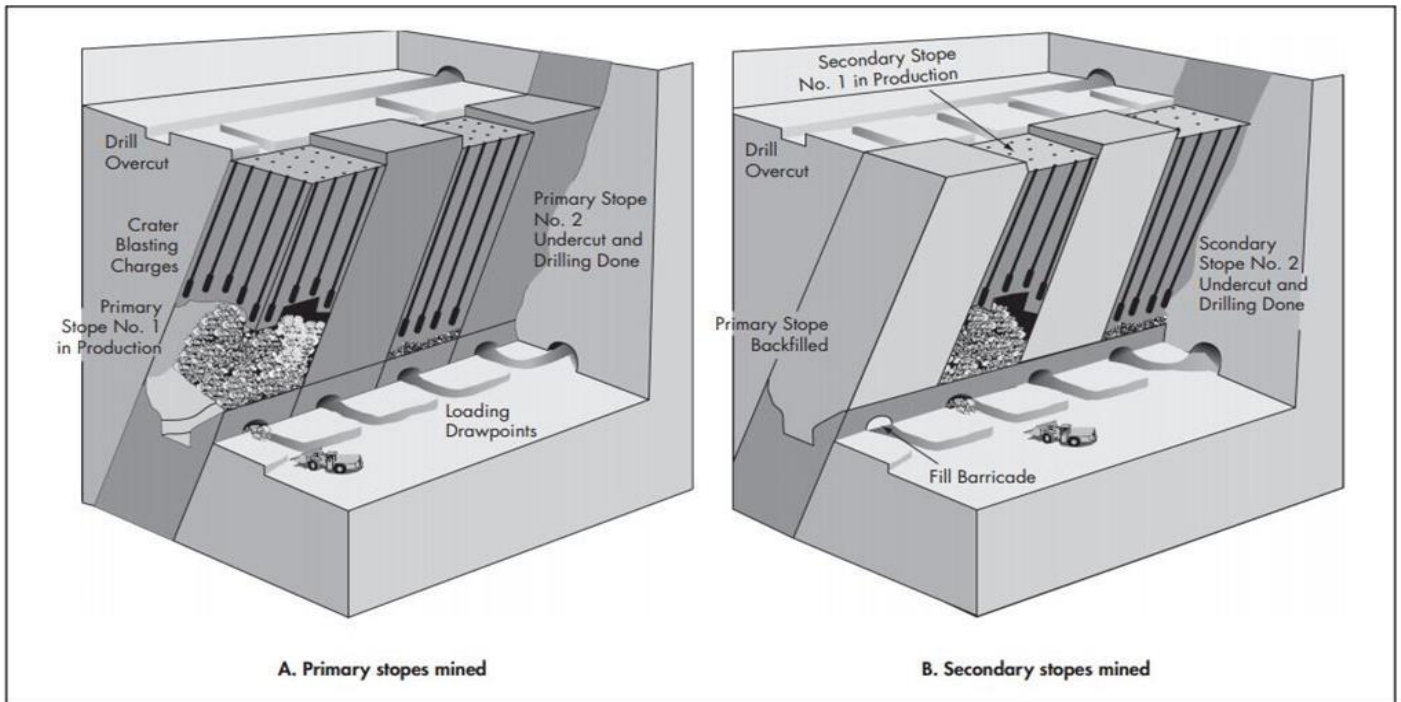
- Long Hole Open Stope (LHOS), longitudinal and transverse, with backfill, (Figure 16-13)
- AVOCA and Modified AVOCA (LHOS with different backfill strategy) (Figure 16-14)
- 5 Dice (5 Spot) Avoca (for narrow zones – to 3.0 m)
- Overhand Cut & Fill (Mechanized)
- Underhand Cut & Fill

Level spacing was selected as 20 m, floor to floor. This was selected to minimize the potential for unplanned dilution introduced by variations of the ore-waste contact between the levels, particularly in longitudinal stopes where the stope walls are parallel to the ore-waste contact. As the project advances and more information is available, the level spacing should be reviewed.

After performing first pass unit cost and productivity calculations for each method, we elected to advance the study utilizing the LHOS and AVOCA methods only. The methods considered require backfill; the study assumes that waste rock will be used for backfill, cemented where required, as in Primary Transverse LHOS stopes.

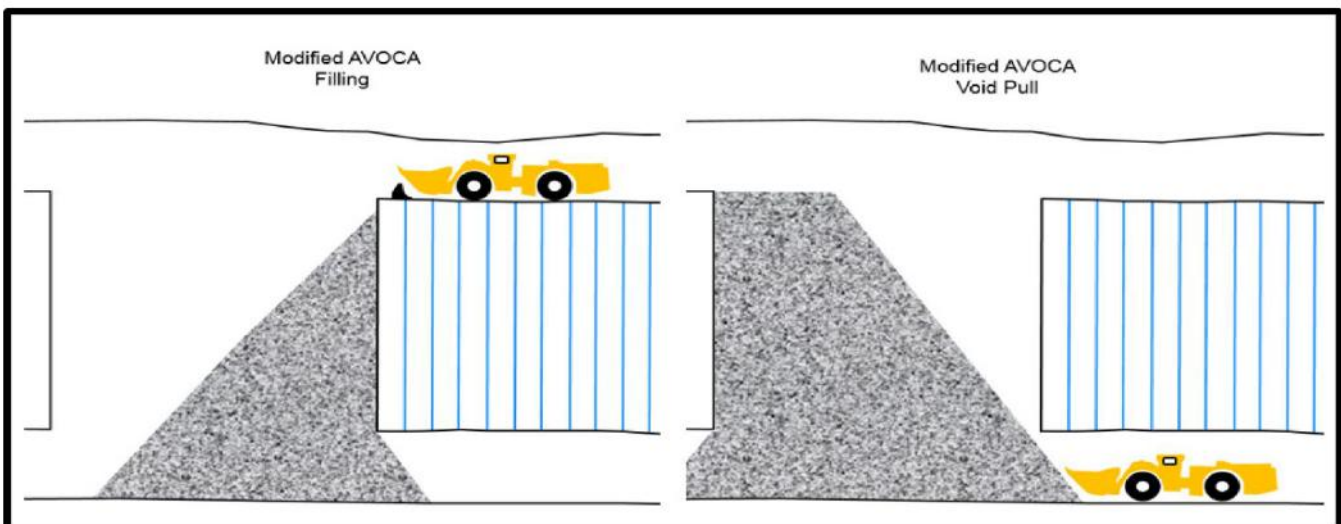
The cut and fill methods were removed from consideration because of high operating costs, low productivity, and high dilution when using waste rock for backfill.

Figure 16-13: Transverse Longhole Open Stope



Source: SME Mining Engineering Handbook, 3<sup>rd</sup> Edition

Figure 16-14: Modified AVOCA Stopes



Source: CIM, 2018.



#### 16.3.4.2 Stope Design

Stope dimensions were initially selected based on experience and qualitative understanding of the geotechnical situation. Subsequent geotechnical review by Willie & Norrish refined these dimensions. Table 16-11 lists basic stope dimensions.

**Table 16-11: Stope Dimensions**

Stope Dimensions (meters)				
Method	Height	Width min	Width max	Length
Transverse	20	8	12.5	25
Mod AVOCA	20	4	8	30
5 Dice AVOCA	20	3	4	20
Development	4	3.6	4	

Although the stopes require backfill, no additional ground support is planned in longitudinal stopes beyond the ground support installed during development. Transverse stopes will require additional ground support in the form of cable bolts to maintain the wider spans. Pillar stability between parallel stopes requires that adjacent stopes be mined and filled before the next parallel stope can be mined.

#### 16.3.4.3 Cut-off Grade

For purposes of mine planning, the cut-off grade (COG) (NSR Value) was selected based on the mining method. The mining costs were developed during an earlier scoping study and retained for COG use in this PEA. Development COG are a marginal COG and pay for processing the material after it has been delivered to the portal.

Table 16-12 lists cut-off grades for the different mining methods proposed for Camp deposit.

**Table 16-12: Cut-off Grades**

Cutoff Grades (US\$/Tonne)			
Transverse	Mod Avoca	5 Dice Avoca	Development
\$63.41	\$59.48	\$70.00	\$12.00

#### 16.3.4.4 Dilution and Recovery

Mining dilution and recovery factors for each mining method were based on typical industry performance and experience. Table 16-13 lists these factors.

**Table 16-13: Stope Dilution and Recovery Factors**

<b>Dilution &amp; Recovery Factors</b>		
Method	Mining Dilution	Mining Recovery
Transverse	15%	95%
Mod AVOCA	20%	90%
5 Dice AVOCA	20%	90%
Development	0%	100%

#### 16.3.4.5 Underground Mine Planning

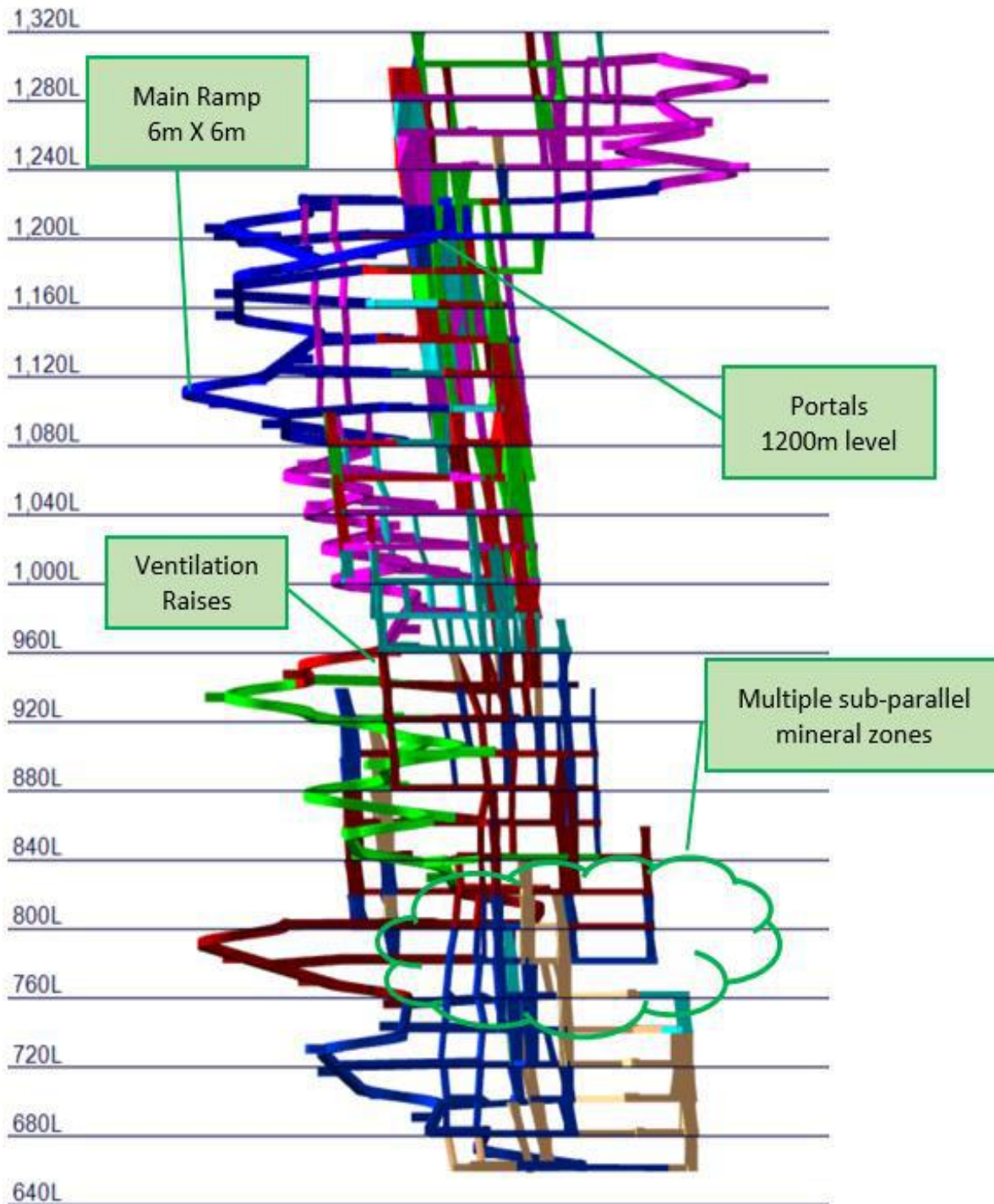
For planning purposes, stope designs were developed in Deswik software utilizing their Mine Stope Optimiser (MSO) software. The MSO selected the appropriate mining method based on ore body dimensions and orientation, then applied mining recovery and dilution to determine recovered ore tonnes and grade for the stope. If the stope NSR exceeded COG, it was included in the potential mining inventory.

Following design of the stopes through MSO, mine development was designed. The initial mine plan called for access by 2 portals (one for intake air and one for exhaust) at the 1200-m elevation. The main access is 6.0 m x 6.0 m, large enough for the planned mobile equipment. Ramps up and down to the production levels were designed at an average gradient of 13%, which allows for 15% gradient on the ramp and grade breaks at each level.

As an integral part of the design, ventilation raises were included to deliver fresh air to all working levels of the mine. Discussion of the mine ventilation system is included in Section 16.1.

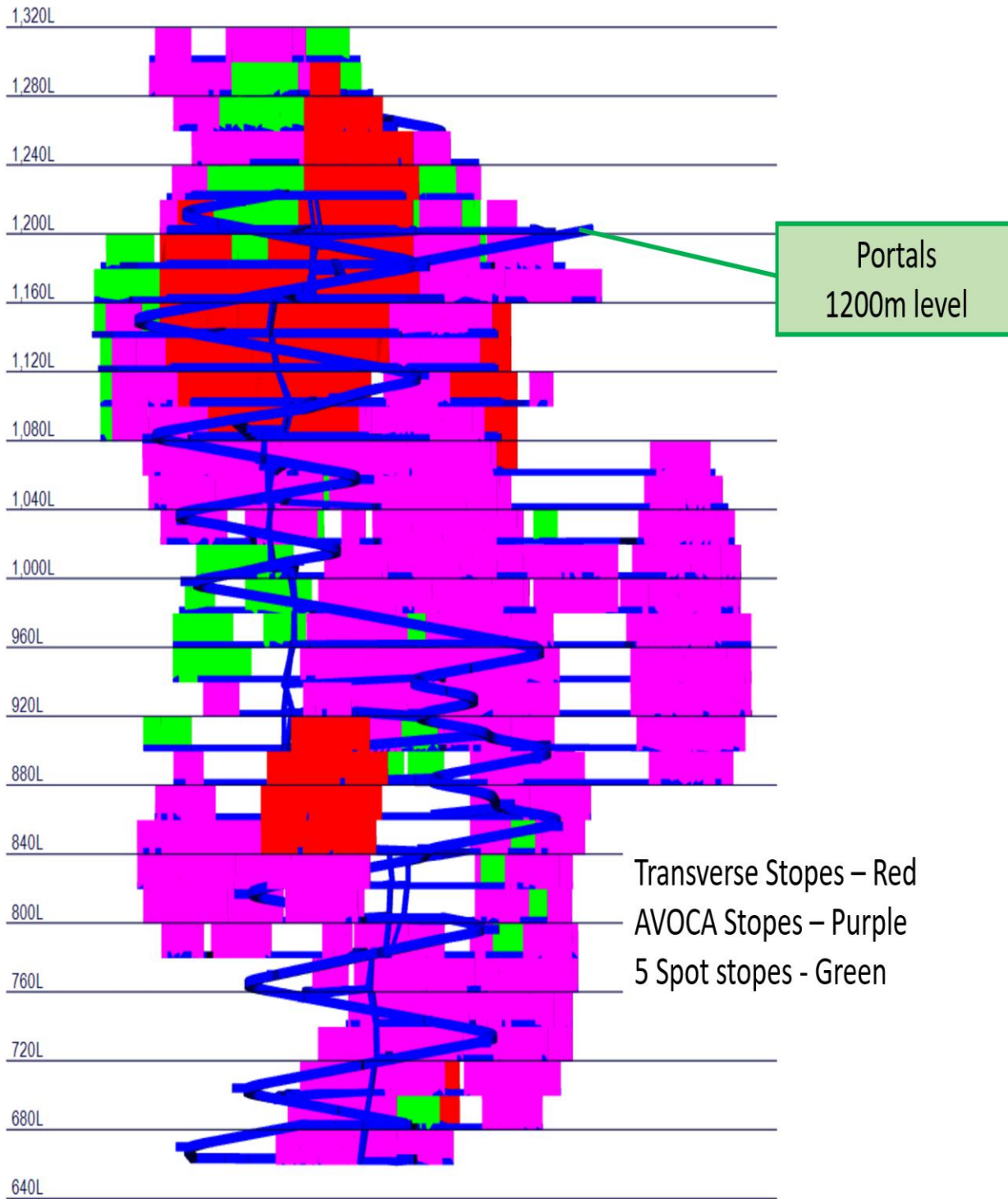
Figure 16-15 is an oblique view of the mine that clearly shows the multiple sub-parallel mineralized zones, the spiral ramp system, and the ventilation raises. Figure 16-16 is a longitudinal section of the mine showing the distribution of the different mining methods.

Figure 16-15: Oblique View of Camp Mine



Source: Barber, 2021

**Figure 16-16: Longitudinal Section of the Camp Mine**



Source: Barber, 2021

Development on each level was sized for operational requirements and designed to meet stope access requirements. Table 16-14 lists the main different development headings, planning codes, dimensions, and section type.

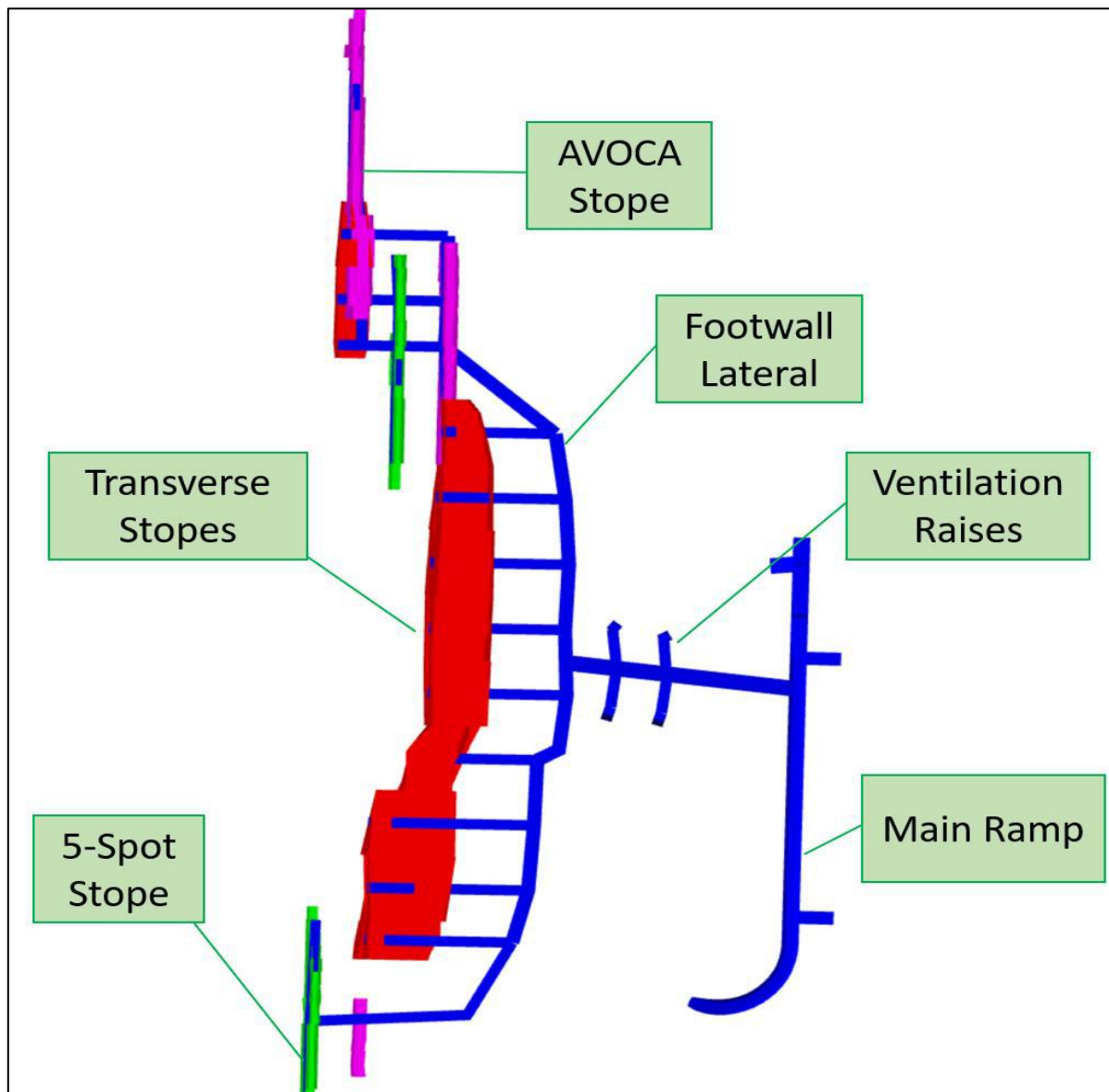
**Table 16-14: Development Heading Sizes**

Development heading sizes				
Description	Code	Width (m)	Height (m)	Section
Ramp	RMP	6.0	6.0	Arch
Level Access	LAC	6.0	6.0	Rect
Foot Wall Drive	FWD	5.0	5.5	Rect
Remuck	RMK	5.0	5.5	Rect
Ore Sill / Drill Sub	SIL	4.0	4.0	Rect
Ore Sill 5 Dice Avoca	SIL 5D	3.6	4.0	Rect
Sill Waste	SILW	4.0	4.0	Rect
Ventilation Access	VNA	4.0	4.5	Rect
Ventilation Raise	VNR	4.0	3.0	Rect
Cross Cut	XCT	4.0	4.5	Rect

Figure 16-17 shows a typical production level. MSO runs and preliminary mine design were completed, potential stopes were evaluated based on theoretical profitability (NSR less COG Value). Following that, the cost of development access was considered, and stopes that did not return sufficient margin to pay for development were classified as uneconomic and removed from the mine plan.

After completion of the development and production schedule and the ventilation model, we determined that ventilation requirements to support the desired production rate would require air velocity in the ramps and travel ways to exceed safe and economic velocities. This was particularly problematic when haulage from the lower levels required a larger truck fleet. Following a high-level economic analysis, we elected to add two additional portals and adits, and raises to the lower levels. This allowed air velocities to remain in the safe range, power costs to be reduced, and sufficient ventilation to support the higher production rate. This additional development is included in the cost models and financial analysis, but not included in all figures.

Figure 16-17: Typical Production Level



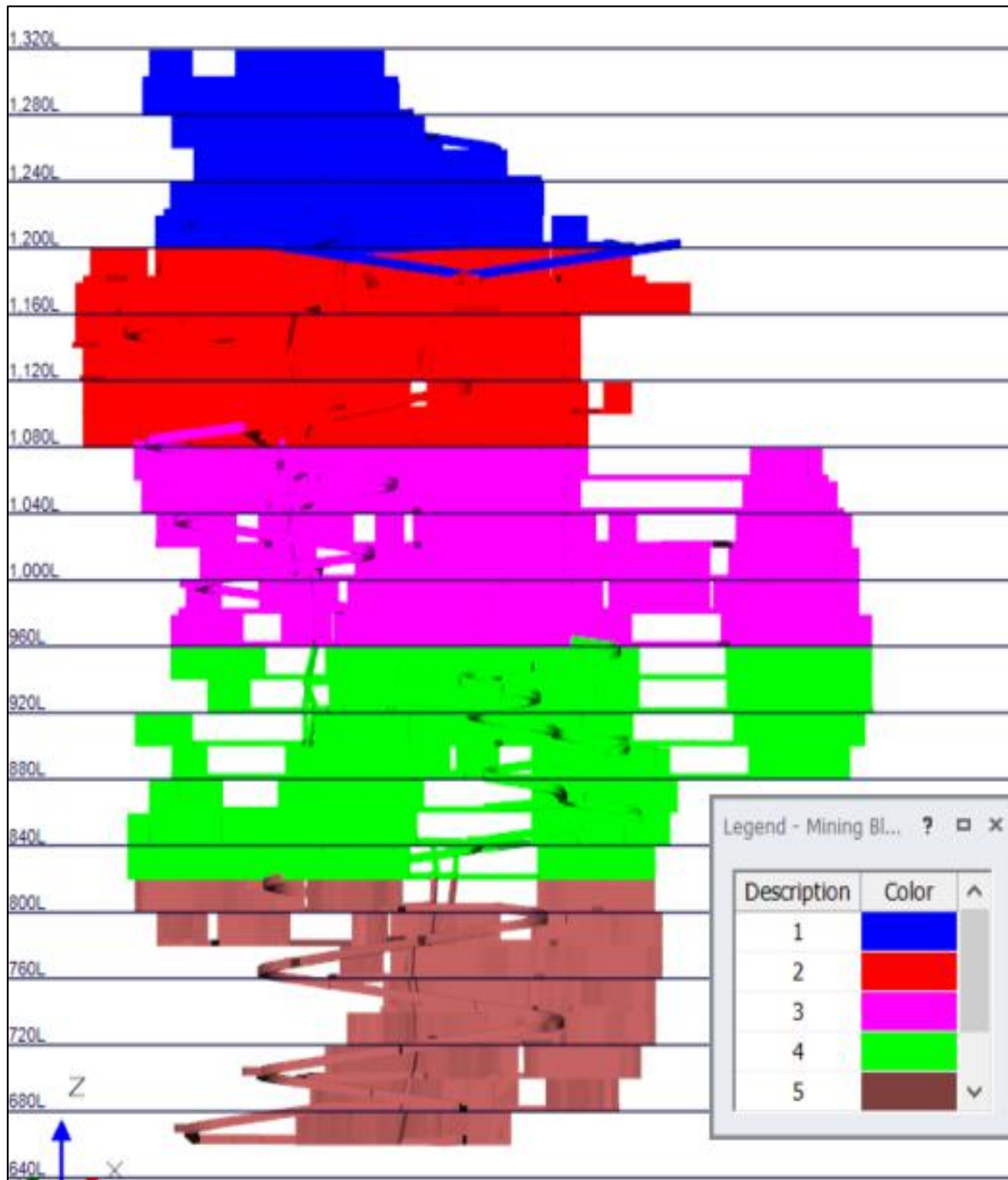
Source: Barber, 2021

### 16.3.5 Production Schedule

#### 16.3.5.1 Mine Sequence

For purposes of planning, the mine was divided vertically into 5 separate horizons. Each horizon included 5 operating levels on 20 m vertical intervals, as well as the 20 m sill pillar above the top level. Figure 16-16 shows the horizons. Each mining horizon is extracted from bottom up.

Figure 16-18: Mining Horizons

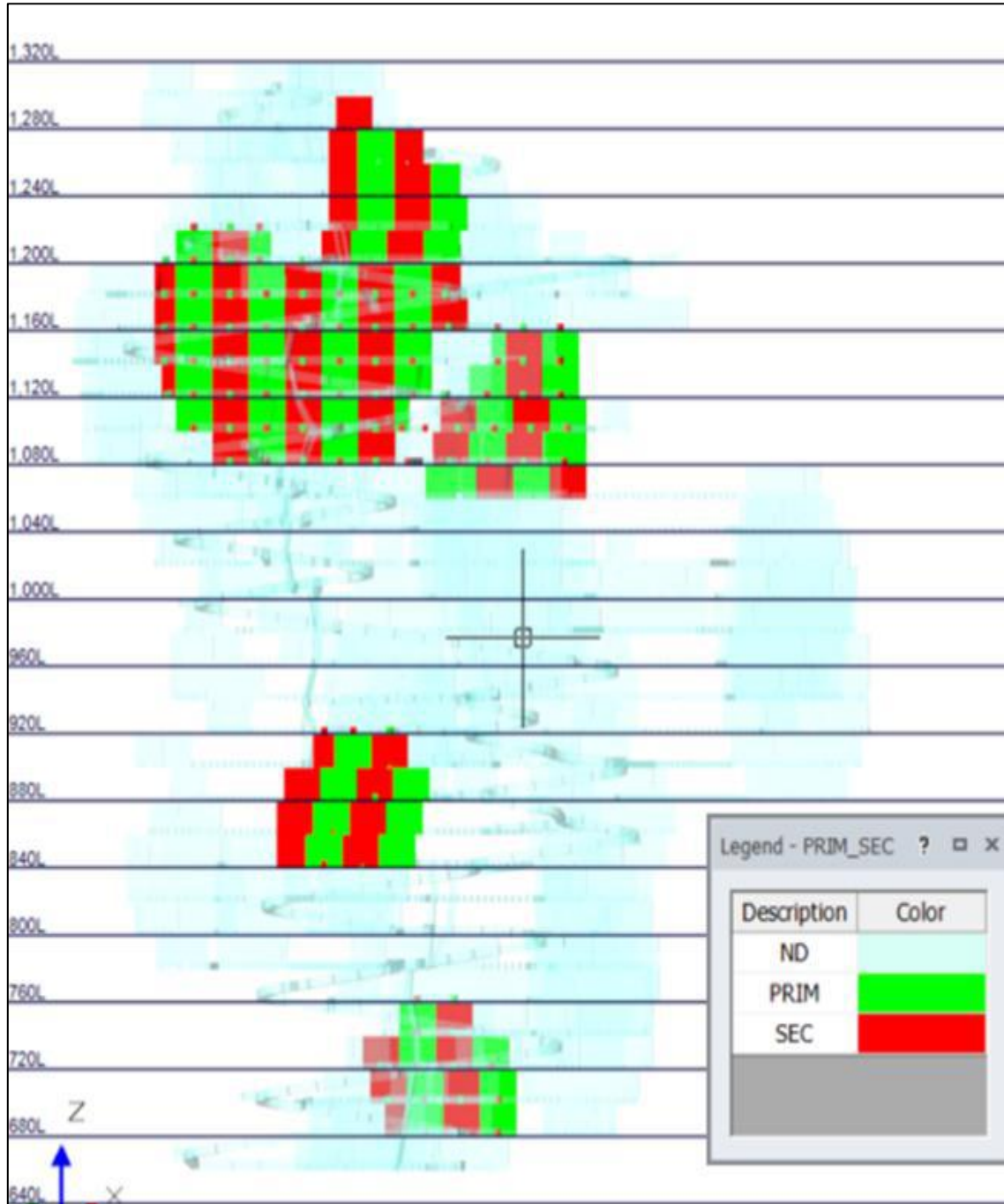


Source: Barber, 2021

Transverse stopes were mined as Primary/Secondary sequence, while Modified Avoca and 5 Dice Avoca were mined as longitudinal retreat.

The geometry of the veins and mineralized zones varies throughout the Camp deposit. As a result, specific mining methods are not constrained to specific areas. Figure 16-19 clearly shows this.

**Figure 16-19: Location of Areas Mined by Transverse Mining Methods**



Source: Barber, 2021



### 16.3.5.2 Mine Schedule

The development and production schedule for the Camp deposit was prepared utilizing the Deswik schedule package. This is similar to mine scheduling packages available in other 3D mine planning software. Within the software, development and production/stopes are sequenced so that they are “mined” in a logical sequence. As an example, Stope X can’t be mined until the required development has been completed. Factors for productivity and available resources are input and the software prepares a schedule based on the design, the sequence and productivity factors.

The Deswik Scheduling package, working within assigned constraints, develops schedules to meet certain goals assigned by the planner. In the case of the Camp deposit, the goals were to deliver the highest production and metal delivery in the early years and accept the potential for reduced performance in the mine’s later years.

Development and production ramp-up of a new underground mine is heavily dependent on development advance rates. In the case of the Camp deposit, the mine schedule and ramp-up rate is predicated on having skilled development miners available from the beginning of development. There was no “training period” included at the beginning of the schedule.

Since Ecuador does not have a large skilled underground mining workforce, it is anticipated that expatriate miners from Peru will be available to develop the mine during initial development and production ramp-up, and to train Ecuadorian National workers in the skills of underground mining.

### 16.3.5.3 Development Productivity

Mine production ramp up is heavily influenced by development advance rates and the time it takes to make a stope available for production. Development productivity used in the schedule was based on industry benchmarks and typical advance rates. Maximum advance rates for any given heading size are shown in Figure 16-16.

**Table 16-15: Development Advance Rates**

Development Advance Rates					
Description	Code	Width (m)	Height (m)	Section	Max Rate (m/day)
Ramp	RMP	6.0	6.0	Arch	3.0
Level Access	LAC	6.0	6.0	Rect	3.0
Foot Wall Drive	FWD	5.0	5.5	Rect	3.0
Remuck	RMK	5.0	5.5	Rect	3.0
Ore Sill / Drill Sub	SIL	4.0	4.0	Rect	3.0
Ore Sill 5 Dice Avoca	SIL 5D	3.6	4.0	Rect	3.0
Sill Waste	SILW	4.0	4.0	Rect	3.0
Ventilation Access	VNA	4.0	4.5	Rect	3.0
Ventilation Raise	VNR	4.0	3.0	Rect	2.5
Cross Cut	XCT	4.0	4.5	Rect	3.0

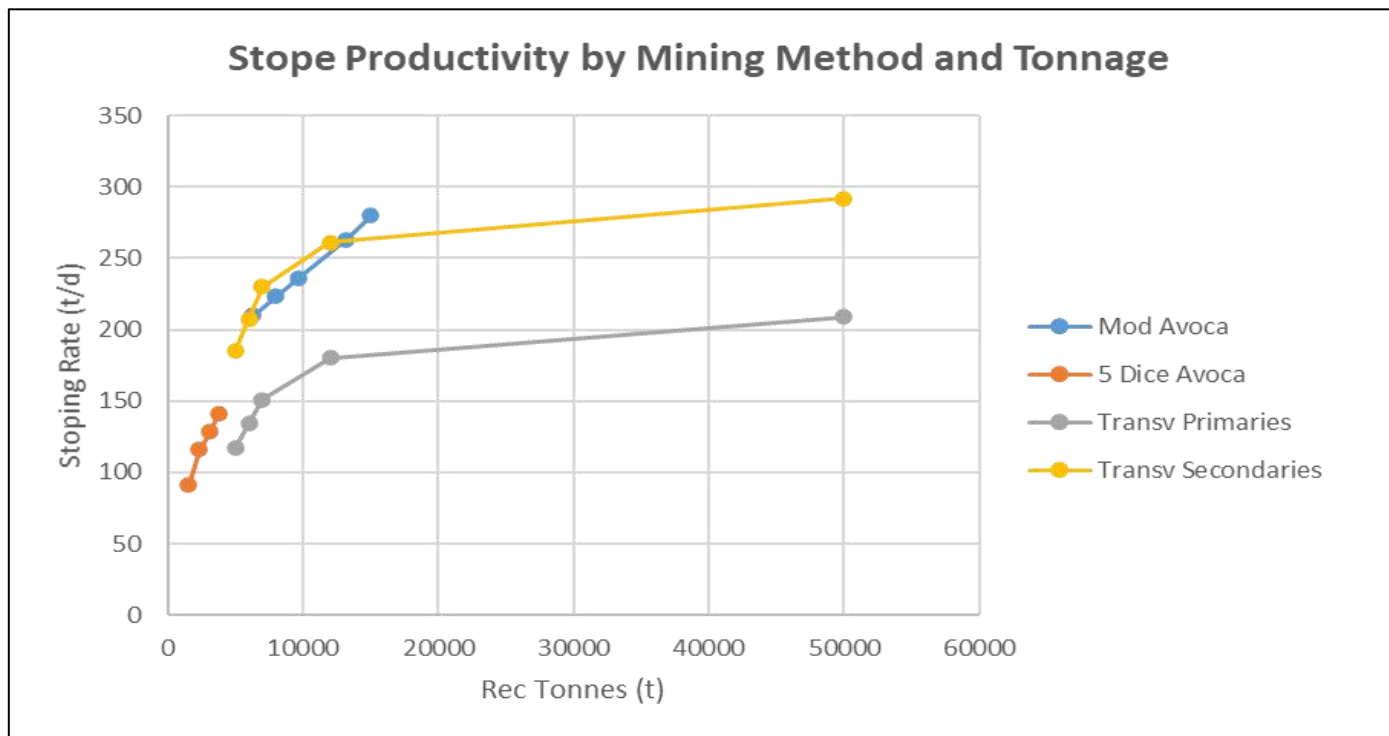
With the exception of the first year of production, when equipment is new and work is close to the portal, total daily development advance rate does not exceed 19 m/day.

#### 16.3.5.4 Stopping Productivity

As with development personnel, it is assumed that production will be initiated with expatriate miners, who will train Ecuadorian Nationals to do the work. Stope productivity rates were calculated from first principals, then de-rated to match industry norms. The productivity rates include the entire stope cycle, beginning with stope preparation and markup through to backfill and cure time; we did not schedule each individual step in the stopping cycle.

Figure 16-20, shows stope productivity for different mining methods and stope tonnage. Productivity varies with stope size.

