

4196

DOLNAGE CAMPBELL & ASSOCIATES LTD.
CONSULTING GEOLOGICAL & MINING ENGINEERS
1000 GUINNESS TOWER
VANCOUVER 1, B.C.

Geochemical Report

on the

RON CLAIM GROUP

Nos. 1 - 40 inclusive

Claim Sheet No. 94B/13E

ROBB LAKE AREA

Liard Mining Division

56°59'N. Lat., 123°41'W. Long.

Owner of Claims: Department of
Buckhorn Mines Ltd. (N.P.L.) Mines and Petroleum Resources

ASSESSMENT REPORT

NO. 4196 MAP

Supervision and Report by:

R. S. Adamson, P.Eng.

Work completed between September 11, 1972 and September 24, 1972

March 7, 1973

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1000 GUINNESS TOWER

VANCOUVER 1, B.C.

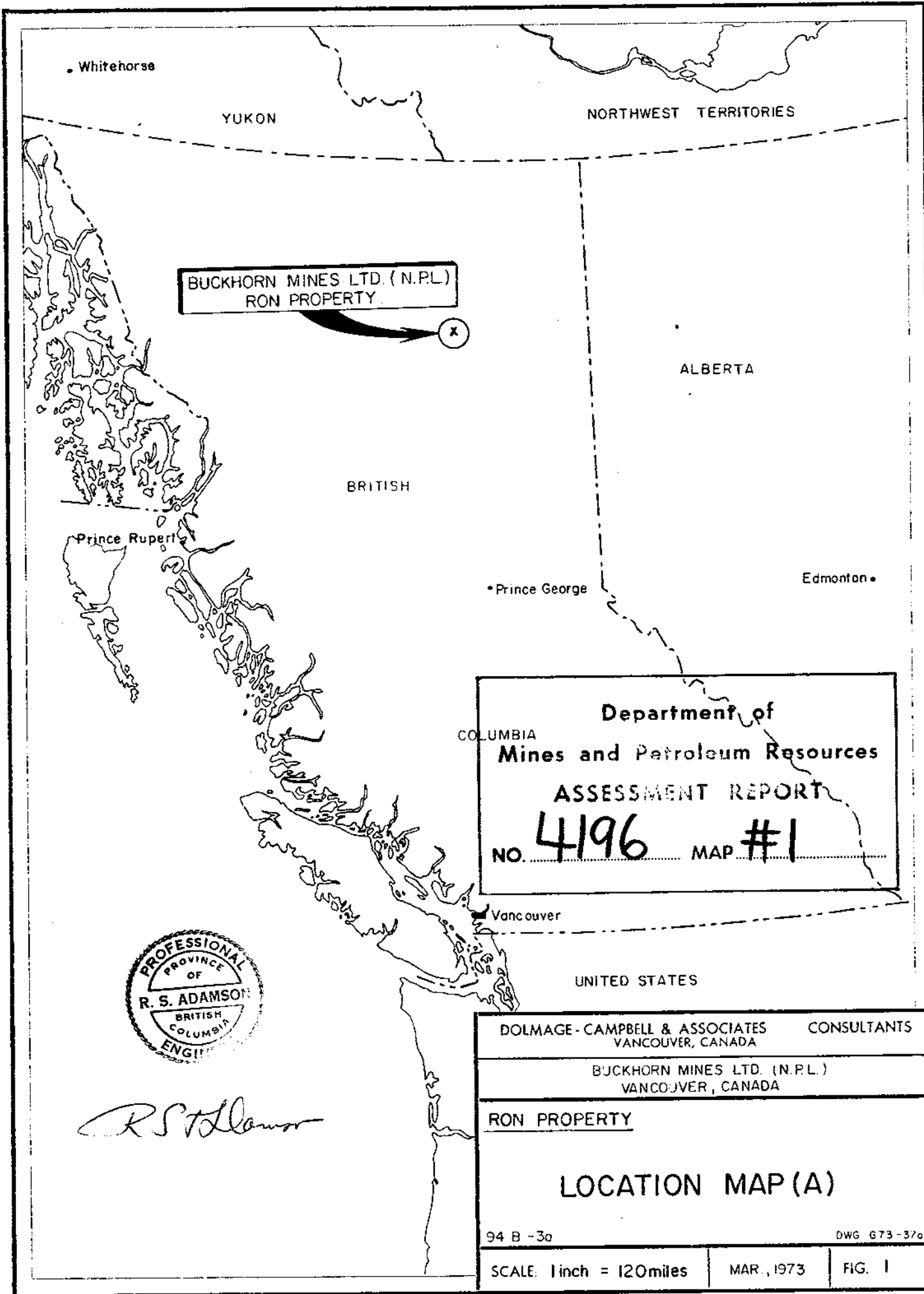
INTRODUCTION

A geochemical soil survey was carried out on the 40 claim Ron property during the period September 11 to September 24, 1972. The work was conducted by a Dolmage Campbell and Associates Ltd. sampling crew under the supervision of the writer.

