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NI 43-101 Technical Report
Preliminary Economic Assessment Update

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CORDERO PROJECT
FORM 43-101F1 TECHNICAL REPORT

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APPENDIX	DESCRIPTION
A	Preliminary Economic Assessment Contributors and Professional Qualifications • Certificate of Qualified Person ("QP")

1 SUMMARY

This Preliminary Economic Assessment for the Cordero Project was prepared for Levon Resources, Ltd. (Levon) of Vancouver, British Columbia, Canada by M3 Engineering & Technology Corporation (M3) and Independent Mining Consultants, Inc. (IMC), both of Tucson, Arizona. This report is an update of a NI 43-101 PEA for the Cordero Project that was published on March 12, 2012 and was later updated on May 8, 2013. This report also presents the updated Cordero NI 43-101 mineral resource of 2014 (proper reference), which includes 2017 drilling results. The effective date for this report is March 1, 2018.

1.1 LOCATION AND MINERAL RIGHTS

The Cordero Project is located in the State of Chihuahua in north central Mexico approximately 180 kilometers (km) south of the city of Chihuahua and approximately 35 km northeast of the mining town of Hidalgo del Parral (Figure 1-1).

Figure 1-1: Cordero Project Location

The Cordero Project consists of contiguous mining claims that cover the entire mining district and total 37,070 hectares (Figure 1-2). The mineral rights have been secured by staking contiguous lode claims (*concesiones mineras*) and purchasing inlying claim parcels. The claims are 100% owned by Minera Titan, S.A. de C.V. (Minera Titan), a wholly owned Mexico subsidiary company of Levon.

Since the original 2012 PEA, Levon completed mining claim acquisitions and conducted two additional rounds of core drilling. In 2013, Levon purchased the 15.8 hectare Aida Claim outright (News Release of July 10, 2013). The Aida Claim is located in the center of the 2018 resource of this report. Two other claim parcels that cover most of the resource were also purchased in 2013 and include retained net smelter royalties payable on production (summarized in the mineral rights section of this report and in Figure 4-3).

Since the 2013 claim purchases, two rounds of core drilling were completed in 2014 and 2017 to expand resource within and around the Aida Claim (News Releases of February 26, April 28, April 30a, b). An NI 43-101 resource update was filed in October 10, 2014, and the 2017 drill results have been incorporated into the 2018 resource presented in this report.

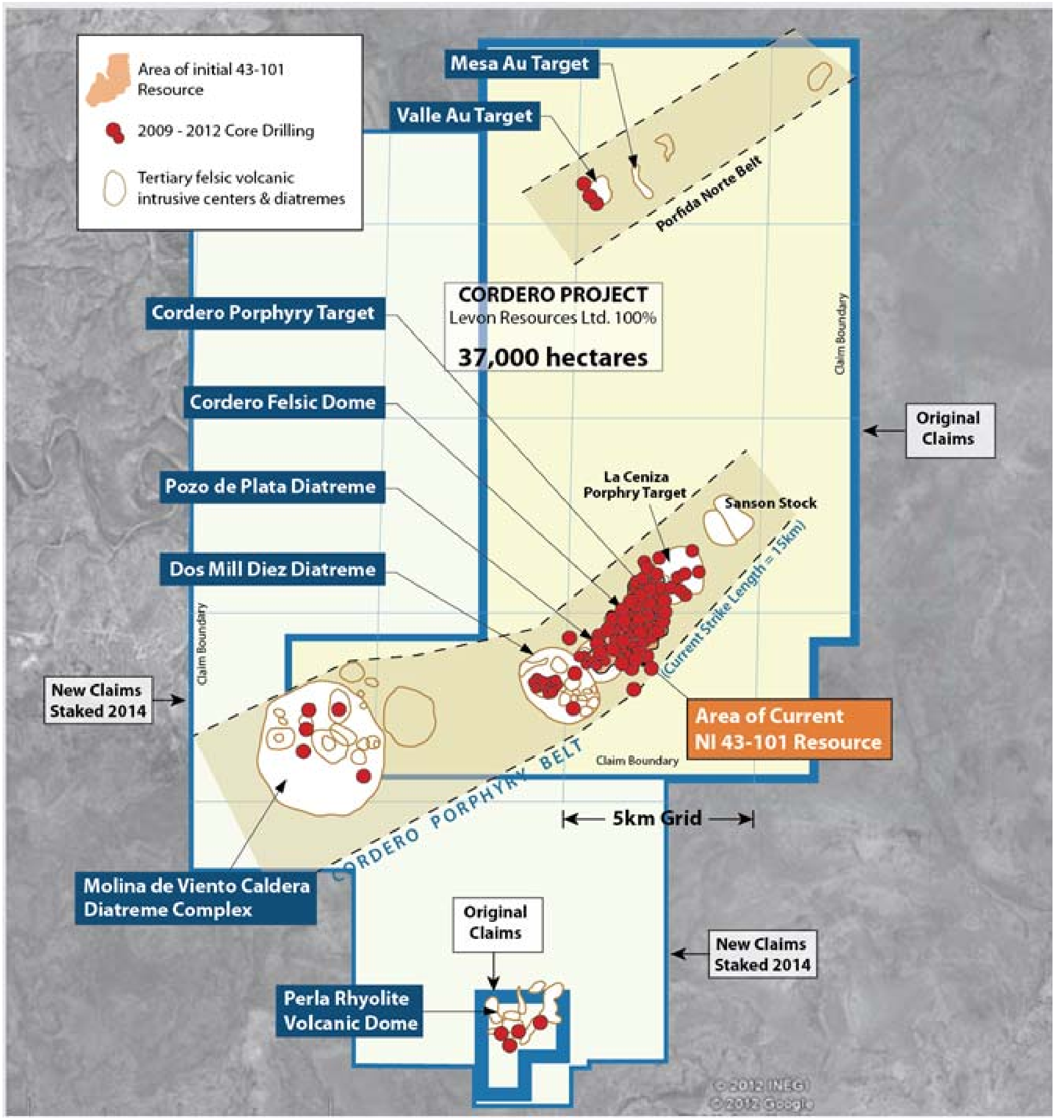


Figure 1-2: Map of Identified Porphyry Belts

1.2 GEOLOGY AND MINERALIZATION

The Cordero Project is situated about 20 km east of the eastern most foothills of the Sierra Madre Occidental Volcanic Province within a western corridor of the Basin and Range Province.

The property scale geology is relatively simple. Two mapped northeast trending belts of mineralized Cenozoic intermediate to felsic igneous intrusive and volcanic vent facies, felsic domes and diatreme complexes. A third intrusive/volcanic center, the Perla Felsic Dome, Diatreme Complex is located 5 km south of the Cordero Porphyry Belt (Belt) (Figure 1-2). Mineralization is hosted within the igneous intrusive and vent facies volcanic rocks and their immediate country rocks. Country rocks are a Cretaceous, thin to medium bedded and half carbonate sequence.

Geology within and around each igneous intrusive or volcanic center (Figure 1-2) is complicated due to the characteristic composite intrusives, felsic domes and diatreme complexes that host multiple ages of hydrothermal, porphyry style mineralization and associated alteration and contact related mineralization.

Most historical mine workings and prospects on the property are centered on outcropping, narrow high grade silver, zinc, lead, gold veins and some high grade contract skarn and replacement mineralization in the central part of the Cordero Porphyry Belt.

The open pit, bulk tonnage silver, zinc, lead, gold, and Cordero resource crops out and spans four host igneous intrusive and volcanic vent facies centers within the area of abundant historical mine workings that, from southwest to northeast, include the:

- Pozo de Plata Diatreme
- Cordero Felsic Dome
- Cordero Porphyry Zone
- La Ceniza Stock (Figure 1-2)

Each host intrusive or volcanic center that host the resource have been mineralized by multiple mineralization events (up to 7 from geologic cross cutting relationships in the core of the Pozo de Plata Diatreme). The intrusive centers exhibit porphyry style mineralization controls including modes of mineralization and porphyry alteration mineral assemblages and zoning patterns (after Lowell and Guilbert, 1970).

There is consistent geologic evidence in the drill core, in surface geology and geomorphology that the Cordero resource mineralization was emplaced at shallow depths and locally to the paleo topographic surface that is locally preserved. The resource crops out at the present topographic surface, which is also the preserved constructional volcanic topography of the Cordero felsic Dome, mineralized to the surface. This geologic configuration of the resource is ideal for mining and accounts for the very lower strip ratio (waste to ore) at Cordero of 0.94/1.

1.3 EXPLORATION AND DRILLING

Levon began its exploration at Cordero during February 2009 as operator under a joint venture agreement (JV) with Valley High Ventures, Ltd (VHV). Levon's Phase 1 included exploration geologic mapping, soils, trench and rock sampling, initial induced polarization geophysical surveys followed up core drilling. Eight core holes were drilled in Phase 1 and the program lead to bulk tonnage discovery drill holes by September of 2009 (News Release of November 3, 2009).

Levon met the JV expenditure requirements, vested at 51% and by March of 2011 acquired its JV partner (News Release of March 25, 2011) to gain 100% ownership of the project.

Since then, three additional phases of accelerated exploration targeting and drilling have defined an initial Canadian Instrument (CI), 43-101 compliant resource in 2011 (published July 26, 2011) which was expanded by 2014 (published October 20, 2014) and in 2018 (present report).

Levon contractors have drilled a total of 133,620 m in 292 core drill holes to date. On the basis of these results, and after an initial 2013 NI 43-101 Preliminary Economic Assessment (PEA) (filed March 15, 2012, amended August 7, 2012, revised May 15, 2013), 100% ownership of the mining claims in the District was consolidated by the outright purchase of the 15.8 hectare Aida claim in the center of the resource (News Release of July 10, 2013) and two option claim parcels that cover most of the resource. In 2014, additional mining claims were staked to cover known mineralized rocks and strike extensions of the porphyry belts on ground released by the Mexican Federal Government for mineral claim staking from a previously withdrawn Federal natural gas claim. The Cordero land package doubled to 37,070 hectares with the 2014 claim staking (Figure 1-2). An additional two rounds of resource expansion drilling were completed on and around the Aida claim in the center of the resource in 2014 and 2017.

This 2018 mineral resource includes the 2017 drill results and the 2018 PEA represents the latest technical advances at the Cordero Project.

Levon focused most mineral exploration in a central part of the Cordero Porphyry Belt in the area of the 2018 mineral resource on the basis of exposed mineralized rocks, historical mines, and prospects and geophysical and geochemical anomalies and drilling successes. Four outlying targets were defined and initially drill tested. Though mineralized rocks were encountered in each of the outlying targets, drilling priorities mandated resource expansion drilling for the project. Follow up of outlying target results will be left to the future.

The Cordero mineral resource is based exclusively on Levon core drilling data through hole number C17-292. The core drilling was conducted on a contract basis by HD Drilling, Mazatlán, Mexico, Land Drill, Ontario, Canada, Ore Test Drilling Mazatlán, Mexico and BD Drilling S.A. de C.V., Mazatlán, Mexico using best drilling industry practices. All holes were collared with HQ diameter core and a few holes in the Cordero Porphyry Zone had to be reduced to NQ diameter core in areas of bad ground conditions or to increase the depth penetration of the drills.

1.4 SAMPLE ANALYSES AND DATA VERIFICATION

The Cordero drill data derives from core drilling. Levon has established procedures for core handling, core logging and sample preparation for shipment to ALS Chemex and ActLabs for assaying that is presented in Section 11.

Assaying is performed at ALS Chemex and ActLabs in Vancouver, B.C. for gold by 30-gram fire assay with AA (atomic absorption) finish. Silver, zinc and lead were analyzed as part of a multi-element inductively coupled argon plasma (ICP) package using a four-acid digestion with over-limit results reanalyzed using ICP-AES (atomic emission spectroscopy).

1.4.1 Data Verification

The Cordero database is maintained by Levon in Access database which is updated as new information is available, either from site or from ALS Chemex and ActLabs. IMC does internal checks on the database as it converts it into the IMC database software. IMC has reviewed the data handling procedures and the quality assurance and quality control (QA/QC) procedures being used by Levon for its Cordero Project and finds them to be within currently acceptable standards for resource definition or PEA development.

In accordance with its QA/QC protocol, Levon inserts standards, blanks and duplicates approximately every 5th sample (20%) during the assaying program. The duplicate assays, which are run on quarter-core splits, confirm that core-splitting procedures are not biasing the assay results. The standard and blank assays show no significant divergences from recommended or expected values, but some discrepancies exist.

Levon shipped every twentieth reject sample to Activation Laboratories (ActLabs), also an ISO-certified laboratory, for check assaying. ActLabs prepared and assayed fresh pulps from these rejects, so the results act as an independent check on both Chemex's sample preparation and assaying procedures.

1.5 METALLURGICAL TESTING AND MINERAL PROCESSING

Mineralogical examination of selected samples was conducted by Terra Mineralogical Services (TMS). Primary observations and conclusions made by TMS indicate that galena and sphalerite are the principal economic minerals, ranging in grain size from very coarse to extremely fine-grained. A variety of silver-bearing minerals are commonly intergrown with galena. The main silver carriers identified in these samples consist of galena, a series of minor abundance of silver-antimony sulfosalts, argentite/acanthite, minor freibergite (tetrahedrite) and silver tellurides. Other observations based on the microscope examination are provided in Section 13.1.

Metallurgical testing on 12 composite samples represent the variety of mineralized material types and host rocks from the deposit, was conducted by METCON Research of Tucson, Arizona. The scope of testwork included assays of head samples, Ball Mill Bond work index, Abrasion index, grind calibration and rougher flotation tests to produce lead-silver concentrate, zinc concentrate and pyrite-gold concentrate.

Comminution tests showed that the mineralized material has average hardness and low abrasiveness and variability typical of a large porphyry system. Ball Mill Bond Work Index ranging from 9.69 kWh/tonne to 15.43 kWh/tonne with an average of 13.2 kWh/tonne. The abrasion index test results show that the mineralized material is soft with an average abrasion index of less than 0.10.

Metallurgical testwork indicate that the deposit is amenable to conventional flotation methods. Selective rougher flotation tests were conducted at a P_{80} grind size of 200 mesh (74 microns) to produce a lead-silver concentrate, a zinc concentrate and a pyrite-gold concentrate. More than 90% of lead, silver and zinc were recovered to lead and zinc concentrates at the rougher stage. Only 40% of gold reported to the lead and zinc concentrates with 43% of the gold reporting to the pyrite concentrate.

The results of the selective rougher flotation conducted on composite samples from the Cordero Project indicate that rougher flotation of lead-silver, zinc, and pyrite-gold was successful on most of the composite samples.

- Lead recovery ranged from 98.47% to 35.53%. Composite 12 showed the highest lead recovery of 98.47%. Composite 7 showed the lowest lead recovery of 35.53%.
- Silver recovery ranged from 94.95% to 35.05%. Composite 12 showed the highest silver recovery of 94.95%. Composite 7 showed the lowest silver recovery of 35.05%.
- Zinc recovery ranged from 91.68% to 71.87%. Composite 11 showed the highest zinc recovery of 91.68%. Composite 2 showed the lowest zinc recovery of 71.87%.
- Gold recovery ranged from 83.23% to 14.51%. Composite 4 showed the highest gold recovery of 83.23%. Composite 3 showed the lowest gold recovery of 14.51%. Lowest gold recovery in the pyrite concentrate was observed on Composites 2, 3, 5 and 9.

Open-cycle cleaner flotation testwork should be conducted to confirm whether similar high recoveries would be achievable at a commercial production level. Locked-cycle flotation will be carried out in the next stage of testing to define flotation parameters like reagent dosages, retention times and slurry percent solids.

Reagents for flotation testwork include Aerofloat 31 collector, zinc sulfate and sodium cyanide as sphalerite and pyrite depressants, and soda ash as pH regulator. Concentrate was floated at pH 9 with MIBC/AF 65 frother to produce a lead/silver concentrate. The lead/silver flotation tailing was conditioned with copper sulfate to activate the sphalerite at a high pH to depress pyrite to produce a zinc flotation concentrate. The zinc flotation tailing was conditioned with potassium amyl xanthate (PAX) and Aerofloat 3477 to produce a pyrite flotation concentrate.

The flotation results showed that the average recoveries of 93.56% lead and 84% silver reported into the lead/silver concentrate and an average 80.6% of zinc reported to the zinc concentrate. Gold distributed into all the three concentrates with 43% of gold recovered in the pyrite concentrate, 20% in the lead concentrate and 20.3% in the zinc concentrate. A closer examination of the individual composite results show that gold reported with the pyrite because the gold and iron (pyrite) recoveries were similar in all the samples.

To evaluate the impact grind size on metals recoveries, rougher flotation tests were conducted on three separate composites at three grind sizes P_{80} of 74-micron, 125 micron and 177 micron. The results show that grind sizes of approximately 80% passing 74 microns provided the highest metal recoveries. The impact on lead and silver recoveries were minimal while the impact on zinc and gold were qualified.

Cadmium and antimony levels of the rougher concentrates were analyzed to ascertain their concentrations were higher than penalty levels. The results showed that cadmium reported into the zinc concentrate while antimony reported into the lead/silver concentrate. An average of 71.5% of the cadmium and 65.1% of the antimony reported into the zinc and lead concentrates, respectively. None of the samples had greater than 6% cadmium or antimony reporting into the pyrite concentrates. Only two composites reached penalty levels in concentrate: Composite 6 was 1.5 times the penalty limit for cadmium and Composite 12 was 3.5 times the penalty limit for antimony. Concentrate penalties could be mitigated somewhat by blending.

Head samples of four composites showed high carbon contents ranging from 2.9% to 4.4%. The composites with high carbon contents exhibited high frother reagent consumptions.

Recommendations for additional flotation testing for the Cordero Project include the following.

- Pulp density series, pulp pH series, collector series, collector dosage series and cleaner flotation should be conducted on new composite samples that correspond temporally to the mine plan.
- Locked cycle flotation testing should be conducted on new composite samples.
- More tests should be conducted to study the effect of carbon on recoveries, reagent consumption and concentrate grades to ascertain if additional unit process to remove carbon ahead of selective flotation is necessary.
- Grind versus recovery tests should be conducted to confirm whether coarser grinding is feasible.

1.6 MINERAL RESOURCE ESTIMATES

The Cordero February 2018 mineral resource estimate is based on 263 drill holes completed through September 2017. The mineral resource is based on 126,235 meters (m) of drilling in 263 core holes. The mineral resource is tabulated within an open pit geometry using an inverse distance estimation block model.

The mineral resource presented here is for the currently defined Pozo de Plata Diatreme (Pozo), the Cordero Felsic Dome and the adjacent Porphyry Zone to the northeast along the strike of the Cordero Porphyry Belt. Outlying initial exploration drilling has intersected mineralization, but no high grade discovery holes that warrant immediate offset, resource definition drilling.

The mineral resource is within an open pit geometry based on a standard floatation mill with separate zinc and lead circuits, the mill recoveries, operating costs for process, G&A and mining. A silver equivalent grade in grams per tonne (g/t) is calculated for each model block based on the metal grades, estimate of mill recovery for each metal and the metal prices. A summary of the recoveries and metal prices based on August 2017 price projections is shown in Table 1-1 below.

Table 1-1: Recoveries and Metal Prices Summary (August 2017)

Metal	Mill Recovery	Metal Price
Silver	88.6%	$17.14/oz
Zinc	72.0%	$1.11/lb
Lead	84.0%	$0.96/lb
Gold	40.0%	$1262/oz

The February 2018 mineral resource is summarized on Table 1-5 at a 15.0 g/t AgEq cutoff grade. The change from the September 2014 Mineral Resource statement is the inclusion of 18 drill holes, central to the deposit that were drilled in 2017. These holes provide confirmation of the mineral occurrence previously defined by wider spaced drilling. The change from the June 2012 Mineral Resource and PEA is the drilling within the Aida claim which was purchased by

Levon subsequent to the June 2012 Mineral Resource statement. No mineralization on the Aida claim was included in the June 2012 mineral resource estimate. The additional drilling also allowed portions of the previous inferred resource to be re-classified as indicated.

Table 1-2: Cordero Mineral Resource – February 2018

Resource Tabulated at 15.00 g/t AgEq Cutoff

Category	Tonnes (000s)	AgEq, g/t	Ag, g/t	Zn, %	Pb, %	Au, g/t
Indicated	990,054	31.92	12.81	0.37	0.17	0.04
Inferred	282,217	56.43	20.66	0.75	0.30	0.04
Contained Metal			Oz (000s)	Lbs (000s)	Lbs (000s)	Oz (000s)
Indicated	-	-	407,761	8,030,051	3,774,996	1,273
Inferred	-	-	187,461	4,665,047	1,859,799	363

Ktonnes = metric tonnes x 1000

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration or Mineral Reserves once economic considerations are applied. Therefore, there is no certainty that the production profile concluded in the PEA will be realized.

1.7 MINING METHODS

Mining of the Cordero deposit will be done by open pit methods utilizing a traditional drill, blast, load and haul sequence to deliver mill feed to the primary crusher and the waste to waste dumps located to the north and south of the proposed pits. The pit design is based on a 10-meter bench height to match the resource model bench height. The mine plan calls for the delivery of 40,000 tonnes per day (tpd) of material to the mill for a 29-year schedule and during peak production about 100,000 tpd of total material (mill feed plus waste) will be mined. The mine equipment fleet requirements are estimated to mine and deliver the mill feed and waste tonnages to the appropriate locations. An estimate of capital and operating costs was developed based on the selected mining fleet.

The schedule mill feed tonnage included in this section is a sub-set of the mineral resource presented in Section 14. The most recent previous mineral resource was documented in the technical report prepared by Herb Welhener of Independent Mining Consultants, Inc. (IMC) titled “Cordero Project September 2014 Mineral Resource Update” dated October 15, 2014. The mineral resource presented in the current report is an update to the September 2014 mineral resource.

1.7.1 Geotechnical Parameters

No geotechnical investigations for pit slope angles have been completed for this PEA. An overall slope angle of 40 degrees was used for the pit definition floating cone runs and the phase and pit designs.

1.7.2 Dilution Modeling and Factors

The resource model is described in Section 14 and grades in the model are estimated by inverse distance cubed (ID3) applied separately to capped 10m silver, zinc, lead and gold composites. The grade estimates were confined by indicator pods using silver equivalent grade discriminators of 50g/t and 10 g/t. At this time, no additional dilution, factors or mining losses have been applied to the mineral resource grade model.

1.7.3 Open Pit Mining

The PEA open pit design is based on a floating cone geometry using the available process recoveries, cost data and the metal price of $17.14/oz silver equivalent. Table 1-3 summarizes the metal prices and mill recoveries used to establish the block model AgEq grades. The metal price inputs are different than those used in the financial model discussed in Section 22.

Other inputs to the floating cone algorithm included estimates of the process, G&A and a base mining cost plus an addition haul cost from benches below the 1550 elevation; these are included on Table 1-3. The floating cones were run with a discount rate of 0.5% per bench of depth.

Table 1-3: Economic Input for Pit Design

Metal	Price	Recovery		
		To Lead Concentrate	To Zinc Concentrate	Multiplier for AgEq
Silver	$17.14/oz	78%	10.6%	1.00
Zinc	$1.11/lb		72%	36.08
Lead	$0.96/lb	84%		36.40
Gold	$1262/oz	20%	20%	33.24
Costs:				
Process	$6.97/tonne			
G&A	$1.11/tonne processed			
Mining	$1.55/tonne mined			
Added Haul Cost	$0.008/t per 10m bench below 1550			
Discount Rate	0.5% per 10m bench			

The final pit is sub-divided into 11 mining phases at a cut-off grade of 20g/t AgEq. Subsequent to the 2012 PEA, the Aida Claim which is located central to the Cordero deposit was purchased by Levon, so mining can be done on this claim as part of the mine plan. No pre-feasibility or feasibility study has been completed, thus no mineral reserve is declared at this time.

A mining schedule to deliver 40,000 tpd to the mill was developed from the mining phases 1 through 8 plus 11. Table 1-4 shows a summary of the mine schedule. Based on the metal prices and recoveries shown in Table 1-3, the approximate percent of concentrate value by metal is: silver 51%, zinc 29%, lead 18% and gold 2%.

Table 1-4: 40,000 TPD Mill Feed – Mine Production Schedule

	Mill Feed							Waste	Total	Percent
Year	AgEq Cut-off	Ktonnes	AgEq g/t	Ag g/t	Zn %	Pb %	Au g/t	Ktonnes	Ktonnes	Inferred in Mill Feed Tonnage
0	25	115	32.22	15.72	.09	.27	.11	715	830	0.0
1	25	14,785	51.61	27.47	.29	.29	.10	15,308	29,593	3.7
2	20	14,400	61.86	30.79	.40	.34	.13	20,697	35,097	8.2
3	22	14,400	66.80	34.49	.37	.38	.16	15,237	29,637	2.9
4	22	14,400	57.96	28.21	.40	.32	.12	17,920	32,320	4.2
5	22	14,400	59.83	30.74	.39	.31	.11	17,801	32,201	2.6
6	22	14,400	47.15	22.62	.33	.26	.10	20,177	34,577	7.9
7	22	14,400	42.84	19.00	.29	.28	.09	21,600	36,000	1.1
8	20	14,400	46.23	18.57	.35	.36	.06	21,600	36,000	8.2
9	20	14,400	45.15	18.44	.43	.25	.06	13,606	28,006	19.7
10	20	14,400	47.05	19.72	.46	.25	.06	10,321	24,721	14.7
11	20	14,400	46.62	21.00	.40	.26	.05	16,961	31,361	12.1
12	20	14,400	36.59	16.21	.35	.17	.05	20,666	35,066	9.1
13	20	14,400	38.57	16.75	.38	.19	.04	15,988	30,388	6.4
14	20	14,400	34.45	13.98	.36	.17	.04	19,827	34,227	8.2
15	20	14,400	35.47	13.57	.39	.17	.05	17,497	31,897	5.8
16	20	14,400	40.22	15.59	.43	.20	.06	17,143	31,542	4.6
17	20	14,400	41.73	16.84	.44	.20	.05	10,478	24,878	9.1
18	20	14,400	42.42	15.25	.47	.23	.06	8,159	22,559	9.8
19	20	14,400	40.79	14.78	.45	.23	.04	10,304	24,704	8.3
20	20	14,400	41.80	16.04	.46	.21	.04	10,450	24,850	11.1
21	18	14,400	42.21	15.99	.46	.23	.04	8,828	23,228	10.9
22	18	14,400	44.12	16.87	.46	.26	.04	9,752	24,152	13.9
23	18	14,400	38.94	15.19	.41	.21	.04	6,521	20,921	11.4
24	18	14,400	42.67	17.02	.43	.24	.05	10,795	25,195	16.1
25	18	14,400	54.15	19.93	.58	.31	.06	11,192	25,592	21.9
26	17	14,400	46.52	16.38	.52	.26	.06	7,951	22,351	12.2
27	17	14,400	53.66	18.19	.64	.29	.06	7,319	21,719	9.8
28	17	14,400	46.11	15.13	.55	.27	.04	9,598	23,998	12.5
29	17	14,326	54.72	17.69	.64	.34	.04	13,179	27,505	15.3
Total		417,526	46.49	19.39	.43	.26	.06	407,589	825,115	9.7

Two waste dumps have been designed to hold the 407.6 million tonnes of waste. The dumps are situated north and south of the pits with one dump to the south and one to the north (Figure 1-3). The dumps are outside of the currently understood mineralized zone where the exploration potential to increase the mineral resource is very good. This adds about 500 meters of additional haul for the waste. The dump locations will be modified as more understanding of the mineralized zones is gathered. No condemnation drilling in the waste dump areas has been done.

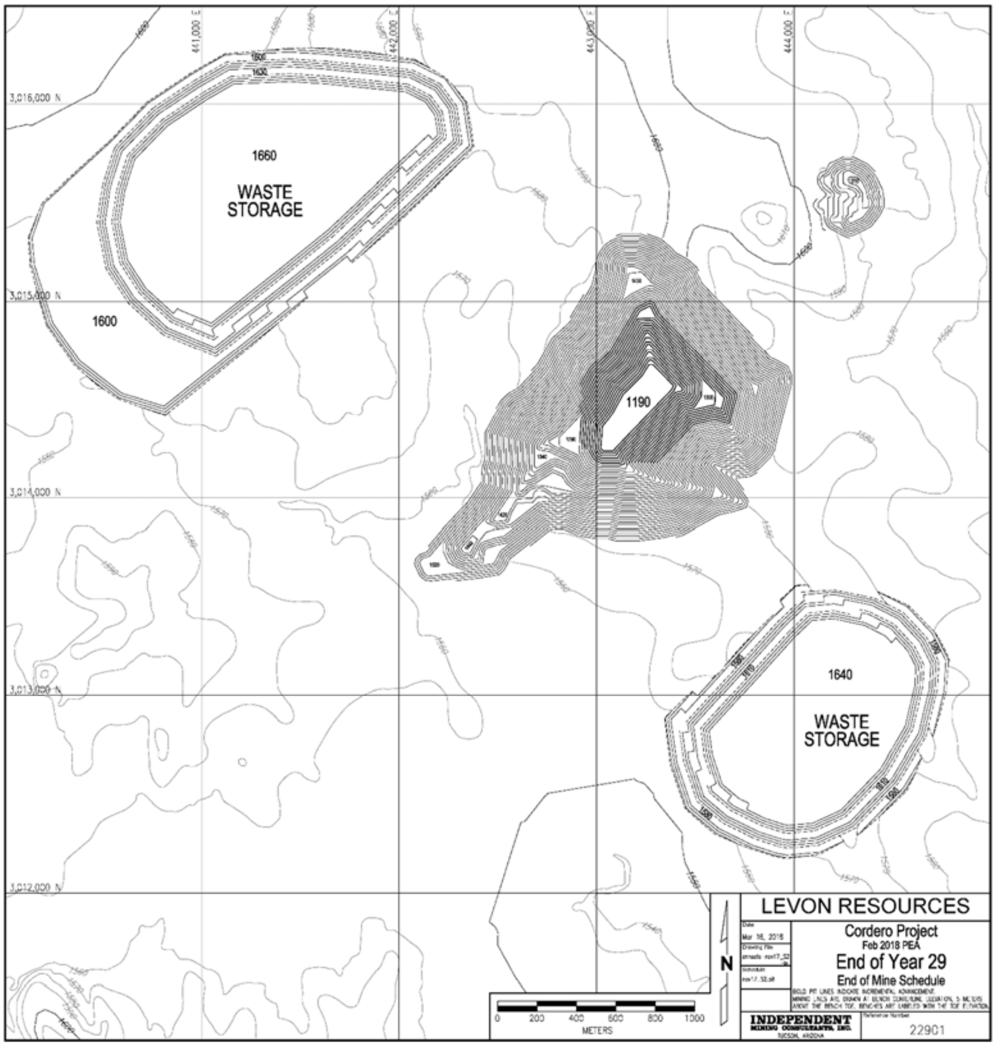


Figure 1-3: Cordero Pits and Waste Dumps – End of Year 29

Mine equipment requirements were calculated based on the annual mine production schedule, the mine work schedule, and equipment shift production estimates. The size and type of mining equipment is consistent with the size of the project, i.e. run-of-mine mill feed movements of about 40,000 tonnes per day and peak total material movements of about 100,000 tonnes per day.

There is sufficient equipment to perform the following duties:

- Construct additional roads, after preproduction, as needed to support mining activity, including pioneering work necessary for mine and dump expansion.
- Strip topsoil in advance of mining and dumping.
- Mine and transport the ore to the crusher (or crusher stockpile). Mine and transport the waste material from the pit areas to the waste storage areas.
- Maintain all the mine work areas, in-pit haul roads, waste storage areas, crusher stockpiles, and external haul roads.
- Build and maintain in pit and on dump drainage structures as required.

Mine personnel include all the salaried supervisory and staff people working in mine operations, maintenance, and engineering/geology departments, and the hourly people required to operate and maintain the drilling, blasting, loading, hauling, and mine support activities. The mine operating and maintenance labor will operate on a four-crew rotation with two on and two off during any operating day. The hourly personnel in mine operations are mostly equipment operators and vary from 76 to 100 people depending on hauling requirements. The mine maintenance personnel range from 45 to 50 people depending on the number of haul trucks running in a given year.

The salaried staff includes supervisors in operations and maintenance and the personnel in the engineering and geology departments. The supervisory staff numbers 37 personnel during the first three years then reduces to 35 as operators get trained reducing the need for trainers.

1.8 RECOVERY METHODS

The Cordero Project will consist of an open pit mine, a conventional concentrator, mine infrastructure consisting of roads, power, water, and other utilities, and ancillary buildings and facilities. The mineralization contains lead and zinc sulfide minerals and includes silver minerals and small amount of gold that are associated with the sulfides. The operation is designed to process approximately 14,600,000 tonnes of ore per annum, equivalent to 40,000 tonnes per day.

The processing at Cordero will be sequential selective flotation of sulfides to produce two concentrates: high-value lead concentrate containing significant amounts of silver and gold and zinc concentrate containing lesser amounts of silver and gold. The overall process flow sheet is shown in Figure 1-4.

The following items summarize the process operations required to extract gold, silver, lead and zinc from the Cordero sulfide mineralized material. A conceptual general arrangement of the Cordero plant site is shown in Figure 1-5.

- Size reduction of ore by a primary gyratory crusher to reduce the size from run-of-mine (ROM) size of minus 900 millimeters (mm) or minus 30 inch (in) to minus 150 mm or minus 6 inch.
- Storing primary crushed material in a covered coarse ore stockpile and then reclaiming by apron feeders and a conveyor belt to the grinding circuit.
- Grinding the crushed material in semi-autogenous (SAG) mill to reduce the ore size from 150 millimeters to a transfer size with a P_{80} of 2.6 millimeters for the next step of grinding. The SAG mill will operate in closed circuit with a vibrating discharge screen and a pebble crusher to handle the oversize discharge from the SAG mill.
- The SAG mill screen undersize reports to two ball mills to a size suitable for processing in a flotation circuit. The ball mills will operate in closed circuit with hydrocyclones to deliver a material with a P_{80} of 125 microns to the flotation circuit.
- The flotation plant will consist of selective lead and zinc flotation circuits. The flotation circuits will each consist of rougher flotation followed by regrinding and cleaner flotation to produce a high-value lead-silver concentrate and a zinc concentrate with payable gold and silver values.
- Final lead and zinc concentrates will be thickened, filtered, and loaded in super sacks for shipment.
- Flotation tailing will be thickened and deposited by gravity in the Tailing Storage Facility (TSF).
- Water reclaimed from the TSF and thickener overflow and filtrate from concentrate dewatering will be recycled for reuse in the concentrator process. Plant water streams include: process water, raw or fresh water make-up, and potable water.

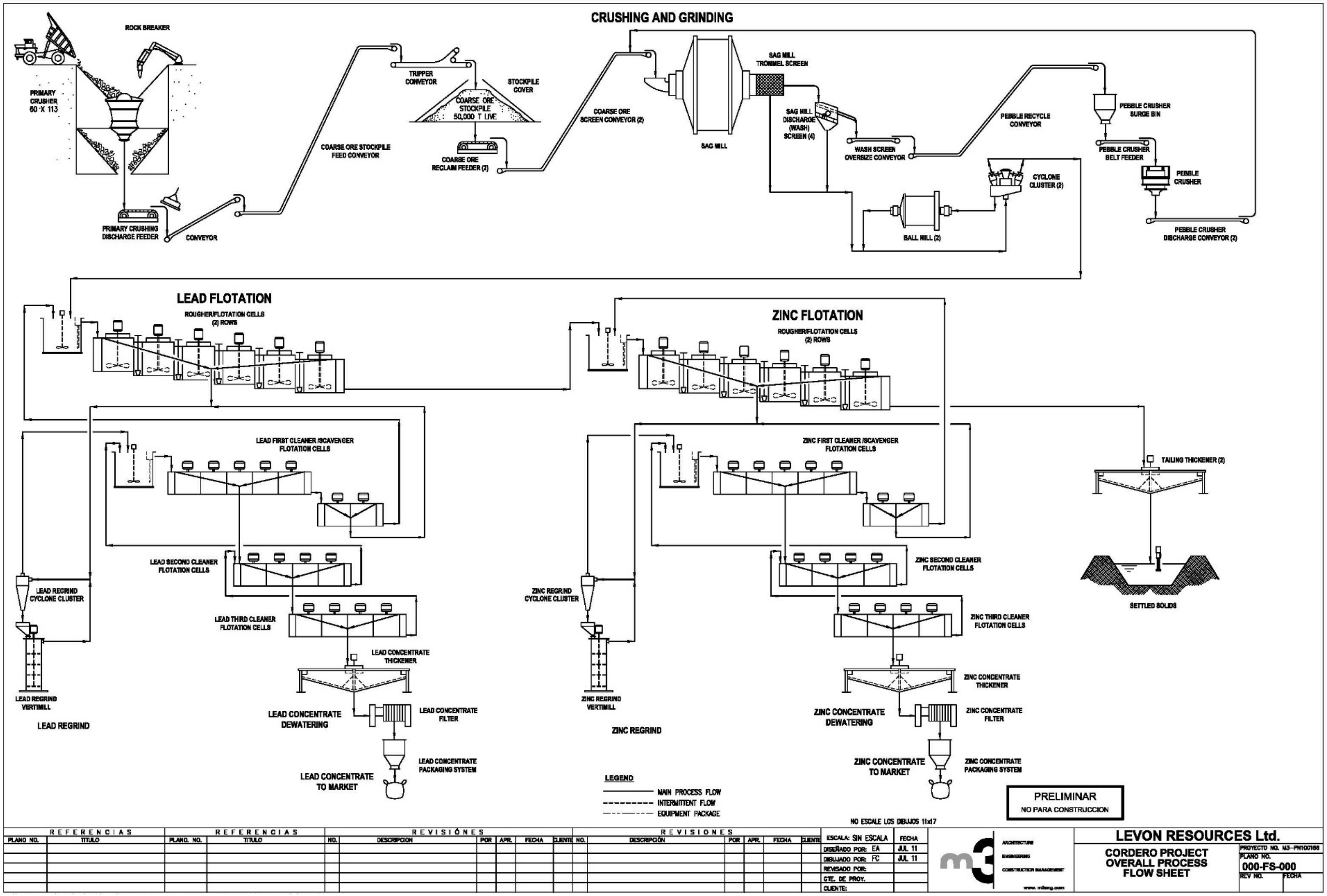


Figure 1-4: Overall Cordero Concentrator Flowsheet

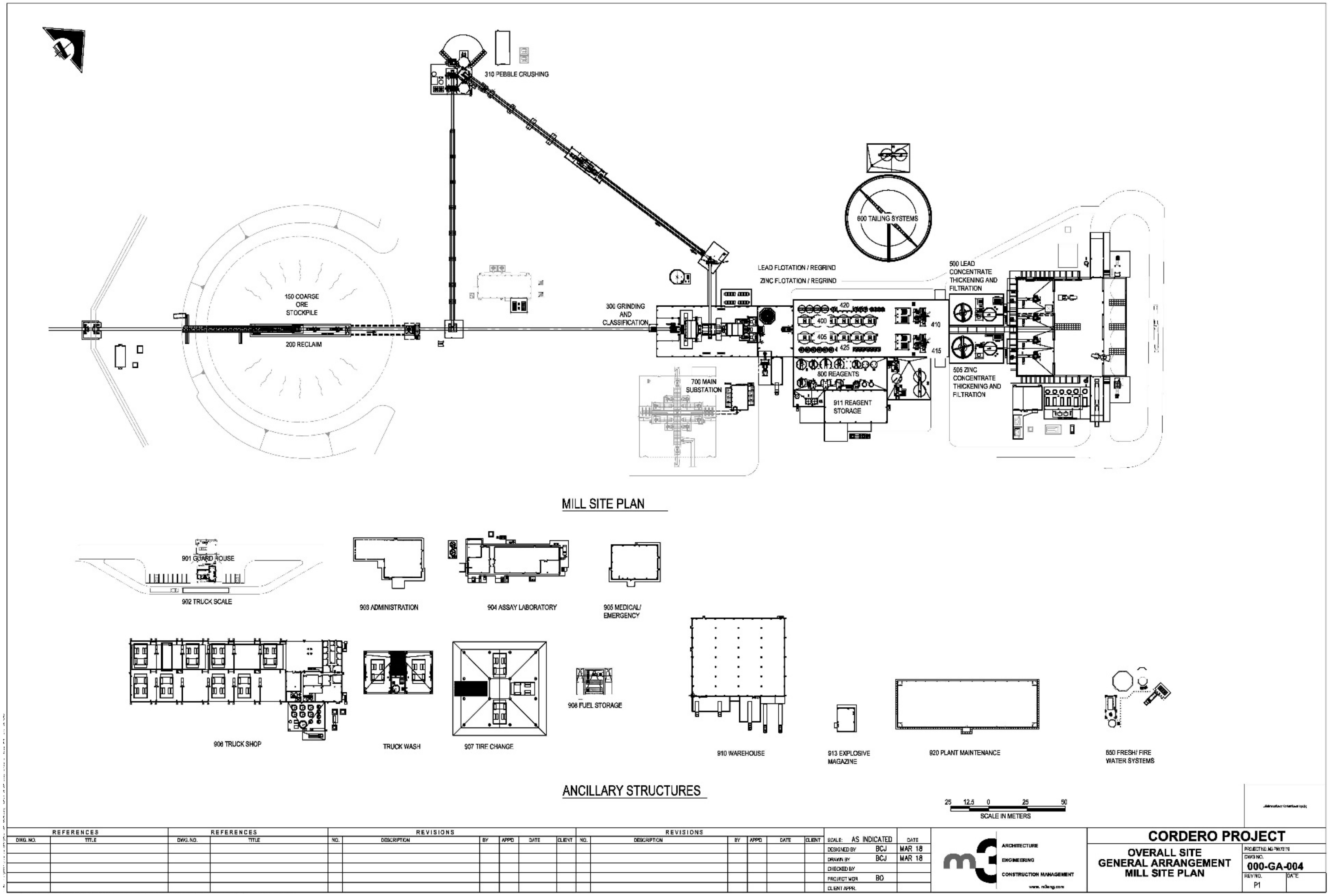


Figure 1-5: Cordero Concentrator General Arrangement

1.9 INFRASTRUCTURE

Considerable development of infrastructure is necessary to support a mining and mineral processing operation for the Cordero deposit, but the project is in close proximity to the infrastructure needed to support the project. Work is underway to establish roadways, water, power, and other infrastructure to support the operation. Figure 1-6 is the site plan for the Cordero site showing the relative locations of the open pit, TSF, and plant site.

A major power transmission corridor crosses the southeast corner of the claim block approximately 1.5 km from the proposed pit. The existing transmission lines in this corridor do not have sufficient capacity to supply the planned operation according to CFE, the national power authority. However, additional lines can be built from the Camargo II power plant near Santa Rosalia de Camargo, approximately 75 km to the northeast, utilizing the same corridor.

The site is presently accessed by a series of unpaved roads from federal Highway 24, approximately 11 km to the west-southwest. Some of these roads are in flood-prone corridors and are unsuitable for mine construction or operation traffic. A new all-weather road would need to be constructed to access the mine site from Highway 24.

The Cordero project lies within the Valle de Zaragoza aquifer, as designated by the National Water Commission (CONAGUA). This aquifer system is in an unrestricted zone and not subject to a ban on groundwater extraction. The mine site is located approximately 2 km north of the Arroyo San Juan, and intermittent stream flowing through alluvial materials. The mine site is located in an area where the aquifer is entirely with the bedrock. Several mine shafts have penetrated the aquifer and produced so much water that deepening of the shafts had to be abandoned. Studies of the aquifer near and around the mine site are presently underway with the objective of identifying sustainable water supplies of sufficient quantity to support the proposed mining operation.

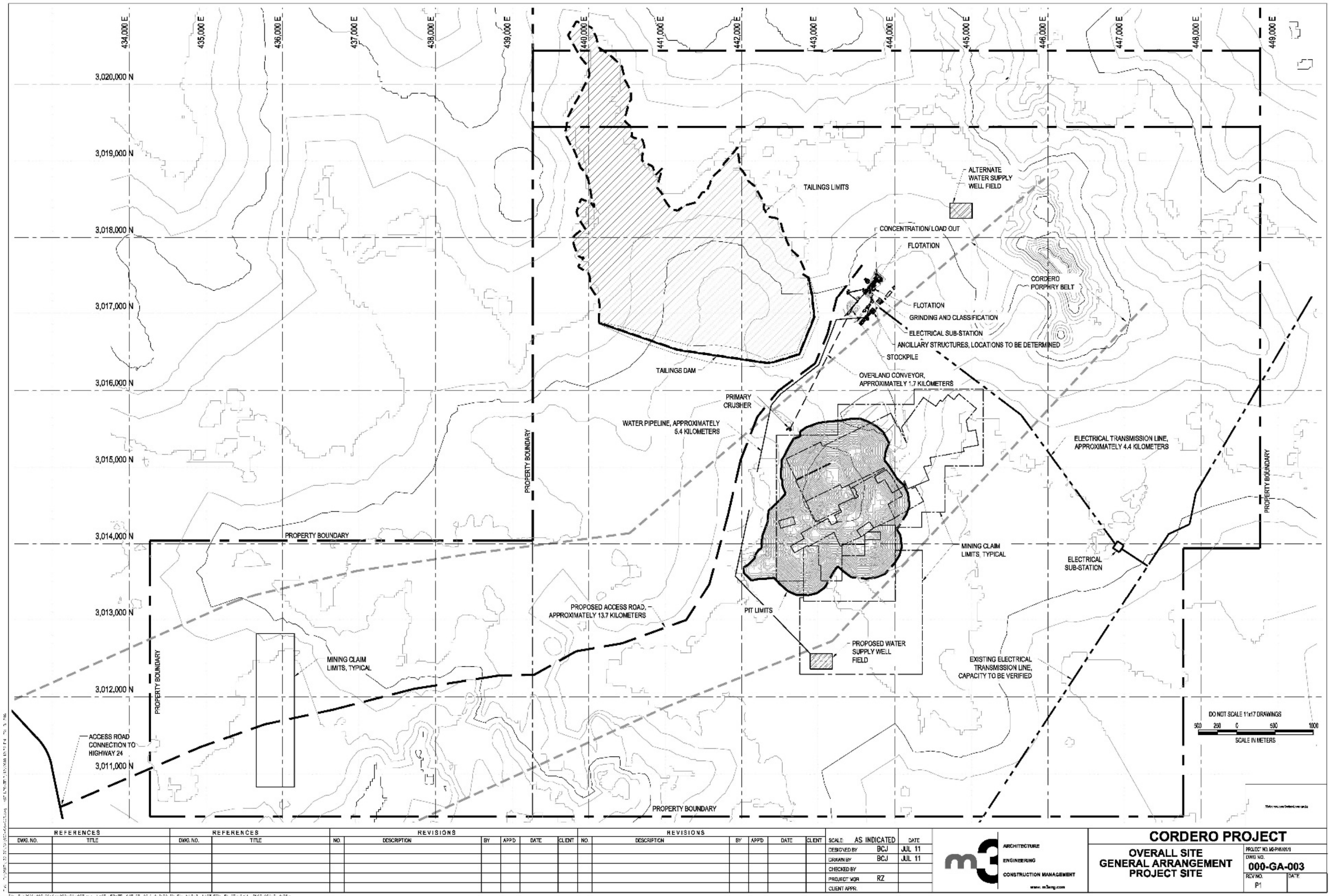


Figure 1-6: Cordero Site Plan

1.10 ENVIRONMENT AND PERMITTING

1.10.1 Environmental Studies

M3 conducted an environmental and socioeconomic study of the project area (M3, 2011). The climate in the project area is characterized by a semidry or semiarid climate with summer rains and an annual average temperature of 19.4ºC. Average annual rainfall for the zone is calculated at 473.33 mm and an average potential evaporation per year on the order of 2,100 mm. Rainfall in the study zone is characteristic of semi-arid subtropical areas with precipitation in the winter and summer seasons, similar to the major part of the north region of the country. Winter rainfall is typically frontal and caused by polar air masses. Summer rainfall is a combination between orographic and convection types and typically consist of high-intensity, short-duration showers.

Vegetation in the project area consists mainly of natural grasslands and micropyle desert scrub, growing in soils that are predominantly classified as eutric regosols and haptic xerosols. This vegetation supports a faunal community dominated by reptiles, birds, mammals, and amphibians. Reptile species are present in the greatest numbers due to their adaptability to the dry desert climate. There are no declared or decreed natural protected areas within or bordering the projected zone for the development of the Cordero Project, nor in area of the projected power supply corridor.

The area of the Cordero Project is neither within any Priority Terrestrial Area nor in an Area of Importance for Avian Conservation published or decreed at present by the Mexican government.

The Cordero Project lies within Priority Hydrological Region (RHP) No. 39, named “Cuenca Alta del Rio Conchos” (Upper Basin of Rio Conchos), found on the Sierra Tarahumara.

The results of the site visit, record review, and preliminary investigations have not revealed any issues that could be considered to be fatal flaws to the development of the proposed project. Additional follow-up/confirmation will be necessary as the specifics of the project are developed.

1.10.2 Tailings and Waste Disposal

Locations for disposal of mine waste and tailings have been identified within the Cordero claim boundary. These areas are located within close proximity to the proposed resource pits, but are in areas outside of the Cordero Belt in areas considered unlikely to host mineralization. The waste dumps are located south and north of the proposed pit areas (Figure 16-5).

An area northwest of the proposed pits has been identified as a prospective location for a tailing storage facility (TSF). Preliminary investigations indicate that the TSF can be constructed using cyclone sands separated from bulk tailings in an upstream raise type of construction on a starter dam composed of native soils or waste rock from pre-stripping. The proposed location has sufficient capacity to store tailings from the portion of the resource that is the subject of this PEA. Additional geotechnical testing and design work is necessary to further investigate the viability and costs associated with a TSF in this location. Three other areas have been identified in the area which may also be suitable candidates for storage of mine tailings.

1.10.3 Permitting

Expanded environmental permitting is underway for the exploration phase of the project with the Chihuahua state offices of Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT). These permits include exploration and land use change permits. Other permits have been identified as being required prior to construction of the mine, processing plant, and access roads, as detailed in Section 20.3.

1.10.4 Socioeconomics and Community

The project area is approximately 35 km north of the municipality of Hidalgo del Parral, which provides the socioeconomic framework for the entire area. Hidalgo del Parral is the most important regional development center in the south of the state of Chihuahua with population of more than 103,500 in 112 communities. The municipality has a surface of 169,210 hectares of which 85,710 exhibit forestry or agricultural activities, while 83,500 hectares do not have a productive use. Private property encompasses 92% of the area and the remainder is divided among several ejidos (communal agricultural communities). The municipality contains three aquifers, which are in equilibrium between extraction and recharge.

Agriculture is carried out in more than 16,000 hectares in 338 production units. Less than 10% of agriculture land uses irrigation while generating 50% of the agricultural production value of the municipality. The environment in the municipality is conducive to the development of cattle ranching. There are currently approximately 21,739 head of cattle in 343 production units in the municipality.

Poverty is a significant problem in Hidalgo del Parral, with at least 38% of the population under some form of poverty. Food poverty afflicts 7% of the population, which indicates a vulnerable group of more than 7,000 people. Underemployment afflicts 13% of the population indicating that 13,458 people have poor job skill or lack academic preparation. The most urgent need, however, is inherited poverty which affects 38% of the population.

1.11 CAPITAL AND OPERATING COSTS

Capital and operating costs were estimated for the project, based on comparison with similar projects completed recently by M3, metallurgical test work conducted for this study, and M3's knowledge of operating costs and conditions in Central Mexico.

1.11.1 Operating Cost Summary

The Cordero Project operating cost is comprised of mine, plant, and General & Administrative (G&A) costs. Some of these costs are fixed costs irrespective of mine throughput while others are scalable costs based on the annual tonnage of material mined and processed. Table 1-5 summarizes the annual operating costs for a typical year in the life of the Cordero Mine; in this case Year 11 of 29 years of operation.

Table 1-5: Cordero Operating Cost Summary ($000's)

Area Description	Annual Cost	Unit Cost/Feed Ton
Mining Operations	$33,685,000	$2.34
Process Plant	$73,115,000	$5.08
General Administration	$16,199,000	$1.12
Total	$122,999,000	$8.54*
Annual Processing Units (tonnes): 14,400,000		

*Does not include concentrate transportation & treatment charges

1.11.2 Mine Operating Cost Estimate

The mine operating cost is developed from the mine equipment requirements and the mine personnel requirements. The operating costs include parts and consumables, supervision labor, maintenance labor, operating labor, and miscellaneous services. The base hourly operating cost of each piece of major mine equipment was developed from first principals then extrapolated to an operating cost per shift for parts and consumables. Personnel costs are calculated separately and combined with the parts and consumables cost to determine the total mine operating cost.

Table 1-6 shows the mine operating cost for each year and Table 1-7 shows the corresponding unit cost per tonne for each period. The costs are shown by cost center. The life of mine average unit operating cost is $1.195 per total tonne moved.

Table 1-6: Mine Operating Cost Per year

Summary of Mine Operating Costs - Total Dollars ($US x 1000)												
Mining Year	Total Material (kt)	Drilled/ Blasted (kt)	Drilling	Blasting	Loading	Hauling	Auxiliary	General Mine	General Maint.	G&A	TOTAL	Cost/ Tonne of Total Mat'l
-1	830	830	73	234	157	146	1,433	186	114	335	2,678	3.227
1	29,593	29,593	2,597	7,874	5,497	6,215	4,177	1,603	1,456	1,078	30,497	1.031
2	35,097	35,097	3,075	9,331	6,517	8,165	4,894	1,925	1,688	1,102	36,697	1.046
3	29,637	29,637	2,596	7,886	5,503	7,203	4,886	1,706	1,460	1,038	32,278	1.089
4	32,320	32,320	2,834	8,596	5,995	8,558	4,502	1,814	1,575	1,048	34,920	1.080
5	32,201	32,201	2,825	8,564	5,973	9,927	4,897	1,809	1,577	1,061	36,633	1.138
6	34,577	34,577	3,039	9,193	6,425	10,796	4,908	1,904	1,682	1,072	39,018	1.128
7	36,000	36,000	3,153	9,570	6,684	11,495	5,308	1,961	1,742	1,079	40,991	1.139
8	36,000	36,000	3,155	9,570	6,685	10,748	5,313	1,961	1,742	1,076	40,248	1.118
9	28,006	28,006	2,452	7,454	5,207	7,022	5,694	1,641	1,402	1,045	31,917	1.140
10	24,721	24,721	2,167	6,585	4,591	5,737	5,296	1,510	1,261	1,029	28,175	1.140
11	31,361	31,361	2,755	8,342	5,819	7,109	5,301	1,775	1,536	1,046	33,685	1.074
12	35,066	35,066	3,072	9,322	6,511	8,447	4,893	1,923	1,687	1,054	36,909	1.053
13	30,388	30,388	2,660	8,084	5,641	7,667	4,172	1,736	1,490	1,037	32,489	1.069
14	34,227	34,227	3,004	9,100	6,144	9,826	4,173	1,890	1,653	1,056	36,846	1.077
15	31,897	31,897	2,798	8,484	5,917	9,779	4,173	1,797	1,558	1,051	35,556	1.115
16	31,542	31,542	2,770	8,390	5,852	10,401	4,174	1,782	1,546	1,056	35,971	1.140
17	24,878	24,878	2,180	6,626	4,620	7,895	4,172	1,516	1,267	1,031	29,308	1.178
18	22,559	22,559	1,977	6,013	4,197	7,794	4,176	1,423	1,174	1,030	27,784	1.232
19	24,704	24,704	2,170	6,580	4,590	9,463	4,182	1,509	1,270	965	30,730	1.244
20	24,850	24,850	2,182	6,619	4,617	9,321	4,183	1,515	1,276	965	30,678	1.235
21	23,228	23,228	2,031	6,190	4,319	8,876	4,173	1,450	1,204	957	29,200	1.257
22	24,152	24,152	2,125	6,434	4,489	9,583	4,182	1,487	1,248	967	30,515	1.263
23	20,921	20,921	1,826	5,579	3,881	7,888	4,167	1,358	1,104	945	26,748	1.279
24	25,195	25,195	2,210	6,710	4,680	10,188	3,800	1,529	1,290	968	31,375	1.245
25	25,592	25,592	2,242	6,815	4,752	11,305	3,798	1,544	1,308	975	32,740	1.279
26	22,351	22,351	1,963	5,958	4,161	10,442	3,802	1,415	1,176	968	29,884	1.337
27	21,719	21,719	1,911	5,791	4,045	13,498	3,800	1,389	1,151	921	32,506	1.497
28	23,998	23,998	2,108	6,394	4,459	19,187	3,791	1,481	1,244	933	39,596	1.650
29	27,505	27,505	2,409	7,322	5,099	26,789	3,789	1,620	1,394	954	49,376	1.795
TOTAL	825,115	825,115	72,360	219,609	153,024	291,466	130,212	48,156	41,275	29,844	985,947	1.195
PERCENT			7.3%	22.3%	15.5%	29.6%	13.2%	4.9%	4.2%	3.0%	100.0%	

Table 1-7: Mine Operating Cost by Unit Operation

Cost Center	Cost (US$/t)
Drill	0.088
Blast	0.266
Load	0.185
Haul	0.0353*
Auxiliary (roads, dumps, etc.)	0.158
General Mine & Maintenance	0.108
Mine G&A	0.036
Total	1.195

*Haulage ranges from $0.176 to $0.974/tonne; $0.353 is the average cost to haul material over the LOM

1.11.3 Plant Operating Cost Estimate

1.11.3.1 Plant Labor

The process plants' staffing has been estimated to have 150 employees (operations 80 employees and maintenance 70 employees) included in the process plants staffing is the laboratory staffing. The maintenance staff was assumed to be 0.9 to 1 ratio to the operation staff exception the administration and supervision staff. An average annual wage of $35,242 which includes fringe benefits of 40% of annual wages was used. Annual plant labor costs are estimated to be $5.3 million.

1.11.3.2 Electrical Power

The electrical power was estimated using data from the M3 data base and estimated at approximately 20.4 kWh per tonne of mineralized material. Power costs were based on a unit price of $0.062 per kWh. Annual plant power costs are estimated to be $18.4 million.

1.11.3.3 Reagents, Wear Items and Grinding Media

Reagents for the process plants include lime, zinc sulfate, sodium cyanide, copper sulfate, Aero 3418A and T-100. Consumption rates were determined from the metallurgical test data or industry practice. Budget quotations were obtained for reagents where available or from other M3 projects with an allowance for freight to site, as shown in Table 1-8.

Table 1-8: Reagent Costs

Reagents	Kilograms per tonne	Dollars per kilogram
Lime	0.570	$0.14
Zinc Sulfate	0.241	$1.10
Sodium Cyanide	0.035	$2.20
Copper Sulfate	0.176	$2.25
Aerophine 3418A	0.012	$12.69
Aerofroth 70	0.038	$3.41

Liner and grinding media consumption was based on industry practice or other M3 projects. Unit prices were obtained from other M3 projects, as shown in Table 1-9.

Table 1-9: Wear Item Costs

Wear Items & Grinding Media	Kilograms per tonne	Kilograms per tonne
Primary Crusher Liners	0.01	$4.28
SAG Mill Liners	0.04	$2.37
Ball Mill Liners	0.02	$2.48
SAG Mill Grinding Media	0.50	$1.24
Ball Mill Grinding Media	0.35	$1.12

An allowance was made to cover the cost of maintenance parts and supplies of the process plants. The allowance was based on $1.00 per tonne mineralized material.

An allowance for operating supplies such as safety items, tools, lubricants and office supplies was made using data from other M3 projects on a unit cost per tonne mineralized material and is estimated at $0.50 per tonne mineralized material. The estimated annual cost for plant supplies and services is $7.2 million.

1.11.4 General & Administration Costs

1.11.4.1 Labor

The General Administration area includes the general manager's office, accounting office, purchasing and warehousing, information services and safety and environmental departments. A total of 60 employees are considered in these departments at an average annual wage of $26,880 which includes fringe benefits of 40% of annual wages.

1.11.4.2 Supplies and Services

Annual allowances for expenses in the General Administration area include supporting departments, legal, risk insurance, travel, training, communication and community relation expenses to name a few. The basis for these annual allowances was estimated using data from other M3 projects. These costs do not include salaries for these departments. The estimated cost for these services, not including G&A labor is approximately $14.6 million annually.

1.11.5 Capital Cost Estimate

Capital costs include mine capital costs, plant capital costs which include generally infrastructure costs, and Owners costs.

1.11.5.1 Mine Capital Cost

Mine capital includes the costs to purchase the initial mining fleet and support equipment, and any pre-production stripping and mine development costs. Sustaining mine capital covers the addition or replacement of the mine fleet, and sometimes stripping costs.

The mine capital cost estimate for Cordero is based on budget quotations for new mine equipment. A summary of the capital estimate by year is presented in Table 1-10. The capital expenditure is shown in the year that the equipment is needed. Mine major equipment includes, but is not limited to blast-hole drills, loading units, haul trucks, dozers, and graders. Mine support equipment includes but is not limited to fuel trucks, pickup trucks, cranes, forklifts, mechanics trucks, and bulk explosives trucks.

All of the necessary equipment to mine approximately 100,000 tonnes per day of total material is purchased during years -1 and 1. The capital expenditures shown in years 2 through 7 are for additional trucks as haul lengths increase. The capital expenditures beyond year 7 are for equipment replacements as each piece of equipment reaches the end of its useful life.

Table 1-10: Mine Capital Cost Summary by Year ($000)

Year	Mine Major Equipment	Mine Support Equipment	Other Equipment	Total
-1	45,277	5,688	3,772	54,737
1	31,697	2,695		34,392
2	10,639			10,639
3				
4		332		332
5	4,597			4,597
6	4,597	1,881	150	6,628
7	4,597	83		4,680
8	610	2,882		3,492
9	1,150			1,150
10	6,340	140		6,480
11		546		546
12	1,445	2,237	150	3,832
13		83		83
14	7,858			7,858
15		225		225
16	2,429	3,441		5,870
17	549			549
18		1,335	150	1,485
19		83		83
20	1,150	332		1,482
21	4,895	686		5,581
22	610			610
23	1,445			1,445
24		4,217	150	4,367
25	22,640	83		22,723
26	4,597	546		5,143

Table 1-11: Mine Major Equipment Unit Cost

Mine Major Equipment	Delivered Price ($000)
PV235 Rotary Drill	1,812
6060 Hydraulic Shovel	11,320
994F Loader	5,327
793F Haul Truck	4,597
D10 Track Dozer	1,445
834H Wheel Dozer	1,150
16M Motor Grader	1,150
785D Water Truck	2,982
993K Auxiliary Wheel Loader	2,429
777 Auxiliary Haul Truck	1,732
Roc T30 Drill	549
349F Excavator	610

Initial capital costs for the processing plant and tailings disposal facility were estimated using historical database from similar projects of this type that have been constructed by M3 in Mexico.

1.11.5.2 Plant Capital Cost

Initial capital costs for the processing plant were estimated using historical data from similar projects of this type that have been constructed by M3 in Mexico. Initial capital is defined as all capital costs through to the end of construction. All costs are in 1st quarter 2018 US dollars. M3 classifies this plant as a medium-high tonnage plant.

Using historical projects, M3 populated the equipment list with prices of similar equipment and escalated the prices of equipment by 3% per year from when the equipment price was quoted. Material takeoffs were developed for civil, concrete, and structural steel from similar projects. Costs for architectural, piping, electrical, and instrumentation disciplines were factored.

The conceptual tailings disposal facility was developed by Golder Associates in 2011 and was the basis for the current initial and sustaining TSF capital costs.

Table 1-12 lists the capital cost estimate by plant area. M3 estimates an initial capital expenditure of approximately $485 million will be required to construct the process plant, tailings storage facility, and road, power line, and other infrastructure required for the Cordero Project.

The accuracy of this estimate for those items identified in the scope-of-work is estimated to be within the range of +35 to -30 percent.

Table 1-12: Cordero Initial Capital Costs by Area

Area	Description	Cost
000	General Site	13,534,539
100	Primary Crushing	16,294,068
150	Coarse Ore Stockpile	18,951,580
200	Reclaim	13,012,477
300	Grinding & Classification	67,201,583
310	Pebble Crushing	5,913,229
400	Lead Rougher Flotation	9,336,946
405	Zinc Rougher Flotation	6,628,051
410	Lead Regrind Circuit	6,571,832
415	Zinc Regrind Circuit	6,250,298
420	Lead Cleaner Flotation	3,068,521
425	Zinc Cleaner Flotation	3,828,151
500	Lead Con Dewatering	14,088,737
505	Zinc Con Dewatering	4,975,388
600	Tailings System & Starter Dam	19,912,076
650	Fresh/Fire Water Systems	7,196,107
700	Main Substation	16,418,500
800	Reagents	9,441,478
900	Ancillaries	35,991,319
	Freight/Immex	20,931,585
	Total Direct Field Cost	299,546,465
	Field Indirects	5,987,400
	EPCM	48,885,400
	Spares, Vendor Services, Commissioning	7,092,000
	Total Direct and Indirect Costs	361,511,265
	Contingency (30%)	108,453,380
	Power Transmission Line	15,000,000
	Total Plant & Infrastructure Capex	484,964,645

1.12 PLANT SUSTAINING CAPITAL

Once the Cordero plant is operating, the largest sustaining capital cost is the expansion of the TSF. Approximately $92 million is allocated across the mine life for expanding the TSF. Another $2 million annually in unspecified capital equipment replacements have been allocated to replace or rebuild pumps, screens, conveyors, and other plant equipment for Years 5 thru 26. The total plant sustaining capital cost is estimated to be $136.2 million.

1.13 OWNERS COST

The Owners cost covers a variety of costs including first fills, construction insurance, Owners management during project development, and staffing and training of staff during preproduction. The Owners cost for the Cordero Project is estimated to be $30 million which is approximately 6% of plant and infrastructure initial capital costs.

1.14 ECONOMIC ANALYSIS

The Cordero project economics were done using a discounted cash flow model. The financial indicators examined for the project included the Net Present Value (NPV), Internal Rate of Return (IRR) and payback period (time in years to recapture the initial capital investment). Annual cash flow projections were estimated over the life of the mine based on capital expenditures, production costs, transportation and treatment charges and sales revenue. The life of the mine is approximately 15 years. Products being produces will be zinc concentrate and a lead concentrate.

Mine production is reported as mineralized material and waste from the mining options. The annual production figures were obtained from the mine plan as reported previously. The life of mine sulfide mineralized material quantities and mineralized material grade are presented in Table 1-13.

Table 1-13: Mine Production

	Tonnes (000)	Zinc (%)	Lead (%)	Gold (g/t)	Silver (g/t)
Mineralized material	417,526	0.43%	0.26%	0.06	19.39
Waste	407,589				

The following products will be produced from the Process Plant:

- Zinc Concentrate with gold and silver credits
- Lead Concentrate with gold and silver credits

The estimated recoveries for each metal are shown in Table 1-14 and life of mine saleable production is presented in Table 1-15.

Table 1-14: Metal Recoveries

	Zinc Concentrate	Lead Concentrate
Zinc	72%	
Lead		84%
Gold	20%	20%
Silver	10.6%	74.6%

Table 1-15: Life of Mine Metal Production

	Zinc (000 lbs)	Lead (000 lbs)	Gold (000 ozs)	Silver (000 ozs)
Zinc Concentrate	2,430,588		173	27,593
Lead Concentrate		1,991,524	173	203,045

The process plant products will be shipped from the site to smelting and refining companies. The smelter and refining treatment charges will be subject to negotiation at the time of final agreement. A smelter may impose a penalty either expressed in higher treatment charges, or in metal deductions to treat concentrates that contain higher than specified quantities of certain elements. It is expected that the concentrate will not pose any special restrictions on smelting and refining, and that the concentrates will be marketable to smelting and refining companies. The smelting and refining charges calculated in the financial evaluation include charges for smelting and refining these products. The off-site charges that will be incurred are presented in Table 1-16.

Table 1-16: Smelter Return Factors

Zinc Concentrates	
Payable Zinc	85.0%
Payable Gold	60.0%
Payable Silver	80.0%
Zinc Deduction (if grade <53%)	8.0%
Gold Deduction (troy oz/dmt)	0.010
Silver Deduction (troy oz/dmt)	4.000
Base Treatment Charge ($2,500)	$233.00
Plus $ for increase in Zinc Price per dmt $2,500 to $3,000	$0.09
Plus $ for increase in Zinc Price per dmt over $3,000	$0.08
Minus $ for increase in Zinc Price per dmt $2,500 to $2,000	$0.04
Minus $ for increase in Zinc Price per dmt under $2,000	$0.04
Gold Refining - $/troy oz	$10.00
Silver Refining - $/troy oz	$0.75
Transportation Charge - $/wmt	$100.00
Penalties	
Arsenic – above 0.3% for 0.1%	$2.00
Magnesium – above 0.5% for 0.1%	$1.50
Mercury 30ppm to 250ppm for 10ppm	$0.30
Mercury >250ppm for 1ppm	$0.50
Moisture	8%
Lead Concentrates	
Payable Lead	95.0%
Payable Gold	95.0%
Payable Silver	95.0%
Lead Deduction (if grade <60%)	3.0%
Gold Deduction (troy oz/dmt)	0.070
Silver Deduction (troy oz/dmt)	2.000
Base Treatment Charge ($2,500)	$211.82
Plus $ for increase in Lead Price per dmt $2,500 to $3,000	$0.08
Plus $ for increase in Lead Price per dmt over $3,000	$0.08
Minus $ for increase in Lead Price per dmt $2,500 to $2,000	$0.04
Minus $ for increase in Lead Price per dmt under $2,000	$0.04
Gold Refining - $/oz	$10.00
Silver Refining - $/oz	$0.75
Transportation Charge - $/wmt	$100.00
Penalties	
Arsenic – above 0.5% for 0.1%	$2.00
Magnesium – above 0.5% for 0.1%	$1.50
Mercury >50ppm for 10ppm	$0.50
Zinc >10% for 1%	$0.25
Moisture	8%

The total capital of new construction (includes direct and indirect costs) is estimated to be $569.7 million. This amount includes $54.7 million for the mine, $485.0 million for the process plant and infrastructure and $30.0 million owner's cost. Any land acquisition or exploration costs or other owner's study expenditures prior to this Scoping Study have been treated as "sunk" costs and have not been included in the analysis.

The total life of mine sustaining capital is estimated to be $270.5 million.

No salvage value was considered in the cash flow analysis as a return of capital from the salvage and resale of equipment at the end of mine life.

Annual revenue is determined by applying estimated metal prices to the annual payable metal before treatment, refinery and transportation charges for each operating year. Sales prices have been applied to all life of mine production without escalation or hedging. Metal sales prices used in the evaluation are shown in Table 1-17.

Table 1-17: Metals Commodity Prices

Zinc	$1.30/lb.
Lead	$1.00/lb.
Gold	$1,300/oz.
Silver	$20.00/oz.

The average Operating Cost over the life of the mine include mine, process plant, general administrative, treatment and refining charges, transportation.

Table 1-18: Operating Cost

	LOM ($000)	$/mill feed tonne
Mining	$983,270	$2.35
Process Plant	$2,120,057	$5.08
General Administration	$469,765	$1.13
Treatment & Refining Charges	$1,675,829	$4.01
Total Operating Cost	$5,248,921	$12.57

Royalties to former mining claim and lease holders are calculated at 1.5% of gross revenues and are estimated at $138.7 million over the life-of-mine. The new national Mining Royalty of 7.5% is based on net revenues and is essentially a tax. It is estimated to be $273.8 million over the life-of-mine.

Reclamation & Closure was based on a model current reclamation during operation and is estimated to be approximately $207 million.

Depreciation was calculated using the straight-line method with the initial capital being depreciated over 10 years and sustaining capital over an 8-year period. The last year of production was used as a catch up year to fully depreciate any assets that had not been fully depreciated.

Taxable income for income tax purposes is defined as metal revenues minus operating expenses, royalty, property and severance taxes, reclamation and closure expense, depreciation. A 30% income tax rate was used in the calculation.

It is assumed for the purposes of this study that the project will be all equity financed. No leverage or debt expense has been applied in the financial analysis.

The result for net income after taxes is $ $1,773 million for the life of the mine.

The economic indicators are shown in Table 1-19.

Table 1-19: Economic Indicators

	$ in thousands
NPV @ 0%	$1,772,532
NPV @ 5%	$699,621
NPV @ 7.5%	$437,725
NPV @ 10%	$260,817
IRR % after taxes	16.5%
Payback Years	4.8

Table 1-20 shows the sensitivity the project has for metal prices, initial capital, operating cost and recovery.

Table 1-20: Sensitivity Cases for Cordero Financial Results

Sensitivities - After Taxes					
Change in Metal Prices	NPV @ 0%	NPV @ 7.5%	NPV @ 10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
20%	$2,950,167	$897,995	$626,901	24.7%	3.5
10%	$2,361,350	$667,860	$443,859	20.7%	4.1
0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-10%	$1,181,336	$206,251	$76,660	12.0%	6.0
-20%	$591,149	($27,706)	($110,197)	6.8%	9.2
Change in Operating Cost	NPV @ 0%	NPV @ 7.5%	NPV @ 10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
20%	$1,310,440	$264,143	$124,885	13.3%	5.4
10%	$1,541,486	$350,970	$192,890	15.0%	5.0
0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-10%	$2,003,579	$524,480	$328,745	18.1%	4.5
-20%	$2,234,625	$611,235	$396,672	19.5%	4.3
Change in Initial Capital	NPV @ 0%	NPV @ 7.5%	NPV @ 10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
20%	$1,692,774	$351,738	$173,946	13.7%	5.5
10%	$1,732,653	$394,731	$217,381	15.0%	5.1
0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-10%	$1,812,411	$480,718	$304,253	18.4%	4.4
-20%	$1,852,291	$523,711	$347,689	20.5%	4.1
Change in Recovery	NPV @ 0%	NPV @ 7.5%	NPV @ 10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
2.0%	$1,868,624	$475,651	$291,063	17.3%	4.6
1.0%	$1,820,578	$456,688	$275,940	16.9%	4.7
0.0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-1.0%	$1,724,487	$418,762	$245,694	16.2%	4.8
-2.0%	$1,676,441	$399,799	$230,571	15.8%	4.9

This study has been performed to the level of a Preliminary Economic Assessment. The PEA is considered 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 that are not Mineral Reserves have not yet demonstrated economic viability. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration or Mineral Reserves once economic considerations are applied. Therefore, there is no certainty that the production profile concluded in the PEA will be realized.

1.15 CONCLUSIONS AND RECOMMENDATIONS

The resource evaluation demonstrates a large, low-grade silver, lead, zinc, and gold resource is present at the Cordero Project. Levon has defined this porphyry belt on the basis of exposed mineralized stocks known from past mining and exploration, and diatremes identified by Levon's geologic mapping and drilling. The project, as it is currently scoped, is taking shape as a major open pittable project with projected mineral resources supporting 29 years of production at 40,000 mtpd. Levon is now in a position to advance the Cordero Project to the pre-feasibility study (PFS) level by conducting the following work:

- In-fill drilling is now needed to provide better definition of the mineral resource to bring Inferred mineralization into Measured and Indicated categories. That effort will require 20 to 60 more drill holes into the main mineralization that has been outlined.

As part of the ongoing exploration work and in preparation for an updated mineral resource estimate, IMC recommends that Levon continue its QA/QC program and develop a more concise set of geologic maps and cross sections, which can be used to further delineate the future mineral resource estimates.

- A new round of mineral resource modeling with better geostatistical support, estimation parameters and boundaries, and a higher confidence tabulation of mineral resources.
- A new geometallurgy model to determine the concentrate production that incorporates geology, variable recoveries based on testwork in those lithology/ore types, and the mine plan.
- Geotechnical pit slope studies to determine the pit slopes, pit sectors, and optimum bench heights.
- A new round of mine engineering to determine the optimized pit shell, pit phases and designs, mine extraction schedule, mine equipment requirements, mine capital and operating costs, mine staffing requirements, and equipment replacement schedule.
- A metallurgical testwork program on multiple sample composites based spatially and temporally on the new mine plan. This program will include various comminution testing, flotation testwork, and settling and filtration testwork. Metallurgical drilling is anticipated to augment the new infill drilling core for met testing.
- An updated round of process and plant engineering;
- An update of the TSF design and costing;
- A review of the water supply study;
- An update of the environmental, permitting and social licence work that has been done to-date.

The estimated cost for a complete PFS is in the range of $3.3 million and $7.1 million depending on the drilling requirement.

Seven mine scale targets have been defined to date in the Cordero Belt and initial exploration holes have been drilled. The exploration results have locally intersected mineralized intervals and key geologic formations and warrant exploration follow up.

2 INTRODUCTION

The Cordero Project Preliminary Economic Assessment Update (PEA Update) is prepared for Levon Resources, Ltd (Levon) of Vancouver, BC by M3 Engineering and Technology Corporation (M3) and Independent Mining Consultants, Inc. (IMC) of Tucson, Arizona. This report is prepared in support of the mineral resource for the Cordero Project announced by Levon in a press release on March 5, 2018. The effective date of this report is March 1, 2018.

The geology, background information and drill hole information used for the preparation of the mineral resource and this technical report was provided to IMC by Levon. IMC has not verified all of the provided data but has no reason to believe that it is not of industry standard quality. Input data for the net smelter return (NSR) calculation done by IMC was provided by M3 Engineering and Technology Corporation (M3) based on its experience on similar polymetallic deposits.

All units of measure are metric (except where identified as different) and all currency is US dollars (except where noted as Canadian dollars [CND]).

2.1 SOURCES OF INFORMATION AND LIST OF QUALIFIED PERSONS

Daniel H Neff, P.E., is the qualified person responsible for the overall project results, project infrastructure, the interpretations and conclusions and recommendations for this report. He is the Chairman of the Board of M3 Engineering & Technology Corporation. Mr. Neff is a graduate of the University of Arizona with a B.S. and a M.S. in Civil/Structural Engineering. Mr. Neff has not visited the site.

Thomas Drielick, P.E., is the qualified person responsible for the metallurgy, mineral processing, capital cost estimating, and financial analysis for this report. He is the Controller, Process Department Head, and Board member of M3 Engineering & Technology Corporation.

Mr. Richard K. Zimmerman, R.G. and a Registered Member of SME, is the qualified person responsible for environmental studies, permitting, and social and community impact. Mr. Zimmerman visited the Cordero site twice, once in March 2, 2011 and in March 15, 2014 after Levon completed the acquisition of the Aida claim.

Herbert E. Welhener, Vice President of IMC is the qualified person for the mineral resource estimate and this technical report. He is also the QP for mine engineering including mine capital and operating costs for the project. Mr. Welhener latest personal inspection of the property was on May 29-30, 2017.

The names, responsibilities, affiliations, and designations of each Qualified Person are summarized in Table 2-1.

Table 2-1: List of Qualified Persons

Author	Company	Designation	Section Responsibility
Daniel H. Neff	M3 Engineering & Technology Corporation	P.E.	1, 2, 3, 18, 19, 24, 25, 26, and 27
Thomas Drielick	M3 Engineering & Technology Corporation	P.E.	13, 17, 21.1.2, 21.1.3, 21.2.2, 22
Richard K. Zimmerman	M3 Engineering & Technology Corporation	SME-RM	20
Herbert E. Welhener	IMC	MMSA-QPM	4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 21.1.1, 21.2.1, and 23

Other sources of information are as referenced in Sections 3 and 27 of this report.

2.2 TERMS OF REFERENCE AND UNITS OF MEASURE

This Preliminary Economic Assessment (PEA) Update is intended for the use of Levon for the further development and advancement of the Cordero Project towards the Pre-feasibility Study stage. It provides a mineral resource estimate, a classification of resources in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM, 2014) classification system and an evaluation of the property, which presents a current view of the potential project economic outcome.

All units of measure are metric (except where identified as different) and all currency is in US dollars (except where noted as Canadian dollars [CDN]).

2.2.1 Mineral Resources

The mineral resources and mineral reserves have been classified according to the "CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines" (May 2014). Accordingly, the Resources have been classified as Measured, Indicated or Inferred, the Reserves have been classified as Proven, and Probable based on the Measured and Indicated Resources as defined below.

- A Mineral Resource is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.
- An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.
- An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
- A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough to confirm both geological and grade continuity.

2.2.2 Mineral Reserves

A Mineral Reserve is the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Pre-Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

- A 'Probable Mineral Reserve' is the economically mineable part of an Indicated, and in some circumstances a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

- A **'Proven Mineral Reserve'** is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

Since this study is a Preliminary Economic Assessment Update, it does not include mineral reserves.

2.2.3 Glossary

Term	Definition
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the mineralized material.
Crushing	Initial process of reducing mineralized material particle size to render it more amenable for further processing.
Cut-off Grade (CoG)	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	Waste, which is unavoidably mined with mineralized material.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of an ore body or stope.
Gangue	Non-valuable components of the mineralized material.
Grade	The measure of concentration of gold within mineralized rock.
Hanging wall	The overlying side of an ore body, fault, or slope.
Haulage	A horizontal underground excavation which is used to transport mined mineralized material.
Hydrocyclone	A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Lithological	Geological description pertaining to different rock types.
LoM Plans	Life-of-Mine plans.
LRP	Long Range Plan.
Material Properties	Mine properties.
Milling	A general term used to describe the process in which the mineralized material is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Assets	The Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Pillar	Rock left behind to help support the excavations in an underground mine.
RoM	Run-of-Mine.
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft	An opening cut downwards from the surface for transporting personnel, equipment, supplies, mineralized material and waste.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.

Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulfide	A sulfur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operating and capital nature.
Variogram	A statistical representation of the characteristics (usually grade).

2.2.4 Abbreviations

Abbreviation	Unit or Term
A	Ampere
AA	atomic absorption
a/m^2	amperes per square meter
ANFO	ammonium nitrate fuel oil
Ag	Silver
ARD	acid rock drainage
Au	Gold
AuEq	gold equivalent grade
bft^3	billion cubic feet (feet)
BLM	US Department of the Interior, Bureau of Land Management
°C	degrees Centigrade
CoG	cut-off grade
cm	Centimeter
cm^2	square centimeter
cm^3	cubic centimeter
cfm	cubic feet per minute
CRec	core recovery
Cu	Copper
°	degree (degrees)
dia.	Diameter
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
FA	fire assay
famsl	feet above mean sea level
ft	foot (feet)
ft^2	square foot (feet)
ft^3	cubic foot (feet)
ft^3/st	cubic foot (feet) per short ton
g	Gram
gal	Gallon
g/L	gram per liter
g-mol	gram-mole
gpm	gallons per minute
g/st	grams per short ton
Ha	Hectares
HDPE	Height Density Polyethylene
hp	Horsepower
ICP	induced couple plasma

Abbreviation	Unit or Term
ID2	inverse-distance squared
ID3	inverse-distance cubed
ILS	Intermediate Leach Solution
in	Inch
kg	Kilograms
km	Kilometer
km^2	square kilometer
koz	thousand troy ounces
kst	thousand short tons
kst/d	thousand short tons per day
kst/y	thousand short tons per year
kV	Kilovolt
kW	Kilowatt
kWh	kilowatt-hour
kWh/st	kilowatt-hour per short ton
L	Liter
L/sec	liters per second
Lb	Pound
LHD	Long-Haul Dump truck
LLDDP	Linear Low Density Polyethylene Plastic
LoM	Life-of-Mine
M	Meter
Ma	Million years ago
m^2	square meter
m^3	cubic meter
mg/L	milligrams/liter
mi	Mile
mi^2	Square mile
Mlbs	million pounds
mm	Millimeter
mm^2	square millimeter
mm^3	cubic millimeter
MME	Mine & Mill Engineering
Mo	Molybdenum
Moz	million troy ounces
MSHA	Mine Safety and Health Administration
Mst	million short tons
Mst/y	million short tons per year

Abbreviation	Unit or Term
MW	million watts
MVA	Megavolt Ampere
m.y.	million years
NEPA	National Environmental Policy Act of 1969 (as Amended)
NGO	non-governmental organization
NMDOT	New Mexico Department of Transportation
NMED	New Mexico Environment Department
NMMD	New Mexico Dept. of Energy, Minerals and Nat. Res. - Mining and Minerals Division
NI 43-101	Canadian National Instrument 43-101
oz	troy ounce
oz/s	troy ounce per short ton
%	Percent
PLS	Pregnant Leach Solution
PMF	probable maximum flood
POO	Plan of Operations
ppb	parts per billion
ppm	parts per million
psi	pounds per square inch

Abbreviation	Unit or Term
QA/QC	Quality Assurance/Quality Control
RC	rotary circulation drilling
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission
sec	Second
SG	specific gravity
st	short ton (2,000 pounds)
t	tonne (metric ton) (2,204.6 pounds)
st/h	short tons per hour
st/d	short tons per day
st/y	short tons per year
TSF	tailings storage facility
TSP	total suspended particulates
µ	micron or microns, micrometer or micrometers
V	Volts
VFD	variable frequency drive
W	Watt
XRD	x-ray diffraction
Y	Year
yd^2	square yard
yd^3	cubic yard

3 RELIANCE ON OTHER EXPERTS

Levon has provided all of the claim and land position information, which were verified by Karina Rodriguez, an attorney for Levon. This report relies on the expertise of Ms. Rodriquez for the accuracy and currency of the land position presented in Section 4.2. The statement from Ms. Rodriguez is titled “Minera Titán, S.A. de C.V., Cordero Project” and dated April 25, 2012.

Additional title work search for Aida claim was conducted by Ms. Rodriguez in June 2013.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Cordero Project is located in the State of Chihuahua in North Central Mexico approximately 180 km south of the city of Chihuahua, and approximately 35 km northeast of the mining town of Hidalgo del Parral (Figure 4-1). The property is centered on latitude 27 degree, 17.828 minutes N, longitude -105 degrees, 36.367 minutes W.

The project standard data projection is UTM NAD 27, US Zone 13 in meters.

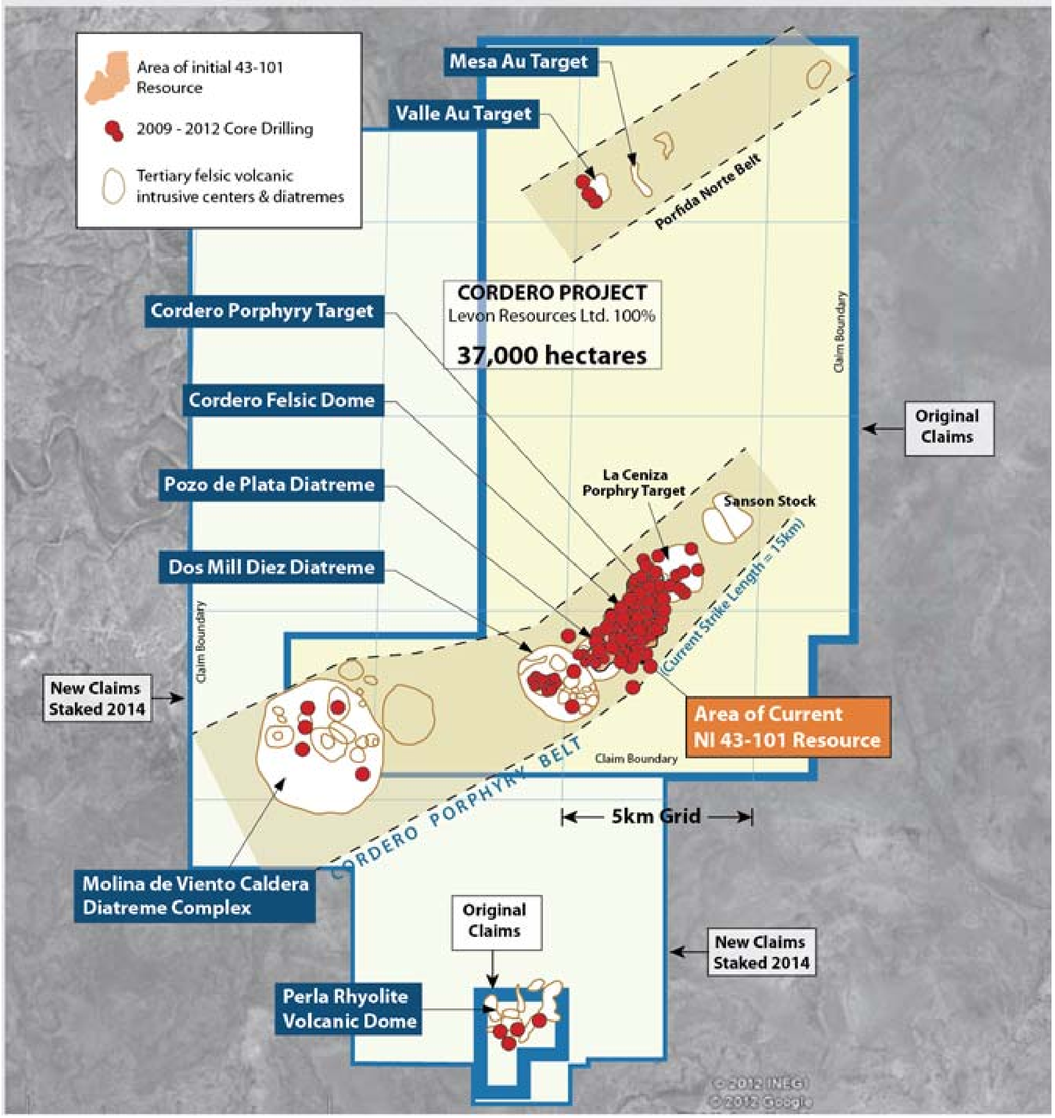
The current land use is cattle ranching and some agriculture with corn, alfalfa and sorghum grown for the livestock being the principal crops.

