

2497

**REPORT
ON
THE RWS AND ISY GROUPS
OF
MINERAL CLAIMS
NICOLA M.D., B.C.**

For:

**EXEL EXPLORATIONS LTD. (N.P.L.)
1250 Bentall One
Vancouver, B. C.**

By:

**ALLEN GEOLOGICAL ENGINEERING LTD.
507-789 West Pender Street
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November 30th, 1969

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MAP #1- CLAIM MAP
 $\frac{1}{2}$ " = 1500'

Rear

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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2497 MAP.....

THE RWE AND ISY GROUPS

OF MINERAL CLAIMS

NICOLA M. D.

B. C.

INTRODUCTION

The extensive holdings of Exel Explorations lie on the east side of Guichon Creek in the Mamit Lake area. The property was examined by the writer September 23rd and 24th, 1969. The many logging and range roads which criss-cross the property were inspected with a four-wheel drive vehicle and outcrop areas adjacent to and near the roads were examined. Traverses were made from the roads for a mile and more to complete a preliminary coverage of the property.

The purpose of the report is to record observations made during the examination, and with the use of data supplied by Mr. Gordon Brand who accompanied the writer, and government maps and reports, compile as complete a description as possible of the property and local geology, and outline a works programme deemed most practicable for the exploration of the area.

LOCATION AND ACCESSIBILITY

The property is located in southwestern British Columbia. It is fifteen miles north of Merritt, via the Highland Valley road. It includes Mamit Lake in the north-westerly corner, and extends from Guichon Creek easterly from two to three miles up the lower west slopes of Guichon and Swakum mountains. Rey Creek flows westerly through the central portion of the claims area.

Geographic location is approximately north $50^{\circ}22'$ latitude and $120^{\circ}46'$ west longitude.

Access is by highway from Vancouver to Merritt or Ashcroft and excellent road north from Merritt or south and east through the Highland Valley from Ashcroft. It may also be reached by secondary road south from Savana or the Le Jeune Lake road south and west from Kamloops.

TOPOGRAPHY, TIMBER AND CLIMATE

The general slopes are westerly into the broad valley of Guichon Creek and Mamit Lake. The elevation range is approximately 3,500 to 4,500 feet above sea level. The small hills and even ridges are rounded with only occasional angular bedrock projections breaking through light overburden.

The timber is chiefly scattered stands of small
jackpine and fir, much of which has been logged off.

The climate is pleasant and amenable to year-round
exploration and mining projects. Snow and freezing
temperature may be expected from November to April.
The months of July and August are hot and dry.

CLAIMS

The holdings of Exel Explorations Ltd. (N.P.L.), are
as follows:

<u>Claims</u>	<u>Record Numbers</u>
RWS 1 - 120	39950 - 40069 incl.
ISY 1 - 44	40070 - 40115 Incl.
ISY 121 and 122	-

During the examination of the property, some but not
all of the location lines and claims posts were ob-
served by the writer, and it is his opinion that they
are staked in accordance with the requirements of the
Mineral Act of British Columbia.

The property is shown on the accompanying claims map
traced from B.C. Dept. of Mines Map 92 I/ 7 N (M).

GEOLOGY

The general geology of the Merritt area is well described in government reports and papers. Descriptions of the Craigmont and Bethlehem mines have been published. A very brief resume only is included in this report.

The oldest known rocks in the area are the Pennsylvanian and/or Permian Cache Creek metasediments and metavolcanics. These are overlain unconformably by a wide north-south belt of Upper Triassic sedimentary and volcanic rocks of the Nicola Series. In turn Jurassic and Lower Cretaceous sediments and volcanics lie on the Nicola rocks. These form two belts converging to the north. Remnants of Upper Cretaceous to Mid Tertiary rocks lie in irregular north-south elongated basins near Hedley, Princeton, Aspen Grove, Merritt and Cache Creek. The Lower Tertiary Princeton and Kamloops groups of rocks occur near Princeton, Merritt and Kamloops. Late Tertiary basalt covers small areas near Merritt and over larger areas north and south of Kamloops. Extensive areas of granodiorite and quartz diorite are exposed throughout the region. This is considered to be mostly Jurassic in age. Younger granite and syenite considered to be late Jurassic and Lower Cretaceous occur and are exposed over smaller areas.

