

GEOLOGICAL AND GEOCHEMICAL
REPORT ON THE
RAIN CLAIM GROUP #1 to #24

Grant Numbers Y85462 - Y85485 inclusive
CORN CREEK

BONNET PLUME RIVER AREA
MAYO MINING DISTRICT Y.
N.T.S. 106C/10
Latitude: 64°45'N
Longitude: 132°50'W

on behalf of

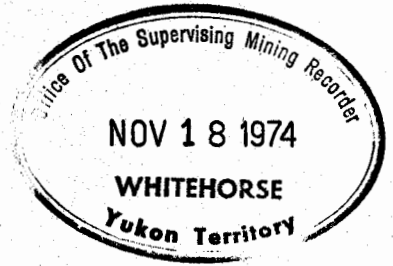
PINE LAKE MINING CO. LTD. (N.P.L.)
616 - 402 West Pender Street,
Vancouver, B.C.

During the period September 9th through 14th, 1974

by:

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

October, 1974



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 \$ 2400.00

D B Craig
Resident Geologist or
Resident Mining Engineer

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

Phillipie
Commissioner of Yukon Territory
ADMINISTRATOR OF THE YUKON TERRITORY

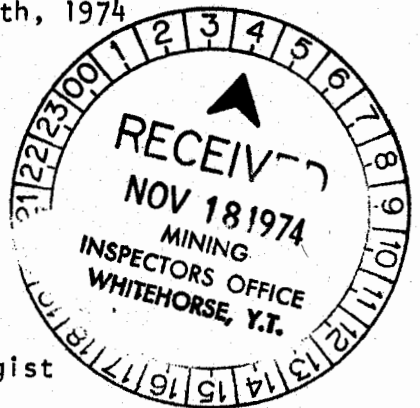


TABLE OF CONTENTS

INTRODUCTION.....	1
SUMMARY.....	2
RECOMMENDATIONS.....	2
GEOGRAPHY.....	3
Location.....	3
Access.....	3
Topography.....	3
Climate.....	3
Water.....	4
CLAIMS.....	4
GEOLOGY.....	5
General.....	5
Stratigraphy.....	5
MINERALIZATION.....	7
GEOCHEMICAL SURVEY.....	7
Survey Completed.....	7
Statistical Analysis of Zinc Values.....	8
Survey Results.....	9
ENGINEER'S CERTIFICATE.....	10
ILLUSTRATIONS	
Location Map.....	After Page 3
Histogram (Lead).....	After Page 7
Histogram (Zinc).....	After Page 7
Geology and Claim Map.....	In Map Pocket
Geochemical Map (Lead).....	In Map Pocket
Geochemical Map (Zinc).....	In Map Pocket

INTRODUCTION

Assessment was done on the Rain #1 to #24 claims situated in the northern Selwyn Mountains during September 9th through 14th, 1974.

The work was done on behalf of Pine Lake Mines Ltd. (N.P.L.) by Atled Exploration Management Ltd. A two man crew mapped, prospected and conducted a soil sampling programme.

SUMMARY

The Rain claims were staked in September, 1973, they are staked on the down dip extension of Consolidated Coast Silver's claim group, they lie to the [?]west of this group. Both the regional G.S.C. geology and the authors observation confirm that dips are gently and uniformly to the west, with an absence of major structures. ? see map

It was ~~not~~ therefore expected that the present surface work would reveal any evidence of mineralization on this extension which can occur only at depth. Nevertheless the geochemical survey has revealed two interesting anomalies. At the present time these must be interpreted as being derived from within the subcropping Backbone formation, stratigraphically above the showings to the west.

RECOMMENDATIONS

Quite apart from the geochemical results which encourage further sampling at some future date, the claims should, in any event, be kept in good standing pending the publication of results by Consolidated Coast Silver.

GEOGRAPHY

Location

The RAIN claim group is located 120 miles north east of Mayo in the Mayo Mining District, Yukon Territory. It lies at the head of Corn Creek in the northern Selwyn Mountains, Bonnet Plume River and Pinguicula Lake are 15 miles to the west.

