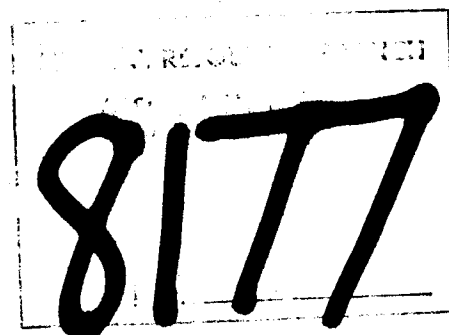


Report on the
Cup (1-6) Mineral Claim
Mt. Spencer Area
Victoria Mining Division
for
Summit Pass Mining Corporation
by
John R. Poloni, B.Sc., P.Eng.

December 8, 1979.

John R. Poloni & Associates Ltd.,
5502 - 8B Avenue,
Delta, B.C.



JOHN R. POLONI P. Eng.
Consulting Geologist

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1.0 Summary and Conclusions

The Cup (1-6) Mineral Claim located on July 11, 1979, is controlled by Summit Pass Mining Corporation by purchase agreement with Mr. S. Craig and Mr. E. Mueller. The property is situated on Mt. Spencer in the Victoria M.D. of Vancouver Island.

Previous exploration activities were related to copper-silver mineralization occurring as massive thin units and dissemination on jointing planes and in fracture zones in Karmutsen volcanics. Excellent copper grades were obtained but mineralization was found to be poddy and discontinuous. Zone 3A appears to be sufficiently interesting to warrant further detailed studies of evaluation possibly including diamond drilling. This zone is seen to contain a wide section of copper-molybdenite mineralization in drill hole 66-7. From 151 - 232 feet the average assays were 1.22% Cu and 0.066% M_0S_2 for 81 feet.

Contact metamorphic mineralization as skarn zones is known but has not been explored.

The property warrants further detailed examinations estimated to cost \$32,500.00 as Phase 1 and an additional \$30,000.00 as Phase 2 Surveys.

2.0 Introduction

The Cup (1-6) Mineral Claim is located at Mt. Spencer, 25 kilometres south east of Port Alberni, 13 kilometres east of Alberni Inlet, and 47 kilometres northwesterly of Lake Cowichan. Claim location was completed on July 11, 1979, by Mr. Brian Waugh.

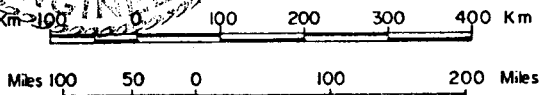
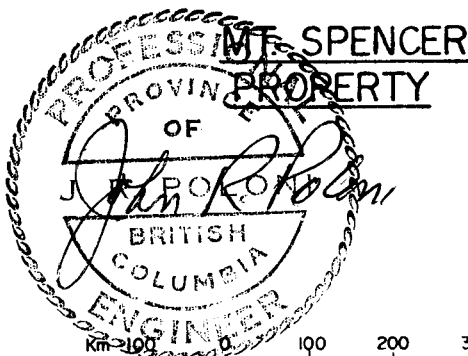
Interest in the property was initiated in 1964 by Gunnex Mines on the strength of anomalous copper reconnaissance stream geochemistry. The initial claim block consisted of eight claims.

The property is presently controlled by Summit Pass Mining Corporation, for whom this report is written, under an agreement dated October 12, 1979, with Mr. Sam Craig and Mr. Eberhard Mueller. The author visited the claim on October 16, 1979, via helicopter accompanied by Mr. Craig.

Much of the historical exploration data on the showings was obtained from Cominco files in Vancouver. A summary of this data is presented and further detailed evaluation studies are recommended.

Location Map

Plan No.1



SUMMIT PASS MINING CORPORATION		
PROPERTY LOCATION MAP		
CUP (1-6) CLAIMS		
VICTORIA M.D.		
JOHN R. POLONI & ASSOCIATES LTD.		
DRAWN : J.R.P.	CHECKED: J.R.P.	PLAN No.
SCALE : As shown	DATE : DEC. 8, 1979	I

3.0 Location and Accessibility

The Cup (1-6) Mineral Claim is located on Mt. Spencer (elev.4791'), principally on the east flank, at elevations ranging between 3000 and 4200 feet above sea level, at 49°04 North Latitude and 124°40 West Longitude. Port Alberni, Alberni Inlet and Lake Cowichan are 13 kilometres northwest, westerly and southeasterly, respectively.

Access is via logging roads from Port Alberni or Lake Cowichan, or via helicopter. No roads exist on the property but the extension of an existing road from Museum Creek to the east boundary of the claims could be undertaken.

