**AMC Mining Consultants (Canada) Ltd.**
BC0767129

200 Granville Street, Suite 202
Vancouver BC V6C 1S4
Canada

T +1 604 669 0044
E vancouver@amcconsultants.com
W amcconsultants.com

AMC consultants
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# Technical Report

## Silver Sand Deposit Mineral Resource Report

New Pacific Metals Corp.

### Potosí, Bolivia

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

Qualified Persons:
A. Ross, P.Geo., B.Sc., Ph.D.
D. Nussipakynova, P.Geo., B.Sc., M.Sc.
S. Robinson, P.Geo., B.Sc.
A. Holloway, P.Eng. B.Eng.(Hons)

AMC Project 719020
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# 1 Summary

## 1.1 Introduction

This Technical Report (the Report) provides an initial Mineral Resource estimate on the Silver Sand Property (the Property or Silver Sand Property),Potosí Department, Bolivia. The Report has been prepared by AMC Mining Consultants (Canada) Ltd. (AMC Consultants) of Vancouver, Canada on behalf of New Pacific Metals Corp. (New Pacific).

New Pacific, through its wholly owned subsidiaries acquired exploration and mining rights over an aggregate area of approximately 60 square kilometres ($km^2$) covering the Silver Sand deposit and its surrounding areas. The Silver Sand area has been intermittently mined for silver from narrow high-grade mineralized veins in the Cretaceous sandstone since early to mid-1500's.

The Report has been prepared in accordance with the requirements of National Instrument 43-101 (NI 43-101), "Standards of Disclosure for Mineral Projects" of the Canadian Securities Administrators (CSA) for lodgement on CSA's "System for Electronic Document Analysis and Retrieval" (SEDAR).

## 1.2 Property description and ownership

The Property is situated in the Colavi District of Potosí Department in southwestern Bolivia, 25 kilometres (km) north-east of Potosí city, the department capital. The approximate geographic center of the Property is 19°22′ 4.97″ S latitude and 65°31′ 22.93″ W longitude at an elevation of 4,072 metres above sea level (masl).

According to the current 2014 and 2016 mining laws, exploration and mining rights in Bolivia are granted by the Jurisdictional Mining Administrative Authority (Autoridad Jurisdiccional Administrativa Minera, AJAM) through Administrative Mining Contracts (AMC) between an operator and AJAM. Operators can also acquire interests in exploration and mining rights by signing Mining Production Contracts (MPC) on areas controlled by the state-owned mining company, Corporación Minera de Bolivia (COMIBOL), who holds these rights.

New Pacific, through its three wholly owned subsidiaries Empresa Minera Alcira S.A. (Alcira), Empresa Jisas – Jardan SRL, and Empresa El Cateador SRL, collectively hold exploration and mining agreements over an approximate 60 $km^2$ contiguous area. The total area under 100% control of New Pacific is 5.42 $km^2$ after the claim consolidation and conversion procedures are complete. This process is completed for the Silver Sand south block which hosts the Mineral Resource area. The remaining area incorporates MPC claims consisting of 29 Temporary Special Authorizations (ATEs) and 201 cuadriculas for a total area of about 57 $km^2$ surrounding the Silver Sand core area. The AMC-covered and MPC-covered areas are collectively referred to as the Silver Sand Property or Property in this report.

## 1.3 Geology and mineralization

The Silver Sand Property is located in the south section of the polymetallic tin belt in the Eastern Cordillera of the Central Andes, Bolivia. Evidence of historical mining activities such as abandoned mining adits and mining villages can be seen across the Property.

Bedrock in the Property area mainly consists of weakly deformed Cretaceous continental sandstone, siltstone, and mudstone and strongly deformed Paleozoic marine sedimentary rocks. The Cretaceous sedimentary sequence forms an open syncline which plunges gently NNW and is bound to the SW and NE by NW trending faults.

The dominant Cretaceous sedimentary sequence within the Property is divided into the lower La Puerta Formation and the upper Tarapaya Formation. The La Puerta Formation consists of sandstones and unconformably overlies the highly folded Paleozoic marine sedimentary rocks. The Tarapaya Formation conformably overlies the La Puerta sandstones in the central part of the Property and comprises siltstones and mudstones intercalated with minor sandstone.

Both the Cretaceous and Paleozoic sedimentary sequences are intruded by numerous small Miocene subvolcanic dacitic porphyry intrusions.

Silver mineralization is hosted by faults, fractures, fissures, and crackle breccia zones in the Cretaceous La Puerta brittle sandstone and porphyritic dacitic dikes, laccolith, and stocks. In the mineralized sandstone, open spaces are filled with silver-containing sulphosalts and sulphides in forms of sheeted veins, stockworks, and veinlets, as well as breccia fillings and minor disseminations. Most silver mineralization in the Property is structurally controlled with secondary rheological controls. The intensity of mineralization is dependent on the density of various mineralized vein structures developed in the brittle host rocks.

The most common silver-bearing minerals include freibergite, miargyrite, polybasite, bournonite, andorite and boulangerite. The mineralized zones have been irregularly oxidized which in areas can result in significant mixed oxide and sulphide zones due to the strong local influence of sub-vertical fractures. Oxide minerals are dominated by jarosite, goethite and minor hematite resulting pervasive staining within sandstones, and pseudomorphing of sulphide minerals within veins.

A total of ten mineralized prospects have been identified across the Property to date. These include the Silver Sand deposit and the El Fuerte, Snake Hole, North Plain, San Antonio, Esperanza, Jisas, El Bronce, Mascota, and Aullagas occurrences. Silver Sand and Snake Hole have been defined or tested by drilling. The other eight prospects have been defined by rock chip and grab sampling of ancient and more recent artisanal mine workings and dumps.

Four mineralization types have been recognized in the Property, including (1) sandstone-hosted silver mineralization, (2) dacitic porphyry-hosted silver mineralization, (3) hydrothermal breccia-hosted silver mineralization, and (4) manto-type tin and base metal mineralization. The first three mineralization types are considered to have been developed in an epithermal environment during the late stage of the Cenozoic orogenic movement in the Eastern Cordillera. They are typical of the Bolivian polymetallic vein-type deposits represented by the giant Cerro Rico de Potosí silver mine in Potosí. The manto-type tin and base metal mineralization was formed by metosomatic replacement associated with a mesothermal environment during the early stage of the Cenozoic orogenic event.

### 1.4 Status of exploration

Before the acquisition of the Property by New Pacific in 2017, the previous owner drilled eight diamond drillholes for a total of 2,334 m of HQ size core between 2012 and 2015 at the Silver Sand deposit, within the core area of the Property. Limited surface and underground sampling were also conducted by the previous owner.

Since October 2017, New Pacific has carried out an extensive property-scale reconnaissance investigation program by surface and underground sampling of the mineralization outcrops and the accessible ancient underground mine works across the Property.

A total of 904 rock chip samples were collected from 19 separate outcrops by New Pacific since 2017. Continuous chip samples were collected at 1.5 m intervals along lines roughly perpendicular to the strike direction of the mineralization zones. Sample lines covered a total length of 1,340 m. Most of the sampled outcrops are located above or near old mine works.

New Pacific has also mapped and sampled 42 historical mine workings comprising 4,912 m of mine tunnel. A total of 964 continuous chip samples have been collected at 1 m intervals along walls of available tunnels that cut across the mineralized zones.

Mine dumps from historical mining activities are scattered across a significant portion of the Property. New Pacific has collected a total of 1,339 grab samples from historical mine dumps. The majority of samples collected were remnants of high-grade narrow veins extracted from underground mining activity. Of the 1,339 samples collected from historical mine dumps to date, 572 samples (43%) returned assay results between 32 and 3,290 grams per ton (g/t) Ag with an average grade of 190 g/t Ag.

Assay results of underground chip samples and surface mine dump grab samples show that silver mineralization widely occurs in the wall rocks of the previously mined-out high-grade veins in the abandoned ancient underground mining works.

## 1.5 Drilling

From October 2017 to December 2019, New Pacific conducted intensive diamond drilling programs over the Silver Sand core area to define the spatial extension of the mineralization. It drilled 386 HQ diamond holes for a total metreage of 97,610 m in the core area of the Property. Holes were first drilled at 50 m x 50 m grid to delineate the spatial extensions of the major mineralized zones defined by surface and underground sampling. Later drilling, on a nominal 25 x 25 m grid, infilled defined areas of mineralization.

All holes were drilled from the surface. Drillholes were drilled up to 545 m deep at inclinations between -45° and -80° towards azimuths of 060° (~NE) and 220° (~SW) to intercept the principal trend of mineralized vein structures.

The drilling programs have covered an area of approximately 1,600 m long in the north-south direction and 800 m wide in the east-west direction and have defined silver mineralization at the Silver Sand deposit over an oblique strike length of 2 km, a collective width of 650 m and to a depth of 250 m below surface.

Drill coring was completed using conventional HQ (64 millimetre (mm) diameter) equipment and 3 m drill rods. Core recovery from New Pacific drill programs varies between 0% (voids and overburden) and 100%, averaging 97%. More than 92% of core intervals have a core recovery of greater than 95%.

Drill core containing visible mineralization is wrapped in paper to minimize damage during transport.

## 1.6 Sample preparation, assay, and QA/QC

New Pacific has developed and implemented good standard procedures for sample preparation, analytical, and security protocols.

New Pacific manages all aspects of sampling from the collection of samples to sample delivery to the laboratory. All samples are stored and processed at the company's Betanzos facility located approximately 1.5 hours drive from the Silver Sand deposit. This facility is surrounded by a brick wall, has a locked gate and is monitored by video surveillance and security guard 24 hours a day, seven days a week. Within the facility, there are separate and locked areas for core logging, sampling, and storage.

Core, chip, and grab samples are shipped in securely sealed bags to ALS Global in Oruro, Bolivia for preparation. At the preparation lab, samples are processed using the following procedures: (1)

crush to 70% less than 2 mm; (2) riffle split off 250 g; and (3) pulverize split to better than 85% passing a 75-micron sieve. The pulverized pulps are shipped to ALS Global in Lima, Peru for geochemical analysis.

Sample analysis in 2017 and 2018 comprised an aqua regia digest followed by Inductively Coupled Plasma (ICP) Atomic Emission Spectroscopy (AES) analysis of Ag, Pb, and Zn (ALS code OG46). Assay results greater than 1,500 g/t Ag were sent for fire assay and gravimetric finish analysis. New Pacific changed its analysis protocol in 2019 to include systematic multielement analysis. All samples were sent for an initial 51 element ICP mass spectroscopy (MS) analysis (ALS code ME-MS41) with over limit procedures in place.

Drill programs completed on the Property between 2017 and 2019 have included Quality Assurance / Quality Control (QA/QC) monitoring programs which have incorporated the insertion of certified reference materials (CRMs), blanks, and duplicates into the sample streams, and umpire (check) assays at a separate laboratory. AMC Consultants has compiled and reviewed the available QA/QC data for 345 drillholes where assays have been received.

New Pacific has included CRMs, blank, and coarse reject umpire (check) assays as part of routine analysis at slightly less than the preferred rates of 5%. Field duplicate samples consisting of quarter core have also been included but comprise less than 1% of all samples.

New Pacific has used four different CRMs throughout the project history. Three CRMs were used in the 2019 program which monitored the approximate cut-off grade and grades below and above the average grade. In previous years CRMs did not monitor the cut-off grade. CRMs generally show reasonable analytical accuracy; however, two of the four CRMs do not perform within certified control limits, with an excessive number of failures. AMC Consultants postulates that poor CRM performance may be due to the CRMs being certified using a four-acid digest but analyzed using aqua-regia. AMC Consultants recommends that follow up work be completed prior to further use of these CRMs.

Blank sample results are considered acceptable and show that no significant contamination has occurred during sample preparation and analysis.

Quarter core field duplicate samples show sub-optimal performance which suggest that mineralization is heterogeneous, that sample errors are occurring during the sampling process, or a combination of both factors. Duplicate samples are biased on average 11% lower than the original sample. AMC Consultants speculates that the friable nature of silver sulphosalts may result in sample loss during the core cutting and sampling process, resulting in progressive decrease in sample grade with each successive stage of processing, and an overall net underestimation of metal. AMC Consultants recommends that this be investigated.

Umpire (check) coarse reject samples have been sent to a third-party laboratory to confirm the accuracy of the primary laboratory. Umpire assay results show sub-optimal precision however this may be in part due to additional sub-sampling variance incurred during sampling of the coarse rejects. AMC Consultants recommends future umpire samples be sent as pulp samples.

The Qualified Person (QP) considers sample preparation, analytical and security protocols employed by New Pacific to be acceptable. The QP has reviewed the QA/QC procedures used by New Pacific including CRMs, blank, duplicate and umpire data and has made some recommendations. The QP does not consider these to have a material impact on the Mineral Resource estimate and considers the assay database to be adequate for Mineral Resource estimation.

## 1.7 Metallurgical testing

A metallurgical testwork program started in 2018 examined several metallurgical composites of Oxide, Transition, and Sulphide mineralization from two areas of the Silver Sand deposit. The composites were prepared from samples of available half-core. A geometallurgical sampling approach was used and was designed to highlight the effect of differences in silver grade, degree of oxidation, and lithology.

Four independent geometallurgical testwork programs (mineral characterization, comminution, froth flotation, and cyanide leaching) were carried out on the different metallurgical composites. Six metallurgical domains were identified for the flotation and leaching testwork and six geological domains were branded for the comminution work. Comminution, flotation, and leaching programs were completed by SGS Mineral Services in Lima, Peru, while the mineral characterization work was completed by the Research Center for Mining and Metallurgy (CIMM) and Oruro Technical University (UTO) both in Bolivia.

The results of the testwork suggest that the mineralized materials from the Silver Sand Project would be amenable to processing using conventional flotation or large-scale whole ore cyanidation at atmospheric pressure. This preliminary metallurgical testing program has demonstrated that good silver extraction rates are possible using these simple extraction methods and that further improvements and refinements should be possible in future programs after fine-tuning the various test parameters. Highlights of the completed test program are as follows:

- Composite samples of Sulphide, Transition, and Oxide mineralization were submitted for laboratory-scale rougher-scavenger flotation testing and this achieved up to 96.0%, 86.8%, and 92.0% silver recovery respectively.
- Composite samples of Sulphide, Transition, and Oxide mineralization were submitted for bottle roll cyanidation testing and this achieved up to 96.7%, 97.0%, and 96.3% silver extraction respectively.
- Samples of oxide mineralization were submitted for coarse column leach cyanidation testing and this achieved up to 88.3% silver extraction.
- High recoveries achieved during cyanidation tests indicate that silver-bearing minerals within the sulphide and transition composite samples tested can be considered non-refractory in nature.
- Composite samples were found to be mostly in the soft to medium grindability range with low to medium values of Abrasion Index (Ai).

## 1.8 Development and operations

There are no mining or metal recovery operations underway by New Pacific or the prior owner at the Property. There are a few local contract miners conducting underground, small-scale, artisanal mining intermittently on the Property. Evidence of historic mining, commencing in Spanish Colonial times, is demonstrated by numerous adits, declines, pits and drifts, rail tracks, and small-scale dumps scattered around the Property. There are no known records of past production from these activities.

## 1.9 Mineral Resources

The Mineral Resource estimate was completed using 330 drillholes on the Property comprising 85,391 m of diamond core and 58,420 assays. Grade interpolation was completed using ordinary kriging (OK). Silver, lead, zinc, gallium, and indium were estimated but only silver is reported below as metallurgical work has yet to be done on the other metals.

The mineralization domain was built by New Pacific using Leapfrog Geo 4.0 software. The mineralization domain was reviewed and accepted by the QP with some changes, including separating the domain into two areas based on vein orientation. The QP estimated into these domains and also estimated a background block model that was combined with the domain mineralization to form the final block model.

New Pacific performed 4,033 density measurements on the core drilled on the Property. As the mineralization is hosted in one rock type, after reviewing the density data, the QP assigned two density measurements to the block model based on the mean density inside and outside of the mineralized domains. The mineralized sandstone was assigned a bulk density of 2.54 t/m$^3$ and the unmineralized sandstone was assigned a bulk density of 2.50 t/m$^3$.

The pit-constrained Mineral Resources are reported for blocks above a conceptual pit shell based on a US$18.70/ounce silver price and within the AMC claim boundary. Pit optimization allowed minor waste to extend outside New Pacific's 100% owned claim boundary to the NE and SW.

The cut-off applied for reporting the pit-constrained Mineral Resources is 45 g/t silver. Assumptions made to derive a cut-off grade included mining costs, processing costs and recoveries and were obtained from comparable industry situations. The model is depleted for historical mining activities.

The Mineral Resource for the Silver Sand deposit has been estimated by Ms Dinara Nussipakynova, P.Geo. Principal Geologist of AMC Consultants, who takes responsibility for the estimate.

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

Table 1.1 Conceptual pit-constrained Mineral Resource as of 31 December 2019

| Resource category | Tonnes (Mt) | Ag (g/t) | Ag (Moz) |
|---|---|---|---|
| Measured | 8.4 | 159 | 43.05 |
| Indicated | 26.99 | 130 | 112.81 |
| Measured & Indicated | 35.39 | 137 | 155.86 |
| Inferred | 9.84 | 112 | 35.55 |

Notes:

- CIM Definition Standards (2014) were used for reporting the Mineral Resources.
- The QP is Dinara Nussipakynova, P.Geo. of AMC Consultants.
- Mineral Resources are constrained by an optimized pit shell developed at a metal price of US$18.70/oz Ag and recovery of 90% Ag.
- Cut-off grade is 45 g/t Ag.
- Mineral Resources are reported inside the AMC claim boundary.
- Pit optimization allows waste to extend outside the claim to the NE and SW.
- Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- Drilling results up to 31 December 2019.
- The numbers may not compute exactly due to rounding.

Source: AMC Mining Consultants (Canada) Ltd.

The QP is not aware of any known environmental, permitting, legal, taxation, socioeconomic, marketing, or other similar factors that could materially affect the stated Mineral Resource estimates.

Regarding title, the QP is aware that the ATEs, where the Mineral Resource is located, are in the process of being consolidated and converted into one concession. An Administrative Mining Contracts (AMC) with AJAM has been signed but is yet to be registered with the mining register, notarized, and published in the mining gazette. AMC Consultants sees no reason for these final conversion steps not to occur.

Regarding political risk, during and after the Fall 2019 elections, civil unrest across the country resulted in road blockages and strikes by local groups. Roads to the Property were blocked during this temporary event. New elections are currently scheduled to be held in 2020 which may again result in temporary civil unrest. In the past, former political leaders have caused Bolivia to nationalize privately owned mines. Globally mining laws are subject to change from time to time.

### 1.10 Mineral Reserves

There are neither historical nor current Mineral Reserves on the Property.

### 1.11 Conclusions

Silver mineralization at the Property occurs in ten areas: Silver Sand, El Fuerte, Snake Hole, North Plain, San Antonio, Esperanza, Jisas, El Bronce, Mascota, and Aullagas. The mineralization identified in the Property belongs to the Bolivian polymetallic vein-type deposits represented by the giant Cerro Rico de Potosí silver mine in Potosí.

The Silver Sand deposit is defined by exploration drilling and has a conceptual pit-constrained Mineral Resource using a 45 g/t Ag cut-off of Measured and Indicated Resources of 35.39 million tonnes grading 137 g/t silver; and Inferred Mineral Resource of 9.84 million tonnes grading 112 g/t silver. Ms Dinara Nussipakynova, P.Geo. of AMC Consultants takes responsibility for these estimates.

Logging, mapping, sampling, and analyzing procedures of New Pacific's on-going exploration programs follow common industry practice. Results of QA/QC programs are deemed acceptable by the QP.

The results of a preliminary metallurgical test program suggest that the mineralized materials from the Silver Sand Property would be amenable to processing using conventional flotation or whole ore cyanidation at atmospheric pressure at a large scale.

Risks and opportunities relating to this project are discussed below.

#### 1.11.1 Risks

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is a degree of uncertainty attributable to the estimation of Mineral Resources. Until Mineral Resources are actually mined and processed, the quantity of mineralization and grades must be considered as estimates only.

The QP notes that the current Mineral Resource is constrained within a conceptual open pit that allows minor waste, but not mineralization, to extend onto the MPC area. Constraining both the waste and mineralization to the AMC ground reduces the contained silver ounces in the Measured and Indicated category from 155.9 Moz to 142.2 Moz and in the Inferred category from 35.6 Moz to 27.4 Moz.

Engineering, geotechnical and hydrogeological studies, at a sufficient level to convert Mineral Resources to Mineral Reserves, are necessary before the impact of these risks and uncertainties to the project's potential economic viability can be reasonably quantified.

Operating in South America can be associated with political risk. In the past, former political leaders have caused Bolivia to nationalize privately owned mines. Global mining laws are subject to change from time to time..

### 1.11.2 Opportunities

Potential opportunities for the project include:

- The current Mineral Resource is constrained within an open pit that allows waste, but not mineralization, to extend onto the MPC area. Extending the pit to allow for the extraction of both waste and mineralization in the MPC area increases the contained silver ounces in the Measured and Inferred category from 155.9 Moz to 170.3 Moz and in the Inferred category from 35.6 Moz to 49.7 Moz.
- Expansion and upgrading of the Silver Sand deposit through additional drilling.
- Significant exploration potential within an emerging silver district which contains numerous showings and evidence of silver-rich, polymetallic mineralization including historic workings.

## 1.12 Recommendations

### 1.12.1 Quality Assurance / Quality Control

With respect to density, the QP recommends that New Pacific:

- Incorporate the regular use of a density standard.
- Weigh samples following immersion to ensure that the sample is not absorbing water.
- Send a portion of samples to a third-party laboratory for density measurement.

With respect to CRMs, the QP recommends that New Pacific:

- Adjust CRM monitoring criteria such that assay batches with two consecutive CRMs outside two standard deviations, or one CRM outside of three standard deviations are investigated and, if necessary, re-analyze the batch.
- Purchase an additional CRM at the average grade (130 g/t Ag) of the deposit which has been certified using similar digestion methodology.
- Investigate performance issues with CRMs CDN-ME-1603 and CDN-ME-1605 if these are to be used in future programs.
- Re-evaluate the use of ME-MS41 analytical method.

With respect to blanks, the QP recommends that New Pacific:

- Adjust blank insertion procedures to also include the insertion of blank material immediately after visible high-grade silver intercepts. Alternatively, request quartz wash samples be inserted by the laboratory.
- If ALS method ME-MS41 is to be used for ongoing routine analysis:
  - Test an additional 10 – 20 samples from the new blank quarry site to establish a background value.
  - Establish an appropriate (lower) blank failure limit for ME-MS41 analysis.

With respect to duplicates, the QP recommends that New Pacific:

- Implement investigative work to understand duplicate sample bias.
- Ensure that all future programs include at least 5% duplicate samples including field duplicates, coarse (crush) duplicates, and pulp duplicates to enable the various stages of sub-sampling to be monitored.

With respect to umpire samples, the QP recommends that New Pacific:

- Submit pulp samples (rather than coarse reject) so that umpire samples only monitor analytical accuracy and variance.
- Include CRMs at the average grade and higher grades in umpire sample submissions.

### 1.12.2 Mineral Resource

For future Mineral Resource modelling it is useful to determine the extent of the historical mining on the Property. The QP recommends that New Pacific:

- Conduct a professional survey of the underground cavities if it is safe to do so.
- Continue to record in logs if the drilling hits voids.
- Conduct a survey of the waste dumps in order to check the volumes of mined-out areas.
- Conduct structural analysis of available data and complete initial structural / geotechnical drilling as required.
- Update the 3D geological model to include detailed geology – deposit oxidation domaining and structures.

### 1.12.3 Mineral Resource expansion and conversion

The Silver Sand deposit as currently defined remains open for expansion. There has been no modern district scale exploration. It is recommended that future exploration, resource expansion, and definition drilling:

- Test the newly defined Snake Hole prospect located approximately 600 m east of the Silver Sand deposit.
- Test and / or convert areas of known silver mineralization and or structural extensions within, adjacent to and / or not captured by the current conceptual open pit design.
- Test the northern structural extension of the Main Zone of the Silver Sand deposit.
- Test the downdip / deeper extents below the Main Zone and the area between the Main and South Zones of the deposit.
- Conduct an initial drill test on the Silver Sand North Block ~ El Bronce and Jisas targets.

### 1.12.4 Metallurgical testwork development

- A second phase of metallurgical testwork is recommended to build on and improve the metallurgical characterization work completed to date. Further technical de-risking and metallurgical optimization would be the objectives. This phase of testwork would include the following items:
  - Selection of representative samples, using core material from metallurgical holes plus coarse rejects from other areas of the deposit. Good spatial coverage and representation of different geometallurgical units are required.
  - Chemical characterization (ICP scans) of composites.
  - Physical characterization including comminution tests.
  - Quantitative mineralogical characterization using QEMScan.

- Flotation testwork, including rougher kinetic tests, batch cleaner tests, and locked cycle tests.
- Characterization of final flotation test products, including scans for deleterious elements.
- Whole ore leaching testwork, including bottle roll tests to assess leach kinetics after grinding, vat leach tests and column leach tests, to assess vat and heap leach kinetics at various coarse sizes.
- Cyanide destruction tests.
- Environmental tests, including ARD and metal leaching tests on flotation tailings samples.

### 1.12.5 Environmental baseline studies

Limited environmental studies have been completed to date. Given the long-lead times for environmental studies it is recommended that New Pacific commence environmental baselines studies as a matter of urgency.

### 1.12.6 Community and social studies

It is recommended that community and social studies are continued and expanded to levels appropriate for the potential scale and technical status of the project.

### 1.12.7 District scale exploration

Complete initial district scale exploration including geological mapping, sampling, and target generation over the Property. Contingent on results and necessary approvals drill testing may be warranted.

### 1.12.8 Costs

The costs for the recommended programs including contingency are tabulated below in Table 1.2.

Table 1.2 Budget for the recommended programs

| **Account category** | **Budget totals (US$)** |
|---|---|
| Betanzos Camp Costs (Repairs, cook / meals, fuel, supplies, and logistics) | 400,000 |
| Geology & Project Administration (Contractors, Consultants) | 300,000 |
| Systems (Health & Safety / Database) | 150,000 |
| Diamond Drilling (26,000 m) | 3,100,000 |
| Assay (21,000 samples) | 1,000,000 |
| Technical Consulting & Reporting (NI 43-101 PEA technical report and resource estimate) | 200,000 |
| Metallurgical Test Work | 220,000 |
| Environmental baseline studies | 560,000 |
| Community & Social Studies and Programs | 425,000 |
| Contingency – 10% | 635,500 |
| **Grand total** | **6,990,500** |

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## Tables

## Figures

# 2 Introduction

## 2.1 General and terms of reference

AMC Mining Consultants (Canada) Ltd. (AMC Consultants) was commissioned by New Pacific Metals Corp. (New Pacific) to prepare an independent Technical Report (2020 Technical Report) on the Silver Sand project (Property or Silver Sand Property). The 2020 Technical Report has been prepared to a standard which is in accordance with the requirements of National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101), of the Canadian Securities Administrators (CSA) for lodgment on CSA's System for Electronic Document Analysis and Retrieval (SEDAR). The previous Technical Report on the Property titled "NI 43-101 Technical Report Silver Sand Property Potosí, Bolivia", has an effective date of 31 August 2019.

## 2.2 The Issuer

New Pacific is a Canadian Mining Issuer, in the business of exploring and developing precious metal mining properties in South America and Canada. Through its three wholly owned subsidiaries Empresa Minera Alcira S.A. (Alcira), Empresa Jisas – Jardan SRL, and Empresa El Cateador SRL, New Pacific collectively holds exploration and mining agreements over an approximate 60 square kilometres ($km^2$) contiguous area. The Silver Sand project is located in Potosí Department, Bolivia.

New Pacific is listed on the TSX Venture Exchange (symbol NUAG.V) and the OTCQX (symbol NUPMF).

## 2.3 Report authors

The names and details of persons who prepared, or who have assisted the Qualified Persons (QPs) in the preparation of this report, are listed in Table 2.1.

Table 2.1 Persons who prepared or contributed to this Technical Report

| **Qualified Persons responsible for the preparation of this Technical Report** | | | | | | |
|---|---|---|---|---|---|---|
| **Qualified Person** | **Position** | **Employer** | **Independent of New Pacific** | **Date of last site visit** | **Professional designation** | **Sections of Report** |
| Dr A. Ross | Geology Manager / Principal Geologist | AMC Mining Consultants (Canada) Ltd. | Yes | No visit | P.Geo. (BC) | 2-10, 15, 16, 18-24, Part of 1, 25, 26, and 27 |
| Ms D. Nussipakynova | Principal Geologist | AMC Mining Consultants (Canada) Ltd. | Yes | 8-11 Aug 2019 | P.Geo. (BC) | 12, 14, Part of 1, 25, 26, and 27 |
| Mr A. Holloway | Principal Process Engineer | AGP Mining Consultants Inc. | Yes | 14-16 Jan 2020 | P.Eng. (ON) | 13, 17, Part of 1, 25, 26, and 27 |
| Mr S. Robinson | Senior Geologist | AMC Mining Consultants (Canada) Ltd. | Yes | No visit | P.Geo. (BC) | 11, Part of 1, 25, 26, and 27 |
| **Other Experts who assisted the Qualified Persons in the preparation of this Technical Report** | | | | | | |
| **Expert** | **Position** | **Employer** | **Independent of New Pacific** | **Visited site** | | **Sections of Report** |
| Mr R. Jiang | Consulting Geologist | Independent | Yes | 1-12 Aug 2019 | | 4 to 11, and 23 |
| Mr S. Robinson | Senior Geologist | AMC Mining Consultants (Canada) Ltd. | Yes | No visit | | 7 to 10 |
| Mr Y. (Alex) Zhang | Vice President, Exploration | New Pacific Metals Corp. | No | Ongoing | | 1 to 11, and 23 |

NI 43-101 requires at least one QP to inspect the Property. AMC likes to ensure that a QP from each scientific discipline visits the site. As AMC geologist, Ms. Dinara Nussipakynova visited the Property, site visits by the other two geologists, Mr Simeon Robinson and Dr Adrienne Ross, were not deemed necessary.

AMC Consultants acknowledges the numerous contributions from New Pacific in the preparation of this report and is particularly appreciative of prompt and willing assistance of Mr Ruijin Jiang, Mr Y. (Alex) Zhang, and Dr Mark Cruise.

Ms Dinara Nussipakynova visited the Silver Sand Property in August 2019. All aspects of the project were examined by the QPs, including drill core, drilling and core processing procedures, initial Quality Assurance / Quality Control (QA/QC) procedures, and database management.

## 2.4 Sources of information

In preparing this report, AMC Consultants has relied on various geological maps, reports, and other technical information provided by New Pacific. AMC Consultants has reviewed and analyzed the data provided and drawn its own conclusions augmented by its direct field observations. The key information used in this report is listed in Section 27 References, at the end of this report.

New Pacific's internal technical information reviewed by AMC Consultants was adequately documented, comprehensive and of good technical quality. It was gathered, prepared and compiled by competent technical persons. New Pacific's external technical information was prepared by a reputable company and AMC Consultants has no reason to doubt its validity. AMC Consultants used its professional judgement and made recommendations in this report where it deems further work is warranted.

## 2.5 Other

This report includes the tabulation of numerical data which involves a degree of rounding for the purpose of resource estimation. AMC Consultants does not consider any rounding of the numerical data to be material to the project.

All currency amounts and commodity prices are stated in US dollars unless otherwise stated. Quantities are stated in metric (SI) units. Commodity weights of measure are in grams (g) or percent (%) unless otherwise stated.

A draft of the report was provided to New Pacific for checking for factual accuracy. The report is effective at 16 January 2020.

# 3 Reliance on other experts

The QPs have relied, in respect of legal aspects, upon the work of the Experts listed below. To the extent permitted under NI 43-101, the QPs disclaim responsibility for the relevant section of the Report.

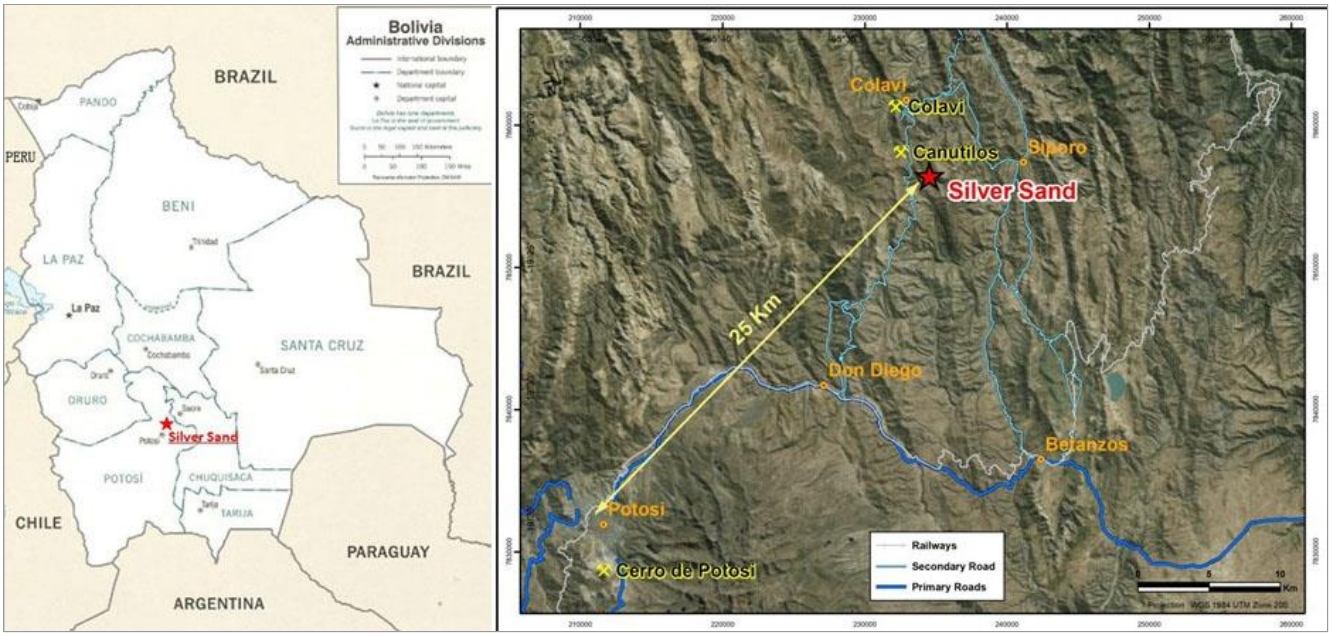
- Experts: Carlos Pinto (Partner) and Mattias Garrón (Senior Associate), Ferrere Law Offices, La Paz, Bolivia, as advised in a letter to AMC Consultants with an effective date of 16 January 2020.
- Report, opinion, or statement relied upon: information on mineral tenure and status, royalty obligations, Mineral Resources tax, etc.
- Extent of reliance: full reliance following a review by the QPs.
- Portion of Technical Report to which disclaimer applies: Section 4.3.

# 4 Property description and location

## 4.1 Property location

The Silver Sand Property is situated in the Colavi District of Potosí Department in south-western Bolivia, 25 kilometres (km) north-east of Potosí city, the department capital. The approximate geographic centre of the Property is 19°22’ 4.97” S latitude and 65°31’ 22.93” W longitude at an elevation of 4,072 m above sea level. The location of the Property is shown in Figure 4.1.

Figure 4.1 Location of Silver Sand Property




Note: Cerro de Potosí is an alternate name for Cerro Rico.
Source: New Pacific Metals Corp. 2019.

## 4.2 Bolivian Regulatory framework

The following section on the Bolivian Regulatory framework borrows from Aguirre (2019) and Bufete Aguirre Soc. Civ. (2017).

### 4.2.1 Overview

Bolivia began opening the mining industry to private investment in the 1980s. In 1997 a complete new Mining Code, governing most matters relating to mining activities was enacted. The 1997 Code followed the concession system considering mining concessions as real estate property which as such could be transferred, contributed to the capital of companies, mortgaged, bartered, sold, and subject to inheritance laws under the Civil Code.

A new and complete Mining and Metallurgy Law No 535 was introduced on 28 May 2014 (the 2014 Mining Law), to replace the 1997 Mining Code. The 2014 Mining Law was modified by Law No. 845 of 24 October 2016 (the 2016 Mining Law) by Bolivian Congress.

The 2014 and 2016 Mining Laws set out rules in relation to:

- The procedures for the granting of new mining rights.
- The procedures for a change from the old mining concession system to the new system of Administrative Mining Contract (AMC) mandated by the new legislation based on the Constitution.

#### 4.2.2 Exploration and mining rights

Exploration and mining rights in Bolivia are granted by the Ministry of Mines and Metallurgy through the Jurisdictional Mining Administrative Authority (Autoridad Jurisdiccional Administrativa Minera; AJAM). Under the new Mining Laws, tenure is granted as either an AMC or an exploration license. Tenure held under previous legislation was converted to Temporary Special Authorizations (ATEs), formerly known as "mining concessions", under the new Mining Laws. These ATEs are required to be consolidated to new 25-hectare sized cuadriculas (concessions) and converted to AMCs. AMCs created by conversion recognize existing rights of exploration and / or exploitation and development, including treatment, foundry refining, and / or trading.

AMCs have a fixed term of 30 years and can be extended for a further 30 years if certain conditions are met. Each contract requires ongoing work and the submission of plans to AJAM.

Exploration licenses are valid for a maximum of five years and provide the holder with the first right of refusal for an AMC.

In specific areas, mineral tenure is owned by the Bolivian state mining corporation, Corporación Minera de Bolivia (COMIBOL). In these areas development and production agreements can be obtained by entering into a Mining Production Contract (MPC) with COMIBOL.

#### 4.2.3 Environment protection

Depending on the nature and scope of the activities to be conducted, the operator may need specific licenses or dispensations from the environmental authorities under the Ministry of Environment and Water or the Departmental Governorships. This applies to projects that may require consultation with a population that could be affected by the project.

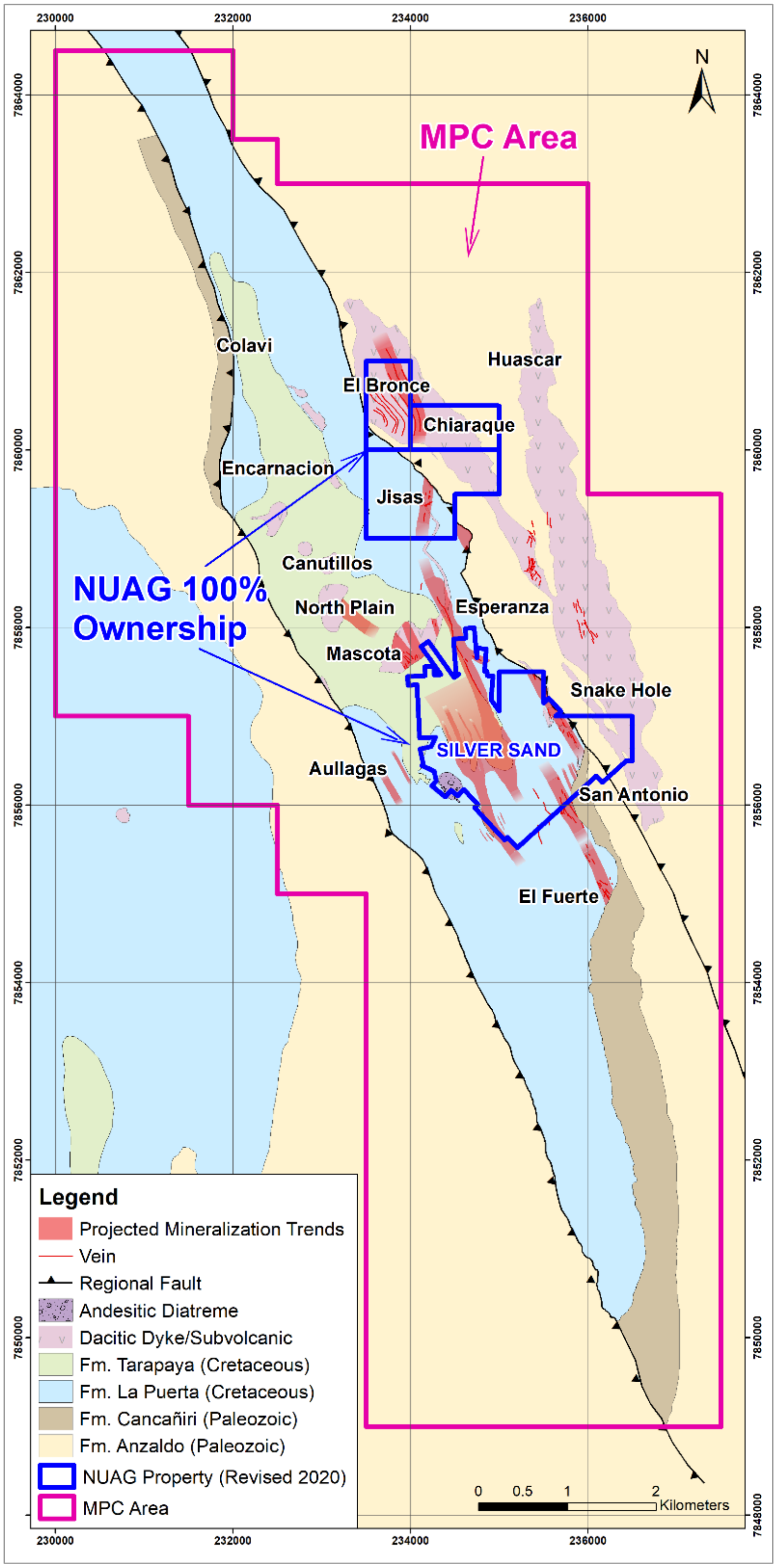
The main law governing environmental protection, in general, is Law 1333 of 27 April 1992, which is regulated by various Supreme Decrees of the Executive Branch. The special Decree containing the mining rules is of primary importance. Strict parameters must be followed for the protection of the environment. Breach of environmental obligations may even trigger criminal liabilities under the Constitution.

Licenses must be updated depending on the changes as triggered by the ongoing activities and operations. An Environmental Impact Assessment (EIA) is normally required in order to obtain the appropriate license. Specialized environmental authorities follow up and control compliance. As required under the licenses, any impact on the environment must be notified to the authorities. Remediation measures and rehabilitation projects are compulsory. For mine closure, the operator must create a financial reserve that is maintained on an annual basis. A final closure study on the effect on the environment would be required in due time. Under a special law known as the "Mother Earth Law", a certain requirement of restitution must be met.

### 4.3 Silver Sand Property

New Pacific's Silver Sand Property encompasses a combination of 100% owned concessions (ATEs and AMCs) and an MPC with COMIBOL which gives the company access to approximately 60 $km^2$, in this emerging silver district.

Figure 4.2 Mineral concessions and MPC area




Notes: MPC Area = Mining Production Contract with the Bolivian Mining Corporation, NUAG Property= 100% New Pacific owned mineral tenure.
Source: New Pacific Metals Corp. 2020.

### 4.3.1 100% owned New Pacific tenure

The Silver Sand Property presently comprises 17 ATEs (being converted to one AMC) covering an area of 3.17 km$^2$, acquired in the original property purchase, and are held through Silver Sand's 100% owned subsidiary Alcira. In addition, New Pacific acquired 100% interest in three continuous mineral concessions called Jisas, Jardan and El Bronce originally owned by third party private entities. These three concessions, when converted to AMCs, will total 2.25 km$^2$. The Jisas and Jardan concessions were acquired in July 2018 and are held through 100% owned subsidiary Empresa Jisas – Jardan SRL. The El Bronce concession was acquired in late 2019 and is held through 100% owned subsidiary Empresa El Cateador SRL. The total area under full control of the Company will be 5.42 km$^2$ after the consolidation and conversion procedures are complete. This process is completed for the Silver Sand south block which hosts the Mineral Resource area.

Table 4.1 summarizes New Pacific's Silver Sand Mineral Tenure.

Table 4.1 Mineral tenure controlled by New Pacific

| Concession number | National registry | Name | Concession type | Size of original ATE (hectares) | Titleholder | Duration |
|---|---|---|---|---|---|---|
| 4694 | 503-01271 | La Sombra | ATE | 66 | Empresa Minera Alcira S.A. | 30 years |
| 4695 | 503-01275 | San Marcos Evangelista | ATE | 16 | | 30 years |
| 4696 | 503-02424 | El Carmen | ATE | 6 | | 30 years |
| 4697 | 503-01276 | Escuadra | ATE | 35 | | 30 years |
| 4698 | 503-02423 | Perfecta | ATE | 16 | | 30 years |
| 4699 | 503-01270 | Reintegrante | ATE | 3 | | 30 years |
| 4700 | 503-01269 | Félix | ATE | 10 | | 30 years |
| 4701 | 502-01266 | Seis de Agosto | ATE | 6 | | 30 years |
| 4702 | 503-02425 | Olvidada | ATE | 15 | | 30 years |
| 4703 | 503-01267 | Moria | ATE | 20 | | 30 years |
| 4704 | 503-01268 | El Rodero | ATE | 37 | | 30 years |
| 4705 | 503-01272 | Kirigin | ATE | 10 | | 30 years |
| 4706 | 503-02426 | San Antonio | ATE | 8 | | 30 years |
| 4707 | 503-02427 | Nieves | ATE | 8 | | 30 years |
| 4708 | 503-02428 | Londres | ATE | 8 | | 30 years |
| 4709 | 503-01273 | Santa Micaela | ATE | 31 | | 30 years |
| 4710 | 503-01274 | Bertha | ATE | 20 | | 30 years |
| 13235 | 503-02753 | Jisas | ATE | 125 | Empresa Jisas – Jardan SRL | 30 years from signing AMC |
| 13257 | 503-02734 | Jardan | ATE | 50 | | 30 years from signing AMC |
| 11313 | 503-03740 | El Bronce | ATE | 6 | Empresa El Cateador SRL | 30 years from signing AMC |
| **20** | **Totals** | | | **496** | | |

Notes:
- There is no expiry date for the previously issued mineral permits in Bolivia.
- Once the ATEs are fully converted to AMCs, they will be valid for 30 years and can be extended for an additional 30 years.
- The size of claims listed in the table are the original ATE size. The size of claims can change during the conversion process to AMCs. The report text refers to the AMC size.
- The Quota Purchase agreement with the former shareholders of Cateador will need to be registered with Registry of Commerce.

In accordance with the new Mining Laws, New Pacific (through Alcira) submitted all required documents for the consolidation and conversion of the original 17 concessions, which comprise the core of the Silver Sand Project, to cuadriculas and AMC to AJAM. Conversion was initially approved by AJAM in February 2018. On 6 January 2020, Alcira signed an AMC with AJAM pursuant to which the 17 ATEs were consolidated into one concession with an area of 3.1656 km$^2$. This AMC is yet to be registered with the mining register, notary process and published in the mining gazette.

#### 4.3.2 Mining production contract

New Pacific, through Alcira, entered into an MPC with COMIBOL on 11 January 2019. The MPC covers 29 ATEs and 201 cuadriculas for a total area of about 57 km$^2$ surrounding the Silver Sand core area. For COMIBOL to obtain mining rights over such areas, AJAM will have to grant them by way of AMCs in accordance with Bolivian mining laws. In addition, the MPC must be ratified by the Congress of Bolivia (Congress) to be valid and enforceable.

Once the MPC has been ratified by Congress, the MPC with COMIBOL will be valid for 15 years which may be automatically renewed for an additional 15 year term and potentially, subject to submission of an acceptable work plan, for an additional 15 year term  for a total of 45 years. According to the terms of the MPC, the Company has an investment commitment of US$6M during the first five years of exploration. The Company will pay COMIBOL a 4% gross sales value if the mineral concessions covered by the MPC are commercially exploited at a future date.

