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GEOLOGICAL REPORT

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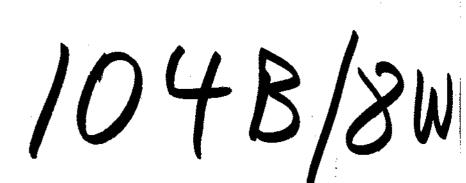
UP 1-8 MINERAL CLAIMS

SKEENA MINING DIVISION

Located 50 kilometres NNW of Stewart, B. C. (56°18'N 130°21'W)

1048/8W

UP



October 21, 1976

B. Taylor, P.Eng.

MINERAL RESOURCES BRANCH ASSESSMENT REPORT

TABLE OF CONTENTS

	rage
SUMMARY	1
INTRODUCTION	1
LOCATION AND ACCESS	3
HISTORY AND CLAIM OWNERSHIP	3
FIELDWORK	3
GEOLOGY	4
MINERALIZATION	5
CONCLUSION	6
RECOMMENDATION	6
APPENDIX 1. Petrographic Report 2. Assay Certificate 3. Cost Affadavit	

ILLUSTRATION

Figure 1 Index Map

MAP

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✗/ 104B1-B2 Geology - UP 1-8

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SUMMARY

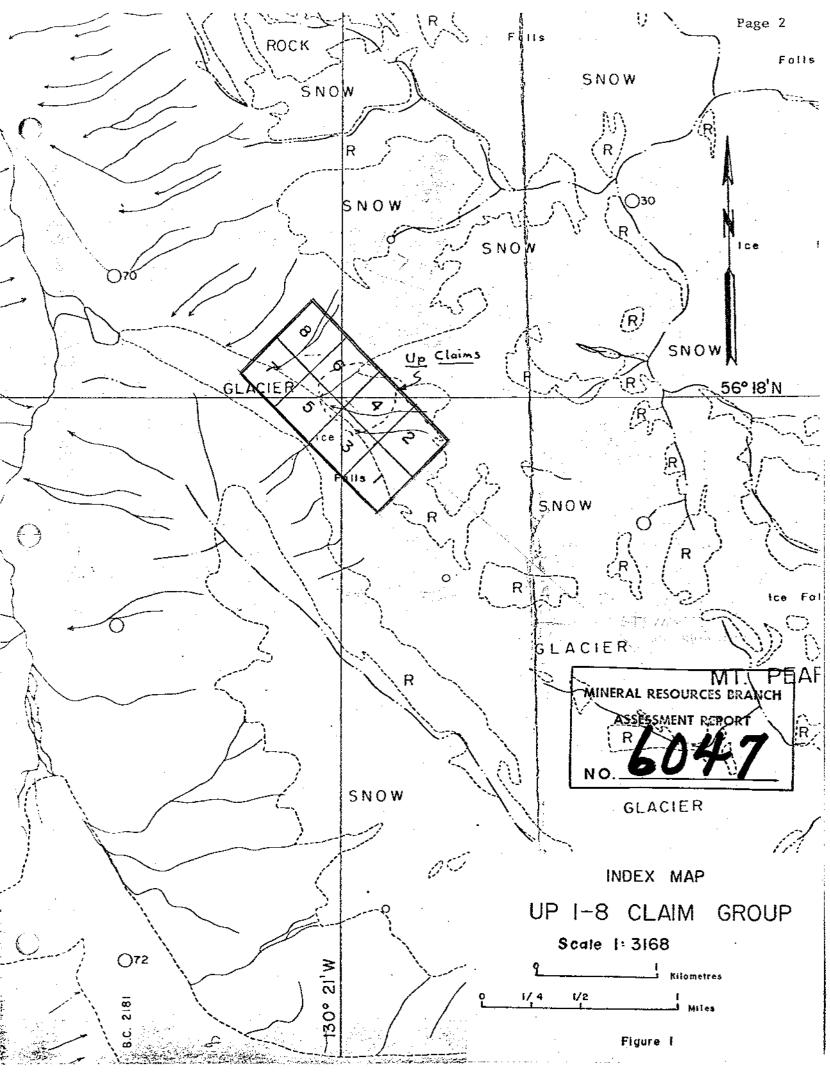
The UP property, fifty kilometres NNW of Stewart, B. C. and ten kilometres from the Granduc Mines surface exposure is underlain by a mineralized orthoclase porphyry. The property has not been subjected to a searching examination.

