

PASS LAKE RESOURCES LTD.

521006

GEOLOGICAL SUMMARY REPORT
AND
OPTION PROPOSAL
FOR
THE BULL CLAIMS

by

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PASS LAKE RESOURCES LTD.

LIARD MINING DIVISION

NTS 104 G/1

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1.0 INTRODUCTION

1.1 General Statement

Pass Lake Resources Ltd. has acquired eight claims, the BULL block, comprising 158 units in the Iskut River district, part of the so-called "Golden Triangle" of north-west British Columbia. The claims were staked by the company in September, 1989 following the announcement of the results of Hole 109 by Calpine Resources at Eskay Creek some 50 kilometers to the south. Acquisition was based upon a geological analogy with the stratigraphic column in the Eskay Creek area.

This report constitutes a summary of public data available on the area around the BULL claims and an invitation for an incoming party to participate in exploration and development of the property.

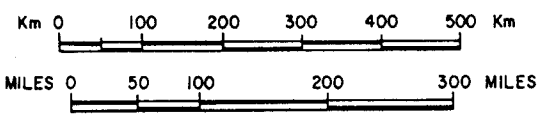
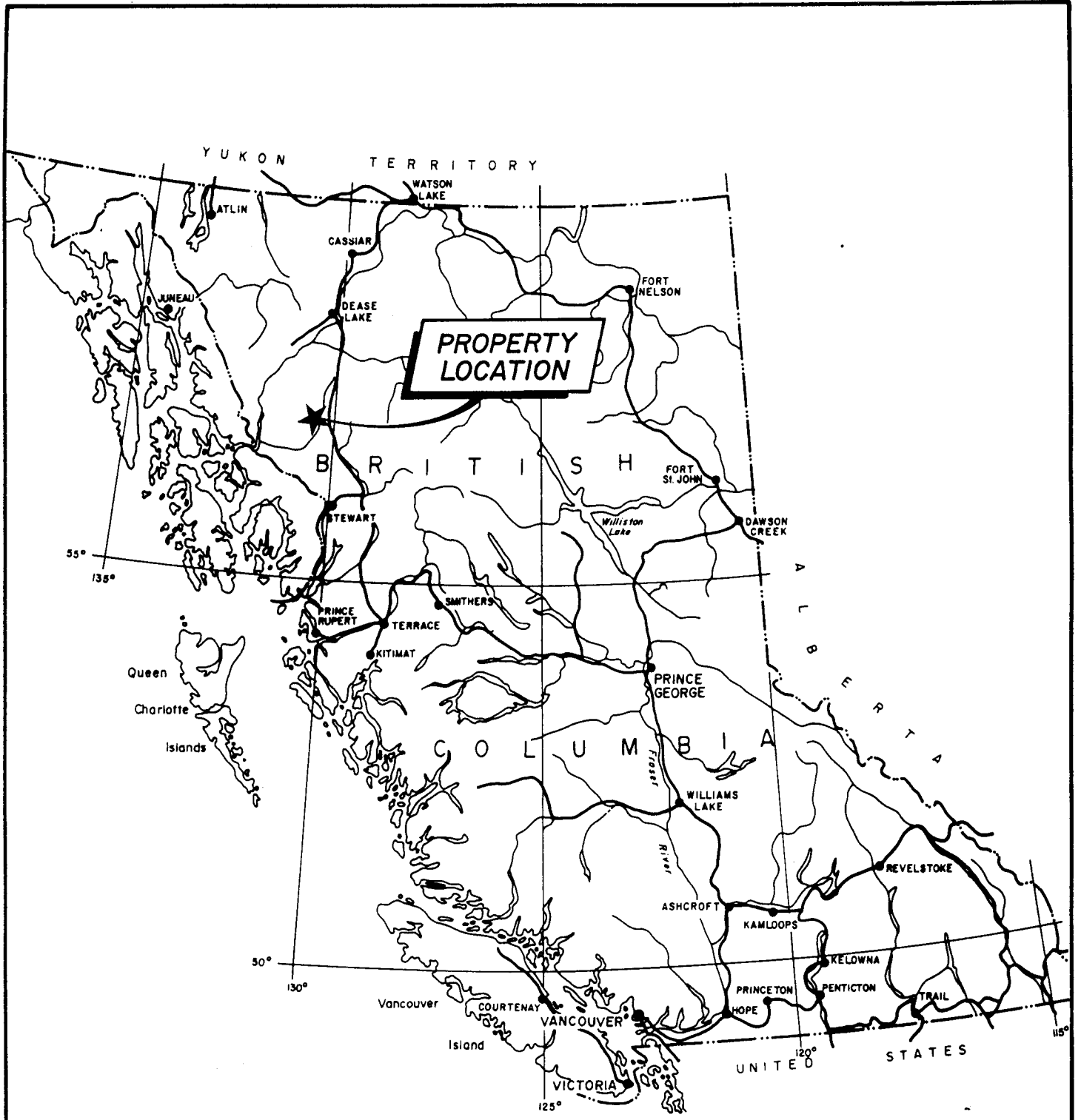
1.2 Location and Access

The BULL claims are located at Long. 130 23'W and Lat. 57 07'N near the Iskut River in north-west British Columbia (Figs. 1 & 2). The Stewart-Cassiar highway lies only five kilometers to the east. Access to the property can be gained by a short helicopter trip from bases on the highway either at the hamlet of Iskut to the north or at Bob Quinn to the south. A good airstrip is situated at Burrage River, also on the highway some 25 kilometers to the north.

1.3 Physical Features and Climate

The claim group lies immediately to the west of Iskut River in rugged mountainous terrain typical of the region. Elevations range from 600 meters in the Iskut River valley to 1,800 meters to the west, where permanent snow and glaciers occupy some of the higher ground. The property is covered by thick coniferous bush in the lower parts giving way to alpine scrub at about 1,200 meters elevation.

The claim area is situated near the eastern boundary of the humid coastal climatic belt. Winters are cold and several meters of snow



PASS LAKE RESOURCE LTD.

