

GEOLOGICAL AND GEOCHEMICAL REPORT
RABBIT AND APRIL CLAIMS
SUMMERS CREEK
NEAR PRINCETON, B. C.
for
BEAUMONT RESOURCES LTD. (N.P.L.)
by
Phillip Anderson, Geologist
and
R. B. Stokes, P.Eng.
Stokes Exploration Management Co. Ltd.
December 15, 1972

92H/9W, 10E

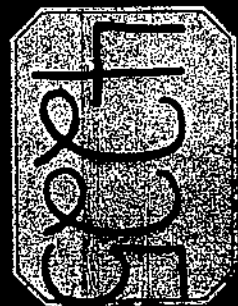
SIMILKAMEEN M. D.

Lat. 49° 40'N

Long. 120° 30'W

NTS 92 H/9

Dates of Work: October 20 to
December 23, 1972



4225

GEOLOGICAL AND GEOCHEMICAL REPORT

RABBIT AND APRIL CLAIMS

SUMMERS CREEK
NEAR PRINCETON, B.C.

FOR

BEAUMONT RESOURCES LTD. (NPL)

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 4225 MAP _____

BY

PHILLIP ANDERSON, GEOLOGIST

and

R. B. STOKES, P. ENG

STOKES EXPLORATION MANAGEMENT CO. LTD.

December 15, 1972

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BEALMONT RESOURCES LTD. (NPL)
RABBIT AND APRIL CLAIMS
SUMMERS CREEK
PRINCETON, B. C.

SUMMARY AND CONCLUSIONS

1. In the summer of 1972 Beaumont Resources Ltd. (NPL) optioned the 23 Rabbit and April claims near Princeton, British Columbia. Four additional claims have since been staked. They are located on Summers Creek adjoining Adonis on the eastern side and are 17 miles NNW of Princeton.
2. The property is adjacent to Adonis and Kelco Valley (Teck Corp option). It is in the same geologic belt as Copex and Coyne. Considerable activity is underway in the search for porphyry copper deposits in the area.
3. The property is underlain by the Upper Triassic Nicola Group of volcanics and sediments. It is 5000 feet west of the large Okanagan batholith and is probably underlain by lesser intrusive bodies. The property is well located geologically and amenable to copper/molybdenum mineralization.
4. Stokes Exploration Management Co. Ltd. carried out a program of line cutting, soil sampling and geological mapping in late 1972. A ground magnetic survey has also been completed.
5. A compilation of results shows that a belt of agglomerate runs diagonally NE throughout the property, 600 to 900 feet thick. Copper mineralization has been found in this agglomerate though most of the ground is covered with overburden.

A magnetic positive anomaly coincides with this belt of agglomerate and it appears to be offset by a fault which also shows in the air photographs and geologic mapping. A cluster of geochemical highs reflect an area of higher copper concentration in this area to the southwest of Pampart Lake.

An overburden covered area on the east of the April claims coincides with a magnetic low and a NS trend of geochemical copper highs.

Summary and Conclusions (Cont'd)

6. There is no question that an Induced Polarization survey is warranted and this is now underway, including coverage of frozen Rampart Lake.
7. The results of the combined surveys will determine the extent of the drilling recommended. Drilling could be readily carried out in the winter with ample water available from Rampart Lake.

Respectfully submitted:

STOKES EXPLORATION
MANAGEMENT CO. LTD.



R. B. Stokes, P.Eng.

December 15, 1972.

**RABBIT AND APRIL CLAIMS
SUMMERS CREEK
PRINCETON, B. C.**

INTRODUCTION

The Rabbit and April claims were optioned to Beaumont Resources Ltd. (NPL) in the late summer, 1972. At the request of E.B. Krueger, Esq., President of Beaumont, a program of exploration was initiated in October by Stokes Exploration Management Co. Ltd. (SEMCO).

This program consisted of line cutting, claims survey, geological mapping and a geochemical program. A magnetic survey was run concurrently by Mr. Mike Stadnyk, geologist. Preparations are being made for an I.P. survey.

LOCATION AND ACCESS

The claims are located 17 miles NNW of Princeton, British Columbia. Access is from the Princeton-Merritt highway to the Summers Creek turnoff, then along the Summers Creek road from the valley floor to the plateau on the east. The property surrounds Fampart Lake at 49° 40'N, 120° 30'W.

