

5692

CANADIAN OCCIDENTAL PETROLEUM LTD.  
MINERALS DIVISION

GEOLOGY AND GEOCHEMISTRY  
OF THE  
WHIT CLAIM GROUP

Claim Sheet No. 82-L/4E  
Lat.: 50°13'N  
Long.: 119°38'W

Claims:  
WHIT 1-18 - Record Numbers 463171-463188  
Vernon Mining Division, British Columbia

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. # 5692	by: Colin C. Macdonald, B.Sc. Covering Work Completed During Period June 29 to July 17, 1975
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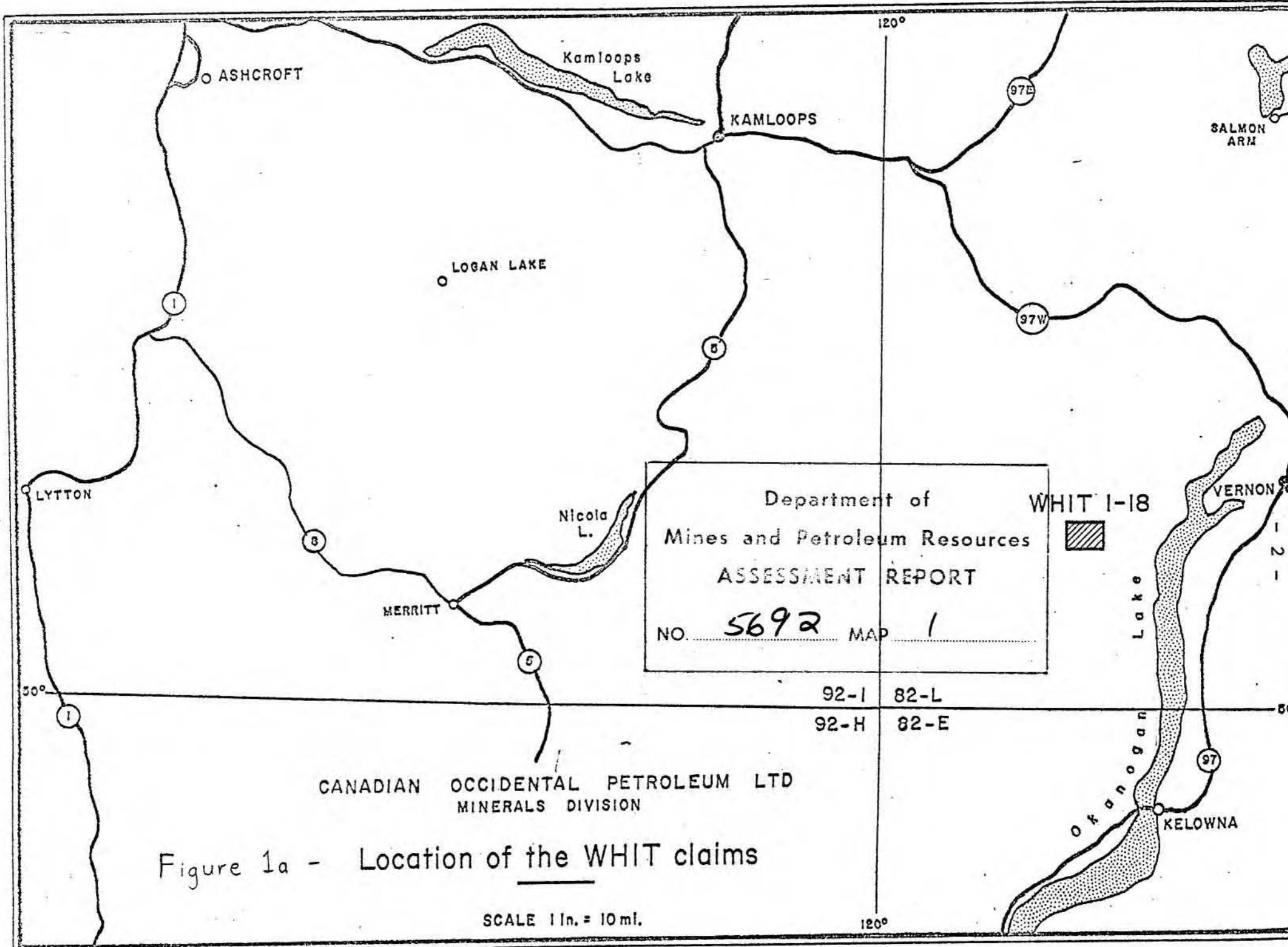
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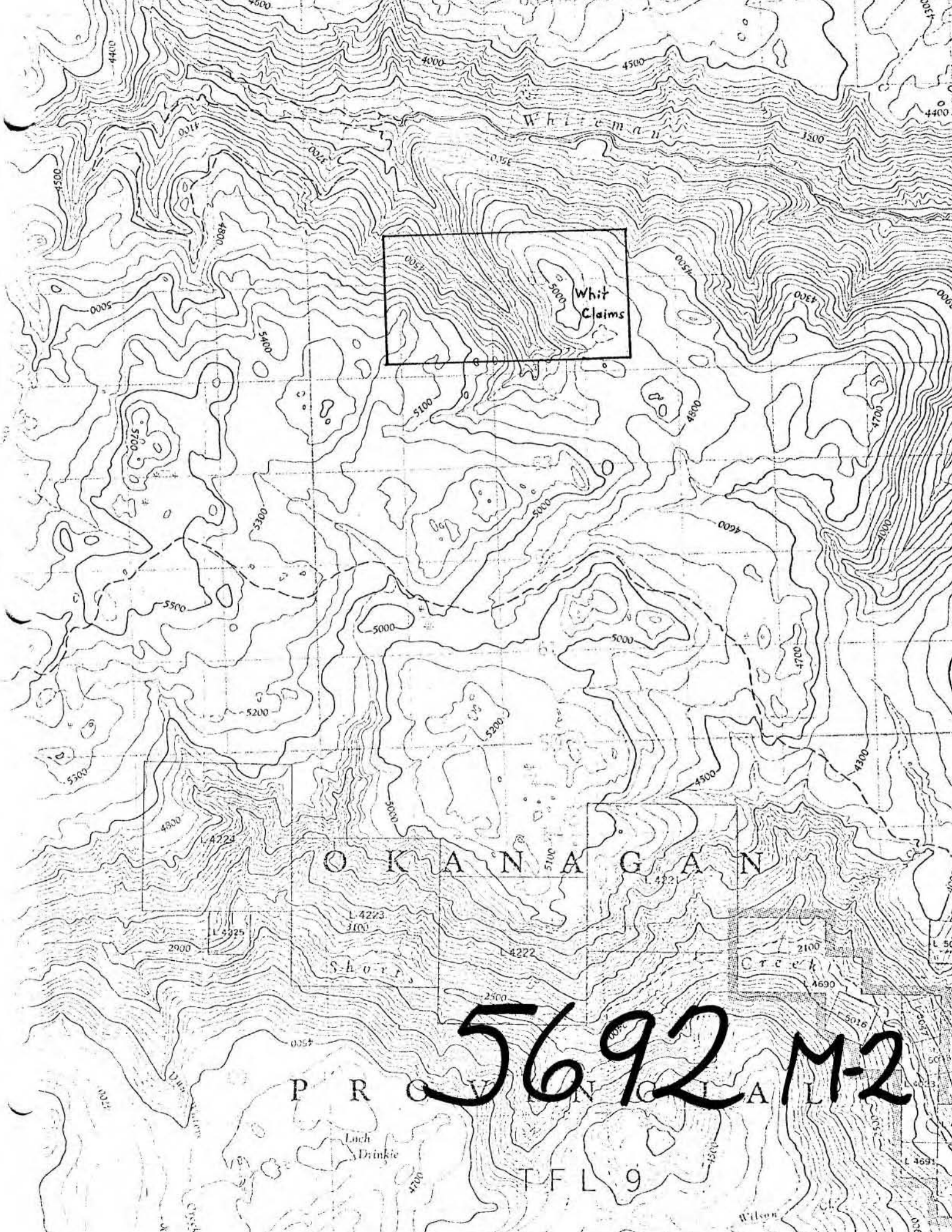
SUMMARY

The Whit Claim group is located seven miles west of Okanagan Lake on Whiteman Creek. The property was staked in October, 1974, to investigate the source of a major regional stream sediment anomaly for molybdenum and zinc. The property was geologically mapped at a scale of 1" = 400 ft. (1 cm. = 48m.) soil, rock and stream geochemistry was carried out along picket lines spaced 800 feet (244 m.) apart.

The oldest rock on the property is a latite porphyry border phase of a large syenite intrusion. This has undergone erosion and weathering prior to being covered by volcanics of probable Tertiary age. A fault trending  $142^{\circ}\text{T}$  has resulted in a linear stream valley, and has downthrown the west side by at least 1000 vertical feet. At least one hydrothermal system has been localized by this fault, causing extensive bleaching and alteration of the latite porphyry on each side of the fault. Soil geochemistry has outlined a major coincident zinc-molybdenum anomaly over the east side altered zone, which should be followed up by trenching to penetrate the oxidized layer. In addition, extra claims should be acquired to more fully investigate the source of an anomaly in a small tributary running out of the property on the northeast corner, which is anomalous in zinc and uranium and high in molybdenum over its entire length. Tin and tungsten were also analysed for in the stream sediments, but showed only insignificant levels.







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P R O V I N C I A L

T F L 9

## INTRODUCTION

The Whit claims were staked to investigate a major copper-molybdenum-zinc stream sediment anomaly detected during the 1974 Nicky Project. Staking was done in October, 1974, by G.R. Craft of Eastern Associates Reg'd. This report will describe the geology of the area and the results obtained from a geochemical survey completed between July 3rd and 17th, 1975, by Canadian Occidental Petroleum Ltd., Minerals Division, the holder of the claims. The work was done to determine the cause of the above-mentioned anomaly.

## LOCATION AND ACCESS

The Whit claim group is recorded on claim map 82-L/4E in the Vernon Mining Division, British Columbia. The property is located about seven miles (11.3 Km.) west of Okanagan Lake, on Whiteman Creek, and is accessible by the all-weather Whiteman Creek road from the Westside Road, a distance of 12 miles (19.3 Km.) (Figure 1.)

## VEGETATION

The property is below the tree line, with the maximum elevation at 5300 feet (1,616 m.) on the plateau. With the exception of the west-facing slope of the main gorge on

the property, which is largely talus and scattered clumps of pine and birch, the entire property is heavily forested. This consists of about 50% pine, 45% spruce, and 5% deciduous (mainly birch and alders). Cedar and devil's club are common in the more moist valley bottom.

#### PREVIOUS WORK

From old claim posts found (Appendix 2), previous owners of parts of the property were Southwest Potash Corp. (1964), Noranda Exploration Ltd. (1966, 1967), P. Lafleur (1967), Cominco Ltd. (1970), and Kennco (Western) Exploration Ltd. (1973). Of these, the only known work done was by Noranda in 1967, when a geochemical soil and stream sediment survey was carried out, covering a group of 20 claims which partially overlaps the Whit claim group, but lie primarily to the east. The main anomaly outlined was for Mo, with soil values up to 75 ppm in an area 1600 by 600 feet (488x183 m.) It is not known which soil horizon was sampled, however. The anomaly is centred exactly one mile due east of L32E/12S. Drilling was carried out, but no drill sites were found, though a recent bulldozed road to the small lake may have been to supply water for drilling.

STATEMENT OF EXPENDITURES

WHIT 1-18  
82 L 4/E

1) Salaries: R. Myles, C. Harrison C. Macdonald, T. Humphrey		\$ 2,157.42
Man-days worked - 102 Average cost per man day - \$21.15		
2) Food and Accommodation		194.52
3) Geochemistry - 555 samples analysed		1,226.68
4) Report preparation - draftsman and reproduction		109.20
5) Other costs:		
Linecutting	\$ 3,440.00	
Camp supplies and equipment	789.07	
Consultant - C.F. Gleeson	<u>180.00</u>	<u>4,409.07</u>
	Total	<u>\$ 8,096.89</u>



WORK COMPLETED

Line Cutting

The baseline, tie line, and 800 foot (244 m.) picket lines were cut by employees of Eastern Associates Reg'd, during late June and early July, 1975. The grid consists of 1.7 miles (2.7 Km.) of base and tie lines, and 10.2 miles (16.9 Km.) of picket line, spaced 800 feet (244 m.) apart.

Due to a shortened schedule, only two of the 400-foot (122 m.) lines were cut and chained by Canadian Occidental Petroleum Ltd. employees. The rate was:

$$\begin{aligned} 9,000 \text{ feet} &= 1.7 \text{ miles in 3 days} \\ &= .57 \text{ miles/day } (.92 \text{ Km/day}) \\ 2 \text{ men, so} &= .28 \text{ miles/man/day } (.46 \text{ Km/day}) \end{aligned}$$

Geological Mapping

Colin C. Macdonald - 11.1 line miles (17.8 Km.) (July 4-16, 1975).

R.H. Wallis - July 11 - supervision

Geochemical Survey

Dr. C.F. Gleeson, Consulting Geochemist.

The names of the samplers, date sampled and the quantity of samples taken are as follows:

	<u>Soil Samples</u>	<u>Stream Samples</u>	<u>Rock Samples</u>	<u>Totals</u>
J. Christopher Harrison (July 3-17, 1975)	144	22	10	176
Tom J. Humphrey July 8-15, 1975	68	0	6	74
Reid A. Myles (July 3-6, 1975)	48	3	1	52
David A. Hergott (July 12-14, 1975)	41	20	6	67
	<u>301</u>	<u>45</u>	<u>23</u>	<u>397</u>
	+ 28 (soil pits)			
	<u>329</u>			



Hence, 397 samples were taken and analysed for Cu, Mo, Zn, for a total of 1191 determinations. In addition, the 45 stream samples were analysed for Sn, W, U, for a total of 1326 determinations.

Names and Addresses of Personnel

Colin C. Macdonald	Canadian Occidental Petroleum Ltd. Minerals Division 801-161 Eglinton Ave. E. Toronto, Ontario M4P 1J5	Geological Mapping
J. Christopher Harrison	"	Soil, Stream, Rock sampling
Tom J. Humphrey	"	"
Reid A. Myles	"	"
David A. Hergott	"	"
R.H. Wallis	"	Geological supervision
C.F. Gleeson	764 Belfast Rd., Ottawa, Ontario	Geochemical consultant

PHYSIOGRAPHY

The White claim group forms part of the dissected Interior Plateau, and straddles a tributary of Whiteman Creek. This tributary has been incised about 1300 feet (396 m.) below the plateau level, due to the streams' attempts to restore their longitudinal gradient to Whiteman Creek, which is also cutting down to the present baselevel controlled by Okanagan Lake.

Elevations on the property range from 3800 ft. (1159 m.) in the tributary valley to 5300 ft. (1616 m.) at the west end of the claim group, which represents a vertical rise of 1500 ft (457m.) over a horizontal distance of 3400 ft (1037 m.) Regional glaciation has left a fairly regular cover of till, burying all but a few outcrops on the plateau. Only the west-facing side of the tributary valley is well exposed, with many talus slopes and sparse forestation.

## GEOLOGY

### Introduction

The property is underlain by Jurassic and Cretaceous granodiorite and syenite, as well as Kamloops Group volcanics of Tertiary age. (Jones<sup>1</sup>)

### General Geology

The claims were mapped at a scale of one inch to 400 feet. A total of seven mappable units were found on the property. The oldest of these is an intrusion, probably related to the syenite body shown by Jones<sup>1</sup>. This consists of two units on the claim group, Unit 1 being coarse-grained syenite. This is found only rarely on the property, but was seen in greater abundance farther to the east on Whiteman Creek (farther towards the centre of Jones' syenite intrusion). Unit 2 is a latite porphyry, with a very fine-grained matrix of quartz and feldspars, and pink K-feldspar and plagioclase phenocrysts. This unit is inferred to cover about two-thirds of the property, largely east of the tributary stream, but lack of outcrop east of L24E makes the full extent of Unit 2 speculative. Unit 3 as a whole includes the volcanics covering one-third of the property at the southwest corner. These were mapped regionally as Tertiary (Jones<sup>1</sup>), and have been subdivided into five lithological sub-units. Unit 3a is a black, aphanitic basalt, which is sometimes altered in various stages of greenschist facies. Unit 3b is a dark grey porphyritic andesite which has white plagioclase phenocrysts up to 5 mm in

<sup>1</sup>Jones, A.G. Vernon Map Area. G.S.C. Memoir 296, 1959.

length. Unit 3c is a light to medium grey rhyolite, frequently fractured and slightly sheared, and often pyritized. Unit 3d is a white, fine-grained pyroclastic, showing some faint stratification that is not horizontal, but steeply dipping. Unit 3e is a diabase, fine to medium grained, with poor ophitic texture development. These volcanics show a general upwards transition from felsic pyroclastics to felsic flow to intermediate flow to basic flows.

Unit 4, found in only one location, is a lamprophyre dyke cutting Unit 2, moderately altered to chlorite.

Table 1

Table of Formations

4 -	Lamprophyre Dykes
3e-	Diabase
3a-	Basalt, aphanitic
3b-	Andesite, porphyritic
3c-	Rhyolite
3d-	Felsic pyroclastics
2 -	Latite porphyry
1 -	Syenite

Description of Rock Units

Unit 1 This rock unit was seen in only two patches on the property, but was noted in abundance farther east along Whiteman Creek, outside the claim group and farther towards

the centre of the syenite intrusion mapped by Jones<sup>1</sup>. It is a pink medium-grained syenite, consisting of K-feldspar (80%), plagioclase (15%), and quartz (5%). The plagioclase is often saussuritized and the quartz frequently takes the form of crystalline vug fillings. The contact with Unit 2 latite porphyry is gradational with a decrease in the proportion of K-feldspar crystals and an increase in fine-grained groundmass marking the change.

Unit 2 This is a pink latite porphyry, covering about 65% of the property area. Lack of outcrop east of L24E (Plan 1) makes the full extent of this unit subject to error, but the contact with Unit 1 syenite has been found to be transitional over a horizontal distance of about 200 feet (61 m.). This contact type implies a close relationship to Unit 1, possibly indicating that Unit 2 is a high-level or border phase of the Unit 1 intrusion. The fresh rock consists of a very fine-grained matrix of quartz and feldspar (70%), subhedral, zoned K-feldspar crystals averaging 6 mm (20%), plagioclase laths up to 5 mm usually slightly saussuritized even in the freshest Unit 2 seen (8%), and biotite (2%). This fresh Unit 2 becomes progressively more bleached as the tributary is approached with an increase in silica (as small veins and in the groundmass) and sericitization of the K-feldspar crystals. Silica is also frequently present as miarolitic vug-fillings.

Unit 3 Unit 3 as a whole includes all of the volcanic rocks covering about 35% of the property, on the southwest corner. These have been subdivided into five sub-units according to

<sup>1</sup>Jones, A.G. Vernon Map Area. G.S.C. Memoir 296, 1959.

lithology and texture. The contact between the Unit 3 volcanics and Unit 1-2 intrusive was not observed in outcrop. but a chlorite-rich syenite, looking like a hybrid contact phase, was seen adjacent to the only outcrop of pyroclastics observed. The five sub-units are:

Unit 3a - This unit is a basalt, which makes up about 85% of the volcanics. It is generally black, aphanitic and massive. Some of the more fractured outcrops are pyritized on these fractures. The state of alteration of the rock can vary from very fresh to completely chloritized, with these greenschist-facies rocks tending to be farther west than the fresh basalts (Plan 2).

Unit 3b - This is a medium grey porphyritic andesite, with euhedral white plagioclase laths averaging 3 mm long (35%) and pyroxene crystals up to 1 mm (3%) in an aphanitic ground-mass (62%). Like the Unit 3a basalt, the andesite is erratically altered to greenschist facies in places. Outcrop observed suggests two discontinuous flows, averaging about 200 feet (61m.) in outcrop width.

