Independent Technical Report on the Eskay Creek Au-Ag Project, Canada

Prepared for

Skeena Resources Ltd.

Prepared by

SRK Consulting (Canada) Inc.
Effective Date: February 28, 2019
Issue Date: April 12, 2019
2CS042.002

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srk consulting

Important Notice

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1 Executive Summary

1.1 Introduction

The Eskay Creek Project is a precious and base metal-rich volcanogenic massive sulphide (VMS) deposit, located in the Golden Triangle of northwestern British Columbia, Canada. Skeena is a Canadian junior mining exploration company focused on developing prospective precious and base metal properties in the Golden Triangle of northwest British Columbia, Canada.

In January 2019, Skeena commissioned SRK to provide Skeena with support and review of an updated resource model, together with an NI 43-101 compliant resource estimate and an NI 43-101 report on the Eskay Creek Project. The services were rendered between January and April 2019 leading to the preparation of the mineral resource statement reported herein that was disclosed publicly by Skeena in a news release on February 28, 2019. The effective date of this Technical Report is February 28, 2019.

The updated 2019 Mineral Resource Estimate (MRE) has a larger component of pit constrained resources than the 2018 MRE, which was principally reported as underground resources. Remaining mineralization below the optimized resource reporting pit shell with reasonable prospects of economic extraction by underground mining methods, although largely reduced, is reported accordingly.

This Technical Report documents a mineral resource statement for the Eskay Creek Project validated by SRK. It was prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1. The Mineral Resource Statement reported herein was prepared in conformity with generally accepted CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines".

1.2 Property Description and Location

The Eskay Creek Project is located in the Pacific Northwest region of British Columbia, 83 km northwest of Stewart, BC in the Unuk and Iskut River region.

The Project covers a total of 5,093.81 hectares (12,587.06 acres) and consists of forty (40) mineral claims and eight (8) mineral leases. There are four net smelter return (NSR) royalty obligations to four third parties on the property.

1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

Access to the property is via Highway 37 (Steward Cassiar Highway). The Eskay Mine Road is an all-season gravel road that connects to Highway 37 approximately 135 km north of Meziadin Junction. The Eskay Mine Road is a 54.5 km private industrial road that is operated by Altagas Ltd. (0 km to 43.5 km) and Skeena Resources Ltd. (43.5 km to 54.5 km).

Support services for mining and other resource sector industries in the region are provided primarily from the communities of Smithers (pop. 5,400) and Terrace (pop. 11,500). Both communities are accessible by commercial airlines with daily flights to and from Vancouver.

The region is supported by the Provincial power grid. A 287 kV transmission line extends from a grid connection at Terrace to Bob Quinn, primarily following Highway 37. Power supply opportunities exist close to the Eskay Creek mine site. The Forest Kerr, McLymont, and Volcano Creek hydroelectric plants are within 20 km of the Eskay Mine site and collectively produce up to 277 MW, which is fed to the provincial grid via transmission lines that extend along the Eskay Mine Road.

Eskay Creek lies in the Prout Plateau, a rolling subalpine upland, located on the eastern flank of the Boundary Ranges. The Plateau is characterized by northeast trending ridges with gently sloping meadows occupying valleys between the ridges. Relief over the Plateau ranges from 500 m in the Tom MacKay Lake area to over 1000 m in the Unuk River and Ketchum Creek valleys. Mountain slopes are heavily forested, and scenic features of glacial origin, such as cirques, hanging valleys and over-steepened slopes are present throughout. The Plateau is surrounded by high serrate peaks containing cirque and mountain glaciers.

1.4 History

The Eskay Creek Project has undergone exploration activity dating back to 1932 when prospectors looking for precious metals were first attracted by the gossanous bluffs extending for over seven kilometers beside Eskay and Coulter Creeks. The Tom Mackay Syndicate undertook the first staking in 1932 near the southern end of the claim group. During the period from 1935 to 1938, Premier Gold Mining Company Ltd. held the property under option and were responsible for the definition of 30 zones of surface mineralization including the 21 Zone. This was followed in 1939 by the driving of the 85 m Mackay Adit into the hillside three kilometers south of the current 21A/B Zones by the Tom Mackay Syndicate.

During World War II, from 1940 to 1945, exploration was halted and from 1946 through to 1963 only minor work was done on the property. This work included some minor re-staking along with various changes in claim title.

Western Resources drove the Emma Adit in 1963 with drifting and crosscuts totalling 146 m. In 1964, the property was registered under Stikine Silver Limited.

Seven different options were undertaken on the property between 1964 and 1987. Exploration continued with geological mapping, geochemical and geophysical surveys, trenching and diamond drilling looking for precious metal and VMS-style targets. During this period, in 1986, the company was renamed Consolidated Stikine Silver.

In 1988, Calpine Resources Inc. signed an option agreement to earn a 50% beneficial interest in the TOK and KAY claims by spending $900,000 over a three-year period. Six diamond drill holes were undertaken in the fall of 1988 near the old 21 Zone trenches. The 21A Zone was discovered with an intercept of 25.78 g/t Au and 38.74 g/t Ag over 29.4 m in drill hole DDH CA88-6. Continued drilling in 1988 and 1989 outlined the 21A Zone and defined the 21B Zone, some 200 m to the north. Prime Resources acquired a controlling interest in Calpine in 1989 and took over managing the Eskay Creek Project. Once their obligations were complete, Prime merged with Calpine in April 1990. At the same time, Homestake Canada Inc. acquired an equity position in Consolidated Stikine Silver and eventually acquired the property. 21B Zone underground development began in 1990-91; a feasibility study was undertaken in 1993 and the Eskay Creek Mine was officially opened in 1995.

From 1995 through 2001, Homestake Canada operated the mine and continued exploration on the surrounding claims with geological mapping, geochemical and geophysical surveys and diamond drilling.

In 2002 Barrick Gold Corp. assumed control of the Eskay Creek mine, continuing with mining operations and exploration until the mine closed in 2008. Since 2008, the property has been under a state of reclamation, care and maintenance.

Skeena entered into an option agreement with Barrick in 2017. In 2018, Skeena completed a 7,737 m surface diamond drilling program targeting the 22, 21A, and 21C Zones as well as a LiDAR and photography survey over the Eskay Creek property. A phase 2 drilling program is planned for the summer of 2019 to upgrade the Inferred mineral resources in the proposed Open Pit area, as well as to expand current resources.

1.5 Geology and Mineralization

The Eskay Creek Project is located along the western margin of the Stikine Terrane, within the Intermontane Tectonic Belt of the Northern Cordillera. It is hosted within the Jurassic rocks of the Stikinia Assemblage at the stratigraphic transition from volcanic rocks of the uppermost Hazelton Group to the marine sediments of the Bowser Lake Group.

The property is underlain by volcanic and sedimentary rocks of the regionally extensive Lower to Middle Jurassic Hazelton Group. The Hazelton Group can be further subdivided into the Jack, Betty Creek, Spatsizi, Iskut River, Mt. Dilworth and Quock Formations (arranged from oldest to youngest). The stratigraphy in the immediate area of the property consists of an upright succession of andesite, marine sediments, intermediate to felsic volcaniclastic rocks, rhyolite, contact mudstone (host to the main Eskay Creek deposits), and basaltic/andesitic sills and flows. This sequence is overlain by mudstones and conglomerates of the Bowser Lake Group. These rocks are folded into a gently, northeast plunging fold termed the Eskay Anticline and are cut by north, northwest and northeastern fault structures. Regional metamorphic grade in the area is lower greenschist facies.

Two types of mineralization are found: 1) stratiform, mudstone-hosted, clastic to massive lenses of sulphide and sulfosalts; and 2) discordant, rhyolite hosted, crustiform stockwork zones of base and precious metal veins.

The stratiform mineralization is hosted in black, carbonaceous mudstone and sericitic tuffaceous mudstones at the contact between the Eskay rhyolite and the overlying basaltic flows (hanging wall andesite). The main zone of mineralization, the 21B Zone, consists of stratiform clastic sulphide-sulfosalt beds. These beds contain fragments of coarse-grained sphalerite, tetrahedrite, Pb-sulfosalts with lesser freibergite, galena, pyrite, electrum, amalgam and minor arsenopyrite. Stibnite occurs locally in late veins and as a replacement of clastic sulphides. Rare cinnabar is associated with the most abundant accumulations of stibnite. At the same stratigraphic horizon as the 21B Zone are the 21A, 21C, 21Be, 21E and NEX Zones. The 21A Zone is characterized by high concentrations of stibnite-realgar, cinnabar and arsenopyrite.

Stratigraphically above the 21B Zone, and usually above the first basaltic sill, the mudstones also host a localized body of base metal rich, relatively precious metal poor mineralization referred to as the HW Zone.

Stockwork and discordant mineralization is hosted in the rhyolite footwall in the PMP, 109, 21A, 21C, and 22 Zones. The PMP Zone is characterized by base metal rich veins and veinlets in strongly sericitized and chloritized rhyolite. The 109 Zone comprises gold-rich veins of quartz, sphalerite, galena and pyrite associated with silica flooding and fine-grained carbon. The 21C rhyolite consists of very fine cryptic pyrite with rare sphalerite and galena in sericitized rhyolite. The 21A rhyolite hosted mineralization contains disseminated stibnite, arsenopyrite, tetrahedrite and base-metal rich veinlets.

1.6 Mineral Resource Estimate

The updated mineral resource estimate for the Project (the “2019 Mineral Resource Estimate”) herein was prepared by Skeena Resources using all available information and reviewed and validated by Ms. S. Ulansky, PGeo of SRK.

The February 2019 resource is primarily based upon historical diamond drilling completed by previous Operators, however additional holes drilled by Skeena in 2018 have been included. The database used to estimate the Eskay Creek mineral resource contains 7,583 historical surface and underground diamond drill holes totalling 651,332 m, and 46 additional surface holes drilled in 2018 by Skeena totalling 7,737 m. All historical and recent drilling was audited by SRK. SRK believes that the drilling information is sufficiently reliable to interpret with confidence the boundaries for gold and silver mineralization domains, and that assay data is sufficiently reliable to support estimating mineral resources.

A litho-structural model was constructed in Leapfrog Geo™ software with three main lithologies (rhyolite, contact mudstone, and hanging-wall andesite) and five faults recognized as meaningful for modelling purposes. Mineralization domains were subsequently defined using geologically realistic radial basis function (RBF) grade interpolants within major fault blocks. Mineralization domains were created using a 50% probability of a nominal gold equivalent cut-off grade being greater than 0.5 g/t AuEQ. Ten mineralization domains were created to constrain the estimate: seven of which occured exclusively in the open pit, and three domains that contained shared Open Pit and Underground resources. The ten domains were interpolated separately based on presiding lithology types: (1) rhyolite, or (2) mudstone and andesite combined.

Two block models were created:

1. an Open Pit model using 9 x 9 x 9 m parent block sizes, with sub-block sizes of 3 x 3 x 2 m; and
2. an Underground model using 3 x 3 x 2 m parent block sizes, with 1 x 1 x 1 m sub-block sizes.

One-meter composites were generated for the Underground block model, and two-meter composites were created for the Open Pit block model. Grades within each domain were then capped within hard-domain boundaries. Gold capping values ranged from 45 to 900 g/t and silver capping values ranged from 600 to 30,000 g/t.

Gold and silver variograms were used to determine the nugget, sills and ranges used during Kriging, however a dynamic surface, modelled along the Contact Mudstone basal contact, was used to incrementally modify the anisotropic search orientation during interpolation.

Ordinary Kriging (OK) was used for the estimation of gold and silver in all domains, except for the low-grade shell which captured mineralization outside the mineralization domains. The mineral resources were estimated using two passes with increasing search radii based on variogram ranges. Indicated and Inferred resources were categorized during gold interpolation Passes 1 and 2, respectively. The Indicated category (Pass 1) is defined by blocks interpolated using a minimum of three (3) holes and a maximum distance of 43 m to a drill hole showing reasonable geological and grade continuity. In areas where blocks were interpolated during Pass 1 but continuity is insufficient or blocks were isolated, the blocks were reclassified to Inferred on a visual basis. In addition, all blocks located within the 3 m buffer around the underground workings were classified as Indicated. Inferred resources (Pass 2) were interpolated using a minimum of two (2) holes and a maximum distance to a drill hole composite of 95 m. SRK is of the opinion that the current mineral resource estimate is a reasonable representation of the global gold mineral resources at the current level of sampling and can be categorized as Indicated and Inferred based on quality data, data density and geological understanding.

Block tonnage was estimated from volumes using a density formula that was applied using interpolated lead, zinc, copper and antimony grades. This density formula was derived from the historical Operator based on comparisons between actual measurements and analysis at the Eskay Creek mine where:

$SG = (Pb + Zn + Cu + Sb)\ x\ 0.03491 + 2.67$ (where all metals are reported in percent).

The 21A and 21B Domains have elevated levels of arsenic, mercury and antimony as compared to the rest of the mineralization domains at the Eskay Creek Project. The 21A Domain is geologically and geochemically equivalent to the 21B Domain which accounted for the bulk of mineralization historically mined at Eskay Creek. Blending of the 21B ore with less deleterious material from other domains diluted these penalty elements thus reducing smelter penalties which allowed a profitable head grade to be maintained. A blending scenario similar to the one historically adopted is the expected approach for future ore processed at Eskay Creek.

SRK considers mineralization at the Eskay Creek Project to have reasonable prospects for economic extraction, in both open pit domains (22, 21A, 21C, 21B, 21Be, 21E, HW, NEX, PMP, and 109) and remaining underground domains (22, HW, and NEX). All underground resources occur immediately adjacent to, or within 100 m of existing underground infrastructure, of which all lifts and stopes have been duly backfilled. In addition to the required resource depletion applied to all historical workings, Open Pit resources within one meter of any historical working were excluded from the reported resource. Similarly, any Underground resource within three meters of any historical working were excluded from the reported resource.

Table 1-1 and Table 1-2 below displays the results of the Open Pit constrained and potential Underground Mineral Resource Estimates for the Eskay Creek Project.

Table 1-1: Pit Constrained Mineral Resource statement at a 0.7 g/t AuEQ cut-off grade

		Grade			Contained Ounces		
	Tonnes (000)	AuEQ (g/t)	Au (g/t)	Ag (g/t)	AuEQ Ounces (000)	Au Ounces (000)	Ag Ounces (000)
Total Indicated	12,711	6	4.5	117	2,455	1,818	47,791
Total Inferred	13,557	2.8	2.2	42	1,230	984	18,455

Table 1-2: Underground potential Mineral Resource statement at a 5.0 g/t AuEq cut-off grade

		Grade			Contained Ounces		
	Tonnes (000)	AuEQ (g/t)	Au (g/t)	Ag (g/t)	AuEQ Ounces (000)	Au Ounces (000)	Ag Ounces (000)
Total Indicated	819	8.2	6.4	139	218	169	3,657
Total Inferred	295	8.2	7.1	82	78	68	778

* Notes to accompany the Mineral Resource Estimate statement:

- These mineral resources are not mineral reserves as they do not have demonstrated economic viability. Results are reported in-situ and undiluted and are considered to have reasonable prospects for economic extraction.
- As defined by NI 43-101, the Independent and Qualified Person is Ms. S. Ulansky, PGeo of SRK Consulting (Canada) who has reviewed and validated the Mineral Resource Estimate.
- The effective date of the Mineral Resource Estimate is February 28, 2019.
- The number of metric tonnes and ounces were rounded to the nearest thousand. Any discrepancies in the totals are due to rounding.
- Open Pit constrained Mineral Resources are reported in relation to a conceptual Pit shell.
- Reported underground resources are exclusive of the resources reported within the conceptual Pit shell.
- Block tonnage was estimated from volumes using a density formula that applied using interpolated Pb, Zn, Cu, and Sb. This density formula was derived from the historical operator. $SG = (Pb + An + Cu + Sb) * 0.03491 + 2.67$ (where all metals are reported in %)
- All composites have been capped where appropriate.
- Open Pit mineral resources are reported at a cut-off grade of 0.7 g/t AuEQ and Underground mineral resources are reported at a cut-off grade of 5.0 g/t AuEQ.
- Cut-off grades are based on a price of US$1275 per ounce of gold, US$17 per ounce silver, and gold recoveries of 80%, silver recoveries of 90% and without considering revenues from other metals. $AuEQ = Au\,(g/t) + (Ag\,(g/t)/75)$
- Estimates use metric units (meters, tonnes and g/t). Metals are reported in troy ounces (metric tonne * grade / 31.10348)
- CIM definitions were followed for the classification of mineral resources.
- Neither the company nor SRK is aware of any known environmental, permitted, legal, title-related, taxation, socio-political, marketing or other relevant issue that could materially affect this mineral resource estimate.

1.7 Interpretation and Conclusions

After conducting a detailed review of all pertinent information and completing the 2019 Mineral Resource Estimate mandate, SRK concludes the following:

- The Eskay Creek deposit is a precious and base metal-rich VMS deposit, hosted in volcanic and sedimentary rocks of the Lower to Middle Jurassic Hazelton Group. Mineralization is contained in several stratiform, disseminated and stock work vein zones that display a wide variety of textural and mineralogical characteristics. In addition to extremely high precious metal grades, Eskay Creek is distinguished from conventional VMS deposits by its association with elements of the 'epithermal suite' (Sb-Hg-As) and the dominance of clastic sulphides and sulfosalts.
- The understanding of the regional geology, lithological and structural controls of the mineralization on the Eskay Creek Project are sufficient to support estimation of Mineral Resources.
- A considerable amount of surface and underground drilling has been completed on the property by various companies since the 1930s. No historical drill core remains for any zones at Eskay Creek. Skeena compiled and reviewed the available historical data to build a validated database to support the updated Mineral Resource Estimate.
- A total of 46 drill holes were completed by Skeena Resources in 2018, and the additional 7,737 m have been checked and validated by SRK.
- The quantity and quality of the lithological, collar and down-the-hole survey data collected are sufficient to support Mineral Resources. Sample data density and distribution is adequate to build meaningful litho-structural models reflective of the overall deposit type.
- SRK reviewed the database and is of the opinion that historical and current sample preparation, security and analytical procedures meet industry-standard practices. SRK also believes that the Skeena validated database is of a standard that is acceptable for creating an unbiased, representative Mineral Resource Estimate of the Eskay Creek deposit.
- SRK reviewed the analytical quality control data accumulated for the Eskay Creek deposit between 1997 and 2004. An analysis of the historical QAQC programs confirmed that sample bias was negligible. SRK confirms that gold and silver grades are reasonably well reproduced and reliable for resource estimation purposes. Similarly, a QAQC analysis on the 2018 drilling program showed no obvious bias or errors.
- Recovery percent for gold and silver per mining area has been obtained directly from reports by the previous Operator written during their active phase of mining. These recovery factors have been applied into the Mineral Resource Estimate by Skeena and are considered acceptable and appropriate.
- The 21A and 21B Zones hosted within the Contact Mudstone unit are geologically and geochemically equivalent and contain high concentrations of As, Hg and Sb. The 21B Zone accounted for the bulk of mineralization historically mined at Eskay Creek, whereas the 21A

remains unmined. In the 21B Zone, smelter penalties were often prevented by blending ore with a concentrated sulfosalt assemblage with ore having lower concentrations. This allowed the mine to maintain profitable head grades meanwhile diluting the penalty elements. Deleterious elements are of little importance outside the 21A and 21B Zones. Significant unmined mineralization exists in the 22, 21C and PMP Zone, which contain low levels of Sb-Hg-As; here mineralization occurs in proximal feeder structures in the footwall rhyolite.

- Despite the substantial precious metal grades and potential base metal credits of the 21A Zone it was historically uneconomic to mine. High smelter penalties and prevailing low commodity prices were factors that halted mining ambitions. In addition, antimony was treated as a penalty element which contributed to the unfavourable economics of the 21A Zone at the time; however, market conditions have since changed and there may be a possibility to offer antimony by-product credits.
- The 2018 Phase 1 drilling program commenced on August 15, 2018 and targeted the 21A, 21C and 22 Zones. The program was designed to infill and upgrade the Inferred resources as well as collect fresh material for an upcoming metallurgical study. Due to the onset of winter conditions, the Phase 1 drilling program had to be suspended early. The planned drilling in the 21A and 21C Zones was completed in its entirety, however only 30% of the infill drilling was completed in the 22 Zone. In total, 7737 m were drilled.
- In the Open Pit constrained resource, approximately one third of the contained metal at a 0.7 g/t AuEQ cut-off grade is classified as Inferred. It is reasonable to expect that the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued drilling.

1.8 Recommendations

Continually reaching for improvements during the drilling and sampling process, as well as looking for ways to enhance the geological and resource models, is a priority at Eskay Creek. By improving the data collection process and fine-tuning the geological model, assay data will be partitioned in a way that most reasonably represents the presiding mineralization controls. This in turn will refine the mineral resource estimation result. The following recommendations aim to add value to future programs:

- Future drilling programs will continue to maintain rigorous QAQC measures such as those taken during the 2018 drilling program. The addition of field duplicates will complete the QC measures needed to fully test the sampling process;
- As drilling and mapping progresses, geological understanding and interpretations will improve. This knowledge will be used to enhance future lithological, alteration, mineralization and structural models;
- The current SG sampling process at Eskay Creek is to conduct on-site density determinations using the water displacement method. Future drill programs should adopt a method of independently analysing a percentage of the SG samples;

- The density model relies on an empirical formula determined by the previous Operator using only a small number of real SG values from across the property. Additional SG measurements from all major lithology types and at variable grade ranges are needed to modify and/or refine future density models;
- With the recently completed LiDAR survey, there is the opportunity of incorporating the results into future structural modelling interpretations. The more detailed LiDAR results will also be used as the final topographic surface in future model runs;
- Geotechnical inspections of the underground workings will need to be completed to determine rock conditions immediately adjacent to, and within, the mined-out solids; measurements that are needed for adjusting the depletion buffer zone appropriately;
- A priority for current and future programs at Eskay Creek is to assess the metallurgy of the deposit to ascertain and gauge economic risk due to the high levels of penalty elements. The 21A and 21B Zones are of importance as they contain the highest grades;
- The status of antimony as an economic element has yet to be established. The 21A Zone contains appreciable grades of antimony, which may be of benefit to future mining operations;
- Historical mining processes and procedures need to be understood fully so that future mining activities are built upon this knowledge and experience;
- Gaps in the historical data set exist because documents were moved several times and stored in multiple locations over a 10-year time frame. To conduct a full reconciliation of all mined material these documents will need to be retrieved and compiled;
- With the interest in base metals and deleterious metals as economic elements and penalty elements, respectively, there is be a need to treat these populations in a spatially unique way, and remodel them accordingly;
- Determine if a relationship exists between base metals (or their ratios) and some other detectable feature (such as colour, sample size and/or radiometric characteristics) such that bulk ore sorting can be implemented at the pre-mining stage; and
- Begin implementing a program to determine if a relationship between rock mass structure and head grade exists. Knowing the general mill throughput of a selective mining unit before it has been blasted and entered the processing stream will increase production significantly.

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Appendix A: Drill holes excluded from the Mineral Resource Estimate

2 Introduction and Terms of Reference

The Eskay Creek Project is a precious and base metal-rich VMS deposit in Canada. It is located 83 km northwest of Stewart, BC in the Unuk and Iskut River region. Skeena is a junior Canadian mining exploration company focused on developing prospective precious and base metal properties in the Golden Triangle of northwest British Columbia, Canada.

In January 2019, Skeena commissioned SRK to provide Skeena with support and review of the updated in-house resource model, together with an NI 43-101 compliant resource estimate and NI43-101 report on the Eskay Creek Project. The services were rendered between January and April 2019 leading to the preparation of the mineral resource statement reported herein that was disclosed publicly by Skeena in a news release on February 28, 2019 with a release date of April12, 2019 for the Technical Report.

This Technical Report documents a mineral resource statement for the Eskay Creek Project validated by SRK. It was prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1. The Mineral Resource Statement reported herein was prepared in conformity with generally accepted CIM "*Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines*".

2.1 Scope of Work

The scope of work, as defined in a letter of engagement executed on January 18, 2019 between Skeena and SRK, was to provide Skeena with ongoing support and review of the updated in-house resource that will be used for future preliminary engineering studies. The resource model will be accompanied by an NI 43-101 compliant resource estimation report published by SRK. This work involved the review and assessment of the following aspects of this project:

- Review of the data;
- Review of the estimation domains;
- Design and review of estimation methodology and classification;
- Resource validation to confirm that the block grades are unbiased and representative of the assay data; and
- Preparation of a NI 43-101 compliant mineral resource report.

2.2 Work Program

The Mineral Resource Estimate is the result of a collaborative effort between Skeena and SRK personnel. The database was compiled and maintained by Skeena and was subsequently audited by SRK. Mineralization domains were created by a Skeena Resource Geologist and modifications suggested by SRK were applied over several phases of edits. The litho-structural model that was modified and audited by SRK in November 2018 was used for the updated resource model in 2019.

In the opinion of SRK, the geological model reasonably represents mineralization at the current level of sampling and understanding of mineralization controls. Geostatistical analyses, variography and grade models were validated by SRK during February 2019. The Mineral Resource Statement was validated and disclosed publicly in a news release dated February 28, 2019.

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

The Technical Report was assembled in Vancouver, Canada during March and April 2019.

2.3 Basis of Technical Report

This report is based on information provided to SRK by Skeena throughout the course of SRK's investigations. SRK performed a site visit to the Eskay Creek Property between June 27 and June 28, 2018 and has no reason to doubt the reliability of the information provided. This Technical Report is based on the following sources of information:

- Review of exploration data collected by Skeena;
- Inspection of the Eskay Creek Project area, including outcrop and drill core surface collars; and
- Discussions with Skeena personnel.

2.4 Qualifications of SRK and Skeena Team

The SRK Group comprises over 1,000 professionals, offering expertise in a wide range of resource engineering disciplines. The SRK Group's independence is ensured by the fact that it holds no equity in any project and that its ownership rests solely with its staff. This fact permits SRK to provide its clients with conflict-free and objective recommendations on crucial judgment issues. SRK has a demonstrated track record in undertaking independent assessments of Mineral Resources and Mineral Reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with many major international mining companies and their projects, providing mining industry consultancy service inputs.

The resource evaluation work and the compilation of this Technical Report was completed by Ms. Kathi Dilworth under the supervision of the Qualified Person, Ms. Sheila Ulansky, PGeo (Table 2-1). The Qualified Person meets the requirements of independence as defined in NI 43-101. The names and details of Other Experts who have contributed to this Technical Report are listed in Table 2-2.

Mr. Marek Nowak (PEng), Principal Geostatistician with SRK, reviewed the Open Pit block model and provided guidance with the selection of estimation parameters and assisted with validating the model. He also reviewed drafts of the Technical Report prior to delivery to Skeena as per SRK internal quality management procedures.

Table 2-1: Qualified Persons who prepared or contributed to the Technical Report

SRK Experts	Position	Employer	Independence of Skeena	Date of Last Site Visit	Prof. Designation	Responsibility
Ms. S. Ulansky	Senior Resource Geologist	SRK Consulting (Canada)	Yes	Jun-18	PGeo	Qualified Person
Dr. R. Uken	Principal Structural Geologist	SRK Consulting (Canada)	Yes	n/a	Pr.Sci.Nat	3D Litho-Structural Model
Mr. G. Carlson	Senior Mining Engineer	SRK Consulting (Canada)	Yes	n/a	PEng	Open Pit Optimization
Mr. M. Nowak	Principal Geostatistician	SRK Consulting (Canada)	Yes	n/a	PEng	Peer Review

Table 2-2: Other Experts who assisted with the Qualified Persons

Other Experts	Position	Employer	Independence of Skeena	Items of Technical Report
Ms. K. Dilworth	Senior Resource Geologist	Skeena Resources	No	Items 1, 2, 4, 6, 8, 10, 12, 13, 14, 25
Mr. P. Geddes	VP, Exploration & Resource Development	Skeena Resources	No	Review
Mr. M. Mayer	Manager, Technical Services	Skeena Resources	No	Maps and Figures
Mr. C. Russell	Exploration Manager	Skeena Resources	No	Items 6, 8 and 10
Mr. A Newton	Exploration Manager	Skeena Resources	No	Items 7, 9 and 23
Mr. J. Himmelright	VP, Sustainability	Skeena Resources	No	Item 5
Ms. A. Rainbow	Independent Consultant	1069244 BC Ltd.	Yes	Item 14-4

2.5 Site Visit

In accordance with National Instrument 43-101 guidelines, Ms. Ulansky of SRK visited the Eskay Creek Project on June 27 and June 28, 2018 accompanied by Ms. Dilworth and Mr. Himmelright of Skeena.

The purpose of the site visit was to see localities that had been described in earlier reports first-hand and validate the areas with an independent check. The mine buildings, and portals were site-checked and observed to be maintainable. Historical surface drill hole collars were located without any trouble because many of them had been cased and clearly marked with drill hole identifiers. SRK validated the surface location of a number of these drill holes with GPS recordings, which have been logged accurately in Skeena's drill hole database.

The added drilling from the 2018 Phase 1 drilling program amounted to a total of 46 drill holes for a total of 7,738 m of core; an immaterial change to the resource in relation to the 7,583 drill holes completed historically. Therefore, the site visit conducted in June 2018 was still considered valid for the 2019 updated resource model.

2.6 Acknowledgement

SRK would like to acknowledge the support and collaboration provided by Skeena personnel for this assignment. Their collaboration was greatly appreciated and instrumental to the success of this project.

2.7 Declaration

SRK's opinion contained herein and effective **January 19, 2019** (the close out date of the Database) is based on information collected by SRK throughout the course of SRK's investigations, which in turn reflect various technical and economic conditions at the time of writing. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results may be significantly more or less favourable.

This report may include technical information that requires subsequent calculations to derive sub-totals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, SRK does not consider them to be material.

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

3 Reliance on Other Experts

Skeena contributors to this report include Ms. Dilworth, Mr. Meyers, Mr. Russel, Mr. Newton and Mr. Himmelright. Not all the authors of this report have met the current requirements of a "Qualified Person", but all work has been performed under the supervision of independent Qualified Persons.

SRK has not performed an independent verification of land title and tenure information as summarized in Section 4-1 of this report. SRK did not verify the legality of any underlying agreements(s) that may exist concerning the permits or other agreement(s) between third parties.

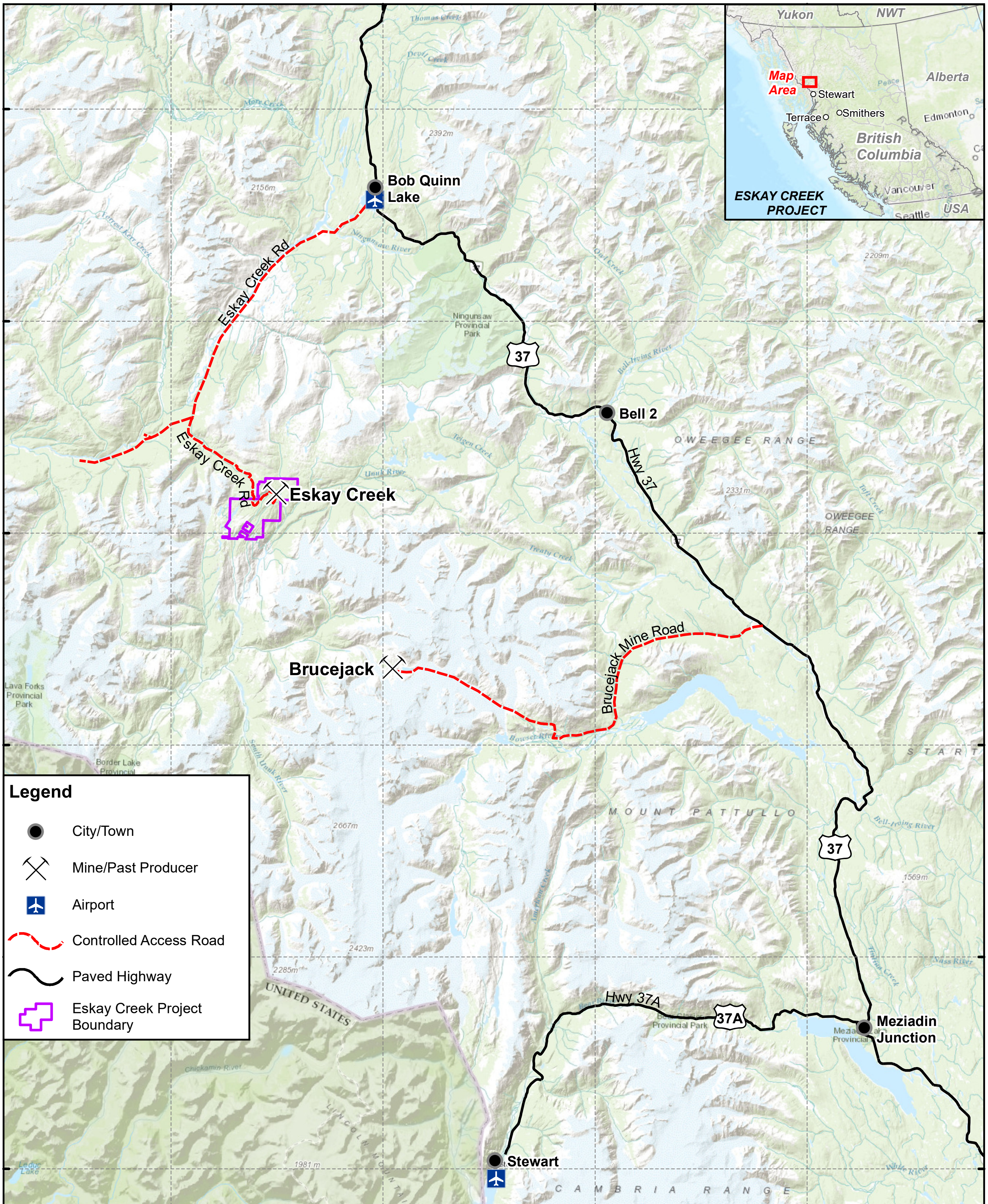
SRK was informed by Skeena that there are no known litigations potentially affecting the Eskay Creek Project.

4 Property Description and Location

The Eskay Creek Project is located in the Golden Triangle region of British Columbia, Canada, 83 km northwest of Stewart, on the eastern flanks of the Coast Mountain ranges. The Eskay Creek Project is located at an elevation of 800 m above sea level at 56° 39’ 13.9968” N and 130° 25’ 44.0004” W.

The Eskay Creek Project is located near the Unuk River, and is accessible by a 58.5 km, all-weather road, which departs from the Stewart-Cassiar Highway (Highway 37) just south of the Bob Quinn airstrip. This road travels along the eastern side of the Iskut River for a distance of 38 km to its junction with the Volcano Creek drainage system. The road then follows Volcano Creek to its headwaters and then down Tom Mackay Creek to the mine site Figure 4-1.

There are no known federal, provincial or regional parks, wilderness or conservancy areas, ecological reserves, or recreational areas near the Eskay Creek Property. The area is within the Traditional Territory assertions of the Tahltan Central Government and Skii km Lax Ha.



Skeena Resources Ltd.
Date: 28-Mar-19
Figure: 4-1
Author: M.Mayer
Filename: 190328_EC_ProjectLocationFig4-1.mxd

Eskay Creek Au-AgProject

Figure 4-1: Project Location

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:600,000
Coord. System: NAD83 - UTM Zone 9N
0 6.5 13 19.5 26
Kilometers

4.1 Mineral Tenure

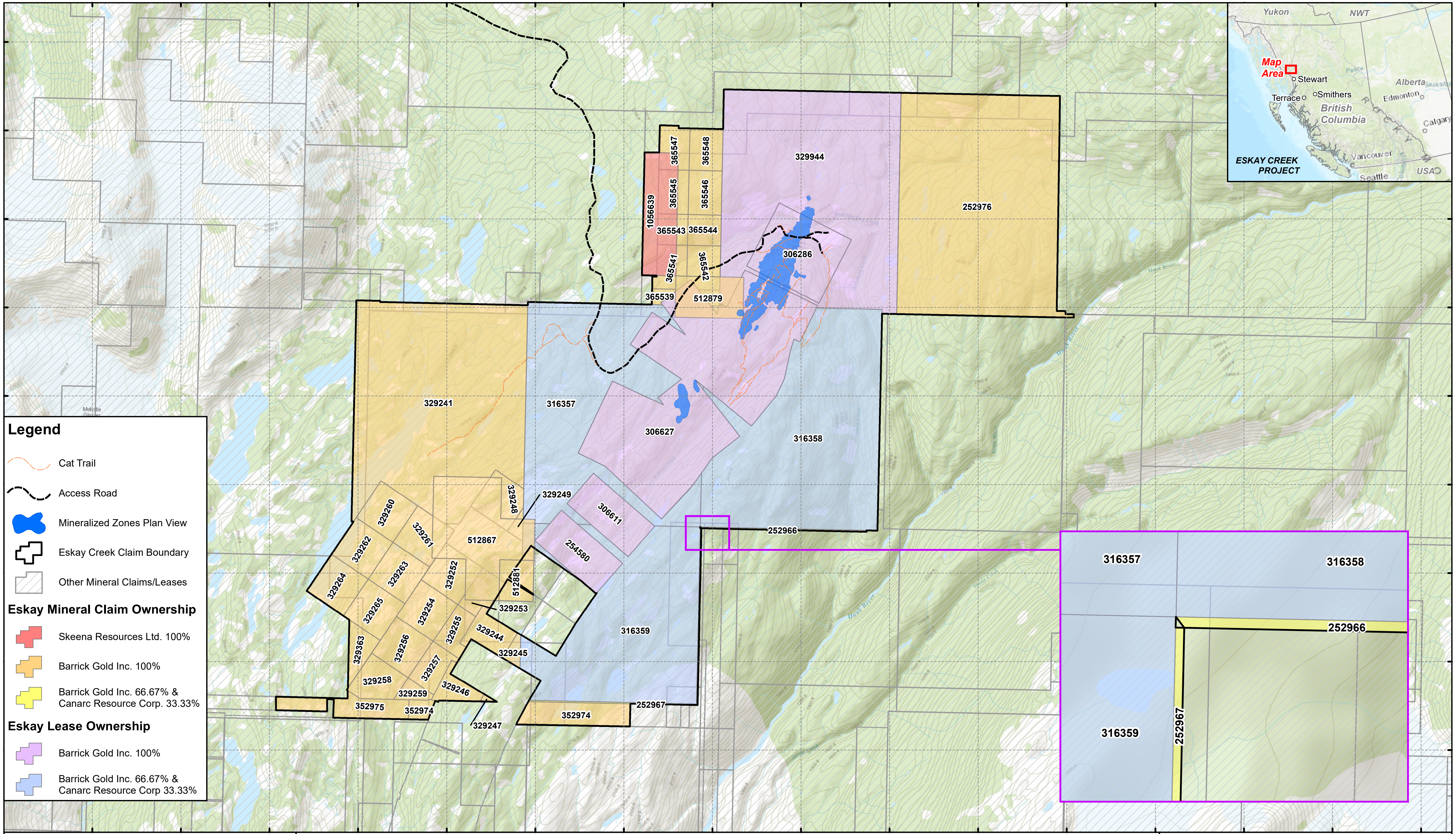
The status of all mining titles was verified using Mineral Titles Online ("MTO"), the British Columbia government's online mineral titles administration system at:

http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/mineral-placer-titles/mineraltitlesonline.

The Eskay Creek Project covers a total of 5,093.81 hectares (12,587.06 acres) and is comprised of the following (Figure 4-2):

- Forty (40) mineral claims totaling 3,263.55 hectares (8,064.40 acres) (Table 4-1); and
- Eight (8) mineral leases totaling 1,830.26 hectares (4,522.66 acres) (Table 4-2).

One (1) mineral claim is 100% registered to Skeena Resources Limited, thirty-seven (37) mineral claims are 100% held by Barrick Gold Inc., and two (2) mineral claims are held 66.67% Barrick Gold Inc. and 33.33% Canarc Resource Corp. Five (5) mineral leases are 100% held by Barrick Gold Inc. and three (3) mineral leases are held 66.67% Barrick Gold Inc. and 33.33% Canarc Resource Corp.



Eskay Creek Au-Ag Project

Figure 4-2: Mineral Claim & Lease Ownership

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Skeena Resources Ltd.
Date: 28-Mar-19
Figure: 4-2
Author: M.Mayer
Filename: 190328_EC_LandTenureFig4-2.mxd

SKEENA RESOURCES LTD.
srk consulting

Scale: 1:40,000
Coord. System: NAD83 - UTM Zone 9N
0 0.5 1 1.5 2
Kilometers

N

Table 4-1: Mineral claim information

Tenure Number	Claim Name	Description	Issue Date	Good to Date	Area (Hectares)	Owner Name	Percent Holdings	Number of Owners
329241	MACK 23	Four Post Claim	7/21/1994	7/21/2019	500	100	1	329241
329244	MACK 1	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329244
329245	MACK 2	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329245
329246	MACK 3	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329246
329247	MACK 4	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329247
329248	MACK 5	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329248
329249	MACK 6	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329249
329252	MACK 9	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329252
329253	MACK 10	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329253
329254	MACK 11	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329254
329255	MACK 12	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329255
329256	MACK 13	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329256
329257	MACK 14	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329257
329258	MACK 15	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329258
329259	MACK 16	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329259
329260	MACK 17	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329260
329261	MACK 18	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329261
329262	MACK 19	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329262
329263	MACK 20	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329263
329264	MACK 21	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329264
329265	MACK 22	Two Post Claim	7/21/1994	7/21/2019	25	100	1	329265
512867	<Null>	Mineral Cell Title Submission	5/17/2005	7/21/2019	106.808	100	1	512867
512881	<Null>	Mineral Cell Title Submission	5/18/2005	7/21/2019	17.804	100	1	512881
252976	IKS 2	Four Post Claim	8/2/1989	8/2/2019	500	100	1	252976
329363	MACK 26 FR.	Fractional Claim	8/3/1994	8/3/2019	25	100	1	329363
252966	CAL #2	Four Post Claim	8/5/1989	8/5/2019	500	33.33	2	252966
252967	CAL #3	Four Post Claim	8/6/1989	8/6/2019	400	33.33	2	252967

Tenure Number	Claim Name	Description	Issue Date	Good to Date	Area (Hectares)	Owner Name	Percent Holdings	Number of Owners
365539	KAY 1	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365539
365541	KAY 3	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365541
365542	KAY 4	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365542
365543	KAY 5	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365543
365544	KAY 6	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365544
365545	KAY 7	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365545
365546	KAY 8	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365546
365547	KAY 9	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365547
365548	KAY 10	Two Post Claim	9/12/1998	9/12/2019	25	100	1	365548
512879	<Null>	Mineral Cell Title Submission	5/18/2005	9/12/2019	35.58	100	1	512879
1056639	MELISSA	Mineral Cell Title Submission	2017/11/24	6/3/2019	53.3585	100	1	1056639
352974	STAR 21	Four Post Claim	12/7/1996	6/7/2019	250	100	1	352974
352975	STAR 22	Four Post Claim	12/7/1996	6/7/2019	150	100	1	352975

Table 4-2: Mineral tenure information

Tenure Number	Issue Date	Good to Date	Area (Hectares)	Owner	Percent	Number of Owners
316357	1994-04-30	2020-04-30	276.7	Canarc Resource Corp.	33.33	2
316358	1994-04-30	2020-04-30	367.7	Canarc Resource Corp.	33.33	2
316359	1994-04-30	2020-04-30	278.7	Canarc Resource Corp.	33.33	2
306611	1992-06-01	2019-06-01	41.8	Barrick Gold Inc.	100	2
306627	1992-06-01	2019-06-01	355	Barrick Gold Inc.	100	2
306286	1991-08-13	2019-08-13	73.56	Barrick Gold Inc.	100	1
329944	1994-12-06	2019-12-06	395	Barrick Gold Inc.	100	1
254580	1990-12-17	2019-12-17	41.8	Barrick Gold Inc.	100	1

4.2 Royalty Obligations

The Eskay Creek Project has net smelter return (NSR) royalty obligations on 4 properties payable to third parties as shown in Table 4-3. A map of the claims with royalty obligations is presented in Figure 4-3.

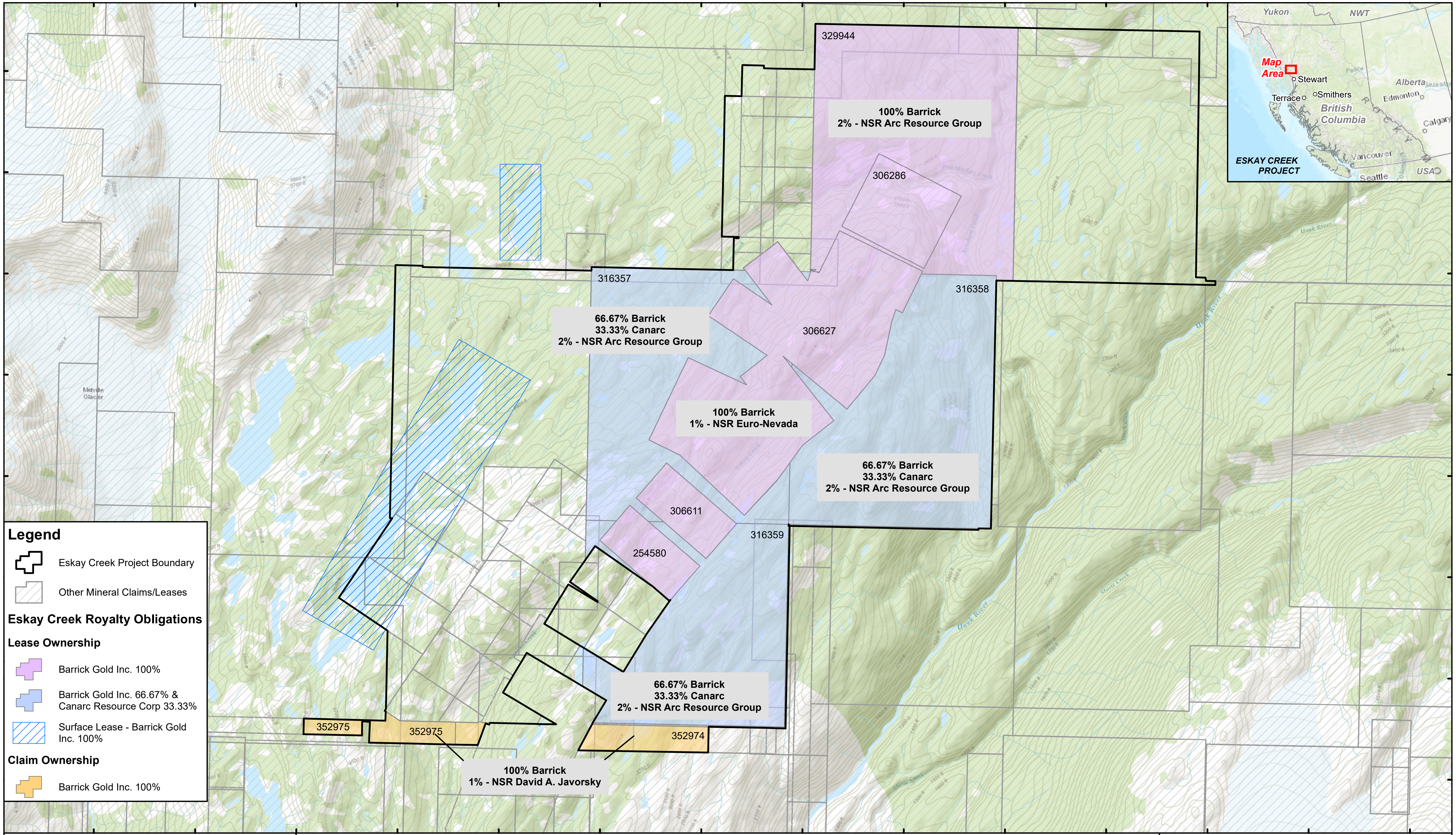
Table 4-3: Summary of Eskay Creek Project royalty obligations

Parcel	Royalty
Kay-Tok Property • Kay Mining Leases • Tok Mining Leases	1% NSR in favour of Franco-Nevada Corp. (1) w/o duplication of the following and depending on the handling of the Product: 1% Net Smelter Returns, 1% Net Ore Returns, 1% Net Returns payable from the disposition of the beneficiated product of all metals, minerals and mineral substances. Barrick has the right of first refusal to purchase the royalty. No cap or buyout provision of this royalty.
IKS Property • IKS 1 Mining Lease • IKS 2 Mining Claim	2% NSR in favour of ARC Resource Corporation (2) Royalty also includes the area known as the IKS Gap. No cap on royalty payments. No buyout provision or rights of first refusal on the sale of the royalty.
GNC Property • GNC 1-3 Mining Leases	2% NSR in favour of ARC Resource Corporation (3) Interest: Barrick 66.67%; Canarc 33.33% No cap on royalty payments. No buyout provision or rights of first refusal on the sale of the royalty.
Star Property • Star 21, 22 • Sliver West Mining Claims	1% NSR in favour of David A. Javorsky (4) No cap on royalty payments. The Option to Purchase the Royalty has expired.

1. Amended and Restated Eskay Creek Royalty Agreement dated May 5, 1995 between Prime Resources Group Inc. (now Barrick) and Euro-Nevada Mining Corporation Limited (now Franco-Nevada Corp.).
2. Transfer and Assignment Agreement dated December 22, 1994 between Prime Resources Group Inc. & Stikine Resources Ltd. (both now Barrick) and Adrian Resources Ltd.

   This agreement references the Royalty Deed dated August 1, 1990 between ARC Resource Group Ltd. and Adrian Resources Ltd.
3. Option and Joint Venture Agreement dated November 4, 1988 between Canarc Resources Corp and Calpine Resources Incorporated (now Barrick).

   This agreement is subject to the royalty provisions of an Option Agreement dated November 4, 1988 between Canarc Resources Corp. and Arc Resources Group Ltd.
4. NSR Royalty Agreement w/ Option to Purchase dated November 3, 2004 between Homestake Canada Inc. (now Barrick) and David A. Javorsky.



Skeena Resources Ltd.
Date: 29-Mar-19
Figure: 4-3
Author: M.Mayer
Filename: 190329_EC_LeaseOwnerRoyaltyFig4-3.mxd

Eskay Creek Au-Ag Project

Figure 4-3: Mining Leases, Ownership and Royalties

Skeena Mining Division - NTS 104B09
British Columbia, Canada

4.3 Agreement with Barrick Gold Inc.

On December 18, 2017, Skeena and Barrick Gold Inc. entered into an Option Agreement on the Eskay Creek Property. This agreement affects all mineral claims and mineral leases that comprise the Eskay Creek Property, except for the 1 mineral claim registered to Skeena Resources Ltd. Skeena has the option to acquire all of Barrick's rights, title and interest in and to the Eskay Creek Assets (Property and all Facilities, the Coast Road and the Barrick/Coast Road Use Agreement), the Permits (including the Barrick Road Special Use Permit), and the Eskay Creek Contracts) by completing $3,500,000 in Expenditures by December 18, 2020. Skeena shall pay Barrick the aggregate amount of Barrick Expenditures during the Option Period plus $10,000,000 (assuming the environmental bond is estimated at $7,700,000, with a closing payment not exceeding $17,700,000).

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

Access to the Eskay Creek Project is via Highway 37 (Stewart Cassiar Highway). The Eskay Mine Road is an all-season gravel road that connects to Highway 37 approximately 135 km north of Meziadin Junction (Figure 5-1). The Eskay Mine Road is a 54.5 km private industrial road that is operated by Altagas Ltd. (0 km to 43.5 km) and Skeena Resources Ltd. (43.5 km to 54.5 km).

There are two nearby gravel air strips; Bronson Strip which is about 40 km west of the mine site and Bob Quinn, roughly 37 km northeast of the Eskay Creek Project. Bronson Strip is a private air strip operated by Snip Gold Corporation. It is 1500 m long and in fair condition. The Bob Quinn Strip is managed by the Bob Quinn Lake Airport Society, a not-for-profit organization comprised of residents and local business interests. The airstrip is about 1300 m long and in good condition.

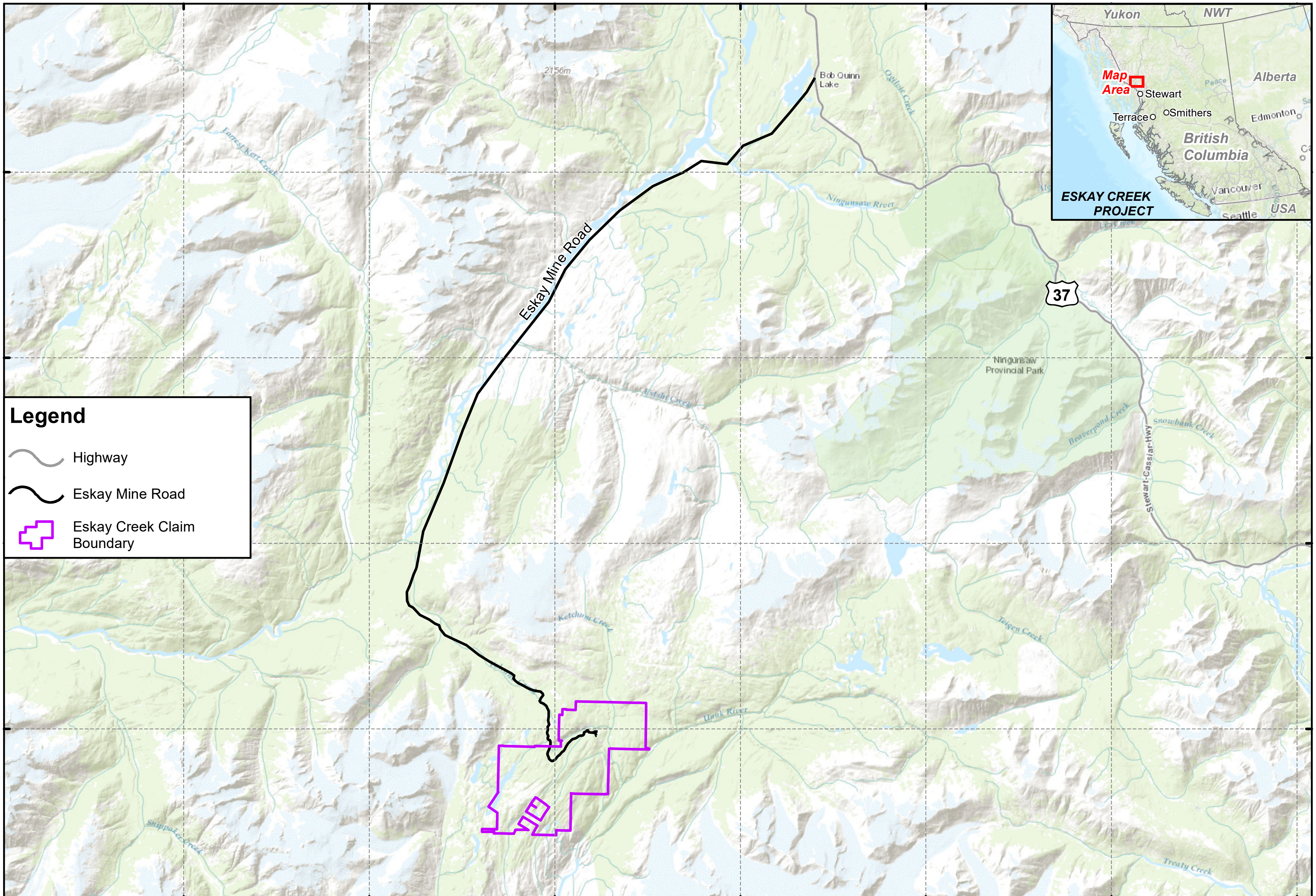
5.2 Local Resources and Infrastructure

The Eskay Creek Project is located in the Pacific northwest region of British Columbia, Canada. Support services for mining and other resource sector industries in the region are provided primarily by the communities of Smithers (pop. 5,400) and Terrace (pop. 11,500). Both communities are accessible by commercial airlines with daily flights to and from Vancouver. Volume freight service in the region is supported by rail connections that extend from tidewater ports in Prince Rupert and Vancouver. The closest tidewater port to the project is in Stewart, approximately 260 km from the Project. Stewart is an ice-free shipping location and provides access for bulk shipping 365 days/year.

