

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

GEOLOGY AND GEOCHEMISTRY
OF THE
THATCH CLAIM GROUP



Claim Sheet No. 115-H-12
(N.T.S. 115-H-12)

Long. 137° 75' W
Lat. 61° 50' N

Claims Thatch 1-42
(Y63648-Y63689)

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

\$ 2,413.71

J.P. Craig
Resident Geologist or
Resident Mining Engineer

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

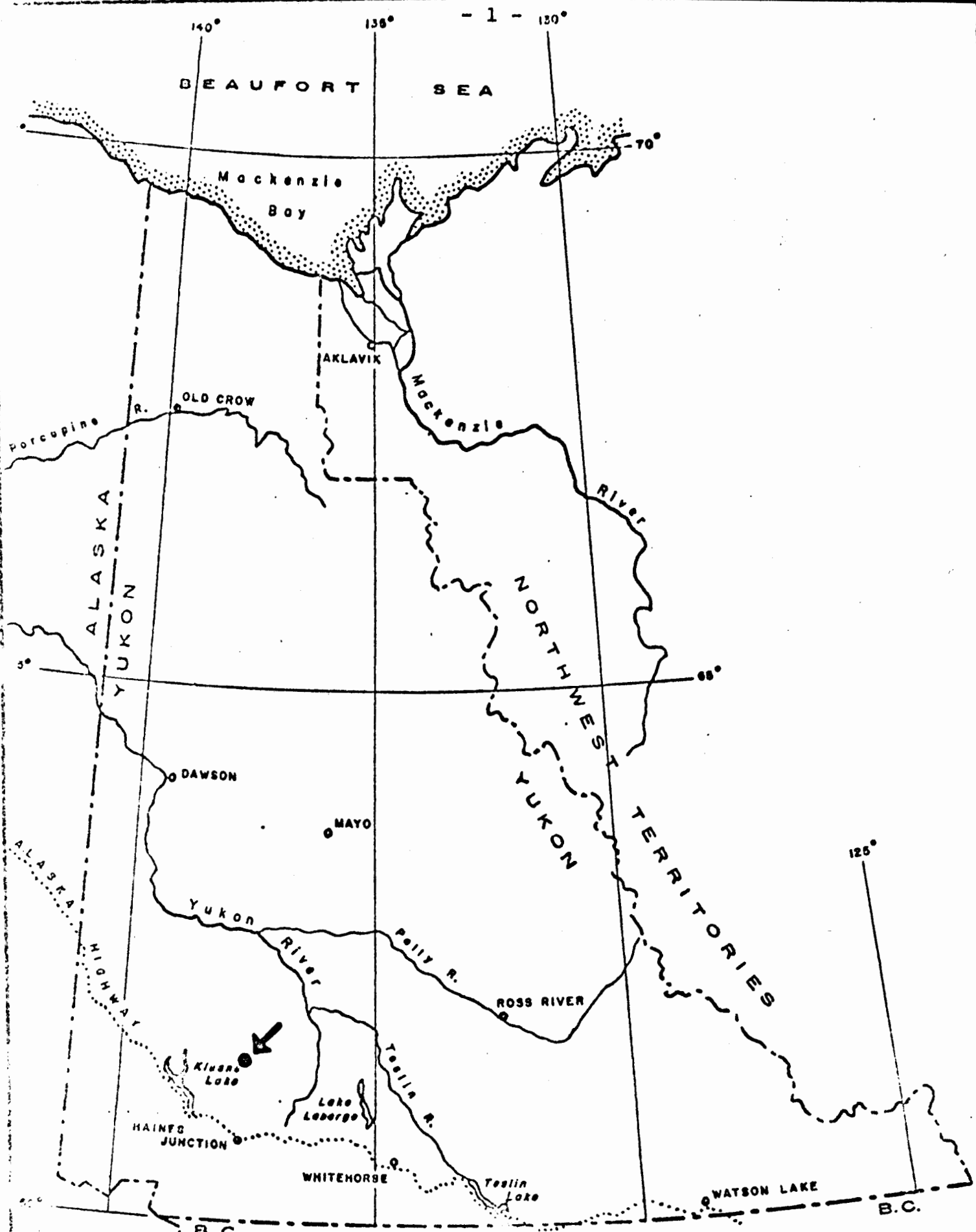
[Signature]
Commissioner of Yukon Territory

By:

D.M.S. Bhatia, M.Sc. (University of New Brunswick)
and
C.F. Gleeson, Ph.D., P.Eng.

Duration of Work:
July 2, 1972 to July 27, 1972





LOCATION MAP
THATCH CLAIM GROUP

YUKON TERRITORY (FIGURE 1)

INTRODUCTION

The Thatch (1-42) claims were staked as a result of a reconnaissance geochemical program carried out in the summer of 1971. Staking was done under contract by Harman Management Limited of Whitehorse and recorded at Whitehorse on October 27, 1971.

This report will describe and discuss the geology of the claims and the analytical results obtained from soil, rock and stream sediment samples. The work was completed by Canadian Occidental Petroleum Ltd. (Minerals Division) between June 19th, 1972 and July 1st, 1972, and was done to determine the cause of the reconnaissance stream sediment copper, zinc and molybdenum anomalies detected in the claim area and vicinity.

LOCATION AND ACCESS

The claim group is recorded on Claim Map 115-H-12 in the Whitehorse Mining District. The property is located about five miles west of Aishihik village on Aishihik Lake (Figure 1).

The claim area can be reached by road and air. It is possible to drive up the Aishihik road to Aishihik village in summer and to cover the remaining distance (5 miles) by helicopter.

The only adjacent property in the vicinity that is in good standing is the Cad group, 5 miles southeast of the Thatch claims, on the east side of Sekulmun Lake.

VEGETATION

Vegetation in this area is generally sparse to moderate. Moderate growth occurs towards the east-central and northeast corners of the claim group. Tree line is at an elevation of about 3900'.

The vegetation consists of black spruce, poplars, willows, dwarf birch and grass.

WORK COMPLETED

(a) Line Cutting

Line cutting was completed over the claims by Eastern Associates of Whitehorse, during the period May 26th to June 2nd, 1972.

Lines were cut at 015^uT every 800 feet. Total footage cut was 118,000 feet or 22.3 miles and they were completed at the rate of 2,458 feet per man per day.

(b) Geological Mapping

The area was mapped during the period June 19th to July 1st, 1972, by Mr. D.M.S. Bhatia, geologist, under the supervision of Dr. C.F. Gleeson, Professional Engineer, and Consultant to Canadian Occidental Petroleum Ltd.