A northerly trending gossaniferous zone of orthoclase porphyry containing 5% pyrite and a small amount of chalcopyrite has been traced over an area 320 metres wide by 800 metres long. Nine chip samples were taken, but no significant extension of a previously reported copper bearing zone within it was made.

INTRODUCTION

The UP group of 8 mineral claims were staked in 1970 to cover a gossaniferous area three miles north-west of Mount Pearson, near the Alaskan panhandle. In addition to the mineralization present, it is considered to have potential value in that Granduc's original showings lie approximately six miles to the south.

From September 6 - 12, 1976, a crew of two carried out a short program of geologic mapping and sampling.



LOCATION AND ACCESS

The property lies thirty miles north north-west of Stewart, B.C. on an unnamed tributary of the South Unuk River (see Figure 1). Its latitude is 56°18'N and longitude 130°21'W. Elevation varies from 1000 - 1400 metres above MSL. The ground underlies the western fringes of the Frank Mackie glacier.

Access is by helicopter from Stewart. A tractor trail, now abandoned, follows the South Unuk River and passes two miles to the west of the property.

HISTORY AND CLAIM OWNERSHIP

The area was prospected as early as 1933. It was staked in 1954 by Paul S. Pieper, Jr., according to a note left in a claim cairn found on the property. The ground has been examined by Granduc Mines and Jodee Exploration Ltd. of Calgary. The latter company undertook diamond drilling in 1964. The work was not recorded.

In 1970, Robert Wolfe staked the gossan zone for El Paso Mining and Milling Company. A program of channel sampling and geologic mapping was carried out in 1971 by V. Hardy for El Paso. The claims were transferred to G. A. Noel of North Vancouver on January 21, 1976, for whom this present work was performed.

FIELDWORK

The crew consisted of one geologist and one assistant. A number of traverses were made over the property. Survey points, marked by numbered plastic flagging, were located by the use of a Silva Ranger compass, Top-o-fil chain, and a Suunto clinometer. Only one claim post was found and tied in. Sample markings and old flagging were used to tie in the previous work. One diamond drill hole and the core storage area were found and were also recorded. Measurements were made in feet, but the map produced is in metric

units (one centimetre equals 20 metres) as required by the assessment regulations.

GEOLOGY

The UP 1-8 mineral claims are underlain by volcanic rocks, of the Hazelton assemblage, Jurassic age. They strike approximately 010° azimuth and dip steeply to the east.

The thickest formation is a layered andesite, and covers the central and north-eastern portion of the claims. Although the rock is moderately altered, the texture as seen under a microscope suggests that it is a flow rather than a tuff. There is a lack of tuffaceous textures, and the subhedral to euhedral plagioclase phenocrysts in a uniformly textured matrix are not generally broken. This formation was examined petrographically in thin sections 3 and 4.

Lying to the east, and presumably stratigraphically above, a zone of schisted volcanic appears. This probably represents the same rock, but has been subjected to shearing. It contains trace amounts of pyrite and weathers to brownish colored small flat chips. The contact is gradational.

The mineralized formation appears on the west side of the claims. The western contact lies somewhere under an active valley glacier and could not be determined. It has a maximum exposed width of 320 metres and was traced for a length of 800 metres.

The rock is an orthoclase porphyry (thin section No. 5). Large, (to 3 cms) euhedral, oblong phenocrysts of orthoclase are the dominant feature. They are roughly aligned, and approximate 010° azimuth. The matrix is much finer and consists of plagioclase-microcline intergrowths with some calcite,

sericite, epidote and 5-7% pyrite. There is some evidence of breccia inclusions. Some of the material is silicified and tuffacious in appearance. There is conflicting petrographic evidence as to its origin. It is probably a plutonic rock rather than a volcanic, but the evidence is not clear.

MINERALIZATION

The sulfide mineralization is essentially fine grained, disseminated pyrite and confined to the matrix of the porphyry. There are some small patches of malachite on outcrops, but chalcopyrite is not abundant. Sulfides compose approximately 5% of the rock, although it was patchily distributed and varied from near nil to 10%.

An area, approximately 220 x 50 metres in the vicinity of stations 14 to 18 was chip sampled in 1971. This revealed a zone approximately 60 x 40 metres which averaged 0.35% Cu., 0.01 oz./ton Au.

