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# Technical Report

## **Minera La Negra Property** **Querétaro, Mexico**

### **Aurcana Corporation**

In accordance with the requirements of National Instrument 43-101 "Standards of Disclosure for Mineral Projects" of the Canadian Securities Administrators

Qualified Persons:  
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AMC Project 714036

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## 1 Summary

The La Negra mineral property (The Property) is located in the Maconí Mining District, State of Querétaro, Mexico, and contains more than 20 zones of skarn-related silver-lead-zinc-copper mineralization. The Property is comprised of fifteen contiguous Mineral Concessions with an aggregate area of approximately 82,878 hectares (ha) and is owned 100% by Minera La Negra (MLN). MLN is owned 100% by Real de Maconí, S.A. de C.V. (Real de Maconí), a Mexican corporation controlled by Aurcana Corporation (Aurcana). In 2006, Aurcana acquired ownership of the Property from Industrias Peñoles, S.A., de C.V. (Peñoles).

AMC Mining Consultants (Canada) Ltd. (AMC) was retained by Aurcana to prepare a NI-43-101-compliant technical report on the Property. This report includes updated Mineral Resource estimates for 11 of the known zones of mineralization: Bicentenario, Brecha, Cobriza, Dificultad, Gaby, La Negra, Maravillas, Natalia, San Buena Ventura, Trinidad and Virginia. Aurcana considers these updated estimates to be timely because of the acquisition of additional assay data as well as a change in metal prices since the last (2012) Resource estimate.

The Property is located approximately 90 km northeast of Querétaro City, the capital of Querétaro State, and 160 km northeast of Mexico City. The centre of the Property is located at approximately 20°51.1' North Latitude and 99°30.9 West Longitude (UTM 14Q 2303950N / 426443E).

The Property is located near the south-western edge of the Sierra Madre Oriental fold belt, a physiographic province that is also the outermost segment of the Cordilleran fold belt in Central Mexico. The regional geology of the Property area is characterized by the presence of two prominent carbonate banks, the Valles – San Luis Potosi Platform and the smaller El Doctor Bank, that are comprised of platformal bioclastic limestone of the middle Cretaceous-age El Doctor Formation, and deep-water clastic and pyroclastic rocks that were deposited in the intervening Zimapán Basin between the two carbonate platforms.

The Property is underlain by limestone of the El Doctor Formation that has been thrust over folded and deformed clastic sedimentary rocks of the Soyatal Formation. The El Doctor Formation has been intruded by diorite plugs, dikes and sills of Cenozoic age. The main diorite body trends northeast and several dikes trend to the northwest from the western flank of the main diorite body.

Within the Property, the El Doctor Formation limestone has been commonly recrystallized to marble and, immediately adjacent to the diorite intrusive and dikes, has been altered to skarn. Contacts between limestone, marble and skarn are typically abrupt and sharp.

Economic mineralization within the Property is comprised primarily of sphalerite, galena, and chalcopyrite. Arsenic, bismuth and mercury minerals are also present in variable quantities. Oxidation of sulphides is not significant.

All known mineralization within the Property is contained within skarn that developed through alteration of El Doctor Formation limestone. Bodies of mineralization form chimneys, mantos and sheets. The morphology of mineralization has been controlled by structure and primary permeability of the limestone. Mineralization adjacent to the northwest-trending dikes is typically sheet-like and chimneys and mantos occur adjacent to the main diorite intrusive. Mineralization is coarse-crystalline and most commonly disseminated; on a local scale, massive mineralization also occurs. It is inferred that the primary style of mineralization is disseminated and that greater concentrations may reflect structural remobilization.

Mineral Resources estimated by AMC are summarized below in Table 1.1.

Table 1.1 Minera La Negra 30 September 2014 Resource Estimate

MEASURED RESOURCES	Tonnes (000s)	RMV US\$	Ag (g/t)	As (%)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	Ag ounces (000s)	Cu pounds (000s)	Pb pounds (000s)	Zn pounds (000s)
BICENTENARIO	3	243	243	1.02	0.84	1.22	2.34	351	24	55	80	155
BRECHA	28	78	54	0.88	0.56	0.15	0.95	113	48	343	93	587
COBRIZA	62	71	54	0.09	0.66	0.18	0.18	103	108	904	252	248
LA NEGRA	1,227	118	100	0.26	0.48	0.52	1.57	170	3,946	12,853	13,994	42,540
MARAVILLAS	655	192	128	3.16	0.87	0.52	3.72	277	2,690	12,583	7,439	53,699
NATALIA	1	155	98	0.17	1.08	0.25	2.25	224	3	24	6	50
<b>TOTAL MEASURED</b>	<b>1,977</b>	<b>140</b>	<b>107</b>	<b>1.22</b>	<b>0.61</b>	<b>0.50</b>	<b>2.23</b>	<b>203</b>	<b>6,822</b>	<b>26,777</b>	<b>21,870</b>	<b>97,348</b>
<b>INDICATED RESOURCES</b>												
BICENTENARIO	1,515	71	57	0.62	0.39	0.24	0.84	103	2,778	12,991	7,985	27,945
BRECHA	39	97	57	0.95	0.79	0.13	1.27	141	71	681	114	1,090
COBRIZA	389	51	38	0.10	0.51	0.11	0.13	74	476	4,332	942	1,087
DIFICULTAD	54	188	80	1.13	0.73	0.26	5.73	272	139	870	308	6,817
GABY	161	102	69	1.46	0.53	0.32	1.71	147	357	1,892	1,130	6,067
NATALIA	355	55	28	0.15	0.39	0.07	1.00	79	323	3,031	577	7,823
SAN BUENA VENTURA	27	158	117	0.61	0.35	1.37	2.88	228	101	211	815	1,716
TRINIDAD	170	118	69	0.90	0.80	0.21	1.93	170	377	3,008	779	7,224
VIRGINIA	38	170	112	0.86	0.51	0.57	4.04	246	136	425	478	3,381
<b>TOTAL INDICATED</b>	<b>2,748</b>	<b>76</b>	<b>54</b>	<b>0.57</b>	<b>0.45</b>	<b>0.22</b>	<b>1.04</b>	<b>110</b>	<b>4,758</b>	<b>27,440</b>	<b>13,119</b>	<b>63,111</b>
<b>TOTAL MEASURED + INDICATED</b>	<b>4,724</b>	<b>103</b>	<b>76</b>	<b>0.84</b>	<b>0.52</b>	<b>0.34</b>	<b>1.54</b>	<b>149</b>	<b>11,578</b>	<b>54,206</b>	<b>14,982</b>	<b>160,427</b>
<b>INFERRED RESOURCES</b>												
BICENTENARIO	7	185	168	0.52	0.68	0.72	2.43	268	39	105	111	375
COBRIZA	14	264	186	0.08	2.89	0.08	0.46	382	84	893	24	143
DIFICULTAD	146	92	59	0.26	0.31	0.29	2.15	134	279	985	921	6,933
GABY	67	136	91	1.78	0.76	0.32	2.27	197	197	1,124	474	3,346
SAN BUENA VENTURA	2	121	92	0.52	0.31	1.13	1.94	174	6	14	50	86
TRINIDAD	375	71	38	0.42	0.54	0.08	1.16	103	455	4,495	673	9,623
VIRGINIA	33	102	77	0.63	0.32	0.44	1.98	147	81	230	318	1,443
<b>TOTAL INFERRED</b>	<b>642</b>	<b>90</b>	<b>55</b>	<b>0.53</b>	<b>0.55</b>	<b>0.18</b>	<b>1.54</b>	<b>130</b>	<b>1,132</b>	<b>7,802</b>	<b>2,547</b>	<b>21,867</b>

Notes: 1 troy ounce = 31.10348 grams  
1 metric tonne = 2,204.6 pounds

Resources are stated on the basis of recovered metal value (RMV), in US\$, at a lower threshold of RMV\$30 / tonne, which corresponds generally with the on-site cash cost provided by Aurcana for the La Negra mine from January to October 2014. AMC recommends that Aurcana reviews the lower cut-off value for Mineral Resources prior to the next update, but notes that Resource estimates are relatively insensitive to RMV.

Three dimensional wireframe models (solids) of the 11 mineral zones were generated by Aurcana using SURPAC™ geological software; the solids were then used by AMC to constrain the Resource estimate for each mineral zone. Solid models of the underground workings were also provided by Aurcana and the workings were subtracted from the mineral zone solids used to estimate the quantities of Resources. Therefore, the Resources (grades and tonnes) were estimated within the geological solid models with the workings extracted. The Mineral Resource was estimated using DATAMINE Studio 3 software.

A single block model was created to contain all 11 zones. Within individual zones, the size of Resource estimation blocks used does not exceed 5m x 5m x 5m and block grades are not diluted. The grades in the block model were estimated using ordinary kriging.

No Mineral Reserves have been estimated. Mineral Reserves are normally estimated through the development of a comprehensive life-of-mine plan, which is not available at this time. As such, the economic and technical viability of continued operations has not been demonstrated. It is Aurcana's intention to develop a life-of-mine plan during 2015 as an essential step in the ongoing management of La Negra Resources. Given the impact of off-site costs, in particular smelter penalties, AMC recommends that these be taken into account for block valuations pertaining to a detailed mine plan.

Minera La Negra is a trackless mine and operates on four main levels, 2100, 2200, 2300, and 2400. The main haulage level is at the 1,900 m elevation and mined material is transferred to that level from the production levels through ore passes. The mine has a demonstrated production capacity of approximately 2,700 tonnes per day, and operates on a six days per week basis, with three shifts per day.

Bottom-up, long-hole, open stope mining on 15 m sublevels is used where the dimensions and morphology of the mineralization permit; cut-and-fill is used in narrow or irregularly-shaped zones. Long-hole open stoping accounts for the majority of production, and is used where the mineralization dips steeper than 55° and the economic width is greater than 5 m. Ground conditions are excellent such that ground support is not required.

Although the historical metallurgical testwork data from the Peñoles operations of 45 years ago are no longer available, production data from the last 4-5 years provides a reasonably consistent basis for expected metallurgical performance. Copper, lead and zinc recoveries of around 75% and silver recoveries of over 80% have been consistently achieved.

The deposit is metallurgically complex, with bismuth and arsenic impurities attracting significant charges and penalties. Mineralogy studies are ongoing, and the recent incorporation of arsenic into the geological model has facilitated appropriate blending strategies to minimize the impact of arsenic penalties in particular.

The Minera La Negra concentration plant has been progressively expanded to its current operating capacity of 3,000 tonnes per day. It uses conventional three-stage crushing, ball milling and differential flotation to produce three concentrates, lead-silver, copper, and zinc for transport to Manzanillo and shipping to smelter customers through its current offtake agreement with Glenore.

Off-site charges related to concentrate transport and smelting are a very significant component of the total operating costs and are likely to continue to remain so.

Tailings are stored in a valley-fill tailings storage facility (TSF 5) with 2.5 years life remaining. Work is currently underway to investigate and permit additional TSF capacity.

MLN is in compliance with required environmental and other related permits.

## Recommendations

- Rank, in order of potential to add to Resources / Reserves, occurrences of mineralization that have not been sufficiently well-defined to be included in current Mineral Resources. Evaluate the occurrences by the most appropriate means to determine their actual potential. This exploration is a normal and ongoing function at the Property, and so a specific budget has not been included here.
- Review the lower cut-off value for Mineral Resources prior to the next update, although it is noted that Resource estimates are relatively insensitive to variations in RMV.
- Review the bulk density figures and measurement processes to determine whether they are a true reflection of mine production inclusive of natural voids, which is the factor required for conversion of block volumes to block tonnages

- Continue current studies into mineralogy and potential metallurgical improvements, particularly in light of the significance of the concentrate smelting charges in the total operating cost structure. Typical costs for this type work are approximately \$100,000.
- Proceed with the current plan to develop a life-of-mine plan.
- Ensure that the significant burden of off-site costs related to smelter charges are included in threshold metal values for the purposes of Reserve determination and mine planning.

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## 2 Introduction

The La Negra mineral property (The Property) is located in the Maconí Mining District, State of Querétaro, Mexico, and contains more than 20 zones of skarn-related silver-lead-zinc-copper mineralization. The Property is comprised of fifteen contiguous Mineral Concessions with an aggregate area of approximately 82,878 ha and is owned 100% by Minera La Negra (MLN). MLN is owned 100% by Real de Maconí, S.A. de C.V. (Real de Maconí), a Mexican corporation controlled by Aurcana Corporation (Aurcana). In 2006, Aurcana acquired ownership of the Property from Industrias Peñoles, S.A. de C.V. (Peñoles).

AMC Mining Consultants (Canada) Ltd. (AMC) was retained by Aurcana to prepare a NI-43-101-compliant technical report on the Property. This report includes updated Mineral Resource estimates for 11 of the known zones of mineralization: Bicentenario, Brecha, Cobriza, Dificultad, Gaby, La Negra, Maravillas, Natalia, San Buena Ventura, Trinidad and Virginia. Aurcana considers these updated estimates to be timely because of the acquisition of additional assay data as well as a change in metal prices since the last (2012) Resource estimate.

This report is based on information provided by Aurcana and MLN and has been prepared in compliance with National Instrument 43-101. The information supplied includes geological models of the 11 mineral zones, an assay database current to the end of September 2014, copies of relevant previous technical reports on the Property, and non-technical information pertaining to ownership of the Property and legal obligations relevant to ownership and operation of the mining and processing operations.

As part of the preparation of the report, AMC Principal Geologist and Qualified Person (QP) G Mosher, P.Geo. conducted a site inspection between 16 and 18 September 2014. The site inspection included a review of geological models that were being prepared at that time by MLN geological staff, two trips underground to observe the various styles of mineralization present in the various zones, as well as inspections of the on-site assay laboratory and core processing and storage facility. Four check samples were collected from drill core to assess the repeatability of assays obtained by the on-site laboratory.

**Table 2.1** Persons who prepared or contributed to this technical report

Qualified Persons responsible for the preparation of this Technical Report						
Qualified Person	Position	Employer	Independent of Aurcana?	Date of last Site Visit	Professional Designation	Sections of Report
Mr G Mosher	Principal Geologist	AMC Mining Consultants (Canada) Ltd.	Yes	September 2014	P.Geo., B.Sc. (Hons), M.Sc. Applied, Mineral Exploration, MBA	Part of 1, 2 to 12, 14, 23, 24, parts of 25, 26
Mr P R Stephenson	Principal Geologist	AMC Mining Consultants (Canada) Ltd.	Yes	No visit	P.Geo., BSc (Hons), FAusIMM (CP), MCIM	Part of 1, 18, 20, parts of 25, 26
Mr A Riles	Associate Metallurgical Consultant	Riles Integrated Resource Management Ltd	Yes	No visit	B.Met (Hons) Grad Dipl Professional Management, MAIG	Part of 1, 13, 17, 19, parts of 25, 26
Mr C Keogh	Principal Mining Engineer	AMC Mining Consultants (Canada) Ltd.	Yes	No visit	P.Eng., B.A.Sc. Mining	Part of 1, 15, 16, 21, 22, parts of 25, 26
Other Experts who assisted the Qualified Persons						
Expert	Position	Employer	Independent of Aurcana?	Visited Site	Sections of Report	
Mr H Valdez	Chief of Safety, Industrial Hygiene and Ecology	Minera La Negra	No	Based at site	20	

## 3 Reliance on other experts

In the preparation of this report the QPs have relied upon Aurcana for information pertaining to Property ownership, royalties, and other payments, and legal encumbrances, as described in Section 4 of this report.

The QPs have also relied on Señor H. Valdez, Chief of Safety, Industrial Hygiene and Ecology with MLN, for information pertaining to environmental and related permitting issues, as described in Section 20 of this report.

## 4 Property description and location

### 4.1 General Description

The Property is located in the Maconí Mining District, State of Querétaro, Mexico, approximately 90 km northeast of Querétaro City, the capital of Querétaro State, and 160 km northeast of Mexico City. The Property is comprised of 15 contiguous Mineral Concessions with an aggregate area of approximately 82,878 ha. The centre of the Property is located at approximately 20°51.1' North Latitude and 99°30.9 West Longitude (UTM 14Q 2303950N / 426443E). Table 4.1 tabulates the Mineral Concessions and their respective area; Figure 4.1 shows the location of the Mining Concessions.

Table 4.1 Minera La Negra Mining Concessions

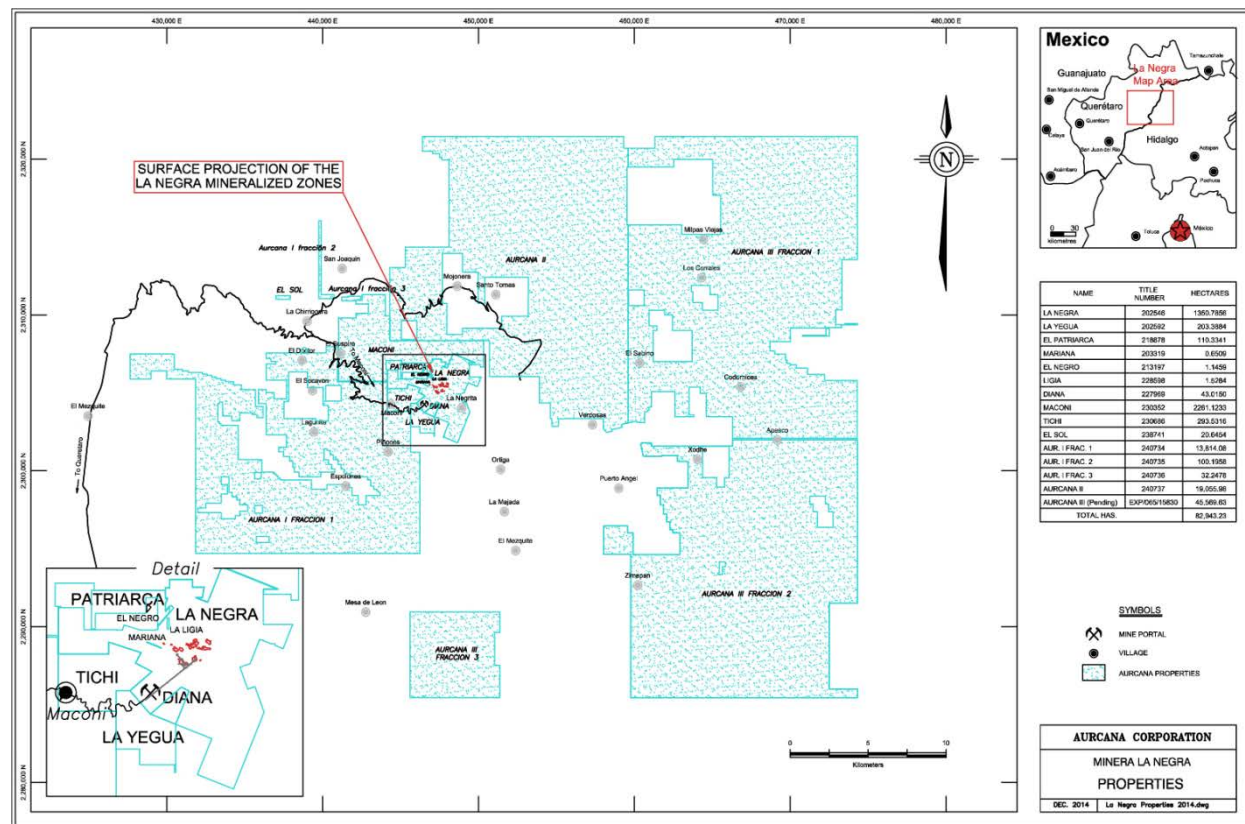
Title Number	Title Name	Date Granted	Date of Expiry	Age	Area (ha)	Annual Fees <sup>(1)</sup> (2014) (Mexican Pesos)
202546	LA NEGRA <sup>(2a)</sup>	01-12-95	19-12-32	18	1,350.79	352,696
213197	EL NEGRO	30-03-01	29-03-51	12	1.15	299
218878	EL PATRIARCA	23-01-03	22-01-53	11	110.33	28,809
203319	MARIANA	28-06-96	27-06-46	17	0.65	170
202592	LA YEGUA	08-12-95	07-12-45	18	203.39	53,106
230352	MACONI	17-08-07	16-08-57	8	2,281.12	169,273
230686	TICHI	03-10-07	02-10-57	8	293.53	21,781
227969	DIANA	20-09-06	19-09-56	9	43.02	6,382
228598	LIGIA	12-12-06	11-12-56	9	1.53	227
238741	EL SOL	18-10-11	17-10-61	4	20.65	368
240734	AURCANA 1 Fracc. 1 <sup>(2b)</sup>	26-06-12	27-06-62	2	13,814.08	246,433
240735	AURCANA 1 Fracc. 2	01-12-95	19-12-32	18	100.20	1,788
240736	AURCANA 1 Fracc. 3	08-12-95	07-12-45	18	32.25	576
240737	AURCANA II <sup>(2b)</sup>	28-06-12	27-06-62	2	19,055.98	339,944
EXP/065/15830	AURCANA III	Title Pending <sup>(2c)</sup>			45,569.63	0
TOTAL					82,878.28	1,221,852

#### Notes:

- 1 Concession rights fees are paid in two tranches, January and July of each year. The amount paid depends upon the age of the concession and the national consumer pricing index (as an adjustment for inflation). All must be paid by year end.
- 2 Pending title matters include:
  - a. Acceptance of application to consolidate or group the smaller concessions into a single existing mineral concession "La Negra" (T-202546);
  - b. Application to divide concessions AURCANA I FRACCION I AND AURCANA II into fractions of less than 5,000 ha each, and
  - c. Receiving formal approval and title for the AURCANA III concession. This concession overlaps a portion of the Marmoles National Park and the boundaries will be determined by the General Bureau of Mines, a branch of The Ministry of the Economy. The Bureau of Mines, through its various subordinate agencies, administers the country's mining law, with respect to concessions, allotments and national mining reserves.

