133

TABLE OF CONTENTS

GEOLOGICAL REPORT ON THE REX-SAL-RUM GROUP

LIARD M.D. 57° 131° S.W.

OWNER - NEW INDIAN MINES LTD.

by

D. H. James, P.Eng. July 16 - August 15, 1965

for Bralorne Pioneer Mines Limited.

Introduction

This report is prepared for submission as assessment work of geological mapping on the Rex, Sal, and Rum claim groups carried out under the writer's supervision in the period July 16 - August 15, 1965.

Location and Access

The claims are situated east of the Stikine River and north of the Porcupine River. They extend from the peak of Mt. Scott Simpson northwest towards the Anuk River. Access is by air from Prince Rupert, Terrace, or Wrangell or by river boat from Wrangell to the Porcupine or Anuk Rivers. In 1965, Klondike Helicopters stationed a Bell 47G machine at a base at the mouth of the Anuk River. The property can be reached in 10 minutes by helicopter from this base.

Property

The claims were staked by John McGorran from two witness post locations indicated on the accompanying map. They were Rex 1-14, Sal 1-12 and 19-26, and Rum 21-40 - a total of 54. On the ground it was determined that claims Rex 1-8 overlie Ram mineral claims and are not valid. Portions of Sal #1 and Rum #22 overlie the Stud group.

Physical Features

The claims lie entirely above timber line. The southeast boundary is approximately at the peak of Mount Scott Simpson. The claims extend northwest across several subsidiary peaks and ridges separated by

snow-covered glaciers. Most of the exposures in this area can be examined only with great difficulty.

The Rex claims and northernmost Sal claims include rounded outcrop areas easier to map, separated by ice and snow.

It would be possible, but expensive, to construct a road from the Stikine River. It would pass through fair stands of spruce.

Wrangell, Alaska is the nearest supply source. Prince Rupert is the closest Canadian source.

Snow would be a severe problem in winter as the claims all lie above 4000 feet elevation.

Work Program

Mapping was conducted from brunton and chain traverses run wherever possible and from air photographs and recognizable points plotted by taking bearings. Pace and compass surveys were made from the chained baselines.

Regional Geology

The only reference known to the writer is G.S.C. Memoir 246 by F. A. Kerr. On his maps the claim area is shown underlain by Triassic volcanic rocks and granodiorite of the Coast Range Batholith.

Property Geology

Geology as mapped is presented on the enclosed plan at 1" = 400'.

Granodiorite

The western part of the claim group is underlain by typical Coast Range intrusive rocks - granodiorite and diorite for the most part. Most of the outcrops are rudely foliated in a direction concentrated on N 70° E, dip 65° S. This plane controls numerous dykes, and in many places deposition of epidote. It appears to be an early joint or shear plane rather than gneissosity. Later joints in several directions cut the granodiorite, and in two instances displacement of dykes on NNE striking joints was noted.

In an area centred on claim Rex 11, feldspar porphyry has been developed in the granodiorite. Areas of porphyry are highly irregular, the contacts are gradational over 2-3 inches, and the texture appears to have been developed simply by growth of sodic plagioclase crystals.

Mafic aphanitic dykes are common in the granodiorite, and in an area on claim Sal #8 are so numerous as to be termed a dyke swarm. A few narrow aphanitic felsite dykes were noted.

Volcanics

Fragmental volcanic rocks constitute most of the layered rocks in the area, and extend east to Split Creek where the writer mapped them on the Sil group earlier in the season. Bedding is seldom even suggested, but from the outcrops mapped earlier the rocks evidently occur in thick layers. Fragments are mostly 1" to 12" across, are fine to intermediate - grained volcanic rock, are intermediate composition, and are quite angular. The matrix is also volcanic. Many outcrops appear to be quite massive, but at high elevations there is not enough chemical weathering in many places to bring out the texture.

Sediments

The sedimentary rocks are probably conformable with the volcanics. This is deduced from evidence on the Sil claims to the east and from the fact that on claim Rum 34 there are several fragmental and tuffaceous beds in the lower part of the sedimentary unit.

The sediments are principally silts and argillites with some sandy beds and tuffs, and near the base the fragmental beds mentioned above.

A thorough search was made for structures which might indicate tops, but none could be found.

Structure

The granodiorite margin strikes generally north, although it is quite irregular. On claims Sal 12&20 areas of granodiorite are found well within the volcanics. This intrusive contact can be expected to be quite irregular in detail.

The sedimentary unit included in the volcanics strikes northwest and dips on the average about 45° northeast. There is considerable local contortion, as might be expected in a relatively thin section between two massive units of volcanics. The attitude of the beds, except locally, is quite uniform. The apparent changes in strike on claims Rum 34 and 36 are caused by topography.

It appears that layered rock units in this area are tipped up by intrusion of the batholith, but are not highly folded.

A strong shear northeast of claim Rum 23 has developed foliation in granodiorite for a width of 20-30 feet.

Economic Geology

The claims were staked because of copper showings to the east on the Split Creek property of Julian Mine Co. Ltd. The writer has only very limited knowledge of this showing, but formed the opinion it is associated with a late finegrained acidic intrusive mass, or an alteration zone of similar appearance. Nothing of the sort was noted on the claims herein described.