#### 4.3.3 Environmental permits

New Pacific has successfully obtained environment permits from local authorities to conduct mineral exploration and drilling activities in the mineral concessions fully owned by the Company and the MPC areas owned by COMIBOL. There are no known significant factors or risks that might affect access or title, or the right or ability to perform work on the Property, including permitting and environmental liabilities to which the project is subject.

#### 4.3.4 Land holding costs

AJAM employs a special tax unit (STU), that is indexed to the "Unidad de Fomento a la Vivienda", to calculate the annual fee which mineral concession holders have to pay to the government. Depending on the type and size of mineral concessions, the number of STUs varies between 375 and 692 STUs per cuadricula. In 2019, each STU was equivalent to 2 Bolivianos. Note that the STU may change slightly year by year.

For the year 2019, the Company paid to the government the annual fees of 11,644 Bolivianos (US$1,687) for the 17 ATEs of the original Silver Sand concession, 6,468 Bolivianos (US$937) for the 7 cuadriculas of Jisas Jardan concessions, and 3,215 Bolivianos, (US$466) for 7 ATEs of the 29 ATEs covered by the MPC with COMIBOL. The Company does not have to pay any fees to the government for the remaining 22 ATEs owned by COMIBOL and covered by the MPC as the 22 ATEs are nationalized concessions. However, according to the terms of MPC, the Company will have to pay the annual fees to the government when COMIBOL is granted the 201 cuadriculas by AJAM. In addition, the Company will pay COMIBOL a management fee of US$10,000 per month for all the concessions covered by the MPC upon ratification.

#### 4.3.5 Surface rights

As per the 2014 Mining Law, holders of mining rights may obtain surface rights (i) through administrative agreements entered into with AJAM. In addition, surface rights may be obtained on third-party contract areas and by neighbouring properties by the following means: i) agreement between parties; ii) payment of compensation; and iii) compliance with the regulations and procedures for authorization. Once surface rights are obtained, holders of mining rights may build treatment plants, dams and tailings, infrastructure and other infrastructure necessary to carry out mining activities. New Pacific has not yet obtained surface land rights.

### 4.3.6 Royalties and encumbrances

For the MPC, if commercial production commences, the Company will pay COMIBOL a 4% gross sales value of all minerals produced from the MPC areas.

AMCs are subject to the following royalties and duties:

(i) Mining royalty: The royalty is applicable to all mining actors and applies to the exploitation of mineral resources and non-renewable metals pursuant to the Mining Law. The royalty is established according to the status of the mineral (raw, refined, etc.), on whether the mineral will be exported, and international mineral prices. The royalty applicable to silver pre-concentrates, concentrates, complexes, precipitates, bullion or molten bar and refined ingot is as shown in Table 4.2.

Table 4.2 Royalty applicable to silver in MPC

| Official silver price per troy ounce (US$) | Aliquot (%) |
|---|---|
| Greater than $8.00 | 6 |
| From $4.00 to $8.00 | 0.75 * official silver price |
| Less than $4.00 | 3 |

(ii) Mining Patent: Is a requirement for the mining operator to continue holding mining rights over the mining area. Patents are calculated according to the size of the area under the exploration license or contract, as set out in the 2014 Mining Law. Failure to pay for the patents will trigger the loss of the underlying exploration or mining rights.

With the exception of political risk discussed in Section 14 and the need for final execution of some land agreements, AMC Consultants is not aware of other significant factors and risks which may affect access, title or right to perform work on the Property.

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

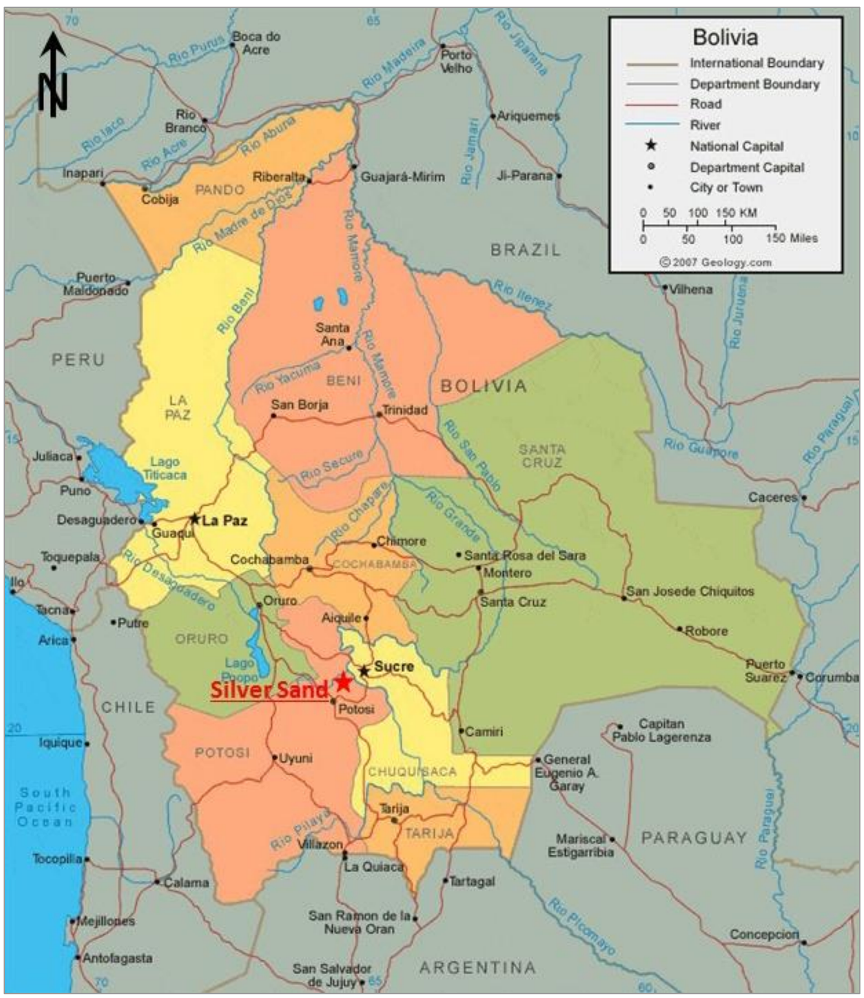
## 5.1 Accessibility

The Silver Sand Property is located approximately 30 km north-east of the Cerro Rico de Potosí silver and base metal mine, 46 km south-west of the city of Sucre, and 25 km north-west of city of Potosí. The Property is accessed from Sucre and Potosí by travelling along a paved highway to the community of Don Diego, and then north from Don Diego along a 27 km, maintained, all-weather gravel road. Don Diego is accessed by driving 129 km to south-west from Sucre, or 29 km to the north-east from Potosí along paved Highway 5. Key roads and locations are shown in Figure 4.1.

Sucre has a population of 250,000 and is the constitutional capital of Bolivia and the capital city of Chuquisaca department (a department is the largest administrative division in Bolivia). Potosí has a population of 141,000 and is the capital city of Potosí department. Sucre is connected to major Bolivian cities and beyond by highways and commercial air flights. From Potosí, the Pan American highway provides access to La Paz, the capital city of Bolivia. Chilean port cities of Arica and Iquique can be accessed from Potosí via all-weather roads.

Figure 5.1 shows the administrative location of and transportation access to the Property.

Figure 5.1 Administrative location and transportation access of Silver Sand Property

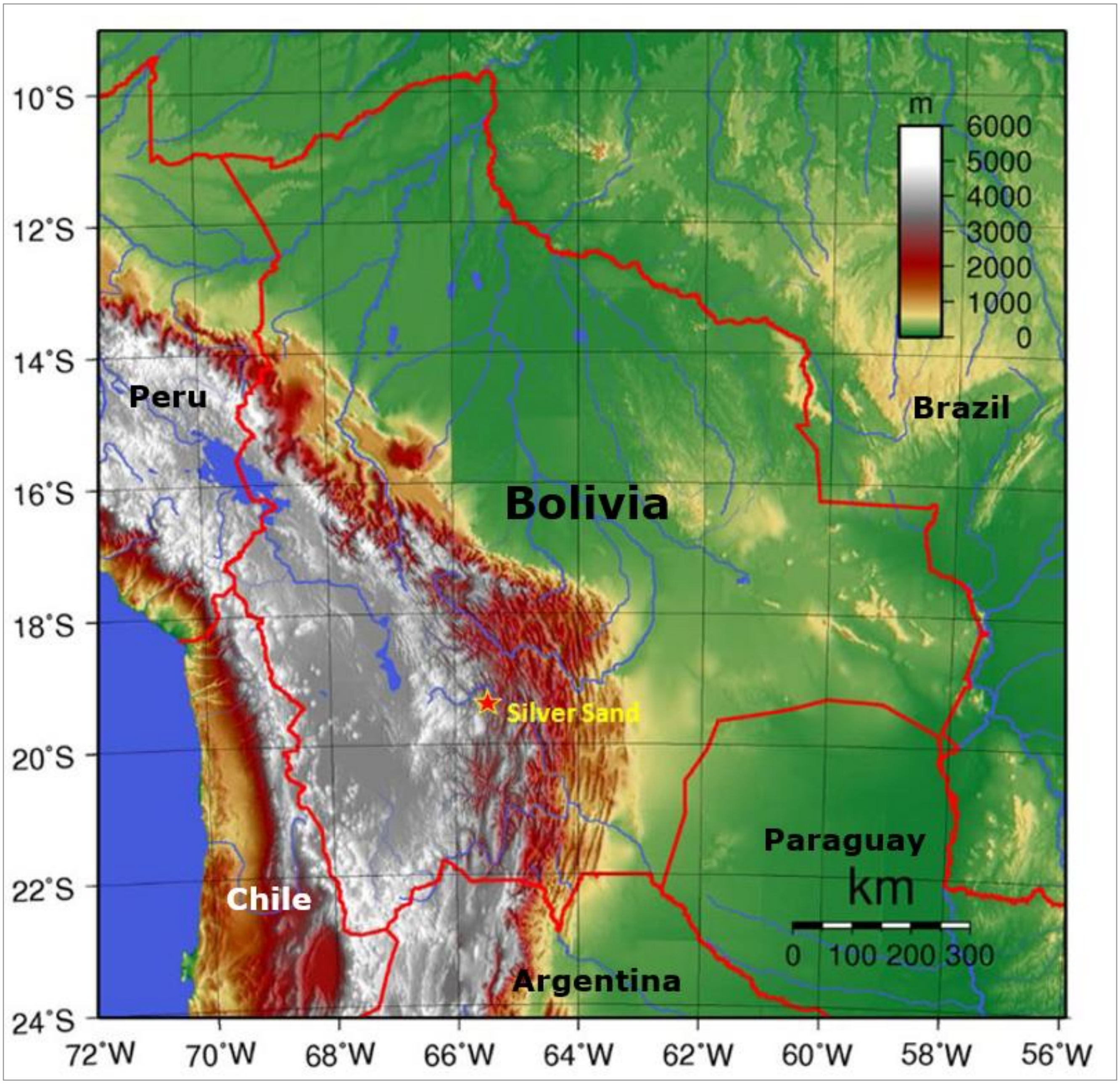



Source: Provided by New Pacific 2019 adapted from Geology.com.

### 5.2 Physiography

Bolivia is divided into five north-west-trending physiographic zones as shown in Figure 5.2. These include, from west to east; the Western Cordillera (or Cordillera Occidental), the Altiplano, the Eastern Cordillera (or Cordillera Oriental), the Sub-Andean, and the Amazon Basin to the east.

Figure 5.2 Physiographic zones of Bolivia




Notes: Amazon Basin=green, Sub-Andean=red, Eastern Cordillera=white, Altiplano=gray, Western Cordillera=white. Red outlines represent country borders.
Source: New Pacific 2019 - Adapted from Wikipedia: Geography of Bolivia.

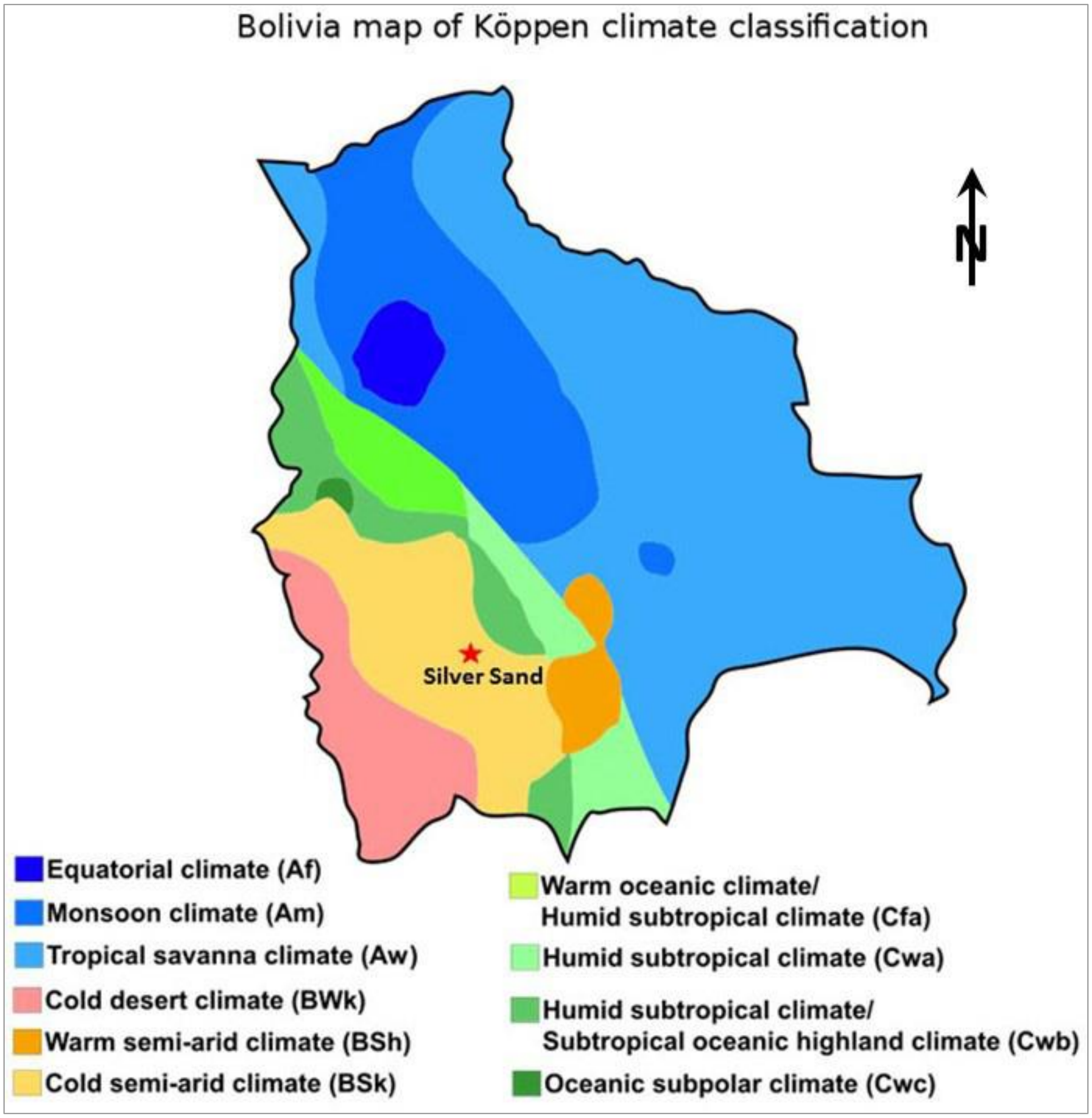
The Property is situated approximately within the central section of the Eastern Cordillera zone and consists of rolling hills with elevation ranging from 3,900 to 4,100 metres above sea level (masl).

## 5.3 Climate and vegetation

Due to the high elevation, the Property area has a cold, semi-arid desert climate despite the region's location approximately 19 degrees south of the equator. Vegetation on the Property is poorly developed and mainly consists of sparsely scattered low grasses and shrubs. In valleys below 4,000 m elevation, some eucalyptus trees are grown. Animals such as alpacas, llamas, vicunas and guanacos are common in the Cordillera Oriental and the local peoples herd llamas and alpacas for food and wool.

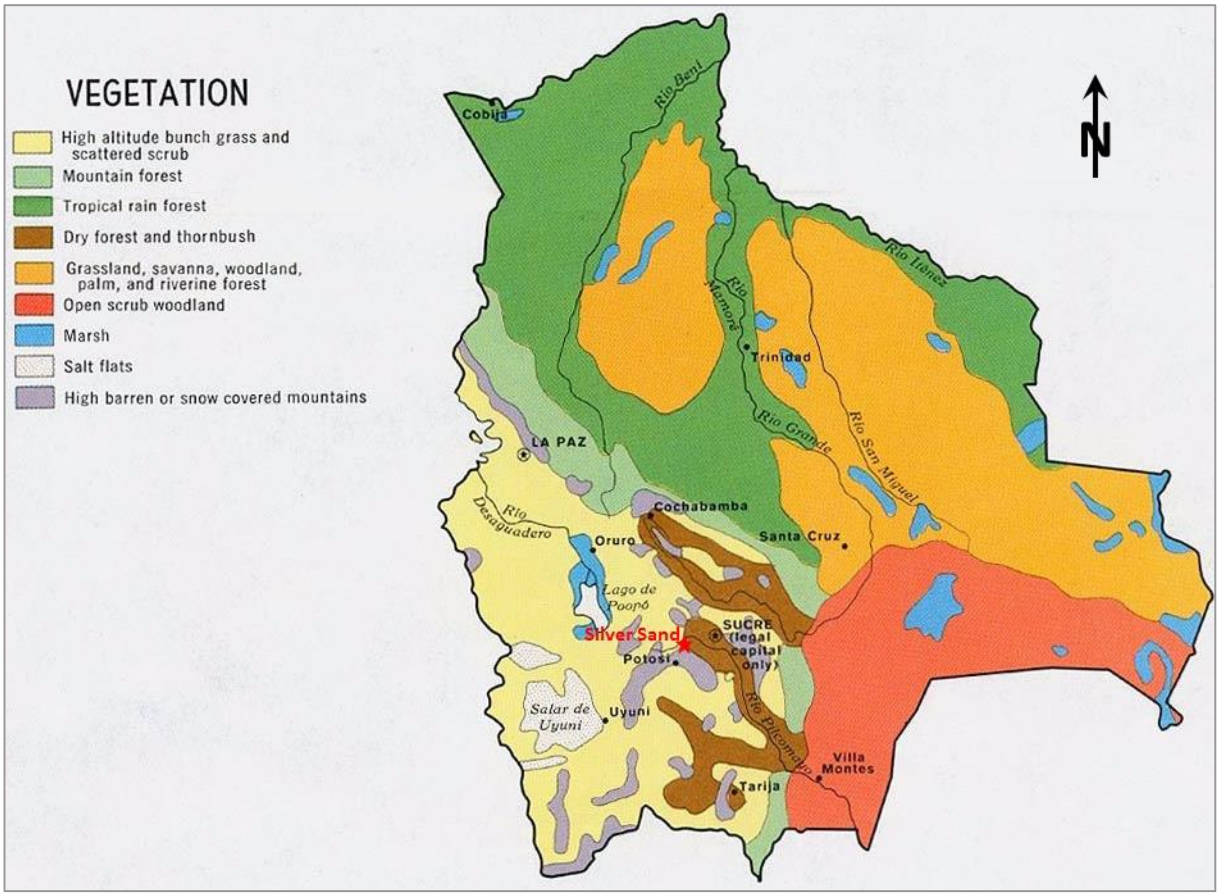
Figure 5.3 shows a climate map of Bolivia and Figure 5.4 shows a vegetation map of Bolivia.

Figure 5.3 Climate map of Bolivia




Source: World Köppen Classification. Enhanced, modified, and vectorized by Ali Zifan. 20 February 2016.

Figure 5.4 Vegetation map of Bolivia




Source: U.S. Central Intelligence Agency 1971.

Temperatures on the Property are relatively constant year-round with daily maximums between 14.8°Celsius (C) and 20.5°C. Minimum temperatures range between -5.6°C and 5.1°C. Minimum temperatures are typically below freezing between May and September.

The region experiences a rainy season in the warmer summer months from December to ~mid-April which contributes approximately 80% of the average annual precipitation of 393 millimetres (mm). The driest period is from May to August with very little precipitation.

None of these climate factors preclude operations from being conducted on a year-round basis.

Table 5.1 shows the annual weather averages in the Potosí area.

Table 5.1 Annual weather averages in Potosí area

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Avg. temperature (°C) | 10.6 | 10.9 | 10.6 | 8.4 | 8 | 4.6 | 5.4 | 6.6 | 8.5 | 11 | 12.4 | 11.9 |
| Min. temperature (°C) | 4.1 | 4.6 | 4.1 | 0.3 | -1.2 | -5.6 | -4.6 | -3.1 | -0.6 | 2 | 4.3 | 5.1 |
| Max. temperature (°C) | 17.2 | 17.2 | 17.2 | 16.5 | 17.2 | 14.8 | 15.5 | 16.4 | 17.6 | 20.1 | 20.5 | 18.7 |
| Precipitation (mm) | 102 | 79 | 50 | 13 | 3 | 2 | 0 | 3 | 9 | 21 | 34 | 77 |

Source: Data adapted from www.climate-data.org.

## 5.4 Local resources and infrastructures

Intensive mining for silver, tin, lead, and zinc has occurred in various locations around the city of Potosí ever since the discovery of the large silver deposit Cerro Rico de Potosí (the Rich Hill) in 1545. As a result, many residents of Potosí are employed in mines or mining-related businesses, providing a potential source of workers and services that may be needed at the Property.

A high voltage power line services the adjacent Canutillos mine to the west, and the Colavi mine north-west of the Property respectively. Both Canutillos and Colavi mines are adjacent to the Silver Sand Property boundary and are discussed in Section 23.

Water has not been a concern at the Property, though the greater Potosí area has experienced a drought in recent years. Water for domestic use can be obtained from a small lake, approximately 3.5 km north-west of the Property. Water for drilling can be sourced from nearby drainages. The previous owner, Ningde Jungie Mining Industry Co. Ltd. recorded groundwater at the Property, however, additional work is required to determine whether there is sufficient water present to supply future production scenarios.

There is currently no infrastructure on site.

# 6 History

Modern exploration on the Property commenced in 2009. The project history has been compiled from Birak (2017), Redwood (2018), Sugaki et al. (1983), and New Pacific (2017).

## 6.1 Property ownership

In 2009, Ningde Jungie Mining Industry Co. Ltd., (NJ Mining) purchased Alcira, owner of the Silver Sand Project, from Empresa Minera Tirex Ltda, a private Bolivia mining company. New Pacific entered into an agreement to acquire Alcira from NJ Mining, pursuant to the terms announced on 10 April 2017. The acquisition was finalized on the 20 July 2017.

New Pacific subsequently acquired 100% interests of a local private company who owns the mineral rights of two additional concessions (Jisas and Jardan) in July 2018. No exploration work was completed on the two concessions.

In January 2019, an MPC was signed between New Pacific's subsidiary Alcira and COMIBOL securing access to an additional 57 $km^2$ of prospective property surrounding the original Silver Sand concessions.

In December 2019, New Pacific acquired 100% interests of Empresa El Cateador SRL, a local company which owns the mineral rights to a single ATE (El Bronce) located to the north of the Property. No exploration work was ever completed on this concession.

## 6.2 Mining

Mining activity has been carried out on the Silver Sand Property and adjacent areas by various operators intermittently since the early 16$^{th}$ century. There are widespread small mine workings and numerous abandoned miners' villages on the Property. Machacamarca, a historic silver mine on the Property, was mined from colonial times until the price declined in about 1890. Since then, local mining activities have focused on tin mineralization at the adjacent Colavi and Canutillos mines.

Historical mining activities on the Property mainly targeted high-grade vein structures.

Records of historical mine production are not available.

## 6.3 Exploration

Despite the long history of mining on the Silver Sand Property and its adjacent areas, there has been little modern systematic exploration work recorded prior to 2009. The only documented exploration campaign was completed by NJ Mining between 2009 and 2015.

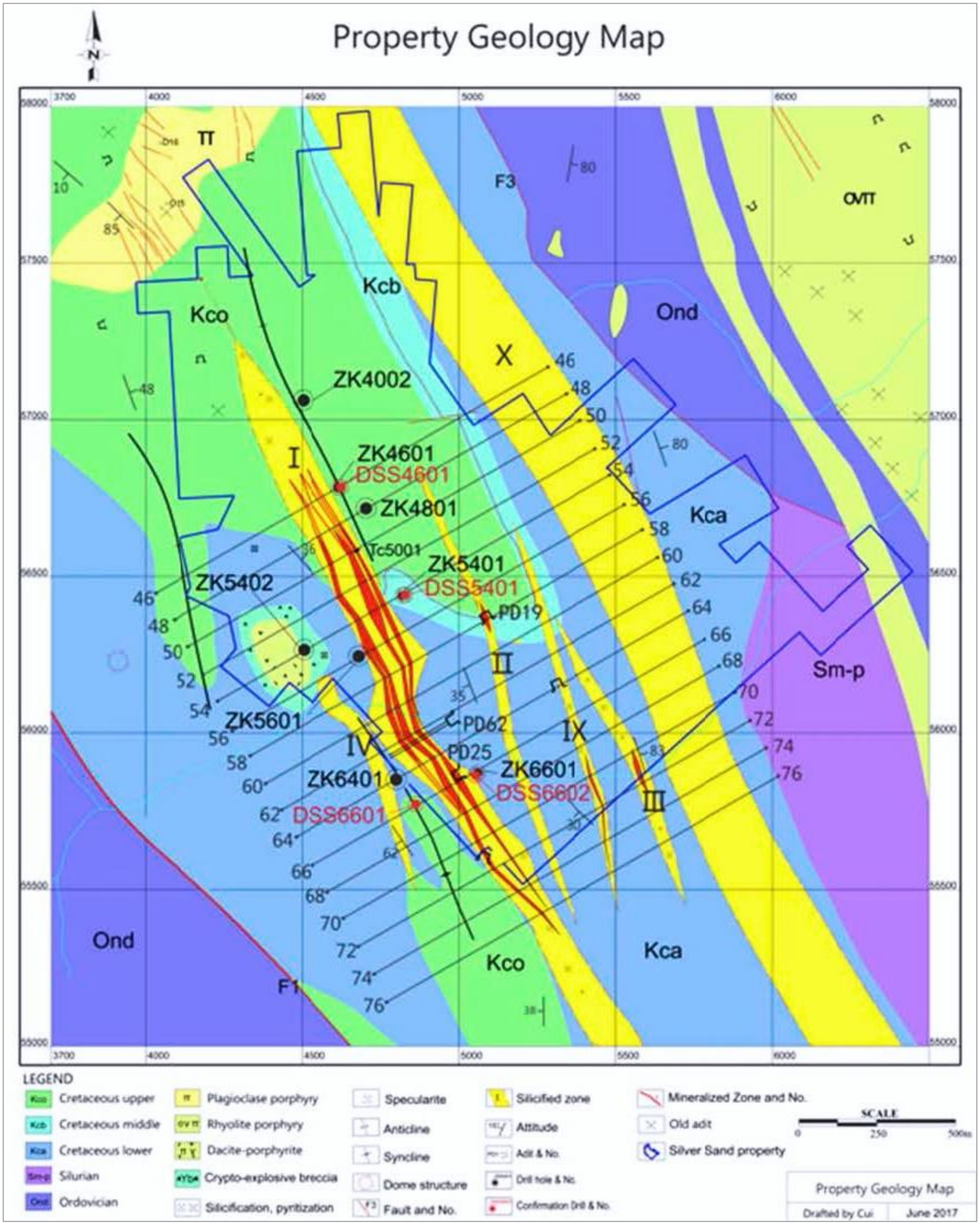
NJ Mining carried out a comprehensive exploration program across the Property. Exploration work comprised geological mapping, surface and underground sampling, trenching and drilling as shown in Table 6.1. All exploration samples were analyzed at NJ Mining's lab facilities near Potosí, Bolivia for silver and, in some cases, tin.

Table 6.1 Exploration work completed by NJ Mining from 2009 to 2015

| Type of exploration | Work completed |
|---|---|
| 1:5,000 geological mapping | 3.15 $km^2$ |
| 1:1,000 geological traverse surveying | 7,272 m in 15 NE-SW exploration lines |
| Topographic survey | 8 survey points |
| Mapping historic workings | 208 m |
| Diamond core drilling and logging | 2,334 m in 8 holes |
| Trenching | 40 m |
| Reconnaissance mapping | 292 points |
| Reconnaissance sampling | 1,202 samples |
| Mineralogy and lithology identification | 19 thin sections |
| Petrography study | 9 thin sections |
| Channel sampling | 1,628 m with 546 samples |
| Core sampling | 504 samples |
| Specific gravity measurement | 31 samples |
| QA/QC | 215 samples |

Six silicified mineralization zones (Zone I, II, III, IV, IX, and X) were defined from results of the previous exploration program. Zone I mineralization was defined over an area 1,500 m in length and up to 125 m in width as shown in Figure 6.1.

Figure 6.1 Mineralization zones defined in previous exploration programs




Source: New Pacific 2019 adopted from Birak 2017.

### 6.3.1 Surface and underground channel sampling

NJ Mining collected channel samples from both surface outcrop and abandoned underground workings. Surface channel samples were completed along 100 m spaced, south-west trending exploration lines (sections), designed to target north-west trending mineralization zones. Surface and underground samples were collected between Lines 76 and 50 over a strike length of 1,300 m Section lines are shown in Figure 6.1 above.

Both surface and underground channel samples were taken from a 10 centimetre (cm) wide, 2 - 3 cm deep channel cut horizontally into rock with a diamond saw. Individual samples represented 1 to 2.5 m along the channel. An example of sampling channels from Zone 1 is shown in Figure 6.2.

Figure 6.2 Historical channel sampling from Zone I, Silver Sand Property

Source: New Pacific Metals Corp. 2019.

Significant results from channel sampling are presented in Table 6.2.

Table 6.2 Selected result of historical surface channel sampling program

| Section* number | Sample location | Zone intersected | Interval (m) | Average silver grade (g/t) | Number of samples |
|---|---|---|---|---|---|
| 50 | Surface | Zone I | 62.7 | 174 | 31 |
| 54 | Surface | Zone I | 112 | 127 | 59 |
| 58 | Surface | Zone I | 83 | 93 | 44 |
| | Underground | Zone II | 21.4 | 263 | 10 |
| 62 | Surface | Zone I | 90.7 | 233 | 48 |
| | Underground | Zone I | 72.1 | 207 | 36 |
| 66 | Surface | Zone I | 71.9 | 145 | 38 |
| 70 | Surface | Zone I | 33.8 | 131 | 18 |
| | Surface | Zone II | 6.7 | 141 | 4 |
| 72 | Surface | Zone III | 16.9 | 198 | 9 |

Note: *Relative locations of exploration lines are shown in Figure 10.1.

### 6.3.2 Test drilling

NJ Mining conducted two test drill programs consisting of a total of eight diamond holes to evaluate the spatial extensions of the mineralization zones defined at the surface. Table 6.3 shows a summary of the 2012 and 2015 drilling programs completed by NJ Mining.

Table 6.3 Summary of previous drilling programs

| Drillhole ID | Collar location (UTM) | | Collar elevation (m) | Length (m) | Azimuth (degree) | Dip angle (degree) | Year |
|---|---|---|---|---|---|---|---|
| | Easting | Northing | | | | | |
| ZK4601 | 234,617.28 | 7,856,785.18 | 4,094.90 | 313.1 | 241 | - 76 | 2015 |
| ZK5401 | 234,824.67 | 7,856,443.33 | 4,063.80 | 413.7 | 243 | - 75 | |
| ZK5402 | 234,510.12 | 7,856,267.07 | 3,991.10 | 546.6 | 0 | - 90 | |
| ZK6601 | 235,057.10 | 7,855,869.01 | 3,926.00 | 284.3 | 258 | - 76 | |
| **Subtotal = 1,557.7 m** | | | | | | | |
| ZK5601 | 234,681.33 | 7,856,244.63 | 3,962.40 | 242 | 61 | - 76 | 2012 |
| ZK6401 | 234,808.24 | 7,855,854.01 | 4,005.90 | 314.5 | 64 | - 73 | |
| ZK4002 | 234,504.00 | 7,857,063.00 | 4,092.00 | 155.3 | 0 | - 90 | |
| ZK4801 | 234,708.00 | 7,856,719.00 | 4,052.00 | 64.8 | 0 | - 90 | |
| **Subtotal = 776.6 m** | | | | | | | |
| **Total = 2,334.3 m** | | | | | | | |

In 2012, two short, vertical diamond drillholes (DDHs) ZK4002 and ZK4801, targeting the shallow dipping tin mineralization, were drilled from the hanging wall of Zone I but did not intersect silver mineralization. Two angled holes ZK5601 and ZK6401 drilled in the same period but in the footwall of Zone I did not intercept silver mineralization.

Four holes were drilled in 2015. Three angled holes ZK4601, ZK5401, and ZK6601 drilled from the hanging wall of Zone I mineralization intersected significant silver mineralization. One vertical hole ZK5402 collared in the footwall missed the silver mineralization zones. The mineralization intersections from the three historical drillholes are listed in Table 6.4.

Table 6.4 Results of historical drill intersections

| Hole number | Section number | Average sample length (m) | Mineralized interval | | | |
|---|---|---|---|---|---|---|
| | | | From (m) | To (m) | Length (m) | Ag (g/t) |
| ZK4601 | 46 | 1.28 | 83.3 | 85.6 | 2.3 | 60 |
| | | | 122 | 277.2 | 155.2 | 179 |
| | | Incl. | 122 | 145.4 | 23.4 | 261 |
| | | Incl. | 170.9 | 231.3 | 60.4 | 266 |
| | | Incl. | 258.6 | 277.2 | 18.6 | 290 |
| ZK5401 | 54 | 1.27 | 151.1 | 346.4 | 195.3 | 168 |
| | | Incl. | 151.1 | 177.9 | 26.8 | 302 |
| | | Incl. | 195.2 | 249.5 | 54.3 | 303 |
| | | Incl. | 304 | 321.7 | 17.7 | 284 |
| | | Incl. | 336.4 | 346.4 | 10 | 321 |
| ZK6601 | 66 | 1.33 | 51.9 | 243.2 | 191.3 | 246 |
| | | Incl. | 51.9 | 108.1 | 56.2 | 329 |
| | | Incl. | 132.1 | 182.6 | 50.5 | 316 |
| | | Incl. | 200.3 | 243.2 | 42.9 | 283 |

## 6.4 Historical Resource and Reserve estimate

There are no known historical estimates of Mineral Resources or Mineral Reserves at the Property.

# 7 Geological setting and mineralization

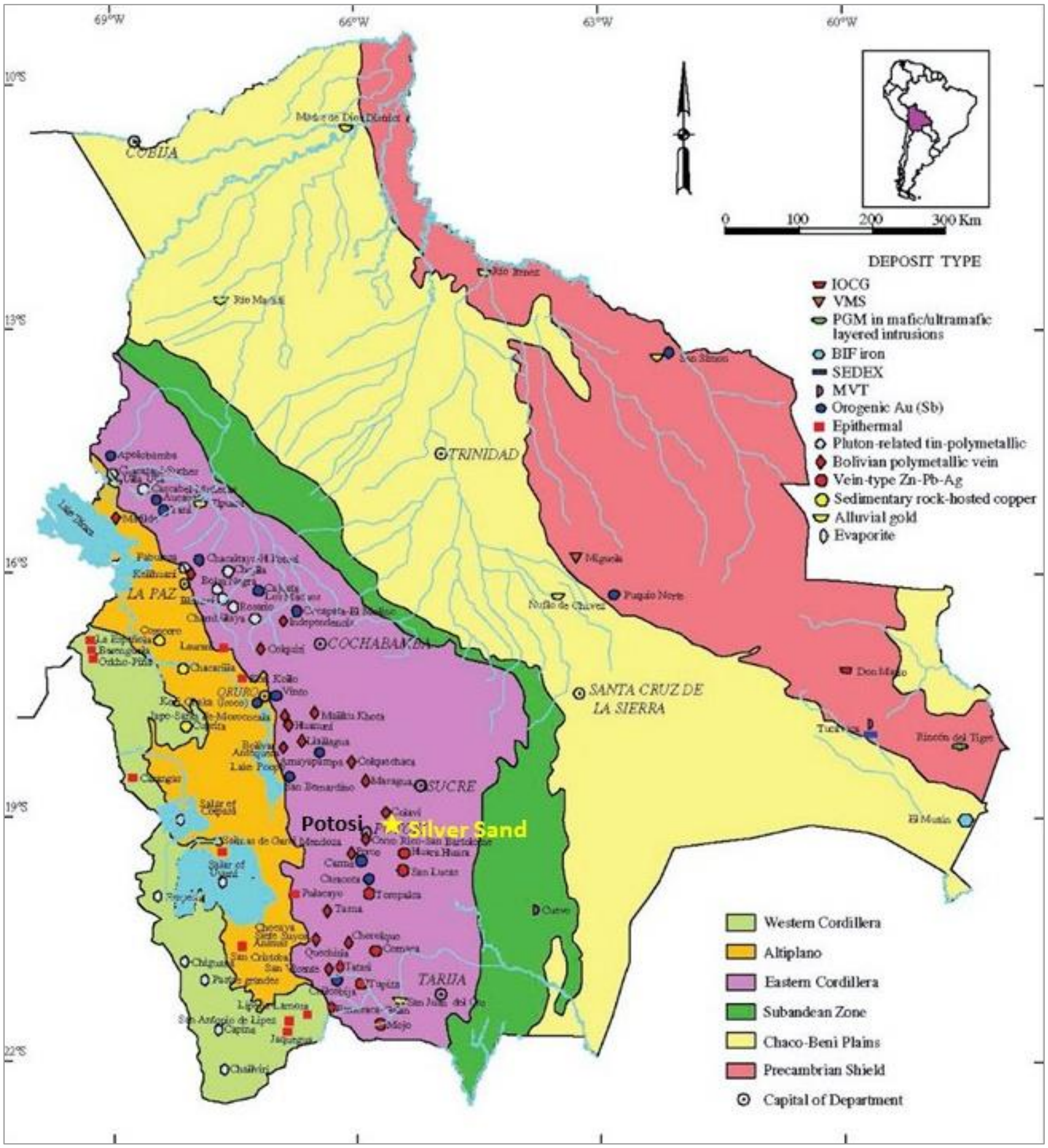
## 7.1 Regional geology and metallogeny

### 7.1.1 Geotectonic framework of Bolivia

The regional geological and tectonic framework of Bolivia can be divided into six geotectonic belts. From east to west these comprise: the Precambrian Shield, the Chaco-Beni Plains, the Subandean Zone, the Eastern Cordillera, the Altiplano, and the Western Cordillera. These are shown in Figure 7.1.

Four of these geotectonic belts form part of the Central Andes and are discussed in more detail below.

Figure 7.1 Bolivian geotectonic framework




Source: New Pacific Metals Corp. 2019. Adapted from Arce-Burgoa and Goldfarb 2009.

### 7.1.2 Geology of Central Andes

The Bolivian Central Andes comprise the four western geotectonic belts (Arce-Burgoa and Goldfarb 2009). These belts were configured by the Mesozoic-Cenozoic orogeny as a result of persistent compressive deformation from the subduction of the oceanic Nazca plate beneath the South American plate since the Cretaceous period. The geology of these major belts is described herein from east to west.

#### 7.1.2.1 Subandean Belt

The Subandean Belt is a series of north- and north-west-trending mountain ranges with elevations ranging from 500 to 2,000 masl. The bedrock of the Subandean belt consists of Paleozoic marine siliciclastic sedimentary rocks and Mesozoic and Tertiary continental sedimentary rocks.

#### 7.1.2.2 Eastern Cordillera Belt

The Eastern Cordillera (Cordillera Oriental) comprises a series of mountain chains which attain elevations in excess of 4,000 masl. The bedrock of the Eastern Cordillera is comprised of up to 10 km thick, intensively deformed sequences of Paleozoic marine clastic sedimentary rocks and thinner (<3 km), less-deformed Cretaceous and Cenozoic continental sedimentary rock sequences. Granodiorite and adamellite (quartz monzonite) plutonic rocks occur as batholiths and laccoliths in the northern part of the Eastern Cordillera. Permian to Triassic igneous rocks found in the middle and southern parts of the cordillera are mainly hypabyssal and volcanic rocks occurring as stocks and volcanic necks that intruded the Paleozoic sedimentary sequences. Tertiary andesitic volcanic rocks and related hypabyssal rocks associated with the Andean orogenic movement are seen along the western portion of the Eastern Cordillera.

#### 7.1.2.3 Altiplano Belt

The Altiplano Belt is a 130 km wide, series of intermontane, continental basins, forming a high plateau at elevations between 3,600 and 4,100 masl (Arce-Burgoa and Goldfarb 2009). The Altiplano belt comprises Proterozoic to Paleozoic basement which is covered by vast volcanic rocks and continental sediments. Miocene-aged andesitic volcanic rocks occur in the southern portion of the belt. Miocene to Pliocene rhyolitic pyroclastic rocks occur in the northern part of the belt. Continental sediments have been deposited from Cretaceous to recent times.

#### 7.1.2.4 Western Cordillera Belt

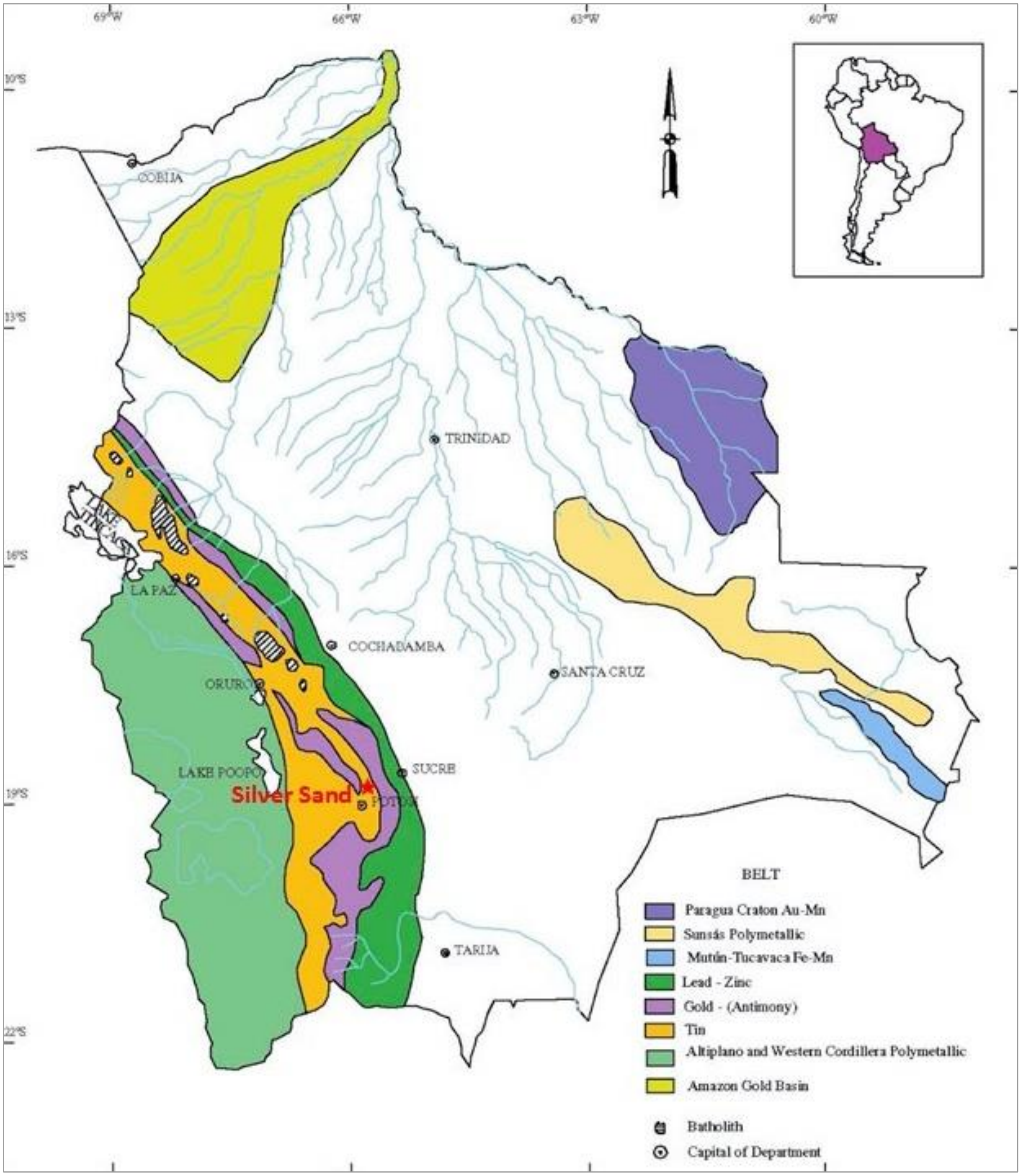
The Western Cordillera (Cordillera Occidental) is an active volcanic mountain chain consisting of spaced Miocene and Quaternary andesitic volcanoes and small volcanic centres that have erupted through a sequence of Cenozoic and Cretaceous rocks. Volcanic cones rise over 2,000 m above the general land surface, reaching elevations in excess of 6,000 masl (Lamb et al. 1997).

The Western Cordillera is extensively covered by Miocene to recent volcanic rocks erupted along the uplifting axis in the N-S direction. Continental sediments lie between the volcanic bodies.

### 7.1.3 Regional metallogeny of Central Andes

The Bolivian Central Andes is characterized by a diverse series of deposits and metallogenic belts as shown in Figure 7.2. These include the Miocene to Pliocene red-bed copper deposits, epithermal Ag-Au-Pb-Zn-Cu deposits in the Altiplano and Western Cordillera, the Mesozoic and Cenozoic tin belt, the Paleozoic gold antimony belt and the lead-zinc belt in the Eastern Cordillera (Arce-Burgoa and Goldfarb 2009).

Figure 7.2 Bolivian metallogenic belts




Source: New Pacific Metals Corp. 2019. Adapted from Arce-Burgoa and Goldfarb 2009.

The Bolivian Tin Belt is a 900 km long, north-west to north-south trending belt containing significant deposits of tin, silver and tungsten related to orogenic and magmatic processes which occurred between the late Paleozoic and late Tertiary. Pluton related Sb-W mineralization occurs within Triassic-Jurassic and Miocene aged rocks in the northern portion of the belt. Pluton related Sn-W and volcanic rock associated Sn-Ag-Pb-Zn mineralization occur within Miocene to Pliocene aged rocks in the central and southern portion of the belt (Rivas 1979).