All concessions are in good standing and up to date with respect to any required reports on operations and investments.

Figure 4.1 Minera La Negra Mining Concessions



The mineral concessions that comprise the Property are owned 100% by MLN. MLN is owned 100% by Real de Maconí, a Mexican corporation controlled by Aurcana.

Aurcana's acquisition of an indirect interest in the Property involved the following sequence of agreements and material events:

- 1 On 22 February 2006, Aurcana entered into a letter of intent with Reyna Mining and Engineering S.A. de C.V., (Reyna) a private Mexican company owned by José Antonio Berlanga Balderas (Berlanga) to acquire MLN. Reyna had previously signed a letter of intent, dated 22 December 2005, with Minas Peñoles S.A. de C.V and Industrias Peñoles, S.A. de C.V. (collectively "Peñoles") to acquire MLN.
- 2 On 24 March 2006, Aurcana entered into a joint investment contract with Reyna to acquire 80% of the capital of Real de Maconí.
- 3 On 18 May 2006, a sale and purchase agreement (SPA) was entered into whereby Peñoles sold all the shares of the capital of MLN to Real de Maconí and Berlanga.
- 4 As of 31 December 2007 Aurcana's cost of acquiring its 80% interest was C\$5,517,465 composed of 2,114,631 shares (at a fair value of C\$1,370,361) and cash.
- 5 In July 2009 Aurcana increased its interest in Real de Maconí to 92% then to 99.86% in February 2012, both as a result of Reyna failing to make its share of joint investment payments.

## 4.2 Royalties

There is a "*Prima por descubrimiento*" or a discovery bonus ("Prima") to be paid by the producer, or miner, that entered into the SPA with Peñoles. The Prima is in effect a gross over-riding royalty on mineral and concentrates production and sales derived from the El Patriarca, La Negra, La Yegua, Mariana and El Negro concessions. The amount to be paid is calculated as:

- a. 3.5% when the price of copper is equal to or above US\$ 1.60 per pound; or
- b. 3.0% when the price of copper is equal to or above US\$ 1.30 per pound; or
- c. 2.5% when the price of copper is equal to or above US\$ 1.00 per pound; or
- d. 0% (nil) when the price of copper is less than US\$ 1.00 per pound.

The royalty is to be reduced by 80% if and when production in excess of 900,000 tonnes is achieved within five years of the date of signing.

There are no other royalties, back-in rights, or encumbrances.

## 4.3 Surface rights

MLN has an Usufruct Agreement, dated initially 4 December 1984, and renewed 16 July 2006, with the community of Maconí (Comunidad Agraria de Marconí) whereby the community agrees to MLN receiving the economic benefits from mining, milling, beneficiation, refining, exploration, access, and development on a 42.5 hectare area of core property that is regarded as community lands. In return the community is paid a modest annual fee (MXN563 per hectare). The agreement calls for local providers to haul concentrate to port, provide personnel transport, housekeeping and cafeteria services. It also calls for certain site remediation measures on closing, such as a 15 centimetre-thick cap on tailings, and an electrical generator for the town. The Usufruct Agreement will need to be renewed in 2021.

## 4.4 Mexico Mining Tax

On 1 January 2014, the Federal Duties Law (Ley Federal de Derechos) was amended to create a mining royalty (derecho especial de minería) to be collected annually. The rate is 7.5% of the income derived by the mineral concession holder from mining activities. Certain deductions are not allowed, including exploration activities, financing costs and taxes. This mining royalty is payable to the Federal government in January and July of each calendar year.

Also, holders of gold, silver or platinum mining concessions must pay an extraordinary annual mining royalty (derecho extraordinario de minería) equivalent to 0.5% of all revenues arising exclusively from the sales of gold, silver and platinum. This royalty is payable to the Federal government on March of each calendar year.

Holders of mining concessions that have not conducted exploration or exploitation for two years within an eleven-year-period (commencing as of the date of granting title) will pay an additional mining royalty (derecho adicional sobre minería) equivalent to 50% of the applicable duties from the twelfth year onwards. This royalty increases in year 12 to 100% of applicable duties if the concession holder has not undertaken exploration and exploitation works within two years after the twelfth year of the effectiveness of the mining concession. These royalties are payable to the Federal Government in January and July of each calendar year.

## 4.5 Permits

To the extent known, all permits that are required by Mexican law for the mining operation have been obtained.

There are no known significant factors, other than those addressed above, that may affect access, title, or Aurcana's right to perform work on the Property.

## 5 Accessibility, climate, local resources, infrastructure and physiography

The Property is located in the Sierra Gorda Mountains that form part of the Sierra Madre Oriental. Topography is rugged and elevations range between 1,600 and 2,700 metres above sea level (m.a.s.l.). The main haulage level at the Property is at approximately 1,900 m.a.s.l.

Because the Sierra Gorda Mountains block moisture from the Gulf of Mexico, the local climate is arid; average annual rainfall is about 80 cm and falls mostly between June and October. Mining and processing operations at the Property are not meaningfully affected by climate and operate on a year-round basis.

Vegetation is characteristic of a desert environment; cacti and bushes predominate although larger trees grow in valleys adjacent to permanent creeks and rivers. Given the rugged nature of the topography and sparse rainfall, agriculture is generally limited to subsistence gardening and raising livestock.

The principal access to the mine is from Querétaro City via Highway 57D, and then, via the paved road between Highway 57D and the village of Maconí. The mine offices and processing plant are accessed from Maconí by four km of unpaved road. Within the property, mine roads provide access to several mine portals and tailings disposal areas.

Mining is the most important economic activity in the Maconí District together with limited agriculture. Marble production is significant in the area, where the road to Maconí branches off from Highway 57D.

The village of Maconí provides basic services and is where most of the mine workers live. The nearest significant town is San Joaquín, 21 km distant. The majority of necessary services can be obtained in Querétaro City, approximately 90 km distant.

The Property contains sufficient area for mining operations and tailings and waste disposal. Approximately 80% of the water used for processing is obtained from the recycling of water from tailings disposal; the balance comes from local surface drainages. Electrical power is obtained from the state electrical grid. The district has a long history of mining and qualified mining personnel are readily available locally.

## 6 History

Archaeological evidence indicates that mining of minerals for cosmetic and decorative purposes occurred as long as 2,000 years ago. Mining in the district by the Spanish began in the 1500s and the discovery and exploitation of mines in the Maconí area began in the late 1600s.

During the 1800s and early 1900s, exploration and mining were conducted intermittently by private individuals; by 1950, the Property was owned by Compañía Minera Acoma, S.A. but its activities were apparently not successful and the Property reverted to private ownership.

In the 1930s, Peñoles operated a small smelting plant at El Doctor, approximately 10 km distant from Maconí, and acquired the Property in the early 1960s. Peñoles conducted geological mapping, sampling, magnetic surveys and drilling that resulted in the discovery of the La Negra and El Alacran deposits of which the Negra deposit is still actively mined by Aurcana. Mine development commenced in 1967, and mining in 1971. Between then and 2000, Peñoles is reported to have mined approximately 6.6 million tonnes with an average grade of 169 g/t silver, 1.1% lead, 2.2% zinc and 0.48% copper. In 2000, Peñoles put the mine on care and maintenance because of low metal prices.

Aurcana acquired an indirect interest in the Property in 2006 and recommenced mining in the second quarter of 2007 at a rate of 1,000 tpd, increasing to 1,500 tpd in 2007, to 2,000 tpd in April 2012 and to 3,000 tpd capacity in April 2013. Between 1 June 2007 and 31 December 2013, Aurcana mined approximately 3.2 Mt with an average grade of 73 g/t silver, 0.37% lead, 1.27% zinc and 0.49% copper.

Exploration conducted by Aurcana, is described in Section 9.0.

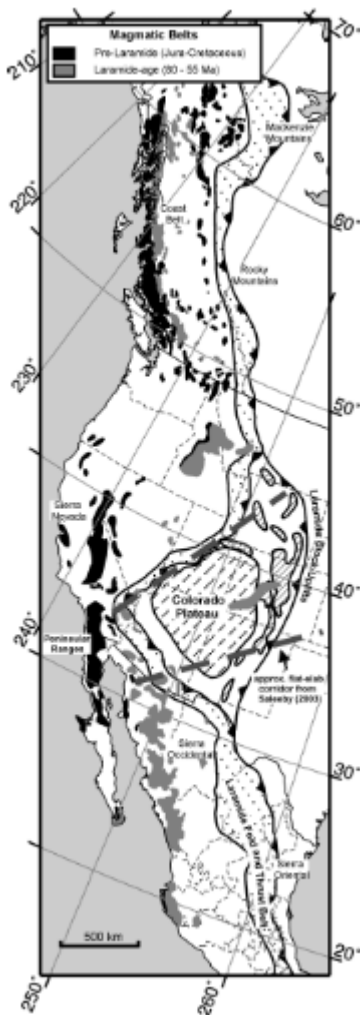


## 7 Geological setting and mineralization

### 7.1 Regional Geology

The Property is located near the southwestern edge of the Sierra Madre Oriental fold belt, a physiographic province that is also the outermost segment of the Cordilleran fold belt in Central Mexico. The Cordilleran fold belt was formed during the Laramide Orogeny between Late Cretaceous and Paleocene time (80 to 55 Ma.) which also formed the Rocky Mountains in United States and Canada. (Figure 7.1 from English & Johnson). The orogeny was caused by eastward subduction of the Pacific Plate beneath continental North America that resulted in northwest-trending folding and west-dipping thrusting.

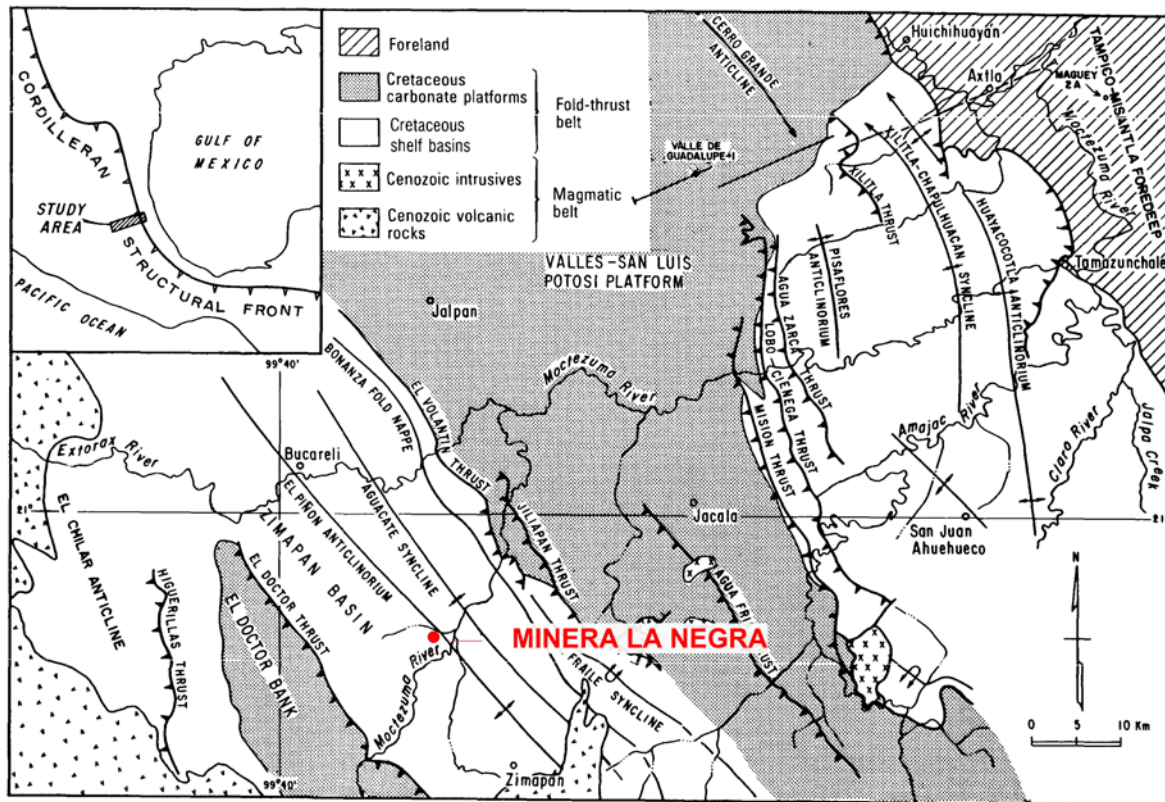
Figure 7.1 Distribution of the Laramide Orogeny



The regional geology of the Property area is characterized by the presence of two prominent carbonate banks: the Valles – San Luis Potosi Platform and the smaller El Doctor Bank, that are comprised of platformal bioclastic limestone of the middle Cretaceous age El Doctor Formation, and deep-water clastic and pyroclastic rocks that were deposited in the intervening Zimapan Basin. (Figure 7.2 modified from Suter, 1987).



Figure 7.2 Minera La Negra regional geology



The El Doctor Formation is named after the village of El Doctor, located approximately 8 km northwest of the Property. The Formation is comprised of four facies: shallow-water biostromal limestone, limestone conglomerate, massive limestone with chert nodules, and deep-water, thin-bedded limestone with abundant chert lenses.

The oldest exposed basinal rocks in the Zimapan Basin belong to the Lower Cretaceous-age Las Trancas Formation, which is comprised of clastic and pyroclastic rocks and intercalated andesitic to dacitic lavas. The overlying Tamaulipas Formation is age equivalent to the lower El Doctor Formation and is comprised of pelagic lime mudstone. The overlying Soyatal Formation is correlative with the upper El Doctor Formation and is comprised of shale and pelagic limestone.

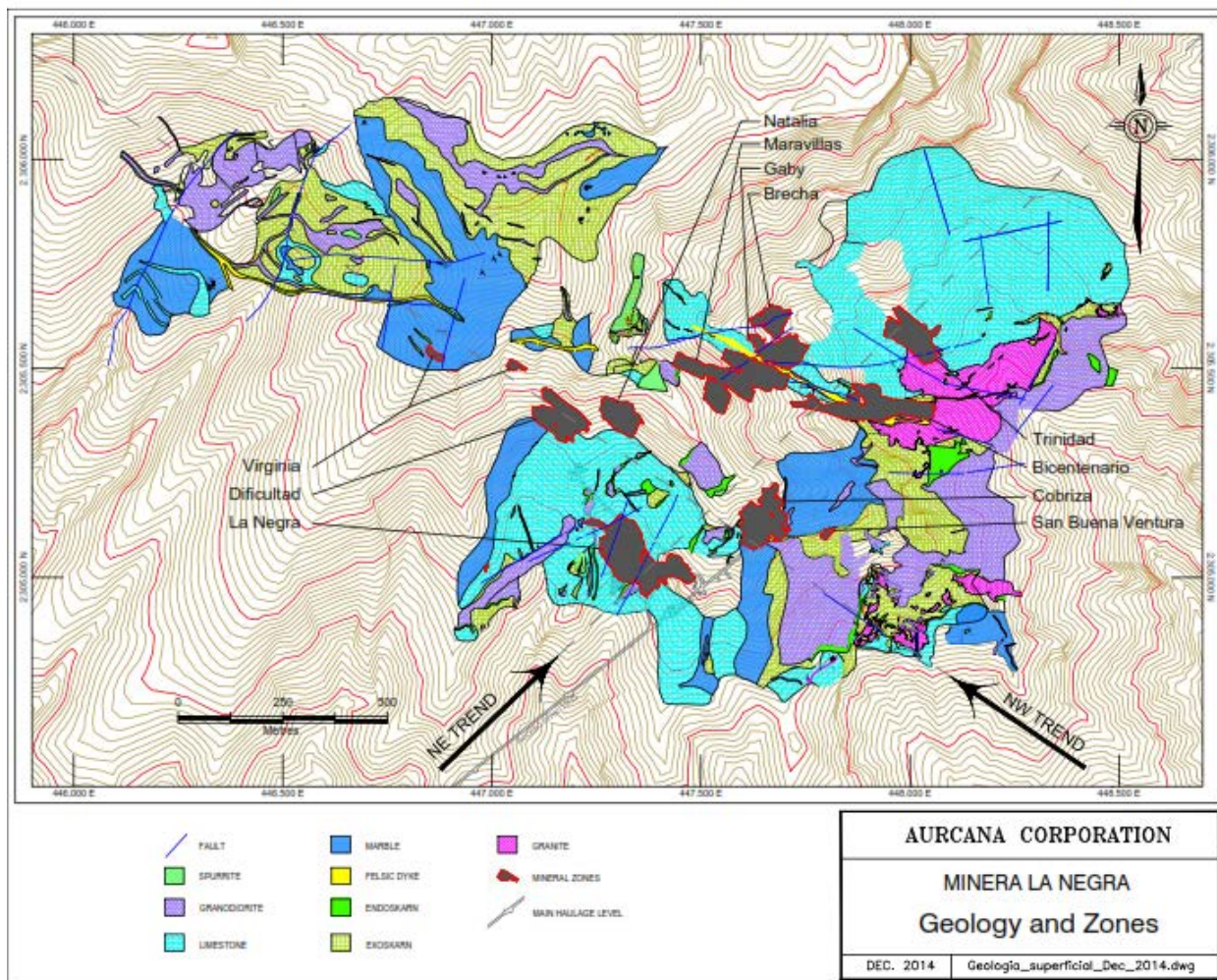
During the Laramide Orogeny, the carbonate banks acted as rigid plates that were thrust over the plastically deformed strata of the Zimapan Basin in which northwest-trending anticlines and synclines of regional extent were formed. (Figure 7.2).

Cenozoic crustal extension associated with the formation of the Gulf of California followed the Laramide Orogeny, and was accompanied by the intrusion of granite and granodiorite bodies and by the extrusion of felsic to intermediate volcanic rocks.

## 7.2 Property Geology

The Property is underlain by limestone of the El Doctor Formation that has been thrust over folded and deformed clastic sedimentary rocks of the Soyatal Formation. The El Doctor Formation has been intruded by diorite plugs, dikes and sills. The main diorite body trends northeast and several dikes trend to the northwest from the western flank of the main diorite body. (Figure 7.3 Source Minera La Negra).

Figure 7.3: Minera La Negra Property Geology



Within the Property the El Doctor Formation limestone has been commonly recrystallized to marble and immediately adjacent to the diorite intrusive and dikes have been altered to skarn. Contacts between limestone, marble and skarn are typically abrupt and sharp.

## 7.3 Mineralization

Economic mineralization within the Property is comprised primarily of sphalerite, galena, and chalcopyrite. Arsenic, bismuth and mercury minerals are also present in variable quantities. Oxidation of sulphides is not significant.

All known mineralization within the Property is contained within skarn that developed through alteration of El Doctor Formation limestone. Bodies of mineralization form chimneys, mantos and sheets. The morphology of mineralization has been controlled by structure and primary permeability of the limestone. Mineralization adjacent to the northwest-trending dikes is typically sheet-like, and chimneys and mantos occur adjacent to the main diorite intrusive. Mineralization is coarse-crystalline and most commonly disseminated, but on a local scale, massive mineralization also occurs. It is inferred that the primary style of mineralization is disseminated and that greater concentrations may reflect structural remobilization.

More than 20 individual mineralized zones have been identified, of which about half are or have been of economic significance. These zones are localized along the northwest flank of the main diorite intrusive and

along the margins of two northwest-trending dikes, in particular the more southerly of the two. The La Negra zone is located near the intersection of these two trends. Along these trends, the zones appear to have developed at relatively regular intervals of approximately 250 m, which suggests an underlying structural control, most probably fracturing and possibly folding, that developed during the Laramide Orogeny. Mineralization that occurs adjacent to the northwest-trending dikes appears to plunge approximately 50° to the northwest and to dip approximately 70° to the southwest, orientations that possibly are a reflection of the attitude of the controlling structures.

Although there are numerous exceptions, the generalization can be made that silver grade decreases with depth and that zinc grade increases with depth. Zones of mineralization have maximum horizontal strike dimensions of approximately 150 m, horizontal width dimensions on the order of 10 to 70 m, and vertical dimensions of up to 300 m although there is significant variability within and among individual zones.



## 8 Deposit types

The characteristics of the La Negra silver-lead-zinc mineralization are consistent with the genetic model for lead-zinc skarns. A brief description of the salient characteristics of lead-zinc skarns follows. (Modified from Ray, 1995).

**SYNONYMS:** Pyrometasomatic or contact metasomatic Pb-Zn deposits.

**COMMODITIES (BYPRODUCTS):** Pb, Zn, Ag, (Cu, Cd, W, Au).

**CAPSULE DESCRIPTION:** Galena and/or sphalerite-dominant mineralization genetically associated with a skarn gangue.

**TECTONIC SETTING:** Along continental margins where they are associated with late orogenic plutonism. Pb-Zn skarns occur at a wide range of depths, being associated with subvolcanic aphanitic dikes and high-level breccia pipes, as well as deep-level batholiths.

**AGE OF MINERALIZATION:** May be any age.

**HOST/ASSOCIATED ROCK TYPES:** Variable; from high-level skarns in thick limestones, calcareous tuffs and sediment to deeper level skarns in marbles and calcsilicate-bearing migmatites. Associated intrusive rocks are granodiorite to leucogranite, diorite to syenite (mostly quartz monzonite). Pb-Zn skarns tend to be associated with small stocks, sills and dikes and less commonly with larger plutons. The composition of the intrusions responsible for many distal Pb-Zn skarns is uncertain.

**DEPOSIT FORM:** Variable; commonly occurs along igneous or stratigraphic contacts. Can develop as subvertical chimneys or veins along faults and fissures and as sub-horizontal blankets (mantos). Pb-Zn skarn deposits formed either at higher structural levels or distal to the intrusions tend to be larger and more Mn- rich compared to those formed at greater depths or more proximal.

**TEXTURES:** Igneous textures in altered intrusive (endoskarn). Coarse to fine-grained, massive granoblastic to mineralogically layered textures in altered and recrystallized hostrocks (exoskarn).