(c) Geochemical Survey

Geochemical soil sampling was done in this area by Mr. Peter D. Tanaskow and Mr. D.M.S. Bhatia during the period June 19th to July 1st, 1972, under the supervision of Dr. C.F. Gleeson

(d) Names and Addresses of Personnel

Canadian Occidental Petroleum Ltd., Minerals Division

| | | |
|-----------------------|---|-------------------------|
| Mr. D.M.S. Bhatia | 110 Wellesley Street East, Apt. 403, Toronto 5, Ont. | Geologist |
| Mr. Peter D. Tanaskow | 671 Dunboyne Cres. London 23, Ontario | Soil sampler |
| Mr. B. LeDoux | General Delivery Whitehorse, Y. T. | Cook |
| Dr. C.F. Gleeson | 764 Belfast Road Ottawa, Ontario | Consultant Geologist |
| Mr. A. Brooks | Port Loring, Ontario | Soil Sampler |

Eastern Associates Reg'd.

| | | |
|------------------|-------------------|-------------|
| Mr. R. Voisine | Whitehorse, Y. T. | Line cutter |
| R. Morin | Whitehorse, Y. T. | Line cutter |
| Mr. G. Grandin | Whitehorse, Y. T. | Line cutter |
| Mr. P. Gratton | Whitehorse, Y. T. | Line cutter |
| Mr. G. Desentals | Whitehorse, Y. T. | Line cutter |
| Mr. R. Cote | Whitehorse, Y. T. | Line cutter |

PHYSIOGRAPHY

In general the area consists of rolling terrain generally made up of north-south elongated ridges; the highest peaks being 4500' above sea level and occurring in the central and west-central part of the area. The maximum difference in relief between the lowest and highest points in the claim group is 900 feet. The regional slope of the ground is from west to east.

Drainage in this area is fair. The streams are intermittent; most of their water is provided either by thawing of the permafrost or from rain. The only stream with a continuous and moderate flow of water is Thatchell Creek. It flows west to east near the southern end of the property and it drains a small lake in the southwest corner of the claims. Swamps cover the valleys and make the terrain rough for walking.

Broad "U" shaped valleys in the area become "V" shaped near their heads; except where there is rock exposure their sides generally have slopes of less than 45°.

According to Hughes*the Thatch claim group has been overridden by the Ruby and Reid ice advances. The former advanced northward and originated in St. Elias mountains with local centers on the higher peaks (i.e. above 5000 feet) of the Ruby range. The Ruby ice sheet is the younger of the two advances and it is estimated at about 12,500 years based on correlative drift in Ogilvie Mountains. Probably it did not reach an elevation greater than 4000 feet in the Thatch area.

*Hughes, O.L. et al (1969) Glacial Limits and Flow Patterns, Yukon Territory, G.S.C. Paper 68-34

The Reid advance originated in the Kluane ranges to the southwest and it is dated (radiocarbon) as more than 42,900 years old. The average ice level was at about 5000 feet over Yukon Plateau.

Glaciation in this area is marked by the presence of moraines. Rounded boulders of assorted sizes and rock types strewn over the area provide evidence of glaciation. Winding ridges and glacial moraine comprising assorted material of different shapes and sizes are present in this area. In one instance a ridge runs perpendicular to the slope of the terrain damming the flow of water and forming a small lake.

Boulders transported by glaciation up to elevations of around 4200' cannot be traced to source; whereas, those at altitudes of around 4500' and above have been transported only short distances. No glacial striae were observed in the area.

Glacial erratics were found on a hill 1500' west of the northwest corner of the claim group at an elevation of about 4400' and glacial moraine becomes prominent below an elevation of 4200 feet.

GEOLOGY

Introduction

Most of the rock exposures in the area belong to the "Yukon Group" and comprise quartzites, marble, and locally some schist. Since outcrops are sparse, occurring only on hill tops, it is difficult to determine with any accuracy the oldest rock formation in the area. The following rock types are present on the claim group:

| | |
|---------------|----------------------------------|
| Tertiary: | Porphyritic granite |
| Yukon Group | (Marble |
| | (Biotite-chlorite-garnet schist |
| Paleozoic (?) | (Ferruginous quartzite |
| | (Micaceous quartzite |

Yukon Group

Micaceous Quartzite: The micaceous quartzite outcrops are mainly in the central and south western portions of the claims.

The rock consists of flakes of biotite and muscovite along with quartz. The quartzite is hard, compact and whitish grey to greyish black in colour. Locally, it may develop incipient schistosity, and as such can also be called a micaceous quartz schist. Occasionally, weathering causes the micaceous quartzite near the surface to appear phyllitic. The thickness of the micaceous quartzite varies; in places it is up to 30-40' thick.

Ferruginous Quartzite: The ferruginous quartzite though distinct from the micaceous quartzite, could be part of the latter. This rock type outcrops at the following two places: on the hill at line 64+00E, station 32+00N, and on the hill west of station 0+00 on the base line. The ferruginous quartzite at both these locations is interbedded with the micaceous quartzite. However, at the latter location it is in contact with granite.

The fresh ferruginous quartzite is whitish pink to pinkish grey in colour, rarely altered, compact and appears to contain iron oxide (limonite and/or hematite) in minor amounts and quartz. No lineation is seen in this rock. It was not possible to determine its thickness.

Biotite-chlorite-garnet schist: was found locally in this area, occurring only on L32+70E at station 29+90N.

The rock is greenish black to dark green in colour and is interbedded with limestone and micaceous schist. The beds vary in thickness from 1' to 3'. The rock consists of biotite, chlorite and garnet; light pink garnets up to 1 cm in diameter stand out in relief on the weathered surface.

Marble: occurs mainly in the central portion of the claims. It is present as lens-like masses interbedded with micaceous quartzite on hill tops in this area.

The rock is whitish to bluish-grey in colour and white to earthy white in colour when weathered. It exhibits a distinct sugary texture with well developed calcite crystals. The thickness of this unit varies; at places it is up to 40' thick.

Locally the limestone is limonitic and/or micaceous, and very weathered.

Tertiary

Porphyritic granite: Although boulders of granite occur strewn over the property, the only outcrop of granite is present on the hill top west of station 0+00 on the base line.

The granite here is pinkish white, to whitish yellow and locally it is very coarse-grained. In general it is a medium grained, equigranular, leucocratic granite (or alaskite). In places, the granite is porphyritic and contains phenocrysts of quartz and orthoclase in a fine-grained matrix. The quartz is generally translucent to opaque. In some places the granite is slightly altered due to oxidation of its iron constituents. Occasionally, small grains of pyrite are present, or their absence is characterized by limonitic vugs.

Structure

The structure of the rocks in this area does not appear to be very complicated. They strike north-northwest, dip between 31° and 37° east and plunge at 31° towards the north.

Folding occurs in the outcrops along line 40+00E (see geological map) where, in places, the beds are almost vertical. Minor folds in this outcrop plunge 31° NNW. Since outcrop is sparse, it is difficult to define the true structural picture of the area.

Locally brecciated quartz veins are present. In some places calcite crystals in the limestone show preferred orientation which is also true of the quartz and mica in the quartzite.

Section XY provides a rough idea of the structure present (Figure 2).

