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GEOCHEMICAL REPORT

JAY GROUP OF MINERAL CLAIMS

CHUCHI LAKE, 53 MILES NNW OF FORT ST. JAMES O.M.N.E.C.A. M.D.
55°124° S.E.

93 N/1W

by

GAVIN A. DIROM, P. Eng.

for

TRO-BUTTLE EXPLORATION LTD. (N.P.L.)

DATE OF REPORT

3 April 1968

DATE OF FIELD WORK

October 1967

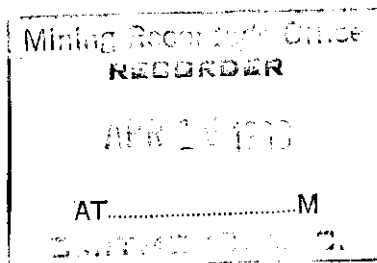


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ATTACHMENTS

Appendix #1	Chemex Labs. Limited, Memo 12 April 1968.
Figure #1	Graph showing <u>Cu</u> ppm Concentration Frequency.
Figure #2	Graph showing <u>Zn</u> ppm Concentration Frequency.
Map #1 #1	Index Map -- 1" = 4 miles.
Map #2 #2	Claim Sketch -- 1" = 1 mile.
Map #3A #3	Geochemical Soil Survey (Cu & Mo)--1" = 400'.
Map #3B #4	Geochemical Soil Survey (Zn)-- 1" = 400'.

INTRODUCTION

The following report summarizes a geochemical soil survey completed on the Jay Group during October 1967. The purpose of the report is to submit the information obtained for assessment purposes.

The writer is Consulting Engineer for Tro-Buttle Exploration Limited (NPL). He has not been on this ground, but is familiar with the area in a general way only.

The survey was supervised in the field by Peter F. Bland, full time prospector for Tro-Buttle Exploration Limited, who works under George A. Burdett, Exploration Manager. The field team is experienced in surveys of this sort, and is fully competent to perform according to proper procedures.

The analyses (Cu, Zn, & Mo) were all run by Chemex Labs Limited, North Vancouver, B.C.

The writer feels that this survey fully qualifies for acceptance as bonafide assessment work. Affidavit Form B, which will be filed by the anniversary date of April 10th, 1968, will request a total credit of \$ 2,800 for the survey, this to be credited in equal amounts of \$ 100 to each of the 28 claims, viz., Jay 1-28, inclusive, Record Nos. 48648-48675.

GENERAL CONCLUSION

The soil survey indicates some spotty Cu and Zn values. These warrant limited preliminary investigation to see if worthwhile specific targets can be found warranting further exploration.

PROPERTY AND OWNERSHIP

The Jay Group consists of Jay 1-28 claims recorded April 10, 1967 under Record Nos. 48648-48675. All are recorded in the name of Tro-Buttle Exploration Limited (NPL), 118 - 815 West Hastings Street, Vancouver 1, B.C., for whom they were staked and recorded by Peter F. Bland as agent.

LOCATION, ACCESS & TOPOGRAPHY

This group of claims is situated on the north side of Chuchi Lake about 4 miles west of the outlet (Nation River) at

the east end of the lake. It lies 53 miles NNW of Fort St. James. It is adjoined on the north and west by claims owned by Noranda Exploration Company Limited; and on the east by claims including the Wit and Wag Groups, which were under option to Noranda in 1965. These latter are briefly referred to in the Report of the Minister of Mines for that year. Attached maps, Nos. 1 & 2, serve as Index Map and Claim Sketch, respectively.

Access is by the Manson Creek road from Fort St. James to Chuchi Lake, and thence by boat to the property; or by float plane.

The claims extend from the lake shore to about 2½ miles north. Elevations range from around 3000' to 4000'.

GEOLOGY

Regional geology is provided by G.S.C. Memoir 252, and Map 907A.

The property lies at the southeastern tip of the Hogen Batholith (the largest body of Omineca intrusions), which intrudes Takla Group volcanics, etc., in this locality. The claims are considered to be largely underlain by the latter, but a tongue of the intrusions probably partly underlies the most northerly claims and minor bodies may occur elsewhere. The Pinchi fault zone lies about 25 miles to the west.

Chuchi Lake and vicinity geology, from Map 907A, is partly outlined on accompanying Map #1.