4.0 Claim Information

The Cup claim consists of 6 units forming a block of 3 north-south and 2 east-west units on the summit and east flank of Mt. Spencer. Claims data was obtained from the files of Summit Pass Mining Corporation and verified at the office of the Provincial Mining Recorder in Vancouver.

<u>Claim Name</u>	<u>Record No.</u>	<u>Location Date</u>	<u>Record Date</u>
Cup No. 1	263	July 11/79	July 27/79
Cup No. 2	264	July 11/79	July 27/79
Cup No. 3	265	July 11/79	July 27/79
Cup No. 4	266	July 11/79	July 27/79
Cup No. 5	267	July 11/79	July 27/79
Cup No. 6	268	July 11/79	July 27/79

The property is shown on Department of Mines and Petroleum Resources Ref. Map M92F/2E.

5.0 Physical Features

The property covers moderately rugged treed mountain terrain typical of the central part of Vancouver Island. Stream runoff is swift and vegetation is dense. Remnant small cirques frequently contain snow patches, in sheltered areas, in July and August. Annual precipitation is in the range of 30-35 inches. Most of the property can be traversed except near the cirques where local steep scarps exist.

Vegetation consist of mature fir, spruce, and pine. Underbrush is dense at lower elevations.

6.0 History

Historical data in the property can be considered as recent. In 1963 Gunnex Mines under an agreement with Canadian Pacific Oil and Gas Ltd. undertook an exploration program on the central area of the E. and N. Land Grant. As a result of reconnaissance stream geochemistry, the Mt. Spencer showings were discovered, and eight claims staked, in 1964.

During 1965 and 1966, trenching, soil geochemistry, magnetometer, E-M and S.P. surveys undertaken, geological mapping initiated and an additional 58 claims located. Further surveys included I.P. and diamond drilling. A Summary of this work showed 1400 lineal feet of trenching and 3064 feet

of AX diamond drilling in 8 holes.

Cominco examined the showings, and the results of Gunnex Surveys and undertook additional surveys in 1967. Geological mapping, E-M horizontal loop, magnetometer and diamond drilling were undertaken during the year. Four AX holes for 1503 feet and five Winkie EX holes for 411 feet were completed.

The Cup claim, located on July 11, 1979, covers the area of the showings previously explored.

7.0 Geology

7.1 Regional Picture

As described by Muller J. E. 1963, map 49-1963 Alberni Area, and Open file map 463, 1977, the Mt. Spencer area is underlain by a northwest trending uplifted belt of folded rocks of Permian Sicker group and Triassic-Jurassic Vancouver group.

Cretaceous and/or Jurassic Coast Intrusive rocks are locally present within approximately one mile of Mt. Spencer, where biotite hornblende granodiorite and quartz diorite stocks have intruded the Karmutsen volcanics.

7.2 Local Geology

The Sicker Group upper member containing argillite and limestone is present at the base of Mt. Spencer. This unit is overlain by Vancouver Group volcanic and

sedimentary sequences, including a lower member Karmutsen equivalent, and an upper part limestone, skarn, and hornfels Quatsino equivalent.

The Karmutsen volcanic is described as massive, fine grained, dark grey to green coloured flows, containing small phenocrysts or amygdules of calcite quartz, chlorite, and epidote. Infrequent agglomerate or pillow lava is observed.

The Quatsino member is described as light grey, massive fossiliferous limestone with some interbedded argillaceous limestone units. Skarn and hornfels occur at the contact of the Karmutsen and overlying Quatsino formations.

Locally feldspar porphyry dikes intrude both Karmutsen and Quatsino members. These dikes are considered as being related to the Coast Intrusions.

7.3 Structural Geology

Cominco and Gunnex surveys indicate that Mt. Spencer is on the western limb of a regional anticline having a northwesterly strike and moderate southwesterly dips. Jointing has been mapped as five sets in the volcanics, with the porphyry dikes generally conforming to the jointing directions.

7.4 Metamorphism

The skarn type of metamorphism is best defined, but bleaching and silicification near mineralization and the porphyry dikes has also occurred.

7.5 Mineralization

Sulfide mineralization occurs in the volcanic unit and occasionally as a contact metamorphic variety, and in small quartz stringers and veinlets. The most common minerals are pyrrhotite, pyrite, chalcopyrite, sphalerite, galena and molybdenite. Appreciable silver assays are often obtained with high copper values. Gold values appear to be low.

Molybdenite was observed associated with quartz veining but not all drill core was assayed for the mineral. Drill hole 66-7 completed by Gunnex in Zone 3A averaged 0.38% Cu - 0.066% M_0S_2 for 51.0' from 181.0 to 232.0 feet. The highest M_0S_2 assay in this section was 0.211% for 5.0 feet.

Mineralization appears to be mainly related to fracturing in the volcanics with a close spatial association with the porphyry dikes.

