

81-#648
-9592

REPORT ON GEOLOGICAL INVESTIGATIONS

CONDUCTED ON THE

CAP # 6 MINERAL CLAIM

ATLIN MINING DIVISION

MAPSHEET 104 K

for

ISLAND MINING & EXPLORATIONS CO. LTD.

SURREY, B.C.

AUGUST 7. 1981

F. HOLCAPEK, P. ENG.

HOLCAPEK ENGINEERING LTD.

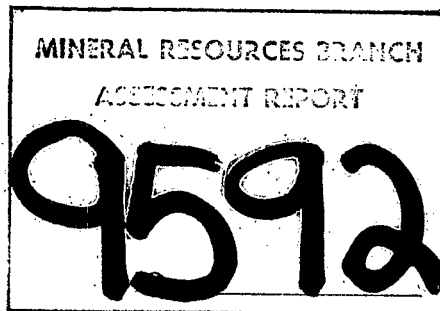


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M A P S

CAP # 6 MINERAL CLAIM:

CAP # 6	-	CLAIM SKETCH	Scale: 1 : 5,000
LOCATION AND GENERAL GEOLOGY			Scale: 1 : 50,000
DETAIL GEOLOGY MAIN ZOHINI VEIN			Scale: 1 : 500
WEST ZOHINI VEIN			Scale: 1 : 1,000



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CAP # 6 MINERAL CLAIM

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MAPSHEET 104 K

for

ISLAND MINING & EXPLORATIONS CO. LTD.

SUMMARY:

The Cap # 6 mineral claim is located in the Tulsequah - Taku River district, Atlin Mining Division, B.C. and are held by Island Mining & Explorations Co. Ltd. by location.

Access to the claim group is from either Atlin, B.C. or Juneau, Alaska by fixed wing airplane to the Tulsequah airstrip and from there by helicopter to the property.

The area is underlain by a sequence of Paleozoic to Mesozoic sedimentary and volcanic rocks, intruded by acidic dykes or stock of various ages.

The rock units have been thrown into north westerly trending folds.

Thrust faulting, part of the Atlin Thrust Belt enters the north east corner of the area.

Detailed geology, as observed on the Cap # 6 mineral claim shows that the area is underlain by acidic volcanics, part of the Sloko Group, Late Cretaceous and Early Tertiary in age.

Numerous gossan zones have been observed and investigated. The investigations showed that economical important gossans are usually located in gullies or creeks, showing reddish orange to yellowish gossans.

The main vein zone has been traced for a horizontal distance



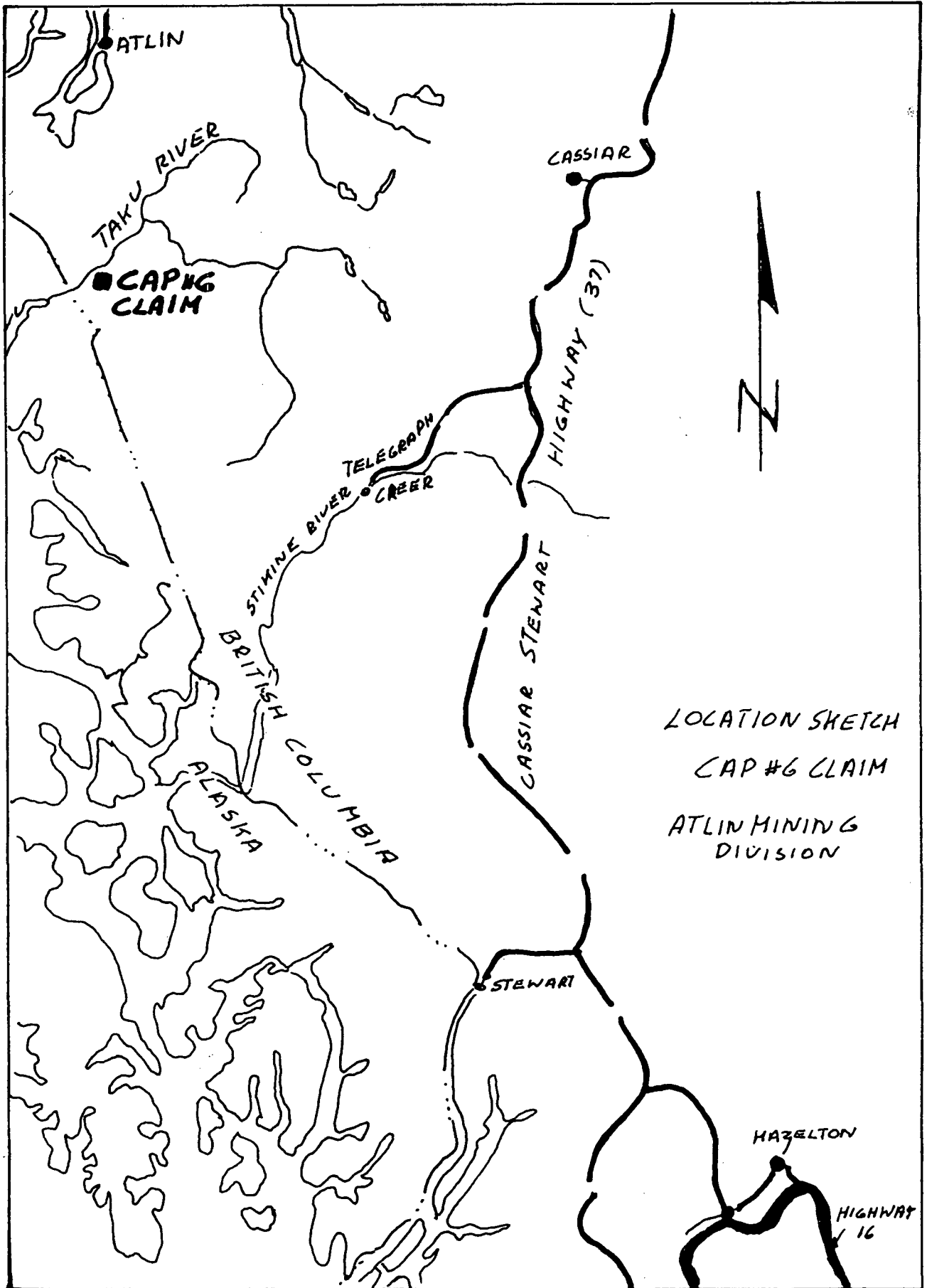
of 150 m, over 100 m elevation differences. The width of the zone varies from 10 cm to a maximum of 11 m. The economic sulfides present, are galena, sphalerite carrying silver values and arsenopyrite carrying gold. Sampling returned very interesting silver and gold values.

