

81-#656  
-9418

# SUMMIT PASS RESOURCES CORP.

1020 - 800 West Pender Street  
Vancouver, B.C. V6C 2V6  
Telephone: (604) 688-7775

TITLE: GEOLOGICAL REPORT on the  
FREE GOLD PROPERTY

CLAIMS	FREE GOLD 1	600(9)
	FREE GOLD 2	601(9)
	FREE GOLD 3	602(9)
	FREE GOLD 4	603(9)

MINING DISTRICT: ALBERNI

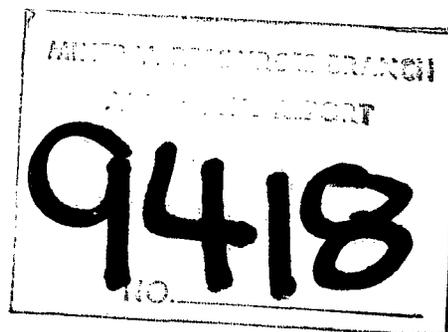
NTS LOCATION: 92F/5E  
49 15 30  
125 43

OWNER: SUMMIT PASS RESOURCES Ltd.

AUTHOR: D . J. BROWNLEE, GEOLOGIST

DATES WORK DONE: MAY 4-8 1981

SUBMITTED: .AUG 21 1981



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## SUMMARY

Summit Pass Resources Ltd. conducted a geological survey of their Free Gold Property, Alberni Mining District, during May 1981. This Report is for submittal under Mineral Act Regulations to apply assessment work.

The property is located at Latitude 49 15' 30" and Longitude 125 43'. The property consists of the Free Gold 1 to 4 two post mineral claims.

The property is located in the western margin of the Insular belt, west coast Vancouver Island.

The property is underlain by Sicker Group sediments and volcanics, which are intruded by a biotite hornblende quartz diorite. This intrusive is part of the Penask Batholith of the Vancouver Island Intrusives. There is a north west striking quartz with native gold mineralization.

Geology was mapped at a scale of 1:10,000 (Drawings 4&5)

Seven (7) rock samples of the quartz vein were taken and analyzed for Au.

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## 1.0 INTRODUCTION

### 1.1 Terms of Reference

Summit Pass Resources Ltd. carried out a preliminary geological survey on their Free Gold property. This survey along with minimal rock sampling was carried out in May, 1981. This report has been prepared for submission to the Ministry of Energy, Mines and Petroleum Resources as required under Mineral Act Regulations to apply assessment work.

### 1.2 Location and Access

The property is located at Latitude 49 15' 30" and Longitude 125 43" and is covered by NTS sheet 92F/5E (Drawing 1). Access is by truck from the Municipality of Tofino, British Columbia, via M&B logging roads.

### 1.3 Terrain

The property is located on the west coast of Vancouver Island in the Vancouver Island Ranges. The topography is mountainous, with local relief up to 900 metres. The drainage is dendritic in pattern. The vegetation is typical west coast rain forest.

### 1.4 Property

The property consists of four contiguous two post mineral claims (Drawing 2):

Claim	Record No.
Free Gold 1	600(9)
Free Gold 2	601(9)
Free Gold 3	602(9)
Free Gold 4	603(9)

### 1.5 Previous Work

The property was discovered sometime during the 1930's, with development work being done during 1940-42. During this time a cabin and small ball crusher were built. Also two adits were driven

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and two test shipments mined. One shipment was 0.4880 dry tons running 6.84 oz/ton Au and 2.00 oz/ton Ag, the other was for 0.9880 dry tons running 9.02 oz/ton Au and 2.80 oz/ton Ag.

The property was restaked in 1979 by a Mr. R Bossin, who sold them to Mr. R. Parker, who subsequently sold them to Summit Pass Resources Ltd.

In 1980, Mr. Sam Craig re-cut the old trail to the property and cleaned out the slough in the adit.

