

103 P/11W&12E

L55-129 SW
Claims: Barite, Hematite, and James
Varden
Owner: Torbrit Silver Mines Ltd.
Engineer: J. Botelho
July, 1947.

33

TORBRIT SILVER MINES LIMITED
 (NON-PERSONAL LIABILITY)
 ALICE ARM. B.C.

DEPT. OF MINES
 Rec'd May 1 1948
 Subject _____
 File 127-100
 Referred to _____

4663

33

Fourth
 June
 1948

Chief Gold Commissioner
 Department of Mines
 Victoria B. C.

Dear Sir:

Reference Your File No.127 d/May 22nd 1948

Your letter of May 22nd to hand. The coloured areas on our Map are areas of almost continuous rock outcrops, and the white areas are those over which the overburden obscures the underlying formations, and consequently were not mapped.

Yours very truly,

H.D. Forman
H.F.

H. D. Forman
 Manager

REFERRED TO	DATE	INITIALS
H.D.F.	✓ 11/6	Forman
P.J.M.	✓ 16/6	Forman
K.B.B.		
R.J.M.		
C.H.S.		
D.E.		
L.D.		
F.C.		
M.P.		
PURD GLEES		

INTRODUCTION:

The following report is an investigation of the general geology of the Barite, Hematite and James Varden Fraction claims for the Torbrit Silver Mines, Alice Arm, B.C. The purpose of this report is to secure further information for future prospecting and for the fulfilment of the assessment work of the above claims. A geological map, 1" to 750' has been submitted with the report outlining the assessment work done for the summer.

GENERAL GEOLOGY:

The Kitzault igneous body is 33 miles long in the Alice Arm District, and averages around 3 miles in width. It consists mainly of various types of intrusive and extrusive rocks. A belt, $\frac{1}{2}$ mile wide, known as the "Copper Belt", appears in the northern portion of the Kitzault body and extends from the north limit of the Alice Arm area to Evindson Creek. Its exact nature is unknown, but it is probably an acidic feldspar porphyry much altered to sericite, calcite and chlorite, and the mineral deposits in the belt are chalcopyrite deposits. The sediments which overlie this igneous body or form pendants in it, are chiefly composed of black argillites.

The rocks are of the Hazelton group, Jurassic in age; locally they are split into two formations, the Kitzault River Formation, which is composed mainly of argillites, and the Dolly Varden Formation of massive and fragmental massive igneous rocks. A syncline exists along the Kitzault Valley and this is followed by an anticline between Trout Lake and the Kitzault River.

The Coast Range Batholith lies a few miles west of this area, its eastern contact trends northwesterly and the rocks bordering the intrusive strike roughly parallel to the contact.

GENERAL TOPOGRAPHY:

The streams in this area are in their extreme youth and consequently flow in steep canyons. The Kitzault itself forms a steep canyon except where it is cut by the sediments, and broadens out into a valley. Signs of glaciation are seen only at the head of a few of the larger streams. The Barite claims are located within the 3000 and 3500 foot contours, and their general topography consists of a series of small flats and draws striking northwest. The southern portion of the Hematite group, opposite the Dolly Varden Mine, forms the steep eastern slope of the Kitzault Valley.

GEOLOGY OF THE BARITE, HEMATITE AND JAMES VARDEN CLAIMS:

The Barite group of eight claims, located directly east and north of the Toric group, consist mainly of a wide band of fine grained argillites striking generally to the northwest and dropping very steeply, almost vertically. They contain angular quartz and feldspar grains embedded in a black fine-grained matrix. In the head of Tiger Creek they are intruded by a coarse grained

granodiorite and are badly folded for a distance of 200 feet, and small, barren, white quartz stringers have filled the fractures.

In the western section of this group the Barite 1 and 2 Fractions, adjacent to the Hooter Fraction, and the Lion Claims respectively, the rocks are composed of purple volcanic breccias which contain feldspar quartz and tuff; it is in these fragmental rocks the silver veins of the Tiger property are located.

A small feldspar porphyry zone, striking generally to the north, lies adjacent to the fragmental rocks. It is a greyish rock containing small phenocrysts of feldspars in a fine groundmass. It grades from a felsite porphyry to a very silicious felsite with highly mineralized leases of fine grained quartz and finely disseminated pyrite. Structurally they form a high bluff along the upper part of the valley and can be easily distinguished by the red oxidation on its surface. This may be part of the Copper Belt intruded in the eastern side of the valley, the rock itself has the same apparent composition of that of the Copper Belt, but has a fresher appearance, not having been sheared as badly, and contains lesser amounts of fine grained pyrite with no chalcopyrite. A basic dyke, 2 to 3 feet in width, striking easterly and dipping steeply to the north, cuts across the feldspar porphyry. It weathers much more easily, and forms a series of rounded exfoliated boulders in a soft earthy matrix.

