

# NI 43-101 TECHNICAL REPORT

ON THE

## SIB-COREY-NORTH MITCHELL PROPERTY

**Project Location:**

Skeena Mining Division, British Columbia, Canada  
Latitude 56° 31' North, Longitude 130° 28' West  
NAD 83, Zone 9N, 409700E, 6,266,700N  
NTS Map Sheet 108B/07, 08, 09, 10

**Prepared for:**

**Eskay Mining Corp.**  
82 Richmond Street East  
Toronto, Ontario M5C 1P1

**Prepared by:**

**Darren Lindsay P.Geol**  
**Neil D. Prowse, M.Sc.**  
**John DeDecker, PhD.**  
**Andrew J. Mitchell, B.Sc., P.Geol.**  
**Rachel S.Y. Kim M.Sc.**

**Effective Date: June 08, 2021**



*High Au-grade cut and polished core, from 2020 Drilling at the Jeff Zone*

---

**DATE AND SIGNATURE PAGE**

# NI 43-101 TECHNICAL REPORT

ON THE

## SIB-COREY-NORTH MITCHELL PROPERTY

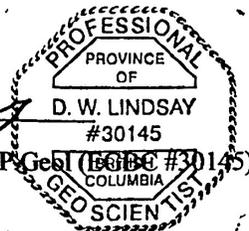
**Project Location:**

Skeena Mining Division, British Columbia, Canada  
Latitude 56° 31' North, Longitude 130° 28' West  
NAD 83, Zone 9N, 409700E, 6,266,700N  
NTS Map Sheet 108B/07, 08, 09, 10

**Prepared for:**

**Eskay Mining Corp.**  
82 Richmond Street East  
Toronto, Ontario M5C 1P1

  
Darren W. Lindsay, B.Sc. (Hons.), P. Geol. (B.C. #30145)  
(signed and sealed original on file)



Signed at North Vancouver, B.C., July 16, 2021

## CERTIFICATE OF QUALIFIED PERSON

I, Darren W. Lindsay am a professional geologist residing at 1162 Wendel Place, North Vancouver, BC V7K 2W1, and do hereby certify that:

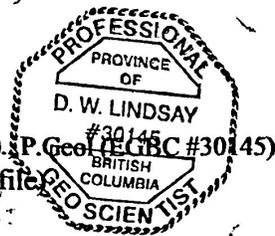
1. I am the lead author of the report entitled "*NI 43-101 Technical Report on the SIB-Corey-North Mitchell Property*", dated July 16, 2021;
2. I am a Registered Professional Geoscientist (P.Geol.), Practising, with the Association of Professional Engineers and Geoscientists of British Columbia (licence # 30145).
3. I graduated from the University of British Columbia, Canada, with an Hons. B.Sc. in Geology in 1998;
4. I have practiced my profession continuously since graduation with a focus on exploration of gold systems including gold enriched base metal systems with experience in Canada, USA, Australia, Ghana and Guyana;
5. I visited the property in accompaniment of the co-authors from July 13 through July 15, 2021;
6. I visited the Property Core Storage facility on May 14<sup>th</sup>, 2021 with the Project Manager;
7. I have had no previous involvement with the Property until contracted to write this Technical Report;
8. I am responsible for all sections of this Report entitled "*NI 43-101 Technical Report on the SIB-Corey-North Mitchell Property*", with effective date June 8, 2021;
9. I am independent of each of Eskay Mining Corp., as independence is described in Section 1.5 of NI 43-101. I have not received, nor do I expect to receive, any interest (direct, indirect, or contingent), in the property described herein or in Eskay Mining Corp. for the services rendered in the preparation of this Report;
10. I was retained by Eskay Mining Corp. to prepare an exploration and technical summary and provide recommendations on the SIB-Corey-North Mitchell Property, in accordance with National Instrument 43-101. This Technical Report is based on my review of Project files and information provided by Eskay Mining Corp. personnel;
11. I have read National Instrument 43-101 and Form 43-101F1 and, by reason of education and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101. This Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
12. As of the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed in order to make this Technical Report not misleading;
13. I, the undersigned, prepared this Report entitled "*NI 43-101 Technical Report on the SIB-Corey-North Mitchell Property*", dated June 14, 2021, in support of the public disclosure of the exploration potential of the Property by Eskay Mining Corp.

Effective Date: June 8, 2021

Signed this 16th day of July, 2021 in North Vancouver, British Columbia:



Darren W. Lindsay, B.Sc. (Hons.), P. Geol. (Lic. BC #30145)  
(signed and sealed original on file)



## **Table Of Contents**

<b>1.0</b>	<b>SUMMARY.....</b>	<b>9</b>
1.1	Introduction.....	9
1.2	Property Description and Ownership.....	9
1.3	Accessibility and Physiography.....	11
1.4	History.....	12
1.5	Geological Setting.....	13
1.6	Mineralization.....	14
1.7	Recent Exploration.....	14
1.8	Mineral Processing and Metallurgical Testing.....	15
1.9	Interpretations and Conclusions.....	15
1.10	Recommendations and Proposed Exploration Budget.....	16
<b>2.0</b>	<b>INTRODUCTION.....</b>	<b>16</b>
2.1	Introduction and Terms of Reference.....	16
2.2	Site Visit.....	17
2.3	Abbreviations and Units of Measure.....	18
2.4	Acknowledgements.....	19
<b>3.0</b>	<b>RELIANCE ON OTHER EXPERTS.....</b>	<b>19</b>
<b>4.0</b>	<b>PROPERTY DESCRIPTION AND LOCATION.....</b>	<b>19</b>
4.1	Mineral Resources.....	19
4.2	Property Location.....	19
4.3	Property Description.....	20
4.4	Mineral Tenure Ownership in British Columbia.....	26
4.5	Environmental Regulations & Exploration Permits.....	26
4.6	Environmental Considerations.....	27
<b>5.0</b>	<b>ACCESSIBILITY, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES AND INFRASTRUCTURE.....</b>	<b>27</b>
5.1	Accessibility.....	27

5.2	Climate and Vegetation.....	30
5.3	Physiography .....	30
5.4	Local Resources and Infrastructure .....	32
<b>6.0</b>	<b>HISTORY .....</b>	<b>32</b>
6.1	Exploration History.....	32
6.1.1	Harrymel Valley Exploration History.....	35
6.1.2	SIB Property Exploration History.....	43
6.1.3	Corey Property Exploration History .....	57
6.1.4	North Mitchell Exploration History .....	80
6.2	British Columbia MINFILE Descriptions .....	80
<b>7.0</b>	<b>GEOLOGICAL SETTING AND MINERALIZATION .....</b>	<b>100</b>
7.1	Regional Geology .....	100
7.1.1	The Eskay Rift .....	103
7.1.2	Stratigraphy .....	103
7.1.3	Intrusive Rocks .....	104
7.2	Property Geology.....	105
7.2.1	Lithological Units.....	107
7.2.2	Structural Geology .....	111
7.2.3	Mineralization .....	111
<b>8.0</b>	<b>DEPOSIT TYPES .....</b>	<b>112</b>
8.1	Volcanic-hosted Massive Sulphide.....	112
8.2	Magmatic Nickel-Copper-Rich Massive Sulphides .....	113
<b>9.0</b>	<b>EXPLORATION BY THE COMPANY.....</b>	<b>113</b>
9.1	2020 Airborne Geophysical Survey.....	113
9.2	2020 Ground-Based Geophysical Surveys and Results.....	116
9.3	2020 BLEG Survey .....	129
9.4	2020 Prospecting.....	131
<b>10.0</b>	<b>DRILLING .....</b>	<b>134</b>
10.1	TV Zone Drilling .....	138
10.1.1	TV Drill Hole Summaries.....	142

10.2	Jeff Zone Drilling.....	159
10.2.1	Jeff Zone Drill Hole Summaries .....	166
<b>11.0</b>	<b>SAMPLE PREPARATION, ANALYSIS AND SECURITY .....</b>	<b>179</b>
11.1	Protocols for Sampling, Sample Analysis and Security .....	179
11.1.1	Sampling Protocol.....	179
11.1.2	Sample Analysis and Security.....	180
11.2	QA/QC Protocol.....	180
11.2.2	Discussion .....	181
<b>12.0</b>	<b>DATA VERIFICATION .....</b>	<b>181</b>
<b>13.0</b>	<b>MINERAL PROCESSING AND METALLURGICAL TESTING .....</b>	<b>182</b>
<b>14.0</b>	<b>MINERAL RESOURCE ESTIMATES.....</b>	<b>183</b>
<b>15.0</b>	<b>MINERAL RESERVE ESTIMATES.....</b>	<b>183</b>
<b>16.0</b>	<b>MINING METHODS.....</b>	<b>183</b>
<b>17.0</b>	<b>RECOVERY METHODS.....</b>	<b>183</b>
<b>18.0</b>	<b>PROJECT INFRASTRUCTURE.....</b>	<b>183</b>
<b>19.0</b>	<b>MARKET STUDIES AND CONTRACTS.....</b>	<b>183</b>
<b>20.0</b>	<b>ENVIRONMENTAL STUDIES, PERMITTING, SOCIAL OR COMMUNITY IMPACT ..</b>	<b>183</b>
<b>21.0</b>	<b>CAPITAL AND OPERATING COSTS .....</b>	<b>183</b>
<b>22.0</b>	<b>ECONOMIC ANALYSIS.....</b>	<b>183</b>
<b>23.0</b>	<b>ADJACENT PROPERTIES .....</b>	<b>184</b>
<b>24.0</b>	<b>OTHER RELEVANT DATA AND INFORMATION .....</b>	<b>192</b>
<b>25.0</b>	<b>INTERPRETATIONS AND CONCLUSIONS.....</b>	<b>192</b>
<b>26.0</b>	<b>RECOMMENDATIONS .....</b>	<b>195</b>
26.1	Not Target Specific: .....	195
26.2	TV and Jeff Zones .....	196
26.3	SIB Area .....	196
26.4	C10 Area .....	196
26.5	Proposed Exploration Budget .....	197
<b>27.0</b>	<b>REFERENCES.....</b>	<b>198</b>

## **LIST OF FIGURES**

FIGURE 1.1.1: LOCATION OF THE PROPERTY. ....	9
FIGURE 1.3.1: SIGNIFICANT MINERAL DEPOSITS NEAR THE PROPERTY. ....	11
FIGURE 4.3.1: LOCATION OF THE PROPERTY IN BC. ....	25
FIGURE 4.3.2: SIB-COREY-NORTH MITCHELL PROPERTY NORTHERN MINERAL TENURES. ....	23
FIGURE 4.3.3: SIB-COREY-NORTH MITCHELL PROPERTY SOUTHERN MINERAL TENURES. ....	24
FIGURE 4.3.4: SIB-COREY-NORTH MITCHELL PROPERTY NORTH MITCHELL BLOCK TENURES. ....	25
FIGURE 5.1.1: PHOTOS OF THE PROPERTY (TOP) AND THE CAMP (BOTTOM). ....	28
FIGURE 5.1.2: LOCATION AND ACCESS TO THE ESKAY PROPERTY. ....	29
FIGURE 5.3.1: SIB CLAIM BLOCK WITHIN THE COULTER CREEK VALLEY AND THE LULU ZONE. ....	31
FIGURE 6.1.1: OVERVIEW MAP OF THE PROPERTY. COLOURED POLYGON OVERLAYS SHOW THE EXTENT OF THE HARRYMEL (GREEN), SIB (BLUE), COREY (RED), AND NORTH MITCHELL (YELLOW) PROPERTY BLOCKS WHERE HISTORIC EXPLORATION WORK WAS FOCUSED. YELLOW DASHED AREAS INDICATE SIGNIFICANT MINERALIZED ZONES, DEEMED IMPORTANT EXPLORATION TARGETS. THESE ZONES HAVE OFTEN BEEN THE FOCUS OF HISTORICAL EXPLORATION WORK. ....	34
FIGURE 6.1.2: MAP NO. 1 FROM ASSUANT & DUPRE, 1989. ....	37
FIGURE 6.1.3: STREAM SEDIMENT SAMPLE LOCATIONS ACROSS THE COULTER CREEK CLAIM. FROM JAVORSKY & HARRIS, 1993). ....	41
FIGURE 6.1.4: 2018 AIRBORNE VTEM SURVEY RESULTS, WITH IDENTIFIED ANOMALOUS CONDUCTIVITY TARGETS. ....	42
FIGURE 6.1.5: SIB CLAIMS, GRIDLINES, GEOLOGY AND DRILLING. FROM COPELAND & CANN, 1989. ....	46
FIGURE 6.1.6: ESKAY PROPERTY MAP WITH CLAIMS AND REGIONAL GEOLOGY. FROM BIDWELL & WORTH, 2004. ....	51
FIGURE 6.1.7: GEOLOGY AND DRILLING AT THE LULU ZONE. FROM MCKINLEY ET. AL, 2009. ....	53
FIGURE 6.1.8: INTERPRETED ENVELOPE SECTION OF 2017-2018 DRILLING, SHOWING BOWSER LAKE GROUP/HAZELTON GROUP UNCONFORMITY AND CCTF. ....	55
FIGURE 6.1.9: CROSS-SECTION OF EK18-160 AND SURROUNDING HOLES. ....	56
FIGURE 6.1.10: CLAIM MAP AND GRIDLINES FOR TARN, R, AND JEFF GRIDS. FROM O'DONNELL, 1991. ....	65
FIGURE 6.2.1: LOCATION MAP OF MINFILE OCCURRENCES ON THE ESKAY PROPERTY. ....	81
FIGURE 7.1.1: LOCATION MAP OF ESKAY PROPERTY WITHIN THE GOLDEN TRIANGLE; INSET SHOWS THE GOLDEN TRIANGLE LOCATION IN NORTHWESTERN BC, KEY MINERAL DEPOSITS IN THE VICINITY ARE NOTED BY RED STARS. LOCATION OF THE ESKAY RIFT IS OUTLINED BY THE GREY SHADED POLYGON. ....	101
FIGURE 7.1.2: MAP OF THE ESKAY MINING CLAIM PACKAGE AND NEIGHBOURING PROPERTIES. YELLOW STARS INDICATE PRIORITY MINERAL PROSPECTS ON THE ESKAY MINING PROPERTY, RED STARS INDICATE SIGNIFICANT MINERAL DEPOSITS ON NEIGHBOURING PROPERTIES. ....	102
FIGURE 7.2.1: PROPERTY GEOLOGY. FROM BCGS 2019 COMPILATION. BOLD LINES INDICATE FAULTS. ....	106
FIGURE 7.2.2: GEOLOGICAL LEGEND FOR FIGURE 7.2.1. ....	107
FIGURE 8.1.1: SCHEMATIC CROSS-SECTION OF A TYPICAL VMS DEPOSIT, WITH SEMI-MASSIVE AND MASSIVE SULPHIDE LENSES UNDERLAIN BY A STOCKWORK FEEDER ZONE. FROM HANNINGTON ET AL, 1996. ....	112
FIGURE 9.1.1: SKYTEM SURVEY COVERAGE OF THE ESKAY PROPERTY. FLOWN LINES (RED) ARE OVERLAIN ON PLANNED LINES (BLUE). ....	114
FIGURE 9.1.2: TIME CHANNEL 17 TDEM MAP OF THE SKYTEM SURVEY AREA. ....	115
FIGURE 9.2.1: LOCATION MAP OF SURVEY GRID AREAS. FROM QUANTEC GEOSCIENCE INC., 2020. ....	116
FIGURE 9.2.2: MT SURVEY COVERAGE FOR SIB1 GRID. ....	117
FIGURE 9.2.3: MT SURVEY GRID FOR SIB2. ....	118
FIGURE 9.2.4: MT SURVEY GRID MAP AT JEFF. ....	119
FIGURE 9.2.5: MT SURVEY GRID FOR COREY. ....	120
FIGURE 9.2.6: MT SURVEY GRID MAP FOR SPEARHEAD. ....	121
FIGURE 9.2.7: LOCATION MAP OF IP SURVEY GRIDS. ....	122
FIGURE 9.2.8: SURVEY GRID FOR IP INVESTIGATIONS AT TV (TOP) AND JEFF (BOTTOM). ....	123
FIGURE 9.2.9: LINE 8000N IP CHARGEABILITY AND RESISTIVITY CROSS-SECTIONS SHOWING THE CORRELATION BETWEEN MINERALIZED ZONES AND STUHINI GROUP ROCKS WITH IP RESPONSE AT JEFF. SIMILAR IP CORRELATIONS WITH MINERALIZED ZONES OCCUR AT TV, C10, AND SPEARHEAD. ....	125
FIGURE 9.2.10: SURVEY GRID FOR IP INVESTIGATIONS AT TET, C10, AND GFJ. ....	126

---

FIGURE 9.2.11: LINE 8100 N CHARGEABILITY AND RESISTIVITY CROSS-SECTIONS SHOWING THE CORRELATION BETWEEN MINERALIZED ZONES AND IP RESPONSE. ....	127
FIGURE 9.2.12: SURVEY GRID FOR IP INVESTIGATIONS AT SPEARHEAD. ....	128
FIGURE 9.2.13: LINE 8200 N AT SPEARHEAD. ....	129
FIGURE 9.3.1: 2020 BLEG SAMPLING WITH THEMATIC AU (PPB) RESULTS. ....	130
FIGURE 9.4.1: HISTORICAL AND RECENT ROCK SAMPLING AT THE TET AREA. ....	132
FIGURE 9.4.2: HISTORICAL AND RECENT SAMPLING AT THE SPEARHEAD SHOWING. ....	133
FIGURE 10.0.1: HISTORICAL (1988-2018) DRILL COLLARS ON THE PROPERTY. ....	135
FIGURE 10.0.2: LOCATION MAP OF 2020 DRILL COLLAR LOCATIONS AND DRILL TRACES. ....	137
FIGURE 10.1.1: PLAN VIEW OF 2020 TV ZONE DRILLING WITH AU EQUIVALENT ASSAY RESULTS. ....	140
FIGURE 10.1.2: PLANE PROJECTED LONG SECTION OF HOLES TV20-35, 37, 38. ....	155
FIGURE 10.1.3: CROSS SECTION OF HOLES TV20-36, 39, 40. ....	156
FIGURE 10.1.4: PLANE PROJECTED LONG SECTION OF HOLES TV20-41, 42, 43. ....	157
FIGURE 10.1.5: CROSS SECTION OF HOLES TV20-44, 45. ....	158
FIGURE 10.2.1: MAP VIEW OF 2020 DRILLING AT THE JEFF ZONE. DOWNHOLE GOLD EQUIVALENT GRADE IS DISPLAYED ON DRILLHOLE TRACES. ....	163
FIGURE 10.2.2: CROSS SECTION OF HOLES J20-31, 32, 33, 36. ....	176
FIGURE 10.2.3: CROSS SECTION OF HOLES J20-34, 35. ....	177
FIGURE 10.2.4: CROSS SECTION OF HOLES J20-37, 38, 39. ....	178
FIGURE 23.1: ESKAY MINING CORP. PROPERTY LOCATION, NEIGHBOURING PROPERTIES AND SIGNIFICANT DEPOSITS OF THE SOUTHERN GOLDEN TRIANGLE. ....	186
FIGURE 25.1: AIRBORNE MAGNETIC MAP OF THE PROPERTY WITH MAJOR GEOLOGIC STRUCTURES. THE LOCATIONS OF MINERALIZED SHOWINGS ARE MARKED BY POINTS, THE NAMES OF STRUCTURES ARE ITALICIZED. ....	193
FIGURE 25.2: SCHEMATIC SHOWING PROPOSED DEFORMATION HISTORY OF MINERALIZED HAZELTON GROUP STRATIGRAPHY ON ESKAY MINING CORP. PROPERTY. LATE JURASSIC AND TERTIARY INTRUSIONS HAVE BEEN OMITTED FOR CLARITY. ....	194

## **LIST OF TABLES**

TABLE 1.1: PROPOSED EXPLORATION BUDGET, PHASE I PROGRAM .....	16
TABLE 2.1: ABBREVIATIONS USED IN THIS REPORT .....	18
TABLE 4.1: SIB-COREY-MITCHELL NORTH PROPERTY MINERAL TENURES AND SUBJECT ROYALTIES, ALL NSR ROYALTIES. ....	21
TABLE 6.1: HIGHEST GRADE ASSAY RESULTS FROM ROCK SAMPLES COLLECTED IN THE VIRGINIA LAKE PROPERTY. FROM BROWN & COLLINS, 1990. ....	39
TABLE 6.2: DRILLHOLE ORIENTATIONS AND NOTABLE INTERCEPTS, FROM COPELAND & CANN, 1989.....	43
TABLE 6.3: SUMMARY OF EXPLORATION ACTIVITIES ON SIB CLAIMS BETWEEN 1989-1991. FROM COPELAND ET AL., 1992. ....	47
TABLE 6.4: TOTAL NUMBER FOR GEOCHEMICAL SAMPLE TYPES TAKEN ON TAG EAST AND TAG WEST CLAIMS. FROM MCGUIGAN & GILMOUR, 2001. ....	49
TABLE 6.5: HOLE NAMES, ORIENTATIONS AND TOTAL DEPTHS. FROM KONKIN, 1989. ....	60
TABLE 6.6: SUMMARY OF 1991 GRANGES AP ZONE DRILLING. ....	64
TABLE 6.7: KEY INTERCEPTS FROM 1991 DRILLING. FROM O'DONNELL, 1991. ....	66
TABLE 6.8: KEY DRILLING RESULTS FROM 750 ZONE. FROM O'DONNELL, 1991.....	67
TABLE 6.9: COREY PROPERTY EXPLORATION RESULTS SUMMARY. FROM PEGG, 1993.....	70
TABLE 6.10:SUMMARY OF KEY RESULTS FROM THE 1993 COREY PROPERTY EXPLORATION PROGRAM. FROM VAN DAMME & MOSHER, 1994. ....	71
TABLE 6.11: EXPLORATION HIGHLIGHTS, SUMMARIZED FROM KOWALCHUK ET. AL, 1997. ....	74
TABLE 6.12: HIGHLIGHTS FROM DRILLING ACROSS THE COREY PROPERTY. FROM MCKINLEY, SEBERT & TENNANT, 2007 .....	77
TABLE 6.13: DRILLING HIGHLIGHTS. FROM MCKINLEY, SEBERT & TENNANT, 2007. ....	77
TABLE 6.14: DRILLING HIGHLIGHTS FROM CAMBRIA'S 2006 EXPLORATION PROGRAM. FROM MCKINLEY, SEBERT & TENNANT, 2007. ..	78
TABLE 6.15: SUMMARY OF RESULTS FROM CAMBRIA'S 2008 DRILL PROGRAM. FROM MCKINLEY, TENNANT & NELLES, 2009. ....	79
TABLE 10.1: LOCATION COORDINATES (NAD83 UTM ZONE 9), ORIENTATIONS, AND TOTAL DEPTHS OF TV20 DRILL HOLES.....	138
TABLE 10.2: ASSAY RESULTS FROM TV 2020 HOLES. SIGNIFICANT INTERCEPTS ARE IN BOLD TEXT. ....	141
TABLE 10.3: LOCATION COORDINATES (UTM ZONE 9), ORIENTATIONS, AND TOTAL DEPTHS OF J20 DRILL HOLES.....	164
TABLE 10.4: SIGNIFICANT ASSAY RESULTS FROM JEFF ZONE DRILLING. ....	165
TABLE 12.1: DUPLICATE CHECK SAMPLES FROM THE TV AND JEFF ZONE DRILLING; TABLE PART A COMPARABLE RESULTS, TABLE PART B LABORATORY AND ANALYSIS INFORMATION. ....	182
TABLE 26.1: PROPOSED EXPLORATION BUDGET, PHASE I PROGRAM .....	197

## 1.0 SUMMARY

### 1.1 Introduction

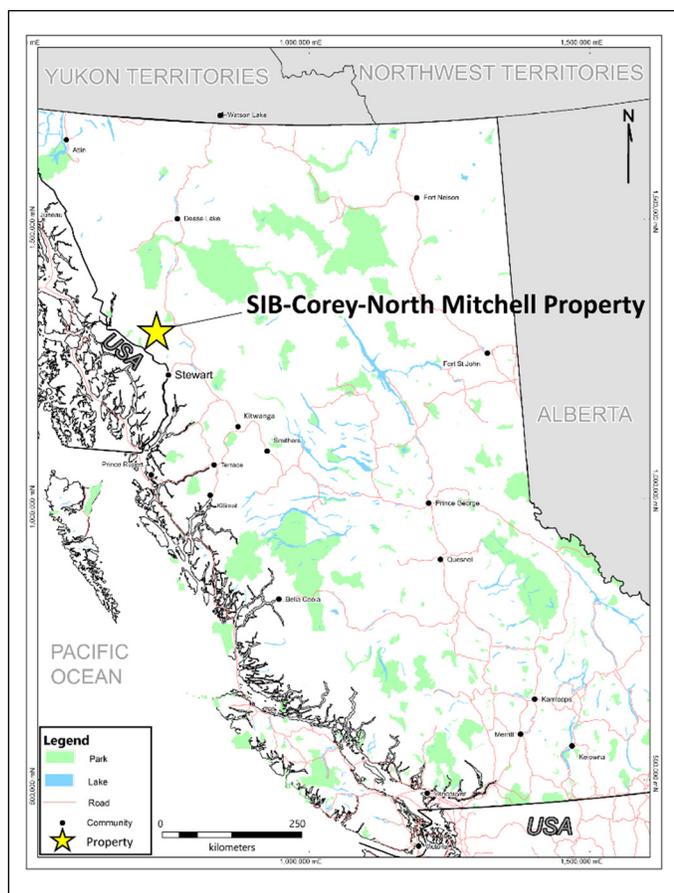
The SIB-Corey-North Mitchell Property (“the Property” or “Project”) covers Au-Ag-Pb-Zn Volcanogenic Massive Sulphide (VMS), high-grade Au-Ag veins and Cu-Au porphyry targets located in an area informally known as the “Golden Triangle”, one of the most important mineral districts in northwest British Columbia, Canada (Figure 1.1.1). The “Golden Triangle” encompasses the northwest Stikine terrane, and is an area which hosts prolific VMS, porphyry, and high-grade vein deposits and mines, including the presently producing Red Chris and Brucejack mines, the past-producing Eskay Creek, Snip, Granduc, Silbak-Premier and Scottie Gold mines. It also hosts large undeveloped deposits such as the Galore Creek, Schaft Creek, Kerr, Sulphurets, Mitchell, Snowfield, Iron Cap and Saddle North porphyry deposits.

At the request of Eskay Mining Corp. (“Eskay Mining” or “the Company”), the authors carried out an independent review of the Property, and primary author Darren Lindsay conducted an examination of Core drilled in 2020, on May 14, 2021. The authors also reviewed available historical documents prior to preparing this Technical Report. This Report was prepared in accordance with the formatting requirements of *National Instrument 43-101 and Form 43-101F1 Standards of Disclosure for Mineral Properties* to be a comprehensive review of exploration carried out to date on the Project and, if warranted, to provide recommendations for future work.

The authors understand that Eskay Mining Corp. is publicly listed on the TSX Venture Exchange. It is the opinion of the authors that the SIB-Corey-North Mitchell Property is a property of merit with strong remaining discovery potential and is the flagship property of Eskay Mining Corp.

### 1.2 Property Description and Ownership

The Property consists of 195 Mineral Titles Online (MTO) digitally registered mineral tenures totalling 55,603.10 ha. The SIB and Corey claim blocks are contiguous, whereas the North Mitchell claim block lies approximately 9.5 km to the east. The tenures comprising the Project



**Figure 1.1.1: Location of the Property.**

---

were staked between 1972 and 2020 and are registered to Eskay Mining Corp. (owner number 113925). The mineral tenures, all 100% owned, are listed in Table 4.1 many of which are subject to royalty agreements as summarised below and presented in Section 4.3.

Many of the royalty agreements are poorly documented and have not been confirmed with original documents however they are included in the report for completeness as provided by R.Billingsley (pers.comm. 2021). A total of 134 claims are subject to a 2% NSR after St. Andrew Goldfields Ltd (a wholly owned subsidiary of Kirkland Lake Gold Ltd.) ceded their 20% ownership stake with a deal effective March 2021. Thirty of the original 52 Eskay claims are also subject to a 2% NSR held by Victoria Consultants dated 2006. A Mr. N. Archibald holds rights to a 1% NSR on seven claims as well as a 1% NSR on the same claim group as the St. Andrew Goldfields royalty. Clive Ashworth and Malcom Bell, original claim owners of the COUL and UNUK Claim blocks retain a 2% NSR, which includes the JEFF showing. Claims subject to this NSR consist of the following mineral tenures: 251344, 251345, 251346, 251347, 251358, 251360, 251361, 251374, 251375, 251379 which are also included in the Archibald and St. Andrew Goldfields royalties. Mr.F.Christensen holds a 4% royalty on eight claims. Historic documents indicate a potential royalty held by a company that was subsequently acquired by St Andrew Goldfields Ltd, it is not clear if that acquisition removed the 5% NSR royalty on 18 of the claims. Calypso Developments holds a 2% NSR interest in two claims, Swift Minerals holds a 5% interest in one claim, and a single claim has an interest held by Grenfal of 2.5% NSR (Billingsley, pers.comm. 2021).

The authors have determined, by viewing British Columbia Mineral Titles Online records, that the mineral tenures are in good standing as of the writing of this Report, with expiration dates shown in Table 4.1. The SIB and Corey projects currently hold Multi-Year Area Based Exploration Permits registered under the Ministry of Energy and Mines. These permits facilitate Eskay Mining to conduct diamond drilling, temporary camp building and geophysical surveys over both the SIB and Corey claim blocks. A communications agreement between the Tahltan Central Government is also in place, and the Company has a great working relationship with the Tahltan First Nation.

### 1.3 Accessibility and Physiography

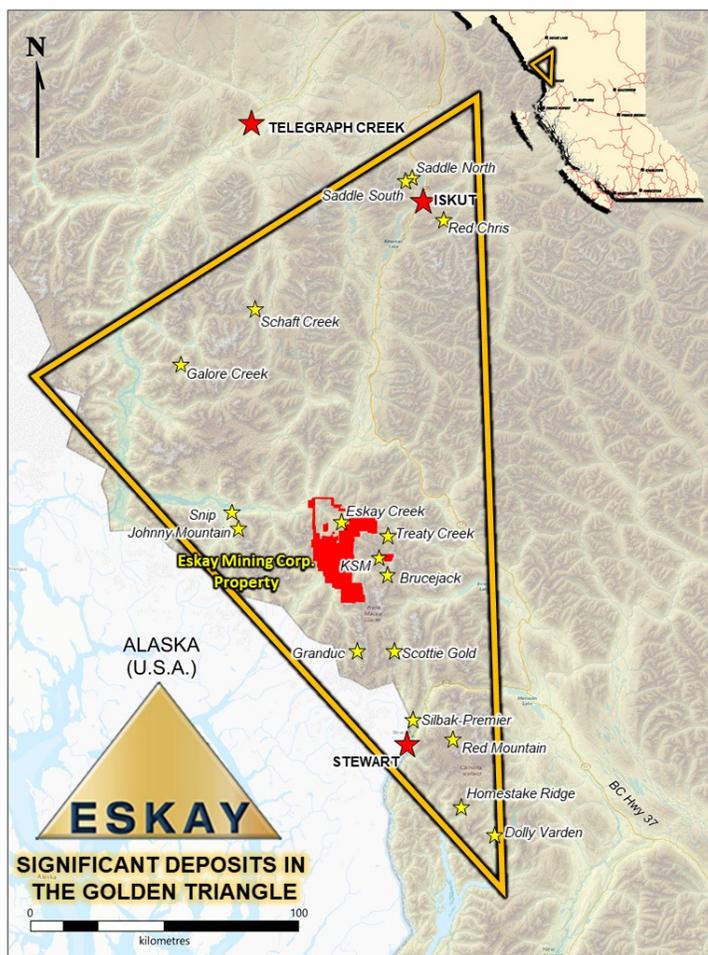
The SIB-Corey-North Mitchell Property is located in the Skeena Mining Division of northwest British Columbia, approximately 55 kilometres northwest of the community of Stewart BC and 5 km south of the road accessible Eskay Creek mine site, which is connected to Highway 37 by a 57-kilometre, gated, gravel access road. Figure 1.2 shows the location of the Property in relation to current and past producers. The claims lie on NTS Map Sheet 108B/07, 08, 09, 10 and are centred at Latitude 56° 31' N, Longitude 130° 28' W.

Current access to the SIB-Corey-North Mitchell Project is via the Eskay Creek Mine Road to a temporary camp at kilometre 52.5 and a staging area at kilometre 54. Access to the Property from camp and staging is by helicopter (Figure 5.1). A road is currently permitted by Seabridge Gold, which extends from the Eskay Creek Mine Road, south down towards the Coulter

Creek Valley and turns east towards their KSM deposits. This road would provide excellent access to targets on the SIB and Corey claim blocks. Evaluation of potential for 9 km of road access to Coulter Creek Valley on the SIB claim block is on-going

A 69 KV powerline could be constructed from AltaGas' run-of-river hydroelectric facilities, which comes within 18 km of the SIB area. Alternatively, the Northwest Transmission powerline, which extends along Highway 37 to a substation near Bob Quinn Lake (37 kilometres northeast of the property), and which is part of the Provincial power grid, could provide readily accessible power in the future, as could the run-of-flow power project at Long Lake, near the now-closed Premier mine, which provides power to Pretium's Brucejack mine.

The physiography of the SIB-Corey-North Mitchell Property is diverse, with specific target zones located over a wide variety of terrain. The SIB area, in the northwestern part of the property, covers the Prout Plateau and Coulter Creek valley. The terrain on the plateau is mostly gentle; although steep and cliffy areas occur along the valley walls. The area features creeks and gullies that are generally oriented northeast-southwest. Vegetation cover is limited to small shrubs and stunted alpine spruce and fir, giving way to thick forest at lower elevations.



#### Property.

The eastern and southern parts of the Corey area lie completely above treeline and covers Mount Madge, Unuk Finger and John Peaks. This area is generally extremely rugged and hosts glaciers at higher elevations. The central and western part of the Corey claim block covers the Unuk River and Harrymel Valleys, which comprise densely forested valley bottoms, with steep, precipitous valley sides.

The North Mitchell claim block lies immediately northwest of Brucejack Peak. Approximately 50% of the of the claim's area is covered by ice, with the reaming terrain covered by steep mountain flanks and narrow ridges. Glaciers on the claims feed Mitchell (east) and Treaty (north) creeks.

#### **1.4 History**

The earliest work on and surrounding the property was first reported ca. 1900. In 1898, F.E. Gingras, H.W. Ketchum and C.W. Mitchell had established alluvial gold workings at the mouth of Mitchell Creek along Sulphurets Creek. In 1898, the first mineral claims were staked by H.W. Ketchum and L. Brant: the Cumberland (now part of the Corey Property) and Globe (now the Doc Property) groups. In 1901 the claims were purchased by the Unuk River Mining and Dredging Company.

In 1905, F.E. Wright of the U.S. Geological Survey visited the Unuk River as an extension of his work on the Alaskan side of the BC-Alaska border and submitted his findings to the Canadian government. This was the first of a series of government-sponsored surveys in the area. Between 1903 and 1929 activity essentially ceased until cursory prospecting by T.J. McQuillan and T. Terwilligen resumed in the area at large.

A prospecting expedition representing a Premier-backed syndicate in 1932 led by T.S. Mackay, A.H. Melville and W.A. Prout conducted exploration efforts in the Ketchum Creek area and Eskay Creek areas. From 1935 to 1938, Premier Gold Mining Corporation optioned the Eskay property and defined 30 mineralized showings, one of which was the 21 zone. Exploration continued under numerous options but ownership of the ground always reverted back to Mackay or his associates. In the 1980's, Kerrisdale Resources drilled four holes near the 21 zone, one of which intersected the stratiform mineralization of the 21A zone. In 1988, drilling by Stikine Resources and Calpine Resource Inc. confirmed the presence of a major Au-Ag rich massive sulphide body in the 21A zone. Subsequent geophysical surveys outlined a chargeability anomaly that was drill tested by hole 109, that intersected 61m of 99 g/t Au, and 29 g/t Ag (109 Zone). The 21B zone was drill defined in 1990 and mine production commenced in the fall of 1994.

In the adjoining Sulphurets areas, MacKay, T.J. McQuillan and their associates prospected the lower mountain slopes and river valleys but had few opportunities to examine the ridges and higher plateaus, as the areas were heavily snow-covered almost year-round. Prospecting did not extend to higher elevations until the snowfields and glaciers began to recede during the late 1950's. In some locations, in excess of 100 meters of snow and ice thickness have been lost during the period 1960 to 2000. As a result, the Sulphurets property had little exploration activity until the 1960's when interest in copper deposits led Newmont to extend work beyond the Granduc discovery into the higher, more remote snow-bound ridges as part of a broad regional evaluation. This work led

---

to the identification of the Kerr, Sulphurets, Snowfield and West Zones. Discovery rates remain high in the area, as retreating ice and snow progressively exposes bedrock.

Interest in the Sulphurets area discoveries led to work in the 1980's in the area of the present Unuk and Coul (JEFF area) claim blocks and separately, at Treaty Creek, as part of a program of copper and gold exploration. This focus shifted in 1989-90 to a search for volcanogenic massive sulphide deposits with the discovery at Eskay Creek. In 1990, the discovery of massive Au-Ag rich sulphosalts, similar in nature to the Eskay Creek deposits, at the LULU zone on the present-day SIB Property, confirmed the presence of Eskay-style mineralization. In 1991, drilling of the SIB property and the LULU zone effectively drilled off the mineralization at the LULU zone, and it was deemed that the size of the mineralized body was uneconomic. Limited drilling on the SIB property resumed in 2002-2003, and again in 2008 and 2010. The 2008 and 2010 drilling campaigns were effective in locating Eskay Creek analogous stratigraphy beneath the Coulter Creek Thrust Fault, significantly expanding the amount of prospective ground on the sib property.

In 1991, drilling on the COUL claims (JEFF Zone) by Granges Inc, intersected Au and Ag rich polymetallic sulphide veins, which have been confirmed by recent drilling to be analogous to VMS feeder systems. There has been no additional drilling of the JEFF zone until the 2020 drilling campaign.

In 1995 and 1996, drilling by Kenrich at the TV zone discovered Au-Ag rich discordant veining and stratified sulphides within mudstone and volcanic host rocks. Recent drilling and subsequent investigation have also confirmed the association with a VMS style mineralizing system, with a marked similarity to the mineralization at the nearby JEFF zone.

Drilling in 2005 by Kenrich-Eskay at the C10 Prospect, intersected high grade Au mineralization, including 1.5 m grading 99 g/t Au.

The most recent work on the property, prior to the 2020 drilling and sampling program, was in 2017 and 2018 when the SIB property, under option to SSR Mining Inc., saw approximately 20,000 m of drilling, to test deeper stratigraphy beneath the historical LULU zone, in the Coulter Creek Thrust Fault footwall. Drilling confirmed the presence of an extensive package of Eskay rhyolite beneath Bowser Basin rock cover but failed to intersect any economic mineralization. SSR declined to continue with the option agreement, and in 2019, the property was returned to Eskay Mining Corp.

The property has seen extensive work by smaller operators over the remainder of its current extent. Further details on the Property and claim-specific historical exploration work can be found in Section 6.

## **1.5 Geological Setting**

Eskay Mining Corp.'s property is located in a mineral-rich district referred to as the Golden Triangle. The district extends over 200km north of Stewart, BC along the western margin of the Stikine terrane. The Stikine terrane is primarily comprised of volcanic rocks of intra-oceanic island arc affinity that were accreted onto ancestral North America in Mesozoic time. The western margin of the Stikine terrane is bound by dominantly plutonic rocks of the Coast Plutonic Complex.

---

Across the region, Stikine rocks were subjected to several deformation and magmatic events during accretion. Structural, magmatic, and hydrothermal activity in the area associated with deformation resulted in the Stikine rocks becoming hosts to prolific mineral deposits, including VMS, porphyry, and polymetallic, high-grade veins. Active mines including Brucejack, and Red Chris are located in this region, along with past-producing Eskay Creek, Granduc, Silbak-Premier, Scottie Gold, and Snip mines that are currently undergoing re-evaluation. Numerous early to advanced-stage exploration is active in the area, including the Galore Creek, Schaft Creek, and KSM deposits.

The property is predominantly underlain by Triassic and Jurassic age island arc-derived marine and volcanic rocks of the Hazelton and Stuhini Groups, as well as overlap assemblage marine sedimentary rocks of the Bowser Lake Group.

Further details of regional and property geology can be found in Sections 7.1 and 7.2.

## **1.6 Mineralization**

The property is host to numerous MINFILE reported showings of different styles of precious and base metal mineralization. Three main types of mineralization occur within the Eskay Mining Corp. property tenure: 1) volcanic-hosted massive sulphide (VMS); 2) polymetallic veins; and 3) magmatic nickel-copper rich massive sulphides. Minor occurrences of porphyry style and shear-hosted vein mineralization are also documented.

The Property is host to 62 recorded British Columbia Minfile Occurrences. Further details of Property mineralization and MINFILE descriptions can be found in Section 6.2.

## **1.7 Recent Exploration**

In 2020, the Exploration by the Company consisted of property-wide ground based and airborne geophysics, lithogeochemical sampling of historical drill core, targeted prospecting over the Tet-C10 and Spearhead Zones, and diamond drilling at the historical TV and JEFF Zones.

Geophysics consisted of 911.7-line km of airborne EM surveying conducted by SkyTEM Inc, 55.85-line km of 3D IP surveying by SJ Geophysics Ltd., and 43.19 Line KM of magnetotelluric (MT) surveying by Quantec Inc. Interpretation, analysis, and inversion of geophysical results is ongoing by Company geophysicists.

Lithogeochemical sampling of historical core was designed to refine the stratigraphic model and give a framework for geochemical comparison between historical drilling and any subsequent drilling by the company. In total, 1826 samples were selected for whole-rock and trace element analysis, from holes drilled at the SIB, TV, C10, Red Lightning, and Spearhead prospects. Historical core from the 1991 JEFF drilling was unable to be located by the field team.

Prospecting focused on confirmation sampling historical results at the silver-rich Tet vein showing area, and at the Spearhead VMS prospect. In total, 13 rock samples were collected from outcrop and analyzed for full suite lithogeochemistry, and gold and silver fire assay.

---

From July 28<sup>th</sup> to August 13<sup>th</sup> 2020, Company field crews completed a preliminary Bulk Leach Extractable Gold (BLEG) survey on the property. Preliminary analysis subdivided the property into first-order drainages, with sampling points designated at the down-stream end of these tributaries. A total of 131 sample locations were able to be accessed by field crews, and samples were gathered from these sites (Figure 9.3.1)

Diamond drilling targeted the under-explored TV and JEFF zones, to confirm historical results and to expand the known extent previously drilled mineralization. In total, 4335 m were drilling in 2020. Massive sulphide, up to 6 m in width, was discovered in multiple holes at the TV zone, defining a new lower zone of mineralization, returning over 1 g/t Au and up to 500 g/t Ag. At the JEFF zone, historical results of up to 71 g/t over 1 m were confirmed, with two holes designed to confirm and expand upon the historical high-grade zone both intersecting grades of > 80 g/t Au. Post-season interpretation and petrography work carried out at the Colorado School of Mines has indicated that both the TV and Jeff zones are consistent with sub-seafloor replacement, and VMS feeder style mineralization, with significant Au and Ag enrichment.

## **1.8 Mineral Processing and Metallurgical Testing**

No mineral processing or metallurgical testing has been carried out on mineralization from the SIB-Corey-North Mitchell Property.

## **1.9 Interpretations and Conclusions**

The Property has been shown to host several VMS targets and several occurrences of vein style mineralization. Main VMS target areas on the property include the SIB-Lulu, TV-Jeff, C10, GFJ, Spearhead, and AP zones. These targets appear to occur at a number of different stratigraphic levels which provide additional prospectivity for mineralisation associated with each hydrothermal system.

Results from comprehensive lithogeochemical sampling and detailed core logging of historic and recent drill core on the property has allowed for the synthesis a new model of the tectonic architecture of the Eskay Mining District. A picture has now emerged of three anticlines, the central Eskay Anticline, the Eastern Anticline and the Western Anticline, wholly or partially underlying Eskay's property (Figures 25.1 and 25.2). Major ramp-type thrust faults are associated with each anticline.

This new model suggests the flanks of each of these three anticlines are prospective for Eskay Creek style VMS mineralization where favourable strata are exposed. Several newly recognized trends along these flanks are evident in recent BLEG, and multi-element geochemical anomalism. Detailed interpretations of the structural and geological elements of the Property, and specific mineralized zones investigated by company geologists in 2020 resulting in the revised geological model.

The revised geological model is strongly supported by the underlying data resulting in a substantial increase of potential for expansion of known prospects but also for the discovery of additional

mineralized zones. The Sib-Corey-Mitchell North Project is a project of merit deserving of additional evaluation of its discovery potential.

## 1.10 Recommendations and Proposed Exploration Budget

Table 1.1: Proposed exploration budget, Phase I program

Activity	Scope	Est. Cost (\$CDN)
SkyTEM Survey	30,000 m of drilling from 35 drill pads	\$1,200,000.00
Drill Services		\$4,800,000.00
Pad Building		\$850,000.00
Geological Mapping		\$150,000.00
Geochemical Sampling		\$250,000.00
Core Boxes		\$150,000.00
Core Cutting, Logging		\$1,750,000.00
Assaying		\$1,250,000.00
Helicopter Services		\$1,900,000.00
Fuel		\$500,000.00
Shipping and Transport		\$100,000.00
Archeology and Permitting		\$40,000.00
Camp		\$2,000,000.00
LiDAR Survey		\$100,000.00
<b>Grand Total*</b>	<b>\$15,040,000.00</b>	

The total budget excludes any provision for corporate support services and activities.

Should the proposed phase of exploration be successful, the next step will be to engage an outside consulting firm to prepare any applicable resources estimates and feasibility studies, as well as environmental baseline monitoring, and additional permitting to guide the company towards development.

## 2.0 INTRODUCTION

### 2.1 Introduction and Terms of Reference

At the request of Eskay Mining Corp. (the “Company”), the authors carried out an independent review of the SIB-Corey-North Mitchell property (the “Property”), located in the Liard Mining Division of northwestern British Columbia, Canada. The authors reviewed available exploration results for the Property, studied reports of nearby mineral occurrences, and prepared this independent Technical Report (the “Report”). The lead author (Darren Lindsay, P.Geo) made a

---

site visit to the property and the core storage facility to verify results of the 2020 drilling campaign. This Report was prepared in accordance with the formatting requirements of National Instrument 43-101 and Form 43-101F1 Standards of Disclosure for Mineral Properties to be a comprehensive review of the result of exploration activities on the Property to date and, if warranted, to provide recommendations for future work. This Report is intended to be read in its entirety.

## 2.2 Site Visit

The lead author made a site visit to the property July 13 -15, 2021 and a site visit to the core storage facility in Penticton, B.C. May 15, 2021. A review of the site facilities, field work areas and target areas as well as field procedures and camp and logging facilities. Drill holes sites and drill core from the last exploration campaign was reviewed to verify the geological interpretations and assay results. A total of 5 Samples were gathered from coarse reject material from high grade intercepts from the TV and Jeff Zones. In preparation for the site visits, the author reviewed all aspects of exploration work carried out to date on the Property, including geologic mapping, geochemical sampling and drilling, and Company QA/QC protocols.

Additional site visits by the co-authors can be summarized as follows:

Author Mr. Prowse was on the property from mid July 2020 to end of October 2020 reviewing the geology, alteration and mineralisation style in the field and in the drill core. He also evaluated the target areas for potential geophysical and geochemical surveys with attention for the ability to successfully execute and collect meaningful data sets. Review of potential drill sites was also undertaken to determine accessibility.

Author Dr. DeDecker was on the property from mid July 2020 through mid August 2020 reviewing stratigraphy, structure, alteration and mineralisation and leading the reinterpretation of the geological model thereby redefining the target model for the project.

Author Ms Kim was on the property from mid July 2020 through end of October 2020 reviewing the geology, alteration and mineralisation style in the field and in the drill core; she also evaluated the target areas for potential geophysical and geochemical surveys as well as determining the ability to successfully execute and collect meaningful data sets.

The authors have reviewed previous exploration activities on the Property, including assessment reports on file available through the BC Government's Ministry of Energy, Mines & Petroleum Resources ARIS (Assessment Report Indexing System) database, which were prepared between 1980 and 2018. This Report in part draws upon and references past work and reports by other qualified geologists and professional field personnel. Other non-project specific reports by qualified personnel have been referenced wherever possible. Though some of the earlier work referenced was carried out in the era prior to adoption of the NI 43-101 standard, it is the opinion of the authors that the work referred to was carried out in a workmanlike, professional manner, and can be relied upon. This does not include the historical resource calculations done by previous operators, and these resources should not be relied upon in any way. The information, conclusions, opinions and recommendations in this Report are based upon:

- information available to the author at the time of preparation;

- assumptions, conditions and qualifications as set forth in this Report;
- data, reports and other information provided by Eskay Mining Corp. and other third-party sources; and
- published reports from the operating mines in the region, plus other published government reports and scientific papers.

Statistics, weather and local information for the Project area was obtained from historical assessment reports and personal knowledge of the Property area. A detailed list of references and sources of information is provided in the References section of this Report.

## 2.3 Abbreviations and Units of Measure

Metric units are used throughout this Report and currencies are in Canadian Dollars (CAD\$) unless otherwise stated. Market gold or silver metal prices are reported in US\$ per troy ounce. A list of abbreviations used in this Report is provided in Table 2.1 below.

**Table 2.1: Abbreviations used in this report**

Abbreviation	Description	Abbreviation	Description
AA	atomic absorption	li	Limonite
Ag	silver	m	Metre
ASL	above sea level	m <sup>2</sup>	square metre
As, aspy	Arsenic, arsenopyrite	m <sup>3</sup>	cubic metre
Au	gold	Ma	million years ago
AuEQ	gold equivalent grade	mg	Magnetite
AgEQ	silver equivalent grade	mm	Millimetre
Az	azimuth	mm <sup>2</sup>	square millimetre
Bi	bismuth	Moz	million troy ounces
b.y.	billion years	ser	Sericite
C\$ or \$	Canadian dollar	Mt	million tonnes
ca	calcite	mu	Muscovite
cl	chlorite	m.y.	million years
cm	centimetre	NI 43-101	National Instrument 43-101
cm <sup>2</sup>	square centimetre	oz/ton	troy ounces per short ton (34.285 grams/tonne)
cp	chalcopyrite	oz	troy ounce (31.1035 grams)
Cu	copper	Pb	Lead
cy	clay	pf	plagioclase feldspar
°C	degree Celsius	po	Pyrrhotite
°F	degree Fahrenheit	ppb	parts per billion
DDH	diamond drill hole	ppm	parts per million
ep	epidote	py	Pyrite
ft	feet	QA	Quality Assurance
ft <sup>2</sup>	square feet	QC	Quality Control
ft <sup>3</sup>	cubic feet	qz	quartz
g	gram	RQD	rock quality description
gn	galena	Sb	antimony
go	goethite	SEDAR	System for Electronic Document Analysis & Retrieval
GPS	Global Positioning System	SG	specific gravity
gpt, g/t	grams per tonne	sph	sphalerite
ha	hectare	t	tonne (1,000 kg or 2,204.6 lbs)
Hg	mercury	Te	Tellurium
hm	hematite	to	tourmaline

ICP	inductively coupled plasma	ton	short ton (2,000 pounds)
kf	potassium feldspar	um	micron
kg	kilogram	US\$	United States dollar
km	kilometre	VMS	Volcanogenic massive sulphide
km <sup>2</sup>	square kilometre	Zn	zinc

## 2.4 Acknowledgements

The authors wish to thank the officers and personnel of Eskay Mining Corp., Colorado School of Mines and C.J. Greig & Associates Ltd. for providing the technical materials and assistance required to prepare this Report.

## 3.0 RELIANCE ON OTHER EXPERTS

On May 30, 2021, the authors confirmed the status and registration of the subject mineral tenures with information available through the web page of the Mineral Titles Branch, Ministry of Energy, Mines and Petroleum Resources, Government of British Columbia at:

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

This B.C. government agency records tenure information for all mineral claims in the province.

The British Columbia Ministry of Energy, Mines and Petroleum Resources geological library was accessed for geological maps and reports found at:

<https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/geology>

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Mineral Resources

No NI 43-101 compliant mineral resource estimate has been undertaken for the SIB-Corey-North Mitchell mineralization as there is insufficient data to perform such an estimate.

### 4.2 Property Location

The SIB-Corey-North Mitchell Property is located in the Skeena Mining Division of northwest British Columbia, approximately 55 kilometres northwest of the community of Stewart, BC. The claims are centred at Latitude 56° 31' N, Longitude 130° 28' W or, in North American Datum 83 (NAD 83) coordinate system, Zone 9 N, at 409700E, 6,266,700N, on NTS Map Sheets 108B/07, 08, 09, 10 (Figure 4.3.1). The Property lies 1 km east and 5 km south of the road accessible Eskay Creek Mine site, which is connected to Highway 37 by a 57-kilometre long, gated, gravel access road. Figure 5.1.2 shows the location of the Property in relation to current and past producers.

---

### 4.3 Property Description

The SIB-Corey-North Mitchell Property consists of 195 Mineral Titles Online (MTO) digitally registered mineral tenures totalling 55,603.10 ha. The tenures comprising the Project were staked between 1972 and 2020 and are registered to Eskay Mining Corp. (owner number 113925). Historically, 142 Mineral Titles comprising 40,337.56 Ha were held in a joint venture agreement with St. Andrew Goldfields Ltd (a wholly owned subsidiary of Kirkland Lake Gold Ltd.), where St. Andrew Goldfields Ltd retained a 20% interest. In an agreement finalized 08 March 2021, St. Andrew Goldfields Ltd converted their ownership stake to a 2% Net Smelter Royalty; 1% of the NSR can be repurchased for \$3 million.

Many of the additional royalty agreements are poorly documented and have not been confirmed with original documents however they are included in the report for completeness as provided by R.Billingsley (pers.comm. 2021). Thirty of the original 52 Eskay claims are also subject to a 2% NSR held by Consultants Victoria dated 2006. A Mr. N. Archibald holds rights to a 1% NSR on seven claims as well as a 1% NSR on the same claim group as the St. Andrew Goldfields royalty. Clive Ashworth and Malcom Bell, original claim owners of the COUL and UNUK Claim blocks retain a 2% NSR, which includes the JEFF showing. Claims subject to this NSR consist of the following mineral tenures: 251344, 251345, 251346, 251347, 251358, 251360, 251361, 251374, 251375, 251379 which are also included in the Archibald and St. Andrew Goldfields royalties. Mr.F.Christensen holds a 4% royalty on eight claims. Historic documents indicate a potential royalty held by a company that was subsequently acquired by St Andrew Goldfields Ltd, it is not clear if that acquisition removed the 5% NSR royalty on 18 of the claims. Calypso Developments holds a 2% NSR interest in two claims, Swift Minerals holds a 5% interest in one claim, and a single claim has an interest held by Grenfal of 2.5% NSR (Billingsley, 2021 pers.comm). Royalties as they are known are listed in Table 4.1.

All Mineral Tenures are 100% owned by Eskay Mining Corp. The mineral tenures are listed in Table 4.1 and are shown in Figure 4.3.2 - Figure 4.3.4.

Note: The tenure information shown is effective May 30, 2021.

**Table 4.1: Sib-Corey-Mitchell North Property mineral tenures and subject royalties, all NSR royalties.**

Title No	Claim Name	Owner	Issue Date	Good To Date	Area (ha)	Grenfell 25Jun1990	Ashworth - Bell March2002	Christensen 05June1990	TEG 2 Claims 20Apr 2001	Calypso Dev 14Feb2002	Nick Archibald	Consultants Victoria 20Jun2006	St. Andrew 2021
251344	COUL 1	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251345	COUL 2	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251346	COUL 3	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251347	COUL 4	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251358	UNUK 1	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251360	UNUK 11	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251361	UNUK 12	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251374	UNUK 13	113925 (100%)	1986/FEB/28	2029/JUN/30	400.00		2%				1%		2%
251375	UNUK 14	113925 (100%)	1986/FEB/28	2029/JUN/30	400.00		2%				1%		2%
251379	UNUK 22	113925 (100%)	1986/FEB/28	2029/JUN/30	500.00		2%				1%		2%
251844	LANCE 3	113925 (100%)	1987/APR/28	2029/JUN/30	450.00						1%		2%
251845	LANCE 4	113925 (100%)	1987/APR/28	2029/JUN/30	450.00						1%		2%
252352	SKOOKUM	113925 (100%)	1989/JAN/13	2029/JUN/30	400.00	2.5%					1%		2%
252872	SIB 27	113925 (100%)	1989/JUN/29	2029/JAN/03	25.00						1%		2%
252876	SIB 31	113925 (100%)	1989/JUN/29	2029/JAN/03	25.00						1%		2%
253015	POLO 7	113925 (100%)	1989/SEP/04	2029/JAN/03	500.00						1%		2%
253016	POLO 8	113925 (100%)	1989/SEP/04	2029/JUN/30	500.00						1%		2%
253146	AFTOM #7	113925 (100%)	1989/SEP/16	2029/JUN/30	400.00			4%	5%		1%		2%
253147	AFTOM #9	113925 (100%)	1989/SEP/15	2029/JUN/30	500.00			4%	5%		1%		2%
253152	AFTOM #14	113925 (100%)	1989/SEP/13	2029/JUN/30	500.00			4%	5%		1%		2%
253153	AFTOM #15	113925 (100%)	1989/SEP/13	2029/JUN/30	500.00			4%	5%		1%		2%
253154	AFTOM #16	113925 (100%)	1989/SEP/18	2029/JUN/30	400.00			4%	5%		1%		2%
253155	AFTOM #18	113925 (100%)	1989/SEP/17	2029/JUN/30	400.00			4%	5%		1%		2%
253156	AFTOM #19	113925 (100%)	1989/SEP/16	2029/JUN/30	500.00			4%	5%		1%		2%
253157	AFTOM #20	113925 (100%)	1989/SEP/17	2029/JAN/03	500.00			4%	5%		1%		2%
253176	P-MAC #1	113925 (100%)	1989/SEP/14	2029/JUN/30	25.00				5%		1%		2%
253177	P-MAC #2	113925 (100%)	1989/SEP/14	2029/JUN/30	25.00				5%		1%		2%
253180	P-MAC #5	113925 (100%)	1989/SEP/14	2029/JUN/30	25.00				5%		1%		2%
253182	P-MAC #7	113925 (100%)	1989/SEP/14	2029/JUN/30	25.00				5%		1%		2%
253184	P-MAC #9	113925 (100%)	1989/SEP/14	2029/JUN/30	25.00				5%		1%		2%
253240	POLO 13	113925 (100%)	1989/SEP/15	2029/JUN/30	125.00						1%		2%
253295	FRED 15	113925 (100%)	1989/OCT/11	2029/JAN/03	375.00				5%		1%		2%
255254	S.I.B. #1	113925 (100%)	1972/MAY/31	2029/JAN/03	25.00						1%		2%
255255	S.I.B. #2	113925 (100%)	1972/MAY/31	2029/JAN/03	25.00						1%		2%
255256	S.I.B. #3	113925 (100%)	1982/MAY/31	2029/JAN/03	25.00						1%		2%
255257	S.I.B. #4	113925 (100%)	1972/MAY/31	2029/JAN/03	25.00						1%		2%
304070	RAMBO 1	113925 (100%)	1991/SEP/09	2029/JAN/03	25.00						1%		2%
304072	RAMBO 3	113925 (100%)	1991/SEP/09	2029/JAN/03	25.00						1%		2%
304074	RAMBO 5	113925 (100%)	1991/SEP/09	2029/JAN/03	25.00						1%		2%
305317	FOG 1	113925 (100%)	1991/OCT/05	2029/JAN/03	25.00						1%		2%
305318	FOG 2	113925 (100%)	1991/OCT/05	2029/JAN/03	25.00						1%		2%
305319	FOG 3	113925 (100%)	1991/OCT/05	2029/JAN/03	25.00						1%		2%
305320	FOG 4	113925 (100%)	1991/OCT/05	2029/JAN/03	25.00						1%		2%
305321	FOG 5	113925 (100%)	1991/OCT/05	2029/JAN/03	25.00						1%		2%
305322	FOG 6	113925 (100%)	1991/OCT/05	2029/JAN/03	25.00						1%		2%
306723	NOOT 1	113925 (100%)	1991/NOV/29	2029/JAN/03	500.00				5%		1%		2%
306724	NOOT 2	113925 (100%)	1991/NOV/29	2029/JAN/03	500.00				5%		1%		2%
306725	NOOT 3	113925 (100%)	1991/NOV/29	2029/JAN/03	500.00				5%		1%		2%
313285	CALVIN	113925 (100%)	1992/SEP/17	2029/JUN/30	500.00				5%		1%		2%
367934	PUD 1	113925 (100%)	1999/FEB/25	2029/JUN/30	500.00					2%	1%		2%
367935	PUD 2	113925 (100%)	1999/FEB/25	2029/JUN/30	100.00					2%	1%		2%
367943	MEGAN 1	113925 (100%)	1999/FEB/25	2029/JUN/30	25.00						1%		2%
367944	MEGAN 2	113925 (100%)	1999/FEB/25	2029/JUN/30	25.00						1%		2%
373867	STO 2	113925 (100%)	1999/DEC/15	2029/JUN/30	125.00						1%		2%

Title No	Claim Name	Owner	Issue Date	Good To Date	Area (ha)	Grenfell 25-Jun-1990	Ashworth - Bell March 2002	Christensen 05-June-1990	TEG 2 Claims 20Apr 2001	Calypto Dev 14-Feb-2002	Nick Archibald	Consultants Victoria 20-Jun-2006	St. Andrew 2021
384019	JOHN 1	113925 (100%)	2001/FEB/12	2029/JUN/30	400.00						1%		2%
384020	JOHN 2	113925 (100%)	2001/FEB/12	2029/JUN/30	400.00						1%		2%
387231	IRVING 1	113925 (100%)	2001/JUN/04	2029/JUN/30	500.00						1%		2%
387233	IRVING 3	113925 (100%)	2001/JUN/04	2029/JUN/30	500.00						1%		2%
387237	BELL 1	113925 (100%)	2001/JUN/04	2029/JUN/30	500.00						1%		2%
387238	BELL 2	113925 (100%)	2001/JUN/04	2029/JUN/30	500.00						1%		2%
387239	BELL 3	113925 (100%)	2001/JUN/04	2029/JUN/30	375.00						1%		2%
387240	BELL 4	113925 (100%)	2001/JUN/04	2029/JUN/30	500.00						1%		2%
387241	BELL 5	113925 (100%)	2001/JUN/04	2029/JUN/30	200.00						1%		2%
387245	BELL 6	113925 (100%)	2001/JUN/04	2029/JUN/30	250.00						1%		2%
387248	BELL 7	113925 (100%)	2001/JUN/04	2029/JUN/30	175.00						1%		2%
387249	BELL 8	113925 (100%)	2001/JUN/04	2029/JUN/30	125.00						1%		2%
389463	TOON 1	113925 (100%)	2001/SEP/10	2029/JUN/30	50.00						1%		2%
389464	TOON 2	113925 (100%)	2001/SEP/10	2029/JUN/30	300.00						1%		2%
390911	HARRY 1	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390912	HARRY 2	113925 (100%)	2001/NOV/16	2029/JUN/30	375.00						1%		2%
390913	HARRY 3	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390914	SC 1	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390915	SC 2	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390916	SC 3	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390917	SC 4	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390918	SC 5	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390919	SC 6	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390920	SC 7	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
390921	SC 8	113925 (100%)	2001/NOV/16	2029/JUN/30	500.00						1%		2%
392425	HARRY 4	113925 (100%)	2002/MAR/22	2029/JUN/30	500.00						1%		2%
392426	HARRY 5	113925 (100%)	2002/MAR/22	2029/JUN/30	100.00						1%		2%
392427	KING 1	113925 (100%)	2002/MAR/22	2029/JUN/30	75.00						1%		2%
392428	KING 2	113925 (100%)	2002/MAR/22	2029/JUN/30	400.00						1%		2%
392429	KING 3	113925 (100%)	2002/MAR/22	2029/JUN/30	450.00						1%		2%
392430	KING 4	113925 (100%)	2002/MAR/22	2029/JUN/30	450.00						1%		2%
392431	KING 5	113925 (100%)	2002/MAR/22	2029/JUN/30	450.00						1%		2%
392432	KING 6	113925 (100%)	2002/MAR/22	2029/JUN/30	300.00						1%		2%
392433	KING 7	113925 (100%)	2002/MAR/22	2029/JUN/30	450.00						1%		2%
392438	TC 13	113925 (100%)	2002/MAR/21	2024/JUN/22	500.00						1%		2%
392439	TC 14	113925 (100%)	2002/MAR/21	2024/JUN/22	500.00						1%		2%
392440	VALCANO 1	113925 (100%)	2002/MAR/22	2029/JUN/30	450.00						1%		2%
392441	VALCANO 2	113925 (100%)	2002/MAR/22	2029/JUN/30	450.00						1%		2%
392442	VALCANO 3	113925 (100%)	2002/MAR/22	2029/JUN/30	400.00						1%		2%
392443	VALCANO 4	113925 (100%)	2002/MAR/22	2029/JUN/30	400.00						1%		2%
392444	VALCANO 5	113925 (100%)	2002/MAR/23	2029/JUN/30	225.00						1%		2%
392445	VALCANO 6	113925 (100%)	2002/MAR/23	2029/JUN/30	450.00						1%		2%
392446	VALCANO 7	113925 (100%)	2002/MAR/23	2029/JUN/30	450.00						1%		2%
392447	VALCANO 8	113925 (100%)	2002/MAR/22	2030/JUN/30	400.00						1%		2%
392448	VALCANO 9	113925 (100%)	2002/MAR/22	2029/JUN/30	400.00						1%		2%
392449	CALVIN 2	113925 (100%)	2002/MAR/23	2029/JUN/30	350.00						1%		2%
392450	CALVIN 3	113925 (100%)	2002/MAR/23	2029/JUN/30	350.00						1%		2%
392451	CALVIN 4	113925 (100%)	2002/MAR/23	2029/JUN/30	250.00						1%		2%
392452	CALVIN 5	113925 (100%)	2002/MAR/23	2029/JUN/30	500.00						1%		2%
392453	GINGRASS 1	113925 (100%)	2002/MAR/21	2029/JUN/30	150.00						1%		2%
392454	GINGRASS 2	113925 (100%)	2002/MAR/21	2029/JUN/30	500.00						1%		2%
392455	GINGRASS 3	113925 (100%)	2002/MAR/21	2029/JUN/30	300.00						1%		2%
392456	GINGRASS 4	113925 (100%)	2002/MAR/21	2029/JUN/30	225.00						1%		2%
392457	GINGRASS 5	113925 (100%)	2002/MAR/21	2029/JUN/30	300.00						1%		2%

Title No	Claim Name	Owner	Issue Date	Good To Date	Area (ha)	Grenfal 25Jun1990	Ashworth - Bell March2002	Christensen 05June1990	TEG 2 Claims 20Apr2001	Calypto Dev 14Feb2002	Nick Archibald	Consultants Victoria 20Jun2006	St. Andrew 2021
392458	IRVING 5	113925 (100%)	2002/MAR/23	2029/JUN/30	225.00						1%		2%
392459	IRVING 6	113925 (100%)	2002/MAR/23	2029/JUN/30	450.00						1%		2%
394157	LANCE 5	113925 (100%)	2002/JUN/09	2029/JUN/30	150.00						1%		2%
394158	MEGAN 3	113925 (100%)	2002/JUN/09	2029/JUN/30	100.00						1%		2%
394159	MEGAN 4	113925 (100%)	2002/JUN/08	2029/JUN/30	75.00						1%		2%
394160	SKI	113925 (100%)	2002/JUN/09	2029/JUN/30	125.00						1%		2%
394161	DWAYNE 2	113925 (100%)	2002/JUN/08	2029/JUN/30	175.00						1%		2%
394162	AFT	113925 (100%)	2002/JUN/09	2029/JAN/03	50.00						1%		2%
394163	SHIRLEY	113925 (100%)	2002/JUN/09	2021/JAN/31	75.00						1%		2%
394164	FREDDY 1	113925 (100%)	2002/JUN/09	2029/JAN/03	75.00						1%		2%
404668	SUL 1	113925 (100%)	2003/AUG/07	2029/JUN/30	500.00						1%		2%
404669	SUL 2	113925 (100%)	2003/AUG/07	2029/JUN/30	500.00						1%		2%
527171		113925 (100%)	2006/FEB/06	2029/JAN/03	231.62						1%		2%
527172		113925 (100%)	2006/FEB/06	2029/JAN/03	17.81						1%		2%
527177		113925 (100%)	2006/FEB/06	2029/JAN/03	320.87						1%		2%
527180		113925 (100%)	2006/FEB/06	2029/JAN/03	35.62						1%		2%
527241		113925 (100%)	2006/FEB/07	2029/JAN/03	178.25				5%		1%		2%
528661		113925 (100%)	2006/FEB/20	2029/JAN/03	142.47						1%		2%
528664	SIB FIXUP 1	113925 (100%)	2006/FEB/20	2029/JAN/03	35.62						1%		2%
528665	SIB FIXUP 2	113925 (100%)	2006/FEB/20	2029/JAN/03	17.81						1%		2%
528666	SIB FIXUP 3	113925 (100%)	2006/FEB/20	2029/JAN/03	17.82						1%		2%
541059		113925 (100%)	2006/SEP/11	2029/JUN/30	17.81						1%		2%
566735	ST ANDREW 1	113925 (100%)	2007/SEP/26	2024/JUN/22	160.60						1%		2%
566739	ST ANDREW 2	113925 (100%)	2007/SEP/26	2024/JUN/22	249.78						1%		2%
566751	ST ANDREW 3	113925 (100%)	2007/SEP/26	2024/JUN/22	17.85						1%		2%
566752	ST ANDREW 4	113925 (100%)	2007/SEP/26	2024/JUN/22	17.84						1%		2%
1037723	NEW ESKAY CREEK 1	113925 (100%)	2015/AUG/04	2026/DEC/15	569.49								
1043810		113925 (100%)	2016/APR/30	2029/JUN/30	53.45						1%		
1043811		113925 (100%)	2016/APR/30	2029/JUN/30	53.45						1%		
1043812		113925 (100%)	2016/APR/30	2029/JUN/30	35.63						1%		
1043813		113925 (100%)	2016/APR/30	2029/JUN/30	35.63						1%		
1043814		113925 (100%)	2016/APR/30	2029/JUN/30	35.62						1%		
1043815		113925 (100%)	2016/APR/30	2029/JUN/30	17.82						1%		
1043816	P-MAC CLEAN-UP	113925 (100%)	2016/APR/30	2029/JUN/30	89.07								
1043825	MAC 1	113925 (100%)	2016/APR/30	2029/JUN/30	35.63						1%		
251446	COREY 1	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251447	COREY 2	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251448	COREY 3	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251449	COREY 4	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251450	COREY 5	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251451	COREY 6	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251452	COREY 7	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251453	COREY 8	113925 (100%)	1986/JUN/25	2029/JUN/30	500.00							2%	
251723	COREY 21	113925 (100%)	1987/FEB/11	2029/JUN/30	100.00							2%	
251726	COREY 24	113925 (100%)	1987/FEB/11	2029/JUN/30	400.00							2%	
251727	COREY 25	113925 (100%)	1987/FEB/11	2029/JUN/30	100.00							2%	
251728	COREY 26	113925 (100%)	1987/FEB/11	2029/JUN/30	100.00							2%	
251729	COREY 27	113925 (100%)	1987/FEB/11	2029/JUN/30	400.00							2%	
251730	COREY 28	113925 (100%)	1987/FEB/11	2029/JUN/30	400.00							2%	
251731	COREY 29	113925 (100%)	1987/FEB/11	2029/JUN/30	200.00							2%	
251732	COREY 30	113925 (100%)	1987/FEB/11	2029/JUN/30	200.00							2%	
251733	COREY 31	113925 (100%)	1987/FEB/11	2029/JUN/30	400.00							2%	
251734	COREY 32	113925 (100%)	1987/FEB/11	2029/JUN/30	500.00							2%	
251735	COREY 33	113925 (100%)	1987/FEB/11	2029/JUN/30	500.00							2%	

Title No	Claim Name	Owner	Issue Date	Good To Date	Area (ha)	Grenfell 25 Jun 1990	Ashworth - Bell March 2002	Christensen 05 June 1990	TEG 2 Claims 20A pr 2001	Calypso Dev 14 Feb 2002	Nick Archibald	Consultants Victoria 20 Jun 2006	St. Andrew 2021
251736	COREY 34	113925 (100%)	1987/FEB/11	2029/JUN/30	500.00							2%	
251737	COREY 35	113925 (100%)	1987/FEB/11	2029/JUN/30	500.00							2%	
251738	COREY 36	113925 (100%)	1987/FEB/11	2029/JUN/30	350.00							2%	
251739	COREY 37	113925 (100%)	1987/FEB/11	2029/JUN/30	350.00							2%	
252107	JOJO M	113925 (100%)	1988/MAY/13	2029/JUN/30	450.00							2%	
252108	CARL J	113925 (100%)	1988/MAY/13	2029/JUN/30	500.00							2%	
252111	DWAYNE 1	113925 (100%)	1988/MAY/13	2029/JUN/30	400.00							2%	
301766	GINGER 1	113925 (100%)	1991/JUN/26	2029/JUN/30	500.00							2%	
301767	GINGER 2	113925 (100%)	1991/JUN/26	2029/JUN/30	500.00							2%	
308909	DEL-1	113925 (100%)	1992/APR/16	2029/JUN/30	200.00							2%	
508074		113925 (100%)	2005/FEB/28	2029/JUN/30	429.79								
508080		113925 (100%)	2005/FEB/28	2029/JUN/30	358.16								
517031	WINA	113925 (100%)	2005/JUL/12	2029/JUN/30	321.15								
517100	WINA2	113925 (100%)	2005/JUL/12	2029/JUN/30	124.92								
517148	DAR	113925 (100%)	2005/JUL/12	2029/JUN/30	53.58								
517241	SWAMP	113925 (100%)	2005/JUL/12	2029/JUN/30	17.87								
529757	UNUK SE FRACTION	113925 (100%)	2006/MAR/08	2029/JUN/30	71.65								
529758		113925 (100%)	2006/MAR/08	2029/JUN/30	178.44							2%	
1034028	CRACK-FILLER	113925 (100%)	2015/FEB/11	2029/JUN/30	537.07								
1045213	ESKAY FB 90	113925 (100%)	2016/JUL/08	2029/JUN/30	142.54								
1062255	NEW ESKAY BORDER	113925 (100%)	2018/AUG/09	2029/JAN/03	106.93								
1062258		113925 (100%)	2018/AUG/09	2029/JAN/03	249.78								
1062321	ESKAY SLIVER	113925 (100%)	2018/AUG/13	2029/JAN/03	17.82								
1062322	ESKAY SLIVER 1	113925 (100%)	2018/AUG/13	2029/JAN/03	107.35								
1062323	ESKAY SLIVER 2	113925 (100%)	2018/AUG/13	2029/JAN/03	89.44								
1062324	ESKAY SLIVER 3	113925 (100%)	2018/AUG/13	2029/JAN/03	179.13								
1062325	ESKAY SLIVER 4	113925 (100%)	2018/AUG/13	2029/JAN/03	35.57								
1062326	ESKAY SLIVER 5	113925 (100%)	2018/AUG/13	2029/JAN/03	266.64								
1064068	JOJO SOUTH	113925 (100%)	2018/OCT/26	2029/JAN/03	178.65								
1064074	HARRY 4 WEST	113925 (100%)	2018/OCT/27	2029/JAN/03	71.41								
1072290	GOOD SLICE	113925 (100%)	2019/OCT/31	2020/NOV/02	35.62								
1080222	VALCANO 10	113925 (100%)	2020/DEC/25	2021/DEC/25	124.28								
1080223	VALCANO 11	113925 (100%)	2020/DEC/25	2021/DEC/25	17.77								
		<b>195 Claims</b>		<b>Total (ha):</b>	<b>55,603.10</b>								

The authors have determined, by viewing British Columbia Mineral Titles Online records, that the mineral tenures are in good standing as of the writing of this Report, with expiration dates shown in the above table. The Project currently has two Mineral Exploration Activities & Reclamation Permits for the SIB and the Corey areas (including TV and Jeff), while an Application for an exploration permit for 2021 has been submitted to the BC Ministry of Mines to cover a relatively underexplored area in the northeastern part of the Corey Claims that recently returned very encouraging bulk leach extractable gold (BLEG) sample results. The opinion of the authors, the granting of such a permit is considered very probable.

