

# Amended Independent Technical Report for the Cachinal Silver-Gold Project, Region II, Chile

Report Prepared for  
**Aftermath Silver Ltd.**



Report Prepared by



SRK Consulting (Canada) Inc.  
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September 11, 2020



# Amended Independent Technical Report for the Cachinal Silver-Gold Project, Region II, Chile

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Cover: Central portion of the Cachinal Deposit viewed from the southern portion of the claim block, looking northeast.

## IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 *Standards of Disclosure for Mineral Projects* Technical Report for Aftermath Silver Ltd. (Aftermath) by SRK Consulting (Canada) Inc. (SRK). The quality of information, conclusions, and estimates contained herein are consistent with the quality of effort involved in SRK's services. The information, conclusions, and estimates contained herein are based on i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Aftermath subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits Aftermath to file this report as a Technical Report with Canadian securities regulatory authority pursuant to National Instrument 43-101. This report has also been submitted to the TSX Venture Exchange, in support of a transaction by the issuer, as required by Exchange Policy and can be used without risk for that purpose. Except for the purposes of the TSX Venture Exchange and that legislated under provincial securities law, any other uses of this report by any third party is at that party's sole risk. The user of this document should ensure that this is the most recent Technical Report for the property as it is not valid if a new Technical Report has been issued.

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# 1 Executive Summary

## 1.1 Introduction

On May 15, 2020, Aftermath Silver Ltd. (Aftermath) announced that they had acquired a controlling interest in the Cachinal De La Sierra Silver-Gold Project (Cachinal Project) through the acquisition of an 80% shareholding the Chilean holding company Minera Cachinal S.A.

On May 25, 2020, Aftermath also announced that it had acquired from SSR Mining (SSR) its 20% interest in the Cachinal Project for a total consideration of C\$700,000. On completion of the transaction, Aftermath Silver will own 99.9% of the shares of Minera Cachinal SA. One share will remain held by a Chilean national as per Chilean business law requirements. During the several years of inactivity at the Cachinal Property, SSR, while owning only a 20% interest in the property, paid 100% of the property maintenance costs in order to maintain the property in good standing. Aftermath has agreed to pay SSR a negotiated amount of C\$600,000 to settle debts owed to SSR by Minera Cachinal SA.

Previous technical reports for the Cachinal Project that were prepared by SRK for previous operators include technical reports for Valencia Ventures Inc. (Valencia) in 2008 and for Apogee Minerals Ltd. (Apogee) in 2010. This technical report prepared for Aftermath reflects the current status of the project.

The Cachinal Project is a resource delineation stage silver-gold exploration project located in the Cachinal de la Sierra area in the Region II of Chile. It is located approximately 175 kilometres southeast of Antofagasta, Chile. The project encloses several silver occurrences including the Cachinal silver-gold deposit that is an exploration focus of Aftermath.

This technical report documents a resource model constructed by SRK. It was prepared following the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1, and in conformity with the generally accepted CIM “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (2019).” SRK representatives have visited the Cachinal project on various occasions with the most recent site visit being during June 18 to June 19, 2020. Although no additional exploration data has been generated since 2008, a revised mineral resource statement has been prepared and is documented in this technical report to consider current metal prices and costs.

## 1.2 Property Description and Agreements

Minera Cachinal S.A. was formed on December 9, 2013 from the division of the assets owned by Minera Silver Standard Chile S.A (Minera Silver). Minera Silver had two controlling partners: (i) Silver Standard Resources, Inc. (SSR) and (ii) Silver Standard Ventures, Inc. (SSV).

Minera Silver was divided into three companies: (i) Minera Silver Standard Chile S.A (Minera Silver), (ii) Minera Cachinal S.A (Minera Cachinal), and (iii) Minera Juncal y La Flora S.A (Minera Juncal). The assets were divided among the resulting companies: 96 mining concessions for Minera Silver, 11 mining concessions for Minera Cachinal and 11 mining concessions for Minera Juncal.

The Cachinal Project is comprised of sixteen Chile mining concessions (Table 1) covering an aggregate area of approximately 4,867 hectares, comprising of the 11 mining concessions gained from Minera Silver (3,387 ha) in 2014 and an additional 5 mining concessions (the Cachinal claim group) purchased from Compañía Minera Valencia Ventures Chile Limitada in 2016. The property boundaries have not been legally surveyed.



### 1.3 Location, Access and Physiography

The closest community to the Cachinal project is the township of Taltal, with a population of about 11,000, which is approximately 170 kilometres from the project. Taltal is located 306 kilometres south of Antofagasta and 25 kilometres from Route 5, with no local public transportation to Antofagasta. Mining is the primary activity for the community of Taltal.

Access to the project area from the Pan American Highway is along a sand and gravel road. Numerous secondary tracks provide easy access to all parts of the project area. The center of the property is located at 69.5333 degrees longitude west and 24.9716 degrees latitude south. The property and the region have no established towns or villages and public electricity or water supply.

The project is located in the Atacama Desert, considered to be the driest desert of Chile. The west and south sides of the property are comprised of gentle rolling terrain, with rounded hill tops, while the central and eastern parts of the property form slightly inclined to nearly flat plain. Elevation varies between 2,690 and 3,150 metres above sea level. There is no sharp contrast in temperature between seasons. The average temperature of the coldest month (July) is 11.8°C and the average temperature for the hottest month (January) is 19.2°C. The daily variation is significant, ranging from a maximum of 33.5°C to a minimum of 2.3°C. Exploration work can be carried out year-round.

### 1.4 History

Although different references give conflicting dates about the early history of the Cachinal de la Sierra district, it appears that initial mineral activities began during the 1850s focussing on silver mineralization. Gold was discovered 10 to 20 years later in the Guanaco District about fourteen kilometres to the south of Cachinal.

Silver was first produced in the district in 1875 and production continued uninterrupted from 1880 to 1930. The total historic production was estimated to be approximately 1,000 tonnes of silver (about 32 million ounces). Independent miners intermittently mined the area when silver prices were relatively high in the early 1980s, from 1985 to 1987 and in the early 1990s. Unverifiable records suggest that between 1985 and 1987 a total of 170,639 tonnes were mined at an average grade of 280 grams of silver per tonne ("g/t silver") and 0.58 g/t gold.

### 1.5 Regional and Local Geology

The Cachinal project area is located within the Paleocene Gold Belt of northern Chile, which hosts several significant gold and silver deposits. The known Cachinal veins are all located within and near the western margin of the Cachinal volcanic caldera that is approximately 30 kilometres in diameter and developed in Paleocene-Eocene volcanic rocks assigned to the Chile-Alemania Formation. This bimodal rhyo-andesite sequence is widely distributed throughout the Antofagasta Region.

The western margin of the caldera is characterised by a chain of dacite flow domes and their related dacite to andesite lava. The southern end of the dome chain appears to be related to the high sulphidation epithermal El Guanaco Gold district.

The center of the district is underlain by a propylitic-altered diorite stock and related andesite lavas, covered by rhyodacite, ash-flow tuff with co-genetic porphyry facies. The rhyodacite and ash-flow tuff are overlain by and interbedded with reddish volcanoclastic sedimentary rocks and dacite to andesite lava.

The age of the diorite stock ranges from 62 to 60 million years. This sequence is intruded by dacite flow-domes to the west. The diorite stock in turn intrudes the rhyodacite tuff and the volcanoclastic sedimentary rocks. A flat relief plain composed of colluvial and alluvial loose sediments covers a

buried sequence of green coloured conglomerate and sandstone sedimentary rocks to the east of Cachinal.

## 1.6 Deposit Types and Mineralization

The Cachinal project was assembled by Valencia in 2005 for its potential to host low and high sulphidation epithermal silver and gold deposits. Epithermal deposits comprise a wide clan of hydrothermal deposits associated with volcanic and magmatic edifices and formed by the circulation of hydrothermal fluids into fractured rocks. Exploration work in this area has uncovered several precious metal (silver, gold-silver and silver-gold associated with base metals) deposits and occurrences exhibiting characteristics indicative of epithermal hydrothermal systems.

The Cachinal silver-gold deposit is the most important exploration target on the Cachinal project. This deposit was mined from underground workings during the twentieth century and drilling by Valencia since 2005 has delineated a near surface silver, gold mineral resource associated with a network of steeply dipping north to northwest trending low-sulphide quartz veins.

The epithermal veins and breccias have been recognized by trenching and drilling over a strike length of at least two kilometres and are known to have been mined to a depth of at least 300 metres. They range in thickness from a few centimetres to two metres, reaching up to twenty metres locally at the intersection of two structures. The main veins trend north-northwest and north-west with a secondary set trending east-northeast to east-west, best developed at the southern end of the deposit.

## 1.7 Exploration and Drilling

All exploration work completed by Valencia at Cachinal since 2004 was conducted by SBX Consultores Ltda. ("SBX"), an independent consultant. The exploration work included:

- 219 inclined reverse circulation boreholes (over 31,000 metres).
- 27 core boreholes (6,241 metres).
- 43 trenches (2,076 metres).
- 129 line-kilometres of ground electromagnetic surveying (VLF-EM).
- 955 line-kilometres of ground magnetic surveying.
- 1,109 soil geochemical samples (200-400 metre lines and 50-100 metre stations).

Drilling was conducted by Terra Services S.A. and Perfo Chile Ltda. Boreholes have been drilled on 50 to 100 metres sections to sample the Cachinal mineralization to a depth of 40 to 200 metres below the surface. All borehole collars were surveyed using a theodolite and reported in UTM coordinates (PSAD-56 datum). The drilling area extends approximately two kilometres in strike length. Downhole deviation was monitored in 56 reverse circulation boreholes using a gyroscope. The remaining reverse circulation boreholes could not be probed. Eleven of the core holes were surveyed for downhole deviation using a Maxibore device or a gyroscope.

Valencia completed an additional seventeen core boreholes, forty-three reverse circulation boreholes and five geotechnical core boreholes (the "subsequent drilling"). The subsequent drilling aimed at infilling the deposit to fifty metre sections in the northern part of the deposit, testing the depth extensions of the deposit below the mineral resources and testing other exploration targets outside the resource areas. No additional exploration work has been conducted on the property since 2008.

## 1.8 Sampling Method, Approach and Analyses

Limited details are available for the sampling procedures used by previous project operators. No historical sampling was used for estimating the Cachinal mineral resources.

Valencia used industry best practices to collect, handle and assay soil, trench, reverse circulation chips and core samples of the Cachinal silver mineralization. All assay samples were prepared and assayed by ALS-Chemex Laboratory in Antofagasta and La Serena, Chile that are accredited ISO 9001 by NCS International Pty. The La Serena Laboratory is also accredited under ISO 17025 (INN LE 246) by the Instituto Nacional de Normalization of Chile for a number of specific test procedures. The analytical protocols used by Valencia are not within scope of the accreditation.

Samples were assayed for gold by conventional fire assay, and silver and zinc using multi-acid digestion and atomic absorption spectrometry. Valencia relied on the laboratory internal quality control measures but implemented increasing external control measures consisting of inserting an appropriate frequency of quality control samples (blanks, project specific standards and certified reference standards) with each batch of trench, reverse circulation and core drilling samples submitted for assaying. The quality control program developed by Valencia for this project is mature and overseen by appropriately qualified geologists.

## 1.9 Data Verifications

In accordance with s. 6.2 (1) of NI 43-101, Mr. Sergio Alvarado Casas, an independent consultant geologist also visited the property during June 18 to June 19, 2020. Mr. Casas contributed to this technical report as a qualified person (QP).

The purpose of the site visit to was to ascertain the geology of the project area, with a specific emphasis on the Cachinal silver deposit. Mr. Casas personally inspected and verified numerous trenches and borehole collar sites. Many reverse-circulation collars remain clearly visible and intact. Historical geophysical grid lines were also located numerous collars were surveyed with handheld GPS for comparison with digitally logged collar locations.

The QP reviewed assay results for the internal quality control samples used by the assay laboratory and found no suspicious or anomalous results. The QP aggregated the assay results for the external quality control samples for further analysis, focussing exclusively on assay results for silver, gold and zinc. After review, the QP is of the opinion that the analytical results delivered by ALS-Chemex are sufficiently reliable for the purpose of resource estimation. The QP identified a number of sample mislabelling issues, especially mislabelling of control samples.

The Cachinal silver-bearing mineralization was sampled by surface trenches and by reverse circulation and core drilling. The QP conducted certain verifications to ensure that the three sample supports yielded geostatistically comparable silver assay results. In general, the QP considers that, for the main silver grade ranges observed in the Cachinal deposit, there is no significant bias between each sample support and that, therefore, all three sample types can be used for resource estimation.

The analysis of the twin core drilling data suggests that the core boreholes delivered on average lower grades for all three metals considered. Not only the core holes failed to reproduce the average grades of each intercept, but the widths of silver-bearing mineralization are also different. Analysis of Q-Q plots suggest that reverse circulation boreholes deliver higher grades than core boreholes for all grade categories, except for zinc. The difference in grade distribution may be in part attributed to the wireframe interpretation or high variability of metal grades across short ranges that are not unusual for epithermal vein deposits. The quality control data does not highlight any material bias between the two drilling types. Accordingly, the QP cannot draw conclusions from the limited twin hole data available.

## 1.10 Mineral Resource Estimation

The mineral resource model presented herein represents the second mineral resource evaluation for the Cachinal silver-gold deposit. An earlier resource model was prepared in February 2007 by Gonzales and Diaz using a polygonal method on vertical sections. The current resource estimate

was undertaken by a team supervised by Mr. Glen Cole, PGeo, an independent qualified person as this term is defined in National Instrument 43-101. The effective date of this mineral resource statement is August 10, 2020.

Eleven north to northwest trending silver-bearing vein wireframes were constructed to constrain geostatistical analyses and grade estimation. The wireframes considered a geological interpretation prepared by SBX personnel using assay data over a minimum width of two metres. Two sets of faults and four lithological wireframes were also modelled. The impact of the mined-out areas on the resource model was considered at the geological modelling stage. The modelled veins represent the remnants left behind by the historical mine. The QP considers this approach a reasonable interpretation for the “in situ” silver-bearing veins with the current level of information available about the historical mining. Further investigations are required for feasibility level work.

A total of 3,293 data points was extracted from the eleven modelled veins for statistical analysis. All assay samples were composited to equal 1-metre lengths. Grade capping was assessed using probability plots for assays samples within each domain. In general, the silver, gold and zinc composites belong to a single population, requiring minimal outlier treatment. Only three silver, two gold and four zinc composites were capped.

A Datamine sub-block routine was used to fill the vein wireframes with blocks aligned with the local UTM grid (PSAD-56 datum). Each vein mineralization block was assigned a density of 2.43 grams per cubic centimetre and waste blocks were assigned an average bulk density of 2.45 grams per cubic centimetre, based on a database containing 289 measurements on core samples. Parent block size was set at 3 by 5 by 5 metres (minimum block size of 0.75 by 1.25 by 1.25 metres). A regularized block model was also generated from the detailed sub-block model for the pit optimization.

Variograms were used to assess grade continuity along various ellipse axes and to determine appropriate grade interpolation ranges. Normal-score variography was conducted with Isatis software for silver, gold and zinc. A single spherical structure variogram (including a nugget effect) was constructed and fitted for each modelled vein and direction for silver, gold and zinc (with rotation angles relative to the vein parallel reference plane set at primary = N340, secondary = N070).

Metal grades were estimated into the block model using ordinary kriging and search neighbourhood parameters adjusted from variography results. Metal grades were estimated using two estimation runs for each modelled vein. The first pass considered full variogram ranges to estimate block grades assigned to Indicated Mineral Resources. The second pass considered three times the variogram ranges to estimate metal grades for Inferred Mineral Resources. A third estimation run was completed to assign metal grades to the blocks surrounding the silver-bearing veins. The average mining dilution grade was determined from the average of all composites located outside the modelled veins, but within an enveloping ‘low grade shell’ defined by considering all drill data (this includes 11,749 data points).

The Cachinal mineral resources were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 10, 2014) by Glen Cole, PGeo (APGO #1416), an appropriate independent qualified person for the purpose of National Instrument 43-101. Resource blocks are informed by a minimum of four and a maximum of twenty composites. Resource blocks situated within the primary ranges defined by variography are assigned an Indicated classification. All other resource blocks situated within three times the maximum variography ranges are assigned an Inferred classification.

The “reasonable prospects for eventual economic extraction” requirement was assessed by considering the most likely extraction scenarios for the vein mineralization taking into account processing recoveries. The QP believes that portions of the Cachinal deposit are amenable for open pit extraction, while the deeper parts of the deposit could be extracted using an underground mining method.

To determine the quantities of material offering reasonable prospects for eventual economic extraction by an open pit, the QP generated an optimised pit shell, based on the current optimization parameters. The reader is cautioned that the results from the pit optimization are used solely for reporting mineral resources that have “reasonable prospects” for eventual economic extraction by an open pit.

The QP considers that material within the optimized pit shell show a reasonable prospect for eventual extraction by open pit, whereas continuous higher grade mineralized material external to the optimized pit shell have a reasonable prospect of eventual extraction by underground mining methods.

The Mineral Resource Statement for the Cachinal silver-gold deposit effective June 19, 2020 is presented in Table i.

**Table i: Mineral Resource Statement\* for the Cachinal Silver-Gold Project, Chile, SRK Consulting (Canada) Inc. August 10, 2020 (Sections 1250NNW - 1000SE).**

Resource Classification	Quantity (Mt)	Grades		Contained Metal	
		Silver (g/t)	Gold (g/t)	Silver (Moz)	Gold (000'oz)
<b>Indicated</b>					
Open Pit	4.83	97	0.13	15.03	20.05
Underground	0.22	182	0.22	1.29	1.65
<b>Total</b>	<b>5.05</b>	<b>101</b>	<b>0.13</b>	<b>16.32</b>	<b>21.70</b>
<b>Inferred</b>					
Open Pit	0.17	73	0.07	0.41	0.43
Underground	0.36	180	0.19	2.07	2.18
<b>Total</b>	<b>0.53</b>	<b>145</b>	<b>0.15</b>	<b>2.48</b>	<b>2.61</b>

\* Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. The cut-off grades are based on metal price assumptions of US\$22.00 per ounce of silver, US\$1,550 per ounce of gold and metallurgical recoveries of eighty-five percent for silver and gold.

Mineral resources amenable for extraction within an open pit are reported to a cut-off of 30 g/t AgEq for milling / cyanidation (M/C) processing methods. Mineral resource amenable for extraction by underground mining methods are reported at a cut-off of 150 g/t AgEq.

## 1.11 Conclusions and Recommendations

The authors of this report reviewed and audited the exploration data available for the Cachinal project. This review suggests that the available exploration data is generally reliable for the purpose of resource estimation.

The QP was impressed by the geological interpretations generated by previous operators to construct geological and silver mineralization wireframes using Datamine software. Eleven separate silver mineralization wireframes were interpreted and modelled.

Following geostatistical analysis and variography, the QP constructed a new mineral resource block model for the Cachinal silver deposit constraining grade interpolation to within the eleven silver mineralization domains. After validation and classification, the QP used preliminary pit optimization routines to assess the portions of the Cachinal deposit that shows reasonable prospects for economic extraction from an open pit. Mineral resources constrained within an optimized pit shell were reported at a cut-off grade reflecting a milling and cyanidation processing method (30 g/t silver equivalent), while the resource blocks external to the optimized pit shell are reported as an underground resource at a cut-off grade of 150 g/t silver equivalent to reflect reasonable prospects for eventual economic extraction by bulk underground methods.

Mineral resources for the Cachinal deposit have been estimated in conformity with generally accepted CIM “Estimation of Mineral Resource and Mineral Reserves Best Practices” Guidelines. In the opinion of the QP, the block model resource estimate and resource classification reported herein are a reasonable representation of the global silver and gold mineral resources found in the Cachinal deposit. There is some uncertainty regards the precise location of the full extent of historical workings, which presents a risk to the estimate. Additional drill data will provide more confidence to the definition of the modeled mineralization-hosting veins which may impact the volumetrics of the mineral resource model. The apparent discrepancy between the twinned reverse circulation and core drilling-derived assays should be investigated.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.

The QP has assessed that drilling data generated after January 2008, would not materially impact the resource evaluation prepared by SRK as documented in the original April 30, 2008 technical report. The results of the subsequent drilling would not alter the recommendations for additional drilling defined in this technical report.

Three distinct types of exploration targets have been identified by the QP at Cachinal. These are vein extension, new vein and ‘upgrade’ vein targets. Twelve target areas have been identified by the QP as and after review, the QP recommends a drill program to test these targets, based on drilling two holes per section on average; one-hole testing at about the 100-metre elevation and the second at about 200-metre elevation.

The QP proposes a phased approach to advancing the Cachinal project. In addition to the strategic exploration drilling, additional exploration and engineering activities such as satellite surveys, database management and metallurgical testwork will need to be undertaken. The QP supports the Phase 1 exploration program proposed by Aftermath, which is estimated to cost C\$655,000.

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## 2 Introduction and Terms of Reference

On May 15, 2020, Aftermath Silver Ltd. (Aftermath) announced that they had acquired a controlling interest in the Cachinal De La Sierra Silver-Gold Project (Cachinal Project) through the acquisition of an 80% shareholding the Chilean holding company Minera Cachinal S.A.

On May 25, 2020, Aftermath also announced that it had acquired from SSR Mining (SSR) its 20% interest in the Cachinal Project for a total consideration of C\$700,000. On completion of the transaction, Aftermath Silver will own 99.9% of the shares of Minera Cachinal SA. One share will remain held by a Chilean national as per Chilean business law requirements. During the several years of inactivity at the Cachinal Property, SSR, while owning only a 20% interest in the property, paid 100% of the property maintenance costs in order to maintain the property in good standing. Aftermath has agreed to pay SSR a negotiated amount of C\$600,000 to settle debts owed to SSR by Minera Cachinal SA.

Previous technical reports for the Cachinal Project that were prepared by SRK for previous operators include technical reports for Valencia Ventures Inc. (Valencia) in 2008 and for Apogee Minerals Ltd. (Apogee) in 2010. This technical report was prepared for Aftermath and reflects the current status of the project.

The Cachinal Project is a resource delineation stage silver- gold exploration project located in the Cachinal de la Sierra area in the Region II of Chile. It is located approximately 175 kilometres southeast of Antofagasta, Chile. The project encloses several silver occurrences including the Cachinal silver-gold deposit that is an exploration focus of Aftermath.

This technical report documents a resource model constructed by SRK. It was prepared following the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1, and in conformity with the generally accepted CIM “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (2019).” SRK representatives have visited the Cachinal project on various occasions with the most recent site visit being during June 18 to June 19, 2020. Although no additional exploration data has been generated since 2008, a revised mineral resource statement has been prepared and is documented in this technical report to consider current metal prices and costs.

### 2.1 Scope of Work

The scope of work, as defined in the letter of engagement presented to Aftermath in January 2018, comprised the provision of technical services leading to the re-statement / updating of the Cachinal technical report especially the revision of the land tenure, geology, exploration and mineral resource aspects of the Cachinal Project to reflect the status of the project.

The compilation of the independent technical report would need to be in full compliance with National Instrument 43-101 Form 43-101F1 guidelines. This typically requires an assessment of the following aspects of the project:

- Topography, landscape, access
- Regional and local geology
- Exploration history
- Audit of exploration work carried out on the project
- Geological modelling
- Mineral resource estimation and validation
- Preparation of a Mineral Resource Statement
- Recommendations for additional work

## 2.2 Work Program

Although no additional exploration data has been acquired since 2008 and the mineral resource model remains unchanged from that documented by SRK (2008) and SRK (2010), the content of this technical report has been modified to conform to current reporting guidelines and the mineral report statement has been updated to reflect 2020 conditions.

This technical report and mineral resource statement was assembled in Toronto, Canada during the months of June to August 2020.

The Mineral Resource Statement reported herein was prepared in conformity with the generally accepted *CIM Exploration Best Practices Guidelines* and *CIM Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines*. This technical report was prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1.

## 2.3 Basis of Technical Report

This report is based on information collected by SRK staff during earlier versions of this technical report, on additional information provided by Aftermath and its consultants, and other information obtained from the public domain. The qualified persons (QPs) of this report have no reason to doubt the reliability of the information provided by Aftermath. A recent site visit was also undertaken by a qualified person on June 18 to 19, 2020 to verify conditions on site.

This technical report is based on the following sources of information:

- Discussion with Aftermath personnel.
- Information documented in SRK (2008) and SRK (2010).
- Recent inspection of the Cachinal project area
- Review of the exploration data available for the project.
- Additional information from public domain sources.

## 2.4 Qualifications of the Qualified Persons

The geological model was prepared under the supervision of Mr. Glen Cole, PGeo (APGO#1416) who also completed the mineral resource evaluation work. Mr. Cole is the principal author of this report and responsible for sections 1.1 to 1.4, 1.7 to 1.11, 2.1 to 2.4, 2.6, 2.7, 3 to 6, 9-11, 12.1, 12.2.2 to 12.2.3 and 13-14, 16 to 19 of the report. Mr. Sergio Alvarado Casas (Chilean Mining Commission #004), an independent consultant geologist is the co-author of this report and responsible for sections 1.5, 1.6, 2.5, 7,8,12.3 and 15. By virtue of their education, membership to a recognized professional association and relevant work experience, Mr. Cole and Mr. Casas are Qualified Persons as this term is defined by National Instrument 43-101.

Mr. Cole is a Principal Resource Geologist with SRK and has been employed by SRK since 2006. Mr. Cole has over 20 years practical experience gained from numerous exploration and mining projects in Southern and West Africa and North America. Mr. Cole has gained solid practical experience in most aspects of applied economic geology in a host of geological settings and commodities. These applications include scientific research, target generation, technical exploration, database management, geological modelling, resource estimation, mineral mine economics and mine production. Mr. Cole has not visited the property.

Mr. Casas has practiced his profession continuously since 1985. He has estimated and audited mineral resources for a variety of early and advanced international base and precious metals projects. He has worked in the mining industry on several underground and open pit mining operations and held various senior operational and corporate positions. Mr. Casas visited the Cachinal Project during June 18-19, 2020.

## 2.5 Site Visit

In accordance with s. 6.2 (1) of NI 43-101, Mr. Sergio Alvarado Casas, an independent consultant geologist also visited the property during June 18 to June 19, 2020. Mr. Alvarado Casas contributed to this technical report as a qualified person (QP).

The purpose of the site visit was to ascertain the geology of the project area, with a specific emphasis on the Cachinal silver deposit. Mr. Alvarado Casas personally inspected and verified numerous trenches and borehole collar sites. Many reverse-circulation collars remain clearly visible and intact. Historical geophysical grid lines were also located numerous collars were surveyed with handheld GPS for comparison with digitally logged collar locations.

The storage facility in the nearby town of Taltal, where drill core and chips were stored, logged and sampled during exploration was visited. Sample pulps are stored on site in a sheltered location and remain intact with identification numbering affixed to each sample bag. Project drill core and chips have been moved to an unknown location, so the QP was not able to review any drill core during the site visit.

There was no exploration activity ongoing on the property during the time of the most recent site visit. The QP did not identify any evidence of additional material exploration work conducted on site since the previous technical report.

## 2.6 Declaration

The QP's opinion contained herein and effective **August 10, 2020** is based on information collected by the authors throughout the course of their investigations. The information in turn reflects various technical and economic conditions at the time of writing this report. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results may be significantly more or less favourable.

This report may include technical information that requires subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QP's do not consider them to be material.

The QP's are not an insider, associate or an affiliate of Aftermath, and neither author nor any affiliate has acted as advisor to Aftermath, its subsidiaries or its affiliates in connection with this project. The results of the technical review by QP's are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

### **3 Reliance on Other Experts**

The QP has not performed an independent verification of land title and tenure information as summarized in Section 3 of this report. The SRK QP did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between third parties, but has relied on Carey, a Santiago-based law firm, as expressed in a legal opinion provided to Aftermath on March 29, 2018. The reliance applies solely to the legal status of the rights disclosed in Sections 3.1 and 3.2 below.

The QP was also informed by Carey (representing Aftermath) on May 31, 2019 that there are no known litigations potentially affecting the Cachinal silver gold project.



## **4 Property Description and Location**

### **4.1 Introduction**

The Cachinal project is located in the Cachinal de la Sierra area of Region II of Chile, in the Community of Taltal. It lies approximately 175 kilometres southeast of Antofagasta, the largest port city and main supply centre for the region, and 105 kilometres northeast of the village of Taltal (Figure 1). The property is situated approximately thirty kilometres east of the Pan American Highway and is centred on UTM coordinates (datum: PSAD-56, Zone 19S) 7,238,200 North and 446,300 East (69 degrees 32 minutes longitude west and 24 degrees 58.3 minutes latitude south).

### **4.2 Mineral Rights in Chile**

There are two types of mining concessions in Chile: exploration mining concessions and exploitation mining concessions.

In accordance with the Chilean Mining Code, the owner of a mining concession can explore, exploit and benefit from all minerals within the boundaries of the relevant concessions, except for hydrocarbon and lithium, without additional administrative concessions or operation agreements.

Every titleholder of a mining concession, whether exploitation or exploration, has the right to establish an occupation easement over the surface properties required for the comfortable exploration or exploitation of its concession. In the event that the surface property owner does not voluntarily agree to the granting of the easement, the titleholder of the mining concession may request such easement before the Courts of Justice, which shall grant the same upon determination of due compensation for losses.

All mining exploration and exploitation concession applications are submitted to the Chilean court and granted through a court procedure. Once the court procedure is completed, the court issues a final ruling decision. If the decision is supportive of the application, the ruling decision acts as the legal title of the concession, which is then registered in the national mining registrar. The application to court decision process typically takes 6 to 8 months for an exploration concession and 12 to 15 months for an exploitation concession.

The main characteristics of exploration and exploitation concessions are described in the following subsections.



Figure 1: Location of the Cachinal Silver-Gold Project, Chile

#### 4.2.1 Exploration Mining Concessions

The titleholder of an exploration concession has the right to carry out all types of mining exploration activities within the area of the concession. Exploration concessions can overlap or be granted over the same area of land, however, the rights granted by an exploration concession can only be exercised by the titleholder with the earliest dated exploration concession over a particular area.

For each exploration concession, the titleholder must pay an annual fee of approximately US\$1.60 per hectare to the Chilean Treasury. Exploration concessions have a duration of two years. At the end of this period, they may: (i) be renewed as an exploration concession for two additional years in which case at least 50 percent of the surface area must be renounced, or (ii) be converted, totally or partially, into exploitation concessions.

A titleholder with the earliest dated exploration concession has a preferential right to an exploitation concession in the area covered by the exploration concession, over any third parties with a later dated exploration concession for that area or without an exploration concession at all and must oppose any applications made by third parties for exploitation concessions within the area for the exploration concession to remain valid.

## 4.2.2 Exploitation Mining Concessions

The titleholder of an exploitation (or mining) concession is granted the right to explore and exploit the minerals located within the area of the concession and to take ownership of the minerals that are extracted. Exploitation concessions can overlap or be granted over the same area of land, however, the rights granted by an exploitation concession can only be exercised by the titleholder with the earliest dated exploitation concession over a particular area.

Exploitation concessions are of indefinite duration and an annual fee is payable to the Chilean Treasury of approximately US\$8 per hectare. Where a titleholder of an exploration concession has applied to convert the exploration concession into an exploitation concession, the application for the exploitation concession and the exploitation concession itself are back-dated to the date of the exploration concession.

A titleholder to an exploitation concession must apply to annul or cancel any exploitation concessions that overlap with the area covered by its exploitation concession within a certain time period in order for the exploitation concession to remain valid.

## 4.3 Mineral Tenure

On June 25, 2018, Aftermath announced that it entered into a definitive agreement with Apogee Opportunities, now renamed as Halo Labs Inc.(Halo), to purchase Apogee's holding in the Cachinal De La Sierra Silver-Gold Project (Cachinal Project) through the purchase of Apogee Opportunities' shares in the Chilean holding company Minera Cachinal S.A. (Minera Cachinal), representing 80 percent ownership.

By agreement dated as of June 22, 2018, as amended by agreements dated June 24, 2019, July 24, 2019 and October 24, 2019, Aftermath agreed to purchase from Apogee 80% of the issued shares of Minera Cachinal S.A., which owns a 100% interest in the Cachinal Property in consideration of the sum of \$1,575,000.

To purchase the 80% of the issued shares, Aftermath issued to Halo a convertible debenture in the principal amount of \$1,575,000 (the "Convertible Debenture"). The principal amount of the convertible debentures was to be repaid according to the following schedule:

- (a) \$250,000 at the Closing (paid).
- (b) \$250,000 on or before six months following the Closing (paid).
- (c) \$525,000 on or before the first anniversary of the Closing.
- (d) \$550,000 on or before 18 months following the Closing.

On May 15, 2020, Aftermath announced that it had reached an agreement to retire the \$1,075,000 balance of the \$1,575,000 convertible debenture which was issued to Halo in October, 2019 in consideration of the acquisition of the 80% interest in the Cachinal silver-gold project

On May 25, 2020, Aftermath also announced that it had acquired from SSR Mining (SSR) its 20 percent interest in the Cachinal Project for a total consideration of C\$700,000. On completion of the transaction, Aftermath will own 99.9% of the shares of Minera Cachinal SA. One share will remain held by a Chilean national as per Chilean business law requirements.

During the several years of inactivity at the Cachinal Property, SSR, while owning only a 20% interest in the property, paid 100% of the property maintenance costs in order to maintain the property in good standing. Aftermath has agreed to pay SSR a negotiated amount of C\$600,000 to settle debts owed to SSR by Minera Cachinal SA.

Minera Cachinal S.A. was formed on December 9, 2013 from the division of the assets owned by Minera Silver Standard Chile S.A (Minera Silver). Minera Silver had two controlling partners: (i) Silver Standard Resources, Inc. (SSR) and (ii) Silver Standard Ventures, Inc. (SSV).

Minera Silver was divided into three companies: (i) Minera Silver Standard Chile S.A (Minera Silver), (ii) Minera Cachinal S.A (Minera Cachinal), and (iii) Minera Juncal y La Flora S.A (Minera Juncal). The assets were divided among the resulting companies: 96 mining concessions and also some water rights for Minera Silver, 11 mining concessions for Minera Cachinal and 11 mining concessions for Minera Juncal.

The Cachinal Project is comprised of sixteen Chile mining concessions (Table 1) covering an aggregate area of approximately 4,867 hectares, comprising of the 11 mining concessions gained from Minera Silver (3,387 hectares) in 2014 and an additional 5 mining concessions (the Cachinal claim group) purchased from Compañía Minera Valencia Ventures Chile Limitada in 2016. The property boundaries have not been legally surveyed, with the approximate location of the claim pillar posts shown in Figure 3. A listing of the concessions is presented in Table 1.

**Table 1: Listing of Exploration Mining Concessions Included in the Cachinal Silver Gold Project**

	<b>Claim Group</b>	<b>National Number</b>	<b>Area (Hectares)</b>	<b>Ownership</b>
1	Silvana 1, 1/60	02202-4535-7	300	Minera Cachinal Chile S.A.
2	Silvana 2, 1/30	02202-4536-5	300	Minera Cachinal Chile S.A
3	Silvana 3, 1/59	02202-4537-3	269	Minera Cachinal Chile S.A
4	Silvana 4, 1/30	02202-4538-1	298	Minera Cachinal Chile S.A
5	Silvana 5, 1/30	02202-4539-k	300	Minera Cachinal Chile S.A
6	Silvana 6, 1/30	02202-4540-3	300	Minera Cachinal Chile S.A
7	Silvana 7, 1/30	02202-4541-1	300	Minera Cachinal Chile S.A
8	Silvana 8, 1/30	02202-4542-k	300	Minera Cachinal Chile S.A
9	Silvana 9, 1/30	02202-4543-8	300	Minera Cachinal Chile S.A
10	Silvana 10, 1/30	02202-4544-6	300	Minera Cachinal Chile S.A
11	Katherine 1/80	02202-4527-6	400	Minera Cachinal Chile S.A
12	Cachinal 21A, 1 al 60	02202-6336-3	300	Minera Cachinal Chile S.A
13	Cachinal 22A, 1 al 60	02202-6337-1	300	Minera Cachinal Chile S.A
14	Cachinal 23A, 1 al 60	02202-6338-K	300	Minera Cachinal Chile S.A
15	Cachinal 24A, 1 al 60	02202-6339-8	300	Minera Cachinal Chile S.A
16	Cachinal 25A, 1 al 60	02202-6340-1	300	Minera Cachinal Chile S.A
<b>Total</b>			<b>4,867</b>	

A legal opinion on the Minera Cachinal mining concessions reviewed by the QP, dated May 31, 2019 prepared by the Chilean law firm Carey y Cia, found no royalty agreements, mortgages, encumbrances, prohibitions or outstanding litigation affecting any of the mining concessions.

Similarly, the due diligence process found no significant factors or risks that may affect access, title, or the right or ability to perform work on the property.

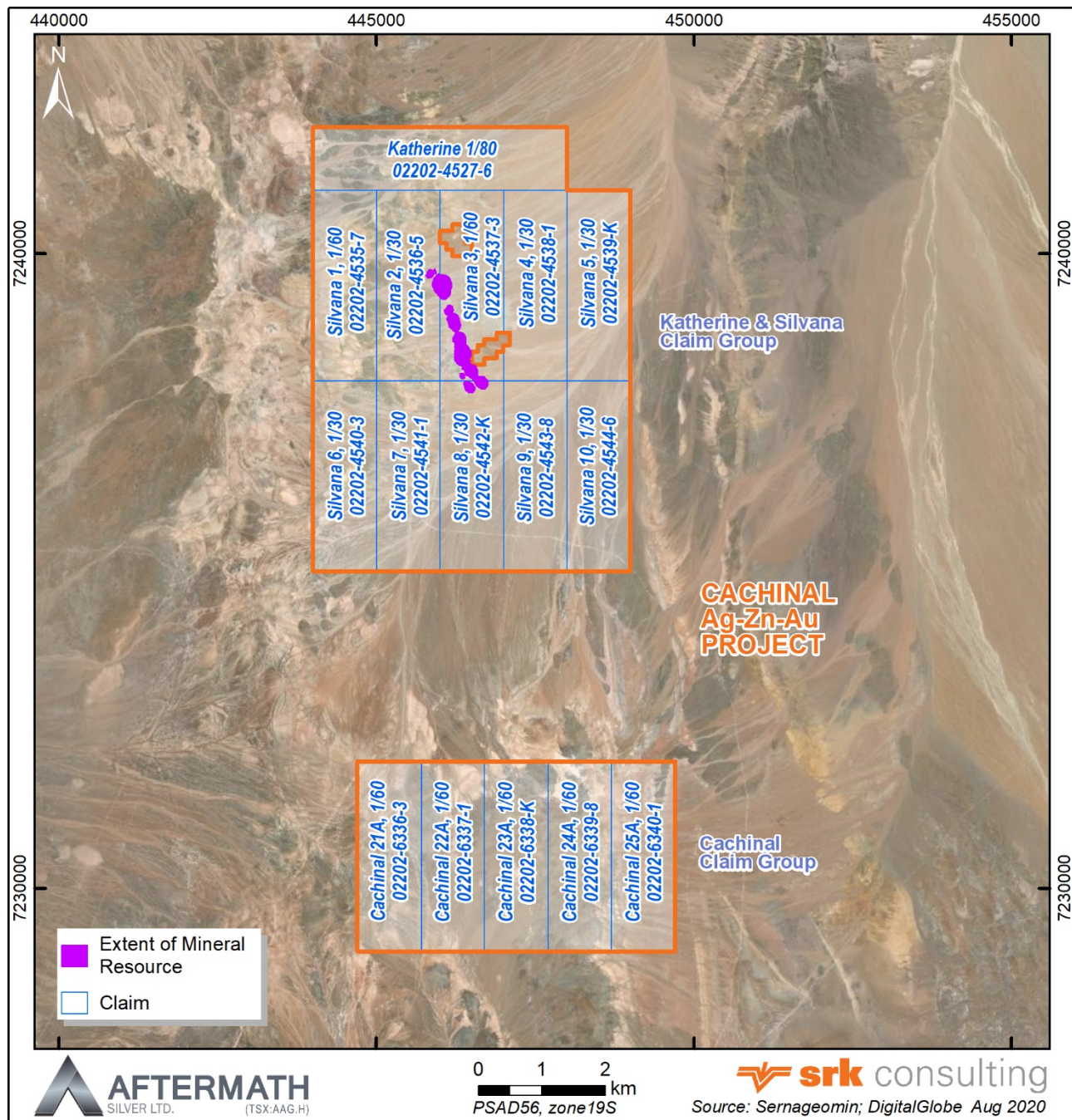
Mineral Cachinal is the registered owner of the mineral concessions comprising the Cachinal project as described in this Report and, pursuant to applicable Chilean mining laws, has the right of possession and exploration of such concessions.

