NI 43-101 Technical Report for the Mineral Resource Estimate of the Calico Silver Project, San Bernardino County, California, USA

Submitted to:
Apollo Silver Corporation

Report Date: April 20, 2023
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Project No. 233001578

IMPORTANT NOTICE

This notice is an integral component of the Technical Report for the Mineral Resource Estimate of the Calico Silver Project, San Bernardino County, California, USA ("Technical Report" or "Report") and should be read in its entirety and must accompany every copy made of the Technical Report. The Technical Report has been prepared in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects.

The Technical Report has been prepared for Apollo Silver Corporation ("Apollo" or "Client") by Stantec Consulting Ltd. ("Stantec"). The Technical Report is based on information and data supplied to Stantec by Apollo. The quality of information, conclusions, and estimates contained herein are consistent with the level of effort involved in the services of Stantec, based on i) information available at the time of preparation of the Report, and ii) the assumptions, conditions, and qualifications set forth in this Report.

Each portion of the Technical Report is intended for use by Apollo subject to the terms and conditions of its contract, (November 1, 2021) with Stantec. Except for the purposes legislated under Canadian provincial and territorial securities law, any other uses of the Technical Report, by any third party, is at that party's sole risk.

The results of the Technical Report represent forward-looking information. The forward-looking information includes pricing assumptions, sales forecasts, projected capital and operating costs, mine life and production rates, and other assumptions. Readers are cautioned that actual results may vary from those presented. The factors and assumptions used to develop the forward-looking information, and the risks that could cause the actual results to differ materially are presented in the body of this Technical Report.

Stantec has used their experience and industry expertise to produce the estimates in the Technical Report. Where Stantec has made these estimates, they are subject to qualifications and assumptions, and it should also be noted that all estimates contained in the Technical Report may be prone to fluctuations with time and changing industry circumstances.

CERTIFICATE OF QUALIFICATIONS

I, Derek J. Loveday, P.Geo., do hereby certify that:

1. I am currently employed as a Project Manager by Stantec Services Inc., 2890 East Cottonwood Parkway Suite 300, Salt Lake City UT 84121-7283.
2. I graduated with a Bachelor of Science Honors Degree in Geology from Rhodes University, Grahamstown, South Africa in 1992.
3. I am a licensed Professional Geoscientist in the Province of Alberta, Canada, #159394. I am registered with the South African Council for Natural Scientific Professions (SACNASP) as a Geological Scientist #400022/03.
4. I have worked as a geologist for a total of thirty-one years since my graduation from university, both for mining and exploration companies and as a consultant specializing in resource evaluation for precious metals and industrial minerals. I have many years of experience with exploring and modelling stratiform polymetallic precious and base metals deposits located in the United States and Mexico.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I meet the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for the preparation of portions of sections 1 and 2, sections 3 to 12, portions of section 13, sections 14, 15 and 16, portions of section 17, sections 18 to 24, portions of section 25, section 26 and portions of section 27 of the report titled "NI 43-101 Technical Report for the Mineral Resource Estimate of the Calico Silver Project, San Bernardino County, California, USA" (the "Technical Report") dated April 20, 2023, with an Effective Date February 23, 2023.
7. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
8. I was Author and QP of the prior Technical Report prepared for the Calico Silver Project dated March 28, 2022, with Effective Date of January 22, 2022.
9. In 2021, I inspected the Calico Silver Project area from December 13, 2021, through December 14, 2021.
10. At the Effective Date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
12. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.

"Original Signed And Sealed By Author"

Dated April 20, 2023

Derek J. Loveday, P.Geo.
Project Manager

CERTIFICATE OF QUALIFICATIONS

Mariea Kartick, P. Geo., do hereby certify that:

1. I am currently employed as a Resource Geologist by Stantec Services Inc., 1560 Broadway Suite 1800 Denver CO 80202-6000.
2. I graduated with an Honours Bachelor of Science degree from the University of Toronto in 2014, and a Master of Science degree from the University of Toronto in 2015.
3. I am a member in-good-standing of the Association of Professional Geoscientist of Ontario (Member 3226) since February 24, 2020.
4. I have worked as a Geologist for 8 years following graduation from my undergraduate degree, both for mining operations and as a consultant, specializing in resource geology for precious and semi-precious metals. I have several years' experience writing about and evaluating mineral resources under stringent supervision of experienced QPs.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I meet the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for the preparation of portions of sections 1, 2, 12, 25 and 27 report titled "NI 43-101 Technical Report for the Mineral Resource Estimate of the Calico Silver Project, San Bernardino County, California, USA" (the "Technical Report") dated April 20, 2023, and with an Effective Date February 8, 2023.
7. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
8. I inspected the Waterloo Property between May 16 and May 19, 2022.
9. I have no prior involvement with the Property that is the subject to this Technical Report.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
12. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.

Dated April 20, 2023

"Original Signed and Sealed by Author"

Mariea Kartick, P.Geo.
Resource Geologist

CERTIFICATE OF QUALIFICATIONS

I, Eric L. Hill, PE, PMP, QP, as a co-author of the Technical Report, do hereby certify that:

1. I am currently employed as a Senior Process Engineer by Samuel Engineering Inc., 8450 E Crescent Pkwy, Suite 200, Greenwood Village, CO 80111.
2. I graduated with a Bachelor of Science in Chemical Engineering from University of Nevada, Reno, Nevada, in 2010.
3. I am a Registered Professional Engineer in the State of Colorado (#0049480) and am a member of the Society for Mining, Metallurgy, and Exploration (SME).
4. I have worked as a process/metallurgical engineer for a total of twelve years since my graduation from university, for mining companies and as a consultant specializing in metallurgical engineering and process plant development for precious metals and industrial minerals. I have many years of experience developing and analyzing metallurgical test work programs for precious and base metals deposits located in the United States.
5. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I meet the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for the preparation of portions of sections 1, 2, 13 and 17, and portions of sections 25, 26 and 27 of the report titled "NI 43-101 Technical Report for the Mineral Resource Estimate of the Calico Silver Project, San Bernardino County, California, USA" (the "Technical Report") dated April 20, 2023 and with an Effective Date February 8, 2023.
7. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
8. I have had no prior involvement with the Property that is the subject of this Technical Report.
9. I have not personally visited the Property.
10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
11. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
12. I am independent of the technical report issuer per Section 1.5 of NI 43-101.

"**Original Signed and Sealed By Author**"

Dated April 20, 2023

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Eric L. Hill, PE, PMP, QP
Senior Process Engineer

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List of Abbreviations

Ag	Silver
Au	Gold
°C	Celsius
°F	Fahrenheit
g	gram
g/t	gram per tonne
kg	kilogram
kg/t	kilogram per tonne
lb	pound
oz	ounce (troy)
opt	ounces (troy) per imperial short ton
Moz	million troy ounces
st	imperial short ton
ton	imperial short ton
tonne	metric tonft feet
in	inches
cm	centimeter
km	kilometers
m	meters
mm	millimeters
µm	micrometers
Mtpa	million short tons per annum
yd	yard
ac	acre
ha	hectare
ft^2	square feet
m^2	square meter
ft^3/st	cubic feet per short ton
m^3	cubic meter
ktons	thousand imperial short tons
koz	thousand troy ounces
Mst	million imperial short tons
Mt	million tonnes
Ma	million years ago
troy	troy ounces
QA/QC	Quality assurance and quality control

1.0 EXECUTIVE SUMMARY

Stantec Consulting Service Inc. (“Stantec”) was engaged by Apollo Silver Corporation (“Apollo”) to prepare a Technical Report in accordance with the requirements of the Canadian Institute of Mining, Metallurgy and Petroleum’s (“CIM”) National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”). The purpose of this Technical Report is to report a Mineral Resource Estimate (“MRE”) for the Calico Silver Project (the “Calico Project” or the “Project”) comprising the Waterloo Property (“Waterloo” or the “Waterloo Property”) and Langtry Property (“Langtry” or the “Langtry Property”) (collectively, the “Properties” or “Calico Properties”).

Property Description and Location

The Calico Project is located approximately 9 miles (15 km) northeast of the city of Barstow within San Bernadino County, California, in a region known as the historic Calico Silver Mining District (the “District”). The Project comprises both the Waterloo and Langtry Properties that were historically explored separately for silver. The Project can be accessed year-round by paved and dirt roads, and within the Properties there is a network of dirt roads providing access to old drill pads and historical workings. Climatic conditions in the Project area allow for year-round operations.

The Waterloo Property is 1,768 ac (716 ha) which includes all claims comprising the property (i.e., Waterloo Main (1,727 ac; 699 ha) and Waterloo Mill Sites (41 ac; 17 ha). The Langtry Property totals 1,178 ac (477 ha). The Project, comprised of the Calico Properties (Waterloo and Langtry), covers an area of 2,946 ac (1,192 ha).

Property Concessions

The Waterloo Property consists of 48 claims: 21 unpatented claims (19 lode mining claims, 2 mill site claims) and 27 fee simple land parcels for use and/or mineral rights. The Waterloo Property claims are shown on Figures 4-4 and Figure 4-5, and in Table 4.2. The Langtry Property comprises 38 unpatented lode mining claims and 20 patented mining claims.

On July 8, 2021, Apollo acquired all of the issued and outstanding common shares of Stronghold Silver Corporation (“Stronghold”) the “Stronghold Transaction”). Stronghold, through its wholly owned subsidiary, Stronghold Silver USA Corp. (“Stronghold USA”), held the right to acquire the Waterloo Property through an asset purchase agreement with Pan American Minerals Inc. (“Pan American”); a wholly owned subsidiary of Pan American Silver Corp., which was originally signed on January 22, 2021, and amended in April 2021 and June 2021 (collectively, the “Waterloo Purchase Agreement”). Per the terms of the Waterloo Purchase Agreement, Pan American retains a 2% Net Smelter Royalty (“NSR”) on any and all future production of minerals from the Waterloo Property.

The 27 fee land parcels were vested to Stronghold USA, by grant Quitclaim Deed from Pan American, upon closing of the Waterloo Purchase Agreement on July 12, 2021. The transfer of claim ownership to Stronghold USA was recorded with the County of San Bernardino on July 13, 2021. The unpatented lode claims are registered to Stronghold USA.

Apollo, through its wholly owned subsidiary, Stronghold USA, holds the rights to acquire a 100% interest in the Langtry Property through two option agreements entered into in December 2020. One option agreement covers 36 unpatented lode mining claims held by Athena Minerals Inc. ("Athena") (the "Athena Agreement") and the second option agreement (the "Strachan Agreement") covers 20 patented mining claims and two unpatented lode mining claims owned by Bruce D. Strachan and Elizabeth K. Strachan ("Strachan" or "Strachan Trust"). Each option agreement is subject to good standings, royalties, and encumbrances.

The surface rights of the private lands for the Waterloo and Langtry Properties are held by the claimants, whereas the surface rights for the unpatented lode mining claims are held by the Federal Bureau of Land Management ("BLM"). To the knowledge of the Author and the QP there are no known encumbrances with surface rights on the Waterloo and Langtry Properties.

Historical Mining

There are more than 50 historical past producing mines in the District. These were dominantly silver, with lesser barite and one gold mine. Five historical mines occur on the Calico Project: at Waterloo are the Voca, Union and Waterloo silver mines and the Burcham gold-lead mine; at Langtry is the Langtry silver mine. Historical metal mining in the District has primarily focused entirely on veins mineralized with high grade silver and barite. Historical mining did not to have the disseminated-style silver mineralization that is commonly found in the surrounding vein country rock that forms the basis of the MRE in this Technical Report, because historical records show this style of mineralization was not discovered until at least 25 years after the cessation of mining activities. Since the early 1940's there has been no mining activity within or immediately surrounding the Project area.

Historical Exploration

Exploration on the Waterloo and Langtry Properties using modern methods began in the 1960's and consisted of drilling, surface and underground geochemical sampling, geologic mapping, and trench bulk sampling for metallurgic test work. Most drilling was completed using rotary and reverse circulation ("RC") drilling methods, with only limited diamond drilling. At Waterloo, a total of 267 drill holes were completed by two controlling companies, American Smelting and Refining Company ("ASARCO") and Pan American. At Langtry, a total of 186 drill holes were completed by two controlling companies, Superior Oil Corporation ("Superior") and Athena. Data from these drilling campaigns was identified to be adequate for the purposes of building separate geologic models for the Waterloo and Langtry Properties and defining a MRE at an Inferred level of confidence for the Calico Project (Loveday, 2022).

Historical Mineral Resource Estimates

Historical mineral resource estimates for the Calico Project have in the past been documented separately for the Waterloo and Langtry Properties. At Waterloo, historical mineral resource estimates were produced by ASARCO in 1966 and 1979, Pan American in 2013 and Apollo in 2022. At Langtry, historical mineral resource estimates were produced by Superior in 1974, International Silver Inc., in 2008 and Athena in 2012. Neither the Author nor the issuer are treating these historical estimates as current mineral resources or reserves and they are disclosed in this

Technical Report to provide a comprehensive view on the technical work completed at the Calico Project.

The historical estimates have been superseded by the current Calico Project mineral resource estimate outlined in this summary and in Section 14 of this Technical Report.

Historical Metallurgical Testing

Metallurgical testing was undertaken at Waterloo by ASARCO and the U.S. Bureau of Mines; and at Langtry by Superior, the Bureau of Land Management and Athena. The metallurgical test results indicated that recovery of silver at or above 80% is potentially possible from silver mineralization identified on the Calico Project properties. Metallurgical testing on the Calico Project was undertaken from samples taken from surface bulk samples comprising oxidized disseminated silver mineralized zones that are the target for the minerals resource estimate.

Historical Economic Studies

Two historical economic studies were conducted for the Waterloo Property by ASARCO in 1969 and by Fluor Mining and Metals Inc., on behalf of ASARCO, in 1980. Pan American (2008) concluded that both historical economic studies could not be used to give an accurate estimation of the profitability of the Waterloo Project in 2008 due to inflation and that the estimates considered only a 10-year operation, did not include extraction of secondary minerals, and that mining technology and price of metals had changed significantly from 1969 to 2008. At Langtry, only feasibility-level recommendations for mine development, primarily addressing slope stability and the use of overburden materials for concrete aggregate were addressed as part of a study evaluating geotechnical and engineering conditions (C.H.J. Incorporated, 2010). Although the historical mineral resource estimates and feasibility studies completed on the Project provide a wealth of background information, these studies cannot be used to give an accurate estimation of profitability in 2023.

In 2021, Stantec was engaged by Apollo to prepare an NI 43-101 Technical Report for the Calico Project (Loveday, 2022). The purpose of the 2022 Technical Report was to report a mineral resource estimate for the Calico Project comprising the Waterloo and Langtry Properties.

Geology and Mineralization

The Calico Project resides on the southwestern edge of the Calico Mountains where four lithostratigraphic units have been identified. These are: Quaternary Yermo Formation sediments and alluvium, Quaternary and Tertiary Upper Barstow Formation sediments, Tertiary (Miocene) Lower Barstow Formation sediments and Pickhandle Formation volcanics. Precious metal vein mineralization has been identified in the Pickhandle Formation and disseminated silver mineralization in the Lower Barstow Formation. That hosted in the Lower Barstow Formation comprises the mineralized zone of the silver mineral resource for the Project. Silver and gold mineralization is hosted in veins in the Pickhandle Formation volcanic flows and breccias, however there is insufficient information on the mineralization within the Pickhandle Formation to identify an exploration target or mineral resource on the Project.

At Waterloo, the Lower Barstow mineralized zone is constrained by the northwest dipping Calico fault in the west and the Lower Barstow-Pickhandle contact in the east. At Langtry, the Lower Barstow mineralized zone is contained within the Calico Fault and a fault splay. The general dimensions of the silver mineralized zone at Waterloo covers an area approximately 1,500 ft (457 m) wide by 7,030 ft (2,143 m) long extending from outcrop and plunging towards the southwest to a maximum modelled depth of approximately 600 ft (183 m) below surface. The mineralization is continuous from surface. The general dimensions of the silver mineralized zone at the Langtry covers an area approximately 1,500 ft (457 m) wide by 5,000 ft (1,524 m) long extending from outcrop and plunging towards the southwest to a maximum modelled depth of approximately 600 ft (183 m) below surface. The mineralization is continuous from surface. The general dimensions of the gold mineralized zone at Waterloo, in the region of the historical Burcham Mine, covers an area approximately 490 ft (150 m) wide and 1,560 ft (475 m) long at surface.

The deposit type is interpreted as a low-temperature epithermal precious metal deposit.

Current Exploration

Exploration undertaken by Apollo on the Project in late 2021 and early 2022 included surficial geologic mapping and grab sampling, petrography, assaying and whole rock geochemistry of surface grab samples, satellite elevation data acquisition, a drone-based aeromagnetic geophysical survey and a ground rolling three-dimensional (“3D”) Direct Current Induced Polarization and Resistivity (“DCIP” or “IP”) geophysical survey. Later in 2022 Apollo completed an 88-hole, 32,283 ft (9,840 m) reverse circulation (“RC”) drill program on the Waterloo Property. The drilling program at Waterloo was successful and together with results from surface mapping, sampling and geophysics, has resulted in a substantial increase in resource confidence at Waterloo from Inferred-only to a mostly Measured plus Indicated level of assurance.

Current Metallurgical Testing

In late 2021, Apollo acquired approximately 2.7 tonnes of Waterloo material for metallurgical testing, comprising chips from 11 RC holes and crushed material from diamond drill holes completed in 2013 by Pan American. The objectives of Apollo’s 2022 test program were to assess and verify silver recovery using various comminution and extraction methods to provide insight into possible processing methods and to compare results to historical work completed by previous operators in the 1960’s and 1970’s. As of the Effective Date of this Technical Report (February 8, 2023), only the results of the bottle roll test work had been completed and assessed.

Apollo’s Waterloo metallurgical testing indicates that fine grinding will be required to maximize silver extraction by cyanidation. Silver recoveries were incrementally improved, relative to milling/cyanidation, by a fluoride assisted hot agitated hydrochloric acid leaching procedure. Silver recoveries during agitated milling/cyanidation treatment at an 80% passing 45-micrometer grind ranged from 40% to 60%. Results indicate that silver recoveries by cyanidation could be improved incrementally with ultrafine grinding and high-pressure grinding roll (“HPGR”).

Assessment of Reasonable Prospects for Economic Extraction

For the purposes of determining Reasonable Prospects of Economic Extraction, a base case silver resource cutoff grade ("COG") of 50 ppm (50 g/t) and 0.3 ppm (0.3 g/t) for gold was determined based on the economics of a surface mining operation. Processing of the mineralized material would be onsite extracting silver using a cyanidation process that may or may not include a salt roast. The base-case COG for silver-only at Langtry, effective January 28, 2022, was determined using the following assumptions: silver price of US$23.00 per troy oz, processing costs, including general and administration, of US$29.00/st, mining costs of US$2.50/st and silver recovery of 80%. The base-case COG for silver and gold at Waterloo, effective February 8, 2023, was determined using the following assumptions: silver price of US$23.50 per troy oz, gold price of US$1,800.00 per troy oz, silver processing cost of US$20.00/st, gold processing cost of US $8.00/st, general and administrative cost of $3.00/st, mining cost of US$ 2.75/st, silver recovery of 65% and gold recovery of 80%.

Economic pit shells at a constant 45 degrees slope were developed for both Properties from 3D block models of the mineralized zones and waste rock. Base case COG's were used to separate mineralized zones from waste rock. The same revenue and surface mining costs assumptions used to determine the COG were used drive the economic pit shells. A fixed density of 13.13 ft^3/st (2.44 kg/m^3) was used for both mineralized and waste zones.

Current Mineral Resource Estimate

Table 1.1 presents the Mineral Resource Estimate ("MRE") for the Calico Project. The Langtry Silver Deposit MRE of the Calico Project remains unchanged from that reported in 2022 (Loveday, 2022), as no material exploration or drilling work was completed at Langtry since that time. The Therefore, the Langtry MRE has an effective date of January 28, 2022. The Waterloo Silver and Gold Deposit MRE of the Calico Project has an effective date of February 8, 2023. Drilling information utilized for resource estimation for the Project included a total of 526 drill holes comprising 343 holes, 93,199 ft (28,407 m) at Waterloo and 183 holes, 76,986 ft (23,465 m) at Langtry.

The disseminated silver mineral resources are contained within the Lower Barstow Formation sediments for the Calico Project. The disseminated gold mineral resource is also hosted within the Lower Barstow Formation along the contact between the Barstow and underlying Pickhandle Formations. The gold mineral resource is spatially separate from the silver mineral resource and occurs in the southeastern most region of the Calico Project area.

The mineral resources are demonstrated to be surface mineable and are constrained to within an economic pit shell. The silver and gold MRE are independent of each other and are reported from separate pit shells. Stripping ratio (t:t) for the base case (COG 50 g/t) silver mineral resource at Langtry is 6.0:1. At Waterloo, the stripping ratio (t;t) for the base case (COG of 50 g/t) silver mineral resource is 1.1:1 and for the base case (COG 0.3 g/t) gold mineral resource is 2.1:1.

Table 1.1
Calico Project 2023 Mineral Resource Estimate
Effective Dates 2/8/23 (Waterloo) & 1/28/22 (Langtry)

Deposit	Metal	Class	Imperial Units			Metric Units			Strip Ratio (t:t)	Contained Ounces (oz)
			Volume Million (yd³)	*Tons Million (st)*	*Ag Grade (oz/st)*	*Volume Million (m³)*	*Tonnes Million (t)*	*Ag Grade (g/t)*		*Million (oz)*
Waterloo[1]	Silver	Measured	14.7	30.2	2.99	11.2	27.4	103	**1.1**	90
		Indicated	3.7	7.5	2.67	2.8	6.8	91		20
		Measured + Indicated	**18.3**	**37.7**	**2.93**	**14.0**	**34.2**	**100**	**1.1**	**110**
		Inferred	0.2	0.3	2.25	0.1	0.3	77	**1.1**	0.72
	Gold	**Inferred**	**2.4**	**5.0**	**0.01**	**1.8**	**4.5**	**0.5**	**2.1**	**0.07**
Langtry[2]	**Silver**	**Inferred**	**10.3**	**21.3**	**2.35**	**7.9**	**19.3**	**81**	**6.0**	**50**

• Ounces reported as troy ounces.
• Base-case resource estimate reported in Table 1.1 using 50 g/t silver and 0.30 g/t gold cutoff grade.
• CIM definitions are followed for classification of the mineral resource.
• For the Waterloo Property, cutoff grade was calculated using the following variables: surface mining operating costs (US$2.75/st), processing costs (US$20.00/st), general and administrative costs (US$3/st), silver price (US$23.50/oz), gold price (US$1,800/oz), and metal recoveries (silver 65%, gold 80%). Resources reported in Table 1.1 are constrained to within a conceptual economic pit shell targeting mineralized blocks with a minimum of 50 ppm (50 g/t) silver and 0.3 ppm (0.30 g/t) gold. Specific gravity for the mineralized zone is fixed at 2.44 g/cm3 (13.13 ft3/st). Silver grade was capped at 450 g/t and gold was capped at 2 g/t for the Waterloo estimate only.
• Totals may not represent the sum of the parts due to rounding.
[1]The 2023 Waterloo Mineral Resource Estimate has been prepared by Derek Loveday, P. Geo., of Stantec Consulting Services Ltd., an independent Qualified Person, in co-operation with Mariea Kartick, P.Geo. (independent Qualified Person for drilling data QA/QC). The 2023 Waterloo Mineral Resource Estimate was produced in conformance with NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into a mineral reserve.
[2]No drilling was completed on the Langtry Property since the declaration of the 2022 Langtry Mineral Resource Estimate and as such, the Inferred mineral resource announced February 9, 2022, for the Langtry Property remains unchanged and current. The 2022 Langtry Mineral Resource Estimate was prepared by Derek Loveday, P. Geo. Of Stantec, an independent Qualified Person. Cutoff grade for the 2022 Langtry Mineral Resource Estimate was calculated using surface mining operating costs of US$2.50/st, processing costs of US$29.00/st, silver price of US$23.00/oz and silver recovery of 80%. The Langtry resource is constrained to within a conceptual economic pit shell targeting mineralized blocks with a minimum of 50 ppm (50 g/t) silver.

Potential Risks

The following potential risks associated with the MRE have been identified in order of relative importance:

- Silver metallurgical testing has reported a wide range in silver recoveries. Silver recoveries equal to or greater than 65% may not be realized from the resource.
- Gold metallurgical testing is very limited. Gold recoveries equal to or greater than 80% may not be realized from the resource.
- Historical underground workings pose a risk to mining if they are not accurately surveyed and accounted for in the mine plan.
- The Calico Project is in an arid region with limited water supplies that may impact the costs associated with securing sufficient makeup water to support an onsite processing plant.

According to the available information to the Author and QP, as of the effective date of the MRE, there are no other known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that would materially impact the resource estimate.

Mitigating Factors

The private lands at both Waterloo and Langtry Properties have a history of silver mining and exploration activities. Additionally:

- The private lands at both the Waterloo and Langtry Properties have obtained a Certificate of Land Use Compliance ("CLUC") from San Bernardino County recognizing surface mining as a legal use of the private lands and the existence of a "vested right" to conduct surface mining activities thereon.

- In 1981, ASARCO completed an Environmental Impact Report and a Reclamation Plan, both approved by the County of San Bernardino, giving ASARCO a permit to undertake mining operations on the Waterloo Property. This permit expired in May 2004.

Considering that the Project area has been historically mined, that Waterloo received a permit to mine in 1981, and both Waterloo and Langtry have received CLUC's from the County of San Bernardino, the assumption that the future use of the private lands may be for mining activities is appropriate.

Conclusions

Only surface mineable mineral resources have been identified for the Calico Project, effective January 28, 2022 for Langtry and February 8, 2023 for Waterloo. The silver-only Langtry MRE remains unchanged from the prior estimate (Loveday, 2022) at 50 Moz contained silver (50 g/t COG) at an Inferred level of assurance, as there is no additional exploration at Langtry that would affect a material change. Apollo's successful exploration and drilling at Waterloo in 2021 and 2022 has resulted in a material change from the previous estimate (Loveday, 2022) from an Inferred-only silver mineral resource to a current (effective February 8, 2023) Measured, Indicated and Inferred silver mineral resource plus the addition of an Inferred-only gold resource. The prior Waterloo Inferred-only silver estimate (Loveday, 2022) was 116 Moz contained silver (50 g/t COG). The current contained silver estimate at Waterloo (50 g/t COG), at a Measured plus Indicated level of assurance, is 110 Moz and 0.72 Moz Inferred. The current gold estimate at Waterloo are Inferred-only at 0.07 Moz (0.3 g/t COG).

Recommendations

Phase I recommendations are for continued gold exploration at the Waterloo to better the understanding of the extent of gold distribution at surface, gold mineralization in the Pickhandle Formation and to define in detail the high angle structures that host higher gold grades. This would require further surface mapping and sampling as well as core drilling. Phase I exploration drilling costs are outlined in Table 1.2

Table 1.2
Phase I Exploration Drilling and Surface Mapping

Phase I Budget	Type	Length		Rate	Cost
		Metres	Feet	C$/m	C$
Drilling	Core	1,000	3,280	500	500,000
Drilling Labour					100,000
Operational Support					50,000
Assaying					50,000
Surface Mapping					50,000
Total Phase I					**750,000**

For a Phase II work program, a geotechnical drilling and metallurgical test program is recommended for Waterloo. The geotechnical drilling program results would support at a minimum a Prefeasibility Study ("PFS") level mine plan and eventual mine permit. The twelve-hole geotechnical drilling program includes an initial basic plan for six holes for general characterization to develop a geotechnical model followed by an additional six holes covering a wider geographic range for better refinement of the geotechnical model. The Phase II program is dependent on the completion of Phases I.

The Phase II metallurgical test program will follow-on from the Apollo's current metallurgical test program using remaining material (PQ-core) from current program and material from the proposed geotechnical program. Recommended tests include heavy additional liquid separation tests, flotation testing and additional fluoride assisted leaching. These tests would respectively help determine potential to: produce barite as a by-product after gravity separation; maximise separation of barite by-product and silver; and optimize the circuit and identify parameters for increased recovery.

The costs for the Phase II geotechnical drilling and metallurgical test program are outlined in Table 1.3.

Table 1.3
Phase II Geotechnical Drilling and Metallurgical Testing

Phase II Budget	Type	Length		Rate	Cost
		Metres	Feet	C$/m	C$
Waterloo Drilling	Core	4,500	14,764	700	3,150,000
Drilling Labour					500,000
Operational Support					250,000
Assaying					750,000
Metallurgical Testing					500,000
Reporting					300,000
Total Phase I					**5,450,000**

A Preliminary Economic Assessment ("PEA") is recommended for Phase III using the 2023 MRE and data acquired from the Phase I and II programs recommended above. The costs for the recommended PEA are outlined in a Table 1.4. The purpose of the PEA is to conceptually layout Project facilities for mining and processing and apply appropriate capital and operating costs at a scoping level of accuracy and to then determine the potential economic viability of a future development. The results would be presented in a PEA NI 43-101 technical report and lay the groundwork necessary for the eventual development of a PFS. The Phase III program is expected to take three months to complete and is dependent on the completion of Phases I and II.

Table 1.4
Phase II Preliminary Economic Assessment

Phase II Budget	C$
PEA Study	$500,000

2.0 INTRODUCTION

Apollo renewed a contract for services with Stantec (as announced January 18, 2023) to complete an MRE for the Calico Project, and to prepare a Technical Report in accordance with the requirements of Canadian Securities Administration National Instrument 43-101 ("NI 43-101") Standards of Disclosure for Mineral Projects.

Apollo is a Vancouver-based mineral exploration company exploring for precious metals in the United States. Apollo's flagship project is the Calico Project, located in the historic Calico Mining District of the Mojave Desert in San Bernardino County, Southern California. The Project comprises two adjacent mineral properties: the Waterloo Property and the Langtry Property (collectively, the "Calico Project" or "Calico Properties"), the subjects of this Technical Report.

The District is a historic mining district that operated between 1881 and 1896 reporting 15-20 million troy ounces of silver ("Ag"), with minor barite, gold, lead, and copper (Weber, 1965; Weber 1966; Harthrong, 1983). The metallic deposit types in the District have been described as a low-temperature epithermal exhalative (i.e., hot spring) or replacement type disseminated (Fletcher, 1986; Jessey, 2014; Pratt, 2008, 2012 and 2022) and low-temperature vein-style. The Calico Project hosts both types, however the silver mineralization that is the focus of this Technical Report is a hot spring/replacement disseminated type, hosted in sedimentary rocks.

The purpose of this Technical Report is to report on the completed MRE for the epithermal precious metals identified within the Project. The "Effective Date" means, with reference to a Technical Report, the date of the most recent scientific or technical information included in the Technical Report as it pertains to MRE. The Effective Date of the Waterloo Property MRE is February 8, 2023; the Effective Date of the Langtry Property MRE is January 28, 2022, as no material exploration work was completed on that Langtry Property since the last technical report was published (Loveday, 2022).

2.1 Site Inspection and Author

In 2021, the Author, Derek Loveday (P.Geo.) representing Stantec, and independent Qualified Person ("QP"), representing Stantec, inspected the Project area from December 13, 2021, through December 14, 2021. The site inspection verified data descriptions provided by Apollo in the Project area including lithology, alteration, site accessibility and drill hole collar locations. Additionally, drill rock chips and core samples, stored in nearby Barstow, were inspected for evidence of accurate lithologic logging. Checks were also undertaken on maps, log descriptions and sample interval records. Mr. Loveday is responsible for parts of sections 1, 12, 13, 25 and 27, and all remaining sections.

Mr. Loveday has worked as a geologist for more than thirty years since graduating from university, both for mining and exploration companies and as a consultant specializing in resource evaluation for precious metals and industrial minerals. The Author has many years of experience exploring and modelling stratiform polymetallic precious and base metals deposits located in the United States and Mexico. The Author is a licensed Professional Geoscientist ("P.Geo.") in the Province of Alberta, Canada, #159394 and is registered with the South African Council for Natural Scientific Professions ("SACNASP") as a Geological Scientist #400022/03.

In 2022, the Author and independent QP, Mariea Kartick (P.Geo.), representing Stantec, inspected the Waterloo Property between May 16 and May 19, 2022. The site visit included the review of the 2022 drill program logging methods, sample handling and chain of custody, as well as a review of the warehouse storage facility and security in place. Checks were also completed on drill hole locations. Ms. Kartick is responsible for parts of section 1, 12, 25, and 27 of this Technical Report.

Ms. Kartick has worked as a geologist for more than nine years since graduating from university, both for mining operations and exploration companies and as a consultant specializing in quality assurance/quality control (QA/QC) and resource modelling for precious metals and industrial minerals. The Author has many years of experience exploring and modelling stratiform polymetallic precious and base metals deposits located in the United States. The Author is a licensed Professional Geoscientist ("P.Geo.") in the Province of Ontario, Canada, # 3226.

Author, Eric Hill (PE, SME), representing Samuel Engineering, is an independent QP and is responsible for Section 13 and 17, and parts of section 1, 25, 26 and 27. Mr. Hill is a Senior Process Engineer, with 12 years of experience as a process/metallurgical engineer and is a Registered Professional Engineer in the State of Colorado (#0049480) and a member of the Society for Mining, Metallurgy, and Exploration (SME).

2.2 Sources of Information

This Technical Report is a compilation of proprietary and publicly available information. Apollo provided the drill hole data and associated assay information and all geological information including a 3D geological model for this Technical Report's resource estimate. Previous reports and data either received, validated and compiled by Apollo or found publicly were reviewed and referenced where applicable. Documents referenced in this report are listed under Section 27. Geographic Information System ("GIS") map data was either provided by Apollo or downloaded from a public domain source. GIS data provided by Apollo was verified against public domain sources where possible. Maps are displayed in NAD 1983, 2011 State Plane US feet California V where possible. The 3D geological and block models were produced in NAD 1983, 2011 State Plane US feet California V.

Information regarding land tenure, option or purchase agreements, permitting, environment, and hazards has been provided by Apollo.

2.3 Units of Measure

With respect to units of measure, unless otherwise stated, this Technical Report uses:

- Abbreviated shorthand consistent with the International System of Units (International Bureau of Weights and Measures, 2006).
- 'Bulk' weight is presented in both United States short tons (tons; 2,000 lbs or 907.2 kg) and metric tonnes (tonnes; 1,000 kg or 2,204.6 lbs.).
- Geographic coordinates are projected in the NAD 1983, 2011 State Plane US feet California V unless otherwise stated.

- Currency in United States dollars (US$), unless otherwise specified (e.g., Canadian dollars, CDN$; Euros, €).

- Assay and analytical results for precious metals are quoted in parts per million (ppm), parts per billion (ppb), ounces per short ton (opt or oz/st), where “ounces” refers to “troy ounces” and “ton” means “short ton”, which is equivalent to 2,000 lbs. Where ppm (also commonly referred to as grams per metric tonne [g/t]) have been converted to opt (or oz/st), a conversion factor of 0.029166 (or 34.2857) was used.

- Bulk density measurements units are expressed in g/cm^3 and a tonnage factor in ft^3/st.

3.0 RELIANCE ON OTHER EXPERTS

The Authors did not rely on a report, opinion or statement of another expert or on information provided by the issuer concerning legal, political, or tax matters.

The Authors are not qualified to provide an opinion or comment on issues related to legal agreements, tenure, and royalties. The QPs relied entirely on information regarding the nature and extent of Mineral and Land Titles (found in Section 4) provided by Apollo. The legal and survey validation of the claims are not the Authors' expertise, and the QPs are relying on the asset purchase agreement between Stronghold USA, a private US corporation and wholly owned subsidiary of Apollo, and Pan American, and on option agreements between Stronghold USA and Athena dated December 21, 2020, as amended on January 11, 2023, and between Stronghold USA., and the Strachan Trust dated December 23, 2020.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Description and Location

The Calico Project is located approximately 9 miles (15 km) northeast of the city of Barstow within San Bernadino County, California. The Project is located approximately 125 miles (201 km) northeast of Los Angeles, California and 154 miles (248 km) south-west of Las Vegas, Nevada in the Mojave Desert (Figures 4-1 and 4-2). The majority of the Project lies within San Bernadino Base and Meridian Township 10 North and Range 01 East (T10N R01E) with a minor portion in T10N R01W.

The Project comprises both the Waterloo and Langtry Properties that were historically explored, primarily separately (Figure 4-2 and 4-3). The Waterloo Property includes two areas, the larger Waterloo Main Property (hosting the mineral resource and historical workings) and a smaller detached Waterloo Mill Site area. The Langtry Property includes two general areas as well, a larger Langtry Main Property hosting the mineral resource and historical workings and a smaller less explored parcel to the southeast that abuts the Waterloo tenure (see Figure 4-2).

The Waterloo Main Property is located within T10N R01E, Sections 8, 9, 16, 17, 20, 21 and 22; and the Waterloo Mill Site in Section 19. The Langtry Property is located within T10N R01E, Sections 6, 7, 8, 17, 18 and T10N R01W, Sections 1 and 12.

The approximate centers of the properties are located as shown in the Table 4.1 below and on Figure 4-3; in Lambert Conformal Conic Projection, NAD 1983 Datum, 2011 State Plane US feet California V and WGS84 Latitude (“Lat”) North (“N”) and Longitude (“Long”) West (“W”).

Table 4.1
Calico Project Location Coordinates

Project Area Centroids					
Property		**State Plane (feet)**		**Latitude/Longitude**	
		Y- North	X - East	Lat. (North)	Long. (West)
Waterloo	Main Property	2169367.064	6894256.328	34° 56.90’	116° 53.41’
	Mill Site	2166180.848	6884258.226	34° 56.40’	116° 55.42’
Langtry		2178850.704	6887417.695	34° 58.48’	116° 54.76’

The Waterloo Property is 1,768 ac (716 ha) which includes all claims comprising the property (i.e., Waterloo Main (1,727 ac; 699 ha) and Waterloo Mill Sites (41 ac; 17 ha). The Langtry Property totals 1,178 ac (477 ha). The two properties together (Waterloo and Langtry) cover an area of 2,946 ac (1,192 ha).

Legend

- Calico Silver Project Area
- State Boundary
- San Bernardino County
- County Boundaries
- Mojave Desert Outline
- Interstate Highway

N

0 30 60
Kilometers

0 30 60
Miles

Scale 1:3,801,600
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

Stantec

Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project
General Location Map

Figure 4-1

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 17	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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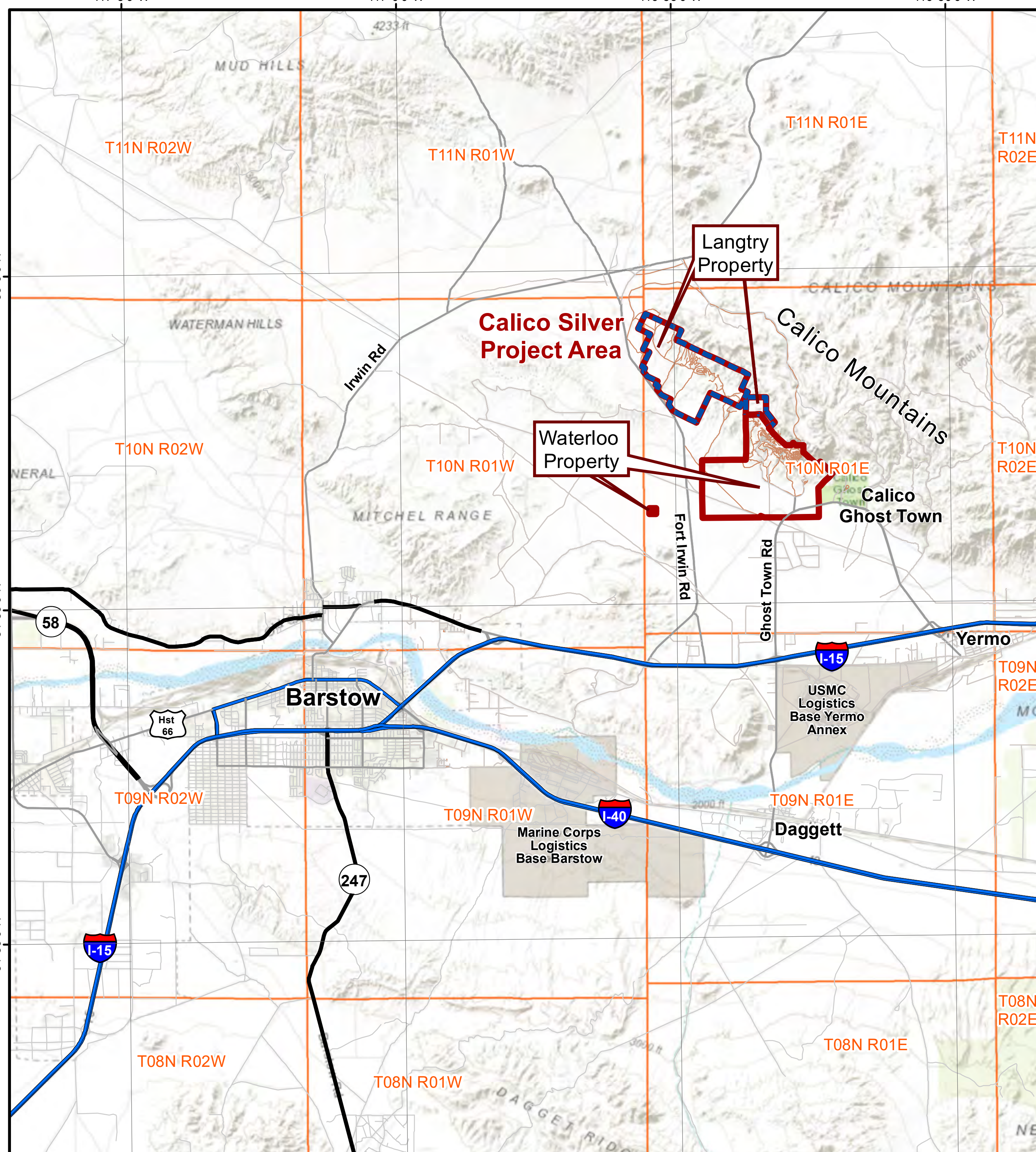


U:\233001578\disc\gis_cad\MXD\Fig_4_2_Calico_Property_LocMap_April2023.mxd

Legend

Roads
- Other Road
- Interstate Highway
- State Highway and Route
- Calico Dirt Roads

Township and Range

Calico Properties
- Langtry Property
- Waterloo Property

N

0 2 4
Kilometers

0 2.5
Miles

Scale 1:158,400
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

Stantec

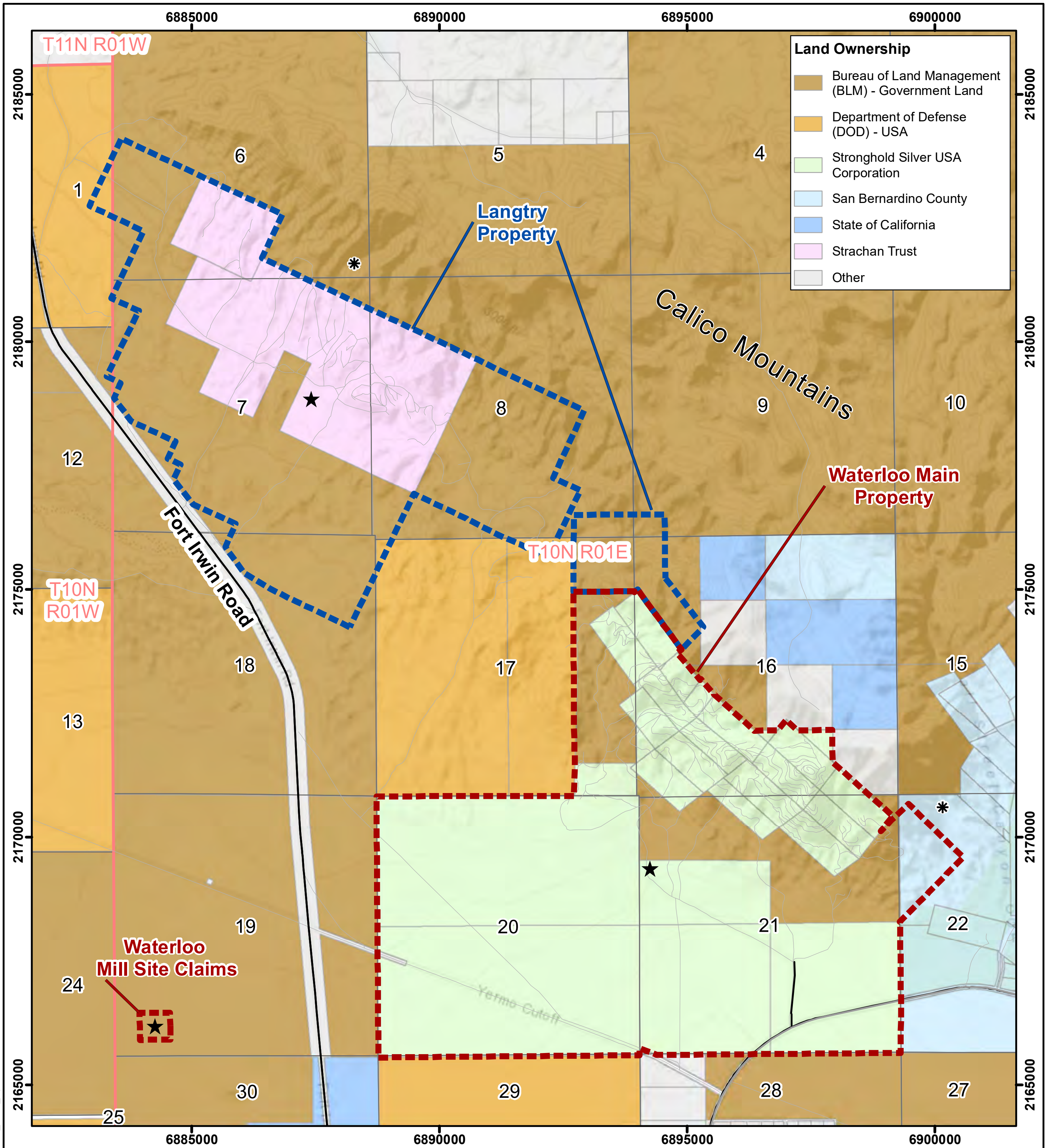
Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project Property Location Map

Figure 4-2

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578



Legend

Calico Properties

- Langtry
- Waterloo
- ★ Property Center
- ✳ Parcel indicates more than one owner

- Main Road
- Site Roads
- Township and Range
- Sections

N

0 500 1,000
Meters

0 2,800
Feet

Scale 1:33,600
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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Stantec

Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project
Surface Ownership Map

Figure 4-3

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 17

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

4.2 Tenure, Agreements and Royalties

The Waterloo Property comprises 48 claims: 27 fee simple land parcels and 21 unpatented claims (19 lode mining claims, 2 mill site claims). The Waterloo Property claims are shown on Figures 4-4 and 4-5 and in Table 4.2. The Langtry Property comprises 20 patented claims and 38 unpatented lode mining claims, shown on Figures 4-4 and 4-6 and in Table 4.3. Tables 4.2 and 4.3 list the claims with ownership and other details. The information presented in this section has been provided by Apollo to Stantec and includes agreements concerning the acquisition of the Waterloo Property and the options to earn into the Langtry Property, which have been reviewed by Stantec. Figures 4-3 through 4-6 show the land ownership and claim boundaries.

4.2.1 Waterloo Property

On July 12, 2021, Apollo acquired 100% interest in the Waterloo Property through its wholly owned subsidiary, Stronghold USA. The acquisition was made pursuant to an asset purchase agreement between Stronghold USA and Pan American, a wholly owned subsidiary of Pan American Silver Corp., dated January 22, 2021, as amended on April 1, 2021, and June 30, 2021 (collectively, the "Waterloo Purchase Agreement"). The total cost of the acquisition was US$25,000,000, plus an additional payment of US$6,000,000 as the parent Company (Apollo) was a publicly listed entity. Prior to Apollo acquiring Stronghold USA, a one-time payment of US$500,000 (not creditable against the base purchase price) had been paid to Pan American by Stronghold USA in order to extend the closing date of the Waterloo Purchase Agreement. Additionally, Pan American retains a 2% Net Smelter Royalty ("NSR") on any and all future production of minerals from the Waterloo Property.

The Waterloo Property comprises 27 fee land parcels, 19 unpatented lode mining claims and two mill site claims. The fee land parcel titles were vested to Pan American, by grant Quitclaim Deed dated November 1, 1994. Following the acquisition of the Waterloo Property by Stronghold USA, the 27 fee land parcels were vested to Stronghold USA, by grant Quitclaim Deed with Reservation of Royalty from Pan American to Stronghold USA on July 12, 2021. The transfer of claim ownership to Stronghold USA was recorded with the County on July 13, 2021.

The unpatented lode claims are registered to Stronghold USA and are kept in good standing by paying an annual fee of $165 per claim to the Department of Interior, Bureau of Land Management ("BLM") due by the 1st of September. BLM fees also include taxes and filing fees. All unpatented claims are in good standing through August 31, 2023, granting exploration activities for insignificant new ground disturbance. Annual property taxes due on the fee simple land claims and patented claims are payable in full by December 12, or in two installments: by December 12 and by April 10. Property taxes relating to the patented mining claims have been paid to the County for the 2022-2023 period. The next annual tax payment is due December 12, 2023.

There is no requirement to file a notice of federal mining claims with the County. However, Pan American had recorded all unpatented claims with the County. Once recorded, there is an ongoing obligation to annually file a Notice of Intent to Hold the mining claims with the County. This has been completed for the 2022-2023 period.

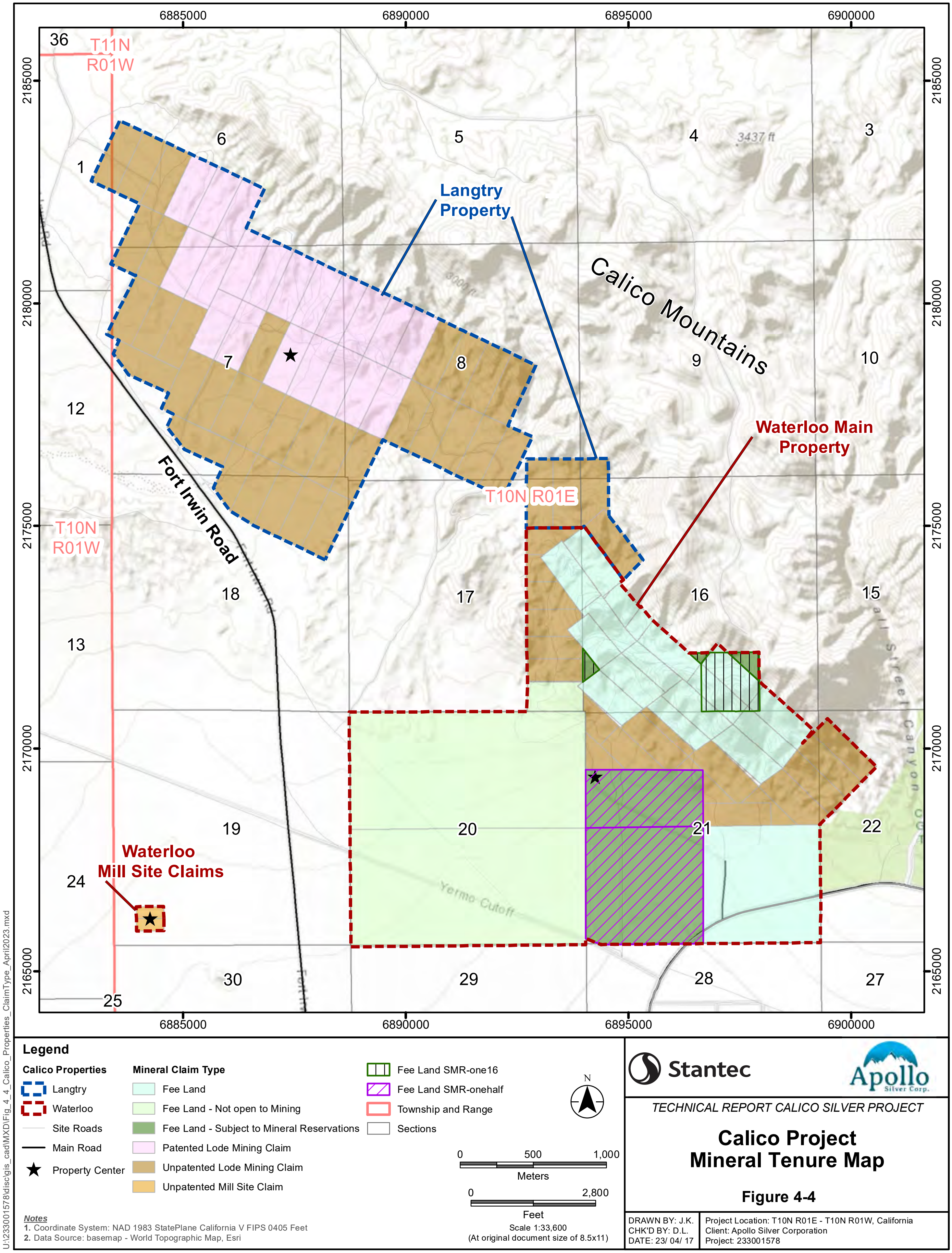
Mineral reservations apply to certain fee land parcels on the Waterloo Property as follows (LaBorico,2020): see referenced colors on Figures 4-4 and 4-5.

- Section 20 and Government Lot 11 (brown): mineral reservations are in favor of the United States, mineral extraction is prohibited – not open to mining.

- Shown on Figures 4-4 and 4-5, the black hatched areas are fee land parcels subject to a royalty agreement, dated August 26, 1970, with the State of California that lists a 1/16th royalty of net profits from ore mined on these lands (Henry and Sherman, 2012).

- Shown on Figures 4-4 and 4-5, the purple hatched areas (southwest quarter of Section 21 and the south half of the northwest quarter of Section 21):a one-half interest in all gas, oil, hydrocarbons and minerals is reserved in the deed from Catherine Yrissarri.

The surface rights of the Waterloo Property private lands are being held by Stronghold USA, whereas the surface rights for the unpatented lode mining claims are held by the BLM. To the knowledge of the Author, there are no known encumbrances with surface rights on the Waterloo Property.


6885000
6890000
6895000
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T11N
R01W
T10N
R01W
T10N R01E
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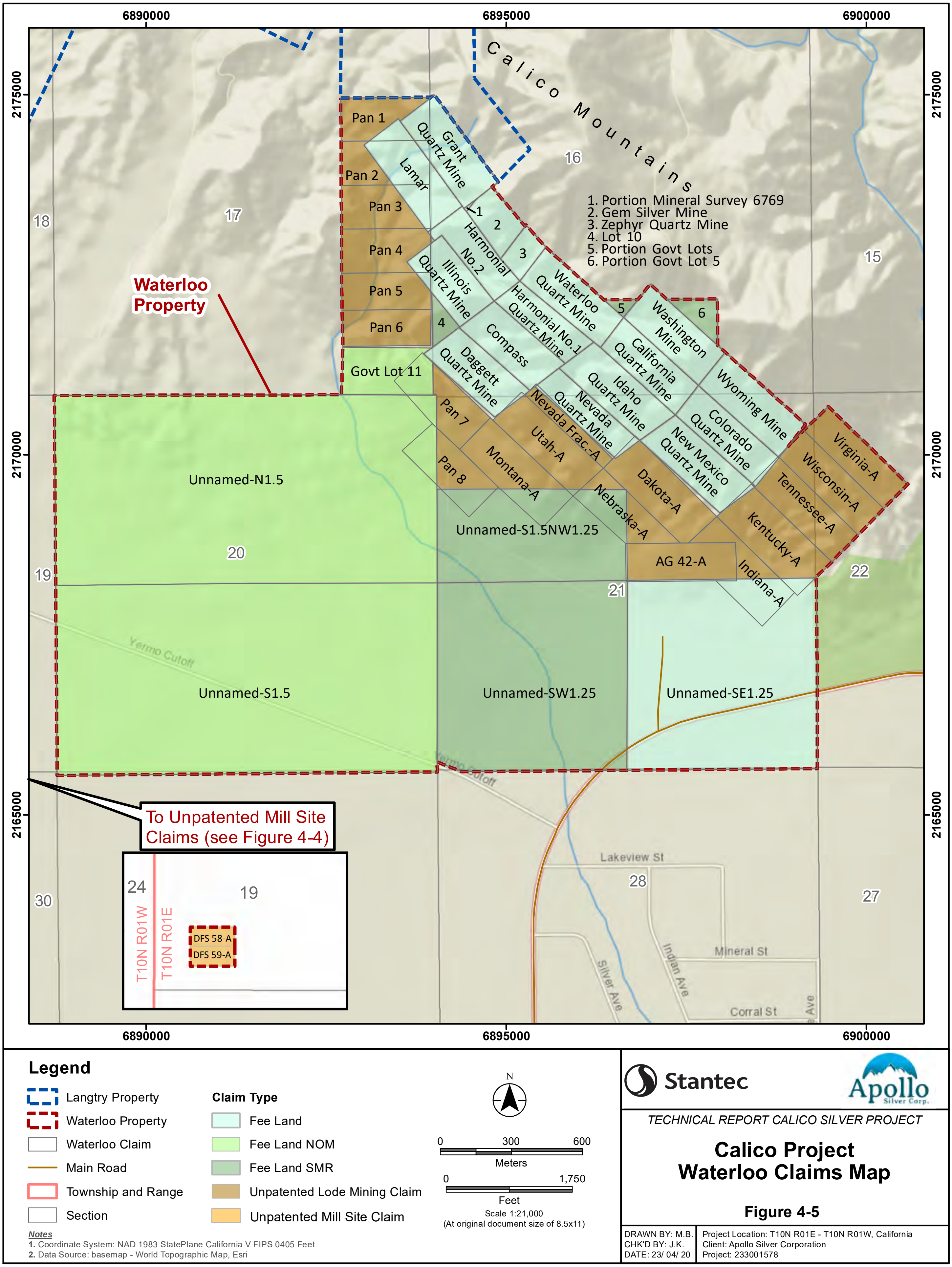
1
6
5
4
3
7
8
9
10
12
13
18
17
16
15
19
20
21
22
24
30
29
28
27
25
3437 ft
3000 ft
Langtry
Property
Calico Mountains
Waterloo Main
Property
Waterloo
Mill Site Claims
Fort Irwin Road
Yermo Cutoff
Legend
Calico Properties
Langtry
Waterloo
Site Roads
Main Road
Property Center
Mineral Claim Type
Fee Land
Fee Land - Not open to Mining
Fee Land - Subject to Mineral Reservations
Patented Lode Mining Claim
Unpatented Lode Mining Claim
Unpatented Mill Site Claim
Fee Land SMR-one16
Fee Land SMR-onehalf
Township and Range
Sections
N
0
500
1,000
Meters
0
2,800
Feet
Scale 1:33,600
(At original document size of 8.5x11)
Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri
Stantec
Apollo
Silver Corp.
TECHNICAL REPORT CALICO SILVER PROJECT
Calico Project
Mineral Tenure Map
DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 17
Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578
U:\233001578\disc\gis_cad\MXD\Fig_4_4_Calico_Properties_ClaimType_April2023.mxd

Figure 4-4



TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project Waterloo Claims Map

Figure 4-5

Table 4.2
Waterloo Claims

Claim Type	Claim Name	Parcel #	Claimant Name
Fee Land	California Quartz Mine	0517161230000	Stronghold Silver USA Corp.
	Colorado Quartz Mine	0517121120000	
	Compass	0517161080000	
	Daggett Quartz Mine	0517161090000	
	Gem Silver Mine	0517161140000	
	Grant Quartz Mine	0517171020000	
	Harmonial No.1 Quartz Mine	0517161070000	
	Harmonial No.2	0517161180000	
	Idaho Quartz Mine	0517121100000	
	Illinois Quartz Mine	0517161120000	
	Lamar	0517151050000	
	Nevada Quartz Mine	0517121080000	
	New Mexico Quartz Mine	0517121110000	
	Portion Mineral Survey 6769	0517161190000	
	Unnamed-SE1.25	0517121040000	
	Washington Mine	0517161220000	
	Waterloo Quartz Mine	0517161060000	
	Wyoming Mine	0517121130000	

Table 4.2 (Cont'd)

Claim Type	Claim Name	Parcel #	Claimant Name
Fee Land	Zephyr Quartz Mine	0517161150000	Stronghold Silver USA Corp.
	Govt Lot 11	0517151030000	
	Unnamed-N1.5	0517121060000	
	Unnamed-S1.5	0517121070000	
	Lot 10	0517161110000	
	Portion Govt Lot 5	0517161210000	
	Portion Govt Lots	0517161200000	
	Unnamed-S1.5NW1.25	0517121020000	
	Unnamed-SW1.25	0517121050000	
Unpatented Lode Mining Claim	AG 42-A	0517121140000	Stronghold Silver USA Corp.
	Dakota-A	0517121140000	
	Indiana-A	0517121140000	
	Kentucky-A	0517121140000	
	Montana-A	0517121140000	
	Nebraska-A	0517121140000	
	Nevada Frac.-A	0517121140000	
	Pan 1	517151060000	
	Pan 2	517151060000	
	Pan 3	517151060000	
	Pan 4	517151060000	

Table 4.2 (Cont'd)

Claim Type	Claim Name	Parcel #	Claimant Name
Unpatented Lode Mining Claim	Pan 5	0517151060000	Stronghold Silver USA Corp.
	Pan 6	0517151060000	
	Pan 7	0517121140000	
	Pan 8	0517121140000	
	Tennessee-A	0517121140000	
	Utah-A	0517121140000	
	Virginia-A	0517121140000	
	Wisconsin-A	0517121140000	
	DFS 58-A	0517131020000	
	DFS 59-A	0517131020000	

In April 2017, Pan American obtained a CLUC from the County recognizing surface mining as a legal use of the fee simple private lands and the existence of a "vested right" to conduct surface mining activities thereon. The vested right does not extend to the BLM-managed federal public lands upon which the unpatented claims are located.

4.2.2 Langtry Property

Apollo, through its wholly owned subsidiary, Stronghold USA, holds the rights to acquire a 100% interest in the Langtry Property through two option agreements entered into in December 2020. One option agreement covers 36 unpatented lode mining claims held by Athena and the second option agreement covers 20 patented mining claims owned by the Strachan Trust and two unpatented lode mining claims (see Figure 4-6). Each option agreement is subject to good standings, royalties, and encumbrances.

The Athena Agreement comprises an aggregate purchase price of US$1,000,000 (the "Athena Purchase Price") which is due on or before December 15, 2025, and is subject to the following terms to remain in good standing: US$25,000 is due on or before each Athena Agreement anniversary date, and all annual governmental real-estate taxes and fees are to be reimbursed to Athena. The option payments made by the optionee (Stronghold USA) to the optionor (Athena) during the 24-month period prior to the full exercise of the option will be credited against the Athena

Purchase Price. Royalties on the Athena Agreement include a 1% net smelter return royalty of all proceeds received from the sale of concentrates, precipitates or metals produced from ores mined, extracted, or taken from the claims.

The Strachan Agreement has an aggregate price of the greater of: (a) US$5,200,000 or (b) the Spot Price of 220,000 troy ounces of silver on or before December 24, 2025. To remain in good standing, the following is required: US$100,000 is due on or before each Strachan Agreement anniversary date, and all annual governmental real-estate taxes and fees are to be reimbursed to Strachan. All option payments made during the term of the option shall be applied to the final purchase price. Royalties of the Strachan Agreement include: 1% net smelter return royalty on silver, 5% gross royalty on all other mineral production (for example: barite, volcanic ash, gravel, water, natural gas, etc.), and 10% gross royalty on all other non-mineral production income (for example: property use as a solar farm, windmill farm, landfill, residential, industrial, commercial use, cell phone tower site, etc.). The Strachan Agreement encumbrances include:

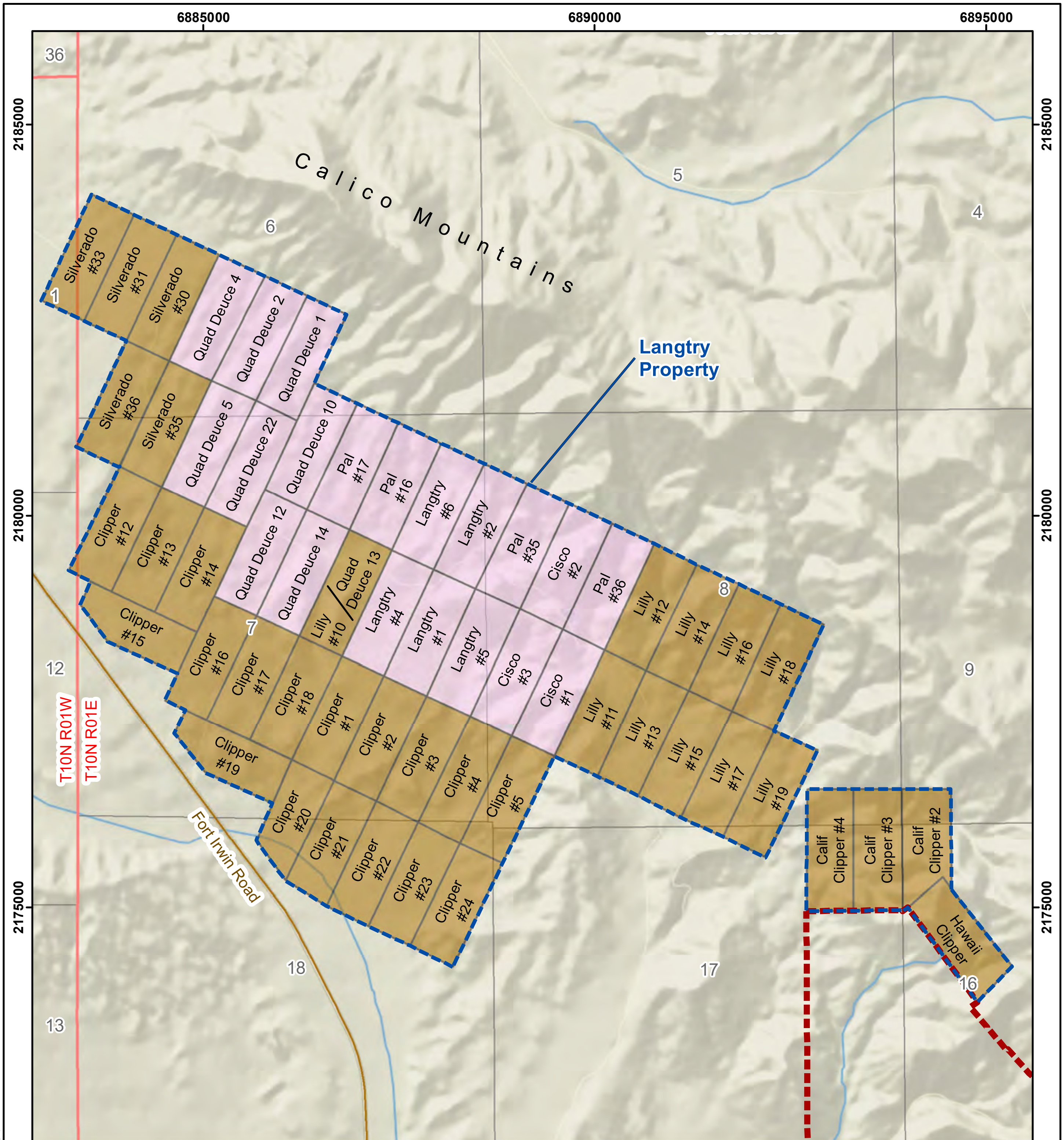
1) An existing royalty in favour of a subsidiary of Exxon-Mobil Corp. which is further described in a deed recorded as Document #88-076838 in the official records of San Bernardino County, California.
2) Said existing Exxon-Mobil Corp. royalty is the subject to an existing contract between Exxon-Mobil Corp. and Athena. which obligates Exxon-Mobil Corp. to reduce the royalty due on silver to a 2% NSR royalty on silver produced from the patented claims (Langtry Silver Mine) upon payment by Athena to Exxon-Mobil Corp. of US$150,000 payable in annual payments of US$10,000. The payments due on said contract are current.
3) An existing contract obligates the Strachan Trust to grant a 1% NSR royalty to Athena, contingent on the payment in full by Athena of the royalty reduction contract with Exxon-Mobil Corp. Athena satisfied the payment obligation, which is evidenced in a Deed dated November 1, 2021. The Deed was recorded with the County on April 7, 2022.
4) A lien may exist on the unpatented claim described as CAMC#0290263.

For unpatented lode mining claims to remain in good standing, they must be maintained by paying an annual fee of $165 per claim to the BLM due by 1st September. BLM fees also include taxes and filing fees. All unpatented claims at Langtry are in good standing through August 31st, 2023, granting exploration activities for insignificant new ground disturbance. Property taxes are due annually on the patented claims, which can either be paid in full by December 12, or in two installments: by December 12 and by April 10. Both installments associated with the patented mining claims have been paid to the County of San Bernardino for the 2022-2023 period. The next annual tax payment is due December 12, 2023.

There is no requirement to file a notice of federal mining claims with San Bernardino County. However, both Athena and Strachan have recorded all claims with San Bernardino County. Once recorded, owners have an ongoing obligation to annually file a Notice of Intent to Hold mining claims with the County. This has been completed for the 2022-2023 period.

The surface rights of the Langtry Property private lands are being held by Strachan, whereas the surface rights for the unpatented lode mining claims are held by the BLM. To the knowledge of the Authors there are no known encumbrances with surface rights on the Langtry Property.

In 2015, Strachan obtained a Certificate of Land Use Compliance from San Bernardino County recognizing surface mining as a legal use of the patented private lands at Langtry and the existence of a “vested right” to conduct surface mining activities thereon. The vested right does not extend to the BLM-managed federal public lands upon which the unpatented claims are located.



Legend

Langtry Property
Waterloo Property

Claim Type

Patented Lode Mining Claim
Unpatented Lode Mining Claim

Main Road
Township and Range
Section

N

0 300 600
Meters

0 1,800
Feet

Scale 1:21,600
(At original document size of 8.5x11)

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

U:\233001578\disc\gis_cad\MXD\Fig_4_6_Langtry_ClaimMap_April2023.mxd

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Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project
Langtry Claims Map

Figure 4-6

DRAWN BY: M.B. CHK'D BY: J.K. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

Table 4.3 provides a list of the patented and unpatented claims that comprise the Langtry Property, respectively.

Table 4.3
Langtry Mining Claims

Claim Type	Claim Name	Parcel #	Claimant Name
Patented Lode Mining Claim	Cisco #1	0517251050000	Strachan Trust
	Cisco #2	0517251050000	
	Cisco #3	0517251050000	
	Langtry #1	0517251050000	
	Langtry #2	0517251050000	
	Langtry #4	0517251050000	
	Langtry #5	0517251050000	
	Langtry #6	0517251050000	
	Pal #16	0517251050000	
	Pal #17	0517251050000	
	Pal #35	0517251050000	
	Pal #36	0517251050000	
	Quad Deuce 1	0517251050000	
	Quad Deuce 10	0517251050000	
	Quad Deuce 12	0517251050000	
	Quad Deuce 14	0517251050000	
	Quad Deuce 2	0517251050000	
	Quad Deuce 22	0517251050000	
	Quad Deuce 4	0517251050000	
	Quad Deuce 5	0517251050000	

Table 4.3 (Cont'd)

Claim Type	Claim Name	Parcel #	Claimant Name
Unpatented Lode Mining Claim	Calif Clipper #2	0517171080000	Athena Minerals Inc.
	Calif Clipper #3	0517151060000	
	Calif Clipper #4	0517151060000	
	Clipper #1	0517251030000	
	Clipper #12	0517251030000	
	Clipper #13	0517251030000	
	Clipper #14	0517251030000	
	Clipper #15	0517251030000	
	Clipper #16	0517251030000	
	Clipper #17	0517251030000	
	Clipper #18	0517251030000	
	Clipper #19	0517251030000	
	Clipper #2	0517251030000	
	Clipper #20	0517131010000	
	Clipper #21	0517131010000	
	Clipper #22	0517131010000	
	Clipper #23	0517131010000	
	Clipper #24	0517131010000	
	Clipper #3	0517251030000	
	Clipper #4	0517251030000	
	Clipper #5	0517251030000	
	Hawaii Clipper	0517171080000	
	Lilly #10/Quad Deuce 13	0517251030000	Strachan Trust

Table 4.3 (Cont'd)

Claim Type	Claim Name	Parcel #	Claimant Name
Unpatented Lode Mining Claim	Lilly #11	0517251040000	Athena Minerals Inc.
	Lilly #12	0517251040000	
	Lilly #13	0517251040000	
	Lilly #14	0517251040000	
	Lilly #15	0517251040000	
	Lilly #16	0517251040000	
	Lilly #17	0517251040000	
	Lilly #18	0517251040000	
	Lilly #19	0517251040000	
	Silverado #30	0517261030000	
	Silverado #31	0517261030000	
	Silverado #33	0517261030000	
	Silverado #35	0517261030000	
	Silverado #36	0517261030000	

In 2015, Athena obtained a CLUC from San Bernardino County recognizing surface mining as a legal use of the Strachan patented claims and the existence of a "vested right" to conduct surface mining activities thereon. The vested right does not extend to the BLM-managed federal public lands upon which Athena's unpatented claims are located.

4.3 Environmental Liabilities, Permitting and Hazards

4.3.1 Environmental Liabilities

The Author and Apollo are unaware of any environmental liabilities associated with the Waterloo and Langtry Properties. The purchase and option agreements noted in Section 4.2 state that there are no known environmental liabilities associated with the Properties.

A comprehensive environmental review has yet to be completed by Apollo. At both Properties the environmental and permitting rules and regulations will need to be assessed with the local, state, and federal regulators.

4.3.2 Permitting

As mentioned in Section 4.2, both the Waterloo and Langtry Properties have obtained a CLUC for private lands from the County of San Bernardino. These certificates are a form of vested or grandfathered mining right and exempts the holder from the need to obtain a surface mining permit that otherwise would be required under the Surface Mining and Reclamation Act of 1975 ("SMARA") (SMARA, Public Resources Code, Sections 2710-2796). SMARA provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized, and mined lands are reclaimed to a usable condition. SMARA is administered by the County of San Bernardino with respect to the Calico Project. The CLUC does not exempt the holder from other environmental permitting requirements, nor does it exempt the holder from the need to provide reclamation of financial assurances. The CLUC recognizes surface mining as a legal use of the fee simple and patented land parcels with the existence of a "vested right" to conduct surface mining activities thereon. The vested right does not extend to the BLM-managed federal public lands upon which the unpatented claims are located. Mining on federal land is subject to the Mining Law of 1872, State regulations (Section 3809), and the National Environmental Policy Act.

On BLM managed lands, permits to conduct exploration drilling may be required depending on the amount of proposed new disturbance the activities may cause. Generally, a permit is not required if proposed exploration activities will cause new disturbance that is under 1 ac in size. If more, a Notice of Intent or a Plan of Operations may be required, again depending upon the amount of proposed new surface disturbance. If an operator does not have financial assurances in place with the County for reclamation, activities that may create less than 1.0 ac of new disturbance will require a Temporary Use Permit ("TUP") from the County of San Bernardino. A Notice of Intent is appropriate for planned surface activities that anticipate more than 1.0 and less than 5.0 ac of new surface disturbance and can generally be obtained within 30 to 60 days. A Plan of Operations is required if more than 5.0 ac of new surface disturbance is planned during the exploration program. Approvals for a Plan of Operations can take several months, depending on the nature of the intended work, the level of reclamation bonding required, the need for archeological surveys, and other factors as may be determined by the BLM. No other permits are required for exploration drilling.

On December 13, 2021, Apollo was granted a Conditional TUP ("Waterloo TUP") from the County for the Waterloo Property, allowing the Company to conduct its proposed 2022 drilling activities. The Waterloo TUP was set to expire on February 1, 2023, however, on January 24, 2023, the TUP was extended for an additional 12-months, and now expires on February 3, 2024. As a condition of approval of the Waterloo TUP, Apollo was required to provide security in the amount of $77,693. The security deposit was provided to the County in the form of a surety bond. Apollo has also obtained confirmation from the BLM that accessing its Waterloo Property via BLM-managed roads is considered a "casual use activity" for the purposes of drilling on private lands.

On May 12, 2022, Apollo was granted a Conditional TUP ("Langtry TUP") from the County, allowing the Company to conduct proposed drilling activities at the Langtry Property on private lands. The Langtry TUP is effective May 23, 2022, and expires May 23, 2023. As a condition of approval of the Langtry TUP, Apollo was required to provide a security in the amount of $77,693.20 to the County, in the form of a surety bond. The Langtry TUP allows for drilling activities that may create less than 1.0 ac of new disturbance. To date, no drilling activities have been undertaken at Langtry by Apollo.

4.3.3 Hazards

Hazards have been identified at both the Waterloo and Langtry properties related to the historical mine workings, for example: open unsecured shafts, adits, holes associated with historical drilling, trenches, and subsidence caused by underground working collapse. Numerous shafts and adits have been secured with closures (fencing, secure steel covers, or berms), back fill and/or foam plugs) by Athena, Pan American and Apollo. There is ongoing assessment of existing physical hazards and operational work to secure further openings being undertaken by Apollo. Locked gates also limit access to roads in some areas. Updated signs have been installed in several areas around both Waterloo and Langtry notifying people of the dangers associated with historical infrastructure or workings and to not trespass on private lands. Safety mitigation activities at both properties such as closure of mine openings are covered under the TUP already received by Stronghold USA from the County so long as new disturbance remains under 1 ac.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Calico Project is located within the historic Calico Silver Mining District of San Bernardino County, California. The Project can be accessed year-round by paved and dirt roads. Located approximately 9 miles (15 km) northeast of Barstow, California, vehicular access is from Interstate I-15 onto either Ghost Town Rd-Calico Road to Waterloo or Fort Irwin Road to Langtry (Figure 5-1). From the closest town, Yermo, the Properties are approximately north-northwest 4 miles (6.4 km) to Waterloo and 7 miles (11.3 km) to Langtry. Approximately 1 mile (1.6 km) east of the Waterloo Property is the historical Calico Ghost Town Park, owned and operated by San Bernardino County. Once within the Calico Project limits, a network of dirt roads provide access to the old drill pads and historical workings within both Properties (Figures 5-1 and 5-2).

5.2 Physiography

The Calico Project is located within the southeastern part of the Mojave Desert in Southern California. The Mojave Desert is part of the Basin and Range physiographic province dominated by low relief with broad alluvial valleys and playas separated by steep mountain ranges. The Mojave Desert is part of California's desert ecoregion and considered a high desert (above 2,000 ft; 610 m) compared to the more southwestern Sonoran Desert (Schaffner, 2020). Figure 4-1 in the previous section displays the footprint of the Mojave Desert.

The Calico Project is situated along the steeply to gently dipping southwestern pediment of the Calico Mountains. The Calico Mountains form a 9 mile (15 km) long, northwest-trending range composed primarily of early Miocene sedimentary and volcanic rocks in the upper plate of the central Mojave Desert Block metamorphic core complex (Singleton and Gans, 2008).