Unit 3c - This unit is a dirty grey aphanitic rhyolite, occurring as one fairly continuous unit, early in the volcanic sequence. It has a variable outcrop width, from 100 ft. (30 m.) to 500 ft. (152 m.) Plan 1). Most outcrops show a moderate amount of fracturing and shearing and pyrite in fractures is common

Unit 3d - Only one outcrop of this rock type, a fine-grained felsic pyroclastic, was found. This was adjacent to a hybrid syenite inferred to be a contaminated zone, suggesting

that these pyroclastics were the first stage of the vulcanism in this area. The rock is a white, bleached-looking tuff, with some quartz clasts up to 2 mm scattered through the fine-grained groundmass. It shows some crude bedding which is undulating in form, but is not horizontal.

Unit 3e - This is a diabase which occurs as a small unit late in the exposed volcanic sequence. It is about 300 to 400 feet (91 to 22m.) wide in outcrop and is composed of subhedral plagioclase averaging 2 mm in length (40%) and subhedral to euhedral mafic laths averaging 2 mm in length (60%). This diabase does not show typical diabase texture, but rather the reverse of it, with the plagioclase tending to poikilolitically enclose the euhedral mafic minerals. Most outcrops of this unit show some degree of chloritic alteration of the mafic minerals.

Unit 4 - This unit is a lamprophyre dyke, seen once on the property and once off. It is a medium-green, very fine-grained rock with a few scattered dark phenocrysts. The dyke observed on the property was about 2 feet (.61m.) wide, with a sharp contact against the intruded Unit 2 latite porphyry. Since the lamprophyre is probably related to the volcanics, this helps confirm that the volcanics are younger than the intrusion.

#### Structure

Due to the scarcity of large outcrops on which well developed joint sets are present, there is little data on joint set trends. Of the few measured, the major trend was  $130^{\circ}\text{T}$ , roughly parallel to the tributary valley.



The main contact, that between the Unit 2 intrusive and the Unit 3 volcanics, is an irregular unconformity surface, going as low as 4200 ft (1281 m.) on line 0+00. However, on the other (east) side of the tributary valley, no Unit 3 volcanics were found, even at the east side's maximum elevation of 5150 ft. (1571 m.). This, along with the fact that the tributary stream flows against the main Whiteman Creek flow, implying strong structural control, suggests the presence of a fault running along the linear tributary stream. The minimum vertical component of slip can be estimated at 1000 ft (305 m.) by knowing the lowest elevation achieved by the west side volcanics (4200 ft, or 1281 m.) and the highest elevation on the east side (5150 ft, or 1571 m.) at which no volcanics are present.

About 4000 ft. (1220 m.) downstream from baseline, there is one outcrop of poorly sorted, rusty conglomerate containing both latite and volcanic fragments, at an elevation of 3300 ft (1006 m.). Since this is on the east side of the main fault, it is possible that this represents a downfaulted block from the original unconformity surface, further suggesting that the main fault post-dates the volcanics.

#### Metamorphism

No regional metamorphism is present in the claim group. However, parts of the Unit 3 volcanics have been altered to what is called greenschist facies in regional metamorphic terminology. Since this is thought to be local alteration only, it will be discussed in the following section.

### Alteration

Alteration on the property is divided into that found in the volcanics and that found in the intrusive. The Unit 2 latite porphyry shows one main alteration trend running roughly parallel with the tributary stream. Fresh Unit 2 is found only east of a line parallel to the main fault and about 1300 ft (396 m.) east of it. This fresh latite porphyry shows slightly saussuritized plagioclase, with slight hematite development, largely along fractures. As the main fault is approached, the latite porphyry becomes progressively more bleached, with an increase in limonite occurrence, again largely in fractures. Biotite in the groundmass is altered to chlorite along cleavages. Finally, the latite porphyry at and near the main fault is often completely bleached and silicified, with sericitized K-feldspar crystals, completely chloritized biotite, and extensive limonite and jarosite development. This alteration zonation is shown best on the east side of the fault, probably because the volcanics cover an inferred similar pattern on the west side. The few Unit 2 outcrops present on the west side are moderately altered, suggesting that the alteration does indeed continue. This alteration may be explained by hydrothermal activity associated with the fault, producing a zone of alteration adjacent to the fault, or by a hydrothermal system related to the original intrusion, with the present erosion surface exposing the more highly altered zones with increasing depth. A further possibility is that of pre-Tertiary supergene weathering processes which could account for the observed alteration. However, this is unlikely, since

it would mean that the altered areas were topographically lower than the fresh rock.

The alteration in the volcanics seems to be confined to the westerly part of the property, or the topographically higher volcanic units. The andesites, basalts and diabase are the units showing spotty alteration to chlorite and epidote, with partly altered plagioclase. Some of the more altered rocks would be called greenschist facies in regional metamorphic terminology. The rhyolites and pyroclastics seem relatively less altered. This alteration is probably related to localized hydrothermal or deuteric alteration associated with the original volcanic period.

## ECONOMIC GEOLOGY

### General Statement

No copper, zinc or molybdenum mineralization was found on the property. Pyrite was found, once in the Unit 2 latite porphyry and many times in the Unit 3 volcanics.

### Mineralization

The only sulphide found on the property was pyrite. This was noted once in the highly bleached Unit 2 latite porphyry, very close to the fault. When analyzed, however, this rock showed copper, zinc and molybdenum values of 6,24, and 5 ppm respectively, well below their respective means for this rock unit (Table 6).

Pyrite is also common in the Unit 3 volcanics, frequently in fractures, and more often in the more felsic rocks.

## Summary of Geology and Mineralization

The oldest rock unit on the property is a zoned syenite intrusion. The syenite itself outcrops rarely but a porphyritic latite porphyry border phase underlies about two-thirds of the property. The other one-third, the south-west corner, is underlain by younger (probably Tertiary) volcanics, ranging in lithology from felsic tuff and rhyolites to diabase and basalt. A post-volcanics fault, with the west side downthrown by a minimum of 1000 vertical feet (305 m.) is inferred to strike along the main tributary stream, accounting for the lack of volcanics on the east side of this tributary.

The Unit 2 latite porphyry shows progressively more bleaching and alteration closer to the fault. This may be due to a fault-related hydrothermal system, or due to erosional exposure of a depth-dependent hydrothermal system possibly associated with the syenite intrusion. The timing of the latter possibility would be pre-volcanics, as opposed to post-volcanics for the first explanation (since the fault itself is post-volcanics), and this would explain why the volcanics nearest to the fault are relatively fresh.

No copper, zinc or molybdenum mineralization was found on the property.

## SOIL GEOCHEMISTRY

### Introduction

The dominating physiographic feature on the Whit claims is the deep gorge formed by the tributary of Whiteman

Creek. This feature results in poorly developed, silty soils on the southwest-facing scree slopes and well developed podzols on the more heavily forested northeast-facing slope. The flat areas on the upper plateau have moderately to well developed podzols, developed in glacial till.

#### Soil Profiles

Three soil profile pits were excavated and sampled at various depths to determine the metal distribution in the soil horizons. These were in three different locations; one over altered and mineralized latite porphyry (SW-facing slope, Figure 1), and over fresh latite porphyry (SW-facing slope, Figure 2), and one over pyritized Unit 3 volcanics (NE-facing slope, Figure 3).

Profile #1 shows a very sharp reduction in metal values as the C horizon is reached. Copper and molybdenum both show B-horizon enrichment, but zinc increases steadily upwards, to reach a maximum in the A<sub>0</sub> horizon. One possibility is that two distinct till sequences account for the sharp break at the C horizon. However, this is unlikely, since the soils on this south-west-facing slope are largely derived from upslope and hence are poorly developed. This could simply represent a very sharp geochemical partitioning between the B and C horizons. The maximum values are higher in this soil profile relative to the values of soil profile #2, thus supporting the hypothesis that the mineralized zone is adjacent to the fault, since profile #1 is located very close to the fault.

Profile #2 shows a zinc enrichment upwards similar to that of profile #1. Copper and molybdenum show the opposite



pattern, reaching maxima in the C horizon.

Profile #3 is similar to profile #2, with copper and molybdenum increasing with depth to the C horizon, and zinc reaching a maximum in the organic-rich A<sub>1</sub> horizon. However, molybdenum jumps to 5 ppm in the A<sub>0</sub> horizon, probably due to the absorptive and complexing capacity of the organic material.

B-horizon samples taken for all three pits would give metal values which were not the maxima, but instead fall near or slightly below the mean of the values over the entire profile.

#### Laboratory Procedures

The samples are dried and sieved to -80 mesh. For Cu, Mo and Zn, 0.5g. of this fraction is digested in 5 ml. of a 3:2 mixture of 70% HClO<sub>4</sub> and concentrated HNO<sub>3</sub>, for 2.5 hours at 200°C. The final volume is adjusted to 25 ml. with demineralized water. This solution is then analysed for Cu, Zn and Mo using a Tectron Mk V-VI atomic absorption spectrometer.

For uranium, .5 gr. of -80 mesh fraction is digested in 4M HNO<sub>3</sub> to dryness, then repeated. A portion of this solution is evaporated to dryness on a platinum dish. The sample is fused with flux at 650°C, and analysed fluorometrically on a Turner III Fluorometer.

For tungsten, a .5 gr. sample of -80 mesh fraction is fused with pyrosulphate flux in a furnace. This fused material is leached with HCl, and complexed with zinc dithiol reagent. Analysis done colourimetrically on a spectrophotometer. Sn is analysed in a similar fashion.



Sampling Procedures

Soil samples were taken at intervals of 200 feet (61 m.) on picket lines spaced 800 feet (244 m.) apart, except for the two picket lines cut by Canadian Occidental Petroleum Ltd. employees, which provide 400 feet (122 m.) picket line spacings. The B horizon was sampled where possible, otherwise the mineral soil below the humus was taken. All samples were stored in special heavy-duty high wet-strength kraft envelopes, and then sent to Chemex Labs Ltd., in Vancouver for analysis for copper, zinc and molybdenum. Actual geochemical reports are in Appendix 4.

Figure 2 - Soil Profile # 1 (over altered and mineralized Unit 2)

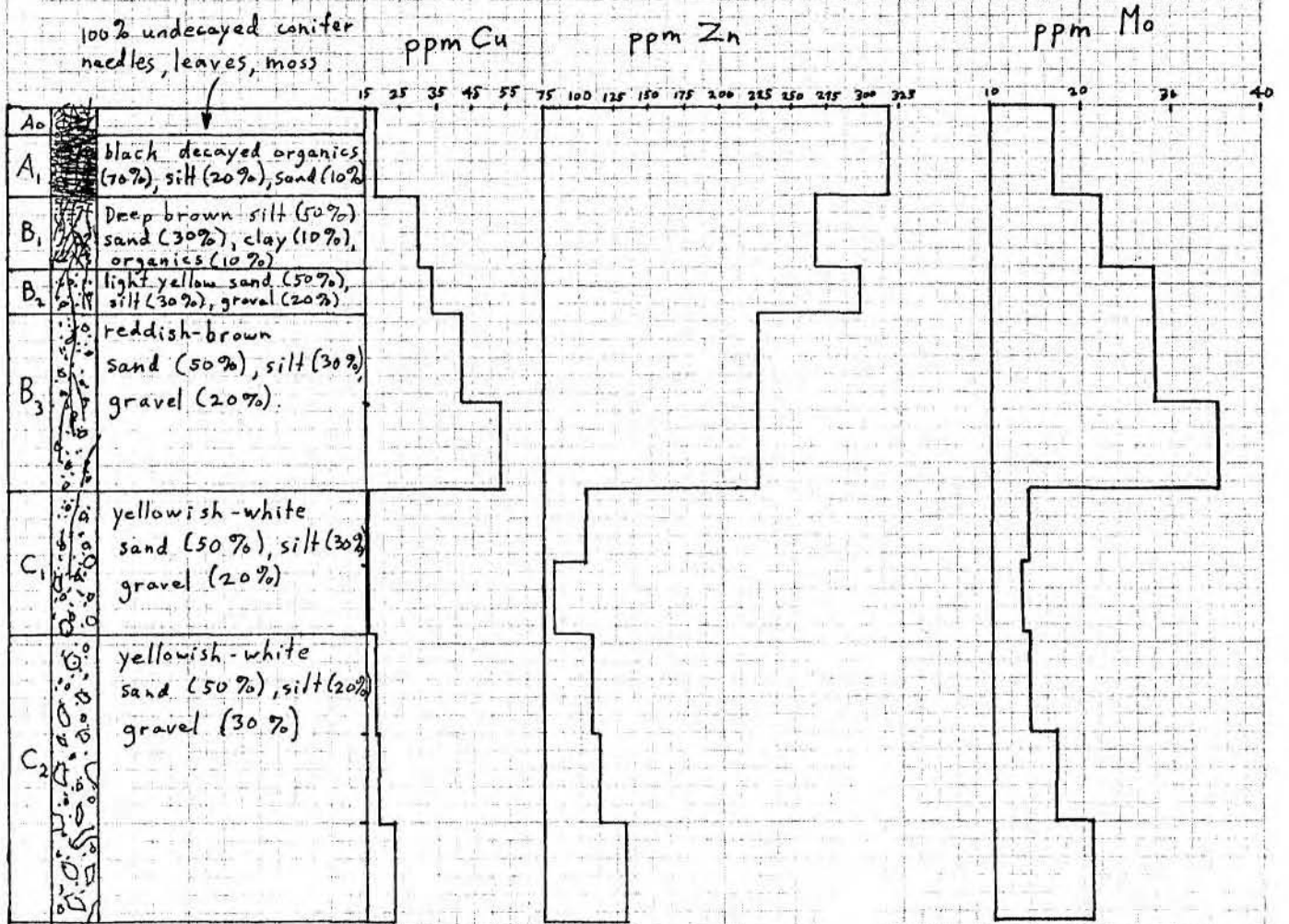
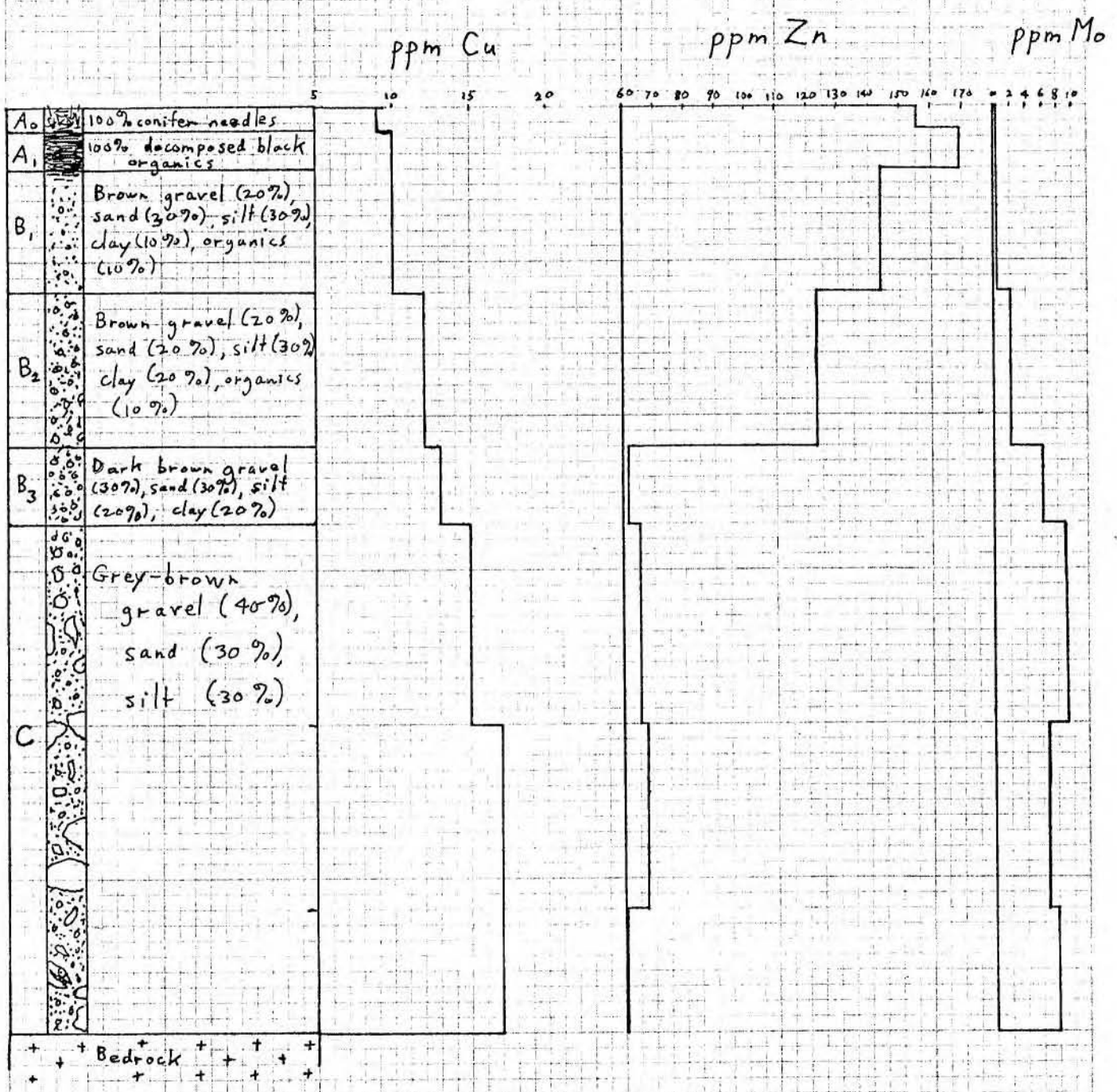


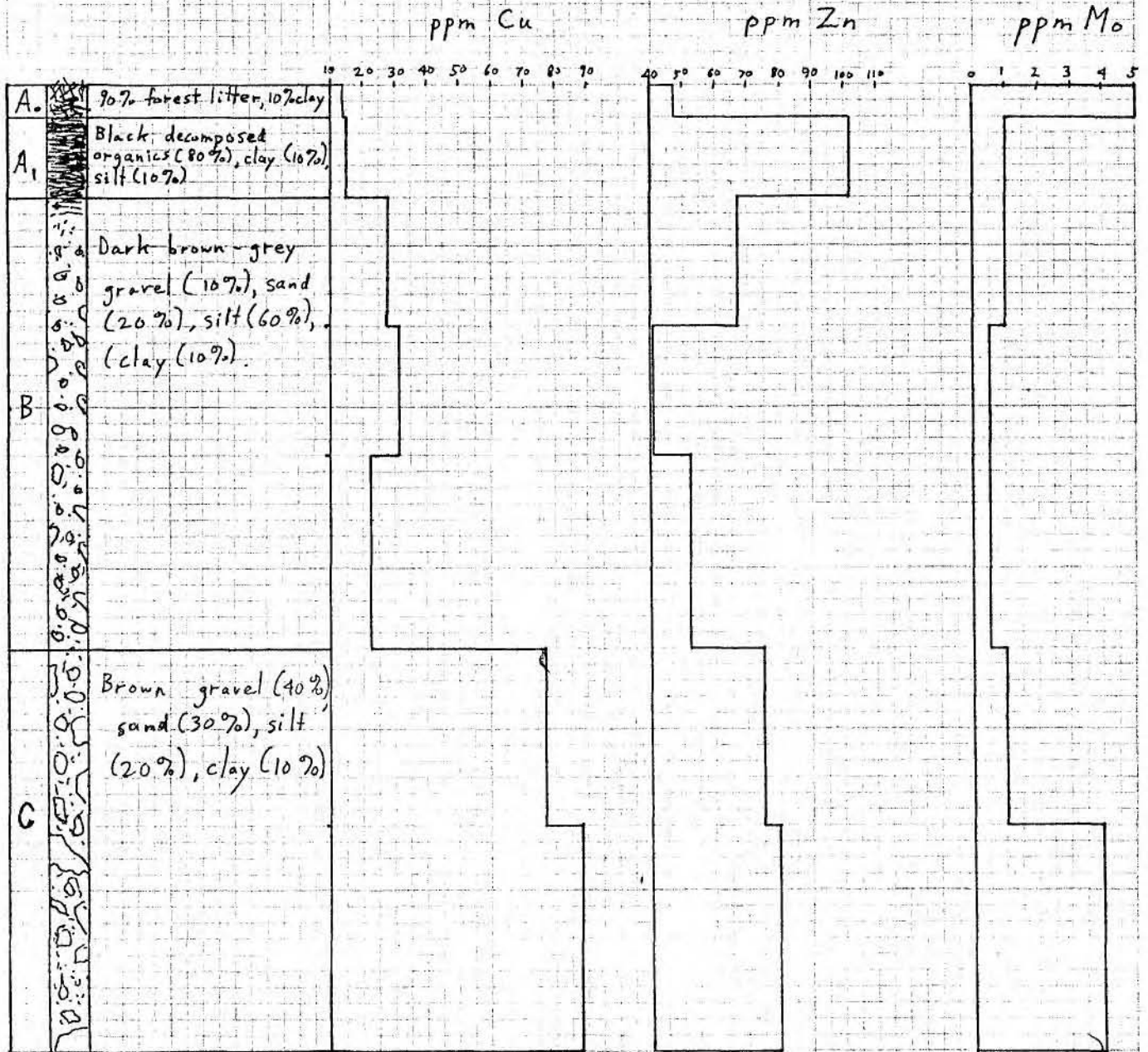
Figure 3 - Soil Profile #2 (over fresh Unit 2)



Vertical Scale: 2" = 1 ft.