The mineral resources reported herein are located within the Silvana 2, 3 and 8 mining concessions (Figure 2 and Figure 3) registered in the name Minera Cachinal S.A.

The mining concessions are comprised of two groups of contiguous mining concessions, for a total property area of 4,867 hectares. Please note that the surface of the mining concessions “Silvana 3, 1 al 59” and “Silvana 4, 1 al 30” were reduced during their measurement operation to respect the surface area of three older mining concessions with preferential rights, named “Carmela”, “Pastora”, and “Victoria”. The impact of these surface area modifications is highlighted in Figure 2 and Figure 3.

Mining concessions in Chile are granted for an indefinite period as long as the relevant annual fees are paid. Minera Cachinal has paid all fees up to March 2020 when the annual payments are due, hence its concessions are currently in good standing. Based on an exchange rate of 800 CLP per USD, the total mining license tax fees should be approximately USD 31,000 (C\$41.2k based on 1USD = C\$1.33) to maintain the concessions in good standing.

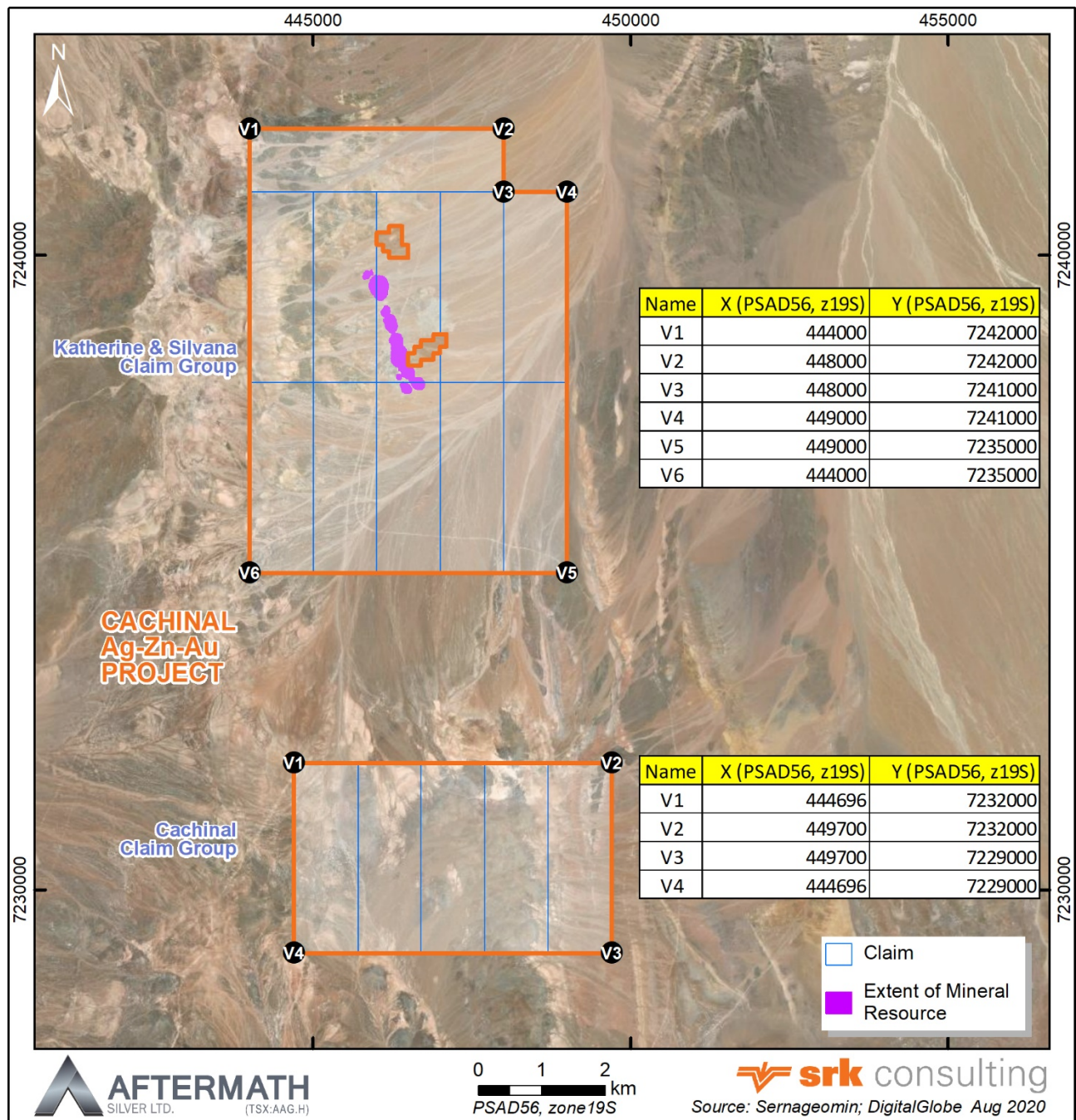




**Figure 2: Tenement Map Showing Exploration Mining Concession Details**

Note: The surface of the mining concessions Silvana 3 and 4 were reduced to respect the surface area of three older mining concessions with preferential rights, named “Carmela”, “Pastora”, and “Victoria”





**Figure 3: Tenement Map Showing Coordinates of Claim Posts**

Note: The surface of the mining concessions Silvana 3 and 4 were reduced to respect the surface area of three older mining concessions with preferential rights, named “Carmela”, “Pastora”, and “Victoria”

## 4.4 Environmental Considerations

The Cachinal project is an undeveloped exploration project in an historical mining area characterised by substantial historical surface disturbances (i.e. shafts, pits, trenches, abandoned plant foundations, leach pads, etc.). Recent surface disturbances resulting from exploration work

completed by Valencia, which has included some trenching, partially rehabilitated, reverse circulation and diamond drilling and other non-disturbing geological activities, is considered minimal.

There are no known aboriginal or surface rights issues relating to the project area. There are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

Valencia undertook baseline archaeological, anthropological and environmental studies, which, although incomplete, are not known to have identified any substantial concerns which might limit or preclude future development of the Cachinal deposit. A historical grave site covering an area of approximately 2,000 square metres is located 170 metres east of the Cachinal deposit straddling the border between Silvana 3, 1/60 and Silvana 8, 1/30 claims (Figure 4)



**Figure 4: Archaeological Features near the Cachinal Deposit**

A. Archaeological cemetery.

B. Individual archaeological grave sites.

C. Archaeological agricultural surface imprints cross-cut by the Cachinal property access road.

Although not within the same claim block as the deposit, linear imprints related to ancient agricultural activities occur approximately 7.8 kilometres south of the Cachinal deposit within claim group



Cachinal 21A. These surficial imprints occur along, and are cross-cut by, the gravel project access road.

Images of relevant archaeological features are displayed in Figure 4. There are no other known environmental issues related to this property.

In Chile, projects involving 40 or more drill platforms between the Arica, Parinacota and Coquimbo regions require an environmental assessment. A platform is defined as a raised level surface on which the drilling equipment is installed for drilling one or more holes. Below this threshold, mining projects are not required to be environmentally assessed, unless they are located in protected areas. Whether the mining project requires an Environmental Assessment Study (Estudio de Impacto Ambiental) (EIA) or an Environmental Assessment Statement (Declaración de Impacto Ambiental) (DIA) depends on the specific location and project.

No environmental permits have been requested or granted yet to Minera Cachinal for any exploration work involving the mining concessions.

No water rights are owned by Minera Cachinal.

## **5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography**

### **5.1 Accessibility**

The Cachinal project is located in the Cachinal de la Sierra area of Chile, in the Community of Taltal. It lies approximately 175 kilometres southeast of Antofagasta. Access to the project area from the Pan American Highway is along a sand and gravel road which also connects the Guanaco mine to the Highway (Figure 1). Apart from the access road to the property, there are a number of secondary tracks to the property such that access to every corner is available by motorized transportation.

The closest community to the Cachinal project is the township of Taltal, with a population of about 11,000, which is approximately 170 kilometres from the project. Taltal is located 306 kilometres south of Antofagasta and 25 kilometres from Route 5, with no local public transportation to Antofagasta. Mining is the primary activity for the community of Taltal.

The Valencia exploration camp was located approximately fourteen kilometres north of the Guanaco mine and the total distance to the camp from the Pan American Highway was approximately fifty-five kilometres. Access to the project area is available all the year round.

### **5.2 Local Resources and Infrastructure**

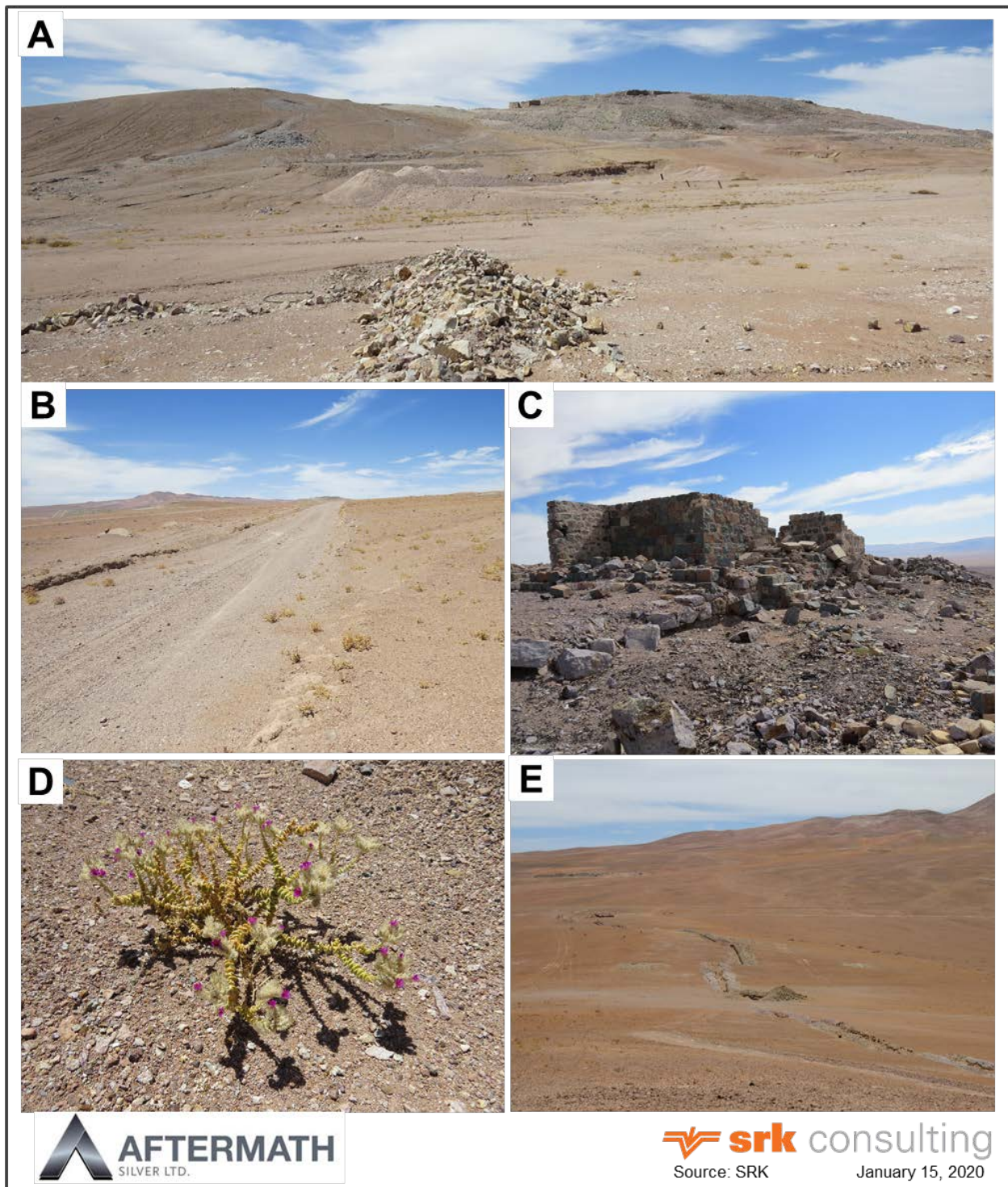
The property and the region have no established infrastructure like towns or villages, electricity and water other than the roads. A private hydro line owned by Austral Gold Ltd. connects power from Route 5 to the nearby Guanaco mine, located 16 kilometres to the south of the Cachinal project. Cellular telephone communication is however available as is the case of many isolated areas in Chile.

The project is an early stage exploration project and has and has therefore not yet been evaluated in detail for potential mining infrastructure aspects such as the availability and sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites. Based on site visits by the QP, discussions with Aftermath management and from reviewing the adjacent operational Guanaco and Amancaya gold project however, none of these infrastructure items are considered to be a constraint to mining development on the Cachinal Project. The QP also considers that the tenement land holding to be of sufficient size to accommodate heap leach pads for the quantity of Indicated and Inferred mineral resources reported in this study.

### **5.3 Climate**

The project is located in the Atacama Desert, which is considered to be the driest desert in Chile (Figure 5). The west and south sides of the property are comprised of gentle rolling terrain, with rounded hill tops, while the central and eastern parts of the property form slightly inclined to nearly flat plain (pampa). Elevation varies from about 2,690 metres above sea level in the valley floors to about 3,150 metres in the highest peaks.

A meteorological station has been operated since 2006 at the Guanaco Gold Mine, located 16 kilometres to the south of the Cachinal project. The following extract is from a technical report by Roscoe Postle Associates (2017). There is no sharp contrast in temperature between seasons. The average temperature of the coldest month (July) is 11.8°C and the average temperature for the hottest month (January) is 19.2°C. The daily variation is significant, ranging from a maximum of 33.5°C to a minimum of 2.3°C. Exploration work can be carried out year-round.



**Figure 5: Typical Landscape in the Cachinal Silver-Gold Project Area**

A: Cachinal Project area looking south, Valentia trench in the center of photo and ruins of old mine in the back.

B: Access road within the Cachinal Property looking south Towards the main deposit.

C: Abandoned building structures from historic mining activities located in the center of the main deposit.

D: Cistanthe Celosiodes, a succulent flower of the dry Atacama Desert.

E: Looking west at Valentia trenches in the southern portion of the property.

## 5.4 Physiography

The vegetation in the Cachinal region is quite variable. Short-lived flowers emerge immediately after minor rainfall in the early part of the year. Sparse vegetation still exists in topographic lows and sheltered areas. The hills and plain (pampa) are generally barren of vegetation, bearing sparse small dry desert succulents.

## 6 History

### 6.1 Introduction

There has been a sporadic history of mining in the Cachinal Mining District dating back to the middle 1800s. Silver was first discovered at Cachinal de la Sierra in 1881 by prospectors Pedro or Jose Peñafiel and Simon Figueroa, who were grubstaked by entrepreneur Berazarte, the owner of the Germania and Lagunas saltpeter works, located west of the Cachinal de la Sierra area (Vicuña Mackenna, 1882; Bermudez, 1963). The mine was first named “Descubridora” but was subsequently named Arturo Prat. Mining began at the Arturo Prat mine in 1881.

Although different references give conflicting dates of the early history of the area, it appears that initial mineral exploitation was mainly for silver, with gold discovered 10 to 20 years later, in the Guanaco District, about fifteen kilometres south of Cachinal.

Cachinal de la Sierra became an important mining centre, with a large population, public services, and a railway to the coast at Taltal. Silver production continued uninterrupted from 1881 to 1930. During the fifty years the Arturo Prat silver mine operated, mining concentrated on high-grade ore because the critical silver mining cut-off grade during the first decades of the 20th Century was higher than 700 grams of silver per tonne (“g/t silver”) (Kuntz, 1928).

Between 1920 and 1930, the District produced five tonnes of silver bars per month. The total historic production was estimated to be approximately 1,000 tonnes of silver (about thirty-two million ounces) for the district (Llaumett, 1992). Independent miners intermittently mined the area when silver prices were relatively high in the early 1980s, from 1985 to 1987 and in the early 1990s. Historical records suggest that between 1985 and 1987 a total of 170,639 tonnes were mined at an average grade of 280 g/t silver and 0.58 g/t gold.

Historical reports also indicate that from 1882 to 1886 the silver ore was amalgamated at an ore treatment plant owned by Sociedad Beneficiadora de Cachinal, established approximately twenty kilometres to the south, adjacent to the wetland at Aguada de Cachinal (Vicuña Mackenna, 1882). Later, Compañía Arturo Prat itself built a plant in the Port of Taltal, but at the beginning of the 19<sup>th</sup> Century, they built a second amalgamation plant at Cachinal de la Sierra (Darapsky, 2003).

In addition to the historic workings developed on the Cachinal Vein System, five kilometres to the north, in the El Soldado District, a series of old small-scale workings were excavated (this sector has been called “Islote” in some reports).

When mining ceased in 1930, due to the world economic depression, there was an estimated 190,000 tonnes of tailings left, with a silver content of 178 g/t silver and 180,000 tonnes of waste material containing 288 g/t silver (Clunes, 1973). These tonnage and grade estimates are historical and should not be relied upon. The qualified person of this report have not been able to verify these estimates. The issuer is also not treating these historical estimate as current “mineral resources or mineral reserves” A portion of this material was reworked as a heap leach on the east side of the Cachinal property, reportedly during the 1980s.

### 6.2 Exploration by Silver Standard and Others

Several exploration and evaluation studies have been conducted in the Cachinal area by other companies since the last mining activity in the 1970s - 1980s. The most comprehensive work was conducted by Enami (Llaumet, 1980), which included IP geophysics and topographic surveying of the veins, and by the Servicio Nacional de Geología y Minería (“Sernageomin”) and the Japan International Cooperation Agency (“Jica”) who carried out a comprehensive geological exploration

program including two phases of angled diamond drilling at Cachinal between 1986 to 1987. Sernageomin and Jica drilled thirteen short boreholes 100 to 150 metres in length (1,568.5 metres). Their objectives were to test rock chip geochemical anomalies, to evaluate strike extensions of known veins, and to locate possible new parallel veins.

Only holes B-1, B-5, B-8 and MJC-11 were collared to intercept the main veins (Carmen and Arturo Prat veins). In B-1 the possible north extension of Carmen vein was intercepted from 39.3 to 40.7 metres (1.4 metres) yielding 140 parts per billion (“ppb”) gold, 14.0 g/t silver, 0.21 percent lead and 925 parts per million (“ppm”) zinc, in a silicified breccia zone with quartz-hematite veinlets. The best intercept in this hole was 7.0 metres grading 217 ppb gold and 140 g/t silver (between 83.0 and 90.0 metres).

MJC-11 apparently cut the same Carmen north extension breccia-vein at 500 metres north of B-1, and yielded a 6.5-hole length interval (from 69.7 to 76.2 metres) grading less than 20 ppb gold and less than 12 g/t silver. The best intercept was a 0.3-metre-wide veinlet grading 300 ppb gold, 115 g/t silver, 0.26 percent lead and 0.41 percent zinc. The other drill holes didn’t intercept any interesting vein or veinlets.

There is insufficient information to determine if the reported core length intervals represent true widths. This historical information is unverifiable and therefore should not be relied upon.

As part of a regional evaluation program, Silver Standard investigated the Cachinal area in 2002 (Smith, 2002a). After some initial reconnaissance mapping and sampling, they completed more detailed mapping and sampling of historical workings and mine dumps. In total they took 128 rock chip samples and excavated thirty-one trenches (Smith, 2002b). A program of 1,700 metres of follow-up reverse circulation drilling was recommended but not completed.

## **6.3 Exploration by Valencia**

### **6.3.1 Introduction**

Valencia commenced exploration at Cachinal in 2004. They negotiated farm-in agreements to acquire interests in three contiguous concession areas at Cachinal and subsequently expanded the property by acquiring 100 percent interest in additional concessions.

During 2004, Valencia completed geological mapping of the property at 1: 10,000 scale and performed an orientation geochemical survey across the historical mining area. This survey was expanded to cover a broader area and VLF-EM16 electromagnetic surveying was performed in 2005. Trenching and three programs of reverse circulation drilling were also completed in 2005, primarily in the main Carmen-Arturo-Prat mining area.

As a result of the exploration program carried out at the Cachinal Project during 2005, an infill trenching and reverse circulation drilling campaign was conducted at the Carmen-Arturo Prat area of the property from May to October 2006. The program intended to evaluate the size and continuity of the mineralized area and to determine the potential to delineate an open pit mineral resource. The results of the 2006 drill programs allowed Valencia to complete a mineral resource estimation for the Cachinal Project early in 2007.

During 2007, exploration activities were focussed on expanding the resource. Three phases of drilling were completed in 2007. Encouraged by the results of the first two phases of drilling, Valencia appointed SRK to assist with preparation of an updated mineral resource estimate (the subject of this report) and to commence preliminary engineering studies.

### 6.3.2 Exploration Activities

Initial field programs deployed by Valencia included topographic surveying, geological mapping, soil sampling and ground electromagnetic surveys (VLF-EM). All exploration work completed by Valencia at Cachinal since 2004 has been conducted by SBX Consultores Ltda. (SBX), an independent consultant.

Between February and June 2005, more soil sampling and ground geophysics was followed by trenching (seventeen trenches; 640 metres) and an initial reverse circulation drilling program comprising sixteen boreholes (2,294 metres).

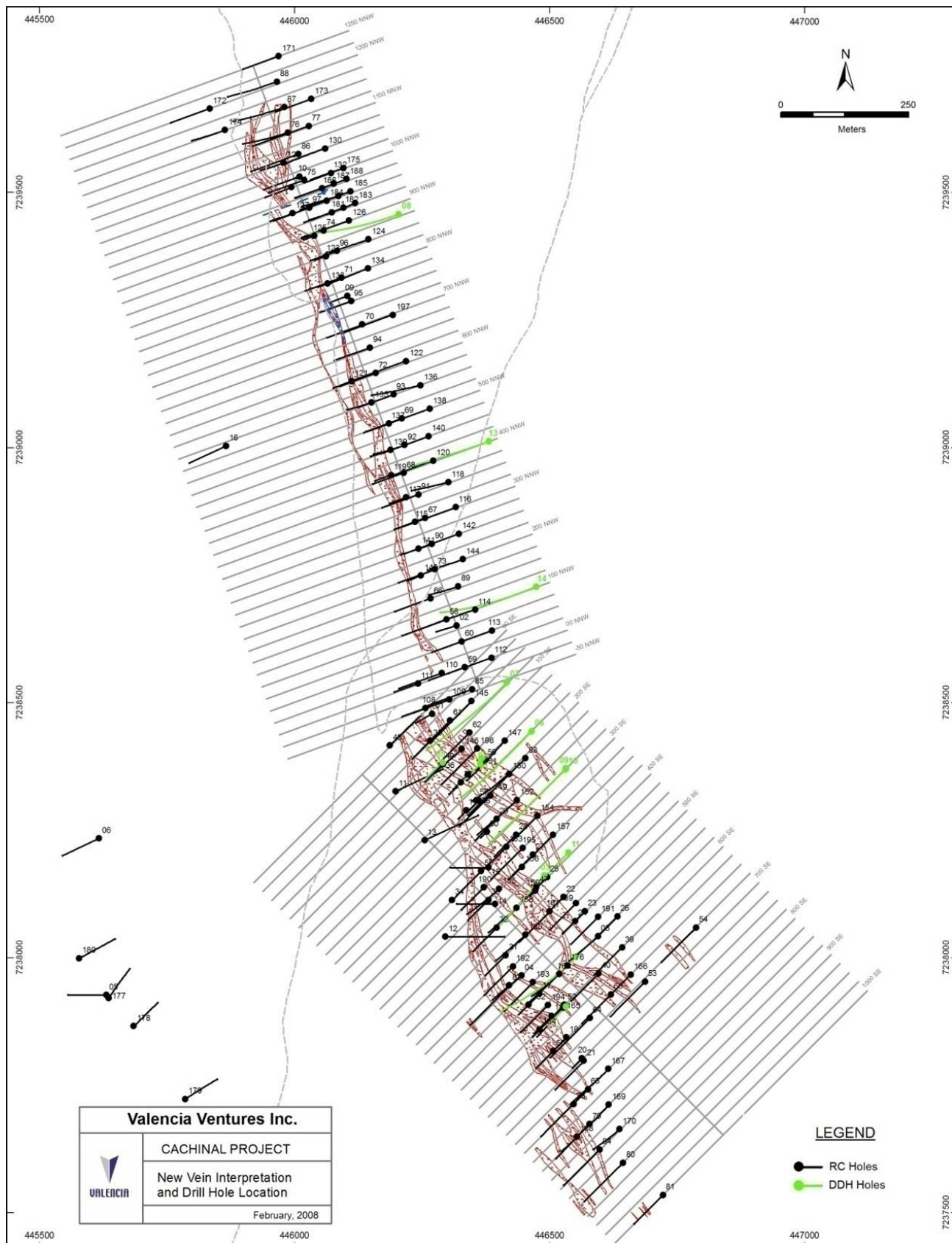
In the second half of 2006 Valencia excavated twenty-six trenches (1,436 metres) and drilled thirty-four reverse circulation boreholes (4,804 metres). All trenching and drilling work was tied to the ground geochemistry and geophysics grid data. Old workings were also surveyed. Towards the end of the program, five core boreholes (552 metres) were drilled to twin reverse circulation drilling data. One core hole was lost. The result from that exploration work was used by Valencia to prepare an initial mineral resource estimate for the Cachinal silver-gold deposit. In February 2007, the mineral resources were estimated by Ralf Gonzales, an independent consultant (Gonzales and Diaz, 2007).

Between February 2007 and February 2008, Valencia drilled 131 reverse circulation boreholes (20,000 metres) with the objective of expanding the resources of the project and infilling the delineation of the silver-bearing mineralization to fifty metre sections. Nine core boreholes (3,241 metres) were drilled to test the depth extensions of the Cachinal silver-bearing veins at depth. During the same program, ten reverse circulation boreholes (1,370 metres) and one core hole (266 metres) were also drilled to test three other vein targets (Vino-9, Vino Central and Sector Islote). In summary, since 2004, Valencia has completed (Figure 6):

- 197 inclined reverse circulation boreholes (over 28,000 metres).
- 22 core boreholes (4,951 metres, 892 metres for geotechnical reasons).
- 43 trenches (2,076 metres).
- 129 line-kilometres of ground electromagnetic surveying (VLF-EM).
- 955 line-kilometres of ground magnetic surveying.
- 1,109 soil geochemical samples (200-400 metre lines and 50-100 metre stations).

The result of the exploration program was the definition of an extensive vein hosted system of silver mineralization as defined in Figure 6.





**Figure 6: Mineralized Vein Interpretation Map, Showing Exploration Drilling**



### 6.3.3 Exploration Sampling

#### Soil Sampling

Soil samples were collected along east-west surveyed lines separated by 200 to 400 metres with sampling stations spaced at 50 to 100 metres. Since no true soil profile is developed in the Atacama Desert, small pits (0.4 to 0.6 metre) were hand dug and a single sample collected at the bottom of each pit. Samples were collected using a plastic shovel and sieved on site, to minus 80 Tyler-mesh to obtain a sample of approximately 0.8 kilogram. At each tenth sample site, a duplicate sample was collected and inserted in sequential order (the rate was reduced to one in twenty samples later in the program).

#### Trench Sampling

surface trenches using an excavator (Figure 7). Each trench was positioned as to cut the vein structures perpendicular to its strike. Trench rock samples were collected over continuous two-metre intervals by cutting a channel with a rock hammer and a chisel. A duplicate sample was collected at a rate of one in ten samples (later at a rate of one in twenty) by chiselling a second sample over the same interval.



**Figure 7: Trench Located in the Central Portion of the Cachinal Property**

## Core Drilling Sampling

Core boreholes were drilled for three purposes:

1. To duplicate reverse circulation drilling results.
2. For geotechnical purposes.
3. To test the depth extensions of the silver-bearing veins at approximately 200 metres below the surface.

In all cases inclined boreholes were drilled towards the west as to intersect the projected silver-bearing structure as close as possible to a right angle. Core assay samples were collected using two different procedures.

Initially, core recovered for drilling was logged and marked for sampling on the field. Core boxes were then sent to the SBX sample preparation and storage facility in Copiapó, Chile. Assay samples were collected over regular 1 metre intervals from half core sawed lengthwise with a diamond saw. The remaining half sample was replaced in the core box and archived.

In 2007, Valencia and SBX installed a core saw directly at the Cachinal camp to facilitate sample logistics. Core holes drilled in 2007 were sampled at regular one metre intervals from half core sawed lengthwise with a diamond saw. Prior to sampling all core was logged for geological, structural and geotechnical features.

## Reverse Circulation Drilling Sampling

Reverse circulation boreholes were used to sample the silver-bearing veins on sections (50 to 100 metres spacing) perpendicular to the strike of the projected structures. Boreholes of inclined reverse circulation boreholes were drilled towards the west as to intersect the targeted vein structures as close as possible to a right angle.

Reverse circulation samples were collected on regular one metre drill advance. The material exiting the drill rig cyclone was collected in a clear plastic bag, weighted and riffle-split twice to yield assay sample approximately eight kilograms in weight. Representative chips were collected and described by a geologist. In the past, samples were collected in 20-litre plastic pails and split twice through a mechanical riffle splitter to obtain approximately eight kilograms of material for assaying. The first split was stored in clear plastic bags in a selected area immediately adjacent to Valencia's field camp. SRK noticed that the plastic bags have deteriorated, and the older samples are useless.

## 7 Geological Setting and Mineralization

### 7.1 Regional Geology

The Cachinal project area is located within the Paleocene-Eocene Gold Belt of northern Chile, which hosts several significant gold and silver deposits (Figure 8). The known Cachinal veins are all located within and near the western margin of a volcanic caldera (Cachinal caldera), which is approximately 30 kilometres in diameter (Puig et al. 1988). The western rim of the caldera is outlined by distinctly rounded hills forming a gentle arc on the west side of the property. The caldera is developed in Paleocene-Eocene volcanic rocks assigned to the Chile-Alemania Formation which is a bimodal rhyolite-andesite sequence distributed widely throughout the Antofagasta region.

The western margin of the caldera is characterised by a chain of dacite flow domes and related dacite to andesite lava. The southern end of the dome chain appears to be related to the high sulphidation epithermal El Guanaco gold district.

The center of the district is underlain by a propylitic-altered diorite stock and related andesite lava, covered by rhyodacite, ash-flow tuffs with co-genetic porphyry facies. The rhyodacite and ash-flow tuff are overlain by and interbedded with reddish volcanoclastic sedimentary rocks and dacite to andesite lava.

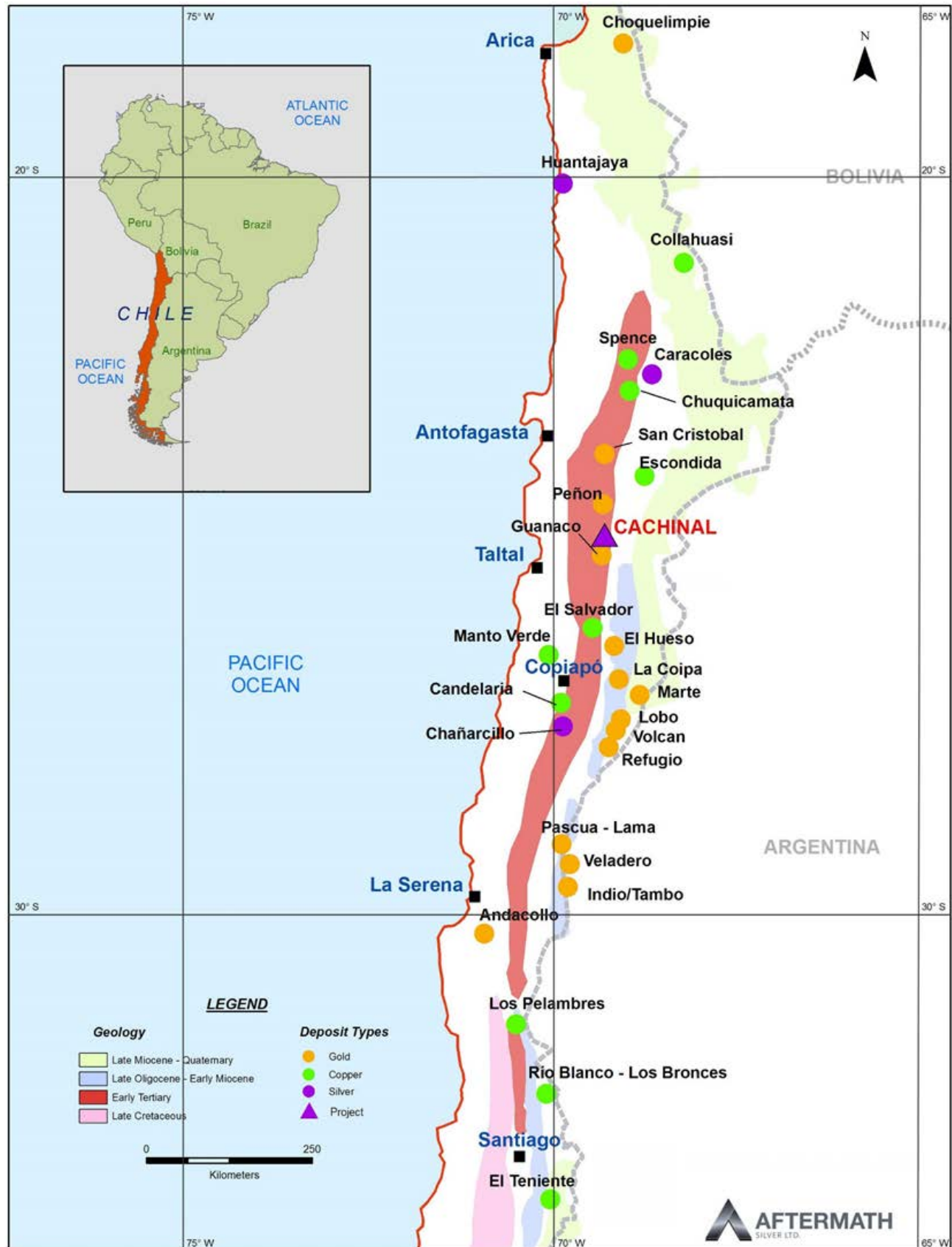
The age of the diorite stock ranges from 62 to 60 Million years ("Ma"). A flat relief plain (pampa) composed of colluvial and alluvial loose sediments covers a buried sequence of green coloured conglomerate and sandstone sedimentary rocks to the east of Cachinal.

### 7.2 Property Geology

#### 7.2.1 Lithology

In the vicinity of the Cachinal deposit there are six main lithological types.

**Cachinal Diorite and Pyroxene Andesite:** In the center of the district and principally to the west of the Cachinal veins a diorite-microdiorite stock (62-60 Ma.) crops out (Figure 9). It is spatially and genetically related to pyroxene andesitic lava (circa. 60 Ma.). These rocks form a gentle to flat relief characterized by greenish coloration due to the weak generalized propylitic alteration (chlorite-epidote-calcite). The diorite textures vary from medium to fine porphyritic to equigranular. The andesite textures vary from aphanitic to finely porphyritic, with plagioclase and pyroxene phenocrysts.



**Figure 8: Location of the Cachinal Project Within the Paleocene-Eocene Gold Belt of Northern Chile**

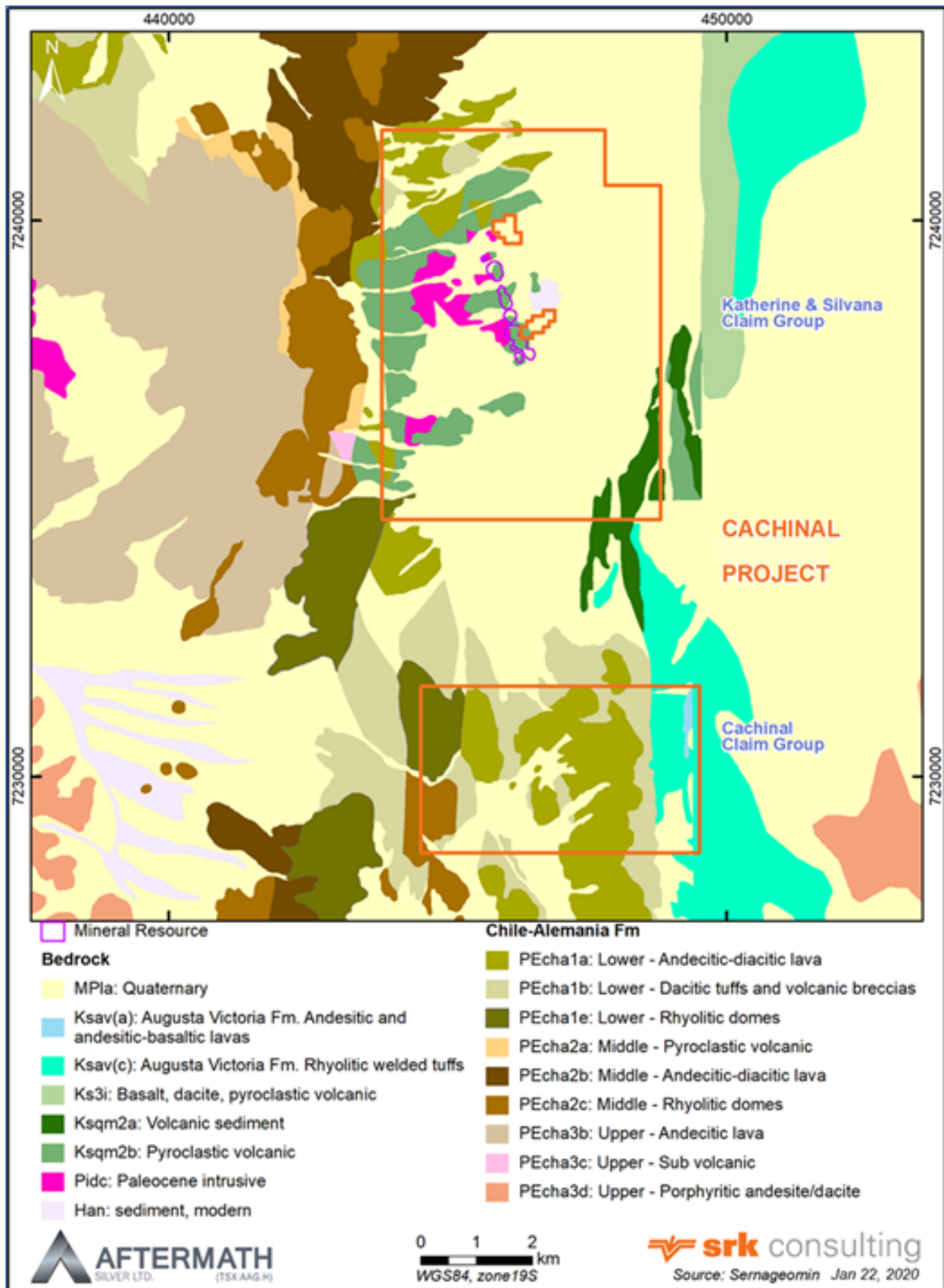


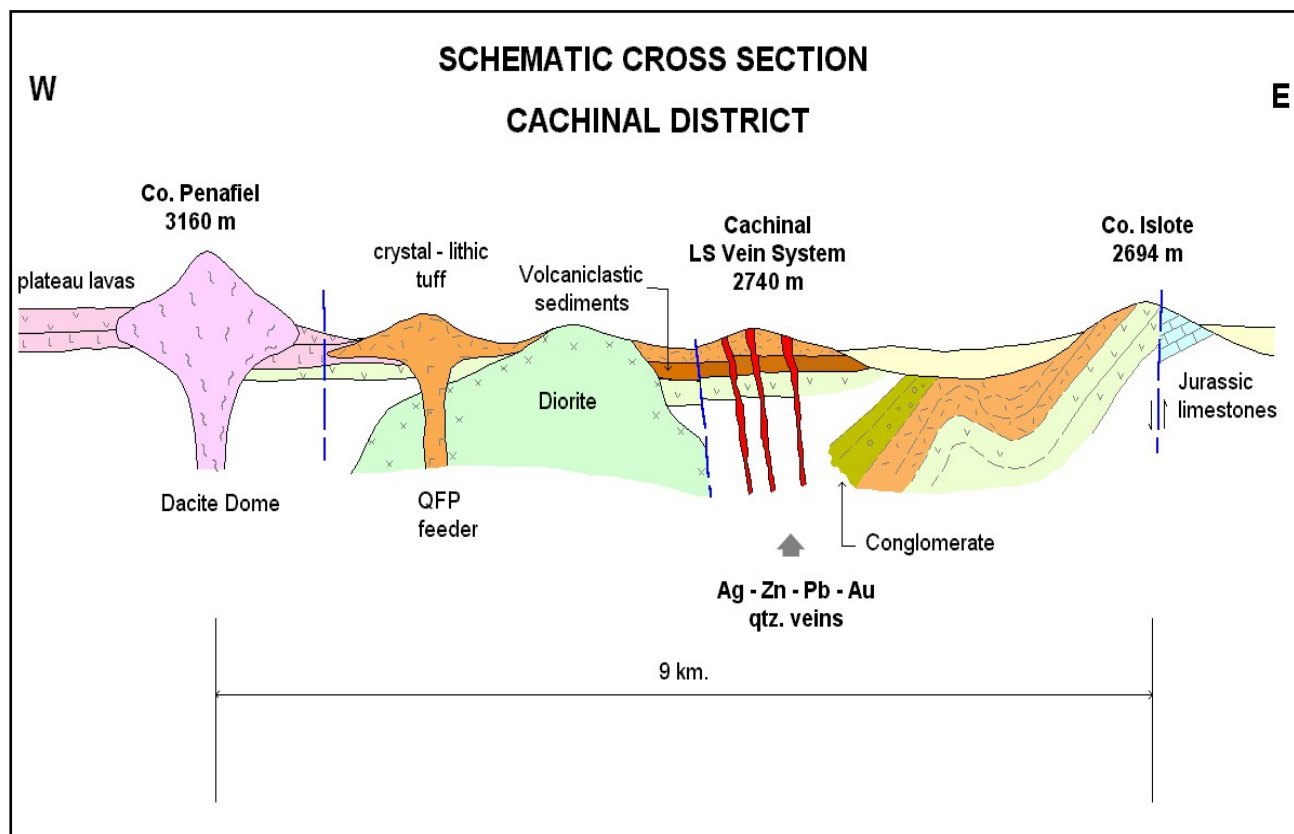
Figure 9: Geological Setting of the Cachinal Silver-Gold Project Area



**Dacitic-rhyolitic ash flow tuffs and QFP:** A dacitic to rhyolitic ash-flow tuff sequence (circa. 60 Ma.) covers the Cachinal Diorite (Figure 9). It is characterized by abundant quartz eyes crystals and fragments, feldspar and scarce oxidized biotite and amphibole in a vitreous fluidal matrix. The tuff grade locally to lapilli and/or pumice welded tuff and passes also gradually to rhyolitic-dacitic quartz-feldspar porphyry (“QFP”) dikes, probably feeders of the tuff flow. The QFP dikes have a silicified aphanitic groundmass with corroded quartz eyes and feldspars fragments; usually they display reddish to yellowish colors due to supergene oxidation of mafic minerals; most of its outcrops are not distinguishable from the dacitic crystal tuff, but in the contact between both types of rocks a crystalline - single phase - quartz stockwork and/or brecciation is developed.