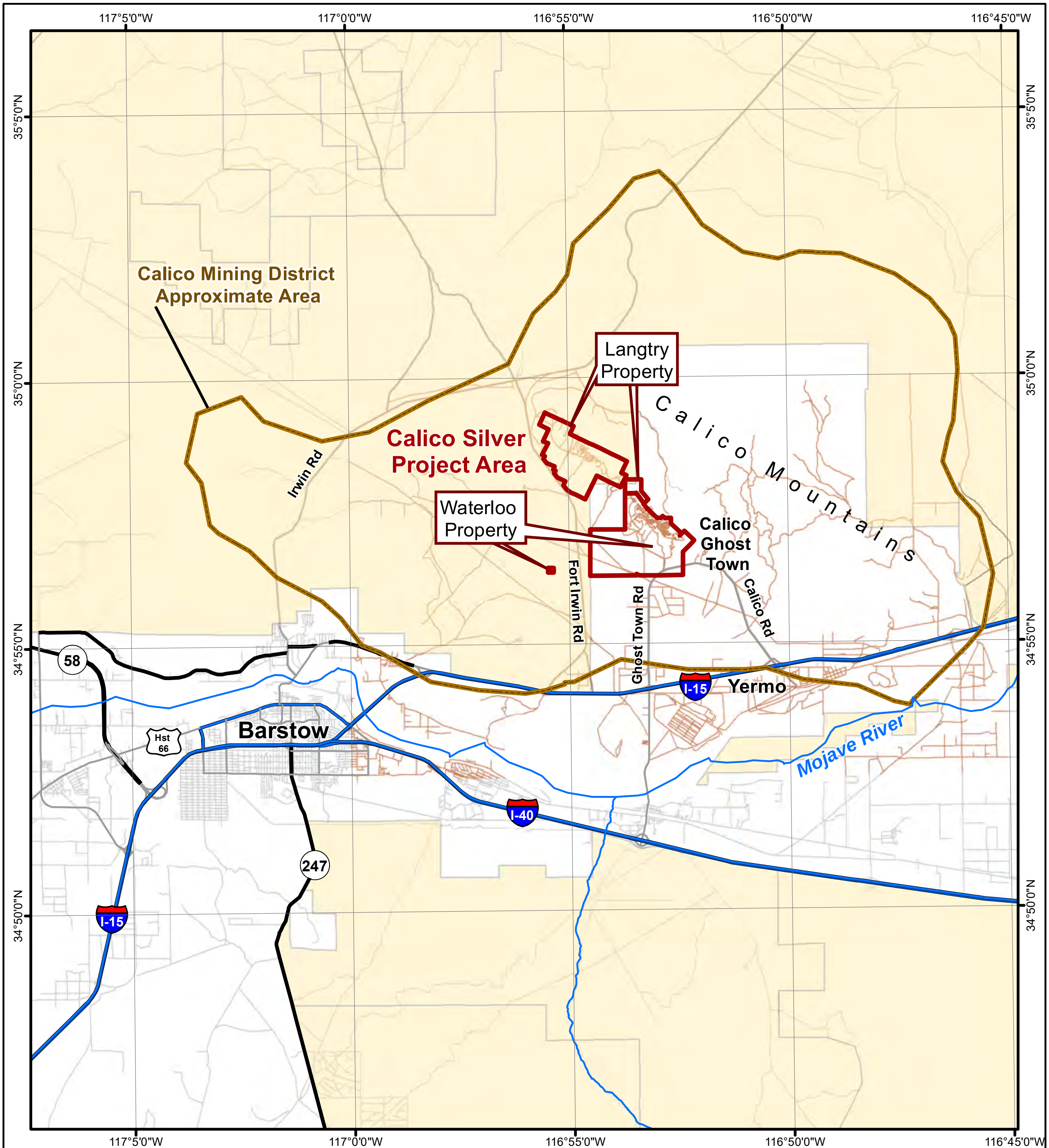
The elevation of the Calico Project ranges from 2,000 to 3,000 ft (610 to 914 m) above mean sea level. Dry alluvial channels that drain the mountain front create low-lying, flat-topped ridges separated by the narrow drainages. Surface topography within and surrounding the Property is shown on Figure 5-2.

5.3 Wildlife and Vegetation

The Calico Project has sparse vegetation that appears to be typical of the Mojave Desert region. Common flora on the Project includes the trees pinyon pine, mesquite, and California juniper; shrubs include the creosote bush, cacti, white bursage, allscale, saltbush, iodine bush, desert holly, desert trumpet, prickly pear, and black bush. Arrow weed black willow, Fremont cottonwood, narrowleaf willow and red willow are a few of the species restricted to riparian settings (Samari and Breckenridge, 2021b and ASARCO, 1981). Bedrock areas on the Project typically lack vegetation. Yucca species have not been observed and have never been recorded to occur in any historical documentation on the Project.

Wildlife reported to occur on the Project include bats, birds, lizards, coyote, fox, snakes, rabbits and insects. The San Bernadino County Regional Conservation Investment Strategy land designations highlights that the Project lies within the habitat for the Mojave Desert Tortoise (*Gopherus agassizii*). The Langtry Project lies within a BLM Area of Critical Environmental Concern ("ACEC") for the Mojave Desert Tortoise (see Figure 5-1). The ACEC is a dataset defining areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards (Dudek, 2018).

A Biological Impact Analysis review and survey has been completed in 2022 on the Project by Apollo and is discussed in more details in Section 20 of this Technical Report.



Legend

Calico Silver Project Area

Approximate Area of the Calico Mining District

Roads

Other Road

Interstate Highway

State Highway and Route

Calico Dirt Roads

BLM ACEC Designations - CALIFORNIA DESERT DISTRICT

ACEC - Areas of Critical Environmental Concern

N

0 2 4
Kilometers

0 3
Miles

Scale 1:190,080
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Calico Mining District Infrastucture and BLM ACEC Designations Map

Figure 5-1

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 17

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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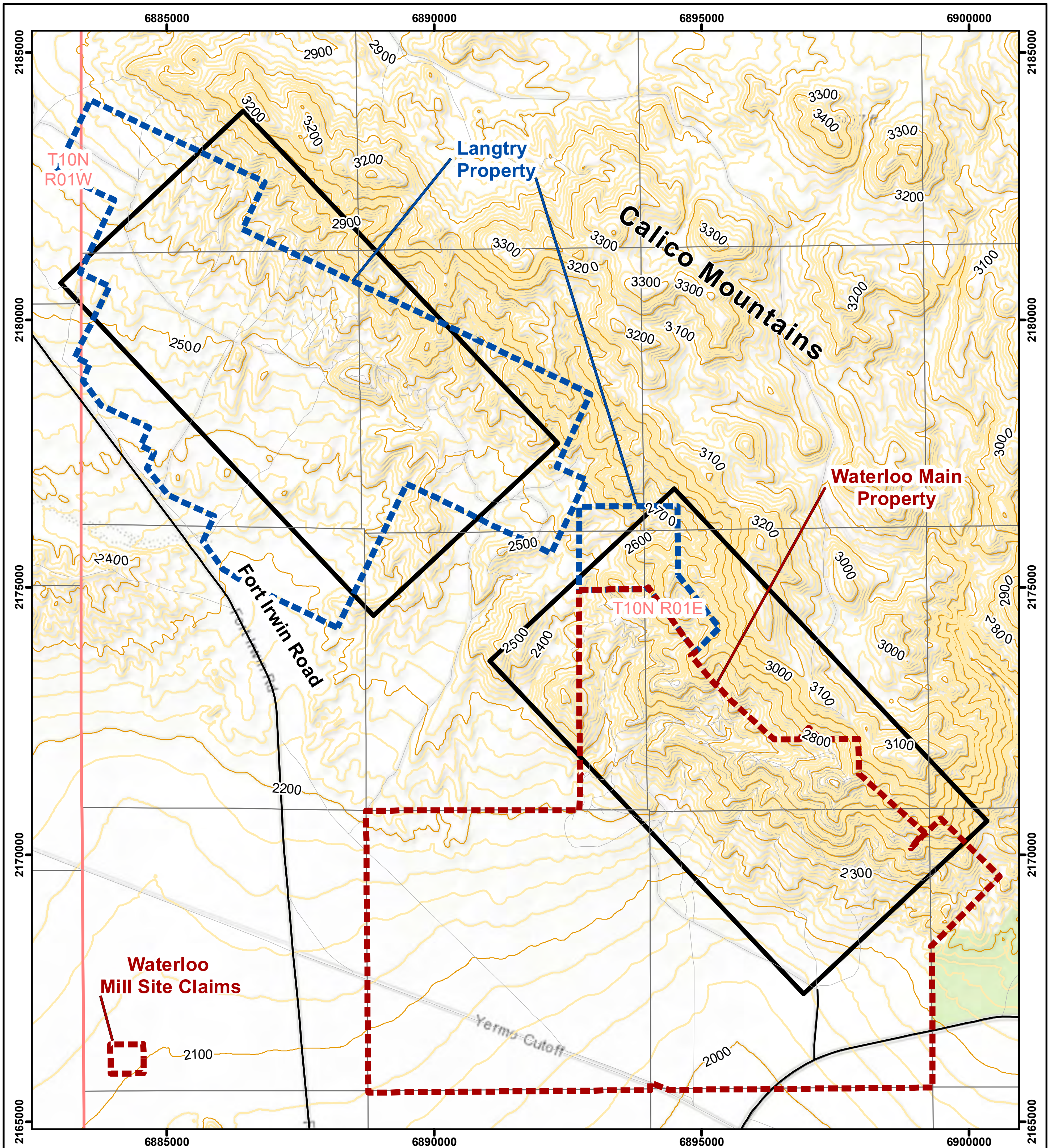

Legend

Calico Properties
- Langtry
- Waterloo

- Main Road
- Site Roads
- Township and Range
- Sections

Contour (20 foot)
from 10 meter National Elevation Dataset
- Contour
- Index Contour
- Extent of 1 meter Digital Elevation Models (DEMs)

N

0 400 800
Meters

0 2,600
Feet

Scale 1:31,200
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project Topographic Map

Figure 5-2

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 17

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

5.4 Climate

The Calico Project climate is arid, typical of southern California deserts. Summers are relatively long and hot, whereas winters are mild. There is low annual precipitation. The nearby city of Barstow's thirty-year averages for high and low temperatures are 80°F (27 °C) and 45 °F (7 °C) respectively, with average annual precipitation of 5 in (127 mm) per year (City of Barstow). The Mojave Desert has an annual average precipitation of 2 to 6 in (51 to 152 mm), with higher altitudes receiving the higher precipitation and seeing lower temperatures (Encyclopedia Britannica, March 27, 2023). The Barstow-Daggett County airport weather station indicates February is the wettest month.

Due to the low precipitation in the vicinity and within the Calico Project there are no perennial rivers, streams, or springs. The Mojave River (see Figure 5-1) is the nearest watercourse, and it is highly ephemeral, running on surface only during spring runoff or during storm events.

Climate on the Calico Project allows for year-round exploration activities.

5.5 Local Resources and Infrastructure

Barstow has a population of 25,442 according to 2021 US Census Bureau data and is a full-service community with modern utilities (electricity, gas, phone, sewer, potable water) within 3 to 6 miles (4.8 to 9.7 km). The Union Pacific Railroad main transcontinental line lies along interstate highway I-15. (Samari and Breckenridge, 2021a). The Waterloo Property generally has good cellular service whereas the Langtry Property has spotty coverage. Field personnel and resources for exploration and potential operations are expected to be available from Barstow and the surrounding communities and states.

No significant source of surface or groundwater for use in mining has yet been identified for the Project. Groundwater on the Project is poorly explored, but it is likely that the hard-rock formations in the District will produce little groundwater. The lower elevation areas of the Project lie within an adjudicated groundwater basin (Mojave Basin, Baja Subarea) in which groundwater rights have been apportioned amongst existing users and groundwater extractions are administered by the local water agency. Purchase of water rights for milling and mining dust control will need to be pursued which is not uncommon for operations within desert regions. Recent large-scale projects in the area have been successfully permitted and acquired the necessary water rights to operate, such as the Daggett Solar Power 3+ Battery Energy Storage System (BESS) facility, operated by Clearway Energy Group, near Daggett (~ 13 miles to the southeast of the Calico Project).

6.0 HISTORY

The Calico Project has been given its name from the mountains and the Mining District in which it occurs (Figure 6-1). The District is part of a northwest trending belt of precious metals districts associated with Tertiary volcanic centers in the Mojave Desert Block of Southern California. It has a lengthy history of exploration and mining, with silver rich mineralization discovered in the Calico Mountains in 1881, borax in 1887 and barite in 1950. The exploration history of the District and the Properties can be divided into three periods, historical (late 1800's), 1950-1980's and the 2000's.

6.1 Ownership History

6.1.1 Waterloo Property

ASARCO began exploring the Property in 1964, reportedly acquiring the Property at this time. Apollo does not have extensive documentation related to the acquisition of the Waterloo Property by ASARCO beyond what is in public records.

In 1994, Pan American entered into an agreement with ASARCO to acquire an interest in the Waterloo Property, later acquiring 100% of it in 1996. Title to the 27 fee land parcels was vested in Pan American by grant Quitclaim Deed dated November 1, 1994.

In January 2021, Stronghold USA and Pan American signed an Asset Purchase Agreement where Pan American retained a 2% NSR on any future production of minerals from the Waterloo Property. In July 2021, Apollo acquired Stronghold and its wholly owned subsidiary Stronghold USA, which is the name on record with the County of San Bernardino as owner of the fee simple lands. Title to the 27 fee land parcels was vested in Stronghold USA, a California corporation, by grant Quitclaim Deed dated July 12, 2021. Stronghold USA is the claimant for unpatented lode mining and mill site claims with the BLM for the Waterloo Property.

6.1.2 Langtry Property

In June 1966, Superior entered into a Lease of Mining Rights agreement with the Pacific Land Company for the parcel of land claims that now form the patented lands at Langtry. In 1970, Superior applied to patent the land claims, which was approved and completed in 1974. In 1976, Superior transferred ownership of the lands to its subsidiary company, the Title Insurance and Trust Company.

In 1984, Exxon-Mobil Corp., purchased Superior and in 1987, sold the claims to Buttes Gas and Oil Company ("Buttes"), retaining a 3% NSR, which continues to this day. Buttes put the patented lands into Humphreys Mineral Industries Inc., a wholly owned subsidiary, which later went bankrupt leaving tax obligations unmet (Moran et al., 2012). The patented lands were purchased in May 2004, by Strachan via a tax sale.

In 2007, International Silver Inc., entered into an option to purchase agreement with Strachan for the patented lands. In the following months, International Silver acquired additional unpatented lode mining claims adjacent to the patented claims. By 2010, International Silver abandoned exploration on their claims. In March 2010, Athena signed a 20-year lease option with Strachan and acquired the unpatented land claims from International Silver. On April 28, 2020, Athena entered into an agreement that terminate the lease agreement with Strachan. As a result, all scheduled lease option payments due in 2020 and beyond were considered terminated and void upon signing of the agreement.

In December 2020, Stronghold USA entered into two option agreements: the Athena Agreement and the Strachan Agreement (as discussed in Section 4) which gave it the rights to acquire the Langtry Property and in July 2021 Apollo acquired Stronghold USA, after acquiring Stronghold in the Stronghold Transaction (as discussed in Section 4).

6.2 Early Exploration and Development History

The District has a long history beginning with mining starting in the 1880's, later being abandoned around 1905, becoming a "ghost town" due to the termination of silver mining (Harthrong, 1983 and Weber, 1966). Mining during this period is well documented by many authors (including Lindgren, 1887; Storms, 1893; Storms and Fairbanks, 1965; Weber, 1966; Weber 1967a and 1967b; Harthrong, 1983). The mineralization, geology and tectonics of the broader region have also been well studied (Lindgren, 1887; Storms 1893; Erwin and Gardner, 1940; DeLeen, 1950; McCulloh, 1965; Weber, 1965; Dibblee 1970; Tarman and Thompson, 1988; Dokka, 1986; Dokka and Travis 1990; Woodburne et al., 1990; Singleton and Gans 2008; Jessey, 2014). The cessation of silver mining operations in the District is attributed to 1896 sharp decline in the price of silver (likely related to the economic depression "Panic of 1896") and/or the result of accessible mineralization being mined out (Dibblee, 1970). The exploration was focused around high-grade oxidized and supergene enriched deposits of vein related silver mineralization (Weber, 1966; Weber, 1967; Dibblee, 1970; Matson, 2008). Silver deposits were characterized as low tonnage, high-grade oxidized and possibly supergene enriched mineralization (Weber, 1966; Weber, 1967; Dibblee, 1970; Matson, 2008).

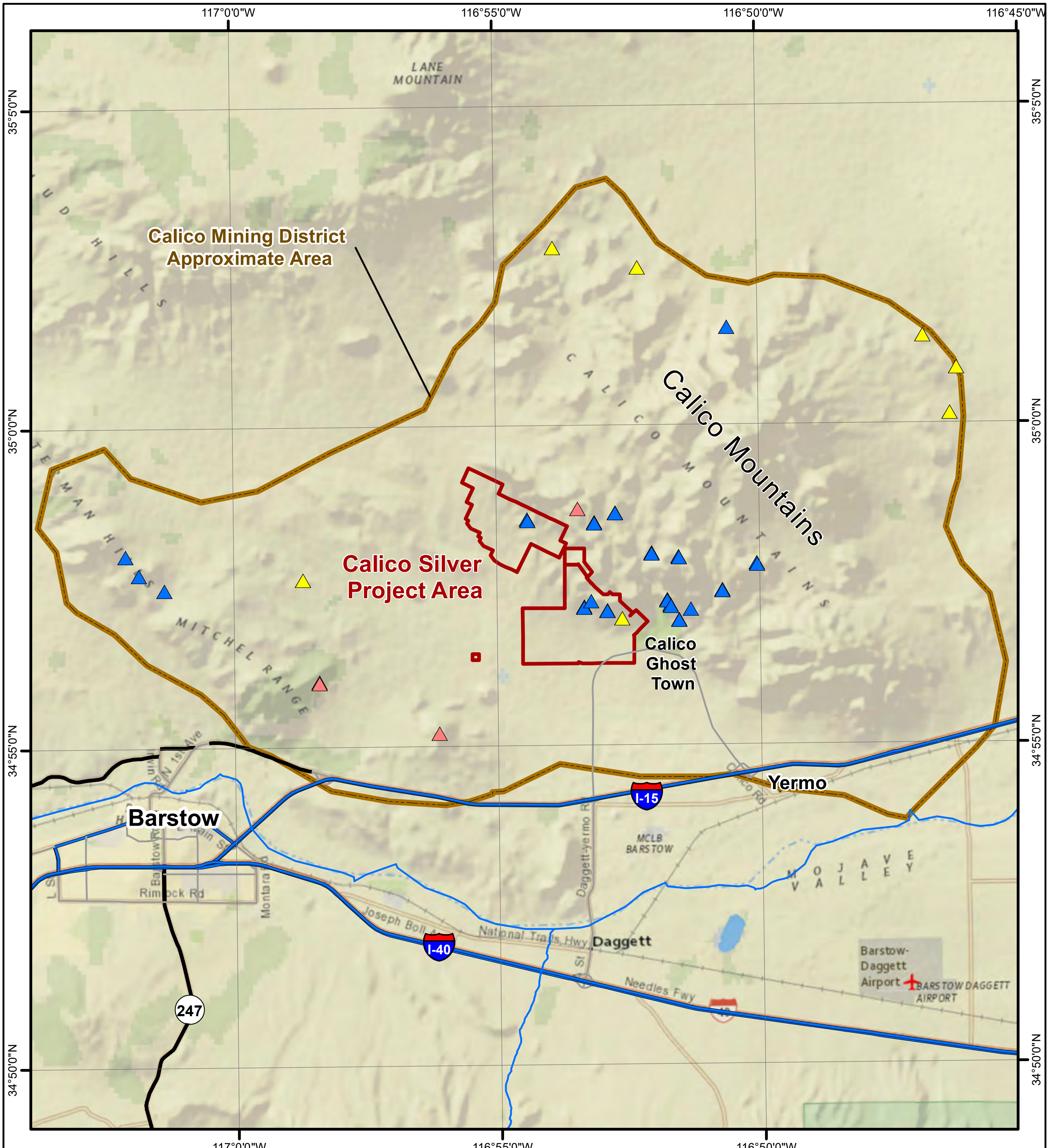
Between 15 and 20 million troy ounces of silver were reportedly recovered from the District over the period 1881 to 1896 in the eastern area of the Calico mountains that is dominated by Tertiary volcanic rocks (Harthrong, 1983). Average silver grades were reportedly 25 opt (857.1 g/t) but could range up to 100 opt (3,428 g/t). Mining initially targeted two extensive northwest striking veins in this region: the Oriental and Silver King. These veins extended for 2 miles (3 km) on the surface and vary in width from 21 in to 21 ft (53 to 640 cm). Mine workings were extensive and included over 12,000 ft (3,658 m) of drifts. The most prolific producer in the area was the Silver King Mine, located east of the Calico Project. Between 1883 and 1886 the mine yielded 37,000 tons of silver mineralization (Wright et al., 1953).

There are more than 50 historical past producing mines in the District (Figure 6-1). Of these, five occur on the Calico Project: at Waterloo are the Voca, and Waterloo silver mines, the Union silver-gold mine, and the Burcham gold-lead mine (Figure 6-2); at Langtry is the Langtry silver mine (Figure 6-3). The historical Waterloo mine was the largest, with workings comprising an estimated 260,758 ft^2 (24,225 m^2) of operations most developed by adits (600 ft (183 m) into the hill and 1,200 ft (366 m) laterally). This mine exploited silver mineralization occurring at the contact between the Barstow Formation sedimentary rocks and the Pickhandle Formation volcanic rocks for an estimated 6,000,000 ounces of silver (Fletcher, 1986). At the Burcham mine, the length of the workings is estimated to be 4,135 ft (1,260 m), whereas the lengths of any possible workings at

Voca and Union are unknown. An estimated 70,000 ounces of gold were extracted from the Burcham mine (Fletcher, 1986). At the historical Langtry Mine, workings totalled approximately 250 ft (76 m) in length, including a 50 ft (15m) winze, from which approximately 200 tons of silver ore (averaging 6 to 22 opt (205 to 754 g/t)) has been mined (Wright et al., 1953).

Limited production from the District continued sporadically until the 1940's, with gold and lead from the Burcham mine being exploited between 1930 and 1940. Additionally, during the 1930's tailings from the old mills were re-treated utilizing cyanidation. In the 1950's, the barite production in the District began, being of interest due to accelerated petroleum exploration in Southern California. The District area was known to have a series of persistent and thick (+50 ft wide) veins zoned with high grade barite and low-grade silver. Open pits were placed into production to supply barite to the oil-drilling industry from 1957 to 1961 from the Leviathon mine just northeast of Langtry (Matson, 2008).

During the 1950's an economic boom and a renewed interest in silver resulted in the reopening of several of the mines in the District, but production remained low. In the late 1960's, exploration programs at the Waterloo and Langtry Properties by previous operators resulted in the discovery of the disseminated silver mineralization. The late 1960's was the beginning of downhole drilling and subsurface investigations that are described in the following sections.



U:\233001578\disc\gis_cad\MXD\Fig_6_1_HistoricalProducers_April2023.mxd

Legend

- Approximate Area of the Calico Mining District
- Calico Silver Project Area
- Other Road
- Interstate Highway
- State Highway and Route

Historic Metallic Mine or Mineral Occurrence

Commodity

- Barium
- Silver
- Silver-Gold

N

0 2 4
Kilometers

0 2.5
Miles

Scale 1:158,400
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

Stantec

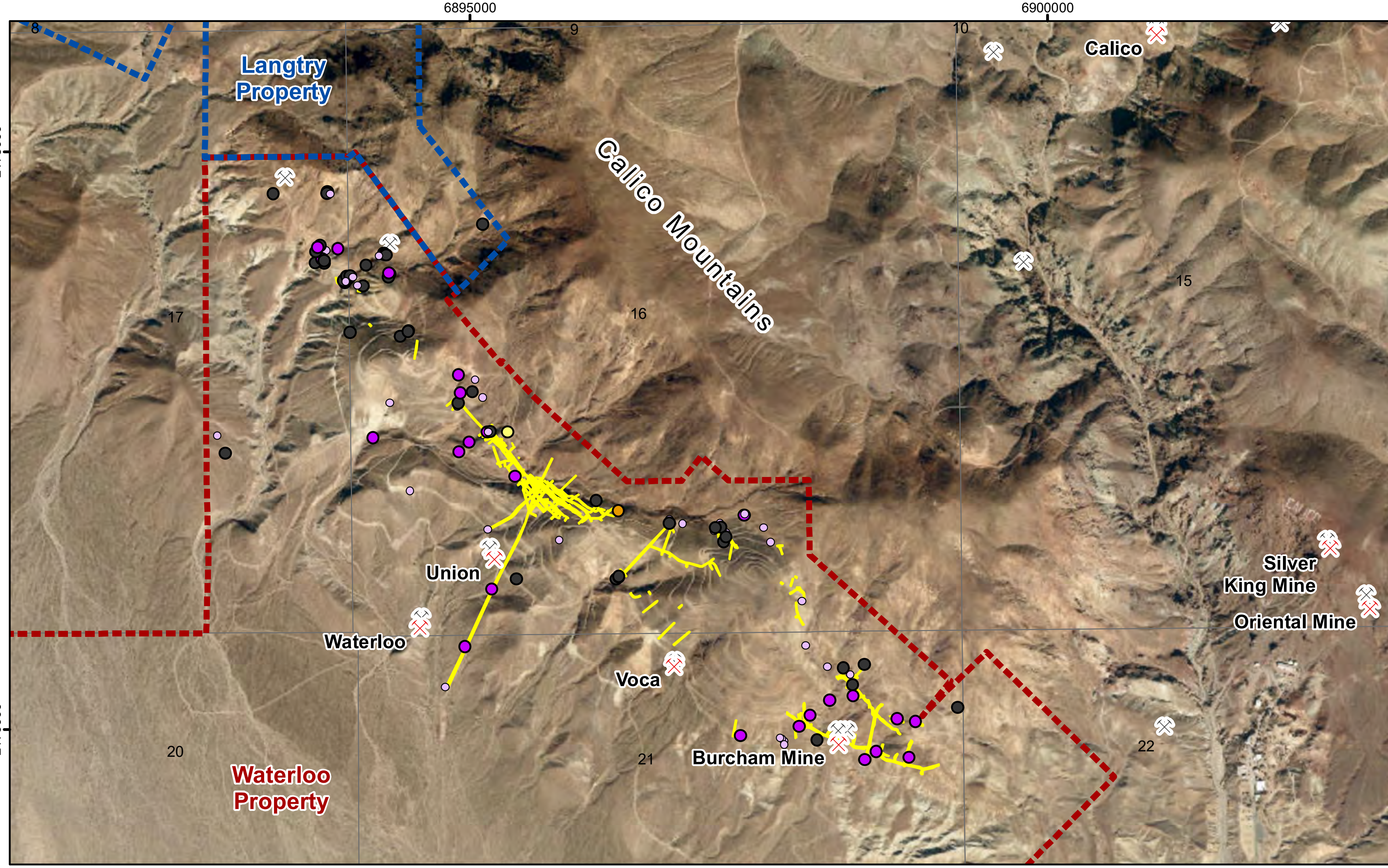
Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Calico Mining District Historical Producers

Figure 6-1

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 17	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578



Legend

Langtry Property
Waterloo Property
Section

Mine Feature

other
adit
decline
shaft
stope

Historical Mine
Calico Mineral Occurence
Underground Workings

N

0 200 400
Meters
0 1,200
Feet
Scale 1:14,400
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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Stantec
Apollo Silver Corp.

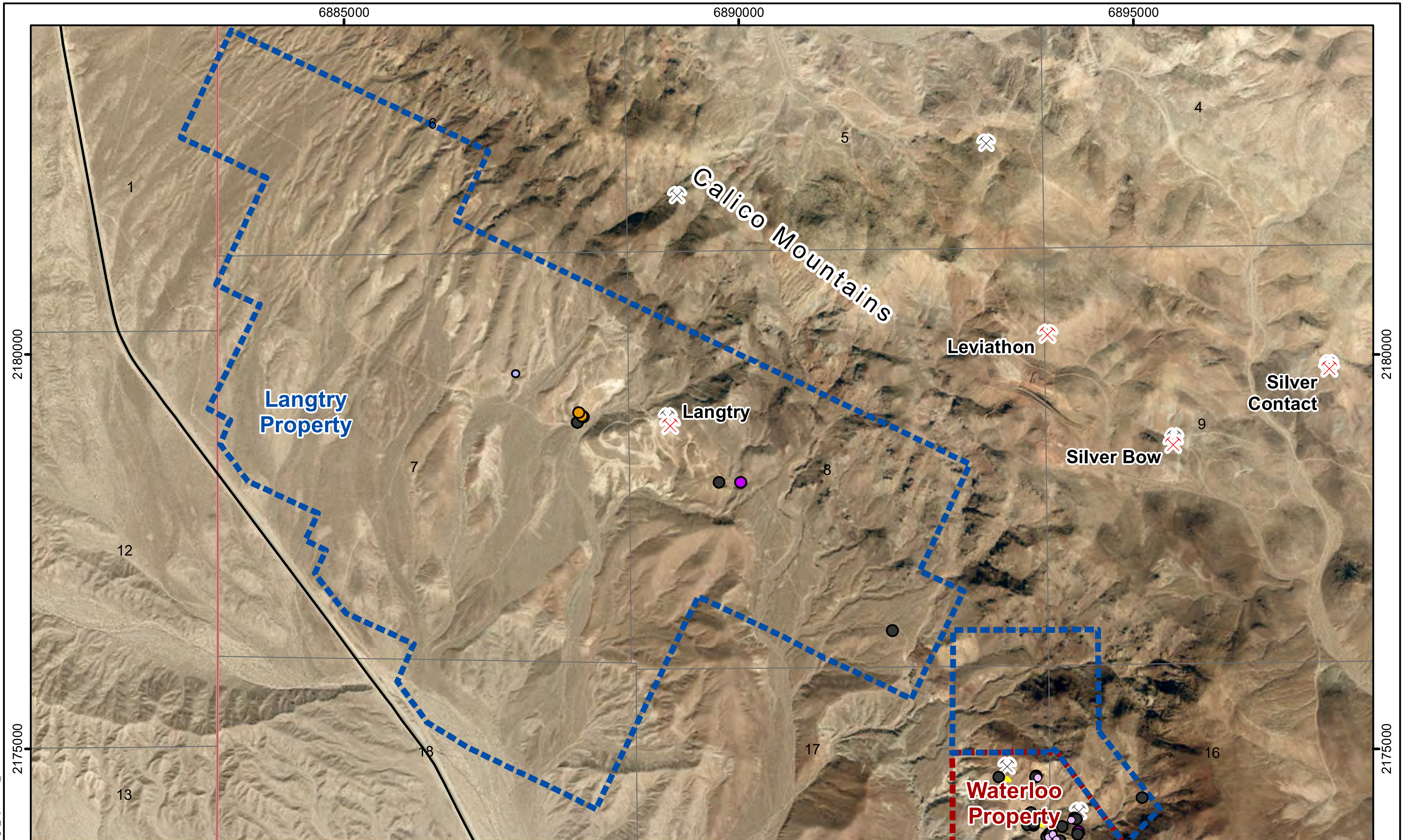
TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Historical Mine Workings

Figure 6-2

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 17

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578



Legend

- Langtry Property
- Waterloo Property
- Section
- Main Road

Mine Feature

- other
- adit
- shaft
- stope

- Historical Mine
- Calico Mineral Occurence
- Underground Workings

N

0 300 600
Meters

0 1,700
Feet

Scale 1:20,400
(At original document size of 8.5x11)

Stantec

Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Historical Mine Workings

Figure 6-3

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 17

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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6.3 Waterloo – Modern Era Exploration

Modern exploration began on the Waterloo Property in 1964 by ASARCO, continuing until 1989. Historical reports indicate that the Waterloo disseminated silver deposit was discovered in 1965 by ASARCO. ASARCO's surface and subsurface exploration initially comprised geological mapping and surface sampling resulting in the discovery of the disseminated silver mineralization. Further work comprised surface and underground geochemical sampling, trench channel sampling, surface bulk sampling, geophysical surveys and drilling. Surface geologic mapping was completed over several campaigns by ASARCO geologists (Kirkpatrick 1964, 1965 and 1975; and Smith, 1977) and by Ph.D. student D.I. Fletcher (Fletcher, 1986). Surface sampling included surface grab samples and later trenches, cut by bulldozer and focused on the northwest of the deposit to gather channel samples. A total of 640 channel samples were collected with an average grade of 2.5 opt Ag. In addition, samples were collected at the southeast of the deposit and within accessible underground workings. All surface and underground samples were sent to an independent laboratory in Tucson, Arizona, for silver analysis. Composites of the samples were assayed at the ASARCO El Paso Laboratory. Data from the surface and underground sampling programs completed by ASARCO were not used for the current mineral resource.

ASARCO completed extensive geophysical surveys in the late 1970's. A focused ground gravity survey was completed over both the Waterloo and Langtry deposits, in cooperation with Superior. The results showed strong gravity "high" anomalies in the mineralized areas where barite was abundant. ASARCO also completed airborne gravity, electromagnetic and magnetic surveys across the entirety of the Waterloo Property with the primary aim being to define the structural features below alluvial cover in the flatter areas of the Project that were proposed to host proposed future processing and tailings facilities.

ASARCO completed a total of 201 rotary drill holes and three diamond drill holes across the Waterloo deposit between 1965 and 1989 and are detailed further in Section 6.5. The holes completed between 1965 and 1970 formed the foundation of two historical estimates completed by ASARCO in 1969 and 1980, details of which are discussed further in Section 6.6.

Metallurgical and process testing was completed by ASARCO using a 100-ton surface bulk sample collected in 1967. Various testing on this material was carried out between 1967 into the early late 1970's, details of which are described in Section 6.7. In 1981 ASARCO received a permit to mine for a large tonnage open-pit silver mine, but a decline in the silver price put the Waterloo Project on hold.

In 1994, Pan American acquired an interest in the Waterloo Project from ASARCO, later acquiring the Project outright in 1996. Exploration work was not undertaken by Pan American on the Property until 2008. Exploration comprised an internal feasibility study based on historical information, surface geological mapping and surface grab sampling (2008-2012), as well as both RC and diamond drilling (2012-2013). Surface mapping was completed by Dr. Warren Pratt in 2008 and again in 2012 at Waterloo, to further understand the geology, alteration and controls on mineralization. The geological mapping refined the lithostratigraphy of the Property, recognized sub-divisions within the Barstow and Pickhandle Formations and mapped two major faults on the Property: the Calico and Cascabel faults (Pratt, 2008). Pratt summarized the principal controls on the distribution of silver mineralization is the Calico Fault (Pratt, 2012).

Pan American completed a total of 55 RC drill holes and eight diamond drill holes across the Waterloo deposit in 2012 and 2013, details of which are described in Section 6.5. These formed the foundation of an internal historical estimates completed by Pan American in 2016, details of which are discussed further in Section 6.6.

6.4 Langtry – Modern Era Exploration

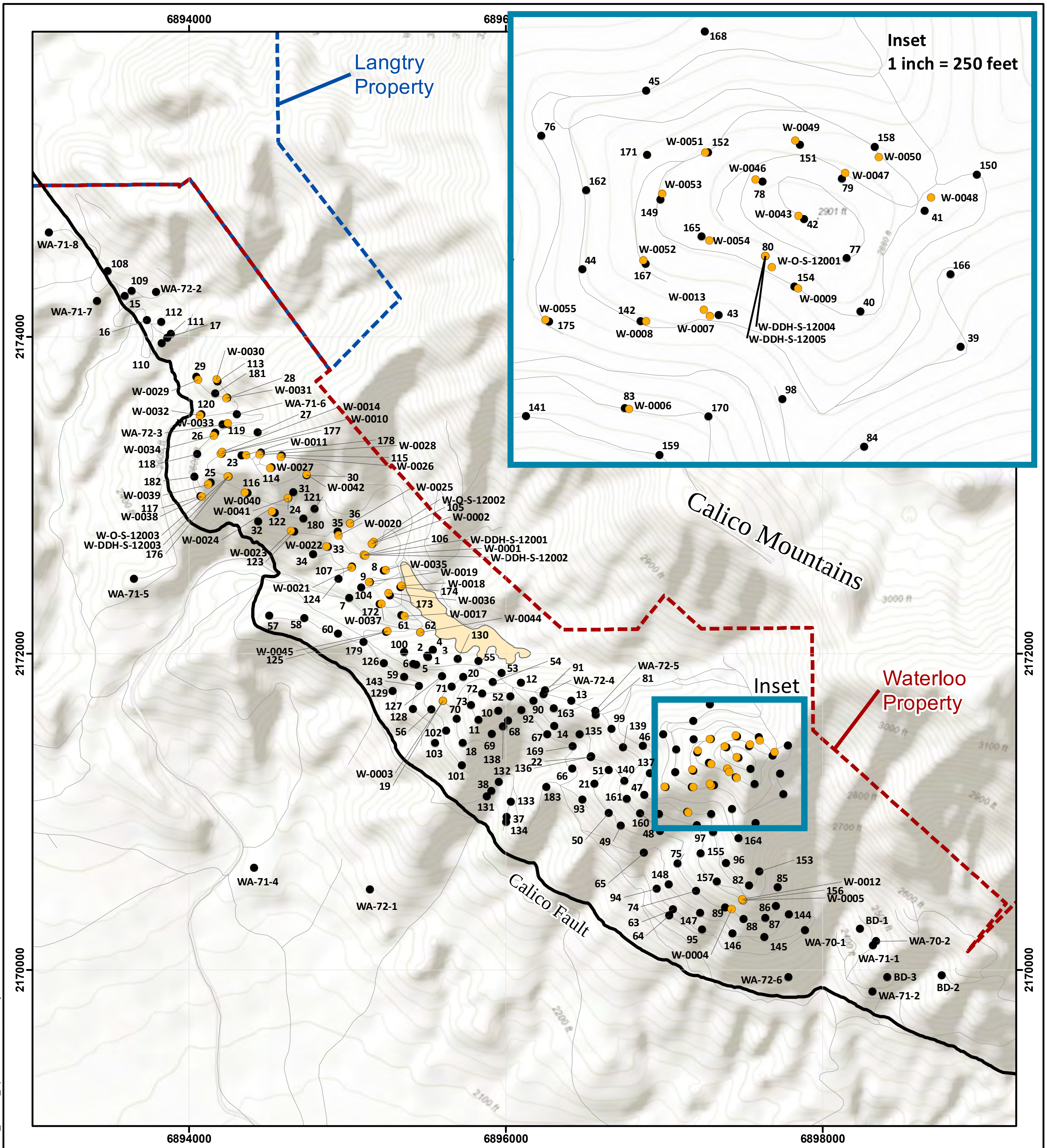
Modern exploration began on the Langtry Property in 1967 by Superior, with exploration work continuing until approximately 1984. Superior's surface exploration program resulted in the discovery of disseminated silver mineralization at Langtry, similar to that discovered by ASARCO at the nearby Waterloo in 1964. Superior's work consisted of surface geologic mapping and grab sampling (Kirkpatrick, 1975), trench sampling and rotary drilling. A focused ground gravity survey was completed on the mineralized area at Langtry in cooperation with ASARCO in 1980. Further exploration work completed by subsequent operators International Silver and Athena include drilling, geochemical sampling, geologic mapping and trench work. Historical mineral resource estimates were calculated by all three companies. An overview of the historical exploration and ownership of the Langtry Property is summarized in the following paragraphs.

A total of 200 rotary drill holes were reportedly completed at Langtry by Superior prior to 1974, 173 of which Apollo has data for, which are detailed in Section 6.5. Exploration work by Athena began in 2011 and involved drilling of 13 RC drill holes (10 confirmation of historical Superior drilling and three exploration) and the excavation of three surface trenches (Moran et al., 2012). Approximately 20 tons of mineralized rock was collected from the trenches for the purpose of metallurgical testing (Moran et al., 2012).

6.5 Drilling

Exploration drilling on the Calico Project has been undertaken by various past operators at both the Waterloo and Langtry Properties. Apollo compiled the historical drilling data and assay certificates into an independently verified database, with compilation and verification work being largely complete as of December 3, 2021. This data has been merged into the new drilling data acquired by Apollo's work in 2022, producing one comprehensive, verified drilling database. This database was provided by Apollo to Stantec on December 3, 2022. It included data for 267 drill holes at Waterloo and 186 at Langtry. The number of holes, hole-type, years drilled, and total lengths drilled are listed in Tables 6.1 and 6.2. The drill hole collar locations are shown on Figures 6-4 and 6-5. All of the historical Calico Project drill holes were drilled vertically with the exception of one drill hole at Waterloo and three drill holes at Langtry.

A comprehensive review of the historical drill hole data by the Author and QP, as detailed in Section 12, indicated no significant difference in assays between historical and modern drilling.



Legend

Site Roads
Calico Fault
Calico Collapse
Waterloo Property
Langtry Property

Drill Hole Collars

ASARCO (1965-1989)
Pan American (2012-2013)

N

0 150 300
Meters
0 875
Feet

Scale 1:10,500
(At original document size of 8.5x11)

Stantec

Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Historical Drill Hole Collar Location Map

Figure 6-4

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
3. Reference: Loveday, 2022

DRAWN BY: M.B. CHK'D BY: J.K. DATE: 23/ 04/ 17	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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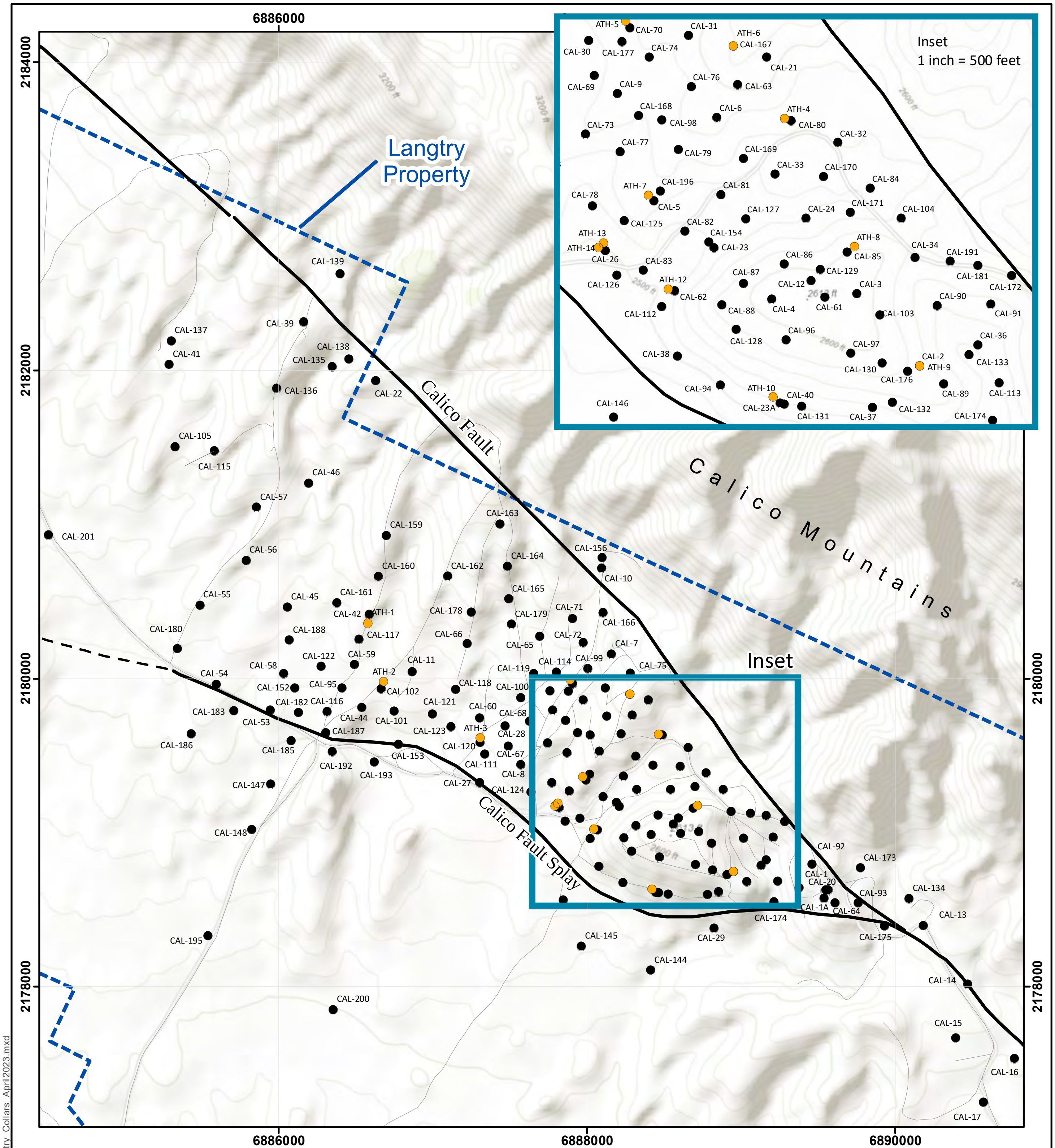

Legend

- Site Road
- Calico Fault and Splay
- Fault Inferred
- Langtry Property

Drill Hole Collars

- Athena Silver Inc. (2011)
- Superior Oil Company (1967-1976)

N

0 150 300
Meters
0 900
Feet
Scale 1:10,800
(At original document size of 8.5x11)

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
3. Reference: Loveday, 2022

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Stantec

Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Historical Drill Hole Collar Location Map

Figure 6-5

DRAWN BY: M.B. CHK'D BY: D.L. DATE: 23/ 04/ 17	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

6.5.1 Waterloo Drilling and Sampling

Table 6.1 lists the number and total lengths of the historical exploration drill holes compiled by Apollo for the Waterloo Property as identified from historical paper and digital records. Drilling at Waterloo was completed by ASARCO from 1965 to 1989 and by Pan American from 2012 to 2013. A total of 61,993 ft (18,895 m) of drilling from 267 holes were identified in the database records. Almost all drilling was vertically oriented except for one diamond drill hole oriented to the northeast at minus 45 degrees (W-DDH-S-12001). Waterloo hole locations are shown on Figure 6-4.

Table 6.1
Waterloo Property Drill Hole Summary (1965-2013)

Owner	Years	Type	Number of Holes	Drilled (ft)	Drilled (m)
ASARCO	1965-1982	Rotary	201	43,988	13,408
ASARCO	1989	Diamond	3	1,100	335
Pan American	2012-2013	RC	55	15,522	4,731
Pan American	2012	Diamond	8	1,382	421
Total			**267**	**61,992**	**18,895**

In the drill database, Waterloo historical drill includes 11,643 assay records from 238 historical drill holes and QA/QC samples. Most of the samples were obtained from RC drilling. The collar information for ASARCO drill holes is located using various methods of photo interpretation, historical maps, and handheld Global Positioning System ("GPS") and for a subset, collars were located in 2013 by Pan American using a Trimble Global Navigational Satellite System ("GNSS") device with base station (completed by Ludwig Engineering Inc., of San Bernardino). Pan American drill hole collars were located using handheld GPS and/or the Trimble GNSS with base station. Little downhole survey data is available for historical drilling.

ASARCO drilling was completed by Whatley Drilling Company of Tucson, Arizona (Kirkpatrick, 1966). They used rotary drilling with 35 ft (10.7 m) derrick and 2 7/8 in diameter 20 ft (6.1 m) drill pipes. A downhole percussion hammer was used to drill most of the holes, but when the rock was less silicified, a tricone bit was used. The cuttings were blown from the holes with compressed air and collected in a cyclone. The ASARCO drill holes were drilled 100 ft (31 m) apart along section lines across the deposit, with lines spaced at 200 ft (61 m) apart along the north-western portion of the deposit and at variable intervals between 100 ft (30 m) and 200 ft (61 m) in the south-eastern portion. Drill holes without downhole surveys were assumed to be vertical. Total hole depth ranged from 25 to 494 ft (8 to 151 m), and average 222 ft (68 m) in depth. Many of the holes stopped short of the lower limit of the deposit, particularly in the south-eastern portion, for unknown reasons. Drilling around the historical Waterloo Mine was complicated due to the presence of historical stopes and caving and not all proposed drill holes were completed (Rodger, 1994). Drilling samples were weighed and then split in a Jones-type splitter to obtain two 5 to 6 lb (2.3 to 2.7 kg) samples. One sample was sent for assay for silver while the other was retained as a duplicate. The QA/QC procedures, analysis methods and security from the ASARCO drilling were not available to the Author.

Pan American drilling was completed by Ruen Drilling Inc. (for RC holes) and Diversified Drilling Ltd. (for diamond drill holes). Drilling by Pan American was primarily designed to confirm historical assays from ASARCO drilling (twinning), to validate the thickness of the mineralization and grade across width and thickness of the mineralized zone, test alternate geological models and collect material for metallurgical test work. The drilling was guided not only by historical mineralization models completed by ASARCO but also by geological mapping and interpretive cross-sections completed by Dr. Warren Pratt (Pratt, 2008, 2012), commissioned by Pan American. Drilling targeted five zones of higher mineralization identified by ASARCO drilling. The majority of Pan American drill holes were collared at historical drill sites to utilize existing roads and drill pads. RC hole lengths ranged between 100 and 640 ft (30 to 195 m) and averaged 282 ft (86 m) depth and were sampled continuously over standardized lengths of 5 ft (1.5 m) (Pan American, 2012). Pan American completed eight diamond drill holes, ranging from 69 to 354 ft (21 to 108 m) depth, three (3) were PQ and five (5) were NQ in size. Five core holes were completed for exploration/lithology verification purposes and assay records and density measurements are available for three of these holes (two holes were never assayed by Pan American). Three core holes were completed for metallurgical testing, which was never completed. For all eight holes geotechnical and lithological logging information and core photos are available.

A detailed report prepared by Ahsan Chaudhary of Pan American on July 30, 2007, describes the ASARCO Waterloo Project drill samples as part of a cataloguing exercise of material acquired from ASARCO for the Project, which were stored in a secure warehouse in Tucson, Arizona (Samari and Breckenridge, 2021a). This work was performed over three weeks in the summer of 2007; the organized, sorted and relabelled sample boxes were stored at a facility in Tucson and then transported to a storage facility in Barstow near the Calico Project. Apollo is in possession of the catalogue and associated report.

The downhole lithologic data is available for the Pan American RC drill holes and a subset of the ASARCO rotary and diamond drill holes. Also, Pan American re-logged a selection of ASARCO RC drill holes in 2012 and these logs are available. Of the ASARCO drill holes completed, 44% of the drilled lengths were re-logged by Pan American and that material is still available.

ASARCO drill samples were mostly analysed for silver and gold content, with historical reports noting the method used was fire assay. Pan American selected 33 historical ASARCO holes for re-assay of pulps and sampled twinned drill holes for multi element analyses (trace and in some cases whole rock analyses). Pan American submitted approximately 3,880 samples for assay to confirm historical assay results. These samples included ASARCO re-assayed pulps, twinned drill holes and QA/QC samples. The Pan American assay methods included inductively coupled plasma atomic emission spectrometry (ICP-AES; ALS procedure ME-ICP61 or ME-ICP41). All samples containing Ag >100 ppm were automatically re-analysed using either four acid dissolution or Aqua regia dissolution followed by ICP–AES or Atomic absorption spectroscopy (“AAS”) (ALS procedure Ag-OG62 or Ag-OG46, respectively). Information about sample preparation and analytical procedures are available from the ALS assay certificates. No information has been provided on handling securities.

From Samari and Breckenridge (2021a) it is noted “results of the Pan American twin drilling and re-assays of the ASARCO holes compare very well with historical results and in some instances returned even higher grades.” Further information on the Pan American samples can also be found in this report. Pan American samples were assayed for silver, copper, gold, and multi-element geochemistry. Whole rock X-ray fluorescence analyses was also completed on a portion of samples to ascertain if barite could provide additional value, however the sampling for this element was limited. Additionally, as part of Apollo's twin hole QA/QC check, twin holes of ASARCO completed by Pan American were also reviewed. A total of five Pan American twin holes of ASARCO were verified and were shown to compared extremely well between each other, confirming the observations made by Samari and Breckenridge in 2021.

The QA/QC samples analysed with the Pan American samples were reviewed and plotted by Samari and Breckenridge (2021a). At the time, the Waterloo database included data for the insertion of 185 certified reference material ("CRM") samples, 177 blank samples, and 110 duplicates samples into the sampling stream for the 2012-2013 drilling samples and the 2012 re-sampling of historical pulps. From the 177 blanks, only one blank returned a maximum value of 2.5 ppm Ag, which is the Ag limit for blank samples. The majority of sample blanks returned assays below 0.25 ppm Ag. From the duplicates of 110 samples, the duplicate verses parent Q-Q plots effectively indicate no scatter in the data, with R2 value of 0.9935 for the RC drilling program.

A total of 185 CRMs were inserted into the sample stream using three unique certified assay value standards: PM1131 (112 ppm Ag), CDN-ME-19 (103 ppm Ag), and PANAM1 (50.5 ppm Ag). The laboratory's analytical results generally correlate well with the standard values with no outliers beyond two standard deviations.

In 2021, on behalf of Apollo, Stantec completed a QA/QC of the Pan American analyses and found that the duplicates scatter plot show good correlation with an R^2 of 0.93 and that most of the Waterloo standard silver assay plotted withing 2 standard deviation (Loveday, 2022). Blank analysis indicates negligible contamination in the samples stream. The Pan American assays results were judged to be acceptable to use in resource estimate. Additional discussion on QA/QC undertaken by Stantec is included within Section 12.

It is the opinion of the Author and QP, following review of the historical Waterloo drill hole records as described above, that these data could be used for building a geologic model and estimation of silver mineral resources for the Calico Project.

6.5.2 Langtry Drilling and Sampling

Drilling at Langtry was completed by Superior between 1967 and 1976 (rotary) and by Athena in 2011 (RC). A total of 76,986 ft (23,465 m) of drilling from 186 holes were identified in the database records, however of the total, 183 holes representing 76,986 ft (23,465 m) were ultimately used in the geological model as described in Section 14 of the report. Matson et al. (2008) indicated that approximately 200 holes were completed by Superior. Athena completed 13 holes (10 were confirmation holes, three were exploration). The omission of three holes in the geological model were due to missing hole depth records. Almost all drilling was vertically oriented except for three holes completed by Athena. The current historical drilling database records used for geologic modelling are shown in Table 6.2 and Figure 6-5.

Table 6.2
Langtry Property Drill Hole Summary (1967-2011)

Owner	Years	Type	Number of Holes	Drilled (ft)	Drilled (m)
Superior	1967 - 1976	Rotary	173	70,961	21,629
Athena	2011	RC	13	6,025	1,836
Total			**186**	**76,986**	**23,465**

The Superior holes are all assumed as vertical with depths ranging between 20 to 575 ft (6 to 175 m) and averaging 412 ft (126 m). Rotary cuttings were collected at 5 ft (1.5 m) intervals and assayed for silver consistently, and lead and barium occasionally. Two holes have gold data. Superior recorded assay results on graphical logs with silver in opt for every drill hole. Percent of barite ($BaSO_4$) and lead (Pb) results were shown for select drill holes (Moran et al., 2012).

Of the 13 Athena RC holes drilled in 2011, 10 were confirmation holes that twinned historical holes completed by Superior and three were exploratory. The depths of the drill holes ranged between 350 to 600 ft (107 to 183 m) and averaged 460 ft (140 m). The confirmation drill holes were drilled at a vertical orientation and the exploratory drill holes were inclined.

The Athena drilling was completed using an Atlas Copco RD-10 rig by drilling company WDC Exploration and Wells (now National Drilling) of Gilbert, Arizona. Down hole information, recorded on paper logs, included drill hole name, date, coordinates, bearing, inclination, total depth, geologist name, rock type, oxide occurrences, type and degree of alteration, type and percentage of mineralization and general comments. No information is available about the drill rig or methods used by Superior.

Athena sent in 1,308 samples from drilled intervals (1,196) that included QA/QC samples (112) to be assayed by ALS Global-Geochemistry Laboratory ("ALS") in Reno, Nevada ("ALS-Reno") for gold, silver, and multi-element geochemistry. Downhole geological data is available for the Athena holes. For both Superior and Athena data no detailed explanation or reports were found in the database about inhouse sample preparation, chain of custody, and data security measures.

Moran et al. (2012) in their internal technical report for the Langtry Property compared Athena twinned drill holes assays with Superior results at select depth intervals. Approximately 3 to 5 intervals were selected per twinned hole. The report concluded that most of the statistical testing on twin hole data indicated no significant difference between historical (Superior) and 2011 (Athena) data and results were reported at the 95% level of confidence. These positive results were used by Moran et al. (2012) as justifications for using historical exploration data in the historical estimates discussed later in the report. Moran et al., (2012) also compared duplicate and standards assay results for gold and silver and concluded: "*duplicate assays are identical at the 95% confidence level. Standard assays show relatively little (<2 standard deviations) variability about the standard value in most cases. A handful of large deviations may warrant examination to determine the source of excess variability, particularly for Ag ICP analyses. The laboratory lower reporting limit was too high for the low-Ag standard 15Pa. While a plot of Ag vs. Ag ICP standard assays showed scatter around the 1:1 line, statistical testing did not find significant differences between results from the two methods.*"

Stantec, on behalf of Apollo, conducted a review of the QA/QC data of Athena's analyses and found that the duplicates scatter plot show good correlation with an R^2 of 0.99 and that most of the Langtry silver assays for standards plotted within two standard deviations (Loveday, 2022). Additional discussion on QA/QC undertaken by Stantec is included within Section 12.

It is the opinion of the Author and QP, following review of the historical Langtry drill hole records as described above, that these data could be used for building a geologic model and estimation of silver mineral resources for the Calico Project.

6.6 Historical Mineral Resource Estimates

The historical estimates completed by prior operators discussed in this section were calculated prior to the implementation of the standards set forth in NI 43-101 and current CIM standards for mineral resource and reserve estimation (CIM, 2014). Therefore, the reader is cautioned not to treat them, or any part of them, as current mineral resources or reserves, they are provided here only as historical information. The Author and QP, nor the issuer are treating these historical estimates as current mineral resources or reserves. They have been superseded by the Calico Project resource estimate detailed in Section 14 of this Technical Report.

Historical estimates for the Calico Project have in the past been documented separately for the Waterloo and Langtry Properties. Historical estimates discussed here are reported as documented in original documents and use terminology as used in those documents.

6.6.1 Waterloo Historical Estimates

The following discussion of historical estimates for the Waterloo Property is sourced from ASARCO (1966), ASARCO (1979), Pan American (2013) and Loveday (2022).

6.6.1.1 ASARCO Estimates

ASARCO completed an initial reserve estimate for the Waterloo deposit in 1966 by hand, followed by a computer reserve estimate in the 1979. The term "reserve" as described in these ASARCO estimates do not comply with current CIM definitions of reserve (CIM, 2014), and as such are defined as historical estimates only. Based on their drilling, the 1979 estimate outlined a historical silver-barite mineral reserve close to, or at surface of, 33.8 Mt at 93 g/t silver for a total of 100.9 Moz contained Ag at a cutoff grade of 25 g/t Ag (ASARCO, 1979). In September 1994, Robert J. Rodger, P.Eng., reviewed the ASARCO reports and prepared a Technical Evaluation Report on the Waterloo Property (Rodger, 1994) on behalf of Pan American. Rodger (1994) confirmed that the historical ASARCO estimates utilized rotary drilling and underground sampling and concluded that they were based on sound methodology. The following sub-sections summarize the ASARCO historical estimates as reviewed and summarized by Rodger (1994) with further information from ASARCO (1966 and 1979) of their mineral estimation processes and results.

"The initial [pit] envelope was prepared manually with benches at 25 ft (7.6 m) intervals. The parameters utilized (were) as follows:

1. *Cutoff silver grade of 1.5 opt.*

2. *Assays were NOT cutoff at high grades because relatively few of the assays were high. Of 8,160 assays, only nine were above 25 opt and none above 50 opt.*

3. *Specific gravity was defined as 2.61 with a 4% allowance for voids.*

4. *A minimum of 15 feet (4.6 m) was added at the mineralization-waste contacts to account for dilution. The dilution factor was therefore 6% at a grade of 1.2 opt.*

The initial historical estimate from 1966 was calculated by ASARCO using a standard polygon method. Polygons were constructed on bench plans around the drill holes by taking one half the distance to adjacent holes. The area of the polygon was measured with a planimeter, with suitable checks. The silver grade assigned to the polygon was the weighted average of the silver assays of the 5 ft (1.5 m) samples over the height of the bench. Quantities of mineralization and waste were then calculated for each bench. The tonnages were adjusted by 4% as an allowance for voids and increased by 6% at 1.2 opt for dilution. The total quantity of rock within the pit envelope was estimated at 45 million tons. Measured reserves were those reserves occurring within the polygons. Indicated reserves were those reserves which were outside the polygons but within the mineralized zone. Drill hole and geological information were utilized to assign a grade to the blocks (Rodger, 1994 and ASARCO, 1966).” The results of this calculation are shown in Table 6.3.

Table 6.3
ASARCO 1966 Historical Mineral Resource Estimate
(ASARCO, 1966)

	Quantity (M tons)	**Silver Grade (opt)**
Measured Reserves	27	3.06
Indicated Reserves	2	2.44
Total	**29**	**3.02**

Reference to the historical resource at the Waterloo Property prepared by ASARCO refer to an internal company document prepared by ASARCO, dated 1966 (unpublished). Historical resources are reported here as documented in original documents. The historical resource was calculated prior to the implementation of the current CIM standards for mineral resource estimation (CIM, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat it, or any part of it, as current mineral resources or reserves. An independent QP has not completed sufficient work to classify the estimate as a current mineral resource or reserve and therefore the Company is not treating the historical estimate as a current mineral resource or reserve. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that they simply demonstrated the mineral potential of the Waterloo Property prior to the completion and disclosure of the Calico Project’s current MRE. This historical resource estimate has been superseded by the Calico Project current MRE, announced March 6, 2023, and discussed in Section 14 in this Technical Report.

It is the opinion of the Author and QP that the ASARCO (1966) estimate was not derived from modern-era computer assisted survey and estimation equipment and as such is not expected to be as accurate as modern-day estimates. Furthermore, there was not the same quantity of exploration data available at the time (1966) to make a reasonable comparison with current MRE.

ASARCO completed a computer estimate in 1979 (ASARCO, 1979). For this exercise ASARCO entered all silver and barite assays from the drill holes into a computer database and established block grades for silver and barite using the “inverse of distance squared” interpolation. Where insufficient data was available for blocks on the boundaries, grades were assigned by the computer program. The pit envelope generated by the computer program was marginally different from the manual pit calculation; the total quantity of rock within the pit envelope calculated by the computer program was 47.34 million tons (ASARCO, 1979 and Rodger, 1994). The historical estimate calculated by ASARCO is shown below (Table 6.4):

Table 6.4
ASARCO 1979 Historical Reserve Estimate at 25 g/t Ag Cutoff Grade
(ASARCO, 1979)

	Quantity	Silver	Silver
	(M tons)	(opt)	(%)
Reserves	26.64	3.11	14.7
Waste	20.7		

Reference to the historical reserve at the Waterloo Property prepared by ASARCO refer to an internal company document prepared by ASARCO, dated 1979 (unpublished). Historical reserves are reported here as documented in original documents. The historical reserve was calculated prior to the implementation of the current CIM CIM, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat it, or any part of it, as a current mineral resource or reserve. An independent QP has not completed sufficient work to classify the estimate as a current mineral resource or reserve and therefore the Company is not treating the historical estimate as a current mineral resource or mineral reserve. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that they simply demonstrated the mineral potential of the Waterloo Property prior to the completion and disclosure of the Calico Project current MRE. This historical resource estimate has been superseded by the Calico Project current MRE, announced March 6, 2023, and discussed in Section 14 in this Technical Report.

ASARCO models showed that utilization of a lower cutoff grade within the same pit envelope would increase the quantity of reserves to 37.2 million tons (33.7 million tonnes) but lower the grade to 2.71 opt (92.9 g/t) silver and 13.4% barite (Table 6.5). This would additionally reduce the quantity of waste within the pit envelope by 10.5 million tons (9.5 million tonnes) (Rodger, 1994 and ASARCO, 1979).

Table 6.5
ASARCO Waterloo Historical Silver and Barite Mineral Reserve Estimate at 25 g/t Ag cutoff
(ASARCO, 1979)

Tonnage		Average Grade				Contained	
Tons (Mtons)	Tonnes (Mtonnes)	Grade (g/t Ag)	Grade (opt Ag)	Barite (%)	Barite (Mtonnes)	Silver (M oz Ag)	Silver (M oz AgEq)
37.2	33.7	92.9	2.71	13.4	4.5	100.9	146.5

Reference to the historical reserves at the Waterloo Property prepared by ASARCO refer to an internal company document prepared by ASARCO, dated 1979 (unpublished). Historical reserves are reported here as documented in original documents. The historical reserve was calculated prior to the implementation of the current CIM standards for mineral resource estimation (CIM, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat it, or any part of it, as a current mineral resource or reserve. An independent QP has not completed sufficient work to classify this estimate as a current mineral resource or reserve and therefore the Company is not treating the historical estimate as a current mineral resource or mineral reserve. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that they simply demonstrated the mineral potential of the Waterloo Property prior to the completion and disclosure of the Calico Project current MRE. This historical resource estimate has been superseded by the Calico Project current MRE, announced March 6, 2023, and discussed in Section 14 in this report this Technical Report.

It is the opinion of the Author that the ASARCO (1979) estimate was not derived from modern-era computer assisted survey and estimation equipment and as such is not expected to be as accurate as modern-day estimates. Furthermore, there was not the same quantity of exploration data available at the time (1979) to make a reasonable comparison with current MRE.

6.6.1.2 Pan American Estimate

Pan American (2013) generated an internal resource estimate in 2013 that was based on the results of their 2012 RC drill program (234 holes, representing 56,486 ft/17,217 m) and their validation of historical ASARCO drilling data. The historical data was validated by Pan American by verifying collar location of ASARCO drill holes, twinning select ASARCO drill holes and evaluating old samples (re-logging ASARCO chips and re-assaying select stored pulps). The historical internal resource yielded 37.1 Mt grading 86 g/t for a total of 103 M oz contained silver at a cutoff grade of 20 g/t silver (Table 6.6). The estimate was generated from a 25 m x 25 m x 5 m block model.

Table 6.6
Pan American Waterloo Historical Mineral Resource Estimate
(Pan American, 2013)

Resource Category	Grade	Tonnage (t)	Cutoff Grade	Total Ounces
Inferred	86 g/t Ag	37,079,349	20 g/t Ag	102,953,457

Reference to the historical resource at the Waterloo Property refer to an internal company document prepared by Pan American Minerals Corp., dated 2013, (unpublished). Historical resources are reported here as documented in original documents. The historical mineral resource was calculated using mining industry standard practices for estimating Mineral Resource and Mineral Reserves (2005) which was prior to the implementation of the current CIM standards for mineral resource estimation (CIM, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat it, or any part of it, as a current mineral resource or reserve. An independent QP has not completed sufficient work to classify the estimate discussed as a current mineral resource or reserve and therefore the Company is not treating the historical estimate as a current mineral resource or mineral reserve. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that they simply demonstrated the mineral potential of the Waterloo Property prior to the completion and disclosure of the Calico Project current MRE. This historical resource estimate has been superseded by the Calico Project current MRE, announced March 6, 2023, and detailed in Section 14 of this Technical Report.

It is the opinion of the Author and QP that the Pan American (2013) historical resource estimate silver cutoff grade at 20 g/t is low when compared to the base case cutoff grade of 50 g/t silver used for the current MRE that is calculated using current silver prices and mining-processing costs. The Authors has not had access to the Pan American (2013) geologic model files for further comparison.

6.6.1.3 Apollo Waterloo Estimate

In 2022, Stantec (on behalf of Apollo) prepared an MRE for both the Waterloo and Langtry properties, collectively the Calico Project. The Waterloo estimate was based on historical data as collected by ASARCO and Pan American, which was determined to be suitable for this purpose after a rigorous review. The Waterloo estimate of 2022 is superseded by the current MRE discussed in Section 14 of this Technical Report. The Langtry estimate of 2022 is considered current and is also discussed in Section 14 of this report. Therefore, the information below covers the portion of the 2022 MRE that is historical (that for the Waterloo Property).

Historical drilling data utilized for resource estimation included that for 255 RC drill holes totaling 61,108 ft (18,626 m). Of this, 194 holes (44,593 ft / 13,592 m) were completed by ASARCO and 61 holes (16,514 ft / 5,033 m) were completed by Pan American. The result of this work was an Inferred silver mineral resource of 58.1 Mt at a grade of 89 g/t Ag for a total of 166 Moz for the Calico Project as a whole. Of this, 38.9 Mt at a grade of 93 g/t Ag for a total of 116 Moz of silver at a cutoff grade of 50 g/t Ag occurs at Waterloo. Please refer to Table 6.7 for the MRE results. The estimate was generated from a 20 ft x 20 ft x 20 ft block model. The base case MRE at a COG of 50 g/t is highlighted in Table 6.7. The mineral resource at Waterloo were demonstrated to be surface mineable and was constrained within an economic pit shell with a strip ratio (t:t) of 2.2. The mineral resource at Waterloo weas identified as Inferred-only because it was based on historical drill records collected between 1967 and 1989 - that were mostly RC chips providing limited information on structure and lithology, and the extent of the historical mining needed to be accurately surveyed.

Table 6.7
Calico Project Silver Mineral Resource Estimate for the Waterloo Property, Effective January 28, 2022.

Classification	Imperial Units			Metric Units			Strip Ratio (t:t)	Contained Silver
	Volume Million (yd^3)	*Tons Millon (st)*	*Ag Grade (oz/st)*	*Volume Million (m^3)*	*Tonnes Million (t)*	***Ag Grade (g/t)***		*Million (oz)*
Inferred	**20.8**	**42.8**	**2.71**	**15.9**	**38.9**	**93**	**2.2**	**116**

- Ounces are reported as troy ounces.

- Canadian Institute of Mining, Metallurgy and Petroleum standards (CIM, 2014) definitions are followed for classification of the Mineral Resource.
- Prospects for eventual economic extraction determined using surface mining operating costs of US$2.50/st, processing costs of US$29.00/st and silver price of US$23.00/oz.
- Specific gravity for the mineralized zone is fixed at 2.44 g/cm^3 (13.13 ft^3/ton). Silver grade was capped at 400 g/t for Waterloo estimation.
- Resources are constrained to within an economic pit shell targeting mineralized blocks with a minimum of 50 ppm (50 g/t) silver.
- Totals may not represent the sum of the parts due to rounding.
- The 2022 MRE was prepared by Derek Loveday, P. Geo. of Stantec Consulting Services Ltd. in conformance with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into a mineral reserve.

It is the opinion of the Author and QP that the 2022 Waterloo Property MRE was in accordance with the requirements of NI 43-101 and the CIM Definition Standards (CIM, 2014). The Author and QP validated the exploration records and used these data to construct a geologic block model and economic pit shell for the Waterloo Property for the purposes of estimating disseminated silver mineralization hosted in Barstow Formation sandstones.

6.6.2 Langtry Historical Estimates

The following discussion of historical estimates for the Langtry Property is sourced from Matson et al. (2008), Moran et al. (2012) and Loveday (2022).

6.6.2.1 Superior Estimate

As part of processing Superior's mineral patent application in 1970, the BLM undertook an exercise to verify the mineralization at the Langtry Project and produced a Mineral Validity Report (Livesay and Woodward, 1974). This report documented an estimated 22 Mst at grades of 2.37 opt (81.3 g/t) silver using a 1.3 opt cutoff grade, for a total of 52 Moz that had been completed by Superior. The estimate also reported 7.9% barite per ton for a total of 1.73 Mst barite. The estimate was based on the rotary drilling data collected by Superior. The validation exercise undertaken by the BLM involved visiting the Langtry Property and completing 62 check assays to verify the mineralization identified by Superior. The BLM concluded that the mineralization was present and transferred ownership of the now patented claims to Superior (Livesay and Woodward, 1974). The Superior Langtry estimate is summarised in Table 6.8.

Table 6.8
Superior Langtry Mineral Resource Estimate
(Livesay and Woodward, 1974)

Million Tons	Commodity	Grade	Cutoff Grade	Total Ounces Million	Barite tons
22	Silver	2.37 opt	1.3 opt	52	n/a
	Barite	7.9 %	none	n/a	1.73

Reference to the historical resource completed by Superior at the Langtry Property refers to resource review completed by the U.S. Bureau of Land Management (Livesay and Woodward, 1974). The historical resource was calculated prior to the implementation of the current CIM standards for mineral resource estimation (CIM, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat it, or any part of it as a current mineral resource or reserve. An independent QP has not completed sufficient work to classify this estimate as a current mineral resource or reserve and therefore the Company is not treating the historical estimate as a current mineral resource or mineral reserve. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that they simply demonstrated the mineral potential of the Langtry Property prior to the completion and disclosure of the Calico Project current MRE. This historical Langtry resource estimate has been superseded by the Calico Project current MRE, as announced originally February 9, 2022, and again March 6, 2023, and as discussed in Section 14 in this Technical Report.

It is the opinion of the Author and QP that the Livesay and Woodward (1974) Langtry historical resource estimate was not supported by the same quantity and quality of exploration data available as of effective date of this Technical Report to make a reasonable comparison with current MRE.

6.6.2.2 International Silver Estimate

Western Range Services Inc., on behalf of International Silver Inc., calculated a historical estimate using the Superior drill holes to generate a set of northwest cross sections. They estimated 76.8 M oz silver contained in 38.4 Mtons averaging 2.0 opt (68.6 g/t) Ag, at a cutoff grade of 1.0 opt (34.3 g/t) silver (Matson, 2008). Drill hole assays were composited into mineable thicknesses using a 1 opt (34.3 g/t) silver cutoff. Sections were used to check the continuity of the mineralized intercepts and project geologic structures displacing or limiting the mineralization. Interpolation of thickness was used to calculate tonnage, but grade was assigned in the uniform block conventional manner surrounding each drill hole. Areas of insufficient drilling were excluded from the reserve blocks. Reserve blocks were projected half-way to each adjoining section, or in the case of end sections, to the limiting structure or a maximum of 100 ft (30 m). Their estimation method using the sections has been considered not consistent with current state-of-the-practice work for geo-statistics (Samari, H. and Breckenridge, L., 2021b).

The modeled estimate was described as potentially open pit mineable, extending in a thick blanket-like form from near surface to a depth of 505 ft (154 m). The projected waste to mineralization ratio was only 2:1. A tonnage [density] factor of 11.5 ft^3/st average specific gravity was used for calculations. It was noted that further laboratory data from specific gravity tests on both the mineralized and waste rock would be required to “improve the tonnage”. The model considered barite as an economic resource in amounts ranging from about 4% to over 15% (compared to prior estimates of 7.9% by Superior). Lead content was noted as averaging 0.2% to 0.4%, but was not considered economic (Matson, 2008). The International Silver Inc. estimate is summarised in Table 6.9.

Table 6.9
International Silver Inc. Langtry Mineral Resource Estimate
(Matson, 2008)

Million Tons	Commodity	Grade	Cutoff Grade	Total Ounces Million	Strip Ratio (t:t)
38.4	Silver	2.0 opt	1.0 opt	76.8	2

Reference to the historical resource completed by International Silver at the Langtry Property refers to an internal company document prepared by Western Range Services (Matson, 2008) (unpublished). The historical resource was calculated prior to the implementation of the current CIM standards for mineral resource estimation (CIM, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat it, or any part of it as a current mineral resource or reserve. An independent QP has not completed sufficient work to classify this estimate as a current mineral resource or reserve and therefore the Company is not treating the historical estimate as a current mineral resource or mineral reserve. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that they simply demonstrated the mineral potential of the Langtry Property prior to the completion and disclosure of the Calico Project current MRE. This historical resource estimate has been superseded by the Calico Project current MRE, announced February 9, 2022, and again March 6, 2023, and discussed in Section 14 in this Technical Report.

It is the opinion of the Author and QP that the International Silver Inc. historical estimate (Matson, 2008) relied on outdated cross-sectional polygonal methods that typically in the experience of the Author and QP do not provide good 3D representation of the mineralized zone. A reasonable comparison with the current MRE is not possible.

6.6.2.3 Athena Estimate

In 2012, Independent Mining Consultants Inc., in association with SRK Consultants Inc., ("SRK") on behalf of Athena, estimated an Indicated Mineral Resource of 12.7 M tons grading 1.48 opt (50.7 g/t) silver and an Inferred Mineral Resource of 30.4 M tons grading 1.40 opt (48.0 g/t) silver, at a 0.76 opt (26.1 g/t) Ag cutoff grade (Moran et al., 2012). The resource estimate utilized Athena drill hole data plus any available Superior drill hole data and was calculated using a computer-based block model and geological interpretation of the Langtry Deposit. A bench height of 25 ft (7.6 m) and a horizontal block size of 50 ft (15.2 m) were selected for the calculation. The drill hole assays were capped at 15 opt (514.3 g/t) silver prior to compositing. The deposit was deemed of sufficient size to warrant additional work to determine the potential for commercial operations, substantiated by confirmation drilling performed by Athena in 2011 (Moran et al., 2012). The Athena 2012 estimate is summarised in Table 6.10.

Table 6.10
Athena 2012 Mineral Resource Estimate, Langtry Deposit
(Moran et al., 2012)

Classification	Silver Cutoff Grade (opt)	Silver Cutoff Grade (g/t)	ktons (1000 short tons)	Silver Grade (opt)	Silver Grade (g/t)	Contained Silver (koz)
Indicated	0.76	26.1	12,709	1.48	50.7	18,809
Inferred	0.76	26.1	30,445	1.4	48	42,632

Reference to the historical resource at the Langtry Property prepared by SRK on behalf of Athena refers to an internal company document prepared by Moran (2012) (unpublished). Historical resources are reported here as documented in original documents. The historical resource was calculated prior to the implementation of the current CIM standards for mineral resource estimation (CIM, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat it, or any part of it, as a current mineral resource or reserve. An independent QP has not completed sufficient work to classify this estimate as current mineral resources or reserves and therefore the Company is not treating the historical estimate as a current mineral resource or mineral reserve. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that it simply demonstrated the mineral potential of the Langtry Property prior to the completion and disclosure of the Calico Project current MRE. This historical resource estimate has been superseded by the Calico Project current MRE, announced February 9, 2022, and March 6, 2023, and discussed in Section 14 in this Technical Report.

It is the opinion of the Author and QP that current exploration data at Langtry does not support a resource estimate at an Indicated level of assurance as presented in the historical estimate in Table 6.7. The Author and QP did not have access to the Moran et al. (2012) geologic model files for further comparison.

6.7 Metallurgical Testing

Historical metallurgical testing has been completed for the Calico Project by various entities. The Author and QP of this Technical Report has referred to these metallurgical studies as “historical metallurgical studies” and are not treating them, or any part of them, as a current assessment of metallurgical recovery. These historical studys should not be relied upon with context with current testing, and this discussion has only been included to demonstrate the metallurgical history and potential of the Calico Project.

6.7.1 Waterloo

6.7.1.1 ASARCO

ASARCO completed metallurgical test work on samples collected from the Waterloo Deposit in several testing campaigns from the mid-1960’s to 1980. The samples sent for metallurgical test work included surface and underground grab samples, surface bulk trench samples, representative drill hole samples and samples collected from old mine dumps within the Property.

The chronological history of the metallurgical test work completed for Waterloo has been summarized from Rodger (1994) as follows:

- 1965-1967 - Preliminary lab testing was conducted on underground channel, surface grab and drill cuttings. The results of this test work were variable.

