



GEOLOGICAL AND GEOCHEMICAL

REPORT ON THE
RAM CLAIM GROUP
MAYO MINING DIVISION
YUKON TERRITORY

Latitude: ^{33'N} 64°30'N
Longitude: 133°15'W
NTS 106-C-11

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

\$ 1,500.00

Resident Geologist or
Resident Mining Engineer

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

Commissioner of Yukon Territory

on behalf of

KENDAL MINING & EXPLORATION CO. LTD. (N.P.L.)



by:

G. C. Gutrath, B.Sc., P.Eng., Geologist
ATLED EXPLORATION MANAGEMENT LTD.

November, 1974

KENDAL MINING & EXPLORATION CO. LTD (N.P.L.)

685-4295

507-540 Burrard Street
Vancouver
Jan 14 1975



The Mining Recorder
Mayo
Yukon Territory.

Dear Sir,

Re : Assessment Work - Ram Group of Claims,

Enclosed please find An Application to Group Mineral Claims and An Application for a Certificate of Work, for The Ram Claims located on map sheet # 106c11, Bonnet Plume area.

A cheque in the amount of \$80.00 is also enclosed to be disbursed as follows-

Notice to Group	\$5.00
Certificate of Work 15 claims @ \$5 pc	75.00

	\$80.00

Yours sincerely,

KENDAL MINING & EXPLORATION CO LTD

per



R.E. Newcombe - President.

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

In the Matter of costs incurred on carrying out the prospecting, geological and geochemical program on the Ram Claim Group, Mayo Mining Division, Yukon Territory

I, RONALD NEWCOMBE, President of Kendal Mining & Exploration Company Ltd. (NPL)
of 507-540 Burrard Street, Vancouver, British Columbia

in the Province of British Columbia, do solemnly declare that the costs of the program on the Ram Claims, Bonnet Plume near Arden Lake, Bonnet Plume Area, Yukon Territory are as follows:-

- D. H. Waugh & Associates - July 19, 1974.....	\$ 762.00
- Galex Ltd. Contract Mineral Exploration Geochemical Sampling - July, 1974.....	300.00
- C. P. Air #018-0339-4064.....	8.00
- Bondar - Clegg & Co. Ltd.....	67.25
- Atled Exploration Management Ltd. G. Gutrath, P.Eng., - November, 1974 Report.....	400.00
TOTAL COST OF PROGRAM.....	<u>\$ 1,537.25</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 24
day of January, A.D. 1975

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

[Signature]
[Signature]
[Signature]

D. H. WAUGH & ASSOCIATES LTD.

PRESIDENT: D.H. WAUGH, GEOLOGIST

Rm. 10, AIRPORT TERMINAL BLDG., WHITEHORSE, YUKON, Y1A 3S4
BUS. (403) 668-6690 RES. (403) 667-7529

July 19, 1974.

INVOICE

In Account with

Mr. Richard Hibbard,
507 - 540 Burrard Street,
Vancouver 1, B.C.

For: Helicopter, fixed wing and camp maintenance on
the RAM 1 - 24 claim groups, July, 1974.

Helicopter: 1.4 hrs @ \$330.00/hr	
(fuel included)	\$462.00
Fixed Wing: Mayo to Rackla Lake and return (prorated)	150.00
Camp Maintenance & Equipment Rental 10 days @ \$15.00/day	<u>150.00</u>
Total due	\$762.00

PAID BY KENDAL

JULY 1974.

GALEX LTD.

CONTRACT MINERAL EXPLORATION

Diamond Drilling • Line Cutting • Staking • Geochem & Geophysical Surveys

D Time & Cost

A Total of 5 days maybe charged to the Property.

- 1) 3 Full days of about 48 hours prospecting
- 2) 2 Full days travelling Whitehorse - Ram Roundtrip
- 3) (including the June 26 transfer arrangement.)
(one full day compiling this report.)

Michael Callaghan 5 days \$60.00

\$300.00

Helicopter time Terr air

camp costs

all costs, other than wage was assumed by David H Waugh associates
to be billed to Richard Hibbard & associates.

PAID BY KENDAL

30/7/74.