Some trenching, stripping and diamond drilling was done on the Wit and Wag ground in 1965, but no details are available to the writer regarding this work or the results. It is understood that some of the showings are stringer type occurrences of lead, zinc, and less copper sulphides in shear zones in the volcanics.

It is understood also that there are scattered showings of copper minerals in basic Takla volcanics in this general area.

The writer has no details on showings on the Jay Group of claims.

GEOCHEMICAL SURVEY

Field Work

The field work was performed during the period October 6-27, 1967 by a crew of four men, including Peter F. Bland, prospector-in-charge. Totals of 61,200' of crosslines (at 300' intervals), 12,800' of base line, and 12,000' of tie lines were chained and flagged. Soil samples were taken at 200' intervals, and total 392 samples.

All samples were taken using a shovel, and consisted, wherever possible, of the upper part of the "B" horizon. The samples were packaged in standard, high wet strength kraft paper soil sample bags.

The samples were shipped to Chemex Labs. Limited, North Vancouver, B.C., where they were dried, screened, and analyzed for Cu, Zn, and Mo on November 10-15, 1967. Attached hereto, as Appendix #1, is a brief synopsis dated April 2, 1968 from Chemex Labs. Limited covering their laboratory procedures.

Costs

The following costs are approximate, but are reasonably correct:

Wages - Crew of 4 men (15 days during period 6-27 October)	
Peter F. Bland	\$ 360.00
Craig Forfar	250.00
Norm McCullough	300.00
John Command	<u>300.00</u>
	\$ 1,210.00
Accommodation, Food & Supplies	250.00
Transportation	280.00
Sample Analyses	960.00
Preparation of Report	300.00
	<hr/>
TOTAL	<u>\$ 3,000.00</u>

Results

Copper - Results are detailed on Map #3A, and are graphically summarized on Figure #1. Threshold indicated is approximately 150 ppm, but higher figure of 200 ppm seems more significant. Twelve percent of the samples exceed the lower amount, 7 % the higher figure, and highest value is 1100 ppm.

No well defined trends or correlations are indicated. However, the majority of the above threshold vlaues are concentrated on Lines 56, 64, and 72N, west of the base line. This area (#1) is assumed to be in proximity to an easterly projecting tongue of Hogem (Omineca) intrusion.

A second area (#2) of scattered anomalous values straddles the base line from zero to 32S, but the results are very spotty.

Between these two areas it is possible to correlate some of the values on northerly to northwesterly trends, but the correlation is very arbitrary.

Molybdenum - Results are also detailed on Map #3A. Twenty-two percent of the samples returned NIL value, only 2% exceeded 3 ppm, and highest value is only 6 ppm.

Zinc - Results are detailed on Map #3B, and are graphically summarized on Figure #2. Threshold indicated is 180 ppm and 5.1% of the samples exceed this figure. Highest value is 1300 ppm.

The frequency graph for zinc closely resembles the Cu graph, and likewise indicates a possible lower threshold of 150 ppm. Using this lower limit, the majority of the somewhat anomalous Zn values are scattered on Lines 8-32S (Area #2); and, there is a minor clustering on Line 72N in Area #1.

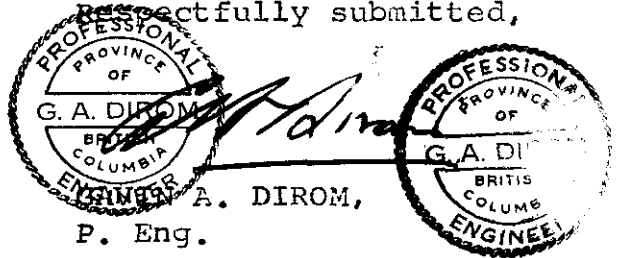
CONCLUSIONS AND RECOMMENDATIONS

Mo values to date are mostly trivial and suggest that no important molybdenum mineralization occurs along the sampled lines.