Road infrastructure in the region is well developed. Highway 16 (Yellowhead Highway) extends from Prince George in central British Columbia, through several communities including Smithers and Terrace, and terminates at the Port of Prince Rupert. Highway 37 (Stewart Cassiar Highway) connects to Highway 16 at Kitwanga and extends to the Alaska Highway in the Yukon. The Eskay Mine Road connects to Highway 37 roughly 295 km from Kitwanga. Driving time from either Smithers or Terrace to the Eskay Creek Project is approximately 5 hours.

The region is supported by the Provincial power grid. A 287 kV transmission line extends from a grid connection at Terrace to Bob Quinn, primarily following Highway 37. Power supply opportunities exist close to the Eskay Creek Project. The Forest Kerr, McLymont, and Volcano Creek hydroelectric plants are within 20 km and collectively produce up to 277 MW which is fed to the provincial grid via transmission lines that extend along the Eskay Mine Road.

Services, workforce, supply chains, and infrastructure are all well established in the region to support mining operations.



Skeena Resources Ltd.
Date: 28-Mar-19
Figure: 5-1
Author: M.Mayer
Filename: 190328_EC_ProjectAccessFig5-1.mxd

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Eskay Creek Au-Ag Project

Figure 5-1: Project Access

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:275,000
Coord. System: NAD83 - UTM Zone 9N
0 3 6 9 12
Kilometers
N

5.2.1 Mine Site Infrastructure

The Eskay Creek mine site still retains much of the infrastructure that supported previous operations. This infrastructure is still in serviceable condition and includes residences, mine offices, machine shop, carpentry shop, warehouse, fuel storage, power plant, underground workings and access, water management and treatment facilities, waste management facilities, and tailings storage facilities. The operations are currently closed but actively managed with ongoing maintenance and monitoring activities being carried out by a caretaker who visits the site on an as needed basis.

5.3 Climate and Vegetation

5.3.1 Climate

Climate conditions in this mountainous region are highly variable and location dependent (Hallam Knight Piesold Ltd, 1993). During the initial environmental baseline studies and permitting efforts for the Eskay Creek mine (1989-93), regional data was collected from all major weather reporting stations including Telegraph Creek, Todagin Ranch, Bob Quinn, Forrest Kerr, Stewart, Alice Arm, Snip Project, Sulphurets Project, and Snippaker Creek.

The expected mean annual temperature at the mine site (El. 750 m) is 1 ± 0.9 °C, with mean monthly temperatures ranging from -10.4 °C in January to +15 °C in July (Environment Canada, 2013b). Expected extreme temperatures range from -40 °C to +30 °C.

The estimated mean annual total precipitation at the mine site is estimated to be 2,500 +/- 500 mm. Data collection at the site between 1989 and 1993 indicated between 55% and 71% of precipitation falls as snow.

Regional snowpack data is available but is highly variable and location dependent. Snowpack data collected at the Eskay Creek Project between 1990 and 1993 indicated peak snowpack (April) of 1,425 ± 567 mm. Cumulative snowfall data at the mine site collected between 1999 and 2006 indicates a range of roughly 7.5 to 17.5 m of snow fall between September and May. Although annual snowfall is high, the snow avalanche hazard for the area is low, except in the Volcano Creek region.

Although adaptations are required to manage climate conditions, the operating season at Eskay is unconstrained. The mine operated successfully between 1994 and 2008 on a year-round basis.

5.3.2 Vegetation

The Eskay Creek Project area is represented by five biogeoclimatic zones: Alpine Tundra (AT), Engelmann Spruce-Subalpine Fir (ESSF), Mountain Hemlock (MH), Coastal Western Hemlock (CWH) and Interior Cedar Hemlock (ICH) (BC Ministry of Forests, 1988).

The highest elevational zone at 1,050 amsl (above mean sea level), occurring throughout the Tom MacKay Lakes area, is the Alpine Tundra Zone (AT). Here, the harsh climate results in essentially treeless conditions. Vegetation is dominated by heather, lichens, mosses, sedges and hardy alpine flowers. Much of this area is interspersed with rock and standing water.

The mine site and mid-Tom MacKay Creek, lower Argillite Creek, and mid-upper Eskay Creek are located within the Engelmann Spruce - Subalpine Fir Zone (ESSF), which includes continuous forest cover at its lower and middle elevations and subalpine parkland near its upper limits. Englemann Spruce (*Picea Engelmann*) dominates the canopy of mature stands, while subalpine fir (*Abies lasiocarpa*) is most abundant in the understory (Meidinger and Pojar, 1991).

Subalpine areas below the Alpine Tundra are within the Mountain Hemlock Zone (MH), west and southwest of the mine site area. The major tree species include mountain hemlock (*Tsuga mertensiana),* subalpine fir with Sitka spruce and western hemlock (*Tsuga heterophylla*) occurring at lower elevations.

Low elevation landscapes along the Unuk River near the outlets of both Eskay Creek and Ketchum Creek are within the Coastal Western Hemlock Zone (CWH). Tree species include western hemlock, Sitka spruce, black cottonwood, subalpine fir and a hybrid of white and Sitka spruce known as Roche spruce.

Valley bottoms and low elevation uplands along the Iskut River and Forest Kerr Creek are situated within the Interior Cedar Hemlock Zone (ICH). Dominant shrubs and groundcover characteristic of the ICH include feathermosses and leafy mosses.

5.4 Physiography

The Eskay Creek Project lies in the Prout Plateau, a rolling subalpine upland with an average elevation of 1,100 m (amsl), located on the eastern flank of the Boundary Ranges. The Plateau is characterized by northeast trending ridges with gently sloping meadows occupying valleys between the ridges (Figure 5-2). Relief over the Plateau ranges from 500 m in the Tom MacKay Lake area to over 1,000 m in the Unuk River and Ketchum Creek valleys. Mountain slopes are heavily forested, and scenic features of glacial origin, such as cirques, hanging valleys and over-steepened slopes are present throughout. The Plateau is surrounded by high serrate peaks containing cirque and mountain glaciers.

The surficial geology in the area is varied. Typical features include: glacial till deposits, talus at the base of bedrock outcrops, colluvium on steep slopes, organics in poorly drained depressions and kettle holes, alluvial deposits along streams and alluvial fan deposits along the lake shorelines.

The Prout Plateau is drained by the tributaries of two major river systems including the Stikine - Iskut Rivers, and the Unuk River. Volcano Creek drains to the north into the Iskut River, a major tributary to the Stikine River system. The remainder of the Plateau is drained almost exclusively by the Unuk River and its tributaries: Tom MacKay, Argillite, Ketchum, Eskay and Coulter Creeks. The gradient of these drainages increases dramatically as they descend from the moderate relief of the Prout Plateau into the deeply incised Unuk River valley. The Plateau is occupied by Tom MacKay, Little Tom MacKay and several smaller lakes and Argillite Creek which form the headwaters of the Tom MacKay Creek drainage system.

Figure 5-2: View of Eskay Creek valley looking, northeast

6 History

The Eskay Creek Property has undergone exploration activity dating back to 1932 when prospectors looking for precious metals were first attracted by the gossanous bluffs extending for over seven kilometers beside Eskay and Coulter Creeks. The Tom Mackay Syndicate undertook the first staking in 1932 near the southern end of the claim group. During the period from 1935 to 1938, Premier Gold Mining Company Ltd. held the property under option and were responsible for the definition of 30 zones of surface mineralization including the 21 Zone. This was followed in 1939 by the driving of the 85 m Mackay Adit into the hillside three kilometers south of the current 21A/B Zones by the Tom Mackay Syndicate.

During World War II, from 1940 to 1945, exploration was halted and from 1946 through to 1963 only minor work was done on the property. This work included some minor re-staking along with various changes in claim title. Western Resources drove the Emma Adit in 1963 with drifting and crosscuts totalling 146 m. In 1964, the property was registered under Stikine Silver Limited.

Seven different options were undertaken on the property between 1964 and 1987. Exploration continued with geological mapping, geochemical and geophysical surveys, trenching and diamond drilling looking for precious metal and VMS-style targets. In 1986 the company was renamed Consolidated Stikine Silver.

In 1988, Calpine Resources Inc. signed an option agreement to earn a 50% beneficial interest in the TOK and KAY claims by spending $900,000 over a three-year period. Six diamond drill holes were undertaken in the fall of 1988 near the old 21 Zone trenches. The 21A Zone was discovered with an intercept of 25.78 g/t Au and 38.74 g/t Ag over 29.4 m in drill hole DDH CA88-6. Continued drilling in 1988 and 1989 outlined the 21A Zone and defined the 21B Zone, some 200 meters to the north. Prime Resources acquired a controlling interest in Calpine in 1989 and took over managing the Eskay Creek project. Once their obligations were complete, Prime merged with Calpine in April 1990. At the same time, Homestake Canada Inc. acquired an equity position in Consolidated Stikine Silver and eventually acquired the property. 21B Zone underground development began in 1990-91, a feasibility study was undertaken in 1993 and the Eskay Creek Mine was officially opened in 1995.

From 1995 through 2001, Homestake Canada operated the mine and continued exploration on the surrounding claims with geological mapping, geochemical and geophysical surveys and diamond drilling.

In 2002 Barrick Gold Corp. assumed control of the Eskay Creek Mine, continuing with mining operations and exploration until the mine closure in 2008. From 2008 to 2018 the property was under a state of reclamation, care and maintenance.

Skeena entered into an option agreement with Barrick in 2017. In 2018, Skeena completed 7,737 m of a 10,000 m surface diamond drilling program targeting the 22, 21A, and 21C Zones. The drilling was designed to infill and upgrade the Inferred resources in these areas, as well as collect fresh material for an upcoming metallurgical study, the results of which are due in Q2, 2019. Due to the onset of winter, drilling in the 22 Zone was suspended. Drilling in the 21A and 21C Zones were completed successfully, however only 30% of the planned drilling in the 22 Zone was accomplished. In addition, a LiDAR and photography survey over the Eskay Creek property was undertaken. A phase 2 program is planned for the summer of 2019 to upgrade the Inferred mineral resources within the proposed Open Pit area, as well as expand current resources across the property. Table 6-1 is a summary of the work that had been undertaken on the Eskay Creek Project by various operators since 1932.

Table 6-1: Summary of exploration on the Eskay Creek Project

Year	Owner	Work Area	Description
1932	Unuk Gold/Unuk Valley Gold Syndicate	Unuk & Barbara Group claims (Core Property)	Prospecting
1933	Mackay Syndicate	Unuk & Barbara Claims	Trenching
1934	Mackay Syndicate/Unuk Valley Gold Syndicate	Unuk, Barbara & Verna D. Group Claims	Prospecting Diamond drilling (261.21 m)
1935-1938	Premier Gold Mining Co. Ltd.	Core Property	Optioned property and conducted prospecting Trenching Diamond drilling (1,825.95 m) Defined and named over 30 mineralised showings. Names are still in use (e.g. the 21, 22 zones, etc.)
1939	MacKay Gold Mines Ltd.	#13 O.C./Mackay Adit	Financed by Selukwe Gold Mining and Finance Company Ltd. and acquired property. Conducted data review Underground development of the MacKay Adit (84.12m)
1940-1945			No activity due to World War II
1946	Canadian Exploration Ltd.	Mackay Adit	Optioned property Mapping Trenching Underground development - extended the Mackay Adit to 109.73 m & put raise to surface at 46 m)
1947-1952	American Standard Mines Ltd. / Pioneer Gold Mines of B.C. Ltd. / New York-Alaska Gold Dredging Corp.	Canab Group (36 claims of the Mackay Group)	Optioned and conducted Property Examination.
1953	American Standard et al	Canab Group / Mackay Group 36 claims (No. 21, No. 22 & No. 5 areas)	Trenching (2655.32 m) Open cutting in the 5, 21 and 22 zones Diamond Drilling (22 boreholes)
1954-1962	Western Resources Ltd.	Kay 1-18	Unknown – no work reported
1963	Western Resources Ltd.	Kay 1-18 Kay 19-36 Emma Adit	Underground development of the Emma Adit (111.25m) Road building (13 km) from Tom Mackay Lake to property
1964	Stikine Silver Ltd. / Canex Aerial Exploration Ltd.	Kay Group Emma Adit	Optioned from Western Resources Ltd. Mapping Rock, stream, sediment, and soil sampling Underground diamond drilling (224.64m)
1965	Stikine Silver Ltd.	Kay Group (40 claims) Emma Adit	Trenching (1457.20m in 18 trenches) Diamond drilling (15.85 m) Underground development (extended Emma adit to 178.61m)
1966	Stikine Silver Ltd.		No activity
1967	Mount Washington Copper Co. / Stikine Silver Ltd.	Kay 1-36 (Core Property)	EM 16 and magnetometer surveys Petrography
1968-1970	Newmont Mining Corp.	Kay 1-8 Au 1-4 Kay 3-4	Surface and underground geological mapping Trenching (137.16 m)

Year	Owner	Work Area	Description
1971-1972	Stikine Silver Ltd.	22 Zone	Trenching Surface bulk sample (1515 kg grading 6.06 g/t Au, 4451.56 g/t Ag, 2.8% Zn, 1.9% Pb)
1973	Kalco Valley Mines Ltd.	22 Zone	Surface geological mapping Diamond drilling (299.62 m)
1974			No activity
1975-1976	Texasgulf Canada Ltd.	#5 O.C. #6 O.C. (Kay 11-18, Tok 1-22 & Sib 1-16 claims)	Mapping (1:5,000, Donnelly, 1976 B.Sc. Thesis, UBC) Line cutting Rock sampling EM Mag Diamond drilling (373.38 m)
1977-1978			No activity
1979	May-Ralph Resources Ltd.	22 Zone	Hand-cobbed bulk sample (1,263 grams Au, 25,490 grams Ag, 412 kg Pb and 1,008 kg Zn – no tonnage reported)
1980-1982	Ryan Exploration Ltd. (U.S. Borax)	22 Zone #6 Zone Mackay Adit	Mapping Rock, stream sediment and soil sampling Diamond drilling (452.32 m)
1983-1984			No activity
1985	Kerrisdale Resources Ltd.	#5 Zone 21 Zone 22 Zone	Mapping Rock and soil sampling Diamond drilling (622.10 m)
1986			No activity
1987	Consolidated Stikine Silver	#3 Bluff 5, 21 and 23 Zones	Stream sediment and soil sampling Core (all Kerrisdale) sampling Trench sampling
1988	Calpine Resources Inc. / Consolidated Stikine Silver	21A/21B Zones	Mapping, Rock Sampling, Soil Sampling, Diamond Drilling (2,875.5 m) Discovery hole CA88-6 for 21A Zone
1989	Calpine Resources Inc. / Consolidated Stikine Silver	21A/21B Zones 22 Zone	Mapping Rock and soil sampling Airborne Mag/EM/VLF Ground Mag/VLF-EM, I.P. Diamond drilling (44,338.9 m) Legal surveys
1990	Calpine Resources Inc. / Consolidated Stikine Silver	21B/21C Zones PMP Mack Proposed Mill Site Proposed Mine Site GNC Adrian	Mapping Rock and soil sampling UTEM Survey Diamond drilling (141,412.86 m) Environmental and terrane studies Geotechnical and metallurgical studies Underground development (21B Zone) Bulk Sample
1991	International Corona Corp.	21B Zone GNC	Mapping Rock and soil sampling UTEM, seismic refraction and borehole FEM Diamond drilling (2,791 m) Relogging core program Start of underground diamond drilling

Year	Owner	Work Area	Description
1992	International Corona Corp.	21B Zone GNC	Mapping Rock and soil sampling Seismic refraction / Gradient / I.P. / Transient EM / Borehole FEM Diamond drilling (3,342 m)
1993	Homestake Canada Inc.	21B Zone GNC	Mapping Rock sampling Resistivity/Borehole FEM Diamond drilling (1,606.6 m) Completion of Eskay mine road T. Roth - MSc. thesis completed R. Bartsch - MSc. thesis completed
1994	Homestake Canada Inc.	21B Zone Adrian Albino Lake	Mapping, Rock sampling Borehole EM Diamond drilling (4,080.95 m)
1995	Homestake Canada Inc.	21B Zone/NEX Bonsai	Mapping Rock sampling Diamond drilling (3,468.1 m) Start of production on 21B Zone Production: 6,113 kg Au, 309,480 kg Ag
1996	Homestake Canada Inc.	21B Zone/NEX/HW Adrian Bonsai	Mapping Rock sampling Trenching Diamond drilling (21,280.8 m) Orthophoto Survey Production: 6,570 kg Au, 375,000 kg Ag
1997	Homestake Canada Inc.	21B Zone/21C/21E Adrian GNC Mack Star	Prospecting Silt Sampling Diamond Drilling (16,220.47 m) Production: 7,612 kg Au, 367,000 kg Ag
1998	Homestake Canada Inc.	21C/21A/PMP 5/23/22/28/Mackay Adit GNC Mack SIB Gaps Star/Coulter	Mapping and prospecting Test gravity survey Diamond drilling (21,909.63 m) Orthophoto survey Production: 8,774 kg Au, 364,638 kg Ag
1999	Homestake Canada Inc.	21C/21A/PMP Deep Adrian West Limb East Limb	Mapping and prospecting Structural study Geophysical compilation Diamond drilling (17,363.96 m) Production: 9,934 kg Au, 422,627 kg Ag
2000	Homestake Canada Inc.	21C/21A/PMP Deep Adrian West Limb East Limb	Mapping Prospecting Diamond Drilling (25,893.93 m) Production: 10,363 kg Au, 458,408 kg Ag

Year	Owner	Work Area	Description
2001	Homestake Canada Inc.	21C/21A/PMP Deep Adrian West Limb East Limb Felsite Bluffs Sib Gaps Pillow Basalt Ridge	Mapping and prospecting Diamond drilling (22,035.48 m) Production: 9,977 kg Au, 480,685 kg Ag
2002	Barrick Gold Corp.	21C/21A/PMP Deep Adrian West Limb 22 Zone Mackay Adit	Mapping and prospecting Diamond drilling (15,115.69 m) Production: 11,157 kg Au, 552,487 kg Ag T. Roth - PhD. thesis completed
2003	Barrick Gold Corp.	21C/21A/PMP Deep Adrian West Limb 22 Zone Mackay Adit	Mapping and prospecting Diamond drilling (18,323.28 m) I.P. and gravity surveys Linecutting Production: 10,951 kg Au, 527,775 kg Ag
2004	Barrick Gold Corp.	22 Zone Deep Adrian West Limb Ridge Block Footwall	Mapping and prospecting Rock, soil, silt and vegetation sampling Topographic survey Borehole TEM Diamond drilling (18,404.88 m) Production: 8,825 kg Au, 504,602 kg Ag
2005	Barrick Gold Corp.		Diamond drilling (16,000 m) Production: 5,917 kg Au, 323,350 kg Ag
2006	Barrick Gold Corp.		Production: 3,324 kg Au, 216,235 kg Ag
2007	Barrick Gold Corp.		Production: 2,115 kg Au, 108,978 kg Ag
2008	Barrick Gold Corp.		Production: 480 kg Au, 27,800 kg Ag Mine Closed – April Reclamation ongoing
2009-2016	Barrick Gold Corp..		Mine reclaimed Continuous care and maintenance
2017	Barrick Gold Corp. / Skeena Resources Ltd.		Continuous care and maintenance Skeena secures option
2018	Barrick Gold Corp. / Skeena Resources Ltd.		Skeena files Notice of Work, commences Phase 1 diamond drill program on the 21A, 21C and 22 Zones (7,737.45m), LiDAR and photography survey

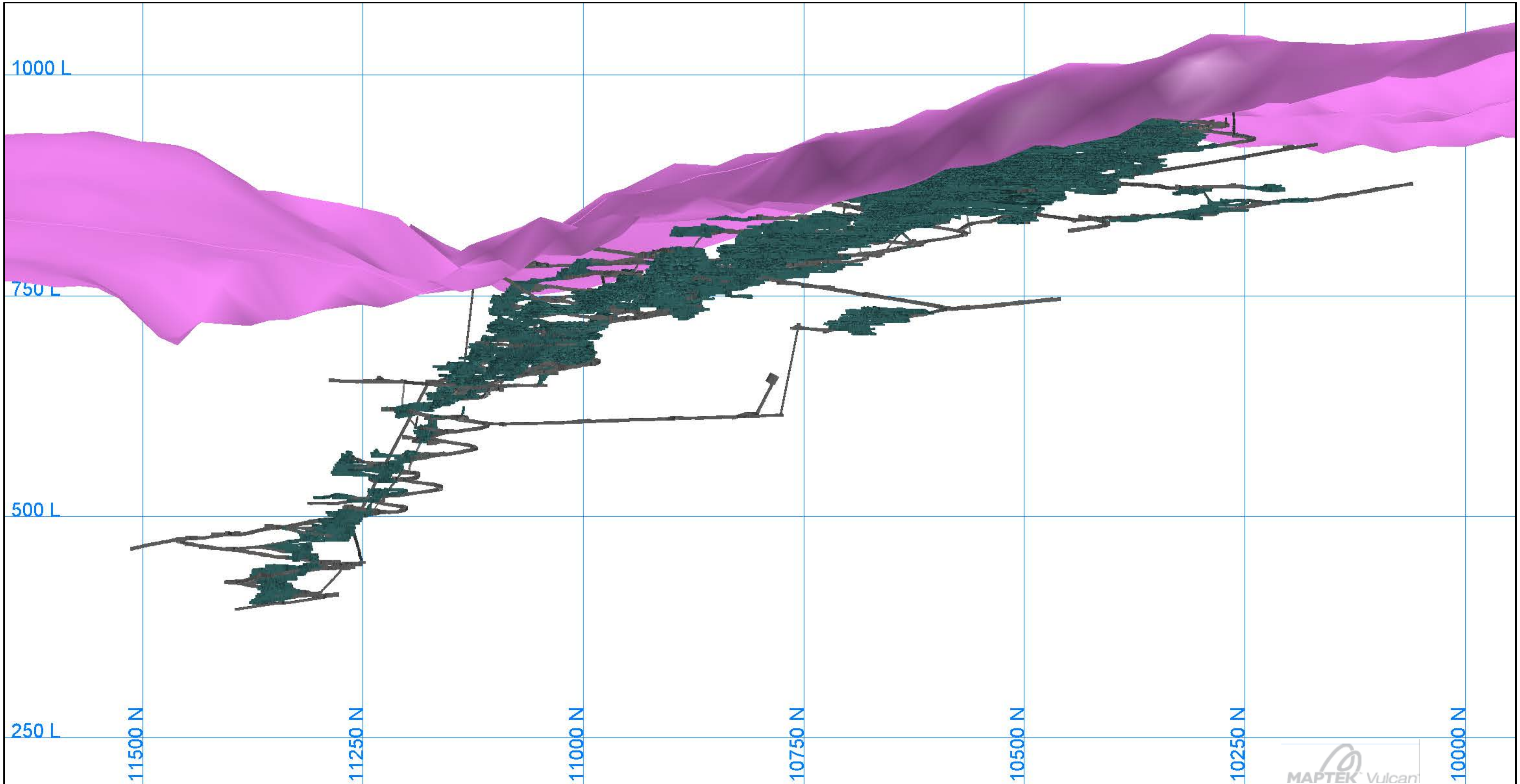
6.1 Past Production

The Eskay Creek mine was in production from 1994 until April 2008. Homestake Canada Inc. acquired Prime Resources and developed the mine, at a nominal rate of 270 tonnes per day, with the first shipment of direct-to-smelter ore from the 21B Zone being made in January 1995. Planning for an on-site mill started almost immediately and was permitted in 1996. The Eskay Creek mill began commercial production on January 1, 1998 at 150 tonnes per day; increasing incrementally over the next six years. The mill treated metallurgically simpler ore which primarily came from the 109 footwall Zone below 21B, and subsequently the NEX stratiform Zone which was discovered in 1995.

The trackless, drift-and-fill underground mine produced more than 3.3 million ounces of gold and 160 million ounces of silver from less than 2.3 million tonnes of ore during its 14-year mine life. Historical production from Eskay Creek is shown below in Table 6-2. Underground workings (stopes, lifts and development drives) are shown in Figure 6-1.

Table 6-2: Historical gold and silver production during the mine life at Eskay Creek

Year Gold	Gold Produced (oz)	Gold Produced (kg)	Silver Produced (kg)	Silver Produced (oz)	Ore Tonnes Milled	Ore Tonnes shipped direct
1995	196,550	6,113	309,480	9,950,401	0	100,470
1996	211,276	6,570	375,000	12,057,000	0	102,395
1997	244,722	7,612	367,000	11,799,784	0	110,191
1998	282,088	8,774	364,638	11,723,841	55,690	91,660
1999	308,985	9,934	422,627	13,588,303	71,867	102,853
2000	333,167	10,363	458,408	14,738,734	87,527	105,150
2001	320,784	9,977	480,685	15,454,984	98,080	109,949
2002	358,718	11,157	552,487	17,763,562	116,013	116,581
2003	352,069	10,951	527,775	16,969,022	115,032	134,850
2004	283,738	8,825	504,602	16,223,964	110,000	135,000
2005	190,221	5,917	323,350	10,396,349	103,492	78,377
2006	106,880	3,324	216,235	6,952,388	123,649	18,128
2007	68,000	2,115	108,978	3,503,861	138,772	0
2008	15,430	480	27,800	893,826	31,750	0
TOTAL	**3,272,628**	**102,112**	**5,039,065**	**162,016,018**	**1,051,892**	**1,205,604**



Legend

- Topography
- Stopes and Lifts
- Development Drives

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Historical underground workings looking east

Job No: 2CS042.002

Filename: Figure 6.1 Historical Underground Workings

Eskay Creek Au-Ag Project

Date:	Approved:	Figure:
April 1, 2019	KD	**6.1**

7 Geological Setting and Mineralization

7.1 Regional Geology

The Iskut River region is located along the western margin of the Stikine Terrane, within the Intermontane Tectonic Belt of the Northern Cordillera (Figure 7-1). Anderson (1989) divides this area of the Stikine Terrane into four unconformity bounded, tectonostratigraphic elements. Deformed and metamorphosed sedimentary and volcanic rocks of the Paleozoic Stikine Assemblage are overlain by volcano-sedimentary arc complexes of the Stikinia Assemblage (Triassic Stuhini Group and Lower to Middle Jurassic Hazelton Group). These units are subsequently overlain by Upper Jurassic to Lower Cretaceous siliciclastic sedimentary rocks of the Bowser Lake Group that formed an overlap assemblage following the amalgamation of the Stikine and Cache Creek Terranes (Table 7-1). Six distinct plutonic suites have been recognized in the area and commonly intrude all assemblages (Table 7-2).

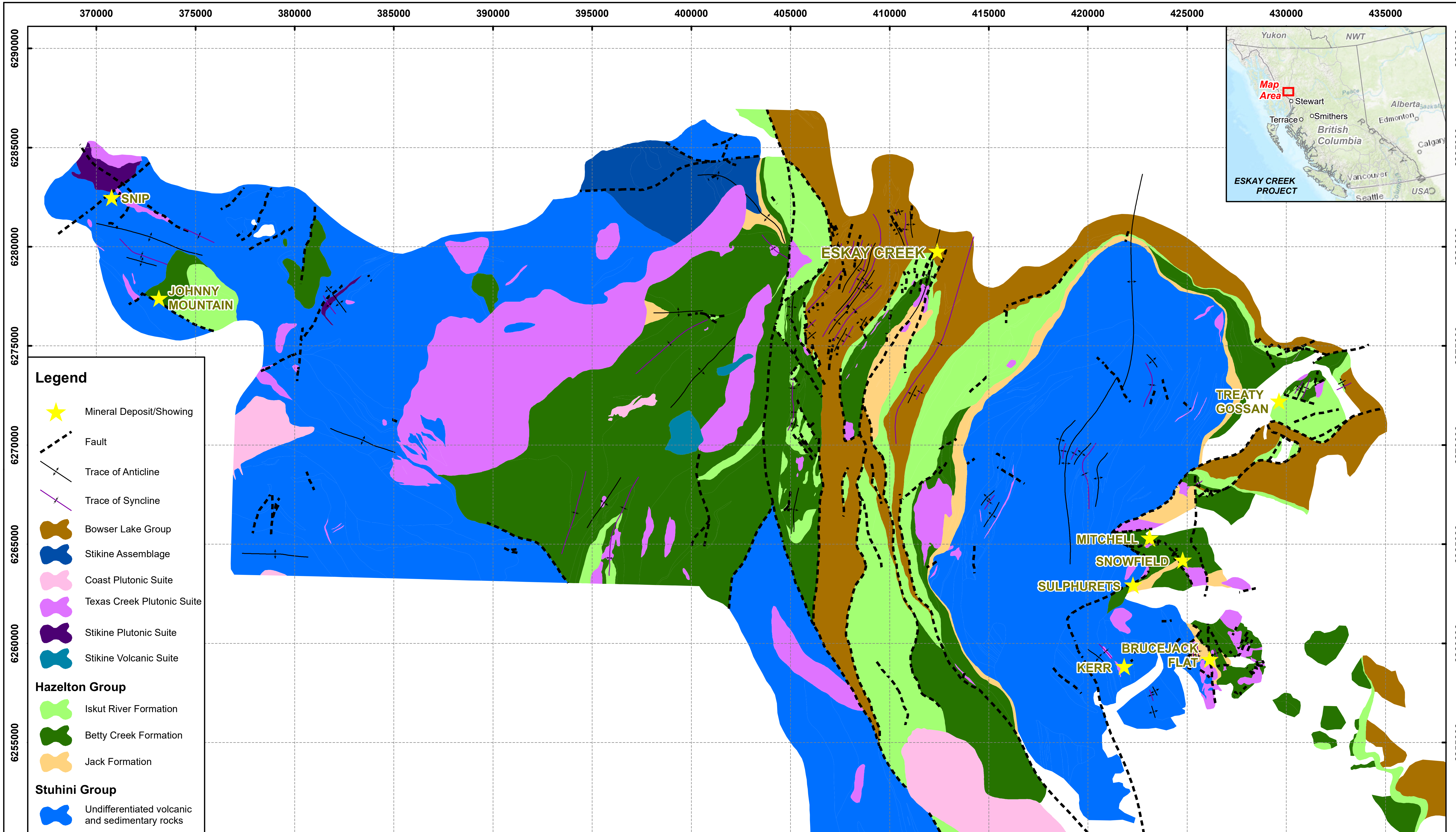
Table 7-1: Regional stratigraphy of the Iskut River region (after Anderson, 1989 and Nelson et al., 2018)

Assemblage	Age	Rock Units
Coast Plutonic Complex	Tertiary	Post tectonic, felsic plutons
"Bowser Overlap" Assemblage (includes Bowser Lake Group)	Late Jurassic to Early Cretaceous	Deformed, siliciclastic sediments
"Stikinia" Assemblage (includes Stuhini & Hazelton Groups)	Triassic to Middle Jurassic	Deformed volcanics, intrusives and basinal sediments
Stikine Assemblage	Early Devonian to Early Permian	Highly deformed limestone and volcanics

Table 7-2: Iskut River region plutonic rock suite (After MDRU, 1992)

Suite Name	Lithologies	Age
Coast Plutonic Complex	Lamprophyres, gabbro-syenite	Tertiary (13-25 Ma)
Hyder	Monzogranite, monzonite, granodiorite	Tertiary (36-57 Ma)
Eskay Creek	Monzodiorite	Middle Jurassic (185 ± 2 Ma)
Sulphurets	Felsic intrusives/extrusives	Middle Jurassic (185.9 Ma)
Texas Creek	Calc alkaline granodiorite and quartz monzodiorite commonly cut by andesite dikes	Early Jurassic (189-195 Ma)
Stikine	Clinopyroxene-gabbro, diorite, monzodiorite and monzonite. Co-spatial with the Stuhini volcanics	Late Triassic (210 Ma)

Lower greenschist facies metamorphism is common throughout the area and is likely related to the Cretaceous deformation that formed the Skeena fold and thrust belt (Rubin et al., 1990; Evenchick, 1991). Deformation in the Iskut River area is characterized by regional upright anticlinoria and synclinoria, related thrust faults, mesoscopic folds and normal faults, and cleavage development.



Skeena Resources Ltd.
Date: 28-Mar-19
Figure: 7-1
Author: M.Mayer
Filename: 190328_EC_GeologyIskutRiverFig7-1.mxd

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Eskay Creek Au-Ag Project

Figure 7-1: Geology of the Iskut River Area

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:175,000
Coord. System: NAD83 - UTM Zone 9N
0 2 4 6 8
Kilometers
N

The regional-scale McTagg anticlinorium is the dominant structural feature, located in the eastern part of the Iskut River area.

The Iskut River region hosts many significant porphyry, precious-metal vein and volcanogenic massive sulphide deposits, the majority of which exhibit a close spatial relationship to Hazelton Group rocks (latest Triassic to Middle Jurassic) and their associated intrusions (Macdonald et al., 1996; Nelson et al., 2018). A list of some of the most significant mineral deposits and past producing mines located in the region is summarized below in Table 7-3. This information was compiled from technical reports (available on www.sedar.com) and from British Columbia's Ministry of Energy, Mines & Petroleum Resources MINFILE database.

Table 7-3: Notable mineral deposits located in the Iskut River region

Deposit Name	Company	Deposit Type	Status	Age
Brucejack	Pretium Resources Inc.	Porphyry-Related/ Intermediate Sulphidation Au-Ag Epithermal	In Production	Lower Jurassic (183 - 191 Ma)
KSM	Seabridge Gold Inc.	Porphyry Gold-Copper	Development Project	Lower Jurassic (190 - 198 Ma)
Red Mountain	IDM Mining Ltd.	Intrusion-Related Polymetallic Veins and Replacements	Development Project	Lower Jurassic
Snip	Skeena Resources Ltd.	Mesothermal Gold	Development Project; Past Producer (1.03 Moz Au)	Lower Jurassic (195 Ma)
Eskay Creek	Barrick Gold Inc.	VMS	Past Producer (3.30 Moz Au and 160 Moz Ag)	Lower Jurassic (175 Ma)
Granduc	Castle Resources Inc.	VMS	Past Producer (64 koz Au, 3.99 Moz Ag and 419 M lbs Cu)	Lower Jurassic
Johnny Mountain	Seabridge Gold Inc.	Mesothermal Gold	Past Producer (90,352 oz Au)	Lower Jurassic
Silbak Premier	Ascot Resources Ltd.	Intrusion-Related Polymetallic Veins/Epithermal	Past Producer (1.94 Moz Au, 41.52 Moz Ag, 54 M lbs Pb)	Lower Jurassic (194.8 Ma)

Given the important relationship of the Hazelton Group to mineral deposits throughout the area, there have been many local mapping campaigns through the years, completed by different workers and at different scales. The resulting stratigraphic framework, although detailed in parts, contained numerous inconsistencies, and resulted in a poor ability to correlate stratigraphy and units on a regional scale. Working to resolve many of these issues, Nelson et al. (2018) completed a comprehensive regional investigation of the Hazelton Group, resulting in a new stratigraphic framework that contains six formations, detailed in Table 7-4.

Table 7-4: Stratigraphic framework for the Hazelton Group in the Eskay Creek-Harrymel Creek area (after Nelson et al., 2018)

Formation	Lithologies	Sub-units	Age
Quock Fm. (Hazelton Group)	The highest unit in the Hazelton Group, consisting of 50-100 m of thinly bedded, dark grey siliceous argillite with pale felsic tuff laminae, and radiolarian chert. Commonly identifiable by presence of alternating dark and light coloured beds. Located in areas proximal to, but outside of the Eskay rift.		~164-170 Ma
Mt. Dilworth Fm. (Hazelton Group)	Dacite and rhyolite that form laterally continuous exposures; distinguished from felsic units of the Iskut River Fm. by its regional extent and lack of interfingering with mafic units. Located in areas proximal to, but outside of the Eskay rift.		174 Ma
Iskut River Fm. (Hazelton Group)	A several kilometer thick succession of interlayered basalt, rhyolite, and sedimentary rocks that occupy a narrow, fault-bounded north-trending belt known as the Eskay Rift. It consists of a highly variable succession of mafic and felsic volcanic and sedimentary units in differing stratigraphic sequences, often with multiple stratigraphic repetitions.	**Willow Ridge mafic unit** - Voluminous basalts located at varying stratigraphic levels; present in the hanging wall to the Eskay Creek deposit.	170-173 Ma
		Mount Madge sedimentary unit - Thinly bedded black argillaceous mudstone and felsic tuff (host to the stratiform mineralization at Eskay Creek in the Contact Mudstone); similar thin, discontinuous lenses enclosed within volcanics occur elsewhere in the Iskut River Fm.	171-175 Ma
		Eskay Rhyolite Member - A linear flow dome complex of coherent to brecciated flows that show peperitic contacts with the overlying argillites; distinct geochemical signature compared to other felsic bodies in the area (Al/Ti>100). Associated with the mineralizing event at Eskay Creek.	175 Ma
		Bruce Glacier felsic unit - Non-welded to welded lapilli tuff, felsic volcanic breccia and coherent flows, and volcanic conglomerates. Located in the footwall of the Eskay Creek deposit.	173-179 Ma
Spatsizi Fm. (Hazelton Group)	Volcanic sandstone, conglomerate, and local bioclastic sandy limestone, mudstone-siltstone rhythmites, and limestone.		~174-187 Ma
Betty Creek Fm. (Hazelton Group)	Can be subdivided into three informal units which have been observed as multiple bodies at different stratigraphic levels.	**Brucejack Lake felsic unit** - Flow dome complex believed to represent the extrusive and high-level intrusive products of a local magmatic centre; consists of k-spar, plagioclase and hornblende phyric flows, breccias and bedded welded to non-welded felsic tuffs that are intruded by flow-banded coherent plagioclase phyric bodies (grade upward into flows).	183-188 Ma
		Johnny Mountain dacite unit - Generally located upsection of the Unuk River andesite consisting of bedded dacite lapilli tuff and breccia.	~194 Ma
		Unuk River andesite unit - Pyroclastic and epiclastic deposits often located unconformably overtop of the Jack Fm.	187-197 Ma
Jack Fm. (Hazelton Group)	Basal siliciclastic unit characterized by cobble-boulder granitoid-clast conglomerates, quartz-bearing arkosic sandstone, greywackes, and thinly bedded siltstones and mudstones, units sometimes weather to an orange colour. Some sections contain interbedded andesitic volcaniclastics.		196-203 Ma

7.2 Property Geology

7.2.1 Stratigraphy

The Eskay Creek deposit is located near the northern margin of the Eskay Anticline, just below the stratigraphic transition from volcanic rocks of the uppermost Hazelton Group to marine sediments of the Bowser Lake Group (Figure 7-2 and Figure 7-3). Descriptions of units from the local mine stratigraphy have been compiled from Roth et al. (1999) with stratigraphic nomenclature taken from Nelson et al. (2018).

The lowest stratigraphic unit encountered at Eskay Creek is the Unuk River andesite unit (Betty Creek Formation), which is exposed in the core of the Eskay Anticline. It is characterized by a thick sequence of coarse, monolithic andesite breccias and heterolithic volcaniclastic rocks. The andesites are overlain by marine shales and interbedded coarse clastic sedimentary, volcaniclastic, and calcareous rocks of the Spatsizi Formation. Bartsch (1993) suggests that the observed shift from sandstone and conglomerate to shale dominated facies indicates a shift from shallow to deeper marine settings.

The base of the Iskut River Formation is marked by a sequence of volcaniclastic rocks with compositions ranging from dacite to basalt and are likely part of the Bruce Glacier felsic unit. This unit is characterized by pumice-rich block and lapilli tuffs and heterogeneous epiclastic rocks that are locally fossiliferous. Near the top of the sequence, a distinct dacite amygdaloidal, aphanitic flow or sill forms a marker horizon referred to by Roth et al. (1999) as the Datum Dacite. This unit is capped by a thin (<3 m thick) distinctive black mudstone horizon, referred to as the Datum Mudstone.

Up stratigraphy, the Eskay Rhyolite member is represented by a linear set of flow-dome complexes through the property. Locally preserved flow bands, flow lobes, breccias, hyaloclastite, spherulites, and perlitic textures allowed Bartsch (1993) to identify several distinct facies. These included basal and peripheral fragmental felsic rocks containing pumiceous clasts, outer zones dominated by chaotic autobrecciated flow-banded rhyolite, and central zones of massive to flow-banded rhyolite. The entire rhyolite sequence is up to 200 m thick. U-Pb zircon dating by Childe (1996) shows an age for the unit of 175 ± 2 Ma. The Eskay Rhyolite Member is located in the immediate footwall to the economically significant stratiform mineralized bodies, and also hosts stringer-style discordant mineralization.

The contact between the rhyolite and overlying Contact Mudstone (Mount Madge Sedimentary unit) is locally marked by a black-matrix breccia, consisting of matrix-supported white rhyolite fragments set in a siliceous black matrix (Bartsch, 1993). Peperitic textures, represented by irregular concave surfaces and jigsaw texture of the rhyolite fragments, suggests in-situ fragmentation of rhyolites as they intruded wet sediments. This hints that rhyolite volcanism was at least partly synchronous with argillaceous sedimentation. Overlying the rhyolite and black matrix breccia are black mudstone and intercalated graded volcaniclastic sedimentary rocks (Roth et al., 1999). Rhyolite fragments contained within the volcaniclastic beds suggest an extrusive component to the rhyolite flow domes (Roth, 1995). Within these volcaniclastic intervals, the presence of coarser rhyolite breccia fragments is interpreted to represent debris flows. The thickest accumulations of these rhyolitic fragments are located in the immediate footwall to the 21B clastic ore Zone, which suggests that a basin developed in the area prior to mineralization (Roth, 1995).

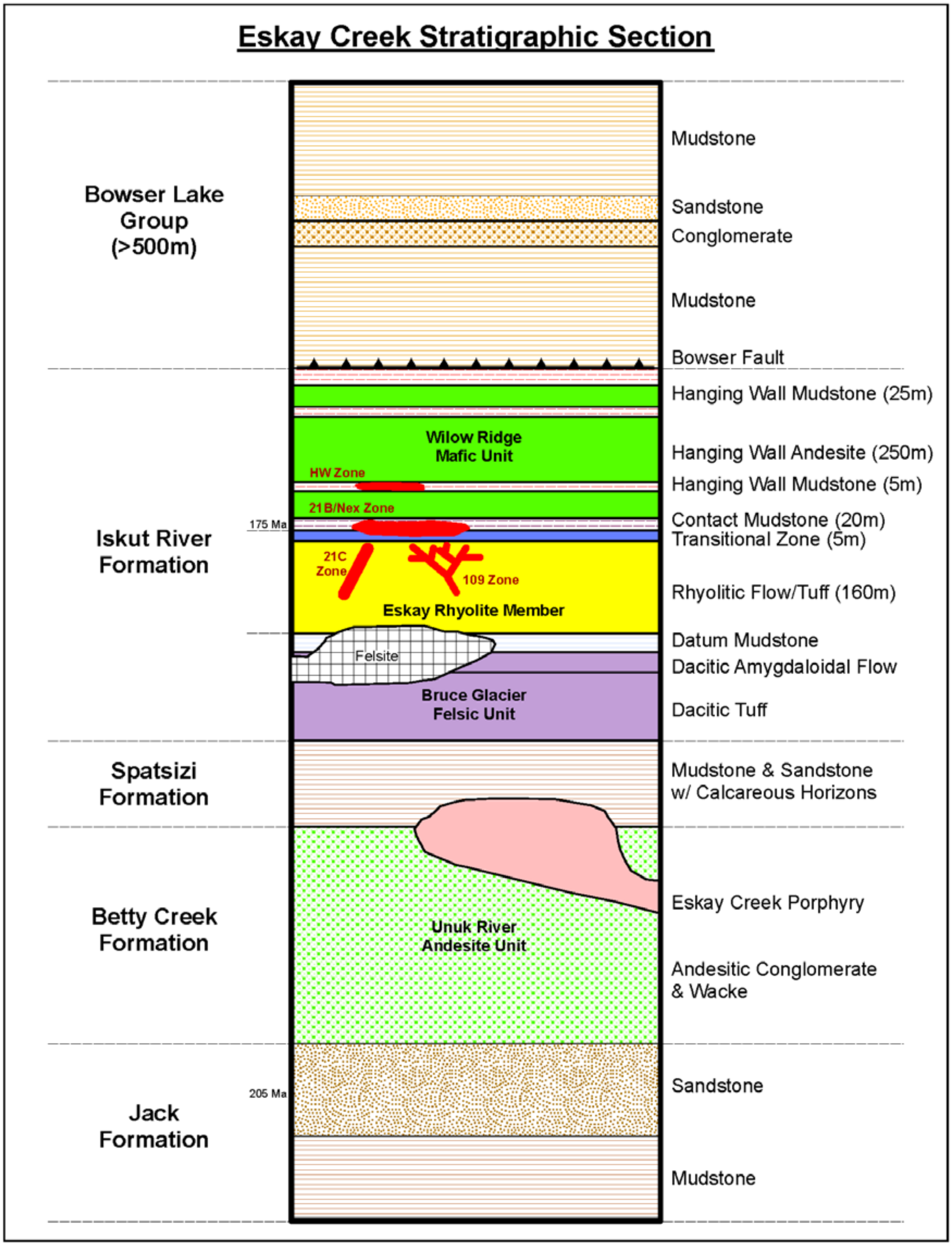

Figure 7-2: Eskay Creek stratigraphic section (modified after Gale et al., 2004)

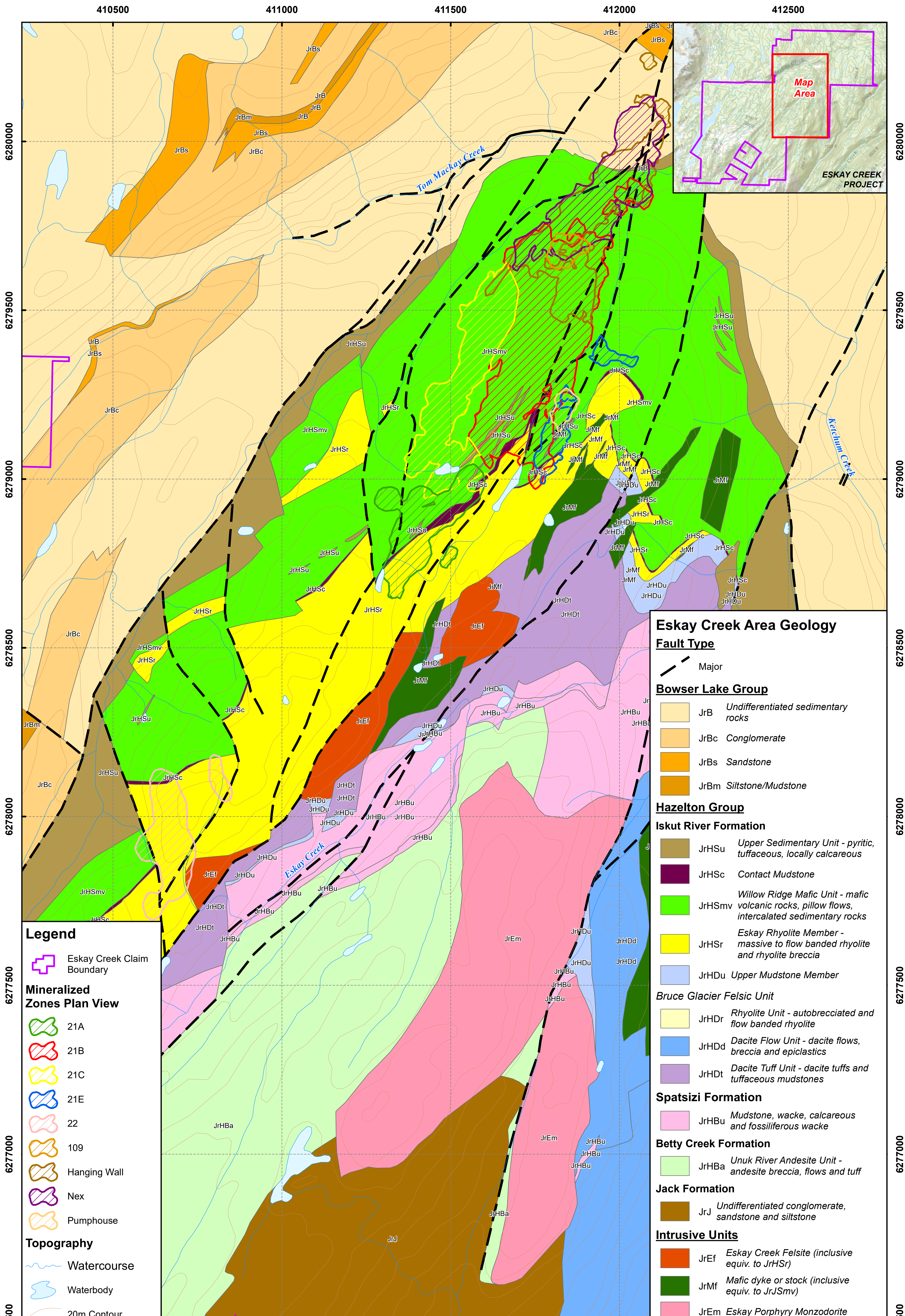

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Figure: 7-3
Author: M.Mayer
Filename: 190328_EC_LocalGeologyEskayFig7-3.mxd

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Figure 7-3: Local Geology of the Eskay Creek Area

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:10,000
Coord. System: NAD83 - UTM Zone 9N
0 125 250 375 500
Meters
N

The Contact Mudstone (Mount Madge sedimentary unit) at Eskay Creek lies above the Eskay Rhyolite Member and below the Willow Ridge basalt unit. The Contact Mudstone is the host unit for stratiform mineralization in the 21A, B, C, E, NEX and Hanging Wall (HW) Zones. It is characterized by laterally extensive, well-laminated, carbonaceous mudstone that is variably calcareous and siliceous and ranges from less than 1 m to more than 60 m in thickness. Thin siltstone, sandstone and ash beds, and pyritic laminae are common through the unit. Within certain beds, radiating porphyroblasts of prehnite, variably altered to sericite, calcite, and barite have been noted (Ettlinger, 1992). They may be a result of contact metamorphism due to the emplacement of basaltic dikes and sills.

The uppermost unit of the Iskut River Formation at Eskay Creek is the hangingwall basalt (Willow Ridge mafic unit). The basalt occurs as both extrusive and intrusive phases, ranges from aphanitic to medium-grained with local feldspar phenocrysts, and in places exceeds 150 m thickness. Near the top of the sequence, well-preserved pillow flows and breccias, hyaloclastite, and basaltic debris flows containing minor mudstone and rhyolite clasts interspersed with thin argillite beds have been reported (Roth et al., 1999). Basalt flows near the top of the sequence commonly contain chlorite and quartz-filled amygdules.

Capping the entire sequence are thick accumulations of Bowser Lake Group mudstones and conglomerates, covered locally by a thin veneer of in-situ soils and transported tills.

7.2.2 Intrusive Rocks

Intrusive units are common through the stratigraphic sequence. The 184 +5/-1 Ma (MacDonald et al., 1992; Childe, 1996) Eskay monzodiorite porphyry is perhaps the most voluminous intrusive on the property and is exposed in the core of the Eskay Anticline just south of the 21 Zone deposits. It predates the Eskay Rhyolite and mineralization located in the 21 Zone deposits, by 6-16 million years.

On the West Limb of the Eskay Anticline, a series of north-northeast trending felsic intrusive rocks form a series of prominent gossanous bluffs which extend for 7 km to the southwest of the Eskay Creek deposit. These felsic intrusives are chemically indistinguishable from the Eskay Rhyolite (Bartsch, 1993, Roth, 1993) and display strong quartz, pyrite, and potassium feldspar alteration with minor sericite. Bartsch (1993) and Edmunds et al. (1994) believe these intrusives represent sub-volcanic portions, or feeders, to the Eskay Rhyolite.

Basaltic dikes and sills linked to the hangingwall basalt (Willow Ridge mafic unit) are also observed throughout the Eskay Creek stratigraphic section. Where they cut the Contact Mudstone, their contacts are frequently brecciated and peperitic, suggesting the mudstone was still wet at the time of intrusion (Roth et al., 1999).

7.2.3 Structure

The Eskay Creek deposit area has been deformed by at least two tectonic events (Edmunds and Kuran, 1992). The earliest deformation (D1) is likely related to a mid-Cretaceous north-northwest compression event that formed the northeast trending, syncline-anticline couples and a spaced pressure solution cleavage. The cleavage is axial planar to the bedding-defined Eskay Creek Anticline and is pervasive within the phyllosilicate-rich lithologies and even through the massive sulphide horizons. Faulting late in the D1 event resulted in the development of east-dipping thrust sheets, such as the Coulter Creek Fault, south of Eskay Creek. Regional metamorphism during the D1 event also resulted in the formation of porphyroblastic prehnite and calcite.

A second deformation (D2) event, related to a north-northeast directed compression event, locally re-oriented the D1 cleavage planes and formed prominent north and northeast trending, steeply dipping faults. Crosscutting relationships suggest that the north set of faults are early with apparently consistent sinistral displacement (Edmunds and Kuran, 1992). The later northeast trending set of faults commonly display oblique normal displacement. These faults form strong topographic lineaments and displace both stratigraphic contacts and mineralized zones.

7.2.4 Alteration

Alteration in the footwall volcanic units is characterized by a combination of pervasive quartz-sericite-pyrite, potassium feldspar, chlorite and silica. Zones of most intense alteration are associated locally with sulphide veins that contain pyrite, sphalerite, galena, and chalcopyrite (Roth et al., 1999).