**Figure 16-20: Stope, Productivity**



Source: Barber, 2021

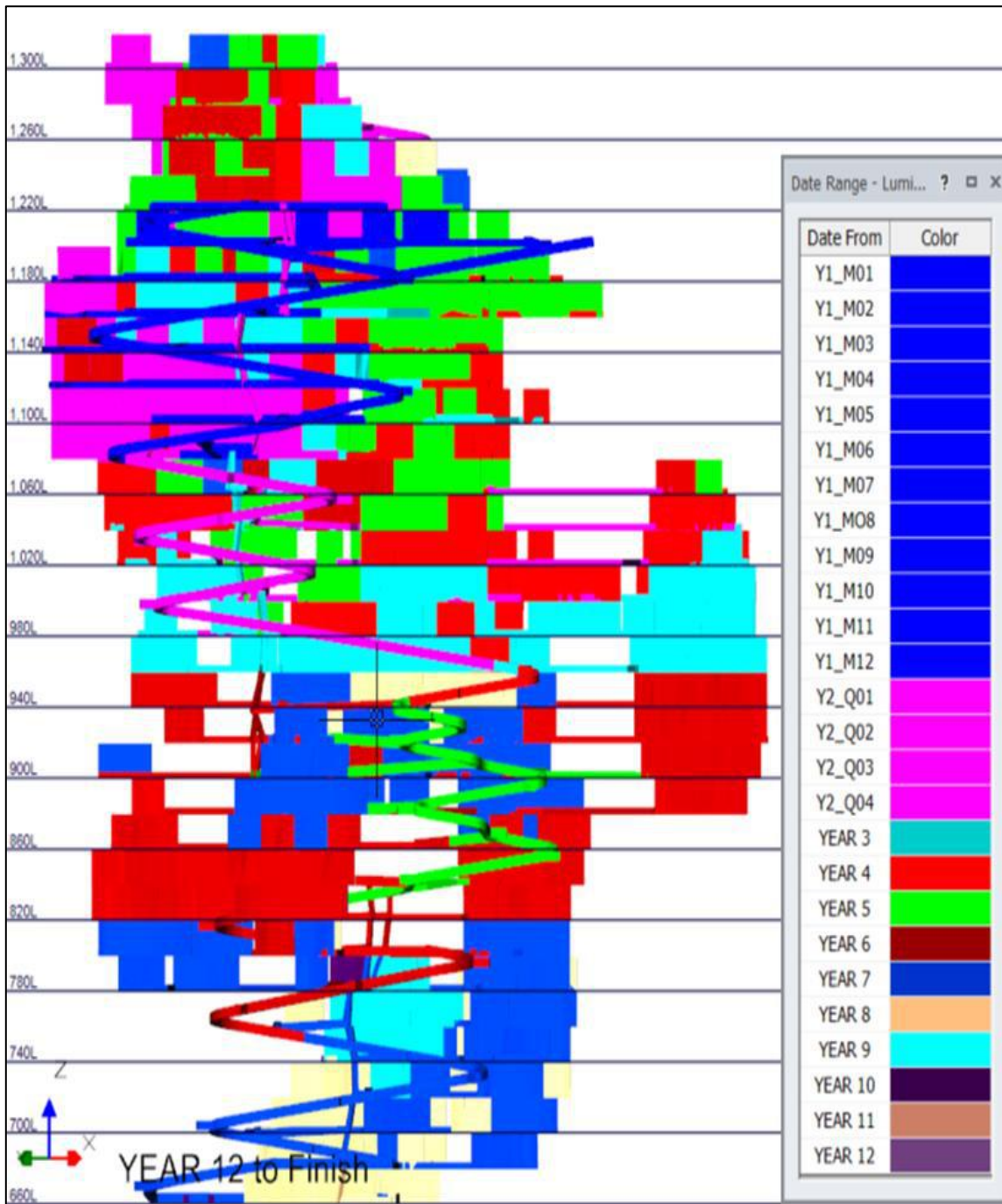
#### 16.3.5.5 Development and Production Schedule

During the course of the evaluation, some 15 scenarios were run to optimize the NPV and metal delivery schedule. These scenarios had different development rates, production rates, and mining sequences.

The selected scenario, No. 15, focused on maintaining reasonable development rates and maintaining high production rates in high grade zones in the early years. This required that development of the lower two zones (#4 & #5 – see Figure 16-21) be delayed until Year 5.

Figure 16-21 is a long section of the mine showing production in different time periods. It is clear that mine production initially commences in the upper levels, and advanced to the lower levels in the out years.

Figure 16-21: Long Section showing mining sequence



Note: Year 1 on this figure is Year -1 on the Condor North area schedule  
Source: Barber, 2021

Development and production schedule for the Camp deposit is shown in Table 16-15.

**Table 16-16: Camp Deposit Development and Production Schedule**

Item	Units	Time Period (Year)											Total All Years	
		Yr -03	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08		Yr 09
<b>Mine Development</b>														
Main Ramp 6x6	m		1,000	1,327	1,540	30	132	884	591	703	0	0	0	6,207
Level Access 6x6	m			592	430	19	0	331	460	530	38	0	0	2,399
Remuck 5x5.5	m			160	169	0	24	109	60	73	0	0	0	595
FW Lateral 55x5.5	m			1,224	287	284	334	159	194	5	272	0	0	2,759
Cross cut 4x4.5	m			1,597	1,122	357	757	237	483	141	541	33	0	5,268
Sill 44x4	m			173	2,626	2,377	580	807	3,092	2,315	876	46	0	12,894
Sill Waste 4x4	m			749	1,311	636	312	636	1,628	817	369	173	0	6,631
Sill – 5-sSpot 3.6x4	m			247	737	294	289	518	491	377	0	0	0	2,955
Vent Raise Access 4x4.5	m			720	336	335	0	94	786	358	57	24	0	2,711
<b>Total Lateral Development</b>			<b>1,000</b>	<b>6,790</b>	<b>8,557</b>	<b>4,332</b>	<b>2,428</b>	<b>3,777</b>	<b>7,786</b>	<b>5,319</b>	<b>2,152</b>	<b>277</b>	<b>0</b>	<b>42,419</b>
Vent Raise 4x3	M			400	833	627	400	400	795	215	37	0	0	3,706
<b>Total Development</b>	<b>m</b>		<b>1,000</b>	<b>7,190</b>	<b>9,390</b>	<b>4,959</b>	<b>2,828</b>	<b>4,177</b>	<b>8,581</b>	<b>5,534</b>	<b>2,189</b>	<b>277</b>	<b>0</b>	<b>46,125</b>
<b>Production</b>														
Transverse – Primary	Ktonnes			69	326	250	146	141	85	53	93	1	0	1,163
Transverse – Secondary	Ktonnes			0	188	207	298	157	92	102	76	14	0	1,136
Modified AVOCA	Ktonnes			0	108	306	390	461	463	548	530	130	0	2,937
5-Spot – AVOCA	Ktonnes			0	57	37	13	96	46	70	9	0	0	328
<b>Total Stopping Tonnage</b>	<b>Ktonnes</b>		<b>0</b>	<b>69</b>	<b>680</b>	<b>800</b>	<b>847</b>	<b>855</b>	<b>686</b>	<b>774</b>	<b>707</b>	<b>145</b>	<b>0</b>	<b>5,563</b>
Development Ore	Ktonnes			51	142	114	65	56	149	105	44	4	0	729
<b>Total Ore</b>	<b>Ktonnes</b>			<b>120</b>	<b>822</b>	<b>914</b>	<b>912</b>	<b>910</b>	<b>835</b>	<b>879</b>	<b>751</b>	<b>149</b>	<b>0</b>	<b>6,293</b>
NSR	\$/tonne			\$126.31	\$129.94	\$144.49	\$113.62	\$97.71	\$122.77	\$112.83	\$118.23	\$149.36	\$-	\$120.68
Au Grade	g/t			2.70	2.75	3.06	2.39	2.06	2.54	2.28	2.44	3.08	0.00	2.52
Ag Grade	g/t			12.48	16.76	18.37	16.76	14.24	24.48	30.79	24.42	30.89	0.00	20.78

### 16.3.5.6 Backfill Schedule

All backfill for the Camp deposit is waste rock, uncemented except for Primary Transverse stopes. For all mining methods used in the production model, backfill is critical to maintaining production rates. For this study, we assumed that backfill is placed immediately in the stope and is scheduled during the same period as the production from the stope.

All backfill is planned to be waste rock, either from mine development, or from the open pit when required. Table 16-17 reports backfill requirements and development waste on an annual basis. The Camp portal yard will be relatively small, so development waste cannot be stockpiled for later use. Waste not immediately required for fill will be hauled to waste dumps. There will be a net shortfall of waste, so pit waste will be required to make up the difference.

**Table 16-17: Camp Deposit Backfill Requirements**

Item	Units	Time Period (Year)												Total All Years
		Yr -03	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09	
<b>Backfill Requirements</b>														
Cemented	Ktonnes		0	46	218	166	97	94	57	35	62	-	-	775
Uncemented	Ktonnes		0	0	235	367	468	476	401	481	410	97		2,933
<b>Total Backfill Required</b>	<b>Ktonnes</b>		<b>0</b>	<b>46</b>	<b>453</b>	<b>533</b>	<b>565</b>	<b>570</b>	<b>457</b>	<b>516</b>	<b>471</b>	<b>97</b>		<b>3,709</b>
Development Waste	Ktonnes		88	392	355	106	73	193	271	209	77	8		1,773
Pit Waste Required	ktonnes		0	0	98	428	492	377	186	307	394	89		2,370

### 16.3.5.7 Surface Ore Haulage

Surface ore haulage is provided from the Camp Portal yard to the mill by the Open Pit mining department. (Section 6) Given the relatively high grade of Camp mineralized material, there is no desire to establish a significant stockpile either at the portal or the mill.

### 16.3.6 Mine Manpower

Manpower requirements for the Camp Mine are based on planned activities and required equipment and personnel to perform those activities.

Ecuadorian labor relations limit shift length for underground mines to eight hours/shift. The mine is planned to work three shifts/day; this will require a 4-panel roster for the mine to operate round the clock, 365 days/year.

Table 16-18 shows the hourly manpower, and Table 16-19 the staff manpower.

Ecuador does not have a well-established underground mining industry. Therefore, the manning table is larger than might be expected in areas such as Peru where a large skilled workforce is available.

For this reason as well, the hourly and staff manning tables include a number of positions for expat trainers, and for expatriate (expat) operators who will be able to initiate mine development and production activities at the productivity rates required.

The Staff manpower was developed based on experience with mines this size and on the requirements to cover four shifts, and train Ecuadorian Nationals.

The manning tables (Hourly and Staff) show a reduction in expat workforce throughout the life of the mine.

**Table 16-18: Hourly Workforce**

Camp, Hourly Labor Requirements												
Item	Time Period (Years)											
	Yr -03	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09
<b>MINE OPERATIONS</b>												
Jumbo Miner (50% in-country pay)		4	12	12	8	2	2	-	-	-	-	-
Jumbo Miner (Trainee)		4	12	12	8	2	2	-	-	-	-	-
Jumbo Miner (Capacitated)		-	-	-	-	8	8	8	8	4	-	-
Long Hole Driller (50% in-country pay)		-	12	16	12	8	2	-	-	-	-	-
Long Hole Driller (Trainee)		-	12	16	12	12	2	-	-	-	-	-
Log Hole Driller (Capacitated)		-	-	-	8	12	12	12	12	4	4	-
Truck Driver /Equipment Operator		-	20	18	20	24	24	24	20	18	4	-
Mucker Operator		4	20	24	24	24	24	24	24	16	4	-
Utility Equip Operator (Service Crew)		4	8	12	8	8	8	8	8	4	4	-
Blast Leader		-	4	8	8	8	6	4	4	4	2	-
Blasting Helper		-	4	8	8	8	6	4	4	4	2	-
Underground Labor		4	24	28	28	20	20	16	16	12	4	-
<b>Operations Total</b>		<b>20</b>	<b>128</b>	<b>154</b>	<b>144</b>	<b>136</b>	<b>116</b>	<b>100</b>	<b>96</b>	<b>66</b>	<b>24</b>	<b>-</b>
<b>Maintenance</b>												
Senior Maintenance Mechanics		2	8	8							4	-
Maintenance Technician		4	12	12							4	-
Mine Electrician -		4	4	4							4	-
Electrician Helper		-	4	4							4	-
Welder / Mechanic		-	4	4							2	-
Electronics Technician		-	4	4							2	-
Fuel & Lube Crew		-	4	8							4	-
Laborer Mnt		-	8	8							4	-
<b>Maintenance Total</b>		<b>10</b>	<b>48</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>42</b>	<b>28</b>	<b>-</b>
VSAT Allowance – 10%		3	18	21	20	19	17	15	15	11	5	-
<b>Total Hourly Labor</b>		<b>33</b>	<b>194</b>	<b>227</b>	<b>216</b>	<b>207</b>	<b>185</b>	<b>167</b>	<b>163</b>	<b>119</b>	<b>57</b>	<b>-</b>

**Table 16-19: Staff Workforce**

Camp, Staff Labor Requirements												
Item	Time Period (Years)											
	Yr -03	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09
<b>Camp Mine Operations</b>												
UG Mine Manager		1	1	1	1	1	1	1	1	1	1	-
Mine Superintendent (Expat)	-	1	1	1	1	1	1	1	1	-	-	-
Mine Superintendent (Nat)	-	-	-	-	-	-	-	-	-	1	1	-
Mine General Foreman (Expat)	-	1	1	1	1	-	-	-	-	-	-	-
Mine General Foreman (Nat)	-	-	-	-	-	1	1	1	1	1	1	-
Development Supv (Expat)	4	4	4	4	2	-	-	-	-	-	-	-
Development Supv (Trainee)	-	4	4	4	2	-	-	-	-	-	-	-
Development Supv (Capacitated)	-	-	-	-	2	4	4	4	4	2	2	-
Production Supv (Expat)	-	4	4	4	2	-	-	-	-	-	-	-
Production Supv (Trainee)	-	4	4	4	2	-	-	-	-	-	-	-
Production Supv (Capacitated)	-	-	-	-	2	4	4	4	4	2	2	-
Mine Trainer (50% in-country pay)	4	8	8	8	4	2	-	-	-	-	-	-
Production Trainer (50% in-country pay)	-	8	8	8	4	2	-	-	-	-	-	-
Control Room/Dispatch	-	4	4	4	4	4	4	4	4	4	4	-
<b>Mine Operations Total</b>		<b>9</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>27</b>	<b>19</b>	<b>15</b>	<b>15</b>	<b>11</b>	<b>11</b>	<b>-</b>
<b>Mine Maintenance</b>												
Maintenance Sup't (Expat)		1	1	1	1	1	1	1	-	-	-	-
Maintenance Sup't (Nat'l)	-	-	-	-	-	-	-	-	1	1	1	-
Maintenance Trainer (50% in-country pay)	4	4	8	8	4	-	-	-	-	-	-	-
Mine Maintenance General Foreman	-	1	1	1	1	-	-	-	-	-	-	-
Mine Maintenance General Foreman (Trainee)	-	1	1	1	1	-	-	-	-	-	-	-
Mine Maintenance General Foreman (Capacitated)	-	-	-	-	-	1	1	1	1	1	1	-
Maint Supv.	4	4	4	4	4	4	4	4	4	4	4	-
Electrical Supv.	-	2	2	2	2	2	2	2	1	1	1	-
Maintenance Planners	2	2	2	2	2	2	2	2	2	2	2	-
<b>Mine Maintenance Total</b>		<b>11</b>	<b>15</b>	<b>19</b>	<b>19</b>	<b>15</b>	<b>10</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>-</b>
<b>Mine Engineering (Camp)</b>												
Chief Engineer (Expat)		1	1	1	1	1	1	-	-	-	-	-
Chief Engineer (Nat)	-	-	-	-	-	-	-	1	1	1	1	-
Senior Mining Engineer (50% in-country pay)	1	1	1	1	-	-	-	-	-	-	-	-
Senior Mining Engineer (Trainee)	1	1	1	1	-	-	-	-	-	-	-	-
Senior Mining Engineer (Capacitated)	-	-	-	-	1	1	1	1	1	1	1	-

Camp, Staff Labor Requirements												
Item	Time Period (Years)											
	Yr -03	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09
Mining Engineer – Production		-	2	2	2	2	2	2	2	1	1	-
Mining Engineer – Planning		1	2	2	2	2	2	2	2	1	1	-
Geo Tech – Sampler		-	1	1	1	1	1	1	1	1	1	-
Junior Mining Engineer		-	3	3	2	2	2	2	2	2	1	-
Senior Mine Surveyor (50% in-country pay)		1	1	1	-	-	-	-	-	-	-	-
Mine Surveyor		2	4	4	4	4	4	4	4	4	2	-
Clerk		1	2	2	2	2	2	2	2	2	2	-
<b>Mine Engineering Total</b>		8	18	18	16	15	15	15	15	13	10	-
<b>Mine Geology (Camp)</b>												
Senior Mine Geologist (Expat)		1	1	1	1	-	-	-	-	-	-	-
Senior Mine Geologist		-	1	1	1	1	1	1	1	1	1	-
Mine Geologist		1	2	2	2	2	2	2	2	1	-	-
Grade Control Geologist		-	1	1	1	1	1	1	1	1	1	-
Sampler		-	4	4	4	4	4	4	4	4	4	-
<b>Mine Geology Total</b>		2	9	9	9	8	8	8	8	7	6	-
Subtotal Expat		8	15	15	15	10	4	3	2	1	1	-
Subtotal Expat (Rotation)		10	22	26	25	12	4	-	-	-	-	-
Subtotal Ecuador National		12	44	44	43	43	44	45	45	39	35	-
<b>Total Mine Staff (Camp)</b>		30	81	85	83	65	52	48	47	40	36	-

### 16.3.7 Mobile Equipment

The mining methods proposed for the Camp Mine are widely used throughout the industry. The mobile equipment proposed is likewise widely used and readily available.

Equipment fleet requirements for production equipment (drills, muckers, trucks) were based on productivity factors and the mine schedule for development and production activities. Fleet requirements for utility and support equipment were based on typical fleet requirements for mines of this type and size, as well as on experience. Table 16-20 lists the mobile equipment proposed for the Camp Mine.

Budget level quotes for primary mining equipment (Jumbos, drills, muckers, trucks) were obtained from Sandvik, and for utility equipment, including platform bolters, from MacLean Engineering.



**Table 16-20: Mobile Equipment Fleet for the Camp Mine**

Camp Mine Mobile Equipment Fleet			
Equipment	Supplier	Model	Fleet
Mucker - 14t	Sandvik	LH-514	7
Truck – 51t	Sandvik	TH-551i	6
Long Hole Drill	Sandvik	DS311	3
Jumbo – 2 Boom	Sandvik	DD-320-S	3
Scissor Bolter	MacLean	MEM-975	3
ANFO/Emulsion Loader	MacLean	EC3	2
Scissor Lift	MacLean	SL3	2
Service Truck	MacLean	FL3	1
Boom Truck	MacLean	BT3	1
Man Haul	MacLean	PC3	2
Grader	Caterpillar	Cat 120	1
Pick-up	Toyota	Series 70	4

The equipment is scheduled to be acquired as needed. Table 16-21 illustrates the fleet count for each year of the Camp Mine operation. Equipment is planned for rebuild after five years on site. The project life is not long enough to consider replacement of any equipment except the pick-up trucks. The economic model does include sale or salvage value for the underground mine equipment at the end of the mine life.

**Table 16-21: Camp Mobile Equipment Fleet**

Equipment	Max Fleet	Time Period (Year)											
		Yr -03	Yr -02	Yr -01	Yr 01	Yr 02	Yr 03	Yr 04	Yr 05	Yr 06	Yr 07	Yr 08	Yr 09
Mucker - 14t	7		1	2	6	6	7	7	7	7	6	2	0
Truck – 51t	6		0	1	2	3	3	3	5	6	5	2	0
Long Hole Drill	3		0	1	3	3	3	3	3	3	2	1	0
Jumbo – 2 Boom	3		1	3	3	2	2	2	2	2	1	1	0
Scissor Bolter	3		1	3	3	2	2	2	2	2	1	1	0
ANFO/Emulsion Loader	2		1	1	2	2	1	1	2	1	1	1	0
Scissor Lift	2		1	1	2	2	2	2	2	2	2	1	0
Service Truck	1		1	1	1	1	1	1	1	1	1	1	0
Boom Truck	1		0	0	1	1	1	1	1	1	1	1	0
Telehandler	1		1	1	1	1	1	1	1	1	1	1	0
Man Haul	2		0	0	1	2	2	2	2	2	2	2	0
Grader	1		0	1	1	1	1	1	1	1	1	1	0
Pick-up	4		2	2	2	3	3	4	4	4	4	3	0
<b>Total Fleet</b>	<b>33</b>		<b>9</b>	<b>17</b>	<b>28</b>	<b>29</b>	<b>29</b>	<b>30</b>	<b>33</b>	<b>33</b>	<b>28</b>	<b>18</b>	<b>0</b>

### 16.3.8 Mine Ventilation

A high-level spreadsheet-based ventilation model was developed to simulate the overall mine ventilation system. This model was based on similar models previously used for similar work.

#### 16.3.8.1 Ventilation Requirements

Ventilation requirements are primarily driven by the amount of diesel power operated in the mine. In addition to ventilation requirements for diesel equipment, allowances were included for contingency, leakage, and personnel headcount underground. All calculations were done with standard air, then adjusted for elevation.

Table 16-22 shows the diesel equipment quantity calculations, which are based on 0.065 m<sup>3</sup>/sec/kW for standard air.

Table 16-23 shows how volume requirements were developed for personnel underground and contingency and leakage allowances determined.

Table 16-24 shows the entire mine ventilation requirements for the Camp Mine. This quantity is the maximum required over the life of the mine, which is during year 6 when truck and mucker fleet is at its peak.

**Table 16-22: Ventilation Requirements for Diesel Equipment**

Ventilation Requirements for Diesel					
Equipment	Power (kW)	Utilization (%)	Vent required (m <sup>3</sup> /s)	Fleet (units)	Standard density (m <sup>3</sup> /s)
LH514 (14T)	256	65	10.8	7	75.7
TH551i(51T)	515	65	21.8	6	130.6
2 boom jumbo – DD320S	110	5	0.4	3	1.1
MacLean Bolter	110	5	0.4	3	1.1
LH Drill – DL 311	74	5	0.2	1	0.7
Emulsion Loader	110	10	0.7	2	1.4
Fuel/Lube	110	20	1.4	1	1.4
Scissor Lift	110	20	1.4	2	2.9
Boom Truck	110	25	1.8	1	1.8
Man Haul	110	15	1.1	2	2.1
Toyota	151	25	2.5	4	9.8
Ventilation for Diesel Equipment (m <sup>3</sup> /sec)					228.6

**Table 16-23: Ventilation adjustments for Personnel and Contingency and leakage**

Ventilation Additions		
	Allowance	(m <sup>3</sup> /s)
Contingency	15%	34.3
Efficiency losses/leakage	10%	22.9
<b>Ventilation Adjustments</b>		<b>57.1</b>
Personnel	Per shift	(m <sup>3</sup> /s)
People underground	40	2.4
Personnel allowance		2.4

**Table 16-24: Total Airflow Requirements for the Camp Deposit**

Total Ventilation Requirements for Camp Deposit				
	Standard Air		Elevation Adjusted	
	m <sup>3</sup> /s	cfm	m <sup>3</sup> /s	cfm
Diesel	228.6	484,373	264.2	559,836
Allowance	57.1	121,093	66.1	139,959
Personnel	2.4	5,085	2.8	5,878
<b>TOTAL</b>	<b>288.1</b>	<b>610,551</b>	<b>333.0</b>	<b>705,673</b>

### 16.3.9 Ventilation System

The ventilation system is not complex. It consists of two intake airways, (6.0 m X 6.0 m), each equipped with a single 3.3 m (130 inch), 600 hp vane axial fans.

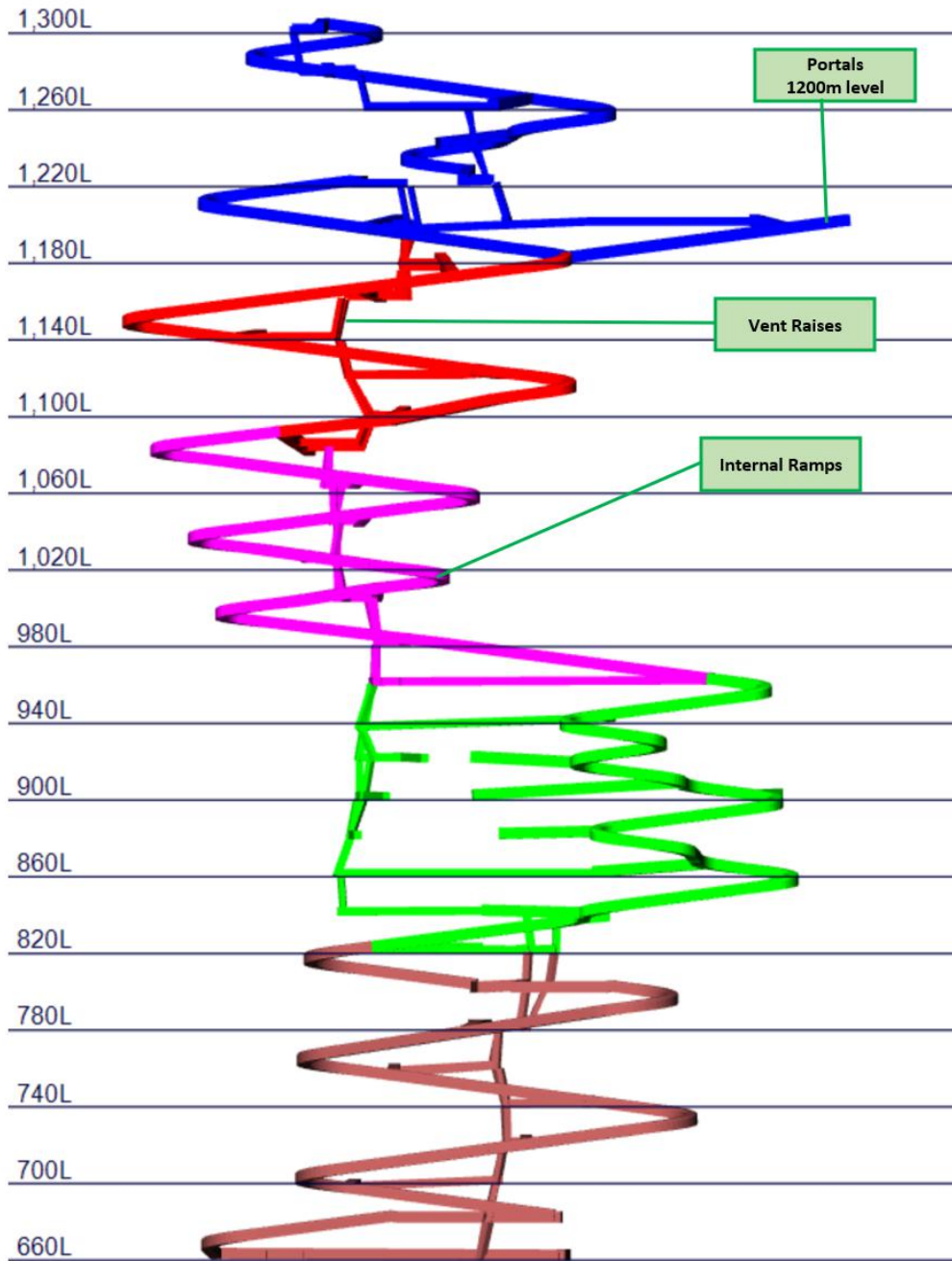
Budget price quotes and fan performance curves were obtained for the main fans.

Approximately 500 m from the portals, a series of parallel raises deliver fresh air to the working levels above and below. On the working levels, fresh air is delivered to the working places by a combination of airways and auxiliary fans with duct. Exhaust air from the working areas is returned to the surface via raises and the main ramp.

This configuration ensures that all working levels will be ventilated with fresh air from the dedicated intake airways. Exhaust fumes from haul trucks, road dust, and contaminants are not introduced into the intake airway and delivered to all working places. In the unlikely event of an equipment fire in the ramps, smoke and contaminants will be exhausted to surface, not routed to other workings.

Figure 16-22 illustrates the major components of the mine ventilation system.

Figure 16-22: Ventilation System



Source: Barber, 2021

### **16.3.10 Mine Services**

The mine will be furnished with the typical utilities and services found in mines of this size and type. Development unit rates included the cost of pipelines for compressed air and water, power cable, and leaky feeder radio cable. Decline unit rates included costs for dewatering pipelines.

Capital costs estimates include cost for three portable mine rescue chambers that can be relocated as required in the mine.

### **16.3.11 Mine Dewatering**

The mine dewatering system is based on a pumping requirement of 750 US GPM (3,800 m<sup>3</sup>/day). The pumping system planned consists of pump stations installed every 100 vertical meters, each pumping to the station above. Each station will be equipped with three each 125 HP submersible pumps, two in service, and one standby. Gathering pumps on working levels and in the ramps will collect local water and deliver it to the main pump stations.

Discharge water will be delivered to the portals at 1200-m elevation, then transferred to the Condor North area site water system for treatment and use.

## 17 RECOVERY METHODS

The process flowsheet, plant layout, design criteria, major process equipment and a description of the process facilities are presented in this section.

The conceptual processing scheme for Condor North area mineralized materials follows a conventional whole mineralized material gravity concentration/cyanide leach circuit design. Metallurgical testing to date supports the selection of this process for the PEA. To determine the optimum processing scheme future metallurgical testing should include gravity concentration followed by flotation and cyanidation of the flotation concentrates, and, due to the low silver recoveries by cyanidation, the potential for producing silver/lead and zinc flotation concentrates after cyanidation should also be investigated.

### 17.1 Process Flowsheet

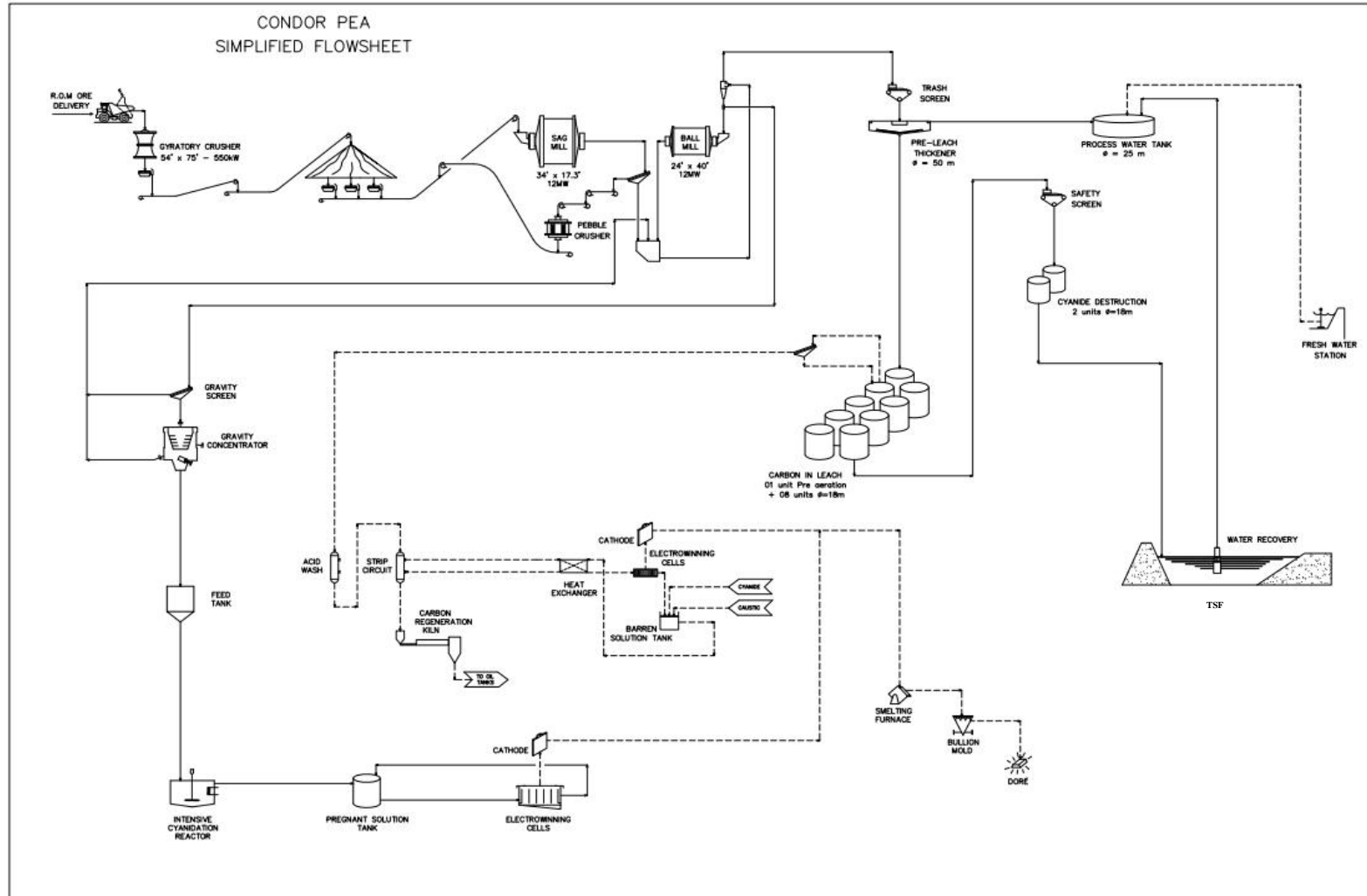
The selected process plant unit operations include:

- Primary Crushing and overland conveyor
- Coarse material stockpiling
- SAG mill grinding
- Pebble Crushing
- Ball mill grinding and cyclone classification
- Gravity Concentration and Intensive Cyanidation
- Carbon-in-Leach (CIL) cyanidation of gravity tails
- Detoxification of CIL tailing
- Detoxed tailing slurry pumping to storage facility
- Carbon acid-washing, stripping and kiln regeneration
- Electro-winning
- Smelting and Dore' production

The simplified process flowsheet for Condor North is presented in Figure 17-1.

Figure 17-2 shows the conceptual process plant General Arrangement.

Figure 17-1: Condor North Area PEA Simplified Flowsheet



Source: Prepared by ONIX Engenharia E Consultoria for Luminex, , 2021.





A summary of the conceptual process design criteria is provided in Table 17-1.

**Table 17-1: Process Design Criteria**

Criteria	Units	Value	Source
Plant Throughput	tpd	25000	Production Schedule
Plant Throughput	Mtpa	9.125	Production Schedule
Plant Operations	years	12	Production Schedule
Plant Availability (Crusher)	%	65	ONIX
Plant Availability (Other)	%	92	ONIX
Plant Throughput	tph	1132	calculated
Head Grade	gpt Au	0.724	Production Schedule
Head Grade	gpt Ag	5.94	Production Schedule
Total Au recovery	%	90	calculated from tests
Total Ag recovery	%	45	calculated from tests
Specific Gravity of material	g/cc	2.7	Plenge
SAG mill specific energy	kWh/t	8.4	JKTech SMC Test
Bond Ball Mill Work Index	kWh/t	12.5	Plenge
Bond Abrasion Index	g	0.088	Plenge
Primary Grind Size p80	microns	75	Plenge
CIL retention time	hours	24	Plenge
CIL tails detoxification	method	SO <sub>2</sub> /Air	Plenge
ADR carbon capacity	tpd	20	calculated

The Major Process Equipment List is presented in Table 17-2.

**Table 17-2: Major Process Equipment List**

Equipment	Number	Size Each	kW each
Primary Crusher	1	1.4 m X 1.9 m gyratory	600
Overland Conveyor	1	1200 m long	1228
Coarse Material Stockpile	1	30,000 t live capacity	N/A
SAG Mill	1	10.4 m dia. X 5.3 m EGL	12500
Pebble Crusher	1	132 cm Standard Cone	300
Ball Mill	1	7.3 m X 12.2 m EGL	12500
Grind Thickener	1	50 m diameter	21
Gravity Concentrator	2	Knelson KC-QS40	45
Intensive Leach Reactor & EW	1	ACACIA CS 2000 system	50
pH Conditioning Tank	1	18 m X 22 m hi	187
CIL Tanks	8	18 m X 22 m hi	187
Carbon Plant & Refinery	1	20 tpd carbon capacity	515
Detox Tanks	2	14 m X 17 m hi	112
Tails Pump and Pipeline to TSF	1	1450 cu m/hr X 1000 m long HDPE	149

## 17.2 Process Description

Run-of-mine (ROM) material is hauled from the mines by truck and either stockpiled or directly dumped into the primary crusher. The crushed material is transported by an apron feeder and short conveyor to the overland conveyor system.

The overland conveyor transports the crushed material to a stockpile. Apron feeders withdraw material from the stockpile and transport it via conveyor to the SAG mill. SAG mill discharge is screened with the screen oversize conveyed to the pebble crusher. The finely crushed material is recycled to the SAG mill for further grinding. Screen undersize is combined with the Ball mill discharge slurry and pumped to cyclones for classification with the overflow slurry containing material ground to 80 percent passing 75 microns. Cyclone underflow feeds the Ball mill with a portion of that underflow screened and fed into centrifugal gravity concentrators. Gravity concentrate is collected and sent to an intensive cyanide leaching system with the pregnant solution fed to a dedicated electro-winning cell.

Cyclone overflow is directed to a thickener. The thickener overflow water is directed to a holding tank and then recycled to grinding. Thickener underflow is pumped to the Carbon-in-Leach (CIL) cyanidation circuit. This circuit consists of nine aerated tanks operating in series. Lime is added to the first tank to adjust the slurry pH to 11. The next eight tanks are used for cyanidation and carbon adsorption and have a total retention time of 24 hours.

Slurry from the last leach tank is transferred to a cyanide detoxification system that consists of two aerated tanks operating in series. Sodium metabisulfite, copper sulfate and lime are added to destroy the residual cyanide in solution. The detoxed slurry is then pumped to the TSF. Decant water at the TSF is recycled to the process plant.

Activated carbon, loaded with gold and silver, is collected from the first leach tank, transferred to an acid wash vessel, and then into a stripping vessel which removes the gold and silver from the carbon. Stripped carbon is regenerated in a kiln and then recycled to the last leach tank. The gold-silver pregnant solution is passed through an electro-winning cell equipped with stainless steel cathodes. The cathodes containing gold and silver are periodically removed from the cell, the gold and silver sludge is washed from the cathodes, the sludge is dried and then smelted to produce a doré product for shipment offsite to a refiner.

Grinding media and reagent receiving, storage, mixing and distribution systems are included at the process facilities. The following is a list of process plant consumables:

- Lime
- Sodium Cyanide
- Activated Carbon
- Flocculant
- Acid
- Sodium Metabisulfite
- Copper Sulfate
- Flux Materials
- Grinding Balls (127 mm and 63 mm)

Plant utilities and support facilities include:

- Fresh water

- Process water
- Fire water systems
- Air blowers and compressors
- Standby power generator
- Gland seal systems
- Assay and metallurgical laboratory
- Truck scale
- Lift trucks
- On stream analyzers and sampling systems
- Process Control Room and systems
- Electrical distribution systems
- Security systems and product storage

### 17.3 Process Labor

Process plant labor peaks at 141 persons in the first two years of operation and includes expatriate management, local management, technical staff and operations and maintenance personnel.

Table 17-3 summarizes the 15 Expatriates required and the duration of their employment as they train local employees to eventually take over their positions.