8.0 Zones of Exploration Interest

8.1 Zone No. 1

This Zone is described by previous surveys as consisting of disseminated to massive pyrrhotite, pyrite and chalcopyrite occurring as thin films along fracture and jointing planes in volcanic rocks. Massive sections occasionally reach widths of approximately 2 feet. Referring to the Gunnex - Cominco grid, the

location is 57E to 68E and 400S to 600S, with the zone having overall dimensions approximately 200-400 feet in width and 1200 feet in length. Assays obtained averaged about 0.15% Cu but higher grade sections of 0.63% Cu for 20' and 0.41% Cu for 49.5' were obtained. No assay data on molybdenite content was seen.

8.2 Zone No. 2

This zone is described as pods and disseminations of chalcopyrite and pyrrhotite in somewhat discontinuous lenses occurring in volcanic rocks, with approximate dimensions of 50 feet by 1000 feet with an average grade of about 0.8% Cu. Surface sampling showed widths and grades of better sections as 17' @ 2.7% and 20' @ 0.97% Cu.

Location is between 64E to 75E and 2N to 1S on the Gunnex-Cominco survey grid.

8.3 Zone No. 3

Field locations of Zone No.3 is from 64E to 72E and 5N to 6N. Sulfide mineralization is described as occurring on fracture planes in volcanic rocks with one vein of massive pyrrhotite being present.

8.4 Zone No. 3A

This zone is described as the area of Winkie Drilling, located at 78E to 81E and 1N to 0+50S, with mineralization occurring as massive sulfides in narrow

veins in volcanic rocks. Surface assays ranged between 1.10% to 9.05% Cu with widths between 6 and 12 feet, in samples cut in two discontinuous lenses. This Zone 3A was tested by five Winkie and two AX holes. Drill hole 66-7 completed by Gunnex, cut sections of interesting copper, silver and molybdenite values: from 151 to 181 feet 2.65% Cu - 0.066% M_0S_2 for 30'; from 181 to 216 feet 0.16% Cu - 0.078% M_0S_2 for 35' and from 226 to 232 feet 2.30% Cu - 0.106% M_0S_2 for 6.0'.

The calculated average of the section between 151-232 in drill hole 66-7 is:

<u>Section</u>	<u>Width</u>	<u>Cu</u>	<u>M_0S_2</u>
	<u>ft.</u>	<u>%</u>	<u>%</u>
151-181	30	2.65	0.066
<u>181-232</u>	51	0.38	0.066
151-232	81	1.22	0.066

Noted in this section are higher grade copper-silver molybdenite values: from 151' - 156'= 5' at 9.90% Cu - 2.84 oz/ton Ag and from 156'-161'= 5' at 3.22% Cu - 0.211% M_0S_2 - 1.34 oz/ton Ag.

8.5 Other Targets

Five other zones defined as further targets consist of low grade copper-iron mineralization occurring as disseminations along jointing or shear directions in the volcanic rocks. No diamond drilling and only minimal geophysical, and geological surveys

were undertaken on these because of their surface appearance.

Scarn mineralization at the contact of the Quatsino and Karmutsen members has not been explored to any great extent.

9.0 Recommendations

The geology on the Cup claim consisting of sedimentary and volcanic rocks cut by porphyry dikes presents an excellent environment for the location of sulfide mineralization. Surveys undertaken in recent years have shown that while excellent grades of copper occur and mineralization is widespread the zones appear to be poddy and discontinuous, except for Zone 3A, where an 81 foot section of drill hole 66-7 averaged 1.22% Cu and 0.066% M_0S_2 . This hole was drilled under thin good grade zones of massive sulfides as indicated in surface sampling and mapping.

The following recommendations are made to further test the property in the light of the current increase in metal prices.

9.1 Drill Core Examination

All drill core, stored on the property, should be examined, relogged, split and assayed where not previously undertaken with special consideration given to molybdenite, silver, and gold mineralization.

9.2 Exploration Targets

All zones of exploration interest should be examined

(Section 8.0). This will consist in further sampling, assaying, geological, geophysical surveys and additional diamond drilling if warranted.