Nine samples were taken during the present examination in the surrounding mineralization. These were analyzed by Chemex Labs Ltd. in North Vancouver. The highest copper assay obtained was 0.23% Cu. The samples were also assayed for zinc, gold and silver, but values reported were very low.

Jodee Exploration, who held the ground some time previously, had drilled at least one hole on the showing. Some 120 metres of core in poor condition was stored rather precariously on the property. A check of the core revealed the porphyry had not varied from the outcrops. A sample of the core taken at random intervals returned similar very low assays.

A series of five soil samples, taken in 1975 above the known mineralized area showed some slightly anomalous copper values. However, because of the relatively fresh glacial till and the steepness of the slopes, it was not considered diagnostic enough to extend the coverage within the time available.

CONCLUSION

The claim group is underlain by igneous rocks, mainly volcanic. One member of doubtful origin is mineralized by pyrite. Its full extent is not known, but covers a minimum of 800 x 320 metres. An area 50 x 30 metres within this zone carried 0.35% Cu and 0.01 oz/ton Au.

The work program was limited by weather considerations and budget restrictions.

RECOMMENDATIONS

B. Taylor. B. Taylor

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager JOHN G. PAYNE, Ph. D. Geologist

216 EAST 28TH AVENUE VANCOUVER, B.C. V5V 3M1

PHONE (604) 874-1650

Report For: Bert Taylor, G.A.Noel and Associates

UP Property

	No.	Field Name
samples	3	andesite tuff
	4	andesite porphyry
	5	feldspar porphyry

Sample 3

The original rock (70% of section) is dark green and consists of scattered plagioclase phenocrysts (7-10%) up to 0.1 mm across, and minor (1%) rounded quartz grains (0.03 mm across) in a matrix of very fine grained (0.003-0.005 mm) plagioclase, quartz, sericite, and chlorite.

Plagioclase phenocrysts are subhedral to euhedral; some are zoned with more calcic cores, and most are moderately to strongly altered to sericite.

Quartz grains are probably not phenocrysts but coarser crystals which grew during crystallization of the matrix.

The matrix is generally massive, and consists of irregular slightly interlocking grains. Chlorite, epidote, and calcite form monomineralic patches up to 0.05 mm across. Sericite commonly shows a preferred orientation which defines a weak foliation; this foliation is warped and kinked on the scale of 0.05 mm.

Green patches and vein-like zones in the rock (25%) contain very fine grained epidote which occupies from 40-70% of the rock matrix in these zones. Associated with the epidote alteration are patches and veinlets of coarser grained chlorite-quartz-calcite-sericite. One vein contains calcite-chlorite-(Ti-oxide), and another has a calcite center and a very fine grained epidote-rich halo.

White patches (5%) consist of fine to medium grained calcite with minor quartz and chlorite (0.05-0.5 mm grain size).

Although the rock is moderately altered, the texture suggests that it was an andesite flow rather than a tuff. Evidence for this is presence of subhedral to euhedral plagioclase phenocrysts, uniformity of matrix texture (pre-alteration), and lack of obvious tuffaceous textures.

Sample 4 Plagioclase Porphyry (Andesite)

The rock contains phenocrysts of plagioclase, quartz, and sphene. Plagioclase (30%) phenocrysts are up to 4 mm across, with irregular to subhedral shapes. Some are glomeroporphyritic. Alteration is weak, and consists of veinlets of sericite and calcite. Quartz phenocrysts (1%) are rounded and up to 0.7 mm across, Sphene (2%) forms grains up to 0.7 mm across.

The matrix (65-70%) is mainly 0.002-0.015 mm in size, but grades locally to 0.05 mm. Some small plagioclase phenocrysts are only slightly coarser than the matrix. The matrix consists of irregular slightly interlocking grains of plagioclase (40-45%) with lesser quartz (10-15%) and sericite (10%). Minor phases in the matrix are epidote (1-2%), microcline (2-3%), opaque (1%), chlorite (1%), calcite (1%), and apatite (0.1%). Epidote forms patches up to 0.2 mm across. Other minerals generally form scattered grains. The rock was fractured and altered under a slight stress producing

The rock was fractured and altered under a slight stress producing local recrystallization and orientation of mineral grains to define a weak to moderate foliation in the zones of recrystallization. Reoriented grains are mainly sericite and locally quartz; the latter forms patches of elongated parallel grains in irregular vein-like zones. Quartzmicrocline veinlets are probably of the same age as the recrystallized quartz and sericite.