On claims Rum 28 and Sal 7 outcrops of volcanic rock are strongly rust-stained. The discolouration is caused by pyrite developed in the volcanic rock which may also be slightly silicified. It has presumably been affected by the adjoining intrusive granodiorite and by some shearing which does not occur in the other contact area exposed.

On claim Sal 10 a small patch of malachite stain was found with rust and pyrite in a narrow fracture zone. No other showing of mineral was found in the granodiorite.

A few quartz veins occur in the volcanics. The only one with mineralization is on claim Sal 19 where quartz 2-5 feet wide occupies a vertical shear striking NNW. The quartz is slightly stained with malachite in a few places.

Conclusions

No indications of significant economic mineralization were seen on those parts of the property not covered by snow and ice.

Assessment Work

Mapping was done by Mr. F. H. Tuttle, a third year geology student at the University of Washington, and to some extent by Mr. Paul Weishaupt, an exploration technician employed by Bralorne Pioneer Mines Limited. Mr. Tuttle assisted the writer in mapping the nearby Sil group for two weeks in June. The writer spent August 12 and 13 on the property checking the mapping, and supervised the preparation of the attached map by Mr. Weishaupt.

Persons employed on the work were:

F. H. Tuttle	-	junior geologist	July 16 - August 15.
P. Weishaupt	-	technician	" "
B. Menhenick	-	helper	" "
D. Rimmer		"	" "
D. H. James	-	P.Eng. supervision & report.	

Costs of Work

Salaries and fringe benefits, 32 working days

F. H. Tuttle	- monthly rate	-	$486
P. Weishaupt	" "	-	575
B. Menhenick	" "	-	460
D. Rimmer	" "	-	431
			1952 x 7/5 =	$2730
Field maintenance 130 man days @ $5			650
Supervision and report, D.H. James			400
Plotting and drafting, P. Weishaupt			280
		Total	$4060

Work is to be applied to the following 40 claims:

Rex 9 - 14
Sal 2 - 12 and 19 - 24
Rum 21, 23 - 38

Signed D. H. James, M.Sc. P.Eng.
December 15, 1965.

Bralorne Pioneer Mines Limited,
320 - 355 Burrard St.,
Vancouver 1, B.C.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the CITY of VANCOUVER, in the Province of British Columbia, this 20 day of DECEMBER 1965, A.D.

D. H. James

Susan Matty
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub-Mining Recorder

AREA INACCESSIBLE

SNOW

CLIFF

RUM 21

RUM CREEK

ICEFALL

RUM 23 SNOW

RUM 25 SNOW

RUM 27 SNOW

RUM 29 SNOW

RUM 31 SNOW

RUM 33 SNOW

85° Slope

RUM 35 SNOW

RUM 37 SNOW

RUM 39

Rockcairn

LAKE

TALUS

RUM 22

RUM 24

RUM 26 SNOW

RUM 28 SNOW

RUM 30 SNOW

RUM 32 SNOW

RUM 34 SNOW

RUM 36 SNOW

RUM 38 SNOW

RUM 40

R U M M. C.

Elv. 6320'

80° Slope

MORAINE

TALUS

shear with pyrites

conlact zone

highly fractured and folted dykes

80° Slope

Elv. 6225'

SHARP RIDGE

AREA INACCESSIBLE

SAL 1

SAL 3 SNOW

SAL 5

LAKE

SAL 7 SNOW

SAL 9 SNOW

Elv. 6620'

SAL 11

Fractures containing Pyrites

SNOW

SAL 19 SNOW

Elv. 5850'

75 Slope

SAL 21 SNOW

SAL 23 SNOW

SAL 25

shear with qtz vein up to 5' in with with Cu stain

CREEK

chloritized dykes 4'-5' wide highly fractured and folted

numerous chloritized dykes 2' to 3' wide
strike N 70° E to E
dip 65° to 70° to the south

WITNESS POST for RUM SAL STUD M.C.

SNOW

SNOW

SAL 4

SAL 6

SAL 8 SNOW

SAL 10 SNOW

fractures containing pyrites

SAL 12

SAL 20 SNOW

SAL 22

SAL 24

SAL 26

Fractures containing Pyrites

ICE FALL

SNOW

SAL 2

S A L M. C.

irregular contact volcanic - diorite

Elv. 5400'

1' Qtz. vein

TALUS and small outcrop, all Agglomerates

MORAINE

CREEK

TALUS

SNOW

OUTSIDE BOUNDARY OF RAM M.C.

REX 7

REX 9

SNOW

REX 11

REX 13 SNOW

R E X M. C.

SNOW

Elv. 5400'

Shear with Pyrite

Approx. Location of Witness Post for REX M.C.

REX 10 SNOW

REX 12

REX 14

Elv. 5040'

3' Qtz vein

small dykes 1' to 2' irregular strike and dip

No. 2 Post RAM M.C. 1, 2

Elv. 4000'
CAMP

VOLCANIC Agglomerates, Andesites

DIORITE Medium to fine grained

PORPHYRY Plutonic with feldspar phenocrysts

SEDIMENTS Argillite, Tuff

DYKE

SHEAR

STATION

733

BRALORNE PIONEER MINES LTD.

GEOLOGICAL MAP

RUM SAL and REX MINERAL CLAIMS / LIARD M.D.
TO ACCOMPANY REPORT BY D.H. JAMES P.Eng.

SCALE 1"=400	REF.	
DRAWN BY	DATE 29. 11. 1965	No.