**BULL CLAIMS
 LOCATION MAP**

BRITISH COLUMBIA

DRAWN: J.J.E.	MINING DIV. LIARD	FIGURE
N.T.S.: 104 G/1	SCALE: AS SHOWN	1
DATE: SEPT., 1989	REVISED:	

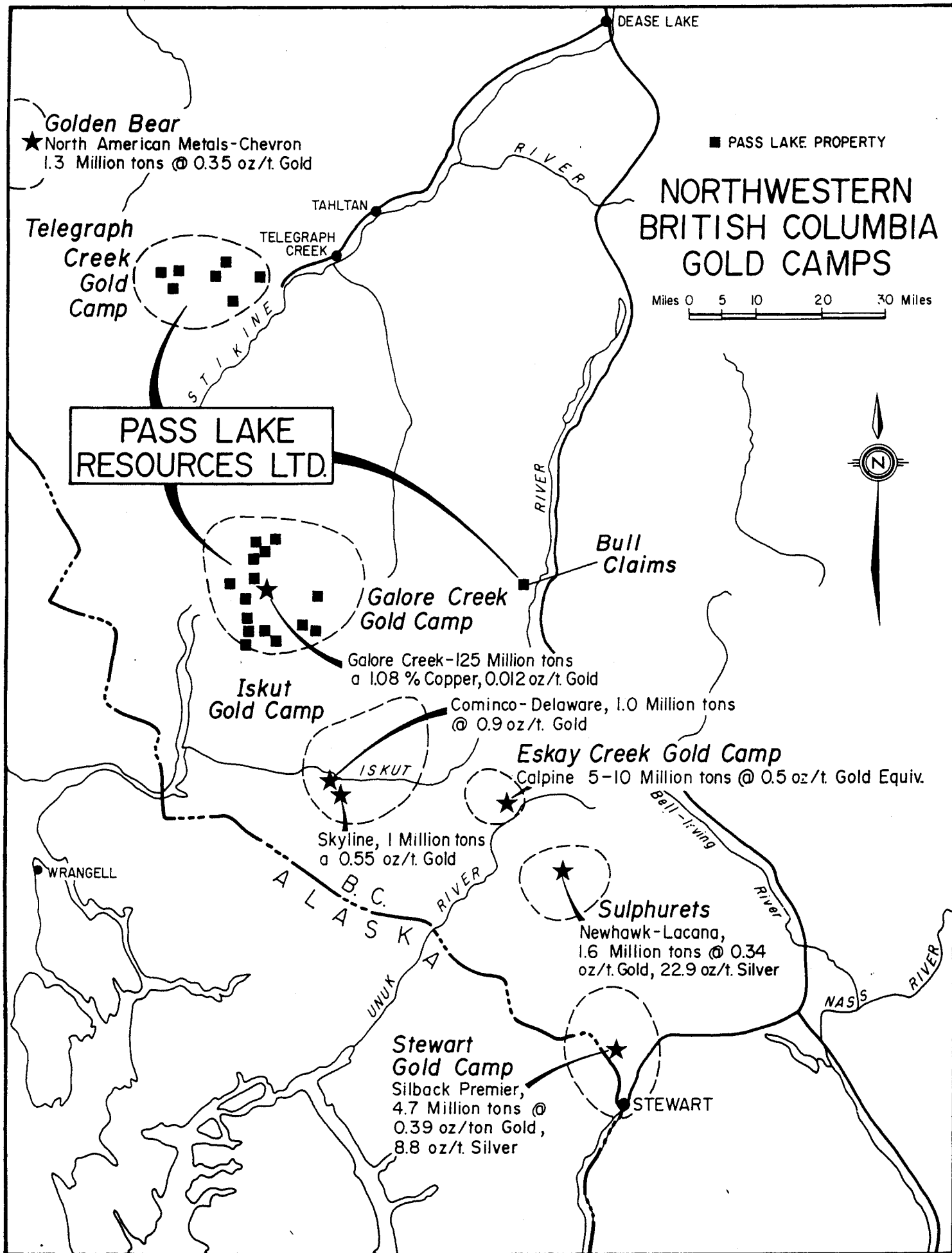


FIGURE 2

accumulation are common. Summer conditions are unpredictable but generally are cool and often moist. Typical field seasons extend from early June to mid-October.

1.4 Claims

The group comprises the BULL 1-8 claims amounting to 158 units as shown in Figure 3. The claims are recorded in the name of Pass Lake Resources Ltd.; details are listed below.

<u>Claim Name</u>	<u>Units</u>	<u>Record Number</u>	<u>Record Date</u>
BULL 1	20	6285	Sept. 1, 1989
BULL 2	20	6286	Sept. 1, 1989
BULL 3	20	6287	Sept. 1, 1989
BULL 4	20	6288	Sept. 2, 1989
BULL 5	20	6289	Sept. 1, 1989
BULL 6	20	6290	Sept. 2, 1989
BULL 7	18	6291	Sept. 1, 1989
BULL 8	20	6292	Sept. 1, 1989

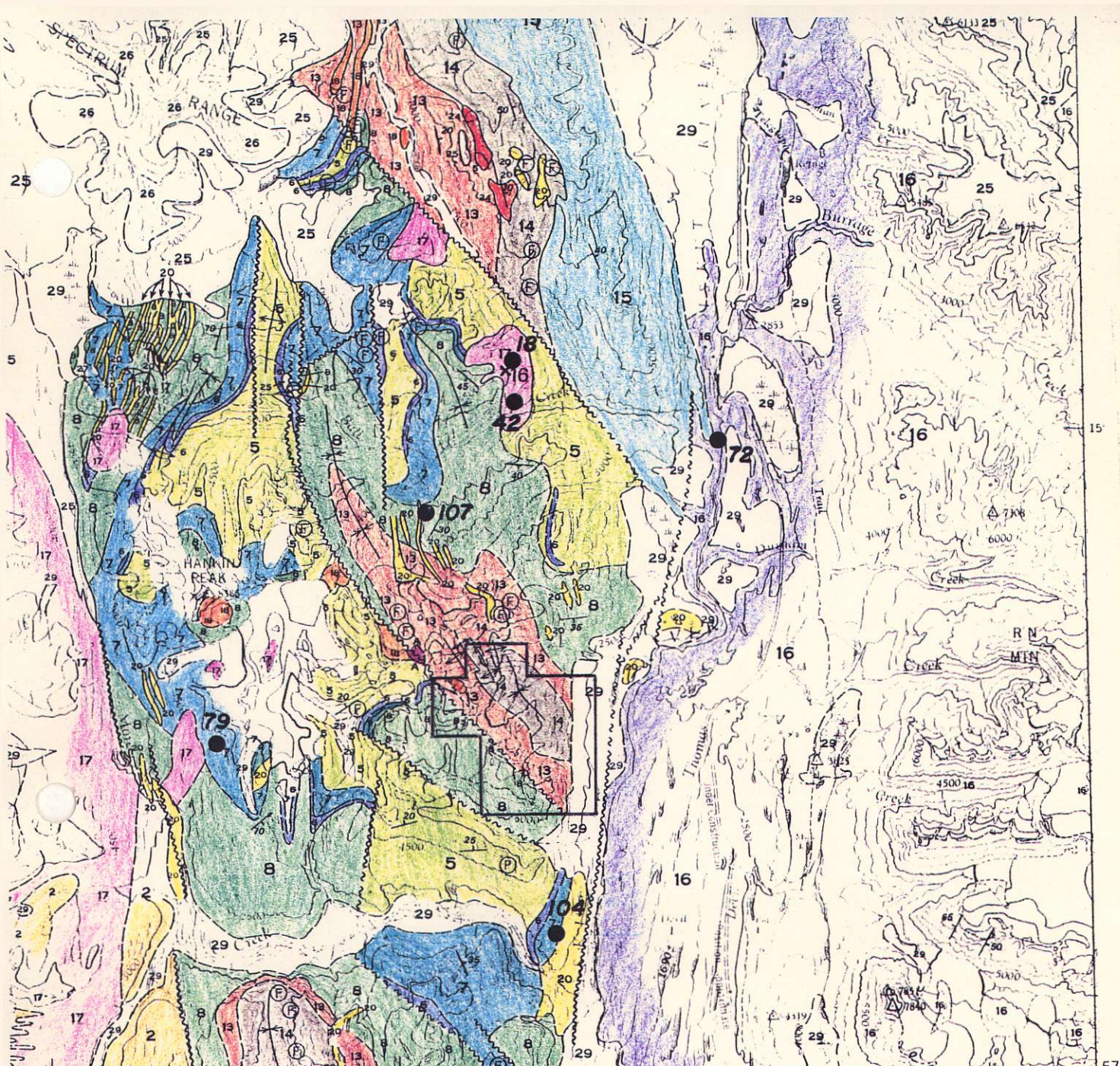
No work was carried out on the claims in 1989 and, hence, all expire on their respective anniversary dates in September, 1990.