10.0

Appendix A

Estimated Cost of the Recommended Surveys

Cost Estimate

Phase 1

1. Establishment of base camp, servicing and supplies.	\$ 4,500.00
2. Re-establish survey grid	2,500.00
3. Surface trenching and sampling.	3,000.00
4. Geological mapping, area of showings and skarn zones.	4,000.00
5. Core re-examination, splitting and assaying.	3,500.00
6. Geophysical Surveys possibly including E-M-16 and I.P.	5,000.00
7. Transportation - truck and helicopter.	4,500.00
8. Supervision	2,500.00
9. Contingencies	3,000.00
	<hr/>
Total <u>Phase 1</u>	\$32,500.00

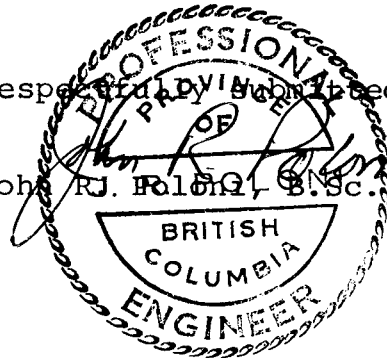
Phase 2

1. Diamond drilling as a success contingent phase will be necessary to further explore the extent of Zone 3A mineralization. A minimum of 400 metres of B-Q drilling is recommended.

Thus 400 metres \$30,000.00

Total Phase 1 and 2: \$62,500.00

Respectfully,
John R. Poloni, B.Sc., P.Eng.



Appendix B
References

References

1. Muller J. E. 1977 Map O.F. 463, Geology of Vancouver Island.
2. Muller J. E. 1963 Map 49-1963 Alberni Area Vancouver Island.
3. Minister of Mines and Petroleum Resources Annual Report for 1967.
4. Data obtained from Cominco files.

Appendix C
Certificate

Certificate

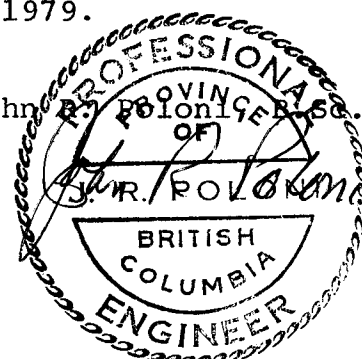
I, John R. Poloni, of 5502 - 8B Avenue, in Delta, in the
Province of British Columbia,

DO HEREBY CERTIFY THAT:

1. I am a Consulting Geologist.
2. I am a graduate of McGill University of Montreal,
Quebec, where I obtained a B.Sc., degree in
Geology in 1964.
3. I am a registered Professional Engineer in the
Geological Section of the Association of Professional
Engineers of the Province of British Columbia.
4. I have practiced my profession since 1964.
5. I am a Fellow of the Geological Association of
Canada and a member of the Canadian Institute of
Mining and Metallurgy.
6. I have personally visited the Cup (1-6) claim on
October 16, 1979.
7. I have no interest in the properties and securities
of Summit Pass Mining Corporation nor do I expect to
receive or acquire any.

Dated this 8th day of December, 1979.

John R. Poloni, P.Eng.



JOHN R. POLONI P. Eng.
Consulting Geologist

Appendix D

Maps

Appendix D

<u>Map</u>	<u>Scale</u>
Plan No. 2 - Claim Location Map	as shown
Plan No. 3 - Geology Plan	1:250,000
Plan No. 4 - Surface Plan Zone 3A	1" - 100'

5502 - 8B Ave.,
Delta, B.C.

December 27, 1979.

Invoice 79-15

Mr. E. Mueller,
Summit Pass Mining Corporation,
708 - 900 West Hastings,
Vancouver, B.C.

Dear Sir:

Re: Mt. Spencer Property

Disbursements

Western Reproducers	57.68	
Style rite 5 x .85	4.25	
My Secretary Typing & prints	101.74	
Altair Drafting	151.80	
General testing	53.40	
	<u>368.87</u>	\$ <u>368.87</u>

Professional Services

Property Visit Oct.16/79 - 1/2 day	110.00	
Report - drafting, preparation writing & assembly.	660.00	
Core logging-splitting, samples to lab 6 hours.	165.00	
	<u>935.00</u>	