Figure 4-1: Cordero Project Location Map

4.2 MINERAL CONCESSION AND AGREEMENTS WITH SURFACE OWNERS

4.2.1 Mineral Rights

The mining concessions were reviewed in detail by Ms. Karina Rodriguez, Minera Titan Counsel, Mexico City (Rodriguez, 2016) and are listed in Table 4-1. The Cordero Project is covered by contiguous mining concessions wholly owned by Minera Titan S.V. de C.V, a Mexico company wholly owned by Levon Resources Ltd. The mineral rights have largely been secured by staking contiguous lode claims (concesiones mineras) that cover approximately 37,000 hectares. Only two small inlying claims in the district are not owned by Minera Titan. These two claims are of no consequence since they are situated outside the southern fringes of the Perla prospect along the south margin of the property (Figure 4-2).



Note: Cordero Property map showing the land position boundary of the 2013 claim block and the 2014 claim staking expansion that doubled the property to the present 37,000 hectares. The 2018 Resource, drill holes (red dots), the porphyry belts and the Perla Felsic Dome as shown for reference.

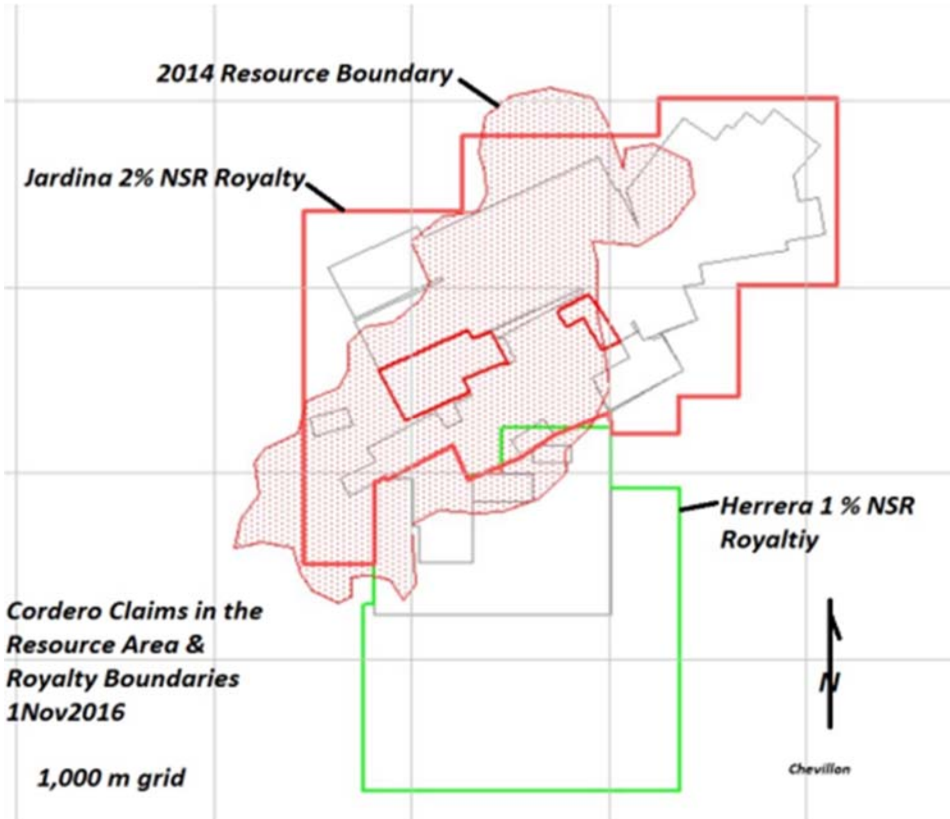
Figure 4-2: Cordero Property Map

In July of 2013, after 7 years of negotiations, the 15.9-hectare Aida Claim in the center of the resource was purchased outright by Minera Titan for a cash payment with no royalties or underlying obligations to the past owners (Table 4-1).

Option to purchase agreements on Herrera claim parcel (Mining claims Josefina, Berta, La Unidad, La Unidad Dos, Unificación Cordero) and the Jandrina, S. de R.L. Mi and the Jandrina claim parcel (Mining claims Argentina, Cata de Plateros, Sergio, Santo Job, Todo Santos, San Octavio) were also exercised in 2013. Under the terms of the option agreements, their artisan mining activities were terminated and their small mines abandoned to the control of Minera Titan. NSR royalties are retained by the previous owners of the purchased claim parcels as described in Figure 4-3 and Table 4-1.

Table 4-1: List of NSR Obligations, Cordero Project

Lot	Title Number	Area (hectares)	Ownership	Additional Notes
Sansón	230434	7510.8325	Minera Titán 100%	Applications were done by Minera Titan directly.
Sansón I	231280	950.0000	Minera Titán 100%	
Sansón II	231281	400.0000	Minera Titán 100%	
Sansón fracción 1	228104	0.0763	Minera Titán 100%	
Sansón fracción 2	228105	0.0906	Minera Titán 100%	
Titán	235089	1,700.0000	Minera Titán 100%	
Titán I	235090	8,150.0000	Minera Titán 100%	
Titán II	241084	100.0000	Minera Titán 100%	
La Perla	240461	400.0000	Minera Titán 100%	
Oeste	244605	3,695.0294	Minera Titán 100%	
Signos	244600	3,756.6168	Minera Titán 100%	
Volcan	246016	3,757.1525	Minera Titán 100%	
San Pedro	215161	1.9422	Minera Titán 100%	San Pedro purchased (100%) from Minera Cordilleras in 2010. Assignment agreement is legally registered. Underlying 2% NSR (only under this lot). Minera Titan has first right of refusal.
Unif. Cordero	171994	218.8683	Minera Titán 100%	On February 21, 2013, option was exercised with Jandrina, S. de R. L., Mi. Assignment agreement is legally registered. Underlying 2 % NSR. Minera Titan has the followings rights: (i) To acquire until the 50% of the royalty (1%) paid to Jandrina USD$500,000.00 for each 0.50%. and (ii) The right of first refusal to acquire to Jandrina´s royalty in front of any proposal of a third bona fide third party.
Argentina	179438	3.9140	Minera Titán 100%	
Catas de Plateros	177836	2.0000	Minera Titán 100%	
Sergio	214655	9.8172	Minera Titán 100%	
El Santo Job	213841	155.5708	Minera Titán 100%	
Todos Santos	238776	2.5040	Minera Titán 100%	
Josefina	172145	6.0750	Minera Titán 100%	On February 21, 2013, option was exercised with Mr. Eloy Herrera. Assignment agreement is legally registered Underlying 1% NSR. Titan retains first right of refusal on remaining NSR.
Berta	182264	16.5338	Minera Titán 100%	
La Unidad dos	212981	175.7555	Minera Titán 100%	
La Unidad	178498	78.2960	Minera Titán 100%	
San Octavio	165481	2.0000	Minera Titán 100%	San Octavio was acquired on May 2, 2012 from Fernando Rascon. Assignment agreement is legally registered Not underlying NSR or other obligations.
Aida	189299	15.8610	Minera Titán 100%	The Aida claim was acquired on July 2, 2013 Assignment agreement is legally registered. Not underlying NSR or other obligations.
TOTAL		31,109.0749		



Note: Table 4-1 details the exact terms of the royalties.

Figure 4-3: Map of NSR obligations, Cordero Project

In 2014, Minera Titan staked an additional 17,170 hectares to the west and south of its then 20,000-hectare claim position in order to cover altered and mineralized rocks and the prospective strike extensions of Cordero mineralized belts. The 2014 staked claims cover ground previously withdrawn from mineral entry by a Mexico Federal Government, regional natural gas claim. The Mexico Federal Government reopened portions of the natural gas claim for mineral entry in 2014, which facilitated Minera Titan staking, and brought the total project claim position to the current 37,070.36 hectares (Figure 4-2 and Table 4-2).

Table 4-2: Cordero Lode Mining Claim List

LOT	TITLE	YEAR	AREA
Sansón	230434	03/10/06	7,510.8325
Sansón I	231280	23/08/06	950.0000
Sansón II	231281	23/08/06	400.0000
Sansón fracción I	228104	04/10/06	0.0763
Sansón fracción II	228105	04/10/06	0.0906
Titán	235089	09/10/09	1,700.0000
Titán I	235090	09/10/09	8,150.0000
San Pedro	215161	08/02/02	1.9422
Unif. Cordero	171994	21/09/83	218.8683
Argentina	179438	09/12/86	3.9140
Catas de Plateros	177836	29/04/86	2.0000
Sergio	214655	26/10/01	9.8172
El Santo Job	213841	03/07/01	155.5708
Todos Santos	238776	25/10/11	2.5040
Josefina	172145	26/09/83	6.0750
Berta	182264	31/05/88	16.5338
La Unidad dos	212981	20/02/01	175.7555
La Unidad	178498	08/08/86	78.2960
San Octavio	165481	30/09/79	2.0000
Aida	189299	19/08/81	16.0000
Titan II	241084	22/11/12	100.0000
Perla	240461	31/05/12	400.0000
Oeste	244605	04/11/15	3,695.0294
Signos	244600	04/11/15	3,756.6168
Volcan	246016	20/12/17	3,757.1525
Total mining concession granted 31,109.0749			
Application pending			
Ostra			3,799.77
TOTAL 34,908.8449			

4.2.2 Surface Exploration Rights

Surface exploration rights for Cordero claims are maintained by three separate signed and transferrable agreements between Minera Titan, two private ranches, and the Rancho Cordero Ejido. The two agreements with private ranchers cover central portion of the claims and the 2018 resource area. The Rascon agreements also cover the site of the Minera Titan field office and drill core storage buildings. The Ejido agreement covers ground 2 kilometers southwest and west of the resource The agreement payment schedules are summarized in Table 4-3.

Table 4-3: Payment Schedules

Agreement/Owner	Company in the Agreement	Sign Date	Expiration Date	Payments	Note
Ejido Rancho Cordero	Coro Minera de México, S.A. de C.V. /Minera Titán, S.A. de C.V.	Renewal on October 25, 2010	The time required to carry out mining exploration work	MXN$79,020.00 annual.	MXN$79,020.00 annually, payable bi-monthly payments of MX$13,170.00 When drilling, Titan will pay US$100.00 for each drill hole. In the case that roads are required, the cost will be US$ 200.00
Rancho San Julián. Jose Alberto Rico Urbina/ Gregorio Rico Urbina	Minera Titán, S.A. de C.V.	Renewal on January 2, 2014	The time required to carry out mining exploration work	US$ 36,617.50 annual.	US$36,617.50 annual payable monthly payments of US$3,051.46 When drilling, Titan will pay US$100.00 for each drill hole. In the case that roads are required, the cost will be US$ 200.00
Fernando Rascón (Las Tierras in Lote A. Fracc Rancho San Juan)	Minera Titán, S.A. de C.V.	April 24, 2012	The time required to carry out mining exploration work	(No payment for access)	(No payment for access) This is a letter in which Mr. Fernando Rascón Chávez (co-owner) authorizes Minera Titán to enter to Fracción A to "Rancho San Juan". When drilling, Titan will pay US$100.00 for each drill hole. In the case that roads are required, the cost will be US$ 200.00
Fernando Rascón (Lease of the core storage and field office)	Minera Titán, S.A. de C.V.	January 1, 2017	Renewal annually	MXN$23,109.00 monthly.	MXN$23,109.00 monthly Core storage and field office facilities renewal. The rent price shall adjust according consumer index prices.

Four access agreements for exploration mining with private ranchers within the central and western areas of the claims were allowed to expire, but can likely be reinstituted for future exploration according to each of the respective ranchers.

4.3 OTHER CONSIDERATIONS

There are no known environmental liabilities associated with the properties. All required permits to conduct exploration and drilling are up to date.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Cordero project area is located in the southern part of the state of Chihuahua in northern Mexico and is easily accessible by State Highway 24 from Chihuahua or Hidalgo Del Parral (Figure 5-1). The main project access is by the eastern secondary ranch road located 1.62 kilometers north of the small, isolated Zapian store along State Highway 24. The access road is maintained by the ranchers, Levon and the State of Chihuahua and leads 10 km to the Levon field office and core sheds near the center of the Cordero Project behind three locked gates.

5.1 TOPOGRAPHY, CLIMATE, AND PHYSIOGRAPHY

The Cordero Project topography is gently rolling ranch land with elevations that range from 1,500 to 1,700 meters and average 1,600 meters.

The project area is located in the semiarid climatic zone of northeastern Mexico with an average annual rainfall of about 20 centimeters which mostly falls in the months of July, August and September. Average temperature ranges between 1°C to 21°C in January and 18°C to 35°C in June. Work within the project area can be carried out year round. Four-wheel drive vehicles are occasionally required for access during one to three-day rainy periods during the summer.

5.2 VEGETATION

The dominant vegetation consists of xerophytes scrub with sparse grassland. Cattle ranching is the dominant industry of the region. Within Cordero claims local areas of corn, sorghum and irrigated alphalfa production on the ranches is for local cattle feed to supplement grazing.

5.3 ACCESSIBILITY

Chihuahua is the nearest metropolitan city with an international airport, located about 180 km (3 hour drive) north on Highway 24. Torreon is a city 5 hours southeast and has an international airport as well as smelting facilities. A well maintained, private airport with a 9,000 ft. paved landing strip suitable for jet traffic is located 25 km south of Cordero at Allende along the Parral Jimenez highway and has been used by Levon on several trips to and from the property.

5.4 LOCAL RESOURCES AND INFRASTRUCTURE

Hidalgo del Parral is the nearest town and logistical center. Parral is one of Mexico's oldest mining towns with a population of 120,000. Parral is a source of both skilled and semi-skilled mining labor force. There are active mining operations within the city. Nearby underground operations in the Sierra Mountains to the west include the Santa Barbara and San Francisco del Oro mines.

At Cordero water is available from wells and abandoned mine shafts within the project area. The local water table is structurally controls and shallow. Past mining operations were constrained to depths of less than 50-80 meters beneath the surface due to abundant ground water and the limitation of past pumping technologies. Currently, Levon uses mine workings water sources for drill water with diesel powered pumping stations maintained north and south of the resource.

A two-tower, trunk electrical transmission line for Parral crosses the southern part of the Cordero property and is within six kilometers of the Cordero resource. The existing transmission lines in this corridor do not have sufficient capacity to supply the planned operation according to CFE, the national power authority. The CFE completed an initial power alternative study for Levon and concludes additional lines can be built from the Camargo II power plant near Santa Rosalia de Camargo, approximately 75 km to the northeast, utilizing the same corridor. The CFE study presents construction design and estimates and preliminary cost estimates reflected in this PEA.

A second powerline along State Highway 24, 10 km to the east of the property, was constructed by the State of Chihuahua in 2010. In 2015, Chihuahua State installed a small electric line to service the ranches along the project access road from State Highway 24.

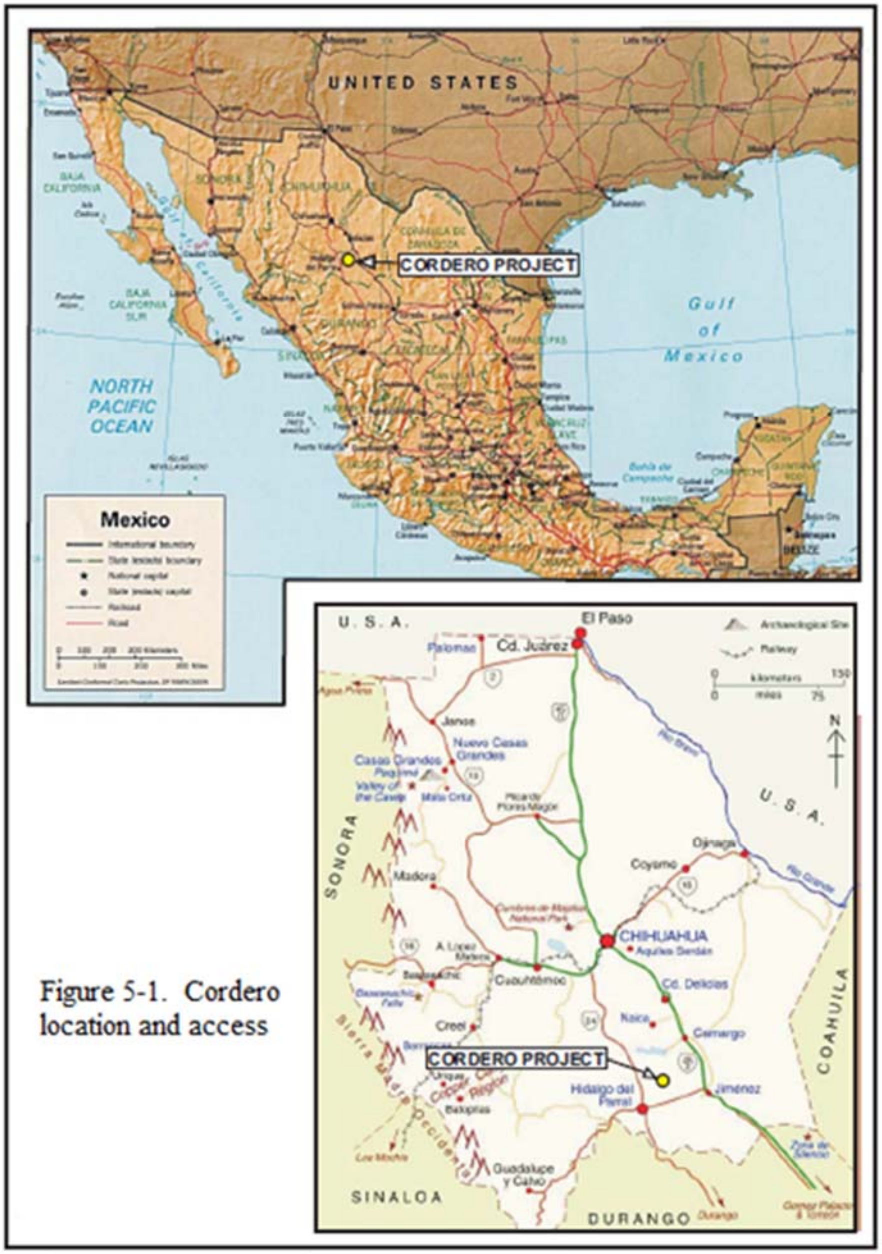


Figure 5-1: Cordero Location and Access

6 HISTORY

Historical mining workings and prospects at Cordero date back to the 17th century and include shallow vertical shafts, open stopes and prospect pits. Mining was mostly on narrow, high grade silver, zinc, lead, gold veins and some high-grade skarn mineralization that was active mostly in the 1940's and 50's and recently to 2013 when Minera Titan consolidated claim ownership in the District and artisan miners stopped work and left the property. There are about 40 shallow, vertical shafts and associated open stopes at Cordero. Recent production has been from direct shipping, hand-sorted ore, shipped and processed in the community mills in Parral. The La luz mine is the largest mine and was active in the 1940's. Remnants of a small six-cell floatation mill built by ASARCO remain at La Luz mine, but no tailings exist, which indicates limited mill use before the mine closed reportedly due to high water volumes.

The district has a reputation for abundant underground water and pumping efforts are evident at La Luz, La Ceniza and Josefina mines. High water volumes and quick recharge according to local miners prevented any deep development in the district. The local miners report that most of the shafts penetrate to the water table at depths of 50-80 meters.

There are no reliable historical production mining records known.

Prior to the present Levon exploration program for bulk tonnage silver, zinc, lead, gold deposits, modern exploration focused on:

1. Narrow, high grade underground vein and intrusive contact deposits within the Cordero Dome and La Ceniza Stock.
2. Bulk tonnage porphyry copper and molybdenum potential within and near the Sanson Stock at the northeast end of the Cordero Belt and
3. Gold skarn and porphyry Au deposits the Porfido Norte Belt by Peñoles in 2000.

Documentation of the exploration described above has not been found except for one Peñoles report on some of their porphyry gold exploration in the Porfido Norte Belt. All historical drill hole collars have been found and marked.

The following summary relies on local miner reports and piecing together some past drill core and hole locations that have been found at the property.

6.1 CORO MINERA EXPLORATION ACTIVITIES

Eng. Francisco Armenta and Juan Manuel Viveros, exploring in Mexico for Coro Minera, a wholly owned subsidiary of Valley High Ventures, Ltd. (VHV) first recognized, the possible silver and porphyry related bulk tonnage potential of the Cordero mineralized area in 2005-2006. This was based on a property examination which followed up on a description of the mineralization in the district from industry contacts. It took a year to negotiate agreements with claim owners and surface rights agreements over the main part of the historical district. At about the same time the agreements were concluded, the surrounding land came open to staking, and it was staked by Coro Minera.

From 2006 to 2008, Coro Minera completed geologic mapping, rock sampling, a soils grid and a series of five trenches centered over the Sanson Stock, La Ceniza Stock, and the Cordero Dome. Coro Minera compiled the available project data and located some of the existing drillhole collars in the field. They also found and cataloged historical drill core stored in various adobe mine buildings around the property. The salvaged core was scientifically re-boxed, preserving the core run block as possible and remarking the new boxes to match the original boxes when possible. The historical core was re-logged and it was discovered that much of the core was not split, even though it was mineralized with megascopic sphalerite and galena, veins, crackle breccias, including polymictic breccias and disseminations. Logging also revealed there were large gaps of missing core in many of the salvaged core holes.

Coro Minera split and sampled the remaining historical core and documented several wide bulk tonnage intercepts of silver, zinc, lead and gold mineralization, which they interpreted as evidence of bulk tonnage deposit potential. Geologic tours by VHV management of some of the rare cross cuts among veins in the accessible underground mine workings lead to the impression that no mineralization was present in wall rocks adjacent to the veins (Juan Manuel Veveos, personal communication to Vic Chevillon, February 2009).

By 2009, VHV dropped about 50% of the staked mining claims and later decided to seek a joint venture partner for the property to carry on exploration. VHV submitted a brief property summary to Levon in early January 2009. Levon negotiated the framework of a joint venture agreement on the basis of the report and conducted a two-day field visit January 16 and 17, 2009.

6.2 LEVON EARLY EXPLORATION ACTIVITY

On January 16, 2009, Levon visited the property and recognized potential porphyry controls on out cropping silver, zinc, lead and gold mineralization, in the historical core and on several of the historical mine dumps. The main part of the district appeared to be hosted by a felsic volcanic dome with at least one poorly exposed mineralized stock to the northeast in the area now named the Sanson Stock. The existence of a possible porphyry belt was projected, based on the field visit, the Coro Minera geologic map and distribution of historical mine workings.

On January 17, 2009, Levon recognized diatreme breccia in isolated outcrops in an arroyo near a water well where reports of visible silver minerals by a local miner who had deepened a well by hand to reach water (Figure 6-1). Fine grained galena and sparse galena veins are exposed in the water well spoils pile. Outcrops in an arroyo within 10 meters of the water well expose breccias that are cut by limonite stained, rusty weathering carbonate, and quartz veinlets with traces of malachite, sphalerite and galena. The breccias exhibit diagnostic diatreme breccia textures and appear mineralized. The breccias contain polymictic clasts (rhyolite, dacite, limestone, limey mudstone), which are poorly sorted and set in a similar matrix material that grades to rock flour sized particles. The outcrops (cover photo) had not been visited, mapped nor sampled by Coro Minera or prospected by historical pits in the past. Diatreme breccias are key mineralized host rocks types that host the Peñasquito discovery outcrops (Tom Patton, Personal Communication, March 2002). The geology of the mineralized Cordero diatreme outcrops in the projected porphyry belt recognized the previous day lead to the recommendation for Levon to pursue a Joint Venture (JV) to explore and develop the property.

The rounded shapes in the photo are diatreme breccia clasts of all sizes that often contain older, rounded breccia clasts that evidences a complex history of breccias. The light brown rock colors are iron oxides from disseminated sulfide weathering.

Figure 6-1: Discovery outcrops, Pozo de Plata Diatreme

Levon and VHV completed the JV negotiation and signed a letter of agreement. Levon returned to the property by February 4, 2009 and began JV fieldwork. From February 4, 2009 on, Levon was the project operator under the JV, controlling how all exploration and JV expenditures (by a verbal understanding with VHV as the definitive JV agreement was drafted).

Large scale, early reconnaissance mapping led to re-staking all available land and the property position doubled in August 2009 to about 20,000 hectares. The staking was guided by geologic mapping, which identified two large scale belts of mineralized porphyry showings: Porfido Norte Belt and the Cordero Porphyry Belt (Figure 6-1).

Levon focused early detailed exploration in the Cordero Porphyry Belt due to the abundance of exposed mineralization, prospects and historical mines within several mineralized stocks, volcanic domes and diatremes. The exploration program included detailed geologic mapping, additional soils and rock chip sampling, an initial 3D induced polarization (IP) survey and Phase 1 core drilling.

Phase 1 drilling started in July, 2009 and included eight holes (19,680 m in core holes C09-1 through C09-8). Holes C09-3, C09-5, C09-8 intersected significant assay grades of mineralized rocks and widths of bulk tonnage silver, zinc, lead and gold mineralization (News Release of November 3, 2009) in two of the Cenozoic intrusive centers within the Cordero Porphyry Belt. Hole C09-5 was the discovery hole (on September 25, 2009) in the Pozo de Plata Diatreme and is located 500 meters northeast of the outcrops where the diatreme was first recognized on January 17, 2009. Hole C09-8 intersected definitive porphyry-style, disseminated and stockwork vein mineralization 1.3 km northeast of C09-5 in an eastern part of the Cordero Felsic Dome complex.

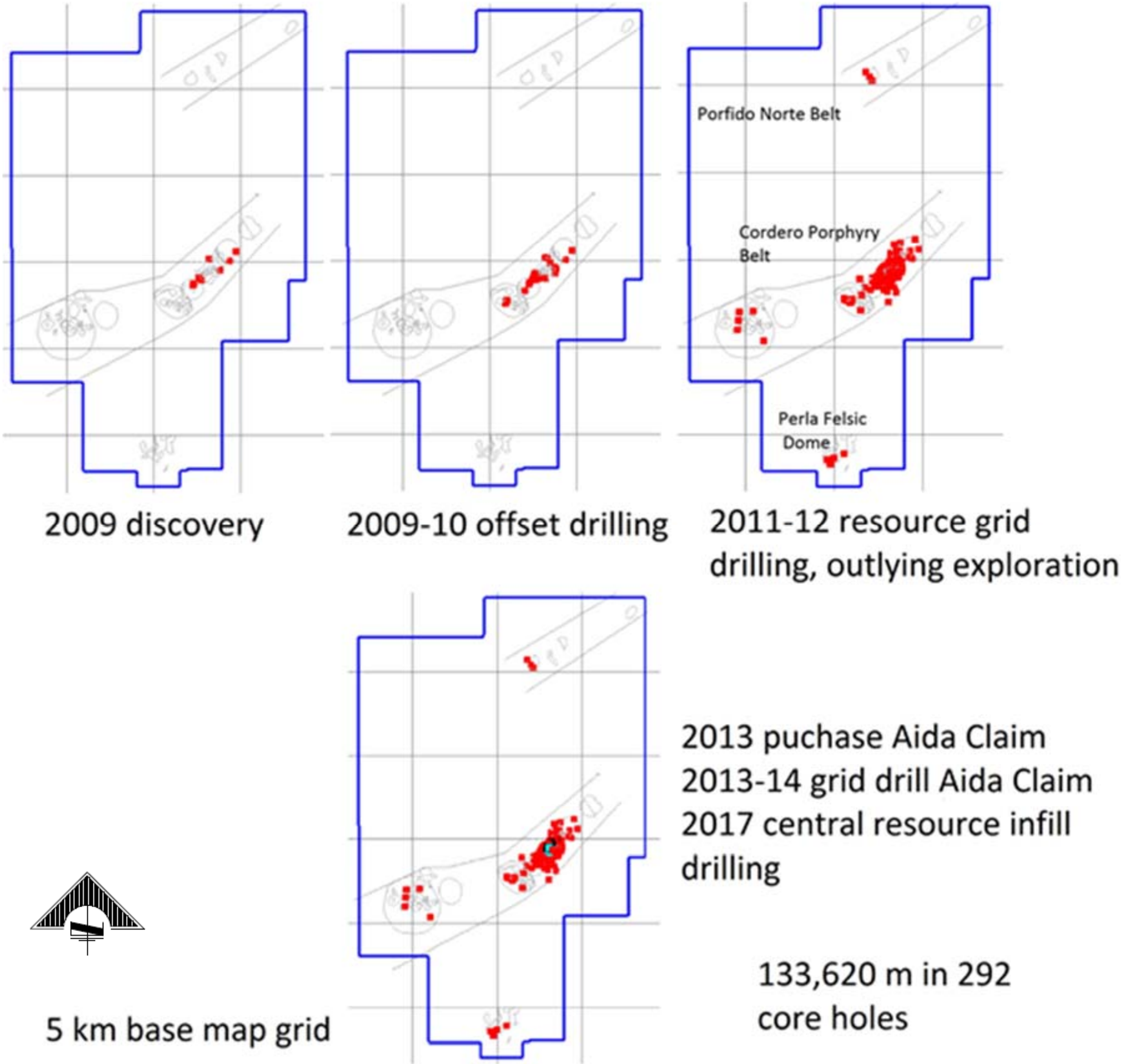
Levon compiled the discovery hole and geologic mapping information of Phase 1 exploration and went to the public stock market and raised funds for Phase 2 exploration (News Releases of August 17 and 30, 2010). A second core drill was mobilized to the project. Geologic mapping, geochemical sample and geophysical surveys to better define targets accelerated during the fund raising.

Once the porphyry geologic controls on mineralization were demonstrated by Phase 1 results, a battery of applicable geophysical surveys used in porphyry exploration world-wide were run at Cordero to define any additional targets proximal to the discovery holes and in outlying areas on the property (detailed in the geology, geochemistry and geophysics sections of this report.

From the 2009 Phase 1 discovery drilling, Phase 2 offset grid drilling around the discovery holes began in 2010 and continued with a third drill mobilized to the property.

The third drill started to test the four outlying exploration targets defined by mapping, sampling and geophysics in 2010 and 2011. Though mineralized rocks were intersected in each of the outlying targets, exploration priorities were to expand the discovery hole offset grid since all holes on the drill grid were intersecting well mineralized rocks.

Figure 6-2 is a property-wide map that shows the progression of the Levon four phase drilling campaign from 2009 discovery through 2017. The map (Figure 6-2) provides a picture of the scope, scale and progression of the exploration targeting and the drilling campaign.



Scope and scale of Levon exploration targeting and drill hole campaign from 2009 discovery to 2017 resource infill drilling as described in this section of the report. Cenozoic mineralized intrusive centers are shown as gray circular features. Drill holes are shown as red points. All holes are core holes. Drilling totals 133,620 m in 292 drill holes. The current mining claim property boundary is in blue (37,070 hectares).

Figure 6-2: Scope and Scale of Levon Exploration Targeting and Drill hole Campaign from 2009 Discovery to 2017 Resource Infill

Phase 2 exploration and offset grid drilling (19,122.7 m of core drilling in 52 holes, C010-09 through C10-60) was designed to:

- Step out grid drilling (50 m centers) to try and offset mineralized rocks in hole C09-5 within the diatreme breccia.
- Wider spaced step out drilling (100-200 m) around holes C09-3 and C09-8 which were projected to be more homogeneous porphyry-style mineralization settings.
- Exploration drilling near the discovery holes in the Cordero Porphyry Belt

- Target definition with expanded geophysical surveys to cover the entire Cordero Porphyry Belt which had been mapped and defined for exploration by the end of Phase 1.
- Initially drill test the Dos Mil Diez Diatreme target discovered by geologic traverses of red color anomalies within circular satellite image anomalies in January, 2010 southwest of the Pozo de Plata Diatreme.
- Continued detailed geologic mapping, rock sampling grid soils sampling and geophysical surveys in outlying areas away from the center of the Cordero Porphyry Belt to identify and prioritized any outlying drill targets for initial testing, covering the Porfido Norte Belt and the Perla Felsic Dome, Diatreme complex (Figure 6-2)

Phase 2 offset grid drilling results were favorable and required additional offset grid drilling. Four outlying targets were defined for initial drill testing and funds for Phase 3 were raised on the public stock market as drilling accelerated and five core drills were working 24 hours per day, 7 days per week.

In early 2010 Levon also met with Independent Mining Consultants (IMC) and M3 Engineering & Technology Corporation (M3) in Tucson, Arizona on the recommendations of Dr. Tom Patton who had lead the Peñasquito discovery in similar rocks and had contracted these companies to address the engineering of his project. IMC and M3 agreed that a first resource estimate was warranted to summarize Phase 2 and early Phase 3 drilling results, as drilling continued. IMC was contracted to model and calculate the first Cordero Project, Canadian Instrument 43-101 mineral resource, which was published in 2011.

Levon met its joint venture vesting expenditure requirements and then bought out the joint venture partner to acquire 100% ownership of the project by March, 2001 (News Release of March 25, 2011).

Phase 3 core drilling (58,990.2 m in 122 holes C10-61 through C11-182) continued the offset grid drilling with 5 core drills at the property. Drilling in the 2011 resource area continued and two drills were moved to explore outlying targets, well away from the resource (Figure 6-2).

Additional resource offset drilling was required from Phase 3 results and Phase 4 exploration funding was raised on the open market (News Release of May 19, 2011) as the resource offset drilling continued.

Phase 4 drilling (52,664.6 m in 110 holes, C11-183 to C17-292) was in progress as a 2012 NI 43-101 resource update and Preliminary Economic Assessment (PEA) was prepared by IMC and M3 and revised in 2013. The 2013 PEA updated the global resource and considered only the uppermost 30% or the resource for development since at the time Minera Titan did not control the 15.9-hectare Aida Claim that is in the center of the resource. The modeled resource open pit and the PEA open pits could not trespass on the Aida Claim, which included no resource material due to the lack of work and agreement access on the Aida claim.

In July 2013, after 7 years of negotiations, Levon successfully bought the Aida claim outright for cash with no underlying royalties (News Release of July 10, 2013). Minera Titan also completed grid and exploration drilling on the Aida claim starting in late 2013 and finishing in early 2014 (14,189.6 m in 24 core holes) with better than projected results (News Release of April 30, 2014). The drilling results were incorporated into a 2014 Cordero NI 43-101 Resource Update prepared by IMC.

Also in 2013 Minera Titan exercised the option to purchase agreements on two parcels of claims that cover the resource. The claim owners ceased their artisan mining operations and left the property as prescribed in the agreements (Figure 4-9) (further detailed in the mining rights section of this report).

In early 2014, the Mexico Federal Government opened lands to mineral claim staking from a Federal natural gas claim that completely surrounded Cordero mineral claims. Minera Titan staked four mining claims and all available lands to cover the strike extensions of mineralized porphyry belts on the property, which doubled the size of the total mineral claim holdings to the current 37,070 hectares (as detailed in the Mineral Rights section) (Figure 6-2).

Based on in-house engineering studies by IMC beginning in October, 2016, Levon designed a 2017 resource infill drilling program to test a geologic projection that closer spaced, resource infill drilling could improve the grade of the resource in the area drilled. The 2017 resource infill drilling (7,091 m in 18 core holes) was completed by August, 2017 (News Release of September 26, 2017).

Levon drilling at Cordero to date totals 133,620 m in 292 core holes from 2009 through 2017.

This 2018 CI 43-101 report updates the Cordero resource based on all Cordero drilling through 2017 and presents a current PEA completed by M3 in collaboration with IMC (News Release of March 5, 2018) to address the development of the 100% owned district.

The Levon exploration approach, technologies and results at Cordero are described in Section 9.

6.3 PRODUCTION HISTORY

About 40 shallow vertical shafts, prospect pits, and open stopes are preset on the property generally developing outcropping, narrow (1-2 m), high grade silver, zinc, lead and gold veins. No records of past production from the district are known. Local artisan miners report most of the production was direct shipping ore, which was hand sorted, shipped and processed in Parral.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Cordero Project is 10 km east of the eastern-most Sierra foothills of the Sierra Madre Occidental Volcanic Province within a transitional geologic domain between the Volcanic Province to the west and the southern extension of Basin and Range Province of block faulting to the east. Published geologic maps and Levon regional reconnaissance mapping reveal basement rocks at Cordero are folded Cretaceous limestone of the Chihuahua Group (Figure 7-1). Cenozoic igneous rocks of the project are part of a calc-alkaline succession that correlates with the rocks of the Volcanic Province to the west, but is dominated not by volcanics, but by intrusives and their associated volcanic rocks within and near their volcanic vent areas.

The intrusives and volcanic vent facies rocks at Cordero are mineralized and form the northeast trending Cordero Porphyry Belt, the Porfido Norte Belt and the Perla Felsic Dome and Diatreme Complex (Figure 4-2). The igneous rocks of the belts range from granodiorite to dacite, rhyolite and diatreme breccia pipes cut by dacite and rhyolite associated dikes and breccia dikes. These rocks host all of the known mineralization with associated skarn and contact related replacement mineralization in their limestone country rocks in the project area.

A thin coeval sequence of andesitic volcanic flows forms a regional volcanic plateau from Parral northward and well east of the thick volcanic fields of the Sierra Madre Volcanic Province. This plateau flow sequence is relatively thin (<100m) in sharp contrast to the 1000's of meters of volcanic flows within the Sierra Province to the west. In the Cordero region, altered and mineralized felsic volcanic domes form volcanic constructional topographic high features that rise above the andesitic plateau surface.

The Cordero Felsic Dome and the Perla Felsic Dome and Diatreme Complex five kilometers to the south form such constructional volcanic topographic features on the Cordero property. Detailed mapping shows felsic domes are comagmatic with the andesite plateau volcanics. The Perla Felsic Dome and Diatreme Complex is at one vent area of the plateau andesite volcanics. The andesite flows of the Molina de Viento Caldera at the southwest end of the Cordero Porphyry Belt form part of the plateau andesite flow units.

There is minimal fault offset (<10 m) by mostly north-south and northeast trending normal faults at the Cordero project of the andesite plateau volcanic sequence. These minimal fault offsets are in sharp contrast to the 1,000+ meter normal fault offsets evident in the Basin and Range Province 15 kilometers to the east of Cordero.

Major streams of the region have partially dissected the andesitic plateau volcanics in the Cordero area with 100-200 meters of maximum erosional relief. The felsic domes are resistant, constructional volcanic topographic features and have been barely eroded. Many of the calderas are also well preserved.

The youngest volcanic rocks are post-mineralization, barren basalt flows and vent facies basaltic volcanic cones that rest unconformably on the dissected plateau andesite sequence, and locally on Cretaceous limestone basement rocks.

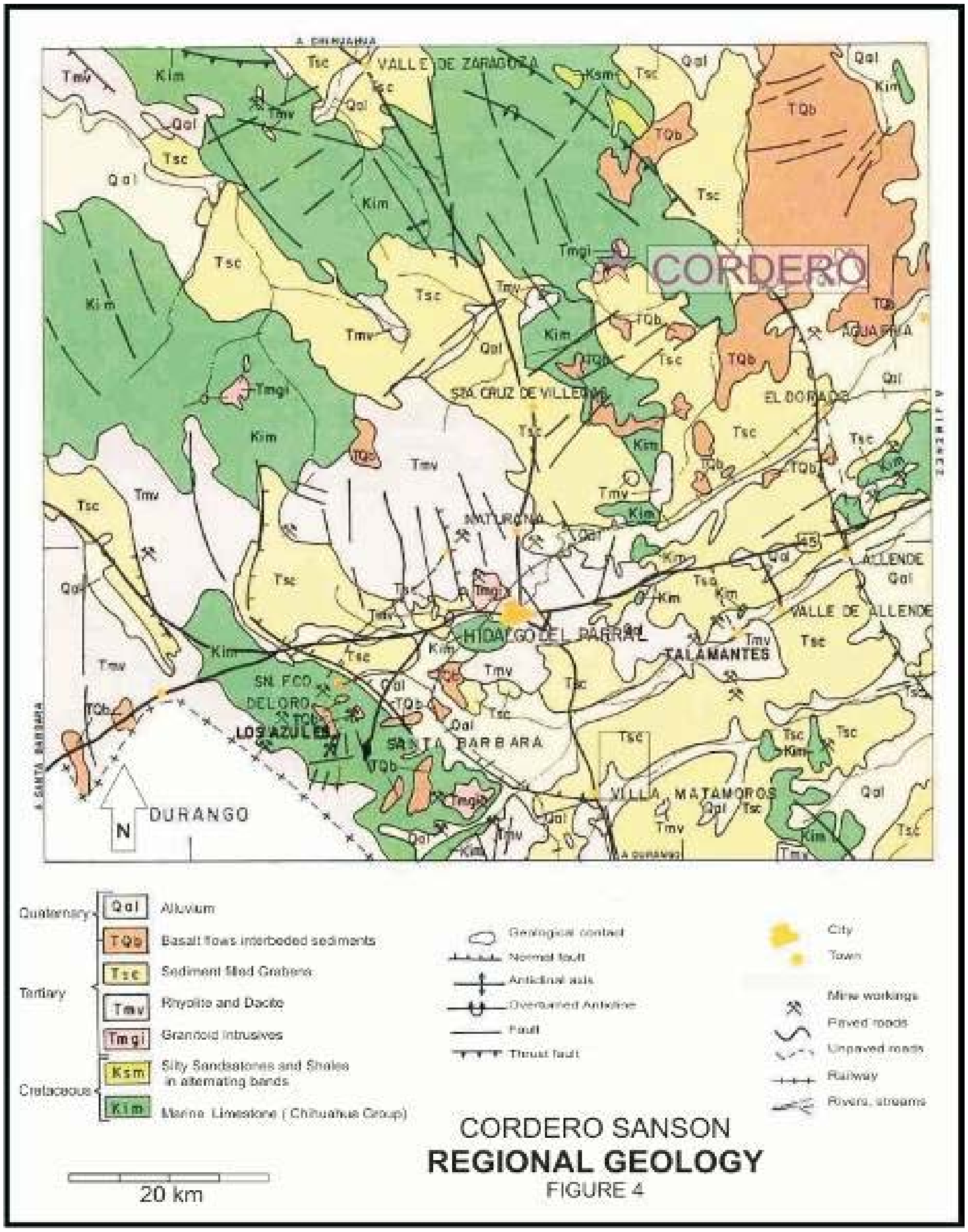


Figure 7-1: Regional Geology of the Cordero Project

(Source: Modified after Bailey, 2011)

7.2 LOCAL GEOLOGY

Levon reconnaissance mapping indicates the large-scale Cordero property geology is relatively simple. A series of Cenozoic intermediate to felsic igneous intrusive and volcanic centers cut Cretaceous limestone country rocks. Comagmatic andesite flows rest unconformably on the limestone country rocks locally, but have been mostly eroded away in the immediate resource area, in the central part of the Cordero Porphyry Belt. Youngest volcanics are small basaltic volcanic fields and volcanic cones that rest unconformably on limestone and the dissected andesite volcanics. The igneous rocks have not been age dated by Levon and follow the published regional geologic mapping age conventions (after Bailey, 2011).

Figure 4-2 is a property-wide map showing the igneous belts and aligned igneous intrusive and volcanic centers defined by Levon mapping. Figure 4-2 shows the nomenclature of intrusive centers and porphyry belts of this report.

Figure 4-2 can be viewed as a simplified regional geologic map of the property showing the igneous intrusive and volcanic belts cutting across limestone country rocks.

Cenozoic stocks and volcanic vent facies felsic domes and diatreme breccias are aligned in two northeast trending belts, with an isolated volcanic center to the south (Perla Felsic Dome, Diatreme Complex). There are isolated erosional remnants of a thin (<100m) andesite flow sequence that forms a dissected, regional volcanic plateau. The andesite flow sequence is coeval with small calderas within and around the Cordero property and the flows still preserve the volcanic constructional topography formed by the calderas.

The youngest igneous rocks are post-mineral basalt volcanic cones and flows that unconformably rest on the plateau and caldera andesite volcanic sequence.

Country rocks are a Cretaceous marine shelf carbonate sequence with thin to medium bedded, interbedded calcareous mudstone, limestone, calcareous siltstone and calcite sandstone. The carbonate country rocks are generally flat lying and deformed by large scale open folds.

Youngest faults are north-south trending Basin and Range normal faults cut bedrock and overlying bedded the volcanics with typically less than 10 meters of offset. Most of the igneous rocks appear not to have been offset or tilted by post volcanic faults. An exception is in the vicinity of faulted caldera sequence southwest of the Dos Mil Diez Diatreme complex where volcanic stratigraphy is slightly offset by NS faults and tilted 45 degrees to form low hog back ridges.

Pre-Cenozoic igneous age faulting is evidenced by the northeast trending igneous belts and in drill hole data that documents up to about 400 m of vertical offset in northeast trending graben shaped basins beneath the Pozo de Plata Diatreme and the Cordero Felsic Dome and Cordero Porphyry Zone areas. North-south, northwest and east-west, syn mineral fracturing is evident in outcrops within the Cordero Felsic Dome and Cordero Porphyry Zone.

Quaternary erosion dissected the terrain as much as 100-200 meters in river valleys, but has not dissected the resistant constructional volcanic ridges and volcanic centers in the Cordero Porphyry Belt, including the Cordero Felsic Dome Complex and Cordero Porphyry Zone, which host part of the 2018 resource.

Levon drilling has largely focused in a central part of the Cordero Belt in a southern area of the Cordero claim block where the resource is defined in this report.

Silver, zinc, lead, gold, copper, and molybdenum mineralization are associated with the intermediate to felsic Cenozoic stocks and related felsic volcanic domes and diatreme breccia complexes and their contact zones. All are altered and mineralized to some extent. Mineralization appears to have occurred at and near the Cenozoic volcanic paleosurface. Figure 7-2 illustrates the preserved relict volcanic topography and the present position of mineralization relative to the Tertiary paleosurface.

Figure 7-2: Surface geomorphology (looking south) of partially eroded mineralized Cenozoic domes (Cordero Dome in foreground, Perla Felsic Dome in background to south protruding above the regional andesite plateau visible in the background of the photo).

7.2.1 Cordero Porphyry Belt Geology

The Cordero Porphyry Belt (Belt) is defined on the basis of reconnaissance and detailed geologic mapping geophysical and geochemical surveys and core drilling. As Levon mapping progressed from 2009 away from the discovery outcrops in the Pozo de Plata Diatreme, additional intrusive centers were documented and the strike length of the Cordero Belt grew into a regional geologic feature. The Belt presently consists of seven mapped igneous intrusive centers aligned within a northeast trend 15 km on strike and 3-5 km wide (Figure 7-3). Exploration results show that each of the intrusive centers of the Cordero Porphyry Belt contain mineralization. At surface the central 3 km of strike length of the Belt is mineralized material and this feature, along with geophysical and geochemical sampling results helped focus most of the current exploration and grid drilling to define the 2018 resource.

The 2018 resource spans four intrusive centers in the central part of the Belt (Figure 7-3). From southwest to northeast the resource is hosted by the Pozo de Plata Diatreme, the Cordero Felsic Dome Complex, the Cordero Porphyry Zone (another slightly older and simpler felsic dome) and the La Ceniza Stock (Figure 7-3).

A longitudinal exploration section through the entire 15 km strike length of the Belt is illustrated in Figure 7-4 illustrates the geologic systematics (and target settings) of the seven mineralized intrusive centers through the strike length of the Belt. The regional geologic setting of the 2018 resource is illustrated in the long section (Figure 7-4).

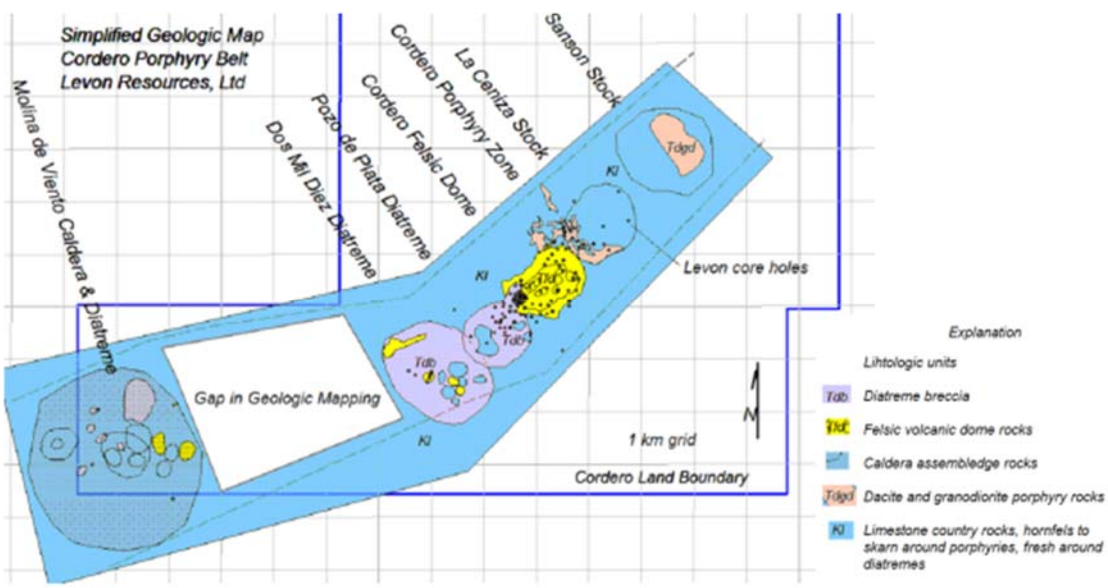
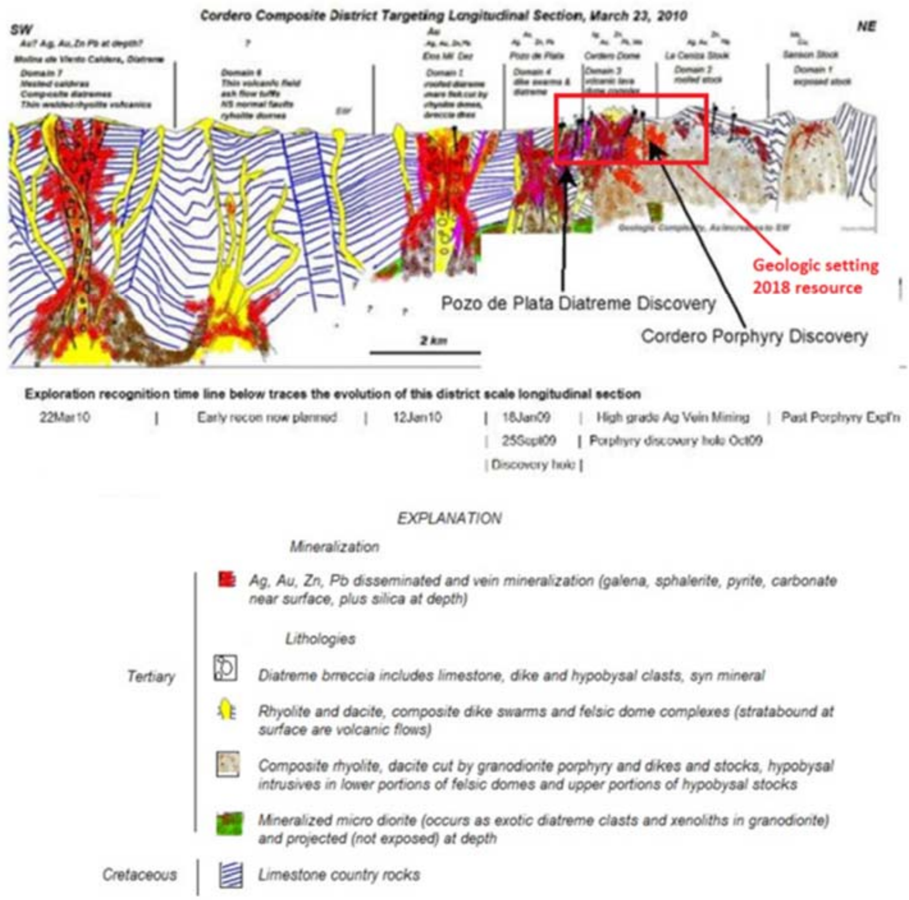


Figure 7-3: Simplified Geologic Map of the Cordero Belt and Nomenclature of this Report

Mapping and exploration results show that mineralized igneous intrusives are exposed at the surface in the northeast end of the belt and are progressively deeper toward the southwestern end of the Belt where a preserved caldera is well exposed at the volcanic paleosurface (Figure 7-3).

Since Cordero resource mineralization is controlled by porphyry-style alternation and mineralization (see the Mineralization section of this report), in the context of the porphyry exploration model, the systematic shallowing of intrusive centers toward the southwest end of the Belt has played an important role in the exploration of each intrusive center along the Belt. In the context of the porphyry exploration model (Lowell and Guilbert, 1970) each intrusive center along the Belt represents its own geologic and exploration domain to be considered by porphyry-model-guided exploration along the Belt by the geologic domain boundaries (vertical lines between the intrusive centers illustrated in the exploration longitudinal section through the 15-km strike length off the Cordero Porphyry Belt, Figure 7-3).



Note: Targeting exploration longitudinal section (vertical scale unknown) looking northwest.

Figure 7-4: Current Cordero Belt Longitudinal Exploration Targeting Cross Section

The mapped and projected igneous intrusive centers and depth of their emplacement vary systematically through the strike length of the Cordero Belt (Figure 7-4).

- Cordero Porphyry Belt with at least 7 igneous intrusive centers (Belt 15 km on strike and 3-5 km wide)
- Igneous intrusive centers are progressively deeper toward the southwest.
- The igneous intrusive centers of the Belt are generally younger to the southwest.

The **Sanson Stock** exposed at the northeast end of the Cordero Belt is granodiorite porphyry and contains stockwork chalcopyrite and molybdenite veins in outcrop. Peñoles explored the Sanson Stock in 2000 for porphyry and skarn-related copper deposits from reports of local miners (no exploration available). The Sanson Stock is surrounded by a contact aureole of chlorite to biotite hornfels, locally cut by radial felsic dikes and fracture zones which contain a few historical prospects. The plateau forming andesite flow sequence is exposed on the flanks of the stock and its domed hornfels country rocks, which is a key geologic relationship that indicates the Sanson Stock is likely the oldest intrusive in the Cordero Porphyry Belt and formed a topographic hill surrounded by the andesite volcanic flows in depositional contact with the hill.

The plateau andesites were erupted later probably during emplacement of the Cordero Felsic Dome and certainly during the emplacement of the Perla Felsic Dome and Diatreme Complex and the Molina de Viento Caldera at the southwest end of the Belt since the andesites form part of the preserved volcanic cones of the volcanic centers.

The geologic setting of the Cordero resource is illustrated in the exploration long section of the Cordero Porphyry Belt (Figure 7-4). The resource is hosted by four of the intrusive centers from the La Ceniza Stock to the Pozo de Plata Diatreme toward the southwest (Figure 7-4).

The **La Ceniza Stock** (named after La Ceniza mine, the former ASARCO mine in the area) is mostly covered by limestone roof rocks primarily exposed on dip slopes. The northeast part of the resource is hosted by the La Ceniza Stock. The roof rocks of the stock crop out northeast of a classic stratabound injection contact zone of the stock exposed in cross section on the slopes along the western contact zone of the La Ceniza Stock.

The current Cordero resource extends into the southwest margin of the **La Ceniza Stock** in disseminated and stockwork vein mineralization within the granodiorite stock at depth.

La Ceniza Stock roof rocks are cut by mineralized, northeast trending rhyolite and dacite dike swarms and small felsic domes, skarn zones and vein zones that have been mined in the past. Historic mines and prospects expose narrow (1-3 meters) vertical northeast trending mineralized vein structures that supported production of silver, zinc, lead, and gold from open stopes up to 500 meters long. Northeast-trending dacite and rhyolite dikes are also exposed in the workings and surrounding outcrops. Replacement mineralization is exposed on many of the mine dumps along with stockwork, porphyry-style silver, zinc, lead and gold mineralization.

The resource is exposed at surface and spans the **Cordero Porphyry Zone, which** is the next intrusive center to the southwest along the Belt. The present resource is exposed at surface and at depth across the Cordero Porphyry Zone. The Cordero Porphyry cuts off the strike extensions of mined veins along its northeast contact. At the surface the Cordero Porphyry Zone is a well exposed, low relief, rounded iron stained dacite hill with prospects and mine workings within northeast trending high grade veins and in high grade contact breccia zones within nested dacite intrusives of the composite volcanic dome. The Cordero resource spans the Cordero Porphyry Zone and includes disseminated and stockwork vein, porphyry style mineralization and diatreme breccia mineralization particularly in silled contact zones with limestone country rocks exposed at the surface and in drill core.

The **Cordero Felsic Dome** complex further southwest hosts the resource in outcrop. The dome appears to cut across and is therefore younger than the Cordero Porphyry Zone dome. What is mapped as the Cordero Felsic Dome complex may be just the youngest phases of the much larger composite volcanic felsic dome intrusions that may include the Cordero Porphyry Zone and the Cordero Felsic Dome together.

The Cordero Felsic Dome complex is largely dacite porphyry, but it has a high proportion of rhyolite composite stocks and dikes within its dome sequence.

The **Cordero Felsic Dome** complex forms a knobby hill and its many nested, composite intrusives and intrusive lobes are well exposed as constructional volcanic topographic knobs on the hill. Detailed core mapping shows that the

Cordero Felsic Dome is laccolith shaped in cross section. The dome margins overly limestone country rocks and the Dome skies out at the volcanic paleosurface which is well preserved. There appears to be two parallel, northeast trending igneous conduit zones that fed the dome as it grew. Surface and drill core mapping demonstrate composite intrusives and nested dacite and rhyolite stocks that fed the dome and were emplaced vertically along the feeder conduits, spread laterally on their sides outward into the dome laccolith flanks, away from the conduits.

Typically, nested composite stocks and composite dikes that form the dome have very high-grade contact breccia mineralization from 1 to 15 m wide, with their interiors well mineralized with porphyry-style, disseminated and stockwork vein mineralization. The nested composite stocks are often behead by previous intrusives within the dome so the geometry and paragenesis of the igneous rocks and mineralization within the dome are very complex and chaotic.

The resource is exposed at surface and spans the Pozo de Plata Diatreme, which is the fourth intrusive center further southwest along the Cordero Belt. The diatreme occupies a circular area about 1 km in diameter. Detailed surface mapping and trenching reveal the Pozo de Plata Diatreme is overlain by composite igneous intrusives of the Cordero Felsic Dome and therefore the Diatreme is older (at least in part) than the Cordero Felsic Dome.

Core drilling establishes the Pozo de Plata Diatreme is a northeast trough-shaped body (800 x 800 x 400 meters). Footwall country rocks are medium to thin bedded carbonates. The diatreme envelopes north-south and northeast-trending composite, mineralized dike swarms of rhyolite and dacite, which correlate with mappable photo linear. The dike swarms have themselves been incorporated into the diatreme breccia by multiple gas charged brecciation and milling events (and mineralization events) that formed the diatreme. The Pozo de Plata Diatreme breccias have milled, poorly sorted, ground up rock flour matrix with the same textures and fabric at the smallest scales as at the much coarser outcrop scale.

Cross cutting geologic relationships and diatreme clast and lithology counts reveal the existence of “ghost dikes” that are themselves mineralized diatreme material with monolithic igneous clasts (mineralized dacite or rhyolite). The ghost dikes are entirely gradational with enclosing mixed limestone and igneous clast diatreme breccia country rocks. The ghost dikes are often metal grade controlling features within the diatreme breccia body since their contact zones with limestone clast-dominated diatreme breccia are often high grade, brecciated and milled igneous contact breccia zones along the ghost dike contacts which have been incorporated into the diatreme breccia body.

More coherent and intact dacite and rhyolite dikes that cut the diatreme are themselves locally cross cut by limestone clast dominant diatreme breccia dikes, pointing to the synmagmatic diatreme brecciation and multiple episodes of dike emplacement.

Geologic cross cutting relationships of mineralized material within the diatreme establish at least 7 mineralization events (pulses) within the Diatreme, including the youngest mineralization: vertical, massive sphalerite stockwork veins that cut across the diatreme breccia.

The Dos Mil Diez Diatreme complex is the fifth intrusive center to the southwest along the Cordero Belt and remains a priority exploration target. The diatreme complex is about 2 km in diameter. The diatreme was discovered by geologic field traverses over color anomalies identified by inspection of a Quickbird satellite image of Cordero in January 2010. The Dos Mil Diez Diatreme is a prime outlying exploration target that has been initially drill tested in a small area.

The diatreme is characterized by clustered, small felsic domes and dike complexes, which are occasionally mineralized, and large domed limestone xenoliths surrounded by diatreme breccia. Local exposures of manganese-stained calcite hot springs terrace-type deposits and mushroom-shaped felsic domes resting on Cretaceous limestone country rocks within the complex are evidence that the present topographic surface is likely very near or at the surface of emplacement of the diatreme complex. Surface geology indicates large blocks of limestone roof rocks partially cover the Dos Mil Diez Diatreme Complex as large xenoliths within the diatreme breccia.

At the southwest end of the Cordero Belt the Molina de Viento Caldera and Diatreme Complex is about 4 kilometers in diameter and is an outlying exploration target that has been initially tested with several drill holes. The Caldera has an associated basal rhyolite ash flow tuff sequence typical of calderas that is only about 30 meters thick. Several diatremes have been recognized along its southern margins to date, containing some mineralized clasts. A molybdenite-bearing veined clast that was collected from a poorly exposed circular subcrop area with the caldera. There are nested diatremes within the Caldera. Diatreme contacts cut the ash flow sequence locally and are enveloped by strong propylitic alteration. One small outcrop area of dacite porphyry has been mapped in the center of the caldera and may represent a shallow intrusive center of the complex. 2014 staked claims cover iron stained rhyolites and diatreme breccia bodies along the southern margin of the caldera, which have yet to be prospected, mapped or sampled since they were not on Cordero lands in the past. The southern felsic rocks have significant exploration target potential for follow up.

7.2.2 Porfido Norte Belt Geology

The Porfido Norte Belt is 10 km north of the Cordero Porphyry Belt and is about 7 km on strike and 2 km wide (Figure 4-2). An unnamed stock in the southwest of the Porfido Norte Belt is potassically altered granodiorite porphyry, characterized by abundant secondary hydrothermal biotite that gives the intrusive the appearance of diorite. The stock is surrounded by a contact aureole of marble and biotite to chlorite hornfels developed in the Cretaceous limestone country rocks and associated gold showings. The Belt is an outlying exploration target that has been initially drill tested (and drill tested in the past by Peñoles).

To the northeast, a small, locally iron-stained Cenozoic felsic volcanic dome complex cuts through Cretaceous limestone country rocks and is unconformably overlain by mafic (andesitic), flat-lying Cenozoic volcanic flows, which are about 50 meters thick. Traverses across the volcanics indicate the present upper topographic surface of the volcanics is most likely the depositional paleosurface of the flows. Field evidence includes pressure ridges and Pele's tears locally well exposed on the andesite flow surface.

Arroyos have partially dissected the flat-lying volcanic flow sequence 1 km further northeast and expose hydrothermally altered, Cenozoic felsic volcanics, a Cenozoic conglomerate unit at the base of the flow sequence and Cretaceous limestone country rocks along arroyo banks. A distinctive basal conglomerate at the bottom of the volcanic sequence, resting unconformably on limestone basement rocks contains some mineralized volcanic clasts and may be mineralized itself in some matrix material.

To the southwest of the Porfido Norte Belt, on strike there are a number of distinctive circular anomalies and domes within limestone country rocks that are in the center of the strike extension of the Belt and have yet to be traversed or prospected. They are now covered by the 2014 staked claims.

7.3 MINERALOGY OF THE DEPOSITS

Argentiferous galena, sphalerite, and pyrite mineralization are present in each of the seven intrusive centers of the Cordero Belt and are the dominant mineralogy of the resource. Stibnite, tetrahedrite, arsenopyrite are locally present within the silver mineralized rocks. Chalcopyrite and molybdenite are present, but extremely rare within the resource. Chalcopyrite, and molybdenite mineralization is present mostly in the Sanson stock at the northeast end of the Belt. Chalcopyrite and molybdenite are also present in the bottom 300 m of a 1200 m hole (core hole C11-163) beneath the northeast part of the resource in the La Ceniza Stock area, and hosted by a younger phase of granodiorite, not recognized at the surface or in other drill holes at the property. This stockwork Cu and Mo mineralization likely represents stacked porphyry deposit potential that has yet to be defined or tested.

A common characteristic of the sulfides within the resource is their well crystallized euhedral to subhedral habits, that often range from medium to coarse grained pegmatitic textures within vugs, veins, veinlets and disseminations. In general, Galena, sphalerite and pyrite are present in roughly equal proportions within mineralized rock. But within the

Cordero Felsic Dome there are rare instances of galena- or sphalerite- only disseminated mineralization within intrusive lobes of the Dome complex, which illustrates mineralization paragenesis (and fluid evolution) was very complex during Dome emplacement.

Oxidation of sulfides generally is present within 2 to 60 m of the present surface from drill hole information. Some narrow fracture zones are oxidized at depths of 600+ m.

7.3.1 Cordero Belt Resource Mineralization

Mineralization within the Cordero Resource is porphyry-style disseminated, stockwork veining sulfides within the intrusives, associated contact replacement and skarn type mineralization and discordant, through going veins (1-2 m widths) with up to 500 m strike lengths. Diatremes within the resource are characterized by disseminated sulfides in mineralized breccia matrix material, stockwork veined and replaced clasts and late stockwork veins that entirely cut the mineralized diatreme breccia. Manto clasts are locally present.

A common characteristic of mineralization in each of the four intrusive centers that host the resource is very complex mineral paragenesis with multiple pulses of mineralization (and associated hydrothermal alteration). At least seven mineralization pulses have been recognized in the Pozo de Plata Diatreme.

Silver is dominantly associated with argentiferous galena, but metallurgical testing shows it also occurs in the sphalerite. By-product gold is locally present in the galena, sphalerite and pyrite.

Gangue mineralogies are zoned within the resource. Rusty weathering carbonate (no quartz) is the dominant gangue in the upper part of the resource (250-650-meter depths from surface). Quartz gangue in porphyry style stockwork veins and pervasively disseminated modes (including pervasive silicification, k-feldspar flooding and hydrothermal biotite) gradually increase at depths below about 500 m from surface. The gangue mineralogy patterns in porphyry style mineralization of the resource (stockwork veining, disseminations and pervasive gangue flooding) described above are cut by the narrow (1-2 m wide) northeast trending high grade veins of the district, which contain abundant quartz, jasperoid and are exposed to the surface in outcrop.

Within the Cordero resource four geologic types of mineralization are generally present:

- Type 1: Diatreme breccia hosted silver, gold, zinc and lead bulk-tonnage mineralization consisting of mineralized massive sulfide and replacement sphalerite and galena clasts, disseminated to massive breccia matrix and mineralized breccia cut by massive sphalerite and galena veins (Figure 7-5). In Figure 7-5, the brown mineral is sphalerite as clasts, vein fill and disseminated mineralization, generally, intergrown with galena veins and disseminated grains (not clearly visible in slides). Note the general lack of abundant gangue minerals within and near sulfides. Abundant rusty weathering carbonate alteration minerals disseminated in rock. Diatreme breccia is polymictic with rhyolite, dacite and limestone clasts set in a rock flour breccia matrix. Clasts range from angular to well-rounded and are poorly sorted.

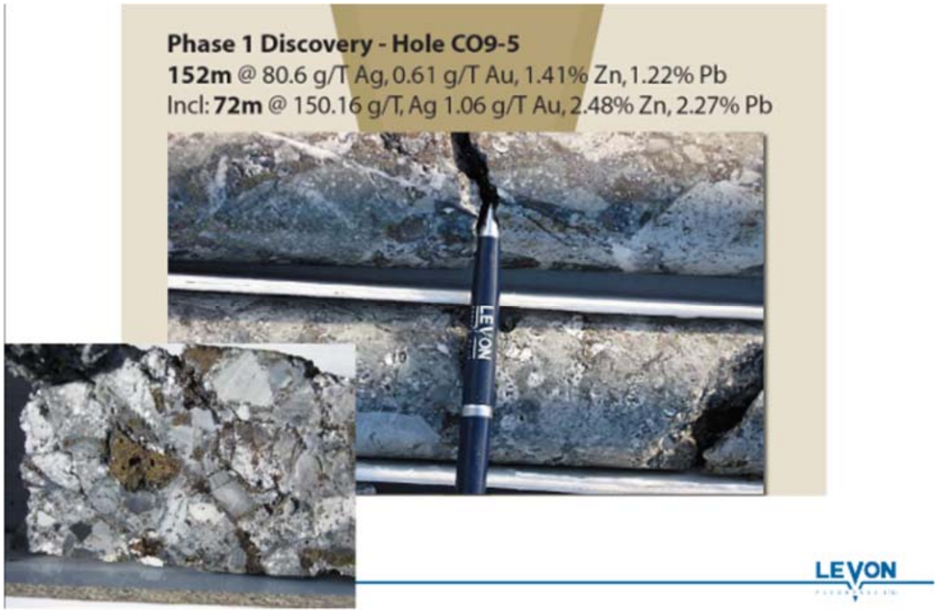


Figure 7-5: Diatreme Breccia Type Mineralization

- Type 2: Massive intergrown galena, sphalerite and pyrite, replacement mineralization (manto style) after limestone country rocks (Figure 7-6). In Figure 7-6 high grade, intergrown, argentiferous galena (silver blue), sphalerite (brown) and pyrite (brass color), nearly massive sulfide with a few relict bedded limestone bedding features (light gray) locally preserved. The pictured core is from hole C10-131 in the northern contact zone of the Pozo de Plata Diatreme 26 m width along the core grading 410.1 g/t Ag, 2.92% Zn, 7.06% Pb, 1/057 g/t Au. Similar manto mineralization also is encountered in some holes in the Cordero Porphyry Zone in contact areas with limestone.

Figure 7-6: Manto Replacement Mineralization After Limestone

- Type 3: Porphyry-style silver, gold, zinc and lead disseminated and stockwork veining sulfides (sphalerite, galena and pyrite) hosted within biotite and chlorite contact hornfels and within rhyolite, dacite and granodiorite porphyry host rocks. Mineralization within intrusive rocks is commonly hosted by porphyry style potassic alteration and phyllic alteration assemblages. Highest grade mineralization is often within the contact zones of the two alteration assemblages, particularly where the assemblages overlap through incomplete pervasive alteration, in gradational contact zones (Figure 7-7). In Figure 7-7, this mineralization is seen in pervasive, disseminated mode (upper left – disseminated argentiferous galena, sphalerite, pyrite in clots of pervasive phyllic alteration (white and metallic colored) surrounded by pervasive mineralized potassic alteration (milky tan gray colored) and stockwork veins and disseminated sulfides (lower right – stockwork galena and sphalerite veins (blue black and dark brown metallic colored vein fill material set in medium to five grained disseminated argentiferous galena, sphalerite and pyrite). The core is from the Cordero Porphyry Zone. This type of mineralization is also most common in the Cordero Felsic Dome Complex and in the La Ceniza Stock portions of the resource.

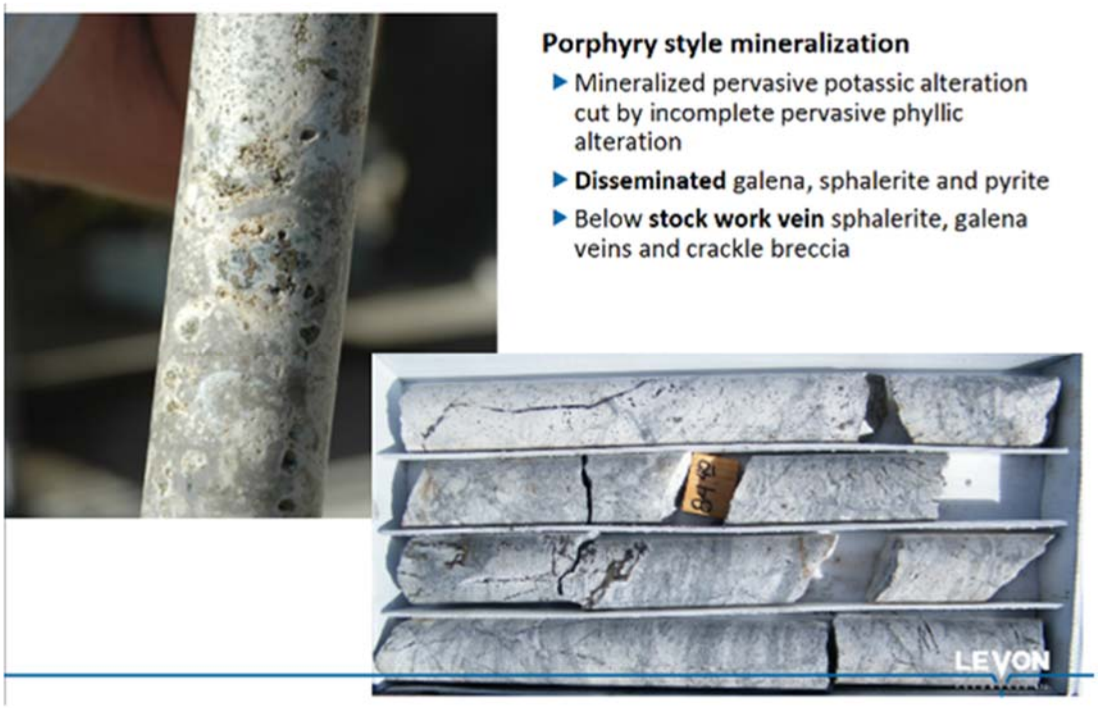


Figure 7-7: Porphyry Type Mineralization

- Type 4: High-grade vein swarms mined in historic and current underground workings. One meter wide with intergrown galena, sphalerite, pyrite and occasionally tetrahedrite. Minor rusty weathering carbonate, calcite, barite gangue minerals locally cut by late, barren jasperoid occasionally (Figure 7-8). Figure 7-8 shows an example of past small-scale mining operations along 1-meter wide veins (Josefina Mine, 2012). Cut-off grade has been reported by the miners as 1 kilo/tonne silver and was often massive argentiferous galena with intergrown sphalerite. Some high-grade veins also contain sulfosalt minerals. The mineralized material was hand sorted direct shipping ore, trucked to the community flotation mill in Parral for processing.

Figure 7-8: High-Grade Vein Type Mineralization

7.3.2 Cordero Resource Alteration

Modes of hydrothermal alteration include pervasive and vein controlled alteration typical of porphyry deposits (Lowell and Guilbert, 1970).

Classic propylitic, argillic, green argillic, phyllic and potassic (kspar flooding and hydrothermal biotite) mineral assemblages and alteration zoning typical of porphyry mineralization define the alteration zones around the resource (illustrated in Figure 8-3). But within the Cordero resource rusty weathering carbonate gangue minerals (siderite, ankerite, dolomitic calcite and calcite) proxy for silica (quartz) from the surface to depths of about 250-650 m within the phyllic and potassic alteration assemblages that host most of the mineralization. Silica (quartz) predominates in the phyllic and potassic alteration assemblages at depth. The carbonate gangue to silica gangue transition occurs across a flat lying fracture zone that is about 100-150 m thick that extends across the central part of the resource generally within the Cordero Felsic Dome and the Cordero Porphyry Zone portions of the resource.

Similar carbonate gangue minerals in near surface phyllic and potassic alteration mineral assemblages with silica at depth are reported in the Peñasquito mineralized diatreme system (GoldCorp, personal communication to Vic Chevillon, 2011).

Green argillic, argillic, and propylitic assemblages are generally peripheral to most of the resource. From outside mineralization toward the mineralization limestone country rocks range from relatively fresh, unaltered limestone into pervasive and fracture controlled propylitic and fracture controlled argillic assemblages. Chlorite and biotite (and locally potassium feldspar rich) hornfels and rarely garnet skarn near intrusives are present toward the La Ceniza Stock (NE present end of the resource). Garnet skarn, jasperoid are developed by historical prospects along through going, northeast trending veins in the limestone roof rocks of the La Ceniza Stock.

Alteration within the Pozo de Plata Diatreme mineralization is dominated by rusty weathering carbonate-rich, hydrothermal silica-deficient, argillic, phyllic and potassic alteration similar to the upper elevation alteration assemblages in the Cordero Porphyry Zone 1.3 km to the northeast. Limestone country rocks and limestone-rich diatreme breccia lithofacies typically appear relatively fresh, non-recrystallized and unaltered, even in the contact zones of the rhyolite and dacite breccia dikes swarms that cut the Diatreme. The fresh, unaltered limestone is interpreted to be additional evidence of a carbon dioxide-rich alteration and mineralization in the near surface environment directly associated gases responsible for the diatreme brecciation, which appears to have occurred before and during mineralization. The limestone country rocks were likely in equilibrium with carbon dioxide-rich pneumatolytic fluids that formed and mineralized the diatreme.

Silica rich alteration within the Diatreme is abundant within and near some of the rhyolite dikes, breccia dikes and ghost dikes and epithermal quartz (banded chalcedonic quartz and quartz stockwork veining is locally abundant). This silica rich alteration is one earmark of by product Au mineralization that is most abundant in the Pozo de Plata Diatreme and Cordero Felsic Dome portions of the resource.

Calcite veining common in the limestone country rocks well away from the resource seem to be independent of the map distribution of the Cenozoic intrusives property-wide and is interpreted as a diagenetic feature.

7.4 MINERALIZED MATERIAL TYPES FOR PROCESS METALLURGY

The identified mineralized material types have differences in style and relationship between the mineralized material minerals and the host rock. However, the different styles of mineralization appear to be fairly consistent in terms of mineralogy. Metallurgical samples selected for testing, as reported in Section 13, were chosen to represent a wide variety of mineralized material types and host-rock relationships. Testing did not reveal any significant differences in recovery or processing style among the different mineralized material types (Section 13).

8 DEPOSIT TYPES

Modes of mineralization within the resource, associated hydrothermal alteration mineral assemblages and zoning patterns are typical of porphyry style mineralization, geometries and related intrusive contact mineralization defined by Lowell and Guilbert (1970). Silver, lead, zinc, gold values within the intrusive and volcanic dome rocks and their immediate country rocks are carried by disseminated, stockwork veins, mineralized contact breccias, mantos and garnet skarn, diatreme breccias and associated mineralized dikes and through going, discordant high-grade veins.

The Cordero resource though spans four continuous intrusive igneous centers and geologic domains and its geologic signature varies by domain (Figure 8-1 and Figure 7-4). Porphyry-style mineralization and alteration zoning are presently best documented in the Cordero Felsic Dome Complex part of the resource.

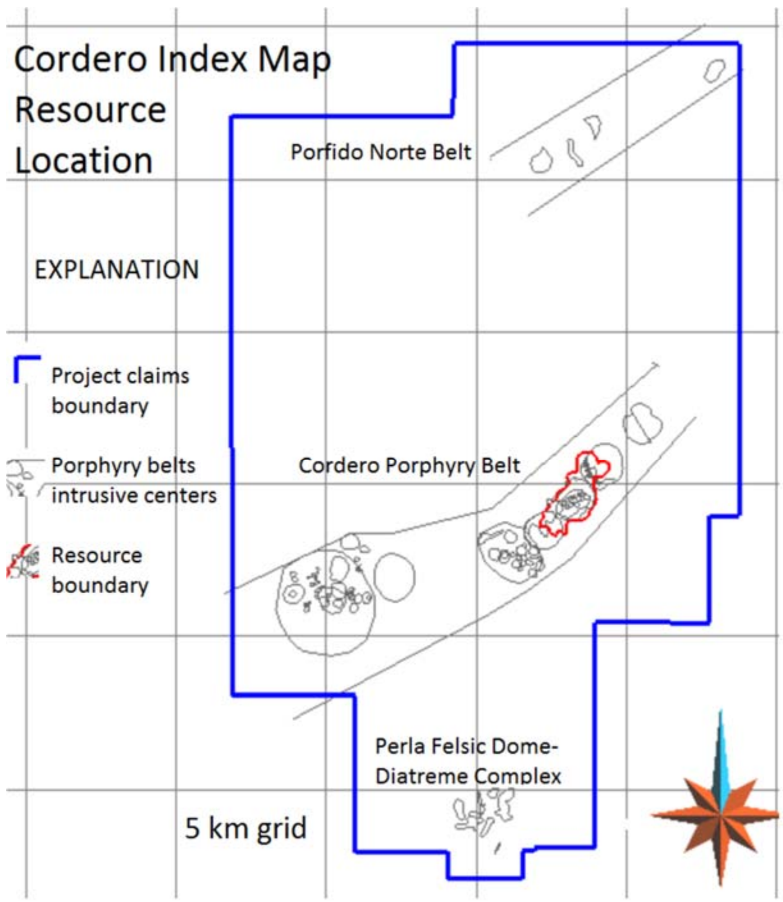
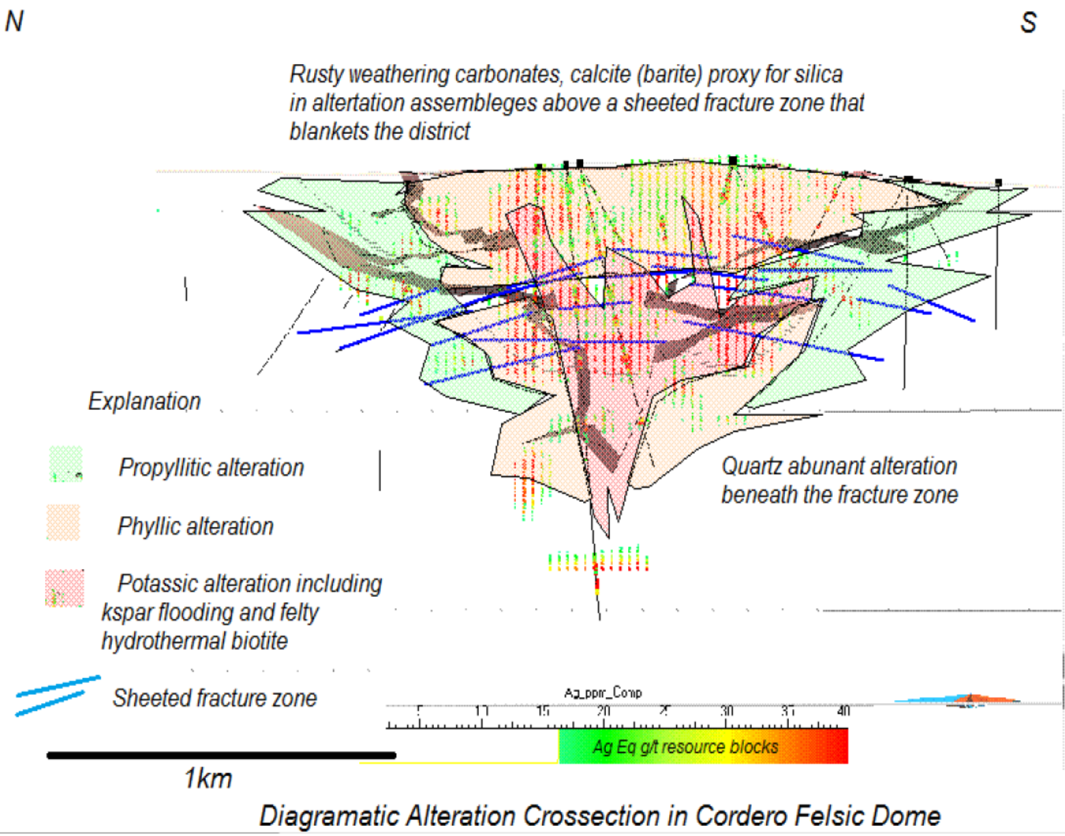


Figure 8-1: Index Map of Cordero Resource Boundary

Argentiferous galena, sphalerite and pyrite are the dominant sulfide minerals carrying the metal values. The approximate assay grades of the mineralized rock can be reliably estimated and mapped by the visual inspection of the core and estimating the abundance of galena and sphalerite in the rock.

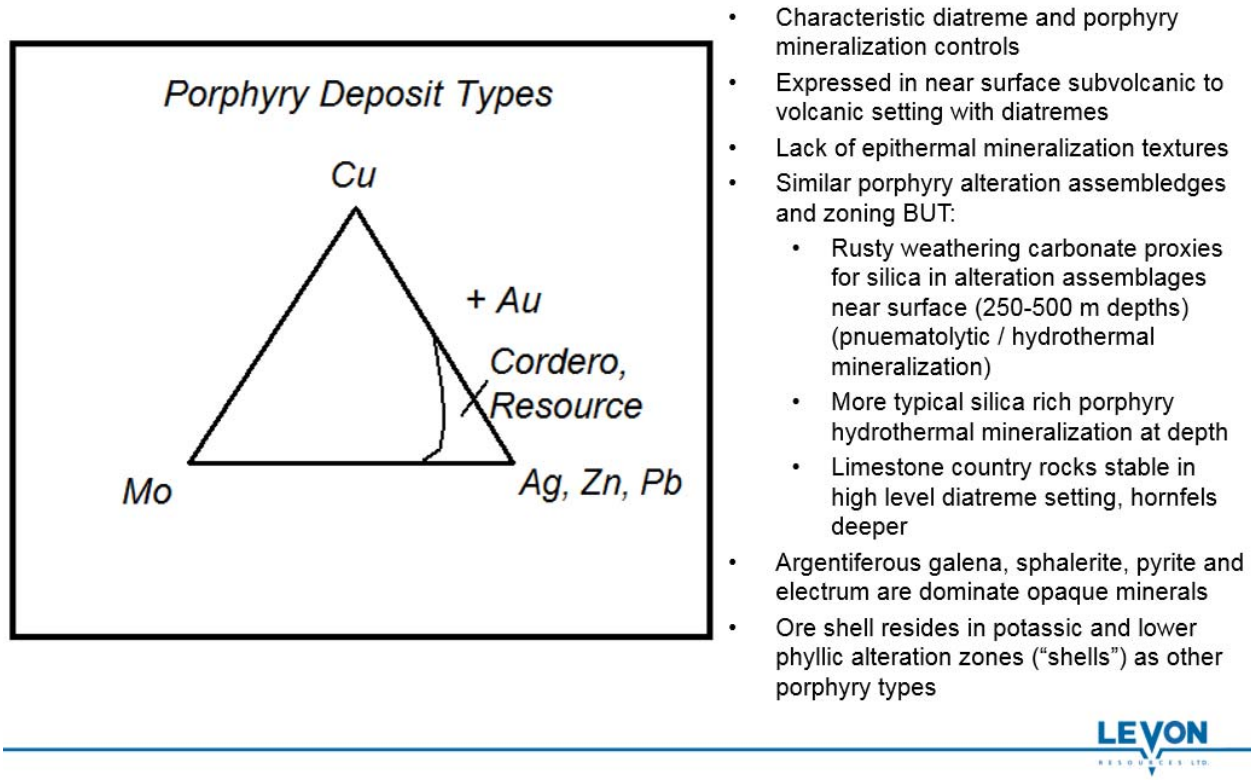
In a north-south cross section of the Cordero Felsic Dome Complex, most abundant galena and sphalerite mineralization (reflected in the drill core assays and modeled resource blocks) are hosted within a mappable, dome shaped phyllic alteration zone (exposed at surface) and the upper part of a potassic alteration zone in the core of the hydrothermal system at depth (Figure 8-2).