**Table 17-3: Expatriates Required and Duration**

Labor Category	Duration	Number
Process Manager	Permanent	1
Mill General Foreman	3 years	1
Maintenance General Foreman	3.5 years	1
Chief Metallurgist	3.5 years	1
Process Control Engineer	3 years	1
Chief Chemist	3 years	1
Chief Refiner	permanent	1
Production Trainers	2.5 years	4
Mechanic Foremen	2.5 years	2
Electrical and Instrument Trainers	2.5 years	2
		15

Table 17-4 summarizes the 19 local management and technical positions required.

**Table 17-4: Local Process Management and Technical Personnel**

Labor Category	Duration	Number
Mill General Forman Trainee	Permanent	1
Maintenance General Foreman Trainee	Permanent	1
Admin Assistant	Permanent	1
Chief Metallurgist Trainee	Permanent	1
Metallurgist	Permanent	1
Metallurgical Technician	Permanent	2
Process Control Engineer Trainee	Permanent	1
Chief Chemist Trainee	Permanent	1
Chemists	Permanent	2
Lab Technicians	Permanent	8
		19

Table 17-5 summarizes the 107 local employees required for mill production and maintenance.

**Table 17-5: Local Mill Production and Maintenance Personnel**

Labor Category	Shifts	Number
Shift Foreman	No	4
Control Room Operator	Yes	4
Crusher Operator	Yes	4
Ore Reclaim and Pebble Operator	Yes	4
Grind and Gravity Operator	Yes	4
Leach and Detox Operator	Yes	4
ADR Operator	Yes	4
Refinery Operator	No	4
Tailings Operator	Yes	4
Reagent Operator	No	2
Operator Helpers	Yes	16
Laborers	Yes	8
Mobile Equipment Operators	Yes	4
Production Trainers	No	4
Mechanic Foreman	No	2
Electrical and Instrument Forman	No	2
Planner	No	2
Mechanic 1	Yes	10
Mechanic 2	Yes	6
Pipefitter	No	2

Labor Category	Shifts	Number
Welder	No	2
Electrician 1	Yes	4
Electrician 2	Yes	4
Instrument Technician	Yes	<u>3</u>
		107

The production and maintenance staffing assumes two crews working 12-hour shifts at any given time.

Burdened labor costs are included in the process operating costs provided in Section 21.

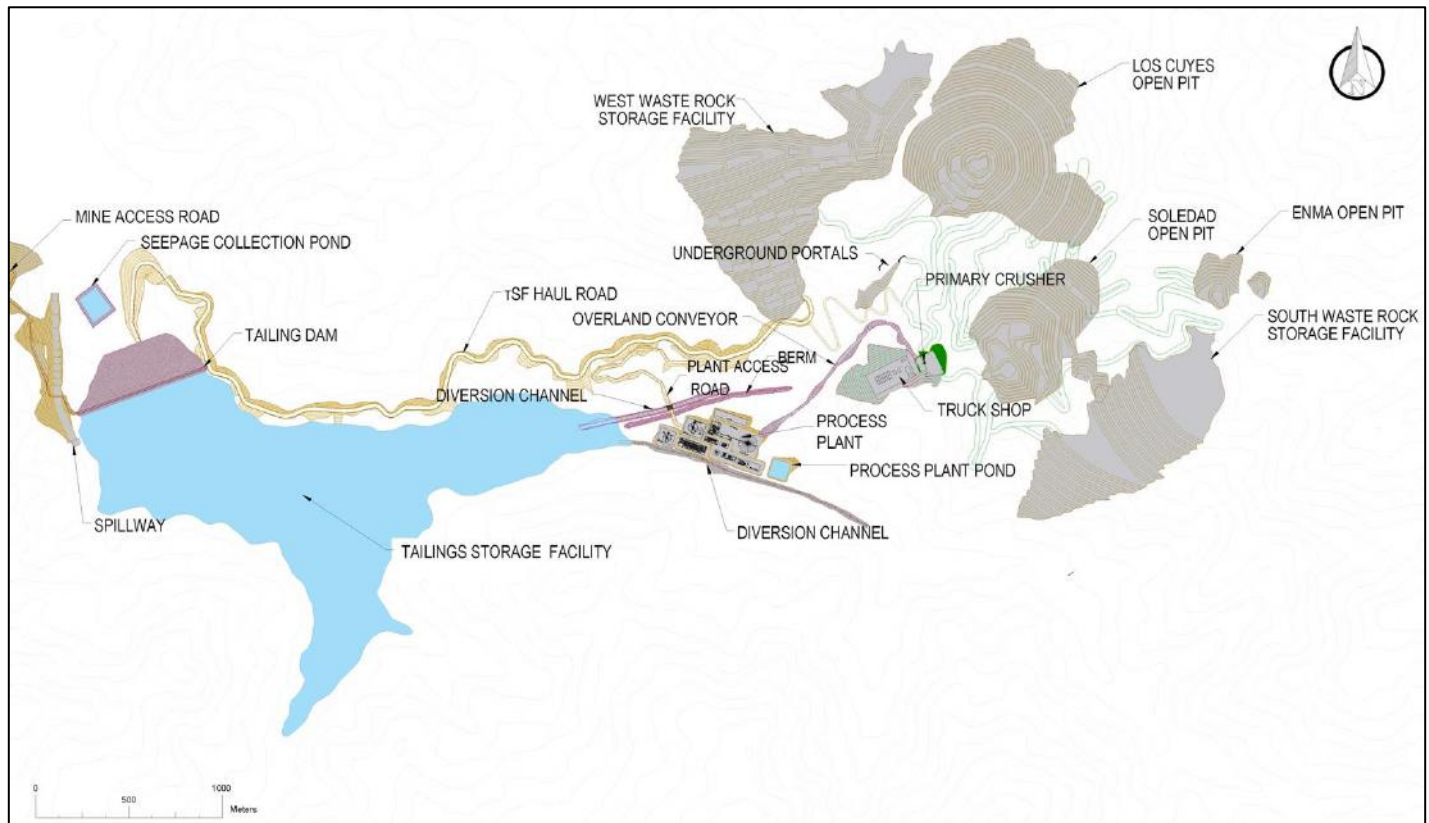
## 18 PROJECT INFRASTRUCTURE

Infrastructure to support the Condor North area will consist of site civil work, buildings and facilities, water management systems, a tailings storage facility, and electrical power distribution. Mine facilities and process facilities will be serviced with potable water, fire water, compressed air, power, diesel, communication, and sanitary systems as required. The Condor North Project layout is shown in Figure 18-1.

The processing plant and tailings storage facility will be located below the 3 open pits, along with most ancillary project infrastructure. Infrastructure on the Condor North area will include:

- Open pits
- light vehicle and heavy equipment roads
- plant access road
- overburden stockpiles
- Primary Crusher and conveyor
- low-, medium- and high-grade stockpiles
- mine facility platforms and process facility platforms
- water management ditches and collection ponds
- tailings storage facility (TSF)
- process plant, including crushing, stockpile, mill, gold room and reagent storage buildings
- effluent water treatment plant
- mine dewatering
- waste rock storage facilities
- mine dewatering pumps and pipelines
- incoming power high voltage substation and site-wide electrical distribution
- mine and process administration offices and change rooms
- mine truck shop, truck wash and refueling station
- workshop and warehouse facilities

Figure 18-1: Condor North Area General Arrangement Plan



Source: Ausenco, 2021.

## 18.1 Power Supply and Distribution

Connected power requirements for the 25 ktpd processing operation require 64 megawatts (MW). Actual power draw, or demand, is approximately 70% of the connected load. An Ecuadorian power supply consultant, EPTec, has confirmed that there is sufficient capacity in the Ecuadorian National Interconnected System (NIS) to meet the requirements of the Project. EPTec recommended connection to the Cumbaratza electrical substation, owned by CELEC, located in the town of the same name, Zamora Chinchipe province, which currently has a voltage level of 138/69 kV. The required power line will be at 138 kV, single circuit, with an ACAR 500 MCM conductor. Transmission to the Project's main substation will consist of a new single circuit 138kV transmission line over a distance of approximately 46 km. Construction period power supply is anticipated to be from a new 22 kV transmission line, possibly with two intermediate voltage regulators because of the length of the line, from the Yanzatza Substation owned by Empresa Eléctrica Sur; the distance of the 22 kV power line is approximately 37 km. Power cost of \$0.0702 per kWh in construction, and \$0.062 per kWh in production has been used for the PEA.

## 18.2 Communications

### 18.2.1 IT (ERP Mgt. Software, Hardware, Laptops, Networking, Other Software)

Martec provided the following information on IT that include hardware, software:

- Geology software
- Engineering software.
- The ERP and LIMS (Lab software) management systems
- Laptops
- Network and servers back-bone architecture requires installation and connectivity between two satellite locations and back-up system, data center, internet connectivity, VPN, cabling, firewall, transmitting towers and access points.

### 18.2.2 Communication Equipment (Cell phones, Two-way radios)

Communication is the infrastructure backbone for the entire operation. Information provided by Luminex for communication system consists of:

- Mobile phone units
- Two way-radios
- Transmission support hardware

## 18.3 Water Management

### 18.3.1 Water Balance

A site-wide water balance was developed based on the conceptual model of the project. The model was used to inform water management and predict the potential contact water volumes through the life of mine.

The industrial water requirements will come from the TSF, which are estimated to be 440 L/s to be used in mineral processing that consists of 280 l/s reclaimed from TSF and 120 l/s of fresh water/fire water from local surface water sources. The fresh water from local surface water sources accounts for 6 percent of the annual flow. The fresh/fire water will be pumped from local sources water sources entering the TSF into a fresh/fire water tank.

The planned camp will be supplied for all its water needs from local surface water sources. It is estimated that the average consumption of water, based on the size of the camp, is 1 L/s. Any effluent coming from the camp will be treated and discharged into the TSF.

Dewatering from both open pits and underground operations will report to the TSF. The combined flow ranges from 85 to 325 l/s over the life of the project.

The WRSFs water management includes both contact and non-contact water management structures. The facilities are located in a relatively small watershed. The non-contact water will pass around the facility in diversion channels that directly into small creeks that discharge into the TSF. The surface contact water from the WRSFs will be conveyed in diversion



channel and underdrain also reporting to the TSF. The contact and non-contact water management systems were designed for 1:100 year event.

The TSF is designed to contain a minimum of 4 meters of water cover of the tailing. The average annual precipitation exceeds the average annual evaporation and therefore is net positive. The spillway is design to pass the probably maximum flood (PMP). There is a seepage collection pond located at the base on the TSF. Seepage water will be collected and pumped back to the TSF.

Ausenco designed a system to preferentially use water that falls on the Project footprint and that minimizes the size of the plant supply ponds and any surface water abstraction during the dry season. The Project is in an area with a net positive water balance with an abundance of surface water sources, there is sufficient water available to supply operations without significantly impacting the local water supply.

### **18.3.2 Water Management**

Site water management measures have been developed based on the PEA site arrangement, operational requirements, and environmental site conditions. Following a precipitation event, the runoff will be managed to reduce the total suspended solids from mine facilities prior to discharge to the environment through the tailings storage facility. Water management measures for the Project will include a series of diversion berms, collection and diversion ditches, the direct runoff to the tailings storage facility where the majority of the total suspended solids can settle out prior to sending water to the mine water pond (for mining processes) or for release to the environment.

## **18.4 Roads and Logistics**

### **18.4.1 Site Access Roads**

Access to the site is by a sealed asphalt public road network from the Pacific to Nuevo Quito that is approximately 274-km long, passing through several towns and cities including Santa Rosa, Catamayo and Loja. From Nuevo Quito there are a series of gravel roads that takes one to the site along the Nangaritza River and then the Congüime River.

### **18.4.2 Mine Access Road**

The mine will be accessed by a private gravel road with a security gate. The mine access road is approximately 350-m long and starts at the base of the tailings storage facility and terminates at the process plant.

### **18.4.3 Mine Haul Road**

The mine haul roads are designed for Cat 777 haul truck for double lane traffic, the industry standard indicates the running surface width should be a minimum of three times the width of the largest truck. The overall width of a 220-t haul truck is 6 m, which results in a running surface of 18 m. The overall width of the haul road must account for safety berms and diversion channels.

#### 18.4.4 Waste Rock and Saprolite Storage Facilities

The waste rock storage facility (WRSF) is designed to provide secure and permanent storage of approximately 728 Mt of non-economic waste rock and overburden (i.e., saprolite and saprock) over the 13-year mine, including preproduction.

Non-economic waste rock and overburden produced by mining activities at the Project will be used to construct site infrastructure, such as tailings storage facility, road base, for other required construction or maintenance products, or placed in the waste rock storage facilities. There are two waste material storage facilities developed for the Project: the west waste rock storage facility and the south waste rock storage facility.

Waste rock from Los Cuyes Pit will be utilized for the construction of the rock shell of the TSF the balance of the waste rock will be deposited in the west waste rock storage facility. Waste rock from Soledad Pit and a Portion of Los Cuyes Pit will be deposited in the south waste rock storage facility. Waste rock from Enma pit will be place in the Soledad pit.

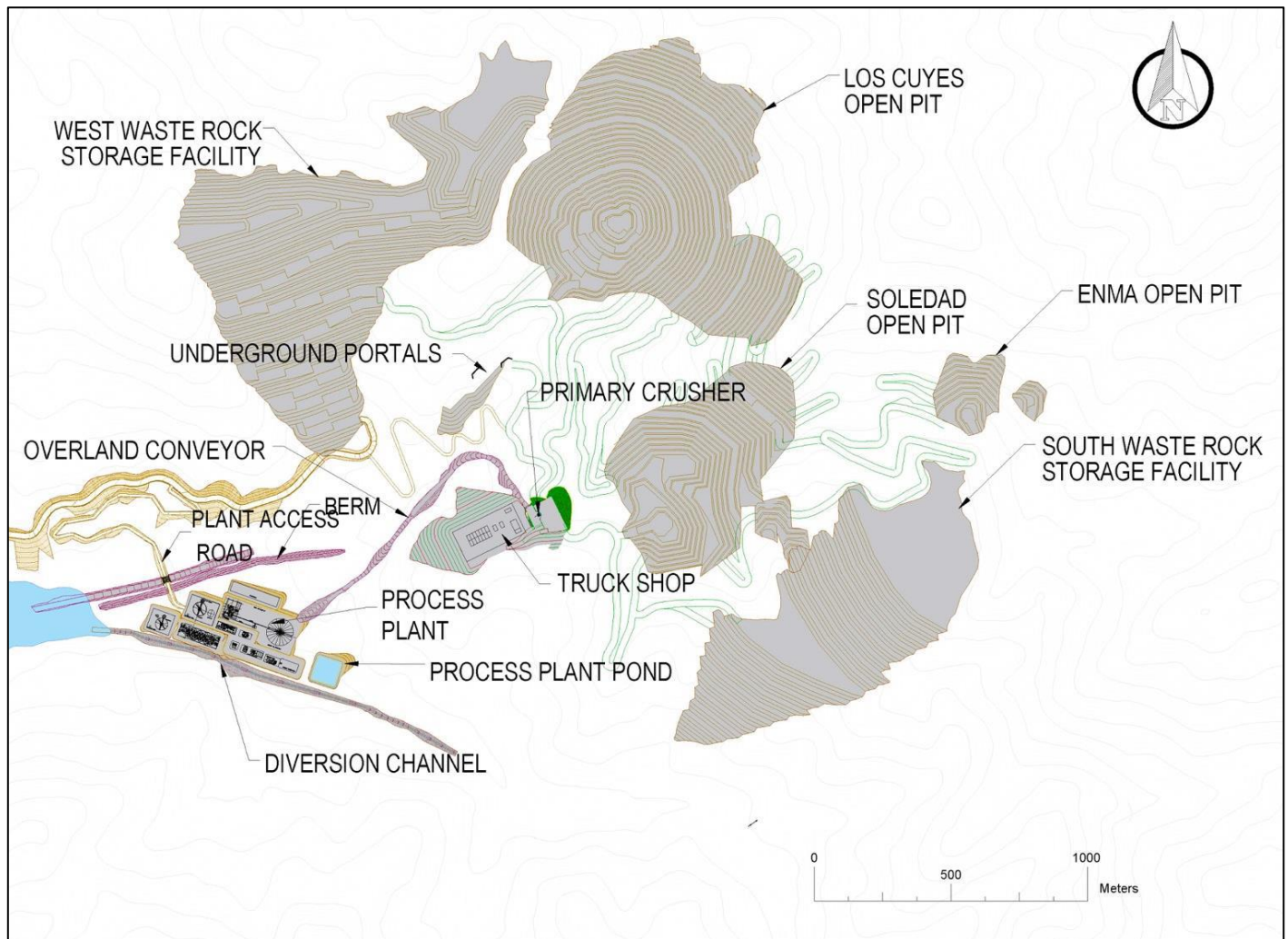
Management of the waste storage facilities includes management of contact water and non-contact water. Contact water is defined as precipitation that falls onto the surface of the mine infrastructure or flows into the mine infrastructure from surface water sources. Both non-contact and contact water will be collected in the tailings storage facility. This water will be utilized for mine operations.

The waste storage facilities are located within a short haul distance from the open pits. The conceptual facilities provide adequate capacity for 184 Mt of waste materials over the life of the mine. Waste rock and overburden will be hauled from the pit via strategically positioned egress points. As part of the mine plan, the internal pit ramps connect to the external haul roads that support the primary crusher, WRSF, and truck maintenance area.

Additionally, organic materials that are excavated from within the pit limits, the stockpile areas, and infrastructure footprints will be stripped and stockpiled for future reclamation use. This topsoil will be placed in stockpiles around the property. The general layout of the waste rock storage facilities is provided in Figure 18-2.

Limited geochemistry work indicates that some of the waste rock is potentially acid generating based on results from a small acid-based accounting testing program. Additional testing is required in the next phase to define the volumes of potentially acid generating and non-acid-generating waste materials to further develop the waste management strategy, if necessary.

Figure 18-2: Waste Rock Storage Facilities



Source: Ausenco, 2021.

Based on a trade-off study between various potential disposal sites and technologies, a sub-aqueous tailings deposition method was selected, since a very limited geochemical program suggests the tailings are potentially acid generating. The tailings disposal concept has distinct advantages over other options, most notably it is one of the best practices for tailings containing sulfides that are likely to oxidise, mobilise metals, and product acid. By placing the tailings under water it restricts oxygen to the tailings preventing oxidation and minimising environmental problems associated with acid generation and metal leaching.

Ausenco completed a PEA-level design for the TSF at the Condor North area. The TSF will provide secure storage for tailings and process water and protect groundwater and surface waters during operations and post closure. The PEA level design is based on a projected 12-year mine life at a nominal processing rate of approximately 25,000 t/d. The TSF has been sized to permanently store approximately 106 Mt of tailings, or 74 Mm<sup>3</sup> at an average settled dry density of 1.45 t/m<sup>3</sup> (Refer to Figure 18-3).

The design basis for the TSF has been developed by Ausenco based on input from Independent Mining Consultants (IMC), industry-accepted best practices, previous project studies (including preliminary site geotechnical investigations), and anticipated mine site conditions. The TSF embankment concepts have been developed to meet international standards for the design of tailings storage facilities (CDA, 2019).

The embankment includes for adequate freeboard to provide ongoing tailings storage, operational water management (water cover), temporary environmental design storm storage and conveyance up to and including the inflow design flood. The tailings and waste rock produced from the condor property is expected to be potentially acid generating.

Tailings produced from all deposits will be jointly processed and stored in a single TSF located at the Condor North Project site. The facility includes a 3 m water cover during operations, a basin and embankments lined with high-density polyethylene (HDPE), embankments constructed from non-potentially acid generating waste rock, and a minimum 2 m non-potentially acid generating tailings cover at closure.

The TSF will be constructed as a single storage facility. A geomembrane lining system consisting of an 80-mil LLDPE geomembrane underlain by low permeability soil liner and filter zone on the upstream face of the embankment. The lining system will be installed on prepared subgrade within the TSF basin floor. The prepared subgrade will have organics and unsuitable materials removed, with localised regrading of existing overburden soils to develop a relatively smooth surface for liner placement and anchoring the liner system.

A starter embankment to storage the first 2 years of tailings will be constructed in pre-production to an elevation of 925 masl. Then subsequent embankment raises will use downstream construction methodology to an ultimate elevation of 976 masl.

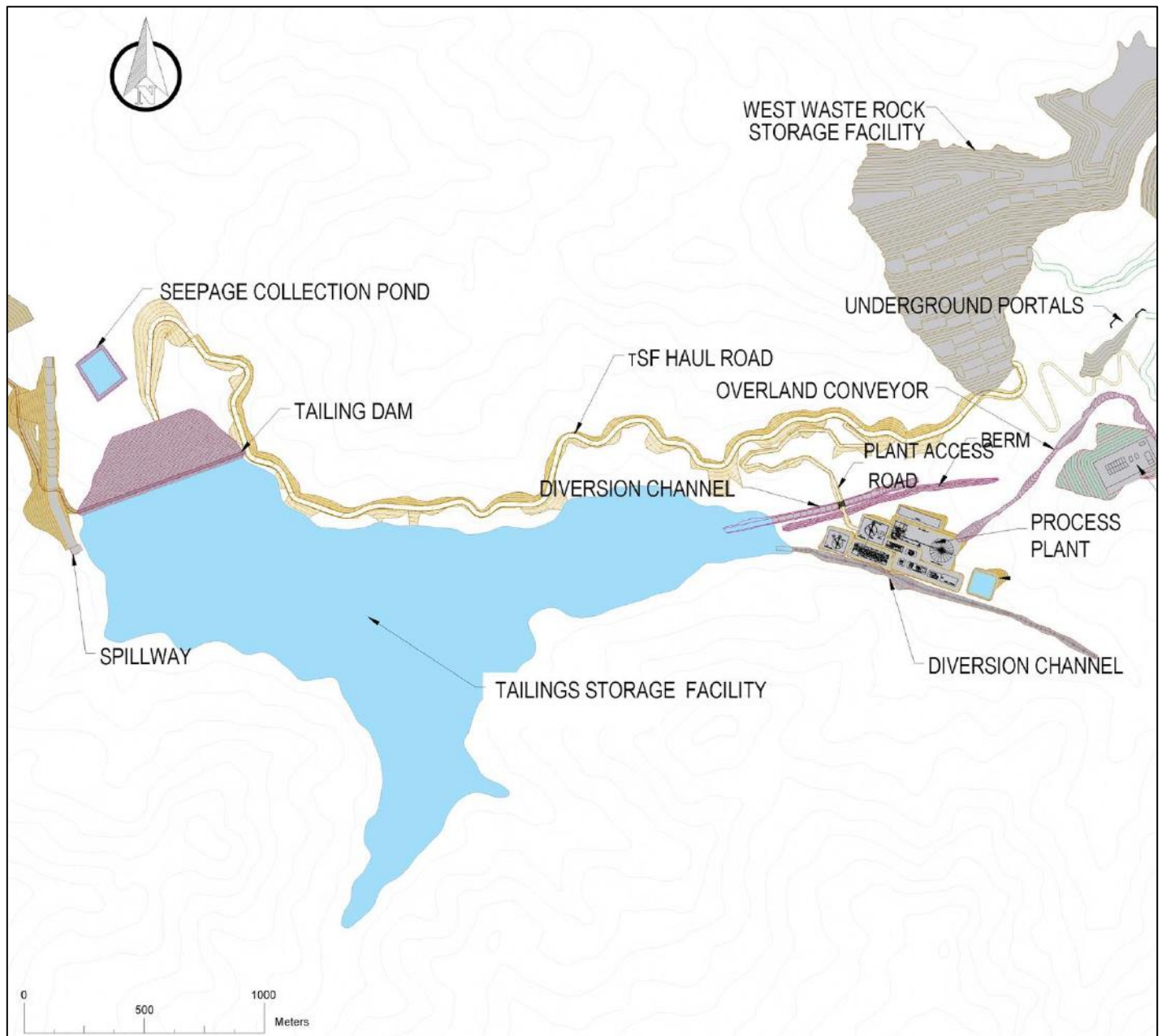
The bulk fill within the embankment will be constructed with non-potentially acid generating waste rock, sourced from the Los Cuyes Pit. Select filter zone materials for the TSF embankment will include processed locally borrowed fill materials. The zoned embankment will be constructed with filter graded materials consisting of an upstream low permeability soils zone, filter zone (sand and gravel), followed by transition zone (sand, gravel and cobbles) and a downstream general fill (waste rock). The embankment will be constructed on a prepared subgrade with organics and unsuitable materials removed from the embankment footprint. The embankment will be constructed with 2.5H:1V upstream and downstream slopes, a 10 m wide embankment. A collection drain will be installed below the embankment to collect potential seepage and mitigate the development of excess pore water pressures in any finer grained zones of the general fill.

Instrumentation consisting of vibrating wire piezometers, survey monuments and slope inclinometers will be installed within the foundation and embankment fill materials. The instrumentation will be monitored to verify embankment performance.

Tailings will be pumped as a conventional slurry tailings (typically 35% solids content by weight) from the process plant to the TSF via pipeline(s). Tailings will be deposited from multiple locations from a floating barge to facilitate sub-aqueous deposition. The tailings deposition strategy will allow for even filling of the basin, maintain a water cover over the tailings, and maximise tailings storage within the impoundment.

Water from the TSF will be reclaim by a floating pump barge in the basin to the process plant. Adequate freeboard allowances passing the design storm event through a spillway located on the south side of the embankment.

Figure 18-3: Tailings Storage Facility



Source: Ausenco, 2021.

## **18.5 Port**

Several port options were evaluated during this Study. Puerto Bolivar was selected as the basis for this Study since it is the closest (i.e., approximately 367 km) to the Project and because other options that were considered were more difficult to access.

## **18.6 Site Ancillary Facilities**

The conceptual design and cost estimates for this Study include all ancillary facilities that are required to operate a mine of this size including:

- Office Facilities
- Truck Shop and Shop Tools
- Fuel Dispensing
- Explosives Storage
- Pit Dewatering Systems
- Sanitary Landfill
- Water Supply Systems
- Sewage Treatment Facilities
- Domestic Water Treatment System
- Site Security Fencing
- Metallurgy and Assay Laboratories
- Process Reagent Mixing Systems

## 19 MARKET STUDIES AND CONTRACTS

### 19.1 Market Studies

To determine the market pricing for use in the economic model, the team reviewed recent forecast market values, current trading values, price forecasts from numerous financial institutions, and initiated discussions with Luminex Resources.

The following metal prices for this PEA cash flow model were selected as the basis:

Gold - \$1,600/oz

Silver - \$21.00/oz

The precious metal markets are highly liquid and benefit from terminal markets around the world (e.g., London, New York, Tokyo, and Hong Kong). The London PM fix for gold and silver on July 28, 2021, was \$1,796.60/oz and \$24.80/oz, respectively. As of July 28, 2021, year-to-date gold has traded between \$1,683.95/oz and \$1,943.20/oz and silver has traded between \$24.00/oz and \$29.59/oz using the London PM fix.

Long-term consensus price forecasts for gold and silver ranged between \$1,300/oz to \$1,800/oz for gold and \$16.50/oz to \$27.25/oz for silver. The mean price was \$1,587/oz and \$21.04/oz for gold and silver respectively.

### 19.2 Transportation Costs: Doré

Doré requires special handling due to its inherent value. Industry sources provided typical doré freight and insurance costs of \$3.53/oz of doré. This estimated charge covers transportation and insurance costs to transport the doré from the mine site to the destination refinery and is based on other, similar projects and mining industry contacts currently operating in the region.

### 19.3 Treatment Charges, Refining Charges, Payment Terms & Penalties: Doré

Doré carries Treatment Charges (TCs) and Refining Charges (RCs) based on composition and weight. The model applies doré treatment and refining charges based upon industry sources available to the Condor North area. The treatment charges are estimated to be \$0.30 per oz of doré. Doré payables are 99.95% for gold and 99.5% for silver. These values were derived by looking at several South American gold and silver producers actual terms for refinement and processing.

### 19.4 Contracts

At this PEA stage of project development, no marketing contracts exist.

## 19.5 Conclusion

The QP has reviewed the marketing studies and analyses, and, in the QP's opinion, the results support the assumptions in this Technical Report.



## 20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

### 20.1 Environmental Studies, Impacts, and Mitigation Measures

#### 20.1.1 Environmental Setting and Area of Influence

The Condor Project is located near the southern end of the Cordillera del Condor, in steep, high-relief terrain drained by several seasonally energetic streams. The Project abuts the Ecuador – Peru border and lies within the Conguime River sub-basin, which flows into the Nangaritza River, a main tributary of the Zamora River.

The Condor Project is surrounded by secondary tropical forest, which has been heavily impacted by illegal mining and other intrusive anthropic activities for at least the last 30-40 years. Projected elevations of various elements of Project infrastructure range from approximately 1925 masl at the estimated top of the Cuyes pit highwall, to 975 masl at the base of the mineral separation facility.

The Condor North area mining operations will be conducted within the boundaries of the three northernmost concessions in the Condor Project area: Viche Conguime I, Viche Conguime II, and Chinapintza. Concession locations and boundaries are shown in Figure 4-1.

General environmental conditions in the area of the Condor Project are summarized as follows:

- **Climate:** The climate in the Condor Project area is highland tropical, with an average daily temperature ranging from 21°C to 24°C, and an average annual rainfall of approximately 2 to 3 m. There is a distinct annual rainy season that typically occurs between January and June. A meteorological station has been fully operational at Condor Camp ( 1,456 masl) since January 2021. Relevant historical rainfall data are also available from Instituto Nacional de Meteorología en Hidrología (INAMHI) stations in Yantzaza and El Panguí; however, neither station is currently operational.
- **Flora and Fauna:** Several limited biotic investigations were conducted within the Condor Project area concessions between 2006 and 2021, pursuant to the requirements of the governing environmental impact study [Estudio de Impacto Ambiental (EIA) (Ambienconsul, 2006)], as well as biennial environmental audits and periodically updated environmental management plans [Planes de Manejo Ambiental (PMAs)]. To date, forest inventories have been routinely conducted in advance of specific exploration activities. They indicate a relatively sparse, young secondary forest recovering from significant anthropic disruption. Biodiversity considerations are discussed separately in Section 20.1.2.4.
- **Soil:** Soil studies initially conducted in 2011 determined that the Condor Project concession areas are dominated by naturally mineralized soils that are considered generally unsuitable for agriculture. Periodic soil sampling events conducted under current exploration-phase PMA requirements typically indicate high background concentrations of zinc, lead, magnesium, cobalt, aluminum, and cadmium.

- **Water quality:** Recent background studies in streams upgradient of the Condor North area indicate generally acidic conditions, with pH values below the effluent limits established by Ecuadorian discharge regulations. Elevated metals concentrations were noted that are typical of watersheds with highly mineralized soils. Other slightly elevated but transitory constituents were observed in some locations that suggest anthropic influences, including human habitation (e.g., fecal coliform) and sporadic illegal mineral processing (e.g., traces of mercury and cyanide) and mine water drainage of illegal workings.
- **Air quality:** Although ambient air quality monitoring has not been required by current PMAs, initial baseline testing was conducted at Condor Camp in 2019. It is expected that a more comprehensive baseline air quality study will be required as part of the exploitation phase EIA. Project air sources currently include emergency generator and canteen exhaust at Condor Camp, vehicles, and exhaust from operating drill rigs and pumps. At the same time, there are a large number of uncontrolled sources in the airshed around the Project, including stationary and vehicular sources in the informal “La Punta” community to the northwest of the Project, smaller communities or encampments, and the various internal combustion engine- (ICE-) powered vehicles, pumps, generators, and other equipment currently being used by illegal miners.
- **Noise and Vibration:** Apart from the noise and vibration associated with Condor Project area core drilling activities and sporadic traffic noise from unsealed local roadways, the area of the Project is subject to periodic noise/vibration events from illegal underground blasting, as well as substantial nuisance-level noise from generators, pumps, the other ICE-powered equipment used by illegal miners. This part of the Cordillera del Condor also experiences occasional seismic activity, generally originating in a subduction zone several hundred kilometers to the east in the Peruvian Amazon.

The environmental AOI for the Condor North area is defined to include all areas of land surface that will be further disturbed by:

- environmental clearances necessary for open pit and underground mining operations;
- construction of access and haul roads;
- environmental clearance, construction, and operation of the Waste Rock Storage Facility (WRSF) and Tailings Storage Facility (TSF); and
- construction of the crusher, mill, mineral separation facilities, stockpiles, water management ponds, warehouses and shops, administrative and man-camp buildings, sanitary landfill, power lines and substations, pipelines, and other ancillary facilities.

A nominally 100 m-wide environmental buffer will be established around the perimeter of these areas, including 50 m to either side of the centerline of features such as power lines, tailings slurry and reclaim water pipelines, and site access and mine haul roads. Final buffer widths in required land areas not owned by Condormining will be negotiated with individual landowners and governmental agencies as necessary. Full security fencing will be established around all operations.

The nearest biological reserve established under Ecuador’s national system of protected areas (Sistema Nacional de Areas Protegidas or SNAP) is the Podocarpus National Park, the eastern boundary of which is approximately 20 km from the Condor North area environmental AOI. The Ministerio de Ambiente y Agua y Transición Ecológica (MAATE) also has recently established a “Socio Bosque” Program that provides economic incentives for conserving small tracts of private land. One small (32 ha) Socio Bosque tract lies within the Viche Conguime I concession but is not within the AOI. If any such lands are required for Project infrastructure in future, usage will be negotiated in accordance with applicable laws and regulations.

## 20.1.2 Environmental Studies and Results

### 20.1.2.1 Management of Environmental Studies, Permits, and Impacts

The Condor Project area currently holds all necessary environmental permits for the advanced exploration phase and complies with all applicable legal and regulatory obligations. Work is currently being conducted under the conditions of an advanced exploration environmental license, granted in 2013, which was based on a previously approved EIA (Ambienconsul, 2006). The EIA has been supported by independently conducted biennial environmental audits and updated PMAs. The EIA and current PMA are implemented within the context of an integrated project-specific Health, Safety, Environmental and Social (HSES) Management System, based on elements of the Prospector & Developers Association of Canada (PDAC) "Principles for Responsible Exploration" (PDAC, 2012) and other best management practices (BMPs) that have been widely implemented within the international mineral exploration and mining industry. The HSES Management System provides a structured approach for maintaining compliance with Ecuadorian regulatory requirements, as well as international norms for the identification and management of the HSES risks and liabilities associated with mineral exploration operations.

The HSES Management System is presently focused specifically on the management of impacts associated with advanced exploration. It includes documented practices and procedures for:

- regular HSES training for field geologists and support staff;
- maintenance of site security;
- management of drilling contractors;
- use of safe work practices and appropriate personal protective equipment (PPE);
- Health, Safety, and Environmental (HSE) inspection and HSE/social clearance of access trail and pad areas, prior to commencement of drilling;
- implementation of "chance find" protocols in the event archaeological artifacts are encountered in the clearance of exploration trails or drill pads;
- daily monitoring of drilling activities with respect to HSE requirements and potential social issues;
- management of collection, segregation, and disposal of hazardous/non-hazardous wastes;
- reclamation of pads and access trails at the completion of drilling; and,
- provision of medical screening, personal protective equipment (PPE), first aid, and emergency medical evacuation support, including special testing, quarantine, and PPE protocols in response to the COVID-19 pandemic.

As the Condor North area advances towards the feasibility study phase, the HSES Management System will be updated to incorporate additional lender-specified international standards applicable to certain aspects of mine design, construction, operation, and closure; see Section 20.3.3.

### 20.1.2.2 Environmental Impact Studies

The Condor Project's Environmental License for the advanced exploration phase was granted in 2013 and is based on a previously approved EIA (Ambienconsul, 2006) and the implementation of subsequent environmental audits and PMAs. Environmental audits and PMA updates were filed by consultants for the 2016-2018 and 2018-2020 time periods; final MAATE approvals for both audits are still pending as of the date of this report. Although these processes are fully compliant with underlying regulations, the assessment of impacts in environmental audits and the associated scoping of the PMAs may in fact lag the actual environmental conditions of the Project by months or years. In addition, the sampling locations

and impact areas identified through this process are only partially representative of the areas likely to be impacted by mine construction.

### 20.1.2.3 Biodiversity Studies

Biological studies in the Condor Project area have been limited to the biotic investigations required as part of the 2006 EIA (Ambienconsul, 2006) and subsequent environmental audits and PMAs, as well as a literature review and desktop biodiversity study of nearby exploration areas that was commissioned by Lumina in 2017 (Whistler Consultora, 2017). Results suggest that the region is potentially rich in terms of biodiversity, which is borne out by the considerable number of species observations made as part of biennial environmental audits. However, as noted previously, the natural habitat areas in and around the Condor Project concessions and exploration areas have been heavily impacted by illegal mining and other uncontrolled intrusive human activities for at least the last 30-40 years. These habitat impacts are ongoing and include:

- artisanal/small-scale mining operations, both alluvial and underground;
- illegal underground blasting;
- construction of and operation of makeshift adits and mining and storage structures, along with small buildings, fencing, power lines, pipelines, flumes, ponds, tramways, and access roads and trails;
- human habitation and associated generation of hazardous/non-hazardous wastes;
- small garden clearances;
- introduction of invasive species;
- vehicle traffic (primarily light trucks and motorcycles);
- foot traffic; and
- associated noise and air/water pollution

Habitats in and around the Condor North environmental AOI are also subject to disruptions from frequent landslides and mudflows, due to the steepness of terrain, underlying geology, periodically extreme precipitation events, and the accumulated exacerbating impacts of illegal mining clearances.

The Cordillera del Condor has also been impacted by several border skirmishes between Ecuador and Peru over the last 160 years, which ended with the signing of a peace treaty in 1998. The Condor North area is near the location of the so-called "Paquisha War" of January/February 1981, although most conflict zones and environmental disruptions were on the Peruvian side. After the conflict was resolved, several antipersonnel mine clearance campaigns were conducted by the military in border areas along the ridgeline above the Project.

Given this history, a focused biodiversity study of proposed infrastructure clearance areas will need to be conducted as the Condor North progresses to the feasibility stage. This work would form the basis for an effective approach to managing biodiversity in an environmental area that is already historically disturbed, and to creating practical and realistic ecological offsets to compensate for land areas that may be further disturbed by Project mining activities.