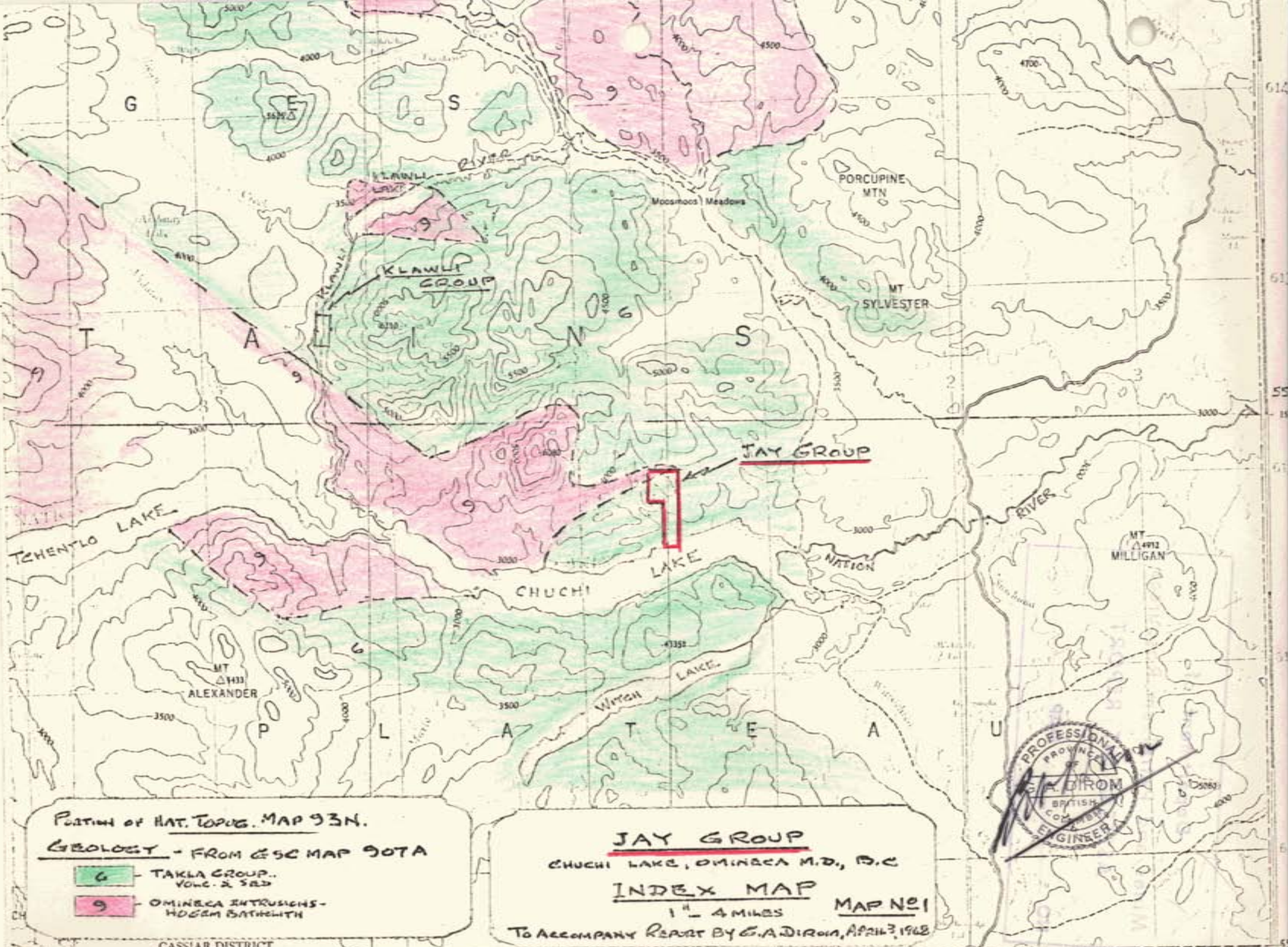
Anomalous Cu & Zn results are spotty and the majority of these are relatively low in value. The results are inconclusive, but are sufficiently interesting to warrant at least some limited investigation. This should consist of further prospecting and some reconnaissance type geological mapping. Objective is to find and outline some specific target areas.

As much background information as possible should be obtained on the geology and results on the adjoining properties.

Respectfully submitted,



G. A. DIROM,
P. Eng.



PORTION OF NAT. TOPOG. MAP 93N.

GEOLOGY - FROM ESC MAP 90TA

- 6 - TAKLA GROUP -
VOLC. & SED.
- 9 - OMINECA INTRUSIONS -
HOUGH BATHOLITH

CASSIAR DISTRICT

COAST DISTRICT RANGE 5

JAY GROUP

CHUCHI LAKE, OMINECA M.D., B.C.