Deposits of the tin belt can be divided into four groups (Arce-Burgoa and Goldfarb 2009):

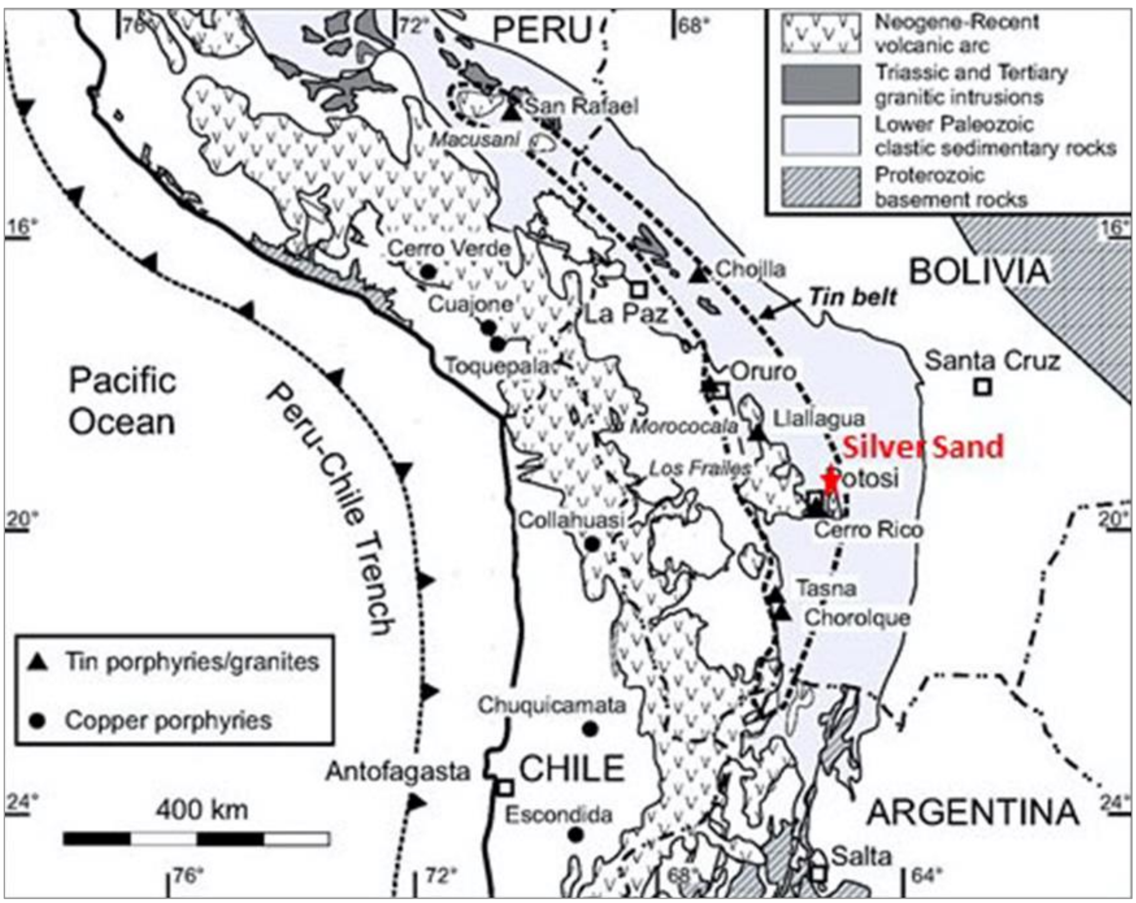
1 Porphyry-associated tin deposits.
2 Volcanic rock-associated Sn-Ag-Pb-Zn deposits which includes bonanza-type Ag and Sn.
3 Sedimentary rock-hosted Sn-Ag-Pb-Zn deposits.
4 Distinct pluton-related Sn-Au-W-Zn deposits.

Groups 2 and 3 are collectively defined as Bolivian polymetallic vein deposits which are mainly located in the southern half of the Bolivian Tin Belt (Arce-Burgoa 2009).

Bolivian polymetallic vein-type ore deposits are considered to be genetically related to Miocene and Pliocene subvolcanic intrusions. Mineralization occurs as veins, veinlet, stockwork, and disseminated ores hosted in Paleozoic and Mesozoic sedimentary rocks, Cenozoic volcanic rocks, and Paleozoic to Mesozoic plutons. The shallower erosion levels in the southern part of the belt results in the partial preservation of the upper silver-rich parts of deposits.

Two world-classsilver and tin deposits, the Cerro Rico de Potosí deposit, considered to be the largest silver deposit in the world, and the Llallagua deposit, considered to be the largest vein-type tin deposit discovered to date, both belong to the Bolivian polymetallic vein type. The Silver Sand Property is located about 30 km north-east of the Cerro Rico de Potosí deposit and 150 km south-east of the Llallagua deposit within the same tin metallogenic belt. Figure 7.3 shows the major deposits in the Bolivian Tin Belt.

Figure 7.3 Major deposits in the Bolivian Tin Belt




Source: New Pacific Metals Corp. Adapted from Dietrich et al. 2000.

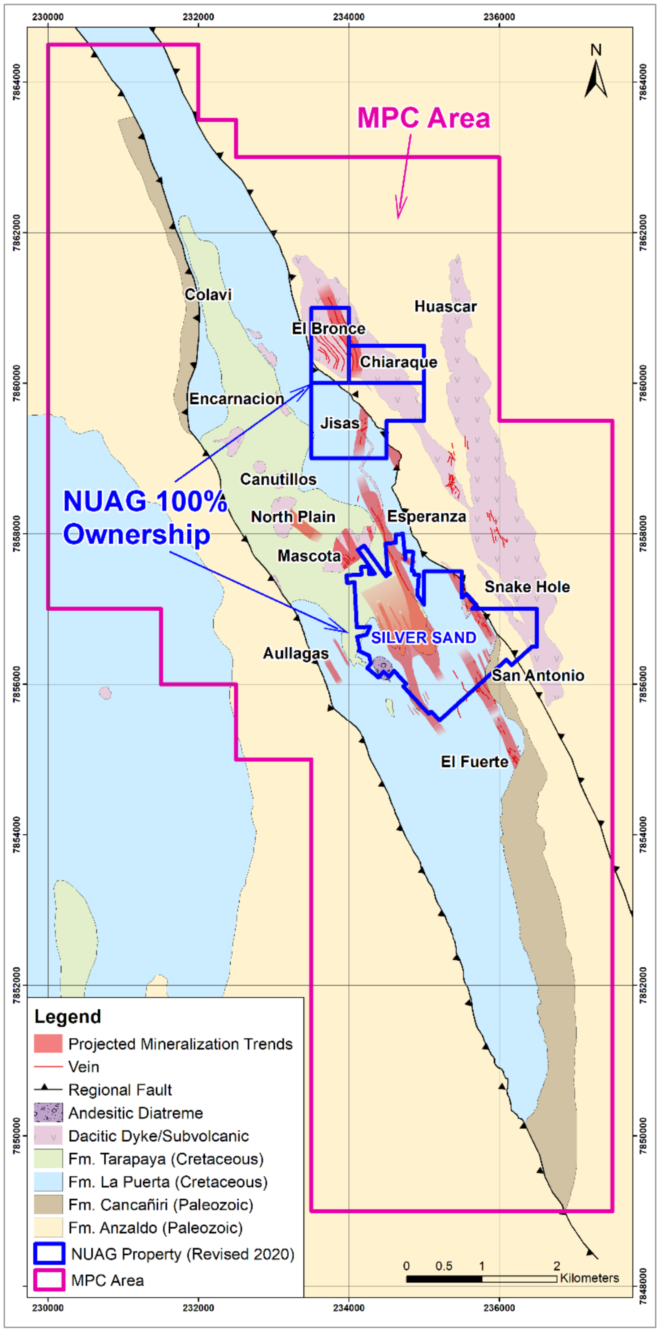
## 7.2 Property geology and mineralization

### 7.2.1 Property geology

The Property is located in the polymetallic tin belt in the Eastern Cordillera. Evidence of historical mining activities such as abandoned mining adits and mining villages can be seen across the Property.

The general geology of the Property is presented in Figure 7.4.

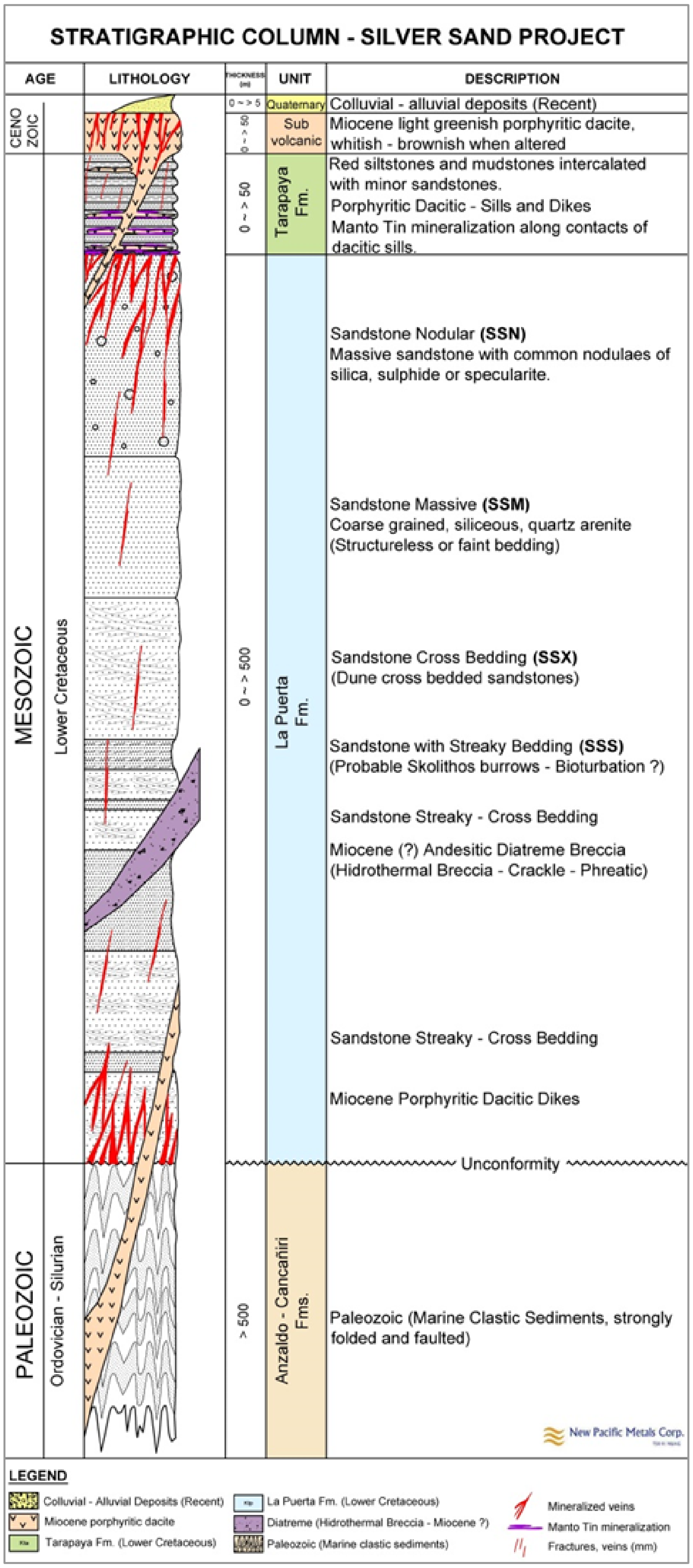
Figure 7.4 General geology of Silver Sand property




Notes: NUAG Property = New Pacific Metals Corp 100 owned property.
Source: New Pacific Metals Corp. 2020.

Figure 7.5 presents a stratigraphic column for the Silver Sand Property.

Figure 7.5 Stratigraphic column

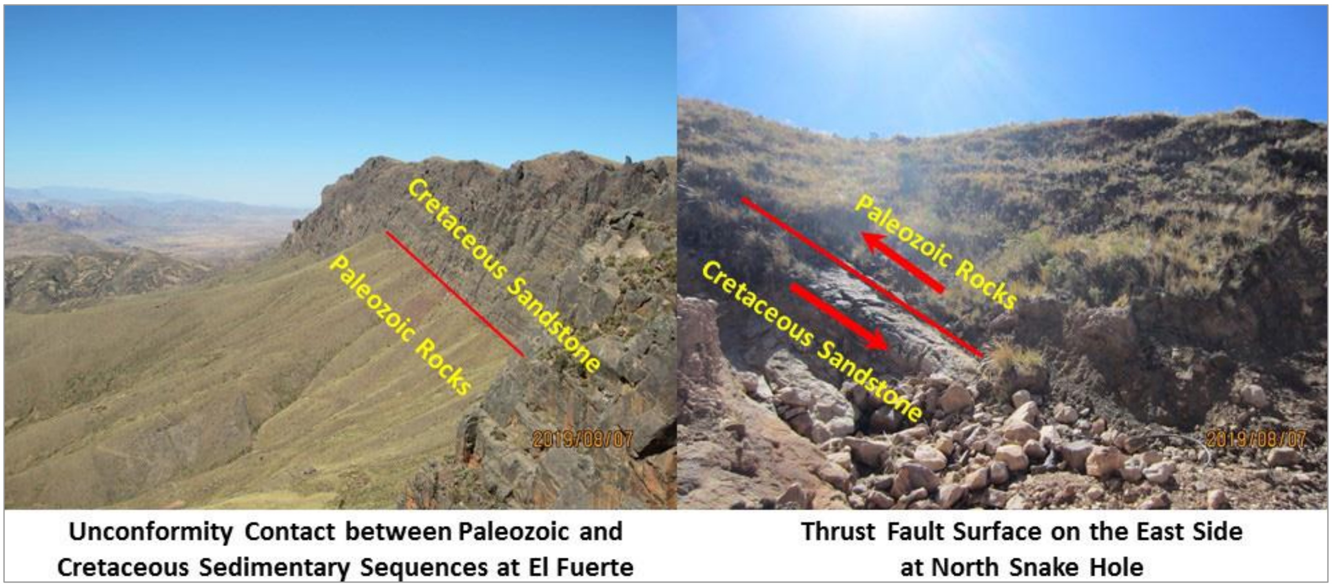



Source: New Pacific Metals Corp. 2019.

The oldest rocks observed within the Property comprise Ordovician to Silurian marine, clastic sediments which have been intensely folded and faulted.

The Paleozoic basement is unconformably overlain by weakly deformed, lower Cretaceous continental sandstone, siltstone and mudstone. These Mesozoic rocks form an open syncline which plunges gently NNW and is bound to the SW and NE by NW trending faults. The unconformity between Mesozoic rocks and deformed Paleozoic basement is observed in the south-east part of the Property as shown in Figure 7.6.

Figure 7.6 Unconformity and thrust fault contacts




Source: New Pacific Metals Corp. 2019.

The Cretaceous sedimentary sequence within the Property is divided into the lower La Puerta Formation and the upper Tarapaya Formation.

The La Puerta Formation consists of a sequence of mixed aeolian and fluvial sandstones exhibiting distinct massive, bedded, cross-bedded and bioturbated units which unconformably overlies the Paleozoic basement. The Tarapaya Formation conformably overlies the La Puerta sandstones in the central part of the Property and comprises red siltstones and mudstones intercalated with minor sandstone.

Several Miocene aged subvolcanic porphyritic dacite intrusions occur within Cretaceous and Paleozoic sequences. A porphyritic dacite laccolith is exposed overlying the Cretaceous Tarapaya siltstones at the landmark San Cristobal Hill at Mascota located in the approximate centre of the Property. This laccolith is similar to that hosting polymetallic systems in the southern tin belt. Porphyritic dacite dikes are also exposed in mine workings along the eastern Cretaceous Paleozoic thrust contact. Elongate stocks up to 5 km in length are recorded to the east of the Cretaceous sequence within Paleozoic basement.

A number of andesitic breccias with phreatic, crackle, and hydrothermal textures are recorded at the Property. A large, oval body of andesitic diatreme breccia cross-cutting La Puerta Formation sandstone is seen in outcrop close to the west side of the major Silver Sand mineralization zone in the southern portion of the Property. Geological mapping has defined this zone over an area of approximately 300 m in length and 200 m in width along an NNE orientation. A separate ENE-striking sub-vertical hydrothermal breccia dike of about 13 m in width is seen in outcrop at Aullagas, central to the Property and about 500 m west of the diatreme outcrop. This unit has welded tuff and sandstone clasts and is cemented by abundant limonite (Figure 7.7).

Figure 7.7 Hydrothermal breccia at Aullagas

Source: New Pacific Metals Corp. 2019.

### 7.2.2 Mineralization

A total of ten mineralized prospects have been identified across the Property to date. These include the Silver Sand deposit and the El Fuerte, Snake Hole, North Plain, San Antonio, Esperanza, Jisas, El Bronce, Mascota, and Aullagas occurrences. These occurrences are shown in Figure 7.4. Silver Sand and Snake Hole have been defined or tested by drilling. The other eight prospects have been defined by rock chip and grab sampling of ancient and recent artisanal mine workings and dumps.

Exploration work completed by New Pacific has to date identified four distinct styles of mineralization across the Silver Sand Property. These styles include silver mineralization hosted within sandstone, porphyritic dacite, and hydrothermal breccias, and manto style (replacement along bedding planes) tin mineralization within calcareous horizons.

Table 7.1 summarizes the style of mineralization for each mineral occurrence. Each style is described in more detail below.

Table 7.1 Mineral occurrences and styles of mineralization

| Style of mineralization | Mineral occurrence |
|---|---|
| Sandstone-hosted silver | Silver Sand, El Fuerte, San Antonio, Snake Hole, Esperanza, North Plain, and Jisas |
| Porphyritic dacite-hosted silver | Mascota, El Bronce |
| Hydrothermal breccia- hosted silver | Aullagas |
| Manto-type tin mineralization | Tarapaya siltstone and mudstone covered areas |

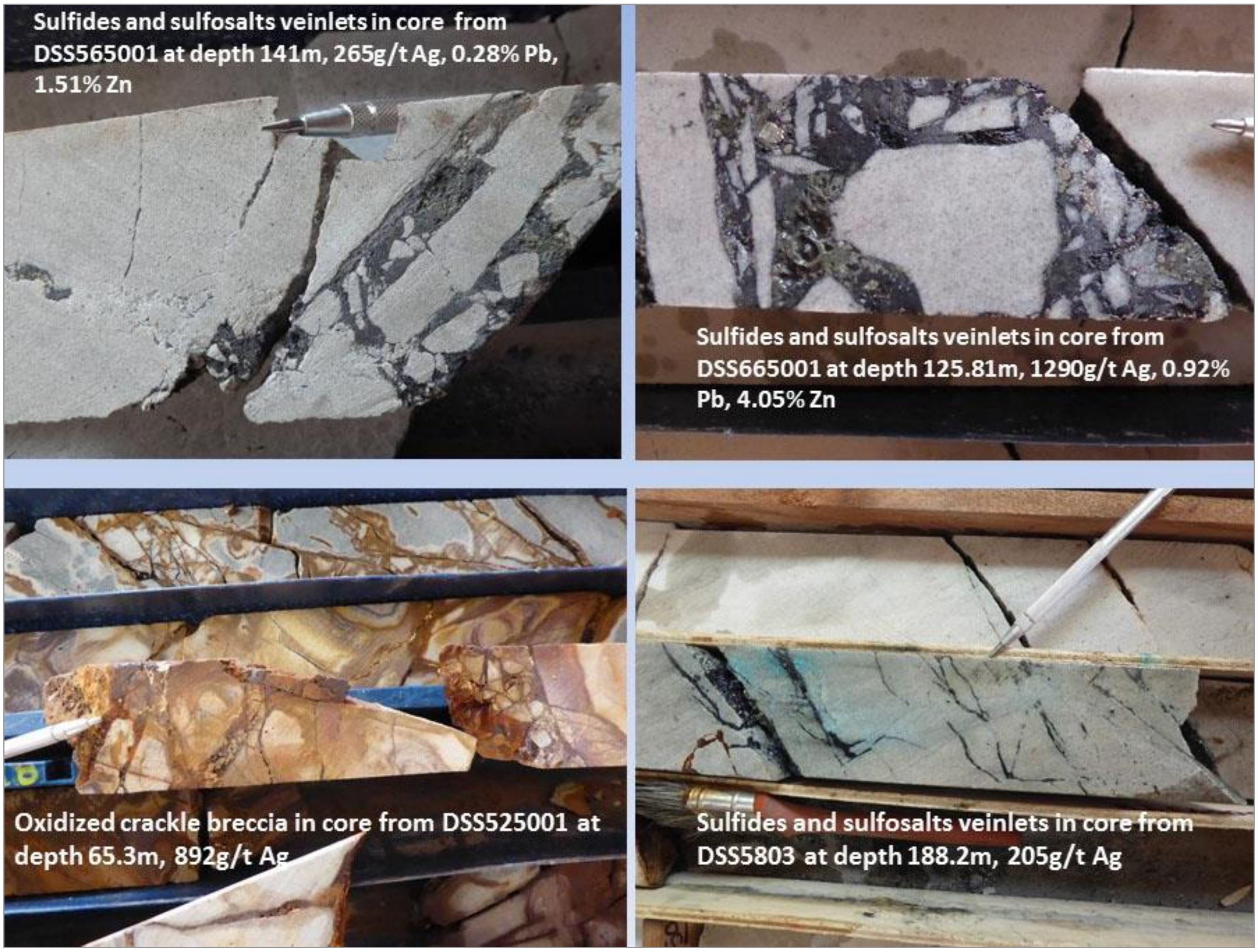
#### 7.2.2.1 Sandstone-hosted silver mineralization

Sandstone-hosted silver mineralization is the most prevalent style of mineralization at the Silver Sand Property occurring almost exclusively within the La Puerta sandstone. This style structurally controlled with secondary rheological controls. The intensity of mineralization is dependent on the density of various mineralized vein structures developed in the brittle host rocks.

Sandstone-hosted silver mineralization is recognized at the main Silver Sand deposit and at the El Fuerte, San Antonio, Snake Hole, North Plain, Esperanza, and Jisas occurrences.

This style of mineralization comprises silver-containing sulphosalts and sulphides occurring within sheeted veins, stockworks, veinlets, breccia infill and disseminated within host rocks. Different styles of mineralization are shown in Figure 7.8. The most common silver-bearing minerals include freibergite [$(Ag,Cu,Fe)_{12}(Sb,As)_4S_{13}$], miargyrite [$AgSbS_2$], polybasite [$(Ag,Cu)_6(Sb,As)_2S_7$] [$Ag_9CuS_4$], bournonite [$PbCuSbS_3$] (some lattices of copper may be replaced by silver), andorite [$PbAgSb3S_6$], and boulangerite [$Pb_5Sb_4S_{11}$] (some lattices of lead may be replaced by silver).

Figure 7.8 Silver mineralization in drill cores



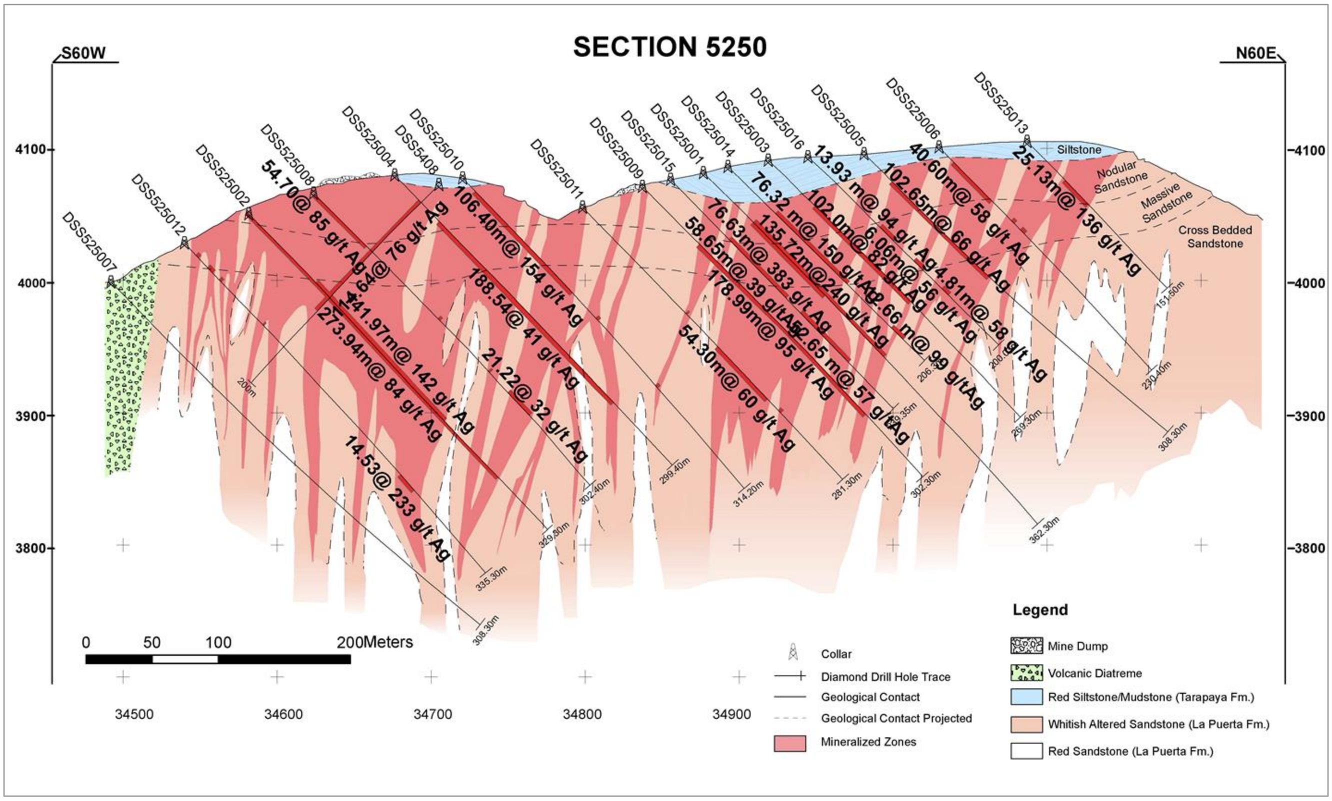

Source: New Pacific Metals Corp. 2019.

Sandstone-hosted silver mineralization is believed to be controlled by north-west and north-trending sub-vertical fractures that form zones of several tens to hundreds of metres in width.

The current exploration drilling program has been focused on the Silver Sand deposit. Mineralization at Silver Sand has been traced for more than 1,500 m along strike, to a maximum width of about 500 m and a dip extension of more than 200 m. Figure 7.9 is a cross section through the deposit illustrating the dip extension and strike extent of the deposit.

Other occurrences have been defined by chip sampling of mineralized outcrops and grab sampling of mining dumps. The El Fuerte and Snake Hole zones have been traced along a strike length of more than 1,000 m with grab samples analyzed for silver. This strike length is defined by the distribution of old mine working and sampling results of silver assays along structures.

Figure 7.9 Cross Section 5250, Silver Sand Zone




Note: Mineralization is presented schematically. See figures in Section 14 for modelled mineralization zones.
Source: New Pacific Metals Corp. 2019.

#### 7.2.2.2 Porphyritic dacite hosted silver mineralization

Silver mineralization within porphyritic dacite is observed at the Mascota and the El Bronce zones. At these occurrences extensive artisanal mining activities have focused on porphyritic dacite stocks and laccoliths.

Strong alteration and well-developed stockwork are seen within outcrops of porphyritic dacite as shown in Figure 7.10. Systematic grab sampling on mining dumps have returned silver grade from 50 to 500 grams per ton (g/t) Ag. The El Bronce zone has been traced with grab sampling for more than 1,000 m along strike. The zone is defined by silver assays > 50 parts per million (ppm). In the Jisas area, tin mining is also conducted along north-east-trending veins in porphyritic intrusions at Chiaraque.

Figure 7.10 Stockworks in altered porphyritic dacite


Source: New Pacific Metals Corp. 2019.

#### 7.2.2.3 Hydrothermal breccia-hosted silver mineralization

Hydrothermal breccia hosted silver mineralization is observed in the Aullagas zone. Based on surface mapping, the Aullagas zone occurs within a north-east-trending dike-like breccia body of about 40 m in length and 13 m width, hosted by bleached sandstone. Breccia fragments consist of ignimbrite and sandstone cemented with highly ferruginous material. Surface grab samples have returned silver grades from 50 to 298 g/t Ag. Further investigation is needed to define the size and potential of the mineralized hydrothermal breccia. It is possibly a mineralized breccia pipe or diatreme.

#### 7.2.2.4 Manto-type tin mineralization

Manto-type tin mineralization on the Property occurs as metasomatic replacement of the calcareous horizons in the siltstone and mudstone at the base of the Tarapaya Formation. Very fine-grained cassiterite is accompanied by abundant pyrite and lesser ankerite, siderite, and barite in the stratiform manto. Historically, and as early as 1890, artisanal mining of the manto-type tin mineralization occurred at the contact between the La Puerta sandstone and the Tarapaya siltstone and mudstone on the Property. Some drillholes in the current exploration drilling program have also intersected the manto-type mineralization horizon in the north part of the Silver Sand deposit.

### 7.2.3 Relative timing of hydrothermal alteration and mineralization

Magmatic and hydrothermal processes active on the Property are proposed to have occurred as two separate events within a single metallogenic epoch associated with the most recent orogenic event within the Eastern Cordillera. The initial event comprised an early stage of alteration and mineralization associated with a deep heat and fluid source (intrusion) within a mesothermal environment. This was followed by uplift and erosion of the Eastern Cordillera during Cenozoic orogenic events, and epithermal style mineralization.

The initial phase of metasomatic activity resulted in manto-type tin mineralization of selected calcareous horizons within the Tarapaya siltstone and mudstone package. The manto-type mineralization comprised high-temperature minerals indicative of a mesothermal environment including cassiterite, pyrite, magnetite, ankerite, siderite, and barite.

The underlying La Puerta sandstone was also intensely altered during this event. Metasomatic fluids resulted in the leaching of ferruginous cement from the sandstone, pervasive sericitization and silicification and introduction of pyrite veinlets and disseminated pyrite and sphalerite. Collectively, this alteration changed the rheological properties of the La Puerta sandstone units providing structural preparation for subsequent metasomatic events.

Progressive uplifting and erosion of the Eastern Cordillera during the Cenozoic orogenic events resulted in a transition to an epithermal environment. Hydrothermal activities during this time led to extensive fracturing, hydrothermal brecciation, and reactivation of earlier structures in the brittle sandstone and porphyritic intrusions and deposition of silver sulphides and sulphosalts. North-west trending fractures and faults with moderate to high-angle dips are thought to have acted as conduits for mineralizing fluids. This mineralization was superimposed on rocks altered during the initial hydrothermal event.

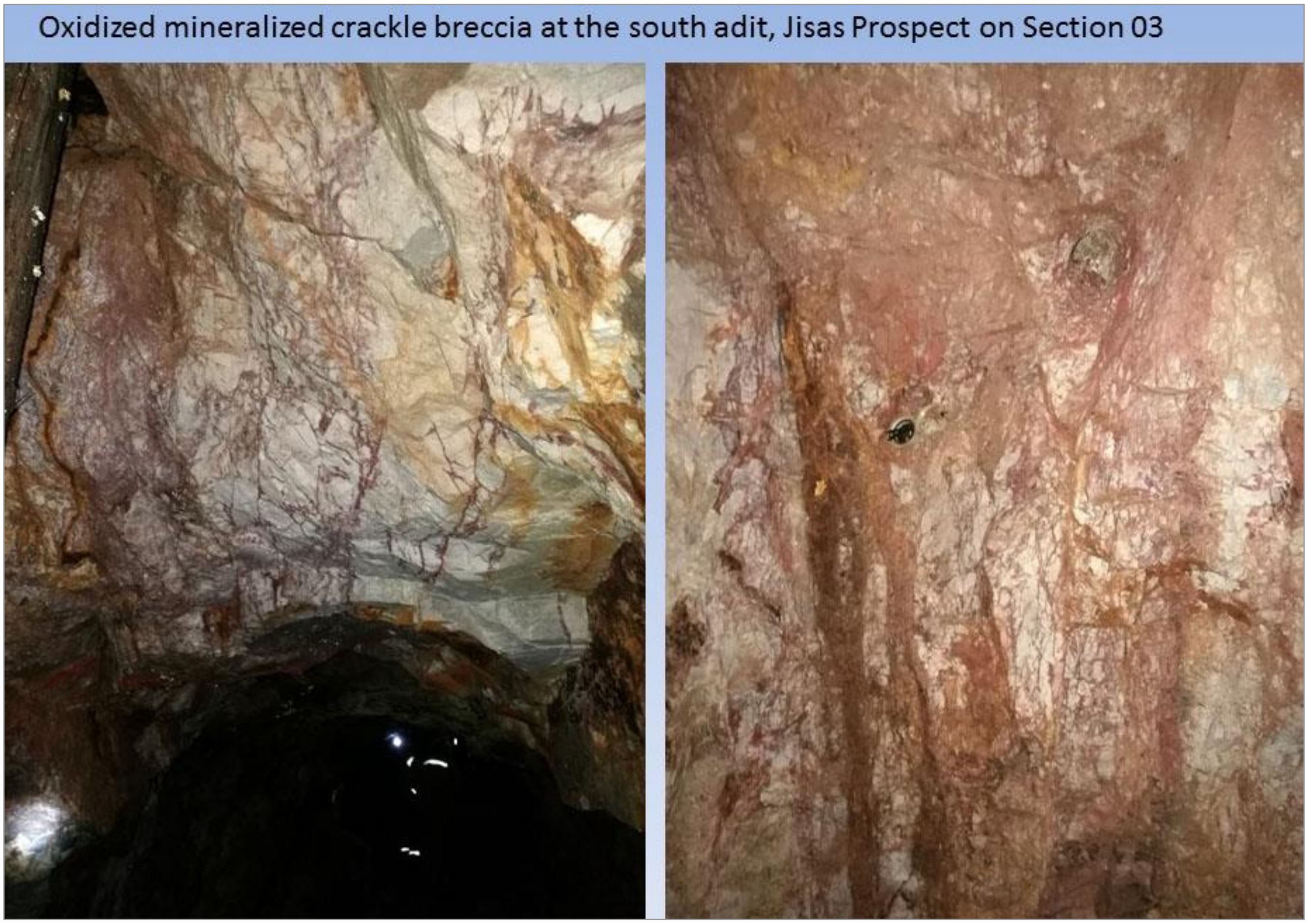
This hypothesis is supported by Rivas (1979) who noted the porphyritic dacite dikes displace manto-style mineralization at the Colavi mine. At the Silver Sand deposit, veins of silver sulphides and sulphosalts crosscut earlier pyrite veinlets, and pyrite in druses are coated with later silver minerals. Silver mineralization zones are spatially associated with porphyritic dacite intrusions but are formed at a later stage than the intrusion. The mineralized hydrothermal breccia at Aullagas suggests that silver mineralization and hydrothermal brecciation may have happened simultaneously. The abundance of low-temperature silver sulphosalts in silver veins and the widespread mineralized hydrothermal and structural breccia suggest an epithermal environment.

### 7.2.4 Oxidation

Mineralized zones on the Property have been oxidized to a vertical depth of more than 210 m in places. The base of oxidation is commonly irregular resulting in significant mixed oxide and sulphide zones due to the strong local influence of fractures. Oxide minerals are dominated by jarosite, goethite and minor hematite resulting pervasive staining within sandstones, and pseudomorphing of sulphide minerals within veins.

Figure 7.11 shows an example of oxidized mineralization exposed in an adit.

Figure 7.11 Oxidized mineralization exposed in adit




Source: New Pacific Metals Corp. 2019.

# 8 Deposit types

Silver and base metal mineralization in the Silver Sand Property was formed during the regional uplifting and erosion process associated with the Tertiary orogenic events in the Eastern Cordillera. The genetic model of silver and tin mineralization in the Property is a magmatic-hydrothermal system related to a deep-seated magmatic centre. The ore-forming processes in the Property are outlined as follows:

1 Tin-bearing hydrothermal solutions derived from the magmatic centre moved upwards through major faults cutting through the Paleozoic and Mesozoic sedimentary sequences in a mesothermal environment at the early stage of orogeny.

2 The ductile and impermeable red siltstone and mudstone of the Tarapaya Formation overlying the porous and permeable La Puerta sandstone acted as a barrier to the upward movement of the high-temperature tin-bearing hydrothermal solutions. This early hydrothermal activity resulted in the extensive sericitization and silicification of the La Puerta sandstone and the formation of the stratiform metasomatic replacement (manto-type) tin and base metal mineralization at the base of the Tarapaya siltstone and mudstone.

3 With persistent uplifting and erosion, the hydrothermal system evolved into an epithermal environment and subvolcanic activities developed in the Property area. Porphyritic dacite rocks intruded Paleozoic and Mesozoic sedimentary sequences and displaced the manto-type mineralization in the Tarapaya siltstone and mudstone. The subvolcanic activities likely caused intensive fracturing, faulting, and brecciating of the previously bleached brittle La Puerta sandstone.

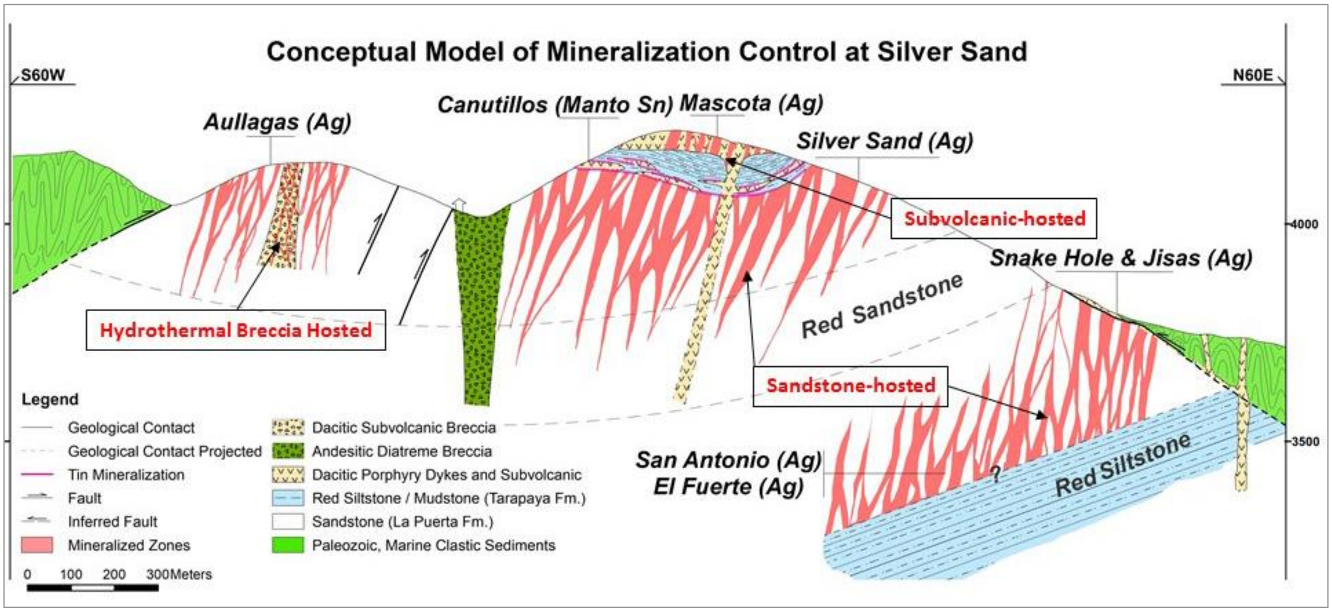
4 Following the dacitic porphyry intrusions, silver-rich, and tin-bearing hydrothermal fluid migrated though faults, fractures, and breccia structures in the La Puerta sandstone and porphyritic dacite intrusions both beneath and above the Tarapaya Formation. This later stage hydrothermal activity is characterized by typical epithermal features such as hydrothermal brecciation and a low-temperature mineral assemblage.

5 The continuous uplifting and erosion of the region has exposed the mineralization and resulted in oxidation of the mineralized zones along deep-seated fractures.

The stratiform metasomatic replacement tin mineralization formed in the earlier hydrothermal event is manto-type tin and base metal mineralization which is unique in the Bolivia Tin Belt. The silver and tin mineralization formed in the later hydrothermal event is typical of the Bolivian polymetallic vein-type deposits represented by the giant Cerro Rico de Potosí silver mine. The Bolivian polymetallic vein-type mineralization in the Property includes three subtypes, the sandstone-hosted, the subvolcanic-hosted, and the hydrothermal breccia-hosted mineralization.

A conceptual model of mineralization controls in the Property is established from the above discussion and is shown in Figure 8.1.

Figure 8.1 Conceptual model of mineralization controls at Silver Sand Property




Source: New Pacific Metals Corp. 2020.

# 9 Exploration

Since acquiring the Property in October 2017, New Pacific exploration work has focused on geological mapping and collection of samples from surface outcrop, historical mine dumps, and accessible historical underground workings. Samples collected from outcrop and underground workings were primarily collected at 1 to 1.5 m intervals along sample lines. Representative grab samples were taken from historical mine dumps.

A total of 3,207 rock chips samples were collected during this time.

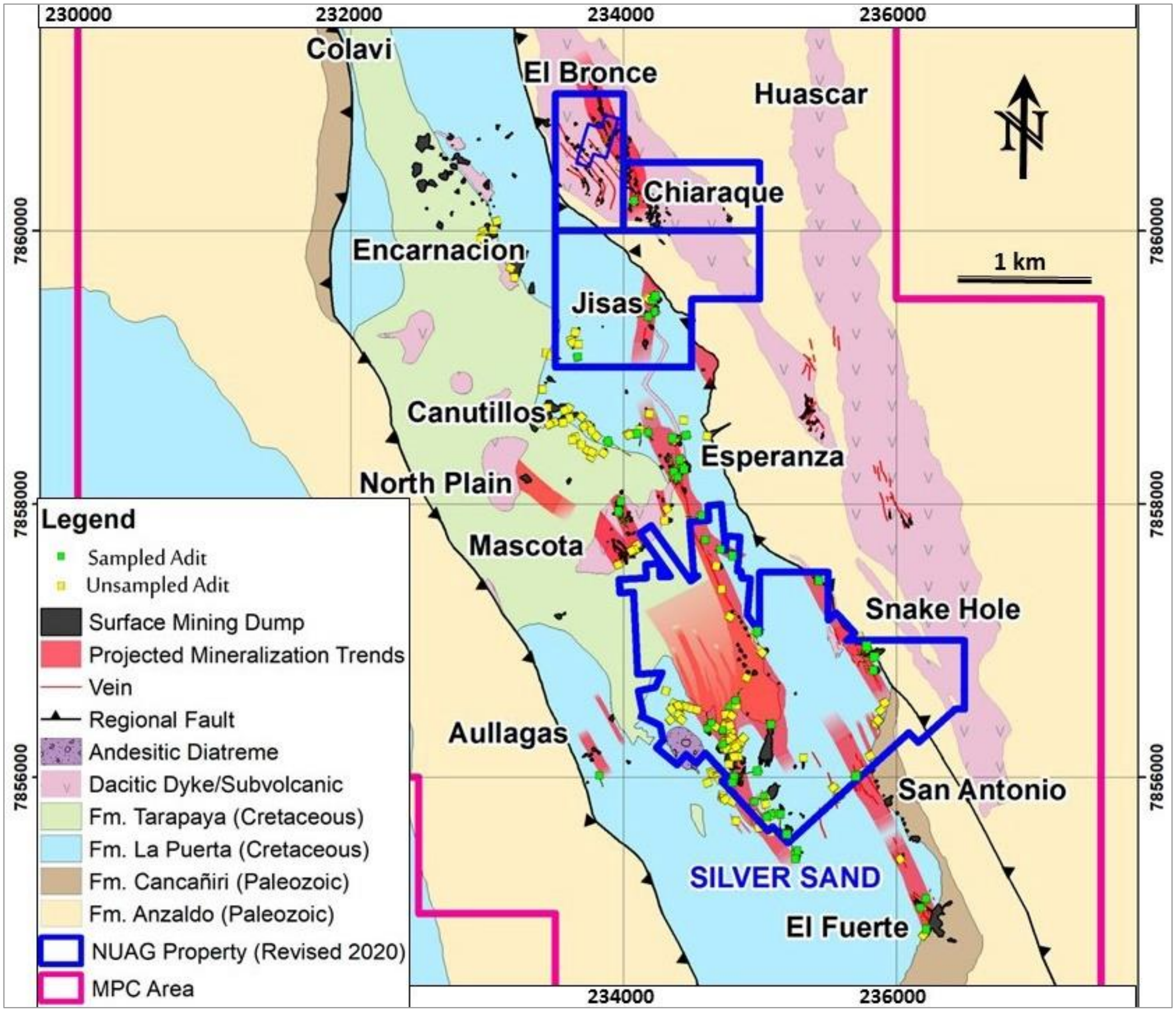
Table 9.1 summarizes New Pacific exploration activities completed at Silver Sand between October 2017 and December 2019.

Table 9.1 Summary of underground and surface sampling programs

| Sample type | Total samples | Comments |
|---|---|---|
| Surface samples | 904 | Rock chips from channels, 19 outcrops. Total channel length 1,340 m |
| Mine dump samples | 1,339 | Grab samples from historic mine dumps |
| Underground samples | 964 | Rock chip samples from channels, 4,912 m of underground development in 42 workings. |
| **Total** | **3,207** | |

Figure 9.1 shows the distribution of the abandoned artisanal adits and mine dumps across the Property. New Pacific has sampled all mine dumps and accessible adits with silver mineralization. Areas mined for tin mineralization over the Tarapaya formation rocks have not been systematically sampled.

Figure 9.1 Location of historic adits and mine dumps




Source: New Pacific Metals Corp. 2020.

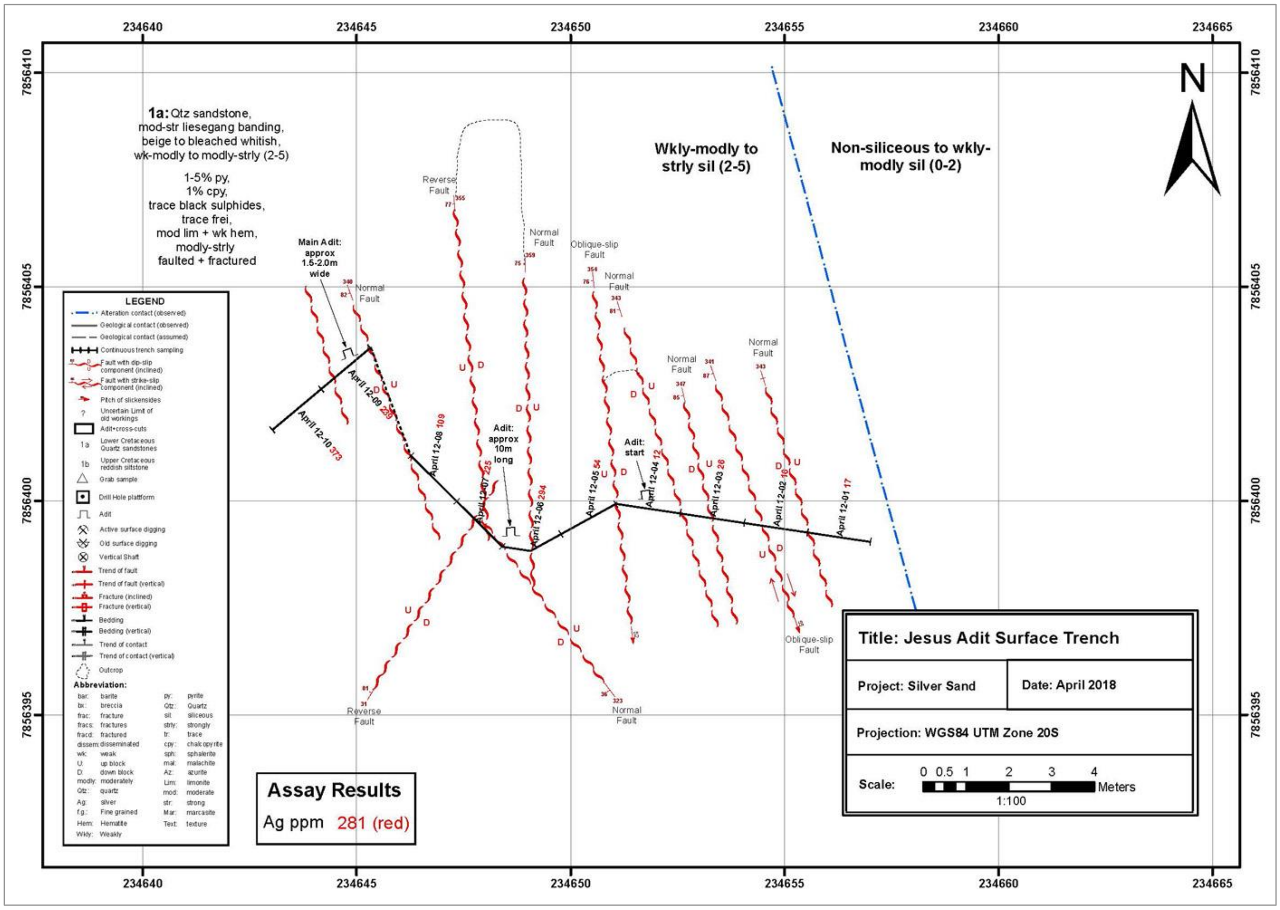
## 9.1 Surface chip sampling

A total of 904 rock chip samples were collected from 19 separate outcrops by New Pacific since 2017. The majority of outcrops were located above or proximal to historical workings. Samples were collected at 1.5 m intervals along sample lines oriented approximately perpendicular to the strike direction of mineralization. An example is shown in Figure 9.2. Sample lines covered a total length of 1,340 m.