Figure 4 - Soil Profile #3 (over pyritic Unit 3)



Vertical Scale: 1" = 5"

Standard Samples

To check the reproduceability and quality of the analytical work, control samples were routinely submitted with every batch of 35 samples. The control samples were prepared by sieving to -80 mesh a bulk samples of stream sediment from McBride Creek, near the Ashnola River.

Analytical results and statistics for these standard samples are given in Table 2 below.

Table 2      Standard Sample Statistics

<u>No.</u>	<u>ppm</u> <u>Cu</u>	<u>% diff</u> <u>from mean</u>	<u>ppm</u> <u>zn</u>	<u>% diff</u> <u>from mean</u>	<u>ppm</u> <u>Mo</u>	<u>% diff</u> <u>from mean</u>
3175	256	7.9	152	7.3	4	5.3
3357	275	1.1	164	0.0	4	5.3
3397	275	1.1	160	2.4	4	5.3
3498	290	4.3	164	0.0	4	5.3
3533	288	3.6	164	0.0	4	5.3
3635	286	2.9	169	3.0	4	5.3
3674	293	5.4	169	3.0	4	5.3
3332	270	2.9	169	3.0	4	5.3
3428	270	2.9	164	0.0	3	21.1
3462	278	0.0	169	3.0	3	21.1
11910	277	0.4	164	0.0	4	5.3
Mean	278	3.0	164	2.0	3.8	8.2

The above results indicate that the analyses for the levels tested in the control sample fall within the acceptable limits of precision for the geochemical techniques used.

Statistical Treatment of Results

To determine mean and anomalous levels, the geochemical values obtained from the laboratory (Appendix 4) were grouped into fixed ranges (Tables 3-5). Histograms were drawn to show the total number of values within each group (Figures 5-7). For copper and molybdenum, which show single populations, the values higher than those in the main normal population were classed as

anomalous and eliminated from further statistical treatment. Zinc, however, shows two populations. Considering the soil samples derived from intrusive rocks (Units 1, 2) as compared to those from volcanic rocks (Unit 3), it can be seen that the two sets have very different range of values and belong to different populations. Since the volcanics are of less possible economic importance than the intrusives, the lower population related to the volcanic soils were eliminated.

Table 3                      Statistical Data for Copper in Soils

<u>Cu (ppm)</u>	<u>Total Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative %</u>
0-5	20	20	7.3
6-10	134	154	56.6
11-15	64	218	80.1
16-20	34	252	92.6
21-25	20	272	100.0
25	50		

Table 4                      Statistical Data for Zinc in Soils

<u>Zn (ppm)</u>	<u>Total Frequency (all soils)</u>	<u>Total Frequency (soils over intrusives)</u>	<u>Cumulative Frequency</u>	<u>Cumulative %</u>
0-25	4	3	3	1.5
26-50	27	10	13	6.5
51-75	79	32	45	22.5
76-100	28	16	61	30.5
101-125	21	12	73	36.5
126-150	16	12	85	42.5
151-175	26	22	107	53.5
176-200	25	24	131	65.5
201-225	25	25	156	78.0
226-250	15	13	169	84.5
251-275	17	16	185	92.5
276-300	9	9	194	97.0
301-325	7	6	200	100.0



Table 5 Statistical Data for Molybdenum in Soils

<u>Mo (ppm)</u>	<u>Total Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative %</u>
<1	136	136	44.6
1	50	186	61.0
2	39	225	73.8
3	29	254	83.3
4	27	281	92.1
5	5	286	93.8
6	10	296	97.0
7	6	302	99.0
8	3	305	100.0
>8	25		

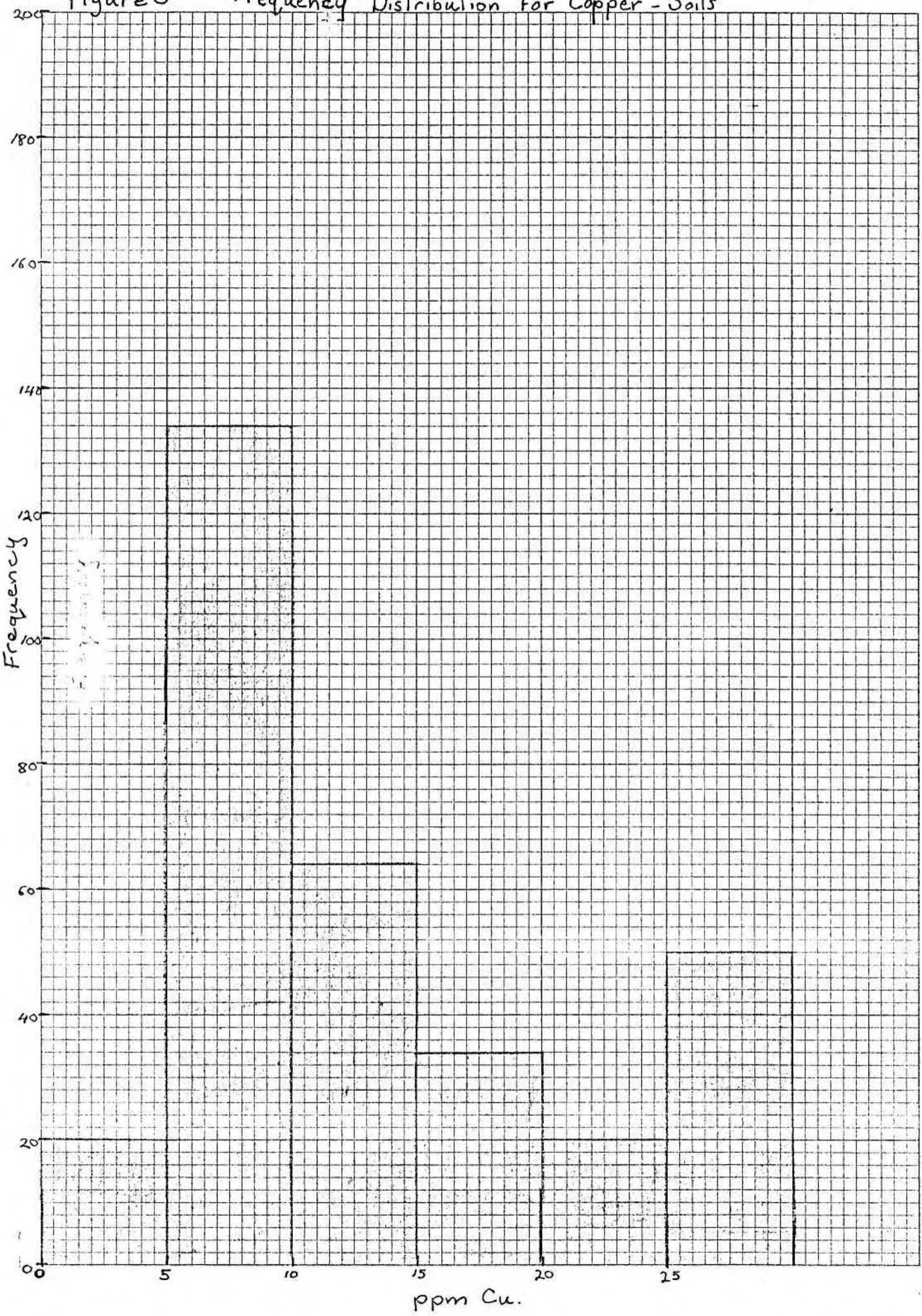
from further calculations. Thus for zinc values, only soils derived from the intrusive rocks were taken into consideration.

The cumulative frequency and cumulative percent of each group were calculated (Tables 3-5, using only the main normal population. This cumulative percent was then plotted against the metal value groups for each metal (Figures 8-10). The value corresponding to the 50% level on these cumulative frequency graphs represents the mean of the normal population, hence is taken as the background value. These background values are 9, 164 and 1 ppm for copper, zinc and molybdenum respectively, and the anomalous levels, determined from the histograms, are +25, +235 and +8 for copper, zinc and molybdenum respectively.

#### SUMMARY AND DISCUSSIONS OF ANOMALIES

The contouring of soil values on the Whit claims outlined several anomalies, which will be discussed in order of importance for copper, zinc and molybdenum respectively.

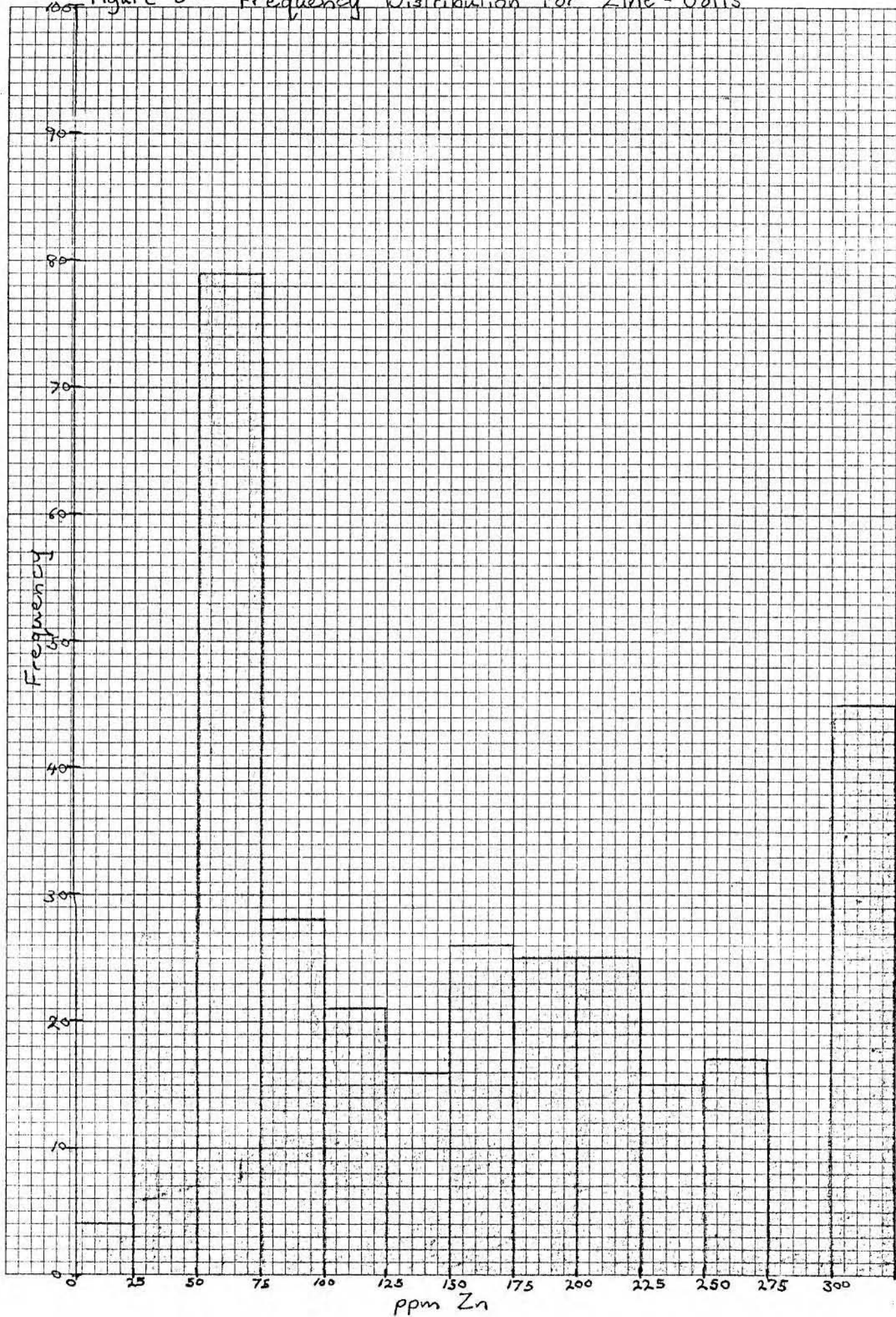
Figure 5 - Frequency Distribution for Copper - Soils



46 0706

12 X 10 TO THE INCH • 7 X 10 INCHES  
NEUFFEL & LESSER CO. MADE IN U.S.A.

Figure 6 - Frequency Distribution for Zinc - Soils

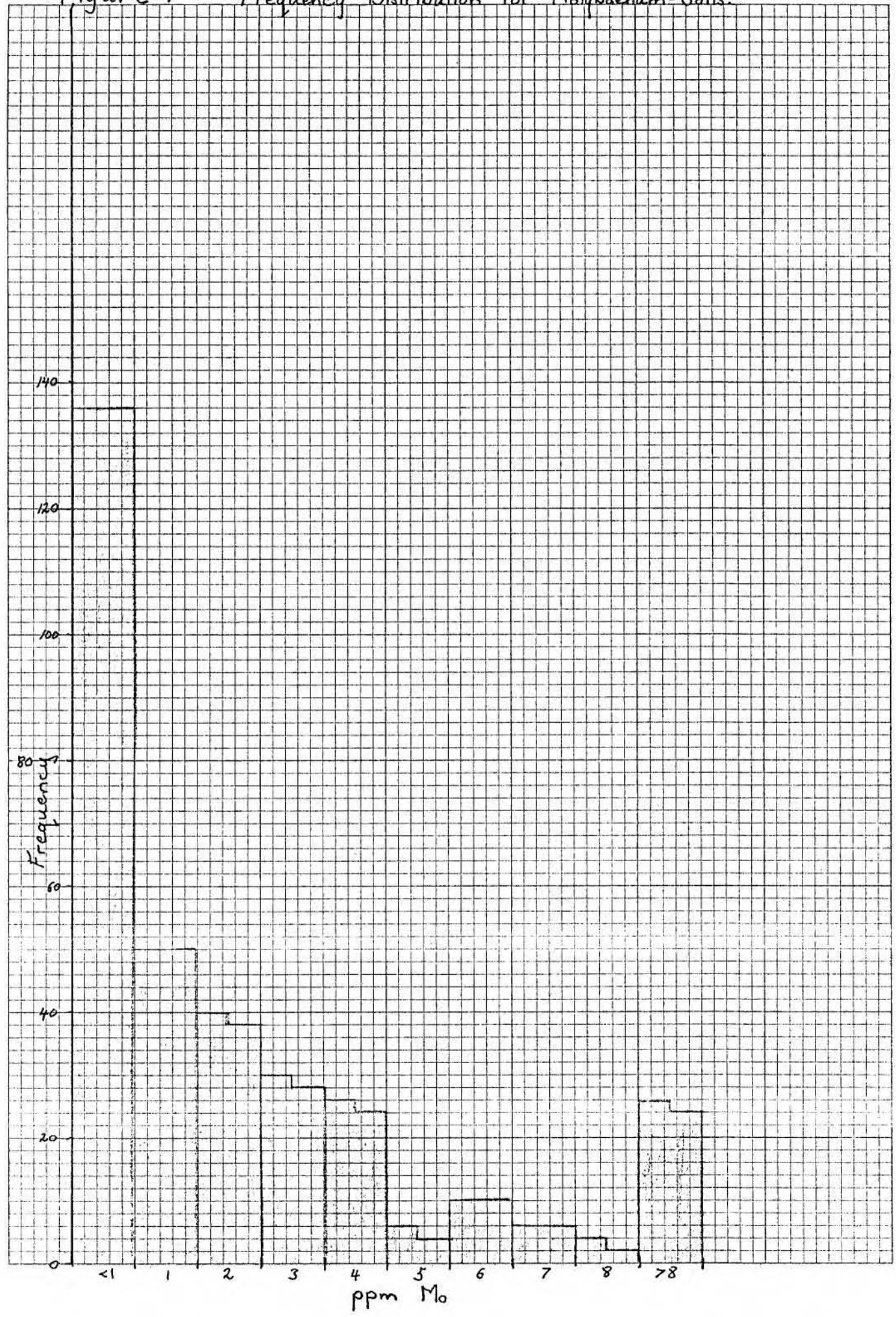


46 0706

10 X 10 TO THE INCH • 7 X 10 INCHES  
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Figure 7 - Frequency Distribution for Molybdenum-Soils.