2.0 GEOLOGY

2.1 Regional Overview

The BULL group is situated in the south-east quadrant of the Telegraph Creek map sheet (NTS 104G). The geology of the area surrounding the property is shown in Figure 4, after Souther (1971) of the GSC.

The map sheet is geologically contiguous with the Iskut River sheet (NTS 104B) to the south. Both are structurally dominated by the Stikine arch, a broad positive feature controlling sedimentation in surrounding basins after the early Jurassic. Stratified rocks now exposed within the Stikine Arch mainly range in age from late Paleozoic to late Mesozoic and are intruded by a host of large and



CENOZOIC

- LEGEND
- QUATERNARY
PLEISTOCENE AND RECENT**
- 29 Fluvialite gravel; sand, silt; glacial outwash, till, alpine moraine and colluvium
 - 28 Hot-spring deposit, tufa, aragonite
 - 27 Olivine basalt, related pyroclastic rocks and loose tephra; younger than some of 29
- TERTIARY AND QUATERNARY
UPPER TERTIARY AND PLEISTOCENE**
- 26 Rhyolite and dacite flows, lava domes, pyroclastic rocks and related subvolcanic intrusions; minor basalt
 - 25 Basalt, olivine basalt, dacite, related pyroclastic rocks and subvolcanic intrusions; minor rhyolite; in part younger than some 26
- CRETACEOUS AND TERTIARY
UPPER CRETACEOUS AND LOWER TERTIARY
SLOKO GROUP**
- 24 Light green, purple and white rhyolite, trachyte and dacite flows, pyroclastic rocks and derived sediments
 - 22 23 Biotite leucogranite, subvolcanic stocks, dykes and sills
 - 23 Porphyritic biotite andesite, lava domes, flows and (?) sills
- SUSTUT GROUP**
- 21 Chert-pebble conglomerate, granite-boulder conglomerate, quartzose sandstone, arkose, siltstone, carbonaceous shale and minor coal
 - 20 Felsite, quartz-feldspar porphyry, pyritiferous felsite, orbicular rhyolite; in part equivalent to 22
 - 19 Medium-to coarse-grained, pink biotite-hornblende quartz monzonite
- JURASSIC AND/OR CRETACEOUS
POST-UPPER TRIASSIC PRE-TERTIARY**
- 18 Hornblende diorite
 - 17 Granodiorite, quartz diorite; minor diorite, leucogranite and migmatite
- JURASSIC
MIDDLE (?) AND UPPER JURASSIC
BOWSER GROUP**
- 16 Chert-pebble conglomerate, grit, greywacke, subgreywacke, siltstone and shale; may include some 13
- MIDDLE JURASSIC**
- 15 Basalt, pillow lava, tuff-breccia, derived volcaniclastic rocks and related subvolcanic intrusions
- LOWER AND MIDDLE JURASSIC**
- 14 Shale, minor siltstone, siliceous and calcareous siltstone, greywacke and ironstone
- LOWER JURASSIC**
- 13 Conglomerate, polymictic conglomerate; granite-boulder conglomerate, grit, greywacke, siltstone; basaltic and andesitic volcanic rocks, peperites, pillow-breccia and derived volcaniclastic rocks
- TRIASSIC AND JURASSIC
POST-UPPER TRIASSIC PRE-LOWER JURASSIC**
- 12 Syenite, orthoclase porphyry, monzonite, pyroxenite

MESOZOIC

- POST-UPPER TRIASSIC PRE-LOWER JURASSIC**
- 12 Syenite, orthoclase porphyry, monzonite, pyroxenite
- HICKMAN BATHOLITH**
- 10 11 Hornblende granodiorite, minor hornblende-quartz diorite 11. Hornblende, quartz diorite, hornblende-pyroxene diorite, amphibolite and pyroxene-bearing amphibolite
- TRIASSIC
UPPER TRIASSIC**
- 9 Undifferentiated volcanic and sedimentary rocks (units 5 to 8 inclusive)
 - 8 Augite-andesite flows, pyroclastic rocks, derived volcaniclastic rocks and related subvolcanic intrusions; minor greywacke, siltstone and polymictic conglomerate
 - 7 Siltstone, thin-bedded siliceous siltstone, ribbon chert, calcareous and dolomitic siltstone, greywacke, volcanic conglomerate, and minor limestone
 - 6 Limestone, fetid argillaceous limestone, calcareous shale and reefoid limestone; may be in part younger than some 7 and 8
 - 5 Greywacke, siltstone, shale; minor conglomerate, tuff and volcanic sandstone
- MIDDLE TRIASSIC**
- 4 Shale, concretionary black shale; minor calcareous shale and siltstone
- PERMIAN
MIDDLE AND UPPER PERMIAN**
- 3 Limestone, thick-bedded mainly bioclastic limestone; minor siltstone, chert and tuff
- PERMIAN AND OLDER**
- 2 Phyllite, argillaceous quartzite, quartz-sericite schist, chlorite schist, greenstone, minor chert, schistose tuff and limestone
- MISSISSIPPIAN**
- 1 Limestone, crinoidal limestone, ferruginous limestone; maroon tuff, chert and phyllite
 - B Amphibolite, amphibolite gneiss; age unknown probably pre-Upper Jurassic
 - A Ultramafic rocks; peridotite, dunite, serpentinite; age unknown, probably pre-Lower Jurassic

PALEOZOIC

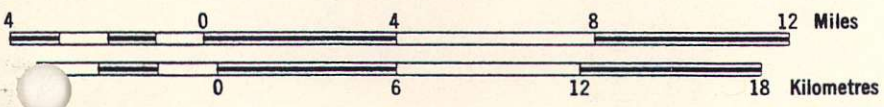
- Geological boundary (defined and approximate, assumed)
- Bedding (horizontal, inclined, vertical, overturned)
- Anticline
- Syncline
- Fault (defined and approximate, assumed)
- Thrust fault, teeth on hanging-wall side (defined and approximate, assumed)
- Fossil locality
- Mineral property
- Glacier

Printed by the Surveys and Mapping Branch

Base-map at the same scale published by the Army Survey Establishment, R. C. E. in 1950-54

Copies of the topographical edition of this map may be obtained from the Canada Map Office, 615 Booth Street, Ottawa, Ontario K1A 0E9

Scale 1:250,000



Universal Transverse Mercator Projection

104 K	104 J	104 I
6-1969	21-1962	29-1962
104 F	104 G	104 H
7-1959	11-1971	
104 C	104 B	104 A

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

MAP 11-1971
TELEGRAPH CREEK
BRITISH COLUMBIA

104 ● Minfile Mineral Occurrence with Reference Number

BULL CLAIMS REGIONAL GEOLOGICAL MAP

small Mesozoic and Cenozoic plutons.