**MINERALOGY (Principal and subordinate):** Sphalerite ± galena ± pyrrhotite ± pyrite ± magnetite ± arsenopyrite ± chalcopyrite ± bornite. Other trace minerals reported include scheelite, bismuthinite, stannite, cassiterite, tetrahedrite, molybdenite, fluorite, and native gold. Proximal skarns tend to be richer in Cu and W, whereas distal skarns contain higher amounts of Pb, Ag and Mn.

**ALTERATION MINERALOGY:** Exoskarn alteration: Mn-rich hedenbergite (Hd30-90, Jo10-50), andraditic garnet (Ad20-100, Spess2-10) ± wollastonite ± bustamite ± rhodonite. Late-stage Mn-rich actinolite ± epidote ± ilvaite ± chlorite ± dannemorite ± rhodochrosite ± axinite. Endoskarn alteration: Highly variable in development and in many of the distal Pb-Zn skarns the nature of the endoskarn is unknown. However, Zn-rich skarns formed near stocks are often associated with abundant endoskarn that may equal or exceed the exoskarn. Endoskarn mineralogy is dominated by epidote ± amphibole ± chlorite ± sericite with lesser rhodonite ± garnet ± vesuvianite ± pyroxene ± K-feldspar ± biotite and rare topaz. Marginal phases may contain greisen and/or tourmaline.

**MINERALIZATION CONTROLS:** Carbonate rocks, particularly along structural and/or lithological contacts (e.g. shale-limestone contacts or pre-mineralization dikes). Deposits may occur considerable distances (100-1000 m) from the source intrusions.

**GRADE AND TONNAGE:** Pb-Zn skarns tend to be small (<3 Mt) but can reach 45 Mt, grading up to 15 % Zn, 10 % Pb and > 150 g/t Ag with substantial Cd. Cu grades are generally < 0.2 %. Some deposits (e.g. Naica (Mexico) and Falun (Sweden)) contain Au.

## 9 Exploration

### 9.1 Surface Exploration

MLN has conducted underground exploration drill programs since its acquisition of the Property in 2006, and surface exploration programs, including drilling, during 2011, 2012, 2013 and 2014. The drill programs, both underground and surface are described in Section 10; the surface exploration programs are described below.

During the period 2011 to 2014, surface exploration programs were focused on the area of the Property within which the surface expression of underground mineralization should be expected to occur.

In June 2011, MLN engaged Telluris Consulting Ltd. to conduct mineral anomaly mapping of the Property using Landsat TM scene 26/46 acquired on 21 March 2000. Mineral anomalies sought included recrystallized limestone, clay, jarosites (iron sulphate, commonly derived from weathered pyrite), hematite and sericite (both mineral products of hydrothermal alteration in skarn environments). The project did not identify any mineral anomalies on the property that were not previously known.

In August 2011, MLN contracted Geotech Ltd. of Aurora, Ontario, to conduct a helicopter-borne VTEM (Versatile Time-Domain Electromagnetic) geophysical survey of the Property. The survey collected magnetic and electromagnetic data along a total of 624.5 line-kilometres over an area of 56 km<sup>2</sup>. Line-spacing was 100 m and lines were oriented north-south.

The electromagnetic data outlined five low to moderate multi-line conductive anomalies and numerous single-line or point-source anomalies. Of the five larger features, one is clearly cultural in origin (power lines and a village) and two others are likely of cultural origin (mine infrastructure).

The 2012 exploration program comprised 1:2,000 scale geological mapping of a 423 hectare area and the collection of 1,117 rock samples.

The geological mapping identified six occurrences of exo-skarn and massive garnet that are interpreted to be permissive hosts of mineralization. The geochemical sampling was concentrated within these areas.

The rock samples were collected by hammer and chisel and on average, weighed 1.2 kg. These samples were analyzed by ALS Chemex for 51 (ME-M41) elements and as well, gold and silver were determined by fire assay. One hundred eleven of the samples contained elevated values for one or more of gold, silver, copper, lead and zinc. The majority (80) of the anomalous values were obtained from two areas called Auriferous Zones 1 and 2. All assays ranged from a low of zero (detectability); maximum values ranged up to 15.3 g/t for gold, 755 g/t for silver, 2.6% for copper, 3.2% for lead and 17.8% for zinc. Average values for all 111 anomalous samples were: gold 1.4 g/t, silver 120 g/t, copper 0.4%, lead 0.5%, and zinc 2.2%.

The 2013 exploration program focused on the most anomalous areas that had been identified as a result of the 2012 program and comprised five ha of detailed geological mapping and the completion of 15 core holes (1,774 m) from six drill sites. This program and the results obtained are described in Section 10.

In 2014, further 1:1,000 geological mapping of 65 ha was carried out in three of the 2012 anomalous zones. As well, approximately 100 rock samples were collected within the mapping area. These samples were analyzed by ALS Chemex in a manner similar to the 2012 program. The maximum value for silver was 735 g/t, copper 1.5% and lead 1.5%; average values for the entire sample suite were lower, e.g. 60 g/t silver, and 0.17% copper.

As all the samples referred to above were selected because of their expected elevated metal content, it can reasonably be assumed that these analytical results are not representative of the tenor of mineralization within the area of investigation as a whole; they are however, indicative of the potential of the setting and are considered to indicate that the mineralization that is being mined underground probably extends to surface.

## 9.2 Underground Sampling

Samples are collected from working faces, backs and ribs. Sample lines are marked at 5 m intervals along the strike of the mine development with spray paint and are divided into sample intervals, typically 3 m in length. Samples are collected either with a chisel and hammer or by saw, and the sample material is caught on a tarp placed on the floor of the area being sampled. Samples are collected in numbered plastic bags and a sample tag is also placed in the bag. Bags are closed with ties. Sample numbers are inscribed on aluminium tags that are nailed to the midpoint of the sample interval. The sample numbers and locations are recorded manually and subsequently transcribed to a computer-based database. Samples are transported to surface as collected and are submitted to the assay laboratory by the responsible geologist.

The database used for the Resource estimate in Section 14 contains 8,675 channel sample assays, approximately 60% of the database. Of these, approximately 10% were collected by Peñoles during its operation of the mine prior to its acquisition by MLN in 2006. The Peñoles channel samples pertain to the Maravillas and La Negra Zones only.

## 10 Drilling

### 10.1 Surface Drilling

In 2013, MLN drilled 15 surface exploration core holes with an aggregate length of 1,773.9 m. The locations, bearing and dip of the holes are shown in Table 10.1. The locations are shown in Figure 10.1, which also shows the relative position of some of the underground workings of the mine.

**Table 10.1 Minera La Negra surface drillholes 2013**

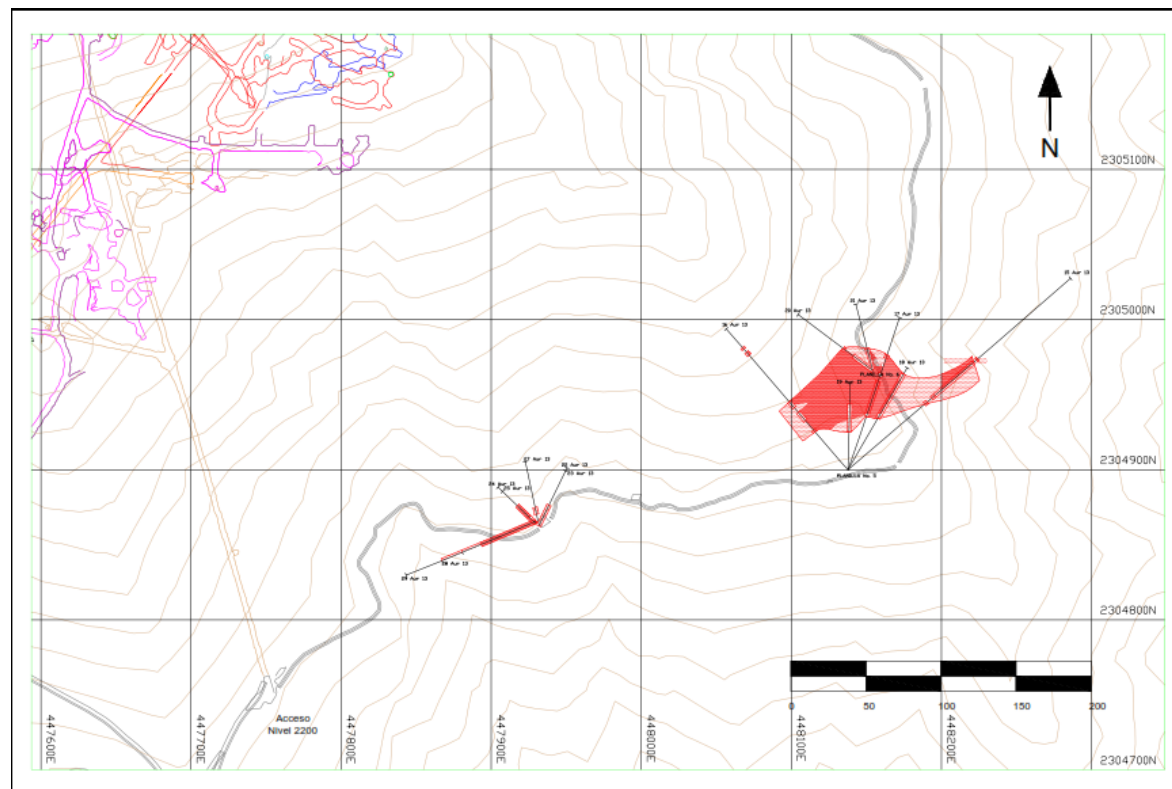
DDH Number	Northing	Easting	Elevation (m)	Bearing (°)	Dip (°)
15 AUR – 13	2 304 901	448 139	2 091	49	-59
16 AUR – 13	2 304 901	448 136	2 091	318	-49
17 AUR – 13	2 304 902	448 139	2 091	18	-45
18 AUR – 13	2 304 901	448 139	2 091	30	-58
19 AUR – 13	2 304 902	448 138	2 091	02	-70
20 AUR – 13	2 304 965	448 153	2 097	306	-59
21 AUR – 13	2 304 966	448 155	2 097	345	-65
22 AUR – 13	2 304 864	447 932	2 073	25	
23 AUR – 13	2 304 863	447 932	2 073	25	-58
24 AUR – 13	2 304 864	447 931	2 073	314	-46
25 AUR – 13	2 304 864	447 931	2 073	311	-67
26 AUR – 13	2 304 863	447 931	2 073	305	-85
27 AUR – 13	2 304 866	447 933	2 073	346	-71
28 AUR – 13	2 304 865	447 931	2 073	247	-50
29 AUR – 13	2 304 865	447 931	2 074	248	-29

Samples were submitted to ALS Laboratories for analysis of gold, silver, copper, lead and zinc. All holes intersected mineralization of potential economic interest; these are summarized in Table 10.2. The lengths of mineralized intercepts in the table are drill intercepts, which differ from, and are presumed to be greater than, true widths which are unknown because of sparseness of data.

**Table 10.2 Minera La Negra 2013 surface drillhole significant intercepts**

Drillhole	Length (m)	Au (g/t)	Ag (g/t)	Lead (%)	Zinc (%)	Copper (%)
15-AUR 13	76	0.23	10	0.04	0.63	0.03
16-AUR 13	25	0.06	9	0.03	0.44	0.06
17-AUR 13	46	0.16	18	0.10	1.10	0.09
18-AUR 13	27	0.11	22	0.13	0.14	0.09
19-AUR 14	54	0.42	21	0.12	0.82	0.04
20-AUR 15	10	0.06	58	0.31	0.28	0.01

Figure 10.1 Minera La Negra Surface drillholes 2013



## 10.2 Underground Drilling

Minera La Negra has conducted underground drilling since the acquisition of the Property in 2006, both to find extensions of known mineralization and to discover new zones. Between 2006 and September 2014, Minera La Negra completed approximately 70,000 metres of drilling. Table 10.3 is a tabulation of drilling during that period by zone and by year.

Table 10.3 Minera La Negra underground drilling by zone and by year

Zone	DDH	Metres	Year	DDH	Metres
Alacran	110	8,718.50	2006	1	79.3
Alejandra	3	66	2007	25	1,937.80
Bicentenario	60	1,680.90	2008	61	4,325.60
Brecha	126	9,860.10	2009	59	3,762.30
Cobriza	111	7,822.50	2010	203	10,573.80
Cristo Rey	9	254.8	2011	220	13,230.70
Dificultad	18	1,423.40	2012	187	12,467.20
Elia	46	3,693.00	2013	165	13,328.00
La Cruz	49	2,649.10	2014	133	10,364.80
La Negra	84	6,478.90	<b>TOTAL</b>	<b>1,054</b>	<b>70,069.30</b>
Maravillas	70	8,236.80			
Natalia	173	7,175.30			
Nta Señora	5	109.4			
Patriota	73	5,341.90			



San Buenaventura	14	1,305.10	
Silvia	2	68.1	
Sofia	29	542.3	
Tania	12	491.3	
Trinidad	25	1,514.40	
Valentina	5	152.5	
Virginia	30	2,485.60	
<b>TOTAL</b>	<b>1,054</b>	<b>70,069.30</b>	

MLN employs its own drillers and owns a variety of underground drill equipment. Underground drilling is controlled and monitored by mine geological staff. Core is delivered to the core sampling and storage facility at the main mine complex where it is recorded as received and entered into a control database that documents the process of logging and sampling. Prior to sampling, the core is checked for completeness and continuity, box numbering and depths. The core is then cleaned and logged for lithology, mineralization, structure and alteration.

Intervals are selected for sampling on the basis of visual identification of mineralization. Sample lengths generally are one or two metres; barren intervals above and below mineralization are also sampled to ensure the limits of mineralization are captured by the sampling process. Core is cut with a saw and half placed in a labelled plastic sample bag together with a corresponding sample tag. A sample tag is placed in the core box and a third copy is retained in the sample booklet. When sampling is complete, the samples are consigned to the mine assay lab through a chain of custody protocol. Samples are routinely assayed for silver, copper, lead, zinc, iron and arsenic and infrequently for antimony and bismuth.

The majority of underground drillcore assays that have been collected by MLN have been incorporated into the database that is described in Section 14 of this report and that has been used for the Resource estimate also described in Section 14. The database contains 4,074 underground drillhole assays, approximately 28% of the dataset; the dataset also includes 1,829 longhole assays (12% of the dataset) that, for the purpose of the Resource estimation, have been treated as drillholes.

The host rocks of the mine are typically very competent with the result that core recoveries are consistently high; there are no drilling, sampling, recovery or other factors that are likely to materially impact the accuracy and reliability of the assay results obtained.

Holes are drilled at a variety of angles with respect to the true thickness of the mineralization encountered. This is true both within zones and from one zone to another because the morphology of the mineralization is variable at both scales. The discrepancies between true and intersected thickness of mineralization are addressed in the Resource estimate described in Section 14 by detailed geological interpretations of the mineralized zones by MLN geological mine staff, who are highly knowledgeable of the characteristics of the various zones. Because they are responsible for both exploration and production geology, the MLN mine staff have guided their interpretations of the mineralized zones by their knowledge of the economically practical limits of the various zones. Therefore, the interpretation of mineralized intercepts in drillholes outside areas of immediate production has been constrained by the application of the same considerations that have been applied within areas of production. The geological interpretation of mineralization that is known only on the basis of drillholes is therefore considered by AMC to be both reasonable and conservative.

An example of the style of fan drilling employed in the underground exploration is provided by Figure 10.2, which shows in plan view, silver assays obtained from drillholes within the Natalia Zone, shown in grey. Figure 10.3 shows the same information on a vertical section through the long axis of the Natalia Zone. The Natalia Zone is one of the few zones in the mine that is mostly known on the basis of information obtained from drillholes.

Figure 10.2 Natalia Zone plan view showing silver grades in drillholes

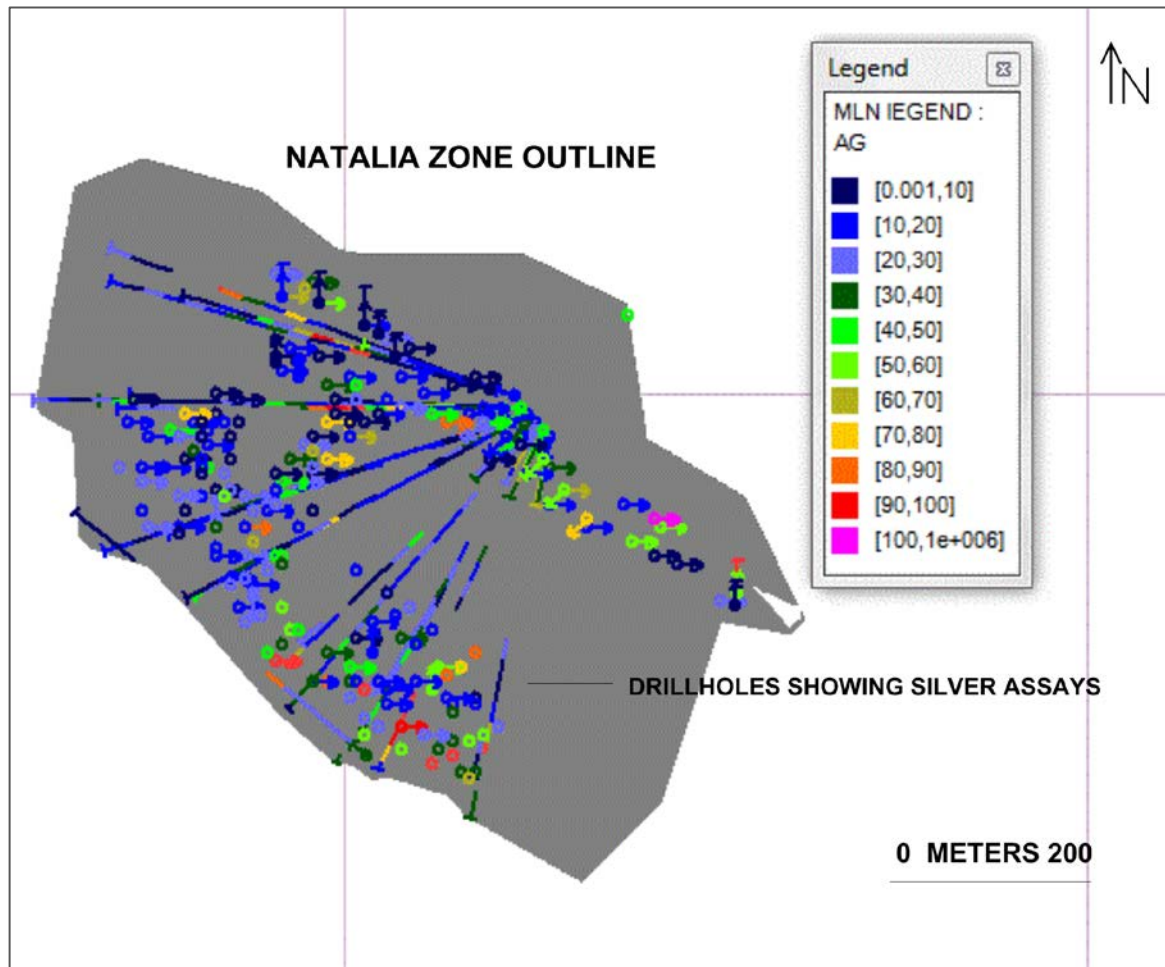
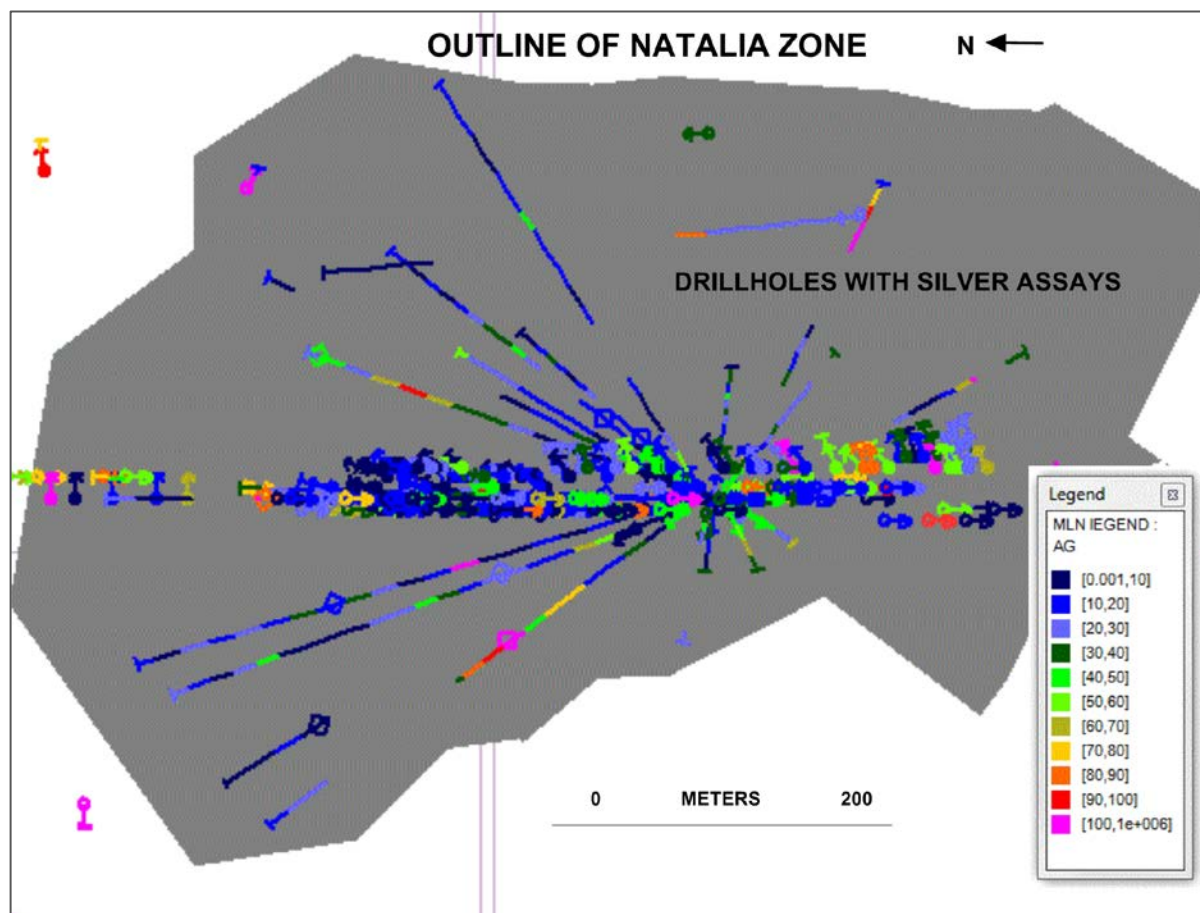


Figure 10.3 Natalia Zone vertical section showing silver grades in drillholes



Grades vary, both within and among zones; however, as described in Section 14, higher grades have not been interpreted to be anomalous with respect to the overall grade distributions, and all assay results that fall within the interpreted zones of mineralization have been used in the Resource estimate at their analyzed value.