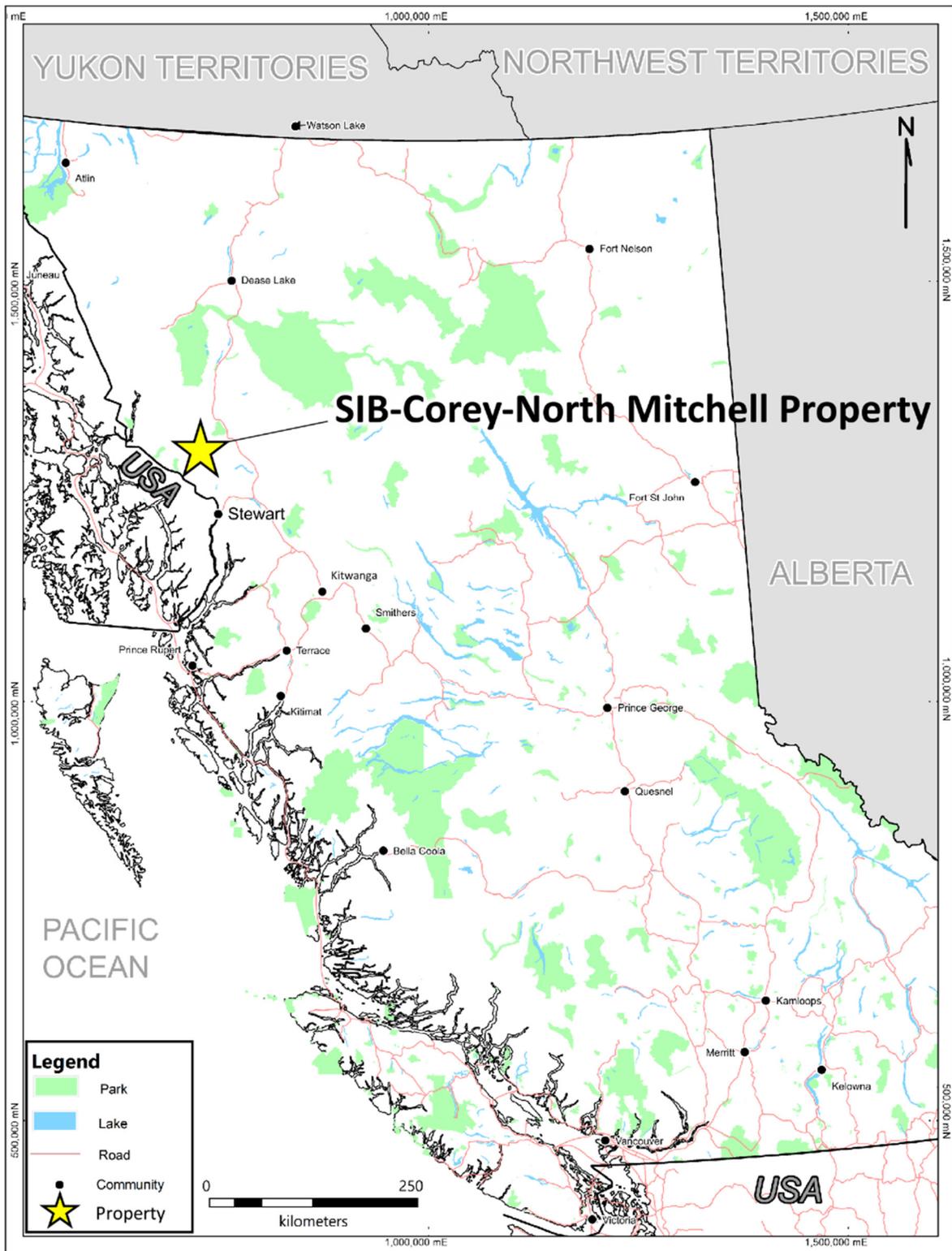


Figure 4.3.1: Location of the Property in BC.

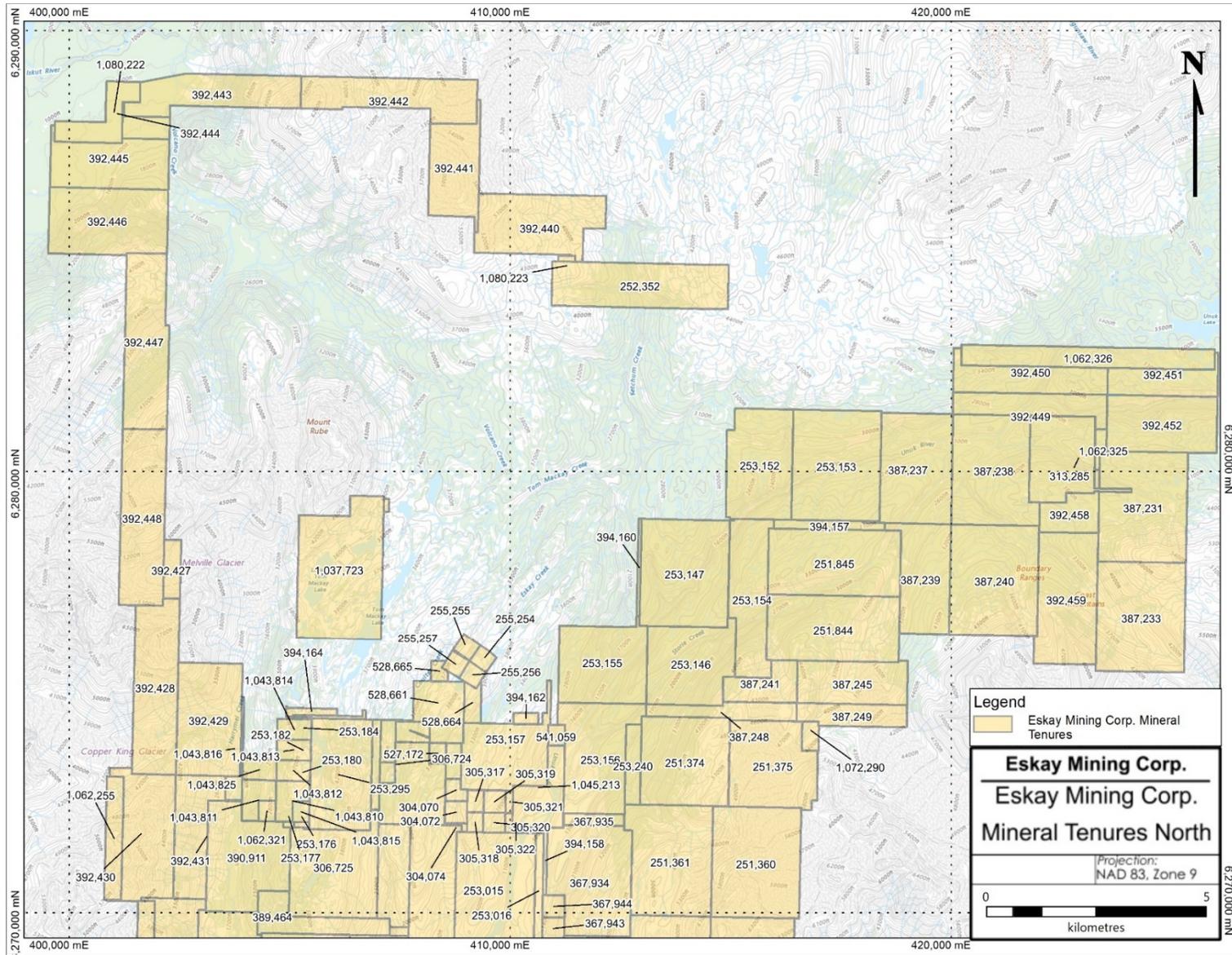
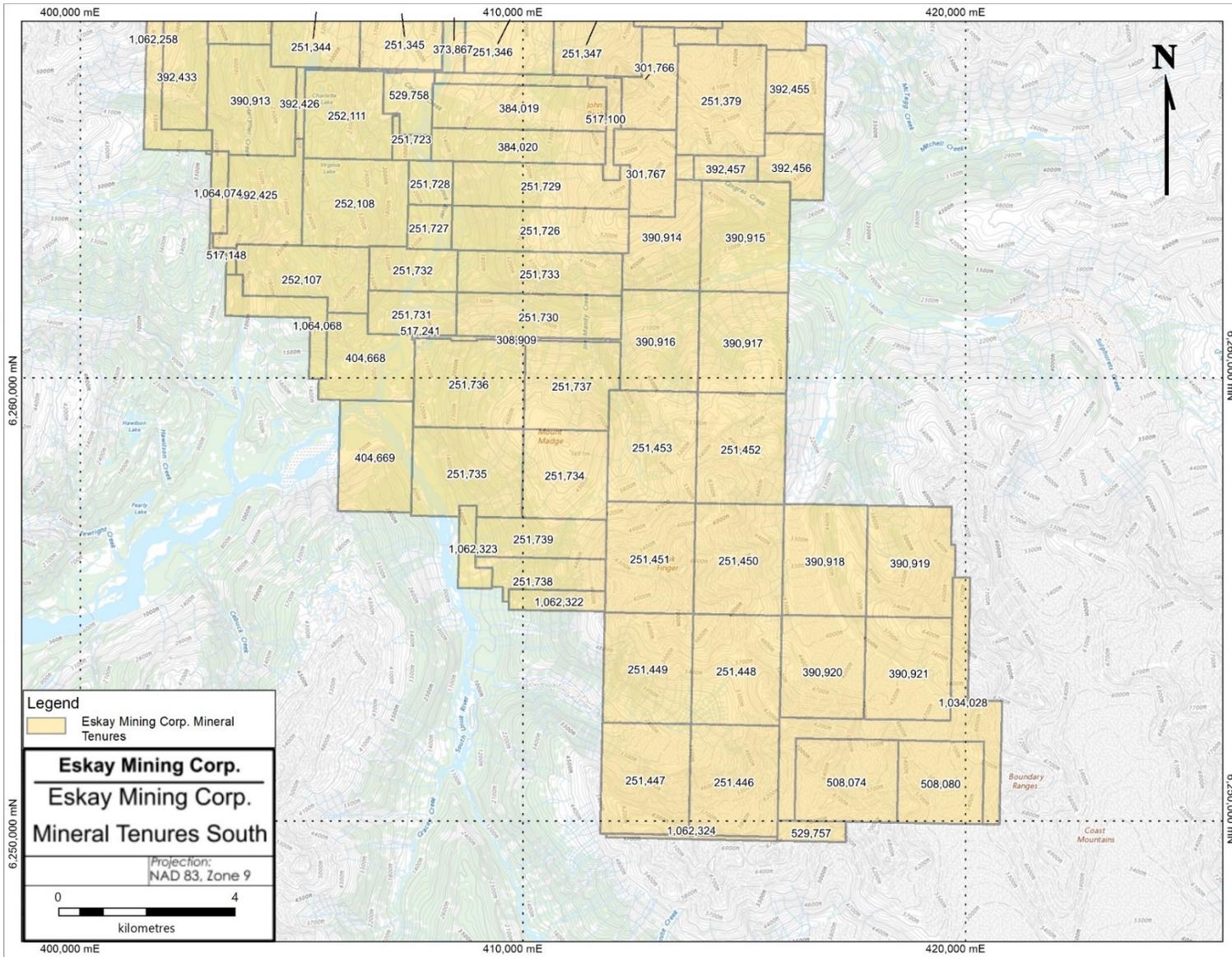


Figure 4.3.2: SIB-Corey-North Mitchell Property northern mineral tenures.



**Figure 4.3.3: SIB-Corey-North Mitchell Property southern mineral tenures.**

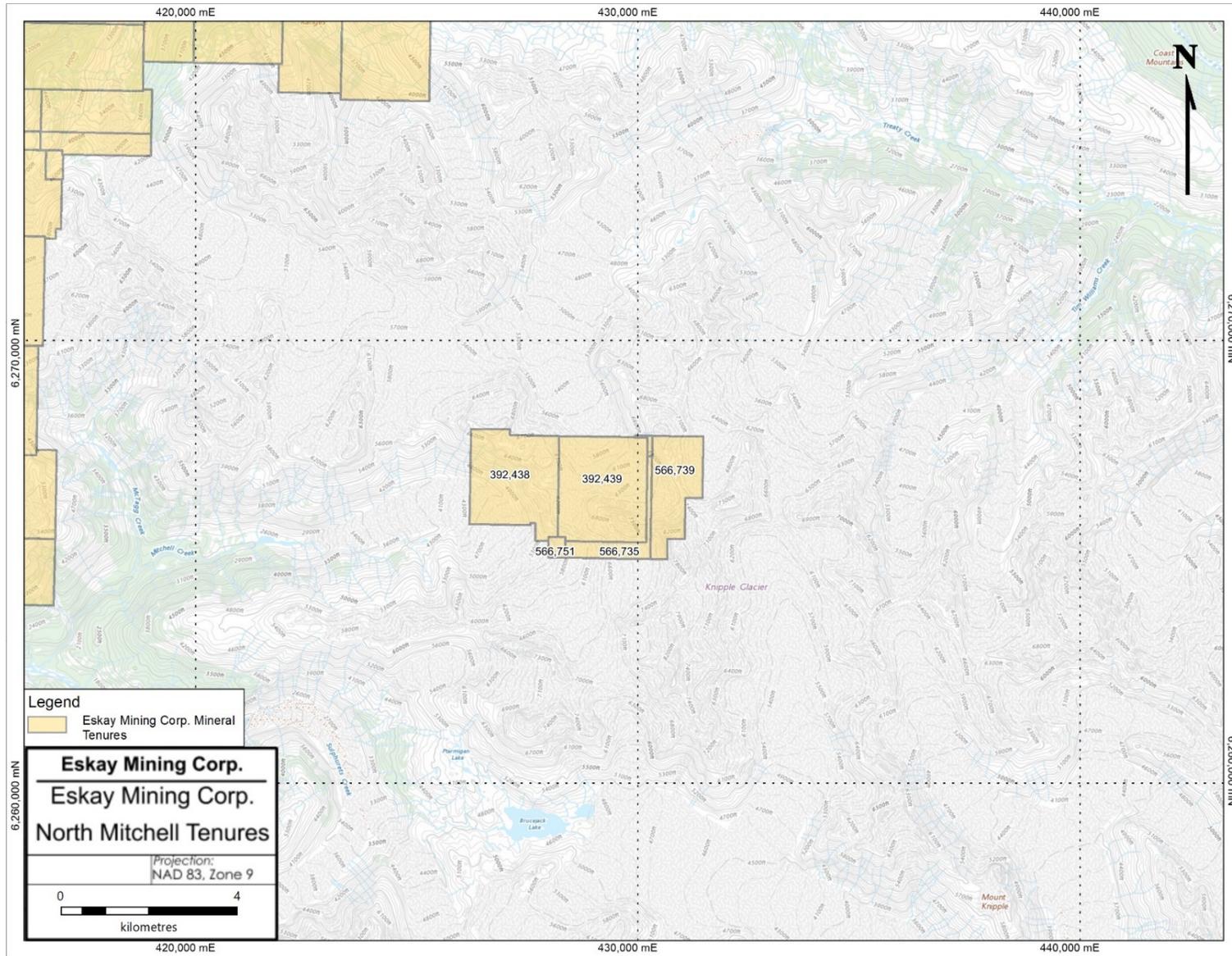


Figure 4.3.4: SIB-Corey-North Mitchell Property North Mitchell Block tenures.

---

#### **4.4 Mineral Tenure Ownership in British Columbia**

In British Columbia, the owner of a mineral claim is granted 100% ownership of all sub-surface minerals. A valid Free Miner Certificate (“FMC”) is required to record a claim or acquire a recorded claim or interest in a recorded claim by transfer, and to conduct exploration for minerals on mineral claims within British Columbia. A company FMC is available to any registered corporation in good standing for a fee of \$500, and to individuals for \$25, renewable annually.

Mineral titles in British Columbia are acquired and maintained through Mineral Titles Online, a computerized system that provides map-based staking. Acquisition costs for claims are \$1.75 per hectare. This confers ownership of the claim for one year beyond the date of staking. To continue to hold the claims beyond the first year, the owner must complete assessment work, either physical or technical, on the Property. A report must be filed detailing the work performed and the results. These assessment reports remain confidential for one year and then become available for public access. If assessment work or cash in lieu is not filed by the required date the claims will automatically forfeit. For years 1 and 2 of claim existence the work requirement is \$5 per hectare per year, for years 3 and 4 it is \$10 per year, years 5 and 6 it is \$15 per year, and thereafter \$20 per year. Rather than work on the Property, cash in lieu may be paid to hold the claims, at a rate twice that of exploration work. The SIB-Corey-Mitchell North Property tenures are in their 3<sup>rd</sup> to 6<sup>th</sup> years and beyond, thereby requiring \$10, \$15, and \$20 per hectare in exploration costs for each year applied for assessment or \$20 to \$40 per hectare cash in lieu for each year.

The claims that comprise the Property are wholly located on Crown Land and the province of British Columbia owns all surface rights. There is no privately held ground within the area of the Property.

#### **4.5 Environmental Regulations & Exploration Permits**

A reclamation bond or security is required to be posted with the government of BC as part of the exploration permitting process to pay for the cost of reclamation of surface disturbance in the event that a company defaults on its obligation to perform any required remediation. Permits and reclamation security are required for any type of exploration work that may cause disturbance or possible environmental damage to the land. These include, but are not limited to, the following:

- construction of drill sites and heli-pads
- camp construction
- construction of roads or trails
- cutting of geophysical cut-lines
- trenching
- drilling and blasting
- underground development
- use of wheeled or other mobile equipment
- fuel storage

The bond, or security, can be recovered by the company upon remediation of any environmental disturbance on the Property caused by exploration activities. Bonds have been paid for both SIB and Corey permits.

Multi-Year (5-year) Area-Based (“MYAB”) permits have been obtained from the BC Ministry of Mines (Smithers office) for both the SIB and Corey claim blocks. MYAB permits provide flexibility for a range of property exploration activities, including specified levels of diamond drilling and blasting, underground development, geophysical surveys, camp site disturbance, and fuel storage etc. The SIB permit is in good standing until March 31, 2023, allows for 27 diamond drill sites and 9 helipads, and has a reclamation security amount of \$70,000. The Corey permits are in good standing until March 31, 2025 and encompasses 50 drill and 10 helipad sites with a reclamation security of \$80,000. The permitting process also typically requires that baseline archaeological and environmental studies (water quality, flora, fauna) be carried out over the areas proposed for exploration, the development of flight plans to minimize disturbance to mountain ungulates, and consultation with the affected First Nations. Presently, Eskay Mining Corp. has a communications agreement in place with the Tahltan Central Government. The author does not foresee any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

#### **4.6 Environmental Considerations**

To the best of the knowledge of the authors, there are no environmental considerations or other significant factors or risks that may affect access, title, or the right or ability to perform work on the Property.

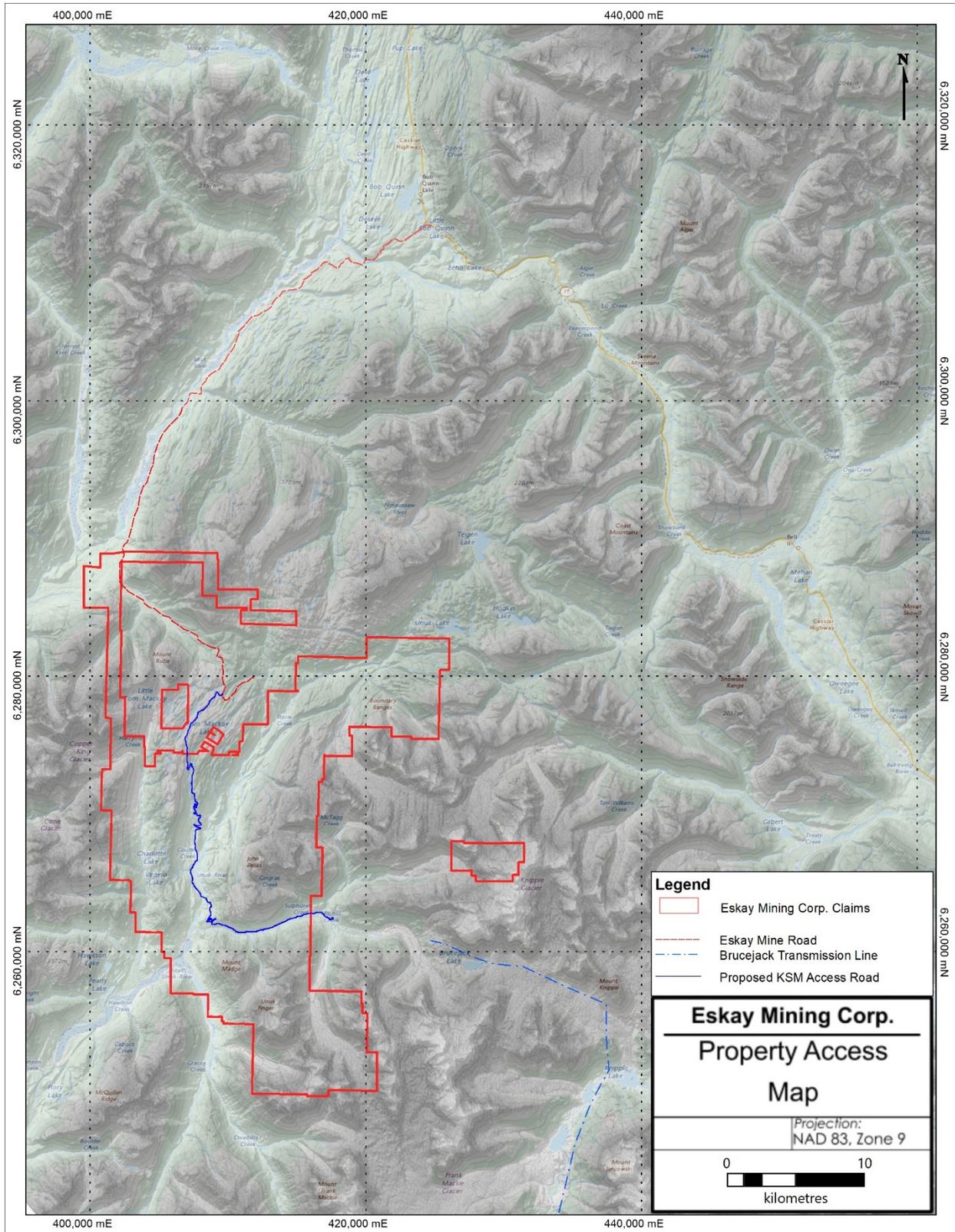
### **5.0 ACCESSIBILITY, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES AND INFRASTRUCTURE**

#### **5.1 Accessibility**

Access to the SIB-Corey-North Mitchell Project is via the Eskay Creek Mine Road to a temporary camp at kilometre 52.5 or a staging area at kilometre 54. Access to the Property from camp and staging is by helicopter (Figure 5.1.1). A road is currently permitted by Seabridge Gold, which extends from the Eskay Creek Mine Road South down the Coulter Creek Valley and heads east towards their KSM deposits. This road would provide excellent access to targets on the SIB and the Corey claim block, including the SIB, TV and Jeff zones. Tentatively, 9 kilometres of road construction is planned to access the Coulter Creek Valley on the SIB claim block in 2021.



**Figure 5.1.1: Photos of the property (top) and the camp (bottom).**



**Figure 5.1.2: Location and access to the Eskay Property.**

---

## 5.2 Climate and Vegetation

The climate on the Property is generally that of a northern coastal rainforest, with subarctic conditions at high elevations. Precipitation is high with an annual total precipitation (rainfall and snow equivalents) estimated to be somewhere between the historical averages for the Eskay Creek mine and Stewart, BC. These range from 801 to 1,295 mm of rain and 572 to 1,098 cm of snow, respectively (data to 2005) (Ghaffari et al. 2016).

Surface exploration is generally restricted to the period from June through the end of October/early November due to heavy snowfall in winter months, some of which typically remains on north-facing slopes until late summer, or year-round in areas of glacial ice (mostly restricted to the south and eastern parts of the Property). Underground work can be completed year-round at the Project, proven by historical operators of the past producing Eskay Creek mine. Treeline in the area is about 1250 metres ASL. Vegetation in areas above tree line is heather and grasses with pockets of scrub brush, as well as stunted black spruce and balsam fir. The highest elevations, particularly in the south and eastern parts of the Project, are typically devoid of any vegetation, except lichens. Vegetation in the valley bottom is characterized primarily by thick stands of mature hemlock, spruce, fir, aspen, and alder with a thick understory of ferns, devil's club, huckleberry and salmonberry.

Fish inhabit the Unuk River to the west of the Property. Large wildlife such as moose and caribou are rare at higher elevations due to the rugged topography and poor access. However, bears, wolverine, and mountain sheep may be present on occasion. In the valley bottoms, healthy populations of bear and moose exist.

## 5.3 Physiography

The terrain at the SIB-Corey-North Mitchell Property is diverse, with the specific zones covering a wide variety of ground. The SIB area, in the northwestern part of the property, covers the Prout Plateau and Coulter Creek valley. The terrain on the plateau is mostly gentle; although steep and cliffy areas occur along the valley walls. The area features creeks and gullies that are generally oriented northeast-southwest.

The eastern and southern parts of the Corey area lie completely above treeline and covers Mount Madge, Unuk Finger and John Peaks. This area is generally extremely rugged and hosts glaciers at higher elevations. The northwestern part of the Corey claim block covers the Unuk River, which comprises a relatively wide valley bottom; however, valley sides host steep cliffy terrain.

The North Mitchell claim block lies immediately northwest of Brucejack Peak. About half of the claims are covered by ice and features very steep and rugged terrain. Glaciers feed Mitchell (east) and Treaty (north) creeks.

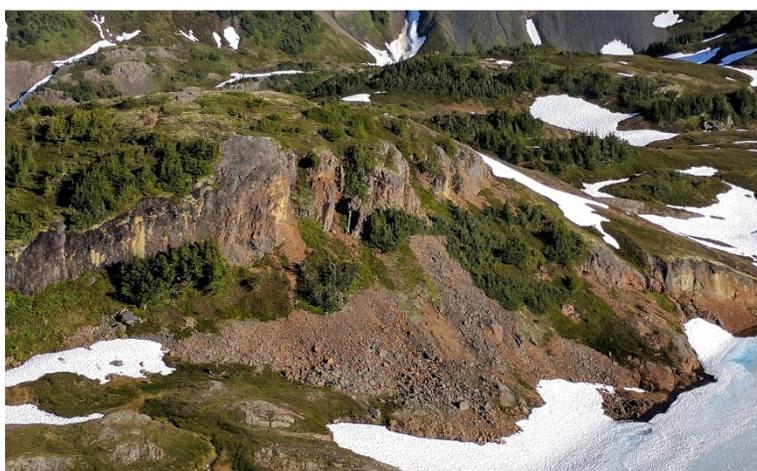


### Physiography of Property

View of the SIB-Lulu Zone,  
looking southeast.



View south-southwest down the  
Coulter Creek Valley.



SIB-Lulu Zone looking southeast.

**Figure 5.3.1: SIB claim block within the Coulter Creek Valley and the Lulu Zone.**

---

## 5.4 Local Resources and Infrastructure

The town of Stewart BC, population of approximately 400, is located 55 kilometres southeast of the Property. It is connected to the provincial highway system via paved, all weather Highway 37A and 37, which connects to Highway 16 at Kitwanga. Deep-water loading facilities for shipping bulk mineral concentrates exist at Stewart, and are currently utilized by the Brucejack gold-silver and Red Chris copper-gold mines, located 10 kilometers to the east and 130 kilometres northeast, respectively. Stewart has a seasonal airport with a runway 1189 metres long, but it is not currently serviced by scheduled flights. Food, exploration supplies, skilled exploration and mining personnel, drill contractors and construction contractors are available a further 310 and 327 kilometres southeast of Stewart in the regional service centres of Terrace and Smithers, respectively. Scheduled air services to Vancouver and other major centres are also available in Terrace and Smithers. The closest First Nation communities are Gitanyow, located approximately 180 kilometres to the southeast, and the community of Iskut, located about 140 kilometres to the northeast. Both communities are accessed via Highway 37.

Water for exploration and drilling can be drawn from numerous ponds and streams on the Property. A 69 KV powerline could be constructed from AltaGas' run-of-river hydroelectric facilities, which comes within 18 km of the SIB area. Alternatively, the Northwest Transmission powerline, which extends along Highway 37 to a substation near Bob Quinn Lake (37 kilometres northeast of the property), and which is part of the Provincial power grid, could provide readily accessible power in the future, as could the run-of-flow power project at Long Lake, near the now-closed Premier mine, which provides power to Pretium's Brucejack mine.

Potential tailings storage areas could be Tom Mackay Lake, situated 4 kilometres west of the SIB area. Potential waste disposal areas could be along the eastern slopes of the Unuk River near the TV and Jeff zones and near the headwaters of Coulter Creek. A shared processing plant with Skeena Resources' Eskay Creek Project could be a possibility. A processing plant could also be constructed within Coulter Creek Valley, and perhaps near the confluence of Sulphurets Creek and the Unuk River.

## 6.0 HISTORY

Eskay Mining Corp.'s land holdings are located within BC's Golden Triangle, a district known to host numerous mineral deposits, including operating mines and advanced-stage exploration workings. Current mine operations include Pretium Resources' Brucejack mine, and Newcrest Mining's Red Chris mine. Advanced-stage exploration work includes Seabridge Gold's KSM project, Teck/Newmont's Galore Creek and Teck/Copper Fox's Schaft Creek deposits. Past producers including Skeena Resources' Eskay Creek and Snip mines and Ascot Resource's Premier mine, are currently undergoing detailed re-evaluations.

### 6.1 Exploration History

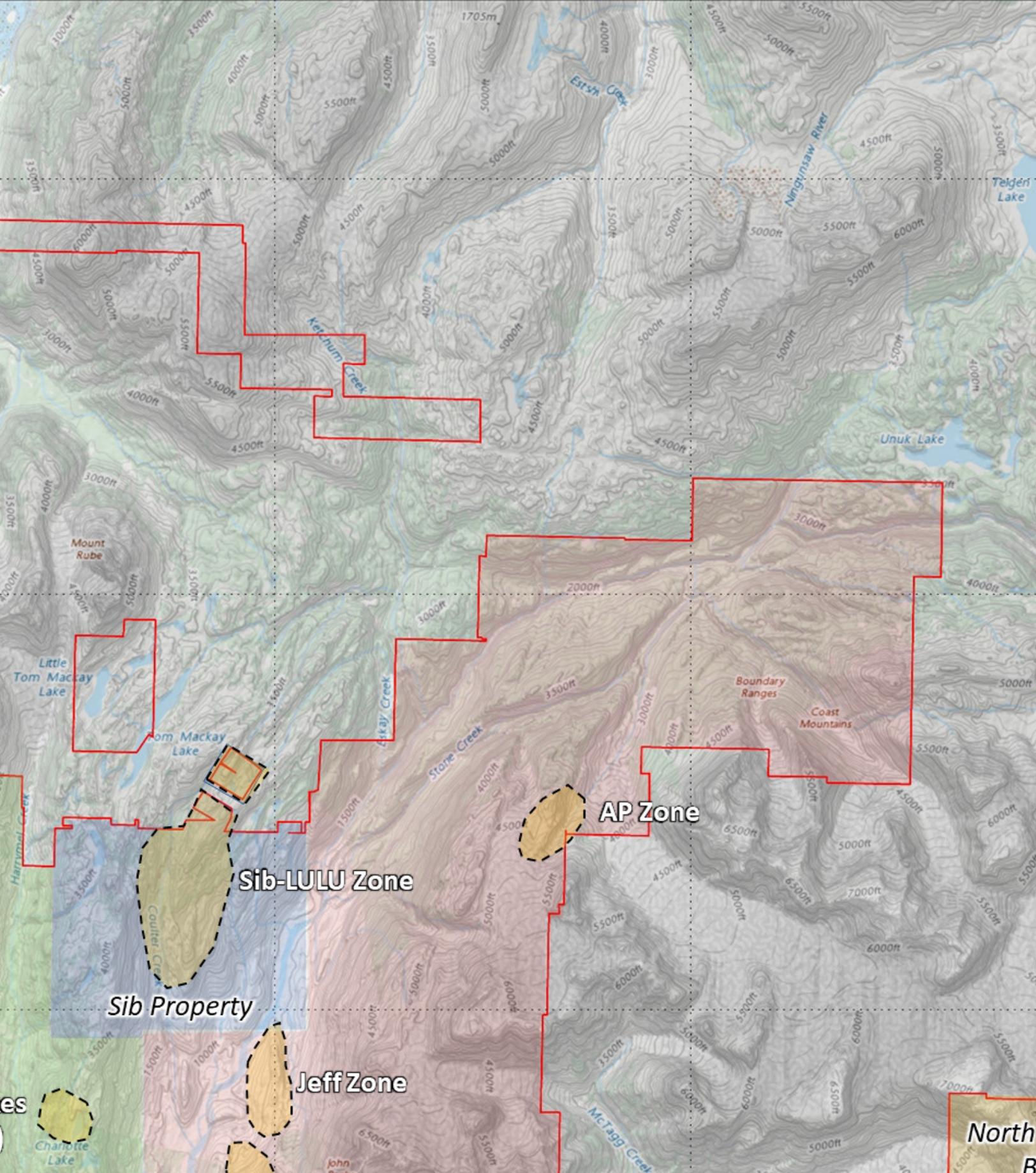
The extensive land package held by Eskay Mining Corp. has a complex and multi-faceted exploration history – several segments of the current land holdings have undergone exploration efforts under different owners and/or operators over different periods of time. For the purposes of

---

summarising exploration history, the following section treats the property as three distinct areas of focus: The SIB Claims, Corey Claims, and Harrymel Valley areas. These are the three main land packages that comprise Eskay Mining Corp.'s present-day land holdings, where significant historical exploration work has taken place (Figure 6.1.1). Each area is host to several mineral occurrences and prospects that have undergone varying amounts of exploration work. The North Mitchel Block, deemed significantly prospective due to its proximity to the KSM and Brucejack deposits, has seen relatively little exploration work. For a complete map of identified mineral occurrences on the property, see Section 6.2, Figure 6.2.1.

410,000 mE

420,000 mE



Sib-LULU Zone

AP Zone

Sib Property

Jeff Zone

North

### 6.1.1 Harrymel Valley Exploration History

The Harrymel Valley area encompasses several claims located in the Harrymel Creek area. The claims include the Chris 1, Anne, Mikhail, Virginia Lake, Ginny, MacGold, Melville, Paradigm, Har, Cop, and Coulter Creek claims.

The earliest work reported in the Harrymel Valley area was reported in 1981. Tsolum Resource Ltd. conducted reconnaissance field work on the Chris I and Anne claims. From September 1<sup>st</sup>-7<sup>th</sup> 1981, geological mapping, channel, rock chip, silt and soil sampling occurred, in addition to geophysical studies carried out by D.G Allen and D.R MacQuarrie. A total of 35 channel and semi-continuous chip samples were collected along a skarn horizon hosted in the Upper Stuhini Group volcanoclastics. Additionally, a total of 16 silt and soil samples were collected along creeks draining into the area (silt samples) and soil samples were collected at depths of 20-30cm, along a geophysical survey line (line 4N). The silt and soil samples had gold concentrations ranging from 10-40 ppb Au, and copper values from 32 to 314 ppm Cu. Magnetic and electromagnetic surveys were collected over areas of interest, resulting in two reconnaissance lines that were run in the W direction, for a total of 14.0 line/km of magnetometer and 1.5 line/km of VLF-EM surveying completed over a grid. Two zones of strong magnetic response were identified and interpreted to consist of 2 sub-parallel continuous bands. One band appears to be anomalous in magnetite concentration and the other is anomalous in electrical conductivity. In the northwest end, it appears that the bands are very close together (within a few meters). The magnetic responses appear to be asymmetrical, tapering to the SW, indicating a more disseminated type of pyrrhotite mineralization, or a number of small sub parallel zones of pyrrhotite-magnetite. (Allen, MacQuarrie; 1981, BC Assessment Report No. 9723)

In 1989, several companies and operators were active in the Harrymel area. Rocky Mountain Energy Group, Indo-Alta Oil Ltd., and Consolidated Regal Resources Ltd. conducted work on the Ginny, Mikhail West, and Virginia Lake properties, respectively. Fieldwork initiatives included airborne and ground geophysical surveys, mapping, rock, soil, silt, and heavy mineral sampling campaigns were conducted on all three properties.

The Ginny property was acquired by Rocky Mountain Energy Group in 1989, and exploration work was contracted to Keewatin Engineering Inc during the summer of 1989. The Ginny property is located in the Unuk River area and is on strike and underlain by stratigraphy that is similar in age and rock type to that hosting the Eskay Creek deposit. The property comprises 5 mineral claims totalling 96 units, with the claims being centered along the Harrymel Creek. Contour lines, grid lines and creeks were geologically mapped and prospected at a scale of 1:5000. The Mid, East and Bar Fly grids were mapped at a scale of 1:2500 (Mid), 1:1000 (East) and 1:500 (Bar Fly), and the Rusty Creek showing located on the East Grid was mapped at a scale of 1:100. A total of 37 heavy mineral and 50 stream silt, in addition to 841 soil samples were collected from 31.1km of contour soil lines and 12.2 km of flagged line within 3 separate grids (Mid, East and Bar). A total of 135 rock samples were collected, of which 124 samples were from the property, with the majority of the rock samples, including grab samples of sulphide bearing rocks. Ground magnetic and VLF surveys were conducted over the three grids. The Bar Fly grid displayed a magnetic response that

was dipping fairly shallow to the East and plunging to the North. The East grid had a wide magnetic anomaly that was dipping to the North. (Mehner, 1989; BC Assessment Report No. 19750)

The Virginia Lake prospect area is located west of the Unuk River and east of the Harrymel Creek. No reported work was completed prior to 1987, but a 1965 regional airborne survey in the Unuk River area showed a number of weak anomalies. At the Virginia Lake Property, Prime Explorations Ltd. oversaw an airborne geophysical survey using magnetic, electromagnetic and VLF-EM surveys, flown by Aerodat Limited from February 12th to 21<sup>st</sup>, 1989. The survey covered a total of 520 line-kms, and data from eight flights was used to compile the survey results. Limited geological data was available to correlate geophysical results, and only broad geological and structural correlations could be made. (Mallo, 1989; BC Assessment Report No. 18929)

During September 1989, Hi-Tec Resource Management Ltd. performed a limited geological mapping and geochemical sampling program on behalf of Consolidated Regal Resources Ltd. and Consolidated Rhodes Resources Ltd. Limited geological mapping was completed on the property due to poor weather during September 1989. The geochemical sampling program was strongly emphasized on soil sampling with 191 samples collected throughout the property. Additionally, rock chip sampling, silt sampling and heavy mineral sampling were completed as well. The soil samples were collected from three grids located within the claim blocks Patsy Ann, Carl, and Jojo M. A total of eight silt samples were collected, with 6 collected on the Jojo M grid, and two from the Patsy Anne grid. Gold values from the silt samples were relatively low with values ranging between 1 to 6 ppb Au. A total of 8 heavy mineral samples were also collected throughout the three grids, displaying gold grades ranging from 62 to 12,300 ppb Au. A total of 13 rock samples were collected from the three grids, in addition to the vicinity of the Virginia Lake property. No high gold values were obtained from the rock chip samples, but elevated silver grades were found in two samples: R-004 (3.5 ppm Ag) and R-503 (2.4 ppm Ag), both from the Jojo M grid. (Arnold, 1989; BC Assessment Report No. 19755)

The Mikhail West property consisted of one grid claim, comprising 18 units located in the Unuk River area. Indo-Alta Oil commissioned Keewatin Engineering to conduct a field exploration program on the Mikhail West property, with additional assistance from Taiga Consultants Ltd. The 1989 exploration program was completed between September 9 and October 6, 1989, and focused on a helicopter-supported heavy mineral sampling. A total of seven heavy mineral samples were collected from creeks draining in the property. The samples were collected from targeted areas in creeks, where there was a sudden transition from high energy to low energy environments. In situations where sample material was insufficient, moss mat material was used. Approximately 3-5 kg of sample material was collected and sieved through a 20 mesh. The heavy mineral samples had Au values ranging between 11 – 53 ppb Au, with one sample (KWH56) yielding a high value of 300 ppb Au. Sample KWH56 was collected from a creek drainage located on the SE portion of the claim (Map No.1; Figure 2). (Assuant, DuPre, 1989; BC Assessment Report No. 19665).



---

Westmar Resources conducted fieldwork on the Cop, Har 1 & 3 mineral claims in October 1989. The property is located 2.5 km west of Harrymel Creek, approx. 6 km northeast of Tom MacKay Lake, and 16 km north of the Iskut River. Prior to this work very little geologic mapping and geochemical sampling was completed on the property. A total of 15 rock chip samples were collected, and no anomalous values in Au, Ag, Cu, Zn, or Pb were returned. (Todoruk, Ikona, 1990; BC Assessment Report No. 19813).

Other 1989 work included the MacGold South claim, located near the Harrymel Creek headwaters. Ecstall Mining Corp. and Omega Mining Corp. held a 50-50 joint venture on the claim. The fieldwork included rock, stream sediment, and soil sampling programs and a follow-up IP survey. The Icy and High Grade mineral showings were identified from sample results (Icy returning two trench samples of 5000ppb and 6000ppb Au).

In 1990, Ecstall-Omega continued work on the MacGold South claim, with detailed 1:10 000 scale property-wide mapping and 1:2500 grid mapping on the southern extent of the claim area, additional UTEM geophysical and land surveys were also completed. A total of 358 rock samples, 3 stream sediment samples and 17 soil samples were collected. The geological mapping led to the discussion that the mineralization could potentially be a result of the emplacement of a granitic intrusion and the hot fluids associated with them, suggesting porphyry-style mineralization. (Walker, 1990; BC Assessment Report No. 20736).

Canadian Cariboo Resources Ltd. commissioned Keewatin Engineering Inc. to complete fieldwork on the Melville property. Work included geological mapping, prospecting, and contour soil samples. A total of 155 rock grab and rock chip samples, 212 contour soil samples, and 3 stream silt samples were collected throughout the property. Of the 155 rock samples collected in 1990, 5 were chip samples, 19 were float samples and 131 were outcrop grab samples. All geochemical and geological data collected throughout the 1990 field program was compiled onto contour maps at a scale of 1:10,000. The Cornice Gossan Showing and the 50 Knot showings were identified from field program results. Geologic mapping of the property identified that the geology is dominated by Betty Creek Formation, including intermediate volcanic and fragmental flows, tuffs and interbedded fine grained sedimentary rocks, that have been intruded by a coarse intrusion referred to as the Lehto Porphyry. (Wesa, 1990; BC Assessment Report No. 20770).

Keewatin Engineering was also commissioned to conduct a field exploration program on the Paradigm 2 and Mikhail 2 claims on behalf of Loki Gold Corporation. Their 1990 field program was completed during the months of July and August and consisted of geologic mapping, prospecting, and geochemical sampling. A total of 62 rock samples, 493 soil samples of which 366 were sampled from contours and 127 were grid-controlled samples. The work completed concluded that there were no identifiable anomalous targets present on the Mikhail 2 claim. It was determined that there were two anomalous zones present on the Paradigm 2 claim that appear to be associated with a fragmental felsic unit. (Gibson, 1990; BC Assessment Report No. 20624).

Consolidated Regal Resources Ltd. and Consolidated Rhodes Resources Ltd. retained Hi-Tech Resource Management Ltd. to conduct exploration on the Virginia Lake property in 1990. The work completed in 1990 consisted of geological mapping, rock sampling, and grid established and ground geophysical surveys. The mapping and prospecting completed in 1990 was focused on the

Jojo M claim, with the geologic mapping and rock samples collected from three traverses. A total of 180 rock grab samples were collected from mineralized features such as joints and shears, in addition to samples collected from exposed outcrops. On the western grid, the rocks appeared to be affected by the Harrymel Creek fault zone, and consisted of intermediate to andesitic volcanics that display a sheared texture, with a high intensity of quartz + carbonate veining. The samples collected on the western grid returned no anomalous gold grades with values predominantly around <5 ppb Au. The best mineralized section was located near gridlines L15+00N to L16+00N from an exposed cliff face of silicified andesites with approximately 10-15% pyrite. The rock samples collected from this area returned the highest grades and are listed in the table below:

**Table 6.1: Highest grade assay results from rock samples collected in the Virginia Lake property. From Brown & Collins, 1990.**

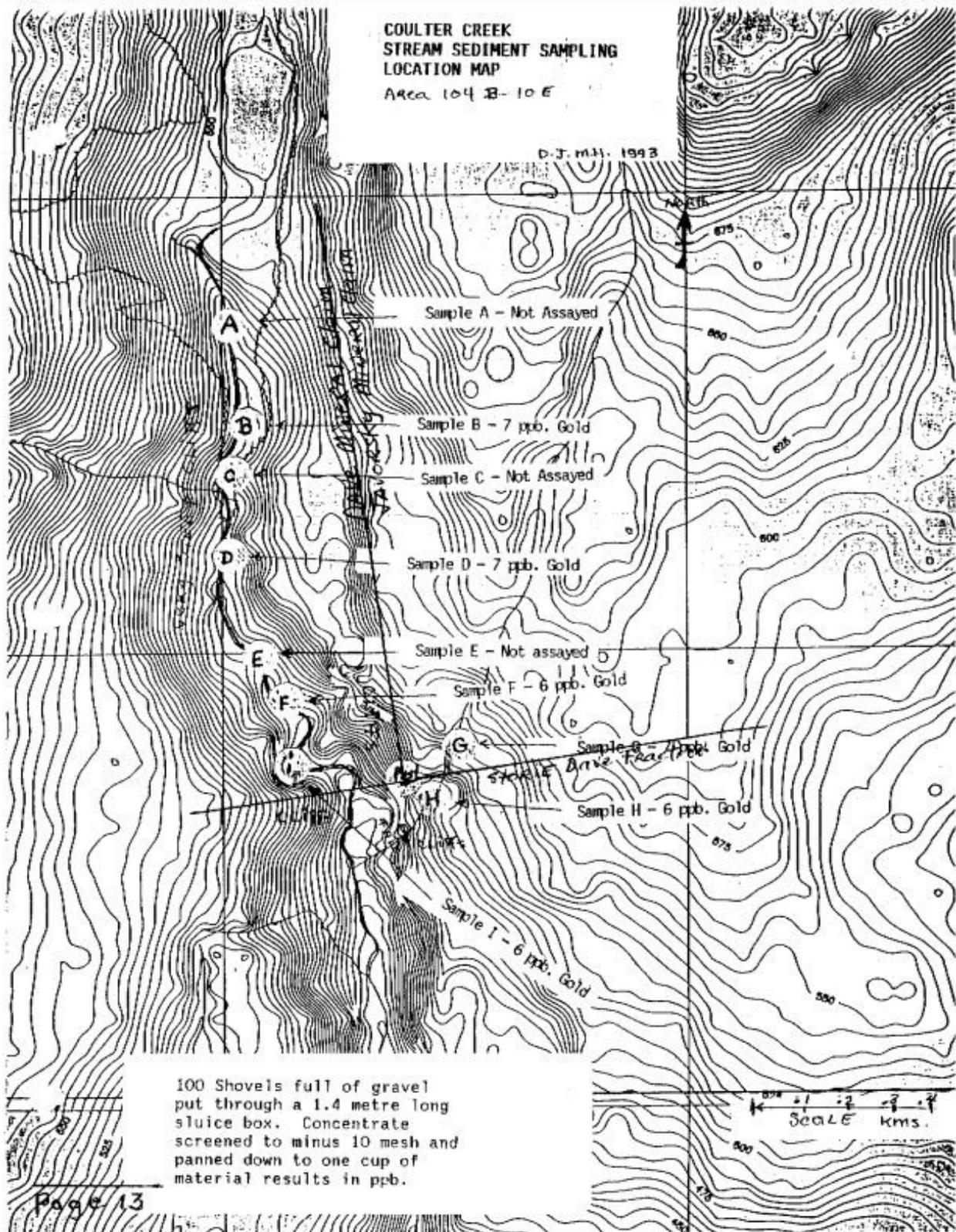
Sample ID	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Zn (ppm)
90VDR001	<5	<1	540	5	1300
90VTR010	<5	<1	1100	20	440
90VTR013	<5	<1	2800	15	5400
90VDR002	25	<1	150	50	590
90VLR011	35	<1	260	20	340

A geophysical survey was completed using an Omni Plus magnetometer and a VLF-EM system on two grids: the Upper Grid (Grid 1) and the Lower Grid (Grid 2). Several anomalies were identified on the Upper Grid, with the best anomaly appearing to be anomaly C that was located between lines 1500N and 1700N. This anomaly was a very good conductor and appeared to be open in the north direction, however it did not appear to have a very good depth extent. There was no indication of any strong magnetic or VLF anomalies present within the Upper Grid (Grid). (Brown & Collins, 1990; BC Assessment Report No. 20732)

In 1990, Westmar Resources optioned Cop, Har 1 & 3 claims to Kinghorn Energy Corp. The work completed in 1990 consisted of bulk stream sampling, prospecting, geological mapping completed at a scale of 1:10,000, in addition to geochemical sampling associated with the mapping. A massive magnetite showing was found to be present in the Har 3 claim. A total of 147 rock samples and 3 pan concentrate samples were collected from the property. The highest recorded Au value of 988 ppb was collected from sample 90HJR029 and was collected from a quartz-carbonate veinlet located in proximity to the brachiopod fossils located on the Har 3 claim. An adjacent sample, 90HJR030, returned a gold value of 250 ppb Au. The samples collected from the magnetite skarn returned gold values ranging between 10-40 ppb Au, with one sample, 90HVR011, which had a value of 150 ppb Au. (Collins & Brown, 1991; BC Assessment Report No. 21463)

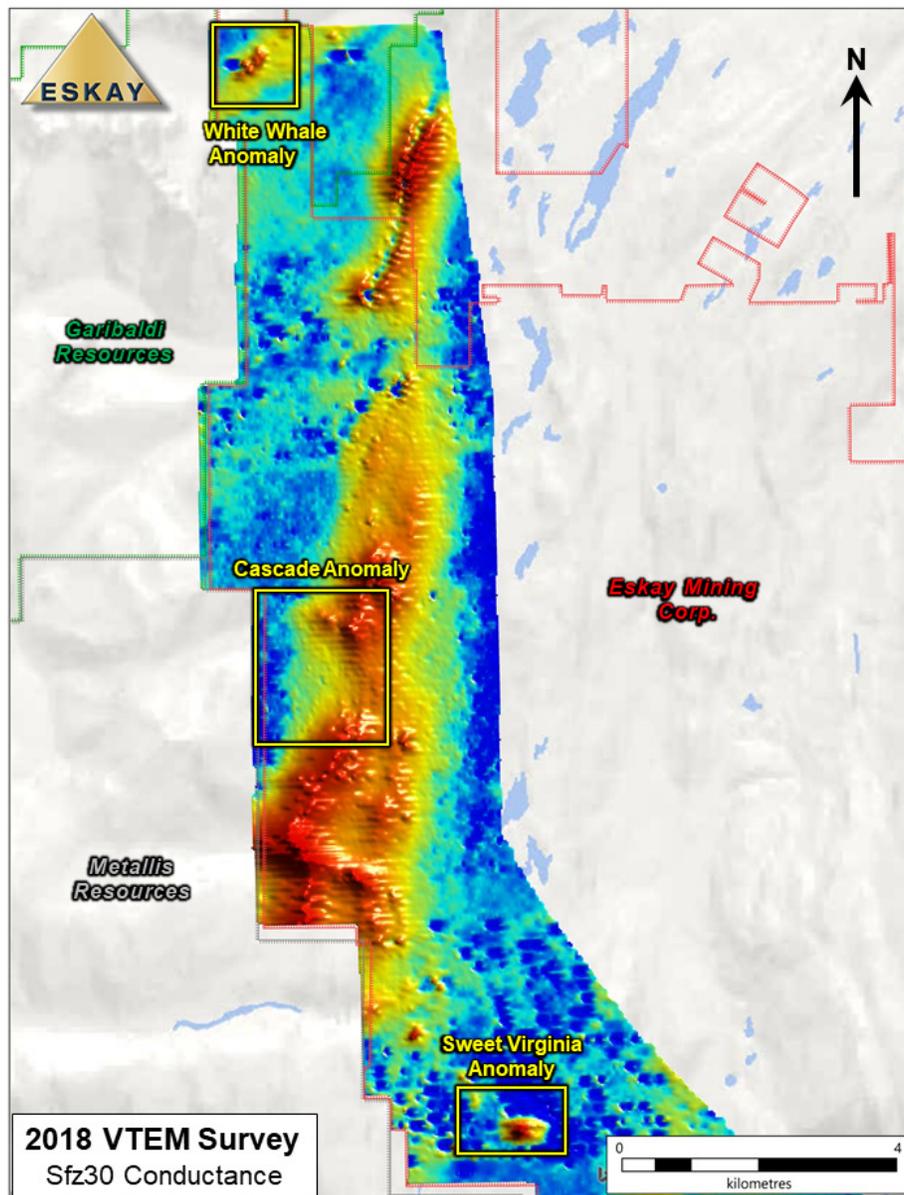
---

Silver Princess Resources Inc. held the Coulter Creek Claim, located approximately 11 km southwest of the Eskay Creek Mine. Their 1990 exploration program consisted of prospecting, geochemical, soil and silt sampling throughout the property. A total 51 rock chip samples were collected to identify rock types, 32 rock samples were collected of which 13 were sent to Vancouver for assay, 38 soil samples were collected, in addition to 9 stream sediment samples as well. The 13 rock samples that were assayed returned gold grades ranging between 4 – 30 ppb Au, with one sample, 61608 displaying slightly elevated results of 68 ppb Au. Soil samples were collected from various locations throughout the property instead of using a grid due to the difficult topography of the property. The soil samples returned relatively low grades predominantly between 1-10 ppb Au, with sample ID #4 displaying the highest grade of 22 ppb Au. Stream sediment samples were collected by carrying a 1.4 m long sluice box along Coulter Creek (Figure 6.1.3). For each stream sediment sample, 100 shovels of material were put through the sluice box and the material was screened to a 10-mesh size sieve, narrowing down the material to a single cup and finally the material was visually inspected. Assays for 7 of the 9 silt samples collected were assayed and returned values between 6-7 ppb Au. (Javorsky & Harris, 1993; BC Assessment Report No. 23237)



**Figure 6.1.3: Stream sediment sample locations across the Coulter Creek Claim. From Javorsky & Harris, 1993).**

In July of 2018, 1555 line km of airborne electromagnetic surveying was flown using Geotech Ltd.'s VTEM system. This survey was designed to explore for magmatic nickel-copper sulphide deposits, similar to the recent discovery of Garibaldi Resources Inc.'s E&L project. Three point anomalies consistent with massive sulphide mineralization were identified by consulting geophysicist Brian Bengert (personal correspondence), termed the White Whale, Cascade, and Sweet Virginia Zones (Figure 6.1.4). Ground-based follow up work has yet to be completed over these anomalies.



**Figure 6.1.4: 2018 Airborne VTEM Survey results, with identified anomalous conductivity targets.**

## 6.1.2 SIB Property Exploration History

The SIB property lies approximately in the centre of the present-day Eskay property, and includes the SIB and Polo claims. The SIB property was the main focus of the recent 2017 and 2018 field seasons, and has an extensive record of historical work.

In 1988, American Fibre Corp. conducted soil sampling and geophysical surveys on the SIB and Polo properties. The SIB and Polo properties are located south of Tom McKay Lake and west of the Unuk River. The claims consist of 16 two post claims (SIB1-16) and 8 modified grid claims (Polo 1-8), totalling 16 and 160 units, respectively. A total of 679 soil samples were collected on a 200m grid at 25m intervals. Significant anomalies were identified with up to 1360 ppb Au, 49 ppm Ag, 4226 ppm Pb, 358 ppm Cu, 3225 ppm Sb, and 4034 ppm As. Anomalies located northwest of the baseline had elevated Au, Ag, Pb, Cu, Sb, and As values, and background data shows a north to northeast trend in As, Cu, Pb. Gold shows a northeast trend across the grid. (Cooke, 1988; BC Assessment No. 18376)

Geophysical surveys PP magnetics and VLF-EM, totaling 36.55km each along a 100m grid at 25m intervals, were conducted. A series of magnetic highs with a north-northeast trend down the centre of the SIB claims is interpreted to reflect a more magnetic stratigraphic unit. EM highs and lows also form a north-north easterly trend across the grid.

The 1989 field season involved the establishment of a semi-permanent camp and 3 simultaneous programs: a 1:5000 scale mapping, a soil geochemistry survey, and litho-geochemical sampling (including resampling and old trenches) were completed in the summer. A diamond drilling program was completed in the fall of 1989 to follow up on results from summer field work.

Drilling was conducted on SIB 27 and 31 two-post claims, and the Polo 2, 9, and 10 modified grid claims (Figure 6.1.5). A total of 15 BQ holes totalling 1830.96m were drilled. Holes 1-13 were designed to test mineralized zones outlined by surface work. Hydrothermal alteration and mineralization are encountered in drilling and highlights similarities in stratigraphy to Calpine's 21 zone.

**Table 6.2: Drillhole orientations and notable intercepts, from Copeland & Cann, 1989.**

DDH	Dip	Azimuth	Depth (m)	Significant Mineralization Intercepts		
				Interval (m)	Au (oz/t)	Ag (oz/t)
1	-45	208	93.64	12.4-16	0.029	0.126
				21-23	0.036	0.162
				26-28	0.032	0.204
				30-32.33	0.057	0.255
2	-60	208	108.64	8-9	0.029	0.754
				12-14	0.042	0.238

DDH	Dip	Azimuth	Depth (m)	Significant Mineralization Intercepts		
				Interval (m)	Au (oz/t)	Ag (oz/t)
				19-22	0.033	0.289
3	-45	158	118.34	14-15	0.031	0.160
				47-48	0.050	0.331
				68.33-69.24	0.034	0.174
4	-60	158	96.69	19-21	0.030	0.115
				22-23	0.039	0.128
				24-25	0.033	0.273
				26-27	0.038	0.131
				38-39	0.036	0.200
				43-44	0.079	0.183
5	-45	105	84.49	57-58	0.055	0.226
6	-60	105	118.04	8-12	0.057	0.281
				Incl. 8-9	0.114	0.377
				49-50	0.033	0.067
				55-56.14	0.074	0.525
7	-45	130	139.39	50-53	0.092	0.219
8	-60	130	127.19	13-14	0.070	0.125
				25-26	0.030	0.194
				60-61	0.143	0.096
				94-95	0.034	0.189
9	-45	170	64.05	No significant intercepts		
10	-60	180	114.88	52.84-53.23	0.028	0.093
				79-80	0.118	0.145
11	-45	180	138.78	105-107	0.040	0.278
				114-115	0.038	0.075
12	-60	118	67.41	27-31	0.053	0.098
				32-33	0.032	0.052

DDH	Dip	Azimuth	Depth (m)	Significant Mineralization Intercepts		
				Interval (m)	Au (oz/t)	Ag (oz/t)
				34-36	0.032	0.365
				38-39	0.032	0.131
				42-43.76	0.252	0.249
13	-45	118	117.43	No significant intercepts		
14	-45	130	215.48	Drilled to test a strong IP (chargeability) anomaly		
15	-65	130	200.24	No Significant Intercepts		



Figure 6.1.5: SIB claims, gridlines, geology and drilling. From Copeland & Cann, 1989.

Holes 89-14 and 89-15 were designed to test strong IP (chargeability) anomaly and intersect epiclastic tuffs and graphitic shale overlain by cherty tuffs, and rhyolite. (Copeland & Cann, 1989; BC Assessment No. 20139)

In 1990, a fall field program involved diamond drilling at the SIB-Polo property. Drilling totaled 3982m in 26 BQTK holes. The drilling program was designed to target for Eskay-type massive sulphides in the Mackay mudstone and Johnny Mountain-Bruce Jack Lake-type vein/disseminated stockwork mineralization.

Three areas of potential significance were identified:

1. Semi-massive to massive pyrite clasts in mudstone debris flow
2. Extensive low-grade disseminated and stockwork precious metal mineralization with highly altered units at Battleship Knoll
3. Holes 90-26 and 90-34 encountered extensive low-grade Au stockwork mineralization immediately underlying the Mackay mudstone.

Holes 90-30, 90-34, and 90-40 were designed to assess Mt. Dilworth Formation felsic units. Holes 90-30 and 90-34 intersected mudstones interbedded with felsic assemblages that hosted exhalative-like precious metal mineralization.

Hole 90-30 intercepted the Lulu mudstone (siliceous, carbonaceous mudstones). The Marguerite mudstone was intercepted in the top of hole 90-34. Both the Marguerite and Lulu mudstones stratigraphically overlie the broad low-grade stockwork gold mineralization in 90-26 and 90-34, and may be indicative of a hydrothermal vent source. (Copeland, Rebagliati & Haslinger, 1991; BC Assessment No. 21334). The Lulu zone was the main focus of subsequent exploration, and drew considerable attention to the project, as mineralogically, it was directly analogous to the World class Eskay Creak massive sulphide/sulfosalt deposits

In 1991 and additional 54 holes were drilled, totalling 6,097.5 m. The work completed throughout the 1989, 1990 and 1991 exploration programs is tabled below:

**Table 6.3: Summary of exploration activities on SIB claims between 1989-1991.**  
From Copeland et al., 1992.

Activity	1989	1990	1991	Total (#, km, ha)
Soil Samples	1,354	1,080	27	2,461
Rock Samples	365	315	129	809
Heavy Mineral Samples	-	169	-	169
Magnetic Survey	-	42.6	-	42.6 km
VLF-EM Survey	-	42.6	-	42.6 km
Induced Polarization	3.7	36.4	-	40.1 km

<b>Activity</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>Total (#, km, ha)</b>
Geological Mapping	260 (1:5000)	400 (1:5000)	400 (1:2000)	1,060 ha
Drill Holes	15	26	54	105 holes
Drill Meterage	1,840	3,981.9	6,097.5	11,919.4 km

Overall, four distinct styles of mineralization were observed to be present on the SIB claim, with the first being described as stringer and disseminated Au-Ag-As-Pb-Zn mineralization. Mineralization appeared to be hosted within pyroclastic rocks present at the Betty Creek and Mackay sediments contact. This zone ranges between 5-15 m in thickness and returned gold grades of 0.25 - 1.5 g/t. The second style of mineralization is stratabound Pb-Zn veins that appeared to be associated with a sheared tuffaceous member of the Mackay sediments. The third style of mineralization was described as gold-stibnite quartz-carbonate veinlets, that are gold-bearing and appear to be intersected in the Lulu zone and are present in drillhole DDH 90-30. These veinlets are hosted within sulphidic mudstones and returned Au grades up to 14.43 g Au/t and 1060 g Ag/ton over widths of 14.3 meters. The fourth style of mineralization was described as potentially stratiform sulphide-sulfosalt bodies that are highly deformed and associated with barite. This style of mineralization was intercepted by several drillholes throughout the Lulu zone. Drill hole DDH 91-72 and DDH 91-73 displayed a strong gold and silver mineralization that appeared to be associated with the barite zone. DDH 91-73 returned grades up to 12.46 g Au/t and 1258 g Ag/t over 12.5 meters. (Copeland et al, 1992; BC Assessment Report No. 22338). Following the 1991 season, the LULU zone was deemed to small to be economically significant, and was interpreted to have been potentially truncated by the underlying Coulter Creek Thrust Fault.

No assessment reports appear to be filed for the SIB property or its constituent claims between 1992 to 2001.

In 2001, a geochemical exploration program was run by Teacoup Geological Inc. with sub-contracted sampling work from Discovery Consultants of Vernon, BC on behalf of St. Andrew's Goldfields. During the period of August 18<sup>th</sup> to 26<sup>th</sup>, a five-man sampling team completed a BLEG, silt and heavy mineral sampling program in an attempt to geochemically characterize small, steep drainages throughout the Tag East and Tag West claim. The Tag East and Tag West claims are accessed by the Eskay Creek mine road. The number and type of samples collected from each claim is listed in the table below:

**Table 6.4: Total number for geochemical sample types taken on Tag East and Tag West Claims. From McGuigan & Gilmour, 2001.**

<b>Sample Type</b>	<b>Tag East Claim</b>	<b>Tag West Claim</b>
BLEG Samples	45	21
Silt Samples	50	22
Heavy Mineral Samples	3	9

Drainages present on the Tag East claim were much more difficult to access and sample due to the area predominantly being deeply incised by large creeks with steep banks. Heavy mineral samples were taken when sample sites that did not have fine grained material present for BLEG and sieved silt samples. The samples were collected by carefully shovelling the sediments into a 20-mesh size sieve that was rested in a large aluminum pan containing water. The samples were then moved in a circular, ‘washing machine’ type motion, to sieve the sediments. If inadequate BLEG material was present at the site, a silt or heavy mineral sample was collected instead.

The gold values returned from the BLEG sampling was relatively low with three anomalous results collected from samples 702-B-11, 702-B-43, and 702-B-58 with values of 14.9, 17.7, and 12.0 ppb Au, respectively. The silt samples returned results predominantly between 2-10 ppb Au, with a few values displaying elevated results of 542.1 ppb Au (702-S-40), 237.9 ppb Au (702-S-43), 84.9 ppb Au (702-S-52).

Three anomalous zones were identified on the Tag East claim, with the first one being identified on the Fred 15/Noot 3 claim area, with single sieved silt sample that was confirmed with an elevated BLEG sample as well. The second anomaly present within the streams draining the Prout Plateau and the ridge of the Sib claims. Together the BLEG and silt samples appeared to display a geochemical zonation from east to west. There appeared to be elevated values of zinc in the west moving in the eastward direction displaying elevated gold and silver. The zonation is asymmetrical and was thought to reflect the zoning of the base lithology of the Eskay anticline. The third anomaly observed was associated with Storie Creek and the tributaries lying on the southeast side of the creek. Four, anomalous BLEG and silt samples were collected in addition to 5 heavy mineral samples that displayed elevated gold values. (McGuigan & Gilmour, 2001; BC Assessment Report No. 26734)

Heritage Explorations Ltd. acquired rights for the Eskay Property, including the SIB Claims (53 283 hectares) in 2001. The Eskay Property consisted of 2120 claim units and one mineral lease (Figure 6.1.6). Two claim blocks were under option from Teuton Resources Ltd.; the Bonsai Option covers 9 claims, and the Treaty Options covers 5 claims. Heritage’s work on the Eskay Property began in 2001 and included the digitization and interpretation of 332 drill holes, 34 000 geochemical samples, 36 geological outcrop and interpretation maps, and 29 geophysical datasets. Heritage Explorations Ltd. conducted fieldwork on the property in 2002 and 2003.

---

The 2002 field season included widespread reconnaissance silt sampling survey, geological 1:1000 scale mapping of the SIB claims, and a total of 202 rock samples were collected and submitted for analysis. A total of 3075m of diamond drilling on the SIB claims. A total of 554 silt samples were collected across the project area and several anomalies were generated from the survey. At the TV-Jeff area, work included outcrop mapping at 1:500 scale with GPS surveying of existing trenches. Detailed re-logging on select historical holes, integration of surface mapping and compilation of data into the database was completed. Drill hole TV95-27 was sampled for assaying, however new results did not return any significant mineralization. The AP prospect was mapped at 1:2000 scale by Peter Lewis.