46 0706

10 X 10 TO THE INCH • 7 X 10 INCHES  
ZEUFFEL & ESSER CO. MADE IN U.S.A.

Figure 8 - Cumulative Frequency Graph for Copper in Soils

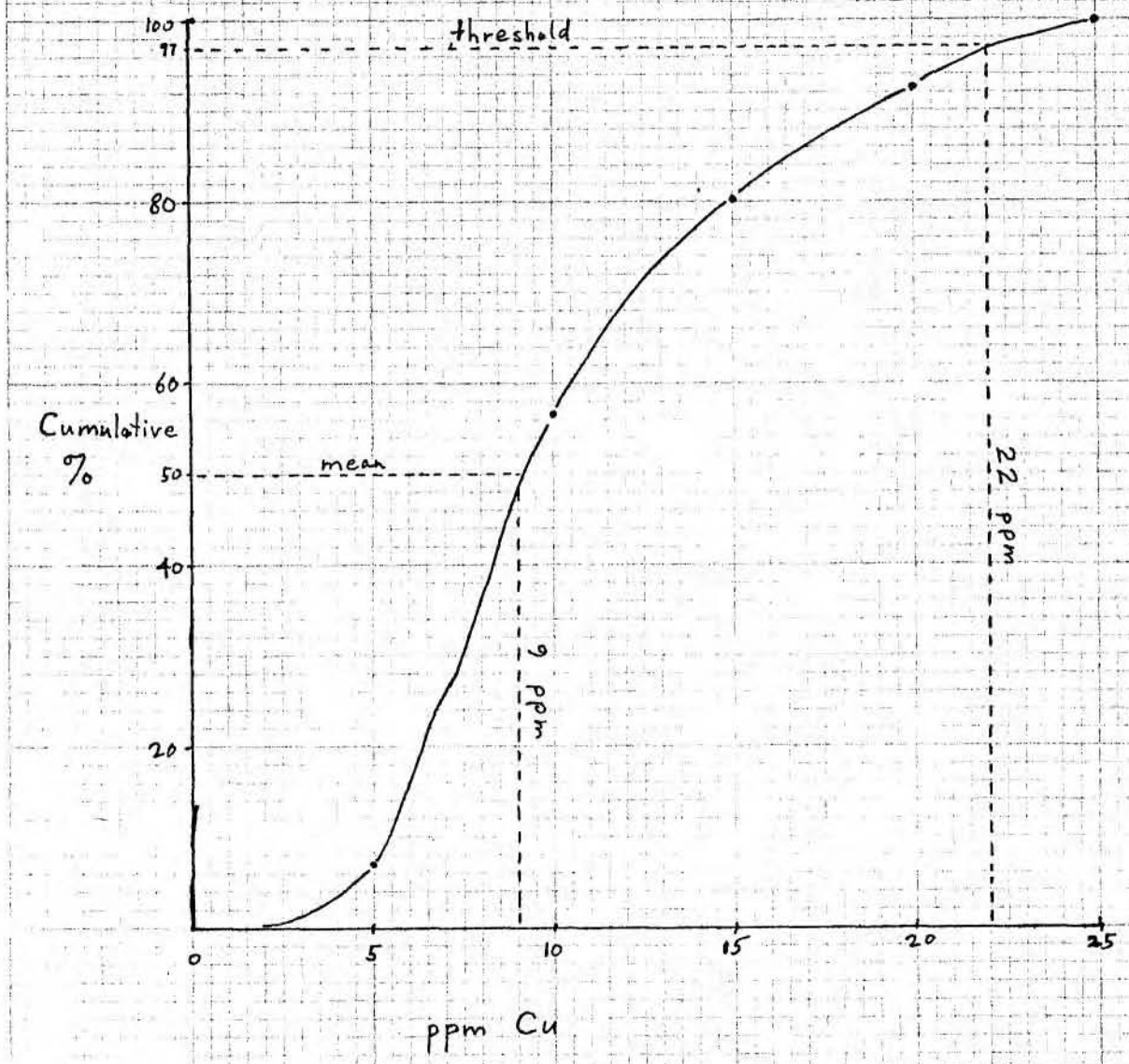




Figure 9 - Cumulative Frequency Graph for  
Zinc in Soils over Intrusive Rock

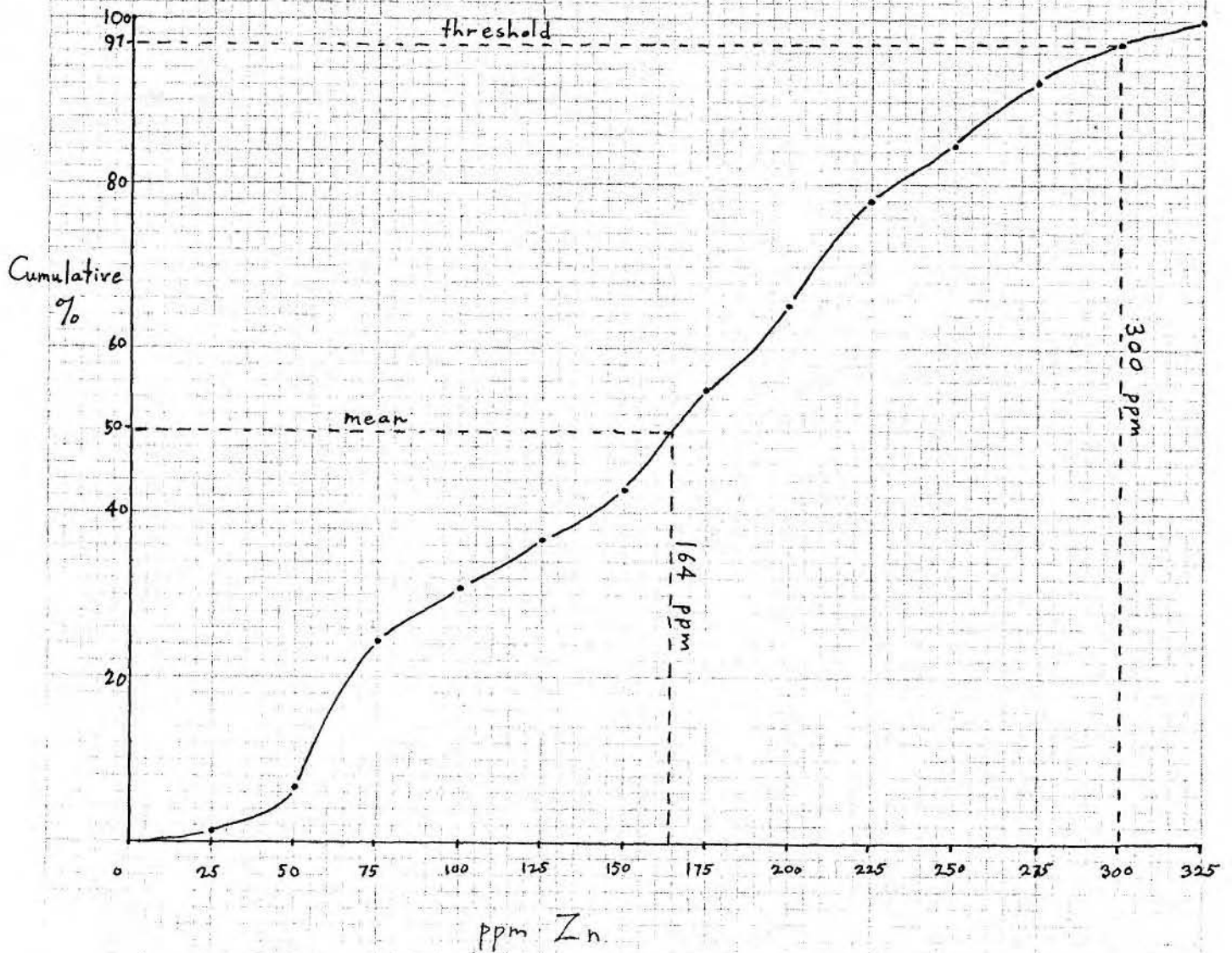
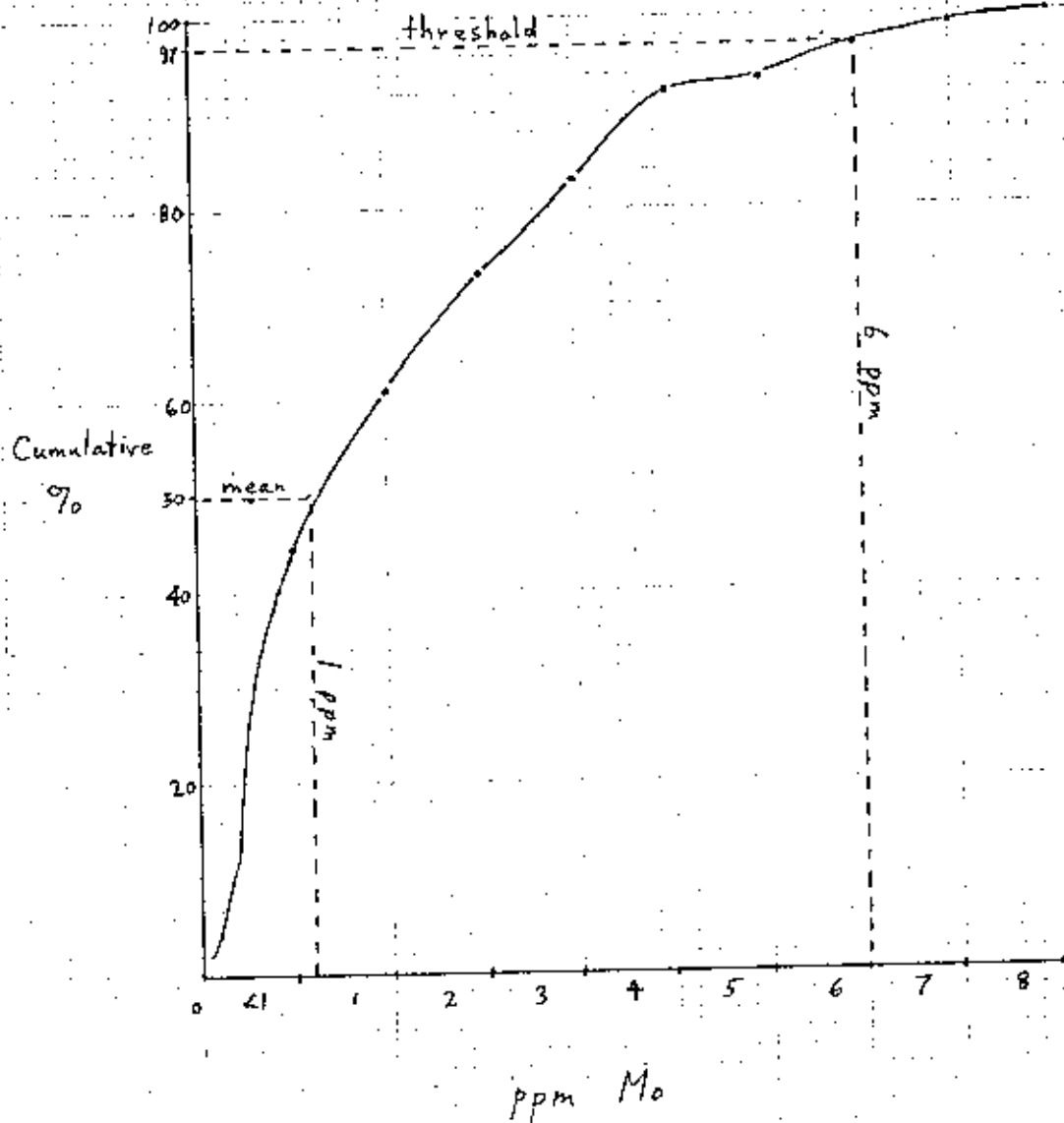


Figure 10 - Cumulative Frequency Graph for Molybdenum in Soils



## Copper Anomalies

### Anomaly A

Location: Extends north to baseline on L32W, south to tie line on L16W.

Trend of the Anomaly: roughly along volcanic-intrusive contact, or NW-SE.

Range of Values for Cu: 37-116 ppm

Dimensions of the Anomaly: 4800 x 1200 ft. (1464 x 366 m.)

Coincident anomalies for Elements, and Relationships to Geology:

No coincident major anomalies for other elements.

Anomaly A falls just on the volcanic side of the Unit 3-Unit 2 contact, and trends roughly parallel to it.

Intensity of the Anomaly: Low

Cause of the Anomaly: high background Cu content of the volcanics, particularly Unit 3c, as shown by Table 6.

Recommendations: no action be taken.

### Anomaly #B

Location: Centre of L22E, 43S

Trend of the Anomaly: NE-SW

Range of the values, for Cu: 63-76 ppm

Dimensions of the Anomaly: 700 x 150 feet (213 x 47 m.)

Coincident Anomalies for Elements, and their Relationships to Geology, Geophysical anomalies, etc.

No coincident anomalies for other elements.

Overlies Unit 2 latite porphyry. No coincident rock or stream geochemistry anomalies, but this anomaly is in line with the extrapolated trend of anomalies A for molybdenum and zinc.

Intensity of the Anomaly: low

Cause of the Anomaly: Probably due to erratic mineralization in Unit 2, related to the same mineralization processes causing Anomaly A for molybdenum and zinc.

Recommendations: no action to be taken.

### Zinc Anomalies

#### Anomaly #A

Location: extends NW to at least L16W/0S, SE to L16E/27S

Trend of the Anomaly: NW-SE 92 (parts)

Range of values for Zn: 330-1240 ppm

Dimensions of the anomaly: 1000 ft. x 4200 ft (305 x 1281 m.)  
(main part)

Coincident Anomalies for Elements, and Relationships to Geology, Geophysical Anomalies, etc.,

This anomaly coincides roughly with Anomaly A for molybdenum, and trends roughly parallel to the fault, being mostly on the east side of it overlying the bleached and altered area of Unit 2 latite porphyry. Two original Princeton Project anomalous stream sediment samples lie downstream from this anomaly, but only one anomalous stream silt is indicated using this survey's higher anomalous levels. Rocks in the anomaly area are not notably high in zinc.

Intensity of the Anomaly: moderate

Cause of the anomaly: mineralization associated with a fault-localized hydrothermal system.

Recommendations: trenching should be carried out in the area

of L0+00/13S, which is the area of coincident highs for molybdenum and copper, to expose any fresh sulphide mineralization present.

Anomaly #B

Location: centre at L12W/19S

Trend of the Anomaly: NW-SE

Range of Values for Zn: 392-482 ppm

Dimensions of the Anomaly: 1600 x 200 ft. (484 x 61 m.)

Coincident Anomalies for Elements, and Relationships to Geology, Geophysical Anomalies, etc.:

Partially coincides with Anomaly A for molybdenum, and trends parallel to Anomaly A for zinc, which is much larger. Also like Anomaly A for zinc, it is underlain by altered Unit 2 latite porphyry, is parallel to the main fault and is upstream from one anomalous stream silt sample.

Intensity of the Anomaly: low-moderate.

Cause of the Anomaly: the same fault-related mineralization processes causing Anomaly A for zinc (and molybdenum).

Recommendations: no action be taken pending results of trenching of Anomaly A for zinc.



Anomaly #C

Location: centre at L28E/6S

Trend of the Anomaly: NW-SE

Range of Values for Zn: 344-482 ppm

Dimensions of the Anomaly: 400 ft. x at least 2200 ft. (122 x 671 m.)

Coincident Anomalies for Elements, and Relationships to Geology, Geophysical Anomalies, etc.:

Partially coincides with Anomaly C for molybdenum, which is much smaller. Little outcrop in anomaly area, but rock is inferred to be fresh Unit 2 latite porphyry. The anomaly is drained by a stream which is anomalous in zinc through its entire sampled length, with a high value of 1440 ppm.

Intensity of the Anomaly: low-moderate

Cause of the Anomaly: since trend is same as Anomalies A, B for zinc, this anomaly probably due to similar mineralization processes, possibly indicating a second parallel fault.

Recommendations: extra ground should be staked to the north and east of Anomaly C for zinc, to fully investigate the cause of the above-mentioned anomalous stream.

Molybdenum Anomalies

Anomaly #A

Location: centre at L4W/14S (4 parts)

Trend of the Anomaly: NW-SE

Range of Values for Mo: 9-58 ppm

Dimensions of the Anomaly: 2600 x 900 feet. (793 x 274 m.)

Coincident Anomalies for Elements, and Relationships to Geology, Geophysical Anomalies, etc.:

Partially coincides with Anomalies A and B for zinc, and encloses two small copper anomalies. Like the main zinc anomalies, it trends roughly parallel to and closely east of the fault, and overlies bleached and altered Unit 2 latite porphyry. No anomalous streams are indicated by this survey's levels, but the Princeton Project showed one anomalous sample using these lower limits. Rocks sampled in this area show some high values like 18 and 90 ppm Mo.

Intensity of the Anomaly: moderate

Cause of the Anomaly: mineralization related to a fault-localized hydrothermal system, resulting in both zinc and molybdenum mineralization.

Recommendations: as recommended for Anomaly A for zinc, trenching should be carried out, first on the coincident zinc and molybdenum highs at L0+00/13S, to expose any fresh, unoxidized sulphides present.

Anomaly #B

Location: centre at L44E/33S (two parts)

Trend of the Anomaly: circular

Range of Values for Mo: 10-60 ppm

Dimensions of the Anomaly: 160- x at least 1400 ft.

Coincident Anomalies for Elements, and Relationships to Geology

Geophysical Anomalies, etc.:

coincides with two copper anomalous samples. No outcrop in this area, but is thought to be fresh Unit 2 intrusive. This is the closest molybdenum anomaly to that located by Noranda Exploration, farther to the northeast. The two streams sampled downstream of this anomaly show only two anomalous samples, about 4000 feet (1220 m.) north of it.

Intensity of the Anomaly: moderate

Cause of the Anomaly: possible erratic molybdenum mineralization.

Recommendations: no action be taken

Anomaly #C

Location: centre at L30E/13S

Trend of the Anomaly: E-W

Range of Values for Mo: 7-10 ppm

Dimensions of the Anomaly: 1000 x 150 ft. (305 x 46 m.)

Coincident Anomalies for Elements, and their Relationships to Geology, Geophysical Anomalies, etc.:

Partially coincides with Anomaly C for zinc, which is much larger. Little outcrop in this area, but underlying rock is inferred to be fresh Unit 2 latite porphyry.

Intensity of the Anomaly: low

Cause of the Anomaly: possible mineralization related to Anomaly C for zinc, hence a possible fault.

Recommendations: as recommended for Anomaly C for zinc, extra ground should be acquired to the north and east of the present northeast corner of the property, and the cause of Anomalies C for zinc and molybdenum, as well as the anomalous streams, investigated.

ROCK GEOCHEMISTRY

The cause of soil anomalies may be due to an abnormally high background of certain rock units and not to sulphide mineralization. To determine whether or not such a condition existed, rock chip samples of the major rock units were collected over the claim group, at 1000-foot (305m.) intervals on the picket lines (Plan 6).

There were insufficient samples taken for any rock unit to be treated statistically. However, Table 6 below gives the average metal content of these rocks units. It shows that the volcanic rocks have a higher background of copper and zinc, accounting for Anomaly A in copper over these volcanics. However, the highest values for all three metals are found in the Unit 2 latite porphyry, and usually in the altered zone near the fault. This suggests some mineralization process which raises the metal values in some parts of Unit 2 to well above background levels. This is especially true for Mo. Appendix 3 gives details of the rock samples taken.

Table 6                      Average Metal Content of Rock Units

<u>Unit</u>	<u>No. of Samples</u>	<u>Copper</u>		<u>Zinc</u>		<u>Molybdenum</u>	
		<u>Range of Values</u>	<u>Average</u>	<u>Range of Values</u>	<u>Average</u>	<u>Range of Values</u>	<u>Average</u>
1	2	21-23	22.0	47-80	63.5	2	2
2	15	1-420	43.3	11-233	50.9	<1-90	9.9
3a	6	7-84	39.5	65-102	81.7	<1-2	0.7
3c	6	15-127	63.0	30-105	58.8	<1-6	1.5



STREAM GEOCHEMISTRY

The original Nicky Project outlined Anomaly #30 around the main tributary stream on the property and a smaller tributary which is largely north of the property. Of the thirteen original samples, eight were over threshold for zinc, nine for molybdenum and only one for copper.

As part of this survey, 43 stream samples were taken from the main tributary stream, the other smaller tributary, and a nearby even smaller one (Plan 5). These samples consisted of stream silt taken from below water level, dried and analyzed for copper, molybdenum, zinc, tin, tungsten and uranium by Chemex Labs Ltd. in Vancouver. Actual results are given in Appendix 4.

Since insufficient samples were taken from which meaningful statistical parameters could be calculated, the anomalous and threshold levels marked on Plan 5 are those of the original Princeton-Nicky regional stream survey. They show that the original Nicky anomaly #30 has been reproduced, with anomalous or probably anomalous zinc and molybdenum over the entire sampled length of the main tributary creek. The two smaller creeks at the northeast corner of the property are also anomalous in zinc and molybdenum, with high values of 1440 ppm Zn, and 42 ppm Mo.

Histograms were drawn, using the data available (Figures 11-13). For copper, this shows a distribution slightly lower than the regional population. Zinc is very close to the regional distribution, and molybdenum is much higher.

The stream anomaly on the main tributary creek is explained by the zone of intense bleaching and alteration adjacent to the fault, with the coincident soil anomalies for zinc and molybdenum indicating mineralization associated with this alteration. The smaller stream at the northeast corner was not traced to a discrete soil anomaly over the small part of it lying on the property, and the lack of outcrop in this area makes a geological explanation difficult.

The stream samples were also analysed for Sn, W, and U. The first two metals were present in insignificant amounts in all three streams. However, uranium did show appreciable amounts in the stream at the northeast corner of the property, being anomalous throughout its entire sampled length, using the anomalous limits estimated from the range of values (Plan 5). The main tributary stream had low values for U, although a small tributary to the west of it showed one value of 94 ppm, and the small stream at the far east end, off the property also showed fairly low values. The one anomalous stream, therefore, coincides with the zinc-molybdenum anomalous dispersion, and further work to investigate the source of these anomalous levels.