- 1968 - Testing was conducted on a representative composite sample taken from drill hole samples. Fine grinding (80% -325 mesh/-0.053 mm), followed by cyanidation resulted in 55-60% silver recovery. Use of a salt roast, followed by cyanide leaching, resulted in 80% silver recovery.

- 1969-1970 - A feasibility study was conducted based on fine grinding – cyanidation process using a 100-ton surface bulk trench sample (ASARCO, 1969).

- 1970-1974 - Process testing was conducted by several organizations using various processes, including vacuum distillation, sonic leaching and bromide leaching. These processes were not successful.

- 1974-1975 - Pilot plant tests were conducted on the fine grinding – cyanidation process. Semi-autogenous grinding and rod mill-pebble mill grinding were evaluated as options and both options were deemed to be feasible.

- 1975-1980 – Fine grinding followed by ammonium thiosulphate – ammonium bisulphate leaching was evaluated and provided favorable results. The “Duval Clear Process” gave similar results to the conventional process. Both processes were more expensive than the conventional process. A second pilot plant test was conducted using rod mill-pebble mill grinding and this test confirmed feasibility. A feasibility study was conducted based on the fine grinding – cyanidation process. Recoveries of specification grade $BaSO4$ are shown in Table 6.11, with barite being recovered by flotation, with a 90 to 93% purity (Hazen Research Inc., 1980).

It was concluded by Rodger (1994) that although fine grinding followed by cyanidation returned a lower percent of silver recovery, at 55-60% silver recovery in comparison to 80% silver recovery utilizing a salt roast followed by a cyanide leach, this former option provided the best financial results at the time of the test work. It was also noted by ASARCO’s mineral beneficiation department (1983) that the Waterloo samples used for metallurgical testing had a bond work index of 18.5, which is considered hard.

ASARCO determined the Waterloo mineralization is characterized by very fine silver particles disseminated in silicified sandstones and siltstones in association with small veinlets of silver halide minerals (ASARCO, 1983).

6.7.1.2 US Bureau of Mines

In 1973, the U.S. Bureau of Mines (Agey et al., 1973) completed preliminary research designed to determine the most effective methods of recovering silver and barite from the Calico District. Testing was conducted from four 300 to 400 pounds rotary drilling chip bulk samples however, it is unclear if samples were from one, or both of Waterloo and Langtry Properties. This preliminary research concluded that cyanidation of mineralization ground to virtually 100% minus 325 mesh (-

0.053 mm) recovered about 47% of the silver in 3 samples and 62% in the fourth sample. Salt roasting minus 10 mesh (-1.7 mm) samples prior to cyanidation increased silver recoveries to between 75% and 85%. Flotation of the untreated mineralization recovered 85% to 93% barite in specification-grade barite concentrates (88% to 93% $BaSO_4$).

6.7.1.3 Pan American

Pan American (2013) indicates that exploration efforts in 2012 were focused on metallurgical test work, geological mapping and geophysical surveys; however, the Author and QP has not seen any documentation regarding metallurgical test work completed by Pan American at the Waterloo Property. In 2021, Apollo became aware of 2.7 tonnes of material in storage at McClelland Laboratories, in Sparks Nevada, which comprised material from 11 RC and three diamond drill holes. This material was originally collected by Pan American via drilling in 2012 and in 2013, and in 2014 McClelland undertook some initial test work on the RC material and collected density data for the core holes. For unknown reasons, this work was never completed and no report was produced. Apollo tested the drill core material in 2022, information on which is detailed in Section 13.

Pan American did complete a mineralogical study of Waterloo metallurgical samples (SGS, 2012). Mineralogy of the sample was quartz (62.6%) and feldspar (22.5%) with minor barite (8.5%), calcite (3.3%), Fe oxides (1.7%), and trace amounts (<1%) of other silicates, other oxides, jarosite, Ag sulphides and pyrite. Silver is very fine grained (<8 micrometers), half the grain size of other minerals. The Ag-minerals include mainly argentite (Ag_2S), iodargyrite (AgI) and chlorargyrite (AgCl). The SGS (2012) study noted that additional gravity tests might be warranted given the bulk mineralogy of the sample is made of light minerals (>80% of feldspars and quartz) although losses of silver minerals are expected due to their association with the silicates.

6.7.2 Langtry

6.7.2.1 Superior

Superior tested an initial recovery system comprising cyanidation for silver recovery and barite recovery by flotation. Silver recovery by direct cyanidation yielded a generally low recovery of 60 to 65% (Matson, 2008). Additional metallurgical test work conducted by Mountain States Research and Development International ("MSRDI"), on behalf of Superior, evaluated a silver leaching process using a temperature-controlled acid leach method with hydrochloric acid and ammonium hydrogen fluoride. Silver recovery by this method yielded a recovery of 80 to 85% (Matson, 2008). The leaching process was completed at a temperature of approximately 90°C (Moran et al., 2012).

In 1974, ASARCO in conjunction with Superior, completed a review of the mineralogy of Langtry mineralized samples (ASARCO, 1974). ASARCO (1974) described the silver at Langtry as arsenical silver associated principally with quartz as five-micron diameter locked particles. Minor amounts of silver are present as silver halides, argentite and proustite. There is no or minor association of silver with barite, iron and manganese minerals and little indication of the presence of argentojarosites. There was a correlation between silver distribution and screen size indicating uniform distribution of silver as finely distributed particles.

6.7.2.2 Athena - MSRDI

MSRDI, on behalf of Athena, conducted metallurgical test work on RC drill cutting samples in 2011 to 2012. The aim of the metallurgical testing was to provide: 1) information on the mineralogy of the silver mineralization; 2) information on the amenability of the mineralization to leach recovery of silver; 3) a preliminary estimate of potential leach recoveries; 4) recommendations of potential processing methods; and 5) recommendations for additional work. MSRDI completed sample preparation and characterization tests, mineralogical studies, preliminary cyanidation tests, gravity separation, preliminary floatation tests, Bond Work Index and columns leach tests on RC drill cuttings. The preliminary metallurgical testing indicated that approximately 50% of the silver at Langtry is "free milling" and amenable to direct cyanidation and the remaining silver is tied up in silicates (Moran et al., 2012).

"…cyanidation tests show recoveries of 30 to 33 per cent of total silver; 60 to 66 percent of the readily available silver in only five days of leaching of pulverized material, with recovery curves still climbing. An additional 50 per cent of the total silver appear to be "refractory," or tied up in silicate minerals, not amenable to cyanidation even at a very fine grind size, and not amenable to either gravity or floatation concentration methods" (Moran et al., 2012).

According to Moran et al. (2012), mineralogical studies were completed for MSRDI by DCM Science Laboratory, Inc., and included standard polished thin section analyses for transmitted and reflected light microscopy, as well as scanning electron microscopy. Mineralogy tests show the presence of significant silica (+40 volume %) of the samples, with feldspar at about 40%, barite at 7 to 12% and 3 to 5% jarosite/plumbo-jarosite, sericite at 4 to 6%, hematite/goethite at 1%, and trace amounts of other minerals including galena, sphalerite, pyrite and several other trace minerals. Silver is difficult to identify but was found in association with some jarosite, possibly as argento-jarosite.

The metallurgical tests were run using composites of RC drill cuttings. The cuttings caused issues with percolation due to a high percentage of fine grain material and Moran et al. (2012) recommended further metallurgical testing to be conducted on properly staged core samples.

6.7.2.3 Athena - Metcon

Metcon Research ("Metcon"), on behalf of Athena, conducted a metallurgical column leach study at two crush sizes (P100 and P80) on two surface trench bulk composite samples in 2012-2013. The purpose of the study was to measure the silver recovery at various head grades and crush sizes (Metcon, 2012a). The two bulk samples, MET I and MET II, were collected from three surface trenches within the Langtry mineralized zone and weighed 8,307 kg and 10,254 kg, respectively (Metcon Research, 2012a).

Metcon Research (2012b) reported that the bulk samples collected for the test work assayed for low-grade mineralization (20.32 g/t Ag) and at less than 1.7mm (10 mesh), yielded a recovery of approximately 45% silver after 96 hours of agitated leach with low consumption of sodium cyanide and calcium oxide consumptions of approximately 0.36 kg/t and 1 kg/t respectively.

6.7.3 Metallurgical Testing Summary

Historical metallurgical testing of silver and barite metallurgical recoveries undertaken at the Calico Project is summarised in Table 6.11. Fine grinding to minus 325 mesh (-0.052 mm) was necessary to achieve the recoveries ranging from 30% to 65% silver. If salt roasting of minus 10 mesh (-1.7mm) feed was used, followed by cyanidation, silver recoveries were higher to a maximum of up to 85%. Temperature controlled acid leaching tests undertaken by Superior on the Langtry Property also yielded high silver recoveries of up to 85% however, these recoveries were extrapolated from after only 11 days of testing and not actual measured recoveries. Barite has been demonstrated to be recoverable as a by-product to silver from bulk samples taken at Waterloo. Recoveries of specification grade $BaSO_4$ are shown in Table 6.11, with barite being recovered by flotation, with a 90 to 93% purity (Hazen Research Inc., 1980).

Table 6.11
Calico Project Metallurgical Testing Summaries

Property	Operator	Method	Total recovery Ag	Total recovery $BaSO_4$
Waterloo	ASARCO	Fine grinding + cyanidation	55-60%	66-69%
		Salt Roast + cyanidation	80%	-
	US Bureau of Mines	Fine grinding + cyanidation	47-62%	-
		Salt Roast + cyanidation	75-85%	85-93%
Langtry	Superior	Fine grinding + cyanidation	60-65%	-
		Temperature Controlled Acid Leach - HCl (or HNO_3)+NH_4HF^4	80-85%	-
	Athena	Fine grinding + cyanidation	50%	-

In general, for the Calico Project silver occurs as argentite (Ag_2S), chlorargyrite (AgCl), native silver, argentiferous jarosite, embolite (AgBr) and iodargyrite (AgI). Other rare silver minerals have been identified in petrographic studies unrelated to metallurgical test work.

It is the opinion of the Authors and QPs, following review of the historical metallurgical test results that recovery of silver at or above 80% is potentially possible from silver mineralization observed on the Calico Project. Historical work combined with the results of the test work in 2022 by Apollo is sufficient to support a silver MRE, however more metallurgical testing would be required before ore reserves can be reported for the Calico Project. See Section 13 for details on Apollo's 2022 metallurgical test work and Section 13.5 for recommendations for further testing.

6.8 Mining Feasibility Studies

6.8.1 Waterloo

Two historical economic studies were conducted for the Waterloo Property by ASARCO in 1969 and by Fluor Mining and Metals Inc., on behalf of ASARCO, in 1980. An internal economic study summary (Pan American, 2008) was completed by Pan American in 2008 to update the capital costs and operational costs of the historical economic studies and to give an estimation of the profitability of the Waterloo Project in 2008. The following text has been reproduced from Pan American, 2008:

"ASARCO conducted a Feasibility Study of the Project in 1969. The Project was to be of an open pit, cyanidization plant design capable of accommodating 6,000 tons of ore per day. Production figures were based off a report conducted by ASARCO, September 1967, showing an ore reserve of 30,067,000 tons and containing an average of 2.94 ounces of silver per ton. Mill capital and construction cost estimates were prepared by the Steams-Roger Corporation; operating costs and surface/ancillary plant costs estimated by ASARCO. A metallurgical recovery of 54.4% was estimated using the cyanidization process with an 80% minus 325-mesh grind. The conclusion of the feasibility study of 1969 was that the Project was financially unprofitable at $1.75, $2.00 and $2.25 dollars per ounce" (Pan American, 2008).

"The Feasibility Study conducted by Fluor was done on behalf of ASARCO in 1980. Technically it is not a feasibility study: the Scope of the Study consists solely of capital cost estimates of an updated silver and barite mill. This capital cost estimation concerns the construction of the mill exclusively, and does not include earthworks, the mine or mining equipment, or tailings work. The production rate is estimated to be 6,000 dry short tons a day, or 230,000 tons a year" (Pan American, 2008).

Pan American (2008) concluded that both historical economic studies cannot be used to give an accurate estimation of the profitability of the Project in 2008 due to several factors, including: 1) inflation from 1969 to 2008, 2) the financial estimation did not take into account discount or inflation rates, 3) the Project estimation was based solely on the first 10 years of operation and did not include cleanup and shutdown costs, 4) the Project estimation did not include the extraction of secondary minerals, such as barite or copper, and 5) the level of technology and the price of metals has changed significantly from 1969 to 2008.

6.8.2 Langtry

Geotechnical and engineering geologic conditions at the Langtry Property were evaluated in January 2010 to provide "feasibility-level recommendations for mine development, primarily addressing slope stability and the use of overburden materials for concrete aggregate" (C.H.J. Incorporated, 2010). The report concluded that "the proposed mine is feasible from a geotechnical engineering and engineering geologic standpoint, provided the recommendations contained in the report were implemented during slope stability investigation, during mining, and reclamation, but aggregate resources were unlikely" (Moran, et al., 2012).

7.0 GEOLOGIC SETTING AND MINERALIZATION

There is an extensive body of historical geological work across the Calico Project, the Calico District and this broader region of the Mojave Desert. Authors whose work is referred herein are referenced in detail in the following subsections. Additionally, much of the local geology is derived from work by Dr. Warren Pratt, who completed detailed geologic mapping across Waterloo and Langtry on behalf of Pan American (2008 and 2012) and Apollo (2022).

7.1 Regional Geologic Setting

The Calico Project resides on the southwestern edge of the Calico Mountains. The Calico Mountains are located within the southern California Mojave Desert region along the west edge of the central Basin and Range region (Figure 7-1). The Basin and Range Province consists of evenly spaced north-south trending mountain ranges with intermittent flat desert basins filled by lacustrine-gravel-volcaniclastic-volcanic deposits (Figure 7-1 insert). At the west-central edge of the Basin and Range the area is nearing the transition to the San Andreas fault and Coastal Ranges. In this area the geologic rock record indicates depositional sedimentary and volcanic deposits with a complex deformation history which includes Cenozoic extension, contraction, and strike-slip faulting.

The Calico Mountains are located on the Mojave Desert Block (Figure 7-1) (Dokka and Travis, 1990 and Gurney, 2008). The Mojave Desert Block lies between San Andreas Fault Zone (right-lateral) and Transverse Ranges on the West, the Garlock Fault Zone (left-lateral wrench) to the North, the Eastern California Shear Zone (includes Death Valley/Granite Mountain Fault Systems) (right lateral) to the East, and to the South by the Pinto Fault System (left-lateral wrench).

The regional geologic map of the District is shown in Figure 7-2. The stratigraphy in the District is summarised from Jessey and Tarman (1989), Pan American (1994) and Singleton and Gans (2008): The oldest rocks in the area are foliated metamorphic rocks, possibly Precambrian, underlying the Waterman mountains some 4 miles to the west of Calico. The dominant rock type in the Precambrian formation is a quartz diorite gneiss. Quartz monzonite and quartz diorite intrusions of Jurassic and Early Cretaceous age are found to the northeast. There are basement rocks of different varieties to the southwest, occurring as diatremes, volcanic necks and rhyolite tuffs (Dibblee, 1970; Dokka, 1986; Dokka and Travis, 1990; Singleton and Gans, 2008). In the approximate center of the District (Figure 7-2) is the Calico Project, which lies on the western margin of the southwestern foothills of the Calico Mountains. Here predominately Tertiary rhyolitic rocks dominate the high ground and younger sedimentary rocks (predominately sandstone and siltstones) are found. The Calico Fault is a major range-front fault generally located between these two end member units (Dibblee, 1970; Singleton and Gans, 2008). This fault has a significant control on silver mineralization on the Project and is discussed below.

This central region of the Mojave Desert experienced widespread volcanism during late Oligocene-Early Miocene (24 to 19 Ma) crustal extension (Dokka, 1986; Dokka and Woodburne, 1986; Woodburne, 2015). This deposited the andesite lavas and felsic pyroclastics of the Pickhandle Formation, which now forms the Calico mountains. Between approximately 19 and 13 Ma there was extensive non-marine sedimentation related to Basin and Range-type extensional faulting (Singleton and Gans, 2008; Miller et al., 2013; Woodburne, 2015). Some argue extension was due to detachment-style faulting (Tarman and Jessey, 1989; Jessey, 2014). The Barstow sediments were deposited in this time interval. Post-Barstow andesitic and dacitic volcanic rocks (~17.1 to 16.8 Ma) sit unconformably on the Pickhandle and Barstow formations at the southern end of the Calico range (Dibblee, 1970, Singleton and Gans 2008). Because hydrothermal alteration has been dated at ~17 Ma at Waterloo (Fletcher, 1986), this suggests a link between post-Barstow volcanism and mineralization (Tarman and Jessey 1989; Jessey, 2014; Pratt, 2022).

The 19 to 17 Ma window was critical, with emplacement of late dacite domes, strong extension, rapid erosion, sedimentation, and silver-gold mineralization. This was followed by periods of further erosion and deformation, largely by regional strike-slip faulting and transpression along major northwest-striking dextral faults, such as the Calico Fault, and west-striking sinistral faults, such as the Manix Fault (Dibblee, 1961; Garfunkel 1974; Dokka and Travis 1990; Glazner et al., 2002). These faults are largely responsible for the fragmented nature of an originally extensive, stratiform silver orebody between Waterloo and Langtry (Pratt, 2022).

Legend

- Calico Silver Project Area
- Fault
- Eastern California Shear Zone
- Geologic Map of California Faults
- Mojave Desert Outline
- County Boundaries
- Basin and Range Area (Inset)

N

0 30 60
Kilometers

0 50
Miles

Scale 1:3,168,000
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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TECHNICAL REPORT CALICO SILVER PROJECT

Regional Geology and Fault Map

Figure 7-1

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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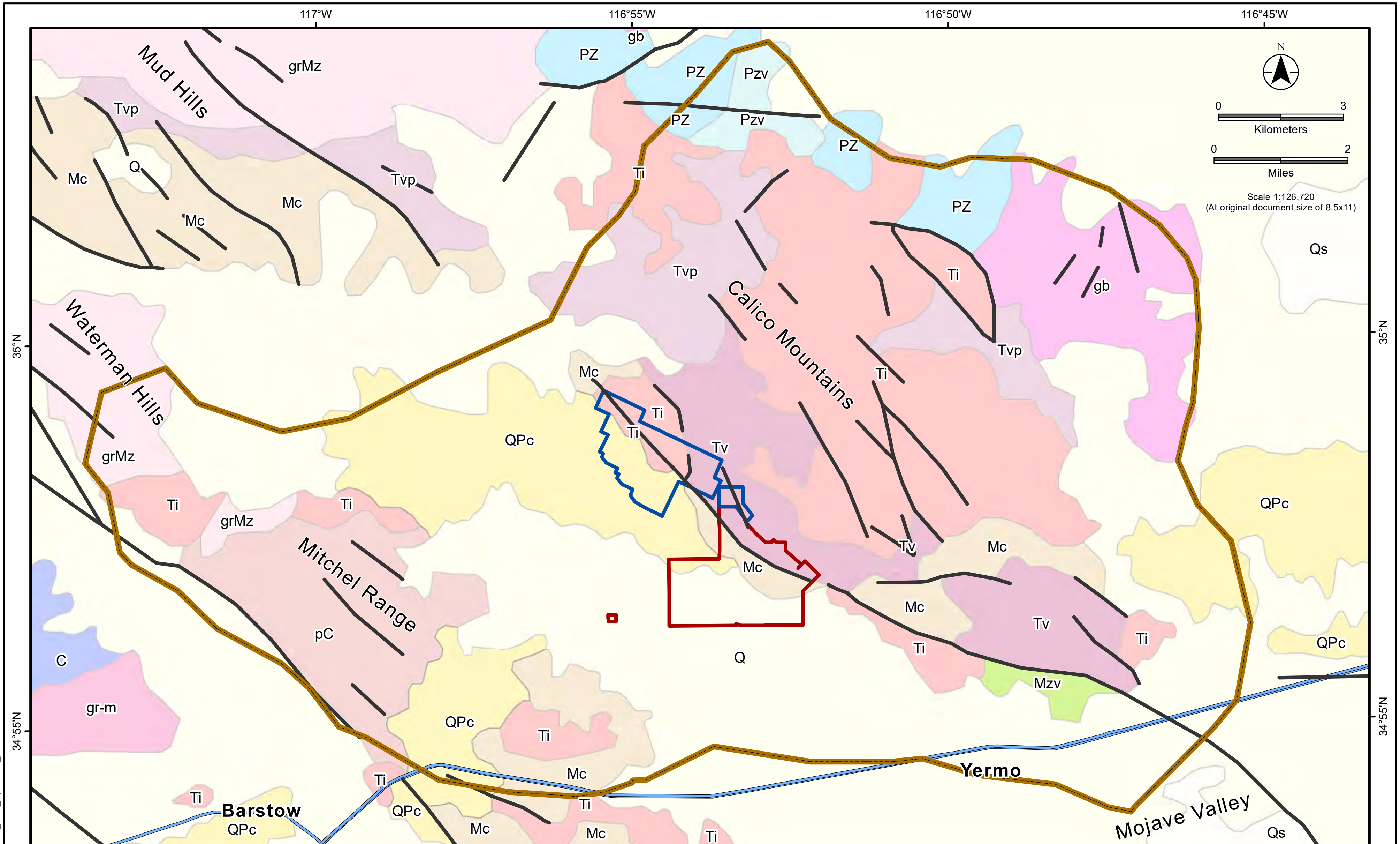

Legend

- Mapped Faults
- Interstate Highway
- Langtry Property
- Waterloo Property
- Approximate Area of the Calico Mining District

Lithology

- Q, Pliocene to Holocene, alluvium
- Qs, Quaternary, eolian sand
- QPc, Miocene to Pleistocene, sandstone
- Mc, Oligocene to Pleistocene, sandstone
- Ti, Tertiary, rhyolite
- Tv, Tertiary (4-22 Ma), rhyolite
- Tvp, Tertiary (4-22 Ma), rhyolite
- Mzv, Triassic to Cretaceous, felsic volcanic rock
- gb, Triassic to Cretaceous, gabbro
- Pzv, Devonian(?) and Permian, greenstone
- PZ, Cambrian to Jurassic, argillite
- C, Late Proterozoic to Pennsylvanian, marble
- grMz, Permian to Tertiary; most Mesozoic, granodiorite
- pC, Early Proterozoic to Miocene, gneiss
- gr-m, Early Proterozoic to Late Cretaceous, plutonic rock

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: basemap - World Topographic Map, Esri
geology - 2010 Geologic Map of California, California Geological Survey, Deparment of Conservation.

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TECHNICAL REPORT CALICO SILVER PROJECT

Calico Mining District Regional Geology Map

Figure 7-2

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

7.2 Local Geology

7.2.1 Calico Mountains and Calico Fault

The Calico Mountains (range, hills) extend 9 miles (15 km) trending northwest-southeast and are predominantly composed of Tertiary (Miocene epoch) volcanics, volcaniclastics, sedimentary rocks, and dacitic/andesitic intrusions or otherwise stated a mixture of lake and stream sedimentary deposits, lava flows, and volcanic ash. (Dibblee, 1970; Eaton, 1982; Singleton and Gans, 2008, DeCourten, 2010).

Along the western margin of the Calico Mountains there is the major dextral (right-lateral) strike-slip Calico Fault with a northwest-southeast trend as shown in Figure 7-2 and Figure 7-3. In the area of mineralization on the Calico Project, the mineralized sandstones and siltstones of the Lower Barstow Formation terminate to the west along the younger Calico Fault (Fletcher, 1986; Pratt, 2008, 2012 and 2022). Silver mineralization appears to be associated with mid-Tertiary volcanic activity along northwest-southeast trending fracture zones common in the region (Singleton and Gans, 2008; Pratt, 2012). Recent studies have identified two Tertiary-age, large-scale crustal deformation events. The terrain is interpreted to be associated with extensive detachment faulting dating to 23 million years before present, followed and displaced by the strike slip fault dominant regime beginning about 18 million years ago and continuing to the present (Singleton and Gans, 2008; Pratt, 2012; Jessey, 2014).

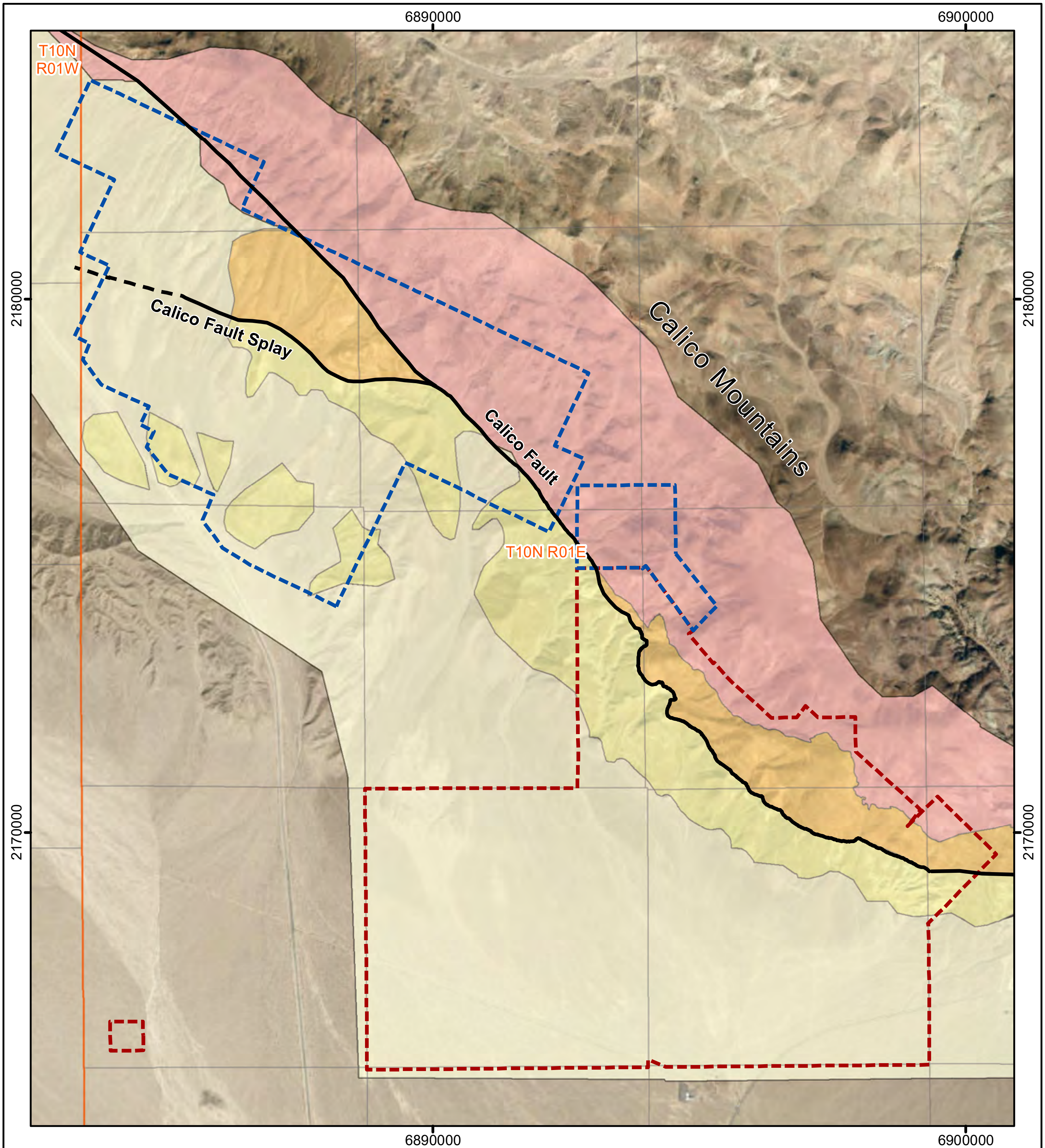
The Calico Fault comprises a zone of anastomosing, sub-parallel, mostly northeast-dipping faults with some exhibiting friable, white, possible steam-heated alteration. These faults dissect and bound the stratiform silver deposits at both Waterloo and Langtry. The principal strands are the Calico Thrust Fault, and two sub-parallel splays (Cascabel Northeast and Southwest Faults). The fault system was reactivated after silver mineralization; it effectively thrusts the mineralized Lower Barstow southwest over the Upper Barstow footwall. The absence of stratiform silver mineralization between Waterloo and Langtry reflects subsequent erosion of the Barstow Formation. The geometry is not the result of strike slip offset (Pratt, 2022). There are also several post-mineral northeast-striking faults that have apparent normal offsets. These faults appear to offset mineralization, but the offsets are much smaller. They usefully define five structural domains at Waterloo: HG Hill, MG Hill, Waterloo, Cascabel and Burcham (Figure 7-7).

The Calico Fault shows a flexure (restraining bend) at Waterloo; this caused transpression and reverse offsets. It also caused intense folding of the Barstow sediments, with beds becoming overturned close to the fault, on both foot- and hanging walls (Pratt, 2022). Oskin et al. (2007) noted a threefold drop in slip rate of the Calico Fault, with strain in the restraining bend distributed into folds and faults in the Calico mountains. The Barstow Formation at Waterloo forms a northwest-plunging anticline, meaning the deepest portions and the contact with the Pickhandle Formation occur at the Burcham mine (Figure 7-5). Erosion has removed the stratiform silver mineralization at Burcham (Pratt, 2022).

7.2.2 Stratigraphy

Within the Calico Project four lithostratigraphic units that have been identified by the Author through review of various studies referenced here, the most recent being Pratt (2022). These units from youngest to oldest are: Quaternary Yermo Formation and alluvium, Quaternary and Tertiary Upper Barstow Formation, Tertiary (Miocene) Lower Barstow Formation and Pickhandle Formation. The Barstow Formation is divided into upper and lower units to separate zones of silver mineralization (Lower Barstow) from unmineralized zones (Upper Barstow). The Barstow Formation is 3,280 feet (1,000 m) thick at its type-locality in the Mud Hills (Dibblee, 1968; Woodburne et al., 1990).

The surface extents of these units described below are illustrated in Figure 7-3, Local Geology Map and Figure 7-4 Generalized Stratigraphic Column which is primarily derived from Pratt (2008, 2012 and 2022) and Singleton and Gans (2008).



Legend

- Calico Fault
- Fault Inferred
- Langtry Property
- Waterloo Property
- Section
- Township and Range

Local Simplified Geology

Qal	Quaternary Yermo Formation and Alluvium
TQb	Tertiary and Quaternary Upper Barstow
Tb	Tertiary (Miocene) Lower Barstow
Tv	Tertiary Pickhandle Volcanics

N

0 400 800
Meters

0 2,600
Feet

Scale 1:31,200
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri
geology - Modified from Dibblee,1970 USGS Daggett Quad; Pratt, 2012; Kirkpatrick, 1974; and Loveday, 2022.

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TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project
Local Geology Map

Figure 7-3

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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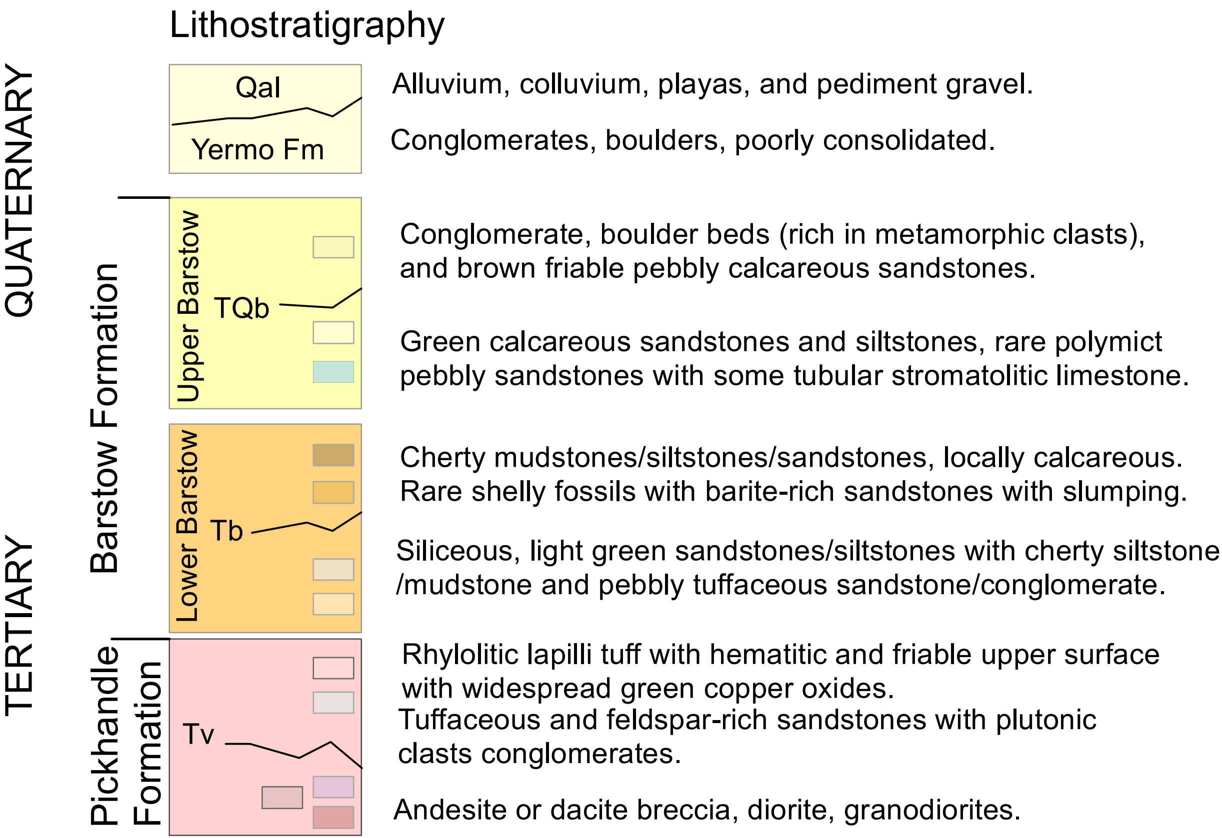
STRATIGRAPHIC COLUMN



7.2.2.1 Quaternary Yermo Formation and Alluvium

The Quaternary Yermo Formation comprises alluvium, colluvium, playas, pediment gravel, poorly consolidated conglomerate, and boulders (Pratt, 2022).

7.2.2.2 Quaternary and Tertiary Upper Barstow Formation

The Upper Barstow Formation, mostly cropping out in the Calico Fault footwall, but also present in the hanging wall northwest of Langtry, comprises distinctly coarser and less well consolidated conglomerates, boulder beds (with metamorphic clasts) and brown friable pebbly calcareous sandstones. Below these are widespread green calcareous and smectitic sandstones and siltstones, rare polymictic pebbly sandstones with some thin beds of very distinctive tubular stromatolitic limestone. Disseminated gypsum is widespread, suggesting evaporites are present. These units are unmineralized with respect to silver in the area of the Waterloo and Langtry properties (Pratt, 2012 and Pratt, 2022).

7.2.2.3 Tertiary (Miocene) Lower Barstow Formation

The Lower Barstow Formation comprises mixed assemblages that include cherty mudstones/siltstones/sandstones, locally calcareous at the top grading into siliceous, light green sandstones/siltstones with cherty siltstone/mudstone and pebbly tuffaceous sandstone/conglomerate towards the base of the formation. This basal unit may be contemporaneous with the Owl Conglomerate Member, mapped in the Mud Hills (MacFadden et al., 1990; Woodburne et al., 1990; Ingersoll et al., 1996; Murray and Hames, 2021). Some of these sandstones form major, non-bedded, barite-adularia-rich slumped and disturbed beds up to 30 m thick, forming distinct topographic ledges. Rare shelly (non-marine) fossils occur in these sandstones (Pratt, 2022).

Syn-sedimentary slumping is widespread in Lower Barstow. This reflects contemporaneous strong extension and nearby active fault scarps, including a possible precursor of the Calico Fault. These scarps shed a mix of volcanic, plutonic and metamorphic debris, possibly from the Pickhandle Formation described in Section 7.2.2.4. There are also common sandy phreatic breccias and sand dikes, originally feeding sand volcanoes. Both are classic features of geothermal districts (Pratt, 2022). The sediments were probably deposited in alluvial fans and braided rivers. At times clastic input waned and evaporitic lakes formed. These produced stromatolites and tufa-coated branches in swamps. Some of these lakes were clearly oversaturated with silica and contain algal mats and pisoliths. These cherty, laminated sediments (‘cherts’) resemble sinter and suggest a hot spring origin. This interpretation is reinforced by the contained silver mineralization and widespread disseminated silver sulfides plus barite. Thin sections clearly show barite crystals growing during accumulation of these siliceous hot spring deposits (Pratt, 2012).

The Lower Barstow formation in the Project area hosts disseminated silver mineralization that is the target resource.

7.2.2.4 Tertiary Pickhandle Formation

The Pickhandle Formation is up to 1,500 ft (457 m) thick and comprises rhyolitic lapilli tuff with haematitic and friable upper surface with widespread green copper oxides. Tuffaceous and feldspar-rich sandstones with plutonic clasts conglomerates are also present. Andesite or dacite breccia, diorite, granodiorites are found in the middle and lower part of the unit.

Silver and gold vein mineralization is hosted in the Pickhandle Formation volcanic flows and breccias. These silver occurrences in the Calico District are associated with northwest-striking silver-barite mineralized faults and veins, mostly hosted by rhyolitic tuffs and andesite lavas, pyroclastites and breccias of the Tertiary (~24-19 Ma) Pickhandle Formation (Singleton and Gans, 2008). There is insufficient information on the silver mineralization within the Pickhandle Formation on the Waterloo and Langtry properties to identify an exploration target or mineral resource.

Figure 7-5 Waterloo Geology Map and Figure 7-6 Langtry Geology Map illustrate the surface extents of the lithostratigraphic units as described above and separated by specific rock types.

7.2.3 Structural Setting

The Calico Mountains are interpreted to be part of the upper plate of a regionally extensive detachment fault. The fault surface is not known to be exposed in the Calico district but is projected from exposures in nearby ranges. This detachment block consists of fractured block fault segments that have been displaced in varying directions by mainly normal faulting and vertical rotation (Tarman and Jessey 1989; Singleton and Gans, 2008; Jessey, 2014).

The regional deformation has been displaced by movement along the N70°W to N40°W trending system of the Calico-Hildago fault zone, which is a major Holocene and locally, historically active zone. The fault zone is a 115-km-long right-lateral fault system that lies along the southwest flank of the Calico Mountains and roughly defines the western boundary of the range front. The Calico-Hidalgo fault zone is delineated by well-defined geomorphic evidence of Holocene right lateral strike-slip displacement and locally offset Holocene alluvium.

Numerous folds have been mapped in the Calico Mountains, and the general structure of the bedded rocks is that of an anticlinorium plunging northward (Fletcher, 1986). Beds of the Barstow Formation north of the Calico Fault are intensely folded into numerous east-west – trending, upright anticlines and synclines that represent 25 to 33% (up to [0.3 mile] ~0.5 km) north-south shortening (Singleton and Gans, 2008). Folds are detached along the base of the Barstow beds and possibly thrust over the Pickhandle Formation, which dips homoclinally ~15–30° to the south-southeast. However, on the Waterloo Property, the Barstow-Pickhandle contact seems mostly conformable but is faulted and brecciated in some places (Pratt, 2022). The geometry and distribution of folds are most compatible with localized transpression between the Barstow and Pickhandle Formations. The transpressional folding and faulting in the Calico Mountains postdate the 17 Ma dacite intrusions and appear to be largely restricted to the area along the Calico Fault restraining bend (Jessey, 2014; Pratt, 2022).

Deformation by faulting, with rotation and warping, is the major structural feature of the region. The most prominent are northwest trending faults, with right lateral movement. Late (19-17 Ma) extension faulting may have triggered volcanic activity during placement of the Pickhandle Formation, culminating in a major episode during the upper flows (Singleton and Gans, 2008 and Pratt, 2022). Movement on faults is much larger in the Pickhandle Formation than the Barstow Formation. Some of the major faults are warped and branching. Blocks have been tilted by rotation on curved fault planes. Later movement occurred along the range-front faults in the south and southwest including the Calico fault. Rotation is demonstrated by the steep dip of the Barstow units. The Calico fault cuts through the Langtry Property with a right lateral movement. Complex crumpling of the beds within the Barstow resulted from compression (Fletcher, 1986; Jessey 2014; Pratt 2008, 2012 and 2022).

Most recently, the Calico and West Calico sections exhibited triggered slip during 1992 as a result of the magnitude 7.3 Landers earthquake. Later, in 1997, a magnitude 5.3 aftershock occurred in the Calico Mountains near the Calico ghost town (shown in Figure 6-1). Total strike slip displacement on the Calico fault may be several miles, while vertical displacement is several hundred feet with large local variations.

The surface mapping work completed by Fletcher (1986) and Pratt (2008, 2012 and 2022) has been used together with downhole geochemistry, discussed in Section 7.2.3.1 below, to identify structurally controlled silver and gold mineralization domains at Waterloo. The Waterloo structural model shown in Figure 7-7 illustrates structural interpretation from the mapping and geochemistry. At Waterloo separate structural domains within the confines of the Calico fault and Barstow-Pickhandle contact were defined for the purpose of resource modeling (Figure 7-7).

7.2.3.1 Waterloo Structure

The Calico Fault as shown in Figure 7-5 Figure 7-7 and Figure 7-8 Waterloo Cross-Section A-A', is interpreted to be a reactivated thrust fault dipping towards the northeast. Though regionally the Calico fault is interpreted to have started as a normal-displacement fault with significant strike slip movement, the current juxtaposition of younger Upper Barstow with older Lower Barstow along the fault boundary indicates reverse-fault (thrust) displacement. The later thrust movement was confirmed by mapping (Pratt, 2022). As such, in Waterloo as well as Langtry, the Calico faults represents a resource limiting fault separating the unmineralized Upper Barstow from the mineralized Lower Barstow.

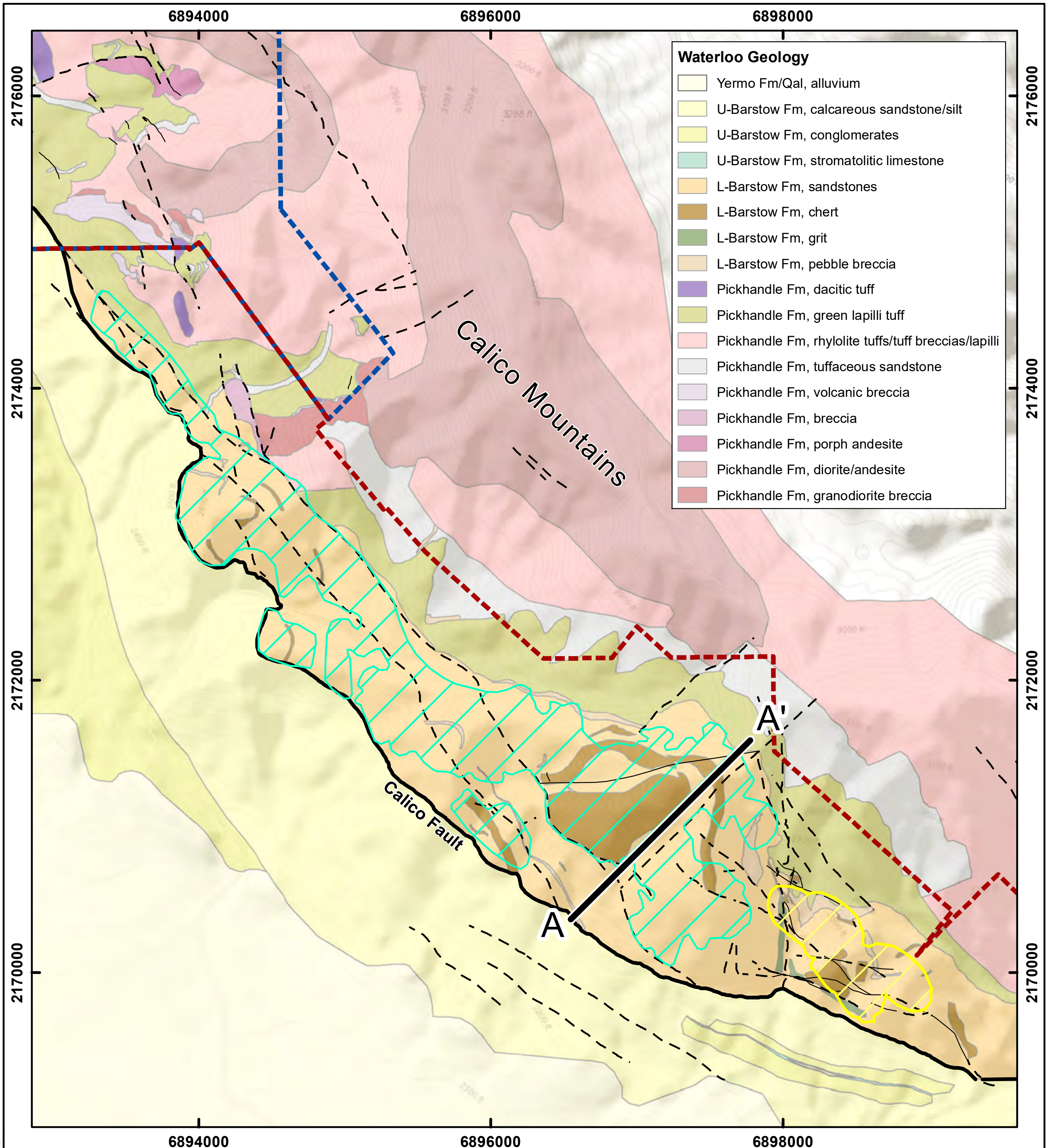
A fault splay from the Calico Fault, named the Cascabel Fault shown in Figure 7-7 and 7-8, has been mapped on surface by Pratt (2008, 2012) and confirmed via drilling. The drilling within the Cascabel Fault block area indicates the Lower Barstow Formation to be poorly mineralized and suggests that it is a younger horizon is thrust against older, mineralized Lower Barstow as shown in Figure 7-8 Waterloo Cross-Section A-A'.

Within the Barstow and Pickhandle formations, localized folding and faulting has been noted from regional and local mapping (Pratt 2022, 2012 and 2008; Singelton and Gans, 2008 and Dibblee, 1970). However, historical drill hole records are mostly RC-type (rock chip) holes that do not provide the detailed lithostratigraphy and structural information to include accurate modelling of local folds and faults. Similarly, the contact between the Lower Barstow Formation and Pickhandle Formation cannot always be easily determined visually at depth beyond the mapped surface contact.

In addition to visual logging of RC chips, multi-element geochemistry data was used to provide for a more robust 3D geological model in terms of defining stratigraphy, lithologic contacts and definition of faults. The geochemical dataset is comprehensive across the entire Waterloo deposit, growing particularly with the new 2022 drilling. It was a very powerful tool to provide more confidence in visual interpretations and identify contacts where visual identification was not possible. The data had several key uses including identifying key elements that fingerprint contacts not identifiable visually; highlighting key stratigraphic horizons such as xhalate zones, beneath which most of the silver mineralization occurs; and identifying important vectors toward silver and gold mineralization and allowing real-time targeting of mineralized horizons using a portable X-Ray fluorescence tool ("pXRF"). Further, Gaussian mixture modeling (a type of cluster analysis) using historical geochemical data highlighted numerous laterally continuous horizons that form a 'chemostratigraphy' that roughly parallels the modeled surface bedding planes. This work highlights the silver and gold mineralization trends at Waterloo and helps map strong geochemical zonation within the Lower Barstow.

7.2.3.2 Langtry Structure

At Langtry, the Calico fault is split as shown in Figure 7-6 Langtry Geology Map and Figure 7-9 Langtry Cross-Section B-B'. The Calico thrust fault envelopes the mineralized Lower Barstow formation such that in the southwest the Lower Barstow abuts the unmineralized Upper Barstow, and in the northeast the Lower Barstow abuts the Pickhandle Formation. Though precious metal vein mineralization in the Pickhandle formation has been identified in the Calico district, there is insufficient data at Langtry to support an exploration target and/or resource further northeast of the Calico fault at Langtry. There is insufficient data in the drill hole records to model localized folding and faulting at depth and exploration drilling is interpreted to be mostly confined to within the Lower Barstow Formation where disseminated silver mineralization is found. Examination of the mineralization data and surface mapping at Langtry (Pratt, 2022) do suggest that the Barstow formation beds are generally flat-lying. The upfaulted Barstow-Pickhandle contact below the drill holes as shown in Figure 7-9 cross section is inferred.



Legend

- Langtry Property
- Waterloo Property
- Silver Mineralization Surface Expression
- Gold Mineralization Surface Expression
- Calico Fault
- Fault Inferred
- Fault Observed
- A-A' Cross Section Location

Fm = Formation
U = Upper
L = Lower

N

0 150 300
Meters

0 950
Feet

Scale 1:11,400
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri
geology - Modified from Dibblee,1970 USGS Daggett Quad; Kirkpatrick, 1974; Pratt, 2012; and Pratt, 2022.

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Geology Map

Figure 7-5

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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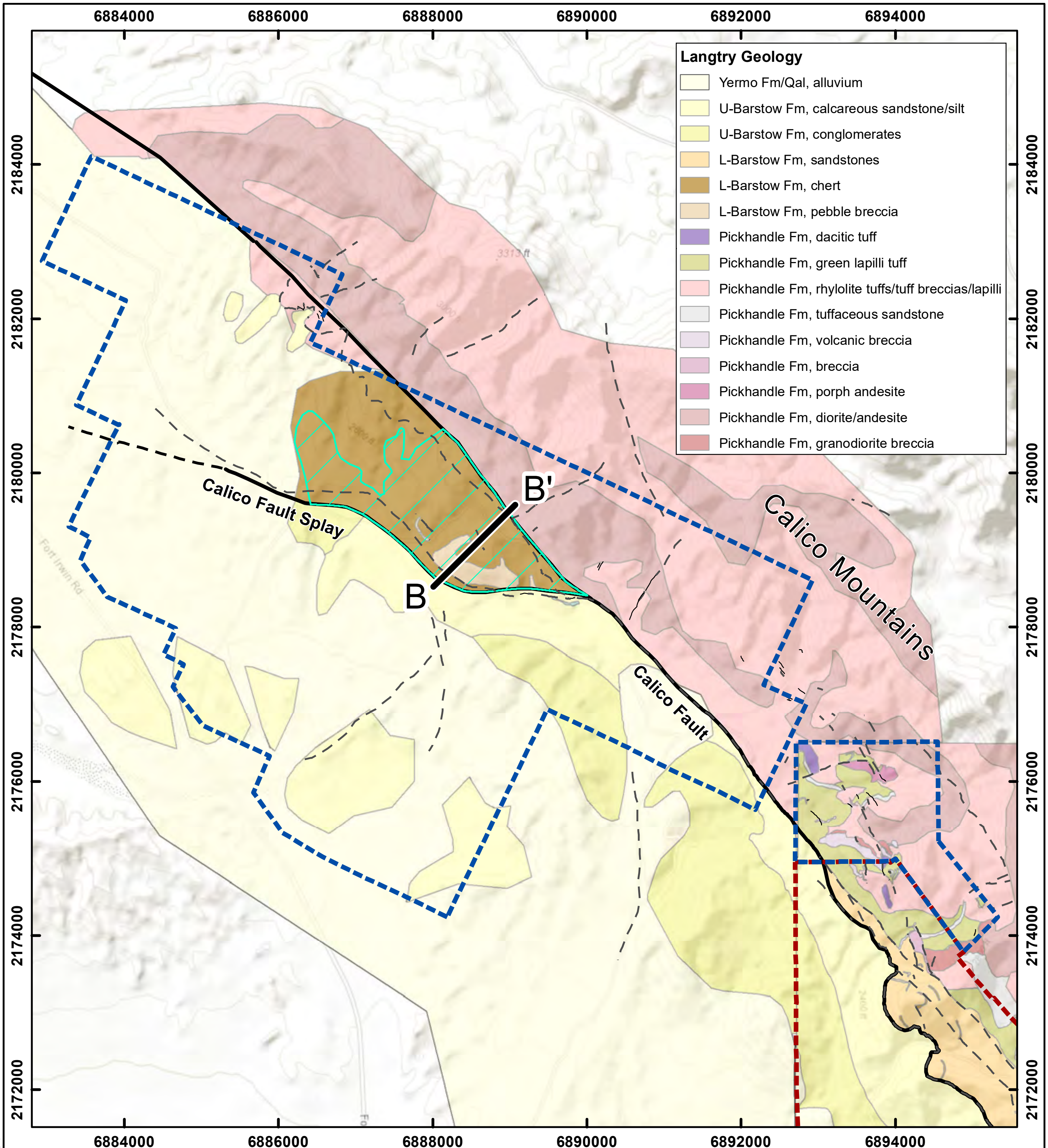

Legend

- Langtry Property
- Waterloo Property
- Silver Mineralization Surface Expression*
- Calico Fault and Splay
- Fault Observed
- Fault Inferred
- B-B' Cross Section Location

Fm = Formation
U = Upper
L = Lower

N

0 300 600
Meters

0 1,800
Feet

Scale 1:21,600
(At original document size of 8.5x11)

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri
   geology - Modified from Dibblee,1970 USGS Daggett Quad; Kirkpatrick, 1974; Pratt, 2012; and Pratt, 2022.
   * Effective date: January 28, 2022 (Loveday, 2022)

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TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Geology Map

Figure 7-6

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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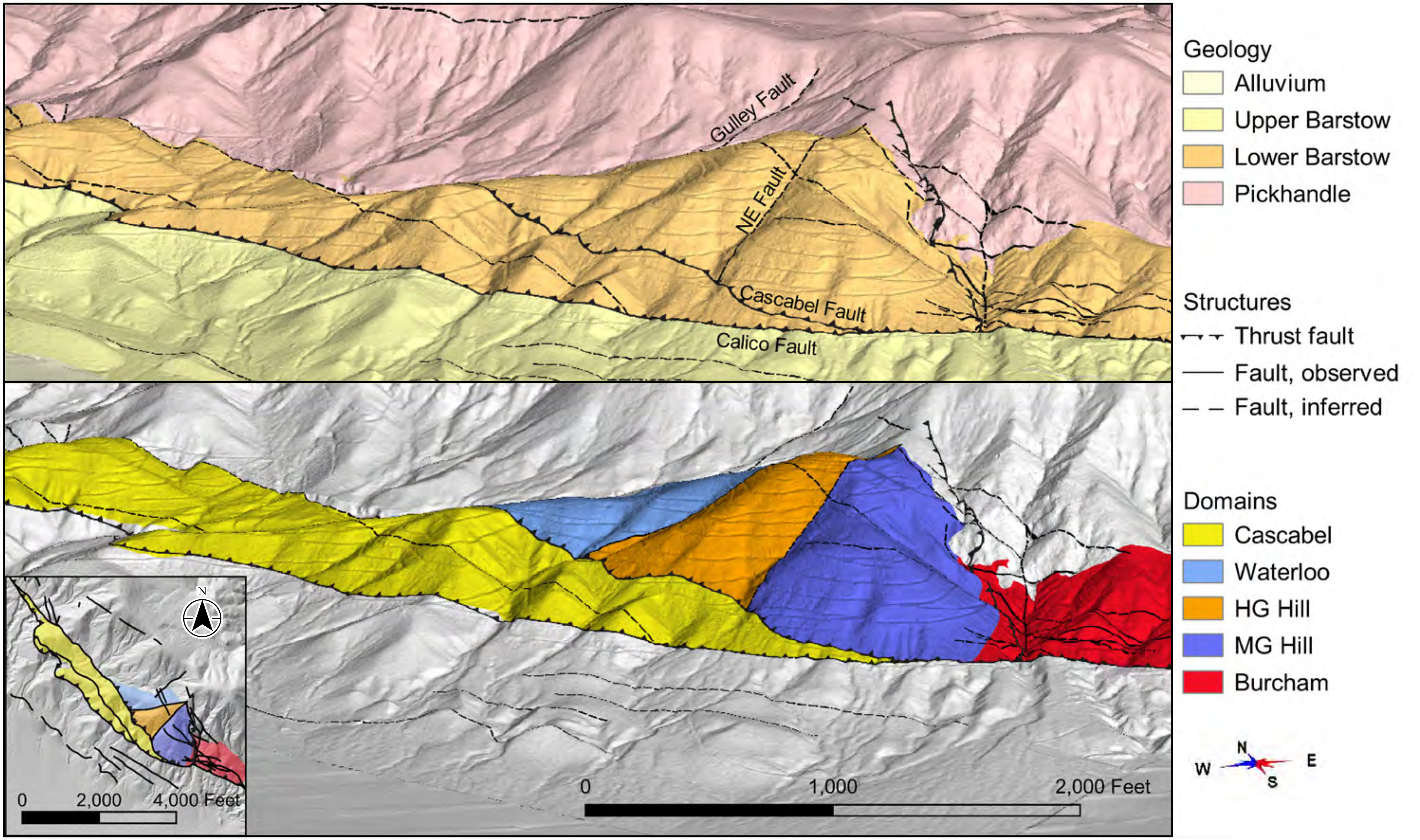
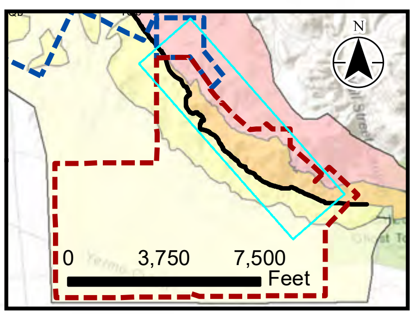


Legend

- Calico Fault
- Resource Model Boundary
- Langtry Property
- Waterloo Property

HG High Grade
MG Medium Grade
NE Northeast



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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Structural Model

Figure 7-7

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 20

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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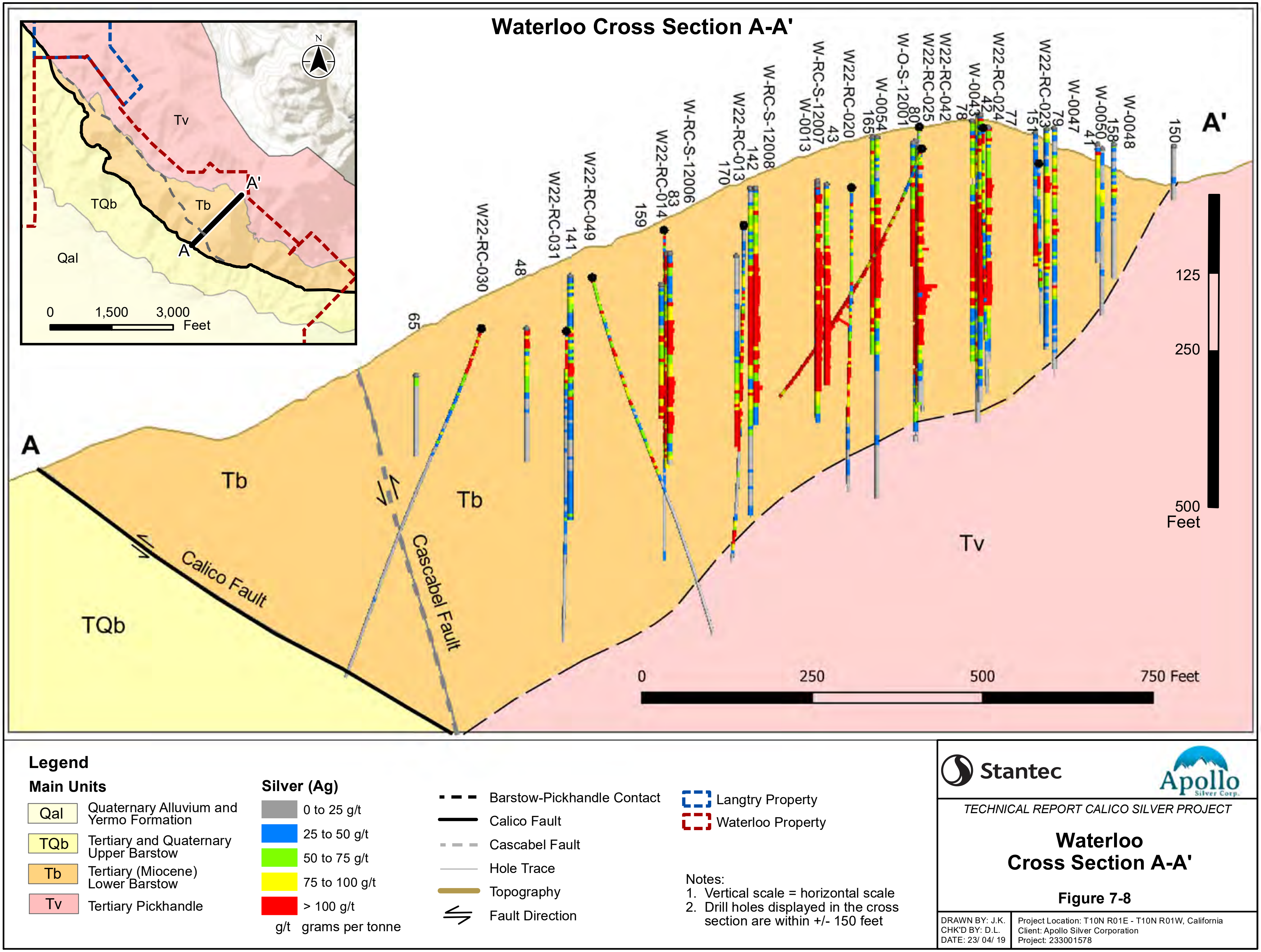
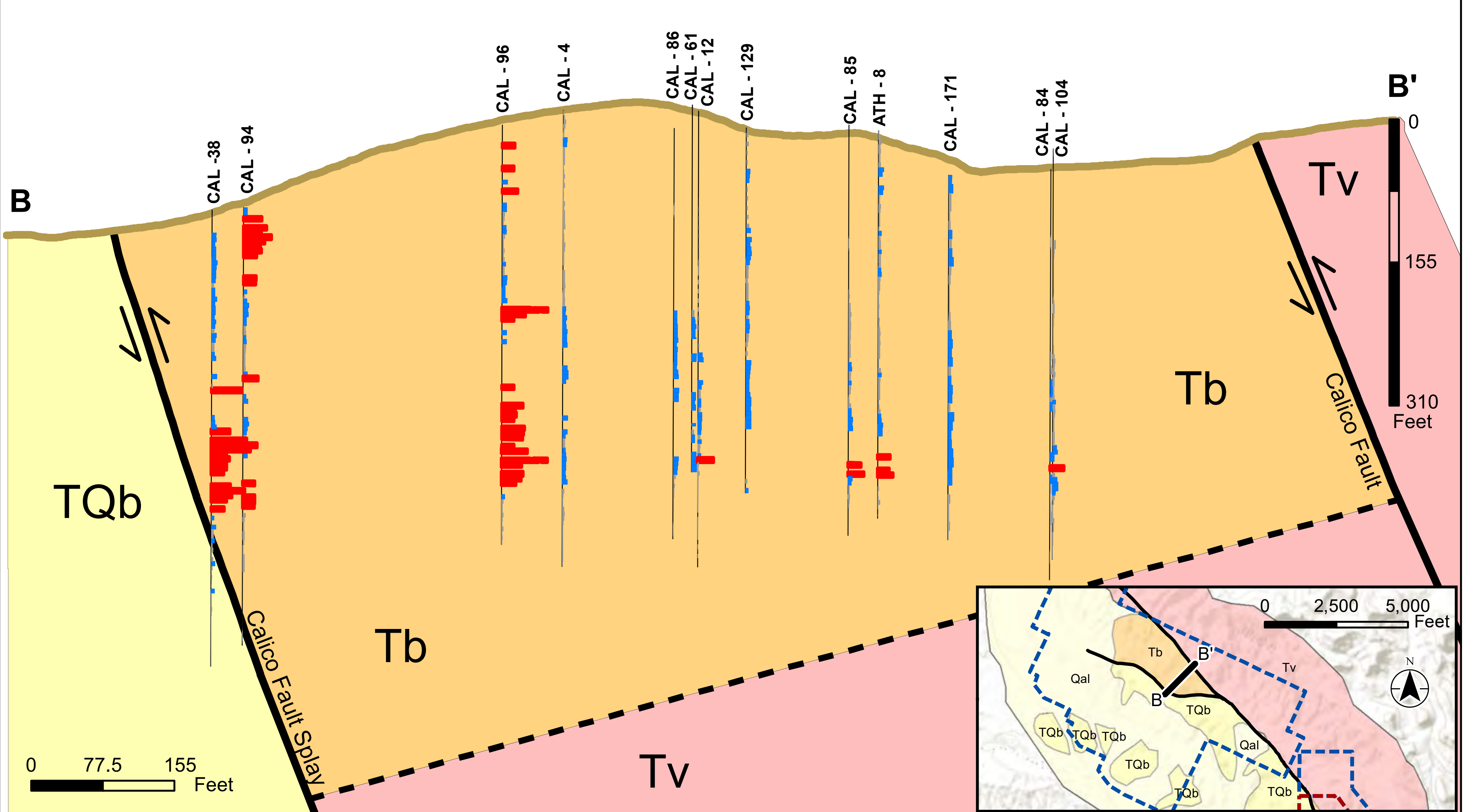


Waterloo Cross Section A-A'

Figure 7-8

Langtry Cross Section B-B'



Legend

Main Units

Qal	Quaternary Alluvium and Yermo Formation
TQb	Tertiary and Quaternary Upper Barstow
Tb	Tertiary (Miocene) Lower Barstow
Tv	Tertiary Pickhandle

Silver (Ag)

- 0 to 25 g/t
- 25 to 50 g/t
- 50 to 75 g/t
- 75 to 100 g/t
- > 100 g/t
- g/t grams per tonne

- Barstow-Pickhandle Contact
- Calico Fault and Splay
- Hole Trace
- Topography
- Fault Direction

- Langtry Property
- Waterloo Property

Notes:
1. Vertical scale = horizontal scale
2. Drill holes displayed in the cross section are within +/- 150 feet
3. Effective date: January 28, 2022 (Loveday, 2022)

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TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Cross Section B-B'

Figure 7-9

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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7.3 Mineralization

The silver mineralization at Waterloo and Langtry are similar and are associated with mid-Tertiary volcanic activity along the northwest trending fracture zones in metamorphosed sedimentary rocks of the Lower Barstow Formation and underlying Pickhandle Formation volcanics. Mineralization is interpreted to be epithermal-type expressed as three styles: vein-type, apparently emplaced along listric faults within both the Barstow and Pickhandle Formations; stratiform and disseminated within siliceous adularia/sericite/barite altered sedimentary rocks of the lower Barstow Formation; and disseminated at the contact between the Barstow and Pickhandle formations (Pratt, 2022, 2012, 2008 and Fletcher, 1986). Silver was mined historically in the Waterloo Mine on the Project at this contact. Recent work has identified gold mineralization at this contact, and within the underlying Pickhandle volcaniclastics, in the southeastern portion of the Waterloo property in the area of the historical Burcham Mine.

All three types of mineralization have been identified on the Calico Project: large tonnage, moderate to low grade disseminated and veins, both with similar mineralization (silver-barite hosted in quartz). The disseminated silver-barite mineralization is hosted primarily by the Lower Barstow Formation cherty sandstones and siltstones. Vein mineralization is also hosted within the Lower Barstow and within the underlying volcaniclastics of the Pickhandle Formation. All types of mineralization are interpreted to have formed from a common event, with the host rock controlling the style of mineralization. Two K-Ar radiometric dates from altered wall rocks constrain the hydrothermal event to 17 Ma (Fletcher, 1986), contemporaneous with the deposition of the Barstow sediments and intrusion of the nearby dacite domes. Fluid inclusion work completed by Fletcher (1986) on barite crystals supports this; he identified formation temperatures of 185-195°C and determined that they formed at depths of less than 100 ft below the surface. Recent petrography and mapping confirm widespread adularia alteration of detrital grains and minor illite/sericite, typical of low-sulfidation epithermal deposits. The vein network generally parallels a regional zone of northwestern-trending faults that has acted as possibly feeder for mineralization and has displaced it during periods of tectonic reactivation. The timing of mineralization (19-17 Ma) aligns with a period of late subduction and extension in the region as the period of Basin and Range extension terminated.

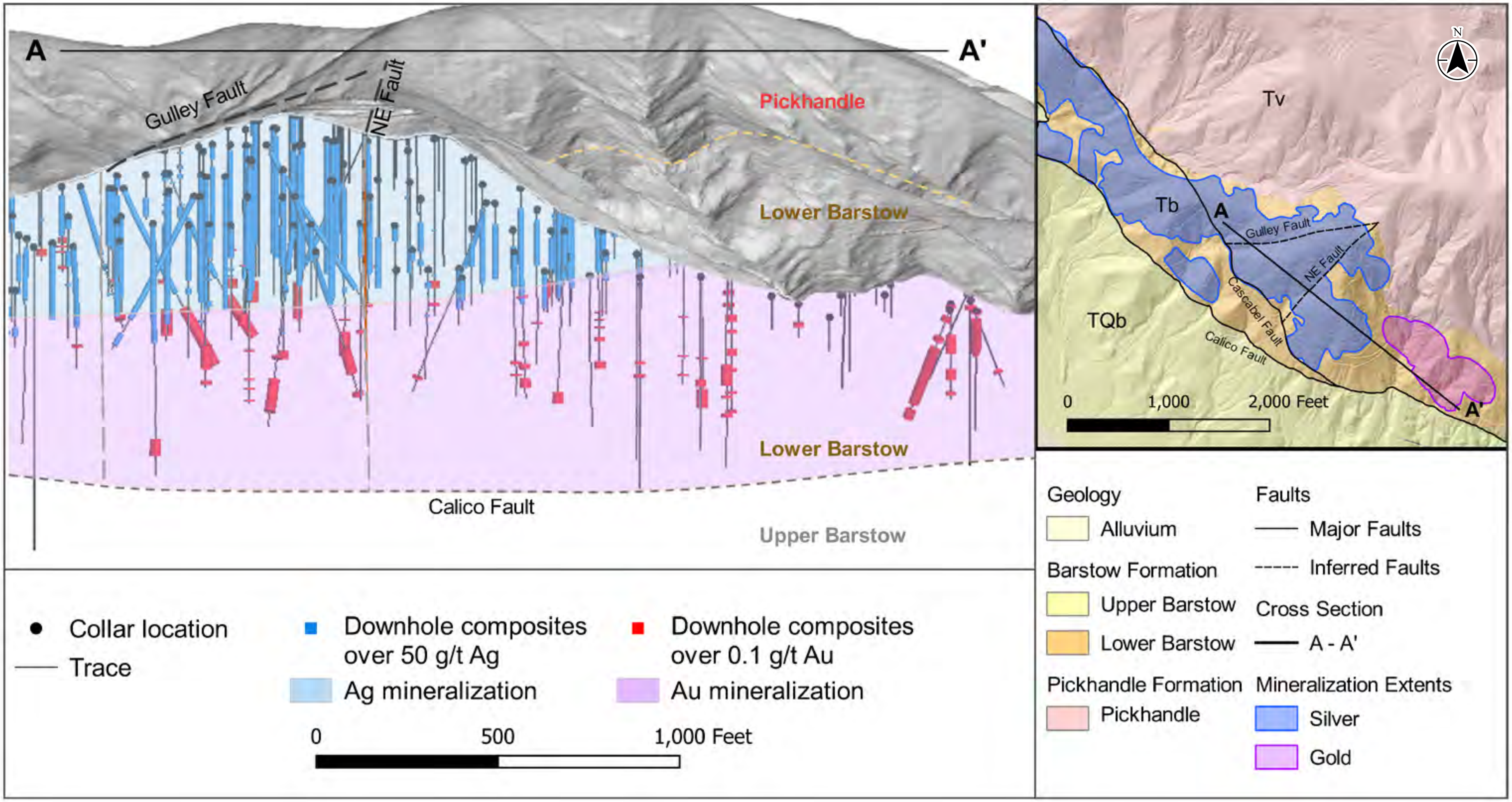
Paragenesis of mineralization is similar in both the disseminated and vein-style silver mineralization with early barite followed by a silver-silicification stage, and then a late calcite stage (Jessey, 2014; Tarman and Jessey, 1989; Fletcher, 1986). This was followed by an even later stage of secondary oxides and jasperoid likely associated with fault reactivation (Fletcher, 1986). Subsequent oxidation of some veins by meteoric water resulted in the formation of supergene oxides, carbonates and silver chlorides. A late-stage magnetite-manganese oxide-native silver bearing event has also been noted in the district (Jessey, 2014).

The dominant minerals at Waterloo are reported to be native silver, with lesser amounts of argentiferous pyrite, acanthite, cerargyrite, embolite and argentojarosite, associated with barite, quartz and later calcite, forming part of large, disseminated silver-barite deposit (Pan American, 1994).

The disseminated silver mineralization at Langtry is associated with silica and lesser barite along with hematite, calcite, silver-hosted sulphides (acanthite), very fine native silver, very fine sphalerite, very fine galena, and local occurrences of argentojarosite and cerargyrite.

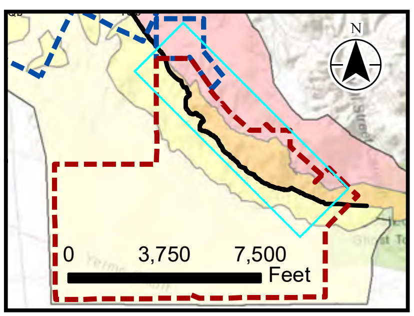
The general dimensions of the silver mineralized zone at Waterloo covers an area approximately 1,500 ft (457 m) wide by 7,030 ft (2,143 m) long extending from outcrop and plunging towards the southwest to a maximum modelled depth of approximately 600 ft (183 m) below surface. The mineralization is continuous from surface. The general dimensions of the silver mineralized zone at the Langtry covers an area approximately 1,500 ft (457 m) wide by 5,000 ft (1524 m) long extending from outcrop and plunging towards the southwest to a maximum modelled depth of approximately 600 ft (183 m) below surface. The mineralization is continuous from surface.

The general dimensions of the gold mineralized zone at Waterloo, in the region of the historical Burcham mine, covers an area approximately 490 ft (150 m) wide and 1,560 ft (475 m) long at surface. This gold mineralized horizon plunges gently downwards to the northwest underneath the silver mineralization at Waterloo as shown in Figure 7-10. Gold primarily occurs in the lowermost sandy and pebbly, white friable conglomeritic rocks of the basal Barstow Formation and the upper, white altered and friable upper Pickhandle Formation volcaniclastics.



Legend

- Calico Fault
- Resource Model Boundary
- Langtry Property
- Waterloo Property



Ag silver
Au gold
g/t grams per tonne
NE Northeast

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Gold Mineralization Distribution

Figure 7-10

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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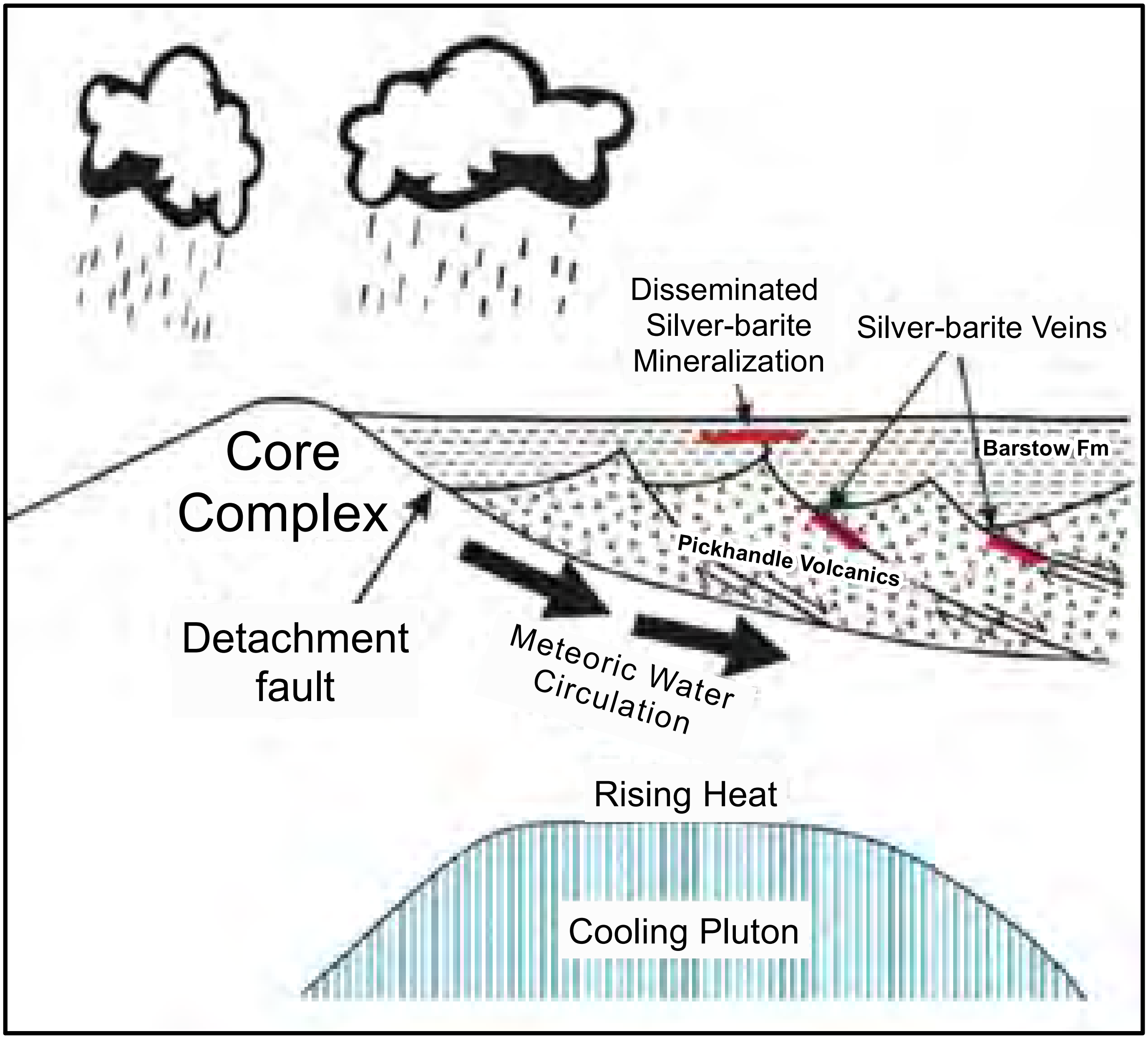
8.0 DEPOSIT TYPES

The deposit type in the sedimentary rocks of the Calico Mining District have been described as a low-temperature, hot-spring style epithermal exhalative or replacement type disseminated (Fletcher, 1986; Jessey, 2014; Pratt, 2008, 2012 and 2022) and vein-style. High-angle veins hosting higher grade silver mineralization occur within the broader disseminated silver mineralization Barstow rocks at both Waterloo and Langtry.