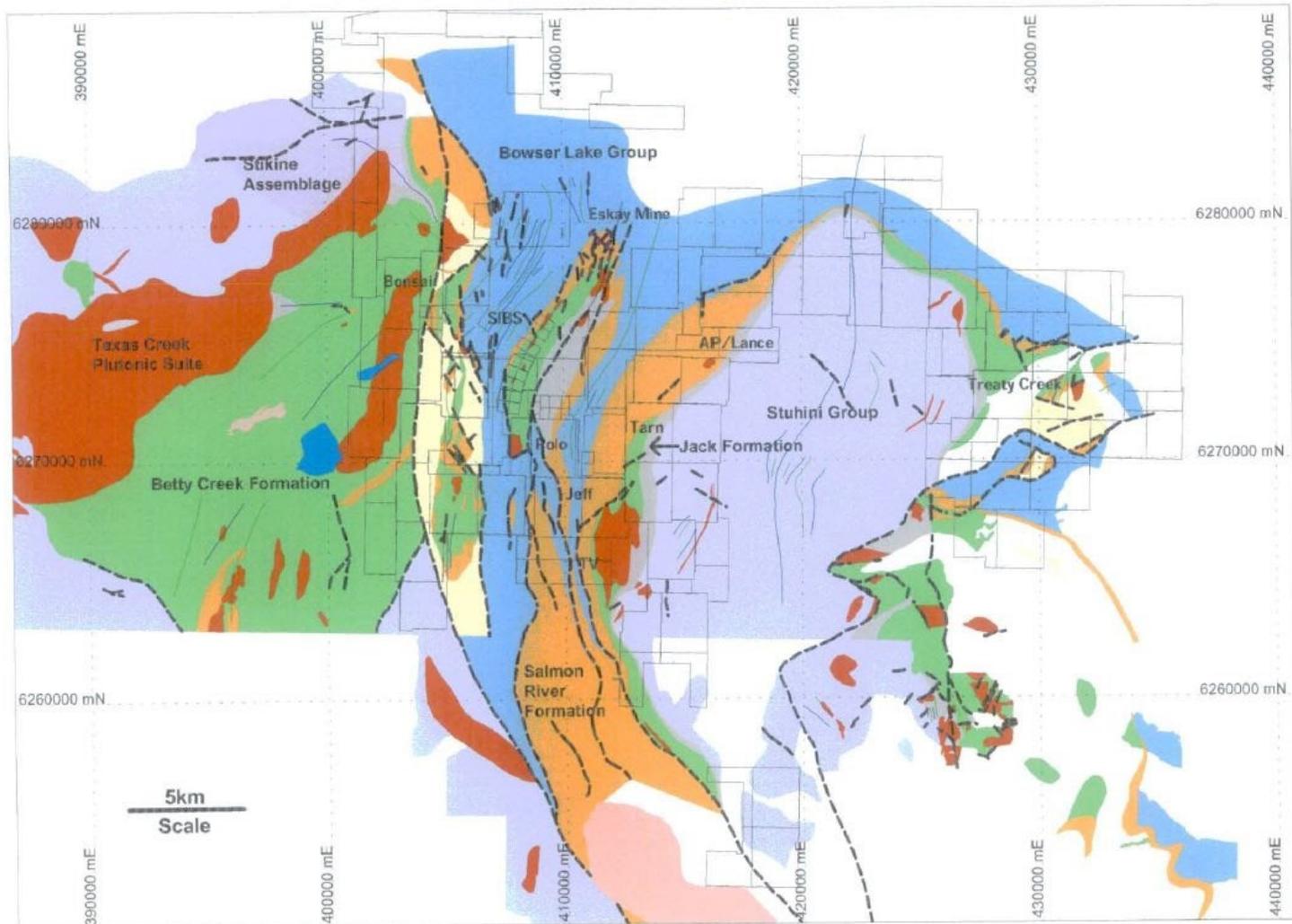


Figure 1 Property Summary

Figure 6.1.6: Eskey Property map with claims and regional geology. From Bidwell & Worth, 2004.

The 2003 field program continued the primary efforts on the SIB claims, data verification, follow-up work on stream sediment gold anomalies, and extended exploration work on the Bonsai, Polo, TV-Jeff, Tarn and Treaty. Continuing from 2002 mapping, detailed 1:2500 and 1:1000 mapping was continued across the SIB claims, and combined to produce a map across the entire SIB prospect, and a total of 202 samples were collected. A total of 413 rock chip samples were collected across the property over the course of the program. Geophysics using the mise-a-la-masse survey was attempted, however poor weather prevented the survey from being completed. Diamond drilling (3840m in 14 holes, with 3069m completed at SIB) were completed, including 3 holes in the Battleship Knoll area, 7 holes on the Hexagon structure (alteration zone on the eastern SIB claims), one hole at the Lulu Zone and 3 holes on the Bonsai showing. The SUL 1 & 2 claims were added to the property package in 2003.

Aeromagnetic VLF and IP surveys, were conducted across the TV-Jeff prospects, and integrated into previous mapping for new geological interpretations. A total of 36 rock chip samples were collected. Inspection of drill core from prior drilling was also conducted. At the AP prospect, GPS locations of historic drill collars and trenches were taken. Anomalous stream sediment samples were followed up on however no significant alteration was identified.

Work on smaller prospects was also conducted in the 2003 season. The Bonsai Prospect included GPS surveying of outcrops and drill collars along with field mapping. Reinterpretation of historical data was conducted, and a new interpretation of the geology was undertaken. Three holes were drilled to test for continuation of gossan, and anomalous intersections were reported. The Tarn area was not worked on since 1991, and several traverses were made across the area. A total of 64 rock chip samples were taken in newly exposed outcrops. One sample returned grades up to 4.12 g/t Au, 18.33g/t Ag and 0.5% Zn. The Treaty Creek area was also investigated, and included 1:5000 scale mapping. Rock chip and trench samples collected from the GR2 zone did not return as high-grade results as historic sampling, however confirms the presence of base metal anomalies. (Bidwell & Worth, 2004; BC Assessment No. 27370)

In 2008, Kenrich-Eskay Mining Corp.'s field program involved drilling and mapping across the property. Drilling on the Eskay property was focused on the Lulu Zone (4 holes, totalling 2333.6m; Figure 6.1.7). Lithochemical and assay samples were taken from drill core and aided in categorizing and identifying lithologic units (including Eskay rhyolites) and their tectono-magmatic affinities. Geologic mapping was completed on the southwestern part of the SIB claim block, covering the 2008 drill program area. General stratigraphy and their associated features, along with structural interpretations were produced from mapping. Hole EK08-134 encountered encouraging Au grades deep within Eskay rhyolite, interpreted by the operators to lie in the footwall of the Coulter Creek Thrust fault. This result was interpreted by consulting geologists to imply that Eskay creek stratigraphy, bearing VMS feeder style mineralization was present beneath bowser basin cover. (McKinley et. al, 2009; BC Assessment No. 30726A)

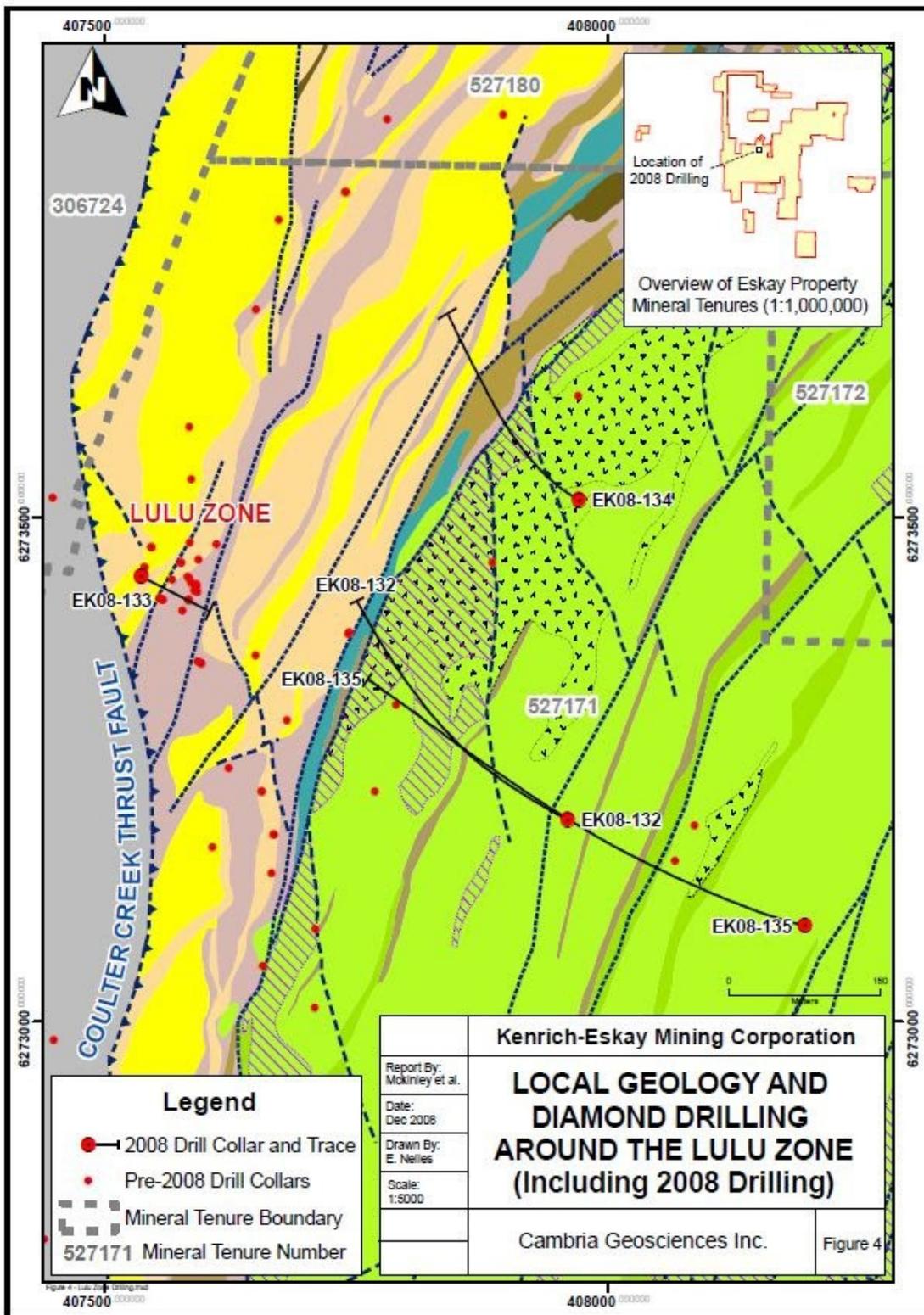
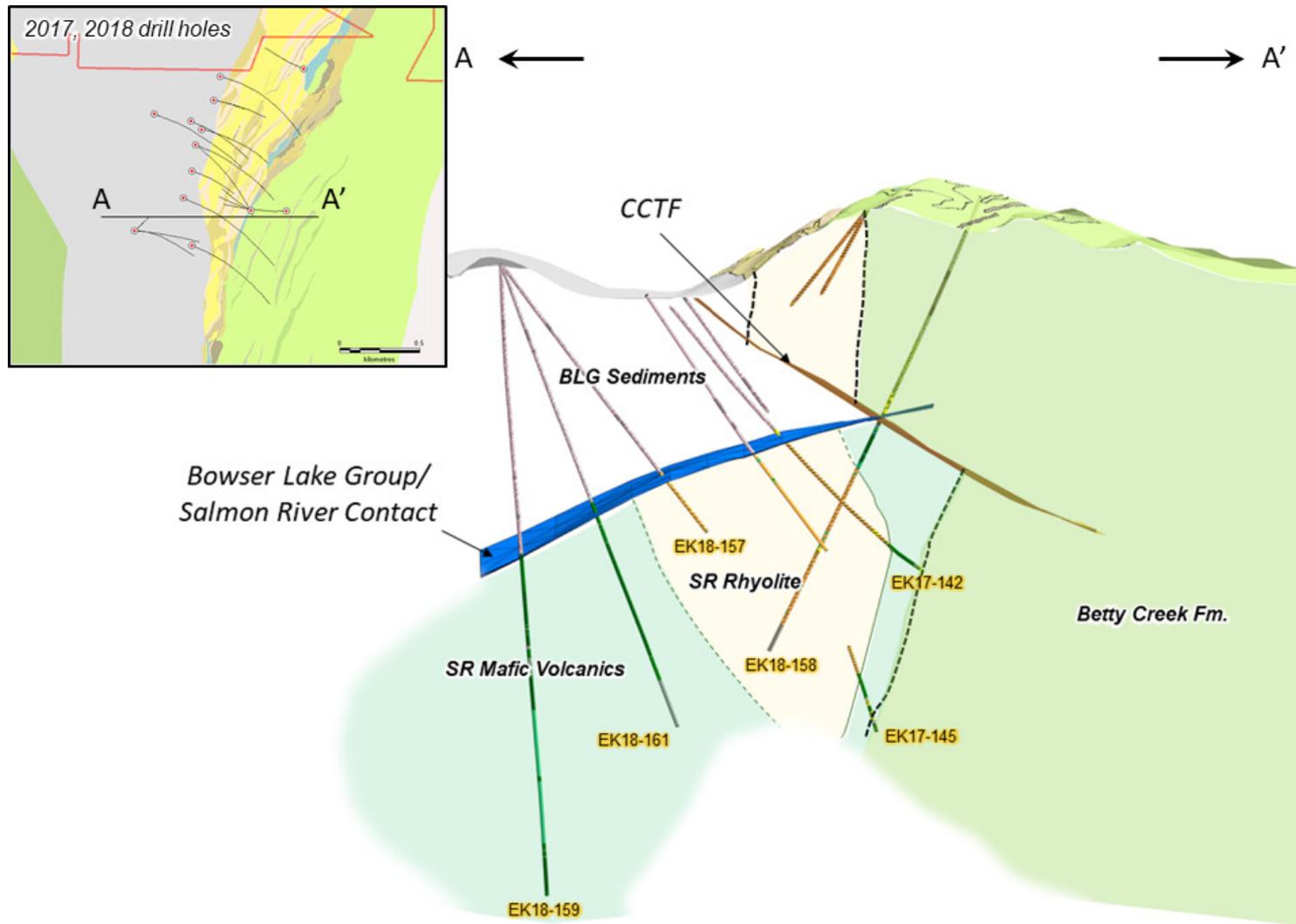


Figure 6.1.7: Geology and drilling at the Lulu Zone. From McKinley et. al, 2009.

In 2010, Cambria Geosciences Inc was contracted to oversee the work completed on the Eskay property and the Mitchell Property from July 18<sup>th</sup> to October 1<sup>st</sup>, 2010. Eskay Mining Corp held up to 80% interest in over 33,000 hectares present within the SIB property and the Mitchell claims via an option agreement with St. Andrews Goldfields Ltd. Eskay Mining Corp also had a 100% interest in the remaining 37 claims present at the Corey property. The work completed on the Eskay property consisted of a 6 km by 1 km geological mapping completed at 1:5000 scale. A comprehensive lithogeochemical sampling program was conducted collecting both drill core and rock samples, in addition to 5 drill holes that were drilled in 2010 for a total of 3856.7 meters. The diamond drilling was concentrated on targeting the extension of the Lulu zone host rocks that are present on the footwall of the Coulter Creek Thrust Fault. The work completed on the Mitchell property in 2010 consisted of approximately 1.5 km by 0.75 km of reconnaissance geological mapping and geochemical sampling. Hole EK10-137 appeared to display stockwork mineralization that was hosted within a rhyolite. An intercept from 463.0 m to 473.0 m returned grades of 0.65 g/t Au, and 6 g/t Ag, including an interval from 472.5 m to 473.0 m that returned 2.35 g/t Au and 25 g/t Ag. The mineralization observed in this hole appeared to be similar to that intersected in hole EK08-134 that was located approximately 75 m to the south. Hole EK10-138 intersected interlayered Salmon River Formation rhyolite and basalt located stratigraphically below the Coulter Creek Thrust Fault. An interval of 2 m in thickness contained approximately 5 % pyrite-sphalerite-galena stringers within an argillite unit that returned grades of 0.06 g/t Au and 5 g/t Ag from 556.9 m to 557.8 m (McKinley et al, 2010; BC Assessment Report No. 32916).

In 2017, a deal was reached between the Company and SSR Mining Inc., whereby completing 11.7 million dollars in exploration expenditures over three years, SSR Mining could earn in a 60% stake in the SIB Property. Between 2017 and 2018, SSR Mining drilled approximately 20,000 m, dominantly focussing on Eskay-type stratigraphy beneath the Coulter Creek Thrust Fault (CCTF). Drilling was successful in confirming the presence of characteristic low Ti-Eskay Rhyolite in the footwall of the CCTF, as well as overlying Willow Ridge Member pillow basalts and breccias, over a confirmed strike length of approximately 1.2 km, with open, untested ground to the south. Drilling also revealed a faulted contact between overlying folded Bowser Lake Group sedimentary rocks, and the underlying subvertically oriented Iskut River Formation volcanic rocks, indicating a significant unconformity at depth (Figure. 6.1.7). In 2018, drilling intersected 1 m of 61 g/t Au in hole EK18-160, drilled in the northern enclave claim of the SIB Property (Figure 6.1.8), near the northern border with Skeena Resources' Eskay Creek Mine Property. No significant mineralization was observed within Eskay-like stratigraphy (Mitchell and Prowse, 2018, BC Assessment Report No. 38315). SSR opted out of the option agreement following the 2018 season, and the SIB Property was returned to Eskay Mining Corp.



100 m wide plane projected envelope section, looking north

Figure 6.1.8: Interpreted envelope section of 2017-2018 drilling, showing Bowser Lake Group/Hazelton Group unconformity and CCTF.

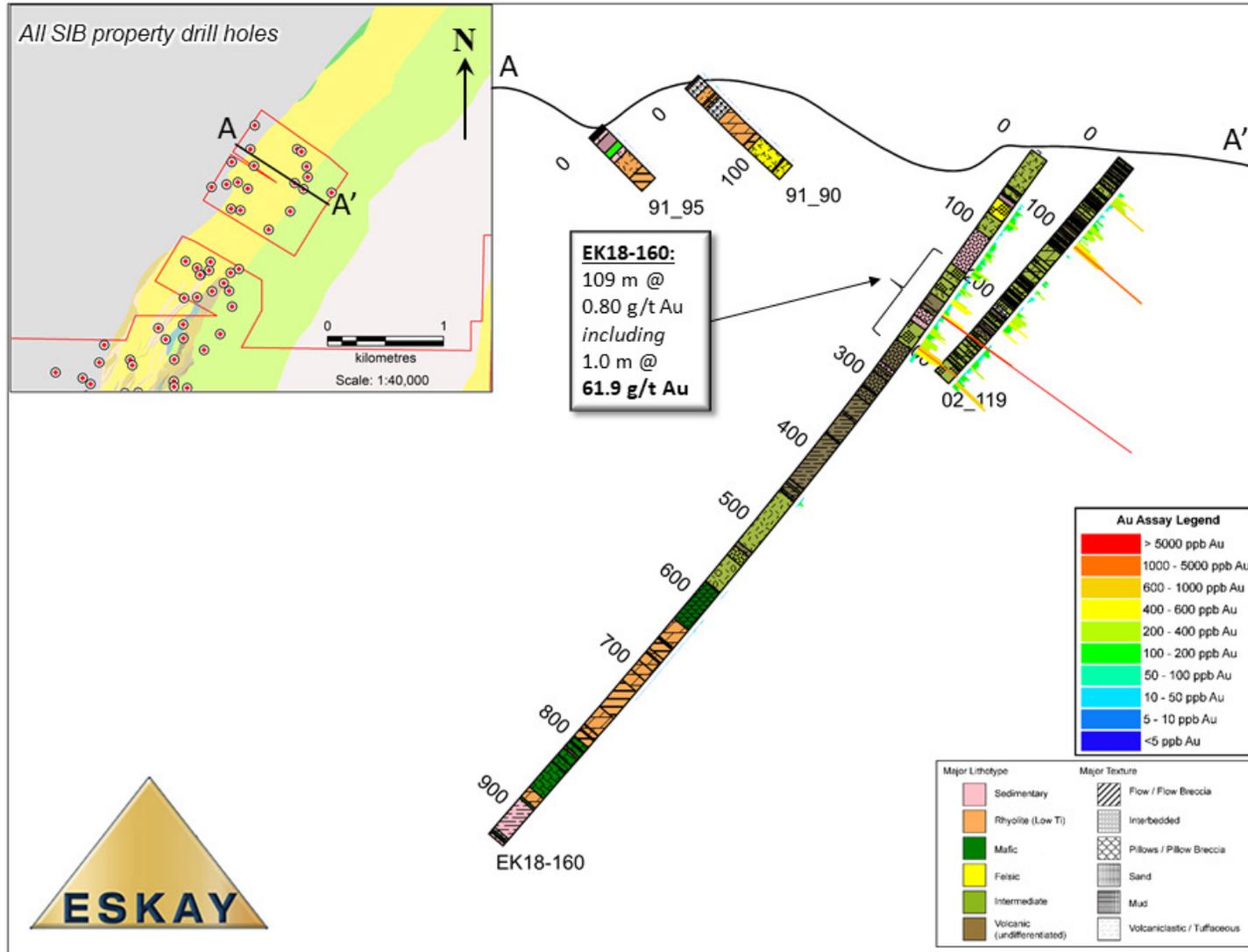


Figure 6.1.9: Cross-section of EK18-160 and surrounding holes.

### 6.1.3 Corey Property Exploration History

The Corey Property accounts for the southern portion of the present-day Eskay property, and includes several notable showings and prospects, including the TV-Jeff prospects, the Cumberland, C10, HSOV, Red Lightning and Tet showings. The earliest assessment reports were filed in 1981, and similar to the SIB property, several portions of the Corey property were explored by different operators/owners.

In 1980, Can-Lake Explorations Ltd was contracted to complete a prospecting program located on the southern portion of the Sulphurets claim block from July 27<sup>th</sup> to August 18<sup>th</sup>. The Sulphurets claim was owned by E & B Explorations in 1981 and consists of one modified grid claim, totalling 20 units. The Sulphurets claim is located approximately 4 km west of the confluence of the Mitchell and Sulphurets creek and 4 km north of Mt. Madge. During prospecting, any significant mineral showings identified were noted. The main rock types observed were of sedimentary origin, including argillites, limestone and minor conglomerates. Minor dykes that were thought to originate from the Mount Madge diorite intrusion cut the sedimentary units. The prospecting failed to identify any mineral showings on the Sulphurets claim. (Kruckowski, 1981; BC Assessment No. 8769)

In 1981, Du Point of Canada Exploration Ltd completed the exploration work that consisted of staking the ELGAR property, two traverses, stream sediment sampling, geological mapping and prospecting. The ELGAR claim is located within the Skeena Mining Division, totalling 12 units and is situated south of the Sulphurets Creek, 7 km east of the Unuk River. The mapping and the stream sediment sampling locations were drawn on a map at a scale of 1:10,000. Mapping was completed along two streams and identified argillite present on the southern portion of the claim. Outcrops of andesite were observed on the western stream, in addition to a sporadic series of gossans that appeared to be associated with shear zones. Several sporadic, mineralized quartz veins hosted within both the andesite and the argillite were identified. The quartz veins were up to 1 m thick in width and contained pyrite-galena-chalcopyrite-sphalerite and  $\pm$  arsenopyrite. A total of 13 stream sediment and 3 rock samples were collected throughout the 1981 exploration program. The stream sediment samples were collected from two north-west draining tributaries of the Sulphurets Creek at 150-200 m intervals. The highest Au grade was obtained from stream sediment sample 6288 with a grade of 85 ppb Au, this sample was collected upstream of sample 6289 and 6290, with grades of 30 ppb Au and 35 ppb Au, respectively. Samples collected upstream of 6288 appear to have gold grades ranging between 20-35 ppb. Rock samples 6284 and 6285 returned gold grades of 3050 ppb Au and 2580 ppb Au and appear to be associated with the mineralized quartz veins hosted within the argillite and andesite. (Eccles, 1981; BC Assessment Report No. 9233)

In May 1982, four claims that comprised part of the old Cumberland Group were acquired by Nor-Con Exploration Ltd. The property consists of four reverted Crown granted, two post claims named; Silver Pine, Middlesex, Xiphis, and Ougma, and are located approximately 2 km east of the confluence of the Unuk River and Sulphurets Creek.

In 1983, Nor-Con Exploration Ltd completed a limited mapping and prospecting program from July 25<sup>th</sup> to August 6<sup>th</sup>. Several traverses were completed on each claim within the property. The mapped units on the Middlesex property were described as, a green grey tuff, a breccia similar in texture to the tuff, a dark green grey chert, a conglomerate and a pillowed andesite. The rocks mapped on the Silver Pine claim were similar to those described from the Middlesex property. An argillite unit was encountered, in addition to a conglomerate unit that appears to underlie the eastern section of the claim. Both the Xiphis and Ougma claims appear to be dominated by a dark green andesite. Minor pyrite mineralization was found to be hosted within the andesite, breccia and argillite. An attempt to locate two historical mineralized zones, present as a shear fissure vein and a brecciated quartz vein proved to be negative during the 1983 prospecting. (Lyngberg, 1983; BC Assessment No. 12255)

In May 1986, the Corey property was staked by E.R. Kruchkowski. The property encompasses 160 units within 8 claim blocks (Corey 1-8). Catear Resources Ltd. conducted rock and silt geochemical survey and prospecting over the Corey claims in July-August 1986. A total of 33 rock samples were collected from Corey 6 and 8 claims from July to August 1986. No apparent anomalous (any value over 100 ppb Au, 1ppm Ag) values were reported from the Corey 6 claim samples. A total of 10 silt samples were also collected, and resulted in 5 anomalous Au values (>100 ppb), and 1 anomalous Ag (>1ppm), and 2 anomalous Pt (60ppb).

Diamond drilling was done by Catear in the Goldwedge property within the Newcana claim block and intersected assays of 0.08-3.709 OPT Au over widths up to 30 feet in 15 drill holes. Results from the drilling provides a resource calculation totalling 77,000 tonnes of 0.59 OPT Au and 4.04 OPT Ag. (Kruchkowski, 1987; BC Assessment No. 16364)

In May 1987, the Corey Property was transferred to Catear Resources.

In June 1987, E.R. Kruchkowski, E. Horne, and D. Lund conducted fieldwork on the Cumberland Claim Group. The Cumberland Claim Group comprises the reverted Crown Grants Lots 265 to 269. The owner of the claims in 1987 was Ritsuko Tsurugida FMC 297219 and the operator was Bighorn Development Corporation. E.R Kruchkowski was an agent of both parties in 1987. The claims were grouped as the Cumberland Group in August 1987 and the known deposit in the area was called the Cumberland or Daly (Au, Ag) with a deposit number of 104B/11.

Field work included location of an adit 1300m east of the Sulphurets-Unuk confluence; grab, rock, soil samples, and prospecting on Lots 265, 266, 269, and Corey claims 28 and 29. Grab samples from old Cumberland workings returned values of 0.126 oz/ton Au, 4.94oz/ton Ag (sample EK-1) and 0.064 oz/ton Au and 9.79 oz/ton Ag (sample EK-2). Results from the fieldwork conducted indicate 3 zones of significant precious metal values: the Cumberland showing (elevated Au and Ag), the Silver Creek showing (high silver zones), and Devils Club Creek (high silver values from stream sediment samples). (Horne, 1987; BC Assessment No. 16318)

In the summer and fall of 1987, field work and drilling at the Cumberland showing were conducted by E.R. Kruchkowski Consulting Ltd., commissioned by Bighorn Development Corporation. Work on the property included field work consisting of soil and silt samples, rock geochemical sampling campaigns. Trenching and drilling were also completed at the Cumberland showing.

Silt sampling was conducted in the Devils Club Creek and Silver Creek drainages. Soil sampling was completed at Silver Creek (28 samples) and at Cumberland (174 samples). At Silver Creek, one sample returned anomalous Au (<5-10ppb), and several samples with anomalous Ag (<1.0ppm). At Cumberland, there are several anomalous Au values proximal to the upper adit area. Prospecting and mapping were also carried out at Devils Club Creek. Several float samples of green carbonate breccia and stockwork with fine fracture fill of carbonate-quartz with argentiferous sphalerite-pyrite were identified and traced to their source area (considered to be the source area for the Daly showing), where scree and wall rock samples returned values of 346.4oz/ton Ag, 169.38 oz/ton Ag.

Trenching was completed at Cumberland in the upper and lower adit vicinities, with a focus on the upper adit zone. Trenching results demonstrate that low gold values can be encountered in the area, though no massive sulphide was found. One channel sample returned up to 0.88 oz/ton Au, and several samples returned values of 0.025-0.034 oz/ton. High grade values from trenching included 0.118 oz/ton Au (50cm), and 0.88 oz/ton (40cm). Silver is ubiquitous in the upper adit zone with values from 1.09-16.58 oz/ton. Results from trenching resulted in the decision to drill with the intent of intercepting extensions of high-grade Au-Ag values at depth to the south.

Drilling was completed by D.W. Coates Enterprises Ltd., and a total of 1936 feet (590m) was completed at the Cumberland adits. Lithologies encountered in drilling include weakly pyritic andesite/dacites, dacitic fragmental/silicified greenstones (host to barite-rich massive sulphide zone intercepted in drilling), and jasper-bearing mafic volcanic or volcanic/sedimentary units. Drilling results determined spotty mineralization with up to 0.35 oz/ton Au can occur. Occurrence of substantial grade in BH-1 returns 0.157 oz/ton Au, and 5.35 oz/ton Ag over 5.6 ft (1.7m), and 0.152 oz/ton Au over 2.1ft. Low grades and narrow widths suggest a cross fissure related ore shoot mineralization at Cumberland, with other base metals including Cu, Pb, Zn, Sb, and Ba. (Horne, 1988; BC Assessment No. 17205)

In 1987, E.R. Kruchkowski Consulting also conducted an exploration program on Corey Claims on behalf of Bighorn Development Corporation. The property consists of 680 units (Corey 1-45). Work included litho-geochemistry, prospecting, and silt sampling. The program indicated anomalous Au and Ag values in rock and silt surveys supporting and expanding on previous work. A 4-mile, northwest-southeast trending alteration zone of sericite-pyrite schists was identified, within which the C10 showing is located. The C10 showing is hosted in sericite schist, with pyrite, weak stockwork quartz, and sphalerite. Elevated (<1000ppb) Au values from rock geochemistry is indicated for this showing.

A total of 386 litho-geochemical samples were collected, and weakly anomalous gold and silver values were reported, particularly within the Corey 7 and 8 claims and appear to be related to an underlying alteration zone. Other anomalous values are within Corey 32 and 35, and to a lesser degree the Corey 3, 5, 6, and 36 blocks. The results, thresholds, and background gold and silver values from litho-geochemistry are similar to those completed by Granduc Surveys in the Sulphurets property in 1974-1976. A total of 255 silt samples were also collected along with the litho-geochemistry samples. Anomalous and elevated values are found across the C10 grid. Results from Corey 32, Corey 37, 4, 1, and 16 also had select elevated values. Returned value highlights

are up to 3.534 oz/ton Au and 19.75 oz/ton Ag in rocks and 0.038 oz/ton Au in silts. Anomalies appear to be related to pyrite-sericite schists. (Kruckowski & Swinden, 1988; BC Assessment No. 17404)

In 1988, rock and silt geochemical surveys and prospecting campaigns over the Corey Claims were completed in the summer. The Corey Claim property was held by Bighorn Development Corp. and operated by E.R. Kruckowski Consulting. The property consists of 630 units within 42 separate claim blocks (Corey 1-45). Five reverted Crown grants (Cumberland Group claims) are contained within the grouping.

A total of 97 rock geochemical samples were collected from the Corey claims. Numerous Au and Ag anomalies were identified, with values as high as 1.614oz/ton Au and 10.99 oz/ton Ag. Other Au and Ag anomalies are found on Corey 32, 35, 3, 5, 6, and 36.

A total of 537 silt samples were collected during the course of the rock geochemical survey, and several weak-strong anomalous Au and Ag values as high as 790 ppb Au and 8.9 ppm Ag were identified.

A trench sampling program was completed along the Devils Club Creek showing (Crown Grant lot 266). Trench 3 returned the best results, with up to 27.30 oz/ton and 11.40 oz/ton Ag were obtained from selective gran and a 0.61m chip sample. Mineralization appears to be related to north-northeast trending, westerly dipping quartz-carbonate stockwork that is hosted in variably altered crystal-lithic dacitic tuffs. (Konkin, 1989; BC Assessment No. 18691)

Drilling was also completed in the summer of 1988. Diamond drilling was completed on the Corey 8 and C10 grids during July and August 1988. A total of 647.67m of BDBGM size diamond drill core was drilled over 6 holes (Table 6.5). Core recovery was poor (60-80% recovery), and the rock quality is reported to be friable and schistose.

**Table 6.5: Hole names, orientations and total depths. From Konkin, 1989.**

DDH	Azimuth	Dip	Depth (m)
88-01	244	-45	106.06
88-02	243	-45	138.07
88-03	243	-65	99.97
88-04	222	-45	155.44
88-05	222	-65	48.16
88-06	356	-45	99.97

On the first pad, Hole 88-01 intersected grey-green dacitic tuffs, with two occasions of no core recovery. No significant mineralization or alteration is reported, and no significant or anomalous

Au or Ag values were obtained. Holes 88-02 and 88-03 intersected flat-lying quartz vein structures and several steeply dipping quartz veins and pods. Holes 88-04 and 88-05 only intercepted steeply dipping quartz veins. Pyritic quartz veins returned values of 0.008 oz/ton Au and one occurrence of 0.07 oz/ton Ag is noted. The best values in 88-02 include 0.032 oz/ton Au with 1.1 ppm Ag at 65.42-66.75m and 0.050 oz/ton Au with 1.1ppm Ag at 94.03-94.73m. Hole 88-03 had values of 0.011 oz/ton Au with 0.4 oz/ton Ag at 64-65.22m. Reported results are hosted in finely laminated, well-sheared calcareous ash flow tuff units.

Results from Hole 88-04 includes 0.24 oz/ton Au with 0.10 oz/ton Ag at 15.70-16.92m. Hole 88-05 returns values of 0.32 oz/ton Au with 1.0ppm Ag from 14.17-15.18m along the upper contact to a quartz stockwork zone, and 0.48oz/ton Au with 1.4 ppm Ag from 19.20-19.81m. The results in these holes were also hosted in calcareous ash flow tuffs. Hole 88-06 returned values as high as 840ppb Au and 1.7ppm Ag from quartz stockwork near the top of hole (13.17-15.07m). (Konkin, 1989; BC Assessment No. 18996)

Granges Inc. held the Unuk, Coul, Icey, Bou, Knip, and Irv claim groups under option from Cove Resources Corp. and Springer Resources Ltd. The property consists of a 33-claim group (Unuk Claim Group), a 4-claim group (Coul Claim Group), 2-claim group (Icey Group), 3-claim group (Bou Group), 2-claim (Knip Group), and a single claim group (Irv). The property comprises 683 recorded units (17 075 hectares).

The 1989 field season activities were in 2 phases. Phase one included 1:10 000 scale mapping/prospecting, geochemical surveys, geophysics; and phase two consisted of preliminary diamond drilling. A total of 1,501 soils, 164 silts, and 1,113 rock samples were collected in phase one. Several zones were focused on in the 1989 field season:

**Zone 1:** located on the Unuk 14, 15, and 26 claim groups. Mapping identified gossan zones of altered rhyodacites and up to 1.68 g/t Au were returned from trenching. Anomalous Au values from soils are also returned. Follow-up of a 3160 ppb Au from 1986 field work completed by Hi-Tec led to the identification of a gossanous, sheared and altered cross-cutting structure (AP structure) that cuts Jurassic volcanics and Betty Creek Formation sediments. Trenching along the AP structure returned values up to 11.6 g/t Au and 14.6 g/t Ag over 3m, and can be traced over a strike of ~400m. The structure appears to also extend northward to the Cliff Zone. Drilling on the AP structure included 5 holes totalling 566.94m. All the holes encountered strongly silicified zones and short polymetallic intervals, but no values >1.5g/t Au were encountered.

**“R” Grid:** located on Coul 1. Interest in this area was due to anomalous Ag-As values from soils in the 1988 Hi-Tec field season, extension of the Mount Dilworth Formation into the claim boundary, and the discovery of pyritic felsic volcanics and sediments returning a 0.13 g/t Au sample in the southwest edge of the claim. Systematic soil sampling revealed anomalous Au (up to 104 ppb Au, along with >6.0 ppm Ag, >500 ppm As) that coincide with previously reported As and Ag anomalies. The anomalies appear to parallel both contacts of a siltstone unit sandwiched by tuffs and flows. Pyritic sediments return up to 7.33 g/t Au and 209 g/t Ag in a near vertical, ENE striking structure. Drilling at the R grid included 3 drill holes totalling 344.43m. All 3 intersected brecciated siltstones/argillites. Spotty Au values up to 1.77 g/t over 0.5m associated with As were intersected.

**Beedee Zone:** formerly known as area “B”, is located in the northeast corner of the Unuk claim group. The area is underlain by siltstones and greywackes with concordant plagioclase-hornblende porphyry sills. Lead-zinc-ankerite veins were found on the claim area and carry up to 500 ppb Au, with elevated tin, tungsten and REEs. Tectonic, carbonate-bearing sandstone megabreccias were also found containing pyrite-galena-sphalerite, and return values up to 5.57g/t Au.

**Zone 2:** Located on the common boundary of Unuk 11 and 12 claim groups. Small, E-W trending gossanous shears in rhyodacites return values of up to 2.7g/t Au. A major NE trending shear zone was also identified between flow-banded rhyolite and andesite, with isolated sheared argillite lenses and blocks. Similarities to the transition zone in the Eskay Creek model may be made for the shear.

**“J” Grid:** Located on the Coul 4 and Unuk 1 claim, on the north flank of John Peaks. The area is underlain by a sequence of andesite, conglomerate, and greywackes. Mapping and sampling were done over a portion of the area; however, soil results did not substantiate those reported in 1988 workings and no further work was completed.

**McTagg Creek Area:** located in Unuk 3 and 4 claims, in the McTagg River Valley. The valley is freshly glaciated, and underlain by deformed argillites, carbonates, and occasional felsic tuffs. A previously reported Au soil anomaly near the toe of the East McTagg Glacier was identified and traced to the east wall of the valley. It appears to be related to copper-bearing shears in sedimentary rocks, and may be related to the Sulphurets deposit located to the southeast.

Reconnaissance activities were carried out on the West Unuk, East Unuk claim blocks. In the West Unuk block, up to 125 ppb Au in soils were identified, and 5 additional areas were identified with up to 1.4g/t Au in boulders, sheared contacts and gossans. In the East Unuk block, two areas with anomalous Au were identified, up to 1.12g/t Au in sheared andesitic and sedimentary rocks, and up to 475 ppb Au in sheared sedimentary rocks.

Initial assessment of the Icey, Knip, Bou, and Irv claims were also completed. Gossans in the Icey claim returned values of up to 4.63g/t in sheared and sericitized volcanics, however access is difficult. The Bou claim returned Au soil anomalies, however the source has not been located. No other encouraging results were received from reconnaissance from Knip or Bou. (Gaboury & Seagel, 1990; BC Assessment No. 19675)

In 1990, Granges Inc. continued exploration efforts in the Unuk C claim group. Unuk Claim Group “C” includes Unuk 26, 14 and 15, and are recorded to be owned by Ashworth Explorations Ltd. and held by Granges Inc. under option from Cove Resources and Springer Resources Ltd. The 1990 field program was focused on Unuk Claim Group C and included: the re-establishment of Zone 1 and AP Zone grids, location of anomalous soil sample sites from the 1989 program, and infill sampling; re-mapping of Zone 1 grid and additional prospecting; an IP survey was conducted over areas of interest identified in the 1989 program; and drilling of six diamond drill holes (AP-6 to 12).

Results from mapping identified insights into the geology of the AP structure and its geologic context. The Zone 1 area is characterized by rhyolitic to dacitic volcanic rocks with minor argillaceous components, suggesting near-vent facies volcanism (supported by geochemical “epithermal” signatures. The volcanics are crosscut by numerous “felsic” to andesitic dykes that

---

are associated with alteration and sulphide mineralization. Several diabase bodies are present in the northwest and north-central parts of Zone 1 grid and in the AP Zone as anastomosing diabase dykes. Thin altered sections are found in larger diabase bodies in the Zone 1 grid. Petrography on altered sections shows that they are silicified, chloritized and carbonatized mafic rock, and similar alteration is found in the AP diabase.

Two north-south IP lines show a chargeability high from sulphide mineralization on the 800W line, however it cannot be traced to the 600W line. A soil anomaly of up to 145 ppb Au on the west-facing slope above Zone 1 trenches are related to an east-west trending swarm of “felsic” dykes, and is located downslope and to the west of the southeast contact of the large diabase body.

Soil anomalies across Zone 1 are spatially related to the sheared felsic volcanic (likely the Mt. Dilworth Formation) contact with sedimentary sequences (possibly Betty Creek). The shearing at the contact is shallow, possibly along a bedding plane contact and dominantly dip-slip in motion. The AP diabase appears to have deformed the AP structure, demonstrated by IP and ground magnetic surveys, and is interpreted to play a role in producing gold-poor ankerite-galena-sphalerite veins and tensional quartz veinlets at the AP Zone.

Drilling at Zone 1 structure totalled 1520.93m over 6 diamond drill holes (Table 6.6). The holes were designed to examine the correlation of IP, geochemical, and geological evidence. (Gaboury & Seagel, 1990; BC Assessment No. 20390.

Table 6.6: Summary of 1991 Granges AP Zone Drilling.

Hole	Azimuth	Dip	Depth (m)	Highlights
AP-6	302	-45	300.84	IP anomaly target; intercepted sediments and minor dacite tuffs. Semi-massive pyrite was encountered, but no significant gold mineralization
AP-7	314	-45	197.21	Targeting shear in tuffaceous mudstone, and surface samples of up to 1400ppb Au. No significant mineralization was encountered
AP-8	080	-55	306.91	IP/geochemical anomaly target; felsic volcanics and sediments were encountered - pyritic andesitic dykes were encountered, but no significant assays were returned
AP-9	080	-55	238.05	IP/geochemical anomaly target; hole is dominated welded dacite tuffs and sediments - anomalous values were found, but no significant Au
AP-10	282	-45	198.12	IP/geochemical anomaly target; tuffaceous mudstones and dacite tuff – no significant mineralization encountered
AP-11	282	-45	141.12	IP/geochemical anomaly target; altered diabase and tuffaceous mudstones; no significant sulphide mineralization
AP-12	210	-45	138.68	Targeting proposed targets for hole AP-9; clastic sediments with minor sulphides – no significant gold values.

In June 1991, Granges Inc. undertook another field program that represents the final part of a 3-year option between the property joint optioners (Springer Resources Ltd. and Cove Resources Corporation) and the optionee (Granges). Approximately 38-line km was cut (14.6 km on the “G” grid and 22.4 on the Jeff Grid) for geophysical and soil sampling surveys (not reported) in order to locate drilling targets. Tarn Creek (Unuk 11) and Jeff Ridge (Coul 3) and “R” Grid (Coul 1) were selected for drilling (Figure 6.1.10).

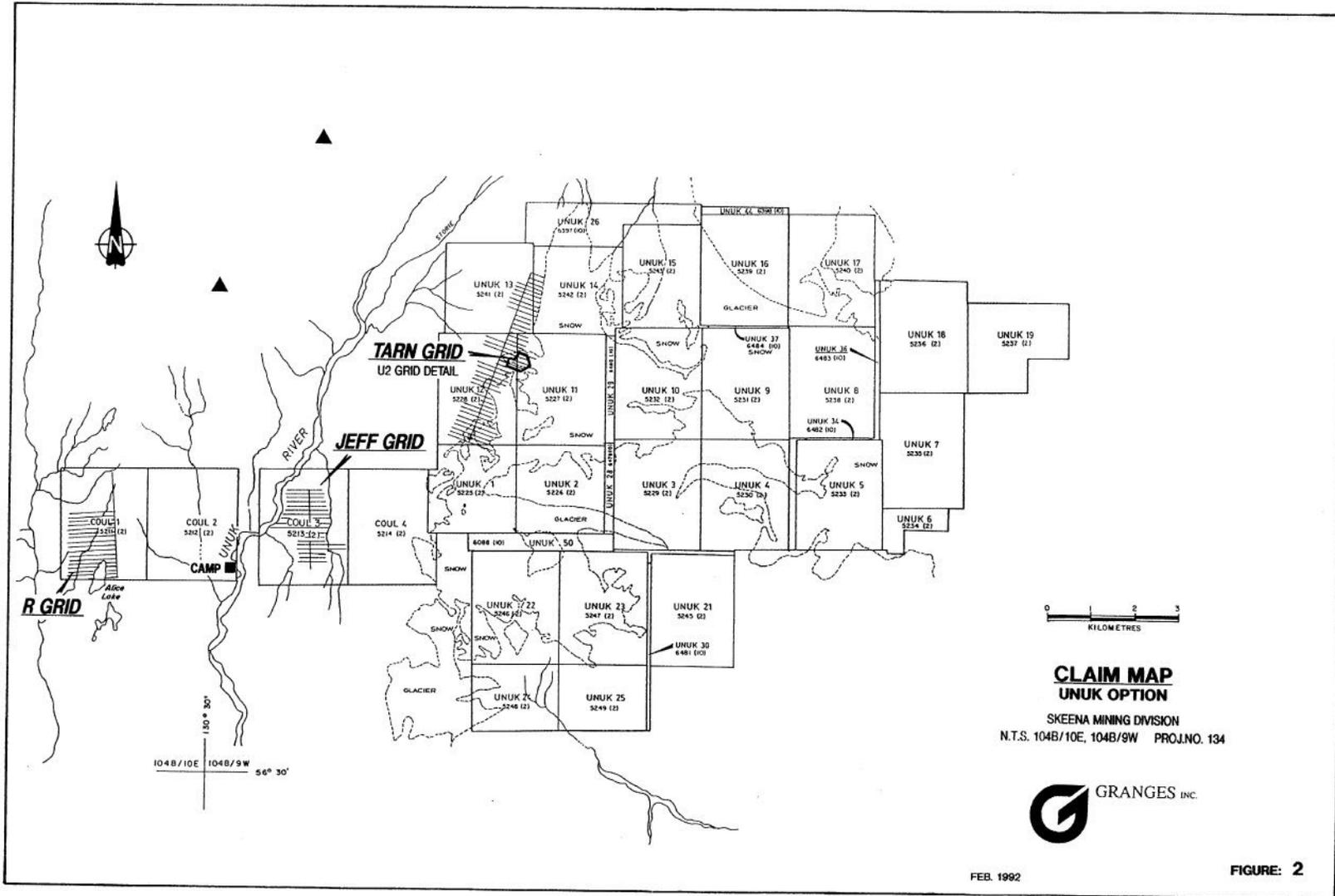


Figure 6.1.10: Claim map and gridlines for Tarn, R, and Jeff grids. From O'Donnell, 1991.

**Coul 1 & 2 Claims:** located ~10.5km south-southwest of Eskay Creek. Detailed (1:2000) mapping (following up on 1:5000 scale mapping) and reinterpretation of geochemistry and geophysical surveys were completed. Five drill holes (R91-1 to R91-5) totalling 310.85m were subsequently drilled.

Holes R91-1 through R91-3 were drilled to test favourable geology along the western shore of Alice Lake. The holes intersected steeply dipping felsic lapilli tuffs, interbedded argillites, sandstone, and mafic to intermediate amygdaloidal flows. Stratigraphic relationships from drilling suggest that the amygdaloidal volcanic rocks may be part of the Salmon River Formation, instead of the Mt. Dilworth Formation, and mafic volcanics to the east are part of the Betty Creek Formation. Holes R91-4 and R91-5 were drilled to retest the Creek showing originally drilled in 1989. No significant mineralization was intersected, but anomalous gold values are consistent through both holes. Mapping results suggest that mineralization is associated with the lower margin of a flat-lying/gently dipping felsic unit. The geology of the “R” grid appears to be in similar stratigraphy as Eskay Creek, and may have similar gold-bearing potential.

**Coul 3 & 4 Claims:** results from airborne geophysical surveys flown in 1986 and 1989 were used to identify geophysical anomalies in the area, as previous work is limited. The 1991 field program included 1:5000 regional mapping and sampling. Subsequent detailed 1:2000 mapping over the Jeff Ridge and Anna showing (both on the Coul 3 claim). The Anna showing is the result of a low resistivity anomaly in the northeast corner of the Coul 3 claim. Soil and rock sampling and prospecting were also completed and several Au, Ag, As, and Zn anomalies were identified. Preliminary drilling was conducted on 6 holes, with an additional 24 holes drilled later in the season, totalling 5380m.

Highlights from drilling on the Coul 3 & 4 claims include:

**Table 6.7: Key intercepts from 1991 drilling. From O'Donnell, 1991.**

Hole	Intercept
DDH J91-4	6.17 g/t Au over 4.94m
DDH J91-7	34.04 g/t Au over 4.00m 5.50 g/t Au over 2.00m
DDH J91-2	6.17 g/t Au over 3.20m
DDH J91-10	12.00 g/t Au over 0.98m
DDH J91-12	12.00 g/t Au over 1.70m

Drilling at the Jeff Grid was focused on the 750 and 900 zones, and results indicated elevated Au and Ag values. Nine drill holes (J91-2, 3, 10, 12, 20, 21, 25, 29, 30) totalling 1224.07m were drilled at the 750 zone at 50m spacing to test geochemical and geophysical anomalies. All holes intercepted strong alteration and mineralization (Table 6.8).

**Table 6.8: Key drilling results from 750 zone. From O'Donnell, 1991.**

Hole	Intersection Width (m)	Au (g/t)	Ag (g/t)
J91-2	3.2	6.37	26.2
	0.65	15.60	140.9
J91-3	1.00	4.22	16.6
	0.92	3.73	11.2
J91-4	4.95 (Upper Zone)	5.24 (0.18 oz/t)	155.6 (4.5 oz/t)
	1.15 (Lower Zone)	1.06	63.0
J91-7	4.00 (Upper Zone)	33.0 (0.98 oz/t)	248.0 (7.3 oz/t)
	2.00 (Lower Zone)	5.44 (0.16 oz/t)	- (6.11 oz/t)

A total of 12 holes were drilled at the 900 zone (J91-4, 7, 8, 9, 16, 17, 18, 19, 22, 23, 24, and 28) totalling 2468.56m. Similar to the 750 zone, intense alteration and mineralization are also intercepted, with elevated Au, Ag, As, and Sb.

Drilling outside of the 750 and 900 zones include J91-1, 13, 14, and 15, totalling 772.38m. They were designed to test several coincident geophysical-geochemical anomalies. Hole J91-1 intersected two narrow mineralized intervals of 0.92 g/t Au and 6.9 g/t Ag. Holes J91-13, 14, 15 were east of the baseline and J91-15 intersected a 4.5m interval of 1.0 g/t Au and 30.3 g/t Ag hosted in strongly quart-carbonate veined volcanics at 118.4m.

Four drill holes (J91-5, 6, 26, and 27) totalling 613.8m were drilled to test high chargeability and geochemical (Au, Ag, As, Sb) anomalies. Less intense alteration and locally anomalous values are intercepted in these holes.

**Tarn Creek area:** Prospecting and 1:500 grid mapping was carried out over the Tarn Creek area and identified a 50x300m northeast trending zone of carbonate alteration and N-NE quartz veining. Grab samples of veining returned values up to 13.17 g/t Au. Chip sampling across deformed argillites near an isoclinal fold hinge returned values of up to 12.8 g/t Au across 1m (2.85 g/t over 5.3m). IP and magnetic surveys totalling 1.5km (previously reported), was also completed, and one drill hole (T91-1, totalling 114.6m) was drilled. The drill hole intercepted a quartz vein fault zone, but no anomalous Au values are reported. Elevated As and Au levels (up to 860ppb Au) are encountered near the bottom of hole. (O'Donnell, 1991; BC Assessment No. 22113)

In August 1991, a geophysical survey was completed on the Coul 3, Unuk 11 and 12 claims. The claims were owned by Malcolm Bell and are held by Granges Inc. under option from Springer Resources Ltd. and Cove Resources Corporation. Induced polarization (IP) and magnetometer

---

surveys were conducted over the Jeff and Tarn grids, totalling 15.3-line kilometers (2.0km on the Tarn grid, 13.3 on the Jeff grid).

On the Jeff grid, the magnetometer survey identified weak, anomalous north-south striking trends that appear to be associated with chargeability highs. IP surveys indicated north-striking anomalous trends of both chargeability and resistivity. The eastern portion of the grid had low resistivity and difficulty with chargeability detection, likely due to the presence of graphitic argillites.

On the Tarn grid, the magnetometer survey indicated local, elevated readings over the 3550N and 3400N lines. The IP survey showed an anomalous chargeability and resistivity area on the 3400N line. Several drill hole locations and orientations were recommended as a result of the geophysical surveys. (O'Donnell, 1991; BC Assessment No. 21749)

In 1991, Kenrich Mining Corp. and Ambergate Exploration Inc. held 50-50% ownership on the Cumberland property. Placer Dome Inc. had an exploration agreement with Kenrich and Ambergate Exploration to carry out a property evaluation at Cumberland in September 1991. The evaluation included: geophysical surveys (magnetometer and VLF-EM along 1.65km baseline and 4.7km of crosslines); 1:2500 geological grid mapping (including 1:150 scale maps at the Star showing, and the adit at 1:100 scale); re-logging of core drilled in the 1987 program; a total of 25 lithochemical rock samples, 218 soil samples, 11 bulk sediment and 11 silt sediment samples were collected.

The Cumberland property is underlain by pervasively chlorite altered, hornblende and/or plagioclase andesitic pillow lava and pillow breccias of the Betty Creek Formation, with minor clastic sediments. Dominant structural fabrics show bedding trending north to north-northwest with a steep (60 degree) westerly dip.

Soil geochemical results show correlation of Ag, Cu, Pb, Zn, and As correlating with alteration and sulphide-bearing veins associated with structures. Fine fraction gold shows a rough correlation with sedimentary sequences. Rock geochemistry (from grab or channel samples) show that massive sulphides samples from the Star showing are enriched in gold and silver (5.5, 1.66, 6.45ppm Au, and 245, 96, 172 ppm Ag), and altered volcanics are enriched in Au, Ag, Cu, Pb, and Zn (up to 2.32ppm Au, 110ppm Ag, 2328ppm Cu, 0.39% Pb, and 1.13% Zn). Stream sediment samples from the Sulphurets and Unuk River areas returned anomalous gold and weak Cu and Zn anomalies. Geophysical surveys highlighted magnetic highs correlating to lithology and several conductive structures. (Brownlee, 1992; BC Assessment No. 22231)

In the fall of 1991, a two-part exploration program was carried out by Kenrich Mining Corp. and Ambergate Exploration Inc. on the Corey Claims. The Corey 32 claim totals 20 units, and the contiguous Corey 40 & 41 claims total 24 units, and are under 45% respective ownership under Kenrich Mining Corp. and Ambergate Exploration Inc. The two-part exploration program consisted of:

1. a regional survey on the Corey 40 & 41 claims conducted by Forerunner Resources Inc. (on behalf of Kenrich). The survey included prospecting, soil sampling and

lithochemical sampling to evaluate Cu/Au potential. A total of 14 soil and 12 rocks samples were taken.

2. a grid-controlled survey on the Corey 32 claim (C10 grid) by Placer Dome Exploration Ltd. The exploration program was designed to evaluate Au/Cu potential of gossans on the eastern slopes of Mount Madge. A total of 2.75-line km were cut for geophysical (magnetic, IP and EM) surveys, and a total of 72 rock and 108 soil samples were taken. Mapping was completed at a scale of 1:2500 over 45 hectares.

At the Corey 32 claim, only occasional copper mineralization was found in shallowly dipping quartz/siderite veins ranging from 20cm to 1m wide, with 10-30% tetrahedrite and 3-15% chalcopyrite. Lithochemical results indicate association of elevated Au, Cu, As, and Ag with increased phyllic alteration and decreased propylitic alteration (that are associated with a northwesterly trending shear structure). Soil samples cover 78% of the claim block, and identified two prominent, northwesterly trending anomalies that are coincident with weak chargeability anomalies. One of the anomalies is identified as the C10 showing.

No economic minerals were found on the Corey 40 & 41 claims, but a predominant north-northwest striking, steeply westward dipping foliation was identified across the area. Several soil samples with elevated (15-24 ppb) gold were returned, and only one sample of unknown lithology returned significant values (650ppb Au, 18.0 ppm Ag, 1033ppm As, 1055ppm Cu, 0.43% Pb, and 3.89% Zn). (Shevchenko, 1992; BC Assessment No. 22319)

In 1992, field work was completed on the Corey Property by Kennecott Canada Inc., Inco Exploration & Technical Services Inc., and Homestake Canada Ltd. In addition to the exploration program, silt, rock and soil samples were reanalyzed by Placer Dome and Kenrich Mining Corp.

The property consists of 64 contiguous mineral claims (782 units), including 5 reverted Crown grants. The 1992 program was completed over two portions of the property. The eastern portion (Sul 1&2, Unuk 20 and Nika 1) was under option to Placer Dome Inc., and carried out geochemical, geophysical and diamond drilling (submitted in a separate report by Placer). The rest of the Corey property underwent geochemical sampling and geological mapping by Kennecott Canada Inc., Inco Exploration & Technical Services Inc., and Homestake Canada Ltd. (Table 6.9). Additional re-analysis of 1104 geochemical samples was completed by Placer Dome Exploration Ltd. and Kenrich Mining Corp.

A total of 1,597 geochemical samples were collected and/or analyzed. Inco collected 6 grab/chip samples from Cumberland, Kennecott collected 1 silt and 36 grab rock samples from Corey, Homestake collected 194 rock, 86 silt, 83 heavy mineral concentrate, and 87 moss mat samples (including 2 old drill core samples). Placer and Kenrich re-analyzed 719 silt, 28 soil, and 357 rock samples collected in the 1987 and 1988 field seasons. (Pegg, 1993; BC Assessment No. 22881)

**Table 6.9: Corey Property exploration results summary. From Pegg, 1993.**

<b>Company</b>	<b>Results</b>
Inco	Significant values returned from the immediate Cumberland showing, with the best results from massive sulphide and massive barite mineralization.
Kennecott	Only significant results from the Cumberland showing; grab sample of massive sulphides returned 0.188 oz/t Au, 7.27 oz/t Ag, 1.26% Cu, 7.38% Pb, and 17.45% Zn
Homestake	Chip sample from Cumberland returned 0.392 oz/t Au, 5.29 oz/t Ag, and significant Pb and Zn.  Silt, moss mat, and heavy mineral concentrate results indicate several anomalies across the property
Placer & Kenrich	Silt samples identified four areas of multi-element anomalous values.  Rock samples returned anomalous results from areas of known mineralization (C10, Tet, Silver Creek, Mandy Glacier, and GFJ). Highlights include a 5440ppb Au from C10, and GFJ with a 57460ppb Au sample. Mandy Glacier returned a sample with 31 874ppb Au. Three other areas of interest were also identified, located north and northeast of GFJ (2450 ppb Au and 55000ppb Au, respectively) and southwest of Mount Madge (two samples with 6052 ppb Au).  Silver Creek samples showed up to 7.7ppm Ag along the north end of the grid, and one sample returned 3473 ppm Ag.

In 1993, Kenrich-Ambergate conducted a field program from June to October. Field work consisted of grid, contour and reconnaissance mapping; prospecting, a soil geochemistry survey, geophysical surveying, and exploratory trenching. The Corey property consists of 67 contiguous mineral claims and 5 reverted Crown grants totalling 836 units (80 000 acres). The property was divided into 3 areas: Area A includes the A grid, the Bench and Battlement zone. Located north of the Sulphurets Creek, west from Johns Peak and north of the Unuk property; Area B includes the south side, north facing slope of the Sulphurets Creek between the Unuk River and Bejay Creek; Area C is the east bank of the Unuk river south of Sulphurets Creek.

Mapping was conducted across all areas. Area A was mapped at 1:5000 scale, and Areas B and C were at 1:10 000 scale. No grid lines were cut on Area C, and mapping was confined to creek drainages.

A total of 2394 soil and 5 silt samples were collected over Areas B and C. Mag-VLF surveying was conducted over 8275-line metres. A total of 15 trenches were dug/blasted, including 5 trenches on the Bench Zone, 4 at TV, 4 and MM, and 2 at the Battlement Zone.

In Area A, high contrast pathfinder element soil anomalies were detected in the Bench Zone, and the strongest anomalies were detected in the north Battlement Zone. Geochemical data from Area B revealed a number of mixed results with several anomalous Au, Ag, and Sb zones that appear to be distributed along north-trending structures (Table 6.10). (Van Damme & Mosher, 1994; BC Assessment No. 23805)

**Table 6.10: Summary of key results from the 1993 Corey Property exploration program. From Van Damme & Mosher, 1994.**

<b>Prospect</b>	<b>Results</b>
Bench Zone	Trench locations were made on soil geochemical anomalies. Trenches 93-08, 09 and 11 exposed mudstone and breccia; 93-10 exposed mudstone; and 93-12 exposed basalt. Trench 8 revealed polymetallic veinlets, and chip/grab samples returned low gold, but enriched polymetallic and pathfinder signatures (up to 63.6ppm Ag, 7970ppm Zn, >10000ppm Pb, up to 1915ppm As, Cu, and Sb)
Battlement Zone	Two small hand trenches (93-13 and 14) were dug on high contrast soil anomalies. No mineralization was found, but exposed black mudstones with anomalous (258-1040ppm) Zn
Cumberland Showing	Sampling around the historical adit returned values of up to 9.4g/t Au, 9.3 g/t Ag, 0.45% Cu, 2.70% Pb and 9.8% Zn
TV Zone	Every trench returns anomalous gold values: Trench 93-06 returned 0.161 oz/ton Au and 1.3 oz/t Ag over 6.6ft. Trench 93-05 returned 1.140 oz/ton Au and 115 ppm Ag over 3.3ft, individual chip samples return values ranging from 100-605ppb Au and 9-26.8ppm Ag. Trench 93-04 returned 0.067 oz/ton Au over 21.3ft, individual chip samples range from 575-3810ppb Au and 7.4-35.4ppm Ag. Trench 93-07 returned 0.061oz/ton Ag over 3.3ft, other chip samples returned 290-660ppb Au and 4.6-17.2ppm Ag. Soil geochemistry returned 10-126ppb Au, 1.7-27ppm Ag and as high as 42ppm Cu and 18ppm Sb. Along with a mineralized grab sample, the soils led to the discovery of the TV showing
MM Showing (Corey 38 claim)	Three trenches (93-01 to 03) resulted in the following value ranges: As (10-1170ppb), Ag (0.2-13.4ppm), Cu (5-300ppm), Pb (6-1690ppm), Zn (86-4110ppm), As (18->10000ppm), Sb (2-142ppm)

GFJ	Outcrop sampling resulted in fire assay results for Au (1.90-72.80g/t) and Ag (31.9-562g/t)
C10	Spot sampling at C10 returned values for Au (141-3500ppb), Cu (1935->10000ppm), Ag (>200ppm)
Elgar	Float sample VV-B-F-034 returned values of 325ppb Au, 15.5ppm Ag, 23ppm Cu, 2814ppm Zn, 2204ppm As, and 23ppm Sb

In 1994, operations on the Unuk claims were a joint venture between Granges Inc. (63.67%) and Bristol Exploration Ltd. (36.33%), the successor to Springer Resources Ltd. The Unuk claim property comprised 589 units or 14 725 hectares. The 1994 exploration program focused on two, with the goal of extending the Jeff and R grids. Work on both grids consisted of line cutting, 1:2000 scale geological mapping, soil and lithochemical sampling. A total of 1102 soil, 10 silt samples, and 244 rock samples were collected.

The R grid is underlain by felsic and mafic volcanics that are folded into a shallow north-plunging anticline. No significant mineralization was observed, one lithochemical sample returned 235ppb Au, 9.5ppm Ag, and 496ppm As. Soil geochemistry effectively traces the rhyolite across the grid, and has associations with silver and gold anomalies.

The Jeff grid is underlain by the Lower Andesite sequence with lesser mafic volcanics. All rocks are variably sheared and altered, with no significant mineralization. One sample returned 3340ppb Au, >10 000ppm As, 6.1ppm Ag, and another sample returned 340ppb Au, 34.8ppm Ag, 216ppm As. Soil geochemistry did not result in further identification of significant anomalies. (Van Damme, 1995; BC Assessment No. 23910)

The 1994 Corey property exploration program was carried out by Kenrich Mining Corp. The Corey property consists of 67 contiguous mineral claims and 5 reverted Crown grants totalling 80 000 acres, and is owned by Kenrich Mining Corp. Initial program plans were curtailed by late season start and heavy snow. The entirety of work completed in October/November of 1994 was on the Bench Zone, and included geophysical surveys, geological mapping and geochemical sampling.

The 1994 program intended to establish a cut grid, detailed mapping, sampling, geophysical surveys, and trenching on the TV, Bench and Battlement Zones. These were targets identified during the 1993 program. The Bench Zone was the only target where work was able to be completed. A total of 6-line km of combined mag, EM, and IP were completed over 7 lines covering the central Bench grid before snow cover made work prohibitive.

Correlating anomalous soil geochemistry results from 1993, the 1994 geophysical survey reveals a number of relationships between anomalous arsenic and antimony values from geochemistry to north-northwesterly trending fault zones. A northeasterly trending zinc high with lesser lead, arsenic and antimony produces an EM response, as well as a high resistivity and low chargeability response to the west that rapidly changes to a high chargeability and low resistivity to the east. The eastern side of the Bench grid shows anomalous responses in both EM and IP surveys over the

contact between Mt. Dilworth and Salmon River Formation. This contact shows anomalous Pb, Zn, Ag, As, and Sb anomalies. High As and Sb are associated with north-northwest trending fault zones. Overall magnetic response across the Bench grid is generally flat. (Chapman & Visser, 1995; BC Assessment No. 23757)

In 1995, Canamera Geological Ltd. facilitated an exploration program on the Corey property. Work included line cutting, soil sampling, mapping, prospecting, IP survey, trenching and diamond drilling. Line cutting was completed on the TV grid (a total of 18.5-line km, and including re-establishment of the Battlement baseline). A total of 1955 soil samples (1346 from the TV zone, 376 from the Bench zone, and 233 from the Battlement zone) were collected. Mapping at 1:5000 scale and prospecting over 1700 hectares at the TV zone yielded a total of 264 (83 from Corey 20 and 177 from Corey 23) rock chip samples from outcrops and trenches in the TV and Bench zones. An IP survey totalling 16.5km was completed over part of the TV zone. Approximately 200m of trenching in 10 trenches was completed on the TV zone, with 148m of trench was chip sampled and 264 rock chip samples were collected. Reconnaissance geological mapping and rock chip sampling was conducted on the GFJ and Cumberland showings, and 54 rock and 2 stream sediment samples were collected.

Trench chip samples returned significant gold and silver values (TR-95-04 samples returned up to 19.9 g/t Au and 86.7 g/t Ag over a width of 3.4m, including 31.9 g/t Au and 97.8 g/t Ag over 1.4m).

Stream sediment and soil geochemical sampling program was designed to infill spacing on pre-existing grids. A total of 1955 soil samples were collected, 1346 over the TV zone, 376 from the Bench zone and 233 from the Battlement zone. Several samples returned anomalous gold results

Twenty-two NQ holes (holes TV95-01 to TV95-22) were drilled, totalling 3863.63m off of 11 drill pads. The holes were designed to test for downdip extension of gold-silver mineralization initially discovered by Kenrich in 1993, and other targets were selected using a combination of geology, geochemistry and IP data. Holes 95-05, 06 and 07 were drilled on the Corey 20 claim, and all others were drilled on the Corey 23 claim. A total of 1549 core samples were taken and assayed. Mineralization at TV occurs in one of two environments: 1) as locally discordant, pyritic siliceous zone that trends northwest and dips moderately to the east, and up to 60m wide; and, 2) hosted in black, weakly silicified and carbonatized pyritic mudstones. At the TV zone, rocks are weakly deformed, with abrupt variations in lithologic thicknesses possibly related to paleotopography.

Reconnaissance at GFJ and Cumberland showings was also completed, with GFJ mapping done at 1:100 scale along with chip sampling, and preliminary mapping at Cumberland. At GFJ, mapping identified three, narrow subhorizontal quartz veins with up to 51.92 g/t gold over 1m. Cumberland mapping identified similarities in lithologies to those at Eskay Creek. (Bridge, Drown & McRoberts, 1996; BC Assessment No. 24373)

In 1996, Kenrich Mining's field program on the Corey property consisted of reconnaissance surveys including regional mapping, prospecting and geochemical surveys; airborne magnetic and radiometric surveys were completed on the western half of the property. A total of 387 rock samples, 234 moss mat samples, and 75 stream sediment samples were collected. Four targets

requiring further work were located, including HSOV, a VMS target, and CB, Sheila Creek and TM (high grade gold vein targets). Four drill holes were completed at Sheila Creek (No longer part of the present-day Property) showing; however, they did not intercept the vein.

Regional surveys included airborne surveys, regional mapping, and sampling (Table 6.11). High-resolution radiometric, VLF, magnetic airborne surveys were completed over the western half of the Corey Property, totalling 1150-line km of survey flown by helicopter. Regional, 1:10 000 scale mapping and geochemical surveys produced a total of 251 rock samples, 388 moss mat and 75 stream sediment samples. Five new mineralized showings were identified from this work (HSOV, TM, CB, Kumiko, and Sheila Creek).

**Table 6.11: Exploration highlights, summarized from Kowalchuk et. al, 1997.**

<b>Showing Name</b>	<b>Highlights</b>
HSOV	Semi-massive to massive marcasite, pyrite, graphite hosted in mudstone and felsic volcanics (related to submarine exhalative vent system); chip samples returned poor values, but nearby moss and silt samples returned >500ppb Au
TM	Similar to GFJ mineralization, pyrite-arsenopyrite-chalcopyrite in carbonate-quartz veins; grab sample yielded 42.10g/t Au
CB	Pinch-swell quartz vein trending 212 and dipping ~80 degrees to the southeast; mineralization consists of semi-massive to massive pyrite; assays returned include 4.54g/t Au, 50.6g/t Ag from grab samples, and chip sampling returned 2.31 g/t Au over 0.6m
Kumiko	Discontinuous mineralization in sheared intermediate volcanics include pyrite-chalcopyrite-galena. Initial grab samples yielded 3.31g/t Au, 864g/t Ag, 3.04% Pb, chip sampling returned up to 12.97g/t Au and 56.4g/t Ag.
Sheelagh Creek	Showing is a 2.5-3.5m wide, northeast striking, steeply dipping (045/75) in sediments. Mineralization consists of disseminated to semi-massive pyrite. Chip samples returned up to 61.40g/t Au  Three drill holes were drilled; however, they were all lost before hitting the vein

Detailed surveys including diamond drilling, trenching, detailed geological mapping and rock geochemistry were completed at the TV, Bench and Cumberland Zones.

- At the TV zone, detailed mapping, soil geochemistry infill sampling, 133m of surface trenching and diamond drilling (totalling 1559.44m over 11 drill holes). Re-logging of core drilled in the 1995 program was completed. Additional work included mapping by trenching and lithochemical sampling (totaling 303 samples).

- The Bench Zone work included detailed 1:2000 scale mapping, an expanded cut grid, 105 rock samples were collected, and nine diamond drill holes (totalling 1383.64m) were drilled. A total of 250 drill core samples were collected and analyzed. An airborne geophysical survey was flown including gamma ray spectrometry and magnetics. No significant anomalies were detected in magnetic responses, and only a few Th/K ratio anomalies were identified and likely related to alteration and structures.
- The Cumberland zone work included detailed 1:2000 scale mapping in the north half of the grid area and a small area was mapped at 1:500 scale), a total of 73 rock samples, 12 moss mat samples, and 65 soil samples were collected, and 80 soils collected as infill samples; 23m of trenching over 3 trenches produced 28 samples, and 5 drill holes totalling 634m (with 131 core samples) were completed.

The Virginia & Charlotte Lake areas were also mapped at 1:10 000 scale, and a total of 37 rock samples were collected, along with 22 moss mat samples and 2 silt samples. Only a few anomalous results were reported. (Kowalchuk et. al., 1997; BC Assessment No. 24965)

In 1997, Prime Resources Group Inc. entered into an Exploration Rights & Option Agreement to acquire a 51% undivided interest in the Prime Block (PRU Block) from Kenrich. The PRU Block consists of a section of 20 contiguous claims on the western side of the Corey Property, totalling 255 units (6650 hectares). The 1997 field program was carried out by Homestake Canada Inc. on behalf of Prime Resources Group Ltd., and included surface mapping, geochemical sampling, prospecting, and diamond drilling in the north-central portion of the PRU Block. Work was focused on two areas: the Bench Grid and the Cumberland Grid.