PROPERTY

The 23 claims staked in 1970 are listed below.

<u>Claim Name</u>	<u>Record No.</u>	<u>Record date</u>	<u>Expiry date</u>
Rabbit #67-74	27459-27466	May 12, 1970	May 12, 1973
Rabbit #75 Fr	27467	"	"
April #73-81	27393-27401	April 27, 1970	April 27, 1973
April #82Fr	27402	"	"
April #83	27403	"	"
April #84Fr	27404	"	"
April #85	27405	"	"
April #86Fr	27406	"	"
Rab #9, #10Fr	Staked November, 1972		

Property (Cont'd)

Four additional claims have since been recorded, including Rabbit 9 Fr and Rabbit 10 Fr. No record numbers have yet been allocated.

GENERAL GEOLOGY

The April and Rabbit claims are underlain by altered volcanic rocks of the Nicola group but are only 5000 feet west of the contact of the large Okanagan Batholith.

In this area it is established that this environment is highly favourable for localization of disseminated copper/molybdenum mineralization. Mineralization can occur in the intrusive -- as in the Brenda deposit; as a contact replacement, where the Nicola meets the intrusive; or in the Nicola sediments and volcanics, particularly where fracturing and an underlying intrusive has mobilized and injected mineral solutions.

The Amax Exploration work carried out in 1971 focussed on such an intruded Nicola area which lies alongside the large Summers Creek fault. This long N-S fault is an important control in the area and has an intense zone of shearing and fracturing on either side of it.

An airphoto study shows several long northerly trending lineaments traversing the April and Rabbit claims, which appear to be part of the Summers Creek fault system.

Elongate Pampart Lake is an important feature because it occupies the intersection of several long fault traces. Outcrop examination does not give a true picture of fracture intensity because glaciation has deeply scoured any highly fractured areas and covered them with glacial drift.

A dome feature on the southern Rabbit claims has radial fracturing, probably due to an intrusion at depth. This could cause copper mineralization and, in fact, this shows on the Kalco Valley ground immediately to the south.

SURROUNDING ACTIVITY

The Amax activity in 1971 sparked new interest in the area. Amax had a block of over 600 claims surrounding the Rabbit/April claims. They drilled a body reported to have 50 million tons of 0.48% copper. This ground was later acquired by Adonis who lie on the west side of the Rabbit/April claims. Adonis expanded the Amax zone and have two other zones which have been drilled.

The Kalco Valley ground to the south of the Rabbit/April claims has been optioned to Iso Mines (a subsidiary of Teck Corpn.). A substantial program including I.P. has been carried out in 1972 on the porphyry copper mineralization overlapping their north boundary.

On the east, Tyee Lake Resources are doing a soil and magnetic survey coupled with trenching. An I.P. program is proposed immediately.

Further to the south, Coyne, under option to a major company, is trenching and drilling in the Nicola rocks. South again, Copex are carrying out a steady program of percussion and diamond drilling in a porphyry copper environment.

PROPERTY GEOLOGY

The April and Rabbit claims at Rampart Lake, cover an area where there are outcroppings of andesitic and basaltic flows, agglomerates and minor tuffs belonging to the Upper Triassic Nicola Group. These rocks form a homoclinal sequence striking northerly (025°) and dipping westerly (40°) which probably represent an upturning of stratigraphy off the edge of the Okanagan Batholith.

The volcanic assemblage is divided into six lithologic units which are referred to as 'Lower,' 'Central' and 'Upper' in the sequence on the assumption that the stratigraphy is not overturned.

In general, there are two separate series of volcanic flows (andesites and basalts) each overlain by agglomerate which is congenetic with the flows. Fine grained andesites observed on the west claims may be the base of a third flow-agglomerate series. The units have indefinite boundaries due to both gradational changes and the difficulty in distinguishing different lithologies. In part, the boundaries represent facies changes and unconformities. Bedded tuff is interlayered as lenses in flows and agglomerates.

STRUCTURE

No minor or major folding was directly observed. The homoclinal structure is more probably fault bounded at Summers Creek rather than folded.

Rocks are moderately fractured, commonly on an east-striking north-dipping trend across stratigraphy ($100/85^{\circ}N$). Regional systematic fracture trends are 160° and 080° .