Island-arc volcanism and related plutonism dominated the early and middle part of the Mesozoic era. Many of the well known precious- and base-metal deposits in the district were probably formed during this time. They include porphyry gold-copper (Galore Creek, Kerr, Copper Canyon), mesothermal veins/replacements (Snip, Skyline, Silbak Premier, Golden Bear), volcanogenic (Eskay Creek) and epithermal (Sulphurets) types (Fig. 2).

2.2 Local Geology

The BULL claims are underlain by Lower and Middle Jurassic strata (Units 13 & 14) possibly resting unconformably on Upper Triassic volcano-sedimentary rocks (Units 5-8). The Jurassic rocks in the vicinity of the property and in two other areas roughly 15 kilometers to the north and south appear to have been laid down in small basins on the eastern margin of an emerging highland and west of the extensive Bowser Group sediments (Unit 16), which developed somewhat later in a large back-arc basin. The entire sequence west of the Bowser basin has been intruded by stocks, plugs and dykes of granodiorite (Unit 17), diorite (Unit 18) and felsite (Unit 20).

Upper Triassic and Lower Jurassic rocks are correlative with the Stuhini and Hazelton Groups respectively to the south on the Iskut map sheet. Furthermore, it is evident that the Lower Jurassic sediments and volcanics on the BULL claims are time stratigraphic equivalents of the succession at Eskay Creek as follows:

Unit 13 equates to Betty Creek formation at Eskay (pre-ore)

Unit 14 equates to Mt. Dilworth formation at Eskay (ore zone)

Unit 15 equates to Salmon River formation at Eskay (post ore).

At Eskay Creek, felsic lava domes, breccias and ash tuffs of the Mt. Dilworth formation are closely associated with massive and sub-massive sulphides highly enriched in gold, silver and base metals. (Ore reserves at Eskay Creek have been recently estimated to be 1.75 million tons grading almost 2.0 oz./ton gold.)The

stratigraphic relationships are shown in Tables 1 and 2.

Felsites in the BULL claim area have been grouped with a variety of generally acid rocks of diverse appearance and distribution in the Telegraph map sheet and considered by Souther to be Cretaceous or Tertiary in age. However, many of these felsites occur in rocks at least older than Middle Jurassic and, hence, the possibility exists that they may be no younger than that age. In addition, some of the felsic rocks form small roughly conformable bodies in the Jurassic rocks around the property and in the Jurassic outliers to the north and south, perhaps indicating an origin as stubby acid flows.

Accordingly, it is hypothesized that some of the felsic rocks in the BULL claim area may well represent acid volcanic horizons within the Lower Jurassic succession and, if so, Eskay Creek-type targets certainly must exist on the property.

2.3 Mineral Occurrences

There are no known mineral occurrences and no published assessment reports on the BULL property area. However, several Minfile occurrences are noted in the general vicinity (Fig. 4), details of which are given in Appendix I.

The nearest occurrence is Lac Minerals' Hank property (Minfile #107) some five kilometers to the north west of the BULL group. Lac has identified 450,000 tonnes in two zones grading 3.43 grams/tonne gold (0.10 oz./ton). Gold occurs in strongly altered Upper Triassic volcanics associated with pyritic felsic intrusive bodies. Extensions of these felsites strike in the direction of the BULL block.