### 20.1.2.4 Archaeological Studies

Apart from limited localized investigations in advance of specific drilling campaigns, no comprehensive archaeological field studies have yet been conducted in the Project area. Reviews of available archaeological information were conducted as part of the Project EIA (Ambienconsul, 2006), which concluded that no significant archaeological resources were likely to be found within the Project concessions. This conclusion has been supported by the results of pre-drilling archeological

clearance investigations, which have not encountered any significant artifacts. Nonetheless, Conforming has implemented an archaeological “chance finds” procedure for exploration activities in accordance with (IFC, 2012).

### 20.1.3 Environmental Impacts and Mitigation Measures

Table 20-1 summarizes the primary environmental risks and impacts anticipated for the Condor North area, along with potential mitigation measures. These are based on the preliminary design information summarized in this PEA, environmental impacts originally identified in the EIA (Ambienconsul, 2006), Conforming’s ongoing exploration experience in the Condor Project area, international BMPs, and Luminex’s prior experience in exploration and development of mines in similar environmental settings.

**Table 20-1: Preliminary List of Environmental Risk/Impacts and Potential Mitigation Measures**

Environmental Risk/Impact	Potential Mitigation Measures
Carbon emissions/ contributions to climate change	<ul style="list-style-type: none"> <li>• Grid power acquired from predominantly renewable (hydroelectric) sources</li> <li>• Where feasible, preferential use of electric/hybrid vehicles or motorized equipment (e.g., underground equipment, hydraulic shovels, forklifts) in lieu of ICE-powered alternatives</li> <li>• Minimization of hydrocarbon fuel use via selective use of electric and/or hybrid vehicles and motorized equipment</li> <li>• Implementation of a regular program of preventive maintenance to minimize emissions for all ICE-powered vehicles and mobile/stationary equipment</li> <li>• Where sufficiently reliable and cost-effective, selective use of solar power for certain types of equipment installations</li> <li>• Minimization of environmental clearance needs by consolidation of the Project footprint, and implementation of a partially underground mine design</li> <li>• Selected offsite habitat reclamation and revegetation/reforestation projects, as may be indicated by exploitation phase biodiversity studies</li> <li>• Final reclamation and revegetation/reforestation of disturbed areas during mine decommissioning and closure</li> </ul>
Water usage	<p>Project design emphasizes minimization of water consumption and potential risks/impacts to potential downstream users; design features include:</p> <ul style="list-style-type: none"> <li>• Deposition of detoxified tailings in a conventional TSF designed with a reclaim pond and recovery/pumpback system, in order to maximize recycling of industrial water</li> <li>• Diversion of surface water flows to channels around the open pits and underground mine, as well as the WRSF, mill/mineral separation facility, and TSF, in order to preserve environmental base flows in associated watersheds</li> <li>• Maximized capture of all contact water (e.g., TSF and WRSF runoff, stormwater, and water from the underground mine and pits) and recycling as process makeup water</li> </ul>

Environmental Risk/Impact	Potential Mitigation Measures
Water discharge quality	<ul style="list-style-type: none"> <li>• Implementation of a comprehensive probabilistic water balance and water management program as part of the Project ESMS</li> <li>• Installation of underdrains and sedimentation ponds below the WRSF and TSF to capture and recycle contact water</li> <li>• Monitoring of water quality in runoff from TSF, WRSF, and pit/underground mine effluents, to ensure applicable environmental quality standards are met in any required discharge during construction, operation, and closure phases</li> <li>• Placement of potentially acid-generating waste rock in mined-out areas of the pits, as well as development of backup pre-discharge treatment approaches in the event potentially acid generating conditions or other discharge quality issues are encountered</li> <li>• Implementation of appropriate erosion prevention and progressive revegetation programs as part of the Project ESMS</li> </ul>
Air pollution from ICE-powered vehicles/ equipment and other industrial sources	<ul style="list-style-type: none"> <li>• Regular monitoring of ambient and workplace air quality</li> <li>• Implementation of a regular program of preventive maintenance to minimize emissions for all ICE-powered equipment</li> <li>• Installation of ventilation raises and exhaust fans in underground mine</li> <li>• Implementation of a dry-conditions road dust control program using recycled water and/or environmentally benign surfactants</li> <li>• Minimization of fly rock and dust in pit blasting operations via blasting designs that direct blasting energy primarily to the subsurface</li> <li>• Control of pH to minimize hydrogen cyanide gas generation in Carbon in Leach (CIL) plant breathing zones below International Cyanide Management Code (ICMC) (ICMI, 2021), National Institute for Occupational Safety and Health (NIOSH), and Ecuadorian regulatory limits</li> </ul>
Noise and vibration	<ul style="list-style-type: none"> <li>• Preventive maintenance inspection and replacement program for silencers and mufflers installed on ICE-powered vehicles and equipment</li> <li>• Pit blasting activities restricted to daylight hours</li> <li>• Scheduling of major deliveries of materials and equipment for daylight hours</li> <li>• Location of crushers, ore conveyors, and other noisy industrial equipment away from human habitation</li> <li>• Design of all structures and earthworks to consider potential seismic impacts</li> <li>• Workforce hearing protection devices/acoustic shielding will be required in industrial areas with average ambient noise &gt; 85 dB</li> </ul>
Soil contamination	<ul style="list-style-type: none"> <li>• Implementation of systematic spill prevention, control, and countermeasures program as an element of the Condor North ESMS</li> <li>• Preparation and implementation of comprehensive, ICMC-compliant <i>Emergency Preparedness and Response Plan</i> as part of Condor North ESMS</li> <li>• Installation of secondary containment systems for all fuels, reagents, and other hazardous chemicals stored on site in liquid form</li> <li>• Installation of TSF underdrains/seepage collection and pumpback systems</li> <li>• Construction of stormwater collection and containment infrastructure for all industrial and administrative facilities, and recycling as industrial makeup water</li> </ul>

Environmental Risk/Impact	Potential Mitigation Measures
	<ul style="list-style-type: none"> <li>• Purchasing/delivery of cyanide reagent in dry briquette form in intrinsically safe, purpose-built heavy gauge stainless steel solid-to-liquid delivery/mixing tanks (a.k.a. "ISO-tanks"), using ICMC certified cyanide manufacturer/transporter</li> <li>• Management of transportation, storage, and use of all cyanide reagent in accordance with the ICMC (ICMI, 2021)</li> <li>• Detoxification of cyanide in process tailings to &lt;0.5 mg/l weak acid-dissociable (WAD) cyanide prior to conveyance of tailings to the TSF via slurry pipeline.</li> </ul>
Use of energy	<ul style="list-style-type: none"> <li>• Project design assumes connection with Ecuadorian national grid, which is predominantly comprised of hydroelectric power sources</li> <li>• Where feasible, preferential use of electric and/or hybrid vehicles</li> <li>• Onsite generation of power using stationary or portable ICE-powered generators limited to emergency backup and remote installations</li> <li>• Where sufficiently reliable and cost-effective, selective use of solar power for certain types of equipment installations</li> </ul>
Generation of mining waste	<ul style="list-style-type: none"> <li>• Minimization of waste rock in WRSF by using as underground backfill.</li> <li>• Collection and recycling of pit and mine effluent as process makeup water</li> <li>• Installation of stormwater collection systems and, as necessary, treatment systems for TSF and WRSF runoff</li> <li>• Monitoring, testing, and as necessary, treatment of all Project effluents to applicable regulatory standards prior to discharge</li> <li>• Design and construction of the tailings pipeline and TSF to (ICMM, 2020), (IFC, 2007), (ICMI, 2021), and other relevant Ecuadorian and international standards</li> <li>• Implementation of systematic spill prevention, control, and countermeasures</li> <li>• Installation of secondary containment systems for all fuels, reagents, and other hazardous chemicals stored on site in liquid form</li> <li>• Management of transportation, storage, and use of all cyanide reagent in accordance with (ICMI, 2021)</li> <li>• Detoxification of cyanide in process effluent to &lt;0.5 mg/l WAD prior to conveyance of tailings to the TSF via slurry pipeline</li> <li>• Installation of TSF underdrains/seepage collection and pumpback systems</li> </ul>
Generation of non-hazardous waste	<ul style="list-style-type: none"> <li>• Separation and segregation of recyclable and nonrecyclable waste streams</li> <li>• Development of economic reuse and recycling options for waste streams</li> <li>• Construction of permitted onsite sanitary landfill</li> <li>• Installation of one or more permitted disposal cells in the WRSF to accommodate high-volume unrecyclable inert wastes</li> </ul>

Environmental Risk/Impact	Potential Mitigation Measures
Generation of hazardous waste	<ul style="list-style-type: none"> <li>• Implementation of systematic spill prevention, control, and countermeasures program as element of the Project ESMS</li> <li>• Delivery of fuel, explosives, and other hazardous materials using licensed carriers</li> <li>• Delivery of cyanide reagent in ISO tanks using a licensed transportation company certified to the ICMC</li> <li>• Installation of secondary containment systems for all fuels, reagents, and other hazardous chemicals stored on site in liquid form</li> <li>• Storage of all high explosives in permitted magazines, segregated bulk storage of blasting agents in purpose-built silos, and mixing of blasting agents at the blasthole using purpose-built delivery and mixing trucks</li> <li>• Use of environmentally benign solvents and paints in onsite mechanical shops</li> <li>• Installation of temporary storage facilities for containerized hazardous waste (with secondary containment systems), pending offsite disposal at licensed hazardous waste disposal facilities</li> </ul>
Negative impacts on biodiversity	<ul style="list-style-type: none"> <li>• Performance of a survey of biodiversity conditions in areas likely to be physically disturbed by mining operations, leading to preparation of a comprehensive <i>Biodiversity Management and Monitoring Plan</i> and creation of appropriate onsite or offsite ecological corridors or offsets, in compliance with applicable Ecuadorian and (IFC, 2012) requirements</li> <li>• Development and implementation of comprehensive water management and erosion prevention and progressive revegetation programs</li> </ul>
Transportation accidents/incidents	<ul style="list-style-type: none"> <li>• Shipment of all goods and materials using licensed contractors with trained and qualified drivers</li> <li>• Delivery of all cyanide reagent in intrinsically safe ISO-tank/solid briquette delivery form, via an ICMC-certified transporter</li> <li>• Preparation and implementation of a comprehensive <i>Transportation Management Plan</i> and <i>Emergency Preparedness and Response Plan</i> as part of the Project ESMS, in accordance with (IFC, 2007), (ICMI, 2021), and applicable Ecuadorian regulations</li> </ul>

## 20.2 Mine Waste Management, Tailings Disposal, and Water Management

### 20.2.1 Waste Rock Disposal

Refer to Section 18.4.4 for more information.

### 20.2.2 Tailings Disposal

Refer to Section 18.5 for more information

### 20.2.3 Management of Other Mining Wastes

Other mining wastes are expected to include the hazardous and non-hazardous wastes generally associated with the operation of the mine, mill, mineral separation facility, and vehicles/ICE-powered equipment, as well as ancillary facilities,



administrative offices, and the man camp. These wastes will be inventoried and managed in compliance with a comprehensive Waste Minimization and Management Plan and implemented as part of the Condor North ESMS.

#### **20.2.4 Environmental Monitoring**

Environmental monitoring conducted to support this PEA includes:

- operation of the onsite meteorological station to monitor precipitation, wind speed and direction, pressure, humidity, barometric pressure, and lightning events;
- groundwater levels and groundwater quality monitoring in potential Project construction areas;
- background surface water quality; and,
- periodic soil, biotic, and surface water quality monitoring, as required by the current advanced exploration phase PMA.

Additional environmental monitoring requirements will be established with the MAATE as part of the exploitation phase EIA/PMA, with plans and procedures developed and implemented as elements of the Condor North ESMS. At a minimum, exploitation phase environmental monitoring activities are expected to include:

- continued operation of onsite meteorological station(s) to support management of the site water balance;
- monitoring of groundwater levels and quality below the toes of the WSRF and the TSF embankment;
- periodic sampling of surface water discharge points;
- creation and observation of test plots and monitoring success of site revegetation and reclamation strategies;
- ambient and workplace air quality, noise and vibration monitoring during construction and operation;
- operational phase blast vibration monitoring; and,
- monitoring of biodiversity and the success of any offsite habitat reclamation, revegetation and reforestation projects.

#### **20.2.5 Water Management**

##### **20.2.5.1 Operational Phase Water Management**

Site water management measures has been developed based on the PEA site arrangement, operational requirements, and environmental site conditions. As part of the ore processing, tailings will be pumped with water (400 l/s) to the TSF and water will be reclaimed from the TSF at 280 l/s. Makeup water for reagent mixing, gland seals, etc. will come from sub-basins surface water at the inflow point of the TSF and pumped to mine water pond near the plant at an average rate of 120 l/s.

Site water management includes sediment management from mine facilities runoff. Water management measures for the Project include a series of diversion berms, collection and diversion ditches, the direct runoff to the TSF. Following a precipitation event, the runoff from mine facilities will be collected and conveyed to the south end of the TSF. The system is designed to settle out suspended solids greater than 10 microns prior to discharge to the environment through the tailings storage facility spillway located at the north end of the facility. The average annual flow out the TSF is 2,300 l/s, slight greater than the current average annual flow.

Shallow seepage from the TSF will be capture and conveyed to a pond located at the foot of the TSF. Any seepage collected will be pumped back to the TSF.

#### **20.2.5.2 Post-Closure Water Management**

Post-closure actions will commence when mining economics or business conditions no longer support continuing production, and Project facilities are no longer needed. Post-closure water management actions will be designed to protect both surface and groundwater to baseline environmental conditions as well as to ensure any effluents meet applicable Ecuadorian discharge standards.

The current closure design for the TSF is to maintain a water cover over the TSF to minimum the potential for oxidation of the tailings that generate acid and metal leaching and all water from the open pits will report to the TSF. There are no pit walls No pit lakes will form at closure since the bottom of the pits since there are no pits wall located along the south sides of the pits.

### **20.3 Environmental Permitting Requirements**

#### **20.3.1 Permitting Summary and Status**

The Condor Project and the Condor North area, in particular, are being developed in accordance with the Ecuadorian Constitution, the Ecuadorian Mining Law, and an array of other applicable Ecuadorian norms, standards, laws, and regulations. Prior to the commencement of mine construction and mineral production, Condor North will be subject to a wide array of additional permitting and related support actions, as required by current Ecuadorian laws and regulations. These requirements are discussed in greater detail in Section 4.3 of this Technical Report. Based on prior experience with similar-scale projects in Ecuador, it is estimated that in aggregate, major permitting actions (excluding certain municipal, tax registration, and securing potential doré export permits) will take a minimum of 24 months to complete.

#### **20.3.2 Performance/Reclamation Bonds**

Ecuadorian regulations require presentation of a surety or other financial mechanism to implement the Condor Project's phase-specific PMAs, which are updated via the biennial environmental audit process to keep pace with development. Commitments to meet all legal requirements for PMA implementation surety must be fulfilled during all phases. Prior to closure, the exploitation phase PMA must be updated to incorporate final decommissioning and closure plans, which are to be approved by MAATE prior to the commencement of closure actions. In addition, compliance with international BMPs (see Section 20.3.3) may require the development of additional financial mechanisms as necessary to cover the costs of decommissioning cyanide facilities and the total costs of mine decommissioning and closure.

#### **20.3.3 Compliance with International Standards**

As the Condor North area advances to the pre-feasibility study phase, additional lender-specified international standards will be applied to certain aspects of mine design, construction, operation, and closure, including:

- Global Industry Standard on Tailings Management (ICMM, 2020);
- The Equator Principles (Equator Principles Association, 2013);
- International Finance Corporation (IFC) Performance Standards for Sustainable Development (IFC, 2012);
- IFC Environmental, Health, and Safety Guidelines for Mining (IFC, 2007); and

- The International Cyanide Management Code (ICMI, 2021).

Applicable Ecuadorian laws, regulations, norms, and standards will retain legal primacy in the event of conflict with any international standards.

## 20.4 Social/Community Relations Requirements

### 20.4.1 Social Setting and Area of Influence

The Condor North mineral concessions, field camp, and acquired property are located in the parish of Nuevo Quito in the upper reaches of the Canton of Paquisha, Zamora Province. The Condor Project concessions also extend to the neighboring parish of Nankais in the Canton of Nangaritza.

The Condor North's mining operations and future access and other potential impacts are expected to be limited to the Nuevo Quito and Nankais parishes. Nuevo Quito parish has an area of 82 km<sup>2</sup> and a total population of 1,9284. Nankais was only recently established as a parish in 2018 and has an area of 34 km<sup>2</sup>. Nankais spans the indigenous properties of Tsarunts Santa Elena and Wankuis (detailed below). There has not been an official census completed since the creation of the parish; according to estimates of the Project's Community Relations team, the total population is over 1,200.

The Condor camp and proposed Condor North mine area are largely on private land, as are five mestizo settlements located within a few kilometers of the camp. These settlements include Puerto Minero (pop. 192), Chinapintza (pop. 52), La Herradura (pop. 282), La Pangui (pop. 130), and Conguime Alto (pop. 150)<sup>5</sup>. These settlements were established in the 1980s when the mestizo population was first attracted to the area from the provinces of Loja, El Oro and Azuay in search of gold.

Within three kilometers to the north and south of the Condor camp are community lands that are under possession or ownership of the Shuar indigenous communities (centros).

There are also indigenous settlements in the area (see Figure 20-2) associated with these lands. Most of these settlements have less than a few dozen families and it is estimated that less than 2000 Shuar live in the area.

### 20.4.2 Description of the Social Area of Influence

The following are descriptions of a number of key socioeconomic aspects of the settlements in the social area of influence.

**Roads and access to regional centers:** Access to the Condor Project from Loja is along national highway 50/45, then through Paquisha to Puerto Minero. From Puerto Minero the local roads to the camp and all local settlements are gravel. There are public buses servicing all local settlements. Road maintenance is the responsibility of the Canton.

The town of Yantzaza is the main social and economic center near the Condor Project. It is approximately 40 km north of the Condor Project area and a little over one hour by road. It has a population of just over 10,000 people and is the capital of the neighbouring canton, which is also named Yantzaza. The local residents may travel to Yantzaza for secondary school and more complete health care, as well as general goods and services.

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<sup>4</sup> According to the 2014 Development Plan for Nuevo Quito (*Plan de Desarrollo y Ordenamiento Territorial* in Spanish) developed by the 2009-2014 Parish government.

<sup>5</sup> All population estimates for local settlements, including indigenous settlements, have been provided by the fieldwork of the Condormining Community Relations team.

Figure 20-1: Social Setting – Project Location



Source: Luminex, 2021

**Communications:** The five local mestizo settlements all have fixed line telephone service. Puerto Minero and Conguime Alto also have partial cellular coverage. The indigenous settlements all have fixed line service and at least weak cellular coverage. The area has both AM and FM radio coverage, while cable coverage only extends to Puerto Minero and La Herradura. There are two local television channels with limited coverage, one broadcasting from Yantzaza. Many local residents subscribe to cable television.

**Education:** There are primary schools in La Herradura, Puerto Minero, San Luis, Kenkiun, Wankuis and Tsarunts. Secondary school students must commute to either Paquisha or Yantzaza. The highest level of education achieved by most adults is primary education. Women underperform men in terms of education and literacy. All the primary schools in Shuar settlements have bilingual instruction.

**Health services:** There are public health outposts in Puerto Minero and Tsarunts. Both are staffed with two doctors and one nurse. Local residents often travel to Paquisha or Yantzaza for more comprehensive treatment.

**Religion:** Organized religion does not have the same profile in the area as it does in other parts of Ecuador. Although some Shuar will identify as Catholic, they also follow their own beliefs, rather than align strongly with Christianity. A Catholic priest may conduct mass in the area once a month; there is no significant evangelical presence.

**Basic utilities:** All of the indicated mestizo and indigenous settlements in the area have electricity provided by the southern regional electric company (Empresa Eléctrica Regional del Sur). They also have water collection tanks and distribution pipes, although the water itself is not treated with any type of chlorination. Puerto Minero is the only settlement with wastewater collection infrastructure. However, it does not have either a treatment plant.

**Indigenous Peoples:** The Shuar are one of the main ethnic groups of indigenous peoples in the Amazonian region of Ecuador and also the ethnic group with communal land near the Project area. At least 40,000 Shuar live in the provinces of Zamora Chinchipe, Pastaza and Morona Santiago.

The local Shuar population are settled in small villages, typically of only a few dozen families. They had mostly entirely relied on a subsistence economy, but since the arrival of mining into the area, many seek to supplement their subsistence activities with income from participation in activities linked to mining. The Shuar face a broad range of social, economic and cultural challenges. Historically, support from the state has not provided adequate access to education, public health, and economic opportunities. This lack of support has made it difficult for them to compete in the modern world and has also made them vulnerable to abuse. This situation fuelled indigenous demands for self-determination and control of their own territory, which were met with recognition at the constitutional level.

**Constitutional Rights:** The Ecuadorian Constitution of 2008 recognizes the collective rights of indigenous peoples in article 57 of Chapter IV. Specifically, it recognizes rights to:

- keep ownership, without subject to a statute of limitations, of their community lands, which shall be unalienable, immune from seizure, and indivisible;
- participate in the use, usufruct, administration and conservation of natural renewable resources located on their lands; and
- free prior informed consultation, within a reasonable period of time, on the plans and programs for prospecting, producing and marketing non-renewable resources located on their lands and which could have an environmental or cultural impact on them; to participate in the profits earned from these projects and to receive compensation for social, cultural and environmental damages caused to them.

Regarding free, prior, and informed consultation, Ecuador ratified International Labor Organization (ILO) Convention 169 in 1998, and, therefore, recognized the right of indigenous peoples to be consulted on issues that may impact them. Although exploration concessions in the area predate this ratification, it is anticipated that the affected indigenous peoples would be engaged in a Prior Consultation process as part of the approval process for any future mineral exploitation project.

**Governance:** The Shuar are organized at a first level as a community (*centro*). Each *centro* elects a leader (*síndico*) to a two-year term. The *centros* have areas for settlement and also land within a larger property that provides community members with possession of a small area for agriculture and reserves the rest of the property for communal use for hunting, fishing, collection of forest products and wood. *Centros* can own land that may or may not be considered as ancestral land. These lands be adjacent to or removed from the settlements where they reside. To the best knowledge of the Company and after due enquiry, none of the properties of the Shuar *centros* in the area of the Project are on the register of ancestral land. In any case, the land owned by *centros* cannot be sold, but a *centro* can sign agreements with outside parties for its use, including for mining development. The five Shuar *centros* with property in the area include Centro Shuar Tsarunts Santa Elena, Centro Shuar Wankuis, Centro Shuar San Francisco de Ikiam, Centro Shuar San Luis, and Centro Shuar Kayamas.<sup>6</sup>

At a second level, the Shuar *centros* are each part of a Shuar association (*asociación*). The *asociación* is led by a board (*junta*) that is also elected to a two-year term. Until recently, there was only one *asociación* in the area. However, there is now a pre-*asociación* in the area that is still in the process of registration<sup>7</sup>. In the area of the Project, these entities are:

- Asociación de Centros Shuar Nankais, which includes Centro Shuar Tsarunts Santa Elena, Centro Shuar Wankuis, Centro Shuar Kayamas and Centro Shuar Pachikutza (whose land is south of the area indicated on the map); and
- Pre-Asociación Yankuam, which is in the process of formalization. The Pre-Asociación includes Centro Shuar San Francisco de Ikiam, Centro Shuar San Luis, and Centro Shuar Kenkuim. However, the property of Centro Shuar Kenkuim (also known as Conguime) is included within the property on the map marked for the Tsarunts Santa Elena.

The Condor Project's interaction with indigenous peoples is generally focused within these first two levels (*centros* and *asociaciones*). At a higher level, multiple *asociaciones* are grouped together under the representation of a Shuar indigenous federation, which is in turn grouped into a regional confederation. Lastly, at the highest level, three regional confederations comprise the national confederation.<sup>8</sup>

**Economic Activities:** Artisanal and other legal or illegal mining: The cash economy of the region is driven by mining-related activities. Beyond mining, almost all economic activities are linked to subsistence agriculture and household-level production.

There has been gold mining in the area of the Condor Project since the early 1980s. This mining can be classified according to size (artisanal or small-scale) or legality (legal or illegal/informal)<sup>9</sup>. It began with significant alluvial mining along the Conguime River downstream from the Condor Project area. Later, the miners followed the alluvial potential up the streams into the Condor Project area. There they discovered high grade veins around La Pangui and began establishing the now existing settlements in the area to support their mining activities<sup>10</sup>.

By this time, the military had established its outpost at Chinapintza in response to ongoing tensions, and occasional conflict with Peru. The army had seen the potential for mining and made a claim in the area through the Army's National Industry

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<sup>6</sup> Kayamas is the only one of these five Shuar *Centros* that does not have its property title. Kayamas is recognized by the state as a *Centro* Shuar, and the Shuar have possession of the land, but the Ecuadorian state owns the land. Kayamas had been the site of an army base near the frontier with Peru. When the army left the area, several indigenous families from *Centro* Shuar Tsarunts Santa Elena occupied the property. The families of *Centro* Shuar Kayamas are spread across several of the settlements of the other *Centros*, rather than all consolidated within their own settlement.

<sup>7</sup> The decision to form the new pre-*asociación* appears to be part of a strategy to increase access to local government budget, and not due to an internal dispute among the Shuar. The three Shuar *Centros* of the Pre-*Asociación* are all within Nuevo Quito parish of Paquisha canton, while the existing *asociación* is in the new parish of Nankais in Nangaritza canton.

<sup>8</sup> Although the different levels have common interests and overall objectives, they can lack resources and structure to maintain close coordination. In practice, the provincial Federations maintain significant autonomy in local decision making.

<sup>9</sup> The classification depends on criteria established by the State. For example, in order to be classified as artisanal, the mining should not dig adits into bedrock, use dynamite, use equipment of over 90 horsepower and not move more than 50 tons per day.

Similarly, either type of mining may be considered legal or illegal based on whether it meets additional requirements of the State.

<sup>10</sup> Mining is also being developed on the Peruvian side of the frontier.

Directorate (known by its Spanish acronym of DINE<sup>11</sup>). Soon, a foreign company invested in local concessions and began exploring in the area with the Army as a minority shareholder. The foreign ownership changed a few times over the next decades until the current Project ownership.

Condormining has interacted and coexisted with informal and illegal mining from the outset. In addition to working consistently outside the Project's concessions, miners have consistently and, at times, aggressively sought to illegally exploit resources within the Project area. Many of these miners had begun operating in the area in the 1990s when the owner of neighboring concessions signed about 60 operational contracts for local mining.

The government has taken limited measures to control the illegal mining. In 2010 the government conducted a census of informal miners in the area and identified 32 operations near the Project's AOI. In 2015 the government communicated that those operations could legally operate for ten years as long as they stayed above 1680 meters. However, several dozen active illegal operations remain around the Project's concession perimeters. This number changes over time with fluctuations in the price of gold and the government's own measures to control the illegal activity. In practice, the government has not had the capacity to effectively restrict the arrival of more illegal miners or enforce that the miners respect the obligation to mine above 1680 meters. The Company regularly files formal complaints against the illegal miners within its concessions with a view to halting their activities, however these processes unfold very slowly.

There has also been substantial alluvial mining along the Piedras Blancas Creek downstream from the Project area to the Conguime River and along the right bank of the Nangaritza river. Some of these operations have involved heavy equipment, river diversions, and have generated significant long-lasting environmental damage. These larger operations appear to have generally been done under legal contracts with the formal concession holders of those areas, while the small activities close to the Project area have remained illegal.

The larger operations on indigenous lands have been managed by outsiders but done after making access agreements with local indigenous centros. Centros have earned far more income from land access agreements with illegal miners than they can typically earn from working their land.

Although the windfall income from agreements with the alluvial miners may have been poorly managed in the past, this structure remains attractive to many indigenous leaders. In contrast to a formal mining project that will take years to evaluate if a potential operation is viable, alluvial miners are willing and able to make substantial immediate payments and begin operations within days.

**Military Presence:** Owing to its extreme proximity to the border with Peru, the military has been present in the Condor Project area since before mining began in the 1980s and maintains a base at Chinapintza. The Army established bases near the Condor Project in response to a border dispute with Peru that had persisted since the founding of the two countries. This dispute escalated into war and armed conflict in 1941, 1981 and 1995. The dispute was finally resolved with a peace accord in 1998 that led to the establishment of a definitive boundary in 1999.

Although a durable peace has been established, the Army has reasons to remain in the area, in addition to its obligation to protect the nation's frontier. First, it is involved in controlling the cross-border contraband support to mining activity on the Peruvian side of the border. It is far easier to reach the neighbouring territory in Peru through Ecuador, than through the rugged jungle that isolates the area from the rest of Peru. Second, the army is involved in some measures to control illegal mining in the area. When necessary, Agencia Regulación y Control Minero (ARCOM) has involved the army in its operations to control illegal mining.

**Stakeholder Perceptions:** The local mestizo and indigenous population are well aware of the Condor Project and understand the activities involved in mining exploration. In fact, over the years many local residents have at one time, or another worked

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<sup>11</sup> The military's interest in the Project is now held by the Social Security Institute of the Armed Forces (known by its Spanish acronym of ISSFA).

directly with the Condor Project. Also, since the local population itself is heavily dependent on mining, they are also aware of the significant environmental impacts created by their own activities. This is likely the reason why there has not been the same level of local concern towards formal exploration that would be found in areas without a historical dependence on mining. However, some resentment towards the Condor Project and the Condor North development should be expected since it does prevent local miners from accessing areas which they consider attractive.

The local population also recognizes that in the exploration phase, the Condor Project area has generated benefits through employment and social support. Some local authorities are open in expressing their gratitude for the Project’s support in the area.

It is also important to consider that until now the local population has only considered the Condor Project area as a long-lasting exploration project. They have not begun to give serious consideration to the possibility that it could be developed into a major mining operation, nor considered the range of opportunities and impacts associated with such a development.

As Condor North advances towards construction, effort will be required to proactively address the perceptions held by local stakeholders regarding the development and operation of a large-scale mining project. Significant stakeholder engagement will be needed to ensure proper understanding of the laws and regulations that govern its development, and its benefits, impacts, and risks. At the same time, large scale mining is not entirely new to the province. Both of the Aurelian Ecuador S.A. “Fruta del Norte” and Ecuacorriente S.A. “Mirador” mines began operating in Zamora Chinchipe province in 2019. Fruta del Norte is about 20 km to the north of the Project area in the neighbouring canton of Yantzaza and Mirador is 30 km further north in the canton of La Pangui.

Continuing misinformation should also be expected from politically active illegal mining interests who may seek to turn stakeholder opinion against the Project. Illegal miners may be motivated by desires to exploit the Condor Project’s resources directly or to prevent the development in order to avoid increasing government oversight of their illegal activities. Some local television and radio have strong links to illegal mining interests and participate in sharing misinformation that favors agendas of the illegal miners.

### 20.4.3 Social Risks, Impacts, and Mitigation Measures

Table 20-2 presents an initial summary of the primary sources of social impacts and risks anticipated for the Condor North development as it moves forward. This table is based on local studies, results of public participation and social engagement processes, Condormining’s exploration experience, and the Luminex management team’s experience in the development of mining projects in similar socioeconomic settings. The management and mitigation strategies reflected in the Condor North technical design and Luminex’s social management approach are also provided for each general category. It is expected that the Condor North development will have broad ability to generate significantly positive social impacts and mitigate social risks.

**Table 20-2: Social Management / Mitigation Strategies According to Sources of Impacts (Positive & Negative) and Risks**

Sources of Social Impacts and Risks	Potential Management/ Mitigation Strategies
Generation of direct employment	<ul style="list-style-type: none"> <li>• Job creation at a local and national level (in addition to creating opportunities to be fulfilled by international expertise).</li> <li>• Training to increase opportunities for long-term local residents to work in Project construction and operation.</li> <li>• Monitoring effectiveness of these measures and, when necessary, taking corrective action to ensure a positive impact in the social area of influence.</li> <li>• Clear communication with local stakeholders regarding the results of these efforts and seeking feedback on how to improve performance.</li> </ul>



Sources of Social Impacts and Risks	Potential Management/ Mitigation Strategies
Generation of supply chain opportunities	<ul style="list-style-type: none"> <li>• Identification of regional and local providers capable of providing necessary goods and services.</li> <li>• Outreach to increase local businesses' ability to understand and meet Project requirements.</li> <li>• Monitoring effectiveness of these measures and, when necessary, taking corrective action to ensure a positive impact within the social area of influence.</li> <li>• Clear communication with local stakeholders regarding the results of these efforts and seeking feedback on how to improve performance.</li> </ul>
Impact of workforce accommodation	<ul style="list-style-type: none"> <li>• Workforce from the Paquisha and Nangaritza cantons may reside in their homes and the workforce from outside this area will reside in a camp established inside the Project boundary.</li> <li>• Contractors will transport workers out of the social area of influence when they have finished their work rotations.</li> <li>• Codes of conduct will regulate social behavior of Project workers staying at camp to minimize the potential for negative social interactions with local residents, including the spread of infectious disease.</li> <li>• Participatory monitoring, stakeholder engagement and the Project Grievance Mechanism will help ensure proper behavior and early detection of any incidents that require legal intervention or corrective action.</li> </ul>
In-migration of job seekers	<p>The Project will avoid significant in-migration of job seekers into the social area of influence by not creating incentives:</p> <ul style="list-style-type: none"> <li>• Non-local residents will only be able to apply for work in recruitment sites outside of the social area of influence.</li> <li>• Only existing local residents will be eligible for hiring within the social area of influence. Local residents will still need to meet qualifications, although the Project will provide some limited local training.</li> <li>• The Project will seek to generate a modest level of local employment but monitor its impacts to avoid creating an economic boom in the social area of influence that would stimulate in-migration. It will take particular care to avoid a boom in the social area of influence during construction.</li> </ul>
Impact on traffic and access	<ul style="list-style-type: none"> <li>• Traffic increase in the social area of influence, would be largely offset by the development of a specific access road.</li> <li>• Scheduling of major deliveries of materials and equipment for daylight hours, with routes avoiding schools, markets, and other urbanized areas to the extent possible.</li> <li>• Implementation of safety measures and controls in coordination with local stakeholders to promote safety around its primarily daylight logistics.</li> </ul>
Land acquisition	<ul style="list-style-type: none"> <li>• Consolidated Project footprint avoids need for significant physical resettlement of residents (no potential requirement is foreseen for Shuar property).</li> </ul>
Indigenous Peoples	<ul style="list-style-type: none"> <li>• Ensure ongoing culturally appropriate engagement available in Shuar language, in forums agreed with local population on issues of local interest and with mechanisms to enable the participation of different sub-groups of the population such as elderly, youth and women.</li> <li>• Work with the population to jointly identify the impacts and risks of particular concern as well as the appropriate management measures.</li> <li>• Ensure that the social investments and local assistance are developed in a manner to address collectively identified priorities.</li> </ul>
Vulnerable Groups	<ul style="list-style-type: none"> <li>• Identification of the vulnerable groups within the social area of influence -- identification of how the Project might adversely or positively impact them and establishment of management actions to address impacts and monitor results.</li> </ul>

Sources of Social Impacts and Risks	Potential Management/ Mitigation Strategies
	<ul style="list-style-type: none"> <li>Monitoring of prices of goods, services and land in the social area of influence in comparison to trends in areas further from the Project and implement corrective actions as needed to reduce the possible negative impact of inflation attributable to the Project's activities.</li> </ul>
Tension or conflict due to real or perceived impact on water or other environmental receptors.	<ul style="list-style-type: none"> <li>Design to minimize and manage water and other environmental impacts.</li> <li>Additional measures to focus water management within one basin.</li> <li>Information sharing on water and environmental management in public meetings, engagement with stakeholders and local authorities, and ongoing communications.</li> <li>Invite stakeholders to make field visits to see water and environmental management measures and include local stakeholders in monitoring activities.</li> </ul>
Presence of illegal mining	<ul style="list-style-type: none"> <li>Maintain engagement with mining settlements and organizations in order to ensure mutual understanding and minimize the risk of conflict.</li> <li>Install physical security barriers around key elements of mine infrastructure, and institute rigorous security procedures to prevent intrusion.</li> <li>Actively monitor Project concessions against incursions from illegal mining and denounce activities that may be discovered.</li> <li>Maintain relationships with the Non-Renewable Natural Resources Control and Regulation Agency (ARCERNR in Spanish), and the Environmental and Mining Ministries and stay up to date on information regarding their policies, strategies and plans.</li> <li>Engage with illegal miners to the extent necessary to ensure they understand when they are on Project concessions, the requirement for their departure, and the Project's legal obligation to report their presence to the government.</li> <li>Communicate legal responsibilities, concerns and actions regarding illegal mining with local stakeholders and authorities as part of the Project's ongoing stakeholder engagement.</li> </ul>
Improvements in living conditions or quality of life due to social investment	<ul style="list-style-type: none"> <li>Continue to provide social investments within the social area of influence that promote collaborative local development and the fair distribution of benefits among local stakeholders.</li> <li>Final impact will depend on building leadership and participation of the directly affected populations into the management of these investments.</li> </ul>
Increase in public budget from royalties and taxes	<ul style="list-style-type: none"> <li>The Project will pay significant taxes and royalties.</li> <li>Magnitude of benefits generated by the taxes and royalties within the social area of influence will depend on future government decisions on how to best spend the additional income.</li> </ul>

#### 20.4.4 Social Management Policies and Social Management System

Luminex corporate policies guide Condormining's management of social and other issues associated with project development. These policies reflect a corporate commitment to conducting mineral exploration and mine development activities in a manner that is fair, ethical, and in compliance with governing laws and regulations. They also reflect a commitment to developing relationships of trust based on communication that is transparent, respectful, and informative. The rights, interests, and cultural heritage of local communities are also specifically considered. These policies also embody a commitment to minimize and mitigate environmental and social impacts, as well as to rehabilitate impacted areas in a manner acceptable to affected stakeholders and regulators.

These policies are implemented in the Luminex ESMS, and are documented in an overarching Health, Safety, Environmental, and Social (HSES) Management Plan, lower tier management plans [including a Strategic Community Relations Plan (SCR)], and a suite of standard operating procedures. A Condor North-focused iteration of the HSES Management Plan will be generated and periodically revised to keep current with the changes that will occur as Condor North transitions towards the exploitation phase.