The Ron property is located in the Liard Mining Division approximately 135 miles northwest of Fort St. John, B. C. and 50 miles west of the Alaska Highway. Although dirt tote roads and bulldozer trails approach to within a few miles east of the property, the only means of reasonable access is via helicopter from Fort St. John or Mackenzie, B. C., or from nearby Robb Lake upon which float-equipped aircraft can operate.

The property is situated within the middle ranges of the Rocky Mountains in an area where elevations range from less than 4000 feet to over 8000 feet. The claims lie above timberline within elevations 5000 feet and 6500 feet. The property topography comprises predominately gently-rolling hills with only local precipitous areas.

Extensive zinc deposits were discovered in late 1971 on the property adjoining the Ron claims on the southwest. The deposits were located by conventional prospecting in a creek and on nearby bluffs two miles southwest of the Ron property, and were subsequently acquired by the Barrier Reef Group of companies comprising Texas Gulf Sulphur (40%), W. R. Grace & Co. (40%), and Barrier Reef Resources (20%).



Whitehorse

YUKON

NORTHWEST TERRITORIES

BUCKHORN MINES LTD. (N.P.L.)
RON PROPERTY

x

ALBERTA

BRITISH

Prince Rupert

Prince George

Edmonton

COLUMBIA

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

NO. 4196 MAP #1

Vancouver

UNITED STATES



R. S. Adamson

DOLMAGE - CAMPBELL & ASSOCIATES CONSULTANTS
VANCOUVER, CANADA

BUCKHORN MINES LTD. (N.P.L.)
VANCOUVER, CANADA

RON PROPERTY

LOCATION MAP (A)

94 B -3a

DWG. 673-37a

SCALE: 1 inch = 120 miles

MAR., 1973

FIG. 1

GEOLOGICAL SETTING

The Robb Lake zinc deposits, located on the adjoining Barrier Reef Group property, occur in brecciated reef facies of a Middle Devonian carbonate unit, associated with secondary dolomitization. The carbonate unit has been broadly folded along a northwesterly-trending axis so that dips of the formations are flat to gentle. The hosting reef structure cuts across the formations at a steep angle. Zinc occurrences of which there are sixteen known outcrop areas on the property are manifested as extensive relatively-weak gossans which reflect irregular zones of mineralized breccia. Typically, the deposits occur in a number of irregular zones rather than a single mineralized body.

The Ron property was geologically mapped in detail using the grid control established during the geochemical survey. Outcrops occur on approximately 10% of the property and are sufficiently distributed to provide a reasonably sound interpretation of the underlying geology.

The oldest rocks on the property have been tentatively dated as Silurian but may be in part early Devonian in age. The uppermost contact is gradational and indistinct, hence may in fact include early Mid-Devonian formations. These older rocks consist of light to medium-grey, thin to thick-bedded, locally-sandy dolomite which weathers medium to dark-grey.