To the east of Cachinal, a flat topography descending to northeast paved by alluvial to colluvial loose sediments partially cover a poorly documented tightly folded sequence of porphyritic andesite, crystal dacitic tuff and scarce diorite (Figure 9). These rocks are assigned to the same Paleocene-Eocene sequence of Cachinal (Chile- Alemania Formation), but at Cerro Islote Range a faulted contact with Jurassic calcareous formation (El Profeta Formation) and Cretaceous clastic sedimentary rocks (Santa Ana Formation) are recognized (Figure 10).

**Reddish volcanoclastic sediments:** A reddish volcanoclastic sediment of dacitic composition overlies and is interbedded with the dacitic-rhyolitic tuff. This rock unit exhibits graded bedding, and is distributed all over the property, but is more prominent in the southern part surrounding Sierra del Relincho Range. This unit includes fine to coarse grained sandstone, volcanic lithic breccia and also lapilli tuff, mainly at Cerro Limbo area.



**Figure 10: Schematic Section through the Cachinal District**

**Green conglomerate and sandstone:** In the waste dumps of the exploration pits excavated from the Cachinal cemetery to the southeast green conglomerate and volcanoclastic sandstone are recognized. The conglomerate contains sub-rounded andesitic, dacitic and tuffaceous clasts up to twenty-five centimetres in diameter in a volcanoclastic sandstone matrix. The sandstone is arkosic containing quartz, feldspar and lithic fragments in an argillaceous matrix. In the pits, the conglomerate overlies andesite lava and dacitic crystal tuff, and is covered by up to thirty metres of consolidated gravels.

**Dacitic-Andesitic Plateau Lava:** The western parts of the district are underlain by a thick sequence of fine grained dacite and subordinate andesite, (58-53 Ma.) with weakly porphyritic to mottled fine textures, covering stratified lapilli tuff and reddish volcanoclastic sediments at Cerro Limbo (Figure 10). Along Sierra Peñafiel Range these lavas are intruded by the dacitic domes, and to the west of the Sierra the dacite and andesite were erupted as horizontal lava plateau. At Cerro Relincho massif and surrounding hills the dacite is a monomictic breccias with argillized feldspars in a matrix of crystalline silica, possibly of hydrothermal origin. Nevertheless, the breccia has the same texture and appearance as the small brecciated portions topping the dacitic domes at Cerro Peñafiel, Cerro 2953 and others.

**Dacitic Domes:** Along the western margin of the inferred Cachinal Caldera a set of isolated flow banded dacitic domes were emplaced from Cerro la Isla to Cerro Campana, also including the eastern slope of Cerro Limbo. The domes have a fluidal fine to coarse porphyritic texture, with plagioclase, biotite and hornblende phenocrysts in an aphanitic groundmass. Most of the domes exhibit green perlitic glass margins indicative of fast cooling and suggesting sub-aerial emplacement. Radiometric dating suggests the domes vary in age from 59 Ma. at Cerro La Isla to 55 Ma. at Cerro Campana.

## 7.2.2 Structural Geology

The most significant structural feature of the district is the preserved western half portion of the Cachinal Caldera hosting the diorite, pyroclastic flows, lava and the stacked epithermal veins. The Caldera is bordered to the west and south by the dacitic dome chain.

In the vicinity of the Cachinal epithermal veins, the stratigraphy is flat to gently east dipping. East of the vein system, up to the Cerro Islote Range, the volcano-sedimentary sequence is more strongly folded but this area is covered by extensive alluvial and colluvial cover (Figure 10).

## 7.3 Mineralization

At Cachinal, the silver-gold mineralization occurs in a cluster of interconnected sub-parallel, low-sulphidation epithermal quartz veins, and vein breccias located in the centre portion of the main claim group, approximately four kilometres east of dacite domes (Figure 10). Generally, the vein structures are sub-parallel to the caldera rim and occur along a chain of dacitic domes.

According to scarce historical records, more than twenty individual vein structures have been mined at Cachinal. The veins are characterized by crustiform crystalline to amethyst quartz filling open space fractures or forming breccia bodies.

The veins have been recognized by trenching and drilling over a strike length of at least two kilometres and are known to have been mined to a depth of at least 300 metres. They range in thickness from a few centimetres to two metres, reaching up to twenty metres locally at the intersection of two structures. The main veins trend north-northwest and north-west with a secondary set trending east-northeast to east-west, best developed at the southern end of the deposit.

In the Cachinal area, the oxidation profile is extensive reaching between 120 and 150 metres below the surface. The depth of the hypogene mineralization is unknown, the deepest known workings reach 320 metres at the intersection of Carmen and Arturo Prat veins.

The veins formed as open space fracture and fault fillings. Silica is the dominant proximal hydrothermal alteration. In the wallrock, feldspar is typically replaced by propylitic to advanced argillic alteration (sericite-pyrophyllite) assemblages and adularia-fluorite intergrowths occur in wall rock in proximity to the quartz stockwork. There are three different styles of low-sulphidation epithermal vein mineralization (Figure 11):

- Massive crystalline quartz, locally amethyst, accompanied with minor silver, iron, lead, zinc and copper sulphide and oxides.
- Hydrothermal vein breccias composed of silica, argillic and mica altered fragments cemented by crustiform and banded quartz (minor amethyst), locally intergrowth with adularia, fluorite and silver, iron, lead, zinc and copper sulphides and oxides.
- Fractures filled or stained by iron oxides and silver oxides.

The Cachinal epithermal veins occupy open space fractures and faults sub-parallel to the caldera rim, approximately four kilometres east of the dacitic domes (Figure 10). The silver-bearing epithermal veins trend north-northwest to northwest with subordinate sets trending more north-easterly to east. The veins have been segmented by late east-trending faults.

Mineralogical studies have reported the presence of the following mineral species: freibergite, native silver, stromeyerite, chlorargirite, bromargite, miargirite and pearceite-polybasite, as silver minerals, accompanied by galena, sphalerite, specularite, pyrite, chalcocite, bornite, magnetite, chalcocite, covellite, cynabar and native gold. Anglesite and chalcocite were found in the upper, oxidized portion of the veins.

The low sulphidation veins are surrounded by a thin halo of pervasive silica-argillic alteration and crystalline quartz stockwork. The latter is best developed in the QFP host rock where hydrothermal quartz overgrows the pre-existent quartz eyes. Feldspar is replaced by sericite and lesser pyrophyllite. The stockwork consists of thin (one to two millimetres) crustiform quartz-adularia-sericite-fluorite veins. Sericite in the walls of the Flor de Chile vein was dated as 59.2 Ma, while that from the Gemela Vein (Virginia 23 Shaft) carry an age of 59.3 Ma.

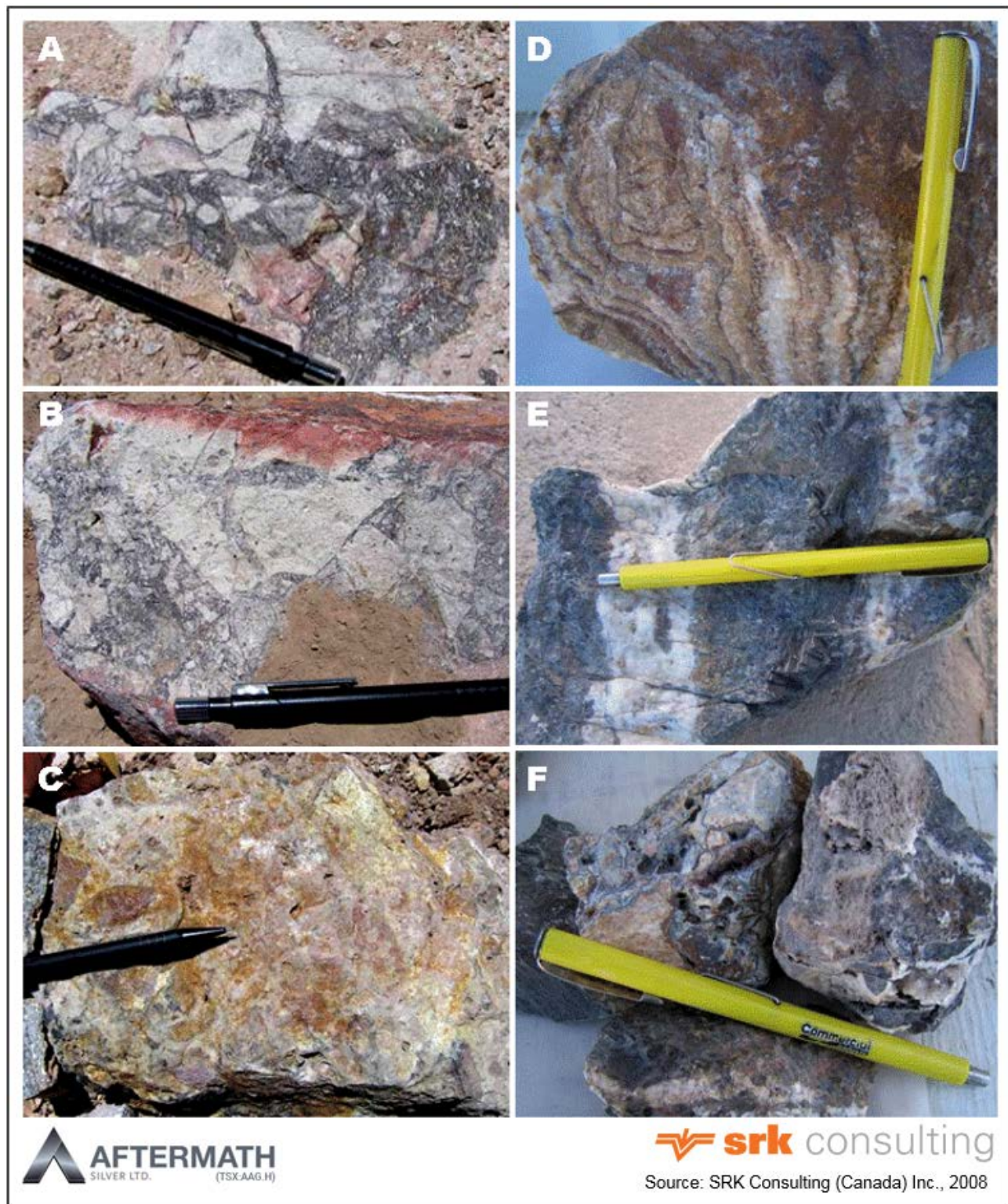
A series of small old workings have been excavated five kilometres north of the Cachinal. In this area, referred to as “Islote” in previous reports, a set of predominantly northeast trending thin veins and breccia veins cut through andesite lava and breccia-tuff, green conglomerate and few diorite. None of these workings reach the intensity of development as in Cachinal, possibly due to thin vein widths (0.2 to 2.5 metres) and lower silver content.

The dacitic domes are mostly barren, except for small gold showings reported at Cerro Campana (outside the Cachinal property).

On the eastern side of the property, the Jurassic sedimentary rocks contain minor iron-rich calcite veins (Figure 10).

In the southern part of the property, minor quartz veining occurs in an alteration zone possibly related to the high-sulphidation of El Guanaco district occurring south of the Cachinal property.





**Figure 11: Cachinal Low Sulphidation Silver-Gold Mineralization**

A and B: Silver-Bearing Vein Breccia in the Floor of Trench TR-6.

C: Vuggy Quartz Vein Breccia Boulder. Su-Angular Fragments in a Vuggy Quartz matrix With Minor Sulphides.

D, E, and F: Texture of Silver-Bearing Veins.





**Figure 12: Borehole CL-DD-02**

A. Section Between 50.9 to and 56.2 Metres.

B and C. Close up of Silver-Bearing Quartz Veins.





**Figure 13: Borehole CL-DD-02**

A: Section 56.2-61.3 Metres.

B-C: Close-up of Minor Quartz Veins that Yielded 452 g/t Silver, 1.4 g/t Gold and 0.5 Percent Zinc and 0.8 Percent Lead over 1.0 Metre (59 to 60 Metres).

## 8 Deposit Types

The Cachinal project is located within the Paleocene-Eocene Gold Belt in the northern Chile (Figure 8) known for its significant low and high sulphidation epithermal silver-gold deposit.

The Cachinal project was assembled by Valencia in 2005 for its potential to host low and high sulphidation epithermal silver and gold deposits. Epithermal deposits comprise a wide clan of hydrothermal deposits associated with volcanic and magmatic edifices and formed by the circulation of hydrothermal fluids into fractured rocks. Exploration work in this area has uncovered several precious metals (silver, gold-silver and silver-gold associated with base metals) deposits and occurrences exhibiting characteristics indicative of epithermal hydrothermal systems.

The Cachinal silver-gold deposit is the most important exploration target on the Cachinal project. This deposit was mined from underground workings during the twentieth century and drilling by Valencia since 2004 has delineated a near surface silver and gold resource associated with a network of steeply dipping north to northwest trending low-sulphide quartz veins. The character of the silver-bearing vein mineralization is described in Section 7.3.

## 9 Exploration

Historical exploration activities that have been undertaken on the Cachinal property are documented in Section 6 .

Aftermath have to date not undertaken any exploration activity on the property. Three distinct types of exploration targets have been identified by the QP at Cachinal. These are vein extension, new vein and 'upgrade' vein targets. Twelve target areas have been identified by the QP (Figure 14) and after review, the QP recommends a drill program to test these targets, based on drilling two holes per section on average; one-hole testing at about the 100-metre elevation and the second at about 200-metre elevation.

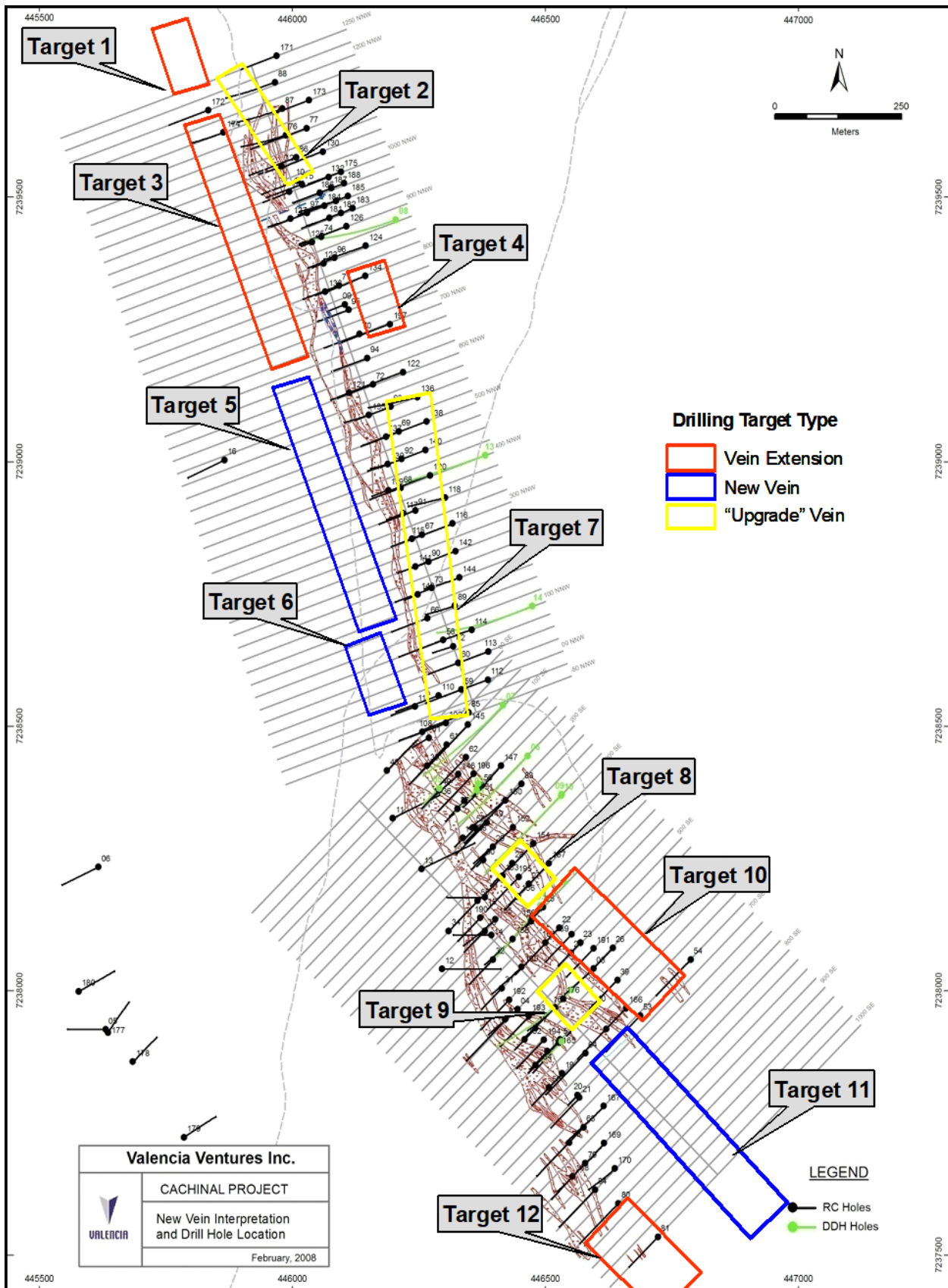


Figure 14: Location of Drilling Targets

## 10 Drilling

### 10.1 Historical Drilling

There are few records for historical drilling performed by Sernageomin and Jica on the Cachinal project. Thirteen short core boreholes (1,568.5 metres) were drilled at Cachinal in 1986-87 to test rock geochemical targets and evaluate the strike extension of the known silver-bearing veins. Four holes investigated the Carmen and Arturo Prat veins (see Section 6.3 above).

Jica brought its own drill rigs and personnel directly from Japan. Detailed core logging and some of the assays are reported in the Sernageomin-Jica 1988 report. The entire half-core pieces were finally sent to the Universidad del Norte in Antofagasta, but they are not available for review.

Silver Standard investigated the Cachinal area in 2002 but did not drill any boreholes.

### 10.2 Drilling by Valencia (to January 2008)

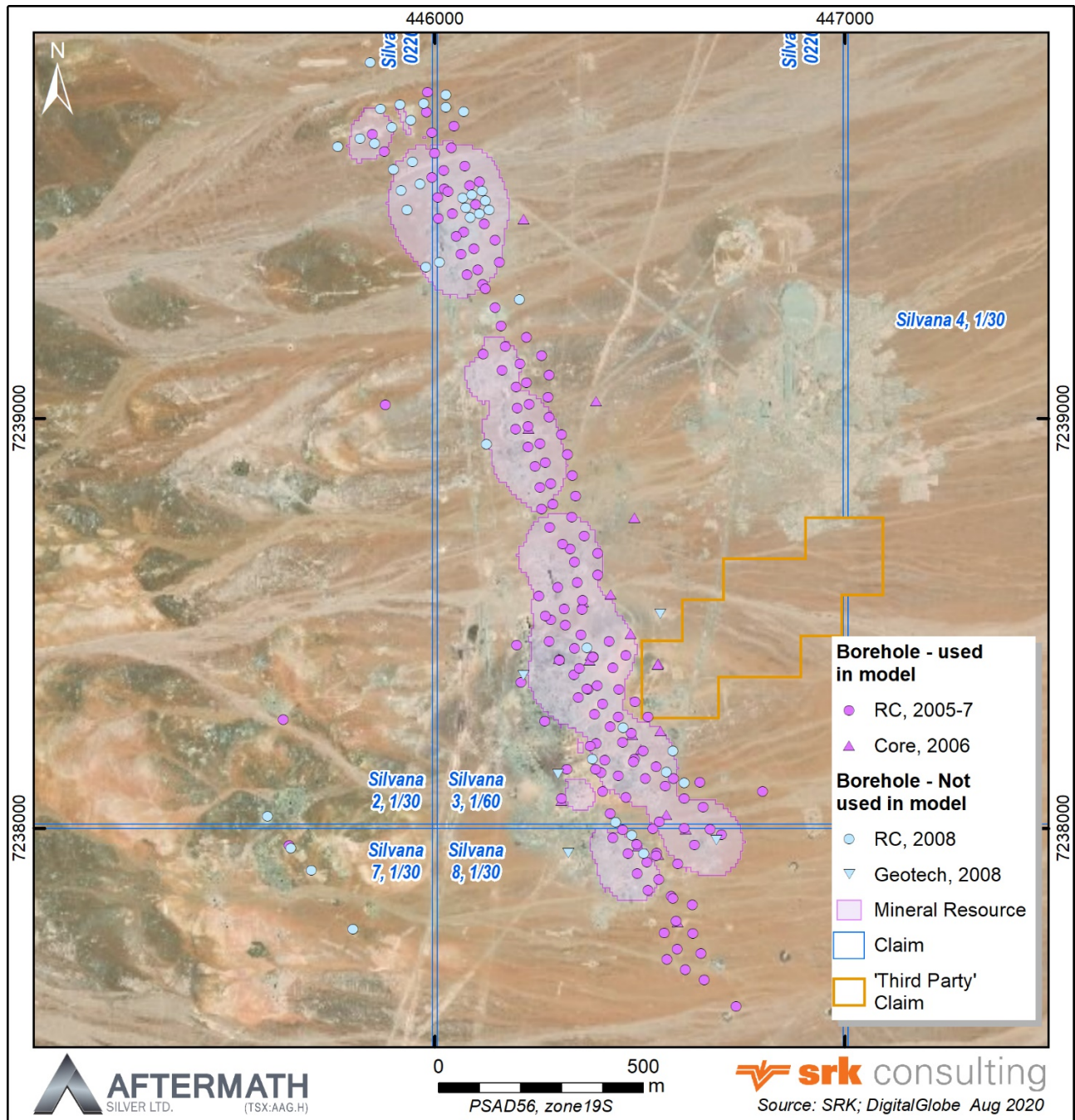
Terra Service S.A. was contracted for the initial phases of reverse circulation drilling (2006 and early 2007) that targeted primarily the Carmen-Arturo Prat veins (southern portion of the Cachinal deposit) at vertical depths of 40 to 80 metres on sections spaced by 50 metres.

The latter phase of drilling (February 2007 to August 2008) was conducted by Perfo Chile Ltda and Boart Longyear. The objective of the program was to expand the delineation of the Cachinal deposit towards the north while infilling to 50 metre sections the southern portions of the deposit, where appropriate. Drilling undertaken after January 25, 2008 (cut-off date for resource evaluation) tested the depth extent of the deposit below the mineral resource areas, infill to 50 metres spacing the Cachinal deposit in the north and also tested other exploration targets on the property, outside the resource area. Figure 15 shows the drill collar locations of the various phases of drilling on the Cachinal property.

All borehole collars were surveyed using a theodolite (Total Station) and reported in UTM coordinates (Datum PSAD 56). Most borehole collars were cemented in place.

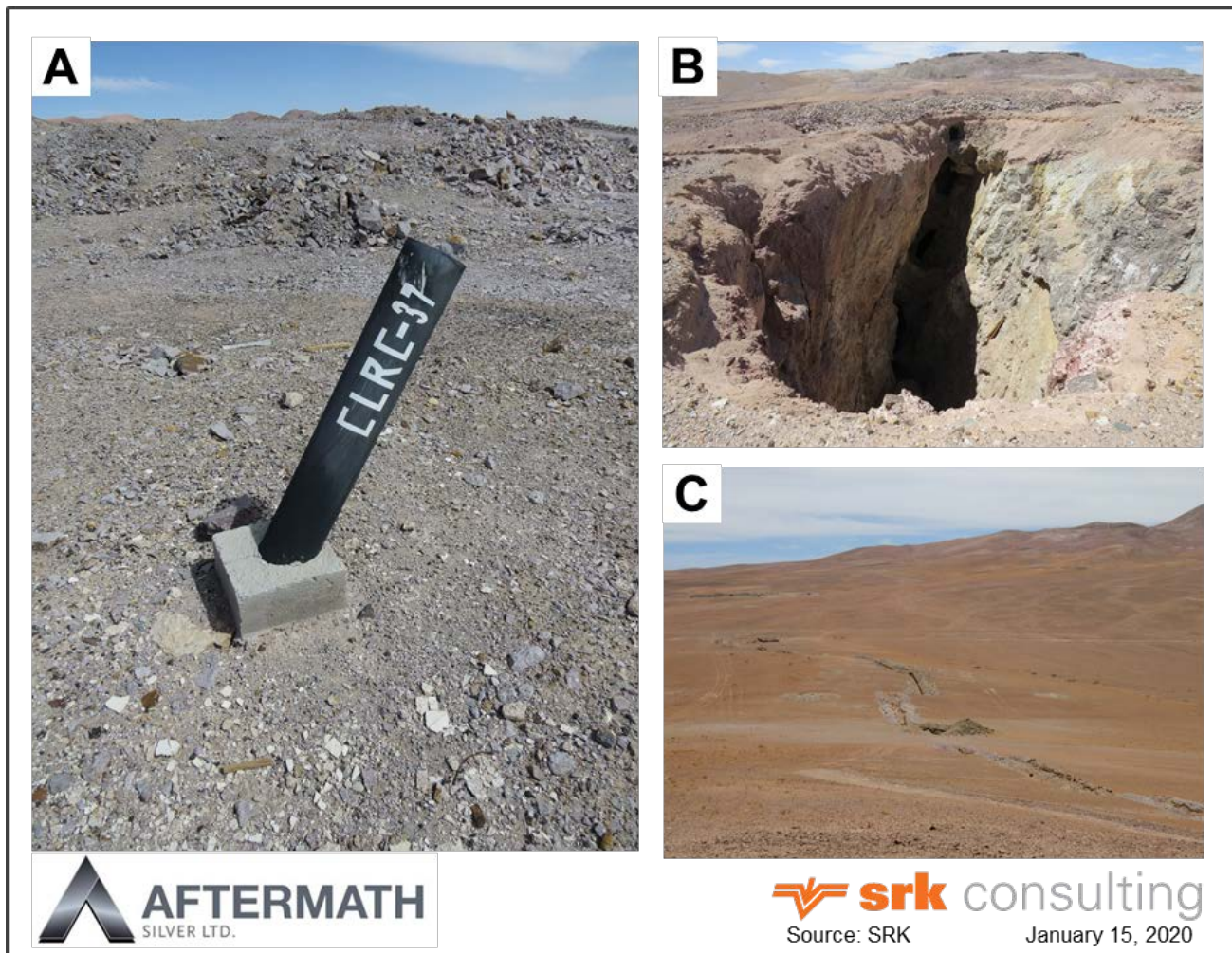
The drilling completed by Valencia aimed at intersecting the targeted vein structures as close as possible to a right angle so that the samples recovered from drilling approximately represent the true thickness of the intersected structures. Additional information about sampling length and true thickness of the vein structures is provided in Section 11 and Section 0.





**Figure 15: Drill Collar Location Plan Showing the Various Phases of Drilling on the Cachinal Project**





**Figure 16: Exploration Activities at the Cachinal Project**

A: Borehole collar with cemented base (CLRC-37).

B: Large excavation of vein material, looking southeast.

C: Valencia trenches, looking west.

### 10.2.1 Reverse Circulation Drilling

Two hundred and nineteen (219) reverse circulation boreholes (31,306 metres) have been drilled by Terra Service S.A and Perfo Chile Ltda in the Cachinal main resource area and adjacent targets areas (Gemelas, North Anomaly). Sixteen holes (1,980 metres) have been drilled in three regional exploration targets (East of Cachinal Veins, Vino-9 and Vino Central).

One-hundred and seventy-six (176) reverse circulation boreholes (25,199 metres) were considered for resource evaluation. All reverse circulation boreholes are 5.25 inches in diameter (13.3 centimetres). Terra Service used a Drilltech S40 KX and a Schramm drill rigs. Perfo Chile used an Atlas Copco RD-10 and an Ingersoll Rand T-4 drill rigs. The position of all borehole collars was surveyed with a differential GPS for the first two campaigns and a theodolite (Total Station) for the last ones.

Downhole deviation was monitored in fifty-six reverse circulation boreholes by Comprobe, a local contractor, using a digital gyroscope. . The remaining reverse circulation boreholes were not surveyed because they had collapsed.

### 10.2.2 Core Drilling

Twenty-seven (27) core boreholes (6,241 metres) were drilled on the main Cachinal resource area and surrounding exploration targets.

The initial five core holes (714 metres) were drilled in 2006 by Geotec S. A. contractor from Santiago, using a Drilltech S-40KX drill rig mounted on a truck. Drilling diameter was HQ (6.4-centimetre diameter) except for core hole CLDD-05 which was drilled on NQ diameter (4.8-centimetre diameter). Data from these initial five core boreholes were the only available for resource evaluation.

After January 25, 2008, ten HQ core boreholes (CLDD-06 to CLDD-15) were drilled by Boart Longyear using a Longyear LF-90D truck-mounted drill rig. Seven twin core holes (892.2 metres) CLDD-12t to CLDD-85t were also drilled in 2008 by Perfo Chile, on HQ diameter, using a Longyear 44 drill rig. Finally, five additional geotechnical core boreholes (GEOTECH\_1 to GEOTECH\_5; 1,290 metres) were drilled in 2008 by Boart Longyear. All drill collars were surveyed using a theodolite (Total Station).

The initial five core holes (CLDD01-CLDD-05) were not surveyed for downhole deviation. Their trace is assumed to be straight. Boreholes CLDD-06 to CLDD-14 were surveyed for downhole deviation by the drill contractor (Boart Longyear) using a Maxibore device. Borehole CLDD-15 was drilled over four kilometres northeast of the Cachinal deposit and was not surveyed. Three of the seven twin holes, CLDD-40t, CLDD-63t and CLDD-85t, were surveyed by Comprobe using a digital gyroscope. A review of drill logging indicates that drill core recoveries were generally good (>90%). The five geotechnical core boreholes GEOTECH\_1 to GEOTECH\_5 were not surveyed for downhole deviation.

### 10.2.3 Drilling After January 2008

#### 2008 Exploration Program

The Mineral Resource Statement documented in Section 13 considers drilling and trenching information up to January 25, 2008. Drilling on the property was still ongoing at that time, Valencia completed an additional seventeen core boreholes, forty-three reverse circulation boreholes and five geotechnical core boreholes. Some of the exploration targets investigated by the subsequent drilling were recommended for drilling in the original April 30, 2008 technical report.

The subsequent drilling includes forty-three reverse circulation boreholes CLRC-177 to CLRC-219, seventeen core boreholes CLDD-06 to CLDD-15, twin core holes CLDD-012t to CLDD-085t and geotechnical core holes GEOTECH\_1 to GEOTECH\_5. These boreholes had four objectives:

- Infilling and possibly extending the silver bearing veins in the northern and southern portions of the Cachinal deposit.
- Testing the potential depth extension of the Carmen-Arturo-Prat vein system.
- Assess the geotechnical properties along potential open pit walls.
- Testing other exploration targets outside the resource areas.

Significant assay results from the subsequent reverse circulation boreholes are presented in Table 2. The most significant results are from boreholes CLRC-181 to CLRC-187 drilled in the northern portion of the deposit near the Buena Esperanza Pit to infill at 25 metre line spacing an area previously tested at 50-metre spacing and demonstrate the geological continuity of the silver and gold mineralization.

**Table 2: Significant Results from Reverse Circulation Drilling Not Included in Mineral Resource Evaluation**

Hole ID		From	To	Length (m)	Ag (ppm)	Au (ppm)	Zn (%)	Comment
CLRC-177	no significant results							
CLRC-178	no significant results							
CLRC-179	no significant results							
CLRC-180		164	165	1	115	0.17	2.56	
CLRC-181		93	113	20	311	0.20	0.28	
	including	101	110	9	584	0.36	0.28	
CLRC-182		148	162	14	511	0.33	0.11	
	including	155	160	5	1,134	0.80	0.16	
CLRC-183	no significant results							
CLRC-184		94	101	7	201	0.21	0.11	
	including	94	97	3	420	0.44	0.08	
CLRC-185		185	190	5	71	0.06	0.47	
	including	185	186	2	130	0.10	0.19	
CLRC-186		85	91	6	76	0.09	0.48	
		98	100	2	1,146	0.77	0.20	
		105	106	1	118	0.19	0.05	
CLRC-187		132	148	16	49	0.08	0.63	
	including	132	136	4	84	0.16	0.59	
	including	140	141	1	122	0.20	0.97	
CLRC-188		184	186	2	92	0.08	0.18	
CLRC-189		8	10	2	74	0.09	0.03	SRK Target 10
		84	86	2	88	0.12	0.58	
CLRC-190	no significant results							
CLRC-191		4	5	1	406	0.03	0.02	SRK Target 10
CLRC-192		73	76	3	103	0.09	0.20	
	including	73	74	1	227	0.06	0.08	
CLRC-193		16	17	1	483	0.07	0.14	
CLRC-194		56	59	3	105	0.08	0.08	
		99	106	7	90	0.05	0.27	
	including	101	102	1	184	0.05	0.41	
	including	104	106	2	138	0.20	0.86	
CLRC-195		48	51	3	95	0.17	0.19	SRK Target 8
		140	149	9	40	0.05	0.05	
	including	147	149	2	86	0.12	0.05	
CLRC-196		29	34	5	59	0.08	0.15	
	including	32	33	1	106	0.16	0.19	
		93	102	9	101	0.05	0.23	
	including	93	95	2	275	0.13	0.22	
		143	153	10	87	0.17	0.42	
	including	146	149	3	129	0.26	0.54	
CLRC-197	no significant results							SRK Target 4
CLRC-198		43	45	2	62	0.02	0.09	SRK Target 1
CLRC-199	no significant results							SRK Target 2
CLRC-200		43	44	1	158	0.13	0.04	SRK Target 2
CLRC-201	no significant results							
CLRC-202		12	58	46	74	0.08	0.33	SRK Target 3
	including	28	33	5	112	0.03	0.20	
	including	45	52	7	142	0.37	1.19	
CLRC-203		31	39	8	62	0.01	0.10	SRK Target 3
CLRC-204		111	113	2	51	0.49	0.09	SRK Target 3
CLRC-205		45	51	6	72	0.17	0.16	
	including	46	47	1	116	0.25	0.26	
		55	56	1	115	0.75	0.75	

**Table 2: Significant Results from Reverse Circulation Drilling Not Included in Mineral Resource Evaluation (Continued)**

Hole ID		From	To	Length (m)	Ag (ppm)	Au (ppm)	Zn (%)	Comment
CLRC-206		27	37	10	86	0.04	0.24	SRK Target 3
	including	28	31	3	107	0.04	0.21	
	including	34	36	2	131	0.06	0.38	
CLRC-207		22	25	3	97	0.03	0.11	SRK Target 2
	including	24	25	1	231	0.06	0.18	
CLRC-208		4	5	1	161	0.05	0.21	
CLRC-209	no significant results							SRK Target 3
CLRC-210	no significant results							SRK Target 3
CLRC-211		85	91	6	105	0.03	0.15	SRK Target 2
	including	87	89	2	180	0.03	0.26	
	including	90	91	1	116	0.04	0.23	
		144	147	3	69	0.21	0.10	
CLRC-212	no significant results							SRK Target 3
CLRC-213	no significant results							SRK Target 3
CLRC-214		28	30	2	68	0.03	0.12	SRK Target 1
		39	45	6	57	0.02	0.02	
		87	89	2	62	0.43	0.13	
CLRC-215	no significant results							SRK Target 5
CLRC-216	no significant results							SRK Target 1
CLRC-217	no significant results							SRK Target 3
CLRC-218		96	98	2	237	0.03	0.37	SRK Target 1
CLRC-219	no significant results							SRK Target 10

Nine core boreholes were drilled at intervals varying from approximately 500 metres to 100 metres over two kilometres to test the depth extension of the primary Carmen-Arturo-Prat vein system. One hole failed to reach its final depth. Subsequent drilling completed by Valencia aimed at intersecting the targeted vein structures as close as possible to a right angle so that the samples recovered from drilling approximately represent the true thickness of the intersected structures. Significant assay results are summarized in Table 3. This table also contains significant results from seven twin core boreholes aimed at validating reverse circulation borehole results. A review of core drill logging from the subsequent drilling suggests that core recovery was good (>90%).

## Geotechnical Investigation

In preparation for supporting conceptual design of a mining project at Cachinal, five geotechnical core boreholes were drilled to investigate the quality of the rock mass in the vicinity of conceptual pit walls. SRK provided personnel to log nine core boreholes (CLDD-06 to CLDD-14) and the five geotechnical core boreholes (GEOTECH\_1 to GEOTECH\_5) to record information about geotechnical properties of the rock mass.