Alteration zone setting of resource mineralization within the Cordero Felsic Dome domain. Drill intercepts and resource blocks are shown color coded by Ag Eq (silver equivalent) grades. The cross section shows mineralization is mostly hosted within the phyllic alteration (shell) and the upper part of the potassic alteration (shell) as typical in porphyry deposits.

Figure 8-2: Diagrammatic Alteration Cross Section in Cordero Felsic Dome

The Cordero porphyry style alteration zoning (Figure 8-2) is diagnostic of with sulfide mineralization/alteration zoning well known in classic porphyry copper or porphyry molybdenite deposits. But the Cordero sulfide mineral assemblage of argentiferous galena, sphalerite and pyrite only, which are considered distal sulfide assemblages in porphyry copper or moly deposits. However, the alteration setting of the Cordero sulfides and the general lack of copper or moly sulfides in the resource are evidence that Cordero represents a novel class of porphyry mineralization characterized by argentiferous galena, sphalerite, pyrite at the core of the hydrothermal mineralized system as illustrated in Figure 8-3 (Chevillon, et al, 2014).



Alteration and metal zoning geometries at Cordero (Figure 8-2) support Cordero mineralization as a novel Ag, Zn, Pb, Au porphyry type deposit in addition to porphyry copper and porphyry moly deposits well documented in the geologic literature as illustrated on this trigonal diagram.

Figure 8-3: Porphyry Deposit Types

At Cordero traces of chalcopyrite and molybdenite are only locally present in the silver, lead, zinc, gold mineralized rock of the resource. Through deep exploration, it was discovered that the rare chalcopyrite and molybdenite occurrences are more likely related to a deeper porphyry copper moly system intersected in younger granodiorite porphyry not exposed at the surface. Hole C11-163 in a northeast part of the resource, at depth beneath the La Ceniza Stock cut 300 m of stockwork vein moly and copper mineralization in bottom of the 1,200-m hole. It is predicted that the core interval is the top of another, younger porphyry system at depth.

9 EXPLORATION

Early recognition of porphyry controls on key Cordero mineralized outcrops provides an array of tried and true porphyry exploration technologies and approaches to guide and optimize exploration at the project. Because the porphyry exploration model centers on the existence of mappable metal and geologic alteration zoning patterns that can be used to vector into centers of mineralization (Lowell and Guilbert, 1970), geologic mapping guides Levon exploration at all scales.

9.1 GEOLOGIC MAPPING

Levon geologic mapping of surface geology and drill core relies on a single, field qualified geologic explanation used by all geologists on site to strive for precise and accurate descriptive geologic maps for correlation purposes among drill hole cores and drill holes and surface geology. The uniformity monitoring and quality controls involve remapping areas and drill core as any modifications of the geologic explanation are made during the exploration. Same area mapping of areas and drill core by different geologists and then comparing the resulting maps in the field to resolve any discrepancies help assure consistent descriptive geologic maps of lithologies and alteration mineral assemblages.

The geologic maps are made with a standard set of colored pencils for the various map units on overlays of a detailed, registered and rectified quickbird satellite image prepared by Levon (60 pixels per meter on the ground). Base map sheets (8 ½" x 11") are printed at all scales and used to map lithologies and alteration overlays. The field sheets are then scanned and the scanned maps registered and imported into the MapInfo GIS system to track mapping results as they occur.

Initial recon mapping covered most of the claims (staked prior to 2014) and generally defined the mineralized areas (porphyry belts of Figure 4-2) for more detailed outcrop and float mapping. Detailed geologic outcrop and float mapping covered the resource area and outlying intrusive center areas and defined targets that were initially drill tested as grid drilling and exploration drilling in the resource area continued.

Detailed bedrock and alteration overlay maps of the resource area are shown in Figure 9-1 and Figure 9-2.

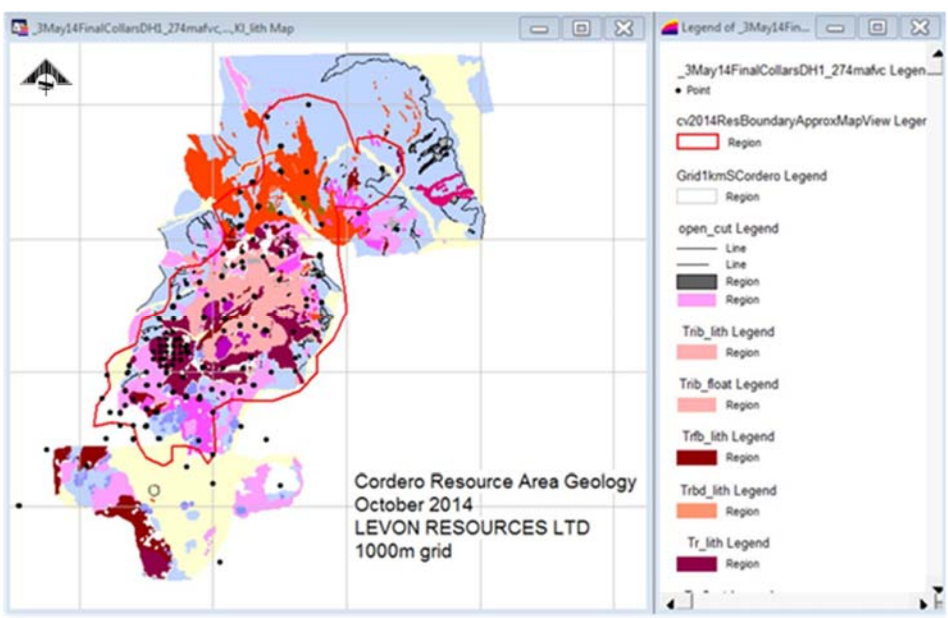


Figure 9-1: Compiled float and outcrop geologic map in the resource area

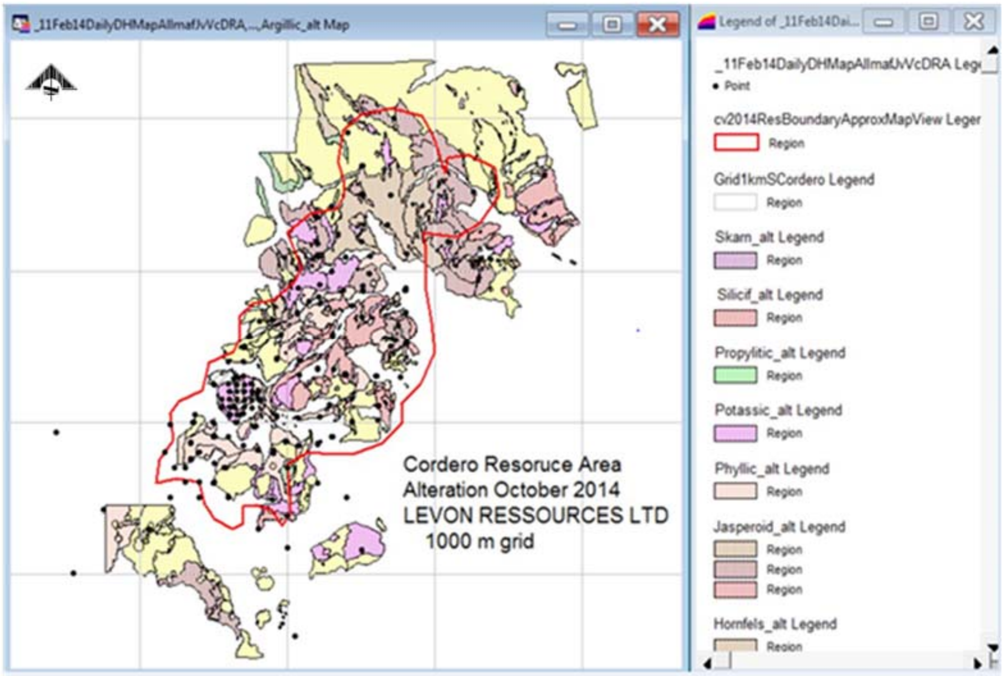


Figure 9-2: Alteration Map in Cordero Resource Area

9.2 GEOCHEMICAL SAMPLING

An important part of the porphyry model is the role of metal zoning in vectoring toward centers of mineralization. Rock chip and grid soils sampling provides the data to consider metal zoning on the surface core sampling for underground vectoring. All known mineralized areas to date have been systematically sampled during mapping. Rock samples sites are shown in Figure 9-3. The rock results were used to determine grades and metal assemblages of altered and mineralized outcrops on map units.

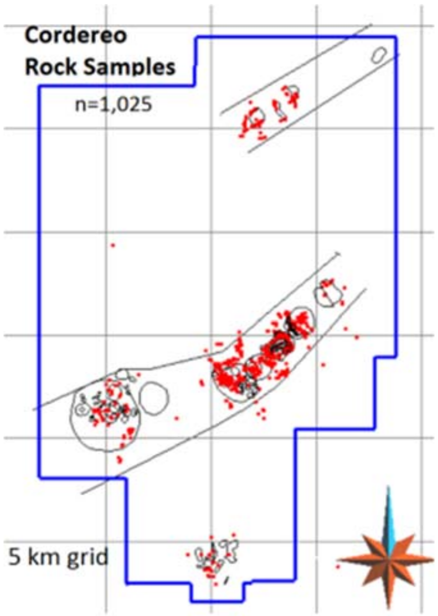


Figure 9-3: Cordero Surface Geochemical Samples – Rock Sample Location Map

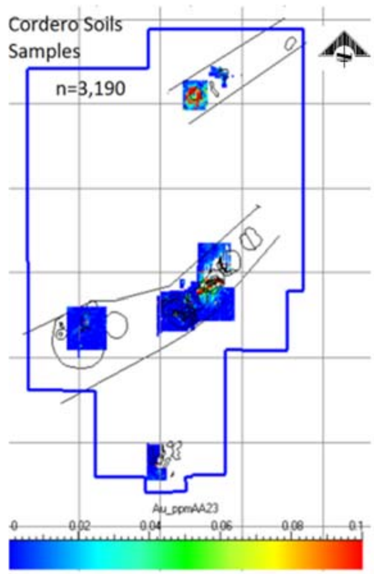


Figure 9-4: Cordero Surface Geochemical Samples – Soils Map (Contoured Au)

Soils grids (generally 100 m line spacing and 50 m sample spacing) have been completed over the resource and each of the outlying target areas (Figure 9-4). The soils data has been synthesized for each target zone in the context of the geologic map data for drill targeting.

Trenching and continuous 5 m channel sampling results have been completed in key target areas (Figure 9-5) and the results used to identify and rank drill targets (along with geophysical and geological results) in the Pozo de Plata Diatreme, the Dos Mil Diez Diatreme, the Perla Felsic Dome, Molina de Viento Caldera and the Porfido Norte Porphyry Belt (Figure 9-5).

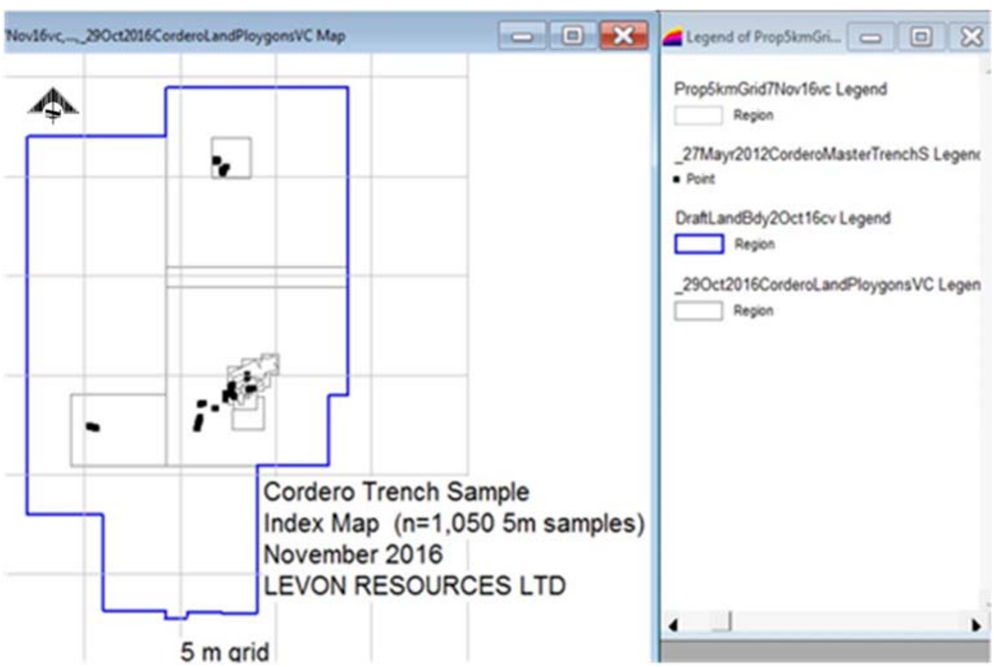


Figure 9-5: Trench Location Map

9.3 GEOPHYSICAL SURVEYS

The porphyry model provides an array of geophysical technologies, routinely applied to porphyry exploration globally. Levon designed an integrated geophysical survey program with leading contractors and technologies to provide 3D models (ideally 3D geophysical maps of rock properties) of host rocks, alteration and mineralization for drill targeting. The best contractors with the most up to date technologies and latest computer hardware and software modeling capabilities and support were selected to complete surveys. Figure 9-6 is an index map of geophysical surveys completed. Most geophysical surveys focused within the Cordero Porphyry Belt with 3D IP surveys completed in the Porfido Norte Belt and over Perla (Figure 9-6).

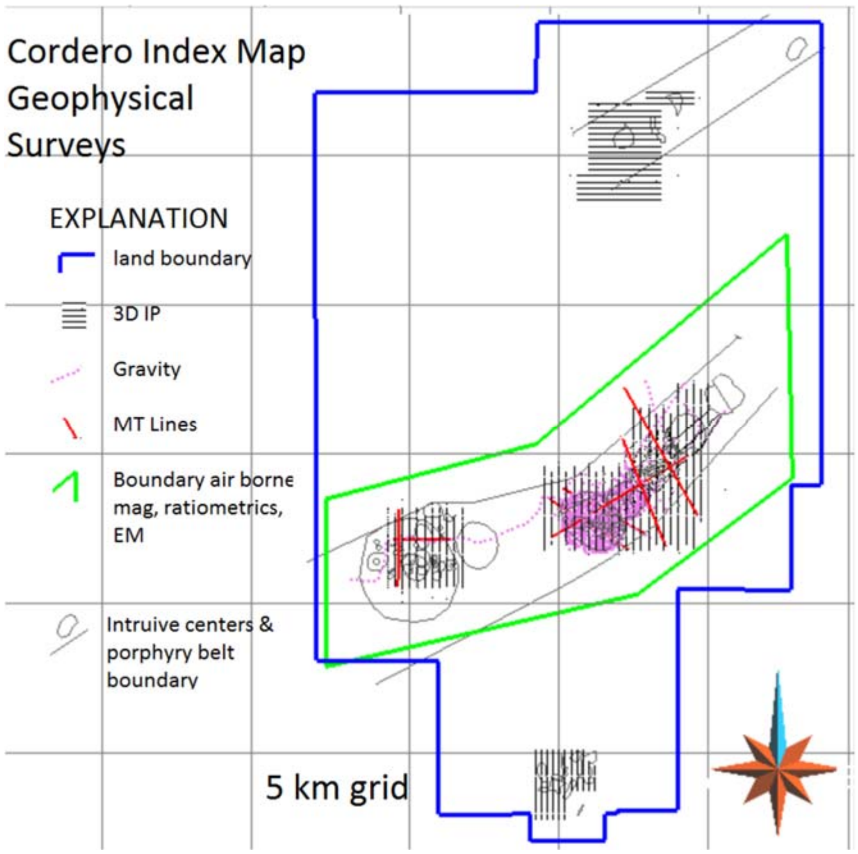


Figure 9-6: Cordero Index Map of Geophysical Surveys

In 2009 early 3D IP results was used to spot Phase 1 drill holes that lead to the high-grade bulk tonnage mineralized drill intercepts that launched grid and exploration drilling toward defining the resource. SJ Geophysics, Vancouver, conducted an initial 3D IP survey over the Pozo de Plata Diatreme, Cordero Felsic Dome, La Ceniza Stock, and completed 3D inversions on the data for interpretation. Three independent consulting geophysicists interpreted the 3D IP data (SJ Geophysics, Vancouver, Frank Fritz, Fort Collins, Colorado, and Terry White, Rock Geophysics, Reno, Nevada) who laid out proposed drill holes based on their interpretations of the IP data and summary geology. Rather than submitting formal reports the geophysicists forwarded inversion digital files and recommended drill holes that were incorporated into the Cordero 3D Exploration Model and influenced the design of the drilling programs. Subsequent more widespread 3D IP grids were run over the resource area and the outlying target areas (Figure 9-6).

McGee Geophysics of Reno, NV completed ground-based gravity surveys over the Pozo de Plata and Dos Mil Diez diatreme complexes. Terry White, Rock Geophysics, Reno, NV, conducted 3D inversions on the gravity data.

Aeroquest Geophysics of Mississauga, Ontario, Canada completed airborne magnetometer, electromagnetic (EM) and radiometric surveys over the entire Cordero Belt (Aeroquest, 2010). SJ Geophysics completed 3D inversions on the Aeroquest airborne magnetometer data.

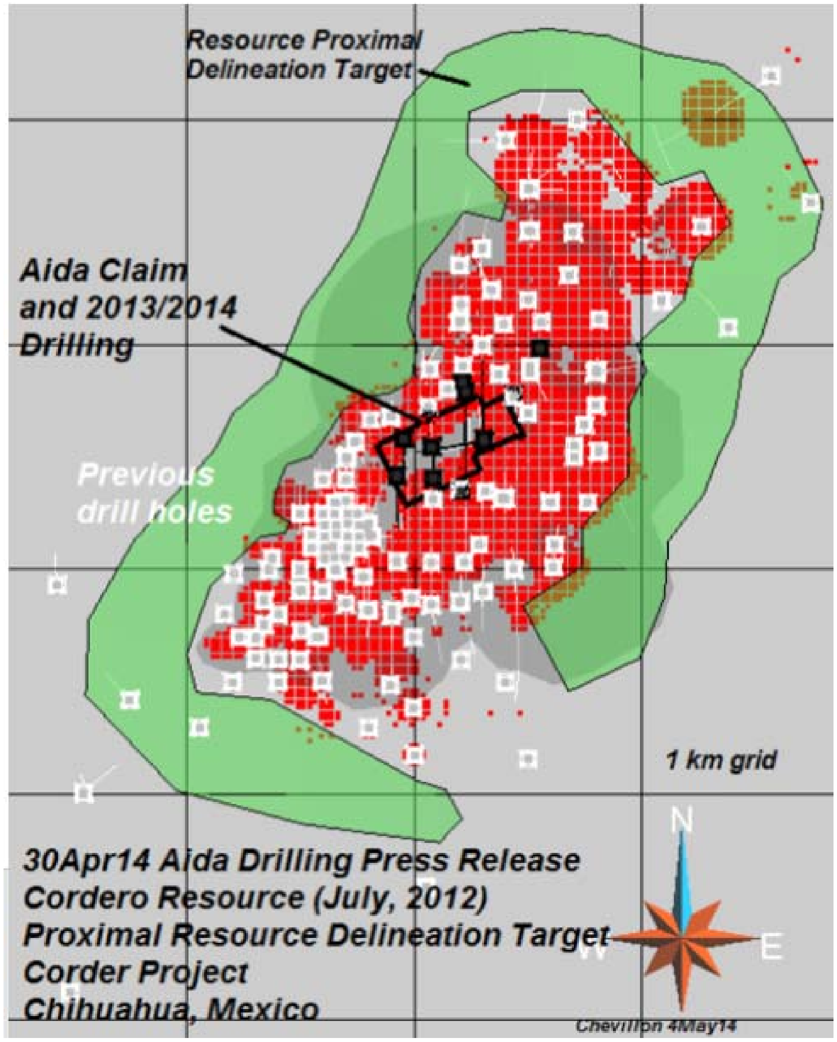
9.4 EXPLORATION DATA HANDLING AND INTEGRATION

From day one all Cordero Project data has been collected in the field on paper and then immediately transformed into digital format and imported into 2D GIS Google Earth and MapInfo software and 3D GIS, pattern recognition Gocad software. Early MapInfo and Google Earth 2D GIS compilations were used for and survery planning and integration. GoCad 3D GIS, data integration and pattern recognition software is used with the common earth modeling approach for targeting and laying out drill holes (MiraGeoscience http://www.mirageoscience.com/) for real time data viewing, analysis, integration used in seting exploration priorities and ultimately optimize drill targeting. Because of the real-time data integration approach and five drills turning 24 hours per day, 7 days per week during most of the exploration, much of the routine reporting of results was replaced by the growing, real time 3D data base that was on screen and available to the entire crew for examining and planning exploration.

9.5 TARGETS FOR EXPANSION OF RESOURCES

Resource proximal drill targets with resource expansion potential include:

- Resource grid drilling delineation holes along most of the perimeter of the resource are required to fully delineate the resource (grean area in Figure 9-7).
- Additional drill holes are required to delineate the resource at depth.
- Deep porphyry moly and copper showings encountered in younger granodiorite porphyry cut in hole C11-163 from 900 to 1200 m requires additional follow up. Because of the depth of the target, additional MT lines need to be run over the target area to map the 3D resistivity in the area for drill testing.
- Deep zinc porphyry target beneath the Pozo De Plata Diatreme needs to be tested. The Pozo de Plata Diatreme records at least 7 episodes of hydrothermal mineralization during multiple pulses of diatreme brecciation and dike emplacement. Massive sphalerite stockwork veins which are vertical cut the diatreme and all of the previous mineralization within the Diatreme and may be related to a stacked, deeper mineralized system. In the context of the novel Ag, Zn, Pb, Au porphyry system in the Cordero Dome (mineralization section of this report) a porphyry zinc system, beneath the diatreme may account for the stockwork veins and this target concept requires testing.
- Resource infill drilling, as demonstrated by 2017 resource, can increase mineralized tonnes among the existing drill grid holes within the resource due to the presence of a geologic nugget effect within at least the Cordero Felsic Dome portion of the resource.



Resource proximal expansion targets include delineation drilling of the resource around its perimeter and at depth and stacked porphyry targets beneath the resource in the northeast (La Ceniza Stock) and beneath the Pozo de Plata Diatreme part of the resource.

Figure 9-7: Proximal Resource Delineation Target

9.5.1 Outlying Targets

Levon currently defines 4 outlying mine scale open pit silver, zinc, lead, gold targets away from the resource within the Cordero Porphyry Belt, the Porfido Norte Belt and the Perla Felsic Dome and Diatreme complex. Each outlying target has been mapped in detail, rock sampled, gridded with soils and 3D IP surveys and initially drill tested (Figure 9-3 through Figure 9-6). Initial drill results from each of the outlying targets intersected mineralized rocks, but no wide intercepts that warranted immediate grid drilling relative to the ongoing grid drilling within the resource area. Each of the target zones require additional exploration follow up.

Targeting highlights for each target are summarized in descending order of projected priorities:

- Dos Mil Diez Diatreme complex is cut by rhyolite and dacite felsic domes and dikes and contains some mineralized felsic tuffs with up to 6 grams of Au in trench samples. A small part of the Diatreme has (near the Au values) has been drill tested, but lacked significant Au results. The Diatreme appears to be deeper than the Pozo de Plata Diatreme (Figure 7-4) that hosts part of the resource and the best Au values within the resource. Dos Mill is about 2 km in diameter, twice the size of Pozo de Plata and has large rafts of limestone country rock, floating within its diatreme breccia. The limestone blocks are themselves folded into doubly plunging anticlines with some propylitic alteration within the hinge zones of the folds, interpreted to be evidence of thermal, altering events deeper in the system. Epithermal sinter interbedded in the felsic tuffs indicate the Diatreme formed at the Cenozoic paleosurface. Initial drill holes also show areas of outflow and bedded lithofacies of the Diatreme interpreted to be evidence of syn diatreme faulting and magmatism. There is a small historical mill site on the south margin of the Diatreme and gold placer workings, which we prospected, but have yet to account for the workings. Additional geophysics, detailed alteration mapping and rock sampling are warranted to address Au and deeper Ag potential in the context of the metal zoning patterns southwest along the Cordero Porphyry Belt (Figure 7-4).

- The Perla Felsic Dome and Diatreme Complex is mineralized volcanic center partially dissected by erosion. Geologic mapping shows the felsic dome appear to lap onto (overlay) limestone country rocks in a very shallow volcanic setting locally and the volcanic roots of the system are the likely the best targets. There is an extensive volcanic silica sinter interbedded in the volcanic stratigraphy just to the west of the past Levon land position when the Perla exploration was done. Initial exploration drilling focused on diatremes and felsic domes in a portion of the volcanic complex. Mineralization intersected in the drilling is similar to mineralized rocks of the Cordero Felsic Dome, but appears less extensive. The volcanic complex is now covered by Levon claims and needs to be re evaluated with the benefit of the geology gained in the resource drilling.
- Molina de Viento Caldera, Diatreme complex. Large scale IP anomalies beneath farm fields were drilled and intersected sparse sphalerite and galena mineralization in propylitized andesite within the Molina de Viento Caldera Diatreme Complex. Felsic, phyllically altered diatremes and small felsic domes are present around the southern margin of the Caldera that are now covered by the current Levon claims and warrant target definition. The southern margin of the caldera needs to be prospected and sampled.
- Porfido Norte Belt has Au showings, prospects were surface sampled, trench sampled and initially drill tested without significant Au intercepts that required offset drilling. The Belt is centered a shallow granodiorite stock that is strongly potassically altered with abundant hydrothermal biotite. Country rocks are recrystallized marble and chlorotic hornfels that contain the Au showings. A small felsic dome complex, high level and likely younger is defines part of the Belt to the northeast.
- A series of aligned circular features southwest of the exposed stock are now covered by Levon claims and require prospecting and mapping.

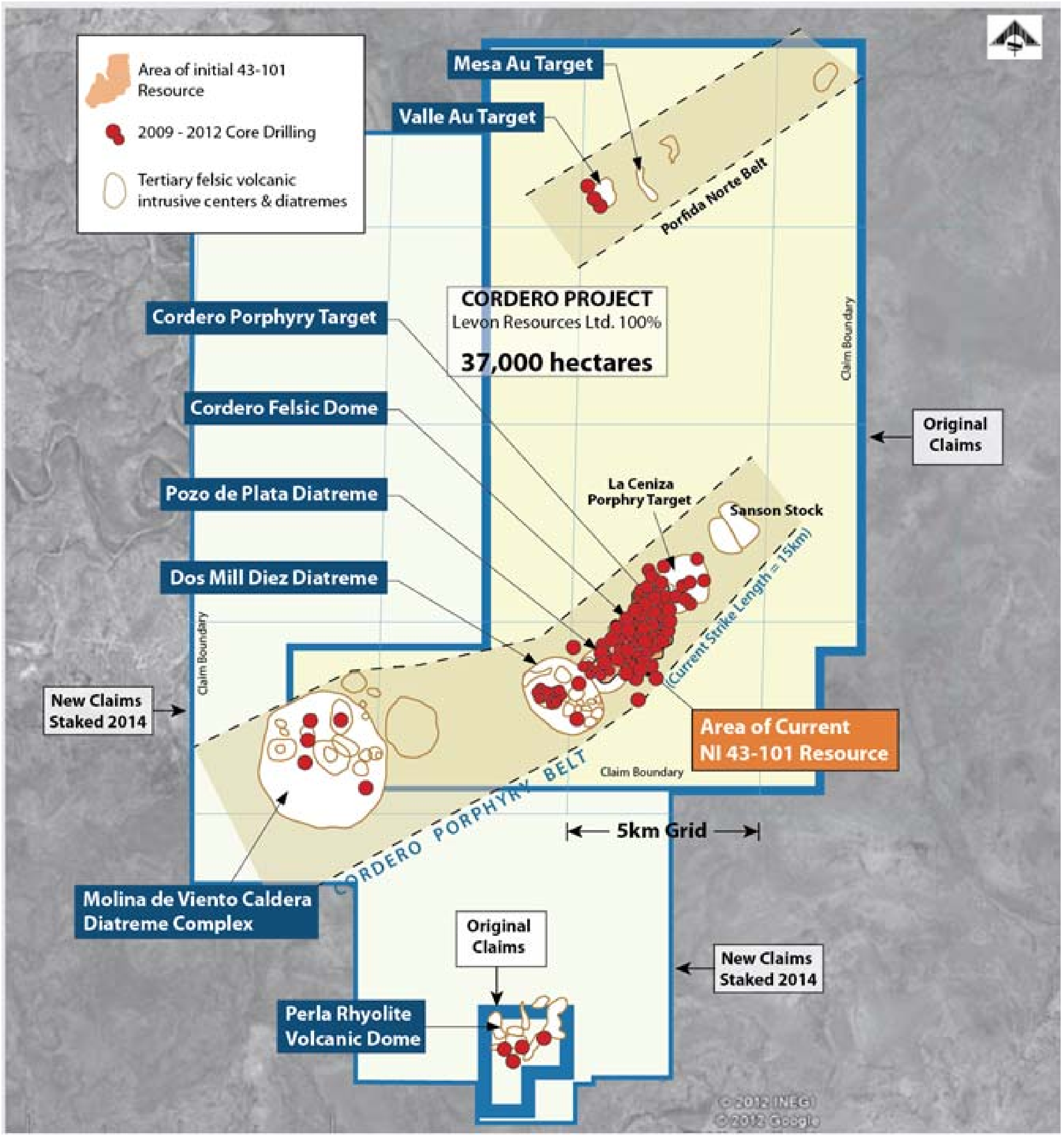
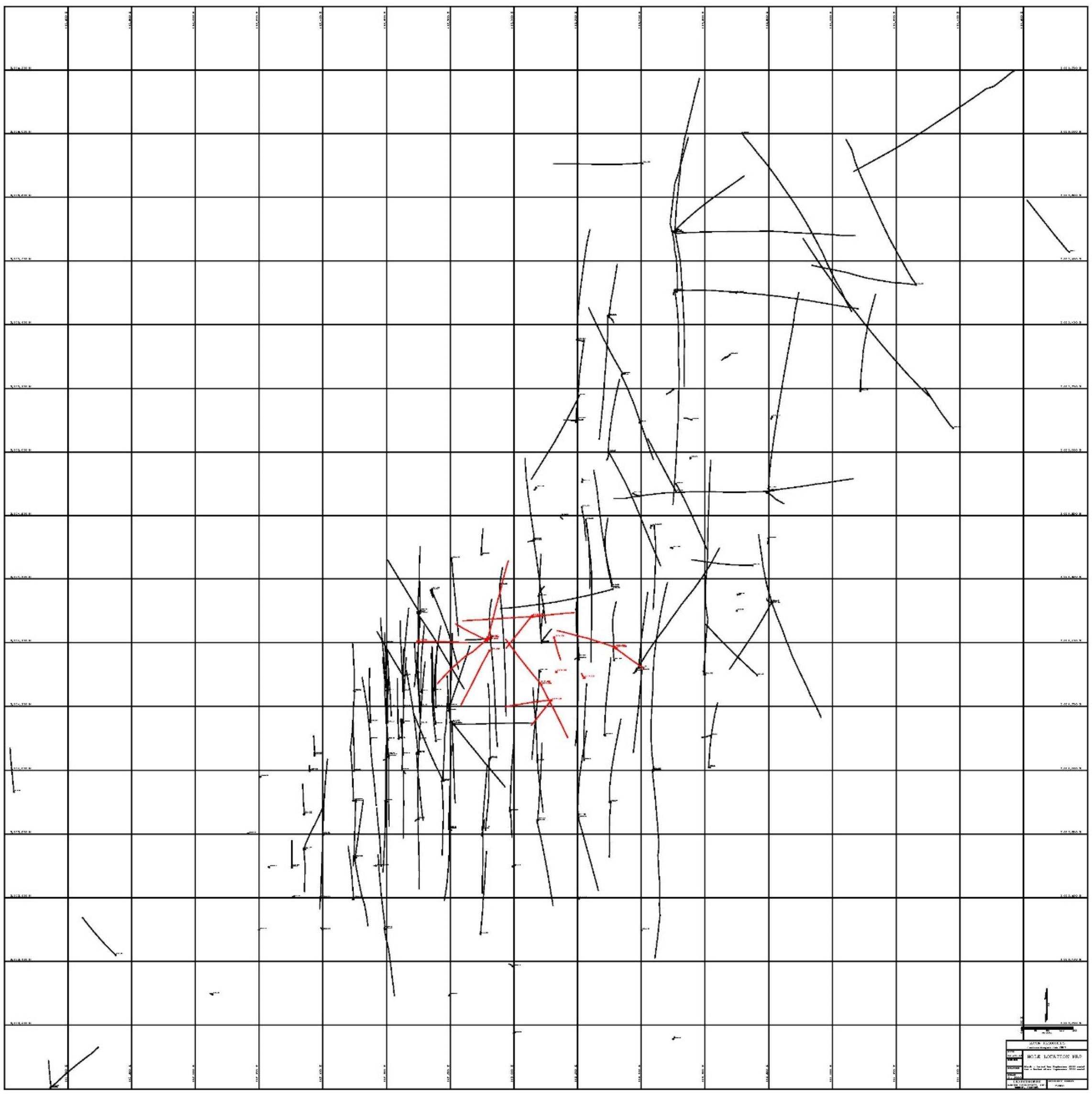


Figure 9-8: Outlying Exploration Targets

10 DRILLING

Levon has conducted four phases of drilling at Cordero Project, the latest of which was conducted in 2017 as part of Phase 4. It consisted of 18 core holes totaling 5,996 m of total length. The 2017 program was focused on filling in drill hole information in the northeastern sector of the composite pit.

The Cordero October 2017 mineral resource is based exclusively on Levon core drilling data. The drill plan and trace of the drill holes is shown on Figure 10-1. A majority of the holes are drilled either in a northerly or southerly direction on a drill grid that ranges from 50 m to 200 m drill site spacing depending on the intrusive center being drilled.



Black = holes used for September 2014 mineral resource
Red = holes added for the October 2017 mineral resource (200m grid)

Figure 10-1: Resource Drill Hole Locations

Recent core drilling was conducted Oretest Drilling S.A De C.V., Mazatlan, Mexico in 2013 and 2014, and Landdrill International S.A. De C.V., Mexico City in 2012. The companies drilled on a contract basis using best drilling industry core drilling equipment, supplies and practices. All holes were collared with HQ diameter core and a few holes in the Cordero Porphyry Zone and the Cordero Felsic Dome had to be reduced to NQ diameter core in areas of bad ground conditions or to increase the depth penetration of the drills.

10.1 DRILL PHASES

Since the 2009 Phase 1 discovery holes, the progression of offset grid drilling through 4 Phases is illustrated in Figure 10-2 through Figure 10-6. The Cordero Resource spans four intrusive centers within the Belt including the Pozo de Plata Diatreme, the Cordero Felsic Dome, the Cordero Porphyry Zone and the western part of the La Ceniza Stock (Figure 10-2 through Figure 10-6).

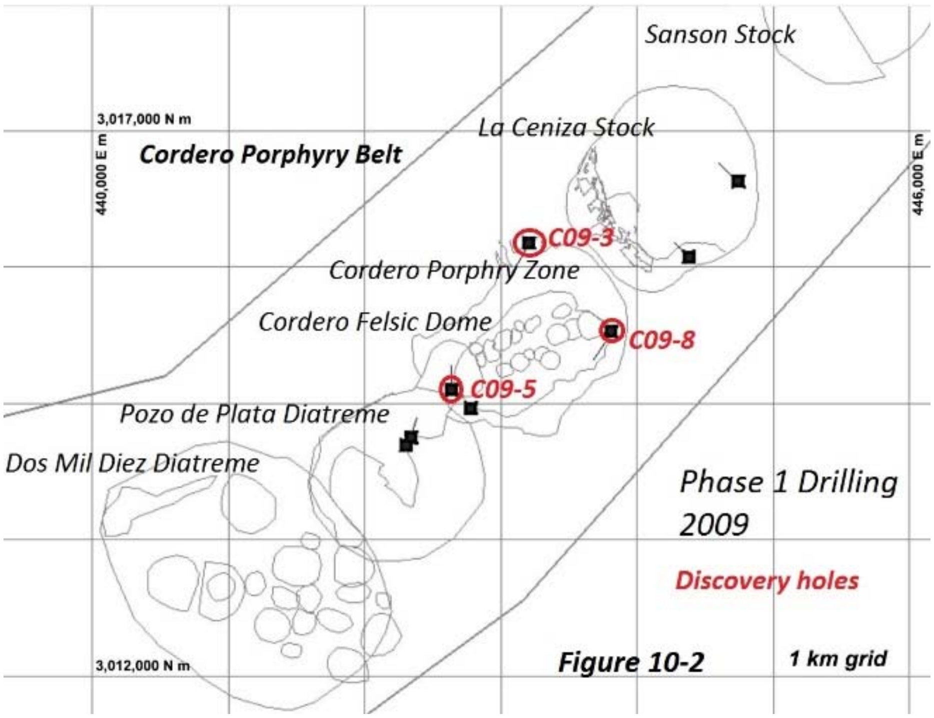


Figure 10-2: Phase 1 Drilling 2009 – Discovery Hole Locations

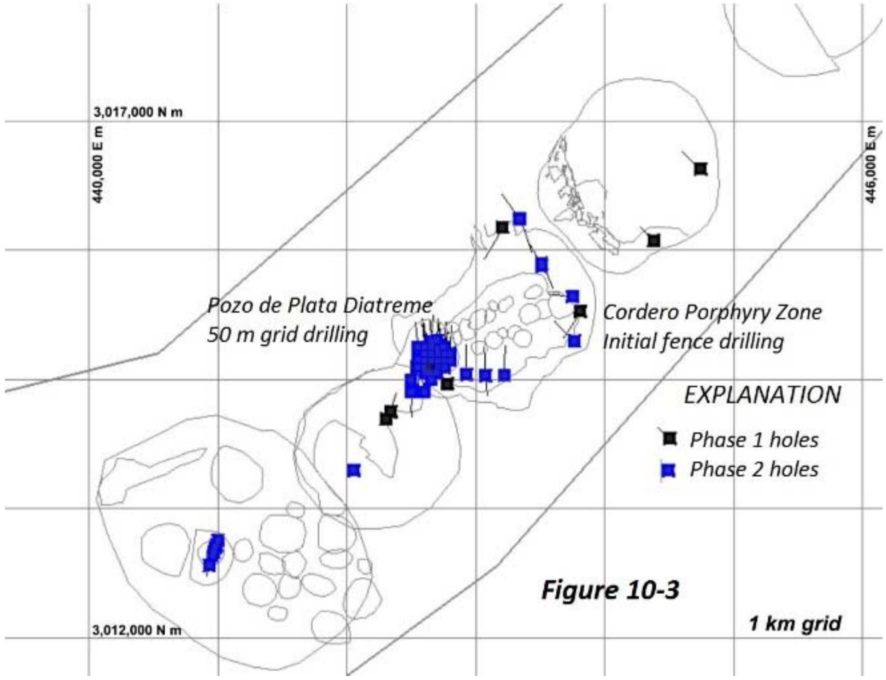


Figure 10-3: Phase 1 and 2 Drill Hole Locations

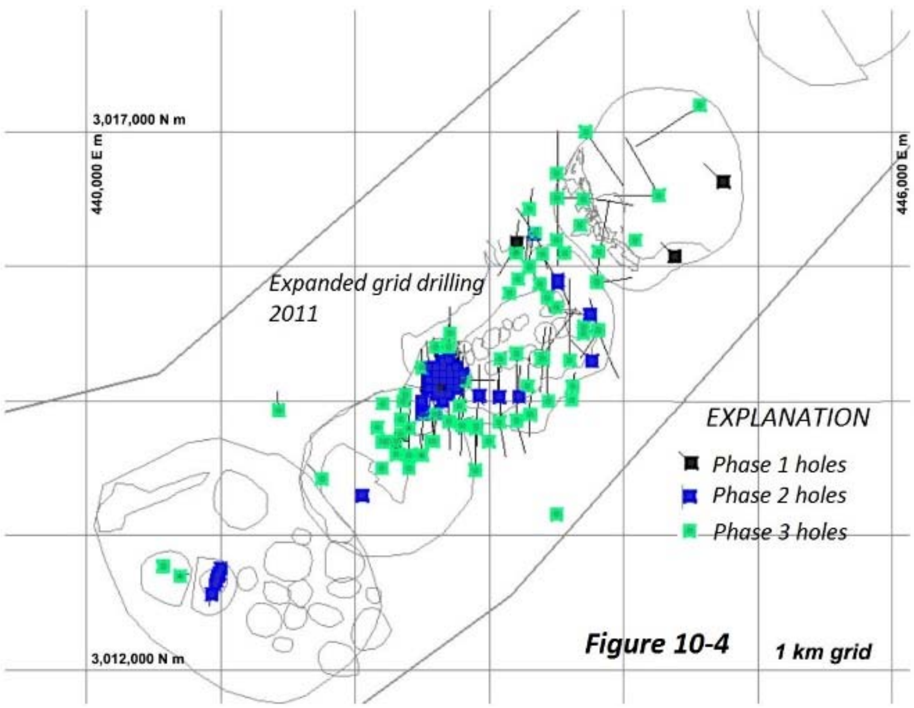


Figure 10-4: Phase 3 Drill Hole Locations

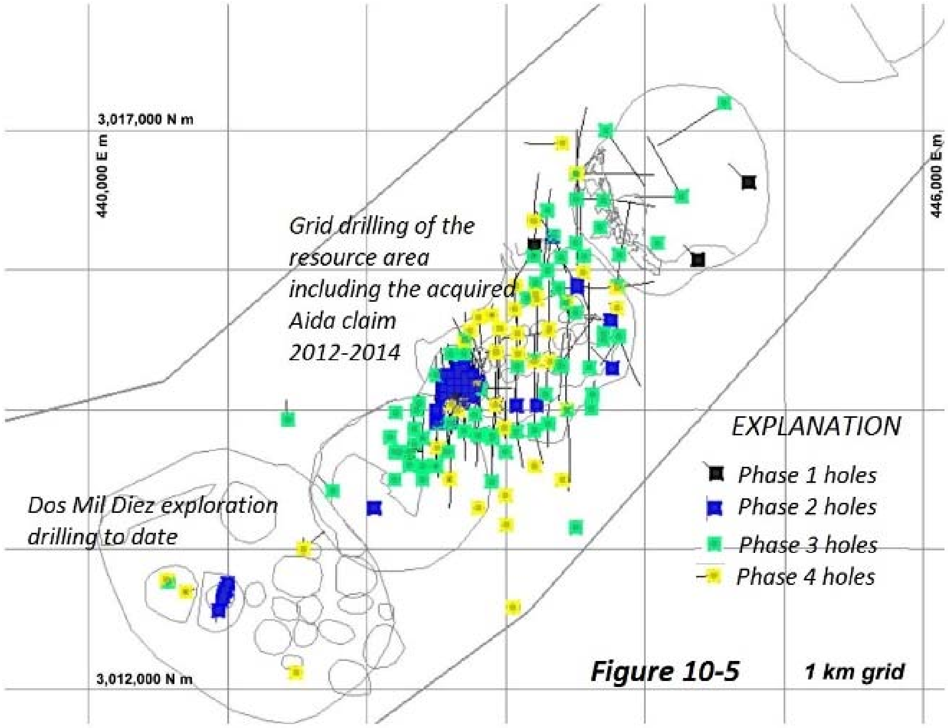


Figure 10-5: Phase 4 Drill Hole Locations

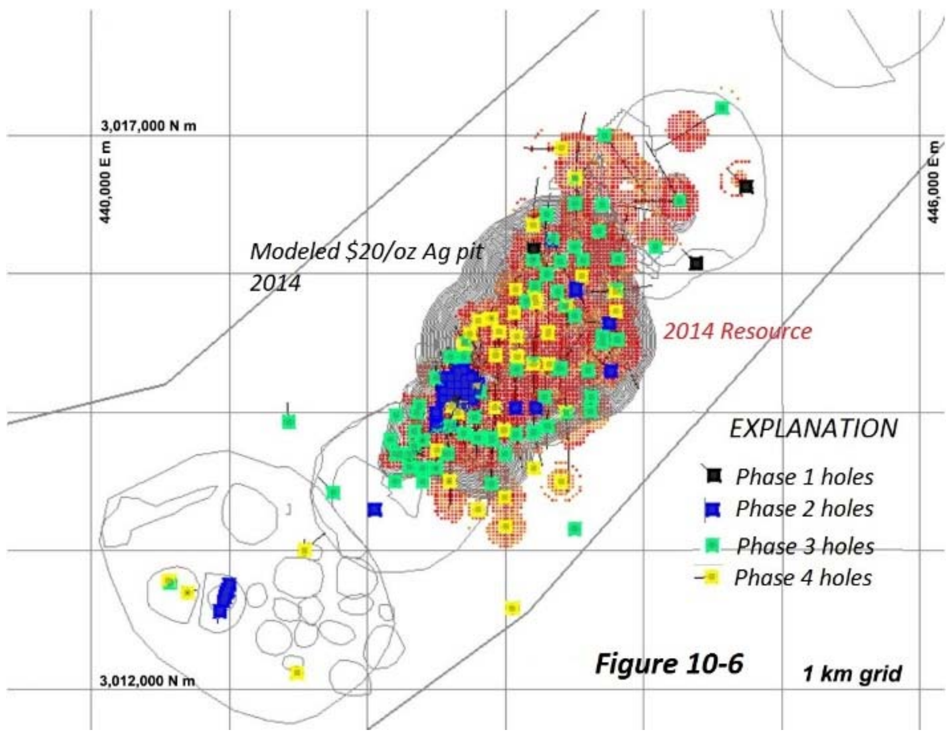


Figure 10-6: Drill Hole Locations with 2014 Resource Overlay

10.2 CORE HANDLING PROCEDURES

Wooden blocks are marked with the hole depth in meters for each core run recovered from the wire line core barrel. The marked wooden blocks are inserted at the corresponding hole depths as the core is placed in the core box and the drill boxes are marked with 'from' and 'to' depth in meters to the nearest centimeter (cm). Faults and broken ground, which are generally a rare feature, are typically marked on the blocks.

The core is transported to the core logging facility twice a day and the UV-resistant plastic core boxes laid out on the ground, washed with a hose and photographed wet and dry for a complete core record of all holes. Core recoveries are estimated by measuring between wooden core blocks and calculating percentage of recovered core for each drill run.

The core is mapped and logged in detail utilizing a core layout approach and the project geologic explanation for mapping and core logging, including a visual estimate of sulfide abundance and projected metal grade estimates on a histogram at 2-m intervals down each hole. Core is ideally laid out on the ground as the drill holes would appear on drill sections through each mineralized zone to best document any lithology, alteration or mineralization correlations among holes as the core is mapped (and often remapped). The resulting drill data is imported into 3D GoCad pattern recognition software daily for monitoring drill success, geological modeling and design of subsequent drill holes.

The core is sawed in half lengthwise and sampled continuously through 2-m intervals. The core recovery is generally good, averaging 95+%, with very few intervals of poor recovery. The orientation of the mineralization is typically unknown and true widths of mineralization are unknown at this time.

10.3 DRILL HOLE DATABASE

The borehole database is assembled by Levon and provided to IMC for use in developing the mineral resource estimate.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The Cordero drill data comes from core drilling and Levon has provided the following procedures for handling the core, logging it and preparing the samples for shipment to ALS Chemex and Actlabs for sample preparation and assaying.

1) Core is recovered from the drill hole in a core barrel. Drillers put wood blocks as a footage marker in the core box as they pull the core from the core barrel. Most of the core is HQ diameter core (2.50 inches or 63.5 mm), but reduction to NQ (1.775 inches or 45.1 mm) is required in rare cases of bad ground, or below 800 m hole depths to extending the drilling range.
2) The core boxes are transported from the drill rig to the Cordero core shed twice daily, and the core is laid out on the ground in the order it was drilled.
3) The core is washed with a hose by the geologist and the core is examined, but not handled.
4) The core is measured and the recovery is calculated and recorded using the core blocks for depth reference.
5) The core is photographed with a digital camera in the sun when possible, wet and dry.
6) The geologist completes a CoreMap (log) of the core generally within 30 minutes of when the core is first laid out and provides the DailyCoreMap for scanning and manual data entry into the MasterDailyCoreMap spreadsheet database which is then imported into Gocad 3D software for interpretation relative to the surround drill holes.
7) The geologist then completes a more detailed Quicklog of the core and provides that for scanning and manual data entry into the MasterQuicklog spreadsheet database.
8) The core is marked by the geologist for sawing and sampling.
9) The core is sawed in half along the geologist's marks
10) Core is sampled continuously through two-meter sample intervals for all core drilled by taking one half of the sawed core.
11) The geologist prepares the Standards, Blanks, and Twin list using the CoreMap and Quicklog to insert some of the Blanks (after high grade intervals for example) and standards, which are mostly randomly inserted.
12) The sample Blanks are inserted in the sample stream with a normal sequence sample number in the Core Shed. Core intervals designated by the geologist and marked for twinning is quarter sawed and each quarter sampled and included in its own separate sample bag in the normal sample sequence for analysis.
13) The core samples are bagged in rice bags for ALS Chemex pickup at the core shed.
14) ALS Chemex is notified for sample pickup once each hole is completely sampled and there are a sufficient number of holes to fill their sample truck for secure shipping to their Chihuahua labs. A rice bag tally sheet for each shipment is prepared for the project records for each shipment by the sampling team.
15) Once the samples are ready for transfer to the assay lab, a shipment is picked up by the lab and the following procedure completes the assaying of the samples.
16) The lab takes custody of the samples and drives them to their Chihuahua sample preparation facility for processing. The labs ship the sample pulps to their Vancouver labs for analysis.
17) The ALS Chemex lab in Vancouver contacts Levon Resources Ltd when each shipment of sample pulps arrives. Levon inserts the numbered Standards into the sample stream before the samples are shipped to Chihuahua to be analyzed by ALS Chemex.
18) The labs email the preliminary and final lab results to Levon and the results are compiled into the MasterDH and ALSChemexDH Access databases.

19) The labs email the final signed and scanned assay certificates, which are compiled and archived.

20) ALS Chemex mails the original lab assay certificates, which are filed and archived.

21) The project files reside is locked file cabinets at the project site daily (now stored in the secure Minera Titan office in Parral).

The Cordero data base assays were run by ALS Chemex, which are ISO-certified laboratories. The sample preparation and assaying procedure is:

1) Split core samples were prepared for assaying at the labs in Chihuahua by drying and crushing to 85% minus 10 mesh, followed by riffle-splitting and pulverizing to 95% minus 150 mesh.
2) Assaying was performed at the ALS Chemex lab in Vancouver, B.C. Gold analyses were performed by 30-gram fire assay with AA (atomic absorption) finish. Silver, zinc and lead were analyzed as part of a multi-element inductively coupled argon plasma (ICP) package using a four-acid digestion with over-limit results reanalyzed using ICP-AES (atomic emission spectroscopy).

11.1 QA/QC AND REFEREE ANALYSES

Blank, twin and standard sample insertions in the core sampling stream included about 20% additional samples as recommended early in the project by AMEC, Vancouver who designed the QAQC program for the project. Sample insertion procedures are described above.

Referee lab samples were performed by ActLabs when ALS Chemex was contracted to do the assaying of drill core. From hole C13-251 ActLabs was contracted to analyze the drill core and ALS Chemex completed the referee sample analysis. For referee samples, every 20th reject was delivered to the referee lab for sample pulp preparation and assay analysis.

12 DATA VERIFICATION

The Cordero database is maintained by Levon as an access database which is updated as new information is available. During the course of IMC's involvement with the project, Levon forwards its master assay file to IMC for use. IMC does internal checks on the database as it converts it into the IMC database software. Inconsistencies are flagged and brought to the attention of Levon for correction. As mentioned in Section 11, the assay certificates are provided to Levon electronically for incorporation into the database. IMC has checked the transfer of original certificate data from ALS Chemex and Activation Laboratory to the Levon database. IMC has reviewed the data handling procedures and the quality assurance and quality control (QA/QC) procedures being used by Levon for its Cordero project and finds them to be within currently acceptable standards.

The Cordero data base assays were run by ALS Chemex, an ISO-certified laboratory and by Activation Laboratory (ActLab). The sample preparation and assaying procedures used by these laboratories are described in Section 11.

12.1 COMPARISON OF ASSAYS WITH ORIGINAL ASSAY CERTIFICATES

IMC reviewed certificate data for holes C09-1 through C14-274 as part of its work for the development of the September 2014 mineral resource and documented this in its technical report titled "Cordero Project September 2014 Mineral Resource Update, Chihuahua, Mexico Technical Report", dated October 2014.

Five drillholes were selected from the Cordero 2017 drilling database (drillholes C17-275 to C17-292) for certificate checks. These drillholes were:

C17-277 C17-180 C17-286 C17-289 C17-292

Assays on this set of Cordero samples in the database were run by ALS Chemex Laboratory. Pdf files were sent for all drilling.

Certificate data was checked for Silver, Gold, Lead and Zinc. There were no differences between the assay value in the database that IMC received from Levon and the certificate data.

12.2 LEVON QA/QC PROTOCOL

In accordance with its QA/QC protocol Levon inserted standards, blanks and duplicates approximately every 20th sample during the assaying program. The duplicate assays, which were run on quarter-core splits, confirm that core-splitting procedures are not biasing the assay results and the standard and blank assays show no significant divergences from recommended or expected values.

12.3 PREVIOUS DATA VERIFICATION

IMC reviewed the check assay data for holes C09-1 through C10-77 as part of its work for the development of the June 2011 mineral resource and documented in its technical report titled "Cordero Project Mineral Resource, Chihuahua, Mexico Technical Report", dated August 2011.

The results of that work are that IMC found the Cordero data base for gold, silver, lead and zinc assays through hole C10-77 verifiable in accordance with industry standards.

IMC reviewed the check assay data for holes C11-78 through C12-202 as part of its work for the development of the July 2012 mineral resource and documented in its technical report titled "Cordero Project June 2012 Mineral Resource Update, Chihuahua, Mexico Technical Report", dated July 2012 (as amended May 10, 2013). The results of that work are that IMC found the Cordero data base for gold, silver, lead and zinc assays through hole C12-202 verifiable in accordance with industry standards.

IMC reviewed duplicate assay data for holes C11-98 to C14-274 as part of its work for the development of the September 2014 mineral resource and documented in its technical report titled “Cordero Project September 2014 Mineral Resource Update, Chihuahua, Mexico Technical Report”, dated October 15, 2014.

12.4 ASSAYS ON STANDARD SAMPLES

The database supplied to IMC listed 314 assays run on standards. For the 2017 drillholes (C17-275 to C17-292 standards were inserted into the sample stream approximately once every 9th sample.

Three standards were used to monitor accuracy of the laboratory analysis for silver, lead, and zinc. One standard was used to monitor accuracy of the laboratory analysis for gold. These standards were purchased from WCM Minerals in Burnaby, British Columbia, Canada. The certified values for these standards are listed in Table 12-1.

Table 12-l summarizes the statistics for each standard based on assays run primarily from ALS Chemex lab. There are also 5 analysis which were run at the ACT lab with the check assay data, these are shown as a different symbol in the following standard graphs. The table lists the element, the standard, the certified value (mean +/- 2 standard deviations, the combined lab results (mean +/- 2 standard deviations, the number and percent of analyses outside of the certified value plus/minus two standard deviations, and the number and percent of analyses outside of the certified values plus/minus three standard deviations.

The first value listed in the “number” column is the total number of analyses and the second number is the number accepted for the statistics; extreme outliers, i.e. outside three standard deviations were discarded.

Accuracy – Accuracy is measured by the percent bias. It is expected that the standard analyses will be within 5% of the certified values. All the bias values on Table 12.1 are well within this limit; the accuracy of the standards analyses is accepted.

Precision – The Relative Standard Deviation (%RSD) is a measure of precision, or reproducibility, achieved in the analyses. This is measured as the sample standard deviation divided by the sample mean. Table 12.1 shows that the highest relative standard deviation, silver for standard PB129, is only 3.9%. All the results are within acceptable limits.

Failure Criteria – IMC considers that analyses outside of 3 standard deviations are failures, and analyses outside of 2 standard deviations are “warnings”. Generally, it is expected that 5% or less of the data will be outside the 2SD limits and 1% or less of the data will be outside the 3SD limits. It can be seen that these thresholds are not met for the sample analyses of silver, lead and 2 of the zinc standards. The gold analysis is within these thresholds and the zinc analysis for standard PB140 is also within these thresholds.

Table 12-1: Summary of Standard Assay Results, 2017 Drilling

	Standard	Certified Grade	Sample Mean	Number	% Bias	%RSD	N > 2SD	% > 2SD	N > 3SD	% > 3SD
Silver	1 - PB129	23 +/- 1.696	23.5 +/- 0.917	84 / 82	2%	3.9%	14	16.7%	2	2.4%
g/t	2 - PB140	84 +/- 2.194	85.31 +/- 2.762	74 / 68	2%	3.2%	16	21.6%	6	8.1%
	10 - PB130	82 +/- 2.309	84.90 +/- 1.846	69 / 56	4%	2.2%	25	36.2%	9	13.0%
Lead	1 - PB129	1.24 +/- 0.017	1.23 +/- 0.018	79 / 76	-1%	1.5%	14	17.7%	6	7.6%
%	2 - PB140	4.35 +/- 0.075	4.33 +/- 0.094	68 / 66	0%	2.2%	13	19.1%	2	2.9%
	10 - PB130	0.73 +/- 0.0197	0.719 +/- 0.020	69 / 62	-2%	2.8%	10	14.5%	7	10.1%
Zinc	1 - PB129	2 +/- 0.062	2.04 +/- 0.053	79 / 79	2%	2.6%	6	7.6%	0	0.0%
%	2 - PB140	3.85 +/- 0.138	3.89 +/- 0.064	68 / 67	1%	1.6%	1	1.5%	1	1.5%
	10 - PB130	1.44 +/- 0.0309	1.475 +/- 0.032	64 / 59	2%	2.1%	17	26.6%	5	7.8%
Gold g/t	4 - PM448	0.28 +/- 0.0116	0.284 +/- 0.0055	87 / 87	1%	1.9%	0	0.0%	0	0.0%

Control Charts – Figures 12.1 through 12.10 show control charts of the standard results. The x-axis of the plots is the sample order, so the charts show the assays in approximate time order. The red line of each chart is the certified value. The two and three standard deviation limits are also shown.

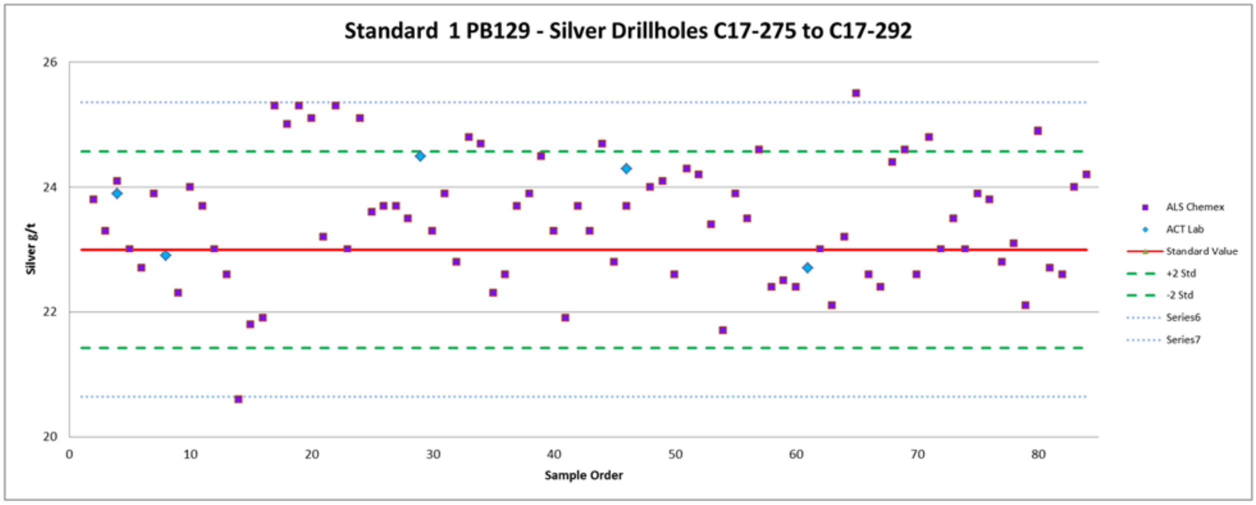


Figure 12-1: Standard 1 – PB129 Analyses for Silver ICP

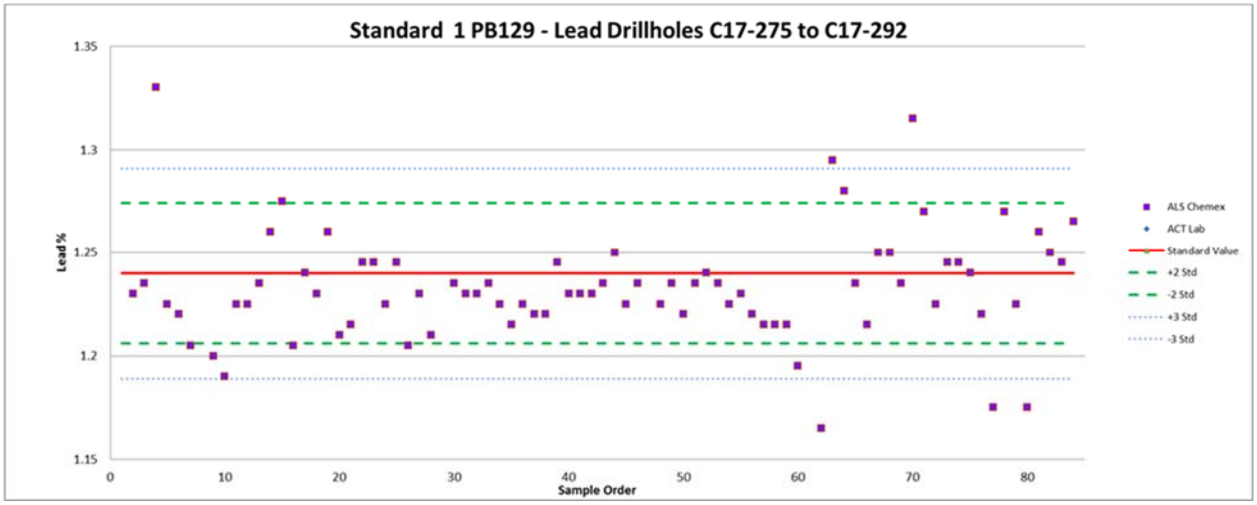


Figure 12-2: Standard 1 – PB129 Analyses for Lead ICP, with OG46 for Overlimit Values

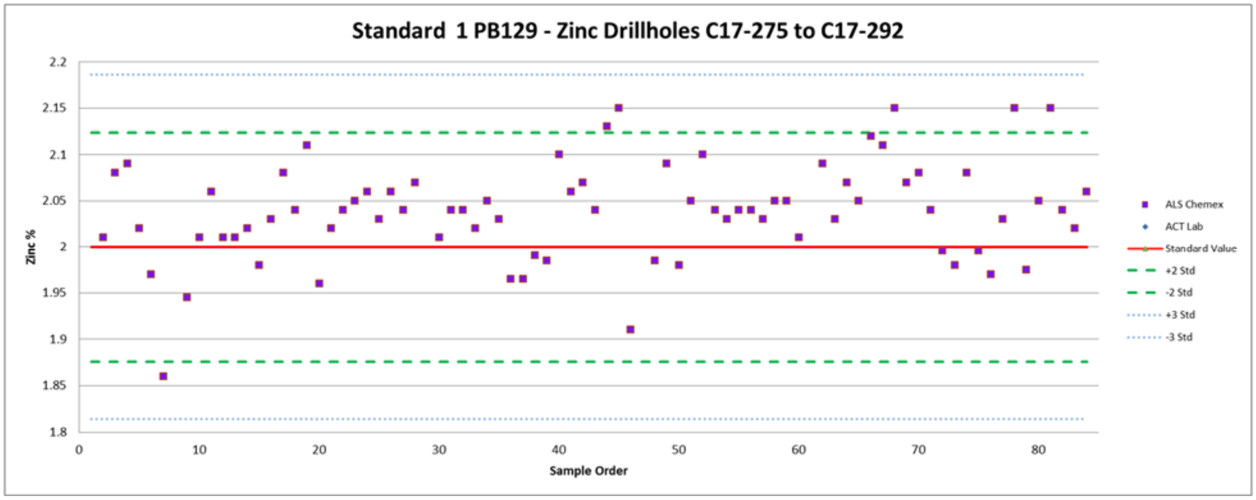


Figure 12-3: Standard 1 – PB129 Analyses for Zinc ICP, with OG62 for Overlimit Values

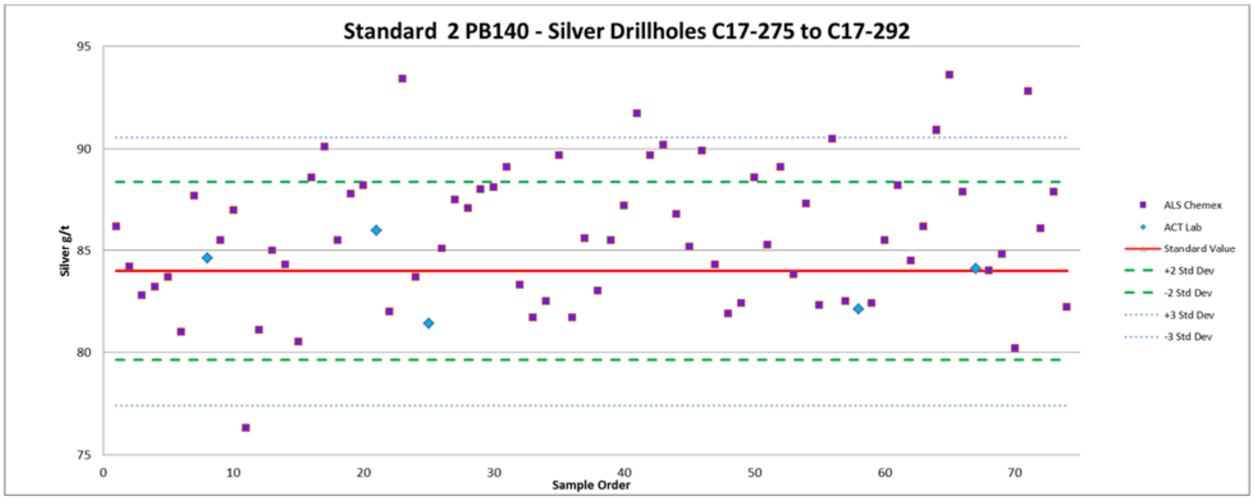


Figure 12-4: Standard 2 – PB140 Analyses for Silver ICP

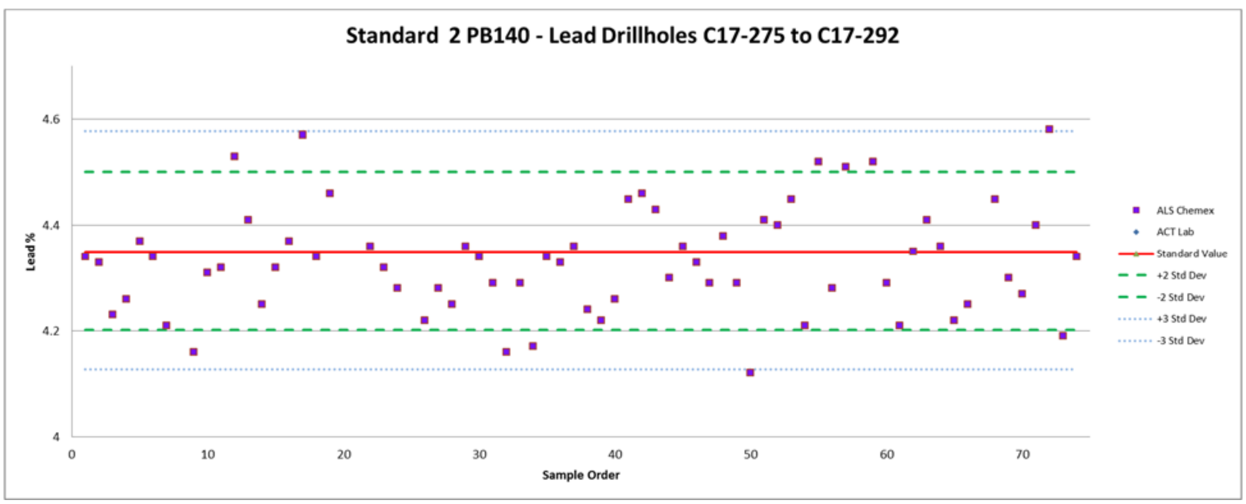


Figure 12-5: Standard 2 – PB140 Analyses for Lead ICP with OG46 for Overlimit Values

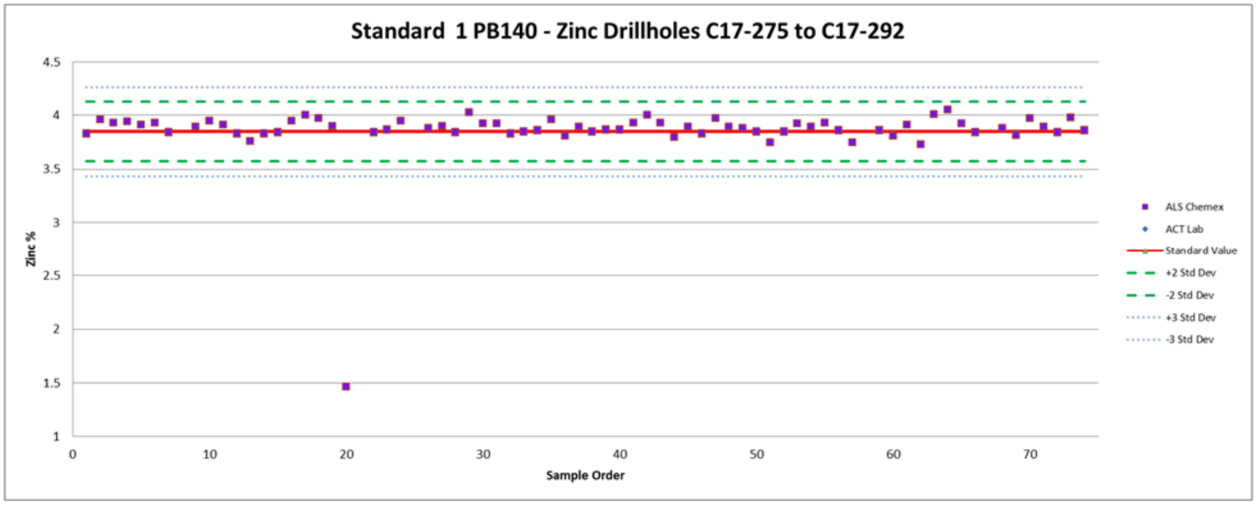


Figure 12-6: Standard 2 – PB140 Analyses for Zinc with OG62 for Overlimit Values

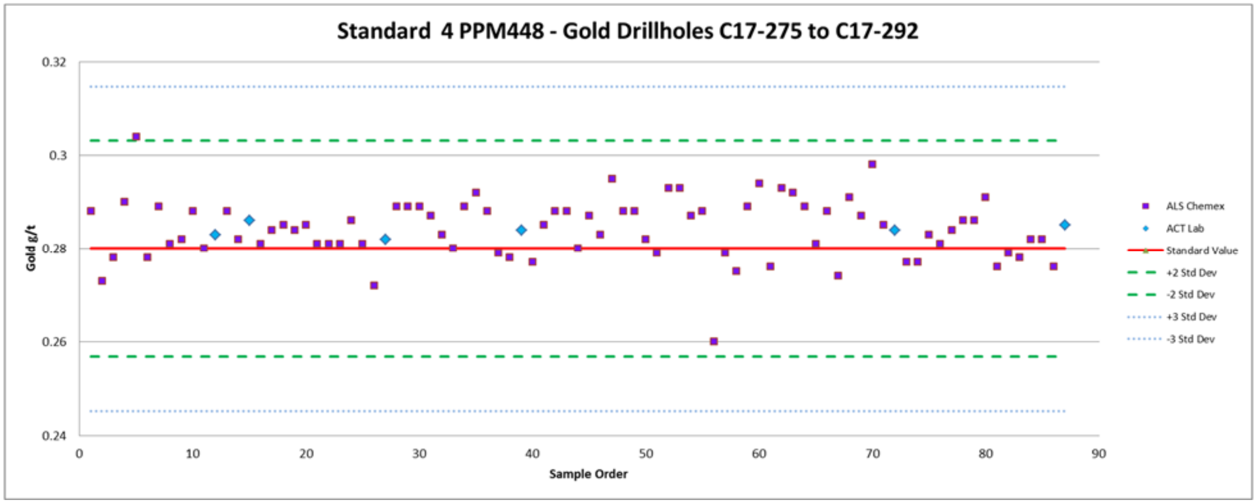


Figure 12-7: Standard 4 - PPM448 Analysis for Gold AA

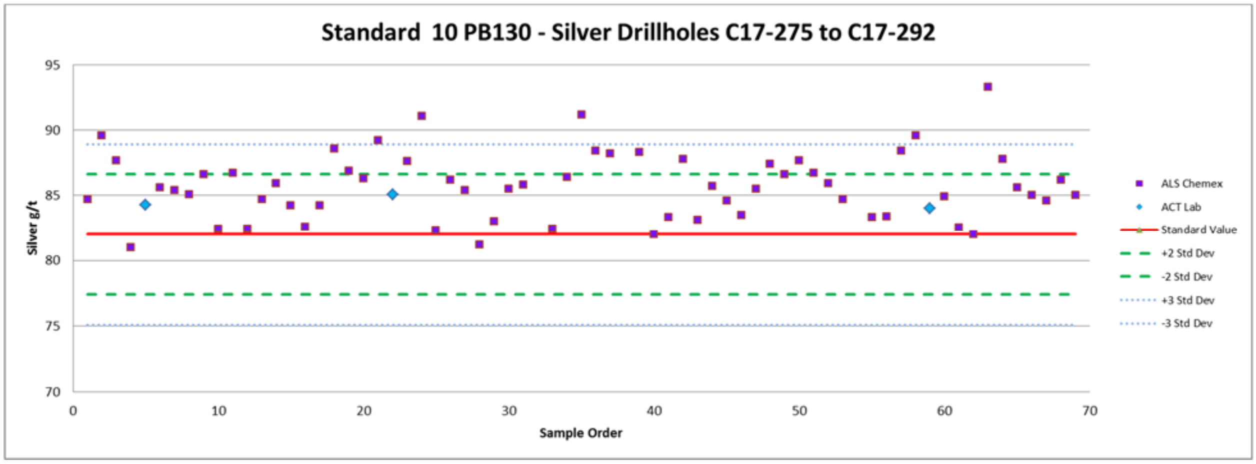


Figure 12-8: Standard 10 – PB130 Analysis for Silver ICP

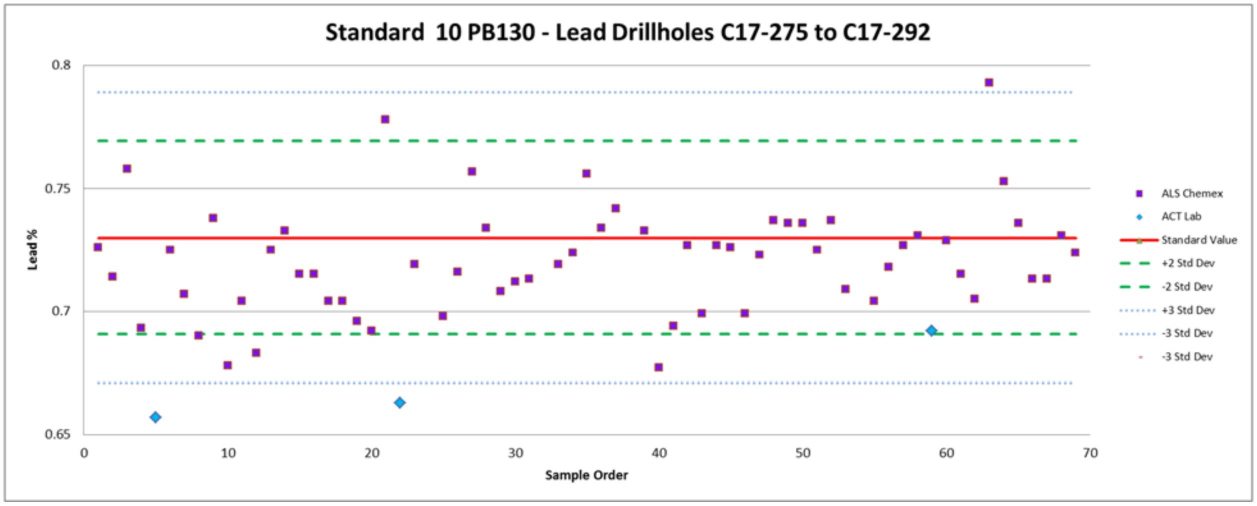


Figure 12-9: Standard 10 – PB130 Analysis for Lead ICP with Overlimit OG46 Values

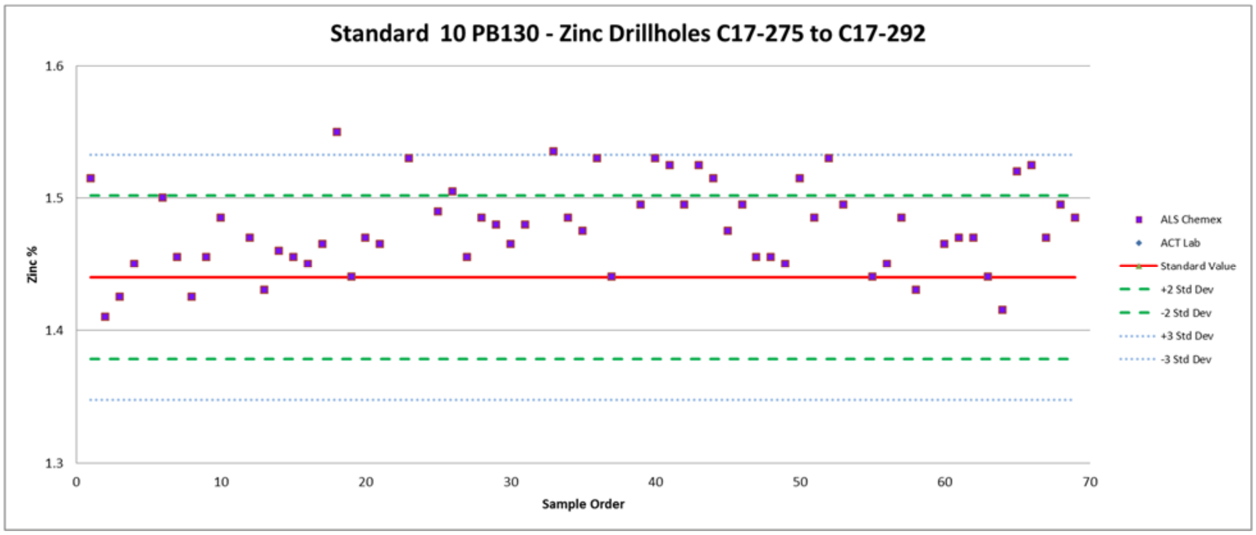


Figure 12-10: Standard 10 – PB130 Analysis for Zinc ICP with Overlimit OG62 Values

12.5 ASSAY ON BLANK SAMPLES

The blank reference material for the Cordero QA/QC program is a rhyolite from a road quarry near Parral. It has been assayed multiple times to verify that measurable amounts of silver, gold, lead and zinc are not present.

The blank data provided to IMC contained 347 assays analyzed for silver, gold, lead and zinc. For the 2017 drillholes (C17-275 to C17-292) blanks were inserted once every 8 samples (347 out of 2,832 assayed samples). Table 12-2 is a compilation of the results of the blank data.

Blank analyses measure analytical carry-over contamination and should be within 10 times the lower detection limit. Any sample that exceeds 10 times the detection limit is outside of the acceptable limits and is classified as a failure. Five times the detection limit is considered the “warning limit” by IMC.

The results are summarized in Table 12-2. For one of the samples, all of the minerals assayed are in the failed area. Both the silver and gold analysis show 97% and 98% (respectively) of the blank data is at or below the detection limit.

Lead shows that there is 16% of the data which carries a warning as being high for a blank and 6% of the data being greater the 20ppm. Zinc shows that all of the data is greater than 20ppm. It appears there are trace amounts of lead and zinc in the material used for a blank.

Table 12-2: Summary of Blank Assay Results, 2017 Drilling

Table 12-2 Summary of Blank Assay Results, 2017 Drilling				
	Silver ppm	Lead ppm	Zinc ppm	Gold ppm
	ME-ICP41	ME-ICP41	ME-ICP61	Au-AA23
Detection Limit	0.2 ppm	2 ppm	2 ppm	0.005 ppm
Number of assays	347	347	347	347
At or Below Detection Limit	337	9	0	340
Percent at or Below D.L.	97%	3%	0%	98%
Above DL and below 5 times DL	8	261	0	6
Percent for 5 times Detection Limit	2%	75%	0%	2%
Above 5 times DL and below 10 times DL	0	57	0	0
Percent for 10 times Detection Limit	0%	16%	0%	0%
Above 10 times Detection Limit	2	20	347	1
Percent at or Below D.L.	1%	6%	100%	0%

The lower detection limit for silver is reported as 0.2 ppm, so assays over 2.0 ppm are considered failures and assays between 1.0 and 2.0 ppm are warnings. Figure 12-11 shows graphically the results of the analyses for silver. The majority of the silver data is at an acceptable limit for a blank.

The lower detection limit for gold is reported as 0.005 ppm, so assays over 0.05 ppm are considered failures and assays between 0.025 and 0.05 ppm are warnings. Figure 12-12 shows graphically the results of the analyses for gold. The majority of the gold data is at an acceptable limit for a blank.

The lower detection limit for lead is reported as 2 ppm, so assays over 20 ppm are considered failures and assays between 10 and 20 ppm are warnings. Figure 12-13 shows graphically the results of the analyses for lead. About 78% of the lead blanks are at an acceptable limit for a blank. There is 16% of the lead data that is in the warning status and about 6% of the data fails as a blank.

The lower detection limit for both zinc analysis is reported as 2 ppm, so assays over 20 ppm are considered failures and assays between 10 and 20 ppm are warnings. Figure 12-14 shows the ME-ICP61 zinc values. All of the zinc values fail as a blank, since all values are greater than 20 ppm.