JOHN GRAHAM

13 AISHIHIK ROAD WHITEHORSE, Y.T.

MIKE CALLAGHAN

PH: 677-7589
677-7569

018-03394064

YXY

018-03394064

Airport Of Departure (Address Of First Carrier) And Requested Routing
WHITEHORSE

Airport Of Destination
VANCOUVER

Flight/Day

Flight/Day

CP Air



Routing And Destination

1/ To By First Carrier To By To By To By

Not Negotiable
Air Waybill

(Air Consignment Note)

Issued by
Canadian Pacific Air Lines, Limited, Vancouver, B.C., Canada
Member of International Air Transport Association

2/ Consignee's Account Number Consignee's Name And Address

MR. R J HIBBARD
507-540 BURRARD ST.,
VANCOUVER, B.C.

If the carriage involves an ultimate destination or stop in a country other than the country of departure, the Warsaw Convention may be applicable and the Convention governs and in most cases limits the liability of carriers in respect of loss of or damage to cargo. Agreed stopping places are those places (other than the places of departure and destination) shown under requested routing and/or those places shown in carriers' timetables as scheduled stopping places for the route. Address of first carrier is the airport of departure.
SEE CONDITIONS ON REVERSE HEREOF.

3/ Shipper's Account Number Shipper's Name And Address

MIKE CALLAGHAN
13 AISHINK RD.,
WHITEHORSE Y.T.

The shipper certifies that the particulars on the face hereof are correct, agrees to the CONDITIONS ON REVERSE HEREOF, accepts that carrier's liability is limited as stated in 4(c) on the reverse hereof and accepts such value unless a higher value for carriage is declared on the face hereof subject to an additional charge.
SIGNATURE OF SHIPPER

BY BROKER/AGENT

Carrier certifies goods described below were received for carriage subject to the CONDITIONS ON REVERSE HEREOF, the goods then being in apparent good order and condition except as noted hereon.

4/ Issuing Carrier's Agent, Account No. Issuing Carrier's Agent, Name And City

23 JULY 74

WHITEHORSE

EXECUTED ON (Date)

AT

(Place)

SIGNATURE OF ISSUING CARRIER OR ITS AGENT

Copies 1, 2 and 3 of this Air Waybill are originals and have the same validity.

5/ Currency CAD Declared value for carriage NVD Declared value for customs Amount of insurance NIL

INSURANCE - If shipper requests insurance in accordance with conditions on reverse hereof, indicate amount to be insured in figures in box marked "amount of insurance."

Weight charge and valuation charge Prepaid Collect Prepaid

All other charges at origin Prepaid Collect

Accounting information

No. of Packages	Actual Gross Weight	kg/lb.	Rate Class	Commodity Item No.	Chargeable Weight	Rate/Charge	Nature and quantity of goods (incl. dimensions or volume)
1	8	L				8.00	SOIL SAMPLES

Prepaid	Prepaid Weight Charge	Prepaid Valuation Charge	Total Other Prepaid Charges	Total Prepaid	For Carrier's Use Only At Destination
7/	V	C	A	P	

R Other Charges (except weight charge and valuation charge) Insurance Charge: Carriage Charge:

S Collect Charges in Destination Currency

T COD Amount

T Total Charges

Collect	Collect Weight Charge	Collect Valuation Charge	Total Other Collect Charges	COD Amount	Total Collect
8/	8.00	C	A	Z	

9/ Handling Information

These Commodities licensed by U.S. for ultimate destination. Diversion contrary to U.S. law prohibited.

"In The Event That This Air Waybill Is Used As A Complete Shipping Document From The Vendor To The Purchaser, Carriage Of Goods In Canada Other Than By Air Is Subject To The Terms And Conditions Contained In The Tariffs Of The Individual Canadian Surface Carrier And Is Not Governed By The Terms And Conditions Of The Air Carrier's Tariffs."



BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5

PHONE: 237-3110

R. J. Hibbard
507 - 540 Burrard Street
Vancouver, B. C.

INVOICE: 7737
DATE: July 31, 1974
REPORT NO: 24 - 441
PROJECT:

W. O. No. 2990

29	Copper, Lead & Zinc	Analyses	@ \$ 2.00	\$ 58.00
1	Zinc	Analyses	@ \$ 1.00	1.00
29	Samples Preparations		@ \$ 0.25	7.25
1	Samples Preparations		@ \$ 1.00	<u>1.00</u>
				<u>\$ 67.25</u>

sjm

Remarks:

The area is underlain by a series of faulted and folded sedimentary rocks ranging in age from Hordynian to Devonian.

Work done included geological prospecting and a limited geochemical soil and silt survey. Some sphalerite was found in porous dolomite float material in the northwestern part of the property. The ~~geochemical~~ geochemical survey outlined two small zinc anomalies, neither of which is associated with the mineralized float material.

It was recommended that the property be mapped in detail, and that the two zinc anomalies be prospected in detail using a "zinc indicator kit".

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RAM CLAIM GROUP
MAYO MINING DIVISION
YUKON TERRITORY

INTRODUCTION

This report is written at the request of Mr. Ronald Newcombe, President of Kendal Mining and Exploration Co. Ltd. (N.P.L.)

The writer has not examined the claim group but is familiar with the general geology of the area. The report is compiled from data collected by Mr. M. Callaghan, who prospected the area between July 3 and July 5, 1974 under the supervision of D. H. Waugh, geologist.

A reconnaissance geochemical soil and silt sampling program was carried out in conjunction with the prospecting.

CONCLUSION

The prospecting located minor zinc mineralization, in float, in the northwest portion of the property but no other mineralization of economic interest was discovered.

The geochemical survey indicates 2 zinc anomalous areas. No zinc mineralization was located in the vicinity of the anomalies although dolomites in the areas are a favourable host for zinc mineralization. It is not known if the prospectors used the "zinc indicator kits" to assist in identifying the secondary zinc minerals that are difficult to recognize in weathered outcrops

It is concluded that the zinc anomalous areas should be investigated by a geologist using the "zinc indicator kit".

RECOMMENDATION

The following program is recommended:-

Phase I

1. Map the geology and prospect in detail the two zinc zinc anomalous areas using a "zinc indicator kit".
2. Collect rock chip samples and soil samples for analysis.

Phase II

(Contingent on Phase I)

ESTIMATED COSTS

Phase I

1. Geologist and assistant	
- 4 days @ \$200.00/day.....	\$ 800.00
2. Transportation	
- Bell 206B-2 hours @ \$330.00/hour.....	600.00
- Fixed wing.....	250.00
3. Food and Accommodation	
- 8 man days @ \$20.00/day.....	160.00
4. Equipment rental	
- 4 days @ \$20.00/day.....	40.00
5. Geochemical analysis and assaying.....	125.00
	<u>2,375.00</u>
Overhead and contingencies @ 20%.....	575.00
	<u>\$ 2,950.00</u>
	<u><u> </u></u>

Phase II

Contingent on the results of Phase I

GEOGRAPHY

Location

The claim group is located in the Yukon Territory on the north side of the Bonnet Plume River valley 20 miles northwest of the confluence of Goz Creek and the Bonnet Plume River. Mayo is located 112 miles to the southwest.

Co-ordinates of the property are $64^{\circ}39'N$ latitude and $133^{\circ}15'W$ longitude.

Access

Access to the property is by helicopter from Mayo. A gravel airstrip has been recently constructed in the Bonnet Plume valley near the Cypress Resources base camp 14 miles to the southeast of the property. A helicopter is based for the summer at the Cypress camp.