**Table 3: Significant Results from Core Borehole Drilling Not Included in Mineral Resource Evaluation**

Hole ID		From	To	Length (m)	Ag (ppm)	Au (ppm)	Zn (%)	Comment
CLDD-006		38	40	2	68	0.11	0.07	
		256	257	1	104	0.07	0.53	
		261	262	1	41	0.31	6.62	
CLDD-007		168	171	3	108	0.13	0.69	
	including	170	171	1	161	0.10	0.59	
		275	278	3	503	0.59	5.68	
	including	276	277	1	1,240	1.10	7.90	
CLDD-008		260	262	2	68	0.08	0.28	
		289	290	1	206	0.14	3.51	
CLDD-009	Failed to reach planned depth. No significant results.							
CLDD-010	no significant results							
CLDD-011		14	15	1	200	0.16	0.08	
		152	154	2	225	0.26	0.66	
		161	162	1	267	0.51	0.37	
CLDD-012		139	143	4	209	0.05	0.08	
	including	139	141	2	371	0.09	0.06	
		228	230	2	111	0.02	0.17	
CLDD-012t		174	185	11	142	0.39	0.16	Twin hole
	including	177	183	6	222	0.52	0.14	
		208	21.3	4.3	100	0.19	0.19	
CLDD-013		126	132	6	87	0.01	0.05	
		270	272	2	78	0.05	0.40	
CLDD-014		246	251	5	167	0.16	0.71	
	including	246	247	1	398	0.30	1.25	
		255	258	3	148	0.11	1.35	
	including	257	258	1	320	0.30	3.39	
		274	276	2	97	0.05	1.03	
		280	286	6	194	0.14	4.21	
	including	283	284	1	403	0.27	3.47	
CLDD-015	no significant results							
CLDD-017t		65	74	9	117	0.04	0.19	Twin hole
	including	65	68	3	241	0.08	0.18	
		81	93.95	12.95	115	0.02	0.28	
	including	85	91	6	177	0.02	0.25	
CLDD-027t		2.2	5	2.8	246	0.19	0.02	Twin hole
	including	2.2	3	0.8	601	0.45	0.02	
		62	63	1	218	0.01	0.41	
		71	76	5	69	0.11	0.14	
		84	88	4	267	0.39	0.15	
CLDD-040t		26	27	1	120	0.05	0.09	Twin hole
CLDD-063t		81	82	1	385	0.16	0.03	Twin hole
CLDD-068t	no significant results							
CLDD-085t		69	72	3	136	0.07	0.09	Twin hole
	including	69	70	1	321	0.15	0.13	
		83	84	1	142	0.23	0.17	

# 11 Sample Preparation, Analyses, and Security

## 11.1 Sample Preparation and Analyses

All aspects of the sampling, handling and dispatching to the assay laboratory was conducted under the supervision of SBX Consultores Ltda., an independent consultant. The QP also has no reason to believe that any tampering of data has occurred on this project.

Valencia used only one primary laboratory for preparing and assaying all samples (soil, rock, core and reverse circulation drilling) collected on the Cachinal project. All samples submitted for assaying were dispatched by SBX personnel to Antofagasta where ALS Chemex operates a sample preparation facility. Prepared samples were thereafter transferred by ALS Chemex to its assaying facility in La Serena, Chile.

The management system of ALS-Chemex Antofagasta and La Serena Laboratories are accredited ISO 9001 by NCS International Pty. The La Serena Laboratory is also accredited under ISO 17025 (INN LE 246) by the Instituto Nacional de Normalization of Chile for a number of specific test procedures. The analytical protocols used by Valencia are not within scope of the accreditation. ALS-Chemex laboratories also participate in a number of international proficiency tests, such as those managed by CANMET and Geostats. In 2007, Valencia submitted a small shipment of ninety samples to SGS Minerals Services laboratory in Santiago, Chile for check assaying. SGS Mineral Services are independent of the issuer and which are accredited and certified by several national and international entities including ISO 9001, ISO 14001 and OHSAS 18001.

Assay samples were prepared using standard preparation procedures developed by ALS-Chemex. Rock chips and core sample are weighted, dried and crushed to 70 percent passing -2.0-millimetre sieve and subsequently pulverized to better than 85 percent passing a 75 microns screen. Soil samples are weighted, dried and sieved dried to -180 microns screens.

All trench and drilling samples were assayed for gold by fire assay on a fifty grams sub-sample (method code Au-AA24) and silver and zinc using multi-acid digestion and atomic absorption spectrometry (method code Ag-AA62 and Zn-AA62). Samples with silver grades exceeding 200 g/t silver were systematically re-assayed using gravimetric method (method code Ag-GRA21). Sample rejects and pulps were archived and remain available for additional testing (Figure 17).





**Figure 17: Reverse Circulation Chip Samples Storage at the Cachinal Project Site**

## 11.2 Quality Assurance and Quality Control Programs

Quality control measures are typically set in place to ensure the reliability and trustworthiness of exploration data. This includes written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management and database integrity. Appropriate documentation of quality control measures and regular analysis of quality control data are important as a safeguard for project data and form the basis for the quality assurance program implemented during exploration.

Analytical control measures typically involve internal and external laboratory control measures implemented to monitor the precision and accuracy of the sampling, preparation and assaying. They are also important to prevent sample mix-up and monitor the voluntary or inadvertent contamination of samples. Assaying protocols typically involve regular duplicate and replicate assays and insertion of quality control samples to monitor the reliability of assaying results throughout the sampling and assaying process. Check assaying is typically performed as an additional reliability test of assaying results. This typically involves re-assaying a set number of sample rejects and pulps at a secondary umpire laboratory.



The QP cannot comment on the quality control measures used by previous project operators.

The exploration work conducted by Valencia was carried out using quality assurance and quality control program generally meeting industry best practices. All aspects of the exploration data acquisition and management including mapping, surveying, drilling, sampling, sample security, and assaying and database management were conducted under the supervision of appropriately qualified geologists.

The analytical quality control data for the Cachinal project include both internal and external quality control measures. ALS-Chemex implemented internal laboratory measures consisting of inserting quality control samples (blanks and certified reference materials and duplicate pulp) within each batch of samples submitted for assaying. The quality control data produced by ALS-Chemex was communicated to Valencia with assaying results.

Valencia also implemented external analytical quality control measures that were strengthened during 2007. This included inserting quality control samples (blanks, project specific standards and certified reference standards) with each batch of trench, reverse circulation and core drilling samples at an appropriate frequency. The quality control program developed by Valencia for this project is mature and is overseen by appropriately qualified geologists.

In the opinion of the authors of this report, the exploration data from the Cachinal project was acquired by Valencia using adequate quality control procedures that generally meet or exceed industry best practices for a drilling stage exploration property.

### **11.2.1 SRK Analysis of the Analytical Quality Control Data**

The QP conducted a series of routine verifications to ensure the reliability of the electronic exploration data. In the opinion of the QP, the electronic data are reliable and exhaustive.

The QP reviewed a copy of the Maxwell (2008) analytical quality control review report and separately, Maxwell provided to the QP an extraction of all analytical quality control data produced for the Cachinal project (to the end of January 2008 and for the “subsequent drilling”).

The QP reviewed the report produced by Maxwell and visually examined assay results for the internal quality control samples used by the assay laboratory and found no suspicious or anomalous results.

The QP aggregated the assay results for the external quality control samples for further analysis, focussing exclusively on assay results for silver, gold and zinc. Sample blanks, field standards and certified reference materials data were summarized on time series plot to highlight any potential failure. Field duplicate and pulp replicate paired assay data were analysed using bias charts and ranked half absolute relative deviation charts.

The analytical quality control data produced for the Cachinal Project are summarized in Table 4. Quality control data are presented in graphical format in Appendix A.

In general, the quality control data examined by the QP suggests that silver, gold and zinc grades can be reasonably reproduced suggesting that the assay results reported by the primary assay laboratory are generally reliable for the purpose of resource estimation. The QP identified a number of sample mislabelling issues, especially mislabelling of control samples. The QP concurs with Maxwell's recommendations for improvement in sample labelling procedures.

In the opinion of the QP, the analytical results delivered by ALS-Chemex are sufficiently reliable for the purpose of mineral resource estimation.

**Table 4: Summary of Analytical Quality Control Data Produced by Valencia on the Cachinal Silver-Gold Project**

	<b>Total</b>	<b>Ag</b>	<b>Au</b>	<b>Zn</b>
<b>Total Samples Assayed</b>	<b>33,922</b>	<b>33,922</b>	<b>33,922</b>	<b>33,922</b>
Valencia STDs				
CDN-SE-2	356	356	356	356
GBM996-5	348	348	348	348
GLG904-4	347	347	347	347
STD-1	40	40	40	40
STD-2	35	35	35	35
STD-3	32	32	32	32
STD-4	35	35	35	35
STD-5	25	25	25	25
STD-6	17	17	17	17
STD-7	32	32	32	32
STD-8	33	33	33	33
STD-9	44	44	44	44
STD-10	8	8	8	8
STD-11	55	55	55	55
STD-12	63	63	63	63
STD-13	29	29	29	29
STD-14	7	7	7	7
STD-15	7	7	7	7
STD-16	7	7	7	7
STD-17	7	7	7	7
<b>Total STD</b>	<b>1,527</b>	<b>1,527</b>	<b>1,527</b>	<b>1,527</b>
Blanks				
Lab Blank	3,473	2,552	873	1,602
Field Blank	448	448	448	448
<b>Total Blanks</b>	<b>3,921</b>	<b>3,000</b>	<b>1,321</b>	<b>2,050</b>
Paired Data				
Field Duplicate	1,005	1,005	1,005	1,005
Pulp Replicate	3,081	2,123	1,462	2,062
<b>Total QC samples</b>	<b>9,534</b>	<b>7,655</b>	<b>5,315</b>	<b>6,644</b>
<b>Frequency (percent)</b>	<b>28%</b>	<b>23%</b>	<b>16%</b>	<b>20%</b>
Umpire Checks				
CLRC-017	30	30	30	30
CLRC-025	30	30	30	30
CLRC-062	30	30	30	30
<b>Total</b>	<b>90</b>	<b>90</b>	<b>90</b>	<b>90</b>

### 11.3 SRK Comments

In the opinion of the QP, the sampling preparation, security and analytical procedures used by Valencia were consistent with generally accepted industry best practices and are, therefore, adequate.

## 12 Data Verification

To ensure that the exploration database is adequate and representative of the mineralization to be modeled, the qualified person undertook various measures to verify the data applied for mineral resource modeling and which is documented in this technical report. These data verification measures included:

- Audit of exploration database
- Verification of the analytical quality control data
- Verification of spatial aspects of exploration programs during the site visit (drilling, trenching and geophysical surveys)
- Additional exploration data analysis (comparison of data from different sample types as well as a review of twin drilling results)

### 12.1 Audit of Exploration Database

The QP undertook various data verification measures on the digital data provided by the operator. These verification measures included the following:

- Review of geological and sampling information used for geological and mineral resource modeling
  - Comparing digital geological logging with digital photographs of drill core (Figure 18)  
The QP found that geological logging recorded in provided digital datasets fairly represent drilled core.
  - Compared digital lithology and structural data with original logsheets  
To undertake this audit, the QP compared the digital lithology, structure and alteration data provided in the drillhole database used for geology and mineral resource modeling with that recoded in the original MS Excel-format logsheets for each core drillhole used for mineral resource modeling. The original logsheets for each drillhole were provided to the qualified person by the operator. A copy of the original logsheets are stored in a confidential database on the SRK server. The QP found no material discrepancies in this comparison.
  - Ensure that the collar elevations matched the topographic survey data
  - Checked digital assay database against original assay certificates from primary laboratory  
The QP checked selected significant grades within modeled wireframes against the original assay certificates directly sourced from the ALS laboratory in Santiago, Chile. The QP estimates that about 5 percent of the total assays (the subset of the total database used for mineral resource estimation comprised 3,293 assay records) used for mineral resource estimation were checked. The QP undertook this check during the time of the original estimate in 2008 and again more recently during the update the mineral resource statement for the current mandate. A copy of the original assay certificates are stored in a confidential database on the SRK server. The QP did not find any material discrepancies during these checks.
- Analysis of the digital database provided by the client; these checks included (Section 14.2)
  - Checked minimum and maximum values for each quality value field and confirmed/edited those outside of expected ranges;
  - Checked for gaps, overlaps, and out of sequence intervals in the assays tables.
  - Replaced unsampled and assay results below the detection limit with zero.



**Figure 18: Drill Core Photograph From CLDD-02 (50.86 to 56.16m)**

## **12.2 Verification of Analytical Data**

Quality control measures are typically set in place to ensure the reliability and trustworthiness of exploration data. This includes written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management and database integrity.

During drilling, the operator implemented routine visual verifications to ensure the collection of reliable exploration data. Sample shipments and assay deliveries were routinely monitored as produced by the preparation and assaying laboratories. However, much of the quality control analysis was completed retrospectively and not as the data was produced. This limited the ability of the operator to promptly identify sample mislabelling and react to abnormal assaying results delivered by the assaying laboratory.

The operator mandated independent service provider Maxwell GeoServices (“Maxwell”) to review, compile and audit the Cachinal analytical quality control database. QAQC data were transferred from the operator to Maxwell who generated a Data Shed QAQC database for the Cachinal project. The qualified person for this report was provided with the Maxwell QAQC database and undertook further independent analysis on this database.

The QP reviewed the quality control data produced by the operator and ALS-Chemex on the Cachinal project and aggregated all internal and external analytical quality control data produced for the Cachinal project and analysed these data using a series of bias and precision plots (Section 11.2.1).

Maxwell (2008) generated an independent QAQC report for the operator and did not uncover any material issues with the quality of the assaying data for the Cachinal project. Laboratory internal quality control data do not highlight any material assaying issues at the laboratory.

## **12.3 Data Verification during Site Visit**

In accordance with s. 6.2 (1) of NI 43-101, Mr. Sergio Alvarado Casas, an independent consultant geologist visited the property during June 18 to June 19, 2020.

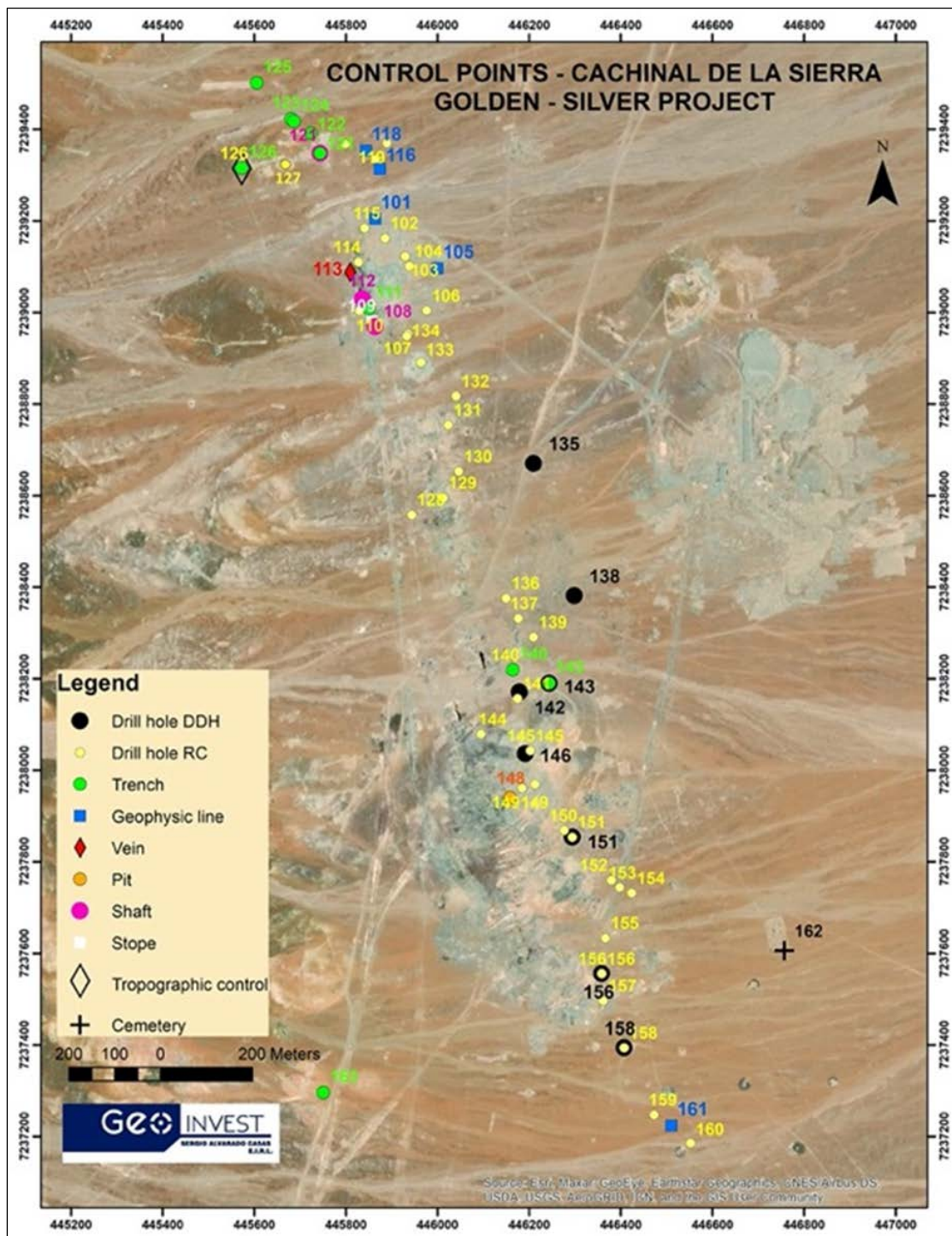
The purpose of the site visit was to ascertain the geology of the project area, with a specific emphasis on the Cachinal silver deposit. Mr. Casas personally inspected and verified numerous trenches and borehole collar sites. Many reverse-circulation collars remain clearly visible and intact.

Historical geophysical grid lines were also located numerous collars were surveyed with handheld GPS for comparison with digitally logged collar locations.

The storage facility in the nearby town of Taltal, where drill core and chips were stored, logged and sampled during exploration was visited. Project drill core and chips have been moved to an unknown location, so the QP was not able to review any drill core during the site visit. Sample pulps are stored on site in a sheltered location and remain intact with identification numbering affixed to each sample bag.

The QP was given full access to project data, with no limitation placed on any aspect of data verification. An additional objective of the site visit was to accumulate additional information for the compilation of this report, but also to confirm that no additional exploration work has been completed since exploration undertaken by previous operator Valencia in 2008.

During the site visit in June 2020, the QP personally inspected and verified nine trenches, 42 reverse circulation drill collars, eight diamond drill collars and eight geophysical grid lines on the Cachinal property. Each of these locations were captured by GPS as digital control points (Figure 19).



**Figure 19: Location of Control Points Surveyed During Site Visit During June 2020**

Many drill collars remain clearly visible and intact (Figure 20). Drill collars were surveyed with handheld GPS for compare well with digitally logged collar locations provided for mineral resource modeling.





**Figure 20: Drill Collar for Diamond Drill Hole CLDD-07 on the Cachinal Property**

There was no exploration activity ongoing on the property during the time of the most recent site visit. The QP did not identify any evidence of additional material exploration work conducted on site since the previous technical report.



## 12.4 Exploration Data Analysis

### 12.4.1 Review of Data from Different Sample Types

Assay data for the Cachinal deposit were collected using three different sampling methods. On the surface, the silver mineralization was sampled using trenches excavated by excavator. Assay samples were collected on regular intervals by chiselling the wall of the trench.

The Cachinal deposit was sampled in the sub-surface using two drilling techniques. The vast majority of the sampling was conducted using a reverse circulation drilling technique. The chips recovered by the drilling process were sampled at regular one metre of drill advance and mechanically split to yield the assay sample. Finally, diamond drilling equipment was used to recover core from the Cachinal deposit. The assay samples were collected on half core sawed lengthwise with a diamond saw. In total, eighty-six percent of the vein samples were collected from reverse circulation chips (Table 5).

The QP conducted certain verifications to ensure that the three sample supports yielded geostatistically comparable assay results. The analysis focussed on silver assays. Silver assay results intersecting the wireframes were extracted for analysis. Q-Q' plots comparing silver assay results on a percentile basis for each sample type are presented in Figure 21.

Above about 10 g/t silver, the graphs on Figure 21 show no significant bias between each sample support. Above about 250 g/t silver, core and trench sample populations are somewhat different than the reverse circulation population. The bias occurs above the 95<sup>th</sup> and 97<sup>th</sup> percentile, respectively.

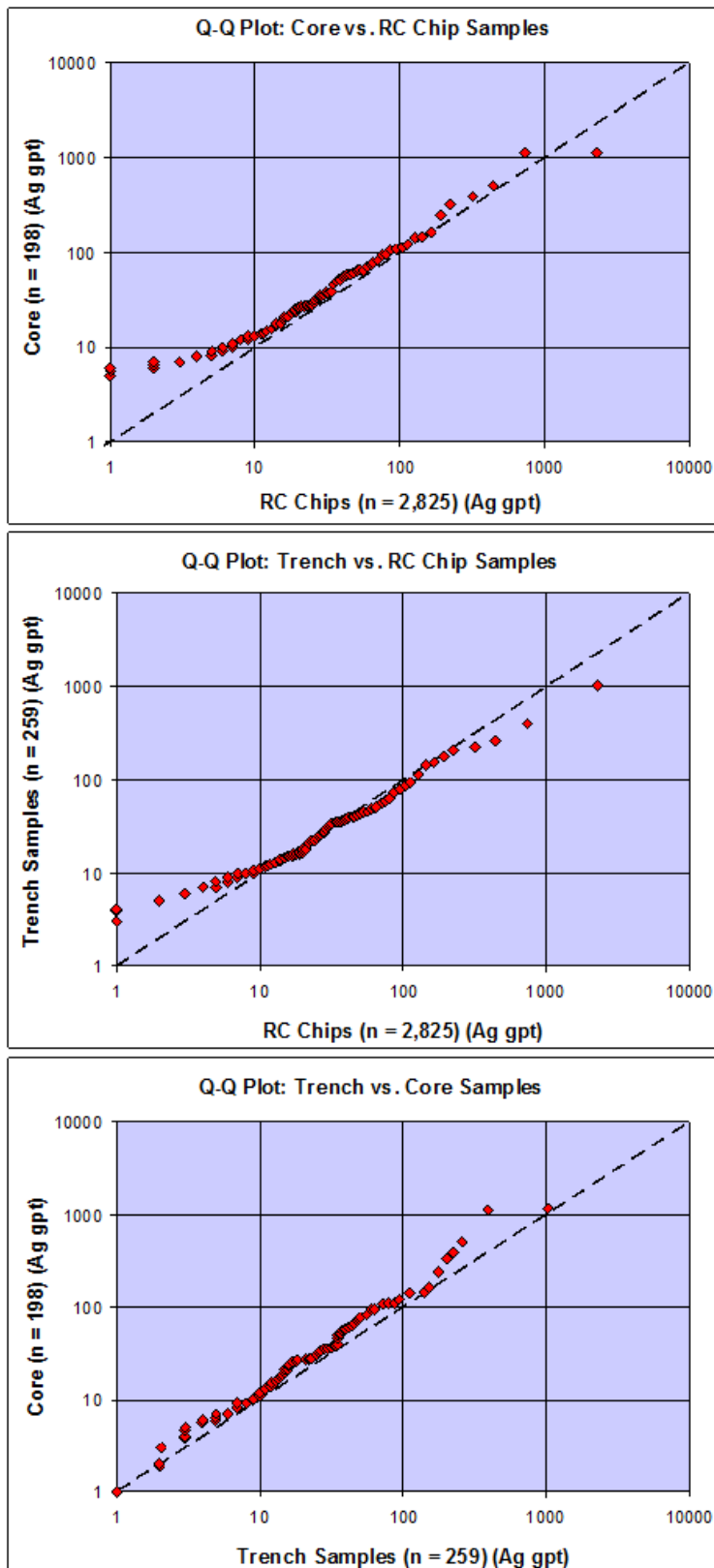
In general, the QP considers that for the main silver grade ranges observed in the Cachinal deposit, there is no significant bias between each sample support and that therefore all three sample types can be used for resource estimation.

Considering the preponderance of reverse circulation samples (eighty-six percent; Table 5), the inclusion of core and trench assay data will introduce an insignificant sample support bias to mineral resource estimation.

**Table 5: Sample Type Count inside Cachinal Deposit Wireframes.**

Sample Type	Count	Percentage
RC Chips	2,825	86%
Core*	198	6%
Trench	259	8%
<b>Total</b>	<b>3,282</b>	

\* Exclude core twin hole data that were not available.



**Figure 21: QQ Plots Comparing Trench, Core and RC Chip Samples Silver Assay Results, Cachinal Deposit**

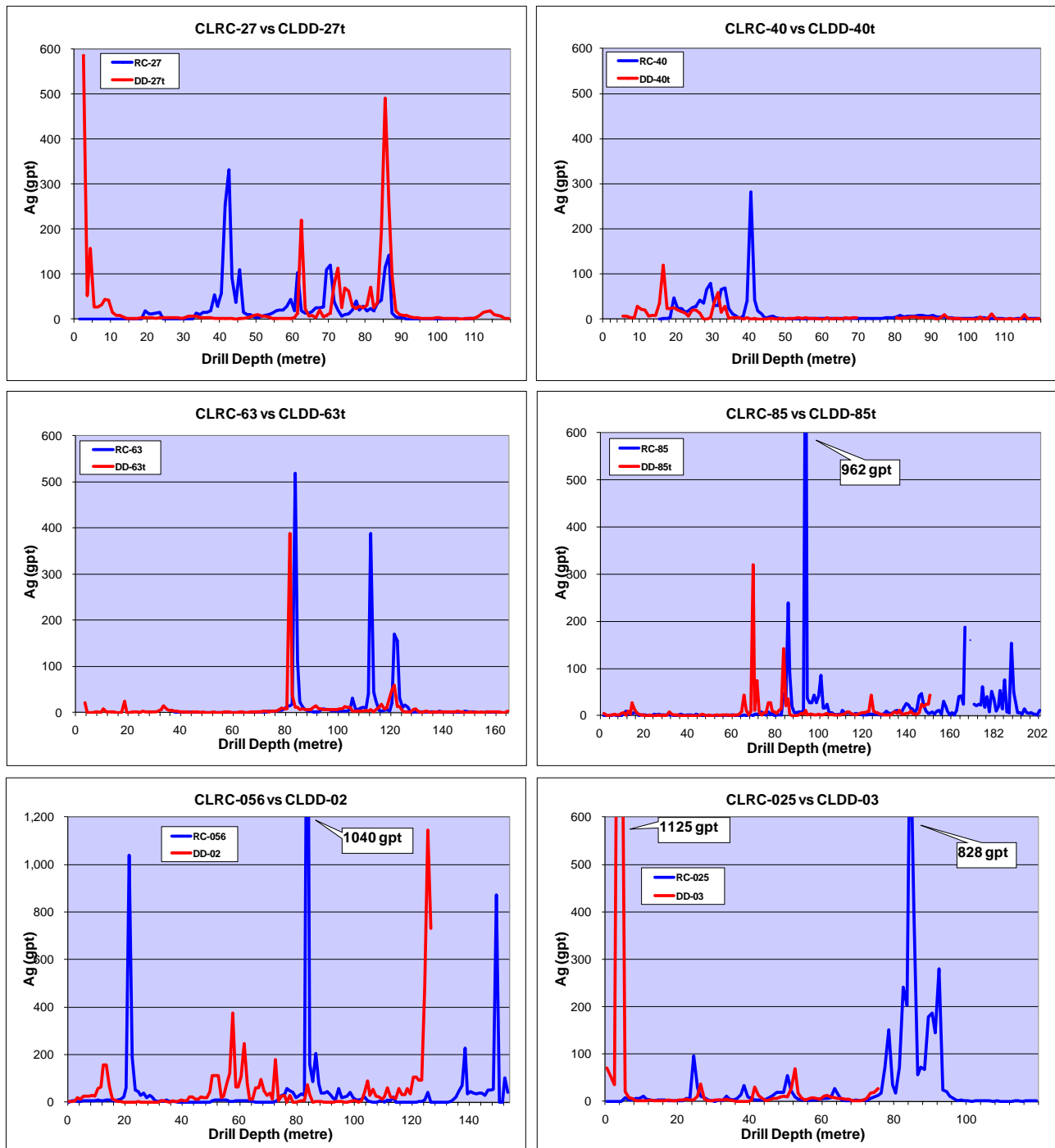
## 12.4.2 Review of Twin Drilling Results

In 2007 and 2008, eleven core holes were drilled to reproduce eleven reverse circulation intersections (Table 6). The assay results for four core holes drilled in early 2008 were provided to the QP and therefore were not considered for resource estimation.

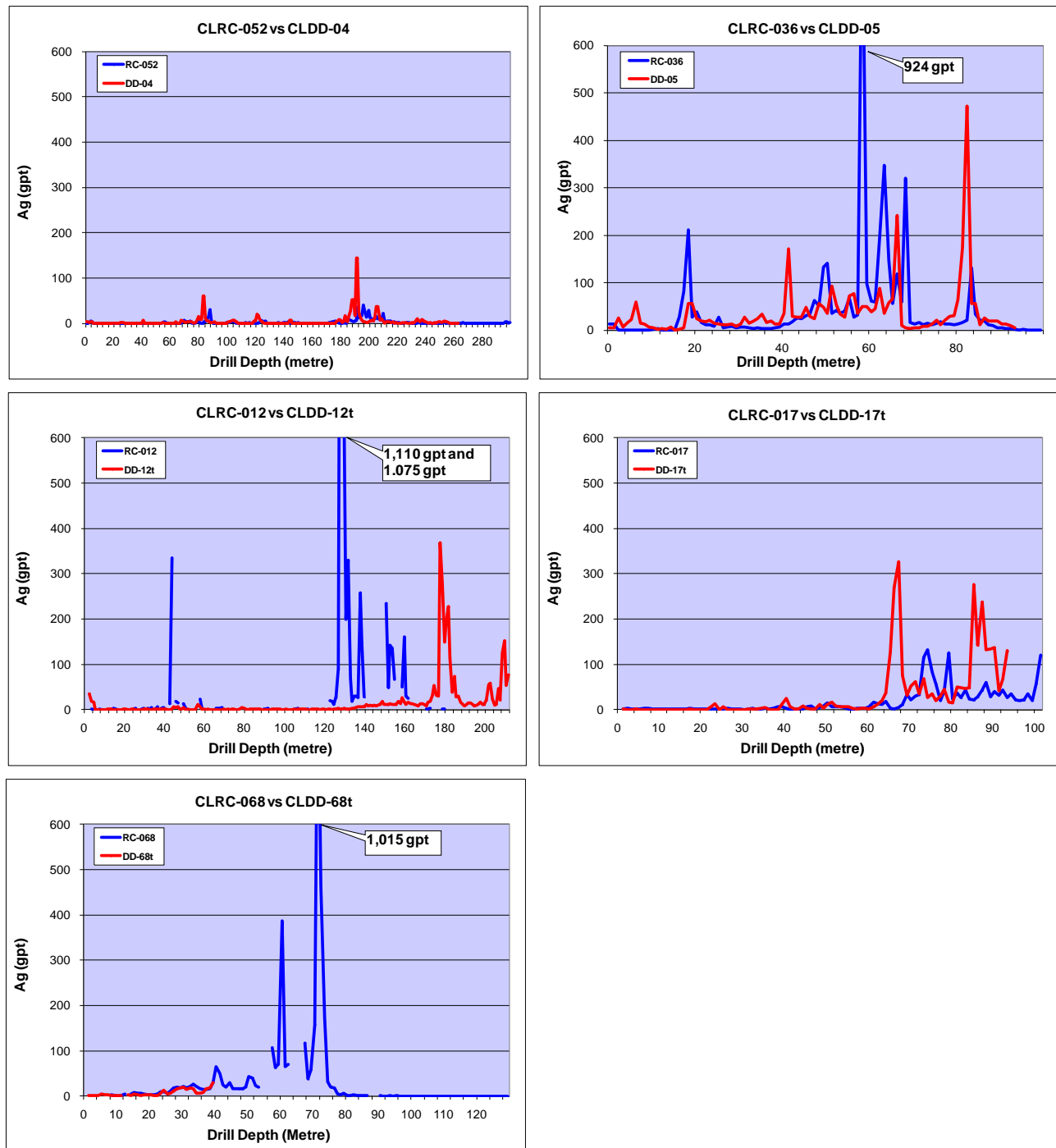
Silver assay results for each pair of twin boreholes are graphically presented in Figure 22. Assay samples from core and reverse circulation drilling within the vein wireframes defined from reverse circulation data were extracted and aggregated for geostatistical analysis (Table 7).

**Table 6: Paired Core and Reverse Circulation Boreholes**

<b>Paired Boreholes</b>	<b>Year Drilled</b>	<b>X (metre)</b>	<b>Y (metre)</b>	<b>Z (metre)</b>	<b>Length (metre)</b>
CLDD-02	2007	446,377	7,238,410	2,732	122.0
CLRC-056	2006	446,385	7,238,417	2,732	154.0
CLDD-03	2007	446,503	7,238,191	2,706	74.0
CLRC-025	2006	446,508	7,238,188	2,706	120.0
CLDD-04	2007	446,545	7,237,934	2,706	251.0
CLRC-052	2006	446,542	7,237,938	2,706	299.0
CLDD-05	2007	446,302	7,238,413	2,738	87.0
CLRC-036	2006	446,304	7,238,410	2,738	100.0
CLDD-12t	2008	446,308	7,238,066	2,705	212.3
CLRC-12	2006	446,309	7,238,071	2,718	180.0
CLDD-17t	2008	446,496	7,237,956	2,710	93.95
CLRC-17	2006	446,493	7,237,959	2,710	102.0
CLDD-27t	2008	446,482	7,238,228	2,708	120.0
CLRC-27	2006	446,480	7,238,232	2,708	110.0
CLDD-40t	2008	446,612	7,237,996	2,703	120.0
CLRC-40	2006	446,609	7,237,999	2,703	120.0
CLDD-63t	2008	446,592	7,237,770	2,703	165.0
CLRC-63	2007	446,588	7,237,772	2,704	162.0
CLDD-68t	2008	446,229	7,238,975	2,717	39.8
CLRC-68	2007	446,227	7,238,980	2,716	130.0
CLDD-85t	2008	446,362	7,238,551	2,713	151.5
CLRC-85	2007	446,361	7,238,556	2,714	203.0



**Figure 22: Comparison of Silver Assay Results in Eleven Pairs of Core and Reverse Circulation Boreholes, Cachinal Project.**



**Figure 22 (continued): Comparison of Silver Assay Results in Eleven Pairs of Core and Reverse Circulation Boreholes, Cachinal Project.**

**Table 7: Basic Statistics for Aggregated Twin Boreholes Samples Inside Modelled Vein Wireframes**

	Silver		Gold		Zinc	
	All Core	All RC	All Core	All RC	All Core	All RC
Mean	53.28	73.37	0.06	0.10	1,795.57	1,568.53
Standard Error	8.81	13.06	0.01	0.02	150.25	114.83
Median	17.00	28.00	0.01	0.01	1,100.00	1,200.00
Mode	2.00	0.00	0.01	0.00	300.00	800.00
Standard Deviation	133.67	198.92	0.15	0.34	2,278.63	1,749.04
Sample Variance	17,868.96	39,570.34	0.02	0.12	5,192,174.13	3,059,135.51
Kurtosis	40.20	67.75	39.94	66.20	26.31	59.32
Skewness	5.84	7.34	5.74	7.40	4.25	6.01
Range	1,145.00	2,250.00	1.41	3.76	20,900.00	20,500.00
Minimum	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	1,145.00	2,250.00	1.41	3.76	20,900.00	20,500.00
Sum	12,254.00	17,021.00	12.66	23.85	412,980.00	363,900.00
Count	230	232	230	232	230	232

The respective sample populations are graphically presented on Q-Q' plots (Figure 23). The analysis of the twin hole data suggests that the core boreholes delivered on average lower grades for all three metals considered. Not only the core holes failed to reproduce the average grades of each intercept, but the widths of silver-bearing mineralization are also different (Figure 22). Analysis of Q-Q' plots suggest that reverse circulation boreholes deliver higher grades than core boreholes for all grade categories, except for zinc.

The wireframes used for extracting assay data was modelled using reverse circulation drilling data only. The difference in grade distribution may be partially be attributed to the wireframe interpretation.

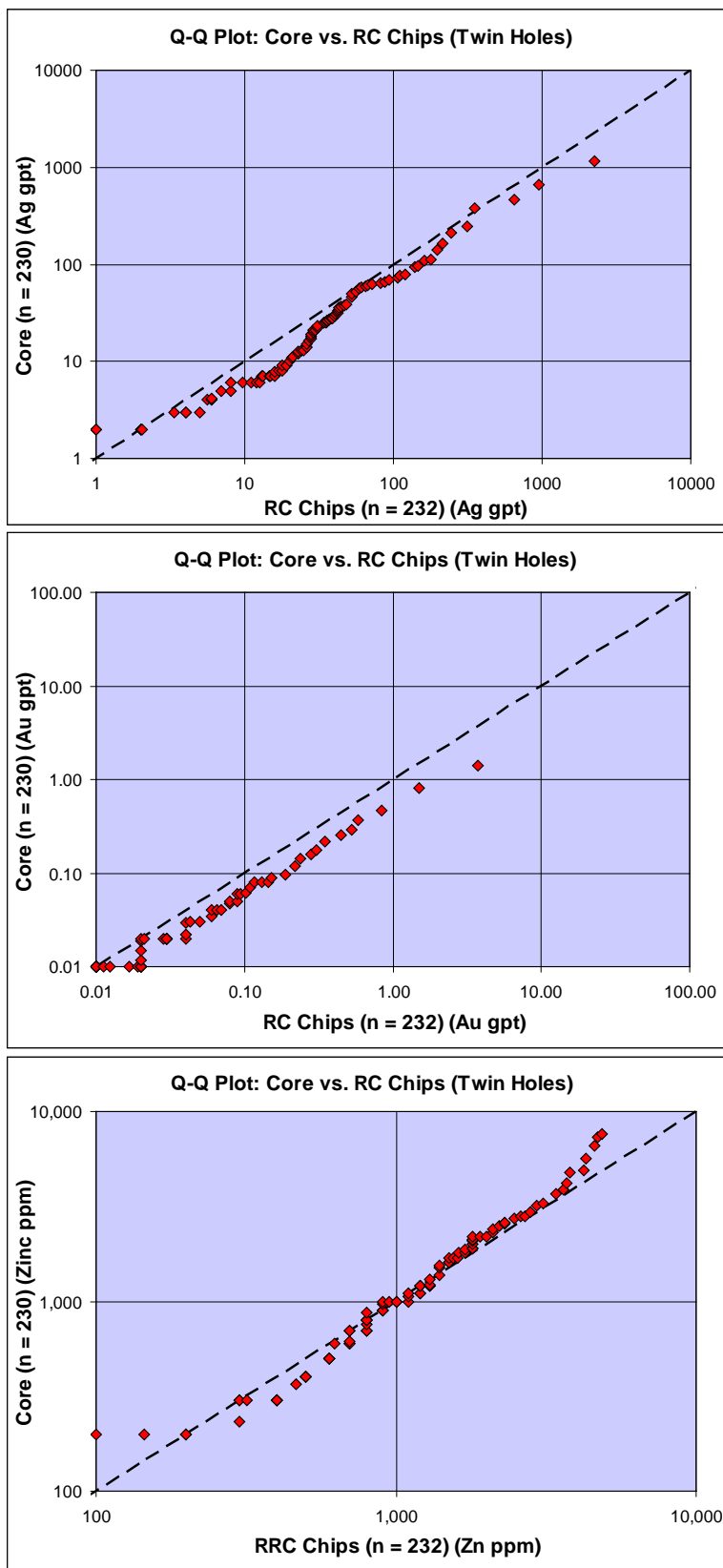
Nonetheless, the grade difference emphasizes the high variability of metal grades across short ranges within the Cachinal silver bearing deposit. This poor grade correlation is not unusual for epithermal vein deposits exhibiting highly variable grade on short ranges.