The other two zones have been found, but are not sufficiently exposed.

The spatial relationship suggests that the sulfides are localized within an En Echelon fracture zone.

A good potential exists of finding additional sulfide zones. It is recommended to continue a program of prospecting, gossan investigation and detailed mapping of favourable areas.





1-00 INTRODUCTION:

At the request of Mr. Bergvinson, president of Island Mining and Explorations Co. Ltd., the writer, accompanied by Mr. Reinke, prospector and Mr. Graf, fieldassistant visited the Cap # 6 mineral claims from June 20. to July 4. 1981.

The purpose of the property visit was to examine the Zohini vein, to prospect for a possible extension of the vein and to investigate known gossan zones in the area.

The Zohini vein was mapped, using Brunton and tripod. The elevation was established by altimeter. During the mapping all slope distances were corrected to horizontal distances and elevations were calculated.

This report summarizes the findings of the program completed.

2-00 GEOGRAPHY:

2-10 Location and Access:

The Cap # 6 mineral claim is located approximately 2.5 km due east of the junction of Zohini Creek and the Taku River along the southerly facing slopes, - mapsheet 104 K 11.

Access to the property is from Atlin by airplane to the Tulsequah airstrip and from there by helicopter to the property, or if no helicopter is in the area, directly to the claim group from Atlin by helicopter, approximately one hour flight time. Heavy cargo can be barged in via the Taku River from the coast to the landing at the junction of the Taku and Tulsequah rivers.

An alternate access route is via Juneau, Alaska, by helicopter to the property.

Center co-ordinates of the claim group are 58° 43'N latitude, 133° 19' longitude.

2-20 Topography, Climate and Vegetation:

The topography on the claim group is extremely rugged, with cliffs and talus slopes exceeding 30° slope, covering 80 %. Elevation differences range from 160 m along the south west corner to 1,650 m at the center of the claim group.

At 900 m elevation a wide shelf with hammocks, pothole lakes,

swamps and moraine deposits suggest a glacial shelf.

The climate in the district is typical of the Pacific Coast. Cool rainy summers, with clouds around the mountain ridges above the 1,500 m elevation level, limiting helicopter access. Strong winds and air currents make flying in the area treacherous during the larger part of the year.

Snow fall is heavy during the winter with snow cover up to 10 m deep at higher elevations.

Snow will cover the ground on the claim group from late October to begin of July.

The vegetation on the property at lower elevation consists of scrub trees and thick heavy brush. The timberline is variable and depends on the ruggedness of the terrain, but is normally around 1,000 m on the claim group.

3-00 TITLE AND OWNERSHIP:

The Cap # 6 mineral claim, record number 1102, encompasses a total of 20 units, with an anniversary date of July 21. The claim is owned by Island Mining and Explorations Co. Ltd.

4-00 HISTORY:

Mining activities in the area date back to the 1930's, when the district was prospected for precious metals. The Polaris Taku, Tulsequah Chief and Big Bull mines were discovered during this period. Cominco optioned these properties and brought them into production. The mines closed due to economic conditions in 1957.

The Ericksen Ashby base metal deposits were discovered at a later date and investigated during the 1950's.

On the Cap # 6 claims, old claim posts, camp sites and sloughed trenches suggest prospecting activities dating back to the same period.

5-00 GEOLOGY:

5-10 Regional Geology:

The district has been investigated by the Geological Survey of Canada and results have been published in Memoir 362. For details the reader is referred to above mentioned publication.

5-20 Stratigraphy: - Tulsequah - Taku River Area:

Cretaceous and Tertiary:

Late Cretaceous - Early Tertiary:

Sloko Group: (14) Rhyolite - light green, purple white dacite and trachyte flows, pyroclastic and derived sediments.

Probably genetically related intrusives: (15) Felsite, quartz - feldspar porphyry.

(16) Biotite, hornblende, quartz monzonite, pink, medium to coarse grained.

Pre-Upper Cretaceous:

Central Intrusive Complex:

(13) Granodiorite, quartz diorite, leucogranite, migmatite, and agmatite.

Jurassic and - or Cretaceous:

Post Middle Jurassic:

(12) Hornblende diorite, granodiorite, biotite hornblende, quartz diorite, hornblende diorite, augite diorite.

Relationship between 12 and 13 uncertain.