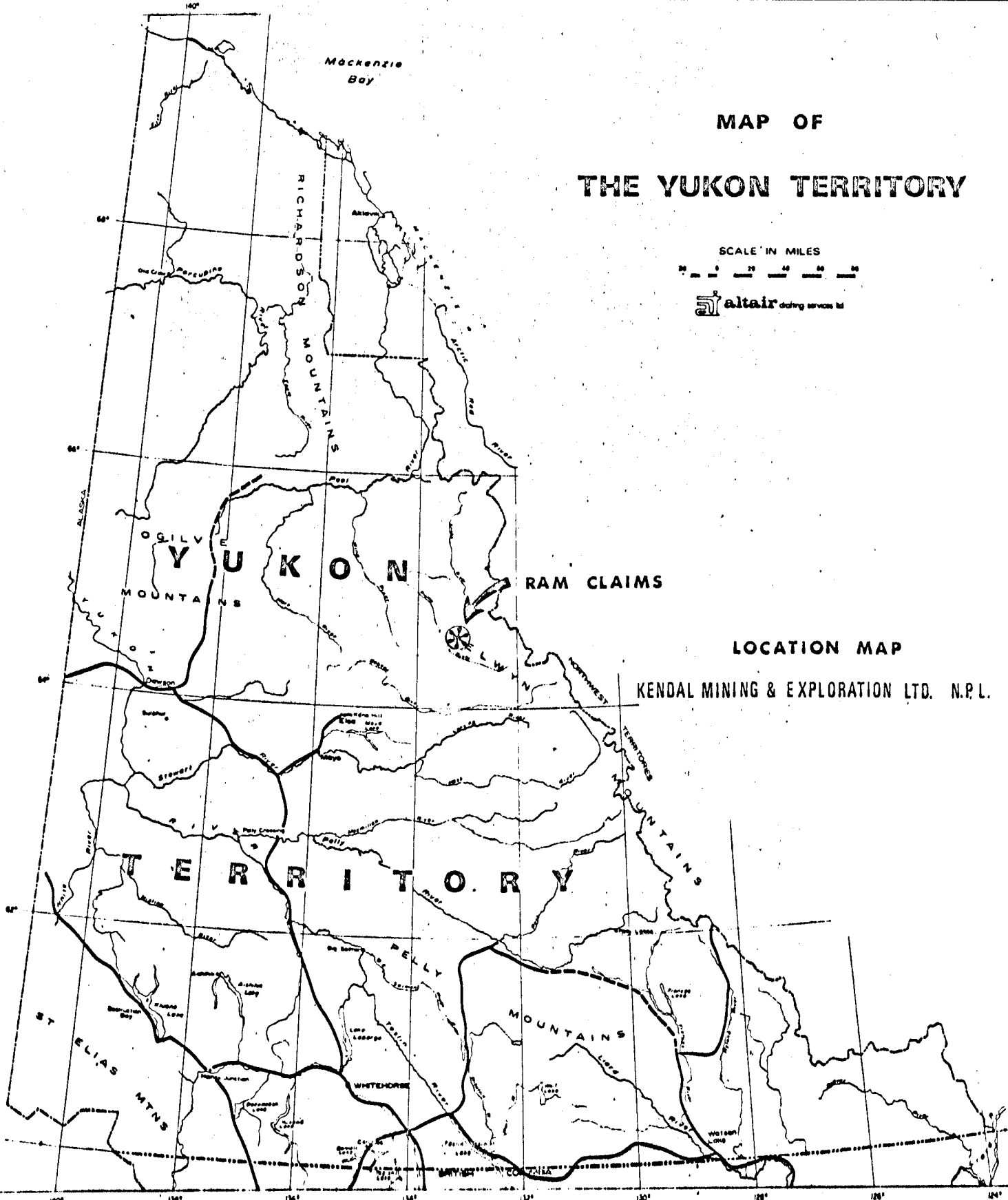
Topography

The claims cover a northwest trending ridge between the elevations of 4,000 feet and 5,500 feet.

Climate

The average yearly rain fall would be in the range of 20 inches. Winter compacted snow would vary from 4 to 6 feet on the property.. The area would be free of snow from June to October.

MAP OF THE YUKON TERRITORY



RAM CLAIMS

LOCATION MAP

KENDAL MINING & EXPLORATION LTD. N.P.L.

Vegetation

The claim group is above timberline except for scattered clumps of stunted balsam and arctic willow.

Water

There is ample water on the property for drilling purposes.

CLAIMS

The following information of the claims has been given to the writer by Kendal Mining & Exploration Co. Ltd. (N.P.L.)