Mineralization in the Calico District is a classic example of the epithermal precious metal deposit. The District has many characteristic features including the association with Tertiary volcanic rocks; normal faulting (suggesting crustal extension); low-temperature of mineralization and potassium feldspar (adularia) and propylitic alteration. The most common epithermal model for the District relates ore deposition to periods of extensional volcanism associated with plate subduction. Some state that the timing of mineralization in the Calico District (19-17 Ma) is inconsistent with a subduction-related extensional model (Tarman and Jessey, 1989 and Jessey, 2014) and recent attention has focused on the detachment model to account for extension in many of the southern California precious metal districts. Detachment faults were originally described along the flanks of the Calico Mountains by Weber (1965) however, these detachment faults bear little similarity to classic detachment faults described by Davis and others (1980) in the eastern Mojave and Sonora Deserts. The Calico detachments are best termed gravity slides and are not related to deep crustal extension as are those in other districts. Moreover, even the gravity slide model has been challenged (Payne & Glass, 1987). In addition, the Barstow mineralization can be demonstrated to predate deformation associated with the "gravity slide" (Fletcher, 1986). More recently, Glazner et al. (1988) have documented detachment faulting in the Waterman Hills a few kilometers to the west of the Calico Mountains. Assuming the Calico Mountains represent the upper plate of a detachment block, the high angle northwest-trending barite-silver veins could represent mineralized listric faults described in most detachment terranes. Figure 8-1 below is a schematic diagram after Jessey (2014) that best illustrates the detachment faulting and mineralization hypothesis for the deposit type model encountered on the Project.



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Note
Reference: Jessey, 2010

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TECHNICAL REPORT CALICO SILVER PROJECT

Schematic Deposit Type Model

Figure 8-1

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 20	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

Others however interpret the volcanic activity with contemporaneous sedimentation in the Calico District as being related to the waning stages of Basin and Range extension (Singelton and Gans, 2008; Pratt, 2022). The ~17 Ma dacite domes as mapped by Dibblee (1970) at the southeastern end of the Calico mountains then representing a “last-gasp” of volcanism related to extension. The emplacement of these was contemporaneous with deposition of the Lower Barstow Formation rocks (Pratt, 2022). Regardless of what caused extensional stresses during the early Miocene, they are associated with the dacitic volcanic activity and creation of a series of normal faults in the upper plate Pickhandle volcanics. These dacites are interpreted to be the heat source and driver of the hydrothermal convective system mineralizing the normal faults as well as the flat-lying sediments of the Lower Barstow Formation. During the late Miocene, strike-slip movement began along the Calico Fault reactivating the dip-slip faults. The reactivated faults underwent additional extension in areas adjacent to bends in the main Calico fault causing further dilation and permitting the circulation of meteoric waters which oxidized the existing mineralization and deposited secondary oxides and silver chlorides.

Pratt (2022) summarizes the deposit system as follows: the Waterloo and Langtry silver deposits are interpreted as erosional outliers of a formerly continuous Miocene stratiform deposit. Hosted by the Lower Barstow Formation, it was of syngenetic, hot spring and replacement origin. It developed in a non-marine sedimentary basin, strongly controlled by active faults. Throughgoing mineralized faults in the Pickhandle volcanics, targeted by historical mining, are interpreted as feeders to this mineralization. Pratt draw comparisons with the Navidad low sulfidation epithermal deposit in Argentina, which also encompasses the feeder vein/hot spring transition (Pratt and Ponce, 2011; Bouhier et al., 2023). As with Navidad, at Barstow there were periods of energetic fluvial sedimentation, which overwhelmed contemporaneous geothermal/hydrothermal activity. During quieter periods, lakes developed, and hot springs were active. There were probable geysers, sediment volcanoes and phreatic eruptions. Si-rich chemical sediments (‘cherts’) were deposited, with algal mats, syngenetic barite, hydrothermal adularia and disseminated pyrite/marcasite/silver sulfides. However, most of the silver resource occurs in the adularia-barite-altered sandstones beneath the ‘cherts’. This may be of largely replacement origin. The fragmented geometry of the stratiform orebodies reflects major post-mineral fault offsets, mostly reverse and southwest-verging, though some strike-slip cannot be ruled out, on the different strands of the Calico Fault system.

9.0 EXPLORATION

In 2022 Apollo completed extensive exploration activities on the Project. Exploration activities included surface geological mapping, surface rock grab sampling, geophysical surveys, petrography, RC chip logging, sampling of historical drilling material for assay re-analysis and bulk density data, and RC drilling (described in Section 10). Table 9.1 summarizes these activities between January 2022 and February 8, 2023 (the effective date of this Technical Report). Drilling activities are discussed in detail in Section 10 of this Technical Report.

Exploration completed on the Project by prior operators is discussed in Section 6.

Table 9.1
Summary of Apollo Exploration Activities at the Calico Project In 2022

Type of Work	Conducted By	Description	Objective
Geological Mapping	Dr. Warren Pratt and Apollo	Mapping and surface sampling of both the Waterloo and Langtry properties by Dr. Pratt. Additional mapping and surface sampling at Waterloo by Apollo geologists.	Mapping and sampling by Dr. Pratt aimed to better understand the geology of Langtry as it relates to Waterloo, as a follow up of work completed by him in 2008 and 2012 for a previous operator. Other objectives included improving the understanding of the internal stratigraphy of the Barstow Formation, to better understand the vein, stockwork and disseminated styles of mineralisation and to then develop a model to understand the controls on mineralization and identify extensions to known mineralization, possibly concealed. Further, reconnaissance mapping by Apollo geologists and additional surface rock grab sampling was undertaken to investigate gold mineralization at surface at Burcham and barite and silicification in the silver mineralized zones of Waterloo.
Petrography & Chalcography	Paula Cornejo	68 thin sections from historical RC holes W-0041 and W-0053, and 10 thin sections from Pratt surface sampling.	Characterize alteration, lithology, and mineralization at the small scale. To better understand the rock texture and composition.
Surficial Geotechnical Mapping & Drill Core Review	Jennifer van Pelt (Stantec)	Geotechnical mapping of outcrops across the Waterloo property and review of the current geological model.	To provide a high-level outline and cost estimate for a proposed future geotechnical core drilling program to support further geotechnical planning.

Table 9.1 (Cont'd)

Type of Work	Conducted By	Description	Objective
Ground 3D DC Resistivity and Induced Polarization Survey	DIAS Geophysical Limited	Total survey area of 9.78 km^2 (comprising 143,800 km total line length) across two survey grids: the Main (150 m line spacing) and Extension (300 m line spacing) grids. The Main grid covered the silver resource area, and the Extension grid covered the flats of the Waterloo property.	Detect the electrical resistivity and chargeability signatures of the Barstow formation host rocks associated with known mineralization; assist with identifying new mineralization and with interpretation of structure in the subsurface.
Aeromagnetic Survey (via unmanned aerial vehicle)	Pioneer Exploration	Total survey area of 9.39 km^2 comprising 498 km total line length covering both Waterloo and Langtry properties. Line spacing varied from 25 m to 50 m tie line spacing varied from 250 m to 500m respectively.	Assist with identifying structural features and lithological contacts in the subsurface and identify magnetic anomalies that may be related to mineralization.
2022 RC Drilling Activities	Apollo	Apollo completed an 88-hole, 9,840 m RC drill program on the Waterloo property.	The objective of the drill program was to upgrade and expand the 2022 silver MRE at Waterloo by furthering the geologic understanding and controls on mineralization of the deposit via infill and marginal drilling.

9.1 Geological Mapping

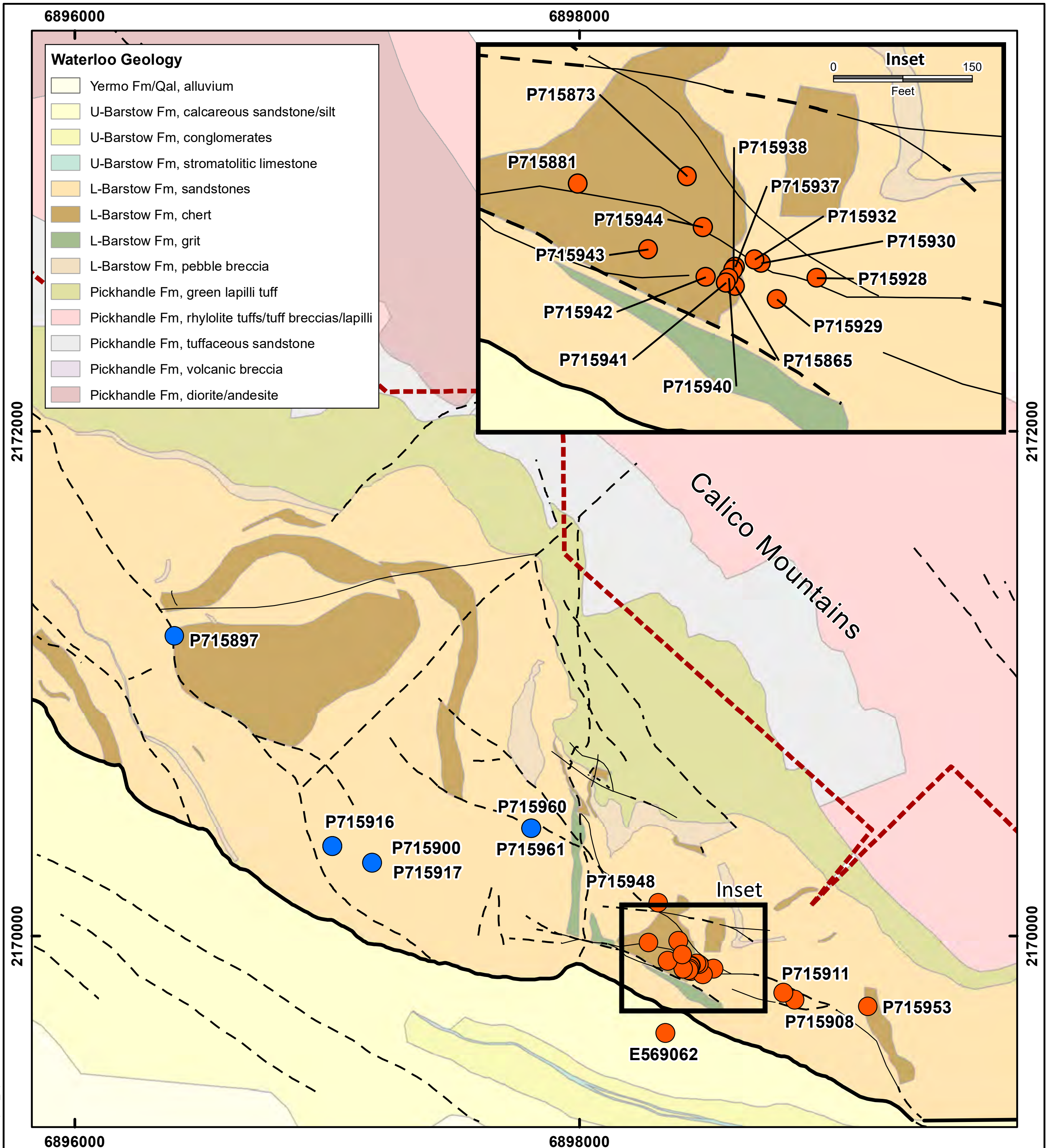
The Waterloo and Langtry properties were mapped in detail by Warren Pratt Ph.D., C.Geol., of Specialized Geological Mapping Limited, over a period of 14 days in December of 2021 with his final report completed in January 2022. Dr. Pratt conducted this work on behalf of Apollo, following up two previous mapping campaigns he completed at Waterloo in 2008 and 2012 on behalf of previous operator Pan American. Further, Apollo geologists completed two prospecting and sampling programs across Waterloo in mid-2022.

The objective of this work was to map the Langtry Property and the region between it and the Waterloo Property for the first time, to further the understanding of the internal stratigraphy, alteration, and mineralization of the Barstow Formation across both properties and to identify areas for possible new mineralization. The resulting geologic map discussed in Section 7.2 and new interpretations formed the foundation of an updated three-dimensional geological model for the Calico Project, with a focus on further developing the understanding on mineralization controls at Waterloo.

9.2 Surface Sampling

Rock sampling is typically conducted in conjunction with surface geological mapping and prospecting activities. Geologists collected surface rock grab and channel samples in 2022 across the Project. A total of 216 grab samples and 27 channel samples have been collected, all of which were analysed for their lithology, alteration and geochemistry. Sampling focused on the Waterloo Property in 2022 in support of geological interpretations.

All surface rock samples were analysed using four-acid ICP. Further, some were also analyzed using whole rock XRF, mineralogy (SWIR) or petrography. Figure 9-1 shows the Waterloo surface geology map for those surface rock samples collected in 2022 where either Ag > 100 g/t or Au > 1 g/t. Table 9.2 shows the silver and gold assay results for the surface samples shown on Figure 9-1. Appendix A shows all surface rock sample silver and gold assay results.



Legend

Silver Surface Samples

Gold Surface Samples

Calico Fault

Fault Inferred

Fault Observed

Waterloo Property

Fm = Formation
U = Upper
L = Lower

N

0 75 150
Meters

0 550
Feet

Scale 1:6,600
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri
geology - Modified from Dibblee,1970 USGS Daggett Quad; Kirkpatrick, 1974; Pratt, 2012; and Pratt, 2022.

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Geologic Map and Surface Sample Locations

Figure 9-1

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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Table 9.2
Waterloo Select Ag-Au Rock Sample Assay Results

Sample ID	Easting (m)	Northing (m)	Elevation (m)	Au (g/t)	Ag (g/t)
E569062	511279	3867390	701	1.555	17.75
P715865	511312	3867464	721	2.47	27.3
P715873	511296	3867501	744	6.28	13
P715881	511260	3867499	740	1.34	7.74
P715908	511436	3867429	737	2.24	38.7
P715911	511422	3867437	743	2.41	65.3
P715928	511338	3867467	719	2.67	15.8
P715929	511325	3867460	716	3.94	76.3
P715930	511320	3867472	719	1.32	21.1
P715932	511318	3867473	723	2.6	16.3
P715937	511312	3867471	724	2.41	23
P715938	511311	3867470	723	1.535	19.45
P715940	511309	3867467	722	1.24	20.7
P715941	511309	3867466	722	4.97	91.9
P715942	511302	3867468	725	1.245	33.4
P715943	511283	3867477	731	6.31	39.1
P715944	511301	3867484	734	211	49
P715948	511272	3867547	741	1.885	15.4
P715953	511524	3867419	735	7.14	26.3
P715897	510691	3867875	771	0.006	529
P715900	510927	3867599	753	0.012	134
P715916	510879	3867620	748	0.009	221
P715917	510879	3867620	748	0.012	215
P715960	511120	3867638	773	0.221	253
P715961	511120	3867638	773	0.418	339
P715962	510123	3868507	815	0.007	849

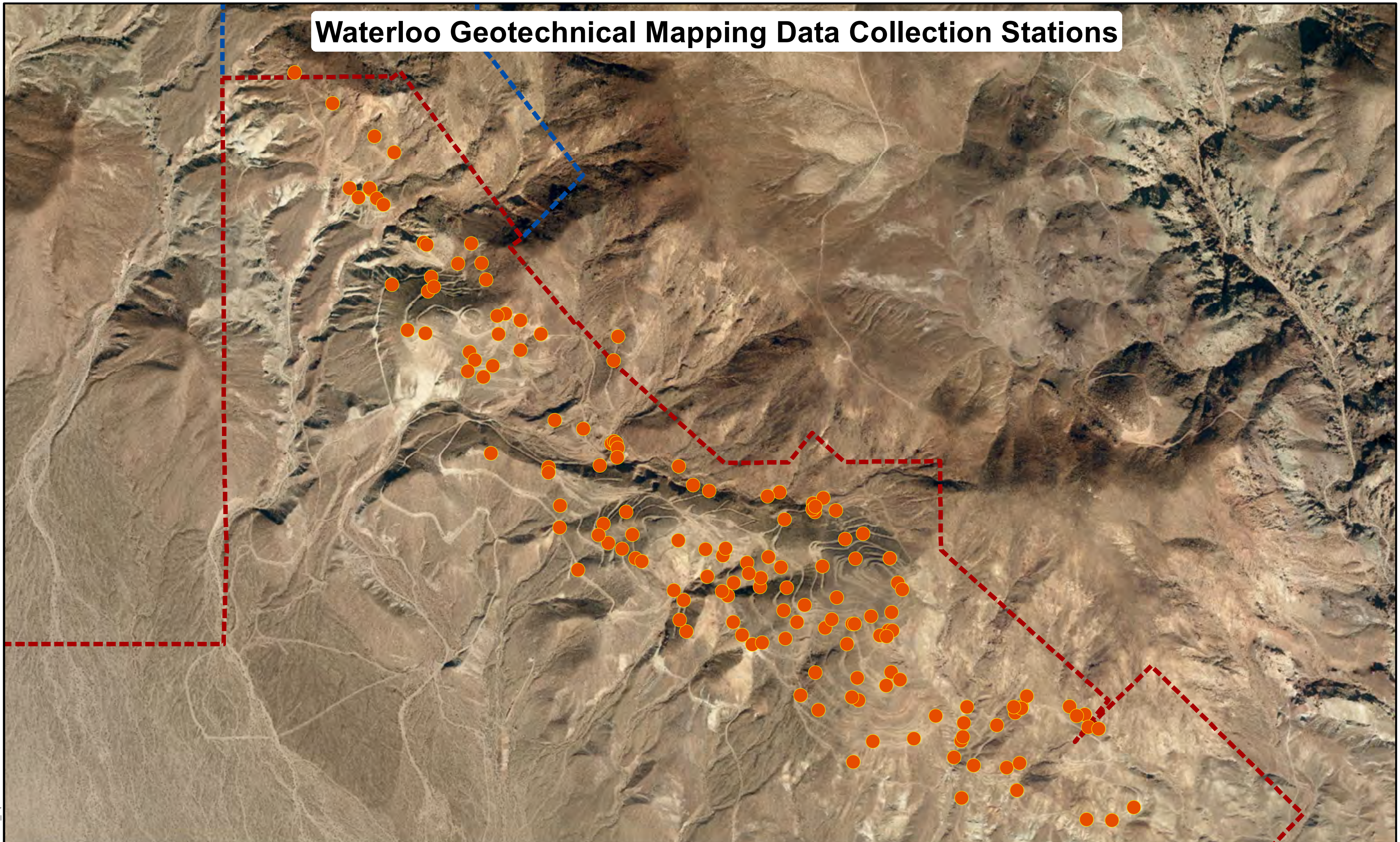
9.3 Petrography

Petrography was completed on both surface rock grab samples and RC chips by petrographer Paula Cornejo M.Sc., a professional geologist and petrologist based in Chile. The objective of this work was to characterize the rock lithology, alteration and mineralogy to support macroscopic interpretations made from surface geological mapping and down hole logging. Ms. Cornejo prepared and observed 10 surface rock grab samples and 68 RC chips samples from historical RC drill holes W-0041 and W-0053.

This work identified widespread adularia alteration of detrital grains and minor illite/sericite, typical of low-sulfidation epithermal deposit. Evidence of cementation soon after deposition of the Barstow sandstones was observed. Cementing gangue minerals comprise quartz, chalcedony, barite, pyrite and potassic feldspar (adularia). Cavities are often filled by later quartz/barite. Injection of sedimentary dikes and slumping and the presence of framboidal and very fine-grained pyrite was also confirmed. Petrographic evidence supports the interpretation by Pratt (2022) and earlier workers (Pratt, 2008, 2012 and Fletcher, 1986) that the Waterloo deposit mineralization is of the low-temperature, hot-spring epithermal style. Petrography also confirmed the observation by surface geological mappers that the Barstow sediments are derived from the underlying Pickhandle volcanics.

9.4 Geotechnical Surface Mapping and Core Logging

A team of geologists lead by Jennifer van Pelt C.E.G., P.G., of Stantec, conducted a surficial geotechnical mapping program on the Waterloo property between November 8th and November 11th, 2022. The objective of the mapping was to identify fine-scale structural features relative to the large scale to better inform future geotechnical drilling programs. Structural mapping and data collection was focused on the Barstow Formation rocks and the contact with the underlying Pickhandle Formation in areas where a possible future pit wall may be excavated. A total of 152 stations were mapped and a range of information was collected including formation lithology, weathering, alteration, Rock Quality Data (“RQD”), and estimated Geologic Strength Index (“GSI”) (Van Pelt, 2022). This data, combined with a geotechnical focused re-logging of five historical drill holes provided a good overview of the geotechnical properties of rocks at Waterloo. Figure 9-2 is presenting the geotechnical mapping and data collection stations.



Legend

- Geotechnical Mapping Site
- Langtry Property
- Waterloo Property

N

0 125 250
Meters
0 975
Feet

Scale 1:11,700
(At original document size of 8.5x11)

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Geotechnical Mapping Data Collection Stations

Figure 9-2

DRAWN BY: J.K. CHK'D BY: M.K. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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9.5 Portable X-Ray Fluorescence Analysis

Using an Olympus Vanta model portable X-Ray Fluorescence analyser ("pXRF"), a total of 839 pulps from 10 historical RC holes were analysed as part of an orientation study. The objective was to characterize the multi-element chemistry of representative stratigraphic domains of the Waterloo deposit using the pXRF and compare results to historical assays to determine if the pXRF could be reliably used to monitor rock chemistry for the Apollo's drill program. The pXRF data was found to be sufficiently accurate to use as a tool on samples collected from Apollo's Waterloo drilling program to support identification of mineralization and associated lithological features. Section 10.2.7 discusses the use of the pXRF in the 2022 drill program. pXRF analyses was completed on RC chips collected during the 2022 drilling. The pXRF tool was used to analyze chips both at the rig and in the logging facility to provide for rapid, near-real time assessment of multi-element chemistry of the rocks. This allowed for the in-field targeting of the gold mineralized horizon, targeting of higher-grade silver mineralized zones and for identifying geologic features that could not be identified visually. The pXRF results were not used for resource estimation purposes.

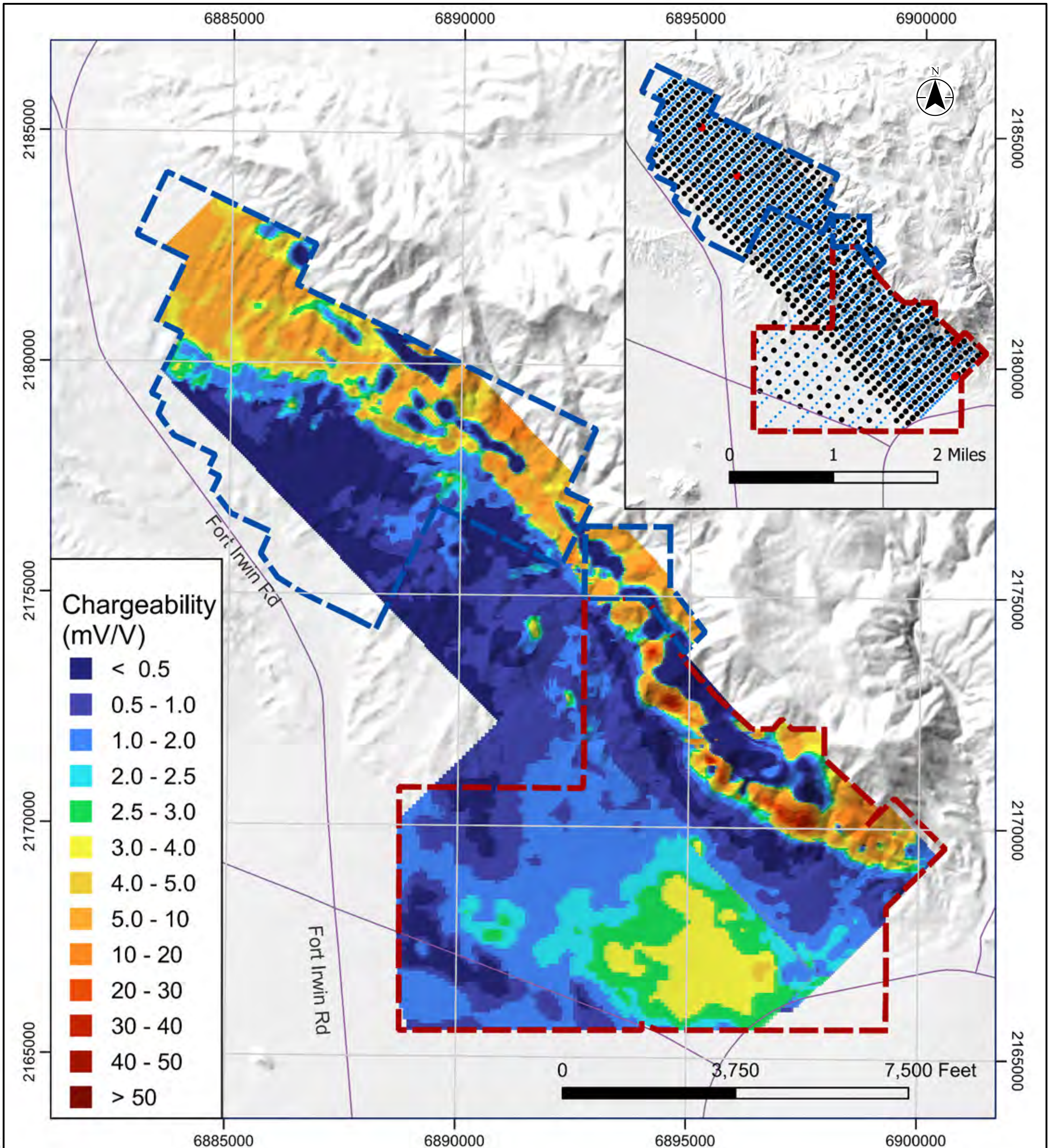
9.6 Geophysics

Ground and aeromagnetic surveys were completed over the Calico Project to better understand the geophysical signature of the Barstow Formation, host of the mineralization, identifying structural features and lithological contacts in the subsurface and identify magnetic anomalies that may be related to mineralization.

9.6.1 Ground 3D DC Resistivity and Induced Polarization Survey

Dias Geophysical Limited ("Dias") carried out a ground 3D DC-resistivity and induced polarization survey ("DCIP survey") on the Calico project between late November 2021 and late January 2022 (Rudd et al., 2022). The objective of the DCIP survey was to detect the electrical resistivity and chargeability signatures of the Barstow formation host rocks associated with known mineralization as well as to assist with identifying new mineralization and interpretation of structure in the subsurface.

The DCIP survey was completed using their proprietary DIAS32 acquisition system in conjunction with a GS5000 transmitter. The survey was completed using a rolling distributed partial 3D DCIP array with a pole-dipole transmitter configuration and was completed using the NAD 83 UTM zone 11N geographic system. The DCIP survey totalled an area of 3.78 mile^2 (9.78 km^2) (comprising 89,353 miles [143,800 km] total line length) across two survey grids: the Main (492 ft [150 m] line spacing) and Extension (984 ft [300 m] line spacing) grids. The Main grid covered the mineralization, and the Extension grid covered the flats of the Waterloo property as shown in Figure 9-3. DCIP survey lines were oriented northeast-southwest. For the Main grid, the receiver and injection line coverage was 34,797 miles (56,000 km), and 45,522 miles (73,100 km), respectively with a line spacing of 492 ft (150 m). For the Extension grid, the receiver and injection line coverage was 8,015 miles (12,900 km) and 3n835 miles (11,000 km), respectively with a line spacing of 984 ft (300 m).



Legend

- Transmitter
- Reciever
- Remote
- Langtry Property
- Waterloo Property

DCIP Direct Current Induced Polarization

mV/V millivolts per volts

Note Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

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TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project
DCIP Survey

Figure 9-3

DRAWN BY: M.H.
CHK'D BY: J.K.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

Final products of the DCIP survey included three-dimensional apparent resistivity and apparent chargeability datasets for 164 ft to 1,640 ft (50 m to 500 m) dipole for the Main grid and 328 ft to 2n953 ft (100 m to 900 m) for the Extension grid both as XYZ and Geosoft-compatible formats, complete with station locations in UTM Z11N/NAD83 and in NAD83(2011)/California Zone 5 (ft US) coordinates. An image of the chargeability results for a selected elevation is shown in Figure 9-3.

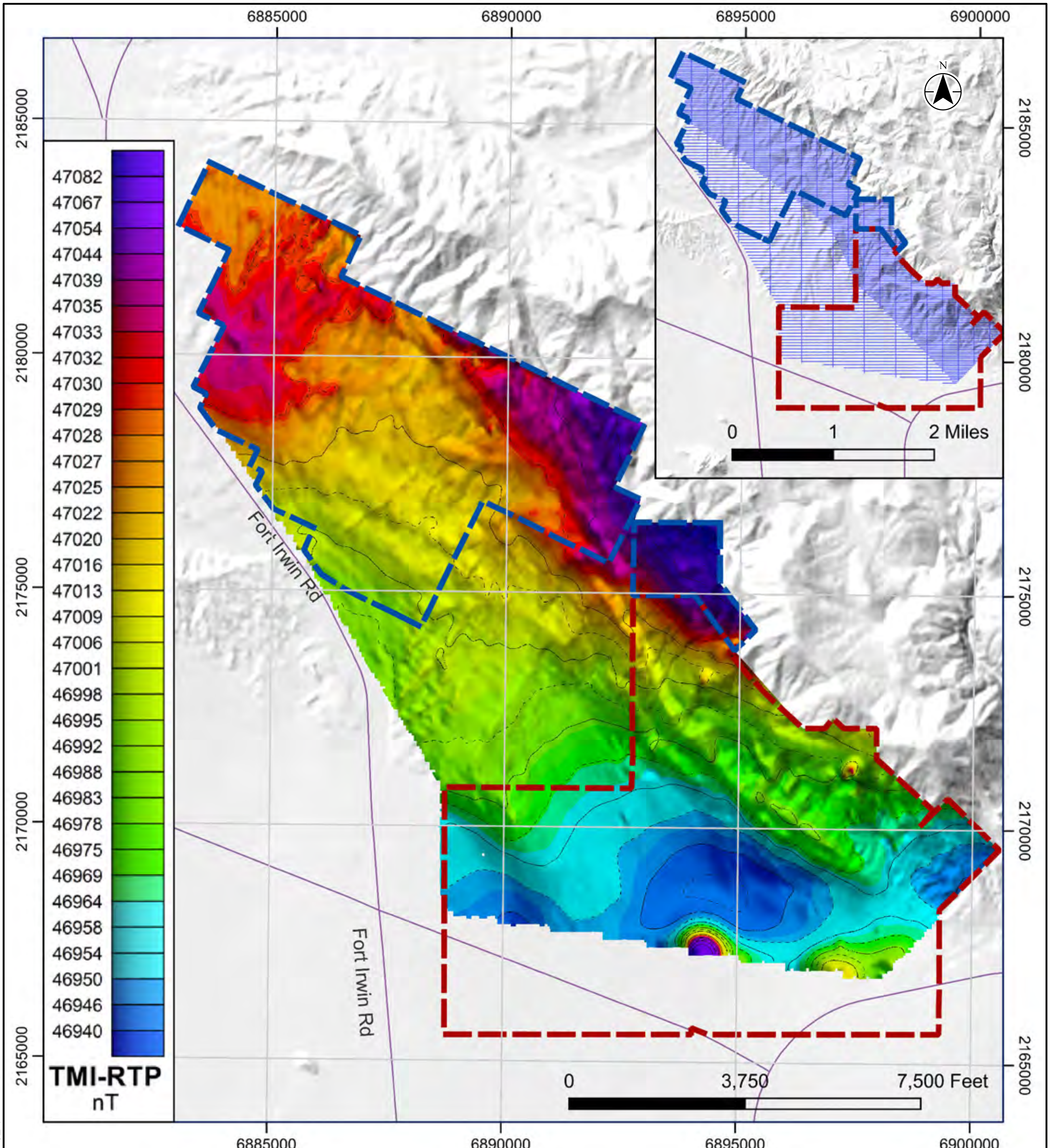
The DCIP survey results included both chargeability and resistivity data. Both data sets were useful for highlighting lithologic boundaries such as that between the Barstow and Pickhandle Formations. In addition, resistivity data highlight silver-mineralized silicified rocks well and structures such as the Calico Fault.

9.6.2 Aeromagnetic Survey

An aeromagnetic geophysical survey was completed by Pioneer Exploration Consultants Ltd. ('Pioneer') using an unmanned aerial vehicle (UAV) between March 22nd to April 1st, 2022, over the Calico Project. The objective of the magnetic survey was to assist with identifying structural features and lithological contacts in the subsurface and identify magnetic anomalies that may be related to mineralization.

The UAV was a Matrice M600 Pro UAV and flight lines for data collection were oriented east-west across the entire Calico project (both Waterloo and Langtry properties). The line spacing was 82 ft (25 m) with 820 ft (250 m) spaced tie lines. Over the flatter area of the project the grid was coarsened to 50 m spaced lines with 500 m spaced tie lines. The nominal magnetic sensor altitude above ground level was set to 25 m. The survey covered an area of 3.62 miles^2 (9.39 km^2), and a total of 309 miles (497.9 km) of lines were surveyed (see Figure 9-4).

Total magnetic intensity results for a selected elevation are shown in Figure 9-4. Magnetic data highlighted the Pickhandle Formation volcanic rocks as being elevated magnetically relative to the Barstow Formation sedimentary rocks. Structural features were also highlighted below alluvium and this data matched well with historical magnetic data collected by ASARCO.



U:\233001578\disc\gis_cad\MXD\Fig_9_4_AeroMag_Survey_April2023.mxd

Legend

- Paved Roads
- Flight Lines
- Langtry Property
- Waterloo Property

TMI-RTP total magnetic intensity - reduction to the pole

nT nanotesla

Note Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

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TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project
Aeromagnetic Survey

Figure 9-4

DRAWN BY: M.H. CHK'D BY: J.K. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

10.0 DRILLING

10.1 Introduction

Between April 6, 2022, and November 12, 2022, Apollo completed an 88-hole, 32,283 ft (9,840 m) RC drill program on the Waterloo Property. The objective of the drill program was to upgrade the confidence in and expand the 2022 silver MRE at Waterloo (see Loveday, 2022) by furthering the geologic understanding and controls on mineralization of the deposit via infill and marginal drilling. See Figure 10-1 the 2022 program drill hole locations. Appendix B provides a list of the drill hole collar locations, orientations and depths.

Drilling was undertaken in two phases using a Novamec GT 642 track mounted RC rig (Figure 10-2). Drilling occurred 24 hours a day, seven days a week with the exception of the summer hot season, where the extreme heat precluded drilling activities (between July 3rd to September 19, 2022). Phase 1 of the program was completed between April 6 and July 3, 2022, and Phase 2 was completed between September 19 and November 12, 2022.

To achieve the program objectives, the following were incorporated into the drill program design:

- Infill and twin hole drilling to ensure drill hole spacing was to a degree that aligned with upgrading the confidence of the Waterloo deposit to the Measured plus Indicated level of assurance.

- Drilling to depth below the base of the prior resource model (Loveday, 2022) to target new, deeper silver mineralization and expand the deposit.

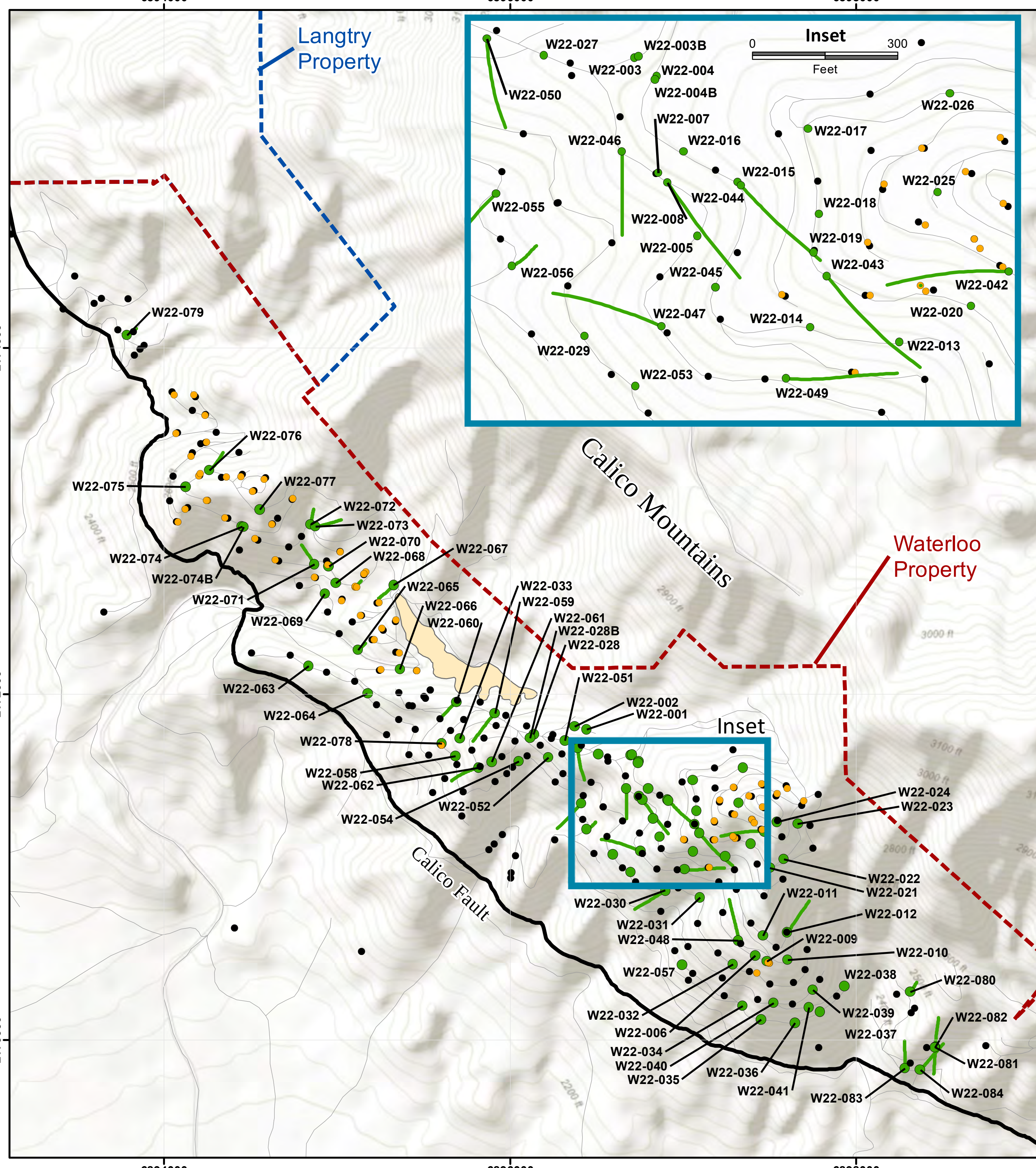
- Target key structural features that bound and/or dissect mineralization such as the Barstow-Pickhandle lithologic contact, the Calico Fault and the Cascabel Fault to create a more robust geologic model.

- Target possible high-grade “feeder” structures to better understand controls on silver and gold mineralization.

- Exploration for gold mineralization identified in historical records.

All the drill program objectives were achieved. In particular, drilling assay results confirmed the continuity and predictability of near-surface silver mineralization, identified additional silver mineralization at depth below the 2022 MRE, and intersected modeled key structural features allowing for a more confident geologic model. Further, the gold mineralization at Waterloo has been confirmed to be present across more than 3,280 ft (1,000 m) strike length and is now incorporated in the 3D geologic model and Waterloo resource update.

Drilling and logging were completed in the metric system, however both metric and imperial measurements are maintained in the company database.



Legend

- Site Roads
- Calico Fault
- Calico Collapse
- Waterloo Property
- Langtry Property

Drill Hole Collars

- Apollo (2022)* with drill hole trace
- ASARCO (1965-1989)**
- Pan American (2012-2013)**
- * RC was removed from the 2022 collar names for this map
- ** Refer to Figure 6-4 for historical collar names

N

0 150 300
Meters
0 840
Feet
Scale 1:10,080
(At original document size of 8.5x11)

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo 2022 Drill Hole Collar Location Map

Figure 10-1

DRAWN BY: M.B.
CHK'D BY: J.K.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

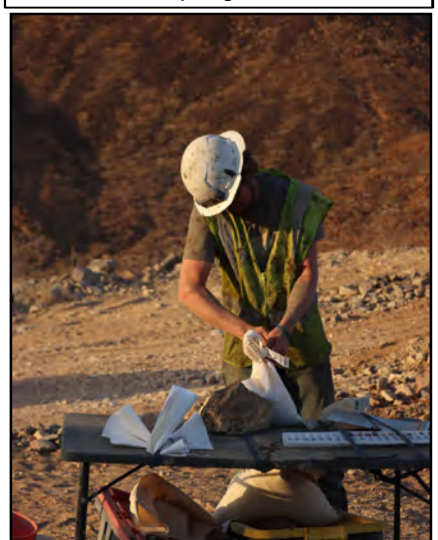
U:\233001578\disc\gis_cad\MXD\Fig_10_1_Waterloo_Collars_April2023.mxd; user: jkester

Reverse Circulation (RC) drill set up with hurricane vaccum and air compressor.

RC drill set up with hurricane vaccum, riffle splitter and cyclone.

Face Sampling RC Drill Bit

RC 50-50 Splitter and Chip Sampling

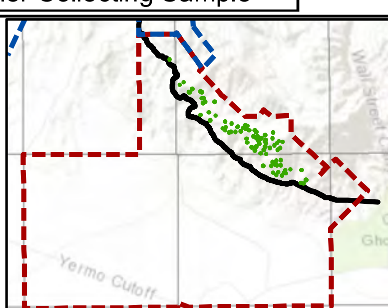


Sampler Collecting Sample

W22-RC-050 drill hole collar with cement plug, wood marker post, and metal hole ID tag.

Legend

- Waterloo 2022 Drilling
- Calico Fault
- Langtry Property
- Waterloo Property



N

0 600 1,200 Meters

0 0.625 1.25 Miles

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo
Drill Rig Activities

Figure 10-2

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_10_2_Drilling_April2023.mxd

10.2 Drilling Methods

10.2.1 Drilling Equipment and Methods

Drilling was completed by Cooper Drilling LLC, of Monte Vista Colorado, using a Novamec GT 642 track mounted RC rig with a $4^{5/8}$ in to $5^{1/4}$ in face sampling bit. Drill rod lengths were metric (3.0 m, equivalent to ~10 ft) and samples were collected every 5 ft (~ 1.5 m). A face sampling, hammer-bit was used with a dual tube recovery system. An Atlas Copco PNS 1250 compressor was used to drive the flow of cuttings to surface with air pressure (dry/no water). Drill cuttings travelled from the face of the bit, through the innertube of the dual walled drill pipe, eliminating possible contamination with the open hole above. After each drill sample was collected (5 ft / 1.5 m), the drill pipe was worked up and down to clear any debris that may have fallen down the hole. The hole continued to be cleaned this way and only advanced when the drill hole was clear of cuttings. Samples were only collected at surface when the drill hole was being advanced and new cuttings were being liberated from the face of the bit. At the start of the drill program no water or drilling additives were used to increase hole stability. However, drilling difficulties were encountered in the first month of the program, from a lack of drill hole wall integrity due to the silicious and fractured nature of the mineralized Barstow sediments. Drill hole wall collapse was causing trouble with advancing the drill hole. This was rectified by using limited amounts of bentonite drilling mud after each new connection was made. Bentonite mud was introduced at the top of the annulus, where it would create a mud ring that would travel down the annulus, impeding the drill hole walls from collapse. The bentonite mud ring would not travel far enough down hole to interfere with the dry sample being driven by air from the face of the bit, through the innertube of the dual walled pipe, to surface where it was collected.

RC chips and compressed air passed through a cyclone and were then ejected into a Jones riffle splitter. This method produced one outlet for the sample and reduced the chance of sample contamination between each sample run. A Hurricane 500 dust collection system was attached to the top of the cyclone during drilling to collect dust produced by drilling. A limited amount of dust was lost to the air or in the drill holes within voids or fractures. The Author believes that this represents a small amount of material and does not affect the sample integrity to a measurable degree.

Once the drilling and the downhole survey were completed, the holes were cemented. Cementing consisted of installing a plug at around 5 ft (1.5 m) deep downhole and pouring cement from the plug to the surface into the open hole as deep as possible. A wood stake was installed in the cement, and metal tag with the drill hole ID was fixed to the stake. Drill sites were cleaned, and photographs were taken (Figure 10-2). No sumps were required during drilling.

10.2.2 Collar Surveying

Drill sites were located prior to drilling using a Garmin GPSMAP 64sx Handheld GPS. The planned collar location was marked with a labelled stake, and photographs of the drill site were taken. Once drilling was complete, collars were re-surveyed during November and December 2022 by a professional surveyor from Merrell-Johnson Engineering, of Apple Valley, California. Final surveying was completed using Static OPUS positioning system performed on site at a base point. The measurements to the points collected were done using real time kinetics (RTK) and are accurate to +/- 2-3 cm. The Coordinate system used to record drill collar locations was California State Plane Zone V NAD 83 with units collected in feet. A total of 86 drill holes completed during the 2022 drill program were professionally surveyed, as were 62 collars from historical drill holes at Waterloo.

10.2.3 Downhole Deviation Surveys

Prior to drilling a compass was used to align the drill rig to the proposed azimuth and inclination of the hole. Once a drill hole was complete a down hole deviation survey was completed using a Reflex EZ Gyro supplied by IMDEX Ltd., ("IMDEX"). Measurements were taken every 33 ft (10 m) from surface to near bottom-hole surveying both on the way down and up the hole. The tool was operated at the drill rig by either an Apollo geologist/geotechnician or a driller, all of which had been properly trained by IMDEX personnel. Measurements were taken from inside the drill rods before the rods were pulled from the open hole. The data was recorded with a tablet, QA/QC'd by IMDEX software and an Apollo geologist, and later uploaded into the company database. A total of 81 holes were down hole surveyed from the 2022 program. A small number of holes were not surveyed due to hole collapse, stuck rods, or malfunction of the survey equipment.

10.2.4 Down Hole Logging

Detailed logging was completed for all 88 drill holes, collecting information on lithology, alteration, and mineralization (where observed). See Figure 10-3 showing logging activities. Each hole was logged by a geologist at Apollo's secure warehouse in Barstow, CA, using a Leica EZ4 W stereomicroscope. All observations were recorded digitally, directly into the Seequent Mx Deposit (Mx Deposit) software which hosts all drill data. Logging intersections were recorded in meters in Mx Deposit and were also converted into and recorded in feet in the database.

Prior to logging, chips were washed of drilling dust and mud and a high-level overview log was completed, which recorded basic lithology groups. Subsequent detailed logs recorded lithology, grain size, alteration, oxidation, and mineralization. Logs were reviewed by a senior geologist for accuracy and completion, before being confirmed as complete by the Apollo's Database Manager.

10.2.5 Bulk Density

A total of 138 samples from historical drill core were measured by Apollo's staff. Of these, 32 samples were sent to for re-analysis by ALS Vancouver as a quality control check on in-field measurements. Analysis methods are described in section 11.3.2. For historical core samples, Barstow Formation rocks averaged 2.52 g/cm^3 and Pickhandle Formation rocks averaged 2.35 g/cm^3. Laboratory check samples returned lower bulk density values than those measured in-field. For the historical core, the laboratory results were 3.35% lower for the water immersion method and 2.90% lower for the wax-coat water immersion method. These differences were deemed to be non-significant, and it was determined the in-field measurements on drill core could be relied upon.

Chip Tray Photo Station

Logging Station

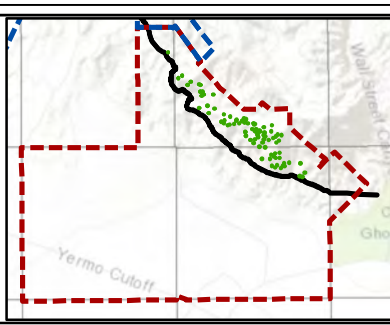
Apollo Geologist Chip Tray Logging and Photography

IMDEX Reflex EZ gyro demonstration
for drill crew and Apollo geologists and geotechs.

Apollo Geologist Performing XRF

Legend

- Waterloo 2022 Drilling
- Calico Fault
- Langtry Property
- Waterloo Property



N

0 600 1,200 Meters

0 0.625 1.25 Miles

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Chip, Sample, and Down Hole Logging Operations

Figure 10-3

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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10.2.6 Chip Photos

For every RC chip sample collected high-resolution photos are taken for both wet and dry chips. Photos were taken using a Leica EZ4 W stereomicroscope, with a build in camera, on the lowest magnification setting and a Canon EOS 90D Digital Camera. Photo sets also included a photo of the entire chip trays, both wet and dry. See Figure-10-3 and Figure 10-4 showing logging activities and chip photos respectively.

10.2.7 Apollo Drill Hole Assay Results

10.2.7.1 Silver Assay Results

Appendix C shows all silver assay results from the 2022 Drill Program. Silver assays are reported at a 50 g/t silver cutoff grade with up to 14.8 ft (4.5 m) dilution and are uncapped. Lengths reported are down hole lengths and may not represent true widths unless otherwise stated. A representative model cross section showing silver grade highlights from drill hole records is presented in Figure 10-5.

10.2.7.2 Gold Assay Results

Appendix D shows all gold assay results from the 2022 Drill Program. Gold assays are reported at a 0.1 g/t gold COG with significant higher-grade intercepts reported at a 1.00 g/t COG with a maximum of 4.5 m dilution and are uncapped. Lengths reported are down hole lengths and may not represent true widths. A representative model cross section showing gold grade highlights from drill hole records is presented in Figure 10-6.

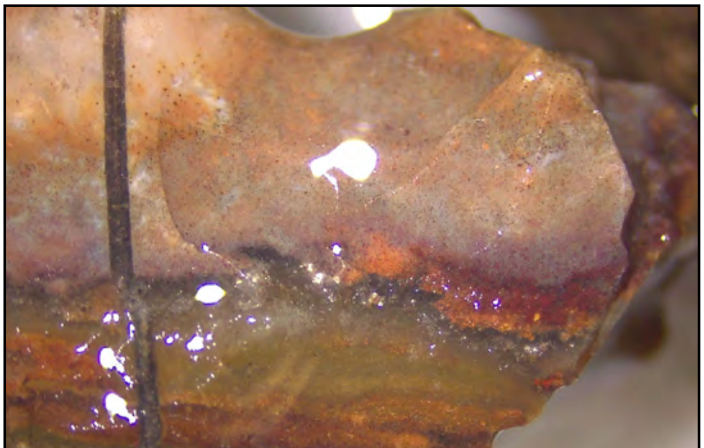
10.2.8 QP Opinion

The Author and QP is of the opinion that Apollo’s drilling activities was to a high standard and is in accordance with standard industry practices.

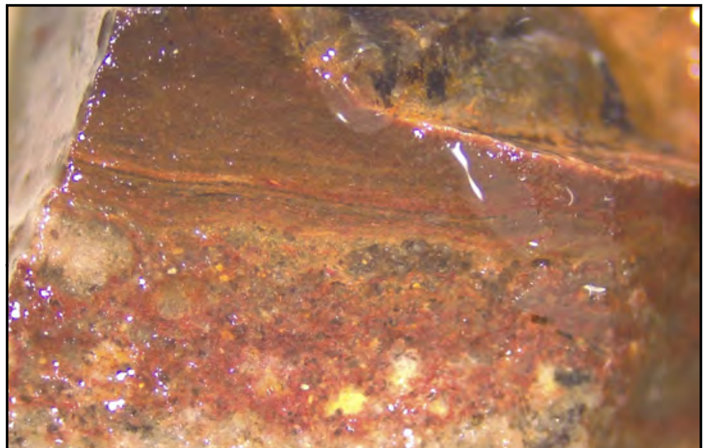
According to the available information to the Author and QP, as of the effective date of the MRE, there are known drilling, sampling or recovery factors that could materially impact the accuracy and reliability of these results.

RC Drill Hole Chip Tray, Photo Captured Dry

RC Drill Hole Chip Tray, Photo Captured Wet



Chert Horizon, High Grade Hill
Drill Hole W22-RC-005 at 10.0 - 11.5 m



Siltstone, High Grade Hill
Drill hole W22-RC-008 at 43.0 - 44.5 m

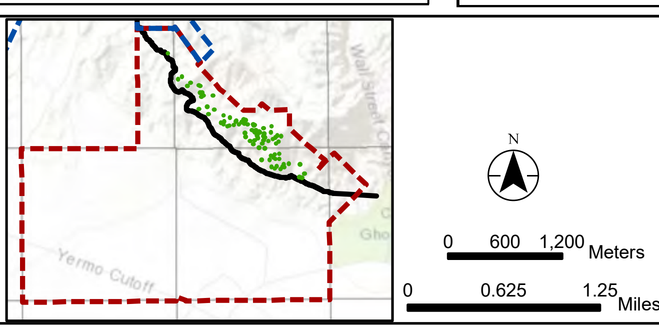
Sandstone, Burcham Area
Drill hole W22-RC-081 at 14.5 - 16 m

Hydrothermal Breccia, Burcham Area
Drill hole W22-RC-084 at 23.5 - 25 m

Legend

- Waterloo 2022 Drilling
- Calico Fault
- Langtry Property
- Waterloo Property

m = meters



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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Drilling Chip Photographs

Figure 10-4

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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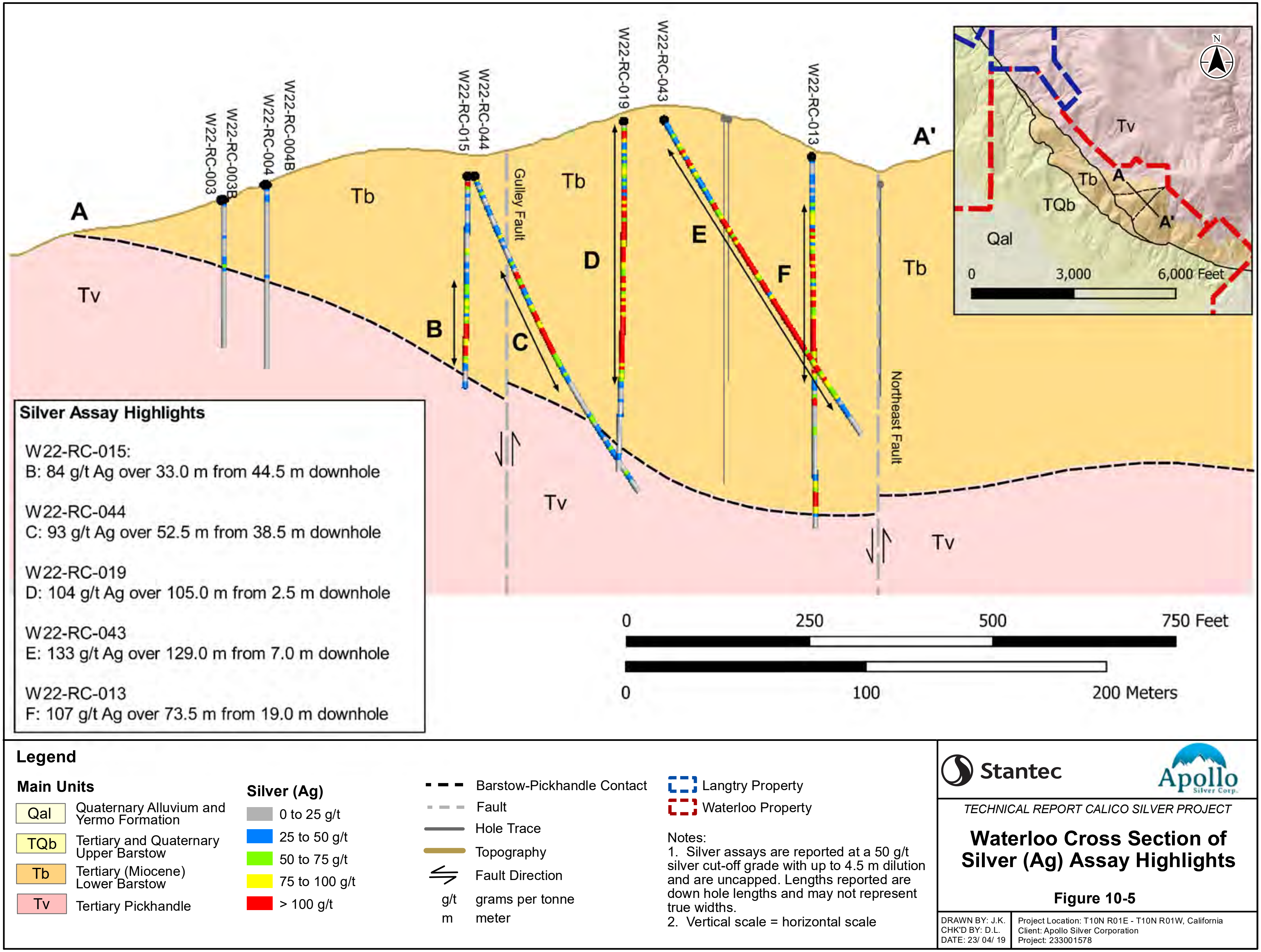
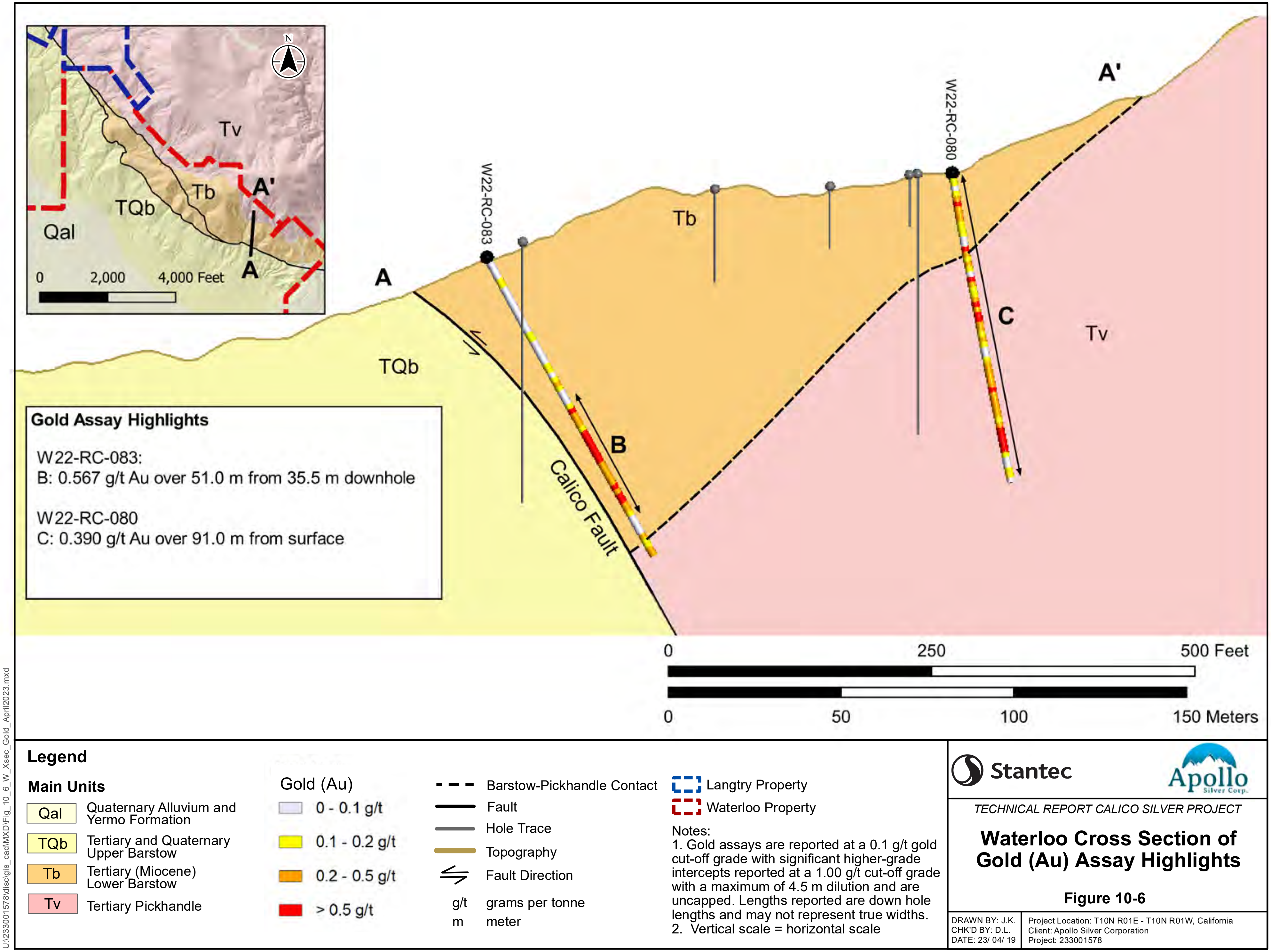


Waterloo Cross Section of Silver (Ag) Assay Highlights

Figure 10-5



TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Cross Section of Gold (Au) Assay Highlights

Figure 10-6

11.0 SAMPLE PREPARATION, ANALYSES & SECURITY

11.1 Introduction

Apollo maintains detailed procedures for the collection, storage and security of surface and drilling samples, along with a comprehensive QA/QC program. All samples are collected and prepared by properly trained staff with supervision by experienced geologists. Samples are securely stored prior to shipping in an alarmed and secure warehouse and logging facility in Barstow, California. Sample collection and security has been undertaken in accordance with currently acceptable methods and standards used in the mineral exploration industry. Apollo used one set of laboratories for all primary assaying of all drilling and surface samples: ALS Global Geochemistry Laboratories ("ALS") in Reno, Nevada ("ALS-Reno") (for gold analyses) and ALS in Vancouver, Canada ("ALS-Vancouver") (for all other element analyses). For umpire assaying on ALS results from select RC holes, American Assay Laboratory, of Reno, Nevada, was used. For more information on umpire assaying see Section 11.4.4.

11.2 Surface Rock Samples

Surface rock samples comprised either grab or channel samples. Most of these samples were collected for assaying, lithogeochemical and descriptive purposes. Generally, grab and channel sampling was carried out along outcrops, with exposure being excellent on the Project. All samples were collected by geologists. Grab samples generally were 2 to 4 in (5-10 cm) in diameter whereas channel samples were 30 cm to 200 cm long samples collected in a linear fashion from an outcrop. Samples consisted of in-situ outcrop and never loose float, talus or alluvium. For all samples, location was recorded and marked with paint across the length of sampling. For each sample, a unique sample ID number, location, picture, lithological description, alteration description and mineralization description were recorded. A sample tag was placed in a labelled sample bag with the collected sample and sealed with a cable tie. The amount of material collected for each surface sample was more than the minimum amount of material required for individual analyses leaving material available for additional analyses if desired. A metal tag was affixed at the sample location that included the samples unique ID number.

Samples were transported from the Waterloo and Langtry properties by truck by staff geologists to the secure warehouse in Barstow. Samples were catalogue and stored until they were ready to be shipped to ALS Reno for preparation. Samples were analysed by various methods depending on the reason the sample was collected (i.e., assay, bulk density, lithogeochemistry etc.). Details on the analysis methods is discussed in Section 11.4.

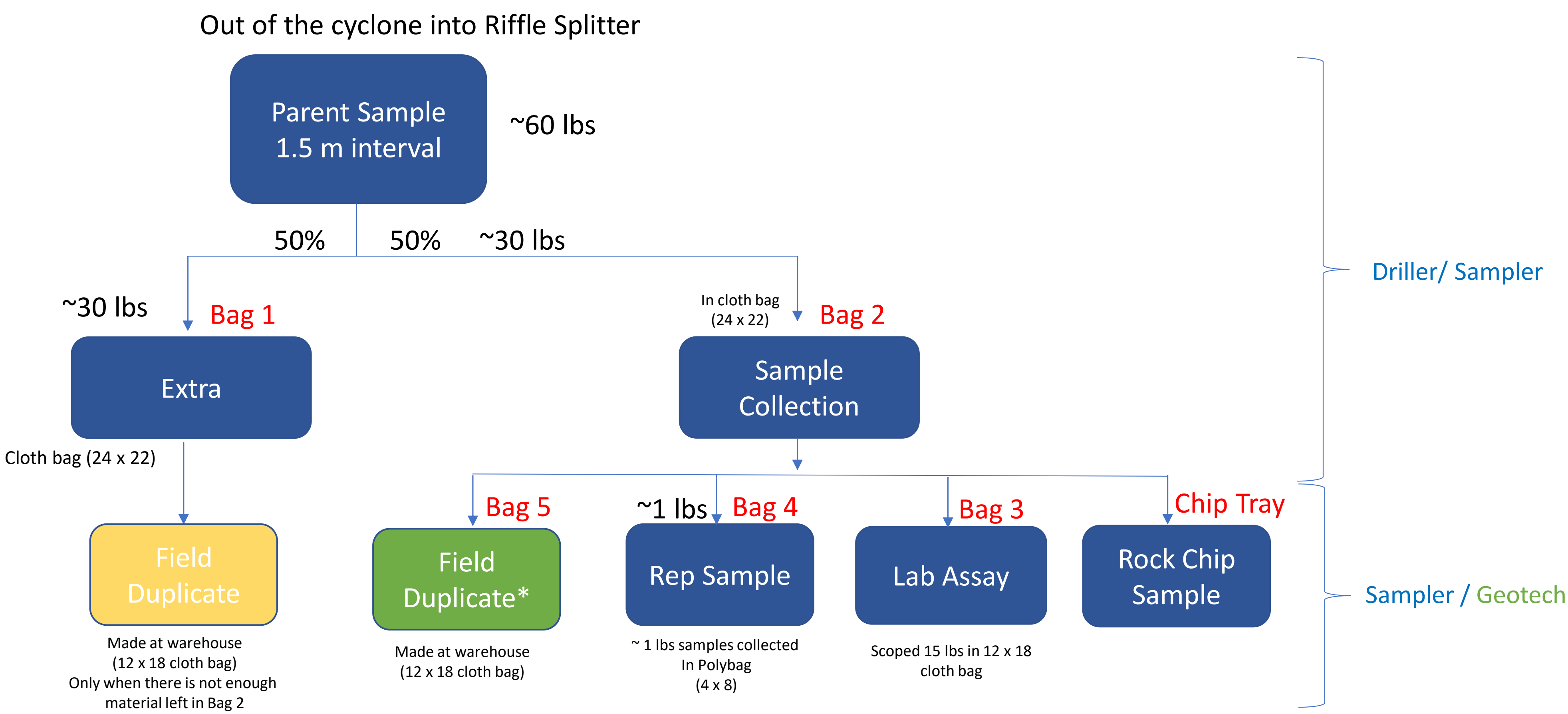
11.3 RC Chip Samples

All RC drilling chips samples were collected by properly trained samplers that worked for the drilling company. Sample collection and security has been undertaken in accordance with currently accepted methods and standards use in mineral exploration. Samples collected on the Calico Project were stored in Apollo's secured warehouse prior to shipping to the laboratory. Samples were shipped under chain of custody to ALS-Reno. Details about samples collection, storage and security will be discussed below.

11.3.1 Sample Collection

An RC drill sample was comprised of one sample per 5 ft (1.5 m) interval drilled down hole. Each sample has a unique identification number and all bags containing said sample are labelled with this number. The RC sample is collected at the drill rig directly from a 50:50 riffle splitter that was attached to the cyclone. Typically, four (4) samples were collected from each 5 ft (1.5 m) interval, five (5) samples were collected when a field duplicate sample was required for QA/QC. Figure 11-1 is a flow chart illustrating the sampling procedure.

Samples collected in the field (see Figure 11-1) were transported each day by Apollo technical staff to the secure warehouse in Barstow where it was prepared and stored until it was ready to ship to the laboratory. After each 5 ft (1.5 m) sample interval drill holes and rods were blown out (cleaned) prior to the next 5 ft (1.5 m) sample being collected. Sample duplicates ("field duplicates"), CRMs and blanks were prepared at the secure warehouse by Apollo technical staff.



Legend

lbs = Pounds

Note

Every 40 samples the field duplicate samples is inserted to the sample stream (i.e. sent to the lab). This represent a 2.5% field duplicate insertion rate.

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Chip Sampling Flow Chart

Figure 11-1

DRAWN BY: J.K.
CHK'D BY: M.K.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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11.3.2 Sample Preparation and Security

Once received at the secure warehouse, sample count and sequence were verified and matched against paper sample lists generated by the sampler. The sample numbers and depths were entered into the logging software (Mx Deposit), as was the weight of the assay bags. Certified reference material (CRM), coarse blank material, and field duplicates were inserted into the sample stream and into a pre-labelled bag, by an Apollo geologist. Assay samples, CRM, blanks and field duplicates were broken into lab batches for shipping to the laboratory, placed in large tote bags, and security sealed and recorded. Batches were picked up by Old Dominion Trucking Ltd., and transported to ALS laboratory in Reno, Nevada. Chain of custody ("CoC") documents, were created by an Apollo geologist, signed and sent with the sample shipments. Extra and duplicate material was stored at the secure warehouse facility. See Figure 11-2 showing sample photos of sample preparation, storage and shipment.

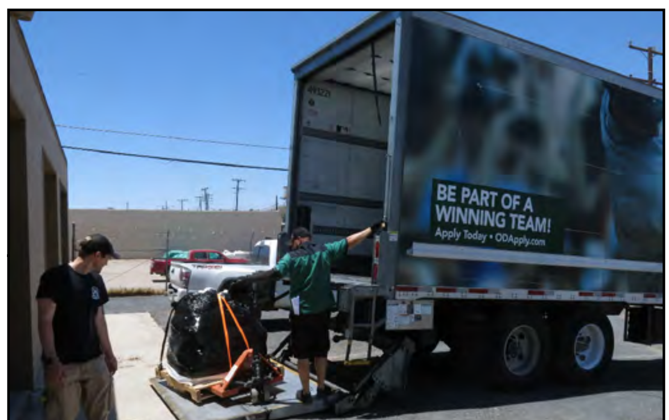
Excess RC chip sample storage in secure compound at Apollo storage facility in Barstow, California.

Final sample storage upon completion of 2022 RC drilling program.

Sample preperation with standards (CRMs) and duplicates inserted.

Sample Security Seals

Samples lined up at the drill site ready for transport to Apollo storage facility in Barstow, California.

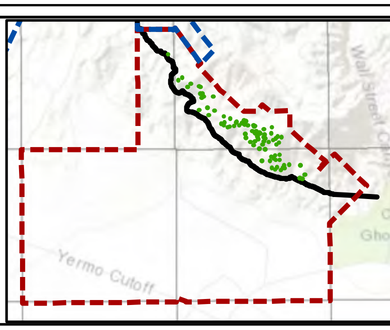


Secure assay samples with chain of custody (COC) being shipped to ALS Laboratory in Reno, Nevada.

Legend

- Waterloo 2022 Drilling
- Calico Fault
- Langtry Property
- Waterloo Property

Note
CRM Certified Reference Material
RC Reverse Circulation



N

0 600 1,200 Meters

0 0.625 1.25 Miles

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TECHNICAL REPORT CALICO SILVER PROJECT

Sample Preperation, Storage, and Shipment Photographs

Figure 11-2

DRAWN BY: J.K.
CHK'D BY: D.L
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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All RC samples from the drill program were sent to ALS-Reno. ALS is is an ISO 9001 and ISO/IEC17025 certified commercial laboratory with over 25 years of experience analysing geological material and is independent of the issuer and vendor. Samples are shipped directly from the secure warehouse to ALS-Reno, Nevada for sample preparation and analysis of gold via fire-assay methods. Prepared pulps are then securely shipped by ALS-Reno to their Vancouver, BC laboratory ("ALS-Vancouver") for all remaining multi-element analyses. ALS provided in house quality control with suitable blanks and laboratory duplicates. All results were transmitted electronically from ALS laboratories to Apollo geologists and management. Soon after reception of the results the samples were QA/QC'd by Apollo's Director of Mineral Resources and the Database manager. QA/QC results are discussed in Section 12 of this Technical Report.

11.3.3 Assaying and Multi-Element Analysis

Once received in Reno, ALS would decide to undertake sample preparation there or choose to selectively ship samples to other ALS laboratories for preparation. Apollo samples were processed at various ALS laboratories (Reno (Nevada), Carson City (Nevada), Chihuahua (Mexico) or Queretaro (Mexico) and Guadalajara (Mexico)). Once received, samples were logged, weighed, and a work order was created which was then verified by Apollo. Samples were dried if they were excessively wet. Samples were then prepared (Prep-31 package) with each sample crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, U.S. Std. No.10) screen. A split of up to 250 g was taken and pulverized to better than 85% passing a 75-micron (Tyler 200 mesh, U.S. Std. No. 200) screen. After preparation, splits of pulps are analyzed for gold via fire-assay and ALS-Reno and securely shipped to ALS-Vancouver for multi-element analysis. See Table 11.1 for a summary of sample preparation procedures for both RC drilling and surface rock samples.

Table 11.1
Sample Preparation

ALS Code	Description	Surface Samples	RC Samples
WEI-21	Received Sample Weight	✓	✓
LOG-22	Sample login - Received without bar code attached to the bag	✓	✓
CRU-31	Fine crushing of rock chips to 70% passing 2 mm	✓	✓
SPL-21	Split sample using a riffle splitter	✓	✓
PUL-31	Pulverize split to 85% passing < 75 micron	✓	✓
DRY-21	Drying of excessively wet samples in drying ovens		✓
HOM-01	Homogenize stored or composited samples by light pulverizing		✓

All RC and surface grab samples sent for analysis were analyzed for 48 elements via ICP-MS following a four-acid digestion with reportable ranges for silver of 0.01 to 100 ppm (method ME-

MS61). Over-range samples analyzed for silver were re-submitted for analysis using a four-acid digestion and ICP-AES finish with a silver range of 1-1,500 ppm (method Ag-OG62). When results were over 400 ppm silver, they were re-submitted for analysis by fire assay with a gravimetric finish using a 30 g nominal sample weight with reportable silver range of 5-10,000 ppm (method Ag-GRA21). Over-range samples analyzed for copper, lead and zinc were re-submitted for analysis using a four-acid digestion and ICP-AES finish with range of 0.001-50% for copper, 0.001-20% for lead, and 0.001-30% for zinc. Gold was analyzed by fire assay with atomic absorption finish (method Au-AA23) with a reportable range of 0.01-10 ppm Au. For surface samples over-range gold samples were re-submitted for analysis by fire assay with atomic absorption finish (Au-AA25).

Selective RC samples were analyzed for whole rock analysis using the ME-XRF26 method. This method submits the sample for lithium borate fusion followed by X-Ray Fluorescence spectroscopy and analyzed the major elements.

Select surface samples were submitted for complete characterization lithogeochemical package (CCP-PKG05), which included the ALS method ME-ICP-06, OA-GRA05, ME-ICP06, ME-MS42, ME-MS61 and ME-MS81. In addition, selective surface samples were analyzed for major elements by XRF for barium (XRF-10) following a lithium borate fusion. Reportable range for Ba is between 0.01-50% for this method. See Table 11.2 for code descriptions.

As part of Apollo's historical data QA/QC review of historical data, select pulps from both ASARCO and Pan American drilling were submitted to ALS for re-analysis. Prior to analysis the pulps underwent gentle re-homogenization. Pulps were analyzed for multi-element (ME-MS61), with OG62 overlimit for silver, copper, lead and zinc and overlimit Ag-GRA21 for silver. They were also analyzed for gold with the ALS method Au-AA23. See Table 11.2 for code descriptions.

Table 11.2
ALS Analytical Procedures and Reportable Ranges for Analytes

ALS Code	Description	Reportable Range	Instrument	Surface Samples	RC Samples
ME-MS61	48 elements, four-acid digestion, inductively coupled plasma, mass spectrometry	Ag - 0.01-100 ppm	ICP-MS	✓	✓
Ag-OG62	over-ranges, four-acid digestion, atomic emission spectroscopy	1-1500 ppm	ICP-AES	✓	✓
Cu-OG62	over-ranges, four-acid digestion, atomic emission spectroscopy	0.001-50%	ICP-AES	✓	✓
Pb-OG62	over-ranges, four-acid digestion, atomic emission spectroscopy	0.001-20%	ICP-AES	✓	✓
Zn-OG62	over-ranges, four-acid digestion, atomic emission spectroscopy	0.001-30%	ICP-AES	✓	✓
Ag-GRA21	Ag 30 g fire assay with gravimetric finish	5-10,000 ppm	Gravimetric	✓	✓
Au-AA23	Au 30 g fire assay, atomic absorption finish	0.005-10 ppm	AAS	✓	✓
Au-AA25	Au 30 g fire assay, atomic absorption finish	0.01-100 ppm	AAS	✓	
ME-XRF26	Whole rock, lithium borate fusion, X-Ray Fluorescence	variable	XRF	✓	✓
CCP-PKG05	Complete characterization Package, ME-ICP06, AO-GRA05, ME-MS42, NE0MS61 & ME-MS81	variable	ICP-AES, ICP MS	✓	✓
Ba-XRF10	method for resistive mineral, Lithium Borate flux, X-Ray Fluorescence	0.01-50%	XRF	✓	✓

11.4 Bulk Density on Historical Core

Historical core samples were analyzed at the secure warehouse for specific gravity (with bulk density then calculated). Since these samples had been in storage in a dry environment for at least 10 years, they did not need to be oven dried prior to measurement. Samples chosen were competent 2 in to 4 in (5 cm to 10 cm) long pieces, collected at a nominal 2 ft (0.6 m) spacing, from ½ HQ core. Only samples that showed no evidence of being redrilled or being associated with hole cave in were selected for analysis. Core boxes were marked where samples had been collected for bulk density measurement.

Samples were weighed in air and weigh in water using the water bulk density method (Lipton, 2001). Water temperature was also recorded using a KitchenAid KQ904 model digital thermometer every 5 minutes and each time the water was changed. From the weight of the samples in air, the weight of the samples in water and the temperature recorded, the bulk density was calculated using the following formula:

Bulk Density = Dry weight (g) / [(dry weight (g) – wet weight(g)) / water density (g/cm^3)]

Where water density is calculated with the following formula:

If water temperature is less than 13 degrees Celsius:

((density of water at 13°C / (1 + (10 – water temperature (°C)) * thermal expansion coefficient of water at 10°C)

If water temperature is greater or equal to 13 degrees Celsius:

((density of water at >= 13°C / (1 + (15 – water temperature (°C)) * thermal expansion coefficient of water at 15°C))

Where:

Density of water at 13°C is equal to 0.99933 (g/cm^3)
Density of water > 13°C is equal to 0.9991026 (g/cm^3)
Thermal expansion at 10°C is equal to 0.000088 K^{-1} (K = Kelvin)
Thermal expansion at >= 15°C is equal to 0.000151 K^{-1} (K = Kelvin)

A script was written in the database to calculate the bulk density automatically once weights and temperatures were recorded.

Independent bulk density testing was conducted on core samples randomly selected and those showing evidence of high porosity or alteration. A total of 32 core samples were shipped to ALS-Reno where they were then securely shipped on to ALS-Vancouver for analysis. Samples were analysed by two methods: bulk density by water displacement (OA-GRA09) and water displacement after wax coating (OA-GRA09A). Both methods have ranges between 0.01 – 20 g/cm3. Samples were weighed in air, and then slowly placed into a bulk density apparatus that is filled with water. The water displaced by the samples is collected by a graduated cylinder and measured. From the weight of the sample and the volume of water displaced, the bulk density is calculated using the following formula:

Bulk Density = weight of samples (g) / volume of water displaced (cm^3)

Of the 32 samples sent to the laboratory, 13 were tested using the water immersion method only and 19 were tested using the wax-coat/water immersion method. The independent testing was undertaken to verify the accuracy of the measurements made in the warehouse. Results from testing at ALS are in close agreement with the measurements made in the warehouse.

11.5 Quality Assurance-Quality Control (QA/QC)

All work programs completed by Apollo in 2022 were carried out using a ”QA/QC” program meeting the industry best practice for an advanced exploration project. Standardized procedures were used in all aspect of data acquisition and management including but not limited to drilling, sampling, sample security, assaying and database management. The QA/QC program was designed with input from Stantec independent QPs Mr. Loveday and Ms. Kartick.