## 2.0 GEOLOGY

### 2.1 Regional Geology

The property is situated on the western margin of the Insular Belt on Vancouver Island (Drawing 3).

The region is underlain by Sicker Group sediments and volcanics, of Carboniferous age. This group is composed of cherts and argillites overlain by meta-andesites and dacites. This is unconformably overlain by Karmutsen basalts, which are conformably overlain by Qautsino limestone.

Intruding this pile of sedimentary and volcanic rocks is a granodiorite of the Vancouver Island Intrusives. A quartz diorite of the Penask Batholith also intrudes the region, and is of Middle Jurassic age.

The major structural trend of the region is northwest southeast, and is reflected in the elongation of the formations and intrusive in this direction. There are two main sets of faults in the region. The major set follows the major structural trend, with the other set cutting it, and trending north south.

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## 2.2 Property Geology

A soft calcareous argillite of the Sicker Group is exposed in the south east corner of the property (Drawing 4). To the south, the volcanics of the group are found, but no contact was seen.

Intruding the sediments is a light bluish grey medium grained biotite hornblende quartz diorite, with minor disseminated pyrite present. There are three joint sets discernable in the intrusive, 250 80NW, 189 70E, and 189 35W. The intrusive is an outlier of the Penask Batholith part of the Vancouver Island Intrusives. The intrusive is mainly found to the northwest and western portions of the property.

A metamorphic zone 50-100 metres wide is composed of a hornfels like argillite and cut throughout by small blebs and veins of the biotite hornblende quartz diorite. These small blebs and veins are 0.1 - 10 cm wide and 0.1-5 metres apart.

The showing is situated in the metamorphic zone (Drawing 5). The rock weather a light greenish colour, and is a porphyritic andesite. Olivine and andesine phenocrysts are 2-5 mm, and the rock as a whole shows some minor folding and crenulations.

The lower adit is situated 80 metres on a bearing of 270 from the cabin. It is driven on a bearing of 258 for approximately 25 metres. A small stope is supposed to have been raised at the end of the adit, but this was not seen due to flooding in the adit. This adit has been driven on a quartz vein which pinches and swells from 0.2-1.0 metres in width, and is orientated 262 82N.

A sample taken across the quartz vein 7 metres from the entrance of the adit assayed 1.15 oz/ton Au over 0.3 metres. Another sample taken across a small fault in the creek, and which intersects the quartz vein 10 metres in from the adits entrance assayed 0.016 oz/ton Au over 0.1 metres.

Twenty metres immediately above the adit another adit was drifted on the same quartz vein. This adit was drifted 7.0 metres, and the first 4.0 metres are caved. At the face of this adit, native

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gold was found in place in the quartz, no other mineralization was noted other than some iron staining. Two samples were taken at the face of the adit across the full width of the quartz vein and associated gouge and crushed host rock. The samples assayed 0.79 and 0.10 oz/ton Au over 1.0 metres each. Four metres in, at the end of the caved zone two samples were taken, one assaying 0.19 oz/ton over 1.0 metres, and over 0.1 metres assaying the quartz vein only, 0.22 oz/ton Au.

The quartz vein has been traced to the northeast for 50 metres at which point it is covered by overburden. The quartz vein is cut off to the south west by a fault in the creek, which is striking 289.