On the Cumberland Grid, grassroots-level exploration work was carried out, including mapping, sampling, and prospecting. A total of 15.6km of new survey grid was cut, extending pre-existing lines. A total of 142 grab samples were collected, and results include a 7g/t Ag grab sample of mudstones. Mapping revealed an area on the western Cumberland grid with prospective stratigraphy, including a previously unmapped north-south striking rhyolite unit underlying basalts and basal mudstones. Soil sampling resulted in a lack of strongly anomalous sample locations, but confirms anomalous precious and pathfinder elements. Elevated Au, Ag, with associated As and Sb are noted. A total of 173 samples were analyzed for litho-geochemistry to establish a reference database for the property.

On the Bench Grid, confirmation work of mapping and litho-geochemical sampling was done to follow up work completed in 1995 and 1996. Mapping and drilling of one hole completed by Homestake confirmed previous lithologic assignments and structural interpretations. Mapping confirmed a rhyolite unit overlying pillow basalt in a north-plunging syncline. One drill hole (BCH97-1) at the southwest corner of the Bench Grid, and oriented at 270 azimuth and -45 dip, and intercepted basalts and dacitic volcanoclastics; the hole was terminated at 780m. No favourable stratigraphy was intercepted and further drilling was not pursued. A total 54 surface samples were taken and 20 samples from drill core. (Moors & Taylor, 1998; BC Assessment No. 25384)

The 1998 field program involved geophysics, soil and trench sampling on the Corey Property. An extension of the HSOV soil grid was completed, and a total of 10-line km were located, and 102

soil samples were collected. Trenching was performed on HSOV and NICA. A total of 168 rock samples were collected for petrographic and litho geochemistry studies; 20 moss mat samples and 1 silt sample were also collected over anomalous areas. A VLF-EM and magnetometer survey was also completed over the area. Well-defined Ag, As and Zn soil anomalies occur in mudstones at the HSOV showing, and almost all samples returned Ag values (>2ppm up to 12.6ppm), As (up to 1075ppm) and Zn (up to 2588ppm). Rock geochemistry also returned anomalous Ag values in mudstones in the same area. Spatial correlations can be made between anomalous rock and soil samples to the underlying geology. (Kowalchuk & Sigurgeison, 1999; BC Assessment No. 25985)

No assessment reports appear to be filed for the Corey property or its constituent claims between 1999 and 2002.

In 2003, Cambria Geoscience was retained to conduct geological fieldwork on the Corey property on behalf of Kenrich-Eskay Mining Corp. The Corey property consists of 30 contiguous claims totalling 466 units. The 2003 program included a whole rock litho geochemical survey. A total of 19 drill core samples were selected from historic core and submitted for full ICP-MS analysis. Four drill holes from the 1990s were selected (CBE-04, CBL-96-04, BCH-97-01, and PRU-98-03). Identification of three major units (mafic volcanics, felsic volcanics, and mudstones) were made and are interpreted to be part of the Salmon River Formation. (McGuigan & McKinley, 2004; BC Assessment No. 27511)

The 2004-2006 field seasons at the Corey property were also operated by Cambria Resources on behalf of Kenrich-Eskay Mining Corp. Work was summarized in one report, and included geological mapping, litho geochemistry surveys across the Corey Property. (McKinley, Sebert & Tennant, 2007)

The 2004 program focused on the Cumberland and South Unuk grids, including the C10 zone. Mapping was conducted at 1:2000 scale and compiled into 1:10 000 and 1:20 000. Subsequent mapping in 2005 and 2006 expanded to include the Battlement-Virginia Lake areas.

Litho geochemical sampling was conducted in conjunction with 1:2000 scale outcrop mapping in the 2004 season and continued into the 2005 and 2006 seasons. Rock classification and litho geochemical interpretations were produced across the property. Over the 2004-2006 field seasons, a total of 471 rock samples from outcrop were collected by Discovery Consultants, and an additional 404 samples were collected by Cambria.

Stream sediment surveys were conducted in the 2005 and 2006 field seasons by Discovery Consultants. A total of 612 sites were visited, and several polymetallic anomalies were detected, with known showings having a strong geochemical response.

Geochronological studies were conducted by Dr. Jim Mortensen to establish the ages of principal mineralized zones. Pb isotope analyses were used for sulphide samples, and U-Pb dating on rhyolites returned ages ca. 174.9 Ma.

Diamond drilling programs were conducted in 2005 and 2006, totalling 19,346m over 108 drill holes. In 2005, 44 drill holes were completed (totalling 6901m), along with 8 short prospecting holes (Table 6.12).

**Table 6.12: Highlights from drilling across the Corey Property. From McKinley, Sebert & Tennant, 2007**

<b>Prospect</b>	<b>Highlights from 2005 program</b>
C10	25 holes were drilled (totalling 7236.7m); a 1.5m intercept of 99.4 g/t Au (with visible gold) from hole CR05-17
Cumberland	11 holes were drilled (totalling 841.6m); elevated Au, Ag, Cu, Pb, and Zn assays suggest VMS style mineralization at the showing
Smitty	11 holes were drilled (totalling 1802.6m); sub-economic enrichments and VMS style mudstones were intercepted, suggesting that drilling intersected a distal portion of an Eskay-style mineralizing system
South Unuk	10 holes were drilled (totalling 2903.2m); anomalous polymetallic and pathfinder signatures were returned from assays.
HSOV	3 holes were drilled (totalling 783.9m); no significant metal results from assays, but the showing demonstrates VMS characteristics

The 2006 exploration program involved airborne geophysical surveys and exploratory diamond drilling. In April 2006, AeroQuest Ltd. conducted a helicopter-borne geophysical survey over the Corey Property, for a total of 1191-line km flown over the project area. Magnetic and EM surveys were completed at 100m line spacing, and lines were east-west oriented. Tie lines were flown at a 1km spacing. A set of 9 geophysical maps at 1:10 000 scale were produced, and several conductive anomalous targets were identified for follow-up. (Pozza, 2006; BC Assessment No. 28538)

Drilling totalled 54 drill holes (totalling 12 445m; Table 6.13). Assay samples and additional lithochemical samples were collected from drill core.

**Table 6.13: Drilling highlights. From McKinley, Sebert & Tennant, 2007.**

<b>Prospect</b>	<b>Highlights from 2006 program</b>
South Unuk	5 holes were drilled, following up on targets outlined by airborne geophysics
Eva Creek	3 holes were drilled (totalling 498m);
Angela Creek	3 holes were drilled (totalling 257m); polymetallic enrichment was identified in assay results
Spearhead	2 holes were drilled (totalling 251.3m); no significant precious metals were returned from assay, but pyrite stockwork mineralization demonstrates the area is part of a metalliferous hydrothermal system
Golfcourse	12 holes were drilled (totalling 2590.2m); subtle polymetallic enrichments were identified

Battlement	10 holes were drilled (totalling 1814.6m); subtle polymetallic anomalies were identified
------------	--

In 2007, Cambria Resources continued operations on the Corey Property (McKinley, 2008; BC Assessment No. 30131). The Corey Property is 100% owned by Kenrich-Eskay, and encompasses 39 contiguous claims and 13 482 hectares. The 2007 program consisted of several techniques to trace/test extension of Eskay-rift sequences into the Corey Property:

- Geological mapping and prospecting over the Battlement, Lower Cumberland, and Eastern Mandy Valley (HSOV-Spearhead-Red Lightning). A total of 115 rock samples were collected;
- Chemostratigraphy and litho geochemistry, where 236 litho geochemical samples were collected from outcrop;
- Stream sediment geochemical sampling, where 34 samples were collected to infill areas investigated in the 2004-2005 programs;
- Airborne geophysical survey data interpretation to enhance geological mapping, and to assess/identify targets;
- Diamond drilling at the Battlement, Cumberland, Smitty, South Unuk and Red Lightning prospects. A total of 21 drill holes (totaling 5787m) were completed (Table 6.14), and 669 drill core samples were collected for multi-element ICP analysis (49 mineralized samples were sent for assay), 196 drill core samples were submitted for litho geochemistry (including some resampling of 2005-2006 C10 drill core)

**Table 6.14: Drilling highlights from Cambria's 2006 exploration program. From McKinley, Sebert & Tennant, 2007.**

Prospect	Highlights
Battlement	2 holes were drilled (totalling 646.8m); no massive sulphide, notable veining, or significant alteration was intersected
Cumberland	8 holes were drilled (totalling 1675.2m); no significant massive sulphide mineralization was intersected in any of the holes, only minor sulphidic occurrences were documented, however litho geochemistry samples returned anomalous pathfinder elements.
Smitty	4 holes were drilled (totalling 1716.6m); no significant sulphide mineralization was intercepted, however litho geochemistry and geology suggest that the holes intercepted distal portions of a mineralizing system
South Unuk	2 holes were drilled (totalling 1204.9m); weak mineralization was intercepted in both holes, and notable Zn enrichment is documented

C10	One hole (542.2m) was drilled at C10, re-entering a 2006 hole. The hole intercepted and followed a fault to total depth
Red Lightning	4 holes were drilled (totalling 376.9m); significant polymetallic stringer to semi-massive sulphide intervals were intercepted

The 2008 field program concentrated on drill testing the Red Lightning showing. A total of 7 drill holes were completed totalling 1749.4m off of 3 drill pads. In addition to assay samples, additional lithogeochemical samples were collected from drill core to supplement lithogeochemical data collected in the 2004-2006 programs.

Drilling at Red Lightning targeted down-tip extensions of sulphide mineralization intersected in 2007 drilling. Vein to massive sulphide intervals were intersected in holes CR-08-86. Additional highlights from drilling results are summarized in Table 6.15.

**Table 6.15: Summary of results from Cambria's 2008 drill program. From McKinley, Tennant & Nelles, 2009.**

Hole	From (m)	To (m)	Int. (m)	Est. True Thick. (m)	Cu (%)	Ni (%)	Co (%)	Pt (g/t)	Pd (g/t)	Au (g/t)	Ag (g/t)	Min.Style
CR08-83	82.1	85.6	3.5	1.9	0.25	0.11	0.02	<0.01	0.02	0.2	2.1	Network to semi-massive sulphide
CR08-84	55.4	57.9	2.5	1.3	0.34	0.18	0.03	<0.0	0.03	0.2	<2	Network to semi-massive sulphide
CR08-85	160.1	164.1	4	2.1	0.34	0.12	0.02	<0.01	0.03	0.3	<2	Network to semi-massive sulphide
CR08-86	222.8	243.2	20.4	10.8	0.79	0.42	0.08	0.01	0.10	0.8	<2	Network to massive sulphide
<i>Incl.</i>	230.2	240.2	10.0	5.3	1.03	0.55	0.10	0.16	0.15	1.1	<2	Massive sulphide

CR08-86	245.8	248.7	2.9	1.5	1.08	0.36	0.09	0.03	0.21	0.6	10	Network to massive sulphide
---------	-------	-------	-----	-----	------	------	------	------	------	-----	----	-----------------------------

#### 6.1.4 North Mitchell Exploration History

The North Mitchell property is an isolated block located approximately 9.5km to the east of the SIB and Corey properties, and is surrounded by Seabridge, Tudor and Pretium's claims. Limited exploration work is reported on the North Mitchell claim block despite exploration interests in the region. Three assessment reports are filed describing previous work.

In 1990, airborne geophysical magnetic and VLF-EM surveys were conducted by Northwind Ventures Ltd. on ridgetop and un-glaciated areas on the Linda property, including the present North Mitchell property and surrounding areas (Murton, 1990; BC Assessment No. 20073).

Brief reconnaissance exploration by Universal Trident Industries Ltd. on a portion of the Linda property was conducted in the same year. A ridgeline section northeast of the Mitchell Glacier was investigated, and five rock samples were collected for geochemistry. No significant results were produced from the samples, and the exploration work was curtailed by lack of funds (Holland, 1991; BC Assessment No. 21112)

The most recent work at North Mitchell was completed by Eskay Mining Corp. in 2016 (Rowe, 2017; BC Assessment No. 37083). Reconnaissance soil and rock sampling was conducted on the western portion of the claim block. Geochemically anomalous, altered volcanic rocks identified from the work suggest the presence of stockwork-style mineralization. Extensive glaciation over the area reduces exposure, but the neighbouring large Cu-Au porphyry deposits make North Mitchell a prospective target for porphyry mineralization.

## 6.2 British Columbia MINFILE Descriptions

The Property is host to 62 different identified British Columbia MINFILE Mineral Occurrences (Figure 6.2.1). The following section is summarized from [MINFILE.gov.bc](http://minfile.gov.bc.ca), and includes descriptions from each mineral occurrence.

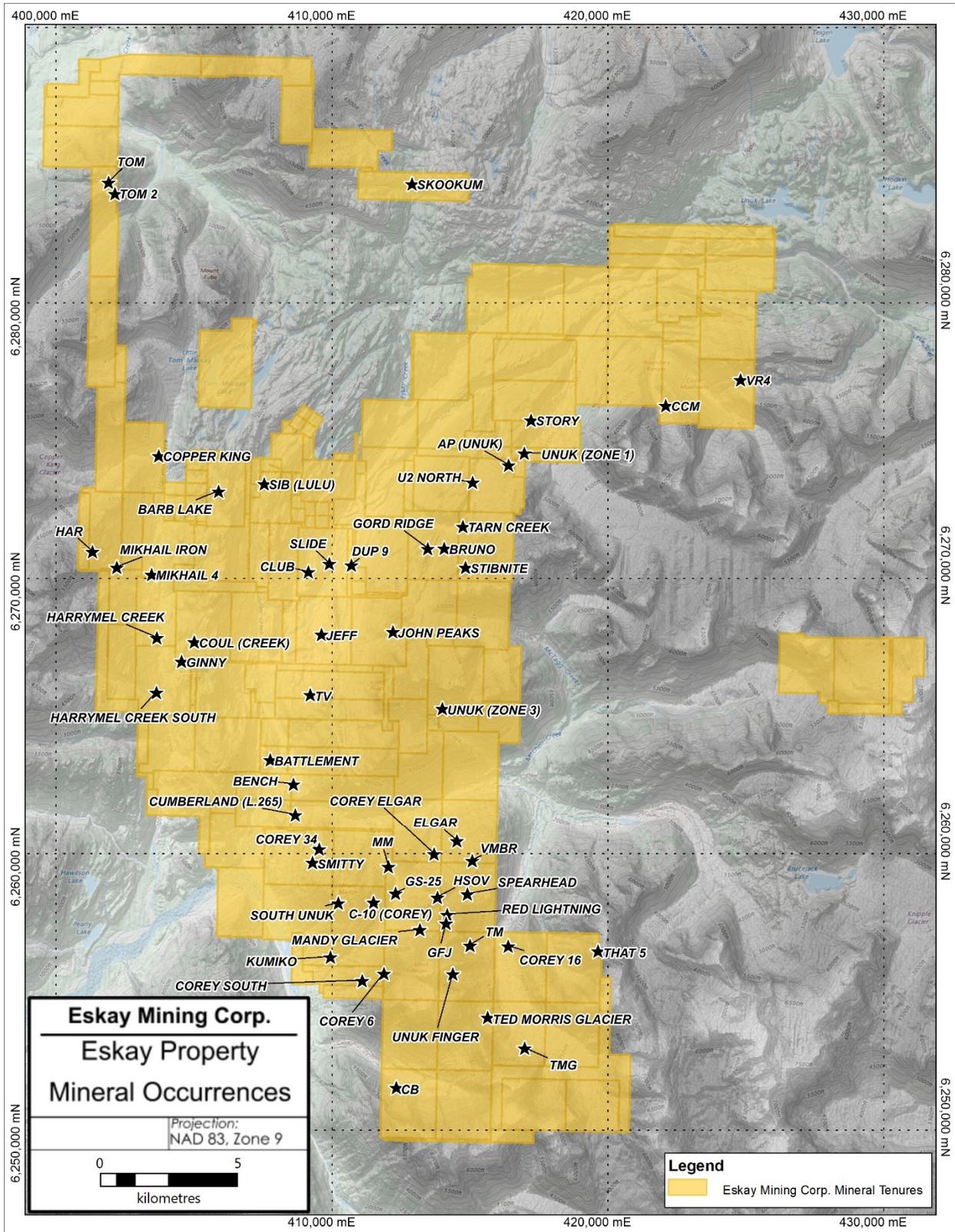


Figure 6.2.1: Location map of MINFILE occurrences on the Eskey property.

---

### **TOM - Copper, Zinc**

The Tom occurrence is located on the north westerly slopes of an unnamed, northeasterly flowing, tributary of Volcano Creek.

The area is underlain by pyroclastic and sedimentary units of the Lower Jurassic Betty Creek Formation (Hazelton Group). These include a complex package of andesitic to rhyolitic tuffs, tuffaceous wackes, conglomerates and limestone. These have been intruded by feldspar and quartz feldspar porphyries, which are a part of the north east end of the Lower Jurassic to Upper Triassic Lehto porphyry.

Locally, two types of mineralization occur: chalcopyrite-bearing quartz veins, and quartz-sericite alteration associated with major faults, with disseminated pyrite and local chalcopyrite.

Sampling of chalcopyrite mineralized veins assayed between 0.35 and 1.43 per cent copper, while sampling of fracture-controlled concentrations of chalcopyrite from the quartz sericite alteration zone assayed up to 8,981 ppm copper with 13,231 ppm zinc (Assessment Report 22572).

### **TOM 2 - Copper, Zinc**

Much of the Tom 2 area is underlain pyroclastic and sedimentary units. On the ridges east of Tom Creek andesitic tuff is noted. On the west side of the claim group, in the "Hematite Ridge" area, a stratigraphically and structurally complex package of andesitic to rhyolitic tuffs, tuffaceous wackes, conglomerates and limestone occurs. The crest of "Hematite Ridge" is characterized by sediments while volcanic rocks are more abundant on the southeast facing slope. Rhyolites have been identified near the east end of the ridge top. Government geological compilation (BC MapPlace) indicates a complex stratigraphy comprising the Upper Triassic Stuhini Group, Upper Paleozoic Stikine Assemblage and Lower Jurassic and Middle Jurassic Hazelton rocks. Early Jurassic monzodiorite to gabbro of the Lehto plutonics intrudes the strata.

Pyrite is characteristically disseminated throughout the fault-related quartz-sericite alteration zone on Hematite Ridge. Locally, there are fracture-controlled concentrations of up to 2 per cent disseminated chalcopyrite up to a meter wide. Samples of this material contained 0.25 and 0.9 per cent copper, with 2.44 and 1.32 per cent zinc (Samples 26233 and 26234, Assessment Report 21963). None contained significant precious metals.

### **COPPER KING - Copper, Iron, Gold**

The Copper King occurrence is underlain by the Lower Jurassic (Hazelton Group Unuk River Formation) to the east and the Upper Triassic Stuhini Group to the west. The contact between the Triassic and Lower Jurassic rocks is marked by an extensive north-northwest trending cataclastite zone, known as the South Unuk Zone, which contains biotite-chlorite-epidote schist.

The main showing occurs north of a prominent east-west gorge and west of Harrymel Creek. A north trending fault zone which dips 60 to 85 degrees west is the host for the mineralization. To the west of the fault zone laminated flow breccias and felsite flows occur. Limestone, argillite, and siltstone are underlain by laminated felsite and andesitic flows grading into massive andesitic flows and breccias. The showing generally comprises small replacement bodies of massive fine-grained

pyrrhotite and chalcopyrite which occur along the western edge of the fault zone and in felsite lenses which are 3 to 9 metres long and 0.3 metres wide. In addition, small stringers of pyrite on the eastern side of the fault zone also contain pyrrhotite and chalcopyrite.

Fieldwork was carried out in 1990 by Bravo Resources Inc., consisting of 15 rock samples and 1 stream sediment sample (Assessment Report 21543). Non-intensive but pervasive pyrite-pyrrhotite mineralization was noted as being widespread, reported to be visible across widths of at least 300 m both north and south of the lower gorge of Copper King Creek. The best exposures, however, were accessible only by rope which were not accessed in 1990. The best sample from what was believed to be the Copper King showing taken in 1990 yielded 1.04 per cent copper 0.026 per cent lead, 0.086 per cent zinc and 7.4 g/t silver (Assessment Report 21543). Gold was not elevated. Elsewhere in the area, lesser but still anomalous copper values suggest the presence of other chalcopyrite-bearing zones in the metavolcanics. Mineral associations linked silver assays to pyrrhotite mineralization.

### **HAR - Magnetite, Iron**

The HAR comprises a massive magnetite showing was located along the northern margin of a glacier on the historical Har 3 claim. This skarn type showing is associated with the contact of granodiorite and a banded limestone unit. Gossanous zones within this showing contain up to 80 per cent magnetite, 5 per cent pyrite and 5 per cent hematite. Brecciated zones of intrusive rock are also evident in this zone.

In 1989 a limited amount of assessment work was completed on the Cop, Har 1 and 3 claims for Westmar Resources Ltd (Assessment Report 19813). A total of 15 rock chip samples were collected but no anomalous results were obtained.

### **MIKHAIL IRON – Magnetite, Iron**

The area of the Mikhail Iron occurrence is underlain by sedimentary and volcanic rock of the Upper Triassic Stuhini Group. The area is bisected by a north-south trending cataclastic zone known as the Harrymel-South Unuk Shear Zone.

A 6- to 12-metre-wide massive magnetite unit, traceable for 900 metres was located in 1989. Mineralization consists of massive magnetite, pyrite and chalcopyrite in altered sedimentary rocks adjacent to a Jurassic diorite stock.

### **MIKHAIL 4 – Copper**

The area of the Mikhail 4 showing is underlain by sedimentary and volcanic rock of the Upper Triassic Stuhini Group. The area is bisected by a north-south trending cataclastic zone known as the Harrymel-South Unuk Shear Zone. East of Harrymel Creek, the area is underlain by Lower Jurassic Hazelton Group andesitic rock.

A number of old trenches were found in the southeast corner of the Mikhail 4 claim in 1989. These explored a well mineralized zone within dark green andesite which hosts 10 to 15 percent pyrrhotite, pyrite, and chalcopyrite. Lithochemical sampling yielded 0.14 to 0.20 percent copper (Assessment Report 19678). In the northeast corner of the Mikhail 4 claim, a dark green

andesite was located, hosting 10 per cent pyrrhotite. These two showings occur along strike of each other, and were probably from the same sulphide- enriched stratigraphic unit which cuts across the entire property.

### **HARRYMEL CREEK – Copper**

Lower Jurassic Hazelton Group volcanics and sediments of the Unuk River Formation, located on the east side of Harrymel Creek, are in fault contact with the Upper Triassic Stuhini Group sediments to the west. The contact between the Triassic and Lower Jurassic rocks is marked by an extensive north-northwest trending cataclastite zone, known as the South Unuk Zone, which contains biotite-chlorite-epidote schist.

Mineralization occurs within schist in this cataclasite zone near a north trending fault which dips 60 to 85 degrees west. The occurrence consists of a well mineralized zone within quartz-epidote schist which hosts abundant pyrite, chalcopyrite and some pyrrhotite.

### **HARRYMEL CREEK SOUTH – Copper, Silver**

Mineralization at the Harrymel Creek South Showing occurs within schists in a cataclasite zone along the west side of Harrymel Creek, near a north trending fault. Pyrrhotite and chalcopyrite occur within a gossanous zone in epidotized greywacke and epidote bands within the schist. To the west of this showing, epidotized limestone and silicified schists are in contact with sheared and epidotized greywacke and argillite which are part of the Stuhini Group sediments.

On the east side of the fault and cataclasite zone, the Hazelton Group, Unuk Formation rocks consist of graphitic schists, greenstone, andesite and felsite.

Historical work along a shear zone separating Upper Triassic volcanics from argillaceous and graphitic sediments, indicates that the mineralization occurring within this zone consists of pyrite, galena, sphalerite, chalcopyrite and locally, silver sulphides. The silver minerals are localized in silicified areas in the footwall of the shear and samples have assayed in excess of 13,000 g/t silver.

### **GINNY – Gold**

The Ginny showing occurs in an area underlain by andesitic volcanics of the Lower Jurassic Hazelton Group, near the contact with marine sedimentary and volcanic rocks of the Upper Triassic Stuhini Group.

Rock sampling in 1989 has returned values up to 4.46 g/t gold along with strongly anomalous zinc, silver and arsenic values (Assessment Report 19750). Stream sediment sampling indicates further anomalous values upstream of the showing. Soil geochemistry, ground magnetic and VLF-EM surveys suggest the target consists of more than one mineralized horizon, each of which appear to conform to bedding and are open along strike.

### **COUL (CREEK) – Gold**

The Coul (Creek) showing occurs in an area of Lower Jurassic rocks of the Hazelton Group.

The Creek showing occurs in mudstone and debris flow units which physically, and possibly stratigraphically, underlie the felsic volcanic unit(s). It was drilled in 1991 by Granges Inc. and includes a roughly 8 metre interval of mudstone with possibly exhalative bedded pyrite which averages 0.9 gram per tonne gold (Assessment Report 22113). It is reported that unless the sequence is overturned, the showing is stratigraphically below the Mount Dilworth Formation and therefore not in the same stratigraphic position as the Eskay Creek deposit. However, the rocks are physically similar to the 'Eskay Creek' stratigraphy and should be a prime exploration target.

In 1989, detailed work by Granges Inc involved establishing control grids with 100 metre spaced lines on the 'R' Grid of the Coul 1 claim, which covered the Creek showing. Three holes totalling 344.43 metres were drilled on the Creek showing.

In 1990, remapping on the 'R' Grid verified favourable Eskay stratigraphy. Drill targets were established from geological, geochemical and geophysical data. Three holes totalling 656.6 meters were drilled, but yielded discouraging results.

In 1991 on the 'R' grid, Alice Lake showing (about 500 metres south of the Creek showing) and the Creek showing were tested by three holes and two drill holes respectively, totalling 310.9 meters.

### **BARB LAKE – Copper**

Lower Jurassic Hazelton Group rocks are intruded by a Lower Jurassic or younger hornblende diorite intrusion along the east shores of Barb Lake. Disseminated pyrite, pyrrhotite and chalcopyrite occur within the hornblende diorite near the contact with gritty greywacke of the Unuk River Formation. Just south-southeast of this showing silicified and pyritized andesite of the Unuk River Formation hosts abundant disseminated pyrite. This area is characterized by oxidized and silicified rocks which were initially prospected by the Sulphurets Prospecting Syndicate in 1934.

The area around Barb lake was explored in 1987 by Silver Princess Resources. They reported siliceous andesite or possibly a quartz feldspar porphyry with quartz eyes, weak pyrite, trace of galena and spots of hematite in vugs (Assessment Report 19374).

### **SKOOKUM – Gold**

The Skookum area is underlain by a northwest striking sequence of rhythmically bedded turbiditic siltstones interbedded with minor thinly bedded wackes. At the time of the Skookum discovery, these units were thought to correlative with lithologies of the upper members of Middle Jurassic Salmon River Formation (Hazelton Group) or the Ashman Formation of the Upper Jurassic Bowser Lake Group (Assessment Report 20962); recent map compilations (Open File 2005-5) indicate only Bowser Lake sediments.

In 1990, two samples of pyrite and silica altered siltstone breccia were taken from outcrop in the footwall of a fault. These two samples assayed 152.81 g/t gold and 44.64 g/t gold (Assessment Report 20962). About 125 metres northeast of the above sample site, a 3-metre wide, pinch and swell type massive white quartz vein was chip sampled, and assayed 0.72 g/t gold, and a small

north easterly trending quartz vein 90 meters northeast of the above site yielded returned 0.14 g/t gold (Assessment Report 20962).

### **SIB (LULU) - Gold, Silver, Antimony, Zinc**

At the Lulu showing of the SIB property, Eskay-type, gold-silver rich massive sulphide mineralization is situated in a succession of Eskay Rift rhyolite and mudstone that is directly correlative with the Eskay Creek deposit.

Two distinct parallel zones of alteration occur concordant with stratigraphy at SIB. The eastern zone (or Central Anomalous zone) includes a 9-kilometre-long linear trend of conspicuous gossans situated along the western margin of the Betty Creek Formation volcanics and extends north to the Eskay Creek property. This trend encompasses the North, Battleship Knoll, Adit, 1100, South and Meadow zones at SIB. Alteration along this zone comprises intensely potassium metasomatized, brecciated, quartz flooded, pyritized andesitic tuffs with intermittent zones of discontinuous quartz-potassium feldspar-sulphide veins, vein breccias and stockworks. In 1990, all but one of twenty drill holes testing the eastern zone intersected stockworks carrying gold concentrations in the range of 0.34 to 4.29 g/t over widths of up to 19 metres.

The western zone of alteration occurs west of the eastern zone within the felsic rocks of the Mount Dilworth Formation (re-classified as Iskut River Formation in 2018). The alteration comprises extensive and locally intense pervasive silicification and sodium metasomatism. Albitites have also been extensively developed. Drill holes targeted at mudstone interbedded in the felsic assemblage intersected gold and silver mineralization over wide intervals. Below an extensive interval of silicified and albitized felsic strata, drill hole 90-30 intersected 21 metres of black siliceous carbonaceous mudstone (Lulu mudstone). A 14-metre interval of the mudstone is mineralized with disseminated pyrite, framboidal pyrite, laminar pyrite and disseminated and fracture- controlled stibnite and sphalerite. Native gold, pyrrargyrite and arsenopyrite occur in trace amounts. Gold and silver assayed 14.4 g/t and 1059.5 g/t respectively, across 14 metres. A short interval of the felsic hanging wall is sericitic. In the immediate footwall of the Lulu mudstone, felsic strata are highly pyritic and sericitic. The Lulu mineralization is underlain, 149 metres lower in the stratigraphic section, by the mineralized "Marguerite mudstone", which is the lowermost mudstone interbedded within the Mount Dilworth Formation felsic volcanics. A drill core assay across 4.5 metre assayed 3.5 g/t gold and 36.3 g/t silver.

### **CLUB – Gold, Silver**

At the Club zone, quartz stringers with arsenopyrite contain up to 3.81 g/t gold 86.06 g/t silver (Assessment Report 22591). The showing occurs in an area of wacke, mudstone and tuff of the Lower Jurassic Hazelton Group.

In 2004, an airborne EM-magnetic survey was flown late in the field season as part of a larger program encompassing all the Heritage Explorations Ltd claims in the Eskay area. By 2005, Heritage had acquired mineral rights over an extensive area (53,283 hectares) in the Eskay Creek region of north-western BC. In 2005, seven conductive anomalies were selected for drilling from the 2004 results, based on conductive response, stratigraphic position, local geochemical anomalism and depth. Drill holes PO-05-01 and PO-05-02 were collared at UTM coordinate

409547 East, 6271491 North to test a flat-lying EM anomaly on the west side of the Unuk River (Assessment Report 28338). Pyrite occurs as disseminations and minor graded beds in the upper regions of both holes; and massive pyrite clasts as debris flows in argillaceous sediments are prevalent at the interface with amygdaloidal flows. These clastic zones have high levels of mercury associated with them.

### **SLIDE – Gold, Silver**

The stratigraphic top of the Lower Jurassic Mount Dilworth formation (Hazelton Group) comprises intermediate lapilli fragmental with clasts and matrix containing carbonate and up to 40 per cent disseminated and massive volcanogenic pyrite. This pyritic horizon which is approximately 30 metres thick and at least 100 metres long, occurs in contact with overlying black pyritic mudstone of the Lower Jurassic Salmon River formation (Hazelton Group). Mineralized angular talus boulders located along the trace of this contact comprise up to 30-centimetre-thick quartz lenses with 40 per cent disseminated and layered pyrite. A rock sample of this material contained 478 ppb gold, 9.7 ppm silver with elevated arsenic and antimony concentrations (Assessment Report 22501). Although these values are low, they are considered to represent evidence of gold and silver bearing massive sulphide mineralization at this important stratigraphic horizon.

In addition, 350 metres north of the Slide zone, a rock sample of a pyrite-quartz lamination from the basal, pyritic black mudstone unit of the Salmon River formation also contained elevated silver, arsenic and antimony concentrations.

### **DUP 9 – Gold, Silver, Zinc**

Gossanous zones of disseminated pyrite and minor sphalerite occur in felsic volcanic and volcanoclastic rocks of the Lower Jurassic Hazelton Group along the eastern margin of the Dup 9 claim. These gossans appear to be associated with sericite-silica alteration as well as the emplacement of gabbro/diorite dikes which outcrop within 50 to 100 metres of these gossans. Rock samples collected from the eastern margin of Dup 9 yielded elevated geochemical values of: 0.16 % zinc, 2.1 g/t silver, 0.15% arsenic, and 0.185 g/t gold (Assessment Report 25258). Further to the west, the rhyolite is exposed on gossanous cliffs along the Unuk River thrust fault. These gossans exhibit weak sericite-silica alteration and contain disseminated pyrite or pyrite stringers.

### **VR4 – Gold, Silver, Copper**

The VR4 area is underlain by Lower Jurassic andesitic rocks of the Hazelton group and Middle to Upper Jurassic sedimentary rocks of the Hazelton Group. Upper Triassic rocks of the Stuhini Group occur to the immediate south and Jurassic rocks of the Bowser Group occur to the north.

The highest assay from a rock chip (sample 15026), taken by Orequest near the northeast corner of the VR4 claim, assayed 1.17 g/t gold from a 50-centimetre-wide pyrite-bearing shear zone in andesite, though it has a strike length of only 5 metres (Assessment Report 19744). This zone also contains 0.098 per cent copper and 6.0 g/t silver.

### **CCM – Gold**

---

The area of the CCM showing is underlain by marine sedimentary and volcanic rocks of the Stuhini Group. Bedded argillite and andesitic pyroclastics were encountered in the showing area.

Prospecting on the CCM 3 claim revealed an area of quartz and/or calcite with pyrite veining on the east side of Ceperley Glacier. Most of the rock sample results were low with the exception of sample 33239 which assayed 1.06 g/t gold from a 0.5-metre-wide quartz vein exposed over a length of 4 metres (Assessment Report 21323).

### **STORY – Gold, Silver**

The Story 1 and 2 claims were staked in November of 1988 by Ecstall Mining Corp. and Omega Gold Corp. The Story 5 claim was added in 1990. The area is underlain by Lower Jurassic andesitic rocks of the Betty Creek Formation (Hazelton Group).

In 1990, crews of International Kodiak Resources (for Ecstall) completed a soil sampling grid over the Story 2 claim block, collecting 91 samples. All streams were systematically sampled. Twenty-three silt and moss samples were collected. The property was geologically mapped, and 486 rock samples were taken from mineralogically promising outcrops.

Several areas of mineralization were examined, most notable of which is the large gossan north of the Jack Glacier. Large outcroppings of pyritic rhyolite had anomalous values in zinc, mercury and arsenic. Adjacent intermediate extrusive rocks are cut by several quartz carbonate sulphide veins up to 25 centimetres wide with strike lengths up to 15 to 50 metres. Quartz-carbonate-sulphide veins within an aphyric andesite assayed up to 3.83 g/t gold. One brecciated quartz vein/fault zone assayed 20.8 g/t silver over 2 metres with higher grade grab samples taken from the same zone (Assessment Report 20589).

### **UNUK (ZONE 1) - Gold, Silver, Zinc, Copper**

Mineralization at Zone 1 of the historical Unuk property occurs near the geologic contact of the Lower Jurassic Betty Creek Formation and the Middle Jurassic Salmon River Formation, both of the Hazelton Group. Salmon River Formation rocks consist primarily of siltstone, greywacke, sandstone, some calcarenite, argillite, conglomerate and minor limestone. Betty Creek Formation rocks may be comprised of volcanic breccia, conglomerate, sandstone, siltstone, tuffs and minor chert and limestone (Grove, Bulletin 63).

Galena and magnetite are reported to occur in outcrop, west of the toe of Jack Glacier, just south of the headwaters of Storie Creek (Newmont Exploration Geology Map). Several hundred metres north of this showing at the tip of the glacier's toe pieces of float containing abundant stringers of pyrite and carbonate were collected. This float assayed 31.5 g/t silver, 0.0157 % arsenic, 0.0116 per cent lead and 0.0061 % zinc (Assessment Report 15961).

Another area of east trending mineralization occurs about 700 metres to the southwest. Several samples of volcanic rock were taken with one sample identified as dacite and another as rhyolite. These rocks are reported to contain up to 60 % sulphides with pyrite being the main sulphide along with lesser chalcopyrite and galena. One sample contained 3.16 g/t gold. Values of silver range from 0.2 to 74.1 g/t (Assessment Report 17087).

---

### **AP (UNUK) - Gold, Silver, Zinc, Lead, Copper**

The Unuk River (AP) occurrence area is underlain by a package of Lower Jurassic Betty Creek Formation (Hazelton Group) intermediate and felsic volcanic rocks and related sedimentary rocks, and possibly felsic volcanic rocks and sedimentary rocks of the Lower Jurassic Mount Dilworth Formation (Hazelton Group). The AP zone is a moderately strong, continuous crosscutting zone of brecciation, silicification, carbonatization and related galena-sphalerite-pyrite- arsenopyrite- (chalcopyrite) mineralization. It is hosted by welded tuffs, tuffaceous mudstones and argillaceous sediments within felsic volcanic rocks of the Betty Creek and possibly Mount Dilworth formations. A multitude of crosscutting, anastomosing diabase dykes occur throughout the zone. The zone extends over 300 metres along strike and may join with other mineralized structures in the area (see Unuk (Zone 1), 104B 083 and Unuk (Zone 2), 104B 344).

A 1990 drill intersection across a true width of 1.36 metres assayed 1.25 g/t gold, 20.7 g/t silver, 0.035 % copper, 1.087 % zinc and 0.9 % lead (Assessment Report 20993).

### **U2 NORTH – Gold**

The U2 North showing occurs on a resistant, slightly gossanous ridge of Lower Jurassic felsic volcanic rocks of the Hazelton Group (Betty Creek Formation). These include flow-banded rhyolites, spherulitic rhyolites, dacitic to rhyolitic ash-flow tuffs (variable degrees of welding), and numerous fine ash to coarse polymictic pyroclastic tuffs. The sheared felsic volcanic-sedimentary contact contains up to 1.57 g/t gold (obtained in grab sample collected in 1989).

During the 1990 Granges Inc. field season, tuffaceous and argillaceous sedimentary rocks were mapped and re-sampled. Up to 0.39 g/t gold was detected in brecciated welded tuffs containing arsenopyrite mineralization (Assessment Report 20993). Results verified anomalous gold, silver and arsenic levels. The U2 North showing is considered similar to the AP (Zone 1) prospect.

### **TARN CREEK - Gold, Copper, Lead, Zinc**

The area of the Tarn Creek/Unuk (Zone 2) occurrence is underlain by rocks of the Upper Triassic Stuhini Group. Lower Jurassic Unuk River Formation of the Hazelton Group are mapped to the immediate west. A large gossanous area was located at an elevation of between 1370 and 1525 metres, immediately west of a large icefield.

In 1987, four rock samples were taken; one chip and three float samples, the latter apparently derived from the gossan. The samples were generally described as silicified volcanic rocks containing up to 30 % pyrite plus/minus chalcopyrite. The highest assay result was reported to be 0.995 g/t gold. An average of the 4 samples was 0.296 g/t gold (Assessment Report 17087).

In 1991, Granges defined the area as a roughly 50 metre wide by 300-metre-long northeast-trending zone with sporadic carbonate alteration (orange weathering) and discontinuous north to northwest-trending quartz stringers and gash veins, east of Tarn Lake. These stringers are sporadically mineralized with pyrite, arsenopyrite, sphalerite and galena. The zone is hosted in a 5 to 7-metre-wide argillite to siltstone unit.

This area has subsequently been mapped, covered by magnetic and IP surveys, and tested by one drill hole. Chip sampling of the structure showed it to contain highly anomalous amounts of several metals with gold values up to 12.8 g/t across 1.0 metre (2.85 g/t across 5.3 metre). Drill hole T91-1 was drilled to test this structure (Assessment Report 22113). A quartz vein fault zone was intersected between 19.57 m and 20.40 m and is probably the Tarn Creek showing. The structure contained traces of chalcopyrite, but was otherwise barren. Its gold content was not anomalous.

### **BRUNO - Gold, Zinc, Lead, Copper**

The Bruno showing area is underlain by the north-trending contact of andesitic volcanics of the Hazelton Group (on the west) and marine sedimentary and volcanic rocks on the east.

Mapping in 1990 by Granges Inc. outlined a wedge of sedimentary rocks of flysch association including argillites, conglomerates, volcanic mudstones and arenaceous tuffaceous sedimentary rocks. Portions of this sequence are sheared and brecciated, containing abundant quartz-carbonate-sulphide mineralization including pyrite as well as traces of sphalerite, galena and chalcopyrite. The pillowed andesites, agglomerates and finer grained related tuffaceous rocks which occur to the south and west appear to be in fault contact with the sedimentary wedge. This trend is semi-parallel to the trend of narrow sphalerite-rich breccia veins carrying up to 15.7 g/t gold (Assessment Report 20993) which can be found to the south along the western edge of the north-south trending ice lobe. One such vein has been found to reach a width of about 30 centimetres and is traceable for about 50 metres to the edge of the ice. In addition to these east-west mineralized veins, several north-south trending zones of shearing and brecciation can be observed at the toe of the ice lobe.

### **GORD RIDGE – Zinc, Lead**

The Gord Ridge showing is characterized by a northeast-trending silicified shear or vein zone up to 2 metres wide, hosted in phyllitic sediment or tuff in the lower part of the Betty Creek Formation (Hazelton Group). The structure can be traced for approximately 100 metres and is sporadically mineralized with sphalerite, pyrite and galena.

### **STIBINITE - Gold, Silver, Antimony**

The Stibnite showing is in and near tension-filling quartz veins and veinlets cutting two felsite dikes up to 3 meters wide and surrounding Upper Triassic Stuhini andesite/basalt flows and lapilli tuffs. Veins contain local concentrations of stibnite and minor native gold. No significant economic tonnage is expected from this zone.

Three dikes up to a few meters across of similar composition cut the mafic volcanic rocks. These contain abundant gash veins dominated by quartz with less carbonate, chlorite, and sulphides. The dikes are thought to be related to the felsic Hope Intrusion, which are thought to be the source of the native gold.

Disseminated to massive stibnite and tetrahedrite-tennantite have been traced for approximately 150 metres. Chip sampling across a felsic dike in the area yielded values of 1.85 g/t gold and 5.4 g/t silver across 0.5 metre (Assessment Report 20933).

---

## **JOHN PEAKS – Gold**

At the north end of the Triassic-Jurassic John Peaks diorite intrusions and in surrounding hornfelsed rocks of the Unuk Formation are abundant veins dominated by quartz and epidote. The abundance of sulphide-bearing boulders nearby suggests that a contact metamorphic zone exists around the intrusion (Assessment Report 22113). Sulphides are dominated by pyrite and pyrrhotite, with locally abundant sphalerite, galena and chalcopyrite.

## **JEFF – Gold, Silver, Lead, Zinc, Copper**

Rocks of the Lower Jurassic Betty Creek Formation (Hazelton Group) underlie much of the Jeff grid area. They are altered, moderately to strongly, to quartz-ankerite-pyrite, and contain local concentrations of base metals, to the south mainly sphalerite and galena, and to the north mainly pyrrhotite and chalcopyrite. Anomalous values of gold and silver associated with arsenic and antimony in soils and rocks were tested by diamond drilling.

Jeff gold and silver mineralization is shear vein type hosted in lower andesite and upper mafic volcanic sequence lithologies. A detailed work program by Granges in 1991 led to drilling of 30 diamond drill holes on coincident geophysical and geochemical anomalies. Drilling was concentrated predominantly in two areas of interest: the 750 and 900 zones located on southern Jeff grid.

The best results obtained were in DDH-J91-7 with 41.49 g/t gold and 458.75 g/t silver over 4.0 metres (Assessment Report 22113). Mineralization occurred as anastomosing veins, masses and disseminations of pyrite, pyrrhotite with lesser volcanics containing quartz carbonate, veins and sericite sphalerite, galena and chalcopyrite in Vesicular mafic volcanics containing quartz carbonate, veins and sericite alteration.

Drill results show electrum and minor native gold associated with sphalerite, galena, and pyrite, and minor tetrahedrite and cinnabar in replacement patches and veins with a gangue dominated by quartz and ankerite.

## **TV - Gold, Silver, Lead, Zinc**

On the TV zone of the Corey property, drilling by Kenrich Mining Corporation, resulted in the discovery of significant stratabound massive to semi-massive gold-silver-zinc-lead mineralization (Hutchings horizon) in the TV (Tim/Val) zone.

Rock units were assigned to the Salmon River Formation felsic and mafic volcanic sequence with interbedded sediments. Rock types observed include amygdaloidal andesite or dacite, flow-banded feldspar-phyric dacite tuff, autobreccia and lapilli tuff and black mudstone. All units are strongly overprinted with orthoclase feldspar and sericite alteration (potassic alteration). Mineralization comprises pyrite, galena, arsenopyrite, with traces of sphalerite, ruby silver and possibly stibnite. Sulphides occur as disseminated grains, veinlets and colloform in-fillings in breccia, rhyolite and black mudstone.

In 1993, Kenrich did a regional, mapping, geochemical and prospecting program over the what is now referred to as the TV Zone. In 1994, Kenrich concentrated geological mapping and grid soil

geochemistry and trenching over the TV Zone in preparation for drilling in 1995. In 1995, Kenrich drilled 22 diamond drill holes totaling 3,863.63 metres over the TV Zone. 1996, work over the TV Zone consisted of detailed geological and structural mapping of the area, soil geochemistry filling in holes in the coverage, 133 metres of surface trenching and 1559.44 metres of diamond drilling in a total of 11 drill holes. The TV zone was extensively re-mapped and drilling located a new silver-rich (pyrargarite) portion hosted by black shales, extending the zone to the north and east. Kenrich estimated (non-43-101 compliant) the mineral inventory of the TV zone at approximately 3920 kilograms of gold and 111,000 kilograms of silver.

### **BATTLEMENT – Zinc**

The first description of the Battlement zone is documented from work carried out for Kenrich Mining Corp in 1993.

The Battlement zone is underlain by Hazelton Group mafic and intermediate volcanic and sedimentary rocks of Early to Middle Jurassic age, including rhyolite in the eastern portion of the grid. The stratigraphy consists of a homoclinal sequence of steeply-east dipping Salmon River Formation mudstone, rhyolite breccias and tuffs, and basalt. All units show only weak alteration.

Neither of the two small trenches excavated in 1993 contained anomalous precious metals although 0.1 per cent zinc was obtained from one sample (Assessment Report 27511).

Geological mapping, sampling and drilling in 2005 and 2006 established the presence of mudstone and sub-aqueous rhyolite and basalt that are part of the Eskay rift sequence. A 2006-07 drill program investigated this potential. A total of ten drill holes were drilled from five different set-ups in 2006 and an additional 2 drill holes were completed in 2007 totaling 647 metres. Multiple intercepts containing elevated zinc, silver, gold and other Eskay pathfinder elements were encountered in association with veined and silicified Eskay mudstone.

### **UNUK (ZONE 3) - Asbestos, Copper**

The Gingras Creek (Zone 3) showings are located at the headwaters of Gingras Creek, a southeast flowing tributary of Sulphurets Creek. The area is underlain by green, red and purple volcanic breccia, conglomerate, sandstone and siltstone of the Lower Jurassic Unuk River Formation (Hazelton Group). A large stock of Lower Jurassic and younger diorite has intruded the Hazelton Group rock and its eastern contact is found within a kilometre to the west of the occurrence (Grove, EMPR Bulletin 63).

Two showings of asbestos, one with magnetite and some copper mineralization, occur within a kilometre of each other. Showings of magnetite are reported west and northeast of these asbestos showings. A mineralized area is located near the headwaters of Gringras Creek on the historical Unuk 24 claim (Assessment Report 17087). Within this zone, tuffs and andesites of the Unuk River Formation are silicified, sericitized, and contain 5-10 per cent finely disseminated pyrite. The area is coincident with a magnetic low and a VLF conductor.

### **BENCH - Zinc, Lead**

The first recorded work on the Bench zone was a stream sediment sampling program carried out by Placer Dome in 1991. Follow up work was carried out by Kenrich and Ambergate in 1993 when 10,575m of rough-flagged grid was established in the general area. The grid was mapped at 1:5,000 and soil samples were collected at 25 metre intervals, with some infill at 12.5m intervals where anomalies were encountered. Five hand-dug and blasted trenches were excavated and a limited VLF-EM and ground magnetic survey was carried out. In 1994, Kenrich established an additional 1,200 metres of grid for an IP, VLF-EM and ground magnetic survey. Work on the Bench zone in 1995 consisted of collecting 376 soil samples at 25 metre intervals on lines spaced 100 metres apart, in addition to reconnaissance geologic mapping. In 1996, Kenrich Mining Corp. carried out detailed mapping, collected 105 rock samples, and drilled nine diamond drill holes totaling 1,384 metres.

Little outcrop mineralization has been encountered at the Bench zone. Disseminated sphalerite, galena and pyrite was found in one location in sediments of the Troy Ridge member. Elsewhere, discontinuous disseminated to semi-massive lenses of pyrite and pyrrhotite have been locally observed along contacts between sediments (Troy Ridge member) and mafic volcanics (John Peaks member) in the eastern portion of the Bench zone. Up to 10 per cent disseminated pyrite and pyrrhotite are locally encountered within tuffaceous sediments throughout the area. No significant assays have been returned from any of these sulphide occurrences.

### **CUMBERLAND – Gold, Silver, Lead, Zinc, Copper, Barite**

The Cumberland area is underlain by a series of north to northwest trending Hazelton Group intermediate (dacite/andesite) composition volcanic flows, pyroclastics and pillow lavas interpreted to be part of the Middle Jurassic Salmon River Formation. Locally, they consist of red, green and purple volcanic breccia, conglomerate, sandstone, argillaceous siltstone with intercalated crystal and lithic tuffs. The stratigraphic and structural relationships are not well defined but the regional strike is to the northeast with an eastward dip.

The Cumberland prospect, discovered in 1898 and explored by underground drifting, is a true polymetallic, volcanogenic massive sulphide within a mafic host. It has grades of 9.80 per cent zinc, 2.70 per cent lead, 0.45 per cent copper, 9.33 g/t gold and 91.5 g/t silver (Assessment Report 30131). This area contains occurrences of massive sulphides, barite, base and precious metal mineralization plus anomalous zones enriched in Eskay Mine “pathfinder” elements and base metals.

Two adits were excavated on the Cumberland during the 1890's and a very small shipment of hand-sorted ore was reported. The prospect appears to have volcanogenic massive sulphide attributes, and has been frequently examined and partially explored by diamond drilling and geological mapping and geophysics. In 1995, preliminary mapping around the showing recognized Salmon River stratigraphy. In 1996, the property was mapped in detail with the discovery of bedded barite mineralization. The showings were trenched and drilled. Drilling demonstrated that these showings are not structurally controlled but are probably stratiform in nature. Two holes were drilled under the main Cumberland Showing demonstrating that the mineralization is continuous and is not cut off by faulting.

Mineralization at the Cumberland occurs in mafic volcanic units, possibly pillow basalt and breccia, and in thin mudstone horizons. Mineralization is composed of lenses 0.5 to 3.0 metres wide of massive sphalerite, barite, galena and pyrite. Sampling of this material has returned assay values as high as 9.4 g/t gold, 93 g/t silver, 0.45 per cent copper, 2.70 per cent lead and 9.80 per cent zinc. The zone of mineralization is highly sheared and disrupted and both the mineralization and host rocks have a pronounced mylonitic fabric and a steep plunge. A re-examination of rocks mapped by Placer as conglomerate and mudstone revealed rhyolite breccia and tuffaceous mudstone. The rhyolite is aphyric, cream to white coloured, with flow-banded to massive fragments in a dark gray, siliceous matrix. These rhyolite units possibly lie in the structural footwall of the Cumberland showing. Prospecting and soil geochemical traverses 1000 metres south of the showing (at 800 metres elevation) identified two possible extensions of the rhyolite horizons. In 1997, three outcrops of massive barite mineralization containing galena, sphalerite and associated silver mineralization were discovered and sampled returning assays up to 12,171 g/t silver in grab samples and 4046 g/t silver in a one-metre channel sample site (Assessment Report 25384).

### **COREY 34 – Silver**

In 1988, a rock sample taken on the northwest side of Mount Madge (about 1.5 kilometres south of Sulphurets Creek) contained 61.7 g/t silver (Assessment Report 17404). Further details of the occurrence were not reported.

### **SMITTY - Silver, Zinc, Copper, Lead**

The Smitty prospect was discovered by Kenrich-Eskay Mining Corporation in 2004. The prospect contains volcanogenic massive sulphides (VMS) within Eskay-type mudstones and occurs near the contact with Eskay-type tholeiitic basalts.

The VMS mineralization comprises bedded massive pyrite, chalcopyrite, sphalerite, galena and tetrahedrite within mudstone of the Middle Jurassic Salmon River Formation, Hazelton Group. The massive sulphide portion of the discovery is up to 0.9 metres thick in outcrop. The massive sulphide and mudstone are within a wider band of rhyolite, intermediate volcanics and volcanoclastic sediments close to the contact with overlying basalt correlative with the Eskay rift volcanic-sedimentary succession. A chip sample across 0.9 metres yielded 0.62 % copper, 0.14 % lead, 4.32 % zinc and 159 g/t silver (Assessment Report 27511).

A total of 11 drillholes were drilled at the Smitty Zone during the 2005 program and an additional 4 holes (1717 metres) in 2007. The drilling was designed to follow-up the discovery of an Eskay-age silver-rich polymetallic massive sulphide occurrence discovered in outcrop during the 2004 program. The intervals of Eskay-equivalent mudstones that host the surface showing at Smitty are clearly intruded and disrupted by mafic sills of a closely similar age to the mudstones. This contemporaneous sill formation is a defining feature of the Eskay rift, but has increased the difficulty of following the mineralized interval over substantial distances away from the showing.

### **SOUTH UNUK – Zinc**

The area of the South Unuk showing is underlain by volcanic and sedimentary rock of the Middle Jurassic Salmon River Formation. In 2007, drilling by Kenrich-Eskay comprised two long holes drilled from two separate pads, collared into basalt and mudstone. Pyrite and rare sphalerite intergrown were noted in coarser sedimentary horizons.

One notable intersection of massive black banded mudstone in hole CR07-81 yielded a 54-metre section (350.1 to 404.1 metres downhole) that analyzed 0.15 % zinc (Assessment Report 30131). This intersection was associated with intermittent stringer-hosted and disseminated to blebby, coarse grained pyrrhotite-pyrite, with a carbonate-quartz gangue in the stringers, in moderately silicified mudstone.

It was concluded by Kenrich-Eskay that, as in 2005 and 2006, the 2007 drilling had intersected a thick but distal portion of the seafloor mineralizing hydrothermal system within the Eskay rift sequence.

### **MM – Gold, Silver, Copper, Zinc**

The MM showing is located on the east bank of Mandy Creek, approximately 1.5 kilometres northeast of Mount Madge, at an elevation of 800 metres. The showing is a mylonitic zone hosted in andesite volcanic rocks of the Middle Jurassic Salmon River Formation. It has been traced for over 50 metres and is up to 25 metres in width.

Mineralization occurs within andesitic tuff, marked by a wide zone of ductile deformation and cataclasis. Alteration is intense, with pervasive bands and pods of ankerite, fuchsite, quartz-carbonate, sericite and pyrite. These rocks host sulphide mineralization as disseminations, vein stockworks and bands of sphalerite, galena, arsenopyrite, minor chalcopyrite, trace tetrahedrite and pyrite. Peripheral alteration consists of chlorite and ferrous carbonate. Cross cutting zones of shearing trend both parallel and at right angles to Mandy Creek.

Three trenches were excavated in 1993 over an exposed length of 50 metres and 25 metres width. A total of 17, one metre chip samples were taken with mixed results. Trench 101 yielded a wide zone of anomalous but uneconomic values. The most significant chip sample assayed 1.17 g/t gold and 0.25 % zinc across 1 metre (Assessment Report 23805).

### **COREY ELGAR - Gold, Silver, Zinc, Lead**

The Corey Elgar showing is underlain by rock of the Jurassic Hazelton Group, including rocks of the Lower Jurassic Betty Creek and Middle Jurassic Salmon River formations.

Mineralization occurs as galena, sphalerite, pyrite and arsenopyrite in a quartz carbonate stockwork hosted by andesite tuff. In 1993, the best samples obtained from prospecting were from float. The highest of these, VV-B-F-034, assayed 0.32 g/t gold, 15.5 g/t silver, 0.28 per cent zinc and 0.22 % arsenic (Assessment Report 23805).

### **ELGAR - Gold, Silver, Lead, Zinc, Copper**

---

The area of the Elgar showing is underlain by rocks of the Upper Triassic Stuhini Group. Several scattered mineralized quartz veins up to 1 metre wide are hosted in andesite and/or argillite. These veins contain pyrite-galena-chalcopyrite-sphalerite +/- arsenopyrite.

A sample from the Elgar showing taken in 1980 assayed 3.12 g/t gold, 13.71 g/t silver, 0.38 % lead, 0.40 % zinc and 0.48 % copper (Assessment Report 9233).

### **VMBR – Silver, Copper, Lead**

The area of the VMBR showing is underlain by sedimentary rocks of the Upper Triassic Stuhini Group.

The VMBR showing comprises a mineralized northwest trending quartz vein. Associated mineralization includes chalcopyrite, pyrite, galena. Sample VM-B-R-001 from this location assayed 35.2 g/t silver, 0.25 % copper, 0.05 % lead and 8 ppb gold (Assessment Report 23805).

### **C10 - Gold, Silver, Copper, Zinc, Lead**

The C10 prospect is located approximately 6 kilometres east of the confluence of the Unuk and South Unuk River, between Mandy Glacier and Mount Madge. The C10 area was historically reported to be part of a northwest-trending pyrite-sericite schist alteration zone extending as much as 6.5 kilometres and 0.8 to 1.6 kilometres in width. Silicification in this zone increases with depth, as well as towards the east. A sulphide stringer zone up to 800 metres in width occurs along the east margin of the pyrite-sericite schist band, consisting of numerous sub-horizontal stringers, pods and lenses containing siderite, chalcopyrite, pyrite, sphalerite, galena and arsenopyrite. Mapping shows the area is underlain Middle Jurassic rocks of the Salmon River Formation.

A sample of the pyritic sericite schist contained 1.30 g/t gold. A pyrrhotite-chalcopyrite float sample contained 9.53 g/t gold and 115.89 g/t silver (Assessment Report 16364). Another sample taken from a location 600 metres to the west-northwest contained 2.06 g/t gold. A float sample found about 1 kilometre north of this assayed 55.54 g/t silver (Assessment Report 17404).

The 2005 and 2006 drilling by Kenrich-Eskay targeted the alteration and results confirmed that strong metal zoned enrichment in precious and base metals is present throughout the altered zone. These enrichments include a 1.5 metre intersection with 99.4 g/t gold in drillhole CR05-17 (Assessment Report 30131). This base and precious metal enrichment, alteration and the stringer vein style observed in drill core have been interpreted to indicate that the C10 is consistent with a feeder zone below a Volcanogenic Massive Sulphide (VMS) deposit. Further to this, the discovery of shallow level pyrite infill textures and fine grained massive pyrite lamination in mudstone indicates that the C10 zone may represent the targeted Middle Jurassic, Eskay-rift hydrothermal system.

### **GS-25 – Gold, Silver**

The GS-25 occurrence is located about 6 kilometres east of the South Unuk River and 3 kilometres south of Sulphurets Creek. The area is underlain by mafic and intermediate volcanic rocks of the Middle Jurassic Salmon River Formation, Hazelton Group.

In 1987, Bighorn Development Corporation collected several rock samples in the area. Sample GS-25 assayed 0.93 g/t gold and 35.66 g/t silver (Assessment Report 17404). No description of the sample was given.

### **HSOV - Zinc, Gold, Silver, Copper**

The HSOV showing, discovered in September 1996, is located across the valley to the east of Mount Madge. The host rocks are interpreted as belonging to the Middle Jurassic Salmon River Formation (Assessment Report 30131).

Rocks mapped in the showing area (from east to west) include andesitic to rhyolitic volcanoclastics and minor flows, massive rhyolites with minor interbedded volcanoclastics, mudstones and basalts and are interpreted as an overturned sequence. Contact relationships between the various units are complex, in particular between the mudstones and basalts.

The showing lies at the contact between rhyolite breccias and black shales; the horizon has been traced for one kilometre along strike and 500 metres down dip. Mineralization consists of a zone of semi-massive to massive marcasite and pyrite, with minor gypsum, anhydrite and sphalerite in a black, sooty matrix. The sulphide body is exposed over a length of 35 metres and is up to 3.5 metres thick. A left-lateral fault offsets sulphide mineralization 110 metres to the east, where another 30 metres of mineralization up to 1 metre thick is exposed.

A grab sample assayed 2.18 g/t gold, 505.9 g/t silver and 1.26 per cent copper.

A total of three drillholes were completed in the HSOV Zone in 2005 (CR05-26 to CR05-28) to test the surface occurrence comprising massive pyrite hosted by black mudstones and rhyolites. Holes 27 and 28 both successfully intersected several metres of stringer to massive pyrite within mudstones and brecciated rhyolites down-dip and along strike of the surface occurrence; hole 26 did not intersect the mineralized zone due to a wide fault which offset the zone (McKinley et al, 2007; unpublished Assessment of 2004-2006 Corey Property exploration).

While these intersections did not yield significant metal values, they demonstrate that the HSOV mineralization has VMS characteristics.

### **SPEARHEAD - Zinc, Copper**

In 2006, prospectors investigating an AeroTEM electromagnetic conductor in the eastern part of the property discovered the Spearhead showing within a northwest trending, two hundred by one hundred metre outcrop of silicified rhyolite. Geological mapping and sampling in 2006 demonstrated that the host rhyolite-mudstone sequence at Spearhead belongs to the Eskay-equivalent Middle Jurassic Salmon River Formation (Hazelton Group), with a style of mineralization and geological relationships very similar to those at the HSOV zone located 2 kilometres to the west. However, mineralization and alteration at Spearhead are much more extensive than at HSOV.

Limited drilling at the end of the 2006 season intersected mudstone containing a 1.2-metre-wide interval of laminated fine grained massive pyrite with zinc enrichments of up to 0.2 per cent, as well as pyrite-sphalerite-quartz veinlets (Assessment Report 30131). Other notable assay samples

include sample CB692, a quartz-carbonate-pyrite-chalcopyrite vein at the Spearhead showing that yielded 0.4 per cent copper veinlets (Assessment Report 30131).

### **RED LIGHTNING - Copper, Nickel, Cobalt, Gold, Platinum, Palladium, Silver**

The Red Lightning prospect area is underlain by mafic and intermediate volcanic rock of the Middle Jurassic Salmon Creek Formation, Hazelton Group. Mineralized host rocks are tholeiitic mafic intrusive within mafic volcanoclastic rock. In 2006, during investigation of an AeroTEM electromagnetic conductor, prospectors discovered an area of strong gossan cropping out on the north-facing mountain slopes above the Mandy Valley. Grab samples contained around 0.5 per cent copper and 5 g/t gold. Follow-up geological mapping identified a 5- to 10-metre-wide, 100-metre-long steeply northeast dipping zone of oxidised iron sulphide within a chloritized massive mafic volcanic rock.

This zone was tested in 2007 by four drillholes, RL-1 to RL-4, three of which intersected a strongly chlorite-epidote altered mafic sub-volcanic sill. This contained stratabound network vein hosted to semi-massive pyrite-pyrrhotite-chalcopyrite over widths of up to 20 metres drilling thickness, with a notable horizon of precious metal enrichment, over a strike length of at least 60 metres. A 1 metre drill interval assayed 5.74 g/t gold, 2.8 g/t silver and 0.18 per cent copper, (Assessment Report 30131).

In 2008, drilling comprised 1749.4 metres of diamond drilling in 7 drillholes (CR08-83 to CR08-89) from three drill pads. Drilling targeted the down-dip extensions of the sulphide mineralization intersected in the 2007. Drillhole CR08-86 intercepted a steeply northeast dipping zone of intrusive sill-hosted mineralization. This zone comprises network-veined to semi-massive pyrite-pyrrhotite-chalcopyrite enveloping a 5.3 metre (estimated true thickness) interval of fine-grained massive pyrite-pyrrhotite-chalcopyrite with grades of 1.03 per cent copper, 0.55 per cent nickel, 0.10 per cent cobalt, 0.16 gram per tonne platinum, 0.15 gram per tonne palladium and 1.1 gram per tonne gold. These sulphides are interpreted to be magmatic in origin rather than hydrothermal. This zone of orthomagmatic copper-nickel-cobalt (-platinoid) mineralization remains open along strike to the north and south.

### **GFJ - Gold, Silver, Copper, Zinc, Lead**

The GFJ showing is a lode gold vein occurrence up to 750 metres in length and from 0.5 to 1 metre in width. Mineralization was found within a shallowly-dipping shear-controlled pyritic quartz vein, consisting of banded quartz, chlorite, pyrite, arsenopyrite and possibly tetrahedrite. Wall rocks were described as andesite tuff.

Several separate veins or zones of veins were mapped by previous workers. One zone consists of a series of 20 to 40 centimetre flat-lying veins and 2 to 4 metres wide silicified zones of sub-horizontal vein stockworks. This zone is exposed over a length of 195 metres. Sulphides and alteration in this zone are weak. Another vein extends 110 metres with widths ranging from 15 to 80 centimetres, dipping about 30 degrees to the east. This vein consists of banded quartz, siderite and sulphides, and contains up to 33.7 g/t gold (as reported in Assessment Report 27511). Weak silicification extends up to 5 metre in the hanging wall while the footwall is moderately silicified for 1 metre. Another poorly exposed vein is sub-horizontal, 12 to possibly 50 centimetres thick,

and extends for about 90 metres. This vein consists of quartz, pyrite, arsenopyrite and chalcopyrite. Gold assays from this vein range up to 46.4 g/t (as reported in Assessment Report 27511). Several other veins were described but do not carry significant gold.

### **TM – Gold, Copper**

The TM area is underlain by mafic and intermediate volcanic rock of the Middle Jurassic Salmon River Formation, Hazelton Group. The TM (Ted Morris) showing is a large vertical, altered and silicified shear zone, located on a cliff face, along an unnamed creek just to the west of the Ted Morris Glacier. The shear is several metres wide and has a vertical dimension of 400 metres. The mineralized area is approximately three metres wide and consists of a quartz-sulphide alteration zone hosted within intermediate to mafic volcanic rocks. The zone trends about 090 degrees, with a dip of 80 degrees to the south. A one metre malachite stain marks the area and there is extensive iron and manganese staining throughout the exposure. Mineralization consists primarily of pyrite, arsenopyrite and chalcopyrite hosted within quartz/chlorite veins. An east-west linear feature which runs under both the TM and GFJ showings suggests that the two showings are connected and that the TM showing may be a feeder system for the GFJ showing. A second set of veins can be seen near the top of the ridge above the TM showing. A grab sample from the TM showing assayed 42.17 g/t gold (Assessment Report 24965).

### **KUMIKO - Gold, Silver, Copper, Lead**

The Kumiko showing is located on the south bank of Kumiko Creek at an elevation of 700 metres. The area appears to be underlain by rock of the Lower Jurassic Betty Creek Formation, Hazelton Group. The showing consists of a sheared zone in intermediate volcanics, approximately 2 metres in width with a trend of about 170 degrees. Discontinuous lenses and veins of quartz occur throughout, and mineralization is spotty. Mineralization consists of pyrite, chalcopyrite, galena with minor malachite and azurite staining. An initial grab sample yielded assay results of 3.31 g/t gold, 864 g/t silver and 3.04 per cent lead (Assessment Report 24965). Follow up work consisted of chip sampling across the face of the shear zone. A series of four, one metre chip samples (true width 0.8 metres) were taken with one sample yielding values of 12.97 g/t gold and 56.4 g/t silver (Assessment Report 24965).

### **COREY SOUTH - Gold, Silver**

In 1988, Bighorn Development Corporation reported high gold values from two rock samples. The samples are located just over 2.0 kilometres east of the South Unuk River at 914 and 1200 metres elevation. The lower sample contained 54.17 g/t silver and the higher sample, located about 750 metres to the northwest in a gossan zone, contained 6.10 g/t gold and 61.71 g/t silver (Assessment Report 17404). Sample descriptions were not reported.

### **CB -Gold, Silver, Copper**

The CB showing is located south of the Lee Brant Glacier at an elevation of 1020 metres. The vein was located by prospecting the boulder train in the lateral moraine along the flanks of the Lee Brant Glacier and establishing the origin of quartz, sulphide-bearing boulders. The area is underlain by the contact of the Eocene Lee Brant stock of the Coast Plutonic Complex and

sediments of the Lower Jurassic Betty Creek Formation (Hazelton Group, or possibly of the Upper Triassic Stuhini Group). The vein cuts across hornfelsed sediments and quartz monzonite.

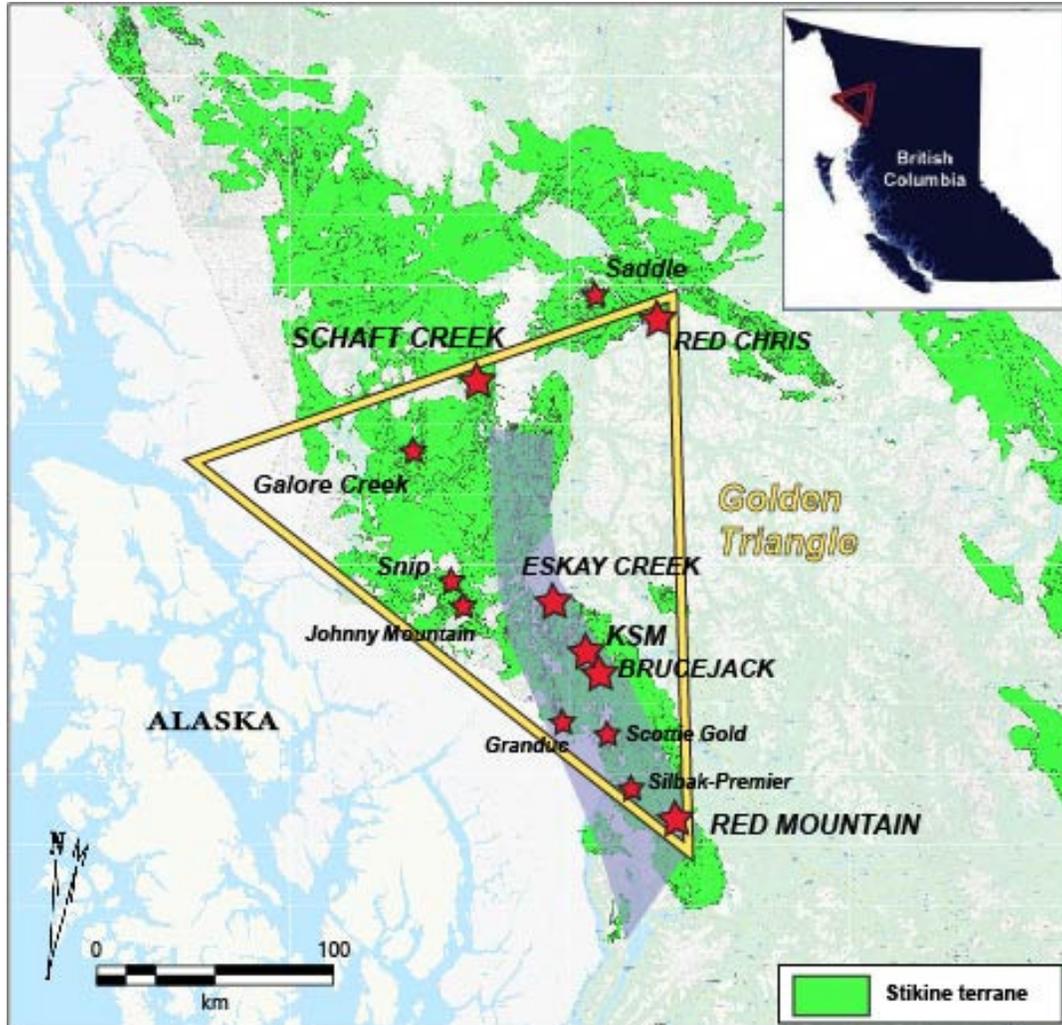
The showing consists of a pyritic quartz vein varying from 1.5 to 2.5 metres in width, trending 212 degrees and dipping from 77 to 81 degrees to the southeast. Contradictory text from the same report (Assessment Report 24965) states that the vein varies from 2 to 5 metres in width and was traced for over 100 metres along strike and 50 metres down dip. Mineralization consists of semi-massive to massive, medium to coarse grained pyrite. A preliminary grab sample yielded 4.53 g/t gold and 50.6 g/t silver (Assessment Report 24965). Chip sampling yielded one result of 2.31 g/t gold over a width of 0.6 metre.