## 11 Sample preparation, analyses and security

All core is logged and sampled at the core logging facility located on the mine property; other samples such as surface and underground channel samples are submitted to the onsite assay laboratory for analysis by the geologists responsible for their collection. In both cases the samples are prepared according to formal protocols that have been developed by the Mine Geology and Exploration Department. These protocols are summarized below.

### 11.1 Sample Preparation

#### 11.1.1 Surface Sampling

Sample size varies with the sample medium (soil or rock), but for all sample types the project number, sample number, date of collection, location and description including, if appropriate, lithology, structure and alteration are recorded. The sample is placed into either a cloth or canvas sample bag that is tied shut. The sample location is marked and photographed. Samples are submitted to the assay laboratory by the responsible geologist.

#### 11.1.2 Mine Sampling

Samples are collected from working faces, backs and ribs. Sample lines are marked at 5 m intervals along the strike of the mine development with spray paint and are divided into sample intervals, typically 3 m in length. Samples are collected either with a chisel and hammer or by saw, and the sample material is caught on a tarp placed on the floor of the area being sampled. Samples are collected in numbered plastic bags and a sample tag is also placed in the bag. Bags are closed with ties. Sample numbers are inscribed on aluminium tags that are nailed to the midpoint of the sample interval. The sample numbers and locations are recorded manually and subsequently transcribed to a computer-based database. Samples are transported to surface as collected and are submitted to the assay laboratory by the responsible geologist.

#### 11.1.3 Drill Core Sampling

This procedure applies to core obtained by both, surface and underground drilling, but in practical terms, almost all core drilling is carried out underground. Core is placed into plastic core boxes by the drill crew. The interval drilled is marked with wooden blocks showing the depth of the hole at the location of the block. Core is washed and measured for recovery. When a core box is full, a lid is affixed and secured with fibre tape. The box is then stored in a safe location away from the drill, until it can be transported to surface. In transporting core to the core processing facility on surface, care is taken to avoid any contaminants that may compromise the integrity of the plastic core boxes or the quality of the contained core.

At the core processing facility, the core is logged and marked for sampling by the geologist in charge of the facility. After the core is marked for sampling, and prior to cutting, the core is photographed in lots of three boxes. Core intervals to be sampled, are selected on the basis of visual inspection for and of, mineralization. Intervals of mineralization are bracketed by samples of unmineralized wall rock, one to three metres in length, on both sides of the mineralized interval.

Core is sampled by cutting with diamond saws. The saws are located immediately adjacent to the table on which the core is logged. Core is sawn in half and the portion to be analyzed is placed in a plastic bag that is marked with the sample number. In addition, a tag with the sample number is placed in the bag, which is then shut with a plastic tie. The bagged samples are placed in trays for transportation to the assay lab and the boxes containing the other half of the core are placed on racks in the core processing and storage facility.

Routine measurement of bulk densities has recently (late 2014) been instituted as part of the drill core sampling protocol.

## 11.2 Sample Security

All types of samples are collected, prepared and transported by, or under, the supervision of qualified personnel and their movement is controlled by a formal chain-of-custody protocol. The core sampling and storage facility is accessible only to qualified personnel. Given the sample handling and preparation protocols, there is very limited opportunity for any mishandling, accidental or otherwise, of any samples.

## 11.3 Sample Analysis

With the exception of the 2012 surface drill samples, all samples from all sources are prepared and analyzed in the on-site assay laboratory. Prior to processing, samples are checked for origin, number of samples and sample numbers. Samples are then dried, crushed and then pulverized using a ring pulveriser. Crushing reduces the samples to minus ¼ inch. Every 10<sup>th</sup> sample is split with a Jones splitter to obtain a duplicate check sample. Two hundred grams of crushed sample is reduced to minus 100 mesh (0.0059 inches or 150 microns) in a ring centrifugal pulverizer. The crushing and pulverizing equipment is cleaned between samples, using compressed air. A 100 gram pulp sample is placed in an envelope and sent for assay. One duplicate pulp sample is collected for every 10 samples.

Samples are routinely analyzed for lead, zinc, copper, silver, iron and arsenic. Pulp samples are dissolved in aqua regia (hydrochloric and nitric acid). Silver content is determined by fire assay; lead, zinc, copper and arsenic are assayed by Atomic Absorption (AAS). Analyses are copied manually from the screen of the atomic absorption unit into a journal and subsequently are entered into an electronic database.

## 11.4 Quality Assurance / Quality Control

Standards, blanks and duplicate samples are used to ensure quality of analytical output.

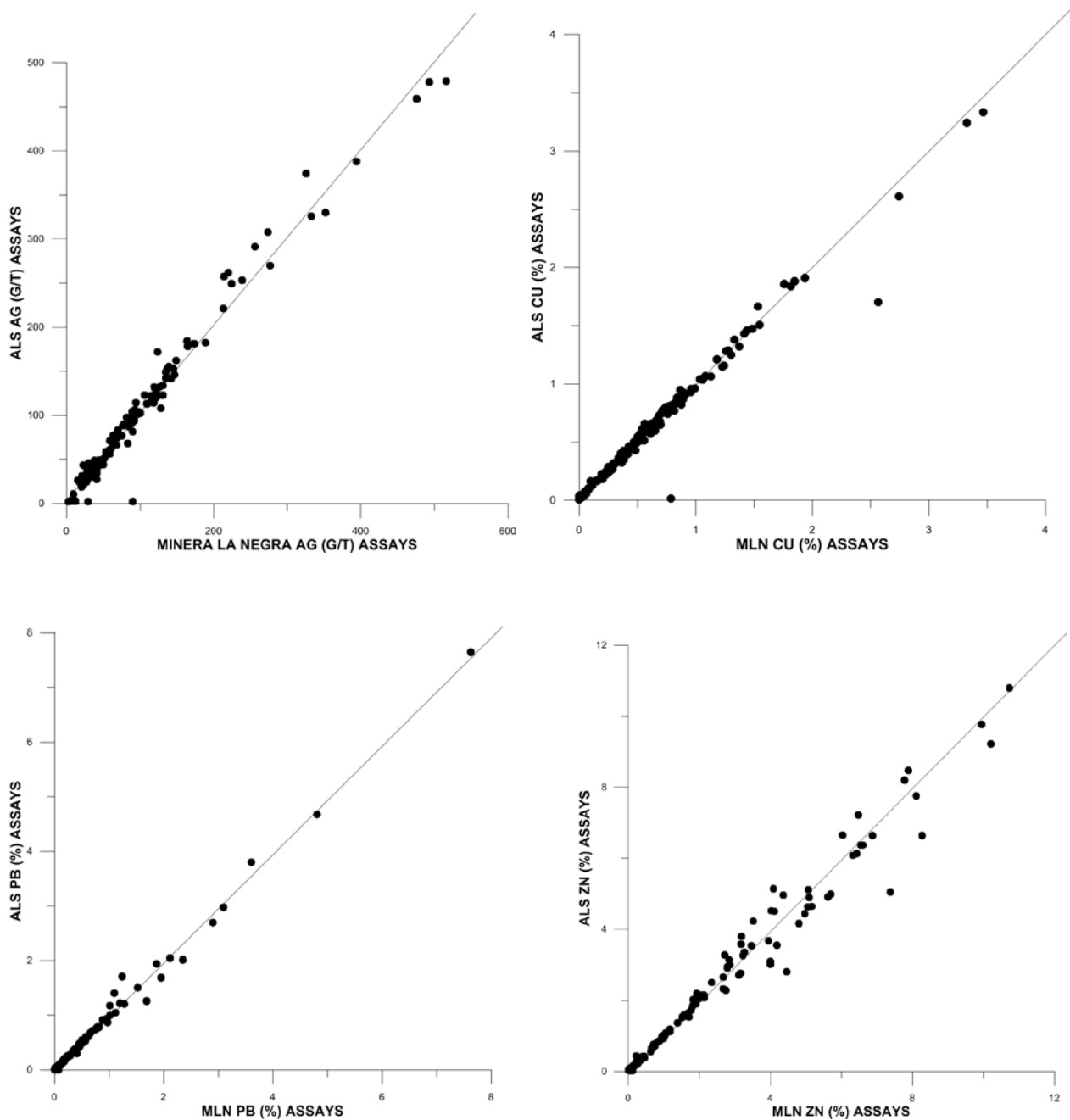
The lab uses a single standard, CDN FCM-3. During the sample analysis process, one standard is inserted into the sample stream for each 15 regular samples.

Duplicate analyses are performed once, for every 10 sample analyses. Duplicate material is injected into the sample stream by the assay laboratory during the sample preparation process. No duplicate samples are prepared or submitted by the Geology and Mining Department.

Blank samples are prepared by the core processing facility, and blanks are submitted to the assay laboratory, together with normal samples at the rate of one blank for every 15 normal samples. Blank samples are prepared from two outcrop sources on the mine property; one of limestone and the other of marble. Each time material is collected for use as blanks, three test samples are submitted to the lab to determine whether meaningful quantities of elements of interest are present that would render the material inappropriate as blanks.

In September 2014, Aurcana submitted 172 sample pulps from drill core (surface and underground) and underground geological samples to ALS Laboratories as a quantitative check on the accuracy of assays generated by the minesite assay laboratory. The scatterplots shown in Figure 11.1 demonstrate a close correlation between the two sets of results.

Figure 11.1 Scatterplots Minera La Negra and ALS



On the basis of available evidence, AMC is of the opinion that the sampling, analytical and QA/QC protocols employed by Aurcana are adequate. However, while it is recognized that it is a matter of practicality for the mine to use its own on-site laboratory, it must also be noted that regardless of the quality of the output of that laboratory and the steps it takes to ensure its integrity, the lack of independence and the self-directed program of quality control and quality assurance may compromise the credibility of those results.

## 12 Data verification

AMC undertook a number of tests to assess the veracity of the data used for the following resource estimate:

- 1 Drillhole and channel sample plans were examined to determine the manner in which sample locations were documented.
- 2 Channel sample identification tags were examined at several locations underground and compared with the corresponding sample location plans.
- 3 Geological and sample logs for four drillholes from four separate zones were compared with the corresponding drill core to assess the reasonableness of the geological descriptions and the correspondence of documented sample numbers relative to those numbers attached to the core.
- 4 Four quarter-splits of drill core were collected from the same four drillholes for verification by an independent laboratory. The intervals chosen were of variable grade to assess the accuracy and precision of the on-site analytical laboratory for a range of metal grades.

The four core samples collected by AMC for independent analysis were submitted to ALS Chemex in North Vancouver, Canada. The results are tabulated below in Table 12.1, together with the original assays as determined by the on-site laboratory. The assays are comparable in magnitude, although they differ in absolute value, which is attributed to the fact that the check samples were collected from drill core in which the mineralization is coarse and generally disseminated, both of which factors, can be expected to attribute to inherent variability.

**Table 12.1: Minera La Negra comparison assays**

Sample	Original <b>Ag (g/t)</b>	Check <b>Ag (g/t)</b>	Original <b>As (%)</b>	Check <b>As (%)</b>	Original <b>Cu (%)</b>	Check <b>Cu (%)</b>	Original <b>Fe (%)</b>	Check <b>Fe (%)</b>	Original <b>Pb (%)</b>	Check <b>Pb (%)</b>	Original <b>Zn (%)</b>	Check <b>Zn (%)</b>
12-6402	115	150	5.15	>1.00	2.33	3.16	16.41	16.20	0.06	0.07	1.98	1.49
14-2396	57	84	1.06	>1.00	0.92	0.94	16.25	11.65	0.15	0.20	1.03	0.94
14-1655	5	3	0.61	0.05	0.00	0.00	0.87	0.41	0.09	0.07	0.06	0.08
14-2662	14	9	0.24	0.10	0.28	0.19	11.64	7.75	0.02	0.01	0.01	0.03

AMC is of the opinion that the data received from Aurcana is adequate, for the purpose of Resource estimation as used in this Technical Report.



### 13 Mineral processing and metallurgical testing

The MLN concentration plant has been progressively expanded to its current operating capacity of 3,000 tonnes per day, and uses conventional crushing, grinding and flotation to produce three concentrates, lead-silver, copper, and zinc. The concentration flowsheet and process description are presented in Section 17.0.

Metallurgical testwork data, from the original Peñoles operations of 45 years ago, is no longer available. However, recent production data is shown in Table 13.1

**Table 13.1 Recent production data**

	2014	2013	2012	2011
<b>Production</b>				
Mineralization mined (tonnes)	838,365	869,027	670,516	538,750
Mineralization milled (tonnes)	961,840	825,013	691,260	505,965
<b>Average Grade</b>	-	-	-	-
Zinc (%)	1.05	1.25	1.43	1.35
Copper (%)	0.42	0.42	0.43	0.41
Silver (g/t)	59.51	60.78	78.33	77.08
Lead (%)	0.28	0.32	0.39	0.45
<b>Recovery</b>	-	-	-	-
Zinc (%)	77.53	71.98	74.15	55.68
Copper (%)	74.63	71.15	71.81	78.92
Silver (%)	82.46	80.80	82.55	82.80
Lead (%)	74.59	77.19	80.60	69.48
<b>Produced Concentrate</b>	-	-	-	-
Zinc concentrate (tonnes)	18,023	16,287	15,442	10,063
Containing: Zinc (tonnes)	8,060	7,471	7,159	4,345
Containing: Zinc (%)	44.72	45.87	46.36	43.18
Copper concentrate (tonnes)	13,137	11,030	9,473	8,155
Containing: Copper (tonnes)	2,882	2,553	2,217	1,584
Containing: Copper (%)	21.94	23.14	23.41	19.42
Lead concentrate (tonnes)	3,242	3,101	3,433	2,343
Containing: Lead (tonnes)	1,958	1,953	2,101	1,408
Containing: Lead (%)	60.39	63.00	61.20	60.12
<b>Silver (oz)</b>	1,476,727	1,255,445	1,374,166	1,007,256
Zinc (Oz Ag Eq.)	931,429	618,036	446,350	351,791
Copper (Oz Ag Eq.)	1,076,853	813,504	561,803	314,376
Lead (Oz Ag Eq.)	219,229	177,073	141,126	68,279
<b>Total Ag Eq. (Oz Ag Eq) produced</b>	<b>3,704,238</b>	<b>2,864,058</b>	<b>2,523,445</b>	<b>1,741,702</b>

The table reflects the capacity expansions in the last four years, and also demonstrates relatively consistent metallurgical performance from this low grade complex sulphide orebody.

In AMC's opinion, base metal recoveries of 70-75 % and silver recovery of around 80% to copper, lead and zinc concentrates assaying approximately 22%Cu, 60%Pb, 45%Zn respectively, are at the low end of the normal



expected range. However, there should be potential for improvement through application of current metallurgical testing procedures to better understand the mineralogy and optimize the separation processes.

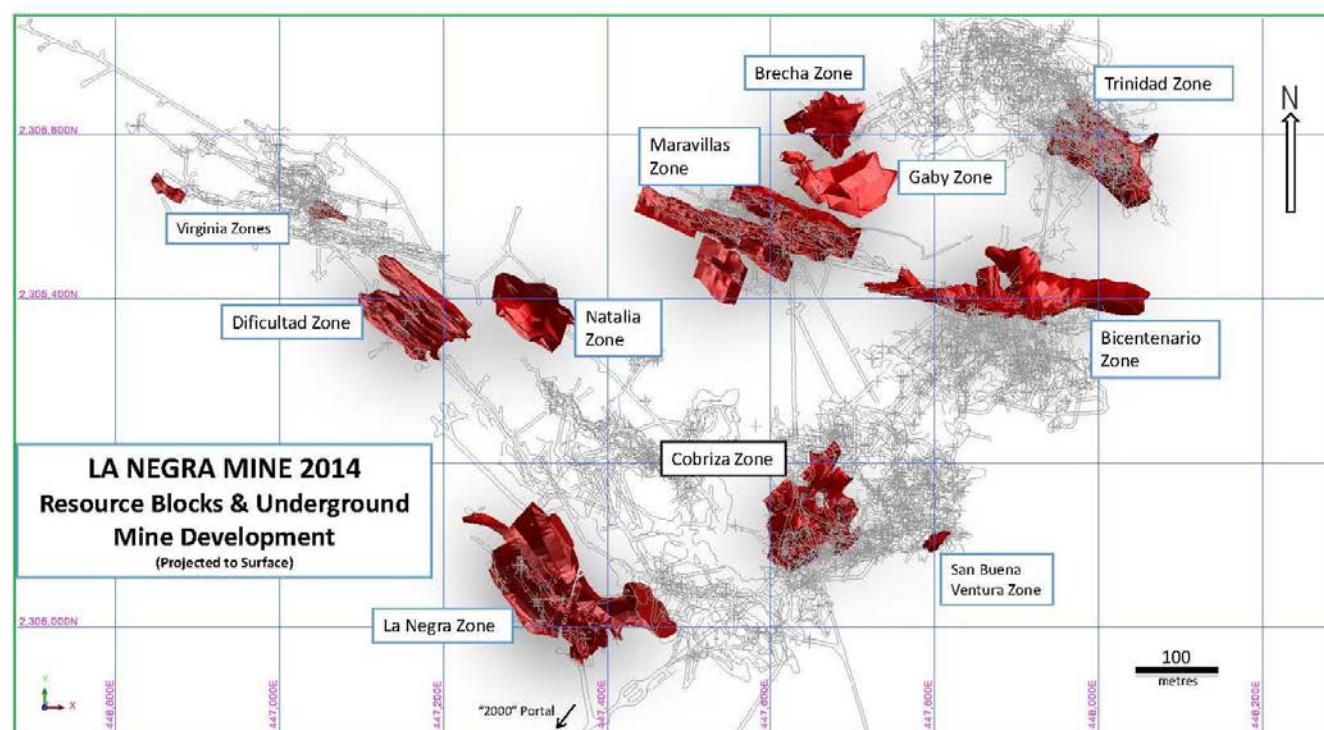
Recent studies include an examination of the nature and occurrence of bismuth and arsenic. Bismuth occurs as two-micron grains of native bismuth entrained within grains of galena and it is unlikely that it can be removed from concentrates. Mineralogical studies on arsenic are in progress. Aided by the recent incorporation of arsenic data into the geological model, selective mining and blending remain the only solution in the short-term to minimizing smelting penalties, pending receipt of arsenic mineralogy data.

## 14 Mineral Resource estimates

### 14.1 Location of deposits

Figure 14.1 shows the locations of the 11 deposits for which Resource estimates have been prepared, and the underground workings as at August 2014.

Figure 14.1 Minera La Negra deposits and underground workings as at August 2014



### 14.2 Exploratory Data Analysis

#### 14.2.1 Assays

AMC received collar, survey and assay data for all data used in the following Resource estimate. The data was in the form of Excel files and comprise samples collected by Aurcana during the period 2007 to September 2014, as well as assays from the period 1967 to 2000, when the mine was owned and operated by Peñoles. The Peñoles assays pertain only to the La Negra and Maravillas zones and constitute no more than approximately 10% of the dataset. Assays were obtained from three sample media: channels, drillcore, and longhole cuttings and most samples were analyzed for silver, arsenic, copper, iron, lead and zinc. Assays were identified by zone and were further subdivided by assay type. Numbers of records for each of the zones are tabulated in Table 14.1. The mean values of the metals of interest are tabulated by zone and sample type in Table 14.2. All missing assay data was assigned a value of zero.