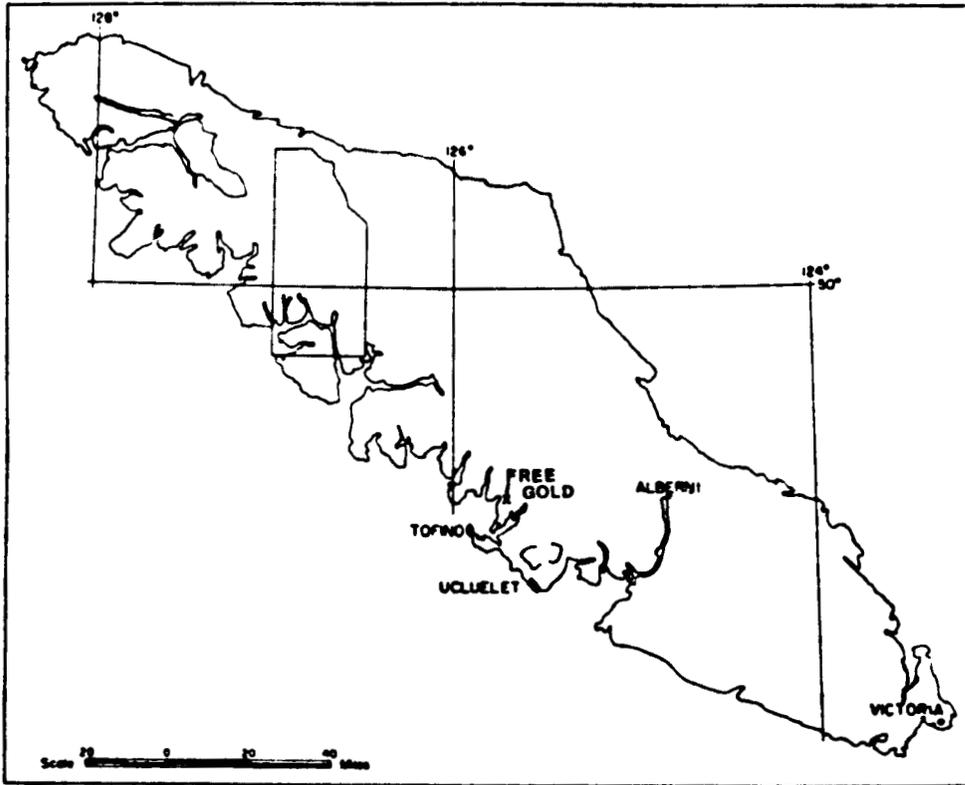
### 3.0 CONCLUSIONS AND RECOMMENDATIONS

The only mineralization found on the property other than the very minor disseminated pyrite found in the quartz diorite, was the native gold found in the quartz vein. The assay results are excellent, and seem to increase with depth. The quartz vein is open ended and gives no indication of terminating.