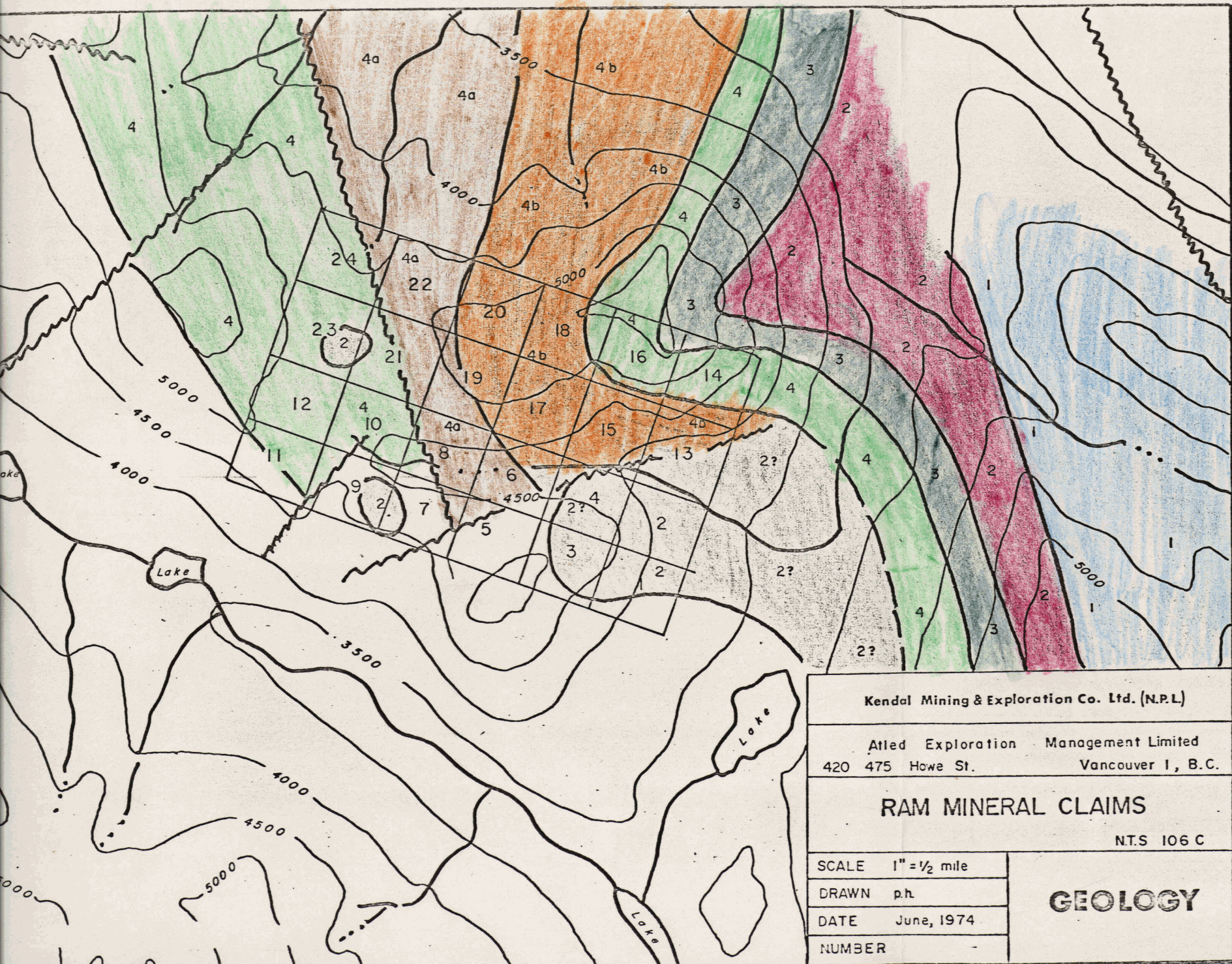
<u>Name</u>	<u>Record Numbers</u>	<u>Expiry Dates</u>
Ram #1 to #24	Y88040 - Y88063	March 1, 1975

HISTORY

During the 1973 exploration season, Barrier Reef Resources Ltd. discovered a significant zinc occurrence near the junction of Goz and Duo Creeks in the Bonnet Plume River area. There was already considerable exploration activity for lead and zinc mineralization in the northeastern Yukon with the discovery by Placer Development of zinc mineralization in the Howards Pass area followed by numerous discoveries in the Godlin Lakes area. The Barrier discovery resulted in a staking rush and over 1,800 claims were staked. It was during this initial staking rush that Cypress Resources Ltd. discovered zinc and lead mineralization in the Hadrynian carbonate formation 12 miles to the southwest^{part} of the Ram Claim Group.