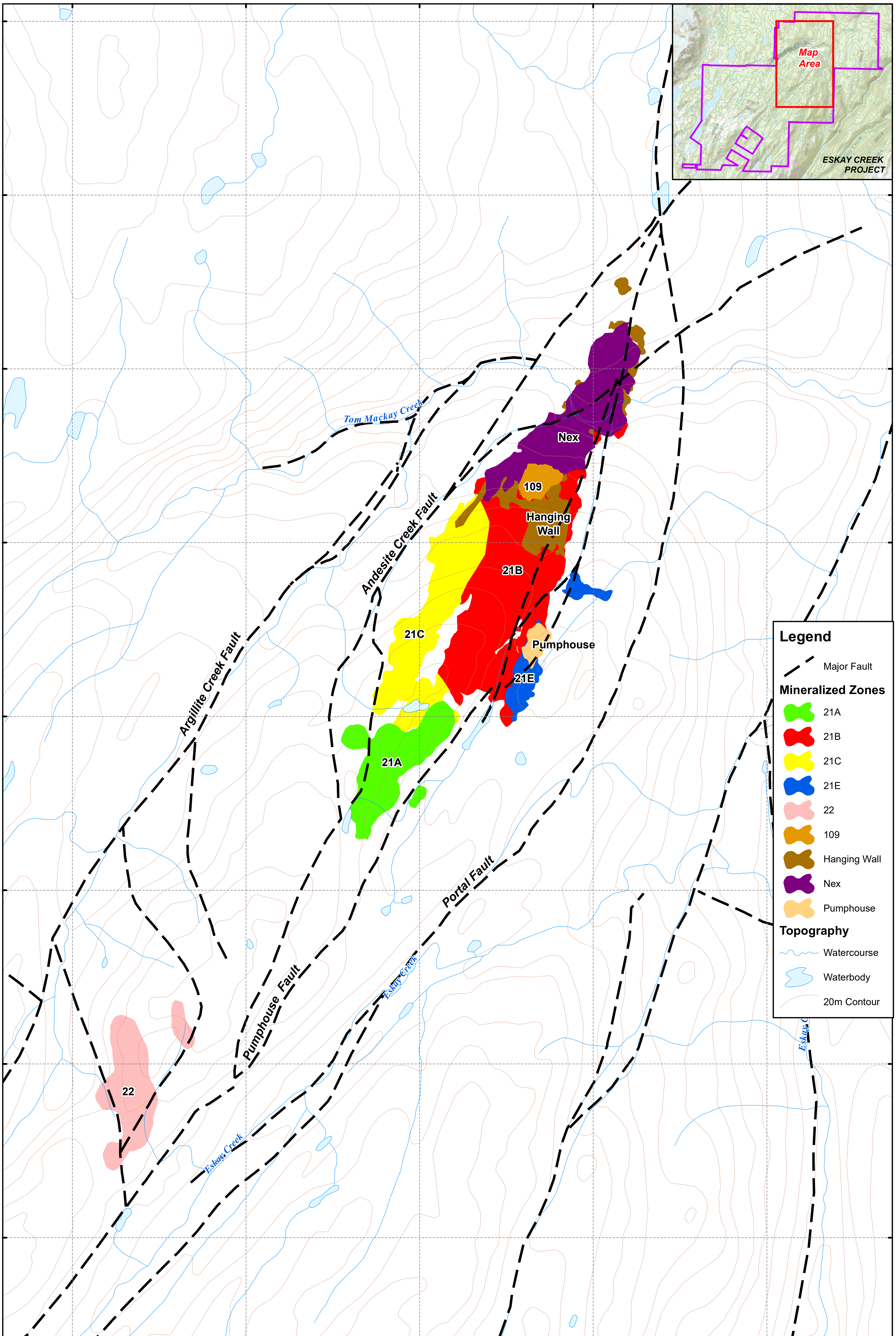
Alteration zonation is perhaps most apparent in the Eskay Rhyolite member (Roth et al., 1999), closely associated with the 21 Zone deposits. Rhyolite located lateral to and at deeper levels beneath the area of stratiform mineralization is commonly moderately silicified and potassium feldspar altered. Silica alteration occurs as extremely fine-grained quartz flooding and densely developed quartz-filled micro veinlets. Potassium feldspar occurs cryptically as fine-grained replacement of plagioclase phenocrysts (Gale et al., 2004). Fractures that cut potassium feldspar-silica altered rhyolite typically have sericitic alteration envelopes and contain very fine-grained pyrite. Where alteration is most intense, chlorite replaces sericite in these fracture envelopes.

An intense tabular shaped blanket of chlorite-sericite alteration, up to 20 m thick, occurs in the Eskay Rhyolite member, immediately below the contact with the main stratiform sulphide mineralization. In these areas, Mg-chlorite has completely replaced the rhyolite to form a dark green, waxy rock consisting of clinochlore (Roth et al., 1999). This blanket coincides spatially with an area of greater rhyolite thickness and where extensive brecciation has developed in the upper part of the rhyolite unit. This zone of increased brecciation likely created more pathways for hydrothermal fluids, and therefore greater surface area for fluid-rock interaction, resulting in development of the stronger alteration zone.

7.2.5 Mineralization

Several distinct styles of stratiform and discordant mineralization are present at the Eskay Creek Project, defined over an area approximately 1,400 m long and up to 300 m wide (Figure 7-4). Early exploration efforts focused on discordant style, precious metal mineralization hosted in sulphide veins within the rhyolite, felsic intrusions, and the footwall volcanic units. Following recognition of more significant stratiform mineralization, exploration expanded further to the north, defining the 21 Zone deposits. Distinct zones have been defined by variations in location, mineralogy, texture, and precious metal grades (Edmunds et al, 1994).

The main characteristics and stratigraphic locations of the ore zones are well summarized by Roth et al. (1999), shown in Table 7-5.



Skeena Resources Ltd.
Date: 28-Mar-19
Figure: 7-4
Author: M.Mayer
Filename: 190328_EC_SpatialDistrMinZonesFig7-4.mxd

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Eskay Creek Au-Ag Project

Figure 7-4: Plan View of the Spatial Distribution of the Mineralized Zones

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:10,000
Coord. System: NAD83 - UTM Zone 9N
0 125 250 375 500
Meters
N

Table 7-5: Summary of mineralized zones at Eskay Creek (after Roth et al., 1999)

Zone	Associated Elements	Characteristics	Stratigraphic Position
21A	As-Sb-Hg-Au-Ag	Stratiform lenses of massive to semi-massive sulphides (realgar, stibnite, cinnabar, arsenopyrite).	At the base of the Contact Mudstone
		Disseminated stibnite, arsenopyrite, tetrahedrite, and veinlets of pyrite, sphalerite, galena, tetrahedrite ± chalcopyrite.	Hosted within the underlying rhyolite
21B	Au-Ag-Zn-Pb-Cu-Sb	Stratiform, bedded clastic sulphides and sulfosalts including: sphalerite, tetrahedrite-freibergite, Pb sulfosalts (including boulangerite, bournonite, jamesonite), stibnite, galena, pyrite, electrum, and amalgam.	At the base of the Contact Mudstone
21C	Ba (Pb-Zn-Au-Ag)	Bedded massive to bladed barite associated with very fine-grained disseminated sulphides including pyrite, tetrahedrite, sphalerite and galena. Located sub-parallel to and down-dip of the 21B zone.	Within the Contact Mudstone
		Localized zones of cryptic, disseminated, precious metal bearing mineralization.	Hosted within the underlying rhyolite
21E	Ag-Au-Zn-Pb-Cu	Fine-grained massive to locally clastic sulphides and sulfosalts. Massive pyrite flooding in rhyolite grading upwards into massive sulphides and sulfosalts.	Within a fault bounded block, mainly at the contact between mudstone and rhyolite
NEX	Au-Ag-Zn-Pb-Cu	The North Extension Zone (NEX) stratiform mineralization is similar to the 21E, and locally the 21B zone. Contains fewer sulfosalts and has a local overprint of chalcopyrite stringers.	At the base of the Contact Mudstone
HW	Pb-Zn-Cu	Massive, fine-grained stratabound sulphide lens dominated by: pyrite, sphalerite, galena, and chalcopyrite (mainly as stringers). This zone has generally lower gold-silver grades and higher base metals relative to the 21 zones.	Within the Contact Mudstone but at a higher stratigraphic level than the 21 zone deposits
PMP	Fe-Zn-Pb-Cu	Veins of pyrite, sphalerite, galena, and tetrahedrite. Commonly banded; locally with colloform textures. Local zones of very fine-grained mineralization in rhyolite.	Discordant, within the rhyolite; spatially underlying the 21B zone
109	Au-Zn-Pb-Fe	Veins of quartz, sphalerite, galena, pyrite, and visible gold associated with silica flooding and fine-grained amorphous carbon. Underlies the north end of the 21B and HW zones.	Discordant, within the rhyolite

7.2.6 Stratiform Style Mineralization

Stratiform style mineralization is hosted in black carbonaceous mudstone and sericitic tuffaceous mudstone of the Contact Mudstone (Iskut River Formation), located between the footwall Eskay Rhyolite member and the hangingwall Willow Ridge mafic unit. The stratiform hosted zones include the 21B Zone, the NEX Zone, the 21A Zone (characterized by As-Sb-Hg sulphides), the barite-rich 21C-Mud Zone, and the 21Be Zone. Stratigraphically above the 21B Zone and usually above the first basaltic sill, the mudstones also host a localized body of base metal-rich, relatively precious metal-poor, massive sulphides referred to as the Hanging Wall or HW Zone.

Descriptions of the following stratiform mineralized zones are modified after Roth et al. (1999).

21A Zone

The 21A Zone is an Au-Ag-rich sulphide lens that sits on the flank of a small depression at the Eskay Rhyolite-mudstone contact, located 200 m south of the 21B Zone. Stratiform style, mudstone hosted mineralization averages 10 m thickness and is bound to the east by the Pumphouse fault. It is underlain by a discontinuous zone of intense Mg chlorite alteration and stockwork veining in the Eskay Rhyolite.

The sulphide lens consists of semi-massive to massive stibnite-realgar ± cinnabar ± arsenopyrite and local angular mudstone fragments. Disseminated stibnite, arsenopyrite, and tetrahedrite also occur in the immediate footwall of the sulphide lens within the intensely sericitized rhyolite. Cinnabar is found in late fractures that cut the sulphide lens, the surrounding mudstone, and locally, the rhyolite. Realgar-calcite veinlets locally cut the mudstone in a restricted area adjacent to the sulphide lens.

21B Zone

The main body of mineralization, the 21B Zone, is a stratiform tabular body of Au-Ag-rich mineralization roughly 900 m long, 60 to 200 m wide, and locally exceeding 20 m thick. Individual clastic sulphide beds range from 1 – 100 cm thick and become progressively thinner up sequence (Figure 7-5). Ore is composed of beds of clastic sulphides and sulfosalts containing variable amounts of barite, rhyolite, and mudstone clasts. Imbricated, laminated mudstone rip-up clasts have been observed locally at the base of the clastic sulphide-sulfosalt beds, indicating turbiditic emplacement of some beds. In the thickest part of the ore body, pebble to cobble-sized clasts occur in a northward trending channel overlying the Eskay Rhyolite. The beds grade laterally over short distances into thinner, finer-grained, clastic beds and laminations.

Gold and silver occur as electrum and amalgam while silver mainly occurs within sulfosalts. Precious metal grades generally decrease proportionally with the decrease in total sulphides and sulfosalts. Clastic sulphide beds contain fragments of coarse-grained sphalerite, tetrahedrite, Pb-sulfosalts with lesser freibergite, galena, pyrite, electrum, amalgam, and minor arsenopyrite. Stibnite occurs locally in late veins, as a replacement of clastic sulphides, and appears to be confined to the central, thickest part of the deposit, suggesting a locus for late hydrothermal activity. Cinnabar is rare and is found associated with the most abundant accumulations of stibnite. Barite occurs as isolated clasts, in the matrix of bedded sulphides and sulfosalts, and also as rare clastic or massive accumulations of limited extent. Barite is more common towards the north end of the deposit.

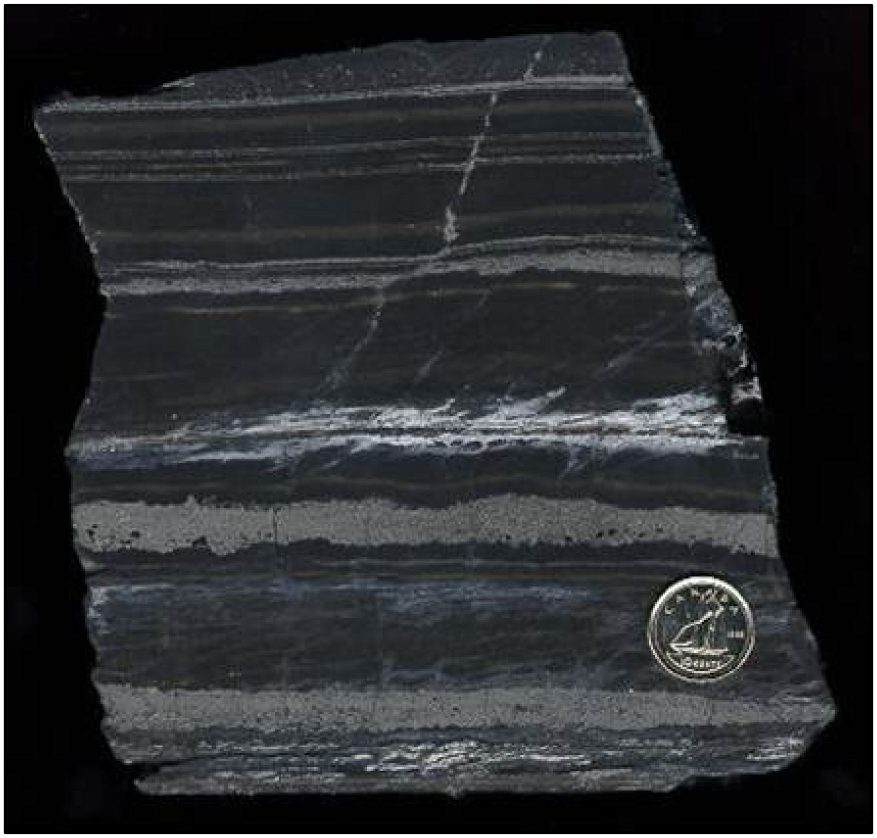


Figure 7-5: 21B Zone – Tetrahedrite-sphalerite-galena-stibnite beds within the Contact Mudstone (Gale et al., 2004)

21C Zone

The 21C Zone is dominantly characterized by stratabound to stratiform barite-rich mineralization with associated disseminated base and precious metal-rich mineralization in the rhyolite footwall. It occurs at the same stratigraphic horizon as the 21B Zone but is located down-dip and subparallel to it. The two zones are separated by 40 to 50 m of barren Contact Mudstone, roughly 8 to15 m thick. Mineralization is associated with mottled barite-calcite ± tetrahedrite beds in and near the base of the contact mudstone. Precious metal grades are variable. Local areas of brecciation are infilled with sulphides including sphalerite, pyrite, galena, and tetrahedrite. Mineralization in the underlying footwall forms a cryptic, tabular body, sub concordant to stratigraphy. Aside from containing 1-2% very fine-grained pyrite and trace sphalerite, tetrahedrite, and galena, the rhyolite appears similar to adjacent unmineralized areas. Drill holes have intersected intervals containing up to 35 g/t Au from these seemingly barren rhyolites.

21E Zone

Precious-metal mineralization near the north end of the 21B Zone extends over top of the anticline into a block bound by segments of the north-south oriented Pumphouse faults. Mineralization of the 21E Zone is found within a steeply dipping, fault bounded slab of mudstone that is complexly folded and faulted.

While some of the mineralization within the 21E Zone appears similar to the 21B Zone, the majority is found to be steeply dipping and dominated by fine-grained, massive sulfosalts that grade downward into massive pyrite. There is a direct correlation of sulfosalts with higher-grade precious metal concentrations. The Ag/Au ratio for the zone is approximately 100 times greater than in the 21B Zone. Stringers of chalcopyrite and chalcopyrite-galena-sphalerite overprint the mineralization. Fine-grained pyrargyrite occurs locally in hairline fractures cutting the mudstone and hosts ore-grade mineralization. Many of the textures observed in this zone suggest that the sulphides were introduced by replacement processes, perhaps along early faults.

NEX Zone

The ~300 m long North Extension Zone (NEX) is geometrically complicated by numerous faults that cut the nose of the Eskay Anticline. Textures, mineralogy, and precious-metal grades are somewhat variable and show similar characteristics to parts of the 21E Zone and distal parts of the 21B Zone, suggesting synchronous deposition. Pyrite and chalcopyrite are more common whereas Sb-Hg bearing minerals are less common (Figure 7-6). Chalcopyrite occurs in stringers that overprint earlier clastic mineralization and may be related to the formation of the HW Zone. Much of the contained pyrite may also have been introduced during this later event.

Figure 7-6: NEX Zone - Massive sulphides containing local chalcopyrite within the Contact Mudstone (Gale et al., 2004)

7.2.7 Discordant Style Mineralization

Stockwork and discordant style mineralization at Eskay Creek are hosted in the rhyolite footwall within the PMP, 109, 21A-Rhyolite, 21C-Rhyolite and 22 Zones. The PMP Zone is characterized by pyrite, sphalerite, galena, and chalcopyrite-rich veins and veinlets hosted in strongly sericitized and chloritized rhyolite. The 109 Zone comprises gold-rich quartz veins with sphalerite, galena, pyrite, and chalcopyrite associated with abundant carbonaceous material hosted mainly in siliceous rhyolite. The 21A and 21C-Rhyolite Zones consist of very fine-grained cryptic pyrite with rare sphalerite and galena in sericitized rhyolite. The 22 Zone consists of cross-cutting arsenopyrite, stibnite and tetrahedrite veins hosted in massive to pyroclastic facies rhyolite.

Descriptions of the following discordant mineralized zones are modified after Roth et al. (1999).

HW Zone

The HW Zone forms a second massive sulphide horizon hosted in the Contact Mudstone, but at a stratigraphic level above the 21B Zone. Its geometry is disrupted by fault structures associated with the fold closure. Sulphides are typically fine-grained, finely banded, and consist of semi-massive to massive pyrite, sphalerite, galena, chalcopyrite, and tetrahedrite (Figure 7-7). Sphalerite is reddish brown, suggesting a higher iron content compared to sphalerite encountered in other Zones. The HW Zone has a higher base metal content compared to other Zones, except where tetrahedrite ± sulfosalts are observed, which are associated with significantly higher precious metal grades.

Figure 7-7: HW Zone – Massive strata-bound sulphide lenses within the hanging wall mudstone (Gale et al., 2004)

PMP Zone

The PMP Zone is a discordant zone of diffuse vein and disseminated sulphide mineralization hosted in the rhyolite unit beneath the 21B Zone. Precious metal grades are generally lower than in other zones. Patchy sulphide mineralization is observed locally through the rhyolite in the form of veins containing pyrite, sphalerite, galena and lesser sulfosalts such as tetrahedrite. Chalcopyrite content increases with depth. Sphalerite is generally darker (more iron-rich) than in the overlying 21B Zone. Locally, areas of very fine-grained disseminated sulphide mineralization enriched in precious metals occur; these are similar to footwall hosted mineralization observed beneath the 21C Zone.

109 Zone

The 109 Zone is named after the discovery drill hole of the same name, which intersected 99 g/t Au and 29 g/t Ag over 61 m (Edmunds et al., 1994). The Zone is characterized by a distinct siliceous stockwork of crustiform quartz veins with coarse-grained sphalerite, galena, minor pyrite, and chalcopyrite (Figure 7-8). The 109 Zone is hosted entirely within the Eskay Rhyolite, beneath the north end of the 21B and the HW Zones. Gold and silver occur in electrum and sulfosalts.

Figure 7-8: 109 Zone - Stockwork veins of quartz-sphalerite-galena-pyrite-gold in the Eskay Rhyolite (Gale et al., 2004).

8 Deposit Types

The Eskay Creek deposit is known as an outstanding example of a high-grade, precious metal rich epithermal volcanogenic massive sulphide (VMS) deposit that formed in a shallow submarine setting. The deposit has features and characteristics typical of a classic VMS deposit: it formed on the seafloor in an active volcanic environment with a rhyolite footwall and basalt hanging wall, having chlorite-sericite alteration in the footwall and sulphide formation within a mudstone unit at the seafloor interface. What differentiates the Eskay Creek deposit from other VMS deposits are the high concentrations of gold and silver, and an associated suite of antimony, mercury and arsenic. These mineralization features, along with the high incidence of clastic sulphides and sulfosalts, are more typical of an epithermal environment with low formation temperatures.

The processes responsible for the formation of the Eskay Creek deposit are not unique in the VMS environment, but require the coincidence of several favourable conditions to optimize the precious metal grade in the deposit. Roth et al., (1999) hypothesized that the maintenance of a low temperature environment was of primary importance for the active and continued transport of gold. Heat was continually removed at the vent site due to the collapse and dismemberment of chimneys and mounds; an outcome which would have prevented the hydrothermal system from sealing. The redeposition of clastic sulphides adjacent to the vent site would have prevented the system from increasing in temperature beyond the range permissible for gold deposition. The mineralization at Eskay Creek therefore requires a specialized genetic model as shown below in Figure 8-1.

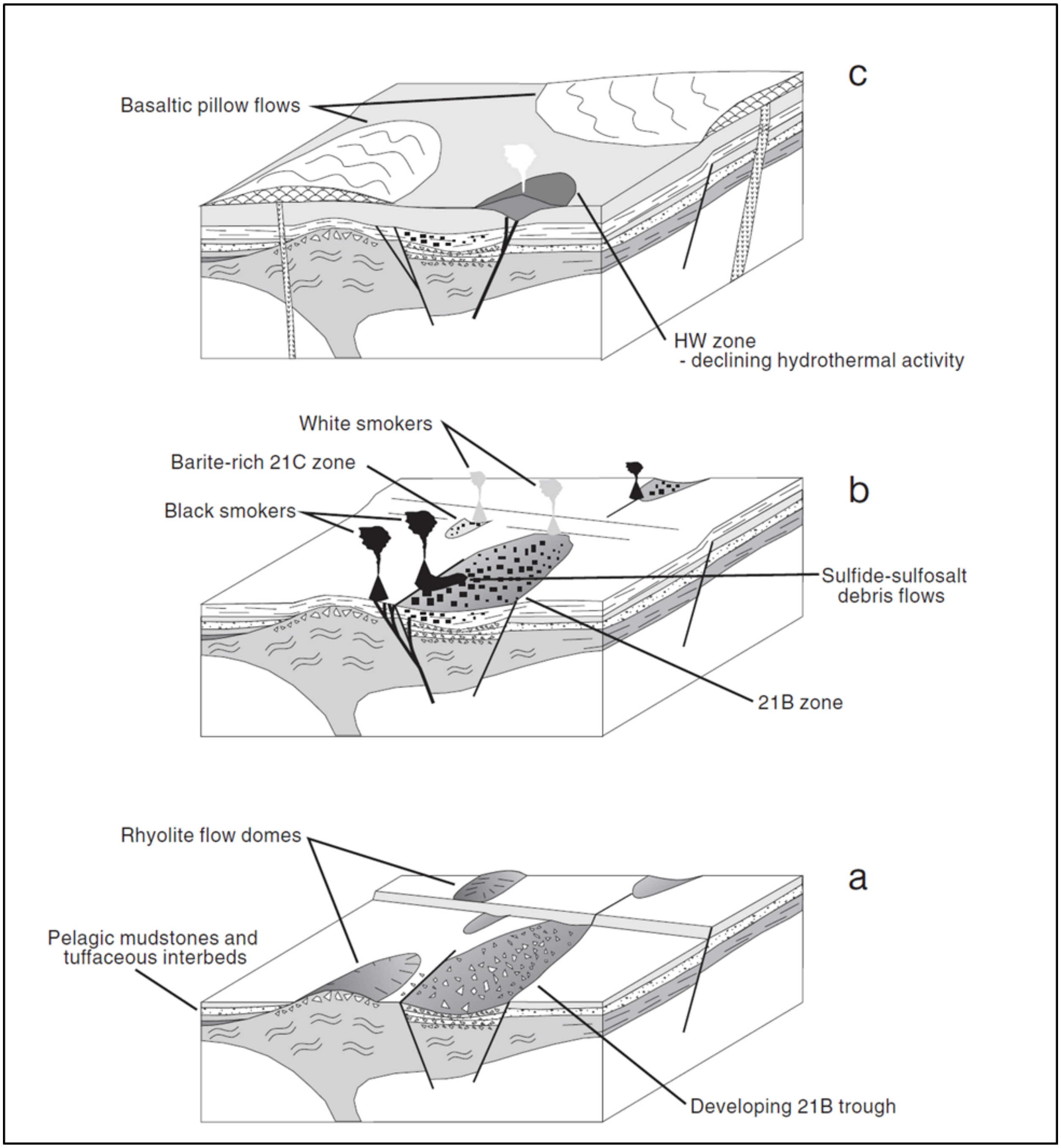


Figure 8-1: Genetic model for the development of the 21 Zone orebodies (Roth et al., 1999)

a) Rifting, basin development and intrusion and extrusion of rhyolite flow domes. Coarse volcaniclastic debris from extrusive portions of the rhyolite domes are deposited along the developing 21B Zone trough.

b) Hydrothermal activity is focused through rift faults forming chimneys and mounds on the seafloor. Collapse or disruption of these mounds forms clastic sulphide-sulfosalt debris which is redeposited in the 21B Zone trough. Other smaller basins provide the sites for similar mineralization and barite-rich zones (21C) related to white smokers.

c) The HW zone of massive sulphide forms higher in the mudstone stratigraphy and basaltic magmatism begins (dykes and flows) during the waning stages of hydrothermal activity.

9 Exploration

In April 2018, Skeena contacted McElhanney Consulting Services Ltd. (McElhanney) of Vancouver, B.C. to submit a proposal to fly a LiDAR and photography survey over the Eskay Creek property. McElhanney had previously completed a LiDAR survey for the previous Operator over the mine-site on the Eskay Creek property in early-2008 and had pre-established control points in place, though with a lower point density due to the technology and survey parameters at the time.

LiDAR and photo acquisition were completed during two flights, on October 1st and 2nd, 2018. Both datasets were collected simultaneously, and equipment was co-mounted in the same aircraft. Weather conditions were clear over the project area of interest (AOI) during the time of data capture. Collection occurred late in the morning, resulting in only minimal shading of topographic landforms due to the angle of the sun at the time. Sixty flight lines comprising 539-line kilometers covered the 100 square kilometer survey area.

The LiDAR data was collected using a Leica ALS70 500kHz laser scanner mounted in a twin-engine Piper Navajo aircraft. The photography was completed using a Leica RCD30 60MP digital camera. Data acquisition speed was approximately 140 nautical miles per hour.

All GPS data was processed by the survey technician using GrafNav software v.8.7. IMU data was processed using the Leica IPAS Pro v.1.3 and the laser data was extracted using CloudPro. Post-processing was completed in McElhanney's Vancouver office.

LiDAR bare-earth point density (points on the ground) varied through the survey area according to the tree canopy density, understory density and topographic features. The mean point density of the full-feature point cloud (all points) was 4.95 points per square meter. The mean bare-earth point density was measured to be 1.39 points per square meter. The resulting topography map was compiled to 1 m accuracy. Figure 9-1 shows the resulting orthophoto and Figure 9-2 shows the 1:50,000 scale, 50 m contour topography of the Eskay Creek property with bare earth hillshade imagery background. Although contours were delivered at 1 m intervals, 50 m intervals have been chosen for display purposes due to the scale of the map.

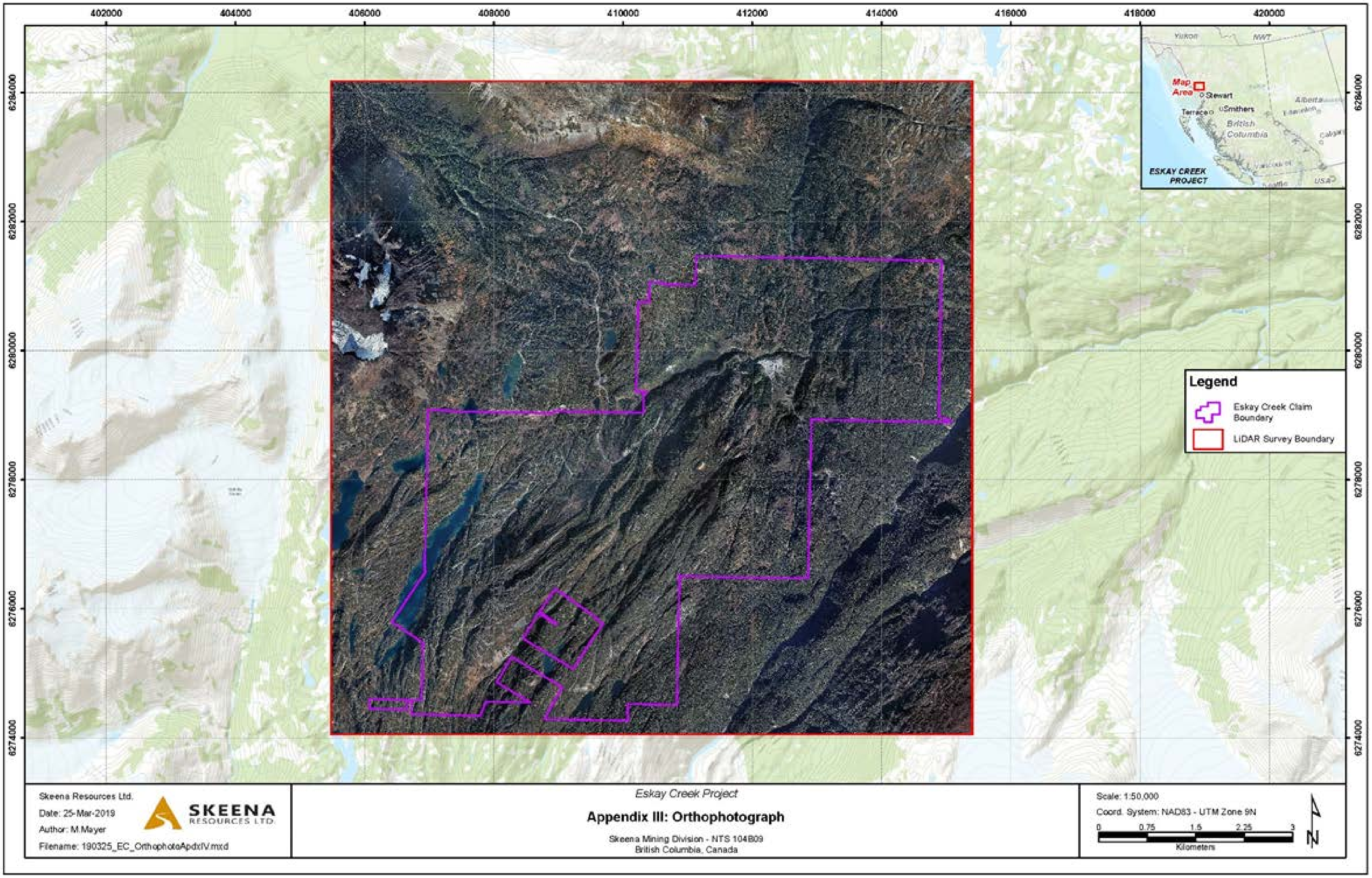


Figure 9-1: Orthophoto of the Eskay Creek Project Area

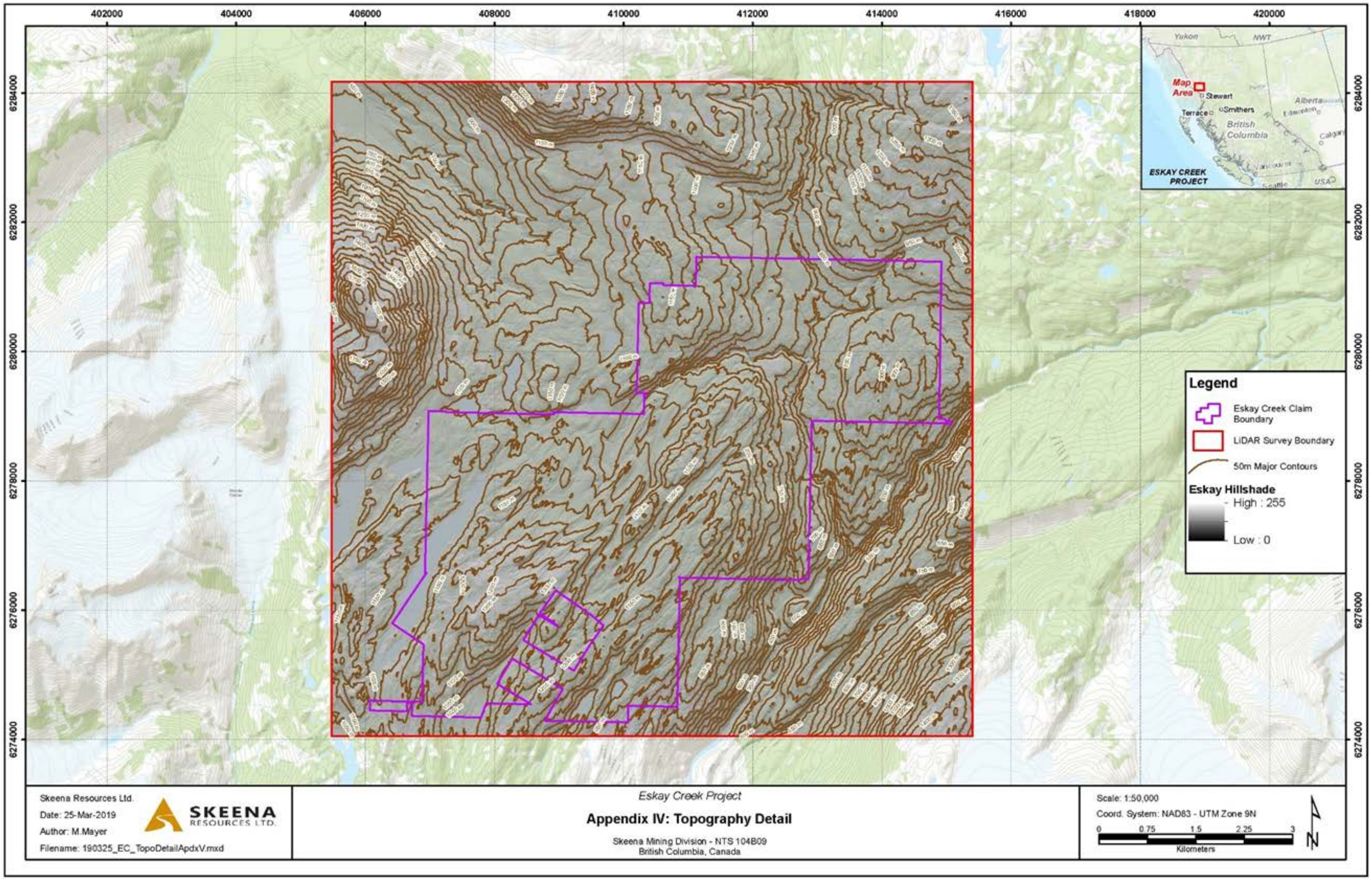


Figure 9-2: LiDAR topographic detail over the Eskay Creek Project area

10 Drilling

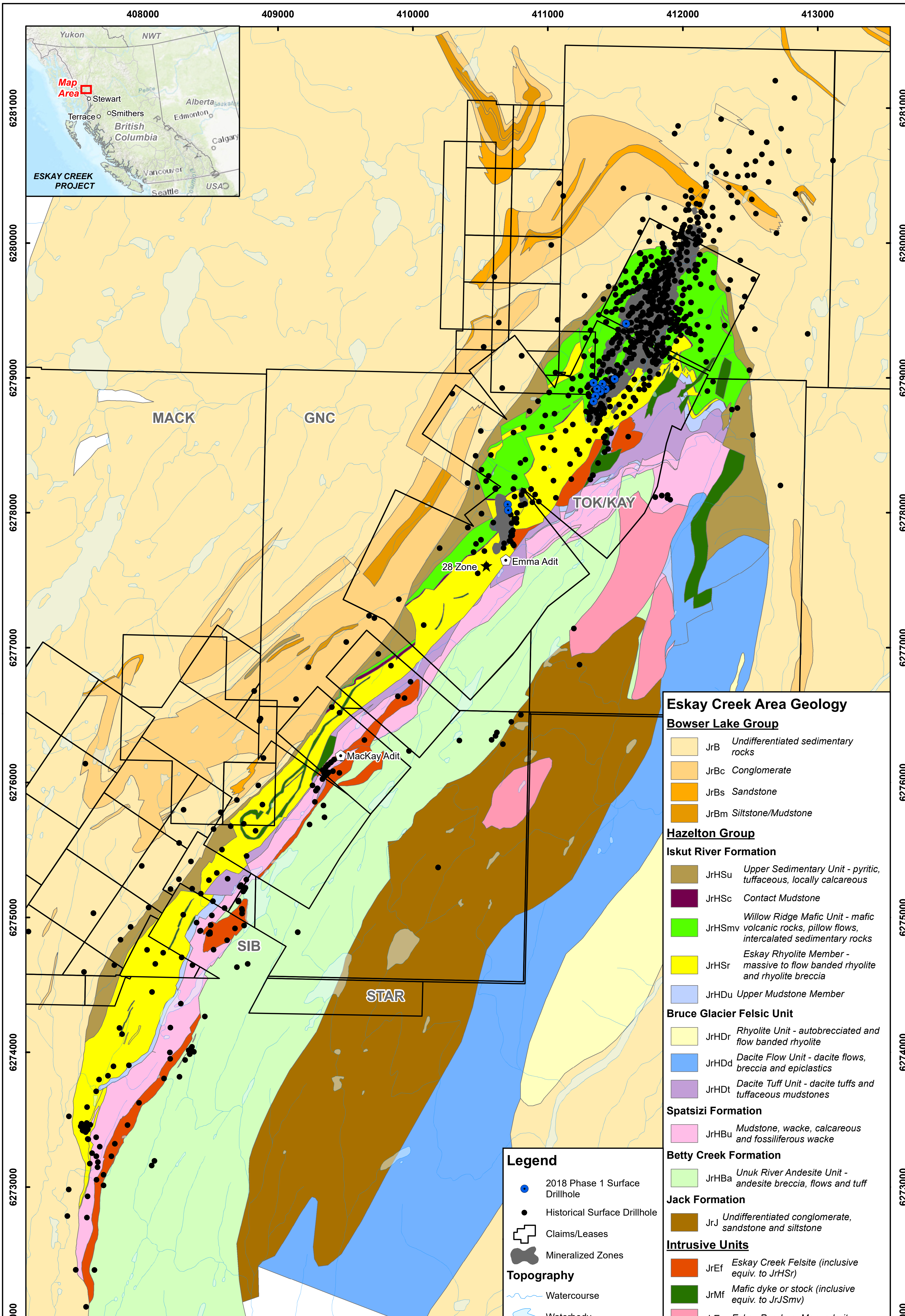
Surface drilling has been carried out by multiple operators, with the first drilling on the property by Unuk Gold in 1932. Since that time, 1,607 diamond drill holes totalling 392,276 m have been drilled from surface. Table 10-1 summarizes the surface drilling on the Eskay Creek Project arranged by Operator and year (Gale et al., 2004); Figure 10-1 shows the location of the surface exploration holes.

Underground drilling began in 1991 and continued into 2008 to aid with ore delineation. A total of 6,061 underground drill holes were drilled totalling 309,213 m. Figure 10-2 shows the locations of the underground diamond drill holes.

Table 10-1: Summary of drilling on the Eskay Creek property

Period of Work	Company	Area of Work	Number of Holes	DDH #'s	Meters Drilled
1932-1934	Unuk Gold/Unuk Valley Gold		11	Unuk 1-11	261.21
1935-1938	Premier Gold Mining Co. Ltd.		38	P 12-49	1,825.95
1964	Stikine Silver Ltd. / Canex Aerial Exploration Ltd.	Emma Adit	6	C-1 to C-6	224.64
1965	Stikine Silver Ltd.	Emma Adit	3	?	15.85
1973	Kalco Valley Mines Ltd.	22 Zone	7	KV-1 to KV-7	299.62
1975-1976	Texasgulf Canada Ltd.	#5 O.C./#6 O.C.	7	K76-1 to K76-7	373.38
1980-1982	Ryan Exploration Ltd. (U.S. Borax)	22 Zone/6 Zone	7	MR-1 to MR-7	452.32
1985	Kerrisdale Resources Ltd.		5	KDL 85-1 to 85-5	622.1
1988	Calpine Resources Inc. / Consolidated Stikine Silver	21A/21B	16	CA88-01 to CA88-16	2,875.50
1989	Calpine Resources Inc. / Consolidated Stikine Silver	21A/21B/22 Zone	179	CA 89-17 to CA 89-196	43,017.90
				CA 89-198 to CA 89-205	
			7	CA 8922-01 to CA 8922-07	1,321.00
1990	Calpine Resources Inc. / Consolidated Stikine Silver	21B/21C	513	CA 90-197	115,272.26
		PMP		CA 90-206 to CA 90-691	
		Mack		MK 90-01 to MK 90-04	
		Proposed Mill Site		PMS 90-01 to PMS 90-06	
				KP-1 to KP-16	
			3	CA 90-692, 693, 696	1,036.60
		GNC	19	GNC 90-01 to GNC 90-19	3,318.00
		Adrian	35	AD 90-01 to AD 90-35	21,786.00
1991	International Corona Corp.	21B	12	C 91-700 to C 91-711	2,791.00
		GNC	5	GNC 91-20 to GNC 91-24	
1992	International Corona Corp.	21B	1	C 92-712	3,342.00
		GNC	7	GNC 92-25 to GNC 92-31	
1993	Homestake Canada Inc.	21B	2	C 93-713- to C 93-714	1,606.60
		GNC	3	GNC 93-32 to GNC 93-34	
1994	Homestake Canada Inc.	Adrian	6	AD 94-35 to AD 94-40	3,531.70
		21B	5	KP 94-1 to KP 94-5	549.25
1995	Homestake Canada Inc.	21B/NEX	21	C 95-715 to C 95-735	3,468.10
				(formerly labelled NEX 95-1 to 18 and QZ 95-1 to 3)	

Period of Work	Company	Area of Work	Number of Holes	DDH #'s	Meters Drilled
		Bonsai	5	BZ 95-1 to BZ 95-5	
1996	Homestake Canada Inc.	21B/NEX/HW	94	C 96-736 to C 96-829	21,280.80
		Adrian	19	AD 96-41 to AD 96-59	
		Bonsai	1	BZ 96-06	
1997	Homestake Canada Inc.	21B/21C/21E	42	C 97-830 to C 97-871	16,220.47
		Adrian	14	AD 97-60 to AD 97-73	
		GNC	1	GNC 97-30X	
		Mack/Star	2	MP 97-01 to MP 97-02	
1998	Homestake Canada Inc.	Core Property	79	C 98-872 to C 98-950	21,909.63
		GNC	2	GNC 98-35 to GNC 98-36	
		Mack	8	MP 98-03 to MP 98-09	
		Star	1	SP 98-01	
1999	Homestake Canada Inc.	Core Property	64	C 99-951 to C 99-1014	17,363.96
2000	Homestake Canada Inc.	Core Property	77	C001012W C001015 to C001088	25,893.93
2001	Homestake Canada Inc.	22 Zone 21C Zone	61	C011089 to C011145	22,035.48
2002	Barrick Gold Corp.	21C Zone 21A Zone Deep Adrian	47	C02-1146 to C02-1178 C02-920X, C02-975X	15,115.69
2003	Barrick Gold Corp.	22 Zone 21A Zone 21C Zone	71	C03-1179 to C03-1245 C03-919X	18,323.28
2004	Barrick Gold Corp.	22 Zone Ridge Block 21C/21E Deep Adrian	55	C04-1261 to C04-1298	18,404.88
				C04-1020X, C04-1196X	
				C04-1206X	
				5702, 6461, 6464	
2018	Skeena Resources Ltd.	21A Zone 21C Zone 22 Zone	46	SK-18-001 to SK-18-036	7,737.45
				SK-18-037 to SK-18-040	
				SK-18-42 and SK-18-43	
				SK-18-048 to SK-18-051	



Skeena Resources Ltd.
Date: 29-Mar-19
Figure: 10-1
Author: M.Mayer
Filename: 181018_EC_SurfaceDrillingFig10-1.mxd

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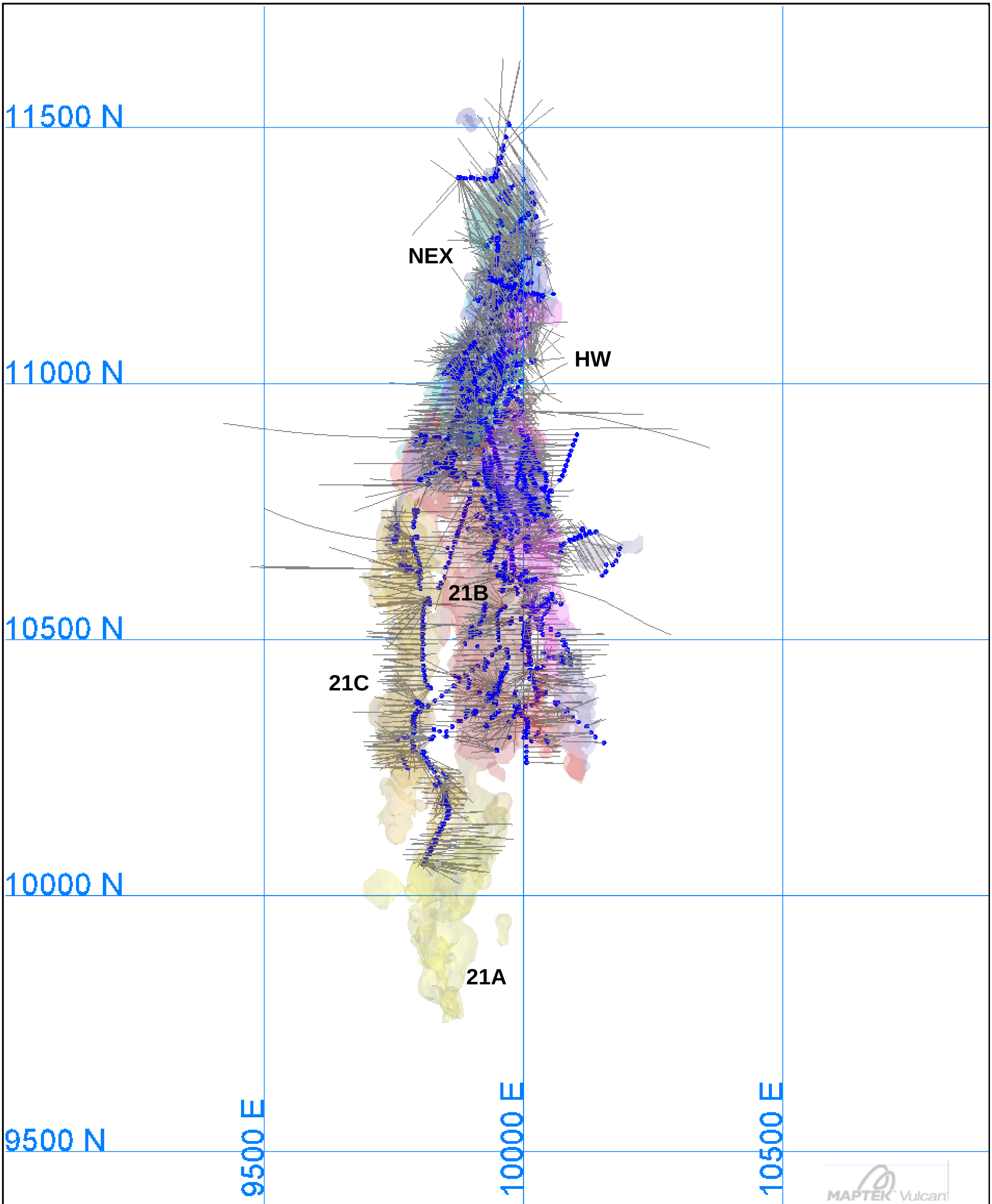
Eskay Creek Au-Ag Project

Figure 10-1: Surface Drillholes

Skeena Mining Division - NTS 104B09
British Columbia, Canada

Scale: 1:25,000
Coord. System: NAD83 - UTM Zone 9N
0 0.25 0.5 0.75 1
Kilometers
N



srk consulting	SKEENA RESOURCES LTD.	Distribution of underground diamond drilling		
Job No: 2CS042.002 Filename: Figure 10.2 Distribution of UG diamond drilling	Eskay Creek Au-Ag Project	Date: April 1, 2019	Approved: KD	Figure: **10.2**

10.1 Surface Drilling

Limited details are available regarding drilling contractors and drilling procedures specific to each campaign prior to 1995.

1995-1997

Most of the drilling around the mine workings was completed by Hy-Tech Drilling of Smithers, B.C. Hy-Tech Drilling utilized up to three drill rigs that included a JKS-300 which drilled BQTK (thin wall) core, and two F-15 drill rigs which drilled NQTK (thin wall in 1996) and NQ2 in 1997.

In 1996, Advanced Drilling of Vancouver completed 4 holes using a Boyles 56 drill rig.

No casing for the 1995 program survived the winter snow removal since they were all located near, or on, the mine access road. Casing was left in most of the holes from 1996 and 1997. All holes were grouted provided that the casing was still intact. All holes drilled in 1996 and 1997 were marked with a yellow wooden stake and aluminum tags marked with the drill hole number.

1998

Hy-Tech Drilling of Smithers, B.C. completed all holes of the 1998 campaign using four drill rigs including two JKS-300 rigs which drilled BQTK (thin wall) core and two F-15 rigs which drilled NQ2 core (with the capability of reducing to BQTK or BQ).

None of the holes completed during the 1998 drilling campaign were grouted. This was due partially to the ineffectiveness of the material used during the 1997 campaign and also due to the initiation of the mine closure plan.

2004

Hy-Tech Drilling of Smithers, B.C. completed all drill holes during the 2004 summer and winter drilling campaigns. Three drill rigs were utilized including one JKS-300 rig which drilled both BQTK (thin wall) core and NQ2, and two modified F-15 rigs, which drilled NQ2 core (with the capability of reducing to BQTK or BQ).

All the drill holes were sealed using Volclay grout and a 15 m cement cap at the overburden/bedrock interface. The casings were left in for holes C04-1248 to C04-1272, but they were removed for all other holes and plugged with a yellow or orange steel cap with the appropriate drill hole number marked on the surface. In the longer holes (i.e. Deep Adrian and Deep West Limb), an additional 15 m cement plug was placed in the HW Andesite unit, immediately below the Bowser Fault.

2018

From August 15th to November 6th, 2018, Skeena completed 46 exploration diamond drill holes from 12 drill platforms totalling 7,737.45 m. Drilling targeted the 21A, 21C and 22 Zones. The purpose of the drill program was to infill areas with low drill density and to collect fresh material for the metallurgical characterization program, which is underway as of the date of this report.

Drilling was conducted by Dmac Drilling Ltd. of Aldergrove, B.C. and Hy-Tech Drilling of Smithers, B.C. Dmac utilised a Hydracore 2000 hydraulic skid mounted drill rig on the 21A and 21C Zones and converted the drill to a fly rig for drilling on the 22 Zone. Hy-Tech utilised a Tech 5000 fly rig. Drill hole collars were initially located using hand held GPS units and surveyed at the end of the drill program using a Trimble DGPS. Down hole orientation surveys were taken approximately every 30 m down the hole utilising a multi-shot Reflex orientation tool.

In exploration activities near underground workings, discharge of artesian flows from drill holes that intersect mine workings may constitute an unauthorised waste discharge under the B.C. Environmental Management Act. In accordance with this applicable legislation, and Skeena's Principles for Responsible Exploration, artesian flow from exploration drill holes had to be controlled and prevented. Therefore, Skeena instructed each drill contractor to comply with the following procedure: all drill holes had to be cased into solid bedrock and then cemented. Once the cement had cured the drill holes had to be pressured tested to a minimum of 300 psi to test for leakage. If the pressure test failed, casing was re-drilled and the whole casing-pressure testing process was repeated until the pressure test passed. Upon completion of each hole a Van Ruth plug was installed at depth, the drill hole above the plug was filled to surface using Microsil Anchor Grout, and then capped with a threaded metal cap.

Drill core was logged and sampled at core logging facilities located just inside the Eskay Creek Mine site gate, proximal to Argillite Creek. Drill core is a combination of NQ (Hy-Tech) and NQ2 (Dmac) diameter core. As weather conditions deteriorated with the onset of winter, all logging and sampling operations were moved to the Colorado Resources' core facilities located at the McLymont Creek staging area in the Iskut Valley. Core is stored at both the Eskay Creek Mine site carpentry shop (drill holes SK-18-001 to SK-18-020), and McLymont Creek staging (drill holes SK-18-021 to SK-18-040, -042, -043, and -048 to -051).

Helicopter drill moves, and daily drill support was provided by Silver King Helicopters Inc. of Smithers, B.C. utilising a Eurocopter AS350 B2 helicopter.

10.1.1 Site Reclamation

Upon completion of the drill holes, all man-made materials and set-up timbers were removed from the drill sites and all trees felled were cut into 1.3 to 2 m lengths. Before and after pictures were taken at each site and then submitted to the BC provincial government as part of the Notice of Closure.

10.2 Underground Drilling

Underground drilling began in 1991. Information regarding field procedures are largely incomplete or missing. Little detail is known about the amount of definition drilling completed per year or the type of drill rigs used.

The deposit is drilled at an average spacing of 10 m using BGM (~40 mm) core diameter. In highly complex areas where mining was active, drill spacing was locally reduced to 5 m. Underground drill holes are generally less than 100 m in length.

Collar location surveys were performed by the mine surveyors. These provided accurate collar locations for the holes, and a check on the initial azimuth and dip was recorded for each hole. Prior to 2004, most of the drill holes in the database were surveyed downhole using a Sperry Sun™ Single Shot instrument, with readings taken every 60 m, or by acid tubes, with readings every 30 m. In early 2004, downhole surveying used an Icefield Tools™ M13 instrument. This provided azimuths and dips for each hole every 3 m down the hole. Readings were reviewed by staff and inaccurate entries were removed from the database.

11 Sample Preparation, Analyses, and Security

11.1 Pre-2004 Analysis

11.1.1 Sample Preparation and Assaying Procedures

Limited information is available for procedures used during the exploration programs carried out before 2004. The drill core was logged using DLOG computer programs for data entry as well as for drill log printing. The data was entered directly into laptop computers and the rock units coded with 4-digit geology codes; mineralized sections were logged separately as nested units or primary units depending on quantities. Textural descriptions, rock colour and structure were also coded with 2-character fields. Remarks were typed into separate fields to characterize unique geology, structure or mineralization features.

All collar and survey information were tabulated in master files within the DLOG computer program. Completed logs were printed and the information was exported into ACAD and Vulcan software to facilitate plotting drill hole location maps and cross-sections.

As part of the diamond drill core processing procedures, all drill core was geotechnically logged. Two parameters were routinely measured and recorded: (1) Core recovery – the % of drill core recovered in every 3.05 m (10 foot) run, and (2) RQD (Rock Quality Determination) – the % of core within a run exceeding 10 cm in length. Skeena currently does not have access to the historical RQD and recovery data.

During the drill core logging process, portions of the core were selected for sampling based on lithology, mineralization, and alteration. Sample intervals varied from about 0.25 m up to 1.5 m though the optimum sample interval was 1.0 m. Sample intervals were always contained within one geologic unit and did not straddle contacts. Assay tags were used for sample identification and were inserted at the end of each sample interval. After the logging and photography had been completed, the core was sampled by means of splitting the core with a manual or pneumatic splitter or by cutting the core with a diamond bladed rock saw in the case of the massive sulphide zones. One half of the core was placed in plastic sample bags and sealed for shipment to the lab and the other half of the core was returned to the core box and then trucked to the unused gravel pit at km 45 for long term storage; this storage area was turned into a logging facility for the 1998 drilling campaign. Sample bags containing core for analysis were either carried to the mine assay lab located adjacent to the logging facilities or packed in rice bags/plastic pails for shipment via truck to Independent Plasma Laboratories (IPL) for an independent check on select samples.

During 1996 and 1997, most of the drill core was processed at the core logging facilities located at the Eskay Creek mine site. However, during the 1998 drill campaign the drill core was processed at the core logging facilities located either at the Eskay Creek mine site or at Camp 45, an exploration site situated 45 km along the Eskay Creek Mine Road.

Both the Eskay Creek mine assay lab and IPL in Vancouver used very similar sample preparation and analytical procedures in processing drill core samples.

At IPL, all drill core samples were crushed to -10 mesh, riffle split and 250g pulverized to -15 mesh. Gold was assayed by fire assay (30g) with AA finish. All gold values greater than 1.00 g/t were re-assayed by fire assay (30g) and finished gravimetrically. Silver was assayed by fire assay (30g) with AA finish. Every batch of 24 assays consisted of 22 samples, 1 internal standard or blank and a random re-weigh of one of the samples.

Analysis for lead, zinc, copper, arsenic and antimony was done by an ore grade assay method using a 0.50g sample digested in a dilute aqua regia solution. The above-mentioned elements were analyzed for by AA. Calibration was done using three known standards and a blank. Internal quality control was accomplished by a system of standards, blanks and re-analysis. Mercury was analyzed for using an aqua regia digestion and finished by ICP.

At the Eskay Creek mine assay lab, the drill core was jaw-crushed to -1/8'', riffle split and 250 to 300g pulverized. Gold was assayed by fire assay (10g) with AA finish. Every batch of 24 samples included two duplicate assay checks.

For analysis for zinc, antimony, copper, and lead, a 0.20g sample was digested in a heated solution of tartaric, nitric, perchloric and hydrochloric acids, and finished by AA. For mercury and arsenic, a 1.00g sample was digested in a heated solution of nitric, perchloric and hydrochloric acids and finished by AA.