Jurassic:

Lower and Middle Jurassic:

Laberg Group: (11) Takwahon Formation: granite boulder and chert pebble conglomerate, greywacke, quartzose sandstone, siltstone, shale.

(10) Inklin Formation: well bedded greywacke, graded siltstone, sandstone, pebbly mudstone, limey pebble conglomerate.



Triassic:

Upper Triassic:

Sinwa Formation: (9) Limestone, minor sandstone, argillite, chert.

Stuhini Group:

King Salmon Formation: Thick bedded dark greywacke, conglomerate, mudstone, siltstone, shales, minor andesite lava, volcanic breccia, tuff, limestone, limey shales.

(7) Mainly volcanic rocks: Andesites and basalt flows, pillow lava, volcanic breccia, agglomerates, lapilli fuffs.

Lower or Middle Triassic:(?)

(6) Fine to medium grained strongly foliated diorite, quartz diorite, minor granodiorite - age uncertain.

Triassic and Earlier:

Pre-Upper Triassic:

(5) Metamorphic rocks, schist, gneiss, tremolite marble may be in part equivalent to 3 and 4.

(4) Fine grained, clastic sediments, intercalated volcanic rocks, altered to greenstone and phyllites.

Permian:

(3) Limestone, dolomitic limestone, minor chert, argillites.

5-30 Structural Geology:

The area adjoins the Atlin Thrust Belt to the south west.

The rock units have been thrust into regional folds, trending north westerly.



Faulting, in the north east corner is mainly thrusting, having south east strikes and dips to the north east.

In the Tulsequah - Taku area faulting is normal, with south east strikes and steep southerly dips.

6-00 DETAIL GEOLOGY:

6-10 General Description:

Field work was concentrating on the main known mineralized zone, and work proceeded outward from this area.

The Cap # 6 mineral claim is essentially underlain by grey, green to greyish green rhyolites.

Minor discontinuous outcrops of tuffaceous volcanics have been observed in vicinity of the sulfide zone.

Silicification and hydrothermal alteration is indicated. Dolerite dykes trending north easterly have been observed cutting the rhyolites.

No attitude of the rhyolites could be definitely confirmed, but in several locations possible bedding planes are indicated, suggesting that the volcanics are more or less flat lying.

6-20 Gossan Zones:

The gossan zones investigated can be grouped into 3 distinct types:

1. Reddish rusty gossan, caused by oxidation of disseminated pyrite and pyrrhotite, or veinlets within greenish grey rhyolites.
2. Reddish to yellowish gossan, caused by oxidation of disseminated pyrite, pyrrhotite and arsenopyrite, with or without hairline veinlets of the later.
3. Reddish orange to yellow gossans, caused by sulfide veins along shears, carrying galena, sphalerite, arsenopyrite and pyrite.

The first type is wide spread and is represented by all large conspicuous gossans. No minerals of economic significance have been found to date associated with these.

The second gossan type is usually confined to areas near shear zones showing gossan type 3.

Field investigation showed that these gossans are usually formed in areas of horsetailing - numerous hairline veinlets branch off the main zone. Arsenopyrite within these veinlets is responsible for the yellowish color - oxidation product.

The third type is usually confined to the topographic lows, i.e. creeks and gullies, outcrops are sparse. They are usually indicated by float material.

7-00 ECONOMIC EVALUATION:

7-10 Description of Showings:

The reader is referred to the attached detail geology map.

During the course of the mapping it became apparent that sulfide mineralization of economic interest is confined to shears or fracture zones.

The spatial arrangement suggests a possible En Echelon structure with the sulfide mineralization horsetailing and a new zone forming.

The best exposed mineralized zone has been traced over a horizontal distance of 150 m from station A downhill, where it disappears into talus. Vertical exposure is about 110 m.

At station A the vein splits into numerous veinlets, which die out upslope. The area is reddish yellow gossan.

From this point, approximately 150 m to the east, about 100 m higher a gossan, 1.82 m wide, representing a shear or fracture, is exposed. All primary sulfides have been completely weathered to a rusty oxide mass. Narrow calcite veinlets and lenses of siderite have been observed. Indicated strike is N 81° E.

The gossan could not be followed, it disappears under talus. To the north east a strongly iron coated felsenmeer limits the extent of the hair line veinlets with arsenopyrite.

At station X1 numerous fractures containing arsenoveinlets branch off into the hanging wall rhyolites, forming a conspicuous reddish yellow gossan.

At station A11, 130 m to the west and 60 m lower, a similar sulfide zone as at A 1 is exposed. Here horsetailing is prominent, and the zone essentially, although 1.5 m wide at A 11, disappears in less than 10 m horizontal.

Downhill from A 11 the zone contains 2 narrow sulfide veins. Horsetailing in the hanging wall is prominent.

Mapping shows that the sulfide zone at A 11 is definitely a different zone, lying about 50 m further north. The attitude is the same as of other sulfide zone, i.e. N 80° to 90° E dipping 70° S to 70° N.

Approximately 360 m to the west, 160 m lower in elevation from A 11, within a small creek sulfide floats were found. The float material consisted of a siliceous gangue with nearly massive sulfides.

Arsenopyrite, pyrite, sphalerite and minor galena have identified.

About 30 m and 60 m upcreek from this point, old sloughed trenches have been located. Recent conglomerate with iron oxides as cement are abundant in this area. In the creek bank layers of orange - red rust is common.

Within the creek a 0.3 m wide vein of massive arsenopyrite was located.

In general, old trenches suggest an up to 10 m wide zone of fractures filled with sulfides.