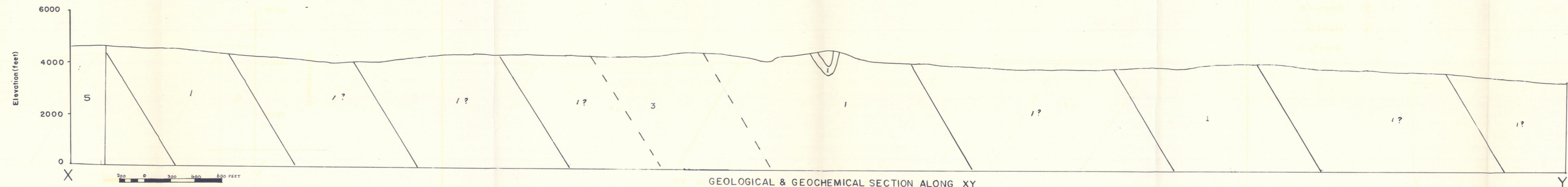
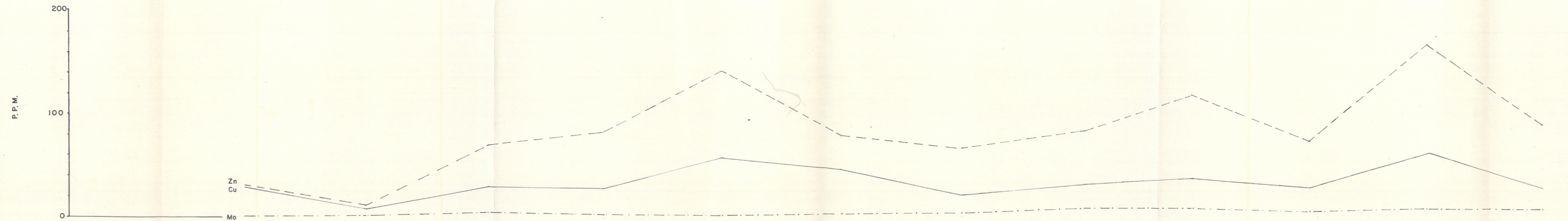
Metamorphism:

The rocks in this area have undergone regional metamorphism. The metamorphism is generally of the biotite facies, but may locally reach the garnet grade.

ECONOMIC GEOLOGY

No significant sulphide mineralization was seen on these claims. Biotite in the quartzites, locally oxidised to limonite and sericitic alteration, may occur around the granite. In the marble, leaching due to weathering is ubiquitous.

In summation it can be said that two major rock units are present in the area, viz., quartzite and marble, and some granite outcrops to the west of the claimed area.



- Legend
- 5 Granite
 - 3 Marble
 - 1 Quartzite

XY GEOLGICAL & GEOCHEMICAL SECTION ALONG XY
 Figure 2
 THATCH CLAIMS (115-H-12)

(Handwritten signature)

The rocks have undergone metamorphism up to the biotite facies, and locally the garnet facies. The structural relationships of the rocks is not complicated.

From the geological studies, significant sulphide mineralization is not apparent in the area.

SOIL GEOCHEMISTRY

Some 870 soil samples were collected every two hundred feet on lines 800 feet apart. This sampling was done to help determine the possible presence of Cu-Mo mineralization.

The samples were sent to Bondar-Clegg's laboratory in Whitehorse where they were dried and sieved to -80 mesh and analyzed using a Tectron, Model AA5, atomic absorption spectrometer after digestion with hot $\text{HNO}_3:\text{HCl}$.

In general the area can be divided into two - swamps and non-swampy areas. This differentiation is made on two factors:

- 1) Generally, two ash horizons are developed in the low lying swampy areas as compared to one in the non-swampy regions.

- 2) Flooding of the sample pits in most swampy areas prevents collection of samples from the B horizons. Also, sampling was made difficult by the presence of permafrost. In places it was necessary to dig through 2 feet of frozen organic material and ash to reach the "B" horizon. Care had to be taken not to sample the weathered volcanic ash. In places the white ash is beginning to form a soil. Where this

occurs the ash has a brown colour and could be mistaken for a "B" horizon. However, this false "B" horizon is sandy whereas the proper "B" horizon is clayey.

Soil Horizons:

A Horizon: A good "A" horizon is developed throughout the claim area. The thickness of the "A" horizon varies up to 1 foot in non-swampy areas; in the swampy areas it is considerably thicker. The organic material at depth is well decomposed, generally black in colour and contains 60% to 70% plus organic matter. Where the "A" horizon is thin, the organic matter is generally poorly decomposed.

B Horizon: The "B" horizon is well developed in the claim area. The soil is clayey and varies in colour from greyish brown to red or a combination of these colours; invariably it is overlain by 3 to 6" of recent volcanic ash. In places, two layers of ash are present and generally these are seen in the swampy and low lying areas.

The individual ash layers are on the average 4" to 6" thick. The ash is white to whitish grey, generally powdery (sand size) and granular. When dry the granules break into powder between fingers. Ash layers up to one foot thick occur on some hill sides but these are rare.

Profile Soil Sampling

Three sample pits were dug in different physiographic settings to determine the relationship between metal content and soil horizons. Description and location of the pits is given in Table 1.

The results illustrate the importance of taking a soil sample below the ash layer. Invariably the ash had the lowest trace element content and the "B" horizon contained the maximum values.

Table 1 - Analyses of Soil Profiles

Sample Pit No. 1

| Sample No. | Location | Horizon | Values in ppm | | | Description |
|------------|---|----------------|---------------|----|----|--|
| | | | Cu | Zn | Mo | |
| |) L56E, 22+00N | A ₀ | | | | Moss from 0"-2½" depth |
| 13001A) | Station 13001) (located at) low altitude) | A ₁ | 22 | 50 | 4 | Decomposed humus 2½"-4" depth |
| 13001B) |) | Ash layer | 9 | 8 | 2 | Volcanic ash 4"-6" depth |
| 13001C) |) | B | 44 | 22 | 12 | Black organic layer well decomposed in between boulders. 6"-12" depth |

Sample Pit No. 2

| | | | | | | |
|---------|---|----------------|----|----|----|---|
| 13051A) | L48+00E, 22+00N) located on) high ground) | A ₁ | 12 | 55 | 6 | Moderately decomposed organic layer, roots, etc., present |
| 13051B) | Samples taken) in glacial) moraine) | Ash Layer | 1 | 6 | ND | 2"-5" depth. White volcanic ash with some roots. |
| 13051C) |) | B | 11 | 82 | 6 | Brown clay soil with rock fragments |

Sample Pit No. 3

| | | | | | | |
|---------|--|-----|----|----|---|---|
| 13007A) | L56W, 34E)) | A | 27 | 47 | 4 | 0"-6". Humus layer well decomposed and covered by moss |
| 13007B) | Two layers) of ash could) be due to) slumpage) | Ash | 9 | 16 | 2 | 6"-8". White sandy ash with approx. 10% organic material - roots, etc. |
| 13007C) |) | A | 43 | 67 | 5 | 8"-12". Black well decomposed organic material. |
| 13007D) |) | Ash | 12 | 25 | 1 | 12"-12.5" white sandy ash, 10% organic material |

Sample Pit No. 3 cont'd

| <u>Sample No.</u> | <u>Location</u> | <u>Horizon</u> | <u>Values in ppm</u> | | | <u>Description</u> |
|-------------------|-----------------|----------------|----------------------|-----------|-----------|--|
| | | | <u>Cu</u> | <u>Zn</u> | <u>Mo</u> | |
| 13007E | L56W, 34E | B | 36 | 93 | 10 | 13.5"-15" brownish grey rocky soil with sub angular fragments of quartzite |

STATISTICS

Histograms have been drawn for each element and they are presented in Figures 3, 4 and 5. Background (median values) for Cu, Zn and Mo is 30, 80 and 5 ppm respectively. Anomalous values were established at the 97% interval of the non-anomalous population. For Cu, Zn and Mo they are 67 ppm, 150 ppm and 11 ppm respectively.