Figure 11 - Frequency Distribution for Copper - Streams

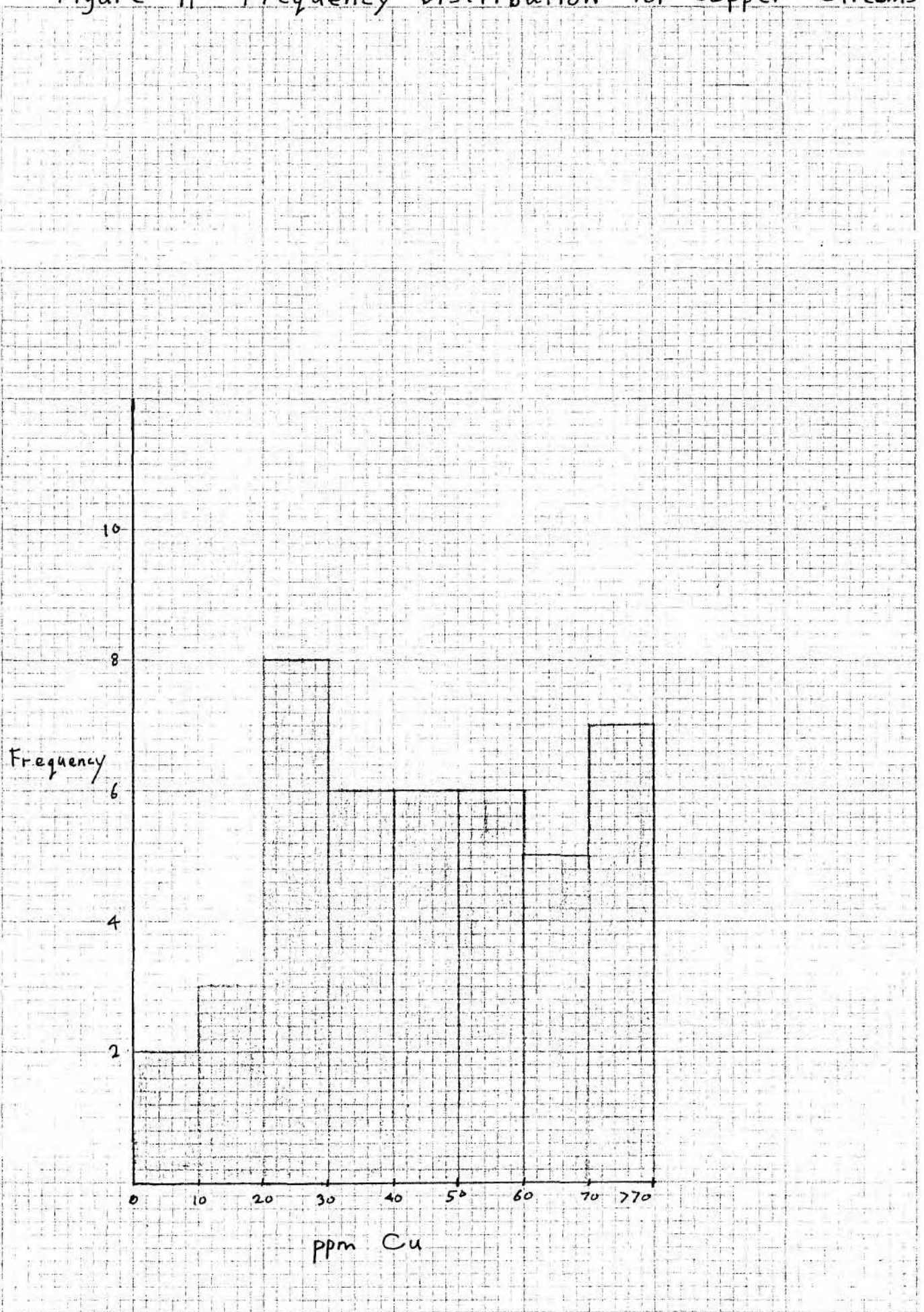


Figure 12 - Frequency Distribution for Zinc - Streams

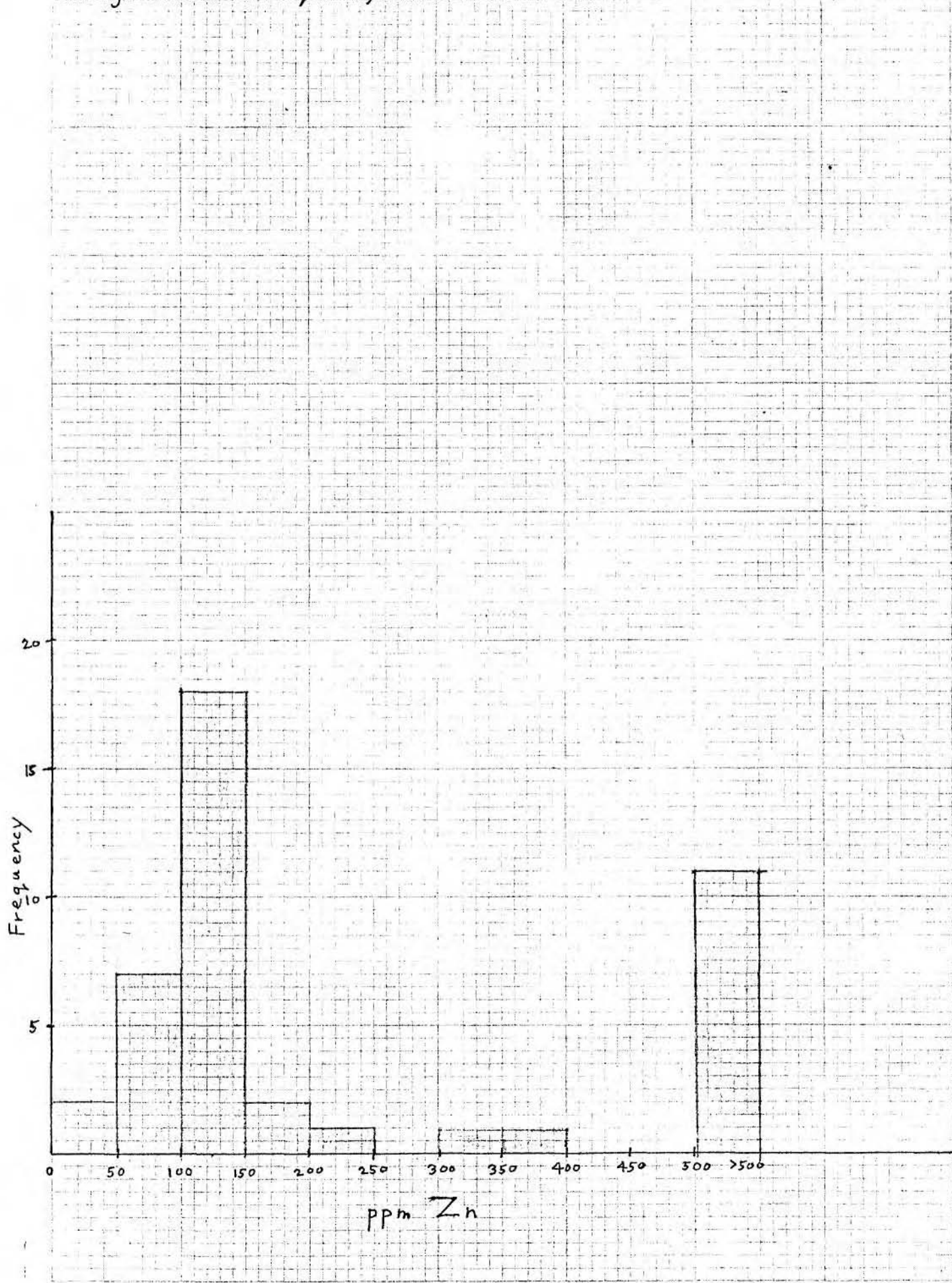
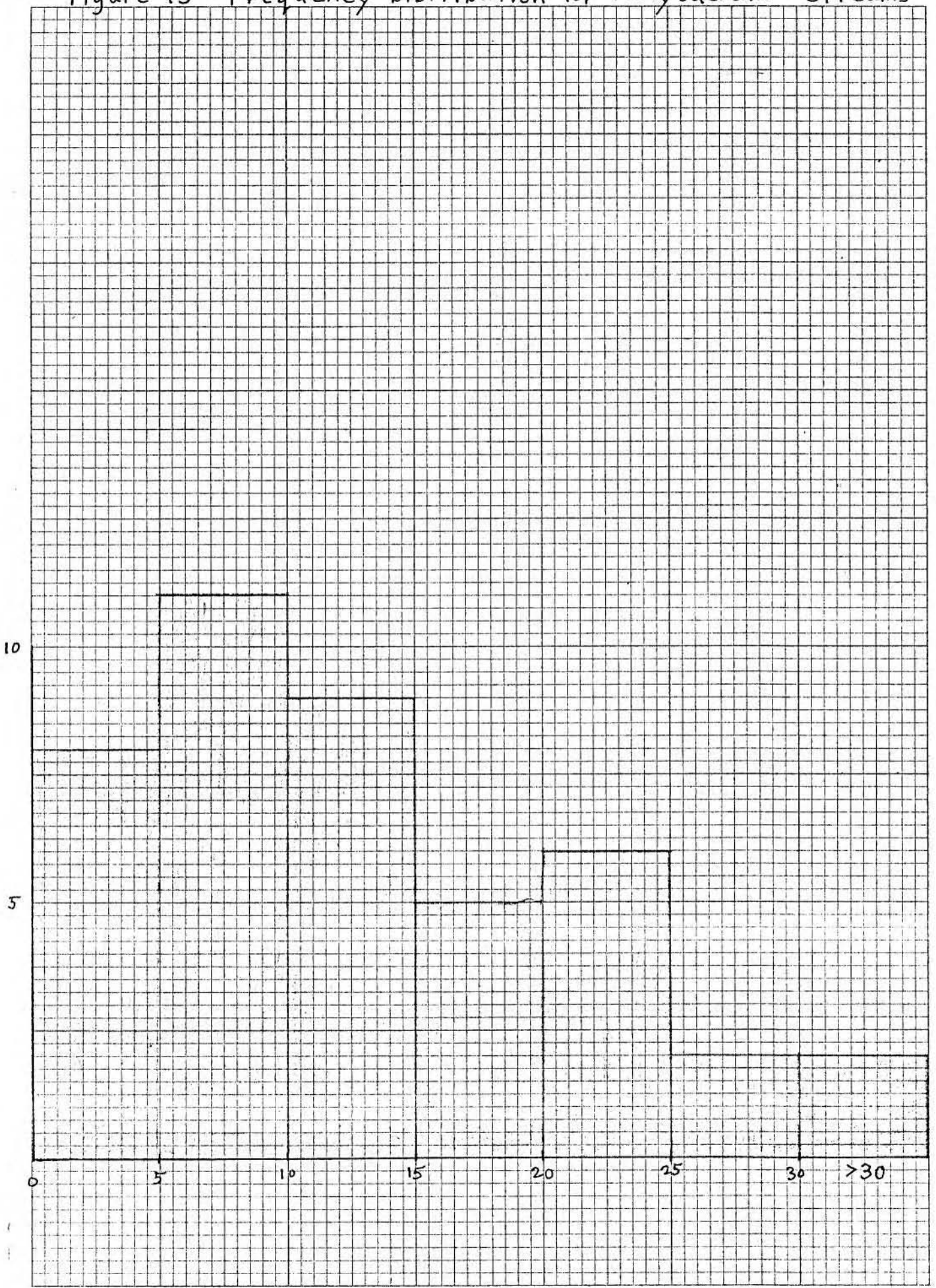




Figure 13 - Frequency Distribution for Molybdenum - Streams



46 0706

10 X 10 TO THE INCH 47 X 10 INCHES  
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CONCLUSIONS

The oldest rock on the property is a latite porphyry which is a border phase of a large syenite intrusion, which itself outcrops very little. This has undergone erosion and weathering prior to its being covered by volcanics of probable Tertiary age. A fault striking  $142^{\circ}\text{T}$  has resulted in a linear tributary stream flowing against the Whiteman Creek flow. This fault has a minimum vertical slip component of 1000 feet (305 m.) west side down, and results in the present occurrence of the volcanics on the west side of the fault. The oldest volcanics in the exposed section on the property are felsic tuff and rhyolite, grading upwards through andesite to basalt and diabase flows. No molybdenum, zinc or copper mineralization was found on the property. The most important anomaly is a coincident zinc-molybdenum anomaly trending parallel to and partly over the fault zone, and coinciding with the zone of bleaching and alteration in the Unit 2 latite porphyry. This suggests the presence of mineralization related to a fault-localized hydrothermal system. The major copper anomaly in soils occurs over the older volcanics, and is due to a higher rock background than the intrusives. Stream sediment geochemistry reproduces the original anomaly and draws attention to a stream running out of the northeast corner of the property which runs high in zinc, molybdenum and uranium and has a possible metal source to the northeast of the present claim group.

RECOMMENDATIONS

It is recommended that trenching be undertaken, first in the area of L0+00/13S, which is the area of coincident zinc and molybdenum soil geochemistry highs. This may expose fresh, unoxidized sulphides in the altered latite porphyry.

Secondly, it is recommended that the cause of the anomalous stream at the property's northeast corner be more fully investigated by staking additional claims to the north and east of the present northeast corner.

Respectfully submitted

*C.C. Macdonald*

C.C. Macdonald

TORONTO

September 30, 1975



APPENDIX 1

Claim Post Data

<u>Claims</u>	<u>Tag No.</u>	<u>Location</u>	<u>Staker</u>	<u>Date Staked</u>
Whit 1		L28W/0+50S	G.R.Craft	Oct, 1974
2		"	for	"
Whit 1		L26+50W/14+50S	Canadian Occidental	"
2		"	Petroleum Ltd.	"
3		"		"
4		"		"
Whit 3		L25W/29+20S	"	"
4		"	"	"
5		"	"	"
6		"	"	"
Whit 5		L23+20W/43+20S	"	"
6		"	"	"
Whit 7		L0+00/0+00S	"	"
8		"	"	"
9		"	"	"
10		"	"	"
Whit 9		L4E/27+60S	"	"
10		"	"	"
11		"	"	"
12		"	"	"
Whit 11		L6E/42+60W	"	"
12		"	"	"
" 13		L28E/2N	"	"
14		"	"	"
" 13		L29+50E/13S	"	"
14		"	"	"
15		"	"	"
16		"	"	"
" 15		L31+20E/27S	"	"
16		"	"	"
17		"	"	"
18		"	"	"
" 17		L33+40E/41+70S	"	"
18		"	"	"

APPENDIX 2

Old Claim Post Data

<u>Claims</u>	<u>Tag No.</u>	<u>Location</u>	<u>Staker</u>	<u>Date Staked</u>
Pat 19	746725	L32E/18+70S	G.Plassmay	Aug.3,66
20	746726	"	for Noranda	"
21	746727	"	Exploration	"
22	746728	"	"	"
Sal 13	443813	L4E/27+60S	David A.McAuslan	June28,
14	443814	"	for Kennco	1973
15	443815	"	(Western)	"
16	443816	"	Exploration Ltd.	"
Sue 15	484002	L37E/1N	G.Leary for	Nov.7,64
16	484003	"	"	"
17	484005	"	"	"
18	484006	"	"	"
Faye 5		L16W/28+80S	P.Lafleur	May23,
6		"	"	1967
Wit 23		L16W/28+80S	D.Dupre for	June 18,
24		"	Cominco Ltd.	1970
25		"	"	"
26		"	"	"

APPENDIX 3

Details and Values of Rock Chip Samples

<u>Sample No.</u>	<u>Location</u>	<u>Rock Type</u>	<u>Description</u>	<u>Cu (ppm)</u>	<u>Mo (ppm)</u>	<u>Zn (ppm)</u>
31148	L24E/8S	2	fresh	3	2	45
31149	L24E/18+25S	2	fresh	3	2	30
31150	L24E/29+70S	2	fresh	3	4	72
31226	L8E/10+30S	2	partially bleached	1	4	55
31227	L8E/23+30S	2	partially bleached	4	5	30
31228	L8E/39+60S	3a		7	<1	77
31174	L16E/25+50S	2		6	<1	105
31297	L14W/6+30S	2	bleached, disseminated sulphides	6	5	24
31298	L14W/6+30S	2	70% K-spar crystals Py in vugs, bleached	6	6	50
31299	L28E/2+85S	2	fresh	1	<1	20
31300	L28E/10+25S	2	partially bleached much hem.	3	4	14
31296	L20+10E/35+60S	2	heavily bleached, silicified	3	<1	28
31295	L20E/15+30S	2	partially	4	5	28
31201	L0/31S	3a		71	<1	80
31202	L8W/38S	3c		127	6	30
31175	L-8W/16S	2	partially bleached	420	18	18
3-176	L-0/2S	2	partially bleached	35	9	11
31177	L-8W/4S	1	fresh	23	2	47
31229	L25W/13+50S	1	hybrid phase	21	2	80
31230	L25+50W/20+50S	3c	Dick's mineralization	101	<1	34
31203	L16W/17+50S	2	hybrid phase? heavy fracturing	152	90	233
31204	L16W/40+50S	3a		84	2	102
31178	L32W/9S	3c	Py in fractures, hem.	86	1	80
31179	L32W/18S+50	3c	hematite on fractures	28	<1	72
31180	L32W/28S+50	3a	slight epidote, chlorite	24	<1	65
31181	L32W/38S+50	3c		21	<1	32
31231	L40W/6+60S	3a	1% Py, slight epidote	26	<1	86
31232	L40W/14+70S	3c	heavy epidote,	15	<1	105
31233	L40W/41+60S	3a	slight chlorite	25	<1	80





APPENDIX 4

# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.  
Minerals Division  
901 - 161 Eglinton Ave. E. 5825 (WHIT)  
Toronto, Ont.

CERTIFICATE NO. 35811  
INVOICE NO. 15048  
RECEIVED Aug. 22/75  
ANALYSED Sept. 9/75

ATTN:

SAMPLE NO. :	PPM Tin	PPM Tungsten	PPM Uranium
11847	<1	<4	12.5
11848	<1	<4	0.5
11857	<1	<4	1.5
11902	1	<4	4
3	1	4	5
4	<1	4	3
5	<1	5	4.5
6	<1	<4	NSS*
7	2	<4	3.5
8	1	4	7
9	3	4	3.5
10	1	6	4
11	1	6	1.5
12	1	4	1
13	1	4	1
14	1	5	1
15	1	4	0.5
16	1	7	0.5
17	<1	4	0.5
18	1	5	0.5
19	3	5	94
11920	1	<4	7.5
11929	3	<4	1.5
11951	1	5	32
52	3	7	8
53	<1	6	18
54	<1	NSS*	NSS*
55	3	<4	NSS*
56	3	6	16
57	<1	7	24
58	<1	NSS*	NSS*
59	<1	4	66
60	<1	NSS*	NSS*
61	<1	5	165
62	<1	6	240
63	<1	NSS*	NSS*
64	<1	6	76
65	<1	NSS*	NSS*
66	<1	NSS*	NSS*
11967	<1	5	77
STD.		14	4.5

\*NSS-not sufficient sample



MEMBER  
CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY:

*R. J. Swaine*





# CHEMEX LABS LTD.

12 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: 985-0648  
 AREA CODE: 604  
 TELEX: 043-52597

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## CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.  
 Minerals Division  
 801 - 161 Eglinton Ave. East (Whit)  
 Toronto, Ontario

CERTIFICATE NO. 35028

INVOICE NO. 14402

RECEIVED July 21/75

ANALYSED July 24/75

ATTN: Mr. B. Cook cc: Dr. R. Wallis

SAMPLE NO. :	PPM	PPM	PPM
	Copper	Molybdenum	Zinc
11847	18	6	67
11848	32	11	120
11857	58	5	169
11901	6	< 1	14
11902	24	15	112
11903	25	11	131
11904	24	13	108
11905	34	12	120
11906	400	21	305
11907	25	12	92
11908	6	6	20
11909	30	8	102
11910	277	4	164
11911	30	7	92
11912	42	5	108
11913	30	7	98
11914	42	7	123
11915	43	7	127
11916	39	2	140
11917	39	< 1	160
11918	44	4	211
11919	51	25	112
11920	29	9	102
11929	38	10	148
11951	69	18	95
11952	34	20	57
11953	67	42	105
11954	133	24	144
11955	58	9	140
11956	61	30	135
11957	45	29	360
11958	60	26	600
11959	74	25	525
11960	92	35	766
11961	69	23	733
11962	102	18	1440
11963	91	16	1320
11964	49	19	850
11965	52	7	700
11966	81	13	1200
STD.	73	24	52



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY: *[Signature]*



2 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597



# CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 35023

TO: Canadian Occidental Petroleum Ltd.  
Minerals Division  
801 - 161 Eglinton Ave. East (whit) 5825  
Toronto, Ontario  
ATTN: Mr. B. Cook

INVOICE NO. 14399

RECEIVED July 21/75

cc: Dr. R. Wallis

ANALYSED July 24/75

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3175	256	4	152
3176	20	14	36
3177	14	3	83
3178	22	4	131
3179	114	32	80
3180	34	4	72
3181	35	< 1	72
3182	22	< 1	80
3183	17	< 1	60
3184	13	< 1	57
3185	17	< 1	123
3186	19	1	86
3187	21	< 1	83
3188	45	3	62
3189	38	1	50
3190	35	1	60
3191	43	1	62
3192	47	< 1	50
3193	48	1	52
3194	31	1	47
3195	116	< 1	60
3196	49	< 1	57
3197	6	< 1	255
3198	25	< 1	108
3199	10	< 1	155
3200	16	9	482
3356	6	4	50
3357	275	4	164
3358	16	< 1	45
3359	12	4	575
3360	16	6	1240
3361	54	15	525
3362	31	4	466
3363	7	1	450
3364	26	6	194
3365	7	1	248
3366	7	1	264
3367	12	3	184
3368	8	< 1	400
3369	9	< 1	660
STD.	75	25	52



MEMBER  
CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY: .....