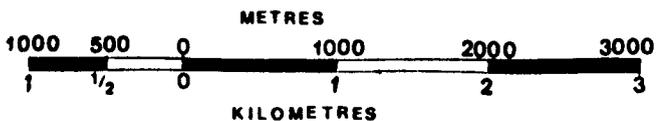
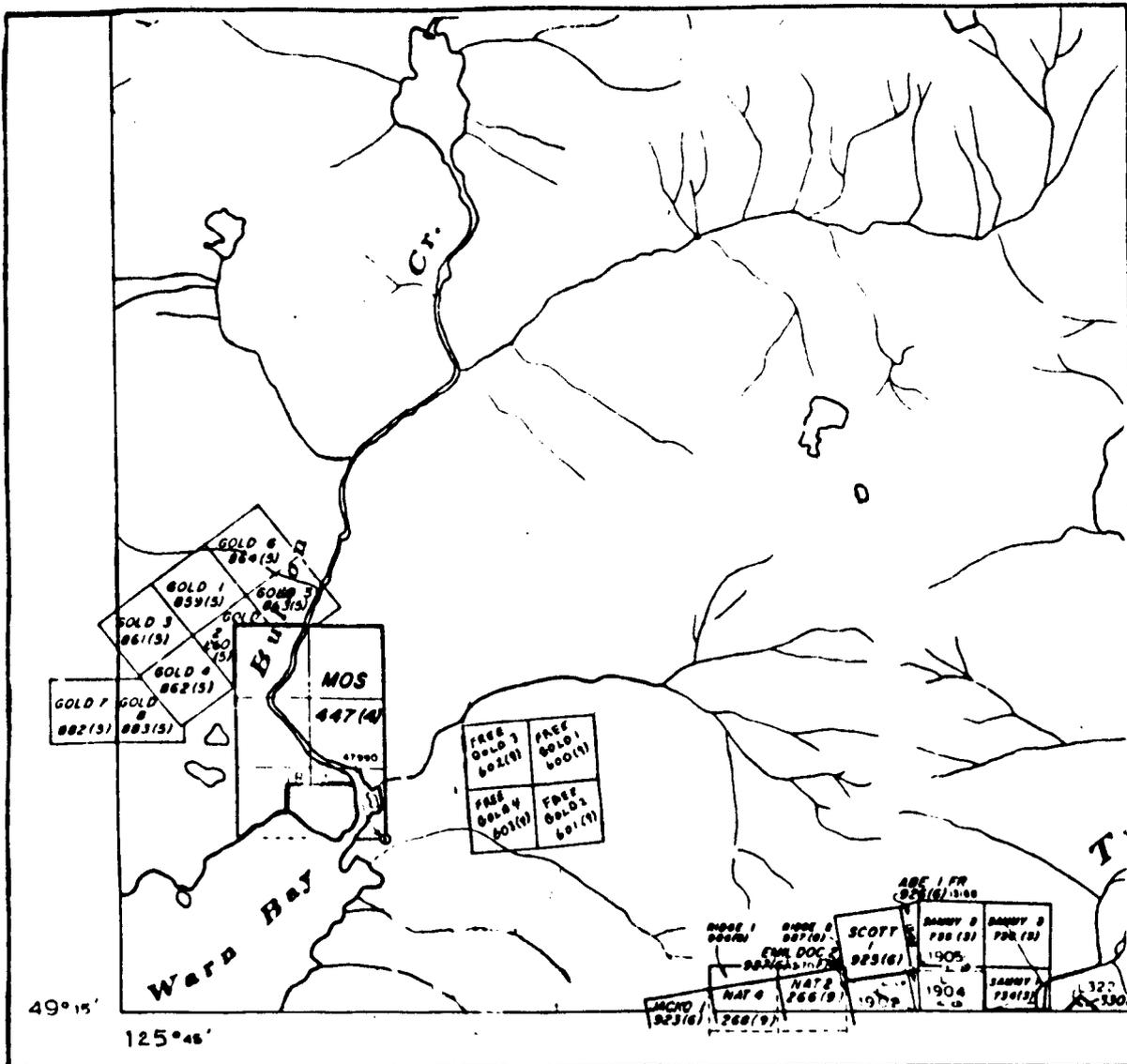
It is recommended that further mapping and sampling be carried out in the near future. In conjunction with this a EM 16 survey is recommended to attempt to trace the quartz vein under the overburden.

Respectfully Submitted

  
Douglas J. Brownlee  
Geologist



SUMMIT PASS RESOURCES Ltd.	
CUP PROPERTY LOCATION MAP	
ALBERNI & VICTORIA M.D.'s	N.T.S. 92F
DRAWING 1	
DRAWN BY D.J.B	MAY 1981



SUMMIT PASS RESOURCES Ltd.	
FREE GOLD PROPERTY CLAIM MAP	
ALBERNI M.D.	N.T.S. 92F/5 E
DRAWING 2	
DRAWN BY D.J.B	MAY 1981



# LEGEND

## UPPER JURASSIC AND/OR LOWER CRETACEOUS

- [ 10 ] 'Tofino Area Greywacke Unit'  
Greywacke, argillite, conglomerate

## JURASSIC

### MIDDLE TO UPPER JURASSIC

- [ 9 ] ISLAND INTRUSIONS: biotite-hornblende granodiorite, quartz diorite

## TRIASSIC AND JURASSIC

### LOWER JURASSIC(?)

#### VANCOUVER GROUP (5-8)

#### RONANZA SUBGROUP (7, 8)

- [ 8 ] VOLCANIC DIVISION: andesite to latite breccia, tuff and lava; minor greywacke, argillite and siltstone

### UPPER TRIASSIC AND LOWER JURASSIC

- [ 7 ] SEDIMENTARY DIVISION: limestone and argillite, thin bedded, silty carbonaceous