The Company maintains its own comprehensive QA/QC program to ensure best practices in sample preparation and analysis of samples. The QA/QC program includes the insertion and analysis of certified reference materials (CRMs), blanks, and field duplicates to the laboratories. QA/QC sample analysis for these samples demonstrate results that have acceptable accuracy and precision. The Company's Qualified Person is of the opinion that the sample preparation, analytical, and security procedures followed are sufficient and reliable. The Author and QP, not the Company is not aware of any drilling, sampling, recovery, or other factors that could materially affect the accuracy or reliability of the data reported herein.

11.5.1 Certified Reference Material

Apollo sourced its CRMs from CDN Resource Laboratories Ltd. ("CDN") of Langley, British Columbia, Canada and Ore Research & Exploration P/L ("OREAS") of Australia. Four CRMs and two certified blanks were used during the drill program. Table 11.3 lists all CRM's used in the 2022 drill program. Commercial CRM's were inserted in the sample stream as pulps at a frequency of 4% both phases of the drill program.

Apollo's QA/QC sample insertion rate represented a total of 15% for all phases of drilling, which is consistent with industry standard practices, and was recommended by Stantec. Once assay results were available Apollo analysed QA/QC control charts for each CRM, blank and both field and laboratory duplicates to ensure assays results were of high quality. Independent QA/QC control charts were also compiled and analysed by Stantec and are discussed in Section 12.

Table 11.3
Specification of the Certified Control Samples used by Apollo in 2022

Reference Material / Duplicates	Ag Certified Values (ppm)	Ag Standard Deviation (ppm)	Au Certified Values (ppm)	Au Standards Deviation (ppm)	Number of Samples	% Insertion
CDN-ME-1704	11.6	0.65	0.995	0.044	57	0.7
CDN-ME-2104	131.0	3.50	2.388	0.116	58	0.8
OREAS 136	151.0	5.00			94	1.2
OREAS 139	76.7	3.91			53	0.7
OREAS 932	22.4				48	0.6
OREAS 22H	<0.05	0.06			140	1.8
SILICA22	0.5	0.1			205	2.7
MARBLE 22	0.75	0.56			93	1.2
Field Duplicate					204	2.7
Laboratory Duplicate					186	2.4
TOTAL					**1,138**	**14.8**

11.5.2 Blank Material

Coarse and pulp blank material were inserted into the drill sample streams as part of QA/QC procedures. The coarse blank material consisted of marble (named MARBLE 22 in Apollo's database) sourced from a local landscape supply store. This was later replaced by OREAS coarse silica blank (named SILICA 22 in Apollo's database) because traces of Cu, Pb and Zn were found to be variable between each of the marble samples. To ensure the highest quality of QA/QC the marble was replaced with a certified silica blank. The pulp blank (OREAS 22H) material was sourced from OREAS, described by OREAS as a primary quartz blank and had a certified value of 0.5 ppm Ag. Blank materials were inserted at a rate of 5.7% (Table 11.3) the drill program.

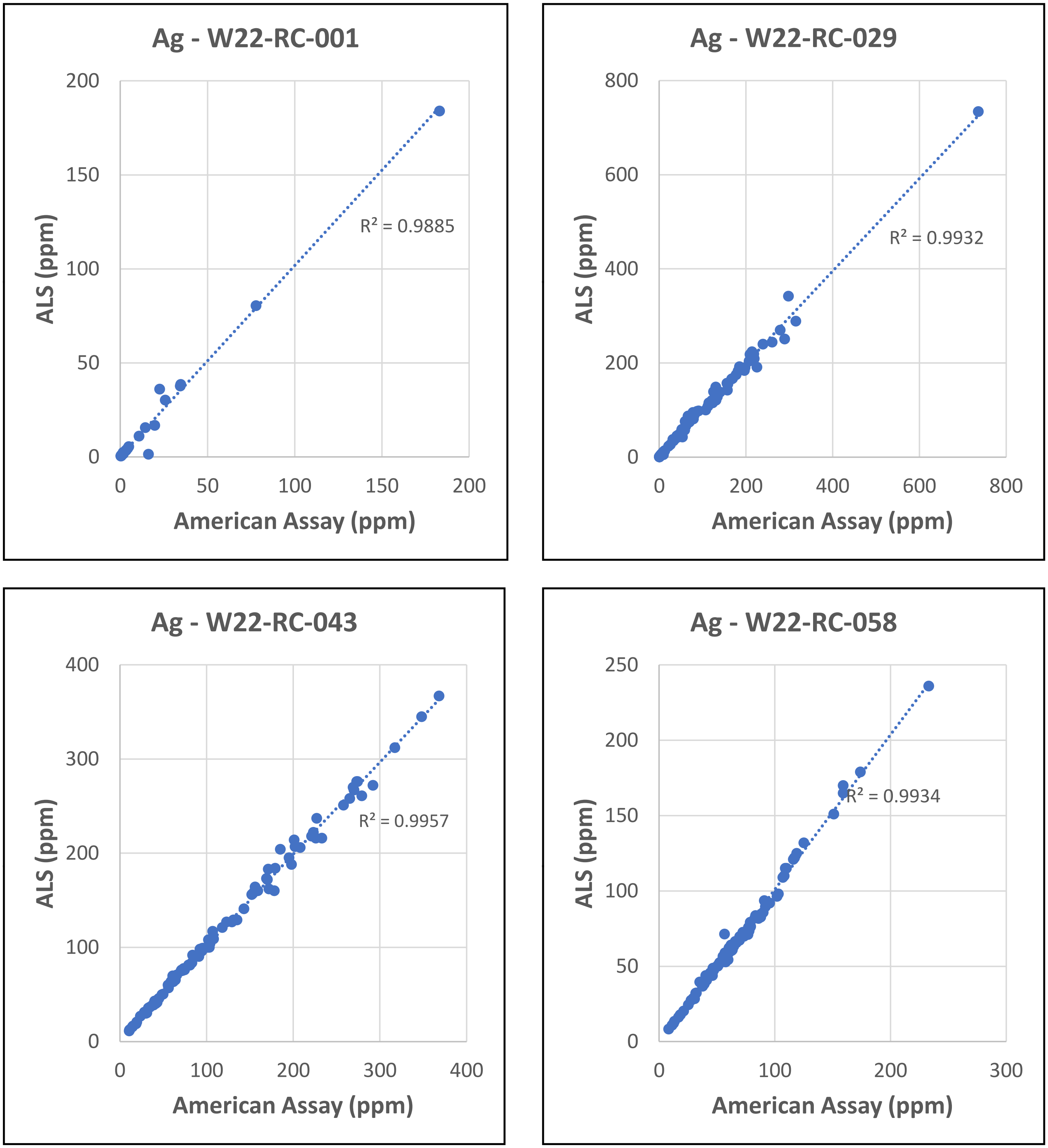
11.5.3 Duplicate Material

RC field duplicates were inserted into the drill sample streams as part of QA/QC procedures. Field duplicates were collected by taking a sample from the 50:50 split (main sample), see Figure 11-1. They were inserted at a rate of 2.7%. Apollo asked ALS to make laboratory duplicates, which consisted of splitting the pulp into another samples. Laboratory duplicates were created at a rate of 2.4% for the drill program. Umpire Laboratory

Check assays are part of Apollo's QA/QC procedures and as such a total of 198 pulp samples from the drill program were sent to American Assay Laboratories in Sparks, Nevada ("AAL"). This represents 5% of the total assays collected during the drill program. AAL is an independent, full-service, geochemical analytical testing laboratory that is ISO/IEC 17025:2017 certified and has been in operation since 1987. Pulps were selected from four drill holes (W22-RC-001, W22-RC-029, W22-043 and W22-RC-058). Most of the CRM, blanks and duplicates that were inserted in the batches sent to ALS were also analysed by AAL.

Pulps were sent from ALS directly to AAL with associated chain of custody documentation. AAL uses a five-acid digestion consisting of nitric acid (HNO_3), hydrofluoric acid (HF), perchloric acid ($HClO_4$), hydrochloric acid (HCl) and perboric acid (HBO_3) followed by with ICP-OES and MS finish (method IM-4AB52). This method analyses for 49 elements (the same elements as that analyzed by ALS in their multi-element package (method ME-MS61), with the addition of Hg). Overlimit for Ag, Cu, Zn and Pb were analyzed also with five-acid digestion ICP-OES with MS finish (method IO-4ABOR), equivalent to method OG62 at ALS. Overlimit methods were employed for results of Ag > 100 ppm and Cu, Zn and Pb were > 10,000 ppm. Additionally, for Ag > 400 ppm a fire assay method was used (method G-FFAg), comparable to Ag-GRA21 at ALS. Gold was analyzed by fire assay with an ICP-OES (method IO-FaAu30) finish, equivalent to method Au-AA23 at ALS.

The correlation between the ALS and AAL assays is excellent indicating good reproducibility and no significant deviation or bias in results between the two laboratories, see Figure 11-3.



Legend

Ag silver

ppm parts per million

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ALS vs AAL Assay Results

Figure 11-3

DRAWN BY: J.K. CHK'D BY: D.L DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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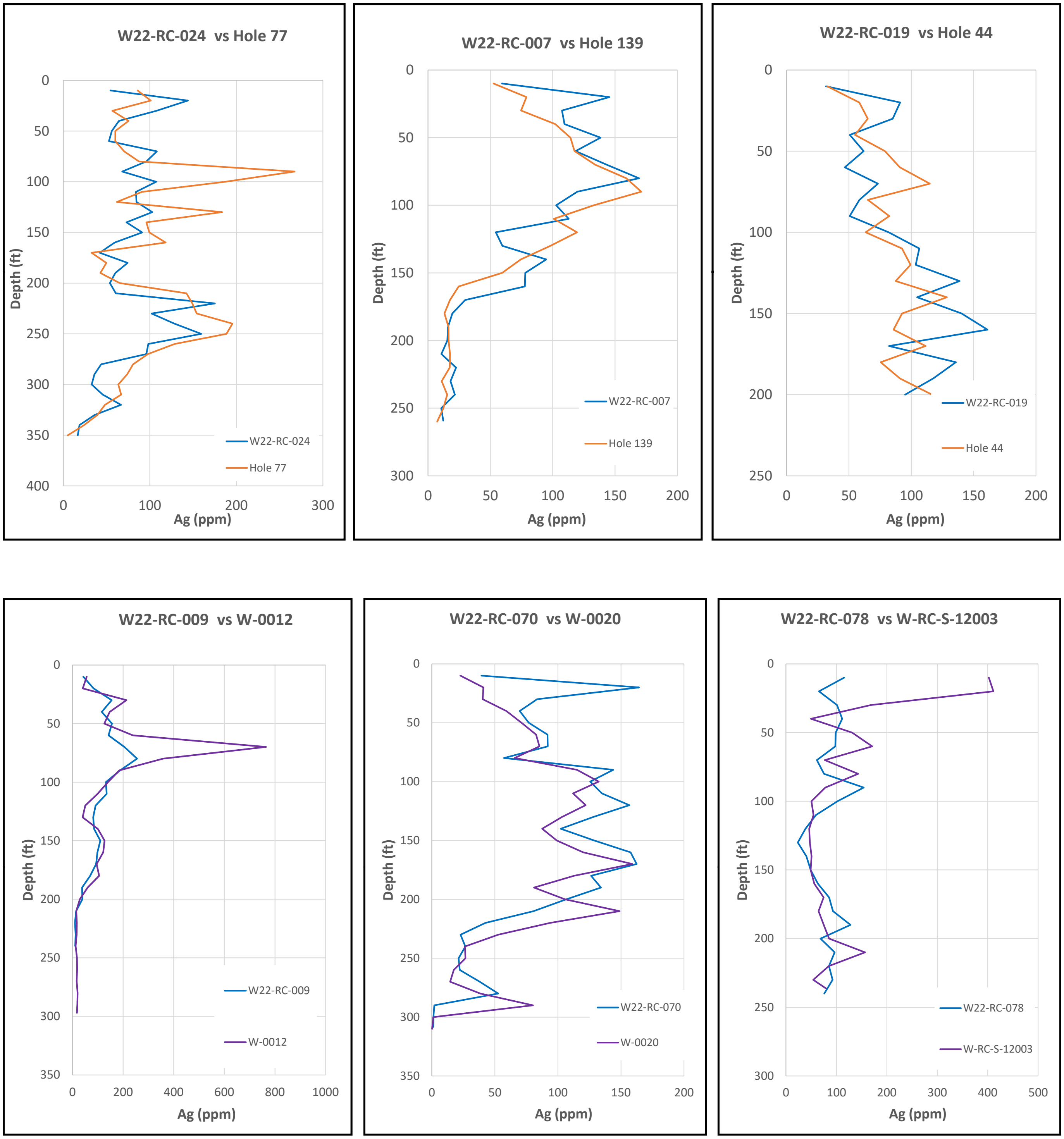
11.5.4 Twin Hole Drilling

As part of the drill program, Apollo completed six twin drill holes to further verify that historical assays could be reproduced with a high confidence. Of these six holes, three twinned ASARCO historical holes, and three twinned Pan American historical holes. Table 11.4 lists the Apollo twin holes together with the corresponding historical hole numbers.

Table 11.4
2022 Drill Program Twin RC Drill Holes

2022 Twin hole ID	Total Depth (m)	Historical hole ID	Total Depth (m)	Historical hole Drilled by
W22-RC-007	79.0	139	86.9	ASARCO
W22-RC-009	154.0	W-0012	92.0	Pan American
W22-RC-019	145.0	44	146.3	ASARCO
W22-RC-024	121.0	77	106.7	ASARCO
W22-RC-070	94.0	W-0020	128.0	Pan American
W22-RC-078	76.0	W-RC-S-12003	72.0	Pan American

Figure 11-4 illustrates that assay results from twin holes compare very favourably to those of historical holes. The data from the twin hole drilling shows that historical assays are of good quality, high confidence and can be used for resource estimation purposes.



Legend

Ag	silver
ft	feet
ppm	parts per million
vs	versus

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Apllo Twinned
Drill Hole Comparison

Figure 11-4

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CHK'D BY: D.L
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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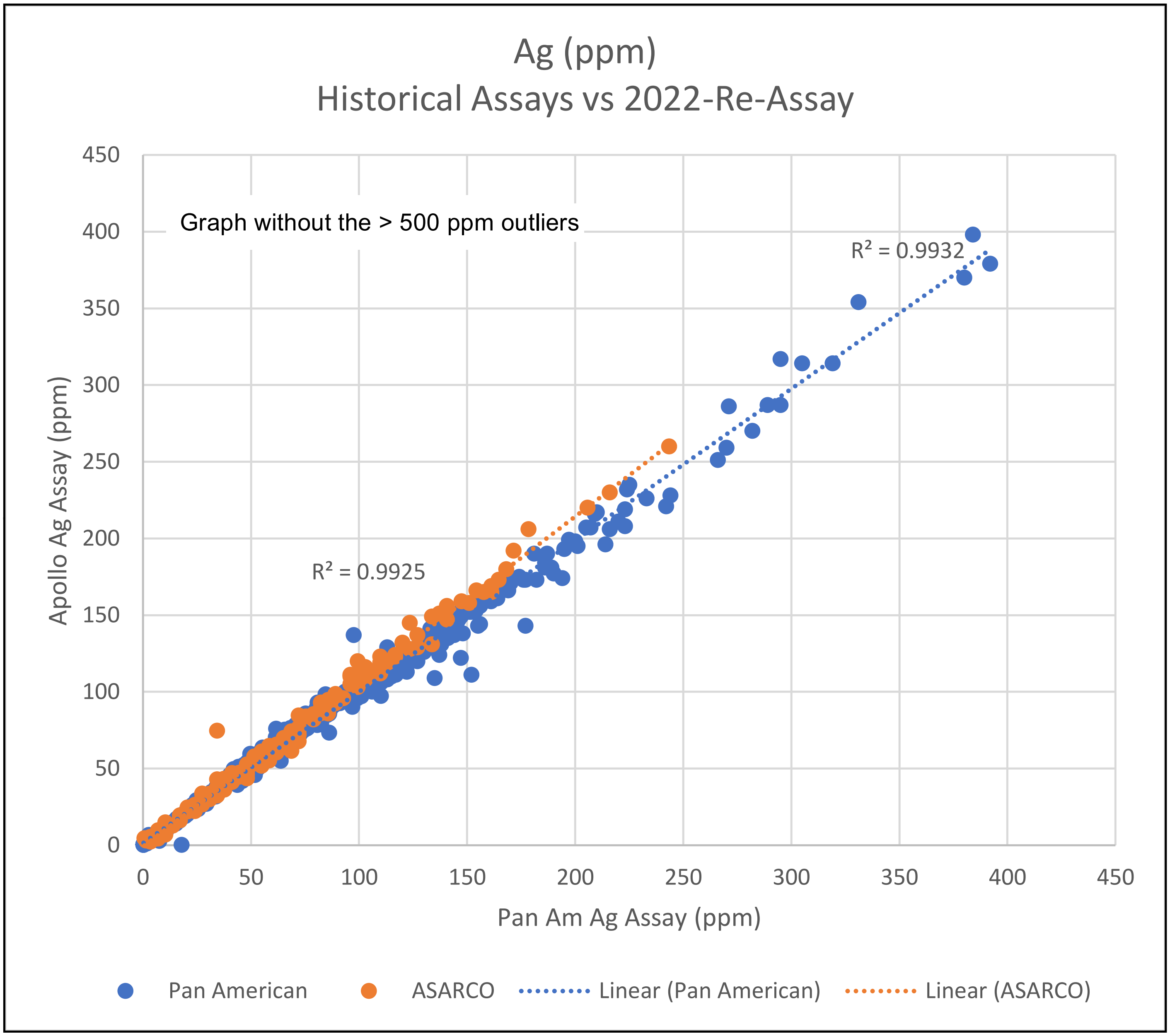
11.5.5 Historical Pulp Re-assays

Approximately 20% of available pulps from historical RC drill holes were selected for re-analysis to further confirm the accuracy and quality of historical assay results. Pulps had been stored in a dry environment and were still in excellent condition and were deemed to be useable for re-analysis. A selection was made from both ASARCO and Pan American pulps that were representative of the grade variability across the length of the Waterloo deposit. Ten (10) ASARCO and nine (9) Pan American holes were selected, totalling 1,006 samples. The pulps were securely shipped to ALS-Reno, where they were homogenized, and analysed for gold, before being securely shipped to ALS-Vancouver for multi-element analysis.

Results show that there is an excellent correlation between new and historical assays Figure 11-5. Relative difference plots between new and historical assays do not indicate bias and give further support to the confidence in the quality of the historical data and its use for mineral resource estimation purposes.



U:\233001578\disc\gis_cad\MXD\Fig_11_5_HistoricalReassay_April2023.mxd

Legend

Ag	silver
ppm	parts per million
vs	versus

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TECHNICAL REPORT CALICO SILVER PROJECT

Historical Re-Assay Comparison with Original

Figure 11-5

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CHK'D BY: D.L
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

11.5.6 Re-logging Historical RC Chips and Drill Core

As part of Apollo's QA/QC procedures, RC chips from 51 historical drill holes were visually relogged in 2022 by geologists, with lithology, mineralogy and alteration information recorded in Mx Deposit. This work was undertaken to standardize the logging of older material with that of new drilling and to verify historical geological information. Table 11.5 lists the historical holes that were relogged. The selected holes for relogging were geologically and spatially representative of the deposit, totalling 11,960 ft (3,645 m) of relogging. For the three core holes, the chips were derived from metallurgical PQ drill holes that were separated into 2 m sample intervals, crushed and securely stored at McClelland Laboratory Inc. ("McClelland") in Sparks, Nevada. Since the core did not remain whole to log, the chips were logged. At Langtry, chips from 13 RC holes completed by Athena in 2011 were re-logged. Re-logging of the Langtry chips did not identify any material change in the understanding of the silver resources at Langtry as outlined in Section 14.

Table 11-5
Historical Chip Relogging

Property	Number of holes	Type	Drilled By	Feet Relogged	Meter Relogged
Waterloo	31	RC	Pan American	9,497	2,895
	3	Core		833	254
	4	RC	ASARCO	1,630	497
Langtry	13	RC	Athena	6,025	1,836
Total	**51**			**17,985**	**5,482**

11.6 Sample Storage and Security

All historical drilling material (historical RC chips, drill core, pulps) and 2022 drilling reference material from samples (chip trays and library) has been catalogued and is stored securely in the Apollo warehouse in Barstow. Historical pulps are stored in labeled paper bags, within labeled cardboard boxes. Historical RC chips are stored in labeled chip trays, in cardboard boxes and stored on shelves in the warehouse. The historical core is stored in their original labelled cardboard boxes, that are palleted and stored inside Apollo's secure warehouse facility in Barstow, California.

All extra and field duplicate sample material is catalogued and stored in an outside the secured warehouse in an external compound. The warehouse and compound are under camera surveillance with 24-hour monitoring undertaken by Hi Desert Alarm of Victorville, California. Sample material in the compound is stored within large UV-resistant woven polypropylene bags. Each bag contains approximately 100 samples and is stored on a pallet and then covered by UV-resistant tarps. Apollo's maintains an inventory of the pallets in a database. Figures 11-2 show Apollo's storage in Barstow, CA.

Any samples (whether surface rock or RC drill samples) collected in-field are transported from site by truck to the secure warehouse under the supervision of Apollo technical staff. Samples were stored at the warehouse until they were ready to be shipped to the laboratory, which were generally made once to twice a week. All samples shipped to a laboratory had detailed chain of custody documentation associated with them. This documentation includes a sample dispatch form that is filled in by hand and then recorded into Mx Deposit. The form contains the hole numbers, sample numbers, sample weight, a batch identification number and the type of samples being sent. Before shipping the samples are inserted in wp-bags that are closed with unique security seal number to mitigate tampering. The samples are tracked in Mx Deposit during packaging. Once at the laboratory, the samples were logged at the laboratory 'as received' and a work order is created that is later to be approved by Apollo.

11.7 QP Opinion

The Author and QP is of the opinion that Apollo's sample handling, security, QA/QC control, twin hole verification, historical re-assay and re-logging was to a high standard and is in accordance with standard industry practices. Independent validation of Apollo's exploration activities and QA/QC performance is outlined in Section 12.

According to the available information to the Author and QP, as of the effective date of the MRE, there are known drilling, sampling or recovery factors that could materially impact the accuracy and reliability of these results.

12.0 DATA VERIFICATION

This section covers the verification of drilling and exploration data acquired by previous project operators prior to Apollo acquiring the Calico Project in 2021 as well as new drilling data acquired as part of Apollo's 2022 drill program activities. The review of pre-2021 data (historical data) included an audit of the historical Waterloo and Langtry drill hole assay records, site inspection of the properties in 2021 by Derek Loveday, QP, and an independent evaluation of historical assays and QA/QC records. Verification of data from Apollo's Waterloo 2022 drill program was completed by Mariea Kartick (QP), and included an audit of Apollo's drill hole database, a site inspection and review CRM performance. Only silver assays were reviewed in detail for Certified Reference Material ("CRM") performance by Stantec.

12.1 Drill Hole Database Audit

12.1.1 Historical Drill Hole Data

For the database audit of historical (pre-2021) drill hole assays, 10% of the digital database records used in the geological model described in Section 14.4. and 14.5 of this Technical Report were compared to scans of original hardcopy records or original assay certificates. Original assay records for Waterloo include assay certificates from ALS (Pan American drilling) and scans of assay certificates from Hawley and Hawley (ASARCO drilling). Apollo is in possession of the majority of original paper copies of ASARCO drilling assay data. Original assay records for Langtry include assay certificates from ALS (Athena drilling) and scanned certificates (Superior drilling). Comparison between digital and original records did not find any discrepancies.

ALS laboratories were used for assaying at both the Waterloo and Langtry properties by Pan American and Athena, respectively. At the time of sampling (2011-2013), ALS was an ISO 9001:2015 certified and ISO/IEC 17025:2005 accredited geo-analytical laboratory. Pan American samples (Waterloo) were assayed at various ALS locations: Reno, Nevada; Elko, Nevada; Winnemucca, Nevada; and Vancouver, Canada. Athena samples (Langtry) were assayed at Reno, Nevada. At both properties the sample information did not include chain of custody and data security documentation. Details on the QA/QC samples are discussed in Section 12.3.

12.1.2 2022 Drill Hole Data

As described in Section 10.1 the 2022 drill program was completed on the Waterloo Property in two phases, separated only by a two-month summer break. Data from Phase 1 and Phase 2 were evaluated separately for the QA/QC audit so that if improvements in procedures were required in any way from the Phase 1 review, they could be implemented during Phase 2. For Phase 1, 27% of silver assays and 10% of gold assays in the database were compared against original certificates as received from the laboratory. For Phase 2, 10% of silver assays and 10% of gold assays in the database were compared against the original certificates. In addition, and for both phases of drilling, 5% of the geological logs were compared to photos of RC chips and 5% of the downhole survey database was compared against original instrument readings.

For the 2022 drill program, ALS-Reno was used for gold analysis and ALS-Vancouver for analysis of all other elements. At the time of sampling, ALS was an ISO 9001:2015 certified and ISO/IEC 17025:2005 accredited geo-analytical laboratory. Details on the QA/QC samples are discussed in Section 12.3.

12.2 Site Inspections

Derek Loveday (QP) conducted a site inspection of the Waterloo and Langtry properties from December 13 to 14, 2021. While on-site, a general geological inspection of the Calico properties was conducted. This included a review of the storage facility containing historical maps, drill core and RC chips (and a brief review of each of these). It also included a review on the properties of the formations, lithologies, rock types, historical mine workings and historical drill collar locations (Figure 12-1). On the properties, Mr. Loveday was in some cases accompanied by Dr. Warren Pratt, whom at the time was in the process of completing geologic mapping on the Project. This site inspection confirmed that historical drill hole collars uploaded to ArcGIS Field Maps software by Stantec corresponded with field drill hole collar locations as provided by Apollo, and their label tag in the field. Additionally, it verified the geology as described in historical and new work, and the existence and quality of historical drilling materials.

Mariea Kartick (QP) conducted a site inspection of the Waterloo Property and Barstow warehouse facility between May 16 and May 19, 2022, and completed a field-level QA/QC of drilling activities. During the visit to the Waterloo Property, 14 new exploration holes collar were inspected in the field, logging methods were reviewed as well as sample handling and chain of custody. See Figure 12-2 for site inspection photos. Active drilling on site was not observed at the time because the drill rig was under repair, however the drill rig and sampling equipment were observed. A recorded video of the drilling, sample collection and splitting of samples using a riffle splitter was provided to the QP after the site inspection was completed.

Waterloo Collar W-0050

Waterloo Property looking northwest:
Pickhandle right, Barstow left with dirt roads,
foreground Lower Barstow cherty sandstone.

Waterloo Chip Trays - Drill Hole 183

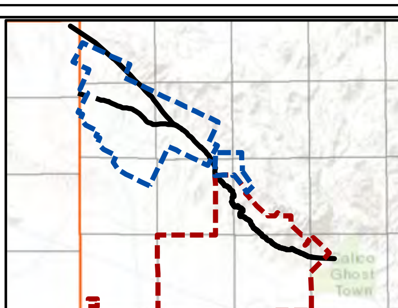
Langtry Collar CAL-104 looking northwest on Lower Barstow

Calico Fault at Langtry

Langtry Barite Trench

Legend

- Calico Fault
- Fault Inferred
- Langtry Property
- Waterloo Property



N

0 1,500 3,000 Meters

0 1.25 2.5 Miles

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Calico Project
2021 Site Visit Photographs

Figure 12-1

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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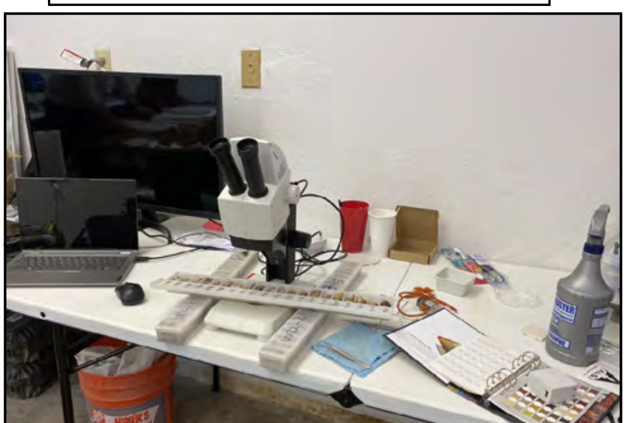
Sample Preparation

Sample Organization

Located Plugged Drill Hole

Drill Hole Location* Verification with GPS



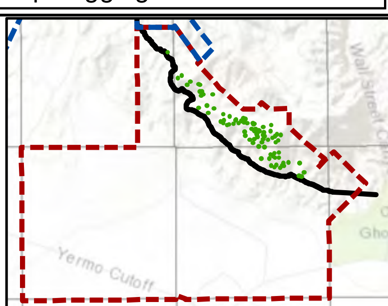
Chip Logging

Chip Tray Storage and Organization

Legend

- Waterloo 2022 Drilling
- Calico Fault
- Langtry Property
- Waterloo Property

Note
* Apollo has placed an engraved metal label on all plugged drill holes.



N

0 750 1,500 Meters

0 0.625 1.25 Miles

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Waterloo 2022 Exploration Site Visit Photographs

Figure 12-2

DRAWN BY: J.K. CHK'D BY: M.K DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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Ms. Kartick's hand-held GPS readings for 14 Apollo drill hole collars were found to correspond with drill hole collar locations as shown in the drill database.

The 2022 site inspection also included a visit to the secure warehouse in Barstow. The warehouse is a secure building with security cameras, and which is locked at all times. The warehouse stores all the new and historical drill core, RC chips and pulps for the Project. During this visit the QP observed the sample handling, organization, logging and pXRF methods and the chain of custody for the drill program. The QP determined that the procedures associated with these activities were well managed and operating effectively. Geologists were proficient at identifying the lithology of the rock chip samples and were well-trained on using the handheld pXRF for analyses.

The QP determined that samples are stored in a well-organized manner. A focus on the inspection was the Waterloo materials (core boxes, samples, RC chips trays) and the QP determined that all were well labeled and organized by footage/meters. The QP was able to photograph and review several available core and RC chips. RC chips from select holes from the Waterloo Phase 1 drill program were reviewed for accurate lithologic reporting and completeness. These observations were compared to the geologists' descriptions and later, to silver results from assay certificates. The site visit and later review indicated no material discrepancies or concerns associated with the drill program.

12.3 Assay QA/QC

12.3.1 Assay QA/QC of Historical Drilling

In 2021, Stantec reviewed silver assay QA/QC records for historical drilling. Stantec conducted independent QA/QC checks comparing duplicate samples with originals and CRM assay results. The historical QA/QC data has also been reviewed by others (Moran et al, 2012; Samari and Breckenridge, 2021a, 2012b) and they, as well as the 2021 review, found the data to be acceptable.

Waterloo Property

Review of QA/QC data for the Waterloo Property was completed for Pan American analyses (3,480 parent samples) at a rate of 11.5% comprising 3.3% field duplicates, 3.7% field blanks and 4.5% CRMs. The field duplicates scatter plot shown in Figure 12-3 show good correlation with an R-squared of 0.93 A few outliers are present, but overall duplicates comparisons are reasonable. The CRM (BL 116) was purchased from WCM Minerals of Burnaby, BC, with silver < 0.3 ppm. Certified blank assay results are shown on Figure 12-4. All samples were below 2 ppm silver with only 16% indicating anything other than 0.25 ppm or less than 0.5 ppm silver. The blank analyses indicate negligible contamination in the sample stream. Pan American used coarse blank material prepared from two types of landscaping rock purchased from Home Depot in Barstow: a scoria lava and a marble.

The silver CRMs included: PANAM1 (50.5 ppm Ag) and CDN-ME-19 (103 ppm Ag) both prepared by CDN; and PM1131 (112 ppm) that was prepared by WCM Minerals. Assay results for CRMs are shown in Figure 12-5. Most results were considered acceptable as they plotted within 2 standard deviations from the certified silver value.

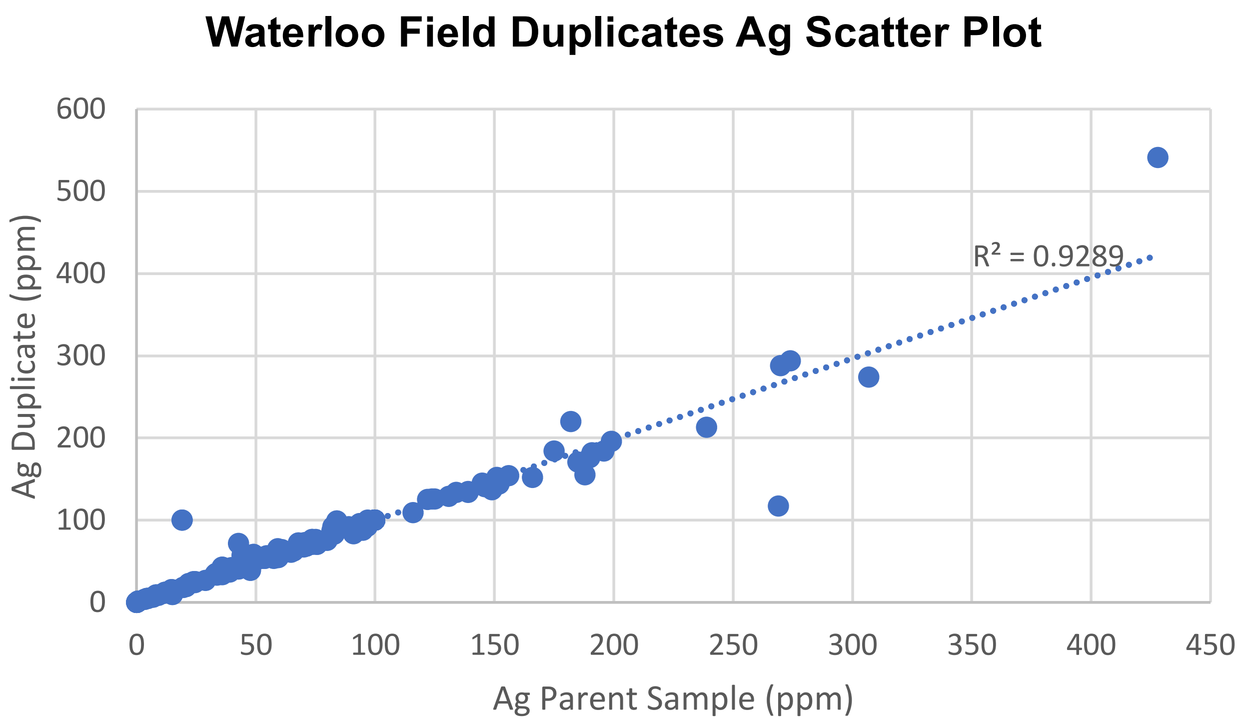
Langtry Property

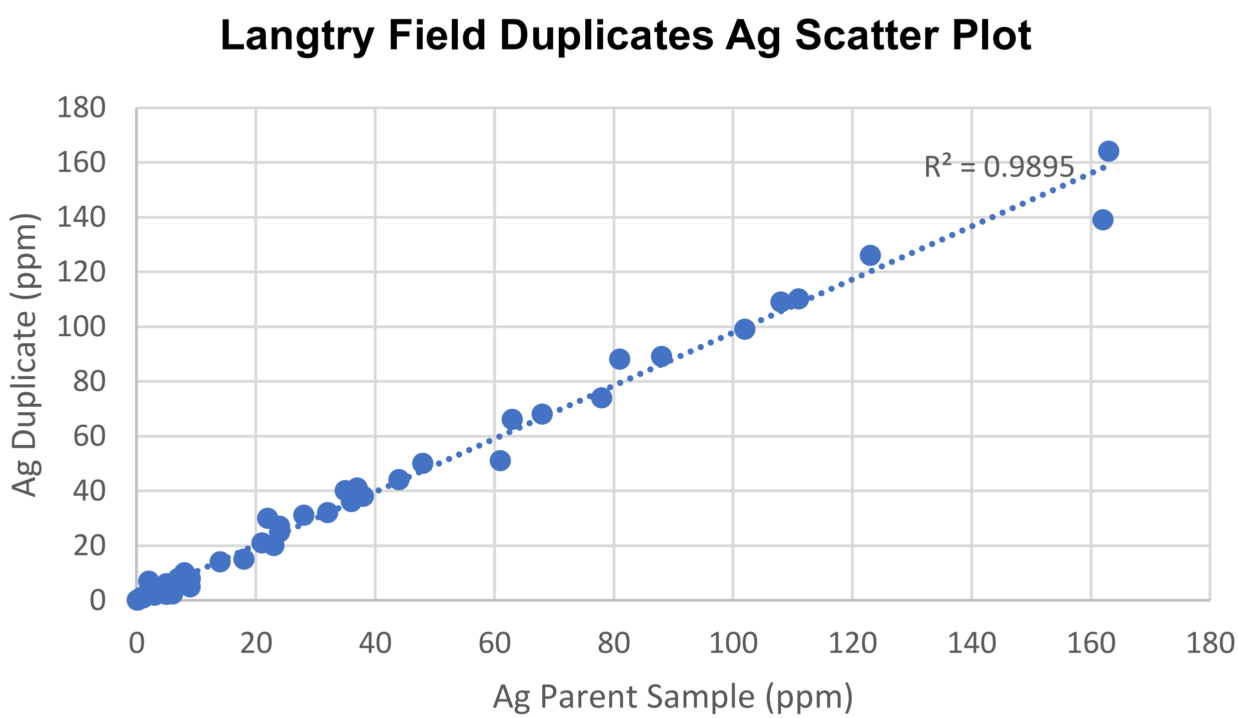
Review of QA/QC data was completed for Athena analyses (1,194 total samples) at a rate of 9.3% comprising 4.0% field and laboratory duplicates, 2.8% blanks, and 2.5% CRMs (certified reference material or CRM). The Langtry duplicates scatter plot shown in Figure 12-3 show good correlation with an R2 of 0.99. Outliers were minor. No QA/QC data from Superior drilling was available for review.

Coarse blank reference material was prepared from two types of landscaping rock purchased from Home Depot in Barstow: a reddish-brown scoria and a clean white recrystallized marble. Langtry coarse blank assay results are shown on Figure 12-4. All samples were below 1 ppm for silver as shown in Figure 12-4. Analysis of coarse blank assay data indicates negligible contamination in the sample stream.

Silver CRMs were prepared for Athena by Analytical Solutions, Ltd., of Toronto, Ontario. Three silver CRMs were used: (a) 65a, a low-grade (7.8 ppm) CRM; 67a, a mid-range grade (33.6 ppm Ag) CRM; and 68a, another mid-range grade (42.9 ppm Ag) CRM. All three are listed by OREAS (see www.oreas.com) with certificates based on a four-acid ICP-MS analytical method (equivalent to ALS method code ME-ICP41). These CRMs are no longer available for purchase.

For the analysis of silver CRMs, assay results of these from two analytical methods were compared: that from four-acid ICP-MS (ME-ICP41) and fire assay with a gravimetric finish (ME-GRA21). Results are shown in Figure 12.6. For the low-grade (7.78 ppm Ag) CRM, results for four-acid ICP do not compare well with that for the fire assay in that results do not demonstrate good repeatability. Fire assay testing methods are typically not performed for low silver grades such as this and repeatability is not expected to be very good when compared to four-acid ICP results. For mid-range CRM 67a (33.6 ppm Ag), repeatability for the 67a Ag CRM (33.6 ppm) is good for both analytical methods all plot within two deviations of the published CRM (www.oreas.com).Repeatability demonstrated for the 68a Ag CRM (42.9 ppm) is reasonable, however there is one significant outlier for a single ME-ICP41 test result at 4.4 ppm and another minor outlier for ME-GRA21 test result at 44 ppm. The Author is of the opinion that the 4.4 ppm outlier could have been incorrectly recorded on the ALS assay certificate (RE11016545) and may possibly be 44 ppm.





Legend

- Sample Compared to Duplicate
- Trend Line

Ag silver

ppm parts per million

Note
Reference: Loveday, 2022

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Apollo Silver Corp.

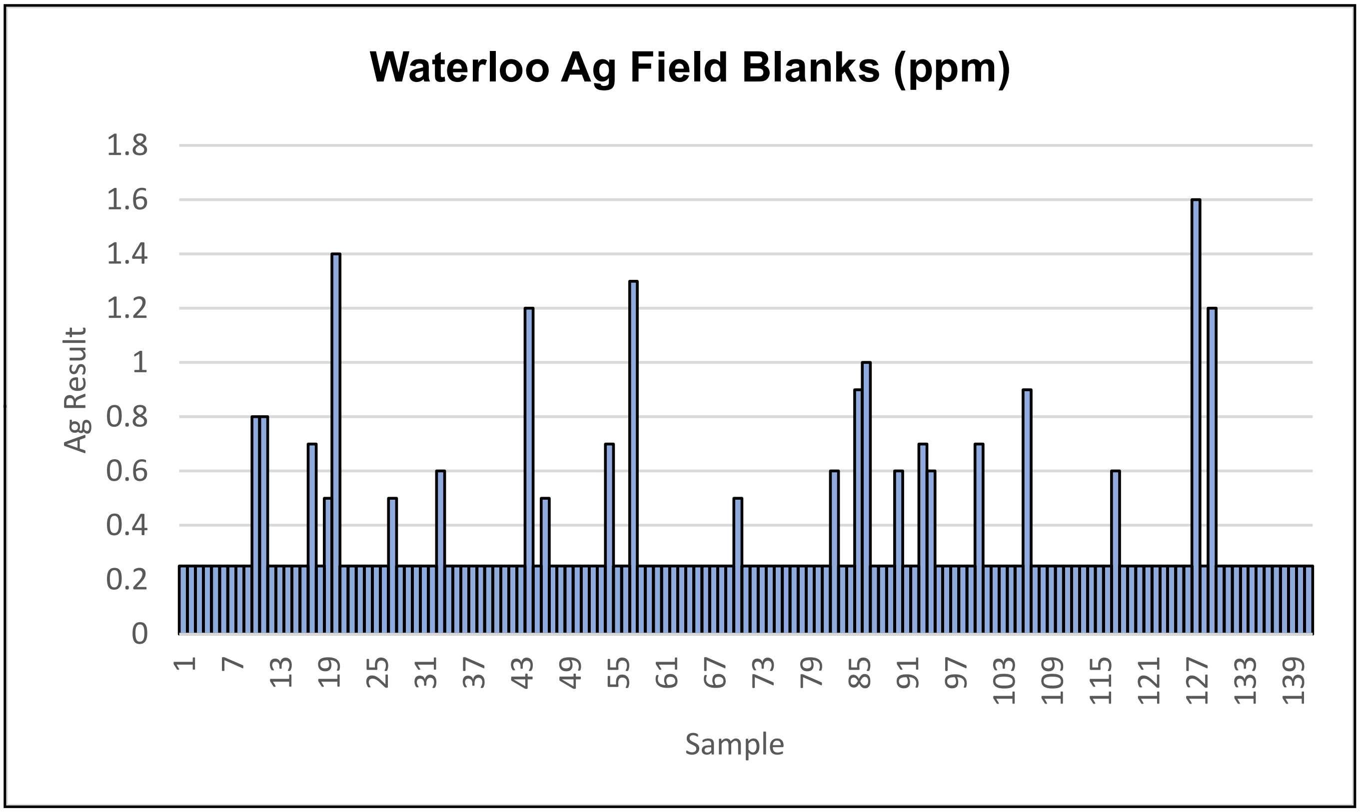
TECHNICAL REPORT CALICO SILVER PROJECT

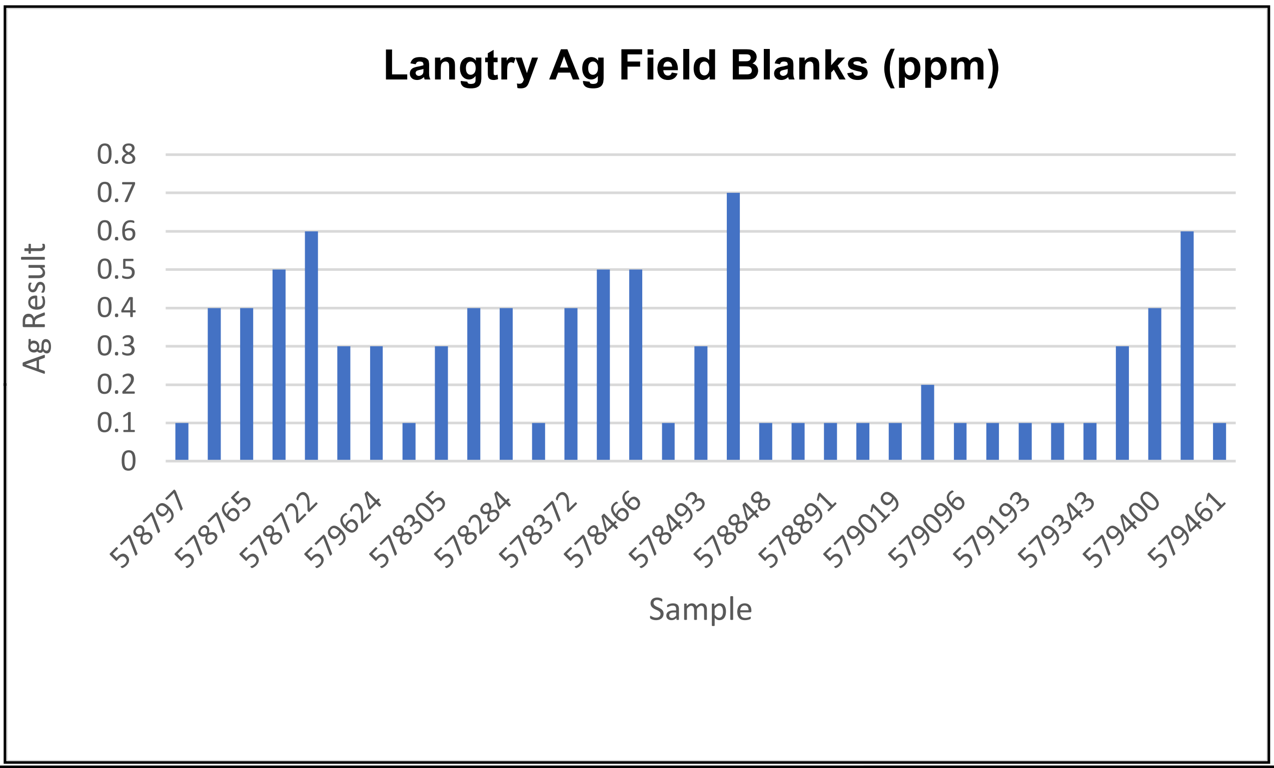
Calico Project Historical Field Duplicates

Figure 12-3

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_12_3_HistoricCalicoDuplicates_April_2023_P.mxd





Legend

Ag silver

ppm parts per million

Note
Reference: Loveday, 2022

Stantec

Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

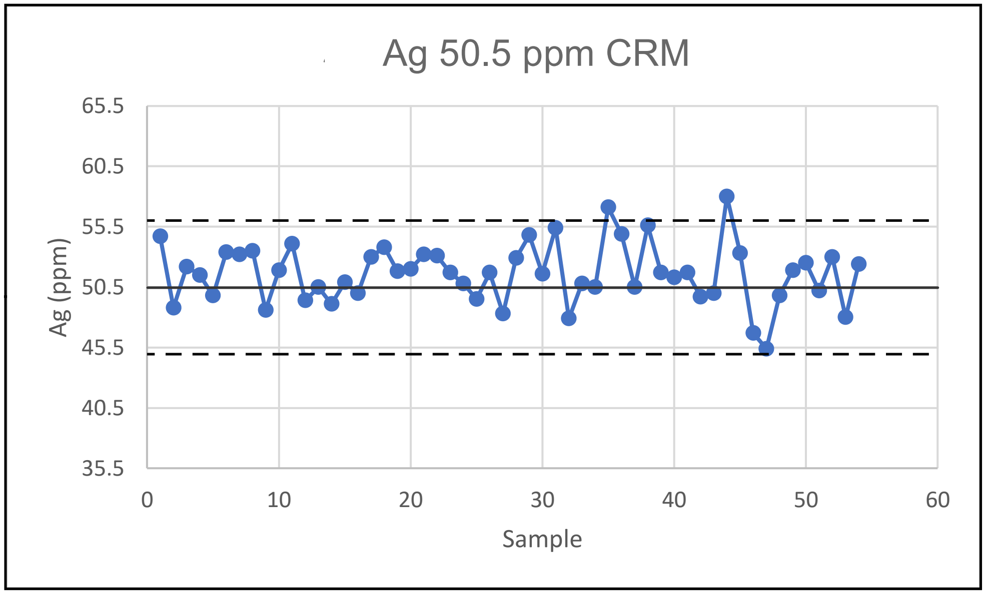
Calico Project Historical Field Blanks

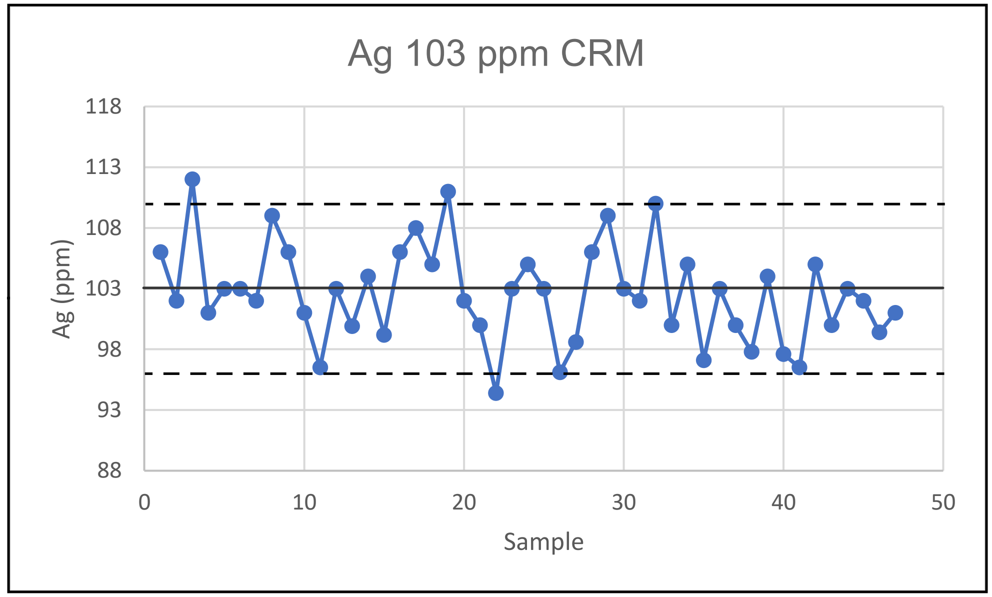
Figure 12-4

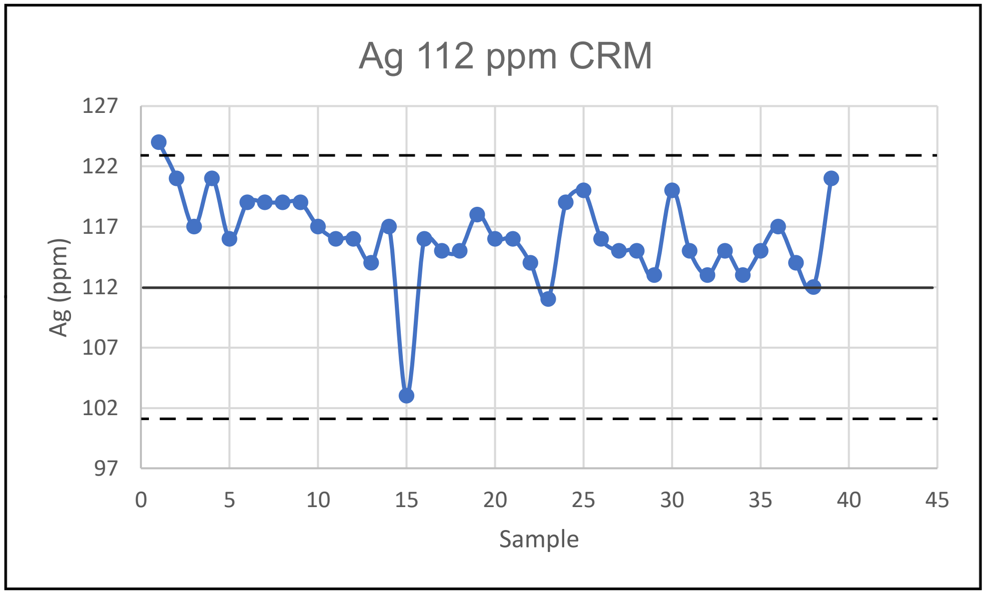
DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_12_4_HistoricCalicoBlanks_April2023_P.mxd







Legend

- Sample Value
- Sample Line
- CRM Value
- +/- 2 Standard Devations of Standard

Ag 50.5 identification number PANAM1
Ag 103 identification number CDN-ME-19
Ag 112 identification number PM1131

Ag silver
CRM certified reference material
ppm parts per million

Note
Reference: Loveday, 2022

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Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Historical CRMs

Figure 12-5

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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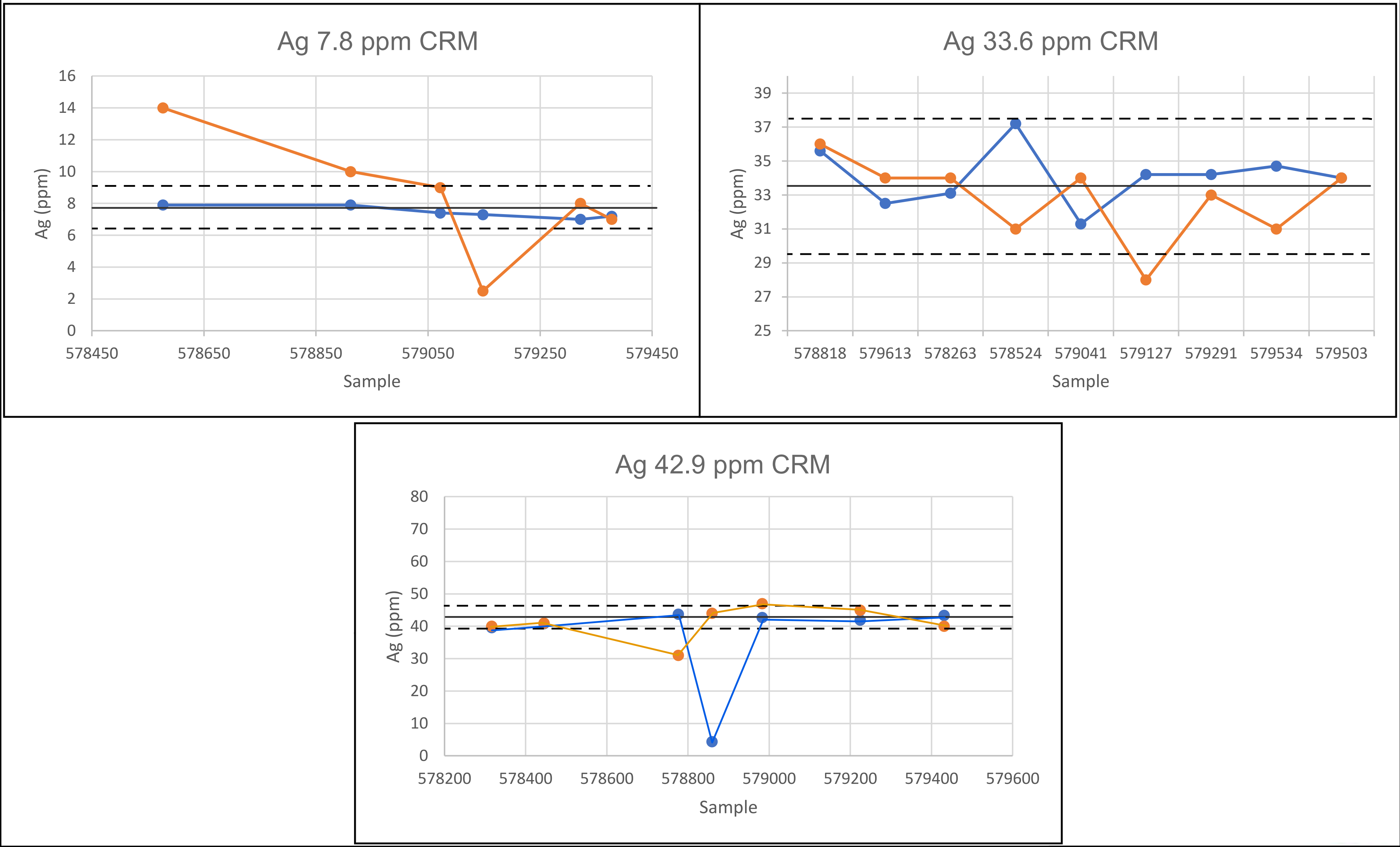

Legend

- Ag ME-ICP41 Method Sample Value
- Ag ME-ICP41 Sample Line
- Ag ME-GRA21 Method Sample Value
- Ag ME-GRA21 Sample Line
- CRM Value
- +/- 2 Standard Devations of Standard for 4 acid digestion (ICP-method), www.oreas.com

Ag 7.8 identification number 65a
Ag 33.6 identification number 67a
Ag 42.9 identification number 68a

Ag silver
CRM certified reference material
ppm parts per million

Note
Reference: Loveday, 2022

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TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Historical CRMs

Figure 12-6

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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12.3.2 Assay QA/QC for 2022 Drilling

In 2022, Stantec reviewed silver assay QA/QC records for the 2022 drilling. Stantec conducted independent QA/QC checks comparing field duplicate samples with originals and CRM assay results. Review of QA/QC data was conducted in two phases, once with data from Phase 1 of the drill program, and again with Phase 2 data. The QA/QC for the 2022 drilling is of acceptable quality and procedures and data are well documented. Sample analyses for the drill program was completed at ALS (Reno for gold, Vancouver for silver), an ISO 9001:2015 certified and ISO/IEC 17025:2005 accredited geo-analytical laboratory.

Because the QA/QC review was conducted in two phases, results of those reviews are documented here in two parts.

Phase 1 Drilling QA/QC

Phase 1 of the drill program had a QA/QC insertion rate of approximately 15% inclusive of:

- 2.8 % field duplicate controls (produced by Apollo)
- 2.4 % lab duplicate controls (produced by ALS)
- 5.1 % blanks (a marble aggregate material sourced from Home Depot by Apollo, referred to as MARBLE22 (limit of Ag <1 ppm) and a certified blank OREAS 22H (limit of Ag<0.05 ppm); and
- 4.2% varied CRMs listed in Table 11.3.

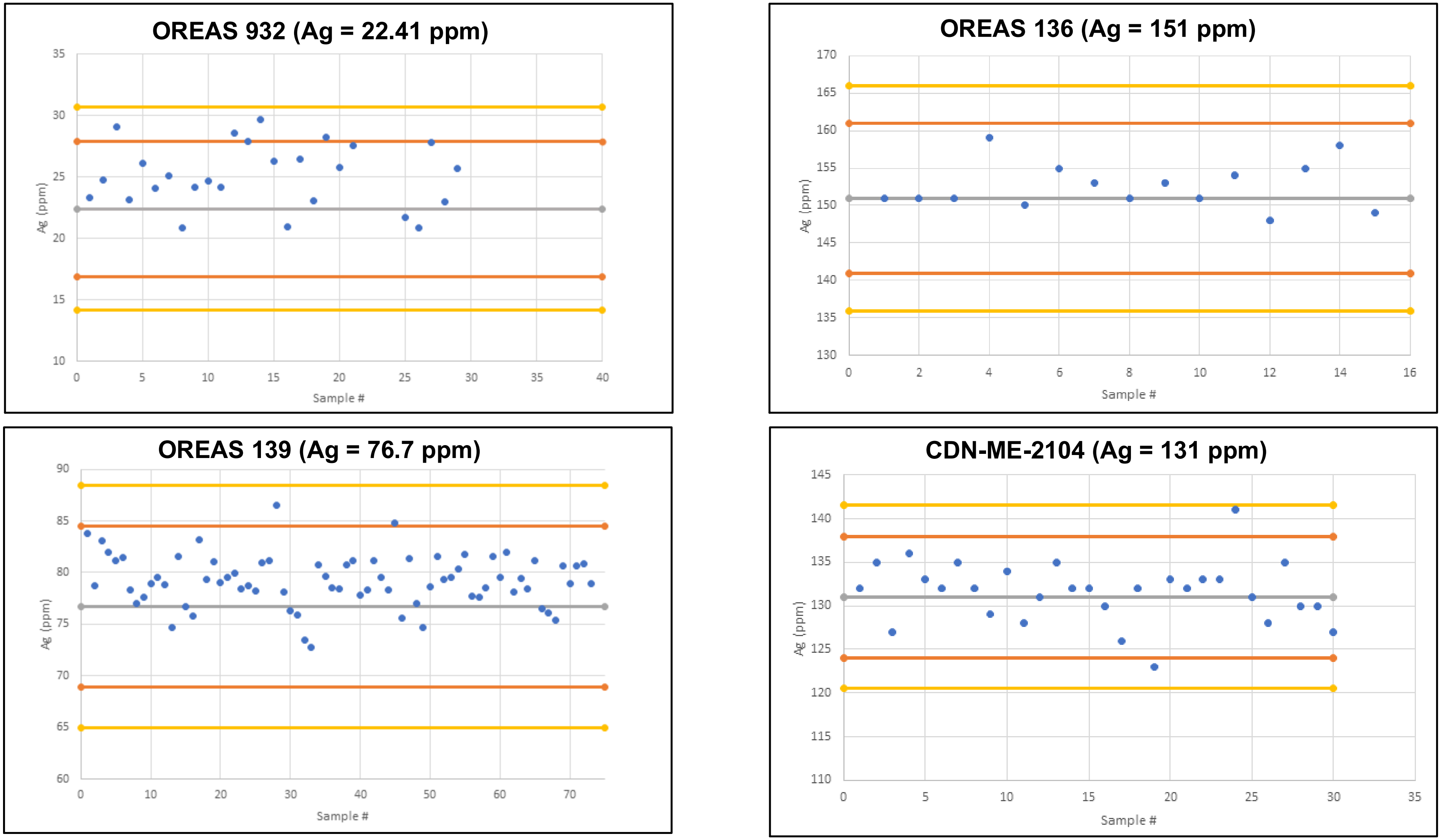
This insertion rate was recommended by Stantec prior to the commencement of drilling and is appropriate for this type of deposit.

The CRMs selected for QA/QC adequately represent the ranges of silver grades observed in the deposit: low grade (0-50 ppm, represented by OREAS 932); mid-grade (50-100 ppm, represented by OREAS 139), and high grade (>100 ppm Ag, represented by OREAS 136 and CDN-ME-2104).

Stantec completed an independent QA/QC check analyzing performance chart for CRMs and blanks. For CRMs, results of silver assays are shown in Figure 12-7 and show the following:

- For OREAS 932, assays indicate that results primarily are within 2 standard deviations of the reported CRM value of the certified silver value. Only 14% report between 2 to 3 standard deviations.
- For OREAS 139 assays indicate that results primarily are within 2 standard deviations of the certified silver value. Only 2% report between 2 to 3 standard deviations.
- For OREAS 932, assays indicate that results primarily are within 2 standard deviations of the certified silver value. Only 14% report between 2 to 3 standard deviations.

Waterloo Phase 1 Drilling QA/QC CRMs



Legend

Ag	silver
CRM	Certified Reference Material
ppm	parts per million
SD	standard deviation

- Ag ppm
- Ag value
- 2 SD
- -2 SD
- 3 SD
- -3 SD

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Phase 1 Drilling QA/QC CRMs

Figure 12-7

DRAWN BY: J.K.
CHK'D BY: M.K.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_12_7_Phase1DrillingQAQC_Standards_April2023_L.mxd

- For OREAS 136, assays indicate that all results are within 2 standard deviations of the certified silver value.
- For CDN-ME-2104, assays indicate that results primarily are within 2 standard deviations of the certified silver value. Only 6% report between 2 to 3 standard deviations.

Results of the analysis of field duplicates indicate a positive high correlation R-squared value of 0.91. Similarly, the laboratory duplicates also show a positive high correlation R-squared value of 0.99. Stantec concluded that the QA/QC duplicates performed well. Results of the analysis of the MARBLE 22 coarse blank material indicate 16% of the blank samples are above the limit of 1 ppm silver. As results from Phase 1 of the drill program were received from the laboratory, Apollo had observed and informed Stantec that the upper limit reporting for MARBLE 22 was 1.75 ppm silver, which is significantly lower than the cutoff grade of the project resource of 50 ppm silver. It was therefore decided to cease use of MARBLE 22 once Phase 1 drilling was complete. It was replaced by the certified blank OREAS 22H (limit Ag <0.05 ppm). For OREAS 22H, Apollo developed an internal cutoff of 0.2 ppm Ag versus the 0.05 ppm cut off determined by OREAS. Stantec finds this approach acceptable as the resource cutoff grade is 50 ppm. See Figure 12.8.

Phase 2 Drilling QA/QC

Phase 2 of the drill program had a QA/QC insertion rate of approximately 15% inclusive of:

- 3 % field duplicate controls (produced by Apollo)
- 2 % lab duplicate controls (produced by ALS)
- 5 % blanks (a coarse silica material sourced from OREAS by Apollo, referred to as SILICA 22 (limit Ag <1ppm); and certified pulp blank OREAS 22H (limit of Ag<0.05 ppm)
- 5% CRMs (same as was used for Phase 1 with the addition of CDN-ME-1704 in replacement of OREAS 932).

This insertion rate is very similar to that used for Phase 1 and was recommended by Stantec prior to the commencement of drilling and is appropriate for this type of deposit.

As in Phase 1, standards selected for QA/QC for Phase 2 adequately represent the ranges of silver grades observed in the deposit: low grade (0-50 ppm, represented by CDN-ME-1704 [11.6 ppm Ag]; mid-grade (50-100 ppm, represented by OREAS 139 [76.7 ppm Ag]), and high grade (>100 ppm Ag, represented by OREAS 136 [151 ppm Ag] and CDN-ME-2104 [131 ppm Ag]).

Stantec completed an independent QA/QC check analyzing performance charts for CRMs and blanks. For CRMs, results of silver assays are shown in Figure 12-9 and show the following:

- For OREAS 139 assays indicate that results primarily are within 2 standard deviations of the certified silver value. Only 3% report between 2 to 3 standard deviations.
- For OREAS 136, assays indicate that all results are within 2 standard deviations of the certified silver value.

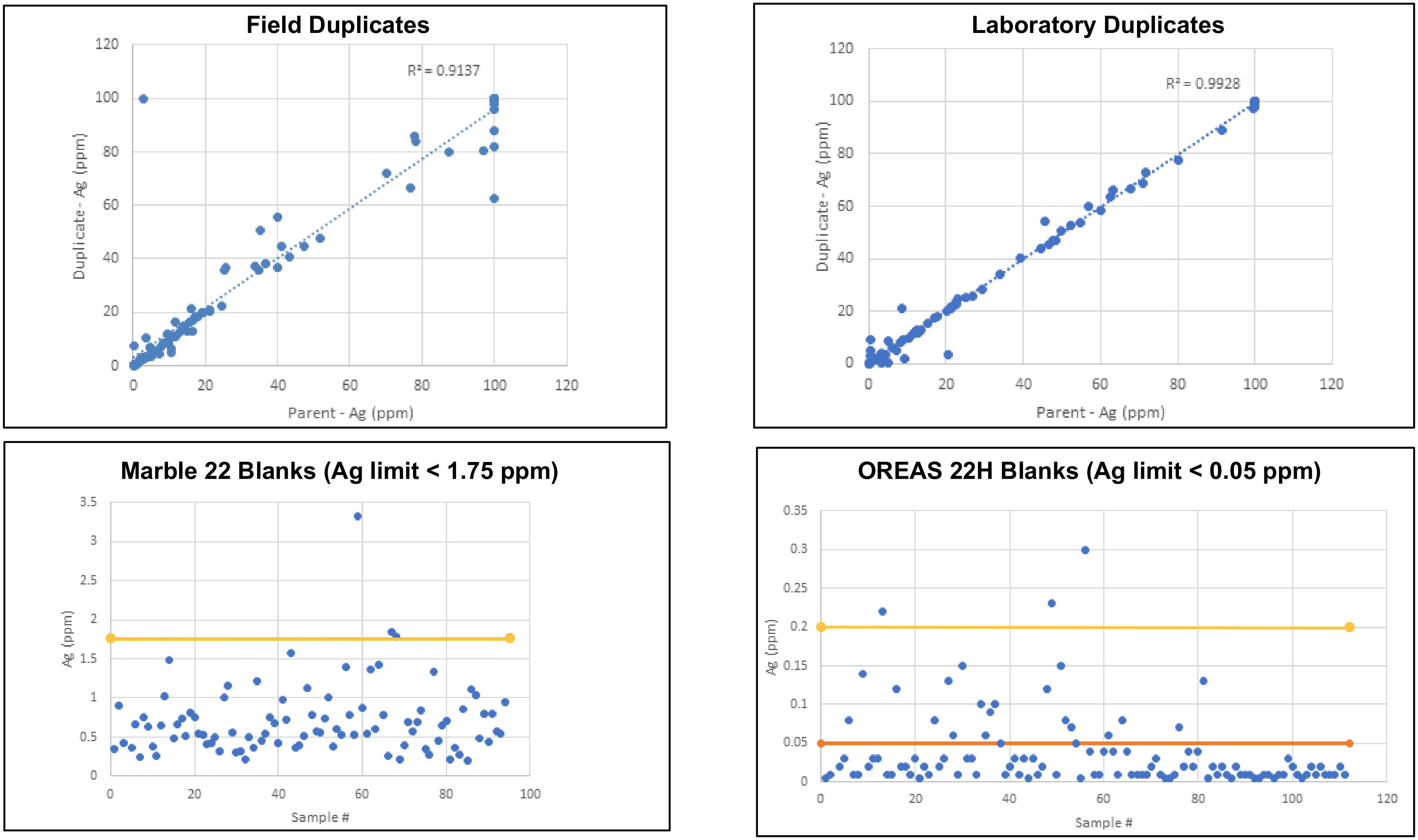
- For CDN-ME-2104, assays indicate that all results are within 2 standard deviations of the certified silver value.

- For CDN-ME-1704 assays indicate that results primarily are within 2 standard deviations of the certified silver value. Only 2% report between 2 to 3 standard deviations. One sample plotted outside the 3 standard deviation limit (sample F272523).

Results of the analysis of field duplicates indicate a positive high correlation R-squared value of 0.94. Similarly, the laboratory duplicates also show a positive high correlation R-squared value of 0.99. Stantec concluded that the QA/QC duplicates performed well.

Results of the analysis of the pulp blank material OREAS 22H indicate that only 2% of the blank samples are above the upper limit of 1 ppm silver. Results of the analysis of the SILICA 22 blank material indicate that no samples are plotting outside the upper limit of 1 ppm silver. See Figure 12-10 for results of analysis of duplicate and blank material.

Waterloo Phase 1 Drilling QA/QC Duplicates and Blanks



Legend

Ag silver

ppm parts per million

Ag ppm

Ag= 0.05

Ag Upper Lim

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Phase 1 Drilling QA/QC Duplicates and Blanks

Figure 12-8

DRAWN BY: J.K. CHK'D BY: M.K. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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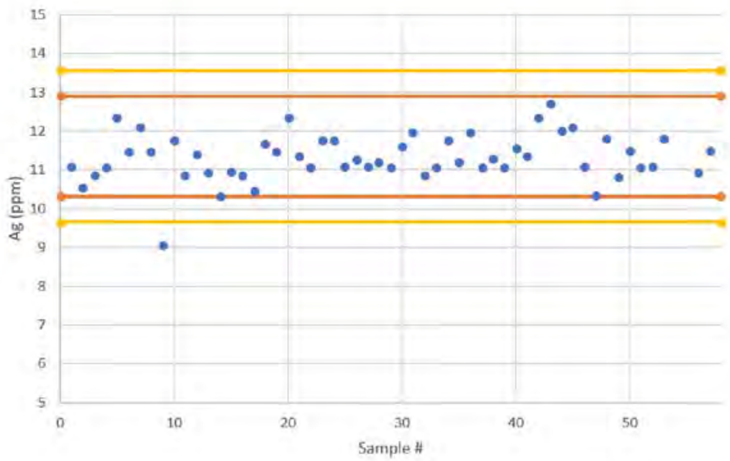
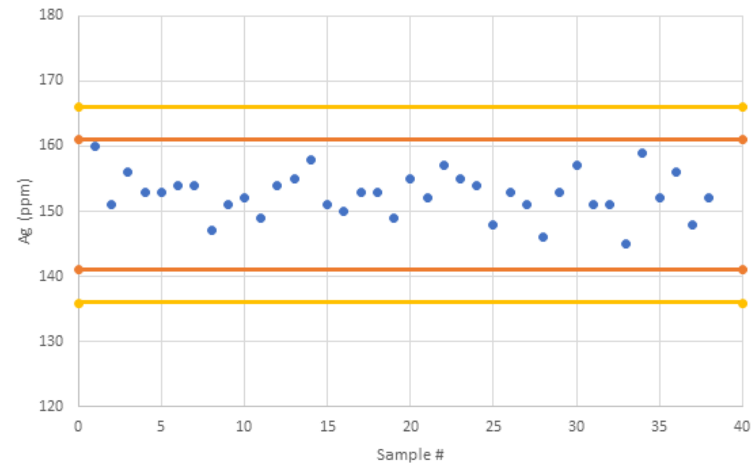
Waterloo Phase 2 Drilling QA/QC CRMs

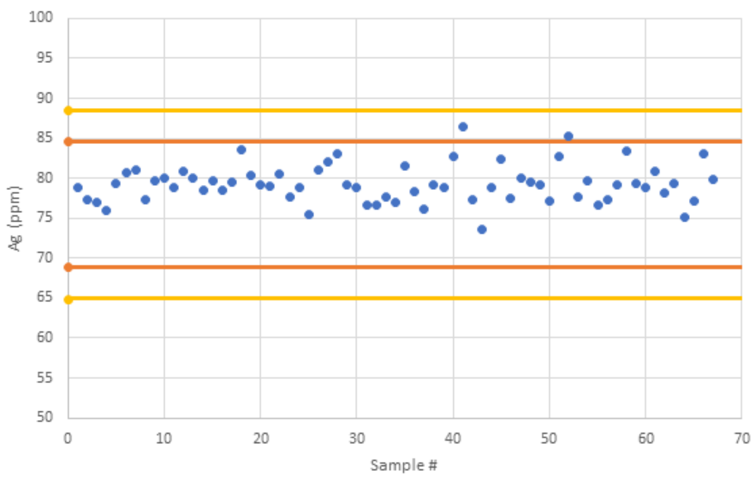
CDN-ME-1704 (Ag = 11.6 ppm)



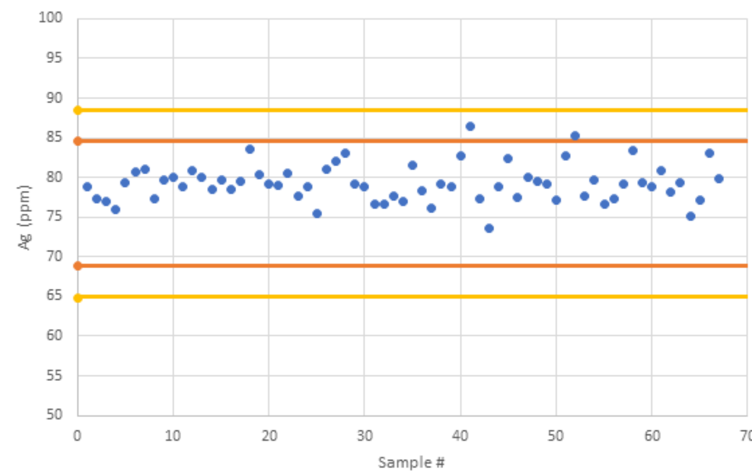
OREAS 136 (Ag = 151 ppm)



OREAS 139 (Ag = 76.7 ppm)



CDN-ME-2104 (Ag = 131 ppm)



Legend

Ag silver
CRM Certified Reference Material
ppm parts per million
SD standard deviation

Ag ppm
2 SD
-2 SD
3 SD
-3 SD

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Phase 2 Drilling QA/QC CRMs

Figure 12-9

DRAWN BY: J.K.
CHK'D BY: M.K.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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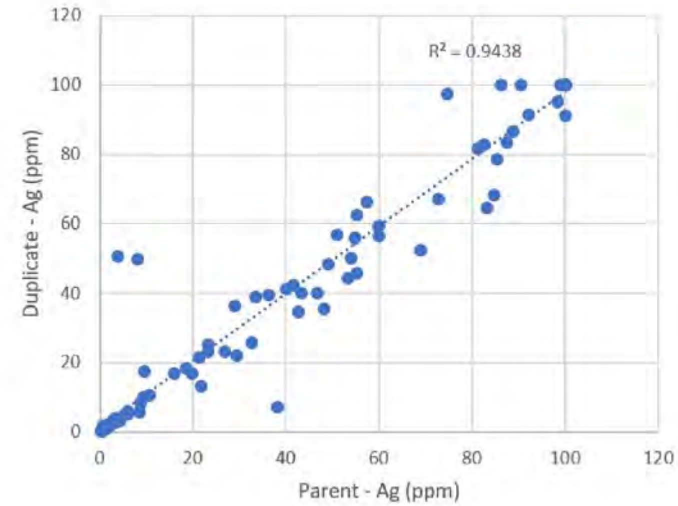
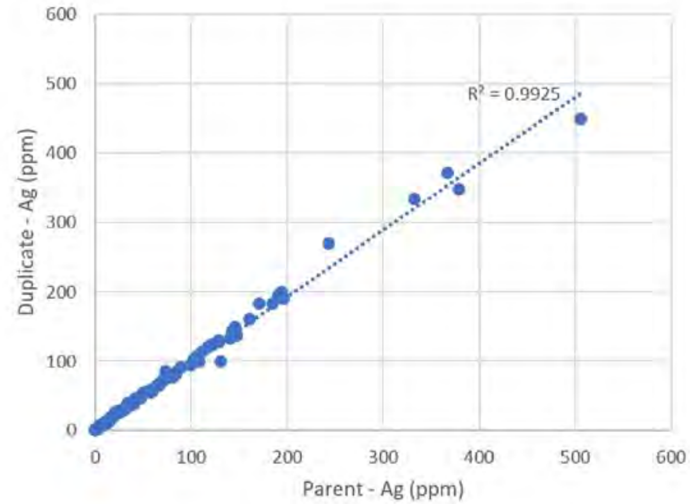
Waterloo Phase 2 Drilling QA/QC Duplicates and Blanks

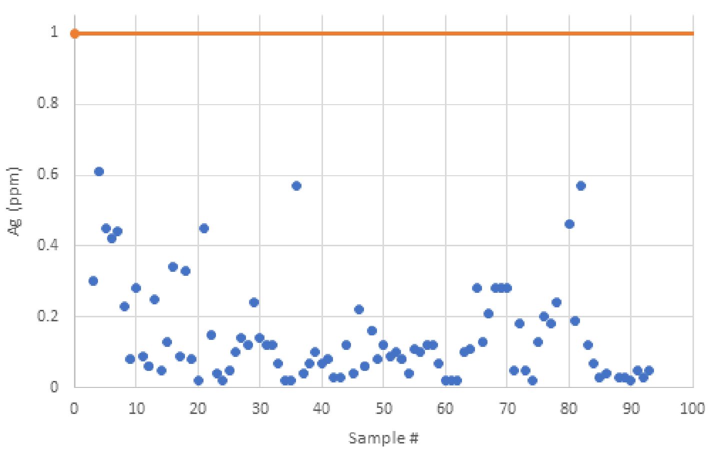
Field Duplicates



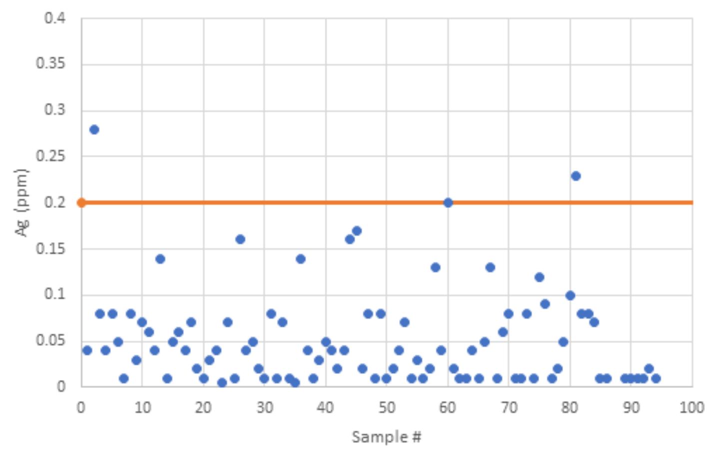
Laboratory Duplicates



Silica 22 Blank (Ag limit < 1.0 ppm)



OREAS 22H Blanks (Ag limit < 0.2 ppm)



Legend

Ag silver

ppm parts per million

● Ag ppm

Upper Limit

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Phase 2 Drilling QA/QC Duplicates and Blanks

Figure 12-10

DRAWN BY: J.K. CHK'D BY: M.K. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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12.4 QP Opinion on Adequacy

12.4.1 Historical Drilling Data and Material

An audit in 2021 of 10% of the historical drilling assay records did not identify any discrepancies between digital and hardcopy or scanned records. The 2021 site inspection was successful in finding evidence for historical drilling and hole locations identified in the field did conform with drill hole database survey records. Onsite observations of select Waterloo RC chip and core samples located at the Apollo warehouse aligned with digital exploration records and were stored in an organized fashion. The chips and core were in good shape. No Langtry samples were available for inspection during this site visit. The independent assessment of QA/QC assay records did not identify materially significant discrepancies other than one large outlier in a single assay CRM result that is speculated to be a typo in the original assay certificate.