The rock is probably a subvolcanic intrusion or dike.

Sample 5 K-feldspar Porphyry

The sample is dominated by very coarse (to 3 cm) elongated prismatic crystals of K-feldspar (35-40%). They show Carlsbad twins and range from subhedral to euhedral. They are fractured and cut by veinlets (5%) consisting of calcite-sericite and lesser quartz and opaque; veinlets appear to be coeval with the matrix minerals.

Most of the matrix is 0.3-0.8 mm in size and consists of plagioclase-microchine intergrowths (70-75%), calcite (10-15%), sericite (3-5%), opaque (5-7%), epidote (3-5%), with accessory Ti-oxide and apatite. Plagioclase predominates over microcline in the matrix; the intergrowths are of irregular to lath-shaped crystals. Sericite forms scattered grains and patches which locally grade into irregular vein-like zones, some containing calcite. Calcite forms single grains and patches, some of which are vein-like; some carbonate is stained by limonite. Epidote forms scattered grains and aggregates, the latter commonly with calcite or opaque. Opaque is probably pyrite (from hand sample); it forms irregular to euhedral cubic grains from 0.01 to 0.1 mm across. Ti-oxide occurs in fine grained aggregates with sericite and pyrite.

About 7-10% of the matrix consists of much finer grained (0.005-0.01 mm) zones of intergrown plagioclase and quartz. Two patches in the matrix, one 3 mm long and the other 1.2 mm long, consist of coarser grained (0.3 mm) rounded plagioclase grains, slightly altered to sericite. These are probably inclusions of foreign rock.

The rock is probably related to a plutonic rock rather than to a volcanic suite as suggested by the K-feldspar phenocrysts and the coarser grained matrix. It is not similar to sample 4.

John Vagne

John Payne, September, 1976.



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CHEMEX LABS LTD.

212 BROOKSBANK AVE. NORTH VANCOUVER, B.C. CANADA V7J 2C1 TELEPHONE: 985-0648 AREA CODE: 604 TELEX: 043-52597

· ANALYTICAL CHEMISTS

• GEOCHEMISTS

REGISTERED ASSAYERS

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CERTIFICATE OF ASSAY

G. A. Noel & Assoc. TO: 1127 - 510 W. Hastings, Vancouver, B. C. V6B 1L8 ATTN:

CERTIFICATE NO		31766	
INVOICE NO.		18275	
RECEIVED	Sept.	14/76	
ANALYSED	Sept.	16/76	

Bert	Taylor

SAMPLE NO. :	% Copper	% Zinc	Oz/Ton Silver	Oz/Ton Gold	
39331	0.05	< 0.01	0.03	0.010	· · · · · · · · · · · · · · · · · · ·
39332	0.13	0.01	< 0.01	0.012	
39333	0.23	0.01	0.08	0.007	
	< 0.01	< 0.01	< 0.01	0.003	
39334	0.01	0.01	0.03	0.003	
39335	< 0.01	< 0.01	0.02	0.005	
39336	< 0.01	< 0.01	0.06	0.005	
39337	0.01	< 0.01	0.04	0.003	
39338	< 0.01	< 0.01	0.12	0.003	
39339	< 0.01 < 0.01	< 0.01 < 0.01	0.02	0.005	
39340	< 0.01	<u> </u>	0.02	0.005	, , , , , , , , , , , , , , , , ,
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CTA, MEM	BER			1107-two	to

CANADA PROVINCE OF BRITISH COLUMBIA

In the Matter of

TO WIT:

Form 204

I, Bert Taylor

of Vancouver,

in the Province of British Columbia

do solemnly declare the following wages and costs were directly expended on a geological survey on the UP 1-8 mineral claims between September 6 and September 13, 1976.

Wages:

D 971	Q David	0	642	0 10	1070	0	6100		4900	
B. Taylor	8 Days	Sept.	otn -	Sept. 13	, 1976	æ	\$T00	=	\$800	ł
K. Noel	8 Days	11		† 1		6	40	=	320)
										\$1120.00
Camp supplie	es and equipm	nent								380.00
Trave1										695.70
Helicopter a	servicing									630.00
Camp cost @	\$8.00 man da	у								128.00
Rock analys:	Ĺs									175.00
Petrographic	c report									89.75
Compilation										500.00

\$3,718.45

APPENDICES

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