# CHEMEX LABS LTD.

12 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: 985-0648  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.  
 Minerals Division  
 801 - 161 Eglinton Ave. East  
 Toronto, Ontario

ATTN: Mr. B. Cook

cc: Dr. R. Wallis

CERTIFICATE NO. 35024

INVOICE NO. 14399

RECEIVED July 21/75

ANALYSED July 24/75

SAMPLE NO. :	PPM	PPM	PPM
	Copper	Molybdenum	Zinc
3370	14	2	525
3371	13	4	330
3372	19	11	482
3373	21	12	1120
3374	17	7	200
3375	13	5	80
3376	10	< 1	67
3377	66	2	72
3378	58	2	67
3379	37	2	57
3380	37	2	62
3381	48	1	127
3382	49	< 1	174
3383	16	< 1	102
3384	9	< 1	72
3385	18	< 1	60
3386	17	< 1	57
3387	24	< 1	67
3388	17	< 1	77
3389	9	< 1	75
3390	11	< 1	98
3391	10	< 1	80
3392	14	< 1	70
3393	16	< 1	75
3394	15	< 1	47
3395	30	< 1	70
3396	22	< 1	67
3397	275	4	160
3398	83	< 1	67
3399	14	5	47
3400	11	1	89
3489	10	< 1	32
3490	24	< 1	72
3491	23	2	62
3492	15	1	62
3493	15	1	115
3494	7	< 1	265
3495	10	4	92
3496	24	4	248
3497	20	2	189
STD.	74	26	52



MEMBER  
 CANADIAN TESTING  
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CERTIFIED BY: *[Signature]*



12 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597

# CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 35025

TO: Canadian Occidental Petroleum Ltd.  
Minerals Division  
801 - 161 Eglinton Ave. East (Whit ) 5875  
Toronto, Ontario

INVOICE NO. 14399

RECEIVED July 21/75

ATTN: Mr. B. Cook cc: Dr. R. Wallis

ANALYSED July 24/75

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3498	290	4	164
3499	15	< 1	155
3500	43	< 1	123
3501	9	1	189
3502	69	9	135
3503	4	70	112
3504	33	18	169
3505	21	3	392
3506	4	< 1	152
3507	11	1	174
3508	18	< 1	148
3509	12	5	344
3510	26	58	392
3511	28	6	98
3513	30	2	43
3514	36	< 1	25
3515	53	< 1	34
3516	95	1	50
3517	54	2	57
3518	77	1	55
3519	67	2	47
3520	63	< 1	65
3521	47	1	55
3522	39	1	55
3523	70	2	65
3524	30	< 1	60
3525	5	< 1	305
3526	7	4	86
3527	9	< 1	155
3528	10	< 1	169
3529	10	< 1	144
3530	12	2	123
3531	13	6	62
3532	15	9	65
3533	288	4	164
3534	17	7	67
3535	17	8	60
3601	45	< 1	72
3602	38	< 1	70
3603	24	< 1	47
STD.	75	25	50



MEMBER  
CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY: *[Signature]*



# CHEMEX LABS LTD.

12 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.  
Minerals Division  
801 - 161 Eglinton Ave. East (Whit) 5875

ATTN: Mr. B. Cook

cc: Dr. R. Wallis

CERTIFICATE NO. 35026  
INVOICE NO. 14399  
RECEIVED July 21/75  
ANALYSED July 24/75

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3604	19	1	47
3605	33	2	55
3606	29	1	55
3607	42	<1	62
3608	34	<1	57
3609	25	<1	60
3610	18	<1	32
3611	41	<1	95
3612	16	<1	62
3613	8	<1	60
3614	7	<1	57
3615	11	<1	65
3616	39	19	62
3617	8	<1	45
3618	7	<1	55
3619	6	<1	47
3620	8	<1	50
3621	5	<1	39
3622	6	<1	47
3623	6	<1	60
3624	9	<1	80
3625	9	<1	75
3626	13	1	105
3627	11	1	105
3628	17	1	105
3629	9	1	105
3630	13	1	98
3631	11	<1	65
3632	12	<1	57
3633	13	<1	60
3634	12	<1	47
3635	286	4	169
3636	14	<1	75
3637	18	17	317
3638	30	22	265
3639	33	28	295
3640	42	28	225
3641	53	35	225
3642	15	14	105
3643	13	<1	108
STD.	74	24	47



MEMBER  
CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY: *[Signature]*



# CHEMEX LABS LTD.

12 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.  
Minerals Division  
801 - 161 Eglinton Ave. East (Whit) 5875  
Toronto, Ontario  
ATTN: Mr. B. Cook

cc: Dr. R. Wallis

CERTIFICATE NO. 35027  
INVOICE NO. 14399  
RECEIVED July 21/75  
ANALYSED July 24/75

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3644	21	2	105
3645	27	<1	67
3646	28	1	67
3647	31	<1	41
3648	23	<1	52
3649	77	1	75
3650	88	4	80
3651	15	13	86
3652	17	14	108
3653	18	17	112
3654	23	21	131
2655	9	2	115
3656	13	2	95
3657	8	2	67
3658	10	4	67
3659	57	60	152
3660	8	5	55
3661	4	2	65
3662	9	3	72
3663	9	52	30
3664	12	3	65
3665	6	2	55
3666	82	19	60
3667	9	2	67
3668	8	1	62
3669	11	2	67
3670	54	<1	52
3671	16	2	120
3672	5	2	62
3673	5	4	55
3674	293	4	169
3675	5	1	174
3676	9	3	225
3677	10	3	344
3678	11	1	240
3679	13	3	169
STD.	73	24	50



MEMBER  
CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY: 







.2 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597

# CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 29870

TO: Canadian Occidental Petroleum Ltd.,  
Minerals Division  
801 - 161 Eglinton Ave. East  
Toronto, Ont. M4P 1J5

"5825"

c.c. Dr. R. Wallis

INVOICE NO. 14308

RECEIVED July 14, 1975.

ANALYSED July 17, 1975.

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3058	12	1	75
3059	7	< 1	144
3060	10	< 1	105
3061	7	7	14
3062	14	7	41
3063	10	2	80
3072	8	< 1	57
3073	6	3	28
3074	20	10	83
3075	10	6	55
3076	8	< 1	131
3077	18	4	140
3079	16	4	152
3080	7	2	194
3081	10	2	218
3082	8	2	255
3083	12	1	206
3084	14	3	295
3085	7	3	240
3086	7	3	233
3087	8	1	155
3088	12	2	179
3089	8	2	211
3090	13	3	344
3091	10	8	189
3092	13	3	255
3093	13	4	344
3094	13	1	255
3095	7	< 1	83
3096	10	6	285
3097	14	10	285
3098	8	3	211
3100	8	1	211
3307	6	< 1	92
3308	6	< 1	164
3309	3	1	25
3310	3	2	24
3311	7	< 1	70
Std.	74	25	52



MEMBER  
CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY:

*Antonio Ammirati*

2 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597



# CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 29871

TO: Canadian Occidental Petroleum Ltd.,  
Minerals Division  
801 - 161 Eglinton Ave. East  
Toronto, Ont. M4P 1J5

"5825"

INVOICE NO. 14308

RECEIVED July 14, 1975.

ATTN: Mr. B. Cook

c.c. Dr R. Wallis

ANALYSED July 17, 1975.

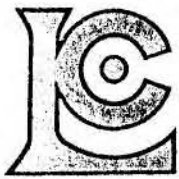
SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3312	8	< 1	135
3313	7	< 1	155
3314	7	1	160
3315	8	< 1	189
3316	7	1	144
3317	8	3	92
3318	8	3	184
3319	4	< 1	92
3320	8	1	174
3321	12	1	218
3322	16	2	248
3323	20	7	375
3324	12	4	344
3325	21	4	375
3326	7	2	482
3327	13	5	275
3328	10	4	295
3329	10	3	233
3330	8	4	140
3331	12	1	240
3332	270	4	169
3333	20	5	70
3334	6	8	36
3335	3	< 1	144
3336	7	1	115
3337	10	< 1	525
3338	10	3	108
3339	6	27	189
3340	7	2	248
3341	14	3	375
3342	6	< 1	640
3343	8	1	550
3344	7	7	392
3345	7	2	285
3346	4	< 1	164
3347	18	3	179
3348	6	1	174
3349	6	1	240
3350	10	1	174
3351	12	3	194
Std.	70	25	52



MEMBER  
CANADIAN TESTING  
ASSOCIATION

CERTIFIED BY:

*Ben Ammanisi*



# CHEMEX LABS LTD.

2 BROOKSBANK AVE.  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE: 985-0648  
 AREA CODE: 604  
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,  
 Minerals Division  
 801 - 161 Eglinton Ave. East  
 Toronto, Ont. M4P 1J5  
 ATTN: Mr. B. Cook

"5825"

c.c. Dr.R. Wallis

CERTIFICATE NO. 29872

INVOICE NO. 14308

RECEIVED July 14, 1975.

ANALYSED July 17, 1975.

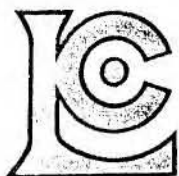
SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3352	10	2	189
3353	12	3	240
3354	12	3	184
3355	7	< 1	155
3401	13	< 1	184
3402	6	< 1	164
3403	7	< 1	233
3404	7	< 1	120
3405	18	12	225
3406	6	< 1	179
3407	6	< 1	144
3408	7	4	275
3409	7	< 1	98
3410	6	2	275
3411	6	9	152
3412	46	6	248
3413	70	4	295
3414	4	< 1	41
3415	10	< 1	112
3416	10	< 1	120
3417	22	< 1	1160
3418	31	< 1	248
3419	31	< 1	80
3420	24	< 1	89
3421	7	< 1	70
3422	26	9	131
3423	14	4	255
3424	24	6	98
3425	4	< 1	206
3426	4	< 1	255
3427	20	2	1080
3428	270	3	164
3429	10	< 1	466
3430	28	17	550
3431	7	1	392
3432	8	< 1	206
3433	16	< 1	184
3434	6	< 1	218
3435	7	< 1	194
3436	8	< 1	218
Std.	70	24	52



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION

CERTIFIED BY: .....

*Stan Amadio*



# CHEMEX LABS LTD.

2 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,  
Minerals Division  
801 - 161 Eglinton Ave. East "5825"  
Toronto, Ont. M4P 1J5  
ATTN: Mr. B. Cook c.c. Dr. R. Wallis

CERTIFICATE NO. 29873  
INVOICE NO. 14308  
RECEIVED July 14, 1975.  
ANALYSED July 17, 1975.

SAMPLE NO. :	PPM Copper	PPM Molybdenum	PPM Zinc
3437	50	6	317
3438	12	<1	160
3439	8	<1	285
3440	7	1	135
3441	12	2	131
*3443	4	<1	47
3444	8	16	179
3445	6	<1	194
3446	8	<1	400
3447	24	6	466
3448	21	9	733
2449	6	<1	240
3450	4	<1	206
3451	3	<1	65
3452	3	<1	72
3453	6	<1	225
3454	13	8	206
3455	7	2	295
3456	10	1	360
3457	6	1	115
3458	14	4	206
3459	7	<1	169
3460	4	2	75
3461	15	35	202
3462	278	3	169
3463	7	<1	255
3464	7	<1	305
3465	7	<1	285
3466	12	<1	179
3467	8	<1	62
3468	7	<1	189
3469	6	<1	174
3470	6	1	92
3471	8	<1	123
3472	10	<1	184
3473	12	<1	255
3474	10	4	344
3475	10	3	265
3476	18	7	305
*3442	68	4	265
Std.	72	25	52

\* - Not in Sequence



MEMBER  
CANADIAN TESTING  
ASSOCIATION

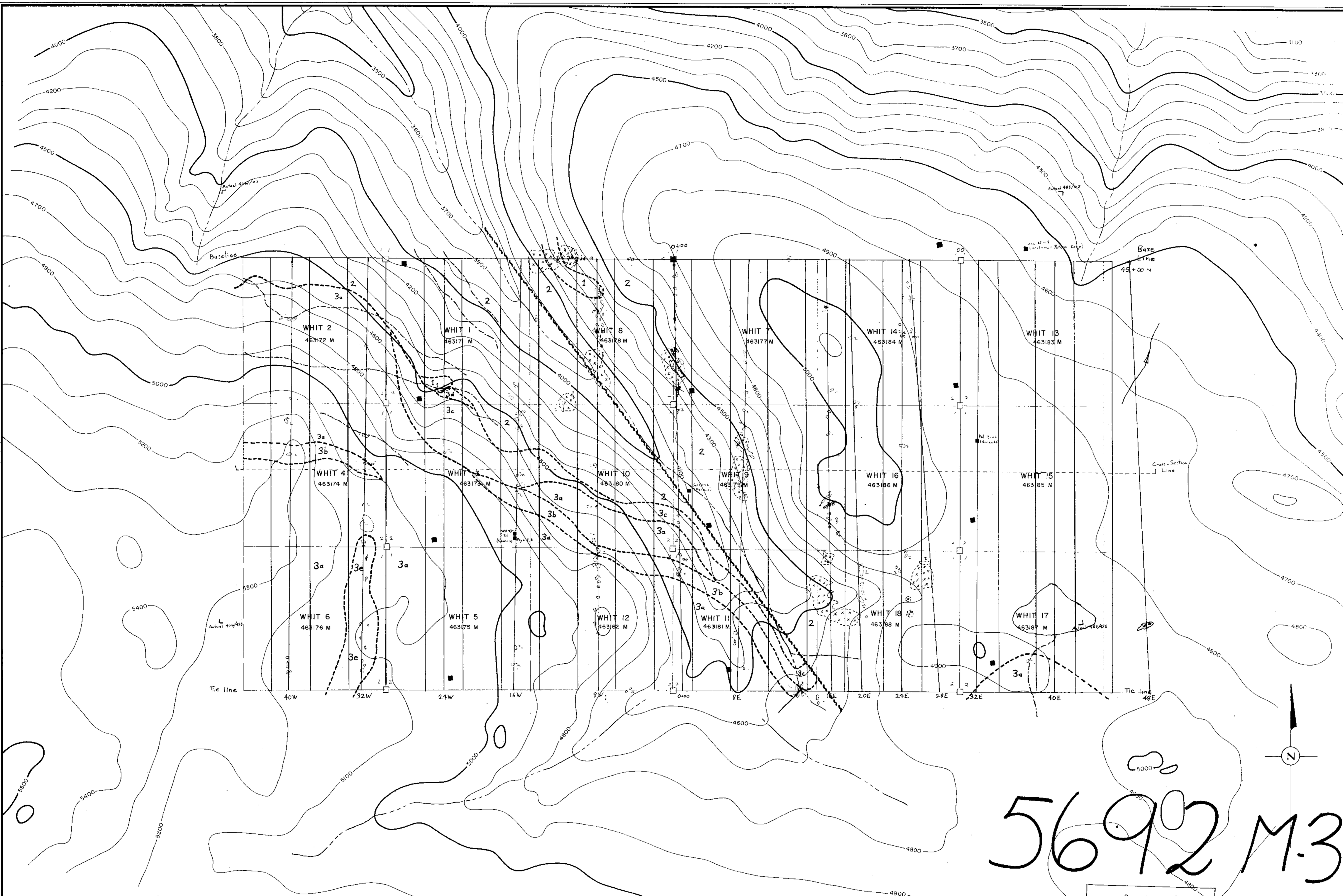
CERTIFIED BY:

*Alan Amadio*









5692 M-3

**GEOLOGICAL LEGEND**

ROCK UNITS	SYMBOLS
1. Syenite	— Geological contact, known
2. Latite porphyry	- - - Geological contact, inferred
3. a. Basalt, aphanitic	~ ~ ~ Fault
b. Andesite, porphyritic	⊙ Outcrop
c. Rhyolite	⊙ Talus
d. Felsic pyroclastics	
e. Diabase	
4. Lamprophyre dikes	

**LEGEND**

— 4800	Topographic contour
—	Stream
⊥ ⊥ ⊥	Swamp
□ ■	Claim post, inferred - known
- - -	Claim line
- - -	Road, track

Department of  
 Mines and Petroleum Resources  
 ALBERTA REPORT  
 NO. 5692 M.P. 3

CANADIAN OCCIDENTAL PETROLEUM LTD  
 MINERALS DIVISION

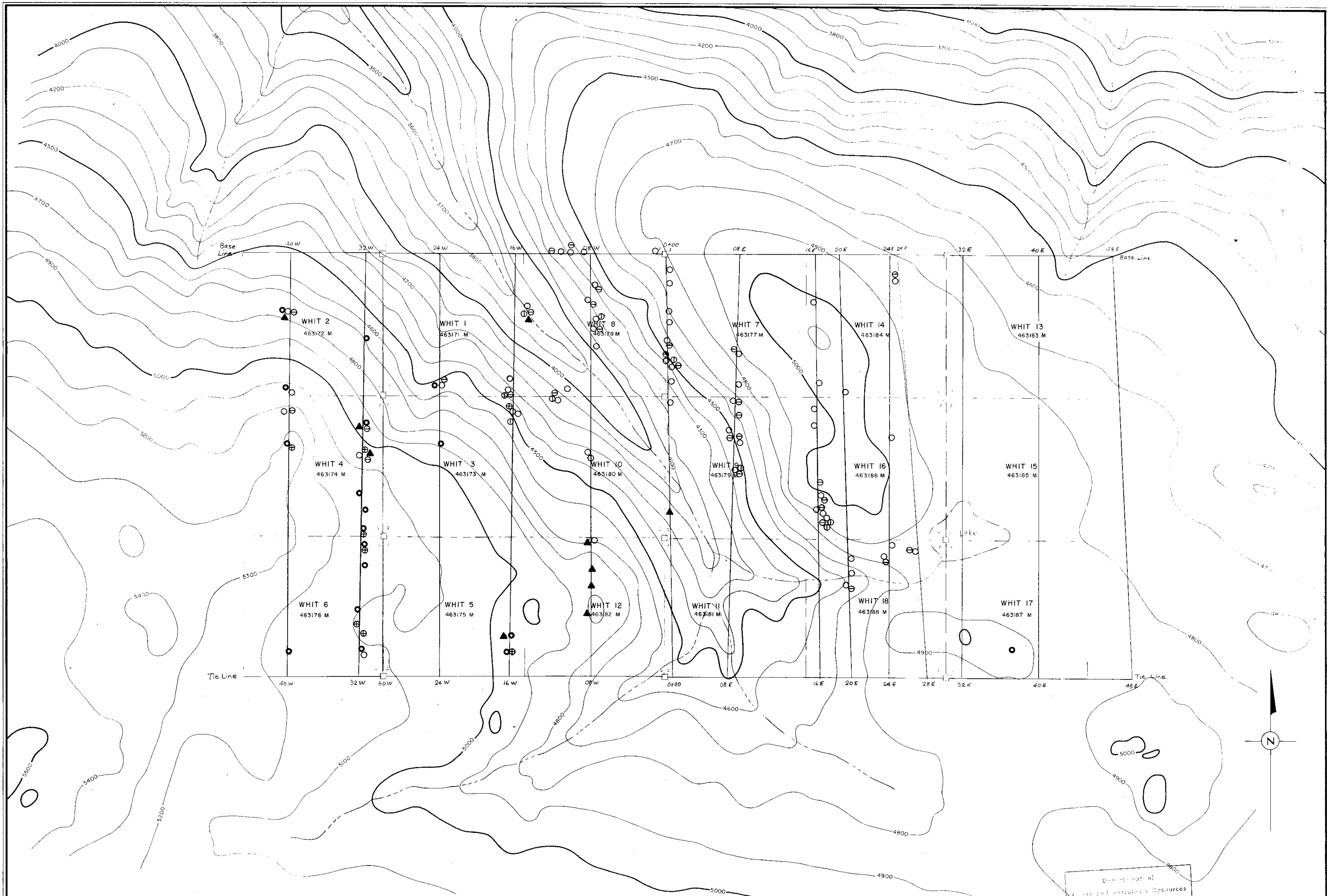
**WHIT CLAIMS**  
 VERNON MINING DIVISION, BRITISH COLUMBIA — 62 L-4/E

**GEOLOGY**

400 0 400 800  
 SCALE IN FEET

PLAN 1





Base Line

40 W 32 W 24 W 16 W 08 W 00 W 08 E 16 E 20 E 24 E 28 E 32 E 40 E 48 E

Base Line

40 W 32 W 24 W 16 W 08 W 00 W 08 E 16 E 20 E 24 E 28 E 32 E 40 E 48 E

Tie Line

Tie Line

- WHIT 1 463171 M
- WHIT 2 463172 M
- WHIT 3 463173 M
- WHIT 4 463174 M
- WHIT 5 463175 M
- WHIT 6 463176 M
- WHIT 7 463177 M
- WHIT 8 463178 M
- WHIT 9 463179 M
- WHIT 10 463180 M
- WHIT 11 463181 M
- WHIT 12 463182 M
- WHIT 13 463183 M
- WHIT 14 463184 M
- WHIT 15 463185 M
- WHIT 16 463186 M
- WHIT 17 463187 M
- WHIT 18 463188 M