The most recent SCRP was developed in 2017. The SCRP centers on the following five social management programs:

- **Communication program:** This program sets engagement with local stakeholders to share the Condor North's plans and gather feedback to enable actions that can maintain positive relations. The program sets objectives, strategies and action plans to guide this engagement and document progress. The program establishes how the Community Relations team engages before starting new drilling activities or implementing new activities of local interest such as road maintenance. It also sets how the team will share information on productive projects or other agreements. Methods include direct meetings with the local settlements, including annual public assemblies.
- **Local employment program:** This program ensures that the communities within the social area of influence share in the most immediate Condor Project area benefits linked to employment. The program prioritizes recruitment among the residents of the local settlements when they possess the necessary skills and are available to meet the Project work requirements. In addition, depending on the location of the work, as well as the required skills and experience, the program establishes the structure to hire temporary workers from a database of local candidates.
- **Sustainable development support program:** This program sets measures to engage the population of the local mestizo and indigenous settlements to improve their quality of life and increase opportunities for social and economic growth. Condormining works with community groups to support appropriate and sustainable social investments. The final selection of initiatives is led by the community groups and specific investments are validated by community leadership. Condormining also supports the priorities of parochial governments (Decentralized Autonomous Governments, GAD in Spanish) by providing co-financing or materials to support these government's own limited priorities with regards to education and health infrastructure improvements.
- **Grievance management program:** Condormining has also formalized its grievance management process in order to ensure that it identifies stakeholder grievances, responds in a timely fashion, and learns from past experiences.
- **Risk management:** Condormining seeks to evaluate risks prior to initiating new activities or after there have been material changes in the social context. Once risks are identified, the Condor mining team evaluates them and defines potential management measures for the Project's considerations.

The responsibility for social management is shared across the organization. Most local engagement is led by a Regional Chief, Community Relations, and the local community liaison officers.

## 20.5 Mine Closure

### 20.5.1 Conceptual Mine Closure Strategy

Conceptual end-of-mine-life strategies for the physical closure of Condor North mining operations are reflected in the cost estimate discussed in Section 20.5.2. These strategies will be documented in a Closure and Abandonment Plan and Restoration of Affected Areas Plan, both of which will be periodically updated in keeping with applicable Ecuadorian regulations, as well as best international practices as represented by section 1.4 of the IFC EHS Guidelines for Mining (IFC, 2007). These plans will address progressive, interim, and final closure actions. To the extent practicable, these will include:

- actions to restore the site to approximate baseline environmental conditions;
- actions to minimize the attractiveness of the closed site for illegal mining;
- actions to eliminate any chemicals and toxic residues from the site and to prevent their future impacts to the environment or public health and safety;

- actions to support potentially beneficial uses of land, recycling, reuse, or sale of waste or scrap materials, as well as beneficial uses of selected parts of mine infrastructure, as negotiated with Condor North area stakeholders;
- interim care and maintenance actions that may be taken in response to any temporary cessation of mining operations; and,
- post-closure inspection and environmental monitoring actions leading to final closure.

Final closure actions will commence when mining economics or business conditions no longer support continuing production, and Condor North facilities are no longer needed. The operational phase environmental monitoring program will be modified to ensure compliance with the final Closure and Abandonment Plan and Restoration of Affected Areas Plan, with particular focus on the maintenance of regulatory compliance, achievement of intended physical closure conditions and social/stakeholder commitments, and effectiveness of revegetation and other specific closure actions.

At least one year prior to commencing the closure process, Condormining's Closure and Abandonment Plan and Restoration of Affected Areas Plan will be updated to incorporate final edits on closure planning and additional levels of procedural detail as necessary to guide required closure actions. It also will include a detailed closure schedule. Final closure is estimated to require approximately two years following the cessation of mineral processing. After closure, a period of at least five years is estimated to be required for post-closure monitoring and any maintenance needed to ensure environmental stability.

#### **20.5.2 Estimated Closure Costs**

The reclamation and closure costs at the end of the mine life are estimated to be \$31.1 M and does not include any contingency allowance. The costs, including a net present value (NPV) estimate, are included in the cash flow analysis in Year 12, although closure costs are estimated to occur in two years at the end of the mine life. Post closure monitoring costs have not been included in the estimate.

## 21 CAPITAL AND OPERATING COSTS

There are currently no Mineral Reserves for the Condor North area. The information reported in this PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Inferred Mineral Resources are based on limited geological evidence and sampling. The tonnage and grade of Inferred Mineral Resources have significant uncertainty as to their existence and as to whether they can be mined economically. There is no certainty that this PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

### 21.1 Capital Cost Estimate

The capital cost estimate for the Condor North area includes the initial capital, sustaining capital, and expansion capital. The capital cost estimates include:

- contracted Direct Costs;
- construction Indirect Costs;
- contracted Indirect Costs; and
- owner's Direct and Indirect Costs.

#### 21.1.1 Surface Mining Capital Costs

Mine capital cost for mobile equipment were developed for the mine equipment listed in Section 16. Unit costs for the major equipment and most of the minor (support) equipment were based on costs derived from the 2020 InfoMine Cost Service. The mine major equipment costs were verified with actual vendor quotes from other projects in the 2020 IMC equipment database. The mine capital costs include and exclude the following items.

Surface Mine capital costs DO include:

- All mine mobile equipment required to drill, blast, load, and haul the material from the pit to the appropriate destinations.
- Auxiliary equipment to maintain the mine and material storage areas in good working order as well as construct the mine haul roads and maintain them. If the mine haul trucks use the road, we have sufficient equipment to build and maintain the roads.
- Equipment to maintain the mine fleet such as tire handlers and forklifts.
- Light vehicles for mine operations and staff personnel.
- An allowance is included for initial shop tools and initial spare parts inventory.
- Mine engineering equipment (computers, survey equipment etc.) is included.
- Mine communication network & system.
- Equipment replacements as required based on the useful life of the equipment.
- Units are shown purchased in the year they are needed.

- Mine Equipment “Truck” shop, Fuel Storage and Explosive site preparation and facilities.

Surface Mine capital costs DO NOT include:

- Mobile equipment that is not required by the mine (i.e., no mobile units for the plant)
- Infrastructure or process plant related costs
- Import duties, freight and assembly have not been included
- Allowance for clearing and grubbing (Material handling of topsoil is not included unless sent to waste storage facility)
- Equipment Salvage Value Credit
- Contingency has not been added

### **21.1.2 Underground Mining Capital Costs**

Capital Costs for the Camp deposit underground mine include:

- Mine Development
- Mobile Equipment and Rebuild
- Mine Infrastructure and Fixed Plant

For the purposes of this estimate, we assume that all mine activities are performed with Luminex personnel operating equipment purchased by Luminex.

Camp deposit capital costs do not include:

- Mine office buildings.
- Power line to the portal yard and electrical substation on the yard.
- Water handling facilities that connect the portal yard and the surface infrastructure for service water and mine discharge water.
- Mobile equipment that is not required by the mine.
- Import duties, freight and assembly.
- Equipment Salvage Value Credit.
- Contingency.

### **21.1.3 Initial Capital Costs**

The capital costs were organized by area using a Work Breakdown Structure (WBS). Direct Capital Costs were estimated for the mine by IMC, for the processing plant by ONIX, and for the geotechnical infrastructure by Ausenco. Support was provided by MTB, RME and PLS. Construction Indirect Costs include construction equipment and temporary facilities required to complete the construction of the Project. Contracted Indirect Costs include services needed during construction such as Engineering, Procurement, and Construction Management (EPCM) services, Quality Control/Quality Assurance (QC/QA) support, vendor representatives and commissioning assistance, initial fills, and spare parts. Owner’s Direct Costs include costs associated with the preproduction of the mine and support costs during the preproduction and construction

periods. Finally, Owner's Indirect Costs include employment and training expenses, management costs, insurance, travel, employee meals, community development, and costs to retain outside consultants, among others.

In completing capital cost estimates during the early stages of project development, such as this PEA, it is impossible to define all costs that will be associated with construction of the project. The anticipated costs that are not clearly defined but expected are covered by adding a contingency. For this PEA, the contingency was estimated on an area-by-area basis dependent upon the level of work completed to estimate the area costs and the level of accuracy. The total contingency for the initial project is \$68.6 M, which is 13.4% of the direct and indirect capital costs

Freight, Duties, and Taxes are included in the capital costs. The total estimated costs for freight, duties and taxes are \$25.3 M for the initial capital bringing the total costs to \$658.5 M for the initial capital. The VAT is refundable after production commences; the total initial VAT is estimated to be \$49.6 M.

Table 21-1 summarizes the initial capital costs.

**Table 21-1: Initial Capital Cost Estimate Including Contingency**

WBS	Description	Initial Capital (US\$ M)
0100	Mine	39.7
0200	Crushing and Conveying	39.5
0300	Grinding	73.8
0500	CIL / Detox	50.8
0600	Utilities	8.3
0700	Reagent Preparation & Storage	4.8
0800	Tailings Thickening, Filtration, Conveying, Storage	24.3
0900	Site & Off-site Infrastructure and Facilities	16.3
2000	Site Development	15.7
	<b>Total Direct Costs</b>	<b>273.2</b>
3000	Construction Indirect Costs	6.6
4000	Contracted Indirect Costs	42.9
	<b>Total Indirect Costs</b>	<b>49.5</b>
5000	Owner's Direct Costs	157.3
6000	Owner's Indirect Costs	33.4
	<b>Total Owner's Costs</b>	<b>190.7</b>
	Freight, Duty, and Taxes	25.3
	Total Contingency	68.6
	<b>Sub-total Capital Costs</b>	<b>607.3</b>
	Working Capital	1.6
	VAT	49.6
	<b>TOTAL CAPITAL COSTS</b>	<b>658.5</b>
	Contingency Percentage of Total Costs	13.4%

#### 21.1.4 Sustaining Capital Costs

Sustaining capital costs include the costs required to maintain the operation over the life of the mine as the operation expands or equipment must be replaced. It includes costs for replacing surface and underground mine equipment, process capital expenses, new haul roads, underground capital development, expanding the TSF, WRSF, landfill, vegetation removal as the footprint of the operation expands, mobile equipment, and water management systems. The total estimated cost for Sustaining Capital over the mine life is \$174.8 M.

#### 21.1.5 Reclamation and Closure Costs

The reclamation and closure costs at the end of the mine life are estimated to be \$31.1 M. The costs, including a net present value (NPV) estimate, are included in the cash flow analysis in Year 12, although closure costs are estimated to occur in the year following the end of the mine life.

#### 21.1.6 Working Capital

Costs for initial fills and spare parts are included in the capital cost estimate, which reduces working capital costs. Working capital was estimated by comparing the estimated operating costs to the revenue on a week-by-week basis at the start of the operation. The estimated working capital is approximately \$1.6 M for the initial construction. Working capital costs may seem low because first fills and spare parts are not included in working capital. They are included in other areas of the capital cost estimates.

### 21.2 Operating Cost Estimate

Operating costs were estimated from first principles for mining, processing, and General and Administrative (G&A) costs. The life-of-mine operating costs are summarized in Table 21-2.

**Table 21-2: Life-of-Mine Operating Cost Summary**

Area	Total LOMCost US\$ M	Average Unit Costs per t Processed		
		Years 1 – 5 US\$/t	Years 6 – 12 US\$/t	LOM US\$/t
Mining	642	8.52	4.25	6.00
Processing	891	8.38	8.30	8.33
G & A	177	1.91	1.47	1.65
Total	1,710	18.81	14.02	15.98

#### 21.3 Labor Costs

Labor costs for all areas were estimated using the staffing schedules and organizational charts provided by IMC for mining and NDK for processing. PLS developed the staffing schedule and organizational charts for G&A and labor. The burdened labor costs were estimated by PLS using actual Ecuadorian salaries and wages including burden. Burdens in Ecuador include:

- Mandatory overtime pay for shift work;



- Paid holidays calculated as the annual salary or wages, including overtime divided by 24;
- 13th monthly salary
- 14th monthly salary that is an allowance that is equal to the minimum annual salary (i.e., currently \$400) divided by 12;
- Employers' contribution to the social tax at the rate of 12.15% of the base salary or wages, excluding overtime; and
- A reserve fund equal to 8.33% of the nominal salary or wages for employees that do not work shifts or 8.33% of the overtime pay for employees that do work shifts.

## 21.4 Mine Operating Costs

### 21.4.1 Surface Mine Operating Costs

Mine operating costs were developed based on first principals for the mine plan and the equipment list presented earlier in Section 16. The unit costs for the mine major equipment consumables were derived from the 2020 InfoMine Cost Service. The unit costs for labor were provided by P.L. Services Eireli. The fuel costs were set at \$0.48 USD per liter.

The overall operating cost for surface mining during production totals \$446.2 M over the life of mine, which equates to \$4.43 per tonne of processed material (See Table 21-3).

**Table 21-3: Surface Mine Operating Costs**

Area	LOM (\$ 000)	\$/t moved*	\$/t processed**
Drilling	\$ 37,647	\$ 0.12	\$ 0.37
Blasting	\$ 61,185	\$ 0.20	\$ 0.61
Loading	\$ 49,388	\$ 0.16	\$ 0.49
Hauling	\$ 170,372	\$ 0.55	\$ 1.69
Auxiliary	\$ 55,007	\$ 0.18	\$ 0.55
General Mine	\$ 18,579	\$ 0.06	\$ 0.18
General Maintenance	\$ 17,670	\$ 0.06	\$ 0.18
General and Administrative	\$ 36,331	\$ 0.12	\$ 0.36
Total Surface Mine OPEX	\$ 446,179	\$ 1.45	\$ 4.43

\*Cost/Tonne of Total Mat'l: Based on total surface tonnes moved during a period. Includes underground ore tonnes moved from portal to crusher.

\*\*Cost/Ore Tonne: Based on surface ore tonnes shipped to the crusher. Does not include underground tonnes.

Does not include pre-production mine development, which is a capital expense item.

### 21.4.2 Underground Operating Costs

Operating Costs for the Condor North area underground mine (Camp Deposit) were developed from first principals for the mining methods, mine plan, and schedule presented in Section 16. Labor rates and total labor cost were provided by P.L. Services Eireli, as part of the PEA team. The unit prices of bulk materials and consumables (explosives, ground support, cement) were provided by P.L. Services Eireli, by suppliers, and in some cases, prices were derived from in-house

information or the 2020 InfoMine Cost Service. Operating costs per hour for mobile equipment were derived from 2020 InfoMine cost Service, supplier advice, or in-house data.

Certain operating costs, such as cost/meter for lateral development, are similar to costs used for capital development. The overall operating cost for underground mining during production totals \$195.6 M over the life of mine, which equates to \$31.69 per tonne of processed material.

**Table 21-4: Underground Mining Operating Costs**

Area	LOM (\$ 000)	\$/t Processed
Development	\$ 34,441	\$ 5.58
Stoping	\$ 42,445	\$ 6.88
Hauling	\$ 17,859	\$ 2.89
General and Administrative	\$ 31,192	\$ 5.05
Labor	\$ 69,679	\$ 11.29
Total Underground Mine OPEX	\$ 195,616	\$ 31.69

Does not include pre-production mine development, which is a capital expense item.  
Reflects 6,173 production ore tonnes produced.

The total, combined surface, and underground mining operating cost over the twelve-year mine life is estimated to equal \$641,793 k which equates to \$6.00 per tonne processed. Totals may not add up due to rounding.

## 21.5 Process Operating Costs

Process operating costs were estimated from first principals using the production plan, process equipment list, process plant capital cost estimate, reagent consumptions established in the metallurgical test programs and expatriate and local labor requirements.

The total process operating cost over the twelve-year mine life is estimated to be \$8.33 per tonne processed; this covers primary crushing through placement of tailings in the WRSF. This cost includes labor, power, supplies, reagents, media and liners, laboratory, water supply, mobile equipment, and external consulting services.

The process operating costs are summarized in Table 21-5.

**Table 21-5: Process Unit Operating Cost Summary**

Processing	LOM (\$ 000)	\$/t
Labor (\$ 000)	71,317	0.667
Reagents (\$ 000)	335,423	3.135
Media and Liners (\$ 000)	222,210	2.077
Maintenance Supplies (\$ 000)	48,083	0.449
General Supplies (\$ 000)	7,212	0.067

Power (\$ 000)	177,187	1.656
Analytical Allowance (\$ 000)	2,140	0.020
Water Supply Allowance (\$ 000)	1,070	0.010
Mobile Equipment Allowance (\$ 000)	10,700	0.100
External Services Allowance (\$ 000)	16,050	0.150
Total	891,392	8.331

## 21.6 General and Administrative Operating Costs

The G&A costs for the Project were estimated by PLS and MTB. They are summarized in Table 21-6.

**Table 21-6: General and Administrative Operating Costs**

General & Administrative	LOM (\$ 000)	LOM (\$/ tonne processed)
Labor (burdened costs)	51,792	0.484
Corporate pension fund contribution	12,326	0.115
Employee travel and transportation	16,086	0.150
Corporate travel and services	48	0.000
Insurance	24,000	0.224
Outside consultants	1,350	0.013
Training	600	0.006
Camp electrical (60% camp occupancy 20 KWh/dd/pp). 1st year @ 0.0771/KW	2,030	0.019
Legal permits and fees	1,200	0.011
Community development	3,600	0.034
Employee meals, cleaning and laundry	18,744	0.175
Office leases	43	0.000
Recruiting	58	0.001
Environmental services and consumables	4,494	0.042
Security services	2,623	0.025
Fuel maintenance for mobile equipment, light vehicles	2,880	0.027
Social benefits (Corporate discretion)	18,775	0.175
IT hardware, software, radios, office & misc. equipment) WBS 5070	6,143	0.057
Office/Engineering Equipment, Furniture WBS 5030	35	0.000
Medical, Security, & Safety Equipment	9,837	0.092
Total	176,665	1.651

### 21.6.1 General and Administrative Labor

Labor costs were estimated using the staffing schedule provided in Table 21-7. The total number of G&A personnel varies by plus or minus one position in several years. Otherwise, it is constant throughout the operating mine life.

**Table 21-7: General and Administrative Staffing Level (Year 1 of Operations)**

Position	Number
<b>Expatriates</b>	
Training Manager	1
<b>Administration Management</b>	
General Manager	1
General Manager Assistant	1
<b>Financial Department</b>	
Controller	1
Controller administrative assistants	1
Accounting Manager	1
Accountant (Payroll)	1
Accountant (Payables)	1
Accountant (Receivables)	1
Accounting Assistants	2
<b>Administration</b>	
Administration superintendent	1
Human Resources Manager	1
Human Resources Assistant	1
Human Resources Analysts	4
<b>Information Technology Department</b>	
I.T. Manager	1
I.T. Technicians	2
<b>General Maintenance</b>	
Maintenance Supervisor	1
Maintenance Technicians	6
<b>Legal/Permitting Department</b>	
Legal/Permitting Manager	1
Legal/Permitting Manager Assistant	1
Legal Assistant	2
Permitting Assistant	2
<b>Supply Chain, Logistics and Procurement</b>	
Logistics Superintendent	1
Logistics Superintendent Assistant	1
<b>Contracts Department</b>	
Contracts Manager	1
Contracts Assistant	1
<b>Import/Export Resources</b>	
Import/Export Manager	1
Import/Export Manager Assistant	1
<b>Purchasing Department</b>	
Purchasing Supervisor	1
Buyers	3
Inventory Control Technicians	2
<b>Warehouse Department</b>	
Warehouse Manager	1

<b>Position</b>	<b>Number</b>
Warehouse Workers	4
<b>Health, Safety and Environment Division</b>	
HSEC Superintendent	1
HSEC Superintendent Assistant	1
<b>Environmental Department</b>	
Environmental Manager	1
Environmental Technicians	6
<b>Government and Community Relations</b>	
Government Relations Manager	1
Community Relations Coordinator	1
Community Relations field Assistants	6
<b>Health and Safety Department</b>	
Health and Safety Manager	1
Health and Safety Manager Assistant	2
Health and Safety Technicians	12
Doctor	3
Nurses/Paramedics	6
<b>Corporate Training Department</b>	
Training Assistant	1
<b>Security</b>	
Security Superintendent	1
<b>Engineering</b>	
Electrical Engineer	1
<b>TOTAL</b>	<b>95</b>

## 22 ECONOMIC ANALYSIS

### 22.1 Introduction

To evaluate the potential economic viability of the Condor North area, Robert Michel Enterprises (RME) completed a Preliminary Economic Assessment (PEA) level economic evaluation and review for Luminex Resources.

The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that the PEA will be realized.

#### 22.1.1 Key Objectives

Key objectives of developing the economic evaluation were to:

- Integrate information from project team members in related disciplines including mine development, engineering, and metallurgy, among others.
- Identify and balance Project components to maximize value.
- Provide a high-level economic simulation over the expected life of the project and assess the Project's potential economic viability.
- Support Luminex Resources' management in their Project decision-making process.
- Provide a foundation for the next logical phase of project development.

#### 22.1.2 General Criteria and Assumptions

The general assumptions and key inputs used for the cash flow projections are clearly laid out in the following sections. All currencies are in US dollars and no inflation was applied. Cost estimates were static (not escalated), and cash flow values were discounted to net present value using a 5% annual discount rate starting one calendar year from the data date. Metal prices were selected based on discussions with Luminex Resources, considering market activity up to the effective date of July 28, 2021, and publicly available price forecasts. Taxation rates applied were 15% profit tax, 22% corporate income tax, and 3% royalty to the Ecuadorian Government on Net Smelter Return. Depreciation was calculated using depreciation methods prescribed by Ecuadorian mining practices. Value added tax (VAT or IVA) of 12% was applied to all goods services, including operating costs less labor and power, and was recaptured at a maximum of 12% of exported goods' value per year.

Total financial benefits to the Ecuadorian Government were compared with Luminex Resources' profits over the life of the Project using the prescribed method to determine whether a Sovereign Adjustment Tax would apply; no Sovereign Adjustment is required for the base case. Financial sensitivity analyses that trigger Sovereign Adjustment reflect such an

adjustment. Miscellaneous taxes, including business permit tax, gross asset tax, mining patent maintenance, superintendent tax, and local land and use taxes were also applied.

The assumptions and methods used in developing the economic model are further explained in the following sections and technical parameters are provided as applicable. Summations of key project input data and assumptions along with key results are presented in tables extracted from the model. A listing of select model inputs and key results is given in Table 22-1. Totals may not add up due to rounding.

**Table 22-1: Economic Model Inputs and Key Results**

Economic Model Inputs	
DESCRIPTION	VALUES
Construction Period	2 Years
Preproduction Period	1 Year
Mine Life (after preproduction)	11.9
LOM Mill Feed (kt)	106,999
LOM Payable Gold (koz)	2,242
LOM Payable Silver (koz)	9,095
LOM GRADE	
Gold (grams per tonne)	0.724
Silver (grams per tonne)	5.94
AVERAGE ANNUAL PRODUCTION	
Gold (koz)	187
Silver (koz)	758
MARKET PRICES	
Gold (\$/toz)	\$ 1,600
Silver (\$/toz)	\$ 21.00
COST AND TAX BASIS	
Estimate Basis	1-Jun-2021
Inflation	None
Leverage	100% Equity
Tax - Federal	22%
Profit Tax	15%
VAT (IVA) Recouped with Export	12%
Sovereign Adjustment Tax	
	Not Required
ROYALTY	
Ecuadorian Government	3%
Advance Royalty Agreement	-
TRANSPORTATION	

Economic Model Inputs	
DESCRIPTION	VALUES
Dore (\$/oz doré) Mine to Smelter	\$ 3.53
DORE PAYMENT TERMS	
Advance	98%
Settlement	2%

### 22.1.3 Process Production Summary

The mine and plant production schedules, produced by IMC and NDK respectively, provide the basis for evaluating the Condor North area and form the foundation of the economic model. The process production summary is presented in Table 22-2. This table provides the quantity of material processed by the mill, doré production output, and total payable metals by year. The Qualified Person for this section has compiled, reviewed, and approved the production schedules for inclusion into the Technical Report.

**Table 22-2: Process Production Summary**

Process Production Schedule				
Year	Material Processed (kt)	Dore (tonnes)	Gold (koz)	Silver (koz)
1	7,300	29.19	221	671
2	9,125	34.76	234	823
3	9,125	27.44	220	615
4	9,125	29.77	224	681
5	9,125	39.22	208	985
6	9,125	34.39	185	861
7	9,125	31.64	179	782
8	9,125	27.11	140	680
9	9,125	28.94	150	729
10	9,125	28.61	154	715
11	9,125	39.15	225	973
12	8,448	22.49	102	583
LOM	106,999	372.71	2,242	9,095

### 22.2 Gross Revenue from Mining

The Project's economic value depends on revenue derived from the sale of recovered metals in the form of doré. To determine the market pricing for use in the model, the team reviewed current trading values, price forecasts from numerous financial institutions and discussions between Luminex and RME. The following metal prices for this PEA cash flow model were selected:

- Gold - \$1,600/oz



- Silver - \$21.00/oz

The precious metal markets are highly liquid and benefit from terminal markets around the world (e.g., London, New York, Tokyo, and Hong Kong). The London PM fix for gold and silver on July 28, 2021, was \$1,796.60/oz and \$24.80/oz, respectively. As of July 28, 2021, year-to-date gold has traded between \$1,683.95/oz and \$1,943.20/oz and silver has traded between \$24.00/oz and \$29.59/oz using the London PM fix.

To calculate gross revenue from mining, metals prices for gold and silver were multiplied by the corresponding recovered, payable gold and silver ounces in the economic model.

The gross revenue from mining for the Condor North area, based on this preliminary economic assessment, is estimated to be \$3,778 M over the life of the Project.

## **22.3 Net Smelter Return Calculation**

### **22.3.1 Transportation**

Doré requires special handling due to its inherent value and its shipping, handling and insurance costs are calculated based on the number of ounces produced as doré. Industry sources provided typical doré freight and insurance costs of \$3.53/oz of doré. This freight covers transportation and insurance from the mine to the final destination at the refinery. The total freight and insurance cost for the Project is calculated to be \$42 M.

### **22.3.2 TCs, RCs, and Penalties**

Doré carries treatment and refining charges based on its composition and weight. The model applies doré treatment and refining charges based upon industry sources applicable to the Condor North area. Treatment charges amount to \$0.30/oz doré and total \$3.6 M for the Project. Doré metals are 99.95% payable for gold and 99.5% payable for silver.

#### **22.3.2.1 Net Smelter Return**

The Net Smelter Return (NSR), used to calculate the Ecuadorian Government's royalty, is derived from the gross revenue minus the transportation costs and treatment and refining charges (TC/RCs). The calculated Net Smelter Return for the Condor North Project is \$3,733 M.

## **22.4 Royalty**

The Federal Government of Ecuador requires a royalty be paid on gold produced in Ecuador. Based on expert guidance from within Ecuador, this evaluation applied a 3% royalty across the life of the Project. This 3% royalty is calculated upon proceeds paid by smelters less certain costs, including costs incurred to transport the concentrates to the smelters, or Net Smelter Return (NSR), for mineralized material produced in the property area subject to the royalties. The Project's total royalty payments add up to \$112 M over the life of the Project, and this leaves \$3,621 M in Gross Income from Mining.

## 22.5 Operating Margin

Gross Income from Mining less Operating Costs yield Net Profit. Operating costs were previously described in Section 21 of this Study and served as inputs to the economic model to arrive at Net Profit.

Retention taxes were applied to the labor cost estimates according to Ecuadorian requirements, with social taxes of 12.5% applied on all earnings, including overtime, and 8.33% contributed to a pension plan, after the first year of employment.

Operating Costs total \$1,710 M over the life of the Project, leaving \$1,911 M in Net Profit.

## 22.6 Depreciation and Income Tax

Income taxes are included in the model based on Ecuador's federal tax rates after anticipated deductions, which are subtracted from net profit to arrive at taxable income. The tax rate of 22% on taxable income is applied assuming that a stability agreement will be in effect for the Project, based on recent successful negotiations to date by two other Projects.

In calculating depreciation, all initial capital costs were assigned a five-year asset life and depreciated in accordance with current Ecuadorian mining tax practices. Sustaining and expansion capital was depreciated on a unit of production basis, except for vehicles and mining equipment, which were depreciated on a five-year schedule. The model applies depreciation considering zero value at the end of the assets' useful life.

After deducting allowable depreciation of \$806 M and \$9 M in miscellaneous taxes, the model accounts for a 15% profit sharing tax yielding \$165 M, applies any tax loss carry forward and then calculates the 22% federal income tax on the net income before taxes. The total federal income tax is calculated to be \$205 M for the Project.

Once federal tax is calculated, depreciation and any losses carried forward are added back to arrive at net income from operations: \$1,532 M.

## 22.7 Value Added Tax

A 12% Value Added Tax (VAT or IVA) is applied to all goods and services, including operating cost less labor and power, and is assumed to be recouped upon exportation of doré product at a maximum rate of 12% of export value per year. The initial capital VAT of \$50 M is shown to be fully recouped in the model within the first year of production, in accordance with Ecuadorian legal guidance. Each year thereafter, VAT paid is shown to be fully recouped in the same year.

## 22.8 Initial Capital Costs

Initial capital cost estimates totaling \$658.5 M provide the basis for the main Project investment costs. These estimates were previously described in Section 21 of this Technical Report and served as input to the economic model.

Of the total initial capital, \$9.8 M is identified as spare parts, consumables, and initial fills. Because the cost of these items is recaptured at the end of mine life in Year 12, their value is represented as a separate line item in the cash flow after being deducted from other initial capital costs.

## 22.9 Sustaining Capital Costs

Sustaining capital consists of adding newly required assets, marginally increasing facility capacities, or replacing assets over the life of the Project. Such expenditures fall into eight categories for the Condor North area: mining, processing, haul roads, tailings storage facility (TSF), waste rock storage facility (WRSF), sanitary landfill, vegetation suppression, mobile equipment, and pit water management. The largest single item is mining estimated at \$81.2 M over the life of mine. Sustaining capital costs are estimated to total \$175 M over the LOM and are summarized in Table 22-3.

Table 22-3: Sustaining Capital Cost Estimate

AREA	YEAR	Total LOM	1	2	3	4	5	6	7	8	9	10	11	12
<b>Mining</b>	\$ (000)													
Underground Mining	\$ (000)	(59,255)	(14,757)	(5,064)	(3,362)	(8,704)	(13,306)	(11,881)	(2,154)	(27)	-	-	-	-
Surface Mining	\$ (000)	(21,938)	(10,244)	(4,621)	(1,391)	-	-	(4,693)	(68)	(921)	-	-	-	-
<b>Total Mining Sustaining Costs</b>	<b>\$ (000)</b>	<b>(81,193)</b>	<b>(25,001)</b>	<b>(9,685)</b>	<b>(4,753)</b>	<b>(8,704)</b>	<b>(13,306)</b>	<b>(16,574)</b>	<b>(2,222)</b>	<b>(948)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>All Other Sustaining Capital</b>														
Process Sustaining Capital - LUM	\$ (000)	(16,000)	(1,000)	(1,000)	(1,000)	(1,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,000)	(1,000)	(1,000)	-
Haul Roads - Ausenco	\$ (000)	(19,024)	(4,992)	(2,015)			(6,009)						(6,009)	
TSF - Ausenco	\$ (000)	(28,714)		(6,891)		(6,604)			(7,753)			(7,466)		
WRSF - Ausenco	\$ (000)	(14,297)	(3,173)	(1,842)			(6,374)						(2,908)	
Sanitary Landfill - Ausenco Allowance	\$ (000)	(246)	(123)					(123)						
Vegetation Suppression / Removal	\$ (000)	(2,301)	(400)	(567)	(483)	(367)		(183)	(67)	0	(233)	0	0	
Mobile Equipment - MTB	\$ (000)	(3,680)						(1,025)	(2,050)	(605)				
Pit Water Mgt. - Allowance	\$ (000)	(650)									(350)	(100)	(100)	(100)
<b>Subtotal All Other Sustaining Capital</b>	<b>\$ (000)</b>	<b>(84,911)</b>	<b>\$ (9,689)</b>	<b>\$ (12,314)</b>	<b>\$ (1,483)</b>	<b>\$ (7,971)</b>	<b>\$ (14,382)</b>	<b>\$ (3,331)</b>	<b>\$ (11,870)</b>	<b>\$ (2,605)</b>	<b>\$ (2,583)</b>	<b>\$ (8,566)</b>	<b>\$ (10,017)</b>	<b>\$ (100)</b>
Total Freight Duties and Taxes on SUSEX	\$ (000)	(8,667)	(3,115)	(1,073)	(382)	(656)	(1,366)	(1,917)	(11)	(146)	0	0	0	0
<b>Total</b>	<b>\$ (000)</b>	<b>(174,771)</b>	<b>(37,804)</b>	<b>(23,073)</b>	<b>(6,618)</b>	<b>(17,331)</b>	<b>(29,055)</b>	<b>(21,823)</b>	<b>(14,103)</b>	<b>(3,699)</b>	<b>(2,583)</b>	<b>(8,566)</b>	<b>(10,017)</b>	<b>(100)</b>

### **22.10 Working Capital**

Defined as the highest amount of funding needed during the initial operating period, working capital is used to cover expenses prior to the cumulative revenue exceeding the cumulative expenses, or the point at which the operation becomes self-sustaining in its cash flow. Considering production schedule ramp-up, revenue was applied monthly to reflect planned shipments. Working capital calculations are applied in the cash flow model for initial production.

Projected revenue receipt was based upon doré shipments every two weeks during the initial months of production. Doré projected receipts of 98% of funds are planned upon delivery with the balance arriving after settlement four weeks later. Weekly expenditure rates were calculated from the operating costs estimated for year one.

For the initial Project, the largest deficit of funds is expected to occur in Week Two, in the amount of \$1.6 M. This working capital investment was reflected in the cash flow model in Year -1, with recovery at the end of mine life in Year 12.

### **22.11 Employee Severance Costs**

The cash flow model accounts for severance costs, mostly arriving at the end of the project in Year 12. These severance costs, following Ecuadorian employment practices, amount to \$25.2 M over the life of the Project. Of this amount, \$15.4 M is estimated in Year 12.

### **22.12 Equipment Salvage Value**

The process and mining equipment at the end of the life of mine retains some market value which was estimated to defray some of the closure costs. In the case of process equipment, experience with similar projects indicates a salvage value of 10% of the original \$145 M equipment cost, or \$14.5 M, is appropriate. Salvageable mining equipment at the end of the Project is estimated to be worth \$11.8 M, so the total salvage value credited in Year 12 is \$26.3 M.

### **22.13 Base Case Cash Flow Projections**

The base case financial model was developed from information described in this section. The Condor North's after-tax cash flow is comprised of each year's revenue from projected recovered gold and silver minus each year's expenses, taxes, capital, and operating costs to arrive at a series of annual cash flows totaling \$731 M over the life of the Project. The resulting after-tax cash flow stream forms the basis of the following results:

This Study estimates cash flow to pay back the initial \$658.5 M capital investment at the start of the fourth year of mine life, approximately 48 months after initial production starts.

The Study estimates Condor North area generates an after-tax internal rate of return (IRR) of 16.0%.

Assuming a discount rate of five percent over an estimated mine life of 11.9 years, this Study estimates an after-tax net present value (NPV) of \$387 M.

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**22.14 Mine Closure and Reclamation**

Ausenco estimated closure costs to establish sustainable and safe post-mining environment at the Condor North area. The initial closure costs were estimated at \$24.9 M for mine closure plus \$6.3 M in Year 13 salaries attributable to closure. The cash flow model applied the closure costs in Year 12 based on the discounted value in the year projected, arriving at a total cost of \$29.6 M for all closure costs.

**22.15 Economic Model**

The complete discounted cash flow model is presented in Table 22-4.