Table 14.1 Minera La Negra data file statistics

Zone	Collar	Survey	Channel Assay	DDH Assay	Longhole Assay	All assays	All composites
Bicenenario	2,723	2,722	2,460	1,019	216	3,695	1248
Brecha	138	136	137	250	0	387	134
Cobriza	1,881	1,881	886	315	972	2,173	2062
Dificultad	314	314	277	137	0	414	347

Gaby	43	43	29	131	0	160	102
Negra	1,901	1,901	1,611	328	262	2,201	2868
Maravillas	2,062	2,082	1,681	151	351	2,183	2656
Natalia	245	245	234	636	0	870	577
San Buena Ventura	88	91	86	25	0	111	98
Trinidad	1,259	1,266	1,202	978	0	2,180	1585
Virginia	123	123	72	104	28	204	196
TOTAL	10,777	10,804	8,675	4,074	1,829	14,578	11,873

**Table 14.2** Minera La Negra mean assay values by zone and sample type

Zone	Type	Number	Length (m)	Ag (g/t)	As (%)	Cu (%)	Fe (%)	Pb (%)	Zn (%)
Bicentenario	Channel	2,460	2.16	72	1.02	0.50	10.65	0.26	0.91
Bicentenario	DDH	1,019	1.55	55	0.40	0.36	4.97	0.25	0.65
Bicentenario	Longhole	216	9.98	101	2.15	0.27	12.38	0.51	0.44
Brecha	Channel	137	2.10	69	1.16	0.92	12.73	0.16	1.86
Brecha	DDH	250	1.53	55	0.90	0.60	11.44	0.15	1.23
Cobrisa	Longhole	886	2.61	32	0.12	0.55	12.18	0.05	0.11
Cobrisa	DDH	315	1.25	44	0.07	0.51	9.22	0.15	0.25
Cobrisa	Longhole	972	10.06	34	0.09	0.58	13.62	0.07	0.08
Dificutad	Channel	277	1.89	60	1.03	0.63	10.88	0.17	4.45
Dificutad	DDH	137	1.69	67	0.13	0.27	3.40	0.31	2.09
Gaby	Channel	29	1.88	95	0.79	0.73	9.30	0.28	1.15
Gaby	DDH	131	1.71	73	1.19	0.52	11.68	0.26	1.64
La Negra	Channel	1,611	2.06	118	0.25	0.53	9.70	0.65	1.75
La Negra	DDH	328	1.58	63	0.18	0.26	7.12	0.30	1.20
La Negra	Longhole	262	13.39	112	0.37	0.88	19.07	0.35	1.47
Maravillas	Channel	1,681	2.10	121	3.36	0.74	12.72	0.55	3.65
Maravillas	DDH	151	1.59	95	1.78	0.79	10.29	0.40	3.48
Maravillas	Longhole	351	11.14	91	3.05	0.74	12.09	0.34	2.99
Natalia	Channel	234	2.37	30	0.16	0.43	16.00	0.08	1.02
Natalia	DDH	636	1.64	28	0.12	0.40	14.35	0.08	1.07
San Buena Ventura	Channel	86	2.31	132	0.80	0.41	9.71	1.48	3.21
San Buena Ventura	DDH	25	1.17	102	0.00	0.17	0.00	0.92	2.02
Trinidad	Channel	1,202	2.16	59	1.14	0.68	10.49	0.17	1.41
Trinidad	DDH	978	1.61	52	0.27	0.59	5.14	0.18	1.45
Virginia	Channel	72	1.95	82	0.88	0.40	11.31	0.43	4.19
Virginia	DDH	104	1.26	107	0.48	0.45	6.99	0.59	1.62
Virginia	Longhole	28	8.00	118	1.13	0.47	10.16	0.64	5.01
<b>TOTAL / AVERAGE</b>		<b>14,578</b>	<b>3.43</b>	<b>77</b>	<b>0.85</b>	<b>0.53</b>	<b>10.28</b>	<b>0.36</b>	<b>1.87</b>

Figure 14.2 is a box and whisker plot of mean silver values for the 11 zones of mineralization. The ends of the whiskers show the limits of extreme values, the red bars show the upper and lower quartiles and the mark within

the red band shows the median value. Abbreviations of zone names and sample types are: BI=Bicentenario, BR = Brecha, CO=Cobriza, DI=Dificultad, GA=Gaby, LN=La Negra, MA=Maravillas, NA=Natalia, SBV=San Buena Ventura; TR=Trinidad; VI=Virginia. CH=Channel, DDH=Drillhole, LH=Longhole

There is obvious variability among zones, but the majority of median values cluster around 50 g/t. Longhole samples, have higher than average grades because they were all drilled within known mineralization. As well, some of the variability can be attributed to variations in sample population size. Similar plots for copper, lead and zinc are shown in Figures 14.3, 14.4, and 14.5.

Figure 14.2 Minera La Negra box and whisker plot silver

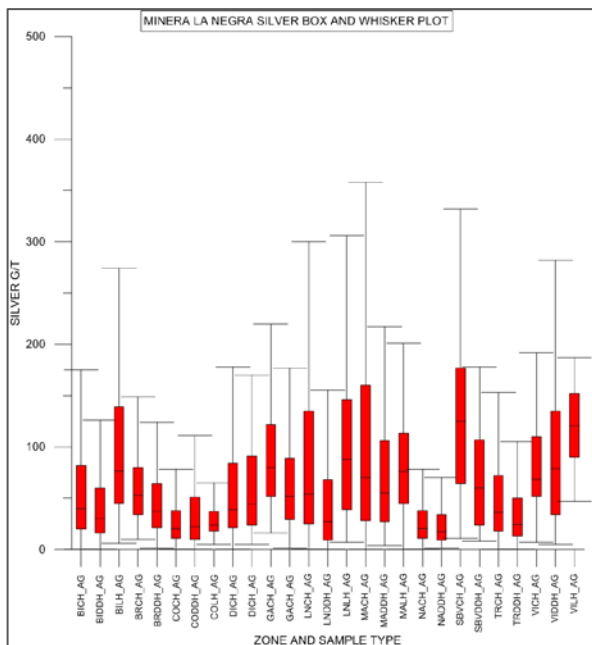


Figure 14.3 Minera La Negra box and whisker plot copper

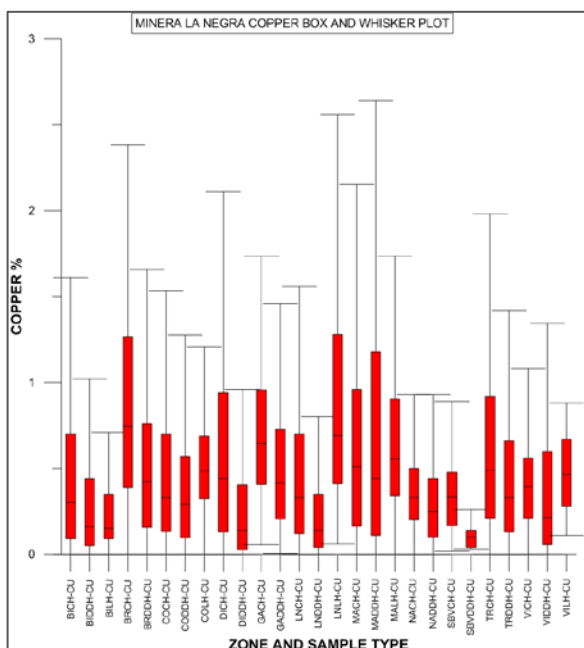


Figure 14.4 Miner La Negra box and whisker plot lead

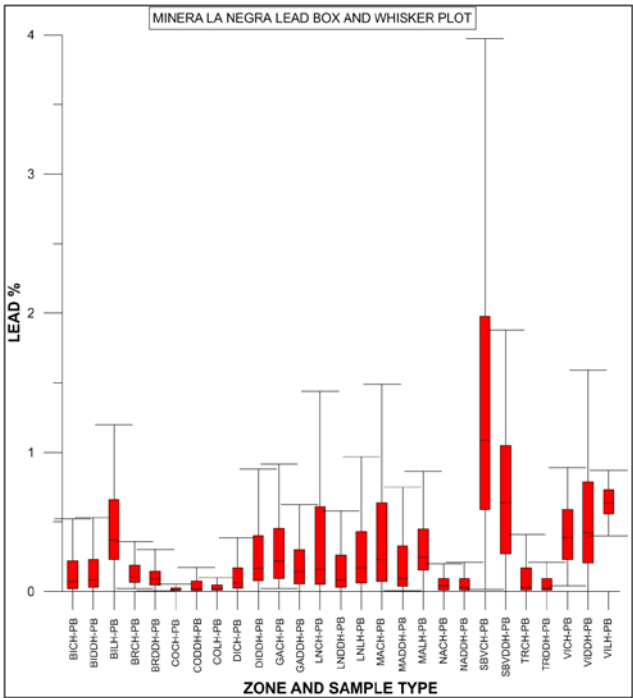


Figure 14.5 Miner La Negra box and whisker plot zinc

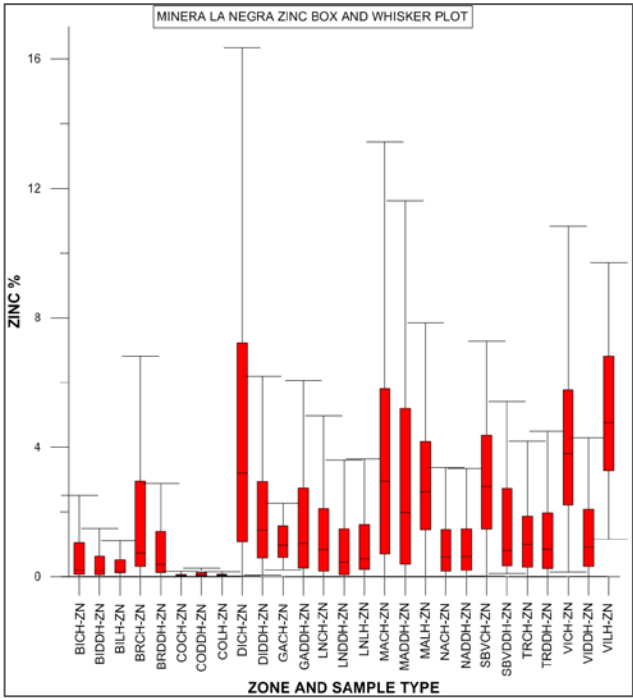
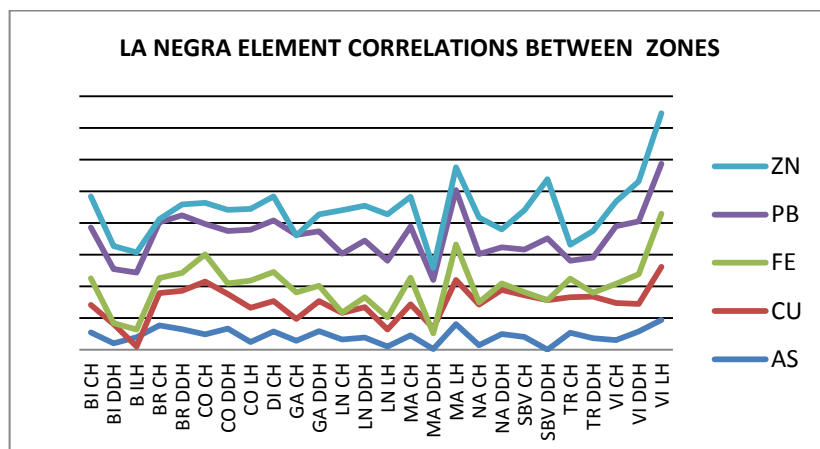


Figure 14.6 shows the correlation between silver and the other elements among the zones. For clarity, the correlations are relative; if plotted at their absolute values, the graphs overlap extensively and relationships are obscured. The number of samples in each category corresponds to the numbers given in Table 14.2.

Figure 14.6 Minera La Negra correlation plot between silver and other elements by zone



The correlation plot demonstrates that the strength of correlation between silver and the other elements is relatively consistent throughout most of the zones; with the exception of Bicentenario and Maravillas, where the correlations are relatively weak, and Virginia where they are relatively stronger than in the other zones. Abbreviations for zone names and sample types are as for Figure 14.2.

#### 14.2.2 Capping

Capping is the process of artificially reducing high values within a sample population that are regarded as statistically anomalous with respect to the population as a whole (outliers) to avoid the distorting influence these values would have on the statistical characteristics of the population if left at their full value. The risk in including atypically high values in a Resource estimate is that their contribution to the estimated grade will be disproportionate to their contribution to the tonnage, and therefore the grade of the Resource as a whole will be overstated.

Decile analysis (the segregation of all assays in ascending value, into ten groups of equal numbers of samples) tables and cumulative frequency curves were constructed for silver, copper, lead and zinc assays to determine whether capping was warranted, and, if so, at what level. Table 14.3 is a tabulation of the percent of the aggregate value of each assay population represented in each decile and the top ten percentiles of the assay population. Although the top decile for each element except iron contains more than 50% of the aggregate, none of the top percentiles contains more than 40% which is conventionally taken as the threshold above which capping is recommended. Further, the cumulative frequency curves, shown in Figure 14.7 for the same populations, show no deterioration at the top of the curve which could be interpreted as an indication of a separate population of values that should be capped. Therefore, no capping of any assays was carried out.

Table 14.3 Minera La Negra Assay Decile Analysis

Decile	Percent of total assay population in each decile					
	Ag	As	Cu	Fe	Pb	Zn
1	0.42	0.00	0.11	0.00	0.08	0.07
2	0.99	0.00	0.52	0.00	0.24	0.27
3	1.58	0.00	1.15	0.79	0.45	0.63
4	2.32	0.34	2.04	6.27	0.85	1.23
5	3.30	0.94	3.39	9.54	1.52	2.19
6	4.66	1.76	5.42	11.86	2.58	3.81
7	6.74	3.41	8.29	13.79	4.34	6.58
8	10.20	6.86	12.55	15.58	7.59	11.44

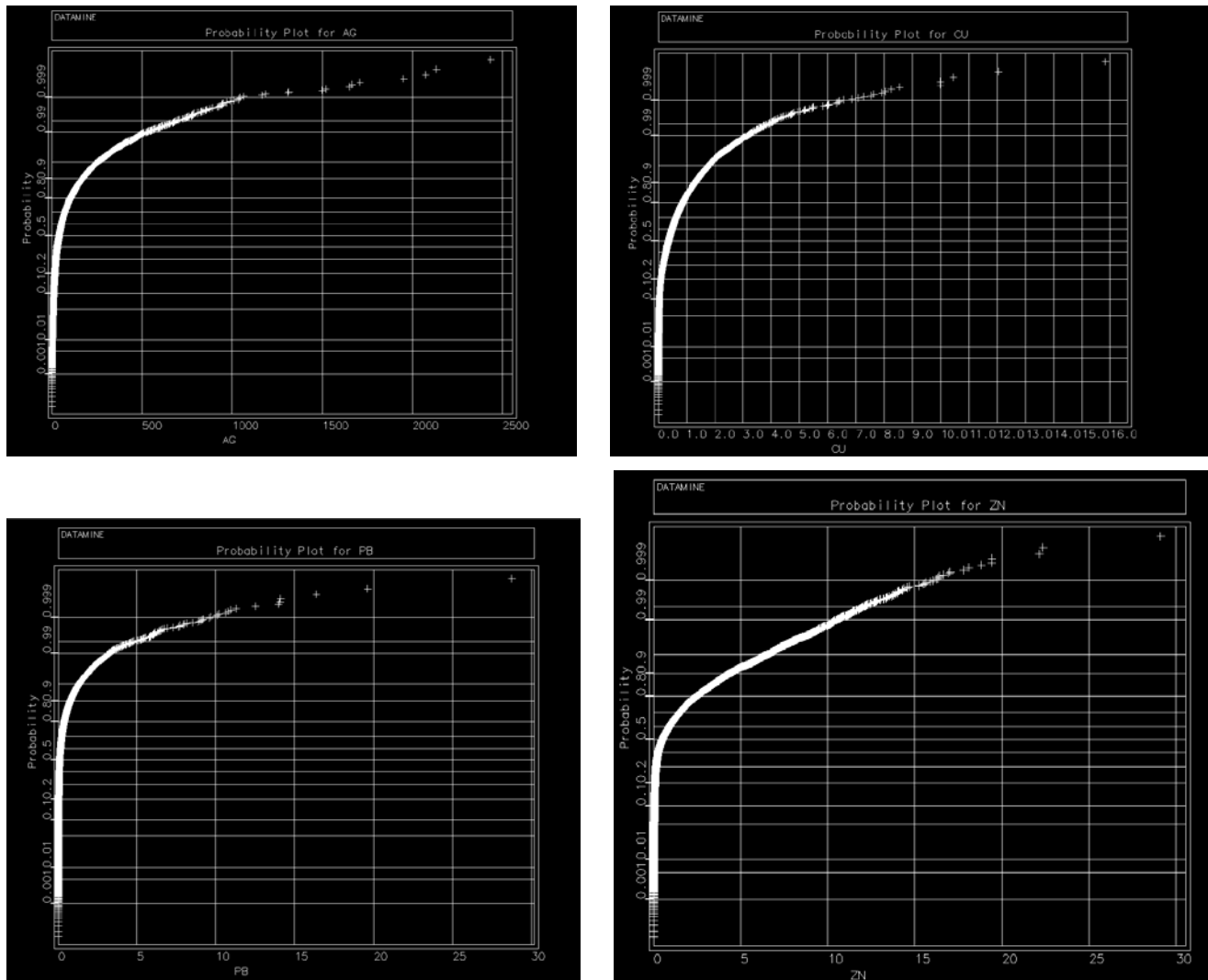
# Minera La Negra Property

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9	17.48	15.08	19.96	17.72	15.29	21.54
10	52.32	71.60	46.59	24.46	67.06	52.23
<b>Percent of total assay population in top decile</b>						
<b>Percentile</b>	<b>Ag</b>	<b>As</b>	<b>Cu</b>	<b>Fe</b>	<b>Pb</b>	<b>Zn</b>
91	4.81	3.48	5.73	7.95	3.62	5.94
92	5.25	3.89	6.10	8.12	4.05	6.44
93	5.80	4.45	6.55	8.36	4.62	7.08
94	6.42	5.11	7.09	8.61	5.28	7.73
95	7.28	5.94	7.71	8.97	6.14	8.56
96	8.27	7.03	8.47	9.37	7.18	9.29
97	9.66	8.60	9.46	9.90	8.84	10.38
98	11.71	11.10	10.84	10.65	11.30	11.70
99	15.18	15.21	13.39	11.83	15.93	13.77
100	25.62	35.19	24.65	16.24	33.04	19.11

Figure 14.7 Minera La Negra cumulative probability plots



### 14.2.3 Composites

Compositing of samples is done to overcome the influence of sample length on the contribution of sample grade (sample support). Channel, drillcore and longhole samples were composited to a length of 3 m. Approximately 86% of the channel samples and 99% of the drillcore samples are less than 3 m in length. None of the longhole samples is less than 3 m in length; these samples range from 5 m to 21.5 m in length. Therefore, although the 3 m composite length is effective for the channel and drillcore samples it results in the splitting of longhole samples; regardless this approach was considered preferable to leaving the longhole samples or all of the samples uncomposited. Table 14.4 shows the number of composites relative to the number of raw assays.

Table 14.4 Minera La Negra numbers of assays and composites

Non-zero	Ag	As	Cu	Fe	Pb	Zn	Total
Assay	14,484	12,371	14,263	12,919	13,827	14,225	14,578
Composite	11,816	10,678	11,721	10,926	11,360	11,652	11,873



### **14.3 Bulk Density**

Historically, bulk density or specific gravity measurements have not been carried out at Minera La Negra on a regular basis although it is noted that the systematic measurement of bulk densities from core samples was initiated in late 2014. The number of bulk density measurements for the MLN deposits is small relative to the number of assays. Most available measurements are of type specimens, either of mineralization (average 3.5 t/m<sup>3</sup>) or individual mineralized zones (average 3.6 t/m<sup>3</sup>). Recent measurements of skarn (endo and exo) average 3.12 t/m<sup>3</sup> and mineralized (>5%) skarn ranges between 3.16 and 3.2 t/m<sup>3</sup>. These should probably be more accurately described as specific gravity values, rather than bulk density values.

For seven consecutive days each month, the mill conducts bulk density measurements of incoming mineralization. The source of millfeed varies from month to month so these monthly averages provide a reasonable estimate of average bulk density values for all currently active zones. For the period January through September, 2014, the weekly average of these measurements was 3.3 t/m<sup>3</sup> for seven of the nine months and 3.2 t/m<sup>3</sup> for the remaining two months.

All previous Resource estimates have used an average bulk density value of 3.2 t/m<sup>3</sup> for all mineralization and that value is routinely used by the mine. Therefore, in the absence of a body of bulk density measurements that could be interpolated into the block model, an average value of 3.2 t/m<sup>3</sup> was used for the AMC Resource estimate.

AMC recommends reviewing the bulk density figures and measurement processes to determine whether they are a true reflection of mine production inclusive of natural voids, which is the factor required for conversion of block volumes to block tonnages.

### **14.4 Geological Interpretation**

The 11 zones of mineralization for which Resources are being estimated share in common that are all skarn-related and all contain argentiferous basemetals, specifically lead, zinc, and copper. The zones differ in the relative proportions and absolute grades of the various metals, as well as, in the morphology of the mineralization.

The wireframe models used in the current estimate were constructed by the MLN mine geologists who used drill and channel sample data contained within the currently unmined portions of the zones as well as documented lithological boundaries to constrain the limits of modelled mineralization. Where constraining lithological boundaries are absent, either silver or copper assay values were used to establish wireframe boundaries. After the wireframes were constructed, the voids represented by mine development and previously-mined areas were subtracted together with volumes represented by unmineralized, post-mineral dikes.

AMC has used geological models provided by Aurcana but has closely monitored their construction and therefore is confident that those models are reasonably representative of the data and spatial distribution of the mineralization they represent.

### **14.5 Spatial Analysis**

Variograms were constructed for silver, arsenic, copper, iron, lead and zinc for each of the 11 mineralized zones that are the subject of the current estimate. These are summarized in Table 14.5. All variograms are exponential and use two structures. The nugget (that portion of an assay value that is random at zero distance) was estimated for each model using a 3 m downhole lag (interval) distance. The nugget values are generally large for all metals and all zones; this is consistent with the coarse and generally disseminated nature of the mineralization. A 10 m lag was used for the variograms because the predominant data type is channel samples that were collected on levels generally 10 m apart.