Considering that the quality control data does not highlight any consistent material bias between the two drilling types RK cannot draw conclusions from the limited twin hole data available. More twin hole data is required to investigate the apparent bias between core and reverse circulation drilling samples and to study the grade variability at short ranges.

A detailed analyses of within wireframe data sources used for resource estimation demonstrated that above 10 gpt silver grades (Figure 23) no grade bias exists between core (198 assays) and RC derived assays (2,825 assays).

The limited twinning program in 2007 / 2008 yielded a higher variance between core and RC assays for silver and gold (but not for zinc). The QP considers this variance to be caused by:

- Data extracted within mineralization wireframes defined by RC data, with some core mineralization external to that
- Different sampling methodologies used for drilled core and RC material
- Uncertainty whether the core drilling precisely matched the collar azimuth and dip of that of its twinned hole
- Extreme differences between certain twins (like CLRC056 vs CLDD-02) suggest a human error associated with the sampling data
- A poor grade correlation is not unusual for epithermal vein deposits exhibiting highly variable grade on short ranges



**Figure 23: Q-Q' Plot for the Core and RC Chip Samples in Four Pairs of Core and Reverse Circulation Boreholes, Cachinal Project**



The QP do not have much confidence in the absolute differences between the sets of twin assays and suggest that this 5% drilling dataset is not representative of the population grade variance of the deposit. The QP however strongly recommend that more well-controlled twin hole data be generated to investigate the apparent bias between core and reverse circulation drilling samples and to study the grade variability at short ranges.

## **12.5 SRK Comments**

In the opinion of the QP, the data verification processes undertaken indicate the exploration data quality used for mineral resource estimation to be adequate and therefore suitable for use in mineral resource estimation.

## 13 Mineral Processing and Metallurgical Testing

In January 2007, SBX Consultores Ltda (on behalf of Valencia) submitted five composite samples for metallurgical testing at SGS Minerals Services (“SGS”) (Santiago, Chile) to determine silver, gold and zinc extractions, as well as cyanide and lime consumption on the five samples (17876, 17877, 17878, 17879 and 17880.) These five samples were taken from the latest core drilling and are generally representative of vein-hosted mineralization at the Cachinal project. The following information is a summary from a memorandum report prepared by SGS and submitted to SBX Consultores Ltda. This report was made available to the qualified person of this report.

### 13.1 Sample Preparation

The samples were screened below 10# and put into 500-gram charges. For each sample, one charge was taken for assaying purposes and another charge was used for the actual cyanidation test. The samples taken for head assays were pulverized to 100 percent -150# and split into two sub-samples in order to perform the assay twice to check the reproducibility of the result.

### 13.2 Testing

The bottle cyanidation tests were carried out using 500 grams of mineral (100 percent -100#) in 33 percent solids slurry prepared with a NaCN solution (0.5 gram per litre). The slurry was agitated placed in a bottle and rolled for forty-eight hours. During this period, seven samples were taken to study the extraction kinetics for gold, silver and zinc.

The following conditions were also followed during each test:

- The NaCN concentration was kept constant (0.5 gram per litre) by adding make-up NaCN.
- The pH was maintained between 10.5 and 11.0 and  $\text{Ca}(\text{OH})_2$  was added to keep this variable in range.
- The total weight of the reactor was also kept constant, by adding water in order to maintain the total volume constant throughout the test.

A Buchner funnel was used to filter the slurry once the cyanidation time was completed. The cake was then washed with tap water. The wet cake was weighed and placed in an oven at eighty degrees Celsius for twenty-four hours. The sample was taken out of the oven when completely dried to cool off and then weighed to determine the dry weight. The residue was pulverized to 100 percent -150 # and assayed twice in order to check the reproducibility of the result.

The concentrations of the elements of interests in the final solutions were estimated based on the grades of the head and the final residue for each sample.

### 13.3 Results from the Preliminary Testing

The assay values obtained for zinc and silver fall within an acceptable margin of error, whereas in the case of gold, the experimental error turned out to be high due to the low gold head grades. The assay values used in the metallurgical balances presented in this report correspond to the average head grade determined for each sample.

The analysis of the results did not include the gold due to the low concentrations present in all the cyanidation products. The highest silver recovery (76.36 percent) was observed for sample 17877, whereas the lowest silver recovery (14.1 percent) was observed on sample 17879. The recoveries

observed for the rest of the tested samples were around fifty percent. The zinc recoveries were in general quite low. The highest zinc recovery observed was eleven percent (sample 17880).

## 13.4 Preliminary Findings

The head assays performed on the samples revealed low gold grades in three out of the five tested samples. Sample M-17876 exhibited the highest silver and zinc head grades, 411 g/t and 572 g/t, respectively. In general, the zinc recoveries were low and ranged between 2.6 and 11.9 percent.

The cyanide consumption in the majority of the tested samples was high (around two kilograms per tonne), probably due to the presence of cyanide consuming compounds and the pH level used in the test. Only sample 17880 exhibited a cyanide consumption rate lower than 1.0 kilogram per tonne.

To lower the cyanide consumption in future tests, it is recommended to carry out the test at a pH close to 11.5. The silver extraction could be increased with a finer regrind. It is also recommended to carry out a mineralogical study on the tested samples to supplement the results obtained in the cyanidation tests.

## 13.5 Metallurgical Investigation

In April 2008, SRK associates Starkey & Associates Inc. designed a more thorough program to provide information on recovery characteristics of the mineralized material. Testwork included heap leach simulation, gravity separation, flotation, whole ore cyanidation and grinding tests. Following this work, the QP concluded that:

- Additional heap leach testwork should be considered. Limited preliminary testwork indicated recoveries less than 50 percent for silver and less than that for gold.
- Recovery by a gravity circuit would be poor. Gravity testwork using a Knelson concentrator indicated silver recovery of only 11.5 percent in 0.21 percent of weight. High gold recoveries were not obtained.
- Flotation results were good, with about 88 percent of silver and 70 percent of gold recovered by rougher flotation pulling a weight recovery in the order of 20 percent to the flotation rougher concentrate. Unfortunately, only 25 percent of the zinc reported to the flotation concentrate.
- The Cachinal ore is amenable to whole ore cyanidation after grinding to P<sub>80</sub> 75microns, with an average recovery of 85 percent for both silver and gold.
- SAGDesign testwork concluded a Bond Ball Mill Index on SG ground material of 18.2kWh/t. Based on a 1.75Mtpa throughput, a 24 x 11.5ft SAG mill and 16.5 x 24ft Ball mill are recommended.

Further testing is recommended prior to beginning mining studies on the Cachinal deposit. Further testwork is recommended to determine optimal grind, the optimal flowsheet for whole rock cyanidation and the presence of deleterious elements that could impact recovery.

## 14 Mineral Resource Estimates

### 14.1 Introduction

The mineral resource model presented herein represents a new mineral resource evaluation for the Cachinal silver deposit prepared for Aftermath management, to firstly provide an assessment of silver zones delineated by drilling on this project and secondly to provide independent justification for additional exploration and development work.

The resource estimate was completed by Mr. Glen Cole, PGeo an independent qualified person as this term is defined in National Instrument 43-101. The effective date of this resource estimate is June 19, 2020.

This section describes the work undertaken by the SRK QP and key assumptions and parameters used to prepare the initial mineral resource model for the Cachinal deposit together with appropriate commentary regarding the merits and possible limitations of such assumptions.

In the opinion of the QP, the block model resource estimate and resource classification reported herein are a reasonable representation of the global silver and gold mineral resources found in the Cachinal deposit at the current level of sampling. The mineral resource estimate documented in this section complies with all disclosure requirements for mineral resources set out in the Instrument, including sections 2.2, 2.3, and 3.4.

The mineral resources presented herein are reported in accordance with Canadian Securities Administrators' National Instrument 43-101 (2011) and have been estimated in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* (November 2019). The QP ensured that the mineral resource database, the geological interpretation and the various adopted mineral resource estimation tasks conform to best practice guidelines. The process followed to ensure this is documented in this section.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserves. Mineral reserves can only be estimated as a result of an economic evaluation as part of a preliminary feasibility study or a feasibility study of a mineral project. Accordingly, at the present level of development there are no mineral reserves on the Cachinal Project.

The database used to estimate the Cachinal mineral resources was audited by the QP and the mineralization boundaries were modelled by the QP using a geological interpretation prepared by Valencia personnel. The authors of this report are of the opinion that the current drilling information is sufficiently reliable to interpret with confidence the boundaries of the silver mineralization and that the assaying data is sufficiently reliable to support estimating mineral resources. Mineral Resource Statement considers drilling and trenching information up to January 25, 2008 and excludes additional drilling undertaken after this cut-off date. Exploration at Cachinal has targeted silver, gold and zinc mineralization, with all three metals having been estimated in this study to holistically document current grade estimates but also to guide future exploration efforts and metallurgical testwork.

Geological and mineralization wireframes were constructed using Datamine modelling software. Statistical analysis, variography and resource estimation work was completed in Isatis Version 7.0.

## 14.2 Mineral Resource Database

The Cachinal project exploration database comprises descriptive and assaying information for a total of five diamond drill holes, 176 reverse circulation holes and 36 surface trenches (Table 8). This database was assembled by Maxwell. It was provided to the QP in an electronic format. The resource estimation database is a sub-set of the main database.

**Table 8: Data Types used for the Mineral Resource Modelling and Estimation**

Year	Company	Data Type*	Count	Length
2004	Valencia	Trench	36	1,433
2005	Valencia	RC	73	9,655
2006	Valencia	DDH	5	714
2007	Valencia	RC	24	4,374
2008	Valencia	RC	79	11,170
<b>Total</b>				<b>27,346</b>

\* RC – Reverse circulation; DDH = diamond drillhole.

The database was audited by the QP. For mineral resource estimation, the QP replaced unsampled and assay results below the detection limit with zero.

The QP performed the following validation steps:

- Checked minimum and maximum values for each quality value field and confirmed/edited those outside of expected ranges; and
- Checked for gaps, overlaps, and out of sequence intervals in the assays tables.

Downhole survey information was available for ten reverse circulation boreholes measured at ten metre intervals. Other boreholes have not been surveyed for downhole deviation.

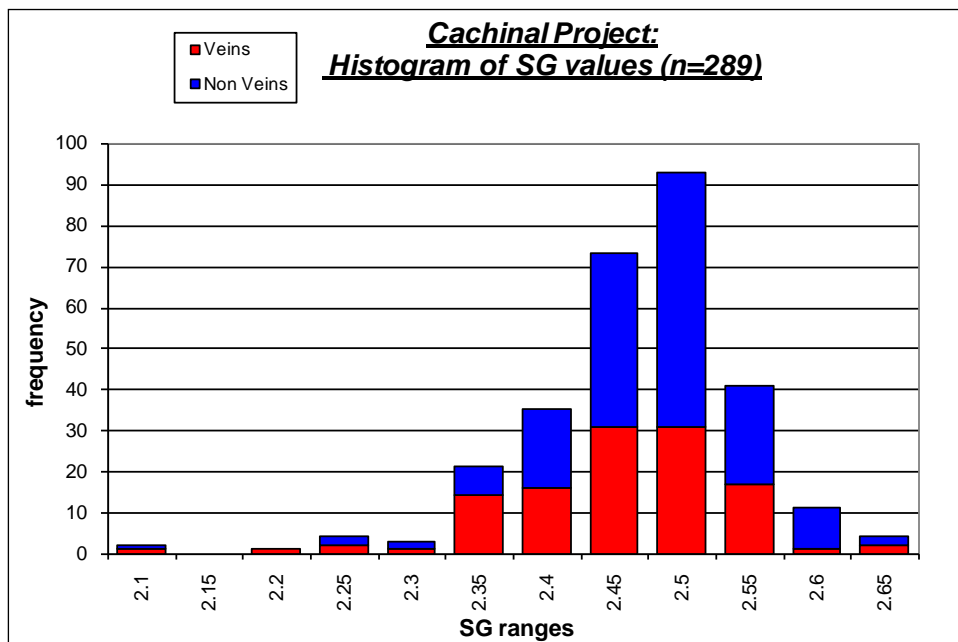
The final geological interpretation on vertical sections for the SE and NW portions of the deposit was received from the SBX on January 25, and February 4, 2008, respectively.

All drilling and trench data as well as the digital vertical sections were provided to the QP using an UTM grid coordinate system. Resource modelling and grade estimation work has been conducted in UTM coordinate space (Datum: PSAD-56. Zone 19 South).

A topography wireframe DTM surface was generated in Minesight software from survey point data. Drill collar positions honour this surface well.

An overburden surface of variable thickness was generated from overburden drill log information in the final Maxwell drill database. No overburden is developed in the central part of the project area.

The specific gravity database contains 289 records derived from measurements on drill core (CLDD01 to 15). A total of 171 density measurements were derived from non-vein material and 118 from the silver-bearing veins. The average density for the vein material is 2.43, whereas the average waste specific gravity is 2.45 (Figure 24). The former value will be applied for modelled veins, whereas the latter will be applied to waste material. Although this limited dataset will suffice for the scoping study, it is recommended that additional specific gravity data be acquired for all lithological types for the next resource update. The specific gravity database is presented in Appendix B.



**Figure 24: Specific Gravity Histogram from Core Determinations (n=289)**

### 14.3 Evaluation of Extreme Assay Values

In order to assess grade capping, probability plots were generated for assays falling within each of the grade shells. The composited dataset was then checked for outlier values. In general, the silver, gold and zinc composites belong to a single population, requiring minimal outlier treatment. Figure 25 illustrates a log probability curve informed with composited silver data from the northern zone (showing only two values that require capping).

After review of log probability plots, the composited data were capped using the levels indicated in Table 9.

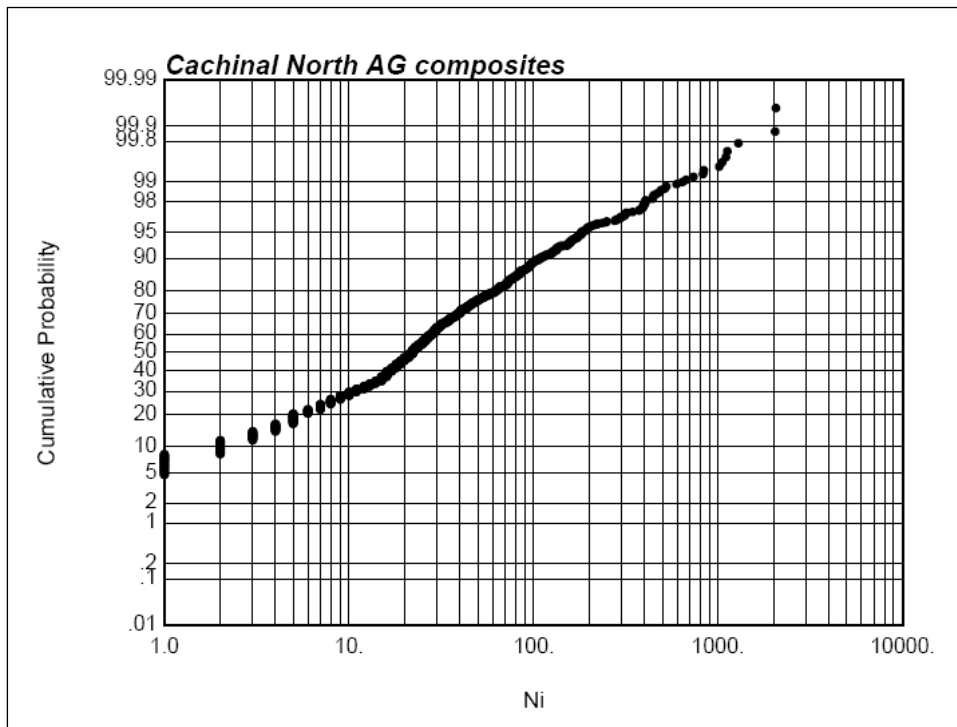
### 14.4 Solid Body Modelling

A series of NW-striking silver-bearing vein wireframes were constructed using Datamine software to constrain geostatistical analysis and grade estimation. This was done by applying geological information sourced from drilling, trenches, paper plans as well as a careful consideration of the sectional interpretations received from SBX.

From the drilling data, five and six silver mineralization sub-parallel veins characterized by continuous silver (+/- gold) grades (usually above 30 g/t silver) over a minimum width of two metres were modelled in the 'northern zone' and 'southern zone' respectively.

Two sets of fault structures were also modelled. One set define NW-SE structures, sub-parallel to the silver-bearing veins. The other set comprises younger ENE faults crosscutting the earlier faults and silver-bearing veins. The 'northern zone' is separated from the 'southern zone' by an ENE-striking fault zone.





**Figure 25: Log Probability Curve for Silver Composites in the Northern Zone (n=574)**

**Table 9: Capping Levels**

Metal	Capping Level (g/t)	No of Composites Capped
Ag (North)	1,295	2
Ag (South)	2,250	1
Au (North)	3.62	1
Au (South)	3.76	1
Zn (North)	16,000	1
Zn (South)	16,000	3

Also, four main lithological types based on the drilling data were also modelled in three dimensions. These lithological units include:

1. Overburden (varying from zero to 30 metres in thickness),
2. Volcaniclastic sedimentary rock
3. Mafic intrusive rock and
4. Tuffaceous volcanic rock.

Considerable variation occurs within each of these lithotypes.

The impact of the mined-out areas on the resource model was considered at the geological modelling stage. In the final database, logging details for intersected underground workings was available for forty-one boreholes (out of a total of 176 reverse circulation holes). The three-dimensional position of these underground workings and their surveyed position on the surface were considered during the interpretation of the various veins on vertical sections. Modelled veins are considered as remnants of the veins left behind the historical mine. The QP believe that this

approach represents a reasonable interpretation for the “in situ” silver-bearing veins with the current level of information available about the historical mining. The approach is adequate for scoping level resource modelling and engineering design but will require further investigations for feasibility level work.

## 14.5 Compositing

All assay data within the eleven modelled veins were extracted for statistical analysis. A total of 3,293 data points was extracted from the total dataset. The majority of the assay samples were collected on regular 1-metre intervals. Therefore, all assay samples were composited to equal 1-metre lengths. Figure 26 illustrates original sample lengths within modelled Vein N1 (comprising 588 data points).

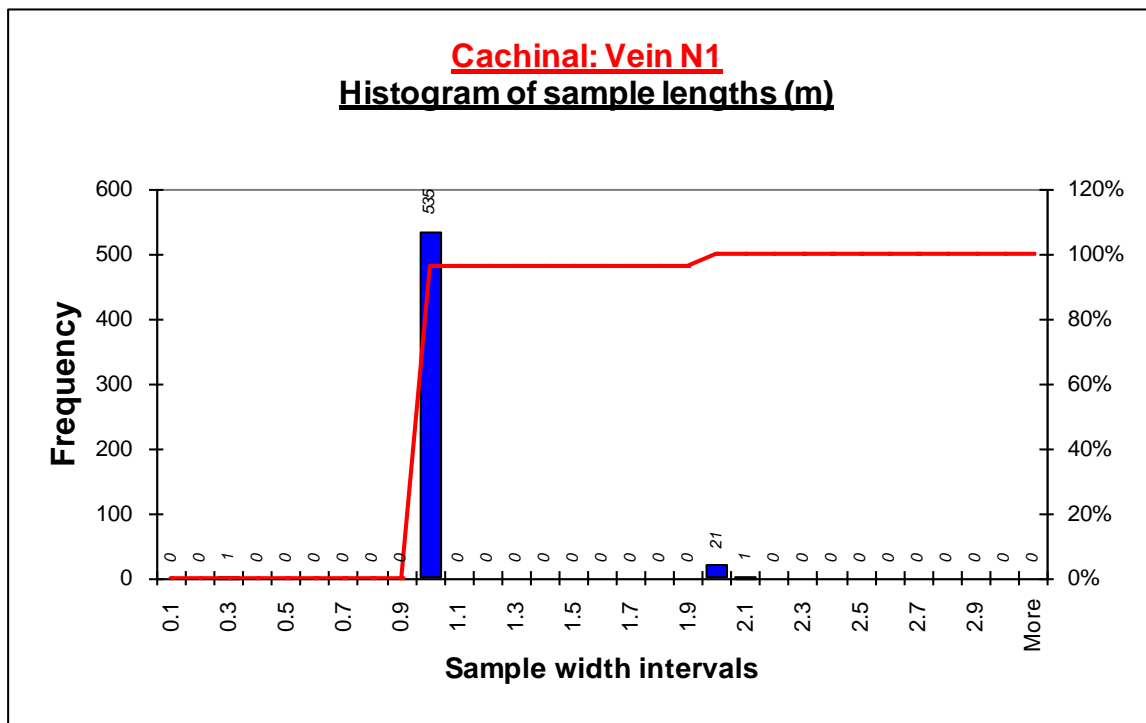


Figure 26: Assay Sample Length Histogram Within the Modelled Vein N1 (n=588)

## 14.6 Composite Statistics

A total of 3,240 composites were generated (1,146 in the north part of the deposit and 2,274 in the south). Summary statistics for silver from the eleven modelled veins are presented in Table 10.

Table 10: Descriptive Statistics for Composite Data from Each Modelled Vein

Silver	N1 Comp	N2 Comp	N3 Comp	N4 Comp	N5 Comp	S1 Comp	S2 Comp	S3 Comp	S4 Comp	S5 Comp	S6 Comp
Mean	77.56	28.67	59.85	13.41	25.69	43.02	59.62	54.46	32.04	64.89	35.35
Standard Error	7.54	3.16	9.81	1.47	4.91	3.78	6.19	13.86	9.43	15.12	5.93
Median	29.00	14.00	28.00	7.00	7.50	15.00	19.00	17.00	4.00	22.00	15.50
Mode	15.00	0.00	0.00	5.00	2.00	0.00	0.00	4.00	0.00	0.00	0.00
Standard Deviation	180.61	51.65	114.87	15.78	35.43	118.23	170.68	125.49	111.14	214.42	62.76
Sample Variance	32620.66	2668.09	13195.63	249.15	1255.28	13977.49	29131.14	15746.77	12351.19	45975.57	3938.55
Kurtosis	59.52	22.39	21.82	7.31	6.34	54.39	82.13	25.17	69.00	60.89	22.99
Skewness	6.83	4.22	4.39	2.43	2.20	6.89	8.02	4.69	7.52	7.18	4.20
Range	2060	403	838	85	182	1280	2330	873	1125	2250	475
Minimum	0	0	0	0	0	0	0	0	0	0	0
Maximum	2060	403	838	85	182	1280	2330	873	1125	2250	475
Sum	44519	7656	8200	1555	1336	42157	45312	4466	4453	13043	3959
Count	574	267	137	116	52	980	760	82	139	201	112

Gold	N1 Comp	N2 Comp	N3 Comp	N4 Comp	N5 Comp	S1 Comp	S2 Comp	S3 Comp	S4 Comp	S5 Comp	S6 Comp
Mean	0.13	0.06	0.07	0.03	0.02	0.04	0.07	0.05	0.04	0.11	0.05
Standard Error	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.03	0.01
Median	0.04	0.01	0.03	0.02	0.01	0.01	0.01	0.01	0.00	0.01	0.01
Mode	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.01
Standard Deviation	0.38	0.26	0.12	0.05	0.02	0.14	0.27	0.11	0.13	0.46	0.12
Sample Variance	0.15	0.07	0.01	0.00	0.00	0.02	0.07	0.01	0.02	0.21	0.01
Kurtosis	118.51	144.24	40.33	15.25	5.37	66.18	89.09	14.35	25.91	102.06	34.54
Skewness	9.31	10.97	5.43	3.49	2.21	7.35	8.57	3.66	4.84	9.16	5.24
Range	6.13	3.62	1.07	0.31	0.08	1.56	3.76	0.59	0.92	5.52	0.99
Minimum	0	0	0	0	0	0	0	0	0	0	0
Maximum	6.13	3.62	1.07	0.31	0.08	1.56	3.76	0.59	0.92	5.52	0.99
Sum	76.45	17.24	9.42	4.05	0.82	43.72	53.5	4.22	5.54	21.24	5.38
Count	574	267	137	116	52	980	760	82	139	201	112

Zinc	N1 Comp	N2 Comp	N3 Comp	N4 Comp	N5 Comp	S1 Comp	S2 Comp	S3 Comp	S4 Comp	S5 Comp	S6 Comp
Mean	2353.31	892.13	1408.03	761.21	705.77	1330.41	1693.55	1362.20	576.98	1378.51	1802.68
Standard Error	127.25	48.33	151.40	51.41	63.13	47.78	83.42	211.51	46.67	210.43	363.28
Median	1500	700	900	600	650	1000	1200	600	400	900	500
Mode	400	500	400	400	800	0	800	200	100	100	300
Standard Deviation	3048.79	789.72	1772.13	553.69	455.22	1495.77	2299.73	1915.35	550.27	2983.33	3844.60
Sample Variance	9295094	623660	3140450	306569	207221	2237318	5288773	3668553	302800	8900268	14780984
Kurtosis	65.42	10.96	12.36	-0.25	1.32	22.06	65.76	11.19	3.85	76.25	42.61
Skewness	5.86	2.79	3.27	0.92	1.13	3.68	6.37	3.04	1.70	7.90	5.76
Range	44500	5300	10400	2200	2000	14400	33700	11200	3000	33600	33500
Minimum	0	0	0	0	100	0	0	0	0	0	0
Maximum	44500	5300	10400	2200	2100	14400	33700	11200	3000	33600	33500
Sum	1350800	238200	192900	88300	36700	1303800	1287100	111700	80200	277080	201900
Count	574	267	137	116	52	980	760	82	139	201	112

## 14.7 Resource Estimation Methodology

A block model was constructed to cover the entire extent of the Cachinal mineralization and the potential limits of an optimized pit. The specifications for the block model (origin and extents) are presented in Table 11.

A Datamine sub-block routine (within the parent three by five by five metre blocks) was applied to fill the vein wireframes. A minimum block size was set at 0.75 by 1.25 by 1.25 metres. Each sub-block was estimated individually. An additional regularized block model was also generated from the detailed sub-block model for the pit optimization process. The regularized block model is a 'smoothed' version of the sub-blocked model derived by averaging the field values of all sub-blocks within a parent block. The regularized block model contains the additional fields FILLVOL and VOIDVOL, which sum to seventy-five square metres. Waste blocks were assigned a bulk density of 2.45 grams per cubic centimetre while each vein mineralized block was assigned a density of 2.43 grams per cubic centimetre.

**Table 11: Cachinal Block Model Specifications**

	Minimum	Maximum	Number of Blocks
X	445,750	447,000	416
Y	7,237,550	7,239,900	470
Z	2,320	2,800	96

## 14.8 Variography and Grade Interpolation

Variograms were used to assess grade continuity along various ellipse axes and to determine appropriate grade interpolation ranges. Block grades were estimated by ordinary kriging. Normal scores variography for the kriging process was conducted with Isatis software for silver, gold and zinc. A single spherical structure variogram (including a nugget effect) was constructed and fitted for each modelled vein and direction for silver, gold and zinc (with rotation angles relative to the vein parallel reference plane set at primary = N340, secondary = N070).

Variography parameters (and search distances) for all eleven modelled veins are tabulated in Table 12. Variograms were modelled with the reference plane inclined at seventy degrees towards direction N070 degrees.

Metal grades were estimated into the block model using ordinary kriging and search neighbourhood parameters presented in Table 12. Two estimation runs were made for each modelled vein. The first pass considered full variogram ranges (Table 12) to estimate block grades assigned to Indicated Mineral Resources. The second pass considered three times the variogram ranges (Table 12) to estimate metal grades for Inferred Mineral Resources. The Inferred and Indicated block models were combined into a single block model for each vein and subsequently aggregated into a single composite block model for the Cachinal silver deposit.

A third estimation pass was completed to assign metal grades to the blocks surrounding the silver-bearing veins. The average mining dilution grade was determined from the average of all composites located outside the modelled veins, but within an enveloping 'low grade shell' defined by considering all drill data (this includes 11,749 data points). The mining dilution grades are presented in Table 13.

**Table 12: Variography Parameters and Search Neighbourhood Parameters Considered for Resource Estimation**

Vein (Domain)	Nugget	1 <sup>st</sup> Struct				Range X		Range Y		Range Z	
		Variance	Range X	Range Y	Range Z	Ind.	Inf.	Ind.	Inf.	Ind.	Inf.
Silver											
North Veins (1 to 5)	4,473	10,438	70	40	16	70	210	40	120	16	48
South Veins (1 to 6)	8,492	12,739	70	57	24	70	210	57	171	24	72
Gold											
North Veins (1 to 5)	0.02	0.05	76	50	23	76	228	50	150	23	69
South Veins (1 to 6)	0.02	0.03	76	48	24	76	228	48	144	24	72
Zinc											
North Veins (1 to 5)	1,716,533	2,574,799	60	45	24	60	180	45	135	24	72
South Veins (1 to 6)	1,258,470	2,337,158	72	67	24	72	216	67	201	24	72

**Table 13: Average Grades of Waste Blocks in Blocks Surrounding the Main Silver-Bearing Veins**

	Ag (g/t)	Au (g/t)	Zn (ppm)
North	5	0.01	666
South	9	0.01	654
<b>Total</b>	<b>8</b>	<b>0.01</b>	<b>660</b>

## 14.9 Mineral Resource Classification

The Cachinal mineral resources were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) by Glen Cole, PGeo (APGO #1416), an appropriate independent qualified person for the purpose of National Instrument 43-101.

The mineral resource model is largely based on geological knowledge derived from boreholes drilled on 50 metre sections. The Cachinal resource area is large (about 2,300 metres long and 300 metres wide) and although silver-bearing veins are geologically continuous and have been modelled with confidence, the metal grades are highly discontinuous and highly skewed towards lower values. This grade discontinuity is typical for this type of deposit, requiring closer-spaced drilling to improve the confidence in local grade estimation. In particular, no information is available for the critical short range (typically twenty to thirty metres).

Mineral resources at Cachinal have been classified as Indicated and Inferred primarily based in the distance from the nearest informing composites and on variography results. All resource blocks are informed by a minimum of four composites and a maximum of twenty. Mineral resource blocks situated within the primary ranges defined by variography are assigned an Indicated classification. All other resource blocks situated within three times the maximum variography ranges are assigned an Inferred classification.

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Resource as:

“a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling”.

The “reasonable prospects for eventual economic extraction” requirement generally implies that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are

reported at an appropriate cut-off grade considering extraction scenarios and processing recoveries. To meet this requirement, the QP considers that portions of the Cachinal silver mineralization is amenable for open pit extraction, while the portions of the deeper parts of the deposit could be extracted using an underground mining method.

To determine the quantities of material offering reasonable prospects for eventual economic extraction by an open pit, the QP generated an optimised pit shell, based on the optimization parameters tabulated in Table 14. The reader is cautioned that the results from the pit optimization are used solely for reporting mineral resources that have “reasonable prospects” for eventual economic extraction by an open pit. Metal price assumptions are sourced from Energy and Metals Consensus Forecast, published by Consensus Economics Inc. which is lower than current spot price and represents the median of analysts’ forecasts and presented in real terms.

To ensure that the reported mineral resource is not impacted by the small external claim to the east side of the deposit, the conceptual pit shell was generated with a 20m buffer around the external claim which was used as a mining constraint during the pit optimization process.

The QP considers that material within the optimized pit shell show a reasonable prospect for eventual extraction by open pit, whereas material external to the optimized pit shell have a reasonable prospect of eventual extraction by underground mining methods.

**Table 14: Assumptions\* for Conceptual Pit Optimization for Open Pit Resource Reporting**

Parameter		Assumption Used for Optimization
Pit slope angle		50 degrees
Average Mining Cost		US\$2.00/t rock
G & A costs		US\$2.00/t rock
Process cost*		US\$15.00 per tonne
Process recovery*		
	Silver	85 percent
	Gold	85 percent
Metal price		
	Silver	US\$22.00 per ounce
	Gold	US\$1,550 per ounce
Mining dilution/losses		2.5 percent

\* Refers to conventional processing by milling and cyanidation.

## 14.10 Validation of the Block Model

Various measures have been implemented to validate the produced resource block model. These measures include the following:

- Comparison of input composited datasets with output resource block models from all modelled veins (including sectional visual comparisons as well as full statistical analyses comparisons).
- Comparison of the Ordinary Kriging estimates with estimates derived using an inverse distance squared algorithm.
- Visual comparison of original drill hole data with resource block data.

## 14.11 Mineral Resource Statement

The mineral resources for the Cachinal silver deposit are reported using cut-offs to reflect reasonable prospect for economic extraction considering an appropriate extraction scenarios. Within optimized pit shell mining resources are reported at cut-off of 30 g/t AgEq, reflecting mineral processing by conventional milling and cyanidation (M/C).



Material external to the optimized pit shell are reported at a cut-off of 150 g/t AgEq considered appropriate for an underground mining method. The cut-off grade considered for underground mining was derived by considering a mining cost of US\$90 per tonne, G&A costs of US\$2 per tonne and a M/C processing cost of US\$15 per tonne.

The mineral resources statement for the Cachinal silver deposit is presented in Table 15. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. A wireframe of inferred underground workings was generated, and modeled workings were excluded from modeled veins.

**Table 15: Mineral Resource Statement\* for the Cachinal Silver-Gold Project, Chile, SRK Consulting (Canada) Inc, August 10, 2020 (Sections 1250NNW - 1000SE).**

Resource Classification	Quantity (Mt)	Grades		Contained Metal	
		Silver (g/t)	Gold (g/t)	Silver (Moz)	Gold (000'oz)
<b>Indicated</b>					
Open Pit	4.83	97	0.13	15.03	20.05
Underground	0.22	182	0.22	1.29	1.65
<b>Total</b>	<b>5.05</b>	<b>101</b>	<b>0.13</b>	<b>16.32</b>	<b>21.70</b>
<b>Inferred</b>					
Open Pit	0.17	73	0.07	0.41	0.43
Underground	0.36	180	0.19	2.07	2.18
<b>Total</b>	<b>0.53</b>	<b>145</b>	<b>0.15</b>	<b>2.48</b>	<b>2.61</b>

\*Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. The cut-off grades are based on metal price assumptions of US\$22.00 per ounce of silver, US\$1,550 per ounce of gold and metallurgical recoveries of eighty-five percent for silver and gold.

Mineral resources amenable for extraction within an open pit are reported to a cut-off of 30 g/t AgEq applying milling / cyanidation processing methods. Mineral resource amenable for extraction by underground mining methods are reported at a cut-off of 150 g/t AgEq .

The QP considers that the Cachinal deposit shows “reasonable prospects for eventual economic extraction” and can be reported as a Mineral Resource.

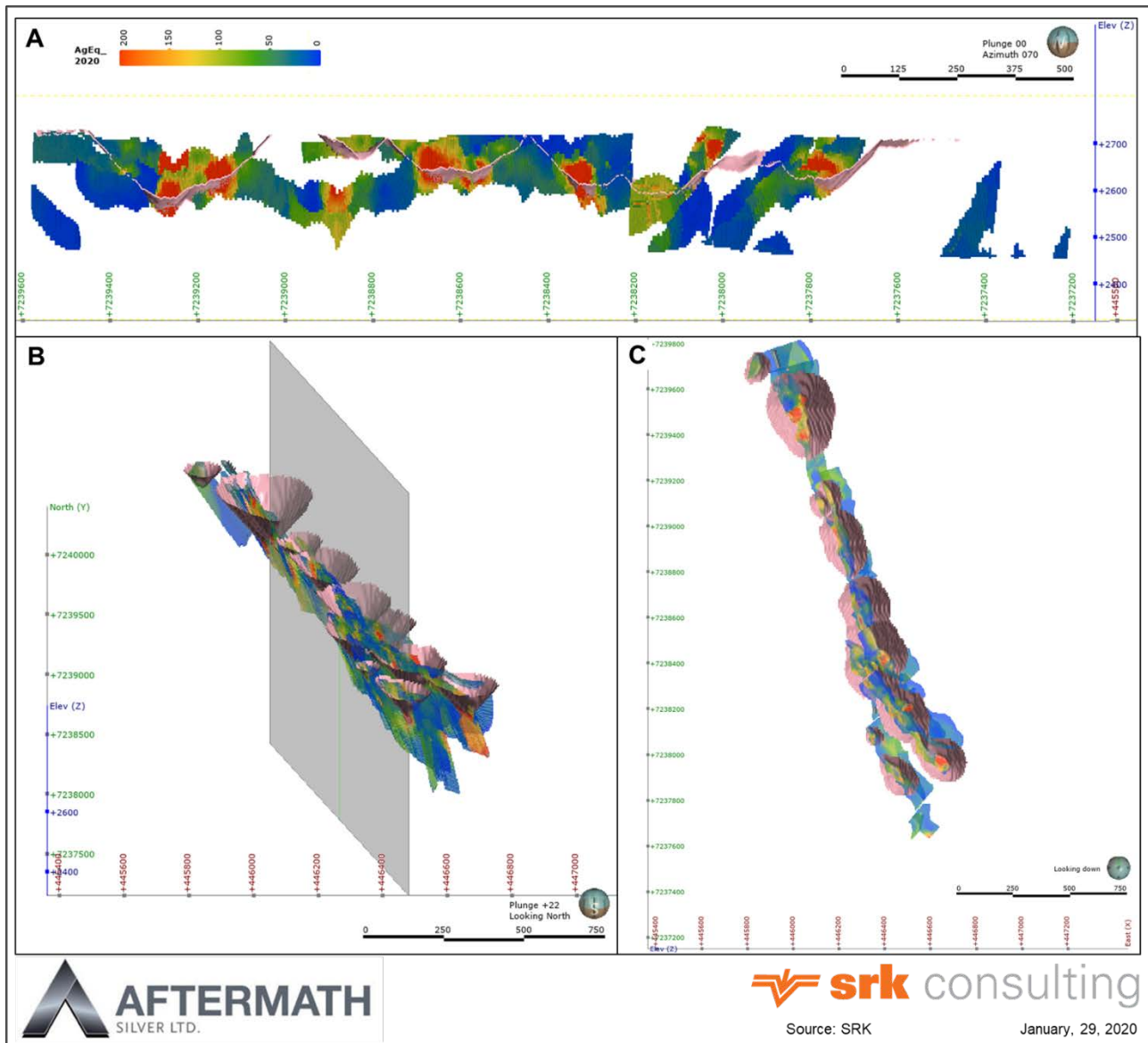
The relationship between the modeled mineralized veins and the optimized pit shell applied for mineral; resource reporting is shown in a series of cross sections in Figure 27. The QP also ensured that mineral resources considered amenable for eventual extraction by underground mining methods demonstrated adequate grade continuity above the reporting cut-off grade. Reported underground mineral resources were restricted to a few higher-grade veins that extend to depth beneath the optimized pit shell which demonstrate reasonable continuity to ensure ‘reasonable prospects for eventual economic extraction’ within a potential mineable shape. Due to the early stage of the project, the QP did not generate underground stope wireframes to verify this, but confirmed reasonable continuity of grade above reporting cut-off by visual inspection in section (Figure 28).

The QP was able to digitally verify on plan and section in the mineral resource model that the majority of material above underground cut-off grade are located in localized clusters which could reasonably fall within reasonable underground mining shapes (Figure 29). Material above underground cut-off grade, occurring external to the localized clusters was verified to be minimal and immaterial to reported underground mineral resources.

The QP considers the Cachinal deposit to represent a low sulphidation silver-gold epithermal system.

The Qualified Person is unaware of any other environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant issues that may materially affect the Mineral Resource. However, the Mineral Resource may be affected by further infill and exploration drilling

that may result in increases or decreases in subsequent Mineral Resource estimates. The QP is uncertain whether or not the Mineral Resource Statement may be affected by subsequent assessments of mining, environmental, processing, permitting, legal, title, taxation, socio-economic, and other factors.