INDEX MAP

1" = 4 MILES

MAP NO. 1

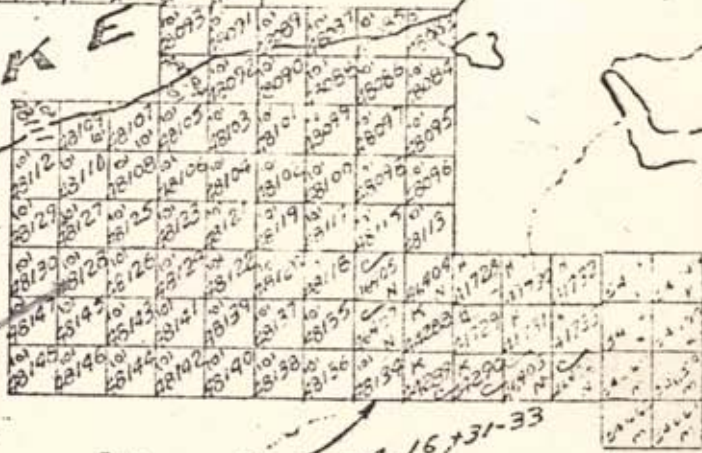
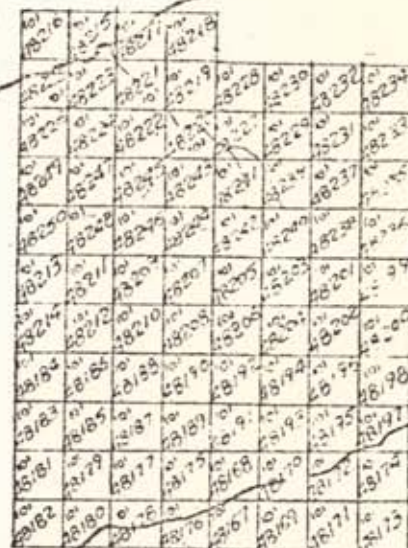
TO ACCOMPANY REPORT BY G.A. DIROM, APRIL 3, 1968





JAY 1-28 CLAIMS
 Record Nos 48648-615
 APRIL 10, 1967
 PETER F. BLAND,
 AGENT FOR
 TRUBOTTLE EXPL. LTD.

CHUCHI
 (NATION)



PART OF DEPT. OF MINES CLAIM MAP 28B
 1" = 1 MILE

TO ACCOMPANY REPORT BY G.A. DIROM
 APRIL 3, 1968.

ALSO: 48114, 16, 31-33
 101

CLAIM SKETCH
JAY GROUP
 CHUCHI LAKE, OMINACA M.D., P.
 MAP NO.

CHEMEX LABS LTD.

1416 CROWN STREET
NORTH VANCOUVER, B. C.
988 - 6955

Laboratory Processing and Analyses of Soil and Stream Sediment Samples

1. Samples are sorted, recorded and dried at 60°C.
2. Dried samples are sieved to -80 mesh fraction in nylon and stainless steel sieves.
3. 1 gram of -80 mesh fraction is weighed into test tube and digested with hot 70% perchloric and concentrated nitric acid.
4. Digested samples are diluted to 50 ml. volume with demineralized H₂O and mixed thoroughly. Solutions are settled until clear.
5. Copper and Zinc are analyzed in aqueous solution with Techtron A-A-3 Atomic Absorption Unit - Detection Limit in soils and stream sediments is 1 p.p.m.
6. Molybdenum is analyzed colorimetrically, with stannous chloride - ammonium thiocyanate extraction and "Moly" complex is read on Bausch and Lomb Spectronic -20. Detection Limit - 1 p.p.m.

April 2, 1968



TO ACCOMPANY REPORT BY G.A. DIROM, APRIL 3, 1968
IN JAY GROUP, CHUCKI LAKE.