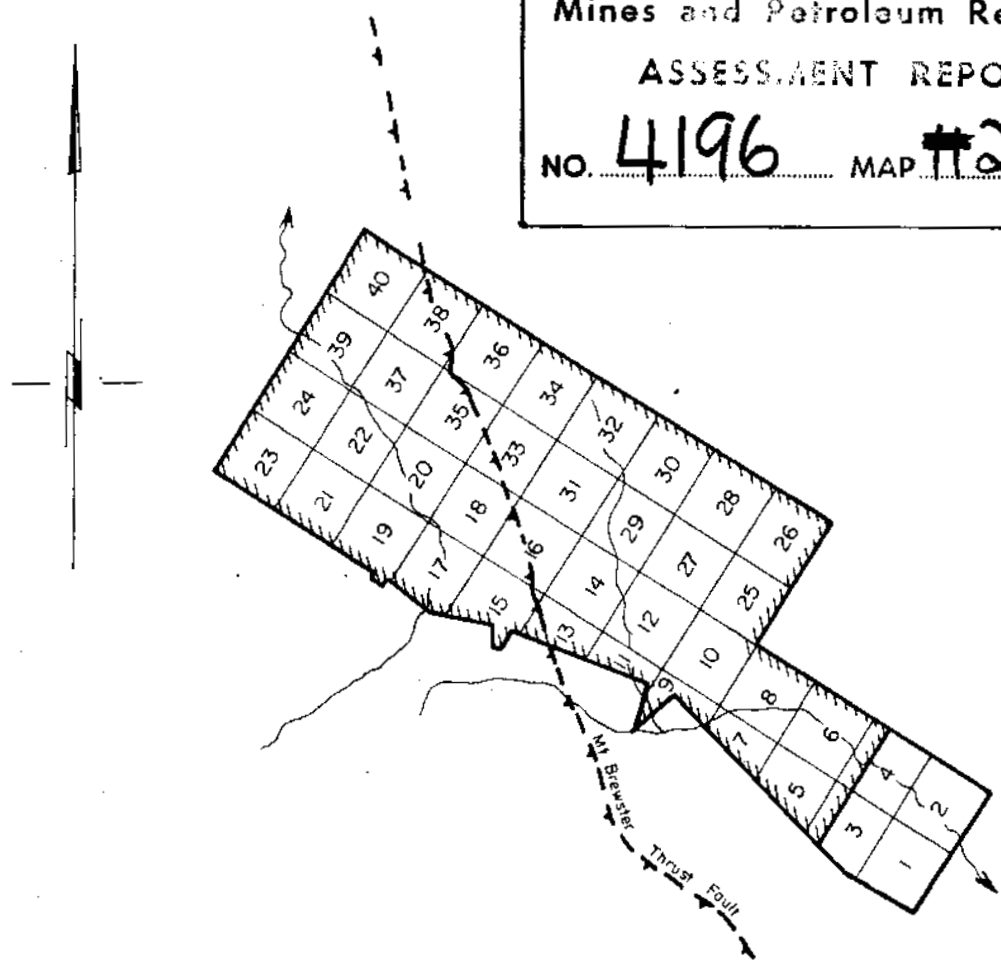
The economically-important Mid-Devonian carbonate unit crops out on the southwestern edge of the property. Typically, these rocks are a light to medium-grey, massive dolomite which has been brecciated and veined with secondary white dolomite. They exhibit a rough, sculptured, sandy-textured surface and weather light buff to light grey.

The Upper Devonian Besa River formation extends northerly across the property in a belt 3500 feet in width. The formation consists of dark grey to black, fissile to thin-bedded shales. A limestone member, 30 feet in width, occurs within the sequence. The shales tend to be severely crumpled and folded, particularly near a major regional fault (Mt. Brewster Thrust) which crosses the property.

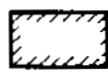
The Prophet formation of Mississippian age, conformably overlies the shale formation, occurring on a northerly-trending ridge which traverses the northeastern corner of the property. The formation comprises black chert horizons interbedded with silty limestone. Some narrow sandstone lenses occur locally.

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ASSESSMENT REPORT

NO. **4196** MAP **#2**



R S Adamson

 AREA OF GEOCHEMICAL SURVEY

DOLMAGE-CAMPBELL & ASSOCIATES		CONSULTANTS
VANCOUVER, CANADA		
BUCKHORN MINES LTD. (N.P.L.)		
VANCOUVER, CANADA		
<u>RON PROPERTY</u>		
CLAIM MAP		
SCALE: 1 : 50,000	MARCH, 1973	FIG 2

GEOCHEMISTRY

A geochemical soil survey was carried out over virtually the entire property, (Figure 2). A total of 520 soil samples were collected on 19 lines spaced at approximately 800 foot intervals. Samples were taken at 200 foot stations on the lines which were flagged perpendicularly to the base line. A cut base line was established along one of the property location lines.

SAMPLING & ASSAYING TECHNIQUES:

Soil samples were taken by first digging a hole with a mattock; a small handful of soil was then taken and packaged in a standard high wet-strength brown kraft paper sample bag. Wherever possible, samples were taken from the "B" soil horizon. If the "B" horizon could not be reached the samples were taken from the "A" horizon and noted as such. The samples were then sent to Chemex Labs Ltd. of North Vancouver for analysis.

At the assay laboratory the samples were dried at 110°F. and then sieved to -80 mesh consistency through a nylon and stainless steel sieve. One half gram of the dry pulp was weighed into a calibrated test tube and 3 mls. of perchloric acid and 1 ml. of nitric acid was added. The samples were digested initially at low heat and then at a temperature of 203°C. Digestion time was two to three hours. The digested samples were cooled, made up to 25 ml. volume with distilled water and the solutions thoroughly mixed. Analysis for zinc content was then done by Atomic Absorption procedures.