All histograms are bimodal and clearly illustrate the presence of a non-anomalous and an anomalous distribution.

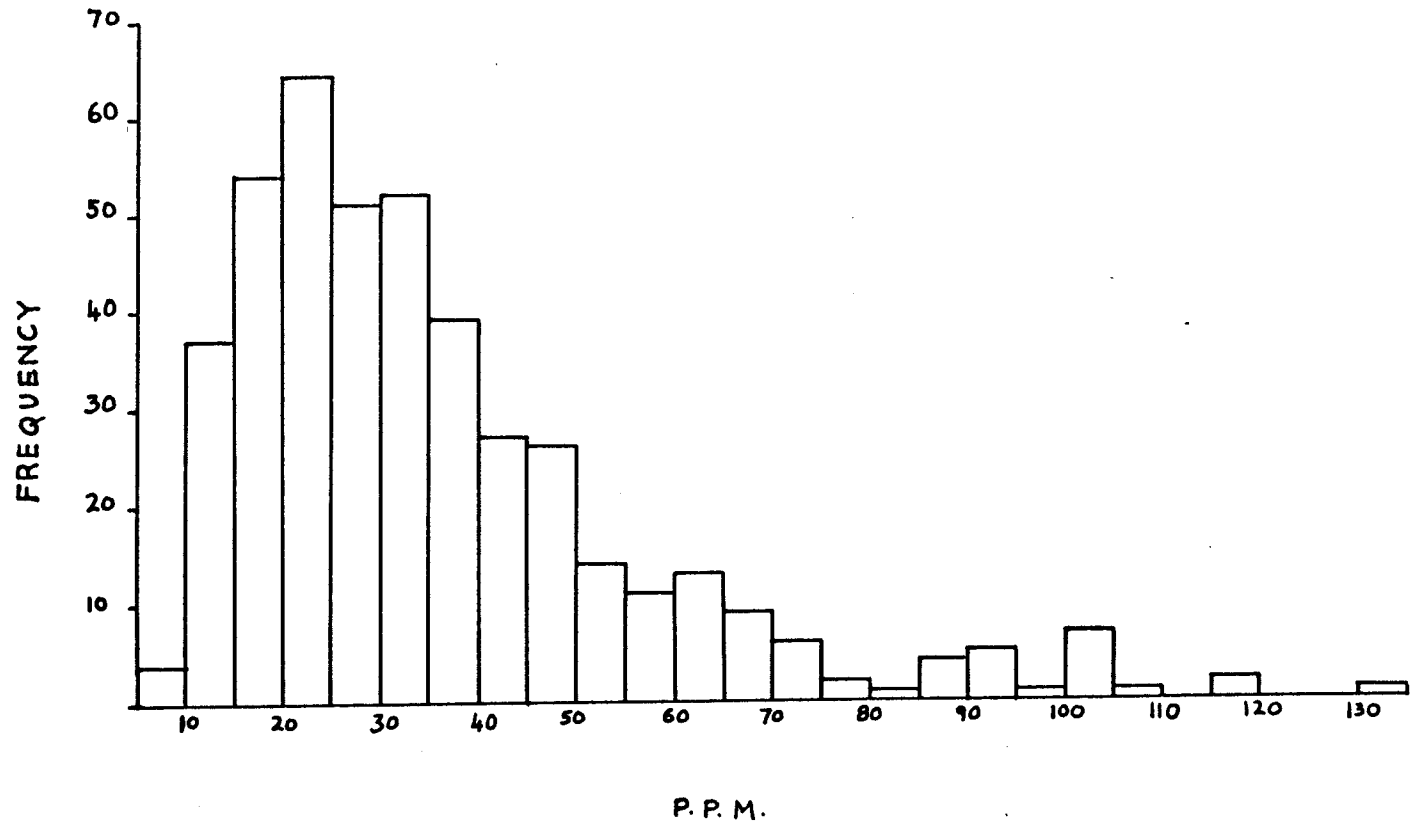
Results

Copper

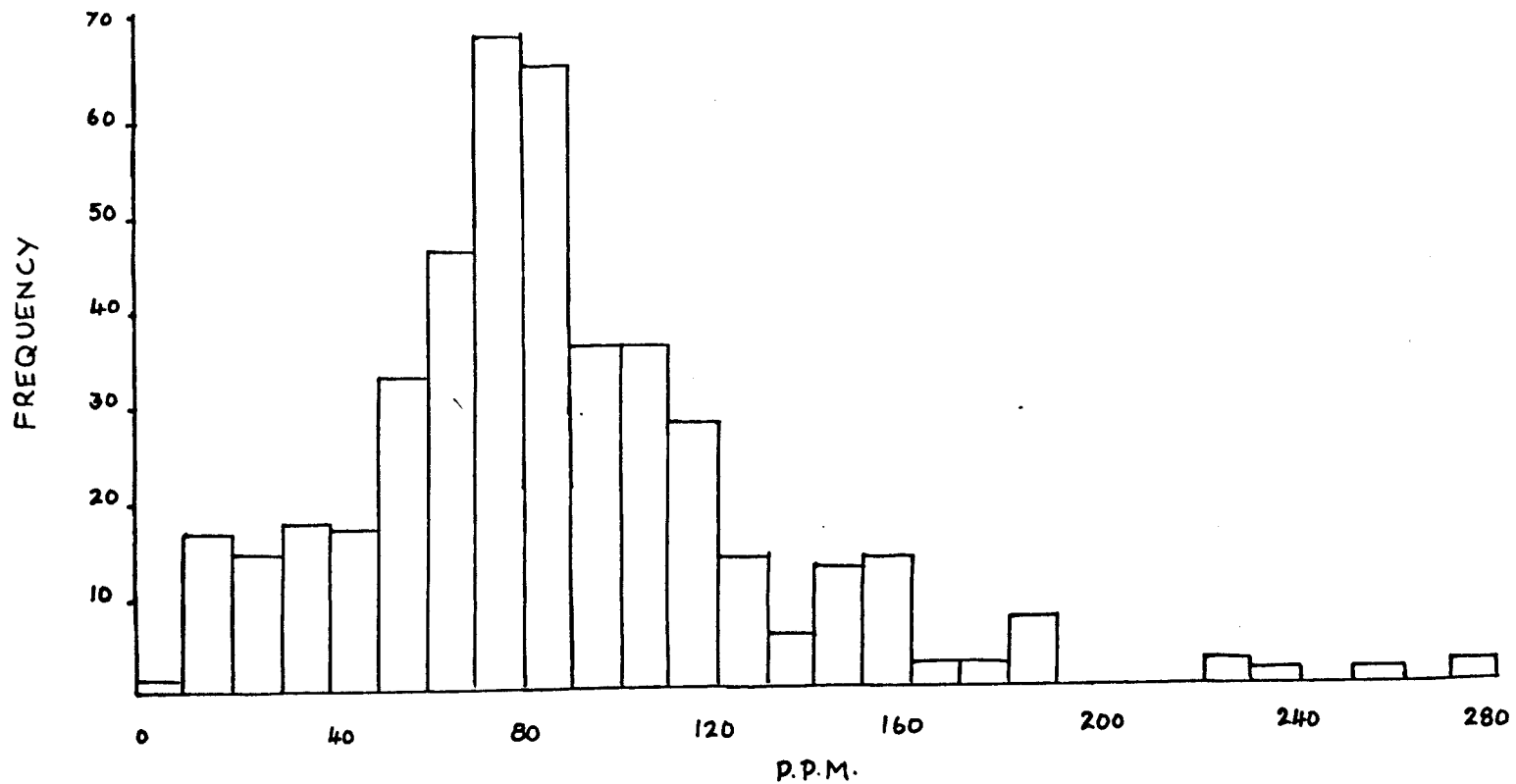
Centered on station 36+00N between lines 32E and 40E is an east-trending copper anomaly which measures about 1000' x 400'. The anomaly occurs on a hill underlain by micaceous quartzite in contact with marble. Values in the soil vary from 51 to 104 ppm. The anomaly is probably caused by trace amounts of copper in the quartzites.