11.1.2 QAQC Verifications 1997 to 2003

Prior to 2002, there was no formal QAQC program in place, however the Eskay Creek mine lab and external lab, IPL, were regularly monitored with pulp duplicates. In 2003, standards and blanks were inserted into the sample stream, however there is no record of what type of standards were used. Table 11-1 summarizes the number and type of standards, duplicates and blanks used during this period. Section 12 – Verifications of Analytical Quality Control Data, details the SRK reviewed and validated QAQC results for the 1997 to 2003 drilling and sampling campaigns.

Table 11-1: Summary of historical analytical quality control data on the Eskay Creek Project

	DDH	
Sampling Program	**1997-2003**	**(%)**
Sample Count	6190	100
Field Blanks (silica)	209	3
QC Samples unknown	3271	53
G-1 Standard	8	0.1
DS4 Standard	92	1
DS5 Standard	491	8
Unknown Standard	177	3
Field Duplicates	-	
Preparation Duplicates	524	8
Pulp Duplicates	985	16
Unknown Duplicates	433	7

11.2 2004 Analysis

11.2.1 Sample Preparation and Assaying Procedures

Comprehensive sampling and assaying methodology were in place during the 2004 drilling campaign for both surface and underground drill holes (Barrick, 2005).

The diamond drill core was sampled at 1.0 m intervals, but smaller increments were applied where necessary to honour geological contacts. The core was submitted whole to the Eskay mine assay lab for gold and silver determination by fire assay. Samples reporting greater than 8 g/t gold-equivalent, using the following formula: $AuEQ = Au + (Ag/68)$, were also analyzed for lead, zinc, copper, mercury and arsenic by atomic absorption spectrometry.

Drill logs and sample data were compiled into an SQL server-based database where all geological, assay and survey information were entered. Once the drill hole data had been approved the drill hole was locked from further editing and data was transferred to a Vulcan database to allow plotting and spatial interpretation. Hole locations were checked visually on import to detect for collar and survey errors.

Photographing of all diamond drill core using a digital camera was initiated in 2004. All core drilled for the mine geology department was either consumed during sampling or discarded once it had been logged. Skeena was unable to find photographic evidence of any of the core.

Production samples were also collected daily from each face. Representative geologic contacts were identified, and these chip samples were analyzed for gold, silver, mercury and antimony. Information collected from each face was entered daily into an inhouse Access database and then transferred to a Vulcan database.

Surface diamond drilling was overseen by the historical operator’s exploration group. Surface samples were sent to commercial laboratories in Vancouver for analysis, whereas underground samples were sent and processed at the Eskay Creek mine lab. Gold and silver were analyzed by fire assay and other elements were determined by ICP-MS.

Holes drilled for the Regional Exploration group were shipped to the exploration camp. This camp has now been dismantled and all core was disposed of in Albino Lake, 9 km from the Eskay Creek mine site.

11.2.2 QAQC Verifications 2004

An official QAQC program was undertaken in 2004 whereby the Eskay Creek exploration team added standards, blanks and field duplicates to the sample stream and submitted them to an independent lab for checking (Table 11-2). Section 12 – Verification of Analytical Quality Control Data, details the SRK reviewed and validated QAQC results for the 2004 drilling and sampling program.

An audit was conducted on the 2004 QAQC results and procedures by Dr. Barry Smee, of Smee & Associates Consulting Ltd. (Gale et al., 2004). The findings from the analysis identified a low bias in relation to Acme's internal standards for both aqua regia and fire assay methods. Acme corrected the inconsistencies with batch repeats. The sampling precision by means of using duplicate preparation and pulp samples was found to be within acceptable limits.

Table 11-2: Summary of historical analytical quality control data on the Eskay Creek Project

	DDH	
Sampling Program	**2004**	**(%)**
Sample Count	2456	100
Field Blanks	289	12
QC Samples unknown	1515	62
ESK13-1	12	0.5
ESK12-1	10	0.4
ESK72-1	9	0.4
ESK6114-1	21	1
ESK61-1	131	5
Field Duplicates	144	6
Preparation Duplicates	158	6
Pulp Duplicates	167	7

11.3 Specific Gravity Analysis

Specific gravity (SG) measurements were collected from diamond drill core in 1996 (250 measurements from 20 drill holes) and 1997 (84 measurements from 7 drill holes). Sections of drill core up to 10 cm long of split or whole core were used to determine the SG. The core was first weighed in air on a beam balance, and then weighed in water. One or more measurements were taken from each sample interval.

SG models were subsequently created using a formula that was derived experimentally based on comparisons between actual measurements and analyses at Eskay Creek. This formula was utilized for all ore reserves calculated on site in the mine's history so that SG could be determined for mineralized intervals that did not have the directly measured values.

$SG = (Pb + Zn + Cu) * 0.03491 + 2.67$ (where all metals are reported in %).

A default value of 2.67 was applied to samples for which base metals were not reported. This is the average value of unmineralized rhyolite and mudstone host rocks combined.

The measured SG values from the early drill programs were primarily from relatively low base metal, 21B-style mineralization. The formula is therefore likely biased on the low side for rocks with higher base metal content.

11.4 Analysis of Historical Data by Skeena

In early 2018, Skeena was given access to the historical Operators proprietary database (“historical database”), which had been held in confidence since the mine closed in 2008. The database files, assay certificates, drill hole logs, and report files were stored in various locations and in various states of order. No single complete data set was located.

Between May and July 2018 Skeena personnel compiled and reviewed all available drilling and assay data to rebuild and produce a validated database in Microsoft Access^{TM} format. The historical database originated as a Vulcan file that was extracted and used as the building block for the final Skeena database (“the Database”).

Digital certificates of original and rerun assays were located for the years 1999 to 2004 from the Eskay Creek mine laboratory as well as from three Independent laboratories: IPL, Bondar Clegg and Acme Analytical (Acme). Although only a partial set, the assays with certificates were imported into the Database and took precedence over any other assay values within the historical database. A total of 27,609 of the 426,367 assays in the Database were validated with original certificates. Gold and silver make up most of the assays in the Database, whereas base metals (lead, copper, zinc) and deleterious elements (arsenic, mercury, antimony) account for a lesser proportion in the Database because they were historically selectively analysed.

Lower detection limit (LDL) inconsistencies were encountered in the historical database. The Eskay Mine laboratory did not consider values below 1 g/t Au and 10 g/t Ag as significant, therefore those grades were either set to a default of 0.5 g/t Au and 5 g/t Ag or left as <1 g/t Au and <10 g/t Ag. Base metal and deleterious elements below detection limits were set to 0.0%. Due to the high cut-off grades at the time that the mine was in production, the use of these default lower detection limits had little impact. Skeena reviewed the methodology and assays certificates from the Eskay mine laboratory and determined reporting to 0.1 g/t for Au and Ag. For assays below this true detection limit, a value of half of this limit was applied in the Database (0.05 g/t for Au and 0.05 g/t for Ag and 0.005% for Pb, Cu, Zn, As and Sb). In addition, all LDL’s from the Independent assay laboratories were originally set to 0.0 g/t in the historical database for all elements analyzed. Skeena reset the LDL’s to the actual limits used by the Independent laboratories at the time. Table 11-3 shows the detection limits from the historical database along with the modified LDL used in the Database.

Table 11-3: Lower detection limit (LDL) changes in the Database for gold, silver, base metal and deleterious elements

	Gold			Silver		
Lab	**Historical LDL (g/t)**	**Lab LDL (g/t)**	**Skeena LDL (g/t)**	**Historical LDL (g/t)**	**Lab LDL (g/t)**	**Skeena LDL (g/t)**
Acme	0	0.0005	0.001	0	0.1	0.05
Bondar Clegg	0.0	0.069 *	0.035	0	0.069 *	0.035
IPL	0.0	0.034 *	0.017	0	1.714 *	0.85
Eskay	0.5	0.1	0.05	5	0.1	0.05
TSL	0.0	0.034 *	0.017	0	1.714 *	0.85
unknown**	0.0	0.069 *	0.035	0	0.69 *	0.35

	Base Metals	Lead		Zinc		Copper	
Lab	**Historical LDL (%)**	**Lab LDL (%)**	**Skeena LDL (%)**	**Lab LDL (%)**	**Skeena LDL (%)**	**Lab LDL (%)**	**Skeena LDL (%)**
Acme	0	0.00005	0.001	0.00001	0.001	0.00001	0.001
Bondar Clegg	0.0	0.01	0.005	0.01	0.005	0.01	0.005
IPL	0.0	0.01	0.005	0.01	0.005	0.01	0.005
Eskay	0.0	0.01	0.005	0.01	0.005	0.01	0.005
TSL	0.0	0.01	0.005	0.01	0.005	0.01	0.005
unknown**	0.0	0.01	0.005	0.01	0.005	0.01	0.005

	Deleterius Elements	Arsenic		Mercury		Antimony	
Lab	**Historical LDL (%)**	**Lab LDL (%)**	**Skeena LDL (%)**	**Lab LDL (%)**	**Skeena LDL (%)**	**Lab LDL (%)**	**Skeena LDL (%)**
Acme	0	0.00001	0.001	0.010	0.005	0.00001	0.000
Bondar Clegg	0.0	0.01	0.005	3	1.5	0.01	0.005
IPL	0.0	0.01	0.005	3	1.5	0.01	0.005
Eskay	0.0	0.01	0.005	1	0.5	0.01	0.005
TSL	0.0	0.01	0.005	1	0.5	0.01	0.005
unknown**	0.0	0.01	0.005	1	0.5	0.01	0.005

* Converted from ounces per tonne (opt) to g/t

** Barrick noted that it was assumed to be Bondar Clegg, therefore Bondar Clegg lab values were used

Skeena inherited a database that had a total of 41,624 duplicate primary sample numbers. The duplicate sample numbers were a result of the historical Operators reusing the same sample tag number already used by previous drilling campaigns in different years. Skeena rectified the conflicts by creating a new column in the Database that uniquely identifies the sample by year of drilling first and then by sample number.

For data integrity purposes, the Database retains all the original sample numbers with unmodified assay values in separate, searchable columns. This applies to multiple element rerun samples as well. A priority system was set up so that a final “element_best” column gives precedence to assay values with validated assay certificates over unconfirmed samples.

Drill core at Eskay Creek was selectively sampled by the historical Operators based on visual estimations of mineralization, which resulted in many unsampled intervals within the body of mineralization. Skeena identified these unsampled intervals with an assigned value of -99 in the database. In some cases, samples were not analyzed due to insufficient material provided to the laboratory or samples not received. The historical Operator coded these samples with one of five default values. Skeena denoted these samples with a value of -66 in the database.

Once the Skeena database had been rebuilt it was validated for gaps, overlapping intervals, duplicates, and lower detection limits. Surface drill hole collar locations were checked against the topographic surface for accuracy, and underground drill hole collar locations were checked against underground development wireframes. Where available, drill holes collar locations were confirmed from the original drill logs.

Following validation, 306 holes were flagged in the Database and were excluded from the data export used to create the Mineral Resource Estimate (see Appendix A). The excluded drill holes include:

- 31 holes where collar locations were reported as suspicious in 2004 and 2006 internal company Resource reports;
- 4 surface holes where mineralized intervals do no correlate with underground development;
- 19 holes with duplicate sample numbers and/or overlapping assay intervals;
- 24 drain holes;
- 228 surface holes south of 8250N that were outside the extents of the Mineral Resource estimate.

Drill holes were imported using a mine grid that is rotated 23 degrees to the east. The Skeena Database was updated with complete UTM and mine coordinates based on the formula provided by McElhanney (McElhanney, 2004). The mine grid coordinates were established by applying a rotation and scale factor as well as northing, easting and elevation shifts to the UTM values around point RP248, in the following order:

Rotation: -24º 14’ 45”
Combined Scale Factor: 1.0004459
Northing Shift: -6268630.813m
Easting Shift: -401584.000m
Elevation Shift: 0.000

11.5 2018 Analysis

11.5.1 Sample Preparation and Assaying Procedures

Skeena’s sampling and assay quality control guideline for the Snip and Eskay Creek drill core programs was reviewed by SRK (Skeena, 2019). This quality control guideline is a comprehensive document which is designed to assist staff in the implementation and ongoing monitoring of assay quality data for all present and future drill programs. The guideline provides definitions and instructions for all stages of core handling, preparation and analysis with which Skeena personnel are expected to follow (see Section 10.1 for details on drill rig specifications and drill site procedures as well as core storage locations).

Drill core logging, photography and sampling is conducted in a systematic and vigilant manner. When drill core arrives at the core shack, the geologist rearranges the core so that the pieces fit back together as best as possible. The geologist then checks the core for any depth marker discrepancies or core interval mix-ups before making the applicable correction(s). Boxes are labelled at the start and end of the boxes, in meters, and then cleaned of any mud or contaminants. The core is photographed under wet conditions. The core is logged by a geotechnician for recovery, rock quality designation (RQD), longest stick, and magnetic susceptibility. Specific gravity samples are collected one in every 20 m down the hole. A whole piece of NQ-sized competent core 10-15 cm in length is selected and measured using the water displacement method.

A geologist is assigned to a drill hole and logs the core for lithology, alteration, veining, mineralization and structural features. All metrics, depending on the geological feature being evaluated, is assessed in percent abundance or intensity rankings as well as orientation and thickness. One-meter assay intervals are established when visible mineralization is first observed, and then uniform intervals are continued down the drill length until there is no evidence of mineralization. Assay intervals honour geological contacts to a minimum of 0.5 m and a maximum of 1.5 m. Skeena records geological and geotechnical information into a GeoSpark database.

Skeena geologists mark the centre line of the core in red china marker in preparation for core cutting. All drill core is halved with a diamond core cutting saw. One assay sample ticket stub is placed into the sample bag with the half core and the other matching ticket stub is stapled into position onto the core box marking the appropriate assay interval.

Samples are shipped using the following procedure: Groups of samples are placed in a large rice bag and secured with tie wraps; high grade samples are separated into batches to ensure that the appropriate method is applied at the laboratory. The sample number series within the sack are marked on the outside of the rice bag and a lab sample submission form is placed in the first rice bag in sequence. The laboratory is emailed in advance of the shipment, and when the lab receives the shipment a confirmation email is returned. Assay sample shipments are shipped to the assay facility in Kamloops twice per week. Samples were transported by truck from the Eskay mine site to the McLymont staging area by Skeena personnel and then loaded onto trucks driven by Rugged Edge Holdings (Skeena's expediter). The samples were then delivered to Bandstra in Smithers and transported from there to the ALS prep laboratory in Kamloops.

Reject and pulp materials are currently stored with ALS in Vancouver. The pulp and reject sample bags are kept in a clean and dry environment in numerical order so that they can be easily retrieved, if necessary.

All samples are initially sent and prepared at the ALS facility in Kamloops after which the pulp samples are split and shipped for analysis to the lab in Vancouver, an ISO/IEC 17025:2005 accredited laboratory. At the preparation facility in Kamloops the entire sample is dried and then crushed using a two-stage Terminator crusher. Crushing is done to better than 70% passing a 2 mm Tyler 10 mesh screen, and then the crushed material is put through the riffle splitter to 1000g. Roughly 1000g is taken and pulverized to better than 85% passing a 75-micron Tyler 200 mesh screen (PREP-31BN). The LM2 Pulverizing Mill is equipped with a B2000 bowl.

At the analytical facility in Vancouver, gold assays were performed on 50 g samples by fire assay and atomic absorption (ALS code: Au-AA26) with a lower and upper detection limit of 0.01 g/t and 100 g/t, respectively. For assays above the upper detection limit then samples were analysed by fire assay with a gravimetric finish (ALS code: Au-GRA22) with lower and upper detection limits of 0.05 g/t and 10,000 g/t Au, respectively.

Silver assays were performed on 50 g samples by fire assay and gravimetric finish (ALS code: Ag-GRA22) with lower and upper detection limits of 5 g/t and 10,000 g/t, respectively. For assays above the upper detection limit, a concentrate and bullion grade fire assay and gravimetric finish were performed (ALS code: Ag-CON01) with lower and upper detection limits of 0.7 g/t Ag and 995,000 g/t Ag, respectively.

Multi-element assays were performed using a combination of digest and finish methods: a 0.25 g sample using a four-acid digest followed by an ICP-AES finish (ALS code: ME-ICP61), and a 0.1 g sample using lithium borate fusion followed by an ICP-MS finish (ALS code: ME-MS81). This combination in assay methods for the multi-elements ensured that the range of concentrations for all elements of interest, particularly for Sb, were covered. In the database, the ICP-AES finish method took precedence.

A limited number of samples exceeded the upper limits for Ag, As, Cu, Pb and Zn. For these samples, the lab was instructed to apply overlimit methods on a 0.4 g sample (ALS code: OG62) using a four-acid digest and ICP or AAS finish. Sulphur overlimits were re-analyzed using the total sulphur Leco furnace method using a 0.1 g sample (ALS code: S-IR08) with a lower detection limit of 0.01% and upper detection limit of 50%.

Mercury was separately analysed using low temperature aqua regia digestion followed by an ICP-AES finish (ALSO code: Hg-ICP42) with a lower detection limit of 1 ppm and an upper detection limit of 100,000 ppm.

11.5.2 QAQC Verifications 2018

Skeena implemented a formal QAQC program from the inception of their 2018 Phase 1 drilling program. The QAQC program contained the following types of quality control samples: reference materials, sample blanks and check assays (Table 11-4). In addition to the Skeena introduced QC sample, the selected analytical laboratory (ALS Global) also performed their own independent check samples.

Table 11-4: Summary of QC samples inserted by Skeena during the Phase 1 drilling program in 2018

QC Sample	Type	Subtotal	Total	% of Total
Total Blanks			112	7%
Reference Material	CDN-GS-1T	2		
	CDN-GS-25	44		
	CDN-GS-5T	58		
	CDN-ME-1312	48		
	CDN-ME-1601	44		
Total Standards			**196**	**12%**
Duplicates (internal ALS)	Prep	206		
	Pulp	1,178		
Total Duplicates			**1,384**	**82%**
Total QC			**1,692**	**100%**

The blank material used was a marble garden rock obtained from Canadian Tire in Smithers, BC. Approximately 1 kg of this material was used for each blank sample. Three blanks were inserted for every 100 samples, typically at the “20”, “60” and “00” numbers in the sample tag sequence. Assays for blanks should be less than 10 times the detection limit of the analytical method for gold.

Five reference materials were used during the 2018 Phase 1 drilling program. One standard was certified for Au only (CDN-GS-1T), two were certified for Au and Ag only (CDN-GS-5T and CDN-GS-25), and two were polymetallic standards certified for Au, Ag, Cu, Pb and Zn (CDN-ME-1312 and CDN-ME-1601) (Table 11-5). Reference materials were purchased from CDN Resource Laboratories Ltd. (CDN) of Delta, British Columbia; they were selected to best match the rock matrix seen at Eskay Creek, as well as to match the analytical method used on the samples.

Table 11-5: List of reference materials with recommended values for gold and silver only

Reference Material	Gold			Silver		
	Recommended value	+ 3 Std dev	- 3 Std dev	Recommended value	+ 3 Std dev	- 3 Std dev
CDN-GS-1T	1.08	1.23	0.93	n/a	n/a	n/a
CDN-GS-25	25.60	27.01	24.19	99.5	110.5	88.3
CDN-GS-5T	4.76	5.075	4.445	126	141	111
CDN-ME-1312	1.27	1.495	1.045	22.3	24.85	19.75
CDN-ME-1601	0.613	0.682	0.544	39.6	42.3	36.9

Five standards were inserted for every 100 samples, typically at the “10”, “30”, “50”, “70” and “90” numbers in the sample tag sequence. Reference materials were usually inserted in rotation, except where high-grade intervals above approximately 20 g/t Au were encountered; here high-grade reference materials (CDN-GS-25) were inserted.

Reference materials and blanks were monitored when batches of assay data were first received. Reference material or blank control charts were routinely updated for the following elements: Au, Ag, Cu, Pb and Zn; other elements were analyzed on an as needed basis. Control charts for reference material charts were prepared using the acceptable value plus or minus three standard deviations, the acceptable range. If analyses are outside of the acceptable range after checking for data entry errors, then repeat assay were requested. Where two or more consecutive certified reference materials are both biased high or low (more than 105% of the expected value or less than 95% of the expected value) repeat assays were requested. The lab was instructed to retrieve five pulp samples before and after the QC failure.

Two kinds of duplicates were processed during the Phase 1 Eskay Creek drilling program: preparation and pulp duplicates. The preparation duplicate is a split that the laboratory takes from the reject material at a rate of one in every 50 samples. The pulp duplicate is an exact repeat of the primary pulp sample analysed immediately after the original sample. Pulp repeat insertion rates are at the discretion of the laboratory Manager. Preparation and pulp duplicate data sets were routinely charted using X-Y scatterplots, relative percent difference versus average graphs and quartile-quartile plots. Skeena monitored the labs performance and reported any concerns to the Lab Manager.

11.6 SRK Comments

In the opinion of SRK the historical sampling preparation, security and analytical procedures used during the years 1997 and 2004 are consistent with generally accepted industry best practices and are therefore adequate. In addition, the quality control program established for Skeena’s Phase 1 drilling program in 2018 adequately tested for sample mix-ups, contamination, sample bias, sample accuracy and precision using a collection of reference materials and blanks. All quality control issues were immediately addressed and repeat batches were conducted on questionable data. Monthly quality control reports documented the type, quantity and outcome of the quality control assessment, all of which show good performance and assay data integrity.

12 Data Verification

12.1 Verifications by SRK

The Database used for the 2019 Mineral Resource Estimate was submitted to SRK on January 19th, 2019 (the close out date for the Database) for a final review before Skeena proceeded with generating mineralization domains. Skeena has ensured that the database inherited from the historical Operator was verified using historical assay certificates and logs. SRK conducted an independent review of the historical database as well as the current database used for the 2018 Phase 1 drilling program. In addition, SRK reviewed the historical and current quality assurance and quality control programs (QAQC) and independently analysed the results from these programs. After the review, SRK concluded that the Database was sufficiently reliable for resource estimation.

Note that although the resource has been estimated for the base metals (lead, copper and zinc) and deleterious metals (arsenic, mercury and antimony), the database verifications and validations are primarily focused on gold and silver assays. At the request of SRK, the units for arsenic and antimony were changed from percent to ppm.

12.1.1 Current Database

The current Database was provided to SRK in .csv format and included collar, survey, assay, and geology files for the 46 drill holes drilled during the 2018 Phase 1 drilling program, as well as all historical holes. SRK inspected the data for collar survey discrepancies, erroneous downhole deviation paths, and overlapping or missing assay and lithology intervals. All errors found were corrected and the dataset used for resource estimation included the correct values.

12.1.2 Historical Database

The historical Database was provided to SRK in .csv format and included collar, survey, assay, and geology files.

SRK conducted routine verifications to ascertain the reliability of the electronic drill hole database provided by Skeena. All assays in the Database were verified against Eskay mine laboratory and Independent lab assay certificates, where assay certificates were available. No significant errors or omissions were discovered; however, the large number of missing assay certificates is a limitation on the validation effort.

The Database was checked for missing values, duplicate records, overlapping intervals, sample intervals exceeding maximum collar depths, borehole deviations, drill holes collars versus topography, laboratory certificate vs database values and special values (i.e. non-numeric or less than zero). Minor errors were reviewed with Skeena's Resource Geologist and resolved prior to geological modelling and resource estimation. All modifications to the Database were checked to ensure appropriate allocation. These included assay priorities ranking and accurate, consistent LDL updates.

SRK viewed the collar locations of underground drill holes by means of 50 m sections with drill hole volume projections of 25 m. There was no obvious discrepancy between collar location and underground workings. Viewed on 50 m sections, the drill holes collars originating from the surface appear to correlate reasonably well with the topography layer. There are, however, several drill holes that occur approximately 20 m above or below the surface layer. Given the fact that the collar locations have more accurate spatial resolutions than the topography surface, this discrepancy is not thought to be a material concern. SRK cross-checked the UTM and mine grid coordinates from the McElhanney report with the final Skeena database. The checks confirmed that the UTM-mine grid shift had been done accurately.

12.1.3 Site Visit

Ms. S. Ulansky, PGeo, a Qualified person ("QP") as defined by Canadian National Instrument NI 43-101 standards of disclosure, visited the Eskay Creek Project on June 27 and June 28, 2018 with two representatives from Skeena Resources (Ms. K. Dilworth and Mr. J Himmelright). The purpose of the visit was to see localities that had been described in earlier reports first-hand and to validate the areas with independent checks. The following areas were visited and verified:

- Approximately 50 drill hole collars, located on twenty-two drill pads, were located and resurveyed. GPS readings were taken along with general azimuth and dip orientations of the remaining casing. These independent GPS readings agreed within +/-5 m of the collar coordinates in the database, noting that the handheld GPS used by SRK had an accuracy of +/-5 m. All the drill holes surveyed were cased, although many casing caps were missing or not placed there in the first place. Seventeen of the drill holes had labels etched onto the casing caps and some of these locations were photographed (Figure 12-6):
- Five east-west trenches were visited, and their localities verified;
- The borrow pit that was used for making mine laboratory assay 'blank' samples;
- The historical regional exploration camp at km 45, which is now in the possession of another exploration company;
- Albino Lake, where all drill core and low-grade waste material was disposed.

The previous Mineral Resource Estimate dated November 1, 2018 was estimated using a total of 7,583 drill holes for a total of 651,332 m of core. The current Mineral Resource Estimate having an effective date of February 28, 2019 included an additional 46 holes, drilled by Skeena, for a total of 7,737 m of core. The new drilling from 2018 account for less than 1% of the total number of drill holes and total meterage; an immaterial change to the database. Based on this, SRK considers the site visit in 2018 valid for the updated 2019 MRE.

Figure 12-1: Drill hole locations with labelled casing

12.1.4 Verifications of Analytical Quality Control Data

Skeena made available to SRK the historical assay results for analytical quality control data accumulated on the Eskay Creek property between 1997 and 2004. Although not complete, the Eskay Creek mine did initiate QAQC measures into their sample stream in 1997. With progressive years the QAQC protocol became more comprehensive and detailed. SRK independently compiled and summarized the QAQC assays directly from the available assays for the years 1999, 2001, 2002, 2003 and 2004.

SRK also independently verified Skeena's 2018 QAQC measures.

Table 12-1 summarizes all the QAQC procedures in place in relation to the years that the samples were inserted.

Table 12-1: Drilling and sampling years versus QAQC procedure in place

Year	Lab(s)	Type(s)	Certificate Availability
1997	Eskay mine lab	Repeat (pulp?)	No certificates found
1998	Eskay mine lab Bondar Clegg IPL MIN-EN ALS Chemex	Round robin standards, blanks, field and pulp duplicates	No certificates found
1999	Eskay mine lab	Pulp repeats	Certificates found
2001	Eskay mine lab	Pulp repeats	Certificates found
2002	Acme Analytical	In-house standards, in-house pulp repeats	Certificates found
2003	Eskay mine lab	Unknown standards and blanks	Certificates found
	Acme Analytical	In-house standards, in-house prep, pulp and reject repeats	Certificates found
2004	Eskay mine lab	Standards, blanks, prep, pulp and reject repeats	Certificates found
	Acme Analytical	In-house standards, in-house prep, pulp and reject repeats	Certificates found
2018	ALS Global	Reference material, blanks, in-house prep and pulp repeats	Certificates found

1995-1997 QAQC Data

Prior to 2002, there was no formal QAQC program in place, however, the Eskay mine lab was regularly monitored via pulp replicates, which were processed at the external lab: IPL. Some of these replicate samples have been discovered in the original database and have been updated into the updated QAQC Database. Note that the assay certificates for 1997 were not available.

SRK compiled 190 samples out of a total of 17 drill holes from the 1997 data files. Figure 12-2 and Figure 12-3 are scatterplots of the original sample versus the pulp repeat for gold and silver, respectively. The results show high correlation between the original and the duplicate assays.

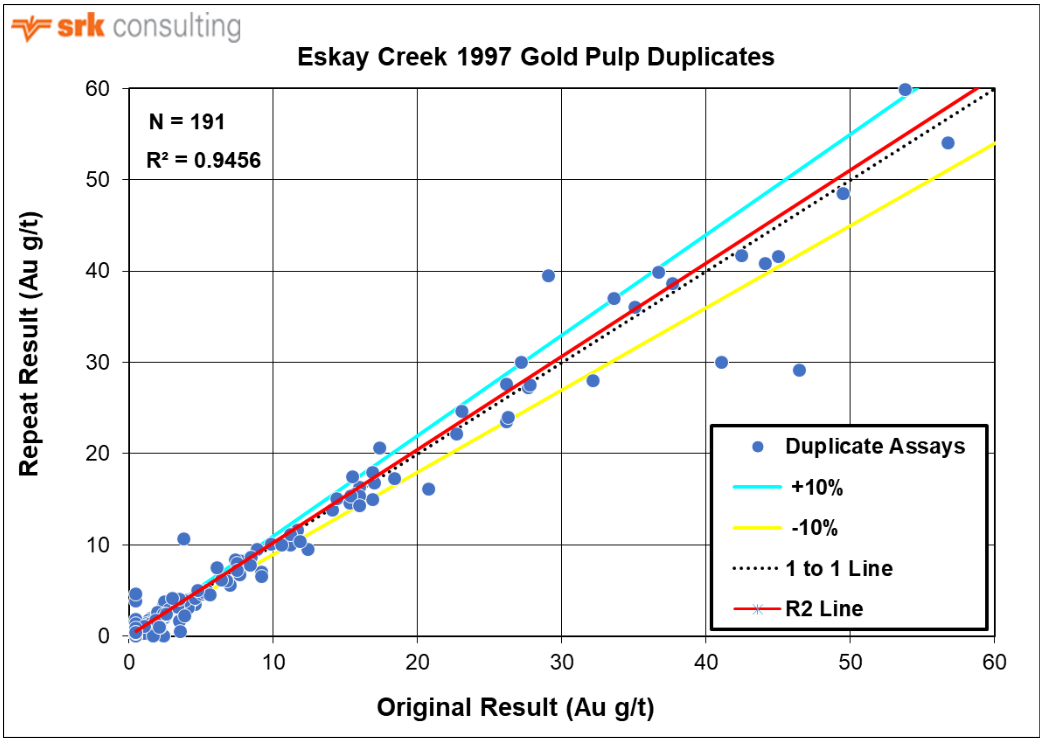


Figure 12-2: Scatterplot of original gold assay (Eskay mine laboratory) and pulp repeat (IPL) from the 1997 drilling campaign

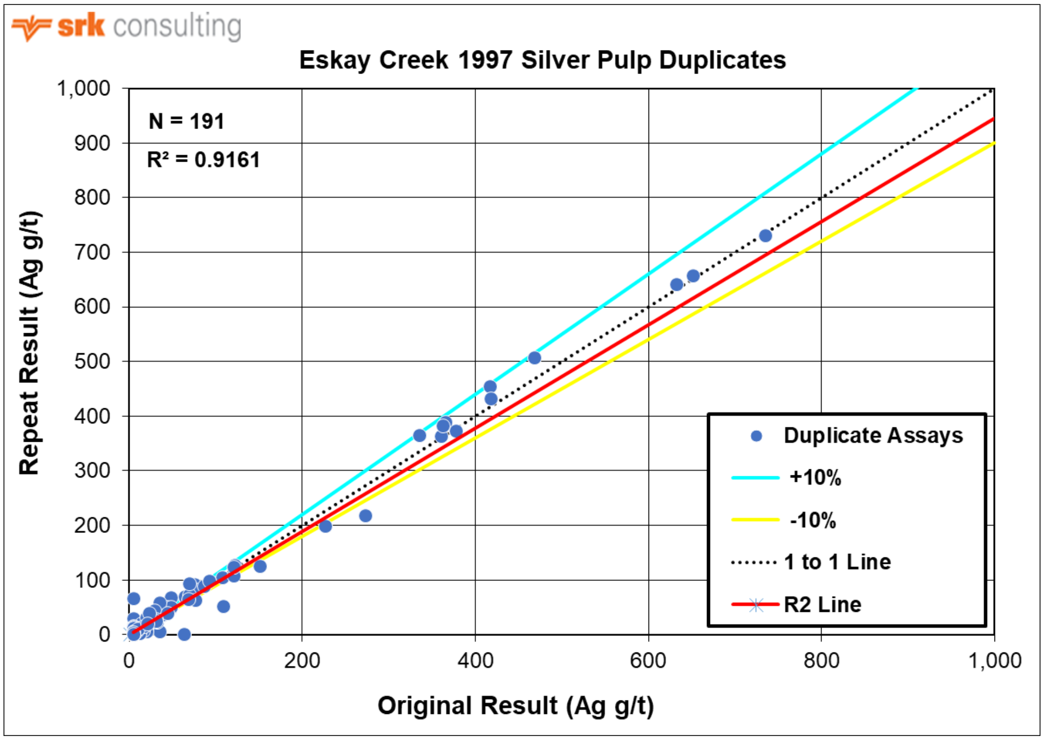


Figure 12-3: Scatterplot of original silver assay (Eskay mine laboratory) and pulp repeat (IPL) from the 1997 drilling campaign

1998 QAQC Data

In 1998 a series of blanks were inserted into the Eskay mine laboratory assaying procedure. Some anomalous background values were observed; however, the source of the blank material has not been documented.

Field duplicates initially tested at the Eskay mine laboratory were sent to IPL labs for independent checking. There was good agreement between the original sample and field duplicate for Au and Ag as well as the base and deleterious elements.

Pulp duplicates were also assessed within the Eskay mine laboratory as well as sent to IPL for an independent check. The data and graphs for these results are extensive and numerous, but the data mostly indicate high correlation between the original and the duplicate assays.

1999 QAQC

SRK independently compiled all the mine assay certificates available and 126 pulp duplicates from the 1999 drilling campaign. A high correlation between the original and the duplicate assays were observed (Figure 12-4).

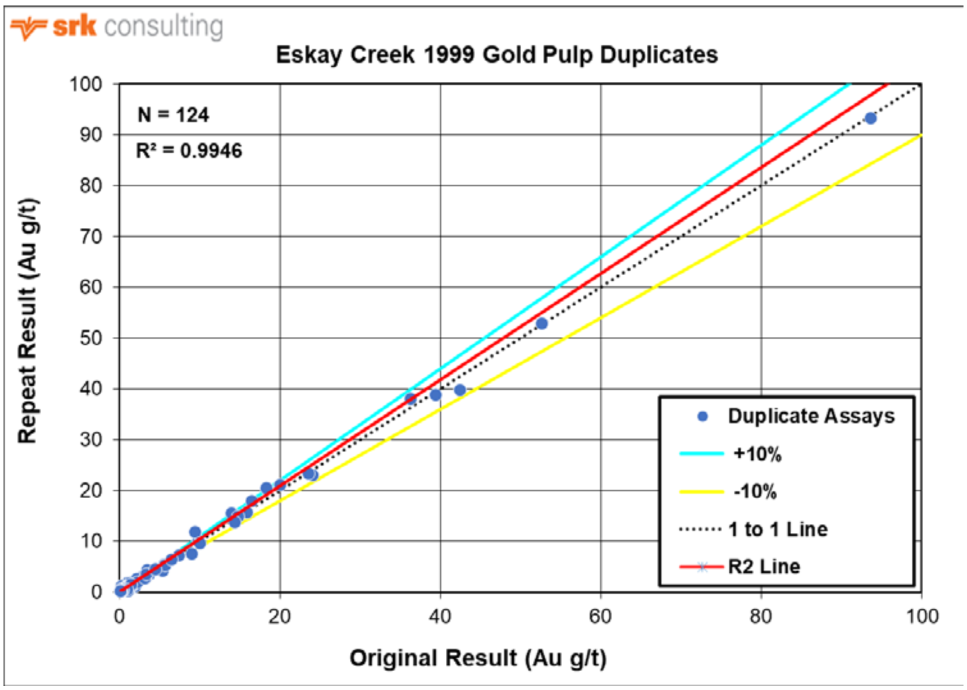


Figure 12-4: Gold pulp repeat samples from the 1999 drilling campaign

2001 QAQC

SRK independently compiled all the mine assay certificates and retrieved 306 pulp duplicates from the 2001 drilling campaign. Figure 12-5 shows a high correlation between the original and the duplicate assays.

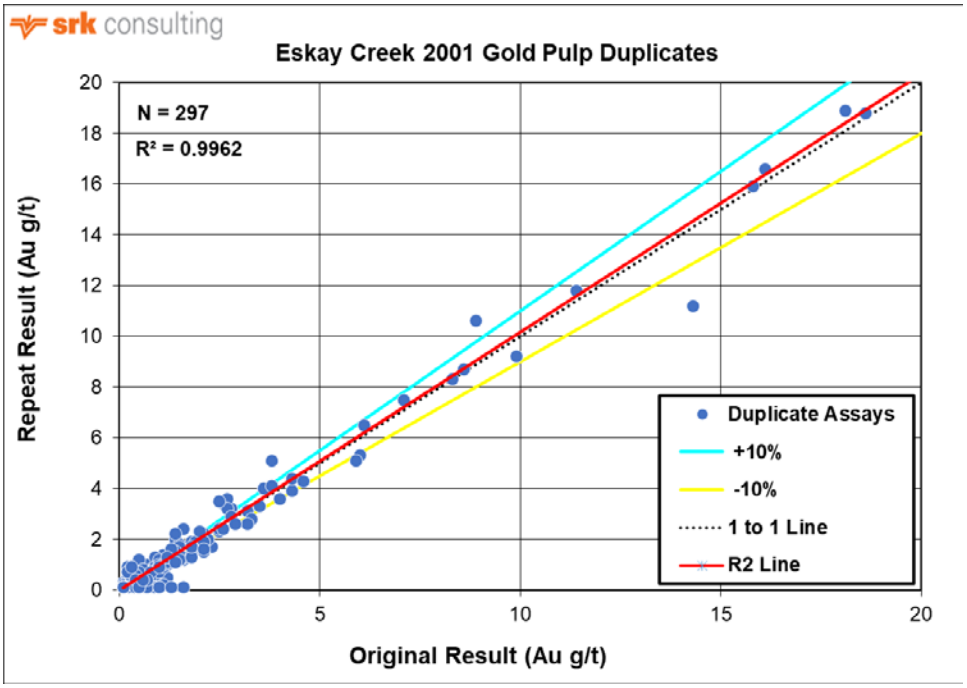


Figure 12-5: Gold Pulp repeat samples from the 2001 drilling campaign

2002 QAQC

No Eskay Mine lab pulp repeats were documented in 2002. The surface drill hole samples were, however, being routinely sent to Acme for processing. Acme inserted three of their own in-house standards: DS3, DS4 and DS4 (Table 12-2). Acme In-house pulp repeats were also routinely completed and monitored.

Table 12-2: Acme in-house standards used during 2002, 2003, and 2004

Standard Type	Official value (Au in ppb)	STDEV (-3)	STDEV (+3)
DS3	21.2	17	25.4
DS4	27.4	22.9	31.9
DS5	43.1	38.8	47.4

SRK located the standard certificates for DS3, DS4 and DS5 and independently compiled quality control charts using the results from the original exploration certificates. Note that only the results for gold have been documented, but the standard certificates are valid for silver, lead, zinc, copper, arsenic, mercury and antimony, as well. Figure 12-6 and Figure 12-7 are the results of the in-house QC validation. All the samples fit within the acceptable limit of 3 standard deviations.

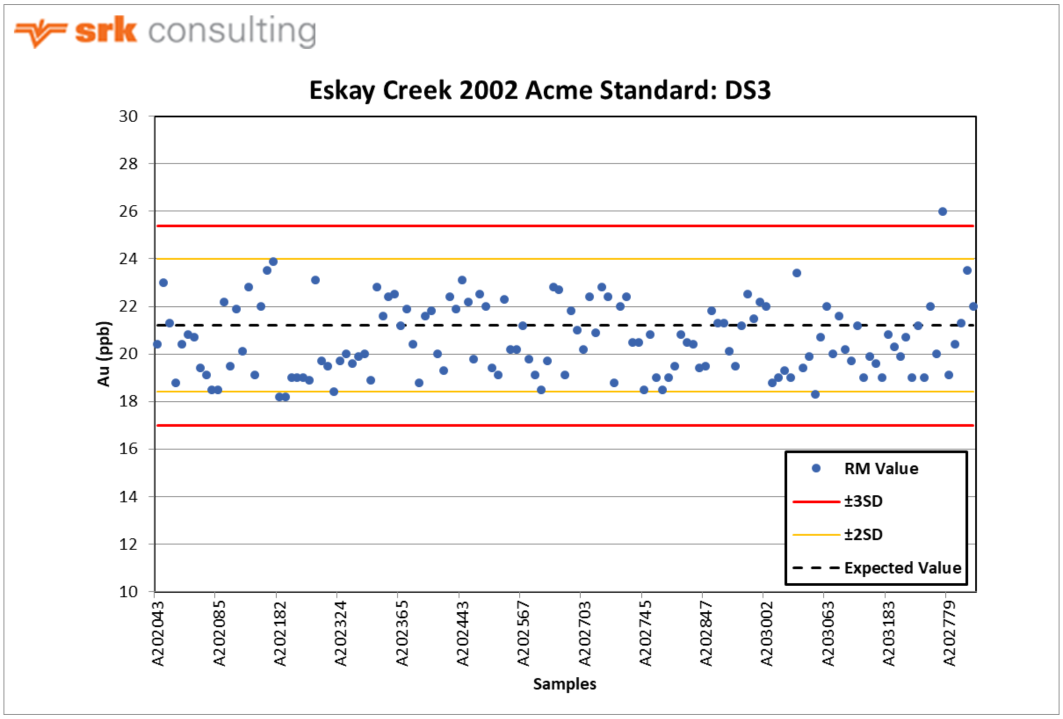


Figure 12-6: Acme in-house standard (DS3) inserted during the 2002 drilling campaign

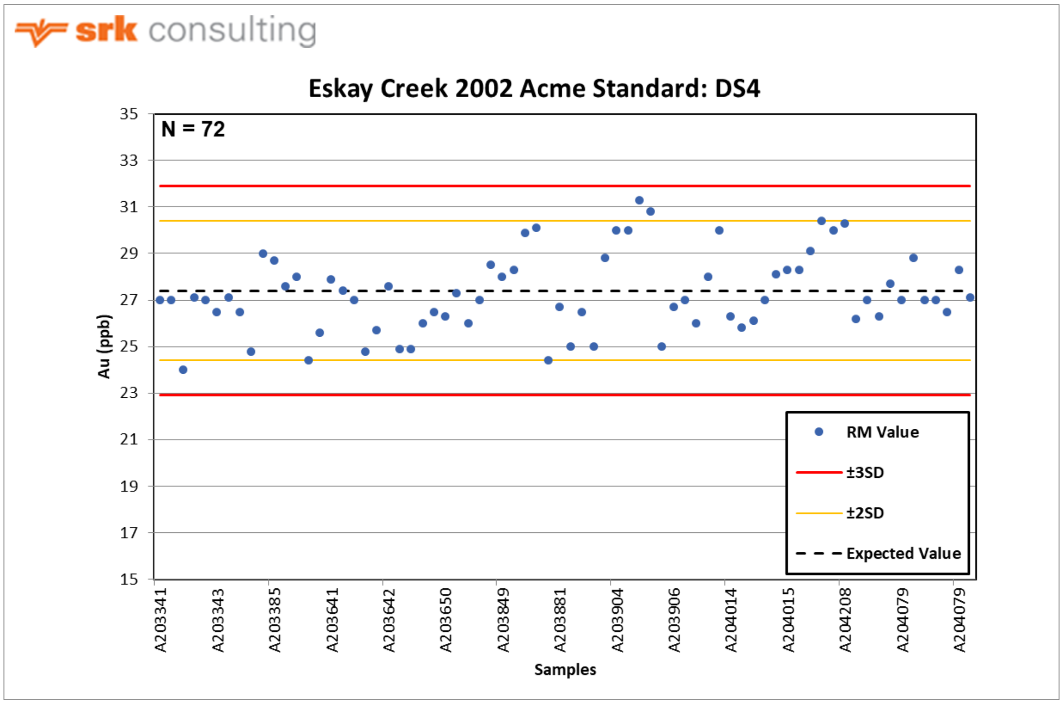


Figure 12-7: Acme in-house standard (DS4) inserted during the 2002 drilling campaign

2003 QAQC

In 2003, the Eskay Mine lab started to implement QAQC procedures into the sampling process. Control blanks and standards were added to the sample stream, but no record of the type, acceptable value and standard deviation of the control samples submitted have been found.

Acme inserted their own in-house standards, blanks and pulp repeats into the sample stream. Prep, pulp and reject duplicates were routinely inserted by Acme as well. Two of their in-house standards (DS4 and DS5) were graphed by SRK and all the samples fit within 3 standard deviations of the acceptable values, although there appears to be a slight low bias (Figure 12-8 and Figure 12-9).

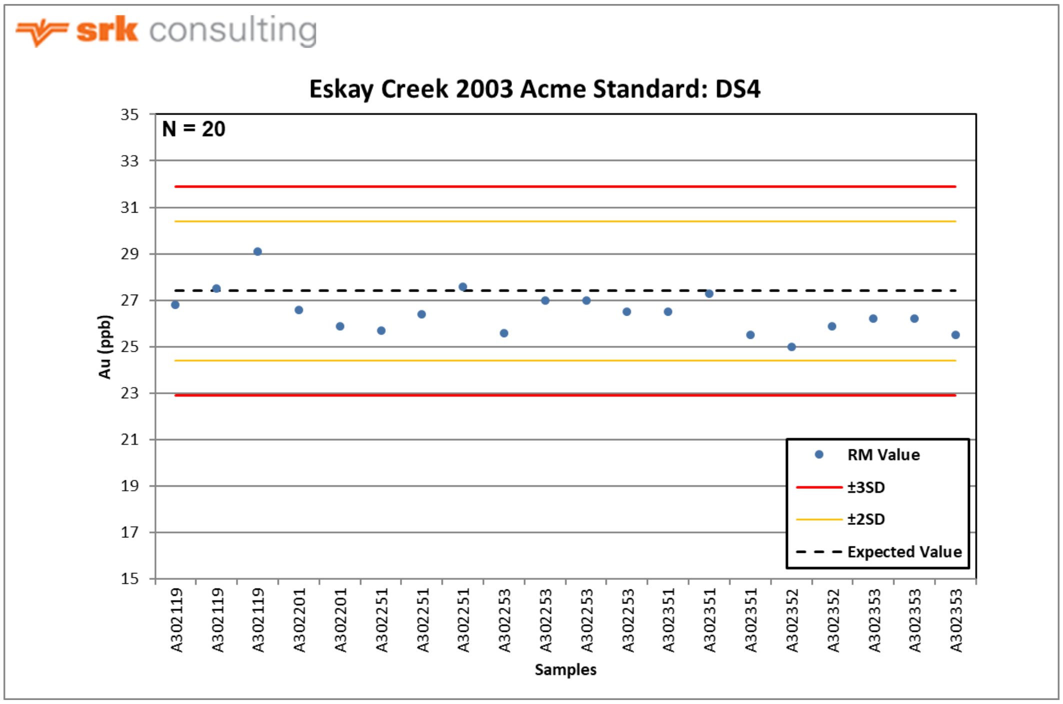


Figure 12-8: Acme in-house standard (DS4) during the 2003 drilling campaign

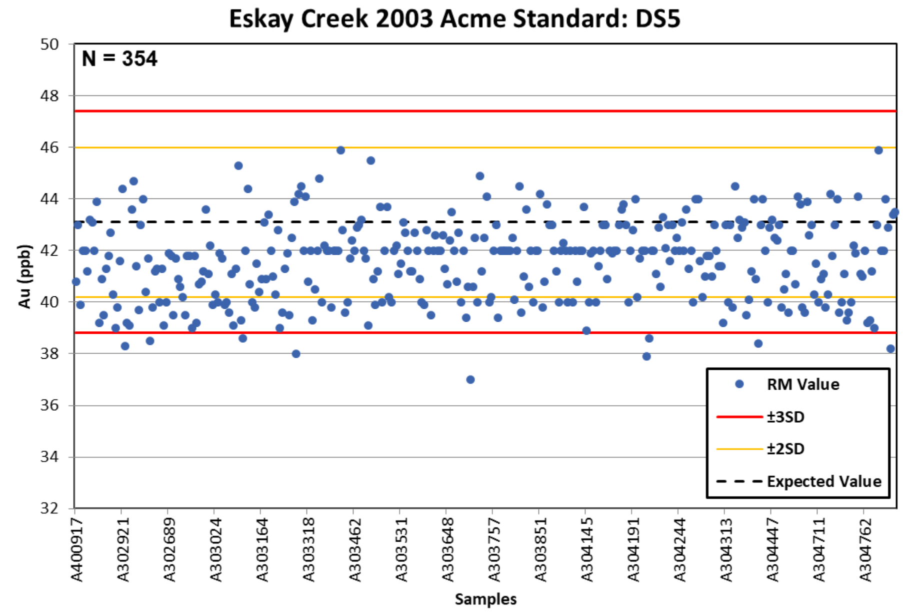


Figure 12-9: Acme in-house standard (DS5) during the 2003 drilling campaign

2004 QAQC

An official QAQC program was undertaken in 2004 whereby the Eskay Creek exploration team added standards, blanks and field duplicates to the sample stream and submitted them to an independent lab for checking. Acme was used as the umpire lab and all procedures were well documented (Barrick, 2005).

Five in-house assay standards were manufactured by ALS Chemex using material collected from the Eskay Creek Mine (Barrick, 2005). The acceptable values were certified through round-robin analyses at six different labs and statistically evaluated by the Chief Geochemist. The standards and their acceptable values and limits have been tabulated below (Table 12-3). One in every 50 drill core samples was a QAQC standard.

Table 12-3: List of the Eskay mine lab standard types and their accepted results

Standard	Element	-3SD	-2SD	Expected	+2SD	+3SD	SD	Method
DS4	Au g/t	22.9	24.4	27.4	30.4	31.9	1.5	30g FA, instrumental
DS4	Ag g/t	237	251	279	307	321	14	4-acid, instrumental

Standard	Element	-3SD	-2SD	Expected	+2SD	+3SD	SD	Method
ESK61-1	Au g/t	1.2070	1.3259	1.5637	1.8015	1.9204	0.1189	30 g FA AAS
ESK61-1	Ag g/t	32.6309	33.3950	34.9233	36.4516	37.2158	0.7641	130g ICP-MS

Standard	Element	-3SD	-2SD	Expected	+2SD	+3SD	SD	Method
ESK6114-1	Au g/t	3.7155	3.9230	4.3381	4.7531	4.9607	0.2075	30 g AAS
ESK6114-1	Ag g/t	215.1785	225.1665	245.1427	265.1188	275.1068	9.9881	30g Grav

Standard	Element	-3SD	-2SD	Expected	+2SD	+3SD	SD	Method
ESK14-1	Au g/t	8.9315	9.5703	10.8478	12.1252	12.7640	0.6387	10g Grav
ESK14-1	Ag g/t	757.0433	785.7414	843.1375	900.5336	929.2317	28.6981	10g Grav

Standard	Element	-3SD	-2SD	Expected	+2SD	+3SD	SD	Method
ESK72-1	Au g/t	21.8519	22.9641	25.1887	27.4132	28.5255	1.1123	10g Grav
ESK72-1	Ag g/t	42.7441	46.3485	53.5575	60.7665	64.3709	3.6045	10g Grav

Standard	Element	-3SD	-2SD	Expected	+2SD	+3SD	SD	Method
ESK12-1	Au g/t	22.5185	24.5219	28.5288	32.5357	34.5391	2.0034	10g Grav
ESK12-1	Ag g/t	379.4767	393.9158	422.7940	451.6722	466.1113	14.4391	10g Grav

Blanks have been collected from barren rocks found regionally around the mine. One in every 50 drill core samples was a QAQC blank.

In 2004, the historical Operator generated control charts in Excel and included the results in the month-end drilling reports. These control charts showed that the QAQC measures taken to ensure unbiased, accurate and precise sampling were effective. SRK recreated standard and blank charts based on some of the data that that the previous Operator used, and the results all occur within an acceptable range of values for gold (Figure 12-10 and Figure 12-12).

Sample repeatability at Eskay Creek was closely monitored during the 2004 drilling campaign by the regular insertion of field duplicates into the sample stream. Field duplicates at the Eskay mine laboratory performed well with the duplicate sample set (Figure 12-13).