It is the opinion of the Author(s) and QP, following an audit of historical drill hole assay records, site inspection and independent review of QA/QC assay data, that the historical drilling data could be used as the basis for building a geologic model and estimation of silver mineral resources on the Calico Project.

12.4.2 2022 Drilling Data and Material

The audit in 2022 of Apollo's drilling records concluded that the data was collected in a manner consistent with industry standards, following detailed procedures. It also concluded that the drill data is of good quality, reasonable and adequate and can be used for the purposes of mineral resource estimation work. The 2022 site inspection was successful in finding evidence for collar locations and that locations identified in the field conformed with drill hole database survey records. Onsite observations were made of the drill rig and sampling equipment. Select Waterloo RC chips and core samples located at the warehouse were observed and aligned with digital exploration records and samples were stored in dry, secure conditions. Independent assessment of QA/QC assay records did not identify materially significant discrepancies.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

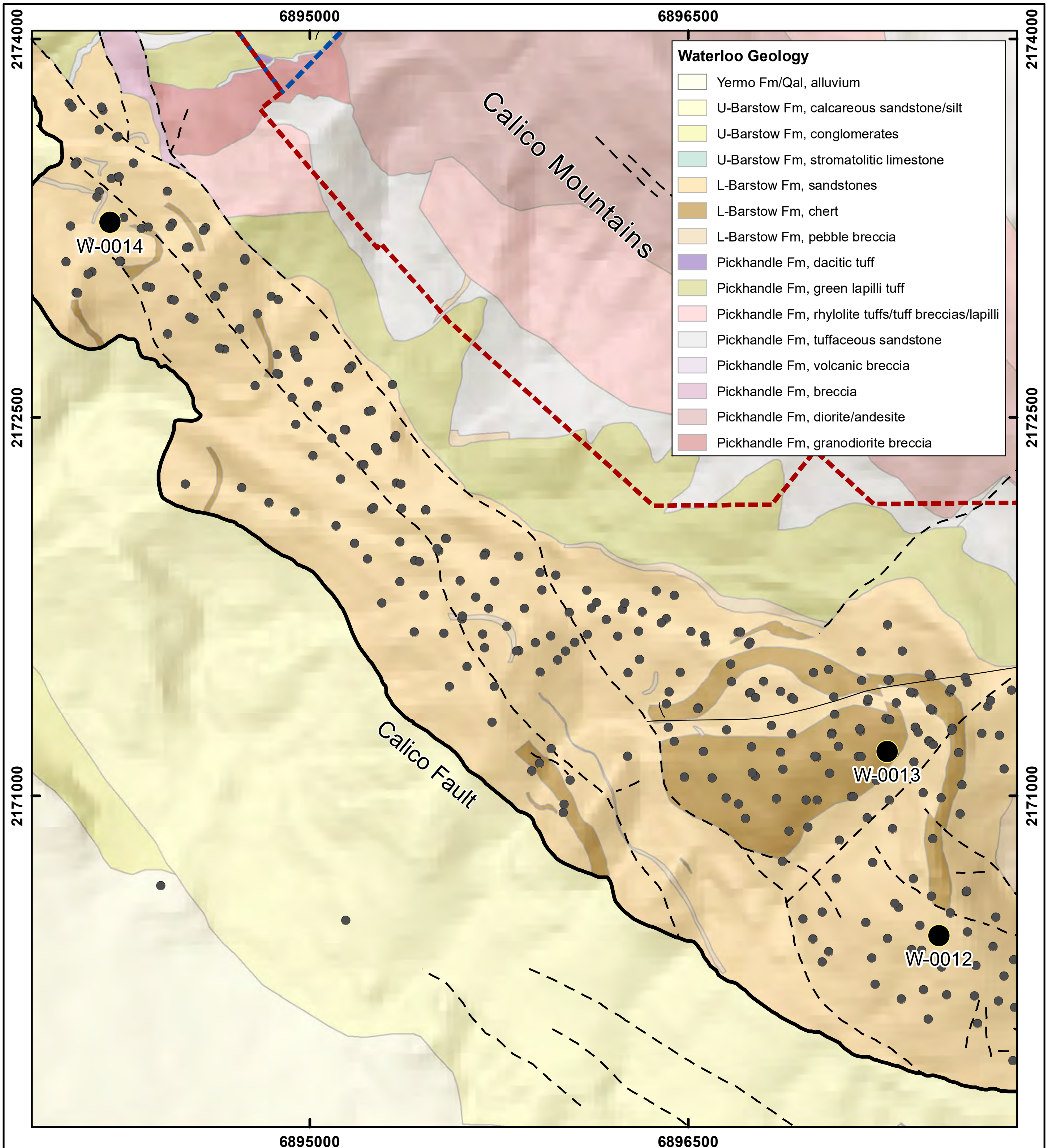
13.1 Sample Origin and Characteristics

Apollo acquired approximately 2.7 tonnes of drilling material that was in storage at McClelland Laboratories Inc. (“McClelland”) in Sparks, Nevada, as part of the acquisition of the Waterloo Property. This material comprised chips from 11 RC holes and crushed material from three PQ-diameter diamond drill holes (W-0012, W-0013 and W-0014) that had been drilled in 2013 by Pan American. See Table 13.1 for a listing of holes targeted for metallurgical testing and Figure 13-1 for relevant hole locations. McClelland had begun the sample preparation process of the drill core as part of a metallurgical test program for Pan American at that time, however, for reasons unknown to Apollo, the program was terminated prior to completion. As such, no final report was produced as part of this work. This material had been securely stored at McClelland since that time and Apollo has confirmed the quality of the material and chain of custody as part of its due diligence procedures.

Prior to crushing by McClelland, Pan American had logged the core (lithology, mineralogy, alteration, geotechnical) and had taken detailed core photos. Apollo determined that this data was of good quality and that the holes were geologically and mineralogically representative of the Waterloo deposit. Due to the oxidized nature of mineralization, confirmed with detailed mineralogical studies by SGS-Lakefield, it was determined this material remained useful for metallurgical test work.

Table 13.1
Diamond Drill Holes Used for 2022 Metallurgical Test Program

Hole ID	Easting (m)	Northing (m)	Elevation (m)	Total Depth (m)	Total Depth (ft)	Azimuth	Dip
W-0012	511022.88	3867645.96	800.04	90.53	297.05	0	-90
W-0013	510962.93	3867869.00	855.34	107.90	354.00	0	-90
W-0014	510030.85	3868516.95	804.87	53.34	175.00	0	-90



Legend

- Metallurgical Test Drill Hole Location
- Drill Hole Collar
- Calico Fault
- Fault Inferred
- Fault Observed
- Langtry Property
- Waterloo Property

Fm = Formation
U = Upper
L = Lower

N

0 75 150
Meters

0 550
Feet

Scale 1:6,600
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Hillshade Map, Esri
geology - Modified from Dibblee,1970 USGS Daggett Quad; Kirkpatrick, 1974; Pratt, 2012; and Pratt, 2022.

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Metallurgical Testing Drill Hole Locations

Figure 13-1

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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13.2 Test Program Design

The 2022 metallurgical test program used the 2013 pre-crushed drill core (1.2 tonnes of material) and was designed by professional metallurgists from both McClelland and Samuel Engineering Inc. ("Samuel"), in cooperation with the Author and Apollo. All processing and testing were performed at McClelland with the exception of processing for a high-pressure grinding roll ("HPGR") product which was produced by Kappes Cassidy and Associates ("KCA") in Reno, Nevada using a ThyssenKrupp Polycom (PILOTWAL HPGR) unit.

The objectives of the program were to assess and verify silver recovery using various comminution and extraction methods to provide insight into possible processing methods and to compare results to historical work completed by previous operators in the 1960's and 1970's (refer to Section 6.7 for more information on historical test work). The 2022 program comprised the following:

- ball mill work index determination;
- abrasion index determination;
- direct agitation cyanidation (bottle roll) testing using cyanide and using a fluoride-assisted cyanide leach;
- column testing using cyanide; and
- barite flotation.

The program was designed to also develop a barite recovery flowsheet followed up by ore grade barite analysis and quality testing by Apollo. Parameters and results of historical testing (completed by ASARCO and described in Section 6.7) were considered and results will be compared to these.

As of the Effective Date of this Technical Report (February 8, 2023), only the results of the bottle roll test work had been completed, assessed by Apollo's independent QP for metallurgy and reported (see news release dated February 23, 2023).

13.3 Sample Preparation and Compositing

Drill core material (originally PQ-whole core) was received by Apollo already crushed. At that time (2013) the whole core was separated into 123 intervals that were approximately 2 m long. Bulk density measurements were made on pieces from each interval, and then each interval was stage-crushed to 100% passing -38 mm (-1.5 inch). The -38 mm interval material was thoroughly blended by repeated coning and then quartered to obtain a half split for further crushing. Then, a portion of the half splits were crushed to a nominal -3.4 mm feed size. It was at this point that the program was terminated in 2013.

In 2022, the samples were pulled from storage and the -3.4 mm half splits from each interval were crushed to a nominal -1.7 mm. Each interval split was blended and a split using a rotary-type splitter to obtain a 250 g sample. The 250 g samples were pulverized to an over 90% passing 106 microns, producing assay pulps for analysis. Samples of CRM were provided by Apollo for McClelland to insert into the sample stream. Samples were then shipped securely by McClelland to ALS-Reno. ALS-Reno completed fire-assay and then the samples were shipped to ALS-Vancouver for all other multi-element analyses with results reported directly to Apollo. Samples were analysed using the same methods as described in Section 11.3.3.

13.3.1 Compositing

Based on lithology, mineralogy, assay and multi-element results for the intervals described above five composites were created (weighing from 100 kg to 436 kg) using the -38 mm reject material. Table 13.2 lists the diamond drill hole composites used for the 2022 Metallurgical Test Program. All three drill holes comprised mineralized rock from Barstow Formation sandstone and siltstone with varying silver, barite and quartz contents. The drill holes did not penetrate the Barstow-Pickhandle contact and as a result, no notable gold intercepts were reported, which is not unexpected for the dominantly silver mineralized Barstow sedimentary rock package.

Table13.2
Diamond Drill Hole Composites - 2022 Metallurgical Test Program
Calico Project

Composite No.	Hole	From (m)	To (m)	Weight (kg)	Ag Grade (g/t)	BaO (%) (XRF)
001	**W-0012**	0	28	100	151	0.6
002	**W-0012**	28	56	118	96	2.9
003	**W-0012**	56	90	137	20	0.1
004	**W-0013**	0	108	436	161	4.7
005	**W-0014**	0	53	228	134	10.1

13.3.2 Sample Preparation

Various sized materials were prepared for test work: conventionally crushed material (-6.3 mm), HPGR product (-1.7 mm), fine grind (-45 µm) and ultra-fine grind ("UFG") crushed material. These different sized feeds were produced for each composite except for composites 002, 003, and 004 for which a UFG was not produced.

Each composite was initially stage-crushed to 100% passing -25 mm which was then blended and split to obtain material ball mill work index determinations (12 kg); abrasion index determination (5 kg); and further crushing. The further crushing involved producing the following:

- *Conventionally crushed material (-6.3 mm)*: produced via stage-crushing using a laboratory jaw crusher to reach 80% passing -6.3 mm (100% passing -12.5 mm) feed size. This material was split to obtain triplicate 1 kg splits: 1 kg for a bottle roll test and 2 kg for finer crushing.
- *HPGR (-1.7 mm) material:* the HPGR splits were sent to KCA for HPGR crushing to a targeted feed size of 80% passing -1.7 mm. Agglomerate strength and stability testing and head screen analysis was performed on the HPGR material. The finer crushing splits were stage-crushed at McClelland using a laboratory jaw crusher to reach an 80% passing -6.3 mm (100% -12.5 mm) conventional feed size.
- Finer crushing producing:
    - *A fine grind (-45 µm) feed product*: produced using the same methods as described for the conventionally crushed (-6.3 mm) material, except that the 1 kg ore charges were stage-ground in laboratory steel ball mills.

- o *A UFG (-25 µm) feed product*: produced only for composites 001 and 005. For composite 001 a 3 kg split was taken from the -6.3 mm rejects which was crushed to 100% passing -1.7 mm and split to obtain 1 kg for pulverizing and two 250 g splits for bottle roll fluoride-assisted leach testing. The 1 kg split was pulverized to a nominal 106 µm size using a ring and puck laboratory unit and split into 250 g lots. For composite 005, the 25 mm rejects (~35 kg) was also crushed to 100% passing -1.7 mm and the same splits were taken as described for composite 001. Three of the samples were batch ground with a ceramic pebble mill at 1, 2 and 3 hours. The fourth sample was ground to 100% passing 25 µm. In this case several 1 kg lots were also taken for later barite flotation testing.

McClelland (an ISO 17025 certified facility) and KCA maintain their own comprehensive guidelines to ensure best practices in sample preparation.

13.4 Agitated Cyanidation (Bottle Roll) Testing Procedures

As of the Effective Date of this Technical Report (February 8, 2023), only the results of the bottle roll test work as reported in Apollo's news release (February 23, 2023) had been completed and assessed by the Author and QP.

A series of bottle roll tests were conducted on each of the five composites. The objectives of the bottle roll tests were to obtain preliminary information about amenability to heap leaching treatment and milling/cyanidation treatment. All tests were conducted in a manner to determine silver recoveries, recovery rates, reagent requirements and sensitivity to feed size. A total of 15 tests were completed with cyanide and lime reagent additions at three size fractions.

Each composite was tested at 80% passing -6.3 mm and 80% passing -1.7 mm for early indications on column test conditions. Another split was bench milled to 80% passing 45 µm to indicate traditional milling and cyanidation conditions. Each of the -6.3 mm and -1.7 mm bottle rolls (10 total) consisted of a 1 kg charge of material, combined with water to achieve a 40% by weight slurry. The bottle roll was adjusted with laboratory grade hydrated lime to achieve a pH of 11.0 and solid sodium cyanide (NaCN) was added to the mixture to accomplish a concentration of 1g/L NaCN as titrated. The bottle rolls were completed over a total of 14 days with samples being taken and analyzed at 6, 24, 72, 144, and 216 hours. The slurry sample was filtered, with a solution analyzed for silver by ICP method and the filter cake rehydrated, pH adjusted, and returned to the bottle roll. After 366 hours, the entire bottle was filtered to separate the solids and solution with silver analysis being completed. A head assay was back calculated based on the tail assays on the final solutions and solids and compared to the assayed head assay.

Each of the -45 µm bottle rolls (5 total) consisted of a 1 kg charge of material, combined with water to achieve a 40% by weight slurry. The bottle roll was adjusted with laboratory grade hydrated lime to achieve a pH of 11.0 and solid sodium cyanide (NaCN) was added to the mixture to accomplish a concentration of 1g/L NaCN as titrated. The bottle rolls were completed over a total of 14 days with solutions being taken and analyzed at 2, 6, and 24 hours. The slurry sample was filtered, with a solution analyzed for silver by ICP method and the filter cake rehydrated, pH adjusted, and returned back to the bottle roll. After 72 hours, the entire bottle was filtered to separate the solids and solution with silver analysis being completed. A head assay was back calculated based on the tail assays on the final solutions and solids and compared to the assayed head assay.

Additional bottle roll test work was completed using a fluoride assisted hot agitated hydrochloric acid leaching scheme. This approach was employed to determine if there was an alternative to cyanide/milling to increase the silver recovery. The fluoride assisted leach uses Ammonium Bifluoride (ABF) (NH_4HF_2) and Hydrochloric Acid (HCl) and requires a material charge in a heated and agitated 1 L test vessel. For the initial tests, each 0.25 kg material charge was ground to 80% passing 53 microns using a laboratory ball mill. The ball mill discharge was filtered prior to being mixed with a 5% HCl solution to bring the material to a 30% by weight slurry. ABF was added to the slurry at a rate of 5 kg/mt of material in the closed 1-liter test vessel. Each vessel was brought to 90°C and agitated for a total of 8 hours. Samples were taken at intervals of 1, 2, 4, and 6 hours. After 8 hours, the samples were filtered, and solutions and solids were analyzed.

Following the initial tests, HCl concentration was raised from 5% to 10%, ABF increased from 5 kg/mt to 17 kg/mt, and total leach time increased to 12 hours, with sampling every 2 hours.

13.5 Preliminary Results

Results indicate that a fine-grind conventional ball milling product (P_{80} -45 μm) had silver recoveries ranging from 40-60%, with generally low cyanide and lime requirements. The bottle roll test results are encouraging, and the corresponding column tests will be published after the final reporting is available. The Calico Project bottle roll results are shown in Table 13.3. For HPGR product feed, bottle roll test results showed an improvement in silver recoveries of approximately 50-100% over recoveries from conventionally crushed material (P_{80} -6.3 mm feed). The Calico Project ultra fine grind bottle roll tests results are presented in Table 13.4. HPGR silver recovery ranged from 19 to 38% over 336 hours of leaching. Further work is required to assess the potential value HPGR may add to increased silver recoveries, as these results are encouraging. Similar HPGR technology is utilized at Coeur Mining's Rochester silver mine in Nevada where silver recovery via heap leach methods is approximately 60% (Pascoe et al., 2021).

Table 13.3
Calico Project Bottle Roll Results

Composite	Feed Size		Ag Recovery (%)	Tail Assay (Ag) (g/t)	Calc Head (Ag) (g/t)	Head Assay (Ag) (g/t)	Consumption (kg/t) NaCN	Consumption (kg/t) Lime
4773-001	80%-6.3mm		17.9	124	151	153	0.06	0.5
4773-001	80%-1.7mm (HPGR)		31.1	111	161	153	0.21	0.5
4773-001	80%-45µm		54.7	67	148	153	0.64	0.8
4773-002	80%-6.3mm		15.6	81	96	94	0.28	0.6
4773-002	80%-1.7mm (HPGR)		26.0	74	100	94	0.40	0.7
4773-002	80%-45µm		51.6	44	91	94	0.34	1.0
4773-003	80%-6.3mm		10.0	18	20	20	0.16	0.5
4773-003	80%-1.7mm (HPGR)		19.0	17	21	20	0.29	0.5
4773-003	80%-45µm		40.0	12	20	20	0.32	0.7
4773-004	80%-6.3mm		24.7	119	158	161	0.26	0.5
4773-004	80%-1.7mm (HPGR)		38.0	101	163	161	0.52	0.4
4773-004	80%-45µm		61.0	60	154	161	0.76	0.5
4773-005	80%-6.3mm		18.0	100	122	124	0.17	0.5
4773-005	80%-1.7mm (HPGR)		36.3	86	135	124	0.31	0.6
4773-005	80%-45µm		60.0	50	125	124	0.33	0.5

Table 13.4
Calico Project Ultra-Fine Grind Bottle Roll Results

Composite	Milling Time (hr)	Grind Size	Ag Recovery %	Tail Assay (Ag) (g/t)	Calculated Head (Ag) (g/t)	Head Assay (Ag) (g/t)	Consumption (kg/t) NaCN	Consumption (kg/t) Lime
4773-001	1	80%-103µm	52.0	71	148	153	0.21	1.4
4773-001	2	80%-81µm	54.6	69	152	153	0.64	1.0
4773-001	3	80%-96µm	56.2	64	146	153	0.35	1.2
4773-001	N/A	100%-28µm	63.8	54	149	153	0.36	3.0
4773-005	1	80%-103µm	58.3	50	120	124	0.45	1.4
4773-005	2	80%-81µm	59.3	50	123	124	0.53	1.4
4773-005	3	80%-96µm	61.8	47	123	124	0.76	1.5
4773-005	N/A	100%-5µm	80.8	25	130	124	0.40	3.1

Results from fluoride-assisted leach tests on composites 001 and 005 produced slightly improved recoveries compared to those that used cyanide only, with recoveries ranging from 60.8% to 72%. See Table 13.5 for the bottle roll test using fluoride-assisted cyanide leach solution. Further, when the pregnant fluoride leach solution was filtered and then run through activated carbon to generate carbon-in-column circuit design data, the silver loaded directly onto the carbon without neutralizing any of the acid in solution. This indicates that the leach solution could be recycled, and that this method may be a viable way to recover silver from the solution. Results indicate a 97% silver recovery onto carbon.

Table 13.5
Results for Bottle Roll Test Using Fluoride-Assisted Cyanide Leach Solution

Composite No.	Realized P_{80} Grind Size	Ag Recovery (%)	HCl Conc. %	ABF (kg/t)
001	-53µm	**60.8**	5.0	4.7
		69.0	10.0	17.0
005	-53µm	**67.0**	5.0	4.7
		72.0	10.0	17.1

For bottle roll testing all heads and tails assays were performed by McClelland, an ISO 17025 certified facility, via AAS following a four-acid digestion with reportable ranges for silver of 1 to 200 ppm.

13.6 QP Interpretations and Conclusions

The metallurgical test work completed by Apollo in 2022 adds additional and modern metallurgical information to that acquired from historical work programs. The following are the conclusions by the QP for metallurgy for the 2022 program:

- The Waterloo drill core composites were strongly sensitive to feed size, and results consistently indicated that fine grinding will be required to maximize silver extraction by cyanidation. Silver recoveries were also incrementally improved, relative to milling/cyanidation, by a fluoride assisted hot agitated hydrochloric acid leaching procedure.
- Apollo has determined that the holes drilled by Pan American was of good quality and that the holes were geologically and mineralogically representative of the Waterloo deposit. Due to the oxidized nature of mineralization, confirmed with detailed mineralogical studies by SGS-Lakefield, it was determined this material remained useful for metallurgical test work.
- Silver recoveries during agitated milling/cyanidation treatment at an 80% passing 45-micron grind ranged from 40.0% to 60.0%. Recovery rates at this size were moderate and extraction was substantially complete within the 72-hour leach cycle. Cyanide consumption was low (0.52 kg NaCN/mt or less) and lime requirements for pH control were also low (1.0 kg/mt or less).
- Results indicate that silver recoveries by cyanidation could be improved incrementally with ultrafine grinding.

13.7 QP Recommendations

- PQ core drilling programs in 2023 are required to produce core drilled across different zones and major lithologies.

- Continued consideration to evaluate separate value streams for barite and silver separation.
- Consideration of microwave technology to decrease power consumption of crushing or grinding.
- As part of a mineralogy study completed by Pan American in 2013, a basic sink/float on a master composite was completed. It is recommended that a series of heavy liquid separation tests is completed. Ideally ground to 1.7 mm and then wet-screened at 850-, 425-, 212-, 106-, 75-, and 38-micron intervals to determine sink and float products. This would provide information on a sample's amenability for gravity separation for barite and the quartz. If a good separation can be completed a spiral separator could be utilized, reducing power requirements, and providing a dual product. A silver concentrate could be sold to off-site locations that are currently undetermined, but may include roasters, smelters, autoclaves, and others. This would eliminate the requirement for cyanide.
- Alternatively, if gravity separation is not viable, flotation testing should be investigated for silver recovery with the addition of various reagent suites to maximize separation of barite and silver.
- It is recommended that a preliminary case study be completed for the salability of a silver concentrate and barite concentrate.
- Additional fluoride assisted leaching should be completed to optimize the circuit and identify parameters for increasing recovery.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Approach

In accordance with the requirements of NI 43-101 and the CIM Definition Standards (2014), the Stantec QP's have validated the exploration records and used this data to construct geologic models of the Calico Project deposits for the purposes of estimating silver and gold mineralization. Two separate block models have been constructed: one for the Waterloo Property and the another for the Langtry Property.

Apollo has previously prepared a MRE for the Calico Project (Loveday, 2022) from separate block models for the Waterloo and Langtry properties. Both these block models were built using HxGN MinePlan 3D© software. The estimate reported herein for the Waterloo Property are reported from an updated block model using Seequent Leapfrog© software and the mineral resource pit shell was built using HxGN MinePlan 3D© software. The updated mineral resource model for the Waterloo Property accounts for the additional exploration undertaken by Apollo since the prior Technical Report (Loveday, 2022). The Langtry Property block model is unchanged since there has not been any additional drilling or exploration of material importance to the Langtry Property. Furthermore, since the time of the preparation of the Langtry Property block model there has not been any material changes in other factors and as such the QP views the prior MRE as current. Therefore, the MRE for the Langtry Property remains unchanged from those reported in the prior Technical Report (Loveday, 2022).

The effective date for the Langtry Property MRE presented herein is January 28, 2022. The effective date for the updated Waterloo Property MRE presented herein is February 8, 2023.

14.2 Basis for Resource Estimation

NI 43-101 specifies that the definitions of the CIM guidelines be used for the identification of mineral resources. The CIM Resource and Reserve Definition Committee have produced the following statements which are restated here in the format originally provided in the CIM Reserve Resource Definition document (CIM, 2014):

"Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource."

The Definition of a Mineral Resource is as follows:

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

"Material of economic interest refers to diamonds, natural inorganic material, or natural fossilized organic material including base and precious metals, coal, and industrial minerals."

The Calico Projects material of economic interest fall into the base metal and precious metal category.

The committee went on to state that:

"The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socioeconomic and governmental factors. The phrase 'reasonable prospects for eventual economic extraction' implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time periods in excess of 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time."

The Calico silver deposits are most similar to gold deposits whose eventual economic extraction can cover shorter time periods of less that 15 years.

14.3 Data Sources

Information used to compile and inform the geologic model used for mineral resource estimation included the following data provided by Apollo:

- Surface topography surveys (PhotoSat DEM and geotiff);
- Maps produced from surficial geological mapping;
- Calico Fault and Barstow-Pickhandle contact wireframe surfaces;
- Waterloo 3D geological and structural models;
- exploration drill hole logs;
- drill hole sample data (lithology, assays, density);
- metallurgical test results;
- historical mining feasibility studies; and
- prior Technical Report (Loveday, 2022).

Drilling information utilized for mineral resource estimation included exploration drilling records for a total of 526 drill holes; 343 holes, 93,199 ft (28,407 m) at Waterloo and 183 holes, 76,986 ft (23,465 m) at Langtry. All drilling at Langtry is considered historical (pre-Apollo). At Waterloo drilling records are separated into 258 historical holes comprising 61,283 ft (18,679 m) and 85 recent (2022) holes comprising 31,919 ft (9,729 m). Nominal drill hole spacing is 160 x 200 ft (50 x 60 m) at Langtry and 100 x 150 ft (30 x 46 m) at Waterloo. Average drill hole depths at Langtry are 420 ft (128 m) and at Waterloo 273 ft (83 m). Most holes are RC holes, with 8 holes being diamond drill holes at Waterloo. The drill hole silver grades were derived from RC chip samples. Bulk density data was sourced from samples taken from eight drill holes. Details on drilling and sampling methods are discussed in Section 10 and 11 of this Technical Report. The locations of the drill holes are shown on Figure 10-1 for Waterloo and Figure 6-4 for Langtry.

Surface geologic mapping used to inform the geological model were derived from several sources, and these, along with relevant maps are illustrated and discussed in Section 7 of this Technical Report. Wireframe surfaces of the resource-limiting Calico Fault as mapped during surface geological mapping programs and the contact between the Barstow and Pickhandle formations were provided by Apollo. The fault surface interpretation and surface mapping were validated against exploration records and was found by the Author to be accurate for the purposes of estimating mineral resources. Apollo acquired and provided Stantec with satellite-based topographic survey digital elevation model ("DEM") data from PhotoSat (PhotoSat, 2021) covering the Calico Project. The DEM was derived from a satellite stereo pair of 1.5 ft (46 cm) resolution images acquired on April 27, 2020. The resolution of the DEM is 3 ft (91 cm) with a vertical accuracy of 0.42 ft (128 mm) RMSE. Once professionally surveyed drill collar locations were captured in late 2022, the DEM was adjusted for Waterloo to reflect the acquisition of new, accurate data points.

14.4 Waterloo Model

The Waterloo geological model was created by Apollo consultant Rogue Geoscience Ltd. ('Rogue'), using LeapfrogGeo® software version 2022.1 and its implicit modelling methods. Surface mapping of structures and lithology, downhole lithology and multi-element geochemistry data were used to inform the lithologic and structural domains in the geological model. The Waterloo deposit is divided into five structural domains. Four of the structural domains, notably Cascabel, Waterloo, High-Grade Hill ('HG Hill'), and Medium-Grade Hill ('MG Hill'), host silver mineralization. The fifth and southernmost structural domain, Burcham, hosts gold mineralization. The silver mineralization structural domains are bounded by the Barstow-Pickhandle formation contact shown in Figure 7-7 cross-section.

Multi-element chemical data was critical for improving the understanding of the Waterloo deposit with several key elements and element ratios used to fingerprint lithologies and lithologic or structural contacts that could not be identified visually. For example, elements and element ratios highlighted key stratigraphic horizons such as exhalite/replacement zones within the sedimentary package under which the bulk of silver mineralization occurs; and identified important vector for silver and gold mineralization. Further, Gaussian mixture modelling was completed on historical geochemical data and highlighted numerous laterally continuous hydrothermal horizons that form a "chemostratigraphy" or vertical zonation that roughly parallels the trend of modelled subsurface bedding planes. This work has highlighted the significant deformation that silver mineralization has undergone at Waterloo and has mapped the strong geochemical zonation within the sedimentary package. Each domain is bounded by faults and the Barstow-Pickhandle formations contact.

The Author believes the 3D geology model is robust and is appropriate for use as the foundation of the MRE at Waterloo.

14.4.1 Waterloo Topographic Model

Satellite-based topographic survey DEM data covering the Calico Project was acquired from PhotoSat (PhotoSat, 2021) in 2022. The DEM was derived from a satellite stereo pair of 1.5 ft (46 cm) resolution images acquired on April 27, 2020. The resolution of the DEM is 3 ft (91 cm) with a vertical accuracy of 0.42 ft (128 mm) root mean square error (RMSE)

Historical mining waste dumps were identified and digitized as wireframes solids from observations of the satellite (geotiff) images (dated 4/27/2020) that were draped onto the wireframe topographic surface. Pre-mining topography below the waste dumps was built from wireframes surfaces-built boundary polylines digitized from the toe of the waste dump. Volumetrically, historical waste dumps are insignificant at Waterloo at only 8,980 yd^3 (6,866 m^3) as determined using the above method.

The final Waterloo model surface topography grid was generated by combining pre-mining DEM point data with 2022 surveyed collar locations from 62 historical (pre-2022) holes and 86 Apollo drill holes. The new merged points were then re-gridded using Triangular Integration Network interpolation generating a 3 ft x 3 ft resolution grid. The final topography used in the geological model did not include waste dumps, which were determined to be volumetrically insignificant.

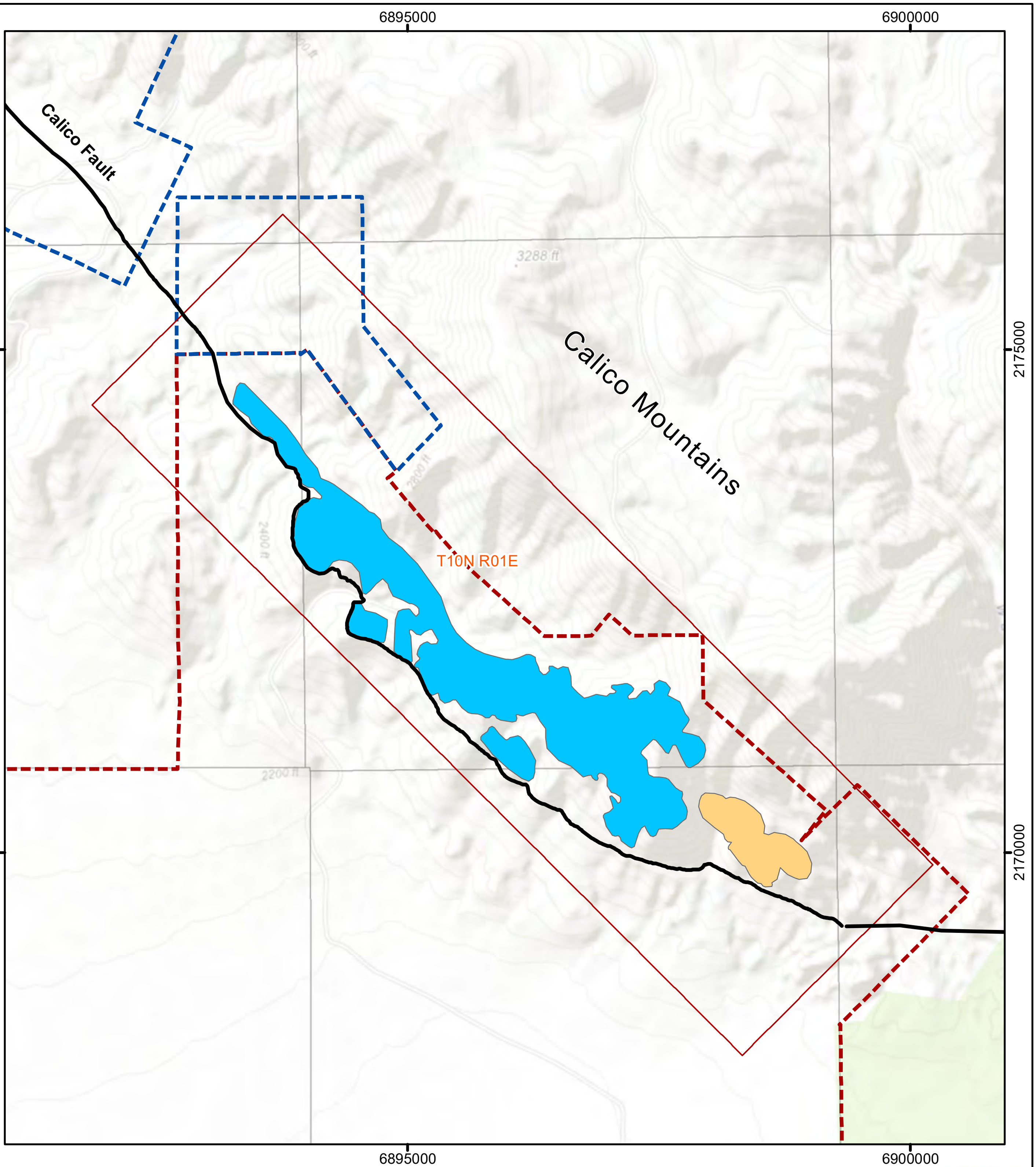
For the 2023 Waterloo mineral resource update, no surface weathering was considered, as surface mapping by confirmed that most of the site has exposed bedrock.

14.4.2 Waterloo Block Model

The Waterloo block model was developed using Leapfrog Edge® software version 2022.1 utilizing an Octree Block Model setup. All model coding was by majority code into fixed block dimensions. The block model is a horizontally rotated at 045 degrees along regional strike of the Calico range front fault. Model origin, block size, rotation and overall Project area are outlined in Table 14.1 and illustrated in Figure 14-1. The model was created in imperial coordinates in California State Plane V FIPS 0405 NAD 83 System.

Table 14.1
Waterloo Block Model Properties

Parameter		Waterloo		
		X (ft)	Y (ft)	Z (ft)
Model Origin		6,891,852	2,174,448	3,260
Fixed Block Dimension (ft)		20	20	10
Horizontal rotation		45 degrees		
Model Extent	Min	6,891,852	2,174,448	3,260
	Max	6,900,238	2,176,357	1,800
Model Range (ft)		9,160	2,700	1,460



Legend

- Langtry Property
- Waterloo Property
- Section
- Township and Range
- Calico Fault
- Waterloo Model Extent
- Silver Mineralization Surface Expression
- Gold Mineralization Surface Expression

0 200 400
Meters

0 1,400
Feet

Scale 1:16,800
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Resource Model Extent

Figure 14-1

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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14.4.3 Data Validation, Preparation and Grade Capping

Exploration drill hole records exported from Apollo's database were imported into the Leapfrog Geo® program. As part of the import process, drill hole records were checked for errata such as: overlapping log intervals, anomalous downhole survey data, extreme outliers in assay data and comparing collar survey records against DEM surface topography. No fatal flaws in the data were observed and minor discrepancies were easily resolved through cross-referencing against source records.

Not all the drill holes were used for mineral resource modelling, mainly because some of the historical holes were poorly located or did not have silver assay data. Drilling data supporting the 2023 MRE includes information from historical drilling data from 258 holes (18,678 m/61,280 ft), and 2022 drilling data from 85 holes (9,729 m/31,919 ft) for a total of 343 holes (28,407 m/93,203 ft). Of the drill data set used, 332 holes are rotary or reverse circulation holes, and 11 holes are diamond drill holes (Table 14.2).

Table 14.2
Drill holes used for 2023 Estimation

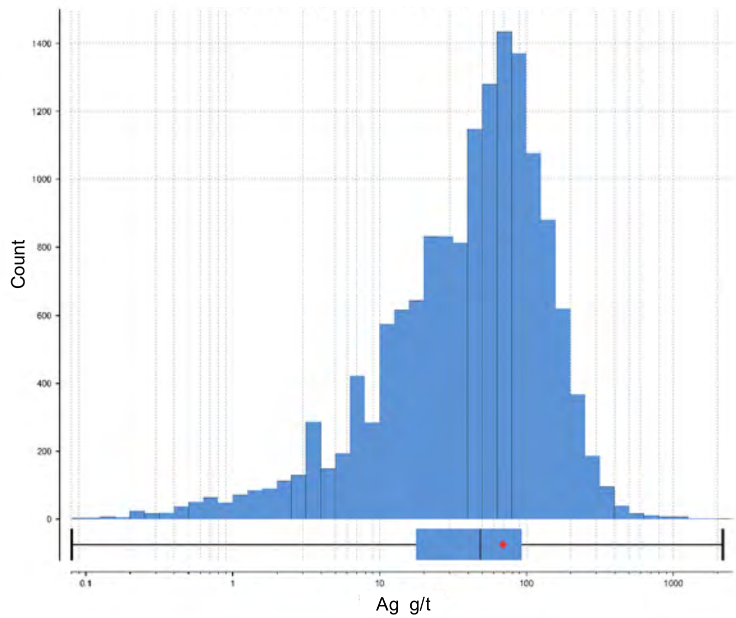
Drilled By:	Year	Type of Drilling	Number of Holes	Total Length (ft)	Total Length (m)
ASARCO	1965-66; 1970; and 1985	Rotary	194	43,664	13,308
	1989	Core	3	1,099	335
Pan American	2012	RC	53	15,132	4,612
	2012-2013	Core	8	1,388	423
Apollo	2022	RC	85	31,921	9,729
TOTAL			**343**	**93,203**	**28,407**

The global silver grade (g/t) distribution and statistics from source drill hole records are illustrated in Figure 14-2 and individual domain statistics are summarized in Table 14.3. The global silver grades illustrated in Figure 14-2 were derived from RC chip samples taken at regular 5 ft (1.5 m) intervals. Prior to grade estimation the drill hole data was composited to 5 ft (1.5 m) regular composite intervals, since most of the assay samples were collected in 5 ft intervals. Using the grade distributions shown in Figure 14-2 as a guide, the silver grades for each domain were capped at 450 g/t and the gold grade was capped at 2 g/t.

Table 14.3
Grade distribution Statistics for Uncapped Silver and Gold Data

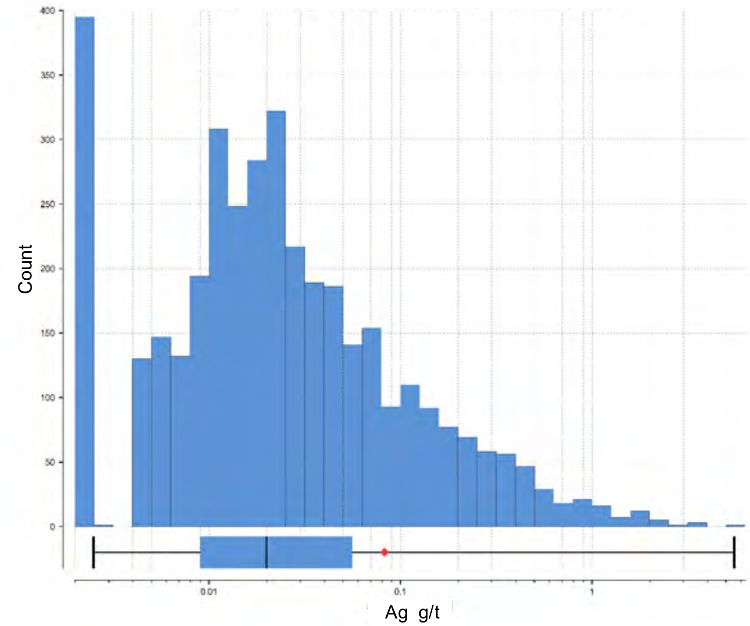
Statistic	Cascabel Ag	Waterloo Ag	HG Hill Ag	MG Hill Ag	Au Domain
Count	7,301	2,030	4,648	2,696	3,763
Mean	65.19	51.65	95.41	45.11	0.08
Standard Deviation	67.83	63.64	97.23	68.27	0.24
Covariance	1.04	1.23	1.02	1.51	2.91
Variance	4,601.21	4,049.56	9,453.96	4,660.31	0.06
Minimum	0.08	0.35	0.32	0.17	0.0025
Maximum	2,180	1,484.6	1,714.3	1,195	5.52

Waterloo Silver Grade Distribution Histogram



	Value
Count	8,778
Mean	278.988
SD	276.396
CV	0.990712
Variance	76,394.9
Minimum	4.1
Q1	105
Q2	204
Q3	360
Maximum	4,680

Waterloo Gold Grade Distribution Histogram



	Value
Count	3,763
Mean	0.0826066
SD	0.240186
CV	2.90759
Variance	0.0576892
Minimum	0.0025
Q1	0.009
Q2	0.02
Q3	0.056
Maximum	5.52

Legend

Ag silver
Au gold
CV coefficient of variation
g/t grams per tonne
Q quartile
SD standard deviation

Note

Silver grade assays from drill hole chip samples at 5 foot intervals

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Waterloo Silver and Gold Grade Statistics

Figure 14-2

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 20

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

14.4.4 Mineralized Zone Modelling

As described in Section 14.4 the Waterloo model was divided into four silver structural domains and one gold domain. The oblique view extent of the silver mineralized domains and the gold domain for Waterloo are illustrated in Figure 14-3. The mineralized zones, expressed as wireframe solids, were compiled from hard boundary wireframe surfaces. Eight hard boundaries have been used to build the mineralized zone solids used to constrain silver mineralization within the resource block model, these are:

1. Calico Fault and associated fault splays;
2. Cascabel Northeast Fault;
3. Northwest oriented Mulcahy Fault between the Burcham and MG Hill domains;
4. NE1 fault, oriented northeast between the HG Hill and MG Hill domains;
5. Gulley fault, oriented east-west between the HG Hill and Waterloo domains;
6. Lower Barstow-Upper Pickhandle formation contact;
7. Areas of collapsed mine workings; and
8. Existing waste piles.

14.4.4.1 Fault Modelling

As discussed in Section 7 of the report, the northwest dipping Calico Fault juxtaposes unmineralized upper-Barstow formation in the south-west, Calico Mountain foothills, against the mineralized lower Barstow formation in the north-west. The Calico Fault has been modelled as a wireframe surface by Rogue and is used to constrain the structural blocks in the geological model. The Calico Fault comprises a zone of anastomosing, sub-parallel, mostly northeast-dipping faults. These faults dissect and bound the stratiform silver deposits at both Waterloo and Langtry. The principal strands are the Calico Thrust fault, and two sub-parallel splays (Cascabel Northeast and Southwest).

The Calico Fault was easily identified from exploration drilling and was found to be at predictable depths during the 2022 drilling campaign. Apollo has high confidence in its location. The Northeast Cascabel belt is well constrained from surface mapping and has more control on the mineralization than the Southwest Cascabel Fault. The appears to be post-silver mineralization reactivation of the fault system that effectively thrusts the mineralized Lower Barstow southwest over the Upper Barstow footwall. There are also several post-mineralization northeast-striking and northwest-striking faults that have apparent normal offsets. These includes the Mulcahy, NE1 and Gulley Faults. These faults produce minor local offset in mineralization and have been used as hard boundaries in four structural domains at Waterloo: HG Hill, MG Hill, Waterloo, and Burcham (Figure14-3).

14.4.4.2 Formation Contact Modelling

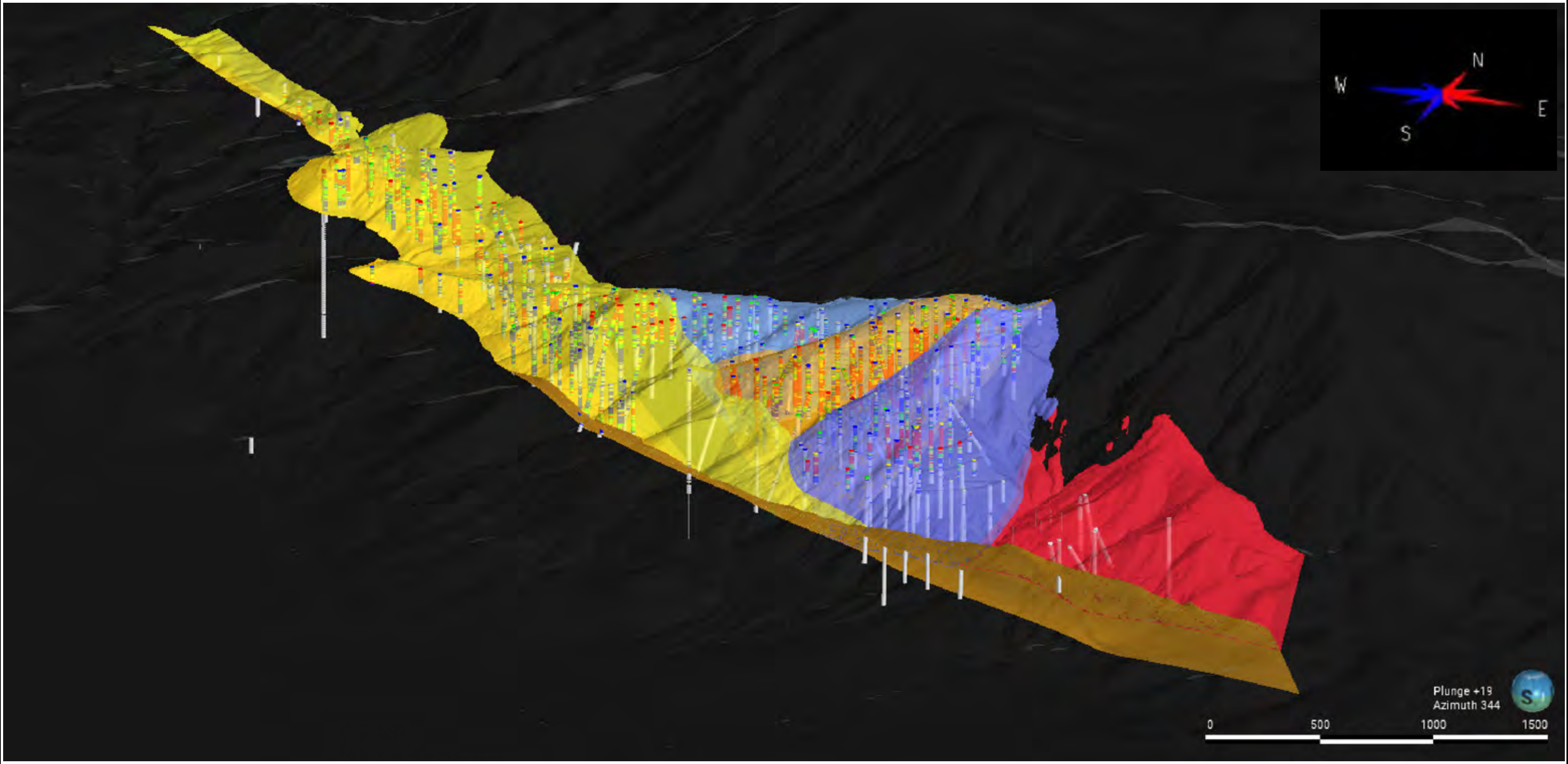
The Barstow-Pickhandle contact has been identified from surface mapping at Waterloo and from downhole multi-element geochemistry data. During the 2022 Drill Program, efforts were made to drill the stratigraphic contact between the mineralized lower Barstow and Pickhandle formation with the goal of better constraining the subsurface extent of that contact. This modelled Barstow-Pickhandle contact is used to constrain the structural domains to the north-east and ensure that the silver mineralization is not interpolated into the Pickhandle Formation.

There is also a small area approximately (2.77 acres, 1.12 ha) along the Barstow-Pickhandle contact at Waterloo where historical underground galleries have collapsed and are clearly identifiable from the surface topography imagery. A vertical cutoff has been applied surrounding this area of collapsed workings to exclude this area from the mineral resource.

14.4.4.3 Block Model Coding

The 3D block model for Waterloo was majority coded with 20 ft x 20 ft x 10 ft blocks and included all the material below the topography surface. Five structural domains are coded into the block model: Cascabel, Waterloo, HG Hill, MG Hill and Burcham. The Barstow-Pickhandle contact is the maximum north-eastern areal extent of the silver mineralized zone, and the Calico Fault is the maximum south-western extent for both the silver and gold mineralization. Figure 14-3 is a semi-transparent illustration of the final mineralized zone (solid) extents in the model as interpreted from the exploration data.

Waterloo Mineralized Zone Solids



Legend

Drill hole silver grade in grams per tonne (g/t)

Silver (Ag)
- 0 to 25 g/t
- 25 to 50 g/t
- 50 to 75 g/t
- 75 to 100 g/t
- > 100 g/t

Domains
- Cascabel
- Waterloo
- HG Hill
- MG Hill
- Burcham

HG High grade

MG Medium grade

Calico Fault

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Mineralized Zone Solids

Figure 14-3

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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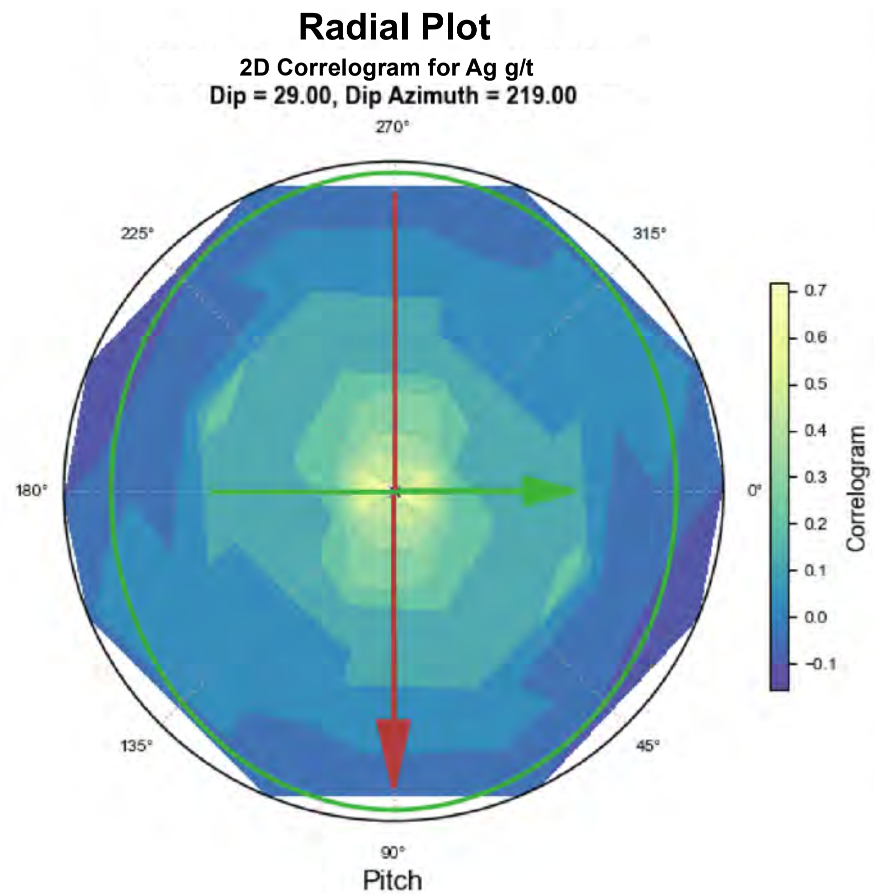
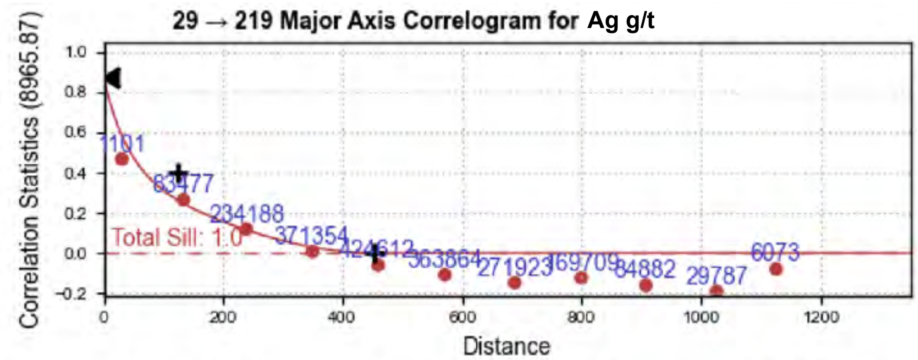
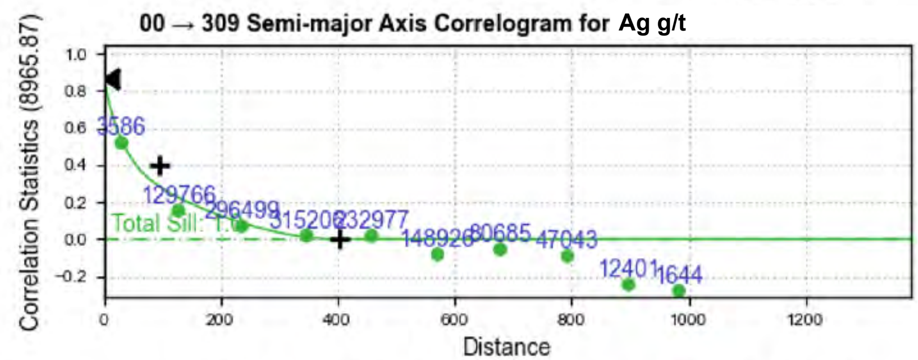
14.4.5 Silver Grade Estimation

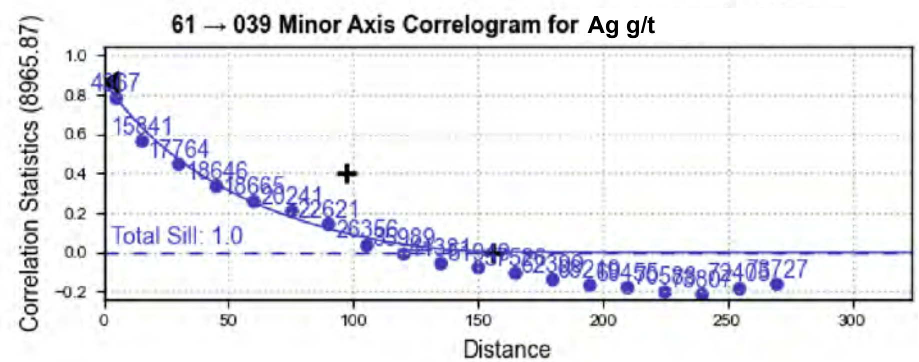
Silver grade estimation was constrained to within four structurally controlled blocks (domains) of the Barstow Formation as described in Section 14.5.4 using Leapfrog Edge ®. Estimation methods and approach were influenced by observation of silver grade (g/t) distribution in the drill hole records that were standardised to 5 ft (1.5 m) downhole regular composites. The composite data within each of the four domains were used to generate corresponding semi-variograms (correlograms). Within each domain, the nugget was determined using downhole variograms. Each correlogram were composed of two nested structures Figure 14-4 and Table 14.4.

Waterloo Silver Semi-Variogram









Legend

Ag silver

g/t grams per tonne

Notes

Regular 15 foot downhole composites within mineralized zone

Black crosses on the correlograms are the first and second structure

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Silver Correlogram High Grade Hill Domain Composite Grade Trend

Figure 14-4

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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Table 14.4
Waterloo Correlogram Parameters

Model	Nugget	Structure 1 Range (ft)				Structure 2 Range (ft)				Leapfrog Edge Direction (degrees)		
		Sill	Major	Semi-Major	Minor	Sill	Major	Semi-Major	Minor	Dip	Dip Azimuth	Pitch
Cascabel	0.15	0.71	164	112	111	0.14	1,397	405	218	29	224	4
Waterloo	0.06	0.45	91	91	97	0.49	254	165	138	26	238	150
HG Hill	0.13	0.47	123	95	97	0.40	454	403	156	29	219	90
MG Hill	0.06	0.64	313	242	115	0.29	457	318	221	28	245	162

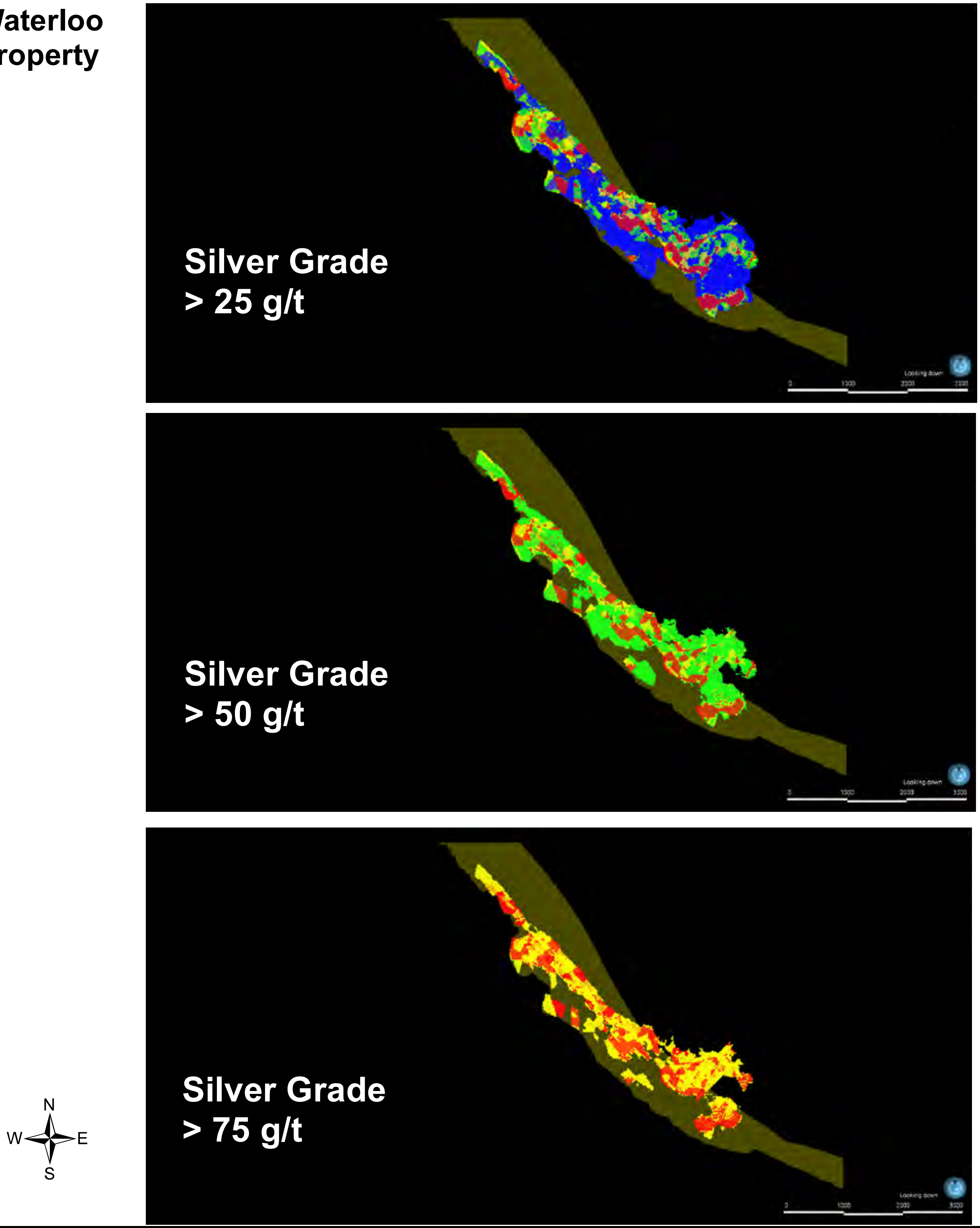
Grade trend models generated from correlograms are shown in Figure 14-9 and were selected in the estimation of block grades using ordinary kriging interpolation to best simulate the disseminated silver mineralization. The estimation parameters are listed in Table 14.5 below based on observation of the correlograms shown in Figure 14-4 and Table 14.4. The maximum search range for the grade estimation parameters listed in Table 14.5 was set to 300 ft (91.4 m).

Table 14.5
Waterloo Silver Grade Estimation Parameters

Model	No. Composites		Search Range (ft)			Leapfrog Edge Direction (degrees)		
	Min	Max	Major	Semi-Major	Minor	Dip	Dip Azimuth	Pitch
Cascabel	3	6	300	202	200	29	224	4
Waterloo	3	6	300	291	310	26	238	150
HG Hill	3	6	300	228	232	29	219	90
MG Hill	3	6	300	230	109	28	245	162

Plan view block model grade estimates for silver at greater than 25 g/t, 50 g/t and 75 g/t, are shown in Figure 14-5.

Waterloo Property



Legend

Silver grade in grams per tonne (g/t)

- 25 to 50 g/t
- 50 to 75 g/t
- 75 to 100 g/t
- > 100 g/t
- Calico Fault

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Block Model Silver Grades

Figure 14-5

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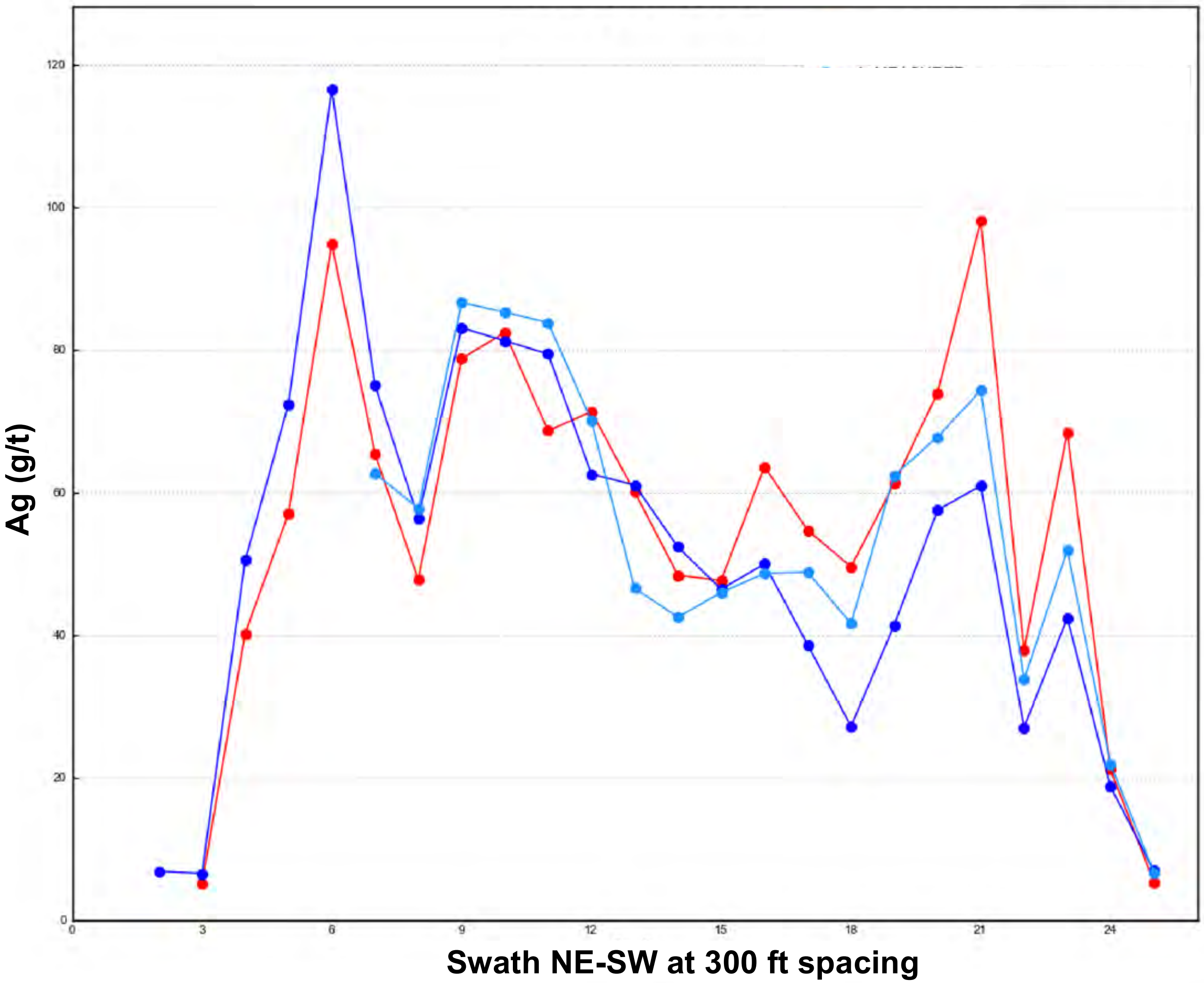
U:\233001578\disc\gis_cad\MXD\Fig_14_5_WaterlooBM_Ag_Grades_April2023.mxd

Model grade estimation validation was undertaken by comparing drill hole composite records against the block estimates both visually and with the aid of swath plots. In addition, block estimates were visually compared with an independently developed Leapfrog Geo ® numeric model built by Rogue. Model validation swath plots comparing block grade estimates with source drill hole grades are shown in Figure 14-6. The swath plots show block estimates tracking source drill hole grade estimates and overall model estimates are slightly lower that the drill hole averages due to the model data smoothing.

Waterloo Model Silver Validation Swath Plot



Legend

Ag	silver
ft	feet
NE-SW	northeast-southwest
g/t	grams per tonne

Red line = Source Data - Ag

Blue line = Waterloo Kriged Ag Data

Light blue line = Waterloo Kriged Ag Data - Measured Blocks Only

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Model Silver Validation Swath Plot

Figure 14-6

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

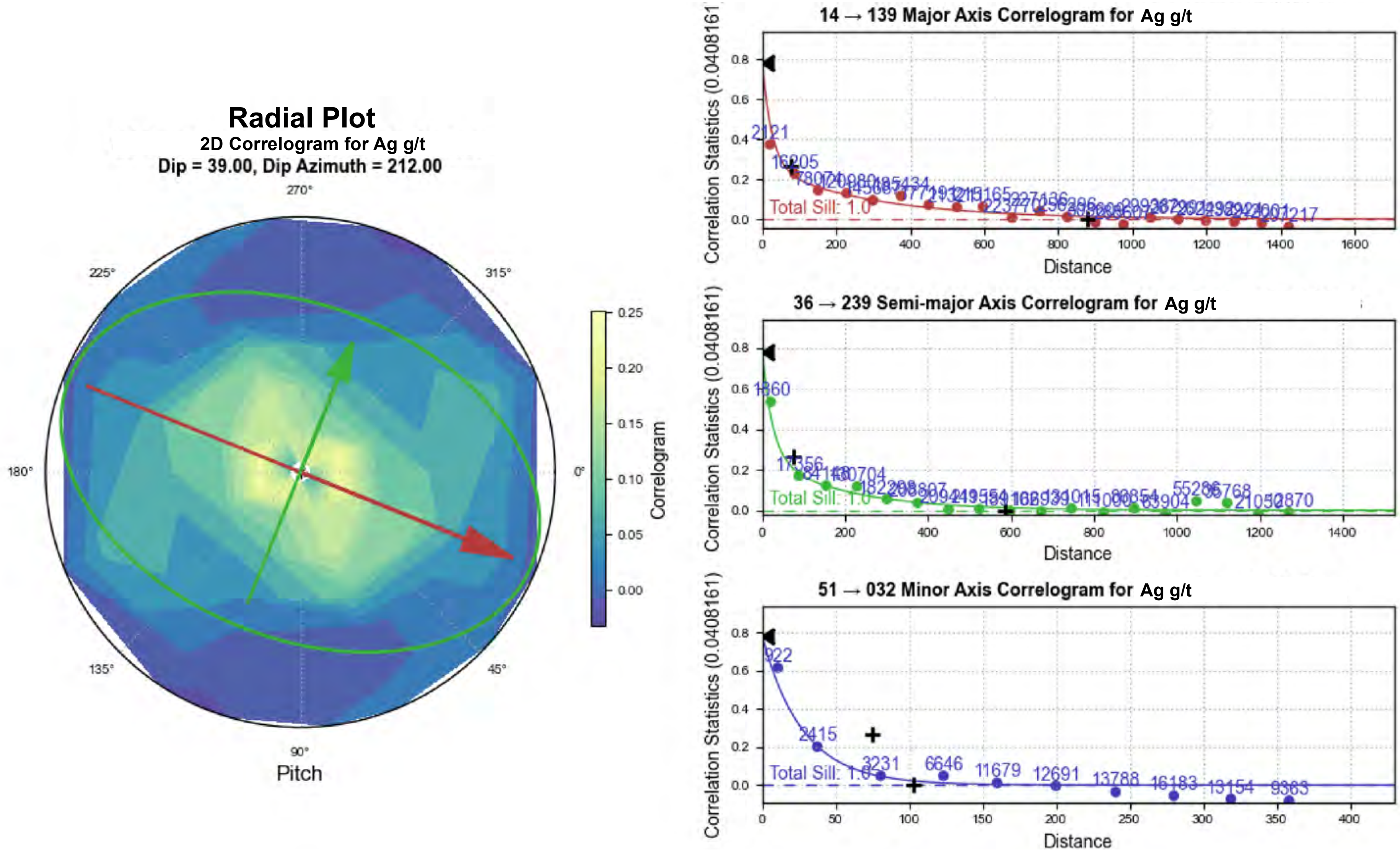
Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_6_Waterloo_Ag_ValSwathPlots_April2023_L.mxd

14.4.6 Gold Grade Estimation

Gold was estimated separately from the silver as it is spatially separate from the silver mineralization. Gold grade estimation was limited to within four of five structural blocks, excluding the Cascabel block. These four domains were merged for the purposes of gold estimation, the merged domain then referred to as the “gold domain”. Estimation was completed using Leapfrog Edge ®. Estimation methods and approach were influenced by observation of gold grade (g/t) distribution in the drill hole records that were standardised to 5 ft (1.5 m) downhole regular composites. The composite data within the gold domain were used to generate a corresponding semi-variogram (correlogram). Within each domain, the nugget was determined using a downhole variogram. The gold correlogram were composed of two nested structures Figure 14-7 and Table 14.6.

Waterloo Gold Semi-Variogram



Legend

Ag silver

g/t grams per tonne

Notes

Regular 15 foot downhole composites within mineralized zone

Black crosses on the correlograms are the first and second structure

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Gold Correlogram
Gold Domain
Composite Grade Trend

Figure 14-7

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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Table 14.6
Waterloo Gold Correlogram parameters

Model	Nugget	Structure 1 Range (ft)				Structure 1 Range (ft)				Leapfrog Edge Direction (degrees)		
		Sill	Major	Semi-Major	Minor	Sill	Major	Semi-Major	Minor	Dip	Dip Azimuth	Pitch
Au Domain	0.22	0.52	79	75	75	0.26	880	585	103	39	212	22

Gold grade trend models generated from correlograms are shown in Figure 14-7 and were selected in the estimation of block grades using ordinary kriging interpolation to best simulate the disseminated gold mineralization. The estimation parameters are listed in Table 14.7 below based on observation of the correlograms shown in Figure 14-7 and Table 14.6. The maximum search range for the grade estimation parameters listed in Table 14.7 was set to 300 ft (91.4 m).

The estimation parameters are listed in Table 14.7 below. The maximum range for grade estimates was set at 300 ft (91.4 m) based on observation of the distribution of silver grades as observed in a multidirectional correlogram of all the gold data and in the drill hole records in the 3D model. The second structure parameters were chosen as the ellipsoids was more representative the gold mineralization trend observed at Waterloo. The second structure parameters were adjusted with a ratio to keep the same shape.

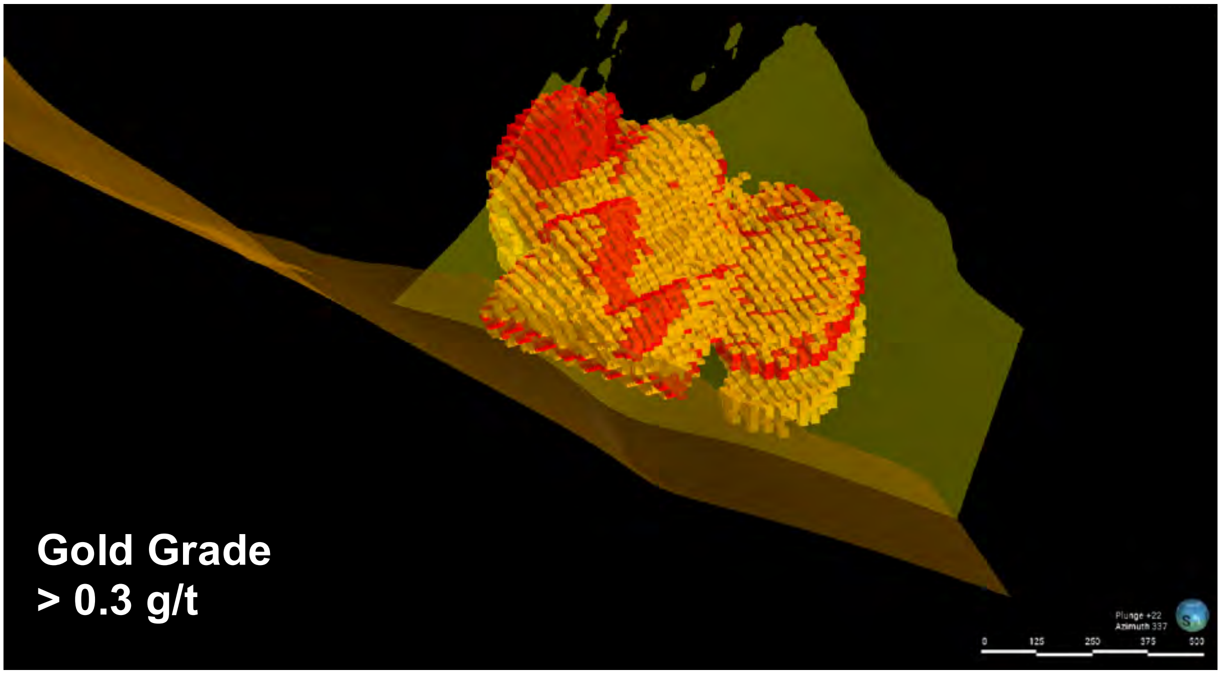
Table 14.7
Waterloo Gold Grade Estimation Parameters

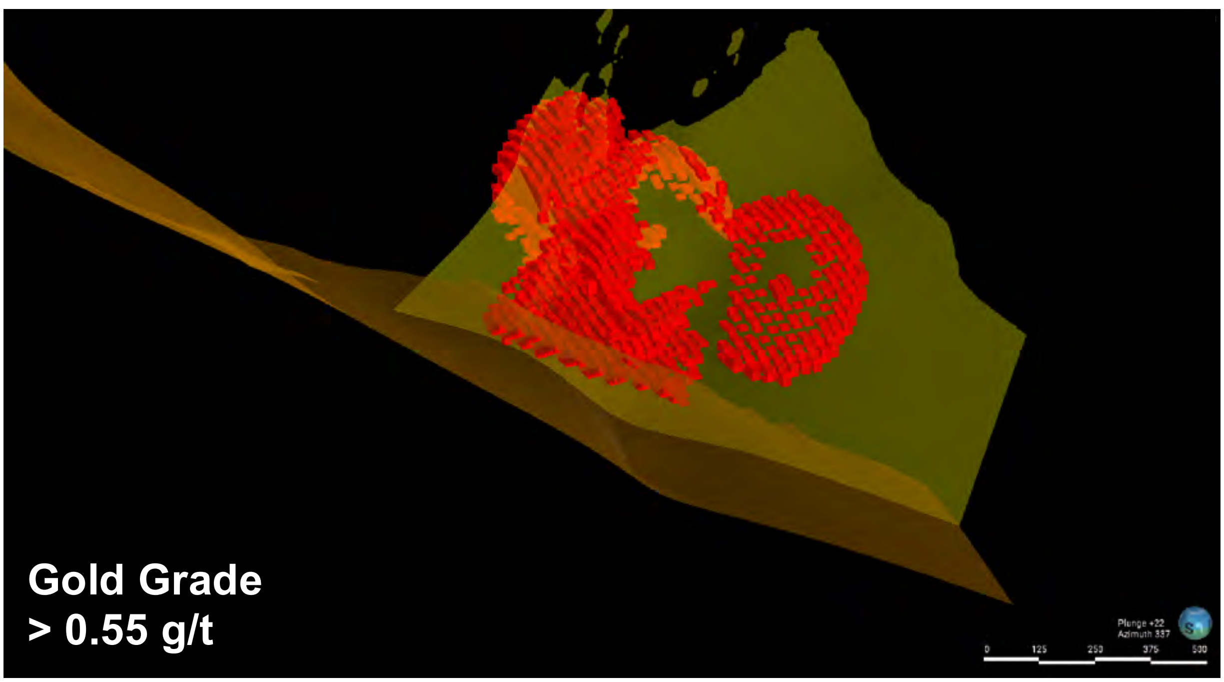
Model	No. Composites		Range (ft)			Leapfrog Edge Direction (degrees)		
	Min	Max	Major	Semi Major	Minor	Dip	Dip Azimuth	Pitch
Au Domain	4	20	300	205	36	39	212	22

Plan view block model grade estimates for gold at greater than 0.30 g/t and 0.55 g/t are shown in Figure 14-8. Materiality significant gold mineralization was observed to be mostly constrained to within the Burcham domain and primarily concentrated around the Barstow-Pickhandle contact.