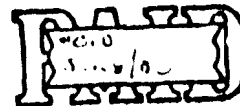
Thus Total Invoice: \$1,303.87

MTP 6

Respectfully submitted,

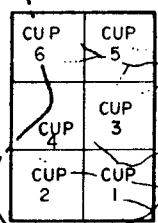
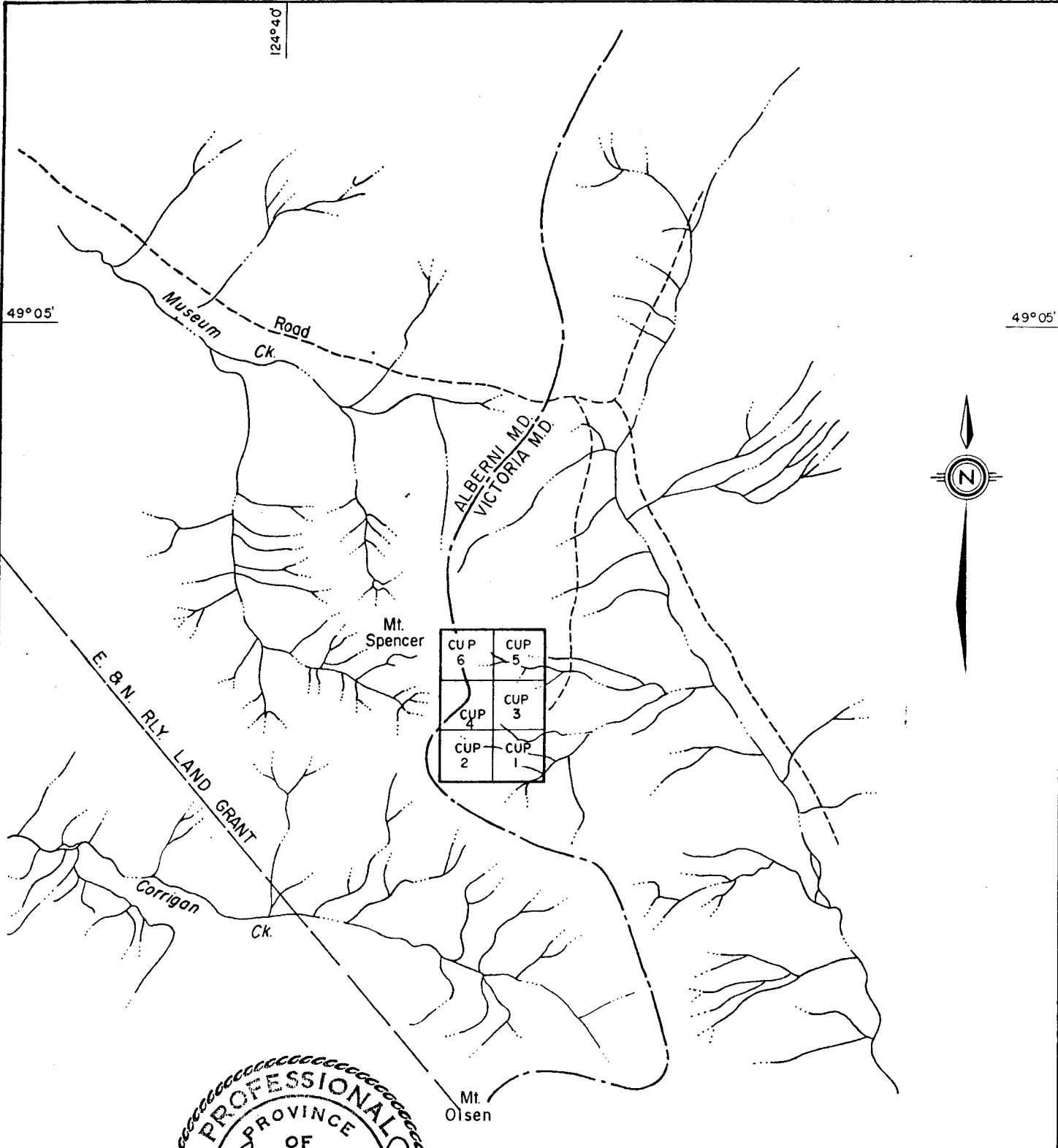
John Poloni

John R. Poloni, P.Eng.



\$1303.87
R6946

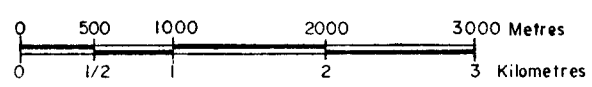
JOHN R. POLONI P. Eng.
Consulting Geologist