Minor faulting has produced northerly and north-

westerly trending depressed blocks in which occur marine and continental Mid Jurassic to Early Tertiary deposits. One of these extends northerly from Merritt along the east side of the Guichon Batholith. Within these down faulted blocks folding is lengthwise and steeply plunging.

Development of the Craigmont mine near Merritt has demonstrated important controls in the localization of that iron-copper mineralization. These are: first, proximity to the Guichon batholith which is considered to be the source of the mineralizing solutions; Second, the presence of altered impure limestone; and third, folding which thickened the favourable limestone strata.

Upper Triassic rocks of the Nicola group underlie the Exel Explorations property. These are chiefly green andesite, andesite agglomerate, tuffs and basalts. The contact between the Guichon Creek batholith and the Nicola lies near the west boundary of the property beneath the Guichon Creek valley. Several strong shears were observed by the writer. These show evidence of the effects of mineralizing solutions by the presence of pyrite, minor chalcopyrite, quartz, calcite, hematite, chlorite and sericite. Although no sizeable zones of copper, molybdenum or silver-lead-zinc mineralization were observed by the writer during the examination of the property, the prospects for discovering some are considered good for

Local
Exel

the following reasons;

1. The westerly part of the property overlies the contact between the Nicola Group and Guichon Creek batholith.
2. Several zones of strong shearing contain evidence of the activity of mineralizing solutions and pyrite along with some chalcopyrite.
3. On the property adjoining the ISI group on the south, under very similar geological environment, strongly mineralized shear zones have been discovered and more are indicated by recently completed geophysical investigations.

SUMMARY AND CONCLUSIONS

The RVS and ISI groups of mineral claims are located between the Highland Valley and Merritt, B. C., where numerous exploration and development programmes are underway and the Cragmont and Bethlehem mines are in production.

The property includes much of Mamit Lake and several miles of the Guichon Creek valley. This is a geologically favourable area by virtue of the inclusion of the contact between the Guichon Creek batholith and the Upper Triassic rocks of the Nicola group.

Much of the surface area is masked by light overburden, but structural features noted during the examination include strong zones of shearing with associated pyrite, minor chalcopyrite and appreciable rock alteration.

The adjoining property on the south of the ISY group is under active exploration, well mineralized shear zones have been partially exposed thereon, and additional similar zones are indicated by recently completed geological and geophysical surveys.

It is concluded that the RWS and ISY groups are located in a geologically favourable area and warrant thorough investigation.

RECOMMENDATIONS

It is herewith recommended that the RWS and ISY groups of mineral claims be investigated as follows:

	<u>Estimated Costs</u>
1. Establish a suitable field camp on or next the property	\$ 2,000.00
2. Clear and improve the many unused, second- ary roads on the claims area	1,000.00
	<hr/>
Carried forward	\$ 3,000.00

	Brought Forward	\$ 3,000.00
3.	Prospect in detail the entire property and make a preliminary sketch map of the claims and outcrop areas	2,000.00
4.	Map the geology in detail over selected areas	6,000.00
5.	Conduct electromagnetic surveys over selected areas	15,000.00
6.	Conduct induced polarization surveys over selected areas	25,000.00
7.	Strip to expose bedrock where necessary to expose mineralized zones	20,000.00
8.	Drill scout holes where necessary to acquire preliminary information to approximately 300 feet of depth, on mineralized zones, with percussion equipment, 20 holes, to total 6,000 feet	20,000.00
9.	Diamond drilling 1,500 feet	15,000.00
10.	Office, overhead and supervision	18,000.00
11.	Contingencies	<u>16,000.00</u>
	Total estimated costs	<u>\$140,000.00</u>

The above programme, if started in late April,
should be completed by early November.

Respectfully submitted,

Alfred H. Allen P. Eng.
ALLEN GEOLOGICAL ENGINEERING LTD.

Vancouver, B. C.,
November 30, 1969.

REFERENCES

- Rice, H. M. A. - Geological Survey of Canada, Memoir 243
- Cockfield, W. E. - Geological Survey of Canada, Memoir 249
- Duffell, S., and
McTaggart, K.C. - Geological Survey of Canada, Memoir 262
- Annual Reports - B. C. Minister of Mines
- Published Papers
re: - Craigmont Mine, Bethlehem Mine