The zinc soil assays were then analyzed by statistical methods.

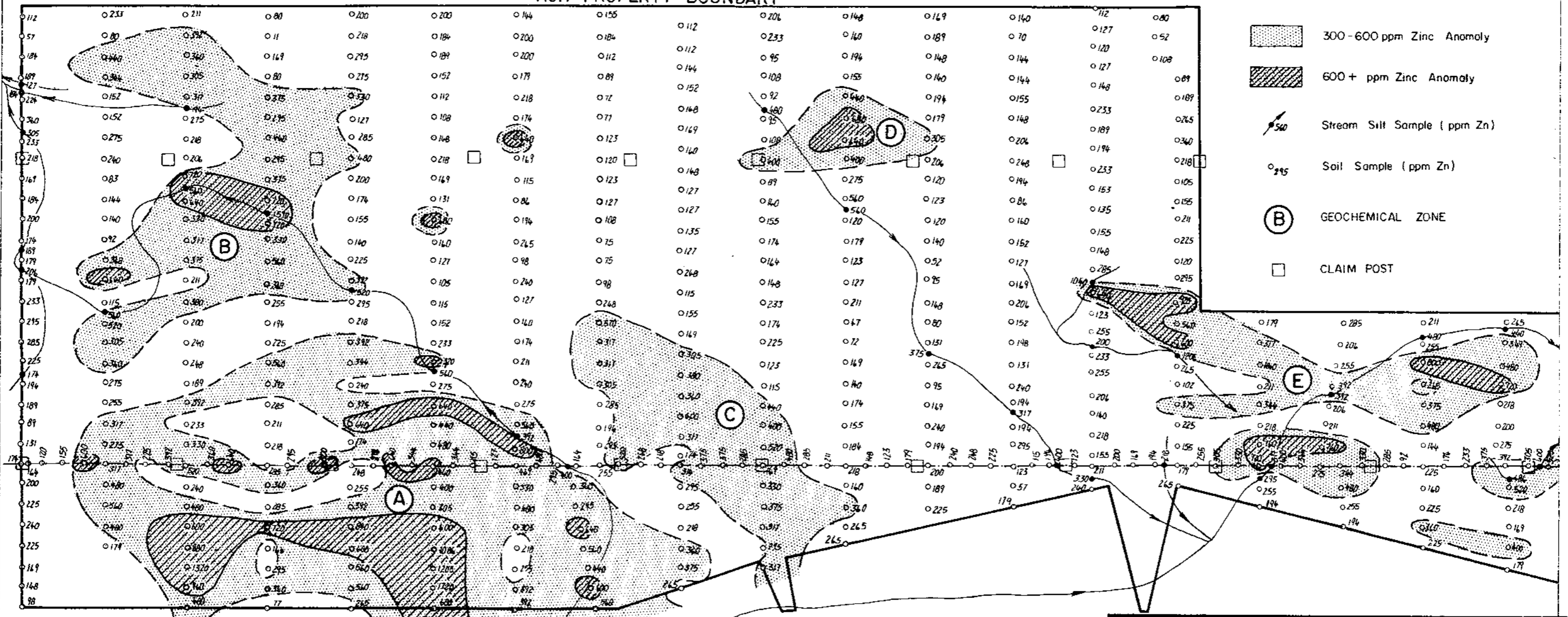
INTERPRETATION OF RESULTS:







Through statistical methods zinc values in excess of 300 ppm were determined to be anomalous; values in excess of 600 ppm zinc were determined to be highly anomalous. These values, when contoured as shown on figure 3, defined five zinc anomalies on the property. They have been designated Zones A, B, C, D, and E respectively.

Zone A can be related with very good assurance directly to underlying Mid-Devonian carbonate unit. Zone B and C overlie apparently older rocks of probable Silurian Age and appear to be related to the Mt. Brewster Thrust Fault. Zones D and E overlie Besa River formation shales.