In the eastern part of the Barite Group, laying the Barite 345 Claims, a coarse grained elongated stock, outcropping to the northwest, intrudes the argillites. It is of intermediate composition, probably a granodiorite, with abundant hornblende crystals. The stock itself is probably an offshoot of the Coastal Range Batholith. Local differentiation in the stock itself is very noticeable within 20 feet along the vertical face, the igneous body grades from that of a coarse grained texture to that of a very fine grained ore. Agglomerates have filled large shrinking fractures of this mass, the matrix of which is a fine grained intermediate flow rock, originating probably from the same parent magma as that of the granodiorite. The fragments, mostly chert, quartz and feldspar, range from 1 mm. in diameter to a maximum of 10 mm.

On the north end of the stock is a fine grained intermediate flow rock, a dacite flow, which contains numerous rounded black quartz pebbles, ranging from $\frac{1}{2}$ mm. to 2 mm. in size. Pyrite is very abundant in the entire stock and can be found in any of the above mentioned rocks.

The igneous intrusive makes another ~~another~~ series of bluffs at about the 3500 foot contour, its vertical face is highly cross fractured and the talus slopes below consists of large blocks averaging one foot square.

The James Varden Fraction is located on the west side of the Kitzault River and lies directly north of the North Star Claims, and the rocks of the area consist wholly of purple volcanic breccia.

The Hematite Group of seven claims lie directly south of the Barites and on the whole consist of a fine grained greenish rock, locally known as the andisites. They are massive rock devoid of structure, contain rock fragments and are thought to be in a core or plug of one or more volcanoes. Proceeding to the north, in the direction of the Hematite No. 1 Fraction, the rock assumes a purplish hue, due to an increase of hematite content, although the actual composition remains unchanged. In the northwest along the Hematite Fraction and the Hematite No. 3, argillites striking there usual Northwest and dipping vertically overlie the volcanoes.

ASSESSMENT WORK:

The assessment work has consisted of cutting two trails, one 500' long in the James Varden Fraction and the other 8000 feet long from the Torbrit Portal to the Initial Posts of the Barites 6 and 7; a trench 40 feet long has been opened in the Barite No. 1 Fraction.

SUMMARY:

The geology of these claims conforms with that of the district and consist mainly of vertical argillite beds underlain by the volcanics of the Dolly Varden Formation. Further prospecting should be directed along the contacts of the granodiorite stock and in the volcanics of the Hematite Group; the task is an imposing one due to the general steepness of the topography and the heavy overburden.

GEOLOGICAL WORK BY

J. Batelbo

SUPERVISED BY

A. D. Harman

Torbrit Silver Mines Limited
(Non-Personal Liability)

Applications for Certificate of Work. Affidavits.

Torbrit Fractional M. C.

\$100.00 of work since 1st August 1946.

500' of trail extending from the upper tunnel of the Dolly Warden Mine to the Torbrit Fraction.

One open cut 8' x 2' x 2'.

Hematite Group of Eight Claims.

\$800.00 of work since 1st August 1946.

8000' of trail leading from the main trail at Torbrit Silver Mines to the Barite #6 M. C.

Geological reconnaissance by Mr. J. Botelho, Engineer.

Barite Group of Mineral Claims.

\$200.00 of work since August 2, 1946.

Geological reconnaissance by Mr. J. Botelho, Engineer.

One open cut 40' x 8' x 3'.

Notice to Group.

Hematite Fr. M. C., Hematite Fr. #1, M. C., Hematite Fr. #2, M. C. and Hematite M. C. Nos. 3, 4, 5 and 6 and Barite Fr. #6 M. C.

All work done on Barite #6, M. C.

Group to be known by the name of Hematite Group.

Barite Fr. and Barite #1, Fr.

All work done on Barite #1 Fr.

Group to be known by the name of Barite Group.

Torbrit Silver Mines Limited
(Non-Personal Liability)

Details of assessment work performed
on Torbrit Fractional M. C., and
Hematite Group of Claims and Barite Group of Claims.

June 1947	Food Supplies	\$ 117.00
	Labor	372.17
	Stores	7.67
July 1947	Food Supplies	92.00
	Labor	303.84
		<hr/>
		\$ 892.68
		<hr/>

A. Lockyer.

A. Lockyer,
Accountant.

(The above expenses do not include the salary for
Dec. 28, 1947. June and July of our engineer,
Mr. J. Botelho, under whose direction
this assessment work was performed.
The salary of Mr. J. Botelho was paid
direct from Toronto by our parent company,
The Mining Corporation of Canada Limited,
602-350 Bay Street, Toronto, Ontario).