Several similar east-trending copper anomalies occur scattered throughout the east portion of the claims. One such anomaly is located on L88E, station 22+00S, here the copper content of the soil is 280 ppm. This area is underlain by extensive glacial deposits.

An area containing between 54 and 150 ppm copper is

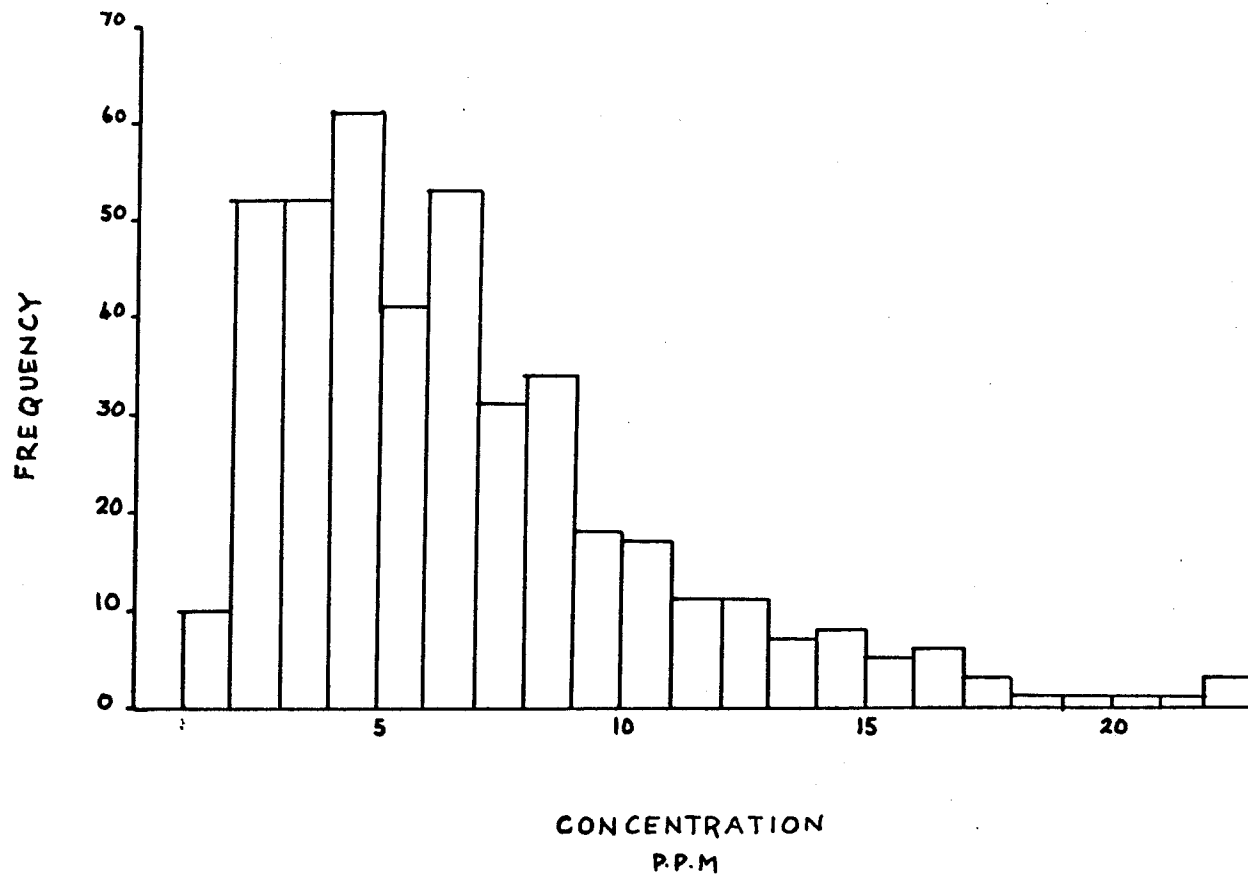


FREQUENCY DISTRIBUTION
 FOR
 COPPER IN SOIL
 (Figure 3)



FREQUENCY DISTRIBUTION
FOR
ZINC IN SOIL

(Figure 4)



FREQUENCY DISTRIBUTION
FOR
MOLYBDENUM IN SOIL

(Figure 5)

located on lines 40E to 64E between stations 14S and 20N. The anomaly has a north-south configuration and measures approximately 1500' x 3600'. It occurs on a hillside which slopes about 20 degrees east and is underlain by glacial moraine. The southern portion of the anomaly in part coincides with a strong Mo one. However, the northern part of it is parallel and up slope from a north trending Mo anomaly.

Zinc

An area containing zinc values which range from 150 to 280 ppm crosses lines 24E to 56E about 5000 feet north of the base line. The anomaly is 4200 feet long and 250 feet wide. Coincident with the anomaly at its east end is an anomalous zone containing 9 to 15 ppm Mo. Four hundred feet southeast of the end of the zinc zone is an area of micaceous quartzite outcrops. The anomaly is probably related to pyrite rich portions of this rock type and it is not considered to be of any economic significance.