## **7.0 GEOLOGICAL SETTING AND MINERALIZATION**

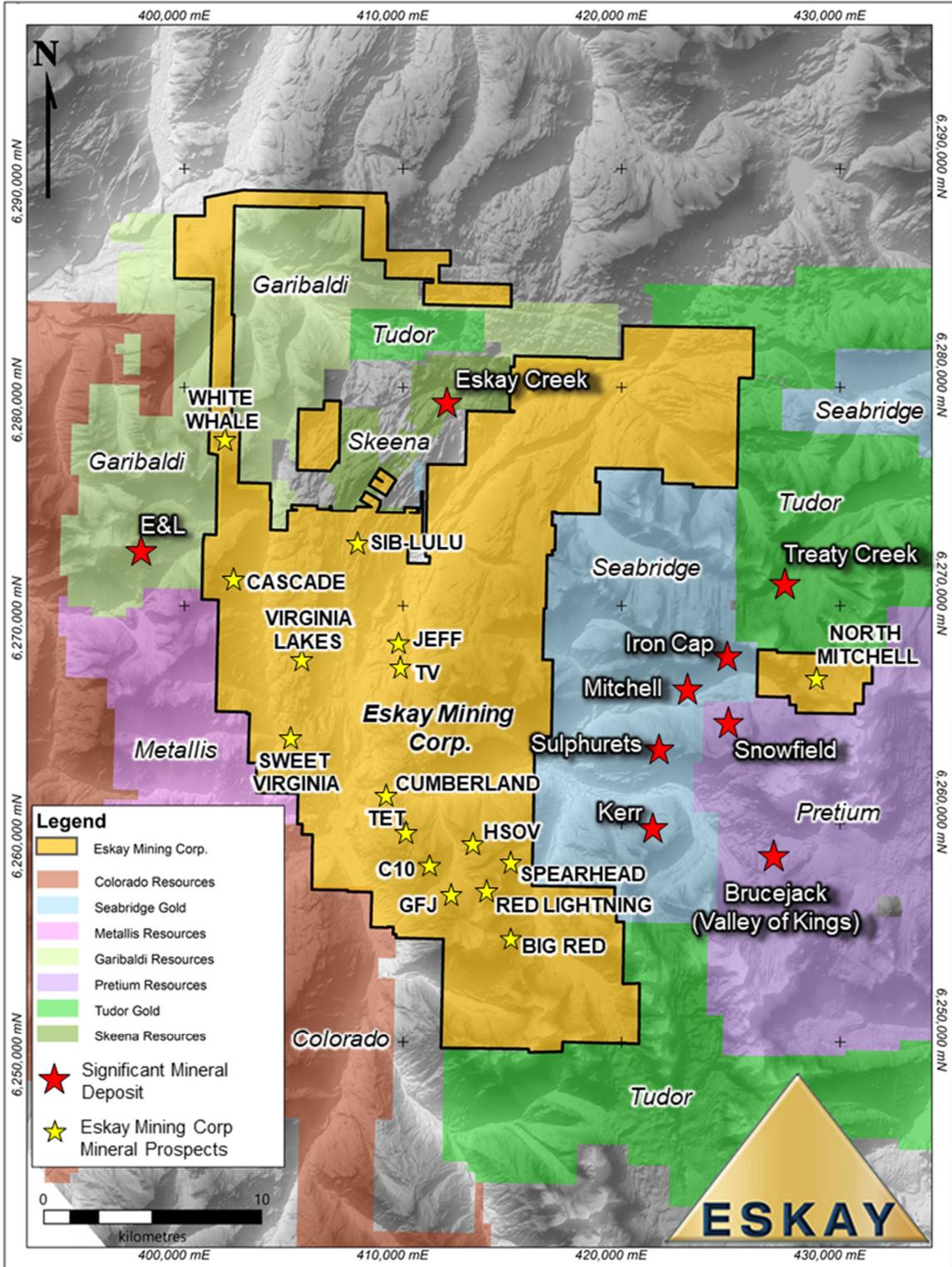
### **7.1 Regional Geology**

The Eskay property is located within a mineral-rich belt that extends approximately 200km north of Stewart, BC. The area is situated along the northwestern part of the Stikine terrane, and is bound to the west by the Coast Plutonic Complex. The Stikine terrane is comprised of arc-related volcanics and sediments that accreted onto western North America in mid-Mesozoic time. The geology of the belt is host to prolific porphyry, vein, and VMS deposits and is referred to as the Golden Triangle (Figure 7.1.1 and Figure 7.1.2).

The oldest rocks in Golden Triangle region belong to the Stikine terrane, and are Devonian to Mississippian, arc-related volcanic and plutonic rocks along with accompanying sedimentary strata of the upper Paleozoic Stikine assemblage. These are unconformably overlain by Triassic arc and marine sediments of the Stuhini Group. A Late Triassic-Early Jurassic unconformity is the base of the late Triassic to middle Jurassic Hazelton Group. The Hazelton Group is unconformably overlain by Middle Jurassic to Lower Cretaceous Bowser Lake Group sediments. The Bowser Lake Group is a clastic, overlap sequence derived from the northeast and has a southwestward-younging trend that was created during the collision of the Stikine and other Intermontane terranes with the western margin of ancestral North America.



**Figure 7.1.1: Location map of Eskay property within the Golden Triangle; inset shows the Golden Triangle location in northwestern BC, key mineral deposits in the vicinity are noted by red stars. Location of the Eskay Rift is outlined by the grey shaded polygon.**



**Figure 7.1.2: Map of the Eskay Mining claim package and neighbouring properties. Yellow stars indicate priority mineral prospects on the Eskay Mining property, red stars indicate significant mineral deposits on neighbouring properties.**

---

### 7.1.1 The Eskay Rift

The property lies within a narrow, elongate north-trending rift basin known as the Eskay Rift. The Eskay Rift documents the transition of subduction-related, island arc volcanism into a brief period of extensional tectonics and rift-related volcanism (Nelson et al., 2018). Extensional tectonics and rifting in the area were a driving factor in the generation of the Eskay Creek deposit. Active rifting occurred between upper Early Jurassic and lower Middle Jurassic time, and affected Upper Triassic through Middle Jurassic stratigraphy.

### 7.1.2 Stratigraphy

The Hazelton Group nomenclature developed by Gagnon et al. (2012), and Nelson et al. (2018), is used in this report. The reader is directed to Nelson et al. (2018) for correlations between the revised 2018 nomenclature and the nomenclature of Lewis (2013).

The oldest rocks in the area consist of Upper Triassic Stuhini Group composed of a lower volcanic package with lesser amounts of intercalated sedimentary rocks, overlain by a thick upper package of primarily sedimentary rocks with some interlayered volcanic rocks. Alldrick et al. (2004) have interpreted the Stuhini Group in the map area as a subaqueous accumulation of dacite, andesite and bimodal basalt-rhyolite volcanic rocks in a setting characterized by a progressively increasing accumulation of volcanoclastic sedimentary rocks with carbonate cement. The top of the Stuhini Group is a regional angular unconformity that is overlain by Hazelton Group strata. It has been noted by the BC Geological Survey that this unconformity may be key to the localization of many of the mineral deposits in the Golden Triangle (Nelson and Kyba, 2014). Total thickness of the Stuhini Group cannot be determined because of this truncation, but minimum the thickness is 3,000 metres (Alldrick et al. 2004b).

Gagnon et al. (2012) reported that following deposition of the Stuhini Group, extension-controlled volcanism existed in the narrow, elongate, north-trending Eskay rift basin during the relatively short period between the upper Early Jurassic and the lower Middle Jurassic. Fault-controlled subsidence led to development of at least 12 north-trending sub-basins within the 300 km long by 50 km wide volcanic belt (Alldrick et al. 2005; Barresi et al. 2008). Volcanic and sedimentary units of the Hazelton Group show strong lateral and vertical variability as a result of the limited connectivity between sub-basins plus the local nature of the volcanic processes. Quiescent depositional environments in some of the sub-basins were more prone to accumulation and preservation of exhalative sulphides (Alldrick et al. 2004). It has also been noted that felsic volcanism is commonly closely associated with mudstone intervals containing sulphide mineralization (Gagnon et al. 2012).

Within the Eskay Rift, the lower part of the Hazelton Group comprises the Jack and Betty Creek formations, which consists predominantly of arc related intermediate volcanic rocks. The lower Hazelton Group includes a wide range of lithologies dominated by maroon and green andesitic to dacitic flows, associated volcanic breccias and tuffs, and sedimentary volcanoclastic rocks (Gagnon et al. 2012). Lower Hazelton Group rocks mostly lie unconformably on Triassic volcanic rocks of the Stuhini Group, and locally over Paleozoic rocks of the Stikine assemblage. Most volcanic rocks

of the lower Hazelton Group are calc-alkaline to tholeiitic and most were deposited in subaerial, oxidizing environments, and are likely eruption products of stratovolcanoes (Alldrick et al. 1989). Discontinuous siltstone beds attest to a marine emergent arc setting. The upper boundary of the lower Hazelton Group is typically defined by an erosional surface that separates it from the overlying upper Hazelton Group.

The Upper Hazelton Group specific to the region has been defined by Gagnon et al. (2012) to include their newly proposed Iskut River Formation (previously called Salmon River Formation), which splits the lower Salmon River rhyolites (footwall rhyolite hosts discordant mineralization at the Eskay Creek deposit) from the overlying Salmon River “contact mudstone” and overlying intercalated mafic volcanic rocks and sedimentary rocks (now termed the Quock Formation). At the Eskay Creek type section described by Gagnon et al. (2012), rhyolite of the Iskut River Formation disconformably overlies andesitic breccia, volcanoclastic, and dacitic volcanic rocks of the Betty Creek Formation. This unit, which has been termed “footwall rhyolite”, varies in texture from massive to auto-brecciated, and was interpreted by Bartsch (1993) to represent a series of flow-dome complexes. Overlying and inter-fingering in part with the rhyolite is a fine-grained dark grey sedimentary unit known as the “contact mudstone”. The contact is irregular along strike and is marked by rhyolite breccia, in which black mudstone fills the interstices of quench-fragmented rhyolite. Clasts in the mudstone include altered rhyolite, barite, and fragmental sulphides and sulphosalts (Roth 2002). The Eskay Creek deposit comprised clastic debris flows of volcanogenic massive sulphide-derived material at the base of the mudstone interval. These clastic deposits were mined between 1995 and 2008, producing 2.18 million tonnes of ore with an average grade of 46 g/t Au and 2267 g/t Ag (MINFILE No. 104B 008).

In excess of 150 metres of massive basalt sills and pillowed basalt flows and breccia, with thin (centimetre to metre-scale) intervals of bedded argillite, chert, and felsic tuff, overlie the contact mudstone. Conformably above this basalt sequence at Eskay Creek is a succession of tuffaceous mudstone, on the order of 50 metres thick, which Gagnon et al. (2012) have included in the Quock Formation. Conformably overlying the Quock Formation are thick turbidite and deltaic sedimentary sequences of the Middle to Upper Jurassic Bowser Lake Group.

The Bowser Lake Group is a thick, clastic marine sedimentary succession, including greywacke, chert pebble conglomerate, sandstone and mudstone. The lower Bowser Lake Group is a marine sequence of complexly inter-fingering deltaic, shelf, slope and submarine fan assemblages in excess of 3000 metres thick, sourced mostly from uplifted Cache Creek Group rocks in the northeast. These are overlain by several thousand metres of low energy fluvial deposits and sedimentary rocks of alluvial fan and braided stream systems.

### **7.1.3 Intrusive Rocks**

Small plutonic bodies with a wide variety of compositions and ages occur near the Property to the north and south, and larger bodies are common in the region farther to the west and northwest. The oldest intrusions in the area form a belt trending north from a point about 48 km northwest of the Property. They are Late Devonian in age and collectively form one of the larger intrusive bodies in the region. The intrusions vary in composition from granite to hornblende diorite to local

hornblendite. Other large intrusions consisting of Middle to Late Triassic hornblende quartz diorite to granodiorite are found farther to the west and northwest of the Property, within a belt of roughly coeval Stuhini Group rocks. Localized ultramafic bodies of Middle to Late Triassic age are also found in the same area.

Sizeable stocks of Early Jurassic monzodiorite to gabbro are located 30 to 45 km northwest of the Property, where they cut rocks of the Stuhini and Hazelton groups. Similar age, leucocratic porphyry plugs (Knipple and Inel Porphyry) are found near the Property, to the north and south, cutting Stuhini and Hazelton Group rocks. These intrusions are part of the Texas Creek Plutonic Suite and have a number of associated mineral occurrences in the region, including the large porphyry gold-copper systems at Kerr-Sulphurets-Mitchell (KSM), 18 to 25 km northeast of the Property, and the Red Chris porphyry copper-gold deposit, 155 km to the northeast. A number of small, poorly age-constrained, Triassic to Jurassic quartz diorite to quartz monzonite to syenite stocks intrude Stuhini and Hazelton group rocks in the area. Other intrusions in the area belong to the Copper Mountain Plutonic Suite and John Peaks Stock or Unuk metadiorite and many may be coeval with their host volcanic rocks.

Located in the southwest part of the Property (Figure 7.2.1), Paleocene to Eocene granitoid stocks are probable outliers of the more massive Coast Plutonic Complex located farther to the west.

Several of the plutonic episodes have mineral occurrences associated with them, especially concentrated near the contact zones of the intrusive bodies, as shown by MINFILE occurrences plotted on Figure 7.4. Additionally, the majority of occurrences are spatially associated with faults that trend north, northeast and northwest. These faults commonly occur along the boundaries between lithostratigraphic units and also at intrusive contacts.

## **7.2 Property Geology**

The Eskay Mining Corp. property is predominantly underlain by late Triassic to Jurassic volcanic and sedimentary rocks of the Stuhini and Hazelton Groups (Figure 7.2.1 and Figure 7.2.2). These lithologies are host to all of the identified mineral prospects on the property. Upper Jurassic to Cretaceous aged marine sedimentary rocks of the Bowser Lake group, and several stocks of Jurassic to Tertiary aged intrusive suites are also present throughout the Property.



## Geological Legend BCGS, 2019

	PgQvb - Paleogene to Quaternary - quaternary mafic volcanic deposits
	PeNgmz - Paleocene to Neogene - Lee Brant stock - quartz monzonite
	uJKBs - Upper Jurassic to Lower Cretaceous - Bowser Lake Group - undivided sedimentary rocks
	muJBss - Middle to Upper Jurassic - Bowser Lake Group - undivided sedimentary rocks
	muJBsf - Middle to Upper Jurassic - Bowser Lake Group - mudstone, siltstone
	muJBsc - Middle to Upper Jurassic - Bowser Lake Group - conglomerate, sandstone
	muJBEss.evm - Middle to Upper Jurassic - Bowser Lake Group - Eaglenest assemblage - sandstone
	mJlvb - Middle Jurassic - Hazelton Group - Iskut River Formation - Willow Ridge mafic unit - mafic volcanic rocks
	mJHlvd - Middle Jurassic - Hazelton Group - Iskut River Formation - Palmiere unit - felsic volcanic rocks
	mJHlvb - Middle Jurassic - Hazelton Group - Iskut River Formation - Willow Ridge mafic unit - mafic volcanic rocks
	mJHlst - Middle Jurassic - Hazelton Group - Iskut River Formation - Mt. Madge sedimentary unit - fine-grained sedimentary rocks
	IJHSsf - Lower Jurassic - Hazelton Group - Spatsizi Formation - arkose, mudstone
	IJHSs - Lower Jurassic - Hazelton Group - Spatsizi Formation - undifferentiated sedimentary rocks
	IJHJva - Lower Jurassic - Hazelton Group - Jack Formation - andesite
	IJHJs - Lower Jurassic - Hazelton Group - Jack Formation - clastic sedimentary rocks
	EJTPds - Early Jurassic - Texas Creek Plutonic Suite - Premier suite - monzonite, syenite
	EJTCds - Early Jurassic - Texas Creek Plutonic Suite - Premier suite - monzonite, syenite
	EJPITCdd - Early Jurassic to Pliocene - Texas Creek Plutonic Suite - diorite
	uTrSvb - Upper Triassic - Stuhini Group - mafic volcanic rocks
	uTrSsv - Upper Triassic - Stuhini Group - volcanic sandstone
	uTrSss - Upper Triassic - Stuhini Group - sedimentary rocks
	uTrSsf - Upper Triassic - Stuhini Group - marine sedimentary rocks
	uTrSs - Upper Triassic - Stuhini Group - undifferentiated sedimentary rocks
	mTrSsc - Middle Triassic - Stuhini Group - conglomerate
	PnSsf - Pennsylvanian - Stikine assemblage - mudstone, siltstone, shale fine clastic sedimentary rocks
	MPSsch - Mississippian to Permian - Stikine assemblage - chert
	DPSsv - Devonian to Permian - Stikine assemblage - marine sedimentary and volcanic rocks
	DPSsl - Devonian to Permian - Stikine assemblage - limestone, marble, calcareous sedimentary rocks

**Figure 7.2.2: Geological legend for Figure 7.2.1.**

### 7.2.1 Lithological Units

#### **Stuhini Group**

The oldest rocks in the area belong to the Upper Triassic Stuhini Group, a package of volcanic and sedimentary rocks. A lower volcanic package with lesser amounts of intercalated sedimentary rocks is overlain by a thick upper package of primarily sedimentary rocks with some interlayered volcanic rocks. Detrital zircons from the uppermost pebble greywacke units returned a 203Ma age (Nelson et.al, 2018), providing an upper age constraint. The Stuhini Group forms the cores of the McTagg Anticlinorium (Nelson et al., 2018) and the Eskay anticline.

Alldrick et al. (2004) have interpreted the Stuhini Group in the map area as a subaqueous accumulation of dacite, andesite and bimodal basalt-rhyolite volcanic rocks in a setting characterized by a progressively increasing accumulation of volcanoclastic sedimentary rocks with carbonate cement. The top of the Stuhini Group is a regional angular unconformity that is overlain by Hazelton Group strata. It has been noted by the BC Geological Survey that this unconformity may be key to the localization of many of the mineral deposits in the Golden Triangle (Nelson and Kyba, 2014). Total thickness of the Stuhini Group cannot be determined due to this truncation, but minimum thickness is 3,000 metres (Alldrick et al. 2004b).

### **Hazelton Group:**

The Hazelton Group is extensive in both geographic and temporal distribution and is generally split into two temporal-stratigraphic groups: The Lower and Upper Hazelton Groups.

#### ***Lower Hazelton Group***

The main components of the Lower Hazelton Group are the Jack Formation, and the Betty Creek Formation, which are predominantly arc-related intermediate volcanic rocks with minor associated sediments. The Lower Hazelton Group is subdivided into several formations and member units.

#### **Jack Formation**

The Jack Formation is a sedimentary dominated sequence including intermediate siliciclastic, granitoid conglomerates, and finer clastic sequences including arkose sandstones, siltstones, and mudstones. The clastic components are derived from exhumation and subsequent erosion of Paleozoic and Triassic plutonic rocks in the Stikine terrane, and form an angular unconformity with the Stuhini Group rocks. Age dates return a youngest possible age of 197 Ma, with detrital zircons returning 220-226 Ma ages (Nelson et.al, 2018).

#### **Betty Creek Formation**

The Betty Creek Formation is dominated by tuffaceous to fragmental intermediate volcanic rocks. They have a calc-alkaline to tholeiitic signature and most were deposited in subaerial, oxidizing environments, and are likely eruptive products of stratovolcanoes (Alldrick et al. 1989). The oldest zircon age reported for the Betty Creek Formation is from a volcanic conglomerate, with age of 197 Ma (Nelson et.al, 2018). Discontinuous siltstone beds attest to a marine emergent arc setting. The upper boundary of the lower Hazelton Group is typically defined by an erosional surface that separates it from the overlying upper Hazelton Group.

#### **Unuk River andesite**

The Unuk River andesite is interpreted as subaerial deposits of pyroclastic, and reworked hornblende-phyric andesites. Dating of the andesite returns a 197-187Ma age (Nelson et al., 2018). The Unuk River andesite overlies the Jack Formation and the sharp contact between the two formations indicate an abrupt change from sedimentation.

---

## **Johnny Mt. Dacite**

The Johnny Mountain Dacite unit is described as a dacite lapilli tuff and associated breccias. They are dated to be 194Ma (Nelson et.al, 2018), and appear to be coeval with Red Bluff (located south of the Property) and with the Inel Porphyry. The dacite may be an extrusive equivalent of the intrusive bodies (Kyba & Nelson, 2015).

## **Brucejack Lake felsic unit**

The Brucejack Lake felsic unit is described as K-feldspar-hornblende-plagioclase phyric lava flows, flow breccia, and welded to non-welded felsic tuffs that are cut by flow-banded plagioclase phyric lava flows. Interpretations from other workers suggest the Brucejack Lake felsic unit is a flow dome complex (MacDonald, 1993), and has returned ages of 188-183 Ma (Lewis et al., 2001b; Lewis, 2013; Greig, 2013). The hornblende phyric nature of the felsic unit may bear similarities to the Unuk River andesites. The lower contact of the Brucejack Lake felsic unit is marked by a conglomerate unit, and indicates a lower unconformity with underlying andesite (Nelson et.al, 2018).

## ***Upper Hazelton Group***

### **Spatsizi Formation**

The Spatsizi Formation is the basal unit of the Upper Hazelton Group. The Spatsizi Formation is comprised of volcanoclastic sedimentary rocks, with subordinate volcanic rocks. These include submarine volcanoclastic conglomerate, sandstone, shale, siltstone, and rare local limestone. The Spatsizi Formation overlies the Unuk River andesite. Siliciclastic sedimentary rocks are documented within the Eskay Anticline near John Peaks mountain.

### **Iskut River Formation**

The Iskut River Formation describes rift-related bimodal volcanic, and associated sedimentary rocks of the Upper Hazelton Group. Age dating indicates the Iskut River Formation was emplaced ca. 179-173 Ma (Childe, 1996; Cutts et al., 2015, Nelson et al., 2018). The lower contact of the Iskut River Formation appears to be an angular unconformity where fan conglomerates are juxtaposed on or against various units of the lower Hazelton Group, Stuhini Group, or Stikine assemblage (Cutts et al., 2015). In a few locations, the lower part of the formation is exposed farther from the graben margin such that the conglomerates grade laterally into distal very fine-grained sedimentary rocks with intercalated tuff, and bimodal volcanic rocks including rhyolite and voluminous tholeiitic basalt (Alldrick et al. 2005; Barresi et al. 2005). At Eskay Creek, rhyolite of the Iskut River Formation disconformably overlies Upper Pliensbachian volcanoclastic rocks and felsic welded lapilli tuff of the lower Hazelton Group. The upper contact of the Iskut River Formation is typically conformable with either the Quock Formation or siliciclastic strata of the Bowser Lake Group (Cutts et al., 2015).

### **Bruce Glacier felsic unit**

---

The Bruce Glacier Felsic Unit is dominated by felsic volcanic rocks, including volcanoclastics, dacitic to rhyolitic flows, flow banded rhyolites, feldspar phyric and/or spherulitic rhyolites, and crystal tuffs (Lewis et al, 2001, Cutts et al, 2015). The Bruce Glacier Felsic member is exposed along the east limb of the Eskay Anticline and both limbs of the McTagg anticlinorium (Cutts et al., 2015). The dacite to rhyolite flows and volcanoclastics dated to be  $178.5 \pm 1.8$  to  $173.3 \pm 1.8$  Ma (Cutts et al, 2015).

### **Eskay Rhyolite**

The Eskay Rhyolite is a distinct felsic volcanic suite associated with mineralization at Eskay Creek mine. The Eskay rhyolite returns distinct zircon ages of  $175 \pm 2$  Ma (Childe, 1996), and is coeval with the timing of the Eskay Rift. The geochemistry of the Eskay Rhyolite makes it discernable from other felsic units in the region, with a high Al/Ti ratio ( $Al/Ti > 100$ ).

### **Mt Madge sedimentary unit**

The Mt. Madge sedimentary unit (also referred to as the Contact Mudstone at Eskay Creek) is a sedimentary package that overlies and is occasionally intruded by the Eskay Rhyolite, and Willow Ridge mafic unit. A date from an enclosed rhyolite dome in the mudstones returns an age of  $174.07 \text{ Ma} \pm 0.2 \text{ Ma}$ , placing it within error of timing for the Eskay Rhyolite and the Bruce Glacier felsic unit.

### **Willow Ridge mafic unit**

The Willow Ridge mafic unit is a basalt-dominated sequence, with minor rhyolite. Age dates from rhyolite returned a ca. 174 Ma (Nelson et.al, 2018). The Willow Ridge rocks are also divided into upper and lower member units (see Alldrick), that are separated by a sedimentary unit with minor dacitic to rhyolitic flows, domes and associated dykes. For the purposes of this report, they are collectively referred to as the Willow Ridge mafic unit.

### ***Bowser Lake Group:***

The Bowser Lake Group is a sequence of post-volcanic sedimentary rocks that overlie the majority the Hazelton Group. The Bowser Lake Group rocks are characterized as coarse clastic strata that were deposited in a large, deep, subsidizing Bowser sedimentary basin that developed as the Stikine terrane and other inboard terranes accreted onto ancestral North America (Eisbacher, 1985; Ricketts et al., 1992; Evenchick et al., 2010, Gagnon et al., 2009). Continuous sedimentation would have occurred throughout the opening of the Eskay Rift punctuated by episodic rift-related volcanism and hydrothermal activity, and continuing after volcanic activity ceases. Where the Iskut River Formation is absent Bowser Lake Group rocks are in gradational contact with the Spatsizi Formation.

### ***Intrusive Rocks:***

#### **Texas Creek Plutonic Suite**

The Texas Creek Plutonic Suite one of several Mesozoic plutonic suites in the region. The suite is characterized as calc-alkaline, I-type bodies that discontinuously outcrop as deformed and weakly metamorphosed, north-trending bodies between the Coast and Intermontane belts (Logan et al., 2000). Age dates of 197-187 Ma coincide with the timing constraints from the Unuk River andesite, with the Texas Creek Plutonic Suite interpreted to be an intrusive equivalent.

### **Tertiary Coast Plutonic Suite**

Late Cretaceous to Eocene monzodiorites of the Coast Plutonic Complex are documented within a few kilometres of the western margin of the Property. The Coast Plutonic Complex dominates the Coast Belt in a series of calc-alkaline, subduction arc-derived plutonism. In contrast to the Triassic metadiorites, these rocks are relatively fresh, and unmetamorphosed. The late emplacement relative to other strata and intrusive bodies may have driven much of the regional metamorphism and some hydrothermally driven alteration.

### **Gabbro**

A gabbro unit is documented at the Red Lightning showing at surface and in drill core. The gabbro is associated with Ni-Cu sulphide mineralization at Red Lightning. Its cross-cutting relationships with the Betty Creek Formation at Red Lightning are consistent with the Three Sisters Plutonic Suite. Diorite and gabbro of the Three Sisters Plutonic Suite returned ages of 179-176 Ma (Alldrick et al., 2004).

## **7.2.2 Structural Geology**

The geology of Eskay Mining Corp.'s claims are influenced by several regional deformation events. Several structural features are preserved including the Eskay Rift and the Stewart-McTagg Anticlinorium. Both features are prominent factors that have been linked to major mineral deposits. Prominent, north-south trending faults juxtapose different structural blocks in the area, including the Sulphurets thrust fault to the east, the Coulter Creek Thrust fault in the SIB area, and the Harrymel fault in the west. The degree of deformation increases with metamorphic grade to the south, ranging from sub-greenschist facies in the north and progressing to upper greenschist – amphibolite facies in the far southern end of the Property.

The dominant structural style throughout the property consists of broad, flat-lying to gently plunging, north trending anticline/syncline pairs, with a greater degree of strain and folding accommodated by graphitic sedimentary units, than in crystalline volcanics. Locally, weak poly-deformation indicators include gently curved axial planes and fold axes.

## **7.2.3 Mineralization**

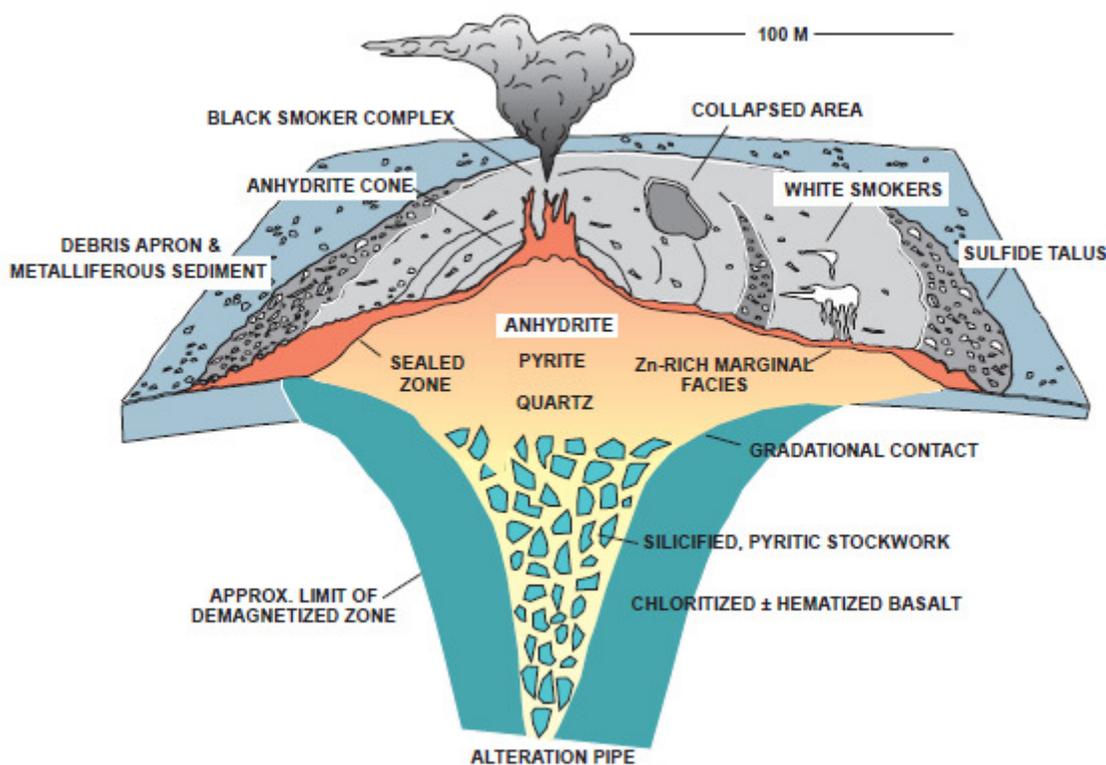
See Section 6.2 for map and descriptions of mineral showings located on the Property's mineral tenures.

## 8.0 DEPOSIT TYPES

As described by previous operators and from observations in the field by the authors', the SIB-Corey-North Mitchell Property has the potential for three principal types of mineralization: 1) Eskay-style VMS mineralization; 2) gold- and silver-rich quartz veins and 3) magmatic Ni-Cu rich massive sulphide mineralization. The most important of the three are the Eskay-style VMS prospects, which have been the primary focus for most work done on the Property to date.

### 8.1 Volcanic-hosted Massive Sulphide

Volcanic-hosted massive sulphide (VMS) style mineralization is categorized as stratiform accumulations of sulphide minerals that precipitated on or near the seafloor, commonly closely associated with hydrothermal vents. They form polymetallic lenticular bodies and commonly contain economic concentrations of precious and base metals (Pb, Zn, Cu, Ag and Au). Many VMS deposits occur in clusters, within a few km of each other, and are often stacked stratigraphically. Late Jurassic, rift related volcano-sedimentary rocks are host to the Eskay Creek deposit, the world's highest-grade gold-silver VMS deposits.



**Figure 8.1.1: Schematic cross-section of a typical VMS deposit, with semi-massive and massive sulphide lenses underlain by a stockwork feeder zone. From Hannington et al, 1996.**

Similar host stratigraphy to the Eskay Creek deposit extends into Eskay Mining Corp.'s property and demonstrates the potential for Eskay-style VMS mineralization. The Lulu, TV, and Jeff

prospects are all hosted in analogous lithologies as Eskay Creek and demonstrate similar precious and base metal enrichment.

## **8.2 Magmatic Nickel-Copper-Rich Massive Sulphides**

Magmatic nickel-copper rich massive sulphide mineralization is hosted in mafic to intermediate rocks. They form when mantle-derived, sulphur-undersaturated magmas interact with crustal rocks (commonly sulphur-rich sedimentary rocks) and form when immiscible sulphide liquids are segregated from a silicate melt and precipitate sulphide minerals. The source melts require extension, rifting, and development/reactivation of deeply penetrating faults for ascent to the crust. The structures also facilitate the development of sub-volcanic feeder systems and geometric control on mineralization (Schulz et al, 2010).

The Red Lightning prospect and surrounding area appears to demonstrate this style of mineralization. Red Lightning is hosted in a strongly altered, subvolcanic gabbroic sill. Mineralization is described as a stratabound network veins to semi-massive pyrite-pyrrhotite-chalcopyrite bodies. The sulphide body at Red Lightning is enriched in the precious metals Au, Ag, Pt, Pl, and Pd.

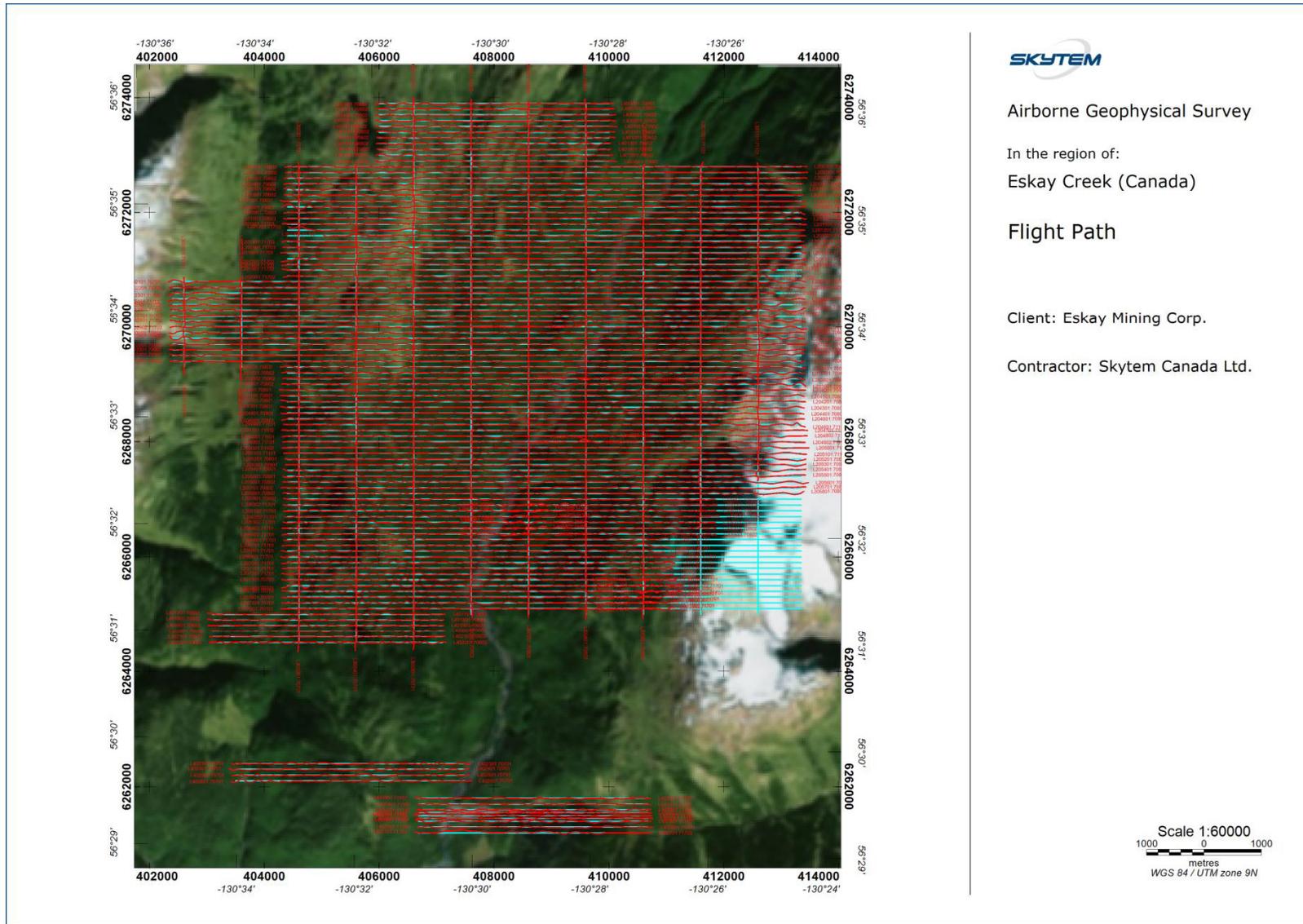
## **9.0 EXPLORATION BY THE COMPANY**

The Company's activities in the 2020 field season included: 1) regional airborne (EM), and ground-based magnetotelluric (MT) and induced polarized (IP) geophysical surveys; 2) Property-wide BLEG sampling; 3) diamond drilling at the TV and Jeff prospects; and 4) prospecting and rock sampling at the Tet, C10, and Spearhead showings, and 5) Full elemental suite litho-geochemical analysis of re-examined historically drilled core.

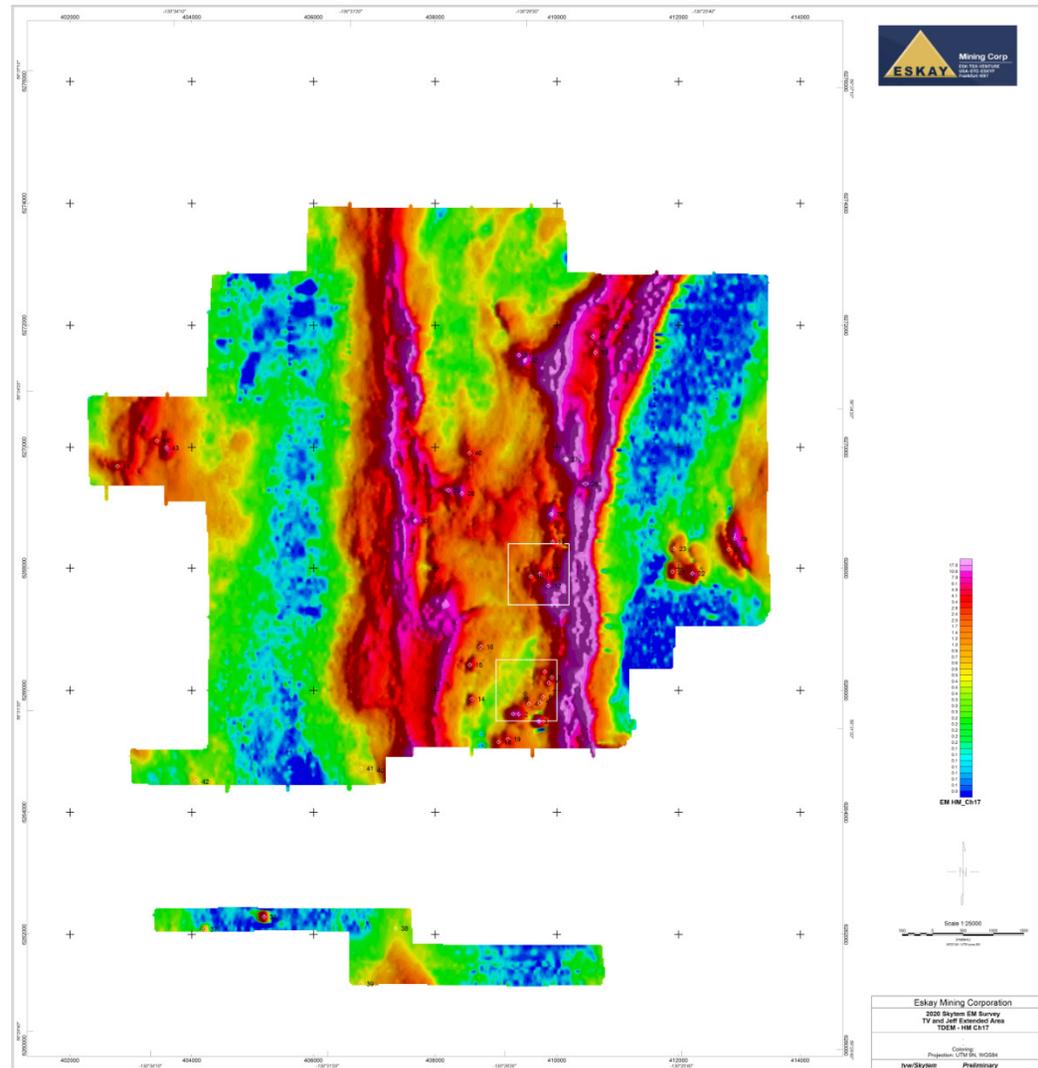
### **9.1 2020 Airborne Geophysical Survey**

From July 8<sup>th</sup> to July 17<sup>th</sup> 2020, an airborne SkyTEM312M survey was conducted over the property by SkyTEM Inc. The survey collects time domain electromagnetic and magnetic data. A total of 927.2km of flight lines for the property were planned, and 911.7km were completed (Figure 9.1.1). The main survey area encompassed the SIB, Cascade, TV-Jeff and Virginia Lakes areas, and include two separate blocks over the Sweet Virginia and Cumberland areas.

The SkyTEM survey conducted in 2020 of the area shows that known mineralized zones correlate with distinct high conductivity anomalies (Figure 9.1.2). Many such conductivity anomalies lie on trend with TV and Jeff, and are morphologically similar to those at TV and Jeff exhibiting a stacked, lumpy appearance in map view. Several of these anomalies are in rock inferred to be the Iskut River Formation, the host rock for high-grade precious metal deposits at Eskay Creek and Lulu, and are likely the up-stratigraphy continuation of the presently known mineralized systems.



**Figure 9.1.1: SkyTEM survey coverage of the Eskay Property. Flown lines (red) are overlain on planned lines (blue).**



**Figure 9.1.2: Time Channel 17 TDEM map of the SkyTEM survey area**

## 9.2 2020 Ground-Based Geophysical Surveys and Results

### Ground-Based Magnetotellurics (MT)

From July 7<sup>th</sup> to August 29<sup>th</sup> 2020, Quantec Geoscience conducted a ground-based, TITAN-160 MT survey across the property. The survey focused on the SIB, Jeff, Corey, and Spearhead areas (Figure 9.2.1). A total of 28 survey lines were completed, totalling 43.19km. Processing and interpretation of the MT data and integration with existing geological and geophysical datasets is currently ongoing by Company geophysicists, and will be reported on as a part of the 2021 exploration program.

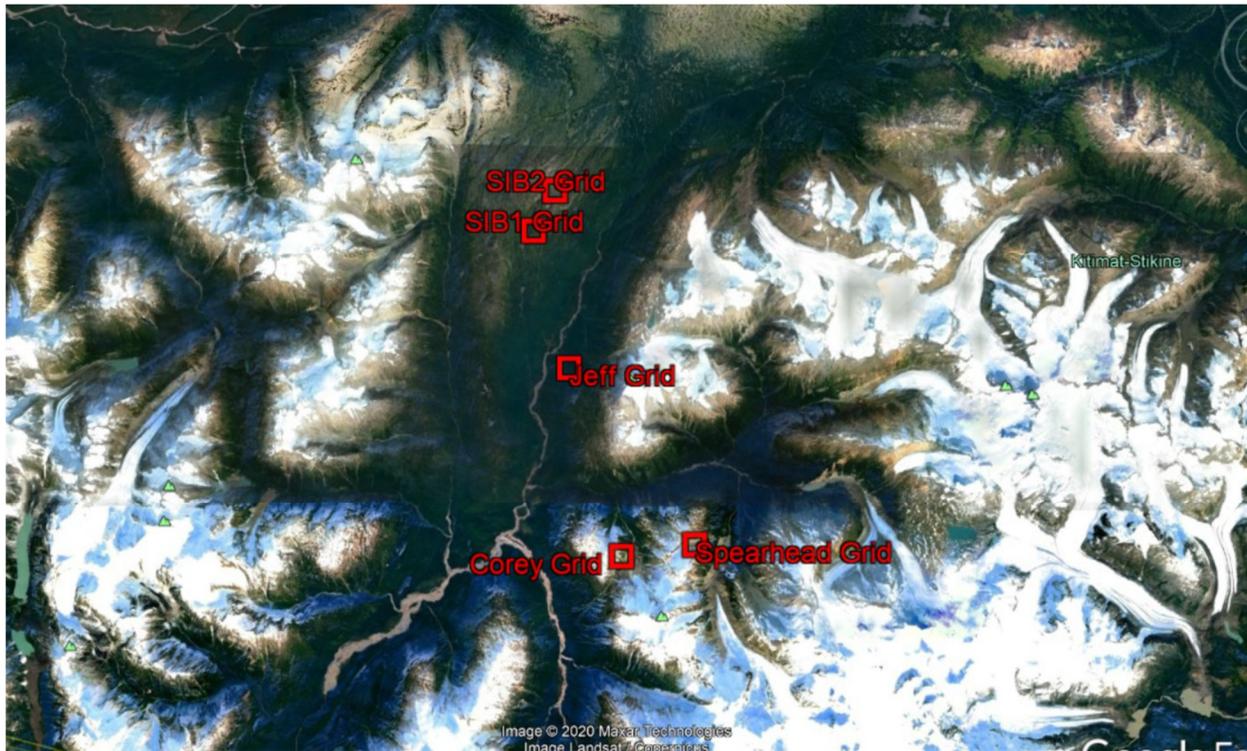


Figure 9.2.1: Location map of survey grid areas. From Quantec Geoscience Inc., 2020.

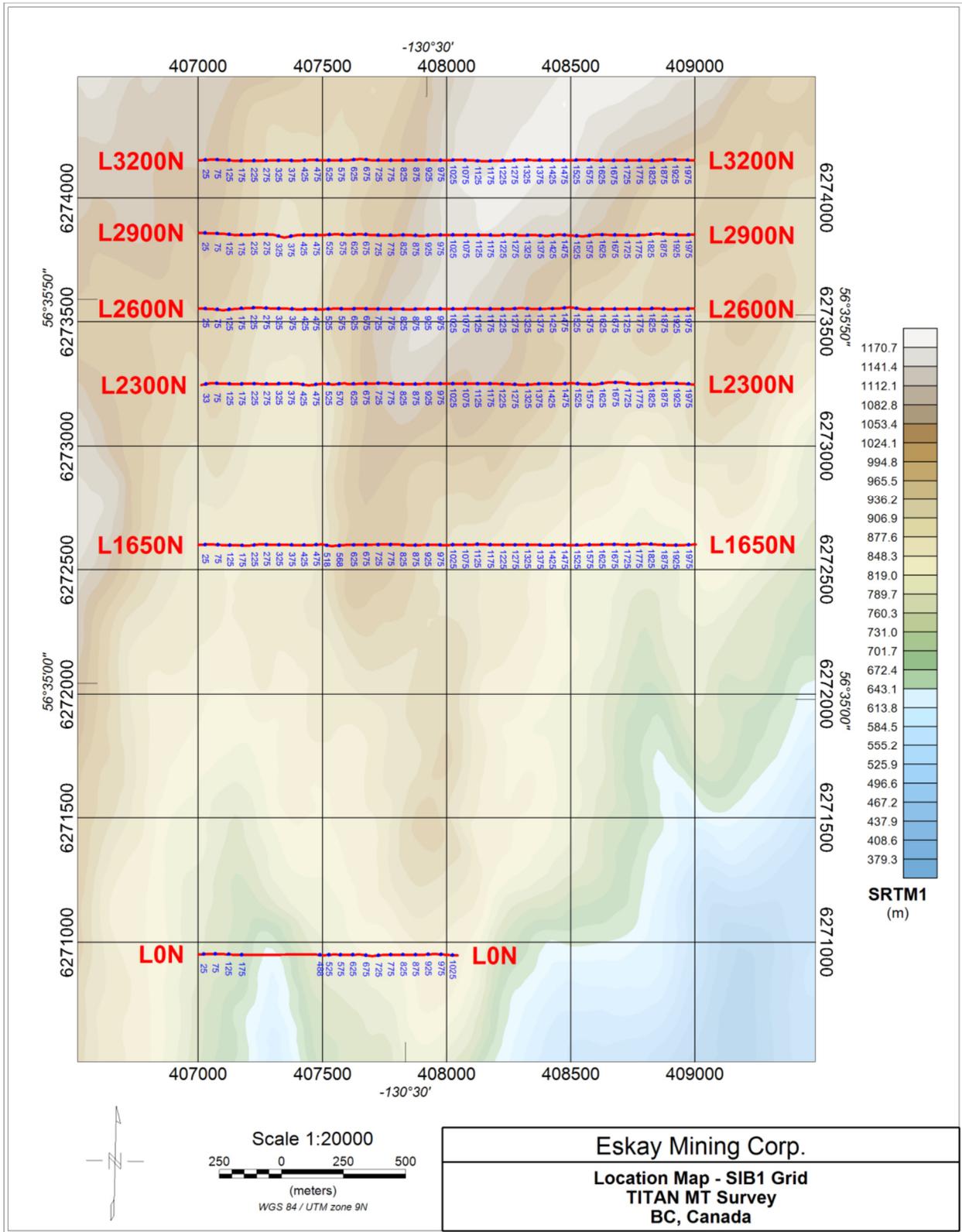


Figure 9.2.2: MT Survey coverage for SIB1 grid.

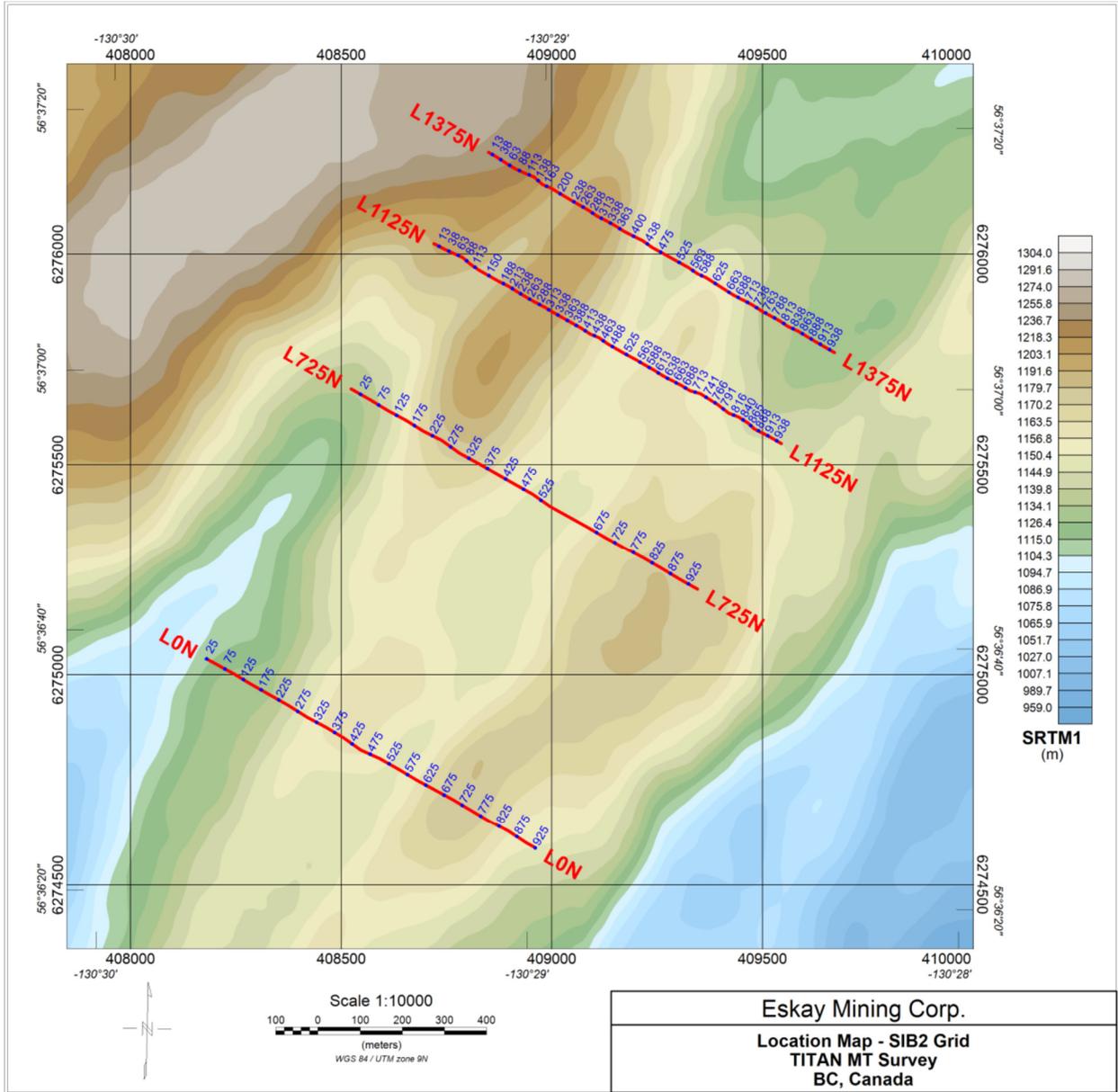


Figure 9.2.3: MT survey grid for SIB2.

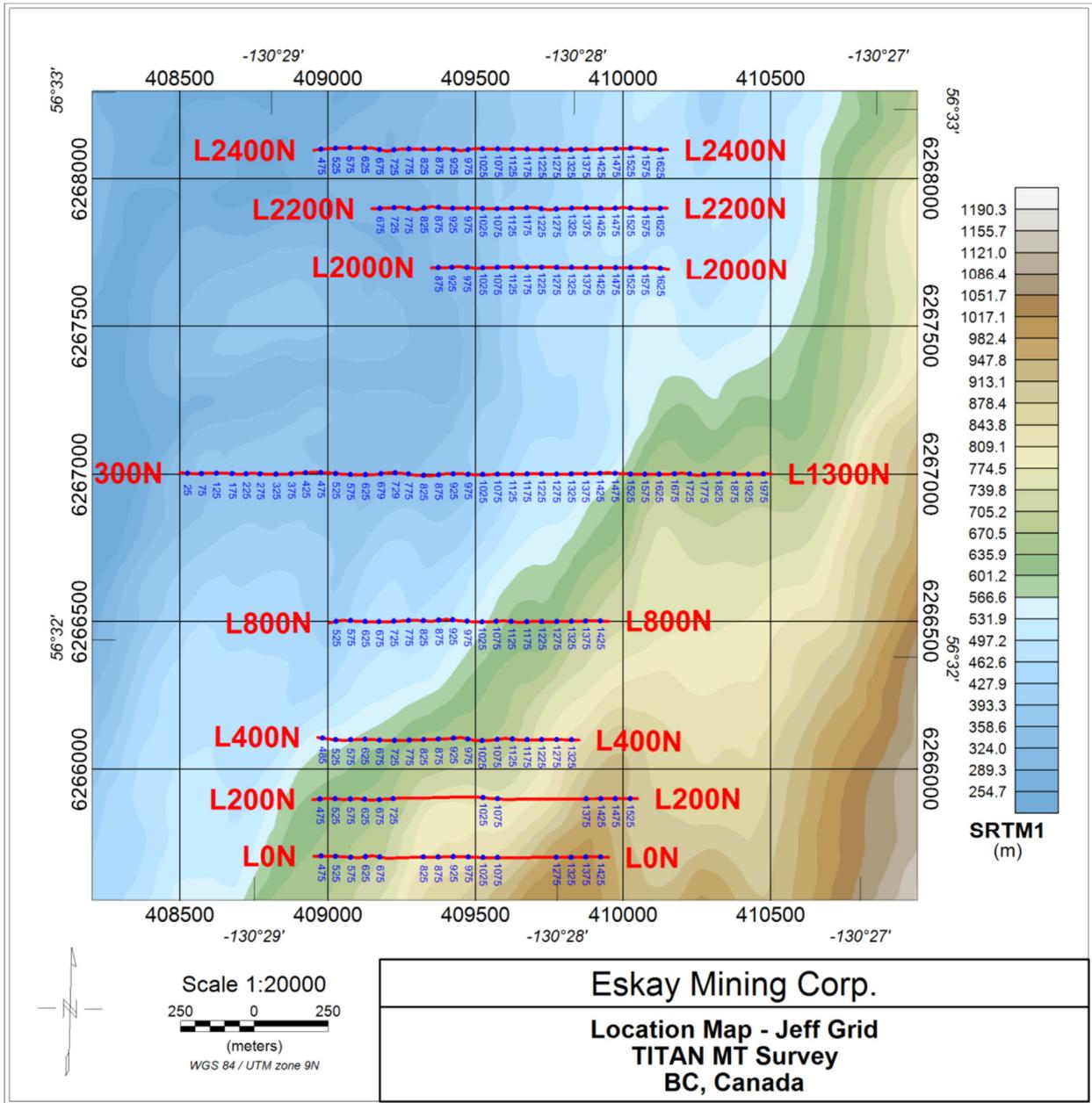


Figure 9.2.4: MT survey grid map at Jeff.

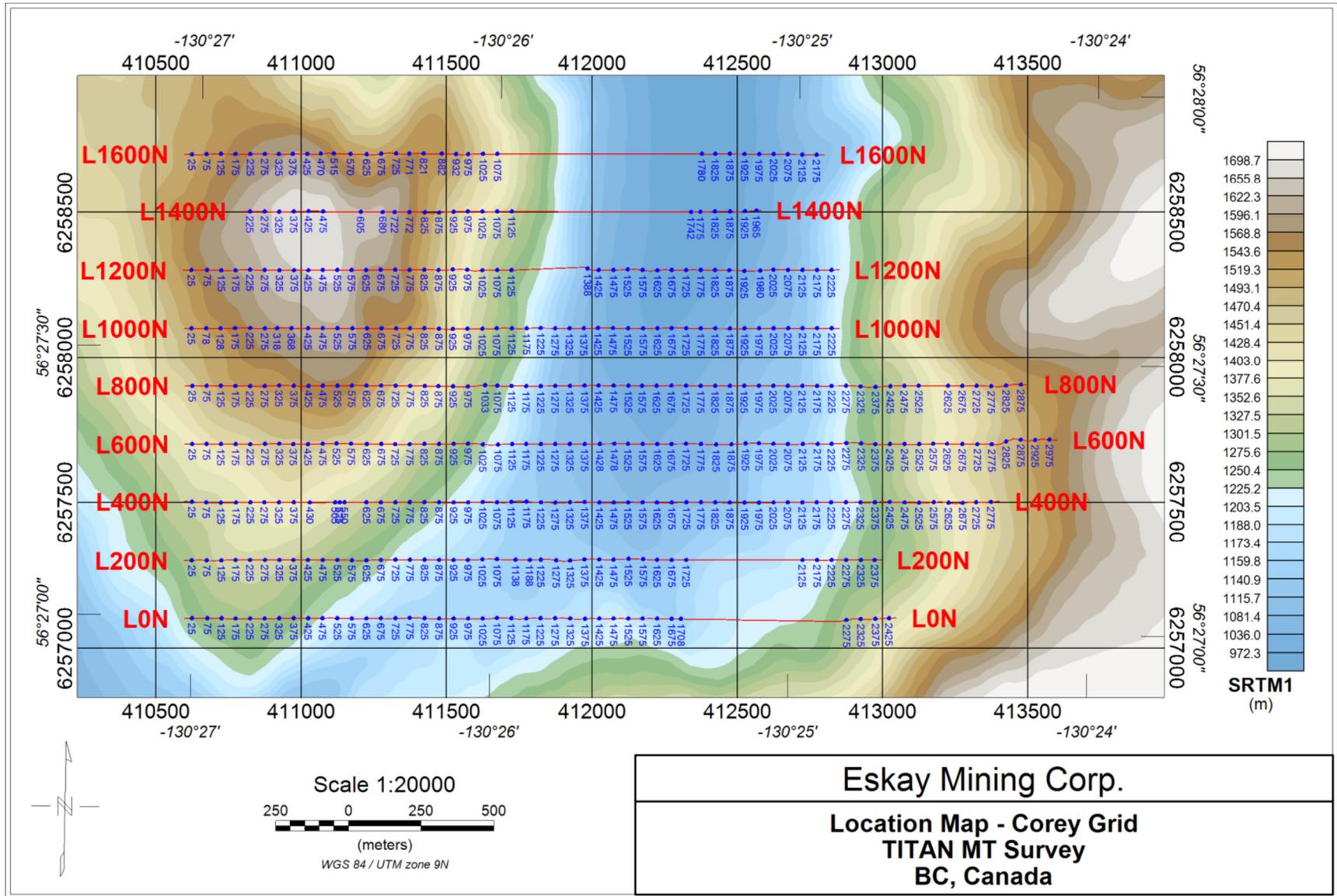


Figure 9.2.5: MT survey grid for Corey.

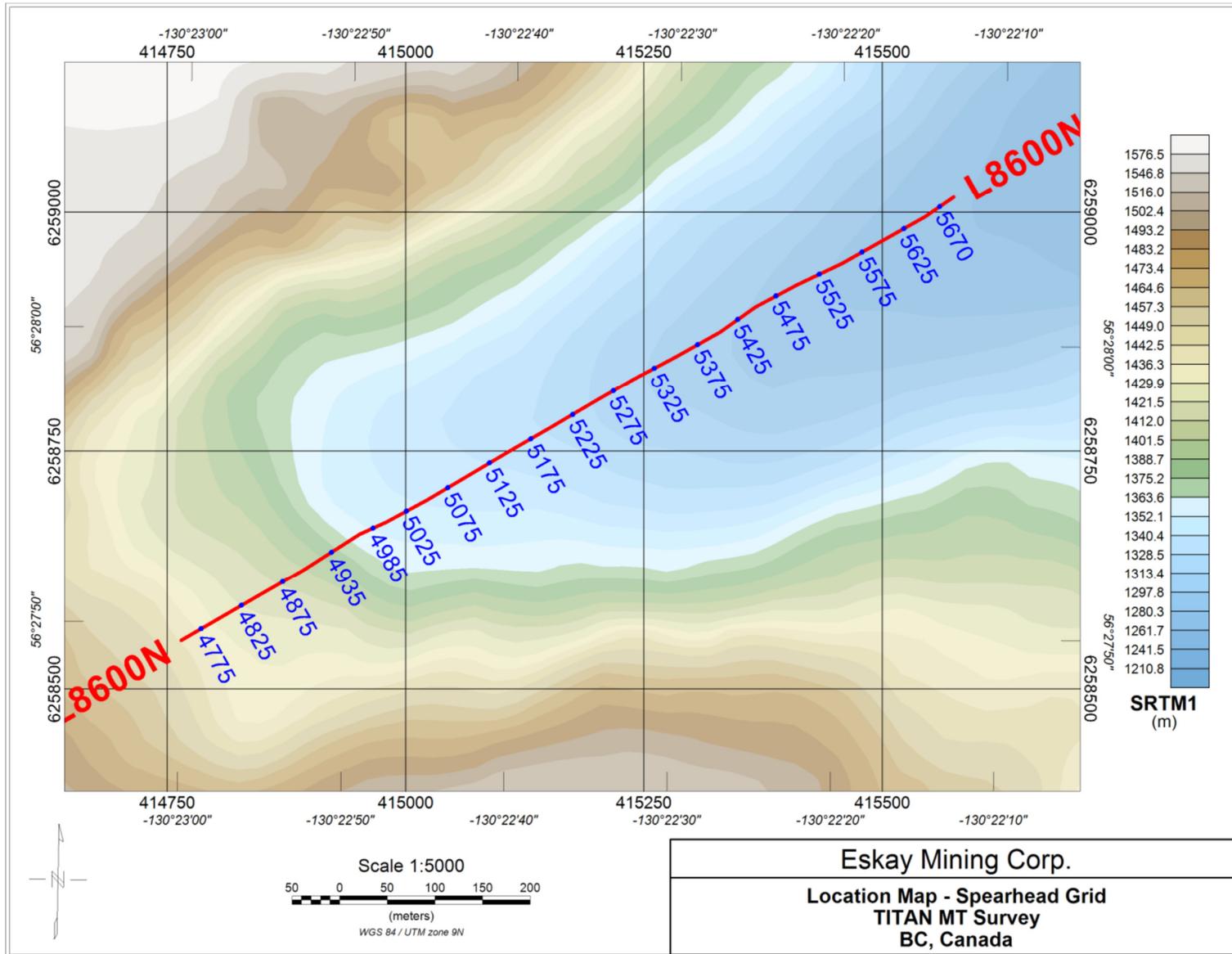


Figure 9.2.6: MT survey grid map for Spearhead.

NI 43-101 Report on the SIB-Corey-North Mitchell Property, by Lindsay et al. 2021

## Ground-Based Induced Polarization (IP)

From July 15<sup>th</sup> to August 29<sup>th</sup> 2020, SJ Geophysics Ltd. undertook a ground-based, Volterra-3DIP survey across the property. A field crew completed a total of 55.85km. Data was acquired from four survey grids on the property: Jeff, TV, Spearhead, and Tet-C10-GFJ (Figure 9.2.7).

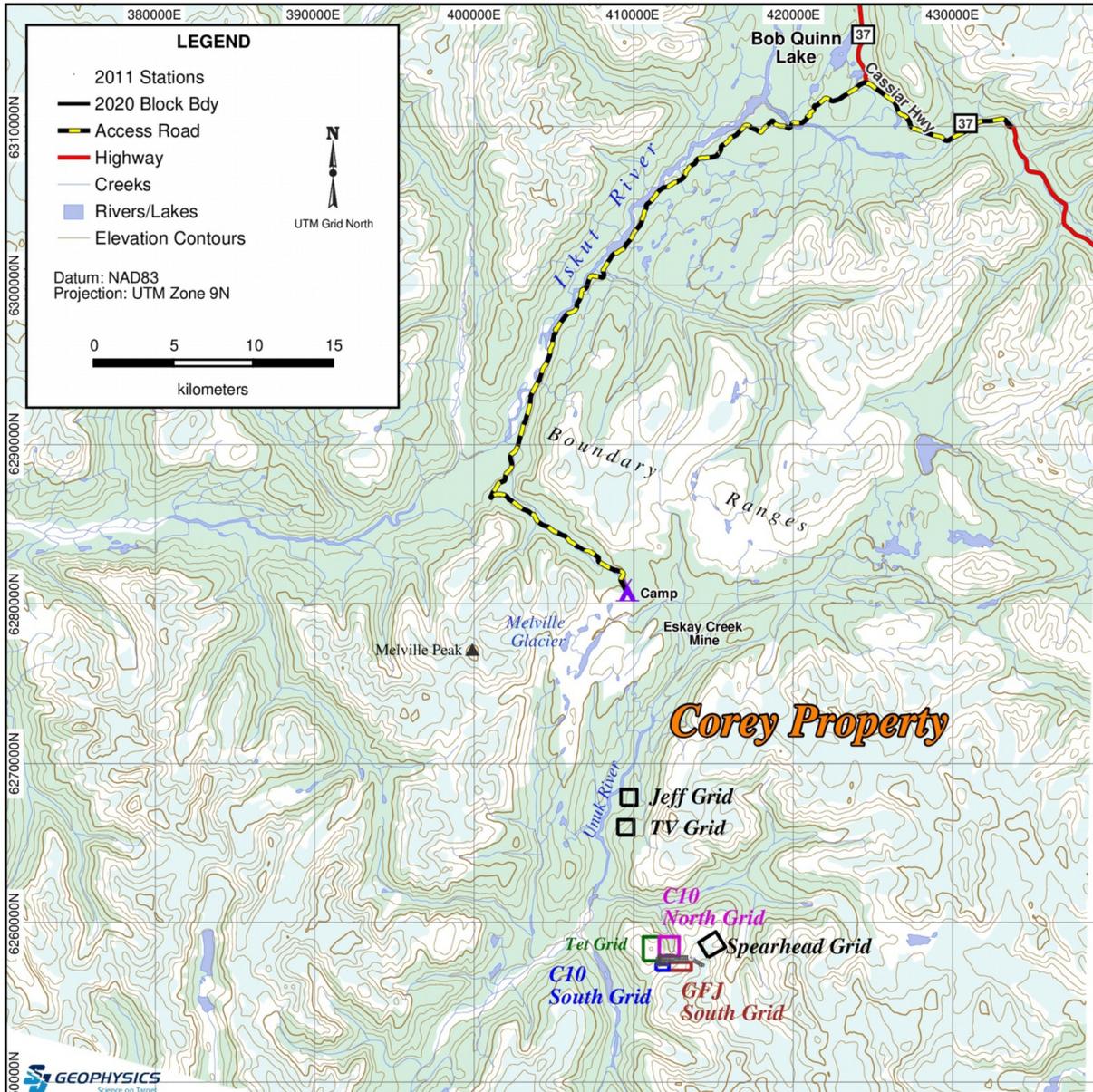


Figure 9.2.7: Location map of IP survey grids.

### TV and Jeff

Induced Polarization (IP) surveys were performed and support our model of stacked stratiform mineralized zones (Figure 9.2.8). A total of 22 survey lines were completed at Jeff and TV. The

IP surveys have chargeability and resistivity anomalies that correlate well with SkyTEM data, the attitude of stratigraphy, and distribution of known mineralized zones (Figure 9.2.9).