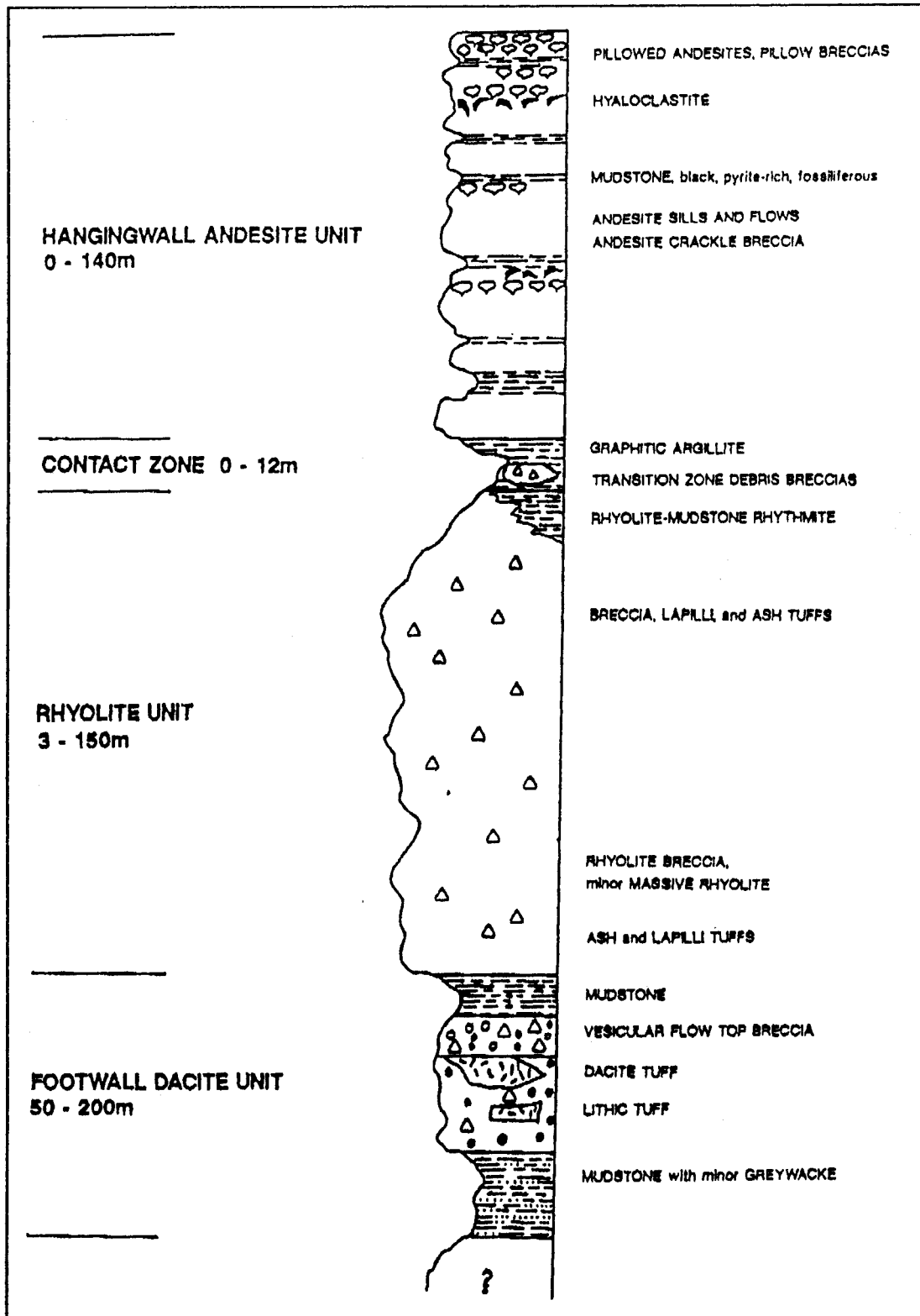
3.0 GEOCHEMISTRY

B.C. government regional stream geochemical data, published in July, 1988, are reproduced in Figure 5 in the BULL claim area for

TABLE I

Period	Formation	Group
Middle Jurassic 190 Million Yrs	Ashman	Bowser Lake
	Salmon River	Spatsizi
Lower Jurassic 210 Million Yrs	Mount Dilworth	Hazelton
	Betty Creek	
	Unuk River	
Upper Triassic		Stuhini

TABLE II
 STRATIGRAPHIC COLUMN - 21 ZONE



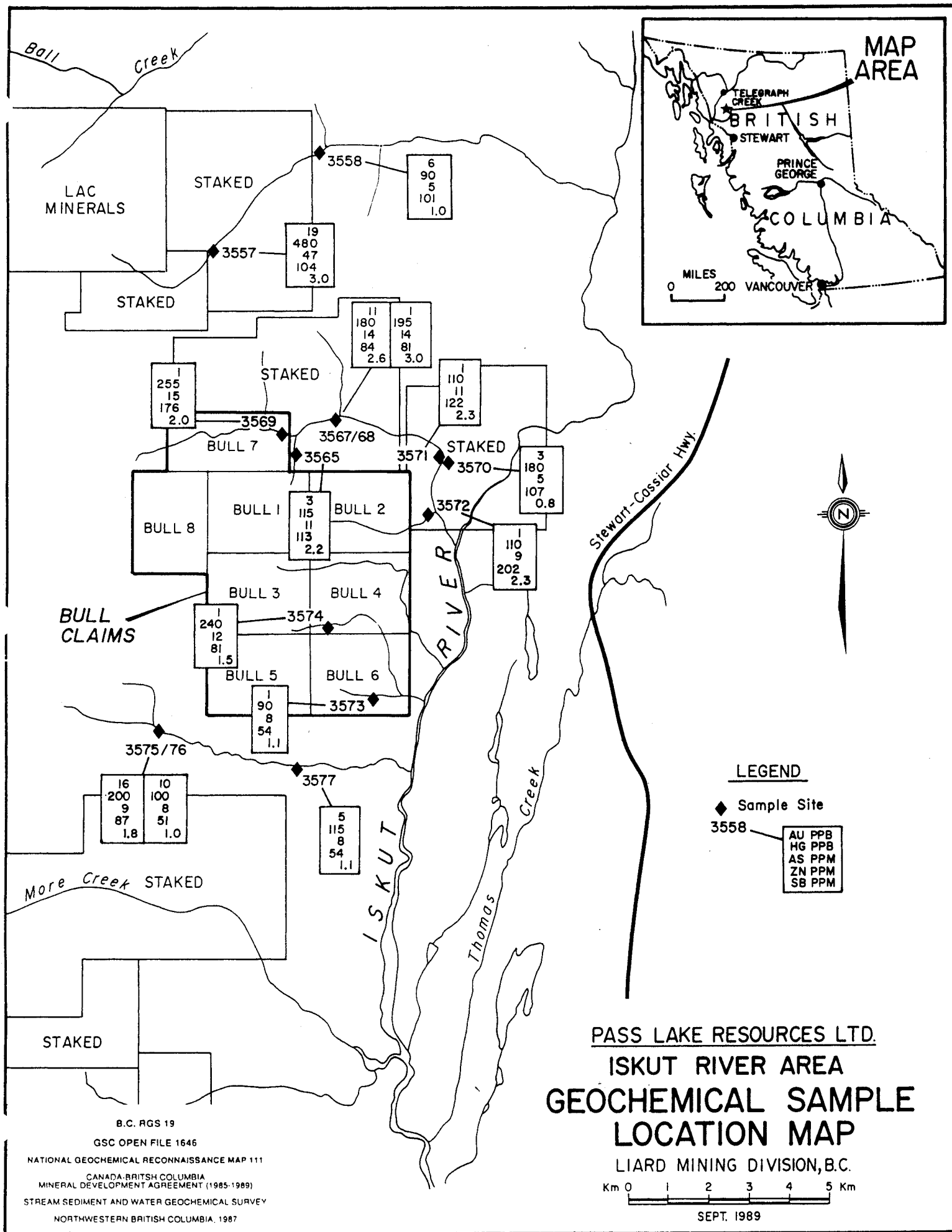


FIGURE 5

selected metals. Mercury, arsenic, gold, zinc and antimony have been chosen as likely useful pathfinder elements for Eskay-type ore bodies. Some population statistics for these elements are presented below.

<u>Element</u>	<u>-----Percentiles-----</u>				
	<u>50th</u>	<u>80th</u>	<u>90th</u>	<u>95th</u>	<u>99th</u>
Au ppb	2	12	30	65	237
Hg ppb	25	70	115	155	385
As ppm	4	10	17	29	81
Zn ppm	78	111	133	181	478
Sb ppm	0.4	1.0	1.7	2.3	5.5

The data indicate that mercury, antimony, arsenic and zinc approach or exceed the 90th percentile distribution level in many of the streams draining the claims, especially the northern part. Gold is not anomalous except for one sample of 11 ppb, also in the northern part of the property. It is to noted, however, that sample 3557, taken from a stream draining the gold-bearing Lac property described above, is strongly anomalous in all elements except gold, which reaches only 19 ppb.

In conclusion, it appears that targets exist on the property that require follow up. Given the regional nature of the existing geochemical data, substantial additional stream-sediment sampling together with prospecting and mapping are recommended as an initial program to evaluate the claims.