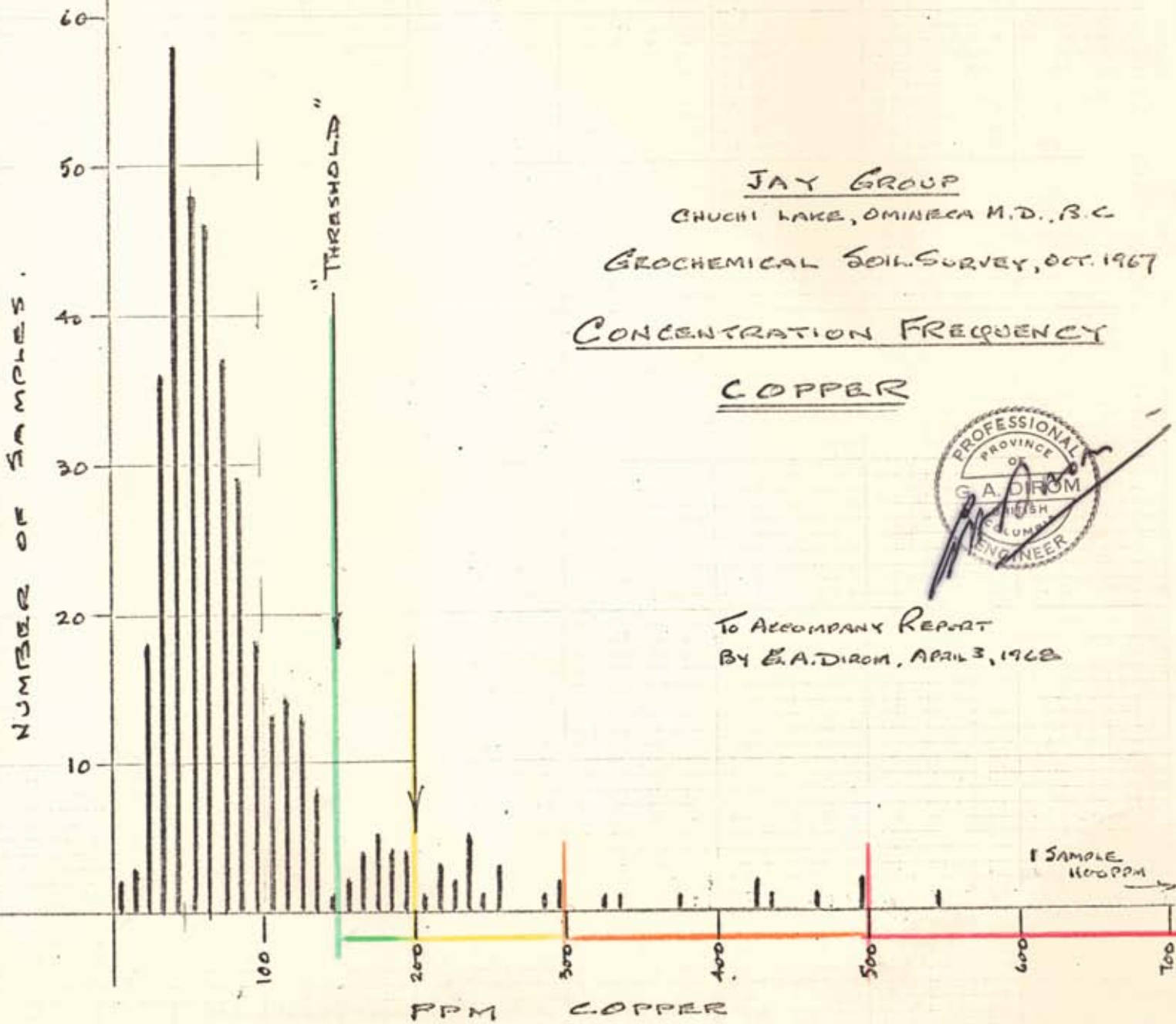
APPENDIX #1

TOTAL NUMBER OF SAMPLES - 392

"THRESHOLD" 150 PPM.