- | ALTERATION |          | MINERALIZATION |        |
|------------|----------|----------------|--------|
| ○          | Hematite | ▲              | Pyrite |
| ⊖          | Limonite |                |        |
| ⊕          | Silica   |                |        |
| ⊗          | Epidote  |                |        |
| ⦿          | Chlorite |                |        |

- LEGEND
- Topographic contour
  - Stream
  - ⊥ Swamp
  - Claim post
  - - - Claim line

Department of  
 Lands and Mineral Resources  
 REPORT  
 NO. 5792 MP 4

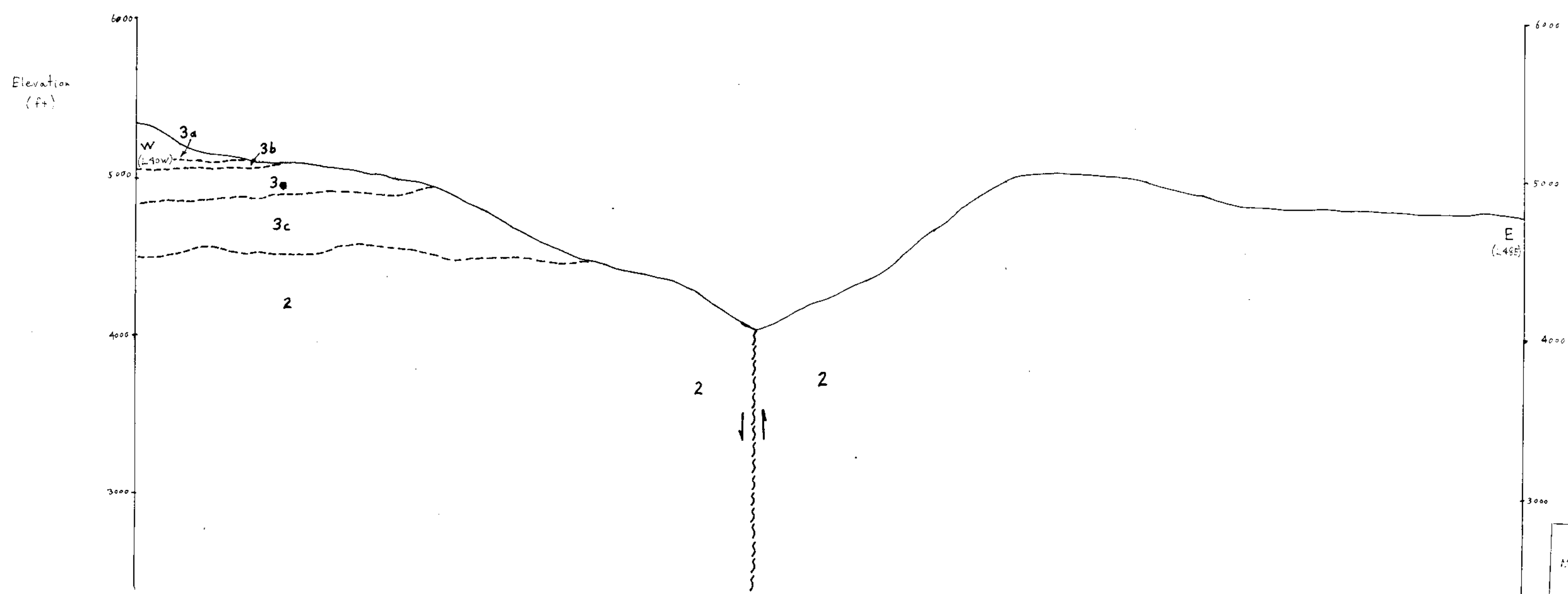
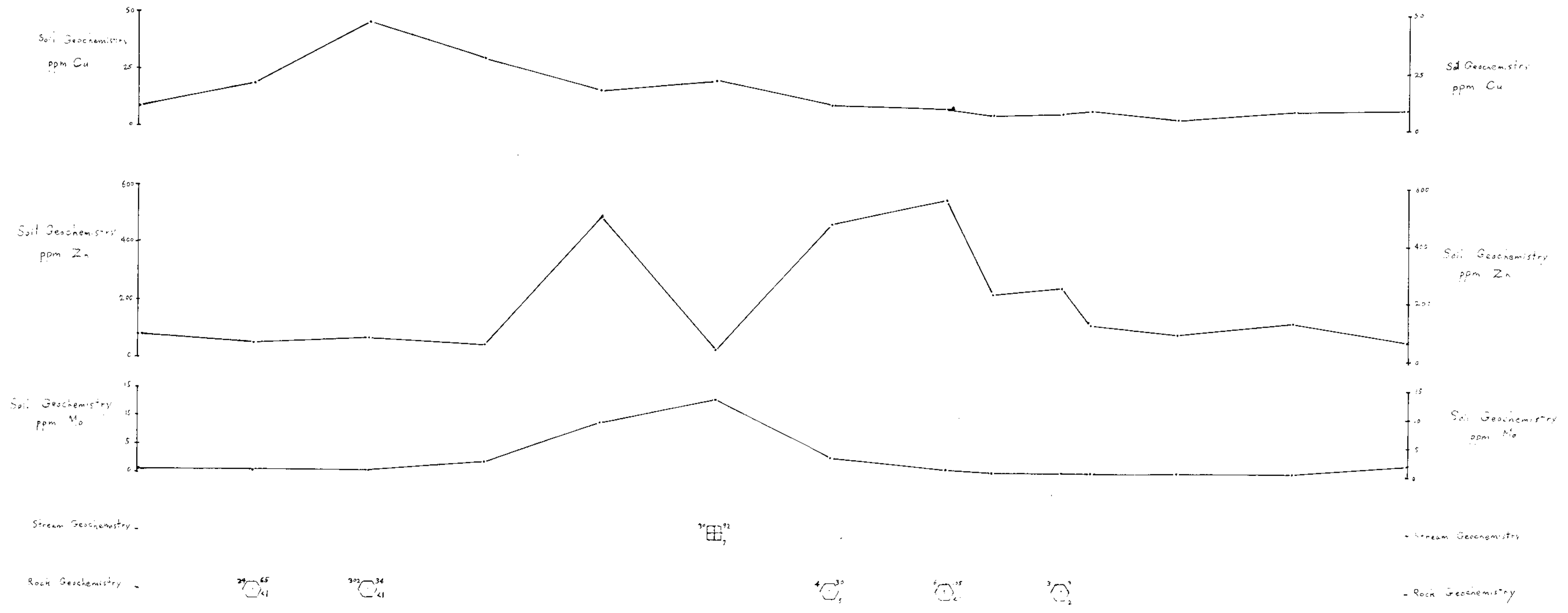
CANADIAN OCCIDENTAL PETROLEUM LTD.  
 MINERALS DIVISION

**WHIT CLAIMS**  
 VERNON MINING DIVISION, BRITISH COLUMBIA — 82 L-4/E

**ALTERATION & MINERALIZATION**

SCALE IN FEET

PLAN 2

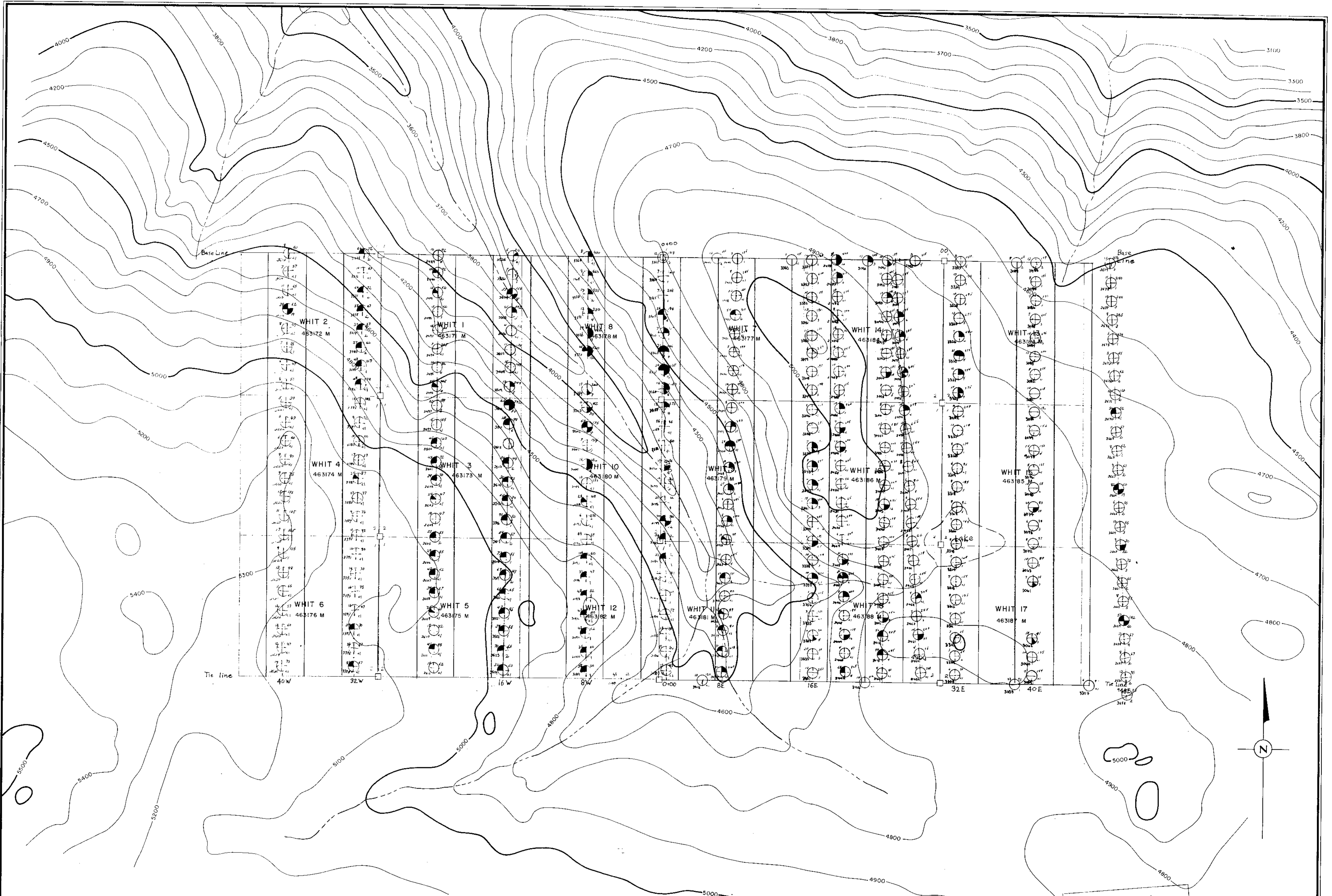


GEOLOGY		GEOCHEMISTRY	
2. Latite porphyry		Cu $\square$ Zn	Stream sample
3a. Basalt, aphanitic			
3b. Andesite, porphyritic		Cu $\circ$ Zn	Rock sample
3c. Rhyolite			

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**WHIT CLAIMS**  
VERNON MINING DIVISION, BRITISH COLUMBIA-82L-4-1/2  
PLAN 3 - GEOLOGICAL  
CROSS-SECTION, WITH GEOCHEMICAL  
PROFILES (TAKEN E-W AT 27 S)  
HORIZONTAL AND VERTICAL SCALE: 1" = 400 FT.





**SAMPLE LEGEND**

Metals	Probably anomalous	Anomalous
Cu Zn Sample No. ⊕ Mo	+ 22 + 300 + 6	+ 25 + 325 + 8

**LEGEND**

- 4800 — Topographic contour
- Stream
- ⊥ Swamp
- Claim post
- - - Claim line

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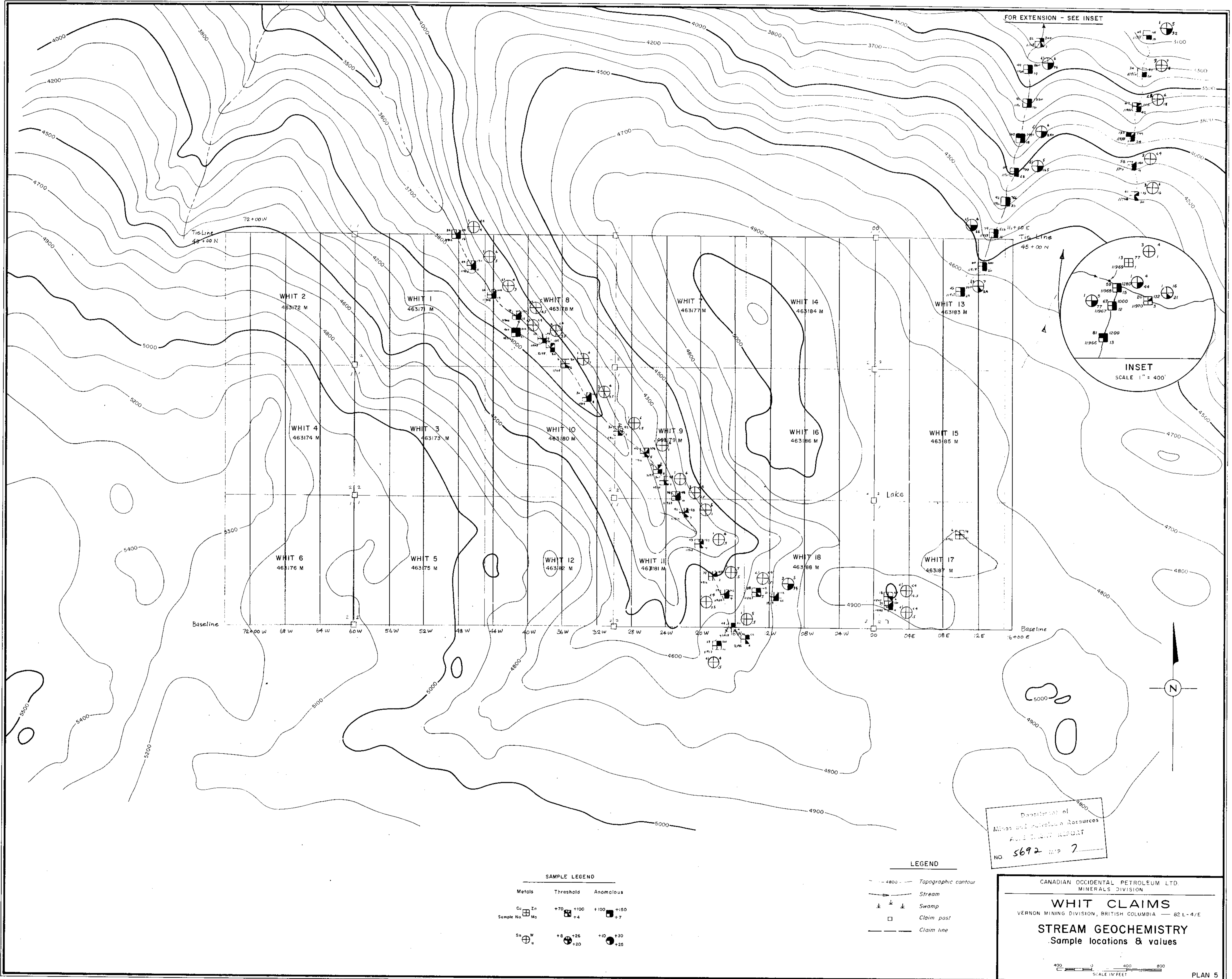
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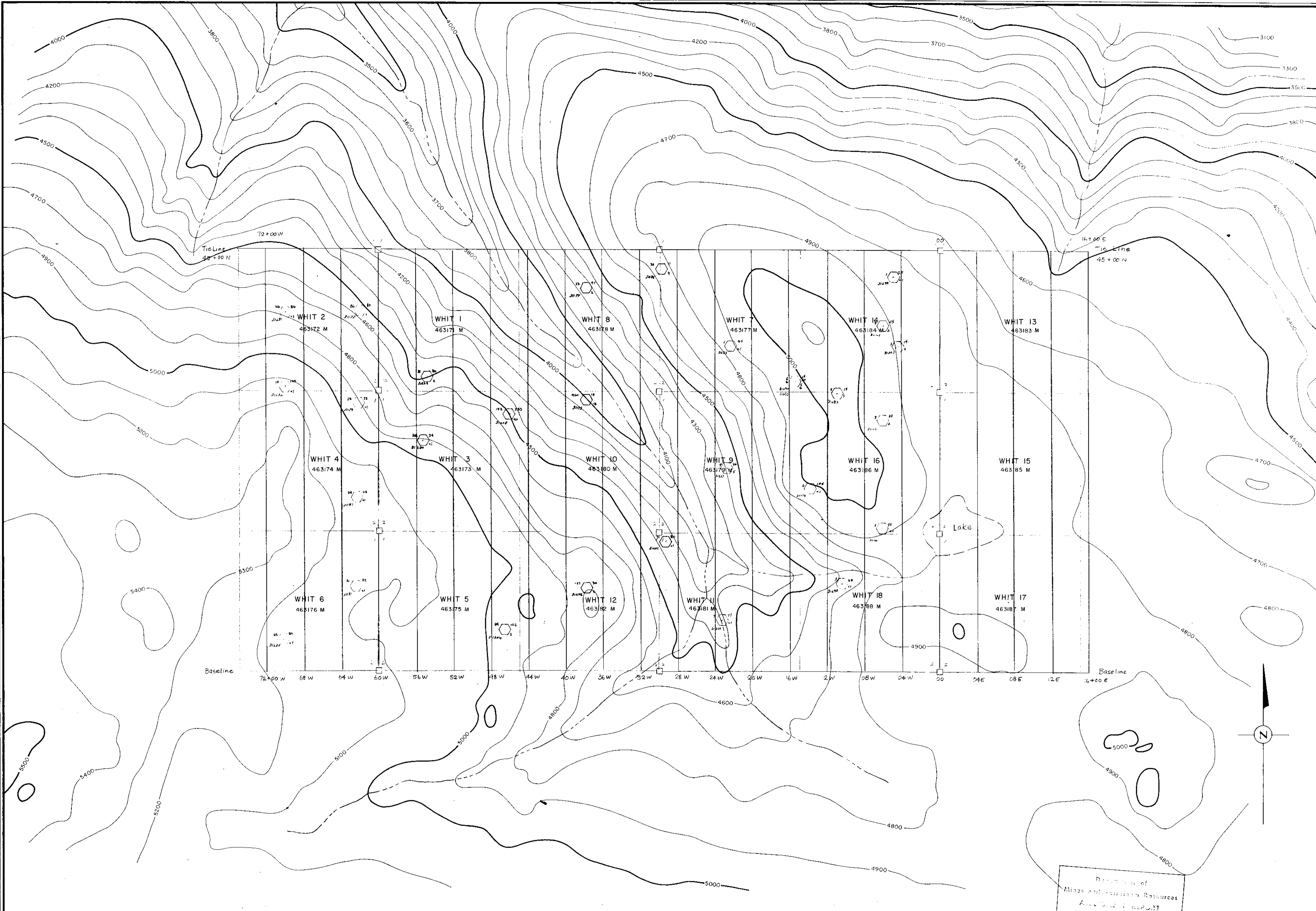
**SOIL GEOCHEMISTRY**  
Sample locations & values