7-20 Sampling: Vein I:

All samples are chip samples from trenches. Sampling - by Herb Wall and Associates, September 1980.

<u>Station:</u>	<u>Sample:</u>	<u>Width:</u>	<u>Pb%:</u>	<u>Zn%:</u>	<u>As%:</u>	<u>Ag:oz/ton:</u>	<u>Au:oz/ton</u>
A 1	Z 01	0.25 m	0.01	0.04	0.24	0.66	0.003
B 1	Z 02	1.06	3.14	3.04	2.51	8.92	0.02
C 1	Z 03	0.70	1.06	0.71	1.72	8.00	0.08
	Z 03 A	2.90	0.17	1.22	0.34	1.46	0.02
A 4	Z 04	3.00	0.24	2.53	0.19	3.56	0.018
	Z 04 A	3.00	1.48	3.47	0.28	8.06	0.15
	Z 04 B	3.00	0.20	0.85	0.12	0.66	0.003
	Z 04 C	2.00	6.10	5.31	2.43	7.48	0.04
H 1	Z 05	1.80	5.12	0.16	1.89	48.54	0.31

<u>Station:</u>	<u>Sample:</u>	<u>Width:</u>	<u>Pb%:</u>	<u>Zn%:</u>	<u>As%:</u>	<u>Ag:oz/ton:</u>	<u>Au:oz/ton:</u>
H 1	Z 05 A	1.00 m	0.34	0.27	0.23	1.10	0.005
	Z 05 B	0.33 m	0.09	0.38	0.16	0.40	0.003
A 7	Z 06	1.80 m	0.14	0.10	0.03	0.14	0.003
	Z 06 B	1.50 m	7.45	0.61	1.30	4.28	0.12

Vein II

A 11	Z 07	1.70 m	2.00	0.03	0.03	0.68	0.056
	Z 07 A	1.00 m	0.09	0.02	0.90	0.16	0.005
A 14	Z 08	1.00 m	0.63	0.08	1.01	2.14	0.054
	Z 08 A	1.00 m	0.40	0.01	-	-	-

All of these samples are from strongly oxidized sections of the zone.

8-00 CONCLUSIONS:

The field results show that mineralization on the Cap 6 mineral claim is localized along shear or fracture planes having an indicated En Echelon arrangement cutting rhyolites.

Horsetailing is a prominent feature and the associated yellowish to red oxidation, caused by weathering of iron sulfides and arsenopyrite, where present, forms easily visible gossans.

Mineralization is of the complex sulfide type with associated precious metal values. Arsenopyrite, pyrite, sphalerite and galena are the main sulfide minerals.

Maximum width of mineralization observed is 11 m over a strike length of 150 m horizontal, and 100 m vertical distance.

The potential to locate additional, similar mineralized zones is good. Work will have to concentrate within topographic lows, ie. creeks and gullies.

Sample results show the presence of economic values, but cannot be considered representative due to extensive weathering and oxidation of the sulfides, where exposed.

9-00 RECOMMENDATIONS:

1. Prospecting of all units of the Cap 6 mineral claim, concentrating on topographic lows or reddish yellow to orange yellow gossan zones.

2. Geological Mapping.
3. Trenching and sampling of all known and new showings.
4. If a diamond drill is in the area, check sulfide zone at depth to establish grade of fresh sulfide mineralization.

If results of this program are favourable, additional investigations will be required.

Surrey, B.C.
August 7. 1981

Respectfully submitted



F. Holcapek, P. Eng.



CAP 6 MINERAL CLAIMS

Cost Statement

Engineering and prospecting expense	\$ 3,469.54
Report preparation	869.80
Helicopter charges	<u>1,110.92</u>
	<u>\$ 5,450.26</u>



HOLCAPEK ENGINEERING LTD.
CONSULTING GEOLOGISTS & ENGINEERS

9972 - 124 STREET, SURREY, B.C. V3V 4T1
 TELEPHONE: 585-4489

Island Mining & Exploration Co Ltd.
 900 - 475 Howe Street
 Vancouver, B.C.
 V6C 2B3

July 6. 1981

INVOICE: 007 - 81

Project: Erickson - Ashby - Zohini

Period: June 20. - July 4. 81

PERSONNEL:

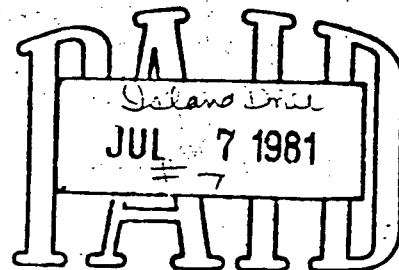
D. Reinke, prospector - 8 days - @ 130.00/day	\$ 1,040.00
O. Graf, assistant - 8 days - @ 125.00/day	\$ 1,000.00
	<hr/>
	\$ 2,040.00
+ 30 % Social Charge	\$ 612.00
	<hr/>
	\$ 2,652.00

F. Holcapek, P. Eng.

2 days Travel - @ 200.00/day	\$ 400.00	
2 days Standby - @ 200.00/day	\$ 400.00	
7 days Field - @ 250.00/day	\$ 1,750.00	\$ 2,550.00
		<hr/>
Total Personnel	\$ 5,202.00	

Expenses:

Travel: 3 plane tickets - one way	
- @ 190.10	\$ 570.30
Excessive baggage -	\$ 36.00
Taxis: Airport Vanc. - Surrey- 2 tr.	40.00
Downtown Vanc.- 2 men- 2 tr.	60.00
Whitehorse - Seabase - 2 tr.	30.00
Meals: 2 men - Whitehorse	20.00
	<hr/>
	\$ 756.30
+ 15 %	\$ 113.40
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	\$ 869.70



TOTAL FIELD CHARGES PAYABLE \$ 6,071.70

Less: Cost on 3 days field work - Erickson Ashby 2,602.16

Note: Report plus maps extra.