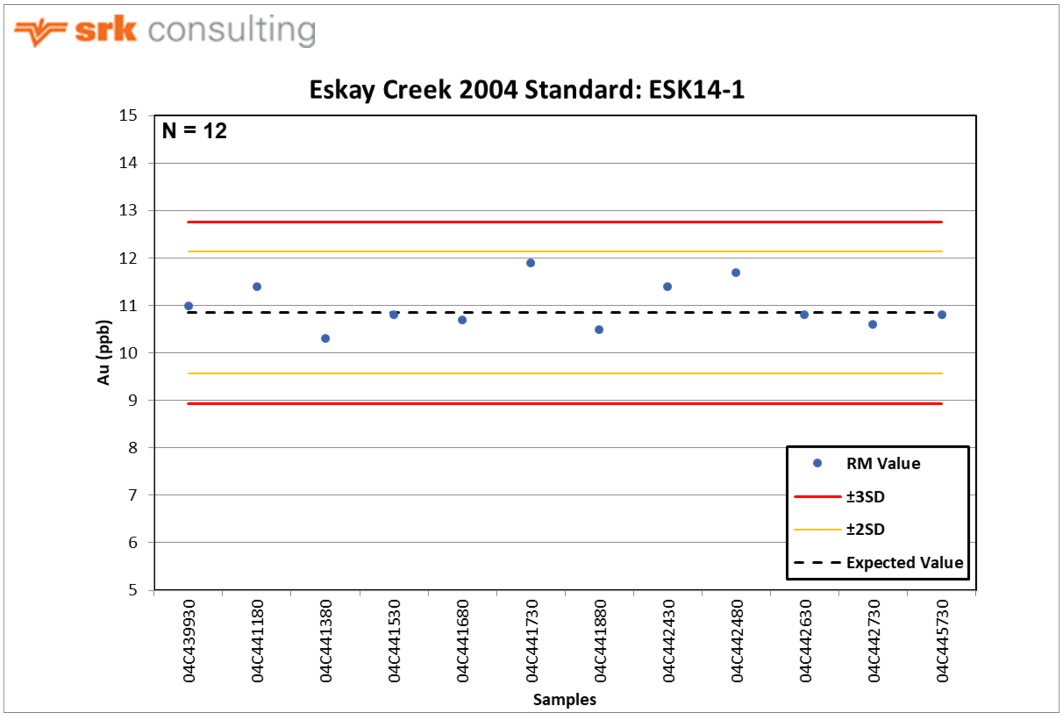


Figure 12-10: Standard ESK14-1 from the 2004 drilling campaign

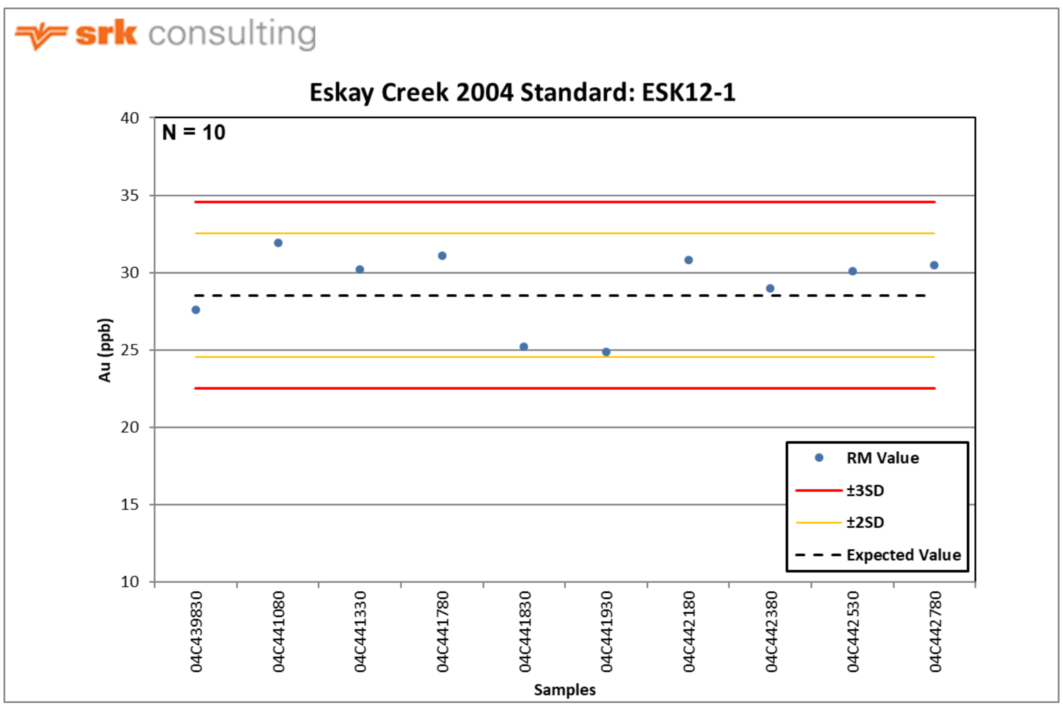


Figure 12-11: Standard ESK12-1 from the 2004 drilling campaign

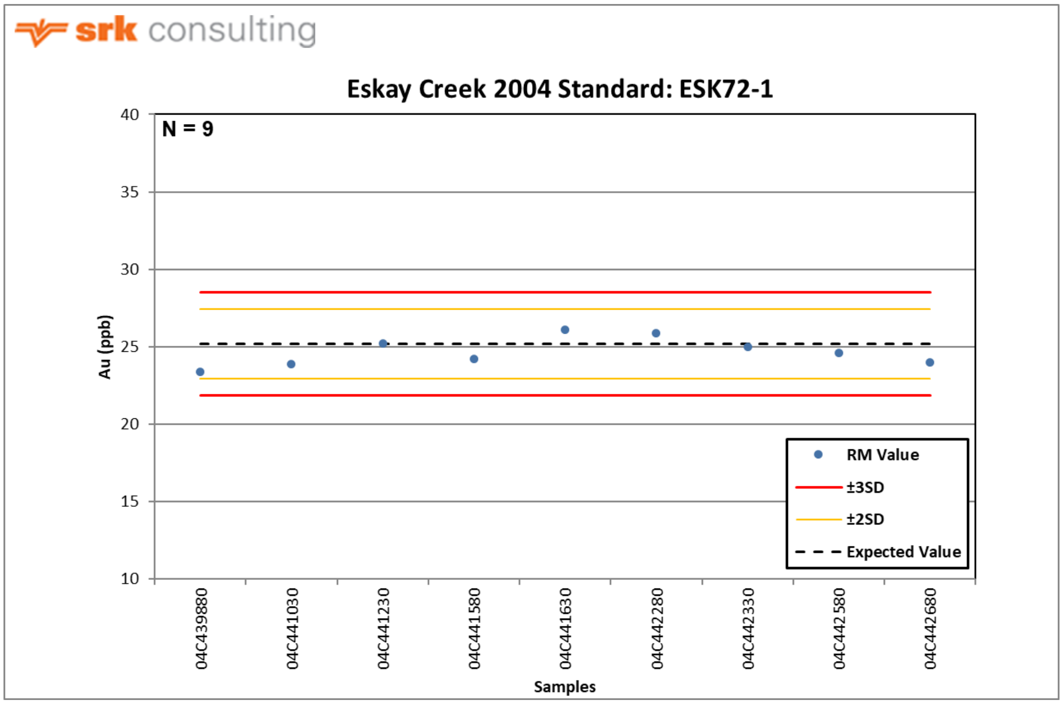


Figure 12-12: Standard ESK72-1 from the 2004 drilling campaign

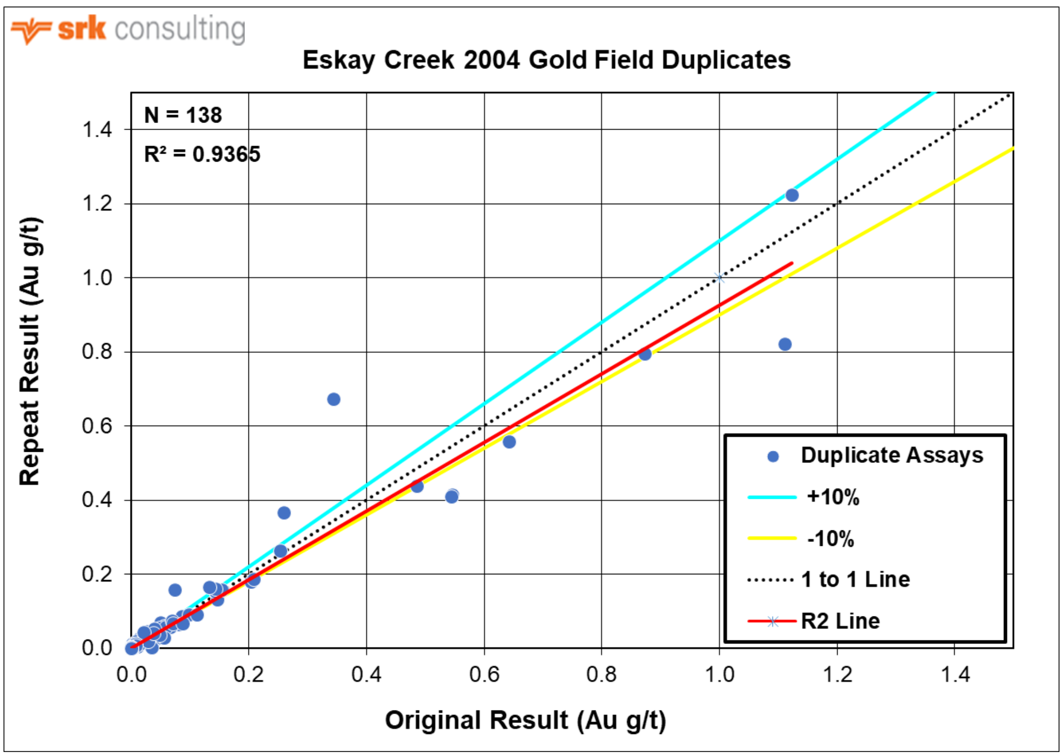


Figure 12-13: Gold field duplicate samples from the 2004 drilling campaign

12.1.5 2018 QAQC

An official QAQC program was undertaken in 2018 whereby Skeena added standards and blanks to the sample stream and submitted them to the primary assay laboratory, ALS Global, for preparation and analysis. Preparation and pulp duplicates were processed at ALS Global during the routine sampling process. An additional lab (SGS Canada) was used to independently test pulp duplicates and a select number of standards.

An analysis of 106 blank gold samples confirmed that the least amount of contamination was transferred from sample to sample (Figure 12-14). Two samples contained greater than 5 times the detection limit and follow up investigations show that one of them occurred immediately following a high-grade sample. Since the elevated blank sample was <1% of the previous high-grade sample result, it was deemed to be acceptable. No re-assays were requested for the blank results for the 2018 Phase 1 drill program.

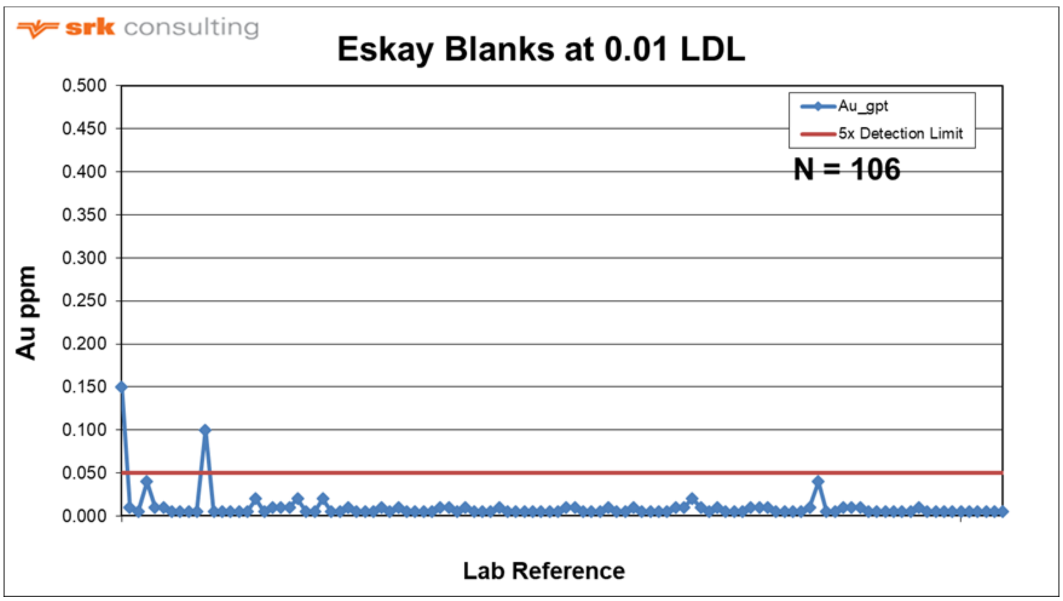


Figure 12-14: “Blank” marble garden rock used during the 2018 drilling campaign

Five commercially produced reference materials were inserted into the sample stream during the 2018 Phase 1 drilling program. An analysis of standard charts for gold showed no obvious errors or bias (Figure 12-15, Figure 12-16, Figure 12-17 and Figure 12-18). Several reference materials were mislabeled which were duly corrected during Skeena’s QAQC routine procedures. Standard CDN-GS-25 demonstrated even spread about the expected value for gold, although several samples occurred outside of the 3 standard deviation limits (Figure 12-15). These samples were, however, within 10% of the expected value and are considered acceptable. One sample occurred outside of the 10% of the expected value but this sample was considered acceptable since it was introduced into a stream of low-grade assays.

Standard CDN-GS-5T demonstrate acceptable results for gold with one sample outside 3 standard deviations but within 10% of the expected value (Figure 12-16). Standard CDN-ME-1312 showed one standard more than 10% of the expected value which occurs within a series of medium to high grade gold assays (Figure 12-17). This standard was re-assayed along with 5 to 9 surrounding samples on each side of the failed samples. The re-assay results fit within the acceptable limits.

Standard CDN-ME-1601 resulted in several sample mislabels, which were duly corrected (Figure 12-18). Four samples occurred above the 3 standard deviation limit and above 10% of the expected value. These four samples occur within low grade assays and it was not considered necessary or material to retest the surrounding assays.

Preparation (rejects) and pulp duplicates were routinely run at ALS as part of the labs internal QAQC procedures. Paired preparation and pulp data performed within acceptable tolerance criteria at both lower grade and higher-grade values (Figure 12-19 and Figure 12-20).

At the end of the 2018 Eskay Creek drill program, 2.5% of all the samples processed during 2018 were sent to a secondary lab for independent analysis (SGS Canada, located in Burnaby, BC). A total of 45 pulps were checked against pulps originally processed at ALS. Overall, the check assays performed within acceptable limits. For samples less than 50 g/t Au, both the original and check lab deliver results within acceptable tolerances (Figure 12-21). The correlation breaks down slightly above 50 g/t Au, where results from SGS are slightly lower on average than ALS. Only 5 sample pairs account for the higher grades, an insufficient number to derive meaningful conclusions. Silver comparative charts show similarly acceptable results, where assays from ALS correlate with assays from SGS with an R^2 value of 0.994 (Figure 12-22).

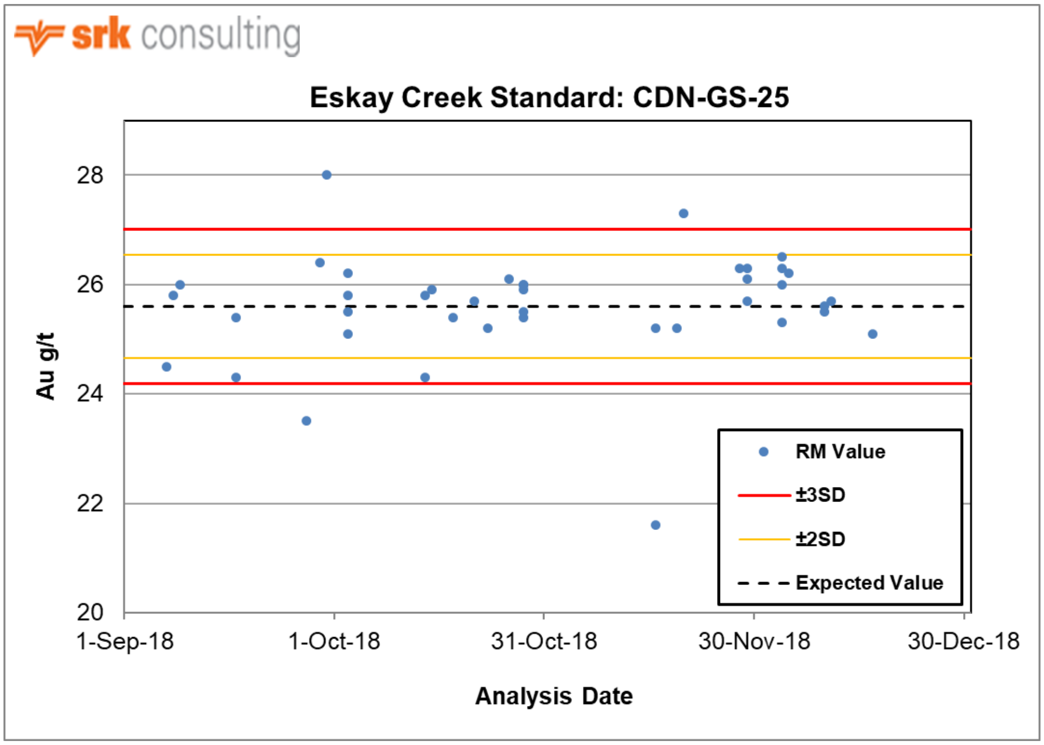


Figure 12-15: Standard CDN-GS-25 from the 2018 drilling campaign

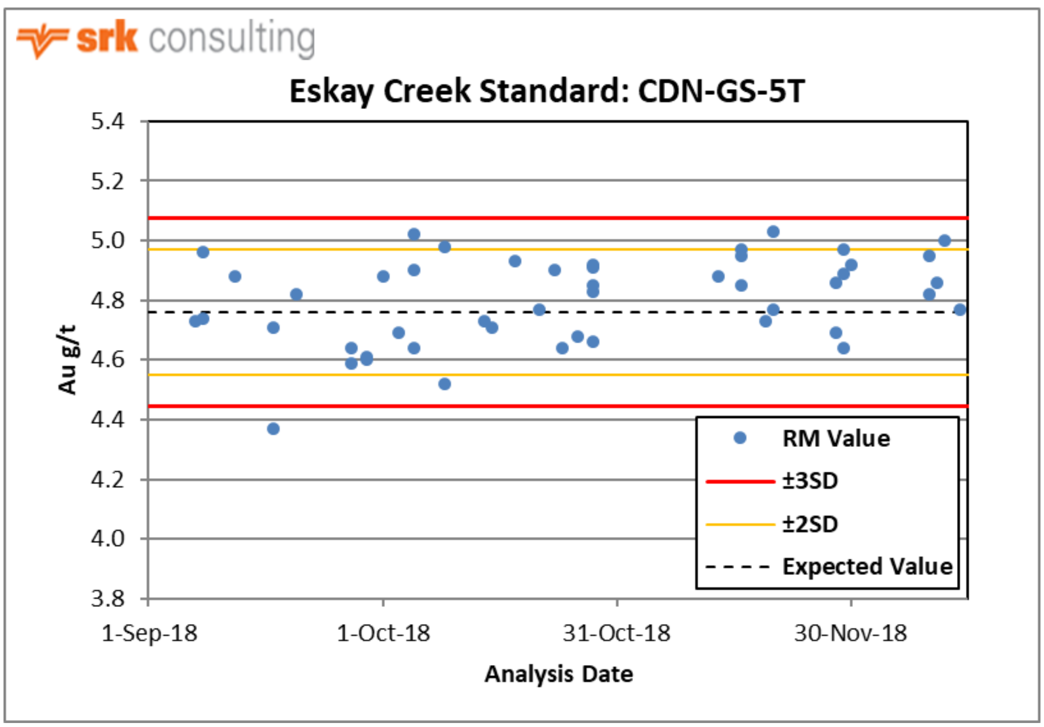


Figure 12-16: Standard CDN-GS-5T from the 2018 drilling campaign

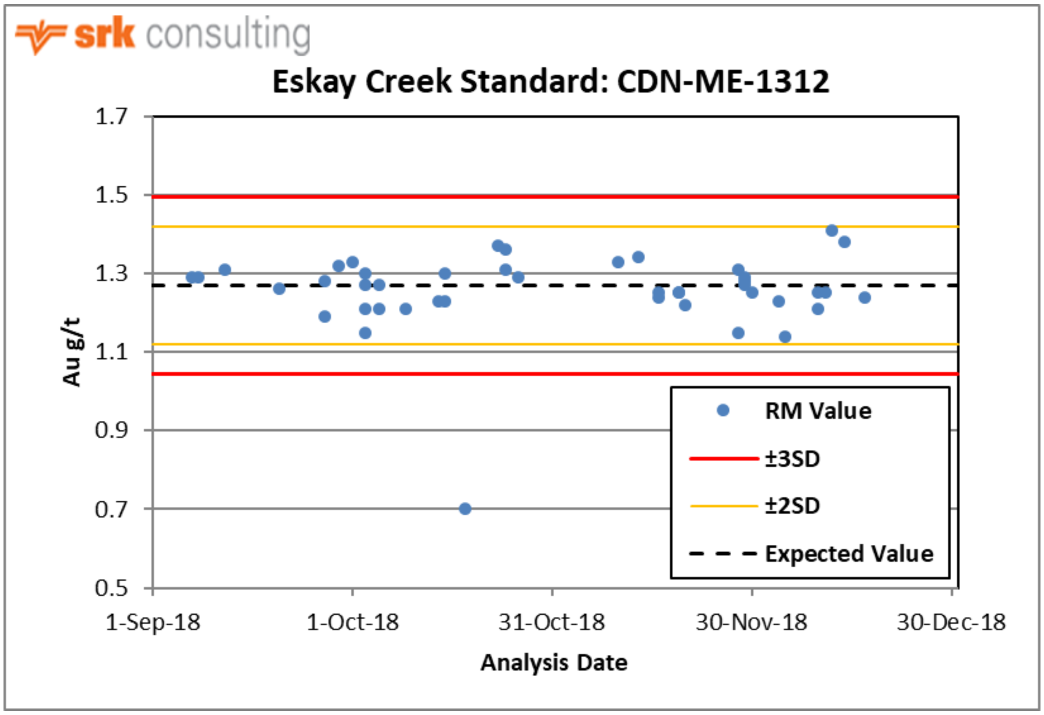


Figure 12-17: Standard CDN-ME-1312 from the 2018 drilling campaign

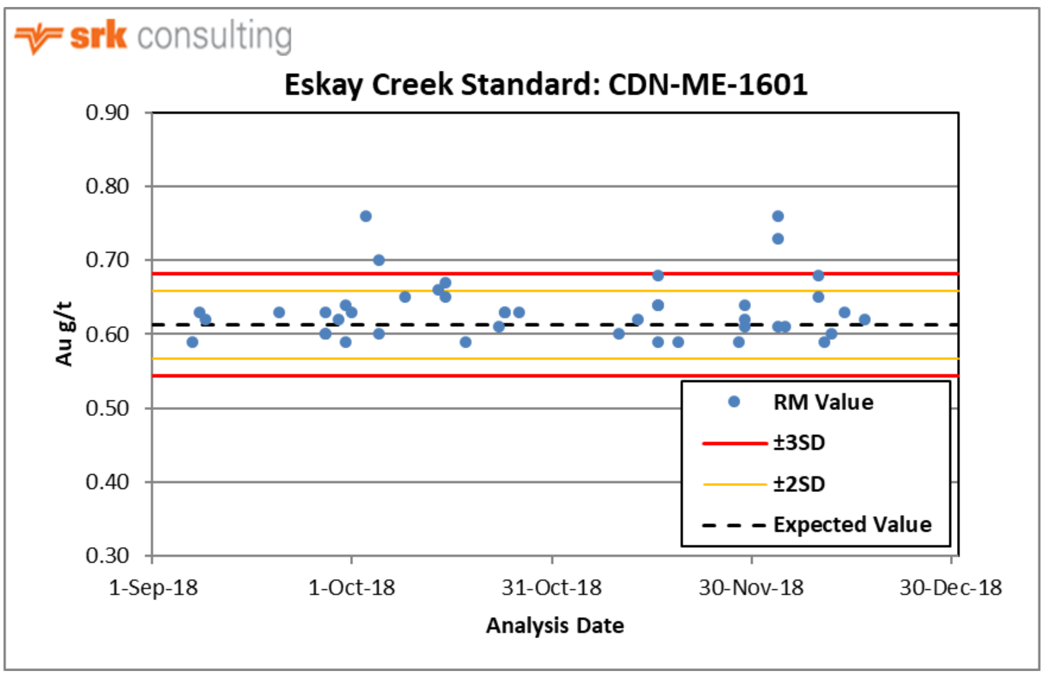


Figure 12-18: Standard CDN-ME-1601 from the 2018 drilling campaign

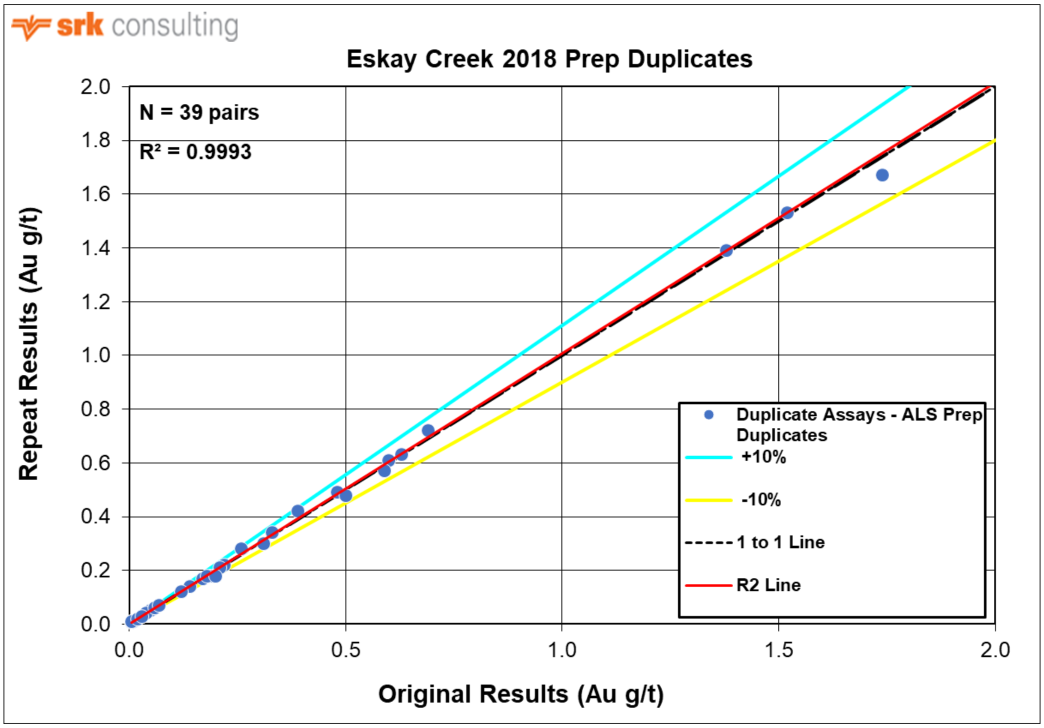


Figure 12-19: Gold prep duplicate samples from the 2018 drilling campaign

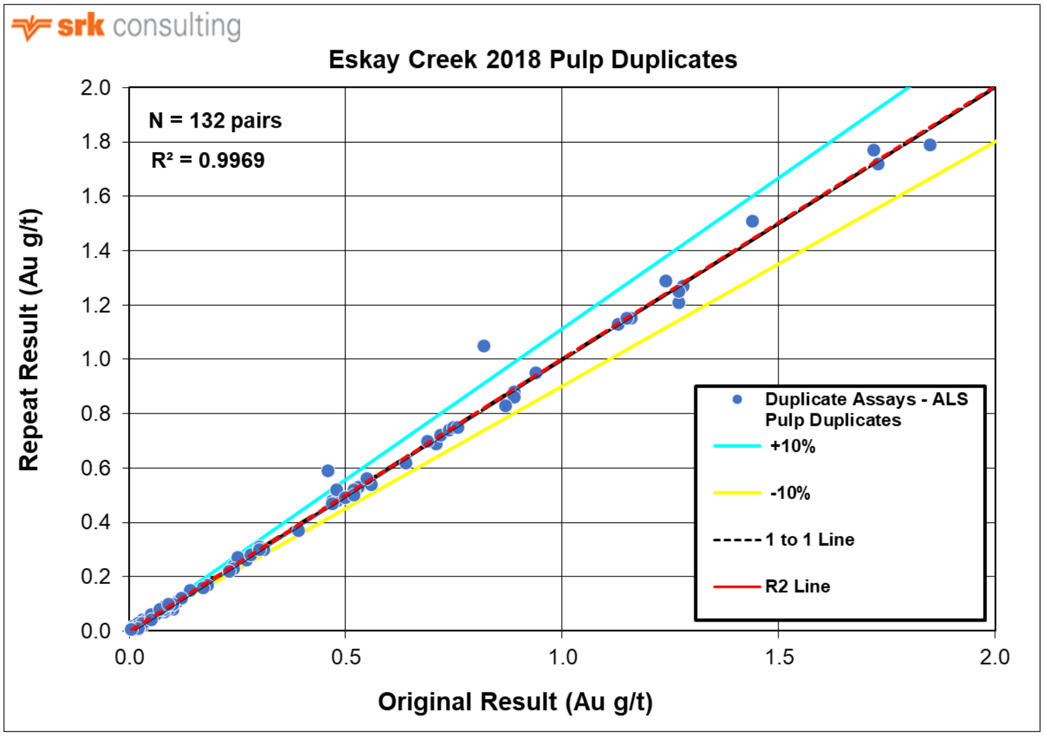


Figure 12-20: Gold pulp duplicate samples from the 2018 drilling campaign

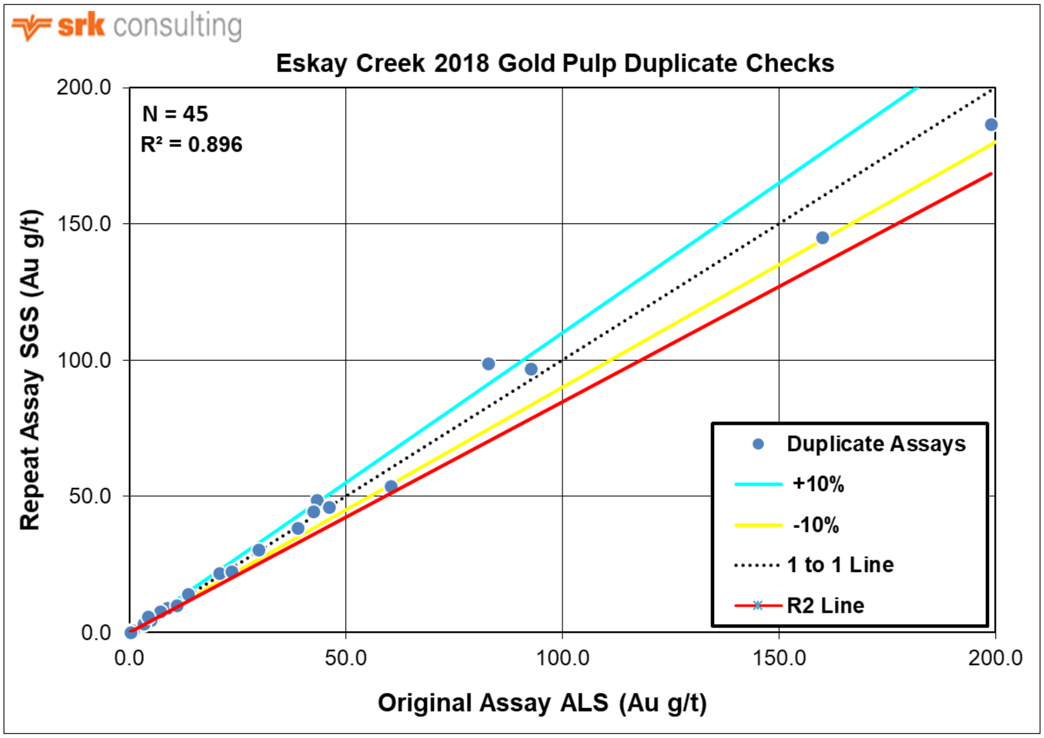


Figure 12-21: Gold pulp duplicate check samples from the 2018 drilling campaign

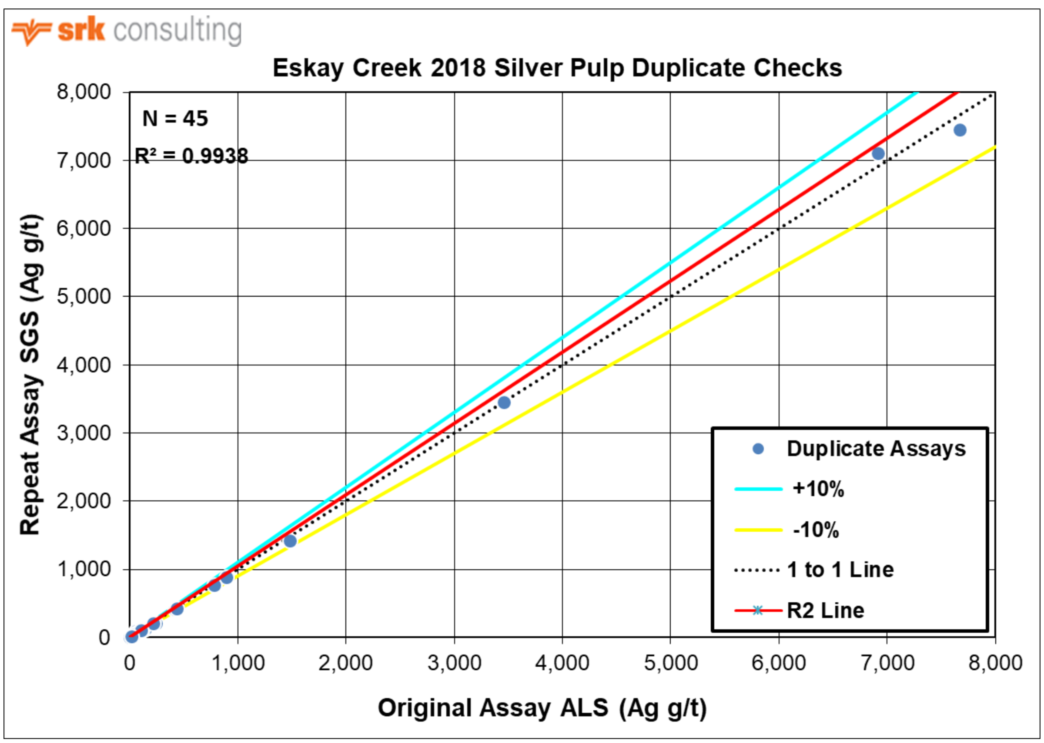


Figure 12-22: Silver pulp duplicate check samples from the 2018 drilling campaign

12.1.6 Summary – Verifications by SRK

The results of the QAQC analysis indicate that the historical data are unbiased. A large number of assays in the Database were validated against the original digital assay certificates. These assays ranged from the years 1999 to 2004, and less than 1% errors were found. In addition, the data analysed for the 2018 Phase 1 drilling program was collected and analysed in a systematic and unbiased manner. The data verification of this data did not identify any material issues and the author is satisfied that the assay data is of suitable quality to be used as the basis for the resource estimate.

13 Mineral Processing and Metallurgical Testing

No mineral processing or metallurgical testing has been done by the current issuer on the Project, however, Skeena is currently carrying out a metallurgical study with the Blue Coast Research Group ("Blue Coast"), located in Parksville British Columbia Results are anticipated to be available in Q2, 2019. Limited historical records of mineral processing of gold and silver recovery during the historical Operator's mining campaign have been located. A summary of the mill rate and metallurgical recoveries taken from the 2006 internal technical report (Barrick, 2007) is presented in Table 13-1.

Table 13-1: Gold and silver mill recovery by mining zone at Eskay Creek

Zone	Mill Rate	Con. Ratio	Au Recovery (%)	Ag Recovery (%)
21C	275	5.3	81	88
21B	325	4.8	84	96
21Be	325	4.8	84	96
21E	225	5.3	74	93
HW (upper)	300	4.8	80	91
HW (lower)	275	4.1	79	91
NEX Contact Zone	325	4.8	92	96
NEX (Rhyolite)	225	5.5	69	87
PMP	275	6.2	73	96

Historically, the higher-grade portions of the orebody from the Eskay Creek mine were sent directly to one of two smelters: Noranda's Horne smelter in Quebec, and Dowa's smelter in Kosaka, Japan. The direct shipping ore (DSO) contained significant amounts of penalty elements such as mercury, antimony, and arsenic. As a result, this ore was crushed and blended at the mine site and then sold to one of the above smelters without any further processing.

The remainder of the ore was blended to fit within the parameters outlined in Table 13-2 below, and then processed on-site in a gravity and flotation plant. Gravity concentrate was shipped offsite for refining, and the flotation concentrate was shipped to the Noranda smelter for processing.

Table 13-2: Parameters used for metallurgical designation

	Hg (ppm)	Sb (%)
Smelter (DSO)	> 200	> 1
Mill	< 200	< 1

In addition, high sulphide ore, which was considered to have a concentration ratio that was too low to be considered economic in the on-site concentrator, was also destined to be shipped to DSO.

Records from production of the Eskay Creek orebodies over the mine life spanning from 1995 to 2008 is summarized in Table 13-3 (Ministry of Energy, Mines and Petroleum Resources Mining and Minerals Division, 2008). A break down of life of mine production shows that Direct Shipping Ore totaled 1.2 Mt, while 1.05 Mt were milled on-site.

Table 13-3: Eskay Creek mine production from 1994 to 2008

Year Gold Produced	Gold Produced (oz)	Gold Produced (kg)	Silver Produced (kg)	Silver Produced (oz)	Ore Tonnes Milled	Ore Tonnes shipped direct
1995	196,550	6,113	309,480	9,950,401	0	100,470
1996	211,276	6,570	375,000	12,057,000	0	102,395
1997	244,722	7,612	367,000	11,799,784	0	110,191
1998	282,088	8,774	364,638	11,723,841	55,690	91,660
1999	308,985	9,934	422,627	13,588,303	71,867	102,853
2000	333,167	10,363	458,408	14,738,734	87,527	105,150
2001	320,784	9,977	480,685	15,454,984	98,080	109,949
2002	358,718	11,157	552,487	17,763,562	116,013	116,581
2003	352,069	10,951	527,775	16,969,022	115,032	134,850
2004	283,738	8,825	504,602	16,223,964	110,000	135,000
2005	190,221	5,917	323,350	10,396,349	103,492	78,377
2006	106,880	3,324	216,235	6,952,388	123,649	18,128
2007	68,000	2,115	108,978	3,503,861	138,772	0
2008	15,430	480	27,800	893,826	31,750	0
TOTAL	**3,272,628**	**102,112**	**5,039,065**	**162,016,018**	**1,051,892**	**1,205,604**

14 Mineral Resource Estimates

14.1 Introduction

The Mineral Resource Statement presented herein represents the mineral resource evaluation for the Eskay Creek Project in accordance with the Canadian Securities Administrators' National Instrument 43-101.

The mineral resource model was prepared by Skeena and independently validated and signed off by SRK. The resource model considers 7,583 historical holes and 46 holes drilled by Skeena in 2018. The updated 2019 Mineral Resource Estimate (MRE) has a majority component of open pit constrained resources, whereas the 2018 MRE was principally reported as an underground resource. The resource estimation work was completed by Ms. K. Dilworth and was reviewed and accepted by Ms. S. Ulansky, PGeo (EGBC#36085), Senior Resource Geologist with SRK, a Qualified Person as this term is defined in NI 43-101. The effective date of this mineral resource statement is February 28, 2019.

This section describes the resource estimation methodology and summarizes the key assumptions considered. In the opinion of SRK the resource evaluation reported herein is a reasonable representation of the global gold and silver Mineral Resources found in the Eskay Creek Project. The mineral resources have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators' National Instrument 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.

The database used to estimate the Eskay Creek Project Mineral Resources was audited by SRK. SRK is of the opinion that the current drilling information is sufficiently reliable to interpret with confidence the boundaries for gold and silver mineralization and that the assay data are sufficiently reliable to support mineral resource estimation.

Leapfrog Geo™ (version 4.3.0) was used to construct the litho-structural model and mineralization domains that define the 2019 Eskay Creek model. Snowden Supervisor ™ (version 8.90) was used to conduct geostatistical analyses, variography and a portion of model validation. For block modelling, Maptek Vulcan™ (version 11.0.1) software was used to prepare assay data for geostatistical analysis, modify mineralization domains, construct the block model, estimate metal grades and to tabulate the Mineral Resources.

14.2 Resource Estimation Procedures

The Mineral Resource evaluation methodology involved the following procedures:

- Database compilation and verification;
- Construction of wireframe models for the litho-structural model;

- Construction of wireframe models for Au-Ag mineralization;
- Definition of resource domains;
- Data conditioning (compositing and capping) for geostatistical analysis and variography;
- Block modelling and grade interpolation;
- Resource validation;
- Resource classification;
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate cut-off grades; and
- Preparation of the Mineral Resource Statement.

14.3 Resource Database

The Eskay Creek database used for the creation of the resource estimate contains 7,629 drill holes totalling 659,069 m. This includes 7,583 historical drill holes within the extents of the resource estimate, for a total of 6,061 underground drill holes and 1,522 surface drill holes (Table 14-1). An additional 46 surface diamond drill holes were completed by Skeena during the 2018 program totalling 7,737.45 m (Table 14-2).

Table 14-1: Historical drill holes

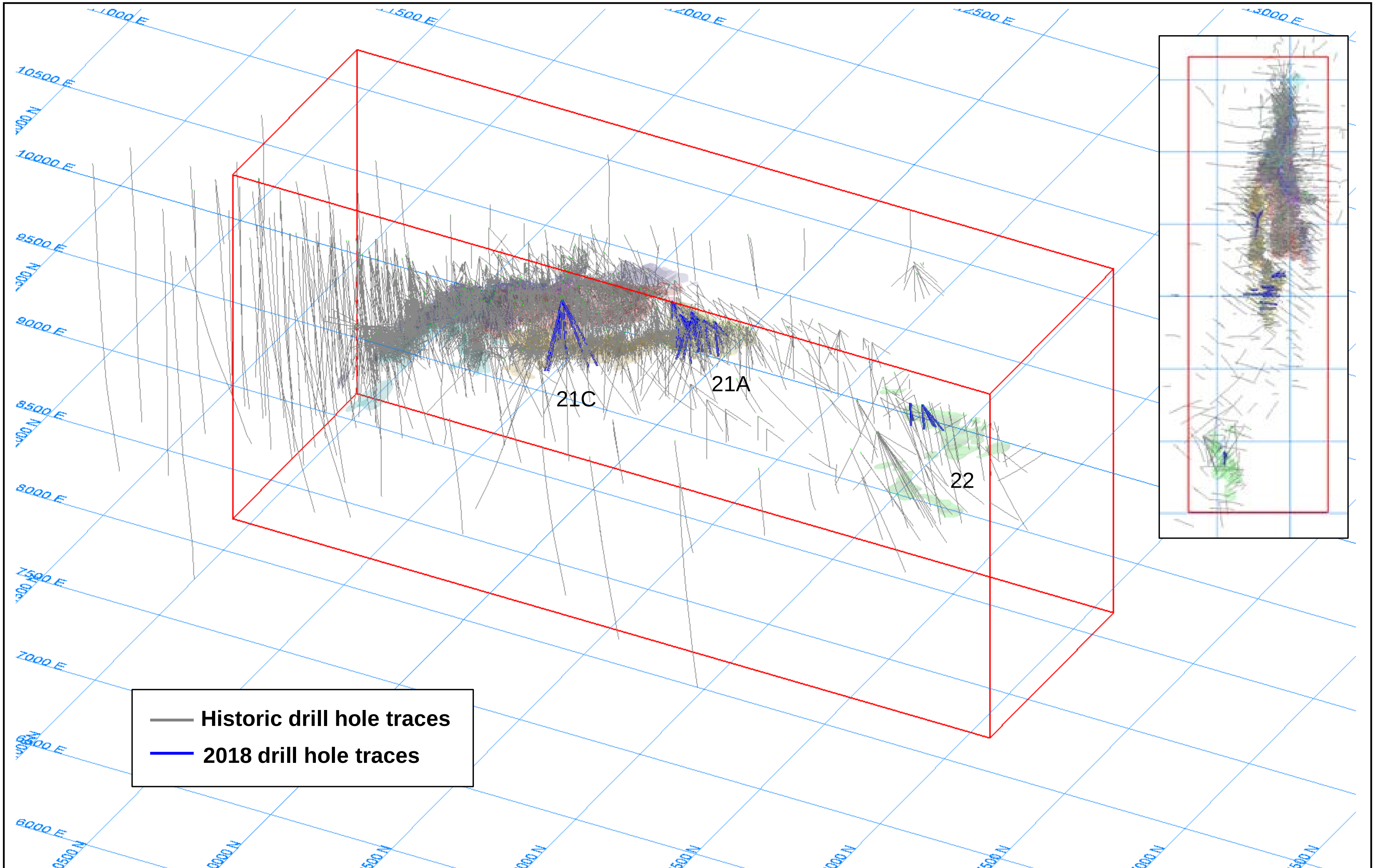
Zone	No. of holes	Length (m)	Assays
ALL	7,583	651,332	427,200

Table 14-2: 2018 drill holes

Zone	No. of holes	Length (m)	Assays
22	5	531.2	368
21A	32	5,121.5	2,252
21C	9	2,084.75	695
Total	**46**	**7,737.45**	**3,315**

Drill hole spacing throughout the orebody varies from 5 m, where underground production drilling encountered complex areas, to 25 m at the surface. The average drill hole spacing is approximately 10-15 m throughout the deposit. Historically, sampling at Eskay Creek was selective and primarily based on visual estimations of sulphide percent. All sample intervals sent to the lab were tested for gold and silver, however, lead, copper, zinc, mercury, antimony and arsenic were inconsistently sampled from one drilling campaign to the next. For underground drilling, lead, copper, zinc, mercury, antimony and arsenic were assayed when samples exceeded 8 g/t AuEQ (where AuEQ equaled Au+(Ag/68)) (Barrick, 2005).

Figure 14-1 shows the traces of all drill holes in the historical database as well as the traces of surface drilling completed in 2018 (shown in blue).



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Diamond drill hole traces of historical and 2018 surface drilling

Job No: 2CS042.002 Filename: Figure 14.1_Location of 2018 Surface Drilling.ppt	Eskay Creek Au-Ag Project	Date: April 1, 2019	Approved: KD	Figure: **14.1**

14.4 Solid Body Modelling

14.4.1 3D Litho-Structural Model

In April 2018, Ms. Amelia Rainbow, PhD., PGeo, (Independent Consultant) was contracted to create the Eskay Creek litho-structural model, focusing on the area north of 8250N. The interpretation is based predominantly on historical surface and underground drill hole data. Orientated drill core, geological level plans, cross-sections and/or structural data were not available. Surface geological maps were found and made available to Ms. Rainbow part way through the modelling process. They were included into the structural interpretation where possible.

The historical database contained more than 200 individual lithology codes. Lithologies were grouped in Leapfrog Geo™ in accordance with known stratigraphy. Three main lithologies (rhyolite, contact mudstone and hanging-wall andesite) were recognized as being meaningful for resource modelling. Lithology units were further subdivided into lithology domains by one or more cross-cutting faults. Mineralization continuity was defined within these mutually exclusive lithological domains.

Dr. Ron Uken, a Principal Structural Geologist with SRK, conducted a Peer Review of the 3D litho-structural model. He simplified the structural model, reducing the number of lithological domains from 25 to 5, and faults from 43 to 5 (Figure 14-2).

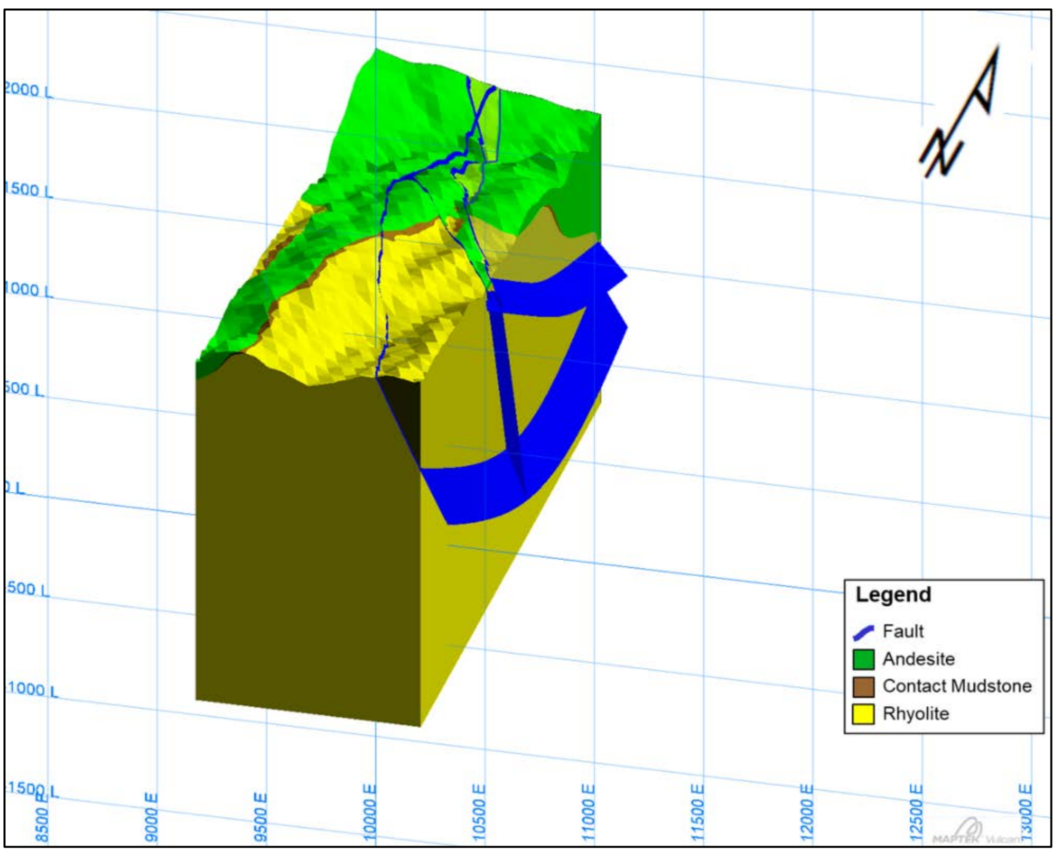


Figure 14-2: Simplified litho-structural model used to create the 2019 mineralization domains

14.4.2 Mineralization Domaining

The solid body modelling undertaken for the 2019 MRE resource was updated and improved from the 2018 MRE. In total, forty-nine solids were created for the 2019 MRE; forty-one mineralization solids, seven low-grade envelope solids and one solid used to limit the influence of high-grade, mined out material.

Mineralization Domains

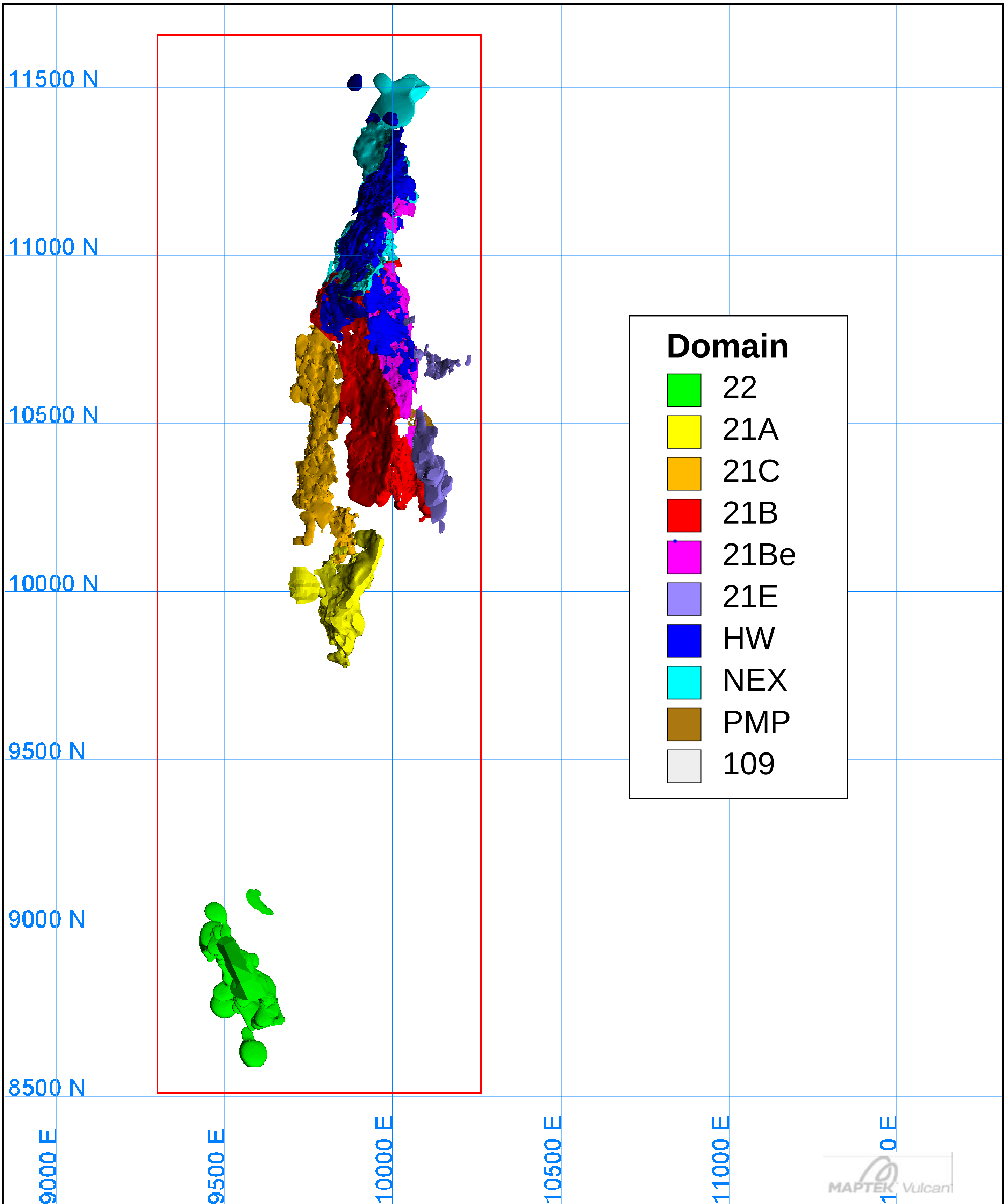
Forty-one mineralization solids were created to constrain the mineralization at Eskay in Leapfrog Geo^{TM} based on the following assumptions and input parameters:

- The design was based on litho-structural domains that were subdivided using two main lithology groupings (1 – Rhyolite, and 2 - Contact Mudstone/Hangingwall Andesite).
- All holes were composited to 1 m, with left over samples at the end of the holes appended to the previous sample.
- A cut-off grade of 0.5 g/t AuEq was used to define mineralization domains, where $AuEQ = Au + (Ag/75)$.
- Wireframes were manually adjusted to include grade intervals greater than 0.5 g/t AuEq located immediately outside the margins of the mineralization solid. Five small additional wireframes were manually created.
- Wireframes were manually adjusted to remove volumes that excessively exceeded the size of the domains originally created for the 2018 MRE.
- The resultant wireframes were reviewed by SRK in section and level plan view and were deemed to be representative of the underlying geology.

The resulting mineralization solids were different from the 2018 MRE due to the following changes:

- The cut-off grade was reduced from 1.0 g/t to 0.5 g/t AuEq due to the change in mining method from an almost exclusive underground mining scenario in 2018 to a predominantly open pit mining setting in 2019.
- The gold equivalent calculation used to generate mineralization wireframes for the 2019 MRE included gold and silver only, whereas the gold equivalent calculation used for the 2018 mineralization wireframes included base metals as well.
- One meter down the hole composites were used in the 2019 MRE as opposed to 2 m composites in 2018.

For consistency, the forty-one mineralization domain solids were split and/or combined and named according to location within the previously established historical mining area zones: 22, 21A, 21C, 21B, 21Be, 21E, HW, NEX, 109 and PMP (as shown in Figure 14-3). For the purposes of this Technical Report, “domain(s)” refer to mineralization solid(s) within the historically defined mining area zones.



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Mineralization Domains

Job No: 2CS042.002 Filename: Figure 14.3 Mineralization Domains.ppt	Eskay Creek Au-Ag Project	Date: March 11, 2019	Approved: KD	Figure: **14.3**

Low-grade Envelope Domain

In addition to the drill hole intervals contained within the mineralized domains, a significant number of drill hole intervals with grades greater than 0.5 g/t AuEq, were unaccounted for. A separate low-grade envelope was created around these intervals in the anticipated open pit area. The low-grade envelope was subdivided into seven domains based on litho-structural fault block groupings.

Figure 14-4 shows the low-grade envelope in relation to the composite assay grades higher than 0.5 g/t AuEq outside mineralization domain boundaries.

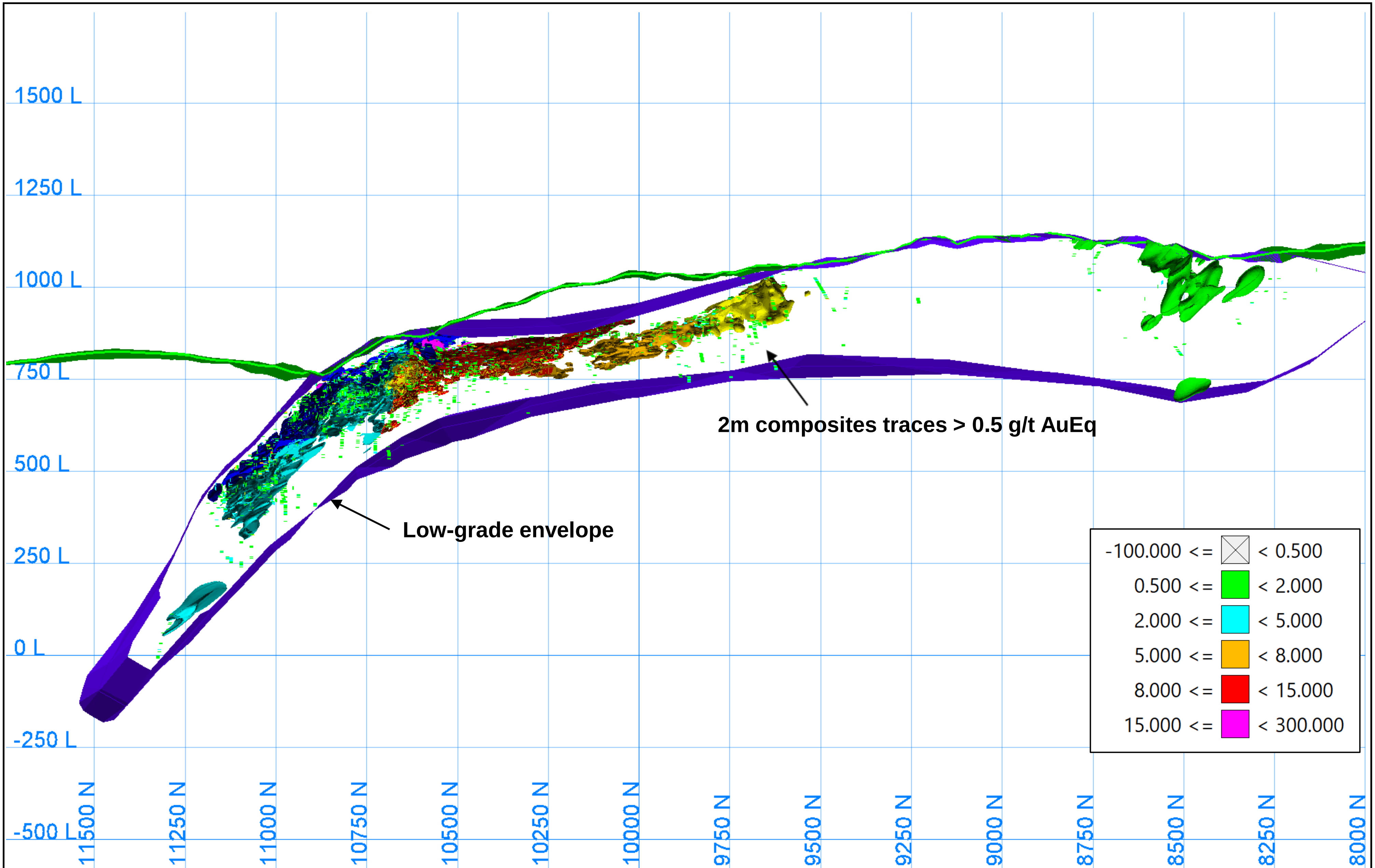
3 m Buffer Domain

Due to the high-grade nature of the mined-out areas at Eskay Creek, a 3 m buffer domain around the mined-out stopes and lifts was created. This was done to limit the smearing effect of the high-grade samples into the remaining resources areas.