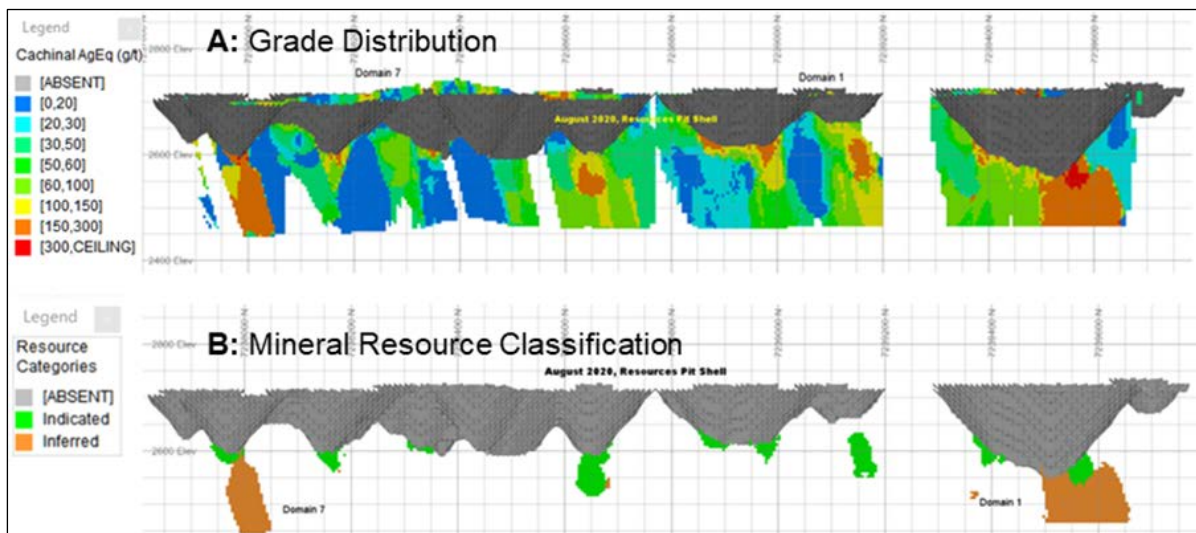
**Figure 27: Distribution of the Cachinal Block Model Grades in Relation to the Open Pit Shell**

A: Cross section of the block model showing the distribution of mineral resources in comparison to the open pit wireframe, looking northeast

B: Orientation of the cross section shown in A

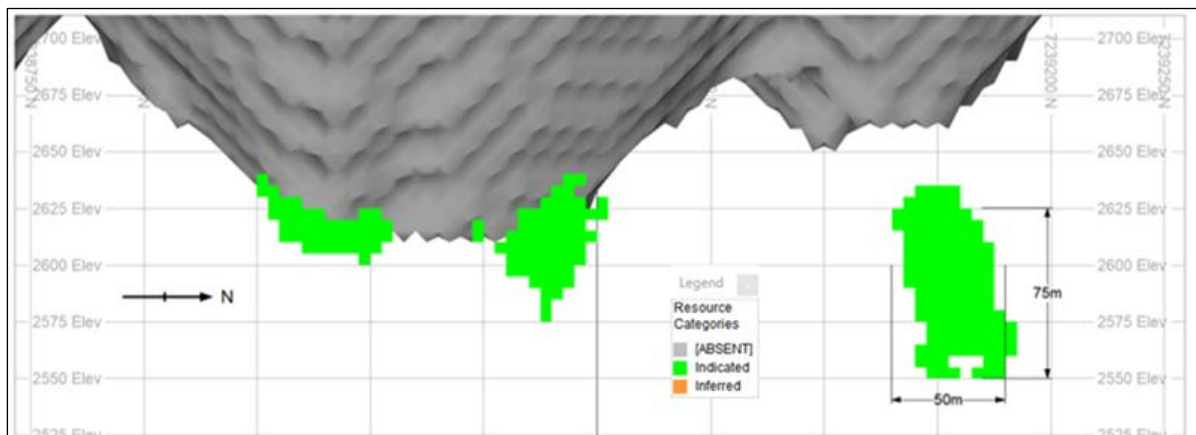
C: The distribution of mineral resources in comparison to the open pit wireframe, looking down

The mineral resources are sensitive to the selection of the cut-off grade. The global tonnage and grades at various cut-off grades for open pit and underground resources are tabulated in Table 16 and depicted graphically in Figure 29. The reader is cautioned that these figures should not be misconstrued as a mineral resource. The reported quantities and grades are only presented to show the sensitivity of the resource model to the selection of cut-off grade.



**Figure 28: Long Section Looking West, Showing the Grade and Resource Classification Distribution of Underground Mineral Resources at the Cachinal Silver-Gold Project**

A = AgEq (g/t) grade distribution  
B = Mineral Resource Classification

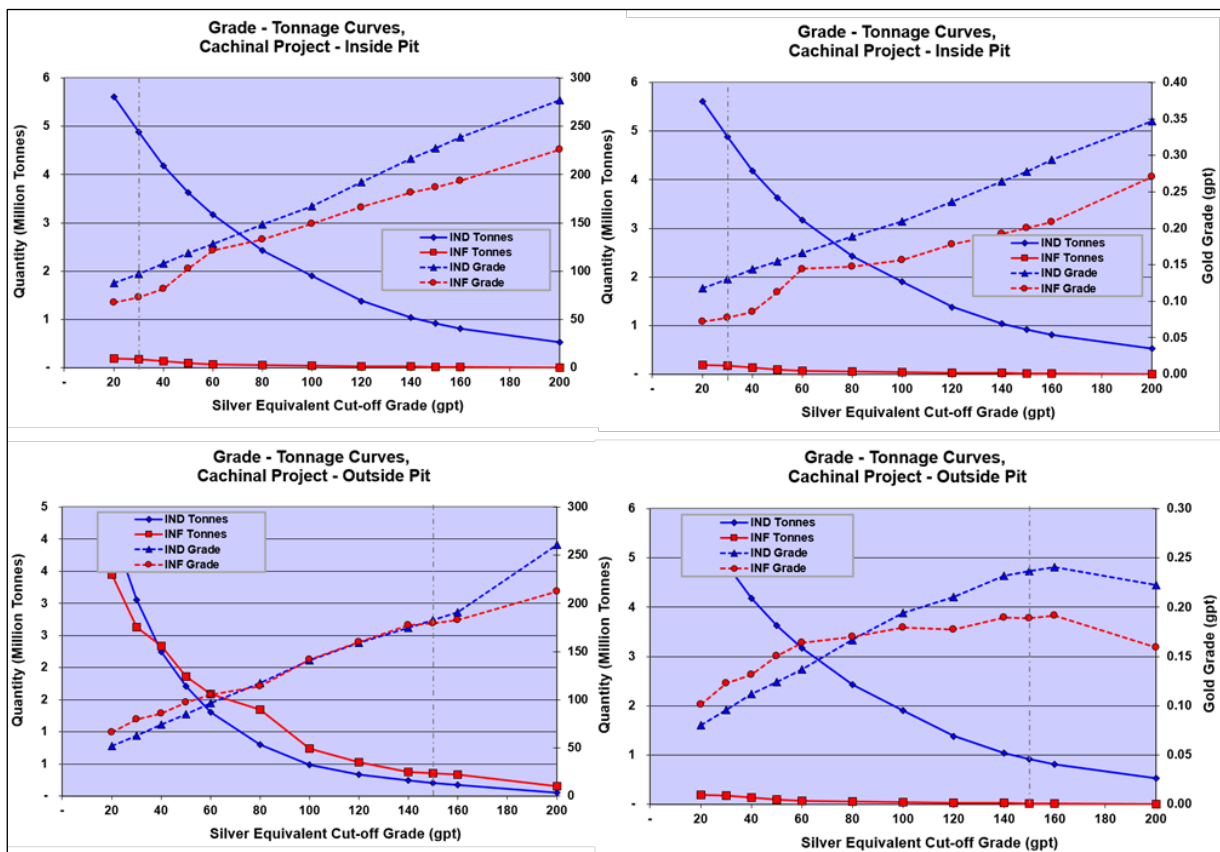


**Figure 29: Long Section Looking West Within Domain 1, Showing the Estimated Continuity of AgEq (g/t) Grades Above 150 g/t External to the Conceptual Pit Shell**

**Table 16: Global Block Model Quantity and Grade Estimates\* at Various Silver-Equivalent Cut-off Grades, Cachinal Silver-Gold Project, Surface to 150 Metres Depth and Below 150 Metres Depth (Sections 1250NNW - 1000SE)**

	Cut-off Ag-Eq g/t	Quantity (Mt)	Grades		Contained Metal	
			Silver (g/t)	Gold (g/t)	Silver (Moz)	Gold ('000 oz)
<b>Indicated – Open Pit</b>	20	5.54	87	0.12	15.56	20.82
	30	4.83	97	0.13	15.03	20.05
	40	4.11	108	0.14	14.31	18.90
	50	3.57	119	0.15	13.62	17.69
	60	3.11	129	0.17	12.88	16.58
	80	2.38	149	0.19	11.40	14.43
	100	1.86	168	0.21	10.02	12.46
	120	1.36	193	0.24	8.41	10.34
	140	1.03	217	0.27	7.16	8.76
	150	0.91	228	0.28	6.66	8.15
	160	0.81	238	0.29	6.18	7.63
	200	0.53	277	0.35	4.72	5.91
<b>Inferred – Open Pit</b>	20	0.19	67	0.07	0.42	0.43
	30	0.17	73	0.07	0.40	0.41
	40	0.14	82	0.08	0.36	0.36
	50	0.09	104	0.11	0.30	0.32
	60	0.06	123	0.14	0.26	0.30
	80	0.05	134	0.15	0.24	0.26
	100	0.04	150	0.16	0.20	0.21
	120	0.03	168	0.18	0.17	0.18
	140	0.02	182	0.19	0.14	0.15
	150	0.02	188	0.20	0.13	0.13
	160	0.02	193	0.21	0.12	0.13
	200	0.01	226	0.27	0.06	0.07
<b>Indicated – Underground</b>	20	4.21	53	0.08	7.15	11.14
	30	3.10	64	0.10	6.37	9.82
	40	2.31	75	0.11	5.58	8.47
	50	1.78	86	0.13	4.89	7.24
	60	1.36	97	0.14	4.24	6.11
	80	0.85	117	0.17	3.21	4.64
	100	0.53	140	0.20	2.37	3.31
	120	0.37	158	0.21	1.86	2.48
	140	0.26	174	0.23	1.45	1.92
	150	0.22	182	0.23	1.29	1.65
	160	0.18	192	0.24	1.10	1.38
	200	0.06	261	0.23	0.50	0.43
<b>Inferred – Underground</b>	20	3.39	66	0.10	7.24	11.14
	30	2.60	80	0.12	6.70	10.35
	40	2.33	86	0.13	6.42	9.92
	50	1.86	97	0.15	5.81	9.04
	60	1.59	105	0.16	5.39	8.41
	80	1.34	114	0.17	4.91	7.34
	100	0.74	142	0.18	3.37	4.27
	120	0.53	160	0.18	2.73	3.03
	140	0.38	177	0.19	2.15	2.29
	150	0.36	180	0.19	2.07	2.18
	160	0.33	182	0.19	1.95	2.04

\* The reader is cautioned that the figures presented in these tables should not be misconstrued as mineral resource statements. The reported quantities and grades are only presented as a sensitivity of the resource model to the selection of cut-off grade



**Figure 30: Grade Tonnage Curves for Silver and Gold Considering Silver Equivalent Cut-Off Grades, Cachinal Project**

The QP considers the mineral resource model to reflect the informing data and considering that the subsequent drilling generated after this date is not considered to have a material impact on the mineral resource statement. The QP has however re-stated the mineral resource statement of current conditions, which included a revision of the conceptual pit shell used for resource reporting.

The drilling results from drilling completed in 2008 after the mineral resource cut-off date (January 25, 2008), which comprised seventeen core boreholes, forty-three reverse circulation boreholes and five geotechnical core boreholes, was reviewed by the qualified person of this report. This additional drilling was aimed at infilling the deposit to fifty metre sections in the northern part of the deposit, testing the depth extensions of the deposit below the mineral resources and testing other exploration targets outside the resource areas. The QP reviewed the location, geology and assaying results of the additional drilling in relation to the current mineral resource model and is of the opinion that the additional drilling data would not materially impact the current mineral resource statement. Some of the infill drilling merely confirmed mineralization which had already been inferred, whereas other drilling outside of the resource areas failed to intersect significant mineralization. The QP does however recommend additional drilling on the project and proposes that the mineral resource model be updated after that drill program. The additional drilling discussed above can then be integrated into the overall exploration dataset to be considered during that mineral resource update.

For the Cachinal silver deposit, variogram ranges vary from 60 to 70 metres in the strike and dip direction, suggesting that a drill spacing at 25 to 30 metres should allow conversion of Indicated to Measured Mineral Resources. The Cachinal mineral resource model is hosted by the modeled vein wireframes illustrated in Figure 31. Figure 32, Figure 33 and Figure 34 present a plan view and two vertical sections through the Cachinal deposit.

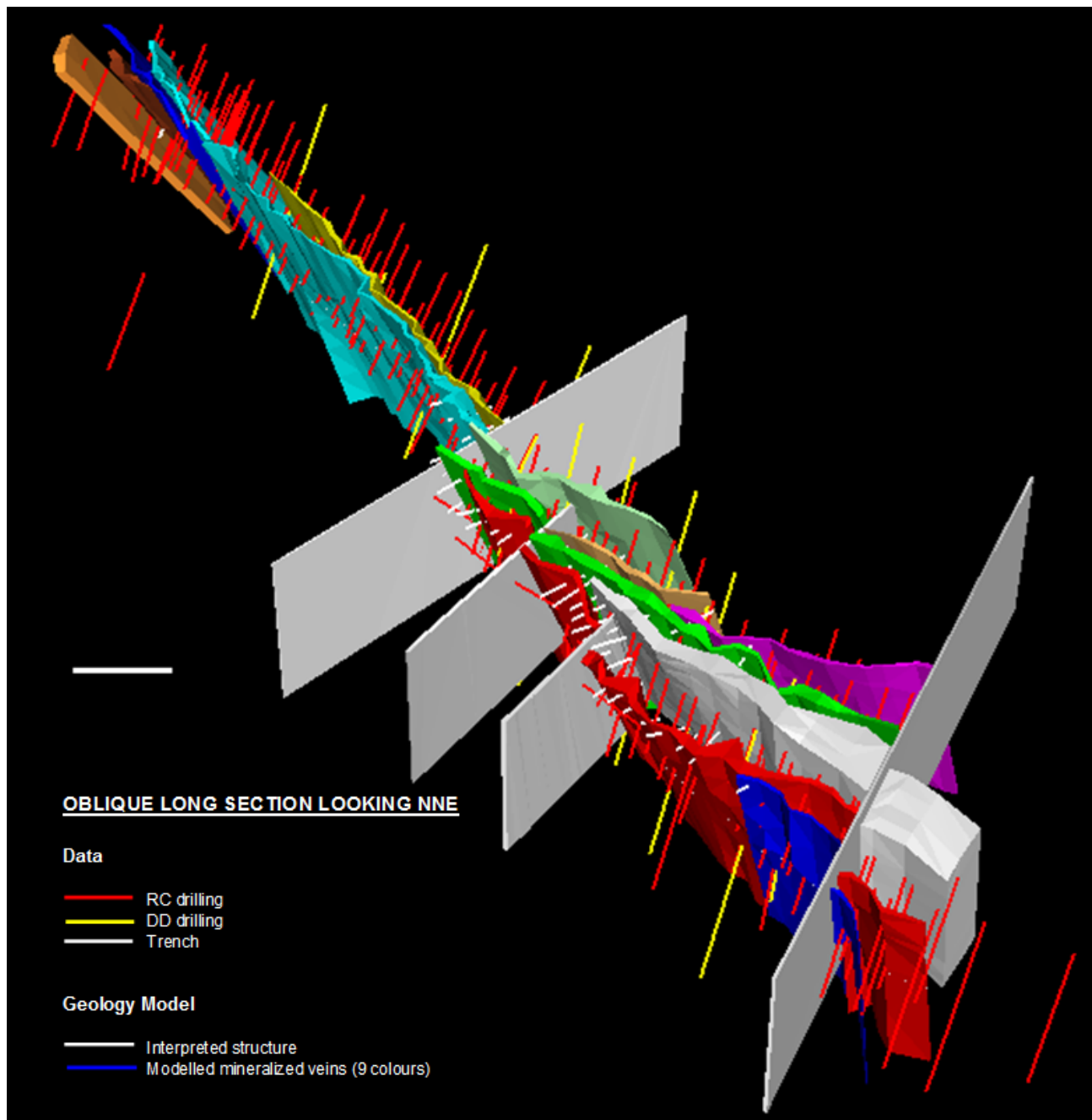
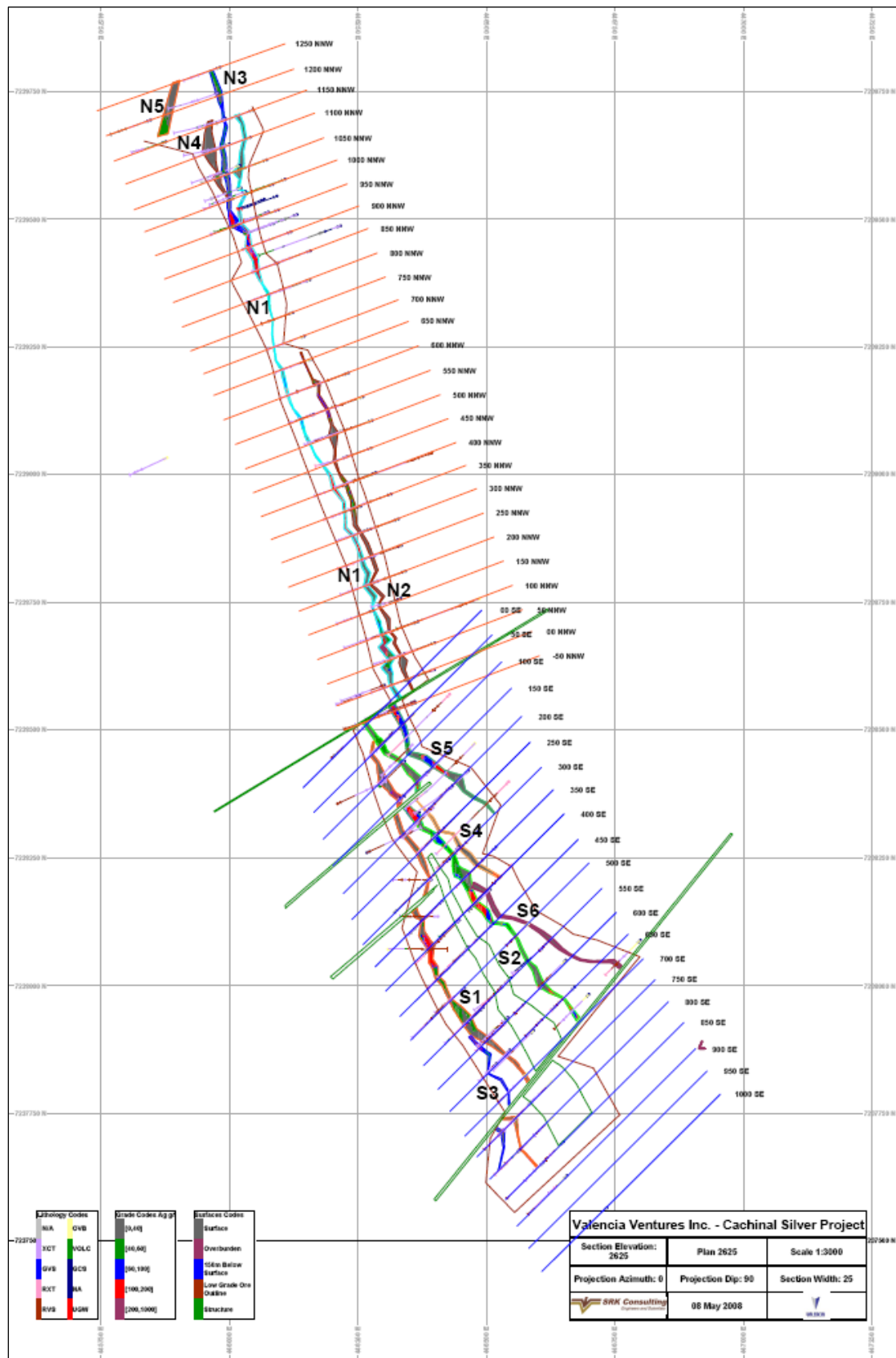


Figure 31: Silver-Bearing Wireframes Modelled for Cachinal Deposit





**Figure 32: Distribution of Drilling and Modelled Veins and location of Sections 1000 NNW and 300 SE**

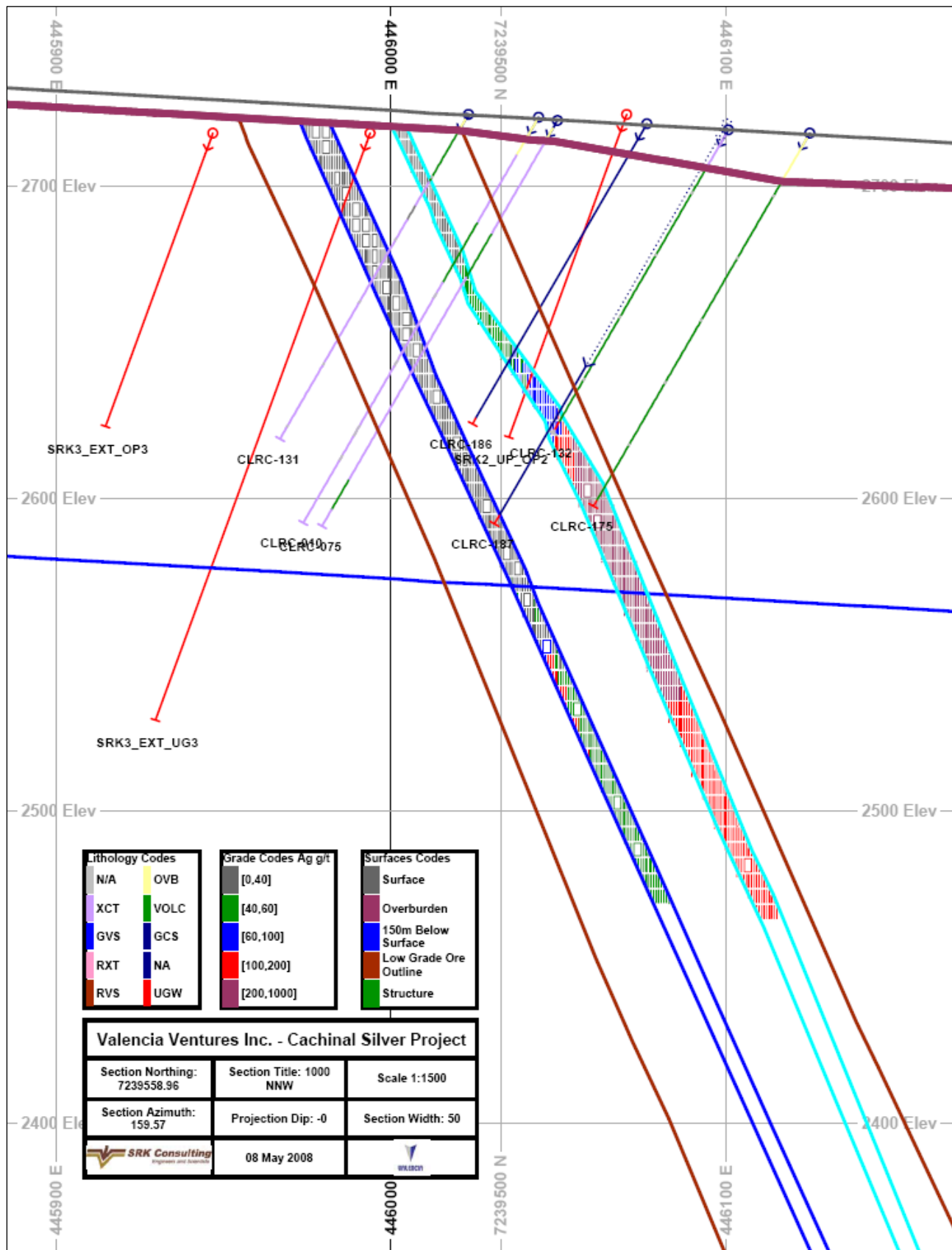


Figure 33: Section 1000 NNW (see for Figure 16 section location)

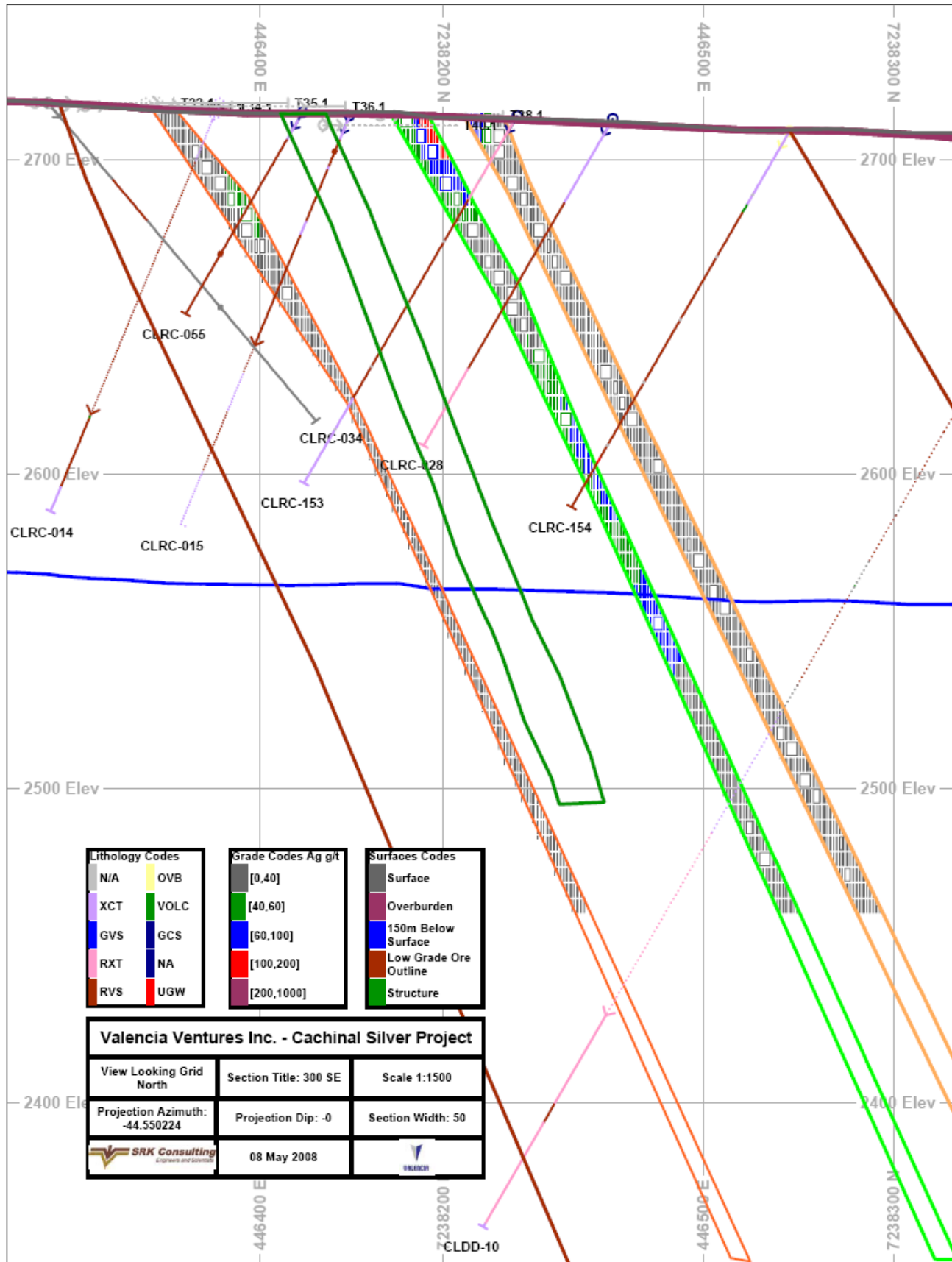


Figure 34: Section 300 SE (see for Figure 16 section location)

## 15 Adjacent Properties

Three small older mining concessions with preferential rights located on mining concessions Silvana 3 and 4, highlighted in Figure 2, Figure 3 and Figure 15 are located adjacent to the mineralization delineated on the Cachinal project. The presence or continuity of mineralization on these concessions is not known by the qualified person of this report.

Although there are no other significant adjacent properties that are considered directly relevant to the mineral resource reported in this technical report, Austral Gold's Guanaco Gold Project, comprising the Guanaco and Amancaya mines, is located approximately 16 kilometres to the south of the Cachinal project (Figure 35). Although geologically not related to the mineral resource reported in this technical report, the Guanaco Gold Project merely demonstrates the ability to build and operate a precious metal operation in the Cachinal district.

The information below is extracted from the Roscoe Postle Associates (2017) technical report on the Guanaco Gold Project.

The Guanaco Gold Project deposits are considered an example of a high-sulphidation epithermal deposit. The Guanaco Gold Project has produced approximately 50,000 ounces of gold per year for the last four years from a heap leach operation. In late 2017, a new processing plant was commissioned, designed to treat up to 1,500 tonnes per day using crushing, grinding, agitated cyanide leaching and Merrill-Crowe to produce doré. Ore is sourced from underground at Guanaco and from Amancaya, a satellite deposit, where ore is hauled by contractor via a 75-kilometre road.

The Guanaco camp has capacity for 333 people. Power is a 34.8-kilometre long, 33-kilovolt power line and substation that were constructed to transport power from the Central Interconnected System (SIC, Sistema Interconectado Central) to the Guanaco operations. Diesel generators provide backup power generation. The Guanaco Gold Project operations have water rights to 18.79 litres per second: 4.84 litres per second, that is sourced from a surface catchment area and piped under gravity 30 kilometres to Guanaco, with the remaining 13.95 litres per second from wells.

The underground operations at Guanaco and Amancaya are designed to produce approximately 1,000 tonnes per day and 800 tonnes per day, respectively. Open pit operations at Amancaya commenced early 2017 are planned to produce 400 tonnes per day. Each operation will overlap to produce an average mill feed of approximately 1,000 tonnes per day during peak production in 2017 and 2018.

The mineral resources for the Guanaco Gold Project as of December 31, 2016 are tabulated in Table 17. The qualified person is unable to verify this information and cautions that this information is not necessarily indicative of the mineralization on the property that is the subject of the technical report

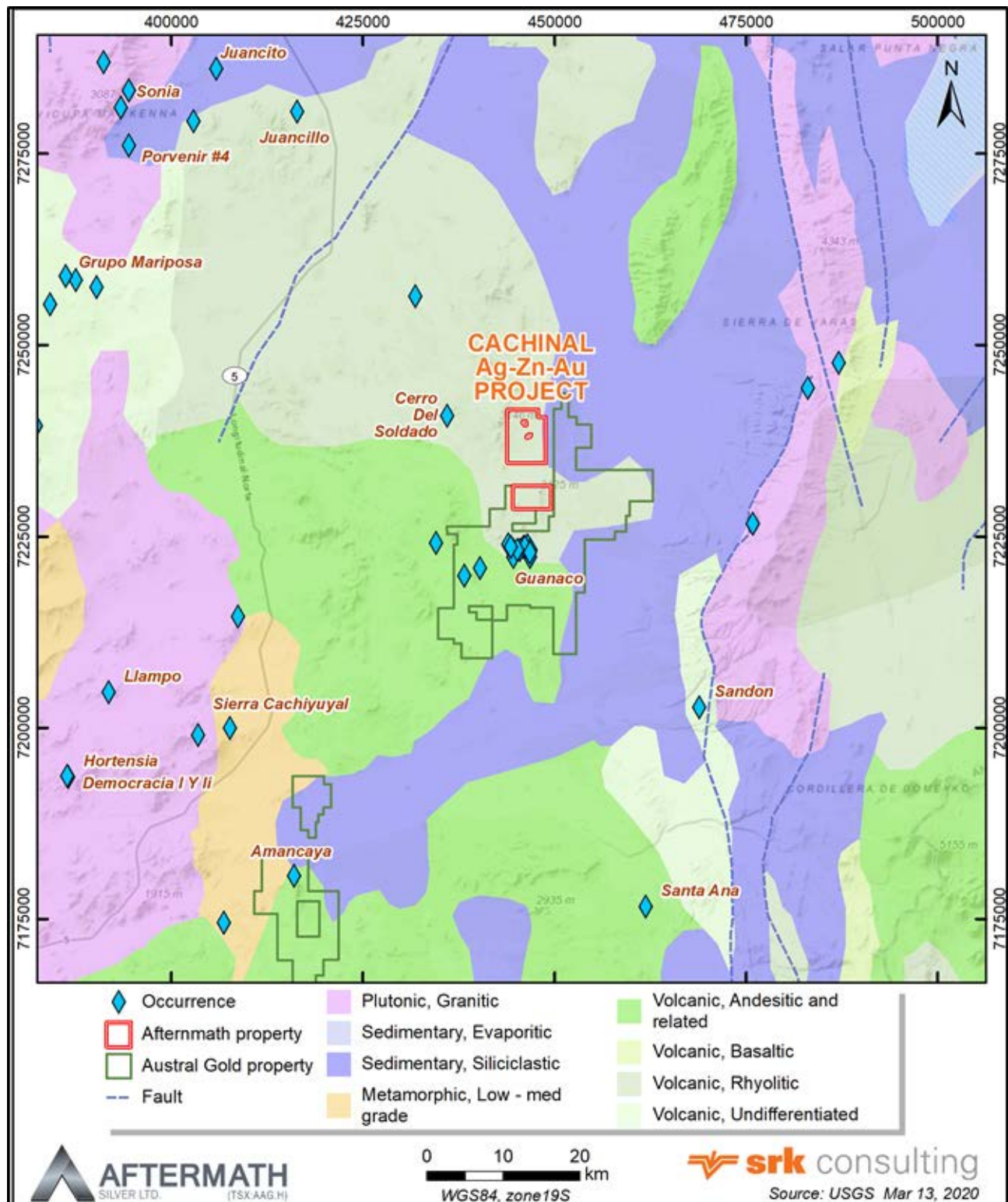


Figure 35: Mineral Properties and Occurrences in the Vicinity of the Cachinal Gold Project

**Table 17: Audited Mineral Resource Statement Guanaco Gold Project, Roscoe Postle Associates, December 31, 2016\***

	Tonnes (kt)	Grade (g/t)			Ounces (koz)		
		Au	Ag	AuEq	Au	Ag	AuEq
<b>Guanaco</b>							
Underground							
Measured	641	3.02	12.90	3.19	62	266	66
Indicated	1,552	2.86	13.00	3.03	143	650	151
M+I	2,193	2.90	13.00	3.08	205	916	217
Inferred	1,200	2.60	13.00	2.80	100	500	110
<b>Amancaya</b>							
Open Pit							
Indicated	172	11.24	177.50	13.61	32	979	75
Inferred	60	7.60	110.00	9.00	15	210	20
Underground							
Indicated	633	9.21	54.50	9.94	187	1,110	202
Inferred	900	6.70	31.00	7.20	195	910	210
<b>Subtotal Indicated</b>	<b>805</b>	<b>9.64</b>	<b>80.70</b>	<b>10.72</b>	<b>249</b>	<b>2,088</b>	<b>277</b>
<b>Subtotal Inferred</b>	<b>960</b>	<b>6.80</b>	<b>36.00</b>	<b>7.30</b>	<b>210</b>	<b>1,110</b>	<b>220</b>
<b>Total M+I</b>	<b>2,998</b>	<b>4.71</b>	<b>31.20</b>	<b>5.13</b>	<b>454</b>	<b>3,004</b>	<b>494</b>
<b>Total Inferred</b>	<b>2,150</b>	<b>4.50</b>	<b>23.00</b>	<b>4.80</b>	<b>310</b>	<b>1,600</b>	<b>330</b>

\* Notes:

Mineral Resources followed CIM definitions and are compliant with the JORC Code.

Mineral Resources are reported inclusive of Mineral Reserves.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

For Guanaco, Mineral Resources are reported at a 1.5 g/t AuEq cut-off grade.

For Amancaya, open pit Mineral Resources are reported at a cut-off grade of 1.5 g/t AuEq. Pit optimization shells were used to constrain the resources. Underground Mineral Resources are estimated at a cut-off grade of 2.5 g/t AuEq beneath the open pit shells.

Mineral Resources are estimated using a long-term gold price of US\$1,300 per ounce and a silver price of US\$20 per ounce.

Gold Equivalents (AuEq) were calculated as  $AuEq = Au + 0.0134 \times Ag$  based on a gold and silver price of \$1,300/oz and \$20/oz and recoveries of gold and silver of 92% and 80% respectively.

A minimum mining width of 1.0 m was used for the open pit resource at Amancaya, and 1.5 m for the underground resource at Guanaco and Amancaya.

Bulk density is 2.50 t/m<sup>3</sup>.

Numbers may not add due to rounding.



## 16 Interpretation and Conclusions

The authors of this report reviewed and audited the exploration data available for the Cachinal project. This review suggests that the available exploration data is generally reliable for the purpose of mineral resource estimation.

The QP was impressed by a geological interpretations generated by previous operators to construct geological and silver mineralization wireframes using Datamine software. Eleven separate silver mineralization wireframes were interpreted and modelled.

Following geostatistical analysis and variography, the QP constructed a mineral resource block model for the Cachinal silver deposit constraining grade interpolation to within the eleven silver mineralization domains. After validation and classification, the QP used preliminary pit optimization routines to assess the portions of the Cachinal deposit that shows reasonable prospects for economic extraction from an open pit. Material constrained within an optimized pit shell, reported at a cut-off grade of 30 g/t silver equivalent defines mineral resources amenable to extraction by open pit. Mineral resource blocks external to the optimized pit shell, which demonstrate reasonable continuity at an underground resource at a cut-off grade of 150 g/t silver equivalent, are considered to have reasonable prospects for eventual economic extraction by bulk mining underground methods.

Mineral resources for the Cachinal deposit have been estimated in conformity with generally accepted CIM “Estimation of Mineral Resource and Mineral Reserves Best Practices” Guidelines. In the opinion of the QP, the block model resource estimate and resource classification reported herein are a reasonable representation of the global silver and gold mineral resources found in the Cachinal deposit. There is some uncertainty regards the precise location of the full extent of historical workings, which presents a risk to the estimate. Additional drill data will provide more confidence to the definition of the modeled mineralization-hosting veins which may impact the volumetrics of the mineral resource model. The apparent discrepancy between the twinned reverse circulation and core drilling-derived assays should be investigated.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.

The drilling data generated after January 2008, have been reviewed and it is the opinion of the qualified person that this drilling data will not materially impact the mineral resource statement. The results of this drilling does not alter the recommendations for additional drilling expressed in this technical report.

## 17 Recommendations

The geological and mineral resource models were reviewed to identify any potential target areas warranting additional drilling. Each vein structure was closely examined on vertical sections to identify areas where additional drilling would positively impact the geological interpretation and possibly extend the vein model along strike and down-dip.

Three types of targets are identified. The first target type consists of extensions of existing veins along strike and down-dip beyond the available drilling information. The current geology and resource model has been cut to the north and south at the end of the drilling information, but the vein structures remain open at both ends and untested below the 250 metres depth. The QP is of the opinion that additional drilling will extend the silver mineralization further to the north and south and at depth.

The second target type consists of new vein structures intersected during the latest drilling and for which there are not enough drilling intersections to model a vein structure with confidence. One such target is located towards the south end of the deposit where a few boreholes suggest the presence of several vein splays. The other target area is located in the northern part of the deposit, to the west of the main vein structure.

The third target type consists of vein segments where the current drilling data suggest poor silver mineralization. In many instances, the resource model is driven by a few low-grade boreholes that sterilize the vein structure on some vertical sections. Considering the silver grade distribution observed in the Cachinal deposit, the QP considers that additional infill drilling in those areas may help constrain better the barren vein segments and therefore “upgrade” those areas. Two main targets of this type occur in the northern part of the deposit.

Twelve target areas were identified by the QP (Figure 14). Each target was assessed in terms of size, quality of the potential silver vein mineralization and potential quantities and grades. After review, the qualified persons designed a drill program to adequately test these targets, based on drilling two holes per section on average; one-hole testing at about the 100-metre elevation and the second at about 200-metre elevation.