A similar zinc anomaly (500 ppm) occurs on L56E, station 36+00N and it has coincidentally high Mo (9 ppm). The anomaly strikes east, it is 2100 feet long and 300 feet wide. The source of the metal is a pyritiferous micaceous quartzite. A sample of this rock type taken on L56E, station 36+00N contained 44 ppm Cu, 256 ppm Zn and 5 ppm Mo. This type of mineralization is of no economic interest.

Two parallel zinc anomalies trend eastward off of the claims in the southeast part of the property.

The first anomaly lies just north of the base line and runs east from line 48E; it averages about 400 feet in width and has a length on the claim group of 4000 feet. Zinc values

in the soils vary from 151 to 610 ppm and the anomaly is in part coincident with a Cu and Mo anomaly.

No geological information is available on this anomaly because it occurs in an area covered with thick glacial moraine and swampy ground.

The second zinc anomaly in this area strikes eastward off of the claims from line 48E, station 26+00S. In the claim group it has a length of 4000 feet and a width of about 200 feet. Values range from 152 to 372 ppm Zn. This anomaly more or less coincides with a molybdenum one.

No geology is exposed in this area as it is covered by thick deposits of glacial moraine.

Molybdenum

In the north part of the claims between lines 40E and 64E several restricted Mo anomalies occur. They appear to trend east and range in size from a one station anomaly up to ones 1200 feet by 200 feet. Values range from 11 ppm to 24 ppm. The anomalous areas are covered with glacial moraine and swamps. However, the metal-rich zones are probably underlain by the Yukon Group quartzites. The source of molybdenum could be related to quartz veins or pyritiferous phases of the quartzite. Several of these molybdenum anomalies have coincident Zn anomalies.

The most extensive molybdenum anomaly occurs in the southern part of the claim group. It commences at the south end of line 8+00E and trends eastward to line 64E where it takes on a north-south configuration. This sudden change in attitude could be related to a fracture pattern in bedrock.

The anomaly resumes its easterly trend after line 80E and leaves the claim group on Line 88E, station 14S.

The anomaly covers all or part of 14 claims and values range from 10 ppm to 124 ppm. The eastern portion of the anomaly coincides in part with high Zn and Cu zones.

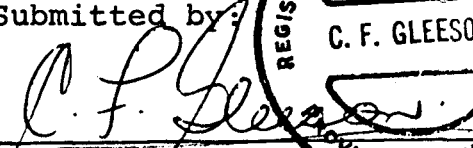
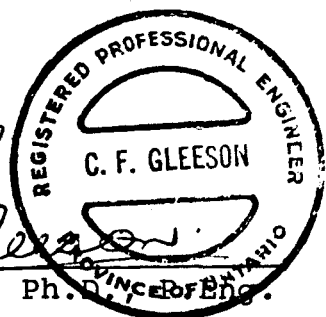
All of the area underlain by the zone of high molybdenum values is covered by thick glacial moraine (in places 100 feet or more thick) and/or swamps. To determine the cause of this anomalous feature will require more work (e.g. I.P., Mag. and drilling).


This molybdenum anomaly occurs on the north flank of an unexplained, circular, 100 gamma, aero-magnetic anomaly. The shape of the A-M anomaly suggests that it is caused by an igneous intrusion.

Recommendations

The original claim block should be extended south to cover the aero-magnetic anomaly. The geochemical soil sampling should be extended southward also. Ground magnetometer and I.P. surveys should be completed on the south half of the Thatch claim group prior to diamond drilling.

Submitted by:


C. F. Gleeson, Ph.D. 


D.M.S. Bhatia, M.Sc.

Toronto, Ontario

September 14, 1972

APPENDIX I -CLAIM DATA

| <u>Ref.No.</u> <u>on Map</u> | <u>Claims</u> | <u>Tags</u> | <u>Location</u> | <u>Staker</u> | <u>Time & Date</u> <u>Staked</u> |
|---------------------------------|---------------|--|-----------------|---------------|---|
| 1 | Thatch | 1 Y63648-1 2 Y63649-1 | 15+00E,29+00S | S.Williams | Oct. 3,1971 |
| 2 | " | 1 Y63648-2 2 Y63649-2 3 Y63650-1 4 Y63651-1 | " ,14+50S | " | " |
| 3 | " | 1 Y63650-2 2 Y63651-2 3 Y63652-1 4 Y63653-1 | " 0+00 | " | " |
| 4 | " | 1 Y63652-2 2 Y63653-2 3 Y63654-1 4 Y63655-1 | " 14+50N | " | " |
| 5 | " | 1 Y63654-2 2 Y63655-2 3 Y63656-1 4 Y63657-1 | " 27+00N | " | " |
| 6 | " | 1 Y63656-2 2 Y63657-2 3 Y63658-1 4 Y63659-1 | " 42+00N | " | Oct. 3,1972 |
| 7 | " | 1 Y63658-2 2 Y63659-2 3 Y63660-1 4 Y63661-1 | " 56+00N | : | : |
| 8 | " | 1 Y63660-2 2 Y63661-2 | " 70+00N | " | " |
| 9 | " | 1 Y63662-1 2 Y63663-1 | 41+00E,29+00S | J. Etzel | " |
| 10 | " | 1 Y63662-2 2 Y63663-2 3 Y63664-1 4 Y63665-1 | 41+50E,15+50S | " | " |
| 11 | " | 1 Y63664-2 2 Y63665-2 3 Y63666-1 4 Y63667-1 | 41+00E,1+40S | " | " |