4.0 OPTION PROPOSAL

An incoming party can earn a 51% interest in the BULL claims by satisfying the following conditions:

<u>Time Period</u>	<u>Cash</u>	<u>Shares</u>	<u>Work Requirements</u>
On signing	\$10,000	50,000	-
By Dec. 31/90	-	-	\$50,000
By May 31/91	-	50,000	-
By Dec. 31/91	-	-	150,000
By Dec. 31/92	-	-	250,000
By Dec. 31/93	<u>-</u>	<u>-</u>	<u>350,000</u>
Totals	\$10,000	100,000	\$800,000

Upon fulfilling all of the above conditions, the incoming party will be vested as to 51% in the property. After vesting, a joint venture will be formed and funding will be on a pro-rata basis with provisions for dilution if either party elects not to contribute its share of on-going costs. The incoming party will have management of the project during the option period and after vesting, provided it maintains over 50% interest in the project.


 J.E. Christoffersen P. Eng.

President, Pass Lake Resources Ltd.

March 6, 1980.

APPENDIX I

MINFILE NO.: 104G 018

NATIONAL MINERAL INVENTORY NO.: 104G8 Mo1

NAME(S): MARY, GREG, TARA, ME, ROY

STATUS: Showing
N.T.S.: 104G08W
LATITUDE: 57 16 43
LONGITUDE: 130 24 53
ELEVATION: 1463 Metres

MINING DIVISION: Liard
UTM ZONE: 9
UTM NORTHING: 6349074
UTM EASTING: 414702

COMMENTS: The coordinates pinpoint an area of drilling activity on the Tara claim. This was formerly the Mary and Greg occurrences.

LOCATION ACCURACY: Within 500 M

COMMODITIES: Molybdenum Copper
SIGNIFICANT MINERALS: Molybdenite Chalcopyrite Pyrite
ASSOCIATED MINERALS: Quartz
ALTERATION COMMENTS: Iron stains are reported.
ALTERATION TYPE(S): Oxidation
AGE OF MINERALIZATION: Unknown
DEPOSIT CHARACTER: Stockwork Breccia
DEPOSIT CLASS.: Epigenetic Hydrothermal Porphyry

DOMINANT HOST ROCK: Plutonic

GROUP: FORMATION: Unnamed/Unknown Formation STRATIGRAPHIC AGE: Upper Triassic

IGNEOUS/METAMORPHIC/OTHER: Unnamed/Unknown Informal STRATIGRAPHIC AGE: Juro-Cretaceous

LITHOLOGY: Quartz Diorite
Monzonite
Welded Tuff
Agglomerate
Lithic Tuff
Volcanic Flow
Volcanic Breccia

COMMENTS: Mineralization occurs in both plutonic and volcanic rock.

TECTONIC BELT: Intermontane
TERRANE: Plutonic Rocks Stikinia
PHYSIOGRAPHIC AREA: Boundary Ranges

GEOLOGY: This occurrence is situated about ten kilometres west of the Bowser Basin and several kilometres south of the Cenozoic volcanic eruptions of the Spectrum Range. The area is underlain by welded tuff, agglomerate lithic tuff, flows, and breccias of Upper Triassic Age. These have been intruded by a large quartz diorite to monzonite stock of Juro-Cretaceous Age. The margin of this stock is porphyritic, highly fractured and iron stained. Small quantities of molybdenite, chalcopyrite and pyrite occur in quartz veinlets, on fractures, and in breccia zones in both intrusive and country rock.

MINFILE NO.: 104G 018
CONTINUED...

RUN DATE: 88/07/20
RUN TIME: 00:00:28

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH
MINFILE - REPORT

PAGE: 45

BIBLIOGRAPHY:

EMPR GEOLOGY *1975-G81
EMPR ASS RPT 3186, 3978, 3979, 4651, 5168, 5707, 8546
EMPR AR 1929-114; 1963-9
EMPR GEM 1970-61; 1971-40; 1972-530; 1973-506; 1974-338
EMPR EXPL 1975-E184
GSC P *71-44, p. 28
GSC MAP 9-1957; 11-1971; 1418A

DATE CODED: 850724
DATE REVISED: 880502

CODED BY: GSB FIELD CHECK: NO
REVISED BY: GJP FIELD CHECK: NO

MINFILE NO.: 104G 018

MINFILE NO.: 104G 042

NATIONAL MINERAL INVENTORY NO.: 104G8 Mo1

NAME(S): ME,ROG

STATUS: Showing
 N.T.S.: 104G08W
 LATITUDE: 57 15 30
 LONGITUDE: 130 24 45
 ELEVATION: 0762 Metres

MINING DIVISION: Liard
 UTM ZONE: 9
 UTM NORTHING: 6346814
 UTM EASTING: 414789

COMMENTS: This occurrence is primarily defined by two drill holes done on the ME claims in 1980, immediately south of Ball Creek.

LOCATION ACCURACY: Within 500 M

COMMODITIES:	Copper	Molybdenum	Lead
	Zinc	Gold	Silver
SIGNIFICANT MINERALS:	Chalcopyrite	Galena	Sphalerite
	Pyrite		Molybdenite
			Pyrrhotite
ASSOCIATED MINERALS:	Quartz	Carbonate	
ALTERATION MINERALS:	Sericite	K-Feldspar	Silica
ALTERATION COMMENTS:	Mineralization occurs in a gossanous zone.		
ALTERATION TYPE(S):	Sericitic	Potassic	Oxidation
AGE OF MINERALIZATION:	Unknown		Silicific'n
DEPOSIT CHARACTER:	Vein	Disseminated	
DEPOSIT CLASS.:	Epigenetic	Hydrothermal	

DOMINANT HOST ROCK: Volcanic

GROUP:	Andesitic Pyroclastic	FORMATION: Unnamed/Unknown Formation	STRATIGRAPHIC AGE: Upper Triassic
LITHOLOGY:	Basalt		
	Siltstone		
	Mudstone		
	Quartz Diorite		
	Monzonite		

TECTONIC BELT: Intermontane
 TERRANE: Stikinia
 PHYSIOGRAPHIC AREA: Boundary Ranges

RESERVES:

ZONE: ME

CLASSIFICATION: Best Assay

DATE: 1980

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Copper	0.1800 Per cent
Silver	11.6600 Grams per tonne
Gold	0.6900 Grams per tonne

MINFILE NO.: 104G 042
 CONTINUED...

B
C
S
Y
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M
S

COMMENTS: The copper and silver values are derived from two different 3 metre samples; the gold from a 0.5 metre sample.
REFERENCE: Assessment Report 8546

GEOLOGY:

This occurrence is situated about 10 kilometres west of the Bowser Basin and several kilometres south of the Cenozoic volcanics of the Spectrum Range. The area is underlain by Upper Triassic volcanics and sediments, comprised of andesitic pyroclastics, basalts, siltstones, and mudstones. These are intruded by a large quartz diorite to monzonite stock of Juro-Cretaceous age. Numerous faults cut through the area in several directions. One is parallel to Ball Creek and another is parallel to its north fork.