Three main faults which follow Rampart Lake, Rampart Creek and a swampy valley on the east of the Rabbit claims respectively, converge on the south end of Rampart Lake. Movement and hematization has occurred along these faults but no offset has been established.

A centre of non-systematic fracturing is the small pond on Rabbit 73 claim with which there is associated chalcopyrite and pyrite mineralization.

ALTERATION AND MINERALIZATION

All units of the Nicola Group contain varying degrees of greenschist-grade "saussuritic" alteration of chlorite-epidote-albite \pm quartz. The most strongly saussuritized units are the agglomerates; in particular their matrices. This alteration is a product of regional metamorphism.

Epigenetic alteration is most noticeable on the southern claims where there are epidote-chlorite veins which carry pyrite, some quartz and minor chalcopyrite. Pyrite is the main sulphide in these veins although one occurrence of a chalcopyrite-quartz vein was found near Rabbit 75 fraction.

Syngenetic chalcopyrite is found in the lower Agglomerate Unit as disseminated grains in the matrix and fragments. Principally it was observed on April 82, south of April 84 and in a fine grained andesite on April 78. The amount of chalcopyrite varies from 1/4 to 1/2% where observed, but a grade of copper in this area is difficult to assess; the agglomerate unit may be mineralized with varying amounts of copper along its length, and an I.P. survey might best define whether commercial concentrations exist.

Magnetite is present in all units in slight to moderate amount (1 - 3%) but may be concentrated in tuff beds and parts of the agglomerate units. Late, local hematite-calcite-pyrite veins are found near faults where there is a reduction in magnetic susceptibility of the rocks. Minor amounts of syngenetic pyrite and pyrrhotite are also present in the assemblage.

GEOCHEMISTRY

342 soil samples were taken and tested for copper using the -80 mesh fraction. The copper was extracted by Hot Aqua Regia and analysed by Atomic Absorption. They were processed by Bondar-Clegg & Co. of North Vancouver.

Of the 342 samples taken, 47 or 13.7% were above 50 ppm, 13 or 3.8% were above 100 ppm with a high value of 690 ppm. At first impression values appear to be random with minor concentration but closer inspection reveals the following:-

There is a greater concentration of higher values along side the north easterly trending swampy area in the centre of the claim blocks. It joins into the south end of Fampart Lake. This is an area of faulting.

There are two areas of higher values on the south end of the property. These areas are close to the Kalco Valley ground where small amounts of chalcopyrite and malachite were found during the geologic mapping. There are also two small areas of high values on the eastern boundary close to the boundary with Tyee Lake Resources.

The southerly area is on April 83 and 85; values extend over a 1400 foot length. It apparently lies on an east facing slope which is overburden covered. This zone should definitely be checked by prospecting and further detailing by geochemistry.

In the north on April 73 and 75, to the east of Fampart Lake, the highs may be due to a swampy drainage, but they should be checked on the ground and further samples taken. A study of the geologic map shows that the belt of lower agglomerates, which are mineralized, is offset by faulting on the south end of Fampart Lake, then projects on through the NE area of geochemical high values.

The areas of andesite seem less interesting than the agglomerate beds which trend north easterly through the centre of the claims.

Selected samples should be run for molybdenum. These should be on lines across key areas and not only the high values. Molybdenum appears to be more definitive in the Summers Creek area. Approximately 50 samples should be run on 4N centre, 16N east, 36N east and centre and 44N east and centre.

MAGNETIC SURVEY

This survey was carried out by Mike Stadnyk, geologist, as a separate contract.

He used a MFI-100 Fluxgate magnetometer for field traverses with another MFI linked to a Esterline Angus continuous recorder to record diurnal variations.

His report is quoted directly:-

"GEOPHYSICAL INTERPRETATION

Calibration of the fluxgates at the master station for the survey were set at 500 gammas. The recorder was set at zero.

Highest and lowest corrected readings were plus 2480 and minus 1710 gammas respectively. Background values from inspection of contoured plotted data was plus 300 to 500 gammas.

The most noticeable feature of this survey is the strong linear patterns of high and low anomalies. The only area where this is not apparent is east of the base line between 12N and 56N.