For each sample, the sample type, location, and a description of the lithology, alteration and mineralization were recorded by New Pacific personnel using Microsoft Excel (Excel) worksheet. Geological and structural mapping was also completed at this time. Assay data is compiled and stored in Excel. Geological and assay data are then compiled onto a geological plan map. Figure 9.2 shows a typical compilation map with assay results.

Of the 904 samples collected to date 67 samples (7%) returned a grade between 30 and 840 g/t Ag and an average grade of 14 g/t Ag.

Figure 9.2 Outcrop map with surface surveying and sampling results




Source: New Pacific Metals Corp.

## 9.2 Dump sampling

Mine dumps from historical mining activities are scattered across a significant portion of the Property. These provide valuable insight into subsurface mineralization and geology.

New Pacific collected a total of 1,339 grab samples from historical mine dumps. The majority of samples collected were remnants of high-grade narrow veins extracted from underground mining activity.

Of the 1,339 samples collected from historical mine dumps to date, 572 samples (43%) returned assay results between 32 and 3,290 g/t Ag with an average grade of 190 g/t Ag.

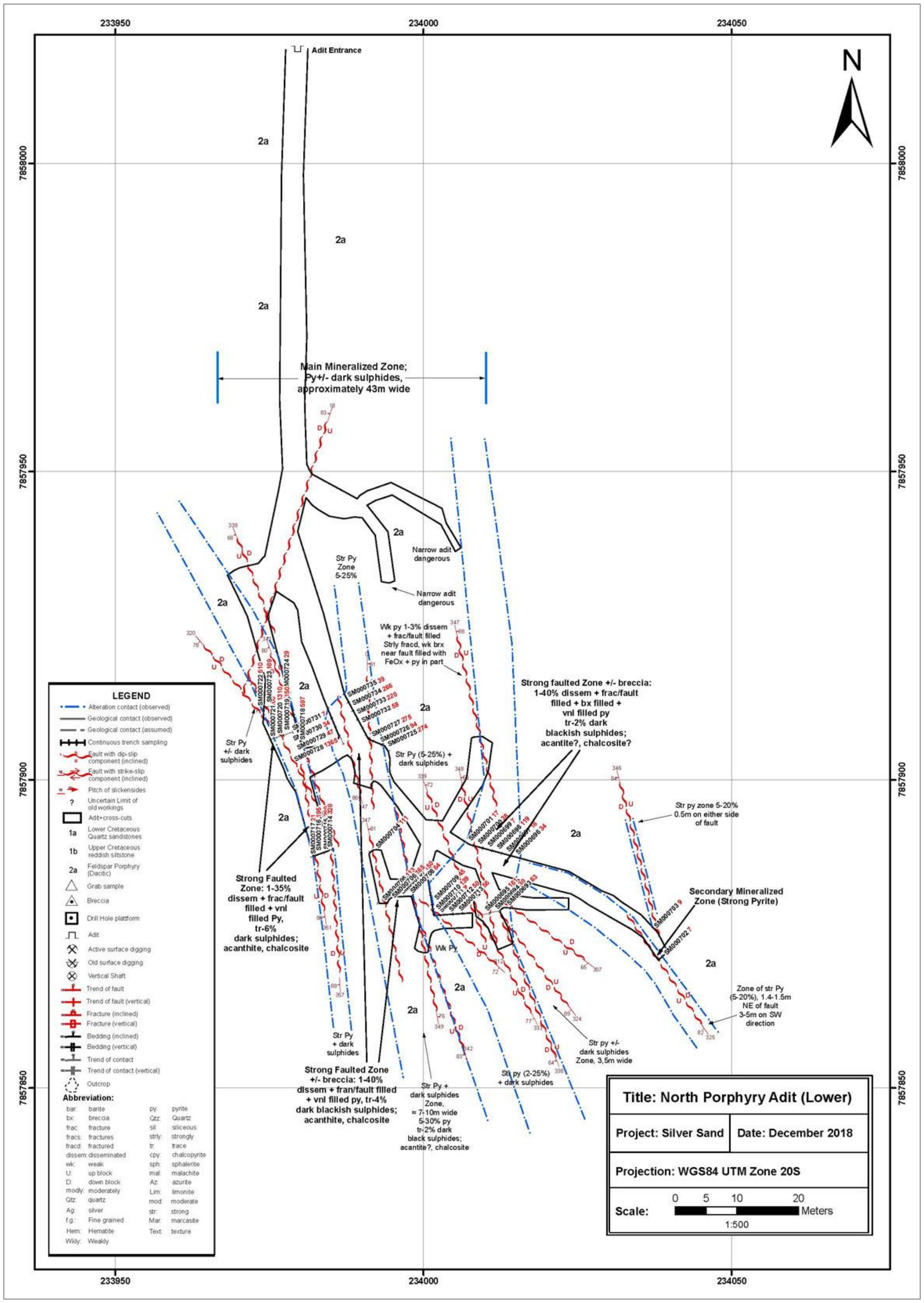
## 9.3 Underground chip sampling

The Property encompasses significant historical underground mine workings which date back to the 16th century. A number of adits and tunnels provide access to underground workings from the surface. New Pacific has surveyed all safe and readily accessible tunnels within a 2 km wide and 6 km long area encompassing the mineralized La Puerta sandstone, and porphyritic dacite dykes and intrusions. Mine workings have typically focused on high-grade veins.

New Pacific has mapped and sampled 42 historical mine workings comprising 4,912 m of mine tunnels. A total of 964 continuous chip samples have been collected at 1-2 m intervals along walls of available tunnels that cut across the mineralized zones.

New Pacific geological personnel record geological features on both a map and in an Excel worksheet. Assay results are compiled in Excel. A compilation map comprising the surveyed mine workings, geology and assay data is subsequently collated. An example of underground mapping and sampling is presented in Figure 9.3.

Figure 9.3 Underground mapping and sampling




Source: New Pacific Metals Corp.

Table 9.2 provides a summary of the results of underground sampling.

Table 9.2 Selected underground sampling results of the Silver Sand Property

| Name of adit | Length (m) | Sample type | Number of samples | Mineralized samples | | | Host rock |
|---|---|---|---|---|---|---|---|
| | | | | Number | Grade range Ag (g/t) | Average grade Ag (g/t) | |
| El Fuerte Adit 2 | 73 | Chips | 7 | 5 | 86-589 | 261 | Sandstone |
| Jesus Adit Lower | 145 | Chips | 31 | 14 | 31-2710 | 371 | Sandstone |
| Jisas Jarden Adit 1 | 275 | Chips | 35 | 18 | 31-281 | 108 | Sandstone, Porphyry |
| North Porphyry Adit Lower | 385 | Chips | 45 | 36 | 30-1365 | 220 | Porphyry |
| North Porphyry Adit Upper | 290 | Chips | 16 | 11 | 31-812 | 219 | Porphyry |
| PD_25 | 250 | Chips | 98 | 26 | 33-666 | 114 | Sandstone |
| PD_62 | 177 | Chips | 77 | 24 | 34-750 | 179 | Sandstone |
| Snake Hole Principle Adit 1 | 188 | Chips | 8 | 6 | 85-433 | 251 | Sandstone |
| Snake Zone Adit 3 | 82 | Chips | 4 | 4 | 34-495 | 164 | Sandstone |
| South Adit 1 | 300 | Chips | 47 | 10 | 34-767 | 240 | Sandstone |
| South Adit 4 Level 1-4 | 113 | Chips | 23 | 23 | 38-1500 | 583 | Sandstone |
| Esperanza Adit 1 | 55 | Chips | 13 | 8 | 75-830 | 337 | Sandstone |
| Esperanza Adit 2 | 153 | Chips | 41 | 19 | 39-568 | 150 | Sandstone |
| Esperanza Adit 3 | 195 | Chips | 24 | 10 | 32-536 | 234 | Sandstone |
| El Bronce Main Adit 1 Upper | 120 | Chips | 11 | 7 | 37-785 | 331 | Porphyry |
| El Bronce Adit 2 | 30 | Chips | 9 | 7 | 49-318 | 108 | Porphyry |
| El Fuerte Adit 1 | 100 | Chips | 12 | 8 | 34-214 | 100 | Sandstone |

## 9.4 Exploration results

Assay results of underground chip samples and surface mine dump grab samples suggest historical mining focused on high-grade veins within the core of the mineralized system and that in-situ mineralized material exists outside of the principal or main veins. This material forms continuous mineralized zones from several metres to several tens of metres in width in bleached sandstone and porphyritic dacite.

Exploration results collected to date show comparable average grades between the underground chip samples and the grab samples from historical waste dumps. Surface rock chip sample grades are consistently lower. The significant difference of silver grades between underground and surface chip samples may be the result of oxidation and leaching of silver sulphides and sulphosalts from the host rocks.

A summary of exploration results from surface rock chip samples, waste dump samples and underground chip samples is presented in Table 9.3. Mineralized samples listed in the table below are samples with > 30 g/t silver.

Table 9.3 Summary of underground and surface sampling programs

| Sample type | Total samples | Average Ag grade of all samples (g/t) | Number of mineralized samples | Grade Ag range (g/t) | Average Ag grade of mineralized samples (g/t) |
|---|---|---|---|---|---|
| Surface samples | 904 | 14 | 67 | 30-840 | 141 |
| Mine dump samples | 1339 | 85 | 572 | 32-3290 | 190 |
| Underground samples | 964 | 80 | 339 | 31-2710 | 211 |

Note: Mineralized samples are samples with > 30 g/t silver.

# 10 Drilling

This section describes diamond drill programs completed by New Pacific at the Property between October 2017 and December 2019. Drilling completed by previous operators is discussed in Section 6 History.

## 10.1 Drilling overview

In total, New Pacific has completed 386 diamond core drillholes for a total of 97,619 m. Drilling programs were completed in two major campaigns. The initial campaign comprised drilling of the main Silver Sand target area between October 2017 and December 2018. This program was designed to test areas with anomalous surface and underground rock chip results and resulted in the discovery of the main Silver Sand zone. Ongoing drilling resulted in a nominal 50 x 50 m spaced drill grid over an area of 1,600 m x 800 m at Silver Sand. A second drilling campaign completed between April 2019 and December 2019 comprised infill drilling of key portions of the Silver Sand deposit to a nominal 25 x 25 m grid, as well as exploration drilling at the Snake Hole prospect, discussed in Section 10.5.

Drill statistics by year are presented in Table 10.1.

Table 10.1 New Pacific drilling by year

| Year | Phase | Silver Sand | | Snake Hole | | Total | |
|---|---|---|---|---|---|---|---|
| | | Holes | Metres | Holes | Metres | Holes | Metres |
| 2017 | Phase 1 drilling | 18 | 5,020 | - | - | 18 | 5,020 |
| 2018 | | 177 | 49,991 | - | - | 177 | 49,991 |
| 2019 | Phase 2 drilling | 167 | 36,651 | 24 | 5,957 | 191 | 42,607 |
| **Total** | | **362** | **91,662** | **24** | **5,957** | **386** | **97,619** |

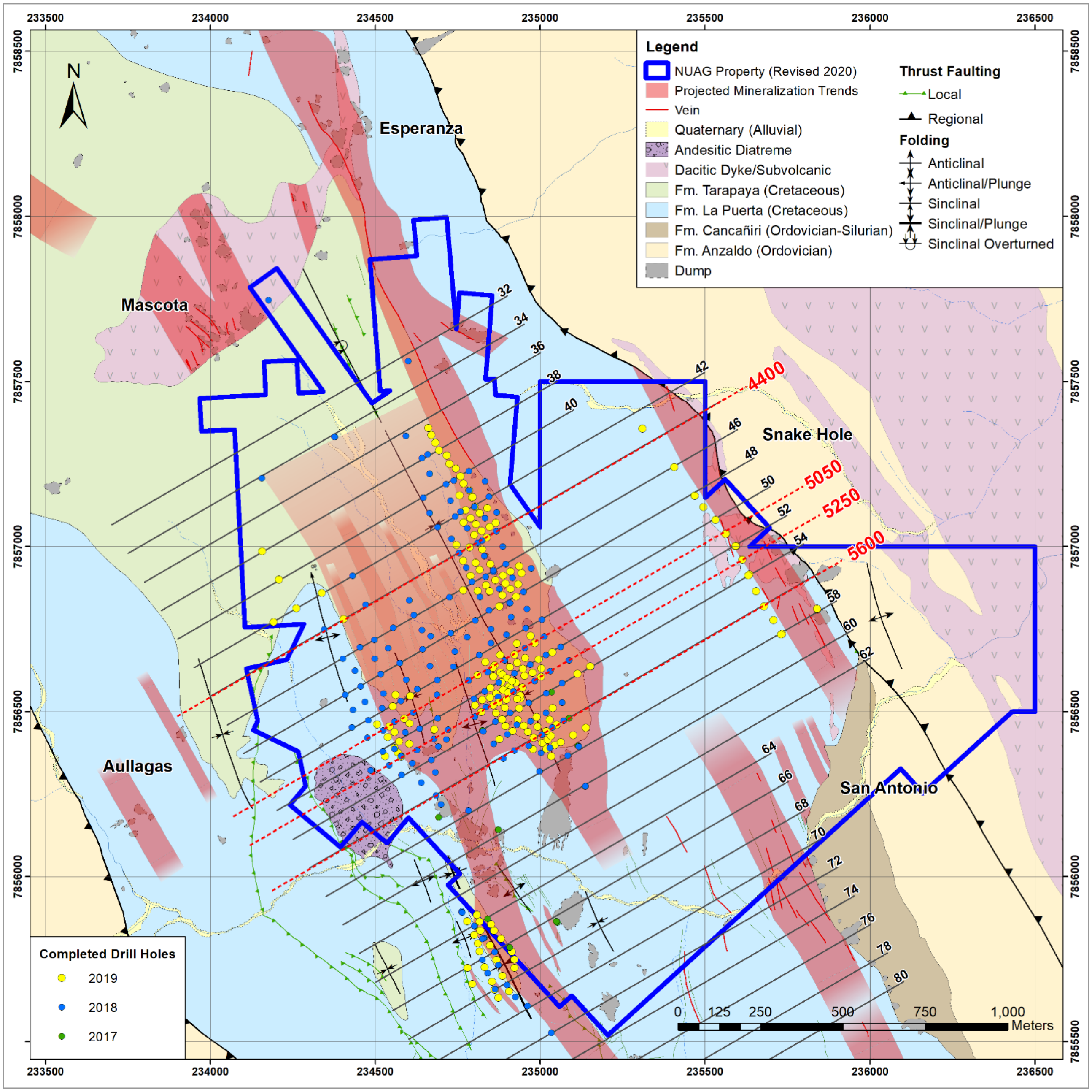
Note:
- Table predominantly refers to drilling inside the 100% owned New Pacific mineral tenure as shown in Figure 10.1.
- Numbers may not compute exactly due to rounding.

Source: AMC Mining Consultants (Canada) Ltd. 2020, based on data provided by New Pacific Metals Corp.

A local drill grid has been developed across the Property, comprising 100 m spaced drill sections orientated 060°-240° and numbered from 32 in the north-west, to 80 in the south-east (Figure 10.1). Drillhole IDs comprise a prefix which reflects the drillhole section, followed by a drillhole number. Drillholes have been drilled up to 545 m deep at inclinations between -45° and -80° towards azimuths of 060° (~NE) and 240° (~SW) to intercept the principal trend of mineralized vein structures.

Figure 10.1 shows the location of New Pacific drillholes completed at the Silver Sand Property.

Figure 10.1 Location map of drillholes in Silver Sand area




Note: Section lines represent cross sections shown in Section 10.4.3.
Source: New Pacific Metals Corp. 2020.

## 10.2 Drilling procedures

Diamond drill programs completed at the Property were designed and managed by New Pacific personnel. Drilling was completed by contract drilling companies Leduc Drilling SRL and Maldonado Exploraciones both out of La Paz, Bolivia.

Drillhole collars are located by New Pacific geologists using a Real-Time Kinematic differential GPS and marked with a wooden stake. The site is then cleared, and sumps constructed to manage drill water and cuttings. The drill is then positioned by the drill contractor and the drill alignment (inclination and azimuth) confirmed by New Pacific geologists. Drilling operations are carried out as two separate shifts, 24 hours per day, seven days per week.

Core drilling is completed using conventional HQ (64 mm diameter) equipment and 3 m drill rods. Core is placed in plastic core boxes by the drill contractor. Core blocks are placed at the end of each drill run (rod) marking the core recovery and drillhole depth by the drill contractor. Each core box is marked with the drillhole ID and the corresponding from and to depths.

At the completion of each drillhole, PVC casing is placed by the drill contractor in the drillhole. New Pacific personnel subsequently construct a concrete monument and mark the collar with the drillhole ID, depth, dip, azimuth, and date as shown in Figure 10.2.

Figure 10.2 Silver Sand drilling


Notes: Left: Drill rig in operation at Silver sand. Right: Collar monument after drillhole completion.
Source: AMC Mining Consultants (Canada) Ltd. 2019.

### 10.2.1 Drillhole deviation surveys

Drillhole deviation surveys are completed by the drilling contractor using a multishot REFLEX EZ-SHOT downhole survey tool. Drillholes are surveyed at a depth of approximately 20 m, and on approximately 30 m intervals as drilling progresses. A second set of downhole surveys are completed once the hole is complete on 30 m intervals as the drill rods are pulled out of the hole.

### 10.2.2 Core processing and logging

New Pacific personnel visit each drill at least once daily to monitor drillhole progress. Core boxes are sorted and placed in order to enable core blocks and depths to be checked. Preliminary logging is then completed which comprises completing a “quick log” of major geological features, marking of natural breaks, and analyzing veins with a portable XRF for silver concentrations. Prior to transportation, individual segments of core are sequentially numbered, and the core box is photographed as part of the chain of custody. Core containing visible mineralization is also wrapped in paper to minimize core damage during transport. Lids are placed on core boxes prior to transport.

Core boxes are transported by New Pacific personnel to the company's Betanzos core processing facility on a daily basis following preliminary processing at site.

On arrival at the core yard, the core boxes are checked and recorded in a core handover form that is signed by the receiver. Core boxes are then moved to the logging shack where detailed logging, processing, and sampling is completed. Logging data is collected by filling in paper templates which are later transferred to an Excel Database.

New Pacific's core logging process comprises the following:

- Core is cleaned and drill core segments are pieced together.
- The length of core for each drill run is measured and recovery calculated.
- Drillhole depths are marked on the core.
- Rock quality designation (RQD) is calculated and basic geotechnical features are noted (rock hardness, fracture frequency).
- A geological log is completed using a New Pacific paper template. The geological log includes a graphic log and captures oxidation, lithology, alteration, structure, and mineralization information using codes established by New Pacific.
- A geologist determines core to be sampled and marks sample intervals and a cutting line based on the observed mineralization, structure, and lithology.
- Density samples are collected from one in every 15 samples and measured at a dedicated density measuring station using water immersion and the Archimedes principle.
- Prior to core cutting, photographs of wet core are taken using a high definition camera for the entire hole.
- Core is cut in half using a diamond core saw and sampling is completed.
- Core boxes are then stored at the company's Betanzos secure facility.
- Samples are dispatched to the laboratory on a weekly basis.

Sampling, shipment, and security protocols are described in Section 11 of this report.

## 10.3 Sample recovery

Core recovery from New Pacific drill programs varies between 0% (voids and overburden) and 100%, averaging 97%. More than 92% of core intervals have a core recovery of greater than 95%.

## 10.4 Silver Sand drill programs

### 10.4.1 2017 – 2018 Exploration drilling

The 2017 – 2018 phase one drill program was designed to test the depth and continuity of mineralization delineated by surface mapping and sampling in the Silver Sand area. Positive drill results led to ongoing drilling and the definition of numerous north-northwest striking and moderate to steeply west dipping zones of silver mineralization. The program resulted in a nominal drill spacing of 50 x 50 m over a 1,600 x 800 m area. Ninety seven percent of drillholes (190 out of 195) encountered silver mineralization.

### 10.4.2 2019 Definition drilling

A phase two drill program commenced in April 2019. This program was designed to infill existing drilling within the Silver Sand deposit, and to assess the potential strike extensions of major mineralized zones beneath the Tarapaya Formation north of Section 44. The phase two 2019 drill program comprised the drilling of 167 drillholes for a total of 36,651 m. Drillholes ranged from 86 to 365 m in depth, averaging 225 m.

As of 31 December 2019, assay results had been received for 135 of the 167 drillholes completed at Silver Sand in 2019. These assay results confirm the continuity of mineralization delineated in the phase one drilling and have been used in the Mineral Resource estimation.

### 10.4.3 Drilling results

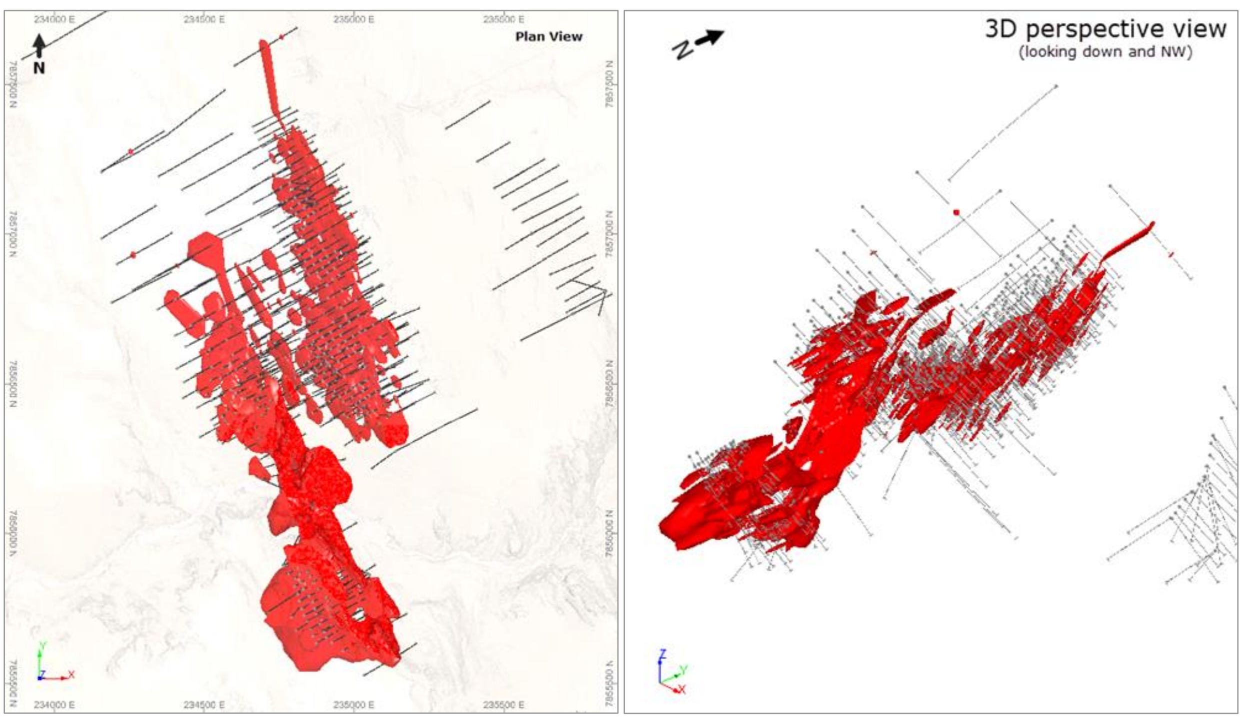
Drill programs completed between October 2017 and December 2019 have defined silver mineralization at the Silver Sand deposit over an oblique strike length of 2 km, a collective width of 650 m and to a depth of 250 m below surface. Silver mineralization occurs predominantly associated with sheeted veins, stockworks and veinlets within altered La Puerta sandstone. Within the core of the system, where vein intensity is greatest, mineralized zones are relatively continuous along strike and to depth, reaching thicknesses of up to 300 m. The core portion of the system shows strong continuity. Mineralization outside of the core occurs as discontinuous pods and lenses often only multiple metres thick.

North of this Section 60 mineralized zones generally dip 60° to the west. Drilling in this area typically intersects up to 50 m of red Cretaceous Tarapaya Formation before intersecting massive, white, altered and mineralized La Puerta sandstone. The contact between the Tarapaya and La Puerta Formations commonly contains massive pyrite which is up to 2 m thick. Historical mining activity does not appear to be widespread in this area.

South of Section 60, massive, altered, and fractured La Puerta sandstone is exposed at surface, zones of silver mineralization typically dip 45° to the west and historical mining activity appears to extensive.

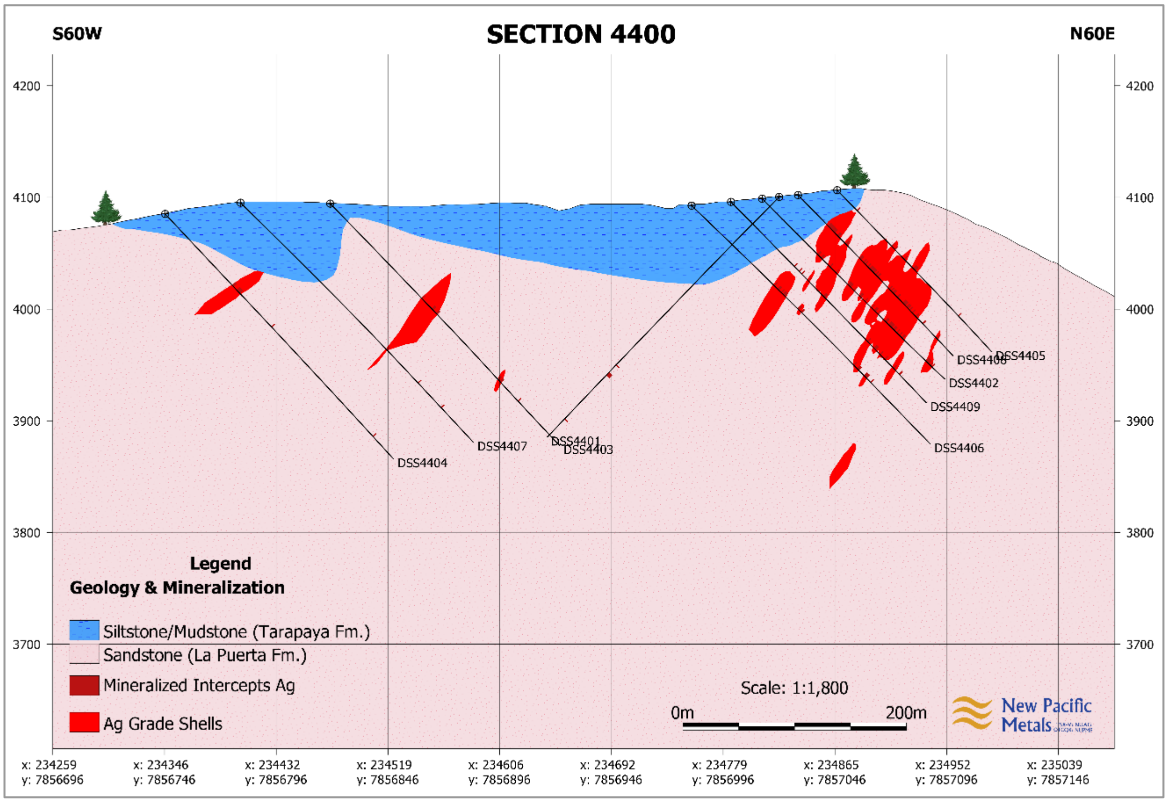
Figure 10.3 shows both a plan view and three-dimensional (3D) perspective of the mineralization. Figure 10.4 to Figure 10.7 presents representative cross sections throughout the deposit.

Figure 10.3 Silver Sand mineralization – plan and 3D perspective



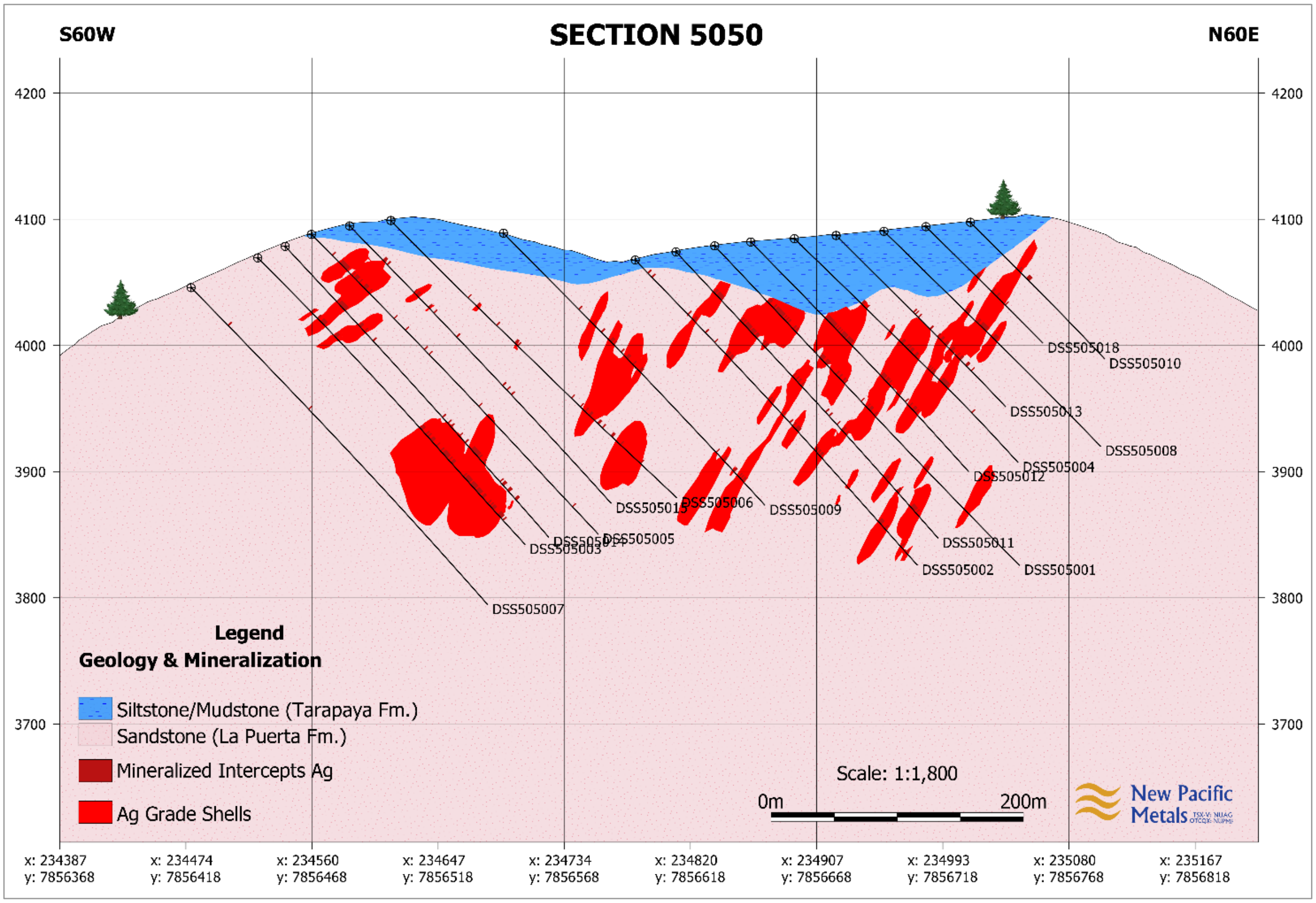

Source: AMC Mining Consultants (Canada) Ltd. 2020.

Figure 10.4 Cross Section 4400, Silver Sand area



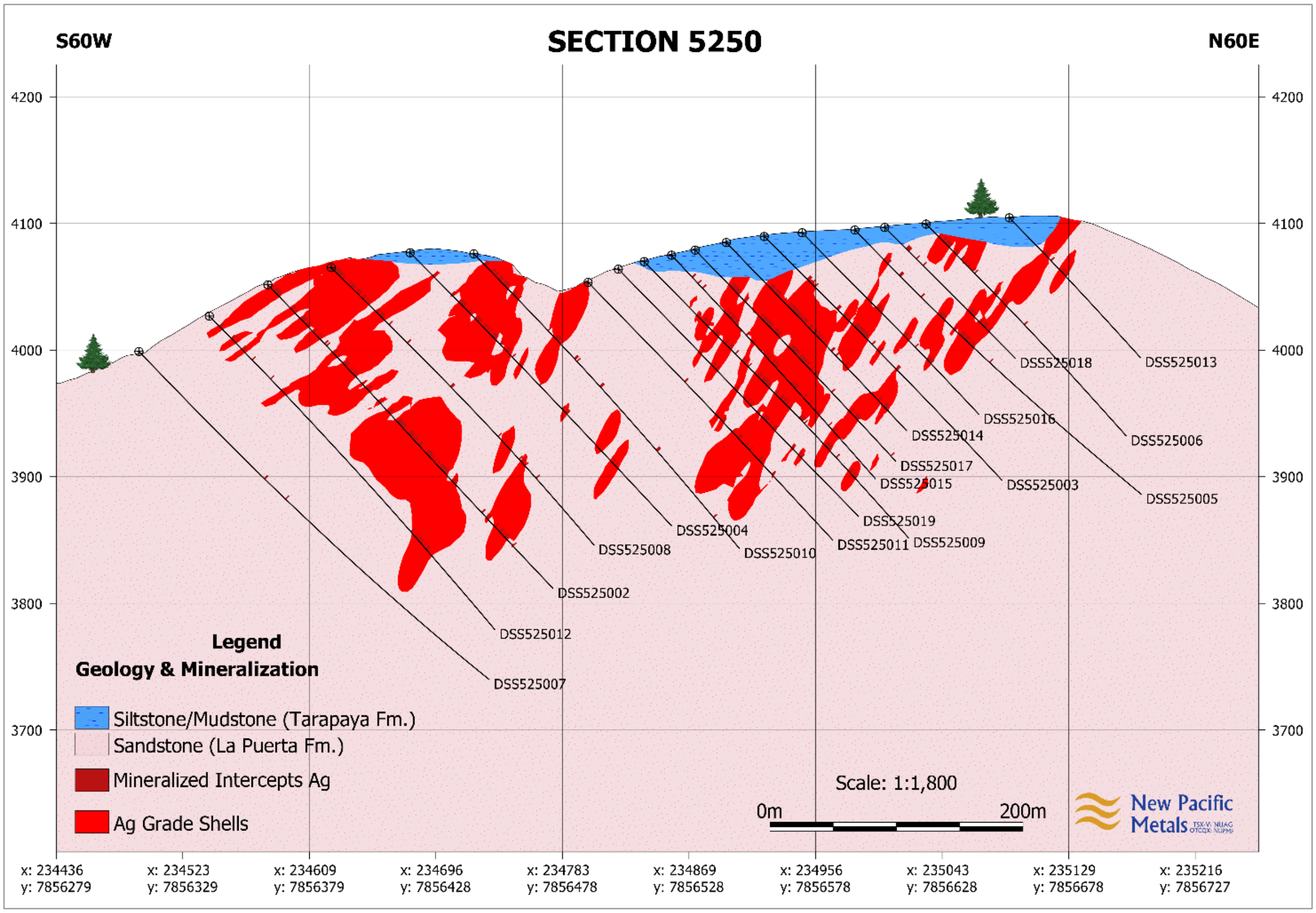

Note: Grade shell and mineralized intercepts are > 30 g/t Ag.
Source: New Pacific Metals Corp. 2020.

Figure 10.5 Cross Section 5050, Silver Sand area



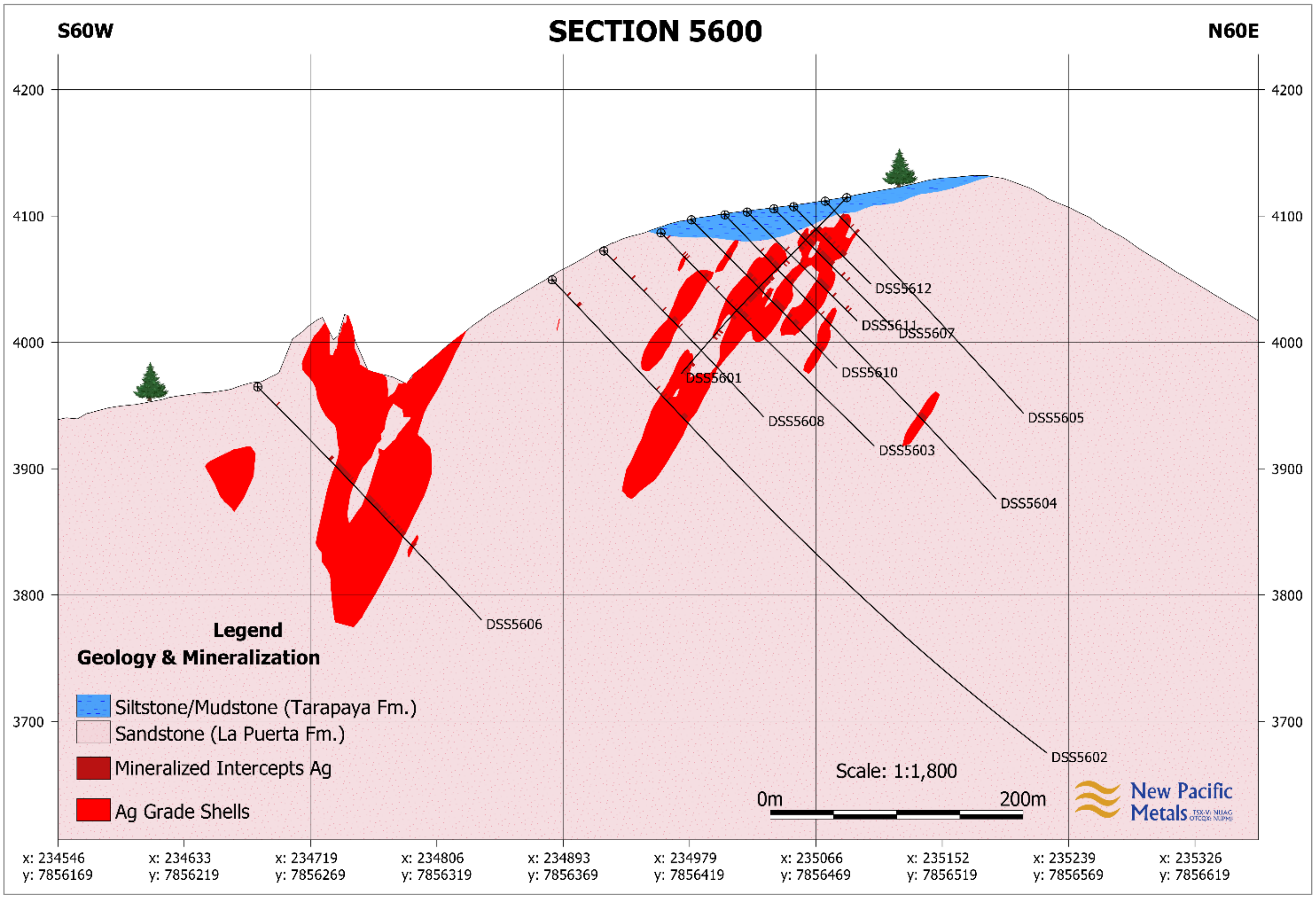

Note: Grade shell and mineralized intercepts are > 30 g/t Ag.
Source: New Pacific Metals Corp. 2020.

Figure 10.6 Cross Section 5250, Silver Sand area




Note: Grade shell and mineralized intercepts are > 30 g/t Ag.
Source: New Pacific Metals Corp. 2020.

Figure 10.7 Cross Section 5600, Silver Sand area



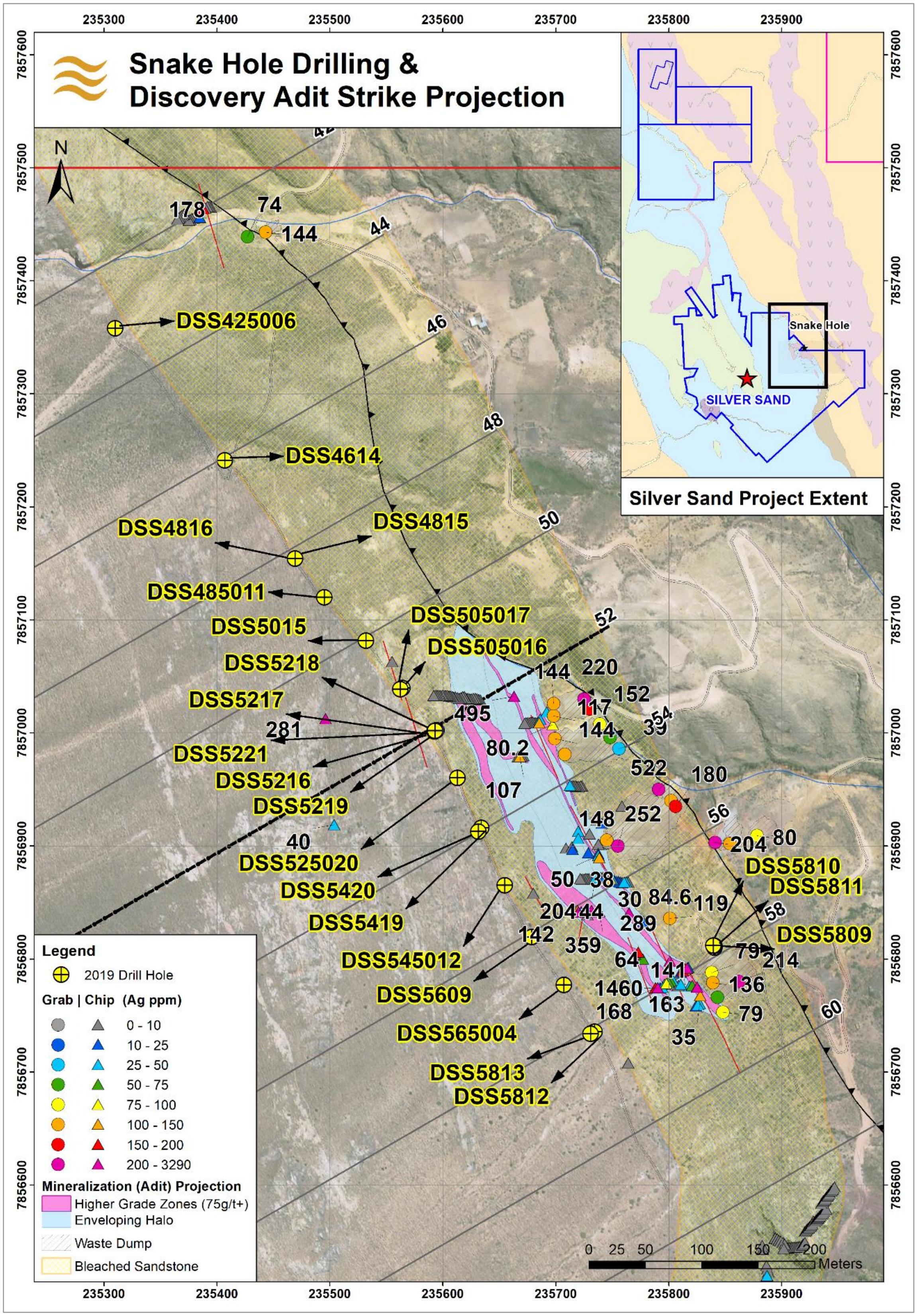

Note: Grade shell and mineralized intercepts are > 30 g/t Ag.
Source: New Pacific Metals Corp. 2020.

## 10.5 Snake Hole drilling

New Pacific's Snake Hole prospect is located approximately 600 m east of the Silver Sand deposit. This prospect comprises a 1 km long NNW-SSE trend comprising extensive historical artisanal mining activities and mine dumps. Historical workings are developed in bleached sandstone and suggest mineralization is between a few metres and up to 100 m wide. Previous sampling of workings and dumps in this Snake Hole area by New Pacific returned numerous assay results between 100 g/t Ag and 300 g/t Ag. Geological mapping also suggested that mineralized structures extend north-west towards the company's Jisas prospect.

A total of 24 HQ diamond drillholes totaling 5,957 m were completed to assess sub-surface mineralization within the Snake Hole prospect area between August and December 2019. Drillholes were completed on a drilling grid at a 50 m spacing along the NNW-SSE structure. Each section was drilled with at least one drillhole at an inclination between 40° and 80°. The majority of drillholes were drilled towards an azimuth of 060°, four holes were drilled towards 240° and two drillholes were drilled towards 285° and 195° respectively as part of a drill fan. Drillhole locations are presented in Figure 10.8. Drillhole collar information is presented in Table 10.2.

Figure 10.8 Location of drillholes, Snake Hole Prospect




Source: New Pacific Metals Corp. 2020.

Table 10.2 Collar details – Snake Hole Prospect

| Hole ID | East (m) | North (m) | Elevation (m) | Depth (m) | Azimuth (°) | Dip (°) |
|---|---|---|---|---|---|---|
| DSS425006 | 235,307.58 | 7,857,352.57 | 3,854.85 | 350.10 | 059 | -60 |
| DSS4614 | 235,411.62 | 7,857,242.32 | 3,833.49 | 280.90 | 060 | -64 |
| DSS4815 | 235,468.75 | 7,857,153.62 | 3,829.60 | 304.70 | 061 | -50 |
| DSS4816 | 235,468.26 | 7,857,153.35 | 3,829.55 | 269.00 | 061 | -65 |
| DSS485011 | 235,494.17 | 7,857,121.58 | 3,824.97 | 310.40 | 061 | -45 |
| DSS5015 | 235,531.80 | 7,857,081.46 | 3,814.70 | 292.25 | 060 | -45 |
| DSS505016 | 235,564.09 | 7,857,039.71 | 3,805.84 | 287.30 | 063 | -44 |
| DSS505017 | 235,562.28 | 7,857,038.76 | 3,805.82 | 224.70 | 063 | -80 |
| DSS5216 | 235,594.50 | 7,857,002.24 | 3,797.39 | 263.30 | 062 | -45 |
| DSS5217 | 235,592.52 | 7,857,001.39 | 3,797.46 | 287.70 | 059 | -80 |
| DSS5218 | 235,592.95 | 7,857,001.73 | 3,797.49 | 230.60 | 062 | -64 |
| DSS5219 | 235,593.55 | 7,857,002.16 | 3,797.55 | 224.70 | 240 | -79 |
| DSS5221 | 235,593.08 | 7,857,001.84 | 3,797.60 | 251.60 | 239 | -65 |
| DSS525020 | 235,613.00 | 7,856,960.05 | 3,795.01 | 260.30 | 058 | -45 |
| DSS5419 | 235,634.12 | 7,856,915.86 | 3,792.87 | 248.30 | 060 | -46 |
| DSS5420 | 235,631.59 | 7,856,912.69 | 3,792.83 | 254.10 | 239 | -40 |
| DSS545012 | 235,654.97 | 7,856,865.25 | 3,794.96 | 236.30 | 067 | -46 |
| DSS5609 | 235,678.73 | 7,856,819.46 | 3,796.09 | 197.30 | 060 | -46 |
| DSS565004 | 235,707.19 | 7,856,777.10 | 3,801.70 | 206.30 | 061 | -50 |
| DSS5809 | 235,840.47 | 7,856,810.03 | 3,715.87 | 200.10 | 241 | -41 |
| DSS5810 | 235,840.45 | 7,856,811.46 | 3,715.71 | 116.10 | 196 | -41 |
| DSS5811 | 235,839.48 | 7,856,811.93 | 3,715.72 | 164.10 | 286 | -41 |
| DSS5812 | 235,734.31 | 7,856,735.69 | 3,809.59 | 236.30 | 062 | -53 |
| DSS5813 | 235,730.69 | 7,856,733.81 | 3,809.74 | 260.10 | 242 | -41 |

Note: Coordinate system: WGS 84, UTM20 S.
Source: AMC Mining Consultants (Canada) Ltd., based on information provided by New Pacific Minerals Corp.