Table 22-4: Condor North Area Cash Flow Model

Cash Flow		Condor North PEA																	
Revision 0		7/22/2021																	
		NPI Year End																	
		8/2/2021 8/2/2022 8/2/2023 8/2/2024 8/2/2025 8/2/2026 8/2/2027 8/2/2028 8/2/2029 8/2/2030 8/2/2031 8/2/2032 8/2/2033 8/2/2034 8/2/2035																	
7/22/2021		Inputs	Units	Average	Total/LOM	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12
<b>PRODUCTION SUMMARY</b>																			
Underground Ore Mined		ktonnes	514	6,293		120		822	914	912	910	835	879	751	149	-	-	-	-
Open Pit Ore Mined		ktonnes	8,349	100,706		513		7,094	9,083	9,981	9,479	8,972	8,246	8,374	8,976	9,125	9,125	9,125	2,613
Total Mill Feed		ktonnes	8,917	106,999				7,300	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	8,448
Camp Zone Material Processed		ktonnes	524	6,293				942	914	912	910	835	879	751	149	-	-	-	-
Los Cuyes Material Processed		ktonnes	6,009	72,104				5,992	7,030	7,287	7,629	7,629	2,826	3,821	8,641	9,125	9,125	8,843	4,757
Soledad Material Processed		ktonnes	2,289	27,467				366	1,181	6,485	5,628	661	5,420	4,553	335	-	-	-	2,838
Enma Material Processed		ktonnes	95	1,135				-	-	-	-	-	-	-	-	-	-	282	853
Total Material Processed		ktonnes	8,917	106,999				7,300	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	9,125	8,448
Dore Produced	5%	tonnes	31.1	372.7				29.193	34.762	27.444	29.769	39.222	34.390	31.637	27.114	28.942	28.609	39.147	22.485
<b>GROSS REVENUE</b>																			
Market Price		Price																	
Gold		\$/toz	\$	1,600				\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600
Silver		\$/toz	\$	21.00				\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00	\$ 21.00
<b>Contained Metals in Plant Feed</b>																			
<b>All Material Combined</b>																			
Gold		koz	207	2,490				240	258	242	247	230	204	199	161	170	175	246	116
Silver		koz	1,704	20,449				1,414	1,768	1,584	1,772	2,109	2,083	1,911	1,440	1,526	1,496	2,035	1,310
<b>Camp Zone Contained Metal Processed</b>																			
Gold		koz	42	510				83	90	70	60	68	64	59	15	-	-	-	-
Silver		koz	350	4,204				491	539	492	417	657	870	589	148	-	-	-	-
<b>Los Cuyes Contained Metal Processed</b>																			
Gold		koz	119	1,431				150	141	35	45	149	52	60	140	170	175	242	72
Silver		koz	1,012	12,149				898	1,107	300	433	1,324	463	590	1,250	1,526	1,496	1,990	771
<b>Soledad Contained Metal Processed</b>																			
Gold		koz	44	529				6	27	138	142	13	88	80	7	-	-	-	28
Silver		koz	314	3,765				25	122	792	923	128	749	732	42	-	-	-	253
<b>Enma Contained Metal Processed</b>																			
Gold		koz	2	20				-	-	-	-	-	-	-	-	-	-	4	17
Silver		koz	28	331				-	-	-	-	-	-	-	-	-	-	45	285
<b>Products</b>																			
<b>Camp Zone Material</b>																			
Dore Gold	94%	koz	40	479				78	84	66	57	64	61	55	14	-	-	-	-
Dore Silver	48%	koz	168	2,018				236	259	236	200	316	418	283	71	-	-	-	-
<b>Los Cuyes Material</b>																			
Dore Gold	89%	koz	106	1,274				137	125	31	39	132	45	51	120	150	154	222	65
Dore Silver	48%	koz	486	5,831				431	532	144	208	636	222	283	600	732	718	955	370
<b>Soledad Material</b>																			
Dore Gold	90%	koz	40	476				6	25	124	128	12	79	72	6	-	-	-	25
Dore Silver	30%	koz	94	1,130				7	36	238	277	38	225	220	13	-	-	-	76
<b>Enma Material</b>																			
Dore Gold	71%	koz	1	14				-	-	-	-	-	-	-	-	-	-	3	12
Dore Silver	49%	koz	13	162				-	-	-	-	-	-	-	-	-	-	22	140
<b>Total Recovered Metals by Product</b>																			
Dore Gold		koz	187	2,243				221	234	221	224	208	185	179	140	150	154	225	103
Dore Silver		koz	762	9,141				674	827	618	685	990	865	786	684	732	718	977	586
<b>Total Payable Metals by Product</b>																			
Dore Gold	99.55%	koz	187	2,242				221	234	220	224	208	185	179	140	150	154	225	102
Dore Silver	99.50%	koz	758	9,095				671	823	615	681	985	861	782	680	729	715	973	583
<b>Metal Revenues</b>																			
Gold		(\$'000)	298,956	3,587,473				\$ 353,411	\$ 374,933	\$ 352,678	\$ 358,017	\$ 332,087	\$ 295,632	\$ 285,817	\$ 224,439	\$ 239,875	\$ 246,907	\$ 359,749	\$ 163,927
Silver		(\$'000)	15,917	190,999				\$ 14,085	\$ 17,280	\$ 12,905	\$ 15,303	\$ 20,677	\$ 18,071	\$ 16,414	\$ 14,287	\$ 15,301	\$ 15,006	\$ 20,425	\$ 12,244
Gross Revenue		(\$'000)	314,873	3,778,472				\$ 367,496	\$ 392,213	\$ 365,583	\$ 372,320	\$ 352,765	\$ 313,703	\$ 302,230	\$ 238,726	\$ 255,176	\$ 261,913	\$ 380,174	\$ 176,171
<b>NSR</b>																			
Product Freight & Insurance		(\$'000)	(3,529)	(42,348)				(3,317)	(3,950)	(3,118)	(3,382)	(4,456)	(3,907)	(3,595)	(3,081)	(3,288)	(3,251)	(4,448)	(2,555)
Treatment and Refining Charges		(\$'000)	(300)	(3,595)				(282)	(335)	(265)	(287)	(378)	(332)	(305)	(262)	(279)	(276)	(378)	(217)
Total Transportation, Treatment and Refining Charges		(\$'000)	(3,829)	(45,943)				(3,599)	(4,285)	(3,383)	(3,669)	(4,835)	(4,239)	(3,900)	(3,342)	(3,567)	(3,526)	(4,825)	(2,772)
NSR		(\$'000)	311,044	3,732,529				\$ 363,898	\$ 387,928	\$ 362,200	\$ 368,651	\$ 347,930	\$ 309,464	\$ 298,331	\$ 235,384	\$ 251,608	\$ 258,387	\$ 375,348	\$ 173,400
<b>ROYALTY</b>																			
Ecuador Royalty on NSR	3%	(\$'000)	(9,331)	(111,976)				(10,917)	(11,638)	(10,866)	(11,060)	(10,438)	(9,284)	(8,950)	(7,062)	(7,548)	(7,752)	(11,260)	(5,202)
Gross Income from Mining		(\$'000)	301,713	3,620,553				\$ 352,981	\$ 376,291	\$ 351,334	\$ 357,591	\$ 337,492	\$ 300,180	\$ 289,381	\$ 228,322	\$ 244,060	\$ 250,635	\$ 364,088	\$ 168,198
<b>OPERATING MARGIN</b>																			
<b>Operating Cost</b>																			
Mining		(\$'000)	(53,483)	(641,793)				(78,719)	(79,446)	(74,342)	(69,061)	(71,694)	(69,999)	(61,060)	(45,526)	(29,823)	(23,415)	(21,206)	(17,501)
Processing		(\$'000)	(74,283)	(891,392)				(63,867)	(77,143)	(75,278)	(75,266)	(75,303)	(75,266)	(75,266)	(75,266)	(75,328)	(75,266)	(75,266)	(72,877)
G&A		(\$'000)	(14,722)	(176,665)				(17,789)	(17,280)	(17,080)	(15,733)	(15,391)	(15,289)	(15,057)	(14,754)	(12,654)	(12,128)	(12,135)	(11,845)
Total Annual Operating Cost		(\$'000)	(142,487)	(1,709,849)				(160,375)	(174,400)	(166,700)	(160,060)	(162,387)	(160,554)	(151,382)	(134,546)	(117,805)	(110,809)	(108,607)	(102,223)
<b>Unit Operating Costs</b>																			
Mining		\$/ore-tonne		(6.00)				10.78	8.71	8.15	7.57	7.86	7.67	6.69	4.99	3.27	2.57	2.32	2.07
Processing		\$/ore-tonne		(8.33)				8.75	8.45	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.63
G&A		\$/ore-tonne		(1.65)				2.44	1.95	1.87	1.72	1.69	1.68	1.65	1.51	1.39	1.33	1.33	1.40
Total Annual Unit Operating Cost		\$/ore-tonne		(15.98)				21.97	19.11	18.27	17.54	17.80	17.60	16.59	14.74	12.91	12.14	11.90	12.10
<b>Net Profit</b>																			
		(\$'000)	159,225	1,910,704				192,605	201,891	184,634	197,531	175,104	139,627	137,998	93,777	126,255	139,826	255,481	65,975
<b>PRE-TAX INCOME</b>																			
Depreciation		(\$'000)	(67,139)	(805,671)				(132,349)	(135,743)	(136,911)	(139,648)	(144,345)	(163,939)	(174,211)	(171,559)	(160,008)	(163,143)	(177,485)	(155,200)
Miscellaneous Taxes		(\$'000)	(647)	(9,057)				(991)	(795)	(710)	(631)	(556)	(566)	(571)	(568)	(566)	(568)	(570)	(567)
Adjusted Net Profit		(\$'000)	91,448	1,095,976				59,265	65,353	47,014	57,253	30,203	122,121	120,006	76,409	109,681	123,116	237,426	49,888
Profit Sharing Tax	15%	(\$'000)	(13,717)	(164,606)				(8,890)	(9,803)	(7,052)	(8,588)	(4,530)	(18,318)	(18,001)	(11,407)	(16,452)	(18,467)	(35,614)	(7,483)
Taxable Income Pre-Carry Forward Loss		(\$'000)	77,731	932,768				50,375	55,550	39,962	48,665	25,673	103,803	102,005	64,642	93,229	104,648	201,812	42,405
Carry Forward Loss Applied (25% of Current Year Income Max)		(\$'000)	(205)	(2,465)				(2,465)	-	-	-	-	-	-	-	-	-	-	-
Net Income Before Taxes		(\$'000)	77,525	930,303				47,911	55,550	39,962	48,665	25,673	103,803	102,005	64,642	93,229	104,648	201,812	42,405
Federal Income Taxes	22%	(\$'000)	(17,056)	(204,667)				(10,540)	(12,221)	(8,792)	(10,706)	(5,648)	(22,837)	(22,441)	(14,221)	(20,510)	(23,023)	(44,399)	(9,329)
NET INCOME AFTER TAXES																			

## 22.16 Base Case Sensitivity Analyses

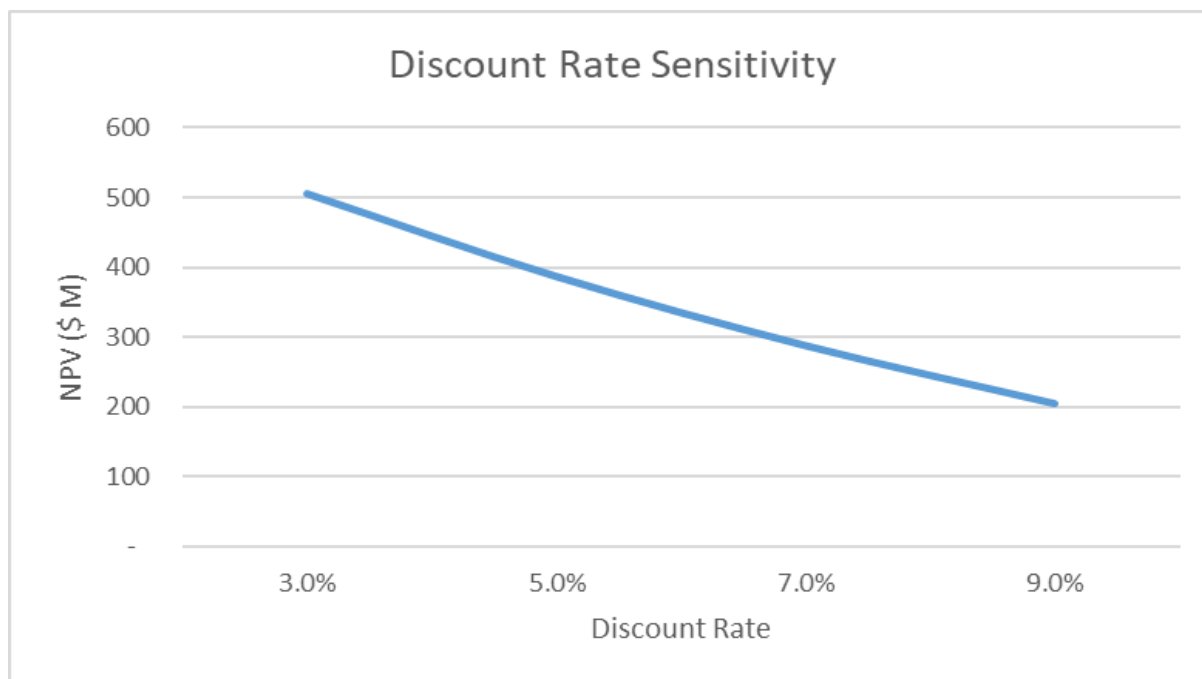
The results presented in the Cash Flow Projections section reflect the Condor North area results using base case conditions as outlined in the assumptions. Since actual conditions are anticipated to vary from base case assumptions, a series of sensitivity analyses were performed to evaluate the financial results for the project for a range of conditions.

The base case discounted cash flow model was evaluated for its sensitivity to the change in selected inputs. The following inputs were evaluated at base case plus or minus 10% and 20%: metals prices, capital expenses, and overall operating cost. The Project's sensitivity to metallurgical recovery was evaluated by varying each metal's recovery by plus or minus two percentage points. The Condor North's sensitivity to the discount rate was also evaluated by setting the discount rate at three, five, seven, and nine percent. The base-case NPVs at the other discount rates are presented in Table 22-5. The same data is shown graphically in Figure 22-1.

**Table 22-5: NPV (\$ M) at Various Discount Rates**

Discount Rate	NPV \$(000)
3%	\$ 506
5%	\$ 387
7%	\$ 288
9%	\$ 204

**Figure 22-1: NPV at Various Discount Rates**



Source: RME, 2021

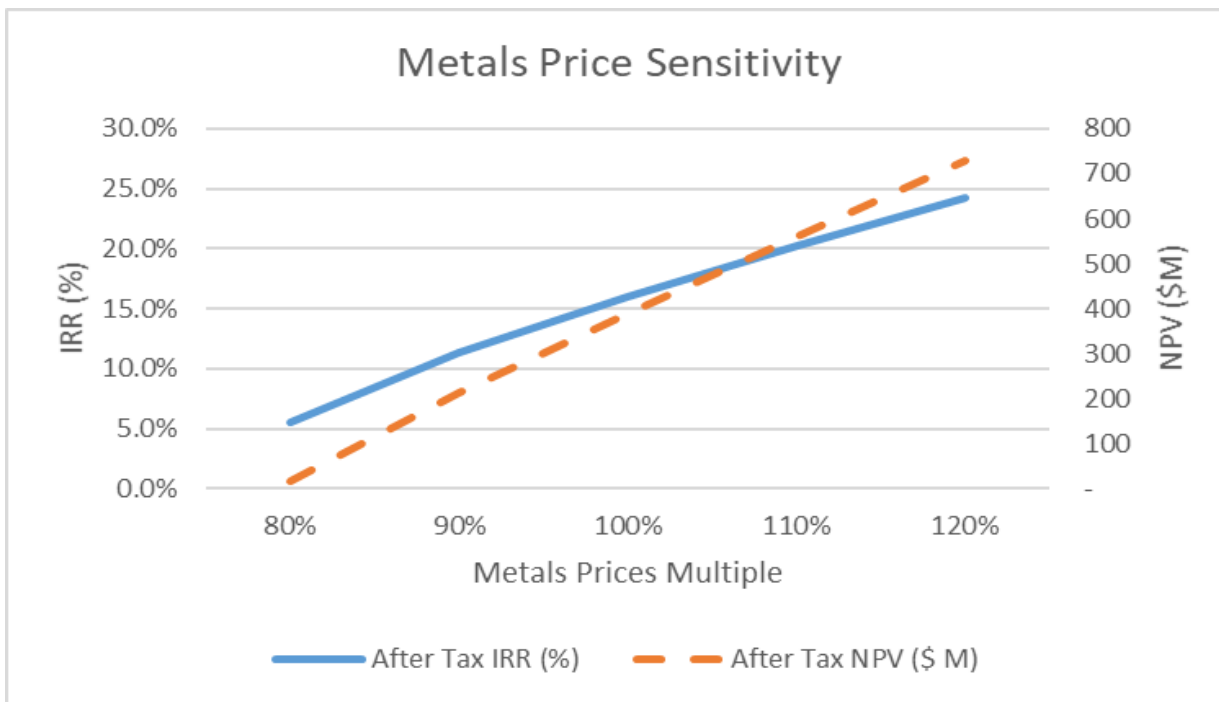


Table 22-5 reflects the sensitivities for IRR and NPV in 10% increments of negative and positive deviation from the base case for both metal prices. The data is shown graphically in Figure 22-2.

**Table 22-6: Metals Price Sensitivity**

Metals Prices	\$/oz Gold (Ref)	After Tax IRR	After Tax NPV5% (\$ M)
80%	1280	5.6%	18
90%	1440	11.4%	211
<b>100%</b>	<b>1600</b>	<b>16.0%</b>	<b>387</b>
110%	1760	20.3%	562
120%	1920	24.2%	730

**Figure 22-2: Metals Price Sensitivity**



Source: RME, 2021

The operating cost and capital cost sensitivity analyses are presented in Table 22-6 and Table 22-7 and shown graphically in Figure 22-3. From the data, it appears that Condor North's net present value (NPV) is more sensitive to operating costs than to capital costs while Condor North's internal rate of return (IRR) is slightly more sensitive to capital costs than to operating costs.

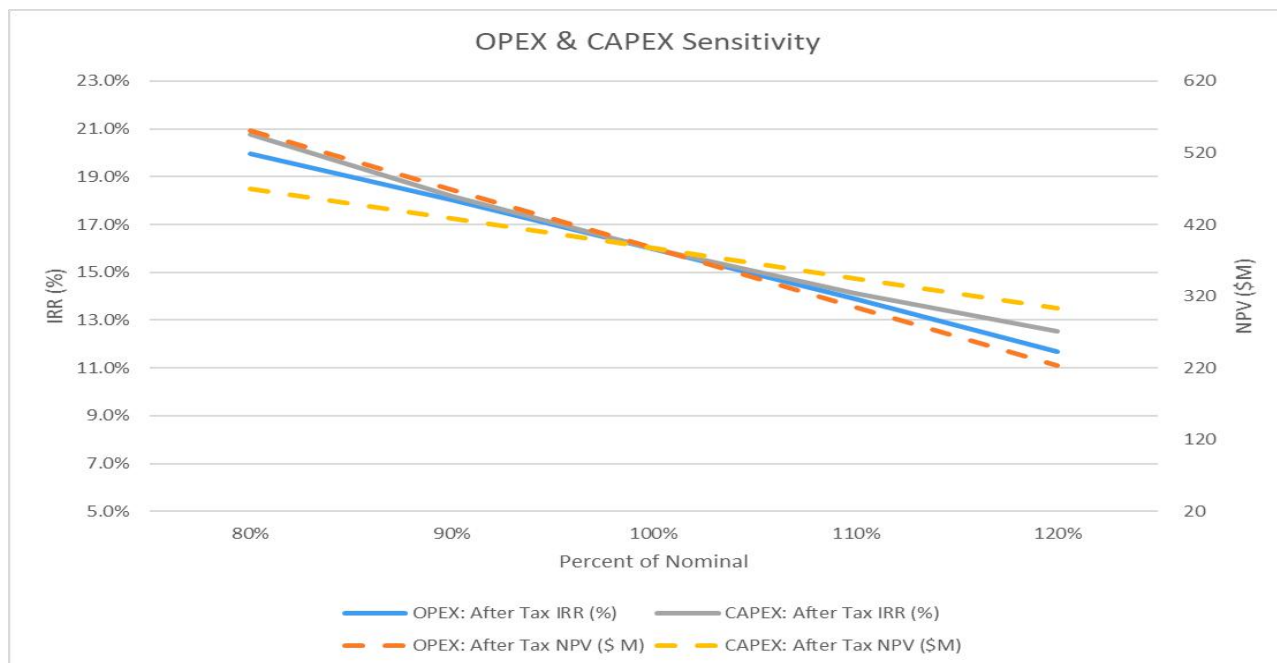
**Table 22-7: Operating Cost Sensitivity**

OPEX	\$/ore-tonne	IRR	NPV5% (\$ M)
80%	12.78	20.0%	550
90%	14.38	18.0%	469
<b>100%</b>	<b>15.98</b>	<b>16.0%</b>	<b>387</b>
110%	17.58	13.9%	305
120%	19.18	11.7%	223

**Table 22-8: Capital Cost Sensitivity**

CAPEX	\$ Total CAPEX (M)	IRR (%)	NPV5% (\$ M)
80%	478	20.8%	470
90%	538	18.2%	428
<b>100%</b>	<b>598</b>	<b>16.0%</b>	<b>387</b>
110%	657	14.1%	345
120%	717	12.5%	303

**Figure 22-3: Operating and Capital Cost Sensitivity**



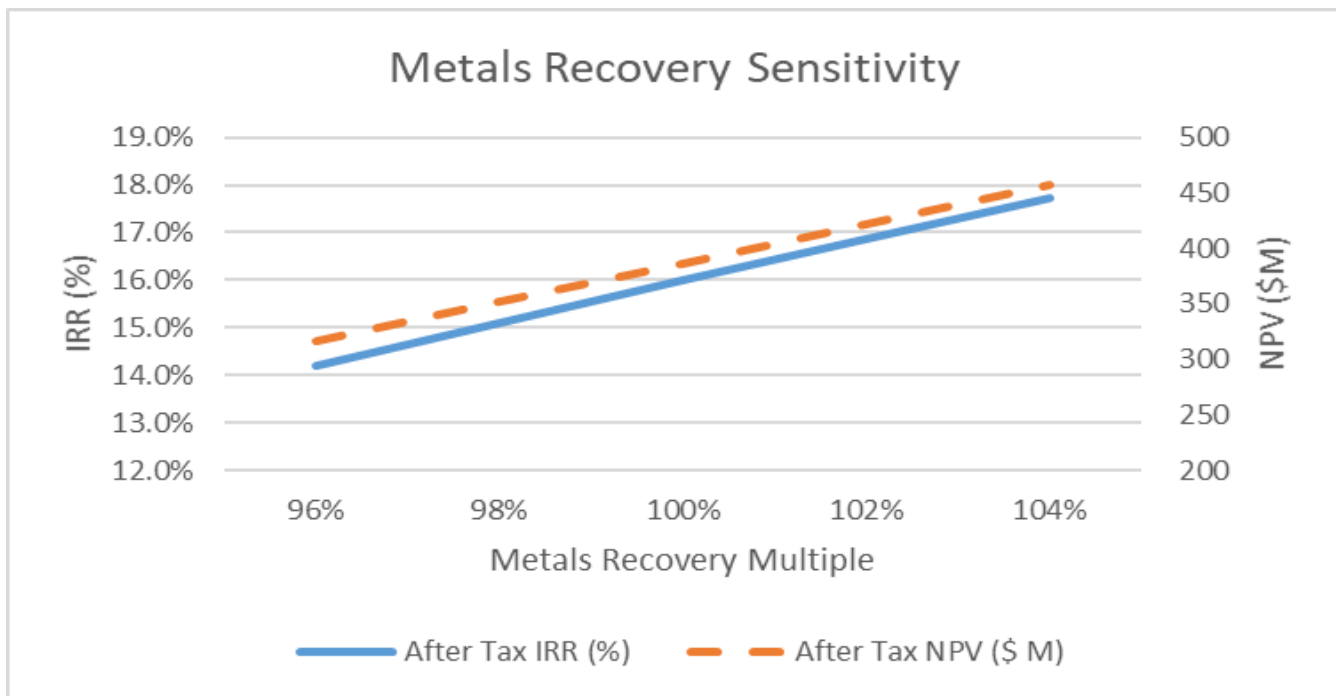
Source: RME, 2021

Variations in metallurgical recovery for the two metals are shown in Table 22-8 in two percent increments with gold recovery as a reference. The data is shown graphically in Figure 22-4.

**Table 22-9: Metals Recovery Sensitivity**

Metals Recovery	% Gold Recovery (Ref)	After Tax IRR	After Tax NPV 5% (\$ M)
96%	86%	14.2%	317
98%	88%	15.1%	352
100%	90%	16.0%	387
102%	92%	16.9%	422
104%	94%	17.7%	457

**Figure 22-4: Metals Recovery Sensitivity**

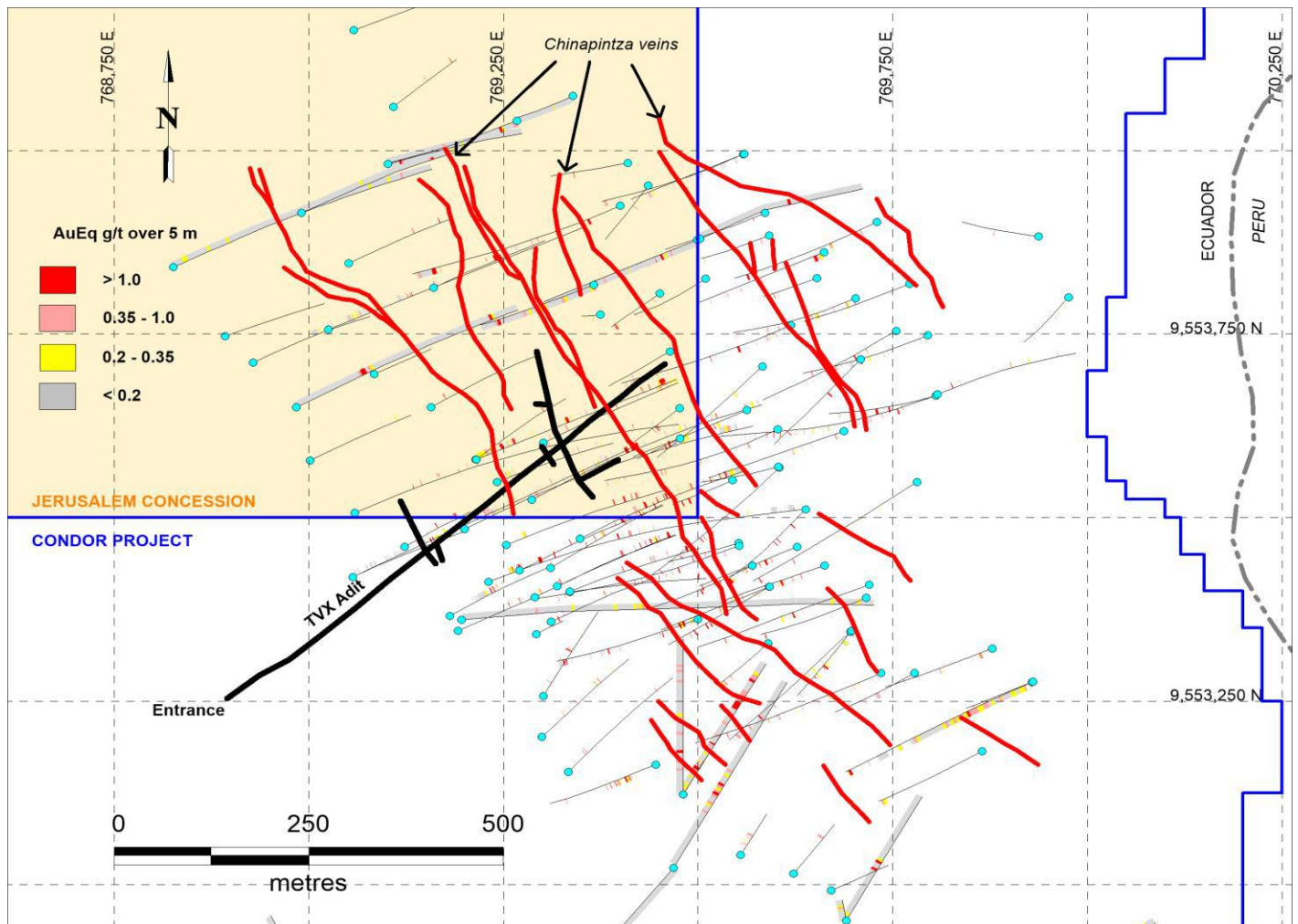


Source: RME, 2021

## 23 ADJACENT PROPERTIES

The Chinapintza epithermal gold veins extend to the northwest onto the adjacent Jerusalem concession (Figure 23-1).

Figure 23-1: Plan Map – Chinapintza Veins – Jerusalem Concession



Source: Ronning, 2003; Luminex, 2018

TVX did an extensive amount of exploration work on this claim, including diamond drilling (35 holes; 9,338.1 m), trenching and underground development and sampling. In 1996, it calculated a historical mineral resource for this zone of 535,828 tonnes grading 12.5 g/t Au, 66.4 g/t Ag, 0.07% Cu, 0.76% Pb, 3.57% Zn (Ronning, 2003). This historical mineral resource estimate is detailed in the NI 43-101 Technical Report entitled "Review of the Jerusalem Project, Ecuador" with an effective date of May 30, 2003 and is available on SEDAR.

In 2004, Maynard (2004) provided an updated historical mineral resource estimate for the veins on the Jerusalem concession (Table 15.1). This historical mineral resource estimate is detailed in the NI 43-101 Technical Report entitled "Independent Geological Evaluation, Jerusalem Project, Zamora Chinchipe, Ecuador for Dynasty Metals & Mining Inc." with an effective date of October 29, 2004 and is available on SEDAR. The QPs have been unable to verify this mineral resource estimate and it is not necessarily indicative of mineralization on the Condor North Project.

**Table 23-1: Resources on the Jerusalem Concession**

Category	Tonnes	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Measured	298,900	13.9	102	576	563	26,859
Indicated	722,500	12.8	98	360	3,560	17,660
Inferred	1,785,200	11.6	103	424	3,887	18,397

Source: Maynard, 2004

The authors of this report have not completed sufficient work to verify the historical mineral resource on the Jerusalem concession and this information is not necessarily indicative of mineralization on the Condor North area. The authors feel there is insufficient geologic information available to confidently interpret the shape and location of the gold-bearing veins at Chinapintza, and, as a result, an estimate of mineral resources is not currently feasible.

There are several other gold showings in the vicinity of the Condor Project, but none have any published mineral resources.

## 24 OTHER RELEVANT DATA AND INFORMATION

### 24.1 Execution Plan

#### 24.1.1 Introduction

To support the capital cost estimate, a conceptual execution plan and schedule were developed. They compile engineering, procurement, construction, and other related preproduction activities that are necessary to bring the Condor North area into commercial production. The execution plan assumes that the project will be executed after all the required prerequisites are satisfied. Details of the cost estimates are included in Section 21.

Prerequisites that are necessary to move the Project into the two-year preproduction period include:

- Completion of Estudio de Impacto Ambiental (EIA) Public Participation Process (PPS)
- EIA/Environmental Management Plan (EMP) approval
- Completion of all other required permitting actions, as summarized in Section 4.3
- Approval and receipt of the exploitation-phase Environmental License
- Receipt of the Investor Protection Agreement (IPA)
- Project financing obtained by the Company, if required
- Corporate approval to proceed with project development

A summary-level schedule was developed using logic and durations for major activities, including manufacturing and delivery durations for major mining and process equipment provided by IMC/Luminex and ONIX, respectively. Durations for preproduction mining activities were developed by IMC using first principles. Durations for critical path activities were developed using recent data from similar projects. Other construction activities were considered to fit within the overall timeline for the critical activities.

During a future Feasibility Study some early/basic engineering may be performed to facilitate early placement of purchase orders for the primary crusher, mills, and other long-lead items to reduce schedule risk due to vendor manufacturing/delivery delays. Early engineering of some of the site infrastructure during the permitting process may be advantageous if it facilitates an efficient start of construction on site after permit approvals are received.

Durations for completion of the power supply activities were provided by the Electric Power and Communications Company (EPTec) in a report that is summarized in Section 18.1.

The summary Project Execution Schedule is included in Section 24.2 as Figure 24-1.

### 24.1.2 Engineering, Procurement, and Construction Management

Basic and detailed process and related infrastructure engineering, procurement, and construction management (EPCM) services will be performed by an international engineering firm with substantial experience in engineering and construction of large carbon-in-leach (CIL) plants, as well as having familiarity with Ecuadorian regulatory requirements, standards, business practices, and construction methodologies/ capabilities. Ecuadorian engineers will be utilized, either as individuals or through consulting engineering firms, to provide further insight regarding local codes, standards, and practices.

Discrete packages for certain infrastructure elements and ancillary facilities will be subcontracted to qualified Ecuadorian engineering firms for detailed design and procurement using locally available equipment, materials, and construction labor whenever possible.

Mine design and specification of mining equipment and materials will be performed by an experienced international mining consultant. Procurement of the mining equipment will be performed by Luminex Resources.

Detailed design and quality assurance services for critical geotechnical facilities, including the waste rock storage facility (WRSF) and tailings storage facility (TSF), will be provided by an international geotechnical engineering firm with substantial experience in constructing these specific facilities under similar conditions, including:

- Adverse topography
- Tropical forestation/vegetation
- High seasonal precipitation
- The presence of saprolite soils in some construction areas

Specification and procurement of any required equipment or materials will be performed by the geotechnical engineering firm.

Design, permitting, and oversight of the procurement and construction of the 138-kV electrical transmission line, Cumbaratza substation connection, and the Condor North main substation will be performed by a specialty Ecuadorian engineering firm engaged by, and under the supervision of, the Company.

### 24.1.3 Procurement and Logistics

After specifying the technical requirements for process equipment and materials, the EPCM contractor will determine which items are available within Ecuador and which meet the Project's schedule and cost requirements. Equipment and materials which are not reasonably available in Ecuador will be purchased by the EPCM contractor from leading international suppliers.

The EPCM contractor, in conjunction with the Company, will engage a freight forwarding/logistics contractor which has substantial international experience and familiarity with local Ecuadorian customs practices and transport providers. The contractor will coordinate, track, and report all transport of project equipment and materials.

#### 24.1.4 Construction

As discussed previously in Section 24.1.2, overall construction management services for the process plant and related infrastructure will be provided by the EPCM contractor working with the Company's project and construction management staff.

The technical oversight of the geotechnical construction will be provided by the geotechnical engineering firm. Contract administration and management of the geotechnical facilities construction will either be provided by the EPCM contractor or the Company's project staff.

Major construction work packages are expected to consist of the following:

- Vegetation removal
- Road construction (i.e., light earthworks)
- Road construction (i.e., heavy earthworks)
- Major earthworks
- Civil concrete construction, including supply and operation of an onsite concrete batch plant
- Platework and structural steel erection
- Mechanical and piping erection/installation
- Electrical, instrumentation, and controls installation
- Architectural (i.e., buildings, etc.) construction
- Installation of electrical overhead transmission lines

The work packages may be combined into several major contracts, or split into smaller packages, depending on contractor capabilities, and if it is advantageous to the Project. The splitting of early work packages will be beneficial if it facilitates the use of local contractors since they do not require site accommodations and support services, are able to mobilize and begin work quickly, and are likely to have established work forces.

Construction will be completed by in-country contractors, whenever possible, depending on adequate resources and demonstrated capabilities. Whether qualified local resources exist in adequate numbers to support the project schedule must be evaluated at a later stage of the project development, as actual construction nears. Where particular skills and experiences do not exist or do not exist in adequate numbers to support the project schedule, the EPCM contractor will source contractors or personnel from outside Ecuador.

The EPCM contractor needs to include well-experienced, expatriate technical and supervisory staff on its team to augment contractors in specialized areas, such as mill installation. Vendor field engineers will also form an important component of the construction team.

To the extent possible, the design will largely progress in advance of construction needs, so lump sum and unit price contracts are envisioned for the major contract packages.



Contractor management and supervision of construction will be performed by a team consisting of the EPCM contractor and the Company's Project management staff. Costs are included in the capital cost estimate to provide these functions.

#### **24.1.5 Preoperational Testing**

Construction will proceed to mechanical completion, followed by preoperational testing of the completed process systems to ensure that each system performs as designed. Preoperational testing occurs without mineralized material feed or actual process solutions.

Preproduction testing will be performed by a team comprised of the EPCM contractor's staff, the Company's preproduction operations staff, vendor representatives for key process equipment, and select construction contractors' support labor. Costs are included in the capital cost estimate to provide these functions.

#### **24.1.6 Commissioning**

When preoperational testing of a system has been satisfactorily completed, the system will be formally turned over to the Company. From this point on, the responsibility for care, custody, and control of this system rests with the Company. Construction personnel may no longer access or operate the system unless the Company approves and participates.

EPCM contractor's staff, construction contractor's staff personnel, and vendor representatives for key process equipment are available to assist the Company's operations staff with commissioning.

Costs are included in the capital cost estimate to provide the commissioning support.

#### **24.1.7 Estimated Manpower**

The estimated construction manhours (excluding earthworks) were developed by: analyzing factors applied to the equipment costs to obtain total construction costs, converting the resulting construction costs to manhours using an average cost per manhour from a recently completed project in Ecuador, adjusted for an average performance factor; and comparing the estimated manhours to hours expended during the construction of a similar project in Latin America. The estimated manhours, based on the factored approach, compared favorably with the actual manhours from the other project.

Estimated manhours for earthworks were developed by applying historical manhours to known unit rates based on experience by Ausenco for other projects in Latin America.

The average construction workforce during the 24-month construction period is expected to range from 100 people to 700 people depending on specific activities occurring at given times. The workforce is expected to peak at up to 1,000 people for a short period of time (i.e., several months).

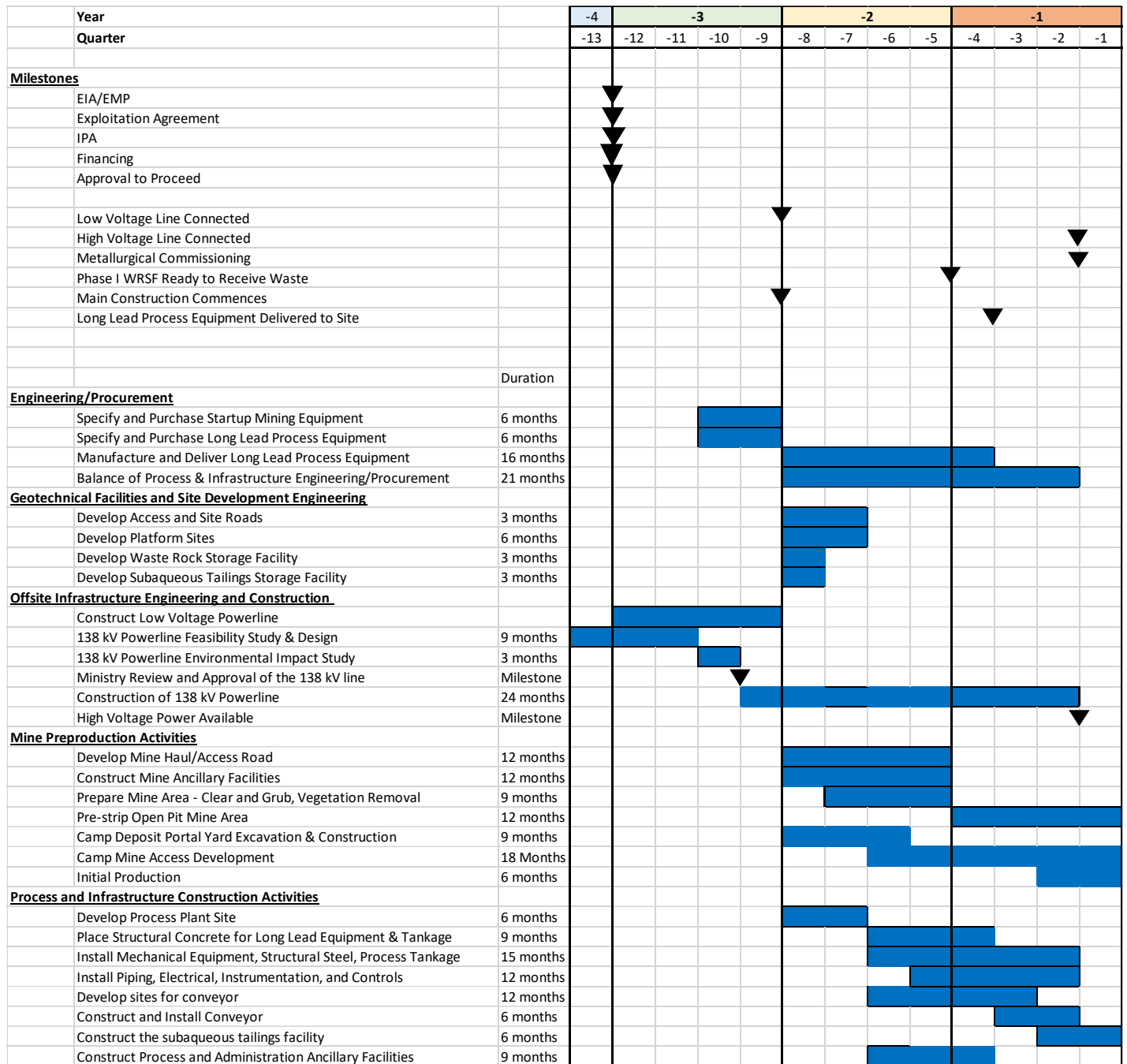
For this estimate, thirty percent of the construction workforce is assumed to be available locally and to reside within the local communities rather than in the construction camp and up to seventy percent of the workforce is assumed to live within the region.