A strong positive anomaly of values greater than +900 gammas stretches from 90N to 60N east of the base where it is offset some 1000 feet to the west (L56N, 6W-11W), then to 36N where it breaks up into two parallel south trending sinuous legs and finally disappears from the property at 4N. This zone can be correlated with a mineralized rock unit mapped as Lower Agglomerates. There is, therefore, a reasonable chance of copper sulphide mineralization being found at depth in the north-east quarter of the property. (No outcrops were noted in this area during the various surveys.)

This offset appears to be fault controlled and if so the fault postulated on the geological map is approximately 1000 feet too far south.

Magnetic Survey (Cont'd)

"Zones of negative anomalies running the length of the property coincide closely with a north-south fault as shown on the geological map. These lenticular zones start at L4N, 2E, disappear from L36N to L44N, reappear at L52 west of the base line and leaves the property at L96N 2W (centre of a swamp).

A strong negative anomaly commencing at L76N 15E and disappearing at L56N 7E may be indicative of a weak north-east fault which would also pass through L52N 3E and finally "butt up" against the high anomaly at 40-50N west of the base line.

The large area of negative or low positive gamma readings east of the base line from L4N and south of the above-mentioned north-east fault? may be a reflection of thick glacial overburden, but more likely represents a different rock type with a lower iron content.

Other small positive and negative anomalies can be correlated closely with various rock units found on the property."

RECOMMENDATIONS

Based on the results of the geological, geochemical and magnetic surveys completed, an Induced Polarization survey is definitely warranted, as recommended by E.D.Dodson, P.Eng. in his report of August 28, 1972.

This I.P. survey is now underway. Its objective is to define drilling targets. The location and extent of the drilling will depend on the compilation of all the surveys.

A budget for 3000 feet of BC wireline drilling as recommended by E.D.Dodson, P.Eng., should be anticipated in the second phase.

PHASE II

Diamond drilling, 3000 feet BCWL	\$30,000
Supervision, camp, etc.	5,000
Further definition surveys to save drill footage	5,000
Contingencies	<u>4,000</u>
	<u>\$44,000</u>

CERTIFICATION

I, RONALD B. STOKES, do hereby certify that:

1. I am a practicing Professional Mining Engineer with offices at Suite 713 - 744 West Hastings Street, Vancouver 1, British Columbia and resident of Vancouver.
2. I am a graduate of the Camborne School of Mines, Cornwall, England, 1952 in Mining Engineering.
3. I have practised Mining Engineering and Mining Exploration for twenty years, seventeen of which were based in British Columbia.
4. I am a Member, in good standing, of the Association of Professional Engineers of the Province of British Columbia.
5. I am a Member of the Canadian Institute of Mining & Metallurgy, Institution of Mining & Metallurgy, England and the Australasian Institute of Mining & Metallurgy.
6. I am President of Stokes Exploration Management Co. Ltd. which carried out the work.

This report was prepared jointly by Phillip Anderson, Consulting Geologist, and F. B. Stokes, P.Eng.

It is based on recent field examinations and geologic mapping by P. Anderson and prior visits to the property, knowledge of the area and compilation of data by F. B. Stokes.



F. B. Stokes, P.Eng.

December 15, 1972.

APPENDIX

RABBIT - APRIL CLAIMS

DESCRIPTION OF UNITS

1. Lowest Volcanic (flow) Unit

Mainly plagioclase porphyry basalt.
Very black, highly fractured, devitrified basalt,
slight to no chlorite-epidote alteration; with white
plagioclase phenocrysts in a black glass matrix.
No sulphides.
Thickness unseen.

2. Lower Volcanic (flow) Unit

Porphyritic augite basaltic-andesite; some pink
K feldspar porphyritic andesite. Trachytic
texture, with a devitrified glass matrix saussur-
itized to albite-chlorite-epidote; weak to moderate
alteration. Whole unit is gradational upwards to
volcanic breccia and agglomerate. Minor pyrite.
True thickness 200 to 300 feet.

3. Lower Agglomerate Unit

Contains fragments of the two lower volcanic units
in a matrix congenetic with the fragments; one stage
agglomeration. Highly texturally and compositionally
variable with altered fragments from block to pebble
size in a more highly altered andesite matrix.
Contains lithic and crystal tuff, relict augite crystals
and 1/4 to 1/2% disseminated syngenetic chalcopyrite.
Gradational at base to Lowest Volcanic Unit over 100
feet; gradational at top to overlying volcanic unit.
Includes tuff and fine-grained andesite lenses in places.
True thickness 600 to 900 feet.