Field charges on ^{4 days} CAB claim (Zohini) \$ 3,469.54



HOLCAPEK ENGINEERING LTD.
CONSULTING GEOLOGISTS & ENGINEERS

9972 - 124 STREET, SURREY, B.C. V3V 4T1
TELEPHONE: 585-4489

Island Mining & Explorations Co. Ltd.
900 - 475 Howe Street
Vancouver, B.C.
V6C 2B3

Invoice: 008 - 81

August 13, 1981

Assessment work report - Cap # 6 Mineral Claim

Personnel:

F. Holcapek, P. Eng. - report - 1.5 days-		
- @ \$ 200.00/day	\$	300.00
Typing -	\$	80.00
Drafting - 15 hours @ \$ 15.00/hour	\$	225.00
		<hr/>
	\$	605.00

Disbursements:

Drafting material	\$	35.00	
Printing, xerox	\$	44.00	
Stationary	\$	25.00	
		<hr/>	
	\$	104.00	
20 % on disbursements	\$	20.80	
		<hr/>	
	\$	124.80	\$ 124.80
			<hr/>
		Total	\$ 729.80

Note: Invoice: 007B-81
Ericksen - Ashby - Zohini Report

Balance payable	\$	280.00	
To be corrected - less 50 % for Zohini Portion			\$ 140.00
			<hr/>
Balance payable - this invoice	\$		869.80

CERTIFICATION

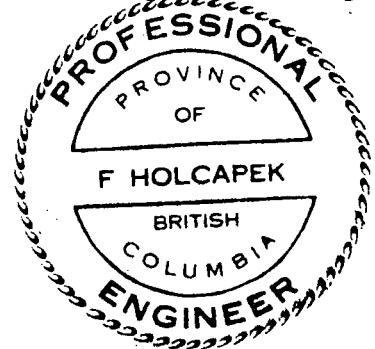
I, Ferdinand Holcapek, of 9972 - 124 Street, Surrey, B.C.,
certify that:

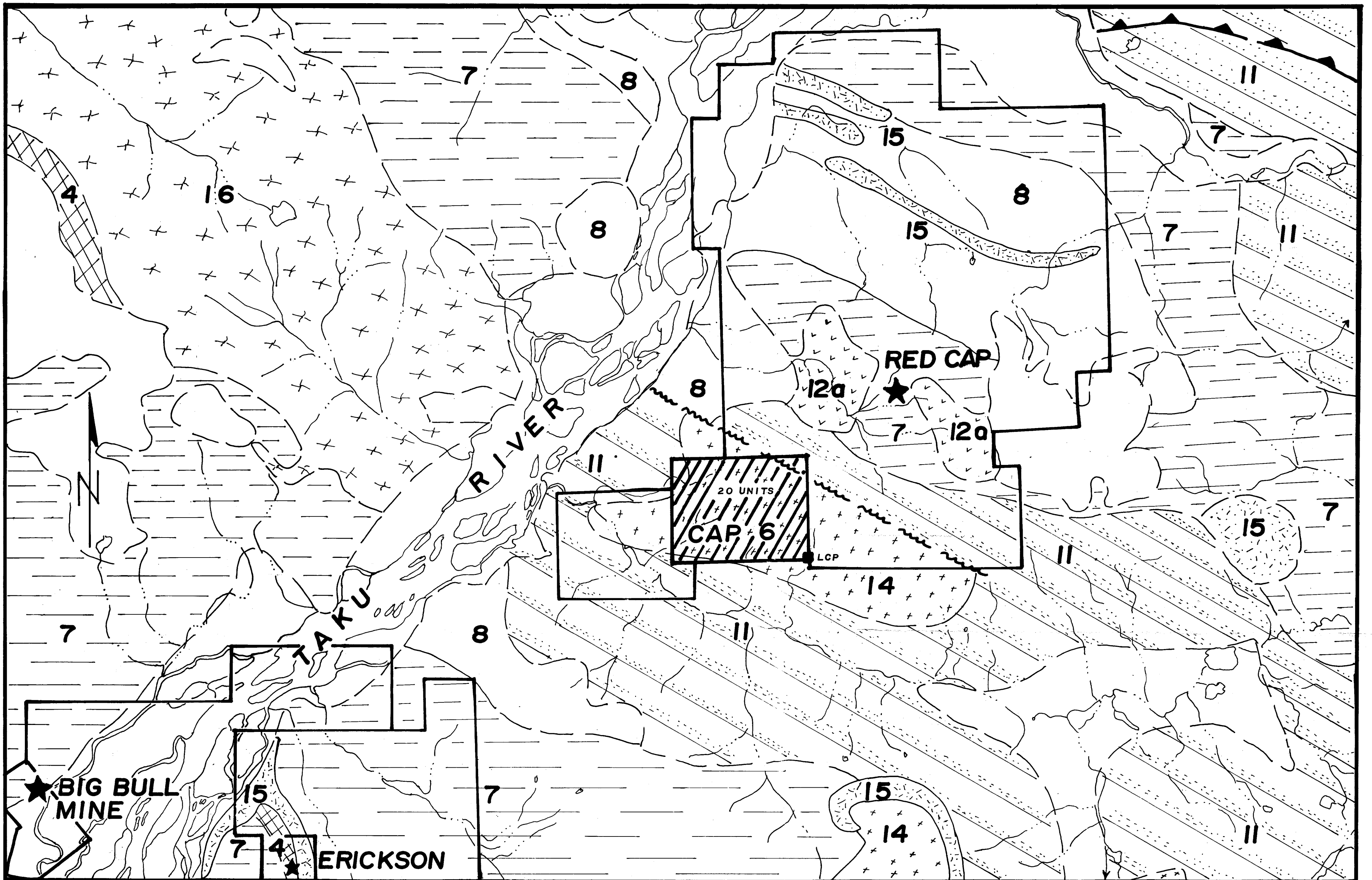
1. I am a graduate of the University of British Columbia with a B.Sc. degree in Geology, in 1969.
2. I am a registered member in good standing of the Association of Professional Engineers of British Columbia.
3. I have been engaged in mining exploration and geology in Canada, Australia, United States of America, Mexico and Central America.
4. This report is based on field work conducted under my supervision on the Cap # 6 Mineral Claim, during the period of June 20. to July 4. 1981.
5. I have no interest and do not expect to receive any interest directly or indirectly in the properties or securities of Island Mining & Explorations CO. Ltd.