A detailed estimate of direct and indirect construction manhours and the workforce versus time will be completed as part of the PFS labor estimate since major construction costs will be based on material take offs and will not utilize factoring of equipment costs to obtain construction costs.

## 24.2 Schedule

The preliminary summary project execution schedule is shown below as Figure 24-1.

Figure 24-1: Condor North Project Preliminary Execution Schedule



Source: RME, 2021

### 24.2.1 Basis of Schedule

Sequencing of the major process and related infrastructure activities is based on durations from comparable projects and fabrication/delivery durations for the longest lead-time equipment.

Based on vendor quotations from other, similar projects in support of the scoping-level engineering and capital cost estimate, there are at least two purchase orders with estimated delivery times of 68 weeks: Gyratory Crusher and the SAG and Ball Mills. The Carbon Plant Package is estimated to take 52 weeks lead time and the Belt Conveyor Package, 48 weeks.

Eight weeks were added to the vendor's quoted durations for delivery to allow for inland transport at port of origin, ocean freight to Puerto Bolivar, customs clearance, and inland transport to Condor North area.

Engineering deliverables that are required to support timely placement of purchase orders for critical equipment and materials, as well as other purchase orders and construction bid documents to support the overall construction schedule, will be identified and prioritized during a future Feasibility Study.

Early construction activities that must be completed in advance of the main construction effort for the process and related infrastructure include:

- Improvement of the main access road from the existing public road to site
- Preparation of major mining equipment assembly/contractor laydown areas
- Face-up and preparation of the portal site and yard for the Camp deposit.
- Preparation of the construction camp site
- Installation of the initial phase of the camp, including associated utilities (e.g., power supply, water, and sewage disposal)
- Purchase and stockpiling of road base aggregates for initial site road construction
- Construction of pioneer roads to areas within the project site for installation of surface water management features to control precipitation runoff and erosion
- Installation of a mobile crushing plant at a site quarry location for production of additional aggregates that are needed for road construction, concrete preparation, drain materials, and ultimately for blasthole stemming when the mine operation begins
- Vegetation removal in required areas

### 24.2.2 Critical Paths

After completion of the early construction activities, there are two critical paths. The first critical path for the 24-month construction schedule includes:

- Site preparation (i.e., major earthworks) of the process plant platform
- Installation and commissioning of an onsite concrete batch plant and mixer trucks
- Structural concrete installation for crushing, grinding, CIL facilities
- Installation of major mechanical equipment (including tankage)
- Piping, electrical and instrumentation installation
- Completion of the 138-kV power supply to site, which must start “at risk”
- Preoperational testing and commissioning.

A second critical path supports the initial mine operation including:

- Completion of mine ancillary facilities (i.e., truck shop/warehouse, fuel storage and dispensing, mine equipment ready lines, and explosives storage)
- Assembly of major mining equipment, as it is delivered
- Initial phase construction of the WRSF
- Completion of the main haul road to access the Condor North open pit
- Completion of the Camp deposit portals, yard, and required surface facilities (shop, power substation, dry, services, etc.)

### **24.2.3 Assumptions, Qualifications, and Clarifications**

The following assumptions, qualifications, and clarifications apply to the durations of activities and the overall project schedule:

- Early construction activities for non-process infrastructure, as discussed previously, may start prior to the 24-month main construction period, as possible.
- Adequate levels of skilled contractors, labor, and equipment are available within Ecuador.
- The studies, engineering, and permit approval activities for the 138-kV power supply to Condor North are started early (before project approval) and expedited during the feasibility study stage of the Condor North Project.
- For purposes of this PEA, the schedule is based on 50 hours per week. Labor regulations in Ecuador are complex and subject to review and approval by the Ministry of Labor. The current understanding is that employers, such as construction contractors, may utilize standard work weeks in excess of the Ministry of Labor’s base standard if all of the employees approve. From discussions with some contractors, a 60-hour work week may be standard in some cases, which has the potential to improve the schedule.
- The work week may be adjusted seasonally based on available daylight and weather conditions. Spot overtime will be utilized, as necessary, to complete critical activities required to maintain the overall Project schedule.

- Higher precipitation than average during the rainy season has potential to adversely impact construction, particularly vegetation removal, road construction, and major earthworks. Activity durations and the overall project completion schedule could be adversely impacted, depending on the frequency, severity, and duration of the precipitation events.
- The execution schedule and facilities sizing estimates are based on a no-COVID environment. Additional time, space, and cost may be required to manage COVID if necessary at the time of execution.

## 25 INTERPRETATION AND CONCLUSIONS

### 25.1 Interpretations and Conclusions

The QPs note the following interpretations and conclusions in their respective areas of expertise, based on the review of data available for this Report.

#### 25.1.1 Summary

- The results of this PEA show that the Mineral Resources at the Condor North area are potentially viable with an after-tax Net Present Value (NPV) of \$387 M and an Internal Rate of Return (IRR) of 16.0% at a 5% discount rate over a mine life of twelve years processing approximately 107 Mt.
- The life of mine average mill feed grade is 0.72 gpt gold, and 5.94 gpt silver. This equates to an average gold equivalent grade of 0.80 gpt.
- The initial capital cost to construct the mine, processing facilities, and required infrastructure is approximately \$658.5 M including freight, duties, taxes, contingency, VAT and working capital.
- The average operating cost over the life of the mine is approximately \$15.98 per tonne of material processed.
- The information reported in this PEA is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Inferred Mineral Resources are based on limited geological evidence and sampling. The tonnage and grade of Inferred Mineral Resources have significant uncertainty as to their existence and as to whether they can be mined economically. There is no certainty that this PEA will be realized.
- Mineral resources that are not mineral reserves do not have demonstrated economic viability.

#### 25.1.2 Resource

Based on the evaluation of the data available from the Condor North area (Los Cuyes, Camp, Soledad and Enma) Condor Central area (Santa Barbara), the authors of the mineral resources presented in this Technical Report conclude the following:

- Low- to intermediate-sulphidation epithermal gold mineralization in the northern part of the Condor North area is associated with diatreme breccia pipes, dykes and breccia bodies at Los Cuyes, Soledad, Enma, and Camp, and quartz-sulphide veins at Camp and Chinapintza.
- The Santa Barbara gold-copper and El Hito copper-molybdenum porphyry deposits are associated with dioritic intrusions in the southern part of the Condor Project.

- Drilling of five deposits—Santa Barbara, Los Cuyes, Camp, Soledad, and Enma—has outlined a combined Indicated mineral resource estimate of 110.7M tonnes at 0.65 g/t Au and 3.6 g/t Ag which contains 2.3M ounces of gold and 12.8M ounces of silver and a combined Inferred mineral resource estimate of 224.3M tonnes at 0.60 g/t Au and 2.5 g/t Ag which contains 4.3M ounces of gold and 18.1M ounces of silver. Several of the deposits also contain minor amounts of copper, zinc and lead.

Condor South area consists of the newly identified Nayumbi Prospect and as of this writing there is no data.

### 25.1.3 Mining

The Los Cuyes, Soledad, and Enma deposits (Condor North area) are amenable to conventional hard rock surface mining. The steep terrain will be a challenging work environment but sufficient time has been built into the mine development period to address that issue. The Camp deposits (Condor North area) amenable to underground stope production. Three selective stoping methods have been applied within this study.

Additional geotechnical work for the open pits and the stope mine will be required to improve the project cost estimates. Additional resource drilling will be required to upgrade the Camp deposit and potentially other surface mine targets into the indicated category for future feasibility evaluation.

The quantity and location of the saprolite has not been well defined within mining areas. Saprolite can present mining and geotechnical challenges for site development. The overall pit slopes are steep. A rigorous geotechnical drilling campaign has not been conducted. A more rigorous understanding of the geotechnical constraints could increase the stripping requirements.

### 25.1.4 Mine Geotechnical

For the mine geotechnical for the Condor North area significant assumptions and interpretations for the slope and underground geotechnical analyses include:

- The detailed statistical evaluation database of rock quality parameters led to the conclusion that insufficient data are available to define spatial variability or lithological control. Accordingly, Project-wide rock quality was assumed for all pits and for the camp underground.
- Disturbed rock adjacent to major regional faults =  $\pm 50$  m (based on rock quality data analyses).
- No quantitative measurement of groundwater elevations was available. Site measurements indicate that small flows discharge from the adits of artisanal mines, irrespective of portal elevation (Hemmera memorandum, April 19, 2021). This is indicative of a relatively high phreatic surface, at least as seasonal response to precipitation. For slope stability analyses two groundwater cases were assumed; fully drained and fully saturated.
- Limited data from the pit areas indicate the average overburden thicknesses are less than 10 m. For the purposes of this PEA, surficial colluvium, saprolite and weathered rock thicknesses were ignored. This will be the subject of more advanced studies and may eventually result in upper slope laybacks and the requirement for single benching.
- Project-wide design parameters for pit slopes:
  - Geological Strength Index (GSI) = 45 (developed from RMR89 relationship).

- Intact rock Unconfined Compressive Strength (UCS) = 75 MPa (based on point load strength testing).
- Zone of decreasing stress relaxation from pit wall to a perpendicular depth from wall =  $1/3$  to  $1 \times$  slope height (depending on the amount of overburden present on the natural slope and based on current pit slope engineering practice).
- Seismicity was not incorporated per recommendation in Read & Stacey (2009).

## 25.1.5 Metallurgy

### 25.1.5.1 Metallurgical Testwork

Metallurgical test data shows that economically viable metal recovery processes are available for samples taken from Camp, Los Cuyes, Soledad and Enma deposits, which lie within the boundaries of the Condor North area.

From these four deposits, gold recoveries are estimated to range from 71% to 94% and silver recoveries from 30% to 49%. The life-of-mine gold and silver recoveries from all deposits are estimated to average 90% and 45%, respectively.

Future metallurgical testing should focus on collection of samples from each deposit representing variations in head grades and lithologies. Tests to determine the optimum process flowsheet, including not only the gravity and cyanidation process currently envisioned, but also flotation for base metals and cyanidation of flotation concentrates, should be performed.

Metallurgical tests were conducted on samples from the Santa Barbara deposit, located in Condor Central area, from 2013 to 2019. Results indicate that metal recoveries would be 87% for gold, 80% for copper and 60% for silver. Santa Barbara mineralized materials are not included in the mining and processing plans for Condor North area since it will require a different project flow sheet from that considered in the economic portion of this study. Also, there is insufficient information to include Condor South area (Nayumbi prospect) in the economic assessment at the time of the preparation of this report.

In the opinion of the QP, the samples used in the metallurgical tests are representative of the types and styles of mineralization and of the mineral deposits as a whole and, there are no identified processing factors or deleterious elements that could have a significant effect on the potential economic extraction.

## 25.1.6 Process and Infrastructure Design

Infrastructure to support the Condor North area will consist of site civil works, buildings and facilities, water management systems, a tailings storage facility (TSF), and electrical power substation and distribution. Mine facilities and process facilities will be serviced with potable water, fire water, compressed air, power, diesel, communication, and sanitary systems as required. The processing plant and TSF will be located below the three open pits, as well as most ancillary project infrastructure.

Ausenco completed a PEA-level design for the TSF at the Condor North area. The TSF will provide secure storage for tailings and process water. The embankment includes adequate freeboard to provide tailings storage, operational water management, temporary environmental design storm storage and conveyance up to and including the inflow design flood. The TSF will be constructed in phases using downstream construction methodology over the life of mine. A geomembrane lining system will be installed along the upstream face of the embankments to minimise seepage.



Tailings will be pumped from the process plant to the TSF as a conventional slurry via pipeline(s) and deposited into the TSF from a floating barge.

Water management measures for the Project will include a series of diversion berms, collection and diversion ditches to direct contact and non-contact water to the TSF where the majority of the total suspended solids can settle out prior to sending the water to the mine water pond (for mining process) or released to the environment.

#### **25.1.6.1 Recovery Plan**

The conceptual processing scheme for Condor North area mineralized materials follows a conventional whole mineralized material gravity concentration/cyanide leach circuit design and includes the use of standard industrial mineral processing equipment.

#### **25.1.7 Infrastructure Geotechnical**

A geotechnical program was performed in 2020 including test pits and boreholes along with the collection of soil and rock samples, laboratory testing and geotechnical surface mapping and geophysical investigations to understand the foundation conditions for the Plant Site, Primary Crusher area, Waste Rock Storage Facility (WRSF), Tailings Storage Facility (TSF).

This information was used to develop the conceptual designs for the site infrastructure. A limited field program was conducted, and additional geotechnical investigations will be required during the Prefeasibility Study.

#### **25.1.8 Water Supply**

Because the Project is in an area with a net positive water balance and abundant surface water resources, there is sufficient water to supply the operations.

#### **25.1.9 Geochemistry**

Limited preliminary geochemical sampling and analyses of waste rock and tailings indicate that the mine waste rock is both non-acid generating and potentially acid generating, and mine tailings are likely to be potentially acid generating. Further analysis is required to confirm these conditions and associated waste rock volumes, and to determine if waste rock contact water quality will meet Ecuadorian standards for direct discharge to the environment, after sedimentation but without further treatment.

With respect to tailings, for the purposes of this PEA it is assumed that comingling surface water from the sub-basin above the TSF will improve supernatant water quality to the point that it complies with Ecuadorian discharge standards and could be directly released to the environment. As preliminary testing also indicates that tailings are likely to be metal leaching, the tailings will be deposited sub-aqueously in the TSF to prevent oxidation.

## 25.2 Risks and Opportunities

### 25.2.1 Risks

#### 25.2.1.1 Economic

Economic risks to the Condor North area may include:

- Protectionist policies that result in excessive customs duties or importation fees for critical equipment and consumables.
- COVID-19 poses a risk to the Condor North area from a cost and schedule basis. Cost estimates were provided based on assumptions that typical industry availability of goods and services, and equipment and supply lead times prevail. The camp was sized according to pre-COVID industry standards. Ongoing, high levels of COVID-19 pandemic infection rates could increase the overall project costs, both capital and operating, and delay the project execution.
- Economic policies that result in an increase to the tax burden on the Project, through increased VAT, higher royalties, reinstatement of the windfall profits tax or other measures.

#### 25.2.1.2 Social

Project-related social risks may include:

- Escalation in artisanal and/or illegal mining activity, incursions, or incidents of local community unrest in response to increased Project activity, higher gold prices, political pressure, or publication of Project resource estimates or other details.
- Risks that the Company will be unable to purchase or secure control over all of the land it needs, that lands it controls or needs may be invaded by illegal miners or other actors, or that, because of increased interest in the Project or the actions of speculators, the Company may have to acquire control at higher prices than projected.
- Social tensions or violence resulting from real or perceived project impacts on legal/illegal livelihoods related to artisanal or small-scale mining, or on air or water quality or other environmental concerns.
- Inadequate understanding of the Condor North development, leading to unreasonable public expectations for Project-related employment, procurement, and community support, within nearby communities and cantons.
- Social opposition generated by interference from external actors, including illegal mining interests, environmental or social activists, and politicians, who may oppose activity at the Condor North site or related to transportation of inputs or outputs, some of which may include hazardous materials that must travel great distances to reach the site.

#### 25.2.1.3 Environmental

Project-related environmental risks may include:

- Erosion and water quality risks from advanced exploration activities and actions or incursions of illegal miners that could generate environmental impacts on Project lands or surface water resources or generate geotechnical or physical risks to Project infrastructure if not identified, monitored, and mitigated wherever possible.
- Risks associated with road transportation of materials, reagents, explosives, fuel, and major equipment, will be experienced over the projected life of the mine.
- Continuing impacts to biodiversity in the Condor North area and potential delays in the implementation of a suitable and viable biodiversity management approach until the start of construction could result in a potentially negative public perception of Condormining's commitment to the protection and preservation of biodiversity.
- Climate change-related weather pattern disruptions, especially drought or increased rainfall could affect the site water balance and the capacity and efficiency of water management infrastructure.

#### 25.2.1.4 Metallurgy

- Projection of metal recoveries from the Soledad deposit are based on testing of San Jose Zone samples performed in 1995. There is a risk that the Soledad metal recoveries may be lower than projected after further sampling and testing are completed.

#### 25.2.1.5 Mine Geotechnical

- **Rock Mass Quality:** Based on an evaluation of all available information, this PEA assumes a uniform, high-quality rock mass for all slopes. Should there be spatial variation in rock mass quality, as yet undefined, slope inclinations could potentially require flattening and underground access may require additional structural support.
- **Major Structures:** Four regional faults have been identified at the Condor North Project. The location, orientation and character of these features could negatively affect achievable overall slopes and/or underground opening design. Ongoing targeted subsurface investigation, surface mapping, and structural interpretation specific is required to refine their influence on geotechnical design.
- **Colluvium / Saprolite / Weathered Rock:** Site reconnaissance and explorations of the steep areas upslope of the pit crests has not been performed. An exploration program is required across this area so that the thickness and nature of the saprolite and saprock deposits can be determined. This will be the subject of more advanced studies and may eventually result in upper slope laybacks and the requirement for single benching. Crown pillar design could also be negatively impacted in areas of increased saprolite thickness.
- **Slope Drainage:** Slope designs herein are contingent on the feasibility of reasonable slope drainage concurrent with pit and underground excavation. This aspect of the Project is the critical unknown at present and represents a priority activity for more advanced design studies. Enhanced drainage measures such as horizontal drain holes and surface water diversion to augment natural drawdown should be anticipated.

- **Steep Topography Above Los Cuyes Pit Crest:** Pit slope designs for the northeast and southeast quadrants require catch points intermediately located on steep natural slopes. The combination of the natural slope above the pit crest and the planned mine slope below, results in overall composite slope height – slope angle geometries with stability factors nominally less than recommended values based on groundwater and rock mass parameters utilized for this PEA study. These parameters must be investigated in future mine development programs to confirm that these composite slopes are achievable with an engineered dewatering program. Alternatively, the overall slopes may require flattening by two to four degrees with consequent waste stripping implications.

#### 25.2.1.6 Tailings

- Non-potentially acid generating waste rock produced from the Los Cuyes pit cannot be segregated during mining as assumed in the study and will not be available as required during construction of the TSF.
- The source of an adequate amount of suitable filter, transition and low permeability materials cannot be identified and secured from locally available borrow sources.
- There is the potential for challenging construction conditions associated with creek diversions and dewatering during preparation of the foundations for embankment construction and lining of the basin.
- The ability to achieve flat uniform filling of tailings via sub-aqueous deposition within the basin while maintaining the minimum required water cover over the tailings as assumed in the study.

#### 25.2.1.7 Waste Rock

There is insufficient geochemical data on the waste rock to characterize the acid generation potential of these materials. Further geochemical testing of waste rock from the four open pits and the underground need to be performed to provide sufficient data to characterize the geochemistry of the waste rock. Should there be insufficient non-acid-generating waste rock to offset the potential-acid-generating waste rock, these facilities may generate acid and metal leaching. If mixing surface water with contact water from the waste rock facilities is insufficient to provide water quality that meets discharge standards. Then additional mitigation measures will be required, such as the addition of lime to the WRSF, water treatment, etc. that would add both capital and operating cost to the project.

### 25.2.2 Opportunities

#### 25.2.2.1 Economics

Economic opportunities related to the development of Condor North may include the following:

- Increasing open market policies, reforming labor laws, and tax reform by the Government of Ecuador pose opportunities to increase economic performance.
- Further project development may lead to increasing metallurgical recoveries and/or provide additional products to market.

### 25.2.2.2 Social

Project-related opportunities in response to the social risks listed in Section 25.1 may include the following:

- Development and maintenance of constructive relationships with local, regional and national government authorities to educate and inform them on the progress of the Condor North Development, collaborate on social development initiatives, and implement sustainable solutions to the challenges posed by artisanal and illegal mining.
- Continue to build trust with local communities through communication, employment generation, and collaboration on Project-related employment, procurement, community support, and other social investment programs that demonstrate that the Project delivers sustainable long-term benefits.
- Prioritization of land areas for which to seek purchase, landowner rental arrangements, or easements, as necessary to secure control over lands necessary for the development of Condor North.

### 25.2.2.3 Environmental

Project-related opportunities in response to the environmental risks listed in Section 25.1 may include the following:

- Erosion prevention and management measures can be implemented to stabilize areas within the Condor North environmental AOI during advanced exploration as well as mine construction, operation, and closure.
- Refine the surface water monitoring program and develop a more detailed characterization of background conditions up- and down-gradient from areas that will be disturbed during the construction and operation of the mine; the meteorological, piezometer, and streamflow data collection programs established prior to the development of this Technical Report may be continued to develop a more robust dataset.
- Explore options to reduce long-term transportation risks, including:
  - completion of a comprehensive transportation survey and development of a transportation management plan;
  - optimization of heavy vehicle traffic routing and convoy design;
  - logistics planning and coordination;
  - preparation of documented emergency preparedness and response protocols in coordination with affected local authorities, conducting mock drills, and implementing emergency response training programs;
  - establishment of contractual transporter licensing/certification requirements; and
  - potential expansions and upgrades of selected areas of roadway and transportation infrastructure;
- Implement management controls to minimize Condor North's impacts on climate change, and closely monitor weather pattern changes for potential effects on the water balance and water management infrastructure.
- Develop a comprehensive biodiversity monitoring and management plan to protect local biodiversity, including developing appropriate species rescue programs and establishing meaningful ecological offsets. Taking early action in this regard should increase the viability and effectiveness of the biodiversity protection measures to be implemented during the construction, operational, decommissioning/closure, and post-closure phases.

#### 25.2.2.4 Metallurgy

- Additional metallurgical testing should include flotation followed by cyanidation of the concentrate to reduce the size of the cyanidation circuit and thus lower capital and operating costs.
- Future testing should also consider flotation after cyanidation to determine if saleable silver/lead and zinc concentrates can be produced to improve project economics.

#### 25.2.2.5 Mine Geotechnical Opportunities

- **Overall Slope Optimization:** There is an inverse relationship between ultimate slope height (or pit depth) and maximum achievable overall slope angle. The current design employs two quadrant-specific inter-ramp angles dependent on the presence or absence of structural control for bench face angles but irrespective of overall slope height. The opportunity exists for steeper inter-ramp and toe-to-crest slope angles for the lower overall height walls.
- **Bench Face Optimization:** The bench face angles (BFA) recommended herein have been reconciled with available (but limited) structural fabric assumed to apply Project-wide. Future geotechnical drilling and televiewer logging should provide a comprehensive structural database that may enable pit-specific and/or wall-specific BFA designs.

#### 25.2.2.6 Infrastructure Geotechnical Opportunities

- Additional infrastructure geotechnical drilling will better define the foundation conditions at the infrastructure sites and potentially reduce earthworks quantities for construction.

## 26 RECOMMENDATIONS

A desktop review of all data for Santa Barbara and economic modelling of a co-development scenario with the other deposits in the claim block is recommended, using metals prices that are current for the time of that study.

### 26.1 Overall Recommendation

Since this Study results in a positive economic return for the Condor North area, the study team recommends that the project be advanced to a Prefeasibility Study (PFS). The total estimated cost to complete the work is approximately \$25.0M.

A summary of the estimated costs is provided in Table 26-1.

**Table 26-1: Estimated Costs to Perform Prefeasibility Study**

Description	Estimated Cost (US\$ 000)
Project Management	400
Resource Drilling	16,800
Metallurgical Testing	460
Mine Design (Surface & Underground)	400
Mine Geotechnical Drilling	871
Mine Geotechnical	310
Process & Infrastructure Engineering	700
Infrastructure Geotechnical Program	500
TSF, WRSF, Access Road, Haul Road (outside of WRSF and pits), Plant Platform Design and Analysis	310
Geochemistry	170
Water Management and Water Balance	310
Closure Plan	20
Social Baseline Study	60
Environmental	214
Power supply	30
Transportation	50
Economics – Customs Study	50
General and Administrative	70
Subtotal	21,725
Contingency (15%)	3,259
Total to Complete a Prefeasibility Study	24,984

## 26.2 Recommendations from Individual QPs

### 26.2.1 Mining and Mineral Resources

The Camp deposit will require substantially more drilling and geotechnical evaluation to progress that deposit toward prefeasibility analysis. The results of that work will provide the basis for better accuracy in the estimated head grades and cost estimation.

The surface mine areas require more advance geotechnical data collection and evaluation. In particular, additional information regarding the depth and location of saprolite in the mine area will have a substantial impact on the estimation of mine development costs.

There are a number of areas in the surface deposits where surface samples indicate the presence of ore grade mineralization. Mineralization estimated by surface samples was not incorporated into the mineral resource or mine plan due to a lack of confidence in the surface sampling. Additional drilling in those areas could add near surface resources to the mineral resources and mine plan.

#### 26.2.1.1 Resources Drilling

Assuming the next stage of the Project is a PFS, the following drilling is proposed to upgrade the current inferred resources to indicated status (costs assumes \$230/m for drilling plus assays and \$200/m for drilling only no assays), assays, logging etc.

•	Los Cuyes	46 Boreholes	11,000 m	\$2.5 M
•	Soledad	40 Boreholes	7,350 m	\$1.7 M
•	Enma	5 Boreholes	650 m	\$0.2 M
•	Camp	114 Boreholes	59,600 m	\$12.4 M
•	Total	205 Boreholes	78,600 m	\$16.8 M

#### 26.2.2 Metallurgy

- A more detailed metallurgical drilling program should be established that focusses on collection of samples from each deposit that represent the various head grades and lithology types of materials planned for mining and processing.
- Additional testing of composites is recommended that compares the following recovery methods to select the optimum flowsheet:
  - Whole mineralized material cyanidation;
  - Gravity concentration/concentrate intensive leach followed by gravity tails cyanidation (selected for PEA);
  - Gravity concentration/concentrate intensive leach, gravity tailings cyanidation followed by flotation of leach tails to produce silver/lead and/or zinc concentrates; and



- Whole mineralized material flotation followed by cyanidation of the concentrate.
- Testing should be performed that reflects the annual blending ratios of the various deposits.
- Testing using site water should be performed to determine any impact on metallurgy.
- Testing should be performed that evaluates metal absorption on to activated carbon, leaching kinetics, carbon metal loading and elution tests.
- An evaluation should be conducted to determine whether Carbon-in-leach (CIL) or Carbon-in-pulp (CIP) carbon recovery schemes are the most appropriate.
- The estimated cost to complete the laboratory testing is approximately \$400,000 and the cost of metallurgical oversight is estimated at \$60,000.

### 26.2.3 Mine Design (Surface and Underground)

#### 26.2.3.1 Surface

It is recommended that additional drilling be conducted to upgrade the Inferred Mineral Resource to Indicated Mineral Resources. It is also recommended that future drilling campaigns include a geotechnical program that better defines the extent of saprolite rock and pit slopes. **The cost of these recommendations is included in the mine geotechnical recommendations.**

#### 26.2.3.2 Underground

- Additional drilling must be done to upgrade the Inferred geological resource to Indicated. This is mandatory to complete a PFS and declare reserves. This is further discussed in the section on Mineral Resources.
- Additional geotechnical work should be completed, based on drilling and additional testing. This is further discussed in section 25.1.4.
- Hydrogeological testing and modeling should be completed to provide a better indication of hydrological conditions and dewatering requirements for the Camp deposit. This is further discussed in section 18.3.
- Based on the revised geology, resource, geotechnical, and hydrogeological models, The Camp Mine PFS should include:
  - Update mining method and stope design parameters
  - Update mine design
  - Updated production schedule
  - A complete ventilation model, based on updated mine design and schedule
  - Updated engineering for all mine utilities and services.
  - Backfill trade-off study to evaluate Pastefill vs currently planned waste rock and cemented rock fill.

- Updated cost estimate to PFS standards
- The estimated cost for surface and underground mine designs to PFS Standards is \$400,000.
- Following completion of a positive PFS, perform pilot hole drilling to determine depth of saprock overburden over the Camp deposit, and quality of this for the two initial adit locations. The drilling may indicate another location is more desirable. The estimated cost is approximately \$100,000.
- Following completion of a positive PFS, conduct underground test mining of the Camp mineral zones. This can be done near the portal area, as the Camp deposit mineralization extends to a point very close to the surface near the proposed portal site. Development of a single adit to gain access to the mineral zones would allow Luminex to better understand the Camp deposit ore bodies by:
  - Performing infill drilling to understand grade and width variability on local development & stope scales.
  - Obtaining bulk sample for process testing.
  - Testing geotechnical assumptions by instrumenting and monitoring a test stope.
  - Providing a drill platform to support infill drilling for early years mine production.
  - Providing an advanced “starting point” for when mine construction is approved.

Estimated costs of the test mining program are approximately \$2.25 M. If properly designed, the test mining excavations will be an integral part of the mine, so these costs are not “in addition” to the mine capital costs but can be considered as “at risk early works.”

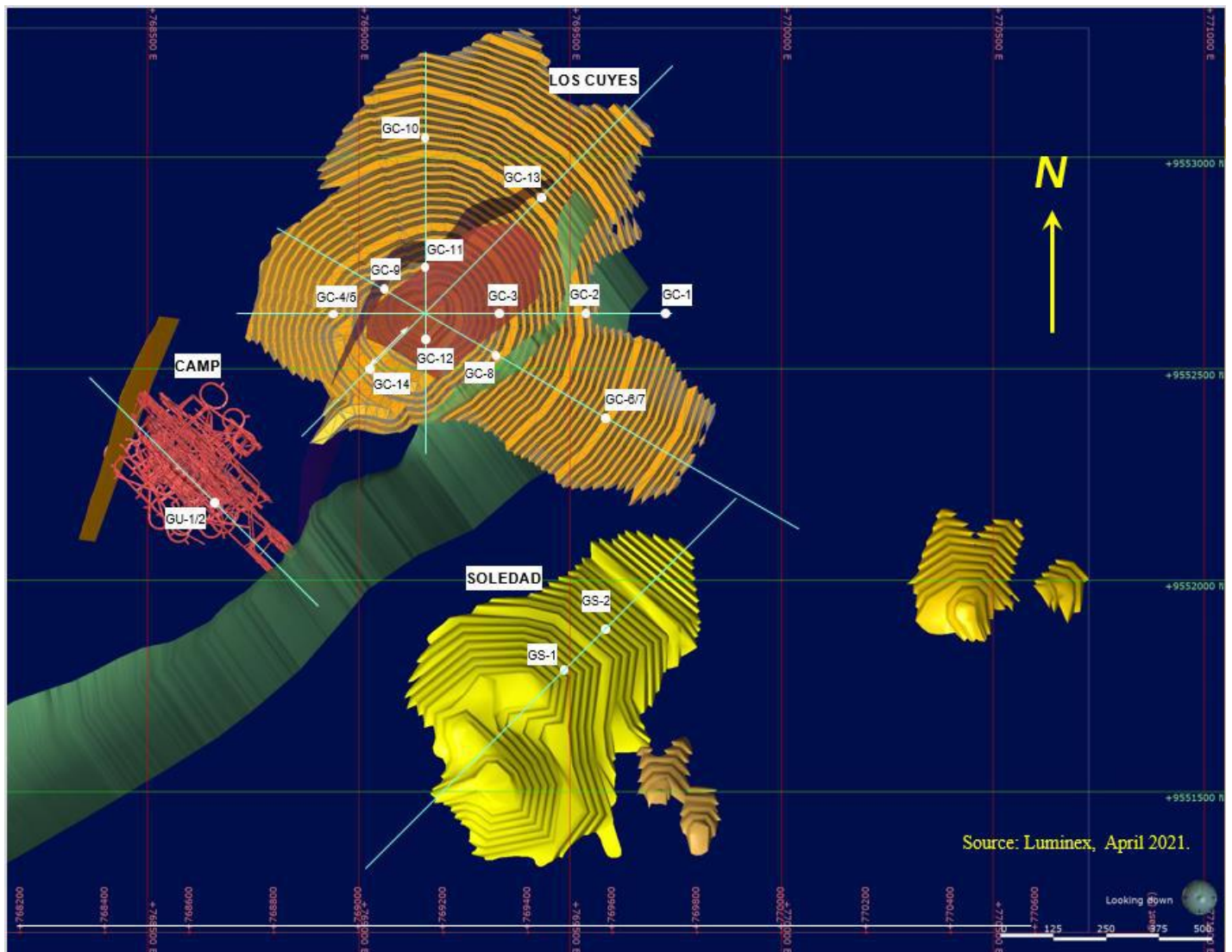
#### **26.2.4 Mine Geotechnical**

Although Luminex has collected geotechnical data from surface and drilling during its tenure at the Condor North area, the spatial distribution of the data is not uniform across the site. This fact, combined with the high topographic relief at the site and the criticality of proposed high pit slopes, warrants a site characterization program for the PFS stage that is more comprehensive and more advanced than is typical for similar mine development projects.

##### **26.2.4.1 Drilling**

An eighteen-hole, 6000-m geotechnical drilling program is recommended for the PFS stage of the Condor North area. This program would be comprised of fourteen holes in the Los Cuyes deposit and two each for the Camp and Soledad deposits. The holes at Los Cuyes should be located along four radial sections corresponding to the highest planned slopes. For Soledad, two holes are proposed on a section corresponding to the longitudinal axis of the deposit. The Camp underground deposit should include one additional vertical hole to intersect the entirety of the orebody and an inclined hole to the northwest in order to intersect the Camp Fault to confirm its orientation and the nature of fault and wall rock. The proposed drilling program is summarized in Table 26-2. It is likely that some of the proposed holes will serve as dual purpose infill holes for resource definition, although this will need to be verified. All holes should be televiewer logged utilizing both optical and acoustic methods. Core should be geotechnically logged and photographed at the drill sites to minimize negative rock quality bias from disturbance during transport. Strength profiling by point load testing should also be continued, as per the current Project practice.

Figure 26-1: Proposed Geotechnical Drilling Program



Source: W&N, 2021.

Table 26-2: PFS Geotechnical Drilling Program

LOS CUYES						
Section	Borehole No.	Length (in)	Length (m)	Azimuth (deg)	Inclination (deg)	Target / Comments
C-000	GC-1	1	150	90	-70	Upper natural slope characterization
	GC-2	1.5	230	270	-75	Intersect Piedras Blancas Fault & mid east wall
	GC-3	2.07	310		-90	Intersect Josefina Fault & lower east wall
	GC-4	2.3	350	90	-70	Intersect Fierosos Fault & lower west wall
	GC-5	1.5	230	270	-70	Mid west wall
C-030	GC-6	1.6	190	120	-60	Upper southeast wall
	GC-7	2.3	270	300	-80	Mid southeast wall
	GC-8	2.5	300		-90	Intersect Piedras Blancas and Josefina Faults & lower southeast wall
	GC-9	2.8	330	300	-80	Intersect Josefina and Fierosos Faults & lower northwest wall
C-270	GC-10	1.5	170	0	-60	Upper north wall
	GC-11	2.8	310	0	-60	Intersect Josefina and Fierosos Faults & mid north wall
	GC-12	4.3	480	0	-70	Intersect Josefina and Fierosos Faults & lower north wall
C-315	GC-13	2.2	240	45	-60	Mid northeast wall
	GC-14	2.2	240	225	-80	Mid southwest wall with haul ramp system
			3800			
Contingency			500			
<b>Sub Total Cuyes</b>			<b>4300</b>	<b>m</b>		
SOLEDAD						
	GS-1		370		-90	Lower slope along pit axis
	GS-2		200	45	-60	Mid slope along pit axis
			570			
Contingency			30			
<b>Sub Total Soledad</b>			<b>600</b>	<b>m</b>		
CAMP						
	GU-1		650		-90	Along vertical mine axis
	GU-2		400	45	-60	Intersect Camp Fault
			1050			
Contingency			50			
<b>Sub Total Camp UG</b>			<b>1100</b>	<b>m</b>		
<b>TOTAL DRILLING PROGRAM:</b>			<b>6000</b>	<b>m</b>		

#### 26.2.4.2 Mapping

It is recommended that site access roads be mapped for the thickness and character of surficial soil deposits (colluvium, saprolite, saprock and weathered rock). Road cut mapping should be supplemented by test pit excavations. The information should be used to develop thickness maps and to document the engineering properties of these deposits based on laboratory testing.

Rock outcrops and access road cuts in rock should be structurally mapped to record the orientation (dip / dip direction) and geologic character of natural discontinuities in the rock mass, including joints, faults, contacts, foliation / cleavage and bedding. Mapping procedures should be in accordance with published rock engineering guidance such as the International Society of Rock Mechanics (ISRM).

#### 26.2.4.3 Laboratory Testing

Laboratory testing, including moisture content, gradation, triaxial strength, Atterberg limits, and density, should be performed to classify the soil types. If undisturbed samples are retrieved from core or test pits, they should be moisture-preserved for shipment and subsequent testing.

Rock testing should include direct shear of natural discontinuities and of artificial sawn surfaces for representative rock types. Laboratory point load tests and unconfined compressive tests of adjacent core samples should be undertaken to develop a site-specific correlation factor between the strength tests. Rock testing must be performed on undisturbed, moisture-preserved core samples.

All soil and rock testing should be performed at accredited university or commercial laboratories.