Table 14.5 Minera La Negra variogram parameters

Zone	Element	CO	C1	C2	First Structure						Second Structure					
					Z (°)	Y' (°)	Z' (°)	X (m)	Y (m)	Z (m)	Z (°)	Y' (°)	Z' (°)	X (m)	Y (m)	Z (m)
BICENTARIO	Ag	0.51	0.48	0.01	-73	60	31	19	2	33	55	-89	-12	13	38	161
BICENTARIO	As	0.54	0.36	0.10	-45	11	1	17	73	3	-86	-93	30	8	335	93
BICENTARIO	Cu	0.42	0.40	0.18	-46	29	2	18	3	30	26	-65	69	11	241	49
BICENTARIO	Fe	0.32	0.39	0.29	-12	-16	83	7	16	20	-18	-3	4	45	264	6
BICENTARIO	Pb	0.56	0.36	0.08	29	67	51	26	18	2	47	95	20	7	78	217
BICENTARIO	Zn	0.68	0.16	0.15	59	-57	100	90	13	4	-1	100	96	4	20	185
BRECHA	Ag	0.65	0.31	0.04	-43	79	2	8	19	68	-18	-95	172	53	272	736
BRECHA	As	0.60	0.33	0.07	-43	69	-51	7	15	75	-104	-68	174	51	450	125
BRECHA	Cu	0.63	0.30	0.07	-42	-9	-25	28	13	19	132	-79	15	19	489	810
BRECHA	Fe	0.43	0.35	0.22	-54	29	-14	17	28	6	12	-96	81	57	450	76
BRECHA	Pb	0.64	0.33	0.03	-66	66	83	35	12	50	5	-103	-8	50	536	562
BRECHA	Zn	0.66	0.27	0.07	-34	65	70	17	10	79	-33	-93	13	32	210	1297
COBRISA	Ag	0.33	0.48	0.18	97	115	-9	7	48	12	47	-20	1	23	310	33
COBRISA	As	0.55	0.27	0.18	22	0	31	9	47	5	-29	-22	40	26	74	450
COBRISA	Cu	0.67	0.09	0.23	-46	-77	52	29	42	5	58	6	-25	62	208	37
COBRISA	Fe	0.30	0.48	0.22	9	40	-5	72	30	9	35	37	90	87	68	450
COBRISA	Pb	0.45	0.41	0.14	45	39	23	30	169	15	94	42	-68	25	187	169
COBRISA	Zn	0.37	0.57	0.06	72	21	-37	26	136	13	35	78	-9	15	78	23
DIFICULTAD	Ag	0.29	0.63	0.08	26	-8	-25	11	63	2	-59	78	64	13	177	165
DIFICULTAD	As	0.77	0.11	0.12	52	-59	4	41	22	2	-48	-26	76	5	76	58
DIFICULTAD	Cu	0.36	0.46	0.18	15	45	11	1	25	14	140	28	-45	9	23	199
DIFICULTAD	Fe	0.57	0.21	0.22	-15	-69	-35	4	39	5	-28	26	51	11	328	88
DIFICULTAD	Pb	0.17	0.70	0.13	-49	75	65	13	7	1	-35	59	53	11	127	257
DIFICULTAD	Zn	0.43	0.46	0.11	35	89	2	1	67	9	16	22	17	13	141	110
GABY	Ag	0.22	0.24	0.54	-8	-30	103	4	22	7	-77	50	63	5	81	248
GABY	As	0.52	0.03	0.45	-116	-104	31	16	8	5	57	-41	-52	5	249	119
GABY	Cu	0.30	0.46	0.24	-26	-61	89	5	84	15	85	27	-70	4	166	162
GABY	Fe	0.21	0.31	0.48	71	-80	28	123	8	19	-70	0	81	50	149	2
GABY	Pb	0.20	0.72	0.08	4	31	-24	1	12	31	4	41	-60	23	168	212
GABY	Zn	0.30	0.52	0.18	-8	26	-29	6	11	7	9	51	-6	4	193	51
LA NEGRA	Ag	0.00	0.02	0.97	0	82	-21	370	188	400	-88	52	-4	765	228	1000
LA NEGRA	As	0.67	0.27	0.06	12	-73	31	51	25	16	6	31	48	450	450	450
LA NEGRA	Cu	0.30	0.34	0.36	70	54	-48	2	139	87	-49	57	56	55	289	104
LA NEGRA	Fe	0.06	0.48	0.46	-12	23	51	48	225	38	27	-20	80	86	254	37
LA NEGRA	Pb	0.44	0.30	0.26	-1	26	25	21	7	128	-38	5	33	281	1000	1000

# Minera La Negra Property

Aurcana Corporation

714036

Zone	Element	CO	C1	C2	First Structure						Second Structure					
					Z (°)	Y' (°)	Z' (°)	X (m)	Y (m)	Z (m)	Z (°)	Y' (°)	Z' (°)	X (m)	Y (m)	Z (m)
LA NEGRA	Zn	0.61	0.29	0.10	-53	115	54	17	30	9	-26	0	87	130	1000	142
MARAVILLAS	Ag	0.73	0.18	0.08	34	105	-33	16	31	137	3	-28	70	407	1000	39
MARAVILLAS	As	0.55	0.42	0.03	68	102	42	6	4	29	14	-147	47	450	450	450
MARAVILLAS	Cu	0.33	0.56	0.11	-50	26	113	14	4	58	0	57	61	33	265	722
MARAVILLAS	Fe	0.36	0.49	0.16	54	99	-42	17	16	88	56	23	15	101	450	450
MARAVILLAS	Pb	0.77	0.19	0.04	-126	-16	-7	164	96	16	-50	-113	68	1000	111	1000
MARAVILLAS	Zn	0.73	0.19	0.09	1	57	62	40	28	492	37	-72	-58	17	844	348
NATALIA	Ag	0.11	0.09	0.80	-22	40	10	4	9	2	36	42	-9	2	46	11
NATALIA	As	0.30	0.42	0.28	2	-3	-76	5	2	2	52	59	-97	10	1	12
NATALIA	Cu	0.13	0.35	0.52	-93	-5	32	53	2	11	-22	74	-17	28	1	36
NATALIA	Fe	0.27	0.48	0.25	9	31	0	2	12	2	29	-25	-24	2	14	2
NATALIA	Pb	0.32	0.00	0.68	17	38	4	10	2	2	-45	-44	44	9	17	18
NATALIA	Zn	0.50	0.01	0.49	-123	-70	61	17	3	6	-97	-50	49	10	4	137
SAN BUENA VENTURA	Ag	0.30	0.56	0.15	-22	-13	29	5	2	3	38	-85	32	1	59	148
SAN BUENA VENTURA	As	0.08	0.19	0.73	-67	-1	24	10	228	2	-60	-121	113	1	4	25
SAN BUENA VENTURA	Cu	0.33	0.25	0.42	-55	-24	75	3	6	3	-31	-37	41	2	95	79
SAN BUENA VENTURA	Fe	0.08	0.03	0.89	73	-23	-61	9	3	4	18	-72	-48	154	12	5
SAN BUENA VENTURA	Pb	0.30	0.40	0.30	43	1	16	3	47	2	187	99	-60	2	98	50
SAN BUENA VENTURA	Zn	0.42	0.09	0.49	52	-54	49	6	4	2	56	-26	2	4	192	28
TRINIDAD	Ag	0.43	0.51	0.05	20	105	26	21	1	12	-30	-30	55	18	3	250
TRINIDAD	As	0.49	0.33	0.18	70	76	44	37	2	15	-45	-20	78	15	3	100
TRINIDAD	Cu	0.70	0.24	0.06	113	33	34	37	4	21	110	14	-6	82	181	1000
TRINIDAD	Fe	0.11	0.81	0.08	-131	59	32	3	18	12	17	86	18	99	62	450
TRINIDAD	Pb	0.12	0.17	0.71	10	-96	57	13	1	4	-91	31	11	1	40	8
TRINIDAD	Zn	0.32	0.50	0.17	-25	43	38	18	19	44	31	45	52	8	69	54
VIRGINIA	Ag	0.37	0.46	0.17	6	-23	-35	69	3	7	18	27	32	6	18	418
VIRGINIA	As	0.78	0.01	0.22	-35	36	-33	124	5	40	4	-29	-3	450	250	450
VIRGINIA	Cu	0.68	0.01	0.31	-69	-55	51	6	4	4	85	27	7	4	10	239
VIRGINIA	Fe	0.28	0.29	0.43	-116	-19	-3	3	13	11	-125	0	35	33	450	450
VIRGINIA	Pb	0.57	0.28	0.16	30	-91	19	149	5	6	-25	66	64	9	176	153
VIRGINIA	Zn	0.55	0.34	0.11	11	90	-15	4	14	56	-22	73	63	22	591	158

Search ellipses were constructed for each zone on the basis of the orientation and dimensions of the mineralization within the zone. Search ellipses are summarized in Table 14.6.

**Table 14.6** Minera La Negra search ellipse parameters

ZONE	X (m)	Y (m)	Z (m)	Z (°)	Y' (°)	Z' (°)
BICENTENARIO	20	4	10	55	-90	-10
BRECHA	18	8	12	-42	170	-25
COBRISA	6	8	32	140	90	-10
DIFICULTAD	2	8	36	-15	-20	-25
GABY	4	16	24	-130	90	40
LA NEGRA	28	16	28	-150	50	30
MARAVILLAS	10	20	60	90	10	20
NATALIA	10	5	7	40	0	0
SAN BUENA VENTURA	4	2	10	90	0	30
TRINIDAD	2	14	2	20	105	25
VIRGINIA	2	4	12	-30	-10	-30

## 14.6 Block Model

A single, un-rotated block model was constructed to contain all aa zones. Parent block size is 5 m x 5 m x 5 m with the option of splitting the parent block into 4 x 4 subcells. Block Model parameters are set out in Table 14.7.

**Table 14.7** Minera La Negra block model parameters

Axis	Cell size (m)	Model size		
		Origin	Maximum	Number
X	5	446800	45980	260
Y	5	234900	235700	160
Z	5	1500	2500	200

## 14.7 Interpolation plan

Grades were interpolated into the block model in three passes; the dimensions of the search ellipse for the first pass were 1/3 of the range. The dimensions of the search ellipse for the second pass were 2/3 of the range and those for the third pass were the full range. The dimensions of the search ellipses were the same for all elements within a given mineral zone but those dimensions varied with each zone.

In order for a grade to be interpolated into a block during the first pass, it was necessary that a minimum of 15 and a maximum of 20 composites were located within the volume of the search ellipse. For a grade to be interpolated into a block during the second pass, it was necessary that between 10 and 15 composites were located within the volume of the search ellipse and for the third pass between two and 10 composites were required. In all cases, a maximum of one composite could be taken from a single sample source.

## 14.8 Mineral Resource classification

The La Negra Resources are classified as Measured, Indicated or Inferred. Measured Resources comprise those blocks in which the grade was interpolated during Pass 1 or Pass 2, and in which the grade is based on between 15 and 20 composites. Indicated Resources comprise those blocks in which the grade was interpolated during Pass 2 or 3 and in which the grade was based on between 10 and 15 composites. Inferred Resources

comprise those blocks interpolated during Pass 3 and for which the grade is based on between 2 and 10 composites.

## 14.9 Recovered metal value formula and silver equivalency

The Resource is expressed in terms of recovered metal value for silver, copper, lead and zinc. The formula is based on actual or forecast metal prices and average metal recoveries obtained during the production of concentrates during the first nine months of 2014. Metal prices and recoveries are given in Table 14.8.

**Table 14.8** Minera La Negra metal prices and metal recoveries

Metal	Price (US\$)	Unit	Recovery (%)
Silver	21.50	Troy Oz	83
Copper	3.10	Pound	75
Lead	0.95	Pound	78
Zinc	1.00	Pound	80

The formula for silver follows the form: (silver grade in grams / tonne x (silver price in troy ounces / grams / ounce) x silver recovery).

The formula for copper, lead and zinc follows the form: (metal grade in percent x (metal price in pounds x pounds / % / metric tonne) x metal recovery).

The formula is:  $(Ag \text{ g/t} \times (21.50/31.10348) \times 0.83) + (Cu\% \times (3.10 \times 22.046) \times 0.75) + (Pb\% \times (0.95 \times 22.046) \times 0.78) + (Zn \times (1.00 \times 22.046) \times 0.8)$

Where:

Grams / troy ounce = 31.10348

Pounds / % / metric tonne = 22.046

The Resource has also been stated as a silver-equivalent grade in grams per tonne (AgEq) which is the recovered metal value divided by the price of silver per gram (21.50/31.10348).

## 14.10 Mineral Resource tabulation

Table 14.9 is a summary tabulation of Resources by zone at a lower recovered metal value threshold of US\$30/tonne.

All Resources with a recovered metal value of less than US\$30/t have been excluded from the tabulations. Tonnes have been rounded to the nearest 100; silver grades have been rounded to the nearest gram; arsenic, copper, iron, lead and zinc grades have been rounded to the nearest 0.01%. Tonnage has been estimated on the basis of a global bulk density of 3.2 t/m<sup>3</sup>.

The lower threshold value of \$30/t was selected because it approximates the on-site cash costs of the operation for the first nine months of 2014. AMC recommends that Aurcana reviews the lower cut-off value for Mineral Resources prior to the next update, although AMC's calculations indicate that Resource estimates are relatively insensitive to variations in RMV.

Table 14.9 Minera La Negra Resource summary, 30 September 2014

MEASURED RESOURCES	Tonnes (000s)	RMV US\$	Ag (g/t)	As (%)	Cu (%)	Pb (%)	Zn (%)	AgEq (g/t)	Ag ounces (000s)	Cu pounds (000s)	Pb pounds (000s)	Zn pounds (000s)
BICENTENARIO	3	243	243	1.02	0.84	1.22	2.34	351	24	55	80	155
BRECHA	28	78	54	0.88	0.56	0.15	0.95	113	48	343	93	587
COBRISA	62	71	54	0.09	0.66	0.18	0.18	103	108	904	252	248
LA NEGRA	1,227	118	100	0.26	0.48	0.52	1.57	170	3,946	12,853	13,994	42,540
MARAVILLAS	655	192	128	3.16	0.87	0.52	3.72	277	2,690	12,583	7,439	53,699
NATALIA	1	155	98	0.17	1.08	0.25	2.25	224	3	24	6	50
<b>TOTAL MEASURED</b>	<b>1,977</b>	<b>140</b>	<b>107</b>	<b>1.22</b>	<b>0.61</b>	<b>0.50</b>	<b>2.23</b>	<b>203</b>	<b>6,822</b>	<b>26,777</b>	<b>21,870</b>	<b>97,348</b>
<b>INDICATED RESOURCES</b>												
BICENTENARIO	1,515	71	57	0.62	0.39	0.24	0.84	103	2,778	12,991	7,985	27,945
BRECHA	39	97	57	0.95	0.79	0.13	1.27	141	71	681	114	1,090
COBRISA	389	51	38	0.10	0.51	0.11	0.13	74	476	4,332	942	1,087
DIFICULTAD	54	188	80	1.13	0.73	0.26	5.73	272	139	870	308	6,817
GABY	161	102	69	1.46	0.53	0.32	1.71	147	357	1,892	1,130	6,067
NATALIA	355	55	28	0.15	0.39	0.07	1.00	79	323	3,031	577	7,823
SAN BUENA VENTURA	27	158	117	0.61	0.35	1.37	2.88	228	101	211	815	1,716
TRINIDAD	170	118	69	0.90	0.80	0.21	1.93	170	377	3,008	779	7,224
VIRGINIA	38	170	112	0.86	0.51	0.57	4.04	246	136	425	478	3,381
<b>TOTAL INDICATED</b>	<b>2,748</b>	<b>76</b>	<b>54</b>	<b>0.57</b>	<b>0.45</b>	<b>0.22</b>	<b>1.04</b>	<b>110</b>	<b>4,758</b>	<b>27,440</b>	<b>13,119</b>	<b>63,111</b>
<b>TOTAL MEASURED + INDICATED</b>	<b>4,724</b>	<b>103</b>	<b>76</b>	<b>0.84</b>	<b>0.52</b>	<b>0.34</b>	<b>1.54</b>	<b>149</b>	<b>11,578</b>	<b>54,206</b>	<b>14,982</b>	<b>160,427</b>
<b>INFERRED RESOURCES</b>												
BICENTENARIO	7	185	168	0.52	0.68	0.72	2.43	268	39	105	111	375
COBRISA	14	264	186	0.08	2.89	0.08	0.46	382	84	893	24	143
DIFICULTAD	146	92	59	0.26	0.31	0.29	2.15	134	279	985	921	6,933
GABY	67	136	91	1.78	0.76	0.32	2.27	197	197	1,124	474	3,346
SAN BUENA VENTURA	2	121	92	0.52	0.31	1.13	1.94	174	6	14	50	86
TRINIDAD	375	71	38	0.42	0.54	0.08	1.16	103	455	4,495	673	9,623
VIRGINIA	33	102	77	0.63	0.32	0.44	1.98	147	81	230	318	1,443
<b>TOTAL INFERRED</b>	<b>642</b>	<b>90</b>	<b>55</b>	<b>0.53</b>	<b>0.55</b>	<b>0.18</b>	<b>1.54</b>	<b>130</b>	<b>1,132</b>	<b>7,802</b>	<b>2,547</b>	<b>21,867</b>

Lower cut-off value RMV of \$30/t

## 14.11 Block Model Validation

The Minera La Negra block model was validated in two ways; visually and by use of swath plots.

Visual validation consisted of assessing the fit of the block model with respect to the constraining geological wireframe. In all cases the shape of the block models adheres closely to that of the enclosing solid. A vertical cross section through the Maravillas Zone is shown in Figure 14.8.

Figure 14.8 Maravillas Zone compliance of block model with constraining wireframe

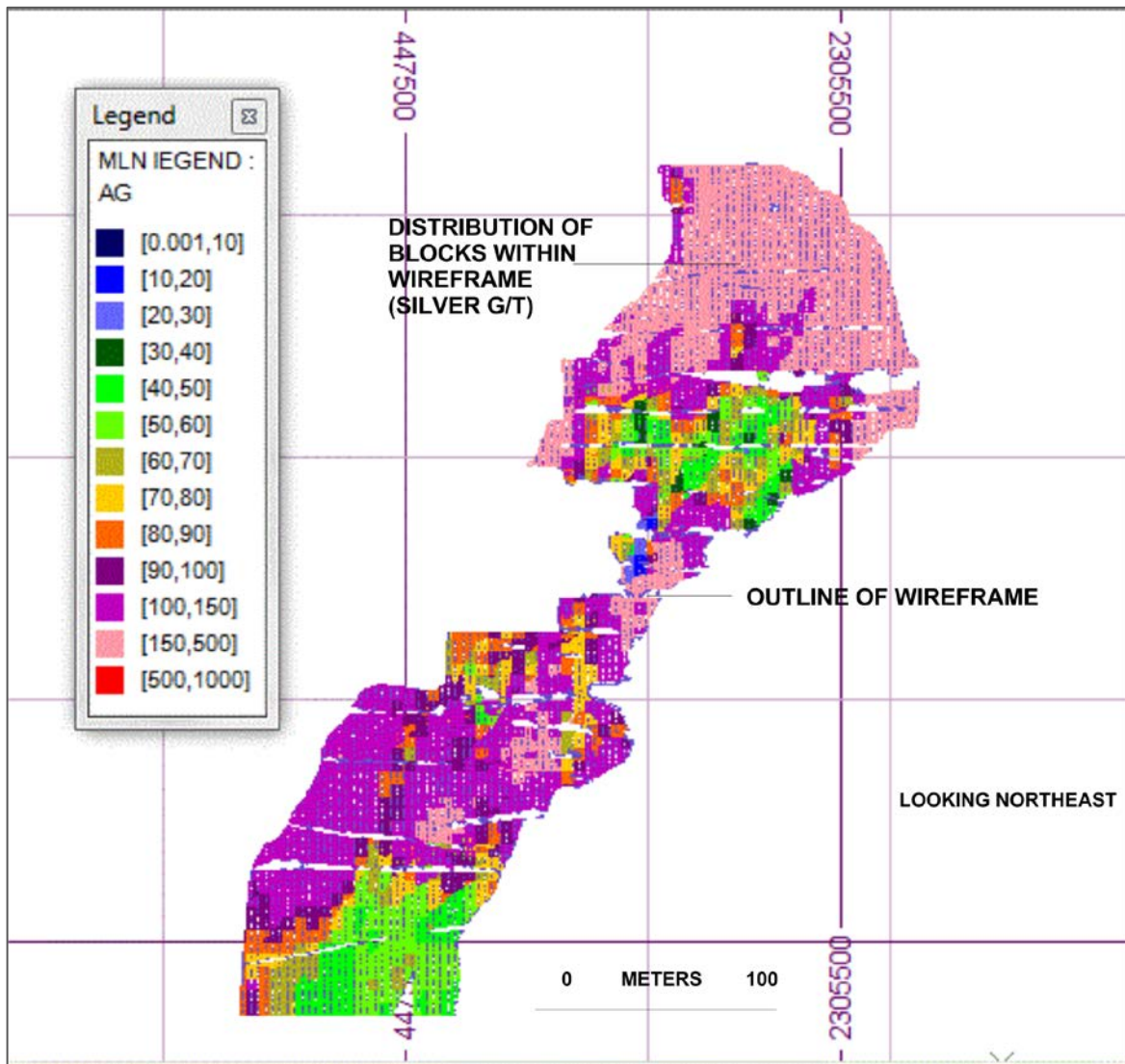
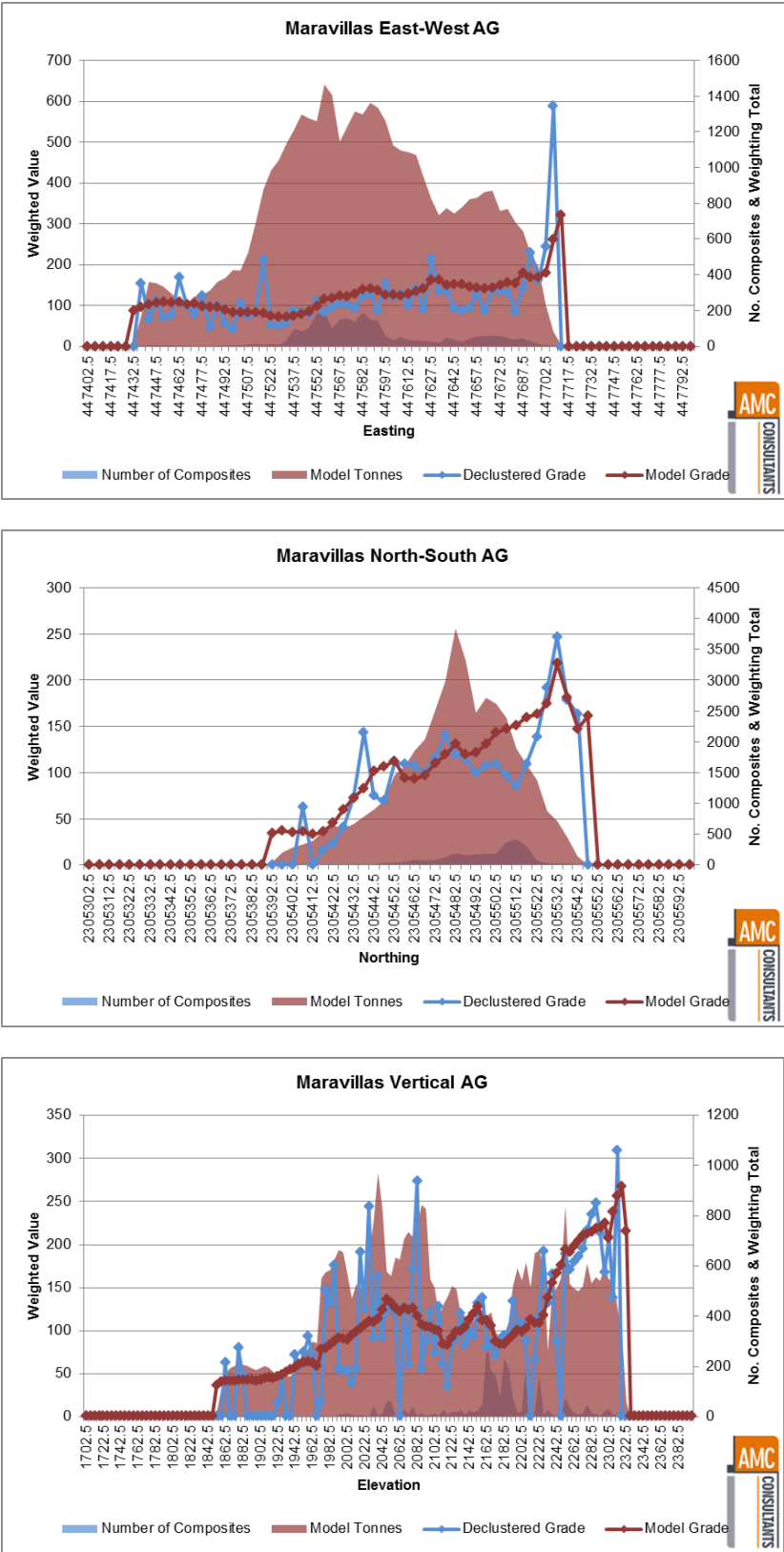


Figure 14.9 shows East-West, North-South and Vertical swath plots of silver through the Maravillas Zone. These plots show the block grades and corresponding composite data. The two populations are similar in trend although the composite grades display more short-range variability than the block grades because, by design, kriging smoothes grades.