4. Central Volcanic Unit

Mainly feldspar porphyry andesites, bedded tuffs,
aphanitic andesite, minor volcanic breccia and aggro-
merate. Highly heterogeneous unit comprised mostly
of epidote-green medium grained to aphanitic andesite,
in part plagioclase porphyry with trachytic texture.
Contains some bedded tuffs with altitude 026 NW.

41?

Some syngenetic chalcopyrite specks. Either para-
conformably or angular unconformably overlain by
Upper Agglomerate Unit by facies change.
True thickness 900 to 1100 feet.

Appendix (Cont'd)

5. Upper Agglomerate Unit

Agglomerate, volcanic breccia, megagglomerate and minor flows.

Extremely coarse textured (megagglomerate) two-staged agglomerate of volcanic fragments in a chlorite-epidote altered andesite matrix; some may be volcanic breccia. Blocks of tuff, augite basalt and feldspar-porphyrty andesite are not readily distinguishable as fragments on an outcrop scale. Contains some non-fragmental augite-basalt flows which are later than feldspar-porphyrty andesite flows.

Agglomerate is at least 1300 feet thick on northern claims but thins to 200 feet on the south where it is interfingered with the Volcanic Units. Minor pyrite, pyrrhotite.

6. Upper Volcanic (flow) Unit

Very fine grained greenish chlorite-epidote-altered andesite; in places strongly vesicular - elsewhere feldspar porphyry. Relatively even textured compared to other units. Overlain by a green coarser-grained sandy-looking andesite which may be a separate unit. True thickness 300 feet (or more with sandy andesite).