Access

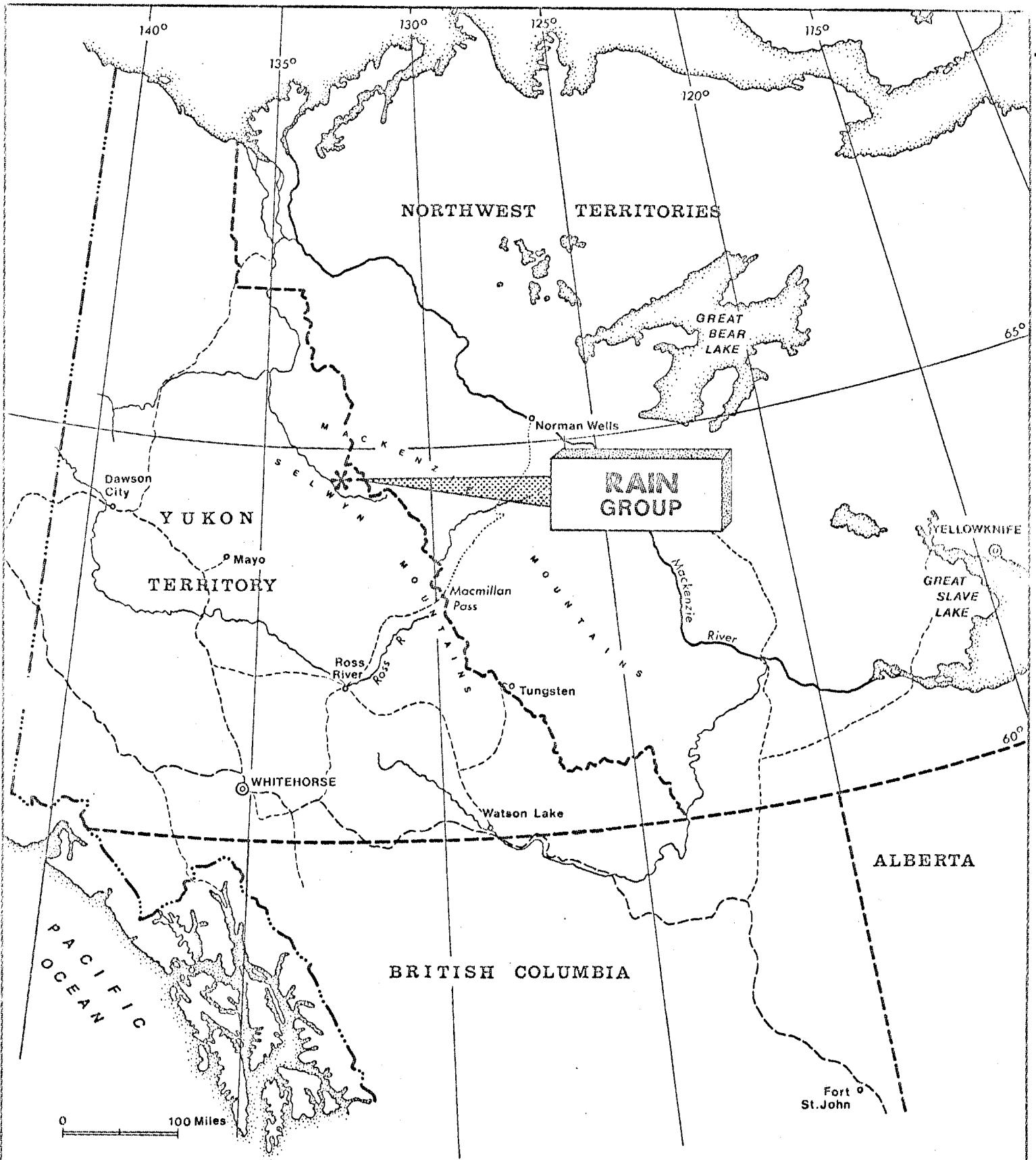
Access is by float plane from Mayo to Pinguicula Lake and thence by helicopter to the property.

Topography

Corn Creek valley is approximately a mile wide. The claims occupy an area where two almost equal tributaries meet. As a result most of the property lies between 4,000 feet and 5,000 feet. The south western claims cover a rocky 6,000 foot ridge.

Climate

The climate is subarctic with a great deal of sunshine in the few summer months. The slopes are south facing and are snow free early in June. Snow may fall at any time.