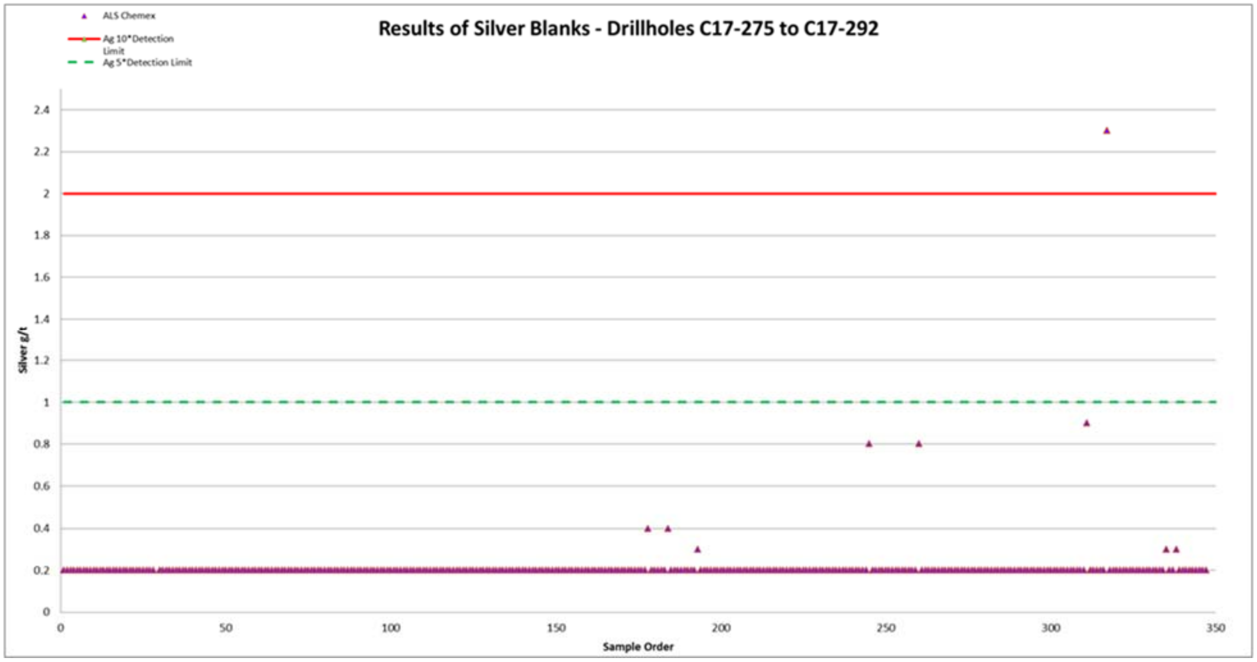


Figure 12-11: Chemex Silver Blanks

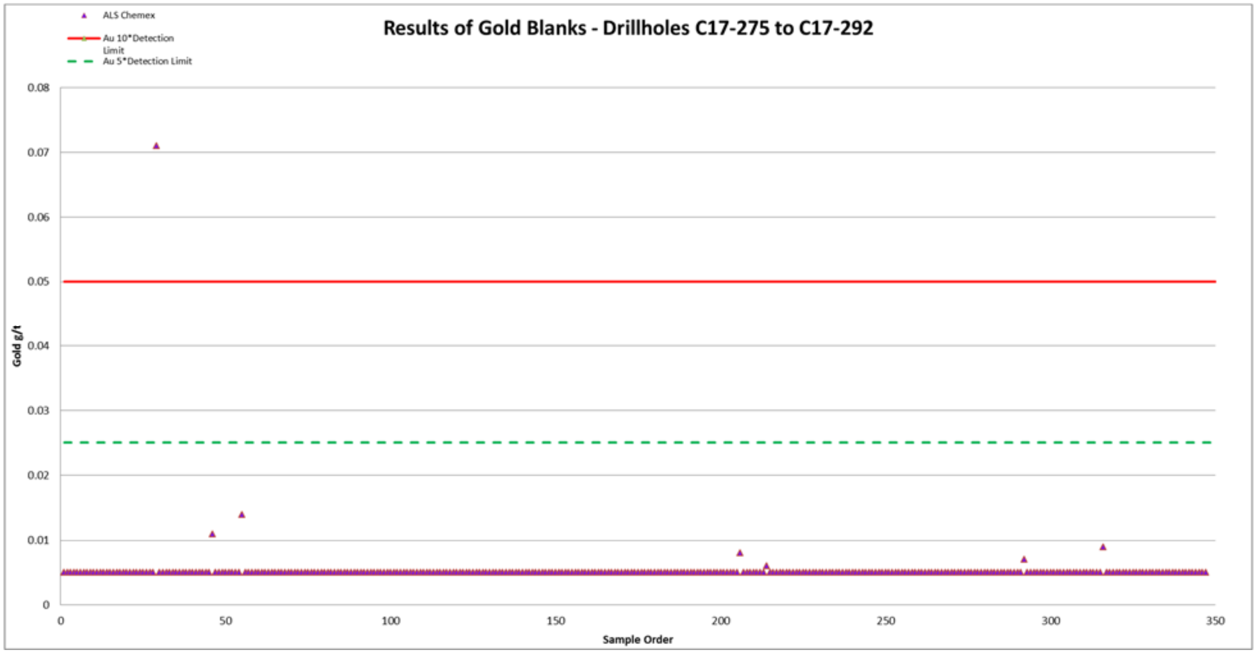


Figure 12-12: Chemex Gold Blanks

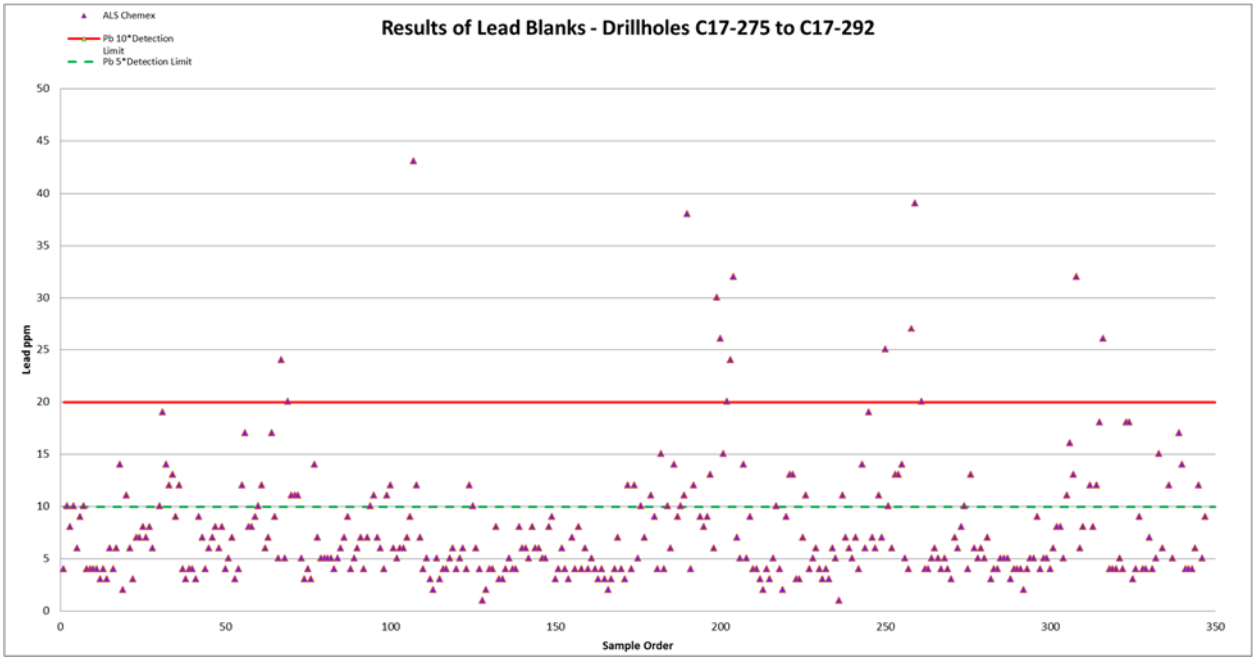


Figure 12-13: Chemex Lead Blanks

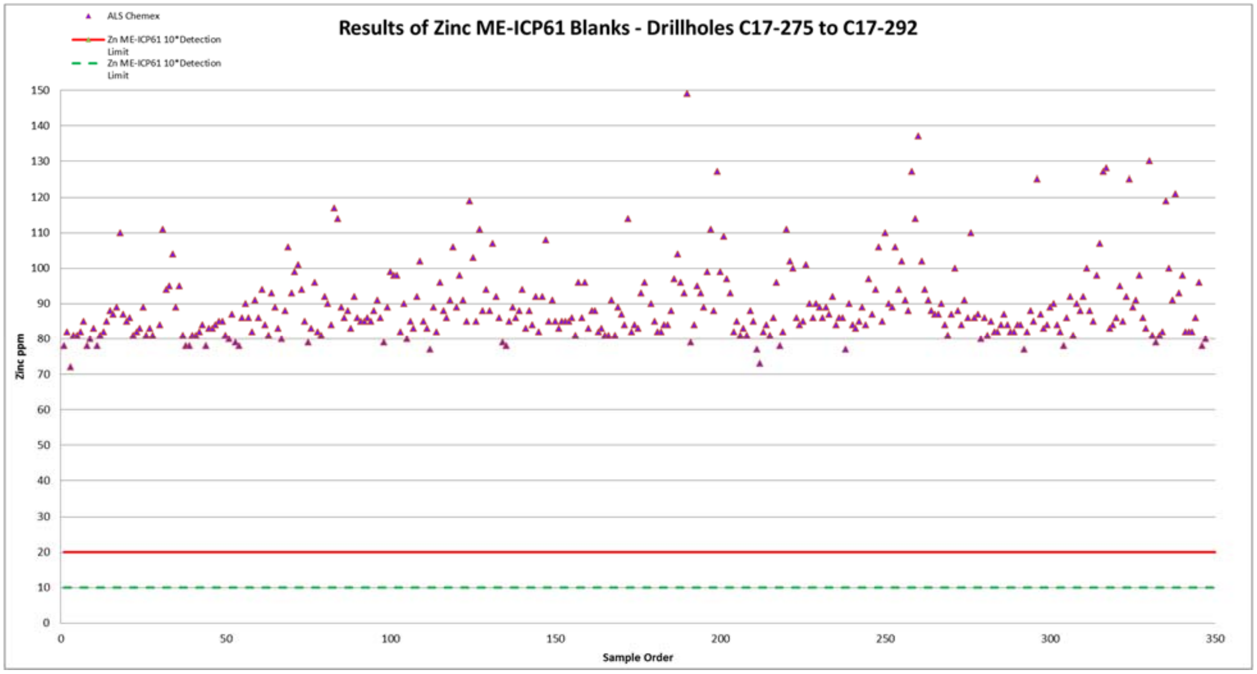


Figure 12-14: Chemex Zinc Blanks

12.6 ASSAYS ON DUPLICATE SAMPLES

The data provided to IMC consisted of 221 assays run on duplicate samples prepared by ALS Chemex from second-split core from holes C17-275 to C17-292, representing one duplicate assay approximately every 13th sample. Table 12-3 shows the results of the differences in the means between the first splits and the second splits.

Table 12-3: Summary of Duplicate Assay Results

Table 12-3 Summary of Duplicate Assay Results				
	Number of Duplicates	Database Mean	Duplicate Mean	(DB-DUP)/Dup Percent
Silver	217	9.814	10.468	-6%
Gold	221	0.049	0.050	-2%
Lead	221	0.181	0.175	4%
Zinc	221	0.318	0.328	-3%

Figure 12-15 to Figure 12-18 show the XY-plots of scatter for the ALS Chemex database assay values VS the duplicate values for silver, gold, lead, and zinc.

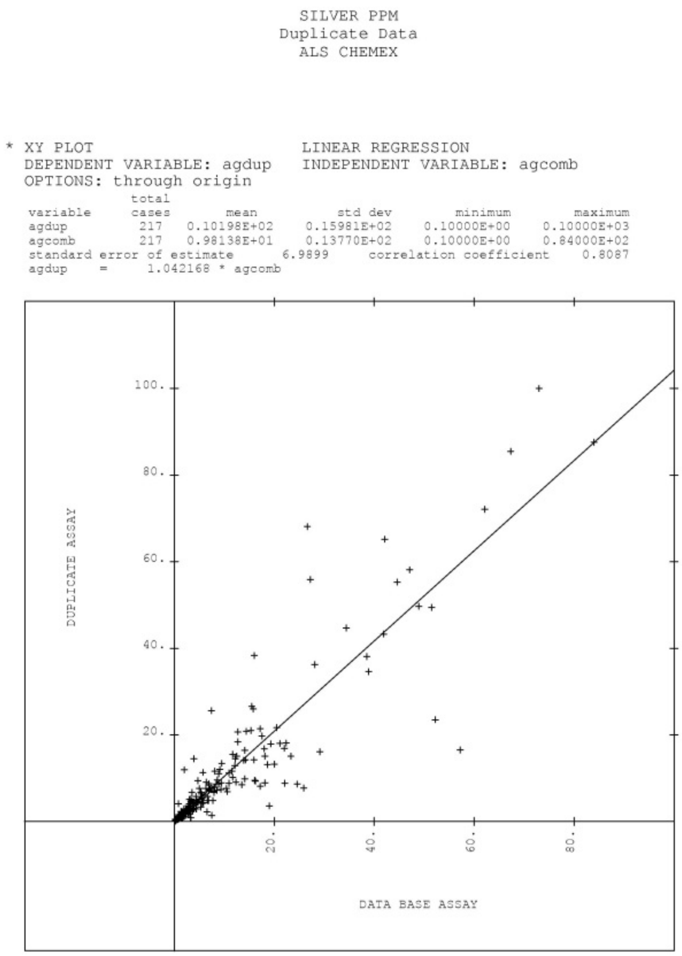


Figure 12-15: ALS Chemex Database Assays VS Duplicate Assays for Silver

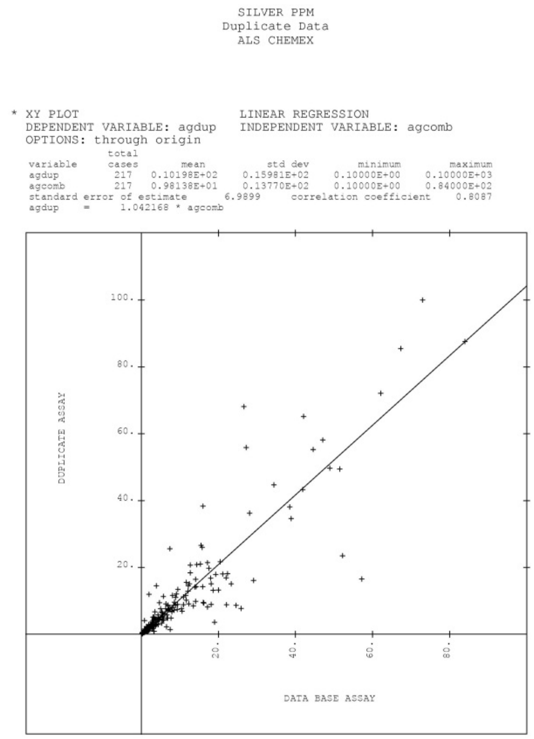


Figure 12-16: ALS Chemex Database Assays VS Duplicate Assays for Gold

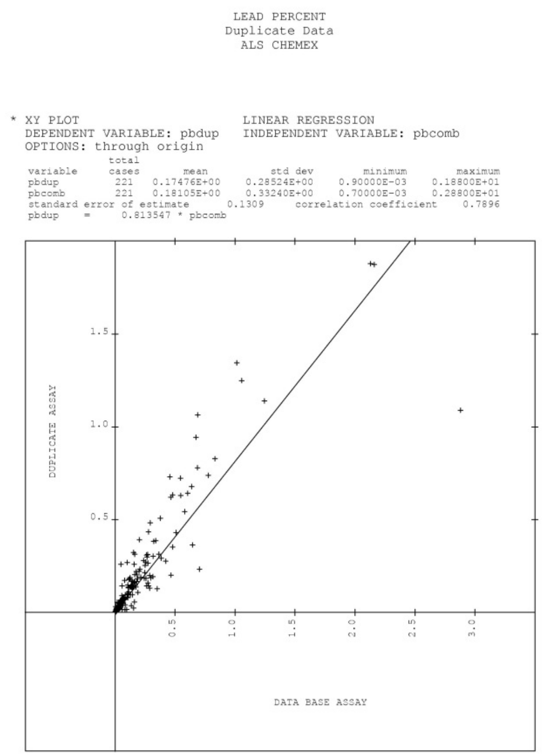


Figure 12-17: ALS Chemex Database Assays VS Duplicate Assays for Lead

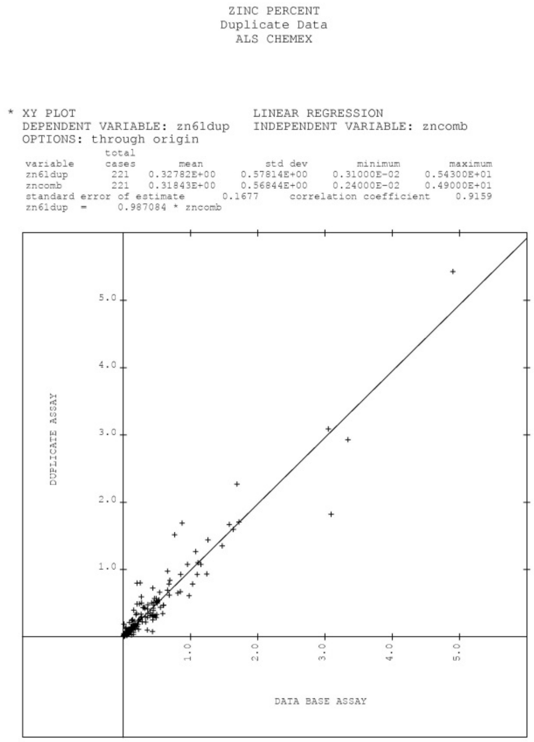


Figure 12-18: ALS Chemex Database Assays VS Duplicate Assays for Zinc

12.7 ACTLABS CHECK ASSAYS

No Additional ACT check assay information was received by IMC from Levon between the July 2012 NI43-101 Technical report and the 2017 drilling program.

During the 2017 assaying program approximately every 117th reject sample (24 out of 2,830) was shipped to Activation Laboratories (ActLabs), also an ISO-certified laboratory, for check assaying. ActLabs prepared and assayed fresh pulps from these rejects, so the results act as an independent check on both ALS Chemex's sample preparation and assaying procedures.

The results of the 2017 silver, lead and zinc check assays, which cover samples from holes C17-275 to C17-292, are summarized in Table 12-4 and in Figure 12-19 through Figure 12-21.

Table 12-4: 2017 Check Assay Results, Holes C17-275 to C17-292

Table 12-4 2017 Check Assay Results, Holes C17-275 to C17-292				
	No. Checks	ALS Mean	ActLabs Mean	ALS/ActLabs %
Silver	24	10.542	10.358	2%
Lead	24	0.174	0.170	2%
Zinc	23	0.221	0.221	0%

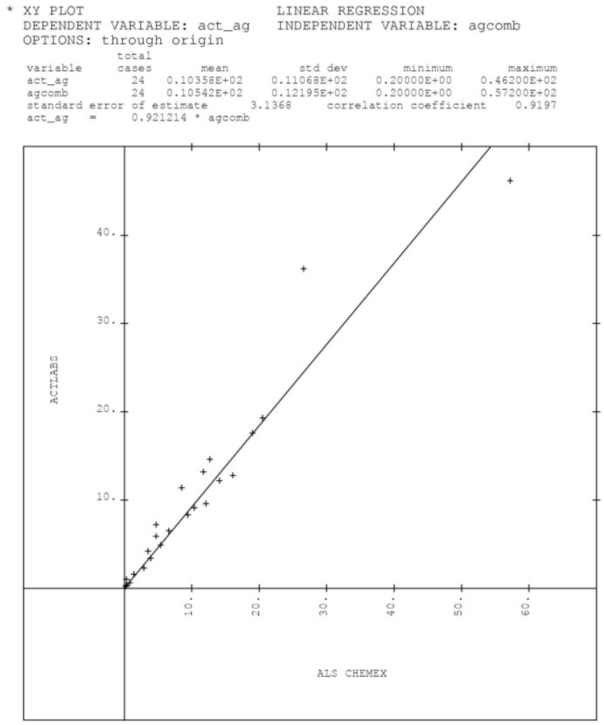


Figure 12-19: ALS Original vs ActLabs Check Assays, Holes C17-275 to C17-292, Silver

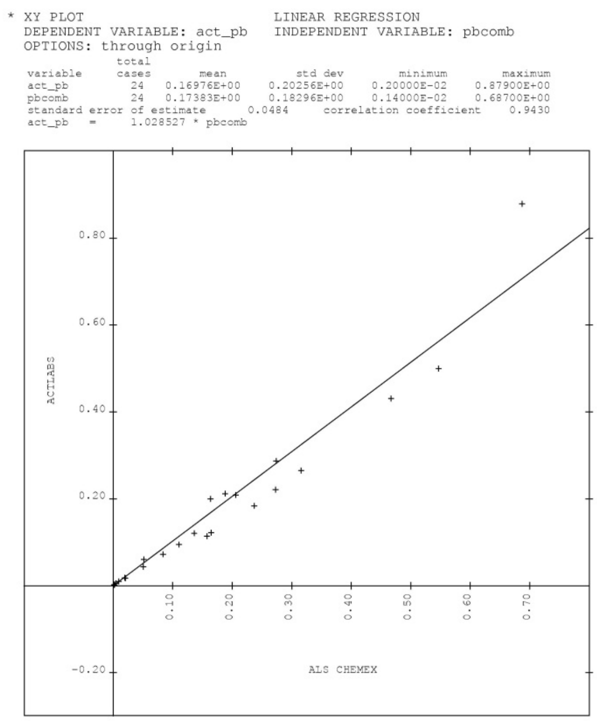


Figure 12-20: ALS Original vs ActLabs Check Assays, Holes C17-275 to C17-292, Lead