Figure 14.9 Maravillas Zone silver swath plots



## 14.12 Comparison with previous Resource estimate

The current Resource estimate is an update of an estimate completed by Behre Dolbear & Company (USA) Inc (Behre Dolbear) dated 4 October 2012. The summary of that estimate, taken from the Behre Dolbear report, is presented below in Table 14.10, together with the key assumptions that underlie it.

**Table 14.10 Behre Dolbear October 2012 Minera La Negra Resource estimate**

Classification	Tonnes (000s)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
Measured	11,862	133.42	0.50	0.90	2.60
Indicated	15,159	130.12	0.41	0.92	2.19
Measured + Indicated	27,021	131.31	0.49	0.91	2.36
Inferred	13,278	126.05	0.42	0.88	2.14
	<b>Price (US\$)</b>	<b>Recovery (%)</b>			
Silver	28.29/Oz	84.87			
Copper	3.33/lb	81.02			
Lead	0.88/lb	74.62			
Zinc	0.84/lb	70.66			

Threshold Recovered Metal Value = \$40/tonne

Table 14.11 below shows the difference between the 2012 Behre Dolbear estimate and the current AMC estimate. Silver grades have been rounded to the nearest gram.

**Table 14.11 Comparison of AMC and Behre Dolbear Resource estimates**

<b>AMC Resource estimate, December 2014</b>					
Classification	Tonnes (000s)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
Measured	1,977	107	0.61	0.50	2.23
Indicated	2,748	54	0.45	0.22	1.04
Measured + Indicated	4,724	76	0.52	0.34	1.54
Inferred	642	55	0.55	0.18	1.54
<b>Behre Dolbear Resource estimate October 2012</b>					
Classification	Tonnes (000s)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
Measured	11,862	133	0.50	0.90	2.60
Indicated	15,159	130	0.41	0.92	2.19
Measured + Indicated	27,021	131	0.49	0.91	2.36
Inferred	13,278	126	0.42	0.88	2.14

The difference between the two estimates is attributed to a number of differences in estimation methodology:

- Behre Dolbear used geological solids to trim its block model estimates that, rather than representing the limits of mineralization within each zone, were much larger and generally were constrained only by the limits of the sample data within and peripheral to each zone. These large volumes generally greatly exceed the actual limits of mineralization. AMC used geological models that closely approximate the current limits of economic or potentially economic mineralization.

2. Behre Dolbear did not composite assay data prior to using it for Resource estimation. Uncomposed data ignores sample length which means that short samples exert the same influence on the estimate as long samples. If the short samples are of higher grade, which is commonly the motivation for the collection of short samples, the resulting grade will be overestimated. It cannot be stated with certainty that lack of compositing led to an overestimation of grade by Behre Dolbear, but the absence of compositing is permissive for this outcome. AMC composited the data, including longhole samples that exceed the composite length. This has the effect of “creating” samples by splitting one long sample into a number of shorter composites which has a homogenizing effect on composite grade. AMC considered this approach preferable to leaving the longhole samples at their actual length, because all longhole samples were collected in volumes of mineralization that are relatively compact and well-defined; the impact of homogenization is therefore considered to be limited and not detrimental to the estimation outcome.
3. Behre Dolbear carried out its grade estimation for the entire block model for each zone without constraint of the estimate by a geological solid. The block model was then trimmed to the limits of the relevant solid followed by the removal of voids representing underground workings and mined-out areas. This approach permitted the use of data during the estimation that falls outside the boundaries of the solid, which may result in the estimation of grades that do not represent the grades of mineralization that exists within the solid. AMC constrained the estimate by the relevant geological solids and took the additional step of removing underground workings and areas previously mined from those solids prior to the estimate. The resultant estimates therefore are based on, and represent only mineralization that, existed within the zones as of 30 September 2014.
4. Because the geological solids used by Behre Dolbear do not represent the actual distribution of mineralization, the variographic parameters determined by them may also not reflect actual trends of mineralization. AMC variographic analysis was conducted using only data that is constrained by representative geological solids.
5. Behre Dolbear based its estimates in part on historical assays from within areas previously mined by Peñoles in which the average grades were significantly higher than the average grades of mineralization that are currently available for exploitation. This led to the over-attribution of grade to the remaining mineralization for which Behre Dolbear was conducting the estimate. AMC used some (approximately 10%) Peñoles data for the La Negra and Maravillas Zones but, as for the MLN data, used only those historical assays that had been collected within areas of mineralization that currently existed as of 30 September 2014.
6. Behre Dolbear used a cut-off value of \$40/t compared with \$30/t used by AMC.

The silver and copper prices applying at the time of the Behre Dolbear Resource estimate were also significantly higher than those applying to the AMC estimate.

## 14.13 Other relevant factors

There are no known environmental, permitting, legal, title, socio-economic or political factors that may materially affect the Mineral Resource estimate other than those described in other parts of this report. Mine revenues will become subject to a new government royalty beginning in 2015, which may result in the need to raise the minimum economic threshold in order to realize greater revenues per tonne mined. The quantitative impact has yet to be determined so the potential impact on the Resource estimate remains unknown at this time.

The mineralization contains deleterious elements, principally arsenic and bismuth, and the quantities of these elements in the concentrates must not exceed limits specified in the purchase contracts for the concentrate. This is further discussed in Section 19 of this report.

## 15 Mineral Reserve estimates

No Mineral Reserves have been estimated.

Mineral Reserves are normally estimated through the development of a comprehensive life-of-mine plan, which is not available at this time. As such, economic and technical viability of continued operation has not been demonstrated.

It is Aurcana's intention to develop a life-of-mine plan in the short term, as an essential step in the ongoing management of La Negra Resources. AMC supports this approach.

## 16 Mining methods

Minera La Negra is a trackless mine and operates on four main levels, 2100, 2200, 2300, and 2400. The main haulage level is at the 1,900 m elevation and mineralization is transferred to that level from the production levels through ore passes. The mine has a demonstrated production capacity of approximately 2,700 tonnes per day, and operates on a six days per week basis, with three shifts per day.

Bottom-up, long-hole, open stope mining on 15 m sublevels is used where the dimensions and morphology of the mineralization permit; cut-and-fill is used in narrow or irregularly-shaped zones. Long-hole open stoping accounts for the majority of production, and is used where the mineralization dips steeper than 55° and the economic width is greater than 5 m.

Sublevels are developed 4 m high in mineralization. A 3.5 m by 3.5 m shaft connects each sublevel and is used for ventilation and services. It has a manway equipped with ladders and platforms to provide auxiliary exit from the mine in case of emergency.

Development proceeds with electro-hydraulic single-boom jumbos taking 3.6 m rounds with 45 mm diameter holes. The holes are loaded with ammonium nitrate based explosive (ANFO) and the blasts are initiated with non-electric detonators. A smooth perimeter drilling and blasting technique is used to reduce damage to the walls and back.

Ground conditions are excellent such that ground support is not required. Following scaling, the broken rock is removed from the face by a 6.0 yd<sup>3</sup> loader (LHD), loaded into 20 t trucks, and hauled to surface where it is either sent directly to the mill or stockpiled if it is economic grade, or to the waste dump. Pipes, ventilation ducts, and power cables are installed as the heading advances.

Down-hole production drilling in long-hole stopes, 64 mm in diameter, is accomplished by an Atlas Copco Simba drill rig. Lateral drilling for development and cut-and-fill mining is performed by Atlas Copco Boomer electric-hydraulic jumbos and pneumatic jack legs.

ANFO and non-electric detonators and boosters are used for production blasting. Explosives are stored on surface in a permanent magazine. Detonation supplies (detonators, electrical caps, detonating cords, etc.) are stored in a separate magazine. Underground explosive and detonator magazines are located on 2,000 Level. Explosives are transported from the surface magazines to the underground magazines in mine supply trucks.

All personnel underground is required to be in a designated Safe Work Area during blasting. All loaded development headings and production stopes are initiated at the end of the shift.

Loading of broken mineralization is accomplished by 3.5 yd<sup>3</sup> and 6 yd<sup>3</sup> LHDs. The sizes and types of equipment make them suitable for both long-hole and cut and fill methodologies .

The 2,000 m level is a large 4.5 m x 5.0 m heading through which contracted, low profile, surface 20 t dump trucks haul the mineralization from the stopes directly to the mill. Due to the height of the truck box sides, either an LHD loads the trucks from a loading ramp, or a conventional front-end loader is used instead .

Fresh air enters the mine through the 2,000 level adit, flows through the ramp and internal shaft into the workings, and then out of the mine via the 2,140 level adit. A 200 hp main mine fan is located on 2,140 level. The ventilation air is distributed to each sublevel via the ramp, internal shaft, and cross-cuts. Airflow is controlled by ventilation doors, bulkheads, and regulators. Auxiliary fans are used for the ventilation of development headings.

Mobile underground equipment is maintained in a shop located on the surface outside the main ramp portal. The underground maintenance shop is constructed on the 2,000 level to provide maintenance for drilling and mucking equipment.

The main dewatering sump is located on 975 level. The main sources of water inflow to the underground mine are groundwater and water from drilling operations. Water is pumped from a permanent sump on the 1,980 Level by a 50 hp pump through a 6" diameter steel pipe (300 pounds per square inch (psi)) to the final tailing pump box on surface.

Service water is distributed in 100 mm and 50 mm diameter pipelines throughout the underground workings for drilling equipment, dust suppression, and firefighting. Flexible hoses are used to connect water pipelines to drilling equipment at working faces.

A 600 cubic feet per minute (cfm) 200 hp Ingersoll Rand compressor, installed on 2,000 level, supplies compressed air consumption for underground operation. Another 1,200 cfm compressor is turned on when additional compressed air is required. Compressed air is distributed by 100 mm diameter steel pipes suspended in the upper corners of the development headings. Flexible hoses are used to supply compressed air from pipes to pneumatic tools.

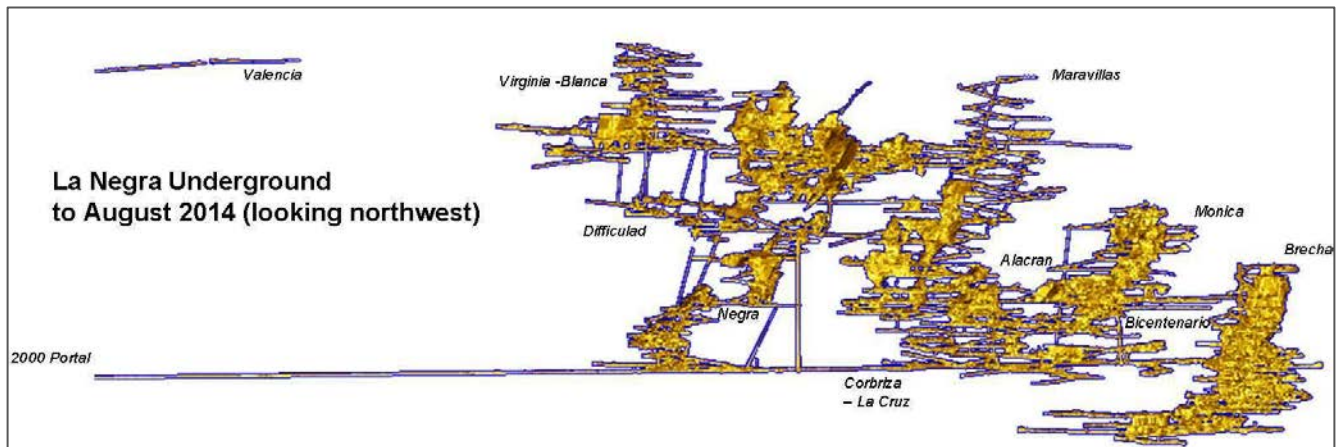
Although forward looking estimates of mine production are not available at this time, Table 16.1 shows volumes and grades realized in recent quarterly periods.

**Table 16.1 Mine production, Q2 2012 to Q3 2014**

Quarter Ended	Q3 2014	Q2 2014	Q1 2014	Q4 2013	Q3 2013	Q2 2013	Q1 2013	Q4 2012	Q3 2012	Q2 2012
Mine Production										
Mine Days	92	91	90	91	92	89	88	90	90	89
Mill Days	85	77	85	85	84	77	78	83	86	85
Mineralization mined (tonnes)	217,011	208,931	207,544	212,039	207,458	249,036	200,494	198,373	196,401	143,718
Mineralization milled (tonnes)	235,485	232,763	257,140	198,427	21,118	235,388	170,081	187,255	196,843	176,591
Average tonnes milled per day	2,770	3,023	3,025	2,334	2,632	3,057	2,181	2,256	2,289	2,078
Average Grade										
Silver (g/t)	65	55	55	58	55	59	71	72	80	80
Copper (%)	0.41%	0.37%	0.39%	0.45%	0.44%	0.40%	0.40%	0.44%	0.48%	0.42%
Zinc (%)	1.14%	1.01%	1.31%	1.25%	1.21%	1.27%	1.27%	1.27%	1.43%	1.49%
Lead (%)	0.34%	0.27%	0.26%	0.29%	0.28%	0.31%	0.39%	0.32%	0.36%	0.41%

Mine development as of August 2014 is presented in Figure 16.1 below. Refer also to Figure 14.1 in Section 14 of this report.

Figure 16.1 Longitudinal section of mine development as at August 2014



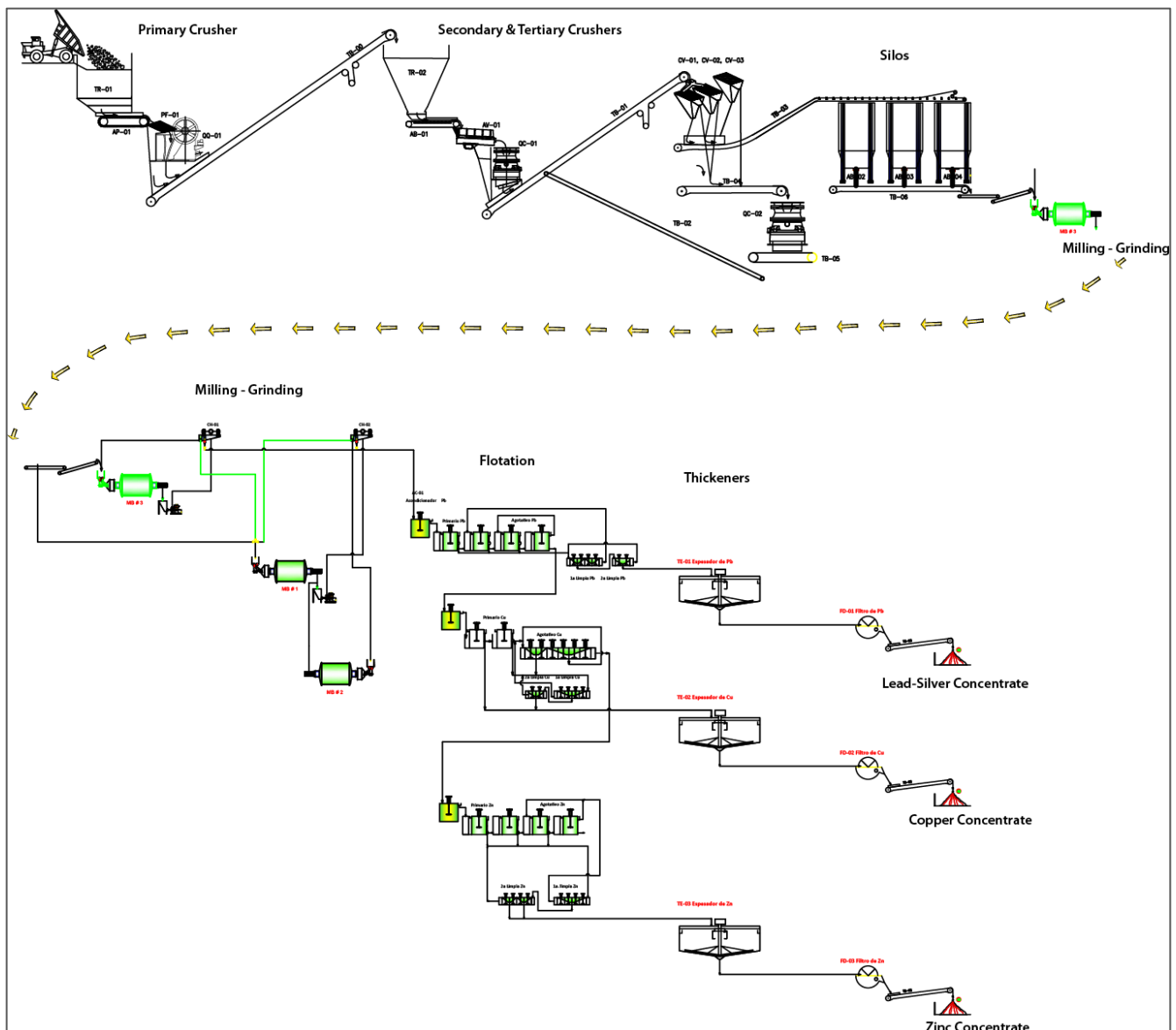


## 17 Recovery methods

*Note that the word “ore” is used in this section in a generic sense and does not imply that Mineral Reserves have been estimated.*

The Minera La Negra concentration plant has an operating capacity of 3,000 tonnes per day and uses conventional crushing, grinding and flotation to produce three concentrates, lead-silver, copper, and zinc. The flowsheet is represented diagrammatically in Figure 17.1.

Figure 17.1 Minera La Negra mill flow diagram



Source: Aurcana

Ore passes through a primary 25' x 40" jaw crusher and then through two secondary and tertiary standard Symons cone crushers of 4 ft and 5.5 ft size respectively. The ore is then conveyed to storage bins from which it is fed to the grinding circuit.

The grinding circuit comprises three ball mills, the third of which is used for re-grinding of oversize material. The ore then passes to the primary lead-silver circuit from which it continues to the copper and finally the zinc circuit.

The concentrate from each of these streams is pumped to a thickener and then a disc filter to remove moisture.

From calendar year 2014, metal recoveries averaged 82% for silver, 75% for copper, 75% for lead and 78% for zinc (values rounded to nearest 1%).

Concentrate is stored in a compartmentalized shed from which it is periodically loaded onto trucks for conveyance to concentrate buyers.

MLN has an in-house laboratory that does bench-scale grinding and flotation tests, and does so routinely in order to monitor and adjust mineral extraction and concentration

## 18 Project infrastructure

Figure 18.1 shows access road and the location of the main haulage adit (2,000 level), process plant, stockpile and waste dumps areas and the currently active tailings storage facility (TSF) No 5.

**Figure 18.1 Main Minera La Negra project infrastructure**



MLN has five TSFs, three of which (Nos. 1, 2, and 3) have been closed with reforestation in progress. TSF No 4 has also been closed. Tailings from current operations are pumped to TSF No 5, with excess water being pumped back to the process plant.