Surrey, B.C.
August 7. 1981



F. Holcapek, P. Eng.

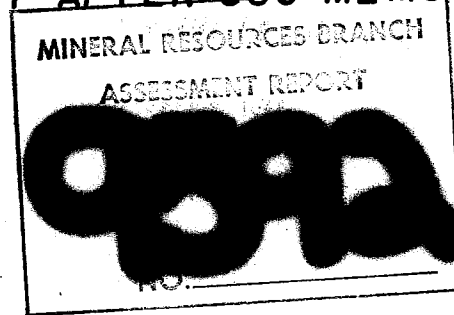




LEGEND

- | | |
|---|---|
| <p>LATE CRETACEOUS AND EARLY TERTIARY</p> <p>+14+ SLOKO GROUP: RHYOLITE, DACITE AND TRACHITE FLOWS, PYROCLASTICS</p> <p>POST MIDDLE JURASSIC</p> <p>LOWER AND MIDDLE JURASSIC</p> <p>TAKWAHONI FORMATION: CONGLOMERATES, GREYWACKE, SANDSTONE, SILTSTONE, SHALE</p> <p>UPPER TRIASSIC STUHINI GROUP (7,8)</p> <p>8 KING SALMON FORMATION: THICK BLACK GREYWACKE, CONGLOMERATES, MUDSTONES.</p> <p>7 ANDESITE AND BASALT FLOWS, PILLOW LAVA, LAPILLI TUFF</p> <p>PRE UPPER TRIASSIC</p> <p>4 CLASTIC SEDIMENT AND INTERCALATED VOLCANICS, ALTERED TO PHYLLITES AND GREENSTONES</p> <p>THRUST FAULT</p> <p>FAULT NORMAL</p> | <p>PROBABLY GENETICALLY RELATED TO 14</p> <p>15 FELSITE, QUARTZ FELDSPAR PORPHYRY</p> <p>16 BIOTE-HORNBLÈNDE QTZ MONZONITE</p> <p>12a HORNBLÈNDE BIOTITE GRANODIORITE</p> <p>CONTACT OBSERVED, INFERED</p> <p>CREEK</p> |
|---|---|