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* XY PLOT                          LINEAR REGRESSION
  DEPENDENT VARIABLE: act_zn       INDEPENDENT VARIABLE: zncomb
  OPTIONS: through origin
                 total
   variable      cases        mean         std dev        minimum        maximum
   act_zn          23    0.22079E+00    0.25991E+00    0.96000E-02    0.89400E+00
   zncomb          23    0.22149E+00    0.24944E+00    0.99000E-02    0.81200E+00
   standard error of estimate      0.0416     correlation coefficient    0.9744
   act_zn    =     1.014325 * zncomb
```

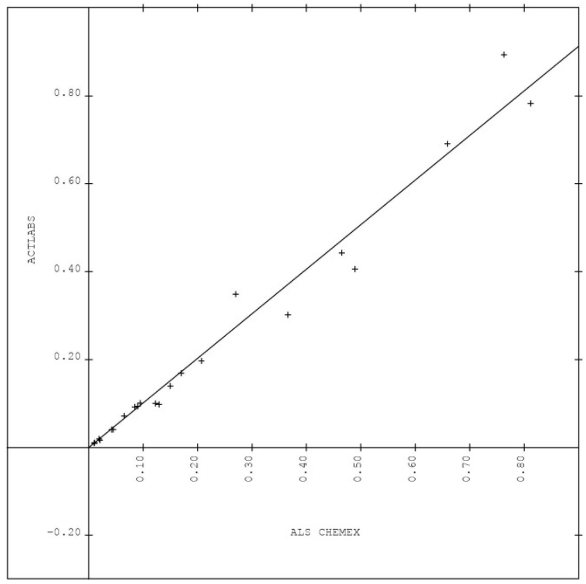


Figure 12-21: ALS Original vs ActLabs Check Assays, Holes C17-275 to C17-292, Zinc

12.8 CONCLUSIONS AND RECOMMENDATIONS

The Cordero database meets criteria for use in the development of the October 2017 resource. IMC recommends the following work be done prior to the next resource update.

1) Update the database values for holes C12-215 to C12-274 to replace the ALS Chemex check assay values with the original ACT assay values. At this time, IMC does not have the original ACT assay value for these drillholes. Check assay verification is currently in progress for this set of data.
2) There appears to be some mislabeling of the standards or blanks in the QA/QC data. This needs to be investigated and corrected. These are for drillholes C11-98 to C14-274. The 2017 standard data does not seem to have this problem to the extent of the previous drilling.
3) The blank sample material needs to be updated for Lead and Zinc, so that these minerals assay more closely to the assay low detection limit. A certified bland material needs to be acquired.
4) Check assays (material sent to another laboratory for analysis) need to be done on a more regular basis than every 100th sample.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

The Cordero Project will process sulfide mineralized material, to produce a high value lead concentrate containing lead and most of the silver in the mineralized material and zinc concentrate containing zinc and some precious metals, using selective flotation technology. The concentrates produced at the concentrator facility will be loaded into highway haulage trucks and transported to a concentrate smelter and metal refinery.

This section describes the metallurgical testing program carried out for the scoping study which comprised;

- Comminution (comparative bond work index testing and abrasion index) Testwork.
- Mineralogy studies (modal analysis).
- Selective Flotation tests to produce three concentrates (Pb/Ag concentrate, Zn concentrate, and pyrite concentrate)

In March 2011, M3, acting on behalf of Levon, contracted METCON Research (METCON) to conduct a preliminary flotation study on 12 composite samples from the Cordero Deposit in Chihuahua, Mexico

Drill core from 85 drill holes at 2-meter intervals was shipped to METCON to prepare 12 composite samples for metallurgical testing.

The scope of work of the scoping flotation study for the Cordero Project included sample preparation, assays on head samples, Ball Mill Bond Work Index, Abrasion Index, grind calibration and rougher flotation to produce lead-silver concentrate, zinc concentrate and pyrite-gold concentrate.

Metallurgical test work carried out on the Cordero samples indicate that the deposit will be amenable to treatment by conventional flotation processing methods. Comminution tests showed that the mineralized material has average hardness and low abrasiveness and variability typical of a large porphyry system. More than 90% of lead, silver and zinc were recovered to lead and zinc concentrates at the rougher stage. Only 40% of gold reported to the lead and zinc concentrates with 43% of the gold reporting to the pyrite concentrate. Concentrate upgrade using open-cycle cleaner flotation should be conducted to confirm whether similar high recoveries would be achievable at production level. Locked-cycle flotation will be carried out in the next stage of testing to define flotation parameters like reagent dosages, retention times and slurry percent solids.

No mineral processing flowsheet work has been prepared although it is envisioned that the processing at Cordero would be by flotation to produce two concentrates: zinc and lead. The metallurgical test work is just beginning and no results have been announced.

13.1 MINERALOGICAL EXAMINATION

Levon submitted 21 samples for mineralogical examination at Terra Mineralogical Services (TMS). Observations and conclusions made by the TMS are given below:

- Galena and sphalerite are the principal economic minerals. They range in grain size from very coarse to extremely fine-grained.
- In addition, a series of silver-bearing minerals are commonly intergrown with galena.

The main silver carriers identified in these samples consist of galena, a series of silver-antimony sulfosalts, argentite/acanthite, minor freibergite and silver tellurides. Other observations based on the microscope examination are provided below.

- Silver would readily follow galena in the lead circuit.
- Sphalerite is commonly zoned, with sphalerite zones that are richer in iron (darker sphalerite) and sphalerite containing lower amounts of iron (lighter sphalerite).
- Minute inclusions of chalcopyrite were commonly observed to be disseminated in sphalerite (chalcopyrite “disease”). These could introduce variable amounts of copper in the zinc concentrates. If sufficiently high, these copper levels could result in smelter penalties.
- Mineralized material textures range from quite simple to very complex. Overall, however, the mineralized material textures encountered in these samples can be defined as weakly complex to fair.
- Galena intergrowth with gangue minerals are the mineralized material textures that locally present the highest degree of complexity and would require additional attention to achieve sufficient mineral liberation to produce economic grade concentrates.
- Galena-sphalerite textures, although locally somewhat complex, should for the most part readily liberate under standard grinding conditions.
- The preliminary data collected up to date suggest that a primary grind of 80% passing 60 to 65 microns should be adequate to achieve a good mineral liberation and particularly a good lead-zinc separation. This data also suggests that a regrind with a target of approximately 80% passing 30 to 35 microns could be required in the lead circuit to produce sufficiently clean lead-plus-silver concentrates.
- A succinct and preliminary search for gold particles was also carried out. Only a very limited amount of electrum grains were identified. These were intergrowth with gangue and sphalerite, none were found associated with pyrite. However, these findings are partial and cannot be considered representative.

13.2 COMMINUTION STUDY

13.2.1 Ball Mill Bond Work Index

The Ball Mill Bond Work Index determination on the head composite samples was conducted using the reference known Work Index technique (in our case 8.37 kWh/ton mineralized material sample from the Philippines). The Work Index of the unknown mineralized material may be determined if the Work Index required for comminution is assumed to be the same for identical sample weights of the reference and unknown mineralized materials ground under identical conditions in a laboratory grinding unit.

This comparative method of determining the Ball Mill Work Index provided the results listed below.

Table 13-1: Ball Mill Bond Work Index – Composite Samples

Sample ID	Bond Ball Work Index	
	kWh/tonne	kWh/ton
Philex Mineralized material (Reference)	9.23	8.37
Composite 1	12.88	11.68
Composite 2	13.35	12.11
Composite 3	12.67	11.49
Composite 4	12.68	11.50
Composite 5	13.00	11.79
Composite 6	9.69	8.79
Composite 7	11.99	10.88
Composite 8	10.40	9.44
Composite 9	10.91	9.90
Composite 10	13.39	12.15
Composite 11	15.43	13.99
Composite 12	12.82	11.63

The results of the comminution indicate that the Cordero project mineralized material samples have medium hardness with ball mill Bond work index ranging from 9.69 kWh/tonne to 15.43 kWh/tonne with an average of 12.43 kWh/tonne.

13.2.2 Abrasion Index

The samples were crushed and screened appropriately to generate ¾”x1/2” fractions for each abrasion test. The Abrasion Index, conducted by Phillips Enterprises, LLC (PE), was done on five composite samples from the Cordero Project; the metallurgical data developed is summarized below.

Table 13-2: Abrasion Index Composite Samples

Sample ID	Abrasion Index (A_i)
C09-4	0.0792
C10-9	0.0823
C10-46	0.0760
C11-192	0.0947
C11-115	0.0304

The abrasion index test results show that the mineralized material is not abrasive with an average abrasion index of less than 0.10.

13.2.3 Sequential Rougher Flotation

Sequential rougher flotation tests were conducted at a grind size of approximately 80% passing 74 microns to produce a lead-silver concentrate, a zinc concentrate and a pyrite-gold concentrate. The sequential flotation was conducted according to the following flow sheet.

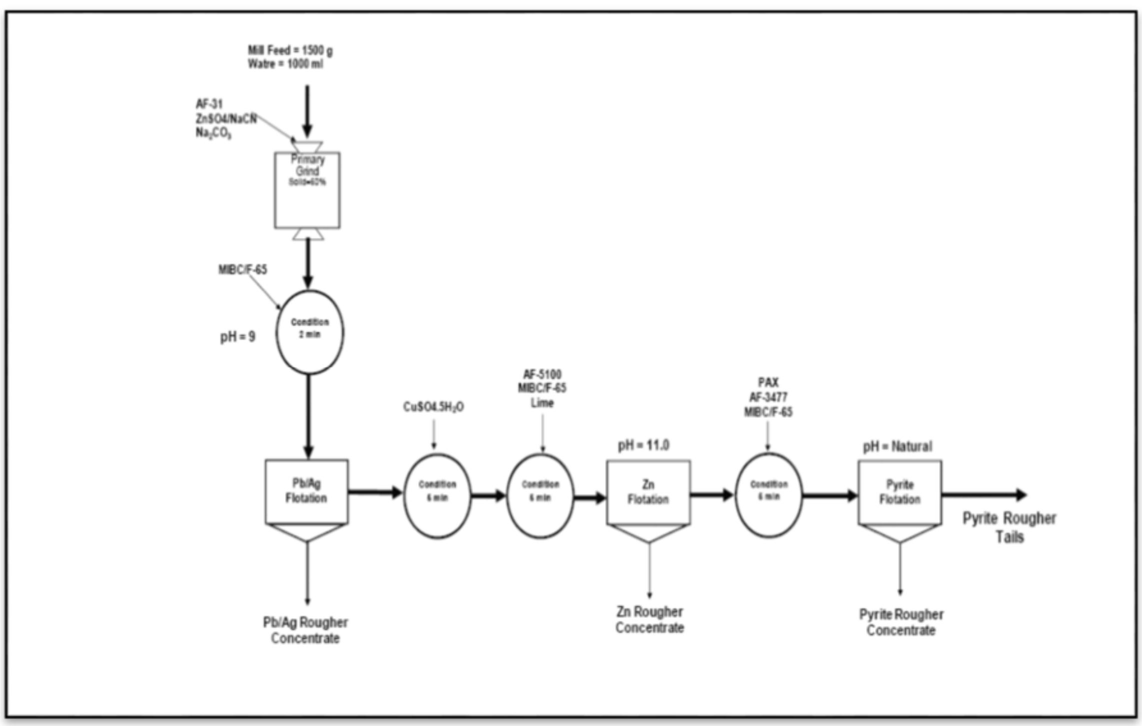


Figure 13-1: Sequential Flotation Testing Flowsheet

Each composite sample was ground with Aerofloat 31 collector, zinc sulfate and sodium cyanide as sphalerite and pyrite depressants and soda ash as pH regulator to obtain an 80% passing 74 microns product and floated at pH 9 with MIBC/AF 65 frother to produce a lead/silver concentrate. The lead/silver flotation tail was conditioned with copper sulfate to activate the sphalerite and the pH was raised to 11 with lime to depress pyrite. The slurry was floated to produce a zinc concentrate. The zinc flotation tails were conditioned with potassium amyl xanthate (PAX) and Aerofloat 3477 and floated to produce a pyrite concentrate. The pyrite tails were screened to ascertain the grind size of the tails of each composite.

The metallurgical data developed are summarized in the table below.

Table 13-3: Sequential Rougher Flotation Testing on Composite Samples, Summary Results

Composite ID	P_{80} (micron)	Concentrate	Grade (%)						Recovery (%)					
			Pb	Zn	Au (g/t)	Ag (g/t)	Fe	Cu	Pb	Zn	Au	Ag	Fe	Cu
1	58	Pb-Ag Rougher	12.80	1.23	0.69	798.6	3.55	0.02	94.02	9.08	13.82	86.85	6.50	9.90
		Zn Rougher	0.43	12.80	0.33	77.7	4.72	0.10	2.83	85.63	5.92	7.66	7.83	48.35
		Pyrite Rougher	0.13	0.38	2.79	23.1	29.50	0.02	1.26	3.85	76.67	3.44	73.90	12.79
		Calculated Head	0.99	0.98	0.36	66.6	3.96	0.01						
2	75	Pb-Ag Rougher	5.00	1.27	0.19	317.4	5.20	0.06	93.42	23.62	17.50	84.70	9.52	27.51
		Zn Rougher	0.11	2.71	0.44	23.2	20.90	0.04	2.98	**71.87**	56.45	8.83	54.55	25.46
		Pyrite Rougher	0.11	0.08	0.27	13.7	17.10	0.04	1.47	1.06	17.70	2.67	22.84	12.67
		Calculated Head	0.31	0.31	0.06	21.5	3.14	0.01						
3	71	Pb-Ag Rougher	9.40	2.00	0.19	573.7	4.16	0.05	96.81	17.00	10.65	91.94	6.33	24.11
		Zn Rougher	0.07	4.45	0.59	13.7	21.50	0.04	1.49	80.29	69.59	4.66	69.44	39.81
		Pyrite Rougher	0.10	0.10	0.34	9.7	13.40	0.03	0.79	0.63	**14.51**	1.21	15.90	14.21
		Calculated Head	0.55	0.67	0.10	35.6	3.75	0.01						
4	76	Pb-Ag Rougher	14.70	1.98	0.72	845.3	5.10	0.10	95.71	13.64	9.85	90.90	6.15	34.77
		Zn Rougher	0.37	16.60	0.46	54.8	5.20	0.12	1.73	81.95	4.54	4.22	4.49	28.91
		Pyrite Rougher	0.13	0.08	3.08	16.2	34.00	0.02	1.70	1.09	**83.23**	3.44	80.97	13.05
		Calculated Head	0.90	0.85	0.43	54.5	4.86	0.02						
5	70	Pb-Ag Rougher	7.90	1.12	0.56	435.1	2.99	0.10	93.07	17.04	25.23	87.19	4.06	29.51
		Zn Rougher	0.07	2.94	0.46	22.0	23.10	0.05	1.29	75.43	34.97	7.44	52.90	23.13
		Pyrite Rougher	0.04	0.07	0.54	8.7	15.30	0.03	0.43	1.09	23.46	1.68	20.03	8.91
		Calculated Head	0.38	0.30	0.10	22.6	3.34	0.02						
6	76	Pb-Ag Rougher	17.00	3.63	0.17	627.3	7.20	0.02	93.49	10.71	8.60	80.64	8.42	9.77
		Zn Rougher	0.52	29.10	0.11	112.1	8.10	0.15	2.94	88.22	5.73	14.80	9.73	66.30
		Pyrite Rougher	0.19	0.10	0.71	13.9	33.50	0.02	2.09	0.58	74.69	3.61	79.18	12.87
		Calculated Head	2.17	4.04	0.23	92.7	10.19	0.03						
7	34	Pb-Ag Rougher	0.41	0.30	0.07	16.0	1.56	0.01	**35.53**	13.08	9.90	**35.05**	9.17	13.76
		Zn Rougher	1.99	8.10	0.12	65.1	3.21	0.14	40.11	80.10	3.94	32.76	4.33	36.37
		Pyrite Rougher	0.43	0.11	1.16	17.4	22.50	0.02	18.48	2.34	82.86	18.50	64.20	8.91
		Calculated Head	0.18	0.38	0.11	7.4	2.75	0.01						
8	64	Pb-Ag Rougher	2.50	0.70	0.05	72.1	2.07	0.01	88.88	17.23	22.37	75.31	10.83	11.95
		Zn Rougher	0.27	6.70	0.07	27.9	3.37	0.08	4.64	80.33	14.32	14.19	8.59	35.37
		Pyrite Rougher	0.14	0.05	0.11	7.9	16.10	0.02	3.52	0.83	32.59	5.80	59.18	15.50
		Calculated Head	0.42	0.61	0.04	14.3	2.86	0.02						
9	64	Pb-Ag Rougher	12.10	8.80	0.12	560.9	3.13	0.14	91.32	17.77	19.50	73.25	7.00	29.62
		Zn Rougher	0.21	25.50	0.10	109.3	10.10	0.13	2.37	76.76	24.42	21.27	33.67	42.55
		Pyrite Rougher	0.11	0.10	0.06	18.4	5.00	0.06	0.69	0.16	7.30	1.95	9.06	10.53
		Calculated Head	0.44	1.63	0.02	25.2	1.47	0.02						
10	72	Pb-Ag Rougher	9.50	1.91	0.31	422.6	5.40	0.35	94.05	15.09	26.43	85.50	6.89	51.16
		Zn Rougher	0.64	28.70	0.11	70.0	8.30	0.43	2.08	74.59	3.16	4.66	3.49	20.74
		Pyrite Rougher	0.19	0.32	0.29	15.9	32.80	0.04	3.36	4.48	44.35	5.75	74.89	10.25
		Calculated Head	0.43	0.54	0.05	21.2	3.35	0.03						
11	64	Pb-Ag Rougher	3.62	2.47	0.32	276.8	6.40	0.38	89.87	6.73	25.09	72.94	4.92	42.30
		Zn Rougher	0.13	23.80	0.12	30.3	15.60	0.18	4.42	**91.68**	12.66	11.28	16.95	28.30
		Pyrite Rougher	0.05	0.09	0.17	12.1	30.70	0.05	3.03	0.66	34.83	8.64	63.97	14.25
		Calculated Head	0.13	1.14	0.04	11.8	4.04	0.03						
12	68	Pb-Ag Rougher	37.60	4.66	0.38	3277.5	5.10	2.68	**98.47**	18.93	53.06	**94.95**	14.93	94.48
		Zn Rougher	0.39	30.00	0.09	226.3	3.74	0.10	0.66	79.73	8.00	4.29	7.16	2.31
		Pyrite Rougher	0.17	0.10	0.26	28.3	32.70	0.08	0.31	0.29	24.93	0.58	67.38	1.89
		Calculated Head	4.41	2.84	0.08	398.4	3.94	0.33						

The results of the sequential rougher flotation conducted on composite samples from the Cordero Project indicate that rougher flotation of lead-silver, zinc, and pyrite-gold was successful on most of the composite samples.

- Lead recovery ranged from 98.47% to 35.53%. Composite 12 showed the highest lead recovery of 98.47%. Composite 7 showed the lowest lead recovery of 35.53%.
- Silver recovery ranged from 94.95% to 35.05%. Composite 12 showed the highest silver recovery of 94.95%. Composite 7 showed the lowest silver recovery of 35.05%.
- Zinc recovery ranged from 91.68% to 71.87%. Composite 11 showed the highest zinc recovery of 91.68%. Composite 2 showed the lowest zinc recovery of 71.87%.
- Gold recovery ranged from 83.23% to 14.51%. Composite 4 showed the highest gold recovery of 83.23%. Composite 3 showed the lowest gold recovery of 14.51%. Lowest gold recovery in the pyrite concentrate was observed on Composites 2, 3, 5 and 9.

The average head grades and recoveries of lead, zinc silver and gold in the concentrates of the scoping flotation tests conducted on the Cordero composite samples are summarized in the table below.

Table 13-4: Composite Samples

Metals	Pb	Zn	Ag	Au
Head Grades (%, gpt)	0.64	1.02	36.5	0.15
Pb Flotation Recovery (%)	93.6	15	84	20
Zn Flotation Recovery (%)	2.68	80.6	11.8	20.3
Pyrite Flotation Recovery (%)	1.7	1.42	3.52	43.1

Note: The highest and lowest grades for Pb, Ag and Zn were discarded and the recoveries for Pb and Ag on Composite 7 were discarded since it did not float.

The flotation results showed that the average recoveries of 93.56% lead and 84% silver reported into the lead/silver concentrate and an average 80.6% of zinc reported to the zinc concentrate. Gold distributed into all the three concentrates with 43% of gold recovered in the pyrite concentrate, 20% in the lead concentrate and 20.3% in the zinc concentrate. A closer examination of the individual composite results show that gold reported with the pyrite because the gold and iron (pyrite) recoveries were similar in all the samples.

13.3 GRIND SERIES EVALUATION

Sequential rougher flotation tests were conducted on Composite 3, Composite 4 and Composite 10 at three grind sizes of approximately 80% passing 74 micron, 125 micron and 177 micron to evaluate the impact grind size on metals recoveries. The metallurgical data developed are summarized in the tables below.

Table 13-5: Grind Size on Composite 3, Summary Results

Grind Size P_{80} (micron)	Rougher Concentrate	Mass Recovery (%)	Cumulative Grade (%)				Cumulative Recovery (%)			
			Pb	Zn	Au (g/t)	Ag (g/t)	Pb	Zn	Au	Ag
74	Pb/Ag Rougher	5.71	9.40	2.00	0.19	573.70	96.81	17.00	10.65	91.94
	Zn Rougher	12.12	0.07	4.45	0.59	13.70	1.49	80.29	69.59	4.66
	Pyrite Rougher	4.45	0.10	0.10	0.34	9.70	0.79	0.63	14.51	1.21
	Calculated Head		0.55	0.67	0.10	35.63				
125	Pb/Ag Rougher	5.45	9.40	2.45	0.16	617.40	95.06	21.08	10.52	91.36
	Zn Rougher	6.46	0.16	7.50	0.08	21.50	1.88	76.47	6.04	3.77
	Pyrite Rougher	9.53	0.07	0.06	0.69	10.60	1.17	0.90	78.73	2.74
	Calculated Head		0.48	0.61	0.09	36.08				
177	Pb/Ag Rougher	4.40	10.40	2.77	0.23	746.20	94.37	19.91	11.54	91.00
	Zn Rougher	5.55	0.13	8.50	0.16	24.10	1.48	77.08	10.37	3.71
	Pyrite Rougher	10.28	0.07	0.05	0.62	10.80	1.53	0.86	73.47	3.08
	Calculated Head		0.54	0.63	0.08	36.84				

Table 13-6: Grind Size on Composite 4, Summary Results

Grind Size P_{80} (micron)	Rougher Concentrate	Mass Recovery (%)	Cumulative Grade (%)				Cumulative Recovery (%)			
			Pb	Zn	Au (g/t)	Ag (g/t)	Pb	Zn	Au	Ag
74	Pb/Ag Rougher	5.86	14.70	1.98	0.72	845.3	95.71	13.64	9.85	90.90
	Zn Rougher	4.20	0.37	16.60	0.46	54.8	1.73	81.95	4.54	4.22
	Pyrite Rougher	11.57	0.13	0.08	3.08	16.2	1.70	1.09	83.23	3.44
	Calculated Head		0.90	0.85	0.43	54.5				
125	Pb/Ag Rougher	5.13	17.50	2.22	0.77	1105.7	95.99	14.33	24.34	92.53
	Zn Rougher	5.82	0.20	11.30	1.09	37.7	1.27	82.77	39.46	3.58
	Pyrite Rougher	9.59	0.12	0.09	0.56	16.6	1.25	1.05	33.49	2.60
	Calculated Head		0.94	0.80	0.36	60.6				
177	Pb/Ag Rougher	5.79	15.70	2.34	0.54	967.8	96.30	16.84	8.74	92.40
	Zn Rougher	5.35	0.19	12.10	0.92	45.1	1.06	80.51	13.72	3.98
	Pyrite Rougher	10.52	0.13	0.12	2.54	13.4	1.47	1.53	74.91	2.33
	Calculated Head		0.93	0.79	0.16	61.3				

Table 13-7: Grind Size on Composite 10, Summary Results

Grind Size P_{80} (micron)	Rougher Concentrate	Mass Recovery (%)	Cumulative Grade (%)				Cumulative Recovery (%)			
			Pb	Zn	Au (g/t)	Ag (g/t)	Pb	Zn	Au	Ag
74	Pb/Ag Rougher	4.28	9.50	1.91	0.31	422.60	94.05	15.09	26.43	85.50
	Zn Rougher	1.41	0.64	28.70	0.11	70.00	2.08	74.59	3.16	4.66
	Pyrite Rougher	7.66	0.19	0.32	0.29	15.90	3.36	4.48	44.35	5.75
	Calculated Head		0.43	0.54	0.05	21.16				
125	Pb/Ag Rougher	4.28	8.80	2.21	0.20	417.90	92.65	18.71	28.40	85.49
	Zn Rougher	3.09	0.43	12.30	0.15	45.10	3.29	75.18	14.67	6.66
	Pyrite Rougher	7.23	0.08	0.17	0.18	10.90	1.33	2.47	43.05	3.77
	Calculated Head		0.43	0.37	0.05	20.69				
177	Pb/Ag Rougher	3.63	10.70	2.48	0.19	483.00	89.68	24.07	13.85	84.76
	Zn Rougher	2.06	0.77	11.30	0.17	73.70	3.66	62.15	6.95	7.33
	Pyrite Rougher	7.08	0.11	0.35	0.22	10.80	1.83	6.55	30.41	3.70
	Calculated Head		0.41	0.51	0.03	20.93				

The results show that grind sizes of approximately 80% passing 74 microns provided the highest metal recoveries. The impact on lead and silver recoveries were minimal while the impact on zinc and gold were inconclusive.

13.4 CADMIUM AND ANTIMONY LEVELS IN ROUGHER CONCENTRATES

Cadmium and antimony levels of the rougher concentrates were analyzed to ascertain whether their concentrations were higher than penalty levels. The results showed that cadmium reported into the zinc concentrate while antimony reported into the lead/silver concentrate. The amount of cadmium or antimony reporting into the pyrite concentrates were low averaging 7.6% cadmium and 8.6% antimony. An average of 71.5% of the cadmium and 65.1% of the antimony reported into the zinc and lead concentrates respectively. Composite 6 had 3,462 parts per million (ppm) cadmium in the lead concentrate which is above the penalty limit of 2,500 ppm (0.25%) and Composite 12 with 17,930 ppm (1.79%) antimony was also above the penalty limit of 5,000 ppm (0.5%).

Table 13-8: Cadmium and Antimony Distributions on Flotation Products

Sample ID	Flotation Products	Weight (%)	Assays (ppm)		Distribution (%)	
			Cd	Sb	Cd	Sb
Composite 1	Pb-Ag Rougher Concentrate	7.25	148	612	8.93	76.63
	Zn Rougher Concentrate	6.56	1454	55	79.53	6.24
	Pyrite Rougher Concentrate	9.91	132	50	10.90	8.56
Composite 2	Pb-Ag Rougher Concentrate	5.75	169	400	22.75	66.94
	Zn Rougher Concentrate	8.20	374	57	71.79	13.60
	Pyrite Rougher Concentrate	4.19	36	52	3.54	6.35
Composite 3	Pb-Ag Rougher Concentrate	5.71	237	987	17.24	83.82
	Zn Rougher Concentrate	12.12	517	34	79.84	6.13
	Pyrite Rougher Concentrate	4.45	34	47	1.93	3.11
Composite 4	Pb-Ag Rougher Concentrate	5.86	750	261	79.53	13.03
	Zn Rougher Concentrate	4.20	130	1960	9.88	70.11
	Pyrite Rougher Concentrate	11.57	37	144	7.75	14.19
Composite 5	Pb-Ag Rougher Concentrate	4.53	130	571	15.05	67.50
	Zn Rougher Concentrate	7.64	392	64	76.55	12.76
	Pyrite Rougher Concentrate	4.37	37	49	4.13	5.59
Composite 6	Pb-Ag Rougher Concentrate	11.92	382	454	9.33	66.37
	Zn Rougher Concentrate	12.25	3462	101	86.86	15.17
	Pyrite Rougher Concentrate	24.09	73	55	3.60	16.25
Composite 7	Pb-Ag Rougher Concentrate	16.19	5	40	10.74	12.39
	Zn Rougher Concentrate	3.72	79	913	38.99	64.99
	Pyrite Rougher Concentrate	7.86	39	86	40.68	12.94
Composite 8	Pb-Ag Rougher Concentrate	14.96	78	63	17.31	54.07
	Zn Rougher Concentrate	7.29	705	32	76.18	13.38
	Pyrite Rougher Concentrate	10.51	29	22	4.52	13.27
Composite 9	Pb-Ag Rougher Concentrate	3.29	665	559	16.49	50.32
	Zn Rougher Concentrate	4.91	1978	170	73.10	22.81
	Pyrite Rougher Concentrate	2.67	50	51	1.00	3.72
Composite 10	Pb-Ag Rougher Concentrate	4.28	74	745	8.06	69.20
	Zn Rougher Concentrate	1.41	2198	132	78.76	4.03
	Pyrite Rougher Concentrate	7.66	45	48	8.77	7.97
Composite 11	Pb-Ag Rougher Concentrate	3.11	247	2723	6.98	77.69
	Zn Rougher Concentrate	4.39	2240	151	89.42	6.09
	Pyrite Rougher Concentrate	8.41	37	80	2.83	6.18
Composite 12	Pb-Ag Rougher Concentrate	11.54	497	17930	23.09	90.54
	Zn Rougher Concentrate	7.55	2466	1248	74.95	4.12
	Pyrite Rougher Concentrate	8.12	33	1395	1.08	4.96

13.5 TOTAL CARBON ANALYSIS

Assays of head samples of the twelve composites showed high carbon contents of 2.91%, 4.4%, 4.19, and 3.33% in Composites 1, 7, 8 and 9, respectively. The composites with high carbon contents had higher frother reagent consumptions. Composite 7 had very poor lead and silver recoveries compared to the other three that had normal recoveries.

Composite 7 was however different from all the others with 86% of its final tails passing 400 mesh screen opening compared with her with about 50% passing 400 mesh.

13.6 METALLURGICAL CONCLUSIONS

The following conclusions can be drawn from the selective rougher flotation tests conducted on composite samples from the Cordero Project.

- Selective rougher flotation of lead-silver, zinc and pyrite-gold did work on most of the composite samples.
- Lead recovery ranged from 98.47% to 35.53%. Composite 12 showed the highest lead recovery of 98.47%. Composite 7 showed the lowest lead recovery of 35.53%.
- Silver recovery ranged from 94.95% to 35.05%. Composite 12 showed the highest silver recovery of 94.95%. Composite 7 showed the lowest silver recovery of 35.05%.
- Zinc recovery ranged from 91.68% to 71.87%. Composite 11 showed the highest zinc recovery of 91.68%. Composite 2 showed the lowest zinc recovery of 71.87%.
- Gold recovery ranged from 83.23% to 14.51%. Composite 4 showed the highest gold recovery of 83.23%. Composite 3 showed the lowest gold recovery of 14.51%. Lowest gold recovery in the pyrite concentrate was observed on Composites 2, 3, 5 and 9.

It can be concluded, from the results above, that the Cordero mineralized material is amenable to sequential flotation to produce a lead/silver concentrate and a zinc concentrate. The average lead and silver recoveries to the lead/silver concentrate are 93.56% and 84.02% respectively discarding the results for Composite 7 which did not float. The average zinc recovery was 80.56% into the zinc concentrate with 15% of zinc reporting to the lead concentrate. Only half of the gold that floated reported to the pyrite concentrate with the balance reporting to the lead/silver and zinc concentrates. Since average gold head grade is only 0.15 g/t it may not be economical to produce a third concentrate for the Cordero mineralized material.

The measured cadmium and antimony distributions in the selective rougher flotation concentrates are presented below.

- Cadmium reported to the zinc rougher concentrate on Composites 1, 2, 3, 5, 6, 8, 9, 10, 11 and 12. It ranged from 89.42% (2,240 ppm) to 71.79% (374 ppm).
- Antimony reported to Pb-Ag rougher concentrate on Composites 1, 2, 3, 5, 6, 7, 8, 9, 10 and 11. It ranged 90.54% (17,930 ppm) to 50.32% (559 ppm).

The distribution of cadmium and antimony show that cadmium is associated with sphalerite while antimony is associated with galena. Only two composite samples had concentrates that were over the penalty levels of 2500 ppm for cadmium and 5000 ppm for antimony, Composite 6 with 3462 ppm and composite 12 of 17,930 ppm.

The following comments relate to the grind size series conducted on Composite 3 to evaluate the impact on metals recoveries.

The metallurgical tests run on composites #3, #4 and#10 at grind sizes of 74 microns, 125 micron and 177 microns showed that grind size did impact metals recovery a grind size of approximately 74 micron provided the highest metals recovery. The impact of grind size on recovery between 125 micron and 74 microns was minimal especially for lead and silver. The impact on zinc and gold was significant especially for Composite 10.

The impact of carbon on recoveries was not clear since only Composite 7 had very low recoveries among the four composites with high carbon content. It was however clear that the composites with high carbon content consumed more reagents especially frother.

13.7 METALLURGICAL RECOMMENDATIONS

The following recommendations for further flotation testing to be conducted on composite samples studied from the Cordero Project are given below:

- Pulp density series, pulp pH series, collector series, collector dosage series and cleaner flotation should be conducted on composite samples representing Year 1, Year 2, Year 3, Year 4-6, Year 7-10 Composite Samples.
- Locked cycle flotation testing should be conducted on composite samples representing Year 1, Year 2, Year 3, Year 4-6, and Year 7-10 Composite Samples.
- More tests should be conducted to study the effect of carbon on recoveries, reagent consumption and concentrate grades to ascertain if additional unit process to remove carbon ahead of sequential flotation is necessary.
- Grind versus recovery tests should be conducted to confirm whether coarser grinding is feasible.

14 MINERAL RESOURCE ESTIMATES

The Cordero February 2018 mineral resource estimate is based on 263 drill holes completed through September 2017. A total of 292 holes have been drilled at Cordero of which 263 lie within the mineral resource block model volume. The mineral resource presented here is for the currently defined Pozo de Plata Diatreme (Pozo), the Cordero Felsic Dome and the adjacent Porphyry Zone to the northeast along the strike of the Cordero Porphyry Belt. Outlying initial exploration drilling has intersected mineralization, but no high grade discovery holes that warrant immediate offset, resource definition drilling.

The mineral resource is tabulated within an open pit geometry using an inverse distance estimation block model. The mineral resource is based on 126,235 meters (m) of drilling in 263 core holes which is an addition of 5,996 m of drilling in 18 core holes over the drill information used for the September 2014 mineral resource estimate.

The mineral resource crops out at the surface. The resource has not been fully delineated by drilling along most of it perimeter nor at depth down the plunge to the northeast. Within the geometry of the modeled open pit containing the resource, rock in largely undrilled areas has been modeled as un-mineralized waste rock.

A silver equivalent grade in grams per tonne (g/t) is calculated for each model block based on the metal grades, estimate of mill recovery for each metal and the metal prices. A summary of the recoveries and metal prices based on August 2017 price projections is shown in Table 1-1 below.

Table 14-1: Recoveries and Metal Prices Summary (August 2017)

Metal	Mill Recovery	Metal Price
Silver	88.6%	$17.14/oz
Zinc	72.0%	$1.11/lb
Lead	84.0%	$0.96/lb
Gold	40.0%	$1262/oz

The February 2018 mineral resource is summarized on Table 14-2 at a 15.0 g/t AgEq cutoff grade. The change from the September 2014 Mineral Resource is the inclusion of 18 drill hole, central to the deposit, drilled in 2017. These holes provided confirmation of the mineral occurrence previously defined by wider spaced drilling. The change from the June 2012 mineral resource and PEA is the drilling within the Aida claim which was purchased by Levon subsequent to the June 2012 mineral resource and no mineralization on the Aida claim was included in the June 2012 mineral resource estimate. The additional drilling also allowed portions of the previous inferred resource to be re-classified as indicated.

The mineral resource is within an open pit geometry based on a standard floatation mill with separate zinc and lead circuits, the mill recoveries, operating costs for process, G&A and mining.

Table 14-2: Cordero Mineral Resource – February 2018

Resource Tabulated at 15.00 g/t AgEq Cutoff

Category	Tonnes (000s)	AgEq, g/t	Ag, g/t	Zn, %	Pb, %	Au, g/t
Indicated	990,054	31.92	12.81	0.37	0.17	0.04
Inferred	282,217	56.43	20.66	0.75	0.30	0.04
Contained Metal			Oz (000s)	Lbs (000s)	Lbs (000s)	Oz (000s)
Indicated	-	-	407,761	8,030,051	3,774,996	1,273
Inferred	-	-	187,461	4,665,047	1,859,799	363

Ktonnes = metric tonnes x 1000

14.1 DRILLING AND ASSAYING

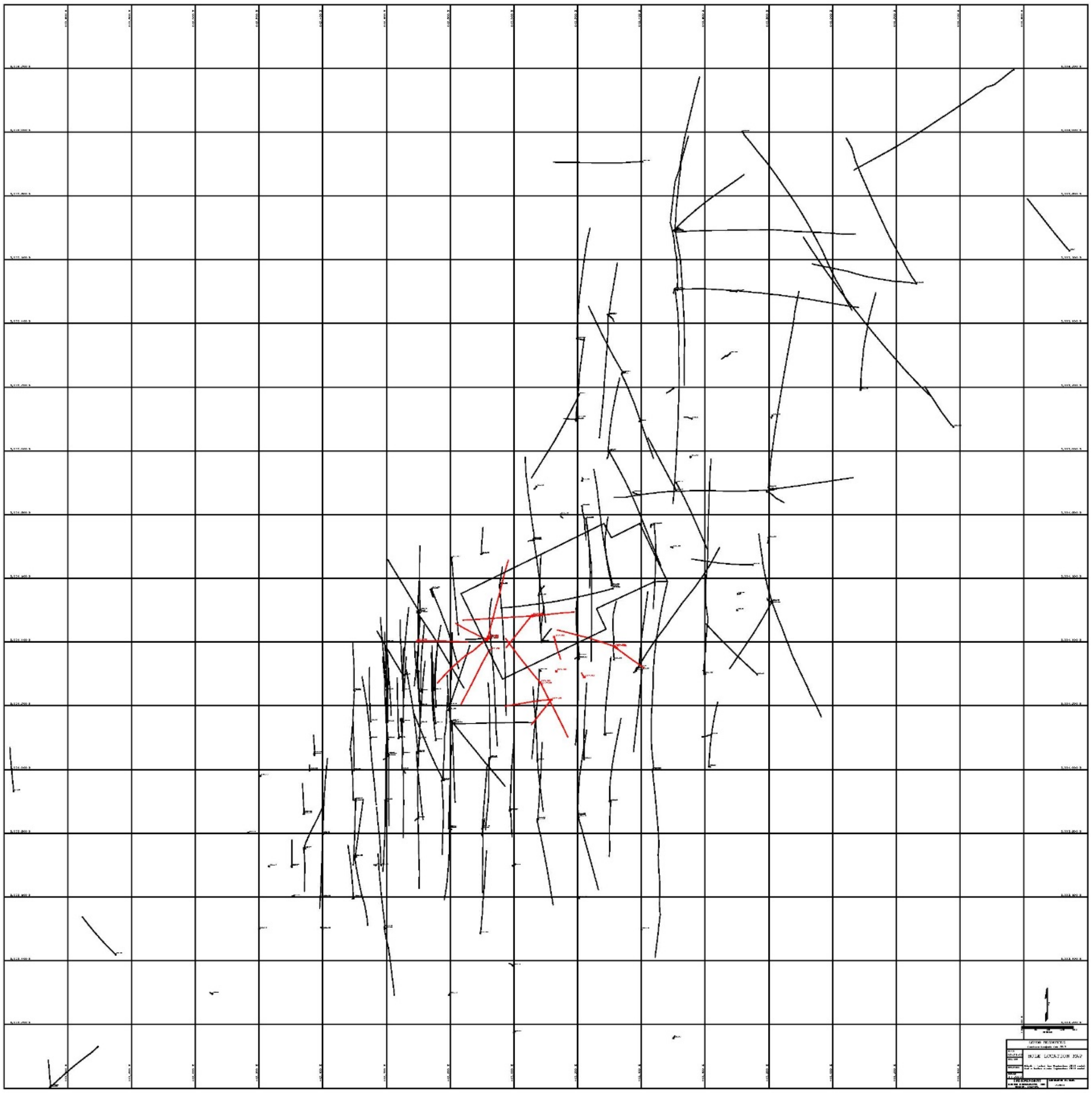
The Cordero data base supplied to IMC included silver, zinc, lead and gold assays from 292 drillholes aggregating 133,620m and containing 66,372 assay intervals, representing a total addition of 18 drillholes aggregating 5,996m since the September 2014 Cordero Mineral Resource Update technical report was issued. Of these 292 holes, 263 (126,235m of drilling, 62,748 assay intervals) are within the resource block model limits. Drilling and assaying statistics for the portion of the data base that is used for the grade estimation (within the block model limits) are summarized in Table 14-3.

Table 14-3: Drilling and Assaying Statistics

	Assay Intervals	No. Assayed	Drilled length, m	Assayed Length, m	% Complete
Gold	62,748	62,694	126,235	125,218	99.2
Silver	62,748	62,693	126,235	125.216	99.2
Lead	62,748	62,694	126,235	125,218	99.2
Zinc	62,748	62,694	126,235	125,218	99.2

The assay interval is a constant 2m except at the bottom of the hole, where intervals are shorter. The 0.8% of intervals that are unassayed are mostly in alluvial or oxidized material in the top few meters of the drillhole where no sample was recovered.

Drillhole locations are shown in Figure 14-1. Most drillholes are angled north or south, with drill spacing ranging from an average of about 50m in the Pozo de Plata area in the southwestern part of the deposit to an average of between 100m and 200m elsewhere. All drillholes are HQ core except for a few that were reduced to NQ at depth. The drilling since the September 2014 mineral resource is highlighted in red and is mostly within the Aida claim boundary which is shown on the map for reference or just south of the Aida claim. The Pozo de Plata is to the southwest and west of the Aida claim and the porphyry zone is to the north and east of the Aida claim.



Black = holes used for September 2014 mineral resource
Red = holes added for the February 2018 mineral resource
(200m grid)

Figure 14-1: Drill Hole Location Map

14.2 ASSAY AND COMPOSITE STATISTICS

Grade statistics for the Cordero assay data within the mineral resource model are summarized in Table 14-4. The upper end of the grade distributions for silver, gold, zinc and lead were examined to determine if any of the individual assays should be capped. Caps were applied to the four metals as follows and Table 14-5 summarizes the grade statistics of the assays after the caps were applied.

Metal	# Capped	Cap Grade	Range of Capped Values
Silver	6	1150 g/t	1220 – 3230 g/t
Gold	3	6.00 g/t	6.92 – 17.95 g/t
Zinc	8	16.00 %	16.25 – 30.00 %
Lead	10	16.00%	16.65 – 20.40%

Table 14-4: Assay Grade Statistics

	No. Assays	Mean	St. Deviation	Minimum	Maximum
Silver (g/t)	62,693	8.72	35.409	0.10	3,230
Gold (g/t)	62,694	0.035	0.144	0.0025	18.0
Lead (%)	62,694	0.120	0.481	0.000	20.4
Zinc (%)	62,694	0.234	0.693	0.000	30.0

Table 14-5: Grade Statistics of Capped Assays

	No. assays	Mean	St. Deviation	Minimum	Maximum
Silver (g/t)	62,693	8.66	32.503	0.10	1,150
Gold (g/t)	62,694	0.035	0.125	0.0025	6.0
Lead (%)	62,694	0.119	0.466	0.000	16.0
Zinc (%)	62,694	0.233	0.668	0.000	16.0

The capped assays were composited into 10m bench composites to match the bench height in the model, and 10m bench composite statistics are shown in Table 14-6. Maximums and standard deviations decrease but mean grades remain substantially the same because of the constant 2m assay interval.

Table 14-6: 10m Bench Composite Grade Statistics

	No. assays	Mean	St. Deviation	Minimum	Maximum
Silver (g/t)	11,344	8.65	21.051	0.10	611
Gold (g/t)	11,344	0.035	0.086	0.0025	2.8
Lead (%)	11,344	0.119	0.314	0.000	8.8
Zinc (%)	11,344	0.233	0.472	0.001	10.6

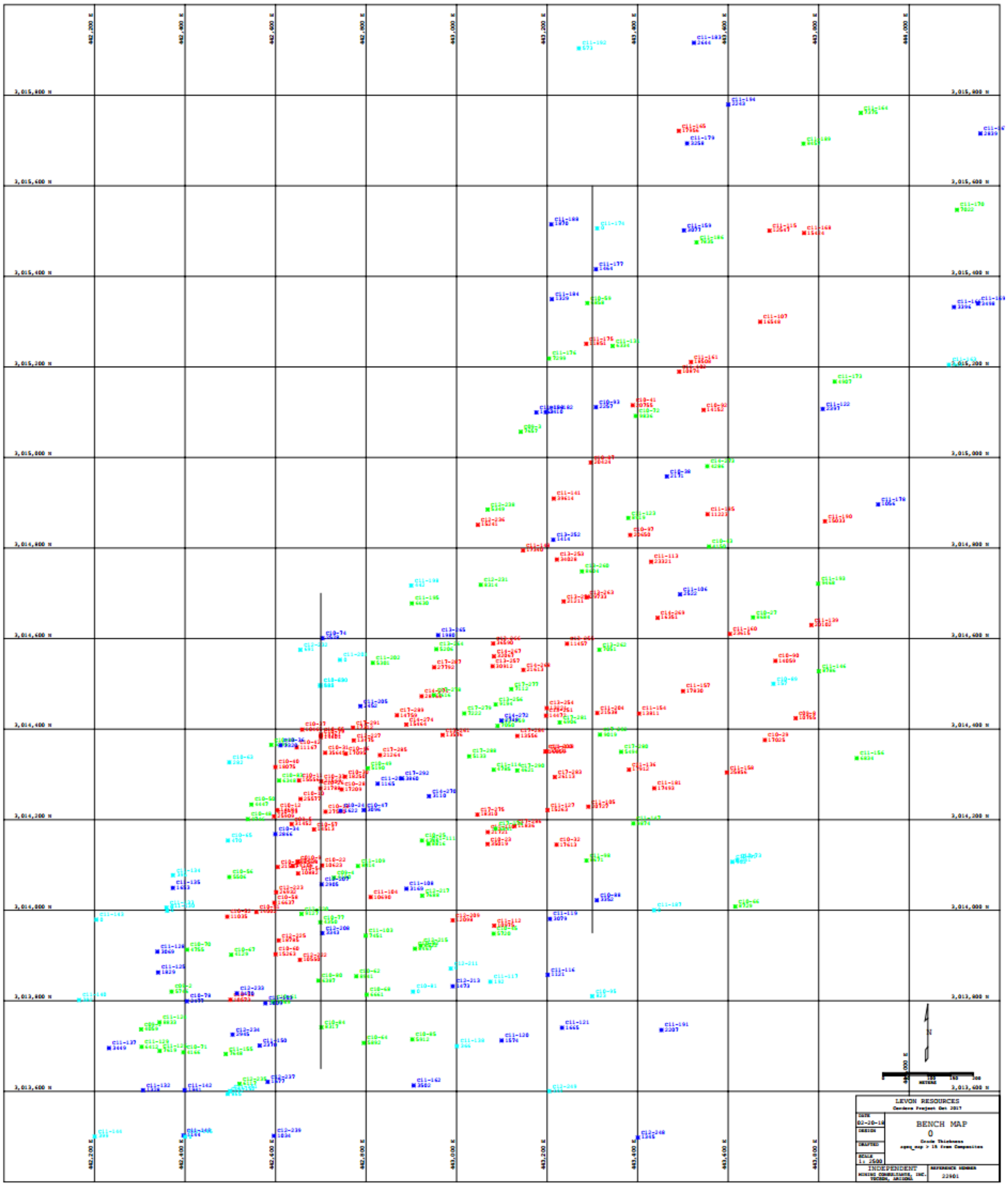
14.3 DISTRIBUTION OF MINERALIZATION, VARIOGRAMS, GEOLOGY

Figure 14-2 is a plot of the silver equivalent (AgEq) times thickness product (grade-thickness product) above a 15 g/t AgEq cut-off using 10m composites. The higher values equate to either higher AgEq grades or thicker intervals above cut-off, or both. Some outlying drill holes are not shown in order to window in on the more densely drilling areas. The AgEq value is based on the mill recoveries and metal prices shown at the beginning of this section (Table 14-1) and they result in the following equation to generate the AgEq values:

$$AgEq = Ag + Zn \times 36.08 + Pb \times 36.40 + Au \times 33.24$$

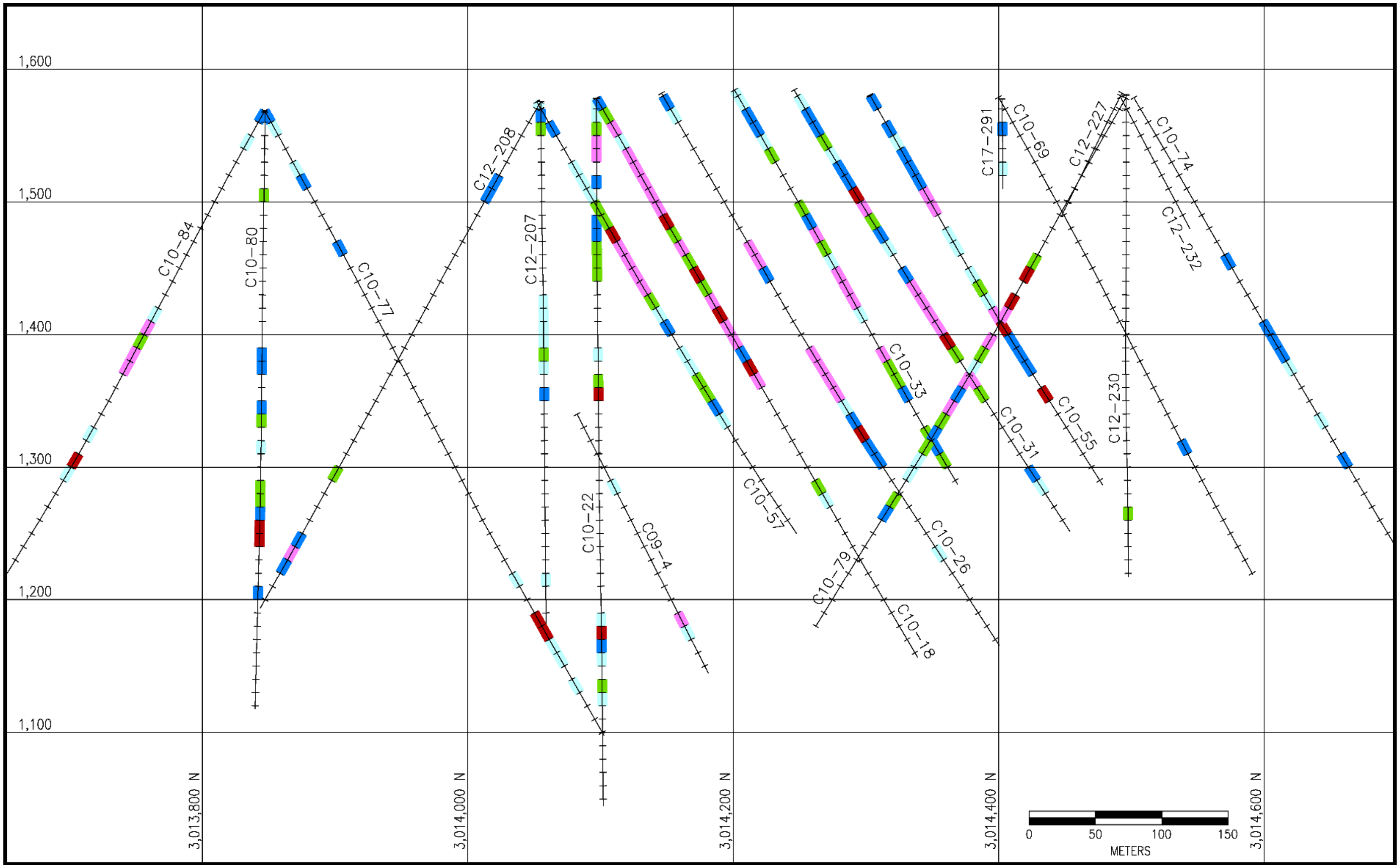
Figure 14-2 shows that mineralization is extensive and not cut off in a number of directions and the mineralization has no obvious preferred orientation. However, there is now a suggestion of a north-south or a northeast-southwest trend in local areas. An example of the color codes is the red color represents a grade-thickness product of greater than or equal to 10,000 which at an average AgEq grade of 40 g/t would represent 250 meters or greater of mineralization (which may or may not be continuous).

Figure 14-3 is a plot of 10m composite AgEq grades on a north-south (NS) section at 442700E in Pozo de Plata and Figure 14-4 is a NS section 443300 in the Porphyry Zone, shows that the mineralization is also quite erratic on the local scale and that mineralization is generally less continuous and also deeper in the Porphyry zone than in Pozo de Plata. The approximate locations of these sections are shown on Figure 14-2.



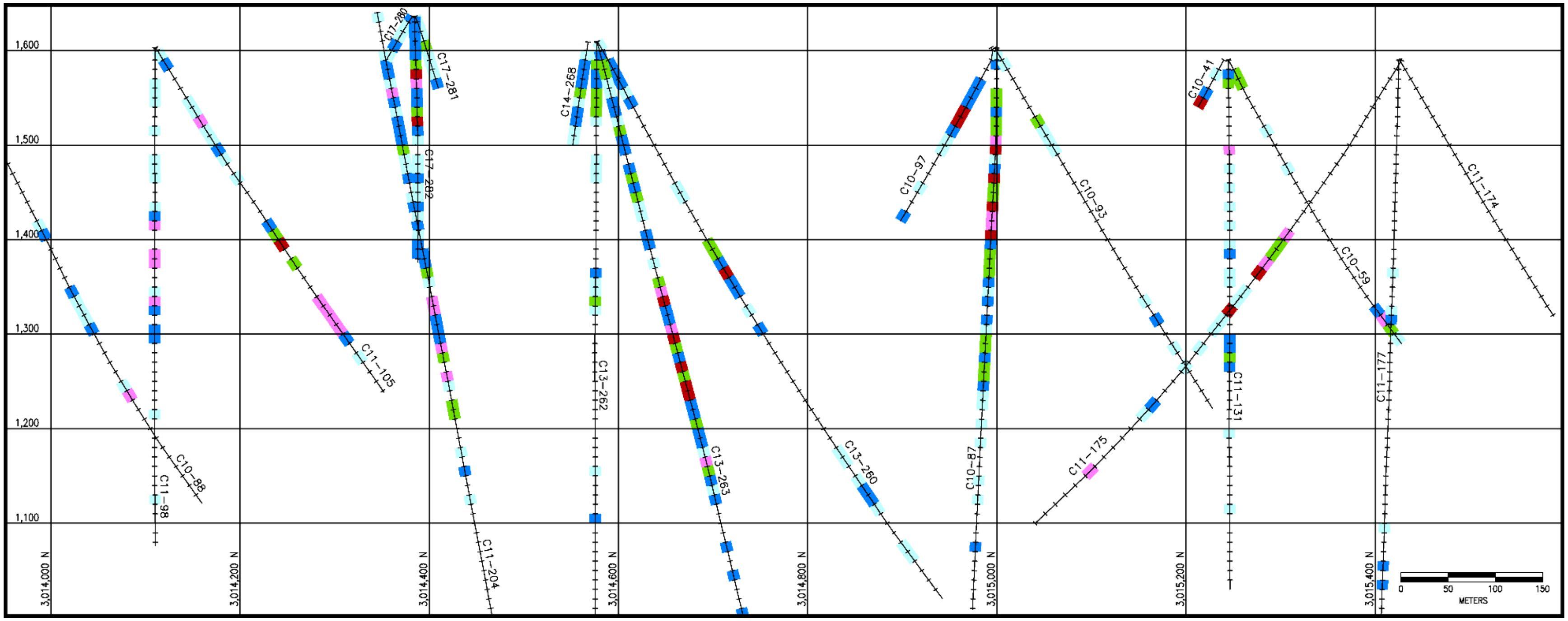
Colors: Light Blue < 1,000 gt product
Dark blue 1,000 – 4,000 gt product
Green 4,000 – 10,000 gt product
Red >= 10,000 gt product
200m grid spacing

Figure 14-2: AgEq x Thickness Above 15 g/t AgEq Cutoff



25m plot window – each side of section line
Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100

Figure 14-3: AgEq 10m Composite Grades, g/t (Section 442,700E (looking west), Pozo de Plata)



50m plot window – each side of section line

Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >=100

Figure 14-4: AgEq 10m Composite Grades, g/t (Section 443,300E (looking west), Porphyry Zone)

The 2m assay intervals in the data base were coded for lithology, and Table 14-7 summarizes mean grades of the 10m composites by major lithologic unit. The diatremes include the limestone-dominated, rhyolite-dominated and dacite-dominated units; the dacites include dacite porphyry breccia dikes, dacite contact breccias, dacite intrusions; and dacite undifferentiated and the rhyolites include rhyolite porphyry breccia dikes and rhyolite undifferentiated.

Table 14-7: Mean Grades by Major Lithologic Unit, 10m Composites

Lithology	No. 10m comps	AgEq g/t	Ag g/t	Zn %	Pb %	Au g/t
Diatremes	1,226	42.61	17.78	0.34	0.26	0.100
Rhyolites	764	35.05	15.18	0.28	0.21	0.065
Dacites	3,273	22.95	9.42	0.22	0.12	0.033
Limestone	5,072	16.56	5.34	0.22	0.08	0.018
Granodiorite	805	15.30	6.06	0.17	0.07	0.022
Others	178	27.73	9.14	0.35	0.13	0.029
None	20	26.29	11.36	0.21	0.13	0.081

The differences in mean grade between the some of the major lithologic units are statistically large enough to justify using the contacts between them as hard boundaries in grade estimation, but these contacts were not used because in many cases the units themselves are often not definable as coherent shapes at the 25 x 25 x 10m model block. Previously, a model estimate with the diatreme contacts as hard boundaries did not result in any appreciable change in model tons or grades, but further work in this area is justified. The Levon geology team is working on a three dimensional lithology interpretation which should be used for a future mineral resource estimate.

Variograms run on 10m composites for the various metals showed ranges of generally around 200m in the horizontal and vertical directions and variable nuggets and sills. The omnidirectional variogram for silver has a range of 240m is shown in Figure 14-5 as an example.

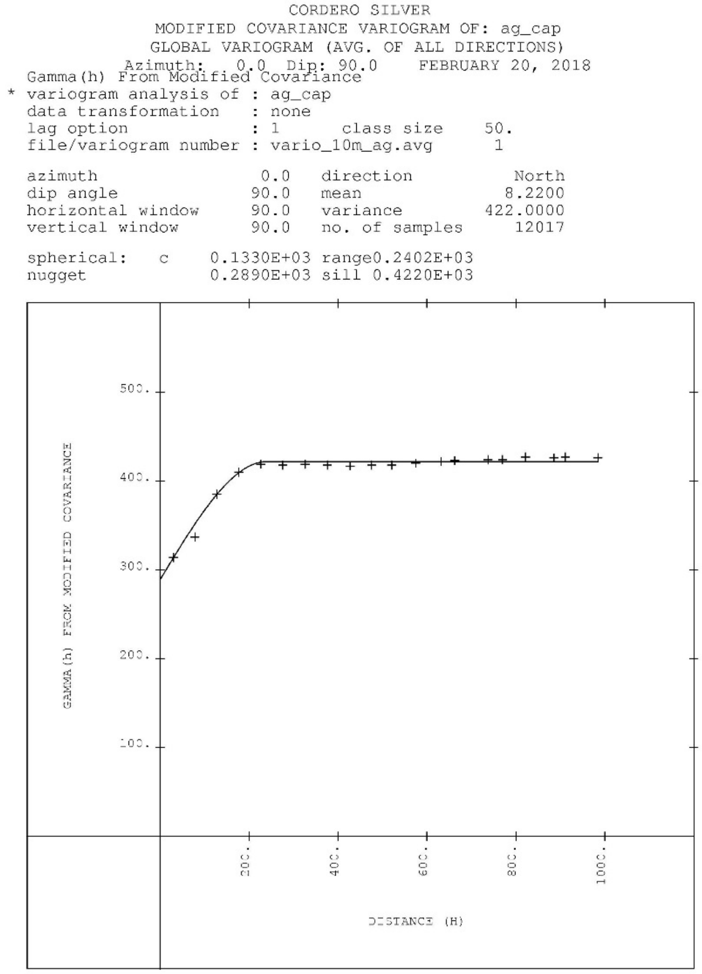


Figure 14-5: Omnidirectional Covariance Variogram for Silver

14.4 MODEL GRADE ESTIMATION

The mineral resource block model covers the area from 3013000N to 3016400N, from 441400E to 444800E and from 600 to 1650 elevation. With a block size of 25 x 25 x 10m (vertical) it contains 136 rows, 136 columns and 105 tiers for a total of 1,942,080 blocks.

Oxidation in the Cordero deposit is present only in near-surface zones and no significant thickness of alluvium has been identified. All of the blocks in the model are therefore treated as sulfide material for this mineral resource estimate.

Based on a review of the distribution of capped silver equivalent (AgEq) grades of the 10 m composites, it was decided to develop the grade estimates based on an indicator kriging estimation approach. AgEq discriminator values of 10 g/t and 50 g/t were selected to separate the grade population. Table 14-8 shows the 10m composites by the three grade ranges.

Table 14-8: Composites within Discriminator Grade Ranges

AgEq g/t Range	# of Composites	% of Total #	Average AgEq g/t	Average Ag g/t	Average Zn %	Average Pb %	Average Au g/t
0 – 10	6,320	55.7	3.99	1.48	0.046	0.014	0.010
10 – 50	3,737	32.9	22.47	8.22	0.252	0.106	0.039
>= 50	1,287	11.4	114.01	45.08	1.096	0.676	0.143
Total	11,344		22.56	8.65	0.233	0.119	0.035

The indicator pods were estimated using indicator kriging with the following orientation and search distances:

- AgEq capped >= 10 g/t
  - Search oriented N30E, dip 60°
  - Search distance 130x130x130m
- AgEq capped >= 50 g/t
  - Search oriented N30E, dip 60°
  - Search distance 70x70x70m

The indicator pods were assigned to the resource block model with a code of 3 if the block center was within the indicator pod defined by the 50 g/t AgEq discriminator, a code of 2 if the block center was within the indicator pod defined by the 10 g/t AgEq discriminator and outside of the blocks with a code of 3. Blocks outside of either indicator pod received a code of 1. Of the blocks which eventually received grade estimates, approximately 76% are outside any indicator pod (code = 1), 22% are within the 10 g/t indicator pod (code = 2) and 2% are within the 50 g/t indicator pod (code = 3).

The indicator codes were assigned to the composite data base by assigning to the composites the indicator pod value contained in the model block in which the center of the composite interval was located. The composites were checked on bench maps against the indicator pod blocks and a composite pod code was changed from outside an indicator pod to inside based on the following criteria:

- Ind50pod: ageq_cap > 50g/t and < 25m from any kriging pod were assigned to that IK pod
- Ind10pod: ageq_cap > 10g/t and <25m from the 10 IK pod were assigned to that 10 IK pod

Table 14-9 shows the IK pod assignment after the review of the locations of the composites relative to the model IK pods.

Table 14-9: Composites after Assigned Indicator Pod Code

Indicator Pod Code	# of Composites	% of Total #	Average AgEq g/t	Average Ag g/t	Average Zn %	Average Pb %	Average Au g/t
1	6,035	53.2	4.89	1.74	0.059	0.018	0.010
2	4,297	37.9	26.36	10.08	0.283	0.129	0.041
3	1,012	8.9	111.85	43.74	1.059	0.679	0.155
Total	11,344		22.56	8.65	0.233	0.119	0.035

The indicator pod boundaries were treated as hard boundaries for the grade estimation and each of the four grades (silver, zinc, lead and gold) were estimated for the three domains (indicator pod codes 1, 2, 3). The block grade estimation procedure depended on which indicator pod the block and composite date was within and the particulars of each estimation is shown below.

- Blocks and composites outside any IK pods (domain = 1).

- oriented N30E dip 60o
- search distance 150x150x150m
- inverse distance to the 3rd power
- minimum composites = 2
- maximum composites = 12
- maximum composites per hole = 3
- outliers restricted at 70m by mineral
  - au_cap > 0.08 g/t
  - ag_cap > 20.0 g/t
  - pb_cap > 0.30%
  - zn_cap > 0.60%

- Blocks and composites inside 10 IK pod (domain = 2).
  - oriented N30E dip 60°
  - search distance 130x130x130m
  - inverse distance to the 3rd power
  - minimum composites = 2
  - maximum composites = 12
  - maximum composites per hole = 3

- Blocks and composites inside 50 IK pod (domain = 3).
  - oriented N30E dip 60o
  - search distance 70x70x70m
  - inverse distance to the 3rd power
  - minimum composites = 2
  - maximum composites = 12
  - maximum composites per hole = 3

The results of the resource model are shown in Figure 14-6 and Figure 14-7, which show the AgEq grades in the model blocks along north-south sections 442,700E and 443,300E (the 10m drillhole AgEq composite grades for these sections are shown in Figure 14-3 and Figure 14-4) and in Figure 14-8 through Figure 14-12 which are bench maps of the block model AgEq at 1500, 1400, 1300, 1200 and 1100 m elevations. These show the change in the grade distribution from Pozo de Plata in the southwest to the porphyry zone in the north and northeast. The Aida Claim outline is shown on the bench map figures for reference. The Pozo de Plata is to the southwest and west of the Aida claim and the porphyry zone is to the north and east of the Aida claim.

Comparison of the resource model grades and the 10m composites show the model respected the grades trends as seen in the composites. Table 14-10 shows the number of blocks and grades by indicator pod assignment. The average AgEq grade in indicator pod 3 is slightly higher than the sum of the composites, but the percent of the model assigned to it is less than the percent of composites assigned to pod 3.

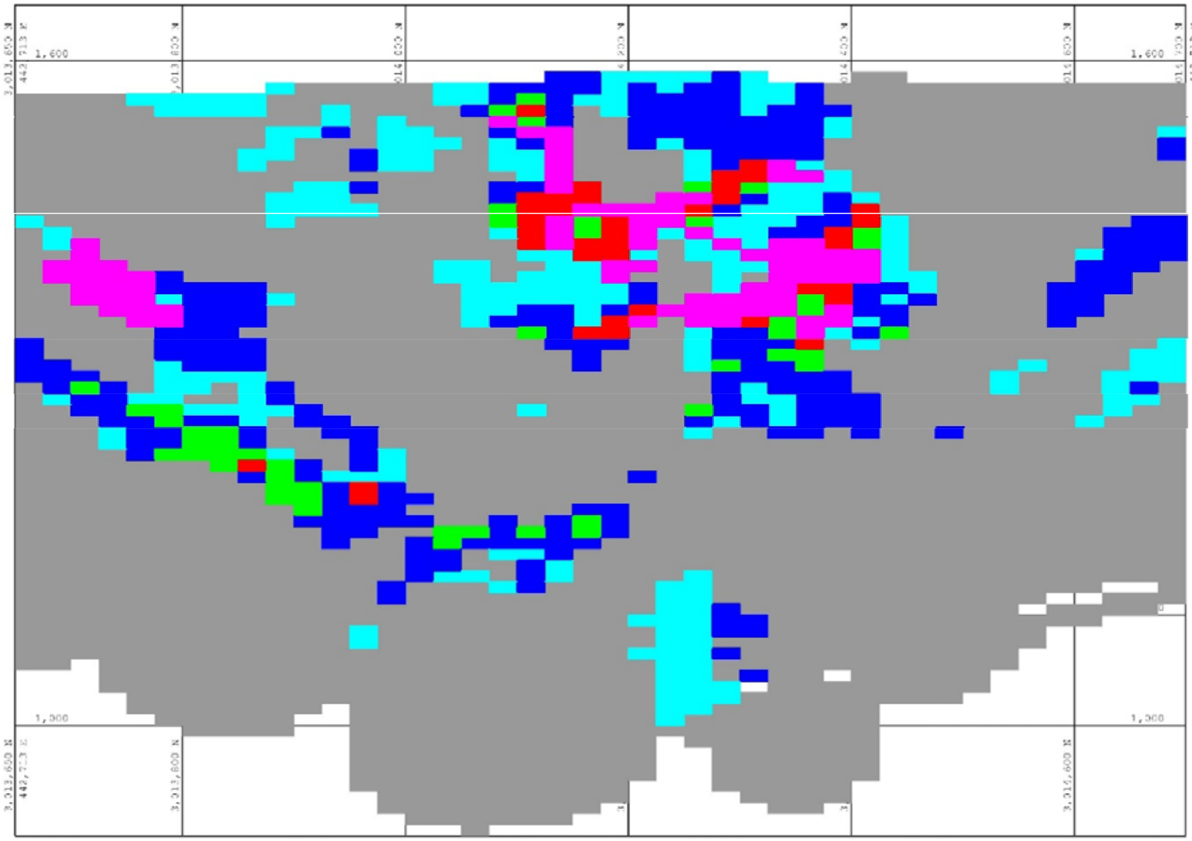
Table 14-10: Block Model Grades by Indicator Pod

Indicator Pod Code	# of Model Blocks	% of Total Blocks Estimated	Average AgEq g/t	Average Ag g/t	Average Zn %	Average Pb %	Average Au g/t
1	343,261	75.8	3.88	1.49	0.047	0.019	0.008
2	99,818	22.1	25.82	9.29	0.315	0.117	0.029
3	9,582	2.1	115.20	41.26	1.30	0.660	0.093
Total	452,661		11.07	4.05	0.133	0.054	0.014

A comparison was made within the model of the blocks influenced by the 18 holes drilled in 2017 to evaluate the impact of the closer spacing of drilling in an area which was previous estimated. The comparison is based on a volume comparison as there is a difference in the tonnage estimate between the two block models since more density data was included in the model for the February 2018 Mineral Resource model. Table 14-11 compares the same volume within the block models (September 2014 and February 2018) that was influenced by the 18 new drill holes. Each metal was tabulated at a 0.001 cutoff to catch all blocks which received a grade estimate. The new drilling provided a slight increase in the volume of indicated and the grades within the indicated category increased slightly as well. In the less drilled area (inferred), the new drilling raised the grades of all the metals.

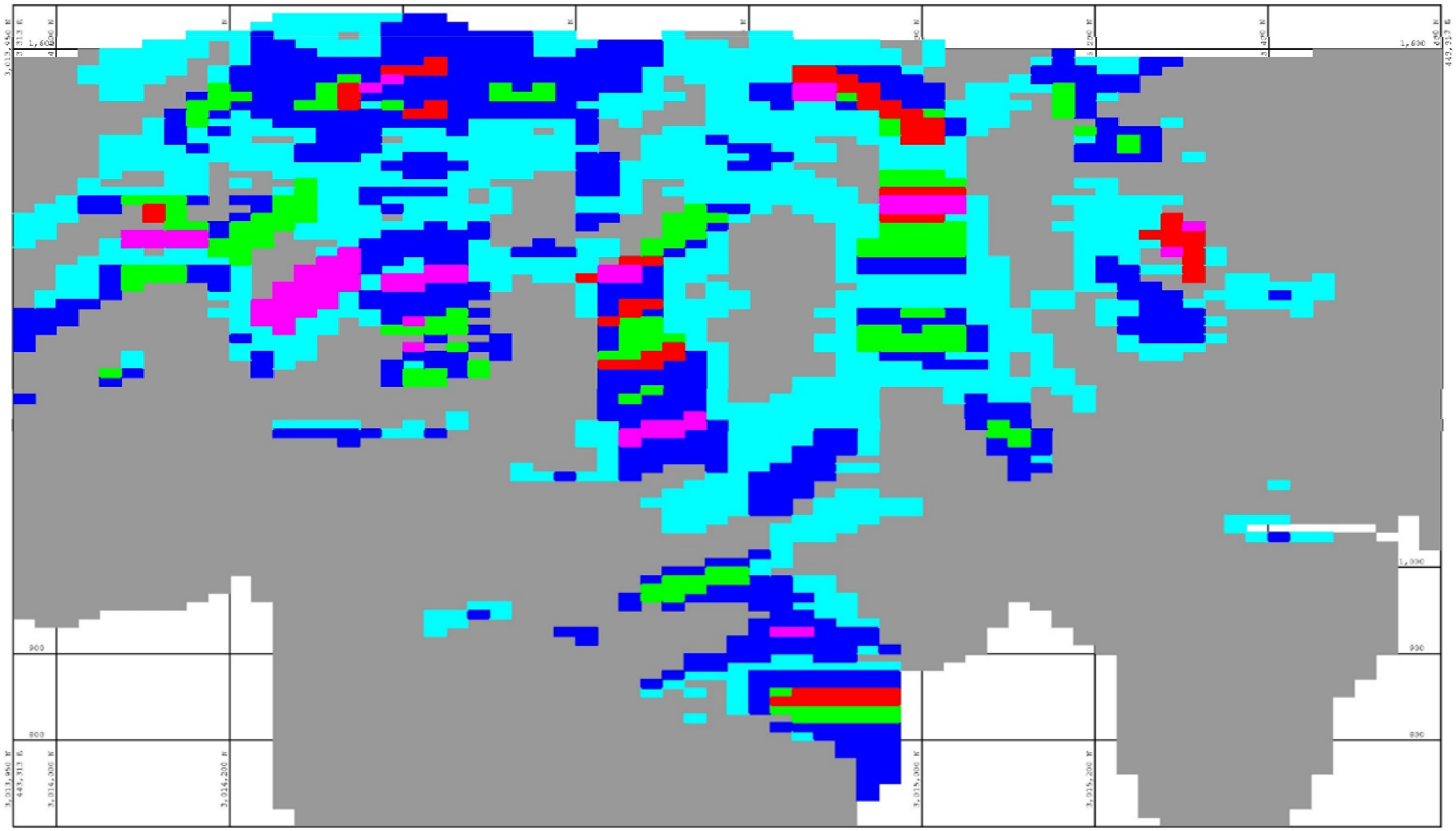
Table 14-11: Comparison of Model Area Influenced by the 2017 Drilling

Category	Volume	Average Grade at 0.001 Cutoff			
	m^3 x 1000	Ag, g/t	Zn, %	Pb, %	Au, g/t
September 2014 Model					
Indicated	155,778	9.34	0.248	0.132	0.041
Inferred	6,295	39.14	1.020	.605	0.099
Not Estimated	106				
February 2018 Model					
Indicated	157,597	9.54	0.249	0.137	0.041
Inferred	4,576	51.40	1.228	0.751	0.118
Not Estimated	6				



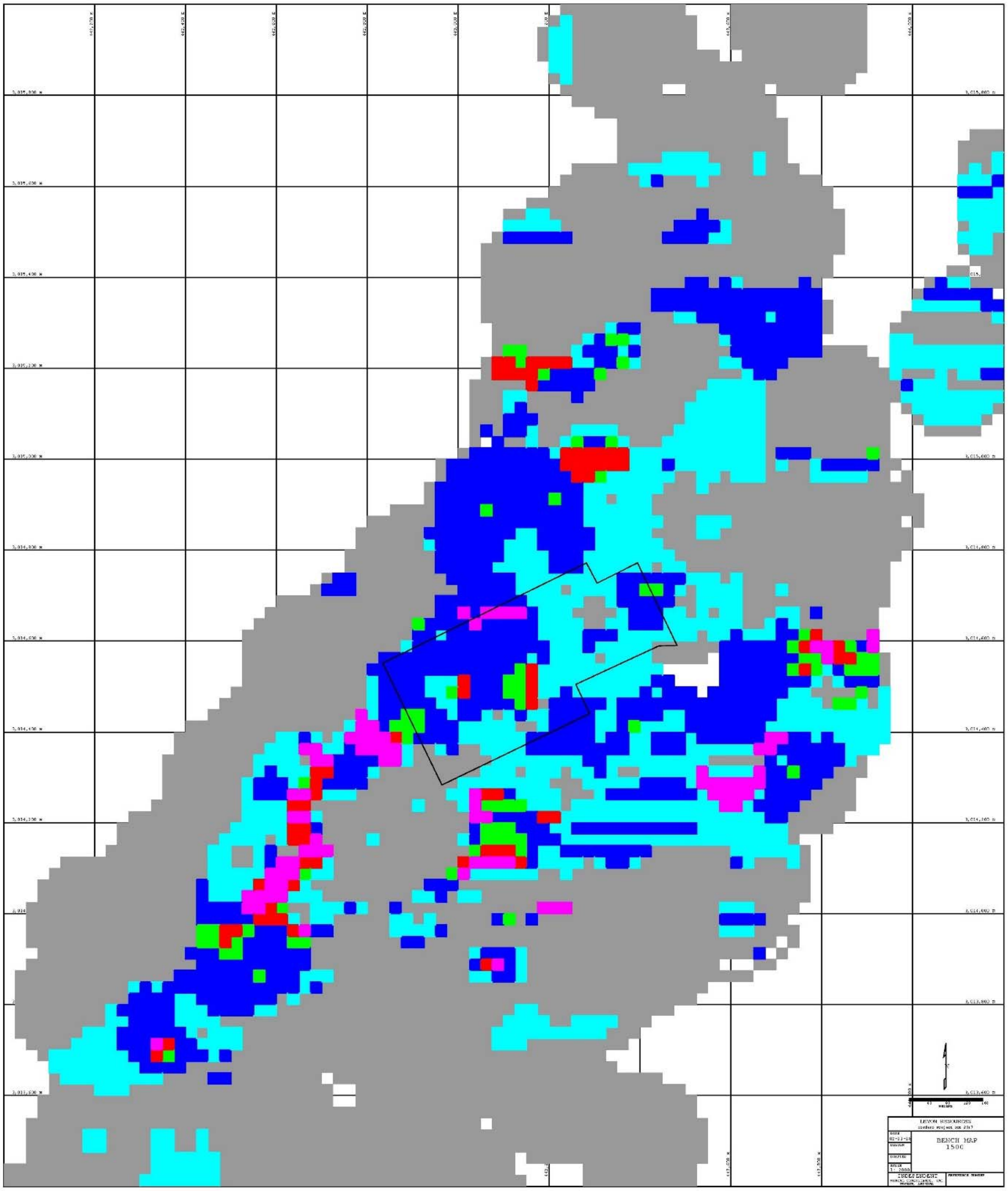
Section 442700E, Pozo de Plata
Grid Spacing: 200m North-South, 100m vertical
Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100

Figure 14-6: Block Model AgEq (g/t) Grades



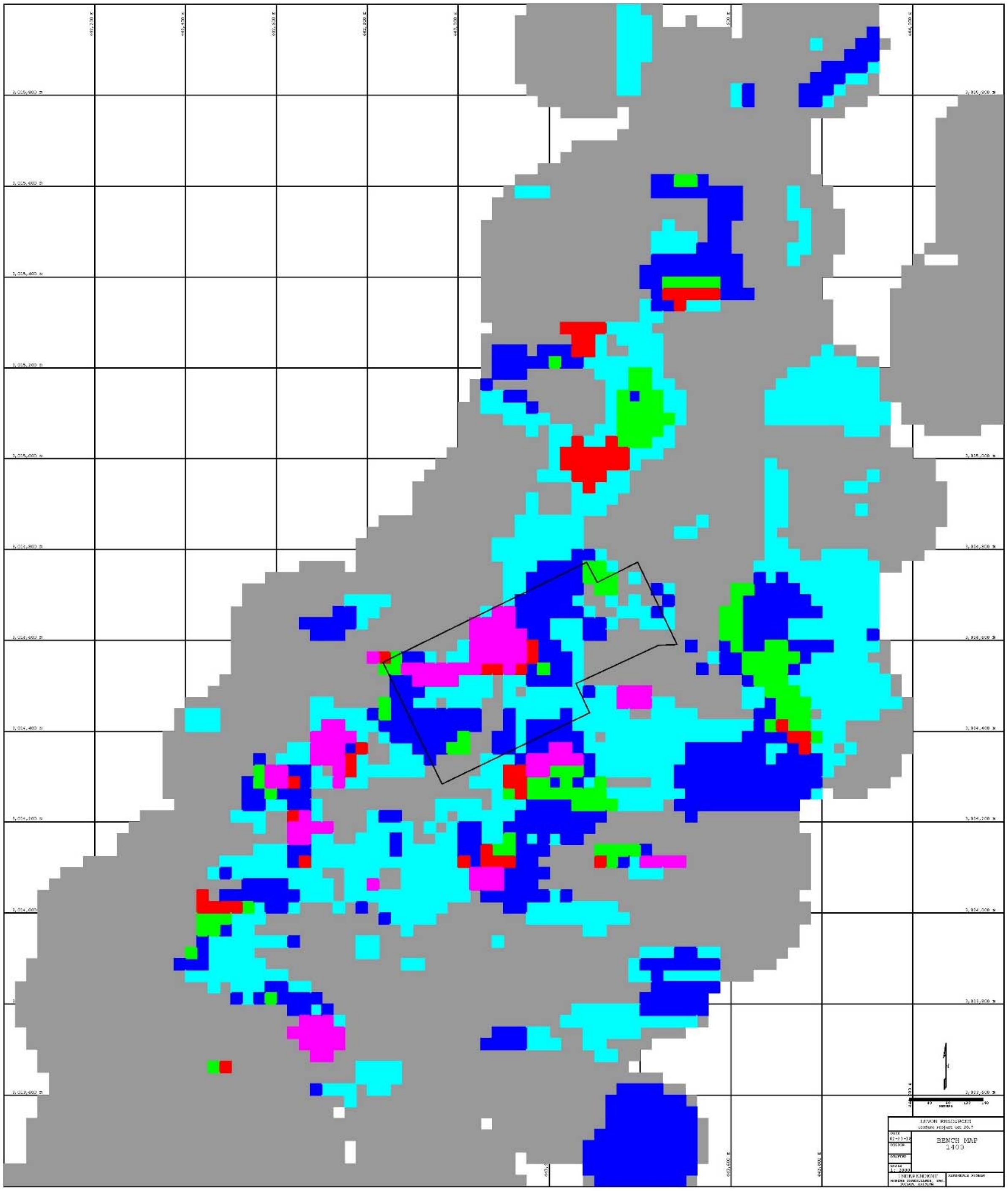
Section 443,400E, Porphyry Zone
Grid Spacing: 200m North-South, 100m vertical
Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100

Figure 14-7: Block Model AgEq (g/t) Grades



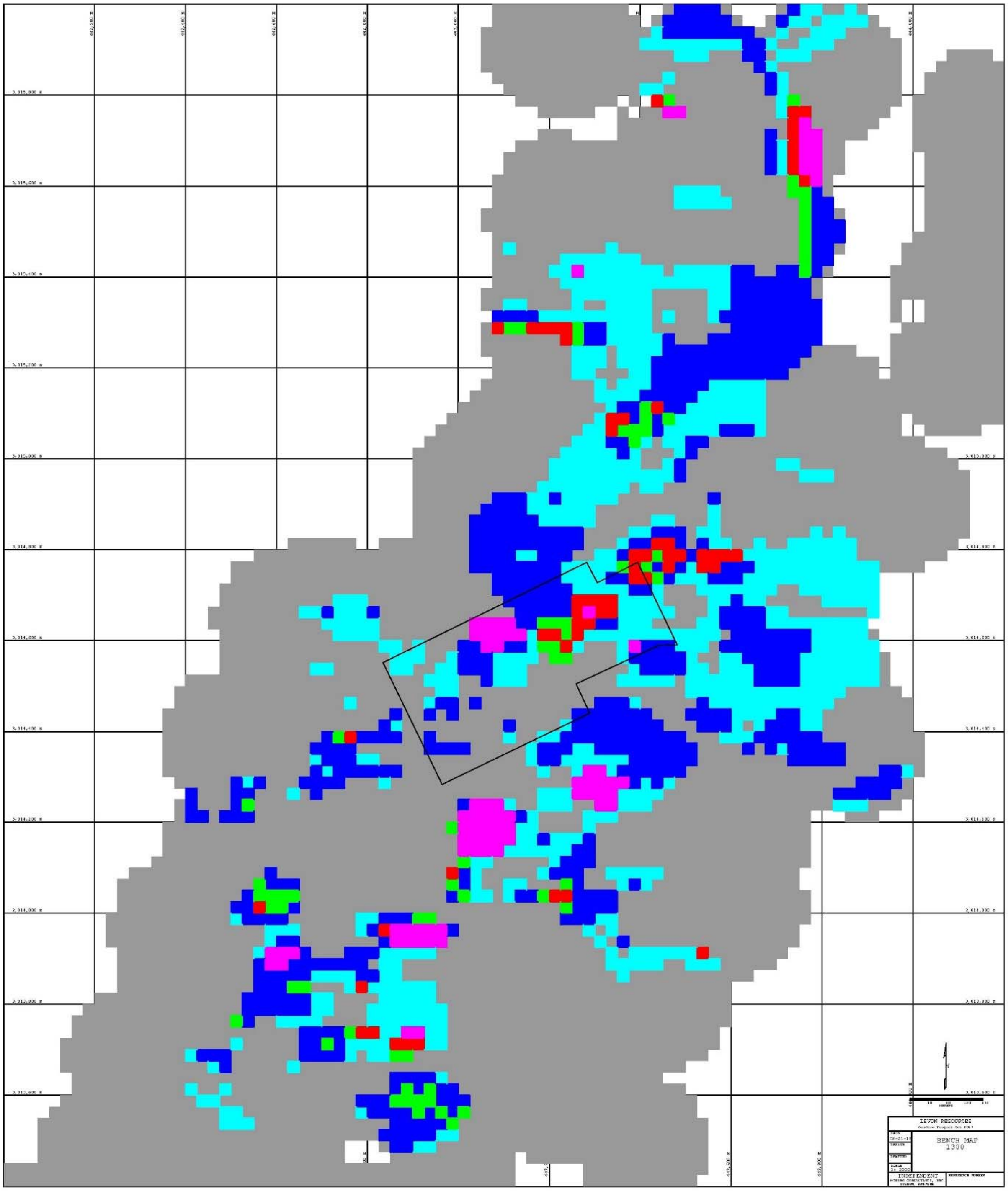
Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100 (200m grid)

Figure 14-8: Block Model AgEq (g/t) Grades – Level 1500



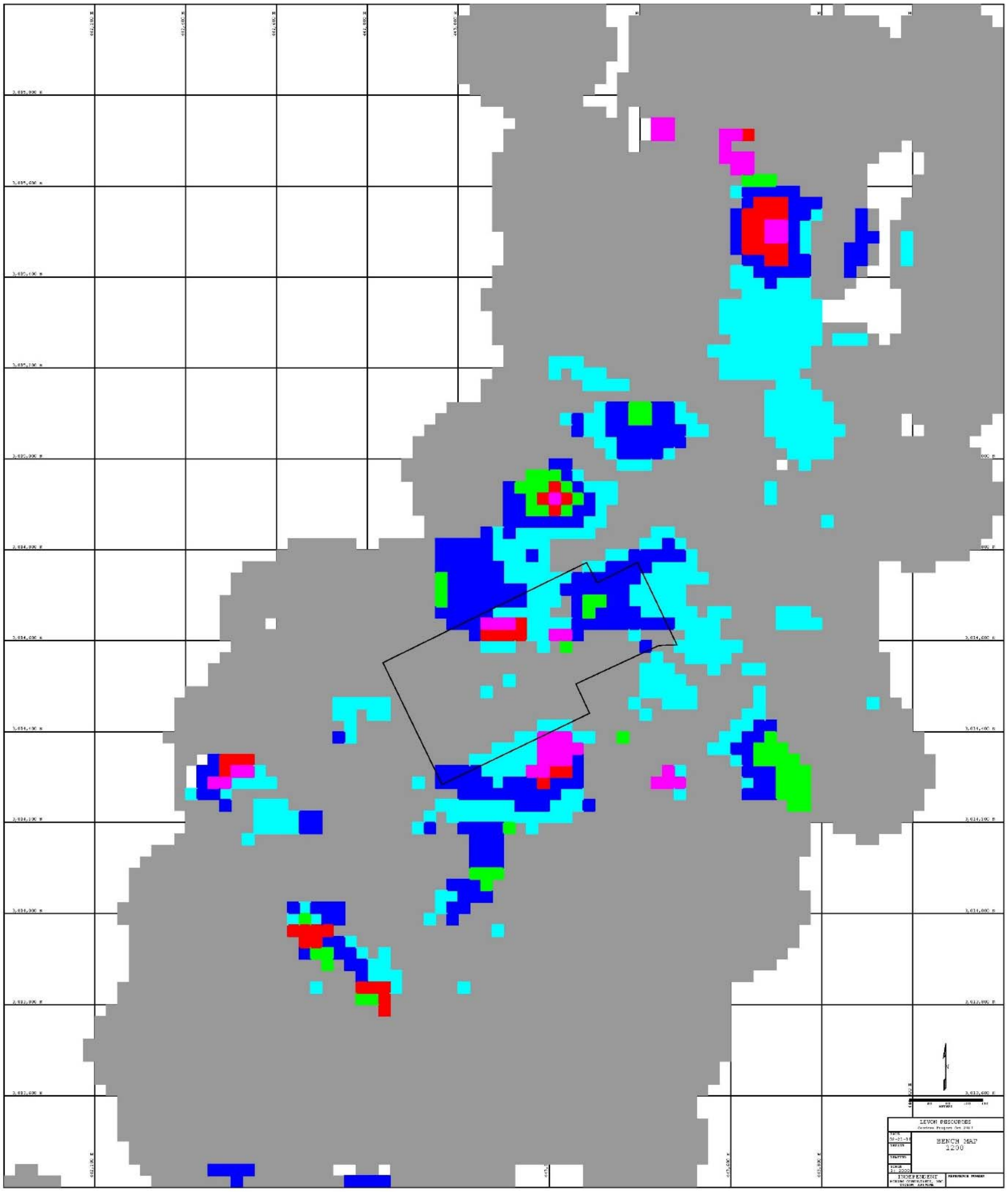
Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100 (200m grid)

Figure 14-9: Block Model AgEq (g/t) Grades – Level 1400



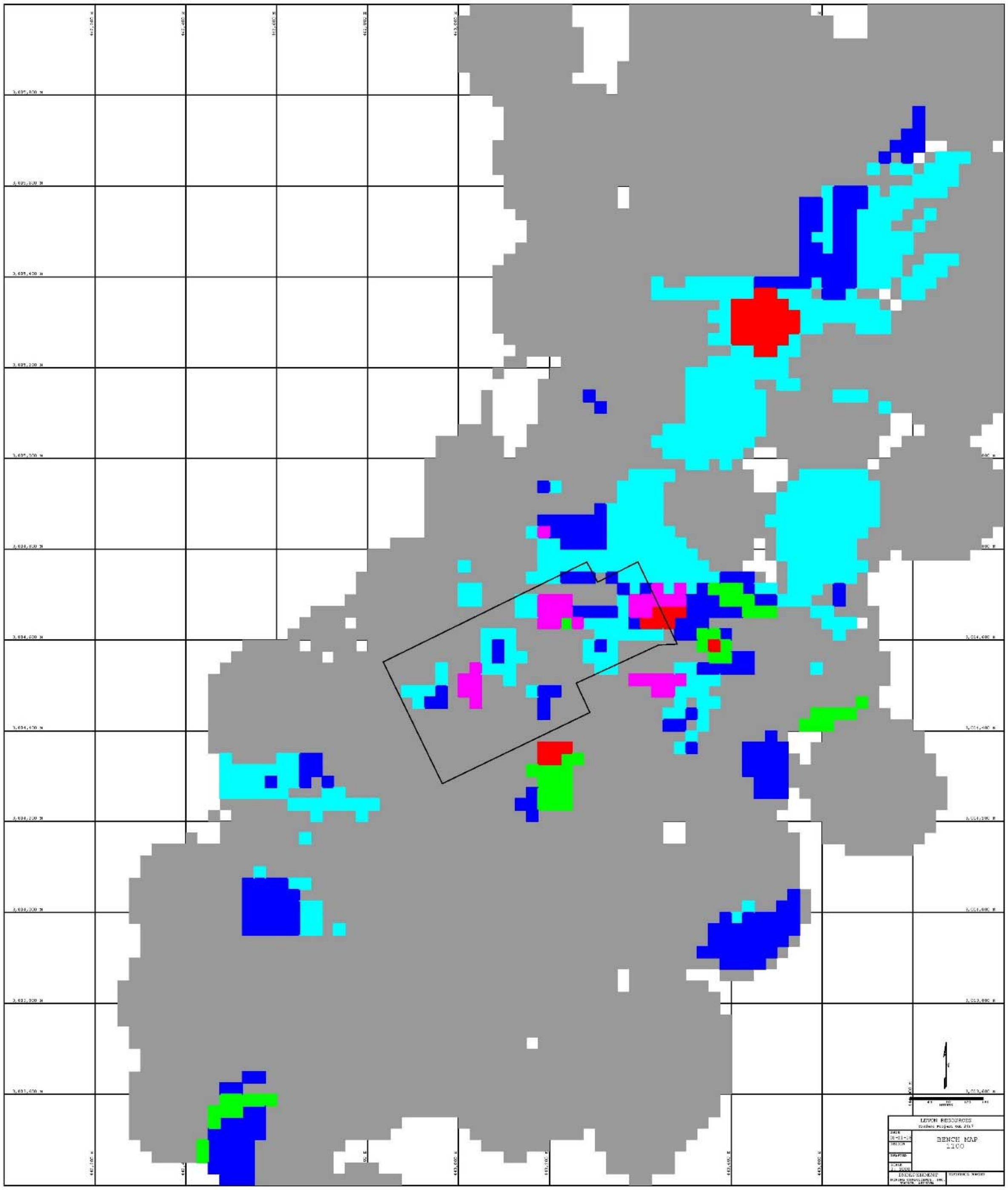
Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100 (200m grid)

Figure 14-10: Block Model AgEq (g/t) Grades – Level 1300



Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100
(200m grid)

Figure 14-11: Block Model AgEq (g/t) Grades – Level 1200



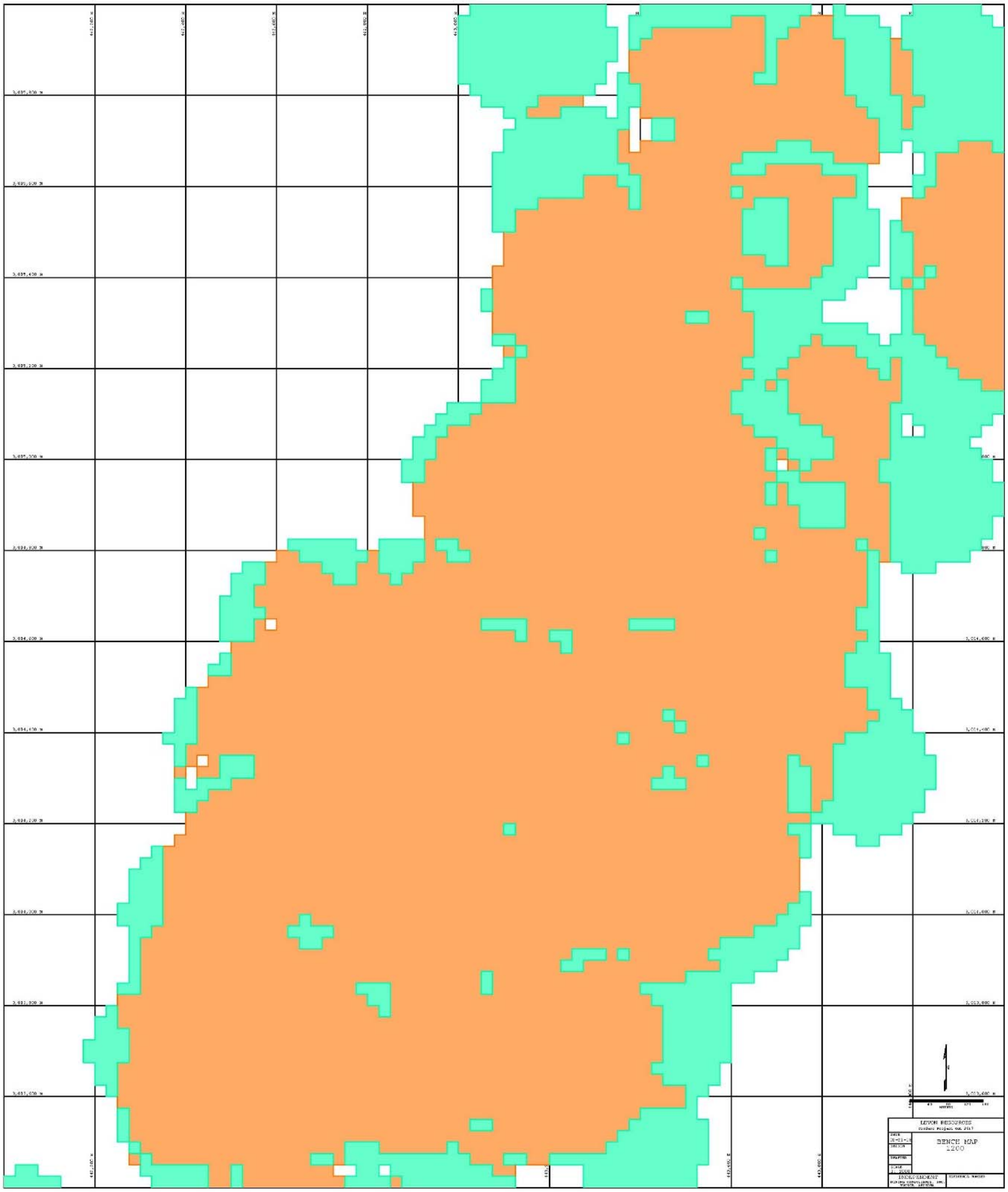
Color Code: AgEq, g/t black < 15; light blue 15 – 25; dark blue 25 – 50; green 50 – 75; red 75 – 100; magenta >= 100 (200m grid)

Figure 14-12: Block Model AgEq (g/t) Grades – Level 1100

14.5 DEFINITION OF INDICATED AND INFERRED MATERIAL

Model blocks were classified as indicated if there were three or more holes within the 150 spherical search ellipse and as inferred if there were fewer than three. Figure 14-13, which is a model block plan showing indicated and inferred blocks on the 1300 bench, shows that this gave an indicated-inferred distribution that is visually reasonable relative to the drillhole coverage (Figure 14-1), with indicated blocks located dominantly inside the drilling pattern and inferred blocks located in an annulus surrounding it.

The three-minimum-hole criterion is also supported by kriging variance estimates obtained from a kriging run performed on recovered values. Kriging variances, which are a measure of the uncertainty in the block grade estimates, are plotted against the number of assayed holes within the search ellipse in Figure 14-14. Variances increase only slowly as the number of holes decreases from nine to three but with fewer than three holes the variance begins to increase more rapidly. This inflection confirms that the three-hole minimum is a reasonable statistical threshold for segregating inferred from indicated blocks.



Indicated (Orange) and Inferred (Green)
200m grid spacing

Figure 14-13: Classification of Estimated Blocks, 1300 Bench

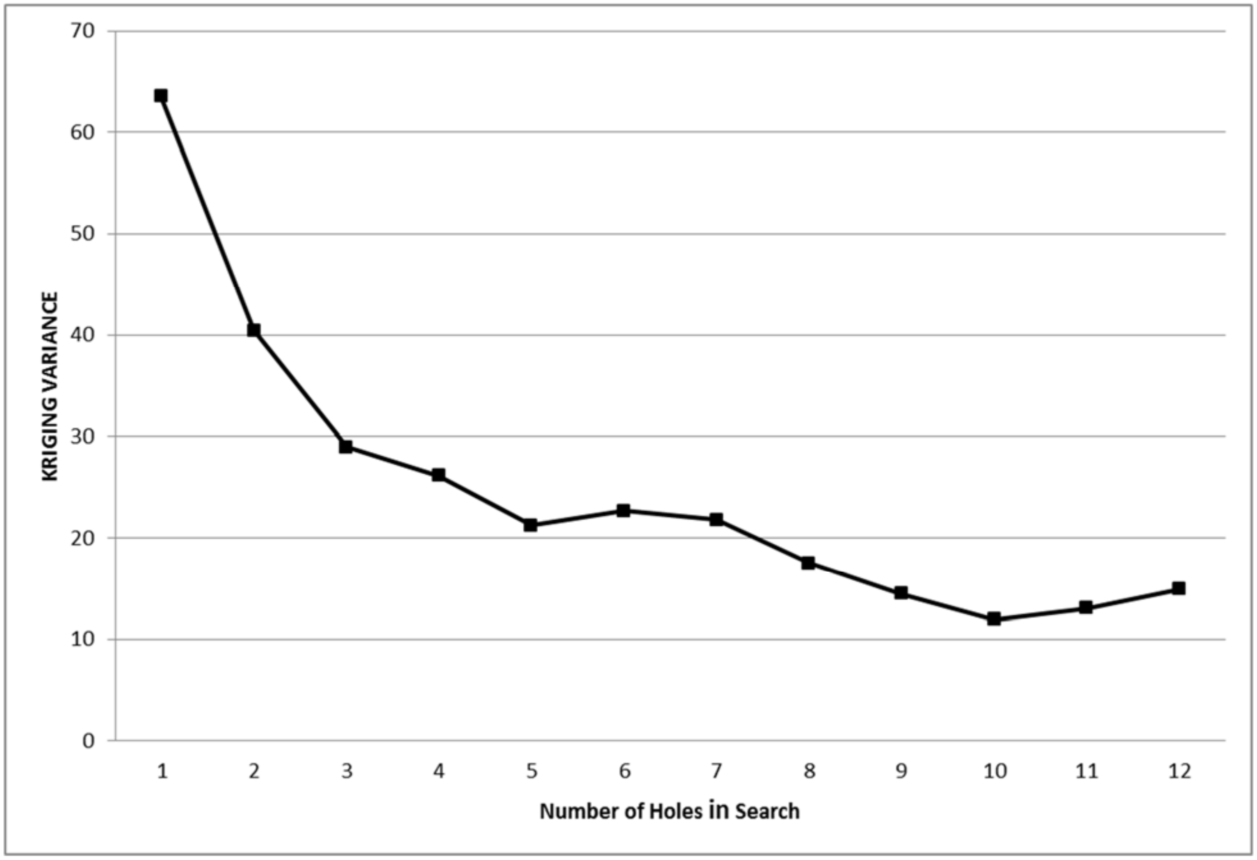


Figure 14-14: Kriging Variance in Model Blocks Versus Number of Holes in Search

14.6 TONNAGE ESTIMATION

Mean specific gravities in different lithologic units were estimated from the results of 3,442 specific gravity measurements on core samples. These mean densities were then applied to the polygonal block lithology coding in the 2018 geologic model and converted to kilotonnes/block. The specific gravity and kilotonne assignments are summarized in Table 14-12. An additional 2,730 specific gravity measurements have been received since the initial July 2012 mineral resource.

Table 14-12: Specific Gravity and Tonnage Assignments

Lithologic Unit	No. Readings	Mean s.g.	Ktonnes/block
Overburden	0	2.000	12.500
Limestone Dominated Diatreme	154	2.640	16.500
Rhyolite Dominated Diatreme	65	2.594	16.213
Dacite Dominated Diatreme	25	2.597	16.231
Dacite Prophyry Breccia	835	2.540	15.875
Dacite Intrusive Breccia	153	2.597	16.231
Dacite Undifferentiated	600	2.553	15.956
Rhyolite Porphyry Breccia	166	2.488	15.550
Rhyolite Undifferentiated	13	2.557	15.981
Rhyolite Intrusion Breccia	362	2.522	15.763
Rhyolite Flow Banded	101	2.497	15.606
Granodiorite	125	2.679	16.744
Limestone	647	2.702	16.888
Fault	70	2.622	16.388
Vein	73	2.717	16.981
Limestone Intrusion Breccia	53	2.588	16.175
Misc. Minor Rock Types/Unassigned	0	2.593	16.205

14.7 MINERAL RESOURCE TABULATIONS

The Cordero Mineral Resource is contained within an open pit geometry defined by a floating cone algorithm which used the metal prices, mill recoveries and costs shown in Table 14-13. The process and G&A operating costs are initial estimates by M3 for an 80,000 tpd process plant operation. No post property costs have been included to define the Mineral Resource pit shell geometry.

Table 14-13: Inputs to Mineral Resource Pit Shell Definition

Metal	Mill Recovery	Metal Price
Silver	88.6%	$20.00/oz
Zinc	72.0%	$1.20/lb
Lead	84.0%	$1.00/lb
Gold	40.0%	$1250/oz
Operating Costs		
Process	$6.41/t ore	
G&A	$0.67/t ore	
Mining	$1.16/t base	Plus $0.005/t per bench below 1550 elevation
Overall pit slope angle 45 degrees		

A silver equivalent grade (AgEq g/t) was assigned to the model blocks which received grade estimates for silver, zinc, lead and gold. The metal prices, costs and recoveries shown above have been used to assign an economic value to the individual blocks in the model and to define an open pit geometry for the tabulation of the mineral resource. The inputs were used to provide a basis for tabulating the mineral resource which would have a reasonable potential of extraction. Inferred resources have been used to define the mineral resource geometry. Due to the uncertainty that may be attached to inferred mineral resources, it cannot be assumed that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource.

Within the pit shell, (Figure 14-15), the mineral resource is tabulated at the 15.00 g/t AgEq cutoff. Table 14-2 is a summary of the mineral resource tonnages and grade. Table 14-14 presents the tonnage and grades within the resource shell at different AgEq cutoff grades and the Mineral Resource at a 15.00 g/t AgEq cutoff is highlighted.

Table 14-14: Cordero Mineralization within Resource Shell at Various AgEq Cutoff Grades

		Tonnage & Grade within Mineral Resource Pit Shell						Contained Metal			
AgEq Cutoff	Class	ktonnes	AgEq, g/t	Ag, g/t	Zn, %	Pb, %	Au, g/t	Ag, ozs x 1000	Zn, lbs x 1000	Pb, lbs x 1000	Au, ozs x 1000
10	Indicated	1,166,044	29.04	11.63	0.34	0.16	0.04	436,006	8,635,069	4,009,139	1,500
	Inferred	343,953	48.49	17.83	0.64	0.26	0.03	197,173	4,866,825	1,933,085	332
15	Indicated	990,054	31.92	12.81	0.37	0.17	0.04	407,761	8,030,051	3,774,997	1,273
	Inferred	282,217	56.43	20.66	0.75	0.30	0.04	187,461	4,665,047	1,859,799	363
20	Indicated	710,320	37.59	15.20	0.43	0.21	0.05	347,133	6,700,534	3,256,334	1,142
	Inferred	224,173	66.44	24.22	0.88	0.36	0.04	174,564	4,362,702	1,753,974	288
25	Indicated	467,298	45.49	18.53	0.51	0.26	0.06	278,399	5,232,018	2,667,505	901
	Inferred	182,649	76.47	27.80	1.01	0.42	0.05	163,252	4,065,840	1,686,720	294
50	Indicated	99,217	94.55	40.25	0.94	0.61	0.11	128,395	2,044,604	1,340,473	351
	Inferred	100,003	111.66	40.76	1.45	0.65	0.06	131,052	3,184,876	1,423,827	193

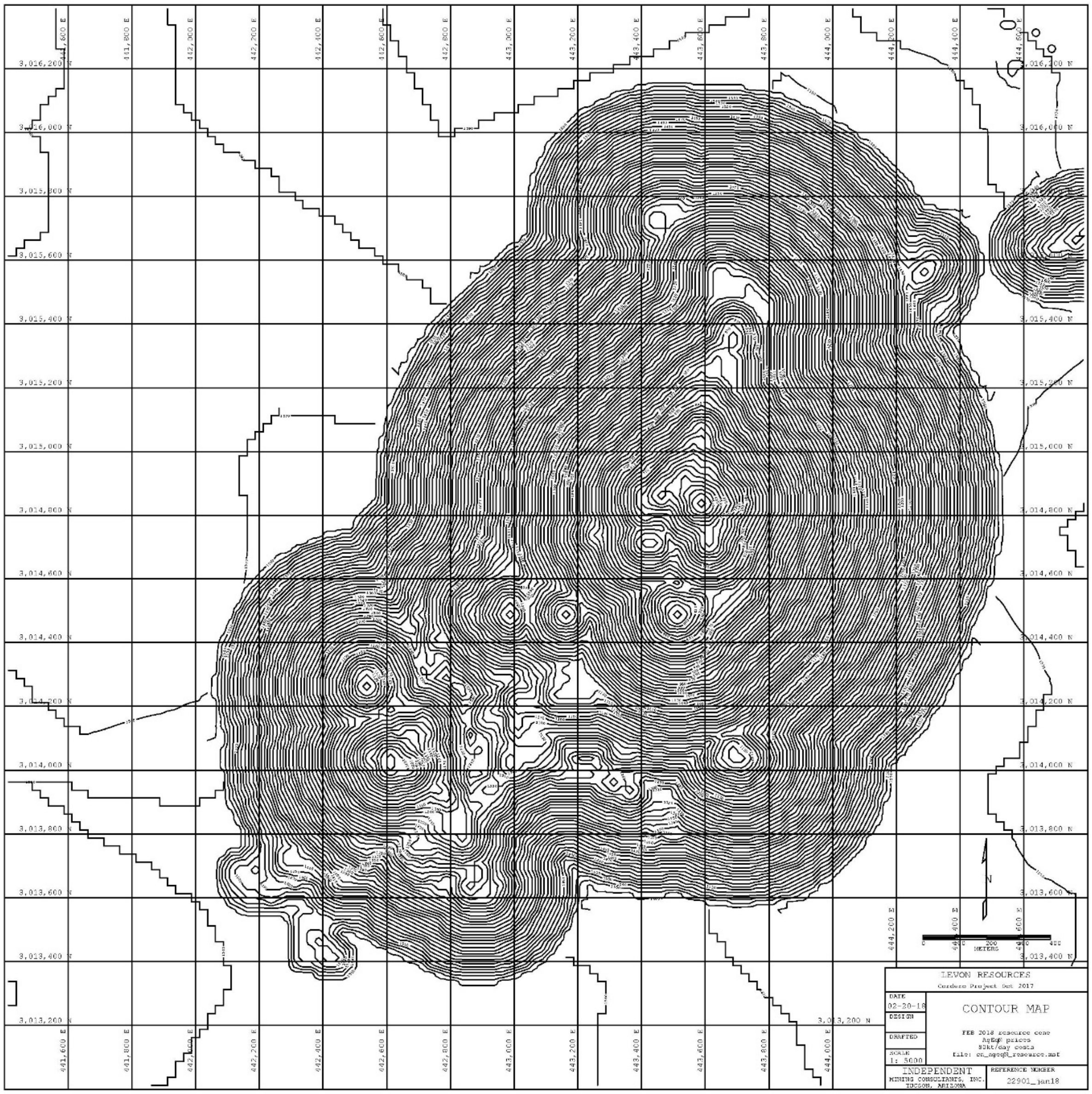


Figure 14-15: Mineral Resource Pit Shell (200m grid)

15 MINERAL RESERVE ESTIMATES

No mineral reserve has been developed for the Cordero project at this time.

16 MINING METHODS

Mining of the Cordero deposit will be done by open pit methods utilizing a traditional drill, blast, load and haul sequence to deliver mill feed to the primary crusher and the waste to waste dumps located to the north and south of the proposed pits. The pit design is based on a 10-meter bench height to match the resource model bench height. The mine plan calls for the delivery of 40,000 tonnes per day (tpd) of material to the mill for a 29-year schedule and during peak production about 100,000 tpd of total material (mill feed plus waste) will be mined. The mine equipment fleet requirements are estimated to mine and deliver the mill feed and waste tonnages to the appropriate locations. An estimate of capital and operating costs was developed based on the selected mining fleet.

The schedule mill feed tonnage included in this section is a sub-set of the mineral resource presented in Section 14. The most recent previous mineral resource was documented in the technical report prepared by Herb Welhener of Independent Mining Consultants, Inc. (IMC) titled "Cordero Project September 2014 Mineral Resource Update" dated October 15, 2014. The mineral resource presented in the current report is an update to the September 2014 mineral resource.

16.1 GEOTECHNICAL PARAMETERS

No geotechnical investigations for pit slope angles have been completed for this PEA. An overall slope angle of 40 degrees was used for the pit definition floating cone runs and the phase and pit designs. No ramps have been included and the 40 degree slope angle is sufficient to allow for the inclusion of haul ramps using a steeper inter-ramp slope angle.

16.2 DILUTION MODELING AND FACTORS

The resource model is described in section 14 and grades in the model are estimated by inverse distance cubed (ID3) applied separately to capped 10m silver, zinc, lead and gold composites. The grade estimates were confined by indicator pods using silver equivalent grade discriminators of 50g/t and 10 g/t. At this time, no additional dilution, factors or mining losses have been applied to the mineral resource grade model.

16.3 OPEN PIT MINING

The PEA open pit design is based on a floating cone geometry using the available process recoveries, cost data and the metal price of $17.14/oz silver equivalent. The Cordero project is a polymetallic deposit and it is anticipated that a lead concentrate and a zinc concentrate will be produced with the majority of the silver reporting to the lead concentrate. A silver equivalent grade (AgEq) was assigned to each block in the model to account for the contribution in value from the metals contained in the two concentrates. Table 16-1 summarizes the metal prices and mill recoveries used to establish the block model AgEq grades. The metal price inputs are different than those used in the financial model discussed in Section 22.

Other inputs to the floating cone algorithm included estimates of the process, G&A and a base mining cost plus an addition haul cost from benches below the 1550 elevation; these are included on Table 16-1. The floating cones were run with a discount rate of 0.5% per bench of depth.

The final pit for the PEA is designed from the floating cone geometry with smoothing of the pit walls and removal of sharp transitions. Allowance for ramps is included in the overall pit slopes, but no ramps have been designed into the PEA pit and phases.

The final pit is sub-divided into 11 mining phases which are tabulated on Table 16-2 at a cut-off grade of 20g/t AgEq and the outlines are illustrated as Figure 16-1. Subsequent to the 2012 PEA, the Aida Claim which is located central to the Cordero deposit was purchased by Levon, so mining can be done on this claim as part of the mine plan. No pre-feasibility or feasibility study has been completed, thus no mineral reserve is declared at this time.