ABOVE "THRESHOLD" 48 SAMPLES = 12%

ABOVE 200PPM 29 ✓ = 7.4%



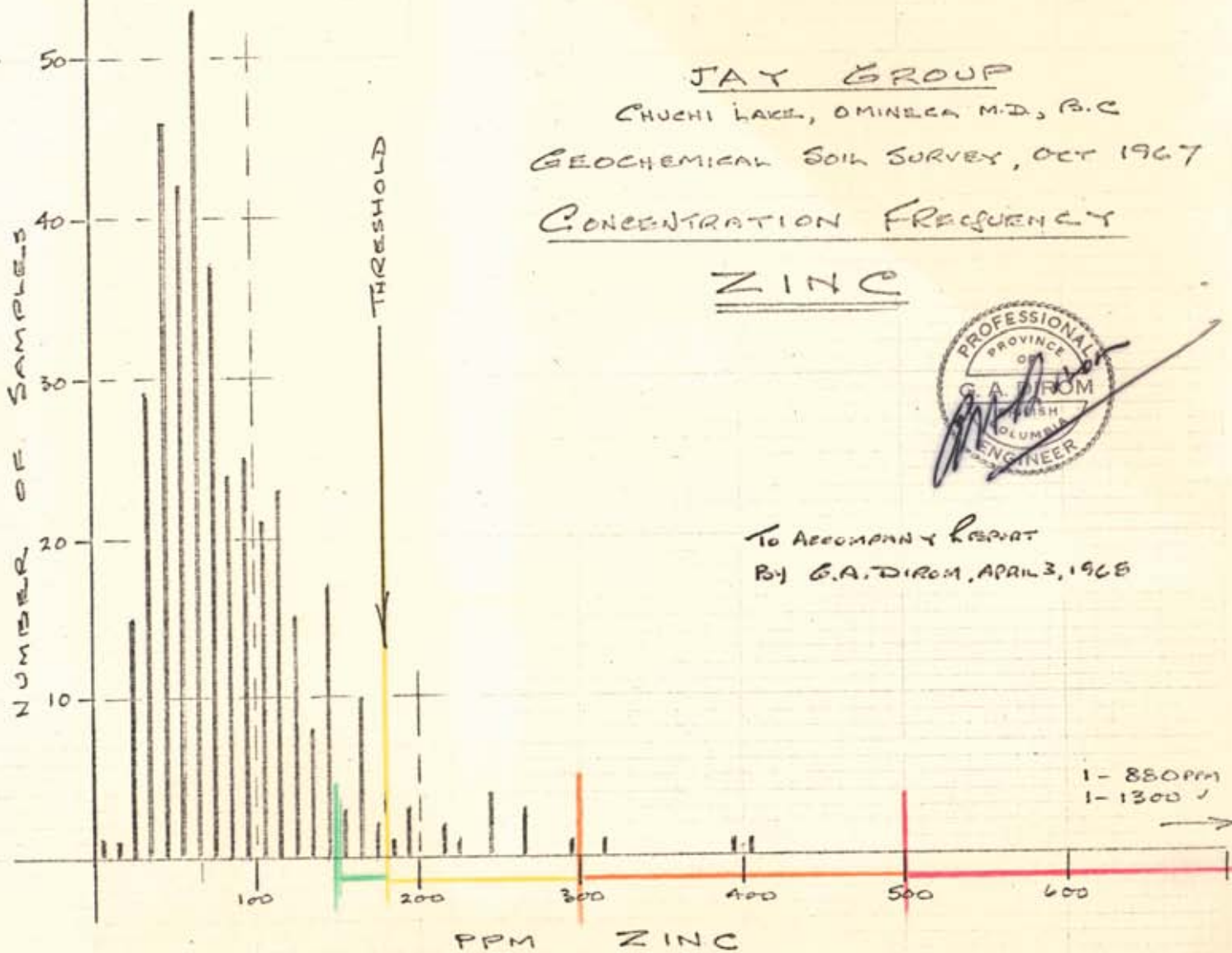
JAY GROUP
CHUCHI LAKE, OMINICA M.D., B.C.
GEOCHEMICAL SOIL SURVEY, OCT. 1967
CONCENTRATION FREQUENCY
COPPER



TO ACCOMPANY REPORT
BY G.A. DROM, APRIL 3, 1968

FIGURE #1

TOTAL NO OF SAMPLES - 392
 ABOVE THRESHOLD - 20 = 5.1%
 THRESHOLD = 180 PPM.