Figure 14-5 is a representation of the 21B Domain showing the Contact Mudstone, Rhyolite and 3 m buffer domain used for estimation.

Solid Model Coding

Estimation domains were coded successively based on the following division scheme: (1) location within historical mining area, (2) dominant lithology type, (3) position within litho-structural domain, and (4) location within the 3 m high grade buffer zone. Table 14-3 summarizes the coding scheme used at Eskay Creek.



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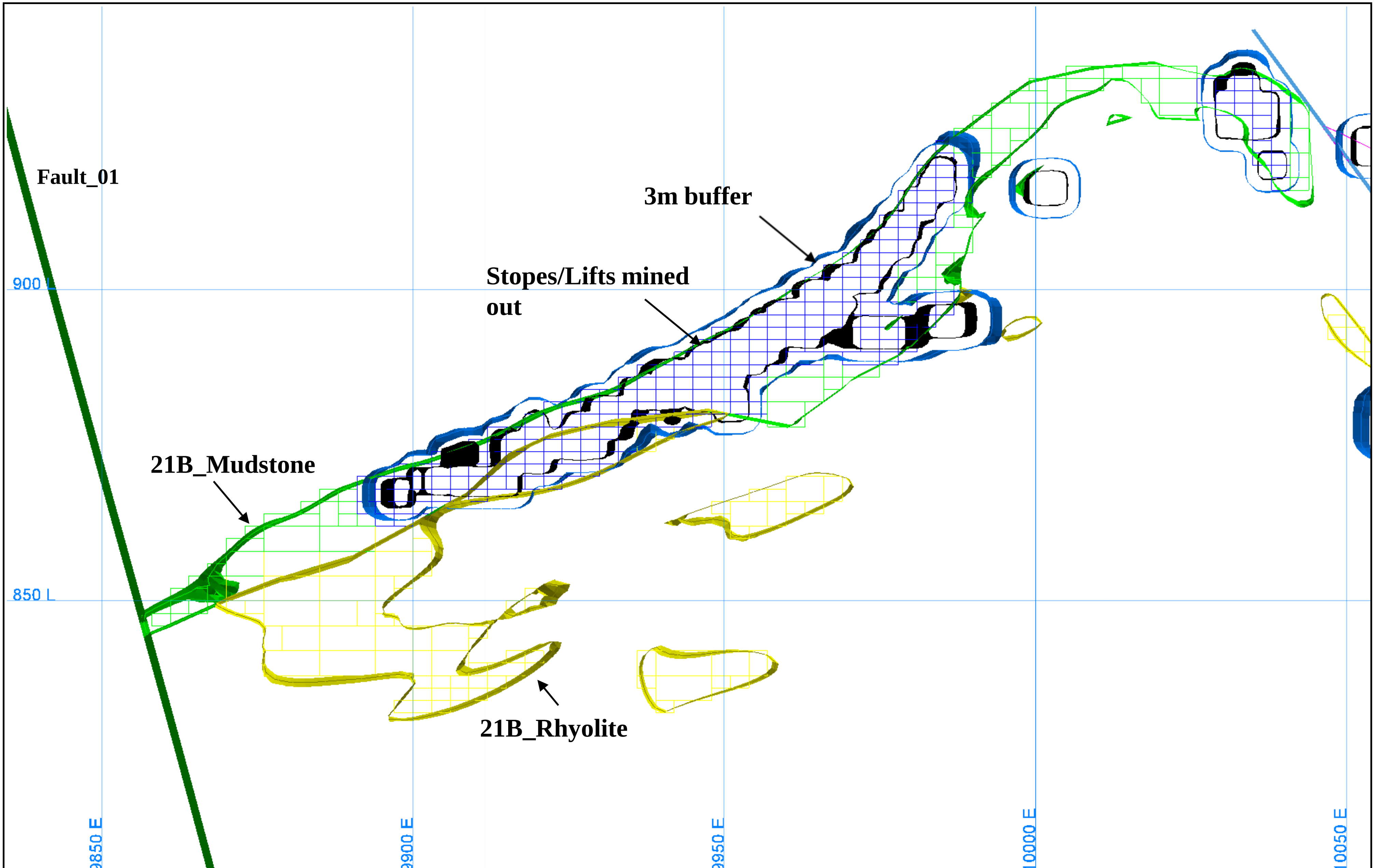
Low-Grade Envelope with 2m composites greater than 0.5g/t AuEq shown

Job No: 2CS042.002 Filename: Figure 14.4 Low Grade Envelope.pptx	Eskay Creek Au-Ag Project	Date: March 13, 2019	Approved: KD	Figure: **14.4**



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3m Buffer around UG workings in the 21B

Job No: 2CS042.002

Filename: Figure 14.5 3m buffer around 21B to contrain HG.pptx

Eskay Creek Au-Ag Project

Date:	Approved:	Figure:
March 11, 2019	KD	**14.5**

Table 14-3 Mineralization coding summary

Domain name	Domain	Rock Type	Zone	Litho/Structural Domain	Est_Zone (outside buffer)	Est_Zone (inside buffer)
Low Grade Envelope	1		1	D1	1	-
			2	D2	2	-
			3	D3	3	-
			4	D3 -Rhyolite	4	-
			5	D245	5	-
			6	D6	6	-
			8	22 Zone	8	-
22	10	Rhyolite	10	D245	1000	91000
21A	20	Rhyolite	201	D245	2010	92010
		Mudstone	202	D245	2020	92020
21C	30	Rhyolite	301	D245 North	3011	93011
				D245 South	3012	93012
		Mudstone	302	D245	3020	93020
21B	40	Rhyolite	401	D245	4010	94010
		Mudstone	402		4020	94020
21Be	50	Rhyolite	501	D3	5010	95010
		Mudstone	502		5020	95020
21E	60	Rhyolite	601	D1	6010	96010
		Mudstone	602		6020	96020
HW	70	Mudstone/Hangingwall Andeiste	702	D2	7022	97022
				D3	7023	97023
				D5	7026	97026
				D6	7025	97025
NEX	80	Rhyolite	801	wireframe	8010	98010
				D2	8012	98012
				D5	8015	98015
				D6	8016	98016
		Mudstone	802	D2	8022	98022
				D5	8025	98025
PMP	95	Rhyolite	95	wireframe	9500	99500
109	99	Rhyolite	99	wireframe	9900	99900

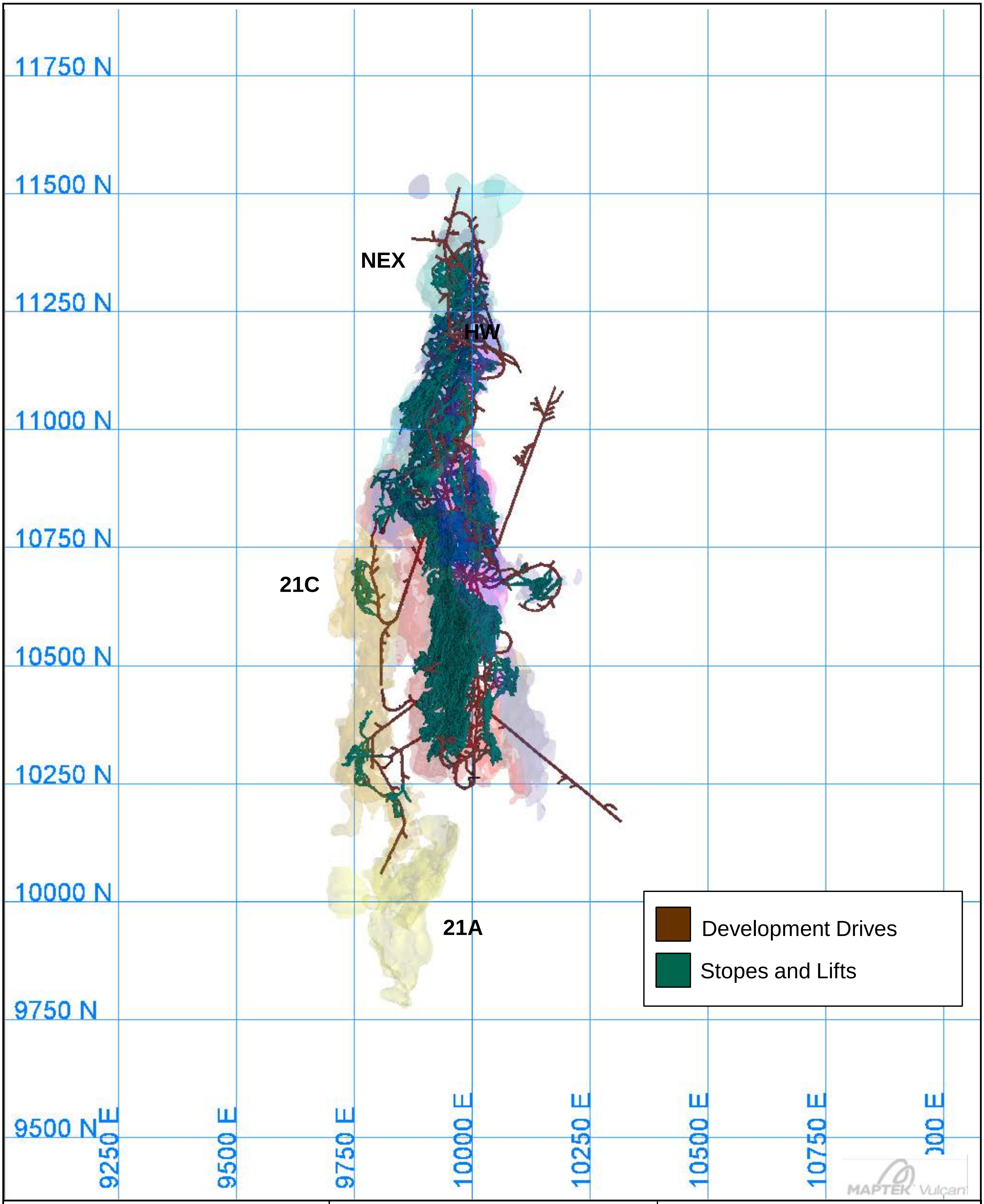
14.4.3 Underground workings

A complete dataset for all underground workings occur in 3D Vulcan-format. The historical underground workings are a combination of stopes, lifts and development drives. The previous Operator reported that all the lifts in the stopes were backfilled with cobble, where cobble was made at the site in a batch cement plant that consisted of screened gravel from the Iskut River supplemented with 4-12% cement (Barrick, 2005).

Skeena checked the location of the underground drill holes in relation to the underground working solids and found no obvious spatial errors. Although the underground workings were routinely surveyed, there is a small measure of uncertainty in the location of the solids due to survey method limitations. As a measure of caution against possible location discrepancies and unknown ground conditions, a 1 m exclusion zone around the underground workings was employed in the Open Pit model to deplete the final resource estimate, and a 3 m exclusion zone around the underground workings was employed in the Underground model to deplete the underground resources. Figure 14-6 and Figure 14-7 show the underground workings used to deplete the current estimate in plan view and long section, respectively.

14.5 Data Analysis

The ZONE code item was used to code the assay file in the database for geostatistical analysis, as this split the domain into two main lithology groupings: Rhyolite and Contact Mudstone/Hangingwall Andesite (Table 14-3). These coded intercepts were used to analyse sample length and generate statistics for assays and composites. Table 14-4 summarizes the statistical analysis of original assays for gold and silver. Table 14-5 summarizes the statistical analysis of lead, copper and zinc assays, and Table 14-6 summarizes the statistical analyses of arsenic, mercury, and antimony assays.



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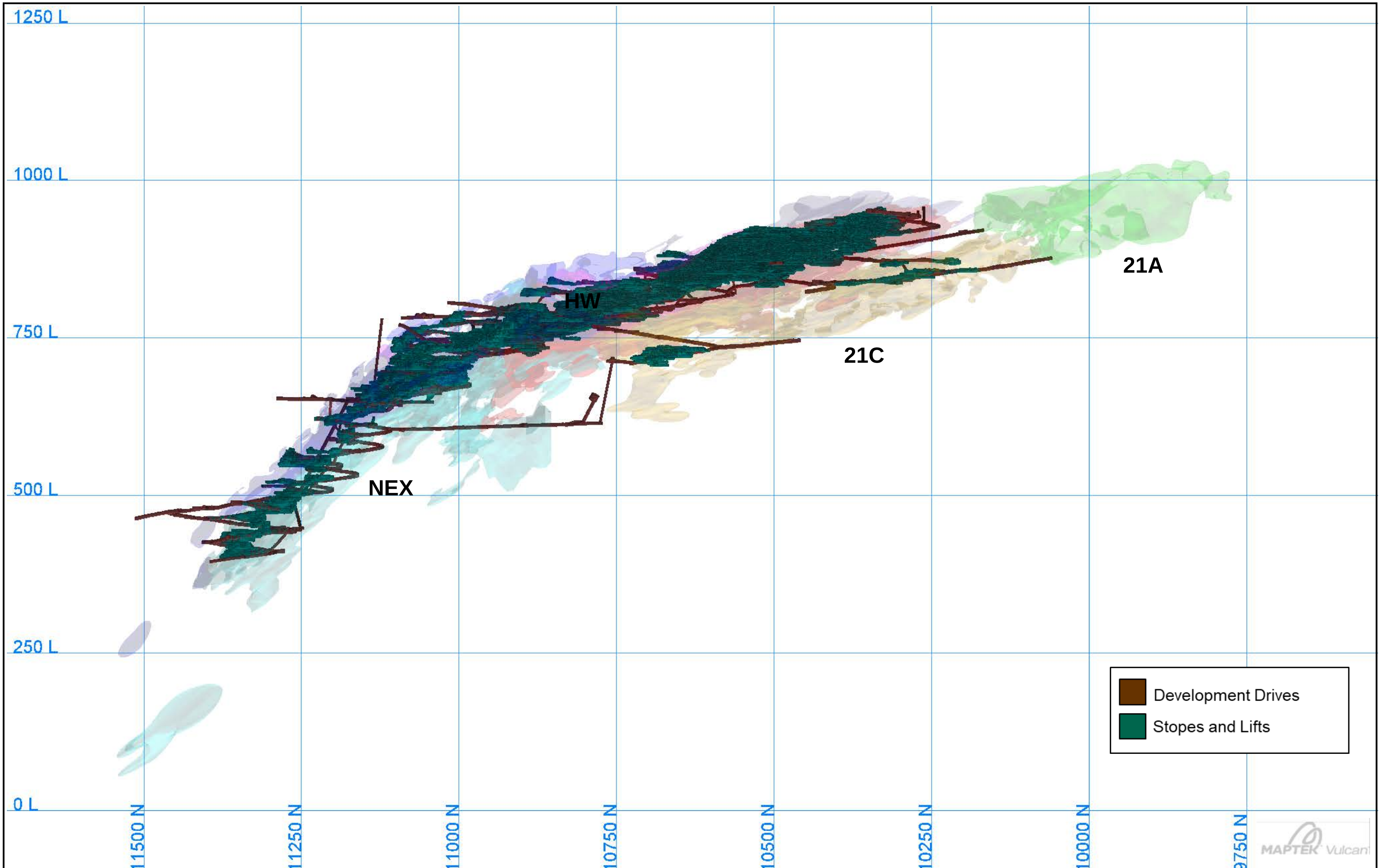
Plan View of Historical Underground Workings

Job No: 2CS042.002 Filename: Figure 14.6 Plan view of historical workings.pptx	Eskay Creek Au-Ag Project	Date: March 28, 2019	Approved: KD	Figure: **14.6**



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Longitudinal Section of Underground Workings

Job No: 2CS042.002
Filename: Figure 14.7 Longitudinal section of Historical underground workings.pptx

Eskay Creek Au-Ag Project

Date:	Approved:	Figure:
March 28, 2109	KD	**14.7**

Table 14-4: Summary statistics for drill hole gold and silver assays by zone

Domain	Zone	Rock Type	No. of Samples	Mean	CV	Min	Max
Gold g/t							
22	10	RHY	1,609	1.87	3.94	0.000	225.6
21A	201	RHY	6,086	2.91	2.91	0.001	238.0
	202	HWA/MS	1,277	16.44	2.23	0.005	677.8
21C	301	RHY	22,600	4.83	3.48	0.013	1,278.4
	302	HWA/MS	4,495	4.83	8.16	0.005	1,774.4
21B	401	RHY	19,902	6.29	12.09	0.017	9,659.0
	402	HWA/MS	16,845	29.49	3.18	0.017	6,437.9
21BE	501	RHY	13,465	10.77	4.74	0.017	1,352.7
	502	HWA/MS	8,679	20.39	4.01	0.017	2,072.7
21E	601	RHY	367	2.21	1.22	0.017	21.8
	602	HWA/MS	1,509	5.25	2.24	0.017	115.9
HW	702	HWA/MS	24,963	5.74	3.87	0.017	1,139.2
NEX	801	RHY	22,249	5.63	6.02	0.005	1,971.1
	802	HWA/MS	12,887	9.72	5.53	0.017	1,682.3
PMP	95	RHY	2,395	8.46	3.04	0.017	704.8
109	99	RHY	11,753	12.18	3.74	0.017	1,625.8
Silver g/t							
22	10	RHY	1,609	56.4	3.27	0.05	3,460.9
21A	201	RHY	6,086	53.3	3.92	0.05	5,628
	202	HWA/MS	1,277	199.7	5.44	0.05	22,353
21C	301	RHY	22,600	56.9	6.31	0.05	28,419
	302	HWA/MS	4,494	164.1	4.81	0.05	36,696
21B	401	RHY	19,902	277.4	5.56	0.05	44,767
	402	HWA/MS	16,845	1162.5	2.82	0.05	43,658
21BE	501	RHY	13,464	608.6	5.70	0.05	155,086
	502	HWA/MS	8,679	1063.0	3.68	0.05	54,899
21E	601	RHY	367	73.3	3.26	0.50	3,034
	602	HWA/MS	1,509	259.9	4.13	0.05	17,274
HW	702	HWA/MS	24,963	274.8	5.35	0.05	56,359
NEX	801	RHY	22,242	195.0	8.04	0.05	47,619
	802	HWA/MS	12,887	452.3	5.90	0.05	59,545
PMP	95	RHY	2,395	217.8	4.34	5.00	23,117
109	99	RHY	11,752	18.0	6.71	0.05	5,852

Table 14-5: Summary statistics for drill hole base metal assays by zone

Domain	Zone	Rock Type	No. of Samples	Mean	CV	Min	Max
Lead %							
22	10	RHY	1,609	0.11	4.75	0.00	15.09
21A	201	RHY	3,439	0.13	3.34	0.000	11.92
	202	HWA/MS	852	0.10	4.57	0.000	7.15
21C	301	RHY	7,478	0.13	3.30	0.000	14.80
	302	HWA/MS	1,872	0.82	5.01	0.000	20.20
21B	401	RHY	6,965	0.85	2.48	0.005	24.21
	402	HWA/MS	8,020	2.05	1.76	0.005	53.15
21BE	501	RHY	5,060	1.16	2.47	0.005	24.40
	502	HWA/MS	3,427	2.36	1.69	0.005	20.90
21E	601	RHY	104	0.11	2.39	0.005	1.90
	602	HWA/MS	861	0.37	3.27	0.005	10.75
HW	702	HWA/MS	9,213	2.53	1.61	0.000	52.00
NEX	801	RHY	6,496	0.83	2.65	0.000	29.49
	802	HWA/MS	4,193	1.81	2.06	0.001	25.83
PMP	95	RHY	1,188	0.17	2.57	0.005	5.30
109	99	RHY	4,725	1.57	1.77	0.005	65.36
Copper %							
22	10	RHY	1,583	0.014	4.96	0.000	1.44
21A	201	RHY	3,428	0.022	3.37	0.000	1.34
	202	HWA/MS	854	0.024	3.41	0.000	1.51
21C	301	RHY	7,477	0.043	3.09	0.001	5.44
	302	HWA/MS	1,872	0.182	2.63	0.001	5.24
21B	401	RHY	6,815	0.161	3.29	0.001	5.66
	402	HWA/MS	8,005	0.519	2.26	0.005	26.40
21BE	501	RHY	5,033	0.306	3.03	0.005	10.14
	502	HWA/MS	3,402	0.584	2.07	0.005	10.70
21E	601	RHY	104	0.041	2.23	0.005	0.80
	602	HWA/MS	860	0.110	3.18	0.005	3.95
HW	702	HWA/MS	9,192	0.408	2.00	0.003	35.00
NEX	801	RHY	6,494	0.149	3.66	0.000	8.58
	802	HWA/MS	4,182	0.331	2.45	0.001	7.30
PMP	95	RHY	1,188	0.670	3.10	0.005	4.22
109	99	RHY	4,314	0.039	5.90	0.005	5.70
Zinc %							
22	10	RHY	1,609	0.146	4.04	0.001	15.36
21A	201	RHY	3,439	0.210	2.87	0.000	13.52
	202	HWA/MS	852	0.220	3.64	0.004	12.50
21C	301	RHY	7,477	0.241	3.00	0.001	22.58
	302	HWA/MS	1,872	1.459	2.47	0.002	33.10
21B	401	RHY	6,964	1.442	2.67	0.002	44.40
	402	HWA/MS	8,028	3.623	1.78	0.005	33.95
21BE	501	RHY	5,063	1.966	2.49	0.005	36.90
	502	HWA/MS	3,433	4.049	1.70	0.005	39.44
21E	601	RHY	104	0.199	2.41	0.005	3.73
	602	HWA/MS	861	0.691	3.11	0.010	19.08
HW	702	HWA/MS	9,213	3.867	1.59	0.005	48.88
NEX	801	RHY	6,499	1.378	2.66	0.001	35.00
	802	HWA/MS	4,193	2.714	2.02	0.005	33.90
PMP	95	RHY	1,188	0.325	3.05	0.005	21.00
109	99	RHY	4,720	2.400	1.59	0.010	31.80

Table 14-6: Summary statistics for drill hole deleterious element assays by zone

Domain	Zone	Rock Type	No. of Samples	Mean	CV	Min	Max
Antimony ppm							
22	10	RHY	1,583	449	5.77	3	64,240
21A	201	RHY	3,191	933	8.96	0	328,000
	202	HWA/MS	838	20,241	3.66	10	591,000
21C	301	RHY	6,760	363	2.35	9	31,900
	302	HWA/MS	1,691	2,538	3.82	17	162,500
21B	401	RHY	5,883	4,101	4.83	0	483,500
	402	HWA/MS	7,985	18,038	2.55	50	545,000
21BE	501	RHY	6,515	2,760	3.71	50	197,000
	502	HWA/MS	3,497	7,282	2.71	50	516,400
21E	601	RHY	70	776	1.94	50	9,200
	602	HWA/MS	707	8,216	3.91	41	388,000
HW	702	HWA/MS	8,734	1,978	3.56	46	334,000
NEX	801	RHY	5,863	2,082	5.26	5	342,000
	802	HWA/MS	4,284	2,801	4.01	50	340,000
PMP	95	RHY	1,072	2,749	5.48	50	382,000
109	99	RHY	4,871	270	3.57	50	50,800
Mercury ppm							
22	10	RHY	1,583	7	1.77	0.0	140
21A	201	RHY	2,871	65	4.61	0.0	7,530
	202	HWA/MS	639	1,444	2.69	0.0	29,000
21C	301	RHY	6,637	14	1.97	0.1	887
	302	HWA/MS	1,677	42	1.85	0.5	723
21B	401	RHY	5,598	169	4.46	0.5	20,020
	402	HWA/MS	7,707	965	2.86	0.5	44,775
21BE	501	RHY	6,471	93	4.50	0.5	11,930
	502	HWA/MS	3,452	298	2.90	0.5	17,590
21E	601	RHY	61	26	2.14	1.0	382
	602	HWA/MS	695	30	2.85	0.5	1,898
HW	702	HWA/MS	8,600	35	1.36	0.5	600
NEX	801	RHY	5,745	30	2.85	0.0	2,488
	802	HWA/MS	4,255	41	1.97	0.5	1,378
PMP	95	RHY	1,079	39	4.43	0.5	4,160
109	99	RHY	4,782	14	1.28	0.5	387
Arsenic ppm							
22	10	RHY	1,581	1,260	2.17	10	39,200
21A	201	RHY	3,210	499	5.00	10	82,400
	202	HWA/MS	870	22,613	4.49	10	540,000
21C	301	RHY	6,761	248	0.99	12	5,300
	302	HWA/MS	1,684	543	4.14	12	47,600
21B	401	RHY	4,497	823	3.13	0	120,000
	402	HWA/MS	6,694	1,804	5.60	50	530,000
21BE	501	RHY	4,498	1,879	1.53	50	19,500
	502	HWA/MS	2,574	1,320	1.66	50	22,000
21E	601	RHY	70	387	1.62	50	3,700
	602	HWA/MS	707	331	1.40	50	5,000
HW	702	HWA/MS	7,352	767	1.99	50	100,000
NEX	801	RHY	5,521	577	2.16	25	27,000
	802	HWA/MS	3,671	658	1.22	50	11,800
PMP	95	RHY	1,079	958	5.12	50	110,000
109	99	RHY	3,799	611	1.50	50	10,800

The 21A and 21B Zones hosted in the Contact Mudstone have elevated levels of arsenic, mercury and antimony. The 21A Zone is geologically and geochemically equivalent to the 21B Zone, an area which accounted for the bulk of mineralization historically mined at Eskay Creek. Smelter penalties for the elevated concentrations of arsenic, mercury and antimony in the 21B Zone were often prevented via blending with material from other domains, thereby diluting the penalty elements while maintaining a profitable head grade.

14.6 Compositing

To minimize bias introduced by variable sample lengths, assays were composited honouring the relevant mineralization domain boundaries to 1 m lengths, for the Underground model, and 2 m lengths, for the Open Pit model. Most samples inside the mineralization domains were collected at approximately 1 m and shorter intervals (Figure 14-8). One-meter composites were created and used for geostatistical analysis, top cutting and variography. Composite lengths that fell short of 1 m were merged into the previous sample. Summary statistics between the assays and 1 m composites are shown in Table 14-7.

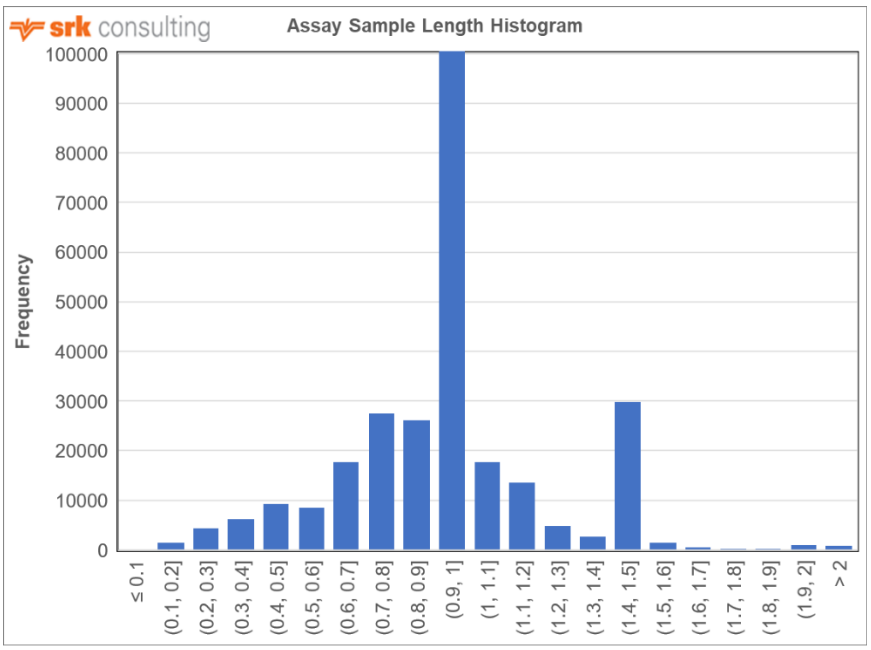
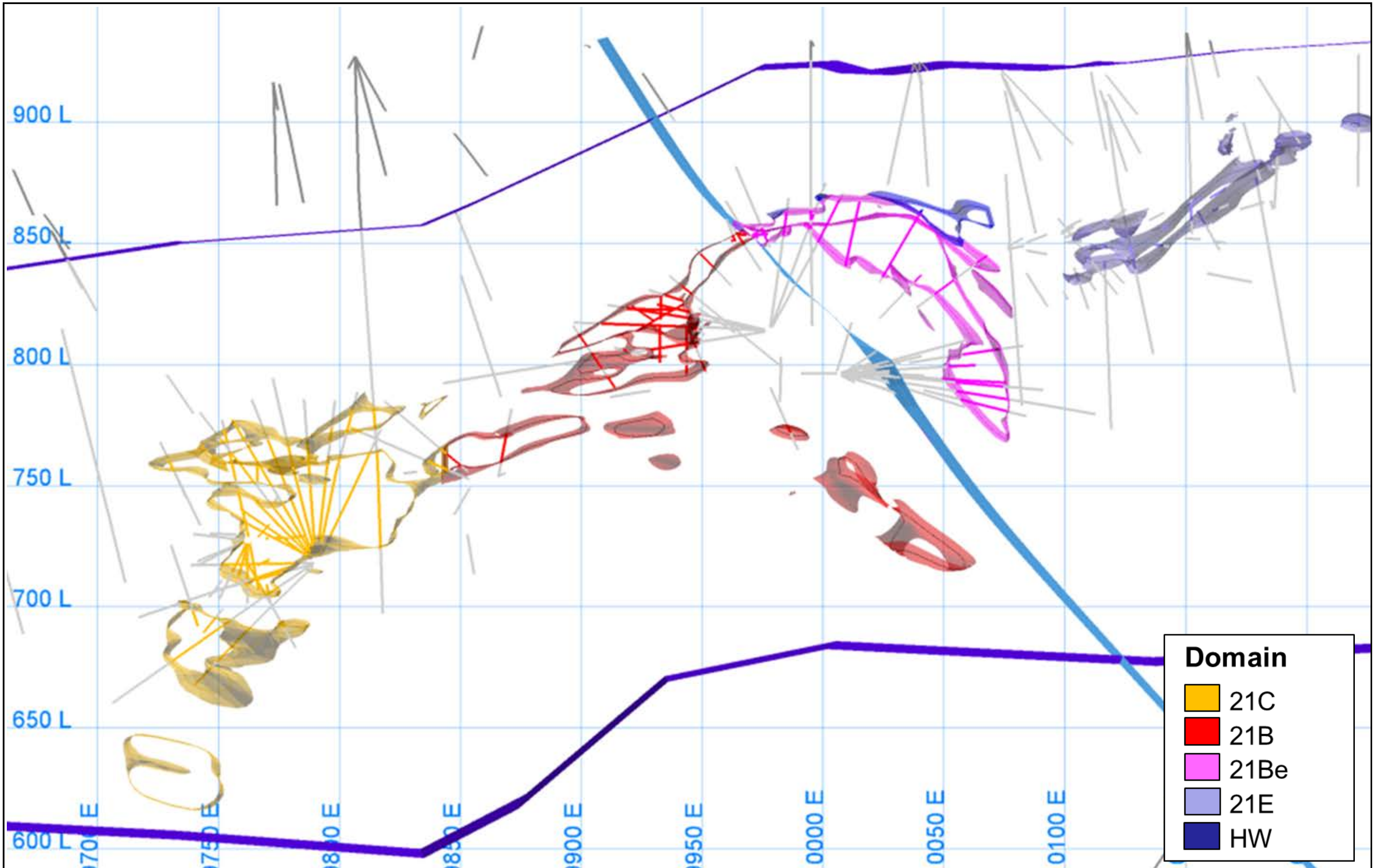


Figure 14-8: Histogram and statistics of assay sample lengths at Eskay Creek

A total of 161,760 one-meter composites were coded into mineralization domains, not including composites within the low grade envelope. All gold and silver unsampled intervals were given a default value of 0.001 g/t during compositing. Missing samples due to lost core, voids or insufficient sample were ignored.

The composites were assigned codes on a majority basis corresponding to the mineralized domain, zone and estimation zone in which they occur. The compositing and coding processes were viewed in 3D to ensure that coding had been applied correctly as shown in Figure 14-9.



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Composites coded by Domain
Section 10803N

Job No2CS042.002 Filename: Figure 14.9 Composites coded by Domain	Eskay Creek Au-Ag Project	Date: April 1, 2019	Approved: KD	Figure: **14.9**

Table 14-7: Comparison of assay data to 1 m composites

		Assays			1m Composites		
Domain	**Zone**	**No. of Samples**	**Mean**	**CV**	**No of samples**	**Mean**	**CV**
			Gold				
22	10	1,609	1.87	3.94	2,071	1.7	2.93
21A	201	6,086	2.91	2.91	7,196	2.6	2.68
	202	1,277	16.44	2.23	1,419	14.0	1.99
21C	301	22,600	4.83	3.48	21,268	4.5	2.60
	302	4,495	4.83	8.16	4,056	4.3	6.46
21B	401	19,902	6.29	12.09	18,723	5.6	5.84
	402	16,845	29.49	3.18	15,815	27.6	3.12
21BE	501	13,465	10.77	4.74	12,516	10.0	4.43
	502	8,679	20.39	4.01	8,108	18.0	3.88
21E	601	367	2.21	1.22	347	2.2	1.19
	602	1,509	5.25	2.24	1,455	4.3	2.13
HW	702	24,963	5.74	3.87	22,798	5.2	3.50
NEX	801	22,249	5.63	6.02	20,678	5.0	4.94
	802	12,887	9.72	5.53	11,678	8.6	5.24
PMP	95	2,395	8.46	3.04	2,316	7.7	2.65
109	99	11,753	12.18	3.74	11,316	11.3	3.56
Total		**171,081**			**161,760**		
			Silver				
22	10	1,609	56.39	3.27	2,071	52.3	2.71
21A	201	6,086	53.26	3.92	7,196	49.4	3.51
	202	1,277	199.69	5.44	1,419	172.0	5.05
21C	301	22,600	56.87	6.31	21,268	52.5	4.59
	302	4,494	164.13	4.81	4,056	142.9	3.51
21B	401	19,902	277.45	5.56	18,723	254.0	5.24
	402	16,845	1162.53	2.82	15,815	1101.3	2.76
21BE	501	13,464	608.59	5.70	12,516	546.7	5.34
	502	8,679	1062.97	3.68	8,108	929.9	3.57
21E	601	367	73.31	3.26	347	74.9	3.28
	602	1,509	259.89	4.13	1,455	201.0	3.68
HW	702	24,963	274.82	5.35	22,798	240.7	4.58
NEX	801	22,242	194.99	8.04	20,678	162.6	7.82
	802	12,887	452.33	5.90	11,678	402.7	5.90
PMP	95	2,395	217.76	4.34	2,316	199.4	3.91
109	99	11,752	17.96	6.71	11,316	16.0	5.86
Total		**171,071**			**161,760**		

14.7 Evaluation of Outliers

14.7.1 1 m Composites

Block grade estimates may be overly affected by very high-grade assays therefore capping was applied to all domains. An analysis of sample lengths versus gold grade shows that effort was taken to sample intervals based on visible mineralization, since gold grades are highest in the smallest assay lengths (Figure 14-10). For this reason, capping was applied after compositing. Capping values were selected on a zone by zone basis using the results from log probability plots, histograms, CV values and percent metal loss. Less than 1 % of the entire assay data set was capped for high-grade outliers.

To assess the impact on capping and % metal lost, preliminary Ordinary Kriged (OK) block models were run using, (1) capped and, (2) uncapped 1 m composite data within each zone (Table 14-8). Percent metal loss was variable between zones, ranging from as little as 0.5% to as high as 14.6% for gold, and 0.4% to 13.3% for silver. For domains with percent metal loss more than 5%, the uncapped mean values were sensitive to the extremely high-grade samples. On average, less than 3% gold and 5% silver were lost during the process of capping.

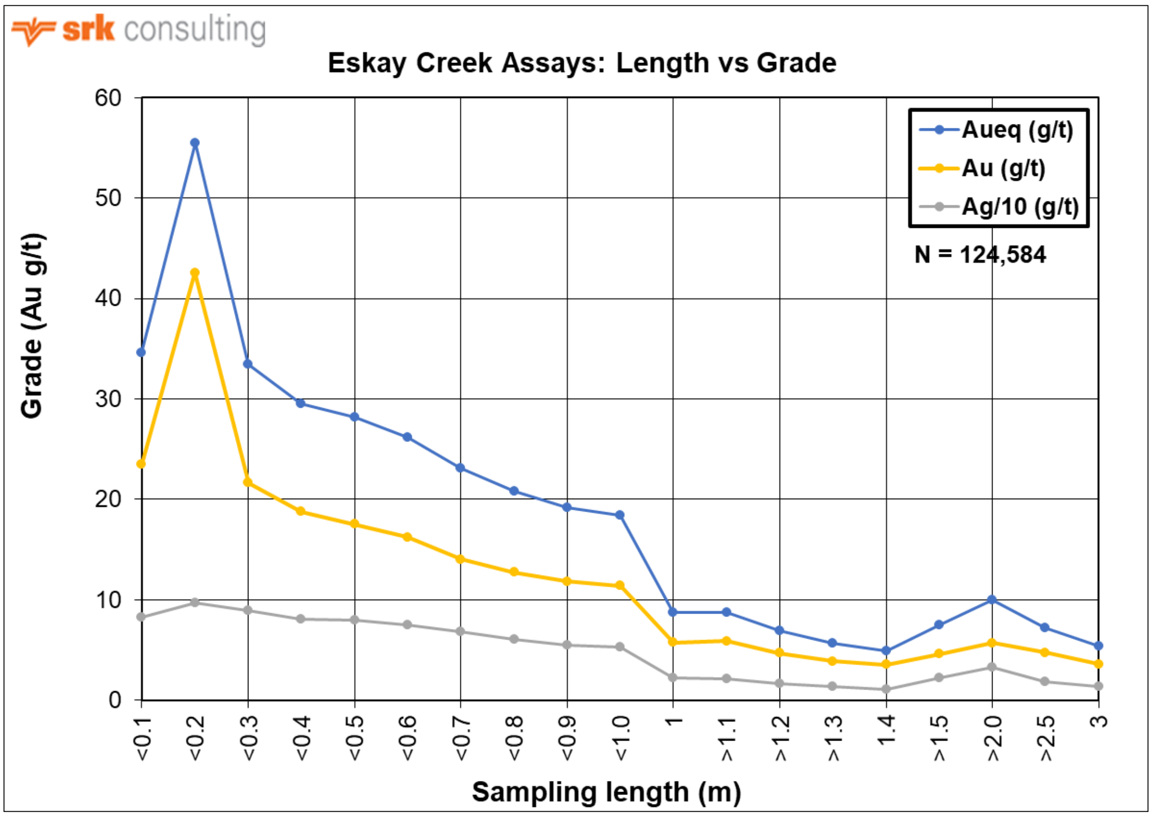


Figure 14-10: Gold grade versus sample length

Table 14-8: Gold and silver assay capped grades per zone

Domain	Zone	Top Cut	No. Cut	% Cut	Preliminary Block Model		% Metal Lost
					Uncapped	Capped	
22	10	45	5	0.24	1.69	1.67	1.4
21A	201	80	12	0.17	2.33	2.28	1.9
	202	150	8	0.56	11.94	11.66	2.4
21C	301	100	19	0.09	3.39	3.31	2.4
	302	150	9	0.22	3.52	3.01	14.6
21B	401	500	16	0.09	4.61	4.50	2.4
	402	700	13	0.08	25.60	25.47	0.5
21Be	501	600	15	0.12	7.05	6.93	1.7
	502	900	10	0.12	15.82	15.52	1.8
21E	601	10	7	2.02	1.94	1.91	1.7
	602	60	8	0.55	3.48	3.43	1.5
NEX	702	300	12	0.05	4.08	3.97	2.6
HW	801	400	21	0.10	4.02	3.86	3.9
	802	600	15	0.13	6.53	6.26	4.2
PMP	95	100	11	0.47	6.14	5.76	6.1
109	99	500	14	0.12	9.48	9.10	4.0
Total			**195**				**3.3**
22	10	990	11	0.53	52.44	51.37	2.0
21A	201	1,950	12	0.17	50.78	49.62	2.3
	202	7,000	7	0.49	131.72	120.41	8.6
21C	301	2,100	36	0.17	37.20	35.90	3.5
	302	3,400	16	0.39	117.86	113.65	3.6
21B	401	15,000	34	0.18	227.45	219.63	3.4
	402	23,000	22	0.14	1,002.05	998.01	0.4
21Be	501	30,000	18	0.14	331.28	322.42	2.7
	502	20,000	58	0.72	691.58	658.59	4.8
21E	601	600	7	2.02	57.13	49.53	13.3
	602	5,000	12	0.82	145.63	139.67	4.1
NEX	702	16,000	27	0.12	183.27	177.49	3.2
HW	801	20,000	26	0.13	115.29	111.26	3.5
	802	30,000	17	0.15	276.58	268.52	2.9
PMP	95	4,600	11	0.47	152.12	137.98	9.3
109	99	1,500	11	0.10	19.12	17.24	9.8
Total			**325**				**4.8**

14.7.2 2 m Composites

For the Open Pit model, 2 m composites were used. The capping values established from the 1 m composites were used for the 2 m composites, except for Zones 401 and 402 where higher capping values of 40 g/t Au and 50 g/t Au were applied, respectively. Statistics for the uncapped and capped 2 m composites are shown below in Table 14-9. In addition, top cuts were reduced to 40 g/t outside the 3 m buffer and to 300 g/t inside the 3m buffer using the 2 m composites. A low-grade envelope was created for the Open Pit model and capping values in the envelope were determined from 2 m composite statistics. Table 14-10 shows the capping values and statistics for the 2 m composites in the low-grade envelope.

Table 14-9 Summary statistics for 2 m capped and uncapped composites by zone

Domain	Zone	# Samples	Top cut	Uncapped		Capped	
				Mean	CV	Mean	CV
Gold							
22	10	1,033	45	1.69	2.93	1.63	2.11
21A	201	3,599	80	2.61	2.68	2.57	2.20
	202	703	150	13.99	1.99	13.80	1.75
21C	301	10,659	100	4.53	2.60	4.43	1.66
	302	2,028	150	4.29	6.46	3.72	2.82
21B	401	9,370	300	5.56	5.84	5.01	3.70
	402	7,930	300	27.58	3.12	25.37	2.18
21Be	501	6,268	600	10.01	4.43	9.99	3.90
	502	4,059	900	17.97	3.88	17.77	3.35
21E	601	601	10	2.20	1.19	1.96	1.03
	602	378	60	4.33	2.13	6.45	1.63
NEX	702	11,367	300	5.23	3.50	5.17	2.62
HW	801	10,328	400	5.00	4.94	4.91	3.81
	802	5,860	600	8.55	5.24	8.45	4.13
PMP	95	1,152	100	7.73	2.65	7.27	1.61
109	99	5,667	500	11.30	3.56	11.00	2.63
Total		**81,002**					
Silver							
22	10	1,033	990	52.30	2.71	50.94	2.30
21A	201	3,599	1,950	49.36	3.51	49.11	2.88
	202	703	7,000	172.02	5.05	163.91	3.78
21C	301	10,659	2,100	52.48	4.59	50.51	3.33
	302	2,028	3,400	142.89	3.51	134.01	2.62
21B	401	9,370	15,000	254.03	5.24	244.43	4.70
	402	7,930	23,000	1101.33	2.76	1094.98	2.58
21Be	501	6,268	30,000	546.73	5.34	521.46	4.04
	502	4,059	20,000	929.90	3.57	890.13	3.02
21E	601	530	600	74.86	3.28	68.16	2.90
	602	378	5,000	201.00	3.68	303.35	2.63
NEX	702	11,367	16,000	240.65	4.58	240.01	3.87
HW	801	10,328	20,000	162.56	7.82	158.05	6.32
	802	5,860	30,000	402.73	5.90	375.92	5.03
PMP	95	1,152	4,600	199.45	3.91	178.31	2.49
109	99	5,667	1,500	15.95	5.86	15.02	3.98
Total		**80,931**					

* based on composites that are not declustered

Table 14-10: Capping values in the low-grade envelope by zone

Domain	Zone	# Samples	Au cap (top cut)	Metal lost by capping (%)	Max Value	CV		Mean		Samples Cut
						Uncapped	Capped	Uncapped	Capped	
Gold										
1	1	15,732	4.6	34.3	324.10	21.45	3.97	0.134	0.088	33
	2	18,516	7	13.1	81.96	7.80	4.33	0.145	0.126	38
	3/4	13,640	30	13.0	266.00	10.87	5.21	0.316	0.275	15
	5	99,139	10	15.7	371.49	9.21	3.32	0.242	0.204	184
	6	15,625	7	12.7	73.96	5.53	2.99	0.212	0.185	32
	8	11,977	3	3.3	13.85	4.13	3.31	0.061	0.059	12
								Total Capped		**314**
Silver										
1	1	15,732	300	42.7	10,305	21.24	5.72	4.944	2.835	28
	2	18,516	200	28.8	2,217	13.34	6.12	2.556	1.821	34
	3/4	13,640	2000	21.7	17,904	13.93	7.04	17.234	13.502	13
	5	99,139	900	19.7	10,482	15.82	7.36	5.258	4.221	58
	6	15,625	400	22.9	4,397	10.98	4.66	6.442	4.967	26
	8	11,977	60	7.5	378	5.70	3.69	1.055	0.976	14
								Total Capped		**173**

* % metal loss equals (mean – meanCap)/mean*100 where mean is the average grade of the assays before capping and meanCap is the average grade of assays after capping.

14.8 Variography

Variograms were used to assess for grade continuity, spatial variability in the estimation domains, sample search distances and kriging parameters.

All variograms were prepared using 1 m composites. Three zones encompass both limbs of the anticline: 21B, 21E and NEX. These domains were split into east and west limbs and sample pairs from the more continuous western limbs were selected for variography analysis.

Spatial continuity was assessed using variogram maps and 3D representations of grade continuity. The most suitable orientation was selected based on the general understanding of the attitude of each mineralized zone. Initially, the variograms were produced on normal scores of the composite assay grades. Downhole variograms were calculated to characterize the nugget effect. Final variogram models on original gold and silver assays were designed from the variograms on normal scores. Spherical variogram models used for determining grade continuity are summarized in Table 14-11 for gold and Table 14-12 for silver. Figure 14-11 illustrates gold search ellipsoids showing ranges used for dynamic anisotropy.

Table 14-11: Variogram parameters for gold by estimation zone

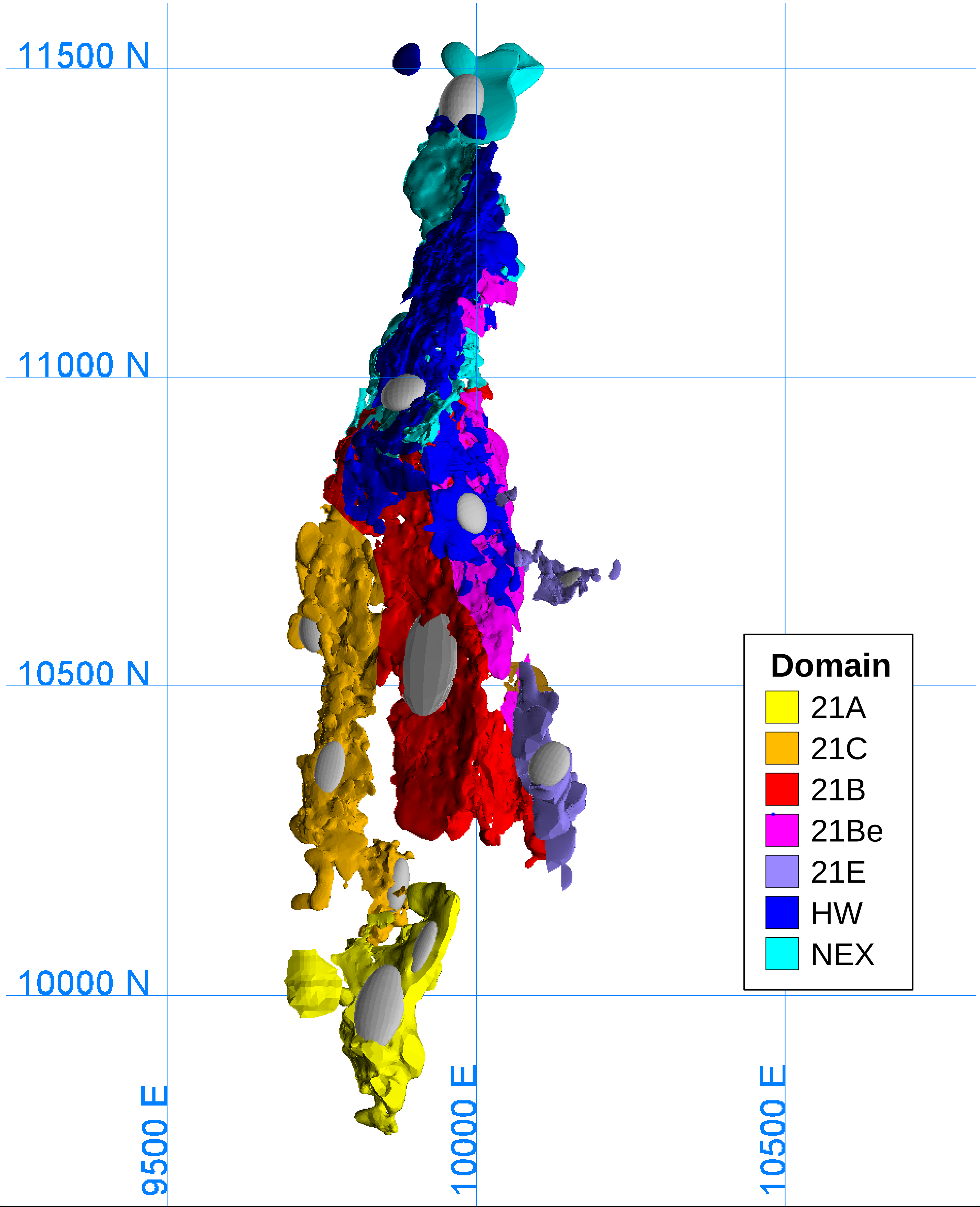
Vario	Est_Zone	Structure	Nugget	Sill	Major (y)	Semi (x)	Minor (z)	Final Rotation (yxz)
10	1000	1 2	0.15	0.64 0.21	15 50	25 35	10 40	149/-14/33
201	2010	1 2 3	0.21	0.56 0.14 0.1	7 49 76	5 43 43	17 20 20	13/-15/27
202	2020	1 2	0.10	0.72 0.18	17 45	10 20	12 20	23/-7/45
3011	3011	1 2 3	0.20	0.37 0.26 0.17	4 18 35	4 6 20	8 10 15	352.5/-9.8/28.5
3012	3012	1 2	0.11	0.56 0.33	8 45	5 20	5 20	10/0/-60
302	3020	1 2	0.18	0.76 0.06	6 45	6 25	6 11	12/-10/23
4011*	4010	1 2 3	0.19	0.71 0.06 0.04	5 10 30	5 10 15	3 25 25	168.0/12.2/-27.6
4021*	4020	1 2	0.12	0.67 0.2	7 95	4 60	4 5	4.4/-12.7/38.3
501	5010	1 2	0.23	0.64 0.13	5 35	4 20	3 10	0/-22/45
502	5020	1 2	0.09	0.81 0.1	5 25	2 10	5 6	174.3/26.1/24.2
601	6010	1 2	0.09	0.58 0.33	24 40	9 35	3 15	30/0/30
6021*	6020	1 2	0.05	0.38 0.57	7 25	7 15	5 5	69.9/35.4/45.3
7023	7023	1 2	0.18	0.68 0.15	10 35	5 30	3 15	160/0/40
7025	7025	1 2	0.05	0.24 0.71	5 20	5 15	5 10	260/-35/0
70261*	7026	1 2	0.16	0.66 0.18	5 40	7 40	7 25	15.2/-45.2/35.5
8012	8012	1 2	0.19	0.69 0.12	12 60	8 40	6 30	10/-42/39
8016	8016	1 2	0.38	0.55 0.07	13 30	12 30	6 20	9.1/-48/32
8025	8025	1 2	0.15	0.81 0.04	4 35	4 22	3 10	41.9/-21.5/57.5
8022	8022	1 2	0.17	0.72 0.11	8 42	7 20	7 10	10/-42/39
95	9500	1 2	0.12	0.74 0.14	12 40	8 20	8 10	350/-26/-44
99	9000	1 2	0.37	0.51 0.12	6 45	3 20	7 20	296/-54/172

* based on western limb

Table 14-12: Variogram parameters for silver by estimation zone

Vario	Zone	Structure	Nugget	Sill	Major (y)	Semi (x)	Minor (z)	Final Rotation (yxz)
10	1000	1 2	0.05	0.79 0.15	14 20	14 20	10 10	149/-14/33
201	2010	1 2	0.16	0.73 0.11	17 80	15 40	18 20	13/-15/27
202	2020	1 2	0.09	0.76 0.15	5 17	10 17	10 17	23/-7/45
3011	3011	1 2	0.24	0.68 0.08	8 40	7 30	10 30	352.5/-9.8/28.5
3012	3012	1 2	0.11	0.77 0.11	14 40	8 30	8 25	10/0/-60
302	3020	1 2	0.13	0.68 0.19	11 60	9 40	9 20	12/-10/23
4011*	4011	1 2	0.25	0.57 0.18	6 30	8 16	5 20	168.0/12.2/-27.6
4021*	4020	1 2	0.06	0.68 0.26	8 65	4 60	5 10	4.4/-12.7/38.3
501	5010	1 2	0.61	0.3 0.09	13 45	10 20	5 10	0/-22/45
502	5020	1 2	0.07	0.84 0.08	7 40	5 20	6 10	174.3/26.1/24.2
601	6010	1 2	0.10	0.74 0.16	10 25	10 30	3 10	30/0/30
6021*	6020	1 2	0.04	0.73 0.23	20 25	20 23	20 23	69.9/35.4/45.3
7023	7023	1 2	0.10	0.84 0.06	4 30	4 20	2 5	160/0/40
7025	7025	1 2	0.13	0.69 0.18	10 35	5 20	4 4	260/-35/0
70261*	7026	1 2 3	0.19	0.64 0.09 0.07	8 28 120	5 45 50	5 22 25	15.2/-45.2/35.5
8012	8012	1 2	0.22	0.68 0.1	6 65	5 24	5 13	10/-42/39
8016	8016	1 2	0.37	0.56 0.07	6 55	7 23	4 12	9.1/-48/32
8025	8025	1 2	0.12	0.73 0.15	8 40	8 40	4 10	41.9/-21.5/57.5
8022	8022	1 2	0.11	0.8 0.09	8 50	6 20	6 10	10/-42/39
95	9500	1 2	0.16	0.72 0.12	6 25	5 25	4 20	350/-26/-44
99	9900	1 2	0.42	0.55 0.03	6 20	6 20	8 20	296/-54/172

* based on western limb.