Table 16-2 shows the tonnage of mill feed by class by the various phase designs that will be available to develop the production schedule. The mill feed tonnage will be the combination of the indicated and inferred categories. There is additional resource which has economic value and could be incorporated into this PEA. This material is less defined and at this point in the project the decision was made that the 400 plus million tonnes of mill feed for 29 years were sufficient to define an economic project for a PEA. The mine production schedule used phases 1 through 8 plus phase 11. These phases have a lower strip ratio and lower percentage of inferred mill feed.

Table 16-1: Economic Input for Pit Design

Metal	Price	Recovery		
		To Lead Concentrate	To Zinc Concentrate	Multiplier for AgEq
Silver	$17.14/oz	78%	10.6%	1.00
Zinc	$1.11/lb		72%	36.08
Lead	$0.96/lb	84%		36.40
Gold	$1262/oz	20%	20%	33.24
Costs:				
Process	$6.97/tonne			
G&A	$1.11/tonne processed			
Mining	$1.55/tonne mined			
Added Haul Cost	$0.008/t per 10m bench below 1550			
Discount Rate	0.5% per 10m bench			

Table 16-2: Phase Design Tonnages

		Indicated Tonnage Above AgEq Cut-off						Inferred Tonnage Above AgEq Cut-off						Waste	Total	Waste/ Mill Feed
Phase	AgEq Cut-off	Ktonnes	AgEq g/t	Ag g/t	Zn %	Pb %	Au g/t	Ktonnes	AgEq g/t	Ag g/t	Zn %	Pb %	Au g/t	Ktonnes	Ktonnes	Ratio
1	20	19,468	62.22	28.77	.40	.38	.16	292	122.78	61.96	.81	.64	.24	11,556	31,316	.58
2	20	22,771	58.71	29.14	.31	.37	.15	1,758	156.67	83.28	.99	.87	.17	26,705	51,234	1.09
3	20	36,771	44.80	22.44	.33	.22	.07	1,336	111.39	56.89	.78	.68	.05	40,999	79,106	1.08
4	20	29,657	38.27	19.69	.23	.20	.09	1,035	64.14	34.50	.48	.27	.08	25,830	56,522	.84
5	20	12,705	42.45	17.68	.39	.24	.05	2,890	107.01	50.29	.83	.66	.09	23,566	39,161	1.51
6	20	13,765	37.37	13.25	.43	.21	.03	4,021	81.19	36.25	.81	.38	.06	28,904	46,690	1.63
7	20	91,367	39.71	15.81	.41	.20	.05	5,546	111.09	46.10	.93	.78	.09	98,274	195,187	1.01
8	20	142,325	36.15	13.11	.42	.18	.04	23,402	91.37	35.53	.93	.56	.05	150,329	316,056	.91
9	20	78,976	36.25	13.26	.42	.19	.03	27,766	89.62	29.47	1.15	.46	.06	179,390	286,132	1.68
10	20	62,874	39.16	13.52	.43	.24	.05	30,225	75.34	26.88	.84	.46	.04	284,138	377,237	3.05
11	20	5,137	60.23	22.81	.28	.72	.03	408	26.84	10.18	.28	.15	.02	4,298	9,843	.78
Total	20	515,816	40.31	16.22	.39	.22	.06	98,679	96.04	40.12	.90	.57	.07	873,989	1,488,484	1.42

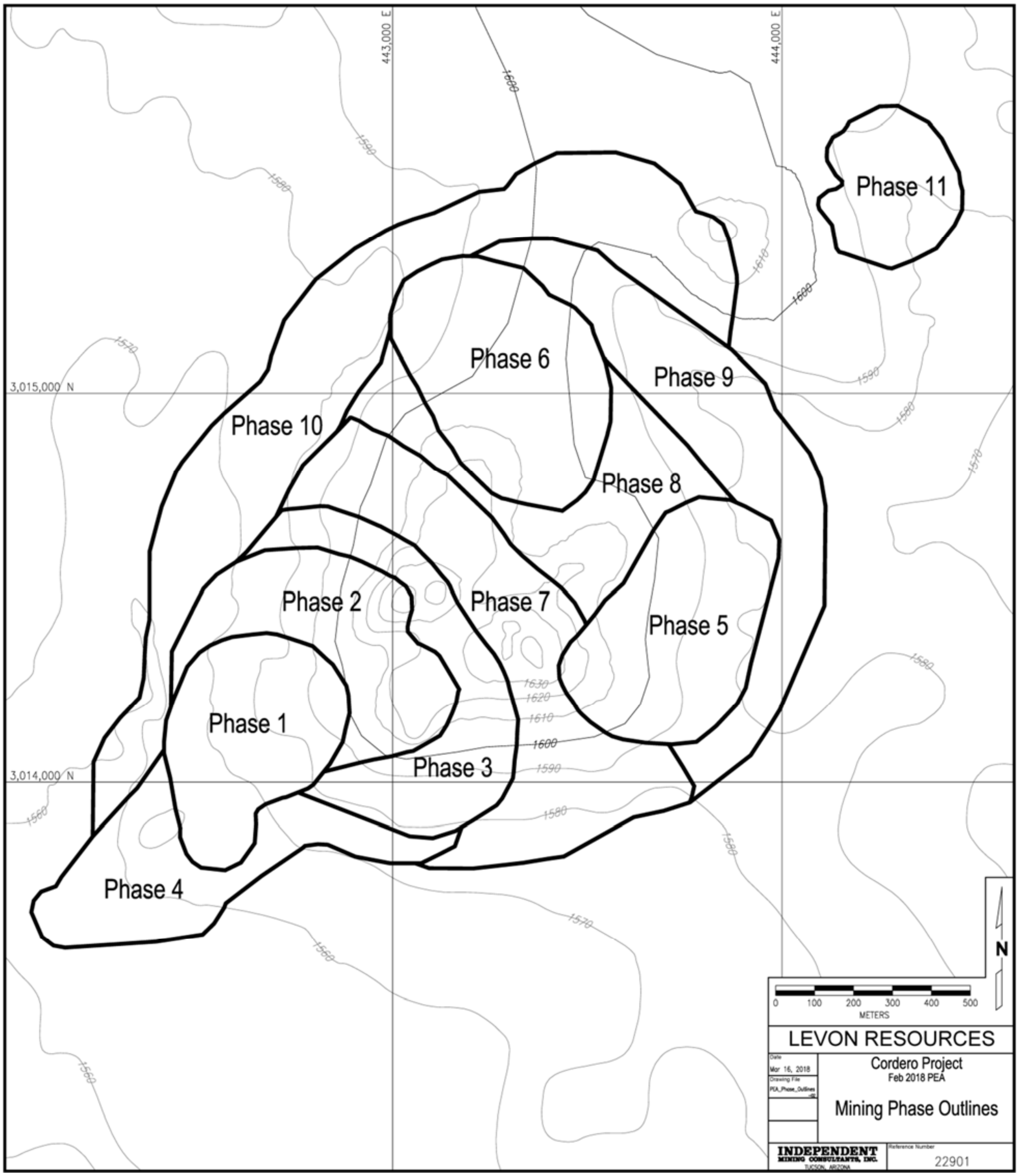


Figure 16-1: PEA Mining Phase Outlines

16.4 MINING SCHEDULE

A mining schedule to deliver 40,000 tpd to the mill was developed from the mining phases 1 through 8 plus 11. Table 16-3 shows a summary of the mine schedule and Table 16-4 shows the recovered metal to each of the concentrates. Table 16-5 shows the benches mined in each phase by year. Based on the metal prices and recoveries shown in Table 16-1, the approximate percent of concentrate value by metal is: silver 51%, zinc 29%, lead 18% and gold 2%. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration or Mineral Reserves once economic considerations are applied. Therefore, there is no certainty that the production profile presented in this updated PEA will be realized.

Table 16-3: 40,000 TPD Mill Feed – Mine Production Schedule

	Mill Feed							Waste	Total	Percent
Year	AgEq Cut-off	Ktonnes	AgEq g/t	Ag g/t	Zn %	Pb %	Au g/t	Ktonnes	Ktonnes	Inferred in Mill Feed Tonnage
0	25	115	32.22	15.72	.09	.27	.11	715	830	0.0
1	25	14,785	51.61	27.47	.29	.29	.10	15,308	29,593	3.7
2	20	14,400	61.86	30.79	.40	.34	.13	20,697	35,097	8.2
3	22	14,400	66.80	34.49	.37	.38	.16	15,237	29,637	2.9
4	22	14,400	57.96	28.21	.40	.32	.12	17,920	32,320	4.2
5	22	14,400	59.83	30.74	.39	.31	.11	17,801	32,201	2.6
6	22	14,400	47.15	22.62	.33	.26	.10	20,177	34,577	7.9
7	22	14,400	42.84	19.00	.29	.28	.09	21,600	36,000	1.1
8	20	14,400	46.23	18.57	.35	.36	.06	21,600	36,000	8.2
9	20	14,400	45.15	18.44	.43	.25	.06	13,606	28,006	19.7
10	20	14,400	47.05	19.72	.46	.25	.06	10,321	24,721	14.7
11	20	14,400	46.62	21.00	.40	.26	.05	16,961	31,361	12.1
12	20	14,400	36.59	16.21	.35	.17	.05	20,666	35,066	9.1
13	20	14,400	38.57	16.75	.38	.19	.04	15,988	30,388	6.4
14	20	14,400	34.45	13.98	.36	.17	.04	19,827	34,227	8.2
15	20	14,400	35.47	13.57	.39	.17	.05	17,497	31,897	5.8
16	20	14,400	40.22	15.59	.43	.20	.06	17,143	31,542	4.6
17	20	14,400	41.73	16.84	.44	.20	.05	10,478	24,878	9.1
18	20	14,400	42.42	15.25	.47	.23	.06	8,159	22,559	9.8
19	20	14,400	40.79	14.78	.45	.23	.04	10,304	24,704	8.3
20	20	14,400	41.80	16.04	.46	.21	.04	10,450	24,850	11.1
21	18	14,400	42.21	15.99	.46	.23	.04	8,828	23,228	10.9
22	18	14,400	44.12	16.87	.46	.26	.04	9,752	24,152	13.9
23	18	14,400	38.94	15.19	.41	.21	.04	6,521	20,921	11.4
24	18	14,400	42.67	17.02	.43	.24	.05	10,795	25,195	16.1
25	18	14,400	54.15	19.93	.58	.31	.06	11,192	25,592	21.9
26	17	14,400	46.52	16.38	.52	.26	.06	7,951	22,351	12.2
27	17	14,400	53.66	18.19	.64	.29	.06	7,319	21,719	9.8
28	17	14,400	46.11	15.13	.55	.27	.04	9,598	23,998	12.5
29	17	14,326	54.72	17.69	.64	.34	.04	13,179	27,505	15.3
Total		417,526	46.49	19.39	.43	.26	.06	407,589	825,115	9.7

Table 16-4: 40,000 TPD Mill Feed – Metal in Concentrates

	Lead Concentrate			Zinc Concentrate		
Year	Ag, oz x 1000	Pb, Lb x 1000	Au, ozs	Ag, oz x 1000	Zn, Lb x 1000	Au, ozs
0 (processed, year 1)						
1	9,886	76,496	9,266	1,344	65,232	9,266
2	11,119	90,401	11,760	1,511	91,886	11,760
3	12,455	100,267	14,352	1,693	85,486	14,352
4	10,187	85,601	10,648	1,384	90,286	10,648
5	11,100	83,201	10,463	1,508	88,686	10,463
6	8,169	69,867	8,982	1,110	74,743	8,982
7	6,863	75,200	8,519	932	66,515	8,519
8	6,706	97,067	5,371	911	79,772	5,371
9	6,659	65,600	5,834	905	99,201	5,834
10	7,121	65,600	5,185	968	104,686	5,185
11	7,584	68,534	4,630	1,031	92,343	4,630
12	5,852	45,600	4,352	795	80,001	4,352
13	6,048	49,867	3,982	822	86,172	3,982
14	5,050	45,067	3,704	686	82,058	3,704
15	4,899	45,334	4,630	666	89,143	4,630
16	5,631	52,267	5,278	765	98,972	5,278
17	6,081	54,134	4,908	826	99,429	4,908
18	5,507	61,600	5,093	748	107,201	5,093
19	5,338	60,267	4,074	725	103,544	4,074
20	5,794	57,067	3,889	787	104,915	3,889
21	5,775	62,134	3,519	785	104,458	3,519
22	6,094	68,267	3,241	828	106,058	3,241
23	5,485	57,067	3,426	745	93,258	3,426
24	6,148	62,934	4,259	835	98,515	4,259
25	7,197	83,201	5,185	978	133,029	5,185
26	5,916	70,134	5,093	804	118,858	5,093
27	6,570	77,067	5,185	893	146,287	5,185
28	5,462	70,934	4,074	742	125,715	4,074
29	6,355	90,732	3,777	864	146,217	3,777
Total	203,048	1,991,507	172,679	27,594	2,862,666	172,679

Table 16-5: 40,000 TPD Mill Feed Schedule – Mining Years by Phase

Bench	Mining Phases (See Figure 16-1)								
	1	2	3	4	5	6	7	8	11
1640									
1630		1	2		6		9		
1620		1	2		6		9		
1610		1	2		6	8	9	10	
1600	0	1	2 - 3		6	8	9 - 10	10	
1590	0	1	3		6	8	10 - 11	11	7
1580	0	1	3		6	8	11	11	7
1570	1	2	3	5	7	8 - 9	11 - 12	12	7 - 8
1560	1	2	3 - 4	5	7	9	12	12-13-14	8
1550	1	2	4	5	7 - 8	9	12	14	8
1540	1	2	4	5 - 6	8	10	13	14 - 15	8
1530	1	2	4	6	8	10	13	15 - 16	9
1520	1	2	4	6	8 - 9	10	13	16 - 17	9
1510	1 - 2	2	4	6	9	11	14	17	9
1500	2	3	4	6 - 7	9	11	14	17 - 18	
1490	2	3	4 - 5	7	10	11	14	18 - 19	
1480	2	3	5	7	10	12	15	19 - 20	
1470	2	3	5	7	11	12	15	20 - 21	
1460	3	3	5	7	11	12	15	21	
1450	3	3	5	7		12	15 - 16	21 - 22	
1440	3	4	5	8			16	22 - 23	
1430	3	4	6	8			16	23	
1420	3	4	6	8			16 - 17	23 - 24	
1410		4	6	8			17	24	
1400		5	6	8			17 - 18	24	
1390		5	6	8			18	24 - 25	
1380		5	6	9			18	25	
1370			7	9			19	25 - 26	
1360			7	9			19	26	
1350			7				19 - 20	26	
1340			7				20	26 - 27	
1330							20	27	
1320							21	27	
1310							21	27 - 28	
1300							21 - 22	28	
1290							22	28	
1280							22	28	
1270							23	28 - 29	
1260							23	29	
1250							23	29	
1240								29	
1230								29	
1220								29	
1210								29	
1200								29	
1190								29	

Table 16-6: 40,000 TPD Mill Feed Schedule – Tonnage by Mining Phase

Year	Total Ktonnes		Phase 1 Ktonnes		Phase 2 Ktonnes		Phase 3 Ktonnes		Phase 4 Ktonnes		Phase 5 Ktonnes		Phase 6 Ktonnes		Phase 7 Ktonnes		Phase 8 Ktonnes		Phase 11 Ktonnes	
	mill feed	waste	mill feed	waste	mill feed	waste	mill feed	waste	mill feed	waste	mill feed	waste	mill feed	waste	mill feed	waste	mill feed	waste	mill feed	waste
0	115	715	115	715																
1	14,285	15,308	9,378	11,559	4,907	3,749														
2	14,400	20,698	4,502	2,649	8,288	16,291	1,610	1,758												
3	14,400	15,237	1,883	515	5,119	6,870	7,398	7,852												
4	14,400	17,919			2,857	1,666	11,543	16,253												
5	14,400	17,801			1,062	425	7,913	11,149	5,425	6,227										
6	14,400	20,177					4,320	6,913	8,865	7,052	1,215	6,212								
7	14,400	21,600					1,297	1,100	9,045	8,808	2,927	10,249							1,131	1443
8	14,400	21,600							4,552	4,887	3,100	5,636	3,396	8,589					3,352	2488
9	14,400	13,606							930	730	3,402	2,126	5,230	8,179	3,869	2,112			969	459
10	14,400	10,321									2,367	513	5,189	5,215	5,646	2,249	1,198	2,344		
11	14,400	16,961									1,138	276	2,857	3,881	7,120	5,518	3,285	7,286		
12	14,400	20,666											1,114	3,040	10,738	12,092	2,548	5,534		
13	14,400	15,988													12,820	12,904	1,580	3,084		
14	14,400	19,827													10,337	12,666	4,063	7,161		
15	14,400	17,496													10,055	12,821	4,345	4,675		
16	14,400	17,141													8,472	10,809	5,928	6,332		
17	14,400	10,478													5,435	3,773	8,965	6,705		
18	14,400	8,159													7,125	4,355	7,275	3,804		
19	14,400	10,304													7,013	6,968	7,387	3,336		
20	14,400	10,450													3,297	4,576	11,103	5,874		
21	14,400	8,828													2,446	3,852	11,954	4,976		
22	14,400	9,753													1,710	2,941	12,690	6,812		
23	14,400	6,522													1,220	250	13,180	6,272		
24	14,400	10,795															14,400	10,795		
25	14,400	11,192															14,400	11,192		
26	14,400	7,951															14,400	7,951		
27	14,400	7,319															14,400	7,319		
28	14,400	9,598															14,400	9,598		
29	14,326	13,180															14,326	13,180		
Total	417,526	407,590	15,878	15,438	22,233	29,001	34,081	45,025	28,817	27,704	14,149	25,012	17,786	28,904	97,303	97,886	181,827	134,230	5,452	4,390
				31,316		51,234		79,106		56,521		39,161		46,690		195,189		316,057		9,842

16.5 WASTE DUMPS

Two waste dumps have been designed to hold the 407.6 million tonnes of waste. The dumps are situated north and south of the pits with one dump to the south and one to the north. The dumps are outside of the currently understood mineralized zone where the exploration potential to increase the mineral resource is very good. This adds about 500 meters of additional haul for the waste. The dump locations will be modified as more understanding of the mineralized zones is gathered. The north limit of the north dump is very close to the south toe of the tailings embankment. Future designs will look at a further separation of the dump and TSF. No condemnation drilling in the waste dump areas has been done.

The dumps are designed in 30-meter lifts with a setback between them so that the overall slope of the dump face is 2:1 (horizontal to vertical). The overall slopes in areas with a 35-meter-wide ramp for truck access to the upper lifts will be even flatter than 2:1. During reclamation, the 30m high lift faces can be dozed such that the overall slope of the reclaimed dump is 2:1 or flatter. The average density of the waste tonnage is about 2.7 in place, dry. A 30% swell factor has been applied for determining the waste volume required to hold the waste tonnage. The average density in the dump volume is 2.076 tonnes per loose cubic meter, dry.

Figure 16-2 through Figure 16-11 show the pit and dumps at the end of selected years 1, 2, 3, 5, 7, 10, 15, 20, 25 and end of the mine schedule (year 29).

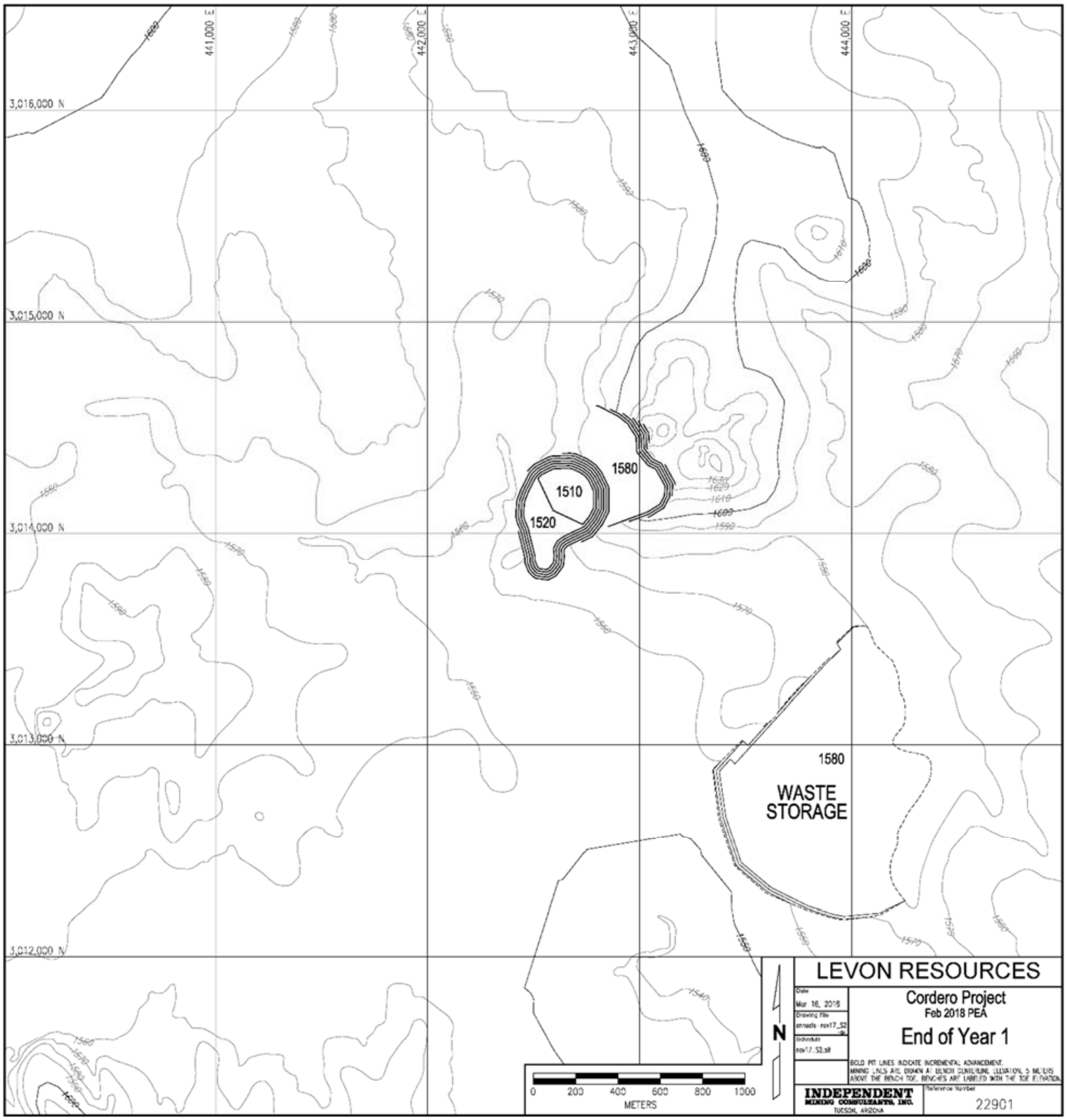


Figure 16-2: Cordero Pits and Waste Dumps – End of Year 1

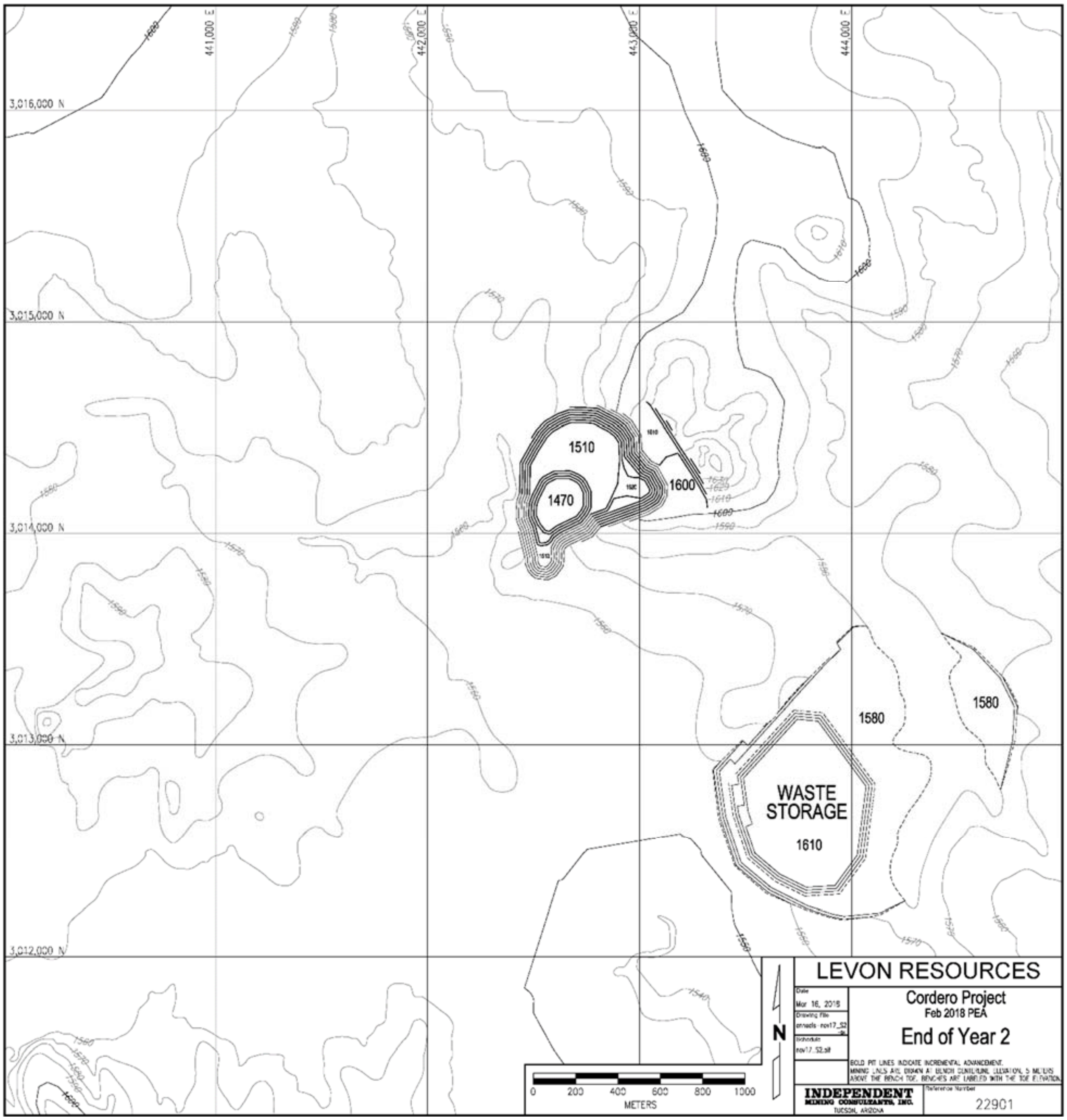


Figure 16-3: Cordero Pits and Waste Dumps – End of Year 2

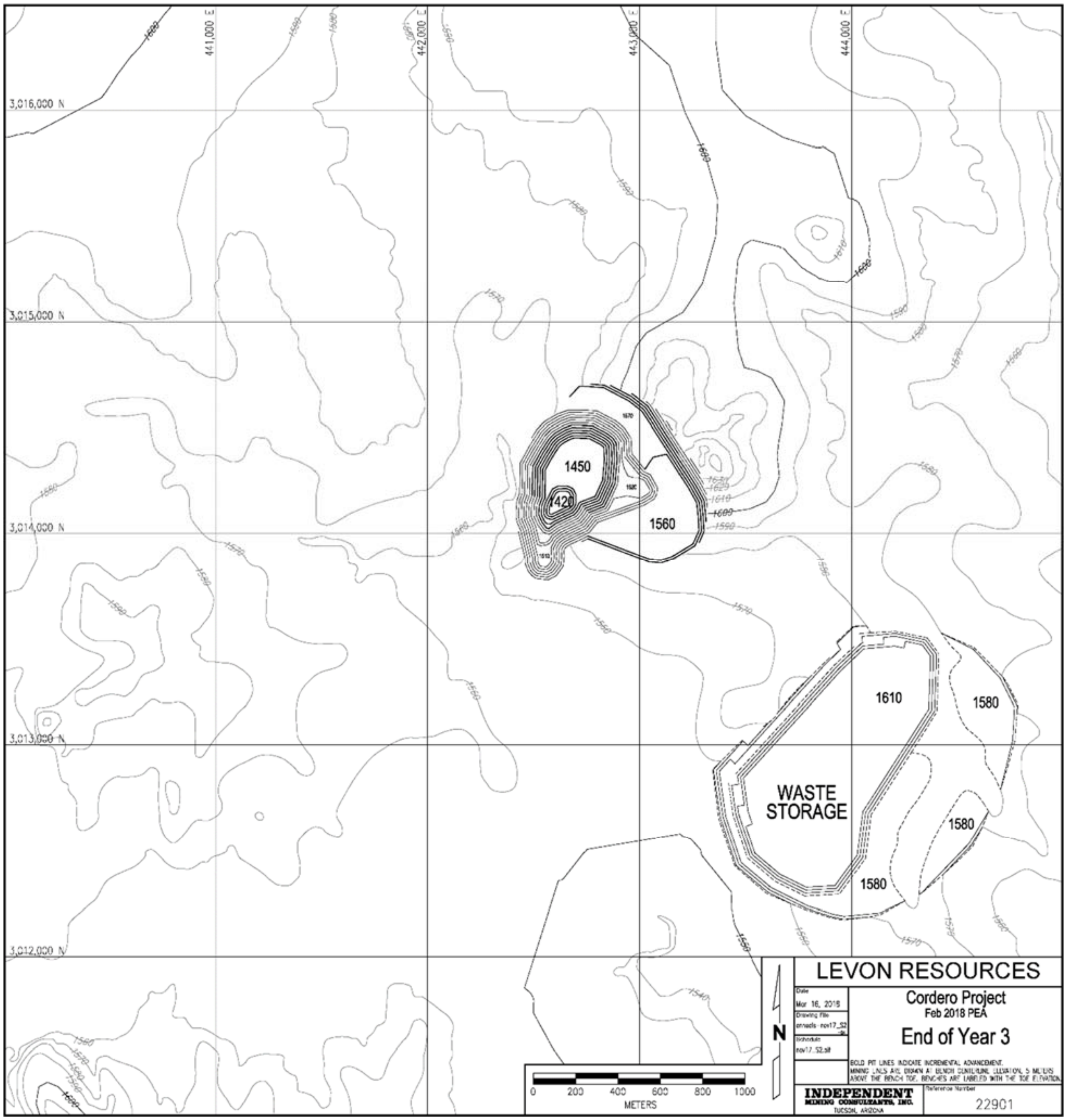


Figure 16-4: Cordero Pits and Waste Dumps – End of Year 3

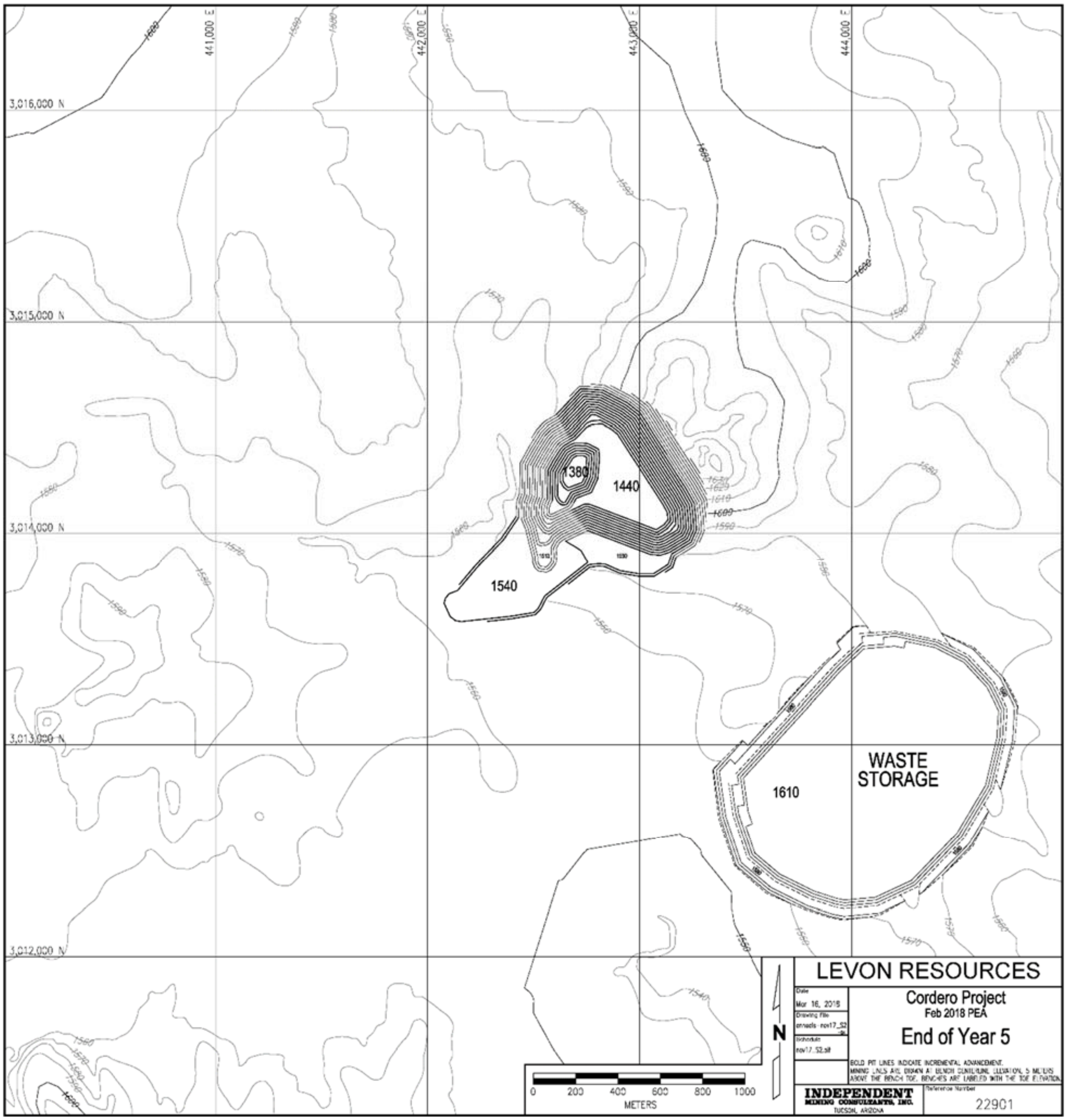


Figure 16-5: Cordero Pits and Waste Dumps – End of Year 5

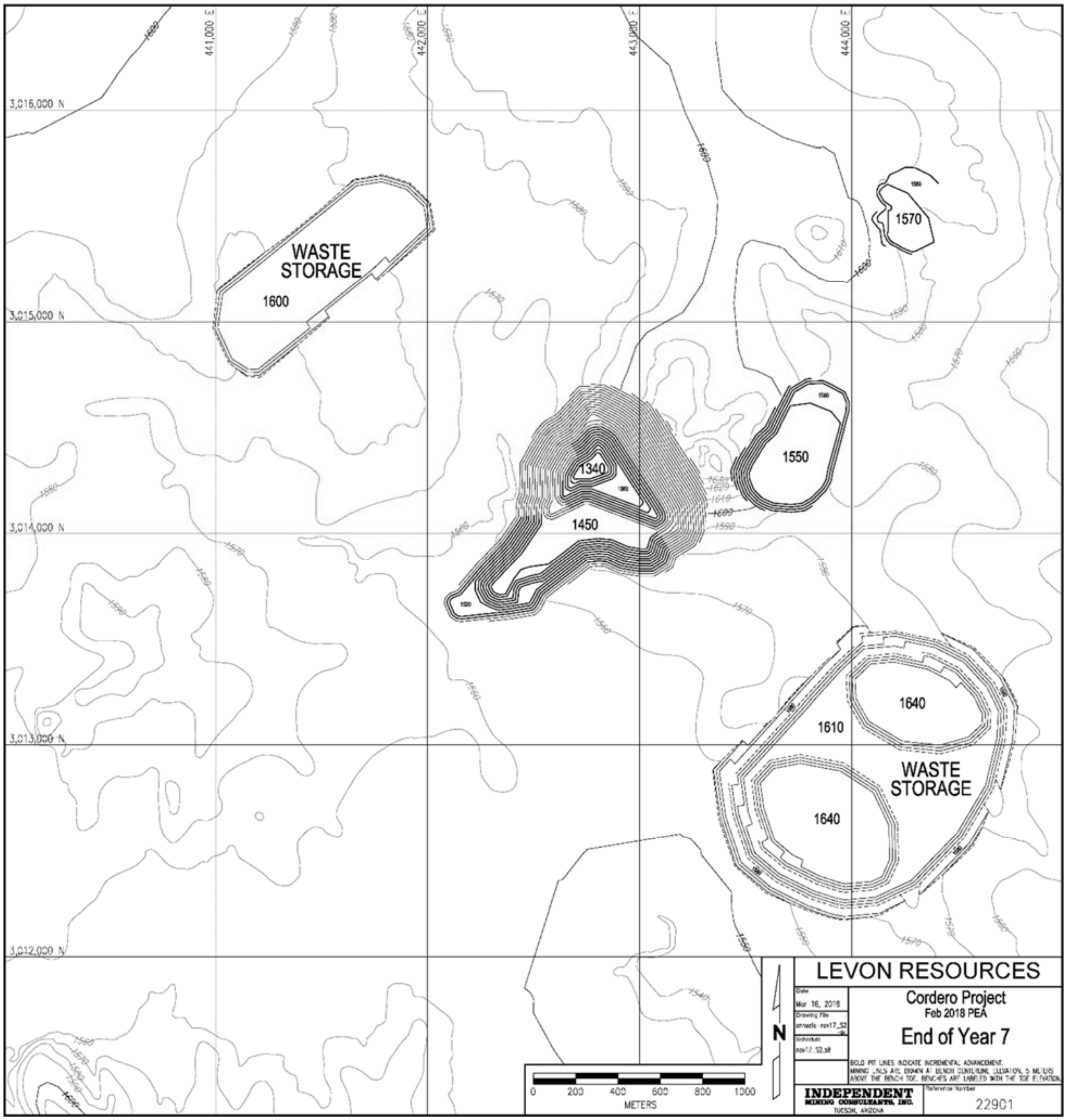


Figure 16-6: Cordero Pits and Waste Dumps – End of Year 7

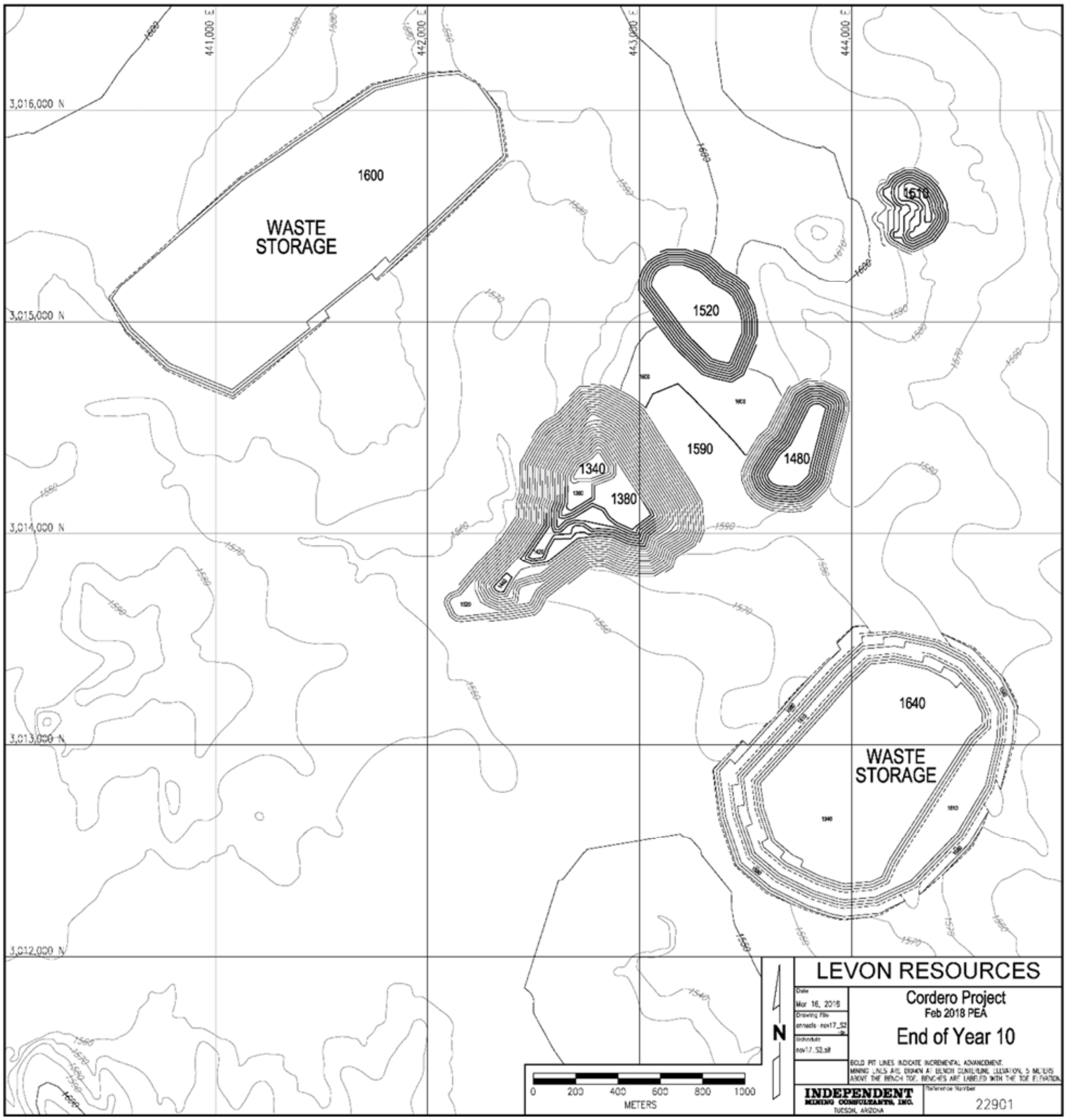


Figure 16-7: Cordero Pits and Waste Dumps – End of Year 10

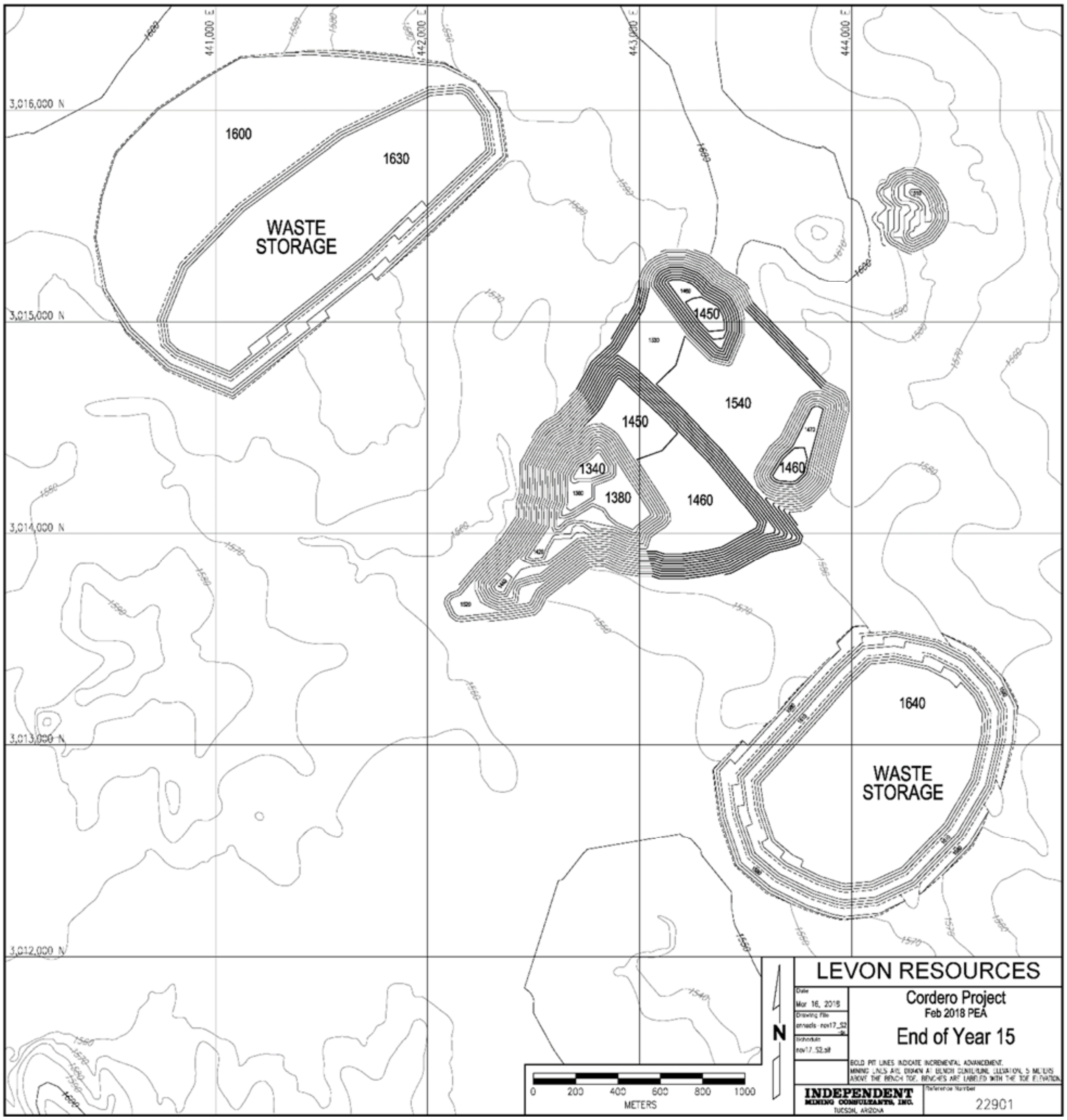


Figure 16-8: Cordero Pits and Waste Dumps – End of Year 15

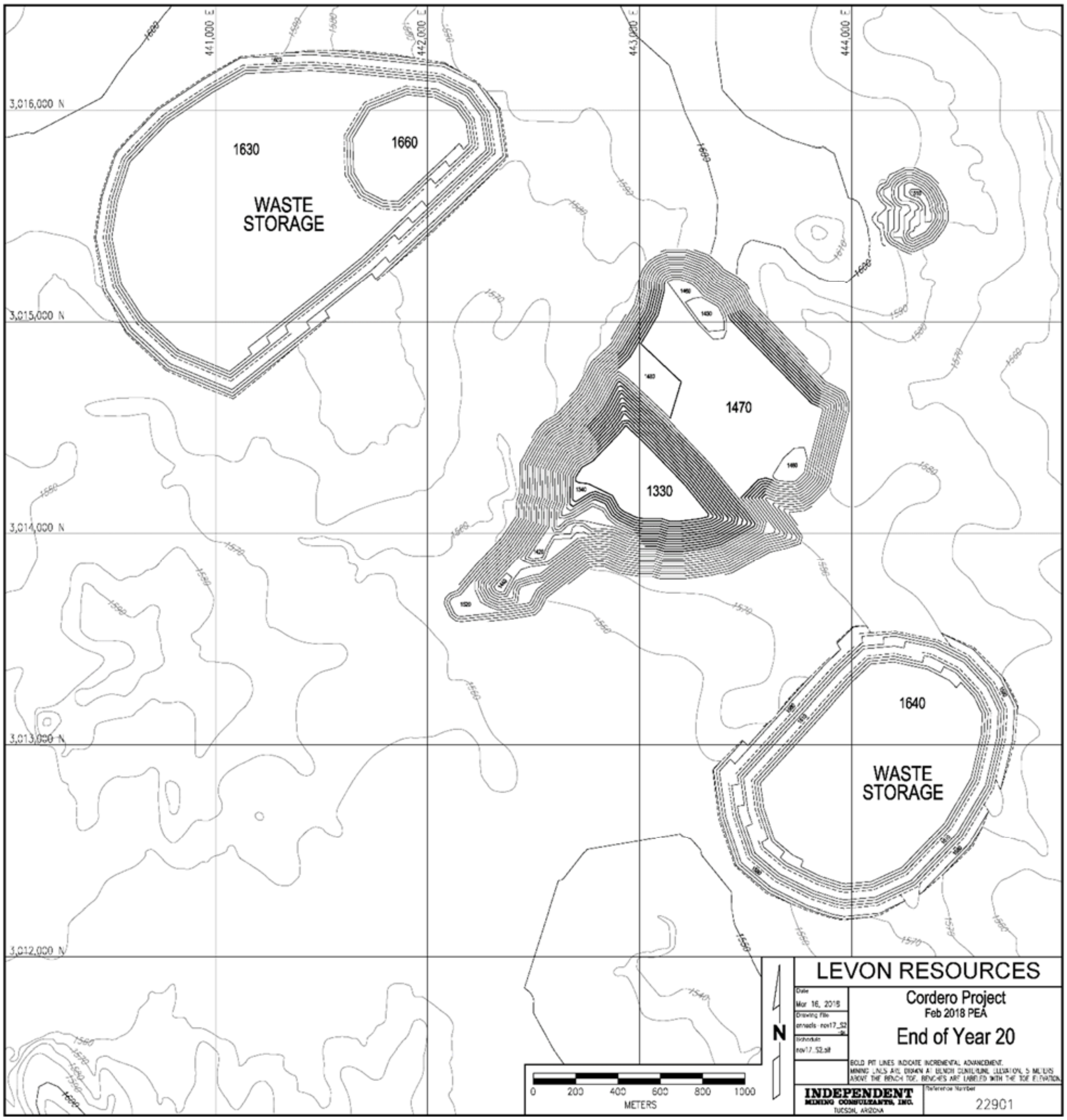


Figure 16-9: Cordero Pits and Waste Dumps – End of Year 20

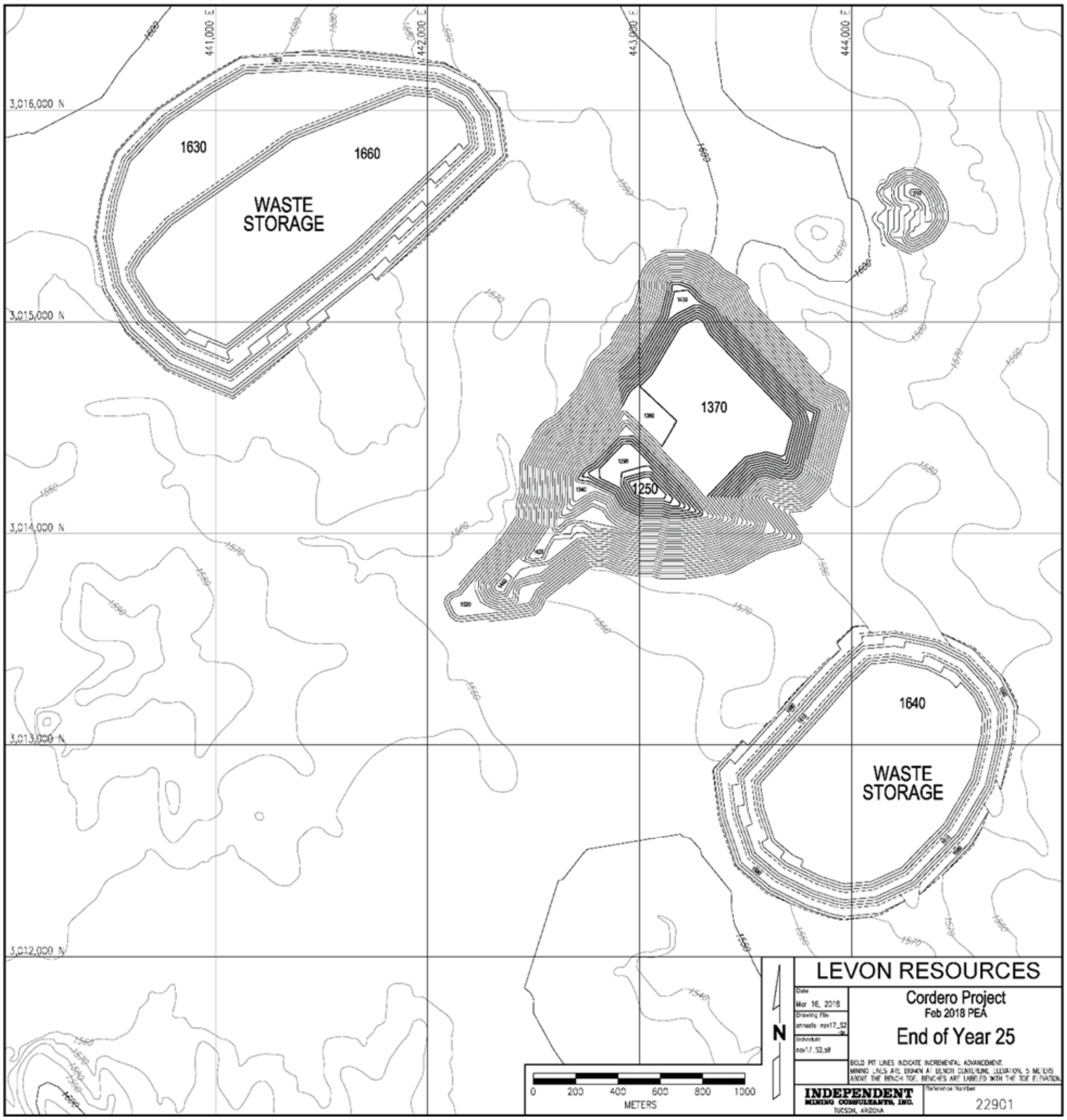


Figure 16-10: Cordero Pits and Waste Dumps – End of Year 25

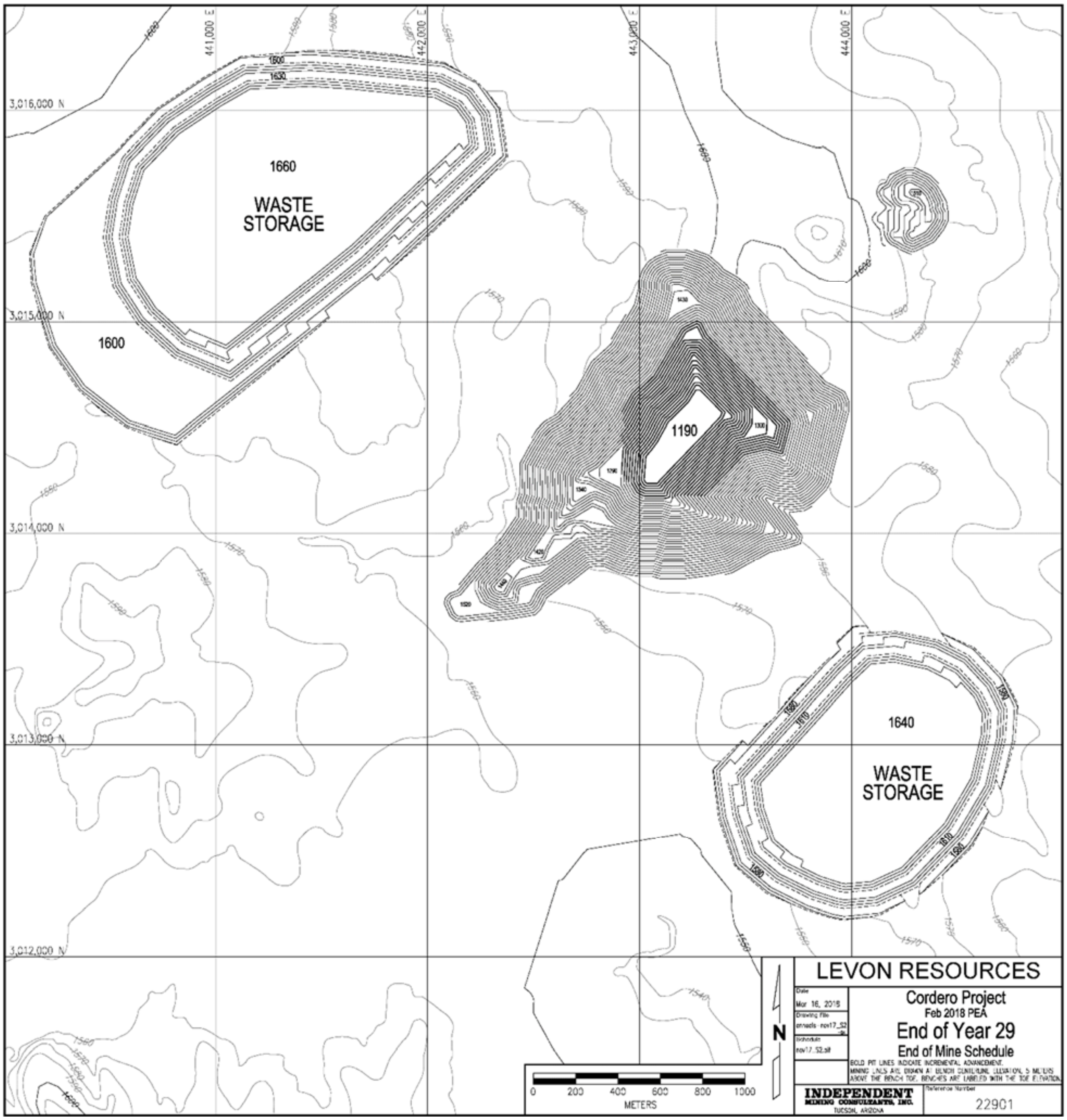


Figure 16-11: Cordero Pits and Waste Dumps – End of Year 29

16.6 MINING EQUIPMENT

Mine equipment requirements were calculated based on the annual mine production schedule, the mine work schedule, and equipment shift production estimates. The size and type of mining equipment is consistent with the size of the project, i.e. run-of-mine mill feed movements of about 40,000 tonnes per day and peak total material movements of about 100,000 tonnes per day.

A summary of the total mine fleet by year for the mine major equipment is shown in Table 16-7. There is sufficient equipment to perform the following duties:

- Construct additional roads, after preproduction, as needed to support mining activity, including pioneering work necessary for mine and dump expansion.
- Strip topsoil in advance of mining and dumping.
- Mine and transport the ore to the crusher (or crusher stockpile). Mine and transport the waste material from the pit areas to the waste storage areas.
- Maintain all the mine work areas, in-pit haul roads, waste storage areas, crusher stockpiles, and external haul roads.
- Build and maintain in pit and on dump drainage structures as required.

Mine equipment requirements were not estimated for the following activities:

- Construction of any major surface water diversion channels and settlement ponds and dams, other than the ditching and sedimentation ponds for the waste storage areas.
- Construction of the shop area and plant area.
- Preproduction road construction outside of the immediate mine area.
- Contouring or reclamation of dumps at the end of the project.
- Mine dewatering for slope stability.

The mine equipment fleet calculations are based on two 12-hour shifts for 360 days per year (720 operating shifts). The number of blast-hole drills, shovels, and haul trucks is based on the equipment productivity considering the work schedule and effective operating hours per shift. There are 12 hours in a shift but 1.4 hours is lost to scheduled down time (shift change, lunch, etc.). After applying an 83.3% efficiency factor the effective operating hours per shift is 8.8 hours.

The truck haul routes or profiles were measured for each year of the project, a total of 186 profiles. The truck cycles were simulated to determine the cycle times and tonnes hauled per truck shift and from this, the number of operating trucks.

The reference to specific equipment vendors in this report is intended only to reference the size of the equipment included for this PEA and is not intended to be a recommendation of a particular equipment vendor.

The major mine equipment consists of 9-inch (229 mm) blast hole drills, hydraulic shovels (28 cubic meter bucket), front end loader (17.2 cubic meter bucket), 240 t haul trucks, plus major and minor support equipment. The fleet varies in number over the life of the mine depending on material movement requirements and the distance required to haul material to the mine rock stockpiles. The haul distance to the rock stockpiles generally increases each year as the stockpiles get higher and the pit gets deeper. The haul trucks reach the end of their useful life near the end of the mine life in year 27 and 28. At that time additional trucks are required to haul ever longer distances. Rather than purchase a whole new fleet that late in the mine life it was assumed to lease up to 14 trucks in years 27 – 29.

Table 16-7: Mine Equipment

Equipment	Initial Fleet Yr -1 & 1	Peak Fleet
Mine Major Equipment:		
9 inch Blast Hole Drill	4	4
28 cum Hydraulic Shovel	2	2
17.2 cum Front End Loader	1	1
240 t Haul Truck	5	14
D10T Track Dozer	2	3
834H Wheel Dover	2	2
16m Motor Grader	2	2
785D Water Truck	2	2
Mine Major Support Eqpt.:		
992K Wheel Loader	1	1
349F Excavator	1	1
777 Haul Truck	1	1
ROC T30Rock Drill	1	1
Support Equipment:		
Fuel & lube trucks, cranes, flatbed trucks, tire handler, forklifts light plants, etc.	1 lot	1 lot
Mine communications & radios, survey equipment, safety equipment, engineering & geology supplies	1 lot	1 lot

16.7 MINE LABOR

Mine personnel includes all the salaried supervisory and staff people working in mine operations, maintenance, and engineering/geology departments, and the hourly people required to operate and maintain the drilling, blasting, loading, hauling, and mine support activities. In general mining activities end once the ore is delivered to the crusher.

The mine operating and maintenance labor will operate on a four-crew rotation with two on and two off during any operating day. The estimates of personnel are based on equipment operating requirements and the personnel required to supervise and carry out the mine plan. The salaried staff includes supervisors in operations and maintenance and the personnel in the engineering and geology departments. The supervisory staff numbers 37 personnel during the first three years then reduces to 35 as operators get trained reducing the need for trainers. Shift supervisors in both operations and maintenance are included. The hourly personnel in mine operations are mostly equipment operators and vary from 76 to 100 people depending on hauling requirements. The mine maintenance personnel range from 45 to 50 people depending on the number of haul trucks running in a given year.

Table 16-8 and Table 16-9 show the supervisory and hourly staffing levels respectively.

Table 16-8: Mine Supervision Personnel

Salaried Staff Labor Requirements

JOB TITLE	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Mine Manager	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	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	1	1	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	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MINE OPERATIONS:																														
Mine Superintendant	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
General Foreman	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Shift Foreman	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Blasting Foreman	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mine Clerk	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Trainer	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Mine Operations Total	13	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11	11	11
MINE MAINTENANCE:																														
Maint. Superintendant	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maint. Shift Foreman	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Maintenance Planner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance Trainer	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Maintenance Clerk	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Maintenance Total	9	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	7	7
MINE ENGINEERING:																														
Senior Mine Engineer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mining Engineer	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sr. Surveyor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Surveyor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Draftsman	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Clerk	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Engineering Total	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
MINE GEOLOGY:																														
Senior Mine Geologist	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sampler	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mine Geology Total	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
TOTAL PERSONNEL	37	37	37	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	33	33	33

Table 16-9: Mine Hourly Personnel

Mine Hourly Labor Requirements																														
JOB TITLE	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
MINE OPERATIONS:																														
Drill Operator	1	12	14	12	13	13	14	14	14	11	10	13	14	12	14	13	13	10	9	10	10	9	10	8	10	10	9	9	10	11
Shovel Operator	1	5	6	5	5	5	6	6	6	5	4	5	6	5	5	5	5	4	4	4	4	4	4	3	4	4	4	4	4	4
Loader Operator	0	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Haul Truck Driver	2	19	25	22	26	31	33	35	33	22	18	22	26	24	30	30	32	24	24	29	29	27	30	24	31	35	32	34	40	50
Track Dozer Operator	6	6	7	7	6	7	7	8	8	9	8	8	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Wheel Dozer Operator	2	4	6	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Grader Operator	6	5	5	5	5	5	5	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Service Crew	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Blasting Crew	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Laborer	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Operations Total	42	76	88	82	86	92	96	100	98	84	77	85	89	81	90	88	90	78	77	83	83	80	84	75	85	89	85	87	94	105
MINE MAINTENANCE:																														
Mechanic	7	13	16	14	15	17	19	20	20	15	13	15	16	14	16	15	16	13	13	15	15	14	15	12	15	16	15	15	16	18
Mechanic's Helper	4	7	8	7	8	9	10	10	10	8	7	8	8	7	8	8	8	7	7	8	8	7	8	6	8	8	8	8	8	9
Welder	3	5	6	5	6	6	7	7	7	6	5	6	6	5	6	6	6	5	5	6	6	5	6	5	6	6	6	6	6	7
Fuel & Lube Man	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Tire Man	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Maintenance Total	34	45	50	46	49	52	56	57	57	49	45	49	50	46	50	49	50	45	45	49	49	46	49	43	49	50	49	49	50	54
VS&A at 10.0%	8	12	14	13	14	14	15	16	16	13	12	13	14	13	14	14	14	12	12	13	13	13	13	12	13	14	13	14	14	16
TOTAL LABOR REQUIREMENT	84	133	152	141	149	158	167	173	171	146	134	147	153	140	154	151	154	135	134	145	145	139	146	130	147	153	147	150	158	175
Maint/Operations Ratio	0.81	0.59	0.57	0.56	0.57	0.57	0.58	0.57	0.58	0.58	0.58	0.58	0.56	0.57	0.56	0.56	0.56	0.58	0.58	0.59	0.59	0.58	0.58	0.57	0.58	0.56	0.58	0.56	0.53	0.51

17 RECOVERY METHODS

The Cordero Project will consist of an open pit mine, a conventional concentrator, mine infrastructure consisting of roads, power, water, and other utilities, and ancillary buildings and facilities. The mineralization contains lead and zinc sulfide minerals and includes silver minerals and small amount of gold that are associated with the sulfides. The operation is designed to process approximately 14,600,000 tonnes of ore per annum, equivalent to 40,000 tonnes per day.

The processing at Cordero will be sequential selective flotation of sulfides to produce two concentrates: high-value lead concentrate containing significant amounts of silver and gold and zinc concentrate containing lesser amounts of silver and gold.

The term, ore, is used in this section to represent mineralized material that is selected on an economic basis to run through the plant. There are no ore reserves reported in this report and the term used in this section does not imply that there is economic mineralization.

17.1 PROCESS DESCRIPTION

The following items summarize the process operations required to extract gold, silver, lead and zinc from the Cordero sulfide mineralized material. The overall process flow sheet is shown in Figure 17-1.

- Size reduction of ore by a primary gyratory crusher to reduce the size from run-of-mine (ROM) size of minus 900 millimeters (mm) or minus 30 inch (in) to minus 150 mm or minus 6 inch.
- Storing primary crushed material in a covered coarse ore stockpile and then reclaiming by apron feeders and a conveyor belt to the grinding circuit.
- Grinding the crushed material in semi-autogenous (SAG) mill to reduce the ore size from 150 millimeters to a transfer size with a P_{80} of 2.6 millimeters for the next step of grinding. The SAG mill will operate in closed circuit with a vibrating discharge screen and a pebble crusher to handle the oversize discharge from the SAG mill.
- The SAG mill screen undersize reports to two ball mills to a size suitable for processing in a flotation circuit. The ball mills will operate in closed circuit with hydrocyclones to deliver a material with a P_{80} of 125 microns to the flotation circuit.
- The flotation plant will consist of selective lead and zinc flotation circuits. The flotation circuits will each consist of rougher flotation followed by regrinding and cleaner flotation to produce a high-value lead-silver concentrate and a zinc concentrate with payable gold and silver values.
- Final lead and zinc concentrates will be thickened, filtered, and loaded in super sacks for shipment.
- Flotation tailing will be thickened and deposited by gravity in the Tailing Storage Facility (TSF).
- Water reclaimed from the TSF and thickener overflow and filtrate from concentrate dewatering will be recycled for reuse in the concentrator process. Plant water streams include: process water, raw or fresh water make-up, and potable water

The concentrator process includes a selection of reagents such as A-3481, AF-5100, copper sulfate, zinc sulfate, sodium cyanide, lime, frother and flocculant. Reagents requiring handling, mixing, and distribution in the Cordero processing plant are presented in Table 17-1 below together with their usage rates.

Table 17-1: Cordero Reagents

Reagent Identification	Function	Usage Rate, kg/tonne Mill Feed
3418A	Flotation Collector	0.028
AF-5100	Zinc Collector	0.023
Lime	pH Modifier	0.760
Soda Ash	pH Modifier	0.670
MIBC	Flotation Frother	0.020
Sodium Cyanide	Zinc Depressant	0.075
Zinc Sulfate	Zinc Depressant	0.225
Copper Sulfate	Zinc Activator	0.300
Flocculant	Particle Settling Aid	0.025
Antiscalant	Scale Building Control	0.005

A conceptual site plot plan has been prepared to illustrate the prospective relationships between the mine, mill, infrastructure, and Tailings Storage Facility (Figure 17-2).

Table 17-2 summarizes of the main components of the process design criteria used for the PEA study.

Table 17-2: Process Design Criteria Main Components

Description	Design
Capacity	
Tonnes per day, nominal	40,000
Tonnes per year	14,600,000
Availability (excluding start-up)	
Primary Crushing	75%
Grinding and Flotation	92%
Concentrate Handling	85%
Primary Crushing	
Feed F_{80}, mm	900
Product P_{80}, mm	150
Crushing work index, kWh/t (assumed)	5.45
SAG Mill Grinding	
Feed F_{80}, mm	160
Ball Mill Grinding	
Feed F80, microns	2,500
Product P_{80}, microns	125
Ball Mill Work Index, kWh/t, (Average)	12.43
Ball Mill Work Index, kWh/t, (CMG)	15.43
Abrasion Index (AI)	0.10

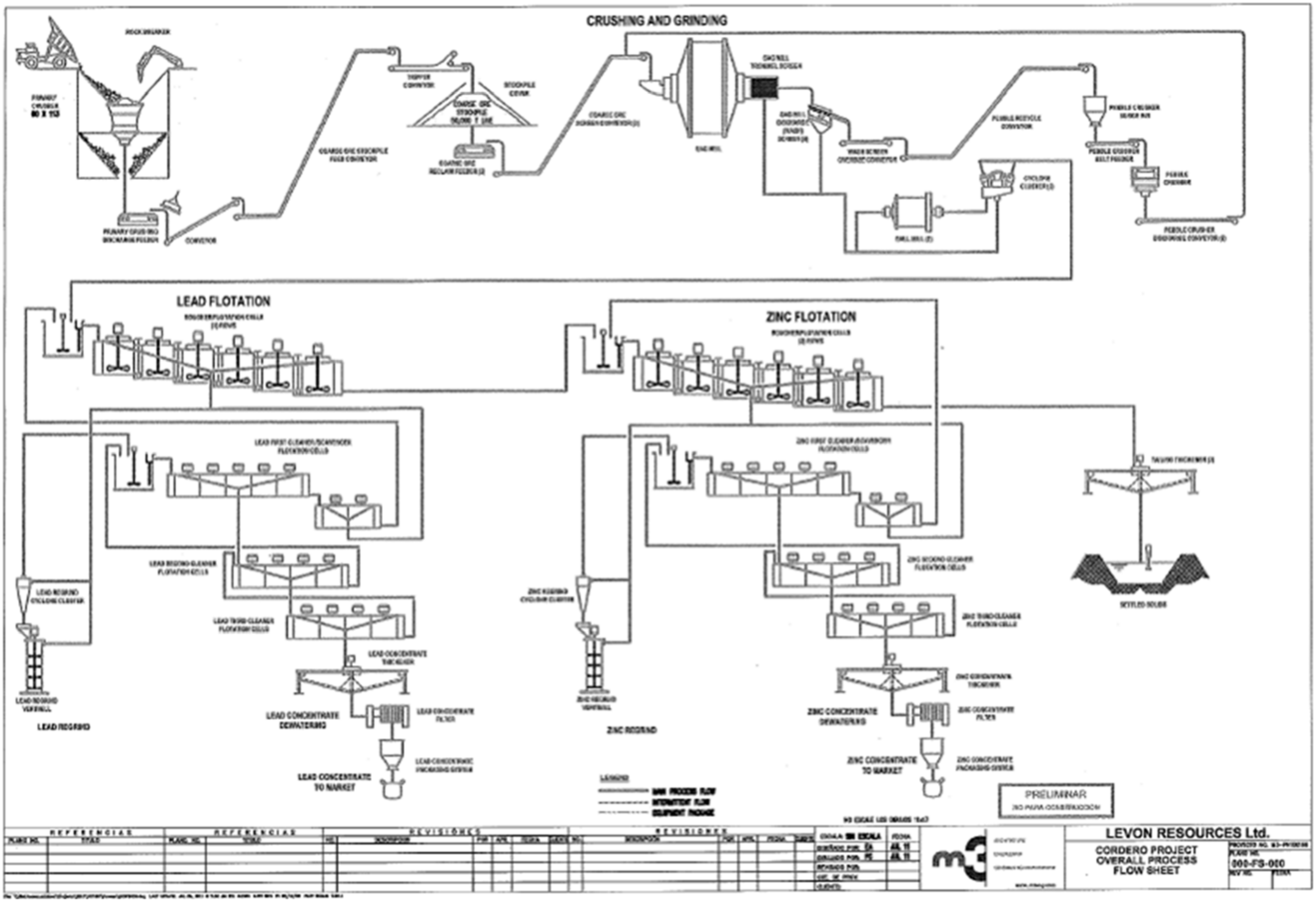


Figure 17-1: Overall Process Flowsheet

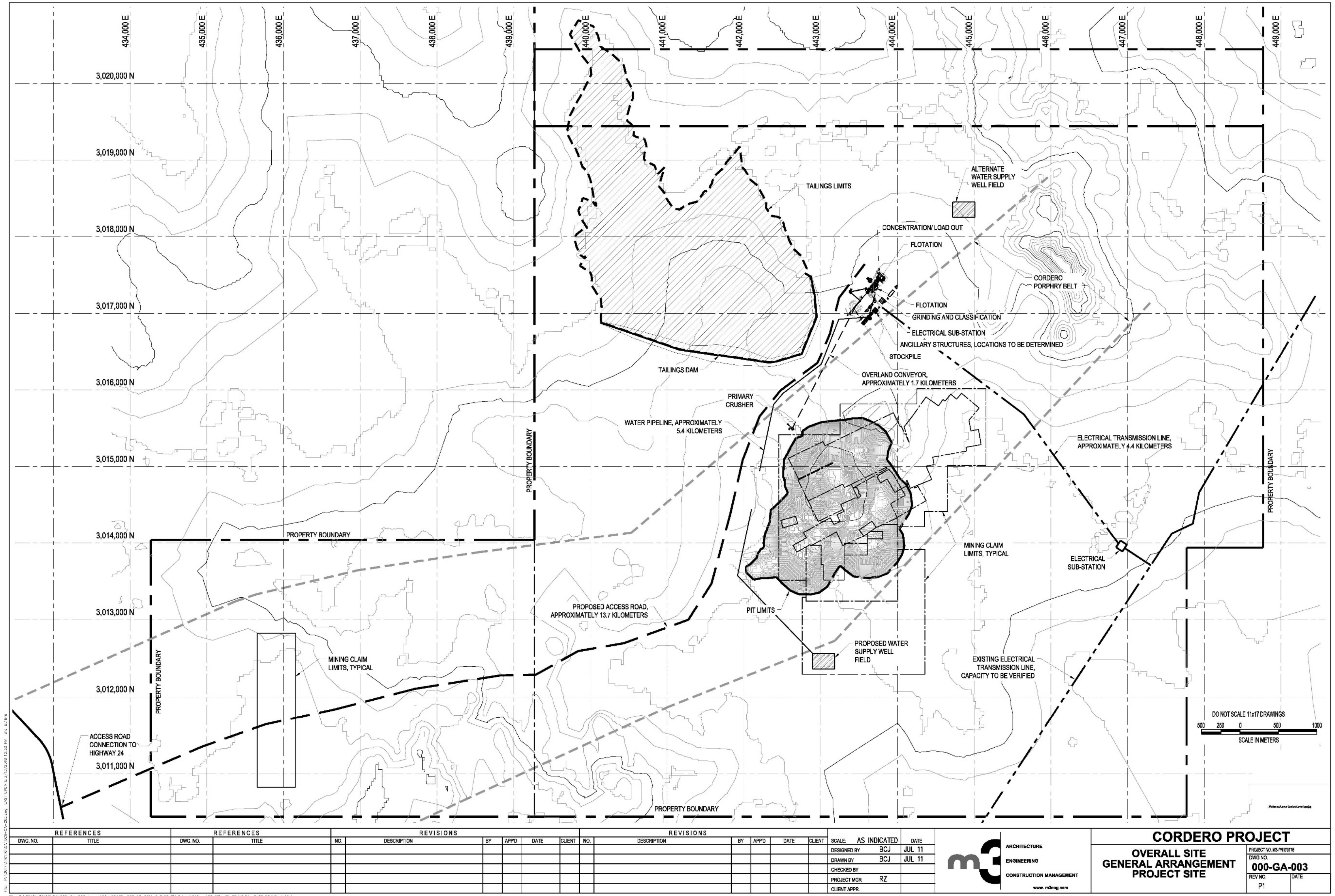


Figure 17-2: General Arrangement Showing Infrastructure

17.2 MAIN PROCESS AREAS

The main areas of the processing plant are; crushing, grinding, flotation, tailings disposal, concentrate dewatering and handling with reagents and water systems as ancillary areas (Figure 17-3).

17.2.1 Crushing Area

Run-of Mine (ROM) material will be trucked from the mine to the primary crusher where it will be dumped directly into the crusher dump pocket that feeds the gyratory crusher. A rock breaker will be installed at the dump pocket to break-up oversize rocks.

Primary crushed material will be discharged via a discharge apron feeder. The crushed material will be conveyed feed the Coarse Ore Stockpile, which will have a live storage of approximately one day. The crushing rate will be monitored by a belt scale mounted on the primary crusher discharge conveyor. A metal detector will also be installed here and tramp iron will be removed with a self-cleaning magnet.

The crushed mineralized stockpile will be reclaimed by several variable speed apron feeders which will discharged on to the SAG mill feed belt conveyor that transports the crushed material to the SAG mill in the grinding area.

17.2.2 Grinding Area

Primary grinding will be performed in a SAG mill operating in closed circuit with a discharge screen and a pebble crusher. The SAG mill trommel and discharge screen undersize will flow by gravity to the primary cyclone feed sump and the screen oversize will be transported by conveyors to the pebble crusher, which will be recycled to the SAG mill. Tramp iron and broken media will be removed using self-cleaning belt magnet that will be installed over the SAG mill oversize conveyor ahead of the pebble crusher.

Grinding balls will be added to SAG mill and ball mill using ball loading systems.

Secondary grinding will be performed in two ball mills operating in closed circuit with hydrocyclone clusters. The ball mills discharge into a cyclone feed sump whose contents will be pumped using large centrifugal slurry pumps to the cyclone clusters. Cyclone overflow, which will be sampled and analyzed for metallurgical control, will flow by gravity to the Lead Conditioning tank ahead of the Rougher Flotation cells.

17.2.3 Flotation Area

The lead flotation circuit consists of a conditioning tank, a single row of rougher flotation tank cells, a rougher concentrate vertical regrind mill, and single rows of first cleaner/cleaner scavenger, second cleaner and third cleaner flotation cells.

Lead Rougher flotation consists of six tank cells with a drop between each cell for gravity flow. Zinc sulfide is depressed into the rougher cells and reports to the lead flotation tailing. The lead rougher concentrate is sampled for process control and then pumped to the Lead Regrind mill. The lead rougher flotation tailing flows through a sampler and then to the Zinc Conditioning tank that feeds the zinc flotation circuit.

The discharge from the Lead Regrind mill is classified in a cyclone cluster before the overflow discharges to the Lead Cleaner circuit. The Lead Regrind cyclone underflow and lead cleaner/scavenger concentrate recycle back to the Lead Regrind mill. The lead cleaner circuit includes three stages of concentrate cleaning to upgrade the lead concentrate to a commercial lead grade. Tailing from the lead cleaner circuit is pumped to the TSF.

The zinc flotation circuit is designed nearly identically to the lead circuit. It is fed from the lead rougher tailing instead of the ball mill cyclone overflow but in other respects has a rougher stage of tank cells followed by zinc concentrate regrinding, cyclone classifying and three stages of zinc cleaning. The tailing from the zinc rougher reports to the TSF as does the tailing from the zinc cleaning circuit.

17.2.4 Concentrate Dewatering

Lead and zinc concentrates are dewatered in separate, high rate concentrate thickeners. The thickener overflow is recycled to the Process Water Tank while the underflow slurry discharges to the concentrate filter feed tank. The slurry is then filtered in a pressure filter to a moisture content of no more than 8 percent. The concentrate filter discharge is then fed into a bagging machine which loads 2-ton super sacks. These sacks will be containerized for Transpacific shipping.

17.2.5 Tailings System

The flotation tailing from the zinc rougher and zinc cleaner circuits to the tailing thickener before pumping the thickener underflow to the TSF. Tailing in the thickener is treated with flocculant to promote settling. The Tailing Thickener overflow is recycled to the Process Water Tank. The TSF is located adjacent to the plant site and covers approximately 7 km^2. Water collected in the supernatant pond on the TSF is also reclaimed and pumped to the Process Water Tank.

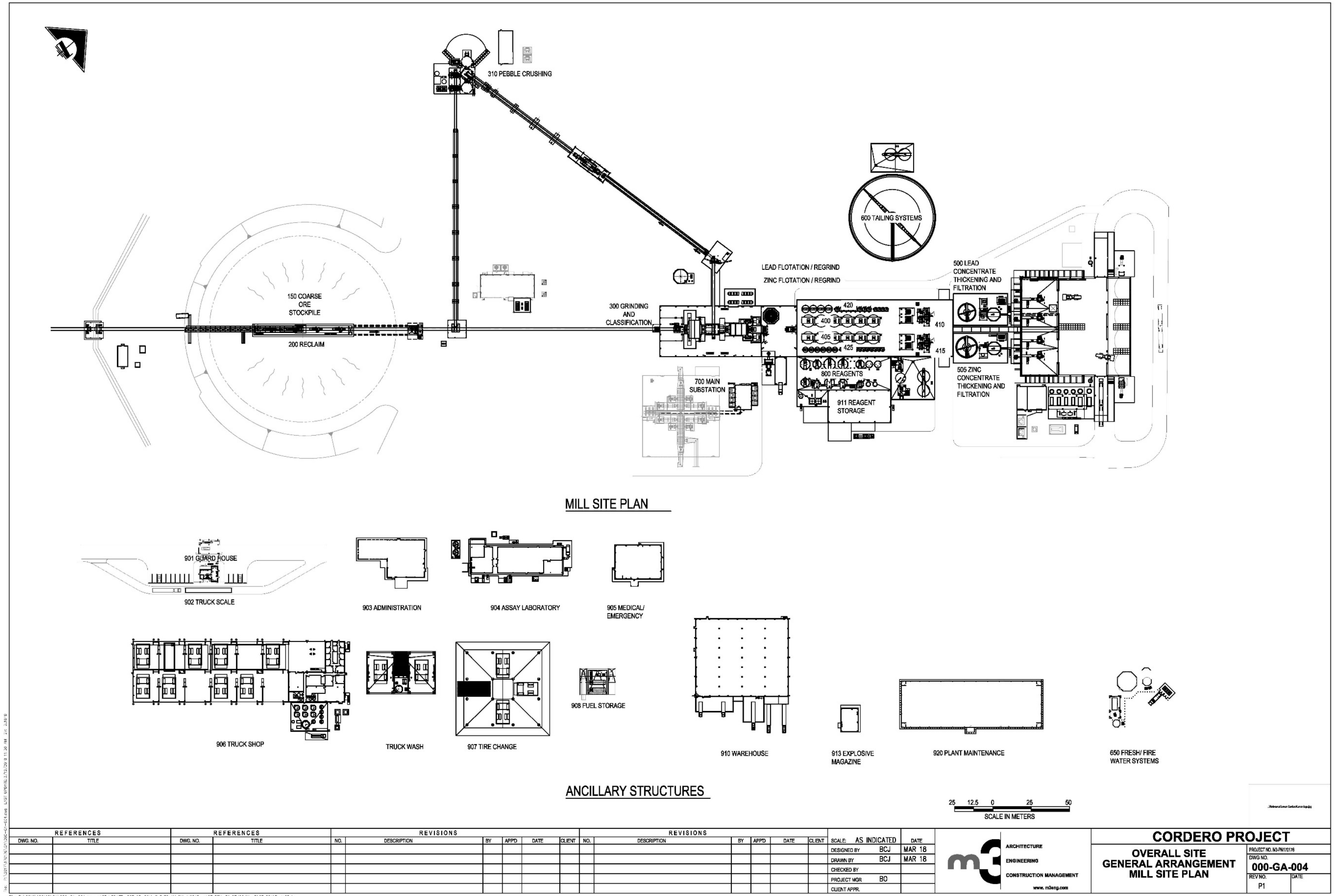


Figure 17-3: Plant General Arrangement

18 PROJECT INFRASTRUCTURE

There is presently very little infrastructure to support a major mining operation at the site. However, work is underway to establish roadways, water, power, and other infrastructure to support the operation.

18.1 POWER SUPPLY

A major power transmission corridor crosses the southeast corner of the claim block approximately 1.5 km from the proposed pit. The existing transmission lines in this corridor do not have sufficient capacity to supply the planned operation according to CFE, the national power authority. However, additional lines can be built from the Camargo II power plant near Santa Rosalia de Camargo, approximately 75 km to the northeast, utilizing the same corridor.

In 2011, CFE provided a study to Levon regarding the construction of a new 230 kV power transmission line to the Cordero mine site. The proposal included 75 km of new towers and conductor and a new feeder of 230 kV at the Camargo II substation. The cost in US dollars in 2011 was $11.6 million to construct both installations. For this study, a cost of $15 million, a 29% increase to cover escalation.

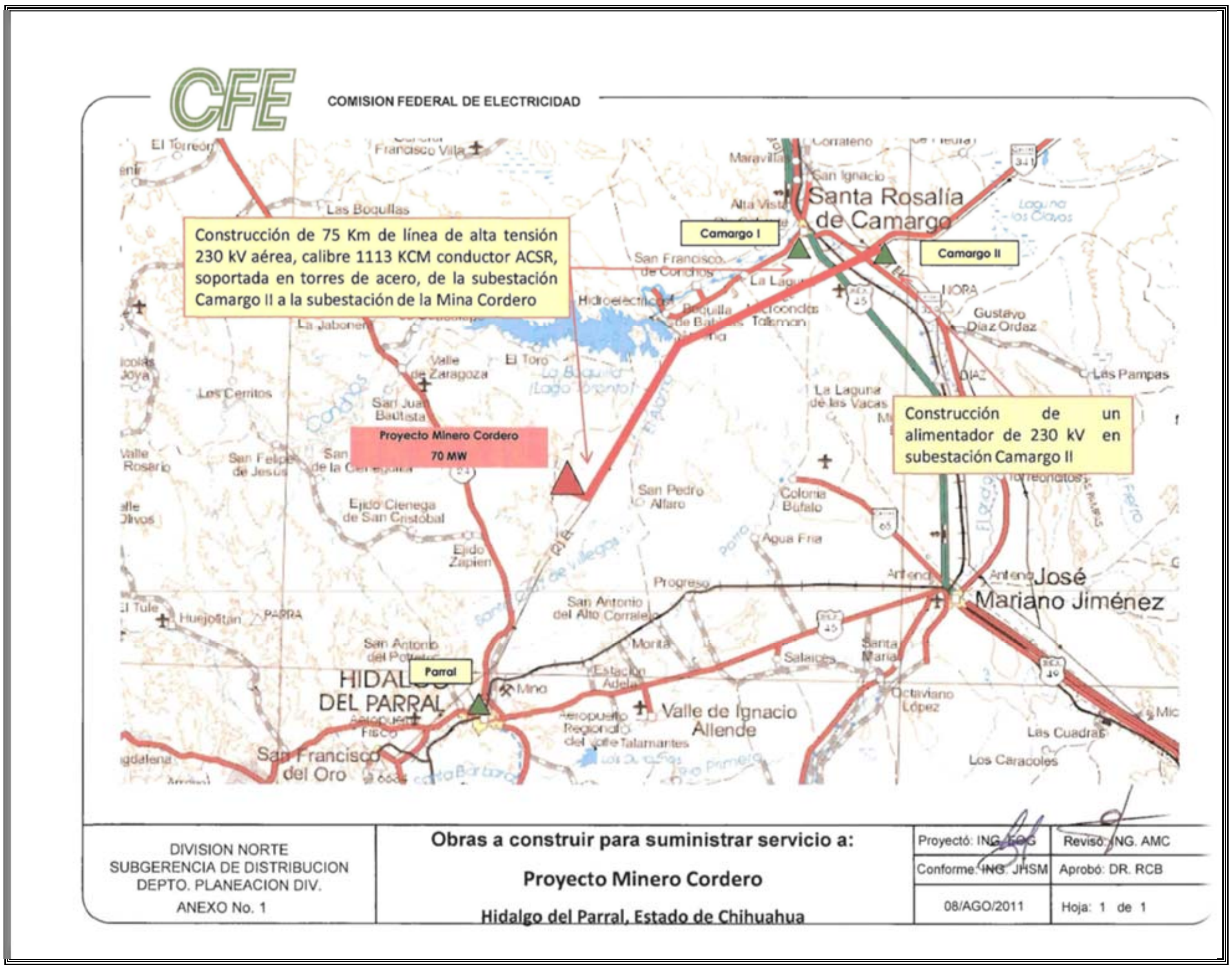


Figure 18-1: Proposed CFE 230 kV Transmission Line from Camargo II to Cordero Mine Site

18.2 ROADS

The site is presently accessed by a series of unpaved roads from federal Highway 24, approximately 11 km to the west-southwest. Some of these roads are in flood-prone corridors and are unsuitable for mine construction or operation traffic. A new all-weather road will need to be constructed to access the mine site from Highway 24.

To avoid conflicts with the local ejido, the alignment of the mine access road will likely be relocated to the south side of the project area. Levon has suggested a new alignment to the north of the mine access road that was originally proposed in the 2012 PEA.

18.3 WATER SUPPLY

The Cordero project lies within the Valle de Zaragoza aquifer, as designated by the National Water Commission (CONAGUA). This aquifer system is in an unrestricted zone and not subject to a ban on groundwater extraction. The mine site is located approximately 2 km north of the Arroyo San Juan, and intermittent stream flowing through alluvial materials. The mine site is located in an area where the aquifer is entirely with the bedrock. Several mine shafts have penetrated the aquifer and produced so much water that deepening of the shafts had to be abandoned. Studies of the aquifer near and around the mine site are presently underway with the objective of identifying sustainable water supplies of sufficient quantity to support the proposed mining operation.

18.4 TAILINGS AND WASTE DISPOSAL

Waste disposal for the Cordero Project includes waste rock storage facilities (WRSF) and tailings disposal facilities (TSF).

18.4.1 Basis for PEA Level Design and Cost Estimate

Golder Associates Inc. evaluated TSF requirements and costs for an ore processing rate of 50,000 metric tons per day (mtpd) a capacity of 400 million metric tons (mmt). That information was used to evaluate a TSF that can accommodate an ore reserve of 400 mmt at a processing rate of 40,000 mtpd with an operating life of 29 years. The equipment and operating costs for the initial 50,000 mtpd TSF were adapted to the lower throughput and the tailings impoundment capital construction costs for the 400 mmt capacity were used in this analysis.

The facility evaluated for 400 mmt of tailings storage capacity will require a tailings embankment raised to an elevation of approximately 1,640 meters above mean sea level (amsl). This facility is represented in the figures referenced in the following discussion. The TSF embankment will need to be raised to an elevation of between 1,628 and 1,630 meters amsl to accommodate approximately 200 mmt. The schedule of capital expenditures has been adjusted to reflect a reduced mining and processing rate.

Pumping and piping equipment requirements for this PEA are assumed to be similar to those required for the 50,000 mtpd assessment. Pipeline lengths and pumping heads will be similar. Costs estimated for the former 50,000 mtpd analysis are generally adequate to characterize costs associated with the current 40,000 mtpd assessment.

Capital costs for the facility presented here-in assume that the facility will be unlined. Mexican Federal regulations presented in NOM-141-SEMARNAT-2003 govern the design, operation and closure of tailings disposal facilities in Mexico. Requirements for lining TSFs are based on geochemical considerations and the potential for impact to water resources. Subject to the results of future site characterization efforts (Section 20.6), liner requirements can be evaluated.

18.4.2 Design Criteria

Key design criteria for this PEA level design and cost estimate are summarized in Table 18-1.

Table 18-1: TSF Design Criteria

Criteria	Value	Source
Mining Rate	40,000 mtpd	M3
Ore reserve	418,000,000 mt	IMC
Mine Life	29 years	IMC
Tailings properties	Conventional slurry, 50 percent solids by weight	assumption
TSF Liner	Unlined, except for upstream face of Phase 1 and 2 dam, Subject to NOM-141-SEMARNAT-2003	Initial assumption
Starter dam	Waste rock and select borrowed fill to elevation 1600 meters amsl	
Phase 2	Waste rock and select borrowed fill to elevation 1612 meters amsl, downstream raise	
Phase 3	Extend starter dam (berm) to final buttress	
Post Phase 3	Upstream waste rock fill raises to elevation 1,630 meters amsl	
Post deposition tailings density	1.36 metric tons per cubic meter (mt/m^3)	assumption
Tailings grind	P_{80}=125 microns. P_{80} equals the particle size at which 80 percent is finer.	M3, METCON flotation study
Specific Gravity	2.7	Assumed, following flotation

18.4.3 TSF Site Description

The proposed TSF will be constructed in a broad gently sloping basin located north of the mineralized trend currently subject to exploration. Local topographic relief is on the order of 300 meters. Within the TSF area elevations range from approximately 1,580 to 1,650 meters amsl. The TSF site is underlain by thin to sparse alluvium and residual soils over a bedrock foundation of Cretaceous Chihuahua Group marine limestone.

The project is located in a semiarid region that receives approximately 20 centimeters of rainfall annually. Most rainfall occurs in July, August and September and is associated with short duration, high intensity thunderstorms. Annually, evaporation will exceed precipitation.

At final buildout, the TSF will occupy nearly all of the hydrologic basin in which it lies and run-on from areas outside the TSF will be minimal. The proposed facility will not require significant run-on diversion facilities in the long term to control stormwater. Diversions will be required in the initial phases of operation to reduce stormwater run-on into the TSF. Given the dry conditions that occur most of the year, capture of stormwater may be beneficial and reduce make-up water demands from external water sources.

18.4.4 TSF Description

18.4.4.1 Embankment Earthworks

The general layout of the proposed TSF, the open pit and process plant site are shown on Figure 18-2. Figure 18-3 and Figure 18-4 show the layout of the facility though final build-out at an elevation of 1,640 meters amsl. As noted above, the cost estimate presented in this PEA level assessment includes costs required to construct the embankment to an elevation of 1,630 meters amsl. Figure 18-5 illustrates typical embankment cross sections.

Phase 1 construction will consist of a dam constructed with waste rock to an elevation of 1,600 meters amsl with a crest length of approximately 1,180 meters. Phase 2 construction will consist of a downstream raise to an elevation of 1,612 meters amsl with waste rock. Phase 3 construction will extend the embankment, as a starter dam extension or toe berm, to the embankment buttresses at elevation 1,630 meters.

Following Phase 3 construction, the embankment as a whole will be raised with four, 5-meter high upstream raises constructed on the tailings beach. Costs are based on the assumption that the upstream raises will be constructed with waste rock hauled from the open pit. Alternatively, subject to the presence of suitable sand on the tailings beach, raises could potentially be constructed with tailings sand by conventional “beach robbing”.

An underdrain system will be constructed locally on the TSF floor to facilitate tailings drainage and transmit tailings seepage to a seepage collection pond. Underdrain details are shown on Figure 18-6.

To control the elevation of the phreatic surface in the TSF embankment and enhance stability, the proposed design incorporates a geomembrane liner on upstream face of the Phase 1 and 2 embankments. To accommodate liner installation, the PEA level design incorporates a 2-meter-thick filter zone of select waste rock fill and a 150-millimeter meter (mm) thick liner bedding fill layer on the upstream face of the Phase 1 and 2 embankment. TSF embankment details are shown on Figure 18-7.

TSF underdrains will report to a lined seepage collection pond. Seepage collection pond construction details are shown on Figure 18-8.

18.4.4.2 TSF Capacity

A height versus capacity plot for the TSF is shown on Figure 18-9. The ultimate capacity of the basin is approximately 400 mmt at an elevation of 1,640 meters amsl for the ore reserve considered in this update. Construction to this elevation will provide storage capacity for tailings and stormwater associated with run-on and direct precipitation, as well as dry freeboard.

As shown on Figure 18-9, the rate of tailings rise will decrease to 3 meters per year by the end of Phase 2. Rates of rise of 3 meters per year or less are generally considered supportive of upstream raise construction.

18.4.4.3 Tailings Distribution System

The tailings distribution system for processing rates up to 50,000 mtpd is shown on Figure 18-10. The distribution system will consist of a 32-inch diameter polyethylene header pipe located on the embankment crest. Discharge spigots, consisting of 32-inch by 10-inch tees and manual 10-inch pinch valves, will be placed at 50-meter intervals. Isolation valves (32-inch knife gate valves) will be placed along the header line to facilitate tailings discharge in active disposal areas. Header pipes will be relocated and extended following completion of each embankment raise.

Pump power requirements will increase from 622 kilowatts (kW) in Phase 1 to approximately 1,639 kW to deliver tailings to an elevation of 1,640 meters amsl post Phase 3. Power costs between the Phase 2 elevation of 1612 meters amsl and the final elevation of 1,630 meters amsl are based on interpolation between pump power requirements at the end of Phase 2 and when pumping to 1,640 meters amsl. The average annual pump power cost is presented in the operating cost estimate.

Capital costs include provisions for the installation of two tailings delivery pumps at start-up with two pumps added at the start of Phases 2 and 3.

18.4.4.4 Tailings Water Reclaim System

The tailings water reclaim system for a processing rate up to 50,000 mtpd is shown on Figure 18-11. The proposed system will be capable of reclaiming water at a rate that is equivalent to the rate at which water is delivered to the TSF with the tailings slurry (2,264 m^3/hr). As such, the reclaim system will be capable of supplying all make-up water requirements when excess stormwater is in storage in the TSF.

The reclaim system will consist of a floating pump barge placed inside the TSF. Power requirements will vary but will generally decrease as the elevation of the tailings surface rises. Reclaim system capital; costs are primarily associated with the disassembly and relocation of the reclaim pipeline as the tailings surface rises and the barge migrates northward. At the start of each construction phase, new pipe segments will be added and portions of the existing piping system will be relocated.

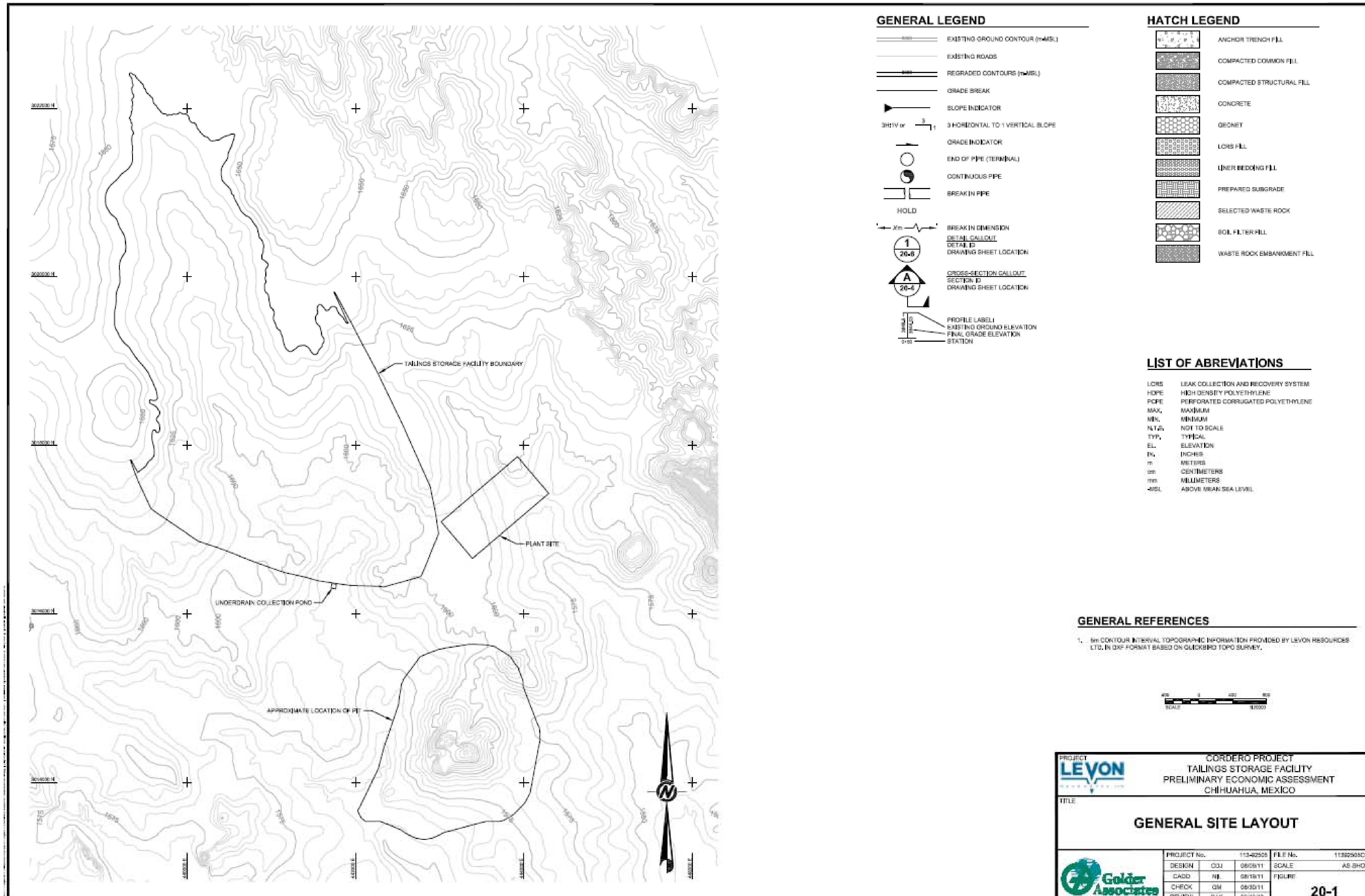


Figure 18-2: General Site Layout

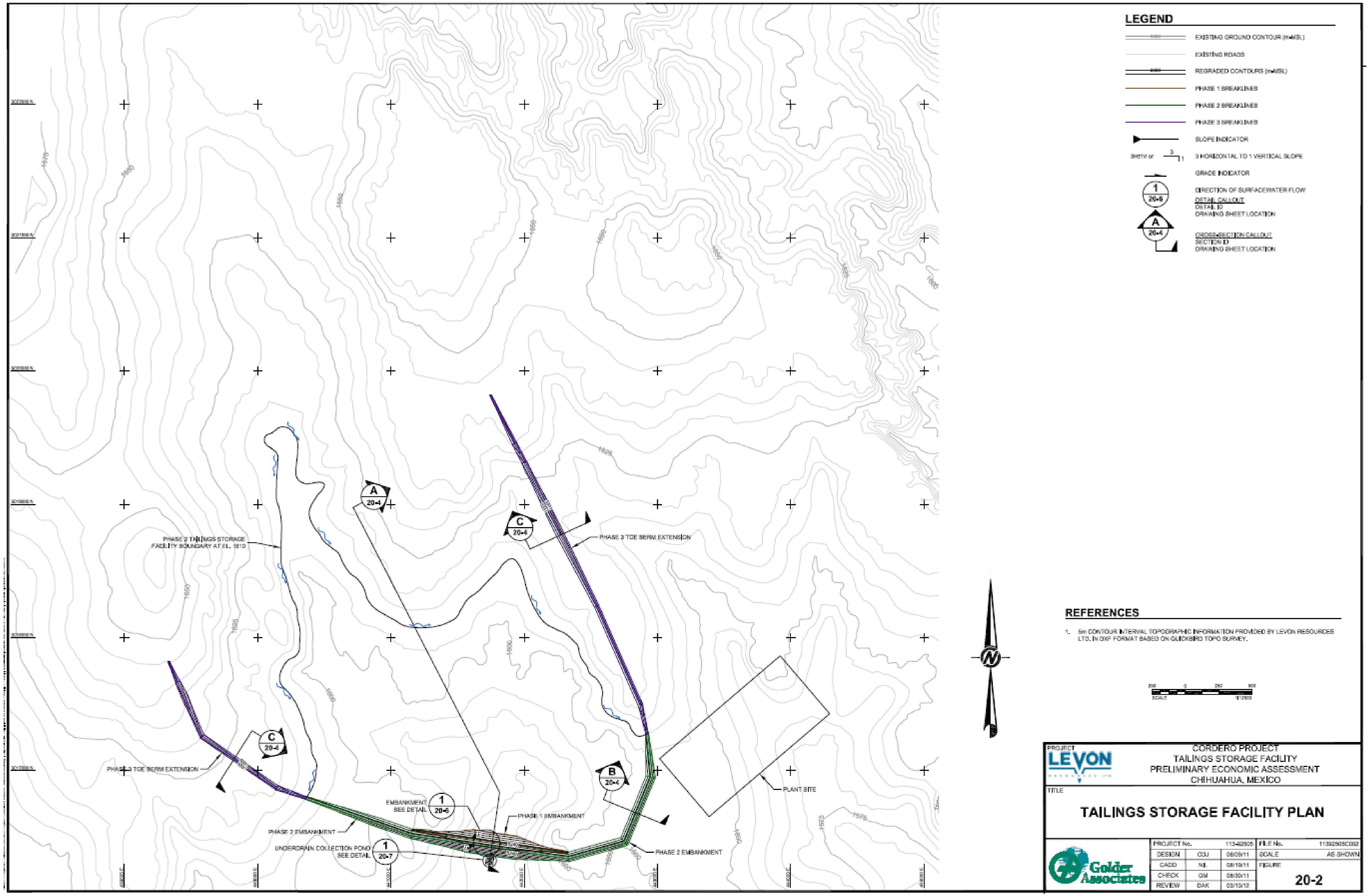


Figure 18-3: Tailings Storage Facility Plan

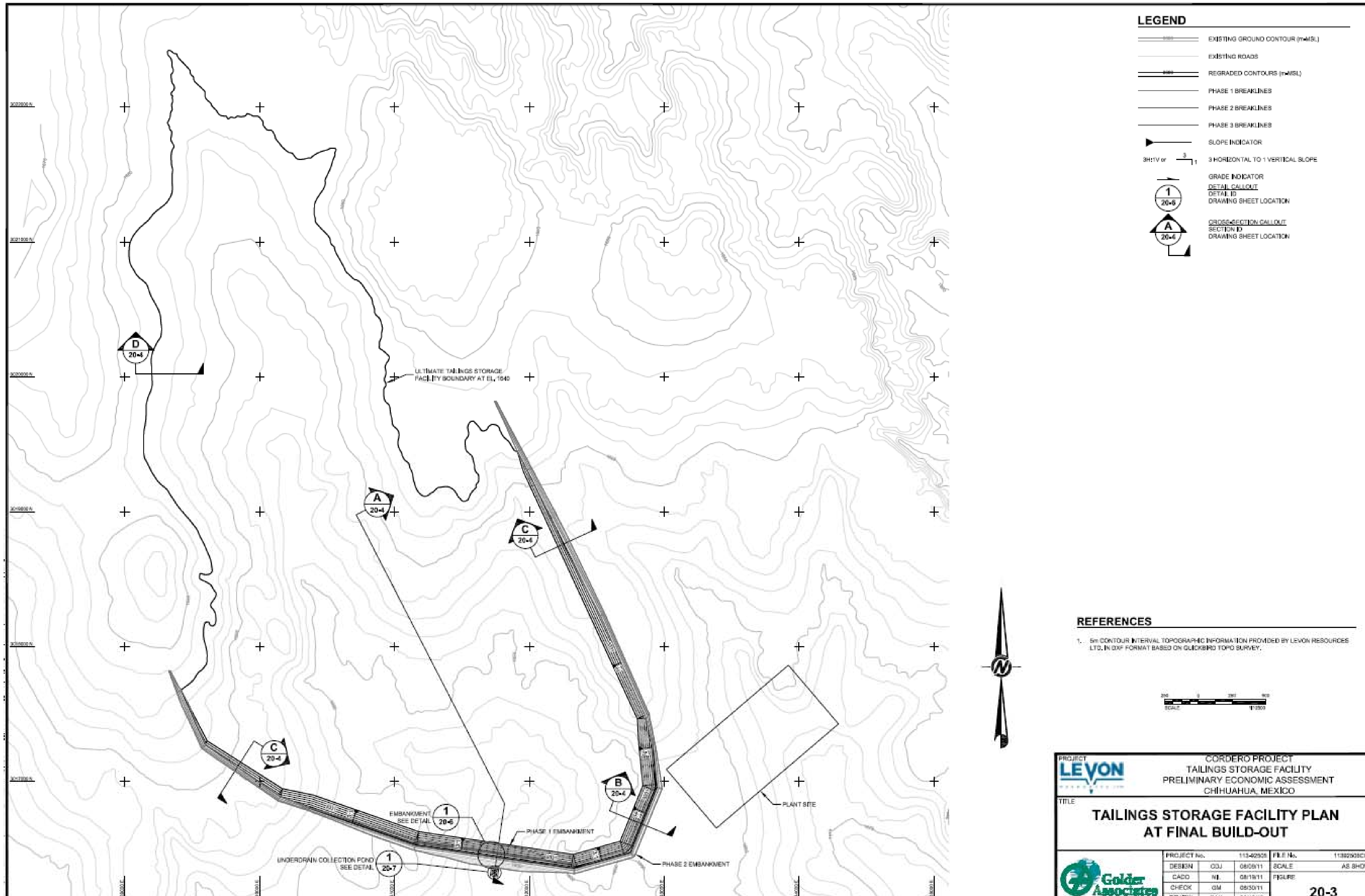


Figure 18-4: Tailings Storage Facility Plan at Final Build-Out

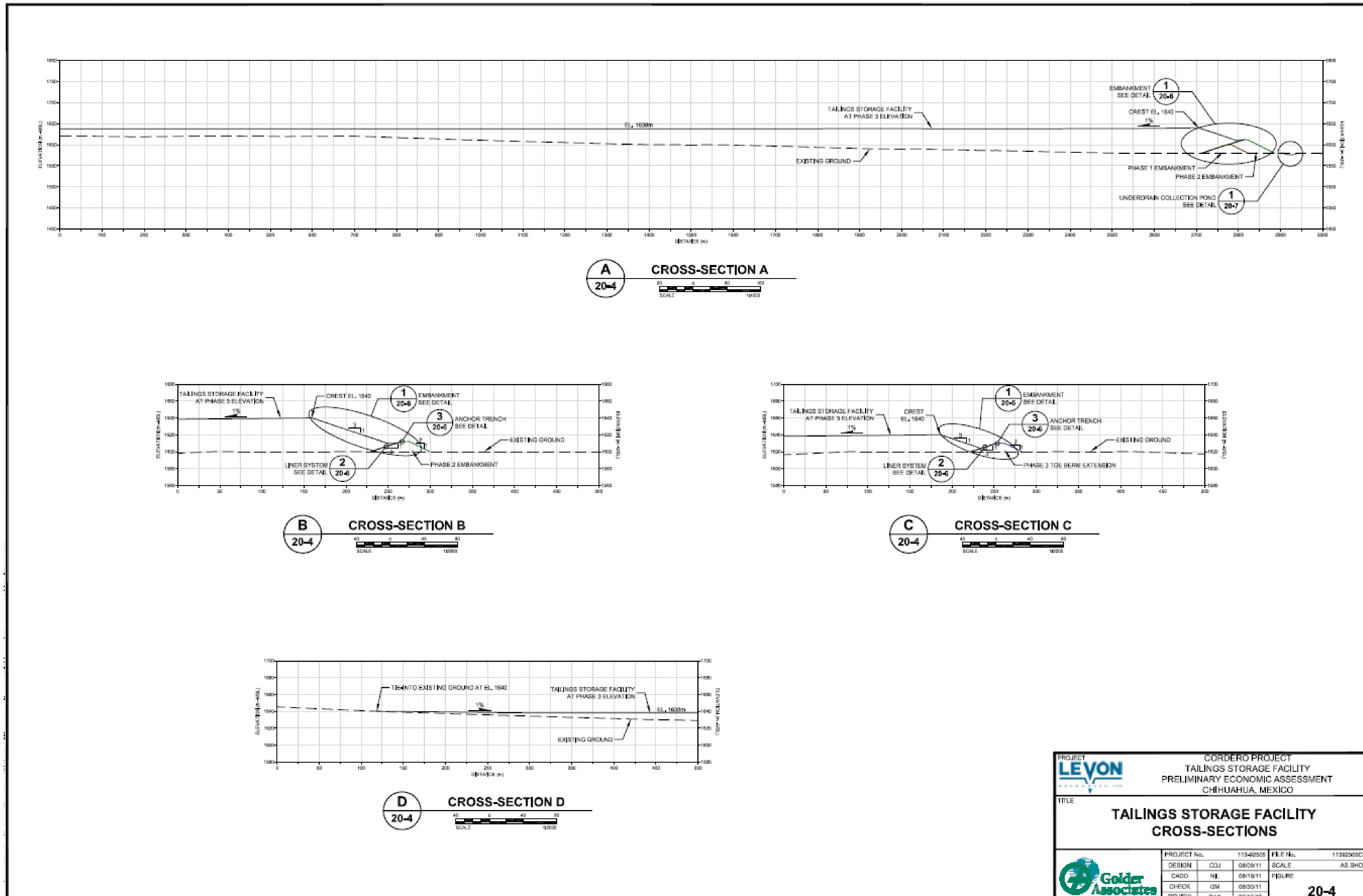


Figure 18-5: Tailings Storage Facility Cross-Sections

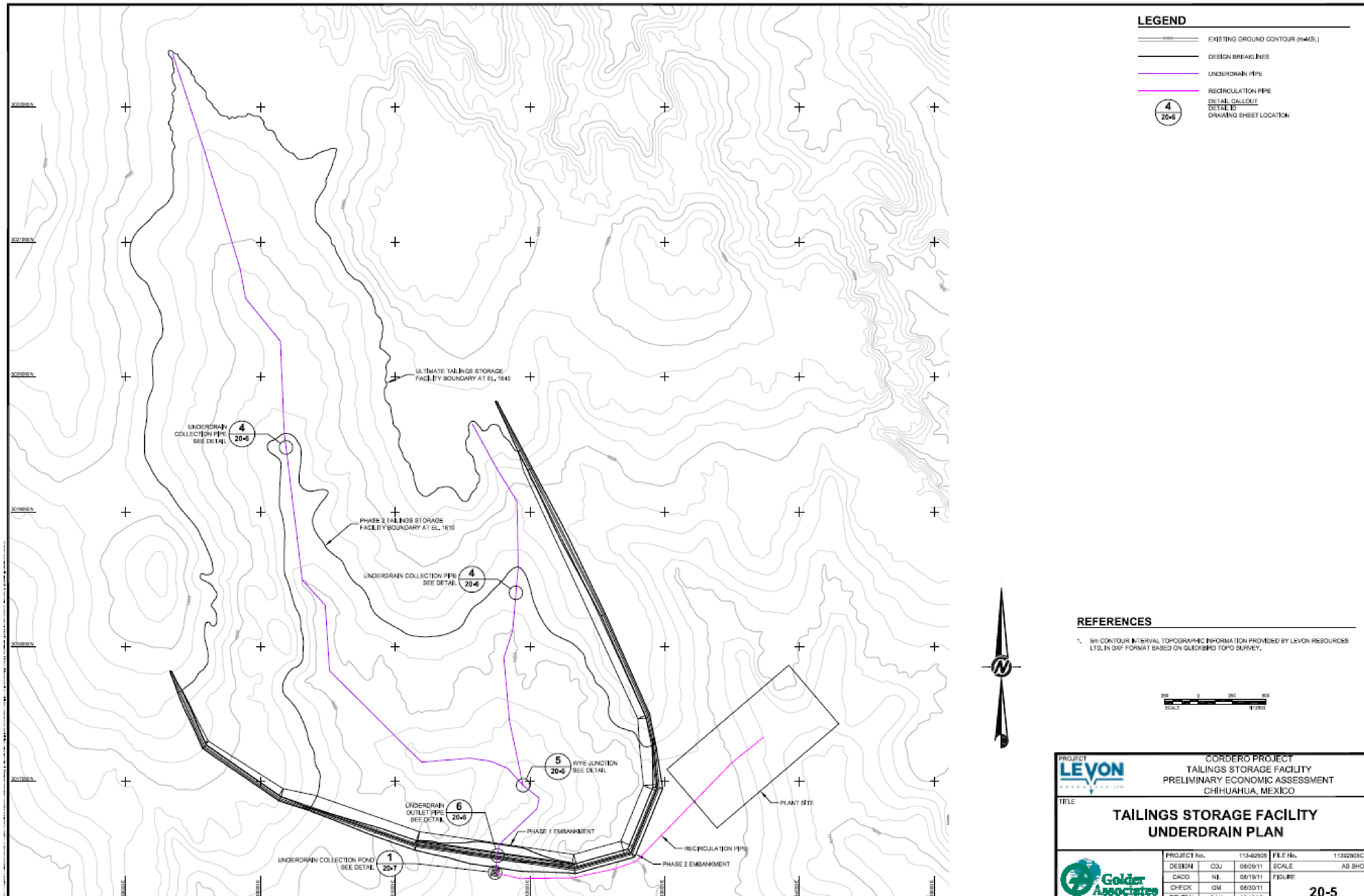


Figure 18-6: Tailings Storage Facility Underdrain Plan

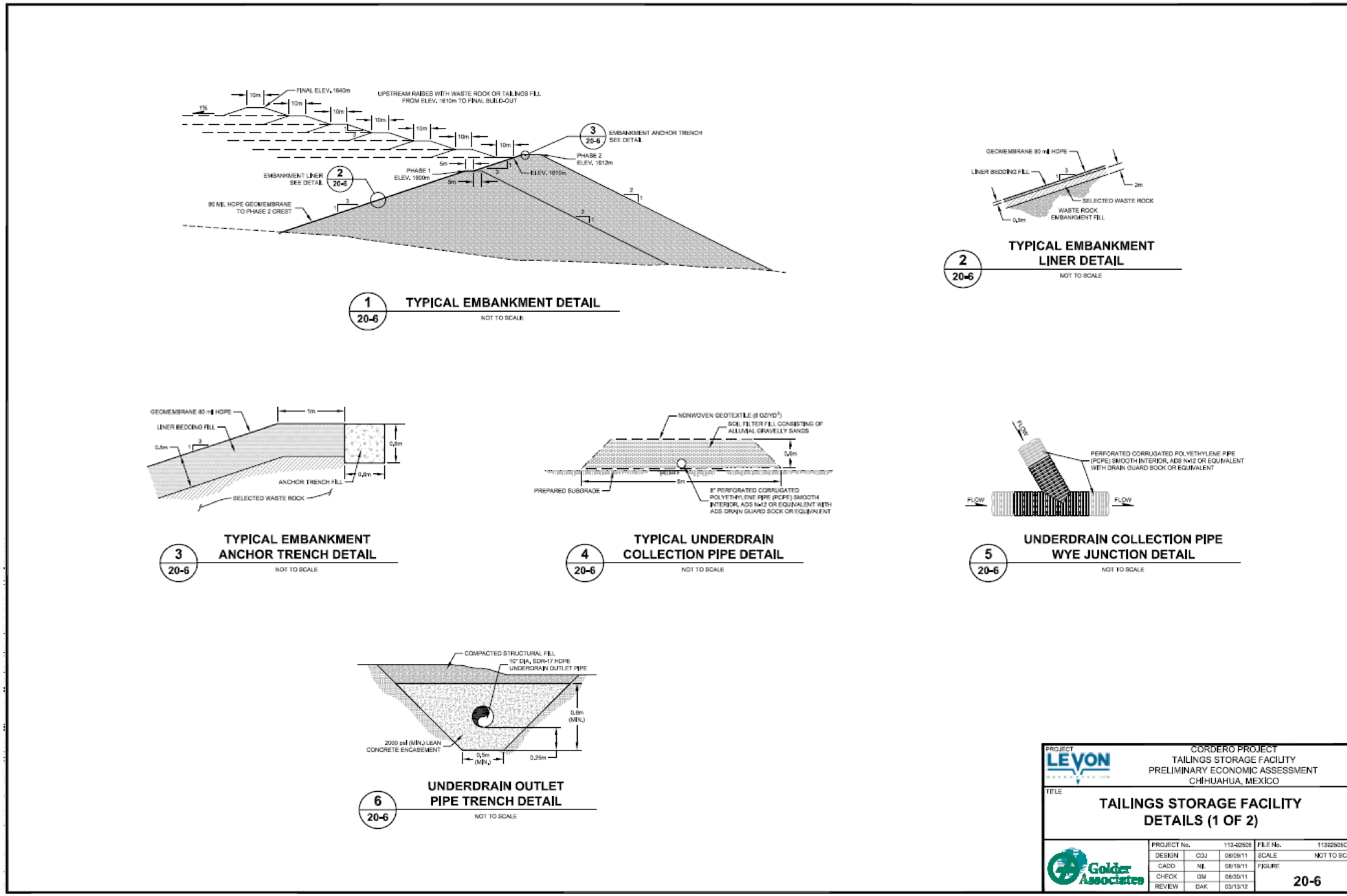


Figure 18-7: Tailings Storage Facility Details (1 of 2)

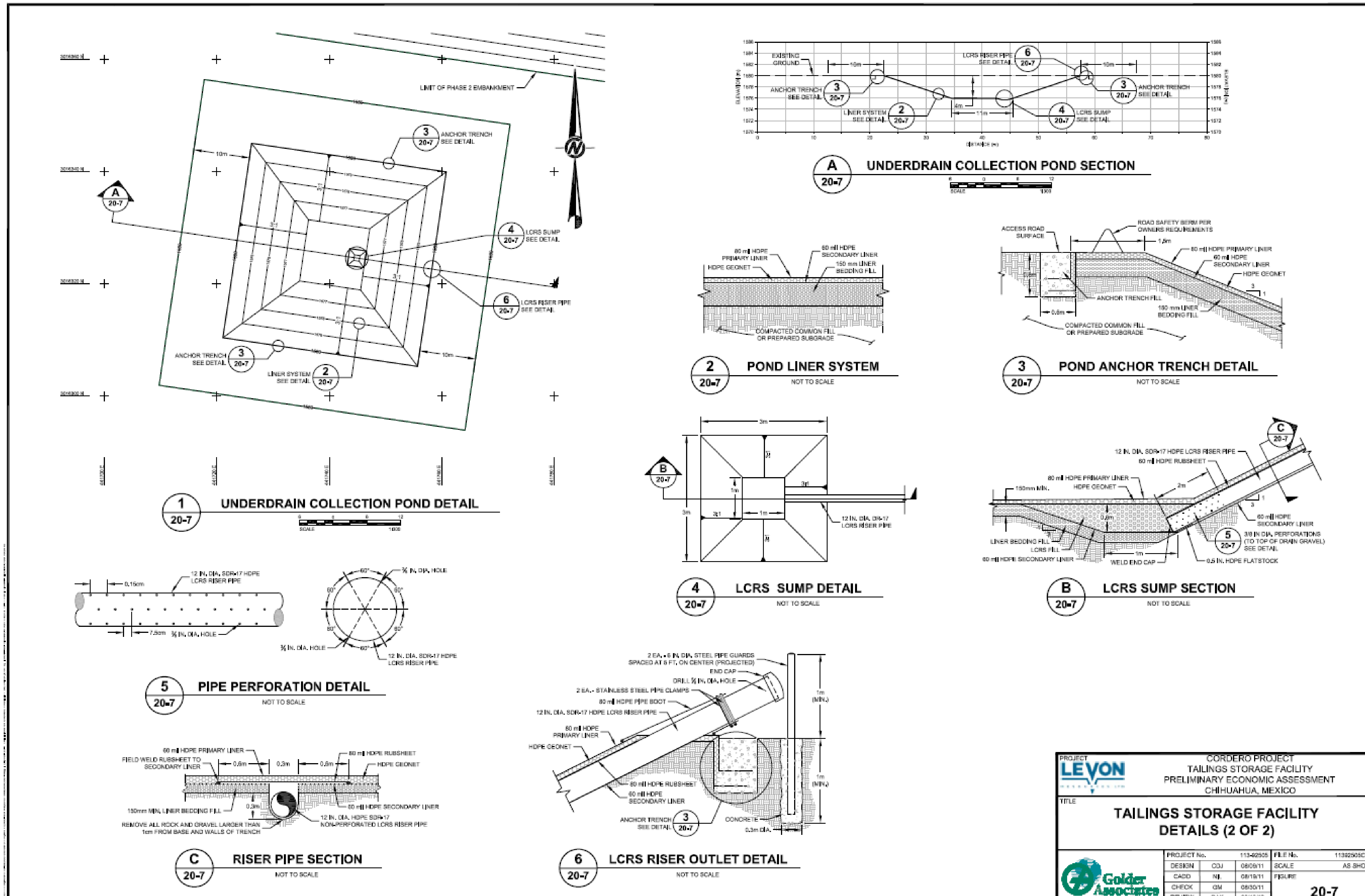


Figure 18-8: Tailings Storage Facility Details (2 of 2)

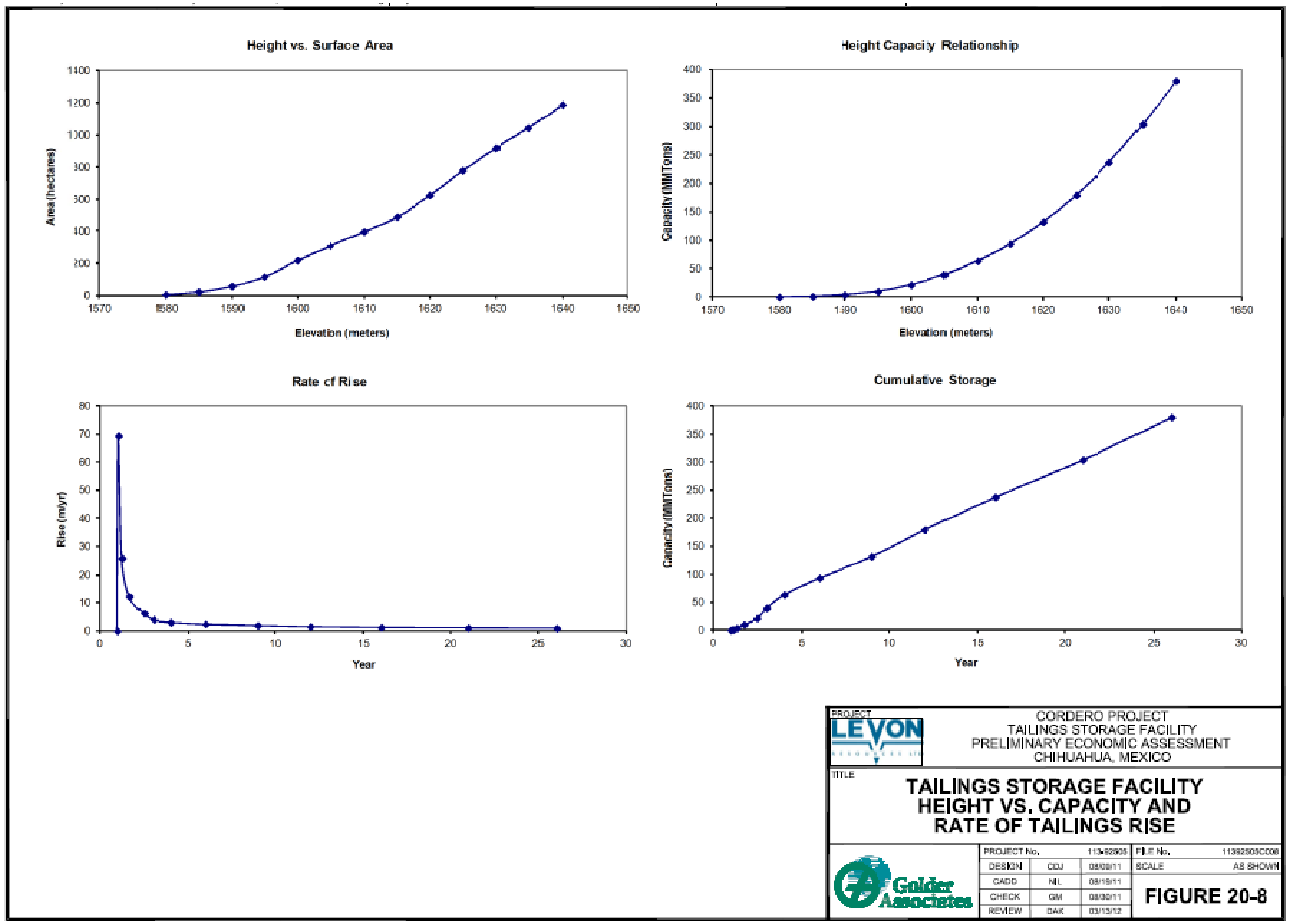


Figure 18-9:Tailings Storage Facility Height Vs. Capacity and Rate of Tailings Rise

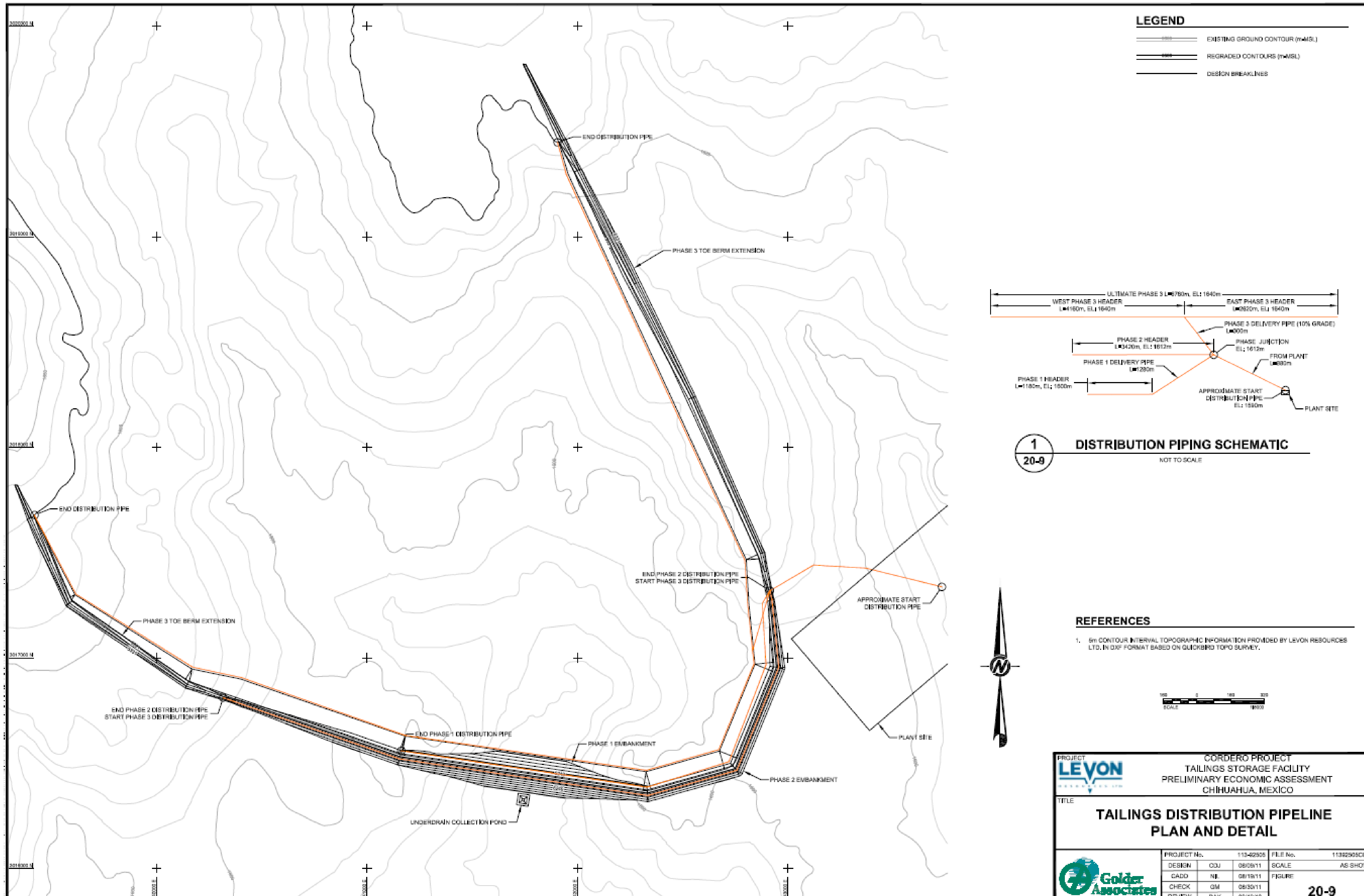


Figure 18-10: Tailings Distribution Pipeline Plan and Detail

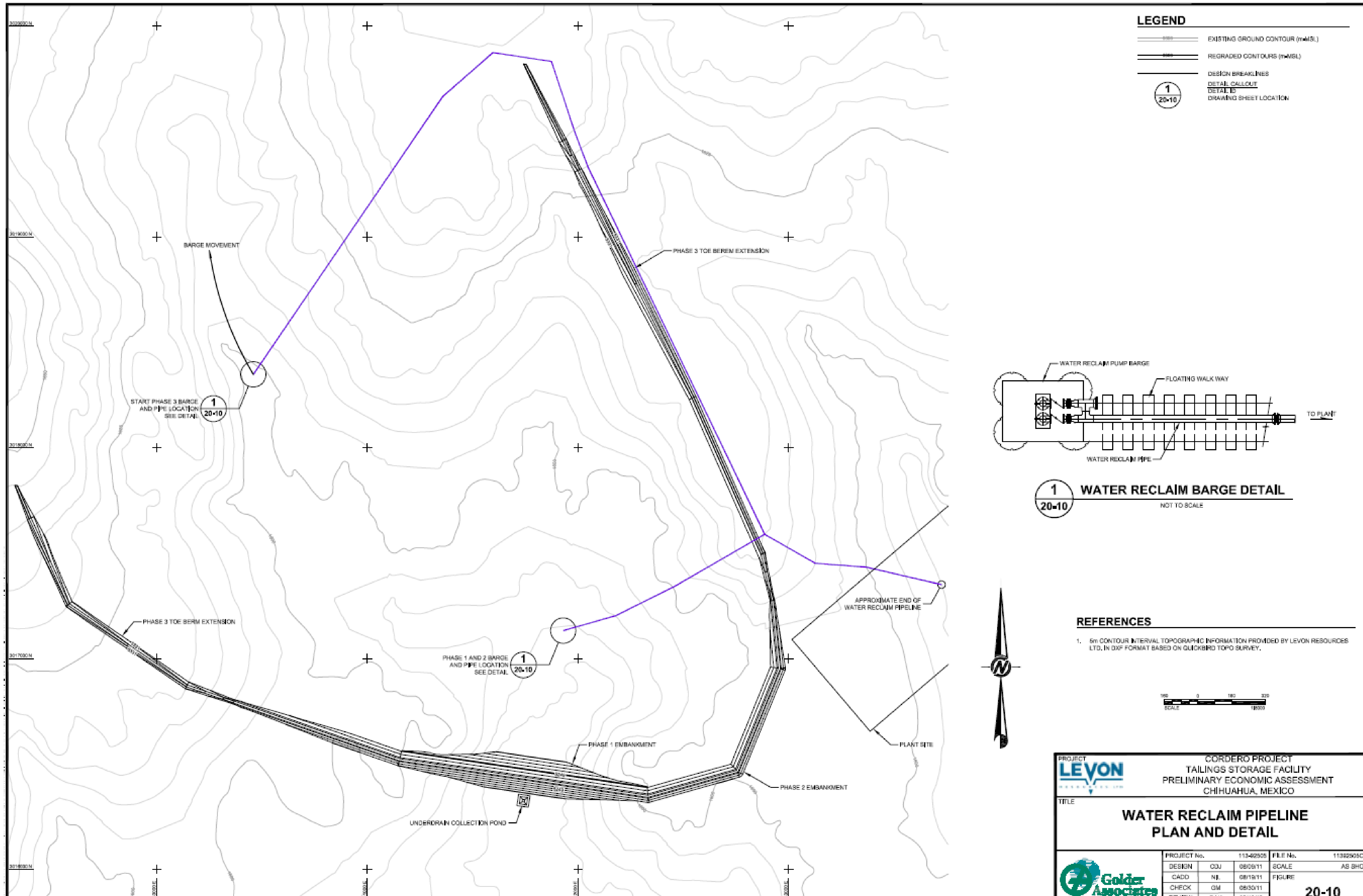


Figure 18-11: Water Reclaim Pipeline Plan and Detail

19 MARKET STUDIES AND CONTRACTS

This project is at a very early stage of development. No market studies have been conducted as of this writing.

Pricing for metal commodities is based on a global market. Future metals prices are uncertain as there is no sure fire way to predict future demand for most metals commodities. For this study, the following prices were used for financial modeling.

Table 19-1: Metals Prices for Economic Analysis

Zinc	$1.30/lb.
Lead	$1.00/lb.
Gold	$1,300/oz.
Silver	$20.00/oz.

The basis for this pricing derives from long-term commodity price trends in rising and falling markets over the last decade.

Figure 19-1 thru Figure 19-4 are commodity charts for zinc, lead, gold, and silver, respectively. The charts include for price trends: the three-year rolling (historical) average in black, a two-year forward projection from published sources dashed in red, the spot price shown in blue, and the blended price 60% historical-40% futures shown in orange. The price curves define the reasonable range for price projections for the Cordero study.

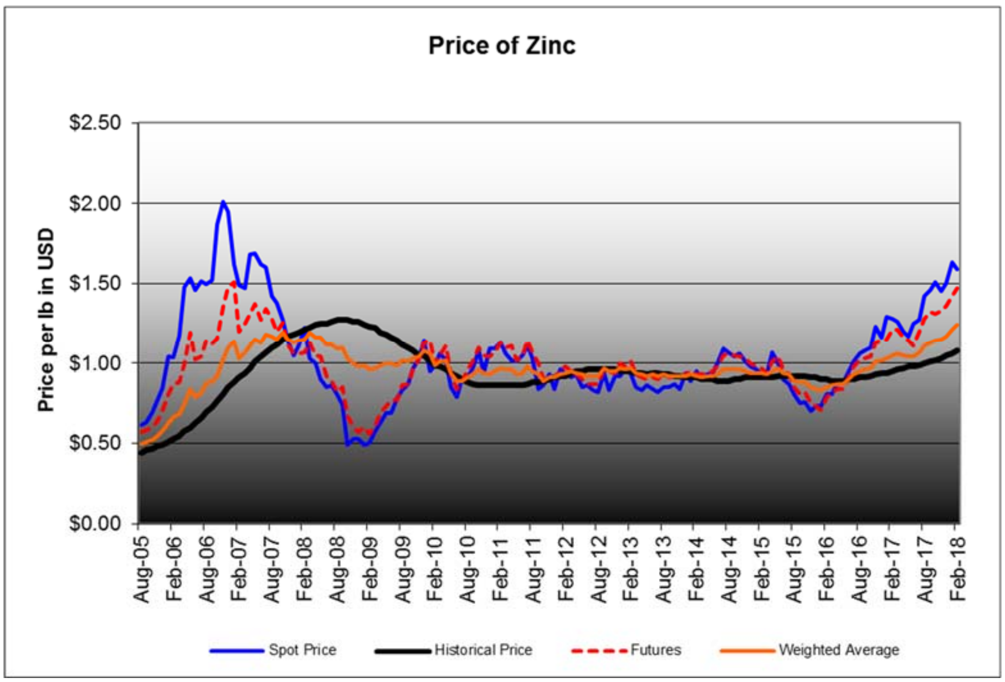


Figure 19-1: Zinc Commodity Prices

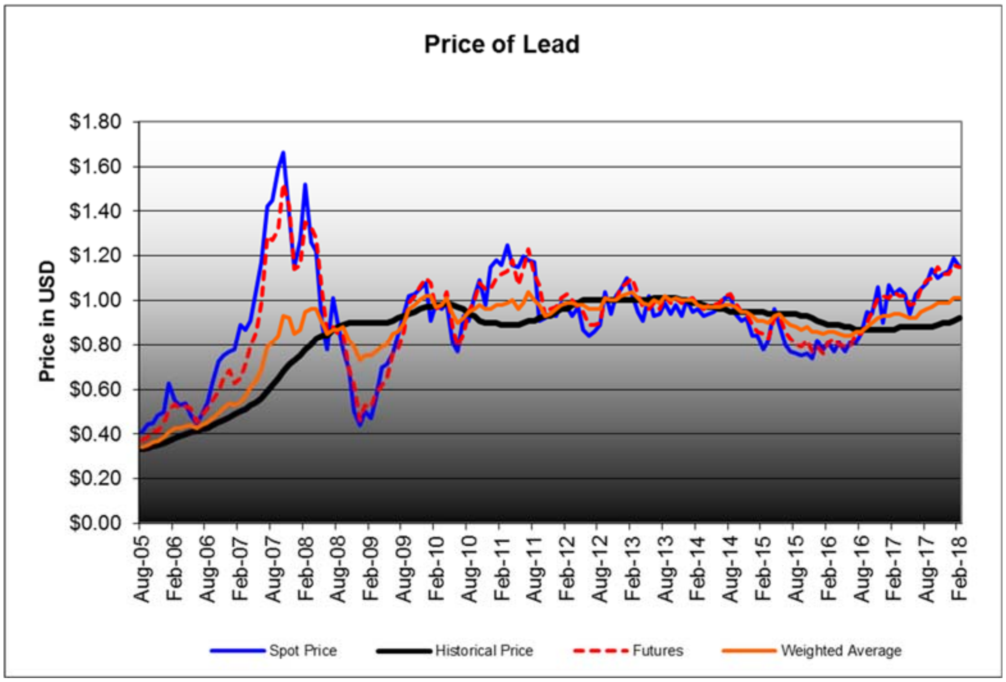


Figure 19-2: Lead Commodity Prices

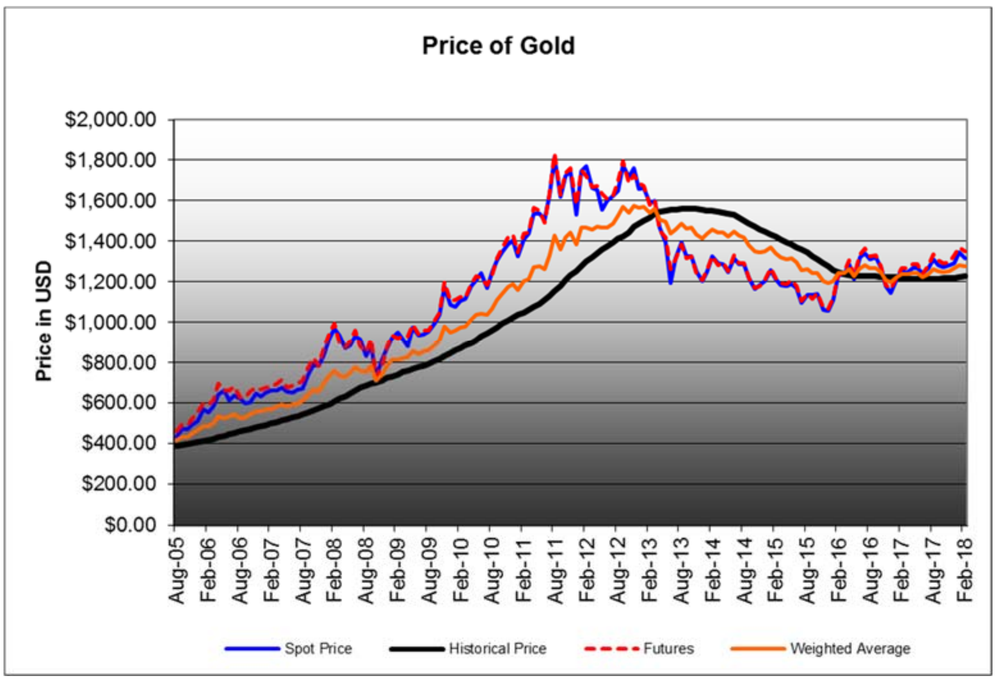


Figure 19-3: Gold Commodity Prices

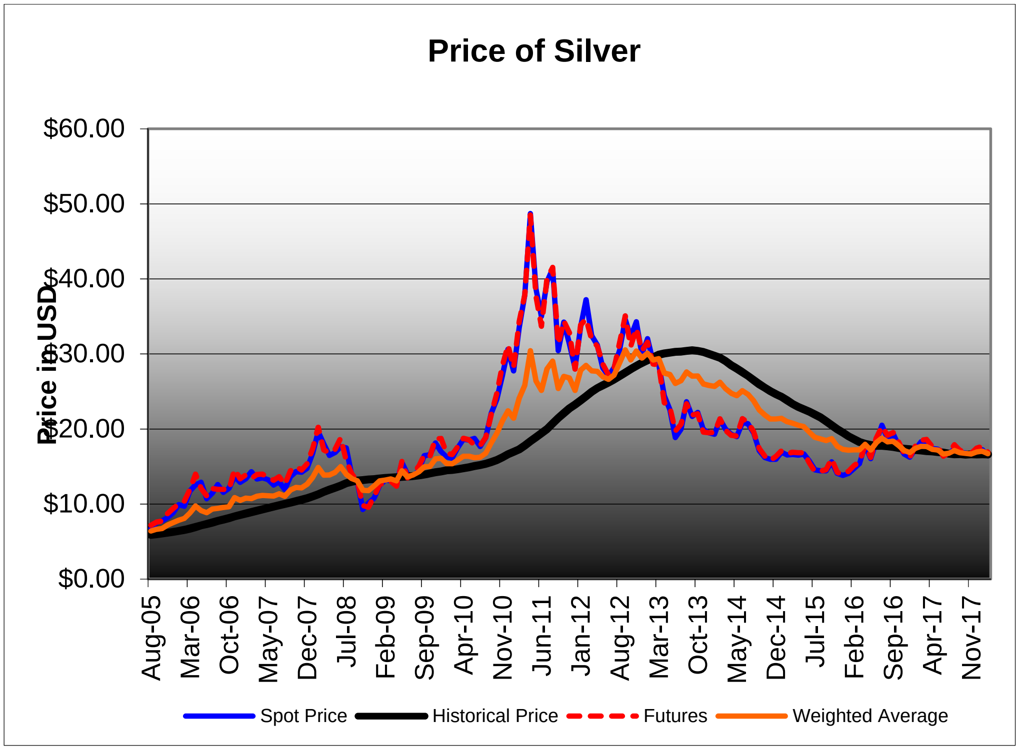


Figure 19-4: Silver Commodity Prices

Silver prices were consistently above $20 per ounce from late 2010 to mid-2014. Since mid-2016 to the present, silver prices averaged $17.50 per ounce. The long-term forecast for silver according to a survey of 20 banks and financial services companies as of the end of 2017 is between $19.00 and $20.00 per ounce. The $20-per-ounce price used for the current Cordero study is based on these forecasts.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 ENVIRONMENTAL STUDIES AND POTENTIAL IMPACTS

20.1.1 Climate

The region's climate is characterized by on the Köppen climatic classification (as modified by E. Garcia) as semi-dry or semi-arid BS1Kw(w)(e), with summer rains and an annual average temperature of 19.4ºC (Figure 20-1). Average annual rainfall for the zone is calculated at 473.33 mm and an average potential evaporation per year on the order of 2,100 mm.

Climate in the region close to the project has little variation due to its geographical conditions and has been divided by its climatological characteristics into three types.

- BSOhw(w). This type of climate corresponds to the northeast part of the Cordero Project. It is located in the eastern foothills of the Sierra Madre Occidental, with an annual average temperature of 18.7ºC which is a strong characteristic of this type of climate, with the warmest months being June and July and the coldest are December, January and February. Total yearly rainfall is 353.02 mm with the highest rainfall during July and August and the lowest during March and April.
- BS1hw(w). This type of climate prevails on the eastern side of Ciudad de Hidalgo del Parral, as well as in the upper part of Valle de Zaragoza and at the Conchos rivers and Balleza junction. Annual average temperature is 24.2º C, with the lowest temperatures during December and January, and the highest temperatures during May and June. Annual total precipitation is 448.26 mm, maximum rainfall recorded during July and August, and minimum rainfall during April and May.
- BS1Kw(w). This is the most widespread climate in the area and is where the Cordero Project is situated; it is in the eastern portion of the Sierra Madre Occidental. It presents a yearly mean temperature of between 13 and 18ºC; the warmest months are June and July while the coldest are December and January. Yearly rainfall ranges from 437 to 450 mm with the greatest rainfall happening during the months of July and August and the lowest happening in March and April.

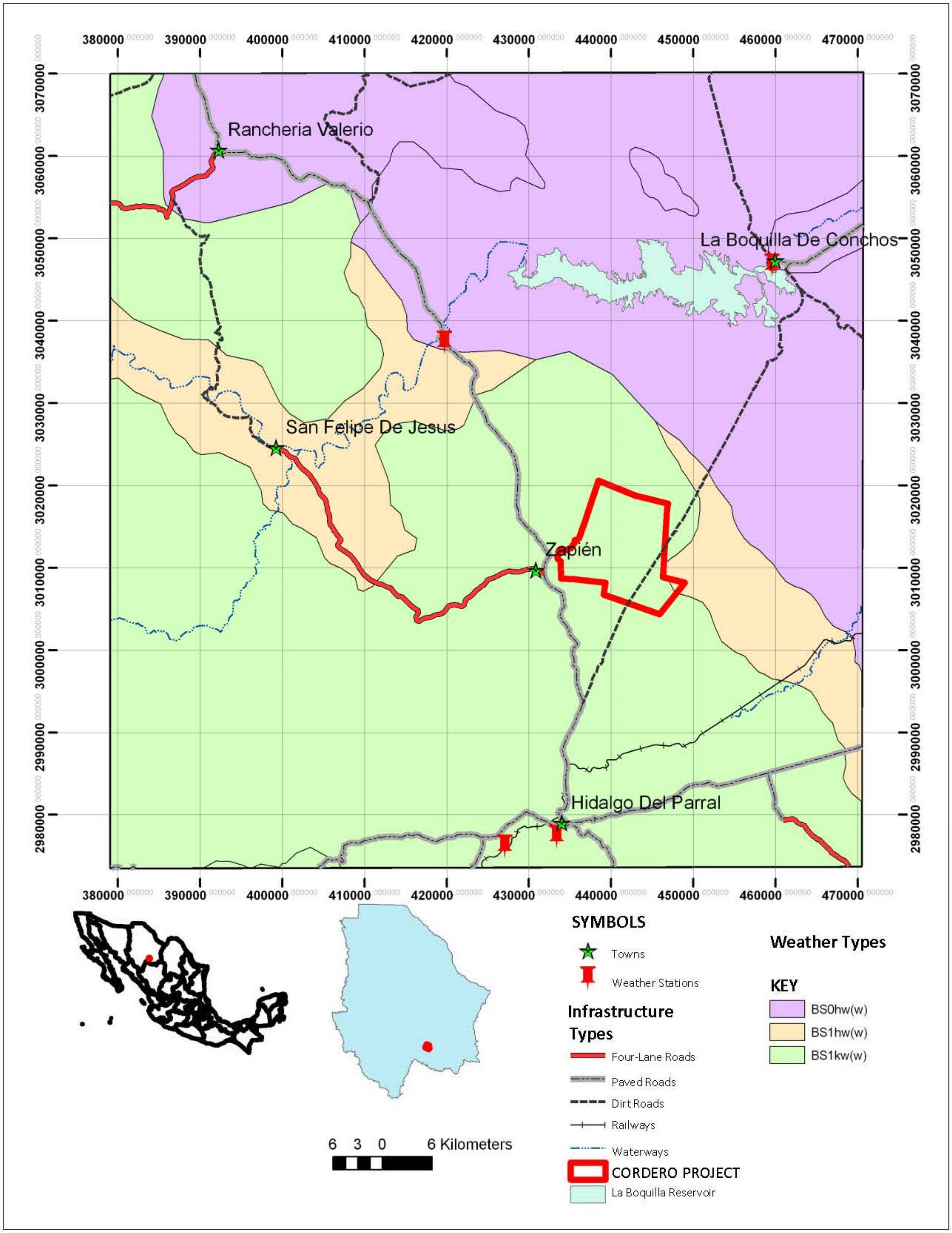


Figure 20-1: Types of Climate and Weather Stations in the Cordero Project

20.1.1.1 Weather Stations

In order to perform a climatological analysis of the Cordero Project it was necessary to analyze information from four weather stations, all of them administered by the Comisión Nacional (National Commission) (Table 20-1 and Figure 20-1). The stations were selected with the goal of identifying those that record data relevant to the study area. With this approach, the obtained data corresponds to those stations found within the Rio Conchos Sub-basin as well as in bordering basins, identified by their geographic location. The weather stations are the following:

Table 20-1: Weather Station Location

Station	Name	West Longitude	North Latitude	Altitude	Operation
8152	Valle de Zaragoza	105°48'39"	27°27'26"	1340	operating
8085	La Boquilla	105°24'43"	27°32'38"	1323	operating
8078	Presa Parral	105°43'45"	26°54'20"	1770	operating
8305	Parral	105°43'42"	26°54'17"	1775	operating

The process of data gathering and input for the four weather stations, include: monthly average temperature, daily average precipitation per month and daily average potential evaporation per month (Table 20-2). The temperature and precipitation records in the majority of weather stations are from 1981 to 2010, although some stations present data previous to 1981, with some intermediate missing data, therefore records are only reliable in certain years. Potential evaporation records decrease the observation period, but are likewise representative of the area. Isotherms average annual temperature in the area are shown in Figure 20-2.

Table 20-2: Average Temperatures

	Average Temperature (ºC)				
Station	Min.	Max.	Annual	Warmest Month	Coldest Month
Valle de Zaragoza	10	28.5	19.2	26.8 (Jun)	11.0 (Jan)
La Boquilla	12	28.4	20.2	36.1 (Jun)	3.2 (Jan)
Presa Parral	-1.2	17.9	26.1	25.1 (Jun)	10.3 (Jan)
Parral	12.4	28.6	19.3	36.6 (Jun)	4.1 (Jan)

Rainfall in the study zone is characteristic of semi-arid subtropical areas with precipitation in the winter and summer seasons, similar to the major part of the north region of the country. Isohyets for average annual precipitation in the area are shown in Figure 20-3. Winter rainfall is typically frontal, caused by polar air masses. Summer rainfall is a combination between orographic and convection types due to the physiographic location. Summer rains typically consist of high-intensity, short-duration showers.

The yearly average rainfall in the Cordero Project area is 473.33 mm/year for the 1981-2010 period. The rainiest month is July. These types of rains are typically intense and short, causing heavy floods which are managed by La Boquilla Dam, north of the project. The dry season is from March to May. It is during this period when less than 10% of the annual rainfall is produced.

Historical records for the recorded period of 1981-2010 were used to estimate the annual evaporation potential for the Cordero Project of 2100 mm/year. Monthly evaporation potential varies from 76.6 mm in December to a maximum of 276.5 mm in May.

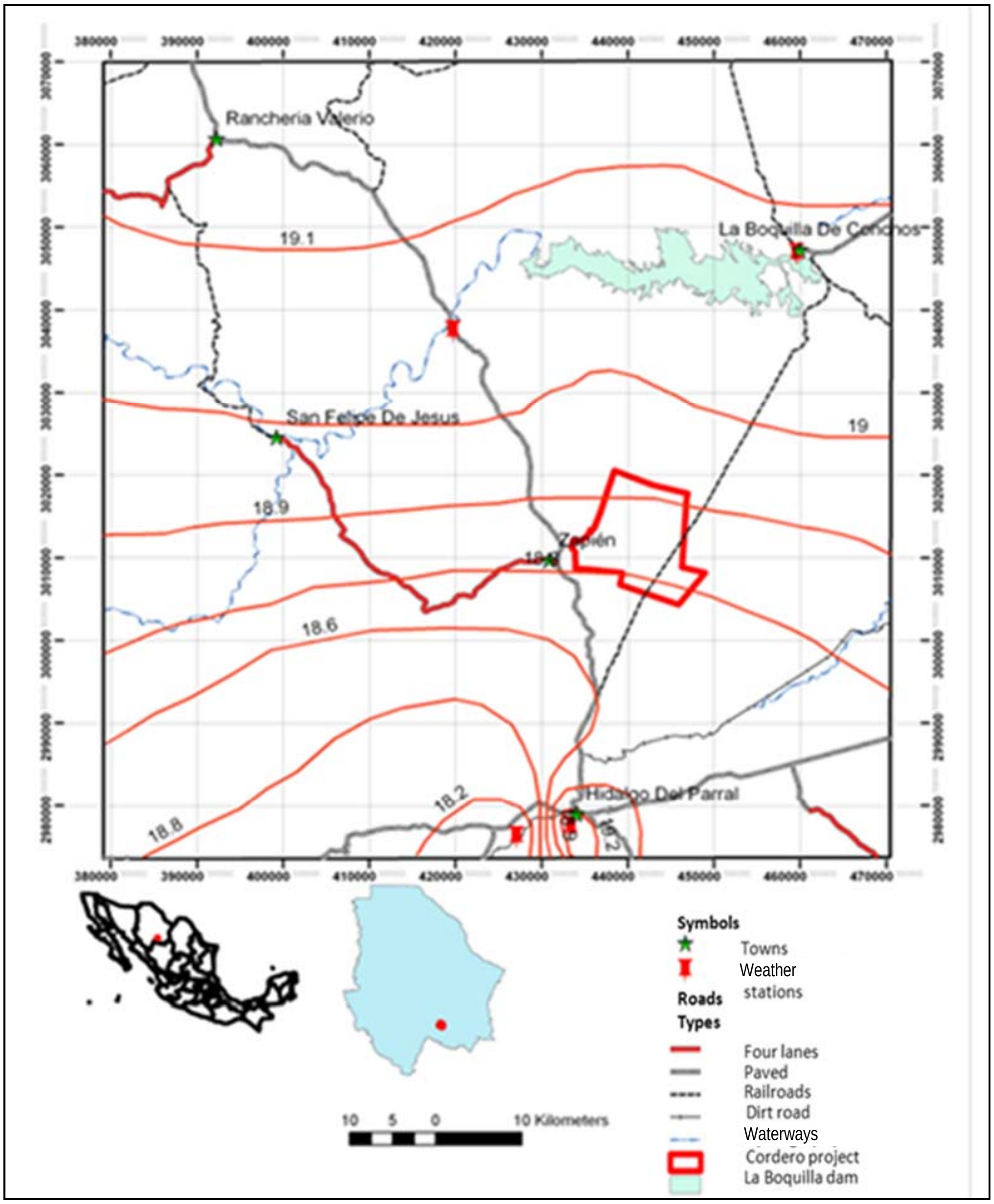


Figure 20-2: Isotherms for Average Annual Temperature (ºC)

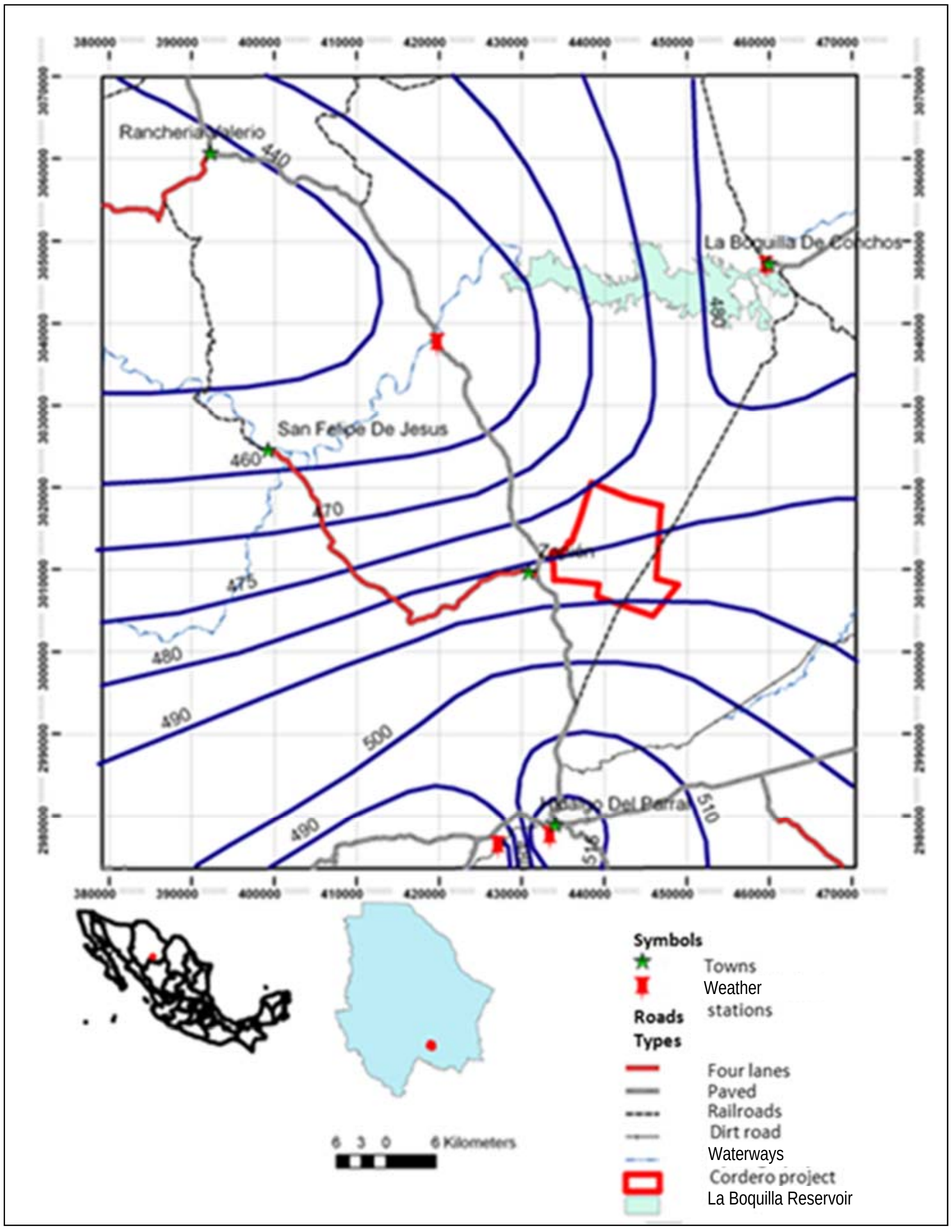


Figure 20-3: Isohyets for Average Annual Precipitation (mm/year)

20.1.2 Soils

Soil characterization in the region and for the local area is based on information published by the National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía [INEGI], 2011). Soil maps for the area at a scale of 1:1,000,000 were evaluated for purposes of this study.

Soils in the project area are depicted on Figure 20-4 and include haplic xerosol, eutric regosol, and litosol rendzina. Haplic xersols predominate in the upland areas of the site. Eutric regosols are present in the lowlands adjacent to the major drainages that pass through the site, and litosol rendzina soils are restricted to the western corner of the project site.

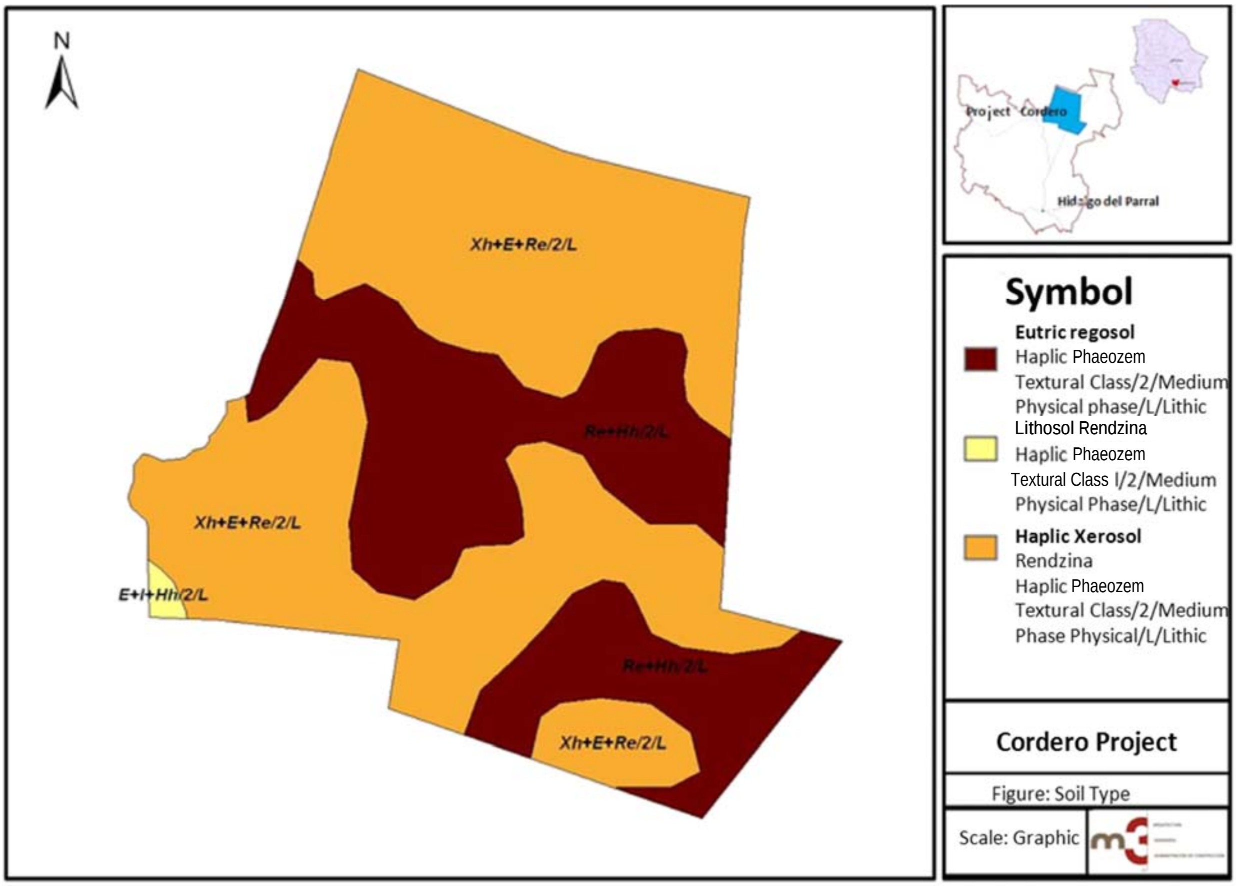


Figure 20-4: Soil Type Distribution Map

Upland areas of the site are dominated by haplic xerosols, rendzinas, and eutric regosols that are typically derived from weathering of the underlying bedrock. Lowland soils are dominated by eutric regosols and haplic phaeozems derived from local sources and alluvial deposits. These soils can be locally thick enough to support agriculture. The small area to the far west of the project area is dominated by rendzinas, and haplic phaeozems. All of the soils mapped in the project area are medium textural class (2) and lithic (L) physical phase.

20.1.3 Biological Environment

The biological environment is typical of arid scrub lowlands in this part of the State of Chihuahua. Plant life is dominated by xerophytes. Wildlife in the project area is dominated by small, desert-adapted animals including rabbits, mice, fox, birds, skunks, snakes, lizards, coyotes, bobcats, and mule deer.

20.1.3.1 Flora

Mexico's flora offers a wide morphological diversity of plants, known as biotypes or biological forms. Such diversity is a consequence of the broad range of environments that characterize the country's territory, especially the zone that is described below. Characterization and classification is based on the relationship between the morphology of the plant and the environment in which it is located.

The types of vegetation present in the study area were identified based on the consulted bibliography corresponding to the region and other provided thematic cards (INEGI use of ground and vegetation scale 1:1,000,000). According to

Rzedowski, Mexico's vegetation is presented through different floristic divisions, which are divided into: Kingdom, Regions and Provinces (Figure 20-5). The state of Chihuahua lies within a two-region kingdom, and approximately nine provinces. Focusing specifically on the "Cordero Project" area, located northeast of the Municipality of Hidalgo del Parral, in the state of Chihuahua, lies within a floristic hierarchy represented as *Neotropical* Kingdom, Mexican Xerophytes Region, Province of the highlands.

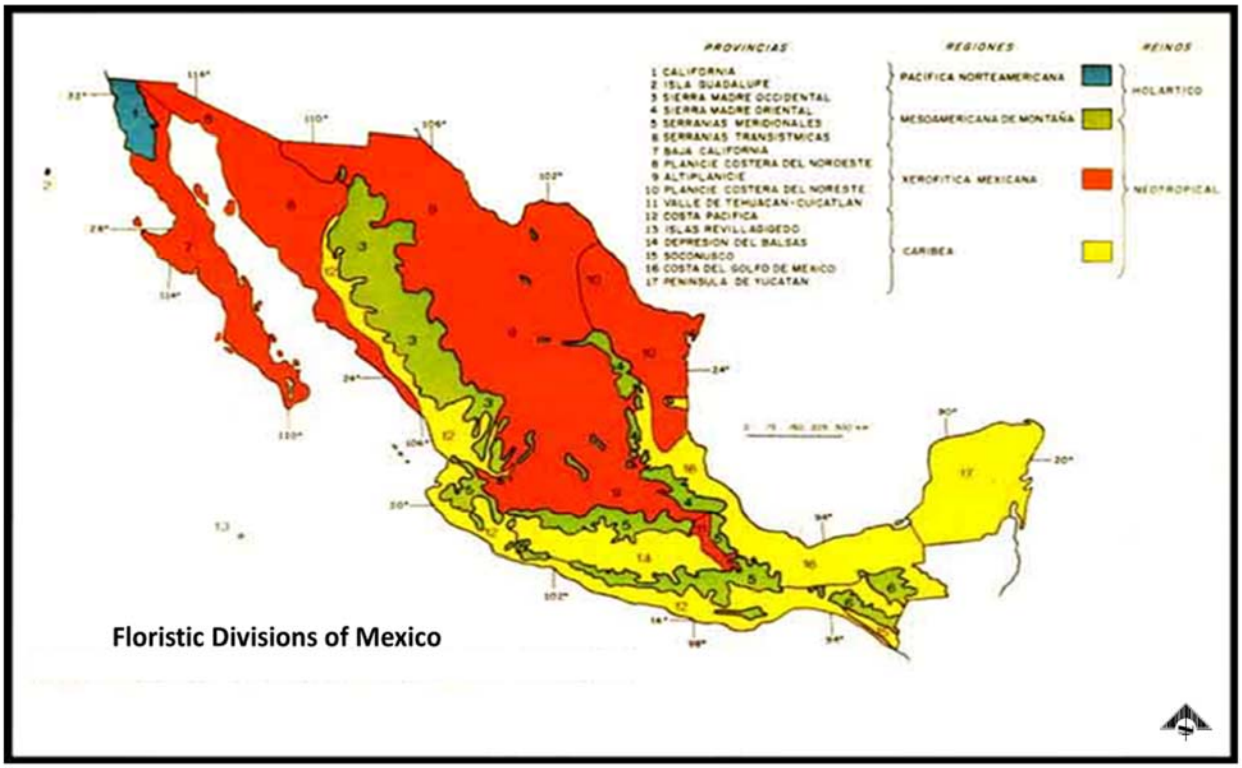


Figure 20-5: Floristic Divisions of Mexico

The Mexican Xerophytes Region is characterized by arid and semiarid climate. Its limits extend to adjacent parts of Texas, New Mexico, Arizona and California. Approximately 50% of the species within the Mexican Xerophytes region are only found within its limits. The indigenous flora of this region includes numerous cacti as well as various species within the genus *agave, Dalea, Dasylirion, Fouquieria and Yucca,* which are distinctive of Mexico's arid zones of vegetation.

Vegetation types present in the project area include natural grassland, microphylous desert scrub, rosetofilous desert scrub, and local farmed areas, as shown in Figure 20-6. Shrub vegetation that generally presents branching from the base of the stem, close to the surface of the ground and with variable heights but always below 4 m.

Natural grassland provides feed for livestock and possesses a great recovery capacity even after undergoing severe droughts. Grasslands are prevalent in the alluvial flats, hillsides, plateaus and low mountain foothills. Grasslands are found at altitudes between 1,200 meters on the hills and foothills where it borders with xerophilous scrubland and 2,300 meters at the foot of the mountain ranges.