### UPPER TRIASSIC

- [ 6 ] QUAYSINO FORMATION: limestone, mainly massive to thick bedded, minor thin bedded limestone

### UPPER TRIASSIC AND OLDER

- [ 5 ] KARMUTSEN FORMATION: pillow-basalt and pillow-breccia, massive basalt flows; minor tuff volcanic breccia. Jasperoid tuff, breccia and conglomerate at base

## TRIASSIC OR PERMIAN

- [ 4 ] Gabbro, peridotite, diabase

## PENNSYLVANIAN, PERMIAN AND OLDER

### LOWER PERMIAN

#### SICKER GROUP (1-3)

- [ 3 ] BUTTLE LAKE FORMATION: limestone, chert

### MIDDLE PENNSYLVANIAN

- [ 2 ] Argillite, greywacke, conglomerate; minor limestone, tuff

## PENNSYLVANIAN AND OLDER

- [ 1 ] Volcanic breccia, tuff, argillite; greenstone, greenschist; dykes and sills of andesite-porphyr

### 'WESTCOAST CRYSTALLINE COMPLEX' (A-D)

#### 'BASIC ROCKS'

- [ D ] Gabbro, peridotite

#### 'TOFINO INLET PLUTON'

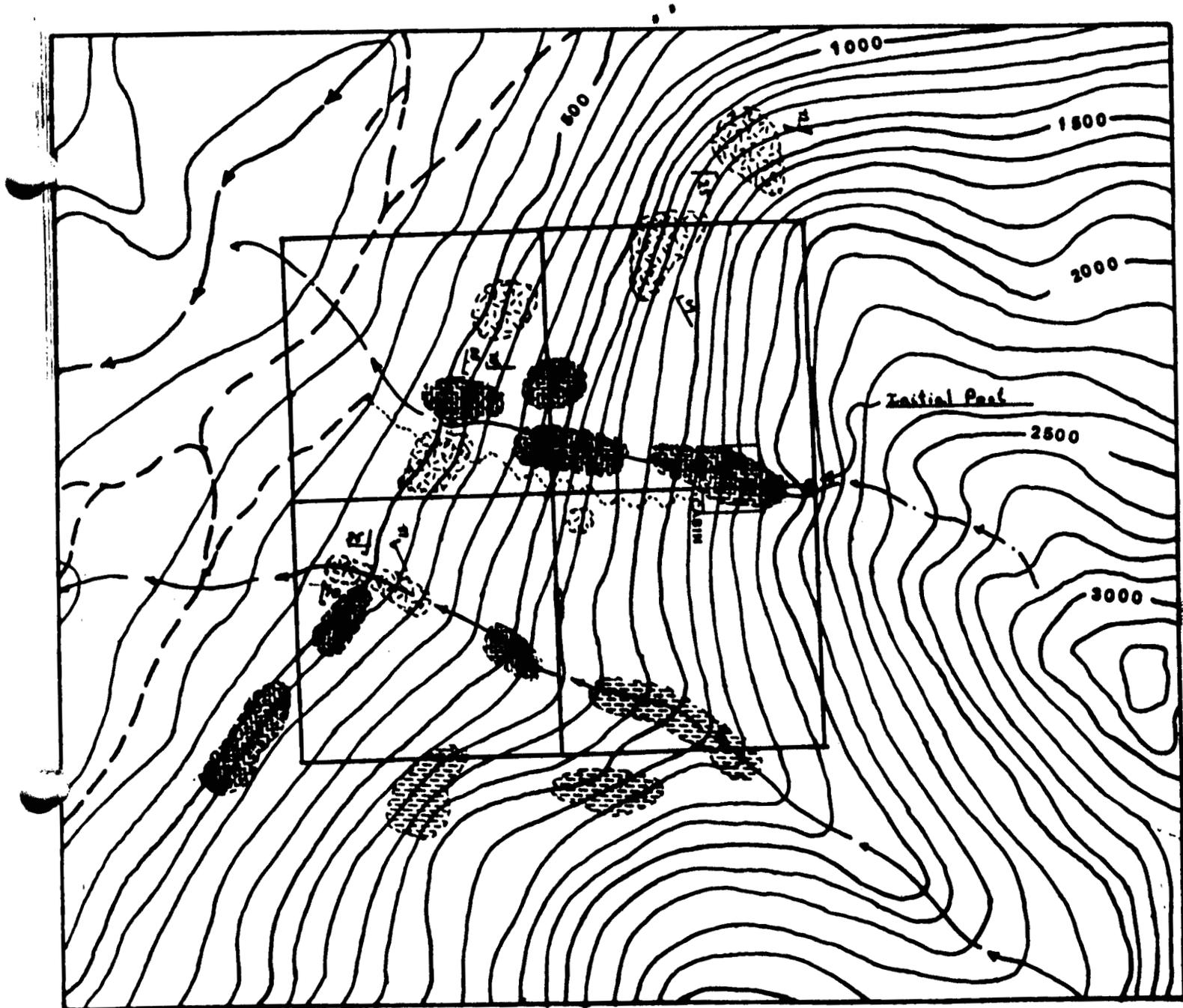
- [ C ] Hornblende-biotite quartz diorite, granodiorite

