

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 8436.02

D.S. Craig
Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

Gillaspie
Commissioner of Yukon Territory
ADMINISTRATOR OF THE YUKON TERRITORY

A

GEOLOGICAL REPORT

ON

GIRLY 73-74, ROX 57-70 (inclusive)

Mineral Claims

SHEET 116-J-5

16 MILES SOUTHWEST OF BEAR CAVE MOUNTAIN

N66°20' W139°45'

DAWSON MINING DIVISION, Y.T.



by

H.R. BULLIS

G. McARTHUR

May 15 - August 31, 1974



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Introduction and Summary

The Girly 73-74 and Rox 57-70 mineral claims were staked in September, 1973 under the supervision of L.W. Saleken of Brascan Resources Limited. The decision to stake was made after the discovery by Mr. Saleken and others of strata-bound zinc mineralization in the area.

During the following winter plans were made to further explore the claims and the setting up of a geological reconnaissance programme was begun. Brascan personnel carried out prospecting, geological mapping and a claim survey of the above claims during May, June, July and August of 1974.

Through prospecting and geological mapping it was discovered that the rock formations hosting zinc mineralization dip beneath the claim group. Therefore, it is recommended that Brascan retain title to the mineral claims and that application for assessment credits be made accordingly.

An application to group the above claim block will be filed in September with the Mining Recorder in Dawson City, Y.T.

Ownership

The Girly 73-74 and Rox 57-70 (inclusive) mineral claims were staked in September, 1973 as full-size mineral claims as described by the Yukon Quartz Mining Act and were recorded in Dawson City, Yukon Territory on October 2, 1973 with the following record numbers.

Claim	Record Number	Date Recorded
Girly 73	Y82241	October 2/73
Girly 74	42	October 2/73
Rox 57	27	October 2/73
Rox 58	28	October 2/73
Rox 59	29	October 2/73
Rox 60	30	October 2/73
Rox 61	31	October 2/73
Rox 62	32	October 2/73
Rox 63	33	October 2/73
Rox 64	34	October 2/73
Rox 65	35	October 2/73
Rox 66	36	October 2/73
Rox 67	37	October 2/73
Rox 68	38	October 2/73
Rox 69	39	October 2/73
Rox 70	40	October 2/73

Brascan Resources Limited has one hundred percent ownership in the above mineral claims.

Application to group the above mineral claims will be filed in October with the Mining Recorder in Dawson City, Y.T.

Location and Access

Girly 73-74 and Rox 47-70 (inclusive) mineral claims lie approximately sixteen miles southwest of Bear Cave Mountain and are located on the NTS sheet 116-J-5.

Approximately 170 air-miles north of Dawson, the claims are accessible during the summer months only by helicopter. Winter roads provide access when rivers are frozen and the ground becomes solid enough to support wheeled or tracked vehicles. The Dempster Highway, an all-weather gravel road, provides year-round access for vehicles to within seventy miles of the claims. A number of airstrips are located along the Dempster and provide staging points for material being air-lifted into the property.

An all-weather airstrip, the Mallard, lies about 50 miles to the south of the claims and provides access for light aircraft. From there it is necessary to use a helicopter to reach the claim group.

Geography

Relief in the claims area is moderate. Valley floors are generally 1,500 feet A.S.L. and the mountain ridges seldom are higher than 4,000 feet A.S.L. The mountains have low, gentle profiles and are seldom peaked. Absence of glaciation and severe frost-heaving resulting from active perma-frost have combined to produce mountains resembling piles of rubble.

The claims lie within ten miles of the Arctic Circle and the vegetation varies from sub-Arctic to cold-temperate. The ridges above 3,000 feet have very little growth other than moss, lichen and alpine flowers. The valleys, on the other hand, are filled with spruce, tamarack, alder and a wide variety of small broad-leaf plants. The growing season is short - from the first of June through to mid-August - and the growth-rate is very slow.