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SKEENA RESOURCES LTD.

Gold search ellipses determined from variography

Job No: 2CS041.002
Filename: Figure 14.11 Gold search ellipses

Eskay Creek Au-Ag Project

Date:	Approved:	Figure:
April 3, 2019	K. Dilworth	**14.11**

14.9 Dynamic Anisotropy

Due to the folded nature of the deposit, search ellipsoid orientations were not considered suitable for effectively estimating all mineral domains. Dynamic anisotropy was selected as the preferred estimation method because adjustments in each block could be made in relation to the presiding mineralization trend. The anisotropy direction was defined from the base of the Contact Mudstone (see example in Figure 14-12).

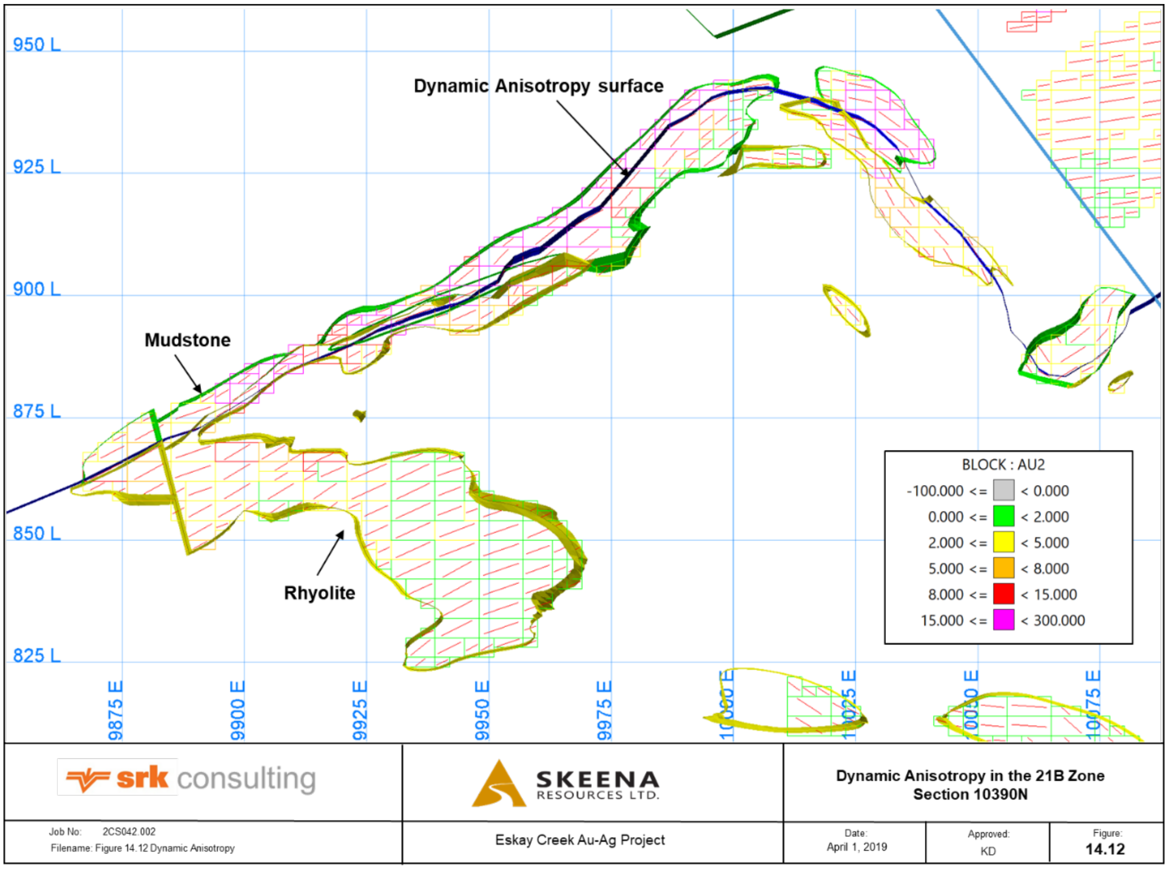


Figure 14-12: Dynamic anisotropy vectors used in the folded 21B Domain, looking north

14.10 Specific Gravity

Specific gravity was determined for 312 samples collected during 1996 and 1997 from the 21B, 21C, 21E, NEX and HW Zones. SG measurements were collected from 10 cm-long split or whole diamond drill core. The core was first weighed in air on a beam balance, then weighed in water. The volume of the core was calculated which was then used to calculate the SG.

During the 2018 drilling program, additional 355 measurements were taken from the 22, 21A, and 21C Zones.

Due to the limited number of specific gravity measurements taken, an empirical bulk density formula was derived using lead, zinc, copper and antimony grades and verified against actual measurements. The empirical density equation determined from the historical Operator is:

$SG = (Pb + Zn + Cu + Sb) * 0.03491 + 2.67$ (where all metals are reported in %).

A default of 2.67 was applied to missing SG in blocks; historically this value was used to represent the average SG value of unmineralized rhyolite and mudstone host rocks.

A comparison of the calculated specific gravity using the empirical formula versus actual specific gravity measurements is presented in (Figure 14-13).

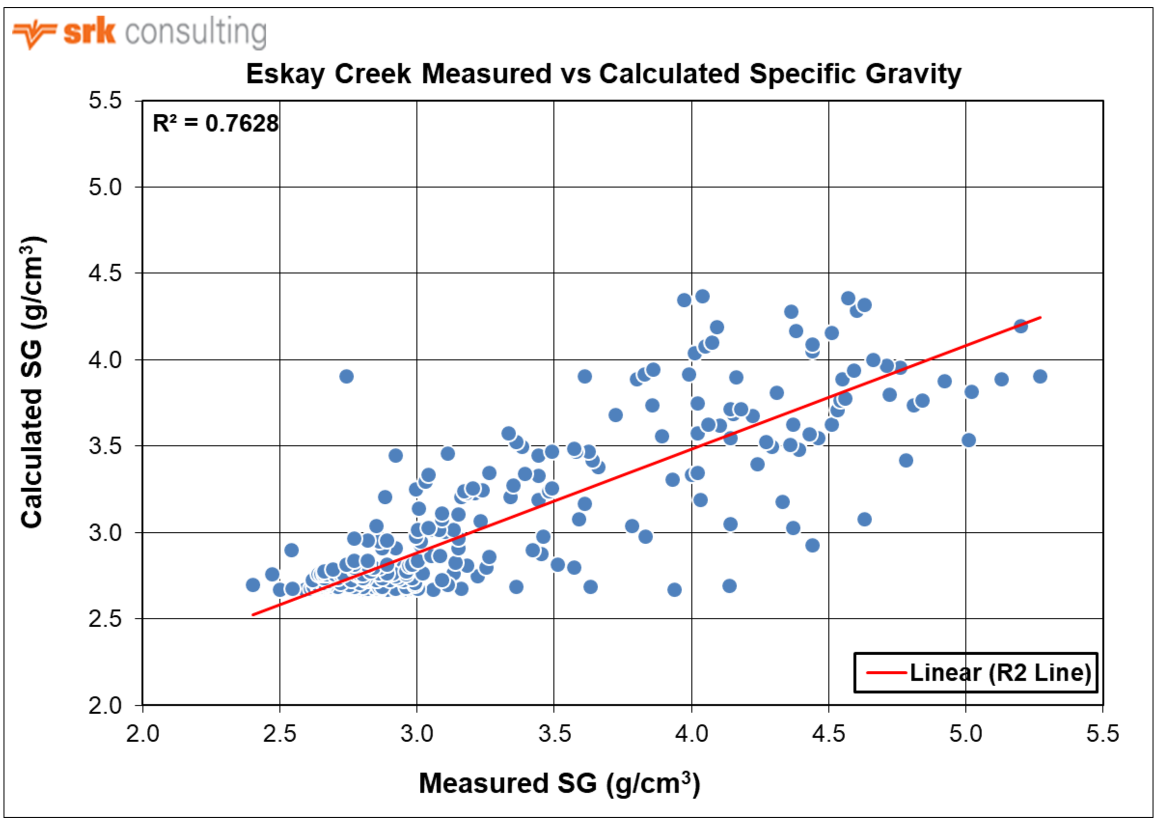


Figure 14-13: Measured versus calculated SG by empirical formula

Skeena appropriated the empirical density equation defined by the previous Operator and used it without modification for the 2019 MRE. Lead, zinc, copper and antimony were first interpolated into blocks using Inverse Distance Squared methodology (ID^2), and then densities in the block model were assigned. The ID^2 estimates used the same estimation parameters as those applied for gold, however the 3 m buffer was not utilized.

14.11 Block Model and Grade Estimation

The grade estimate for the 2019 MRE was constructed in two stages: (1) Open Pit modelling and, (2) Underground modelling. For the Open Pit model, grades were estimated in ten mineralization domains, and seven low-grade envelope domains. Three estimation domains below the bottom of the optimized resource pit were reported as underground resources. Each of the models were optimized based on the defining mining scenario, and the separate methodologies and parameters are described below.

14.11.1 Open Pit model

The block model geometry and extents used for grade estimation in the Open Pit model are summarized in Table 14-13.

Table 14-13: Details of the Open Pit block model dimensions and block size

	Bearing	Plunge	Dip	Start Offset			End Offset			Block Size		
				X	Y	Z	X	Y	Z	X	Y	Z
Parent	90	0	0	9300	8508	-50	963	3150	1500	9	9	4
Sub-block	90	0	0	9300	8508	-50	963	3150	1500	3	3	2

Ordinary Kriging (OK) was used to estimate gold and silver in all domains, except for the low-grade envelope domain where ID^2 interpolation was selected. Two-meter capped composites were used for the Open Pit model. Gold and silver grades within the mineralization domains were estimated in two successive passes with increasing search radii based on variogram ranges as outlined in Table 14-14 and Table 14-15. Pass 1 equalled 90% of the variogram range and Pass 2 equalled two times the variogram range. The nugget and first sill were updated for the 2 m composite variograms; all other variogram parameters remained the same as those derived from the 1 m composites.

The low-grade envelope domain was estimated using ranges and orientations inherited from variograms in the nearest mineralization domain using one pass.

Hard boundary interpolation was honoured, except in domains split by lithology and having similar orientations and structures. Between these zones a soft boundary was used (Table 14-14). A hard boundary was applied within the 3 m buffer domain to limit the spread of high-grade values from mined-out intervals into the remaining resources area.

Table 14-14: Gold grade estimation parameters by estimation zone

Est_Zone	Rock Type	Search Pass	Orientation	Gold Search Radii			Number of Composites		Max Composites per drill hole	Boundary
				X	Y	Z	Min	Max		
1	Predominantly Rhyolite	1	D1	25	10	5	3	10	2	HARD
2		1	D2	20	10	5	3	10	2	
3		1	D3	12.5	5	3	3	10	2	
4		1	D4	12.5	5	5	3	10	2	
5		1	D245	22.5	10	7.5	3	10	2	
6		1	D6	17.5	17.5	10	3	10	2	
8		1	Zone 22	25	17.5	15	3	10	2	
1000	Rhyolite	1 2	134/0/45	22.5 50	15.8 35	18 40	5 3	15 15	2 2	HARD
2010	Rhyolite	1 2	D245	34.2 76	19.4 43	9 20	5 3	15 15	2 2	SOFT 2010
2020	Mudstone	1 2	D245	20.3 45	9 20	9 20	5 3	15 15	2 2	SOFT 2020
3011	Rhyolite	1 2	D245 North	15.8 35	9 20	6.8 15	5 3	15 15	2 2	SOFT 3020
3012	Rhyolite	1 2	D245 South	20.3 45	9 20	9 20	5 3	15 15	2 2	SOFT 3020
3020	Mudstone	1 2	D245	20.3 45	11.3 25	5 11	5 3	15 15	2 2	SOFT 3011, 3012
4010	Rhyolite	1 2	D245	13.5 30	6.8 15	11.3 25	5 3	15 15	2 2	SOFT 4020
4020	Mudstone	1 2	D245	42.8 95	27 62	2.3 5	5 3	15 15	2 2	SOFT 4010
5010	Rhyolite	1 2	D3	15.8 35	9 20	4.5 10	5 3	15 15	2 2	HARD
5020	Mudstone	1 2	D3	11.3 25	4.5 10	2.7 6	5 3	15 15	2 2	HARD
6010	Rhyolite	1 2	D1	18 40	15.8 35	6.8 15	5 3	15 15	2 2	HARD
6020	Mudstone	1 2	D1	11.3 25	6.8 15	2.3 5	5 3	15 15	2 2	HARD
7022	Mudstone	1 2	D2	9 20	6.8 15	4.5 10	5 3	15 15	2 2	HARD
7023		1 2	D3	15.8 35	13.5 30	6.8 15	5 3	15 15	2 2	HARD
7025		1 2	D5	9 20	6.8 15	4.5 10	5 3	15 15	2 2	HARD
7026		1 2	D6	18 40	18 40	11.3 25	5 3	15 15	2 2	HARD
8010	Rhyolite	1 2	020/0/80	27 60	18 40	13.5 30	5 3	15 15	2 2	HARD
8012		1 2	D2	27 60	18 40	13.5 30	5 3	15 15	2 2	SOFT 8022
8015		1 2	D5	27 60	18 40	13.5 30	5 3	15 15	2 2	SOFT 8025
8016		1 2	D6	13.5 30	13.5 30	9 20	5 3	15 15	2 2	HARD
8022	Mudstone	1 2	D2	18.9 42	9 20	4.5 10	5 3	15 15	2 2	SOFT 8012
8025		1 2	D5	15.8 35	9.9 22	4.5 10	5 3	15 15	2 2	SOFT 8015
95	Rhyolite	1 2	350/-26/-44	18 40	9 20	4.5 10	5 3	15 15	2 2	HARD
99	Rhyolite	1 2	296/-54/172	20.3 45	9 20	9 20	5 3	15 15	2 2	HARD

* Dynamic Anisotropy (DA) using a structural surface.

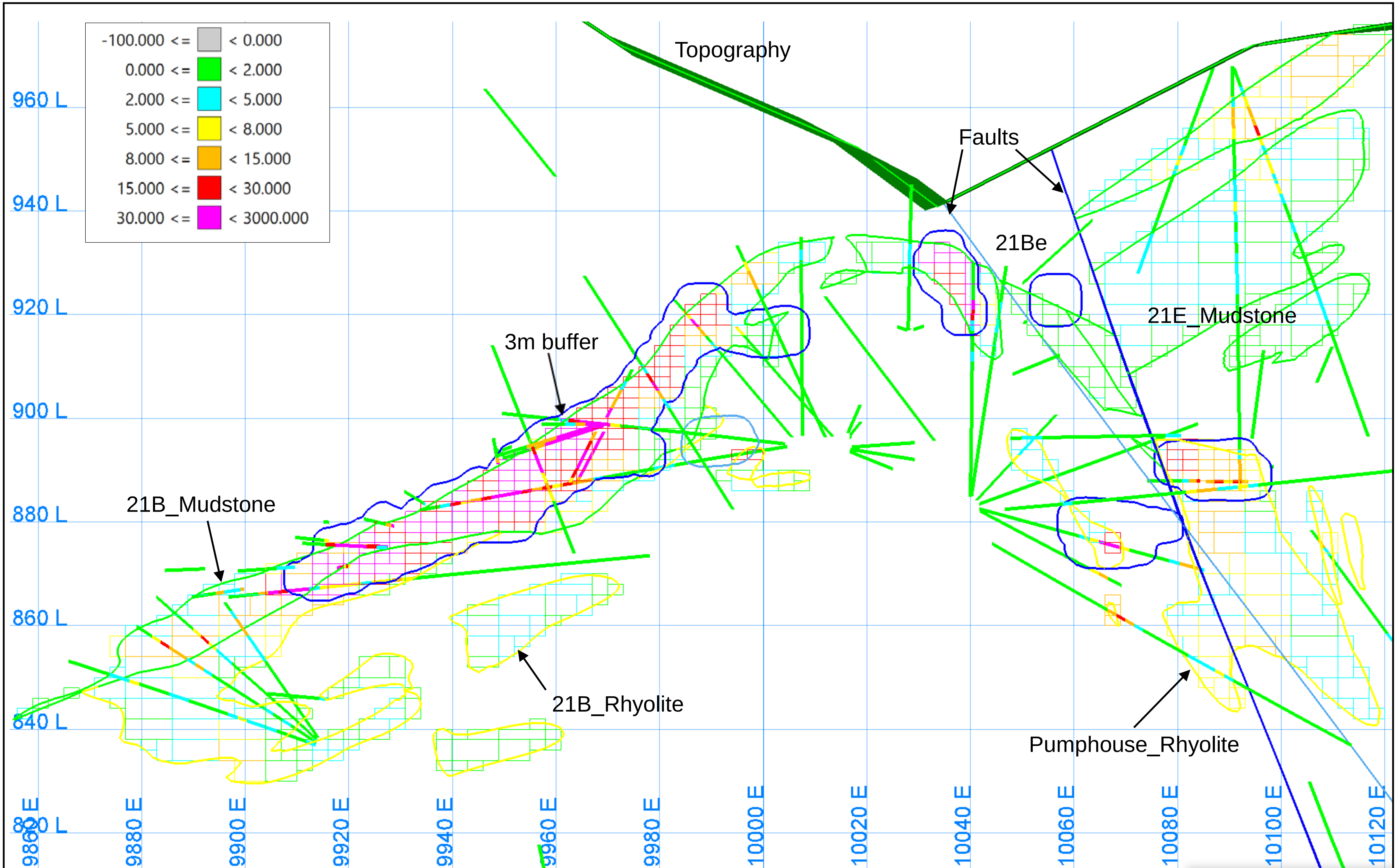
Table 14-15: Silver grade estimation parameters by estimation zone

Rock Type	Est_Zone	Search pass	Orientation	Silver			Number of Composites			Boundary
				X	Y	Z	Min	Max	Max Composites per drill hole	
Predominantly Rhyolite	1	1	D1	12.5	12.5	7.5	3	10	2	HARD
	2	1	D2	30	10	5	3	10	2	
	3	1	D3	20	10	5	3	10	2	
	4	1	D4	22.5	10	5	3	10	2	
	5	1	D245	22.5	15	5	3	10	2	
	6	1	D6	20	12.5	7.5	3	10	2	
	8	1	Zone 22	10	10	5	3	10	2	
Rhyolite	1000	1	135/0/45	9	9	4.5	5	15	2	HARD
		2		20	20	10	3	15	2	
Rhyolite	2010	1	D245	36	18	9	5	15	2	SOFT
		2		80	40	20	3	15	2	2010
Mudstone	2020	1	D245	7.7	7.7	7.7	5	15	2	SOFT
		2		17	17	17	3	15	2	2020
Rhyolite	3011	1	D245 North	18	13.5	13.5	5	15	2	SOFT
		2		40	30	30	3	15	2	3020
Rhyolite	3012	1	D245 South	18	13.5	11.3	5	15	2	SOFT
		2		40	30	25	3	15	2	3020
Mudstone	3020	1	D245	27	18	9	5	15	2	SOFT
		2		60	40	20	3	15	2	3011,3012
Rhyolite	4010	1	D245	29.3	27	4.5	5	15	2	SOFT
		2		65	60	10	3	15	2	4020
Mudstone	4020	1	D245	13.5	7.2	9	5	15	2	SOFT
		2		30	16	20	3	15	2	4010
Rhyolite	5010	1	D3	20.3	9	4.5	5	15	2	HARD
		2		45	20	10	3	15	2	
Mudstone	5020	1	D3	18	9	4.5	5	15	2	HARD
		2		40	20	10	3	15	2	
Rhyolite	6010	1	D1	11.3	13.5	4.5	5	15	2	HARD
		2		25	30	10	3	15	2	
Mudstone	6020	1	D1	11.3	10.4	10.4	5	15	2	HARD
		2		25	23	23	3	15	2	
Hangingwall Andesite	7022	1	D2	15.8	9	2.3	5	15	2	HARD
		2		15.8	9	2.3	3	15	2	
	7023	1	D3	13.5	9	2.3	5	15	2	HARD
		2		30	20	5	3	15	2	
	7025	1	D5	15.8	9	1.8	5	15	2	HARD
		2		35	20	4	3	15	2	
	7026	1	D6	54	22.5	11.3	5	15	2	HARD
		2		120	50	25	3	15	2	
Rhyolite	8010	1	020/0/80	29.3	10.8	5.9	5	15	2	HARD
		2		65	24	13	3	15	2	
	8012	1	D2	29.3	10.8	5.9	5	15	2	SOFT
		2		65	24	13	3	15	2	8022
	8015	1	D5	29.3	10.8	5.9	5	15	2	SOFT
		2		65	24	13	3	15	2	8025
	8016	1	D5	24.8	10.4	5.4	5	15	2	HARD
		2		55	23	12	3	15	2	
Mudstone	8022	1	D2	22.5	9	4.5	5	15	2	SOFT
		2		50	20	10	3	15	2	8012
	8025	1	D5	18	18	4.5	5	15	2	SOFT
		2		40	40	10	3	15	2	8015
Rhyolite	95	1	350/-26/-44	11.3	11.3	9	5	15	2	HARD
		2		25	25	20	3	15	2	
Rhyolite	99	1	296/-54/172	9	9	9	5	15	2	HARD
		2		20	20	20	3	15	2	

* D=Dynamic Anisotropy using a structural surface.

14.11.2 Open pit model - visual validation

Estimated block grades were assessed in plan and sectional view along with composite assay intervals. This method provides a local visual assessment of interpolated blocks in relation to the nearest composite. Figure 14-14 and Figure 14-15 show estimated AuEq block grades in relation to 2 m AuEq composite intervals in the 21B and 21A Domains, respectively. Overall, the data show good agreement and no obvious discrepancies between block grades and composites were observed.



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Section 10445N showing block grades vs 2m composites in the 21B and 21E Domains.

Job No: 2CS042.002

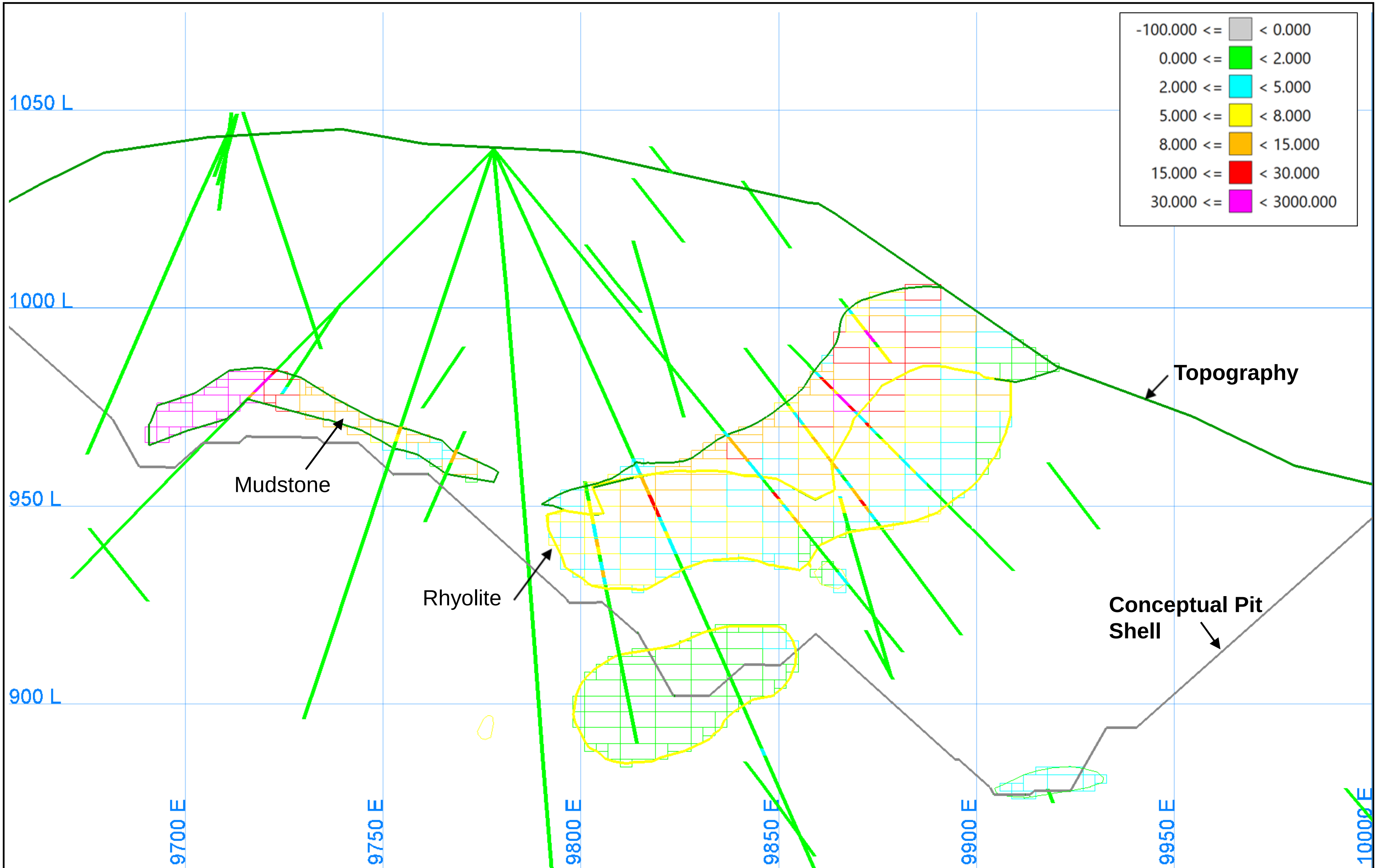
Filename: Figure 14.14 Visual Validation of 21B and 21E

Eskay Creek Au-Ag Project

Date: April 1, 2019

Approved: KD

Figure: **14.14**



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Section 10015N showing block grades vs 2m composites in the 21A Domain

Job No: 2CS042.002 Filename: Figure 14.15 Visual validation of the 21A Zone	Eskay Creek Au-Ag Project	Date: April 1, 2019	Approved: KD	Figure: **14.15**

14.11.3 Open pit model - comparison of interpolation models

Inverse distance (ID^2) and nearest neighbour (NN) models were produced to check for local biases. Although variable between zones, the overall bias was less than 1% for gold and 2% for silver in the Open Pit model. A summary of global bias between the ID^2, NN, and OK estimation methods for gold and silver by estimation zone are summarized in Table 14-16. The differences are within acceptable limits.

Composite statistics were derived using hard boundaries for all domains, however OK interpolation methods utilized either hard or soft boundary conditions. For domains that were estimated using soft boundaries, composite statistics do not fully correspond with block estimated statistics. For example, estimation zones 4010 and 4020 in the 21B Domain used a soft boundary across the rhyolite/mudstone contract.

14.11.4 Open pit model - swath plots

The model was checked for local trends in the grade estimate using swath plots within each domain. This was done by plotting the mean values from the ID^2, NN, and declustered composites against the OK estimate along north-south, east-west and horizontal swaths. The ID^2, NN and OK models show similar trends in grades with the expected smoothing for each method when compared to composite data. The observed trends show no significant metal bias in the estimate. Swath plots for gold and silver in the 21A Domain rhyolite and mudstones are illustrated in Figure 14-16 and Figure 14-17, respectively.

Table 14-16: Global bias check for gold and silver by estimation zone

Gold					
Est_Zone	**AUNN**	**AUID**	**AUOK**	**OK vs ID (%)**	**OK vs NN (%)**
1000	1.34	1.32	1.27	-3	-5
2010	2.11	2.11	2.10	-1	-1
2020	9.16	10.23	9.61	-6	5
3011	2.62	2.66	2.67	0	2
3012	4.10	4.36	4.31	-1	5
3020	2.72	2.69	2.66	-1	-2
4010	1.73	1.81	1.84	2	7
4020	3.04	3.12	3.15	1	4
5010	2.96	3.14	3.14	0	6
5020	2.62	2.59	2.59	0	-1
6010	2.04	1.98	1.94	-2	-5
6020	4.13	3.69	3.70	0	-10
7022	3.39	3.50	3.45	-1	2
7023	2.41	2.42	2.36	-2	-2
7025	2.78	2.96	2.86	-4	3
7026	2.61	2.57	2.54	-1	-3
8012	2.49	2.59	2.57	-1	3
8015	1.61	1.73	1.76	2	9
8016	2.22	2.29	2.23	-2	1
8022	3.21	3.12	3.08	-1	-4
8025	2.08	2.22	2.19	-1	5
9500	4.18	4.14	4.09	-1	-2
9900	4.01	3.88	3.85	-1	-4
			Total	**-1**	**1**

Silver					
Est_Zone	**AUNN**	**AUID**	**AUOK**	**OK vs ID (%)**	**OK vs NN (%)**
1000	43.86	47.59	47.43	0	8
2010	43.97	43.72	43.65	0	-1
2020	132.09	135.70	128.47	-5	-3
3011	25.50	26.20	27.11	3	6
3012	81.54	83.13	80.37	-3	-1
3020	93.63	101.13	97.72	-3	4
4010	25.69	29.99	30.22	1	18
4020	60.74	63.98	62.20	-3	2
5010	92.39	95.64	95.98	0	4
5020	50.00	50.18	48.42	-4	-3
6010	69.97	72.55	69.63	-4	0
6020	163.45	151.00	151.58	0	-7
7022	75.89	69.38	65.72	-5	-13
7023	98.21	111.25	107.28	-4	9
7025	138.66	154.66	160.45	4	16
7026	63.63	61.26	59.00	-4	-7
8012	48.98	48.35	49.19	2	0
8015	36.75	37.18	37.26	0	1
8016	42.33	46.84	45.38	-3	7
8022	62.12	54.35	54.96	1	-12
8025	43.92	40.74	38.35	-6	-13
9500	79.88	81.80	79.55	-3	0
9900	9.31	9.62	9.61	0	3
			Total	**-2**	**1**

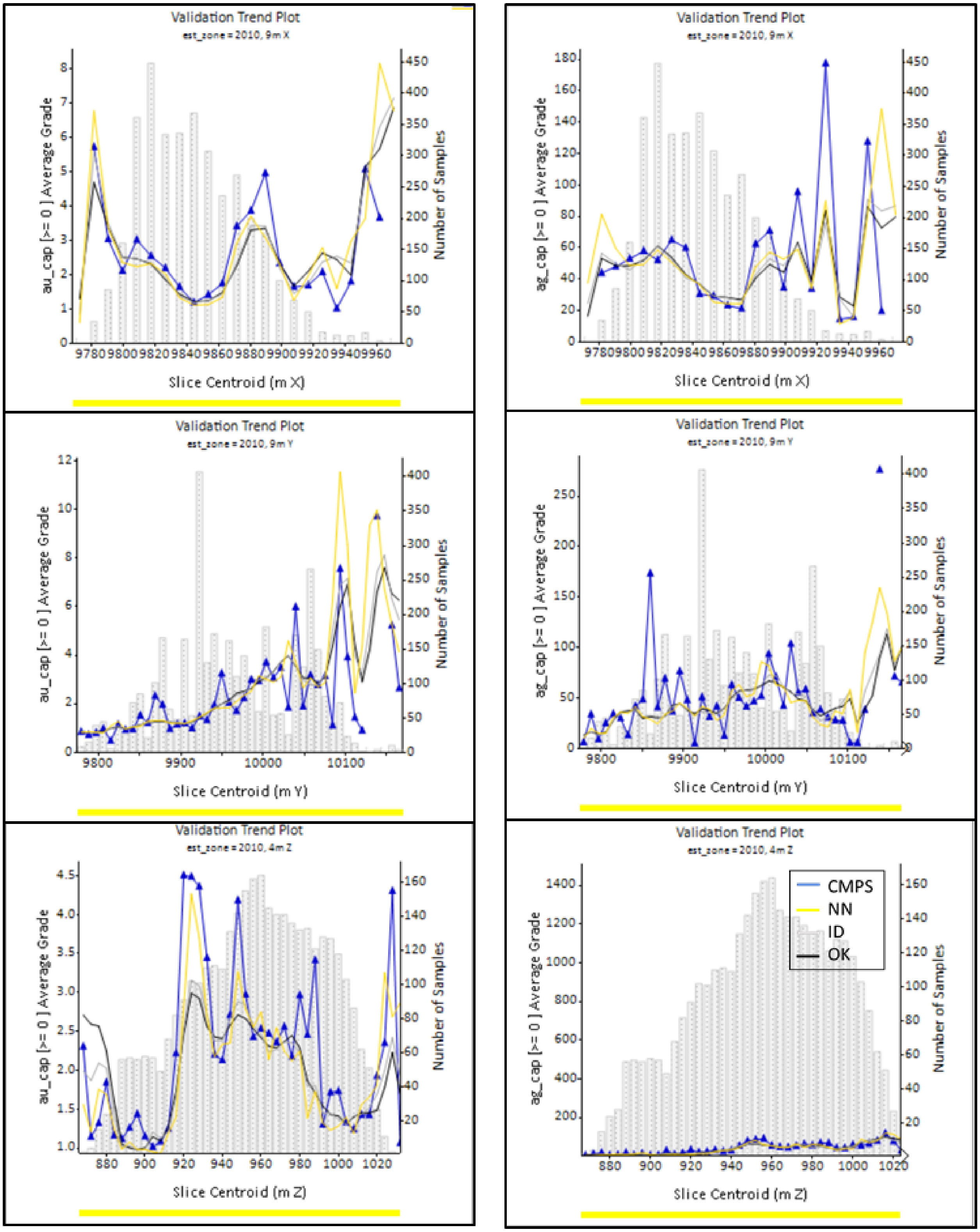


Figure 14-16: Swath plot for gold (left) and silver (right) in Est_Zone 2010 - 21A Rhyolite, (top) Northing, (middle) Easting, (bottom) Elevation

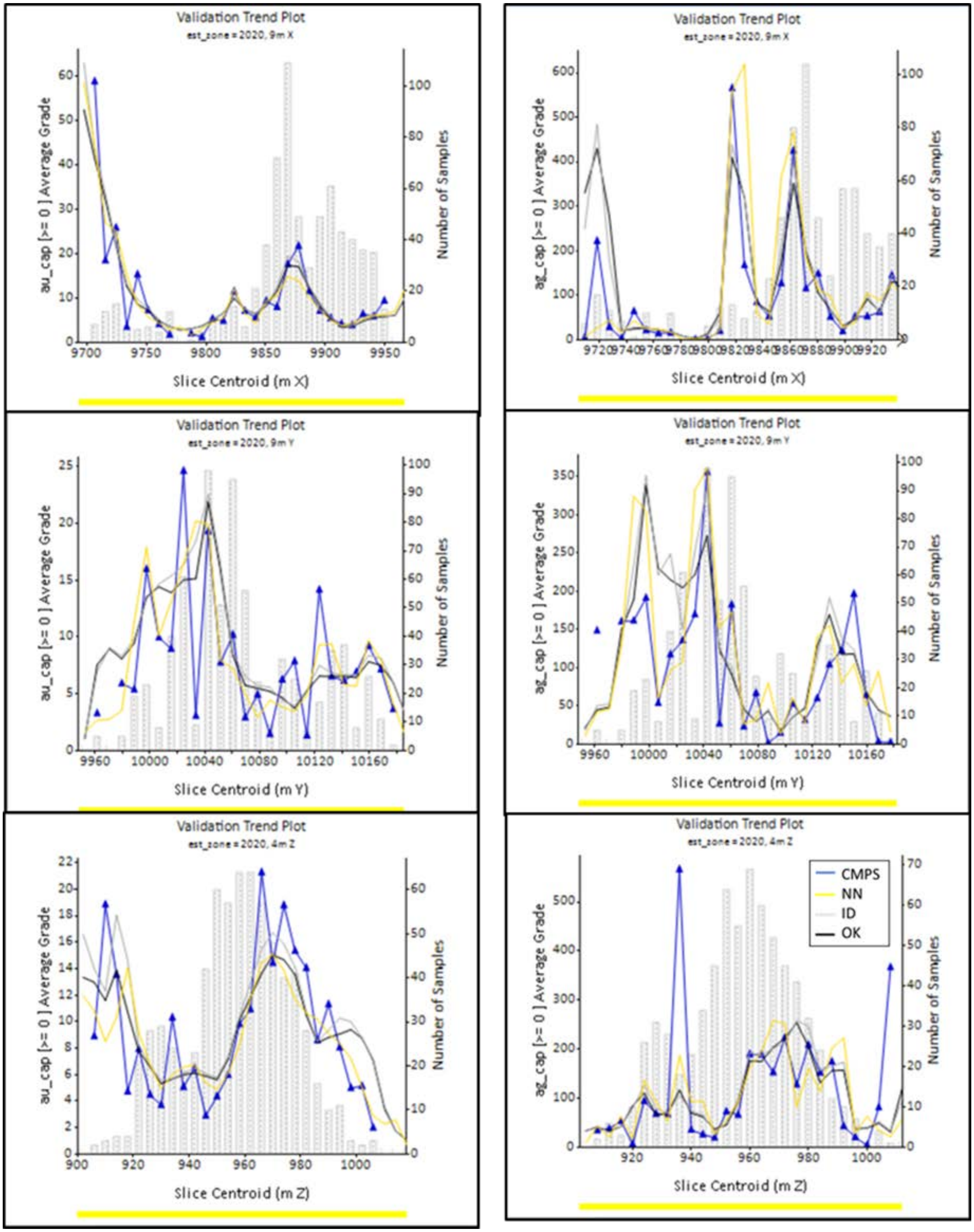


Figure 14-17: Swath plot for gold (left) and silver (right) in Est_Zone 2010 – 21A Mudstone, (top) Northing, (middle) Easting, (bottom) Elevation

14.11.5 Underground model

The block model geometry and extents used for grade estimation in the underground model are summarized in Table 14-17.

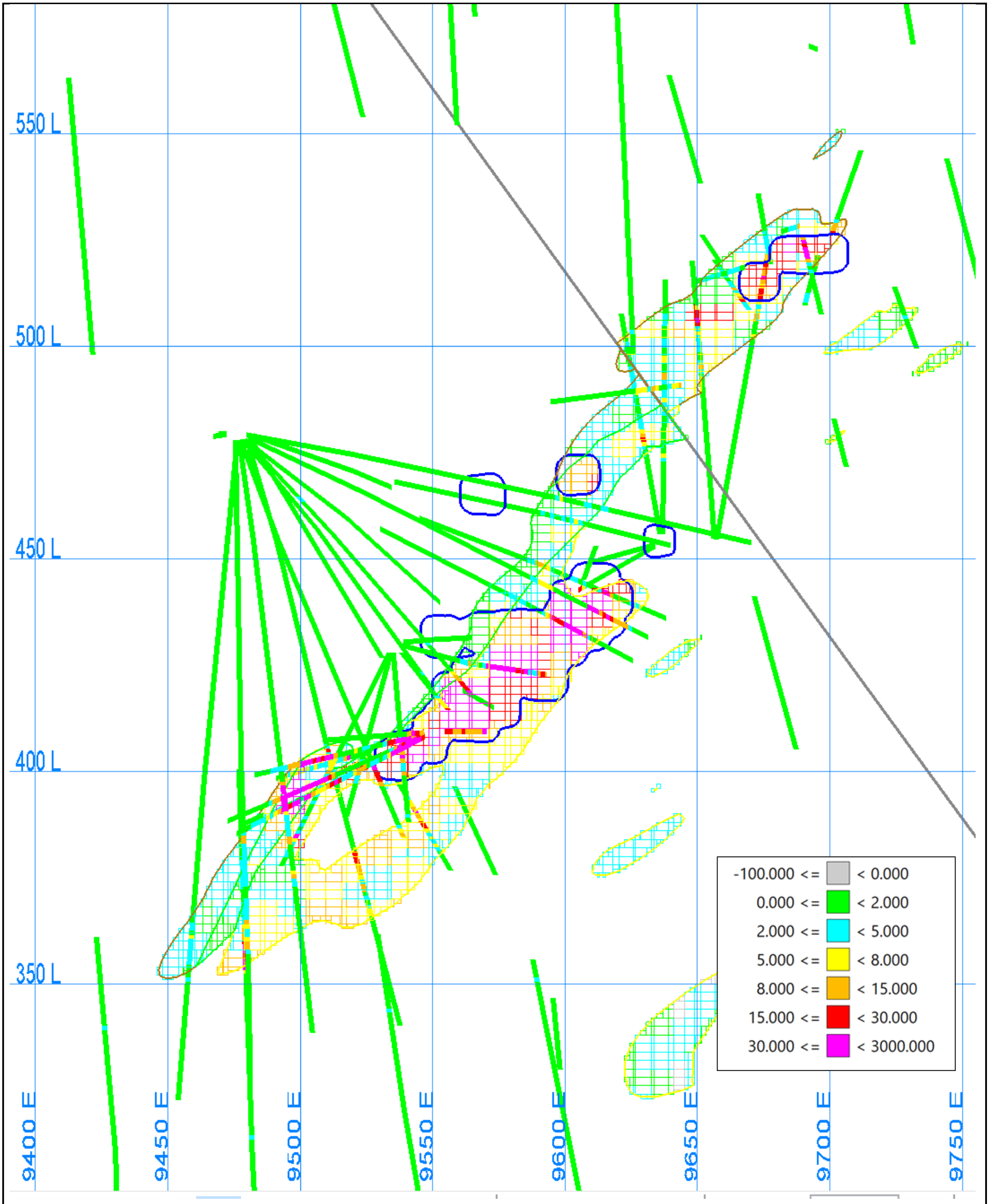
Table 14-17: Details of block model dimensions and block size for the Underground model

	Bearing	Plunge	Dip	Start Offset			End Offset			Block Size		
				X	Y	Z	X	Y	Z	X	Y	Z
Parent	90	0	0	9300	8508	-50	963	3150	1500	3	3	2
Sub-block	90	0	0	9300	8508	-50	963	3150	1500	1	1	1

Three domains were captured within the Underground model: 22, NEX and HW Zones. Ordinary Kriging (OK) was used to estimate gold and silver in all three domains. One-meter capped composites were used for the Underground model. Gold and silver grades within mineralized domains were estimated in two successive passes with increasing search radii. Pass 1 approximated 90% of the variogram range and Pass 2 equalled two times the variogram range. Hard boundary interpolation was honoured, except in domains having similar orientation and structure split only by lithology; between these zones a soft boundary was applied. Hard boundaries were used for composites within the 3 m buffer domain to limit the effect of high-grade smearing from mined out intervals. Hard and soft boundaries were used and are domain specific. Dynamic anisotropy was applied where domains were folded using search ellipses established from 1 m variograms. For Pass 1 a minimum of 5 and maximum of 10 composites were used per block. For Pass 2, a minimum of 3 and maximum of 10 composites were used per block. A maximum of two composites per drill hole was specified for both passes. The same 3 m buffer solid was used as the depletion zone for reporting remaining resources. All other parameters remained the same.

14.11.6 Underground model - visual validation

A visual inspection of the block estimates with drill hole composites in plan and cross-section was performed as a first pass check on the estimates. Good agreement between the composite grades and block estimates was observed, as well as suitably oriented estimates relative to dynamic anisotropy surfaces (Figure 14-18).



srk consulting	SKEENA RESOURCES LTD.	Oblique view of HW/NEX showing blocks and 1m composites.		
Job No: 2CS042.002 Filename: Figure 14.18 Visual Validation of Underground	Eskay Creek Au-Ag Project	Date: March 28, 2019	Approved: K. Dilworth	Figure: **14.18**

14.11.7 Underground model – comparison of interpolation models

To validate the OK estimates, gold and silver were estimated using ID^2 and NN models to assess for global bias. Although variable between zones, the overall bias was less than 3% for gold and 3% for silver in the Underground model. A difference of more than +/-10% was used as a guideline to indicate bias or significant over or underestimation. As seen in Table 14-18, the results are within acceptable limits.

14.11.8 Underground model - swath plots

As part of the validation process, composite samples were compared with block model grades in three principal directions to assess for grade and local trend discrepancies. The observed block trends follow the overall composite trends as was expected. Figure 14-19 and Figure 14-20 show OK, ID^2, NN and declustered composites for the HW and NEX zones for gold and silver grades, respectively.

Table 14-18 Global bias gold and silver by zone.

Gold					
Est_Zone	**AUNN**	**AUID**	**AUOK**	**OK vs ID (%)**	**OK vs NN (%)**
7022	2.70	2.63	2.63	0	-3
7026	2.48	2.48	2.45	-1	-1
8012	1.70	1.76	1.74	-1	2
8015	1.43	1.50	1.53	2	7
8016	2.08	2.23	2.20	-1	6
8022	3.08	3.15	3.12	-1	1
8025	2.11	2.22	2.24	1	6
			Total	**0**	**3**

Silver					
Est_Zone	**AUNN**	**AUID**	**AUOK**	**OK vs ID (%)**	**OK vs NN (%)**
7022	54.79	54.31	52.47	-3	-4
7026	62.45	58.30	56.08	-4	-10
8012	29.26	28.14	28.34	1	-3
8015	34.14	30.93	32.69	6	-4
8016	38.70	41.69	41.67	0	8
8022	57.52	53.31	52.98	-1	-8
8025	49.47	49.03	49.69	1	0
			Total	**0**	**-3**

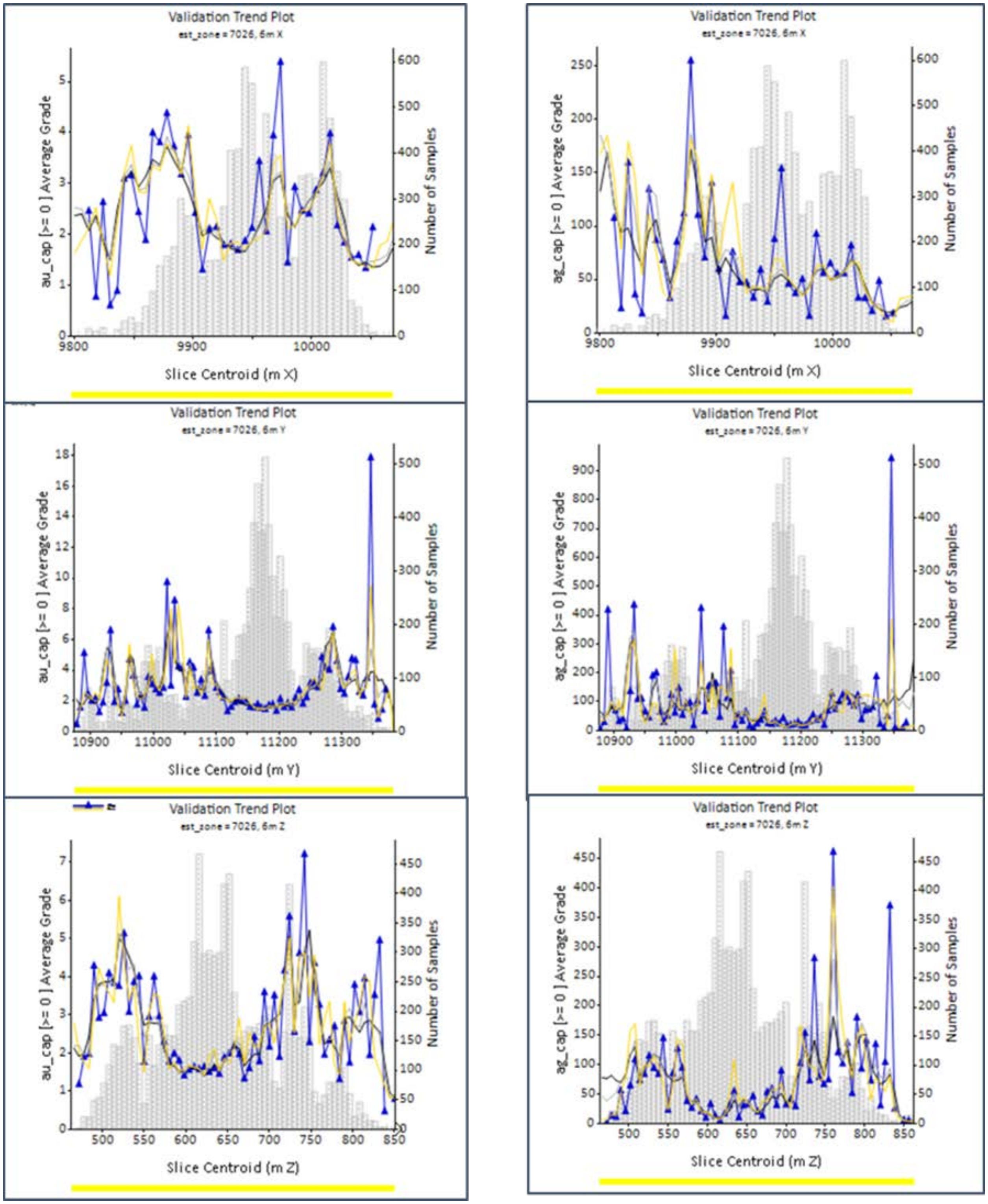


Figure 14-19: Swath plot for gold (left) and silver (right) in Est_Zone 7026 – HW – Mudstone/HW Andesite, (top) Northing, (middle) Easting, (bottom) Elevation

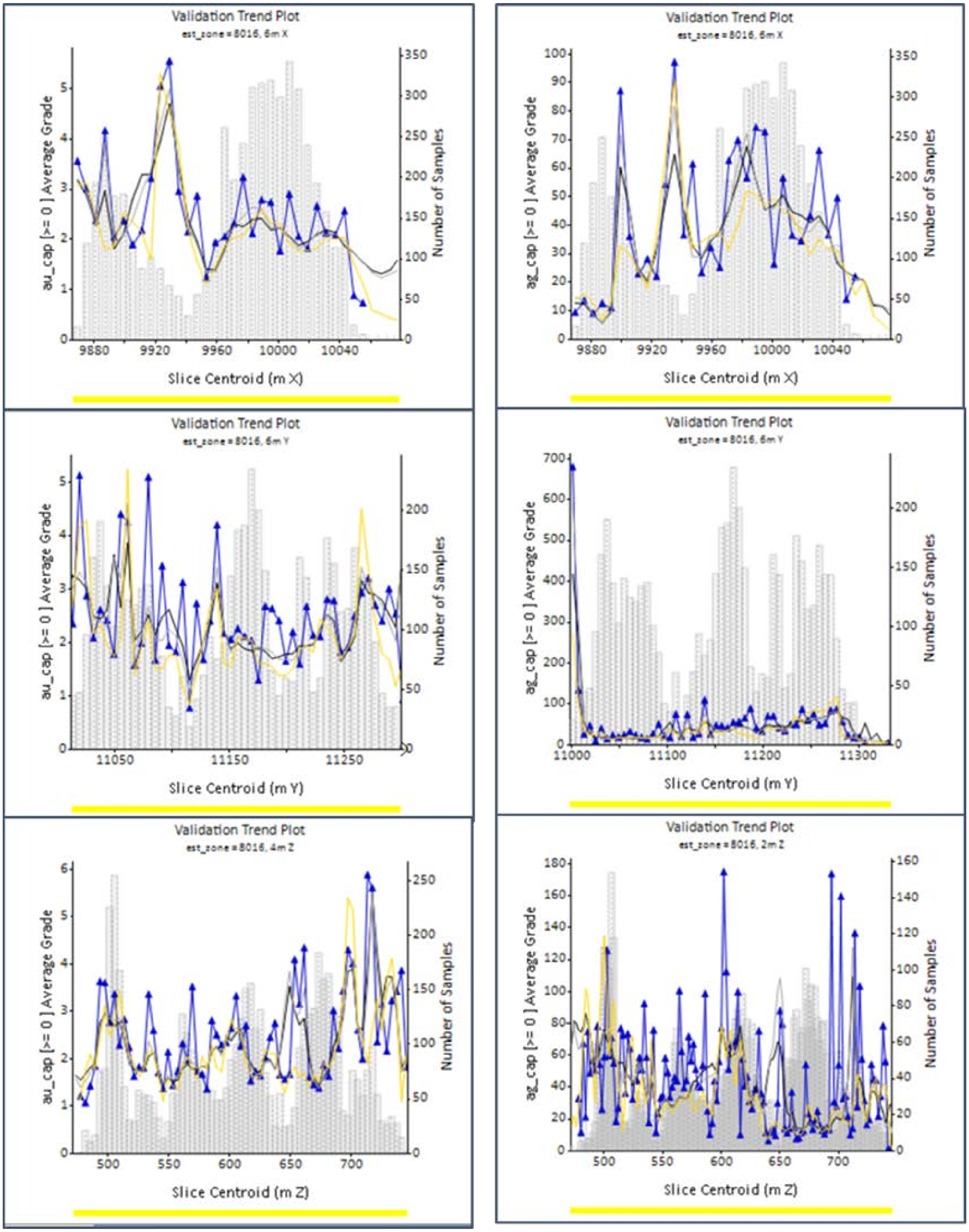


Figure 14-20: Swath plot for gold (left) and silver (right) in Est_Zone 8016 – NEX- Rhyolite, (top) Northing, (middle) Easting, (bottom) Elevation

14.12 Rhyolite versus Mudstone Estimates

The majority of remaining mineralization at Eskay Creek is hosted in the rhyolite facies feeder structures which are not enriched in the exhalative epithermal suite of elements (Hg-As-Sb). Preferential historical development and mining of the bonanza grade mineralization hosted in the mudstone has resulted in extensive depletion of resources in this rocktype. The 2019 pit constrained MRE indicates that on a tonnage weighted basis, 70% of the resource is hosted within the rhyolite facies with only 30% hosted in the remaining unmined mudstone/hanging all andesite. On an ounce weighted basis, 60% of the pit constrained resource is contained within the rhyolite with the remaining 40% hosted within the contact mudstone/hanging wall andesite.

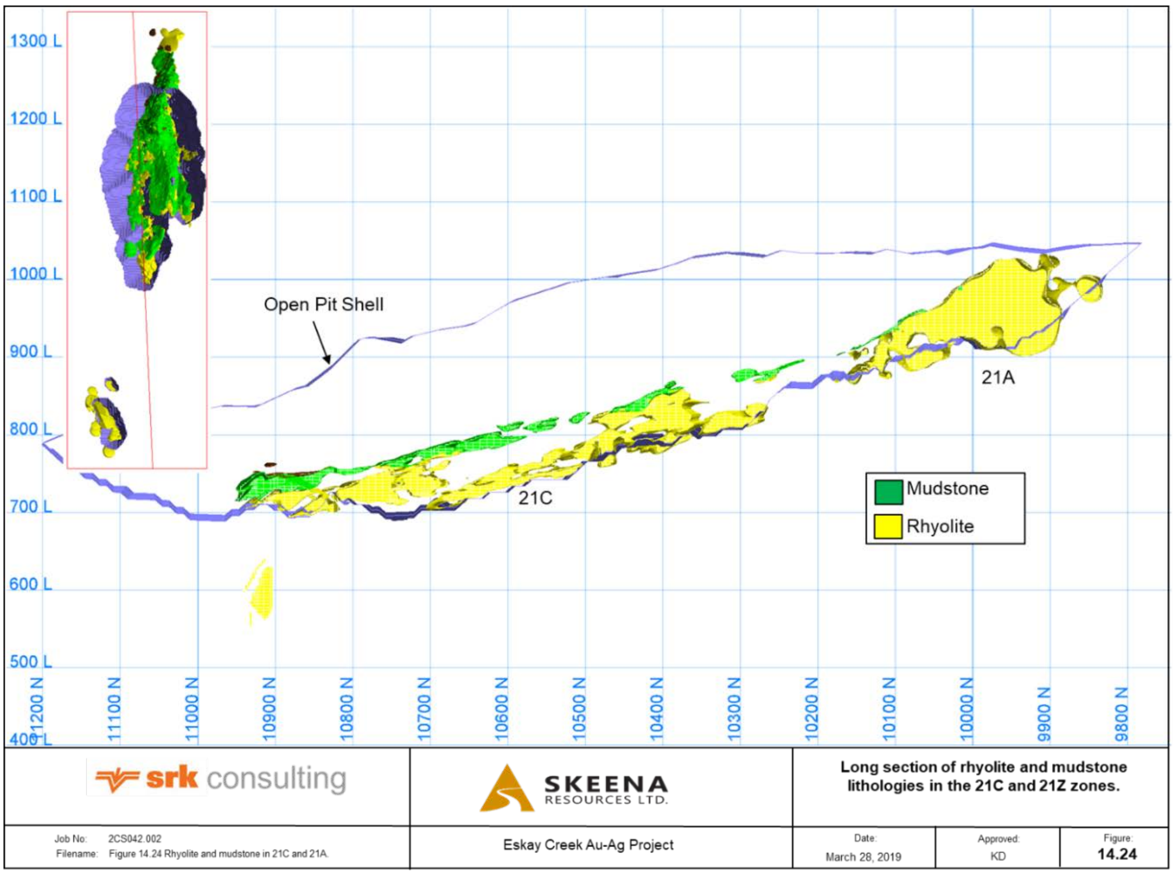


Figure 14-21: Breakdown of rhyolite and mudstone lithologies in the 21C and 21A Domains

14.13 Mineral Resource Classification

Block model quantities and grade estimates for the Eskay Creek Project were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves.