GEOLOGY

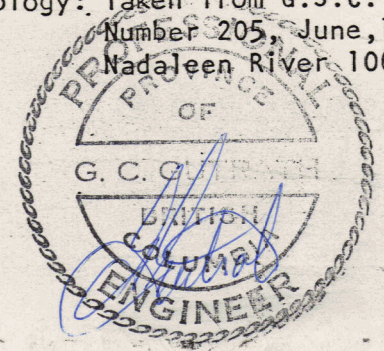
The claim group lies on the southwest margin of the Bonnet Plume range and is underlain by a thick sequence of sedimentary rocks of Precambrian age. The general bedding attitude indicates that the claims lie on the northeast limb of a broad open anticline with the axis striking N 60° W. ?



LEGEND

- SILURIAN AND DEVONIAN**
1 Light grey, well bedded dolomite, minor limestone near top.
- ORDOVICIAN AND DEVONIAN**
2 Mount Kindel Formation, thick bedded, dark grey to black and minor light grey weathering dolomite.
- HADRYNIAN AND ? CAMBRIAN**
3 Sheepbed Formation: brown and black slate.
- HADRYNIAN**
4 Light grey buff weathering porous fine grained dolomite.
- 4a Brown shale, siltstone and conglomerate, minor orange weathering, platy dolomite.
- 4b Interbedded platy orange weathering dolomite, brown and black shale and sandstone.
- Fault

Geology: Taken from G.S.C. open file Number 205, June, 1974. Nadaleen River 106C.



Kendal Mining & Exploration Co. Ltd. (N.P.L.)	
Atled Exploration Management Limited 420 475 Howe St. Vancouver 1, B.C.	
RAM MINERAL CLAIMS	
NTS 106 C	
SCALE 1" = 1/2 mile	GEOLOGY
DRAWN p.h.	
DATE June, 1974	
NUMBER -	

The Ram Group is underlain by a complexly faulted and folded sedimentary series ranging from Devonian through Precambrian in age. This series trends in a northwesterly direction across the Ram Group, and is cut by both northwestern and north eastern faults.

On the Cypress Resources claim group, located 14 miles to the southwest, zinc and lead mineralization is found in an orange weathering, porous, fine grained dolomite that occurs at the top of a thick dolomite bed of Hadrynian age and below a shale unit of Silurian to Ordovician age. The zinc mineralization within the dolomite unit occurs as sphalerite and smithsonite in massive lenses, or as dissemination or veinlets in weakly silicified breccia zones. Minor lead occurrences are associated with the zinc mineralization. This favourable dolomite formation and overlying shale unit can be traced through to the Ram Group although it has been complicated by folding and faulting in this area. This dolomite unit occurs in the northeast corner of the Ram group and as a result of faulting, it also occurs in the southwest corner of the claim group.

PROSPECTING

Prospecting was carried out using the claim lines and existing topographic maps for control. Traverses were completed along the claim lines, and the creek and its tributaries were prospected.

Results

The northeast ^{part} portion of the property, claim 13 to claim 18 inclusive is underlain by a light grey, yellow stained limestone (dolomite). The remainder of the property is underlain by interbedded limestone (dolomite) shales, siltstones and minor quartzite.

Minor sphalerite mineralization was found in float on claim 23 and claim 24. This float would be located near the fault contact between dolomites and shales of Hadrynian age.

Minor pyrite is reported in yellow stained limestone on claim 17 and claim 18.