### 10.5.1 Drilling results

As of 16 January 2020, assay results for 19 of 24 drillholes have been received by New Pacific. Fifteen of 19 drillholes contain significant, structurally controlled, sandstone hosted silver mineralization. Silver mineralization occurs as coarse silver sulphosalts (freibergite) which is hosted in fractures of bleached sandstones associated with disseminated pyrite. The grade and thickness of mineralization appears to increase towards the north.

Highlights of drillhole intersections for assays from all holes received to 16 January 2020 and above 30 g/t Ag are listed in Table 10.3. Drillhole intercepts are the weighted average of sample lengths and grades of all samples within the intercept. Intercepts may include some assays less than 30 g/t Ag.

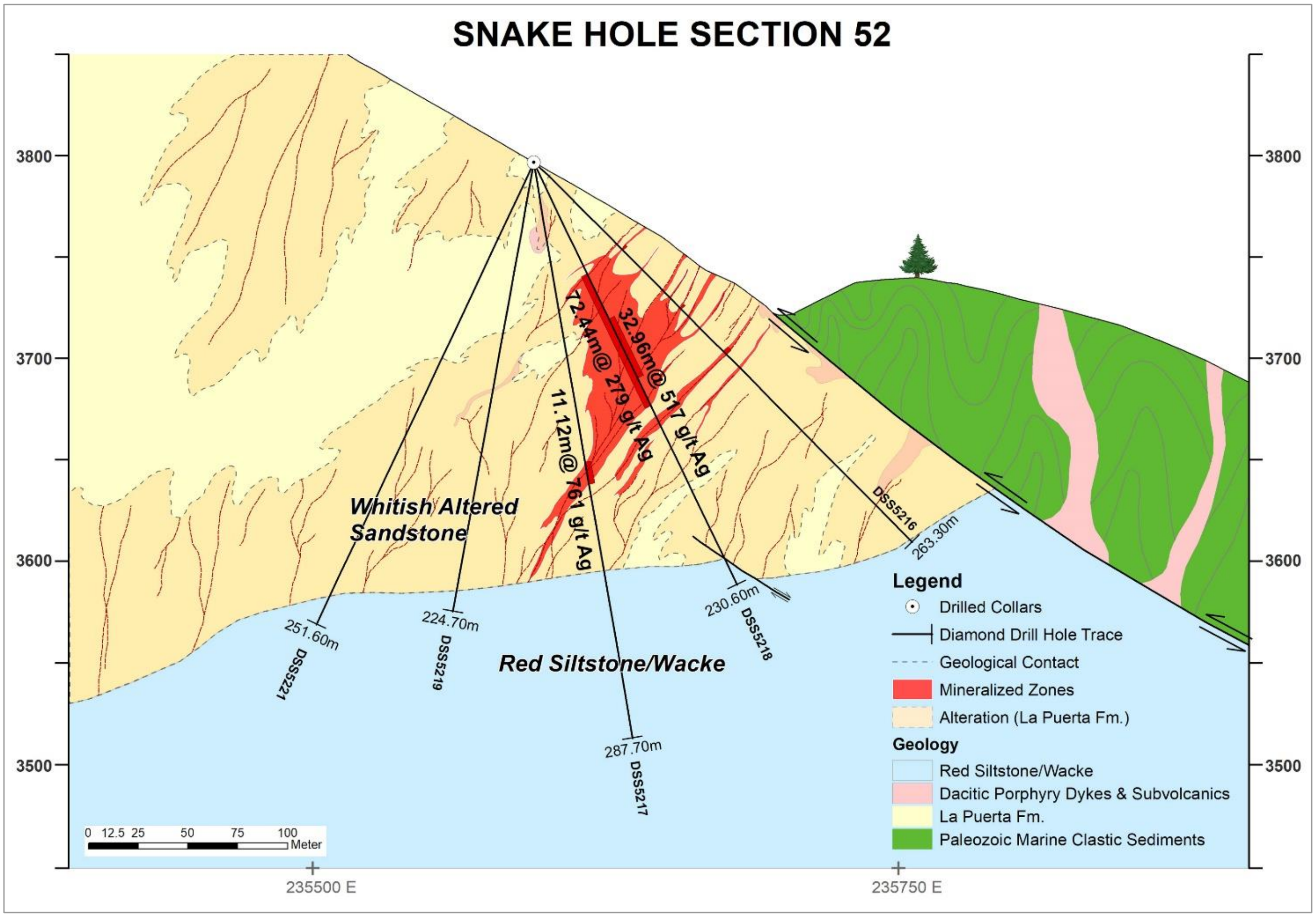
Table 10.3 Drilling results from the Snake Hole area

| Hole ID | Section | Including | From (m) | To (m) | Downhole length (m) | Ag (g/t) | Pb (%) | Zn (%) |
|---|---|---|---|---|---|---|---|---|
| DSS5015 | 50 | | 126.76 | 132.21 | 5.45 | 67 | 0.05 | 0.05 |
| DSS505016 | 5050 | | 110.75 | 132.95 | 22.20 | 38 | 0.09 | 0.09 |
| | | Including | 110.75 | 112.15 | 1.40 | 311 | 0.09 | 0.06 |
| DSS505017 | 5050 | | No significant results | | | | | |
| DSS5216 | 52 | | 59.68 | 60.75 | 1.07 | 116 | 0.01 | 0.00 |
| | | | 100.62 | 101.77 | 1.15 | 109 | 0.03 | 0.01 |
| | | | 130.70 | 133.00 | 2.30 | 41 | 0.09 | 1.06 |
| DSS5217 | 52 | | 149.48 | 160.60 | 11.12 | 761 | 0.20 | 0.05 |
| DSS5218 | 52 | | 60.50 | 132.94 | 72.44 | 279 | 0.06 | 0.04 |
| | | Including | 84.95 | 117.91 | 32.96 | 517 | 0.10 | 0.06 |
| DSS5219 | 52 | | No significant results | | | | | |
| DSS5221 | 52 | | No significant results | | | | | |
| DSS525020 | 5250 | | 29.90 | 68.30 | 38.40 | 143 | 0.03 | 0.01 |
| | | Including | 36.80 | 43.00 | 6.20 | 749 | 0.09 | 0.03 |
| | | | 104.00 | 133.82 | 29.82 | 49 | 0.06 | 0.06 |
| DSS5419 | 54 | | 35.30 | 36.77 | 1.47 | 212 | 0.07 | 0.00 |
| | | | 114.84 | 116.00 | 1.16 | 122 | 0.03 | 0.56 |
| | | | 125.47 | 126.97 | 1.50 | 405 | 0.24 | 0.31 |
| DSS5420 | 54 | | 30.28 | 32.75 | 2.47 | 37 | 0.00 | 0.00 |
| DSS545012 | 5450 | | 47.86 | 54.93 | 7.07 | 233 | 0.03 | 0.00 |
| DS5609 | 56 | | 110.30 | 116.13 | 5.83 | 50 | 0.01 | 0.00 |
| | | | 130.80 | 134.00 | 3.20 | 158 | 0.06 | 0.01 |
| DSS565004 | 5650 | | 42.28 | 44.50 | 2.22 | 313 | 0.08 | 0.00 |
| | | | 104.12 | 113.50 | 9.38 | 35 | 0.00 | 0.00 |
| DSS5809 | 58 | | No significant results | | | | | |
| DSS5810 | 58 | | 17.50 | 21.00 | 3.50 | 74 | 0.01 | 0.01 |
| DSS5811 | 58 | | 11.70 | 21.00 | 9.30 | 30 | 0.06 | 0.00 |
| DSS5812 | 58 | | 27.04 | 28.33 | 1.29 | 134 | 0.08 | 0.00 |
| | | | 108.38 | 119.00 | 10.62 | 62 | 0.00 | 0.00 |
| DSS5813 | 58 | | 57.87 | 59.10 | 1.23 | 92 | 0.04 | 0.01 |

Note: True width is 50% to 80% of downhole length based on geological understanding to date.

Figure 10.9 shows intersected mineralization zones across Section 52.

Figure 10.9 Cross Section 52, Snake Hole Prospect




Source: New Pacific Metals Corp. 2020.

### 10.5.2 Drilling conclusions

At this time there are no known drilling, sampling or recovery factors that could impact the accuracy and reliability of the results. Due to fine-grained mineralization occurring on fractures, there is the possibility of loss of mineralization during the drilling, transportation and core handling processes, which may lead underestimation of the grade. This is further supported in Sections 11 and 13.

AMC recommends that New Pacific consider drilling twin holes using triple tube diamond core or RC drilling to evaluate whether loss of vein material is also occurring during drilling and sampling processes.

# 11 Sample preparation, analyses, and security

This section describes the sampling methods, analytical techniques and assay QA/QC protocols employed at the Silver Sand Property between October 2017 and December 2019. All exploration programs were managed by New Pacific, and all work was carried out in accordance with New Pacific's internal procedures.

## 11.1 Sampling methods

### 11.1.1 Rock chip sampling

Rock chip samples were collected by New Pacific from surface outcrop and underground workings. In both cases, continuous samples were collected from sample lines across mineralization using a hammer and chisel. Surface outcrop sample lines were orientated approximately perpendicular to the strike of mineralization and samples were collected at 1.5 m intervals. Underground samples were collected at 1.0 – 2.0 m intervals from the walls of accessible tunnels that cross-cut mineralization.

In both instances, samples were collected in plastic bags. Sample information was recorded in a sample tag book pre-numbered with a unique sample identifier and multiple tear off tags. One sample tag is included in the plastic bag with the sample, before the bag is sealed. The sample number is also written on each bag with a permanent indelible marker.

### 11.1.2 Grab sampling

Grab samples were collected by New Pacific from waste rock dumps generated by historical mining operations. Samples were collected randomly from the waste dumps. The number of samples collected was dependent on the size of the dump.

### 11.1.3 Drillhole sampling

All drilling completed at the Property between 2017 and 2019 was completed by contract diamond drillers using HQ (64 mm) sized downhole equipment. Drilling, logging, and core processing procedures are described in detail in Section 10 of this report.

Core sampling was completed by New Pacific personnel at the company's core facility in Betanzos as part of the core processing workflow. After core is logged, sample intervals are identified by the geologists based on visual parameters. Individual sample intervals are physically marked out on the core using an indelible marker or crayon at intervals between 1.0 and 1.5 m lengths and respecting geological, structural and alteration contacts and poor sample recovery (voids, sample loss) as appropriate. Sampling intervals typically extend above and below the visually mineralized zone by 2 m. Core intervals with no recovery due to core loss or intersection of historic mine workings are identified and recorded.

During this sampling process the geologist records the hole ID and relevant interval distance of the sample in a sample tag book pre-numbered with a unique sample identifier and two tear-off tags. A cut line is also marked along the core axis with a marker of crayon by geologists at this time.

After the core has been photographed, core to be sampled is cut in half along the cut line using a diamond saw. Half of the core is then collected consistently from one side of the cutting line and placed into sample bags pre-labelled with a corresponding unique sample number. Sample intervals are cross checked with the sample tag book and the pre-labelled sample bag. The outer portion of the tear off sample tag is affixed to the core box at the start of the sample interval and the inner tear-off tag is placed into the sample bag.

Once sampling is complete, the geologist reviews the samples and seals the plastic sample bags with staples and tape. QA/QC samples are inserted into the sample sequence and sample bags are then placed into large poly-weave sample bags for transportation to the laboratory. Individual sample batches comprise up to 100 samples.

Figure 11.1 New Pacific Betanzos core logging and sampling facility


Notes: Left: core logging area, Right: diamond core saws.
Source: AMC Mining Consultants (Canada) Ltd.

### 11.2 Sample shipment and security

New Pacific manages all aspects of sampling from the collection of samples to sample delivery to the laboratory. All samples are stored and processed at the company's Betanzos facility located approximately 1.5 hours drive from the Silver Sand deposit. This facility is surrounded by a brick wall, has a locked gate and is monitored by video surveillance and security guard 24 hours a day, seven days a week. Within the facility, there are separate and locked areas for core logging, sampling, and storage.

Drilling samples are collected from the drill site at the Property at least every 24 hours as part of routine site inspections and drill management completed by site geologists. Geological "quick logs", portable XRF analyses and photographs of each core box are completed during the site inspection and before core boxes are transported.

Samples are transported from the Betanzos facility to the laboratory in Oruro, Bolivia for sample preparation. This is done on a weekly basis by New Pacific personnel. Sample shipments typically comprise up to 800 samples.

Figure 11.2 New Pacific Betanzos core processing facility


Notes: Left: core processing facility security, Right: core storage.
Source: AMC Mining Consultants (Canada) Ltd.

### 11.3 Sample preparation and analysis

All drill core, chip and grab samples collected by New Pacific between October 2017 and December 2019 were dispatched to ALS laboratories (ALS) in Oruro, Bolivia for sample preparation, and then to ALS in Lima, Peru for geochemical analysis. ALS Oruro and ALS Lima are part of ALS Global – an independent commercial laboratory specializing in analytical geochemistry services. Both labs are certified in accordance with the International Organization for Standardization (ISO) and International Electrotechnical Commission (IES) "General requirements for the competence of testing and calibration laboratories" (ISO/IES 17025:2017).

All samples are prepared in accordance with ALS preparation code PREP-31 which involves crushing samples to 70% less than 2 mm, riffle splitting off 250 g and then pulverizing the split sample to better than 85% passing a 75 µm (micron) sieve.

All pulp samples are then transferred to ALS Lima for sample analysis. A summary of analytical methods used is presented in Table 11.1.

Sample analysis in 2017 and 2018 comprised an aqua regia digest followed by Inductively Coupled Plasma (ICP) Atomic Emission Spectroscopy (AES) analysis of Ag, Pb, and Zn (ALS code OG46). Samples returning assay results greater than 1,500 g/t Ag (over-limit samples) were analyzed by fire assay and gravimetric finish (ALS code Ag-GRA21). New Pacific subsequently requested all pulp samples with Ag values greater than 5 ppm be analyzed using an ICP-OES 38 element analysis (Actlabs Skyline Peru SAC code VH-ME-ICP4). This approach was taken primarily to understand the impact of potential credit elements gallium and indium.

New Pacific changed its analysis protocol in 2019 to include systematic multielement analysis. All samples were sent for an initial 51 element ICP mass spectroscopy (MS) analysis (ALS code ME-MS41). Over-limit samples (>100 g/t Ag, or >10,000 ppm Pb or >10,000 ppm Zn) were then analyzed by ALS code OG46. Samples with Ag results which exceeded the upper limit of detection of the OG46 analysis (>1500 g/t) were then subsequently analyzed by fire assay and gravimetric analysis (Ag-GRA21).

Table 11.1 summarizes analysis used by New Pacific in 2017 – 2018 and 2019.

Table 11.1 New Pacific sample analysis

| Drill campaign | ALS analysis code * | Elements | Detection range | Description | Protocol notes |
|---|---|---|---|---|---|
| 2017 – 2018 | Ag-OG46<br>Pb-OG46<br>Zn-OG46 | Ag<br>Pb<br>Zn | 1-1,500 ppm<br>0.001-20%<br>0.01-10% | 0.4 g sample<br>Aqua-regia digest<br>ICP-AES analysis | Initial analysis<br>Ag samples > 1,500 ppm analyzed by AG-GRA21 |
| | Ag-GRA21 | Ag | 5-10,000 ppm | 30 g sample<br>Fire assay<br>gravimetric analysis | Over limit analysis |
| | VH-ME-ICP4 (Actlabs) | Ag<br>Pb, Zn<br>35 other elements | 0.2-100 ppm<br>2-10,000 ppm<br>variable | 0.5 g sample<br>Aqua-regia digest<br>ICP-OES analysis | Subsequent analysis completed on pulps with Ag >=5ppm |
| 2019 | ME-MS41 | Ag<br>Pb<br>Zn<br>48 other elements | 0.01-100 ppm<br>0.2-10,000 ppm<br>2-10,000 ppm<br>variable | 0.5 g sample<br>Aqua-regia digest<br>ICP-MS analysis | Initial analysis<br>Over limit samples analyzed by OG-46 |
| | Ag-OG46<br>Pb-OG46<br>Zn-OG46 | Ag<br>Pb<br>Zn | 1-1,500 ppm<br>0.001-20 %<br>0.01-10 % | 0.4 g sample<br>Aqua-regia digest<br>ICP-AES analysis | (Over limit analysis #1)<br>Ag samples > 1,500 ppm analyzed by Ag-GRA21 |
| | Ag-GRA21 | Ag | 5-10,000 ppm | 30 g sample<br>Fire assay,<br>gravimetric analysis | (Over limit analysis #2) |

Note: * Unless otherwise stated.
Source: Compiled by AMC Mining Consultants (Canada) Ltd.

## 11.4 Bulk density

Density measurements are completed by New Pacific personnel as part of routine core processing procedures. Samples are selected in both mineralized and non-mineralized areas at a rate of 1 in every 15 samples. Measurements are completed at a dedicated density weigh station using the Archimedes principle, whereby water displacement is used to approximate volume. Density is calculated by dividing the dry weight by the calculated volume. This method is considered to be appropriate for competent, non-porous core samples. Weighing scale calibration is completed regularly as part of the density sampling program.

AMC Consultants recommends New Pacific improve density QA/QC procedures by:

- Incorporating the regular use of a density standard.
- Weighing samples following immersion to ensure that the sample is not absorbing water.
- Sending a portion of samples to a third-party laboratory for density measurement.

## 11.5 Quality Assurance / Quality Control

New Pacific has established QA/QC procedures which cover sample collection and processing at the Silver Sand Property. All drilling programs completed on the Property incorporate the insertion of certified reference materials (CRMs), blanks, and duplicates into the sample stream on a batch by batch basis. AMC Consultants completed a detailed review of QA/QC protocols during a site visit in 2019. The following discussion is based on AMC Consultants' findings from the site visit and an independent review of drilling and QA/QC databases associated with the 345 drillholes from which assays have been received at the effective date of the Mineral Resource.

New Pacific monitors Ag, Pb, and Zn assay values in CRMs, blanks and duplicates however only the results of silver are discussed in this report as lead and zinc are not components of the Mineral Resource.

A summary of QA/QC samples included during the 2017 – 2019 program is presented in Table 11.2. Table 11.3 summarizes the insertion rate of these QA/QC samples.

Table 11.2 Silver Sand QA/QC samples by year [1]

| Year [2] | Drill samples | CRMs [3] | Blanks | field duplicates (¼ core) | Coarse reject umpire duplicates |
|---|---|---|---|---|---|
| 2017 | 3,337 | 172 | 165 | 16 | 173 |
| 2018 | 34,728 | 1,747 | 1,694 | 208 | 1,615 |
| 2019 | 22,677 | 1,001 | 1,012 | 243 | 1,063 |
| **Total** | **60,742** | **2,920** | **2,871** | **467** | **2,851** |

Notes:
[1] Based on 345 drillholes with assay results.
[2] Year drillhole was commenced.
[3] CRM statistics excludes CRMs submitted with umpire duplicate samples.
Source: Compiled by AMC Mining Consultants (Canada) Ltd.

Table 11.3 Silver Sand QA/QC insertion rates [1]

| Year [2] | CRMs [3] | Blanks | Field duplicates (¼ core) | Coarse reject umpire duplicates | Total QA/QC |
|---|---|---|---|---|---|
| 2017 | 5.2% | 4.9% | 0.5% | 5.2% | 15.8% |
| 2018 | 5.0% | 4.9% | 0.6% | 4.7% | 15.2% |
| 2019 | 4.4% | 4.5% | 1.1% | 4.7% | 14.6% |
| **Overall** | **4.8%** | **4.7%** | **0.8%** | **4.7%** | **15.0%** |

Notes:
[1] Based on 345 drillholes with assay results.
[2] Year drillhole was commenced.
[3] CRM statistics excludes CRMs submitted with umpire duplicate samples.
Source: Compiled by AMC Mining Consultants (Canada) Ltd.

### 11.5.1 Certified Reference Materials

#### 11.5.1.1 Description

Four different CRMs were used by New Pacific in the 2017 – 2019 drill programs. All CRMs were supplied by CDN Resource Laboratories of Langley, British Columbia, Canada and certified for Ag, Pb, and Zn analysis by four-acid digest and ICP. All CRMs have a relative standard deviation (RSD) of less than 5%.

Details of CRMs used at Silver Sand are presented in Table 11.4.

Table 11.4 Silver Sand CRMs (2017 – 2019)

| CRM | Ag (g/t) | | Number of CRMs inserted by year | | |
|---|---|---|---|---|---|
| | Expected value | SD | 2017 | 2018 | 2019 |
| CDN-ME-1501 | 34.6 | 1.15 | 0 | 0 | 265 |
| CDN-ME-1603 | 86 | 1.5 | 0 | 999 | 496 |
| CDN-ME-1810 | 154 | 4.5 | 0 | 0 | 240 |
| CDN-ME-1605 | 274 | 4.5 | 172 | 748 | 0 |

Notes: All CRM values shown are certified for four-acid digest and ICP analysis, SD=standard deviation.
Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

CRMs are supplied as both 100 g individual sealed packages and in bulk 1 kg containers. New Pacific personnel package bulk material into 100 g 'zip-lock' bags for insertion into the sample stream. Disposable gloves and spoons are used to ensure contamination does not occur during this process.

New Pacific's internal procedures require that one CRM is inserted for every 20 samples. CRM performance is monitored on a batch by batch basis. New Pacific considers CRMs with laboratory assay results outside of three standard deviations (as stipulated on the CRM certificate) to have failed. Failed samples are investigated by New Pacific and sample batches are re-analyzed as required. For ME-MS41 analysis, New Pacific accepts assay results within 10% plus 2 times the detection limit of the expected value of the CRM, based on internal discussions with ALS. New Pacific has re-assayed two sample batches.

#### 11.5.1.2 AMC Consultants discussion

CRMs contain standard, predetermined concentrations of material (Ag) which are inserted into the sample stream to check the analytical accuracy of the laboratory. AMC Consultants recommends an insertion rate of at least 5% of the total samples assayed. CRMs should be monitored on a batch by batch basis and remedial action taken immediately if required. For each economic mineral, AMC Consultants recommends the use of at least three CRMs with values:

- At the approximate cut-off grade of the deposit.
- At the approximate expected grade of the deposit.
- At a higher grade.

A total of 2,920 CRMs were submitted between 2017 and 2019 representing an average overall insertion rate of 4.8%.

The average grade of the Silver Sand open pit Mineral Resource is approximately 130 g/t Ag at a 45 g/t Ag cut-off grade. AMC Consultants considers CDN-ME-1501 (34.6 g/t Ag) to be appropriate to monitor the analytical accuracy at the cut-off grade of the deposit. CDN-ME-1603 (86 g/t Ag) and CDN-ME-1810 (154 g/t Ag) monitor analytical accuracy below and above the average grade. CDN-ME-1605 (274 g/t Ag) monitors analytical accuracy at higher grades, however this CRM was not used beyond the 2018 program. AMC Consultants notes that there was no CRM used in 2017 or 2018 to monitor laboratory accuracy at the cut-off and average grades. While there is presently no individual CRM monitoring the average grade of the deposit, AMC Consultants considers CDN-ME-1603 and CND-ME-1810 to adequately cover the anticipated grade ranges and provide confidence in analytical results.

AMC Consultants typically recommends re-assaying batches where two consecutive CRMs in a batch occur outside two standard deviations (warning), or one CRM occurs outside of three standard deviations (fail) of the expected value described on the assay certificate.

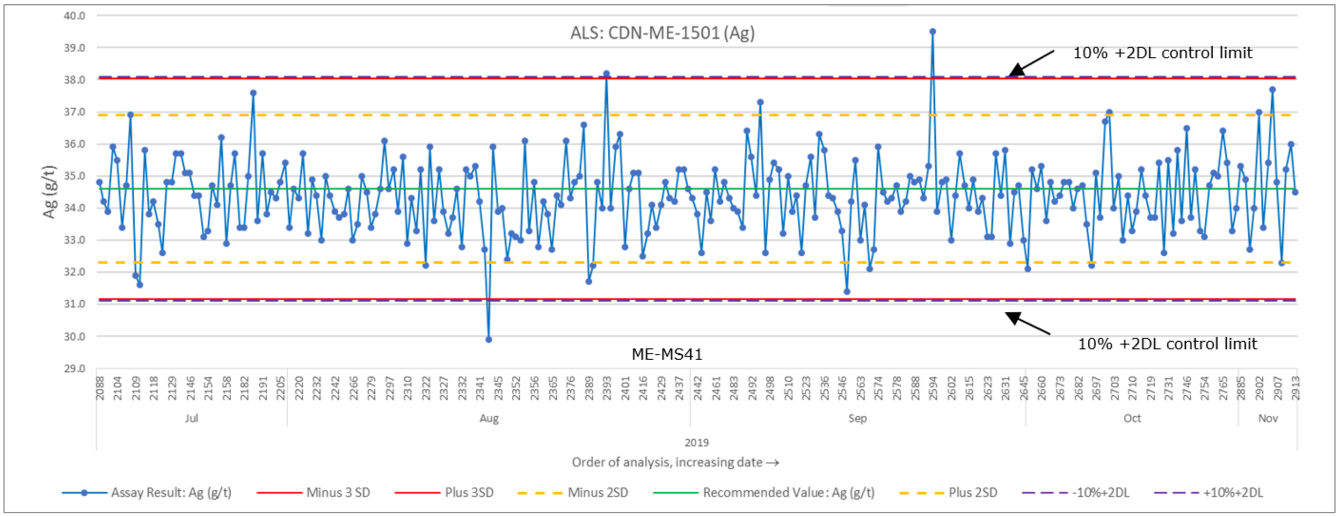
Control charts are commonly used to monitor the analytical performance of an individual CRM over time. CRM assay results are plotted in order of analysis. Control lines are also plotted on the chart for the expected value of the CRM, two standard deviations above and below the expected value, and three standard deviations above and below the expected value. These charts show analytical drift, bias, trends and irregularities occurring at the laboratory over time. Table 11.5 presents detail on CRM performance. Figure 11.3 to Figure 11.5 present CRM control charts for silver. Control charts include control lines for two and three standard deviations. New Pacific's control limits of 10% of the CRM value plus two times the detection limit have been included for comparative purposes.

Table 11.5 Silver Sand CRM results using AMC Consultants criteria (2017 – 2019)

| CRM ID | Expected value (Ag) | SD | Number of assays | Low warning (-2SD) | High warning (+2SD) | Low fail (-3SD) | High fail (+3SD) | Fail % (>3SD) |
|---|---|---|---|---|---|---|---|---|
| CDN-ME-1501 | 34.6 g/t | 1.15 | 265 | 9 | 5 | 1 | 2 | 1.1 |
| CDN-ME-1603 | 86 g/t | 1.5 | 1,495 | 118 | 31 | 66 | 21 | 5.4 |
| CDN-ME-1810 | 154 g/t | 4.5 | 240 | 5 | 3 | 0 | 0 | 0 |
| CDN-ME-1605 | 274 g/t | 4.5 | 920 | 73 | 13 | 24 | 3 | 2.9 |

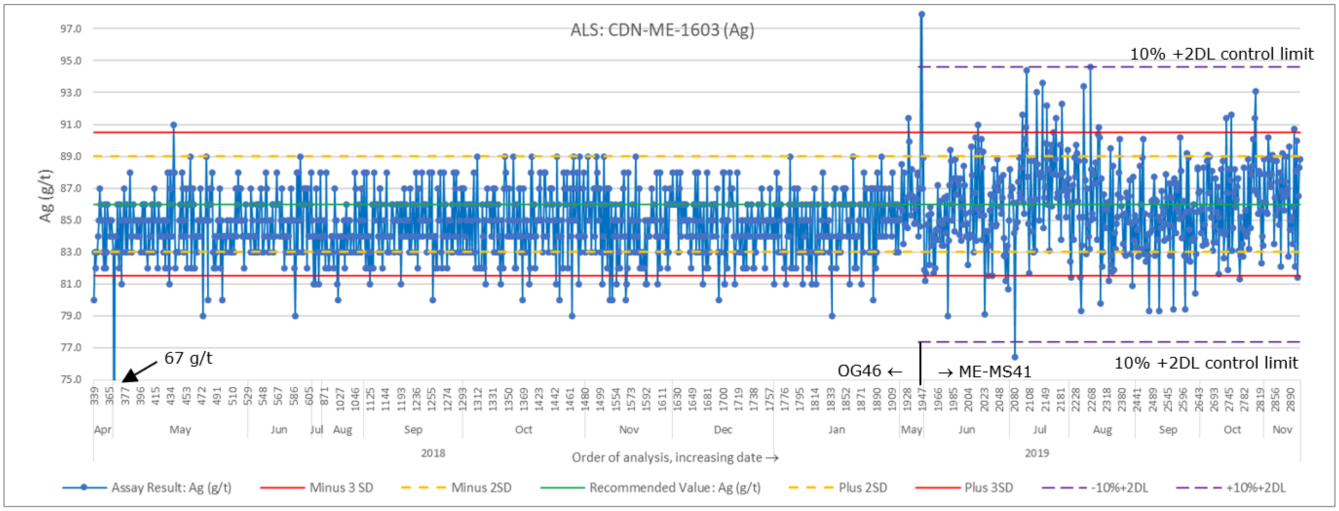
Notes: SD=standard deviation.
Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

Figure 11.3 Control chart for CDN-ME-1501 (Ag)



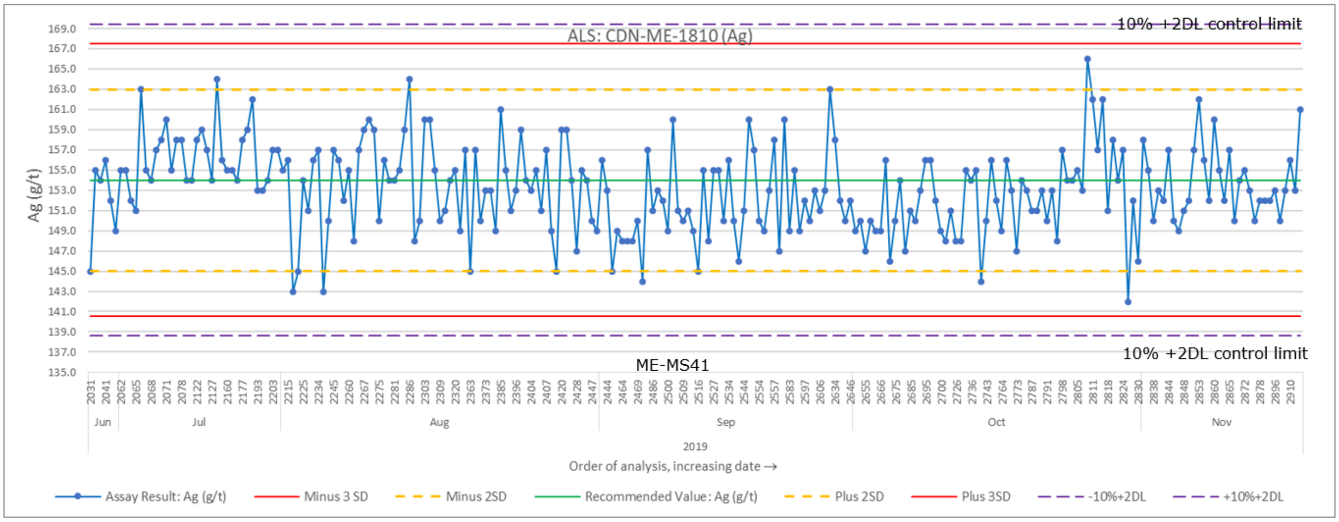

Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

Figure 11.4 Control chart for CDN-ME-1603 (Ag)



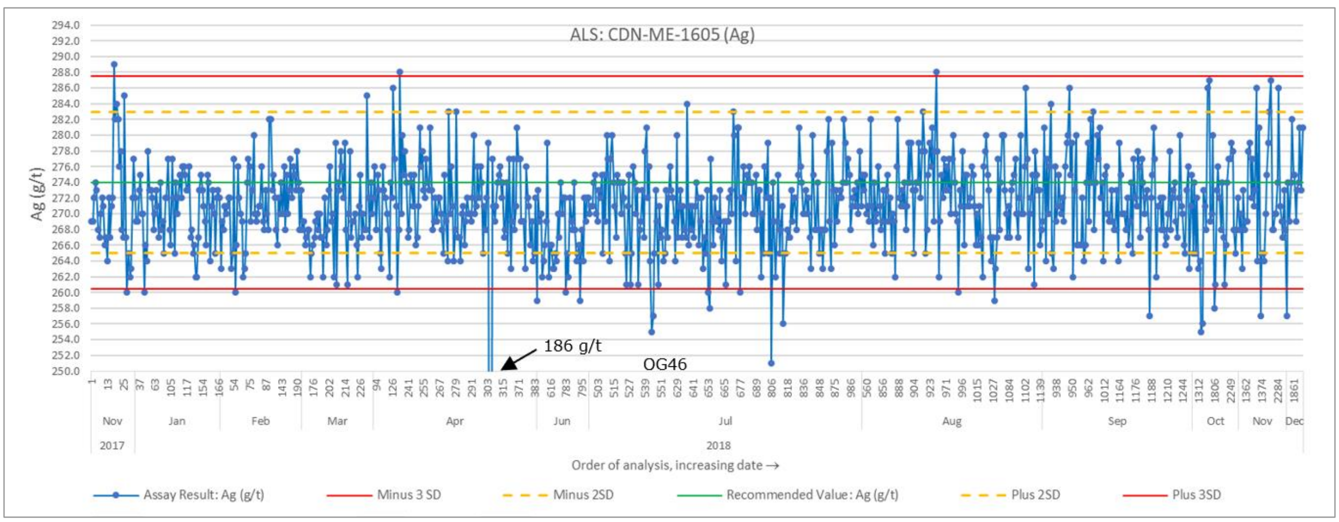

Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

Figure 11.5 Control chart for CDN-ME-1810 (Ag)




Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

Figure 11.6 Control chart for CDN-ME-1605 (Ag)




Notes: CRM CDN-ME-1605 not used past 2018.

Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

Table 11.6 Comparison between CRM values and analytical results

| CRM | | | Analytical results | | | Comparison | |
|---|---|---|---|---|---|---|---|
| **CRM** | **Expected Ag value (ppm)** | **SD** | **Number of assays** | **Mean** | **SD** | **Mean vs expected** | **SD of results vs expected** |
| CDN-ME-1501 | 34.6 | 1.2 | 265 | 34.4 | 1.2 | 99.4% | 102% |
| CDN-ME-1603 | 86 | 1.5 | 1,495 | 85.1 | 2.4 | 98.9% | 157% |
| CDN-ME-1810 | 154 | 4.5 | 240 | 153.2 | 4.3 | 99.5% | 96% |
| CDN-ME-1605 | 274 | 4.5 | 920 | 270.9 | 6.7 | 98.9% | 150% |

Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

AMC Consultants notes the following with respect to CRMs:

- With the exception of CRM CDN-ME-1501, the control limits defined by 10% of the expected CRM value plus two times the detection limit (used for ME-MS41) are somewhat greater than three standard deviations. AMC Consultants considers these limits too wide to adequately monitor laboratory performance.
- CRMs used at Silver Sand generally show overall acceptable analytical accuracy.
- CRMs CDN-ME-1501 and CDN-ME-1810 show acceptable analytical precision, exhibiting low failure rates and with the majority of results falling within the control limits (three standard deviations). The mean and standard deviation of analytical results approximate the certified performance criteria and provide confidence in analytical results at the deposit cut-off grade and at higher grades (150 g/t Ag).
- CDN-ME-1603 shows poor analytical precision with a significant number of analytical results occurring outside of two standard deviations and 5.4% of samples occurring outside of three standard deviations (failure limits). Prior to the change in analytical protocols (May 2019) samples analyzed by ALS method OG46 showed slight negative bias (2% low), with common negative bias fails. The change to ALS method ME-MS41 in May 2019 increased the spread of analytical results (standard deviation) resulting in both negative and positive fails. The average standard deviation of analytical results is ~1.5 times greater than the certified value (Table 11.6).
- CRM CDN-ME-1605 also shows sub-optimal analytical precision with a significant number of analytical results occurring outside of two standard deviations and 2.9% of samples occurring outside three standard deviations (failure limits). While the average analytical results of CDN-ME-1605 are only ~1% lower than the certified mean, the majority of samples outside control limits are negatively biased. The standard deviation of analytical results is ~1.5 times greater than the certified value.
- The excessive number of warnings and failures occurring in CDN-ME-1603 and CDN-ME-1605 is concerning and should be further investigated prior to continued use. Standard deviations of analytical results from these CRMs is 1.5 times greater than the between laboratory standard deviation provided by the CRM supplier. AMC Consultants notes that CRMs were certified using a four-acid digest but that methods OG46 and ME-MS41 comprise an aqua-regia digest. This difference in sample digestion may explain poor CRM performance.

#### 11.5.1.3 AMC Consultants recommendations for CRMs

AMC Consultants makes the following recommendations regarding CRMs at the Silver Sand Project:

- Adjust CRM monitoring criteria such that assay batches with two consecutive CRMs outside two standard deviations, or one CRM outside of three standard deviations are investigated and if necessary, re-analyze the batch.
- Purchase an additional CRM at the average grade (130 g/t Ag) of the deposit which has been certified using similar digestion methodology.
- Investigate performance issues with CRMs CDN-ME-1603 and CDN-ME-1605 if these are to be used in future programs. This could be done by preparing several separate sample batches comprising 20 – 30 CRMs each and comprising at least two different CRMs in random order. Each batch should then be sent to both the primary laboratory and at least one other laboratory. If results occur outside of certified performance criteria, expected values and standard deviation can be calculated from laboratory results and used as performance criteria.
- Ensure that CRMs are monitored in real time on a batch by batch basis, and that remedial action is taken immediately as issues are identified.
- Ensure CRM warning, failure, and remedial action is documented.

- Re-evaluate the use of ME-MS41 analytical method. If this method is to be used going forward it is recommended that the OG46 over-limit threshold be dropped from 100 g/t Ag to a level below the anticipated cut-off grade.

### 11.5.2 Blank samples

#### 11.5.2.1 Description

New Pacific uses material collected from quarry sites, local to the deposit as the source of coarse blank material. Cobble to boulder sized material is collected from a quarry site and broken with hammers into cm sized pieces by New Pacific personnel for insertion into the sample stream.

Two different sources have been used as blank material. Limestone from a quarry site near Betanzos was used as the initial source of blank material, however this was changed in July 2018 after receiving numerous results with elevated base metals. A new blank quarry site was subsequently sourced approximately 30 km west of Silver Sand. Blank material collected from this quarry comprises red quartz sandstone of similar age and composition to that hosting mineralization at Silver Sand. Five grab samples from this quarry site were sent for analysis at ALS using ME-MS41. Results ranged between 0.01 and 0.04 g/t Ag, averaging 0.02 g/t Ag.

New Pacific internal procedures require that one coarse blank is inserted for every 20 samples. New Pacific considers blank samples with assay results above 1.3 g/t Ag as a warning and samples above 2.4 g/t Ag to have failed. These control limits have been developed by New Pacific after reviewing analytical data, removing outliers and calculating the average background grade and standard deviation of blank material. The warning and fail limits are set at three times the standard deviation, and six times the standard deviation of background samples respectively. Commencing in August 2019 New Pacific implemented a procedure for laboratory follow up. Assays from blank samples that exceed the warning limit are investigated by New Pacific personnel and followed up as necessary. Assays from blank samples that exceed the fail limit are discussed with the laboratory and re-analyzed as required. New Pacific has implemented investigative work on two batches where blank material exceeded the fail criteria.

#### 11.5.2.2 AMC Consultants discussion

Coarse blanks test for contamination during both sample preparation and assaying. Blanks should be inserted in each batch sent to the laboratory. In AMC Consultants' opinion, when using typical ore grade analytical methods 80% of coarse blanks should be less than three times the detection limit.

A total of 2,871 coarse blank samples have been inserted since 2017, representing an overall insertion rate of 4.7%. Blank samples are included regularly in each batch of samples.

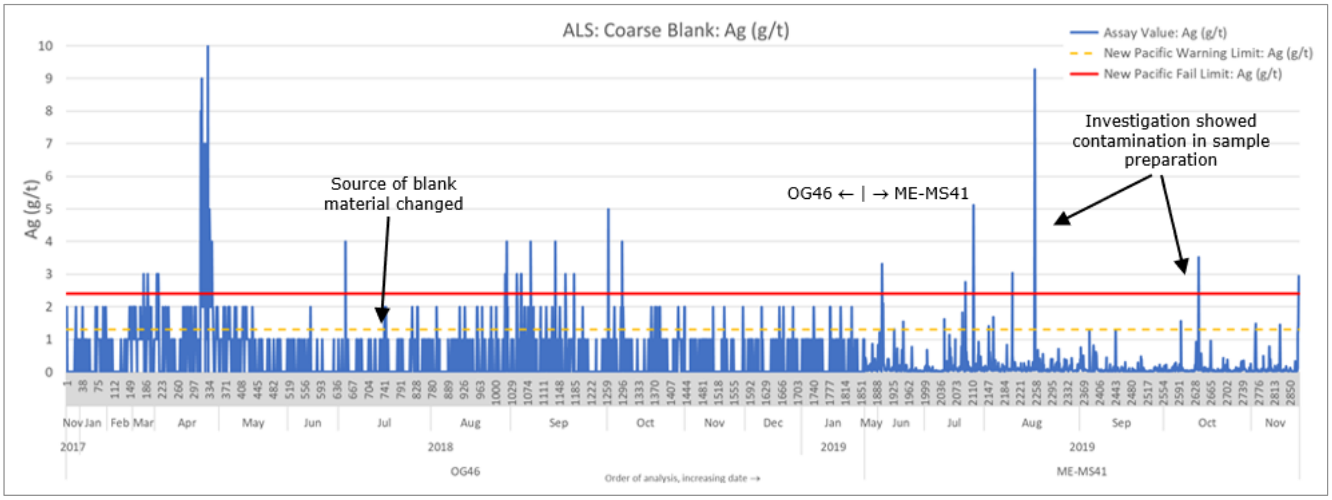
According to New Pacific criteria, a total of 125 warnings and 42 fails have occurred. This represents an overall failure rate of 1%. Collectively 97% of blank samples are less than 1.3 g/t Ag.

Table 11.7 Silver Sand blank performance

| Year | Total | <1.3 g/t Ag (pass) | 1.4 g/t - 2.4 g/t Ag (warning) | >2.4 g/t Ag (fail) |
|---|---|---|---|---|
| 2017 | 31 | 29 | 2 | 0 |
| 2018 | 1,684 | 1,541 | 106 | 34 |
| 2019 | 1,159 | 1,134 | 17 | 8 |
| **Total** | **2,871** | **2,704** | **125** | **42** |

Notes: Includes samples analyzed by ALS methods OG46 and ME-MS41.
Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

Figure 11.7 Blank control chart




Notes: Includes samples analyzed by ALS methods OG46 and ME-MS41; blank sourced changed in July 2018.
Source: Compiled by AMC Mining Consultants (Canada) Ltd. 2020.

AMC Consultants notes that the New Pacific failure criteria for samples analyzed by ALS method OG46 is 2.4 times the Ag detection limit. For samples analyzed by ALS method ME-MS41 the same failure criteria have been applied. ME-MS41 has been employed to enable an assessment of gallium and indium, and results in a very low Ag detection limit. AMC Consultants acknowledges that applying a failure limit of three times this detection limit (0.01 g/t Ag) may not be practical for ore grade level analysis but recommends the failure criteria level be reduced from its current level of 2.4 g/t Ag if ME-MS41 is to be used on an ongoing basis.

AMC Consultants notes that consistent monitoring and follow up of blank samples has only been completed and clearly documented since mid-2019. Two sample investigations have since been completed. This included investigations into blank samples with reported assays of 9.27 g/t Ag and 3.27 g/t Ag in August and October 2019 respectively. In both cases, samples before and after the failed blank were re-analyzed. Contamination was found to have occurred during sample preparation, from a preceding high-grade Ag interval.

In AMC Consultants' opinion the blank monitoring procedures implemented by New Pacific are adequate to identify significant sample contamination during sample preparation and analysis. Blank samples show no significant systematic levels of contamination.

#### 11.5.2.3 AMC Consultants recommendations

AMC Consultants makes the following recommendations regarding blank samples:

- Continue to include blanks in every batch of samples submitted at a rate of at least 1 in every 20 samples (5%).
- Adjust blank insertion procedures to also include the insertion of blank material immediately after visible high-grade silver intercepts. Alternatively, request quartz wash samples be inserted by the laboratory.
- Ensure that blanks are consistently monitored in real time on a batch by batch basis and that remedial action is taken as issues arise.
- Ensure that all blank sample follow up is recorded.
- If ALS method ME-MS41 is to be used for ongoing routine analysis:

- Test an additional 10 – 20 samples from the new blank quarry site to establish a background value.
- Establish an appropriate (lower) blank failure limit for ME-MS41 analysis.

### 11.5.3 Duplicate samples

#### 11.5.3.1 Description

New Pacific has submitted a total of 467 quarter core field duplicate samples since 2017. Duplicate samples are selected once assay results have been received to ensure that duplicate samples encompass the entire grade range. Duplicate samples are collected by cutting the remaining half core in half. One portion of the quarter core is submitted for duplicate analysis, and the remaining portion of quarter core is returned to the core tray.

#### 11.5.3.2 AMC Consultants discussion

Field duplicates monitor sampling variance, sample preparation and analytical variance, and geological variance.

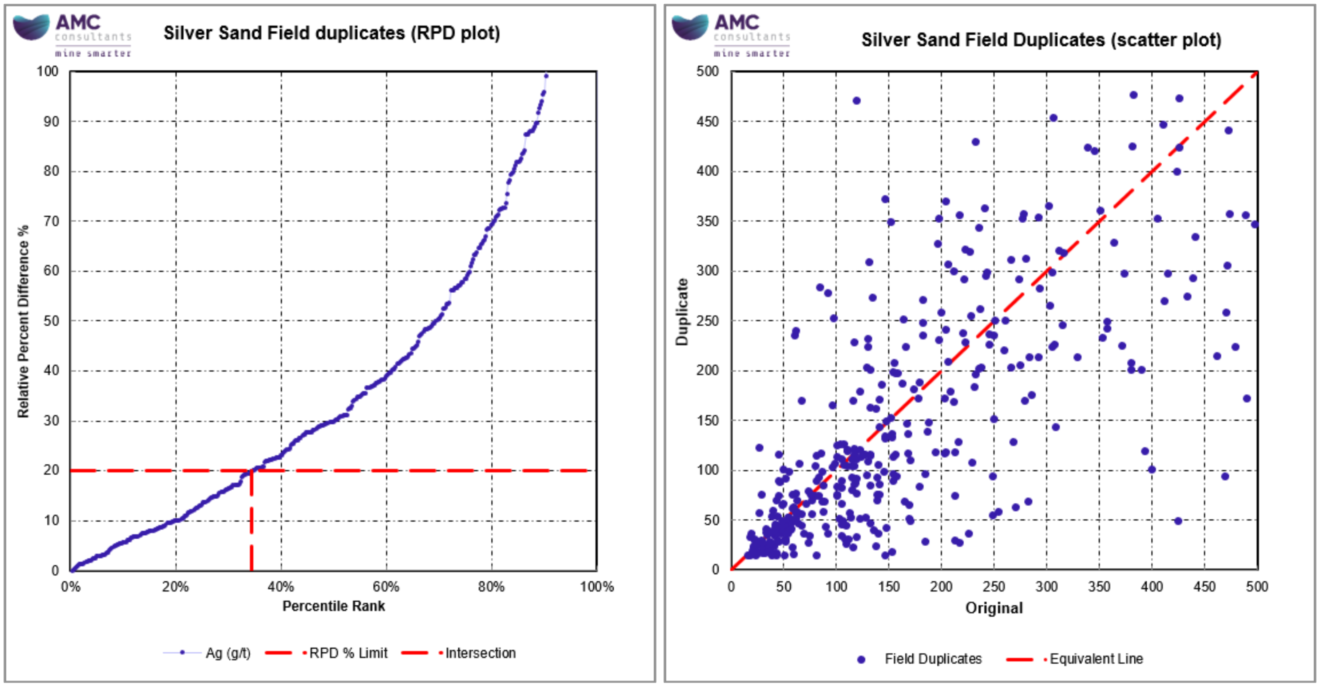
AMC Consultants recommends that field, coarse and pulp duplicate samples be selected over the entire range of grades seen at the Project to ensure that the geological heterogeneity is understood. However, the majority of duplicate samples should be selected from zones of mineralization. Unmineralized or very low-grade samples should not form a significant portion of duplicate sample programs as analytical results approaching the stated limit of lower detection are commonly inaccurate, and do not provide a meaningful assessment of variance.