Drilling undertaken after the cut-off date for this mineral resource model was aimed at infilling the deposit to fifty metre sections in the northern part of the deposit, testing the depth extensions of the deposit below the mineral resources and testing other exploration targets outside the resource areas. Some of the subsequent drilling tested some recommended drilling targets. In consideration for the subsequent drilling, the recommended drilling program was revised by the QP, to remove targets tested by the subsequent drilling. No drilling has been undertaken on the project since the ‘subsequent’ drilling program. The revised final recommended drilling program comprises a total of seventy-nine boreholes totalling 11,800 metres.

The QP proposes a phased approach to advancing the Cachinal project. In addition to the strategic exploration drilling outlined above, additional exploration and engineering activities such as satellite surveys, database management and metallurgical testwork will need to be undertaken. The QP supports the multi-disciplinary Phase 1 exploration program proposed by Aftermath (Table 18), which is estimated to cost C\$655,000.

**Table 18: Phase 1 Exploration and Engineering Studies Program for the Cachinal Project**

<b>Description</b>	<b>Quantity</b>	<b>Unit Cost (C\$)</b>	<b>Total (C\$)</b>
<b>Drilling and Exploration</b>			
Base Line Archaeological Survey			50,000
Satellite Image Acquisition			25,000
Database Generation and Management			35,000
Drill Program Design			30,000
Phase 1: Diamond Drilling Program	1,500m	250/m	375,000
<b>Subtotal</b>			<b>515,000</b>
<b>Engineering and Other Studies</b>			
3D Underground Void Survey			80,000
Phase 1: Metallurgical Testwork			60,000
<b>Subtotal</b>			<b>140,000</b>
<b>Total</b>			<b>655,000</b>

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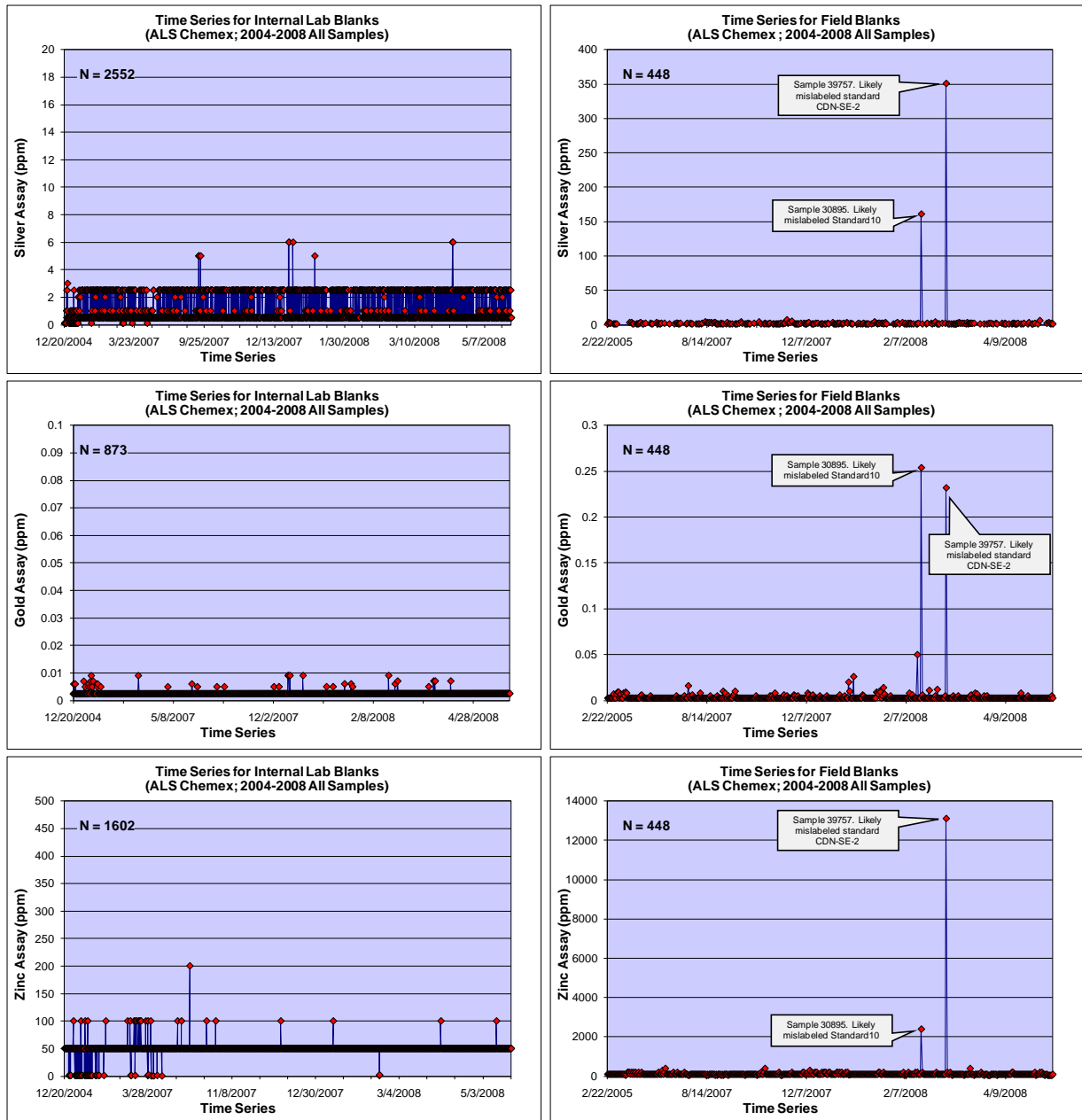
## **APPENDIX A**

### **Analytical Quality Control Data**

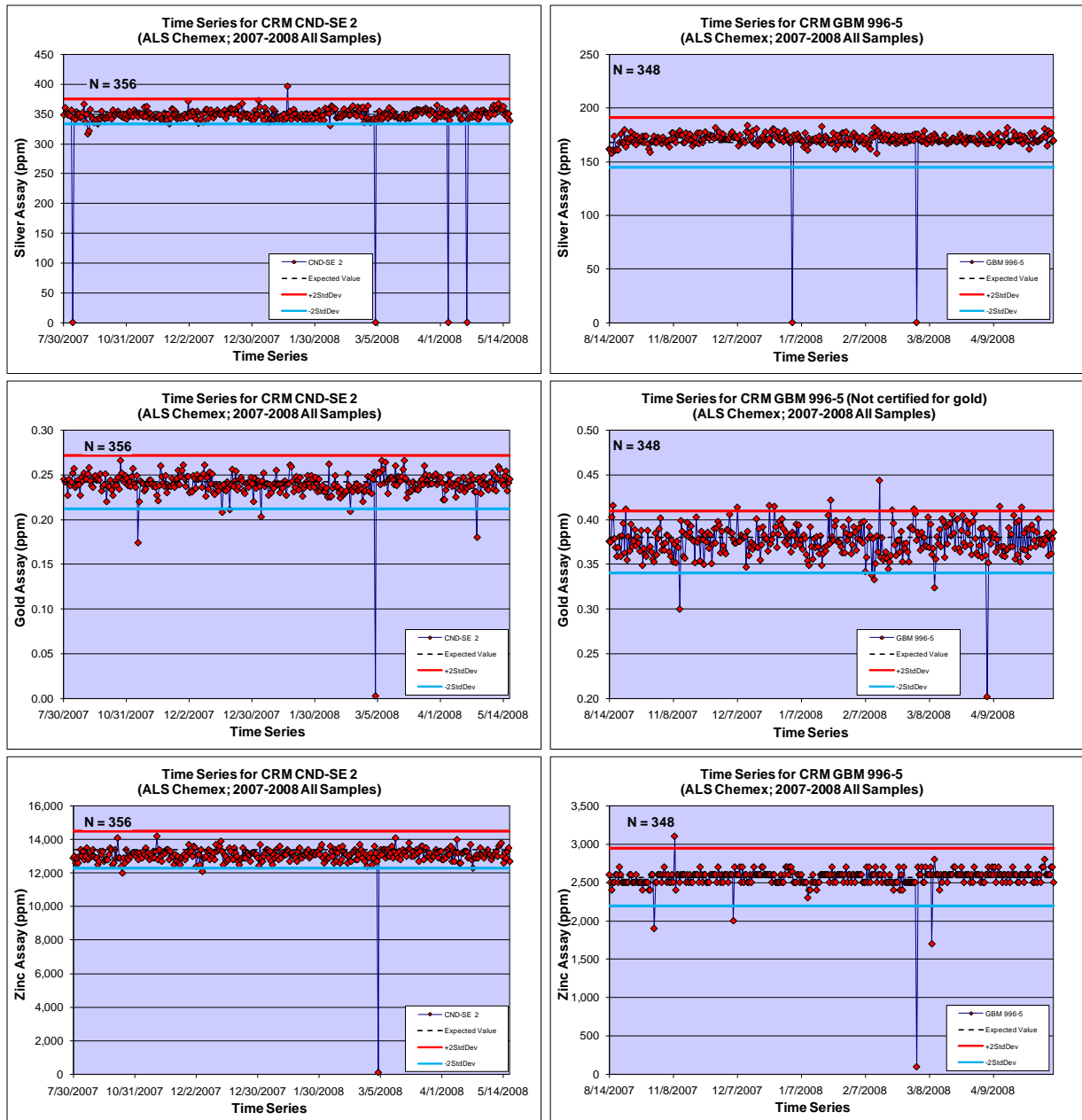
- Time Series for Control Samples
- Selected Bias and Relative Precision Charts for Silver, Gold and Zinc.



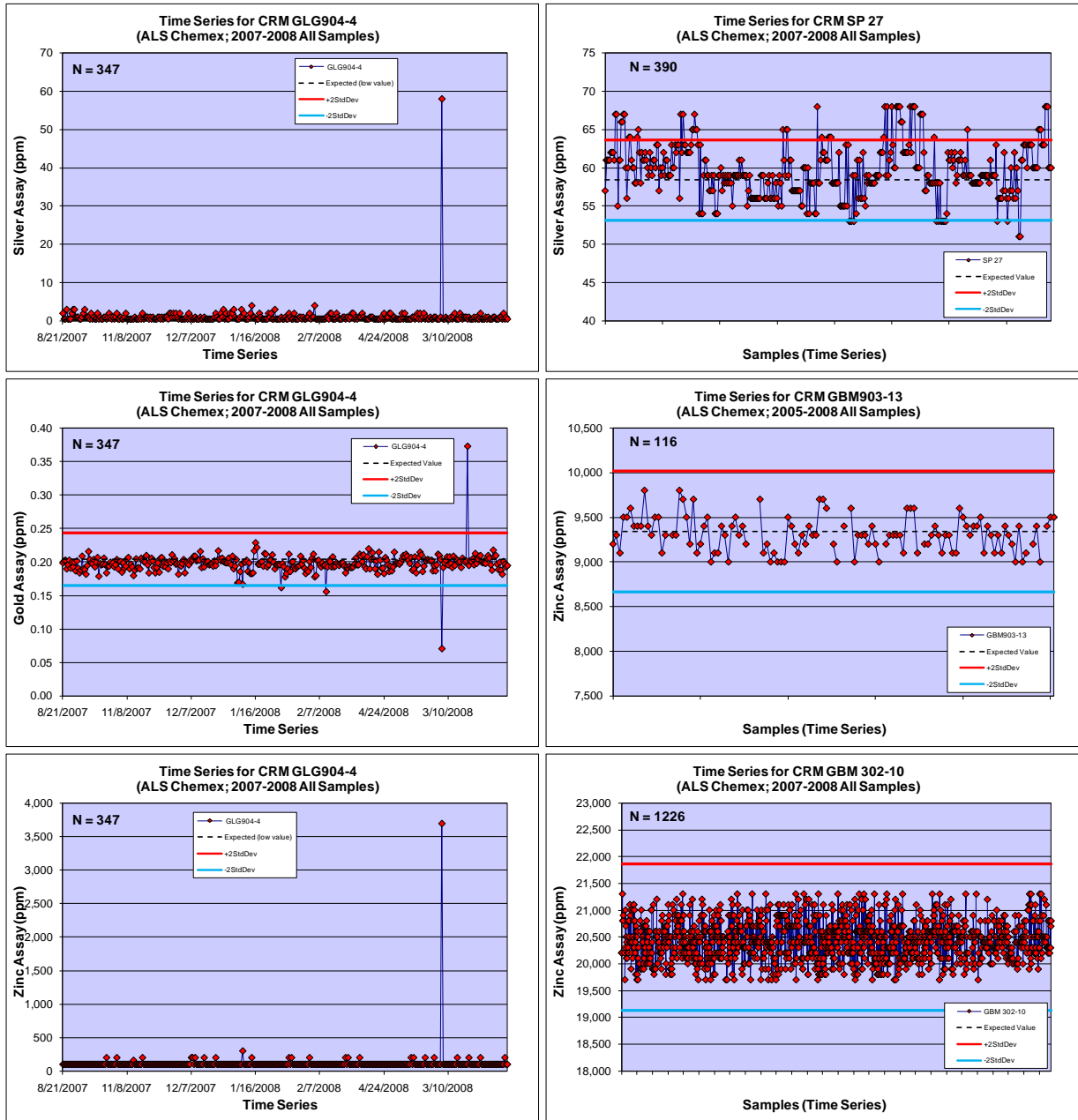
## ALS-Chemex Blank Samples (left) and Valencia Field Blank Samples (right) time series charts



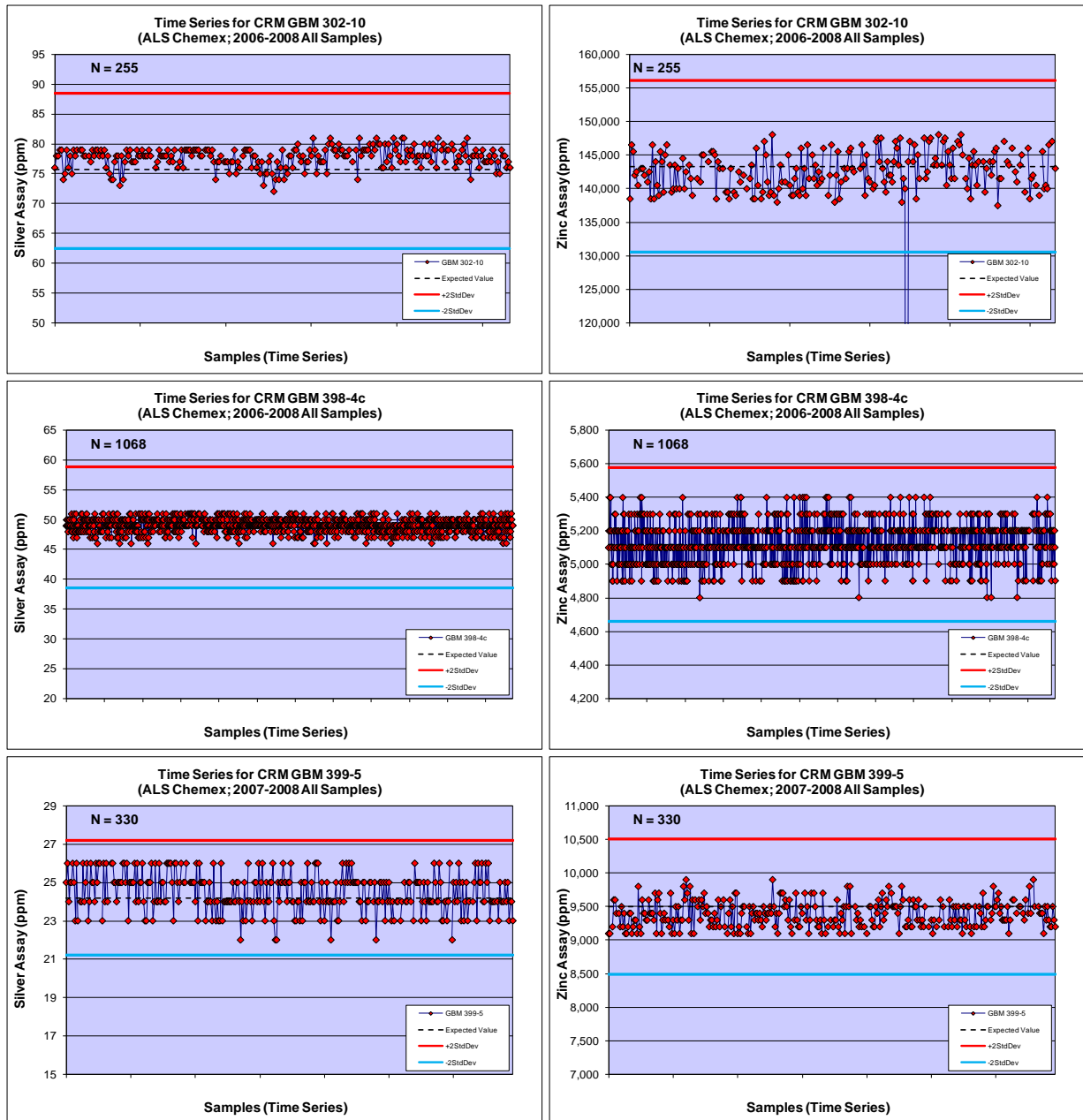
## Assay results for standards CND-SE-2 and GBM-996-5.



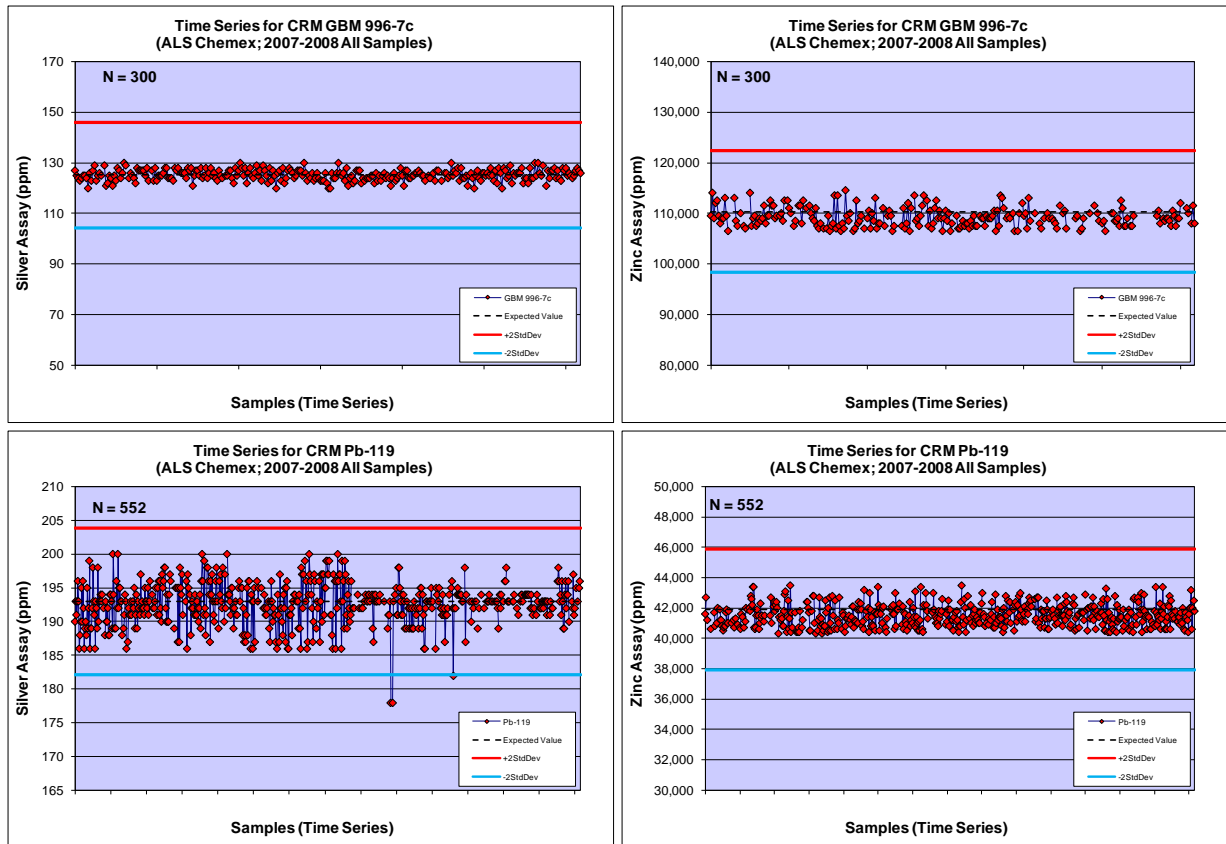
## Assay results for standards GBM-904-4, SP 27, GBM-903-13, and GBM-302-10



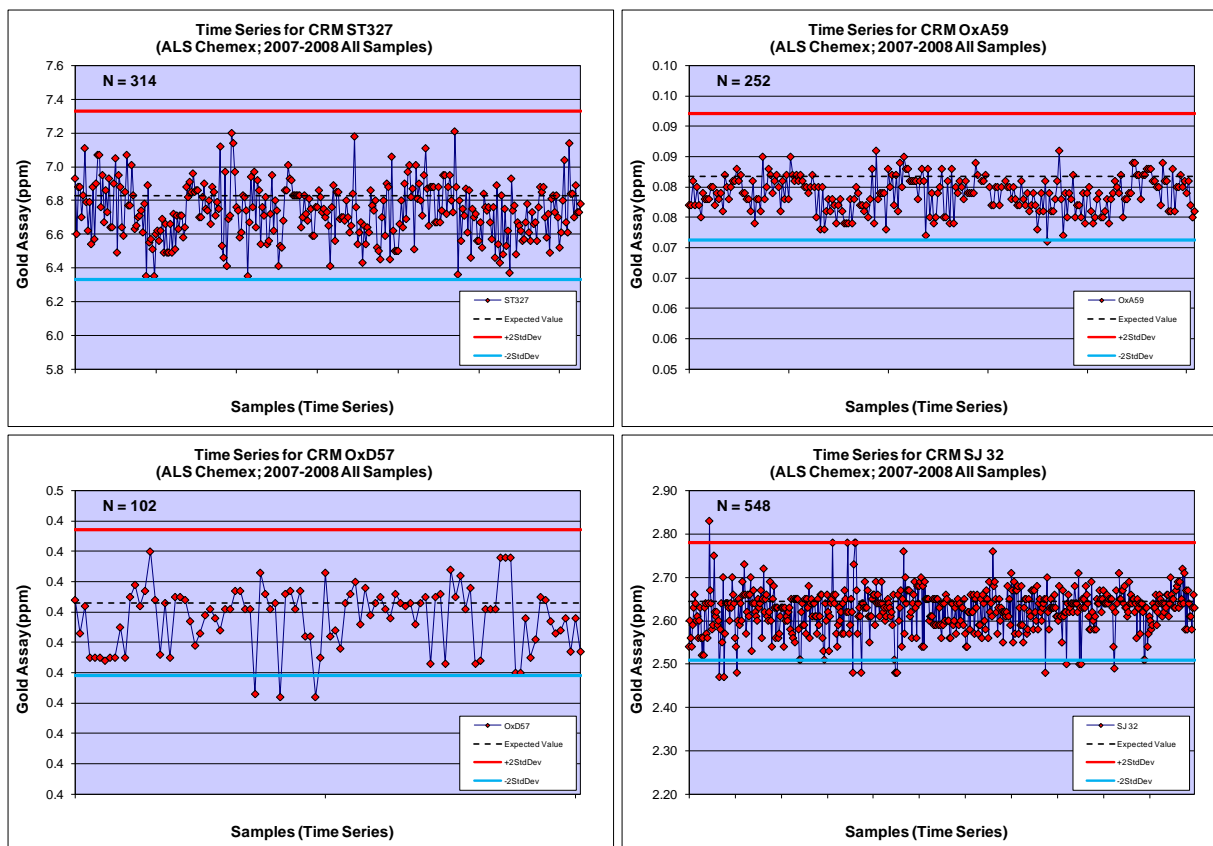
Assay results for standards GBM-302-10, GBM-398-4c, and GBM-399-5.



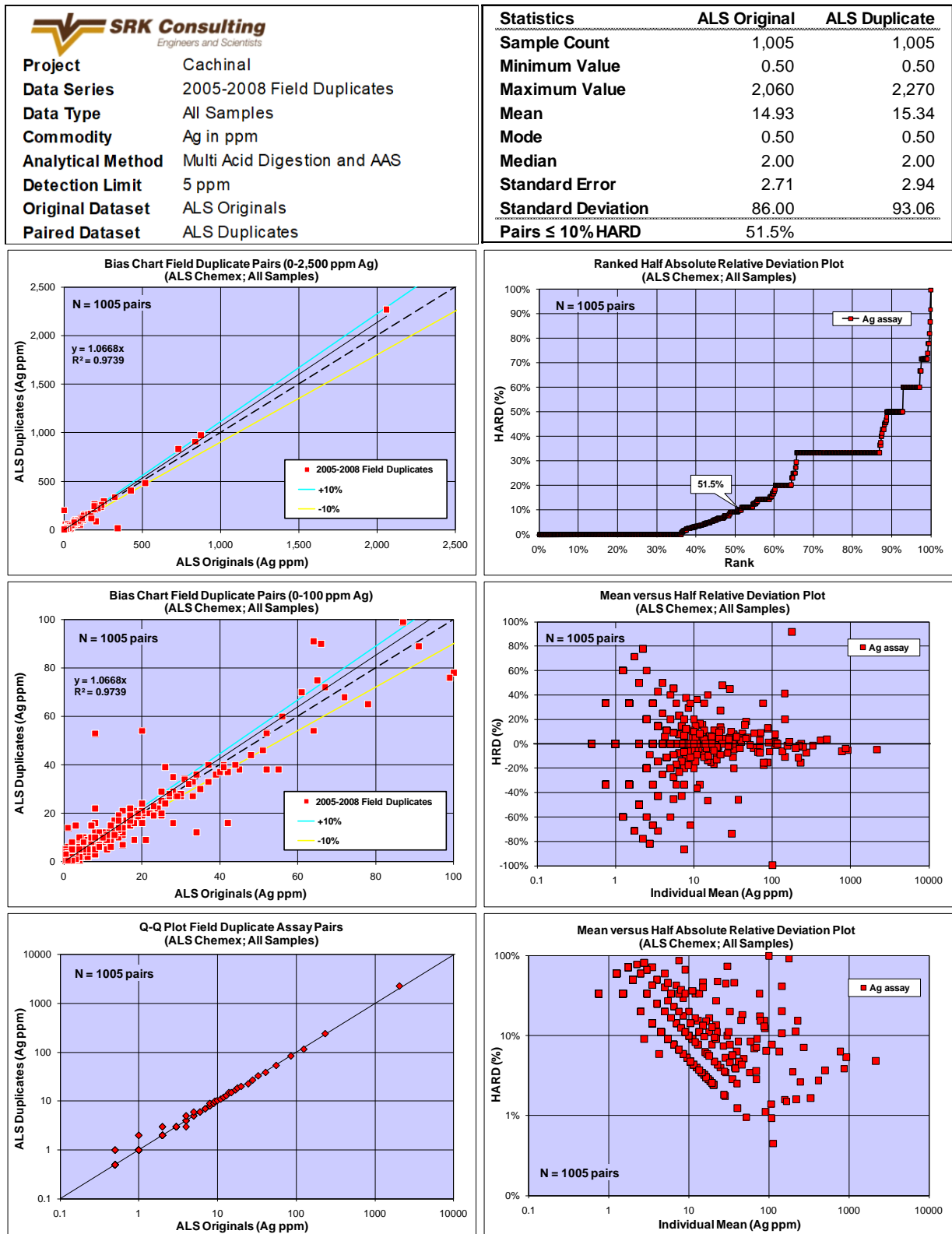
# Assay results for standards GBM-996-7c and Pb-119.



Assay results for gold standards ST 327, OxA 59, OxD 57, and SJ 32.

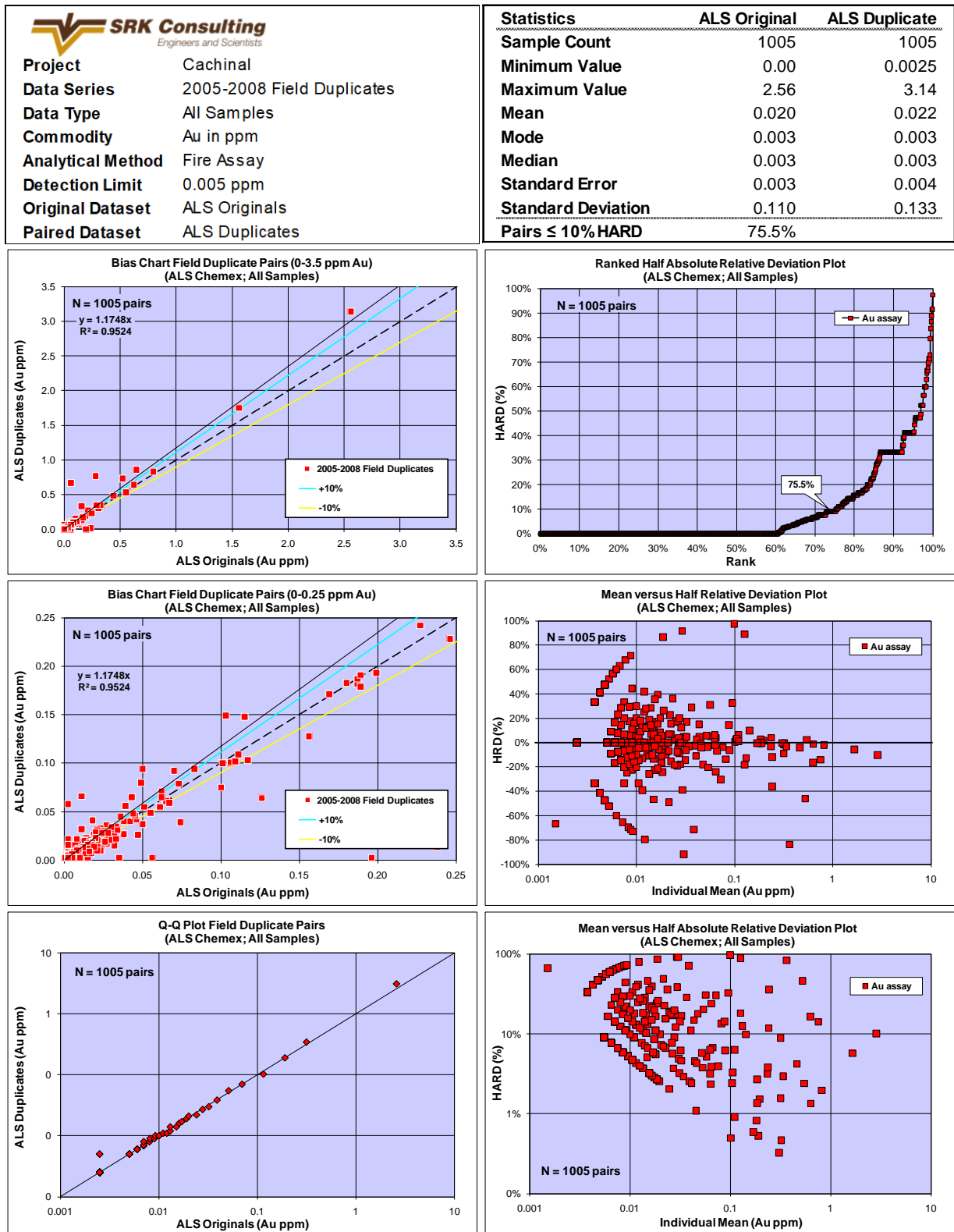


Silver Assay Results for Field Duplicate Pairs including Trench, RC Chip and Core Samples.

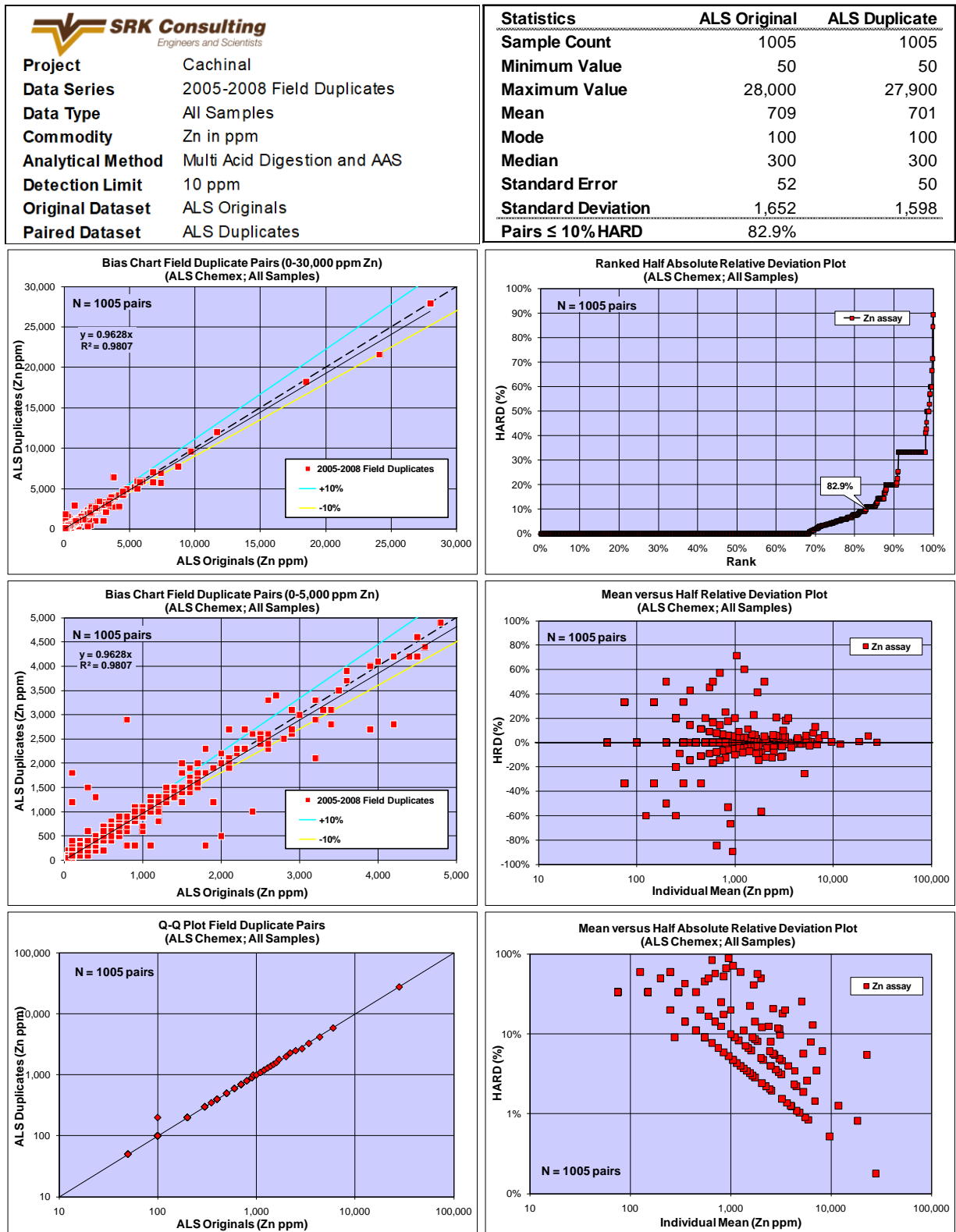




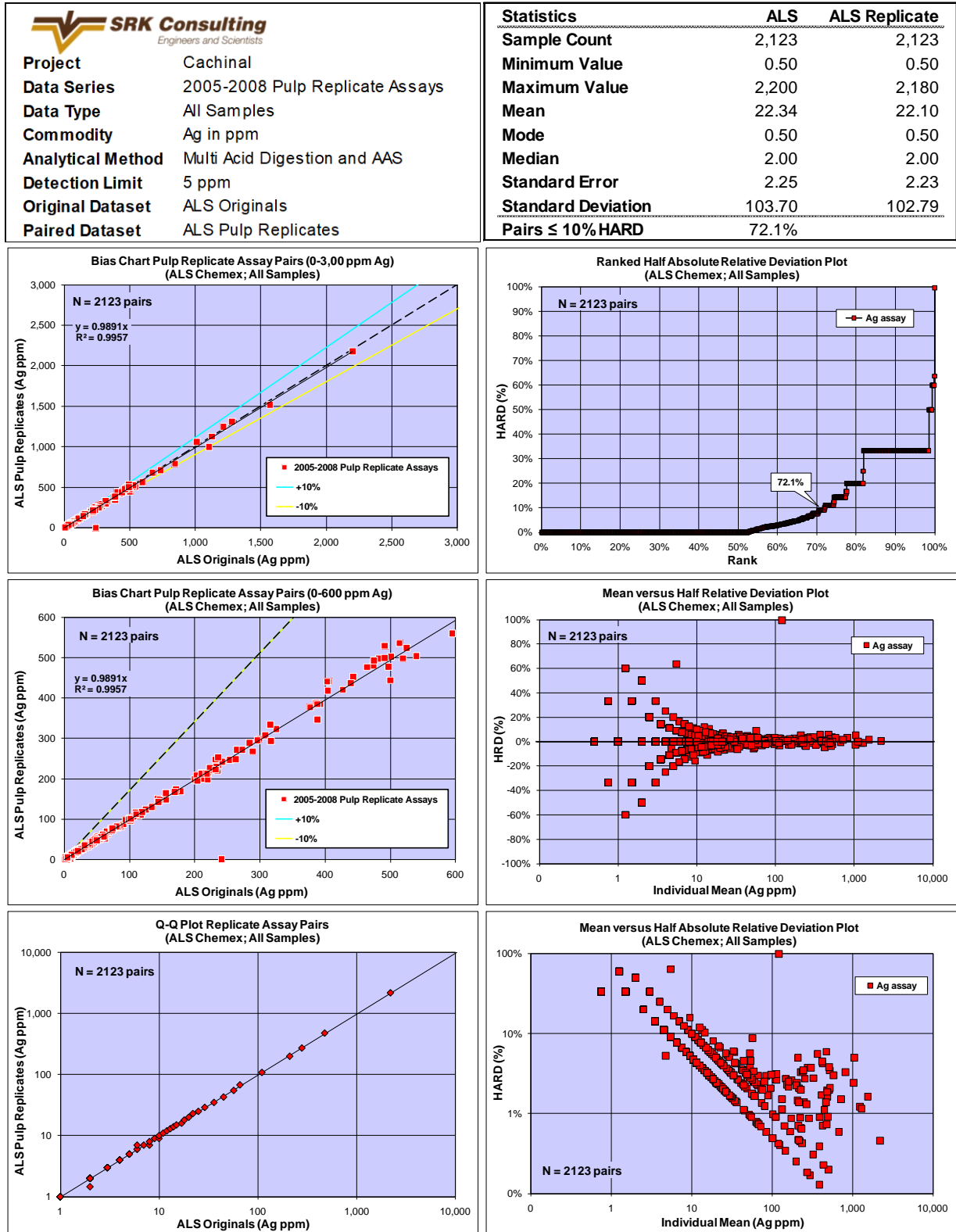
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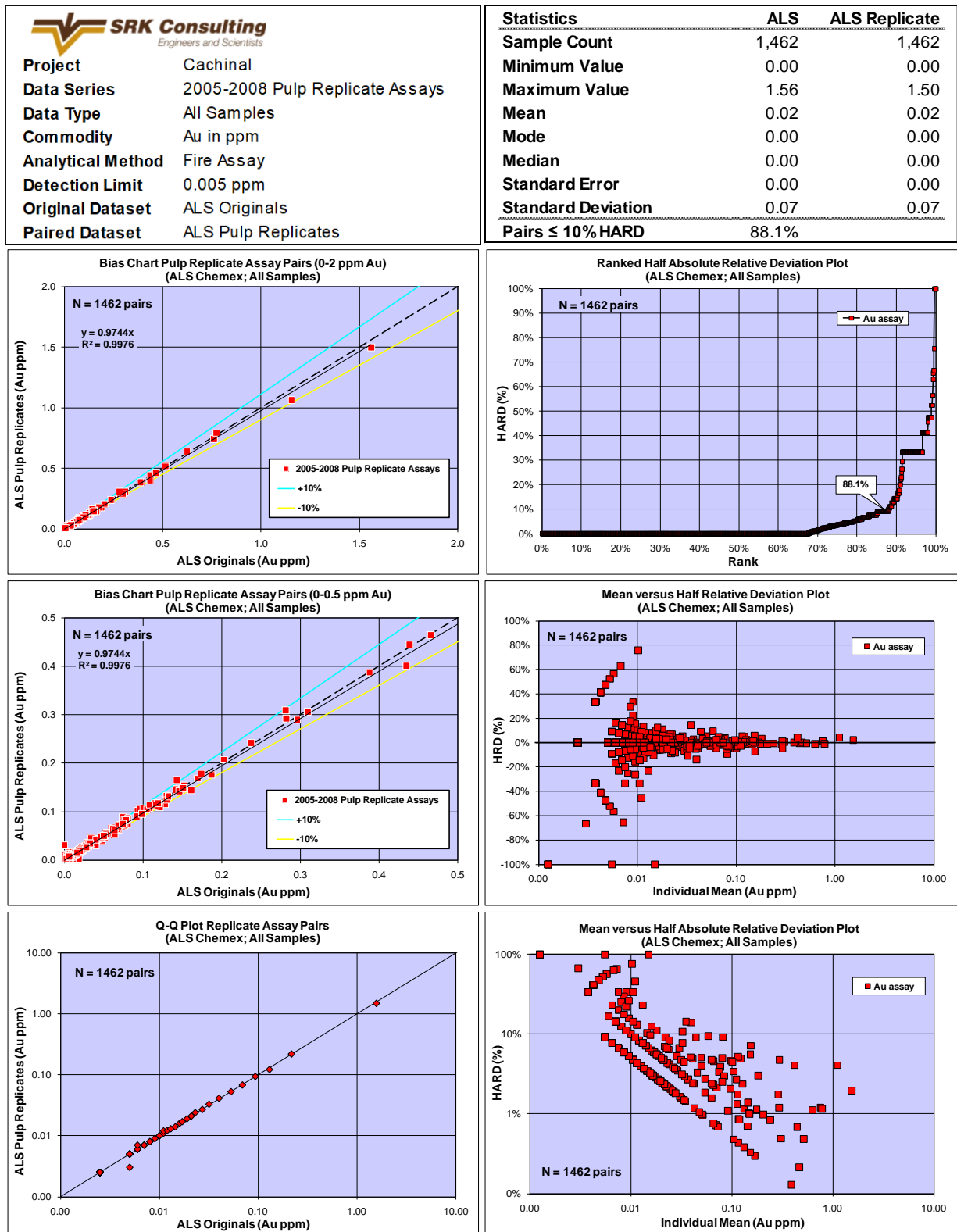
## Zinc Assay Results for Field Duplicate Pairs including Trench, RC Chip and Core Samples.