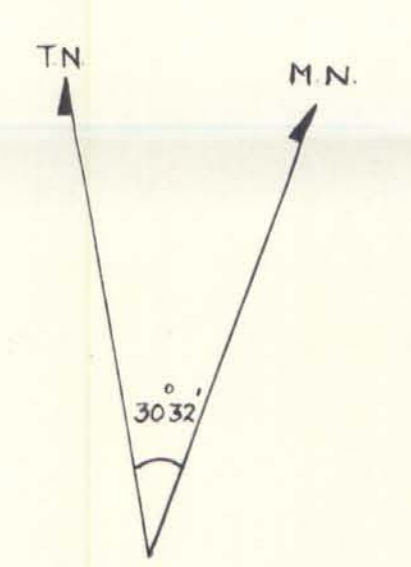
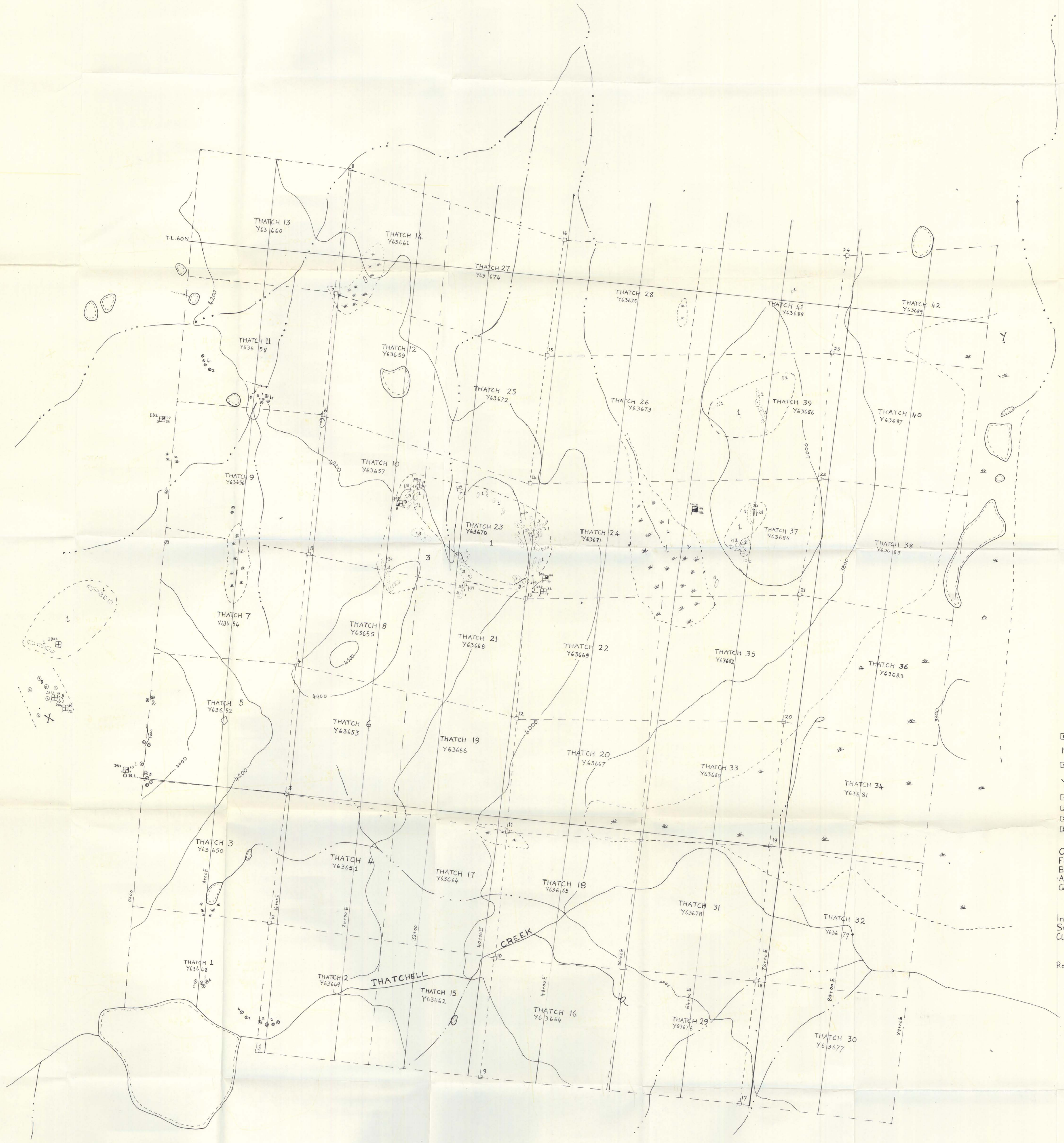
| <u>Rev.No.</u> <u>on Map</u> | <u>Claims</u> | <u>Tags</u> | <u>Location</u> | <u>Staker</u> | <u>Date & time</u> <u>Staked</u> |
|---------------------------------|---------------|--|-----------------|------------------------|---|
| 12 | Thatch | 1 Y63666-2 2 Y63667-2 3 Y63668-1 4 Y63669-1 | 40+50E,11+35N | J.Etzel | Oct.3,1972 |
| 13 | " | 1 Y63668-2 2 Y63669-2 3 Y63670-1 4 Y63671-1 | 40+00E,24+75N | " | " |
| 14 | " | 1 Y63670-2 2 Y63671-2 3 Y63672-1 4 Y63673-1 | 39+45E,37+50N | " | " |
| 15 | " | 1 Y63672-2 2 Y63673-2 3 Y63674-1 4 Y63675-1 | 39+50E,52+00N | " | " |
| 16 | " | 1 Y63674-2 2 Y63675-2 | 39+00E,65+25N | " | " |
| 17 | " | 1 Y63676-1 2 Y63677-1 | 71+00E,29+00S | A.Harman W.Atkinson | " |
| 18 | " | 1 Y63676-2 2 Y63677-2 3 Y63678-1 4 Y63679-1 | 71+00E,14+75S | " | " |
| 19 | " | 1 Y63678-2 2 Y63679-2 3 Y63680-1 4 Y63681-1 | 71+00E,0+00 | | |
| 20 | " | 1 Y63680-2 2 Y63681-2 3 Y63682-1 4 Y63683-1 | 70+50E,14+00N | " | " |
| 21 | " | 1 Y63682-2 2 Y63683-2 3 Y63684-1 4 Y63685-1 | 71+00E,28+00N | " | " |
| 22 | " | 1 Y63684-2 2 Y63685-2 3 Y63686-1 4 Y63687-1 | 70+50E,41+50N | " | " |
| 23 | " | 1 Y63686-2 2 Y63687-2 3 Y63688-1 4 Y63689-1 | 70+75E,56+00N | " | " |
| 24 | " | 1 Y63688-2 2 Y63689-2 | 71+00E,67+00N | " | " |

APPENDIX II

DETAILS OF ROCK SAMPLES AND ANALYSIS

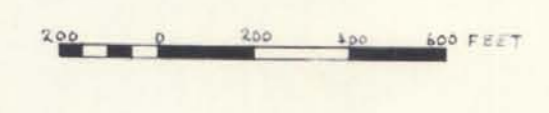
| Sample No. | Location | Rock Type | Description | Values in ppm | | |
|------------|---------------------------------------|--|--|--------------------------|------------|-----------|
| | | | | Cu | Zn | Mo |
| DB1 | LO+00,2+05W 0+30N | Crystalline Quartz | Translucent quartz (from quartz vein) trace bornite | <u>63</u> | 7 | 1 |
| DB2 | LO+00,40N, 1+50W | Breccia | Mainly from a Micaceous quartzite quartz incorporated | 53 | 35 | 3 |
| DB3 | 40+70E,25+50N | Micaceous Quartzite | Bluish grey to greyish with limonite staining | 32 | 7 | 2 |
| DB4 | 40+50E,25+50N | Marble | Bluish grey to white, leached | 44 | 10 | 4 |
| DB8 | 26+75E,35+75N | Marble | Bluish grey to whitish blue | - | - | - |
| DB9 | 26+80E,35+00N | Marble | " | 23 | 16 | 8 |
| DB10 | 27+20E,35+00N | Quartzite | Whitish grey to greyish black | 9 | 41 | 1 |
| DB11 | 27+50,35+00N | " | " | - | - | - |
| DB13 | NTS map 115-H-12 scale 1:50,000 | Quartz | From a quartz vein 1500' W of NW corner of claim group | <u>390</u> | <u>220</u> | <u>18</u> |
| DB14 | " | Quartz breccia | " | 26 | 59 | 5 |
| DB15 | " | Granite | Fine grained Alaskite W of 0+00 stn. on B.L. | 10 | 19 | 1 |
| DB17 | 32+75E,29+90N | Biotite- chlorite- garnet schist | Green black rock with garnet crystals | not sent for analysis | | |
| DB18 | 64+80E,32+40N | Ferruginous quartzite | Whitish pink quartzite fine grained | " | | |
| DB19 | 64+90E,33+00N | " | " | " | | |
| DB22 | 13+00W,14+00N | Micaceous quartzite | Whitish black biotite quartzite, some muscovite | " | | |