#### 'WESTCOAST DIORITES'

- [ B ] Hybrid hornblende diorite, quartz diorite, agmatite; includes masses of hornfelsic volcanic rocks

#### 'WESTCOAST GNEISS COMPLEX'

- [ A ] Hornblende-plagioclase gneiss, amphibolite, hornfels



LEGEND



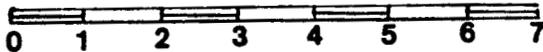
SICKER GROUP  
argilite & andesite



biotite hornblende  
quartz diorite



metamorphic zone



100's metres



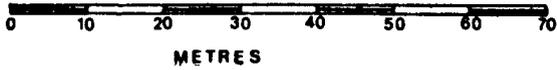
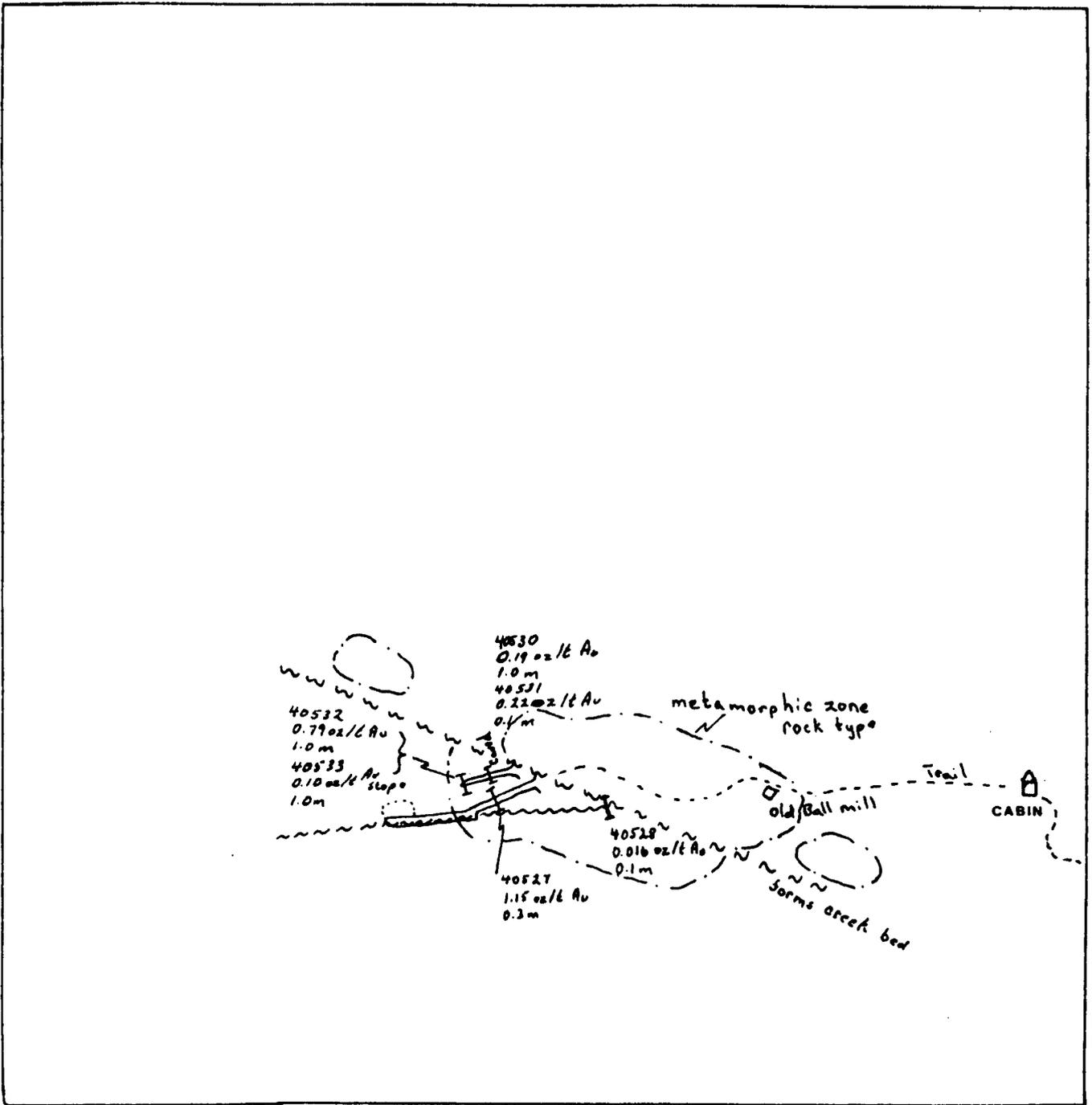
SUMMIT PASS RESOURCES Ltd.

FREE GOLD PROPERTY  
PROPERTY  
GEOLOGY

ALHEPNI M.D. N.T.S 92F

DRAWING 4

DRAWN BY D J B MAY 1981



SUMMIT PASS RESOURCES Ltd.	
FREE GOLD PROPERTY SHOWING	
ALBERNI M.D.	N.T.S. 92F
DRAWING 5	
DRAWN BY DJB	MAY 1981

# **SUMMIT PASS RESOURCES CORP.**

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## REFERENCES

- Campell C. M., B.C.D.E.M.P.R., Open File, 1950
- Lynutt W. C., B.C.D.E.M.P.R., Open File, 1946
- Minister of Mines, Minister of Mines Annual Report,  
1941-42, 1942-31, and 1946-183
- Muller J. E., Geological Survey of Canada Paper  
68-50, 1968

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**CERTIFICATE OF ASSAY**

**Samples submitted: May 11, 1981  
Results completed: May 26, 1981**

**PROJECT: NONE LISTED**

I hereby certify that the following are the results of assays made by us upon the herein described **etc** samples.

MARKED	GOLD		SILVER		Cu						
	Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
<b>40526</b>	<b>0.005</b>		<b>0.57</b>		<b>0.80</b>	Trace	Trace				
<b>40527</b>	<b>1.15</b>		-		-	Trace	Trace				
<b>40528</b>	<b>0.016</b>		-		-	Trace	Trace				
<b>40529</b>	<b>0.33</b>		-		-	Trace	Trace				
<b>40530</b>	<b>0.19</b>		-		-	Trace	Trace				
<b>40531</b>	<b>0.22</b>		-		-	Trace	Trace				
<b>40532</b>	<b>0.79</b>		-		-	Trace	Trace				
<b>40533</b>	<b>0.10</b>		-		-	Trace	Trace				
<b>40534</b>	<b>0.030</b>		-		-	Trace	Trace				

NOTE: Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged.