Geology

Regional

A series of sedimentary rocks ranging in age from Silurian to Devonian are exposed in sections on three over-thrust plates the major and western-most of which is the North Dewdney Thrust. The thrust-faults strike approximately north-west. The strike of the bedding planes of the sediments corresponds to that of the thrusts and the dip of the beds is generally to the east.

The local thrust-faults appear to terminate in a broad anticline to the south of the claim block. Further to the east the sediments form a shallow syncline the eastern edge of which is terminated by the Fishing Branch River Valley. This valley seems to be controlled by older faulting and thrusting striking toward the south-east.

The rocks from the Silurian to Devonian are a series of limestones, cherty limestones, shaly limestones and dolomites. The boundary between the Silurian and Devonian is difficult to determine because dolomitization has taken place in most rocks and has destroyed minor distinguishing characteristics. However, it is felt that a series of dolomites containing masses of black, nodular chert belong in the Silurian age and, for the purposes of this report, shall be considered the boundary between Silurian and Devonian.

The upper-most rocks that are seen in the Devonian are massive limestones composed of up to sixty per cent crinoidal debris. These rocks are resistant, dark-gray cliff-formers. Below the crinoidal limestones

are a recessive series of bedded shaley to sandy limestones with the occasional bed containing reefal debris and ostracode fossils. Next in the sequence come massive light-to dark-gray aphanitic limestones containing gastropod and coral fossils. These limestones are also cliff-formers. Below these cliffs are a series of undifferentiated light-to dark-gray, fine-to coarsely-crystalline dolomites that carry on down-section to the Silurian cherty dolomites.

Local Geology

A north to northwest trending vertical thrust fault crosses the northeastern corner of the claim block. East of the fault, the oldest rocks are a Silurian to Cambrian sequence of dark gray to black, fine to coarse crystalline dolomites with abundant black, gray and white chert and secondary crystalline quartz. These rocks are overlain by younger brown weathering gray to brown fine to medium grained dolomites which in part have been replaced by secondary coarse sparry white dolomite and calcite.

West of the fault zone the sequence dips 30°W increasing to vertical as the fault zone is approached. A small outcrop of highly fractured pyritiferous siltstone is thought to be of Cretaceous age.

Underlying the siltstone is a 100 - 300 foot thick sequence of resistant cliff-forming dark gray to black, fine-grained limestone. This sequence most likely represents the Ogilvie formation and contains abundant brachiopods, crinoidal stems, corals minor gastropods and trilobites. A sequence of Silurian to Devonian, shaley parting, thin-bedded, dark gray to brown weathering limestones underlies the Ogilvie Formation. Some beds are highly fossiliferous in corals and shell debris and are thought to represent the Gossage Formation.

Outcrop on the claims is less than 15% and geological mapping is correspondingly difficult.

It appears, however, that the Devonian sediments form the western limb of a northerly striking anticline and are being squeezed and fractured between the North Dewdney Thrust fault and the thrust running across the Northeast corner of the claim block.

Mineralization

No mineralization has been found to date on these claims, however, these sediments are the same sequence hosting lead and zinc mineralization on other claims to the south, north and east.

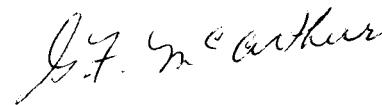
Conclusions and Recommendations

Although no mineralization has been found to date on the claim group, the geology is similar to mineralized areas lying to the east, north and south. It is therefore recommended that assessment work on the Girly 73-74, Rox 57-70 (inclusive) mineral claims be filed with the Mining Recorder in Dawson City, Y.T. and the claims retained by Brascan Resources Limited.

Respectfully submitted,



H.R. BULLIS



G. McARTHUR

CERTIFICATION OF REPORT

I hereby certify that the work described in
this report was carried out under my supervision.



F.B. WHITING

Member: Assoc. of Prof. Engineers
(Yukon)

Member: Assoc. of Prof. Engineers
(B.C.)