Mineral resource classification is typically a subjective concept. Industry best practices suggest that resource classification should consider the following: the confidence in the geological continuity of the mineralized structures, the quality and quantity of exploration data supporting the estimates, and the geostatistical confidence in the tonnage and grade estimates. Appropriate classification criteria should aim at integrating all above requirements to delineate regular areas at similar resource classification.

SRK is satisfied that the geological model honours the current geological interpretation and knowledge of the deposit. The location of the samples and the assay data are sufficiently reliable to support resource evaluation.

For mineralization exhibiting good geological continuity using adequate drill hole spacing, SRK considers that blocks estimated during the first estimation pass at 90% of the variogram range may be classified in the Indicated category. For those blocks, the level of confidence is adequate for evaluating the economic viability of the deposit, as well as suitable for assessing technical and economic parameters to support mine planning.

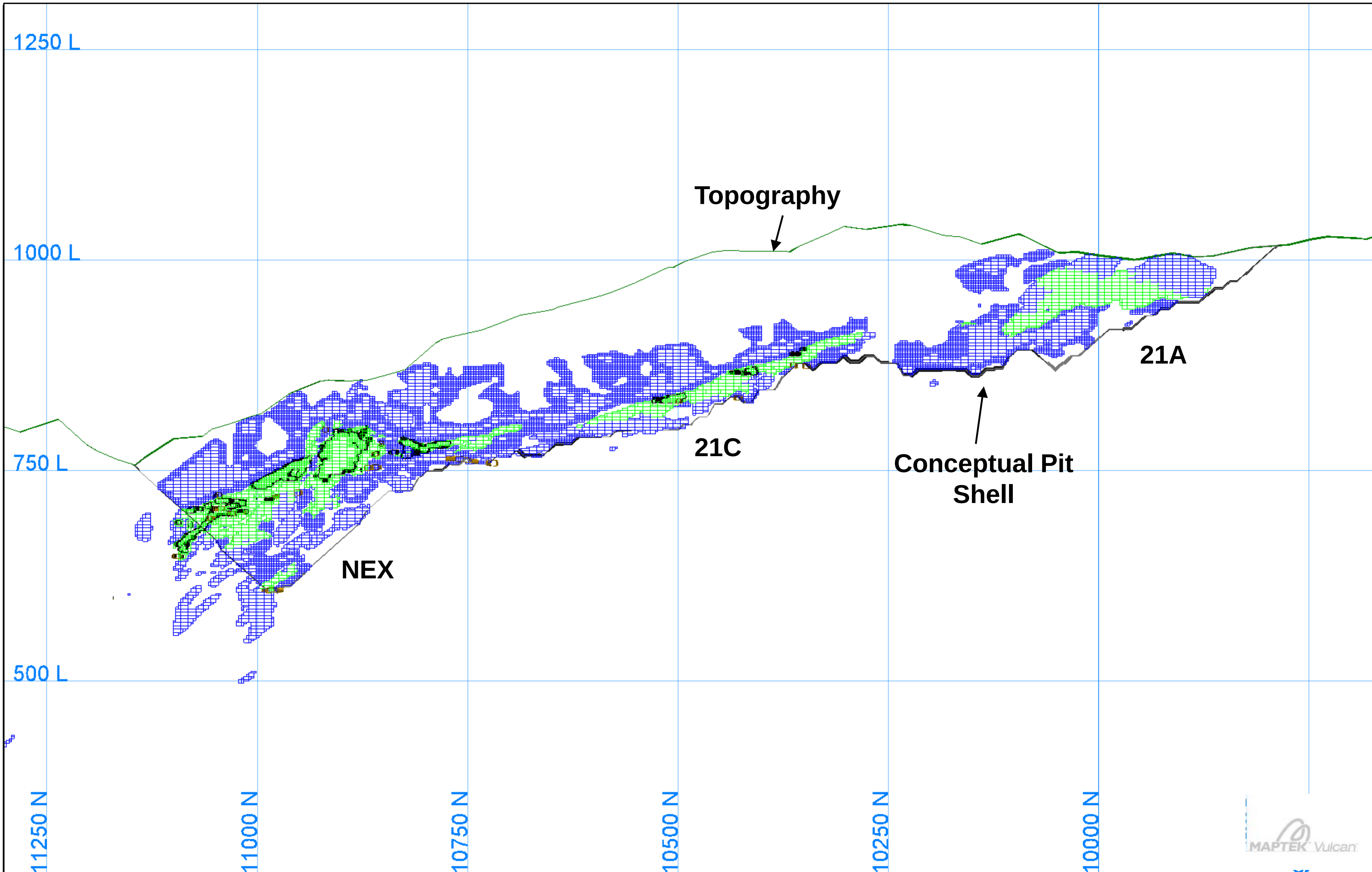
For blocks estimated during the second pass, which uses search distances twice the variogram range, the blocks may be classified in the Inferred category. For those blocks, the level of confidence is inadequate for evaluating the economic viability of the deposit, as well as unsuitable for assessing technical and economic parameters to support mine planning.

All interpolated blocks coded during Pass 1 and Pass 2 were assigned to the Inferred category during the first stage of Classification.

Blocks were reclassified in a second stage if they met the following conditions:

- Blocks interpolated during Pass 1 using a minimum of 3 holes and a maximum distance of 43 m to a drill hole showing reasonable grade and continuity were reclassified to Indicated;
- All blocks within the 3 m buffer domain around the high-grade, mined-out areas were reclassified to Indicated;
- In areas where blocks were interpolated during Pass 1, but continuity was insufficient or blocks were isolated, the blocks were reclassified to Inferred on a visual basis.

Figure 14-22 shows the distribution of the Indicated and Inferred resources in the pit constrained Open Pit model.



Indicated
Inferred
Underground workings

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Longitudinal section of the Open Pit resource classification

Job No: 12CS042.002	Eskay Creek Au-Ag Project	Date: April 2, 2019	Approved: KD	Figure: **14.22**
Filename: Figure 14.22 Classification.pptx				

14.14 Mineral Resource Statement

The QP for the resource estimate is Ms. S. Ulansky, Senior Resource Geologist, PGeo (EGBC#36085), an employee of SRK Consulting. The QP for the Pit optimization and mining assumptions is Mr. G. Carlson, Senior Mining Engineer, PEng (EGBC#142651), an employee of SRK Consulting.

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 10, 2014) defines a mineral resource as:

"(A) concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling".

The "reasonable prospects for economic extraction" requirement generally imply that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade considering extraction scenarios and processing recoveries. To meet this requirement, SRK considers that major portions of the Eskay Creek Project are amenable to open pit extraction, and minor areas are amenable to underground mining.

To determine the quantities of material offering "reasonable prospects for economic extraction" by open pit methods, SRK used a Pit optimizer and reasonable mining assumptions to evaluate the proportion of the block model (Indicated and Inferred blocks) that could be "reasonably expected" to be mined from an Open Pit.

The optimization parameters were selected based on experience, and benchmarking against similar projects (Table 14-19). The reader is cautioned that the results from the Pit optimization are used solely for testing "reasonable prospects for economic extraction" by open pit methods and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the Eskay Creek Project. The results are used as a guide to assist in the preparation of a mineral resource statement and to select an appropriate resource reporting cut-off grade.

Table 14-19: Assumptions considered for conceptual Open Pit optimization

Parameter	Value	Unit
Overall Pit Wall Angles	45	degrees
Mining Cost	2	US$ per tonne mined
Processing Cost	15	US$ per tonne of feed
General and Administrative	5.75	US$ per tonne of feed
Mining Dilution	5	percent
Mining Recovery	95	percent
Gold Process Recovery	80	percent
Silver Process Recovery	90	percent
Sell Price Gold	1275	US$ per ounce
Sell Price Silver	17	US$ per ounce
Sell Cost	30	US$ per ounce
In Situ Cut-Off-Grade	0.56	grams per tonne
Combined Strip Ratio	7.5 : 1	unitless

The block model quantities and grade estimates were also reviewed to determine the portions of the Eskay Creek Project having “reasonable prospects for economic extraction” using an underground mining scenario. The parameters are summarized in Table 14-20.

Table 14-20: Assumptions considered for underground resource reporting

Parameter	Value	Unit
Mining costs	79.25	US$ per tonne mined
Process cost	15	US$ per tonne of feed
General and Administrative	5.75	US$ per tonne of feed
Process recovery Au	80	percent
Process recovery Ag	90	tonne feed per year
Sell Price Gold	1275	US$ per ounce
Sell Price Silver	17	US$ per ounce
Sell Cost	30	US$ per ounce

The cut-off grade for the Open Pit model, using the parameters presented in Table 14-19, was determined to be 0.56 g/t AuEQ. The underground cut-off grade, using the parameters presented in Table 14-20, was determined to be 4.2 g/t AuEQ. At the request of Skeena, the cut-off grades applied for the resource statement were increased to 0.7 g/t AuEQ for the Open Pit and 5.0 g/t AuEQ for the underground resource.

The mineral statement for the Open Pit constrained resources is presented in Table 14-21 and the mineral statement for the Underground model and resources is presented in Table 14-22. The reported underground resources are exclusive of the resources reported in the conceptual pit shell. In addition, all potential resources that occur within 1 m of any historical workings in the Open Pit model were excluded from the reported resource. In the Underground model, all potential resources that occur within 3 m of any historical working were excluded from the resource.

Table 14-21 shows the pit constrained resources at a 0.7 g/t AuEQ cut-off outside of the 1 m geotechnical exclusion zone. Table 14-22 shows the remaining underground resources above the 5.0 g/t AuEQ cut-off outside the 3 m buffered historical workings, and exclusive of the pit constrained resource.

Table 14-21: Open Pit constrained* Mineral Resource Statement reported at 0.7g/t AuEQ cut-off grade

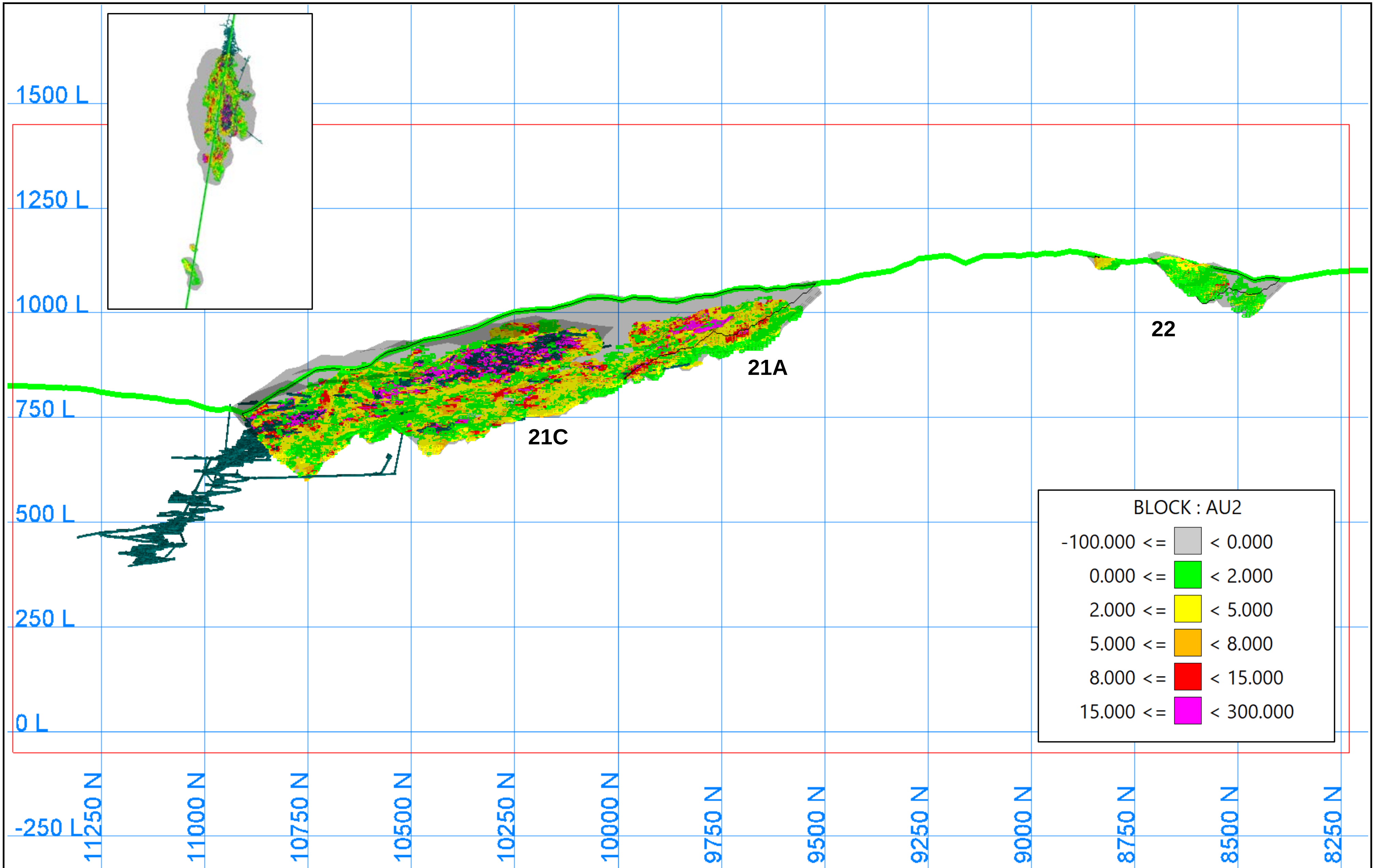
		Grade			Contained Ounces		
	Tonnes	AuEQ	Au	Ag	AuEQ	Au	Ag
	(000)	g/t	g/t	g/t	oz (000)	oz (000)	oz (000)
Total Indicated	12,711	6	4.5	117	2,455	1,818	47,791
Total Inferred	13,557	2.8	2.2	42	1,230	984	18,455

Table 14-22: Underground* Mineral Resource Statement reported at a 5.0 g/t AuEQ cut-off grade

		Grade			Contained Ounces		
	Tonnes	AuEQ	Au	Ag	AuEQ	Au	Ag
	(000)	g/t	g/t	g/t	oz (000)	oz (000)	oz (000)
Total Indicated	819	8.2	6.4	139	218	169	3,657
Total Inferred	295	8.2	7.1	82	78	68	778

* Notes to accompany the Mineral Resource Estimate statement:

- These mineral resources are not mineral reserves as they do not have demonstrated economic viability. Results are reported in-situ and undiluted and are considered to have reasonable prospects for economic extraction.
- As defined by NI 43-101, the Independent and Qualified Person is Ms. S Ulansky, PGeo of SRK Consulting (Canada) who has reviewed and validated the Mineral Resource Estimate.
- The effective date of the Mineral Resource Estimate is February 28, 2019.
- The number of metric tonnes and ounces were rounded to the nearest thousand. Any discrepancies in the totals are due to rounding.
- Pit constrained Mineral Resources are reported in relation to a conceptual Pit shell.
- Reported underground resources are exclusive of the resources reported within the conceptual Pit shell.
- Block tonnage was estimated from volumes using a density formula that applied using interpolated Pb, Zn, Cu, and Sb. This density formula was derived from the historical operator. $SG = (Pb + An + Cu + Sb) * 0.03491 + 2.67$ (where all metals are reported in %)
- All composites have been capped where appropriate.
- Open Pit mineral resources are reported at a cut-off grade of 0.7 g/t AuEQ and underground mineral resources are reported at a cut-off grade of 5.0 g/t AuEQ.
- Cut-off grades are based on a price of US$1275 per ounce of gold, US$17 per ounce silver, and gold recoveries of 80%, silver recoveries of 90% and without considering revenues from other metals. $AuEQ = Au\,(g/t) + (Ag\,(g/t)/75)$
- Estimates use metric units (meters, tonnes and g/t). Metals are reported in troy ounces (metric tonne * grade / 31.10348)
- CIM definitions were followed for the classification of mineral resources.
- Neither the company nor SRK is aware of any known environmental, permitted, legal, title-related, taxation, socio-political, marketing or other relevant issue that could materially affect this mineral resource estimate.



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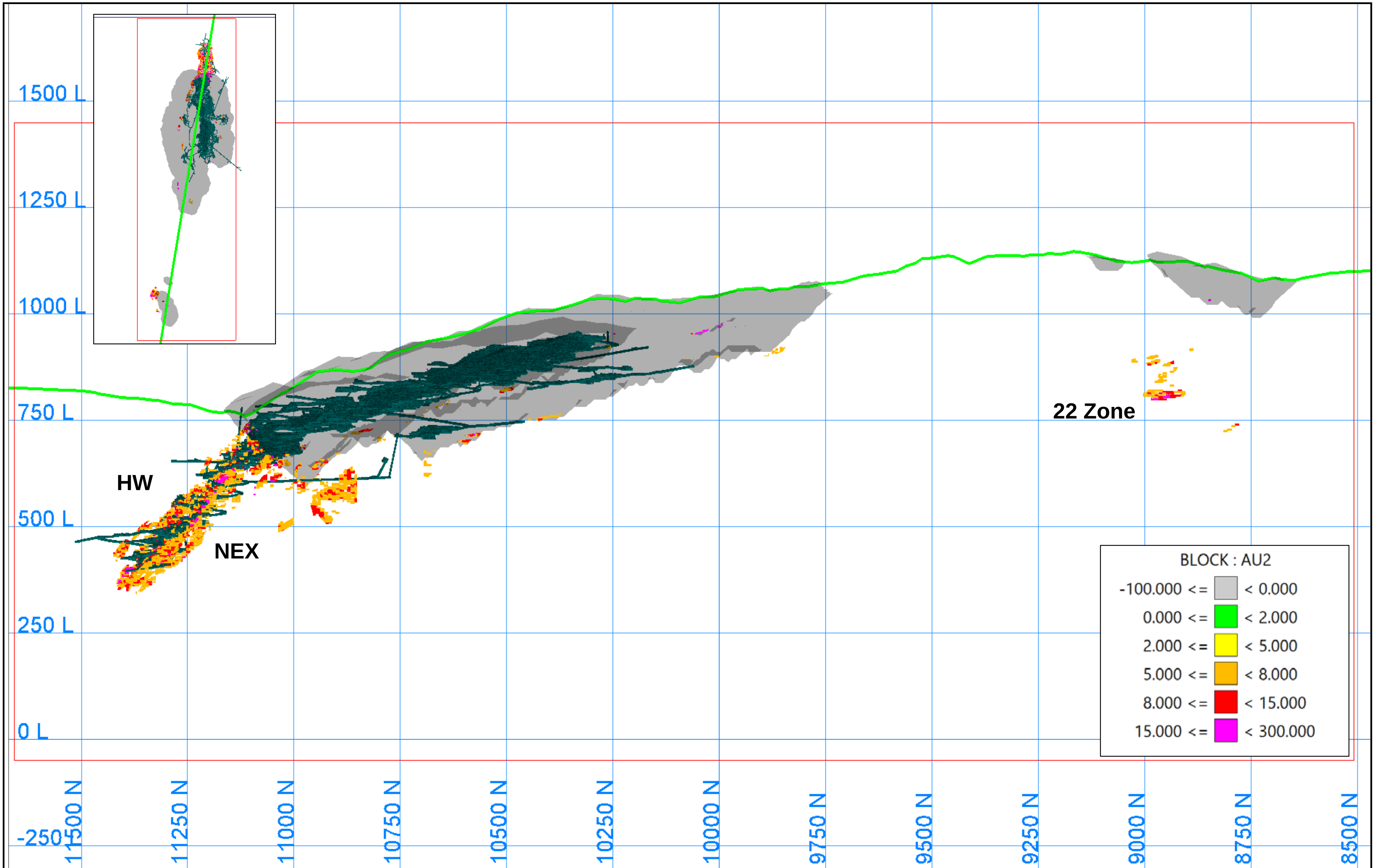
2019 Open Pit Constrained Resources

Job No: 2CS042.002 Filename: Figure 14.23 Open Pit Resource.pptx	Eskay Creek Au-Ag Project	Date: March 28, 2019	Approved: KD	Figure: **14.23**



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2019 Underground Resources Remaining

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Eskay Creek Au-Ag Project

Date: March 28, 2019

Approved: KD

Figure: **14.24**

14.15 Grade Sensitivity Analysis

The Eskay Creek Mineral Resources were assessed in terms of cut-off grade selection by means of sensitivity analyses. Global block model quantities and grade estimates within the conceptual open pit are presented in Table 14-23 at different cut-off grades. The resource is not sensitive to minor adjustments in cut-off grade selection; average ore zone grades are substantially higher than the selected cut-offs and a significant difference in tonnage and ounces is not demonstrated.

The reader is cautioned that the figures presented in this table should not be misconstrued with a Mineral Resource Statement apart from the official scenario at 0.7 g/t AuEQ.

Table 14-23: Block model quantities and grade estimates for the Open Pit constrained resource at the Eskay Creek Project using variable cut-off grades.

		Grade			Contained Ounces		
AuEQ Cut-off	**Tonnes**	**AuEQ**	**Au**	**Ag**	**AuEQ**	**Au**	**Ag**
g/t	**(000)**	**g/t**	**g/t**	**g/t**	**oz (000)**	**oz (000)**	**oz (000)**
Indicated Category							
>0.5	12,872	5.90	4.4	116	2,459	1,821	47,821
>0.7	12,711	6.00	4.5	117	2,455	1,818	47,791
>0.9	12,302	6.20	4.6	121	2,445	1,809	47,683
Inferred Category							
>0.5	15,480	2.50	2	38	1,266	1,013	18,939
>0.7	13,557	2.80	2.2	42	1,230	984	18,455
>0.9	12,086	3.10	2.5	46	1,192	952	17,989

* The reader is cautioned that the figures in this table should not be misconstrued with a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of cut-off grade.

Table 14-24 presents global block model quantities and grade estimates within the underground resource model at different cut-off grades. The underground scenario is sensitive to adjustments in cut-off grade selection due to the high average grades in this area.

The reader is cautioned that the figures presented in this table should not be misconstrued with a Mineral Resource Statement apart from the official scenario at 5.0 g/t AuEQ.

Table 14-24: Block model quantities and grade estimates for the Underground resources at the Eskay Creek Project using variable cut-off grades.

		Grade			Contained Ounces		
AuEQ Cut-off	**Tonnes**	**AuEQ**	**Au**	**Ag**	**AuEQ**	**Au**	**Ag**
g/t	**(000)**	**g/t**	**g/t**	**g/t**	**oz (000)**	**oz (000)**	**oz (000)**
Indicated Category							
>4.5	982	7.70	6.0	128	243	189	4,038
>5.0	819	8.20	6.4	139	218	169	3,657
>5.5	680	8.91	6.9	151	195	151	3,301
Inferred Category							
>4.5	343	7.72	6.64	81	85	73	894
>5.0	295	8.20	7.1	82	78	68	778
>5.5	233	9.00	7.77	91	67	58	686

* The reader is cautioned that the figures in this table should not be misconstrued with a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of cut-off grade.

14.16 Reconciliation to Previous Mineral Resource Model

A comparison between the 2019 and 2018 Mineral Resource Statements is shown in Table 14-25 and Table 14-26 for the Open Pit constrained and Underground models, respectively.

Table 14-25: 2019 vs 2018 Resource Comparison for the Open Pit constrained mining scenario

		Grade			Contained Ounces		
Model Year	**Tonnes (000)**	**AuEQ (g/t)**	**Au (g/t)**	**Ag (g/t)**	**AuEQ Ounces (000)**	**Au Ounces (000)**	**Ag Ounces (000)**
Indicated							
2019	12,711	6	4.5	117	2,455	1,818	47,791
2018	1,088	5.9	4.9	72	207	173	2,533
Inferred							
2019	13,557	2.8	2.2	42	1,230	984	18,455
2018	4,261	4.3	3.3	72	589	458	9,805

Table 14-26: 2019 vs 2018 Mineral Resource Statements for the Underground mining scenario

		Grade			Contained Ounces		
Model Year	**Tonnes (000)**	**AuEQ (g/t)**	**Au (g/t)**	**Ag (g/t)**	**AuEQ Ounces (000)**	**Au Ounces (000)**	**Ag Ounces (000)**
Indicated							
2019	819	8.2	6.4	139	218	169	3,657
2018	2513	10.1	7.2	215	814	582	17,340
Inferred							
2019	295	8.2	7.1	82	78	68	778
2018	812	10	7.2	214	261	187	5590

The large changes in the 2019 MRE Resource is a direct function of the change in mining scenario. The 2019 mineral resources are principally Open Pit constrained resources, whereas the 2018 mineral resources were primarily reported as Underground resources. In additional, several changes were made to the 2019 estimation methodology, including:

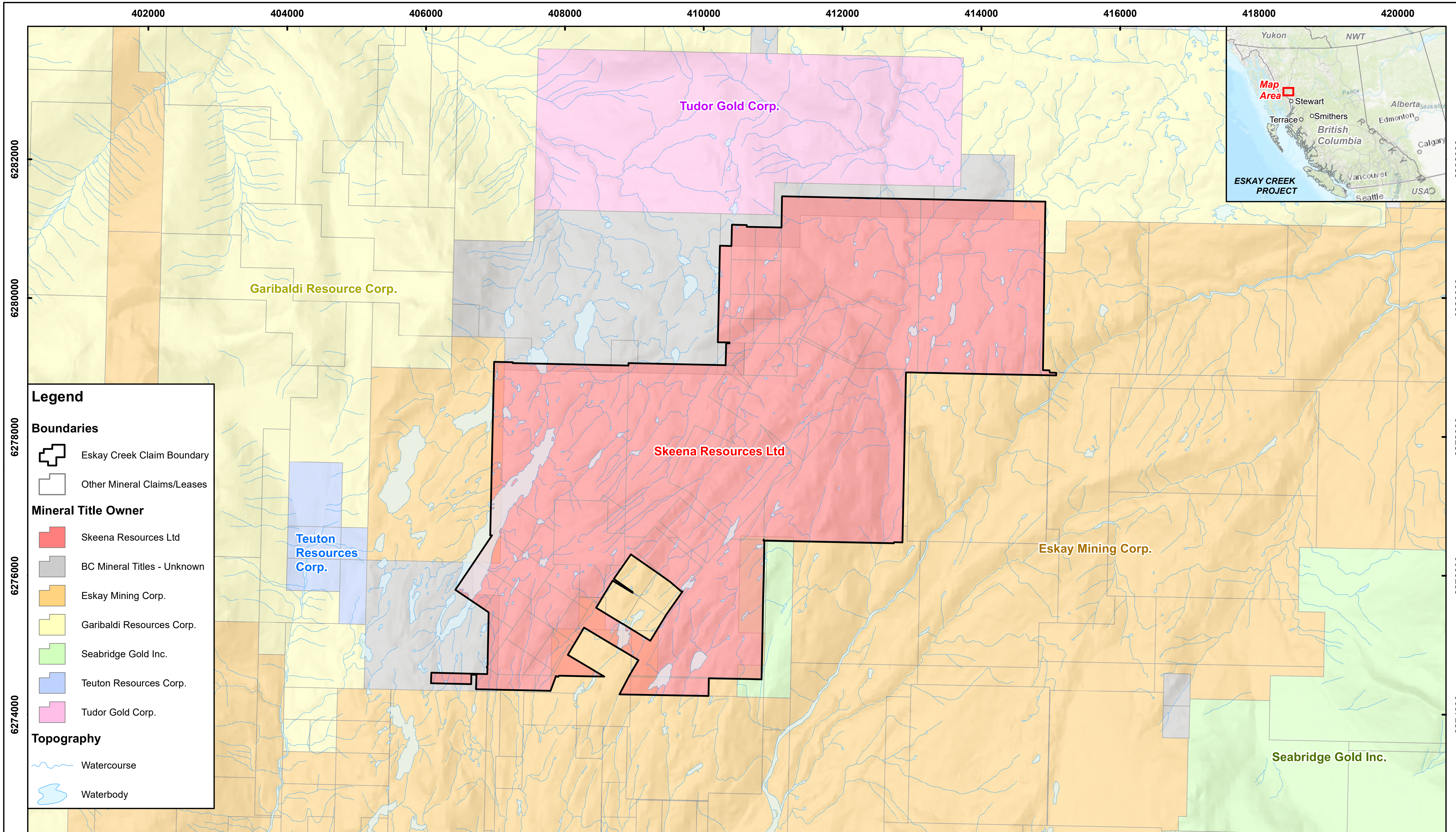
- Updated geological and resource domain modelling;
- Inclusion of a 3 m buffer around the high-grade, mined-out stopes and lifts to limit the influence of the high-grade samples on the remaining resources;
- Revised and enhanced geostatistical inputs such as variograms, capping values and estimation parameters by principal rock type;
- 46 additional drill holes from the 22, 21A and 21C Zones;
- A change in classification strategy where the minimum number of holes required for the Indicated category was reduced from 5 to 3;
- A change in classification strategy where the minimum number of holes required for the Inferred category was reduced from 3 to 2;
- The geotechnical buffer zone around the mined-out stopes and/or lifts in the Open Pit model was reduced from 3 m to 1 m;
- The cut-off grades for the Open Pit resources was reduced from 1.0g/t AuEq to 0.7 g/t AuEq;
- The cut-off grade for the Underground mineral resource was reduced from 5.5 g/t AuEq to 5.0 g/t AuEq.

15 Adjacent Properties

Notable third-party properties in the Iskut River region are summarized in Table 15-1. Adjacent properties to the Eskay Creek Project are shown in Figure 15-1. The information listed has been taken from documents readily available on the respective company websites and BC MINFILE. Although the information below was publicly disclosed by the Owner or Operator of the adjacent properties, the QP has not audited the associated technical data and the information is not necessarily indicative of the mineralization on the Property that is the subject of this Technical Report.

Table 15-1: Summary table of notable third-party properties in the Iskut River region

Project Name	Owner/Operator	Status	Year	Classification	Cut-off Grade	Tonnes (000)	Average Grades				Source
							Au (g/t)	Ag (g/t)	Cu (%)	Mo (%)	
Brucejack	Pretium Resources Inc.	In Production	2016	Proven & Probable	$180/t	15.6	16.1	11.1	-	-	Ireland et al., (2014)
KSM	Seabridge Gold Inc.	Development Project	2016	Proven & Probable	$9/t	2,198	0.55	2.6	0.21	42.6	Ghaffari et al., (2016)
Galore Creek	Teck Resources Ltd./NOVAGOLD Resources Inc. JV	Development Project	2011	Proven & Probable	$11.96/t	528	0.32	6.02	0.59	-	Gill et al., (2011)
Schaft Creek	Teck Resources Ltd./Copper Fox Metals Inc. JV	Development Project	2013	Proven & Probable	$6.6/t	940.8	0.19	1.72	0.27	0.018	Farah et al., (2013)
Red Mountain	IDM Mining Ltd.	Development Project	2018	Measured & Indicated	3.00 g/t Au	2.771	7.91	22.75	-	-	Doerksen et al., (2017)
Project Name	**Owner/Operator**	**Status**	**Production Years**	**Million Tonnes**	**Historical Production**				**Au (Moz)**	**Ag (Moz)**	
					Au (g/t)	**Ag (g/t)**	**Cu (%)**	**Mo (%)**			
Snip	Skeena Resources Ltd.	Past Producer, Exploration	1991-1999	1.308	24.53	9.31	0.02	-	1.03	0.39	BC MINFILE (2018)
Johnny Mountain	Seabridge Gold Inc.	Past Producer, Exploration	1988-1990, 1993	0.227	12.38	19.14	0.44	-	0.09	0.14	BC MINFILE (2018)
PROJECT NAME	**Owner/Operator**	**Status**	**Comments**								
E & L	Garibaldi Resources Inc.	Exploration	Significant exploration interest in 2017 on reports of nickel sulphide mineralization intersected in 14 drill holes. Geophysics and follow-up drilling planned for 2018.								Company website
KSP	Colorado Resources Ltd.	Exploration	308 km^2 land package targeting porphyry Cu-Au and mesothermal Au veins; 11,824 m drilling completed in 2017; 4,500 m drilling planned for 2018.								Company website
Corey	Eskay Mining Corp.	Exploration	2018 exploration work will consist of airborne geophysics and ground based follow up programs targeting similar mineralization as encountered on Garibaldi's adjacent E & L property.								Company website
Treaty Creek	Tudor Gold Corp./American Creek Resources Ltd./Teuton Resources Corp.	Exploration	Work in 2017 consisted of 13,722 m drilling to define the Copper Belle target; future work will to focus on expanding the footprint of the mineralized system, understand what kind of system is present and work towards a preliminary resource assessment.								Company website
Kirkham	Metallis Resources Inc.	Exploration	Recent airborne VTEM airborne geophysical survey and follow-up work in 2018 to focus on evaluating potential for VMS, shear vein hosted, porphyry and magmatic nickel sulphide mineralization.								Company website
SIB	Eskay Mining Corp./SSR Mining Inc.	Exploration	12 drill holes completed in 2017 apparently confirmed similar stratigraphic units as those which host the Eskay Creek deposit, located approximately 8 km along strike to the northeast. Additional drilling will be completed in 2018. SSR Mining is to spend $11.7 M in exploration expenditures to earn a 51% interest in the property.								Company website



Skeena Resources Ltd.
Date: 29-Mar-19
Figure: 15-1
Author: M.Mayer
Filename: 190329_EC_AdjacentPropertiesFig15-1.mxd

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Eskay Creek Au-Ag Project

Figure 15-1: Adjacent Properties

Skeena Mining Division - NTS 104B09
British Columbia, Canada

16 Other Relevant Data and Information

There is no other relevant data available about the Eskay Creek Project.

17 Interpretation and Conclusions

The objective of SRK's scope of work was to perform a review of the Resource Estimate for the Eskay Creek Project and validate the results. This technical report and the Mineral Resources presented herein meet these objectives.

17.1 Mineral Tenure, Surface Rights, Agreements, and Royalties

The information provided by Skeena supports the conclusion that the mining tenure held is valid.

17.2 Geology and Mineralization

- The Eskay Creek deposit is a precious and base metal-rich VMS deposit, hosted in volcanic and sedimentary rocks of the Lower to Middle Jurassic Hazelton Group. Mineralization is contained in several stratiform, disseminated and stock work vein zones that display a wide variety of textural and mineralogical characteristics. In addition to extremely high precious metal grades, Eskay Creek is distinguished from conventional VMS deposits by its association with elements of the 'epithermal suite' (Sb-Hg-As) and the dominance of clastic sulphides and sulfosalts.
- The understanding of the regional geology, lithological and structural controls of the mineralization on the Eskay Creek Project are sufficient to support estimation of Mineral Resources.

17.3 Exploration, Drilling and Data Analysis

- A considerable amount of surface and underground drilling has been completed on the property by various companies since the 1930s. No historical drill core remains for any zones at Eskay Creek. Skeena compiled and reviewed the available historical data to build a validated database to support the current Mineral Resource Estimate. This database includes 7,583 drill holes totalling 651,332 meters.
- In 2018, 46 drill holes totalling 7,737 m was drilled in the 22, 21A and 21C Zones.
- The quantity and quality of the lithological, collar and down-the-hole survey data collected are sufficient to support Mineral Resources. Sample data density and distribution is adequate enough to build meaningful litho-structural models reflective of the overall deposit type.
- SRK reviewed the database and is of the opinion that historical sample preparation, security and analytical procedures met industry-standard practices. SRK also believes that the Skeena validated database is of a standard that is acceptable for creating an unbiased, representative Mineral Resource Estimate of the Eskay Creek deposit.
- SRK reviewed the analytical quality control data accumulated for the Eskay Creek deposit between 1997 and 2004. An analysis of the historical QAQC programs confirmed that sample bias was negligible. SRK confirms that gold and silver grades are reasonably well reproduced and reliable for resource estimation purposes.

- SRK reviewed the analytical quality control data from the 2018 drilling campaign and found no obvious errors or bias.

17.4 Metallurgy

- Recovery percent for gold and silver, per mining area, has been obtained directly from reports by the previous Operator written during their active phase of mining. These recovery factors have been applied into the Mineral Resource Estimate by Skeena and are considered acceptable and appropriate.
- The 21A and 21B Zones hosted within the Contact Mudstone unit are geologically and geochemically equivalent, containing high concentrations of arsenic, mercury and antimony. The 21B Zone accounted for the bulk of mineralization historically mined at Eskay Creek, whereas the 21A Zone remains unmined. In the 21B Zone, smelter penalties were often prevented by blending ore with a concentrated sulfosalt assemblage with ore having lower concentrations. This allowed the mine to maintain profitable head grades while diluting penalty elements. Deleterious elements are of little significance outside the 21A and 21B Zones. Significant unmined mineralization exists in the 21C, 22 and PMP Zones, which contain low levels of arsenic, mercury and antimony; here mineralization occurs in proximal feeder structures in the footwall rhyolite.
- Despite the substantial precious metal grades and potential base metal credits of the 21A Zone it was historically uneconomic to mine. High smelter penalties and prevailing low commodity prices were factors that halted mining ambitions. In addition, antimony was treated as a penalty element which contributed to the unfavourable economics of the 21A Zone at the time; however, market conditions have changed since then and there is now the potential to offer antimony by-product credits.
- Metallurgical characterization and testing is currently ongoing with results anticipated in Q2, 2019.

17.5 Mineral Resource Estimation

- The Mineral Resource estimation was performed for the primary commodities of interest: gold and silver. Lead, copper, zinc and antimony are potentially valuable by-products worth incorporating into future Mineral Resource estimates. Including base metals and antimony into the mineral inventory will require a complete re-assessment of the estimation domains, as well as favourable up-to-date metallurgical results.
- Block tonnage was estimated using the density formula that was applied using estimated lead, zinc, copper and antimony grades. Skeena is currently re-evaluating the specific gravity results from the Phase 1 drilling program.
- SRK considers mineralization at the Eskay Creek Project to have reasonable prospects for economic extraction, in both open pit zones (22, 21A, 21B, 21E, 21Be, HW, NEX, PMP and 109) and the remaining underground zones (22, NEX and HW). Underground resources occur immediately adjacent to or within 100 m of existing underground infrastructure and, although

all historical drift and fill stopes have been backfilled, any potential resources that occur within three meters of any historical working were excluded from the reported resource.

- The calculated pit constrained cut-off grade was determined to be 0.56 g/t AuEQ and the underground cut-off grade was determined to be 4.2 g/t AuEQ, where $AuEQ = Au\,(g/t) + [Ag\,(g/t)/75]$. At the request of Skeena, the resources are reported at a higher cut-off grade to add a level of conservatism to the result.
- In the open pit constrained resource, approximately one third of the contained metal at a 0.7 g/t AuEQ cut-off grade, is classified as Inferred. It is reasonable to expect that the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued drilling.

18 Recommendations

Continually reaching for improvements during the drilling and sampling process, as well as looking for ways to enhance the geological and resource models, is a priority at Eskay Creek. By improving the data collection process and fine-tuning the geological model, assay data will be partitioned in a way that most reasonably represents the presiding mineralization controls. This in turn will refine the mineral resource estimation result. The following recommendations aim to add value to future programs:

- Future drilling programs will continue to maintain rigorous QAQC measures such as those taken during the 2018 drilling program. The addition of field duplicates will complete the QC measures needed to fully test the sampling process;
- As drilling and mapping progresses, geological understanding and interpretations will improve. This knowledge will be used to enhance future lithological, alteration, mineralization and structural models;
- The current SG sampling process at Eskay Creek is to conduct on-site density determinations using the water displacement method. Future drill programs should adopt a method of independently analysing a percentage of the SG samples;
- The density model relies on an empirical formula determined by the previous Operator using only a small number of real SG values from across the property. Additional SG measurements from all major lithology types and at variable grade ranges are needed to modify and/or refine future density models;
- With the recently completed LiDAR survey, there is the opportunity of incorporating the results into future structural modelling interpretations. The more detailed LiDAR results will also be used as the final topographic surface in future model runs;
- Geotechnical inspections of the underground workings will need to be completed to determine rock conditions immediately adjacent to, and within, the mined-out solids; measurements that are needed for adjusting the depletion buffer zone appropriately;
- A priority for current and future programs at Eskay Creek is to assess the metallurgy of the deposit to ascertain and gauge economic risk due to the high levels of penalty elements. The 21A and 21B Zones are of importance as they contain the highest grades;
- The status of antimony as an economic element has yet to be established. The 21A Zone contains appreciable grades of antimony, which may be of benefit to future mining operations;
- Historical mining processes and procedures need to be understood fully so that future mining activities are built upon this knowledge and experience;
- Gaps in the historical data set exist because documents were moved several times and stored in multiple locations over a 10-year time frame. To conduct a full reconciliation of all mined material these documents will need to be retrieved and compiled;

- With the interest in base metals and deleterious metals as economic elements and penalty elements, respectively, there is be a need to treat these populations in a spatially unique way, and remodel them accordingly;
- Determine if a relationship exists between base metals (or their ratios) and some other detectable feature (such as colour, sample size and/or radiometric characteristics) such that bulk ore sorting can be implemented at the pre-mining stage; and
- Begin implementing a program to determine if a relationship between rock mass structure and head grade exists. Knowing the general mill throughput of a selective mining unit before it has been blasted and entered the processing stream will increase production significantly.

19 References

Anderson, R.G. 1989: A Stratigraphic, Plutonic, and Structural Framework for the Iskut River Map Area, Northwestern British Columbia; Current Research, Part E, GSC Paper 89-1E, pp. 145-154.

Barrick, 2005: Eskay Creek Mine Technical Report on Ore Reserves as at December 27, 2004, internal company report, 148 p.

Barrick, 2007: Eskay Creek Mine Technical Report on Ore Reserves as at December 27, 2006, internal company report, 82 p.

Bartsch, R.D. 1993: Volcanic stratigraphy and lithogeochemistry of the Lower Jurassic Hazelton Group, host to the Eskay Creek precious and base metal volcanogenic deposit; Unpublished M.Sc. thesis, Vancouver, University of British Columbia, pp. 178.

B.C. Ministry of Forests. 1988. Biogeoclimatic zones of British Columbia, 1988. Map, 1:2,000,000.

Childe, F.C. 1996: U-Pb geochronology and Nd and Pb isotope characteristics of the Au-Ag-rich Eskay Creek VMS deposit, northwestern British Columbia; Economic Geology, V. 91, pp. 1209-1224.

Doerksen, G., McLeod, K., Makarenko, M., Arseneau, G., Hamilton, A., Embree, K., Sexsmith, K., Murphy, B. 2017: NI 43-101 Feasibility Study Technical Report for the Red Mountain Project British Columbia, Canada; Prepared for IDM Mining Ltd. By JDS Energy & Mining Inc. and others, pp. 353.

Edmunds, F.C., and Kuran, D.L. 1992: The 1992 exploration program: geological and diamond drilling results; Internal report for International Corona Corporation, Vancouver, British Columbia, pp. 27.

Edmunds, F.C., Kuran, D.L., and Rye, K.A. 1994: The geology of the 21 Zone deposits at Eskay Creek northwestern British Columbia, Canada; Black Hills Fifth Western Regional Conference of Precious Metals, Coal and the Environment, pp. 154-175.

Ettlinger, A.D. 1992: Hydrothermal alteration and brecciation underlying the Eskay Creek polymetallic massive sulphide deposit; Geological Fieldwork 1991, British Columbia Ministry of Energy, Mines and Petroleum Resources, Paper 1992-1, pp. 535-541.

EC (Environment Canada). 2013b. Climate Data Online. Canada's National Climate Archive. http://www.climate.weatheroffice.gc.ca/climateData/canada_e.html.

Evenchick, C.A. 1991: Structural relationships of the Skeena fold belt west of the Bowser Basin, northwest British Columbia; Canadian Journal of Earth Sciences, V. 28, pp. 535-541.

Farah, A., Friedman, D., Yang, D.Y., Pow, D.J., Trout, G., Ghaffari, H., Stoyko, H.W., Huang, J., Karrei, L.I., Danon-Schaffer, M., Morrison, R.S., Adanjo, R., Hafez, S.A. 2013: Feasibility Study on the Schaft Creek Project, BC, Canada; Prepared for Copper Fox Metals Inc. by Tetra Tech, pp. 604.

Gale, D., Mann, R.K., MacNeil, K.D., Stewart, M., Newton, A., Chastain, E. 2004; The 2004 Eskay Creek Exploration Program; Internal report for Barrick Gold Inc., Vancouver, British Columbia, pp. 190.

Ghaffari, H., Huang, J., Jones, K., Gray, J.H., Hammett, R., Parolin, R.W., Kinakin, D., Lechner, M.J., Parkinson, J.G., Pelletier, P., Brazier, N., Allard, S., Lipiec, T. and Ramirez, M. 2016: 2016 KSM (Kerr-Sulphurets-Mitchell) Prefeasibility Study Update and Preliminary Economic Assessment; NI 43-101 Prepared for Seabridge Gold, Inc. by Tetra Tech and others, pp. 921.

Gill, R., Kulla, G., Wortman, G., Melnyk, J., Rogers, D. 2011: Galore Creek Project, NI 43-101 Technical Report on Pre-Feasibility Study. Prepared for NovaGold Resources Inc. by Amec, pp. 380.

Hallam Knight Piesold Ltd. 1993: Application for a Mine Development Certificate, Eskay Creek Project.

Ireland, D., Olssen, L., Huang, J., Pelletier, P., Weatherly, H., Stoyko, H.W., Hafez, S.A., Keogh, C., Schmid, C., McAfee, B., Chin, M., Gould, B., Wise, M., Greisman, P., Scott, W.E., Farah, A., Zazzi, G., Crozier, T., Blackmore, S. 2014: Feasibility Study and Technical Report Update on the Brucejack Project, Stewart, BC; Prepared for Pretium Resources Inc. by Tetra Tech and others, pp. 460.

MacDonald, A.J., Heyden, P. van der, Lefebure, D.V., and Alldrick, D.J. 1992: Geochronology of the Iskut River area – an update (104A and B): Geological Fieldwork 1991, British Columbia Ministry of Energy, Mines and Petroleum Resources, Paper 1992-1, pp. 495-501.

Macdonald, A.J., Lewis, P.D., Thompson, J.F.H., Nadaraju, G., Bartsch, R.D., Bridge, D.J., Rhys, D.A., Roth, T., Kaip, A., Godwin, C.I., and Sinclair, A.J. 1996: Metallogeny of an Early to Middle Jurassic Arc, Iskut River area, northwestern British Columbia; Economic Geology and the Bulletin of the Society of Economic Geologists, V. 91, pp. 1098-1114.

McElhanney Consulting Ltd. 2004: Drill hole Survey – Eskay Creek Mine Survey Report, p 6.

Meidinger, D., and J.Pojar. 1991: Ecosystems of British Columbia, B.C Ministry of Forests Research Branch, Special Report Series; no. 6. Victoria, B.C. 330 pp.

MDRU, 1992: Metallogenesis of the Iskut River Area, northwestern British Columbia; Annual Technical Report – Year 2, June 1991 – May 1992, Mineral Deposit Research Unit, University of British Columbia.

MINFILE (2018): Eskay Creek, 104B 008; BC Ministry of Energy and Mines, MINFILE digital data, posted September 2008, URL <https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=104B++008>.

MINFILE (2018): Granduc, 104B 021; BC Ministry of Energy and Mines, MINFILE digital data, posted October 2013, URL <https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=104B++021>.

MINFILE (2018): Johnny Mountain, 104B 107; BC Ministry of Energy and Mines, MINFILE digital data, posted October 2012, URL <https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=104B++107>.

MINFILE (2018): Kerr, 104B 191; BC Ministry of Energy and Mines, MINFILE digital data, posted December 2017, URL <https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=104B++191>.

MINFILE (2018): Premier, 104B 054; BC Ministry of Energy and Mines, MINFILE digital data, posted October 2013, URL <https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=104B++054>.

MINFILE (2018): Red Mountain, 103P 086; BC Ministry of Energy and Mines, MINFILE digital data, posted January 2018, URL https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=103P++086>.

MINFILE (2018): Snip, 104B 004; BC Ministry of Energy and Mines, MINFILE digital data, posted December 1988, URL <https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=104B++004>.

MINFILE (2018): Valley of the Kings, 104B 199; BC Ministry of Energy and Mines, MINFILE digital data, posted December 2017, URL <https://minfile.gov.bc.ca/report.aspx?f=PDF&r=Minfile_Detail.rpt&minfilno=104B++199>.

Nelson, J., Waldron, J., van Straaten, B., Zagorevski, A., and Rees, C. 2018: Revised Stratigraphy of the Hazelton Group in the Iskut River Region, northwestern British Columbia; Geological Fieldwork 2017, British Columbia Ministry of Energy, Mines and Petroleum Resources, British Columbia Geological Survey Paper 2018-1, pp. 15-38.

Roth, T. 1995: Mineralization and facies variations in the Eskay Creek 21 Zone polymetallic sulphide-sulfosalt deposit, northwestern British Columbia; Victoria ’95 GAC/MAC Annual Meeting, Final Program with Abstracts, V. 20, pp. A-91.

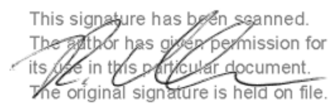
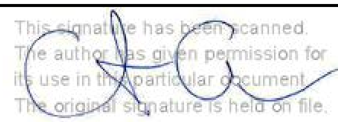
Roth, T., Thompson, J.F.H. and Barrett, T.J. 1999: The Precious Metal-Rich Eskay Creek Deposit, Northwestern British Columbia; Reviews in Economic Geology, V. 8, pp. 357-372.

Rubin, C.M., Saleeby, J.B., Cowan, D.S., Brandon, M.T., and McGroder, M.F. 1990: Regionally extensive mid-Cretaceous west-vergent thrust system in the northwestern Cordillera: Implications for Continental Margin Tectonism; Geology, V. 18, pp. 276-280.

Skeena, 2019: Sampling and Assay Quality Control Guideline for Snip & Eskay Creek Drill Core Programs, internal company report, 32 p.

20 Date and Signature Page

This technical report was written by the following “Qualified Persons” and contributing authors. The effective date of this Technical Report is April 12, 2019.

Qualified Person	Signature	Date
Sheila Ulansky, PGeo		12 April 2019
Ron Uken, Pr.Sci.Nat		12 April 2019
Grant Carlson, PEng		12 April 2019

Reviewed by

Marek Nowak, PEng
Project Reviewer

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

Appendix A –
Drill holes excluded from the Mineral Resource Estimate

srk consulting

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Removed by Barrick					
1249	4069	CA89-200	CA90-394	CA90-566	
2580	4073	CA90-197	CA90-431	CA90-568	
2795	4074	CA90-225	CA90-497	CA90-629	
2815	5035	CA90-242A	CA90-515A	CA90-630	
3729	CA89-170	CA90-349	CA90-564	C96744	
C96775	C96814	C99953	C99955	C99961	
U-51					
Collars suspect					
CA90-420	CA90-225	CA90-312	CA90-263		
Duplicate sample numbers and/or overlapping assay intervals					
1494	AD9006	C02-1168X	MR05	AD9006	
1766	AD9008	CA89-126	7119	C02-1148	
1943	ADL9435	CA89-154	7162	KV01	
620865	C01977X	CA90-545	7204		
Drain Holes					
DR001	DR015	DR061	DR620	DRAIN1	
DR003	DR016	DR109	DR70	DRAIN2	
DR004	DR018	DR507	DR700	DRAIN3	
DR006	DR042	DR525	DR728	DRAIN4	
DR013	DR044	DR589	DR734		
Excluded Regional Holes South of 8250N					
C011127	GNC9006	LW9006	LW9126	MR03	P3621
C011128	GNC9015	LW9007	LW9127	MR04	P3622
C011129	GNC9018	LW9008	LW9128	P3402	P3623
C02-1175	GNC9018A	LW9009	LW9129	P3404	P3624
C02-1177	GNC9123	LW9010	LW9130	P3405	P3625
C04-1289	GNC91-24	LW9011	LW9131	P3406	P3626
C04-1290	GNC92-29	LW9012	MP0109X	P3407	P3627
C04-1292	GNC9230	LW9013	MP0110	P3408	P3628
C04-1294	GNC92-31	LW9014	MP02-11	P3409	P3629
C91-706	GNC93-32	LW9115	MP9701	P3410	P3630
C91-707	GNC93-33	LW9116	MP9702	P3411	P3631
C91-708	GNC93-34	LW9117	MP9801X	P3512	P3632
C91-709	GNC9730X	LW9118	MP9803	P3513	P3633
C98925	GNC9835	LW9119	MP9804	P3514	P3634
DR620	GNC9836	LW9120	MP9805	P3515	P3635
GNC9001	LW9001	LW9121	MP9806	P3616	P3637
GNC9002	LW9002	LW9122	MP9807	P3617	P3639
GNC9003	LW9003	LW9123	MP9808	P3618	SIB89-1
GNC9004	LW9004	LW9124	MP9809	P3619	SIB89-10
GNC9005	LW9005	LW9125	MR01	P3620	SIB89-11
SIB89-12	SIB90-24	SIB90-46	SIB91-53	SIB91-73	SIB91-93
SIB89-13	SIB90-25	SIB90-47	SIB91-54	SIB91-74	SIB91-94
SIB89-14	SIB90-26	SIB90-48	SIB91-55	SIB91-75	SIB91-95
SIB89-15	SIB90-27	SIB91-100	SIB91-56	SIB91-76	SIB91-96
SIB89-2	SIB90-28	SIB91-101	SIB91-57	SIB91-77	SIB91-97
SIB89-3	SIB90-29	SIB91-102	SIB91-58	SIB91-78	SIB91-98
SIB89-4	SIB90-30	SIB91-103	SIB91-59	SIB91-79	SIB91-99
SIB89-5	SIB90-31	SIB91-104	SIB91-60	SIB91-80	SP9801
SIB89-6	SIB90-32	SIB91-105	SIB91-61	SIB91-81	
SIB89-7	SIB90-33	SIB91-106	SIB91-62	SIB91-82	
SIB89-8	SIB90-34	SIB91-107	SIB91-63	SIB91-83	
SIB89-9	SIB90-35	SIB91-108	SIB91-64	SIB91-84	
SIB90-16	SIB90-36	SIB91-109	SIB91-65	SIB91-85	
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SIB90-21	SIB90-41	SIB91-50	SIB91-70	SIB91-90	
SIB90-22	SIB90-44	SIB91-51	SIB91-71	SIB91-91	
SIB90-23	SIB90-45	SIB91-52	SIB91-72	SIB91-92	