TSF No 5 has been constructed using the "upstream" method, with cycloned coarse sand being deposited in the curtain of the dam and fine material settling in the upper part. It has a remaining life of approximately 2.5 years. MLN has carried out stability analyses of TSF No 5 through the National University and monthly visits from specialized local consultants. Construction to date has relied on upstream lifts using cycloned tailings. Aurcana has budgeted \$2 million in 2015 for permitting and construction of a new TSF, which will be either downstream of the current TSF No 5 or in a new valley. AMC notes that cycloned tailings methods are no longer regarded as best practice and that alternative deposition strategies are being considered for the future TSF, including dry-stacking.

MLN believes that its current permits cover the establishment of a new TSF, but is reviewing the status.

Water for industrial purposes is obtained from underground sources, and is also recycled from the tailings dam facilities. Water for domestic sources comes from the Maconí River.

Electrical power is obtained from the national grid through a 34 kilovolt (kV) line to the process plant and mine facilities. Occasionally, power is delivered directly from the Ezequiel Montes sub-station. Electrical power is

transformed at MLN's substation to 6.9 kV to be distributed to the process plant and mine facilities at 440 voltage.

The mine has access from the state capital city of Queretaro through a paved road to the town of Maconi. The last stretch to the plant site is managed on a well-maintained, year-round, 4 km long gravel road. Although it narrows to one lane locally, it can handle all heavy equipment.

San Joaquin is the largest town close to Maconi, at 21 km, with better than elementary services. Local schooling is provided at Maconi through primary basic level, while San Joaquin provides secondary and high school equivalent levels. For technical and higher level education, local people attend schools at Cadereyta, Ezequiel Montes or Queretaro.

Health services are provided locally by a first-level health centre (SSA/IMSS); for higher-level services, people are transferred to a Regional Health centre and hospital, or to a local centre to Cadereyta.

Public transportation is limited to a private bus service from San Joaquin to Queretaro and other localities. Transportation to San Joaquin is privately arranged.

With a long mining history, including that of the neighbouring San Joaquin, El Doctor, Vizarr6n and Zimapan Districts, the La Negra region is well endowed with mining workers and technicians, including miners, electricians, mechanics, computer skilled technicians, etc. Higher-level professionals are commonly hired in Queretaro, Mexico City, and other places in Mexico.

## 19 Market studies and contracts

MLN currently has a contract with a Glencore subsidiary for purchase of all concentrates, as detailed below. This contract expires as of 31 December 2016. Concentrates are delivered by independent contract carriers to Manzanillo, Colima, Mexico. Separate terms of payment are applied to each of the lead-silver, copper and zinc concentrates. No payment is made for any other commercially recoverable metals the concentrates may contain.

### 19.1 Metagri concentrate purchase agreements

On March 2011, MLN signed a contract with Metagri S.A. de C.V. (a subsidiary of Glencore) whereby Metagri agreed to purchase 100% of the lead concentrate to be produced at the La Negra mine until the end of 2013. During 2013, the agreement with Metagri was extended to 2016 and amended to include all lead, copper and zinc concentrates.

Prices paid are based on the average of the month in which the shipment is made, determined by prices (US dollars) published in the Metal Bulletin in London Metals Exchange or the London Bullion Market.

AMC has reviewed these smelter contracts and notes the following:

- Payable metal contents are generally in line with industry norms.
- However treatment charges, especially with respect to the copper concentrate, are higher than industry norms, a reflection of the impurity elements in the concentrates from a metallurgically complex deposit.
- The copper contract has been amended to account for arsenic levels being outside of typical specifications, notably:
  - The arsenic penalty has been increased from the usual \$2.5%/0.1%>0.15%As to \$5.0/0.1%>0.15%As.
  - The treatment charge for material with >0.5%As content is \$270/tonne (compared to \$105/tonne for normal material).
- As a consequence, offsite concentrate smelter charges are a very significant component of the cost of production, averaging over \$400/tonne of total concentrates or \$16/ tonne milled over the last four years.

### 19.2 Potential concentrate purchase agreement with Orion

On 29 April 2014, Aurcana entered into an agreement to amend the terms of its US\$50,000,000 outstanding unsecured loan owing to MF2 Investment Holding Company (Cayman) Limited (the "Original Lender"), an affiliate of Orion Mine Finance Group, that was originally entered into on 19 September 2013. The original loan was advanced to Rio Grande Mining Corporation, a corporate affiliate of Aurcana that is not related to MLN, to cover development of the Shafter Mine in Texas.

The Original Lender assigned all of its rights and obligations under the original credit agreement and related transaction documents to Orion Mine Finance (Master) Fund I LP (the "Lender"), an affiliate of Orion Mine Finance Group.

Pursuant to an amended and restated credit facility agreement (the "Amended Credit Facility Agreement") between the Company and the Lender dated 29 April 2014:

- The principal amount under the Loan was reduced to US\$40,000,000 by means of a consideration of US\$10,333,333 and 16,499,501 common shares of the Company.
- The Loan is to be repaid in 48 equal monthly installments. Early prepayment may occur at any time without charges. Interest on the Loan will continue to accrue at a rate equal to LIBOR (subject to a minimum of 1%) plus 5.5% per annum.
- The Loan is guaranteed by Aurcana's subsidiaries (including MLN) and is secured against all of Aurcana's (and its subsidiaries') present and future assets.

Concurrently, Aurcana entered into offtake agreements (on standard commercial terms) with the Lender in respect of copper, zinc and lead concentrate produced at the La Negra mine for the period from 1 January 2017 to 31 December 2020.

AMC has reviewed the smelter contracts pertaining to this loan agreement and notes the following:

- Orion having the offtake agreement for all three concentrates is a condition precedent for the loan agreement.
- Although payable metal contents are again in accord with industry norms, the contract does not include a framework agreement for smelter charges; these are to be negotiated on an annual basis. Given the quality and limited marketability of the concentrates, AMC considers this to be a significant commercial risk.



## 20 Environmental studies, permitting and social or community impact

### 20.1 Environmental permitting

MLN is in compliance with required environmental and other related permits as shown in Figure 20.1. The information has been taken from the 2012 Behre Dolbear Technical Report and Aurcana has advised AMC that all permits are still current.

Figure 20.1 Environmental permits

License/Permit	Status	Government Agency
Discharge Waste Waters Permit	<b>VALID</b> Document No. BBOO.E.56.1.-No 02604 Dated Sep. 12, 2011	Semarnat, Conagua
Explosives Permits	<b>VALID</b> In compliance	Sedena
Residual Waters Sampling Analyses	<b>VALID</b> According to <b>NOM-001-SEMARNAT/96.</b>	Semarnat, Conagua
Drinking Water Analyses	<b>VALID</b> According to <b>NOM-127-SSAI-1994.</b>	Semarnat, Conagua SSA
Dry and Wet Tailings Analyses	<b>VALID</b> According to <b>NOM-052-SEMARNAT-2005,</b> <b>NOM-141-SEMARNAT-2003</b>	Semarnat, Profepa Conagua

License/Permit	Status	Government Agency
LF ( <i>Licencia de Funcionamiento</i> )	<b>VALID</b> License Number 0168	Semarnat, Profepa
Environmental Register Number	NR; MNEMK2200411	Semarnat, Profepa
COA ( <i>Cédula de operación anual</i> )	<b>VALID</b> Numero de Bitácora de Registro;22/CO-0237/04/12 Fecha de recepción; 27 de abril de 2012.	Semarnat, Profepa
Environmental Impact Statement (Tailings Dam No. 5)	<b>VALID</b> Permit D.O.O.DGOEIA.-04853 dated Oct. 2, 1996. Permit to maintain and continue operation of Tailings Dam No. 5 as required by S.G.P.A./DGIRA.DDT.0606.06 of March 31, 2006	Semarnat, Profepa
Registration as Hazardous Waste Producer Company	<b>VALID</b> Oficio SMA/1241 Registro N. 2200423200014596 Hazardous Wastes Producer Registration. In compliance, obtained by Minera Capela, S.A. de C.V. (Unidad La Negra), September 29 1998	Semarnat, Profepa, Stps, SSC, Municipal Authorities, SDS
Land Rezoning ( <i>Cambio de Uso de Suelo</i> )	<b>VALID</b> Oficio SRN./280/98 A CUS ( <i>Cambio de Uso de Suelo</i> ) permit was granted by SEMARNAP (June 8, 1998) to <i>Unidad Minera La Negra</i> for surface exploration activities in the properties of the Maconí Community, temporarily in the possession of MLN.	Semarnat, Profepa, SDS, STPS, SS Ayuntamiento
Water Concession Title	<b>VALID</b> Concesión Title Number; 09QRO100564/26FDDL11 Valid for 8 years as of July 26 2012 MLN received approval for the extension of its Surface Water Concession permit granted July 26, 2004 for 622,080 m3 / year and valid until Jul 25, 2020.	Semarnat, Conagua



## 20.2 Tailings storage facilities

MLN operates five TSFs, three of which have been closed and reforested (Nos 1, 2, and 3). TSF No 5 is the current storage facility. A study of endemic vegetation in the mine area was carried out for use in the Reclamation Program of TSF No 5, as required under regulations.

TSF No 1 is currently used for storing maintenance and scrap products, diesel tanks, drill core and (temporarily) hazardous wastes. TSF No 3 is currently used as an emergency pond for possible spills, with any water leakages being pumped back to the process plant. TSF No 4, located above the process plant level, is also abandoned and is currently used for temporary stockpiles of mineralization or waste. Part of the area is being adapted to build a sports unit that will include a soccer football stadium for the local community.

## 20.3 Waste handling

Hazardous wastes are separated, collected and stored in temporary storage facilities before final disposal. Non-hazardous residual materials, such as paper, plastic, cardboard, metal, glass etc, are collected and recycled.

Regular monitoring is conducted of solids in TSF No 5 for acid drainage potential, the Los Alamos Water Spring (every six months), mine waters, water in TSF No 5 (every six months), and air emissions to the atmosphere from fixed and perimetral sources.

According to current environmental legislation in Mexico, closure and reclamation plans have to be filed in Semarnat before the projected closure of operations. These documents have to include a Closure Plan and Program, Reclamation Plan and Program, Post Closure Plan and Program, and an estimate of costs. A Reclamation Bond may be requested by the authorities.

## 20.4 Community

The Company is involved with a number of environmental initiatives to minimize the impact of its mining operation, which includes a zero-discharge policy as well as active re-forestation of the project area. During the period that Aurcana has operated the La Negra Mine, no citations have been issued by the government.

Exploration activities on the expanded exploration property may require agreements with local communities and, if exploration results in surface disturbances, environmental assessment and permitting.

## 21 Capital and operating costs

No capital and operating cost estimates have been prepared.

Forward-looking capital and operating costs are normally estimated in tandem with the development of a comprehensive life-of-mine plan, which is not available at this time. As such, the economic viability of continued operations has not been demonstrated.

It is Aurcana's intention to develop a life-of-mine plan, and associated capital and operating costs estimates in the short term.

Although actual costs cannot be assumed to be indicative of future costs in the absence of forward planning, capital and operating costs and revenues for portions of 2013 and 2014 are tabulated below. (Source Aurcana).

**Table 21.1 Minera La Negra capital and operating costs 2013 / 2014**

	Q3 2014	Q2 2014	Q3 2013	2014 YTD	2013 YTD
Revenues (\$million) [1]	\$11.4	\$9.2	\$10.4	\$33.7	\$34.5
Earnings from mining operations (\$million)	\$0.6	(\$1.4)	\$2.6	\$2.8	\$9.9
Net (loss) Income (\$ million)	(\$3.7)	(\$7.4)	(\$15.5)	(\$15.3)	(\$14.8)
Operating Cash Flow before movements in working capital items (\$ million)	\$0.5	(\$0.9)	(\$3.2)	\$0.5	\$0.1
Average price per silver oz sold	\$19.01	\$20.43	\$22.30	\$19.72	\$23.87
Cash cost of sales per silver equivalent oz sold [2]	\$16.45	\$20.84	\$15.20	\$16.42	\$15.53
Total Cash Cost per silver oz net of by-products [2]	\$11.83	\$13.41	\$6.90	\$11.80	\$7.97
Silver equivalent ounces produced [3]	997,530	786,505	754,788	2,704,024	2,165,865
Total equivalent Silver net payable oz (after TCRC) [3]	597,967	452,333	464,558	1,706,811	1,443,589
Production Cash Cost per milled tonne [2]	\$33.01	\$34.68	\$32.08	\$33.14	\$35.35
Cash cost per silver eq. oz produced (before TCRC) [2]	\$7.79	\$10.26	\$9.40	\$8.89	\$10.23
Cash cost per silver Equivalent oz produced [2] [4]	\$11.86	\$14.55	\$12.60	\$13.12	\$13.69
Mineralization mined (tonnes)	217,011	208,931	207,458	633,486	656,988
Mineralization milled (tonnes)	235,485	232,763	221,118	725,388	626,587
Silver Ounces produced	412,063	329,368	312,122	1,102,222	973,886
Copper, lead and zinc concentrates produced (tonnes)	8,693	7,621	8,118	26,126	23,095

[1] Revenues from the sale of concentrates are recorded net of charges for treatment, refining, and smelting (TCRC)

[2] Depreciation and amortization not included

[3] Difference between silver ounces equivalent produced vs sold is mainly due to change in concentrates inventory and percentage

[4] After the deduction of treatment and refining charges (TCRC)

Figures are expressed in US\$ unless otherwise stated.

## 22 Economic analysis

Aurcana meets the requirements of a producing issuer under NI 43-101, and so an economic analysis is not required for this report.

## 23 Adjacent properties

There are no adjacent properties that are relevant to this report.

## 24 Other relevant data and information

There is no additional information or explanation necessary to make this report understandable and not misleading.

## 25 Interpretation and conclusions

The Minera La Negra Property contains over 20 known occurrences of skarn-related silver-copper-lead-zinc mineralization. Mineralization is contained within Cretaceous-age carbonates and is spatially and genetically related to intrusive diorite bodies of Cenozoic age that form plugs that are elongate in a north-easterly direction and dikes that trend to the northwest.

Mineralized bodies occur as chimneys, mantos and steeply-dipping sheets. Mineralization is predominantly disseminated and coarse-grained.

Resources have been estimated for 11 separate mineral zones: Bicentenario, Brecha, Cobriza, Dificultad, Gaby, La Negra, Maravillas, San Buena Ventura, Trinidad and Virginia, as shown in Table 14.9. Resources have been tabulated on the basis of recovered metal value (RMV) in US\$ at a lower threshold of RMV\$30 / tonne. Resources are relatively insensitive to variations in RMV.

No Mineral Reserves have been estimated. Mineral Reserves are normally estimated through the development of a comprehensive life-of-mine plan, which is not available at this time. As such, economic and technical viability of continued operations has not been demonstrated. It is Aurcana's intention to develop a life-of-mine plan in the short term, as an essential step in the ongoing management of La Negra Resources.

Minera La Negra is a trackless underground mine, and has a demonstrated production capacity of approximately 2,700 tonnes per day. Long-hole, open stope mining on 15 m sublevels is used where the dimensions and morphology of the mineralization permit; cut-and-fill is used in narrow or irregularly-shaped zones. Ground conditions are excellent such that ground support is not required.

Metallurgical testwork data from the historic Peñoles operation of 45 years ago is not available. However recent production data provides a reasonable estimate of expected recoveries which are of the order of 75% for copper, lead and zinc and 80% for silver. Bismuth in the lead concentrate and arsenic in the copper concentrate attract significant charges and penalties and some testwork is ongoing to better understand the mineralogy.

The differential flowsheet employed is appropriate to this style of complex sulphides deposit.

Tailings are stored in a valley-fill tailings storage facility (TSF 5) with 2.5 years life remaining. Work is currently underway to investigate and permit additional TSF capacity.

MLN is in compliance with required environmental and other related permits.

## 26 Recommendations

- Rank, in order of potential to add to Resources / Reserves, occurrences of mineralization that have not been sufficiently well-defined to be included in current Mineral Resources. Evaluate the occurrences by the most appropriate means to determine their actual potential. This exploration is a normal and ongoing function at the Property, and so a specific budget has not been included here.
- Review the bulk density figures and measurement processes to determine whether they are a true reflection of mine production inclusive of natural voids, which is the factor required for conversion of block volumes to block tonnages.
- Review the lower cut-off value for Mineral Resources prior to the next update, although it is noted that Resource estimates are relatively insensitive to variations in RMV.
- Continue current studies into mineralogy and potential metallurgical improvements, particularly in light of the significance of the concentrate smelting charges in the total operating cost structure. Typical costs for this type work are approximately \$100,000.
- Proceed with the current plan to develop a life-of-mine plan.
- Ensure that the significant burden of off-site costs related to smelter charges are included in threshold metal values for the purposes of Reserve determination and mine planning.



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## 28 Certificates of Qualified Person

I, Gregory Z. Mosher, P.Geo., of North Vancouver, British Columbia, do hereby certify:

- I am a Principal Geologist with a business address at Suite 202, 200 Granville Street, Vancouver, British Columbia, V6C 1S4.
- This certificate applies to the technical report entitled Technical Report on the Minera La Negra Property, Queréttera, Mexico, dated 16 January 2015 (the "Technical Report").
- I am a graduate of Dalhousie University (B.Sc. Hons., 1970) and McGill University (M.Sc. Applied, 1973). I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, License #19267. My relevant experience with respect to mineral deposits includes over 30 years of exploration for and evaluation of such deposits. Additionally I have conducted Resource estimates since 2003. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- My most recent personal inspection of the Property was during the period September 16 to 18, 2014, for a total of three days.
- I am responsible for part of Section 1, Sections 2 to 12, 14, 23, 24 and parts of 25 and 26 of the Technical Report.
- I am independent of Aurcana Corporation as defined by Section 1.5 of the Instrument.
- I have no prior involvement with the Property that is the subject of the Technical Report.
- I have read the Instrument and the Technical Report has been prepared in compliance with the Instrument.
- 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.

Signed and dated 16<sup>th</sup> day of January 2015 at Vancouver, British Columbia.




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Gregory Z. Mosher, P.Geo.  
Principal Geologist  
AMC Mining Consultants (Canada) Ltd.

I, Alan Riles, MAIG, of NSW, Australia, do hereby certify:

- I am an Associate Metallurgical Consultant with a business address at 8 Winbourne St, Gorokan NSW Australia 2263.
- This certificate applies to the technical report entitled Technical Report on the Minera La Negra Property, Querétara, Mexico, dated 16 January 2015 (the "Technical Report").
- I am a graduate of Sheffield University UK (B.Met Hons., 1974) and University of Tasmania (Grad Dip Prof Mgt , 1987). I am a member in good standing of the Australian Institute of Geoscientists # 4870. My relevant experience with respect to mineral processing and extractive metallurgy includes over 40 years of project and operational management of base metals and gold/silver resources. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- I have not undertaken a site visit to the Property.
- I am responsible for part of Section 1, Sections 13, 17, 19 and part of 25 and 26 of the Technical Report.
- I am independent of Aurcana Corporation as defined by Section 1.5 of the Instrument.
- I have no prior involvement with the Property that is the subject of the Technical Report.
- I have read the Instrument and the Technical Report has been prepared in compliance with the Instrument.
- 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.

Signed and dated this 16<sup>th</sup> day of January 2015 at Gorokan, NSW, Australia.



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Alan Riles, MAIG  
Associate Metallurgical Consultant  
AMC Mining Consultants (Canada) Ltd.

I, Colm Keogh, P.Eng of Bowen Island, British Columbia, do hereby certify:

- I am a Principal Mining Engineer with a business address at Suite 202, 200 Granville Street, Vancouver, British Columbia, V6C 1S4.
- This certificate applies to the technical report entitled Technical Report on the Minera La Negra Property, Querétara, Mexico, dated 16th January 2015 (the "Technical Report").
- I am a graduate of the University of British Columbia (BASc. Mining Engineering 1988). I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, License #37433. My relevant experience is approximately 21 years in the mining industry, specifically underground base metal and precious metal operations. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- I have not undertaken a site visit to the Property.
- I am responsible for part of Section 1, Sections 15, 16, 21, 22 and parts of 25 and 26 of the Technical Report.
- I am independent of Aurcana Corporation as defined by Section 1.5 of the Instrument.
- I have no prior involvement with the Property that is the subject of the Technical Report.
- I have read the Instrument and the Technical Report has been prepared in compliance with the Instrument.
- 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.

Signed and dated 16<sup>th</sup> day of January 2015 at Vancouver, British Columbia.



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Colm Keogh, P.Eng.  
Principal Mining Engineer  
AMC Mining Consultants (Canada) Ltd.

I, Patrick Roger Stephenson, P.Geo., of Vancouver, British Columbia, do hereby certify:

- I am a Principal Geologist with a business address at Suite 202, 200 Granville Street, Vancouver, British Columbia, V6C 1S4.
- This certificate applies to the technical report entitled Technical Report on the Minera La Negra Property, Querétara, Mexico, dated 16<sup>th</sup> January 2015 (the "Technical Report").
- I am a graduate of Aberdeen University, Scotland (B.Sc. Hons., 1971). I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, License #156091, and of the Association of Professional Engineers and Geoscientists of Saskatchewan, License # 28984. My relevant experience with respect to mineral deposits includes over 40 years in mining and exploration operations, including the evaluation of such deposits. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- I have not undertaken a site visit to the Property.
- I am responsible for part of Section 1, Sections 18, 20 and parts of 25 and 26 of the Technical Report.
- I am independent of Aurcana Corporation as defined by Section 1.5 of the Instrument.
- I have no prior involvement with the Property that is the subject of the Technical Report.
- I have read the Instrument and the Technical Report has been prepared in compliance with the Instrument.
- 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.

Signed and dated this 16<sup>th</sup> day of January 2015 at Vancouver, British Columbia.



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Patrick R Stephenson, P.Geo.  
Principal Geologist  
AMC Mining Consultants (Canada) Ltd.

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