APPENDIX I

Work done on the claim group

A survey of the claims using the chain and compass method was carried out and the map produced from this survey was used as a base map for the geological mapping.

During the time work was being done on the claim group a camp established on a seismic road near Fishing Branch Creek served as a work base. From this camp, a Bell 47GB2 helicopter was used to place personnel on traverse.

Personnel involved in work on the claim group are as follows:

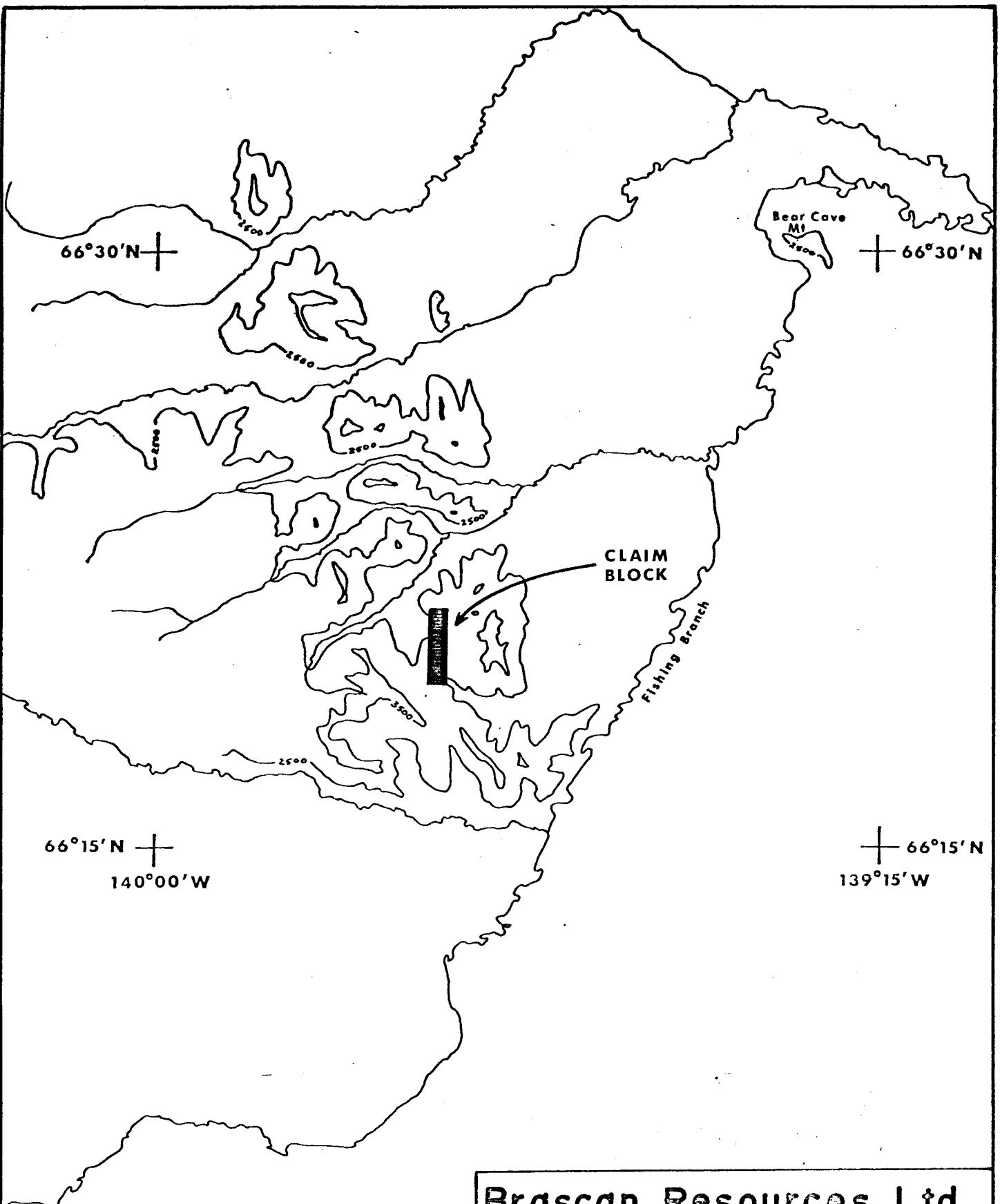
R. Bullis)	
G. McArthur)	C/O Brascan Resources Limited
M. McArthur)	502 - 1155 West Pender Street
A. Cook)	Vancouver, B.C. V6E 2P4
T. Hubl)	

The helicopter was chartered from Trans North Turbo Air out of Whitehorse, Y.T.