Prominent gossanous alteration zones occur throughout the area within the volcanics. Abundant pyrite is found in these zones as disseminations or as veinlets associated with epidote, chlorite, or pyrrhotite. Locally intense sericitization with some K-feldspar alteration occurs, often in areas of quartz veining. Copper mineralization occurs in a few places as disseminations but is primarily found with galena and sphalerite in carbonate veins. Small amounts of chalcopyrite with pyrrhotite and pyrite are found in silicified zones identified in drill core. Minor amounts of molybdenite were noted in quartz veins.

One 3 metre section of drill core contained up to 0.18 per cent copper while another 3 metre section contained up to 11.66 grams per tonne silver. The highest gold value was 0.69 grams per tonne over a 0.5 metre length.

BIBLIOGRAPHY:

EMPR ASS RPT 3186, 3978, 3979, 4651, 5168, 5707, *8546
EMPR AR 1929-114; 1963-9
EMPR GEM 1970-61; 1971-40; 1972-530; 1973-506; 1974-338
EMPR EXPL 1975-E184
GSC P 71-44
GSC MAP 9-1957; 11-1971; 1418A

DATE CODED: 850724
DATE REVISED: 880502

CODED BY: GSB FIELD CHECK: NO
REVISED BY: GJP FIELD CHECK: NO

RUN DATE: 88/07/20
RUN TIME: 00:00:28

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH
MINFILE - REPORT

PAGE: 149

MINFILE NO.: 104G 072

NATIONAL MINERAL INVENTORY NO.: 104GB Au1

NAME(S): BALL CREEK

STATUS: Showing
N.T.S.: 104G01W 104G08W
LATITUDE: 57 14 25
LONGITUDE: 130 16 00

MINING DIVISION: Liard

UTM ZONE: 9
UTM NORTHING: 6344631
UTM EASTING: 423549

COMMENTS: The location is the mouth of Ball Creek. The exact area of placer work is unknown.

LOCATION ACCURACY: Within 5 KM

COMMODITIES: Gold
SIGNIFICANT MINERALS: Gold
AGE OF MINERALIZATION: Unknown
DEPOSIT CHARACTER: Unconsolidated
DEPOSIT CLASS.: Placer

DOMINANT HOST ROCK: Sedimentary

IGNEOUS/METAMORPHIC/OTHER: Unnamed/Unknown Informal
LITHOLOGY: Gravel

STRATIGRAPHIC AGE: Unknown

TECTONIC BELT: Intermontane
TERRANE: Stikinia
PHYSIOGRAPHIC AREA: Boundary Ranges

GEOLOGY: The area drained by Ball Creek is primarily underlain by units of Upper Triassic volcanics and/or sediments as well as Lower Jurassic conglomerate. These are intruded locally by bodies of Juro-Cretaceous hornblende diorite and Tertiary-Cretaceous felsite. They are overlain in the northern parts of the drainage area by Cenozoic, Spectrum Range basalts.

Between 1936 and 1940 placer operations recovered 93.3 grams of gold from Ball Creek. The source of the placer gold may be Upper Triassic volcanics which are known to host gold in significant amounts.

BIBLIOGRAPHY: EMPR BULL 28, p. 58
GSC P 71-44
GSC MAP 9-1957; 11-1971; 1418A

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: NO
DATE REVISED: 880429 REVISED BY: GJP FIELD CHECK: YES

MINFILE NO.: 104G 072

RUN DATE: 88/07/20
RUN TIME: 00:00:28

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH
MINFILE - REPORT

PAGE: 161

MINFILE NO.: 104G 079

NATIONAL MINERAL INVENTORY NO.: 104G2 Cu1

NAME(S): LITTLE LES, MORE, TWO MORE

STATUS: Showing
N.T.S.: 104G02E
LATITUDE: 57 07 34
LONGITUDE: 130 37 43
ELEVATION: 1524 Metres
LOCATION ACCURACY: Within 500 M

MINING DIVISION: Liard
UTM ZONE: 9
UTM NORTHING: 6332400
UTM EASTING: 401400

COMMODITIES:	Copper	Gold	Silver
SIGNIFICANT MINERALS:	Chalcopyrite	Galena	Pyrite
ALTERATION MINERALS:	Chlorite	Carbonate	Limonite
ALTERATION TYPE(S):	Chloritic	Carbonate	Pyrite
AGE OF MINERALIZATION:	Unknown	Molybdenite	Oxidation
DEPOSIT CHARACTER:	Disseminated		
DEPOSIT CLASS.:	Epigenetic	Porphyry	

DOMINANT HOST ROCK: Volcanic

GROUP: FORMATION: Unnamed/Unknown Formation STRATIGRAPHIC AGE: Upper Triassic

IGNEOUS/METAMORPHIC/OTHER: Unnamed/Unknown Informal STRATIGRAPHIC AGE: Juro-Cretaceous

LITHOLOGY: Tuff
Lithic Tuff
Syenite Porphyry
Diorite
Felsite Dyke
Hornfels
Sediment/Sedimentary

COMMENTS: Mineralization in the volcanics is related to syenite porphyry dykes.

TECTONIC BELT: Intermontane
TERRANE: Stikinia Plutonic Rocks
PHYSIOGRAPHIC AREA: Boundary Ranges

RESERVES:

ZONE: TWO MORE

CLASSIFICATION: Best Assay

DATE: 1980

SAMPLE TYPE: Chip

COMMODITY

GRADE

Copper	0.3000 Per cent
Silver	1.7100 Grams per tonne
Gold	0.4100 Grams per tonne

COMMENTS: This is a weighted average of 11 chip samples with an average width of 5.7 metres.

MINFILE NO.: 104G 079
CONTINUED...

REFERENCE: Assessment Report 9041

GEOLOGY:

The occurrence area is underlain by a structurally complex assemblage of various Upper Triassic sedimentary and volcanic rocks that have been intruded by Juro-Creaceous diorite and an array of Tertiary-Cretaceous felsites and porphyritic dykes. The sediments consist of conglomerates, sandstones, shale, limestone and minor carbonate breccia. The volcanics are comprised of tuffs, lithic tuffs which have been hornfelsed locally.

A substantial gossan covers the area of interest. It contains pyrite, limonite, pyritic shears and highly bleached rock. Within the pyrite zone is an area of chloritic, carbonate rich, chalcopryite-pyrite bearing volcanics about 50 by 200 metres in extent. Distinctive coarse syenite porphyry dykes are spatially associated with the mineralization. Fine biotite is present as are traces of galena and molybdenite.

Eleven chip samples were taken across some of the more highly mineralized areas. There returned a weighted average of 0.3 per cent copper, 1.71 grams per tonne silver and 0.41 grams per tonne gold over an average sample width of 5.7 metres.