Duplicate data can be assessed using a variety of approaches. AMC Consultants typically assesses duplicate data using scatterplots and relative paired difference (RPD) plots. These plots measure the absolute difference between a sample and its duplicate. For field duplicates it is desirable to achieve 80 to 85% of the pairs having less than 20% RPD between the original assay and check assay. In these analyses, AMC Consultants excludes pairs with a mean of less than 15 times the lower limit of analytical detection. Removing these low values ensures that there is no undue influence on the RPD plots due to the higher variance of grades expected near the lower detection limit, where precision becomes poorer (Long et al. 1997).

New Pacific's field duplicates comprise between 0.5% and 1.1% of samples submitted per year and represents 0.8% of the total drill samples. Duplicate samples have been taken from samples between 0.01 g/t Ag and 1,430 g/t Ag. Approximately 10% of duplicates are from less than 30 g/t Ag, ~ 50% are from 30 – 150 g/t Ag and the remaining ~ 40% are from higher grades. A total of 321 of the 438 sample batches (74% of batches) include duplicate samples.

AMC Consultants compared the original and field duplicate assays for 421 sample pairs where the original and duplicate assay were analyzed by ALS method code OG46, and 15 times the detection limit of 1 g/t Ag. RPD and scatter plots are presented in Figure 11.8.

Figure 11.8 Silver Sand field duplicate RPD and scatter plot




RPD and scatter plots show a relatively poor correlation between duplicate sample pairs with only 34% of samples occurring within 20% RPD. On average, original samples have a 11% higher grade than their duplicate pair. The poor correlation between original and duplicate samples suggests that mineralization is heterogenous, that sample errors are occurring during the sampling process, or a combination of both factors. Investigative work should be completed to understand the poor repeatability of samples and the source of the sample bias. AMC Consultants speculates that the friable nature of silver sulphosalts may result in loss of portions of the mineralized veins during the core cutting and sampling process, resulting in progressive decrease in sample grade with each stage of processing, and an overall net underestimation of metal. Further work is necessary to confirm this.

### 11.5.3.3 AMC Consultants recommendations

AMC Consultants makes the following recommendations:

- Implement investigative work to understand duplicate sample bias. This should include:
  - Submission of coarse (crush) duplicates samples from laboratory rejects.
  - Submission of fine (pulp) duplicates from laboratory pulps.
  - Complete screen size analysis or polished section petrology to understand the nature and size distribution of silver mineralization.
  - In future programs consider submitting field duplicates as half core rather than quarter core to assess sub-sampling error.
  - Consider drilling twin holes using triple tube diamond core or RC drilling to evaluate the deposit variance on a local scale and whether loss of vein material is occurring during drilling and sampling processes.
- Ensure that all future programs include at least 5% duplicate samples including field duplicates, coarse (crush) duplicates, and pulp duplicates to enable the various stages of sub-sampling to be monitored.

### 11.5.4 Umpire samples

#### 11.5.4.1 Description

New Pacific has submitted a total of 2,851 coarse reject samples to Actlabs Skyline in Lima, Peru for check assay analysis. Actlabs Skyline is an independent geochemical laboratory certified according to ISO 9001:2015. Samples appear to have been randomly selected encompassing Ag grades between 0.01 and 1,430 g/t Ag.

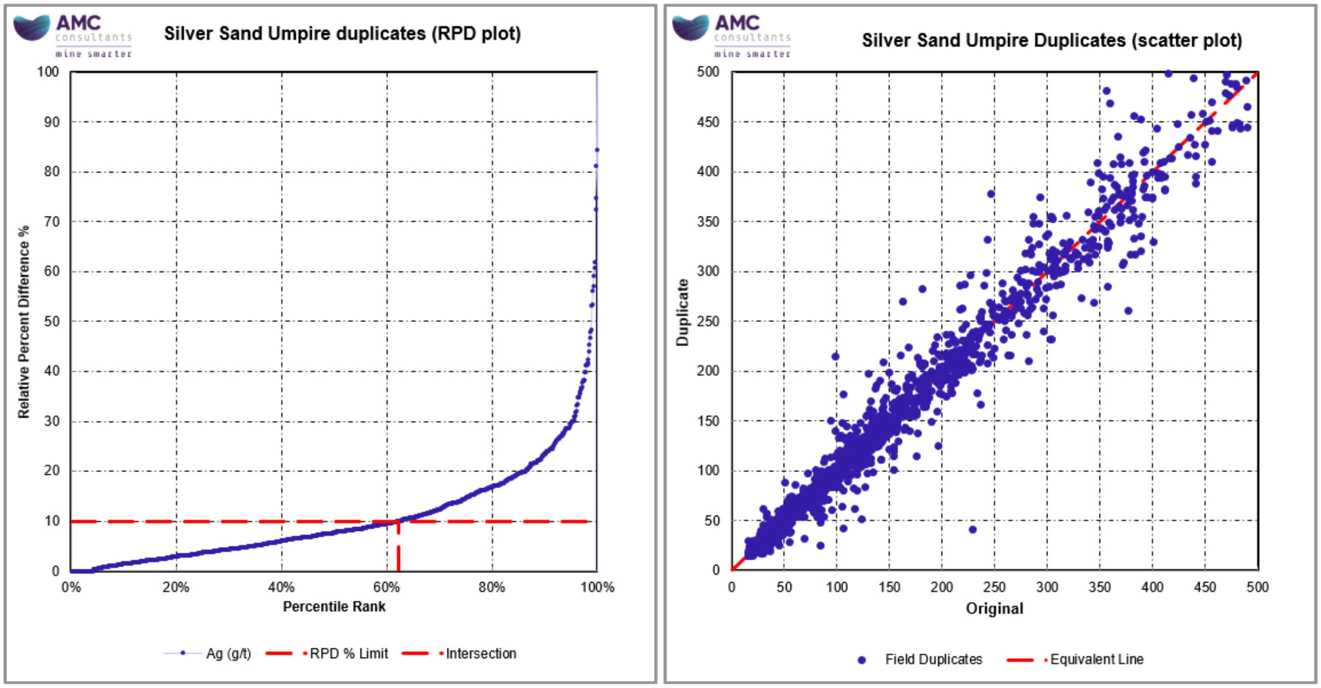
#### 11.5.4.2 AMC Consultants discussion

Umpire laboratory duplicates are typically pulp samples sent to a separate laboratory to assess the accuracy of the primary laboratory (assuming the accuracy of the umpire laboratory). These duplicates measure analytical variance and pulp sub-sampling variance. Umpire duplicates should comprise around 5% of assays. In AMC Consultants' opinion, 80% of umpire duplicates should be within 10% RPD.

AMC Consultants notes that umpire samples submitted by New Pacific comprised coarse rejects as opposed to pulp rejects. New Pacific's umpire samples therefore monitor sample variance associated with the sampling of the reject, sampling of the pulp and analytical variance.

New Pacific's umpire duplicate samples comprise between 4.7% and 5% of samples each year. AMC Consultants compared the original and umpire duplicate assays for 2,064 sample pairs where the original and duplicate assay were 15 times the detection limit of 1 g/t Ag. RPD and scatter plots are presented in Figure 11.9. These show no sample bias and sub-optimal precision with only 62% of umpire duplicates being within 10% RPD. The sub-optimal performance may be due to additional sub-sampling variance incurred during sampling of the reject.

Figure 11.9 Silver Sand umpire duplicate RPD and scatter plot



#### 11.5.4.3 AMC Consultants recommendations

AMC Consultants makes the following recommendations regarding umpire samples:

- Maintain current level of umpire samples.
- Submit pulp samples (rather than coarse reject) so that umpire samples only monitor analytical accuracy and variance.
- Include CRMs at the average grade and higher grades in umpire sample submissions.

### 11.6 Conclusions

New Pacific has developed and implemented sound procedures which manage sample preparation, analytical and security procedures.

Drilling programs completed on the Property between 2017 and 2019 have included QA/QC monitoring programs which have incorporated the insertion of CRMs, blanks, and duplicates into the sample streams, and umpire (check) assays at a separate laboratory. AMC Consultants has compiled and reviewed the available QA/QC data for 345 drillholes where assays have been received.

New Pacific has included CRMs, blank, and coarse reject umpire (check) assays as part of routine analysis at slightly less than the preferred rate of 5%. Field duplicate samples consisting of quarter core have also been included but comprise less than 1% of all samples.

New Pacific has used four different CRMs throughout the project history. Three CRMs were used in the 2019 program which monitored the approximate cut-off grade and grades below and above the average grade. Previous years did not monitor the cut-off grade. CRMs generally show reasonable analytical accuracy; however, two of the four CRMs do not perform within certified control limits, with an excessive number of failures. AMC Consultants postulates that poor CRM performance may be due to the CRMs being certified using a four-acid digest but analyzed using aqua-regia. AMC Consultants recommends that follow up work be completed prior to further use of these CRMs.

Blank sample results are considered acceptable and indicate that no significant contamination has occurred during sample preparation and analysis.

Quarter core field duplicate samples show sub-optimal performance which suggest that mineralization is heterogenous, that sample errors are occurring during the sampling process, or a combination of both factors. Duplicate samples are biased on average 11% lower than the original sample. AMC Consultants speculates that the friable nature of silver sulphosalts may result in sample loss during the core cutting and sampling process, resulting in progressive decrease in sample grade with each successive stage of processing, and an overall net underestimation of metal. AMC Consultants recommends that this be investigated.

Umpire (check) coarse reject samples have been sent to a third-party laboratory to confirm the accuracy of the primary laboratory. Umpire assay results show sub-optimal precision however this may be in part due to additional sub-sampling variance incurred during sampling of the coarse reject. AMC Consultants recommends future umpire samples be sent as pulp samples.

The QP for Section 11, Simeon Robinson, P.Geo., considers sample preparation, analytical, and security protocols employed by New Pacific to be acceptable. The QP has reviewed the QA/QC procedures used by New Pacific including CRMs, blank, duplicate and umpire data and has made some recommendations. The QP does not consider these to have a material impact on the Mineral Resource estimate and considers the assay database to be adequate for Mineral Resource estimation.

# 12 Data verification

Dinara Nussipakynova, P.Geo. of AMC Consultants, completed a site visit to the Project between 8 – 11 August 2019, and during the inspection the following activities were carried out:

- Review of field site of Silver Sand Project.
- Review of drilling and core processing procedures.
- Review of New Pacific QA/QC procedures.
- Review of randomly selected core from two drillholes (DSS422501 and DSS522506).
- Inspected the core processing facility and core storage in Betanzos.
- Held discussions with several staff on site.
- Held discussions on database management procedures.
- Observed two operating drill rigs.
- Reviewed the drill management process adopted by New Pacific.

After the site visit, the QP undertook random cross-checks of assay results in the database with original assay results on the assay certificates returned from ALS (Bolivia) and Actlabs (Peru). This verification consisted of comparing 3,616 of the 58,420 assay results in the database to those in the certificates. This is approximately 6.2% of the total samples. One typing error was detected. The QP also undertook a random cross check of the original collar and survey measurements for 18 drillholes and compared them to the database. This represented 5.5% of the total drillholes. No errors were detected.

The QP considers the database fit-for-purpose and in the QP’s opinion, the geological data provided by New Pacific for the purposes of Mineral Resource estimation were collected in line with industry best practice as defined in the CIM Exploration Best Practice Guidelines and the CIM Mineral Resource, Mineral Reserve Best Practice Guidelines. As such, the data are adequate for use in the estimation of Mineral Resources.

# 13 Mineral processing and metallurgical testing

## 13.1 Introduction

The metallurgical testwork completed to date on samples of mineralization from the Silver Sand deposit suggests that the majority of silver-bearing minerals are amenable to extraction using simple mineral processing techniques at reasonable grind sizes. A program of scoping level testwork was completed in 2018 and 2019 at the SGS Lima metallurgical facilities in Peru, with support work by Centro de Investigacion Minero Metalurgico (CIMM) (managed by the Corporacion Minera de Bolivia) and Universidad Técnica de Oruro (UTO).

Highlights of the 2018/19 metallurgical program are given below:

- Samples of Oxide, Transition, and Sulphide mineralization, (hereafter referred to as Oxide, Transition, and Sulphide) were submitted for laboratory-scale rougher-scavenger flotation testing and this work achieved up to 92.0%, 86.8%, and 96.0%, silver recovery respectively.
- Samples of Oxide, Transition, and Sulphide were submitted for bottle roll cyanidation testing and this achieved up to 96.3%, 97.0%, and 96.7% silver extraction respectively.
- Samples of Oxide were submitted for coarse column leach cyanidation testing and this achieved up to 88.3% silver extraction.
- Samples submitted for comminution testing were found to be mostly in the soft to medium grindability range with low to medium values of Abrasion Index (Ai).

The metallurgical efficiency with which a mineral processing plant might recover metals into a saleable product can have a significant impact on the potential for economic extraction. The mineral resource estimate used a constrained pit shell calculation that included a 90% metallurgical recovery assumption for silver and this is considered reasonable by the QP given the testwork results presented in this section. It should be noted however that the metallurgical program discussed below is preliminary in nature and is therefore limited in its ability to represent the deposit by the preliminary nature of the tested samples.

## 13.2 Initial metallurgical study – SGS Lima, 2018

### 13.2.1 Sample selection

Approximately 400 kg of core and coarse reject material were selected from a population of samples generated by the 2018 drilling program. The selected material was used to compile various composites of Oxide, Transition, and Sulphide from two discrete areas of the Silver Sand deposit.

An initial geometallurgical characterization was defined by metallurgists, which considered differences in silver grade, degree of oxidation, and lithology. Given that lithology type is mainly sandstone, the set of geometallurgical composites assembled represented a specific oxidation level and a silver grade (high or low) only:

- MET1: Oxide <100 g/t of Ag
- MET2: Transition <100 g/t of Ag
- MET3: Sulphide <100 g/t of Ag
- MET4: Oxide >100 g/t of Ag
- MET5: Transition >100 g/t of Ag
- MET6: Sulphide >100 g/t of Ag

In addition, six geological domains (GEO) were defined to describe different physical properties, based on rock lithology, degree of oxidation, and degree of alteration:

- GEO1: Transition, sandstone-hosted, weak alteration
- GEO2: Transition, sandstone-hosted, intense alteration
- GEO3: Sulphide, sandstone-hosted, weak alteration
- GEO4: Sulphide, sandstone-hosted, intense alteration
- GEO5: Oxide, sandstone-hosted, very weak alteration
- GEO6: Oxide, siltstone-hosted, very weak alteration

Sampling protocols were developed by a team of New Pacific site geologists and an independent metallurgist. The QP was not present for this exercise but has subsequently reviewed the details of the work and is generally satisfied with the approach. The sampling of material focused on the achievement of two objectives:

1 Capture the extent of geometallurgical variability within two zones of the deposit.
2 Collect sufficient mass to enable preliminary metallurgical testwork, including column leach tests.

Sample material for each MET and GEO domain, for two discrete zones within the deposit (named Zone 1 and Zone 2, or Z1 and Z2), was selected from the initial 400-kg of available mass. However, the sub-samples selected for the various metallurgical programs (such as mineralogy, size fraction assaying, flotation or cyanidation) for each particular domain and zone were not replicate sub samples. This means that, for example, the Zone 1 Oxide high grade (>100 g/t Ag) sample submitted to the flotation program is not a duplicate of the Zone 1 Oxide high grade sample submitted to the cyanidation program. Direct comparison of results for a particular domain is therefore not possible. The QP has reviewed the sampling protocols and the subsequent selection of sub-samples and finds the work to be acceptable for a preliminary metallurgical program. The sampling allows for a preliminary assessment of metallurgy by domain, but further work on more spatially diverse composite sets is recommended in order to complement the domain results and to verify that the metallurgical assumptions hold true.

Four independent testwork programs were carried out on these composites as described within this section. The work programs included mineral characterization, comminution, froth flotation and cyanide leaching. Crushed material from each of six metallurgical domains (MET1 to MET6) were identified for flotation and leaching testwork, while coarser samples of ½ core from the six geological domains (GEO1 to GEO6) were submitted for the comminution testwork.

Comminution, flotation, and leaching programs were completed by SGS Mineral Services in Lima, Peru, while the mineral characterization work was completed by the CIMM and UTO in Bolivia. Results from the individual testwork programs are summarized below.

### 13.2.2 Mineral characterization testwork

An initial program of mineral characterization was completed, which included the following tests:

- Size fraction assays.
- Heavy liquids testing.
- Quantitative mineralogy, using QEMScan.

These tests were completed on crushed charges of composite MET1-6 material from two discrete areas of the deposit (i.e. 12 composite charges in total). Composite details and characterization test results are given below.

#### 13.2.2.1 Size fraction assaying

Twelve 2-kg composites, corresponding to the six “MET” domains for each of the two zones (Zone 1 or “Z1” and Zone 2 or “Z2”), were prepared for size fraction assays (SFAs) as shown in Table 13.1 below.

Table 13.1 SFA head assays title

| ID | Type | DDH | From-To (m) | Silver grade, from interval assays (g/t) | Silver grade from SFAs (g/t) |
|---|---|---|---|---|---|
| MET-1, Z1 | LG Oxide | 6802 | 208.5-213.0 | 48 | 58.4 |
| MET-2, Z1 | LG Trans. | 6802 | 127.8-133.4 | 56 | 56.4 |
| MET-3, Z1 | LG Sulphide | 6608 | 239.2-246.1 | 50 | 57.0 |
| MET-4, Z1 | HG Oxide | 6802 | 87.5-92.8 | 217 | 223.1 |
| MET-5, Z1 | HG Trans. | 6608 | 131.9-138.7 | 145 | 156.4 |
| MET-6, Z1 | HG Sulphide | 6608 | 103.7-109.0 | 189 | 158.7 |
| MET-1, Z2 | LG Oxide | 5407 | 117.4-121.0 | 45 | 48.0 |
| MET-2, Z2 | LG Trans. | 505001 | 68.3-74.3 | 55 | 53.6 |
| MET-3, Z2 | LG Sulphide | 505001 | 120.8-124.6 | 42 | 56.8 |
| MET-4, Z2 | HG Oxide | 505001 | 78.9-82.2 | 185 | 183.0 |
| MET-5, Z2 | HG Trans. | 5002 | 262.1-265.3 | 147 | 152.8 |
| MET-6, Z2 | HG Sulphide | 5407 | 70.1-73.6 | 131 | 111.7 |

Comparing the silver grade calculated using core sample interval assays with the grade calculated using size fraction assay results shows good agreement, adding confidence to the results.

Each of the twelve composites was split into two 1-kg charges, with 1-kg used for size fraction assaying and 1-kg used for heavy liquid testing (discussed in the following section). For the size fraction assay work, each 1-kg charge was screened into seven size fractions, before weighing and assaying each fraction to obtain a distribution of silver content by size. Mass splits to the seven size fractions are given in Table 13.2 below.

Table 13.2 Mass fractions by size in percent

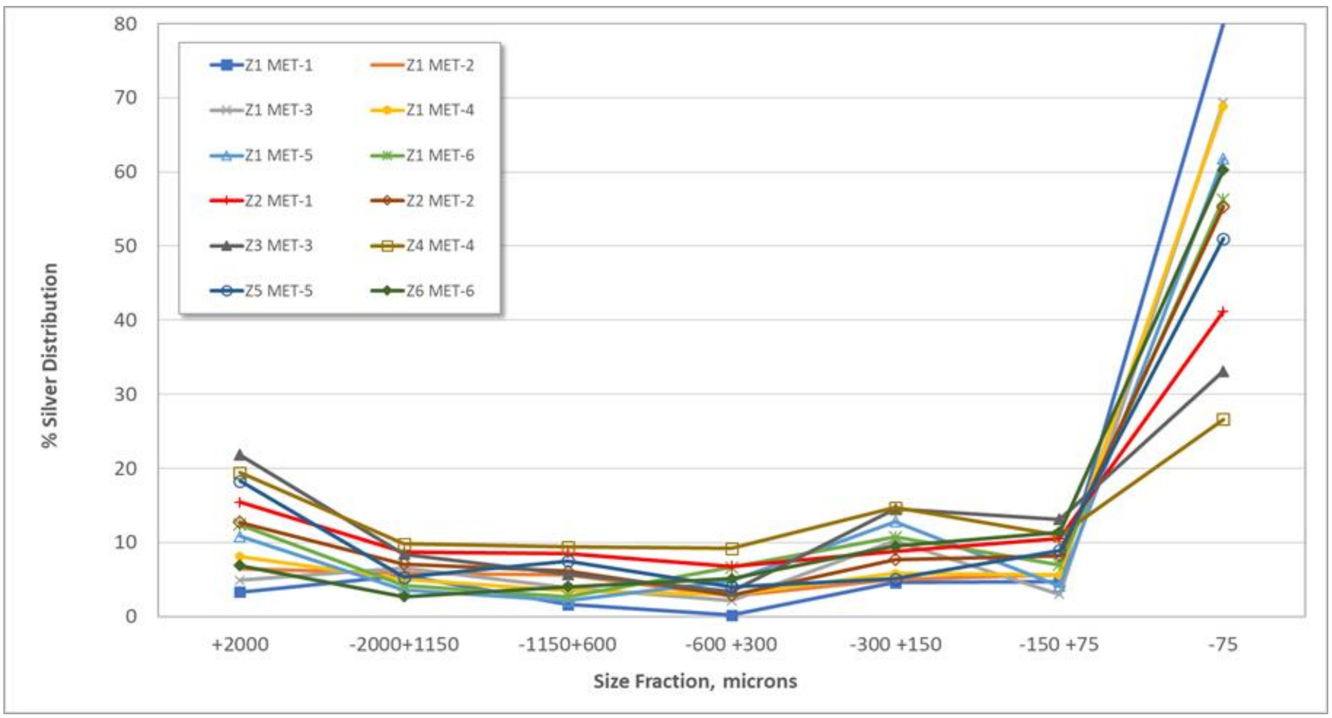
| Sample | Size fraction, microns | | | | | | |
|---|---|---|---|---|---|---|---|
| | +2000 | -2000 +1150 | -1150 +600 | -600 +300 | -300 +150 | -150 +75 | -75 |
| MET-1, Z1 | 8.1 | 13.3 | 8.5 | 5.9 | 19.3 | 19.5 | 25.4 |
| MET-2, Z1 | 10.3 | 11.4 | 8.3 | 7.0 | 9.8 | 24.4 | 28.9 |
| MET-3, Z1 | 9.5 | 12.6 | 8.5 | 6.2 | 17.3 | 19.4 | 26.5 |
| MET-4, Z1 | 17.1 | 10.8 | 8.3 | 7.0 | 8.6 | 21.9 | 26.3 |
| MET-5, Z1 | 14.2 | 10.5 | 7.2 | 6.2 | 10.9 | 18.3 | 32.6 |
| MET-6, Z1 | 13.0 | 10.2 | 7.1 | 11.7 | 10.5 | 18.6 | 28.8 |
| MET-1, Z2 | 25.7 | 10.9 | 9.3 | 12.7 | 12.1 | 12.2 | 17.0 |
| MET-2, Z2 | 19.6 | 13.2 | 10.3 | 8.2 | 10.0 | 15.4 | 23.4 |
| MET-3, Z2 | 15.0 | 11.8 | 8.0 | 9.5 | 24.3 | 14.9 | 16.6 |
| MET-4, Z2 | 19.4 | 10.7 | 7.6 | 4.5 | 11.1 | 21.0 | 25.7 |
| MET-5, Z2 | 13.7 | 12.1 | 8.7 | 13.7 | 20.2 | 10.8 | 20.9 |
| MET-6, Z2 | 17.6 | 10.1 | 9.6 | 15.4 | 13.5 | 11.3 | 22.6 |

The mass distribution shows that after crushing, the samples show a slight preference towards fines generation, although this can be a function of the crushing methodology as well as the physical characteristics of the sample.

When each of the fractions is assayed for silver the metal distribution by size can be calculated. As seen in Figure 13.1 below, the silver shows a very strong tendency to concentrate into the finest size fraction (-75 microns) in almost every composite. This concentration effect gives rise to an upgrade in silver content of approximately 2.5 to 3 times within the finest fraction.

Although the upgrading effect is considered a potentially useful physical characteristic, it should also be noted that industrial scale size separations in the sub 100 micron range are expected to have lower separation efficiencies.

Figure 13.1 Silver distribution by size fraction




Source: AGP Mining Consultants Inc. 2019.

#### 13.2.2.2 Heavy liquid testing

Six of the geometallurgical composites (MET 1 – 6 from one area of the deposit) were again sized into seven fractions and each fraction was then subjected to a simple density separation test that used organic heavy liquid at a density of 2.58 kilograms per litre (kg/L) to separate material based on density. This test is referred to as a Heavy Liquid Separation (HLS) test.

The two products generated for each HLS test were assayed for silver to allow calculation of a metal distribution by size and by density.

In this test, the "sinks" product describes the denser fraction (i.e. greater than 2.58 kg/L) and the "Floats" product describes the less dense fraction (less than 2.58 kg/L). The average mass, grade and metal distributions for each size fraction is given in Table 13.3 for the Oxide, Transition, and Sulphide samples.

Table 13.3 HLS test results, average by oxidation level

| Size fraction | Average of Oxide samples | | | Average of Transition samples | | | Average of Sulphide samples | | |
|---|---|---|---|---|---|---|---|---|---|
| | % mass to sinks | Ag grade in sinks | % of Ag to sinks | % mass to sinks | Ag grade in sinks | % of Ag to sinks | % mass to sinks | Ag grade in sinks | % of Ag to sinks |
| +2000 | 12.4 | 139 | 23.4 | 11.7 | 59 | 7.2 | 32.4 | 176 | 44.7 |
| -2000 +1150 | 6.4 | 156 | 16.1 | 14.5 | 53 | 17.4 | 32.7 | 55 | 35.8 |
| -1150 +600 | 9.1 | 166 | 23.2 | 15.4 | 77 | 30.7 | 33.6 | 61 | 46.4 |
| -600 +300 | 11.0 | 325 | 65.4 | 10.9 | 883 | 89.7 | 23.5 | 194 | 80.8 |
| -300 +150 | 4.1 | 1015 | 84.8 | 6.3 | 1204 | 80.7 | 5.6 | 1091 | 76.9 |
| -150 +75 | 13.9 | 193 | 67.2 | 18.0 | 113 | 99.9 | 19.3 | 148 | 77.7 |
| -75 | 11.5 | 1346 | 56.2 | 15.4 | 382 | 27.5 | 15.8 | 399 | 27.9 |
| **Total** | **10.1** | **438** | **50.5** | **14.0** | **255** | **40.2** | **21.7** | **198** | **47.4** |

Notes:
- HLS=heavy liquid separation.
- % of Ag to sinks refers to silver metal.

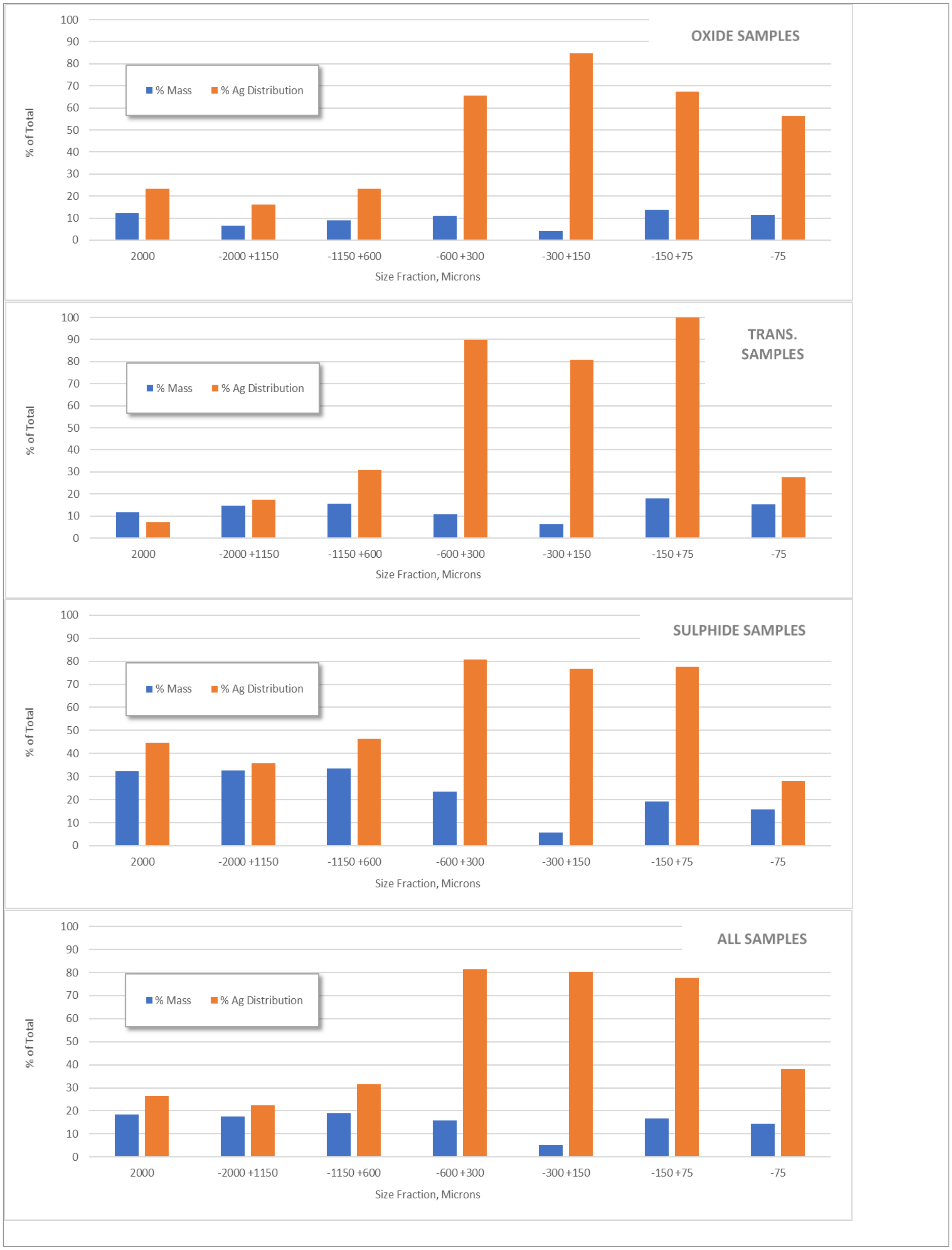
What is noteworthy here is that on average, approximately 46% of the total silver was concentrated into just 15% of the mass as a dense "sinks" fraction. Table 13.3 highlights how the upgrading effect was more pronounced within the finer size fractions, and with the more oxidized samples.

The additional upgrading seen in the finer fractions is illustrated clearly in Figure 13.2 below, which plots the average size fraction mass (blue) and metal distributions (orange) for Oxide, Transition, Sulphide and all tests combined. The series of charts illustrates how for the -600 um fractions, approximately 80% of silver was concentrated into less than 20% of the mass (average of all samples). The upgrading effect was significant in the -75 micron oxide fraction but was also most pronounced in the finer fractions of the transition samples. Sulphide samples also showed a tendency to upgrade well in the fines, but not to the same extent as the Oxide and Transition samples.

This gravity concentration effect was not observed in any of the coarser (+600 micron) size fractions and this is believed to be due to the lower levels of silver mineral liberation likely in these fractions.

The fine crushing (to roughly 2-3 mm) carried out as part of normal sample preparation processes appears to have liberated a significant fraction of the silver mineralization, allowing a simple laboratory scale gravity separation process (heavy liquids) to concentrate silver to a fine, high grade product.

Figure 13.2 Average mass and silver recovery to sinks




Source: AGP Mining Consultants Inc. 2019.

#### 13.2.2.3 Quantitative mineralogy

A program of quantitative mineralogy was initiated at CIMM using high-grade composite samples of Oxide, Transition, and Sulphide material from two discrete areas of the deposit (i.e. six samples in total). Composites were prepared using samples of coarse reject taken from several DDHs in the deposit, as shown in Table 13.4 below.

Table 13.4 QEMScan samples

| ID | Type | # of DDH's | Silver grade, from interval assays (g/t) | Silver grade from QEMScan (g/t) |
|---|---|---|---|---|
| MET 4 -1 | HG Oxide | 1 | 217 | n/a |
| MET 5 -1 | HG Trans. | 1 | 145 | n/a |
| MET 6 -1 | HG Sulphide | 1 | 189 | n/a |
| MET 4 -2 | HG Oxide | 1 | 198 | n/a |
| MET 5 -2 | HG Trans. | 1 | 147 | n/a |
| MET 6 -2 | HG Sulphide | 1 | 131 | n/a |

As the material tested was sampled from only one hole per composite, this preliminary mineralogical program can be considered to represent only a snapshot of the possible mineralogical textures in situ at the deposit. Future work programs are encouraged to measure more representative samples so as to enable a more robust mineralogical analysis.

**Bulk composition**

Each of the six composites was pulverized, and then sized into four size fractions: +106 µm, +74-106 µm, +38-74 µm, -38 µm. Mineralogical analysis was completed on each fraction for each composite, thereby enabling the assessment of size by size mineral information.

Mineral composition data is given in the following tables, for the first three samples only.

Table 13.5 MET 4-1 (Oxide) mineral composition

| Mineral name | Minerals composition by QEMScan, % w/w | | | | |
|---|---|---|---|---|---|
| | + 106 µm | -106 µm +74 µm | -74 µm +38 µm | - 38 µm | Total |
| Goethite | 0.097 | 0.002 | 0.009 | 0.016 | 0.068 |
| Pyrite | 0.001 | 0.004 | 0.019 | 0.128 | 0.020 |
| Quartz | 74.34 | 93.47 | 86.96 | 46.19 | 73.87 |
| Sphalerite | 0.003 | 0.004 | 0.014 | 0.061 | 0.012 |
| Hematite | 14.13 | 3.930 | 8.650 | 29.43 | 14.555 |
| Barite | 0.021 | 0.059 | 0.136 | 0.149 | 0.054 |
| Anorthoclase | 0.437 | 0.010 | 0.009 | 0.030 | 0.296 |
| Cassiterite | 0.086 | 0.096 | 0.362 | 0.607 | 0.186 |
| Argentite | 0.010 | 0.013 | 0.034 | 0.262 | 0.046 |
| Rutile | 0.168 | 0.169 | 0.627 | 0.913 | 0.316 |
| Augelite | 0.111 | 0.065 | 0.120 | 0.265 | 0.128 |
| Oligoclase | 10.60 | 2.180 | 3.050 | 21.90 | 10.442 |
| Galena | 0.000 | 0.000 | 0.017 | 0.012 | 0.003 |
| Other | 0 | 0.001 | 0.001 | 0.034 | 0.005 |
| **Total** | **100** | **100** | **100** | **100** | **100** |
| **% mass of total** | **66.3** | **9.6** | **11.0** | **13.1** | **100** |

Table 13.6 MET 5-1 (Transition) mineral composition

| Mineral name | Minerals composition by QEMScan, % w/w | | | | |
|---|---|---|---|---|---|
| | + 106 µm | -106 µm +74 µm | -74 µm +38 µm | - 38 µm | Total |
| Goethite | 0.406 | 0.139 | 0.028 | 0.011 | 0.277 |
| Pyrite | 0.576 | 0.361 | 0.444 | 0.338 | 0.505 |
| Quartz | 86.629 | 93.211 | 91.947 | 66.513 | 84.71 |
| Sphalerite | 0.127 | 0.125 | 0.162 | 0.515 | 0.191 |
| Hematite | 2.909 | 1.351 | 3.073 | 12.579 | 4.287 |
| Barite | 0.001 | 0.002 | 0.012 | 0.020 | 0.005 |
| Anorthoclase | 2.624 | 1.148 | 0.239 | 0.034 | 1.816 |
| Anglesite | 0.019 | 0.013 | 0.009 | 0.031 | 0.019 |
| Calcite | 0.003 | 0.001 | 0.001 | 0.001 | 0.002 |
| Galena | 0.021 | 0.011 | 0.020 | 0.086 | 0.030 |
| Cassiterite | 0.003 | 0.000 | 0.007 | 0.029 | 0.007 |
| Argentite | 0.020 | 0.012 | 0.016 | 0.353 | 0.070 |
| Rutile | 0.280 | 0.288 | 0.914 | 0.998 | 0.465 |
| Augelite | 0.022 | 0.009 | 0.010 | 0.090 | 0.030 |
| Oligoclase | 6.353 | 3.316 | 3.102 | 18.398 | 7.575 |
| Other | 0.007 | 0.013 | 0.016 | 0.004 | 0.008 |
| **Total** | **100** | **100** | **100** | **100** | **100** |
| **% mass of total** | **64.0** | **9.0** | **11.4** | **15.5** | **100.0** |

Table 13.7 MET 6-1 (Sulphide) mineral composition

| Mineral name | Minerals composition by QEMScan, % w/w | | | | |
|---|---|---|---|---|---|
| | + 106 µm | -106 µm +74 µm | -74 µm +38 µm | - 38 µm | Total |
| Goethite | 0.001 | 0.000 | 0.002 | 0.005 | 0.002 |
| Pyrite | 6.191 | 2.166 | 1.824 | 1.278 | 4.466 |
| Quartz | 85.140 | 92.257 | 90.512 | 58.429 | 81.43 |
| Sphalerite | 0.340 | 0.261 | 0.424 | 1.167 | 0.495 |
| Hematite | 4.173 | 1.647 | 2.786 | 6.798 | 4.289 |
| Barite | 0.015 | 0.000 | 0.002 | 0.005 | 0.010 |
| Anorthoclase | 0.014 | 0.010 | 0.018 | 0.035 | 0.018 |
| Anglesite | 0.012 | 0.014 | 0.018 | 0.101 | 0.029 |
| Chalcopyrite | 0.032 | 0.009 | 0.010 | 0.011 | 0.024 |
| Chalcocite | 0.120 | 0.050 | 0.076 | 0.204 | 0.125 |
| Galena | 0.227 | 0.150 | 0.246 | 0.795 | 0.327 |
| Cassiterite | 0.199 | 0.034 | 0.088 | 0.245 | 0.181 |
| Argentite | 0.173 | 0.005 | 0.011 | 0.207 | 0.147 |
| Rutile | 0.142 | 0.186 | 0.641 | 0.998 | 0.358 |
| Augelite | 0.011 | 0.015 | 0.022 | 0.084 | 0.026 |
| Oligoclase | 3.207 | 3.183 | 3.313 | 29.615 | 8.071 |
| Other | 0.003 | 0.010 | 0.006 | 0.020 | 0.006 |
| **Total** | **100** | **100** | **100** | **100** | **100** |
| **% mass of total** | **62.1** | **8.5** | **11.0** | **18.4** | **100.0** |

Clearly, these samples are mostly composed of quartz (74 - 85%), with hematite varying between 4 - 14% content and oligoclase between 7 – 10%. Other minerals are mostly trace, except pyrite (4.5%) in the sulphide composite.

**Silver mineralogy**

Argentite was the main silver mineral identified by this QEMScan study, with traces of freibergite, jalpaite and argentopyrite noted also. Further work in this area is recommended to properly develop the characterization of silver minerals in different areas of the deposit.

### 13.2.3 Comminution testing

Four of the six GEO composites were subjected to an initial program of laboratory scale comminution scoping tests, including Crushing Work Index (CWi) tests, Bond Ball Mill Work Index (BWi) tests, and Ai tests.

The various GEO samples selected for the comminution program are given in Table 13.8 below.

Table 13.8 Comminution test samples

| Comp | DDH | m to from | Type | Host | Silica alteration |
|---|---|---|---|---|---|
| GEO 1-1 | 4404 | 179.8 – 195.5 | Transition | Sandstone | Weak |
| GEO 4-1 | 5006 | 100.8 – 110.4 | Sulphide | Sandstone | Strong |
| GEO 5-1 | 465002 | 4.0 – 16.8 | Oxide | Sandstone | Very Weak |
| GEO 6-1 | 7001 | 11.1 – 19.3 | Oxide | Siltstone | Very Weak |
| GEO 1-2 | 5807 | 186.8-200 | Transition | Sandstone | Weak |
| GEO 4-2 | 5204 | 139.6 – 148.9 | Sulphide | Sandstone | Strong |
| GEO 5-2 | 505001 | 308.7 – 320.0 | Oxide | Sandstone | Very Weak |

Each of these GEO samples was subjected to a CWi test, a BWi test and an Ai test. A summary of the comminution test results is presented in Table 13.9 below.

Table 13.9 Comminution test data

| Test | Units | GEO 1-1 | GEO 4-1 | GEO 5-1 | GEO 6-1 | GEO 1-2 | GEO 4-2 | GEO 5-2 |
|---|---|---|---|---|---|---|---|---|
| Crushing Work Index | kWh/t | 5.60 | 9.94 | 4.82 | 9.42 | 5.19 | 11.26 | 10.50 |
| Ball Mill Work Index | kWh/t | 10.5 | 15.9 | 4.1 | 4.8 | 6.8 | 11.9 | 5.7 |
| Abrasion Index | g | 0.193 | 0.536 | 0.059 | 0.125 | 0.163 | 0.463 | 0.138 |

CWi testing reported energy consumptions of between 4.82 and 11.26 kWh/t which represents a wide range of crushability. This is reflective of the diversity in mineral type, host rock and the level of silica alteration noted in these different samples.

BWi measurements varied from 4.1 kilowatt-hours per ton (kWh/t) to 15.9 kWh/t with the majority of samples measuring less than 12.0 kWh/t. It can be said then that in general, the samples tested fell into the soft or medium competency category for grinding. The single "hard" sulphide sample (GEO 4-1) was selected specifically for its high degree of siliceous alteration, and this characteristic should be carefully mapped within the deposit as the project develops, so as to completely understand the likely variability in ball mill grinding energy requirements.

Ai test measurements varied from a very low 0.06 g (oxide sandstone) to a moderate / high value of 0.54 g (sulphide sandstone). The abrasion characteristics of material mined and processed will have a dramatic impact on the wear of steel tools and comminution surfaces, such as shovels, truck beds, crusher liners, and mill liners, so in general the wear cost of mining and processing the less siliceous areas of the deposit will be lower on average. In general, the oxide and transition zones of the deposit appear to be less siliceous and can therefore be considered to be of low abrasivity.

### 13.2.4 Flotation testing

Three high-grade metallurgical composites representing Oxide, Transition, and Sulphide were prepared for a program of scoping level froth flotation testwork, consisting of a total of 23 rougher-scavenger tests. The bench scale tests examined the effect of changing a variety of conditions, such as grind size, reagent recipe, reagent dosages and slurry pH. The impact of these changes is discussed herein.

FLOATMET composites were prepared using samples of half core taken from several holes in the deposit, as shown in Table 13.10 below.

Table 13.10 FLOATMET samples

| ID | Type | # of DDH's | Silver grade, from interval assays (g/t) | Silver grade from head assay (g/t) |
|---|---|---|---|---|
| FLOATMET 4 | HG Oxide | 8 | 141 | 201 |
| FLOATMET 5 | HG Trans. | 9 | 137 | 123 |
| FLOATMET 6 | HG Sulphide | 8 | 132 | 123 |

The assays correlate well, except the HG Oxide composite (FLOATMET 4).

The three composites were assayed for silver, base metals, and sulphur content. Measured grades for each are shown in Table 13.11 below.

Table 13.11 Flotation program head assays

| Composite ID | Head assay | | | | |
|---|---|---|---|---|---|
| | Ag (g/t) | $S_{tot}$ (%) | Cu (%) | Pb (%) | Zn (%) |
| Oxide (Z1 FLOATMET 4) | 201 | 0.12 | 0.006 | 0.108 | 0.003 |
| Transition (Z1 FLOATMET 5) | 123 | 1.01 | 0.02 | 0.391 | 0.010 |
| Sulphide (Z1 FLOATMET 6) | 124 | 1.63 | 0.03 | 0.217 | 0.812 |

The presence of lead and zinc sulphide minerals in the sulphide composite is apparent from these head assays. Copper levels are low for all samples. Additionally, the sulphur grade relative to copper, lead and zinc content suggests that an iron sulphide is also present in the sulphide composite (likely pyrite).

In general, the flotation performance of the three composites was very good, with high silver recoveries achieved using a simple bulk sulphide flotation collector (Potassium Isobutyl Xanthate).

The flotation testwork results discussed below are all singleton tests, and as such, the comparison of results and conclusions drawn therefrom, should all be considered preliminary. In preliminary flotation testing, experimental and assay error can mask the effect of a tested variable (such as grind). In future tests, the main conclusions of optimization tests should be verified using best practice replicate flotation testing methods.

#### 13.2.4.1 Sulphide composite (FLOATMET 6)

In total, nine rougher scavenger flotation tests were carried out on the sulphide (FLOATMET 6) composite. The work tested different grind targets, different pulp pH levels, and a variety of different reagents. Initial tests ran for 12 minutes, but subsequent tests all ran for 20 minutes in order to fully capture flotation kinetic data.

Results of the nine sulphide tests are given in Table 13.12 below.

The change in grind from 80% passing 105 µm to 80% passing 74 µm had negligible impact on flotation performance, but a coarser grind (80% passing 150 µm or coarser) was not tested to check on the drop off in performance. This should be attempted during future work programs.

Good recoveries were seen with most reagents, and the addition of potassium amyl xanthate (PAX) alone, at around 30 – 45 g/t dosage, was adequate. The addition of lime for a pH change to 9.0 did not appear to improve the silver recovery significantly, although this should not be discounted as the maximum recovery value was achieved using lime (giving an insignificant improvement over the natural pH test).

Table 13.12 Summary of results for flotation (FLOATMET 6)

| Test | Flotation conditions | | | | | % recovery | | |
|---|---|---|---|---|---|---|---|---|
| | Time (min) | $P_{80}$ (µm) | Collector mix / dose | Pulp pH | Gas | Mass (%) | Ag (%) | $S_{sul}$ (%) |
| 3 | 12 | 105 | PAX 30 g/t | Natural | Air | 6.7 | 92.8 | 97.8 |
| 4 | 12 | 74 | PAX 30 g/t | Natural | Air | 7.5 | 93.8 | 96.6 |
| 6 | 20 | 74 | PAX 45 g/t | Natural | Air | 10.4 | 95.5 | 97.2 |
| 8 | 20 | 74 | PAX 45 g/t | 9.0 | Air | 10.0 | 96.0 | 98.4 |
| 12 | 20 | 74 | PAX 30 g/t + SIPX 15 g/t | Natural | Air | 9.4 | 94.9 | 97.3 |
| 13 | 20 | 74 | PAX 30 g/t + DANA468 15 g/t | Natural | Air | 9.1 | 94.2 | 97.4 |
| 14 | 20 | 74 | PAX 30 g/t + OX100 15 g/t | Natural | Air | 9.8 | 94.8 | 97.3 |
| 17 | 20 | 74 | OX100 45 g/t + PAX 15 g/t | Natural | Air | 15.0 | 94.8 | 96.5 |
| 18 | 20 | 74 | PAX 60 g/t | Natural | Air | 11.5 | 95.0 | 97.2 |

Maximum silver recovery for the sulphide composite test series was 96.0% - achieved with a grind of 80% -74 µm and with a concentrate mass pull of 10%.