RON PROPERTY BOUNDARY

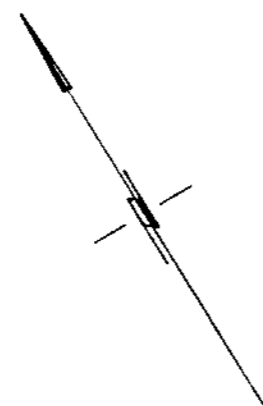
LEGEND



-  300 - 600 ppm Zinc Anomaly
-  600 + ppm Zinc Anomaly
-  Stream Silt Sample (ppm Zn)
-  Soil Sample (ppm Zn)
-  GEOCHEMICAL ZONE
-  CLAIM POST



R S Adams



DOLMAGE-CAMPBELL & ASSOCIATES CONSULTANTS
VANCOUVER, CANADA

BUCKHORN MINES LTD. (N.P.L.)
VANCOUVER, CANADA

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **4196** MAP #3

RON PROPERTY
GEOCHEMICAL SURVEY

ROBB LAKE DISTRICT DWG. 673-41b

SCALE: 1" = 1000' MAR., 1973 FIG. 3

CONCLUSIONS

Geological mapping has established the presence of the Mid-Devonian carbonate unit in outcrop on the Ron property. This unit is known to contain economically-interesting zinc deposits on the adjoining group of claims. A zinc soil anomaly (Anomaly A) correlates directly with the favourable carbonate unit. Further, more detailed, investigation of the anomaly is clearly warranted.

Zones B and C which are underlain by older, less favourable, rocks must be viewed as low priority exploration targets.

Zones D and E, underlain by Besa River shales which are known in the Robb Lake district to cap the favourable carbonate unit could conceivably reflect zinc ions leaking along structures into the overlying shales and soil. However, these anomalies although of secondary interest should be regarded of a lower priority than Anomaly A.

RECOMMENDATIONS:

With the above classification in mind the writer proposes that the following exploration program be implemented.

1/ Because the use of various geophysical techniques are limited in the search for zinc deposits of the type found in the Robb Lake district and because the geochemical-geological correlation of Anomaly A is very good, the writer proposes that direct investigation of the Anomaly be carried out by diamond drilling.

2/ In conjunction with drilling Anomaly A, a gravity survey should be carried out over the Besa River shale formation in order to investigate Anomalies D and E in a preliminary manner.



Respectfully submitted by,
DOLMAGE CAMPBELL & ASSOCIATES LTD.

A handwritten signature in cursive script that reads "R. S. Adamson".

R. S. Adamson, P.Eng.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of Buckhorn Mines Ltd., (N.P.L.)
RON Claim Group

I, R. S. Adamson

of 1000 - 1055 West Hastings Street,
Vancouver 1, B. C.

in the Province of British Columbia, do solemnly declare that Expenditures for the work performed on the RON Claim Group between September 11, 1972 and September 24, 1972. are as follows:

Wages - 38 man-days	\$ 1654.50
Maintenance - Food & Lodging @ \$13.50/man-day	\$ 413.00
Assay & Freight 551 samples	\$ 669.46
Transportation - Helicopters 7.1 hrs. @ 183.91/man-hr.	\$ 1305.76
Typing, Secretarial, Draughting	\$ 150.00
Supervision and Report	\$ 650.00
TOTAL	<u>\$ 4842.72</u>

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 14
day of March 1973, A.D.

[Handwritten Signature]

[Handwritten Signature]
A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.

Sub - mining Recorder

APPENDIX NO. 2DETAILED ACCOUNT OF EXPENDITURES1) WAGES:

R. Mikkelson - c/o Harman Management Ltd. P. O. Box 4509, Whitehorse Y. T. 14 days @ \$37.00/day (Sept. 11 - 24/72)	\$ 518.00
D. Johnson, c/o Harman Management Ltd. P. O. Box 4509, Whitehorse, Y. T. 13 days @ 37.00/day (Sept. 11 - 23/72)	\$ 481.00
J. Kenderdine - 1000 - 1055 West Hastings St. Vancouver 1, B. C. - 3 days @ 38.50/ day (Sept. 14 to 16/72)	\$ 115.50
R. McCandless - 1000-1055 West Hastings St. Vancouver 1, B. C. - 4 days @ 75.00/ day (Sept. 16 to 19/72)	\$ 300.00
J. McKenzie - 1000-1055 West Hastings St. Vancouver 1, B. C.-4 days @ 60.00/ day (Sept. 16 to 19/72)	\$ 240.00
TOTAL	<u>\$ 1654.50</u>

2) ASSAYING:

Preparation for 551 samples @ \$.20/sample	\$ 110.20
Freight on 551 samples	\$ 8.26
Assaying of 551 samples for zinc @ \$1./sample	<u>\$ 551.00</u>
TOTAL	<u>\$ 669.46</u>