BIBLIOGRAPHY:

EMPR ASS RPT *9041
EMPR GEM 1971-37
EMPR EXPL 1980-470
GSC MAP 9-1957; 11-1971; 1418A

DATE CODED: 850724
DATE REVISED: 880428

CODED BY: GSB FIELD CHECK: NO
REVISED BY: GJP FIELD CHECK: NO

MINFILE NO.: 104G 079

RUN DATE: 88/07/20
RUN TIME: 00:00:28

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH
MINFILE - REPORT

PAGE: 215

MINFILE NO.: 104G 104

NAME(S): ISKUT RIVER

STATUS: Showing
N.T.S.: 104G01W 104G02E 104G07E 104G08W
LATITUDE: 57 03 22
LONGITUDE: 130 23 30

MINING DIVISION: Liard

UTM ZONE: 9
UTM NORTHING: 6324280
UTM EASTING: 415586

COMMENTS: The above coordinates are for a major band of the limestone.
Several more bands occur from 57 degrees 0 to 16 minutes latitude
and from 130 degrees 25 to 35 minutes longitude.

LOCATION ACCURACY: Within 500 M

COMMODITIES: Limestone
SIGNIFICANT MINERALS: Calcite
AGE OF MINERALIZATION: Upper Triassic
DEPOSIT CHARACTER: Stratiform Massive
DEPOSIT CLASS.: Sedimentary
SHAPE: Tabular

DOMINANT HOST ROCK: Sedimentary

GROUP: Limestone FORMATION: Unnamed/Unknown Formation STRATIGRAPHIC AGE: Upper Triassic
LITHOLOGY: Limestone

TECTONIC BELT: Intermontane
TERRANE: Stikinia
PHYSIOGRAPHIC AREA: Iskut Trench

GEOLOGY: Narrow north trending units of Upper Triassic limestone occur to the west of the Iskut River and north and southeast of Hankin Peak. This unit, made up of discontinuous beds and lenses of limestone, is widespread in the Telegraph Creek and adjacent map areas. Souther (GSC Paper 71-44) describes this unit as a "thin-bedded, flaggy, fetid limestone with much interbedded shale and siliceous silt. Locally it is thick-bedded or massive." The unit may range from less than a metre to more than 100 metres in thickness. The massive facies is fossiliferous containing a reefoid fauna of mainly corals and bryozoa.

BIBLIOGRAPHY: EMPR IND MIN FILE
GSC P +71-44
GSC MAP 9-1957; 11-1971; 1418A

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: NO
DATE REVISED: 880428 REVISED BY: GJP FIELD CHECK: NO

MINFILE NO.: 104G 104

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MINFILE NO.: 104G 107

NATIONAL MINERAL INVENTORY NO.: 104G1.2 Au1

NAME(S): HANK

STATUS: Prospect

MINING DIVISION: Liard

N.T.S.: 104G01W

LATITUDE: 57 13 07

UTM ZONE: 9

LONGITUDE: 130 28 37

UTM NORTHING: 6342475

ELEVATION: 1490 Metres

UTM EASTING: 410806

COMMENTS: Located 10 kilometres east-northeast of Hankin Peak and 15 kilometres west of the Stewart-Cassiar Highway.

LOCATION ACCURACY: Within 500 M

COMMODITIES: Gold Silver Lead
 Zinc Copper

SIGNIFICANT MINERALS: Sphalerite Galena Chalcopyrite Pyrite

ASSOCIATED MINERALS: Carbonate Siderite Barite

ALTERATION MINERALS: Sericite Carbonate Pyrite Silica

ALTERATION TYPE(S): Sericitic Carbonate Silicific'n

AGE OF MINERALIZATION: Unknown

DEPOSIT CHARACTER: Vein Stockwork Massive

DEPOSIT CLASS.: Epigenetic Hydrothermal Mesothermal

DOMINANT HOST ROCK: Volcanic

GROUP: FORMATION: Unnamed/Unknown Formation STRATIGRAPHIC AGE: Upper Triassic

IGNEOUS/METAMORPHIC/OTHER: Unnamed/Unknown Informal STRATIGRAPHIC AGE: Tertiary-Cretaceous

LITHOLOGY: Andesitic Agglomerate
 Andesitic Tuff
 Felsite
 Diorite

COMMENTS: Felsite intrusions are found adjacent to mineralized volcanics.

TECTONIC BELT: Intermontane Plutonic Rocks

TEPRANE: Stikinia
 PHYSIOGRAPHIC AREA: Boundary Ranges

RESERVES:

ZONE: HANK

CLASSIFICATION: Indicated Ore

DATE: 1987

QUANTITY: (TONNES) 454000

COMMODITY GRADE

 Gold 3.4300 Grams per tonne

COMMENTS: Over 4000 metres of diamond drilling completed.

REFERENCE: Lac Minerals Ltd. Prospectus, July 7, 1987

MINFILE NO.: 104G 107
 CONTINUED...

GEOLOGY:

This property is located above a tributary of Ball Creek, approximately 10 kilometres east-northeast of Hankin Peak and 15 kilometres west of the Stewart-Cassiar Highway.

The area of the occurrence is underlain primarily by Upper Triassic volcanics consisting of green andesitic agglomerates and tuffs. These commonly contain white plagioclase and black hornblende phenocrysts. Minor siltstone beds are noted at lower elevations. The pyroclastic bedding has a regional northeast strike with steep to moderate southeast dips. Tertiary-Cretaceous felsite bodies intrude these rocks and are found close to mineralized zones. The felsite is white to light grey and normally contains small cubes of disseminated pyrite. Small stocks of Tertiary-Cretaceous hornblende diorite also intrude area rocks.

Two major zones of alteration parallel to the regional strike occur within the volcanics; an upper and lower "Altered Zone" (Assessment Report 13594). These zones are highly bleached and gossanous. They are characterized by pervasive sericite-carbonate alteration and weak silicification. Pyrite content is generally between 2 and 5 per cent mainly as disseminations, but with higher concentrations along fractures.

Carbonate veins, up to 1.5 metres thick, and stockworks containing siderite with some barite occur in these altered zones. These veins are host to massive sphalerite, galena, chalcopyrite and pyrite but are generally barren. High gold and silver assays are derived from samples of these polymetallic veins and from wallrocks between barren veins. Trench sampling on the upper "Altered Zone", in an area with a relatively high density of carbonate veining, resulted in an average assay of 2.54 grams per tonne gold over 26 metres. Higher grades were obtained over narrower widths.

Drilling to date has identified a "South Zone" of approximately 227,000 tonnes at an indicated grade of 4.46 grams per tonne and a "North Zone" with another 227,000 tonnes at an indicated grade of 2.40 grams per tonne (Lac Minerals Ltd., Prospectus, July 7, 1987).

BIBLIOGRAPHY:

EMPR ASS RPT 8546, *12098, *13594
EMPR EXPL 1983-530; 1985-C382
GSC P 71-44
GSC MAP 9-1957; 11-1971; 1418A
Lac Minerals Ltd., Prospectus, July 7, 1987

DATE CODED: 870505
DATE REVISED: 880506

CODED BY: AFW FIELD CHECK: NO
REVISED BY: GJP FIELD CHECK: YES