GEOCHEMICAL SURVEY

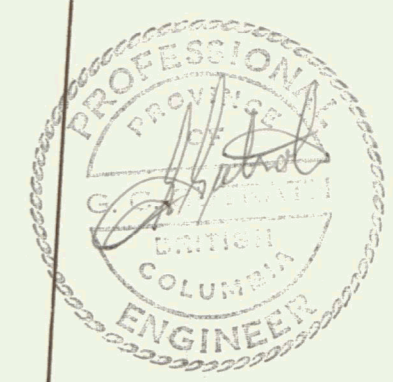
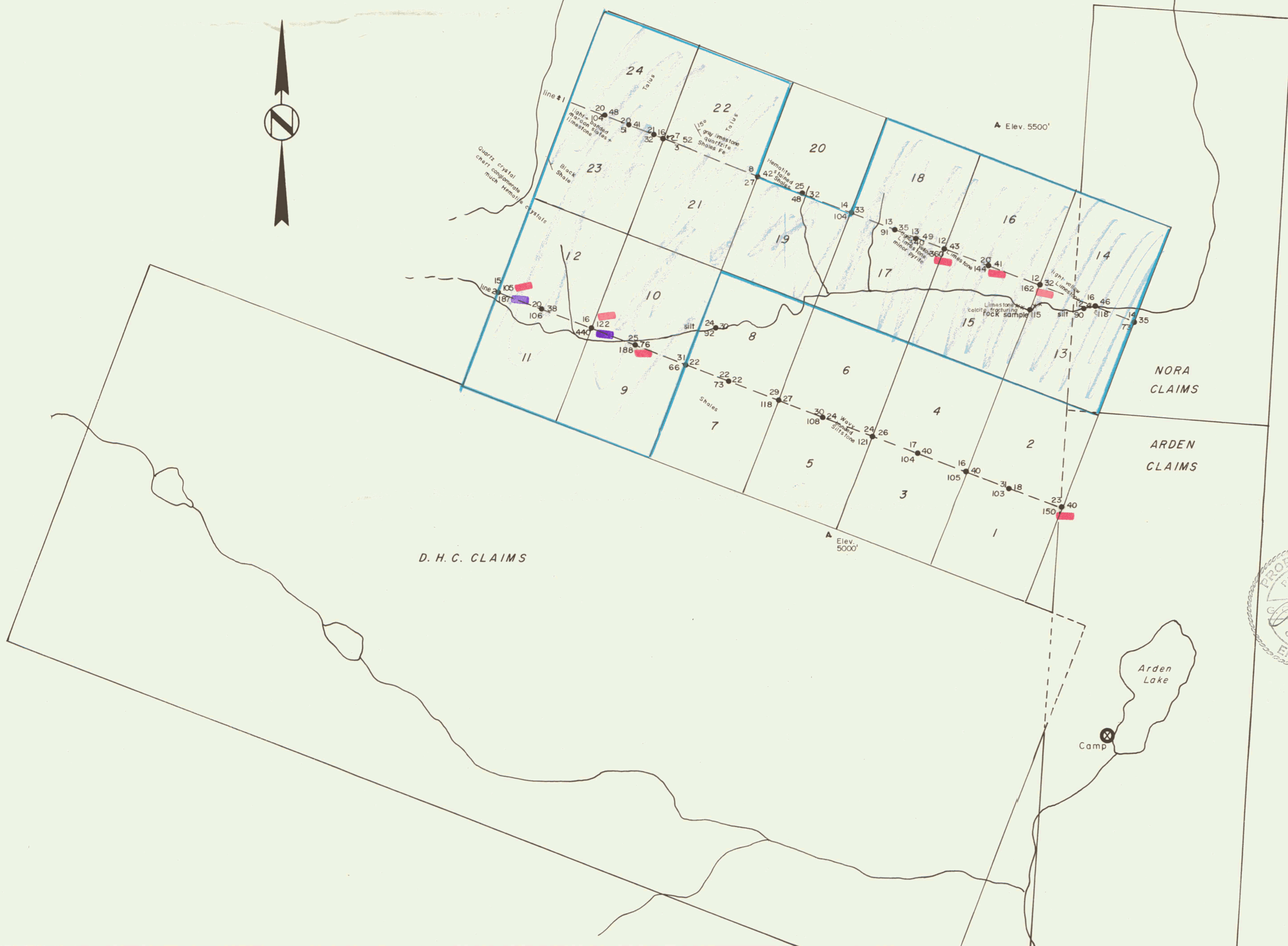
Survey Completed