| <u>Sample No.</u> | <u>Location</u> | <u>Rock Type</u> | <u>Description</u> | <u>Values in ppm</u> | | |
|-------------------|-----------------|--------------------------|--------------------|----------------------|------------|-----------|
| | | | | <u>Cu</u> | <u>Zn</u> | <u>Mo</u> |
| DB23 | 10+70W,8+00N | Granite | Alaskite | 18 | 55 | 1 |
| DB24 | 8+75W,7+00N | Granite | Alaskite | 25 | 72 | 1 |
| 13008R | 56E,36+00N | Quartzite with pyrite | | 44 | <u>256</u> | 5 |



- Glacial moraine
- NISLING RANGE ALASKITE
- Granite
- YUKON GROUP
- Granodiorite
- Marble
- Ferruginous Quartzite
- Micaceous Quartzite
- Outcrop
- ⊙ Float
- ⊘ Bedding (inclined, vertical)
- ⊕ Anticline
- ⊖ Geological contact
- Intermittent stream
- ⊘ Swamp
- ⊘ Claim (lines, post)
- ⊘ Rock samples

Canadian Occidental Petroleum Ltd.
 115-H-12
 Aishihik Y.T.
THATCH CLAIMS 1-42
GEOLOGY
 Scale 1" = 400' Date: June 29, 1972
 Data By D.M.S. Bhatia & C.F. Gleeson





PROBABLY ANOMALOUS ANOMALOUS SAMPLE

SAMPLE NUMBER \oplus Cu (ppm)
 \ominus Zn (ppm)
 \square Pb (ppm)

SAMPLE NUMBERS BEGIN AT 13001

Swamp **

Stream ---

Claim (post. line) □

Contours (elevation) ---

Organic samples A

CANADIAN OCCIDENTAL PETROLEUM LTD.
 115-H-12

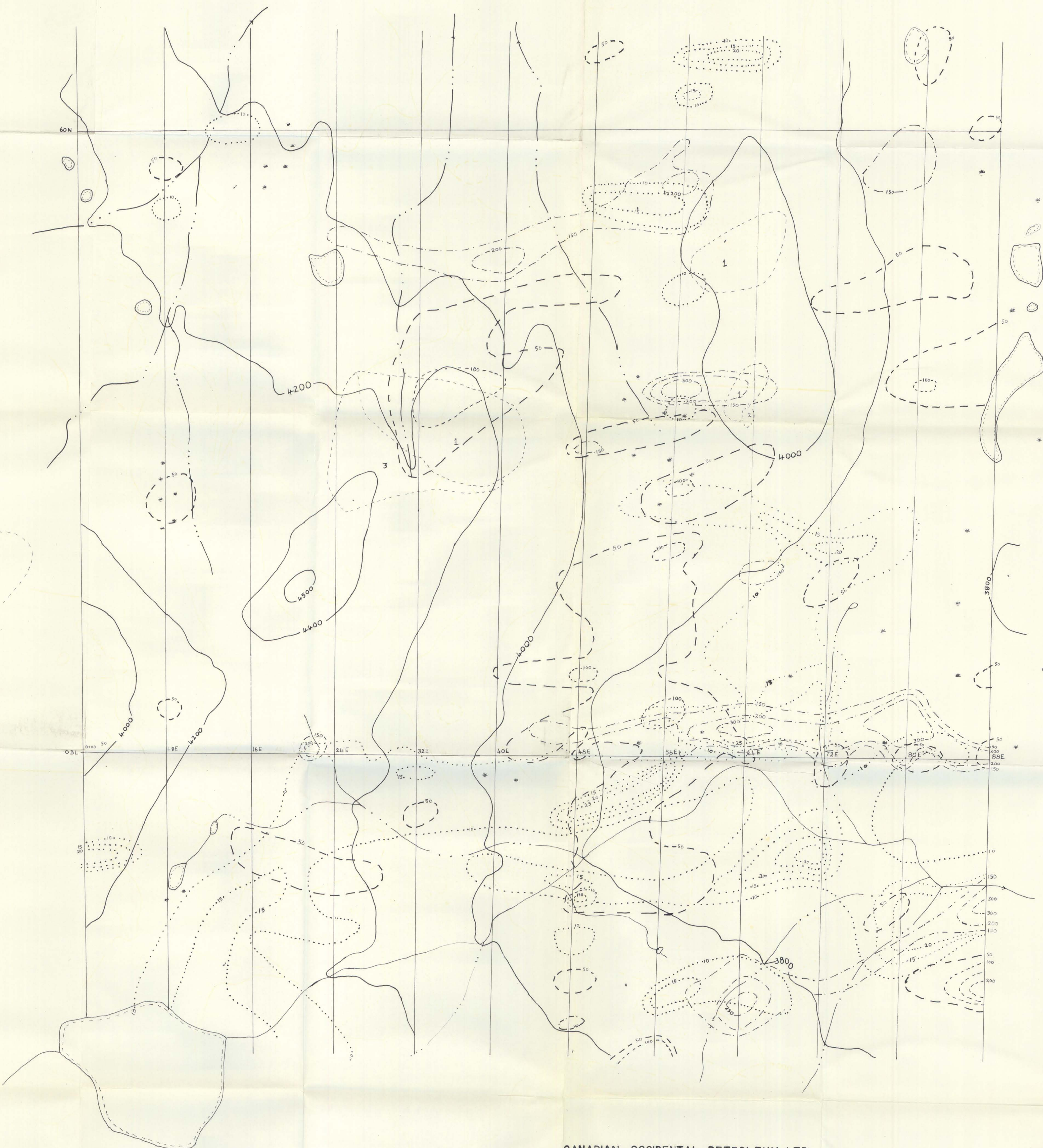
Aishihik Y.T.

**THATCH CLAIMS 1-42
 GEOCHEMISTRY**

Scale: 1" = 400' Date: June 24, 1972

Data By: C.F. Gleason
 D.M.S. Bhatia

0 100 200 300 400 500 FT



- ☐ Granite
- YUKON GROUP
- ☐ Marble
- ☐ Ferruginous quartzite
- ☐ Micaceous quartzite
- Stream (intermittent) ———→
- Swamp * *
- Contours
- elevation ———
- copper (ppm) - - - - -
- zinc (ppm) ·····
- molybdenum (ppm) ·····

CANADIAN OCCIDENTAL PETROLEUM LTD.
115-H-12

Aishihik Y. T.

THATCH CLAIMS I-42
GEOLOGY & GEOCHEMISTRY
(Compilation)

Data by: D.M.S. Bhatia & C.F. Gleeson