400 0 400 800  
SCALE IN FEET

PLAN 4







Baseline 72+00 W 68 W 64 W 60 W 56 W 52 W 48 W 44 W 40 W 36 W 32 W 28 W 24 W 20 W 16 W 12 W 08 W 04 W 00 04 E 08 E 12 E 16+00 E

**SAMPLE LEGEND**

Metals  
 Cu Zn  
 Sample No. ⊕ Mo

**LEGEND**

- Topographic contour
- Stream
- ⊕ Swamp
- Claim post
- Claim line

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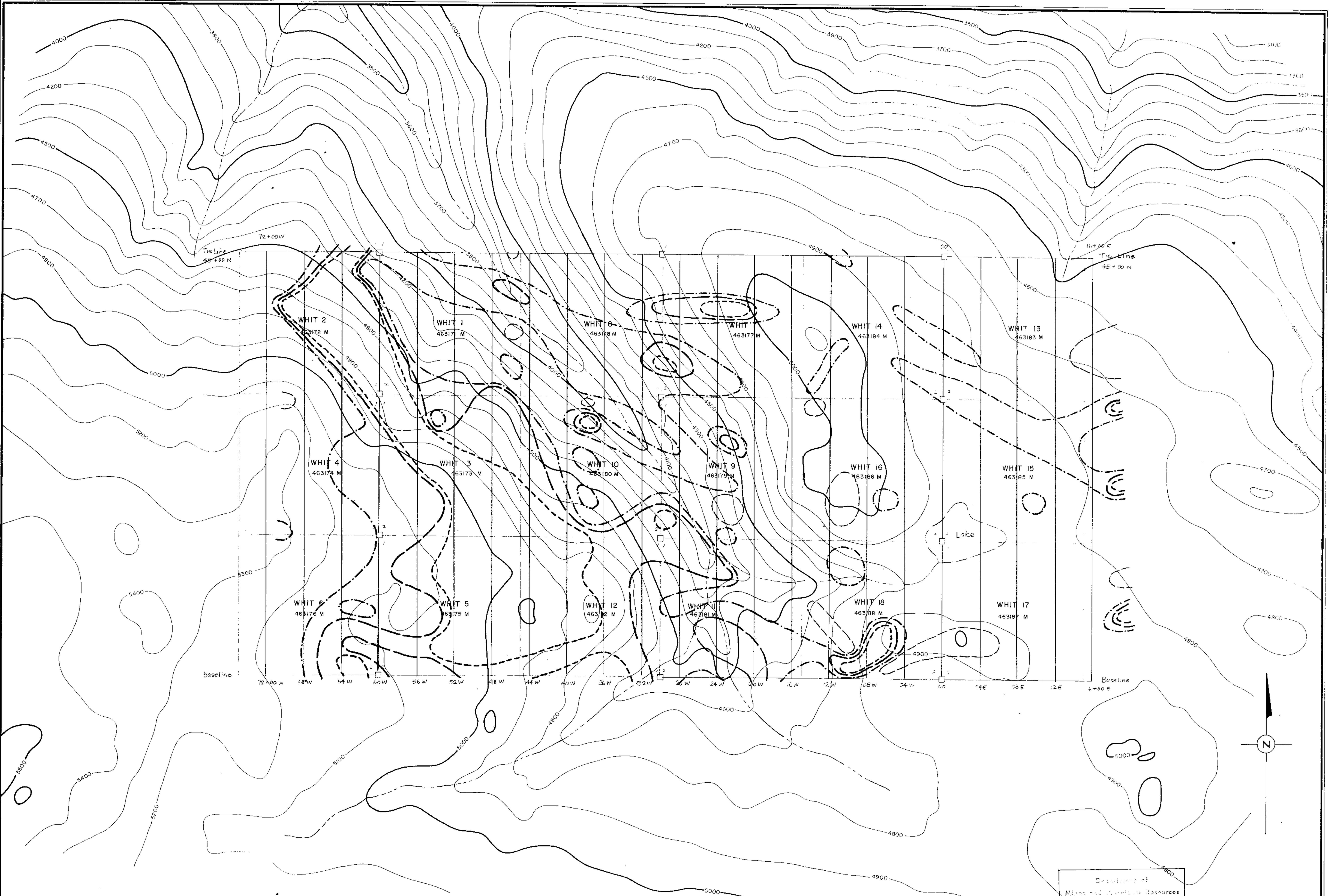
**WHIT CLAIMS**  
 VERNON MINING DIVISION, BRITISH COLUMBIA — 82 L-4/E

**ROCK GEOCHEMISTRY**  
 Sample locations & values

400 0 400 800  
 SCALE IN FEET

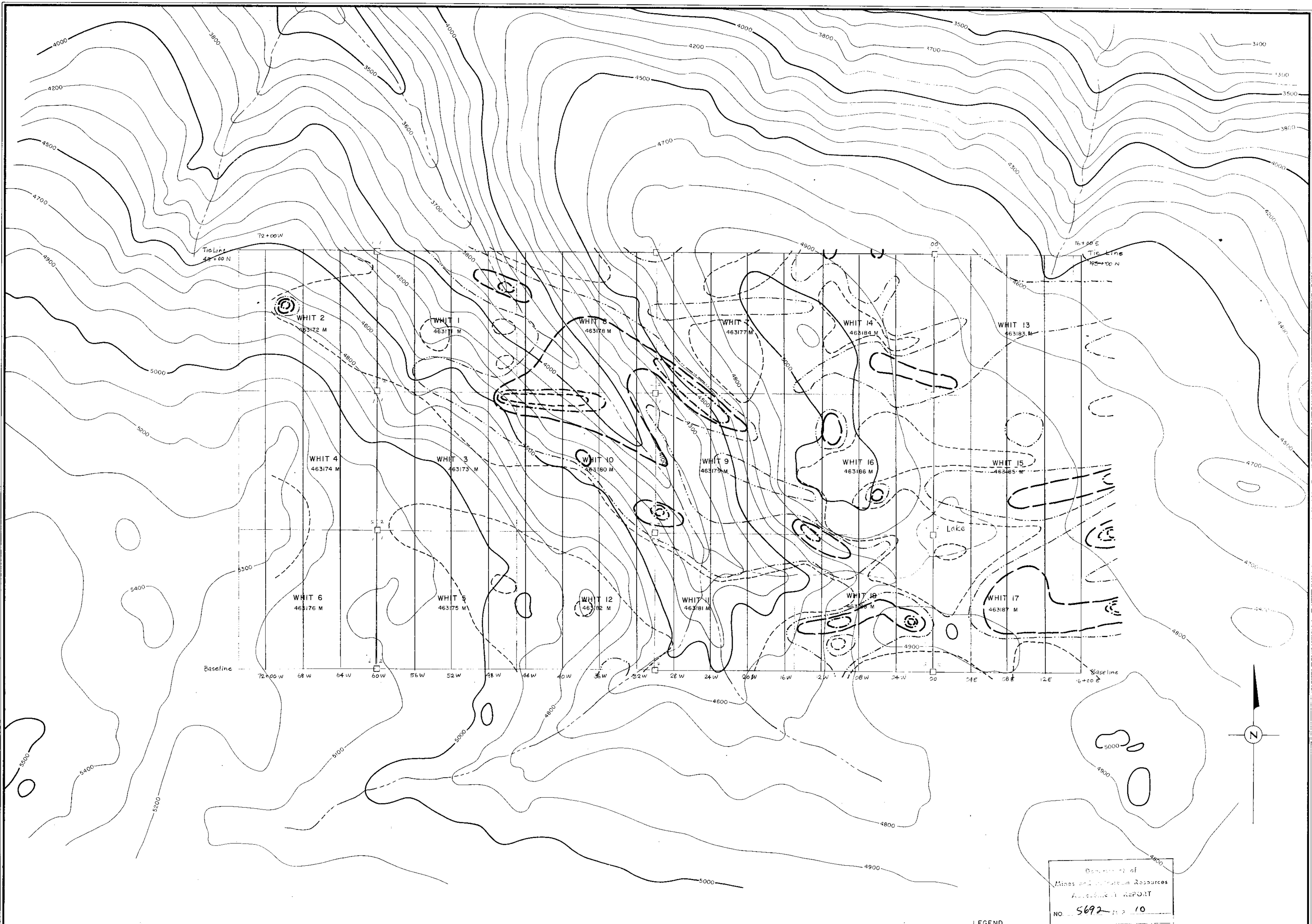
PLAN 6





<p><b>COPPER CONTOURS</b></p> <ul style="list-style-type: none"> <li>— 5 ppm</li> <li>- - - 15 "</li> <li>— 25 "</li> <li>- - - 35 "</li> </ul>	<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li>— Topographic contour</li> <li>— Stream</li> <li>⊥ ⊥ ⊥ Swamp</li> <li>□ Claim post</li> <li>- - - Claim line</li> </ul>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center; font-size: small;">Department of Mineral and Technical Resources REPORT NO. 5692-1-9</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; font-size: x-small;">CANADIAN OCCIDENTAL PETROLEUM LTD MINERALS DIVISION</p> <p style="text-align: center; font-weight: bold; font-size: small;">WHIT CLAIMS</p> <p style="text-align: center; font-size: x-small;">VERNON MINING DIVISION, BRITISH COLUMBIA — 82 L-4/E</p> <p style="text-align: center; font-weight: bold; font-size: small;">SOIL GEOCHEMISTRY Copper Contours</p> <div style="text-align: center; margin-top: 5px;"> <p style="font-size: x-small;">400 0 400 800</p> <p style="font-size: x-small;">SCALE IN FEET</p> </div> </div>
		PLAN 7





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**GEOCHEM CONTOURS**

1 ppm	--- (dotted line)
3 "	- - - (long dashed line)
7 "	— (solid line)
15 "	— (thick solid line)
30 "	— (dashed line)

**LEGEND**

4800	Topographic contour
— (wavy line)	Stream
— (cross-hatched)	Swamp
□	Claim post
— (dashed line)	Claim line

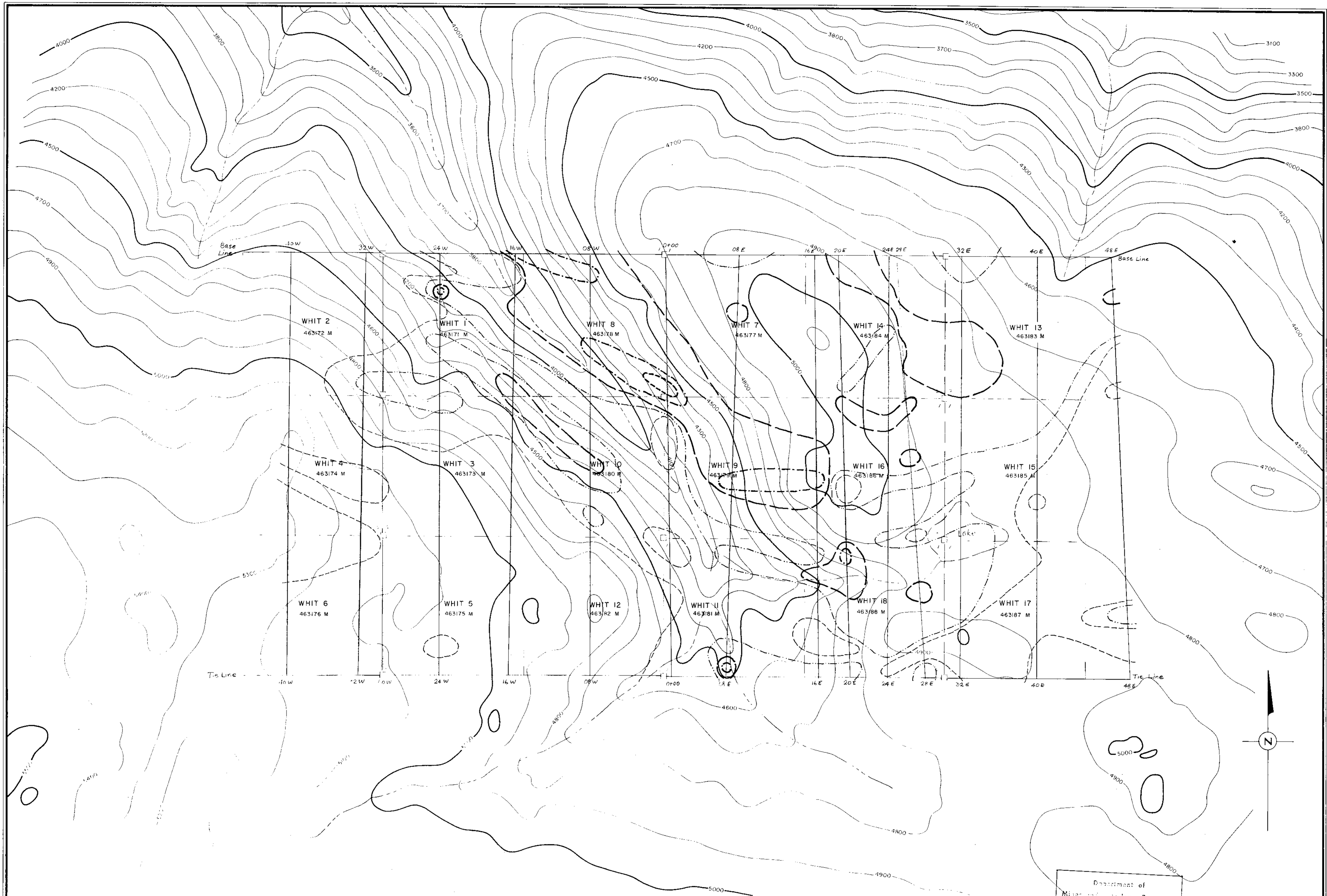
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MINERALS DIVISION

**WHIT CLAIMS**  
VERNON MINING DIVISION, BRITISH COLUMBIA -- 82 L-4/E

**SOIL GEOCHEMISTRY**  
Molybdenum Contours

0 10 20 30  
METERS

PLAN 8



Base Line

19W 22W 24W 16W 08W 01+00 08E 16E 20E 24E 28E 32E 40E 48E

WHIT 2  
463172 M

WHIT 1  
463171 M

WHIT 8  
463178 M

WHIT 7  
463177 M

WHIT 14  
463184 M

WHIT 13  
463183 M

WHIT 4  
463174 M

WHIT 3  
463173 M

WHIT 10  
463180 M

WHIT 9  
463179 M

WHIT 16  
463186 M

WHIT 15  
463185 M

WHIT 6  
463176 M

WHIT 5  
463175 M

WHIT 12  
463182 M

WHIT 11  
463181 M

WHIT 18  
463188 M

WHIT 17  
463187 M

Tie Line

10W 12W 14W 16W 08W 01+00 16E 20E 24E 28E 32E 40E 48E

Lake

**GEOCHEM. CONTOURS**

--- (dashed)	76 ppm
--- (dotted)	151 "
--- (solid)	301 "
--- (dash-dot)	601 "
--- (long-dash)	1201 "

**LEGEND**

--- (solid)	Topographic contour
--- (dashed)	Stream
--- (dotted)	Swamp
--- (dash-dot)	Claim post
--- (long-dash)	Claim line

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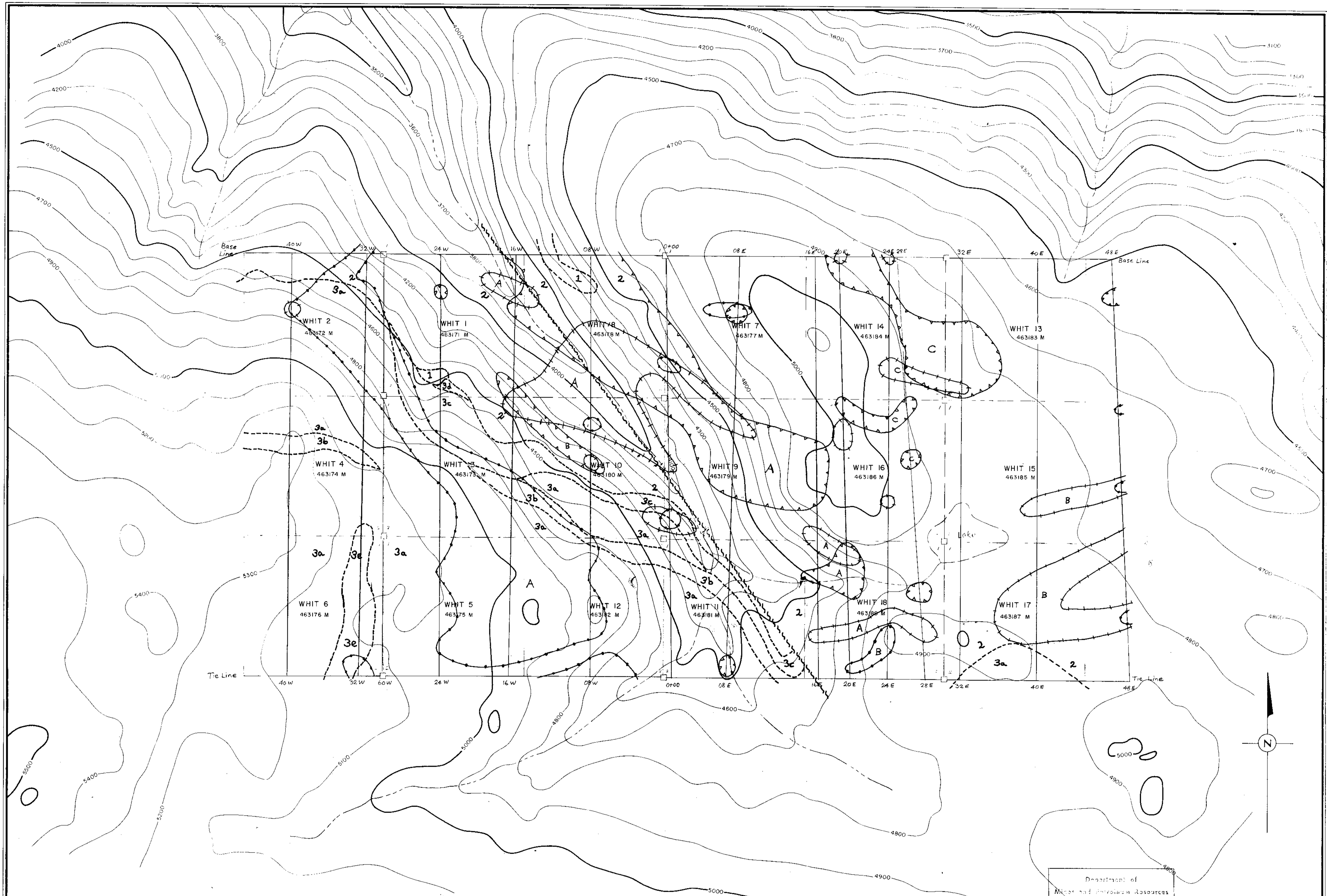
**WHIT CLAIMS**  
VERNON MINING DIVISION, BRITISH COLUMBIA B.C. 471

**SOIL GEOCHEMISTRY**  
Zinc Contours

SCALE IN FEET

PLAN 9





- GEOCHEMISTRY**
- 36 ppm copper contour
  - 30 ppm zinc contour
  - 7 ppm molybdenum contour

- ROCK UNITS**
1. Syenite
  2. Latite porphyry
  3. a. Basalt-aphanitic
  - b. Andesite-porphyrific
  - c. Rhyolite
  - d. Felsic pyroclastics
  - e. Diabase
- Geological contact, known, inferred
- Fault

- LEGEND**
- 4800 — Topographic contour
  - Stream
  - Swamp
  - Claim post
  - Claim line

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**WHIT CLAIMS**  
 VERNON MINING DIVISION, BRITISH COLUMBIA — 62 L-4/E

**COMPILATION**  
 Geology & Soil Geochemistry

400 0 400 800  
 SCALE IN FEET

PLAN 10