Location Map

PINE LAKE MINING COMPANY LTD. (N.P.L.) RAIN CLAIMS

Water

Water is available during the spring run off but after July it is available in the main creeks only.

CLAIMS

<u>NAME</u>	<u>GRANT</u>	<u>STAKER'S NAME</u>	<u>DATE</u>
RAIN # 1 to #8	Y85462-64	Glen L. Harris	September 14, 1974
RAIN # 9 to #16	Y85470-77	Danny Lucas	September 14, 1974
RAIN #17 to #24	Y85678-85	Robert Wigen	September 14, 1974

The claims are plotted on Yukon claim sheet 106-C-10 although they lie in part on sheet 106-C-15.

GEOLOGY

General

The geology of the area is stratiform with only one fault detected in the map area. Three stratigraphic units are present, probably all the rocks in the area are Lower Cambrian. The dips are uniformly shallow to the east north east.

The units outcrop on two different ridge crests. A fault may be inferred from the regional (G.S.C.) geology and from a displacement of the geochemical anomaly in the creek bed inbetween.

Stratigraphy

Sheepbed formation HC_{sc}

This is the lowest unit in the map area, it is Hadrynian to Lower Cambrian in age. Most of the map area is probably underlain by this unit which is characterized by recessive weathering. Two small outcrops of well bedded fine light grey limestone occur on claim 22 and one outcrop of black shale occurs on claim 8 in the creek bed.

The top 100 feet of this unit outcrops on claims 21, 22 and 24. This horizon is a well bedded grey quartzite, but it is not resistant and only occurs below the dolomite bluffs of the Backbone Ranges Formation.

Backbone Ranges Formation ϵc and ϵq , Lower Cambrian

ϵc

This unit occurs in both ridges which support outcrop, it is about 400 feet thick. The rock type is a uniformly resistant well bedded grey dolomite with a silt grain size.

On claims 22 and 24 the upper 30 feet of this unit is a grey calcarenite but this unit is absent elsewhere. On claims 3 and 5 the top of this unit is locally stained with hematite but this is probably derived from the overlying conglomerate.

ϵq

A basal pebble conglomerate is the lowest member of this unit. The conglomerate is persistent but varies in thickness from 30 feet on claims 21 to 24 to 150 feet thick on claims 3 and 5. On claims 3 and 5 the lowest part of this conglomerate is strongly stained with hematite but none of the original pyrite or marcasite, was located by the present writer.

The unit above the conglomerate is a grey moderately well bedded quartzite, about 150 feet thick. The entire thickness outcrops on claims 22 and 24 but elsewhere it is represented by patchy outcrops and talus.

The highest unit in this sequence is a purple siltstone with lenses of grey quartzite. It is represented by both outcrop and talus on both ridges. A thickness of 100 feet occurs on the property but the top of this unit was not located.

MINERALIZATION

The only mineralization located on the property was the hematite stain on claims 3 and 5. This was probably caused by pyrite or marcasite in the basal conglomerate of unit 6q. At present no economic significance can be attached to this gossan.