LEGEND

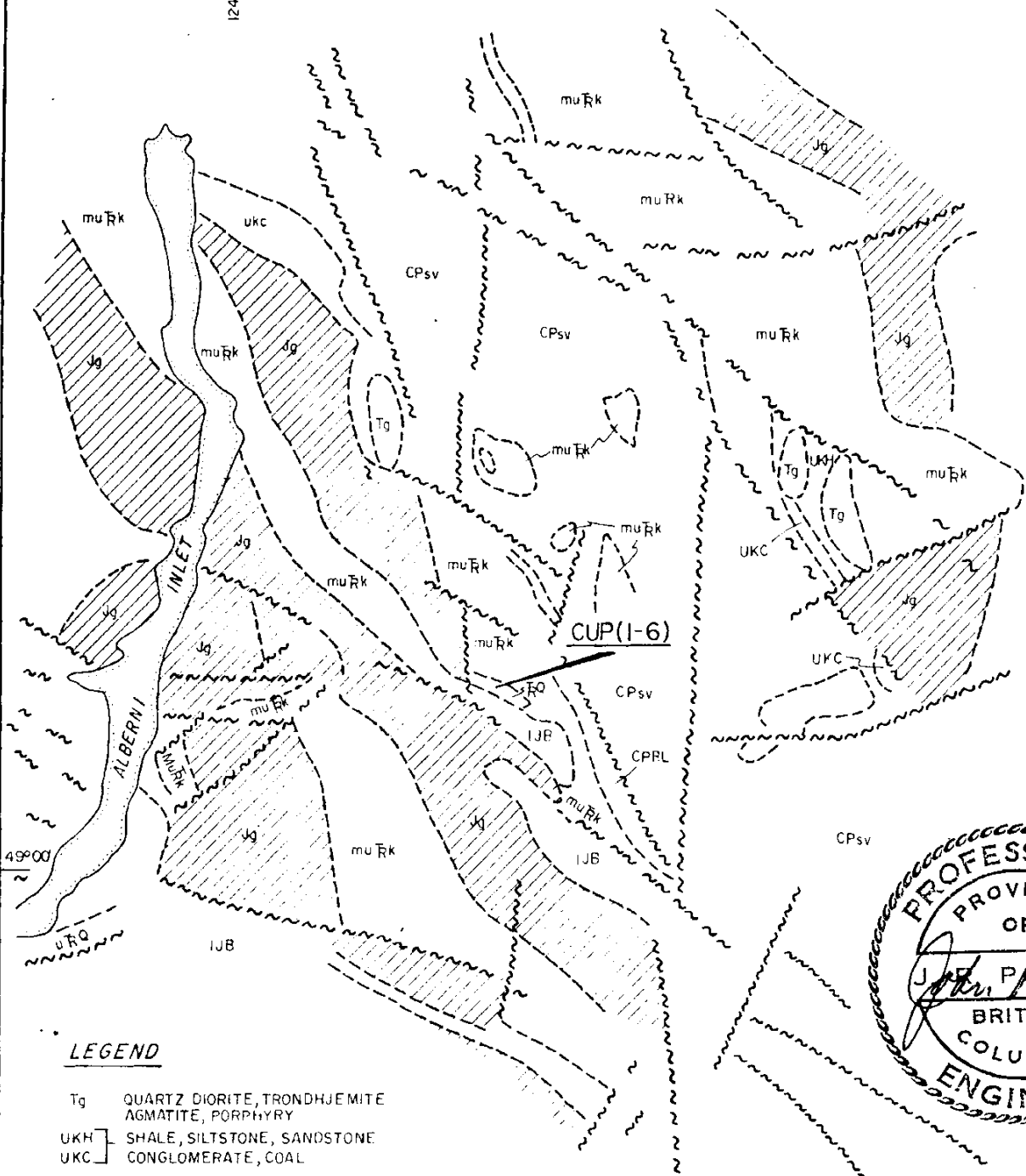
- Stream
- Road

Ref. Map M 92 F/2E
 Dept. of Mines & Petroleum Resources



SUMMIT PASS MINING CORPORATION		
CLAIM LOCATION MAP		
CUP (1-6) CLAIMS		
VICTORIA M.D.		
JOHN R. POLONI & ASSOCIATES LTD		
DRAWN : J.R.P.	CHECKED : J.R.P.	PLAN No
SCALE : As shown	DATE : DEC. 8, 1979	2

124° 50'



