

A REPORT ON
GEOLOGY AND DRILLING
ANYOX PROPERTY
OF
BOW RIVER RESOURCES LTD.
BY
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LOCATION: Skeena Mining Division, B. C., approximately 75 miles NE of Prince Rupert, B.C.
[55°21' - 129°52', 103 P/5 W $\frac{1}{2}$]

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CLAIMS: CM 7 - 11 [inclusive]

DATE OF WORK: August 28 to September 13, 1972

REPORT DATE: December 6, 1972

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SUMMARY AND RECOMMENDATIONS

During the latter part of August, 1972, Bow River Resources drilled two geophysical anomalies on its claims in the Anyox Area, Skeena Mining Division, B. C.

Economic copper mineralization was not located by X-ray drilling of the two ground magnetic and Turam electromagnetic anomalies located by Seigel Associates Ltd. early in the season. Nor did the drilling adequately explain the cause of the geophysical anomalies.

Further detailed ground surveys are recommended as well as a comprehensive geological structural study of existing data. The work is recommended in the area of drill hole X-72-3 which had pyrrhotite chalcopyrite mineralization and along the favourable contact [host for Hidden Creek, Red Wing, and other orebodies].

INTRODUCTION

The work was conducted on behalf of Bow River Resources Ltd. from August 28th to September 13th, 1972. Three diamond drill X-ray holes for a total footage of 449.5 feet were drilled to test ground magnetic and Turam electromagnetic anomalies located earlier in the season. A limited amount of geological mapping was done.

The work was performed under the field supervision of L. W. Saleken, Consulting Geologist, Geotec Consultants Ltd. Drilling was done under contract to Ballinderry Explorations Ltd.

LOCATION, ACCESS AND PHYSIOLOGY

The Anyox Property [55⁰21' - 129⁰52', 103 P/5 W $\frac{1}{2}$] is located approximately 75 miles NE of Prince Rupert, B.C. The claims are situated astride Tauw Creek on the west side of Granby Bay at the head of Observatory Inlet. Access to the property is by helicopter either from Stewart or Prince Rupert.

Relief on the claims is rugged and locally extreme. Elevation ranges from sea level to 5,000 feet A.S.L.

GENERAL GEOLOGY

[Summarized from B.C.D.M. - 1965 - E. Groves]

The general geology of the area consists of a large inclusion of Hazelton [?] volcanics and sediments in the Coast Range Granitic Complex. The volcanics are massive, pillowed andesites, banded crystal tuffs and massive basic sills. The sediments overlie the volcanics

and comprise argillites, greywackes, siltstones and minor limestone. The major structural feature is synclinal, with numerous minor structural complexities.

The ore bodies occur at or near the volcanic-sedimentary contact and are largely confined to shear zones apparently controlled by hinge structures in the contact zone.

Mineralization consists of massive, variably banded sulphides of pyrite, pyrhotite and chalcopyrite, galena and sphalerite. Gangue consists of quartz, calcite, epidote and magnetite.

FIELD WORK - 1972

The field work consisted of a ground magnetic and Turam electromagnetic survey conducted by Seigel Associates Ltd. with follow-up X-ray diamond drilling and geological mapping in the area of the located geophysical anomalies.

Three of the five drill holes were drilled as recommended by M. J. Lewis and P. J. Fominoff in their report to the company dated August 15, 1972. The holes were drilled for a total footage of 449.5, to an average depth of 150 feet, all at -60° to the west. Core recovery was about 95% or better. All the core was logged with representative samples taken. Some selected footages from X-72-3 were assayed for Au, Ag, Cu and Zn. The remainder of the core was left on the property.

A 2,100 foot base line was established over the area of geophysical anomalies for location and mapping

purposes. Geophysical survey stations were tied into the baseline. Geological mapping was conducted over the surveyed area and three surface grab samples were taken for assaying.

The field work was conducted between August 28 to September 13, 1972 from a base camp located at approximately 3,800 feet A.S.L. on the property. The camp was situated near a pond which received fresh water from a nearby snowfield.

PROPERTY GEOLOGY

GRID AREA GEOLOGY

The property geology is identical to the general geology. Mapping defined the volcanic-sedimentary contact in greater detail along the baseline and located several intrusive dykes, gossans and quartz veins. Surface mineralization of any consequence was not found.

Rock Types

Volcanics

The rocks are green, light to dark in color and weather buff. They are massively pillowed with interformational local-breccia structure, slightly schistose, fine grained to porphyritic andesitic flows with interbedded pyroclastics. Hornblende, actinolite, plagioclase and biotite are common rock-forming minerals. Alteration minerals include chlorite, epidote, calcite, carbonate and quartz in varying amounts.

Sediments

The rock types range from argillite, argillaceous greywacke to greywacke with minor limestones and are black to black-grey, massive to laminated, and generally pyritic. Textures such as "spotted", banding and bedding are common. Clay alteration and secondary silicification was noted.