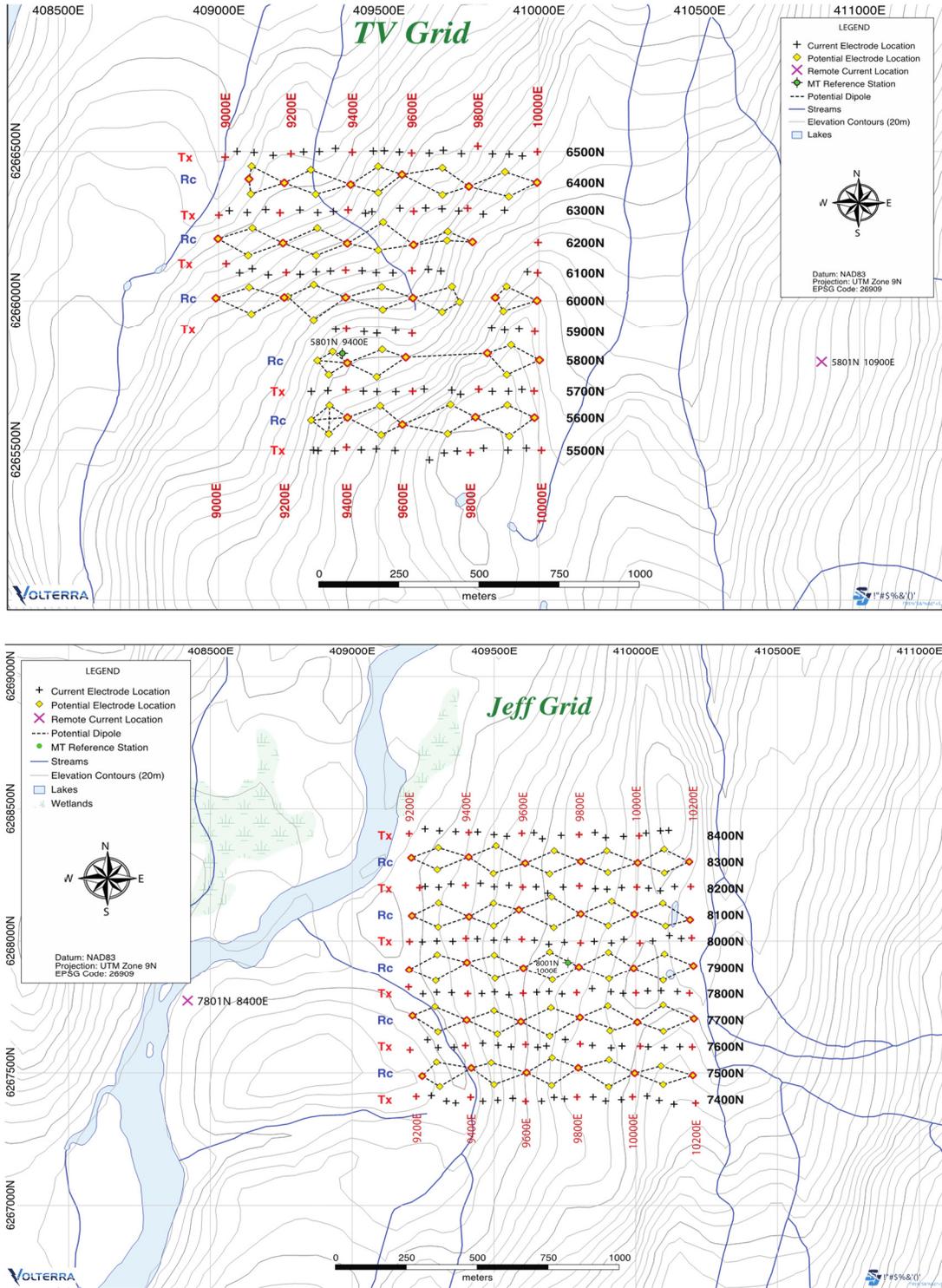
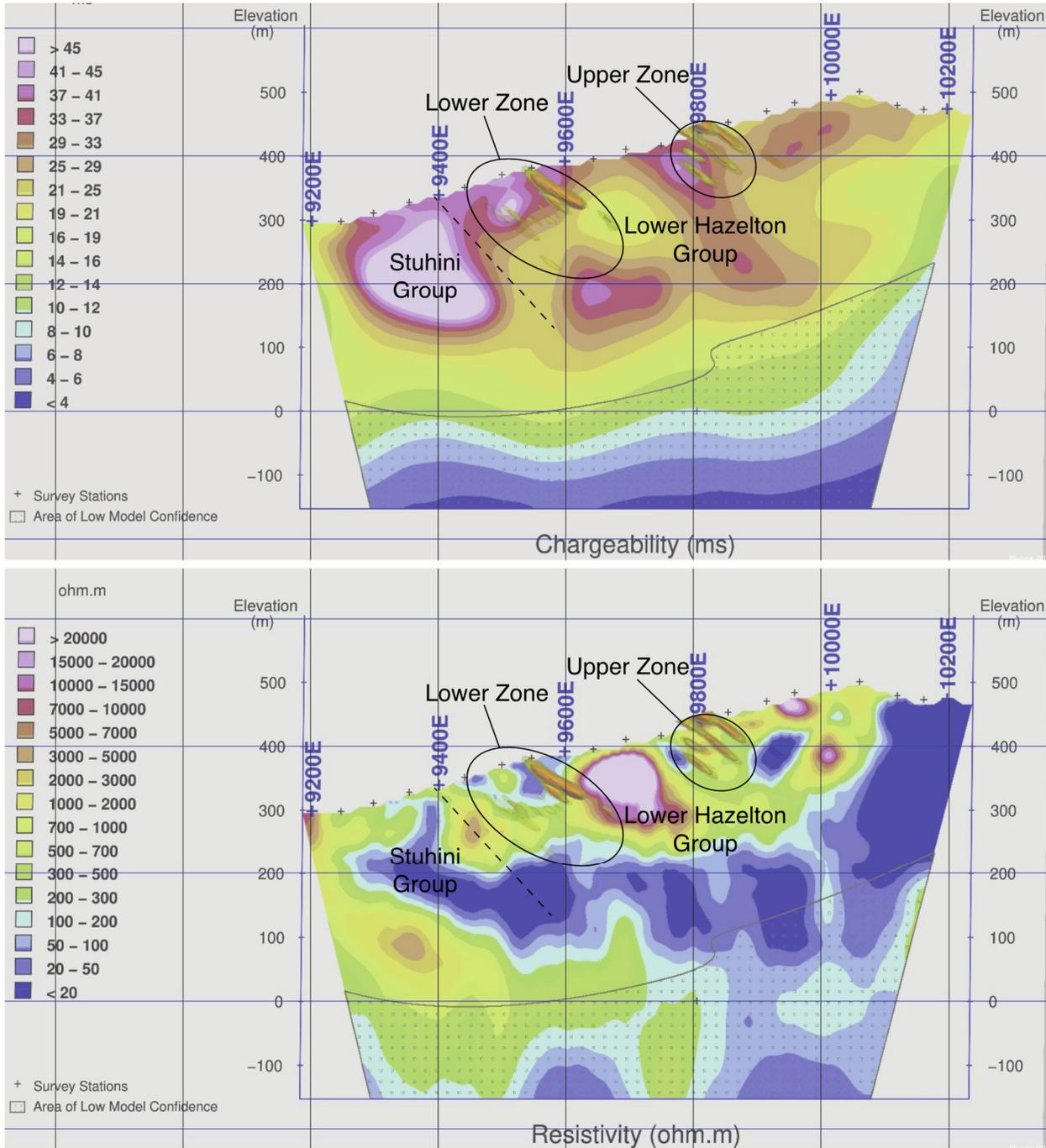


Figure 9.2.8: Survey grid for IP investigations at TV (top) and Jeff (bottom).

---

The IP survey delineated moderate to high-chargeability anomalies that generally correlate with stratiform mineralized zones (Figure 9.2.9). The extremely high chargeability anomaly down-stratigraphy from the Lower Zone at Jeff corresponds with the unconformity between the Betty Creek Formation and underlying Stuhini Group sedimentary rocks intercepted by drillhole J20-36 (Figure 9.2.9). At TV, a similar extremely high chargeability anomaly also corresponds with Stuhini Group rocks intercepted at the same stratigraphic level by historic drill holes TV95-08 and TV95-10. Drillhole J20-36 from the 2020 drilling program tested the large high-chargeability anomaly shown in Figure 9.2.9 intercepting Stuhini Group mudstone where the anomaly occurs. Conversely, mineralized zones generally correspond to moderate- to low-resistivity anomalies identified by IP, and the unconformity with the Stuhini Group indicated by very-low resistivity anomalies. There are cases where mineralized zones correlate with high-resistivity anomalies. In these cases, examination of drill core suggests resistivity correspond with hydrothermal silicification associated with the VMS system.



**Figure 9.2.9: Line 8000N IP chargeability and resistivity cross-sections showing the correlation between mineralized zones and Stuhini Group rocks with IP response at Jeff. Similar IP correlations with mineralized zones occur at TV, C10, and Spearhead.**

### ***Tet and C10***

Induced polarization surveys (Figure 9.2.10) show chargeability and resistivity anomalies similar in shape, size, and magnitude to those at TV and Jeff; suggesting the presence of several stratiform

mineralized horizons (Figure 9.2.11). Mineralization intercepted by historic drilling correlates with chargeability anomalies, just as at Jeff and TV. Several chargeability anomalies extend to the south and east beyond historic drilling in areas where past surface sampling has encountered Au and Ag mineralization.

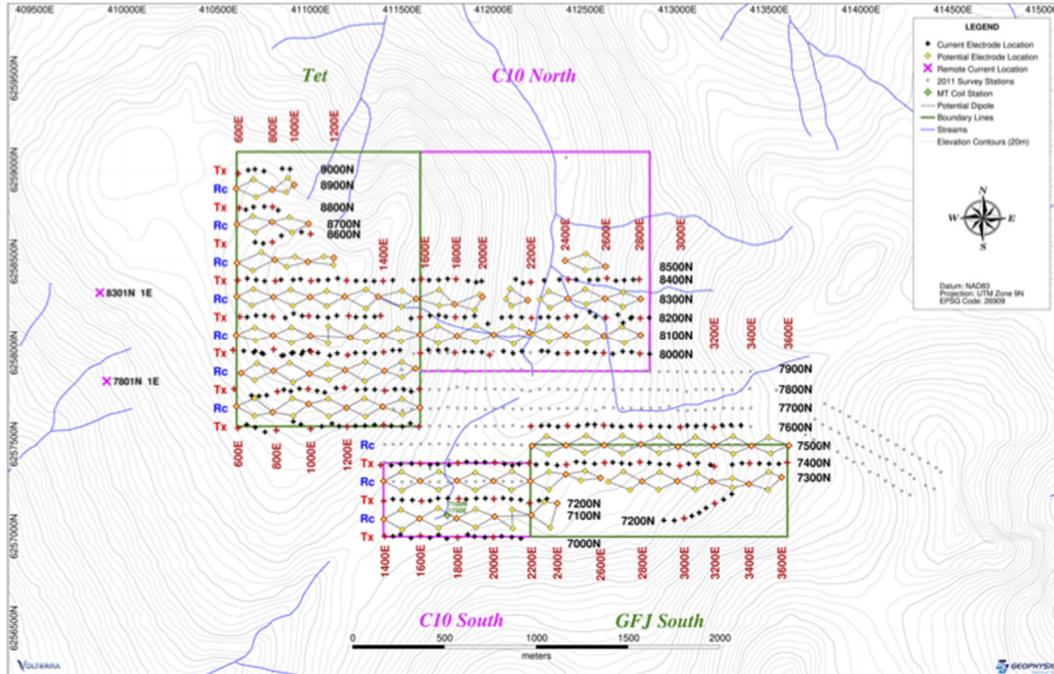
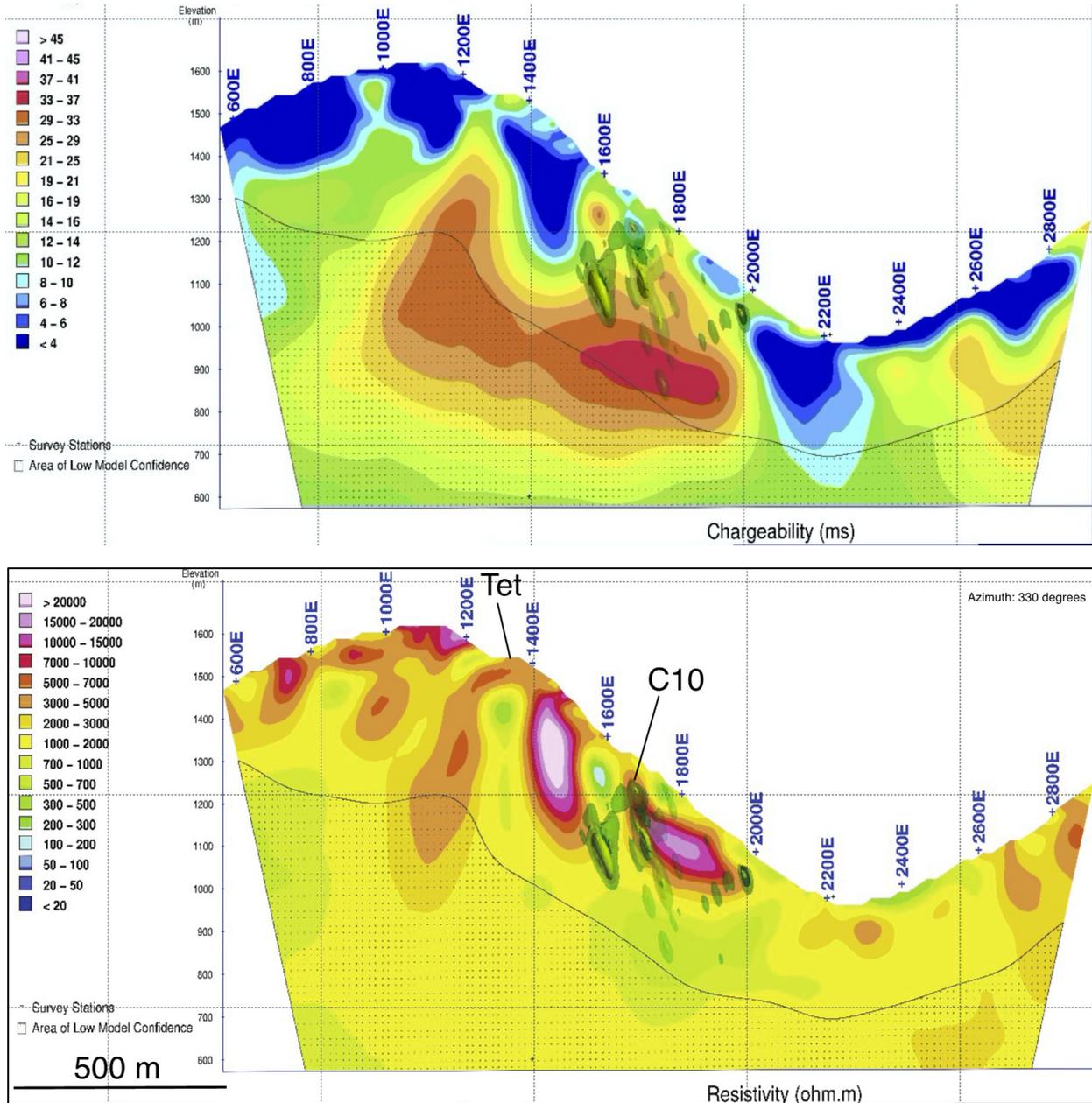


Figure 9.2.10: Survey grid for IP investigations at Tet, C10, and GFJ.



**Figure 9.2.11: Line 8100 N chargeability and resistivity cross-sections showing the correlation between mineralized zones and IP response.**

***Spearhead***

Induced polarization investigations show a correlation between outcropping mineralization and chargeability (Figure 9.2.12). Chargeability anomalies extend to the SE along the strike of the mineralized trend, and extend down-dip along stratigraphy (Figure 9.2.13).

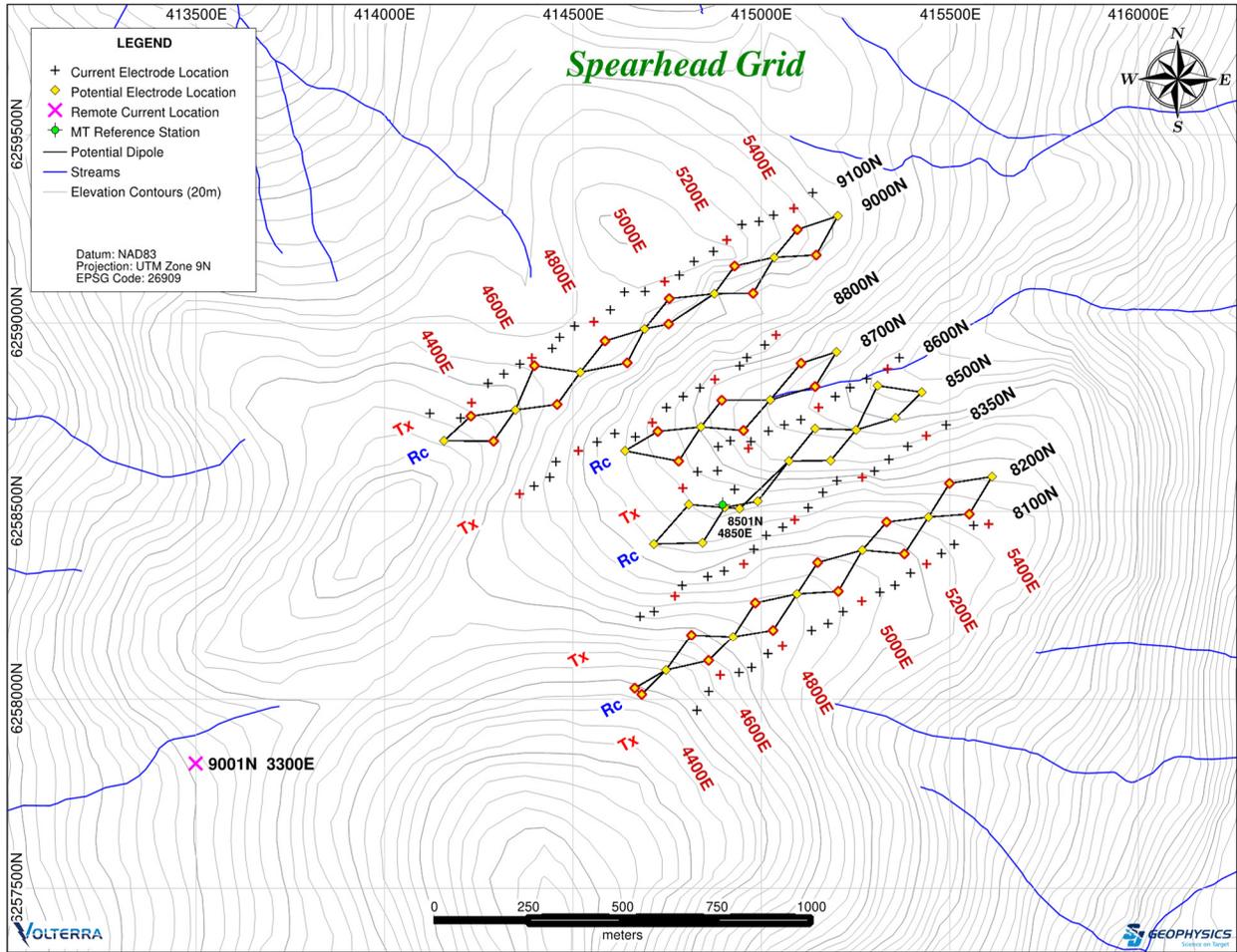


Figure 9.2.12: Survey grid for IP investigations at Spearhead.

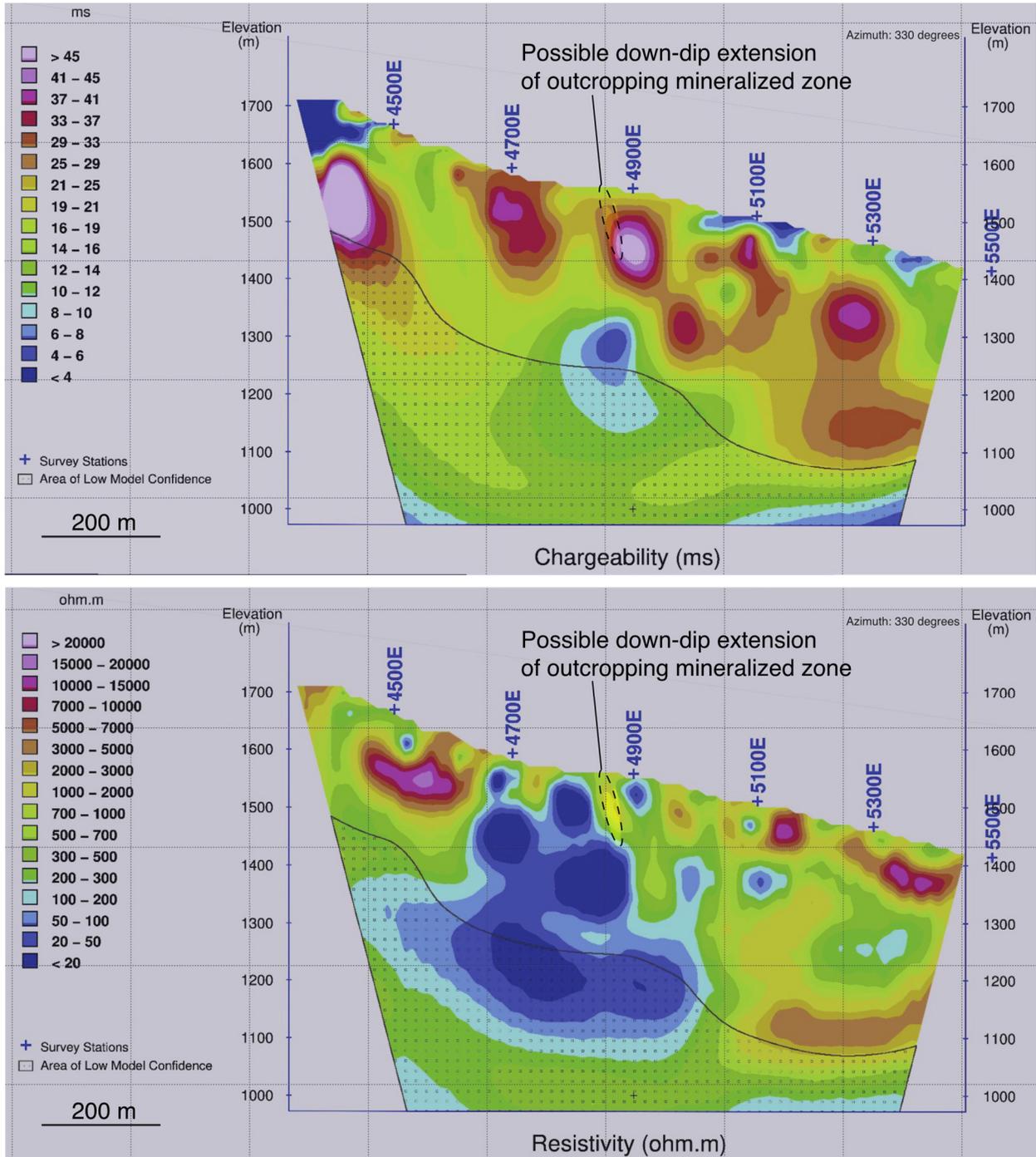


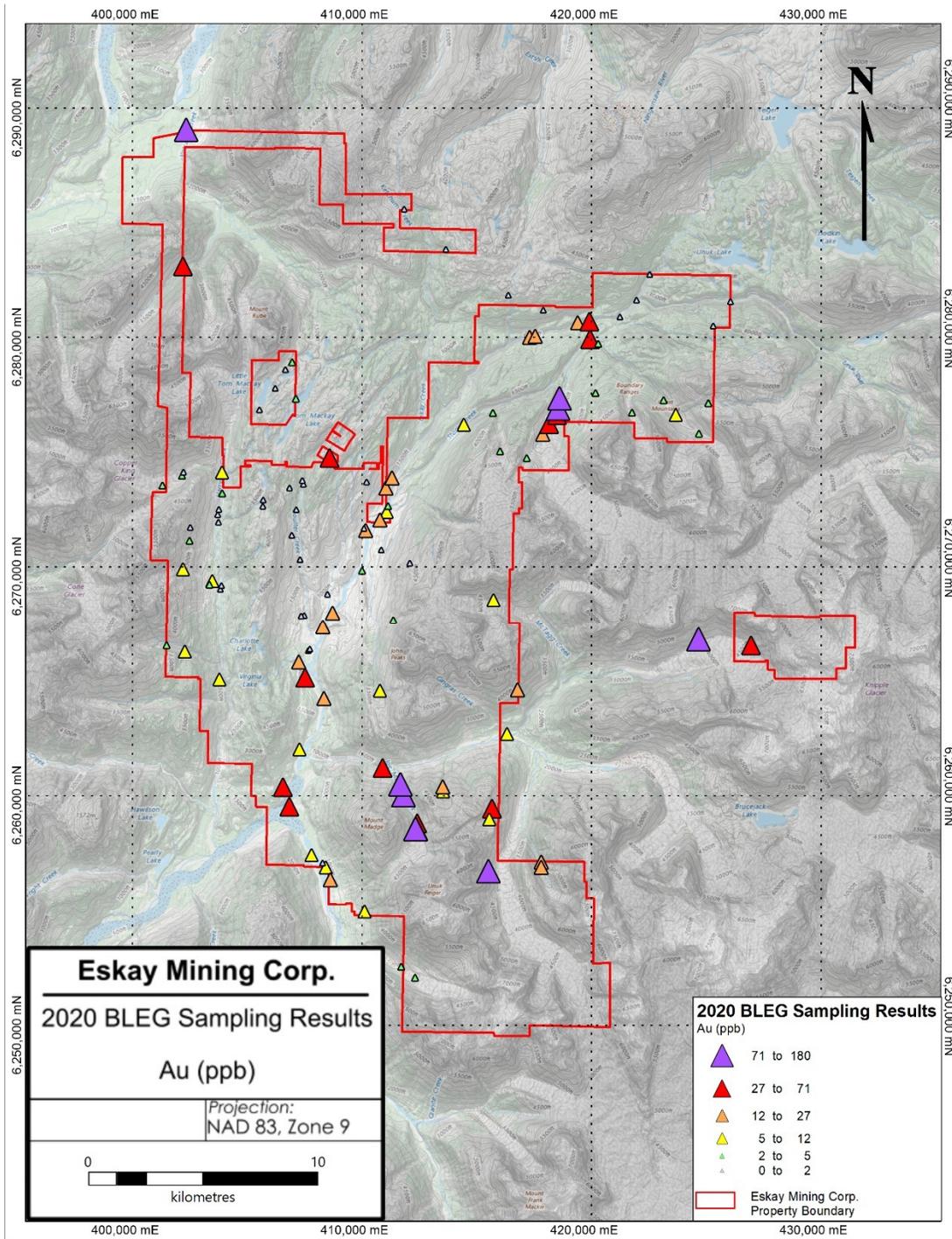
Figure 9.2.13: Line 8200 N at Spearhead.

### 9.3 2020 BLEG Survey

From July 28<sup>th</sup> to August 13<sup>th</sup> 2020, Company field crews completed a preliminary Bulk Leach Extractable Gold (BLEG) survey on the property. Preliminary analysis subdivided the property into first-order drainages, with sampling points designated at the down-stream end of these

tributaries. A total of 131 sample locations were able to be accessed by field crews, and samples were gathered from these sites (Figure 9.3.1).

See Section 11.1.1 for a detailed description of sampling protocol.



**Figure 9.3.1: 2020 BLEG Sampling with thematic Au (ppb) results.**

---

In general, BLEG sampling indicated strong Au anomalism over known prospect areas, with the most consistently high Au values coming out of the catchment area immediately to the north, and downslope from the C10-GFJ-Red Lightning area. Significantly anomalous Au values were also obtained from several drainages in the underexplored northeast of the property, near the historical Tarn and AP showings. Also of note, is the single highly anomalous Au result taken from within the Mitchell Block area. High BLEG Au results from the extreme northwestern claims should also be followed up by prospecting, as little recorded work exists in this area.

#### **9.4 2020 Prospecting**

In 2020, field crews spent several days following up historical high-grade silver samples at the Tet showing (Figure 9.4.1), and following up conspicuous historical gold results at the Spearhead massive sulphide showing (Figure 9.4.2). Interpretations of these results, and further details of the exploration are presented in Sections 17.4 and 17.5.

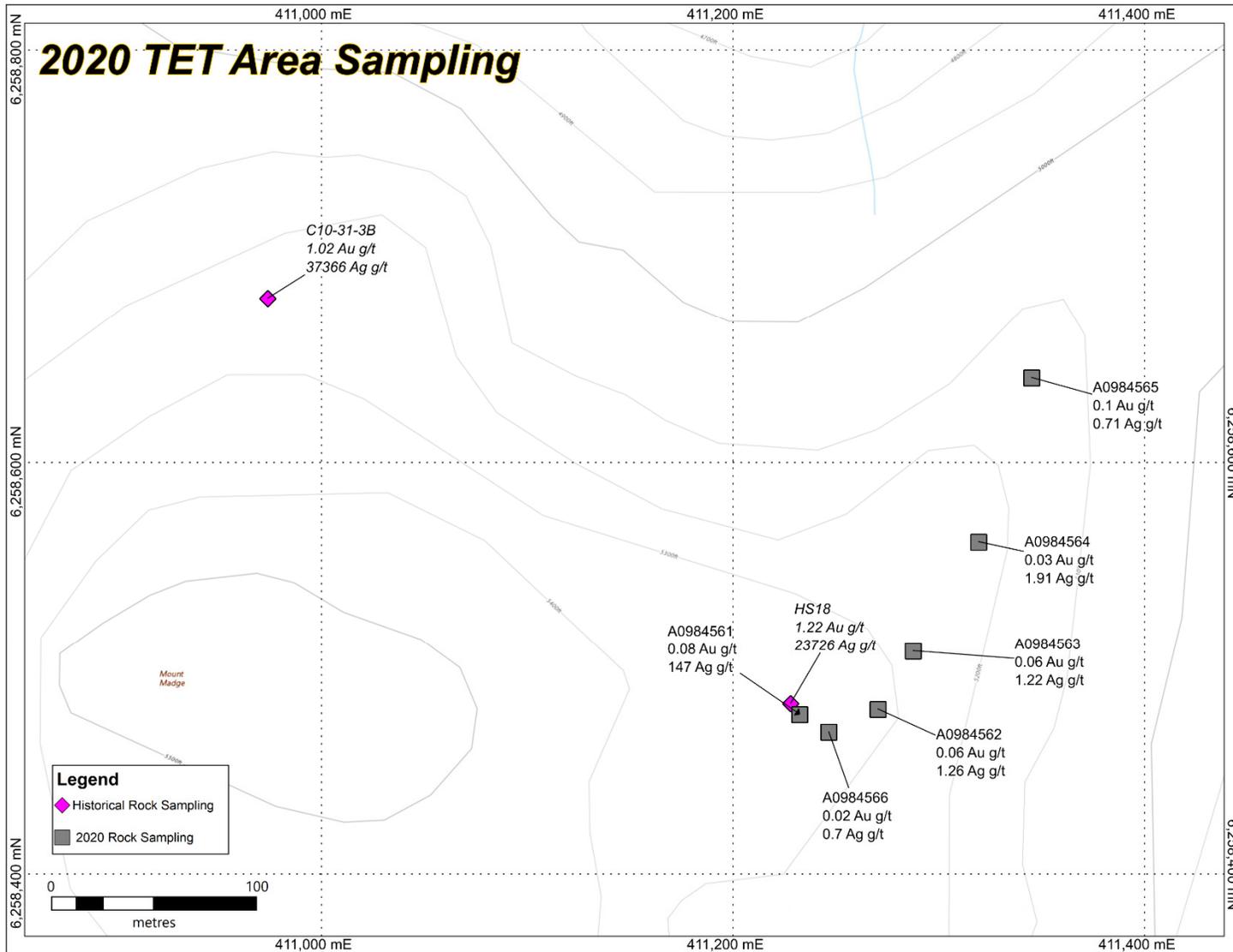


Figure 9.4.1: Historical and recent rock sampling at the Tet area.

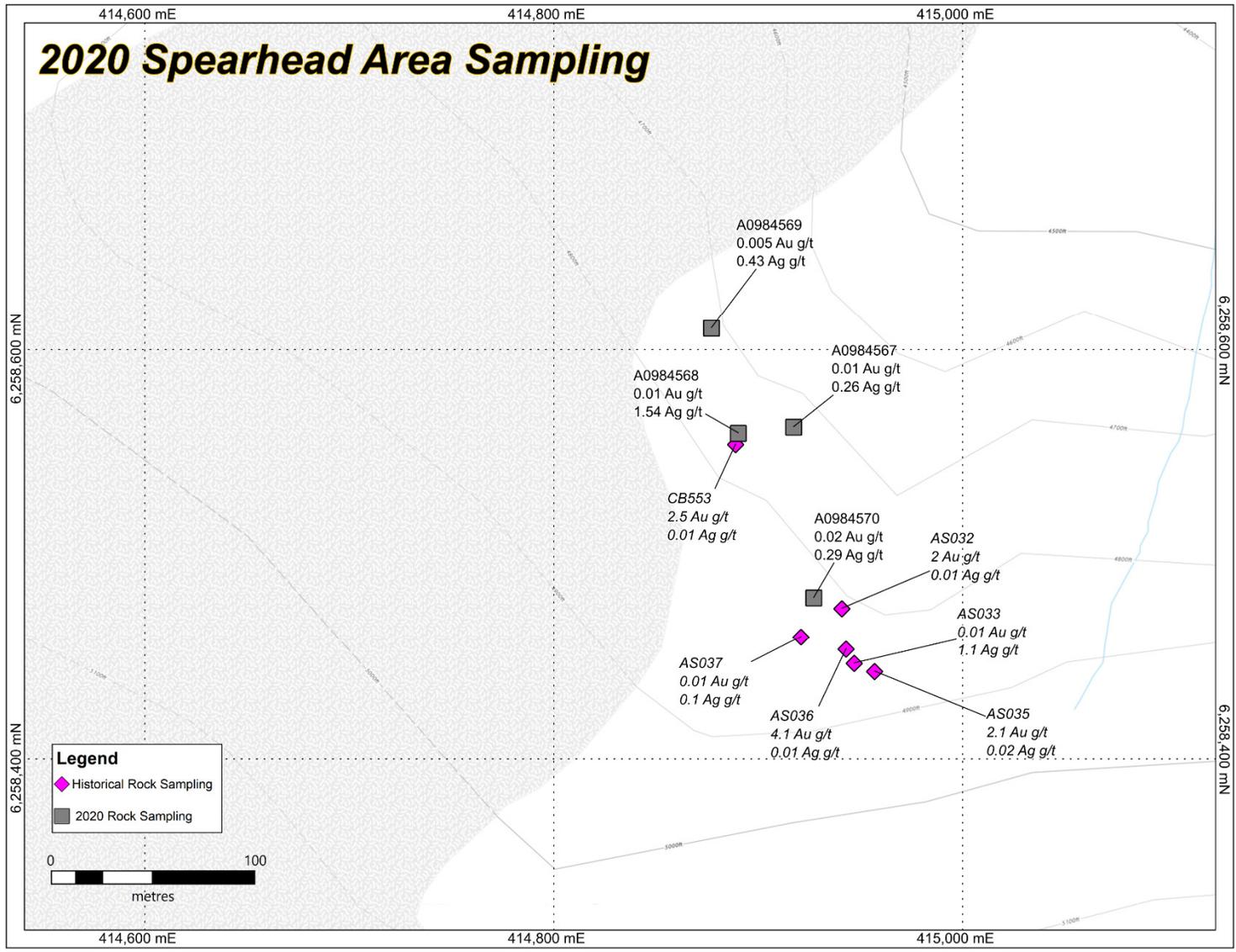


Figure 9.4.2: Historical and recent sampling at the Spearhead showing.

---

## 10.0 DRILLING

The first recorded historical drilling on the property took place in 1988, at the C10 and Cumberland areas, and numerous drill programs by various operators have taken place subsequently. Prior to the 2020 season, 93,929.19 m had been drilled on the property, in 415 separate drill holes (Figure 10.0.1). Details of historical exploration, including drill program highlights are presented in Section 6.1. The following section details the most recent 2020 drill campaign by the Company.

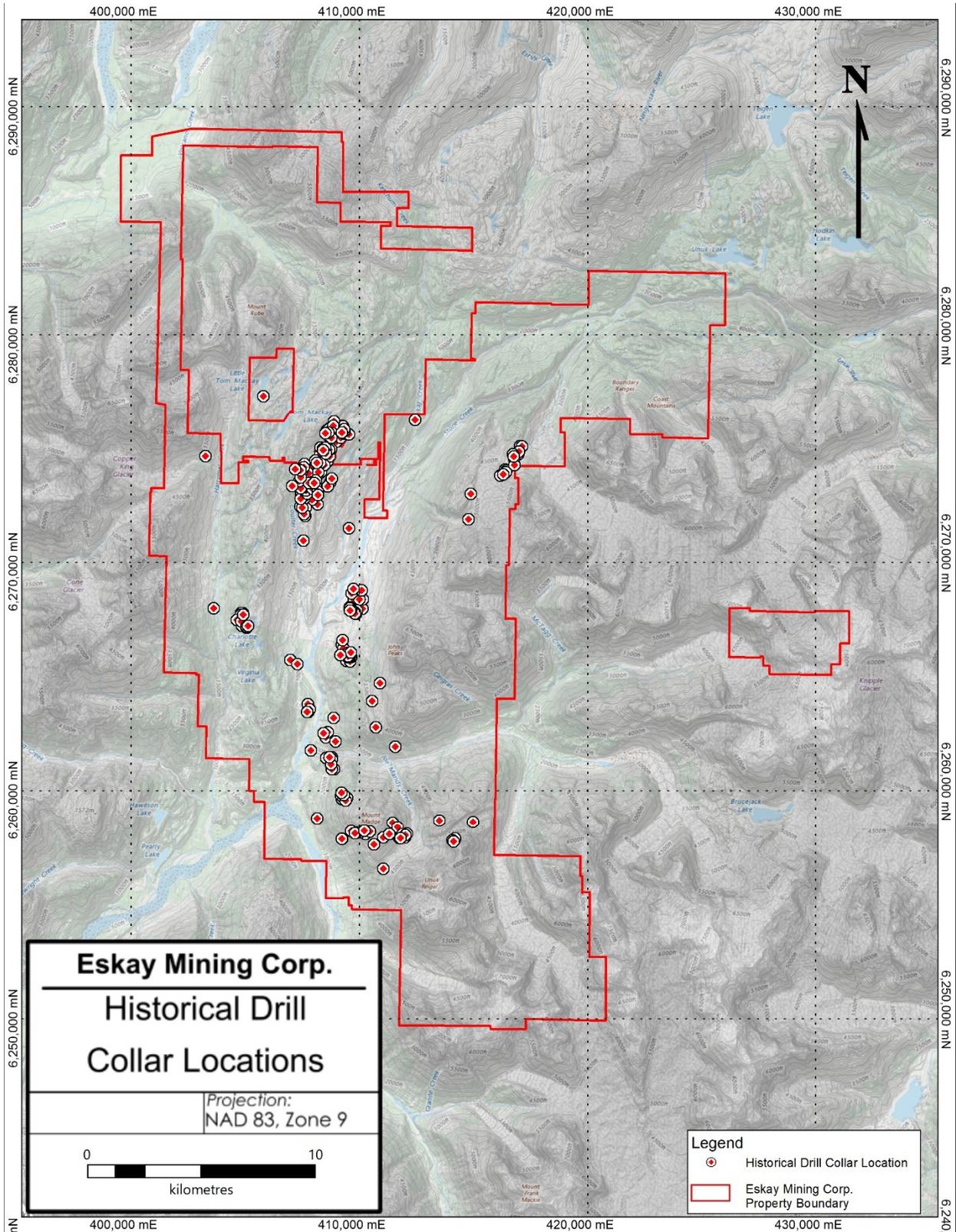


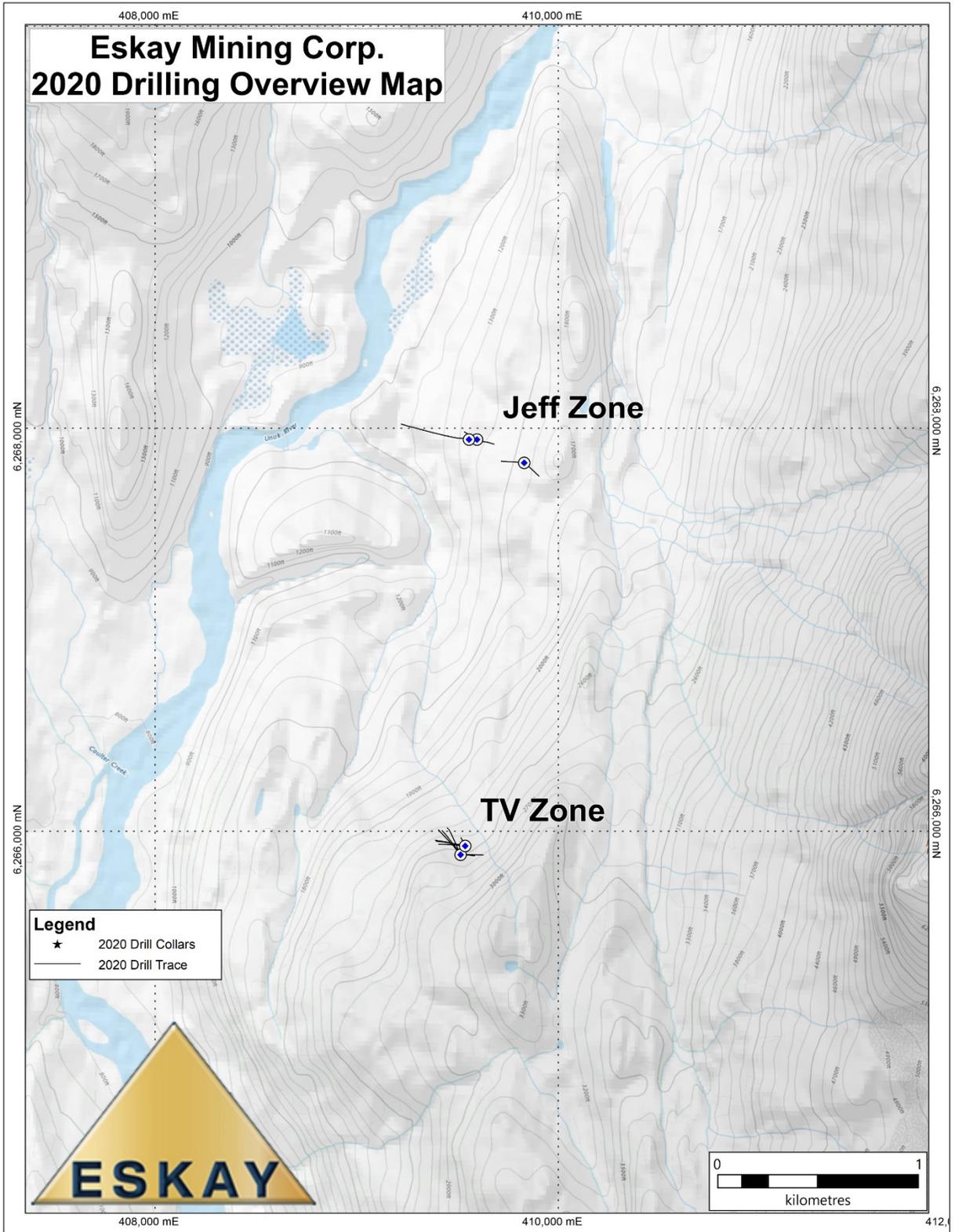
Figure 10.0.1: Historical (1988-2018) drill collars on the Property.

---

Drilling in 2020 was focused on the TV and Jeff prospects, located in the central portion of the Company's land holdings. The preliminary objective of drilling at TV and Jeff was to confirm historic drilling results. Systematic, reconnaissance historic drilling at both TV and Jeff reportedly intercepted a number of auriferous zones, however mineralization constraints were not well defined. Limited historical core from the 1995 drilling campaign at TV was available for reference and re-assay. The entirety of historical Jeff core (30 holes drilled by Granges Inc. in 1991) was unable to be located as it was stored at an old camp site near the Unuk River and is presumed washed away and lost.

Between August 23<sup>rd</sup> and October 14<sup>th</sup> 2020, a total of 4389.1 m was drilled from 20 HQ drill holes, from 5 separate pad locations. Driftwood Drilling from Smithers, BC was contracted as the drilling operator for the 2020 exploration program, and helicopter portable, SRS3000 hydraulic drills were used to produce HQ (63.5mm) diameter core. Drills, personnel, and supporting materials were transported by an AS350B2 helicopter provided by Custom Helicopters of St. Andrews, Manitoba. Locations of 2020 drilling collars are shown in Figure 10.0.2.

Drill pad locations were surveyed using a combination of handheld GPS and Trimble DGPS. Historical drill hole collar locations were surveyed in 2020 using a Trimble DGPS to aid in drill planning. During drilling, downhole orientation tests were taken using a Reflex EZ-Shot tool to track hole azimuth and dip at 30m intervals.



**Figure 10.0.2: Location map of 2020 drill collar locations and drill traces.**

## 10.1 TV Zone Drilling

Drilling at the TV prospect was completed off of 2 drill pads located approximately 50 m apart, with a 30 m difference elevation (Figure 10.1.1). A total of 11 holes were drilled at TV, with 5 holes (TV20-35 to TV20-40) drilled from the upper TV pad and 6 holes (TV20-41 to TV20-45) from the lower TV pad (Table 10.1). The objective of drilling was two-fold: 1) to intercept historic reported mineralized intercepts, and 2) to test the extent of mineralization from those targets.

**Table 10.1: Location coordinates (NAD83 UTM Zone 9), orientations, and total depths of TV20 drill holes.**

Hole ID	UTM E	UTM N	Elevation (m)	Length (m)	Azimuth	Dip
TV20-35	409515	6265883	775.0	273	327	56.4
TV20-36	409515	6265883	775.0	150	261.3	89.3
TV20-37	409515	6265883	775.0	300	322.2	56.8
TV20-38	409515	6265883	775.0	285	336.4	57.9
TV20-39	409515	6265883	775.0	148	90.6	62.1
TV20-40	409515	6265883	775.0	193	87.2	54.0
TV20-41	409538	6265927	743.95	235	281.8	50.3
TV20-42	409538	6265927	743.95	220	279.4	49
TV20-43	409538	6265927	743.95	196	275.6	48
TV20-44	409538	6265927	743.95	205	250.6	89
TV20-45	409538	6265927	743.95	195	346.4	74.9

Holes from the first, upper TV pad, were generally oriented northwest, with two holes (TV20-39, 40) drilled to the east, and one hole (TV20-36) drilled vertically. All holes from the upper pad intercepted one of two mineralized horizons: an upper zone characterized by a strongly altered, sulphide-rich volcanic package; and the lower, massive to semi-massive sulphide horizon. In the lower zone, mineralization generally occurs at the interface between strongly altered volcanics and underlying graphitic mudstones, with mineralization dominantly hosted in the sedimentary lithologies. Diffuse sulphide mineralization was also documented in strongly silica  $\pm$  sericite altered volcanic breccias and flows.

Holes from the second, lower TV pad, TV20-41 to TV20-45, were drilled to the west and northwest, and were designed to target what is the lower TV mineralized zone described above. Semi-massive to massive pyrite ( $\pm$  pyrrhotite) horizons were intercepted in several holes. One hole (TV20-42) deviated from collar to unintentionally twin hole TV20-41 until approximately 100m depth, but it intercepted approximately double the width of the lower massive sulphide horizon than hole TV20-41. Holes TV20-41 to TV20-43 all intercept a massive, dark green mafic intrusive

---

body at their respective bottom-of-holes that truncates prospective volcanic and sedimentary lithologies.

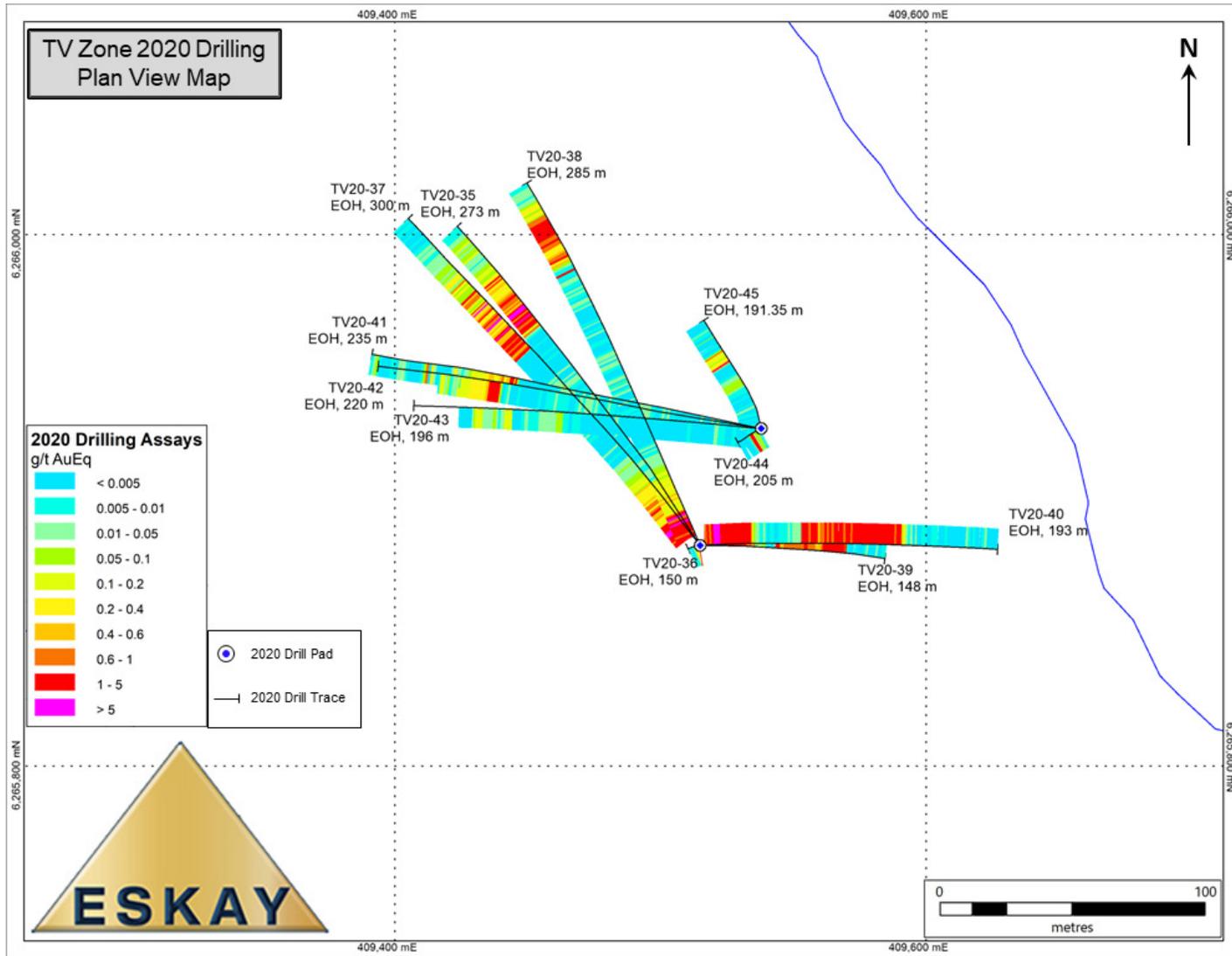


Figure 10.1.1: Plan view of 2020 TV zone Drilling with Au equivalent Assay results.

Table 10.2: Assay results from TV 2020 holes. Significant intercepts are in bold text.

Hole	From (m)	To (m)	Length (m)	Gold (gpt)	Silver (gpt)	Gold eq* (gpt)	Silver eq (gpt)
<b>TV20-35</b>	9.00	24.00	15.00	1.80	30.7	2.3	147.7
includes	9.00	18.00	9.00	2.33	33.9	2.9	185.4
	<b>188.85</b>	<b>205.18</b>	<b>16.33</b>	<b>1.12</b>	<b>149.8</b>	<b>3.4</b>	<b>222.6</b>
<b>includes</b>	<b>193.94</b>	<b>205.18</b>	<b>11.24</b>	<b>1.23</b>	<b>210.0</b>	<b>4.5</b>	<b>290.0</b>
	<b>199.70</b>	<b>205.18</b>	<b>5.48</b>	<b>0.70</b>	<b>324.5</b>	<b>5.7</b>	<b>370.0</b>
<b>TV20-36</b>	7.67	40.50	32.83	1.92	27.2	2.3	152.0
<b>includes</b>	<b>20.90</b>	<b>31.00</b>	<b>10.10</b>	<b>4.17</b>	<b>40.2</b>	<b>4.8</b>	<b>311.3</b>
<b>includes</b>	<b>29.50</b>	<b>31.00</b>	<b>1.50</b>	<b>16.83</b>	<b>35.1</b>	<b>17.4</b>	<b>1129.1</b>
<b>TV20-37</b>	<b>8.59</b>	<b>26.05</b>	<b>17.46</b>	<b>2.58</b>	<b>48.7</b>	<b>3.3</b>	<b>216.4</b>
<b>includes</b>	<b>14.48</b>	<b>24.00</b>	<b>9.52</b>	<b>3.86</b>	<b>63.4</b>	<b>4.8</b>	<b>314.3</b>
<b>includes</b>	<b>16.80</b>	<b>21.00</b>	<b>4.20</b>	<b>6.91</b>	<b>70.3</b>	<b>8.0</b>	<b>519.5</b>
	179.05	234.00	54.95	0.60	28.6	1.0	67.6
includes	198.82	201.00	2.18	0.62	193.1	3.6	233.4
<b>TV20-38</b>	7.51	28.04	20.53	2.01	30.5	2.5	161.2
<b>includes</b>	<b>15.00</b>	<b>25.50</b>	<b>10.50</b>	<b>2.99</b>	<b>34.9</b>	<b>3.5</b>	<b>229.3</b>
	237.00	260.19	23.19	1.03	12.3	1.2	79.3
includes	244.50	255.00	10.50	1.39	15.3	1.6	105.7
<b>TV20-39</b>	3.00	43.74	40.74	1.39	28.4	1.8	118.8
<b>includes</b>	<b>22.00</b>	<b>32.50</b>	<b>10.50</b>	<b>2.32</b>	<b>40.8</b>	<b>2.9</b>	<b>191.6</b>
	60.17	118.16	57.99	0.74	16.4	1.0	64.5
includes	98.50	117.72	19.22	1.22	8.9	1.4	88.2
<b>TV20-40</b>	<b>3.08</b>	<b>33.00</b>	<b>29.92</b>	<b>3.18</b>	<b>25.7</b>	<b>3.6</b>	<b>232.4</b>
<b>includes</b>	<b>8.90</b>	<b>13.00</b>	<b>4.10</b>	<b>11.09</b>	<b>44.2</b>	<b>11.8</b>	<b>765.1</b>

	65.43	130.70	65.27	1.28	25.6	1.7	108.8
includes	101.53	128.50	26.97	1.82	28.7	2.3	147.0
<b>TV20-41</b>	147.70	156.93	9.23	0.41	49.2	1.2	75.8
includes	149.50	152.00	2.50	0.93	111.0	2.6	171.5
<b>TV20-42</b>	151.00	159.00	8.00	1.01	79.8	2.2	145.8
<b>TV20-43</b>	<i>Anomalous Au (up to 0.08 gpt) and Ag (up to 9.21 gpt)</i>						
<b>TV20-44</b>	95.46	120.00	24.54	1.12	25.4	1.5	98.5
includes	116.50	118.90	2.40	1.79	79.8	3.0	196.0
<b>TV20-45</b>	112.34	116.00	3.66	0.86	102.6	2.4	158.6

\* *Au eq calculation used is: Au eq (gpt) = Au (gpt) + Ag (gpt)/65*

### 10.1.1 TV Drill Hole Summaries

#### TV20-35

TV20-35 was the first drillhole of the 2020 program. It was drilled at an azimuth of 320 and a dip of -56 degrees. The hole was designed to target and confirm historical drilling and assay results at the TV prospect. Two mineralized zones are intersected, one at the top of hole and the second at approximately 190m depth.

The hole is collared in mineralized, intermediate breccia/cataclasite zone extending from 9 to 18m. Mineralization in this upper zone consists of very fine grained, sooty and locally sub-stringer pyrite (up to 15% pyrite) around polymict, angular clasts. Mineralization continues to approximately 50m hole depth in tuffaceous to sparsely fragmental or pseudobrecciated basaltic andesite unit, but as very fine-grained sooty disseminations of up to 5-7% abundance. The extent of this zone is distinguished by pervasive, grey, quartz-sericite-pyrite alteration.

Below an 80cm gouge-filled fault zone from 50-50.8m, the hole transitions into fine grained, green to grey basaltic andesite flows. A mixed sedimentary package including dark grey to light grey, laminated siltstones and mudstones and fine grained, grey to green intermediate volcanic-sedimentary “melange” unit extends from 66.89-185.94m. Highlights of this extensive section of sedimentary-volcanic melange includes a pebble to cobble, polymict conglomerate from 109.75-111.33m and a dark green, pillowed basalt is encountered at 144.13-145.7m.

The second mineralized zone is marked by a 30cm fault at 185.94m, and transitions into dark grey-black siltstones with bedded pyrite. Several zones are discernable in this lower mineralized horizon. A massive pyrite zone extends from 193.94-194.31m, with trace (possibly up to 5% interstitial barite). From 194.31-195.78m is a dark grey-black, silicified bedded siltstones with stratiform pyrite. A second massive pyrite zone extends from 195.78-196.94m. From 196.94-

201.2m, the hole returns to silicified siltstones with stratiform pyrite, with trace disseminated sphalerite. From 201.2-203.1m, the hole intercepts a massive pyrite-pyrrhotite zone intercalated with bedded siltstone-mudstones. Silicified, bedded siltstone-mudstones with stratiform pyrite and locally splashy disseminated pyrrhotite from 203.1-215.48m marks the end of the lower mineralized horizon.

Below the zone, the hole is dominated by light grey, highly silicified intermediate to mafic breccias with minor tuffaceous horizons and trace sulphides. Mafic flows and breccias extend from 244.93-273m, and EOH is at 273m.

Due to drilling issues, recovery and core quality throughout the length of the hole, particularly the lower mineralized zone is moderate to poor, and necessitated the design of a second hole step-out (refer to hole TV20-37).

### **TV20-36**

TV20-36 was the second drill hole drilled in the 2020 program. It was drilled at a vertical (-90 degree) dip off the upper TV pad and was designed to test the extent of Au enrichment in the upper (southern) at TV. Mineralization occurs as disseminated and stringer-style pyrite and is best exhibited in the uppermost ~35m, coinciding with alteration intensity.

The hole is collared in a fine-grained, black to dark grey laminated sedimentary package from 7.67-10.69m, and transitions into light grey, silicified, dacitic tuffs and breccias with weak (up to 5% disseminated pyrite) mineralization that extends to 20.9m. Pervasive silica alteration continues to 30.36m in an intermediate/intermediate-mafic breccias with amygdaloidal clasts. Mineralization in the intermediate/mafic breccias is dominated by fine to very fine-grained disseminated pyrite through clast and matrix groundmass, with occasional pyrite stringers and veining. While diffuse, mineralization may be up to 10% total sulphides.

From 30.36-32.25m, the hole intercepts a pale grey, sericite-altered, poorly sorted intermediate fragmental package with ash tuffs and lapilli-sized fragments. Below the intermediate lithic fragments, quartz-sericite-pyrite altered basaltic andesitic pillow breccias are encountered from 32.25-97.42m. This unit varies from beige/tan to grey-green (weak chlorite alteration) and alternates between subangular clasts to pseudo-brecciated pillowed sections. Sulphide (exclusively pyrite) mineralization in this interval is diffuse and up to 3% abundance. From 97.42 to 103.16m, a very fine grained/aphanitic, pale grey-green undifferentiated intermediate unit (possibly ash tuff) is encountered and transitions into a similarly altered, dark green mafic undifferentiated unit that extends to 114m. From 114-118.57m, a dark green, medium-grained mafic intrusive (likely a sill), is distinguished by chlorite and carbonate-altered phenocrysts. The lower contact of this intrusive is marked by a fault zone from 118.57-120.05m. This interval is considerably rubbly and graphitic, likely faulted graphitic mudstone/siltstones. Below the fault zone, an interval of undifferentiated intermediate tuffs (similar to the unit described up-hole at 97.42-103.16m) extends from 120.05-121.8m.

The lowest ~30m of the hole transitions into a sedimentary package. From 121.8-140.67m, a mixed sedimentary-tuffaceous package. This mixed package is separated by a rubbly, faulted zone from 140.56-144.3m. A 0.55m interval from 144.3-144.85m below the fault zone of black, fine grained

siltstone/mudstones are intercepted, before transitioning into a polymict, gravel to pebble conglomerate between 144.85-145.09m. The hole is terminated at 150m, in black to dark grey interbedded siltstone-mudstones.

### **TV20-37**

TV20-37 was the third hole drilled from the upper TV pad. It was drilled at an azimuth of 317 degrees and dip of -57 degrees. The hole was designed to follow up on TV20-36 due to poor drill recovery; and similar lithologies and mineralization are encountered in this hole.

The hole is collared in a heterogeneous sedimentary and volcanic sequence. Dark grey, weakly bedded, heterogeneous tuffs are intercepted from top-of-hole from 8.5-11.61m, and from 11.161-26.05m the hole quickly transitions into silicified mafic to intermediate breccias with amygdaloidal basalt/basaltic andesite clasts. Sulphides are finely disseminated through the groundmass and in breccia matrix. At 26.05-32.13m, the hole intercepts light grey-green, foliated (likely intermediate) tuffs. The tuffs are weakly chlorite altered; small (0.5-1mm) clasts are slightly deformed along foliation in an ash-rich matrix.

Light grey, pseudobrecciated pillow basalts underlie the tuffs from 32.13-55.27m. The pillow basalts (possibly intermediate) clasts are closely spaced and exhibit concentric alteration along clast margins/pillow selvages, and the unit is pervasively sericite-silica altered, with strong silica. Similar to the breccias up-hole, the pseudobreccia is diffusely mineralized, with very fine-grained pyrite disseminated through clast groundmass and matrix. Below the pseudobreccias, an interval of green to grey intermediate tuffs and lithic fragments are documented between 55.27-74.1m.

From 74.1-137.83m, the hole encounters an interval of alternating sections of aphanitic to weakly bedded/foliated ash tuffs and deformed sediments. The tuffs are sericite-silica altered, often with weak patchy chlorite. Textures are weakly flow-banded to massive/aphanitic, and fragmental sections are rare. The sedimentary sections vary from coherent, bedded/foliated mudstone-siltstones to turbidite sequences, and rare peperitic/slump horizons. Sulphide mineralization through the sediments and tuffs are sparse, with trace to sparse (up to 3%) pyrite and pyrrhotite disseminations. A clast-supported, cobble-pebble conglomerate from 110.46-113.86m is a distinct marker horizon and is intercepted in several of the TV holes. A fault from 124.15-128m marks the boundary between the sediments and continued intermediate, light grey-green lithic fragments and tuffs from 128-137.83m. Broken core throughout the interval obscures primary textures.

The base of the intermediate package is obscured by the broken core as well, and the hole transitions to light grey, silicified mafic (intermediate?) breccias at 137.83m. The breccias are similar to the units described at top-of-hole, and are strongly silicified. Trace sphalerite and pyrrhotite disseminated with the dusty pyrite. The breccias extend to 147.27, and are intruded by fine grained, green mafic dykes from 144.87-146.37m, and 147.27-150.27m. Between 150.27-174.25m, the hole is in dark green, massive to pillowed, to brecciated, variably amygdaloidal basalts. The base of the basalt section is distinctively hyaloclastic, and overlies a small interval of intermediate to mafic tuff from 174.25-178.74m. Faulting and cataclastic sediments are intercepted from 178.74-179.48m, and mark the interface between the intermediate package and massive sulphide.

Semi-massive to massive sulphide mineralization is encountered between 179.48 to 194m, and is characterized by fine grained, banded/bedded pyrite disseminated in graphitic, calcareous, bedded siltstones-mudstones. Foliation/bedding is convolute to brecciated in sections, and sulphide textures are reminiscent of exhalative to matrix-replacement feeder zone styles. Massive to semi-massive sulphides are dominated by fine grained pyrite. Minor intervals of sulphide-poor siltstone-mudstones truncate the massive sulphide zone from 184.76-190.09m. The base of the massive sulphide zone is broken, and transitions into bedded, graphitic mudstone-siltstones at 194m.

Below the massive sulphide zone, the hole is dominated by black to grey, silicified siltstone-mudstones from 194.00-215.03m. Occasional bedded/banded pyrite disseminations are found along foliation/bedding. Bedding/foliation is generally planar, to rarely convolute and consistently varying from 30-50 degrees to core axis. Veining is common and often bedding/foliation parallel, with rare coarse bull quartz veins, and rare gypsum. The base of the sedimentary package is marked by a matrix-supported conglomerate or debris flow from 215.03-218.06m and marks a transition back into igneous rocks. From 218.06-223.09m the hole encounters mottled a light grey, hyaloclastic to peperitic intermediate interval (possibly altered mafic rocks), with pyrite and pyrrhotite aggregates. Mafic to intermediate, dark grey flow to pillow breccias continue from 223.09m, and are weak to moderately sericite-silica altered, with decreasing alteration intensity moving downhole. Chlorite gradually increases in intensity from 260m to end of hole, and the package may be an extensive intercept in a footwall assemblage. The hole is terminated at 300m in dark grey-green, aphanitic basalt flows.

### **TV20-38**

TV20-38 was the fourth hole drilled off the upper TV zone pad. It was drilled at an azimuth of 340 and dip of 61 degrees; it was designed to target and intercept high grade gold intercepts (>12 g/t) reported in historic drilling. No massive sulphide was intercepted in the hole, and sulphide mineralization is best described as diffuse and sporadic.

The hole is collared at the same location as TV20-35, and begins in a dark grey, fragmental sedimentary sequence from 7.51-9.29m before quickly transitioning into an alternating package of volcanic lithic fragments and breccias. The volcanic package extends from 9.29-72m, and includes volcanoclastics, amygdaloidal monomict breccias, ash-dominated tuffs, pillow breccias and flows. The package is variably altered with pervasive sericite-silica, with weak patchy chlorite. Sulphide mineralization is diffuse, occurring as fine grained, dusty pyrite disseminations and aggregates that are found through the groundmass and matrix, occasionally replacing breccia clasts. Mafic breccias in this hole are similar to other intercepts in other TV holes, with distinctive amygdaloidal monomict clasts from 15-28.04 m. Pseudobrecciated, sericite-silica altered pillow basalt breccias are intercepted from 35.12-50.75 m, and are similar to other pseudobrecciated pillow breccias in other TV holes.

Below the volcanic package, the hole transitions to an interval of sedimentary-dominated units from 72-81.89m, with a mixed mudstone-siltstone (possibly a turbidite/debris flow) interval from 72-74.84m, and a matrix-supported conglomerate from 74.84-81.89m. Mixed sediments and conglomerates continue to 122.72m, and the package is sporadically interrupted with dykes and conglomerate horizons. A quartz-feldspar granodiorite dyke is encountered from 94.2-94.36m, and

is the only dyke of felsic composition encountered in the upper TV holes. A poorly sorted, matrix-supported pebble conglomerate is intercepted from 114.1-116.49m, and may be correlative to other conglomerate horizons at the TV zone. The sedimentary package is notably sulphide/mineralization poor, trace disseminated pyrite and pyrrhotite are the only sulphides documented.

At 122.72m, the hole encounters an extensive structure corridor, with cataclasite, fault zones, and rubbled core. The faulting appears to be constrained to graphitic sediments that are also host to carbonate-quartz veins. A minor interval of intermediate ash-rich tuffs from 129.55-141.54m is weakly chlorite altered with sericite, and may be a faulted-in section. Below the tuffs, a 20cm wide fault zone from 141.54-141.68m marks the beginning of an intermediate (possibly mafic) section of chlorite-sericite altered lithic fragments, tuffs, and undifferentiated flows that extend to 152.53m. Minor fragmental intervals appear to incorporate sedimentary clasts between 141.68-149.29m. The intermediate package as a whole is variably chlorite altered, with pervasive sericite-silica through the groundmass/matrix. From 152.53-177.3m, dark green, chloritic, sparsely amygdaloidal basalt flows are intercepted, with rare flow margin breccias, and a minor fragmental interval from 177.3-183.26m.

From 183.26-183.95m, the hole encounters clastic, volcanic derived sandstones with similar chlorite-sericite-silica alteration as the basalt flows. Moving downhole, intermediate mixed tuffs and sediments from 183.95-190.24m mark the beginning of a sedimentary sequence extending from 190.24-211.68m. The sediments are dominated by dark to light grey, bedded/foliated mixed siltstone-mudstones. A foliated, clast supported pebble-gravel conglomerate from 198.06-201m with downhole fining clasts marks the lower section of the sediments. A light grey, sericite-silica altered tuff (with sparse pyrite) is intercepted from 211.68-226.56m. The altered tuffs are foliated, with crenulation throughout, suggesting polyphase deformation (structure or hydrothermally driven), and transition to matrix-supported, foliated lithic fragments moving downhole. The base of the altered tuffs is transitional into a dark grey, volcanic tuff that extends from 226.56-234.24m. Below the tuffs, silicified, pseudobrecciated amygdaloidal pillow/mafic breccias are encountered from 234.24-246.22m and are similar to near-surface mafic breccias documented in TV holes. The breccias are weak to moderately foliated, and are the most mineralized interval in the hole - with up to 10% disseminated to clotty pyrite. The base of the breccias sharply transition to pyritic mudstone-siltstones from 246.22-260.19m. Sulphide mineralization in the sediments is dominantly found as bedding/foliation parallel aggregates. The sediments sharply transition to pale grey-white foliated lithic fragments. The lithic fragments are distinctively sericite bleached, with weak patchy chlorite in the groundmass increasing in intensity downhole. The lithic fragments are polymict, poorly sorted, and variably abundant through the interval. Quartz veining is sporadic, with minor swarms between 266-270m, and no discernable sulphides appear to be associated with veining. Sulphide mineralization is sparse (2-5% pyrite), and disseminated aggregates decrease in abundance moving downhole. The hole is terminated at 285m in least-altered, chlorite-silica altered lithic fragments.

## TV20-39

TV20-39 was the fourth hole drilled off the upper TV zone pad. It was drilled at an azimuth of 92 degrees, and a dip of 62 degrees. The hole was designed to target a 29.9g/t Au intercept from historic drilling, and to test the extent of mineralization to the east at depth.

The hole is collared in dark grey, fine grained siltstones with iron oxide-stained fracture surfaces. The siltstones are strongly silicified and are weakly mineralized with up to 1% finely disseminated pyrite. The siltstones extend from 3-5.39m before sharply transitioning into a breccia zone from 5.39-68.31m. The top of the sequence is light grey, silicified QPS altered mafic breccias. The breccias bear strong resemblance to other near-collar breccias intercepted in other TV holes, but are possibly polymict, with sedimentary and amygdaloidal clasts. Sooty to dusty pyrite (up to 10%) is finely disseminated throughout the groundmass and breccia matrix. The breccias are also strongly silica-sericite altered, with minor iron oxide staining on broken surfaces. At 43.74m, the hole transitions to a mixed interval of breccia and tuffs. Weak pervasive chlorite-sericite alteration is the dominant alteration assemblage. At 60.17m, the hole intercepts light grey, sericite-silica altered breccias that resemble the upper breccia zone at 5.39m.

At 68.31m, the hole sharply transitions to black, finely bedded/foliated, siliceous siltstones. The siltstones are graphitic, and extensively siliceous. Core quality is rubbly and broken, with intact core showing finely crenulated beds. Pyrite occurs as wispy disseminations to sporadic fine-grained aggregates along bedding/foliation that increases up to 2% abundance moving downhole. The foliation/bedding orientations are variable, changing from ~45 degrees to subparallel to core axis moving downhole. The sediments abruptly transition to a semi-massive sulphide interval at 116.85m.

The semi-massive sulphide zone extends from 116.85-117.72m, and is hosted in graphitic, faulted siltstones. Sulphide assemblages are dominated by blotchy to weakly bedded/foliated pyrite, with trace sphalerite. The base of the zone is marked by a graphitic faulted siltstone interval that extends to 118.16m. The sulphide intercept may be a distal or fringe section of a massive sulphide lens and its location near the base of a sedimentary-volcanic interface is typical of VMS mineralization models.

The hole sharply transitions to foliated, pale green-grey, intermediate lithic fragments at 118.16m. The tuff-dominated lithic fragments are extensively chlorite-sericite altered and matrix-supported, with polymict, angular fragments. Rare sections (<1m wide) of black/dark grey sediments are found in the tuffs with coherent upper and lower contacts, suggesting concordant, cyclic depositional environments. Sulphide mineralization is trace to non-existent in the lithic fragments, trace disseminated pyrite is rarely observed. Foliation is consistent though the interval, with foliation roughly at 50 degrees to core axis. Faulted corridors through the tuffaceous package are found at 123.57-124.46m, and 139.84-140.42m. The hole is terminated at 148m in the same tuffs. The paucity of sulphides in the tuffs may be the result of footwall style alteration.

## TV20-40

TV20-40 was the final hole drilled off of the upper TV zone pad, it was drilled at an azimuth of 92 and a dip of -54 degrees. It was drilled to test the extent of mineralization to the east and up-dip from hole TV20-39.

Similar to other holes drilled off the same pad, the hole is collared in dark grey, silicified pyritic mudstones from 3.08-8.9m. Pyrite occurs as clots to stringy veining through relatively featureless mudstones, increasing in density moving downhole. The sediments quickly change to light grey, silicified altered breccias from 8.9-26.02m. The breccias are similar to those described in other TV holes and are monomict, with amygdaloidal clasts and rare white-grey silicified clasts. Sulphide mineralization is the same characteristic, very fine grained, sooty pyrite disseminated through the matrix, around clast rims and through clasts. Fine grained pyrite stringers and veinlets are also common. At 26.02m, the altered breccias transition to a similarly altered, ash/ tuff-dominated section. The altered tuffs are weak to moderately foliated, and foliation fabric is oriented subparallel to 20 degrees to core axis. The altered tuffs transition to less intensely altered, light green intermediate tuffs that extend from 33-37.96m. A dark green, feldspar-phyric mafic dyke cuts through the tuffs from 37.96-39.14m, and the hole continues into moderately altered, grey-green, mixed intermediate volcanics and sediments from 39.14-43m.