GEOCHEMICAL SURVEY

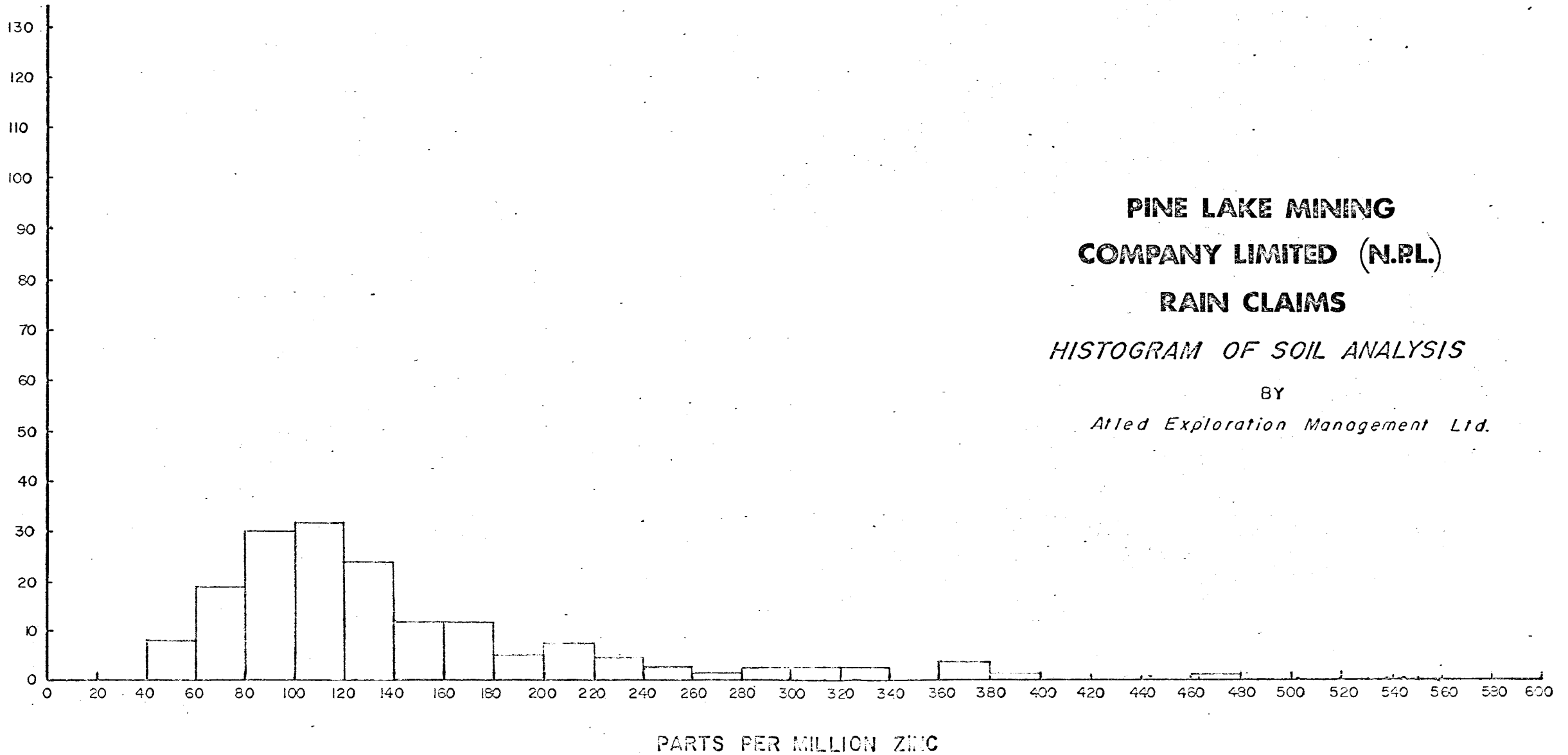
Survey Completed

199 stations were established on a 400 foot x 200 foot grid. Soil samples were collected at 177 stations, there were 22 not sampled.

Analysis was done by Vangeochem Labs, Vancouver.

Fraction	-	- 80 mesh
Sample Weight	-	0.5 gm
Extraction	-	HClO ₄
Analysis	-	Atomic Absorption