The expenses on assessment of the claim group are as follows:

Consulting fees	\$ 368.00
Charter flying	4,722.00
Salaries	1,824.00
Fuel	592.00
Truck rental and gasoline	160.00
Incidental expenses	320.00
Report and drafting	<u>400.00</u>
Total expended	\$8,436.00

Cont/d.



Brascan Resources Ltd.

CLAIMS LOCATION MAP

Scale 1:250,000	Contour Interval 1000'
Date Sept 1974	By MLMCA Fig.

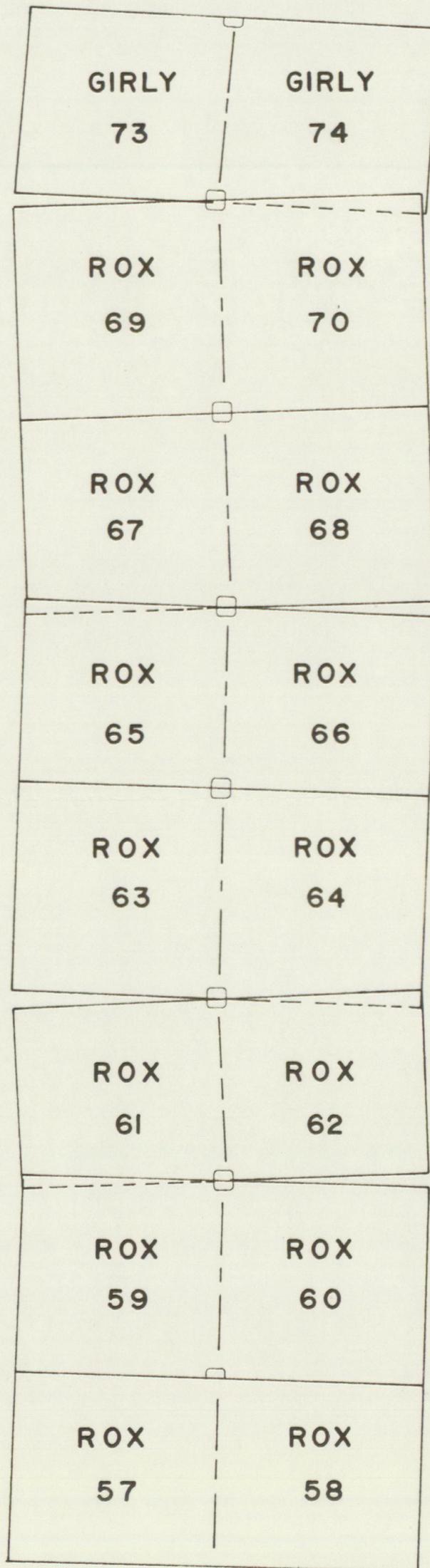
N
↓

T3	T4
GIRLY	
Y82241	Y82242
69	70
Y82239	Y82240
67	68
Y82237	Y82238
65	66
Y82235	Y82236
63	64
ROX	
Y82238	Y82234
61	62
Y82231	Y82232
59	60
Y82229	Y82230
57	56
Y82227	Y82228

Brascan Resources Ltd.

CLAIM GROUP
(from Dept. of Mines Sheet II6J-5)

Scale 1 inch: $\frac{1}{2}$ mile	By MCA
Date Sept 1974	Fig. 2



TN

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CLAIM SURVEY