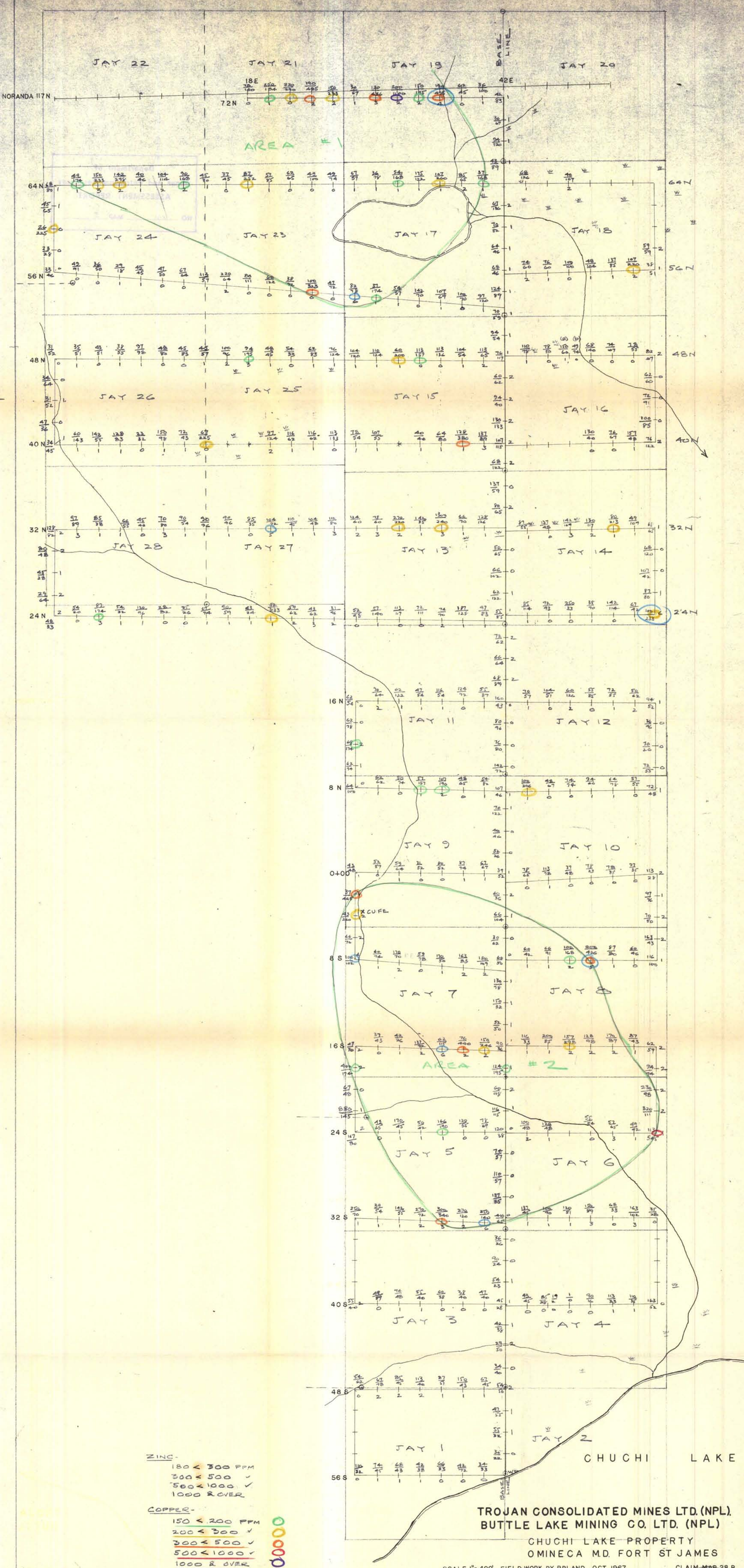


JAY GROUP
 CHUCHI LAKE, OMINACA M.D., B.C.
 GEOCHEMICAL SOIL SURVEY, OCT 1967
CONCENTRATION FREQUENCY
ZINC



To ACCOMPANY REPORT
 BY G.A. DIROM, APRIL 3, 1968

1-880 PPM
 1-1300 ✓



ZINC-
 180 < 300 PPM
 300 < 500 ✓
 500 < 1000 ✓
 1000 & OVER

COPPER-
 150 < 200 PPM
 200 < 300 ✓
 300 < 500 ✓
 500 < 1000 ✓
 1000 & OVER

MOLYBDENUM
 OVER 2 PPM



TROJAN CONSOLIDATED MINES LTD. (NPL)
BUTTE LAKE MINING CO. LTD. (NPL)
 CHUCHI LAKE PROPERTY
 OMINECA MD. FORT ST JAMES

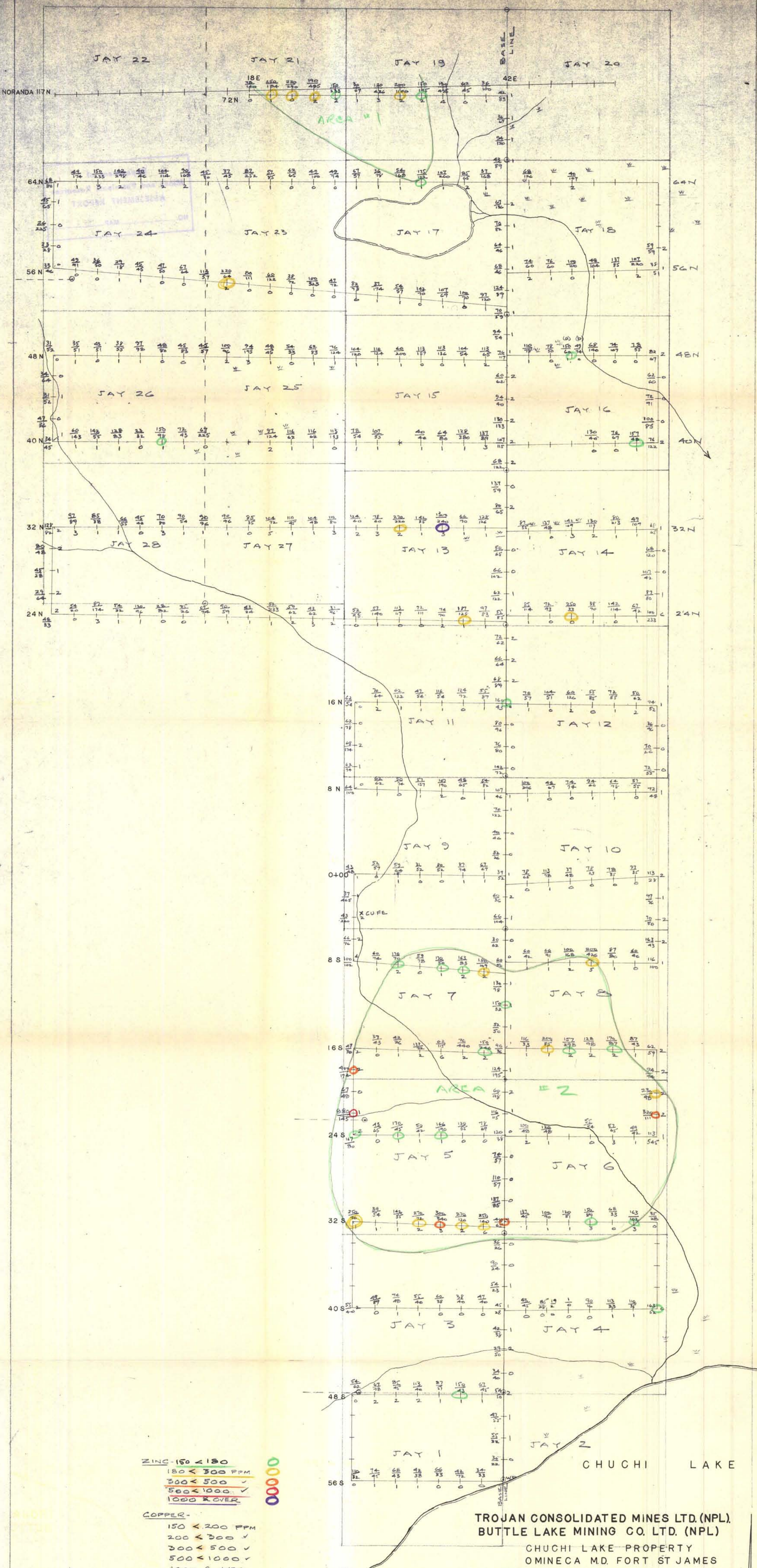
SCALE 1" = 400' FIELD WORK BY PBLAND OCT 1967 CLAIM MAP 28 B

345 ZN
 GEOCHEM 123 CU 2 MO
 7 MO
 CLAIM POST 0

JAY GROUP
 GEOCHEMICAL SOIL SURVEY



1215



ZINC-150 < 180
 180 < 300 PPM
 300 < 500
 500 < 1000 ✓
 1000 & OVER

COPPER-
 150 < 200 PPM
 200 < 300 ✓
 300 < 500 ✓
 500 < 1000 ✓
 1000 & OVER

MOLYBDENUM
 OVER 3 PPM

**TROYAN CONSOLIDATED MINES LTD. (NPL),
 BUTTLE LAKE MINING CO. LTD. (NPL)**
 CHUCHI LAKE PROPERTY
 OMINCA MD. FORT ST JAMES

SCALE 1" = 400' FIELD WORK BY PBLAND OCT. 1967 CLAIM MAP 28 B

GEOCHEM 345 ZN / 123 CU / 2 MO
 7 MO
 CLAIM POST 0

JAY GROUP
GEOCHEMICAL SOIL
ZN-CU-MO

1215

TO ACCOMPANY REPORT BY G.A. DIROM, APRIL 3, 1968 MAP NO 3 B