A good amount of fast floating silver mineral is present under these conditions, with 94% silver recovery achieved after 8 minutes of flotation.

#### 13.2.4.2 Transition composite (FLOATMET 5)

In total, nine rougher scavenger flotation tests were carried out on the transition (FLOATMET 5) composite. The work tested similar conditions to the sulphide composites, with changed grind targets, different pulp pH levels, and a variety of different reagents. Initial tests ran for 12 minutes, but subsequent tests all ran for 20 minutes in order to fully capture flotation kinetic data.

Results of the nine transition tests are given in Table 13.13 below.

In contrast to the sulphide composite, a change in grind from 80% passing 105 µm to 80% passing 74 µm had a significant impact on flotation performance, suggesting that silver mineralization might be finer in this sample compared to the sulphide sample.

Reasonable silver recoveries were seen with most reagents, although somewhat lower in general than the sulphide composite. The addition of PAX at 45 g/t dosage and with pulp pH at 9.0 gave a silver recovery that was almost 11% less than the sulphide composite (85.2% recovery vs 96.0% recovery). Mass pull under these conditions was less for the FLOATMET 5 composite, at 7.3% compared to 10.0% for the FLOATMET 6 composite. Further tests to examine this difference should be completed during future flotation programs.

As with the sulphide composite, addition of lime for a pH change to 9.0 did not appear to improve the silver recovery significantly, although the sulphur recovery improved slightly.

Table 13.13 Summary of results for flotation (FLOATMET 5)

| Test | Flotation conditions | | | | | % recovery | | |
|---|---|---|---|---|---|---|---|---|
| | Time (min) | $P_{80}$ (µm) | Collector mix / dose | Pulp pH | Gas | Mass (%) | Ag (%) | $S_{sul}$ (%) |
| 1 | 12 | 105 | PAX 30 g/t | Natural | Air | 4.1 | 73.5 | 92.1 |
| 2 | 12 | 74 | PAX 30 g/t | Natural | Air | 4.9 | 78.7 | 93.0 |
| 5 | 20 | 74 | PAX 45 g/t | Natural | Air | 7.8 | 85.1 | 92.4 |
| 7 | 20 | 74 | PAX 45 g/t | 9.0 | Air | 7.3 | 85.2 | 94.8 |
| 9 | 20 | 74 | PAX 30 g/t + SIPX 15 g/t | Natural | Air | 6.2 | 83.1 | 93.0 |
| 10 | 20 | 74 | PAX 30 g/t + DANA468 15 g/t | Natural | Air | 8.5 | 85.2 | 93.4 |
| 11 | 20 | 74 | PAX 30 g/t + OX100 15 g/t | Natural | Air | 10.2 | 86.8 | 94.8 |
| 15 | 20 | 74 | OX100 45 g/t + PAX 15 g/t | Natural | Air | 8.7 | 81.8 | 89.9 |
| 16 | 20 | 74 | OX100 45 g/t + PAX 15 g/t | 9.0 | Air | 11.8 | 84.6 | 93.9 |

#### 13.2.4.3 Oxide composite (FLOATMET 4)

In total, five rougher scavenger flotation tests were carried out on the oxide (FLOATMET 4) composite. The work tested conditions more suitable for oxide flotation with raised pulp pH, use of nitrogen as the aerating gas, and sulphide / oxide collectors including OX100 – an alkyl hydroxamate collector commonly used for oxide copper flotation. All tests ran for 20 minutes.

Results of the five Oxide tests are given in Table 13.14 below.

Table 13.14 Summary of results for flotation (FLOATMET 4)

| Test | Flotation conditions | | | | | % recovery | | |
|---|---|---|---|---|---|---|---|---|
| | Time (min) | $P_{80}$ (µm) | Collector mix / dose | Pulp pH | Gas | Mass (%) | Ag (%) | $S_{sul}$ (%) |
| 19 | 20 | 74 | PAX 45 g/t + OX100 15 g/t | 9.0 | Air | 6.5 | 89.9 | 46.0 |
| 20 | 20 | 105 | PAX 45 g/t + OX100 15 g/t | 9.0 | Air | 5.3 | 88.5 | 40.7 |
| 21 | 20 | 74 | PAX 45 g/t + OX100 20 g/t | 9.0 | $N_2$ | 18.4 | 92.0 | 49.9 |
| 22 | 20 | 74 | PAX 60 g/t | 9.0 | Air | 11.0 | 91.3 | 43.8 |
| 23 | 20 | 74 | PAX 60 g/t | 9.0 | $N_2$ | 18.5 | 91.2 | 50.3 |

Test 22 included a finer grind and a higher dose of PAX (a strong sulphide collector). Air was used for aeration. These standard sulphide flotation conditions gave a good silver recovery of 91.3% which could be considered surprising. A higher recovery was achieved using nitrogen gas and the OX100 as a secondary collector, but this slight improvement (92.0% Ag recovery) appears to have been achieved primarily as a result of higher concentrate mass pull (18.4% vs 11.0% in Test 22).

#### 13.2.4.4 Concentrate product quality

Rougher concentrates from FLOATMET 5 and FLOATMET 6 tests were composited and submitted for ICP Scan, as shown in Table 13.15 below.

Table 13.15 ICP Scan, FLOATMET concentrates

| Element | Unit | FLOATMET 5 - rougher concentrates | FLOATMET 6 -rougher concentrates |
|---|---|---|---|
| Al | % | 4.07 | 3.45 |
| Ca | % | 0.10 | 0.08 |
| Fe | % | 13.7 | 14.1 |
| K | % | 1.46 | 1.19 |
| Mg | % | 0.03 | 0.03 |
| Na | % | 0.31 | 0.39 |
| P | % | 0.06 | 0.05 |
| S | % | 9.24 | >10 |
| Ti | % | 0.07 | 0.06 |
| As | ppm | 2096 | 2582 |
| Ba | ppm | 204 | 106 |
| Be | ppm | <0.5 | <0.5 |
| Bi | ppm | 26 | 84 |
| Cd | ppm | 7 | 221 |
| Co | ppm | 24 | 37 |
| Cr | ppm | 655 | 869 |
| Cu | ppm | 1851 | 3520 |
| Ga | ppm | 36 | 31 |
| La | ppm | 10 | 7 |
| Li | ppm | 7 | 6 |
| Mn | ppm | 183 | 185 |
| Mo | ppm | 61 | 93 |
| Nb | ppm | 6 | 9 |
| Ni | ppm | 293 | 419 |
| Pb | ppm | >10000 | >10000 |
| Sb | ppm | 491 | 3612 |
| Sc | ppm | 2 | 1 |
| Sn | ppm | 65 | 613 |
| Sr | ppm | 381 | 239 |
| Tl | ppm | <2 | 2 |
| V | ppm | 39 | 28 |
| W | ppm | 22 | 25 |
| Y | ppm | 2 | 3 |
| Zn | ppm | 1154 | >10000 |

#### 13.2.4.5 Flotation summary

These initial scoping tests show that silver minerals can be efficiently concentrated using relatively simple froth flotation conditions. Flotation concentrates containing 2,500 – 3,000 g/t silver were produced quickly, without using a cleaner flotation stage. Concentrate mass pulls are somewhat high however, and these could likely be improved via use of a scavenger-cleaner circuit.

Concentrates from the sulphide and transition leach tests were composited and tested for minor elements by ICP. These show slightly elevated arsenic and antimony in addition to the lead, zinc, and copper that have all recovered to the concentrate. Further flotation work is recommended before conclusions are drawn regarding concentrate quality.

### 13.2.5 Cyanide leach testing

#### 13.2.5.1 Leaching samples

Four LEACHMET composites of Oxide, Transition, and Sulphide were prepared using samples of half core taken from several holes in the deposit for cyanide leaching work as summarized in Table 13.16 below.

Table 13.16 LEACHMET samples

| ID | Type | # of DDH's | Silver grade, from interval assays (g/t) | Silver grade from head assay (g/t) |
|---|---|---|---|---|
| LEACHMET 1 | LG Oxide | 25 | 29 | 29 |
| LEACHMET 4 | HG Oxide | 15 | 125 | 132 |
| LEACHMET 5 | HG Trans. | 8 | 129 | 157 |
| LEACHMET 6 | HG Sulphide | 9 | 137 | 124 |

The estimated assays (from interval assays) correlate well with the measured silver head assays. The four LEACHMET composites were crushed, blended, and assayed for silver, base metals, and total sulphur content. Measured grades for each are shown in Table 13.17 below.

Table 13.17 Bottle roll composite details

| Composite ID | Head assay | | | | |
|---|---|---|---|---|---|
| | Ag (g/t) | Stot (%) | Cu (%) | Pb (%) | Zn (%) |
| LEACHMET 1 | 29 | 0.15 | 0.010 | 0.062 | 0.008 |
| LEACHMET 4 | 132 | 0.21 | 0.009 | 0.055 | 0.003 |
| LEACHMET 5 | 157 | 1.45 | 0.040 | 0.120 | 0.343 |
| LEACHMET 6 | 124 | 2.13 | 0.031 | 0.089 | 0.054 |

Although these composites were prepared using different samples to the FLOATMET composites, the grades compare quite well. The low levels of copper would not be expected to present metallurgical complications when it comes to cyanide consumption.

#### 13.2.5.2 Bottle roll testing

The bottle roll testwork program comprised of a battery of 33 individual scoping tests, each running for 72 hours and using a variety of conditions (grind sizes, cyanide solution strength, dissolved oxygen (DO) levels, and pulp temperatures) to further define the metallurgical characteristics of these Silver Sand mineralization samples.

A variety of results were obtained from the work, as listed in Table 13.18 (LEACHMET 6), Table 13.19 (LEACHMET 5), Table 13.20 (LEACHMET 4), and Table 13.21 (LEACHMET 1) below.

Very high silver extractions (greater than 96%) were achieved for the sulphide and transition composites when intensive cyanidation conditions were used (oxygen sparging plus elevated pulp temperature). Oxide composite performance was more variable, with silver extractions between 81% and 96% achieved under similar conditions.

These leaching results are in general very encouraging and further optimization testwork is recommended to better characterize the deposit.

Table 13.18 LEACHMET 6 bottle roll test results

| Test # | Grind $P_{80}$ (µm) | % Sol. strength | Consumption (kg/t) | | Pulp temp (℃) | Sparge gas | % extraction | |
|---|---|---|---|---|---|---|---|---|
| | | NaCN | NaCN | CaO | | | Ag | Cu |
| 4 | 50 | 0.10 | 4.00 | 0.78 | 21 | Air | 81.8 | 59.9 |
| 5 | 74 | 0.10 | 3.47 | 0.65 | 21 | Air | 76.4 | 54.1 |
| 6 | 105 | 0.10 | 3.39 | 0.65 | 21 | Air | 75.8 | 55.4 |
| 9 | 50 | 0.30 | 5.16 | 0.78 | 26 | $O_2$ | 93.6 | 66.9 |
| 10 | 50 | 0.30 | 10.18 | 0.79 | 57 | $O_2$ | 96.7 | 73.7 |
| 13 | 74 | 0.05 | 2.46 | 2.16 | 21 | Air | 58.4 | 55.8 |
| 14 | 74 | 0.20 | 4.90 | 1.43 | 21 | Air | 83.8 | 57.7 |
| 18 | 74 | 0.30 | 3.66 | 1.05 | 27 | $O_2$ | 92.8 | 71.7 |
| 19 | 74 | 0.40 | 4.59 | 1.05 | 26 | $O_2$ | 94.0 | 72.5 |

The LEACHMET 6 (HG Sulphide) might be expected to perform poorly in a cyanide leaching environment, but in this case, silver extractions of up to 96.7% were achieved using high cyanide concentration, a fine grind, elevated temperature, and oxygen sparging (Test 10). Without oxygen sparging, the extraction appeared to be limited to 83.8% (Test 14). The oxidation of sulphides appears to be an important factor in the process. Increasing leach temperature to 57°C improved performance further.

Leach kinetics for Test 10 were a little slow, with 87.5% extraction calculated after 24 hours.

A similar battery of tests was completed for the LEACHMET 5 (HG Transition) composite, with good results also.

Table 13.19 LEACHMET 5 bottle roll test results

| Test # | Grind $P_{80}$ (µm) | % Sol. strength | Consumption (kg/t) | | Pulp temp (℃) | Sparge gas | % extraction | |
|---|---|---|---|---|---|---|---|---|
| | | NaCN | NaCN | CaO | | | Ag | Cu |
| 1 | 50 | 0.10 | 4.31 | 0.85 | 21 | Air | 67.6 | 65.7 |
| 2 | 74 | 0.10 | 3.56 | 0.65 | 21 | Air | 61.4 | 60.2 |
| 3 | 105 | 0.10 | 3.04 | 0.65 | 21 | Air | 56.6 | 31.2 |
| 7 | 50 | 0.30 | 5.26 | 0.78 | 26 | $O_2$ | 94.0 | 72.9 |
| 8 | 50 | 0.30 | 9.78 | 0.78 | 56 | $O_2$ | 97.0 | 81.6 |
| 11 | 74 | 0.05 | 2.76 | 1.99 | 21 | Air | 47.9 | 55.4 |
| 12 | 74 | 0.20 | 6.29 | 1.60 | 21 | Air | 75.7 | 65.7 |
| 16 | 74 | 0.30 | 3.66 | 1.05 | 28 | $O_2$ | 93.5 | 74.8 |
| 17 | 74 | 0.40 | 4.15 | 1.05 | 30 | $O_2$ | 93.3 | 71.1 |

As with the sulphide composite, LEACHMET 5 achieved a very high silver extraction rate (97.0%) using elevated temperature, high cyanide concentrations, a fine grind, and oxygen sparging (Test 8). Without oxygen sparging, the silver extraction appeared to be limited to 75.7% (Test 12).

Leach kinetics for Test 8 were reasonable, with 92.5% Ag extraction calculated after 24 hours and 97.0% after 72 hours.

The two oxide composites, LEACHMET 4 and LEACHMET 1, would be expected to perform well. Indeed, with oxygen sparging and high cyanide concentrations, both composites provided good silver extractions at a 74 micron grind (compared to sulphide and transition composites, in which maximum extraction was achieved at a 50 micron grind).

Table 13.20 LEACHMET 4 bottle roll test results

| Test # | Grind $P_{80}$ (µm) | % Sol. strength | Consumption (kg/t) | | Pulp temp (℃) | Sparge gas | % extraction | |
|---|---|---|---|---|---|---|---|---|
| | | NaCN | NaCN | CaO | | | Ag | Cu |
| 23 | 105 | 0.05 | 1.79 | 1.96 | 28 | Air | 65.5 | 25.7 |
| 24 | 74 | 0.05 | 2.09 | 2.02 | 27 | Air | 66.4 | 29.2 |
| 25 | 50 | 0.05 | 2.32 | 2.03 | 28 | Air | 69.0 | 34.7 |
| 28 | 74 | 0.15 | 4.69 | 0.46 | 27 | Air | 83.4 | 31.0 |
| 29 | 74 | 0.30 | 5.38 | 0.39 | 28 | Air | 86.7 | 31.2 |
| 32 | 74 | 0.30 | 3.94 | 0.78 | 27 | $O_2$ | 95.6 | 27.4 |
| 33 | 74 | 0.30 | 5.08 | 0.78 | 59 | $O_2$ | 96.3 | 34.5 |

Table 13.21 LEACHMET 1 bottle roll test results

| Test # | Grind $P_{80}$ (µm) | % Sol. strength | Consumption (kg/t) | | Pulp temp (℃) | Sparge gas | % extraction | |
|---|---|---|---|---|---|---|---|---|
| | | NaCN | NaCN | CaO | | | Ag | Cu |
| 20 | 105 | 0.05 | 1.99 | 1.60 | 26 | Air | 59.1 | 40.1 |
| 21 | 74 | 0.05 | 2.13 | 1.86 | 28 | Air | 71.1 | 38.8 |
| 22 | 50 | 0.05 | 2.21 | 1.86 | 28 | Air | 77.5 | 41.1 |
| 26 | 74 | 0.15 | 4.55 | 0.84 | 28 | Air | 74.1 | 45.1 |
| 27 | 74 | 0.30 | 5.95 | 0.59 | 27 | Air | 78.2 | 45.7 |
| 30 | 74 | 0.30 | 4.53 | 0.79 | 29 | $O_2$ | 81.0 | 47.9 |
| 31 | 74 | 0.30 | 6.71 | 0.78 | 59 | $O_2$ | 81.6 | 48.5 |

#### 13.2.5.3 Bottle roll summary

These initial scoping tests show that silver minerals can be efficiently extracted using intensive cyanidation conditions in bottle rolls. The best results for each composite are given in Table 13.22 below.

Table 13.22 Bottle roll test results summary

| Composite ID & test # | Grind $P_{80}$ (µm) | % Sol. strength | Consumption(kg/t) | | Temp (℃) | Sparge gas | % extraction | |
|---|---|---|---|---|---|---|---|---|
| | | NaCN | NaCN | CaO | | | Ag | Cu |
| LEACHMET 1, Test 31 | 74 | 0.30 | 6.71 | 0.78 | 59 | $O_2$ | 81.6 | 48.5 |
| LEACHMET 4, Test 33 | 74 | 0.30 | 5.08 | 0.78 | 59 | $O_2$ | 96.3 | 34.5 |
| LEACHMET 5, Test 8 | 50 | 0.30 | 9.78 | 0.78 | 56 | $O_2$ | 97.0 | 81.6 |
| LEACHMET 6, Test 10 | 50 | 0.30 | 10.2 | 0.79 | 57 | $O_2$ | 96.7 | 73.7 |

Very high silver extractions (greater than 96%) were achieved for the sulphide and transition composites when intensive cyanidation conditions were used (oxygen sparging plus elevated pulp temperature). Oxide composite performance was more variable, with silver extractions between 81% and 96% achieved under similar conditions.

Although these results are based on 72 hours of leaching, they are in general very encouraging and further optimization testwork is recommended to increase leach kinetics and to better characterize the deposit.

#### 13.2.5.4 Column leach testing

Four column leach tests were completed on the two oxide samples, using coarser material than the bottle roll work (crushed to 100% passing 12.7 mm). Each column test ran for 75 days and the DO level was maintained at 20 – 30 ppm throughout all tests.

Figure 13.3 Column leaching test setup

Source: AGP Mining Consultants Inc. 2019.

The tests were carried out in 100 mm diameter columns, with a bed height of 1.5 m and irrigation rates of 7 and 10 L/h/$m^2$.

The cyanide solution at 0.4% strength (%w/w) was prepared at the nominal NaCN concentration and lime added to maintain a pH of 10.5.

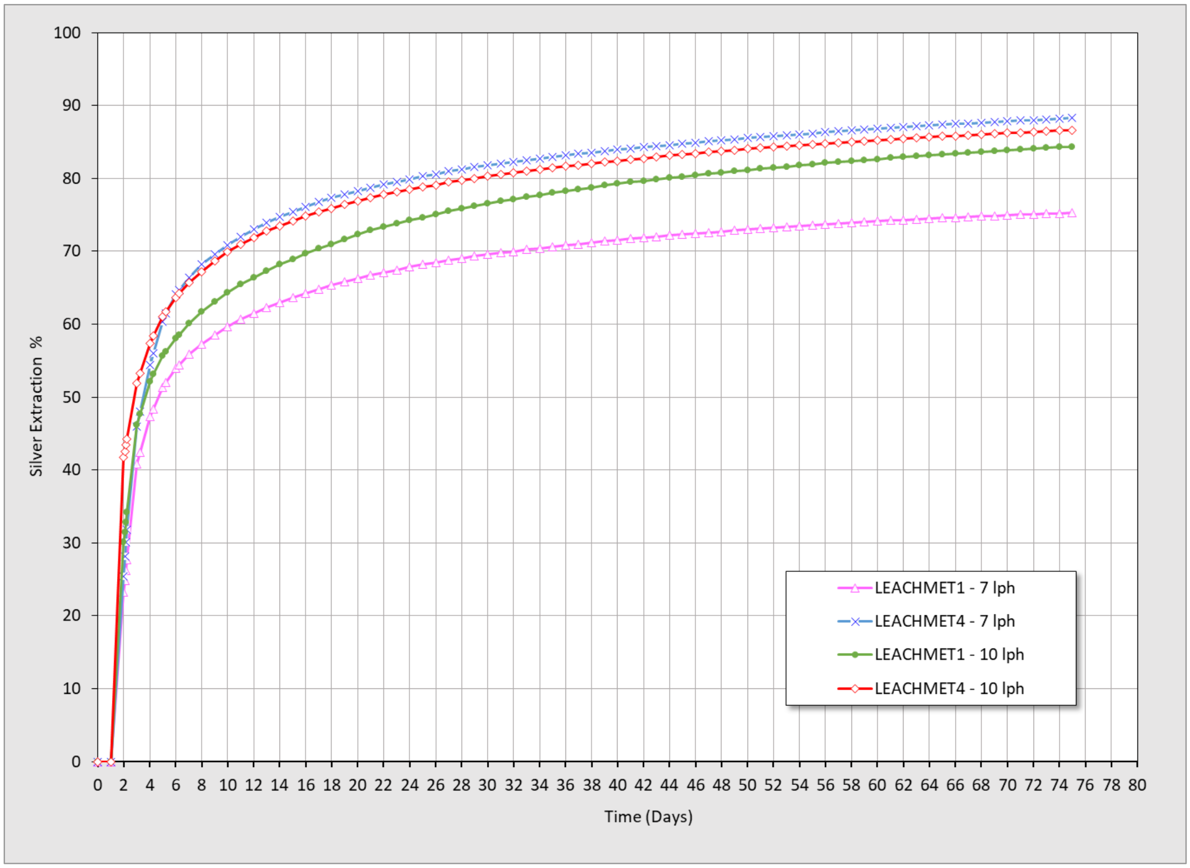
The feed solutions were pumped continuously and constantly to the top of the columns at the specified irrigation rate, and the feed solution was monitored for temperature, DO, and oxidation-reduction potential (ORP).

Results for the four column tests, together with a summary of silver extraction kinetic curves are given below in Figure 13.4.

Table 13.23 Column leach test results summary

| Composite ID | Mesh of grind (mm) | % Sol. strength | Solution rate (L/h/m²) | Consumption (kg/t) | | % extraction (calculated from PLS concs) | |
|---|---|---|---|---|---|---|---|
| | | NaCN | | NaCN | CaO | Ag | Cu |
| LEACHMET 1 | -12.7 | 0.40 | 7.0 | 6.3 | 1.4 | 75.3 | 45.8 |
| LEACHMET 1 | -12.7 | 0.40 | 10.0 | 8.6 | 1.6 | 84.4 | 45.1 |
| LEACHMET 4 | -12.7 | 0.40 | 7.0 | 6.4 | 1.4 | 88.3 | 29.3 |
| LEACHMET 4 | -12.7 | 0.40 | 10.0 | 8.1 | 1.6 | 86.6 | 29.4 |

Figure 13.4 Column leach kinetic curves




Source: AGP Mining Consultants Inc. 2019.

These column leach results indicate that heap leaching may be a viable process route for the deposit and might be suitable for processing the lower grade oxide material. The laboratory work was conducted on fairly fine material (-1/2”), so should be expected to give better results than for coarser industrial scale heap leaches. The kinetic curves shown above demonstrate how the recovery was still increasing at the end of the test, so higher recoveries would likely be achievable with longer leach times.

# 14 Mineral Resource estimates

The Mineral Resources for the Silver Sand deposit have been estimated by Ms Dinara Nussipakynova, P.Geo., of AMC Consultants, who takes responsibility for the estimate.

The estimate is dated 31 December 2019 and is the first Mineral Resource estimate on the deposit. The data used in this estimate includes results of all drilling carried out on the Property to 31 December 2019.

The estimation was carried out in Datamine™ software. Interpolation was carried out using ordinary kriging (OK) for both mineralized domains and the background model.

The result of the current estimate is summarized in Table 14.1. The following metals were estimated; silver, lead, zinc, gallium, and indium. Only silver is reported below as metallurgical work has yet to be done on the other metals to demonstrate economics. The model is depleted for historical mining activities.

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

Table 14.1 Conceptual pit-constrained Mineral Resource as of 31 December 2019

| Resource category | Tonnes (Mt) | Ag (g/t) | Ag (Moz) |
|---|---|---|---|
| Measured | 8.40 | 159 | 43.05 |
| Indicated | 26.99 | 130 | 112.81 |
| Measured & Indicated | 35.39 | 137 | 155.86 |
| Inferred | 9.84 | 112 | 35.55 |

Notes:
- CIM Definition Standards (2014) were used for reporting the Mineral Resources.
- The QP Dinara Nussipakynova, P.Geo. of AMC Consultants.
- Mineral Resources are constrained by an optimized pit shell developed at a metal price of US$18.70/oz Ag and recovery of 90% Ag.
- Cut-off grade is 45 g/t Ag.
- Mineral Resources are reported inside the AMC claim boundary.
- Pit optimization allows waste to extend outside the claim to the NE and SW.
- Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- Drilling results up to 31 December 2019.
- The numbers may not compute exactly due to rounding.

Source: AMC Mining Consultants (Canada) Ltd.

The QP is not aware of any known environmental, permitting, legal, taxation, socioeconomic, marketing, or other similar factors that could materially affect the stated Mineral Resource estimates.

Regarding title, the QP is aware that the 17 ATEs, where the Mineral Resource is located, are in the process of being consolidated and converted into one concession. An Administrative Mining Contract (AMC) with AJAM has been signed but is yet to be registered with the mining register, notary process and published in the mining gazette. AMC sees no reason for these final conversion steps not to occur.

Regarding political risk, during and after the Fall 2019 elections, civil unrest across the country resulted in road blockages and strikes by local groups. Roads to the Property were blocked during this temporary event. New elections are currently scheduled to be held in 2020 which may again result in temporary civil unrest. In the past, former political leaders have caused Bolivia to nationalize privately owned mines. Global mining laws are subject to change from time to time.

## 14.1 Data used

### 14.1.1 Drillhole database

The data used in the estimate consists of surface DDHs only. New Pacific maintains the resource database in a Microsoft Access database and provided data to AMC Consultants as Excel files. The number of holes and number of assays used in the AMC Consultants estimate, by year of drilling, are shown in Table 14.2.

Table 14.2 Drillhole data used in the estimate

| Year drilled | No. of drillholes* | No. of assays | Metres drilled (m) |
|---|---|---|---|
| 2017 | 18 | 3,337 | 5,020 |
| 2018 | 177 | 34,728 | 49,991 |
| 2019 | 135 | 20,355 | 30,379 |
| **Total** | **330** | **58,420** | **85,391** |

Notes:
- Drillholes are surface DDHs.
- Drill data to 31 December 2019.
- Numbers may not add due to rounding.
- Number of drillholes on the Property is 345 but only 330 are in the Mineral Resource area.

*Mineral Resource estimate used 34 drillholes collared on the COMIBOL ground to inform the block model.
Source: AMC Mining Consultants (Canada) Ltd.

### 14.1.2 Bulk density

New Pacific performed 4,033 density measurements on the core drilled on the Property. The collection of bulk density measurements is described in Section 11. As the mineralization is hosted in one rock type, after reviewing the density data, the QP assigned two density measurements to the block model based on the mean density inside and outside of the mineralized domains. These values are shown below in Table 14.3.

Table 14.3 Assigned bulk density

| Area | No. of measurements | Assigned ($t/m^3$) |
|---|---|---|
| Mineralized Sandstone | 725 | 2.54 |
| Unmineralized Sandstone | 3,308 | 2.50 |
| **Total** | **4,033** | |

## 14.2 Domain modelling

### 14.2.1 Lithological domains

The Silver Sand deposit is hosted in La Puerta Formation sandstones and is capped by the red siltstone of the Tarapaya Formation as discussed in Section 7. New Pacific provided the contact between these two formations. The contact was modelled in Leapfrog Geo 4.0. The contact was reviewed and accepted by the QP.

### 14.2.2 Mineralization domains

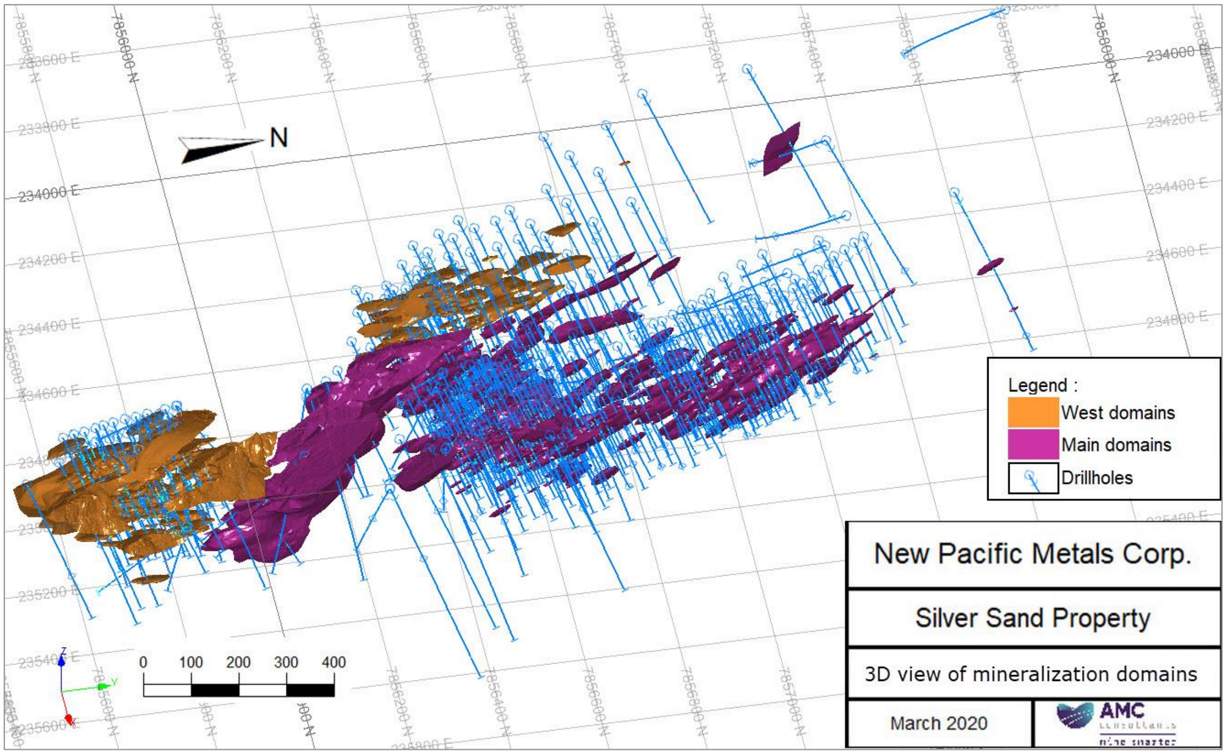
Building of the mineralization domain was also carried out by New Pacific. The wireframes of mineralization were built by the grade shell method in Leapfrog.

The mineralization domain was reviewed and accepted by the QP with some changes. The QP separated the domain into two areas termed West and Main domains, based on vein orientation. The wireframes were trimmed to address locally unconstrained implicit modelling issues and where Leapfrog had built shapes around one drillhole.

Figure 14.1 shows the mineralization domains in 3D space.

Visual checks were carried out by the QP to ensure that the constraining wireframes respected the raw data, and the QP also ran a preliminary indicator model to confirm the orientation of the domains.

Figure 14.1 3D view of mineralization domains looking north-east




Source: AMC Mining Consultants (Canada) Ltd.

### 14.2.3 Mined-out domains

New Pacific provided AMC Consultants with void solids that are interpreted to represent historical mining. The void solids were built by extrapolating voids encountered in drilling approximately halfway to the next drillhole. Surveying of the historical mining voids could not be undertaken due to safety issues.

The QP compared the provided solids with the drillhole database and found them to be acceptable.

## 14.3 Statistics and compositing

Sample lengths range from 0.14 m to 12.93 m within the resource area. The mean sample length is 1.44 m. Given this mean and considering the width of the mineralization, the QP chose to composite to 1.4 m lengths. Samples were composited by domain. Assays within the wireframe domains were composited starting at the first mineralized wireframe boundary from the collar and resetting at each new wireframe boundary. The residuals were discarded.

The silver assay data sets for both the West and Main mineralization domains were viewed on log probability plots, and also evaluated using the decile method. Capping was applied by domain to the composites as shown in Table 14.4.

Table 14.4 Grade capping for silver

| Domain | Top cut (Ag g/t) | Original mean (Ag g/t) | New mean (Ag g/t) | Number of samples top cut | New mean grade as % of original |
|---|---|---|---|---|---|
| West Domain | 1,500 | 122 | 119 | 12 | 97.5% |
| Main Domain | 1,500 | 153 | 143 | 61 | 93.5% |

Source: AMC Mining Consultants (Canada) Ltd.

The raw, composited, and capped assay data for the mineralized domains are shown in Table 14.5.

Table 14.5 Statistics of raw, composited, and capped assay data

| Domain | Statistic | Ag (g/t) | | |
|---|---|---|---|---|
| | | Raw | Composites | Capped |
| West Domain | No. samples | 2,547 | 2,179 | 2,179 |
| | Minimum | 0.01 | 0 | 0 |
| | Maximum | 4,000 | 2,642 | 1,500 |
| | Mean | 120 | 122 | 119 |
| | Coefficient variation | 2.18 | 1.73 | 1.59 |
| Main Domain | No. samples | 7,360 | 6,201 | 6,201 |
| | Minimum | 0 | 0 | 0 |
| | Maximum | 16,194 | 11,252 | 1,500 |
| | Mean | 153 | 153 | 143 |
| | Coefficient variation | 2.95 | 2.30 | 1.67 |

Source: AMC Mining Consultants (Canada) Ltd.

## 14.4 Block model parameters

The parent block size was 5 mE x 5 mN x 5 mRL with sub-blocking employed. Sub-blocking resulted in minimum cell dimensions of 1.25 mE x 1.25 mN x 0.5 mRL.

The background mineralization being that outside the mineralization domains was estimated with a parent block dimension of 10 mE x 10 mN x 10 mRL. The background model was then merged with the domain model to form one model.

The block model dimensions and rotation for the merged model used for the estimate are shown in Table 14.6. The model was rotated counter-clockwise around the Z-axis.

Table 14.6 Block model parameters

| Parameter | X | Y | Z |
|---|---|---|---|
| Origin (m) | 234,650 | 7,855,150 | 3,600 |
| Rotation angle (deg) | 0 | 0 | -30 |
| No. of blocks | 150 | 260 | 80 |

Source: AMC Mining Consultants (Canada) Ltd.

## 14.5 Variography and grade estimation

Variography was carried out on both the West and Main domains, and for the low-grade background model. The search distances for grade estimation were based on the variogram ranges.

Interpolation was carried out using the OK estimation method. A number of passes were employed, each using different search distances and passes as shown in Table 14.7 along with the minimum and maximum number of samples used for each pass.

Table 14.7 Grades interpolation search parameters for silver

| Domain | Pass | X (m) | Y (m) | Z (m) | Rotation angle axis Z | Rotation angle axis Y | Rotation angle axis Z | Minimum no. of samples | Maximum no. of samples | Minimum no. of drillholes |
|---|---|---|---|---|---|---|---|---|---|---|
| West | 1 | 65 | 65 | 15 | 15 | 160 | 145 | 6 | 16 | NA |
| | 2 | 130 | 130 | 30 | 15 | 160 | 145 | 6 | 16 | NA |
| | 3 | 195 | 195 | 45 | 15 | 160 | 145 | 3 | 12 | NA |
| Main | 1 | 85 | 90 | 30 | 30 | 155 | 120 | 6 | 16 | NA |
| | 2 | 170 | 180 | 60 | 30 | 155 | 120 | 6 | 16 | NA |
| | 3 | 255 | 270 | 90 | 30 | 155 | 120 | 3 | 16 | NA |
| Background | 1 | 67 | 74 | 37 | 37 | 155 | 120 | 6 | 12 | 3 |
| | 2 | 134 | 148 | 74 | 37 | 155 | 120 | 4 | 12 | 2 |
| | 3 | 201 | 222 | 111 | 37 | 155 | 120 | 2 | 12 | 1 |

Source: AMC Mining Consultants (Canada) Ltd.

The blocks inside the block model are coded by estimated silver, lead, zinc, gallium, indium, and an assigned bulk density value. Only silver, which has a proven metallurgical recovery method, is reported in the Mineral Resource statement.

## 14.6 Resource classification

Mineral Resource classification was completed using an assessment of geological and mineralization continuity, data quality, and data density. Search passes, which were different from those used to estimate grade, were used as an initial guide for classification. Wireframes were then generated manually to build coherent areas defining the different classes.

Interpolation for classification was carried out using the OK method. A number of passes were employed, each using different search distances and multiples as follows:

- Pass 1 = 1 x search distance
- Pass 2 = 2 x search distance
- Pass 3 = 3 x search distance

These are shown in Table 14.8 along with the minimum and maximum number of samples used for each pass.

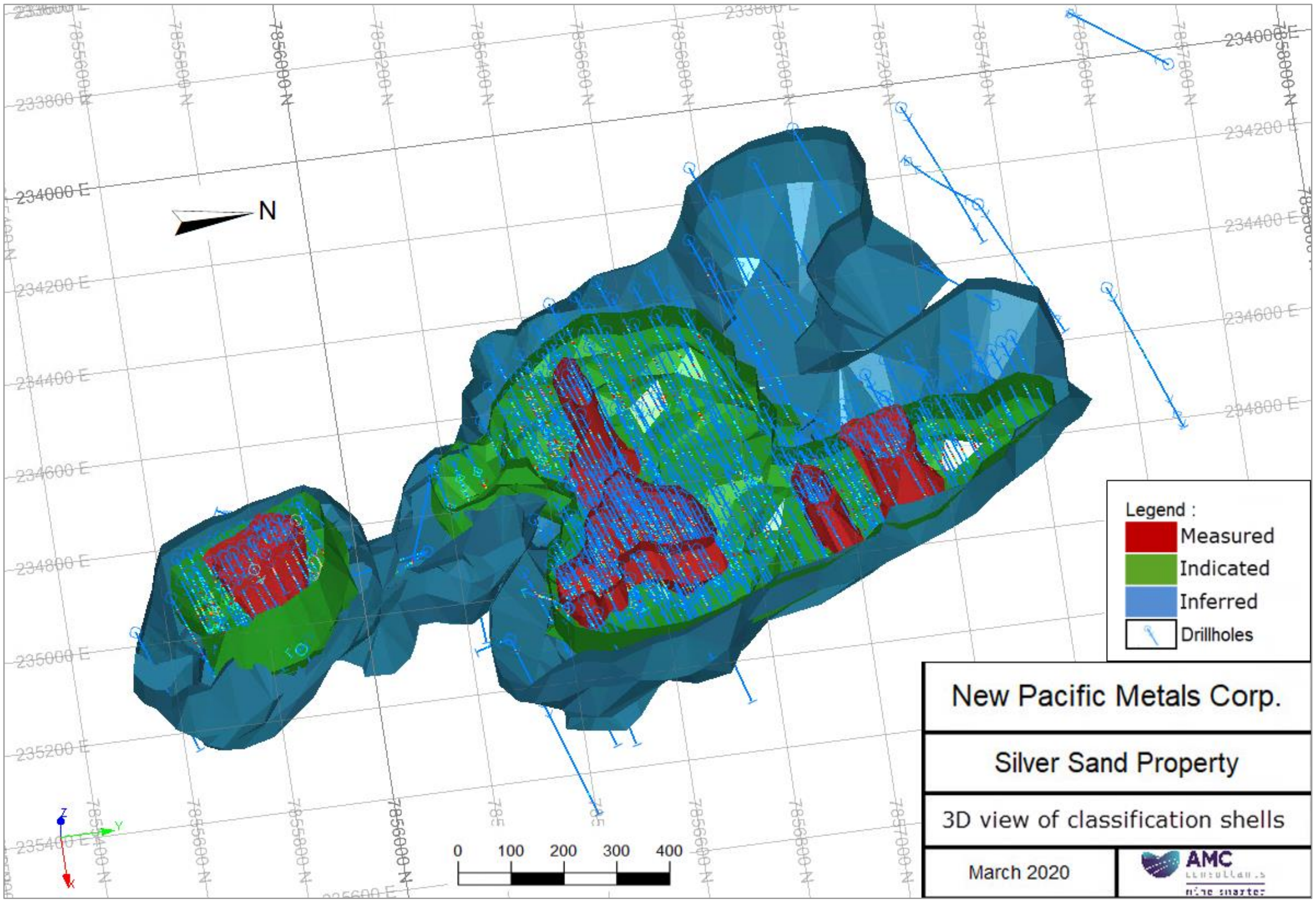
Table 14.8 Class interpolation search parameters

| Pass | X (m) | Y (m) | Z (m) | Minimum no. of samples | Maximum no. of samples | Minimum no. of drillholes |
|---|---|---|---|---|---|---|
| 1 | 30 | 30 | 10 | 8 | 24 | 4 |
| 2 | 60 | 60 | 20 | 6 | 20 | 3 |
| 3 | 90 | 90 | 30 | 4 | 20 | 2 |

Source: AMC Mining Consultants (Canada) Ltd.

Figure 14.2 shows a 3D view of the resource classification shells.

Figure 14.2 3D view of resource classification shells




## 14.7 Block model validation

The block model was validated in four ways. First, visual checks were carried out to ensure that the grades respected the raw assay data, and also lay within the constraining wireframes. Secondly, swath plots were reviewed. Thirdly, the estimate was statistically compared to the capped assay data, with satisfactory results. Lastly the OK estimate was compared to an inverse distance squared, and inverse distance cubed and a nearest neighbour estimate, also with acceptable results.

### 14.7.1 Visual checks

Figure 14.3 shows a plan view of the block model along with section lines. The Main domain contains the largest Measured plus Indicated tonnes. Examples of the drillhole composite silver grades compared to the block model estimated grades for the Main domain are shown in Figure 14.4 and Figure 14.5. The figure shows good agreement between the drillhole composite grades and the estimated block model grades.

Figure 14.5 and Figure 14.6 show examples of the drillhole composite silver grades compared to the block model estimated grades for the West domain. The figure shows good agreement between the drillhole composite grades and the estimated block model grades.