A total of 27 soil samples and 2 silt samples were collected for copper, lead and zinc analyses by Atomic Absorption methods by Bondar-Clegg and Company Ltd. The soil samples were collected at approximately 800 foot intervals along the claim lines. Only 2 silt samples were taken because the creeks were largely filled with loose talus, making it very difficult to collect representative samples.

Results

Zinc

The background for zinc would be less than 120 ppm., threshold anomalous 100 to 120 ppm and over 120 ppm anomalous. There is an anomalous area indicated along the claim boundary between Ram 15 and Ram 16.



Legend

- Geochemical Values in parts per million
- Copper ● Lead
 - Zinc
 - Zinc anomalous
 - Lead anomalous

Kendal Mining & Exploration Co. Ltd. (N.P.L.)	
Atled Exploration Management Limited 420 475 Howe St. Vancouver 1, B.C.	
RAM MINERAL CLAIMS	
BONNET PLUME AREA	N.T.S. 106 C
SCALE 1" = 1000'	GEOCHEMICAL MAP AND GEOLOGY
DRAWN p.h.	
DATE Nov. 1974	
NUMBER 411	

There was no zinc mineralization located in this area but the limestone is weakly pyritized and there may be minor zinc associated with the pyrite.

The highest zinc value of 440 ppm is located on the mutual corner of claims 9, 10, 11 and 12.

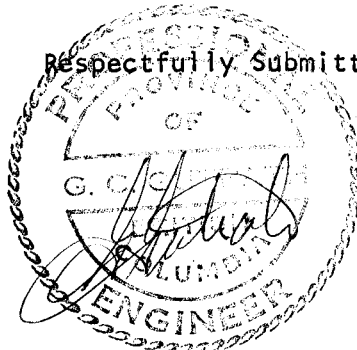
No zinc mineralization was located by the prospector in this area. Threshold anomalous to anomalous values are located along claim lines 800 feet to the east and 1,500 feet to the west of this point.

Background for lead is less than 100 ppm and from 100 to 120 would be threshold anomalous. The highest lead value of 122 ppm is coincident with the 440 ppm zinc located at the mutual corner of claims 9, 10, 11 and 12.

Copper

The copper values are all less than 35 ppm and none are considered anomalous.

Respectfully Submitted,

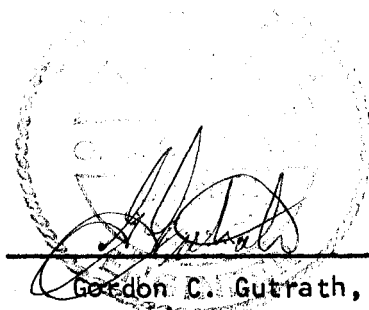


G. C. Guttrath, B.Sc., P.Eng., Geologist
ATLED EXPLORATION MANAGEMENT LTD.

ENGINEER'S CERTIFICATE

I, GORDON C. GUTRATH, of 3636 Lakedale Avenue, in the Municipality of Burnaby, in the Province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a consulting geologist with a business address of #420-475 Howe Street, Vancouver 1, B.C.
2. That I am a graduate of the University of British Columbia where I obtained my B.Sc. in geological science in 1960.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia.
4. That I have practised my profession as a geologist for the past fourteen years, and
5. That I have no interest in the property with which this report is concerned, nor do I expect to receive any such interest. I have no interest in the securities of Kendal Mining and Exploration Co. Ltd. (N.P.L.)



A handwritten signature in black ink is written over a circular, faint stamp. The signature appears to read 'G. Gutrath'. The stamp is mostly illegible but seems to contain some text around the perimeter.

Gordon C. Gutrath, B.Sc., P. Eng.

DATED at the City of Vancouver, Province of British Columbia, this 15 day of November, 1974.