Copy of Report made by
Mr. John Botelho, Engineer

July 1947

INTRODUCTION:

The following report is an investigation of the general geology of the Barite, Hematite and James Varden Fraction claims for the Torbrit Silver Mines, Alice Arm, B. C. The purpose of this report is to secure further information for future prospecting and for the fulfilment of the assessment work of the above claims. A geological map, 1" to 750' has been submitted with the report outlining the assessment work done for the summer.

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Second Paragraph of GENERAL GEOLOGY should read as follows:

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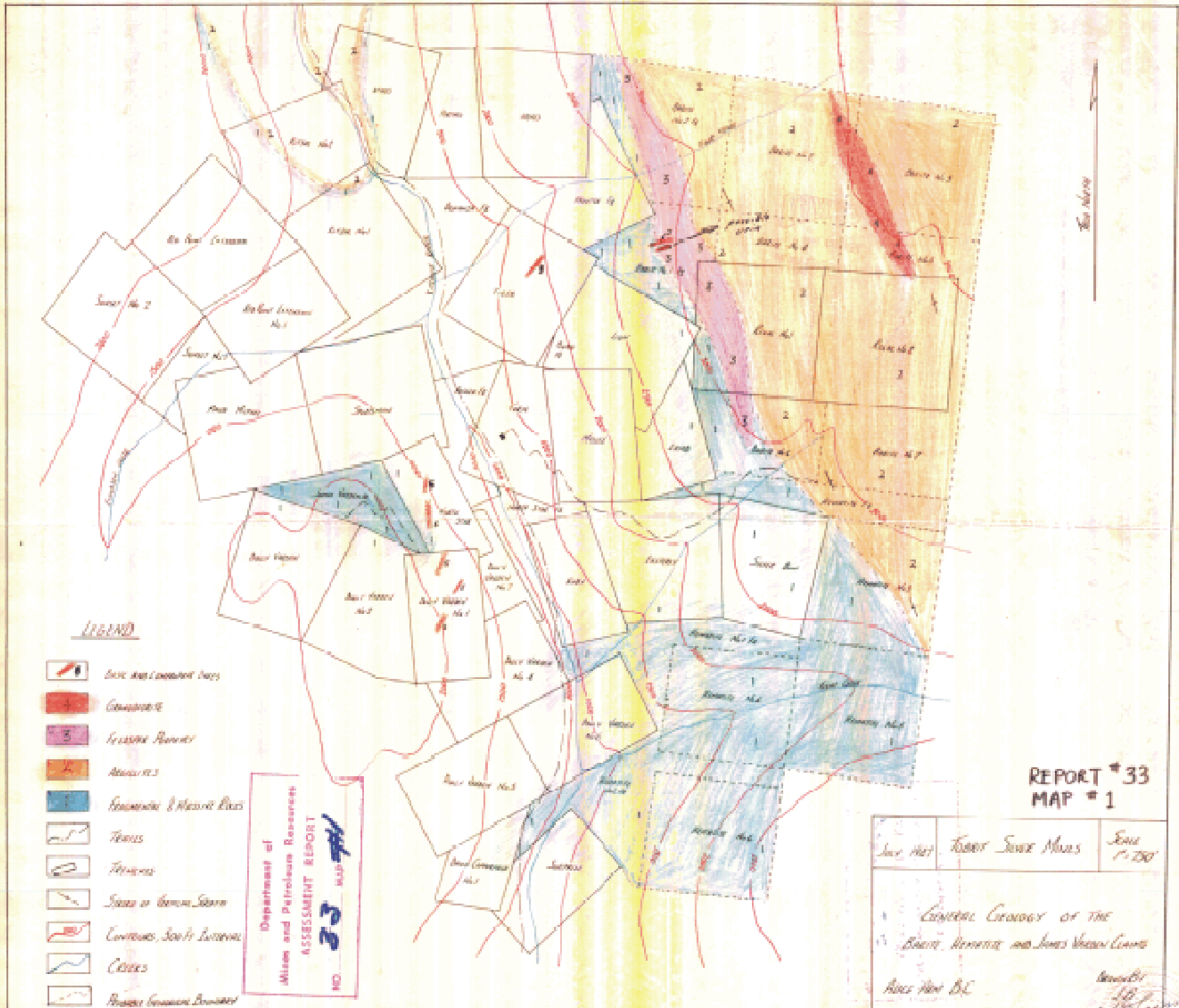
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AL/ejh
December 27, 1947



LEGEND

- Fault and Unconformity Lines
- Coalfields
- Leasing Areas
- Areas No. 1
- Basins & Water Basins
- Rivers
- Pipelines
- Spots or General Signs
- Contours, South Extension
- Coals
- Property Boundary

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 33
 1950

REPORT # 33
 MAP # 1

Jan 1947	Robert S. Jones	Jan 1, 1950
General Geology of the Basin, Herring, and Jones Shoals Coals		
Alec Hill B.L.		1/1/50

This sheet