Model grade estimation validation was undertaken by comparing drill hole block grades against the block estimates both visually and with the aid of swath plots. Model validation swath plots comparing block grade estimates with source drill hole grades is shown in Figure 14-9. The swath plots show block estimates tracking source drill hole grade estimates and overall model estimates are slightly lower that the drill hole averages due to the model data smoothing.

Waterloo Property





Legend

Gold grade in grams per tonne (g/t)

- > 0.55 g/t
- 0.2 - 0.5 g/t
- Calico Fault
- Pickhandle-Barstow Contact

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Block Model Gold Grades

Figure 14-8

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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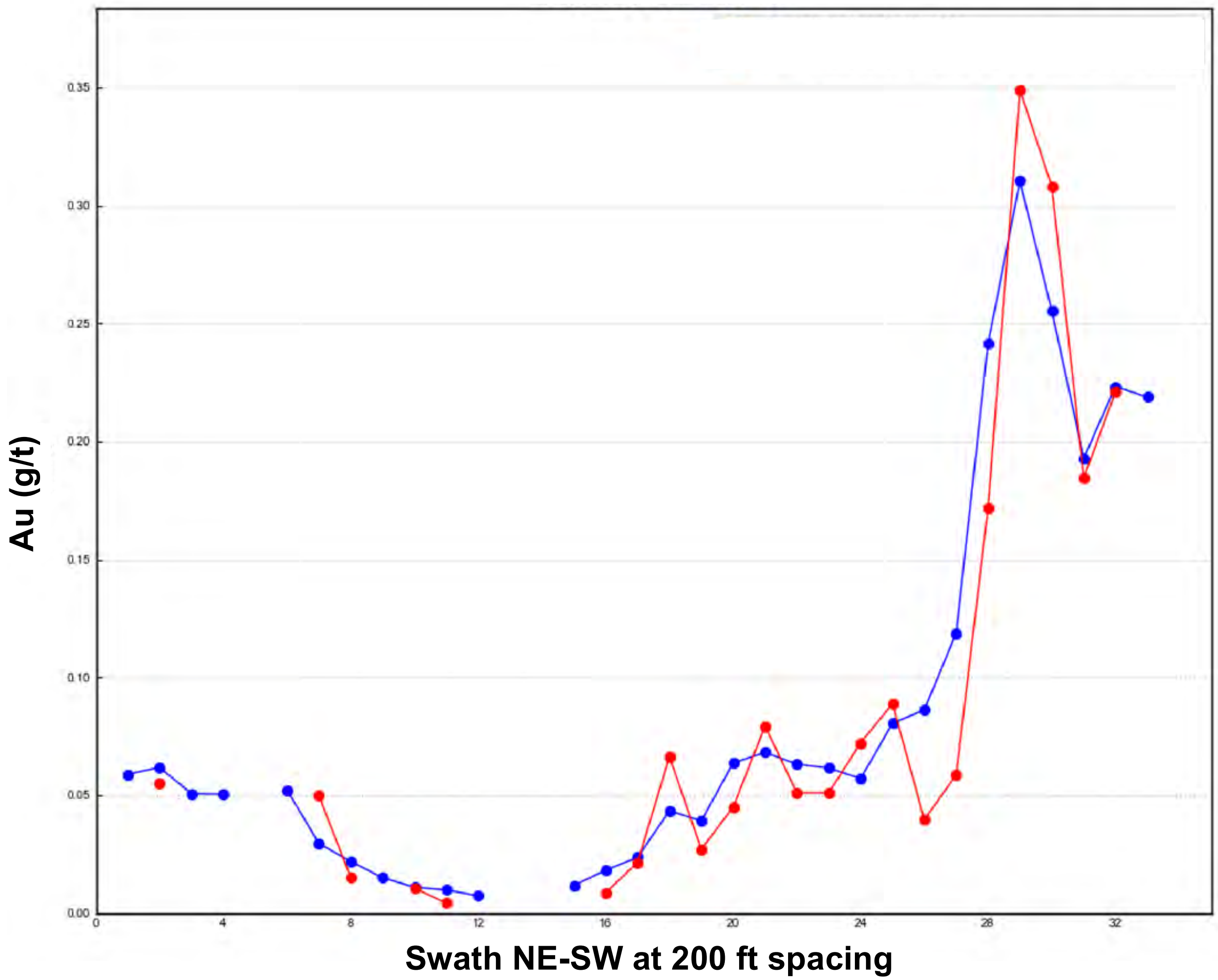
Waterloo Model Gold Validation Swath Plot



Legend

Au	gold
ft	feet
NE-SW	northeast-southwest
g/t	grams per tonne

Red line = Source Data - Au

Blue line = Waterloo Kriged Au Data

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Model Gold Validation Swath Plot

Figure 14-9

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_9_Waterloo_Gold_ValSwathPlots_April2023_L.mxd

14.4.7 Bulk Density

Average bulk density for the mineralized zones was calculated to be 13.13 ft^3/st (2.44 g/cm^3) based on an average of measurements from 247 drill core samples taken from eight diamond drill holes (W-0012, W-0013, W-0014 and W-DDH-S-12001 through to 12005) as described in detail in Section 9. Average length of the drill core samples was 0.33 to 0.49 ft (10 to 15 cm). Bulk density for samples from drill holes W-0012, W-0013 and W-0014 was determined by McClelland in 2012 using the weight in air/weight in water method. The method used to determine the bulk density for samples from holes W-DDH-S-12001 to 12005 was water immersion (after Lipton, 2001), and is described in more detail in Section 9 of this Technical Report. When all bulk density data is combined and outliers are removed, the resulting average bulk density is 2.44 g/cm^3. Given overall limited density data available for the Project, the Author has used this value as a fixed density of 13.13 ft^3/st (2.44 g/cm^3) for the Waterloo MRE.

14.4.8 Historical mine workings

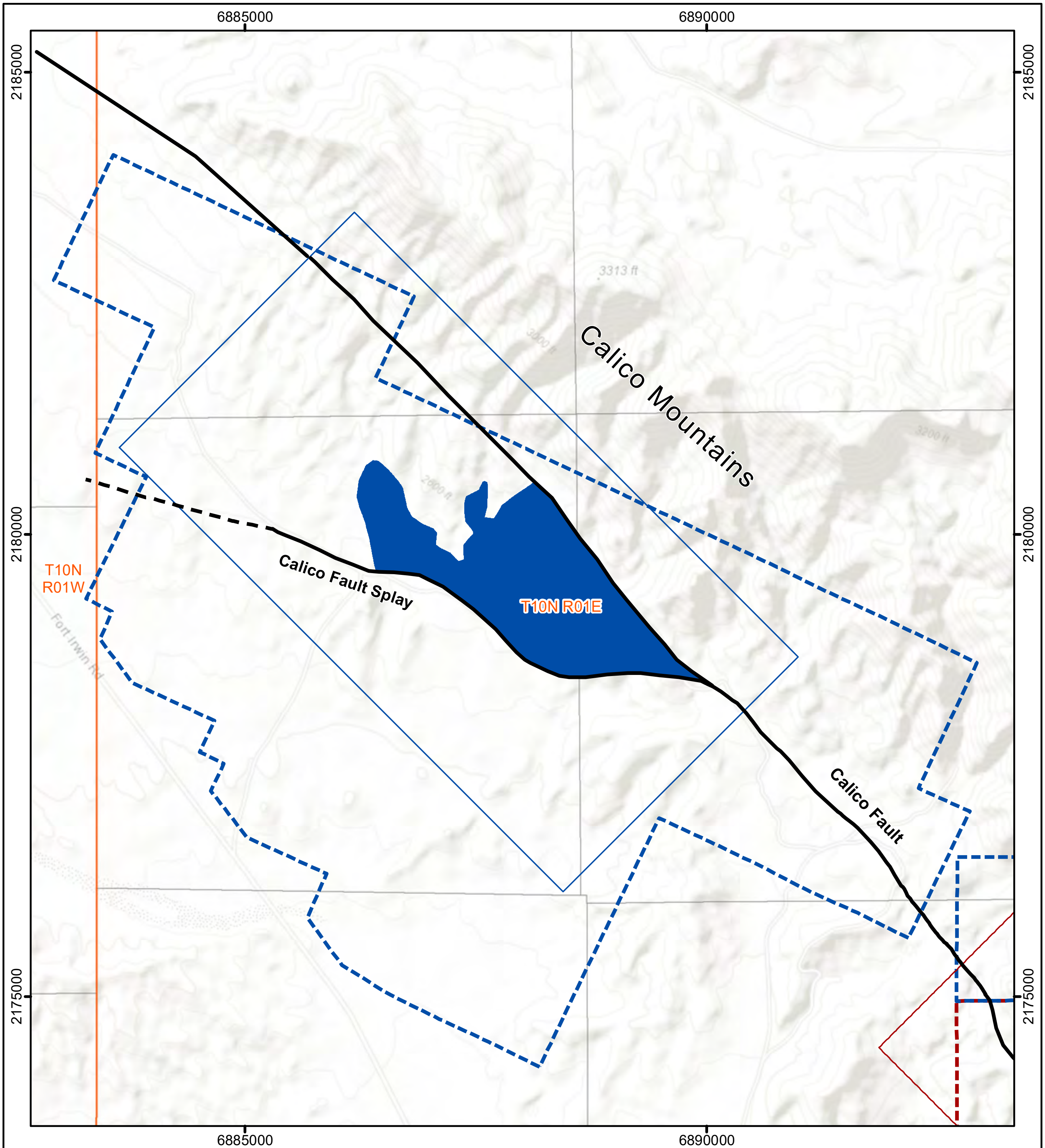
As discussed in Section 6, the Calico Project, particularly the Waterloo property, has numerous historical workings from underground mining activities that mostly targeting narrow veins or the mineralized Barstow-Pickhandle contact. In 2022, by digitizing historical maps of underground workings an estimate was made of the excavated volume from the historical underground mining. This volume was estimated to be 260,758 ft^2 (24,225 m^2) and assuming a 6 ft (1.8 m) height mined volume is calculated at 1,564,548 ft^3 (44,303 m^3) or 119,159 tons (108,099 tonnes) using a fixed density of 13.13 ft^3/st (2.44 g/cm^3). These estimated mined volumes were determined to be insignificant within the mineral resource block model and to have a non-material impact on overall resource estimates at Waterloo.

14.5 Langtry Model

The Langtry Property geologic model was developed using HxGN MinePlan 3D© software Version 16.0 utilizing conventional grid modelling and block modelling methods. The completed model used for reporting mineral resources is a horizontally rotated imperial-unit 3D block model. Rotation is at 045 degrees along regional strike of the Calico range front fault. Model origin, block size, rotation and overall Project area are outlined in Table 14.8 and illustrated in Figure 14-10. Model imperial coordinates are California State Plane V FIPS 0405 NAD 83 system.

Table 14.8
Langtry Block Model Properties

Parameter		Langtry		
		X (ft)	Y (ft)	Z (ft)
Model Origin		6,883,640	2,180,940	2,000
Block Dimension (ft)		20	20	20
Horizontal rotation		45 degrees		
Model Extent	Min	6,883,640	6,890,994	2,000
	Max	2,176,132	2,183,484	2,940
Model Range (ft)		6,800	3,600	1,940



Legend

- Langtry Property
- Waterloo Property
- Section
- Township and Range
- Calico Fault
- Fault Inferred
- Langtry Mineralized Zone Surface Extent
- Langtry Model Extent
- Waterloo Model Extent

N

0 200 400
Meters

0 1,500
Feet

Scale 1:18,000
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri
geology - Modified from Loveday, 2022.

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Langtry Resource Model Extent

Figure 14-10

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CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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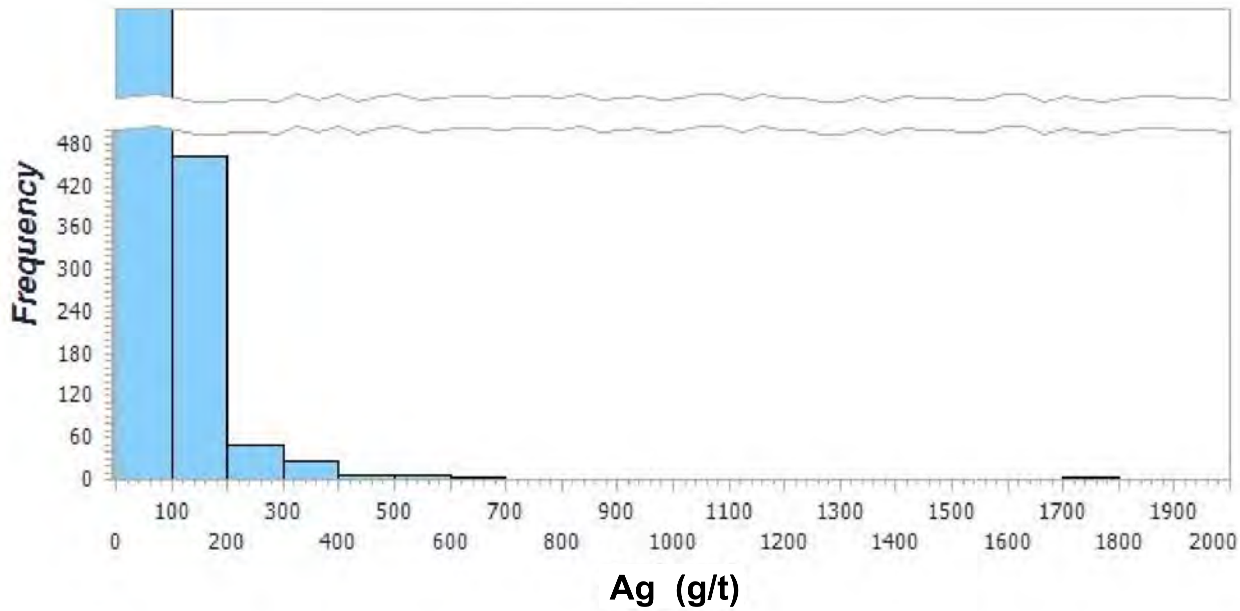
14.5.1 Langtry Model Data Validation, Preparation and Grade Capping

Exploration drill hole records were imported into MinePlan's proprietary Torque database management program. As part of the import process, drill hole records were checked for errata such as: overlapping log intervals, anomalous downhole survey data, extreme outliers in assay data and comparing collar survey records against DEM surface topography. No fatal flaws in the data were observed and minor discrepancies were easily resolved through cross-referencing against source records. For modelling purposes only collar elevations were made to match topo DEM elevation data given that accuracy of the DEM survey data is known, which is not the case for the drill hole collar elevations whose accuracy is not documented.

The PhotoSat-derived DEM data was re-grided in MinePlan to 5 x 5 ft (1.5 x 1.5 m) resolution to reduce the overall size of the files for more efficient model data processing. The 5 x 5 ft grid resolution was sufficiently detailed to recognise roads and historical dump locations after draping geotiff images onto the topographic surface.

The silver grade (g/t) distribution and statistics from source drill hole records are illustrated in Figure 14-11. The silver grades illustrated in Figure 14-11 were derived from RC chip samples taken at regular 5 ft (1.5 m) intervals. Prior to grade estimation the drill hole data was composited to 15 ft (4.6 m) regular composite intervals. No top capping for the Langtry drill hole data was used due in part to the smoothing effects of 15 ft (4.5 m) composite intervals.

Langtry Silver Grade Distribution



Summary Statistics

Statistics	Ag (g/t)
Valid Data	13299
Total Data	13299
Missing Data	0
Invalid Data	0
Minimum	0.1
Maximum	6240
Mean	25.353
Variance	5234.716
Standard Deviation	72.351
Coefficient Of Variation	2.854
First Quartile (Q1)	0.34
Median (Q2)	10.97
Third Quartile (Q3)	32.23

Legend

Ag silver

g/t grams per tonne

Notes

1. Silver grad assays from drill hole chip samples at 5 foot intervals

2. Effective date January 28, 2022 (Loveday, 2022)

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TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Model Silver Grade Statistics

Figure 14-11

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_11_LangtrySilveGradeStats_April2023.mxd

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14.5.2 Langtry Model Mineralized Zone Modelling

The plan view extent of the silver mineralized zones for the Langtry Property are illustrated in Figure 14-12. The mineralized zones, expressed as wireframe solids, were compiled from hard boundary wireframe surfaces. Six hard boundaries have been used to build the mineralized zone solids used to constrain silver mineralization within the mineral resource block model, these are:

1. Calico Fault and associated fault splays
2. Lower Barstow-Upper Pickhandle formation contact
3. Surface weathering
4. Silver grade estimation

14.5.2.1 Fault Modelling

As discussed in Section 7 of the report, the northwest dipping Calico Fault juxtaposes unmineralized upper-Barstow formation in the south-west, Calico Mountain foothills, against the mineralized lower Barstow formation in the north-west. The Calico Fault has been modelled as a wireframe surface by Apollo and used by the Author in the geological model. At Langtry the Calico Fault splits into two, with the northern extension resulting in a faulted contact between the mineralized lower Barstow formation and the stratigraphically lower Pickhandle formation.

14.5.2.2 Formation Contact Modelling

The stratigraphic contact between the mineralized lower Barstow and Pickhandle formations has not been sufficiently penetrated from drill hole records at Langtry to determine subsurface extent. The Barstow-Pickhandle contact has however been identified from surface mapping at Langtry. Although recent geologic mapping and historical surface mapping and sampling indicate that the Pickhandle Formation at Langtry is silver mineralized, the very limited amount of drilling data in this formation warranted treating the Barstow-Pickhandle contact as a hard boundary for mineralization at depth below surface.

14.5.2.3 Surface Weathering Modelling

Surface weathering, comprising soil and regolith, was estimated to be on average about 2 ft (0.6 m) across the Langtry Property where mineralized lower Barstow formation has been mapped. A surface weathering cap (wireframe solid) was built by first creating a wireframe topo surface form a 20 ft x 20 ft (6.1 x 6.1 m) grid surface covering the extents of the 3D block model shown in Figure 14-12. Topo data was sourced from the PhotoSat DEM. MinePlan macros were then used to build a base of weathering grid surface at topo less 2 ft (0.6 m). A surface weathering cap was then built by combining the two topo and base of weathering grid surfaces.

14.5.2.4 Block Model Zone Coding

The Langtry 3D block model Langtry was coded with block percentages by volume that included: zone below topography, zone of potential mineralization, and zone of surface weathering. Volumes of potential mineralization include those unweathered sediments of what is understood to be the Lower Barstow formation within the Calico Fault split wedge at Langtry. The maximum north-eastern areal extent of the potential mineralized zone in the model is the Barstow-Pickhandle formation contact. Figure 14-12 is a semi-transparent illustration of the final mineralized zone (solid) extents in the model as interpreted from the exploration data. The mineralized zone for Langtry, shown in Figure 14-12 is further constrained by silver grade trends as observed from the block grade estimates discussed separately below.

14.5.2.5 Silver Grade Estimation

Silver grades (g/t) generated from regular 15 ft (4.5 m) downhole composites were tagged with a zone code where penetrating potential mineralization (described above) and then subsequently estimated into the 3D block models using code matching using an ordinary kriging algorithm. Prior to estimation semi-variograms were generated from mineralized zone composites. The multi-directions (30-degree increments) semi-variograms generated for the Langtry Property are shown in Figure 14-13 as generated using MinePlan software. The more tightly constrained grade trends observed for Langtry in plan and looking north suggest that there is likely north-south extensional trending fault possibly associated with splitting of the Calico Fault at Langtry.

Grade trend models generated from semi-variograms shown in Figure 14-13 were used in estimation of block grades. The estimation parameters are listed in Table 14.9 below. The maximum range for grade estimates was set at 300 ft (91.4 m) based on observation of the distribution of silver grades as observed in the drill hole records in the 3D model**.**

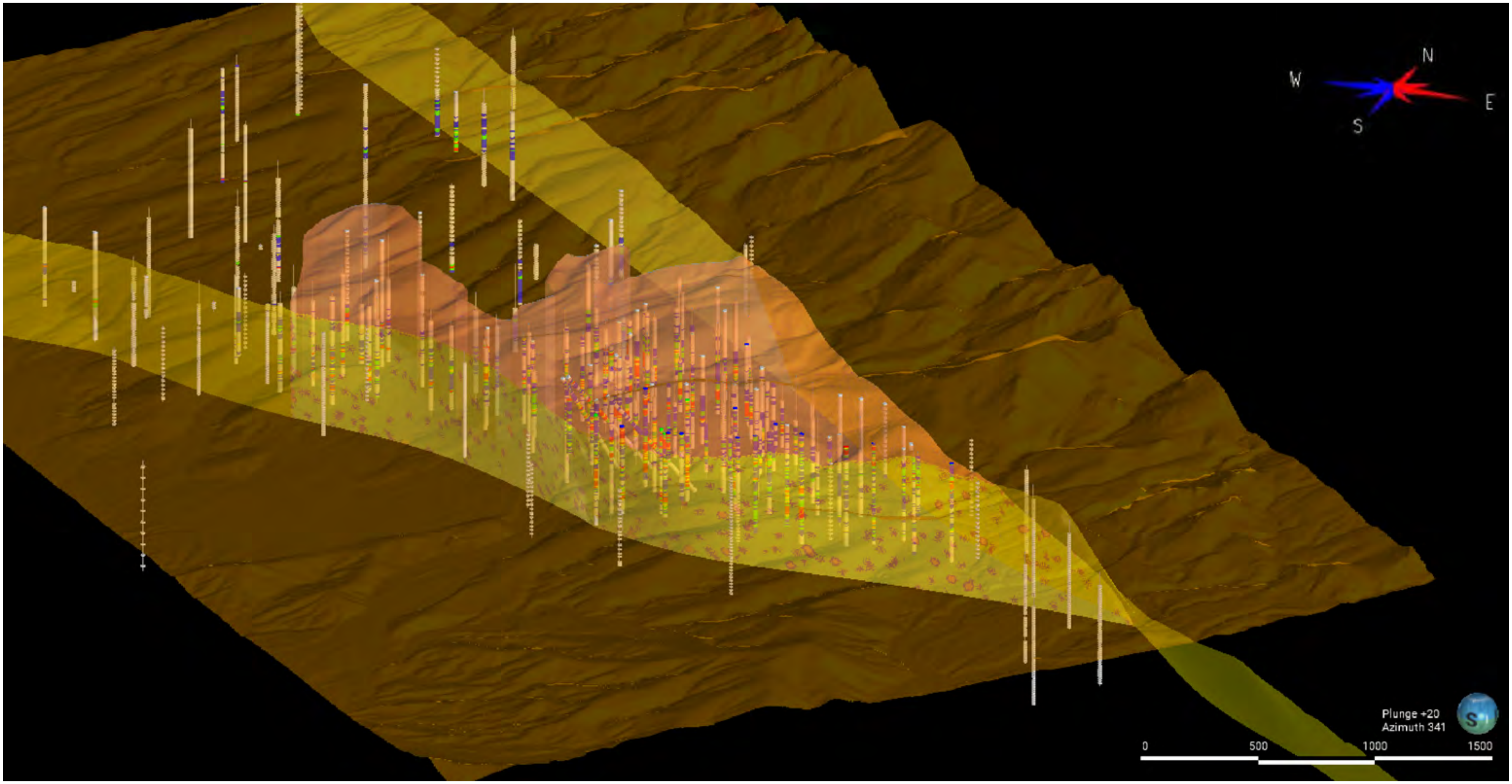
Table 14.9
Langtry Silver Grade Estimation Parameters

Model	No. Composites		Nugget	Range (ft)			GSlib Rotation (degrees)		
	Min	Max		Major	Minor	Vertical	1	2	3
Langtry	3	6	0.6	300	98	61	8.1	10.3	-1.9

In the western half of the Langtry Property there are a few widely dispersed drill holes reporting low (<25 g/t) silver grades. This less explored areas were subsequently excluded from the final Langtry mineralized zone extent due to overall low silver grades and lack of sufficient exploration data to support a mineral resource. The Langtry mineralized zone shown in Figure 14-12 is the final mineralized zone after talking into account exploration coverage and block model silver grade trend estimates. Plan view block model grade estimates for silver at greater than 25 g/t, 50 g/t and 75 g/t, are shown in Figure 14-14 for Langtry.

Model grade estimation validation was undertaken by comparing drill hole block grades against the block estimates both visually and with the aid of swath plots. Model validation swath plots comparing block grade estimates with source drill hole grades is shown in Figure 14-15. The swath plots show block estimates tracking source drill hole grade estimates and overall model estimates are slightly lower that the drill hole averages due to the model data smoothing.

Langtry Mineralized Zone Solid



Legend

Drill hole silver grade in grams per tonne (g/t)

Silver (Ag)

- 0 to 25 g/t
- 25 to 50 g/t
- 50 to 75 g/t
- 75 to 100 g/t
- > 100 g/t

- Mineralized Zone Domain
- Calico Fault and Splay
- Surface Topography

Note Effective date January 28, 2022 (Loveday, 2022)

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Langtry Mineralized Zone Solid

Figure 14-12

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

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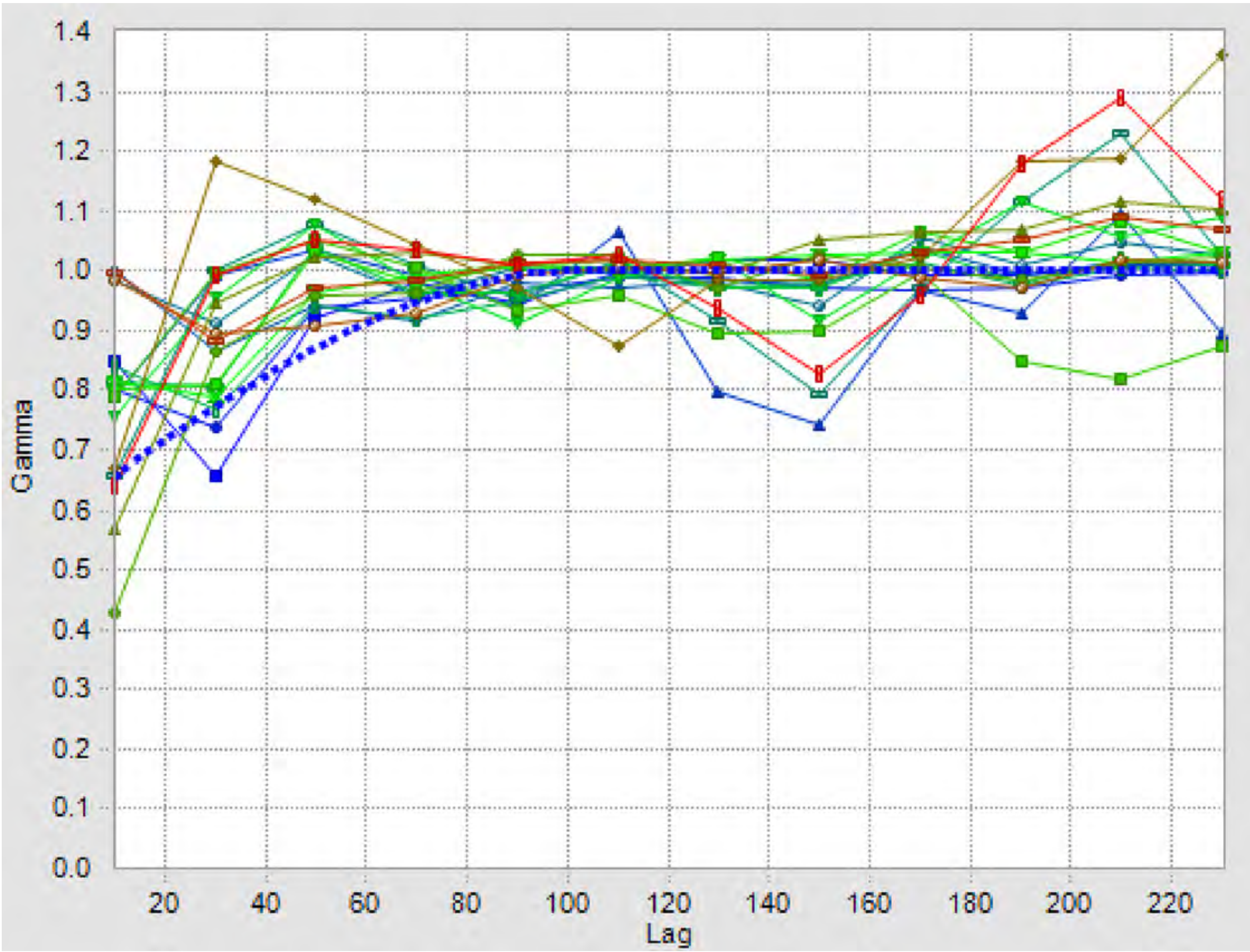
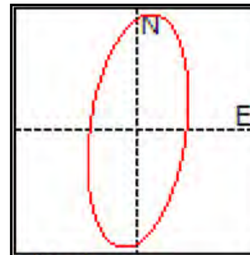
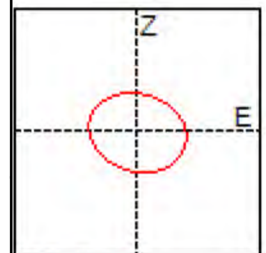
Langtry Silver Semi-Variogram

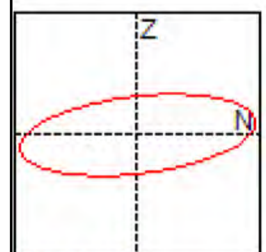




EN plane
(looking down)
Structure #1



EZ plane
(looking north
Structure #1



NZ plane
(looking west
Structure #1

Legend

Notes

1. Regular 15 foot downhole composites within mineralized zone
2. Effective date January 28, 2022 (Loveday, 2022)

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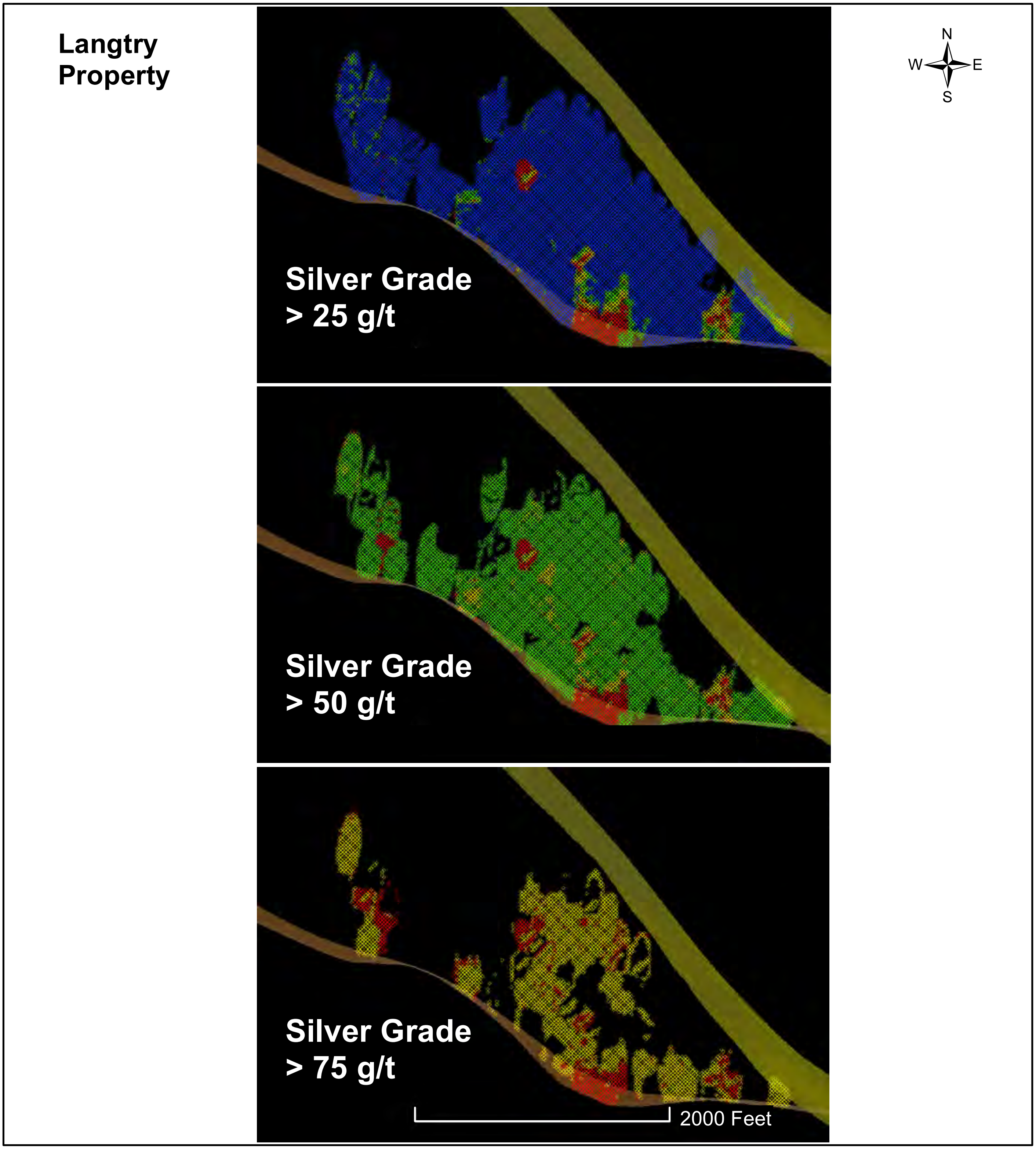
TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Silver Semi-Variogram Composite Grade Trend

Figure 14-13

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_13_Langtry_Ag_SemiVariComps_April2023_L.mxd



Legend

Silver grade in grams per tonne (g/t)

- 25 to 50 g/t
- 50 to 75 g/t
- 75 to 100 g/t
- > 100 g/t
- Calico Fault
- Calico Fault Splay

Note Effective date January 28, 2022 (Loveday, 2022)

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TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Block Model Silver Grades

Figure 14-14

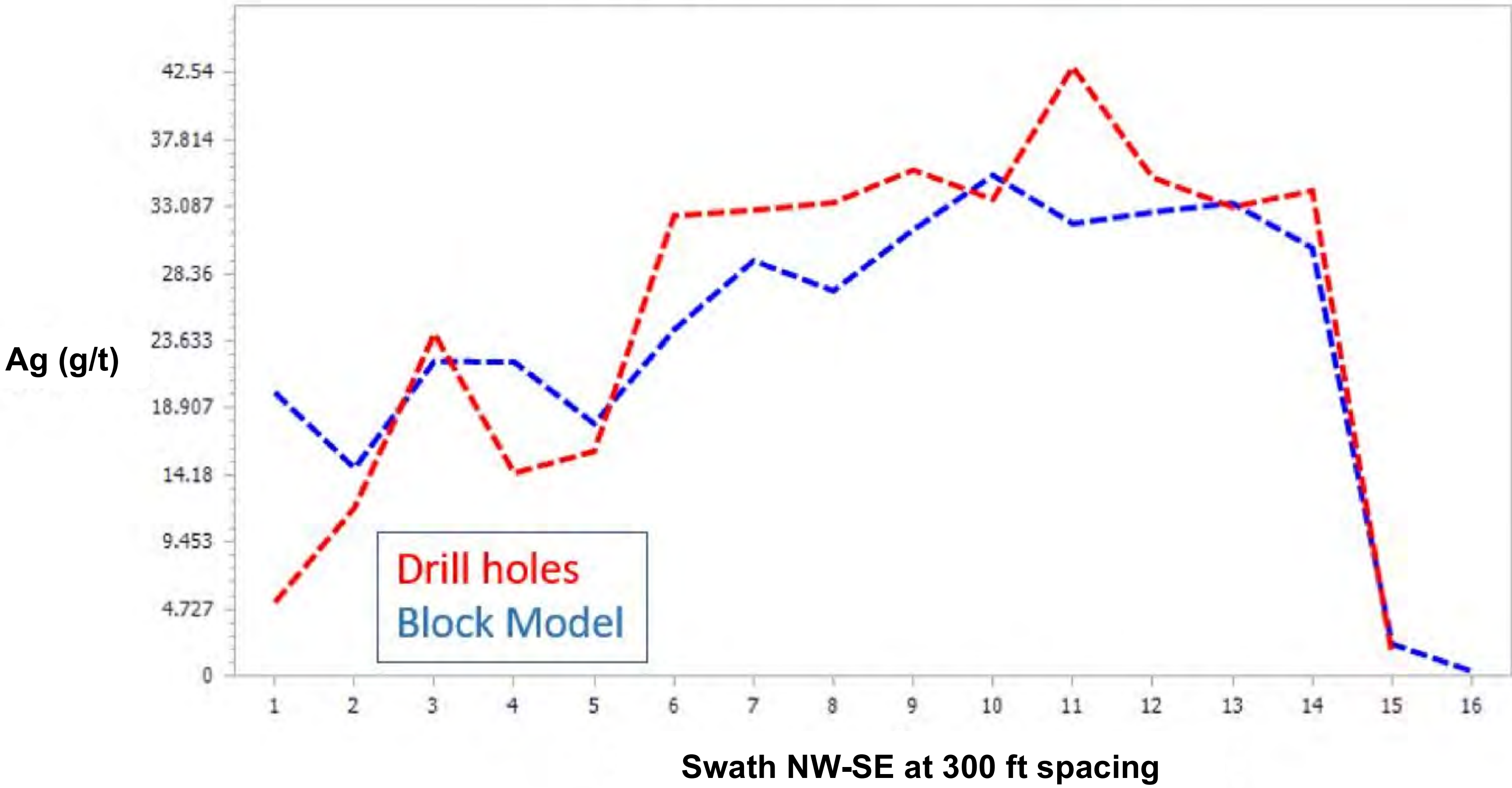
DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 19	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_14_LangtryBM_Ag_Grades_April2023.mxd

14.5.2.1 Bulk Density

No density sample data was available for Langtry. Average bulk density for the Langtry mineralized zone was calculated to be 13.13 ft^3/st (2.44 g/cm^3) based on an average of 109 drill core samples taken from three diamond drill holes (W-0012, W-0013, W-0014) penetrating the mineralized zone at Waterloo. Average width of the drill core samples was 0.52 ft (0.16 m). Method used to determine the core density was not documented in the available data however the reported density is within expectations for the mineralized host rock, notably predominately sandstone. Given overall limited density data available for the Project, the Author has used a fixed density of 13.13 ft^3/st (2.44 kg/m^3) for the Langtry mineral resource tonnage estimates.

Langtry Model Silver Validation Swath Plot



Legend

Ag	silver
ft	foot
NW-SE	northwest-southeast
g/t	grams per tonne

Note: Effective date January 28, 2022 (Loveday, 2022)

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TECHNICAL REPORT CALICO SILVER PROJECT

Langtry Model Silver Validation Swath Plot

Figure 14-15

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_15_Langtry_Ag_ValSwathPlots_April2023_L.mxd

14.6 Assessment of Reasonable Prospects for Economic Extraction

A base case silver mineral resource COG of 50 g/t and gold mineral resource of 0.30 g/t has been determined based on the economics of a surface mining operation at approximately 4 Mtpa resource tons.

14.6.1 Waterloo Property

The base-case COG for silver and gold was determined using the following assumptions as of the effective date (February 8, 2023) of the Waterloo MRE:

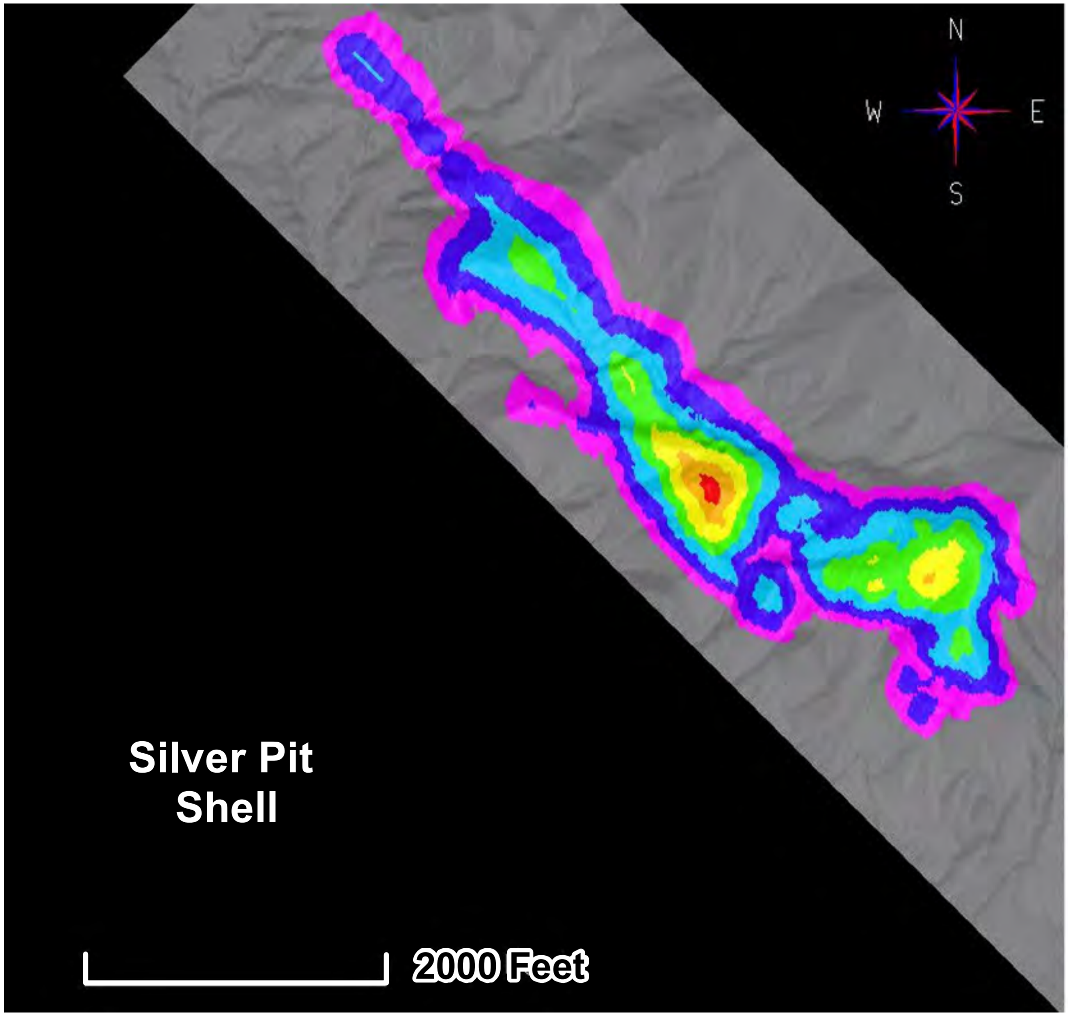
- Silver price of US$23.50 per troy oz
- Gold price of US$1,800 per troy oz
- Silver Processing cost of US$20/st
- Gold Processing cost of US$8/st
- General and Administrative cost of $3/st
- Mining costs of US$2.75/st
- Silver recovery of 65%
- Gold recovery of 80%

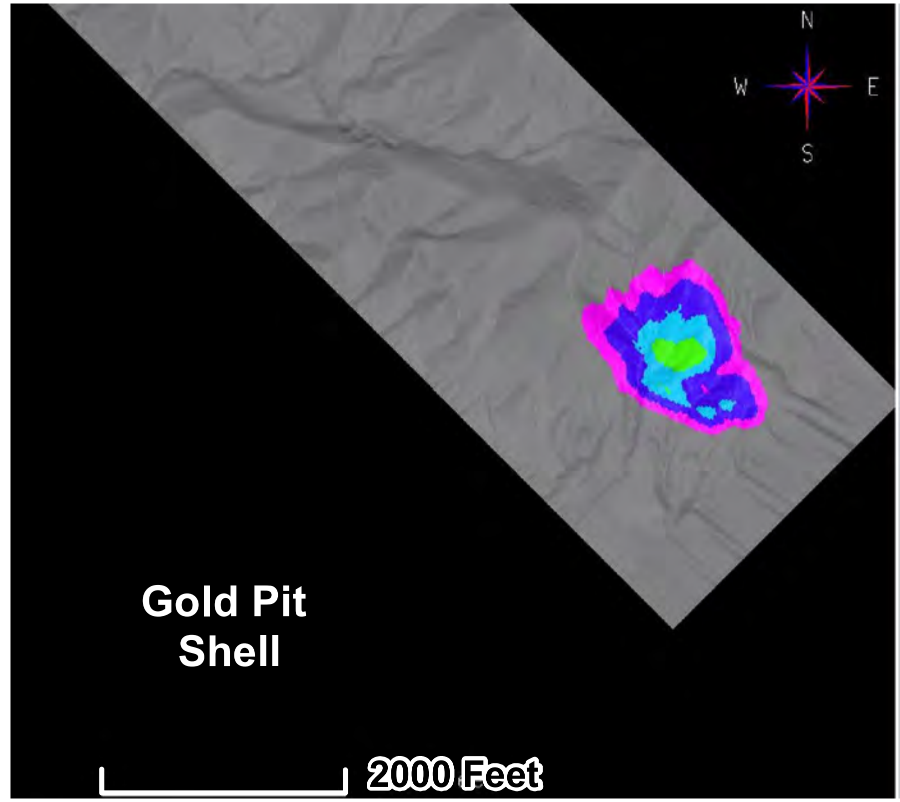
Silver price was determined by averaging the price from the last 24 months up to January 31, 2023, based on data from the World Bank. Royalty costs are not included as these costs are considered non-material in impact relative to processing costs. Processing and recovery assumptions were based on using an ultra-fine grind (“UFG”) cyanide mill for silver and a cyanide heap leach for gold. Further information in support of these assumptions can be found in Section 13 where the preliminary results of recent metallurgical test results are described. Increased silver and gold prices, optimised processing parameters and/or improved silver/gold recoveries will all impact the COG and the resultant MRE.

The Leapfrog generated block model was imported into HxGN MinePlan 3D© software to build an economic pit shell. Separate silver-only and gold-only economic pit shells, at a constant 45 degrees slope, were developed using a Pseudo-flow algorithm. A 50 g/t silver COG and 0.30 g/t gold COG was used to separate resource blocks from waste blocks for each corresponding pit shell. A US$23.50 per troy ounce revenue for a silver and a US$1,800 per troy ounce revenue for gold, and fixed mining cost of US$2.75/st were used in the derivation of separate economic pit shells for the Waterloo Property.

A fixed density of density of 13.13 ft^3/st (2.44 g/cm^3) for both mineralized and waste zones was applied. The resultant ultimate pit extended to a maximum vertical depth of 640 ft (195 m) for silver and 260 ft (79 m) for gold. Figure 14-16 shows shown the plan view vertical depth for the Waterloo pit shells.

Waterloo Mineralized Zone Solid Pit Shells





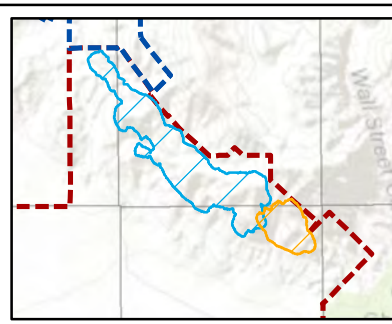
Legend

Pit vertical depth below surface

Feet

0
0-100
100-200
200-300
300-400
400-500
500-600
>600

Gold Pit Shell
Silver Pit Shell
Langtry Property
Waterloo Property



N

0 600 1,200 Meters

0 2,500 5,000 Feet

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TECHNICAL REPORT CALICO SILVER PROJECT

Waterloo Silver and Gold Economic Pit Shells

Figure 14-16

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_16_Waterloo_EconomicPitShell_April2023_L.mxd

14.6.1 Langtry Property

The base-case COG for silver was determined using the following assumptions as of the effective date (January 28, 2022) of the Langtry MRE:

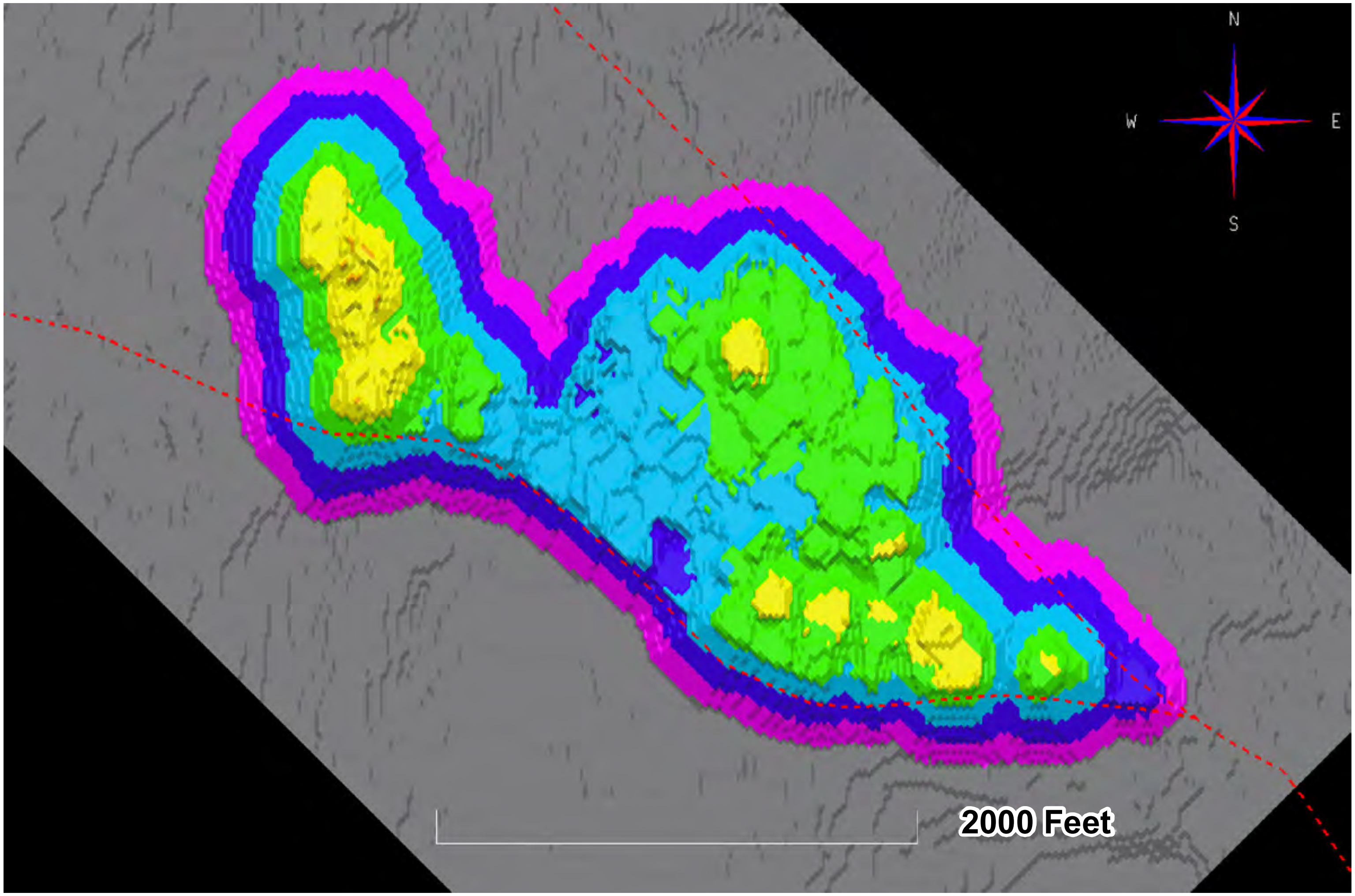
- Silver price of US$23 per troy oz
- Processing costs of US$29/st
- Mining costs of US$2.50/st
- Silver recovery of 80%

Silver price was determined by averaging the price from the last 24 months up to December 31, 2021, based on data from the World Bank. Royalty costs are not included as these costs are considered non-material in impact relative to processing costs. General and administrative costs are included as part of the processing costs. The processing cost was based on published estimates for similar deposit types, cross-checked against historical processing costs determined by ASARCO in their 1980 historical feasibility study for Waterloo, and adjusted for inflation to 2022 prices. Processing of the mineralized material would be onsite extracting silver by a cyanidation process that may or may not include a salt roast. Increased silver prices, optimised processing parameters and/or improved silver recoveries will all impact the COG and the resultant MRE. Furthermore, the price used for the Waterloo Property below is only slightly different and the QP believes that the Langtry Property silver cost and other parameters are still current as there are only non-material variances.

An economic pit shell at a constant 45 degrees slope was developed using a Lerchs-Grossmann algorithm and 50 g/t silver COG to separate resource blocks from waste blocks in the models. A US$23 per troy ounce revenue for a silver recovery of 80% and a mining cost of US$2.50/st were used in the derivation of the economic pit shell. A fixed density of density of 13.13 ft^3/st (2.44 g/cm^3) for both mineralized and waste zones, relatively minor surface weathering was assumed a density of 1.78 ft^3/st (1.80 g/cm^3). The resultant ultimate pit extended to a maximum vertical depth of 520 ft (158 m) at Langtry. Figure 14-17 shows shown the plan view vertical depth for the Langtry pit shell.

The Langtry mineral resource remains unchanged from 2022 as no drilling or material exploration work was completed there during the year 2022.

Langtry Mineralized Zone Solid Pit Shell



Legend

Pit vertical depth below surface

Feet

Feet
0
0-100
100-200
200-300
300-400
400-500
500-600
>600

Calico fault trace on surface

Note

Effective date January 28, 2022 (Loveday, 2022)

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TECHNICAL REPORT CALICO SILVER PROJECT

Langtry
Economic Pit Shell

Figure 14-17

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_17_Langtry_EconomicPitShell_April2023_L.mxd

14.7 Resource Classification

The mineral resources were categorised in accordance with the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014). The classification categories are defined considering the following information:

- Location of points of observation, typically drill hole lithologic, structural and sample data;
- confidence in the quality of the exploration data; and
- spatial continuity of mineralization as evidenced from sample records.

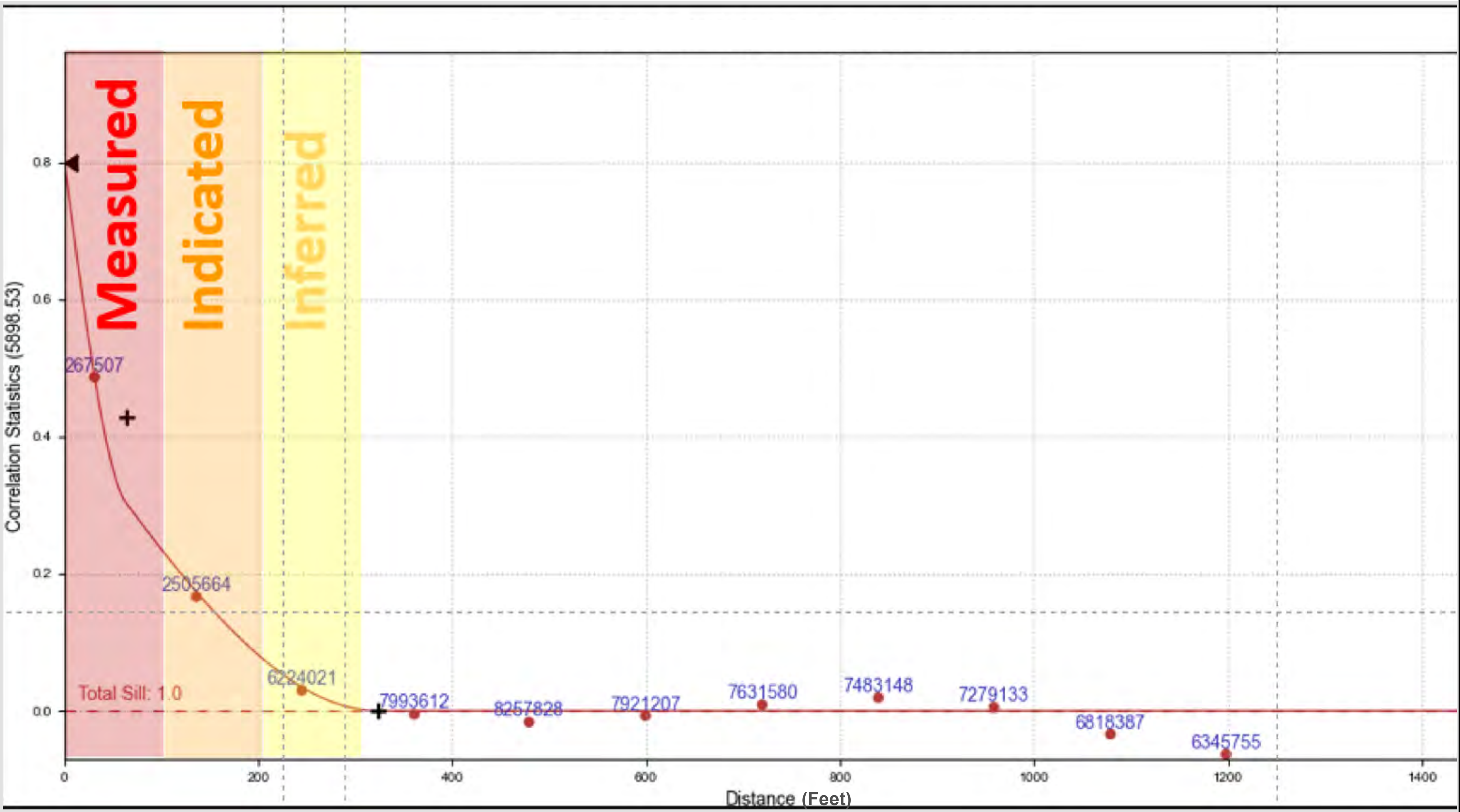
The Mineral Resource is divided into three categories: Measured, Indicated and Inferred categories. An Inferred Mineral Resource has a lower confidence than that applied to an Indicated Mineral Resource, and an Indicated Mineral Resource has a lower confidence than that applied to a Measured Mineral Resource.

14.7.1 Waterloo Silver Resource Classification

The silver mineral resource classifications were based on observations of the distribution of silver mineralization in the drill hole records. The global combined multi-directional correlogram shown in Figure 14-18 built from composite (5ft) silver grades within the mineralized zones, was used as a guide in allocating Measured, Indicated, and Inferred resource categories. First pass silver resource classification was based on distance to nearest composite silver grade within the mineralized zone. For Measured resource blocks were coded where the closest composite sample was less than or equal to 100 ft. For Indicated resources the closest composite samples between 100 ft and less than or equal to 200 ft. For Inferred resources the closest composite samples between 200 ft and less than or equal to 300 ft. After visual inspection of this first pass classification, the following modification were applied to complete the final silver resource classification:

- Isolated areas of Measured or Indicated resource surrounding a single drill hole were reclassified to align with the Author's understanding of quantity and quality of surrounding exploration data used to inform the resource model.
- The historical underground mine collapse area, shown in Figure 6-4 and Figure 10-1, was re-coded as unclassified and therefore not in resource; and
- Areas of underground mine workings, shown in yellow in Figure 6-2 that did not have a surface impact (collapse), were re-classified to a maximum Indicated level of assurance.

The Waterloo silver resource classification map is shown in Figure 14-19.



Legend

Note
Global combined multi-direction correlogram built from 5 foot composites.

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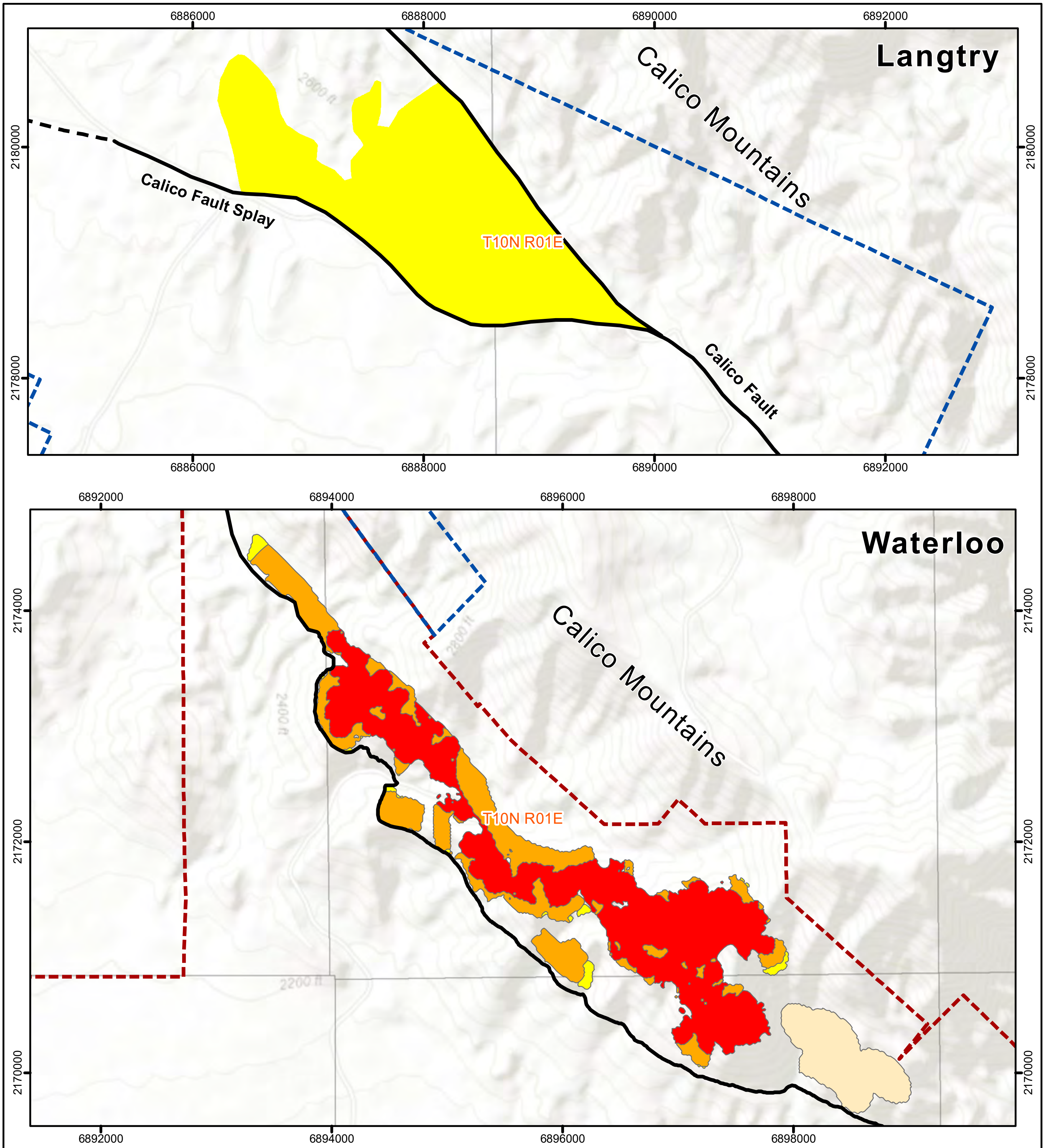
TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project
Global Silver Semi-variogram

Figure 14-18

DRAWN BY: J.K. CHK'D BY: D.L. DATE: 23/ 04/ 20	Project Location: T10N R01E - T10N R01W, California Client: Apollo Silver Corporation Project: 233001578

U:\233001578\disc\gis_cad\MXD\Fig_14_18_CalicoSemiV_April2023_L.mxd



U:\233001578\disc\gis_cad\MXD\Fig_14_19_ResourceClassification_April2023_L.mxd

Legend

- Calico Fault
- Langtry Property
- Waterloo Property
- Section
- Township and Range

Resource Classification

- Silver: Measured
- Silver: Indicated
- Silver: Inferred
- Gold: Inferred

N

0 200 400
Meters

0 1,200
Feet

Scale 1:14,400
(At original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Source: basemap - World Topographic Map, Esri

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Apollo Silver Corp.

TECHNICAL REPORT CALICO SILVER PROJECT

Calico Project Resource Classification Map

Figure 14-19

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 20

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

14.7.2 Waterloo Gold Resource Classification

The Waterloo gold mineral resources were limited to Inferred-only at a cutoff grade of 0.3 g/t and up to a maximum range of 300 ft (91.4 m) from the nearest composite gold grade within the mineralized zone. Isolated gold resource blocks were removed from the resource and remaining resource blocks were classified as Inferred-only based on the Author's understanding of quantity and quality of exploration data used to inform the gold resource model. The Waterloo gold resource classification map is shown in Figure 14-18.

14.7.3 Langtry Silver Resource Classification

At Langtry, the silver mineral resources were limited to Inferred-only up to a maximum range of 300 ft (91.4 m) from the nearest composite silver grade within the mineralized zone. Isolated resource areas surround a single drill hole were reclassified to align with the Author's understanding of quantity and quality of surrounding exploration data used to inform resource model. The silver MRE at Langtry is classified as Inferred-only for the following reasons:

- Historical drill hole records include mostly RC chip sample data that provided limited information in the existing logs with respect to structure and lithology and the majority of this material was not available for re-logging or re-assay.
- Exploration drill hole data is generally old: 93% of the drilling was completed between 1967 and 1976.

The Langtry silver resource classification map is shown in Figure 14-18.

14.8 Mineral Resource Estimate

14.8.1 Calico Project Mineral Resource Estimate

Table 14.10 presents the Mineral Resource Estimate ("MRE") for the Calico Project. The Langtry Silver Deposit MRE of the Calico Project has an effective date of January 28, 2022. The Waterloo Silver and Gold Deposit MRE of the Calico Project has an effective date of February 8, 2023. The disseminated silver mineral resources are contained within the lower Barstow Formation sediments for the Calico Project. The disseminated gold mineral resources are spatially separate from the silver mineral resource and are distributed along the lower Barstow-Pickhandle formation contact in the south of the Calico Project area.

The mineral resources are demonstrated to be surface mineable and are constrained to within an economic pit shell. The silver and gold MRE are independent of each other and are reported from separate pit shells. Stripping ratio (t:t) for the base case (COG 50 g/t) silver mineral resource at Langtry is 1:6.0. At Waterloo the stripping ratio (t;t) for the base case (COG of 50 g/t) silver mineral resource is 1:1.1 and for the base case (COG 0.3 g/t) gold mineral resource is 1:2.1.

Figure 14-20 provides a summary highlight from the Calico mineral resource model as present by a cross-section through the Waterloo Property.

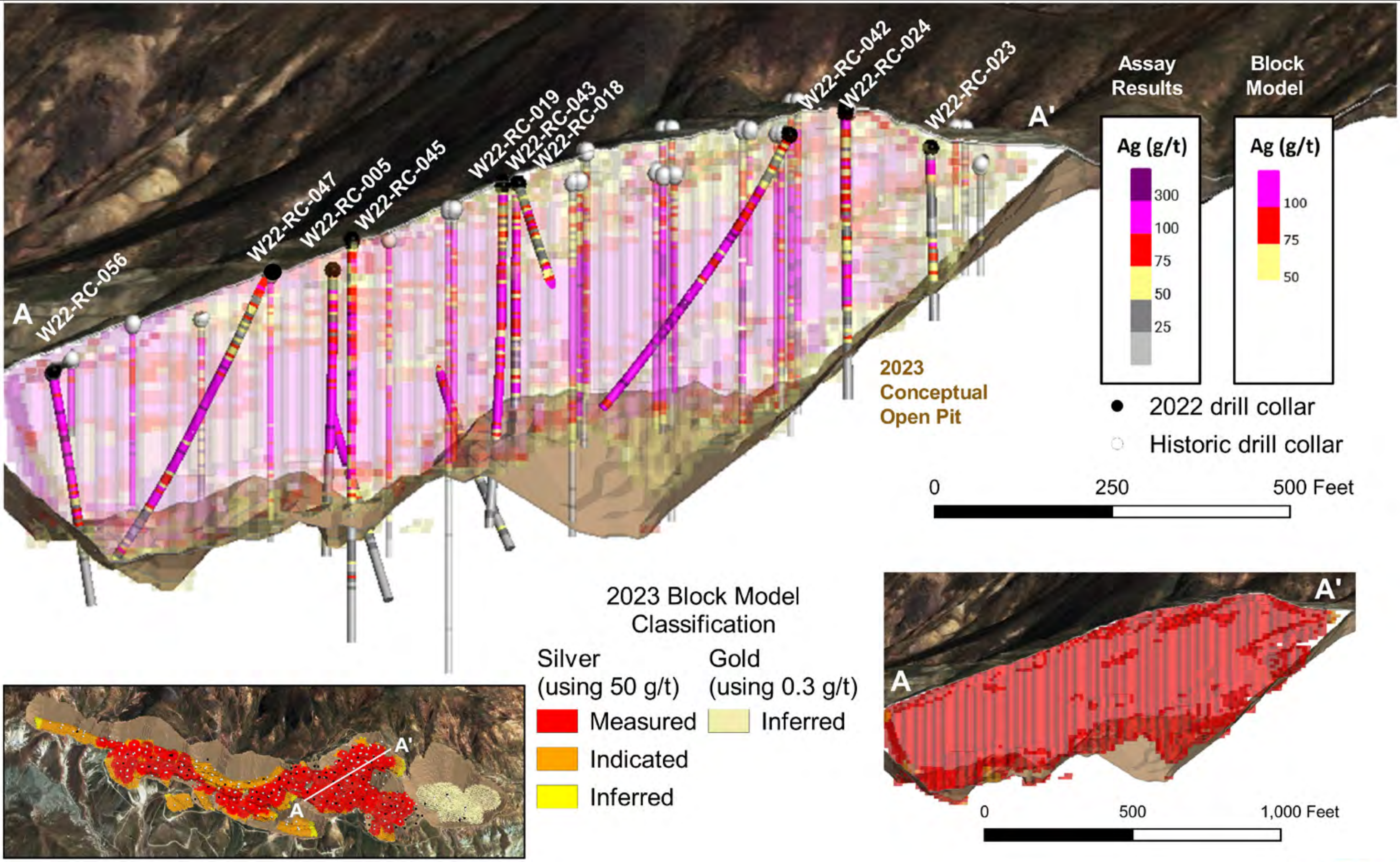
Table 14.10
Calico Project 2023 Mineral Resource Estimate - effective 2/8/23 (Waterloo) & 1/28/22 (Langtry)

Deposit	Metal	Class	Imperial Units			Metric Units			Strip Ratio *(t:t)*	Contained Ounces (oz)
			Volume Million (yd³)	*Tons Million (st)*	*Ag Grade (oz/st)*	*Volume Million (m³)*	*Tonnes Million (t)*	*Ag Grade (g/t)*		*Million (oz)*
Waterloo[1]	Silver	Measured	14.7	30.2	2.99	11.2	27.4	103	**1.1**	90
		Indicated	3.7	7.5	2.67	2.8	6.8	91		20
		Measured + Indicated	**18.3**	**37.7**	**2.93**	**14.0**	**34.2**	**100**	**1.1**	**110**
		Inferred	0.2	0.3	2.25	0.1	0.3	77	**1.1**	0.72
	Gold	Inferred	2.4	5.0	0.01	1.8	4.5	0.5	**2.1**	0.07
Langtry[2]	Silver	Inferred	10.3	21.3	2.35	7.9	19.3	81	**6.0**	50

• Ounces reported as troy ounces.
• Base-case resource estimate reported in Table 14.10 using 50 g/t silver and 0.30 g/t gold cutoff grade.
• CIM definitions are followed for classification of the mineral resource.
• For the Waterloo Property, cutoff grade was calculated using the following variables: surface mining operating costs (US$2.75/st), processing costs (US$20.00/st), general and administrative costs (US$3/st), silver price (US$23.50/oz), gold price (US$1,800/oz), and metal recoveries (silver 65%, gold 80%). Resources reported in Table 14.10 are constrained to within a conceptual economic pit shell targeting mineralized blocks with a minimum of 50 ppm (50 g/t) silver and 0.3 ppm (0.30 g/t) gold. Specific gravity for the mineralized zone is fixed at 2.44 g/cm3 (13.13 ft3/st). Silver grade was capped at 450 g/t and gold was capped at 2 g/t for the Waterloo estimate only.
• Totals may not represent the sum of the parts due to rounding.

[1]The 2023 Waterloo Mineral Resource Estimate has been prepared by Derek Loveday, P. Geo., of Stantec Consulting Services Ltd., an independent Qualified Person, in co-operation with Mariea Kartick, P.Geo. (independent Qualified Person for drilling data QA/QC). The 2023 Waterloo Mineral Resource Estimate was produced in conformance with NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into a mineral reserve.

[2]No drilling was completed on the Langtry Property since the declaration of the 2022 Langtry Mineral Resource Estimate and as such, the Inferred mineral resource announced February 9, 2022 for the Langtry Property remains unchanged and current. The 2022 Langtry Mineral Resource Estimate was prepared by Derek Loveday, P. Geo. of Stantec, an independent Qualified Person. Cutoff grade for the Langtry 2022 Langtry Mineral Resource Estimate was calculated using surface mining operating costs of US$2.50/st, processing costs of US$29.00/st, silver price of US$23.00/oz and silver recovery of 80%. The Langtry resource is constrained to within a conceptual economic pit shell targeting mineralized blocks with a minimum of 50 ppm (50 g/t) silver.



Legend

Ag silver

g/t grams per tonne

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TECHNICAL REPORT CALICO SILVER PROJECT

Calico Resource Model Summary Overview (Waterloo Example)

Figure 14-20

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 04/ 19

Project Location: T10N R01E - T10N R01W, California
Client: Apollo Silver Corporation
Project: 233001578

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14.8.2 Waterloo Silver Mineral Resource Estimate Sensitivity Analysis

Table 14.11 includes a sensitivity analysis of the silver grade and tonnage relationships at varying pit-constrained cutoff grades for the Waterloo Property. Base case MRE at a COG of 50 g/t silver is highlighted in bold text In Table 14.11.

Table 14.11
Waterloo Silver Mineral Resource Estimate Sensitivity Analysis. Effective February 8, 2023

Classification	Silver COG *(g/t)*	Imperial Units			Metric Units			Strip Ratio *(t:t)*	Contained Silver
		Volume (Myd^3)	*Tons (Mst)*	*Grade (oz/st)*	*Volume (Mm^3)*	*Tonnes (Mt)*	*Grade (g/t)*		*(Million oz)*
Waterloo Pit Constrained Silver Mineral Resource Estimate									
Measured	≥ 25.0	19.8	40.8	*2.50*	15.1	37.0	86	0.7	102
	≥ **50.0**	**14.7**	**30.2**	**2.99**	**11.2**	**27.4**	**103**	**1.3**	**90**
	≥ 75.0	9.3	19.1	3.69	7.1	17.3	126	2.6	70
	≥ 100.0	5.9	12.1	4.36	4.5	10.9	150	4.6	53
Indicated	≥ 25.0	5.7	11.8	2.09	4.4	10.7	72	0.5	25
	≥ **50.0**	**3.7**	**7.5**	**2.67**	**2.8**	**6.8**	**91**	**1.1**	**20**
	≥ 75.0	2.1	4.2	3.33	1.6	3.8	114	2.4	14
	≥ 100.0	1.05	2.2	4.10	0.8	2.0	140	4.6	9
Inferred	≥ 25.0	0.26	0.5	1.80	0.2	0.5	62	0.5	1
	≥ **50.0**	**0.16**	**0.3**	**2.25**	**0.1**	**0.3**	**77**	**1.1**	**0.7**
	≥ 75.0	0.07	0.2	2.78	0.05	0.1	95	2.4	0.4
	≥ 100.0	0.02	0.03	3.21	0.02	0.03	110	4.6	0.1

- Base-case resource estimate reported in bold uses a 50 g/t silver cutoff grade. Ounces reported as Troy ounces.
- Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) definitions are followed for classification of the Mineral Resource.
- Prospects for eventual economic extraction determined using surface mining operating costs of US$2.75/st, processing costs of US$20.00/st, general and administrative costs of US$3/st, silver price of US$23.50/oz, and metal recoveries for silver at 65%.
- Resources are constrained to within a conceptual economic pit shell targeting mineralized blocks with a minimum of 50 ppm (50 g/t) silver. Specific gravity for the mineralized zone is fixed at 2.44 g/cm^3 (13.13 ft^3/st). Silver grade was capped at 450 g/t for the Waterloo estimate only.
- Totals may not represent the sum of the parts due to rounding.
- The 2023 Waterloo Silver Mineral Resource Estimate has been prepared by Derek Loveday, P. Geo. Of Stantec Consulting Services Ltd. in conformance with CIM “Estimation of Mineral Resource and Mineral Reserves Best Practices” guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into a mineral reserve.

14.8.3 Waterloo Gold Mineral Resource Estimate Sensitivity Analysis

Table 14.12 includes a sensitivity analysis of the gold grade and tonnage relationships at varying pit-constrained cutoff grades for the Waterloo Property. Base case MRE at a COG of 0.3 g/t gold is highlighted in bold text In Table 14.12.

Table 14.12

Waterloo Gold Mineral Resource Estimate. Effective February 8, 2023

Classification	Silver COG *(g/t)*	Imperial Units			Metric Units			Strip Ratio *(t:t)*	Contained Gold
		Volume (Myd^3)	*Tons (Mst)*	*Grade (oz/st)*	*Volume (Mm^3)*	*Tonnes (Mt)*	*Grade (g/t)*		*(Million oz)*
Waterloo Pit Constrained Gold Mineral Resource Estimate									
Inferred	**≥ 0.30**	**2.41**	**4.96**	**0.01**	**1.84**	**4.50**	**0.50**	**2.1**	**0.07**
	≥ 0.55	0.73	1.50	0.02	0.56	1.36	0.71	*9.1*	0.03

- Base-case resource estimate reported in bold uses a 0.30 g/t gold cutoff grade. Ounces reported as Troy ounces.
- Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") definitions are followed for classification of the Mineral Resource.
- Prospects for eventual economic extraction determined using surface mining operating costs of US$2.75/st, processing costs of US$11.00/st, general and administrative costs of US$3/st, gold price of US$1,800/oz, and metal recoveries for gold at 80%.
- Resources are constrained to within a conceptual economic pit shell targeting mineralized blocks with a minimum of 0.3 ppm (0.3 g/t) gold. Specific gravity for the mineralized zone is fixed at 2.44 g/cm^3 (13.13 ft^3/st). Gold grade was capped at 2 g/t for the Waterloo.
- Totals may not represent the sum of the parts due to rounding.
- The 2023 Waterloo Gold Mineral Resource Estimate has been prepared by Derek Loveday, P. Geo. of Stantec Consulting Services Ltd. in conformance with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into a mineral reserve.

14.8.4 Langtry Silver Mineral Resource Estimate Sensitivity Analysis

Table 14.13 includes a sensitivity analysis of the silver grade and tonnage relationships at varying pit-constrained cutoff grades for the Langtry Property. Base case MRE at a COG of 50 g/t are highlighted in bold text In Table 14.13.