NUMBER OF SAMPLES



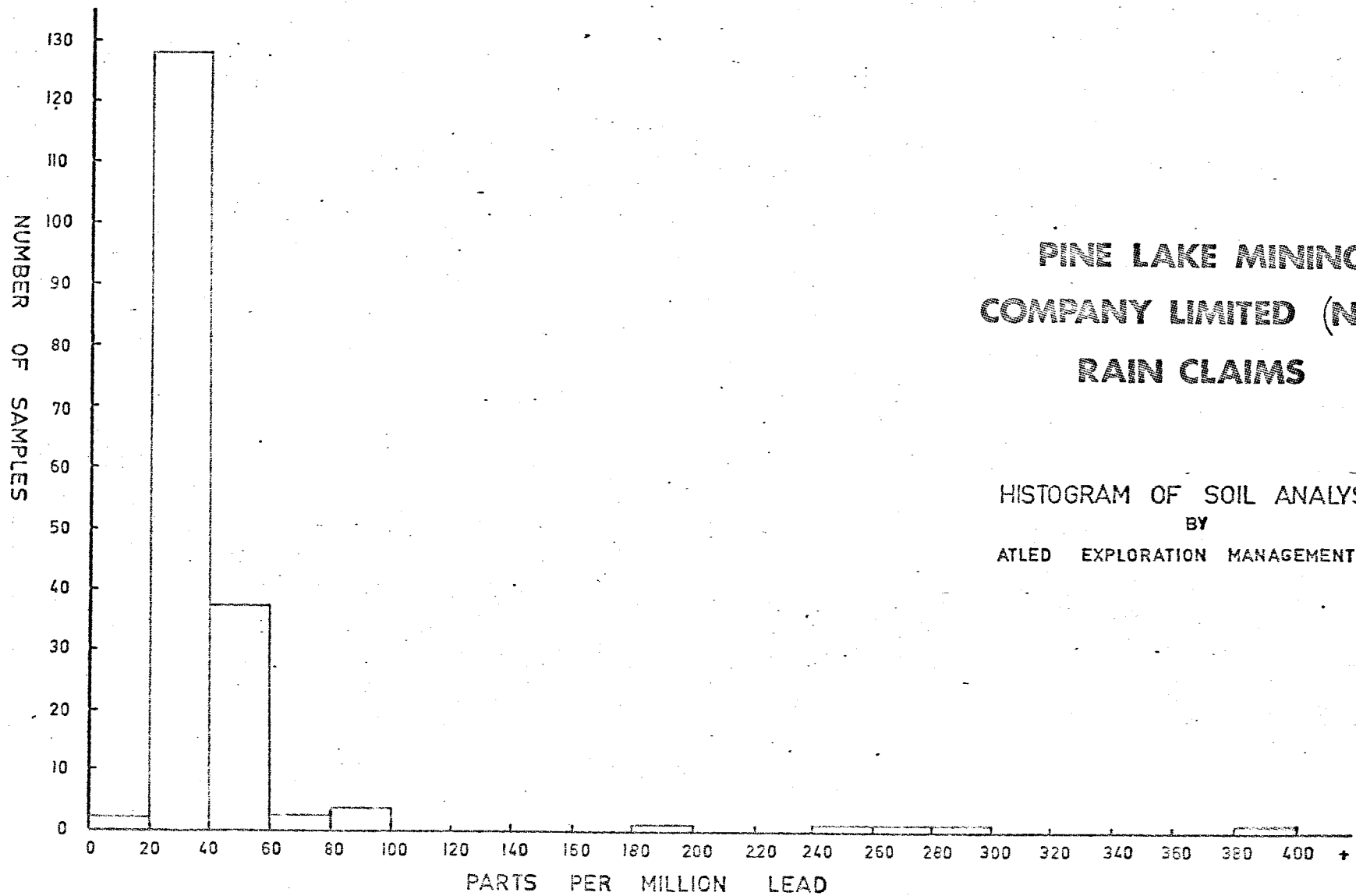
**PINE LAKE MINING
COMPANY LIMITED (N.P.L.)**

RAIN CLAIMS

HISTOGRAM OF SOIL ANALYSIS

BY

Atled Exploration Management Ltd.



**PINE LAKE MINING
COMPANY LIMITED (N.P.L.)
RAIN CLAIMS**

HISTOGRAM OF SOIL ANALYSES
BY
ATLED EXPLORATION MANAGEMENT LTD.

Statistical Analysis of Zinc Values

Frequency <u>n</u>	Value <u>v</u>	<u>n v</u>	<u>d</u>	<u>d²</u>	<u>d²n</u>
8	50	400	60	3,600	28,800
19	70	1,330	40	1,600	30,400
30	90	2,700	20	400	12,000
32	110	3,520	-	-	-
24	130	3,120	20	400	9,600
12	150	1,800	40	1,600	19,200
12	170	2,040	60	3,600	43,200
5	190	950	80	6,400	32,000
7	210	1,470	100	10,000	70,000
4	230	920	120	14,400	57,600
2	250	500	140	19,600	39,200
1	270	270	160	25,500	25,500
2	290	580	180	32,400	64,800
2	310	620	200	40,000	80,000
2	330	660	220	48,400	96,800
-	350	-	240	57,600	-
3	370	1,110	260	67,600	202,800
1	390	390	280	78,400	78,400
1	470	470	360	129,600	129,600
1	650	650	540	291,600	291,600
2	810	1,620	700	490,000	980,000
1	1,010	1,010	900	810,000	810,000
1	1,050	1,050	940	883,600	883,600
1	1,110	1,110	1,000	1,000,000	1,000,000
1	1,250	1,250	1,140	1,299,600	1,299,600
		<u>29,540</u>			<u>6,284,700</u>

$$\text{Mean, } \bar{y} = \frac{\sum nv}{n} = \frac{29540}{174} = 170 \text{ ppm}$$

$$\text{Standard Deviation } s = \sqrt{\frac{\sum(d^2n)}{n}} = \sqrt{\frac{6,284,700}{174}} = 190 \text{ ppm}$$

Survey Results

The lead results showed very little relief (see histogram).