Structure and Mineralization

The rocks exhibit a general north-south schistose fabric. Major structural features are cut by dioritic to granitic dykes.

In the area of mapping, a prominent NE fault and quartz vein coinciding with the volcanic-sedimentary contact traverse the area of geophysical anomalies. Several pyritic-siliceous gossans were located along strike. The quartz vein [2' - 4' wide] dips steeply [-70°] to the NW. The gossan located east of the baseline between 7N and 10N contains abundant silica with some pyrrhotite. Sampling of gossans, located 1N, 2W; 17N and 17N, 1E, returned minor Au, Ag, Cu and Zn values.

DRILL HOLE GEOLOGY

The three drill holes and cross-section are located as shown in Figure 2 while the detailed drill logs are contained in the Appendix of this report.

In summary, economic copper mineralization was not encountered in the three holes. Holes X-72-1 and X-72-2 were drilled entirely in volcanic rocks containing minor brecciation and shearing with associated scatterings of disseminated pyrrhotite, pyrite and chalcopyrite.

Calcite, epidote, chlorite and minor quartz alteration are common as veins and impregnations.

Hole X-72-3, was the most interesting geologically and contained accessory sulphide mineralization. The volcanic-sedimentary contact occurs at -81 feet. The brecciated contact zone some 20 feet from 70' to 90' contained abundant pyrrhotite-pyrite bands with minor sphalerite and lesser chalcopyrite. A 15 foot section for 30 to 45.5 feet contained abundant pyrrhotite-pyrite bands with minor sphalerite and lesser chalcopyrite. Assays of the two sections returned low Cu, Zn, Au and Ag values. Galena was noted at 131 feet.

CONCLUSIONS

1. Economic copper mineralization was not encountered in either of the three X-ray drill holes. Neither massive sulphides or major structural features were intersected to the depths drilled [X-72-1, 2, and 3: 148, 145 and 156.5 feet respectively].
2. Of the three holes drilled, X-72-3 was the most interesting geologically encountering a brecciated contact volcanic-sedimentary zone containing weakly disseminated pyrite, pyrrhotite, chalcopyrite and sphalerite. Further work is warranted in the area of this hole.
3. The cause of the strong magnetic and Turam electromagnetic anomalies located by Seigel Associates Ltd. was not adequately confirmed by the X-ray drilling.
4. Further work along the existing volcanic-sedimentary contact occurring on the property is recommended.

RECOMMENDATIONS

The following work is recommended:

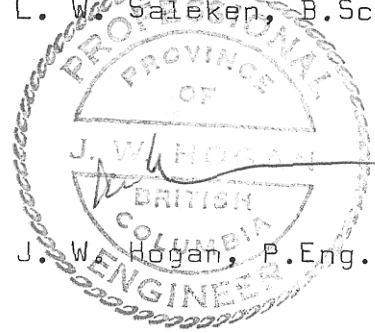
Detailed interpretation of all of existing geological data with emphasis on structure. The study is intended to determine important mineralizing trends and pick target areas for further ground follow-up.

Establish a proper grid along the volcanic-sedimentary contact for survey purposes and conduct detailed ground magnetic, electromagnetic and geological surveys.