GEOLOGY AFTER GSC MEMOIR 362



HOLCAPEK ENGINEERING LTD

ISLAND MINING & EXPLORATIONS

CAP # 6 MINERAL CLAIM

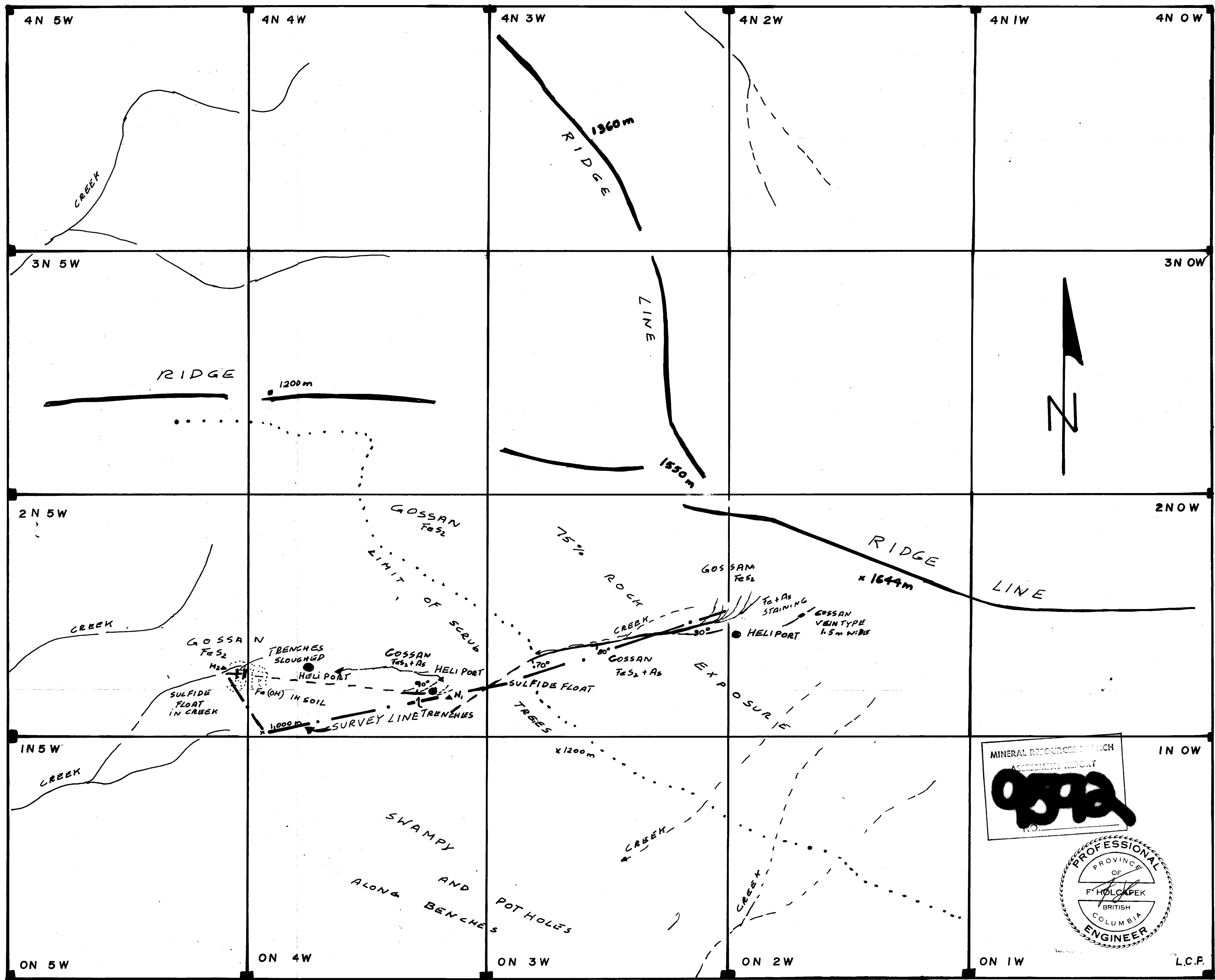
ATLIN MINING DIVISION
MAP 104K/11W

GENERAL GEOLOGY



DRAWN BY: FH

DATE: AUG 1981



LOCATION OF VEINS SHOWN APPROXIMATELY ONLY.

HOLCAPEK ENGINEERING LTD
ISLAND MINING & EXPLORATIONS
CAP # 6 MINERAL CLAIM
 ATLIN MINING DIVISION
 MAP 104 K/11 W
CLAIM SKETCH

METERS
 0 100 200 300 400

DRAWN BY F.H. DATE: AUG. 1981

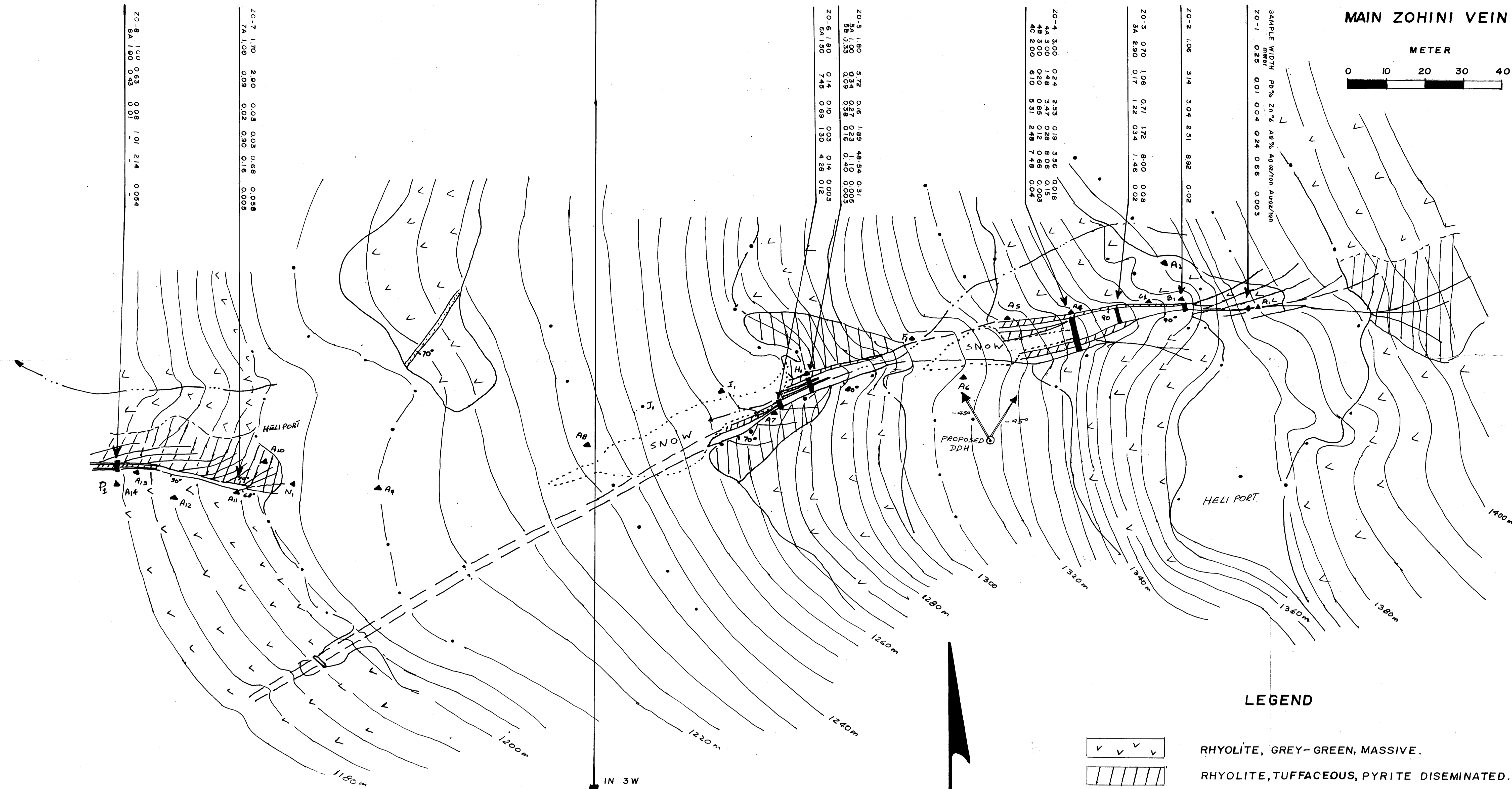
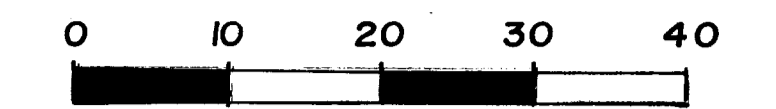
MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
999
 NO.