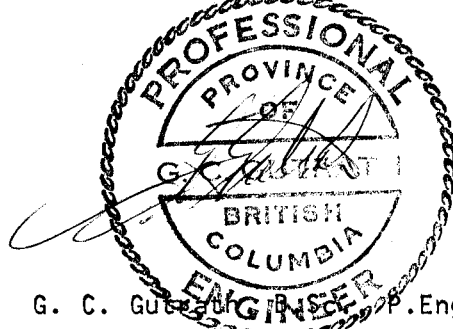
The zinc results were interesting,
mean + one standard deviation = 360 ppm
mean + two standard deviation = 550 ppm

For convenience the results were contoured at 200 ppm, 400 ppm and 600 ppm. Anything over 400 ppm is anomalous.

Two interesting zinc anomalies were revealed (see zinc geochemical map). The anomaly in the north west corner of the property coincides with the only high lead values on the property.

The second anomaly lies along base line 1 but is clearly displaced by the fault shown on the G.S.C. regional maps.

Respectfully submitted,

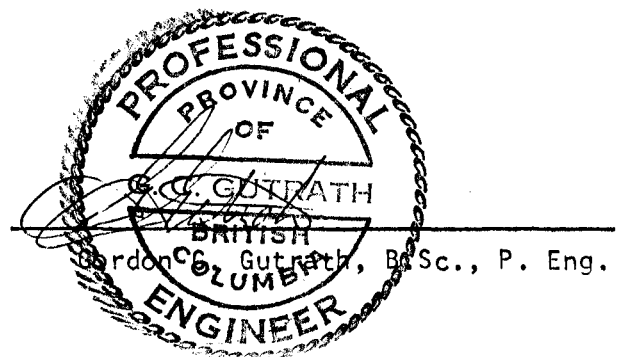


G. C. Gutierrez P.Eng., Geologist
ATLED. EXPLORATION MANAGEMENT LTD.

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 Pine Lake Mining Ltd. (N.P.L.).



DATED at the City of Vancouver, Province of British Columbia, this 10 day of October, 1974.