Microphylous desert scrubland shows a marked preference for growth on flat alluvial terrain with developed soils. Generally, this xerophylous community is made up of a uniform grouping of *Larrea tridentata* (Creosote bush), with very variable heights and cover, depending to the place where it is found. The structure of mycrophylous desert scrubland is very complex and in some cases, is made up of thorn bushes, generally of the *Acacia, Opuntia and*

Prosopis types. In other cases, it is made up of thornless elements with small leaves or without them amongst which are: *Larrea, Flourensia, Erioneuron* and in certain places *Lippia*; however, for the most part this scrubland is made up of a mix of both thorny and thornless species, which is why it is denominated sub-thornless. There are certain components of the scrubland that stand out due to their size over the average, their presence is isolated, they are detectable from a distance and are known as imminences; in several places the imminences are represented by *Acacia neovernicosa* (Viscid Acacia), *Fouquieria splendens* (Ocotillo) and *Yucca treculeana* (Don Quixote's Lace).

Rosetophylous desert scrubland is typified by shrub and subshrub species with tight elongated leaves in the form of a rosette which can be thorny or thornless. There are two distinguishable classes: those which possess a well-developed elongated stem such as the Don Quixote's Lace (*Yucca* sp.) and those which do not have a visible stem (acaulous), whose leaves emerge from the base of the plant and are ordinarily known as agaves.

Other typical elements of this shrubland include *Agave Lechuguilla* (lechuguilla), *Dasylirion leiophyllum* (Green Sotol), *Agave* sp., *A. scabra* (maguey) along with various wide participation species such as: *Euphorbia* sp., *Jatropha* sp., *Parthenium* sp. and *Opuntia* sp.; the presence of a taller brush strata are frequent, where the following are included: *Yucca* spp., *Fouquieria splendens* (ocotillo) and *Acacia* spp.

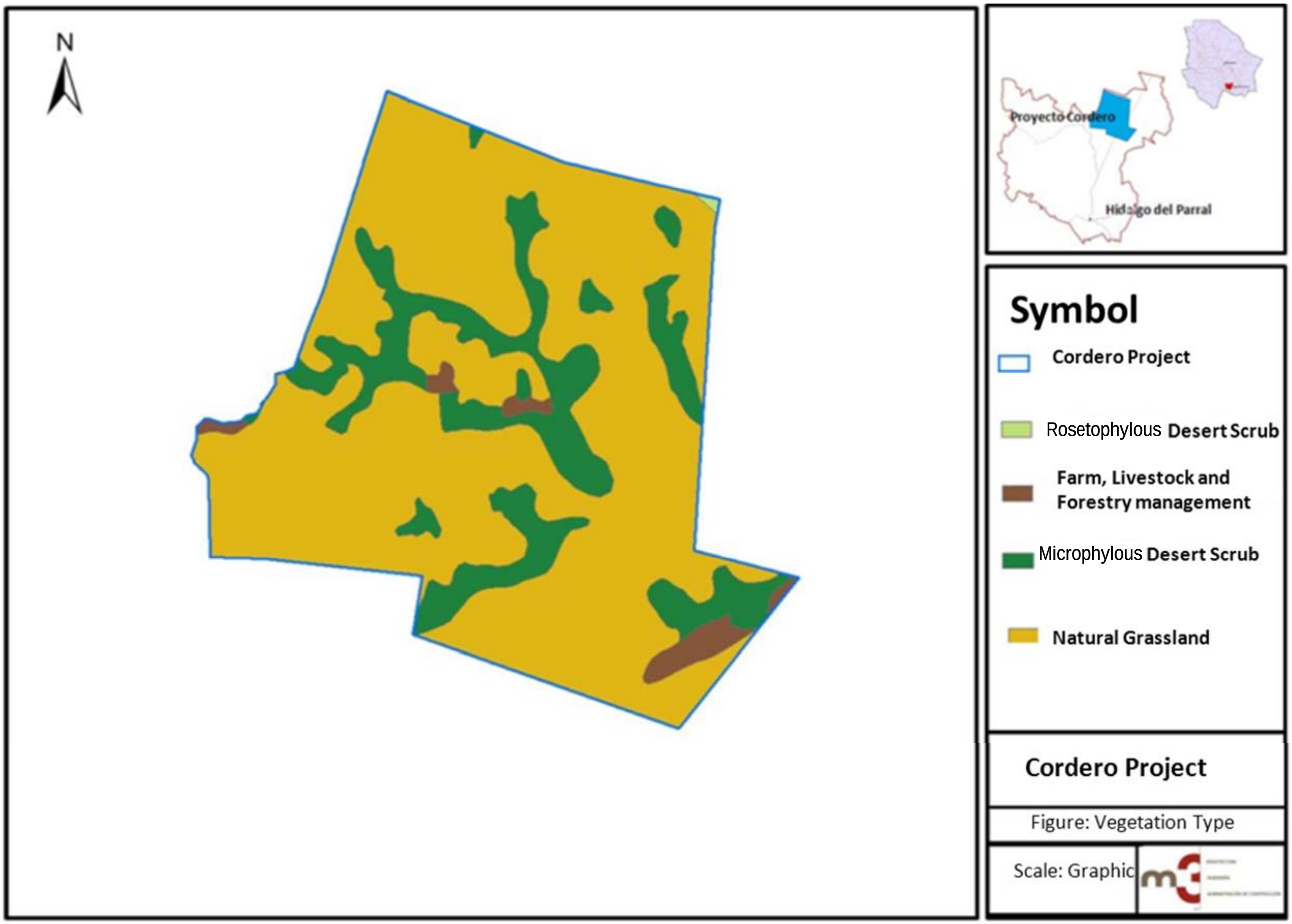


Figure 20-6: Vegetation Type

20.1.3.2 Fauna

The Chihuahua desert hosts an abundance of fauna, which include desert cottontail (Sylvilagus audubonii), the black-tailed jackrabbit (Lepus californicus), the cactus mouse (Peromyscus eremicus), the swift fox (Vulpes velox), cactus wren (Campylorhynchus brunneicapillus), the greater roadrunner (Geococcyx californianus), the Mohave rattlesnake (Crotalus scutulatus) the coach whips snake (Masticophis flagellum), the New Mexico whiptail lizard (Cnemidophorus neomexicanus), the red-spotted toad (Bufo punctatus); the tiger salamander (Ambystoma tigrinum), the white-throated wood rat (Neotoma albigula), the pallid bat (Antrozous pallidus), the coyote (Canis latrans), the hooded skunk (Mephitis macroura), the bobcat (Lynx rufus) and mule deer (Odocoileus hemionus).

The Official Mexican Standard for wild flora and fauna Mexico native species - endangered categories and specifications for their inclusion exclusion or change – list of endangered species (NOM-059-SEMARNAT, 2010) lists the species that have some type of conservation status (Table 20-3, Table 20-4, Table 20-5, and Table 20-6). The categories in the tables include threatened (A) and protected (Pr). Some of the species listed in these tables may be found near the municipality of Parral.

Table 20-3: Avian Species with Special Status (NOM-059-SEMARNAT-2010)

Scientific Name	Common Name	Category
Anas platyrhynchos	Mexican Duck	A
Ixobrychus exilis	Least Bittern	Pr
Botaurus lentiginosus	American Bittern	A
Accipiter striatus	Sharp-shinned Hawk	Pr
Accipiter cooperii	Cooper Hawk	Pr
Accipiter gentilis	Northern Goshawk	A
Buteogallus anthracinus	Common Black Hawk	Pr
Parabuteo unicinctus	Harris Hawk	Pr
Buteo swainsoni	Swainson Hawk	pr
Buteo albonotatus	Zone-tailed Hawk	Pr
Buteo lagopus	Rough-legged Buzzard	Pr
Aquila chrysaetos	Golden Eagle	A
Buteo regalis	Ferruginous Hawk	Pr
Ictinia mississippiensis	Mississippi Kite	Pr
Haliaeetus leucocephalus	Bald Eagle	P
Falco femoralis	Aplomado Falcon	A
Falco mexicanus	Prairie Falcon	A
Falco peregrinus	Peregrine Falco	Pr
Rallus limicola	Virginia Rail	A
Grus canadensis	Sand Hill Crane	Pr
Charadrius montanus	Mountain Plover	A
Asio flammeus	Short-eared Owl	Pr
Picoides stricklandi	Strickland Woodpecker	A
Vireo atricapillus	Black-caped Vireo	P
Nucifraga columbiana	Clark Nutcracker	P
Cinclus mexicanus	American Dipper	Pr
Myadestes townsendi	Townsend Solitaire	Pr
Vermivora crissalis	Colima Warbler	Pr
Oporornis tolmiei	MacGillivray Warbler	A
Spizella wortheni	Worthen Sparrow	P

Table 20-4: Reptilian Species with Special Status (NOM-059-SEMARNAT-2010)

SCIENTIFIC NAME	Common Name	Category
Terrapene ornata	Ornate Box Turtle	Pr
Chrysemys picta	Painted Turtle	A
Trachemys scripta	Pond Slider	Pr
Kinosternon hirtipes	Mud Turtle	Pr
Apalone spinifera	Spiny Soft-shell Turtle	Pr
Gopherus berlandieri	Galapago tamaulipeco	A
Barisia levicollis	Chihuahua Alligator Lizard	Pr
Crotaphytus collaris	Common Collared Lizard	A
Crotaphytus reticulatus	Reticulate Collared Lizard	A
Gambelia wislizenii	Leopard Lizard	Pr
Petrosaurus mearnsi	Banded Rock Lizard	Pr
Callisaurus draconoides	Bogert Zebra-tailed Lizard	A
Cophosaurus texanus	Greater Earless Lizard	A
Holbrookia lacerata	Spot-tailed Earless Lizard	A
Uma exsul	Arenicolous Mexican Lizard	P
Uma paraphygas	Chihuahuan Fringe-toed Lizard	P
Uta stansburiana	Common Side-blotched Lizard	A
Sceloporus graciosus	Sagebrush Lizard	Pr
Sceloporus grammicus	Mezquite Lizard	Pr
Sceloporus ornatus	Ornate Spiny Lizard	A
Sceloporus maculosus	Spotted Spiny Lizard	Pr
Elgaria kingii	Madrean Alligator Lizard	Pr
Xantusia bolsonae	Bolson Night Lizard	P
Heloderma suspectum	Gila Monster	A
Micruroides euryxanthus	Arizona Coral Snake	A
Micrurus fulvius	Eastern Coral Snake	Pr
Nerodia erythrogaster	Copper-belly Water Snake	A
Leptophis diplotropis	Pacific Coast Parrot Snake	A
Tantilla atriceps	Mexican Black-headed Snake	A
Tantilla gracilis	Flathead Snake	A
Hypsiglena torquata	Texas Night Snake	Pr
Pituophis deppei	Mexican Pine Snake	A
Heterodon nasicus	Western Hog-nosed Snake	Pr
Gyalopion canum	Chihuahua Hook-nosed Snake	Pr
Salvadora bairdi	Baird Patch-nose Snake	Pr
Masticophis flagellum	Coach-whips or whip snake	A
Lampropeltis alterna	Grey-banded King-snake	A
Lampropeltis getula	Eastern King-snake	A
Lampropeltis pyromelana	Sonoran Mountain King-snake	A
Lampropeltis triangulum	Pueblan Milk King-snake	A
Thamnophis cyrtopsis	Black-necked Garter-snake	A
Thamnophis sirtalis	Common Garter Snake	Pr
Thamnophis proximus	Western Ribbon Snake	A
Thamnophis eques	Mexican Garter Snake	A
Thamnophis marcianus	Checkered Garter Snake	A
Sistrurus catenatus	Eastern Massasauga Rattlesnake	Pr
Crotalus atrox	Western Diamondback Rattlesnake	Pr
Crotalus lepidus	Rock Rattlesnake or Green Rattlesnake	Pr
Crotalus mitchelli	Speckled Rattlesnake	Pr
Crotalus molossus	Black-tailed Rattlesnake	Pr

SCIENTIFIC NAME	Common Name	Category
Crotalus pricei	Twin-spotted Rattlesnake	Pr
Crotalus tigris	Tiger Rattlesnake	Pr
Crotalus viridis	Prairie Rattlesnake	Pr
Crotalus scutulatus	Mojave Rattlesnake	Pr
Sistrurus catenatus	Eastern Massasauge Rattlesnake	Pr
Agkistrodon bilineatus	Mexican Moccasin	Pr

Table 20-5: Amphibious Species with Special Status (NOM-059-SEMARNAT-2010)

Scientific Name	Common Name	Category
Bufo debilis	Green Toad	Pr
Gastrophryne olivacea	Great Plains Narrow-head Toad	Pr
Rana montezumae	Rana Moctezumae	Pr
Rana yavapaiensis	Lowland Leopard Frog	Pr
Rana chiricahuensis	Chiricahua Leopard Frog	A
Eleutherodactylus tarahumaraensis	Rana Ladradora Tarahumara	Pr

Table 20-6: Mammalian Species with Special Status (NOM-059-SEMARNAT-2010)

Scientific Name	Common Name	Category
Erethizon dorsatum	North American Porcupine	P
Cynomys ludovicianus	Black-tailed Prairie Dog	A
Castor canadensis	North American Beaver	P
Sorex arizonae	Arizona Shrew	P
Sorex milleri	Carmen Mountain Shrew	Pr
Notiosorex crawfordi	Crawford Gray Shrew	A
Choeronycteris mexicana	Mexican Long-tongued Bat	A
Leptonycteris nivalis	Mexican Long-nosed Bat	A
Euderma maculatum	Spotted Bat	P
Lasionycteris noctivagans	Silver-haired Bat	Pr
Myotis californicus	California Myotis	P
Leopardus pardalis	Ocelot	P
Vulpes macrotis	Kit Fox	A
Taxidea taxus	American Badger	A
Lepus californicus	Black-tailed Jackrabbit	Pr
Sylvilagus floridanus	Eastern Cottontail	P

20.1.4 Project Location with Regards to Priority Areas of Interest

The proximity of conservation areas and areas of environmental protection was analyzed to evaluate any impacts on or impediments to development of the Cordero Project. Areas identified by agencies of the Mexican government include protected natural areas, priority hydrological regions.

20.1.4.1 Protected Natural Areas

There are no declared or decreed natural protected areas within or bordering the projected zone for the development of both projects (Figure 20-7).

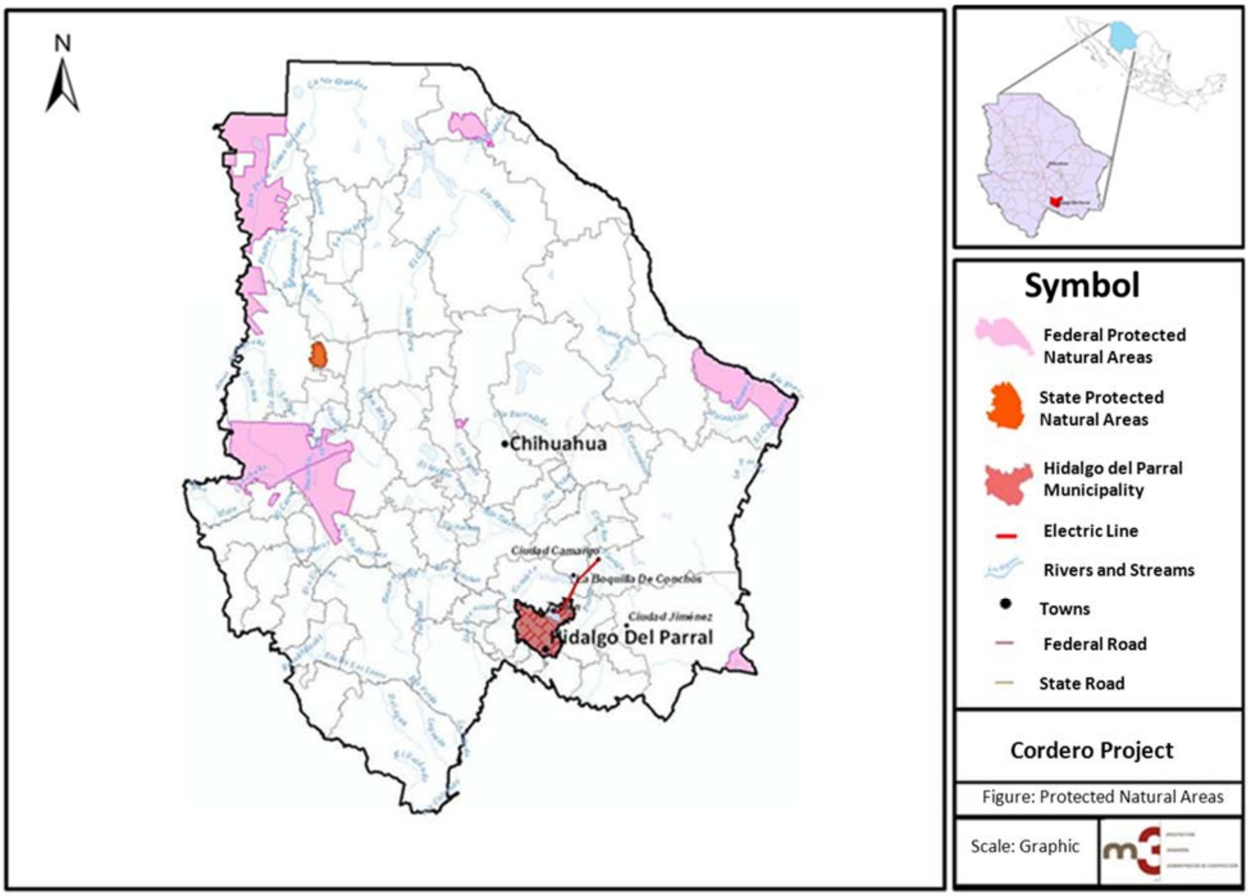


Figure 20-7: Protected Natural Areas

20.1.4.2 Priority Hydrological Regions

The Cordero Mining Project zone and the Electric Line Construction Project are made encompassed within Priority Hydrological Region (RHP) No. 39, named “Cuenca Alta del Rio Conchos” (Upper Basin of Rio Conchos), found on the Sierra Tarahumara and covering approximately 2 million hectares within a polygon with latitude 28º 06’36” – 26º03’36” N, Longitude 107º 43’48” – 105’00” W coordinates, where the Rio Conchos is the main influence of the Rio Grande/Bravo.

It is characterized by having a semi-dry temperate, semi-dry semi-warm, very dry semi-warm, temperate sub-humid, semi-cold sub-humid climate. Average yearly temperature is 8-18ºC. Total yearly rainfall is 300-1,000 mm. See Figure 20-8.

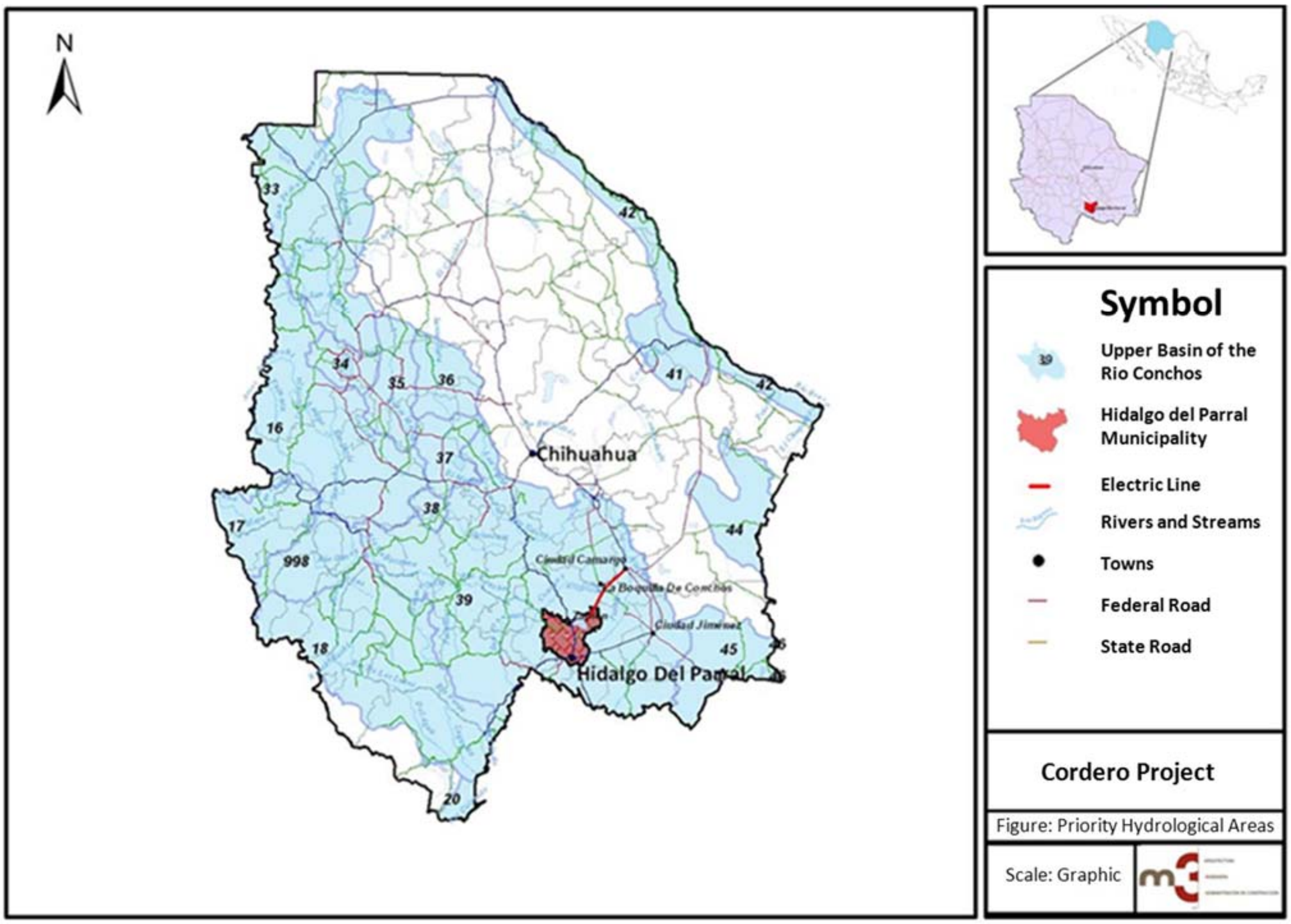


Figure 20-8: Priority Hydrological Areas

20.1.4.3 Priority Land Areas

The Cordero Mining Project footprint and power transmission line construction corridor are not within sensitive habitats identified by Priority Terrestrial Area published or decreed as of the date this research (Figure 20-9).

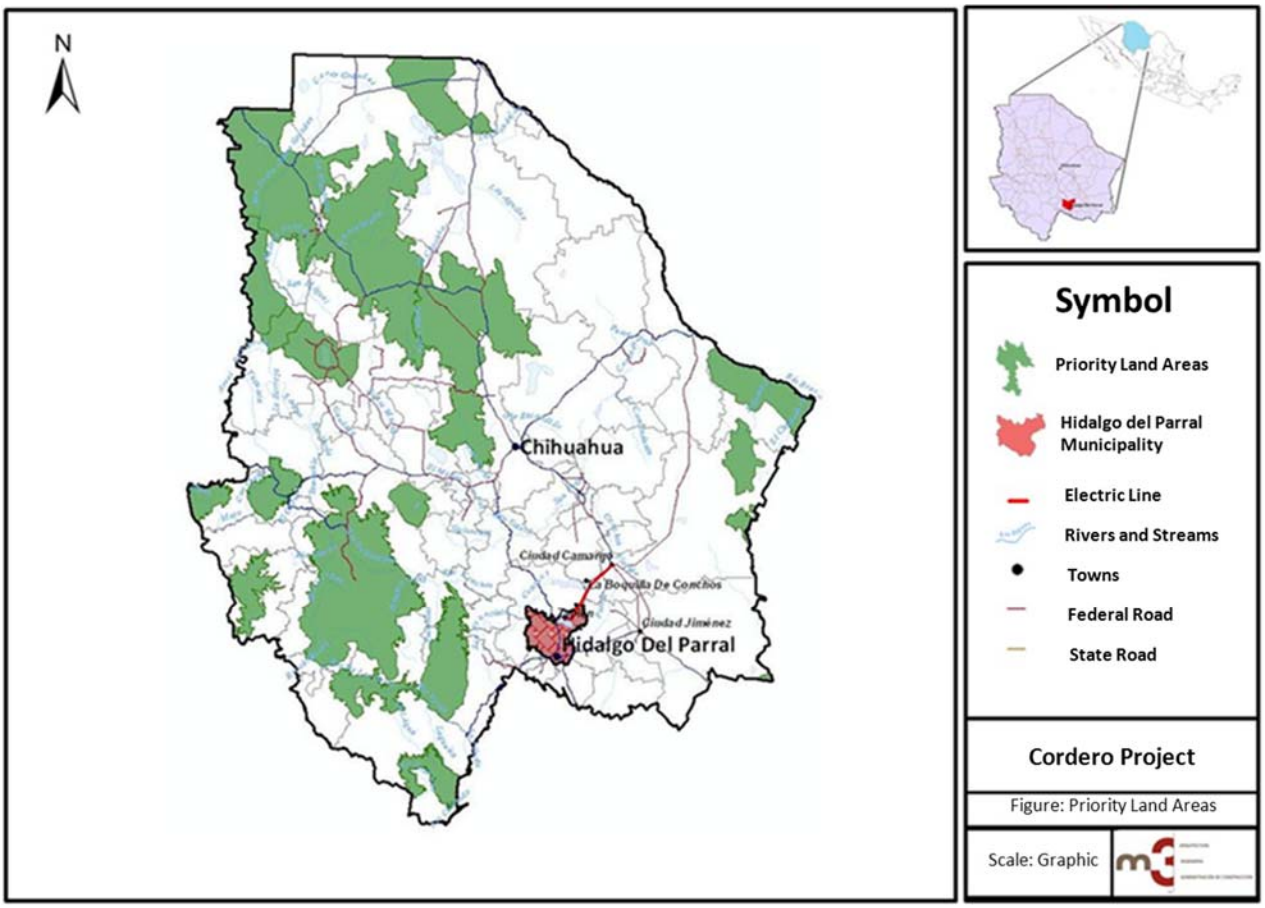


Figure 20-9: Priority Land Areas

20.1.4.4 Areas of Importance for Avian Conservation (AICA)

The Cordero Mining Project footprint and power transmission line construction corridor are not within any of the decreed or declared AICA areas to date (Figure 20-10).

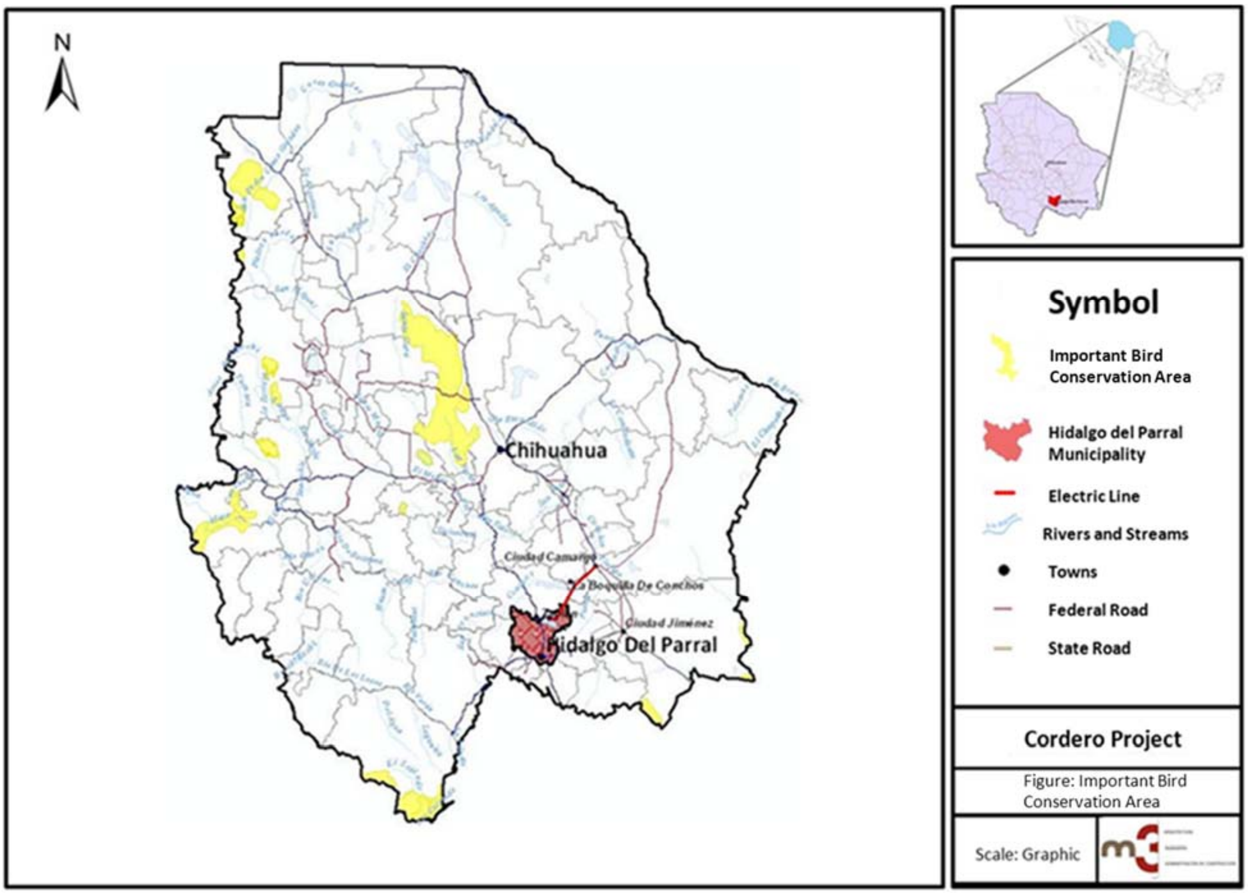


Figure 20-10: Important Bird Conservation Area

20.1.5 Conclusions

The results of the site visit, record review, and preliminary investigations have not revealed any environmental issues that could be considered to be prevent the development of the proposed project. Additional study will be required as the project develops to confirm the preliminary findings and provide additional assurance that environmental impacts of the project are acceptable to Mexican government regulations.

20.1.6 Waste Rock Storage Facilities

Two waste rock storage facilities (WRSF) have been included in the mine plan (Figure 16-11), one to the southeast of the mine pits and the other to the northwest of the pit complex (Figure 16-11). The WRSFs are designed to contain the 407.6 million tonnes of waste projected in the Mine Plan (Section 16.5)

20.2 PERMITTING

The following is a list of acronyms from the relevant governmental agencies involved in the permits of the project.

- DGGFS (General Department of Permitting for Forestry and Soils)
- CNA (National Water Commission)
- SEDENA (National Secretary of Defense)
- PROFEPA (Federal Office of the Judge Advocate General of Protection to the Environment) – "Environmental Police"
- SEMARNAT (Federal Office of Environmental Protection)
- INAH (Archeological and Historic Federal Institute)

Table 20-8, Table 20-9, and Table 20-10 contain lists of required permits for Exploration, Development and Construction, and Operation, respectively. The lists include the name of the permit, the governmental agency, timing, permit description, estimated fees, process time, and permit preparers for each identified stage.

Table 20-7: Exploration

Permit	Agency	Date Required by:	Description / Comments	Agency Fee (MXP)	Agency Process Time	Applied by
Norm NOM 120 SEMARNAT 1997 by exploration	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Environmental and Risk Department SEMARNAT State Office	Prior to exploration	Techniques and environmental Characteristics of the project, indicating the new work of exploration according with the limits established by the norm. The document need stay in the field and isn't needed present to the SEMARNAT.	Free	No official response is issued	M3M & consultant
Land Use Change by exploration	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Environmental and Risk Department SEMARNAT State Office	Prior to exploration	Measure for conserve habitat. Problems for remove coverage of vegetation. Coverage of forestry Identify the actions that could be generating an ecological unbalanced. Preventive measure and environmental impacts mitigation	February 2018 1-10 ha. $1,493.10 10– 50 ha. $3,152.11 50-200 ha. $6,304.22 Over 200 ha $9,622.24 Permission In Arid and semiarid climate $14,002.49 pesos/hectare deforested multiplied by the index of the environmental criteria	Approximately 90 days	M3M & consultant
Environmental Impact Assessment (Mining & access road)	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Environmental and Risk Department SEMARNAT State Office	Prior to construction	Techniques and environmental Characteristics of the project, indicating if the project corresponds to a new work, expansion, modification, substitution or rehabilitation of the infrastructure, indicating the activities to be developed such as exploration, exploitation or benefit and minerals involved as the main purpose of the project and the benefits. Environmental system and socio-economical description and problematic detected in the project area. Identify the actions that could generate an ecological unbalance. Measure or program description of mitigation or corrective by environmental components. Preventive measure and environmental impacts mitigation	For application A $ 33,121.00 B $ 66,244.00 C $ 99,367.00 February 2018 A, B, or C according to environmental criteria	Approximately 90 days	M3M, subcontractor & consultant

Permit	Agency	Date Required by:	Description / Comments	Agency Fee (MXP)	Agency Process Time	Applied by
Environmental Impact Assessment and Risk Analysis (Mining & access road) If the project has risk elements according of the first and second listing of highly risky activities an integrated study of EIA & Risk will be presented	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Environmental and Risk Department SEMARNAT State Office	Prior to construction	Socioeconomic and natural resources aspects. Detail process description. Detailed *Description of the process* Civil, Mechanic, Electric and Fire protection system Project I. Process and auxiliary Equipment Matter and energy balance Operation and design of temperature and pressure, Physical state of diverse currents of the process Characteristics of Installation operating system Characteristic Instrumentation and piping diagrams (DTI's) with detail engineering and the corresponding symbolic correspondent. Accidents and occurrence preceding II. Identification and classification methodology. Potential radios affectation, Risk interactions Technical-operatives Recommendations	For application A $40,648.80 B $81,296.13 C $121,943.45 February 2018 A, B, or C according to environmental criteria	Approximately 90 days	M3M & consultant
Land Use Change (Mining & access road)	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Forestry Resources SEMARNAT State Office	Prior to construction	Basic information of the project Socioeconomic and natural resources aspects. Environmental system and socio-economical description and problematic detected in the project area. Identify the species that could be in danger with vegetation remove Locate the protected species areas Measure for conserve habitat. Problems for remove coverage of vegetation. Coverage of forestry Identify the actions that could be generating an ecological imbalance. Preventive measure and environmental impacts mitigation Permission: In Arid and semiarid climate $7,221.16 pesos/hectare deforested multiplied by the index of the environmental criteria	February 2018 1-10 ha. $1,493.10 10– 50 ha. $3,152.11 50-200 ha. $6,304.22 Over 200 ha $9,622.24 Permission In Arid and semiarid climate $14,002.49 pesos/hectare deforested multiplied by the index of the environmental criteria Permission: Depends of the number of hectares affected	Approximately 90 days	M3M & subcontractor
Archaeological release letter (Mining & access road)	INAH (State offices)	Prior to construction	Any work to be done in the closeness of archeological monuments, artistic or historic, should be previously Authorized by the INAH	No specific cost.	Approximately 120 days	M3M
Environmental Impact Assessment (Power line)	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Environmental and Risk Department SEMARNAT State Office	Prior to construction	Basic information of the project Socioeconomic and natural resources aspects. Environmental system and socio-economical description and problematic detected in the project area. Identify the actions that could be generating an ecological imbalance. Preventive measure and environmental impacts mitigation	For application A $ 33,121.00 B $ 66,244.00 C $ 99,367.00 February 2018 A, B, or C according to environmental criteria	Approximately 90 days	M3M & subcontractor

Permit	Agency	Date Required by:	Description / Comments	Agency Fee (MXP)	Agency Process Time	Applied by
Archaeological release letter (Power line)	INAH (State offices)	Prior to construction	Any work to be done in the closeness of archeological monuments, artistic or historic, should be previously Authorized by the INAH	No specific cost.	Approximately 120 days	M3M
Land Use Change (Power line)	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Forestry Resources SEMARNAT State Office	Prior to construction	Basic information of the project Socioeconomic and natural resources aspects. Environmental system and socio-economical description and problematic detected in the project area. Identify the species that could be in danger with vegetation remove Locate the protected species areas Measure for conserve habitat. Problems for remove coverage of vegetation. Coverage of forestry Identify the actions that could generate an ecological unbalance. Preventive measure and environmental impacts mitigation	February 2018 1-10 ha. $1,493.10 10– 50 ha. $3,152.11 50-200 ha. $6,304.22 Over 200 ha $9,622.24 Permission In Arid and semiarid climate $14,002.49 pesos/hectare deforested multiplied by the index of the environmental criteria Permission: Depends of the number of hectares affected	Approximately 120 days	M3M & subcontractor
New Concession or Useful Allotment of underground Water	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Comisión Nacional del Agua (CNA)	Prior Construction	Is required to exploit or to make good use of the ground water in those zones that the Federal government has regulated for the public interest.	$ 3,535.00/February 2018	Approximately 90 days	M3M & subcontractor
Authorization for the transfer of Titles and its Registration.	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Comisión Nacional del Agua (CNA)	when it is required	When interested person that have a concession title or in force rights assignment and recorded in the real state record office of water rights and wants to transfer their rights, in the superficial water case within the same basin or underground water within a water-bearing	Free	Approximately 90 days	M3M & subcontractor
Concession for the Materials Extraction in rivers deposits	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Comisión Nacional del Agua (CNA) A MIA approved by SEMARNAT is needed to grant the Concession.	when it is required	When intend to exploit, to make good use of the materials construction located in the national territory to that refer the following fractions of the article 113 of the National Water Law, I. whose administration this in charge of the National Water Commission: II. The lands occupied by lakes, lagoons, estuaries or natural deposits whose water be of national property; and III. The river bed of the national currents of water.	$ 1,498.00/ February 2018	Approximately 90 days	M3M & subcontractor

Permit	Agency	Date Required by:	Description / Comments	Agency Fee (MXP)	Agency Process Time	Applied by
Permission to carry out Hydraulics Constructions	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Comisión Nacional del Agua (CNA)	when it is required	When pretend to build a work located within the national property, whose administration is in charge of the National Water Commission such as: Crossing Structures Pass Drains for of small flows Flow channels Channel Dams Storage Dams Bypass Constructions	$ 4,575.00/ February 2018	Approximately 90 days	M3M & subcontractor
Concession for the Federal Land Occupation Whose Administration Is incumbent on to the National Commission of the Water	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Comisión Nacional del Agua (CNA)	when it is required	land use or advantage of channels, river bed, federal lakes or lagoons, as well as matting, zones and other national goods regulated by the National Water Law	$ 1,499.00/ February 2018	Approximately 90 days	M3M & subcontractor

Table 20-8: Land Preparation and Construction

Permit	Agency	Date Required by:	Description / Comments	Agency Fee (MXP)	Agency Process Time	Applied by
Use of Explosives (presented for evaluation)	Secretaria de la Defensa Nacional (SEDENA)	In order to buy to transport, to store or to use explosives	Transactions are made in Mexico City and must comply with the following format: Letter of notification on the part of the Governor of the State. Certificate of Security. Location map of powder magazines and accessories, with reference to the places where the explosives are used and stored in relation to human occupation. Relation of the type of explosives and amount to be used monthly. Legal documentation of the company.	$14,308.00 pesos/ February 2018 letter of notification on the part of the Governor of the State and the Certificate of Security of Country on a par have a variable cost of which it must take to the representative of the SEDENA to the inspection.	Approximately 90 days after a Technician of SEDENA makes an inspection visit	M3M
Management Plan of Flora and Wildlife	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Environmental and Risk Department SEMARNAT State Office	Prior to Land Clearing	Program of rescue and taken care of flora and fauna listed as endangered	None	30 days	M3M & subcontractor
To fulfill the norms of impact and environmental risk	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Procuraduría Federal de Protección al Ambiente (PROFEPA) State Office	always	The authorization in matter of Environmental Impact and Risk Analysis defines rules for the construction and beginning of operations to protect the environment	None		M3M
Residual Water Discharge Register and Permission	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) Comisión Nacional del Agua (CNA)	Before using water	When one unloads residual waters in permanent form, intermittent or fortuitous, in receiving bodies that are national waters as well as when they infiltrate in lands that are national goods or in other lands when they can contaminate the subsoil or the water-bearing ones.		90 days	M3M & subcontractor
License of construction	Municipality	Prior to construction	It is required to fulfill the construction norms	Varies	Check with country	subcontractor
License of Land Use	Municipality	Prior to construction	the project is due to register and to approve by the Country	Varies	Check with country	subcontractor

Table 20-9: Operation and Benefit

Permit	Agency	Date Required by:	Description / Comments	Agency Fee (MXP)	Agency Process Time	Applied by
Hazardous Wastes	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) State Office	Prior to operation	Generators of hazardous waste must be licensed. Generators are responsible for ultimate safe disposition of wastes.	Free		M3M
Unique License Environmental	Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) State Office	Six months after start operation	Required to new operations, planned expansions of existing operations or operations that need Regularization.	2,653.50 / February 2018	60 days	M3M & consultant

20.3 SOCIOECONOMIC ENVIRONMENT

The Cordero Project is located near the metropolitan area of Hidalgo del Parral in southern Chihuahua, which includes the municipalities of Allende, Belleza, Coronado, El Tule, Huejotitán, Matamoros, Santa Barbara, San Francisco del Oro and Valle Zaragoza. Its population includes more than 103,500 inhabitants in 112 communities, concentrated mainly within the city proper and the remainder of the communities have less than 200 inhabitants. The region accounts for 5.5% of the state Gross Domestic Product and the municipality accounts for 1.9%. The municipality has a surface area of 169,210 hectares, 92% of which is private property, with 85,710 hectares used for forestry or agricultural activities, while 83,500 hectares do not have an identified productive use.

More than 16,000 hectares in 338 production units are in agricultural use. Less than 10% of agriculture is under irrigation, but that fraction generates 50% of the agricultural production value from the municipality. The municipality has three aquifers, which are in hydrological balance in that groundwater extraction is roughly equal to aquifer recharge. The primary impediment to agricultural development within the municipality is the dry climate causing crop failures. Secondary impediments to agricultural development include lack of access to financing and low productivity.

Cattle raising is well-suited to the conditions in the area. There are currently 21,739 head among the 343 cattle operations in the municipality.

The municipality has 5,198 industrial and service sector economic units, which provide more than 21,000 jobs.

Quality of life indicators for Hidalgo del Parral society are measured in terms of poverty rates. Food insecurity impacts 7% of the population, which equates to a vulnerable group of more than 7,000 people. Lack of education or poor academic preparation afflicts 13% of the population, which equates to 13,458 people. The municipality has 153 schools at various levels to serve the educational needs of the community. However, childhood or intergenerational poverty is the most significant quality of life concern affecting 38% of the population.

There are a number of communities within the municipality that are socially disadvantaged, with 60% of the communities having a high degree of marginalization and another 28% with a moderate degree of marginalization.

Health services are also a concern for the community with 66% of the population having some sort of medical service, mainly from Mexican Institution for Social Security (IMSS), but 34% of the population is without adequate coverage.

There are 26,827 registered households within the community of which more than 95% have water, sewer, and electrical services.

20.4 MINE CLOSURE AND RECLAMATION

Closure and reclamation of the mine will be conducted in accordance with Mexican law. The tailings storage facility (TSF), waste rock storage facilities (WRSF), and the open pit will be reclaimed in a manner that mitigates environmental degradation and promotes the return of native vegetation.

The processing plant will be demolished and the equipment and steel sold for salvage or scrap. Inert materials with no salvage value will be buried onsite, covered, revegetated, and reclaimed. Aboveground piping and other improvements will be removed and the land surface reseeded and restored.

At closure, the WRSFs will be covered with an inert waste rock cover, soil, and growth media graded to collect and discharge surface water downstream. The cover will be designed to channel runoff without eroding the cover and contoured to limit penetration of rainfall into the storage pile.

The TSF will be allowed to dry, contoured, covered with growth media, and seeded to promote natural vegetation. Drainage on the slopes will be channeled and managed to limit erosion.

A pit lake will form in the post-mining open pit. The pit lake closure and management will be conducted to minimize impacts to the environment. The pit lake is expected to be a long-term passive hydraulic sink due to the arid climate with evaporation exceeding rainfall.

21 CAPITAL AND OPERATING COSTS

Capital and operating costs were estimated for the project, based on comparison with similar projects completed recently by M3, metallurgical test work conducted for this study, and M3's knowledge of operating costs and conditions in Central Mexico.

21.1 OPERATING COST ESTIMATE

Operating costs include general administration, mining costs, and processing plant costs including tailing disposal operations.

21.1.1 Mine Operating Cost

The mine operating cost is developed from the mine equipment requirements and the mine personnel requirements. The operating costs include parts and consumables, supervision labor, maintenance labor, operating labor, and miscellaneous services. The base hourly operating cost of each piece of major mine equipment was developed from first principals then extrapolated to an operating cost per shift for parts and consumables. Personnel costs are calculated separately and combined with the parts and consumables cost to determine the total mine operating cost.

Table 21-1 shows the mine operating cost for each year and Table 21-2 shows the corresponding unit cost per tonne for each period. The costs are shown by cost center. The life of mine average unit operating cost is $1.195 per total tonne moved. Table 21-3 lists the parts and consumables cost per shift for each of the major mine equipment machines.

Table 21-1: Mine Operating Cost Per Year

Summary of Mine Operating Costs - Total Dollars ($US x 1000)												
Mining Year	Total Material (kt)	Drilled/ Blasted (kt)	Drilling	Blasting	Loading	Hauling	Auxiliary	General Mine	General Maint.	G&A	TOTAL	Cost/ Tonne of Total Mat'l
-1	830	830	73	234	157	146	1,433	186	114	335	2,678	3.227
1	29,593	29,593	2,597	7,874	5,497	6,215	4,177	1,603	1,456	1,078	30,497	1.031
2	35,097	35,097	3,075	9,331	6,517	8,165	4,894	1,925	1,688	1,102	36,697	1.046
3	29,637	29,637	2,596	7,886	5,503	7,203	4,886	1,706	1,460	1,038	32,278	1.089
4	32,320	32,320	2,834	8,596	5,995	8,558	4,502	1,814	1,575	1,048	34,920	1.080
5	32,201	32,201	2,825	8,564	5,973	9,927	4,897	1,809	1,577	1,061	36,633	1.138
6	34,577	34,577	3,039	9,193	6,425	10,796	4,908	1,904	1,682	1,072	39,018	1.128
7	36,000	36,000	3,153	9,570	6,684	11,495	5,308	1,961	1,742	1,079	40,991	1.139
8	36,000	36,000	3,155	9,570	6,685	10,748	5,313	1,961	1,742	1,076	40,248	1.118
9	28,006	28,006	2,452	7,454	5,207	7,022	5,694	1,641	1,402	1,045	31,917	1.140
10	24,721	24,721	2,167	6,585	4,591	5,737	5,296	1,510	1,261	1,029	28,175	1.140
11	31,361	31,361	2,755	8,342	5,819	7,109	5,301	1,775	1,536	1,046	33,685	1.074
12	35,066	35,066	3,072	9,322	6,511	8,447	4,893	1,923	1,687	1,054	36,909	1.053
13	30,388	30,388	2,660	8,084	5,641	7,667	4,172	1,736	1,490	1,037	32,489	1.069
14	34,227	34,227	3,004	9,100	6,144	9,826	4,173	1,890	1,653	1,056	36,846	1.077
15	31,897	31,897	2,798	8,484	5,917	9,779	4,173	1,797	1,558	1,051	35,556	1.115
16	31,542	31,542	2,770	8,390	5,852	10,401	4,174	1,782	1,546	1,056	35,971	1.140
17	24,878	24,878	2,180	6,626	4,620	7,895	4,172	1,516	1,267	1,031	29,308	1.178
18	22,559	22,559	1,977	6,013	4,197	7,794	4,176	1,423	1,174	1,030	27,784	1.232
19	24,704	24,704	2,170	6,580	4,590	9,463	4,182	1,509	1,270	965	30,730	1.244
20	24,850	24,850	2,182	6,619	4,617	9,321	4,183	1,515	1,276	965	30,678	1.235
21	23,228	23,228	2,031	6,190	4,319	8,876	4,173	1,450	1,204	957	29,200	1.257
22	24,152	24,152	2,125	6,434	4,489	9,583	4,182	1,487	1,248	967	30,515	1.263
23	20,921	20,921	1,826	5,579	3,881	7,888	4,167	1,358	1,104	945	26,748	1.279
24	25,195	25,195	2,210	6,710	4,680	10,188	3,800	1,529	1,290	968	31,375	1.245
25	25,592	25,592	2,242	6,815	4,752	11,305	3,798	1,544	1,308	975	32,740	1.279
26	22,351	22,351	1,963	5,958	4,161	10,442	3,802	1,415	1,176	968	29,884	1.337
27	21,719	21,719	1,911	5,791	4,045	13,498	3,800	1,389	1,151	921	32,506	1.497
28	23,998	23,998	2,108	6,394	4,459	19,187	3,791	1,481	1,244	933	39,596	1.650
29	27,505	27,505	2,409	7,322	5,099	26,789	3,789	1,620	1,394	954	49,376	1.795
TOTAL	825,115	825,115	72,360	219,609	153,024	291,466	130,212	48,156	41,275	29,844	985,947	1.195
PERCENT			7.3%	22.3%	15.5%	29.6%	13.2%	4.9%	4.2%	3.0%	100.0%	

Table 21-2: Mine Operating Cost by Unit Operation

Summary of Mine Operating Costs - Per Total Tonne ($US)													
Mining Year	Total Material (kt)	Drilled/ Blasted (kt)	Drilling	Blasting	Loading	Hauling	Auxiliary	General Mine	General Maint.	G&A	TOTAL	Total Cost $x1000
-1	830	830	0.088	0.282	0.189	0.176	1.727	0.224	0.137	0.403	3.227	2,678
1	29,593	29,593	0.088	0.266	0.186	0.210	0.141	0.054	0.049	0.036	1.031	30,497
2	35,097	35,097	0.088	0.266	0.186	0.233	0.139	0.055	0.048	0.031	1.046	36,697
3	29,637	29,637	0.088	0.266	0.186	0.243	0.165	0.058	0.049	0.035	1.089	32,278
4	32,320	32,320	0.088	0.266	0.185	0.265	0.139	0.056	0.049	0.032	1.080	34,920
5	32,201	32,201	0.088	0.266	0.186	0.308	0.152	0.056	0.049	0.033	1.138	36,633
6	34,577	34,577	0.088	0.266	0.186	0.312	0.142	0.055	0.049	0.031	1.128	39,018
7	36,000	36,000	0.088	0.266	0.186	0.319	0.147	0.054	0.048	0.030	1.139	40,991
8	36,000	36,000	0.088	0.266	0.186	0.299	0.148	0.054	0.048	0.030	1.118	40,248
9	28,006	28,006	0.088	0.266	0.186	0.251	0.203	0.059	0.050	0.037	1.140	31,917
10	24,721	24,721	0.088	0.266	0.186	0.232	0.214	0.061	0.051	0.042	1.140	28,175
11	31,361	31,361	0.088	0.266	0.186	0.227	0.169	0.057	0.049	0.033	1.074	33,685
12	35,066	35,066	0.088	0.266	0.186	0.241	0.140	0.055	0.048	0.030	1.053	36,909
13	30,388	30,388	0.088	0.266	0.186	0.252	0.137	0.057	0.049	0.034	1.069	32,489
14	34,227	34,227	0.088	0.266	0.180	0.287	0.122	0.055	0.048	0.031	1.077	36,846
15	31,897	31,897	0.088	0.266	0.185	0.307	0.131	0.056	0.049	0.033	1.115	35,556
16	31,542	31,542	0.088	0.266	0.186	0.330	0.132	0.057	0.049	0.033	1.140	35,971
17	24,878	24,878	0.088	0.266	0.186	0.317	0.168	0.061	0.051	0.041	1.178	29,308
18	22,559	22,559	0.088	0.267	0.186	0.345	0.185	0.063	0.052	0.046	1.232	27,784
19	24,704	24,704	0.088	0.266	0.186	0.383	0.169	0.061	0.051	0.039	1.244	30,730
20	24,850	24,850	0.088	0.266	0.186	0.375	0.168	0.061	0.051	0.039	1.235	30,678
21	23,228	23,228	0.087	0.266	0.186	0.382	0.180	0.062	0.052	0.041	1.257	29,200
22	24,152	24,152	0.088	0.266	0.186	0.397	0.173	0.062	0.052	0.040	1.263	30,515
23	20,921	20,921	0.087	0.267	0.185	0.377	0.199	0.065	0.053	0.045	1.279	26,748
24	25,195	25,195	0.088	0.266	0.186	0.404	0.151	0.061	0.051	0.038	1.245	31,375
25	25,592	25,592	0.088	0.266	0.186	0.442	0.148	0.060	0.051	0.038	1.279	32,740
26	22,351	22,351	0.088	0.267	0.186	0.467	0.170	0.063	0.053	0.043	1.337	29,884
27	21,719	21,719	0.088	0.267	0.186	0.621	0.175	0.064	0.053	0.042	1.497	32,506
28	23,998	23,998	0.088	0.266	0.186	0.800	0.158	0.062	0.052	0.039	1.650	39,596
29	27,505	27,505	0.088	0.266	0.185	0.974	0.138	0.059	0.051	0.035	1.795	49,376
TOTAL	825,115	825,115	0.088	0.266	0.185	0.353	0.158	0.058	0.050	0.036	1.195	985,947
PERCENT			7.3%	22.3%	15.5%	29.6%	13.2%	4.9%	4.2%	3.0%	100.0%	
Per Tonne Drilled/Blasted			0.088	0.266								

Table 21-3: Mine Equipment – Parts and Consumables Cost per Shift

Major Equipment Cost Per Shift - $US	
EQUIPMENT	Parts/ Consum.
PV 235 Rotary Drill	1,344
Cat 6060 Hydraulic Shovel	6,245
Cat 994F Loader	2,229
Cat 793F Haul Truck	2,023
Cat D10T Track Dozer	817
Cat 834H Wheel Dozer	707
Cat 16M Motor Grader	453
Cat 785D Water Truck	1,880
Cat 992K Wheel Loader	1,452
Cat 777 Haul Truck	1,056
Atlas Copco Power Roc T30 Drill	611
Cat 349F Excavator	536

21.1.2 General Administration

21.1.2.1 Labor

The General Administration area includes the general manager's office, accounting office, purchasing and warehousing, information services and safety and environmental departments. A total of 60 employees are considered in these departments at an average annual wage of $26,880 which includes fringe benefits of 40% of annual wages.

21.1.2.2 Supplies and Services

Annual allowances for expenses in the General Administration area include supporting departments, legal, risk insurance, travel, training, communication and community relation expenses to name a few. The basis for these annual allowances was estimated using data from other M3 projects. These costs do not include salaries for these departments. The estimated cost for these services, not including G&A labor is approximately $14.6 million annually.

Table 21-4: Summaries G&A Costs for the Cordero Project

Item	Staff	Annual Cost
Labor	60	1,612,800
Accounting (excluding labor)		50,000
Safety (excluding labor)		90,000
Human Resources (excluding labor)		550,000
Security (excluding labor)		110,000
Janitorial Services (contract)		220,000
Community Relations (excluding labor)		2,200,000
Office Operating Supplies and Postage		275,000
Maintenance Supplies		88,000
Maintenance Labor, Fringes, and Allocations		88,000
Power - Allocation at 20% Mine Shop & Administration		33,000
Propane		33,000
Phone/Communications		88,000
Licenses, Fees, and Vehicle Taxes		66,000
Claims Assessment		25,000
Legal		1,650,000
Insurances		3,300,000
Subs, Dues, PR, and Donations		165,000
Travel, Lodging, and Meals		275,000
Camp Services		4,950,000
Training		330,000
Total G&A		16,198,800

21.1.3 Process Plant

21.1.3.1 Labor

The process plants' staffing has been estimated to have 150 employees (operations 80 employees and maintenance 70 employees) included in the process plants staffing is the laboratory staffing. The maintenance staff was assumed to be 0.9 to 1 ratio to the operation staff exception the administration and supervision staff. An average annual wage of $35,242 which includes fringe benefits of 40% of annual wages was used. Annual plant labor costs are estimated to be $5.3 million.

21.1.3.2 Electrical Power

The electrical power was estimated using data from the M3 data base and estimated at approximately 20.4 kWh per tonne of mineralized material. Power costs were based on a unit price of $0.062 per kWh. Annual plant power costs are estimated to be $18.4 million.

21.1.3.3 Reagents, Wear Items and Grinding Media

Reagents for the process plants include lime, zinc sulfate, sodium cyanide, copper sulfate, Aero 3418A and T-100. Consumption rates were determined from the metallurgical test data or industry practice. Budget quotations were obtained for reagents where available or from other M3 projects with an allowance for freight to site, as shown in Table 21-5.

Table 21-5: Reagent Costs

Reagents	Kilograms per tonne	Dollars per kilogram
Lime	0.570	$0.14
Zinc Sulfate	0.241	$1.10
Sodium Cyanide	0.035	$2.20
Copper Sulfate	0.176	$2.25
Aerophine 3418A	0.012	$12.69
Aerofroth 70	0.038	$3.41

Liner and grinding media consumption was based on industry practice or other M3 projects. Unit prices were obtained from other M3 projects, as shown in Table 21-6.

Table 21-6: Wear Item Costs

Wear Items & Grinding Media	Kilograms per tonne	Dollars per kilogram
Primary Crusher Liners	0.01	$4.28
SAG Mill Liners	0.04	$2.37
Ball Mill Liners	0.02	$2.48
SAG Mill Grinding Media	0.50	$1.24
Ball Mill Grinding Media	0.35	$1.12

21.1.3.4 Maintenance Parts and Supplies

An allowance was made to cover the cost of maintenance parts and supplies of the process plants. The allowance was based on $1.00 per tonne mineralized material.

21.1.3.5 Supplies and Services

An allowance for operating supplies such as safety items, tools, lubricants and office supplies was made using data from other M3 projects on a unit cost per tonne mineralized material and is estimated at $0.50 per tonne mineralized material. The estimated annual cost for plant supplies and services is $7.2 million.

Table 21-7 is a summary of the operating cost for a typical year of operation (Year 11).

Table 21-7: Cordero Operating Cost Summary ($000's)

Area Description	Annual Cost	Unit Cost/Feed Ton
Mining Operations	$33,685,000	$2.34
Process Plant	$73,115,000	$5.08
General Administration	$16,199,000	$1.12
Total	$122,999,000	$8.54*
Annual Processing Units (tonnes): 14,400,000		

*Does not include concentrate transportation & treatment charges

21.2 CAPITAL COST ESTIMATE

21.2.1 Mine Capital Cost

The mine capital cost estimate for Cordero is based on budget quotations for new mine equipment. A summary of the capital estimate by year is presented in Table 21-8. The capital expenditure is shown in the year that the equipment is needed. Mine major equipment includes, but is not limited to blast-hole drills, loading units, haul trucks, dozers, and graders. Mine support equipment includes but is not limited to fuel trucks, pickup trucks, cranes, forklifts, mechanics trucks, and bulk explosives trucks.

All of the necessary equipment to mine approximately 100,000 tonnes per day of total material is purchased during years -1 and 1. The capital expenditures shown in years 2 through 7 are for additional trucks as haul lengths increase. The capital expenditures beyond year 7 are for equipment replacements as each piece of equipment reaches the end of its useful life.

Table 21-8: Mine Capital Cost Summary by Year ($000)

Year	Mine Major Equipment	Mine Support Equipment	Other Equipment	Total
-1	45,277	5,688	3,772	54,737
1	31,697	2,695		34,392
2	10,639			10,639
3				
4		332		332
5	4,597			4,597
6	4,597	1,881	150	6,628
7	4,597	83		4,680
8	610	2,882		3,492
9	1,150			1,150
10	6,340	140		6,480
11		546		546
12	1,445	2,237	150	3,832
13		83		83
14	7,858			7,858
15		225		225
16	2,429	3,441		5,870
17	549			549
18		1,335	150	1,485
19		83		83
20	1,150	332		1,482
21	4,895	686		5,581
22	610			610
23	1,445			1,445
24		4,217	150	4,367
25	22,640	83		22,723
26	4,597	546		5,143
27				
28				
29				

Table 21-9 shows the delivered price for the major mining equipment units. These are based on vendor budgetary quotes. Specific manufacturers' model numbers for equipment are utilized in this report for the purpose of illustrating size and class of equipment used. This should not be considered as a final recommendation of equipment manufacturers' by IMC.

Table 21-9: Delivered Price, Mine Major Equipment

Mine Major Equipment	Delivered Price ($000)
PV235 Rotary Drill	1,812
6060 Hydraulic Shovel	11,320
994F Loader	5,327
793F Haul Truck	4,597
D10 Track Dozer	1,445
834H Wheel Dozer	1,150
16M Motor Grader	1,150
785D Water Truck	2,982
993K Auxiliary Wheel Loader	2,429
777 Auxiliary Haul Truck	1,732
Roc T30 Drill	549
349F Excavator	610

21.2.2 Plant Capital Costs

Initial capital costs for the processing plant were estimated using historical data from similar projects of this type that have been constructed by M3 in Mexico. Initial capital is defined as all capital costs through to the end of construction. All costs are in 1st quarter 2018 US dollars. M3 classifies this plant as a medium-high tonnage plant.

For this study, flowsheets for each plant area were developed and an equipment list was prepared. From the project flows, the major equipment, including the gyratory crusher, the grinding mills, pebble crusher, flotation cells, regrind mills, cyclone feed pumps, thickeners, and concentrate filters, were sized. Conveyors were sized, based on throughput and a preliminary general arrangement the plant to determine the length and the lift.

Using historical projects, M3 populated the equipment list with prices of similar equipment and escalated the prices of equipment by 3% per year from when the equipment price was quoted. Material takeoffs were developed for civil, concrete, and structural steel from similar projects. Costs for architectural, piping, electrical, and instrumentation disciplines were factored.

The conceptual tailings disposal facility was developed by Golder Associates in 2011 and was the basis for the current initial and sustaining TSF capital costs.

Table 21-10 breaks down the capital cost estimate by plant area. M3 estimates that an initial capital expenditure of approximately $485 million will be required to construct the processing plant, tailings storage facility, and infrastructure necessary to bring the Cordero Project into production at a nominal processing capacity of 40,000 mtpd.

The accuracy of this estimate for those items identified in the scope-of-work is estimated to be within the range of +35 to -30 percent.

Table 21-10: Cordero Initial Capital Costs by Area

Area	Description	Cost
000	General Site	13,534,539
100	Primary Crushing	16,294,068
150	Coarse Ore Stockpile	18,951,580
200	Reclaim	13,012,477
300	Grinding & Classification	67,201,583
310	Pebble Crushing	5,913,229
400	Lead Rougher Flotation	9,336,946
405	Zinc Rougher Flotation	6,628,051
410	Lead Regrind Circuit	6,571,832
415	Zinc Regrind Circuit	6,250,298
420	Lead Cleaner Flotation	3,068,521
425	Zinc Cleaner Flotation	3,828,151
500	Lead Con Dewatering	14,088,737
505	Zinc Con Dewatering	4,975,388
600	Tailings System & Starter Dam	19,912,076
650	Fresh/Fire Water Systems	7,196,107
700	Main Substation	16,418,500
800	Reagents	9,441,478
900	Ancillaries	35,991,319
	Freight/Immex	20,931,585
	Total Direct Field Cost	299,546,465
	Field Indirects	5,987,400
	EPCM	48,885,400
	Spares, Vendor Services, Commissioning	7,092,000
	Total Direct and Indirect Costs	361,511,265
	Contingency (30%)	108,453,380
	Power Transmission Line	15,000,000
	Total Plant & Infrastructure Capex	484,964,645

21.2.3 Owner's Cost

Owner's costs include items for the initial capital cost that fall into the Owner's responsibility. Table 21-11 shows the estimated Owner's costs for the project. The largest categories include: first fills of reagents and consumables, light vehicles and support mobile equipment for the operation, pre-production staffing and training, and construction insurance. A contingency of 30% has been applied to Owner's costs.

Table 21-11: Estimated Owner's Cost

Item	Sub Section	Total ($)
Owner's Salaries & Burden	Construction Management Team	2,250,000
Owner's Team Indirects: phone, radio, IT hardware & software, medical and safety supplies, Owners offices & furnishing, Owners housing & meals, power & water, sanitation		2,860,000
Community Development		100,000
ROW & Land Acquisition		150,000
Legal, Permits, & Fees		750,000
Additional Consultants		500,000
Construction Insurance		2,000,000
Operations Staff Build-up & Training	Owner Management	1,750,000
	Owner Commissioning Team	300,000
	Job Specific Training	1,190,000
	Preproduction Staffing	3,000,000
Operations Direct Costs	Small Tools	750,000
	Light Vehicles, mobile crane, grader, backhoe, ambulance, etc.	3,500,000
	Plant First Fills	3,000,000
	Warehouse Spares	1,000,000
Subtotal Owner Costs		23,100,000
Contingency	30%	6,930,000
Total Owner Costs		30,030,000

22 ECONOMIC ANALYSIS

The Cordero Project economic analyses were prepared using a discounted cash flow model. The financial indicators examined for the project included the Net Present Value (NPV), Internal Rate of Return (IRR) and payback period (time in years to recapture the initial capital investment). Annual cash flow projections were estimated over the life of the mine based on capital expenditures, production costs, transportation and treatment charges and sales revenue. The life of the mine is approximately 29 years up from 15 years in the previous study. Products being produced will include a zinc concentrate and a lead concentrate, both bearing silver and small amounts of gold payables.

22.1 PRODUCTION STATISTICS

Mine production is reported as mineralized material and waste from the mining options. The annual production figures were obtained from the mine plan as reported previously. The life of mine sulfide mineralized material quantities and mineralized material grade are presented in Table 22-1.

Table 22-1: Mine Production

	Tonnes (000)	Zinc (%)	Lead (%)	Gold (g/t)	Silver (g/t)
Mineralized Material	417,526	0.432	0.258	0.064	19.39
Waste	407,589				

The mine production figures in Table 22-1 include Indicated and Inferred Mineral Resources, as described in Section 16. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration or Mineral Reserves once economic considerations are applied. Therefore, there is no certainty that the production profile presented in this updated PEA will be realized.

The following products will be produced from the Process Plant:

- Zinc Concentrate with gold and silver credits
- Lead Concentrate with gold and silver credits

The estimated recoveries for each metal are shown in Table 22-2 and life of mine saleable production is presented in Table 22-3.

Table 22-2: Metal Recoveries

	Zinc Concentrate	Lead Concentrate
Zinc	72%	
Lead		84%
Gold	20%	20%
Silver	10.6%	78%

Table 22-3: Life of Mine Metal Production

	Zinc (000 lbs)	Lead (000 lbs)	Gold (000 ozs)	Silver (000 ozs)
Zinc Concentrate	2,862,666		173	27,594
Lead Concentrate		1,991,507	173	203,048

22.2 SMELTER RETURN FACTORS

The process plant products will be shipped from the site to smelting and refining companies. The smelter and refining treatment charges will be subject to negotiation at the time of final agreement.

A smelter may impose a penalty either expressed in higher treatment charges, or in metal deductions to treat concentrates that contain higher than specified quantities of certain elements. It is expected that the concentrate will not pose any special restrictions on smelting and refining, and that the concentrates will be marketable to smelting and refining companies.

The smelting and refining charges calculated in the financial evaluation include charges for smelting and refining these products. The off-site charges that will be incurred are presented in Table 22-4.

Table 22-4: Smelter Return Factors

Zinc Concentrates	
Payable Zinc	85.0%
Payable Gold	60.0%
Payable Silver	80.0%
Zinc Deduction (if grade <53%)	8.0%
Gold Deduction (troy oz/dmt)	0.010
Silver Deduction (troy oz/dmt)	4.000
Base Treatment Charge ($2,500)	$233.00
Plus $ for increase in Zinc Price per dmt $2,500 to $3,000	$0.09
Plus $ for increase in Zinc Price per dmt over $3,000	$0.08
Minus $ for increase in Zinc Price per dmt $2,500 to $2,000	$0.04
Minus $ for increase in Zinc Price per dmt under $2,000	$0.04
Gold Refining - $/troy oz	$10.00
Silver Refining - $/troy oz	$0.75
Transportation Charge - $/wmt	$100.00
Penalties	
Arsenic – above 0.3% for 0.1%	$2.00
Magnesium – above 0.5% for 0.1%	$1.50
Mercury 30ppm to 250ppm for 10ppm	$0.30
Mercury >250ppm for 1ppm	$0.50
Moisture	8%
Lead Concentrates	
Payable Lead	95.0%
Payable Gold	95.0%
Payable Silver	95.0%
Lead Deduction (if grade <60%)	3.0%
Gold Deduction (troy oz/dmt)	0.070
Silver Deduction (troy oz/dmt)	2.000
Base Treatment Charge ($2,500)	$211.82
Plus $ for increase in Lead Price per dmt $2,500 to $3,000	$0.08
Plus $ for increase in Lead Price per dmt over $3,000	$0.08
Minus $ for increase in Lead Price per dmt $2,500 to $2,000	$0.04
Minus $ for increase in Lead Price per dmt under $2,000	$0.04
Gold Refining - $/oz	$10.00
Silver Refining - $/oz	$0.75
Transportation Charge - $/wmt	$100.00
Penalties	
Arsenic – above 0.5% for 0.1%	$2.00
Magnesium – above 0.5% for 0.1%	$1.50
Mercury >50ppm for 10ppm	$0.50
Zinc >10% for 1%	$0.25
Moisture	8%

22.3 CAPITAL EXPENDITURES

22.3.1 Initial Capital

The total capital of new construction (includes direct and indirect costs) is estimated to be $569.7 million. This amount includes $54.7 million for the mine; $485.0 million for the process plant and infrastructure and $30 million for Owner's cost.

Any land acquisition or exploration costs or other owner's study expenditures prior to this Scoping Study have been treated as "sunk" costs and have not been included in the analysis.

22.3.2 Sustaining Capital

The total life of mine sustaining capital is estimated to be $270.5 million, of which $134.3 million is from mine sustaining capital for replacement mining equipment and rebuilds, $46.0 million is for plant upgrades, and $92.2 million is for expansions of the TSF.

22.3.3 Salvage Value

No salvage value was considered in the cash flow analysis as a return of capital from the salvage and resale of equipment at the end of mine life.

22.4 REVENUES

Annual revenue is determined by applying estimated metal prices to the annual payable metal before treatment, refinery and transportation charges for each operating year. Sales prices have been applied to all life of mine production without escalation or hedging. Metal sales prices used in the evaluation are shown in Table 22-5.

Table 22-5: Metals Prices for Economic Analysis

Zinc	$1.30/lb.
Lead	$1.00/lb.
Gold	$1,300/oz.
Silver	$20.00/oz.

22.5 OPERATING COST

The average Operating Cost over the life of the mine include mine, process plant, general administrative, treatment and refining charges, transportation.

Table 22-6: Operating Cost

	LOM $000	$/mill feed tonne
Mining	$983,270	$2.35
Process Plant	$2,120,157	$5.08
General Administration	$469,765	$1.13
Treatment & Refining Charges	$1,675,829	$4.01
Total Operating Cost	$5,248,921	$12.57

22.6 ROYALTIES, RECLAMATION, AND CLOSURE

The Mexican Federal royalty on mining properties was enacted in October 2013. This new tax is calculated at 7.5% of net operating revenue and is estimated to be $273.8 million for the life of the mine. Reclamation & Closure including TSF concurrent reclamation was estimated on costs ranging from of $0.05/tonne mined to $0.50/tonne mined at approximately $206.6 million.

22.7 DEPRECIATION

Depreciation was calculated using the straight-line method with the initial capital being depreciated over 10 years and sustaining capital over an 8-year period. The last year of production was used as a catch-up year to fully depreciate any assets that had not been fully depreciated.

22.8 INCOME TAXES

Taxable income for income tax purposes is defined as metal revenues minus operating expenses, royalty, property and severance taxes, reclamation and closure expense, and depreciation. A 30% income tax rate was used in the calculation. The income tax rate in the original PEA in 2012 was estimated to be 28%.

22.9 PROJECT FINANCING AND ECONOMIC ANALYSIS

It is assumed for the purposes of this study that the project will be all equity financed. No leverage or debt expense has been applied in the financial analysis.

22.10 NET INCOME

The result for net income after taxes is $1,772.5 million for the life of the mine.

22.11 ECONOMIC INDICATORS

The economic indicators are shown in Table 22-7. All results are after-taxes.

Table 22-7: Economic Indicators

	$ in thousands
NPV @ 0%	$1,772,532
NPV @ 5%	$699,621
NPV @ 7.5%	$437,725
NPV @ 10%	$260,817
IRR % after taxes	16.5%
Payback Years	4.8

22.12 SENSITIVITY ANALYSIS

Table 22-8 shows the sensitivity the project has for metal prices, initial capital, operating cost and recovery.

Table 22-8: After-Tax Sensitivity Analysis

Sensitivities - After Taxes					
Change in Metal Prices	NPV @ 0%	NPV@7.5%	NPV@10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
20%	$2,950,167	$897,995	$626,901	24.7%	3.5
10%	$2,361,350	$667,860	$443,859	20.7%	4.1
0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-10%	$1,181,336	$206,251	$76,660	12.0%	6.0
-20%	$591,149	($27,706)	($110,197)	6.8%	9.2
Change in Operating Cost	NPV @ 0%	NPV@7.5%	NPV@10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
20%	$1,310,440	$264,143	$124,885	13.3%	5.4
10%	$1,541,486	$350,970	$192,890	15.0%	5.0
0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-10%	$2,003,579	$524,480	$328,745	18.1%	4.5
-20%	$2,234,625	$611,235	$396,672	19.5%	4.3