PROFESSIONAL
 PROVINCE OF
 F. HOLCAPEK
 BRITISH COLUMBIA
 ENGINEER

L.C.F.

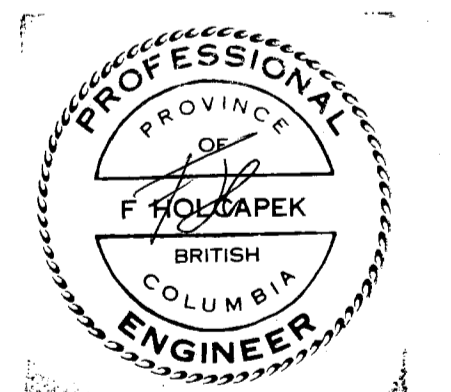
MAIN ZOHINI VEIN

METER



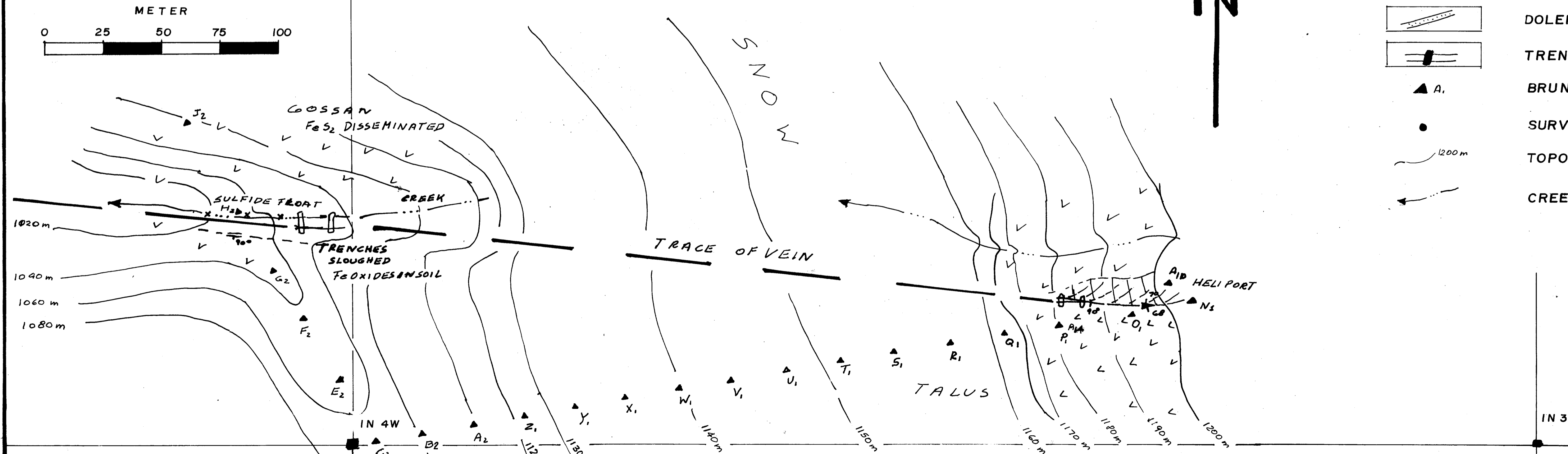
LEGEND

- RHYOLITE, GREY-GREEN, MASSIVE.
- RHYOLITE, TUFFACEOUS, PYRITE DISSEMINATED.
- AS ABOVE, SULFIDE VEINLETS, GOSSAN.
- HORSE, HYDROTHERMAL ALTERATION OF WALLROCK.
- SULFIDE VEIN, HORSE TAILING.
- DOLERITE DYKE.
- TRENCHING.
- BRUNTON AND TRIPOD SURVEY STATION
- SURVEY POINT
- TOPOGRAPHIC CONTOUR, STATION A-1 1380m BY ALTIMETER,
- CREEK, FLOWING.



ZOHINI VEIN WEST

METER



HOLCAPEK ENGINEERING LTD

ISLAND MINING & EXPLRNS CO.
CAP #6 MINERAL CLAIM

ATLIN MINING DIVISION
MAP 104K/11W

DETAIL GEOLOGY

ZOHINI CREEK VEINS

DRAWN BY F.H.
CHECKED BY F.H.

DATE: AUG 1981