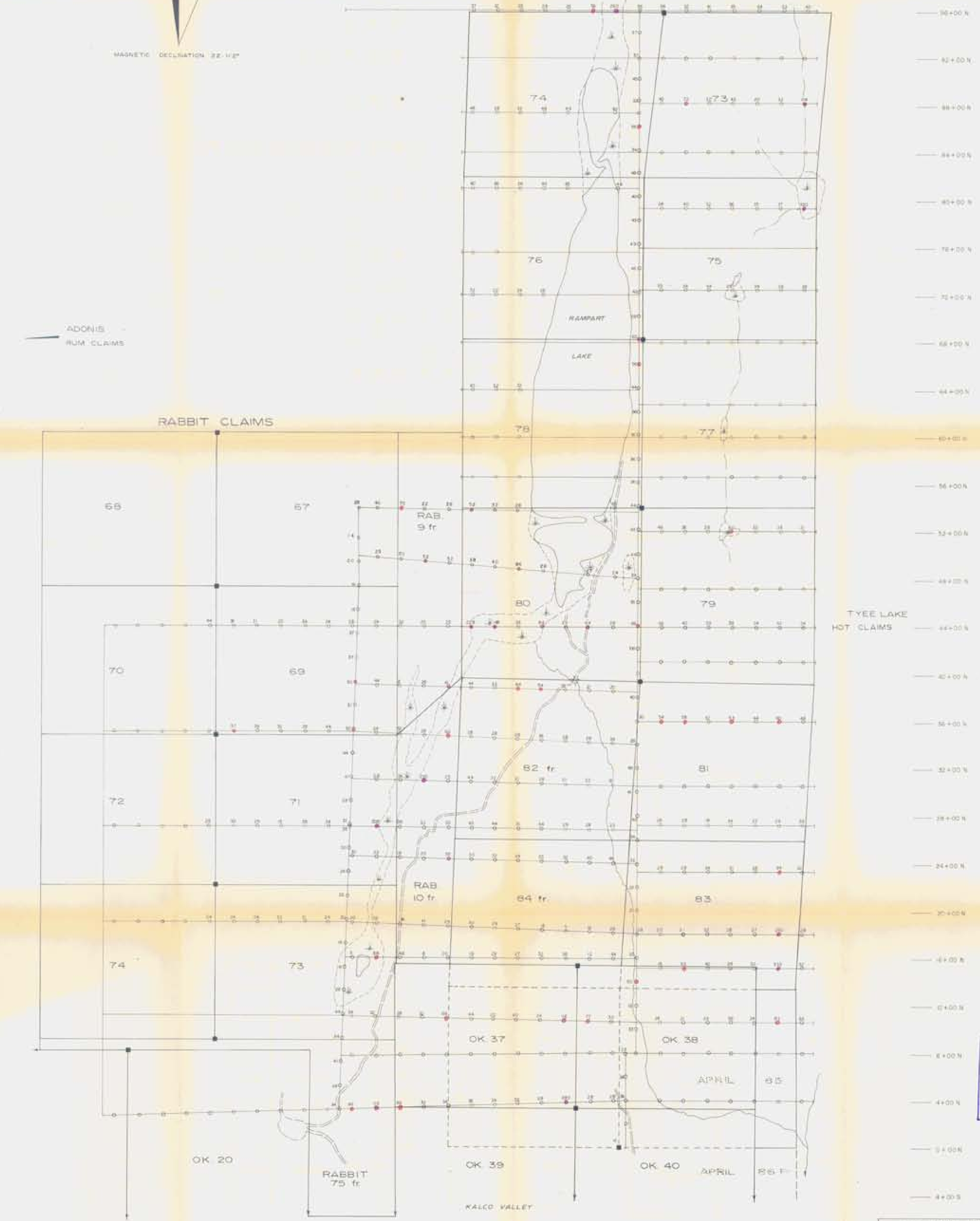
MAGNETIC DECLINATION 22-1/2°

ADONIS
RUM CLAIMS

APRIL CLAIMS

RABBIT CLAIMS

TYEE LAKE
HOT CLAIMS



LEGEND

- Swamp
- Survey Grid
- Road in Trail
- Claim Post
- Survey Location with Copper in ppm

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4325 MAP #2

R. Walker

BEAUMONT RESOURCES LTD. (N.P.L.)
RABBIT & APRIL CLAIMS
SUMMERS CK. PRINCETON, B.C.
GEOCHEMICAL SURVEY
COPPER IN P.P.M.
0 400 800 1200
STOKES EXPLORATION MANAGEMENT CO. LTD.
DATE: NOV. 1975 SCALE: 1" = 400' DRAWN: R. WALKER

32+00W 48+00W 44+00W 40+00W 36+00W 32+00W 28+00W 24+00W 20+00W 16+00W 12+00W 8+00W 4+00W 0+00W 4+00E 8+00E 12+00E 16+00E



MAGNETIC DECLINATION 22.12°

36+00 N
30+00 N
28+00 N
26+00 N
24+00 N
22+00 N
20+00 N
18+00 N
16+00 N
14+00 N
12+00 N
10+00 N
8+00 N
6+00 N
4+00 N



36+00 E
34+00 E
32+00 E
30+00 E
28+00 E
26+00 E
24+00 E
22+00 E
20+00 E
18+00 E
16+00 E
14+00 E
12+00 E
10+00 E
8+00 E
6+00 E
4+00 E

LEGEND

- GEOLOGICAL UNITS**
- Unit 1
 - Upper Yonkers Unit
 - Lower Agassiz Unit
 - General Alluvial Unit
 - Lower Agassiz Unit
 - Lower Wisconsin Unit
 - Lowest Wisconsin Unit
- SYMBOLS**
- Leaky
 - Survey Ditch
 - Road or Trail
 - Claim Post
 - Outcrop
 - Contact
 - Fault
 - Strike and dip of bedding
 - Strike and dip of fracture
 - Trench (Antipyrin)
 - Ditch (Lumber)

4225 M-1

R. Walker

BEAUMONT RESOURCES LTD. (N.P.L.)
 Department of
 Mines and Petroleum Resources
 PRINCETON, B.C.
 ASSESSMENT REPORT
 NO 4225 MAP #1 GEOLOGY
 STOKES EXPLORATION MANAGEMENT CO. LTD.
 DATE: NOV. 1975 SCALE: 1" = 400' DRAWN: R. WALKER

32+00 W 40+00 W 44+00 W 48+00 W 52+00 W 56+00 W 60+00 W 64+00 W 68+00 W 72+00 W 76+00 W 80+00 W 84+00 W 88+00 W 92+00 W 96+00 W 100+00 W