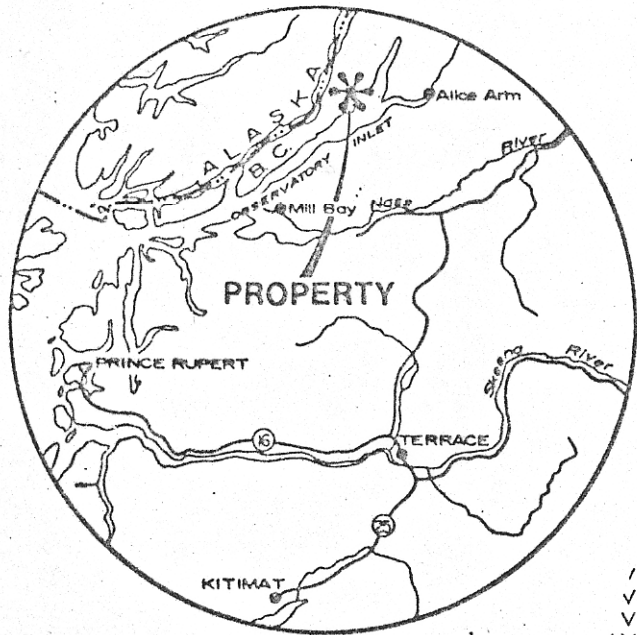
Respectfully submitted,

L. W. Saleken

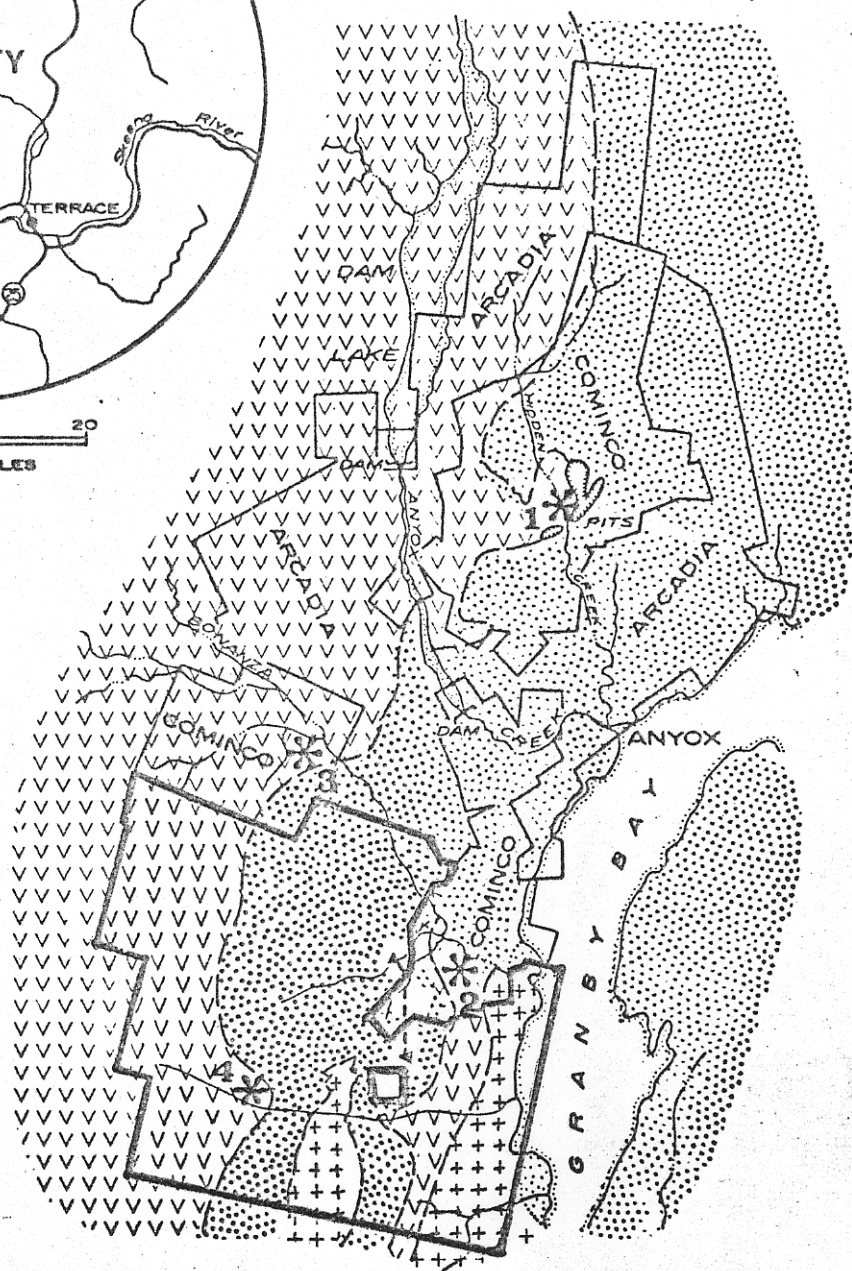
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J. W. Hogan, P.Eng.



0 5 10 20
SCALE IN MILES



MINERAL DEPOSITS

- 1 HIDDEN CREEK
- 2 BONANZA
- 3 DOUBLE ED
- 4 RED WING (HOGAN)

GEOLOGY

- +++ COAST INTRUSIONS
- SEDIMENTS
- VVV VOLCANICS

▲-----▲ LINE 7, N-S

FIG. 1

**Property Map Showing
Geology
ANYOX AREA, B.C.**

SCALE IN MILES
1/2 0 1 2

DIP TEST

Footage	ANGLE	
	Reading	Corrected

PROPERTY AN 40X, B.C.

HOLE NO. X-72-1

SHEET No. 1/1

Claim _____ Latitude L2, Station 55 Bearing -60° WEST

Date Begun AUG 31, 1972

Section _____ Depart _____ Core Size XRT

Date Finished SEPT 4, 1972

Elevation APPROX 3800 ASL Total Depth 148 Feet

Logged By L.W. SALEKEN

ROCK TYPES	DESCRIPTION	Drawing	Footage & Recovery	FRACTURE				ALTERATION								MINERALIZATION				ASSAY			
				N/Sect	Angle	Filling	Quartz	Sericitic	Argillite	Chlorite	Biotite	K-Spar	Epidote	Calcite	Hematite					Cu	Zn	Au	Ag
0-15: Green schistose Andesite	massive		0																				
15-148: Light to dark green Andesite	pillowed, generally weak to moderately brecciated, small local shears, quartz veinlets		20 40 60 80 100 120 140 148 END																				
NB:	Relate Intensity																						
1	Very weak																						
2	weak																						
3	moderate																						
4	strong																						

Assay samples
not taken.