#### 26.2.4.4 Structural Modeling

The structural model should be updated to incorporate all new drilling and surface mapping available at the time the PFS is completed. Borehole fault intersections should be traced for continuity between holes and input to 3D visualization software.

#### 26.2.4.5 Hydrogeology

Studies are required to evaluate and characterize the surface and groundwater regime to:

- Develop modelling predictions as to the effects of the pit excavation on the groundwater drawdown profile.
- Refine stability analyses for underground openings.
- Estimate pumping requirements for the pits and for the underground operation.

The drawdown information is required as input to pit slope stability analyses and is expected to be a critical factor to achieve high slopes at stable slope angles due to the negative effect of groundwater pressure on rock mass shear strength and discontinuity shear strength.

It is anticipated that hydrogeologic investigations will be closely associated with geotechnical investigations and be performed in geotechnical boreholes selected from those previously listed. Groundwater investigations should include packer testing for hydraulic conductivity, piezometer installations to determine seasonal and transient variation in water levels, and possibly well pumping tests. A three-dimensional model of the pits and underground should be developed with the ability to predict progressive groundwater changes during the mine life.

It is further anticipated that the groundwater studies will be performed in parallel with surface water studies by a qualified professional firm. As such, the cost for this program has not been estimated within the geotechnical scope.

#### 26.2.4.6 Rock Engineering Analyses

After the new data are available, the rock engineering analyses should include the following tasks:

- Update the structural fabric database to incorporate televiewer and mapping data across the project site and evaluate the data for spatial variation and/or lithologic correlations for the individual deposits (Los Cuyes, Camp, Soledad).
- Update the rock mass geomechanical parameters and revise design values, as required.
- Develop colluvium, saprolite and weathered rock geomechanical parameters and the spatial thickness variation. Evaluate the hazard posed by upslope soil / weathered rock deposits relative to pit crests and design conceptual mitigation measures accordingly.
- Perform slope stability analyses to optimize the design for each wall for all pits.
- Update stope, pillar and underground access design parameters based on structural data and refined rock mass strength parameters.

#### 26.2.4.7 Cost Estimate

The estimated cost for the PFS level geotechnical investigation and design of the Condor North pit slopes and underground workings is summarized in Table 26-3.

**Table 26-3: Geotechnical Cost Estimate**

Item	Unit	Quantity	Unit Cost	Extended
Triple-tube drilling & core logging	M	6000 <sup>1</sup>	\$ 230	\$ 690,00
Televiewer surveys	M	6000	\$ 21	126,000
Surficial & structural fabric mapping	Ls	1		25,000
Laboratory Testing	Ls	1		30,000
Regional structure mapping & modeling	Ls	1		60,000
Rock engineering analysis & reporting	Ls	1		250,000
Note 1: Assume 50% of geotechnical boreholes included in resource drilling costs.				
			<b>Grand Total</b>	<b>\$ 1,181,000 (USD)</b>

Note: Hydrogeological investigations by others.

#### 26.2.5 Process and Infrastructure Engineering

The estimated cost for process and infrastructure engineering for the PFS is \$700k and assumes 15% of the engineering will be completed. Engineering deliverables would include:

- Process trade-off studies (comminution, flotation and cyanidation options).
- Flow diagrams (comminution, recovery processes, tails).

- Detailed equipment list.
- Power listing and consumption estimate.
- Architectural (building sizes) to estimate steel and concrete quantities.
- Preliminary piping and instrument diagram.
- Detailed material and water balance.
- Detailed process design criteria.
- GA and Elevation drawings (for crushing/overland conveying, comminution, leaching, recovery, reagents).
- Electrical single line drawing.
- Equipment and supply quotations updated, and sources determined.
- Estimate of equipment and materials freight quantities.
- Capital cost estimate.
- Operating cost estimate.
- Major equipment Spare Part lists and warehouse inventory cost estimate.
- Construction manpower estimate.
- Construction schedule.

#### **26.2.6 Infrastructure**

The following activities are recommended to support infrastructure design for the PFS phase.

##### **26.2.6.1 Geotechnical Investigation**

The following recommendations are made for geotechnical site investigation work:

- Completion of fourteen 90-m geotechnical boreholes, 35 test pits, and geophysics in the areas of the TSF, WRSF, plant site, overland conveyors and haul roads to investigate and confirm foundation conditions, specifically the extent of the saprolite and colluvium along with depth to groundwater and to bedrock.
- Completion of fifteen test pits and four 50-m boreholes to confirm suitability and quantity of borrow materials for infrastructure construction.
- Additional laboratory index testing, including compaction tests, mechanical strength tests, and permeability tests on foundation soils and potential borrow materials.
- Laboratory testing to confirm the physical and mechanical properties of foundation soils, borrow materials, and tailings.
- Development of both factual and interpretative reports.
- Completion of a seismic hazard study.

The estimated cost of these recommendations is approximately \$ 375,000 including the drilling and excavator rental.

#### 26.2.6.2 Site Infrastructure

#### 26.2.6.3 TSF, WRSF, Access Road, Haul Road (outside of WRSF and pits), Plant Platform Design and Analysis

The following recommendations are made:

- Conduct a trade-off study for management of potential acid generation and related issues.
- Develop design criteria for major infrastructure elements.
- Perform dam break analysis and dam classification.
- Carry out a stability analyses to refine and optimize the TSF and WRSF designs.
- Develop surface runoff and seepage management structure designs for the TSF and WRSF.
- Conduct Seepage analyses for the TSF and WRSF.
- Develop general slope and benching configuration for the WRSF.
- Develop the TSF design with a deposition plan.
- Develop design of access road and haul roads (outside of the WRSF and pits).
- Develop design for plant platform and foundation parameters for plant facilities.
- Develop cost estimates for the TSF, water management system for the WRSF, access road, plant platform.

The recommended budget for these items is \$310,000.

#### 26.2.6.4 Geochemistry

A broad geochemistry program is recommended to support a PFS based on the initial work in the PEA . Samples, particularly from the three pit areas and underground should be collected and analyzed. The following program is recommended in order to meet internationally-accepted standards for geochemistry testing as described by INAP (2009):

- Approximately 100 static testing samples of waste rock in the three pit areas.
- Approximately eight kinetic cell testing on select waste rock samples or approximately eight field barrel testing on select waste rock samples.
- Approximately ten static tests on tailings produced during execution of the PFS metallurgical studies.
- Approximately three kinetic cell tests on selected tailings samples.
- Selection of materials and interpretation of laboratory data.

The estimated cost for the geochemistry program is approximately \$170,000.

#### 26.2.6.5 Water Management

A water management program should be developed to support the PFS that includes the following:



- Implementation of a surface water flow and quality monitoring and sampling program focused on areas likely to be affected by Project Infrastructure; the estimated annual analytical cost to support this part of the program is approximately \$32,500.
- Conduct a hydrological program that includes meteorological and hydrology data gathering within catchment areas contributing runoff to the process plant, open pits and WRSF, and TSF, as well as the amount of groundwater inflow to the open pits and underground mine; scheduling requirements for this program need to be confirmed based on the ultimate mine plan.
- The predictive water quality model should be updated to review the requirements for water treatment and/or discharge.
- Bench-scale settling testing should be performed to characterize the required retention time for suspended solids in the runoff water from the WRSF and TSF.

The estimated cost of the latter three components is approximately \$180,000.

#### 26.2.6.6 Groundwater Model

- A three-dimensional groundwater model to aid in pit and underground dewatering programs for the PFS.

The estimated cost is approximately \$70,000.

#### 26.2.6.7 Water Balance

A site-wide water balance should be developed using the GoldSim platform; the estimated cost is approximately \$30,000.

#### 26.2.6.8 Water Supply

The revisions to the water balance are expected to de-risk the Project water supply. Furthermore, groundwater modeling described above (see section 18.3), a revised water balance, and further hydrogeologic characterization will provide essential insight to the feasibility of supplying the mine requirements with groundwater. The estimated cost for water supply is \$30,000.

#### 26.2.6.9 Closure Plan

The conceptual closure plan should be updated to incorporate the new information developed in the PFS. The estimated cost of such an update is approximately \$20,000.

### 26.2.7 Social

Social recommendations related to the opportunities identified in Section 25.2 include the following:

- An independent social baseline study is recommended to examine the results of available census data, the effects of the COVID-19 pandemic, and other factors that may impact the expectations and concerns that local community residents, regulatory authorities, and other external stakeholders may have with respect to the future of the Project (the estimated cost to complete the study is approximately \$60,000).
- Continue to develop and strengthen relations with local communities through ongoing communications and implementation of management plans and social programs that support local development needs and target different segments of the population (e.g., women, children, and the elderly).
- Review and update the Condor North stakeholder map prior to the PFS and/or FS.
- Continue to refine and implement the stakeholder engagement plan and social programs in anticipation of (and in response to) changes in the Condor North project profile and related social expectations.
- Continue to make targeted efforts to maximize sourcing from local providers; in the near term, work can be done to keep identifying existing and potential providers, as well as opportunities and requirements through the implementation of a progressive program that evolves and expands to keep pace with changing Project needs.
- Develop, implement, and periodically review and update a program to identify and purchase or otherwise secure long-term access to lands needed for infrastructure, environmental or social buffers, or other purposes.
- Work with national, provincial and local authorities, as well as local communities, to develop sustainable long-term solutions to issues related to small scale artisanal and illegal mining.

### **26.2.8 Environmental**

Environmental recommendations related to the opportunities listed in Section 25.2 include the following:

- Conduct an erosional impacts survey of the three Condor North concessions, identifying areas requiring immediate stabilization or reclamation, and implement appropriate erosion control and prevention measures with a particular focus on land areas required for Project infrastructure.
- Identify any adjacent informal mining activity, legal or illegal, that could impact geotechnical stability or other environmental conditions within the Condor Project concessions and initiate appropriate action with relevant government authorities.
- Develop and implement an updated baseline environmental monitoring program, including:
  - development an environmental baseline program for the next phase of work that includes surface water investigations to support a management program that monitors climate conditions, surface water flows(via installation of flume structures), sediment sampling in runoff, updated water quality sampling points, and testing associated testing and analysis;
  - installation of additional groundwater wells and implementation of an aquifer testing program;
  - Installation of air quality monitoring sensors;
  - Including all environmental monitoring and sampling required by the current PAE;

- continued collection of meteorological data from the Condor Camp meteorological station;
  - regular monitoring of published climate change information for potential impacts on the Condor North water balance and other operational considerations;
  - collection of flow measurements from illegal/artisanal workings;
  - continued piezometer measurements from specified locations below the proposed TSF and WRSF; and
  - surface water quality sampling from specified stations, located up- and down-gradient of proposed Condor North infrastructure in all affected drainages, to be analysed against the standards defined in applicable Ecuadorian discharge standards and (IFC, 2007)
- Conduct a comprehensive transportation study of primary traffic routes between the Ports of Guayaquil and Bolivar and the Project site, considering applicable requirements of (IFC, 2007), (IFC, 2012a), and the ICMC; this will form the basis of the first iteration of a Transportation Management Plan for the Project.
  - Conduct a baseline biodiversity study focused within the two Project concessions; develop an appropriate Biodiversity Monitoring and Management Plan and ecological offset strategy commensurate with the results of the study and the requirements of International Finance Corporation (IFC) Performance Standard 6, "Biodiversity Conservation and Sustainable Management of Living Natural Resources" (IFC, 2012b).
  - The estimated cost of the environmental program is \$214,000.

## 27 REFERENCES

- Ambienconsul, 2006. Condor Gold Project Environmental Impact Assessment. Ambiente Consultores Ambienconsul Cia. Ltda, Quito, Ecuador. April 2006.
- Arce, J.R., 2018. Santa Barbara, Zamora, Ecuador, Ground magnetometry and induced polarization surveys. Internal document, 11 pp.
- Barton, N., Lien R. and Lunde J., 1974. Engineering classification of rock masses for the design of tunnel support. *Rock Mechanics*, Vol. 6, No. 4, pp. 189-236.
- Barton, N. 2002. Some new Q-value correlations to assist in site characterization and tunnel design. *Int. J. Rock Mech. And Min. Sci.* nr. 39, pp. 185-216.
- Bieniawski, Z.T. (1989). "Engineering Rock Mass Classifications." Wiley and Sons, New York. p. 251.
- Canadian Dam Association (CDA), 2019. Technical Bulletin - Application of Dam Safety Guidelines to Mining Dams. 2019 Edition.
- CIM, 2014. Definition Standards for Mineral Resources and Mineral Reserves (May 2014).
- CIM, 2019 Estimation of Mineral Resources and Mineral Reserves Best Practices Guidelines (November 29, 2019)
- CIMM, 1995. Metallurgical laboratory testwork on the San Jose gold ores. Internal report for Condor Mining S.A, p. 82.
- Condormining, 2020. Recopilación de Información Ambiental, Proyecto Cóndor Fase de Exploración Avanzada, Periodo 2013 – 2020. Condormining Corporation S.A., Quito, Ecuador. December 2020.
- Drobe, J.L. Stein, D. Gabites, J., 2013. Geology, Mineralization and Geochronological Constraints of the Mirador Cu-Au Porphyry District, Southeast Ecuador. *Economic Geology*, v. 108, pp. 11–35.
- Easdon, M. and Oviedo, L., 2004. NI 43-101 Technical report on the Condor Project, southeastern Ecuador. p. 131.
- Geofísica Consultores, 2007. Reporte Geofísico Polarización Inducida, Resistividad, Magnetometría, Proyecto Condor for Goldmarca Limited, internal report, p. 48.
- Equator Principles Association, 2013. The Equator Principles III. Accessed online at [http://equator-principles.com/wp-content/uploads/2017/03/equator\\_principles\\_III.pdf](http://equator-principles.com/wp-content/uploads/2017/03/equator_principles_III.pdf). Equator Principles Association. June 2013.
- Hastings, M., 2013. SRK Review of Drilling, QA/QC and Database. Internal report. p. 22.
- Hedenquist, J.W., Izawa, E., Arribas, A., Jr., and White, N.C., 1996. Epithermal gold deposits: Styles, characteristics, and exploration: *Resource Geology Special Publication 1*, p. 17.

- Hedenquist, J.W., 2007. Mineralization aspects of the Pachicutza epithermal and Santa Barbara porphyry prospects, Condor Project, Zamora-Chinchipe Province, southeastern Ecuador. Internal report for Goldmarca Ltd., p. 24.
- Hughes, T.N.J., 2008. Technical report on the Condor Gold Project for Ecometals Ltd. Internal report, p. 90.
- ICMI, 2021. International Cyanide Management Code: Principles and Standards of Practice. Accessed online at <https://www.cyanidecode.org/about-cyanide-code/cyanide-code>. International Cyanide Management institute, Washington DC. April 2021.
- ICMM, 2020. Global Industry Standard on Tailings Management. Accessed online at [https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard\\_EN.pdf](https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf). International Council for Mining and Metals. August 2020.
- IML, 2006. San Jose Evaluation testwork – Condor Gold Project for Goldmarca Limited. Internal report, p. 66.
- IFC, 2007. Environmental, Health, and Safety Guidelines for Mining. International Finance Corporation, Washington, DC. December 2007.
- IFC, 2012. IFC Performance Standards on Environmental and Social Sustainability. International Finance Corporation, Washington, DC. January 2012.
- IFC, 2007. International Finance Corporation EHS Guidelines for Mining, Accessed at: <https://www.ifc.org/wps/wcm/connect/595149ed-8bef-4241-8d7c-50e91d8e459d/Final%2B-%2BMining.pdf?MOD=AJPERES&CVID=jgezAit&id=1323153264157>. International Finance Corporation, Washington, DC, December 10, 2007.
- IFC, 2012a. IFC Performance Standards for Environmental and Social Sustainability. Accessed at: [https://www.ifc.org/wps/wcm/connect/24e6bfc3-5de3-444d-be9b-26188c95454/PS\\_English\\_2012\\_Full-Documents.pdf?MOD=AJPERES&CVID=jkV-X6h](https://www.ifc.org/wps/wcm/connect/24e6bfc3-5de3-444d-be9b-26188c95454/PS_English_2012_Full-Documents.pdf?MOD=AJPERES&CVID=jkV-X6h). International Finance Corporation, Washington, DC, January 1, 2012.
- IFC, 2012b. IFC Performance Standards for Environmental and Social Sustainability: PS 6, Biodiversity Conservation and Sustainable Management of Living Natural Resources. Accessed at: [https://www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/sustainability-at-ifc/policies-standards/performance-standards/ps6](https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps6). International Finance Corporation, Washington, DC, January 1, 2012.
- Laudauro, A., 2004. Breccias – San Jose, Ecuador, Direct Cyanidation Metallurgical Testwork for Goldmarca Mining Peru S.A. Internal report, p.19.
- Leary, S., Sillitoe, R.H., Stewart, P. W., Roa, K.J., and Nicolson, B. E., 2016. Discovery, Geology, and Origin of the Fruta del Norte Epithermal Gold-Silver Deposit, Southeastern Ecuador, Economic Geology, v 111, pp. 1043--1072.
- Litherland, M., Fortey, N.J., and Beddoe-Stephens, B., 1992. Newly discovered Jurassic skarnfields in the Ecuadorian Andes: Journal of South American Earth Sciences, v. 6, pp. 67–75.

- Lowell, J. D. and Guilbert, J.M., 1970. Lateral and vertical alteration-mineralization zoning in porphyry ore deposits. *Economic Geology* vol. 65, pp 373-408. Lumina, 2018. Internal company documents.
- Lumina, 2018. Internal company documents.
- Lumina, 14 May 2018. Press release, p. 6.
- Luminex, 2020. Internal company documents.
- Matthews, K.E., Hoek, E., Wylie, D., And Stewart, 1981. Prediction of Stable Excavation Spans for Mining at Depths Below 1000 M in Hard Rock. CANMET DSS Serial No: 0sQ80-00081., Ottawa, ON.
- Maynard, A., 2004. NI 43-101 Technical Report, Independent Geological Evaluation, Jerusalem Project, Zamora Chinchipe, Ecuador for Dynasty Metals & Mining Inc. p. 34.
- Maynard, A., Jones, P.A. 2011. NI 43-101 Technical Report (revised) on the Condor Gold Project located in Zamora, Ecuador. p. 124.
- Maynard et al., 2013. NI 43-101 Technical Report on the Condor Gold and Copper Project located in Zamora, Ecuador. 121 pp. Maynard, A., Jones, P.A, and Suda, B. 28 August 2013.
- Maynard and Jones, 2014. NI 43-101 Technical Report on the Condor Gold and Copper Project located in Zamora, Ecuador. 130 pp. 2017 (Pratt, 2017) Pratt, W.T., 2017. Geological mapping program, Los Cuyes, Zamora-Chinchipe, Ecuador. Internal document, p. 61. Maynard, A., Jones, P.A. 8 May 2014.
- McMullan, S.R. 2007. Notes on Geophysical Surveys – Chinapintza, Los Cuyes, San Jose for Goldmarca Ltd. Internal document, p. 14.
- Morrison, G., 2007. Ore Controls and exploration potential at the Condor Project, Ecuador, Internal document, p. 4.
- Morrison, G., and Worsley, M., 2008. Ecometals Condor Project, Summary Evaluation & Proposed Work Program. Internal Report to Ecometals Ltd., p. 6.
- Panteleyev, A., 1995. Porphyry Cu<sup>+</sup>/-Mo<sup>+</sup>/-Au, in Selected British Columbia Mineral Deposit Profiles, Volume 1 - Metallics and Coal. Lefebure, D.V. and Ray, G.E., Editors. British Columbia Ministry of Energy of Employment and Investment.
- PDAC, 2012. Prospector & Developers' Association of Canada, Toronto, Canada. Principles and Guidance Notes. <http://www.pdac.ca/programs/e3-plus/principles>
- Phillips, R.J., 2013. Metallurgical testing of Santa Barbara ore deposit samples. Phillips Enterprises LLC report for Ecuador Gold and Copper Corp. Internal document, p. 81.
- Plenge, G., 2020. Internal Memo for Luminex Resources Corp., p. 12.
- Pitard, F. Magri, E., 1995. Estudio de Heterogeneidad. Internal report for Condor Mining.
- Potvin, Y., 1988. Empirical Open Stope Design in Canada, Dept. Mining and Mineral Processing, University of British Columbia, p. 350.

- Potvin, Y., and Hudyma, M., 1989. Rib pillar design in open stope mining. Rock Mechanics. CIM Bulletin. Vol. 82. No. 927. pp. 31 – 36.
- Pratt, W.T., 2017. Geological mapping program, Los Cuyes, Zamora-Chinchipe, Ecuador. Internal document, p. 61.
- Pratt, W.T., 2019. Modelling and Structural Interpretation of Camp Zone, Condor, Ecuador. Internal document, p. 44.
- Quispesivana, L., 1996. Geología de los cuadrángulos de Puesto Llave y Rio Comaina: Boletín del Instituto Geológico Minero y Metalúrgico [Peru], ser. A, no. 64, p.120.
- Randall, T., 2013. Results of diagnostic leaching on a sample from the Santa Barbara Project. RDi report for Ecuador Gold and Copper Corp. Internal document, p. 8.
- Randall, T, Malhotra, D., 2014. Metallurgical testing of Santa Barbara deposit ore samples. RDi report for Ecuador Gold and Copper Corp. Internal document, pp. 51. Read, J and Stacey, P (2009). Guidelines for Open Pit Slope Design, CSIRO Publishing, p. 496.
- Report of Investigation No. 18525, Luminex, Condor Project, Camp Zone Epithermal Au-Ag-Zn Deposit, Zamora Province, Southeast Ecuador, Progress Report, dated July 27, 2020, by C.H. Plenge & C.I.A. S.A. (Plenge) of Lima, Peru.
- Report of Investigation No. 18525-73-89, Progress Report, Luminex Condor Project, Camp, Los Cuyes, Enma Samples, Zamora Province, Southeast Ecuador, dated May 26, 2021, by C.H. Plenge & C.I.A. S.A. of Lima, Peru
- Ronning, 2003). Review of the Jerusalem Project, Ecuador. p.108. Maynard, A., Jones, P.A. 8 May 2014.
- Ryan, T.M. and Pryor, P.R., 2000. Designing catch benches and interramp slopes. Slope Stability in Surface Mining, pp.27 – 38. SME.
- Short et al., 2015. NI 43-101 Technical Report – Preliminary Economic Assessment of the Santa Barbara Gold and Copper Project in Zamora, Ecuador. GBM Minerals Engineering Consultants. p.188. Short, M., Maynard, A.J., Jones, P.A., 19 May 2015.
- Sillitoe, R.H., 1993. Epithermal models: Genetic types, geometric controls and shallow features in Geological Association of Canada, Special Paper 40, pp. 403–417.
- SIM Geological Inc., 2020. Internal figures.
- Sim, R., Davis, B., May 2018. Amended and Restated NI 43-101 Technical Report, Condor Project, Ecuador. p.131.
- Sim et al, 2020. Luminex Resources Corp. Condor Project, Zamora-Chinchipe Province, Southeastern Ecuador, NI 43-101 Technical Report. Robert C. Sim, Bruce Davis, PhD, and Warren Pratt, Effective Date March 4, 2020.
- Toledo, F., Toledo, X., 2008. Condor Gold QA/QC. Internal report for Ecometals Ltd., p. 89.
- Whistler Consultora, 2017. Desktop Biodiversity Assessment of the Areas: Orquídeas, Cascas 1, Cascas 2, Yawi, La Canela and Tres Picachos, Zamora Chinchipe - Ecuador. Whistler Consultora CIA. Ltda., Cumbaya, Ecuador. April 2017.

White, N.C., Hedenquist, J.W., 1995. Epithermal Gold Deposits: Styles, Characteristics and Exploration. SEG Newsletter, vol. 23, pp. 1, 9–13.

Williams, H., 2008. Geological Mapping of the Condor Intrusive Complex, Condor Gold Project, Zamora Chinchipe. Internal Report by Ecometals Ltd., 2008, p.73.



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## 28 DATE AND SIGNATURE PAGE

### CERTIFICATE of QUALIFIED PERSON

Bruce M. Davis, FAusIMM, BD Resource Consulting, Inc.

I, Bruce M. Davis, FAusIMM, do hereby certify that:

1. I am an independent consultant of BD Resource Consulting, Inc., and have an address at 4253 Cheyenne Drive, Larkspur, Colorado USA 80118.
2. I graduated from the University of Wyoming with a Doctor of Philosophy (Geostatistics) in 1978.
3. I am a Fellow of the Australasian Institute of Mining and Metallurgy, Number 211185.
4. I have practiced my profession continuously for 42 years and have been involved in mineral resource and reserve estimations and feasibility studies on numerous underground and open pit base metal and gold deposits in Canada, the United States, Central and South America, Europe, Asia, Africa and Australia.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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 am responsible for the preparation of Sections 11 and 12 and portions of Sections 1, 14, 25, 26 and 27 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021, ("the "Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
7. I have not visited the Condor Project.
8. I am independent of Luminex Resources Corp. applying all the tests in Section 1.5 of NI 43-101.
9. I have had prior involvement with the property that is the subject of the Technical Report. I am an author of the previous technical reports on the Condor Project that have effective dates of May 14, 2018 and March 4, 2020.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the portions of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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Bruce M. Davis, FAusIMM

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## CERTIFICATE OF QUALIFIED PERSON

Scott C. Elfen, P.E.

I, Scott C. Elfen, P.E., do hereby certify that:

1. I am the Global Lead Geotechnical and Civil Services of Ausenco Engineering Canada Inc., 855 Homer Street, Vancouver, BC V6B 2W2, Canada.
2. I graduated from the University of California, Davis with a Bachelor of Science degree in Civil Engineering (Geotechnical) in 1991.
3. I am a Registered Civil Engineer in the State of California (No. C56527) by exam since 1996 and I am also a member of the American Society of Civil Engineers (ASCE), Society for Mining, Metallurgy & Exploration (SME) that are all in good standing.
4. I have practiced my profession continuously for 24 years and have been involved in geotechnical, civil, hydrological, and environmental aspects for the development of mining projects; including feasibility studies on numerous underground and open pit base metal and precious metal deposits in North America, Central and South America, Africa and Australia.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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 am responsible for the preparation of Sections 2, 3, 4, 5, 6, 18 and 20, and portions of Sections 1, 21, 24, 25, 26, and 27 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021 ("the "Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
7. I have not visited the Condor Project.
8. I am independent of Luminex Resources Corp. applying all of the tests in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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Scott C. Elfen, P.E.

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**CERTIFICATE of QUALIFIED PERSON**  
**Robert S. Michel, SME Registered Member**

I, Robert S. Michel, SME Registered Member, do hereby certify that:

1. I am a Principal Consultant and have an address at 133 Furman Ave., Asheville, NC.
2. I graduated from the Colorado School of Mines with a B.S. in Metallurgical Engineering in 1984 and from Kettering University with a M.S. in Manufacturing Management in 1993.
3. I am a member, in good standing, of the Society for Mining, Metallurgy and Exploration, Inc. (SME) and am an SME Registered Member, No. 04170421RM.
4. I have worked as a Metallurgical Engineer, manufacturing manager, or Project Manager continuously for a total of 37 years since my graduation from university. In the past twelve years I have worked as a Project Manager on the development of underground and open pit mining projects and related infrastructure in Peru, Chile, Colombia, Macedonia, Mali, Ecuador and in the United States.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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 am responsible for the preparation of Sections 19, 21, and 22 and portions of Sections 1, 24, 25, 26, and 27 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021 (the "Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
7. I have not visited the Condor Project.
8. I am independent of Luminex Resources Corp. applying all of the tests in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the Sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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**Robert S. Michel, SME Registered Member**

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**CERTIFICATE OF QUALIFIED PERSON**

**Nelson D. King, SME Registered Member**

I, Nelson D. King, SME Registered Member, do hereby certify that:

1. I am a Principal Consultant (Metallurgical Engineer) with N D King Consulting LLC and have an address at 8317 Devinney Street, Arvada, Colorado, U.S.A.
2. I graduated from Colorado School of Mines with a B.Sc. degree in Metallurgical Engineering in 1972.
3. I am a member, in good standing, of the Society for Mining, Metallurgy and Exploration, Inc. (SME) and am an SME Registered Member, No. 4152661 RM.
4. I have 48 years of relevant experience including work in copper, gold, silver, lead, zinc and molybdenum operations in the U.S.A., engineering and construction company experience in the U.S.A. and Canada and metallurgical consulting experience on global mining projects from offices located in the U.S.A. and Australia.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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 am responsible for the preparation of Sections 13, 17 and portions of Sections 1, 21, 25, 26 and 27 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021 ("the Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
7. I have not visited the Condor Project.
8. I am independent of Luminex Resources Corp. applying all the tests in Section 1.5 of NI 43-101.
9. I have had prior involvement with the property that is the subject of the Technical Report by providing process design input to a desk top scoping study in 2020.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1"), and the Technical Report and confirm the portions of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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**Nelson D. King, SME Registered Member**

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## CERTIFICATE OF QUALIFIED PERSON

**Robert Sim, P.Ge., SIM Geological Inc.**

I, Robert Sim, P.Ge., do hereby certify that:

1. I am an independent consultant of SIM Geological Inc. and have an address at 508–1950 Robson Street, Vancouver, British Columbia, Canada V6E 1E8.
2. I graduated from Lakehead University with an Honours Bachelor of Science (Geology) in 1984.
3. I am a member, in good standing, of the Association of Professional Engineers and Geoscientists of British Columbia, License Number 24076.
4. I have practiced my profession continuously for 36 years and have been involved in mineral exploration, mine site geology and operations, mineral resource and reserve estimations and feasibility studies on numerous underground and open pit base metal and gold deposits in Canada, the United States, Central and South America, Europe, Asia, Africa and Australia.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (“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 am responsible for the preparation of Sections 7, 8, 9, 10, and 14.1, and portions of Sections 1, 14.3, 24, 25, 26, and 27 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021 (the “Effective Date”), and a release date of September 11, 2021 (the “Technical Report”).
7. I visited the Condor Project on November 29, 2017 and November 30, 2017.
8. I am independent of Luminex Resources Corp. applying all of the tests in Section 1.5 of NI 43-101.
9. I have had prior involvement with the property that is the subject of the Technical Report. I was a co-author of previous technical reports dated May 14, 2020 (effective March 4, 2020) and July 10, 2018 (effective May 14, 2018).
10. I have read NI 43-101, Form 43-101F1 Technical Report (“Form 43-101F1”) and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

“original signed and sealed”

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**Robert Sim, P.Ge.**

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**CERTIFICATE OF QUALIFIED PERSON**

**Joseph S.C. McNaughton, P.E.**

I, Joseph McNaughton, P.E., do hereby certify that:

1. I am the Senior Mining Engineer of Independent Mining Consultants, Inc. at 3560 East Gas Road; Tucson, Arizona, USA.
2. I graduated from the University of Arizona with a Bachelor of Science degree in Mining Engineering in 2012 & a Bachelor of Science degree in Engineering Management in 2012. I also graduated from the Butler University with a Bachelor of Arts degree in Business Finance in 2004. I am a Registered Professional Engineer in the State of Arizona (No. 65646).
3. I have worked as a mining engineer for a total of 10 years. I have worked as a short and long-range mine planner. I have worked on numerous projects that include mine design, mine planning, resource and reserve estimation, scheduling and cost estimation and evaluation.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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.
5. I am responsible for the preparation of Sections 15 and 16 and portions of Sections 1, 24, 25, 26, and 27 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021 ("the Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
6. I have not visited the Condor Project.
7. I am independent of Luminex Resources Corp. applying all of the tests in Section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have provided mine planning and various other engineering support as requested.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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**Joseph McNaughton, P.E.**

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**CERTIFICATE OF QUALIFIED PERSON**  
**John M. Marek, P.E.**

I, John M. Marek, P.E. do hereby certify that:

1. I am currently employed as the President and a Senior Mining Engineer by Independent Mining Consultants, Inc. 3560 E. Gas Road Tucson, Arizona, USA 85714.
2. I graduated from the Colorado School of Mines with a B.S. in Mineral Engineering in 1974 and a Master of Science in Mining Engineering in 1976.
3. I am a member, in good standing, of the Society for Mining Engineers; I am a Registered Member of the American Institute of Mining and Metallurgical; I am a Professional Engineer, Yukon Territory, Canada; . I am a Registered Professional Mining Engineer in the State of Arizona, USA (Registration #12772); and I am a Registered Professional Engineer in the State of Colorado, USA (Registration # 16191).
4. I have worked as a mining engineer, geoscientist, and reserve estimation specialist for more than 45 years. I have managed drill programs, overseen sampling programs, and interpreted geologic occurrences in both precious metals and base metals for numerous projects over that time frame. My advanced training at the university included geostatistics and I have built upon that initial training as a resource modeler and reserve estimation specialist in base and precious metals for my entire career. I have acted as the Qualified Person on these topics for numerous Technical Reports. My work experience includes mine planning, equipment selection, mine cost estimation and mine feasibility studies for base and precious metals projects worldwide for over 45 years.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("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 am responsible for the preparation of Sections 14.2, 14.3 and parts of Section 1 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021 (the "Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
7. I visited the Condor Project during the week of October 22, 2018.
8. I am independent of Luminex Resources Corp. applying the tests in Section 1.5 of National Instrument 43-101.
9. I have had prior involvement with the property that is the subject of the Technical Report. I was involved in two desktop scoping studies that were completed in 2018. And updated in 2020. As of the date of this certificate, these two desktop studies have not been released to the public.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1"), and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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**John M. Marek, P.E.**

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## CERTIFICATE of QUALIFIED PERSON

**Norman I. Norrish, P.E.**

I, Norman I. Norrish, P.E., do hereby certify that:

1. I am a Professional Engineer and have an address at 110 909 Marine Drive, Bellingham, WA 98225
2. I graduated from the University of British Columbia with a Bachelor of Science in Geological Engineering (Geotechnical) and a Master of Science in Mining Engineering (Rock Mechanics).
3. I am a member, in good standing, of the Washington State Board of Registration for Professional Engineers and Land Surveyors (#37407).
4. I have 40 years of experience in the application of rock mechanics to mining, transportation, and civil construction projects including senior level project responsibility for the investigation, design and construction management of transportation projects in mountainous terrain throughout Western North America. I have worked internationally on mining projects in Canada, Argentina, Columbia, Ecuador, Mexico, Panama, Peru, Chile, the Philippines, the former Soviet Union and the Peoples Republic of China. In addition to 36 years of consulting experience, I worked as Senior Mining Engineer for four years at Brenda Mines Ltd, a subsidiary of Noranda Inc.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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 am responsible for the preparation of portions of Sections 1, 16, 25, 26, and 27 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021, (the "Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
7. I have not visited the Condor Project.
8. I am independent of Luminex Resources Corp. applying all of the tests in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the property that is the subject of the Technical Report.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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**Norman I. Norrish, P.E.**



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**CERTIFICATE of QUALIFIED PERSON**

**John C Barber, P.E.**

I, John C Barber, P.E., do hereby certify that:

1. I am the sole owner and Principal of JC Barber LLC of 1618 Morning Stone Drive, Prescott, AZ 86305.
2. I graduated from the Virginia Polytechnic Institute & State University with a Bachelor of Science degree in Mining Engineering in 1979.
3. I am a Registered Professional Engineer in the State of Arizona (No. 50494), a Registered Professional Engineer in the State of Nevada (No. 7202), a Registered Member of the Society for Mining, Metallurgy and Exploration, Inc. (No. 149130RM), and a Fellow of the Australasian Institute of Mining & Metallurgy (No. 208965), (all in good standing).
4. I have practiced my profession as a mining engineer continuously for 42 years since my graduation from university. I have been involved in underground mine operations in management and engineering positions at operating mines and as a consultant responsible for the completion of various levels of study. I have extensive experience in mine design, planning, and cost estimating. I have conducted estimations of mineable inventory and reserves, mine production schedules, equipment and workforce requirements, and capital and operating costs for numerous projects in North, and South America, and Asia.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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 am responsible for the preparation of portions of Sections 1, 16, 25, and 26 of the technical report titled *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021, (the "Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
7. I have not visited the Condor Project.
8. I am independent of Luminex Resources Corp., applying all of the tests in Section 1.5 of NI 43-101.
9. I have had prior involvement with the property that is the subject of the Technical Report. In October & November, 2020, I developed early-stage conceptual mining plans and mine production schedule for the Camp deposit for Luminex Resources' internal use.
10. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
11. As of the Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021

"original signed and sealed"

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**John C Barber, P.E.**

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## CERTIFICATE OF QUALIFIED PERSON

**Leo Hathaway, P.Geo., Hathaway Consulting Ltd.**

I, Leo Hathaway, P.Geo, do hereby certify that:

12. I am **not** independent of Luminex Resources Corp. as defined in Section 1.5 of NI 43-101. I am an Officer of the Luminex Resources Corp. (Senior Vice President Exploration) and own shares and options in the company.
13. I am a consultant of Hathaway Consulting Ltd. and have an address at 4755 West 4<sup>th</sup> Avenue, Vancouver, BC, V6T 1C3.
14. I graduated from the University of Plymouth, UK, with an Honours Bachelor of Science (Applied Geology) in 1994 and from Royal school of Mines, Imperial College, London, UK with a Master of Science (Mineral Exploration) in 1995.
15. I am a member, in good standing, of the Association of Professional Engineers and Geoscientists of British Columbia, License Number 52181.
16. I have practiced my profession continuously for 27 years and have been involved in mineral exploration through geology, geochemistry, geophysics and other means, mine geology, geometallurgical studies, mineral resource and reserve estimations for economic studies on numerous underground and open pit base metal, gold and other deposits in the Americas, Europe, Asia, Africa and Australia.
17. I have read the definition of "qualified person" set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("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.
18. I am responsible for the preparation of Section 23, and portions of Sections 1, 25, and 26 of the technical report titled, *Condor Project, NI 43-101 Technical Report on Preliminary Economic Assessment, Zamora-Chinchipe Province, Ecuador*, with an effective date of July 28, 2021 (the "Effective Date"), and a release date of September 11, 2021 (the "Technical Report").
19. I have visited the Condor Project numerous times, most recently on February 19-20, 2020 and October 2-4, 2019 and June 12-14, 2019.
20. I have had prior involvement with the property that is the subject of the Technical Report.
21. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
22. As of the Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 11<sup>th</sup> day of September, 2021.

"original signed and sealed"

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**Leo Hathaway, P.Geo**