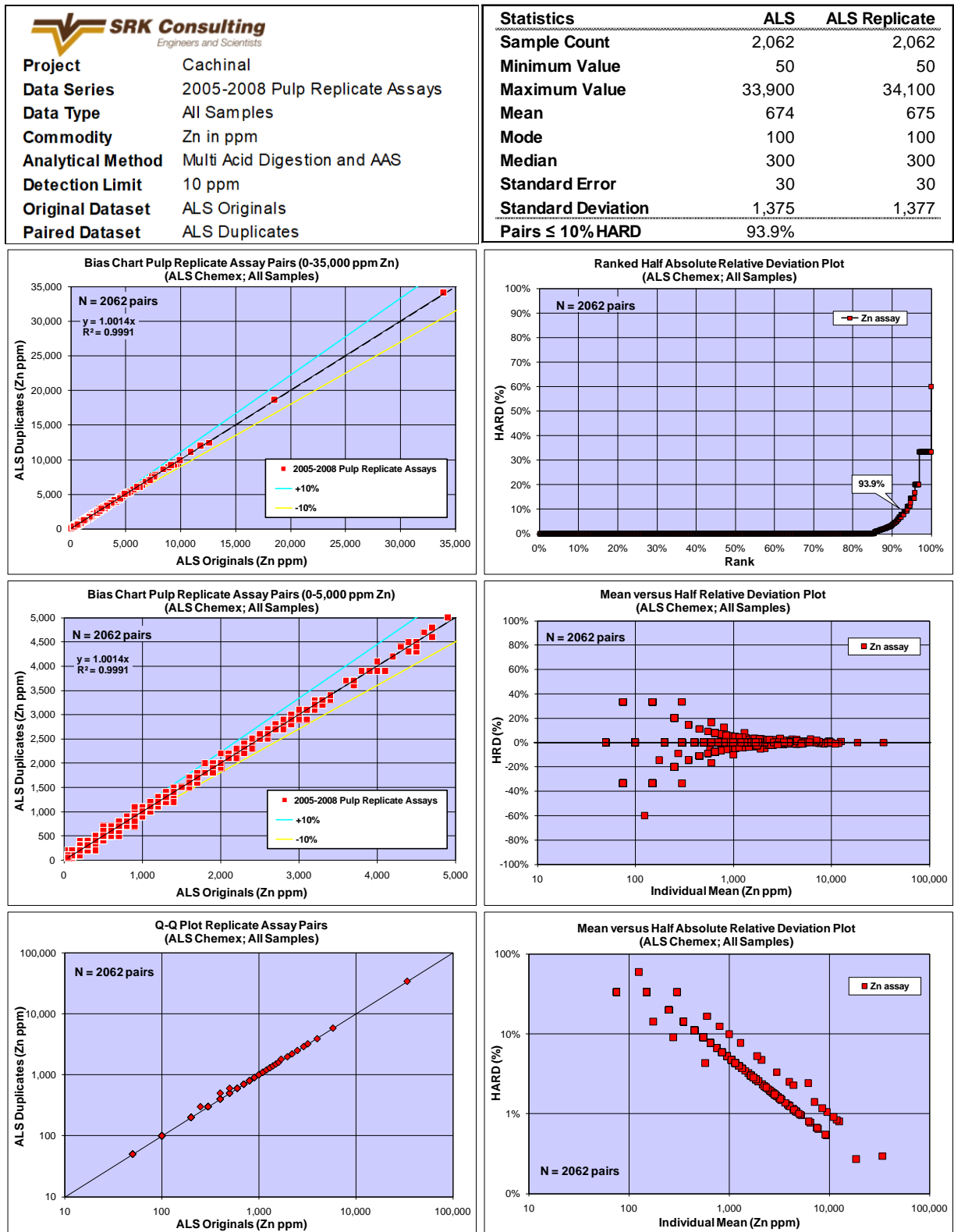
Silver Assay Results for Pulp Replicate Pairs of Trench, RC chip and Core samples.



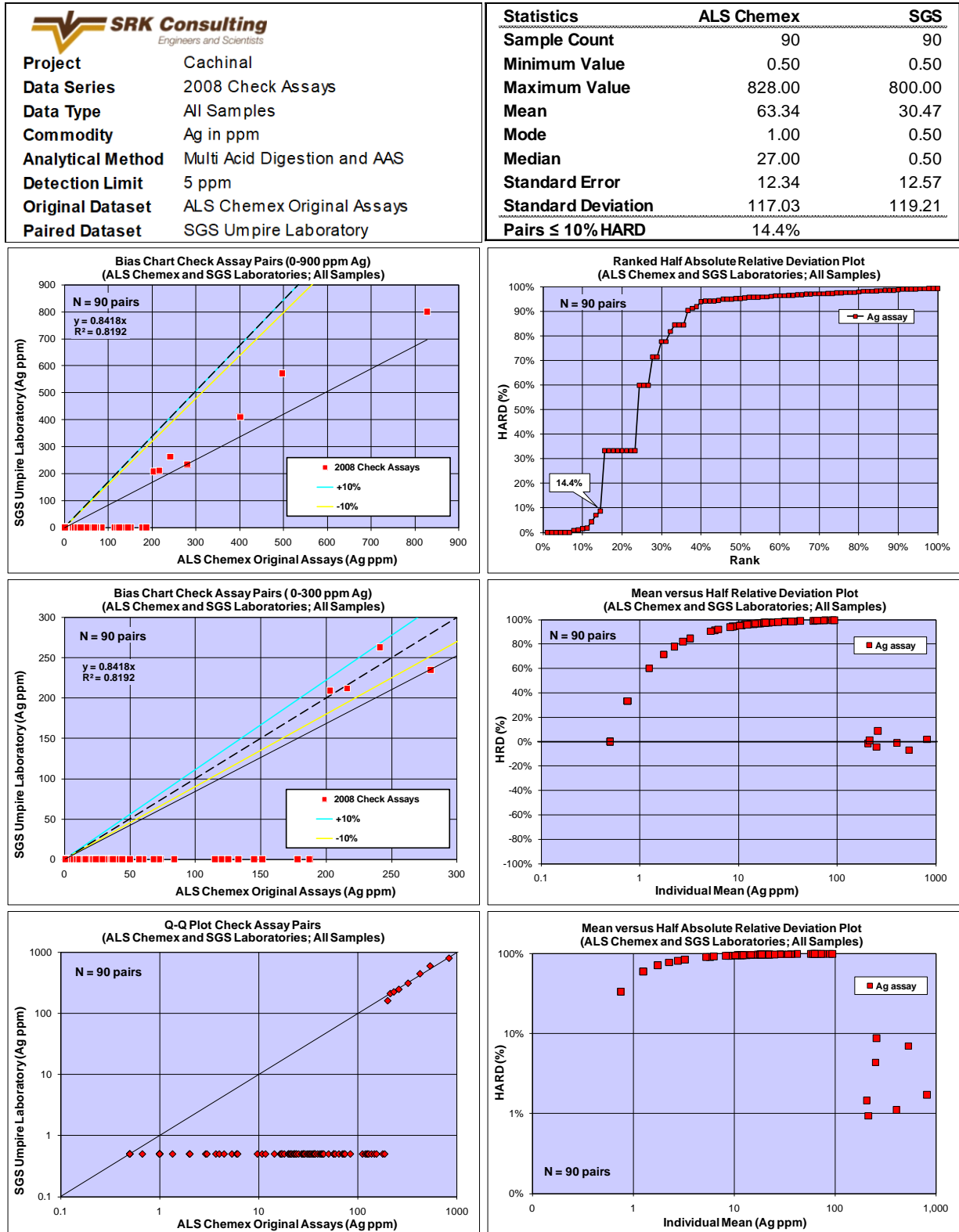
Gold Assay Results for Pulp Replicate Pairs of Trench, RC chip and Core samples.



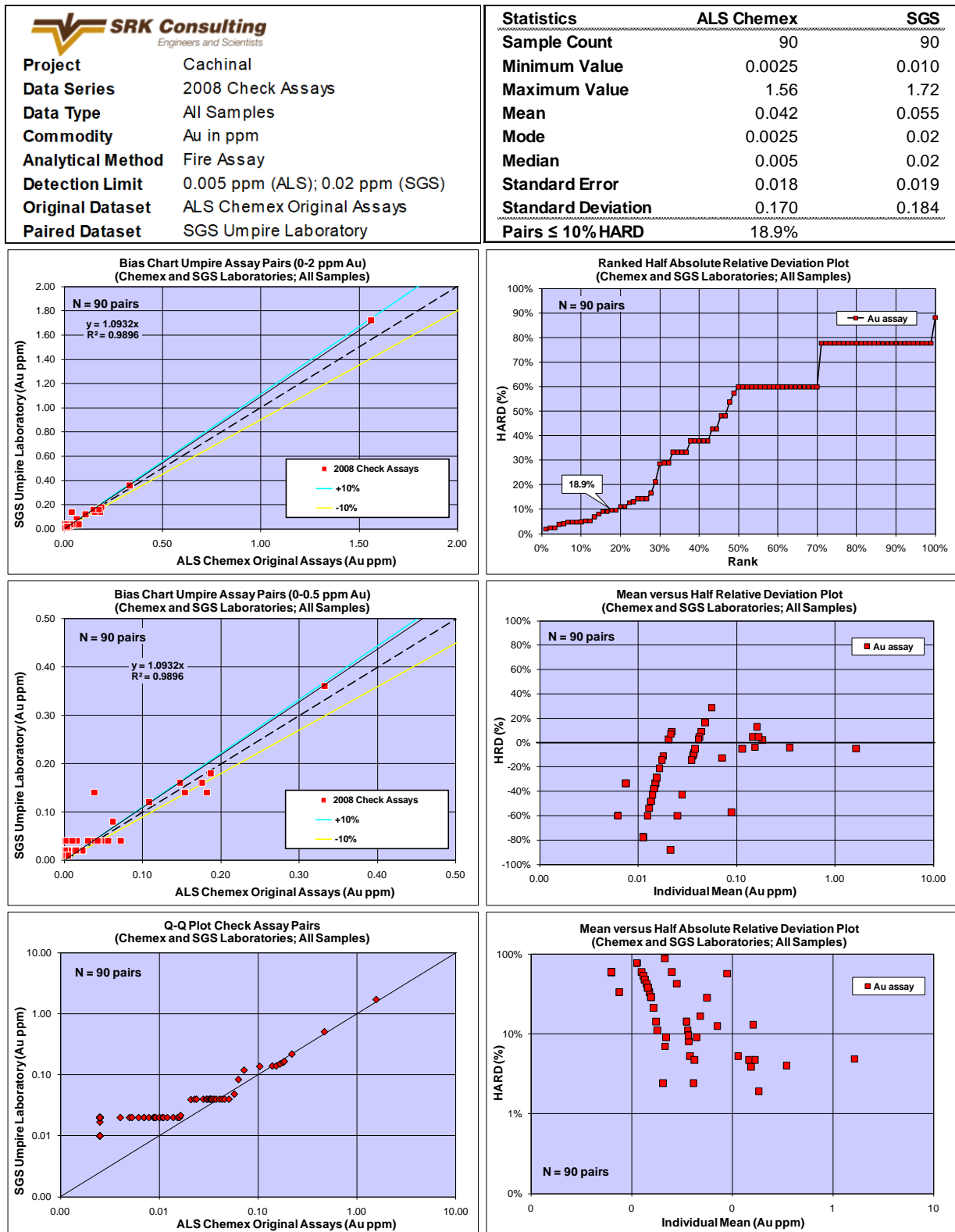
## Zinc Assay Results for Pulp Replicate Pairs of Trench, RC chip and Core samples.



Silver Assay Results for Umpire Sample Pairs of Trench, RC chip and Core samples.

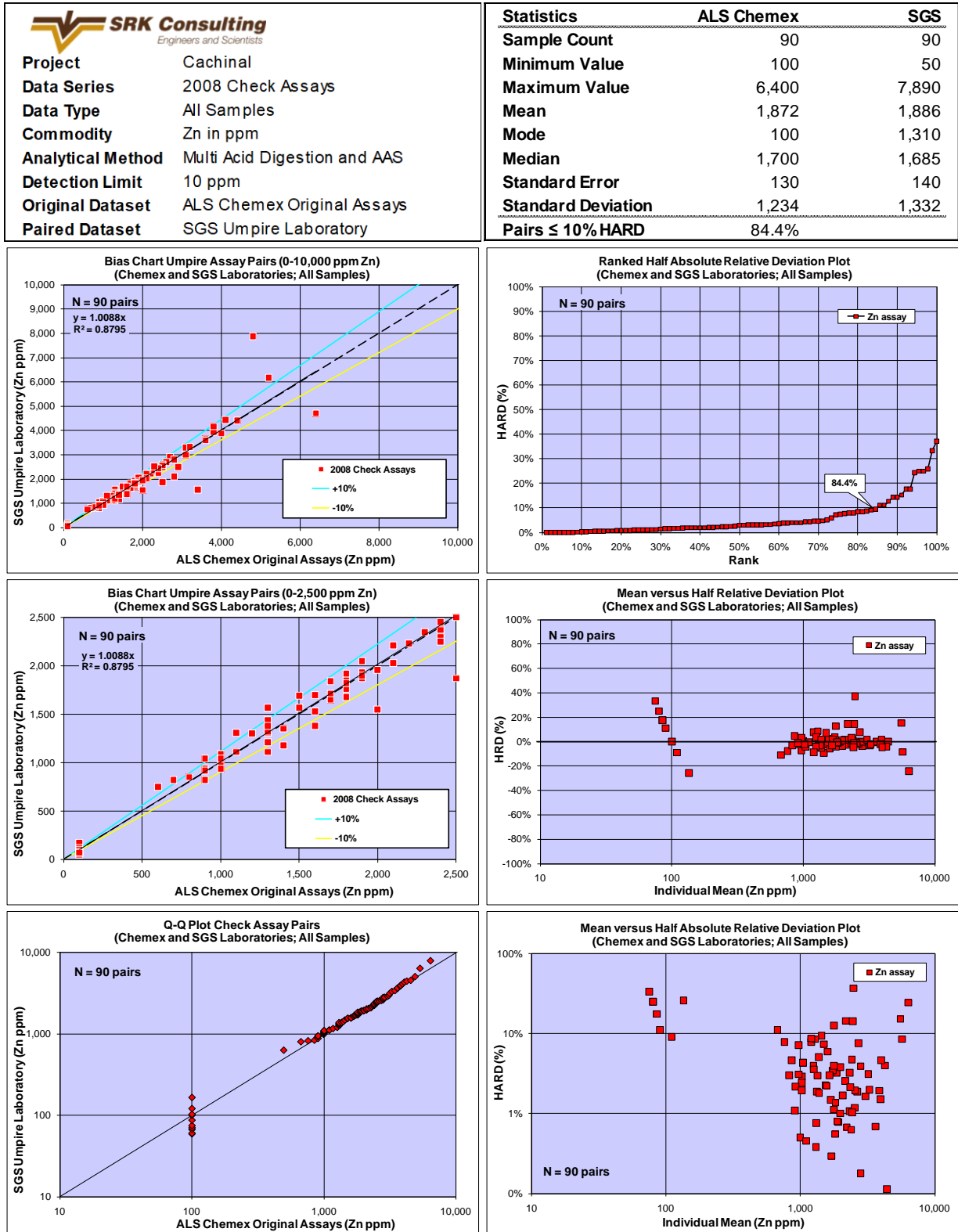


## Gold Assay Results for Umpire Sample Pairs of Trench, RC chip and Core samples.





Zinc Assay Results for Umpire Sample Pairs of Trench, RC chip and Core samples.



## **APPENDIX B**

### **Specific Gravity Database for the Cachinal Silver-Gold Deposit**

Specific Gravity measurement on mineralized core samples within the vein wireframes.

Borehole ID	From (metre)	To (metre)	Width (metre)	Sp. Gravity. (g/cm <sup>3</sup> )	Borehole ID	From (metre)	To (metre)	Width (metre)	Sp. Gravity (g/cm <sup>3</sup> )
CLDD-06	152.85	153.00	0.15	2.42	CLDD-11	262.69	262.82	0.13	2.36
CLDD-06	156.93	157.08	0.15	2.41	CLDD-11	266.73	266.84	0.11	2.21
CLDD-06	162.43	162.58	0.15	2.47	CLDD-11	270.44	270.58	0.14	2.25
CLDD-06	174.24	174.39	0.15	2.45	CLDD-11	277.22	277.42	0.20	2.46
CLDD-06	244.04	244.19	0.15	2.43	CLDD-12	18.26	18.44	0.18	2.49
CLDD-06	245.76	245.90	0.14	2.46	CLDD-12	23.80	23.96	0.16	2.31
CLDD-06	257.60	257.75	0.15	2.44	CLDD-12	29.71	29.91	0.20	2.50
CLDD-06	261.82	261.97	0.15	2.42	CLDD-12	44.15	44.28	0.13	2.34
CLDD-06	266.92	267.06	0.14	2.43	CLDD-12	55.02	55.18	0.16	2.37
CLDD-06	272.15	272.30	0.15	2.42	CLDD-12	73.39	73.52	0.13	2.33
CLDD-06	279.36	279.51	0.15	2.46	CLDD-12	86.10	86.24	0.14	2.46
CLDD-06	280.85	281.00	0.15	2.45	CLDD-12	102.51	102.64	0.13	2.42
CLDD-06	288.55	288.70	0.15	2.39	CLDD-12	116.10	116.24	0.14	2.38
CLDD-06	295.85	296.00	0.15	2.39	CLDD-12	134.10	134.28	0.18	2.49
CLDD-06	302.67	302.82	0.15	2.50	CLDD-12	137.13	137.27	0.14	2.40
CLDD-06	323.32	323.47	0.15	2.38	CLDD-12	142.30	142.44	0.14	2.41
CLDD-06	327.92	328.07	0.15	2.48	CLDD-12	149.41	149.54	0.13	2.45
CLDD-07	190.92	191.07	0.15	2.45	CLDD-12	159.41	159.55	0.14	2.31
CLDD-07	243.10	243.25	0.15	2.47	CLDD-12	170.10	170.22	0.12	2.36
CLDD-07	248.27	248.42	0.15	2.53	CLDD-12	177.69	177.86	0.17	2.38
CLDD-07	253.90	254.05	0.15	2.46	CLDD-12	193.85	194.04	0.19	2.35
CLDD-07	263.34	263.49	0.15	2.43	CLDD-12	207.61	207.79	0.18	2.39
CLDD-07	269.07	269.22	0.15	2.58	CLDD-12	216.16	216.32	0.16	2.42
CLDD-07	274.18	274.30	0.12	2.52	CLDD-12	222.19	222.35	0.16	2.44
CLDD-07	276.63	276.78	0.15	2.63	CLDD-12	228.75	228.87	0.12	2.42
CLDD-08	42.50	42.64	0.14	2.33	CLDD-12	234.28	234.44	0.16	2.41
CLDD-08	240.86	241.01	0.15	2.52	CLDD-12	238.60	238.75	0.15	2.41
CLDD-08	247.00	247.10	0.10	2.30	CLDD-12	243.82	243.96	0.14	2.42
CLDD-08	250.56	250.66	0.10	2.33	CLDD-12	247.80	247.98	0.18	2.43
CLDD-08	265.96	266.11	0.15	2.48	CLDD-12	254.28	254.41	0.13	2.45
CLDD-08	273.54	273.65	0.11	2.28	CLDD-12	257.54	257.69	0.15	2.41
CLDD-10	228.11	228.26	0.15	2.48	CLDD-12	264.56	264.68	0.12	2.38
CLDD-10	243.87	244.03	0.16	2.51	CLDD-12	274.35	274.48	0.13	2.39
CLDD-10	255.38	255.49	0.11	2.51	CLDD-12	292.23	292.39	0.16	2.46
CLDD-10	259.07	259.22	0.15	2.42	CLDD-12	320.50	320.64	0.14	2.49
CLDD-10	266.58	266.73	0.15	2.45	CLDD-12	336.19	336.34	0.15	2.47
CLDD-10	275.74	275.90	0.16	2.41	CLDD-12	349.76	349.93	0.17	2.40
CLDD-10	289.70	289.85	0.15	2.39	CLDD-12	362.42	362.57	0.15	2.49
CLDD-10	318.85	319.00	0.15	2.47	CLDD-12	383.45	383.55	0.10	2.35
CLDD-10	325.62	325.77	0.15	2.32	CLDD-13	127.20	127.34	0.14	2.44
CLDD-10	327.04	327.14	0.10	2.51	CLDD-13	133.27	133.39	0.12	2.45
CLDD-10	332.05	332.22	0.17	2.45	CLDD-13	137.20	137.36	0.16	2.46
CLDD-10	339.70	339.84	0.14	2.30	CLDD-14	43.93	44.03	0.10	2.54
CLDD-10	344.58	344.70	0.12	2.16	CLDD-14	153.40	153.54	0.14	2.49
CLDD-10	358.05	358.18	0.13	2.32	CLDD-14	243.33	243.46	0.13	2.49
CLDD-11	35.43	35.57	0.14	2.39	CLDD-14	249.65	249.79	0.14	2.44
CLDD-11	145.10	145.25	0.15	2.61	CLDD-14	252.16	252.26	0.10	2.51
CLDD-11	145.10	145.25	0.15	2.48	CLDD-14	256.37	256.51	0.14	2.51
CLDD-11	147.57	147.72	0.15	2.48	CLDD-14	263.89	264.03	0.14	2.41
CLDD-11	153.44	153.59	0.15	2.51	CLDD-14	272.27	272.46	0.19	2.48
CLDD-11	157.76	157.90	0.14	2.46	CLDD-14	279.70	279.85	0.15	2.39
CLDD-11	165.58	165.70	0.12	2.36	CLDD-14	284.35	284.51	0.16	2.50
CLDD-11	179.31	179.43	0.12	2.31	CLDD-04	98.65	98.75	0.10	2.48
CLDD-11	230.00	230.15	0.15	2.46	CLDD-04	138.44	138.52	0.08	2.51
CLDD-11	232.15	232.28	0.13	2.32	CLDD-04	195.70	195.75	0.05	2.50
CLDD-11	239.42	239.54	0.12	2.48	CLDD-05	78.72	78.85	0.13	2.44
CLDD-11	249.33	249.46	0.13	2.46	CLDD-05	53.65	53.75	0.10	2.53
CLDD-11	255.71	255.84	0.13	2.09	CLDD-05	38.10	38.16	0.06	2.51
CLDD-11	257.02	257.12	0.10	2.38	<b>Average</b>				<b>2.43</b>

## Specific Gravity measurement on waste core samples outside the vein wireframes.

Borehole ID	From (metre)	To (metre)	Width (metre)	Sp. Gravity. (g/cm <sup>3</sup> )	Borehole ID	From (metre)	To (metre)	Width (metre)	Sp. Gravity. (g/cm <sup>3</sup> )
CLDD-06	12.34	12.47	0.13	2.38	CLDD-10	399.65	399.80	0.15	2.33
CLDD-06	29.79	29.92	0.13	2.46	CLDD-11	17.05	17.18	0.13	2.40
CLDD-06	44.68	44.86	0.18	2.45	CLDD-11	29.83	29.96	0.13	2.42
CLDD-06	62.18	62.33	0.15	2.39	CLDD-11	48.43	48.57	0.14	2.34
CLDD-06	74.45	74.55	0.10	2.09	CLDD-11	64.57	64.73	0.16	2.44
CLDD-06	89.74	89.90	0.16	2.43	CLDD-11	79.74	79.89	0.15	2.47
CLDD-06	104.71	104.83	0.12	2.43	CLDD-11	94.72	94.82	0.10	2.55
CLDD-06	134.69	134.86	0.17	2.48	CLDD-11	109.72	109.84	0.12	2.45
CLDD-06	150.22	150.37	0.15	2.37	CLDD-11	124.94	125.05	0.11	2.42
CLDD-06	189.54	189.67	0.13	2.42	CLDD-11	139.77	139.89	0.12	2.46
CLDD-06	204.85	205.00	0.15	2.47	CLDD-11	194.83	194.97	0.14	2.26
CLDD-06	219.46	219.61	0.15	2.46	CLDD-11	209.63	209.77	0.14	2.38
CLDD-06	236.28	236.43	0.15	2.43	CLDD-11	222.82	222.97	0.15	2.46
CLDD-06	320.32	320.15	-0.17	2.45	CLDD-11	291.70	291.89	0.19	2.49
CLDD-06	344.51	344.63	0.12	2.44	CLDD-11	302.52	302.69	0.17	2.49
CLDD-06	359.92	360.17	0.25	2.39	CLDD-11	324.50	324.69	0.19	2.48
CLDD-06	374.75	374.87	0.12	2.34	CLDD-11	334.52	334.67	0.15	2.51
CLDD-06	390.97	391.14	0.17	2.38	CLDD-11	350.48	350.59	0.11	2.49
CLDD-06	404.41	404.52	0.11	2.50	CLDD-11	366.11	366.26	0.15	2.51
CLDD-07	14.82	14.92	0.10	2.38	CLDD-11	380.05	380.20	0.15	2.55
CLDD-07	29.56	29.70	0.14	2.38	CLDD-11	395.09	395.25	0.16	2.43
CLDD-07	44.88	45.00	0.12	2.43	CLDD-12	14.10	14.29	0.19	2.32
CLDD-07	59.89	60.03	0.14	2.38	CLDD-13	12.10	12.21	0.11	2.50
CLDD-07	74.07	74.19	0.12	2.52	CLDD-13	24.30	24.47	0.17	2.51
CLDD-07	89.80	89.95	0.15	2.43	CLDD-13	40.33	40.48	0.15	2.60
CLDD-07	104.74	104.89	0.15	2.47	CLDD-13	55.68	55.81	0.13	2.49
CLDD-07	119.85	119.95	0.10	2.38	CLDD-13	71.55	71.69	0.14	2.49
CLDD-07	134.77	134.89	0.12	2.45	CLDD-13	86.10	86.23	0.13	2.47
CLDD-07	149.27	149.47	0.20	2.46	CLDD-13	100.60	100.71	0.11	2.33
CLDD-07	165.03	165.15	0.12	2.41	CLDD-13	115.47	115.60	0.13	2.47
CLDD-07	179.63	179.78	0.15	2.45	CLDD-13	150.74	150.90	0.16	2.51
CLDD-07	209.53	209.68	0.15	2.52	CLDD-13	164.29	164.45	0.16	2.45
CLDD-07	225.45	225.60	0.15	2.47	CLDD-13	180.02	180.17	0.15	2.44
CLDD-07	239.84	239.99	0.15	2.49	CLDD-13	195.69	195.87	0.18	2.52
CLDD-07	284.65	284.80	0.15	2.42	CLDD-13	210.80	210.94	0.14	2.47
CLDD-07	299.83	299.95	0.12	2.53	CLDD-13	223.40	223.55	0.15	2.52
CLDD-07	314.28	314.42	0.14	2.53	CLDD-13	239.45	239.61	0.16	2.53
CLDD-07	329.49	329.62	0.13	2.43	CLDD-13	256.22	256.41	0.19	2.48
CLDD-07	344.15	344.26	0.11	2.47	CLDD-13	266.62	266.73	0.11	2.46
CLDD-07	359.84	359.97	0.13	2.46	CLDD-13	272.32	272.48	0.16	2.52
CLDD-07	374.77	374.90	0.13	2.44	CLDD-13	289.87	290.02	0.15	2.59
CLDD-07	389.64	389.81	0.17	2.44	CLDD-13	291.68	291.82	0.14	2.63
CLDD-07	399.85	400.00	0.15	2.43	CLDD-13	298.70	298.82	0.12	2.54
CLDD-08	14.25	14.38	0.13	2.47	CLDD-13	313.02	313.19	0.17	2.62
CLDD-08	29.40	29.53	0.13	2.27	CLDD-13	326.15	326.29	0.14	2.44
CLDD-08	59.78	59.90	0.12	2.33	CLDD-13	339.74	339.89	0.15	2.56
CLDD-08	74.83	74.93	0.10	2.47	CLDD-13	352.42	352.55	0.13	2.52
CLDD-08	89.61	89.81	0.20	2.42	CLDD-13	371.84	371.95	0.11	2.50
CLDD-08	105.10	105.22	0.12	2.46	CLDD-14	14.88	15.01	0.13	2.44
CLDD-08	119.74	119.87	0.13	2.41	CLDD-14	30.23	30.39	0.16	2.42
CLDD-08	134.06	134.20	0.14	2.40	CLDD-14	60.08	60.23	0.15	2.49
CLDD-08	159.83	160.00	0.17	2.50	CLDD-14	74.30	74.42	0.12	2.46
CLDD-08	174.75	174.93	0.18	2.22	CLDD-14	89.50	89.65	0.15	2.48
CLDD-08	190.10	190.27	0.17	2.46	CLDD-14	104.85	105.00	0.15	2.46
CLDD-08	204.61	204.74	0.13	2.36	CLDD-14	119.73	119.91	0.18	2.46
CLDD-08	219.40	219.56	0.16	2.42	CLDD-14	134.50	134.66	0.16	2.40
CLDD-08	234.64	234.79	0.15	2.46	CLDD-14	149.61	149.74	0.13	2.41
CLDD-08	286.45	286.60	0.15	2.41	CLDD-14	169.44	169.55	0.11	2.49
CLDD-08	304.03	304.19	0.16	2.44	CLDD-14	184.91	185.03	0.12	2.42
CLDD-08	320.52	320.65	0.13	2.44	CLDD-14	199.76	199.88	0.12	2.43
CLDD-08	334.61	334.75	0.14	2.54	CLDD-14	213.87	214.03	0.16	2.48
CLDD-08	350.95	351.11	0.16	2.57	CLDD-14	229.76	229.86	0.10	2.42
CLDD-08	364.32	364.52	0.20	2.52	CLDD-14	299.69	299.86	0.17	2.57
CLDD-08	379.80	379.92	0.12	2.55	CLDD-14	314.78	314.89	0.11	2.59
CLDD-08	394.41	394.51	0.10	2.50	CLDD-14	329.10	329.29	0.19	2.53

Borehole ID	From (metre)	To (metre)	Width (metre)	Sp. Gravity. (g/cm <sup>3</sup> )	Borehole ID	From (metre)	To (metre)	Width (metre)	Sp. Gravity (g/cm <sup>3</sup> )
CLDD-09	13.79	1.98	-11.81	2.40	CLDD-14	344.80	345.00	0.20	2.45
CLDD-09	28.97	29.14	0.17	2.47	CLDD-14	359.66	359.85	0.19	2.52
CLDD-09	33.81	33.95	0.14	2.36	CLDD-14	374.30	374.48	0.18	2.49
CLDD-10	14.48	14.63	0.15	2.38	CLDD-14	389.47	389.66	0.19	2.46
CLDD-10	29.41	29.51	0.10	2.46	CLDD-14	395.96	396.08	0.12	2.56
CLDD-10	44.71	44.83	0.12	2.36	CLDD-01	10.00	10.10	0.10	2.45
CLDD-10	59.93	60.04	0.11	2.36	CLDD-02	105.27	105.37	0.10	2.47
CLDD-10	89.82	89.92	0.10	2.47	CLDD-02	51.24	51.37	0.13	2.49
CLDD-10	104.73	104.90	0.17	2.42	CLDD-03	51.13	51.23	0.10	2.52
CLDD-10	119.87	120.00	0.13	2.49	CLDD-04	134.00	134.10	0.10	2.48
CLDD-10	134.80	134.91	0.11	2.46	CLDD-04	19.29	19.39	0.10	2.50
CLDD-10	149.49	149.62	0.13	2.42	CLDD-04	115.77	115.87	0.10	2.42
CLDD-10	164.49	164.67	0.18	2.50	CLDD-04	127.65	127.75	0.10	2.49
CLDD-10	179.74	179.86	0.12	2.47	CLDD-04	219.59	219.70	0.11	2.52
CLDD-10	194.66	194.83	0.17	2.49	CLDD-04	9.00	9.10	0.10	2.45
CLDD-10	209.87	210.00	0.13	2.35	CLDD-04	170.33	170.40	0.07	2.44
CLDD-10	223.17	223.32	0.15	2.49	CLDD-04	191.90	192.00	0.10	2.45
CLDD-10	304.70	304.84	0.14	2.49	CLDD-04	72.65	72.75	0.10	2.25
CLDD-10	314.18	314.33	0.15	2.46	CLDD-05	17.40	17.56	0.16	2.38
CLDD-10	374.88	374.98	0.10	2.53	CLDD-05	49.00	49.12	0.12	2.52
CLDD-10	389.92	390.03	0.11	2.45	<b>Average</b>				<b>2.45</b>

## CERTIFICATE OF QUALIFIED PERSON

To accompany the report entitled: **Amended Independent Technical Report, Cachinal Silver-Gold Project, Region II, Chile. September 11, 2020.**

I, Glen Cole, do hereby certify that:

- 1) I am a Principal Consultant (Resource Geology) with the firm of SRK Consulting (Canada) Inc. (SRK) with an office at Suite 1500 – 155 University Avenue, Toronto, Ontario, Canada;
- 2) I am a graduate of the University of Cape Town in South Africa with a BSc (Hons) in Geology in 1983; I obtained an MSc (Geology) from the University of Johannesburg in South Africa in 1995 and an MEng in Mineral Economics from the University of the Witwatersrand in South Africa in 1999. I have practiced my profession continuously since 1986. I am an expert in geostatistical techniques and geological and resource modelling. Since 2006, I have estimated and audited mineral resources for a variety of early and advanced international base and precious metals projects. I have worked in the mining industry on several underground and open pit mining operations and held various positions senior operational and corporate positions;
- 3) I am a Professional Geoscientist registered with the Association of Professional Geoscientists of the province of Ontario (APGO#1416) and am also registered as a Professional Natural Scientist with the South African Council for Scientific Professions (Reg#400070/02);
- 4) I have not visited the Cachinal Project;
- 5) I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
- 6) I, as a Qualified Person, I am independent of Aftermath Silver Ltd as defined in Section 1.5 of National Instrument 43-101. As per Exchange Policy requirement (Appendix 3F) I am also independent of the vendor and subject property. There is no scenario outside of my scope as a qualified person that I would not satisfy the requirement of independence;
- 7) I am the principal author of this report and responsible for sections 1.1 to 1.4, 1.7 to 1.11, 2.1 to 2.4, 2.6, 2.7, 3 to 6, 9-11, 12.1, 12.2.2 to 12.2.3 and 13-14, 16 to 19 of this report and accept professional responsibility for those sections of this technical report;
- 8) I have had prior involvement with the subject property, having previously contributed to a technical report for another issuer;
- 9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith;
- 10) SRK Consulting (Canada) Inc. was retained by Aftermath Silver Ltd. to prepare a technical report for the Cachinal project in accordance with National Instrument 43-101 and Form 43-101F1 guidelines;
- 11) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Cachinal project or securities of Aftermath Silver Ltd.;
- 12) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Toronto, Canada  
September 11, 2020

/“Original signed and sealed”/  
Glen Cole, PGeo (APGO#1416)  
Principal Consultant (Resource Geology)  
SRK Consulting (Canada) Inc.

## CERTIFICATE OF QUALIFIED PERSON

To accompany the report entitled: **Amended Independent Technical Report, Cachinal Silver-Gold Project, Region II, Chile. September 11, 2020.**

I, Sergio Alvarado Casas, do hereby certify that:

- 1) I am a Consultant Geologist, General Manager and partner with Geoinvest Sergio Alvarado Casas E.I.R.L. as Project Manager, which main office is located at Badajoz 100, office 523, Las Condes, Santiago de Chile;
- 2) My professional title is Geologist, with the degree of Geology obtained in 1991 at Universidad Católica del Norte, Chile, with post graduate studies in resource assessment at the Universidad de Chile, in 1997. I have practiced my profession continuously since 1985. I have estimated and audited mineral resources for a variety of early and advanced international base and precious metals projects. I have worked in the mining industry on several underground and open pit mining operations and held various senior operational and corporate positions;
- 3) I am a Competent Person from the Chilean Mining Commission, with Registration No. 004. I am registered at the Institute of Chilean Mining Engineers (IMCH), License No. 1939, and with the Canadian Institute of Mine (CIM), License No. 144015;
- 4) I visited the Cachinal Project during June 18-19, 2020;
- 5) I have read the definition of Qualified Person set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association, and past relevant work experience, I fulfill the requirements to be a Qualified Person for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
- 6) As a Qualified Person, I am independent of Aftermath Silver Ltd as defined in Section 1.5 of National Instrument 43-101. As per Exchange Policy requirement (Appendix 3F) I am also independent of the vendor and subject property. There is no scenario outside of my scope as a qualified person that I would not satisfy the requirement of independence;
- 7) I am the co-author of this report and responsible for sections 1.5, 1.6, 2.5, 7,8,12.3 and 15 of this report and accept professional responsibility for those sections of this technical report;
- 8) I have had prior involvement with the subject property, having visited the subject property during 2003 and 2004 as part of a regional geology study;
- 9) I have read National Instrument 43-101 and confirm that this technical report has been prepared in compliance therewith;
- 10) Sergio Alvarado Casas (Chile) was retained by Aftermath Silver Ltd. to visit the subject property and to contribute to a technical report on the Cachinal project in accordance with National Instrument 43-101 and Form 43-101F1 guidelines;
- 11) I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Cachinal project or securities of Aftermath Silver Ltd.;
- 12) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Antofagasta, Chile  
September 11, 2020

["Original signed and sealed"]  
Sergio Alvarado Casas (Geologist)  
Mining Chilean Commission (Registration No. 004)  
Geoinvest SAC E.I.R.L (Chile)