Table 14.13

Langtry Silver Mineral Resource Estimate. Effective January 28, 2022

Classification	Silver COG *(g/t)*	Imperial Units			Metric Units			Strip Ratio *(t:t)*	Contained Silver
		Volume Million (yd^3)	*Tons Million (st)*	*Ag Grade (oz/st)*	*Volume Million (m^3)*	*Tonnes Million (t)*	*Ag Grade (g/t)*		*(Million oz)*
Langtry Pit Constrained Silver Mineral Resource Estimate									
Inferred	≥ 25.0	18.5	38.0	1.79	14.1	34.4	61	1.9	68
	≥ **50.0**	**10.3**	**21.3**	**2.35**	7.9	**19.3**	**81**	**6.0**	**50**
	≥ 75.0	4.3	8.9	3.16	3.3	8.1	108	18.0	28
	≥ 100.0	1.8	3.7	4.06	1.4	3.4	139	46.4	15

- Base-case resource estimate reported in bold uses a 50 g/t silver cutoff grade. Ounces are reported as troy ounces.
- Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") definitions are followed for classification of the Mineral Resource.
- Prospects for eventual economic extraction determined using surface mining operating costs of US$2.50/st, processing costs of US$11.00/st and silver price of US$23.00/oz.
- Resources are constrained to within a conceptual economic pit shell targeting mineralized blocks with a minimum of 50 ppm (50 g/t) silver. Specific gravity for the mineralized zone is fixed at 2.44 g/cm^3 (13.13 ft^3/ton).
- Totals may not represent the sum of the parts due to rounding.
- The 2022 Langtry Mineral Resource estimate has been prepared by Derek Loveday, P. Geo. of Stantec Consulting Services Ltd. in conformance with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into a mineral reserve.

14.9 Potential Risks

The following potential risks associated with the MRE have been identified in order of relative importance:

- Silver metallurgical testing has reported a wide range in silver recoveries. Silver recoveries equal to or greater than 65% may not be realized from the resource.

- Gold metallurgical testing is very limited. Gold recoveries equal to or greater than 80% may not be realized from the resource.

- Historical underground workings pose a risk to mining if they are not accurately surveyed and accounted for in the mine plan.

- The Calico Project is in an arid region with limited water supplies that may impact costs associated with securing sufficient makeup water to support an onsite processing plant.

According to the available information to the Author and QP, as of the effective date of the MRE, there are no other known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that would materially impact the resource estimate.

14.10 Mitigating Factors

The private lands at both Waterloo and Langtry Properties have a history of silver mining and exploration activities. Additionally:

- The private lands at both the Waterloo and Langtry Properties have obtained a Certificate of Land Use Compliance ("CLUC") from San Bernardino County recognizing surface mining as a legal use of the private lands and the existence of a "vested right" to conduct surface mining activities thereon.

- In 1981, ASARCO completed an Environmental Impact Report and a Reclamation Plan, both approved by the County of San Bernardino, giving ASARCO a permit to undertake mining operations on the Waterloo Property. This permit expired in May 2004.

Considering the fact that the Project area has been historically mined, that Waterloo received a permit to mine in 1981, and both Waterloo and Langtry have received CLUC's from the County of San Bernardino, the assumption that the future use of the private lands may be for mining activities is appropriate.

15.0 MINERAL RESERVE ESTIMATES

This Technical Report does not include an estimate of reserves.

16.0 MINING METHODS

There is no information for this section of the Technical Report as the Calico Project is not presently producing or under development.

17.0 RECOVERY METHODS

There is no information for this section of the Technical Report as the Calico Project is not presently producing or under development.

18.0 PROJECT INFRASTRUCTURE

There is no information for this section of the Technical Report as the Calico Project is not presently producing or under development.

19.0 MARKETS AND CONTRACTS

There is no information for this section of the Technical Report as the Calico Project is not presently producing or under development. All known existing agreements have been described under the Property Concessions subheading in Section 4.2 of this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 Environmental Studies

In early 2022, Apollo commissioned independent consultants ELMT Consulting Inc., of Santa Ana, California, to complete a preliminary biological constraints analysis prior to exploratory drilling activities. This work involved a literature review, brief site investigation at both Waterloo and Langtry properties and a report. The objective was to characterize existing site conditions and assess the probability of occurrence of 'special-status' plant and wildlife species that could pose a constraint on the implementation of drilling activities (McGill et al., 2022). The Project was also evaluated for its potential to support natural drainage features, ponded areas, and/or waterbodies that have the potential to fall under the purview of various regulatory agencies. The literature review sourced information from sources such as and not limited to: United States Fish and Wildlife Service ("USFWS") Designated Critical Habitat Maps, California Native Plant Society ("CNPS") Electronic Inventory database, Environmental Protection Agency Water Program "My Waters" data layers, and the USFWS Critical Habitat designations for Threatened and Endangered Species. This review provided a baseline from which to inventory the biological resources potentially occurring on the Calico Project.

The Project site is located in a remote, undeveloped area north of the town of Yermo, California and it and areas immediately adjacent to it comprise vacant, undeveloped land with scattered mining disturbances. The Calico Ghost Town Park is approximately 1 mile to the east of the Project. The Project itself is essentially undeveloped except those areas that have been subject to historical mining activities. The Project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan. Therefore, impacts to any local, regional, or state habitat conservation plans are not expected to occur from development of the proposed Project, and mitigation is not required.

No special-status plant species were observed on-site, including Joshua Trees, during the field investigation. It was determined that the undeveloped portions of the Project site that support creosote bush scrub plant community have the potential to support several CNPS Rare Plant Rank Species, however, none of these are federally or state listed as threatened or endangered. Proposed exploratory drilling activities will have minimal impacts to vegetation. As a result, impacts to special-status plant species will be less than significant.

No special status animal species were observed on-site during the field investigation however, Desert Tortoise (*Gopherus agassizii*) has been documented onsite rarely and in the surrounding area. Exploratory drilling activities are expected to have minimal impacts to vegetation, and the individual drilling sites are cleared environmentally before they are implemented. As a result, no impacts to Desert Tortoise is expected to occur. Further, a Workers Environmental Awareness Program, focusing on Desert Tortoise, is provided to all personnel onsite as part of Apollo mitigation program for environmental impacts. Mohave ground squirrel have historically (pre-1980) been documented in the area, however the majority of the project site occurs on steep terrain where Mohave ground squirrel are not expected to occur. As a result, no impacts to Mohave ground squirrel is expected to occur. All drilling activities were designed to avoid the riverine resources on-site. Therefore, regulatory approvals are not expected to be needed for implementation of drilling activities.

Literature review determined that golden eagle, burrowing owl, California horned lark, prairie falcon, and loggerhead shrike have the potential to occur on the Project site. Since exploratory drilling activities are expected to have minimal impacts to vegetation, and the individual drilling sites are cleared environmentally before they are implemented, no impacts to these aforementioned avian species are expected to occur.

The Authors and Apollo are not aware of any known known environmental issues that could materially impact the issuer's ability to extract the mineral resources or possible future mineral reserves.

20.2 Permitting

As mentioned in Section 4.2, both the Waterloo and Langtry Properties have obtained a CLUC for private lands from the County of San Bernardino. These certificates are a form of vested or grandfathered mining right and exempts the holder from the need to obtain a surface mining permit that otherwise would be required under the Surface Mining and Reclamation Act of 1975 ("SMARA") (SMARA, Public Resources Code, Sections 2710-2796). SMARA provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized, and mined lands are reclaimed to a usable condition. SMARA is administered by the County of San Bernardino with respect to the Calico Project. The CLUC does not exempt the holder from other environmental permitting requirements, nor does it exempt the holder from the need to provide reclamation of financial assurances. The CLUC recognizes surface mining as a legal use of the fee simple and patented land parcels with the existence of a "vested right" to conduct surface mining activities thereon. The vested right does not extend to the BLM-managed federal public lands upon which the unpatented claims are located. Mining on federal land is subject to the Mining Law of 1872, State regulations (Section 3809), and the National Environmental Policy Act.

On BLM managed lands, permits to conduct exploration drilling on BLM managed lands may be required depending on the amount of proposed new disturbance activities may cause. Generally, a permit is not required if proposed exploration activities will cause new disturbance that is under 1 ac in size. If it may be more, a Notice of Intent or a Plan of Operations may be required, again depending upon the amount of proposed new surface disturbance. In the event that an operator does not have financial assurances in place with the County for reclamation, activities that may create less than 1.0 ac of new disturbance require a Temporary Use Permit ("TUP") to be obtained from the County of San Bernardino. A Notice of Intent is appropriate for planned surface activities that anticipate more than 1.0 and less than 5.0 ac of new surface disturbance and usually can be obtained within 30 to 60 days. A Plan of Operations is required if more than 5.0 ac of new surface disturbance are planned during the exploration program. Approvals for a Plan of Operations can take several months, depending on the nature of the intended work, the level of reclamation bonding required, the need for archeological surveys, and other factors as may be determined by the BLM. No other permits are required for exploration drilling.

On December 13, 2021, Apollo was granted a Conditional TUP ("Waterloo TUP") from the County of San Bernardino (the "County") for the Waterloo Property, allowing the Company to conduct its proposed 2022 drilling activities. The Waterloo TUP was set to expire on February 1, 2023, however, on January 24, 2023, the Waterloo TUP was extended for a an additional 12-months and will now expire on February 3, 2024. As a condition of approval of the Waterloo TUP, Apollo was required to provide security in the amount of $77,693. The security deposit was provided to the County in the form of a surety bond. Apollo has also obtained confirmation from the BLM that accessing its Waterloo Property via BLM-managed roads is considered a "casual use activity" for the purposes of drilling on private lands.

On May 12, 2022, Apollo was granted a Conditional TUP ("Langtry TUP" from the County of San Bernardino, allowing the Company to conduct proposed drilling activities at the Langtry Property on private lands. The Langtry TUP is effective May 23, 2022 and expires May 23, 2023. As a condition of approval of the Langtry TUP, Apollo was required to provide a security in the amount of $77,693.20 to the County, in the form of a surety bond. The Langtry TUP allows for drilling activities that may create less than 1.0 ac of new disturbance. To date, no drilling activities have been undertaken at Langtry by Apollo.

21.0 CAPITAL AND OPERATING COSTS

There is no information for this section of the Technical Report as the Calico Project is not presently producing or under development.

22.0 ECONOMIC ANALYSIS

There is no information for this section of the Technical Report as the Calico Project is not presently producing or under development.

23.0 ADJACENT PROPERTIES

The Author has not verified the information regarding the adjacent properties and thus, the information is not necessarily indicative of the mineralization on the Calico Project.

The District that hosts the Calico Project has a long history of precious metal mining, as described in detail in Section 6.2 of this Technical Report. Silver was the primary metal produced from the area with most of the production occurring between 1881-1896. The Silver King and Oriental mines were the first in the district, the most productive, and the longest operating (Harthrong, 1983 and Weber, 1966). The area surrounding the historical Calico townsite and encompassing the Silver King and Oriental mines has been converted into the Calico Ghost Town regional park on land currently owned by San Bernardino County.

Other silver deposits in the District were hosted in rhyolite tuffs as impregnations along a zone of porous rock; the Odessa Mine is reported to have had the highest average silver grade of this type. Privately held fee land parcels cover the areas of the historical Odessa and Garfield mines (Samari, H. and Breckenridge, L., 2021a).

Just 0.4 miles (0.6 km) northeast of the Langtry Property is the Leviathan Barite Mine, which was a historical producer of high-grade barite and low-grade silver. The Leviathan Barite Mine closed in the mid 1960's (Matson, 2008). Also, nearby to Langtry are two placer claims are held by private owners. No information is available about the production from the placer claims. Two unpatented lode mining claims are located 1 mile (~1.5 km) east of the Langtry Property over the Silver Contact historical producer (Figure 6-3). They are held by private owners; no additional information is available on any exploration completed on these claims (Samari, H. and Breckenridge, L., 2021a).

24.0 OTHER RELEVANT DATA AND INFORMATION

All relevant information is included in this Technical Report.

25.0 INTERPRETATION AND CONCLUSIONS

It is the opinion of the Authors and QPs of this Technical Report that the Calico Project's past exploration and development history combined with Apollo's recent exploration, drilling and metallurgical testing at Waterloo support a silver and gold MRE. These conclusions are based on interpretation of the development history of mining in the Calico Mining District where the Project is located, as well as validation and inclusion of historical (pre-2022) and recent Apollo exploration and drilling data into a geological model using current best practices. The 2023 Calico Project MRE comprises mineral resources from Waterloo and Langtry. No material exploration or drilling activities were completed at Langtry in 2022 and the 2022 MRE for Langtry (Loveday, 2022) remains current.

The Calico Project is located approximately 9 miles (15 km) northeast of the city of Barstow within San Bernadino County, CA. The Project comprises both the Waterloo and Langtry Properties that were historically explored separately. The Project can be accessed year-round by paved and dirt roads, and within the Properties there is a network of dirt roads providing access to the old drill pads and historical workings. Climatic conditions in the Project area allow for year-round mining operations.

25.1 Early Development

Most significant mining in the Calico Mining District was undertaken between 1881 and 1896, reporting 15-20 million troy ounces of silver (Ag), with minor barite, gold, lead, and copper (Harthrong, 1983). Thereafter, up until the early 1940's there was intermittent boom-and-bust metal mining activity. There are more than 50 historical past producing mines in the District. Of these, five occur on the Calico Project: at Waterloo are the Voca, Union and Waterloo silver mines and the Burcham gold-lead mine; at Langtry is the Langtry silver mine. Historical mining has focused on the persistent and thick (+50 ft (15 m) wide) veins zoned with high grade silver and barite. Historical mining is understood not to have targeted the disseminated silver mineralization that is commonly found in the sedimentary rocks.

25.2 Historical Exploration

Exploration on the Calico Project using modern methods started in the 1960's with various drilling campaigns comprising mostly of rotary and RC drilling, with limited core drilling, ending in 2013. At Waterloo a total of 267 drill holes were completed by two previous controlling companies, ASARCO and Pan American. At Langtry a total of 186 drill holes were completed by two previous controlling companies, Superior Oil and Athena. Data from these drilling campaigns was identified to be adequate for the purposes of building separate geologic models for the Waterloo and Langtry properties and for using in mineral resource estimation. Historical data adequacy was determined by Stantec through an audit of the drill hole assay results, a site inspection of the Calico Project cross-referencing samples in storage with exploration records and validating hole locations in the field, and independent assessment of QA/QC.

25.3 Apollo Exploration

In 2022, Apollo completed extensive exploration and drilling activities on the Project mostly focused on the Waterloo Property. Exploration activities included surface geological mapping, surface rock grab sampling, geophysical surveys, petrography, historical and new RC chip logging, sampling of historical drilling material for bulk density data and re-assaying and RC drilling.

Both Waterloo and Langtry properties were mapped by a geologist whom is an expert in mapping epithermal deposits. A total of surface 216 grab samples and 27 channel samples have been collected, all of which were analysed for their lithology, alteration and geochemistry. Sampling focused on the Waterloo Property in 2022 in support of geological interpretations. Stantec geologists conducted a surficial geotechnical mapping program on the Waterloo Property to identify fine-scale structural features relative to the large scale to better inform future geotechnical drilling programs.

Petrography was completed on 10 Waterloo surface rock grab samples and 68 RC chips samples from historical RC drill holes W-0041 and W-0053. The objective of this work was to characterize the rock lithology, alteration and mineralogy to support macroscopic interpretations made from surface geological mapping and down hole logging at Waterloo. A total of 152 stations were mapped by Stantec collecting information on formation lithology, weathering, alteration, RQD and GSI.

Ground 3D-DCIP and aeromagnetic surveys were completed over the Calico Project to better understand the geophysical signature of the Barstow Formation, host of the mineralization, structural features and lithological contacts in the subsurface and identify magnetic anomalies that may be related to mineralization. Dias completed the ground 3D DCIP survey. The aeromagnetic geophysical survey was completed by Pioneer using an UAV.

Apollo completed an 88-hole, 32,283 ft (9,840 m) RC drill program on the Waterloo property. The objective of the drill program was to upgrade the confidence of and expand the 2022 silver MRE Waterloo (see Loveday, 2022) by furthering the geologic understanding and controls on mineralization of the deposit via infill and marginal drilling. Verification of data from Apollo's Waterloo 2022 drill program was completed by Stantec and included an audit of Apollo's drill hole database, a site inspection and a review of QA/QC performance.

25.4 Metallurgical Testing

Historical (pre-2022) metallurgical testing undertaken at Waterloo by ASARCO and the US Bureau of Mines; and by Superior and Athena at Langtry, indicated that recovery of silver at or above 80% is potentially possible from silver mineralization observed on the Calico Project properties. Metallurgical testing on the Calico Project was undertaken from samples taken from a near-surface oxidized silver mineralized zone that is the target for the mineral resource estimate.

In late 2021, Apollo acquired approximately 2.7 tonnes of Waterloo material for metallurgical testing, comprising chips from 11 RC holes and crushed material from three PQ-diameter diamond drill holes drilled in 2013 by Pan American. Apollo determined that this oxidized mineralized material was of good quality, geologically and mineralogically representative of the Waterloo deposit. The metallurgical test program designed in cooperation with the Author and Apollo. All processing and testing were performed at McClelland except for processing for HPGR testing which was produced by Kappes Cassidy and Associates.

The objective of Apollo's 2022 metallurgical test program was to assess and verify silver recovery using various comminution and extraction methods to provide insight into possible processing methods and to compare results to historical work completed by previous operators in the 1960's and 1970's. As of the Effective Date of this Technical Report (February 8, 2023), only the results of the bottle roll test work had been completed.

Apollo's Waterloo metallurgical testing indicate that fine grinding will be required to maximize silver extraction by cyanidation. Silver recoveries were also incrementally improved, relative to milling/cyanidation, by a fluoride assisted hot agitated hydrochloric acid leaching procedure. Silver recoveries during agitated milling/cyanidation treatment at an 80% passing 45-micron grind ranged from 40.0% to 60.0%. Recovery rates at this size were moderate and extraction was substantially complete within the 72-hour leach cycle. Cyanide consumption was low (0.52 kg NaCN/mt or less) and lime requirements for pH control were also low (1.0 kg/mt or less). Results indicate that silver recoveries by cyanidation could be improved incrementally with ultrafine grinding an HPGR.

25.5 Previous Studies

Two historical economic studies were conducted for the Waterloo Property by ASARCO in 1969 and by Fluor Mining and Metals Inc., on behalf of ASARCO, in 1980. Pan American (2008) concluded that both historical economic studies cannot be used to give an accurate estimation of the profitability of the Project in 2008 due to the following: inflation, only a 10-year operation was considered, it did not include extraction of secondary minerals, and mining technology and price of metals had changed significantly from 1969 to 2008. At Langtry historical studies are limited to feasibility-level recommendations for mine development, primarily addressing slope stability and the use of overburden materials for concrete aggregate were addressed as part of a study evaluating geotechnical and engineering conditions (C.H.J. Incorporated, 2010).

In 2021, Stantec was engaged by Apollo to prepare an NI 43-101 Technical Report for the Calico Project (Loveday, 2022). The purpose of this Technical Report was to report a MRE for the Calico Project comprising the Waterloo and Langtry Properties.

25.6 Geology and Mineral Resource Estimation

Exploration undertaken since the 1960's on the Project has identified disseminated silver mineralization in the Lower Barstow Formation and gold mineralization in and around the Lower Barstow Formation and Pickhandle Formation Contact. The Tertiary (Miocene) Lower Barstow Formation is comprised predominately of sandstone and overlies the Tertiary Pickhandle Formation that is predominately a rhyolitic unit.

Geologic modelling using HxGN MinePlan 3D© and Seequent Leapfrog© software have identified two major resource limiting boundaries below a surficial weathering surface. These are these the Calico Fault and associated fault splays for both silver and gold mineralization, and the Lower Barstow-Pickhandle formation contact for silver-only mineralization. At Waterloo there are several post-mineral northeast-striking faults that have apparent normal offsets. These faults have been used to define five structural domains: HG Hill, MG Hill, Waterloo, Cascabel and Burcham. Though gold mineralization was identified in four of these five structural domains, only the Burcham domain contained appreciable quantities of gold mineralization above a COG of 0.30 g/t gold. Appreciable silver mineralization above a COG of 50 g/t silver is found in all domains except for Burcham in the south. At Langtry, only silver mineralization has been identified and mineral resources are confined to within a Calico fault split and the main Calico fault in the west.

The mineralized zones have been coded into separated 3D block models representing the Waterloo and Langtry deposits. Only surface mineable mineral resources have been identified for the Calico Project using silver and gold mineral pricing and mining costs, effective January 28, 2022 for Langtry and February 8, 2023 for Waterloo. The silver-only Langtry MRE remains unchanged from prior estimates (Loveday, 2022) at 50 million oz contained silver (50 g/t COG) as there is no additional exploration at Langtry that would affect a material change. Apollo's successful exploration at Waterloo in 2022 has resulted in a material change from previous estimates (Loveday, 2022) from an Inferred-only silver resource to a current (effective February 8, 2023) Measured, Indicated and Inferred silver resource plus the addition of an Inferred-only gold resource. The prior Waterloo Inferred-only silver estimate (Loveday, 2022) was 116 Moz contained silver (50 g/t COG). The current contained silver estimate at Waterloo (50 g/t COG) at a Measured plus Indicated level of assurance is 110 Moz and 0.72 Moz Inferred. The current gold estimate at Waterloo are Inferred-only at 0.07 Moz (0.3 g/t COG).

25.7 Risks and Uncertainties

The following risks and uncertainties have been identified that may impact future exploration and mining development of the Calico Project.

- Silver metallurgical testing has reported a wide range in silver recoveries. Silver recoveries equal to or greater than 65 % may not be realized from the resource.
- Gold metallurgical testing is very limited. Gold recoveries equal to or greater than 80 % may not be realized from the resource.
- Historical underground workings pose a risk to mining if they are not accurately surveyed and accounted for in the mine plan.
- The Calico Project is in an arid region with limited water supplies that may impact the costs associated with securing sufficient makeup water to support an onsite processing plant.

According to the available information to the Author and QP, as of the effective date of the MRE, there are no other known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that would materially impact the resource estimate.

25.8 Mitigating Factors

The private lands at both Waterloo and Langtry Properties have a history of silver mining and exploration activities. Additionally:

- The private lands at both the Waterloo and Langtry Properties have obtained a Certificate of Land Use Compliance ("CLUC") from San Bernardino County recognizing surface mining as a legal use of the private lands and the existence of a "vested right" to conduct surface mining activities thereon.

- In 1981, ASARCO completed an Environmental Impact Report and a Reclamation Plan, both approved by the County of San Bernardino, giving ASARCO a permit to undertake mining operations on the Waterloo Property. This permit expired in May 2004.

Considering the fact that the Project area has been historically mined, that Waterloo received a permit to mine in 1981, and both Waterloo and Langtry have received CLUC's from the County of San Bernardino, the assumption that the future use of the private lands may be for mining activities is appropriate.

26.0 RECOMMENDATIONS

The Calico Silver Project is an exploration project with a well-defined mineral resource at Waterloo Property and an initial drill-defined mineral resource at the Langtry Property. The mineral resource at the Calico Project will require additional work to determine the potential for commercially viable operations. Future work is recommended to be undertaken as a phased approach as documented below and is focused on only the Waterloo Property.

26.1 Phase I Work Program

26.1.1 Gold Exploration

The 2023 MRE added gold to the Waterloo mineral resource for the first time, with 70,000 oz of oxide gold in 4.5 Mt at an average grade of 0.5 g/t gold. Gold mineralization is hosted in the altered rocks along the contact between the Barstow Formation and the Pickhandle Formation, which is exposed at surface in the Burcham area of the Waterloo Property. Surface sampling and limited RC drilling was undertaken by Apollo in 2022 to better understand the gold mineralization at Waterloo. Objectives of further work include understanding the extent of gold distribution at surface, gaining a better understanding to what extent the Pickhandle Formation is mineralized with gold and define in detail the high angle structures that host higher gold grades. These can be achieved by the following proposed activities:

1.Detailed further surface mapping and rock sampling to property extents in the eastern portion of the Waterloo Property in the vicinity of surface gold mineralization.

2.Core drilling to better characterize the rocks in the subsurface and explore the extent of gold mineralization in the Pickhandle Formation.

The Phase II program is dependent on the completion of Phases I.

Table 26.1 details costs associated with the gold exploration program.

Table 26.1
Phase I Exploration Drilling and Surface Mapping

Phase I Budget	Type	Length		Rate	Cost
		Metres	Feet	C$/m	C$
Drilling	Core	1,000	3,280	500	500,000
Drilling Labour					100,000
Operational Support					50,000
Assaying					50,000
Surface Mapping					50,000
Total Phase I					**750,000**

26.2 Phase II Work Program

26.2.1 Geotechnical Drilling Program

For the Phase II work program, a geotechnical drilling program is recommended for Waterloo to support at a minimum a PFS-level mine plan and eventual mine permit. The recommended twelve HQ3-diameter core holes are separated into two subphases:

The initial basic plan includes six vertical core holes across the Waterloo site, with three holes located in the Pickhandle Formation, and three holes in the Barstow Formation through the central and deepest portion of the hypothetical pit shell. These holes will allow general characterization of the two formations present on the property for the development of a geotechnical model.

An additional six holes would cover a wider range geographically and enable better characterization of different, localized areas across the site to enable better refinement of the geotechnical model, and development of additional criteria which may differ geographically. This plan also includes several inclined borings targeting large scale geotechnical features, including the Cascabel fault.

This plan will focus on acquiring information in the region of the silver mineral resource, however additional geotechnical drilling may be warranted as related to gold mineralization, based on the results from the Phase I work program detailed above.

26.2.2 Metallurgical Test Program

A Phase II metallurgical test program is recommended for the Waterloo Property following up on the Phase I metallurgical test program that Apollo completed in 2022 (as detailed in Section 13 of this Technical Report).

Material remaining (PQ-core) from the Phase I metallurgical test program and newly acquired core at Waterloo acquired from the proposed geotechnical program can be used for additional metallurgical testing across different zones and major lithologies. It is recommended that a series of heavy liquid separation tests be completed to supplement current test work, see Section 13. This would provide information on a sample's amenability for gravity separation for barite as a potential by-product from the quartz. Flotation testing should be investigated for silver recovery with the addition of various reagent suites to maximize separation of barite by-product and silver. Additional fluoride assisted leaching can be completed to optimize the circuit and identify parameters for increasing recovery.

The costs for the geotechnical drilling and metallurgical test program are outlined in Table 26.2.

Table 26.2
Phase II Geotechnical Drilling and Metallurgical Testing

Phase II Budget	Type	Length		Rate	Cost
		Metres	Feet	C$/m	C$
Waterloo Drilling	Core	4,500	14,764	700	3,150,000
Drilling Labour					500,000
Operational Support					250,000
Assaying					750,000
Metallurgical Testing					500,000
Reporting					300,000
Total Phase I					**5,450,000**

26.3 Phase III Work Program

Using the 2023 MRE and data acquired from the Phase I and II programs recommended above, a PEA is recommended for the Waterloo Property. The costs for the recommended PEA are outlined in a Table 26.3. The purpose of the PEA is to conceptually layout Project facilities for mining and processing and apply appropriate capital and operating costs at a scoping level of accuracy and to then determine the potential economic viability of a future development. The results would be presented in a PEA NI 43-101 technical report and lay the groundwork necessary for the eventual development PFS. The Phase III program is expected to take three months to complete and is dependent on the completion of Phases I and II.

Table 26.3
Phase III Preliminary Economic Assessment

Phase III Budget	C$
PEA Study	500,000

27.0 REFERENCES

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Appendix A

Surface Rock Sample

Silver and Gold Assays

Sample ID	Easting State Plan (ft)	Northing State Plan (ft)	Elevation State Plan (ft)	Easting UTM (m)	Northing UTM (m)	Elevation UTM (m)	Au (g/t)	Ag (g/t)
E569062	6898342	2169615	2301	511279	3867390	701	1.555	17.75
P715851	6898492	2169404	2279	511324	3867325	695	0.01	0.53
P715852	6898890	2169601	2352	511446	3867384	717	0.023	1.5
P715853	6898916	2169592	2358	511454	3867381	719	0.039	1.39
P715854	6899032	2169550	2352	511489	3867368	717	0.237	2.31
P715855	6899153	2169532	2360	511526	3867362	719	0.041	0.85
P715856	6899160	2169538	2361	511528	3867364	720	0.079	1.04
P715857	6899143	2169617	2377	511523	3867388	724	0.418	2.17
P715858	6899083	2169662	2409	511505	3867402	734	0.197	1.86
P715859	6899172	2169647	2384	511532	3867397	727	0.204	3.66
P715860	6899030	2169701	2435	511489	3867414	742	0.178	2.03
P715861	6899375	2169688	2389	511594	3867409	728	0.017	0.39
P715862	6899275	2169871	2455	511564	3867465	748	0.035	2.19
P715863	6899112	2170076	2544	511515	3867528	775	0.225	4.25
P715864	6898563	2170438	2611	511349	3867640	796	0.215	4.66
P715865	6898446	2169861	2364	511312	3867464	721	2.47	27.3
P715866	6898447	2169858	2363	511312	3867464	720	0.28	9.4
P715867	6898444	2169856	2362	511311	3867463	720	0.024	2.74
P715868	6898168	2169965	2387	511227	3867497	727	0.422	3.23
P715869	6898175	2169939	2384	511229	3867489	727	0.262	7.85
P715870	6898293	2169891	2390	511265	3867474	728	0.209	3.66
P715871	6898400	2170007	2446	511298	3867509	745	0.35	6.65
P715872	6898407	2170000	2440	511300	3867507	744	0.128	4.52
P715873	6898394	2169980	2442	511296	3867501	744	6.28	13
P715874	6898377	2170091	2471	511291	3867535	753	0.178	6.01
P715875	6898376	2170128	2457	511291	3867546	749	0.123	3.97
P715876	6898344	2170039	2462	511281	3867519	750	0.293	5.96
P715877	6898351	2170052	2465	511283	3867523	751	0.051	1.44
P715878	6898336	2170009	2456	511278	3867510	749	0.181	6.05
P715879	6898374	2170095	2469	511290	3867536	753	0.572	13
P715880	6898302	2169966	2431	511268	3867497	741	0.209	7.14
P715881	6898276	2169972	2428	511260	3867499	740	1.34	7.74
P715882	6898309	2169989	2443	511270	3867504	745	0.346	10.1
P715883	6896926	2171708	2726	510854	3868032	831	0.025	13.05
P715884	6896853	2171760	2712	510832	3868048	827	0.021	3.31
P715885	6896871	2171688	2729	510837	3868026	832	0.012	15
P715886	6896824	2171763	2707	510823	3868049	825	0.03	3.54
P715887	6896458	2171888	2616	510712	3868088	797	0.011	2.51
P715888	6896465	2171881	2618	510714	3868086	798	0.023	3.26

Sample ID	Easting State Plan (ft)	Northing State Plan (ft)	Elevation State Plan (ft)	Easting UTM (m)	Northing UTM (m)	Elevation UTM (m)	Au (g/t)	Ag (g/t)
P715889	6896458	2171904	2612	510712	3868093	796	0.058	2.97
P715890	6895891	2171152	2459	510537	3867866	749	0.006	7.77
P715891	6895901	2171166	2458	510540	3867870	749	0.0025	45.5
P715892	6896008	2170938	2426	510572	3867800	740	0.009	16.85
P715893	6896178	2171317	2471	510625	3867915	753	0.012	28.8
P715894	6896172	2171333	2479	510623	3867920	756	0.053	28.2
P715895	6896382	2171180	2528	510687	3867873	771	0.011	8.73
P715896	6896393	2171186	2530	510690	3867874	771	0.034	50
P715897	6896397	2171188	2530	510691	3867875	771	0.006	529
P715898	6896550	2171252	2564	510738	3867894	781	0.017	47.7
P715899	6896543	2171261	2571	510736	3867897	784	0.016	33.2
P715900	6897180	2170290	2472	510927	3867599	753	0.012	134
P715901	6899076	2169744	2438	511503	3867427	743	0.016	2.03
P715902	6899076	2169744	2438	511503	3867427	743	0.089	3.17
P715903	6898985	2169940	2505	511476	3867487	763	0.396	9.8
P715904	6898989	2169937	2503	511477	3867486	763	0.421	6.02
P715905	6898850	2170014	2521	511435	3867510	768	0.143	6.82
P715906	6898967	2169776	2447	511470	3867437	746	0.138	2.82
P715907	6898869	2169742	2409	511440	3867427	734	0.366	12.2
P715908	6898856	2169748	2418	511436	3867429	737	2.24	38.7
P715909	6898793	2169768	2434	511417	3867435	742	0.189	4.98
P715910	6898800	2169768	2434	511419	3867435	742	0.507	10.55
P715911	6898810	2169774	2436	511422	3867437	743	2.41	65.3
P715912	6898034	2169983	2339	511186	3867503	713	0.222	6.7
P715913	6898036	2169980	2338	511187	3867502	713	0.075	2.48
P715914	6897186	2170286	2472	510929	3867598	753	0.0025	14.65
P715915	6896607	2170844	2504	510754	3867770	763	0.035	4.03
P715916	6897022	2170356	2455	510879	3867620	748	0.009	221
P715917	6897022	2170356	2455	510879	3867620	748	0.012	215
P715918	6897676	2169930	2371	511077	3867488	723	0.022	1.38
P715919	6897678	2169989	2394	511078	3867506	730	0.166	10.55
P715920	6897682	2169992	2393	511079	3867507	729	0.087	5.48
P715921	6897875	2170284	2471	511139	3867595	753	0.046	11.7
P715922	6897674	2170111	2456	511077	3867543	749	0.047	13.25
P715923	6897608	2170100	2455	511057	3867540	748	0.054	8.68
P715924	6898510	2169837	2349	511331	3867457	716	0.1	2.56
P715925	6898504	2169778	2348	511329	3867439	716	0.04	0.81
P715926	6898501	2169794	2349	511328	3867444	716	0.052	1.24
P715927	6898501	2169801	2349	511328	3867446	716	0.184	2.64
P715928	6898534	2169870	2359	511338	3867467	719	2.67	15.8

Sample ID	Easting State Plan (ft)	Northing State Plan (ft)	Elevation State Plan (ft)	Easting UTM (m)	Northing UTM (m)	Elevation UTM (m)	Au (g/t)	Ag (g/t)
P715929	6898491	2169847	2349	511325	3867460	716	3.94	76.3
P715930	6898474	2169886	2360	511320	3867472	719	1.32	21.1
P715931	6898471	2169888	2366	511319	3867473	721	0.669	8.69
P715932	6898467	2169890	2370	511318	3867473	723	2.6	16.3
P715933	6898462	2169890	2372	511317	3867473	723	0.888	9.6
P715934	6898457	2169887	2374	511315	3867473	723	0.57	10.35
P715935	6898453	2169885	2373	511314	3867472	723	0.5	5.39
P715936	6898449	2169883	2372	511313	3867471	723	0.505	6.23
P715937	6898446	2169882	2374	511312	3867471	724	2.41	23
P715938	6898444	2169879	2373	511311	3867470	723	1.535	19.45
P715939	6898441	2169875	2372	511310	3867469	723	0.747	9.83
P715940	6898439	2169870	2370	511309	3867467	722	1.24	20.7
P715941	6898436	2169865	2369	511309	3867466	722	4.97	91.9
P715942	6898414	2169871	2379	511302	3867468	725	1.245	33.4
P715943	6898352	2169901	2398	511283	3867477	731	6.31	39.1
P715944	6898411	2169925	2408	511301	3867484	734	211	49
P715945	6898323	2170226	2443	511275	3867576	744	0.157	2.5
P715946	6898320	2170196	2438	511274	3867567	743	0.418	4.63
P715947	6898317	2170134	2429	511273	3867548	740	0.385	4.97
P715948	6898315	2170131	2430	511272	3867547	741	1.885	15.4
P715949	6898288	2170110	2429	511264	3867541	740	0.236	4.58
P715950	6898241	2170078	2411	511250	3867531	735	0.102	6.36
P715951	6899173	2169638	2378	511532	3867394	725	0.379	2.66
P715952	6899129	2169667	2392	511519	3867403	729	0.376	6.16
P715953	6899145	2169719	2412	511524	3867419	735	7.14	26.3
P715954	6897875	2170559	2503	511140	3867679	763	0.113	11.3
P715955	6897885	2170573	2510	511143	3867683	765	0.094	11
P715956	6897900	2170551	2504	511147	3867676	763	0.125	43.2
P715957	6897869	2170662	2571	511138	3867710	784	0.044	6.84
P715958	6897878	2170286	2470	511140	3867596	753	0.064	18.8
P715959	6897780	2170348	2534	511110	3867615	772	0.257	63.3
P715960	6897811	2170425	2536	511120	3867638	773	0.221	253
P715961	6897811	2170425	2536	511120	3867638	773	0.418	339
P715962	6894512	2173243	2675	510123	3868507	815	0.007	849
P715963	6894713	2173212	2638	510184	3868497	804	0.007	28.6
P715964	6894730	2173222	2633	510189	3868500	803	0.009	21.6
P715965	6894760	2173231	2632	510199	3868502	802	0.017	6.37
P715966	6894809	2173223	2624	510214	3868500	800	0.012	7.63
P715967	6895030	2173086	2599	510280	3868458	792	0.028	7.65
P715968	6894281	2173612	2543	510054	3868620	775	0.01	27.3

Sample ID	Easting State Plan (ft)	Northing State Plan (ft)	Elevation State Plan (ft)	Easting UTM (m)	Northing UTM (m)	Elevation UTM (m)	Au (g/t)	Ag (g/t)
P715969	6894162	2173768	2549	510018	3868668	777	0.036	75.3
P715970	6894179	2173732	2548	510023	3868657	777	0.008	14.3
P715971	6894238	2173677	2556	510041	3868640	779	0.022	22.6
P715984	6898340	2169835	2363	511279	3867457	720	0.04	0.41
P715985	6898026	2169983	2345	511184	3867503	715	0.322	3.07
P715986	6898852	2170415	2593	511437	3867632	790	0.232	0.75
P715987	6898802	2170516	2616	511422	3867663	797	0.022	0.37
P715988	6898817	2170647	2650	511427	3867703	808	0.76	1.65
P715989	6898678	2170823	2763	511385	3867757	842	0.027	0.16

Appendix B

2022 Drilling Program Collar, Depth and Orientation

Hole ID	Easting (UTM)	Northing (UTM)	Elevation (m)	Easting (State Plan)	Northing (State Plan)	Elevation (ft)	Final Depth (ft)	Final Depth (m)
W22-RC-001	510708	3868059	809	6896445	2171794	2655	161	49
W22-RC-002	510686	3868066	810	6896374	2171813	2656	185	57
W22-RC-003	510784	3868014	819	6896699	2171647	2686	161	49
W22-RC-003B	510787	3868015	819	6896707	2171650	2686	200	61
W22-RC-004	510798	3868002	825	6896745	2171609	2707	205	63
W22-RC-004B	510797	3868000	825	6896740	2171601	2706	249	76
W22-RC-005	510823	3867901	816	6896829	2171279	2676	397	121
W22-RC-006	511001	3867658	801	6897419	2170487	2628	407	124
W22-RC-007	510799	3867941	817	6896747	2171409	2681	259	79
W22-RC-008	510805	3867935	817	6896767	2171389	2681	525	160
W22-RC-009	511021	3867648	800	6897486	2170452	2625	505	154
W22-RC-010	511058	3867650	806	6897608	2170462	2645	436	133
W22-RC-011	511014	3867694	818	6897463	2170603	2684	554	169
W22-RC-012	511057	3867699	817	6897603	2170622	2680	397	121
W22-RC-013	510949	3867833	837	6897246	2171060	2745	505	154
W22-RC-014	510893	3867843	832	6897062	2171090	2729	495	151
W22-RC-015	510849	3867935	828	6896912	2171389	2718	289	88
W22-RC-016	510815	3867955	827	6896800	2171453	2714	200	61
W22-RC-017	510893	3867968	852	6897057	2171500	2797	215	66
W22-RC-018	510900	3867914	852	6897080	2171323	2794	377	115
W22-RC-019	510896	3867890	851	6897069	2171245	2792	476	145
W22-RC-020	510995	3867855	855	6897394	2171133	2804	456	139
W22-RC-021	511028	3867812	856	6897503	2170993	2810	466	142

Hole ID	Easting (UTM)	Northing (UTM)	Elevation (m)	Easting (State Plan)	Northing (State Plan)	Elevation (ft)	Final Depth (ft)	Final Depth (m)
W22-RC-022	511053	3867828	859	6897585	2171045	2818	348	106
W22-RC-023	511077	3867890	867	6897664	2171248	2844	240	73
W22-RC-024	511041	3867893	882	6897545	2171260	2892	397	121
W22-RC-025	510974	3867927	878	6897325	2171369	2882	427	130
W22-RC-026	510983	3867990	863	6897349	2171573	2832	220	67
W22-RC-027	510727	3868016	816	6896511	2171652	2679	141	43
W22-RC-028	510614	3868052	806	6896138	2171766	2645	112	34
W22-RC-028B	510607	3868046	804	6896116	2171745	2638	397	121
W22-RC-029	510751	3867839	790	6896596	2171071	2592	663	202
W22-RC-030	510843	3867774	788	6896900	2170861	2586	564	172
W22-RC-031	510904	3867762	790	6897100	2170824	2591	466	142
W22-RC-032	510961	3867643	785	6897290	2170435	2576	436	133
W22-RC-033	510484	3868046	798	6895710	2171742	2617	653	199
W22-RC-034	510977	3867570	749	6897345	2170195	2459	397	121
W22-RC-035	511009	3867546	748	6897452	2170117	2456	554	169
W22-RC-036	511069	3867539	748	6897647	2170098	2454	456	139
W22-RC-037	511114	3867558	748	6897795	2170163	2456	505	154
W22-RC-038	511157	3867603	751	6897933	2170310	2463	102	31
W22-RC-039	511101	3867596	769	6897752	2170287	2524	358	109
W22-RC-040	511032	3867574	766	6897525	2170213	2513	540	165
W22-RC-041	511094	3867566	758	6897730	2170188	2486	377	115
W22-RC-042	511019	3867877	872	6897472	2171204	2861	461	141
W22-RC-043	510904	3867875	852	6897096	2171196	2795	505	154
W22-RC-044	510851	3867933	828	6896919	2171383	2718	486	148
W22-RC-045	510834	3867869	827	6896866	2171173	2713	554	169
W22-RC-046	510776	3867955	818	6896673	2171452	2685	407	124

Hole ID	Easting (UTM)	Northing (UTM)	Elevation (m)	Easting (State Plan)	Northing (State Plan)	Elevation (ft)	Final Depth (ft)	Final Depth (m)
W22-RC-047	510800	3867844	812	6896754	2171091	2663	466	142
W22-RC-048	510970	3867686	807	6897320	2170575	2646	554	169
W22-RC-049	510878	3867811	811	6897011	2170984	2661	574	175
W22-RC-050	510691	3868027	815	6896393	2171686	2674	387	118
W22-RC-051	510669	3868040	812	6896318	2171729	2665	269	82
W22-RC-052	510639	3868011	799	6896222	2171632	2621	279	85
W22-RC-053	510783	3867807	790	6896701	2170968	2590	230	70
W22-RC-054	510587	3868004	788	6896052	2171609	2587	279	85
W22-RC-055	510697	3867929	778	6896413	2171366	2553	574	175
W22-RC-056	510706	3867884	772	6896446	2171217	2532	328	100
W22-RC-057	510871	3867644	754	6896995	2170434	2475	289	88
W22-RC-058	510476	3868015	785	6895686	2171642	2576	545	166
W22-RC-059	510546	3868089	795	6895914	2171886	2610	653	199
W22-RC-060	510479	3868110	785	6895692	2171953	2576	299	91
W22-RC-061	510540	3868004	805	6895896	2171608	2642	230	70
W22-RC-062	510517	3867995	805	6895820	2171575	2641	604	184
W22-RC-063	510219	3868177	760	6894838	2172162	2493	180	55
W22-RC-064	510322	3868126	759	6895178	2172001	2490	279	85
W22-RC-065	510306	3868204	748	6895124	2172255	2455	299	91
W22-RC-066	510380	3868169	757	6895366	2172141	2483	377	115
W22-RC-067	510370	3868318	770	6895329	2172630	2527	505	154
W22-RC-068	510268	3868322	758	6894994	2172640	2488	308	94
W22-RC-069	510249	3868303	751	6894932	2172578	2463	200	61
W22-RC-070	510256	3868352	761	6894953	2172739	2497	308	94
W22-RC-071	510231	3868356	763	6894871	2172750	2503	299	91
W22-RC-072	510225	3868426	776	6894848	2172980	2546	407	124

Hole ID	Easting (UTM)	Northing (UTM)	Elevation (m)	Easting (State Plan)	Northing (State Plan)	Elevation (ft)	Final Depth (ft)	Final Depth (m)
W22-RC-073	510233	3868422	776	6894876	2172967	2545	417	127
W22-RC-074	510104	3868423	788	6894452	2172967	2584	10	3
W22-RC-074B	510107	3868422	788	6894463	2172965	2585	249	76
W22-RC-075	510005	3868494	803	6894126	2173197	2633	269	82
W22-RC-076	510047	3868522	806	6894263	2173291	2643	299	91
W22-RC-077	510135	3868453	806	6894554	2173065	2645	358	109
W22-RC-078	510452	3868038	786	6895606	2171714	2578	249	76
W22-RC-079	509905	3868762	757	6893787	2174075	2483	249	76
W22-RC-080	511273	3867592	745	6898316	2170278	2445	303	93
W22-RC-081	511316	3867494	733	6898459	2169958	2404	289	88
W22-RC-082	511315	3867493	733	6898457	2169956	2404	289	88
W22-RC-083	511262	3867457	721	6898285	2169834	2364	328	100
W22-RC-084	511289	3867454	719	6898372	2169826	2359	377	115
Total 2022							**32,293**	**9,843**

Appendix C

2022 Drilling Program

Silver Assays

Hole		From (m)	To (m)	Interval (m)	Ag (g/t)	Ag (opt*)
W22-RC-001		**2.0**	**4.0**	**2.0**	**132**	**3.9**
W22-RC-002		**0.0**	**1.5**	**1.5**	**62**	**1.8**
W22-RC-002	**and**	**4.0**	**7.0**	**3.0**	**57**	**1.7**
W22-RC-003B		**26.5**	**28.0**	**1.5**	**67**	**2.0**
W22-RC-004B	*No significant intercepts*					
W22-RC-005		**2.5**	**77.5**	**75.0**	**131**	**3.8**
W22-RC-005	*including*	*35.5*	*37.0*	*1.5*	*273*	*8.0*
W22-RC-005	*including*	*59.5*	*61.0*	*1.5*	*233*	*6.8*
W22-RC-005	*including*	*65.5*	*71.5*	*6.0*	*270*	*7.9*
W22-RC-005	**and**	**98.5**	**101.5**	**3.0**	**55**	**1.6**
W22-RC-006		**8.5**	**44.5**	**36.0**	**204**	**6.0**
W22-RC-006	*including*	*14.5*	*26.5*	*12.0*	*268*	*7.8*
W22-RC-006	*and including*	*25.0*	*26.5*	*1.5*	*498*	*14.5*
W22-RC-006	***and*** *including*	*29.5*	*37.0*	*7.5*	*283*	*8.3*
W22-RC-007		**0.0**	**49.0**	**49.0**	**105**	**3.1**
W22-RC-008		**0.0**	**94.0**	**94.0**	**132**	**3.9**
W22-RC-008	*including*	*19.0*	*20.5*	*1.5*	*375*	*10.9*
W22-RC-008	*including*	*70.0*	*71.5*	*1.5*	*258*	*7.5*
W22-RC-008	*including*	*74.5*	*76.0*	*1.5*	*281*	*8.2*
W22-RC-008	*including*	*82.0*	*83.5*	*1.5*	*256*	*7.5*
W22-RC-008	*including*	*89.5*	*92.5*	*3.0*	*259*	*7.6*
W22-RC-008	**and**	**107.5**	**112.0**	**4.5**	**69**	**2.0**
W22-RC-008	**and**	**119.5**	**128.5**	**9.0**	**65**	**1.9**
W22-RC-009		**4.0**	**55.0**	**51.0**	**131**	**3.8**
W22-RC-009	*including*	*22.0*	*25.0*	*3.0*	*279*	*8.1*
W22-RC-010		**0.0**	**55.0**	**55.0**	**169**	**4.9**
W22-RC-010	*including*	*4.0*	*5.5*	*1.5*	*286*	*8.3*
W22-RC-010	*including*	*8.5*	*10.0*	*1.5*	*263*	*7.7*
W22-RC-010	*including*	*28.0*	*35.5*	*7.5*	*257*	*7.5*
W22-RC-011		**16.0**	**92.5**	**76.5**	**137**	***4.0***
W22-RC-011	*including*	*25.0*	*26.5*	*1.5*	*259*	*7.6*
W22-RC-011	*including*	*46.0*	*55.0*	*9.0*	*275*	*8.0*
W22-RC-011	*and including*	*46.0*	*47.5*	*1.5*	*477*	*13.9*
W22-RC-012		**25.0**	**26.5**	**1.5**	**92**	**2.7**
W22-RC-012	**and**	**41.5**	**43.0**	**1.5**	**64**	***1.9***
W22-RC-012	**and**	**53.5**	**55.0**	**1.5**	**63**	***1.8***

Hole		From (m)	To (m)	Interval (m)	Ag (g/t)	Ag (opt*)
W22-RC-012	**and**	**58.0**	**59.5**	**1.5**	**95**	***2.8***
W22-RC-013		**19.0**	**92.5**	**73.5**	**107**	**3.1**
W22-RC-013	*including*	*73.0*	*74.5*	*1.5*	*255*	*7.4*
W22-RC-013	*including*	*85.0*	*86.5*	*1.5*	*252*	*7.4*
W22-RC-013	**and**	**98.5**	**103.0**	**4.5**	**98**	**2.9**
W22-RC-013	**and**	**112.0**	**115.0**	**3.0**	**55**	**1.6**
W22-RC-013	**and**	**134.5**	**148.0**	**13.5**	**126**	**3.7**
W22-RC-014		**1.0**	**104.5**	**103.5**	**139**	***4.1***
W22-RC-014	*including*	*34.0*	*35.5*	*1.5*	*306*	*8.9*
W22-RC-014	*including*	*43.0*	*46.0*	*3.0*	*402*	*11.7*
W22-RC-014	*and including*	*79.0*	*80.5*	*1.5*	*662*	*19.3*
W22-RC-015		**2.5**	**5.5**	**3.0**	**94**	**2.7**
W22-RC-015	**and**	**29.5**	**32.5**	**3.0**	**82**	***2.4***
W22-RC-015	**and**	**44.5**	**77.5**	**33.0**	**84**	***2.5***
W22-RC-016		**2.5**	**10.0**	**7.5**	**58**	**1.7**
W22-RC-016	**and**	**16.0**	**38.5**	**22.5**	**69**	**2.0**
W22-RC-016	*including*	*31.0*	*32.5*	*1.5*	*259*	*7.6*
W22-RC-017		**7.0**	**8.5**	**1.5**	**60**	**1.8**
W22-RC-017	**and**	**17.5**	**20.5**	**3.0**	**53**	**1.5**
W22-RC-017	**and**	**25.0**	**28.0**	**3.0**	**65**	**1.9**
W22-RC-017	**and**	**50.5**	**59.5**	**9.0**	**82**	**2.4**
W22-RC-018		**4.0**	**70.0**	**66.0**	**133**	**3.9**
W22-RC-018	*including*	*10.0*	*11.5*	*1.5*	*280*	*8.2*
W22-RC-018	*including*	*23.5*	*25.0*	*1.5*	*273*	*8.0*
W22-RC-018	*including*	*37.0*	*38.5*	*1.5*	*273*	*8.0*
W22-RC-018	**and**	**77.5**	**89.5**	**12.0**	**85**	**2.5**
W22-RC-018	**and**	**100.0**	**101.5**	**1.5**	**54**	**1.6**
W22-RC-018	**and**	**104.5**	**106.0**	**1.5**	**51**	**1.5**
W22-RC-019		**2.5**	**107.5**	**105.0**	**104**	**3.0**
W22-RC-020		**0.0**	**107.5**	**107.5**	**86**	**2.5**
W22-RC-021		**73.0**	**74.5**	**1.5**	**59**	**1.7**
W22-RC-021	**and**	**109.0**	**110.5**	**1.5**	**65**	**1.9**
W22-RC-022		**1.0**	**4.0**	**3.0**	**52**	**1.5**
W22-RC-022	**and**	**8.5**	**14.5**	**6.0**	**58**	**1.7**
W22-RC-022	**and**	**74.5**	**77.5**	**3.0**	**73**	**2.1**
W22-RC-023		**5.5**	**14.5**	**9.0**	**103**	**3.0**
W22-RC-023	**and**	**38.5**	**56.5**	**18.0**	**71**	**2.1**
W22-RC-024		**0.0**	**89.0**	**89.0**	**84**	**2.4**
W22-RC-024	**and**	**91.0**	**97.0**	**6.0**	**58**	**1.7**
W22-RC-025		**1.0**	**92.5**	**91.5**	**135**	**3.9**

Hole		From (m)	To (m)	Interval (m)	Ag (g/t)	Ag (opt*)
W22-RC-025	*including*	*37.0*	*58.0*	*21.0*	*309*	*9.0*
W22-RC-025	*and including*	*40.0*	*41.5*	*1.5*	*470*	*13.7*
W22-RC-025	*and including*	*55.0*	*56.5*	*1.5*	*908*	*26.5*
W22-RC-026		**0.0**	**2.5**	**2.5**	**87**	**2.5**
W22-RC-026	**and**	**23.5**	**28.0**	**4.5**	**57**	**1.7**
W22-RC-026	**and**	**32.5**	**34.0**	**1.5**	**75**	**2.2**
W22-RC-027		**4.0**	**31.0**	**27.0**	**62**	**1.8**
W22-RC-028		**1.0**	**34.0**	**33.0**	**87**	**2.5**
W22-RC-028B		**0.0**	**16.0**	**16.0**	**85**	**2.5**
W22-RC-028B	**and**	**25.0**	**56.5**	**31.5**	**80**	**2.3**
W22-RC-029		**1.0**	**95.5**	**94.5**	**151**	***4.4***
W22-RC-029	*including*	*5.5*	*7.0*	*1.5*	*289*	*8.4*
W22-RC-029	*including*	*61.0*	*67.0*	*6.0*	*257*	*7.5*
W22-RC-029	*including*	*86.5*	*88.0*	*1.5*	*734*	*21.4*
W22-RC-030		**0.0**	**40.0**	**40.0**	**92**	***2.7***
W22-RC-030	**and**	**50.5**	**56.5**	**6.0**	**53**	***1.6***
W22-RC-031		**0.0**	**26.5**	**26.5**	**123**	***3.6***
W22-RC-031	**and**	**85.0**	**86.5**	**1.5**	**59**	***1.7***
W22-RC-032		**13.0**	**31.0**	**18.0**	**124**	**3.6**
W22-RC-033		**0.0**	**11.5**	**11.5**	**97**	**2.8**
W22-RC-033	**and**	**22.0**	**49.0**	**27.0**	**79**	**2.3**
W22-RC-033	**and**	**101.5**	**103.0**	**1.5**	**52**	**1.5**
W22-RC-033	**and**	**134.5**	**146.5**	**12.0**	**66**	**1.9**
W22-RC-033	**and**	**154.0**	**179.5**	**25.5**	**95**	**2.8**
W22-RC-034		**0.0**	**1.0**	**1.0**	**56**	**1.6**
W22-RC-035	*No significant intercepts*					
W22-RC-036	*No significant intercepts*					
W22-RC-037	*No significant intercepts*					
W22-RC-038	*No significant intercepts*					
W22-RC-039	*No significant intercepts*					
W22-RC-040	*No significant intercepts*					
W22-RC-041	*No significant intercepts*					
W22-RC-042		**0.0**	**140.5**	**140.5**	**189**	**5.5**
W22-RC-042	including	47.5	55.0	7.5	305	8.9
W22-RC-042	*and including*	*47.5*	*49.0*	*1.5*	*400*	*11.7*
W22-RC-042	including	82.0	106.0	24.0	416	12.1
W22-RC-042	*and including*	*82.0*	*86.5*	*4.5*	*528*	*15.4*
W22-RC-042	*and including*	*92.5*	*98.5*	*6.0*	*658*	*19.2*
W22-RC-042	***which includes***	***92.5***	***94.0***	***1.5***	***1610***	***47.0***
W22-RC-042	*and including*	*104.5*	*106.0*	*1.5*	*489*	*14.3*

Hole		From (m)	To (m)	Interval (m)	Ag (g/t)	Ag (opt*)
W22-RC-042	including	112.0	113.5	1.5	277	8.1
W22-RC-042	including	125.5	127.0	1.5	306	8.9
W22-RC-043		0.0	1.0	1.0	117	3.4
W22-RC-043	**and**	**7.0**	**136.0**	**129.0**	**133**	**3.9**
W22-RC-043	*including*	*49.0*	*50.5*	*1.5*	*267*	*7.8*
W22-RC-043	*including*	*67.0*	*73.0*	*6.0*	*288*	*8.4*
W22-RC-043	*including*	*91.0*	*94.0*	*3.0*	*287*	*8.4*
W22-RC-043	*including*	*98.5*	*100.0*	*1.5*	*251*	*7.3*
W22-RC-043	*including*	*103.0*	*109.0*	*6.0*	*280*	*8.2*
W22-RC-044		1.0	8.5	7.5	50	1.4
W22-RC-044	and	26.5	28.0	1.5	88	2.6
W22-RC-044	**and**	**38.5**	**91.0**	**52.5**	**93**	**2.7**
W22-RC-044	*including*	*62.5*	*64.0*	*1.5*	*257*	*7.5*
W22-RC-044	and	110.5	113.5	3.0	64	1.9
W22-RC-044	and	125.5	127.0	1.5	69	2.0
W22-RC-044	and	137.5	139.0	1.5	73	2.1
W22-RC-045		**0.0**	**109.0**	**109.0**	**109**	**3.2**
W22-RC-045	*including*	*25.0*	*26.5*	*1.5*	*267*	*7.8*
W22-RC-045	*including*	*29.5*	*31.0*	*1.5*	*456*	*13.3*
W22-RC-045	*including*	*55.0*	*56.5*	*1.5*	*307*	*9.0*
W22-RC-045	**and**	**134.5**	**136.0**	**1.5**	**55**	**1.6**
W22-RC-045	**and**	**140.5**	**142.0**	**1.5**	**89**	**2.6**
W22-RC-046		**1.0**	**59.5**	**58.5**	**129**	**3.7**
W22-RC-046	including	19.0	25.0	6.0	367	10.7
W22-RC-046	*and including*	*20.5*	*22.0*	*1.5*	*421*	*12.3*
W22-RC-046	*and including*	*23.5*	*25.0*	*1.5*	*597*	*17.4*
W22-RC-046	**and**	**68.5**	**71.5**	**3.0**	**66**	**1.9**
W22-RC-047		**0.0**	**112.0**	**112.0**	**138**	**4.0**
W22-RC-047	including	41.5	43.0	1.5	340	9.9
W22-RC-047	including	61.0	64.0	3.0	355	10.3
W22-RC-047	*and including*	*61.0*	*62.5*	*1.5*	*458*	*13.4*
W22-RC-047	including	80.5	85.0	4.5	539	15.7
W22-RC-047	***and including***	***82.0***	***83.5***	***1.5***	***1095***	***31.9***
W22-RC-047	including	104.5	106.0	1.5	256	7.5
W22-RC-047	**and**	**127.0**	**137.5**	**10.5**	**61**	**1.8**
W22-RC-048		**0.0**	**1.0**	**1.0**	**53**	**1.6**
W22-RC-048	**and**	**11.5**	**56.5**	**45.0**	**106**	**3.1**
W22-RC-049		**0.0**	**97.0**	**97.0**	**80**	**2.3**
W22-RC-050		**0.0**	**10.0**	**10.0**	**92**	**2.7**
W22-RC-050	**and**	**17.5**	**28.0**	**10.5**	**70**	**2.0**

Hole		From (m)	To (m)	Interval (m)	Ag (g/t)	Ag (opt*)
W22-RC-050	**and**	**37.0**	**38.5**	**1.5**	**63**	**1.8**
W22-RC-050	**and**	**88.0**	**92.5**	**4.5**	**123**	**3.6**
W22-RC-050	**and**	**101.5**	**104.5**	**3.0**	**99**	**2.9**
W22-RC-051		**0.0**	**35.5**	**35.5**	**97**	**2.8**
W22-RC-051	**and**	**55.0**	**56.5**	**1.5**	**50**	**1.5**
W22-RC-052		**0.0**	**5.5**	**5.5**	**85**	**2.5**
W22-RC-052	**and**	**31.0**	**43.0**	**12.0**	**87**	**2.5**
W22-RC-052	**and**	**50.5**	**52.0**	**1.5**	**58**	**1.7**
W22-RC-052	**and**	**74.5**	**76.0**	**1.5**	**52**	**1.5**
W22-RC-053		**0.0**	**26.5**	**26.5**	**79**	**2.3**
W22-RC-053	**and**	**32.5**	**35.5**	**3.0**	**75**	**2.2**
W22-RC-053	**and**	**43.0**	**44.5**	**1.5**	**62**	**1.8**
W22-RC-053	**and**	**61.0**	**65.5**	**4.5**	**64**	**1.9**
W22-RC-054		**0.0**	**29.5**	**29.5**	**123**	**3.6**
W22-RC-054	*including*	*0.0*	*1.0*	*1.0*	*268*	*7.8*
W22-RC-055		**1.0**	**2.5**	**1.5**	**51**	**1.5**
W22-RC-055	**and**	**8.5**	**52.0**	**43.5**	**113**	**3.3**
W22-RC-055	including	46.0	47.5	1.5	382	11.1
W22-RC-056		**1.0**	**65.5**	**64.5**	**169**	**4.9**
W22-RC-056	*including*	*13.0*	*19.0*	*6.0*	*260*	*7.6*
W22-RC-056	*including*	*26.5*	*41.5*	*15.0*	*261*	*7.6*
W22-RC-057		**10.0**	**14.5**	**4.5**	**66**	**1.9**
W22-RC-057	**and**	**35.5**	**37.0**	**1.5**	**61**	**1.8**
W22-RC-058		**0.0**	**143.5**	**143.5**	**72**	**2.1**
W22-RC-059		**1.0**	**80.5**	**79.5**	**119**	**3.5**
W22-RC-059	*including*	*32.5*	*34.0*	*1.5*	*284*	*8.3*
W22-RC-059	*including*	*43.0*	*44.5*	*1.5*	*252*	*7.4*
W22-RC-059	and	88.0	124.0	36.0	73	2.1
W22-RC-059	and	191.5	194.5	3.0	321	9.4
W22-RC-059	*including*	191.5	193.0	1.5	520	15.2
W22-RC-060		1.0	2.5	1.5	53	1.5
W22-RC-060	**and**	**13.0**	**25.0**	**12.0**	**71**	**2.1**
W22-RC-061		**0.0**	**47.5**	**47.5**	**113**	**3.3**
W22-RC-061	*including*	34.0	35.5	1.5	302	8.8
W22-RC-061	**and**	55.0	56.5	1.5	54	1.6
W22-RC-062		**0.0**	**67.0**	**67.0**	**101**	**3.0**
W22-RC-062	*including*	*0.0*	*4.0*	*4.0*	*268*	*7.8*
W22-RC-062	**and**	**103.0**	**106.0**	**3.0**	**61**	**1.8**
W22-RC-062	**and**	**110.5**	**112.0**	**1.5**	**54**	**1.6**
W22-RC-062	**and**	**118.0**	**140.5**	**22.5**	**57**	**1.7**

Hole		From (m)	To (m)	Interval (m)	Ag (g/t)	Ag (opt*)
W22-RC-062	**and**	**149.5**	**169.0**	**19.5**	**81**	**2.4**
W22-RC-063		**23.5**	**25.0**	**1.5**	**65**	**1.9**
W22-RC-064		**8.5**	**13.0**	**4.5**	**150**	**4.4**
W22-RC-064	**and**	**43.0**	**44.5**	**1.5**	**63**	**1.8**
W22-RC-064	**and**	**49.0**	**50.5**	**1.5**	**55**	**1.6**
W22-RC-064	**and**	**52.0**	**53.5**	**1.5**	**51**	**1.5**
W22-RC-065		**32.5**	**34.0**	**1.5**	**51**	**1.5**
W22-RC-065	**and**	**49.0**	**52.0**	**3.0**	**96**	**2.8**
W22-RC-065	**and**	**76.0**	**83.5**	**7.5**	**118**	**3.4**
W22-RC-066		**0.0**	**55.0**	**55.0**	**92**	**2.7**
W22-RC-066	including	10.0	11.5	1.5	382	11.1
W22-RC-066	**and**	**61.0**	**65.5**	**4.5**	**60**	**1.8**
W22-RC-066	**and**	**79.0**	**115.0**	**36.0**	**85**	**2.5**
W22-RC-067	*No significant intersection*					
W22-RC-068		**5.5**	**62.5**	**57.0**	**138**	**4.0**
W22-RC-068	including	37.0	38.5	1.5	270	7.9
W22-RC-068	**and**	**68.5**	**82.0**	**13.5**	**80**	**2.3**
W22-RC-069		**5.5**	**29.5**	**24.0**	**90**	**2.6**
W22-RC-069	**and**	**35.5**	**37.0**	**1.5**	**66**	**1.9**
W22-RC-070		**2.5**	**65.5**	**63.0**	**115**	**3.4**
W22-RC-070	**and**	**82.0**	**83.5**	**1.5**	**87**	**2.5**
W22-RC-071		**0.0**	**74.5**	**74.5**	**141**	**4.1**
W22-RC-071	including	16.0	17.5	1.5	311	9.1
W22-RC-072		**0.0**	**43.0**	**43.0**	**76**	**2.2**
W22-RC-073		**0.0**	**8.5**	**8.5**	**83**	**2.4**
W22-RC-073	**and**	**14.5**	**41.5**	**27.0**	**77**	**2.2**
W22-RC-074B		**0.0**	**58.0**	**58.0**	**85**	**2.5**
W22-RC-075		**0.0**	**61.0**	**61.0**	**197**	**5.8**
W22-RC-075	*including*	*17.5*	*19.0*	*1.5*	*362*	*10.6*
W22-RC-075	*including*	*26.5*	*29.5*	*3.0*	*330*	*9.6*
W22-RC-075	*including*	*35.5*	*53.5*	*18.0*	*273*	*8.0*
W22-RC-075	*and including*	*41.5*	*43.0*	*1.5*	*508*	*14.8*
W22-RC-076		**1.0**	**85.0**	**84.0**	**79**	**2.3**
W22-RC-077		**5.5**	**91.0**	**85.5**	**135**	**3.9**
W22-RC-077	*including*	*28.0*	*32.5*	*4.5*	*417*	*12.2*
W22-RC-077	*including*	*46.0*	*47.5*	*1.5*	*254*	*7.4*
W22-RC-077	*including*	*49.0*	*52.0*	*3.0*	*298*	*8.7*
W22-RC-078		**0.0**	**32.5**	**32.5**	**96**	**2.8**
W22-RC-078	**and**	**44.5**	**76.0**	**31.5**	**84**	**2.5**
W22-RC-079		**0.0**	**40.0**	**40.0**	**129**	**3.8**

Hole		**From (m)**	**To (m)**	**Interval (m)**	**Ag (g/t)**	**Ag (opt*)**
W22-RC-079	*including*	*5.5*	*7.0*	*1.5*	*275*	*8.0*
W22-RC-079	*and including*	*23.5*	*25.0*	*1.5*	*322*	*9.4*

Appendix D

2022 Drilling Program

Gold Assays

Hole		From (m)	To (m)	Interval (m)	Au (g/t)
W22-RC-001	*No significant intercepts*				
W22-RC-002	*No significant intercepts*				
W22-RC-003B		**50.5**	**56.5**	**6**	**0.124**
W22-RC-003B	*including*	*55*	*56.5*	*1.5*	*0.32*
W22-RC-004B		**47.5**	**52**	**4.5**	**0.103**
W22-RC-004B		**70**	**73**	**3**	**0.165**
W22-RC-005		**95.5**	**116.5**	**21**	**0.26**
W22-RC-005	*including*	*100*	*101.5*	*1.5*	*0.626*
W22-RC-006		**89.5**	**91**	**1.5**	**0.126**
W22-RC-007		**73**	**74.5**	**1.5**	**0.108**
W22-RC-008		**107.5**	**160**	**52.5**	**0.235**
W22-RC-008	*including*	*128.5*	*131.5*	*3*	*0.632*
W22-RC-008	*and including*	*157*	*158.5*	*1.5*	*1.215*
W22-RC-009		**145**	**154**	**9**	**0.215**
W22-RC-010		**86.5**	**88**	**1.5**	**0.138**
W22-RC-010	**and**	**92.5**	**94**	**1.5**	**0.108**
W22-RC-010	**and**	**98.5**	**100**	**1.5**	**0.171**
W22-RC-010	**and**	**107.5**	**110.5**	**3**	**0.199**
W22-RC-010	**and**	**127**	**133**	**6**	**0.147**
W22-RC-011	**and**	**86.5**	**88**	**1.5**	**0.122**
W22-RC-011	**and**	**122.5**	**127**	**4.5**	**0.135**
W22-RC-011	**and**	**140.5**	**145**	**4.5**	**0.611**
W22-RC-011	*including*	*142*	*143.5*	*1.5*	*0.923*
W22-RC-011	***and***	**152.5**	**160**	**7.5**	**0.203**
W22-RC-012		**91**	**121**	**30**	**0.339**
W22-RC-012	*including*	*100*	*104.5*	*4.5*	*1.301*
W22-RC-012	*and including*	*101.5*	*103*	*1.5*	*1.96*
W22-RC-013		**124**	**125.5**	**1.5**	**0.142**
W22-RC-013	**and**	**134.5**	**154**	**19.5**	**0.417**
W22-RC-013	*including*	*139*	*146.5*	*7.5*	*0.786*
W22-RC-013	*and including*	*142*	*143.5*	*1.5*	*1.23*
W22-RC-014		**145**	**151**	**6**	**0.492**
W22-RC-014	*including*	*148*	*149.5*	*1.5*	*0.949*
W22-RC-015		**71.5**	**73**	**1.5**	**0.311**
W22-RC-015	**and**	**85**	**88**	**3**	**0.762**
W22-RC-015	*including*	*86.5*	*88*	*1.5*	*1.105*
W22-RC-016	*No significant intercepts*				
W22-RC-017	*No significant intercepts*				
W22-RC-018		**83.5**	**85**	**1.5**	**0.114**
W22-RC-018	**and**	**107.5**	**115**	**7.5**	**0.29**
W22-RC-018	*including*	*113.5*	*115*	*1.5*	*0.643*
W22-RC-019		**95.5**	**97**	**1.5**	**0.162**
W22-RC-019	**and**	**134.5**	**145**	**10.5**	**0.474**
W22-RC-019	*including*	*137.5*	*140.5*	*3*	*0.871*
W22-RC-020		**100**	**101.5**	**1.5**	**0.1**

Hole		From (m)	To (m)	Interval (m)	Au (g/t)
W22-RC-020	**and**	**130**	**133**	**3**	**0.131**
W22-RC-021		**113.5**	**119.5**	**6**	**0.214**
W22-RC-021	**and**	**131.5**	**134.5**	**3**	**0.161**
W22-RC-022		**79**	**106**	**27**	**0.219**
W22-RC-022	*including*	*103*	*104.5*	*1.5*	*0.512*
W22-RC-023		**47.5**	**59.5**	**12**	**0.336**
W22-RC-023	*including*	*55*	*56.5*	*1.5*	*0.944*
W22-RC-023	**and**	**68.5**	**70**	**1.5**	**0.136**
W22-RC-024		**97**	**98.5**	**1.5**	**0.287**
W22-RC-024	**and**	**107.5**	**109**	**1.5**	**0.19**
W22-RC-025		**128.5**	**130**	**1.5**	**0.634**
W22-RC-026	*No significant intercepts*				
W22-RC-027	*No significant intercepts*				
W22-RC-028	*Not assayed for Au*				
W22-RC-029		*172*	*185.5*	*13.5*	*0.166*
W22-RC-030		*112*	*113.3*	*1.3*	*0.13*
W22-RC-030		**131.5**	**158.5**	**27**	**0.225**
W22-RC-030	*including*	*133*	*134.5*	*1.5*	*0.85*
W22-RC-031		**85**	**88**	**3**	**0.22**
W22-RC-032		**104.5**	**107.5**	**3**	**0.372**
W22-RC-032	*including*	*106*	*107.5*	*1.5*	*0.533*
W22-RC-032	**and**	**115**	**116.5**	**1.5**	**0.117**
W22-RC-033		**101.5**	**103**	**1.5**	**0.115**
W22-RC-034	*No significant intercepts*				
W22-RC-035		**67**	**70**	**3**	**0.272**
W22-RC-035	**and**	**77.5**	**80.5**	**3**	**0.131**
W22-RC-036		**82**	**88**	**6**	**0.315**
W22-RC-036	*including*	*82*	*83.5*	*1.5*	*0.524*
W22-RC-037		**71.5**	**88**	**16.5**	**0.376**
W22-RC-037	*including*	*76*	*83.5*	*7.5*	*0.672*
W22-RC-037	*and including*	*82*	*83.5*	*1.5*	*1.2*
W22-RC-037	**and**	**95.5**	**98.5**	**3**	**0.201**
W22-RC-038		**14.5**	**19**	**4.5**	**0.142**
W22-RC-038	**and**	**25**	**28**	**3**	**0.24**
W22-RC-039		**53.5**	**55**	**1.5**	**0.142**
W22-RC-039	**and**	**85**	**86.5**	**1.5**	**0.235**
W22-RC-039	**and**	**100**	**101.5**	**1.5**	**0.104**
W22-RC-040	*No significant intercepts*				
W22-RC-041		**74.5**	**76**	**1.5**	**0.112**
W22-RC-041	**and**	**100**	**115**	**15**	**0.157**
W22-RC-042	*Not assayed for Au*				
W22-RC-043	*Not assayed for Au*				
W22-RC-044		**109**	**148**	**39**	**0.79**
W22-RC-044	*including*	*112*	*131.5*	*19.5*	*1.08*
W22-RC-044	***and including***	***115***	***119.5***	***4.5***	***2.551***
W22-RC-044	*and including*	*125.5*	*127*	*1.5*	*1.645*

Hole		From (m)	To (m)	Interval (m)	Au (g/t)
W22-RC-044	*and including*	*130*	*131.5*	*1.5*	*1.125*
W22-RC-044	***including***	***137.5***	***145***	***7.5***	***0.825***
W22-RC-044	*and including*	*143.5*	*145*	*1.5*	*1.91*
W22-RC-045		**134.5**	**154**	**19.5**	**0.262**
W22-RC-045	*including*	*140.5*	*143.5*	*3*	*0.921*
W22-RC-045	*and including*	*140.5*	*142*	*1.5*	*1.22*
W22-RC-045	**and**	**163**	**166**	**3**	**0.156**
W22-RC-046		**113.5**	**116.5**	**3**	**0.139**
W22-RC-047	*Not assayed for Au*				
W22-RC-048		**155.5**	**157**	**1.5**	**0.258**
W22-RC-049		**134.5**	**155.5**	**21**	**0.16**
W22-RC-049	**and**	**172**	**175**	**3**	**0.131**
W22-RC-050		**86.5**	**107.5**	**21**	**0.304**
W22-RC-050	*including*	*95.5*	*97*	*1.5*	*0.806*
W22-RC-050	*including*	*101.5*	*103*	*1.5*	*0.774*
W22-RC-050	**and**	**115**	**116.5**	**1.5**	**0.235**
W22-RC-051		**52**	**53.5**	**1.5**	**0.116**
W22-RC-052		**82**	**83.5**	**1.5**	**0.156**
W22-RC-053	*Not assayed for Au*				
W22-RC-054	*Not assayed for Au*				
W22-RC-055	*No significant intercepts*				
W22-RC-056		**80.5**	**82**	**1.5**	**0.165**
W22-RC-057	*Not assayed for Au*				
W22-RC-058	*Not assayed for Au*				
W22-RC-059		**172**	**173.5**	**1.5**	**0.322**
W22-RC-059	**and**	**191.5**	**194.5**	**3**	**0.557**
W22-RC-059	*and including*	*191.5*	*193*	*1.5*	*0.882*
W22-RC-060	*Not assayed for Au*				
W22-RC-061	*Not assayed for Au*				
W22-RC-062		**154**	**157**	**3**	**0.231**
W22-RC-063	*Not assayed for Au*				
W22-RC-064	*Not assayed for Au*				
W22-RC-065	*Not assayed for Au*				
W22-RC-066	*No significant intercepts*				
W22-RC-067	*No significant intercepts*				
W22-RC-068	*Not assayed for Au*				
W22-RC-069	*Not assayed for Au*				
W22-RC-070	*Not assayed for Au*				
W22-RC-071	*Not assayed for Au*				
W22-RC-072		**112**	**119.5**	**7.5**	**0.172**
W22-RC-073	*No significant intersection*				
W22-RC-074	*Not assayed for Au*				
W22-RC-074B	*No assayed for Au*				
W22-RC-075	*Not assayed for Au*				
W22-RC-076	*No significant intercepts*				
W22-RC-077	*No significant intercepts*				

Hole		From (m)	To (m)	Interval (m)	Au (g/t)
W22-RC-078	*Not assayed for Au*				
W22-RC-079	*Not assayed for Au*				
W22-RC-080		**0**	**91**	**91**	**0.39**
W22-RC-080	*including*	*8.5*	*10*	*1.5*	*1.715*
W22-RC-080	*including*	*41.5*	*44.5*	*3*	*1.771*
W22-RC-080	*including*	*79*	*82*	*3*	*1.373*
W22-RC-081		**0**	**65.5**	**65.5**	**0.613**
W22-RC-081	*including*	*4*	*5.5*	*1.5*	*3.62*
W22-RC-081	*including*	*32.5*	*34*	*1.5*	*1.25*
W22-RC-081	*including*	*37*	*41.5*	*1.5*	*1.094*
W22-RC-081	*including*	*47.5*	*53.5*	*6*	*1.239*
W22-RC-081	*including*	*58*	*59.5*	*1.5*	*1.1*
W22-RC-081	**and**	**73**	**76**	**3**	**0.139**
W22-RC-082		**0**	**52**	**52**	**0.353**
W22-RC-082	*including*	*4*	*8.5*	*4.5*	*1.204*
W22-RC-082	*including*	*34*	*35.5*	*1.5*	*2.05*
W22-RC-082	**and**	**58**	**59.5**	**1.5**	**0.175**
W22-RC-082	**and**	**79**	**85**	**6**	**0.265**
W22-RC-083		**7**	**10**	**3**	**0.126**
W22-RC-083	**and**	**25**	**28**	**3**	**0.143**
W22-RC-083	**and**	**35.5**	**86.5**	**51**	**0.567**
W22-RC-083	*including*	*58*	*68.5*	*10.5*	*1.637*
W22-RC-083	**and**	**92.5**	**100**	**7.5**	**0.203**
W22-RC-084		**0**	**1**	**1**	**0.102**
W22-RC-084	**and**	**8.5**	**56.5**	**48**	**0.532**
W22-RC-084	*including*	*37*	*40*	*3*	*1.265*
W22-RC-084	*including*	*49*	*55*	*6*	*1.67*
W22-RC-084	**and**	**82**	**88**	**6**	**0.122**
W22-RC-084	**and**	**91**	**92.5**	**1.5**	**0.115**