APPENDICES

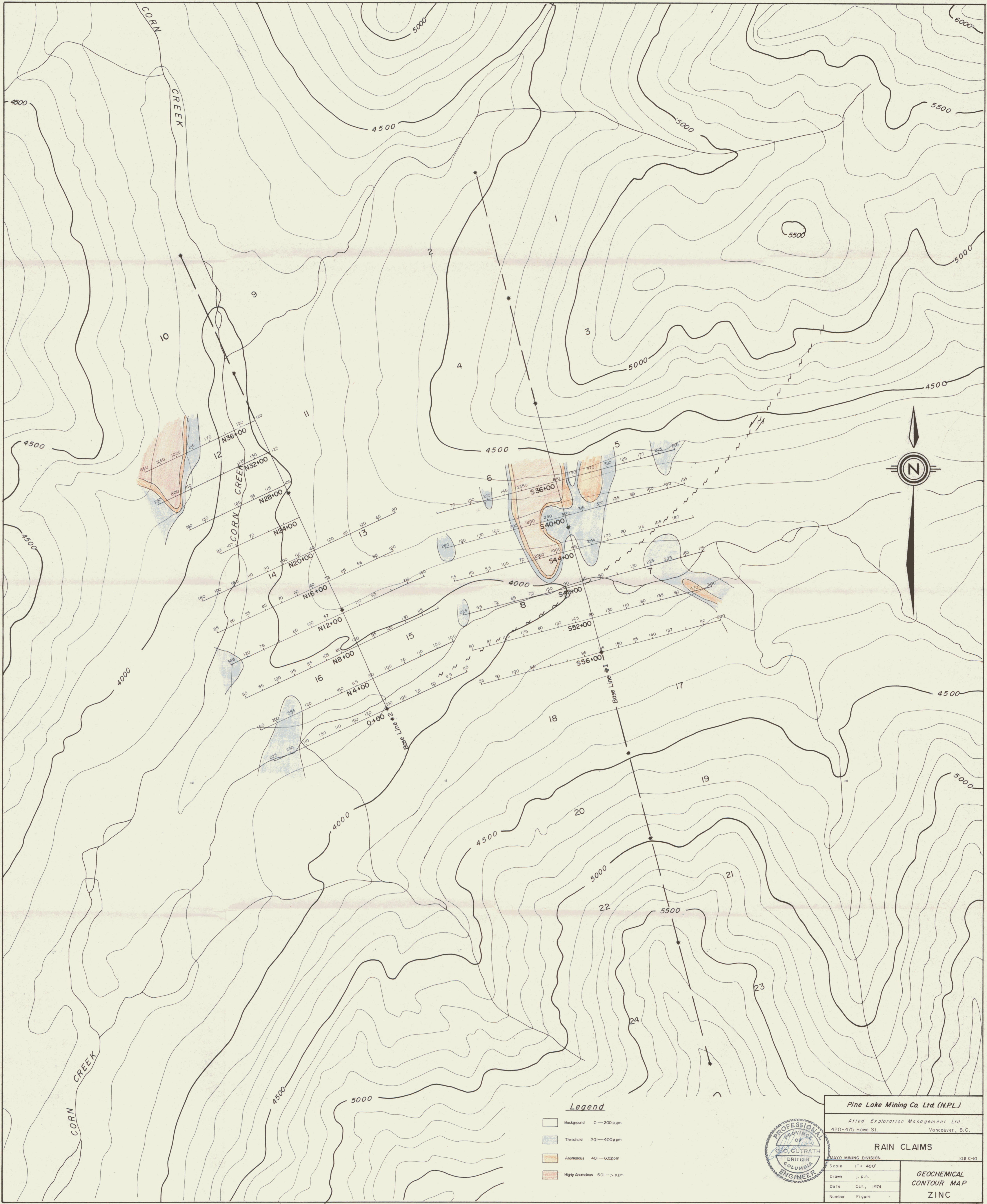


Legend

● ANOMALOUS VALUES

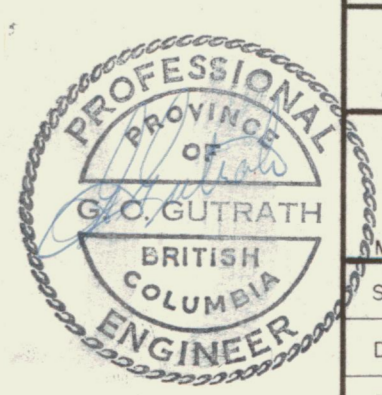


Pine Lake Mining Co. Ltd. (N.P.L.)	
Atled Exploration Management Ltd. 420-475 Howe St. Vancouver, B.C.	
RAIN CLAIMS	
106 C-10	
Scale	1" = 400'
Drawn	J. P.H.
Date	Oct., 1974
Number	Figure
GEOCHEMICAL MAP LEAD	