Change in Initial Capital	NPV @ 0%	NPV@7.5%	NPV@10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
20%	$1,692,774	$351,738	$173,946	13.7%	5.5
10%	$1,732,653	$394,731	$217,381	15.0%	5.1
0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-10%	$1,812,411	$480,718	$304,253	18.4%	4.4
-20%	$1,852,291	$523,711	$347,689	20.5%	4.1
Change in Recovery	NPV @ 0%	NPV@7.5%	NPV@10%	IRR%	Payback
Base Case	$1,772,532	$437,725	$260,817	16.5%	4.8
2.0%	$1,868,624	$475,651	$291,063	17.3%	4.6
1.0%	$1,820,578	$456,688	$275,940	16.9%	4.7
0.0%	$1,772,532	$437,725	$260,817	16.5%	4.8
-1.0%	$1,724,487	$418,762	$245,694	16.2%	4.8
-2.0%	$1,676,441	$399,799	$230,571	15.8%	4.9

This study has been performed to the level of a Preliminary Economic Assessment. The PEA is considered 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 that are not Mineral Reserves have not yet demonstrated economic viability. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource because of continued exploration or Mineral Reserves once economic considerations are applied. Therefore, there is no certainty that the production profile concluded in the PEA will be realized.

The results in the financial model presented here show small differences from the press release of March 5, 2018, mainly due to refinements in the power cost for the project, the estimated maintenance cost per ore tonne, and changes to the royalties due on net operating cost. The annual operating cost improved from $198 million to $181 million. The

IRR has slightly improved by 0.8% from the March 5, 2018 press release while the after-tax NPV at a 7.5% discount rate improved $367 million to $438 million. The after-tax payback period for the mine remains the same at 4.8 years.

The details of the economic analysis are presented in Table 22-9.

Table 22-9: Financial Model

Base Case	Total	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11
Mining Operations															
Ore															
Beginning Inventory (kt)	417,526	417,526	417,526	417,526	417,411	403,126	388,726	374,326	359,926	345,526	331,126	316,726	302,326	287,926	273,526
Mined (kt)	417,526	-	-	115	14,285	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400
Ending Inventory (kt)	-	417,526	417,526	417,411	403,126	388,726	374,326	359,926	345,526	331,126	316,726	302,326	287,926	273,526	259,126
Gold Grade (g/t)	0.06	-	-	0.11	0.10	0.13	0.16	0.12	0.11	0.10	0.09	0.06	0.06	0.06	0.05
Silver Grade (g/t)	19.39	-	-	15.72	27.47	30.79	34.49	28.21	30.74	22.62	19.00	18.57	18.44	19.72	21.00
Lead Grade (%)	0.26%	0.00%	0.00%	0.27%	0.29%	0.34%	0.38%	0.32%	0.31%	0.26%	0.28%	0.36%	0.25%	0.25%	0.26%
Zinc Grade (%)	0.43%	0.00%	0.00%	0.09%	0.29%	0.40%	0.37%	0.40%	0.39%	0.33%	0.29%	0.35%	0.43%	0.46%	0.40%
Contained Gold (kozs)	863	-	-	0	46	59	72	53	52	45	43	27	29	26	23
Contained Silver (kozs)	260,314	-	-	58	12,616	14,255	15,967	13,059	14,231	10,473	8,798	8,597	8,537	9,129	9,723
Contained Lead (klbs)	2,370,862	-	-	682	90,385	107,621	119,367	101,906	99,049	83,176	89,525	115,557	78,096	78,096	81,589
Contained Zinc (klbs)	3,975,961	-	-	216	90,385	127,621	118,732	125,399	123,177	103,811	92,382	110,795	137,780	145,399	128,256
Waste															
Beginning Inventory(kt)	407,589	407,589	407,589	407,589	406,874	391,566	370,869	355,632	337,712	319,911	299,734	278,134	256,534	242,928	232,607
Mined (kt)	407,589	-	-	715	15,308	20,697	15,237	17,920	17,801	20,177	21,600	21,600	13,606	10,321	16,961
Ending Inventory (kt)	-	407,589	407,589	406,874	391,566	370,869	355,632	337,712	319,911	299,734	278,134	256,534	242,928	232,607	215,646
Total Material Mined (kt)	825,115	-	-	830	29,593	35,097	29,637	32,320	32,201	34,577	36,000	36,000	28,006	24,721	31,361
Waste to Ore Ratio	0.98	-	-	6.22	1.07	1.44	1.06	1.24	1.24	1.40	1.50	1.50	0.94	0.72	1.18
Process Plant Operations															
Concentrator															
Beginning Ore Inventory (kt)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mined Ore to Concentrator (kt)	417,526	-	-	-	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400
Mined Ore - Processed (kt)	417,526	-	-	-	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400
Ending Ore Inventory		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold Grade (g/t)	0.06	-	-	-	0.10	0.13	0.16	0.12	0.11	0.10	0.09	0.06	0.06	0.06	0.05
Silver Grade (g/t)	19.39	-	-	-	27.38	30.79	34.49	28.21	30.74	22.62	19.00	18.57	18.44	19.72	21.00
Lead Grade (%)	0.26%	0.00%	0.00%	0.00%	0.29%	0.34%	0.38%	0.32%	0.31%	0.26%	0.28%	0.36%	0.25%	0.25%	0.26%
Zinc Grade (%)	0.43%	0.00%	0.00%	0.00%	0.29%	0.40%	0.37%	0.40%	0.39%	0.33%	0.29%	0.35%	0.43%	0.46%	0.40%
Contained Gold (kozs)	863	-	-	-	46	59	72	53	52	45	43	27	29	26	23
Contained Silver (kozs)	260,314	-	-	-	12,674	14,255	15,967	13,059	14,231	10,473	8,798	8,597	8,537	9,129	9,723
Contained Lead (klbs)	2,370,862	-	-	-	91,067	107,621	119,367	101,906	99,049	83,176	89,525	115,557	78,096	78,096	81,589
Contained Zinc (klbs)	3,975,961	-	-	-	90,600	127,621	118,732	125,399	123,177	103,811	92,382	110,795	137,780	145,399	128,256
Zinc Concentrate															
Recovery Zinc (%)	72.00%	0.00%	0.00%	0.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%
Recovery Gold (%)	20.00%	0.00%	0.00%	0.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Recovery Silver (%)	10.60%	0.00%	0.00%	0.00%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%
Zinc Concentrate (kt)	2,450	-	-	-	56	79	73	77	76	64	57	68	85	90	79
Zinc Concentrate - Grade (Zn %)	53.00%	0.00%	0.00%	0.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%
Recovered Zinc (klbs)	2,862,692	-	-	-	65,232	91,887	85,487	90,287	88,687	74,744	66,515	79,773	99,202	104,687	92,344
Recovered Gold (kozs)	173	-	-	-	9	12	14	11	10	9	9	5	6	5	5
Recovered Silver (kozs)	27,593	-	-	-	1,343	1,511	1,693	1,384	1,508	1,110	933	911	905	968	1,031
Lead Concentrate															
Recovery Lead (%)	84.00%	0.00%	0.00%	0.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%
Recovery Gold (%)	20.00%	0.00%	0.00%	0.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Recovery Silver (%)	78.00%	0.00%	0.00%	0.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%
Lead Concentrate (kt)	2,053	-	-	-	79	93	103	88	86	72	78	100	68	68	71
Lead Concentrate - Grade (Pb%)	44.00%	0.00%	0.00%	0.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%
Recovered Lead (klbs)	1,991,524	-	-	-	76,496	90,401	100,268	85,601	83,201	69,868	75,201	97,068	65,601	65,601	68,534
Recovered Gold (kozs)	173	-	-	-	9	12	14	11	10	9	9	5	6	5	5
Recovered Silver (kozs)	203,045	-	-	-	9,886	11,119	12,455	10,186	11,100	8,169	6,863	6,706	6,659	7,121	7,584
Payable Metals															
Zinc Concentrate															
Payable Zinc (klbs)	2,430,588	-	-	-	55,386	78,017	72,583	76,659	75,300	63,462	56,475	67,732	84,228	88,885	78,406
Payable Gold (kozs)	89	-	-	-	5	7	8	6	6	5	5	3	3	3	2
Payable Silver (kozs)	14,235	-	-	-	896	957	1,120	860	964	683	564	511	452	487	572
Lead Concentrate															
Payable Lead (klbs)	1,855,738	-	-	-	71,281	84,238	93,432	79,765	77,528	65,104	70,074	90,450	61,128	61,128	63,862
Payable Gold (kozs)	38	-	-	-	4	5	7	4	4	4	3	-	1	0	-
Payable Silver (kozs)	188,992	-	-	-	9,242	10,386	11,635	9,509	10,382	7,624	6,372	6,181	6,197	6,636	7,071
Income Statement ($000)															
Zinc ($/lb.)	$ 1.30	$ -	$ -	$ -	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30
Lead ($/lb)	$ 1.00	$ -	$ -	$ -	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00
Gold ($/oz)	$ 1,300.00	$ -	$ -	$ -	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00
Silver ($/oz)	$ 20.00	$ -	$ -	$ -	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00
Revenues															
Zinc Concentrate - Zn	$ 3,159,764	$ -	$ -	$ -	$ 72,002	$ 101,423	$ 94,358	$ 99,657	$ 97,890	$ 82,500	$ 73,418	$ 88,051	$ 109,496	$ 115,551	$ 101,927
Zinc Concentrate - Au	$ 115,577	$ -	$ -	$ -	$ 6,792	$ 8,559	$ 10,624	$ 7,703	$ 7,569	$ 6,507	$ 6,201	$ 3,656	$ 3,888	$ 3,346	$ 2,995
Zinc Concentrate - Ag	$ 284,693	$ -	$ -	$ -	$ 17,923	$ 19,143	$ 22,398	$ 17,204	$ 19,278	$ 13,669	$ 11,279	$ 10,212	$ 9,045	$ 9,748	$ 11,433
Lead Concentrate - Pb	$ 1,855,738	$ -	$ -	$ -	$ 71,281	$ 84,238	$ 93,432	$ 79,765	$ 77,528	$ 65,104	$ 70,074	$ 90,450	$ 61,128	$ 61,128	$ 63,862
Lead Concentrate - Au	$ 49,463	$ -	$ -	$ -	$ 4,626	$ 6,466	$ 8,789	$ 5,522	$ 5,507	$ 4,866	$ 3,819	$ -	$ 1,358	$ 557	$ -
Lead Concentrate - Ag	$ 3,779,841	$ -	$ -	$ -	$ 184,837	$ 207,716	$ 232,709	$ 190,188	$ 207,641	$ 152,478	$ 127,445	$ 123,610	$ 123,944	$ 132,720	$ 141,415
Total Revenues	$ 9,245,076	$ -	$ -	$ -	$ 357,461	$ 427,545	$ 462,310	$ 400,038	$ 415,414	$ 325,123	$ 292,234	$ 315,979	$ 308,859	$ 323,051	$ 321,631

Base Case	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Mining Operations																			
Ore																			
Beginning Inventory (kt)	259,126	244,726	230,326	215,926	201,526	187,126	172,726	158,326	143,926	129,526	115,126	100,726	86,326	71,926	57,526	43,126	28,726	14,326	-
Mined (kt)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,326	-
Ending Inventory (kt)	244,726	230,326	215,926	201,526	187,126	172,726	158,326	143,926	129,526	115,126	100,726	86,326	71,926	57,526	43,126	28,726	14,326	-	-
Gold Grade (g/t)	0.05	0.04	0.04	0.05	0.06	0.05	0.06	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06	0.06	0.04	0.04	-
Silver Grade (g/t)	16.21	16.75	13.98	13.57	15.59	16.84	15.25	14.78	16.04	15.99	16.87	15.19	17.02	19.93	16.38	18.19	15.13	17.69	-
Lead Grade (%)	0.17%	0.19%	0.17%	0.17%	0.20%	0.20%	0.23%	0.23%	0.21%	0.23%	0.26%	0.21%	0.24%	0.31%	0.26%	0.29%	0.27%	0.34%	0.00%
Zinc Grade (%)	0.35%	0.38%	0.36%	0.39%	0.43%	0.44%	0.47%	0.45%	0.46%	0.46%	0.46%	0.41%	0.43%	0.58%	0.52%	0.64%	0.55%	0.64%	0.00%
Contained Gold (kozs)	22	20	19	23	26	25	25	20	19	18	16	17	21	26	25	26	20	19	-
Contained Silver (kozs)	7,502	7,753	6,474	6,280	7,219	7,796	7,061	6,843	7,428	7,404	7,812	7,033	7,882	9,227	7,584	8,422	7,002	8,147	-
Contained Lead (klbs)	54,287	59,366	53,652	53,969	62,223	64,445	73,334	71,747	67,938	73,969	81,271	67,938	74,922	99,049	83,493	91,747	84,446	108,015	-
Contained Zinc (klbs)	111,113	119,684	113,970	123,811	137,462	138,097	148,891	143,812	145,717	145,082	147,304	129,526	136,828	184,765	165,082	203,178	174,606	203,081	-
Waste																			
Beginning Inventory(kt)	215,646	194,980	178,992	159,165	141,668	124,526	114,048	105,889	95,585	85,135	76,307	66,555	60,034	49,239	38,047	30,096	22,777	13,179	-
Mined (kt)	20,666	15,988	19,827	17,497	17,142	10,478	8,159	10,304	10,450	8,828	9,752	6,521	10,795	11,192	7,951	7,319	9,598	13,179	-
Ending Inventory (kt)	194,980	178,992	159,165	141,668	124,526	114,048	105,889	95,585	85,135	76,307	66,555	60,034	49,239	38,047	30,096	22,777	13,179	-	-
Total Material Mined (kt)	35,066	30,388	34,227	31,897	31,542	24,878	22,559	24,704	24,850	23,228	24,152	20,921	25,195	25,592	22,351	21,719	23,998	27,505	-
Waste to Ore Ratio	1.44	1.11	1.38	1.22	1.19	0.73	0.57	0.72	0.73	0.61	0.68	0.45	0.75	0.78	0.55	0.51	0.67	0.92	-
Process Plant Operations																			
Concentrator																			
Beginning Ore Inventory (kt)	-	-	-	-	-	-	-	-	-	-	-	-	-						
Mined Ore to Concentrator (kt)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,326	-
Mined Ore - Processed (kt)	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,400	14,326	-
Ending Ore Inventory	-	-	-	-	-	-	-	-	-	-	-	-	-						
Gold Grade (g/t)	0.05	0.04	0.04	0.05	0.06	0.05	0.06	0.04	0.04	0.04	0.04	0.04	0.05	0.06	0.06	0.06	0.04	0.04	-
Silver Grade (g/t)	16.21	16.75	13.98	13.57	15.59	16.84	15.25	14.78	16.04	15.99	16.87	15.19	17.02	19.93	16.38	18.19	15.13	17.69	-
Lead Grade (%)	0.17%	0.19%	0.17%	0.17%	0.20%	0.20%	0.23%	0.23%	0.21%	0.23%	0.26%	0.21%	0.24%	0.31%	0.26%	0.29%	0.27%	0.34%	0.00%
Zinc Grade (%)	0.35%	0.38%	0.36%	0.39%	0.43%	0.44%	0.47%	0.45%	0.46%	0.46%	0.46%	0.41%	0.43%	0.58%	0.52%	0.64%	0.55%	0.64%	0.00%
Contained Gold (kozs)	22	20	19	23	26	25	25	20	19	18	16	17	21	26	25	26	20	19	-
Contained Silver (kozs)	7,502	7,753	6,474	6,280	7,219	7,796	7,061	6,843	7,428	7,404	7,812	7,033	7,882	9,227	7,584	8,422	7,002	8,147	-
Contained Lead (klbs)	54,287	59,366	53,652	53,969	62,223	64,445	73,334	71,747	67,938	73,969	81,271	67,938	74,922	99,049	83,493	91,747	84,446	108,015	-
Contained Zinc (klbs)	111,113	119,684	113,970	123,811	137,462	138,097	148,891	143,812	145,717	145,082	147,304	129,526	136,828	184,765	165,082	203,178	174,606	203,081	-
Zinc Concentrate																			
Recovery Zinc (%)	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	72.00%	0.00%
Recovery Gold (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	0.00%
Recovery Silver (%)	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	10.60%	0.00%
Zinc Concentrate (kt)	68	74	70	76	85	85	92	89	90	89	91	80	84	114	102	125	108	125	-
Zinc Concentrate - Grade (Zn %)	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	53.00%	0.00%
Recovered Zinc (klbs)	80,001	86,173	82,058	89,144	98,973	99,430	107,202	103,544	104,916	104,459	106,059	93,259	98,516	133,031	118,859	146,288	125,716	146,218	-
Recovered Gold (kozs)	4	4	4	5	5	5	5	4	4	4	3	3	4	5	5	5	4	4	-
Recovered Silver (kozs)	795	822	686	666	765	826	748	725	787	785	828	745	835	978	804	893	742	864	-
Lead Concentrate																			
Recovery Lead (%)	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	0.00%
Recovery Gold (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	0.00%
Recovery Silver (%)	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	78.00%	0.00%
Lead Concentrate (kt)	47	51	46	47	54	56	64	62	59	64	70	59	65	86	72	79	73	94	-
Lead Concentrate - Grade (Pb%)	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	44.00%	0.00%
Recovered Lead (klbs)	45,601	49,867	45,067	45,334	52,267	54,134	61,601	60,268	57,068	62,134	68,268	57,068	62,934	83,201	70,134	77,068	70,934	90,733	-
Recovered Gold (kozs)	4	4	4	5	5	5	5	4	4	4	3	3	4	5	5	5	4	4	-
Recovered Silver (kozs)	5,852	6,048	5,050	4,899	5,631	6,081	5,507	5,338	5,794	5,775	6,093	5,485	6,148	7,197	5,915	6,569	5,462	6,355	-
Payable Metals																			
Zinc Concentrate																			
Payable Zinc (klbs)	67,926	73,166	69,672	75,689	84,034	84,422	91,020	87,915	89,080	88,691	90,050	79,182	83,646	112,951	100,918	124,207	106,740	124,148	-
Payable Gold (kozs)	2	2	2	2	3	2	3	2	2	2	1	2	2	2	2	2	2	2	-
Payable Silver (kozs)	417	421	324	288	341	389	305	297	343	342	372	341	399	418	318	314	250	290	-
Lead Concentrate																			
Payable Lead (klbs)	42,492	46,467	41,995	42,243	48,704	50,443	57,401	56,158	53,177	57,898	63,613	53,177	58,643	77,528	65,353	71,813	66,098	84,546	-
Payable Gold (kozs)	1	0	0	1	1	1	1	-	-	-	-	-	-	-	0	-	-	-	-
Payable Silver (kozs)	5,470	5,648	4,709	4,565	5,247	5,671	5,111	4,953	5,392	5,365	5,655	5,099	5,717	6,674	5,482	6,090	5,050	5,859	-
Income Statement ($000)																			
Zinc ($/lb.)	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ 1.30	$ -
Lead ($/lb)	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ 1.00	$ -
Gold ($/oz)	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ 1,300.00	$ -
Silver ($/oz)	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ -
Revenues																			
Zinc Concentrate - Zn	$ 88,303	$ 95,115	$ 90,574	$ 98,395	$ 109,244	$ 109,748	$ 118,326	$ 114,290	$ 115,803	$ 115,299	$ 117,065	$ 102,936	$ 108,739	$ 146,836	$ 131,193	$ 161,469	$ 138,762	$ 161,392	$ -
Zinc Concentrate - Au	$ 2,860	$ 2,530	$ 2,341	$ 3,016	$ 3,456	$ 3,164	$ 3,257	$ 2,487	$ 2,333	$ 2,047	$ 1,820	$ 2,050	$ 2,665	$ 3,156	$ 3,179	$ 3,068	$ 2,339	$ 1,970	$ -
Zinc Concentrate - Ag	$ 8,342	$ 8,430	$ 6,486	$ 5,768	$ 6,822	$ 7,776	$ 6,103	$ 5,935	$ 6,851	$ 6,836	$ 7,440	$ 6,819	$ 7,971	$ 8,362	$ 6,352	$ 6,272	$ 4,990	$ 5,808	$ -
Lead Concentrate - Pb	$ 42,492	$ 46,467	$ 41,995	$ 42,243	$ 48,704	$ 50,443	$ 57,401	$ 56,158	$ 53,177	$ 57,898	$ 63,613	$ 53,177	$ 58,643	$ 77,528	$ 65,353	$ 71,813	$ 66,098	$ 84,546	$ -
Lead Concentrate - Au	$ 1,311	$ 473	$ 558	$ 1,677	$ 1,860	$ 1,236	$ 800	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 39	$ -	$ -	$ -	$ -
Lead Concentrate - Ag	$ 109,400	$ 112,951	$ 94,182	$ 91,297	$ 104,933	$ 113,416	$ 102,227	$ 99,055	$ 107,846	$ 107,298	$ 113,102	$ 101,986	$ 114,340	$ 133,478	$ 109,646	$ 121,800	$ 100,997	$ 117,183	$ -
Total Revenues	$ 252,708	$ 265,967	$ 236,135	$ 242,397	$ 275,018	$ 285,783	$ 288,114	$ 277,924	$ 286,010	$ 289,378	$ 303,040	$ 266,968	$ 292,358	$ 369,360	$ 315,762	$ 364,422	$ 313,186	$ 370,900	-

Base Case	Total	-3	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13
Operating Cost																	
Mining	$ 983,270	$ -	$ -	$ -	$ 30,497	$ 36,697	$ 32,278	$ 34,920	$ 36,633	$ 39,018	$ 40,991	$ 40,248	$ 31,917	$ 28,175	$ 33,685	$ 36,909	$ 32,489
Process Plant	$ 2,120,057	$ -	$ -	$ -	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115
General Administration	$ 469,765	$ -	$ -	$ -	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199
Treatment & Refining Charges																	
Zinc Concentrates																	
Treatment Charges	$ 651,545	$ -	$ -	$ -	$ 14,847	$ 20,913	$ 19,457	$ 20,549	$ 20,185	$ 17,012	$ 15,139	$ 18,156	$ 22,578	$ 23,827	$ 21,017	$ 18,208	$ 19,613
Gold Refining Charges	$ 889	$ -	$ -	$ -	$ 52	$ 66	$ 82	$ 59	$ 58	$ 50	$ 48	$ 28	$ 30	$ 26	$ 23	$ 22	$ 19
Silver Refining Charges	$ 10,676	$ -	$ -	$ -	$ 672	$ 718	$ 840	$ 645	$ 723	$ 513	$ 423	$ 383	$ 339	$ 366	$ 429	$ 313	$ 316
Transportation	$ 244,025	$ -	$ -	$ -	$ 6,029	$ 8,493	$ 7,902	$ 8,345	$ 8,197	$ 6,909	$ 6,148	$ 7,373	$ 9,169	$ 9,676	$ 8,535	$ 7,395	$ 7,965
Penalties	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Lead Concentrates																	
Treatment Charges	$ 410,610	$ -	$ -	$ -	$ 15,772	$ 18,639	$ 20,673	$ 17,649	$ 17,154	$ 14,405	$ 15,505	$ 20,013	$ 13,526	$ 13,526	$ 14,130	$ 9,402	$ 10,282
Gold Refining Charges	$ 380	$ -	$ -	$ -	$ 36	$ 50	$ 68	$ 42	$ 42	$ 37	$ 29	$ -	$ 10	$ 4	$ -	$ 10	$ 4
Silver Refining Charges	$ 141,744	$ -	$ -	$ -	$ 6,931	$ 7,789	$ 8,727	$ 7,132	$ 7,787	$ 5,718	$ 4,779	$ 4,635	$ 4,648	$ 4,977	$ 5,303	$ 4,102	$ 4,236
Transportation	$ 215,960	$ -	$ -	$ -	$ 8,517	$ 10,065	$ 11,164	$ 9,531	$ 9,263	$ 7,779	$ 8,373	$ 10,807	$ 7,304	$ 7,304	$ 7,630	$ 5,077	$ 5,552
Penalties	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Operating Cost	$ 5,248,921	-	-	-	172,667	192,744	190,503	188,187	189,357	180,754	180,748	190,959	178,835	177,194	180,067	170,752	169,789
Royalty	$ 138,676	$ -	$ -	$ -	$ 5,362	$ 6,413	$ 6,935	$ 6,001	$ 6,231	$ 4,877	$ 4,384	$ 4,740	$ 4,633	$ 4,846	$ 4,824	$ 3,791	$ 3,990
Property Tax	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Salvage Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tailings Infrastructure and Reclamation & Closure	$ 206,556	$ -	$ -	$ -	$ -	$ 1,755	$ 1,482	$ 1,616	$ 1,610	$ 1,729	$ 1,800	$ 3,600	$ 2,801	$ 2,472	$ 3,136	$ 3,507	$ 3,039
Total Production Cost	$ 5,594,153	$ -	$ -	$ -	$ 178,029	$ 200,912	$ 198,919	$ 195,804	$ 197,198	$ 187,360	$ 186,932	$ 199,298	$ 186,269	$ 184,512	$ 188,028	$ 178,049	$ 176,818
Operating Income	$ 3,650,923	$ -	$ -	$ -	$ 179,432	$ 226,633	$ 263,391	$ 204,234	$ 218,216	$ 137,763	$ 105,302	$ 116,681	$ 122,590	$ 138,539	$ 133,603	$ 74,659	$ 89,150
Initial Capital Depreciation	$ 569,702				$ 56,970	$ 56,970	$ 56,970	$ 56,970	$ 56,970	$ 56,970	$ 56,970	$ 56,970	$ 56,970	$ 56,970	$ -	$ -	$ -
Sustaining Capital Depreciation	$ 270,481				$ 4,299	$ 8,675	$ 10,097	$ 17,197	$ 18,021	$ 19,100	$ 19,935	$ 20,621	$ 16,716	$ 13,400	$ 12,296	$ 5,926	$ 5,361
Total Depreciation	$ 840,183		$ -	$ -	$ 61,269	$ 65,645	$ 67,067	$ 74,167	$ 74,991	$ 76,070	$ 76,905	$ 77,591	$ 73,686	$ 70,371	$ 12,296	$ 5,926	$ 5,361
Net Income After Depreciation	$ 2,810,740		-	-	118,162	$ 160,988	$ 196,324	$ 130,068	$ 143,224	$ 61,694	$ 28,397	$ 39,090	$ 48,904	$ 68,169	$ 121,307	$ 68,733	$ 83,788
Mining Royalty	$ 273,819					13,457	16,997	19,754	15,318	16,366	10,332	7,898	8,751	9,194	10,390	10,020	5,599
Income Taxes	$ 764,388	-	-	-	35,449	44,259	53,798	33,094	38,372	13,598	5,420	9,358	12,046	17,692	33,275	17,614	23,457
Net Income After Taxes	$ 1,772,532		-	-	82,714	103,271	125,529	77,219	89,535	31,729	12,646	21,835	28,107	41,282	77,641	41,099	54,732
Cash Flow																	
Operating Income	$ 3,650,923	$ -	$ -	$ -	$ 179,432	$ 226,633	$ 263,391	$ 204,234	$ 218,216	$ 137,763	$ 105,302	$ 116,681	$ 122,590	$ 138,539	$ 133,603	$ 74,659	$ 89,150
Working Capital																	
Account Recievable (60 days)	$ -	$ -	$ -	$ -	$ (58,761)	$ (11,521)	$ (5,715)	$ 10,237	$ (2,528)	$ 14,842	$ 5,406	$ (3,903)	$ 1,170	$ (2,333)	$ 233	$ 11,330	$ (2,180)
Accounts Payable (30 days)	$ -	$ -	$ -	$ -	$ 14,192	$ 1,650	$ (184)	$ (190)	$ 96	$ (707)	$ (0)	$ 839	$ (996)	$ (135)	$ 236	$ (766)	$ (79)
Inventory - Parts, Supplies	$ -	$ -	$ -	$ (5,000)	$ (13,000)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Working Capital	$ -	-	-	(5,000)	(57,569)	(9,870)	(5,899)	10,046	(2,431)	14,135	5,406	(3,064)	174	(2,468)	470	10,564	(2,259)
Capital Expenditures																	
Initial Capital																	
Mine	$ 54,737	$ -	$ -	$ 54,737	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Process Plant	$ 484,965	$ -	$ 145,489	$ 315,227	$ 24,248	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Owners Cost	$ 30,000	$ -	$ 9,000	$ 19,500	$ 1,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sustaining Capital																	
Mining	$ 134,272	$ -	$ -	$ -	$ 34,392	$ 10,639	$ -	$ 332	$ 4,597	$ 6,628	$ 4,680	$ 3,492	$ 1,150	$ 6,480	$ 546	$ 3,832	$ 83
Process Plant	$ 136,209	$ -	$ -	$ -	$ -	$ 24,366	$ 11,378	$ 56,466	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000
Total Capital Expenditures	$ 840,183	$ -	$ 154,489	$ 389,464	$ 60,140	$ 35,005	$ 11,378	$ 56,798	$ 6,597	$ 8,628	$ 6,680	$ 5,492	$ 3,150	$ 8,480	$ 2,546	$ 5,832	$ 2,083
Cash Flow before Taxes	$ 2,810,740	$ -	$ (154,489)	$ (394,464)	$ 61,723	$ 181,757	$ 246,114	$ 157,483	$ 209,187	$ 143,271	$ 104,028	$ 108,125	$ 119,614	$ 127,591	$ 131,527	$ 79,391	$ 84,808
Cummulative Cash Flow before Taxes		$ -	$ (154,489)	$ (548,953)	$ (487,231)	$ (305,474)	$ (59,360)	$ 98,123	$ 307,310	$ 450,581	$ 554,609	$ 662,734	$ 782,349	$ 909,940	$ 1,041,467	$ 1,120,857	$ 1,205,665
					1.0	1.0	1.0	0.4	-	-	-	-	-				
Taxes																	
Income Taxes	$ 1,038,208	$ -	$ -	$ -	$ 35,449	$ 57,716	$ 70,795	$ 52,848	$ 53,690	$ 29,964	$ 15,752	$ 17,255	$ 20,797	$ 26,887	$ 43,665	$ 27,634	$ 29,056
Cash Flow after Taxes	$ 1,772,532	$ -	$ (154,489)	$ (394,464)	$ 26,274	$ 124,041	$ 175,319	$ 104,634	$ 155,498	$ 113,306	$ 88,276	$ 90,870	$ 98,817	$ 100,705	$ 87,861	$ 51,757	$ 55,752
Cummulative Cash Flow after Taxes		$ -	$ (154,489)	$ (548,953)	$ (522,680)	$ (398,639)	$ (223,320)	$ (118,686)	$ 36,812	$ 150,118	$ 238,394	$ 329,264	$ 428,082	$ 528,786	$ 616,648	$ 668,404	$ 724,156
					1.0	1.0	1.0	1.0	0.8	-	-	-	-	-	-	-	-

Base Case	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Operating Cost																	
Mining	$ 36,846	$ 35,556	$ 35,971	$ 29,308	$ 27,784	$ 30,730	$ 30,678	$ 29,200	$ 30,515	$ 26,748	$ 31,375	$ 32,740	$ 29,884	$ 32,506	$ 39,596	$ 49,376	$ -
Process Plant	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 73,115	$ 72,834	$ -
General Administration	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ 16,199	$ -
Treatment & Refining Charges																	
Zinc Concentrates																	
Treatment Charges	$ 18,676	$ 20,289	$ 22,526	$ 22,630	$ 24,399	$ 23,567	$ 23,879	$ 23,775	$ 24,139	$ 21,226	$ 22,422	$ 30,278	$ 27,052	$ 33,295	$ 28,613	$ 33,279	$ -
Gold Refining Charges	$ 18	$ 23	$ 27	$ 24	$ 25	$ 19	$ 18	$ 16	$ 14	$ 16	$ 20	$ 24	$ 24	$ 24	$ 18	$ 15	$ -
Silver Refining Charges	$ 243	$ 216	$ 256	$ 292	$ 229	$ 223	$ 257	$ 256	$ 279	$ 256	$ 299	$ 314	$ 238	$ 235	$ 187	$ 218	$ -
Transportation	$ 7,585	$ 8,240	$ 9,148	$ 9,190	$ 9,909	$ 9,571	$ 8,979	$ 8,940	$ 9,077	$ 7,981	$ 8,431	$ 11,385	$ 10,172	$ 12,520	$ 10,759	$ -	$ -
Penalties	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Lead Concentrates																	
Treatment Charges	$ 9,292	$ 9,347	$ 10,776	$ 11,161	$ 12,701	$ 12,426	$ 11,766	$ 12,811	$ 14,075	$ 11,766	$ 12,976	$ 17,154	$ 14,460	$ 15,890	$ 14,625	$ 18,707	$ -
Gold Refining Charges	$ 4	$ 13	$ 14	$ 10	$ 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 0	$ -	$ -	$ -	$ -
Silver Refining Charges	$ 3,532	$ 3,424	$ 3,935	$ 4,253	$ 3,834	$ 3,715	$ 4,044	$ 4,024	$ 4,241	$ 3,824	$ 4,288	$ 5,005	$ 4,112	$ 4,568	$ 3,787	$ 4,394	$ -
Transportation	$ 5,018	$ 5,047	$ 5,819	$ 6,027	$ 6,858	$ 6,710	$ 5,883	$ 6,405	$ 7,038	$ 5,883	$ 6,488	$ 8,577	$ 7,230	$ 7,945	$ 7,313	$ 9,354	$ -
Penalties	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Operating Cost	170,528	171,469	177,787	172,209	175,058	176,273	174,818	174,740	178,692	167,014	175,613	194,792	182,487	196,296	194,212	204,376	-
Royalty	$ 3,542	$ 3,636	$ 4,125	$ 4,287	$ 4,322	$ 4,169	$ 4,290	$ 4,341	$ 4,546	$ 4,005	$ 4,385	$ 5,540	$ 4,736	$ 5,466	$ 4,698	$ 5,564	$ -
Property Tax	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Salvage Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tailings Infrastructure and Reclamation & Closure	$ 10,268	$ 9,569	$ 9,463	$ 8,707	$ 7,896	$ 12,352	$ 12,425	$ 11,614	$ 12,076	$ 10,461	$ 12,598	$ 12,796	$ 11,176	$ 10,860	$ 11,999	$ 13,753	$ -
Total Production Cost	$ 184,338	$ 184,674	$ 191,374	$ 185,203	$ 187,276	$ 192,794	$ 191,533	$ 190,695	$ 195,314	$ 181,479	$ 192,596	$ 213,128	$ 198,399	$ 212,621	$ 210,909	$ 223,692	$ -
Operating Income	$ 51,797	$ 57,723	$ 83,644	$ 100,580	$ 100,838	$ 85,130	$ 94,477	$ 98,682	$ 107,726	$ 85,489	$ 99,762	$ 156,232	$ 117,363	$ 151,801	$ 102,277	$ 147,208	$ -
Initial Capital Depreciation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sustaining Capital Depreciation	$ 5,515	$ 4,958	$ 5,256	$ 5,180	$ 4,556	$ 4,498	$ 3,769	$ 3,509	$ 2,277	$ 1,998	$ 1,015	$ 696	$ 260	$ -	$ -	$ 55,351	$ -
Total Depreciation	$ 5,515	$ 4,958	$ 5,256	$ 5,180	$ 4,556	$ 4,498	$ 3,769	$ 3,509	$ 2,277	$ 1,998	$ 1,015	$ 696	$ 260	$ -	$ -	$ 55,351	$ -
Net Income After Depreciation	$ 46,282	$ 52,765	$ 78,388	$ 95,399	$ 96,282	$ 80,632	$ 90,708	$ 95,174	$ 105,450	$ 83,491	$ 98,748	$ 155,536	$ 117,102	$ 151,801	$ 102,277	$ 91,857	$ -
Mining Royalty	6,686	3,885	4,329	6,273	7,543	7,563	6,385	7,086	7,401	8,079	6,412	7,482	11,717	8,802	11,385	7,671	11,041
Income Taxes	11,879	14,664	22,218	26,738	26,622	21,921	25,297	26,426	29,415	22,623	27,701	44,416	31,615	42,900	27,268	25,256	-
Net Income After Taxes	27,717	34,216	51,841	62,388	62,117	51,148	59,026	61,662	68,634	52,788	64,635	103,638	73,769	100,099	63,625	58,930	(11,041)
Cash Flow																	
Operating Income	$ 51,797	$ 57,723	$ 83,644	$ 100,580	$ 100,838	$ 85,130	$ 94,477	$ 98,682	$ 107,726	$ 85,489	$ 99,762	$ 156,232	$ 117,363	$ 151,801	$ 102,277	$ 147,208	$ -
Working Capital																	
Account Recievable (60 days)	$ 4,904	$ (1,029)	$ (5,362)	$ (1,770)	$ (383)	$ 1,675	$ (1,329)	$ (554)	$ (2,246)	$ 5,930	$ (4,174)	$ (12,658)	$ 8,811	$ (7,999)	$ 8,422	$ (9,487)	$ 60,970
Accounts Payable (30 days)	$ 61	$ 77	$ 519	$ (458)	$ 234	$ 100	$ (120)	$ (6)	$ 325	$ (960)	$ 707	$ 1,576	$ (1,011)	$ 1,135	$ (171)	$ 835	$ (16,798)
Inventory - Parts, Supplies	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,000	$ -
Total Working Capital	4,965	(952)	(4,843)	(2,228)	(149)	1,775	(1,449)	(560)	(1,921)	4,970	(3,467)	(11,082)	7,799	(6,864)	8,251	9,348	44,172
Capital Expenditures																	
Initial Capital																	
Mine	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Process Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Owners Cost	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Sustaining Capital																	
Mining	$ 7,858	$ 225	$ 5,870	$ 549	$ 1,485	$ 83	$ 1,482	$ 5,581	$ 610	$ 1,445	$ 4,367	$ 22,723	$ 5,143	$ -	$ -	$ -	$ -
Process Plant	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ -	$ -	$ -	$ -
Total Capital Expenditures	$ 9,858	$ 2,225	$ 7,870	$ 2,549	$ 3,485	$ 2,083	$ 3,482	$ 7,581	$ 2,610	$ 3,445	$ 6,367	$ 24,723	$ 7,143	$ -	$ -	$ -	$ -
Cash Flow before Taxes	$ 46,904	$ 54,546	$ 70,931	$ 95,803	$ 97,204	$ 84,822	$ 89,546	$ 90,541	$ 103,195	$ 87,014	$ 89,929	$ 120,428	$ 118,019	$ 144,937	$ 110,528	$ 156,556	$ 44,172
Cummulative Cash Flow before Taxes	$ 1,252,569	$ 1,307,115	$ 1,378,045	$ 1,473,848	$ 1,571,052	$ 1,655,874	$ 1,745,421	$ 1,835,962	$ 1,939,157	$ 2,026,171	$ 2,116,100	$ 2,236,528	$ 2,354,547	$ 2,499,484	$ 2,610,012	$ 2,766,568	$ 2,810,740
Taxes																	
Income Taxes	$ 18,565	$ 18,549	$ 26,547	$ 33,011	$ 34,165	$ 29,484	$ 31,682	$ 33,512	$ 36,816	$ 30,703	$ 34,113	$ 51,898	$ 43,333	$ 51,702	$ 38,653	$ 32,927	$ 11,041
Cash Flow after Taxes	$ 28,339	$ 35,997	$ 44,384	$ 62,792	$ 63,039	$ 55,338	$ 57,864	$ 57,029	$ 66,380	$ 56,311	$ 55,816	$ 68,529	$ 74,686	$ 93,235	$ 71,876	$ 123,630	$ 33,131
Cummulative Cash Flow after Taxes	$ 752,495	$ 788,492	$ 832,876	$ 895,667	$ 958,707	$ 1,014,045	$ 1,071,909	$ 1,128,939	$ 1,195,318	$ 1,251,629	$ 1,307,445	$ 1,375,975	$ 1,450,661	$ 1,543,896	$ 1,615,772	$ 1,739,401	$ 1,772,532
	-	-	-	-	-	-	-	-	-	-	-						

Economic Indicators before Taxes		
NPV @ 0%	0%	$ 2,810,740
NPV @ 7.5%	7.5%	$ 844,027
NPV @ 10%	10%	$ 586,564
IRR		24.2%
Payback		3.4

Economic Indicators after Taxes		
NPV @ 0%	0%	$ 1,772,532
NPV @ 7.5%	7.5%	$ 437,725
NPV @ 10%	10%	$ 260,817
IRR		16.5%
Payback	Years	4.8

23 ADJACENT PROPERTIES

The adjacent properties are in the mining districts of Parral, Santa Barbara, San Francisco del Oro, Sierra Almoloya and Guanacevi Durango. There are operating mines in some of these districts which are currently in production as underground mines. These mines are working narrow high grade veins and vein swarms (some up to 5 meters in width) extracting base and precious metals.

The information regarding the adjacent properties has been provided by employees of Levon and IMC has not had the opportunity to verify the information.

24 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data for Cordero which would negate the information presented in this report or alter the conclusions provided by M3.

25 INTERPRETATION AND CONCLUSIONS

25.1 CONCLUSIONS

This PEA Update confirms a large, low-grade silver, lead, zinc, and gold resource is present at the Cordero Project. The acquisition of the Aida claim is a significant step forward for the project, as it allows Levon to extract material from the open pit unconstrained by internal property boundaries, nearly doubling the mine plan tonnage.

Based on drilling and current resource modeling by IMC, the mineral resources for the Cordero deposit as reported in Section 14 as Table 14-14 and are summarized here at a cut-off grade of 15g/t AgEq in Table 25-1.

Table 25-1: Cordero Mineral Resource at 15 g/t AgEq Cutoff Grade

	Tonnage & Grade within Mineral Resource Pit Shell						Contained Metal			
Class	ktonnes	AgEq, g/t	Ag, g/t	Zn, %	Pb, %	Au, g/t	Ag, ozs x 1000	Zn, lbs x 1000	Pb, lbs x 1000	Au, ozs x 1000
Indicated	990,054	31.92	12.81	0.37	0.17	0.04	407,761	8,030,051	3,774,997	1,273
Inferred	282,217	56.43	20.66	0.75	0.30	0.04	187,461	4,665,047	1,859,799	363

The Cordero Indicated and Inferred mineral resources were optimized, designed and scheduled to construct a mine plan and extraction schedule of mineralized material as demonstrated in Section 16. The PEA Update indicate that using Indicated and Inferred mineral resources as the basis for a mine plan, the Cordero project will support a 29-year mine life at 40,000 mtpd. An economic evaluation of different throughputs was made during this study that indicates that the original 40,000 mtpd plant throughput that was used as the Base Case in the 2012 PEA still is the most financially advantageous when cut-off grades, capital and operating costs are considered. Table 25-2 summarized the proposed mine plan for Cordero deposit.

Table 25-2: 40,000 TPD Mill Feed- Mine Production Schedule

	Mill Feed							Waste	Total	Percent Inferred in
Year	AgEq Cut-off	ktonnes	AgEq g/t	Ag g/t	Zn %	Pb %	Au g/t	ktonnes	ktonnes	Mill Feed Tonnage
0	25	115	32.22	15.72	.09	.27	.11	715	830	0.0
1	25	14,785	51.61	27.47	.29	.29	.10	15,308	29,593	3.7
2	20	14,400	61.86	30.79	.40	.34	.13	20,697	35,097	8.2
3	22	14,400	66.80	34.49	.37	.38	.16	15,237	29,637	2.9
4	22	14,400	57.96	28.21	.40	.32	.12	17,920	32,320	4.2
5	22	14,400	59.83	30.74	.39	.31	.11	17,801	32,201	2.6
6	22	14,400	47.15	22.62	.33	.26	.10	20,177	34,577	7.9
7	22	14,400	42.84	19.00	.29	.28	.09	21,600	36,000	1.1
8	20	14,400	46.23	18.57	.35	.36	.06	21,600	36,000	8.2
9	20	14,400	45.15	18.44	.43	.25	.06	13,606	28,006	19.7
10	20	14,400	47.05	19.72	.46	.25	.06	10,321	24,721	14.7
11	20	14,400	46.62	21.00	.40	.26	.05	16,961	31,361	12.1
12	20	14,400	36.59	16.21	.35	.17	.05	20,666	35,066	9.1
13	20	14,400	38.57	16.75	.38	.19	.04	15,988	30,388	6.4
14	20	14,400	34.45	13.98	.36	.17	.04	19,827	34,227	8.2
15	20	14,400	35.47	13.57	.39	.17	.05	17,497	31,897	5.8
16	20	14,400	40.22	15.59	.43	.20	.06	17,143	31,542	4.6
17	20	14,400	41.73	16.84	.44	.20	.05	10,478	24,878	9.1
18	20	14,400	42.42	15.25	.47	.23	.06	8,159	22,559	9.8
19	20	14,400	40.79	14.78	.45	.23	.04	10,304	24,704	8.3
20	20	14,400	41.80	16.04	.46	.21	.04	10,450	24,850	11.1
21	18	14,400	42.21	15.99	.46	.23	.04	8,828	23,228	10.9
22	18	14,400	44.12	16.87	.46	.26	.04	9,752	24,152	13.9
23	18	14,400	38.94	15.19	.41	.21	.04	6,521	20,921	11.4
24	18	14,400	42.67	17.02	.43	.24	.05	10,795	25,195	16.1
25	18	14,400	54.15	19.93	.58	.31	.06	11,192	25,592	21.9
26	17	14,400	46.52	16.38	.52	.26	.06	7,951	22,351	12.2
27	17	14,400	53.66	18.19	.64	.29	.06	7,319	21,719	9.8
28	17	14,400	46.11	15.13	.55	.27	.04	9,598	23,998	12.5
29	17	14,326	54.72	17.69	.64	.34	.04	13,179	27,505	15.3
Total		417,526	46.49	19.39	.43	.26	.06	407,589	825,115	9.7

Financial results as shown in Table 25-3 indicate that the project merits additional study towards a pre-feasibility study. A PEA is a screening tool to evaluate whether a mining project has profitable economic results based on assumptions using comparable projects. At the pre-feasibility level for a mining project, the scope, scale, mineral reserves, metal grades, metallurgical recoveries, and capital and operating costs and economics will be sufficiently defined to assess the project's financial viability.

Table 25-3: Economic Indicators

	$ in thousands
NPV @ 0%	$1,772,532
NPV @ 5%	$699,621
NPV @ 7.5%	$437,725
NPV @ 10%	$260,817
IRR % after taxes	16.5%
Payback Years	4.8

Investigations of water and power resources necessary for development of the project were completed subsequent to the original Cordero PEA. From the water resources report, it appears at this time that there are adequate water resources available to support the project. Going forward, active exploration of the water resources will need to continue in consultation with CONAGUA, the national water authority.

CFE, the national power authority, was consulted regarding power resources. A major power transmission corridor crosses the southeast corner of the claim block approximately 1.5 km from the proposed pit. The existing transmission lines in this corridor do not have sufficient capacity to supply the planned operation, but additional lines can be built from the Camargo II power plant near Santa Rosalia de Camargo. CFE provided a cost estimate for building a power line approximately 75 km from the northeast along the existing corridor.

A significant amount of additional work will need to be done to bring the project up to a pre-feasibility level of design, understanding, and financial analysis. Tasks to advance the project include: development drilling, metallurgical testing, process development, environmental and economic assessment, water resource development, and infrastructure to complete the assessment of the Project's viability. In addition and as part of this study, capital and operating cost estimates were prepared using preliminary design drawings, equipment lists, and material take-offs. The economic analysis provided in this report demonstrates that the project is economically viable. The objectives for the Levon management team should be focused on advancing the Project toward a pre-feasibility study.

Additional in-fill and step-out drilling is needed to provide better definition and improve the confidence level of the resource estimate. In-fill drilling is recommended to upgrade the classification of resources and form the basis for a reserve estimate. Resource expansion targets include offset and step out holes from the existing holes at the Cordero resource within the Pozo de Plata Diatreme, the Josefina Mine Zone, and the Cordero Porphyry zone (Figure 7-3). Additional drilling also has the potential of encountering high grade zones.

25.2 RISKS

The following risk issues have been identified for the project.

- Market risks associated with base and precious metal mining projects always exist. The economics of this project is used a base case of $20.00/oz silver, $1,300.00/oz gold, $1.30/lb zinc, and $1.00/lb lead.
- More detailed engineering design and capital equipment pricing could increase the initial capital of the project. The use of higher contingency at the PEA level is intended to mitigate some of this risk.
- Power costs were estimated using $0.062/kWh, a price which is currently justified. Power is a major operating cost for the project. An increase in the price for power will adversely affect the projects financial results
- Acid mine drainage from waste rock repositories will be mitigated by the abundant limestone at the surface where the waste dumps will be located. However, there has been no environmental testing to-date (humidity cell testing) for acid generating potential or acid neutralizing potential for waste rock. Mitigating acid mine drainage is a potential cost risk for the project.
- Labor rates are based on current known rates for Mexican mine labor from other operations. Some new mines in Mexico are experiencing labor unrest due to unionization demands. There is a risk that labor rates could rise that impact overall mine and plant operating costs.

25.3 OPPORTUNITIES

The following opportunities have been identified for the project.

- Upside potential exists with respect to market prices for base and precious metals.

- Table 22-8 shows that modest increases in metal prices on the order of 10 to 20 percent have a significant impact on the economics of the project.
- Additional step-out and in-fill drilling has the potential to increase the economics of the project. Many areas of the resource classified as waste have not been tested by drilling. These areas have the potential of hosting resource-grade mineralization. Discovery of additional high grade manto type mineralization within the contact zones of the present diatreme and porphyry hosted resource could improve the grade of the overall resource.
- Levon has defined this porphyry belt on the basis of exposed mineralized stocks known from past mining and exploration, and diatremes identified by Levon's geologic mapping. The Cordero Belt trends northeast and encompasses six Tertiary intrusive igneous centers cutting Cretaceous, interbedded limey mudstone and siltstone country rocks. Subvolcanic, mineralized stocks are exposed in the northeast part of the Cordero Belt with higher-level, mineralized volcanic diatremes exposed to the southwest. Large-scale exploration targets away from the resource and within the Cordero Belt, include the diatremes and some felsic domes that have been identified by geological mapping, and characterized by geochemical surveys and geophysical surveys using state of the art techniques and equipment by leading contractors. Seven mine scale targets have been defined to date in the Cordero Belt and initial exploration holes have been drilled. The exploration results have locally intersected mineralized intervals and key geologic formations and warrant exploration follow up.
- Discovery of additional base and precious metal deposits in the target areas on the Cordero property could increase a global resource and require expanding the planned processing facilities and improve economies of scale for the project.

26 RECOMMENDATIONS

The Cordero Project is worthy of continued studies towards a pre-feasibility study. A number of activities will require investigation to advance the project to this level of accuracy and lower risk.

26.1 RECOMMENDED WORK

The following sections breakdown the tasks recommended to advance the project to a PFS level. Section 26.2 provides a table with the likely budgetary ranges of costs necessary to complete the identified tasks.

26.1.1 Definition Drilling

The current Cordero mineral resources are divided between Indicated and Inferred category. Drilling between 20 and 60 diamond drill core holes to an average depth of 350 meters is recommended to bring most of the Inferred mineralization into the Indicated category and some of the existing Indicated mineral resources into the Measured category.

26.1.2 Geological Modeling

The discontinuous nature of mineralization especially within the Cordero diatreme has been an impediment to accurate estimation of mineral resources. Before the next round of mineral resource estimation, Levon geologists should construct a cohesive, 3D geological model based on existing and new core drilling. The geological shapes can be used as boundaries for mineral resource estimation and the tagging of composite assay intervals. The geological model can also help define the mineralization types when dividing the deposit into metallurgical composites for testwork.

26.1.3 Mineral Resource Modeling

With the assays from new drilling appended to the existing drill hole database, in addition to the new geological model, Levon can then re-estimate and reclassify the block resource model using geostatistical estimation algorithms to develop a new mineral resource tabulation of Measured, Indicated and Inferred categories at a various AgEq cutoff grades.

26.1.4 Geometallurgical Model

The geometallurgical model uses metallurgical responses for various mineralization types to predict the metal recoveries over time in the mine plan. Using the geometallurgical model, Levon can estimate the metals recovered by in sequence to predict grades and tonnages of concentrates for sale during the Life-of-Mine.

26.1.5 Geotechnical Studies for Pit Slopes and Sectors

A geotechnical consultant will determine the rock quality designation (RQD), Rock Mass Rating (RMR) and compressive strength to determine the design pit slopes and pit sectors for different pit slopes. This work typically involves a combination of field and laboratory work as well as modeling of the geotechnical results.

26.1.6 Mine Engineering

With the new block resource model, the pit slope sectors, metal commodity prices, metal recoveries, mining, process, and General and Administrative (G&A) costs, Levon can develop new optimized floating cone pit shells based on Measured and Indicated mineralization categories, only. The mineralization in the optimized pit shell can then be phased, designed with catch benches, ramps and roads, scheduled and tabulated into a new mine plan. Mobile equipment for primary mining and ancillary equipment can be determined and priced. The mining fleet's operating cost will be derived as will the cost of mining G&A. New mining report sections will be provided for a NI 43-101 Pre-feasibility Study.

26.1.7 Metallurgical Testwork and Analysis

A new round of metallurgical testwork will be required to optimize grind size, flotation characteristics and retention times, metallurgical recoveries especially for silver, reagent optimization, and settling and filtration rates.

26.1.8 Metallurgical Sampling and Drilling

To provide enough sample for new metallurgical testwork, it is anticipated that core from new definition drilling will need to be augmented with new PQ size metallurgical core drilling.

26.1.9 Process Engineering and Plant Design

With the results from the new metallurgical testwork, the existing process flowsheets and process design criteria will be updated and a new METSIM® mass balance will be prepared. The process design criteria will identify all of the major equipment components with sizing and availabilities, materials handling sizes, loadings, and capacities, flotation tank requirement, and tank retention times, reagents and consumptions, thickener and filtration requirements for concentrate production, and tailings characteristics.

An updated Equipment Register will be prepared with tag number, equipment sizing and description, materials of construction, and motor horsepower, and duty specifications.

Piping and instrumentation diagrams (P&ID) will be prepared from the updated flowsheets and process design criteria.

Updated general arrangement drawings will be prepared from the process design criteria and Equipment Register for each process and ancillary area. The overall site layout that will include the ultimate pit shell, location of the TSF, and site access roads and power transmission lines coming into the property.

A detailed plant Capital Cost Estimate (CAPEX) will be prepared using the Equipment Register, budgetary quotes for equipment based on duty specifications, budgetary construction material costs, material takeoffs for most disciplines, and local labor rates and productivities. Sustaining plant capital will be factored from total plant capital to cover the replacement and installation of equipment that wears out.

Plant operating expenses (OPEX) will be estimated from projected plant operating and maintenance labor, anticipated power consumption and local power rates, reagent consumptions and budgetary reagent costs, factors for maintenance spares, outside services, and plant supplies. G&A costs will be detailed in accordance with recent projects in Mexico.

An updated financial model will be compiled based on the PFS mine plan, metallurgical recoveries, transportation and treatment charges for lead and zinc concentrates, current metal commodity prices, initial and sustaining CAPEX, annual OPEX over the life of mine, taxes, royalties, depreciation, and working capital.

26.1.10 Tailings Storage Facility Studies

The current TSF design is nearly sufficient for the PFS. The capacity of the impoundment may be a 5% short but could be modified by slightly raising the embankment height. An update the existing tailings design is recommended for the PFS.

26.1.11 Water Supply Study

Update the existing water supply report to investigate the hydrogeology in the mine area for dewatering and slope stability analysis, install and test wells in the alluvial aquifer to establish aquifer properties, and explore bedrock aquifer zones for additional water supply. Water supply needs should be established by a site-wide water balance integrating mine, plant, and ancillary water requirements with calculated reclaim water from the TSF.

26.1.12 Environmental, Permitting, and Social License

Additional Environmental, Permitting, and Social License investigation will be conducted for the PFS including updated regulations concerning TSF seepage standards, permit changes, and any new regulations related to climate change.

26.2 COST ESTIMATE FOR RECOMMENDED WORK

Table 26-1 summarizes the anticipated costs in a range to support a pre-feasibility study.

Table 26-1: Recommended Activities and Costs for Pre-feasibility Study

Activity	Description	Cost Estimate, USD	
		Minimum	Maximum
Definition Drilling	Upgrade classifications	$1,400,000	$4,200,000
Geologic Model	Provide potential mineralization	$50,000	$100,000
Update Mineral Resource Model		$35,000	$50,000
Geometallurgical Model	Metal recovery to concentrates	$10,000	$20,000
Pit Slopes and Pit Sectors	By geotechnical consultant	$100,000	$150,000
Mine Engineering		$70,000	$105,000
Metallurgical Studies	Metallurgical laboratory	$750,000	$1,250,000
Metallurgical Drilling	PQ core: 1500 to 2000 m @ $250/m	$375,000	$500,000
PFS Plant Design	Flowsheets and mass balance, plant layout drawings by Area, equipment selection and costing, capital & operating cost, financial analysis update and coordinating	$300,000	$500,000
TSF Design	Rework TSF design for PFS tonnage	$75,000	$100,000
Water Supply Study	Update water supply study	$20,000	$30,000
Environmental, Permitting & Social License	Update of PEA Section 20	$15,000	$20,000
Total Estimate Range		$3,270,000	$7,130,000

27 REFERENCES

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APPENDIX A - PRELIMINARY ECONOMIC ASSESSMENT CONTRIBUTORS AND PROFESSIONAL QUALIFICATIONS

CERTIFICATE of QUALIFIED PERSON

Daniel H. Neff

I, Daniel H. Neff, P.E., do hereby certify that:

1. I am currently employed as Chairman of the Board by:

   M3 Engineering & Technology Corporation
   2051 W. Sunset Road, Ste. 101
   Tucson, Arizona 85704, U.S.A.

2. I am a graduate of the University of Arizona and received a Bachelor of Science degree in Civil Engineering in 1973 and a Master of Science degree in Civil Engineering in 1981.

3. I am a:

   - Registered Professional Engineer in the State of Arizona (No. 11804 and 13848)

4. I have practiced civil and structural engineering and project management for 44 years. I have worked for engineering consulting companies for 13 years and for M3 Engineering & Technology Corporation for 32 years.

5. I have read the definition of “qualified person” set out in National instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

6. I am responsible for Sections 1, 2, 3, 18, 19, 24, 25, 26, and 27 of the technical report titled “Cordero Project, NI 43-101 Technical Report, Preliminary Economic Assessment Update, Chihuahua, Mexico”, (the “Technical Report”), dated effective March 1, 2018, prepared for Levon Resources Ltd.

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

8. I have not visited the Cordero site.

9. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the parts of the Technical Report for which I am responsible contain all scientific and technical information required to be disclosed to make the report not misleading.

10. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.

11. I have read National Instrument 43-101 and Form 43-101F1, and those portions of the Technical Report for which I am responsible have been prepared in compliance with that instrument and form.

12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 18th day of April, 2018.

(Signed) (Sealed)
Signature of Qualified Person

Daniel H. Neff, P.E.
Print name of Qualified Person

CERTIFICATE of QUALIFIED PERSON

Thomas L. Drielick

I, Thomas L. Drielick, P.E., do hereby certify that:

1. I am Sr. Vice-President by:

   M3 Engineering & Technology Corporation
   2051 W. Sunset Road, Ste. 101
   Tucson, Arizona 85704

2. I am a graduate of Michigan Technological University and received a Bachelor of Science degree in Metallurgical Engineering in 1970. I am also a graduate of Southern Illinois University and received an M.B.A. degree in 1973.

3. I am a Registered Professional Engineer in good standing in the State of Arizona (No. 22958). I am also a Registered Professional Engineer in good standing in the State of Michigan (No. 6201055633). I am also a Member in good standing of the Society for Mining, Metallurgy and Exploration, Inc. (No. 850920).

4. I have practiced metallurgical and mineral processing engineering and project management for 47 years. I have worked for mining and exploration companies for 18 years and for M3 Engineering and Technology, Corporation for 29 years.

5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

6. I am a contributing author for the preparation of the technical report titled “Cordero Project, NI 43-101 Technical Report, Preliminary Economic Assessment Update, Chihuahua, Mexico”, (the “Technical Report”), dated effective March 1, 2018 prepared for Levon Resources Ltd.; and am responsible for Sections 13, 17 and 21.1.2, 21.1.3, 21.2.2, and 22. I have not visited the project site.

7. I have not had any additonal involvement with the project or collaboration with the issuer to disclose.

8. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 18th day of April, 2018.

(Signed) (Sealed)
Signature of Qualified Person

Thomas L. Drielick
Print name of Qualified Person

CERTIFICATE of QUALIFIED PERSON

I, Richard K. Zimmerman, R.G., do hereby certify that:

1. I am currently employed as Professional Geologist by:

   M3 Engineering & Technology Corporation
   2051 W. Sunset Road, Ste. 101
   Tucson, Arizona 85704
   U.S.A.

2. I am a graduate of Carleton College and received a Bachelor of Arts degree in Geology in 1976. I am also a graduate of the University of Michigan and received a Master of Science degree in Geology 1980.

3. I am a:

   - Registered Professional Geology in the State of Arizona (No. 24064)
   - Registered Member in good standing of the Society for Mining, Metallurgy and Exploration, Inc. (No. 3612900RM)

4. I have practiced geology, mineral exploration, environmental management, mine development, and project management for 38 years. I have worked for mining and exploration companies for 8 years, engineering and environmental consulting firms for 22 years, and for M3 Engineering and Technology Corporation for 7 years evaluating metallurgical test programs, managing design of processing plants, evaluating environmental issues, and overseeing capital and operating cost estimation for mine development.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am a contributing author for the preparation of the technical report titled "Cordero Project, NI 43-101 Technical Report, Preliminary Economic Assessment Update, Chihuahua, Mexico", (the "Technical Report"), dated effective March 1, 2018 prepared for Levon Resources Ltd; and am responsible for Section 20. I most recently visited the project site on March 15, 2014.

7. I have had prior involvement with the property that is the subject of this Technical Report. The prior involvement was as an independent consultant to Levon for previous studies concerning the design, engineering, and cost estimation of the process plant.

8. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 18th day of April, 2018.

(Signed) (Sealed)
Richard K Zimmerman, M.Sc., R.G., SME-RM No. 3612900RM

CERTIFICATE OF QUALIFIED PERSON

Herbert E. Welhener

I, Herbert E. Welhener, do hereby certify that:

1. I am currently employed as Vice President of Independent Mining Consultants, Inc. located at 3560 E. Gas Road, Tucson, Arizona, USA.
2. I am a graduate with a Bachelor of Science in Geology from the University of Arizona in 1973.
3. I am a registered member of the Society of Mining, Metallurgy and Exploration, Inc. (SME RM # 3434330).
4. I have practiced my profession continuously since 1973. Since graduating, I have worked as a consultant on a wide range of mineral projects, specializing in precious, base and industrial metals. I have undertaken many mineral resource estimations, mine evaluation technical studies and due diligence reports in a variety of settings around the world.
5. I have read the definition of "qualified person" set out in National instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am co-author and reviewer of this report and have specific responsibility for the Mineral Reserve estimate and Sections 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 21.1.1, 21.2.1 and 23 of the technical report titled "Cordero Project, NI 43-101 Technical Report, Preliminary Economic Assessment Update, Chihuahua, Mexico" (the "Technical Report"), dated effective March 1, 2018, prepared for Levon Resources Ltd.
7. I have had prior involvement with the property that is the subject of the Technical Report as a contributor and author of previous Technical Reports on the property.
8. I last visited the Cordero Property on May 29-30, 2017.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the parts of the Technical Report for which I am responsible contain all scientific and technical information required to be disclosed to make the report not misleading.
10. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.
11. I have read National Instrument 43-101 and Form 43-101F1, and the sections of the Technical Report that I am responsible for have been prepared in compliance with that instrument and form.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 18th day of April 2018.

(Signed) (Sealed)
Signature of Qualified Person

Herbert E. Welhener
Print name of Qualified Person