# BONDAR-CLEGG & COMPANY LTD.

130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: 985-0681 TELEX: 04-352667

Fraction used for analysis: Rocks - 100 mesh; soils/sediments - 80 mesh unless otherwise noted.

ELEMENT	EXTRACTION	METHOD OF ANALYSIS
Cu, Pb, Zn, Mo, Ag, Cd, Ni, Co, Mn, Fe	_____ Hot Lefort Aqua Regia _____ Multi Acid	Atomic Absorption
U	_____ Hot Conc HNO <sub>3</sub> _____ Hot Multi-Acid _____ 1% Sodium Bicarbonate; 20°C _____ Basic Oxidizing; 20°C _____ 1% Acetic; 20°C _____ 0.1N HNO <sub>3</sub> ; 20°C _____	Fluorimetric       Delayed Neutron Activation
W	Basic oxidizing fusion	Colorimetric
F	Basic Fusion	Citrate Buffer-Specific Ion
Au, Pt, Pd	Fire Assay and Hot Aqua Regia	Atomic Absorption
As	HC10 <sub>4</sub> - HNO <sub>3</sub> Arsine	Colorimetric
Hg	Aqua Regia	Closed Cell, Flameless Atomic Absorption
Sn, Sb, Ba, Rb, Sr, Y Zr, Nb, La, Ce, Ti	----- -----	Energy dispersive XRF Discrete angle/cathode XRF
Th, Se, Ta, Ga, In		
Bi	_____ Hot Conc HNO <sub>3</sub> _____ Multi Acid	Atomic Absorption
V, Be, Li	Multi Acid	Atomic Absorption
Cr	Sodium Peroxide Fusion	Atomic Absorption
Tl, Re	Multi Acid + Organic Extraction	Atomic Absorption
B	_____	Emission Spec
	_____ Fusion + H <sub>2</sub> SO <sub>4</sub>	Colorimetric
P	Multi Acid	Colorimetric
S	-----	Leco Induction Furnace
<b>WHOLE ROCK ANALYSIS</b>		
SiO <sub>2</sub> P <sub>2</sub> O <sub>5</sub>	Multi Acid + Fusion	Gravimetric
K <sub>2</sub> O Na <sub>2</sub> O	Multi Acid + Fusion	Atomic Emission
CaO MgO MnO Fe Al <sub>2</sub> O <sub>3</sub>	Multi Acid + Fusion	Atomic Absorption
TiO <sub>2</sub>	Multi Acid + Fusion	Colorimetric
S	-----	Leco Induction Furnace
Other:		

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## APPENDIX C Itemized Cost Statement

### I FEES

Name	Position	Dates	Wage	Cost
D. J. Brownlee	Geologist	May 4-8	\$100/d	\$500
G. Robinet	Assistant	May 4-8	\$50/d	\$250
		Sub Total		<u>\$750</u>

### II DISBURSEMENTS

Travel, D.J. Brownlee, G. Robinet Ferry	May 4-8,	\$34.00
Groceries	May 4-8	\$92.15
Rental 1981 Ford 4x4	5 days @ \$25/d May 4-8	\$125.00
Fuel for 4x4		\$72.50
Rock samples (7) assayed for Au @ \$11.00/sample		\$77.00
	Subtotal	<u>\$400.65</u>
	TOTAL	<u>\$1150.65</u>

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## APPENDIX D

### Statement of Author's Qualification

I, Douglas J. Brownlee, hereby certify that:

1. My residence address is 206 - 341 W. 3rd St. North Vancouver, B.C.; my office address is 1020 - 800 W. Pender St., Vancouver, B.C. and I am a Geologist by occupation.
2. I graduated from the University of Alberta in June 1980 with a B.Sc. (specialization) in Geology. I have been practicing my profession since January, 1980.
3. I conducted the geological work described in this report



Douglas J. Brownlee,  
Geologist