LEGEND

- Tg QUARTZ DIORITE, TRONDHJEMITE
AGMATITE, PORPHYRY
- UKH } SHALE, SILTSTONE, SANDSTONE
- UKC } CONGLOMERATE, COAL

JURASSIC

- Intrusive Units
- Jg GRANODIORITE, QUARTZ DIORITE, GRANITE
QUARTZ MONZONITE

- IJB Bonanza Volcanics LAVA, TUFF, BRECCIA
- IJH ARGILLITE, GREYWACKE

TRIASSIC

- uRQ LIMESTONE (QUATSINO)
- muRk BASALTIC LAVA, PILLOW LAVA, BRECCIA, TUFF

PENNSYLVANIAN AND PERMIAN

- CPBL LIMESTONE, CHERT
- CPsv METAVOLCANIC FLOWS, TUFF, AGGLOMERATE

SYMBOLS

- ~~~~~ FAULT
- GEOLOGICAL CONTACT



REF MAP
GEOLOGY OF VANCOUVER ISLAND
BY J.E. MULLER, 1977, OF. 463

SUMMIT PASS MINING CORPORATION

**GEOLOGY PLAN
CUP (1-6) CLAIMS**

VICTORIA B.C.

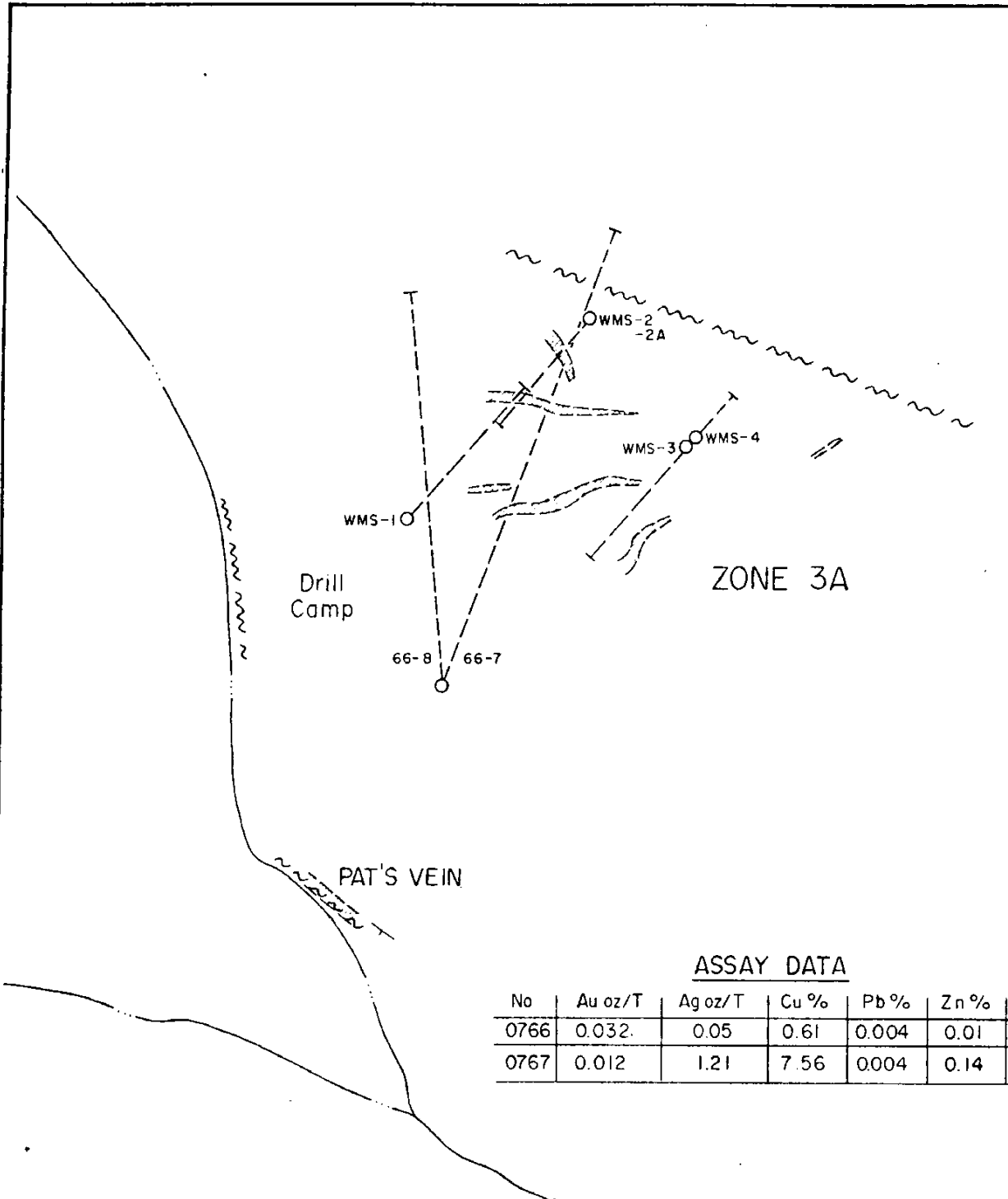
JOHN R. POLONI & ASSOCIATES LTD

DRAWN	J R P	CHECKED	J R P	PLAN. No
SCALE	1:250,000	DATE	DEC 8, 1979	3

49°00'

49°00'

124° 50'



ZONE 3A

Drill Camp

WMS-1

WMS-2
-2A

WMS-3

WMS-4

66-8

66-7

PAT'S VEIN

ASSAY DATA

No	Au oz/T	Ag oz/T	Cu %	Pb %	Zn %	Width	
0766	0.032	0.05	0.61	0.004	0.01	3.0'	Pats Vein
0767	0.012	1.21	7.56	0.004	0.14	GRAB	Float

LEGEND

- ~ ~ ~ Shear Zone
- ~~~~~ Vein or sulfides
- Creek
- — Drill Hole
(WMS-1 Winkie Hole)