From 43-65.43m, the hole transitions to a heterogeneous mafic to intermediate package. The top of the package (43-44.27m) is dominantly green to tan, monomict, mafic breccias. From 44.27-46.09m, the mafic package is dominated by coherent, sparsely amygdaloidal flows. The base of the package extends from 46.09-52m, and is dominated by a hyaloclastic, mixed mafic-sedimentary unit of coherent amygdaloidal sections and monomict, green, poorly sorted lithic fragments. The base of the mafic package is transitional into pale green-grey, foliated, intermediate lithic fragments that extend from 52-63.4m. The base of the heterogeneous package is marked by pale cream-grey, sericite altered tuffs from 63.4-65.43m.

The base of the package abruptly shifts to an extensive package of black siltstones-mudstones at 65.43m. Fine grained, bedding/foliation parallel pyrite beds/bands are common through the interval, with localized heavy sulphide sections from 87.5-91m, 94.13-96.47m. Broad quartz-carbonate veining is found proximal to heavy sulphide zones. Unlike other sedimentary packages encountered at TV, the bedding/foliation is undulose and can be erratic, with distorted beds varying in orientation from ~45 degrees to subparallel to core axis. Grey, grit-dominated sandstones (likely turbidite/debris flow-related or a coarse clastic horizon in the sediments) are intercepted from 104.42-109.1m, with grain size gradually coarsening downhole. The sandstones are similarly pyritic as the siltstone-mudstone packages. The base of the sedimentary package is marked by continued mudstones from 109.1-124.62m, and a turbidite sequence from 124.62-130.7m.

The base of the sedimentary package sharply changes at 130.7m to light green-grey-tan, foliated intermediate tuffaceous lithic fragments, Foliation varies from 20-45 degrees to core axis, and fragments appear to be polymict. Trace sulphides are found in this interval, with rare, wispy disseminated pyrite and pyrrhotite. The tuffs appear to be part of a footwall alteration assemblage, and resemble similar tuffs found in historic TV core. The hole is terminated at 193m in foliated, intermediate tuffs.

## TV20-41

TV20-41 was the first hole drilled from the lower TV zone pad. The lower TV pad is located approximately 50m downslope from the upper TV pad. It was drilled at azimuth of 280 degrees, and a dip of -50 degrees. It was designed to intercept and define mineralization extent to the west in the lower TV zone. The hole intercepts a semi-massive to massive pyrite zone hosted in graphitic siltstone-mudstones from 147.7-152m, and may be stratigraphically correlative to typical VMS style mineralization.

The hole is collared in dark to medium grey, bedded/foliated siltstones from 1.89-29.71m. The sediments are diffusely cut by pale grey-green, foliated lapilli tuffs from 3.92-6.6m. The package is relatively homogenous, with interbedded dark grey mudstones and light grey siltstones. No distinctive sulphides are apparent through the interval. Mixed sediments continue from 29.71m, with a dark grey, polymict, clast-supported breccia zone from 29.71-34.85m. The breccias transition into an interval of moderately foliated, poorly sorted, polymict conglomerate from 34.85-38.51m, and back into bedded/foliated mixed sediments from 38.51-43.3m. The mixed sediments are interrupted by a light grey, polymict, breccia zone from 43.3-47.1m. Clasts are selectively chlorite altered, with a strong sericite altered matrix. The mixed siltstone-mudstone-tuffs continue below the breccia from 47.1-103m, with a poorly sorted pebble-cobble conglomerate horizon from 63.41-64.67m, and a heavily faulted, rubble zone from 73.21-75m.

The sedimentary package abruptly ends at 103m, and transitions to an intermediate to mafic volcanic package of green to light green pillow basalts, tuffs, and flows. The package begins in mottled green to grey, faintly fragmental, ash-dominated tuffs from 103-113.57m. The tuffs transition into green, pillow breccias from 113.57-121.19m. Chlorite is pervasive through the groundmass and highlights pillow selvages and breccia clasts. Trace sphalerite and pyrite are present in the lower section of the unit. Below the pillow breccias, a dark green, variably amygdaloidal hyaloclastic/autobrecciated zone is encountered from 121.19-132.44m. The hyaloclastic basalts grade into coherent basalt flows at 132.44m, and the flows continue to 143.8m. The base of the basalt (possibly intermediate) package transitions to intermediate flows (or bleached/altered mafic tuffs) from 143.8-147.59m.

Below 147.59m, a graphitic fault zone extends to 147.7m, and overlies a semi-massive sulphide zone. Similar to other semi-massive sulphide zones intercepted in TV drilling, mineralization is characteristic interbedded graphitic mudstones and massive fine grained pyrite bands/beds. The interval is cut by chaotic carbonate veining corridors and patchy carbonate alteration is found throughout the groundmass. The semi-massive zone transitions to a massive pyrite zone from 149.5-152m. Similar to the above semi-massive zone, the massive sulphides are hosted in graphitic black mudstones. Quartz-carbonate veining is also present, but less abundant. Sulphide mineralization quickly tapers moving downhole with the lowest ~30cm of the interval with redrill/poor recovery. The hole transitions to pyritic, interbedded siltstone-mudstones from 152-156.93m. The sediments host thin, irregular pyrite veinlets and webby aggregates, with trace pyrrhotite (up to 10% total sulphides).

The sediments continue into laminated, interbedded siltstone-mudstones from 156.93-171.03m. Bedding/foliation becomes consistently planar, varying from 30-40 degrees to core axis.

Carbonate-quartz veining is sporadic through the sediments, generally following the dominant fabric. The sediments are also moderately mineralized, with up to 10% pyrite and 1-2% pyrrhotite. The bedded/foliated sediments transition to an extensive turbidite sequence from 171.03-187.96m and the interval demonstrates repetitive and sharp transitions between fine grained to coarse clastic sections. The turbidites are cut by a white quartz-carbonate vein breccia/vein swarm from 183.64-185.48m. The base of the turbidites grade into an extensive interval of dull grey-green, medium grained mafic to intermediate intrusive body. The intrusive is sporadically quartz-carbonate veined, and rare xenoliths are intercepted. No significant mineralization or alteration (weak to moderate chlorite-sericite-silica assemblage) is found in the interval. The hole is terminated in 235m.

### **TV20-42**

TV20-42 was the second hole drilled from the lower TV zone pad. It was drilled at azimuth of 290 degrees, and a dip of -50 degrees. It was designed to test the extent of mineralization to the northwest in the lower TV zone. Deviation in the hole during drilling resulted in an unintentional twinning of hole TV20-41. Similar to hole TV20-41, the hole intercepts a massive pyrite zone from 151-157.46m, as well as an extensive mafic intrusive at the bottom of hole. The thick massive sulphide intercepted in hole TV20-42 demonstrates the rapid lateral changes in VMS systems.

The hole is collared in dark grey mixed sedimentary-tuffs from 3-4.1m. The sediments are diffusely cut by pale grey-green, foliated intermediate lapilli tuffs from 4.1-7m. The mixed sedimentary package is relatively homogenous, dominated by laminated, interbedded dark grey mudstones and light grey siltstones. The mixed sediments continue to 105.54m, with sporadic intervals of fragmental/breccia horizons. A dark grey, polymict, clast-supported mafic breccia zone is intercepted from 40.44-43.62m, and a polymict, clast-supported pebble-cobble conglomerate is intercepted from 65.18-66.11m, and from 71.32-76.21m.

The base of the sedimentary package abruptly transitions to light grey-green intermediate tuffs at 105.54m. The tuffs continue to 116.84m, and sharply transition to green-grey pillow breccias and hyaloclastic breccia zones from 116.84-124.29m and 124.29-146.32m, respectively. Similar to TV20-41, the pillow breccias are silicified, chloritized, and variably amygdaloidal. The base of the basalt lithic fragments is marked by a light grey, intermediate crystal-rich tuff/flow from 146.32-150.77m.

A 30cm fault zone of graphitic mudstones is encountered from 150.77-151mm and marks the top of the massive sulphide zone. The massive sulphide is almost entirely pyrite, with trace pyrrhotite disseminations and rare black graphitic siltstone clasts. Sulphide morphology appears to be intergrown grains, no discernable evidence for exhalative or bedded textures. Unfortunately, recovery and core quality through the lower portion of the massive sulphide zone obscures the full extent and lower contact with downhole lithologies. The step-out from TV20-41 to TV20-2 at this depth is approximately 10m at this depth, and demonstrates the rapid lateral changes in the massive sulphide horizon.

The lower contact of the massive sulphide interval is broken at 157.46m into black and grey, bedded/foliated, interbedded siltstone-mudstones. Similar to other siltstone packages described at

TV, bedding/foliation is undulose and irregular, possibly soft sediment deformation-related. Sulphide mineralization is modest in the sediments, with occasional pyrite and pyrrhotite aggregates. Quartz-carbonate veining is sporadic, but common through the sediments as well. The bedded sediments continue to 172m, and transition sharply into black and dark grey turbiditic sequences, similar to those encountered in TV20-41. The turbidites continue to 183.72m, and gradationally transition into the same dull grey-green, mafic to intermediate intrusive body intercepted at the bottom of TV20-41. Broad, bull quartz and quartz-carbonate veining sporadically cuts the intrusive at several orientations, and no significant sulphides are observed. The hole is terminated at 220m in the same intrusive body.

### **TV20-43**

TV20-43 was the second hole drilled from the lower TV zone pad. It was drilled at azimuth of 270 degrees, and a dip of -48 degrees. It was designed to test the westerly extent of mineralization in the lower TV zone. No significant mineralization or massive sulphide horizon is intercepted in this hole, and thus constrains the extent of the lower TV zone. However, similarities from other holes in lithologies and textures indicate that this hole did intercept a similar horizon, and that mineralization can be sporadic and laterally discontinuous.

Similar to other holes drilled from the lower TV pad, the hole is collared in a mottled light to medium grey, foliated, intermediate tuff-sedimentary package from 1.37-26.24m. Below the tuffs, the hole transitions into a light green-grey, intermediate package. The interval begins in light grey-green, fine grained hyaloclastic/autobrecciated intermediate volcanics from 26.24-39.44m, with variably clast to matrix supported sections of monomict, jigsaw fit clasts. The hyaloclastic/autobreccias interval grades into a predominantly clast-supported volcanoclastic interval from 39.44-44.55m, and transitions into intermediate lapilli tuff lithic fragments from 44.55-50.5m.

The base of the intermediate volcanic package sharply transitions into an extensive sedimentary package at 50.5m. The sediments are mottled medium to light grey, variably calcareous in sections, and sporadically veined by broad, ribbon-like carbonate-quartz veins. Rubble-dominated and gouge fault zones are found at 96.97-97m and 101.19-102.64m. The base of the sedimentary package is marked by a light green-grey, chlorite altered volcanic-derived sandstone from 102.64-111.25m.

The hole transitions back into an igneous-dominated lithologic package from 111.25m, with a light grey, bleached, mafic breccias extending from 111.25-127.32m. The breccias are mottled light to medium grey-green, with cream coloured, intensely sericite bleached zones. The breccia clasts are monomict, clast supported, with chlorite-sericite-silica altered matrix. Fine grained, sooty pyrite and trace sphalerite are disseminated throughout the interval. The breccias transition to coherent, fine grained to aphanitic intermediate (possibly mafic) flows from 127.32-136.72m. At 136.72-141.35m, a grey to tan intermediate dyke with a sharp upper contact and faulted lower contact is encountered. Pervasive sericite-silica alteration and relatively few defining features in this interval make confident identification difficult. The hole encounters another fault from 141.35-141.84m before returning to another extensive sedimentary package.

The lower sedimentary package encountered are similar to other sediments found near-surface, and in other TV holes. The interval begins at 142.77m in dark grey to black, fine grained, foliated to sheared siltstones. Broad, white carbonate-quartz veining is common through the unit, and the siltstones are graphitic and rubbly. Faulted zones are common through the sediments, with faulted corridors found at 146.6-146.76m, and 149.16-151m. Bedding/foliation is chaotic, with undulose to planar fabrics in several orientations from subparallel to 60 degrees to core axis. Similar to TV20-42, a bull quartz vein breccia zone is encountered from 146.76-149.16m, with sheared graphite seams within the veins. The siltstones continue to 162.9m before transitioning into dull green-grey, fine grained, massive mafic (or intermediate) intrusive body from 162.9-196m. The hole is terminated at 196m in the same intrusive body, similar to holes TV20-41 and TV20-42.

### **TV20-44**

TV20-44 was the third hole drilled from the lower TV zone pad. It was drilled at azimuth of 270 degrees, and a dip of -87 degrees. The hole was designed to target near-vertical extent of mineralization in the lower TV zone.

The hole is collared in light green-grey, foliated, intermediate fragmental tuffs, extending from 1.57-10.06m. The similarities to other holes drilled from the same pad demonstrate the lateral heterogeneity in lithologies, and may be a reflection of paleotopography and/or structural deformation. The tuffs transition into the upper sedimentary package of mottled grey mixed siltstone-mudstones-tuffs from 10.06-56m. A clast supported, polymict and weakly foliated cobble-pebble conglomerate is intercepted within the sediments from 27.23-31.21m. The sediments are weak to moderately foliated, with rare carbonate-quartz veining and variably thick sedimentary beds.

At 56m, the hole transitions to a volcanic-dominated regime, with light to medium grey basalt (or basaltic andesite) pillow breccias and pillows extending from 56-84.19m. The pillow breccias and pillowed intervals are pervasively silica-sericite altered, with faint clasts and pillow selvages are outlined by fine grained, sooty pyrite aggregates. At 84.19m, the hole transitions to a light grey volcanoclastic interval with matrix-supported, heterolithic clasts. Wispy pyrite is found as diffuse stringers within the weakly foliated matrix. A bull quartz vein breccia corridor is found near the base of the volcanoclastic package, extending from 92.67-93.43m, and is similar to those found in holes TV20-41, 42 and 43.

From 93.43m, the hole returns to sediment-dominated lithologies, with black to dark grey, finely laminated graphitic mudstones and siltstones extending to 103.3m. The base of the siltstones quickly transitions into mottled grey, pyritic conglomerate horizon with poorly sorted, pebble-cobble clasts and fine grained, wispy pyrite disseminated through the conglomerate matrix (resembling matrix-replacement style mineralization). The base of the conglomerate becomes increasingly bleached and silicified, with a broken transition into foliated, light grey intermediate tuffs at 117.86m.

From 117.86-128.71m, the hole is in intermediate fragmental to ash-dominated tuffs. The lithic fragments are mottled dark to light grey, foliated and variably fragmental, with blotchy pyrite aggregates throughout. Alteration assemblages in the interval sericite-silica-pyrite, and resemble

the alteration profile of the amygdaloidal, monomict breccias observed in several of the TV zone holes. Moving downhole, the tuffs become increasingly sericite bleached, with a sharp faulted siltstone zone from 128.71-140.86m marking the base of the volcanics at 128.71m.

The lower sedimentary package is intercepted from 128.71-205m, and includes light to dark grey/black interbedded siltstone-mudstones and strongly foliated conglomerate horizons from 139.87-142.14m, and at 167.18-169.07m. The siltstone-mudstone packages are well bedded/foliated, with planar to weakly crenulated fabrics oriented approximately 45 degrees to core axis. Sulphides are sparse throughout the sediments, and are as wispy fine-grained aggregates. The hole is terminated at 205m in dark grey bedded/foliated siltstones.

### **TV20-45**

TV20-45 was the fourth hole drilled from the lower TV zone pad, and the final hole drilled for the TV zone in the 2020 field season. It was drilled at azimuth of 350 degrees, and a dip of -75 degrees, and was designed to target high grade historic gold intercepts, and test mineralization enrichment to the north. Similar to holes TV20-41 and TV20-42, a massive sulphide zone is intercepted in hole 45, and is associated with felsic volcanics and/or intrusives, demonstrating similarities in prospective lithologies to mineralization at Eskay Creek mine.

The hole is collared in a package of moderately foliated, grey-green, intermediate flows and fragment-rich tuffs. The intermediate flows and tuffs extend from 2.32-16.74m, and are vuggy proximal to surface. Milky silica flooding and sericite-chlorite aggregates outline crowded to autoclastic clasts, and minor graphitic siltstones are incorporated near the base of the package. The intermediate volcanics sharply transition to an extensive package of medium grey, fine grained mixed mudstone-siltstones from 16.74-69m. The sediments are similar to other sedimentary packages at similar depths from other TV holes, sporadically carbonate-quartz veined and foliation/bedding is dominantly planar, with fabric orientations varying from 20-45 degrees to core axis. Minor clastic horizons are found within the sediments, namely a small conglomerate horizon from 30.95-32m. This horizon may be correlated to other conglomerate horizons intercepted in other holes. The base of the sedimentary package is marked by a fault zone from 69-70.16m.

Below the fault, the hole transitions to a mixed volcanic package dominated by light grey-green, intermediate massive to pillowed flows and breccias from 70.16-89.52m. The intermediate flows and breccias are relatively homogenous, with pervasive moderate silica-sericite-chlorite alteration obscuring most textures. Faint fragmental sections are visible, with sporadic carbonate veining and trace disseminated pyrite. The intermediate package transitions to a mottled grey, volcanoclastic package from 95.15-104.45m. The volcanoclastic package includes mixed lithic fragments, ash-rich beds, and clastic sections with subrounded to subangular clasts. Faulting and broken core is sporadic, but common through the interval. The base of the volcanoclastics is marked by another interval from 104.45-112.34m of mixed siltstone-mudstones, similar to those observed up-hole.

The mixed sediments transition into a pale grey, strongly silicified, aphanitic felsic flow/dome at 112.34m. The felsic suite is strongly silica altered, and identifying primary textures are obliterated. The felsite is moderately mineralized, with up to 25% clotty to heavy-stringers through the unit. Trace sphalerite is found disseminated along fractures. The felsite continues to 114m, where a

---

massive pyrite zone extends from 114-114.72m. Similar to other massive sulphide intercepts at TV, the pyrite is sooty and dark to coarse grained, and may be the result of several generations of formation. Trace sphalerite is disseminated with the pyrite, often as fracture-fill. Silicified felsite and black siltstone clasts are found within the pyrite zones, and become increasingly abundant moving downhole. The massive sulphide zone gradually transitions back into pale grey felsites from 114.72-117.69m. The felsite interval continues to be moderately mineralized with 20-25% pyrite as semi-massive to stringer/vein aggregates.

Below the felsites, the hole is dominated by a mixed package of mafic to intermediate volcanics. From 117.69-135m, the hole intercepts light grey, sericite-silica altered pillow breccias to altered pseudobreccias. While dominantly coherent, breccia zones are discernable with lobate, concentrically altered pillows and clasts, and are often associated with clotty pyrite disseminations (up to 10% pyrite abundance). The pillow breccias transition into light green-grey, foliated, intermediate volcanoclastics from 135-160.72m. Similar to other intermediate lithic fragments in the TV zone, the volcanoclastic/lithic fragments are polymict and moderately foliated. The intermediate package is interjected by a dark grey/purple mafic horizon (possibly a flow or a zone of variable alteration), from 139.51-144.54m.

The base of the intermediate volcanic fragmental package is marked by a sheared cataclasite zone from 160.72-161.73m. Below the shear zone, light to medium grey, sericite-carbonate-graphitic mixed siltstone-mudstones extend from 161.73-191.35m. The mixed sediments are similar to those described up-hole and in other TV holes, moderate to weakly foliated and sparsely carbonate veined. No significant sulphides are observed, and the hole is terminated at 191.35m.

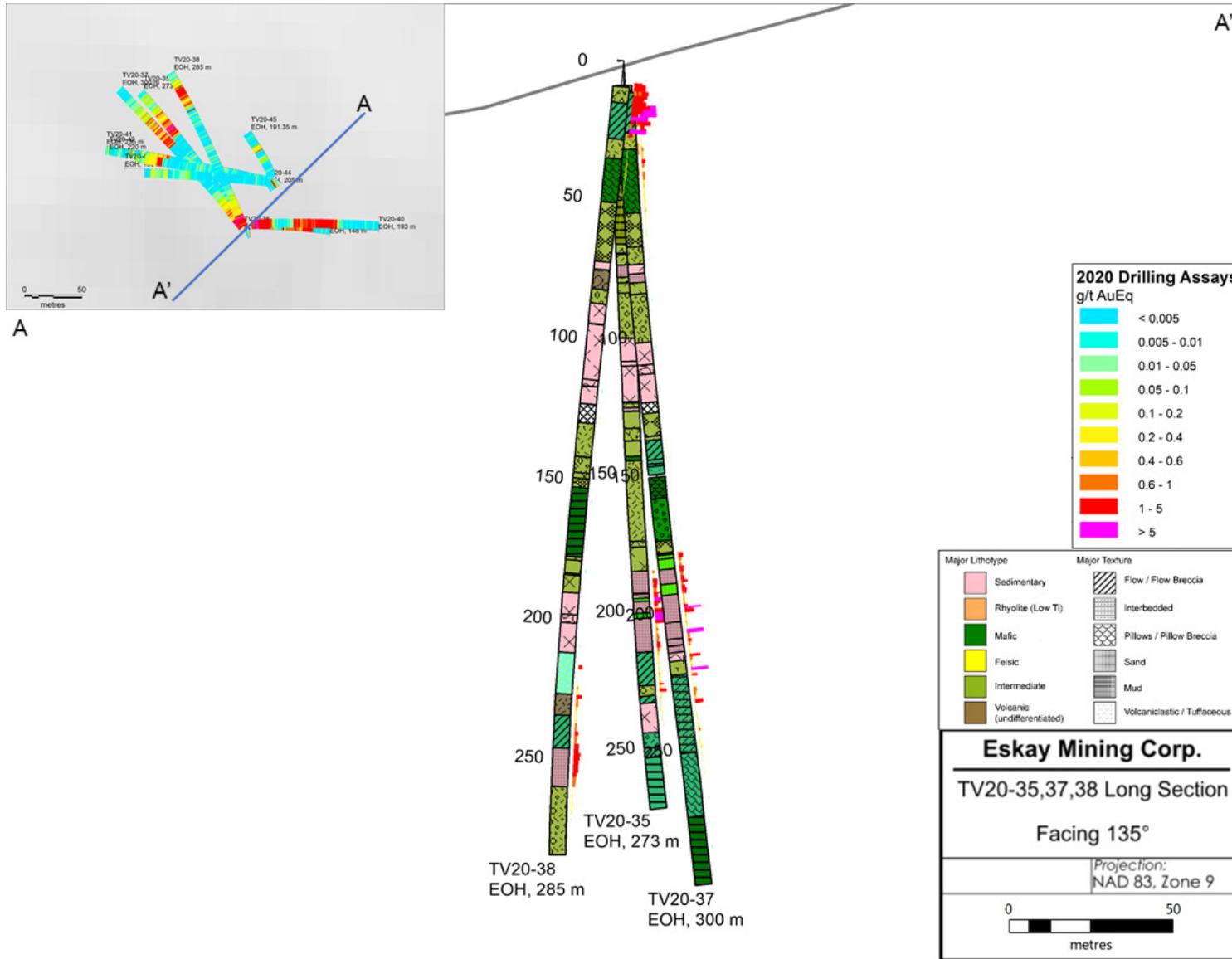
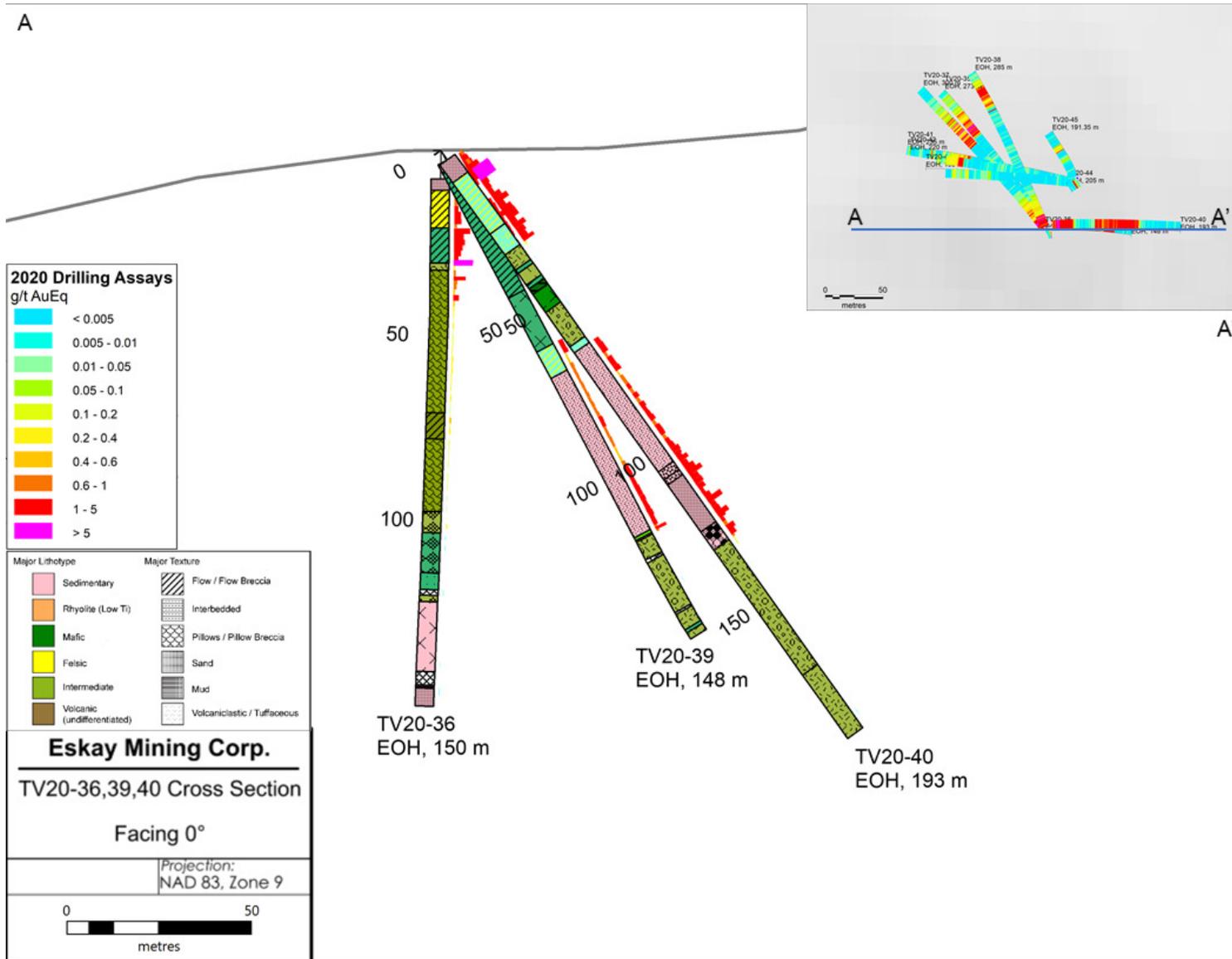


Figure 10.1.2: Plane projected long section of holes TV20-35, 37, 38.



**Figure 10.1.3: Cross section of holes TV20-36, 39, 40.**



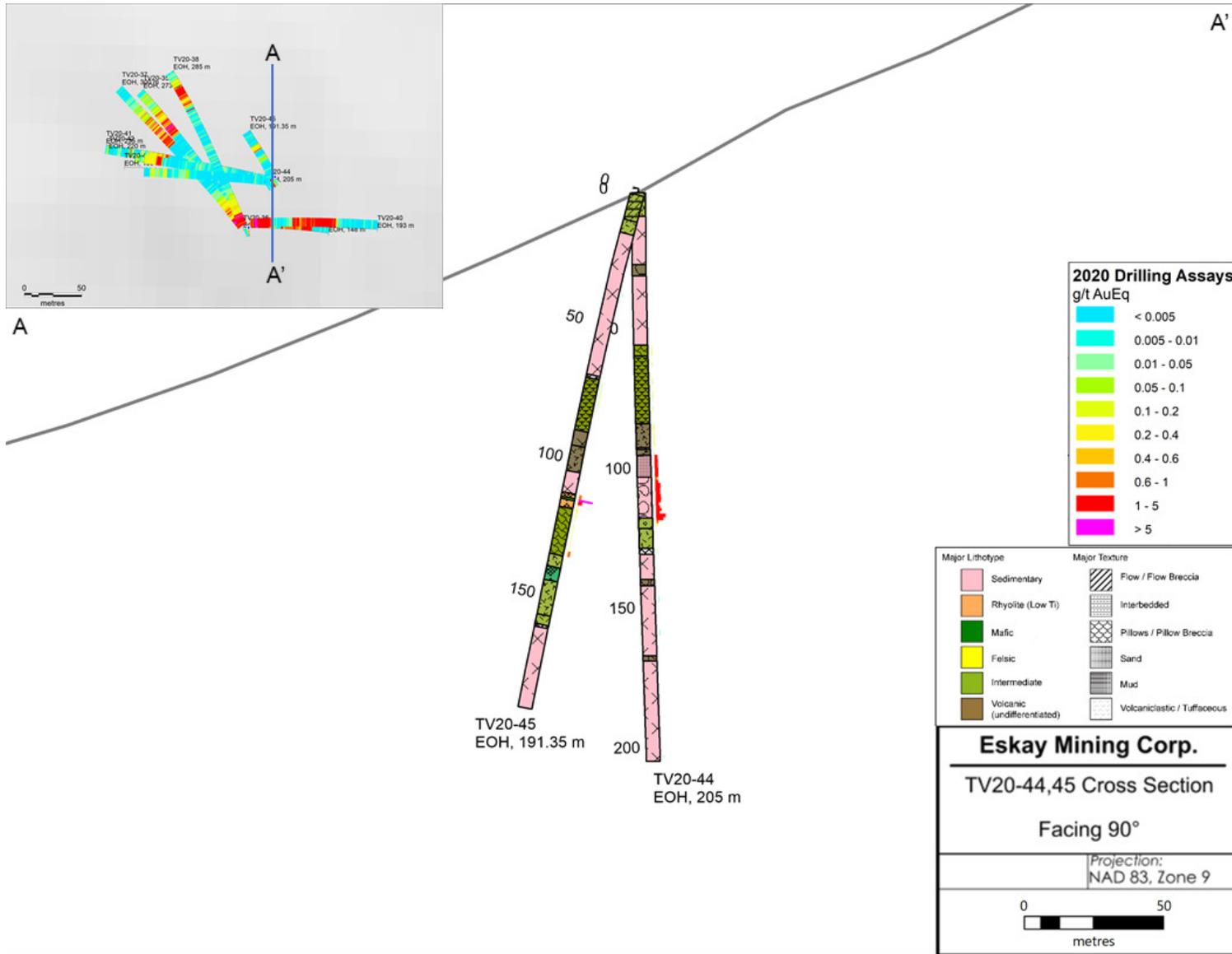
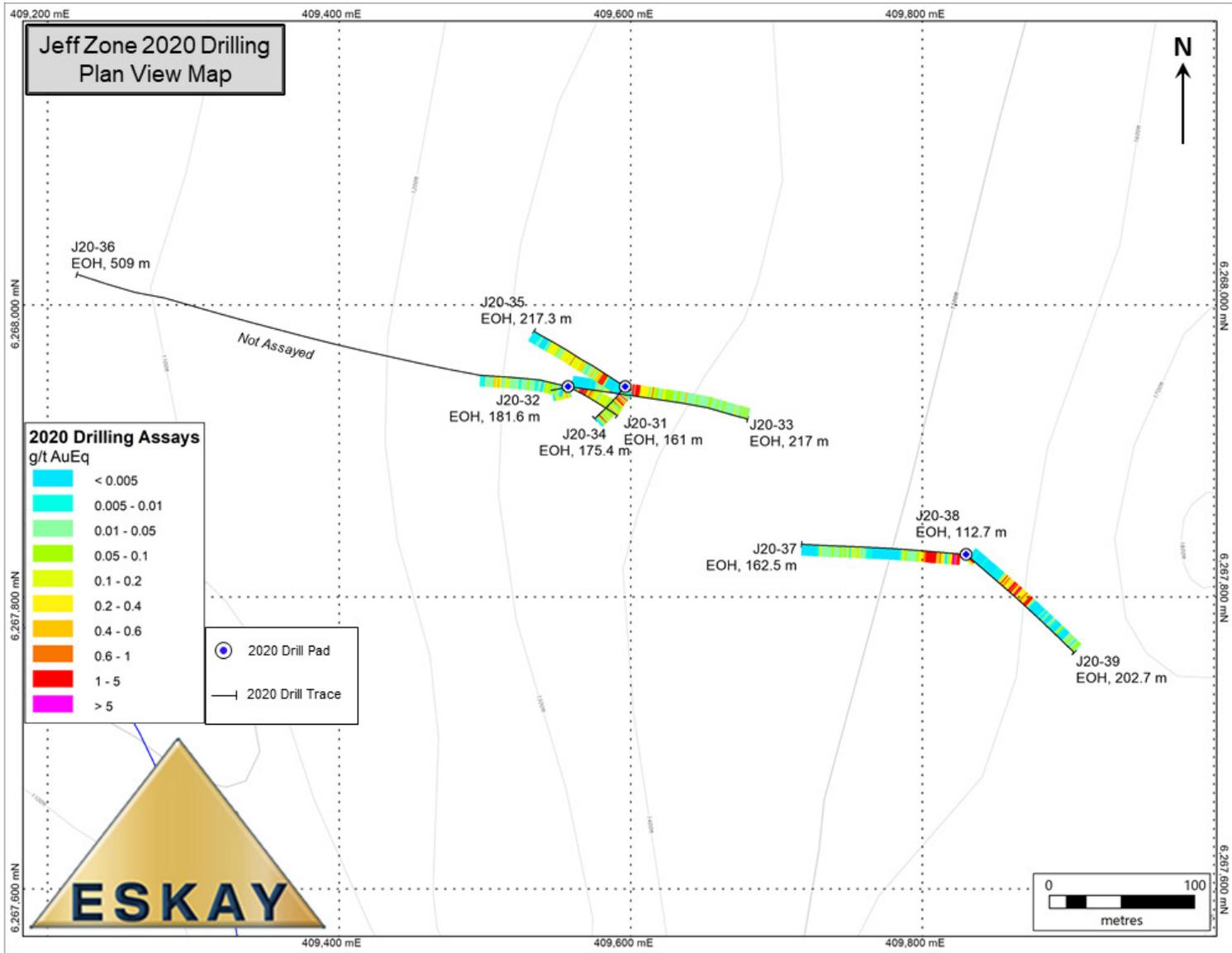


Figure 10.1.5: Cross section of Holes TV20-44, 45.

---

## **10.2 Jeff Zone Drilling**

Drilling at the Jeff prospect was completed off of 3 drill pads (



---

Figure 10.2.1). A total of 9 holes were drilled at Jeff, with J20-31 to J20-33, and J20-36 off of the first pad, J20-34 and J20-35 from the second pad, and J20-37 to J20-39 from the third pad (

---

Table 10.3). The objective of these holes was to intercept high-grade intercepts reported from historical drilling, and to obtain first-order geological data.

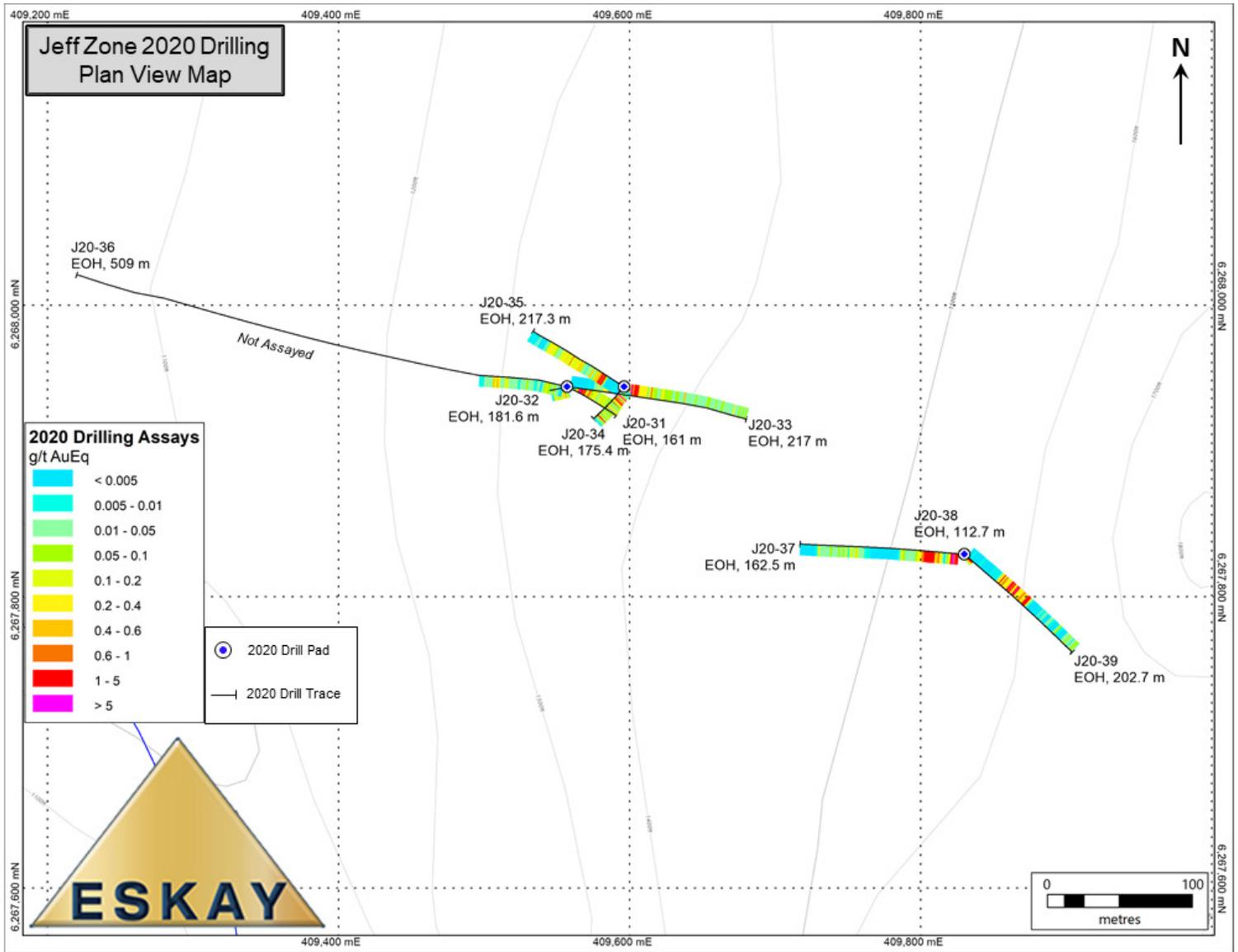


Figure 10.2.1: Map view of 2020 drilling at the Jeff zone. Downhole gold equivalent grade is displayed on drillhole traces.

**Table 10.3: Location coordinates (UTM Zone 9), orientations, and total depths of J20 drill holes.**

Hole ID	Easting	Northing	Elevation (m)	Length (m)	Azimuth	Dip
J20-31	409557	6267944	389.1	161	117.4	75.6
J20-32	409557	6267944	389.06	181.6	250.7	88
J20-33	409557	6267944	389.06	217	98.1	53.4
J20-34	409596	6267944	380.3	175	219.9	80.5
J20-35	409596	6267944	380.295	217.3	302.8	70
J20-36	409557	6267944	389.06	509	283.1	45.9
J20-37	409830	6267829	452	162.5	274.8	45.9
J20-38	409830	6267829	452	112.7	205.9	88.7
J20-39	409830	6267829	452	202	130.6	60.6

Holes J20-31 to J20-33, and J20-36 were drilled off of the first Jeff pad. Hole J20-36 was drilled to follow up on a conductivity anomaly identified in the geophysical surveys. No significant mineralization was intercepted, but the hole intercepts extensive packages of graphitic mudstones and tuffaceous intermediate to mafic volcanic rocks. Holes J20-31 to J20-33 all intercepted silica altered and diffusely mineralized volcanic breccias, flows and sedimentary packages at both shallow (<100m) and deep (>100m) levels. The altered volcanic packages are interleaved with sericite-altered fragmental volcanics and laminated to turbiditic, graphitic sedimentary packages.

Holes J20-34 and J20-35 were drilled from the second Jeff pad. Similar to the first Jeff pad holes, strongly altered and mineralized volcanic and sedimentary packages are found both above and below a relatively unmineralized sedimentary package. Foliated, sericite-altered tuffs are intercepted at bottom-of-hole in J20-34, and resemble tuffs intercepted at TV. J20-35 is terminated in graphitic mudstones, and can be used to correlate the extent of sedimentary packages at the Jeff prospect.

Holes J20-37 to J20-39 were drilled from the third Jeff pad, and intercepted similar volcanic and sedimentary packages. Hole J20-37 intercepted native electrum and pyrargyrite near top-of-hole, hosted in the strongly altered, near-surface sedimentary package. Holes J20-38 and J20-39 are dominated by variably altered sedimentary packages; altered volcanic breccias are abundant, but are not as extensive compared to holes drilled at the first two Jeff pads.

Table 10.4: Significant assay results from Jeff Zone drilling.

Hole	From (m)	To (m)	Length (m)	Gold (gpt)	Silver (gpt)	Gold eq * (gpt)	Silver eq (gpt)
<b>J20-31</b>	29.25	53.80	24.55	1.54	31.3	2.0	131.4
<b>includes</b>	<b>36.30</b>	<b>40.30</b>	<b>4.00</b>	<b>5.16</b>	<b>56.1</b>	<b>6.0</b>	<b>391.5</b>
<b>J20-32</b>	29.60	32.80	3.20	2.11	118.2	3.9	255.1
<b>J20-33</b>	<b>47.50</b>	<b>83.00</b>	<b>35.50</b>	<b>9.50</b>	<b>70.0</b>	<b>10.6</b>	<b>687.2</b>
<b>includes</b>	<b>56.50</b>	<b>65.75</b>	<b>9.25</b>	<b>32.17</b>	<b>93.2</b>	<b>33.6</b>	<b>2184.3</b>
<b>includes</b>	<b>58.00</b>	<b>61.00</b>	<b>3.00</b>	<b>80.18</b>	<b>169.7</b>	<b>82.8</b>	<b>5381.4</b>
<b>includes</b>	<b>73.25</b>	<b>74.60</b>	<b>1.35</b>	<b>7.58</b>	<b>726.0</b>	<b>18.7</b>	<b>1218.7</b>
<b>J20-34</b>	<b>37.92</b>	<b>43.00</b>	<b>5.08</b>	<b>31.23</b>	<b>138.1</b>	<b>33.4</b>	<b>2168.1</b>
<b>includes</b>	<b>38.41</b>	<b>40.00</b>	<b>1.59</b>	<b>78.83</b>	<b>326.0</b>	<b>83.8</b>	<b>5449.9</b>
	50.00	52.67	2.67	2.49	8.5	2.6	170.3
	56.30	63.61	7.31	1.46	16.7	1.7	111.6
includes	56.30	58.60	2.30	2.67	12.8	2.9	186.4
	74.62	77.12	2.50	1.63	1.7	1.7	107.7
	102.95	105.00	2.05	3.05	0.5	3.1	198.7
<b>J20-35</b>	40.20	53.50	13.30	1.17	39.1	1.8	115.0
includes	40.20	44.00	3.80	2.20	93.6	3.6	236.9
<b>J20-36</b>	<i>Anomalous Au (up to 0.21 gpt) and Ag (up to 3.14 gpt)</i>						
<b>J20-37</b>	<b>5.82</b>	<b>13.48</b>	<b>7.66</b>	<b>2.53</b>	<b>151.4</b>	<b>4.9</b>	<b>315.9</b>
	24.50	42.50	18.00	0.67	38.2	1.3	81.7
includes	29.12	39.50	10.38	0.97	48.7	1.7	111.8
<b>J20-38</b>	36.00	46.70	10.70	0.53	48.7	1.3	83.1
<b>J20-39</b>	<b>59.34</b>	<b>109.70</b>	<b>50.36</b>	<b>1.13</b>	<b>43.5</b>	<b>1.8</b>	<b>117.2</b>
<b>includes</b>	<b>75.75</b>	<b>89.87</b>	<b>14.12</b>	<b>2.87</b>	<b>84.5</b>	<b>4.2</b>	<b>271.1</b>
<b>includes</b>	<b>75.75</b>	<b>76.60</b>	<b>0.85</b>	<b>34.50</b>	<b>139.0</b>	<b>36.6</b>	<b>2381.5</b>
<b>includes</b>	<b>87.00</b>	<b>89.87</b>	<b>2.87</b>	<b>1.24</b>	<b>249.9</b>	<b>5.1</b>	<b>330.7</b>

\* Au eq calculation used is:  $Au\ eq\ (gpt) = Au\ (gpt) + Ag\ (gpt)/65$

## 10.2.1 Jeff Zone Drill Hole Summaries

### J20-31

J20-31 was the first hole drilled at the Jeff zone in the 2020 season. It was drilled at an azimuth of 120 degrees and -70 degree dip. The hole was designed to test high grade intercepts reported from historic drilling and to investigate and confirm stratigraphy at the Jeff zone as no historic core for this area exists. Sulphide mineralization is intercepted near-surface (<100m), and characteristically occurs as very fine grained, diffuse disseminations to semi-massive bands and stringers.

The hole is collared in dark grey, mafic to intermediate flows. The flows are weakly foliated, with coherent and flow breccia horizons. The flows transition to a distinctive breccia zone from 26.14-29.25m, of similar composition and alteration as the flows above. Mineralization is scant, with trace very fine-grained pyrite, and trace pyrrhotite. The breccia zone gradually transitions into a massive to semi-massive sulphide zone in altered flows and flow breccias from 29.25-36.3m, with broad lentoid to banded pyrite-pyrrhotite through the flow and flow breccias. The morphology of sulphides in this interval bears strong resemblance to a feeder zone. The hole continues into a stringer zone from 36.3-38.82m, with similar host rocks and an overall decrease in total sulphides. Host rocks in the semi-massive and stringer intervals are strongly silicified, and fine grained, disseminated leucoxene through the groundmass suggests an intermediate to mafic protolith.

The hole transitions to altered, dark grey, strongly silicified pillow to flow breccias from 38.82-55.65m. The altered breccias are cryptic, and appear to be monomict, with sericite-silica altered amygdaloidal and massive clasts and very fine-grained sooty sulphide (mainly pyrite) disseminated through the clast and matrix groundmass. Foliation is consistent with the units up-hole, with a main fabric at ~45 degrees to core axis. A black, pyritic and silicified mudstone horizon is encountered from 55.65-59.48m, and the sharp upper and lower contacts for the unit suggest a cyclic emplacement environment. From 59.48-70.2m, the hole transitions back into altered pillow to flow breccias. The pillow breccias are sub-coherent, and the breccia textures may be related to or enhanced by post-emplacement alteration.

At 70.2m, the hole encounters dark grey to black, foliated/bedded flows (or a mixed volcano-sedimentary zone?). Faint feldspar phenocrysts are visible by hand lens, and leucoxene disseminated through the groundmass suggests an intermediate to mafic composition. The flows transition to an altered lapilli-tuff fragmental zone from 74.9-75.5m. The fragmental is matrix-supported, and similarly sericite-silica altered as the breccias up-hole.

From 75.5m, the hole is dominantly represented by an extensive, grey to patchy pale green, strongly silicified, coherent to fragmental/brecciated intermediate to mafic pillows and flows. The intense and pervasive silica-sericite alteration through the package obscures primary textures, and may be correlated to a footwall lithologic package. The protolith appears to be mafic to intermediate. Chilled pillow selvages, amygdules and fragmental, hyaloclastic horizons support a seafloor to sub-seafloor environment. The hole is terminated at 161m in distinctively “frothy” amygdaloidal flows and pillows.

## J20-32

J20-32 was the second hole drilled in the Jeff zone, and is a vertical (90-degree dip) hole. It was designed to test stratigraphy and to follow up on high grade (>76.5g/t Au) mineralization intercepts reported in historic drilling. Mineralization is diffuse and very fine grained, but is substantial, and proximal (<50m depth) to surface. Structural grain is relatively consistent through the hole, and is represented by foliation/flow banding and is oriented at 45 degrees to core axis on average.

The hole is collared in a light grey, silicified, mixed volcano-sedimentary package from 4.38-17.8m mixed flows, breccias, and fragmental sections. Volcanic components include variolitic/amygdaloidal flows, with hyaloclastic/brecciated corridors, and the sediments are dominantly black to dark grey siltstone-mudstone fragments. The mixed package transitions to coherent, weakly chlorite altered flows (possibly mafic) from 17.8-29.6m. The (mafic) flows are fine grained, weakly foliated, with pervasive sericite-silica alteration and weak, patchy chlorite-leucoxene. Fine grained pyrite and pyrrhotite are disseminated through the matrix, and irregular carbonate-quartz and carbonate veining is sporadic. The flows gradually transition into a semi-massive sulphide zone at 29.6m.

The semi-massive sulphide zone from 29.6-30.18m is hosted in the same (mafic) flows, and mineralization is dominated by broad pyrite bands, with trace disseminated sphalerite. Mineralization continues to 34.02m, with pyrite stringer textures that follow pervasive foliation through the flows. Carbonate-pyrite zoned veining is rare, but occurs in the interval. Sulphide mineralization decreases moving downhole, and the hole returns to grey, sericite-silica altered (mafic-intermediate) flows at 34.02 to 48.42m.

At 48.42m, the flows transition to an extensive altered corridor of lithic fragments and breccias that alternate between pale grey-white bleached zones, and black graphitic lithic fragments. The sequence begins in a light grey, flow to pillow breccia sequence from 48.42-50.84m. Alteration is intense in the groundmass, resulting in a bleached appearance. The breccias transition into dark grey-black, siliceous fragment-rich tuffs (possibly sedimentary derived clasts) at 50.84-52.73m. At 52.73m, the hole transitions back into pale grey lithic fragments, and to black lithic fragments at 54m. From 55.7-62.32m, similarly altered, monomict breccias are encountered, with very fine grained, sooty pyrite outlining bleached clast margins, fractures, and aggregates in the breccia matrix. The breccias are interjected by a mixed volcano-sedimentary package from 62.32-66m, similar to the top of hole lithology. The altered breccias continue from 66-68.24m. Mineralization in the altered corridor is distinguished by very fine grained, sooty pyrite and rare stringy pyrite veins with rare pyrrhotite and sphalerite.

Below the altered corridor, the hole is dominated by a relatively unmineralized, mixed package of volcanic and sedimentary packages. The top of the sequence is marked by a mottled grey, turbidite/mixed sedimentary package from 68.24-70.36m. The sedimentary package is also weakly foliated, with poorly sorted, sedimentary-derived fragments. Below the sedimentary package, the hole encounters an extensive package of grey to green basalt flows and breccias from 70.36-131.25m. The package is strongly silicified and bleached, with patchy chlorite along flow margins, pillow selvages, and breccia clasts. At 131.25-144.84m a mottled grey, heterogeneous volcanoclastic horizon is intercepted, with altered basalt pillow breccias and flows continuing from

144.84-161.7m. At 161.7m, the hole is dominated by alternating packages of intermediate, green, foliated fragmental tuffs and black mudstones. The hole is terminated at 181.6m in black mudstones.

### **J20-33**

J20-33 was the third hole drilled in the Jeff zone. It was drilled at an azimuth of 100 degrees and a dip of -50. It was designed to test the northeastern and down-dip extents of mineralization, follow up on high grade intercepts from historic drilling, and to test the stratigraphy.

The hole is collared in an extensive interval of grey, basalt flows from 4.13-17.75 m. From 17.75 to 67.17 m are numerous beds of carbonaceous mudstone in peperitic contact with the basalt. The flows and peperite are pervasively carbonate altered to 57.95 m, and sulphide mineralization is finely disseminated through the groundmass and localized as wispy, fine to medium grained stringers. Mudstone-rich intervals exhibit a strong foliation with foliation parallel bands of recrystallized subhedral pyrite. Polymetallic assemblages (sphalerite, trace galena and sulphosalts) are associated with the stringers, with elevated Ag, Au, Cu, Pb, Zn indicated by portable XRF analyses.

The peperitic basalts sharply transition to a moderately carbonate altered sedimentary package from 67.17-77.49 m. The package includes a mélange of black graphitic siltstone-mudstones, interbedded siltstone-volcanic ash, and graphitic mudstones. Mineralization is found as wispy pyrite disseminations along bedding/foliation that varies from 20-45 degrees to core axis. The mélange transitions into a peperitic dacite from 73.25-77.49 m. Overall mineralization through the mélange zone is variable, with sulphide abundance decreasing moving downhole through the interval.

A distinct silicified flow-banded dacite breccia with a skeletal appearance to clasts occurs from 77.49-93.00 m. With the dacite clasts corroded inwards from fracture boundaries, and pyrite stockwork filling the fractures. The lower contact of the dacite is peperitic with carbonaceous mudstone from 93.0-95.88. A thin bed of carbonaceous mudstone occurs between 95.88-96.15 m, and has a peperitic contact with the underlying flow-banded dacite breccia from 96.15-107.00 m. Both dacite horizons are strongly silica altered, and sulphides occur as fine grained, diffuse, dusty pyrite disseminations.

At 107.00 m is an intensely silicified carbonaceous mudstone transitioning to peperitic andesite at 110.14 m. A thin graphitic gouge zone occurs 110.14-111.10 m, below this to 125.00 m is a mudstone-dominated peperitic andesite with moderate chlorite, clay, and carbonate alteration. Trace to minor amounts of sulfide minerals are present within the peperitic andesite.

Fault fragments of peperitic basalt were intercepted from 125.00-127.00 m. The basalt is bleached pale-grey to pale green, and has quartz-filled amygdaloids. Below the basalt to 131.10 m is a mud-dominated peperitic dacite with grey amygdaloidal dacite intruded into carbonaceous mudstone.

Variably aphyric to hornblende-phyric andesite flows dominate the stratigraphy from 131.1 m to the end of hole at 205.48. The andesite over the interval 131.10-165.74 m is moderately to intensely chlorite and clay altered, with minor amounts of fracture-hosted pyrite. From 181.6-186.93 m is

an intensely silicified, aphyric andesite breccia with sulfide replacement of clasts and weak chlorite and clay alteration. Variably intense silicification accompanied by weak chlorite and clay alteration continue to the end of the hole.

### **J20-34**

J20-34 was the fourth hole drilled in the Jeff zone. It was drilled at an azimuth of 215 degrees and a dip of -82 off of the second Jeff pad. The hole was designed to test and expand on high grade gold intercepts reported in historic drilling. Lithologies and textures are cryptic due to variably intense alteration, and sulphide mineralization is diffuse.

The hole is collared in mottled grey, silica-carbonate altered peperitic basalt from 4.18-12.87m. Carbonate veining is common through the unit, and rare chalcedonic-like veining is noted to cut the interval, and is associated with fine grained pyrite-pyrrhotite aggregates. A ~1m wide faulted/rubble zone marks a transition into (mafic?) flows and associated breccias. This package is intercepted from 13.94-34.18m, and is a fine grained, massive to flow banded package with pervasive silica alteration and patchy carbonate through the groundmass. Chalcedonic veining is also observed through the unit, and may be related to a larger scale, late-stage event. Sulphide mineralization increases in abundance (fine grained pyrite as matrix-replacement; trace sphalerite, galena, and sulfosalts) from 26.28-42m. The mafic (?) flows and breccias are interjected by a light grey, fragmental interval with siltstone clasts from 34.18-38.41m. Notably, this interval is relatively sulphide poor, and may be a slump or seafloor slope failure disturbing the mineralized surrounding flows/breccias. The base of the mafic (?) section is sharp and undulose at 42m with black-grey, silicified siltstones.

The siltstone package extends from 42-45.65m. Disseminated pyrite along fractured sections and along bedding/foliation suggests exhalative to sub-seafloor replacement-style mineralization. The siltstones transition into an interbedded siltstone-ashy mudstone interval from 45.65-54.54m. Pyrite dominates sulphide mineralization in the interval, and occurs as blotchy to banded aggregates. Below the interbedded sediments, a black-grey peperitic mixed zone of siltstone-mudstones and altered amygdaloidal (mafic?) volcanics extends from 54.54-57.6m.

The hole transitions from 57.6-67.78m to a light grey, silicified altered breccias characteristic to the Jeff zone drilling. Clasts are dominantly monomict, vesiculated/amygdaloidal and extensively bleached and silicified. Finely disseminated pyrite is ubiquitous through the breccia matrix. The altered breccias overlie a turbidite sequence from 67.78-70.99m, with mixed siltstone and grit horizons. Below the turbidites, a dark grey, foliated volcanoclastic fragmental is intercepted from 70.99-74.62m. Altered pillow breccias are encountered from 74.62-99m and bear a strong resemblance to the altered breccia intercepted up-hole, with pillow selvages. The altered breccias are interjected by a gouge cataclastic section from 77.12-79.4m, and a coherent pillowed section from 84.46-92.23m. Silicified and bleached pillow breccias underlie the altered breccias from 99-165.83, and are cut by sporadic faulted and gouge zones. From 148.92-153.93m, the breccias are interjected by a volcanic conglomerate. Overall, the pillow breccias in this interval are green to grey, with chlorite at clast edges and selvages – it may be a more coherent (and consequently less intensely altered) section of the altered breccias.

The lowest ~20m of the hole is dominated by foliated tan to green lapilli tuffs that begin at 165.83m. A siltstone-mudstone package is encountered from 167.89-173.25m, and further supports eruptive-quietest emplacement periods. The hole is terminated at 175.4m in green to tan, well foliated, sericite-chlorite altered lithic fragments, similar to the lithic fragments intercepted in other holes drilled at the TV-Jeff zone.

### **J20-35**

J20-35 was the fifth hole drilled in the Jeff zone. It was drilled at an azimuth of 310 degrees and a dip of --70 off of the second Jeff pad. It was designed to test the extent of mineralization and stratigraphic changes to the northwest. Sulphide mineralization (unlike other Jeff zone holes) is not found immediately or proximal to surface.

The hole is collared in black, graphitic siltstones mixed with minor siltstones (possibly tuffs). The bedding/foliation is variable throughout the interval, and varies from 30-60 degrees to core axis. Fine grained pyrite (up to 3% abundance) is disseminated throughout the sediments. The sediments extend from 4.3-12.27m, and are directly underlain by dull grey-green flow breccias (possibly mafic?). The flow breccias are cryptic, and have pervasive silica-sericite alteration. Sulphides occur as wispy fine grained pyrrhotite and pyrite disseminations in the groundmass. Carbonate-quartz veining is also common in this unit, and cut the hole at irregular intervals. The flow breccias sharply transition into dark grey-black siltstone-sandstone turbidite sequence from 36-40.2m. The turbidites are chaotic, with poorly sorted clastic intervals. Pyrite occurs as fine disseminations and aggregates between coarser fractions. The base of the turbidite sequence is marked by a faulted zone that extends from 40.2- 41.02m.

The fault transitions into a light grey, silica-sericite altered amygdaloidal breccias with sporadic tuffaceous horizons. The breccias are monomict, with chilled margins and broken pillow selvages apparent in clasts. Sulphide mineralization is diffuse, with very fine grained, dusty/sooty pyrite and lesser pyrrhotite, arsenopyrite and trace sulfosalts through the breccia matrix and rimming clasts. Veining continues to be sporadic through the interval. The altered breccias transition back to a siltstone-mudstone turbidite sequence similar to the interval described up hole from 64.44-71.69m. The turbidites in this interval are weakly mineralized from 69-69.77m, with pod-like, fine grained semi-massive to heavy pyrite between clasts.

Below the turbidites, the hole transitions at 71.69m into an extensive grey-green silicified brecciated pillowed interval with minor tuffaceous components. Potentially basaltic or intermediate in composition, the pillow breccias are extensively silicified and bleached. Weak chlorite altered clast edges are associated with pyrite and pyrrhotite disseminated in the breccia matrix. Amygdaloidal textures become apparent around 109m. The pillow/flow breccias are interrupted by interbedded siltstones from 143.4-151.56m, which were possibly faulted in or represent a repetitive magmatic-sediment depositional environment. The pillow/flow breccias continue to 173.5m and transition into well-foliated, intermediate lapilli tuff lithic fragments from 173.5-175.43m. The lithic fragments are moderately foliated, and are grey to green, sparsely fragmental. The fragmental bears strong resemblance to the lithology that J20-34 was terminated in, and may be part of the same package. Foliation is subperpendicular to core axis. The tuffs sharply transition into black-grey interbedded siltstone-mudstones at 175.43m. The sediments are

relatively undeformed and unaltered, with sporadic carbonate-quartz veining and gouge-dominated fault zones. Pervasive carbonate alteration is characteristic to the sediments. The sediments sharply transition back into light grey fragmental tuffs from 180.08-193m, and into interbedded sediments from 193-196.55m.

At 196.55m, the hole encounters a light grey, siliceous unit, possibly felsic, however textural context is difficult to determine. It may be a strongly bleached section of sediments or a felsic intrusive. This unit continues to 197.71m, and the hole returns to interbedded black-grey mudstones-siltstones to end-of hole. The altered breccia described up-hole is encountered again from 209.51-210.4m. The hole is terminated at 217.3m in interbedded graphitic siltstone-mudstones with bleached sections and clotty carbonate-quartz veining.

### **J20-36**

J20-36 was the sixth hole drilled in the Jeff zone; it was drilled at an azimuth of 282 and a dip of -45 degrees off of the first Jeff pad. It was designed to test an anomalous high response in EM/conductivity geophysical surveys identified at depth. No significant mineralization was intercepted in this hole, and alteration is overall subdued to low-intensity. The high geophysical response is attributed to the high conductivity of graphite, which is abundant in mudstones in the TV-Jeff zones.

The hole is collared in a thick, heterogeneous fragmental package of mafic volcanic rocks, including flow and pillow breccias. The lithic fragments are mixed to monomict, and are dominantly clast supported. Minor volcanoclastic horizons are intercepted from 53-62.76m, and are heterolithic, poorly sorted fragmental sequences interbedded with minor sedimentary (mudstone) components. The base of the mafic volcanic sequence is marked by a pillow breccia sequence from 67.46-76.43m, with a minor interbedded siltstone-mudstone unit from 76.43-84.95m.

Below 76.43m, the hole transitions into an extensive sedimentary package of black to dark grey, interbedded siltstone-mudstones. Minor intrusive rocks are also present, and are light grey to pale green, fine-grained dykes with minor contact breccias. Faulting is sporadic, and is generally discrete. Fault zones, are encountered between 89.79-92m, 136.04-140.59m, 185.44-186.61m, 203-203.88m, 221.61-222.53m, 235-236m, and 295-295.92m. The interbedded siltstone-mudstones are relatively consistent, and variably pyritic (up to 2% abundance), with minor pyrrhotite disseminations.

The extensive mudstone-siltstone sequence transitions to intermediate volcanics at approximately 295m, and the transition is marked by a heavily veined, cataclastic faulted interval from 295-295.92m. A mottled dark green to maroon, poorly sorted matrix-supported lapilli tuff fragmental becomes the main lithology from 295.92-395m. The lapilli tuffs are similar to historic TV drill core (All historic Jeff core was lost). A light grey to greenish, undifferentiated intermediate (?) unit with weak pervasive foliation/bedding is encountered from 395-410.25m.

Below 410.25m, the hole transitions back into interbedded mudstone-siltstone sequences to 436.34m. Faulting is similarly sporadic, with a fault corridor from 411.91-412.35m. Immediately below the fault zone, a sandstone or coarse grained, volcanic-derived unit is intercepted, with

poorly sorted clasts up to 6cm in length, and may represent a higher-energy depositional environment. The base of the interbedded siltstone-mudstones is marked by a poorly sorted, polymict conglomerate from 436.34-443m. Below 443m, green to grey lapilli tuffs and undifferentiated intermediate volcanics dominate the lithology, with a minor siltstone horizon from 483.79-490.3m. The hole is terminated in the same intermingled green to maroon lapilli tuffs observed further up-hole, and a total depth of 509m.

### **J20-37**

J20-37 was the sixth hole drilled in the Jeff zone. It was drilled at an azimuth of 270 degrees and a dip of -45 off of the third Jeff pad. It was designed to test the western extent of mineralization and to further constrain stratigraphy.

The hole is collared in a chaotic, poorly sorted turbiditic sequence with siltstone and mudstone clasts, and fine silty horizons. Mineralization, similar to other Jeff holes, is intercepted close to surface, and occurs as finely disseminations and stringy aggregates (up to 10% abundance) between sediment clasts. Trace native electrum and pyrargyrite (up to 2%) are found in this unit, from 11.6-12.1m. Fine-grained sulfosalts, trace galena and sphalerite occur proximal to the electrum and pyrargyrite.

The base of the turbidite sequence broken into a faulted zone of mixed siltstones and ribbon-like, carbonate-quartz veining. Sulphide mineralization is dominated by finely disseminated pyrite (up to 10% abundance) in coherent sections of core. The fault extends from 13.48-14.64m, and is the upper boundary for a semi-massive pyrite horizon that spans 14.64-19.36m. Mineralization in this zone occurs as semi-massive, finely laminated pyrite within graphitic mudstones, and texturally appears to be exhalative in origin. Elevated barium (717ppm Ba) from XRF readings further supports this interpretation. Bedding/foliation defined by the mudstones and pyrite is variable, ranging from subparallel to core axis and undulose to planar and at ~60 degrees to core axis. Sulphide mineralization subsides moving downhole, and transitions into black, silicified graphitic mudstones. Finely laminated to rubbly, interbedded graphitic mudstones-siltstones between 19.36-29.12m are weakly mineralized with fine grained wispy pyrite veinlets/stringers. The interbedded sediments directly overlie pale grey, silicified altered breccias.

The altered breccias extend from 29.12-42.5m and strongly resemble altered breccia units in hole J20-38. The breccias are light grey, strongly sericite-silica altered (including pyrite as dominant alteration mineral assemblage), and fine-grained pyrite (up to 10% abundance) is banded to stringy throughout the breccia matrix. The breccia is dominantly monomict, and derived from variably amygdaloidal flows (possibly dacite or intermediate), and rare siltstone fragments. A rubbly fault zone from 31.53-34.83m truncates the unit. The base of the breccia appears to be transitional into weakly mineralized tuffs.

The mixed sed-tuff unit extends from 42.5-64.1m, and includes laminated to weakly foliated, interleaved siltstones, gritty sandstones, ash, and lapilli-tuff sequences. The unit has pervasive, but weak sericite-silica alteration, and sulphide mineralization is weak as well, with trace, disseminated pyrrhotite and pyrite. At 64.1m, there is a broken transition into foliated intermediate lapilli-ash tuffs. The lapilli-ash tuffs are well foliated, with pervasive sericite-silica alteration and

patchy weak chlorite. Lapilli clasts are polymict, and foliation ranges from 60-80 degrees to core axis. The lapilli tuffs sharply transition back into mixed sediments at 90.5m. The mixed sediments include finely laminated siltstones-mudstones, sandstones and conglomerates. Sulphide mineralization is subdued, with disseminated pyrite (3-5% abundance). The mixed sediments are truncated by a rubbly fault zone at 105.77m. The fault zone is deformed and cataclastic graphitic siltstones with carb-quartz veining. The fault transitions into interbedded siltstones-mudstones at 108.04m and are finely laminated and planar with trace disseminated pyrite. Another fault cuts the sediments from 113.5-116.53m. The base of the sediments sharply transitions into light grey-green; sericite-chlorite altered foliated tuffs and flows at 144.59m. The hole is terminated in similarly altered breccias at 162.5m.

### **J20-38**

J20-38 was the eighth hole drilled in the Jeff zone. It was drilled at a vertical (90 degree) dip off the third Jeff pad. It was designed to test the vertical extent of mineralization and stratigraphic changes between previous intercepts of >10g/t Au reported in historic drilling.

The hole is collared in undifferentiated mafic (possibly intermediate) tuffs or flows. Sparse chlorite altered fragments and brecciated horizons suggest the unit is volcanic. Sulphide mineralization, similar to other holes drilled in the Jeff zone, is diffuse and occurs as fine-grained disseminations through groundmass/matrix and along clast margins. The hole transitions into a faulted zone from 9.73-13.21m, and transitions into mixed and interbedded sediments from 13.21-36m. Another fault zone is encountered from 29.61-31m, and cuts through the sediments. The sedimentary package is dominated by black to grey fine grained, bedded/foliated mudstones-siltstones.

The base of the sedimentary package is marked by a distinct, hyaloclastic/brecciated unit with sharp, irregular siltstone clasts. Mineralization is elevated over this interval, occurring as fine-grained pyrite stringers/aggregates along clast margins and through the matrix. This unit extends from 36-38.55m and is visually distinct; it appears to be an interface between sedimentary and volcanic horizons. Foliation/bedding is roughly 45-50 degrees to core axis. Immediately below the hyaloclastic unit, the hole transitions into a light grey, sericite-silica altered, coherent flow interval from 38.55-44.73m before transitioning again into similarly altered, variably amygdaloidal, altered breccia and pillow brecciated unit (intermediate to basaltic, possibly dacite?) from 44.73-57.45m.

Alteration and sulphide mineralization subsides below 57.45m and the hole intercepts weakly foliated/bedded sericite-silica altered tuffaceous lithic fragments from 57.45-80.44m, with decreasing alteration and mineralization intensity moving downhole. The lithic fragments are truncated by a rubbly fault zone of black graphitic siltstone-mudstones from 76.39-80.44m.

Below the faulted sediments, moderately altered and mineralized flow breccias and lithic fragments are intercepted from 80.44-86.97m. Sulphide mineralization is encountered in this unit, with 5-10% finely disseminated pyrite. The hole then sharply transitions into pale grey-white sericite bleached fragmental volcanics. Sericite-dominant sericite-silica alteration is pervasive, with fine grained pyrite occurring as amorphous to wispy aggregates (occasionally replacing entire clasts). The volcanics are well foliated, with undulose to planar foliation at roughly 30-50 degrees to core axis. Rare bull quartz-carb veining cuts the unit at approximately subparallel to foliation or

sub perpendicular to core axis. Alteration intensity continues to decrease downhole, with weak chlorite alteration becoming apparent in the lowest ~3m of the hole. The hole is terminated in light grey-green, foliated volcanoclastics.

### **J20-39**

J20-39 was the ninth hole drilled in the Jeff zone, and was the final hole completed in the 2020 exploration drilling campaign. It was drilled at an azimuth of 130 degrees and a dip of -69 degrees off the third Jeff pad. It was designed to test the southeasterly extent of mineralization at the Jeff zone. Semi-massive sulphide to heavy sulphide mineralization is intercepted in two horizons: a near-surface upper zone and a lower zone at depth.

The hole is collared in a fine grained, foliated and quartz-sericite-pyrite altered package (possibly interbedded mudstones and tuffs). Sulphide mineralization is represented by pyrite as fine grained, wispy aggregates along foliation. The altered tuffs sharply transition into the upper mineralized zone at 5.56m. Mineralization in this zone is characterized by semi-massive pyrite hosted in graphitic, silicified siltstones. The base of this upper mineralized zone is truncated by a faulted zone in graphitic mudstones at 9.2m.

Below the faulted mudstones, the hole continues in fine grained, graphitic interbedded sediments cut by intermittent faulted zones from 11.9-21m, and 25.7-32.36m. At 32.36m, the hole transitions an extensive interval of light grey, quartz-sericite-pyrite altered monomict (basaltic?) breccias with minor siltstone horizons. Bull quartz-carb veining is observed from 52-60.36m; veining is not common in the Jeff or TV zones. Fine grained, disseminated pyrite and fine-grained aggregates are ubiquitous through the clast groundmass and breccia matrix. From 60.36m, the hole intercepts an extensive interval of interbedded siltstone-mudstones to 76.6m. The lowest 5m of the sedimentary package is faulted and healed cataclastic breccias. Below the brecciated zone, the hole encounters bleached, sericite-silica altered pillowed basalts and associated breccias from 76.6-85.35m. The basalts are weakly mineralized, with up to 15% finely disseminated pyrite along pillow selvages and breccia clast edges. At 85.35m, the hole returns to a brecciated interval of graphitic, silicified siltstones. The sericite-silica-altered breccias resemble the unit intercepted up-hole, and appear to be a mixed package of hyaloclastic and pillow breccias that extend to 109.7m. Immediately below the altered breccias, a package of variably altered sedimentary rocks (dominantly siltstones, minor mafic volcanics) is encountered from 109.7-139.3m. Pyrite (up to 10%) is semi-massive to stringer textures over this interval. The mixed sediments are interleaved with a fragmental (possibly intermediate to mafic), sericite-silica altered tuffaceous unit from 113.61-122m.