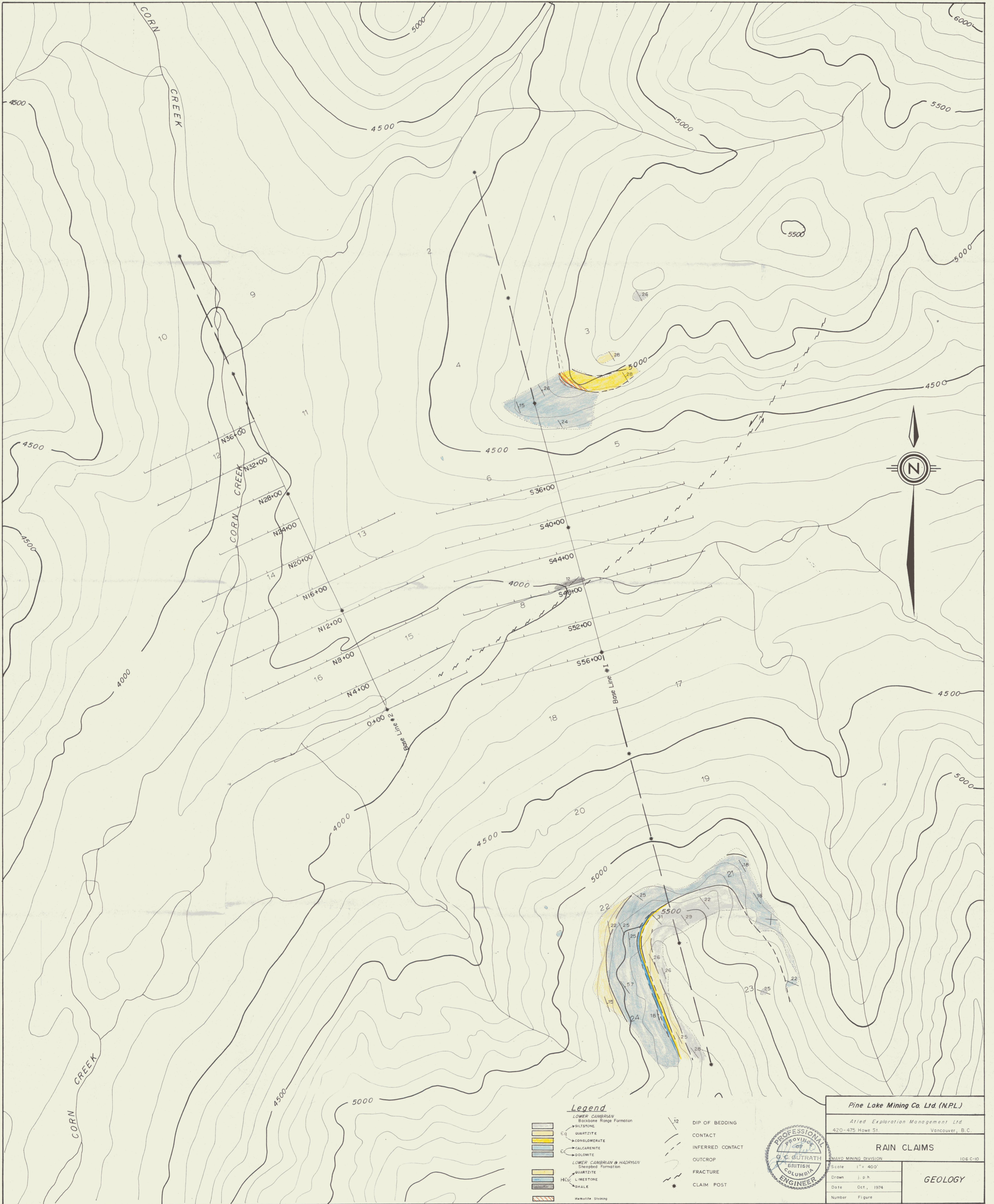


Legend

- Background 0 — 200 ppm
- Threshold 201 — 400 ppm
- Anomalous 401 — 600 ppm
- High Anomalous 601 — + ppm



Pine Lake Mining Co. Ltd. (N.P.L.)	
Allied Exploration Management Ltd. 420-475 Howe St. Vancouver, B.C.	
RAIN CLAIMS	
Scale 1" = 400'	106 C-10
Drawn J.P.H.	GEOCHEMICAL CONTOUR MAP
Date Oct., 1974	ZINC
Number	Figure



Legend

- LOWER CAMBRIAN
Backbone Range Formation
 - SILTSTONE
 - QUARTZITE
 - CONGLOMERATE
 - CALCARENITE
 - DOLOMITE
 - LOWER CAMBRIAN & HADRIAN
Sheepbed Formation
 - QUARTZITE
 - LIMESTONE
 - SHALE
 - Hematite Shoring
- 12 DIP OF BEDDING
 - CONTACT
 - INFERRED CONTACT
 - OUTCROP
 - FRACTURE
 - CLAIM POST

Pine Lake Mining Co. Ltd. (N.P.L.)	
Atled Exploration Management Ltd. 420-475 Howe St. Vancouver, B.C.	
RAIN CLAIMS	
MAYO MINING DIVISION 106 C-10	
Scale 1" = 400'	GEOLOGY
Drawn J. P. H.	
Date Oct., 1974	
Number	Figure