N.B. Map drawn from Ref Map
Gunnex-Cominco Files

SUMMIT PASS MINING CORPORATION		
SURFACE PLAN ZONE-3A-PAT'S VEIN CUP (1-6) CLAIMS VICTORIA M.D.		
JOHN R. POLONI & ASSOCIATES LTD.		
DRAWN : J.R.P.	CHECKED : J.R.P.	PLAN No
SCALE : 1" = 100'	DATE : DEC 8, 1979	4

Appendix E
Photographs

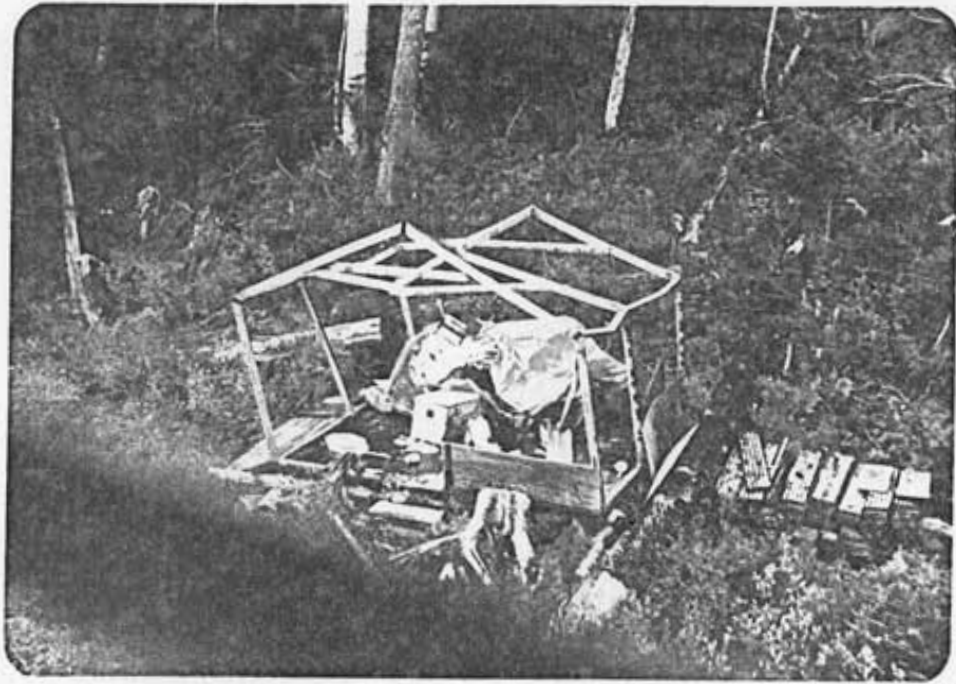


Photo 1
Drill Camp - Drill Core



Photo 2
Pat's Vein - Sam Craig



Photo 3
Typical Vegetation & Terrain



Photo 4
Typical Vegetation & Terrain

Appendix F

Assay Data

GENERAL TESTING LABORATORIES

DIVISION SUPERINTENDENCE COMPANY (CANADA) LTD

1001 EAST PENDER ST. VANCOUVER, B.C., CANADA V6A 1W2
 PHONE (604) 254-1647 TELEX 04-507514 CABLE SUPERVISE



TO:
MR. JOHN POLONI
 5502 - 8B Avenue
 Delta, B.C.
 V4M 1V6

CERTIFICATE OF ASSAY

No.: 7910-2453 DATE: Nov. 6/79

We hereby certify that the following are the results of assays on: **Ore**

MARKED	GOLD	SILVER	Copper	Lead	Zinc	Molybdenum	xxx	xxx
	oz/st	oz/st	Cu (%)	Pb (%)	Zn (%)	Mo (%)		
{ 0766	0.032	0.05	0.61	0.004	0.01	-	} MT. SPENCER J.P.	
{ 0767	0.012	1.21	7.56	0.004	0.14	-		
401	trace	trace	0.08	-	-	0.23		
402	trace	trace	0.11	-	-	0.003		
403	trace	trace	0.02	-	-	0.008		
404	trace	trace	0.03	-	-	0.02		
405	trace	trace	0.02	-	-	0.03		
406	trace	trace	0.32	-	-	0.02		
407	trace	trace	0.02	-	-	0.006		
408	trace	trace	0.03	-	-	0.005		
409	trace	trace	0.09	-	-	0.003		
410	trace	trace	0.04	-	-	0.002		
411	trace	trace	0.06	-	-	0.005		
412	0.010	trace	0.02	-	-	0.003		
413	trace	trace	0.01	-	-	0.13		

Spectro analysis to follow.

NOTE: REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.

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L. Wong

PROVINCIAL ASSAYER

COPY

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 REFEREE AND OR OFFICIAL CHEMISTS FOR National Institute Of Oilseed Products • The American Oil Chemists' Society
 OFFICIAL WEIGHMASTERS FOR Vancouver Board Of Trade