The base of the mixed sediments transitions into the lower semi-massive sulphide zone that extends from 139.3-142.12m. This lower mineralized interval is characterized by finely disseminated pyrite in siltstones, and bears strong resemblance to replacement-style mineralization. Foliation/bedding in this interval is at a low angle to core axis. The lower contact of mineralization is broken back into silicified, interbedded siltstones-mudstones.

Interbedded siltstones and mudstones dominate the lithology to the end-of-hole, and are weakly to moderately mineralized (5-10% abundance) with pyrite. The sedimentary sequence is sporadically

---

interjected with fault zones (as partially healed cataclasites and gouge-rich intervals, carbonate-quartz veining is common through the cataclasites), and with minor (potentially mafic?) brecciated intervals. An interval of siltstones with heavy to semi-massive sulphide mineralization (up to 40% fine grained pyrite) is intercepted at 155.93-165.73m. Sulphide abundance decreases below 178.52m. Alteration subsides moving downhole as well, with the hole terminating at 202.7m in relatively undeformed, graphitic and silica-altered siltstones.

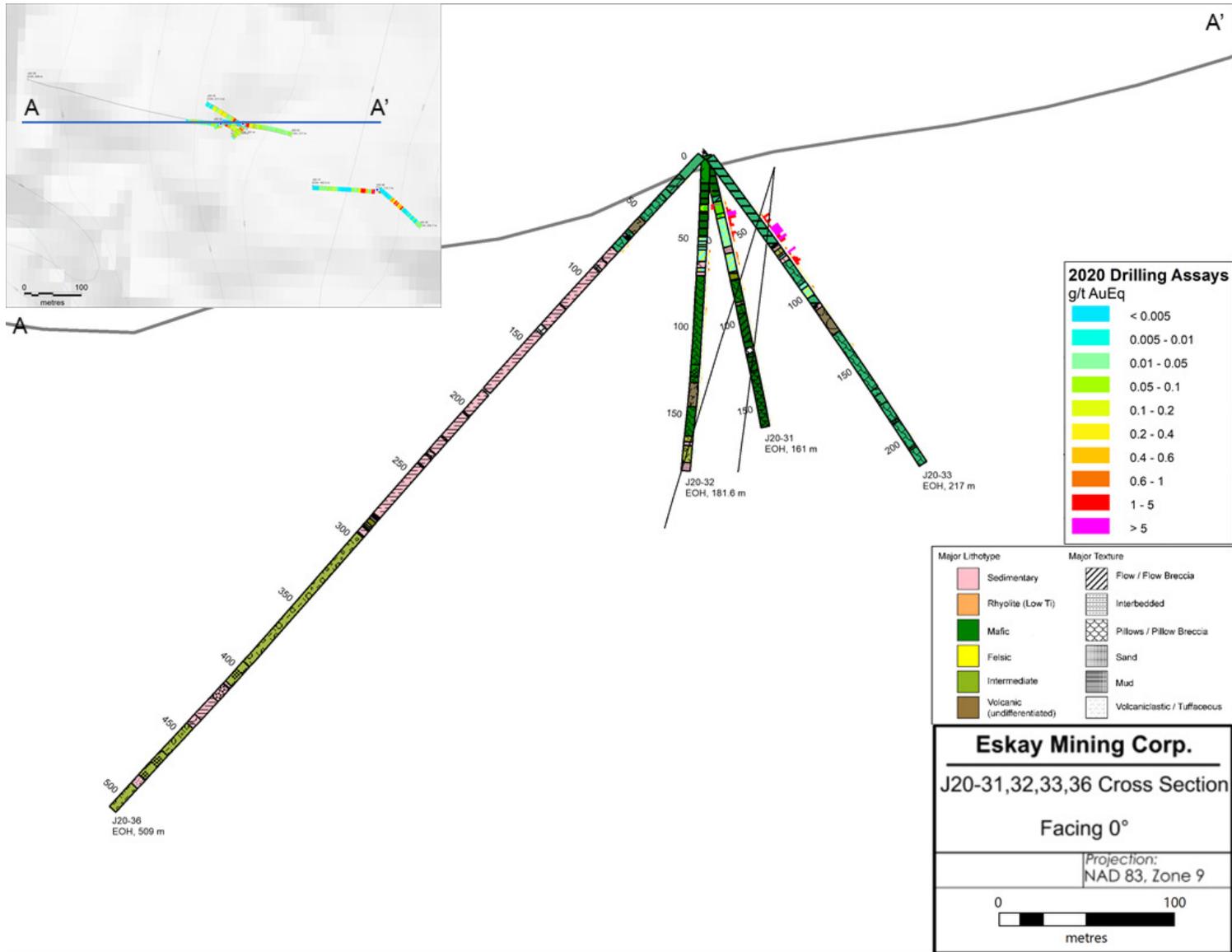


Figure 10.2.2: Cross section of Holes J20-31, 32, 33, 36.

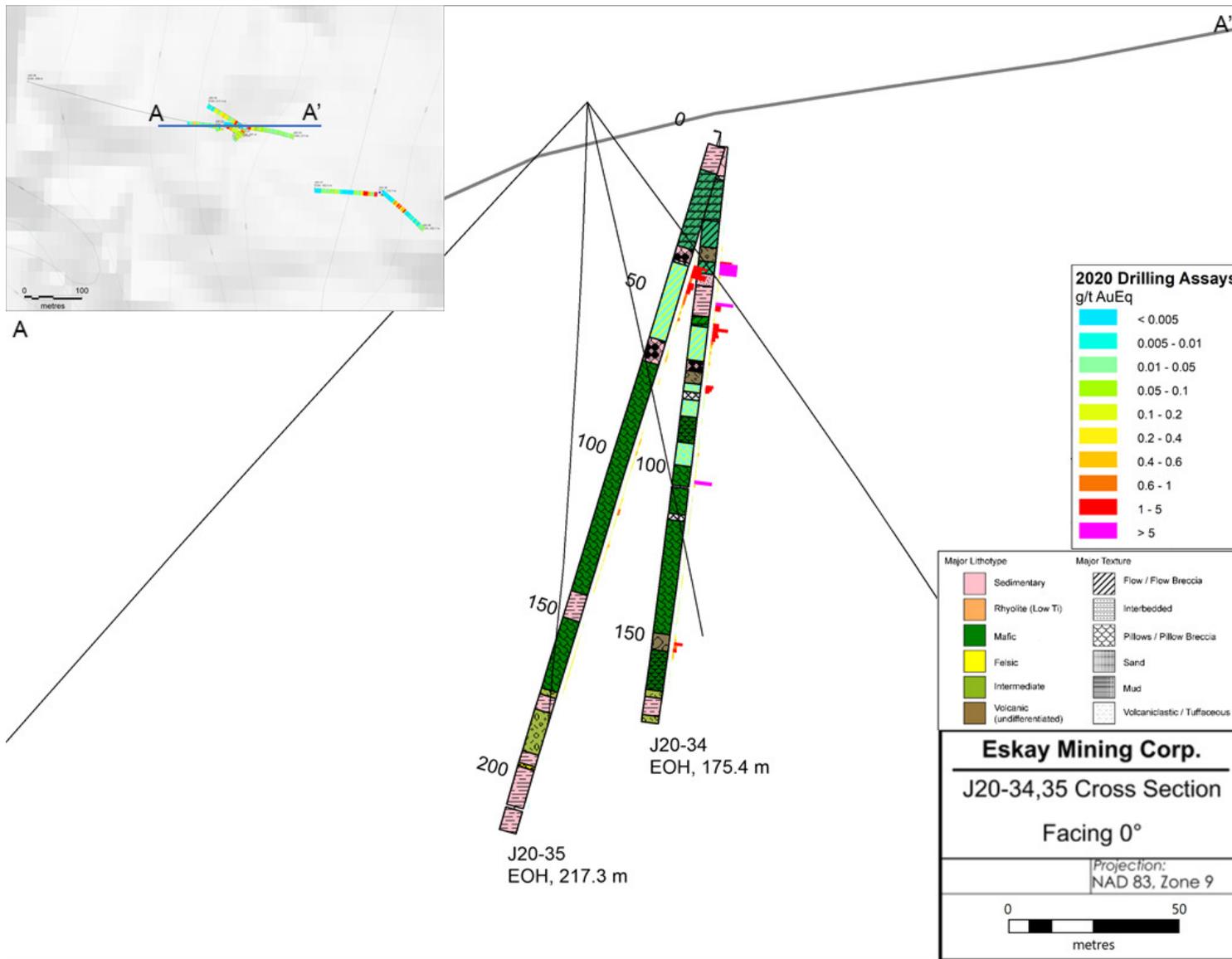


Figure 10.2.3: Cross section of Holes J20-34, 35.

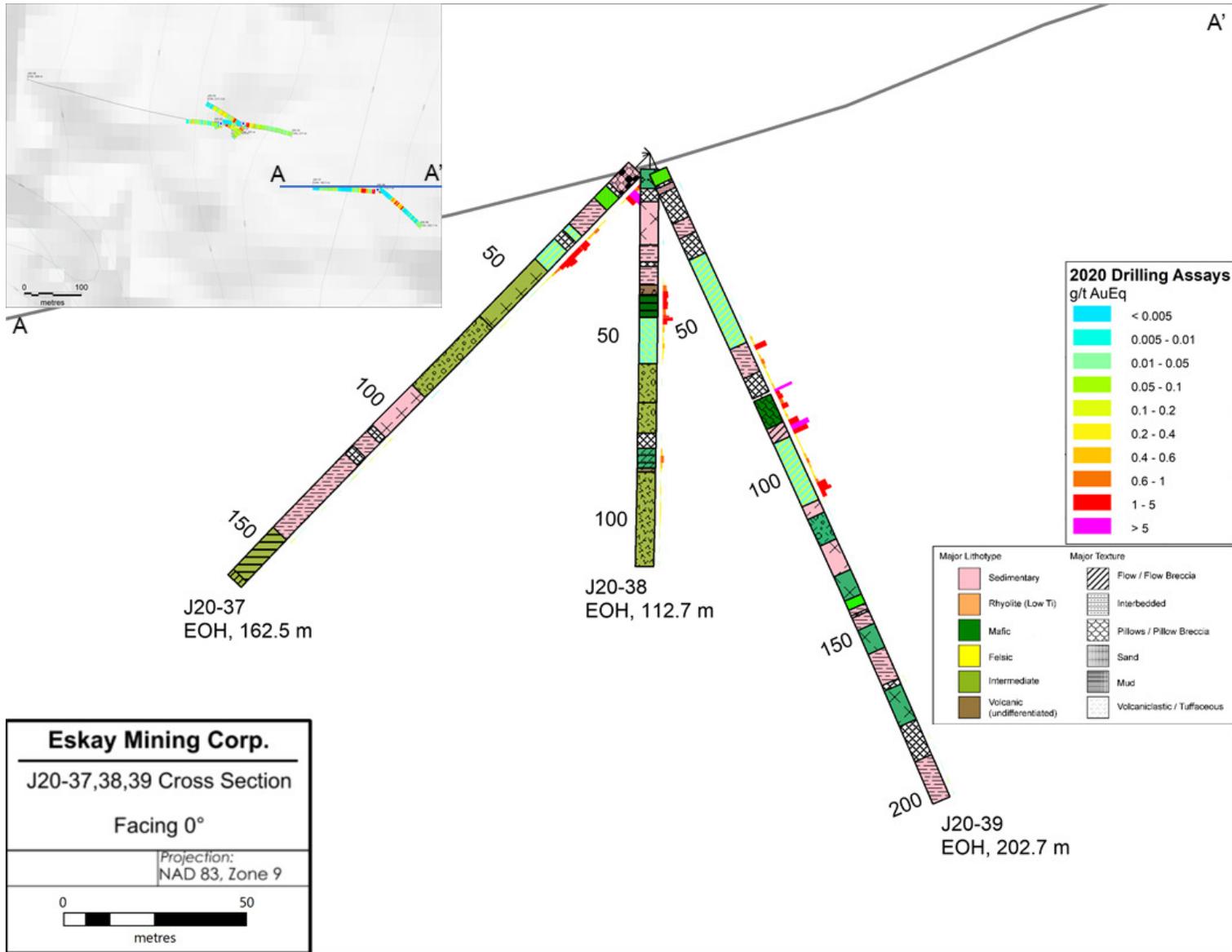


Figure 10.2.4: Cross section of Holes J20-37, 38, 39.

---

## 11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Sample preparation, analyses and security procedures were implemented for BLEG, drill core, and rock samples collected by the Company in 2020, as detailed below.

### 11.1 Protocols for Sampling, Sample Analysis and Security

#### 11.1.1 Sampling Protocol

##### **BLEG Samples**

BLEG drainage catchments and sample locations were chosen to avoid contamination by material from outside the desired catchment. Fine fraction material was collected from streams and stream banks by shovel and size 30 mesh sieve and placed in a clean 5-gallon bucket with stream water. Aluminum sulfate flocculent was added to the water to settle the fines out of suspension before water was decanted from the bucket. Samples were placed in millipore bags and allowed to dry before being sealed in polyester sample bags.

Samples were submitted to ALS Geochemistry in North Vancouver, British Columbia for clay separation and analysis. As part of QA/QC protocol, gold standard material was mixed with powdered montmorillonite clay to predetermined gold concentrations, similar to values expected for BLEG analysis. Three standard samples, and two blank samples were included with each batch of 50 BLEG samples. Field duplicate samples were taken at pre-determined locations.

The clay fraction from the samples were analyzed for gold by cyanide extraction with ICP-MS finish (codes Au-CN44a and ME-MS41L). Multi-element ICP-MS analysis was performed on bulk sample material.

##### **Drill Core Samples**

Drill core sample intervals were laid out and recorded by the logging geologist on site. Samples were mainly taken as one (1.0), one-and-a-half (1.5), or two (2.0) metre intervals. Samples were not taken across lithologic boundaries. Sample locations and associated sample numbers were marked on the core using a red lumber crayon. Pre-numbered three-part analytical tags, provided by ALS, were filled out with the appropriate information: project ID, drill hole number, sample interval, and date sampled. Drill core was cut using an electric-powered cutting saw. Sample intervals were sawn in half, with the right half placed in a polyester sample bag, pre-labeled with the sample number. The left half was returned to the original location in the core box. The corresponding sample number tag was placed in the bag with the sample, with one remaining sample tag being left stapled to the core box at the end of the sample interval.

Samples were placed in heavy plastic bags marked with identifying numbers, packed in sacks and transported to ALS Global Laboratories prep lab in Terrace B.C. The fine fractions were then sent to ALS in North Vancouver B.C., for analysis of gold (code Au-ICP21) and a suite of 36 additional elements (code ME-MS61m).

---

## Rock Samples

Rock samples consisted primarily of select grab samples from mineralized or altered bedrock or float. UTM co-ordinates were recorded for each rock sample site using a hand-held Garmin GPS unit. Data was recorded regarding the type, strength and extent of mineralization, as well as host rock characteristics, including alteration and possible controlling structures.

Similar to the drill core samples, rock samples were placed in heavy plastic bags marked with identifying numbers, packed in sacks and transported to ALS Global Laboratories prep lab in Terrace B.C. The fine fractions were then sent to ALS in North Vancouver B.C., for analysis of gold (code Au-ICP21) and a suite of 35 additional elements (code ME-MS61m).

### 11.1.2 Sample Analysis and Security

Sample analyses were carried out by ALS Global Laboratories in North Vancouver, BC. Eskay Mining Corp. has no relationship with ALS other than the procurement of analytical services. Samples were transported to the lab by Company personnel, stored in rice bags sealed with numbered security tags.

At the lab, drill-core and rock samples were dried and crushed to 70% <2 mm, then riffle split to a 250-gram lot, which was then pulverized to 85% <75 microns. From each sample pulp, 50 grams of -75 micron-size material was analyzed for Au content (0.001 ppm to 10 ppm detection range) by fire assay followed by inductively coupled plasma-atomic emission spectroscopy (ICP) analysis (Au-ICP21). As well, a suite of 36 additional elements was analyzed by dissolving at least 1 gram of -75-micron pulp in a four-acid solution and measuring the element concentrations by ICP (ME-MS-61m). Four-acid digestion is desirable as it represents a near-complete digestion of most elements in the analytical suite.

Samples > 10.0 ppm Au were analyzed for over limits by fire assay and gravimetric finish (Au-GRA21). Silver values that were > 5 ppm from the Multi-element analysis were re-analyzed via fire assay with a gravimetric finish (Ag-GRA21) was analyzed via Over-limits for copper, lead and zinc were analyzed by four acid digestion and inductively coupled plasma atomic emission spectroscopy (ICP-AES) finish (ME-OG62).

## 11.2 QA/QC Protocol

The ALS laboratory in North Vancouver, B.C., which analyzed the Company's samples in 2020, operates to ISO 17025 standards and is accredited by the local regulatory authority.

Quality Managers at the lab maintain the quality system, conduct internal audits, and assist in training and compliance. Staff are supported by a Quality Management System (QMS) framework which is designed to highlight data inconsistencies sufficiently early in the process to enable corrective action to be taken in time to meet reporting deadlines. The QMS framework follows the most appropriate ISO Standard for the service at hand i.e., ISO 17025:2005 UKAS ref 4028 for laboratory analysis. The Company also implemented its own internal QA/QC protocol for both the BLEG sampling and drill core assaying.

For BLEG sampling, field duplicates were taken at approximately 25 sample intervals, at appropriate field site locations. For each batch of samples submitted to the lab (3 in total) two standards and one blank sample were inserted at the end of each run of samples, to properly ascertain the veracity of the gold analysis. For blanks, pure montmorillonite clay was used. Standards were prepared by company geologist by mixing gold analytical standard material to a 10 ppb concentration within the montmorillonite blank material. All standards returned values within 0.5 ppb of the 10 ppb concentration.

For the drill program, a rigid system of QA/QC was adhered to during the sampling procedure. Batches were submitted to the lab as 50 samples per batch. Each batch contained one analytical standard, two coarse reject duplicate analyses, and two samples of blank material. Standards were inserted as the 10<sup>th</sup> sample of each batch, and consisted of one of three gold and silver standards (OREAS 602b, OREAS 61f, or OREAS 62f). Duplicate analyses were performed on the 30<sup>th</sup> and 40<sup>th</sup> samples, and the two blanks were inserted randomly, typically trying to follow zones of mineralization, as consecutive samples. Internal QA/QC checks were good, with no gold analyses of standards exceeding the 3 standard deviations from accepted values. Blank analyses, which consisted of Coast Plutonic Suite granitic material, extracted from a quarry near Terrace B.C., were also generally good, showing no contamination of gold from high grade zones into the blank material. Small amounts of silver (up to 1 ppm) occurred sporadically throughout the blank samples, indicating that small concentrations of silver may be primary within the blank material used.

### **11.2.2 Discussion**

No outside laboratory checks were performed on the rock and core samples. However, results reported by historical workers on the property were effectively reproduced in results from the 2020 field program.

The author recommends selecting some of the coarse rejects and pulps from the 2020 samples and submitting them to another laboratory for verification of the high metal values.

The author concludes that the sampling, security and analyses protocols employed by Eskay appears to be consistent with industry standard best practices.

## **12.0 DATA VERIFICATION**

The lead author made site visits to the core storage facility in Penticton, B.C., and to the exploration site. Field review of drill platforms on various targets, locations of geophysical and BLEG surveys, camp, staging and core logging locations was undertaken to evaluate and confirm work locations, evaluate effectiveness of exploration techniques in the terrain and data collection methodologies; select drill core is relocated to a core facility in the Okanogan, B.C. making it available for review year round. Drill core from the most recent drilling campaign was reviewed to verify the geological

interpretations and assay results. Before, during and after the site visit the authors performed the following activities to verify the data drawn upon for this Report:

- Reviewed and assessed the historical exploration literature, technical reports and data concerning the Property;
- Verified the mineral titles that comprise the Property, as listed on the B.C. Government MTO website;
- Queried exploration staff on work to date, exploration techniques used, and results and interpretations;
- Gathered and assayed coarse reject material from two of the high grade zones at Jeff and TV, and submitted them to SGS Laboratories in Vancouver, B.C. for grade verification. This information is presented below in Table 12.1.

The verifications performed by the author through observation and sampling of drill core, and review of the legacy historical documentary record, confirm in his view the merit of the SIB-Corey-North Mitchell Property as an intermediate-staged project. The tenor of the Company's rock and drill results for key elements, and the author's check samples, agree closely with those achieved historically. The author can confidentially say the Property warrants further exploration.

The author is of the opinion that the historical and recent data presented herein is reliable, and adequate for the purposes used in this Technical Report.

**Table 12.1: Duplicate check samples from the TV and Jeff Zone drilling; table part A comparable results, table part B laboratory and analysis information.**

HoleID	from_m	to_m	Interval_m	Original_Au_gpt	Original Ag_gpt	CHK_Au_gpt	CHK_Ag_gpt
J20-33	58.00	59.47	1.47	81.2	135	76	156
J20-33	73.25	74.60	1.35	7.58	726	8.31	848
J20-33	81.50	83.00	1.50	1.615	9.62	1.9	13.8
TV20-35	193.94	194.31	0.37	1.85	109	1.98	114
TV20-35	201.20	202.19	0.99	1.315	507	1.49	515

HoleID	Original_Sample	CHK_sample	Original_type	CHK-type	Original_Lab	Original_code	original overlimits	CHK_lab	CHK_code
J20-33	A0988288	035527	Hcore	coarse reject	ALSGlobal	ME-MS61m, Au-ICP21	Au-GRA21 and Ag-GRA21	SGS Canada Ltd	FAG33V
J20-33	A0988302	035528	Hcore	coarse reject	ALSGlobal	ME-MS61m, Au-ICP21	Au-GRA21 and Ag-GRA21	SGS Canada Ltd	FAG33V
J20-33	A0988308	035529	Hcore	coarse reject	ALSGlobal	ME-MS61m, Au-ICP21	Au-GRA21 and Ag-GRA21	SGS Canada Ltd	FAG33V
TV20-35	B0021397	035530	Hcore	coarse reject	ALSGlobal	ME-MS61m, Au-ICP21	Au-GRA21 and Ag-GRA21	SGS Canada Ltd	FAG33V
TV20-35	B0021407	035531	Hcore	coarse reject	ALSGlobal	ME-MS61m, Au-ICP21	Au-GRA21 and Ag-GRA21	SGS Canada Ltd	FAG33V

## 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing has been carried out on mineralization from the SIB-Corey-North Mitchell Property.

---

## **14.0 MINERAL RESOURCE ESTIMATES**

No mineral resource estimate has been undertaken for the SIB-Corey-North Mitchell Property mineralization as there is insufficient data to perform such an estimate.

## **15.0 MINERAL RESERVE ESTIMATES**

Not Applicable

## **16.0 MINING METHODS**

Not Applicable

## **17.0 RECOVERY METHODS**

Not Applicable

## **18.0 PROJECT INFRASTRUCTURE**

Not Applicable

## **19.0 MARKET STUDIES AND CONTRACTS**

Not Applicable

## **20.0 ENVIRONMENTAL STUDIES, PERMITTING, SOCIAL OR COMMUNITY IMPACT**

Not Applicable

## **21.0 CAPITAL AND OPERATING COSTS**

Not Applicable

## **22.0 ECONOMIC ANALYSIS**

Not Applicable

## 23.0 ADJACENT PROPERTIES

The SIB-Corey-North Mitchell Property lies within an important mineral trend of northwestern British Columbia, at the heart of the region informally named the “Golden Triangle” in the Stikine terrane (Figures 6.1 and 7.1, Figure 23.1). This region extends over 200 kilometres north from near the town of Stewart, along the western part of the Stikine Terrane and hosts VMS, porphyry-style, and precious metal-rich deposits associated with Late Triassic and Early to Middle Jurassic intrusions. Several of these deposit-types are analogous to mineralization present at SIB-Corey-North Mitchell. The following section has been modified from a 2018 Assessment Report (38639) on the Crown Project (Rowe, 2018) and NI 43-101 Technical Report on the Doc Property (Mitchell et al., 2019).

*Note: The author has been unable to verify the information concerning the mineral occurrences shown on Figures 23.1 and 23.2. Readers should be aware that these occurrences are not necessarily indicative of the mineralization on the SIB-Corey-North Mitchell Property that is the subject of this Technical Report*

**Eskay Creek** was, during its operation, among the world’s richest gold-silver mines. Host rocks are volcano-sedimentary rocks of the Middle Jurassic Iskut River Formation of the Upper Hazelton Group. Two styles of mineralization occur at Eskay Creek deposit: 1) stratiform polymetallic sulphide and sulfosalt mineralization deposited as a submarine debris flow derived from a seismically disturbed massive sulfide-sulfosalt body; and 2) high-grade gold and silver discordant stockwork feeder zones. Mineral bodies have diverse geochemical signatures dominated by Au, Ag, Cu and Zn and often accompanied by elevated As, Sb, Pb, Te and Hg. Mineralization displays both lateral and vertical zoning. Antimony, arsenic and mercury-rich mineral assemblages in the south part of the deposit grade into zinc, lead and copper-rich assemblages in the north. Vertical zoning is expressed as a systematic increase in gold, silver and base metal content up-section.

Mudstone host rocks are overprinted with varying amounts of chlorite, muscovite, chalcedonic silica, calcite and dolomite alteration, with ubiquitous pyrobitumen. Beneath the stratiform mineralization within the “contact” mudstone unit, the footwall rhyolite unit is highly fractured and intensely chlorite and sericite altered. Fracturing, alteration intensity, and metal tenor appear to increase toward the upper contact. Within 3 to 4 metres of the upper contact, rhyolite-hosted mineralization is characterized either by massive chlorite-gypsum-barite or by quartz-muscovite-sulphide breccia. Mineralization in footwall rocks commonly occurs as semi-massive to disseminated, crystalline pyrite, sphalerite, tetrahedrite, galena and chalcopyrite, with rare native gold.

The most important deposit is the 21 zone, which hosts most of the mined reserves and consists of a stratabound sheet of clastic sulphide debris flow deposits within carbonaceous mudstone and the underlying rhyolite-mudstone breccia. In the north, sulphide layers also occur in the hanging wall basalt unit. As traced by diamond drilling the entire zone extends 1400 metres along strike, 250 metres downdip and is from 5 to 45 metres thick.

---

Mining from 1995 to 2008 at Eskay Creek produced 2.1 million tonnes of ore yielding 101.65 tonnes of gold, at an average grade of 48.4 g/t, as well as 4,942 tonnes of silver, at an average grade of 2,221 g/t (BC MINFILE No. 104B 008).

The recently commissioned **Brucejack** mine has been developed within the Valley of the Kings (VOK) Zone, which hosts high-grade gold-silver mineralization as electrum, within quartz-carbonate and quartz-adularia veins and vein stockworks. Mineralization is both structurally and stratigraphically controlled where the majority of gold intersections are confined to a 75- to 100-metre-wide zone that closely parallels the axis of a synclinal structure. Alteration at the VOK Zone is predominantly quartz-sericite-pyrite, with lesser sericite-chlorite. Alteration is most pervasive and intense within sedimentary and fragmental volcanic rocks. A number of significant showings of gold-silver, plus copper, zinc and lead occur along a north-northwest trend, informally named the “Brucejack Trend”, which mostly parallels the regional Brucejack fault for about 4.5 kilometres north from VOK. Most of the showings consist of quartz-carbonate and local barite veins and stockworks associated with northwest to west-trending faults, thought to be splays of the Brucejack fault. Mineralization has been described as transitional epithermal, occurring up-stratigraphy from porphyritic intrusions, potentially sourcing the mineralizing fluids.

An updated April 4, 2019, NI 43-101-compliant mineral resource estimate for the VOK deposit, combining Measured plus Indicated categories, quantified 18.7 million tonnes grading 14.18 g/t gold and 81.6 g/t silver for contained totals of 8.5 million ounces of gold and 48.7 million ounces of silver (Pretium Resources Inc. news release, April 4, 2019). The Brucejack mine was commissioned in mid-2017 and is currently ramping up to mining at a targeted rate of 2,700 tonnes per day, utilizing long-hole stoping methods.

Production at the **Silbak-Premier** mine began in about 1918 and continued intermittently until 1968. Open pit mining commenced in 1989, through to 1996. The operations have milled nearly 5.9 million tonnes of ore, recovering approximately 62 tonnes of gold and 1,333 tonnes of silver, with associated lead, zinc, copper and cadmium (BC MINFILE No. 104B 054). As of January 1997, diluted Proven plus Probable Reserves were reported to be 350,140 tonnes grading 7.2 g/t gold, 37.7 g/t silver and 1.6% zinc (George Cross newsletter No. 26, February 6, 1997).

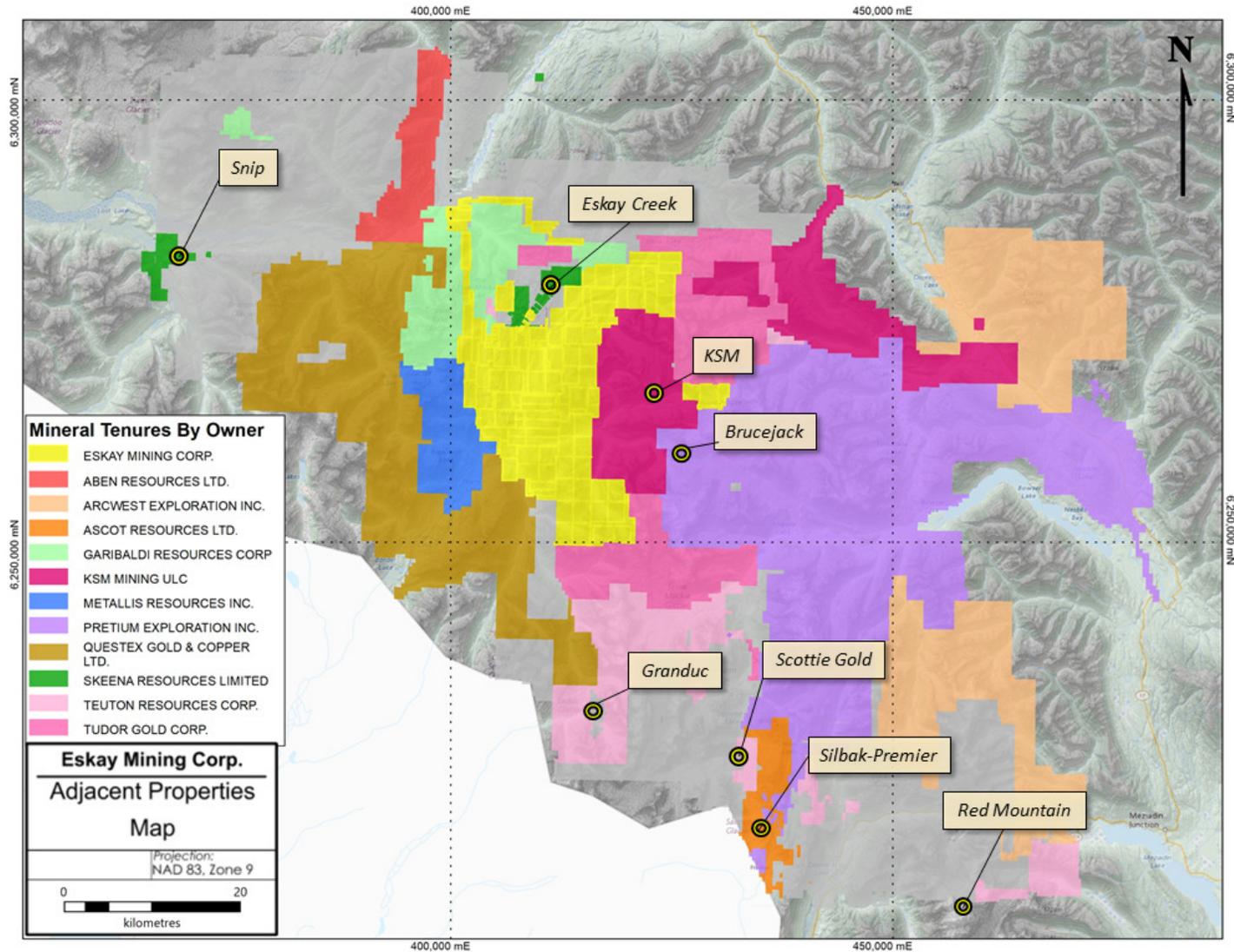


Figure 23.1: Eskey Mining Corp. property location, neighbouring properties and significant deposits of the southern Golden Triangle.

The Silbak-Premier orebody is hosted in andesite flows, andesite breccia and lapilli tuff of the Unuk River Formation (a sub-set of the lower Hazelton Group). The volcanic rocks have been intruded by potassium feldspar porphyry dykes of the Early Jurassic Texas Creek Plutonic Suite. The dykes, spatially associated with the deposit, are historically known as “Premier Porphyry”, and they are believed to be Lower Jurassic in age.

Hydrothermal alteration zones related to the mineralizing system are represented by a proximal silicification/quartz stockwork with potassium feldspar and(or) sericite-dominated alteration. Rock peripheral to the mineralization is characterized by a propylitic alteration assemblage comprising carbonate, chlorite and pyrite. The variable intensity and type of alteration is partially controlled by host lithology and fracture intensity, as well as the position along strike and the elevation in the hydrothermal system. The most distinct characteristic of the volcanic rocks surrounding the deposit is the pervasive carbonate, chlorite and clay alteration.

The mineralized bodies are predominantly discordant, but locally concordant with the moderately northwest-dipping andesite flows, breccias, and dacite flows. Mineralization occurs along two trends; a steeply northwest dipping Main Zone and a steep to vertical West Zone. These trends appear to represent structural controls to the mineralization and the emplacement of the dacite porphyry intrusions. Most production came from an area within 500 metres of the intersection of these two zones.

There are at least four styles of mineralization, comprising textures of stockwork and siliceous breccia, to locally layered and massive sulphide-rich mineralization. Sulphide content ranges from less than 5% up to 75% and sulphides consists of pyrite, sphalerite and galena, with minor tetrahedrite, chalcopyrite, arsenopyrite and local pyrrhotite. Bonanza-grade ore was reported to comprise native gold, electrum, pyrargyrite, polybasite, argentite and native silver. Gangue minerals include potassium feldspar, quartz, chlorite and carbonates. A hybrid genesis model combining epigenetic vein and porphyry copper characteristics compliments mineralization and alteration observed.

The **Snip** mine was developed on another high-grade auriferous-vein deposit in the area. The mineralization occurs within a southwest-dipping shear vein system within Upper Triassic Stuhini Group sedimentary rocks, which are intruded by Early Jurassic age stocks and plutons. The Snip deposit occurs within the southeast trending “Bronson Structural Corridor”, which appears to be associated with a number of significant deposits within the Iskut River area. The mine produced approximately 1 million ounces of gold between 1991 and 1999 at an average grade of 25 g/t. Approximately 60% of production was obtained from the Twin Zone, a 0.5- to 15-metre-wide sheared quartz-carbonate-sulphide vein system that cuts massive bedded greywacke and siltstone. Sub-parallel structures in the footwall of the Twin Zone accounted for the remainder of production. Total sulphide content in the veins seldom exceeded two percent, and was represented by minor pyrrhotite, arsenopyrite, sphalerite, chalcopyrite and rare galena (BC MINFILE No. 104B 004).

The **Red Mountain** deposit comprises gold-silver mineralization in several discrete zones within Middle to Upper Triassic sedimentary rocks and Lower Jurassic volcanoclastic rocks that are intruded by the Early Jurassic Goldslide Stock, which Grove (1986) correlates with the Texas Creek Plutonic Suite (BC Assessment Report 20971). Features associated with the irregular bodies

of monzodiorite, such as contact breccias, igneous breccia dykes and the existence of intrusive clasts in volcanic rocks, suggest that the intrusions were feeders to overlying volcanic units.

A wide contact breccia zone between the volcano-sedimentary package and porphyritic monzodiorite stock is characterized by argillite and(or) pyroclastic rock fragments within an intrusive matrix. Quartz stockwork is locally developed in the zone, and accompanied by weak to intense silicification, sericitization and propylitization. An extensive halo of pyrite-sericite alteration surrounds the intrusion.

Anomalous gold mineralization (>0.3 g/t) occurs at the transition from pyrite to overlying pyrrhotite dominant alteration zones over an area of more than one square kilometre. Within this anomalous zone, high-grade gold-silver mineralization grading between 3 and 20 g/t Au, lies within 5 to 29 metre-thick, semi-tabular, pyrite-pyrrhotite stockwork zones, accompanied by intense sericitic alteration and encompassed by an area of disseminated sphalerite and pyrrhotite.

Observed lithologies and alteration zoning indicates that mineralization formed in a subvolcanic environment at the top of the Goldslide intrusions and at the base of the Lower Jurassic volcanic pile. The Goldslide porphyry is interpreted to be the mineralizing intrusion and the relationships with the mineral zones show similarities common to many porphyry systems (Rhys,1995).

A NI 43-101 compliant resource estimate for Red Mountain calculated in November, 2019 (Arseneau, 2019) reported Measured resources of 1,919,600 tonnes grading 8.81 g/t Au and 28.31 g/t Ag at a cut-off grade of 3.0 g/t Au and Indicated Resources of 1,270,500 tonnes grading 5.85 g/t Au and 10.01 g/t Ag, also with a cut-off grade of 3.0 g/t Au. The Red Mountain calculated Measured plus Indicated resources includes 782,600 ounces of gold and 2,162,200 ounces of silver at a 3.0 g/t Au cut-off grade.

**Scottie Gold** comprises a precious metals-enriched vein type deposit. Veins are hosted by Lower-Middle Jurassic andesitic volcanoclastic rocks of the Hazelton Group, near the contact with a large stock. These strata are cut by mineralized veins and faults, as well as lamprophyre, microdiorite and porphyry dykes.

An Early Jurassic stock, consisting of hornblende quartz monzonite to hornblende granodiorite, lies to the northwest of the deposit. A wide, irregular aureole within and around the stock is characterized by an inner envelope containing a pervasively silicified contact zone hosting fine disseminated pyrrhotite and pyrite, decreasing outwardly to less altered volcanic breccias. The intrusive rocks are locally sheared and chloritized, particularly where transected by the Morris Summit fault.

Structurally, the Scottie property is dominated by a set of north-trending faults, the most prevalent of which is the west dipping Morris Summit fault. West of the Morris Summit fault, east-west striking faults are common, while areas to the east of it is cut by a suite of north-trending microdiorite dykes.

The Scottie deposit consists of several flat-lying mineralized quartz-carbonate veins, each forming an en-echelon or “ladder” vein pattern across widths of tens of metres, between pairs of northwest-trending steeply dipping veins, and extending to depths of up to 300 metres. The veins are

components of secondary shears along the Morris Summit fault and are up to 7 metres wide, averaging 2 metres in width. The Main Zone is northwest striking and three mineralized splays from this structure strike east-west and dip steeply north. The overall mineralized area measures about 400 by 250 by 300 metres.

The main veins of the “ladders” occur within near-vertical fracture zones bordered by siliceous alteration envelopes with poorly defined borders. The veins contain variable sulphide content, with common lenses of massive sulphide consisting largely of pyrrhotite and pyrite, as well as subordinate sphalerite, chalcopyrite, galena, arsenopyrite, tetrahedrite and gold.

Exploration work was undertaken periodically on the Scottie Gold property commencing in the 1930s. Scottie Gold Mines put the property into production in 1981 through to 1984, and they mined 2.98 tonnes of gold and 1.6 tonnes of silver from 160,000 tonnes of ore, with an average grade of 18.6 g/t Au. Historical resource estimates suggest underground mineable Measured Reserves of approximately 29,000 tonnes grading 18.5 g/t Au (BC MINFILE No. 104B 034).

The region surrounding Eskay property also contains several large Au-Cu porphyry systems associated with Late Triassic to Early Jurassic intrusions which are likely the main sources for much of the mineralization in the area. Below are brief summaries of some of the porphyry deposits in the area.

Comprehensive drilling programs by Seabridge Gold Inc. on the **KSM** property have outlined four potentially mineable deposits along a 12-kilometre-long northeasterly trend. On March 12, 2019, Seabridge announced independent updated resource estimates for the KSM deposits (Kerr, Sulphurets, Mitchell & Iron Cap) as follows: Proven and Probable Mineral Reserves of 2,198 million tonnes averaging 0.55 g/t gold, 0.21% copper, 2.6 g/t silver, and 42.6 ppm molybdenum; and Measured plus Indicated Mineral Resources totalling 2.98 billion tonnes averaging 0.52 g/t gold, 0.21% copper and 2.8 g/t silver. An additional 4.56 billion tonnes are estimated in the Inferred Resource category grading 0.38 g/t gold, 0.32% copper and 2.4 g/t silver.

The mineral bodies at KSM are associated with the Early Jurassic “Mitchell Intrusions”, high level diorite to monzonite plugs and dykes that intrude volcanic and sedimentary rocks of the Stuhini and Hazelton groups. The Iron Cap deposit, the northernmost of the four deposits, displays similar alteration to the others, with pervasive silicification, lesser sericitization and chloritization, and containing typically 3-5% disseminated pyrite. The intense silicification overprints earlier potassic and chloritic alteration, while phyllic alteration is present, is less pervasive than at the nearby Mitchell deposit. Copper bearing zones at Iron Cap demonstrate higher-grades and more extensive potassic alteration than some of the other deposits, and this is believed to be consistent with its deposition primarily within intrusive host rocks that presented a deeper and hotter environment. Associated with the silicification at Iron Cap are wide zones of hydrothermal brecciation, sporadic metre-scale quartz-pyrite-chalcopyrite veins and later centimetre-scale quartz-carbonate-pyrite-chalcopyrite-sphalerite-galena-tetrahedrite veins, providing evidence of multi-stage mineralizing events.

At KSM, Ghaffari et al. (2016), envisage a combined open-pit and underground block caving mining operation projected to operate for 53 years. During the initial 33 years, open pit production

would average 130,000 tonnes per day, thereafter reducing to 95,000 tonnes per day from underground operations. Flotation concentrate would be produced on site and trucked to Stewart, for shipment to smelters.

The **Red Chris** porphyry copper-gold deposit, previously owned by Imperial Metals (now 70% owned by Newcrest Mining as of August 15, 2019), commenced commercial production in 2015. The deposit is hosted by a Late Triassic diorite to monzonite body that has intruded Late Triassic Stuhini Group volcanic and sedimentary rocks. As of September 30, 2015, combined open pit and underground block cave Measured plus Indicated resources at Red Chris totalled 1.035 billion tonnes averaging 0.35% copper, 0.35 g/t gold and 1.14 g/t silver (Gillstrom et al. 2015). The open pit resources are somewhat lower grade, but still total 847.9 million tonnes averaging 0.31% copper, 0.27 g/t gold and 1.01 g/t silver. Production is currently from two pits (Main and East) at an average of about 30,000 tonnes per day, with plans for a future increase in mining capacity. Concentrate is produced on site and trucked to Stewart for shipping overseas.

At **Schaft Creek**, porphyry copper-gold-molybdenum-silver mineralization consisting of pyrite, chalcopyrite, bornite and molybdenite occur predominantly in fractured to brecciated andesitic volcanic rocks of the Stuhini Group, which are intruded by augite porphyry basalt and quartz diorite dykes emanating from the nearby Late Triassic Hickman batholith. Less than ten percent of the mineralization occurs in intrusive rocks. The main deposit occurs within the bornite zone, with pyrite on the periphery.

Two phases of mineralization are present. The first phase comprises hydrothermal veins and breccias, and minor disseminations consisting of bornite, chalcopyrite, molybdenite, and pyrite, with accompanied potassic and sericite-chlorite alteration. The second phase is less extensive, and consists of veins of molybdenite and local specular hematite, as well as copper-lead-zinc sulphide veins with little associated alteration.

Mineralization is predominantly fracture-controlled and occur in dry fractures or combined with quartz and(or) quartz-calcite veinlets within the andesitic volcanic rocks. The sulphide minerals within the intrusive rocks are usually disseminated, seemingly replacing mafic minerals. Trace amounts of covellite, chalcocite, tetrahedrite and native copper have been identified. Minor galena and sphalerite occupy breccia zones and in small calcite veins. Gold and silver are associated with the sulphide minerals.

A January 2013, NI 43-101 compliant feasibility study for the Schaft Creek project proposed a 130,000 tonne per day open pit mine, with Proven plus Probable Reserves of 940.8 million tonnes grading 0.27% copper, 0.19 g/t gold, 0.018% molybdenum and 1.72 g/t silver containing 5.6 billion pounds of copper, 5.7 million ounces of gold, 363.5 million pounds of molybdenum and 51.7 million ounces of silver and annual production of 105,000 tonnes copper, 201,000 ounces gold, 1.2 million ounces silver and 10.2 million pounds molybdenum (Copper Fox website). The feasibility study contemplated a 21-year mine life. The owners are continuing exploration and collection of geotechnical data prior to making a production decision.

The **Galore Creek** deposit contains at least twelve alkalic porphyry copper-gold deposits within the Galore Creek syenite complex, which is roughly 5 by 2.5 kilometres in area. This complex

comprises a series of Late Triassic to Early Jurassic orthoclase-porphyry syenitic bodies, which have intruded coeval Upper Triassic Stuhini Group volcanic rocks and related sedimentary rocks.

The deposits are hosted primarily by highly altered volcanic rocks and pipe-like breccias adjacent to syenite dykes and stocks. Typically, the deposits are manto-shaped and have a north to northeast trend related to the syenite contacts and zones of structural weakness. Host rocks have commonly been skarnified, and original rock types are unclear. The term "hornfels" was frequently applied to these meta-volcanic rocks in the early stages of exploration.

An extensive hydrothermal alteration system led to the formation of large gossans. Potassic alteration has turned the syenites and volcanic rocks to pink, white and orange, and are composed mostly of orthoclase. Propylitic alteration, best developed in the syenitic rocks, consists of chlorite and calcite +/- albite and epidote alteration assemblages. Overprinted calc-silicate alteration, consisting of abundant garnet, diopside, epidote, albite and anhydrite is found locally.

As of September 2011, the Galore Creek deposit had reported Proven plus Probable Reserves of 528 million tonnes grading 0.59% copper, 0.32 g/t gold and 6.02 g/t silver containing 8.8 billion pounds of copper, 5.45 million ounces of gold and 102.1 million ounces of silver (Gill, et al. 2011). A prefeasibility study published in 2011 envisaged a large-scale open-pit mine providing ore to a process plant at a nominal rate of 95,000 tonnes per day over an approximate 18-year mine life. Concentrate would be produced and transported to the port of Stewart for shipment to various international destinations. The owners are undertaking environmental studies and seeking ways to optimize the economics of the project.

The area near the Property has also been explored for volcanogenic massive sulphide (VMS) mineral occurrences since the discovery of the nearby Eskay Creek and Granduc deposits.

The **Granduc** deposit straddles the South Unuk shear zone, along the South Unuk River fault, which forms the contact between Upper Triassic Stuhini metavolcanic and metasedimentary rocks to the west, and the mainly volcanic rocks of the Lower to Middle Jurassic Hazelton Group to the east. The deposit is mostly bound to sheared rocks of the Stuhini Group, and it has been interpreted as a Besshi-type VMS copper deposit.

The Granduc ore deposit consists of a series of stratiform massive sulphide lenses, localized within a complex sequence of volcano-sedimentary rocks that have been deformed by cataclasis. Recrystallization of rocks hosting the ore horizon has converted the fine-grained laminated rocks to compositionally banded, brown to pale grey quartz-rich biotite and sericite schists, quartzites and metacherts. Feldspathic and andesitic tuffs are metamorphosed into massive, or banded biotite, and biotite-epidote-actinolite schists. Massive rocks are more common in the lower half of the ore horizon, while the upper part of it consists of finely laminated quartz-rich brown biotite schists which are derived from silty argillites.

Several ore zones make up the Granduc deposit and feature pancake-like, overlapping, and commonly merging lenses, which extends vertically for 760 metres, laterally for 1200 metres and over a 120 to 240 metre lenticular width. Several steep north trending faults cut the orebodies, which have been offset by apparent right-hand strike-slip movement. The orebodies, designated as A to F, consist mainly of pyrite, chalcopyrite, pyrrhotite, magnetite, sphalerite, galena,

arsenopyrite, bornite and cobaltite. Gangue includes blocks of brecciated country rock, quartz as lenses, stringers and blebs, recrystallized coarse-grained calcite as lenses and stringers, and apatite. Minor alteration minerals comprise calc-silicate lenses and tourmaline.

Total production at the Granduc mine from 1971 to 1978 and 1981 to 1984 was 15.5 million tonnes of ore from which 124,048,961 grams of silver, 2,000,061 grams of gold and 190,143,710 kilograms of copper were recovered. Ore reserves before production began in 1971 were 39,316,435 tonnes grading 1.73% copper. Inventory in 1986 was reported as 9.89 million tonnes grading 1.79% copper with minor gold and silver (MINFILE No. 104B 021).

Many mineral occurrences found near the Doc Property are related to large regional structures, including the South Unuk/Harrymel Fault, located 1.5 kilometres to the east of the Property. The top of the Stuhini Group is commonly marked by a regional-scale angular unconformity, and typically overlain by Hazelton Group strata. This boundary is the so-called BCGS (British Columbia Geological Survey) “Red Line” interpreted by the BCGS to be a key to localization of many of the mineral deposits in the Golden Triangle.

## **24.0 OTHER RELEVANT DATA AND INFORMATION**

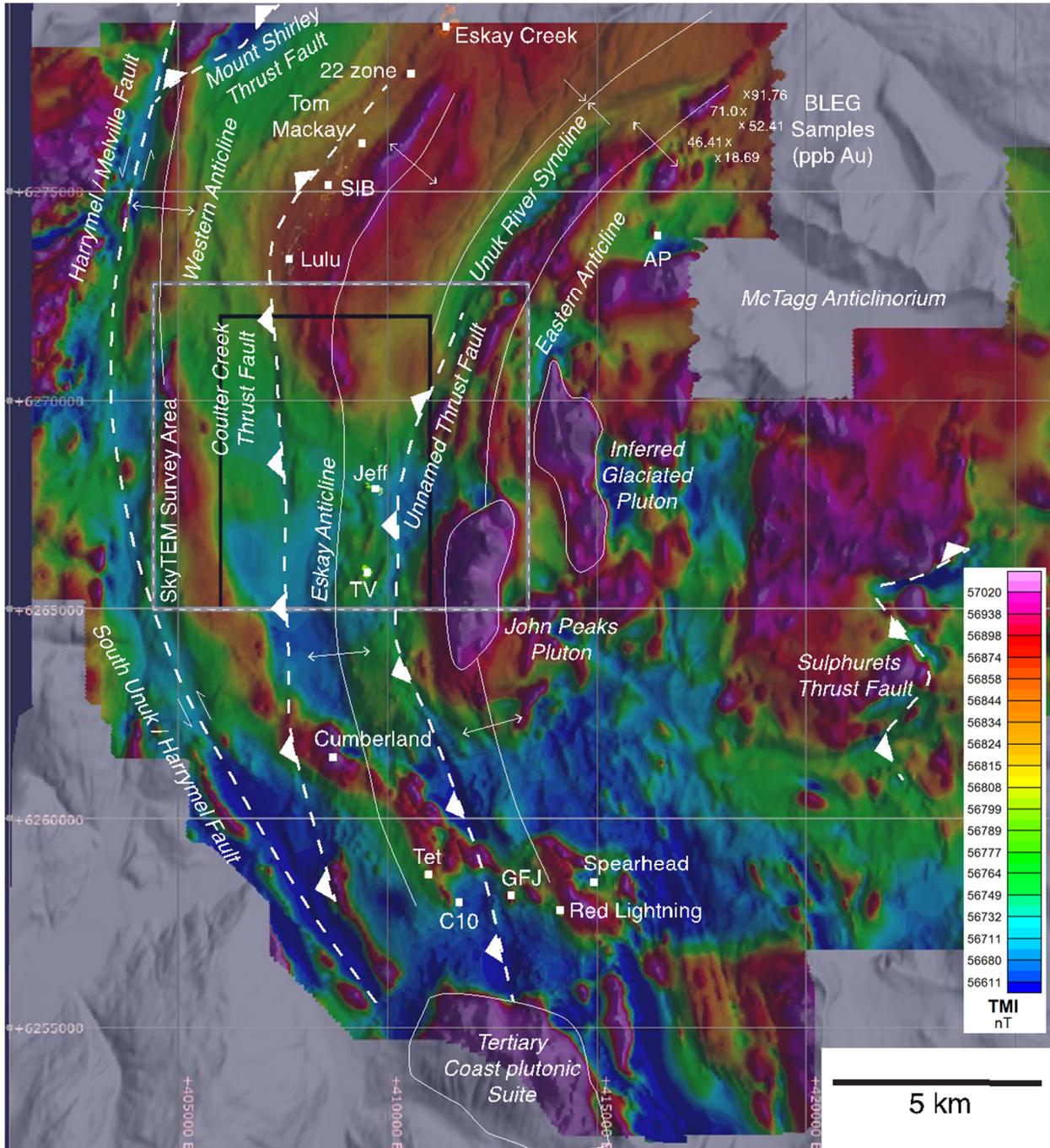
To the author’s knowledge, all relevant data and information on the Property has been provided in the preceding text.

## **25.0 INTERPRETATIONS AND CONCLUSIONS**

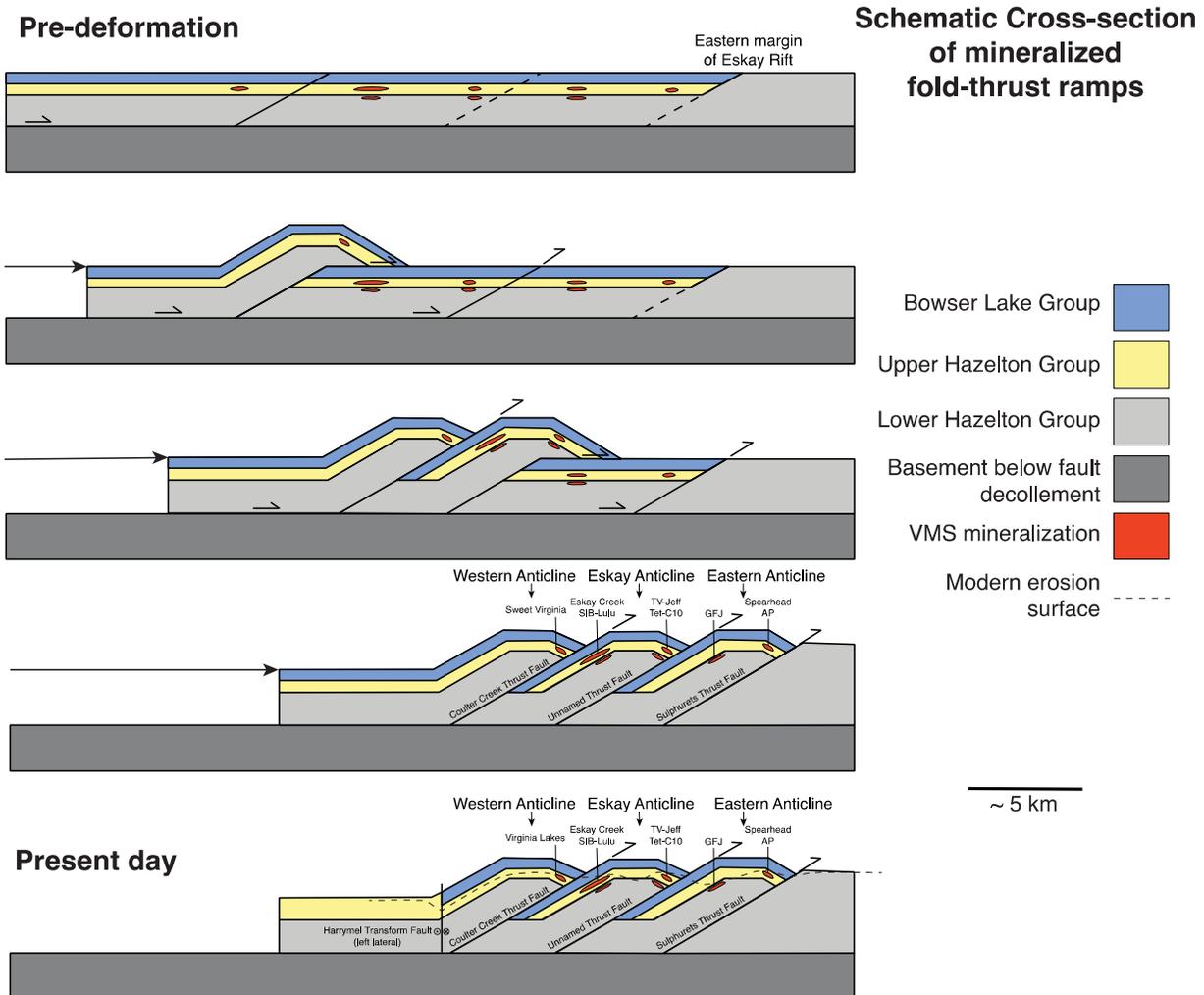
The Property has been shown to host several VMS targets and several occurrences of vein style mineralization. Main VMS target areas on the property include the SIB-Lulu, TV-Jeff, C10, GFJ, Spearhead, and AP zones. These targets appear to occur at a number of different stratigraphic levels which provide additional prospectivity for mineralisation associated with each hydrothermal system.

Results from comprehensive lithogeochemical sampling and detailed core logging of historic and recent drill core on the property has allowed for the synthesis a new model of the tectonic architecture of the Eskay Mining District. A picture has now emerged of three anticlines, the central Eskay Anticline, the Eastern Anticline and the Western Anticline, wholly or partially underlying Eskay’s Property (Figures 25.1 and 25.2). Major ramp-type thrust faults are associated with each anticline.

This new model suggests the flanks of each of these three anticlines are prospective for Eskay Creek-style VMS mineralization where favourable strata are exposed. Several newly recognized trends along these flanks are evident in recent BLEG, and multi-element geochemical anomalism.



**Figure 25.1: Airborne magnetic map of the property with major geologic structures. The locations of mineralized showings are marked by points, the names of structures are italicized.**



**Figure 25.2: Schematic showing proposed deformation history of mineralized Hazelton Group stratigraphy on Eskay Mining Corp. property. Late Jurassic and Tertiary intrusions have been omitted for clarity.**

The complete re-envisioning of the district and property scale geology has been built on basic geological principles supported by quality data using appropriate control programs and best practices where applicable. Information utilised in the re-interpretation of the district includes petrography, litho-geochemistry and additional analytical work to define stratigraphy complemented by a consistent geological logging and re-logging program to further define stratigraphic relationships. Target definitions utilised signatures of known targets to define new target zones for which there remains significant discovery risk however the revised geological model provides additional support to evaluate these target zones. Utilisation of geophysical anomaly data collected in such rugged terrain provides some uncertainty of location due to the need to reduce the data collected to a proper elevation, however geochemical and mapping support in conjunction with the revised geological model provide additional support for target evaluation.

The data compilation work completed to date and the substantial effort in re-interpretating the geological framework of the area has resulted in a significant revision of the geological and mineralising model for the area. Interpretation of the geological settings of the known prospects are consistent with the revised geological model.

The author concludes that by rebuilding the geological model from basic geological principles using quality data and consistent data collection procedures the Eskay Mining team has presented a refreshed exploration model for the district. The high quality geological work has reduced the geological risk leaving the project with only discovery risk; the project also has a reduced uncertainty that any potential discovery can be advanced due to the recent development of the Brucejack mine.

The author concludes that the Sib-Corey-North Mitchell Property is a property of merit.

## **26.0 RECOMMENDATIONS**

The author believes that the Property has considerable merit. Geologically, the Property covers an expansive area of highly prospective ground with additional potential highlighted by the revision of the geological model. Recent and historical work has identified numerous targets that have considerable potential to host economic concentrations of precious metals. Targeted exploration of several of the key prospects discussed in this report is recommended, along with broad scale regional mapping and prospecting, to highlight potential new zones of discovery.

### **26.1 Not Target Specific:**

- Property wide SkyTEM survey. Historically, the property has seen significant coverage by different Airborne EM systems, however the recent correlations between lithology, mineralization, and EM response observed in the most recent SkyTEM survey, shows considerable promise as a tool to aid in prospecting and delineating new target zones. Covering the entire property with data easily mergeable with the 2020 survey should be strongly considered.
- LiDAR survey: A fixed-wing LiDAR survey is strongly recommended. A centimetre-scale digital elevation model will be of enormous benefit to precisely target infill and expansion drill holes, as well as to assist in geological and structural mapping efforts, by allowing geologists to accurately see the surface expression of bedding, faults, and folding.
- Prospecting over anomalous BLEG survey catchments. The 2020 BLEG survey identifies numerous catchments with highly anomalous Au values, indicating the potential for new discoveries across the property. These catchments should be followed up by targeted prospecting efforts, and where applicable, additional BLEG sampling of tributary basins.

---

## 26.2 TV and Jeff Zones

- Diamond drilling is recommended at the TV and Jeff zones, to follow up the highly encouraging results from the 2020 drill campaign. Drill holes should be designed to test up-stratigraphy from the sub-seafloor replacement style mineralization encountered at the TV and Jeff zones to intersect prospective horizons for VMS mineralization seen up-stratigraphy elsewhere on the Property. Due to the nature of the mineralization present, an aggressive drill program should be planned, with enough coverage and drill spacing to be worked into a resource estimate.
- Geological mapping is recommended over the drill area, and along the trend between the TV and Jeff zones. This mapping should attempt to reconcile historical mapping of the area with recent geological re-interpretations of the local and regional geology. Structural information from this surface mapping will also be useful as a control on any downhole structural measurements from the drilling.

## 26.3 SIB Area

- Limited diamond drilling is recommended over the SIB Area in two locations: To follow up the mineralized trend observed in historical drilling in the northern enclave claims, where grades as high as 62g/t gold over 1 m were encountered in 2018; and to follow up the historical LULU zone drilling and test the recent interpretation and extent of offset between the hanging wall and footwall of the Coulter Creek Thrust Fault, directly below the LULU zone mineralization.

## 26.4 C10 Area

- Diamond drilling is recommended to follow up historically reported high grade Au mineralization, and to expand the known mineralized zones by following up on adjacent, untested chargeability anomalies.
- Geological mapping over the broader Mt. Madge area should focus on refining the Company's understanding of the surface geology and structure. Geological mapping, in conjunction with diamond drilling will be able to aid in placing the C10 area stratigraphically within the company's refined geological framework.

## 26.5 Proposed Exploration Budget

Table 26.1: Proposed exploration budget, Phase I program

Activity	Scope	Est. Cost (\$CDN)
SkyTEM Survey	30,000 m of drilling from 35 drill pads	\$1,200,000.00
Drill Services		\$4,800,000.00
Pad Building		\$850,000.00
Geological Mapping		\$150,000.00
Geochemical Sampling		\$250,000.00
Core Boxes		\$150,000.00
Core Cutting, Logging		\$1,750,000.00
Assaying		\$1,250,000.00
Helicopter Services		\$1,900,000.00
Fuel		\$500,000.00
Shipping and Transport		\$100,000.00
Archeology and Permitting		\$40,000.00
Camp		\$2,000,000.00
LiDAR Survey		\$100,000.00
<b>Grand Total*</b>	<b>\$15,040,000.00</b>	

*\*The total budget excludes any provision for corporate support services and activities.*

Should the proposed phase of exploration be successful, the next step will be to engage an outside consulting firm to prepare any applicable resources estimates and feasibility studies, as well as environmental baseline monitoring, and additional permitting to guide the company towards development.

---

## 27.0 REFERENCES

- Alldrick, D.J. 2006. Eskay Rift Project (NTS 103O, P, 104A, B, G, H), Northwestern British Columbia; British Columbia Ministry of Energy and Mines, Geological Fieldwork 2005, Paper 2006-1, pages 1-3.
- Alldrick, D.J., Britton, J.M., Webster, I.C.L. and Russell, C.W.P. 1989. Geology and mineral deposits of the Unuk area; British Columbia Ministry of Energy, Mines and Petroleum Resources, Open File 1989-10.
- Alldrick, D.J., Stewart, M.L., Nelson, J.L. and Simpson, K.A. 2004. Tracking the Eskay Rift through northern British Columbia - geology and mineral occurrences of the Upper Iskut River area; British Columbia Ministry of Energy and Mines, Geological Fieldwork 2003, Paper 2004-1, pages 1-18.
- Alldrick, D.J., Nelson, J.L., and Barresi, T. 2005. Geology and mineral occurrences of the Upper Iskut River Area: tracking the Eskay rift through northern British Columbia (Telegraph Creek NTS 104G/1, 2; Iskut River NTS 104B/9, 10, 15, 16); in Geological Fieldwork 2004. British Columbia Ministry of Energy, Mines and Petroleum Resources, Paper 2005-1, pp. 1–30.
- Alldrick, D.J., Nelson, J.L., Barresi, T., Stewart, M.L. and Simpson, K.A. 2006. Geology of Upper Iskut River area, northwestern British Columbia; BC Ministry of Energy and Mines, Open File Map 2006-2, Scale 1:100 000.
- Bartsch, R.D. 1993. A rhyolite flow dome in the Upper Hazelton Group, Eskay Creek area (104B/9, 10), British Columbia; British Columbia Ministry of Energy and Mines, Geological Fieldwork 1992. Ministry of Energy, Mines and Petroleum Resources, Paper 1993-1, p. 331–334.
- Barresi, T., Dostal, J. and Nelson, J. 2008. Metallogenic and Tectonic Significance of mafic volcanism in the Early to Middle Jurassic Hazelton Group, northwestern British Columbia; *Atlantic Geology*, vol. 44, p. 3-4.
- Childe, F., 1996. U-Pb geochronology and Nd and Pb isotope characteristics of the Au-Ag-rich Eskay Creek volcanogenic massive sulphide deposit, British Columbia. *Economic Geology* 91, 1209-1224.
- Cutts, J.A., McNicoll, V.J., Zagorevski, A., Anderson, R.G., and Martin, K., 2015. U-Pb geochronology of the Hazelton Group in the McTagg anticlinorium, Iskut River area, northwestern British Columbia. In: *Geological Fieldwork 2014*, British Columbia Ministry of Energy and Mines, British Columbia Geological Survey Paper 2015-1, pp. 87-102.
- Colpron, M., Nelson, J.L. and Murphy, D.C. 2007. Northern Cordilleran terranes and their interactions through time; *GSA Today*, V. 17, no. 4/5.
- Gagnon, J.F., Barresi, T., Waldron, J.W.F., Nelson, J.L., Poulton, T.P. and Cordey, F. 2012. *NI 43-101 Report on the SIB-Corey-North Mitchell Property, by Lindsay et al. 2021*

---

Stratigraphy of the Upper Hazelton Group and the Jurassic evolution of the Stikine terrane, British Columbia, Canadian Journal of Earth Sciences, vol.49, p. 1027-1052.

Ghaffari, H. et al. 2016. 2016 KSM (Kerr-Sulphurets-Mitchell) prefeasibility study update and preliminary economic assessment; private report for Seabridge Gold Inc., on Sedar website, <https://www.sedar.com/GetFile.do?lang=EN&docClass=24&issuerNo=00007531&issuerType=03&projectNo=02548688&docId=4006854>

Gill, R., Kulla, G., Wortman, G., Melnyk, J., Rogers, D. 2011. Galore Creek Project British Columbia NI 43-101 Technical Report on Pre-Feasibility Study; found at: <https://www.gcmc.ca/wp-content/uploads/2018/06/NI-43-101-Prefeasibility-Study-Galore-Creek-2011-07-27.pdf>

Gillstrom, G., Anand, R., Roberston, S., Sterling, P. 2015. 2012 Technical Report on the Red Chris Copper-Gold Project for Imperial Metals Corporation., in Imperial Metals website: <https://www.imperialmetals.com/assets/docs/red-chris-43-101-report-sept-30-2015.pdf>

Greig, C., 2013. Brucejack property geology. Pretium Resources Inc. Map, scale 1:6000, [http://s1.q4cdn.com/222336918/files/doc\\_downloads/geology/2013.03.19%20Property%20Geology.pdf](http://s1.q4cdn.com/222336918/files/doc_downloads/geology/2013.03.19%20Property%20Geology.pdf) Last accessed December 2017.

Grove, E.W. 1986. Geology and Mineral Deposits of the Unuk River-Salmon River-Anyox Area; BCMEMPR, Bulletin 63, 434p

Lewis, P.D., Mortensen, J.K., Childe, F., Friedman, R.M., Gabites, J.M., Ghosh, D., and Bevier, M.L., 2001. Geochronology data set. In: Lewis, P.D., Toma, A., and Tosdal, R.M., (Eds.), Metallogensis of the Iskut River Area, Northwestern British Columbia. Mineral Deposit Research Unit, Special Publication Number 1, pp.89-96.

Lewis, P.D. 2013. Geological Maps of the Iskut River Area; Metallogensis of the Iskut River Area, Northwestern B.C. published by MDRU.

Lewis, P.D., 2013. Iskut River Area Geology, Northwest British Columbia (104B/08, 09, 10 & part of 104B/01, 07, 11). Geoscience BC Report 2013-05; 3 1:50,000-scale maps, legend and notes; .shp files.

MacDonald, A.J., 1993. Lithostratigraphy and geochronometry, Brucejack Lake, northwestern British Columbia (104B/08E). In: Geological Fieldwork 1992, British Columbia Ministry of Energy and Mines, British Columbia Geological Survey Paper 1993-1, pp. 315-323.

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

Nelson, J., and Kyba, J., 2014. Structural and stratigraphic control of porphyry and related mineralization in the Treaty Glacier – KSM – Brucejack – Stewart trend of western Stikinia. In: Geological Fieldwork 2013, British Columbia Ministry of Energy and Mines, British Columbia Geological Survey Paper 2014-1, pp. 111-140.

Rhys, D.A., Siebe, M., Frostad, S.R., Swanson, C.L., Prefontaine, M.A., Mortensen, J.K., and Smit, H.Q. 1995. Geology and setting of the Red Mountain gold-silver deposits, northwestern British Columbia, *in* Schroeter, T.G., ed., Porphyry Deposits of the Northwestern Cordillera of North America: Canadian Institute of Mining and Metallurgy, and Petroleum, Special Volume 46, p. 811-828.

Roth, T. 2002. Physical and chemical constraints on mineralization in the Eskay Creek Deposit, northwestern British Columbia; evidence from petrography, mineral chemistry, and sulfur isotopes. Ph.D. thesis, Department of Earth and Ocean Sciences, University of British Columbia, Vancouver.

Schulz, K.J., Chandler, V.W., Nicholson, S.W., Piatak, Nadine, Seall, II, R.R., Woodruff, L.G., and Zientek, M.L., 2010, Magmatic sulphide-rich nickel-copper deposits related to picrite and (or) tholeiitic basalt dike-sill complexes—A preliminary deposit model: U.S. Geological Survey Open-File Report 2010–1179, 25 p. (available at <http://pubs.usgs.gov/of/2010/1179/>)

Seraphim, R.H. 1948. A Gold – Specularite Deposit, Unuk River, B.C., A Thesis submitted in partial fulfilment of the requirements the degree of Master of Applied Science in the Department of Geology and Geography, University of British Columbia.

Shanks, W.C. Pat, III, and Thurston, Roland, eds., 2012, Volcanogenic massive sulphide occurrence model: U.S. Geological Survey Scientific Investigations Report 2010-5070-C, 345 p.

## ASSESSMENT REPORTS

- \* All Assessment Reports are available on-line at: <http://aris.empr.gov.bc.ca/>
- \* MINFILE descriptions are available on-line at: <http://MINFILE.gov.bc.ca/searchbasic.aspx>
- \* BC Ministry of Energy and Mines, Exploration Assistant is available online at: [http://webmap.em.gov.bc.ca/mapplace/minpot/ex\\_assist.cfm](http://webmap.em.gov.bc.ca/mapplace/minpot/ex_assist.cfm)
- \* All BC GSB publications are available on-line at: <http://www.empr.gov.bc.ca/MINING/GEOSCIENCE/PUBLICATIONSCATALOGUE/Pages/default.aspx>
- \* BC Mineral Titles data is available online at: <https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/mineral-placer-titles/mineraltitlesonline>