Figure 14.3 Plan view at 3950 mRL: block model and section lines

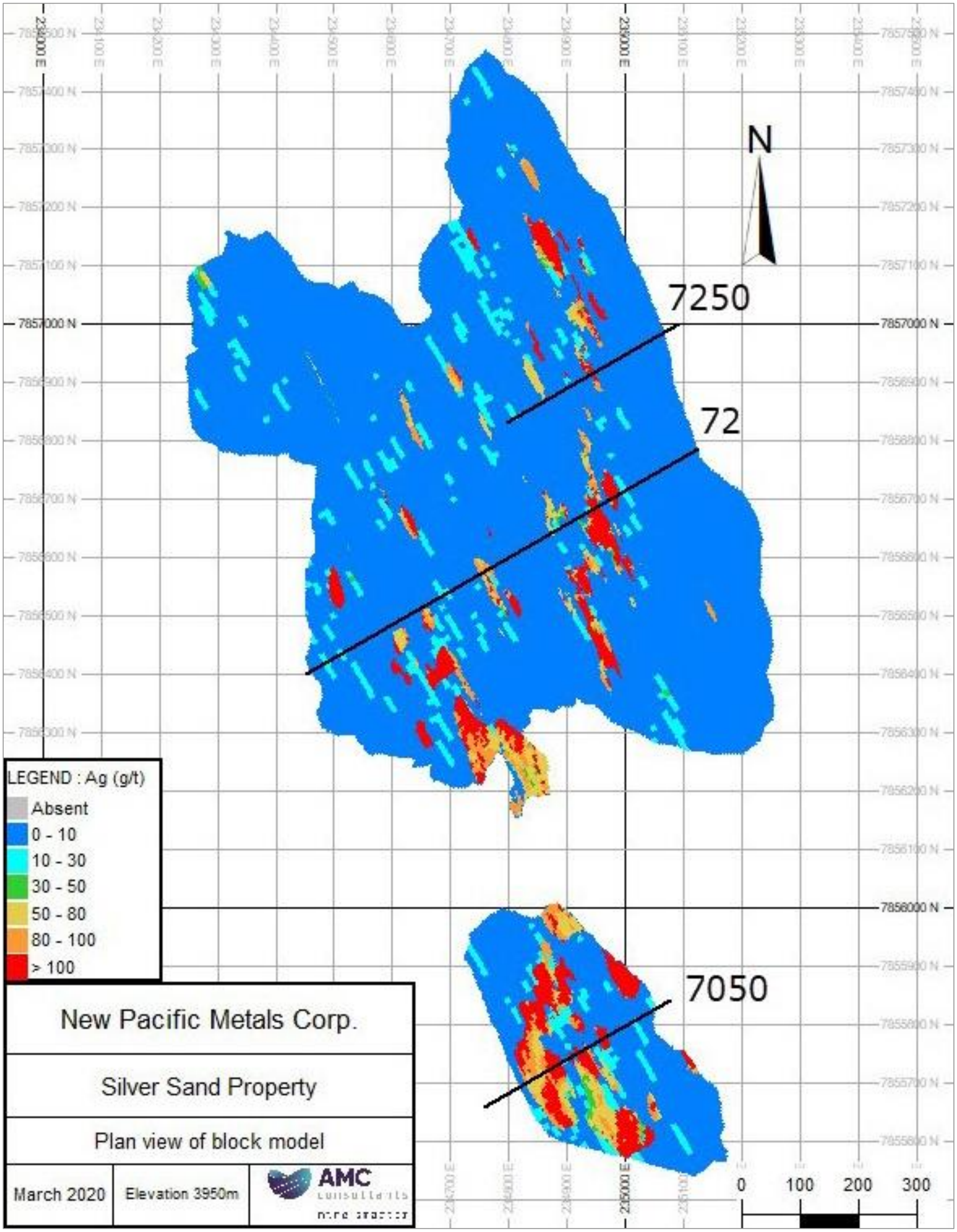


Figure 14.4 Main domain: block model versus drillhole grade Section 7250

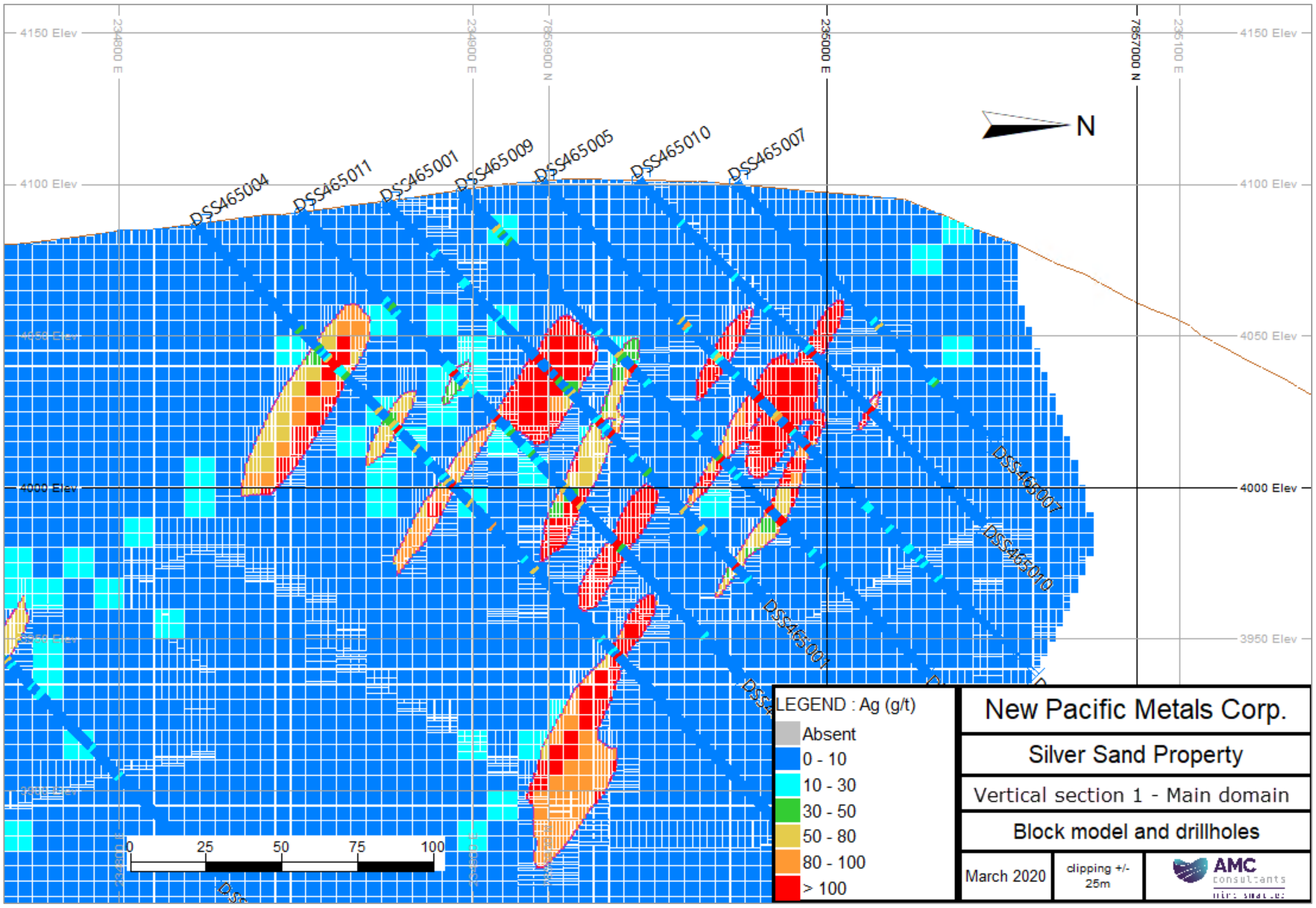


Figure 14.5 West and Main domains: block model versus drillhole grade Section 72

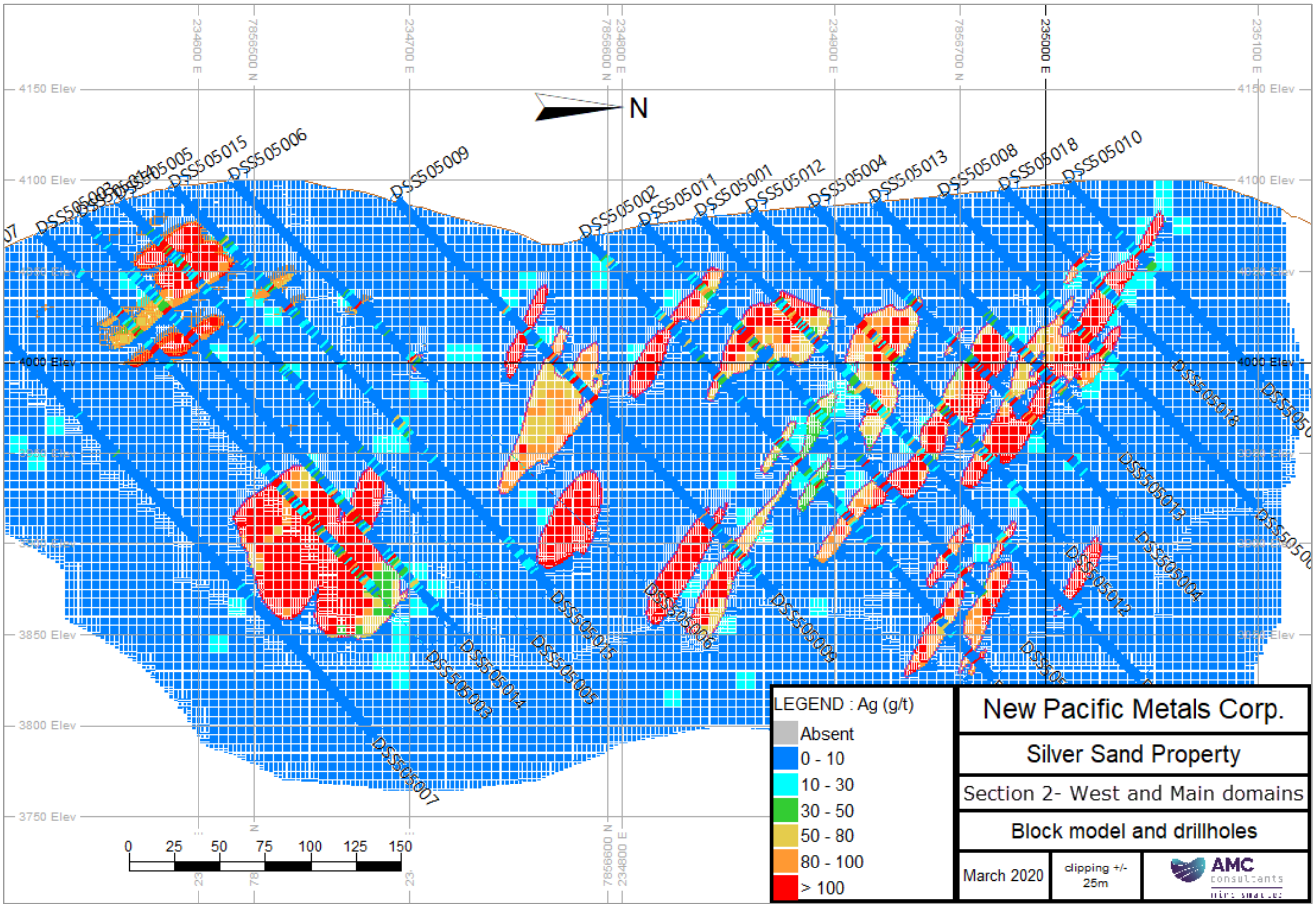
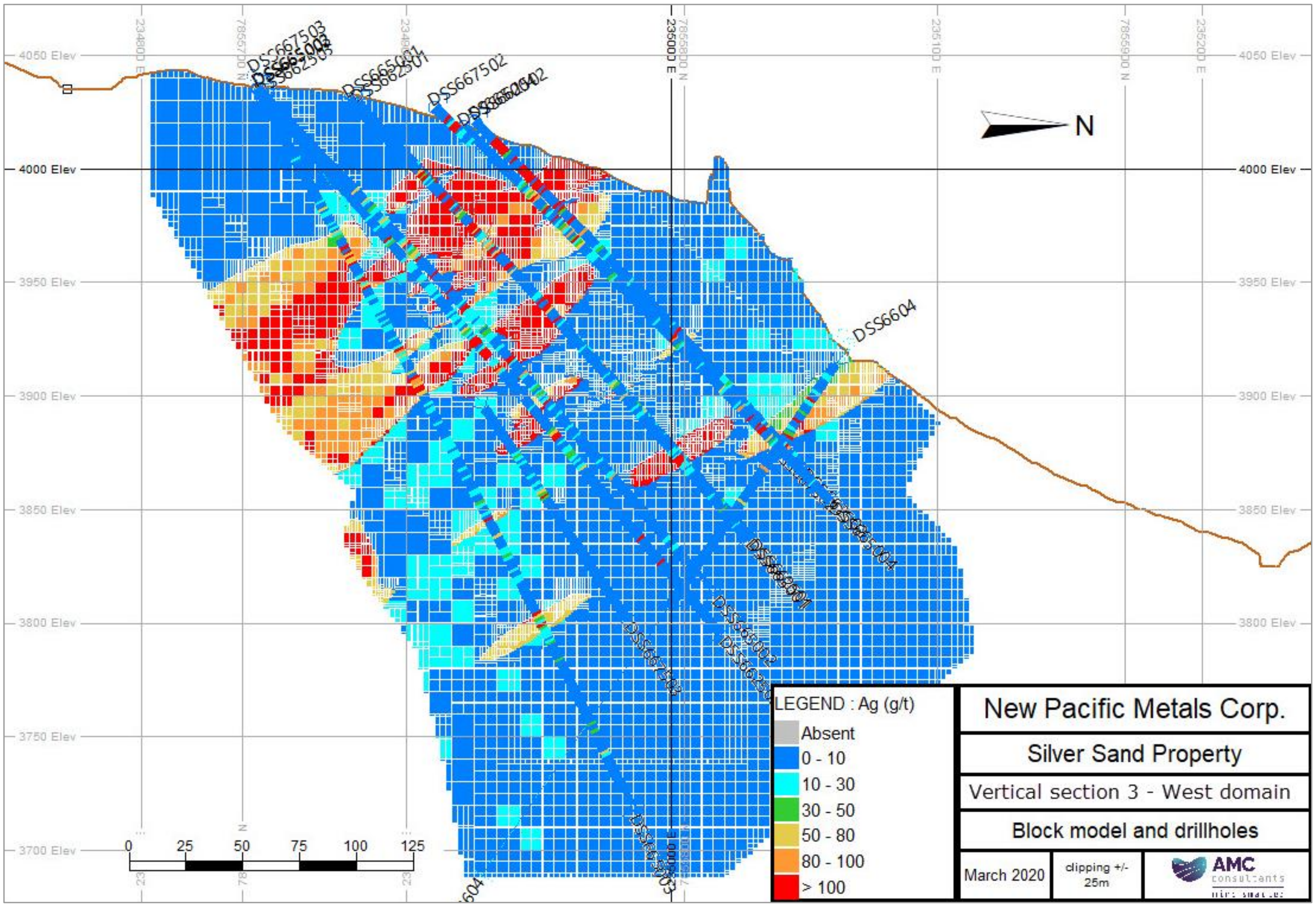


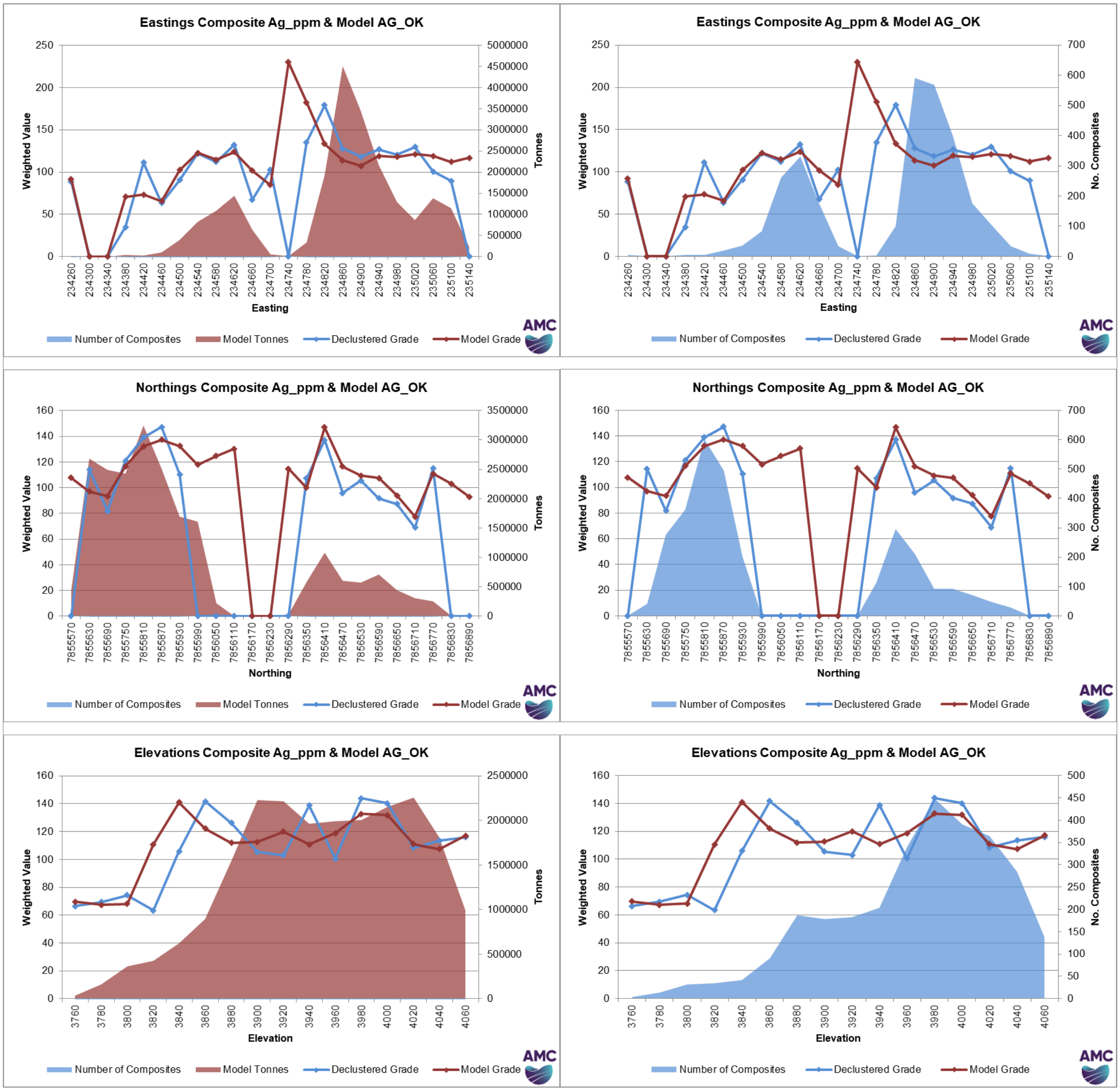
Figure 14.6 West domain: block model versus drillhole grade Section 7050




## 14.7.2 Swath plots

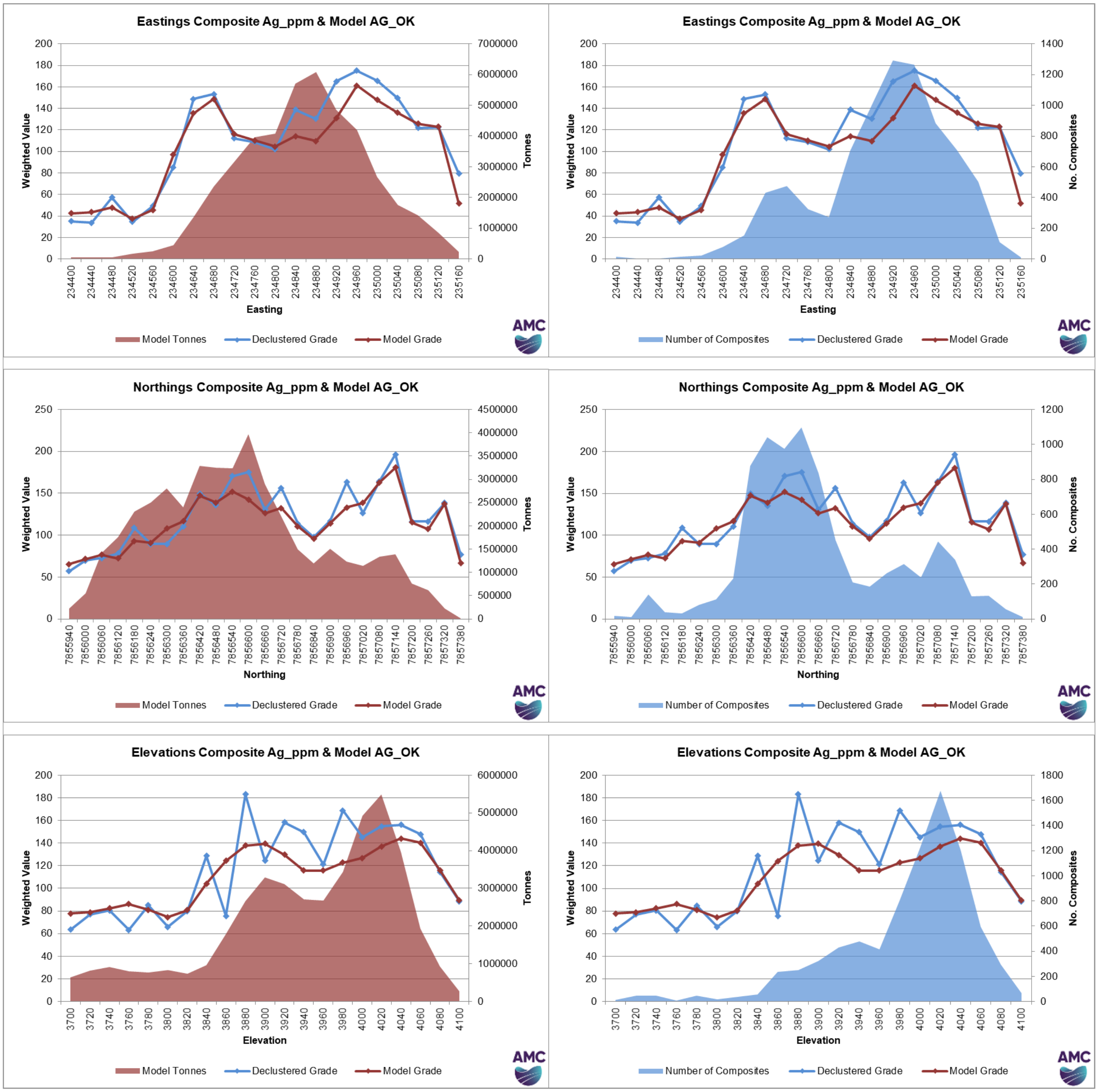
Swath plots for the West domain and the Main domain for the combined Measured, Indicated, and Inferred mineralization are shown below in Figure 14.7 and Figure 14.8 respectively. In both domains there is acceptable agreement between drillhole and block model silver grades.

## Figure 14.7 West domain swath plot




Source: AMC Mining Consultants (Canada) Ltd. 2020.

Figure 14.8 Main domain swath plot




Source: AMC Mining Consultants (Canada) Ltd. 2020.

### 14.7.3 Statistical comparison

Table 14.9 shows the statistical comparison on the composites versus the block model grades for silver.

Table 14.9 Statistical comparison of capped assay data and block model

| Domain | Statistic | Ag (g/t) | |
|---|---|---|---|
| | | Capped | Block model |
| West | No. samples | 2,179 | 828,738 |
| | Minimum | 0 | 18 |
| | Maximum | 1500 | 714 |
| | Mean | 119 | 114 |
| | Coeff. Var | 1.63 | 0.50 |
| Main | No. samples | 6,201 | 1,378,129 |
| | Minimum | 0 | 10 |
| | Maximum | 1500 | 1,128 |
| | Mean | 143 | 118 |
| | Coeff. Var | 1.67 | 0.59 |

### 14.7.4 Comparison with other interpolation methods

The OK estimate was compared to an inverse distance squared, and inverse distance cubed and a nearest neighbour estimate, also with acceptable results.

## 14.8 Mineral Resource estimates

The pit-constrained Mineral Resources are reported for blocks above a conceptual pit shell based on a US$18.70/ounce silver price and Mineral Resources are reported within the AMC claim boundary. Pit optimization allowed waste to extend outside the AMC claim boundary into the MPC area to the NE and SW.

The cut-off applied for reporting the pit-constrained Mineral Resources is 45 g/t silver. Assumptions made to derive a cut-off grade included mining costs, processing costs and recoveries and were obtained from comparable industry situations. The model is depleted for historical mining activities.

A summary of the Mineral Resource estimate is shown in Table 14.10.

Table 14.10 Conceptual pit-constrained Mineral Resource as of 31 December 2019

| Resource category | Tonnes (Mt) | Ag (g/t) | Ag (Moz) |
|---|---|---|---|
| Measured | 8.40 | 159 | 43.05 |
| Indicated | 26.99 | 130 | 112.81 |
| Measured & Indicated | 35.39 | 137 | 155.86 |
| Inferred | 9.84 | 112 | 35.55 |

Notes:
- CIM Definition Standards (2014) were used for reporting the Mineral Resources.
- The QP is Dinara Nussipakynova, P.Geo. of AMC Consultants.
- Mineral Resources are constrained by an optimized pit shell developed at a metal price of US$18.70/oz Ag and recovery of 90% Ag.
- Cut-off grade is 45 g/t Ag.
- Mineral Resources are reported inside the AMC claim boundary.
- Pit optimization allows waste to extend outside the claim to the NE and SW.
- Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- Drilling results up to 31 December 2019.
- The numbers may not compute exactly due to rounding.

Source: AMC Mining Consultants (Canada) Ltd.

The results of reporting out of the block model at a range of cut-offs are shown in Table 14.11, with the preferred cut-off shown in bold text. The QP notes the Mineral Resource estimate is insensitive to cut-off grade.

Table 14.11 Mineral Resource estimates at a range of cut-off values

| Resource category | Cut-off Ag (g/t) | Tonnes (Mt) | Ag (g/t) | Ag (Moz) |
|---|---|---|---|---|
| Measured | 30 | 8.5 | 158 | 43.19 |
| | **45** | **8.4** | **159** | **43.05** |
| | 60 | 8.0 | 164 | 42.42 |
| | 80 | 7.1 | 176 | 40.42 |
| | 100 | 6.0 | 192 | 37.09 |
| Indicated | 30 | 27.6 | 128 | 113.56 |
| | **45** | **27** | **130** | **112.81** |
| | 60 | 25.3 | 135 | 109.97 |
| | 80 | 21.2 | 148 | 100.5 |
| | 100 | 16.6 | 164 | 87.31 |
| Inferred | 30 | 10.6 | 107 | 36.47 |
| | **45** | **9.8** | **112** | **35.55** |
| | 60 | 8.8 | 119 | 33.81 |
| | 80 | 6.9 | 134 | 29.41 |
| | 100 | 4.8 | 153 | 23.35 |

Notes:
- CIM Definition Standards (2014) were used for reporting the Mineral Resources.
- Mineral Resources are constrained by an optimized pit shell at a metal price of US$18.70/oz Ag and recovery of 90% Ag.
- Mineral Resources are shown at a range of silver cut-off values. The preferred cut-off grade of 45 g/t Ag shown in bold.
- Mineral Resources are reported inside the AMC claim boundary.
- Pit optimization allows waste to extend outside the claim to the NE and SW.
- Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- Drilling results up to 31 December 2019.
- The numbers may not compute exactly due to rounding.

Source: AMC Mining Consultants (Canada) Ltd.

The QP notes that the current Mineral Resource is constrained within a conceptual open pit that allows waste, but not mineralization, to extend onto the MPC area. Extending the pit to allow for the extraction of both waste and mineralization in the MPC area increases the contained silver ounces in the Measured and Inferred category from 155.9 Moz to 170.3 Moz and in the Inferred category from 35.6 Moz to 49.7 Moz. Conversely, constraining both the waste and mineralization to the AMC ground reduces the contained silver ounces in the Measured and Inferred category from 155.9 Moz to 142.2 Moz and in the Inferred category from 35.6 Moz to 27.4 Moz.

## 14.9 Comparison with previous Mineral Resource estimate

This report discloses the first Mineral Resource on the Property, thus there is not any comparison.

## 14.10 Recommendations

For future Mineral Resource modelling it is useful to determine the extent of the historical mining on the Property. The QP recommends that New Pacific:

- Conduct a professional survey of the underground cavities if it safe to do so.
- Continue to record in logs if the drilling hits voids.
- Conduct a survey of the waste dumps in order to check the volumes of mined-out areas.
- Conduct structural analysis of available data and complete initial structural / geotechnical drilling as required.
- Update the 3D geological model to include detailed geology – deposit oxidation domaining and structures.

The Silver Sand deposit as currently defined remains open for expansion. There has been no modern district scale exploration. It is recommended that future exploration, resource expansion, and definition drilling:

- Test the newly defined Snake Hole prospect located approximately 600 m east of the Silver Sand deposit.
- Test and / or convert areas of known silver mineralization and or structural extensions within, adjacent to and / or not captured by the current conceptual open pit design.
- Test the northern structural extension of the Main Zone of the Silver Sand deposit.
- Test the downdip / deeper extents below the Main Zone and the area between the Main and South Zones of the deposit.
- Conduct an initial drill test on the Silver Sand North Block ~ El Bronce and Jisas targets.

# 15 Mineral Reserve estimates

As this is not an Advanced Property, this section is not addressed.

# 16 Mining methods

As this is not an Advanced Property, this section is not addressed.

# 17 Recovery methods

As this is not an Advanced Property, this section is not addressed.

# 18 Project infrastructure

As this is not an Advanced Property, this section is not addressed.

# 19 Market studies and contracts

As this is not an Advanced Property, this section is not addressed.

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

As this is not an Advanced Property, this section is not addressed.

# 21 Capital and operating costs

As this is not an Advanced Property, this section is not addressed.

# 22 Economic analysis

As this is not an Advanced Property, this section is not addressed.

# 23 Adjacent properties

COMIBOL, the state-owned Bolivian Mining Corporation, holds the exploration and mining rights of the adjacent areas surrounding the concessions owned by New Pacific. New Pacific acquired the exploration and mining rights of the direct neighbouring 57-$km^2$ area around its concessions through a Mining Production Contract (see Section 4.2) with COMIBOL, except for a few operating mines which are subleased to small operators by COMIBOL. The Colavi mine to the north-west and the Canutillos mine to the west of the Property are two adjacent operating mines (see Figure 4.1).

### 23.1 Colavi Tin Polymetallic mine

Bedrock in the Colavi mine area consists of Ordovician shale and sandstone, and Cretaceous sandstone and dacitic tuffs. Some dacitic intrusive rocks are found in Ordovician and Cretaceous sequences as stocks, sills or dykes. Six manto-type mineralized horizons with thicknesses ranging from 0.8 to 1 m were concordantly developed in a horizon of calcareous sandstone within the Cretaceous red sandstone and tuffs sequence. The mineralized calcareous sandstone gently dips to the west and occupies an area of 2 km wide and 6 km long. Ore minerals are mainly composed of pyrite, hematite, and cassiterite. Sphalerite and galena are very rare, and quartz is absent. Volcanism and mineralization are closely related. Manto mineralization formed first associated with earlier magmatic intrusions, and dacite sills successively intruded the Cretaceous sedimentary sequence and displaced the manto-type mineralization. Later cassiterite veins occur in dacite (Rivas 1979; Sugaki et al. 1983).

Mining activities for tin at Colavi can be traced back to 1890. In 1912, the recorded production capacity of the mine was 100 tons per day and produced up to 5,000-ton ore grading more than 3% Sn (Redwood 2018). Production of the Colavi mine in June 1981 was 5,700 t ore grading 0.7% Sn. Mine workers hand-picked and screened the crude ore to produce 650 to 1,000 t semi-concentrate containing 2 – 3% Sn, per month (Sugaki et al. 1983).

The United Nations Development Program (UNDP) and Servicio Geologico de Bolivia (GEOBOL) jointly carried out a reconnaissance exploration for tin and silver at Colavi in 1989 and 1990 and estimated a potential resource of 3 to 5 million tons grading 0.5 to 0.9% Sn over a 4-km strike length (Redwood 2018). The QP has been unable to verify the reported resource and the resource is not indicative of the mineralization on the Property that is the subject of the Technical Report.

### 23.2 Canutillos Tin Polymetallic mine

Limited literature on Canutillos shows that COMIBOL began operation at the mine in 1964 and Empresa Minera Tirex Ltda began to conduct silver heap leach in 2010 (Redwood 2018). No exploration and production data are available from public sources.

# 24 Other relevant data and information

The QPs are not aware of any additional information or explanation that is necessary to make the Technical Report understandable and not misleading.

# 25 Interpretation and conclusions

Silver mineralization at the Property occurs in ten areas: Silver Sand, El Fuerte, Snake Hole, North Plain, San Antonio, Esperanza, Jisas, El Bronce, Mascota, and Aullagas. The mineralization identified in the Property belongs to the Bolivian polymetallic vein-type deposits represented by the giant Cerro Rico de Potosí silver mine in Potosí.

The Silver Sand deposit is defined by exploration drilling and has a conceptual pit-constrained Mineral Resource using a 45 g/t Ag cut-off of Measured and Indicated Resources of 35.39 million tonnes grading 137 g/t silver; and Inferred Mineral Resource of 9.84 million tonnes grading 112 g/t silver. Ms Dinara Nussipakynova, P.Geo. of AMC Consultants takes responsibility for these estimates.

Logging, mapping, sampling, and analyzing procedures of New Pacific's on-going exploration programs follow common industry practice. Results of QA/QC programs are deemed acceptable by the QP.

The results of a preliminary metallurgical test program suggest that the mineralized materials from the Silver Sand Property would be amenable to processing using conventional flotation or whole ore cyanidation at atmospheric pressure at large scale.

Risks and opportunities relating to this project are discussed below.

#### 25.1.1 Risks

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is a degree of uncertainty attributable to the estimation of Mineral Resources. Until resources are actually mined and processed, the quantity of mineralization and grades must be considered as estimates only.

The QP notes that the current Mineral Resource is constrained within a conceptual open pit that allows minor waste, but not mineralization, to extend onto the MPC area. Constraining both the waste and mineralization to the AMC ground reduces the contained silver ounces in the Measured and Indicated category from 155.9 Moz to 142.2 Moz and in the Inferred category from 35.6 Moz to 27.4 Moz.

Engineering, geotechnical and hydrogeological studies done at a sufficient level to convert Mineral Resources to Mineral Reserves are necessary before the impact of these risk and uncertainties to the project's potential economic viability can be reasonably quantified.

Operating in South America can be associated with political risk. In the past, former political leaders have caused Bolivia to nationalize privately owned mines. Global mining laws are subject to change from time to time.

### 25.1.2 Opportunities

Potential opportunities for the project include:

- The current Mineral Resource is constrained within an open pit that allows waste stripping, but not mineralization, to extend onto the MPC area. Extending the pit to allow for the extraction of both waste and mineralization in the MPC area increases the contained silver ounces in the Measured and Inferred category from 155.9 Moz to 170.3 Moz and in the Inferred category from 35.6 Moz to 49.7 Moz.
- Expansion and upgrading of the Silver Sand deposit through additional drilling.
- Significant exploration potential within an emerging silver district which contains numerous showings and evidence of silver-rich, polymetallic mineralization including historic workings.

# 26 Recommendations

## 26.1 Quality Assurance / Quality Control

With respect to density, the QP recommends that New Pacific:

- Incorporate the regular use of a density standard.
- Weigh samples following immersion to ensure that the sample is not absorbing water.
- Send a portion of samples to a third-party laboratory for density measurement.

With respect to CRMs, the QP recommends that New Pacific:

- Adjust CRM monitoring criteria such that assay batches with 2 consecutive CRMs outside two standard deviations, or one CRM outside of three standard deviations are investigated and if necessary, the batch is re-analyzed.
- Purchase an additional CRM at the average grade (130 g/t Ag) of the deposit which has been certified using similar digestion methodology.
- Investigate performance issues with CRMs CDN-ME-1603 and CDN-ME-1605 if these are to be used in future programs. This could be done by preparing several separate sample batches comprising 20 – 30 CRMs each and comprising at least two different CRMs in random order. Each batch should then be sent to both the primary laboratory and at least one other check laboratory. If results occur outside of certified performance criteria, expected values and standard deviation can be calculated from laboratory results and used as performance criteria.
- Ensure that CRMs are monitored in real time on a batch by batch basis, and that remedial action is taken immediately as issues are identified.
- Ensure CRM warning, failure and remedial action is documented.
- Re-evaluate the use of ME-MS41 analytical method. If this method is to be used going forward it is recommended that the OG46 over-limit threshold be dropped from 100 g/t Ag to a level below the anticipated cut-off grade.

With respect to blanks, the QP recommends that New Pacific:

- Continue to include blanks in every batch of samples submitted at a rate of at least 1 in every 20 samples (5%).
- Adjust blank insertion procedures to also include the insertion of blank material immediately after visible high-grade silver intercepts. Alternatively, request quartz wash samples be inserted by the laboratory.
- Ensure that blanks are consistently monitored in real time on a batch by batch basis and that remedial action is taken as issues arise.
- Ensure that all blank sample follow up is recorded.
- If ALS method ME-MS41 is to be used for ongoing routine analysis:
  - Test an additional 10 – 20 samples from the new blank quarry site to establish a background value.
  - Establish an appropriate (lower) blank failure limit for ME-MS41 analysis.

With respect to duplicates, the QP recommends that New Pacific:

- Implement investigative work to understand duplicate sample bias. This should include:
  - Submission of coarse (crush) duplicates samples from laboratory rejects.
  - Submission of fine (pulp) duplicates from laboratory pulps.
  - Complete screen size analysis or polished section petrology to understand the nature and size distribution of silver mineralization.

- In future programs consider submitting field duplicates as half core rather than quarter core to assess sub-sampling error.
- Consider drilling twin holes using triple tube diamond core or RC drilling to evaluate the deposit variance on a local scale and whether loss of vein material is occurring during drilling and sampling processes.

• Ensure that all future programs include at least 5% duplicate samples including field duplicates, coarse (crush) duplicates, and pulp duplicates to enable the various stages of sub-sampling to be monitored.

With respect to umpire samples, the QP recommends that New Pacific:

• Maintain current level of umpire samples.
• Submit pulp samples (rather than coarse reject) so that umpire samples only monitor analytical accuracy and variance.
• Include CRMs at the average grade and higher grades in umpire sample submissions.

## 26.2 Mineral Resource

For future Mineral Resource modelling it is useful to determine the extent of the historical mining on the Property. The QP recommends that New Pacific:

• Conduct a professional survey of the underground cavities if it safe to do so.
• Continue to record in logs if the drilling hits voids.
• Conduct a survey of the waste dumps in order to check the volumes of mined-out areas.
• Conduct structural analysis of available data and complete initial structural / geotechnical drilling as required.
• Update the 3D geological model to include detailed geology – deposit oxidation domaining and structures.

## 26.3 Mineral Resource expansion and conversion

The Silver Sand deposit as currently defined remains open for expansion. There has been no modern district scale exploration. It is recommended that future exploration, resource expansion, and definition drilling:

• Test the newly defined Snake Hole prospect located approximately 600 m east of the Silver Sand deposit.
• Test and / or convert areas of known silver mineralization and or structural extensions within, adjacent to and / or not captured by the current conceptual open pit design.
• Test the northern structural extension of the Main Zone of the Silver Sand deposit.
• Test the downdip / deeper extents below the Main Zone and the area between the Main and South Zones of the deposit.
• Conduct an initial drill test on the Silver Sand North Block ~ El Bronce and Jisas targets.

## 26.4 Metallurgical testwork development

• A second phase of metallurgical testwork is recommended to build on and improve the metallurgical characterization work completed to date. Further technical de- risking and metallurgical optimization would be the objectives. This testwork would include the following items:
  - Selection of representative samples, using core material from metallurgical holes plus coarse rejects from other areas of the deposit. Good spatial coverage and representation of different geometallurgical units is required.

- Chemical characterization (ICP scans) of composites.
- Physical characterization including comminution tests.
- Quantitative mineralogical characterization using QEMScan.
- Flotation testwork, including rougher kinetic tests, batch cleaner tests, and locked cycle tests.
- Characterization of final flotation test products, including scans for deleterious elements.
- Whole ore leaching testwork, including bottle roll tests to assess leach kinetics after grinding, vat leach tests and column leach tests, to assess vat and heap leach kinetics at various coarse sizes.
- Cyanide destruction tests.
- Environmental tests, including ARD and metal leaching tests on flotation tailings samples.

## 26.5 Environmental baseline studies

Limited environmental studies have been completed to date. Given the long-lead times for environmental studies it is recommended that New Pacific commence environmental baselines studies as a matter of urgency.

## 26.6 Community and social studies

It is recommended that community and social studies are continued and expanded to levels appropriate for the potential scale and technical status of the project.

## 26.7 District scale exploration

Complete initial district scale exploration including geological mapping, sampling, and target generation over the Property. Contingent on results and necessary approvals drilling testing may be warranted.

## 26.8 Costs

The costs for the recommended programs including contingency are tabulated below in Table 26.1.

Table 26.1 Budget for the recommended programs

| Account category | Budget totals (US$) |
|---|---|
| Betanzos Camp Costs (Repairs, cook / meals, fuel, supplies, and logistics) | 400,000 |
| Geology & Project Administration (Contractors, Consultants) | 300,000 |
| Systems (Health & Safety / Database) | 150,000 |
| Diamond Drilling (26,000 m) | 3,100,000 |
| Assay (21,000 samples) | 1,000,000 |
| Technical Consulting & Reporting (NI 43-101 PEA technical report and resource estimate) | 200,000 |
| Metallurgical Test Work | 220,000 |
| Environmental baseline studies | 560,000 |
| Community & Social Studies and Programs | 425,000 |
| Contingency – 10% | 635,500 |
| **Grand total** | **6,990,500** |

# 27 References

**Section 2 references**

Jiang, R., Holloway, A., & Zhang, Y. 2019, "NI 43-101 Technical Report on Silver Sand Project" for Potosí, Bolivia. 31 October 2019.

**Section 4 references**

Aguirre, F.B. 2019, Bufete Aguirre Soc. Civ., Mining in Bolivia: overview, Practical Law Country Q&A w-010-2113.

Bufete Aguirre Soc. Civ. 2017, Basics of Mining Law in Bolivia, GlobalMine™ Basics of Mining Law 2017, pp. 26-41.

**Section 5 references**

Jungie 2015, Ningde Jungie Mining Industry Co. Ltd., Exploration report for the Silver Sand Property, Potosí Department, Bolivia.

U.S. Central Intelligence Agency (CIA) in 1971, map no. 78499 1971, available from the website of The University of Texas at Austin (https://legacy.lib.utexas.edu/maps/bolivia.html).

**Section 6 references**

Birak, D.J. 2017, "NI 43-101 Technical Report on Silver Sand Project", Potosí Department, Bolivia, 15 August 2017.

New Pacific Holdings Corp 2017, News Release, 10 April 2017.

Redwood, S.D. 2018, New Pacific Internal Report, A review on the Silver Sand Project, Potosí, Bolivia, 27 December 2018.

Sugaki, A., Ueno, H., Kitakaze, A., Hayashi, K., Shimada, N., Kusachi, I., & Sanjines, O. 1983, "Geological study on the polymetallic ore deposits in the Potosí district, Bolivia", *The Science Reports of the Tohoku University*, Series III, Vol. XV, No. 3.

**Section 7 references**

Arce-Burgoa, O. & Goldfarb, R. 2009, Metallogeny of Bolivia, SEG Newsletter, No.79.

Dietrich, A., Lehmann, B., & Wallianos, A. 2000, Bulk rock and melt inclusion geochemistry of Bolivian tin porphyry systems, Economic Geology, Vol. 95, 2000, pp. 313–326.

Lamb, S., Hoke, L., Kennan, L., & Dewey, J. 1997, Cenozoic evolution of the Central Andes in Bolivia and northern Chile, Geological Society, London, Special Publications, Vol. 121, pp. 237-264.

Rivas, S. 1979, Geology of the principal tin deposits of Bolivia. Geological Society of Malaysia, Bulletin 11, December 1979, pp. 161-180.

**Section 11 references**

Long, S.D., Parker, H.M., & Françis-Bongarçon, D. 1997, "Assay quality assurance quality control programme for drilling projects at the prefeasibility to feasibility report level", Prepared by Mineral Resources Development Inc. (MRDI) August 1997.

**Section 23 references**

Redwood, S.D. 2018, New Pacific Internal Report, A review on the Silver Sand Project, Potosí, Bolivia, 27 December 2018.

Rivas, S. 1979, Geology of the principal tin deposits of Bolivia. Geological Society of Malaysia, Bulletin 11, December 1979, pp. 161-180.

Sugaki, A., Ueno, H., Kitakaze, A., Hayashi, K., Shimada, N., Kusachi, I., & Sanjines, O. 1983, "Geological study on the polymetallic ore deposits in the Potosí district, Bolivia", *The Science Reports of the Tohoku University*, Series III, Vol. XV, No. 3.

# 28 QP Certificates

CERTIFICATE OF AUTHOR

I, Adrienne A Ross, P.Geo., of Vancouver, British Columbia, do hereby certify that:

1. I am currently employed as a Geology Manager / Principal Geologist with AMC Mining Consultants (Canada) Ltd., with an office at Suite 202, 200 Granville Street, Vancouver British Columbia, V6C 1S4.
2. This certificate applies to the technical report titled "Silver Sand Deposit Mineral Resource Report", with an effective date of 16 January 2020, (the "Technical Report") prepared for New Pacific Metals Corp. ("the Issuer");
3. I am a graduate of the University of Alberta in Edmonton, Canada (Bachelors of Science (Hons) in Geology in 1991). I am a graduate of the University of Western Australia in Perth, Australia (Ph.D. in Geology). I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (License #37418) and Alberta (Reg. #52751). I have practiced my profession for a total of 26 years since my graduation and have relevant experience in precious metal deposits.

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;
4. I have not visited the Silver Sand Project;
5. I am responsible for Sections 2-10, 15 to 16, 18 to 24, and parts of 1, and 25-27 of the Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have not had prior involvement with the property that is the subject of the Technical Report;
8. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1; and
9. As of the effective date of the Technical Report and the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: 16 January 2020
Signing Date: 25 May 2020

Original Signed and Sealed by

__________________________
Adrienne Ross, P.Geo.
Geology Manager / Principal Geologist
AMC Mining Consultants (Canada) Ltd.

CERTIFICATE OF AUTHOR

I, Dinara Nussipakynova, P.Geo., of Vancouver, British Columbia, do hereby certify that:

1 I am currently employed as Principal Geologist with AMC Mining Consultants (Canada) Ltd., with an office at Suite 202, 200 Granville Street, Vancouver, British Columbia V6C 1S4;

2 This certificate applies to the technical report titled "Silver Sand Deposit Mineral Resource Report", with an effective date of 16 January 2020, (the "Technical Report") prepared for New Pacific Metals Corp. ("the Issuer");

3 I am a graduate of Kazakh National Polytechnic University (B.Sc. and M.Sc. in Geology, 1987). I am a member in good standing of the Engineers and Geoscientists of British Columbia (License #37412) and the Association of Professional Geoscientists of Ontario (License #1298). I have practiced my profession continuously since 1987 and have been involved in mineral exploration and mine geology for a total of 33 years since my graduation from university. My experience is principally in Mineral Resource estimation, database management, and geological interpretation.

I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;

4 I have visited the Silver Sand Project from 8-11 August 2019, 4 days;

5 I am responsible for Sections 12, 14, and parts of 1, 25, 26 and 27 of the Technical Report;

6 I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;

7 I have not had prior involvement with the property that is the subject of the Technical Report;

8 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1; and

9 As of the effective date of the Technical Report and the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: 16 January 2020
Signing Date: 25 May 2020

Original Signed and Sealed by
____________________________

Dinara Nussipakynova, P.Geo.
Principal Geologist
AMC Mining Consultants (Canada) Ltd.

CERTIFICATE OF AUTHOR

I, Simeon Robinson, P.Geo., of Vancouver, British Columbia, do hereby certify that:

1 I am currently employed as a Senior Geologist with AMC Mining Consultants (Canada) Ltd., with an office at Suite 202, 200 Granville Street, Vancouver British Columbia, V6C 1S4.

2 This certificate applies to the technical report titled “Silver Sand Deposit Mineral Resource Report”, with an effective date of 16 January 2020, (the “Technical Report”) prepared for New Pacific Metals Corp. (“the Issuer”);

3 I am a graduate of Curtin University of Technology, Kalgoorlie, Western Australia (Bachelor of Science – Mineral Exploration and Mining Geology, 2001). I have completed the Citation Program in Applied Geostatistics (University of Alberta, 2019). I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (License #192869). I have practiced my profession for a total of 18 years since my graduation and have relevant experience in precious metal deposits.

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;

4 I have not visited the Silver Sand Project;

5 I am responsible for Section 11 and parts of 1, and 25-27 of the Technical Report;

6 I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;

7 I have not had prior involvement with the property that is the subject of the Technical Report;

8 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1; and

9 As of the effective date of the Technical Report and the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: 16 January 2020
Signing Date: 25 May 2020

Original Signed and Sealed by

______________________

Simeon Robinson, P.Geo.
Senior Geologist
AMC Mining Consultants (Canada) Ltd.

CERTIFICATE OF AUTHOR

I, Andrew Holloway, P.Eng., of Peterborough, Ontario, do hereby certify that:

1 I am currently employed as a Principal Process Engineer with AGP Mining Consultants Inc., located at #246-132K Commerce Park Dr., Barrie ON L4N 0Z7 Canada;

2 This certificate applies to the technical report titled "Silver Sand Deposit Mineral Resource Report" with an effective date of 16 January 2020, (the "Technical Report") prepared for New Pacific Metals Corp. ("the Issuer");

3 I graduated from The University of Newcastle upon Tyne, England, B.Eng. (Hons) Metallurgy, 1989. I am a registered member in good standing of the Association of Professional Engineers of Ontario, membership #100082475. I have practiced my profession in the mining industry continuously since graduation.

My relevant experience with respect to metallurgy, process engineering and mining project management includes 30 years' experience in the mining sector covering mineral processing, process plant operation, design engineering, and operations and project management.

I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;

4 I have visited the Silver Sand Project from 14 - 16 January 2020 for three days;

5 I am responsible for Sections 13, 17, and parts of 1, and 25-27 of the Technical Report;

6 I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;

7 I have had prior involvement with the property that is the subject of the Technical Report, acting as QP for previous NI 43-101 technical disclosures in 2019.

8 I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1; and

9 As of the effective date of the Technical Report and the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: 16 January 2020
Signing Date: 25 May 2020

Original Signed and Sealed by

_________________________

Andy Holloway, P.Eng.
Principal Process Engineer
AGP Mining Consultants Inc.

# Our offices

## Australia

**Adelaide**
Level 1, 12 Pirie Street
Adelaide SA 5000 Australia

T +61 8 8201 1800
E adelaide@amcconsultants.com

**Brisbane**
Level 21, 179 Turbot Street
Brisbane Qld 4000 Australia

T +61 7 3230 9000
E brisbane@amcconsultants.com

**Melbourne**
Level 29, 140 William Street
Melbourne Vic 3000 Australia

T +61 3 8601 3300
E melbourne@amcconsultants.com

**Perth**
Level 1, 1100 Hay Street
West Perth WA 6005 Australia

T +61 8 6330 1100
E perth@amcconsultants.com

## Canada

**Toronto**
140 Yonge Street, Suite 200
Toronto, ON M5C 1X6 Canada

T +1 647 953 9730
E toronto@amcconsultants.com

**Vancouver**
200 Granville Street, Suite 202
Vancouver BC V6C 1S4 Canada

T +1 604 669 0044
E vancouver@amcconsultants.com

## Singapore

**Singapore**
65 Chulia Street, Level 46 OCBC Centre
Singapore 049513

T +65 6670 6630
E singapore@amcconsultants.com

## Russia

**Moscow**
5/2, 1 Kazachiy Pereulok, Building 1
Moscow 119017 Russian Federation

T +7 495 134 01 86
E moscow@amcconsultants.com

## United Kingdom

**Maidenhead**
Registered in England and Wales
Company No. 3688365

Level 7, Nicholsons House
Nicholsons Walk, Maidenhead
Berkshire SL6 1LD United Kingdom

T +44 1628 778 256
E maidenhead@amcconsultants.com

Registered Office: Ground Floor,
Unit 501 Centennial Park
Centennial Avenue
Elstree, Borehamwood
Hertfordshire, WD6 3FG United Kingdom