

GEOLOGICAL - GEOCHEMICAL REPORT

on the

KLI 9 - 48 MINERAL CLAIMS

KLIYUL CREEK AREA *CHD/GE*

Located 12 Miles W. of Aiken Lake, B.C.

56°N, 126°05'W) Omineca M.D., B.C.

By: G. A. Noel, P. Eng. Oct. 18, 1972

3977

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GEOLOGICAL - GEOCHEMICAL REPORT

on the

KLI 9-48 MINERAL CLAIMS

KLIYUL CREEK AREA

Located 12 miles west
of Aiken Lake, B. C.

(56°27'N, 126°05'W)

Omineca Mining Division, B. C.

by

G. A. Noel, P. Eng.

October 18, 1972

| | |
|-------------------------------|------|
| Department of | |
| Mines and Petroleum Resources | |
| ASSESSMENT REPORT | |
| NO. | 3977 |

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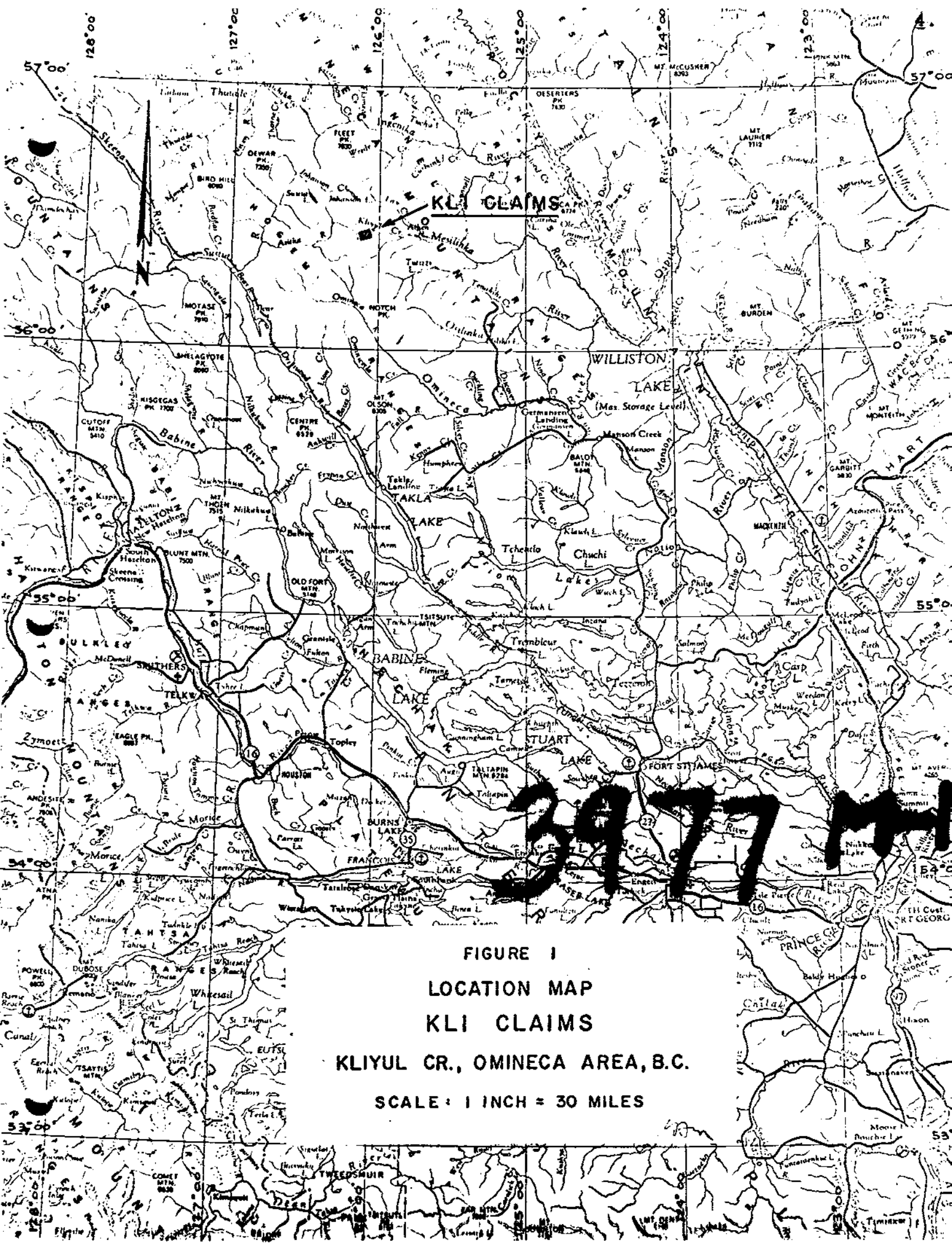
MAPS

| | |
|------------------|--|
| #4 No. 94 D 8-B4 | Reconnaissance Geology - Kli Claims (In Pocket) |
| #5 No. 94 D 8-B5 | Geochemical Stream Silts - Copper (In Pocket) in ppm - Kli Claims |
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SUMMARY

From July 16 - 28, 1972, a four-man crew completed reconnaissance geological mapping and stream silt sampling over the Kli 9-48 claims, about 12 miles west of Aiken Lake, B.C. in the Omineca Mining Division. The claims straddle Kliyul Creek at the headwaters of the Mesilinka River. The property is underlain by andesitic flows of the Takla Group and these are intruded by quartz monzonite dikes. Silicified zones with pyrite occur along shears and fractures in the andesite near the intrusive contacts and to some degree in the intrusives. The north fork of Kliyul Creek shows anomalous copper values in stream silts for at least one mile. This area is underlain by strongly altered volcanics intruded by quartz monzonite dikes. Further work is planned on Kli 32-35 claims which overlie the main area of interest.

12



KLI CLAIMS

**FIGURE 1
LOCATION MAP
KLI CLAIMS**

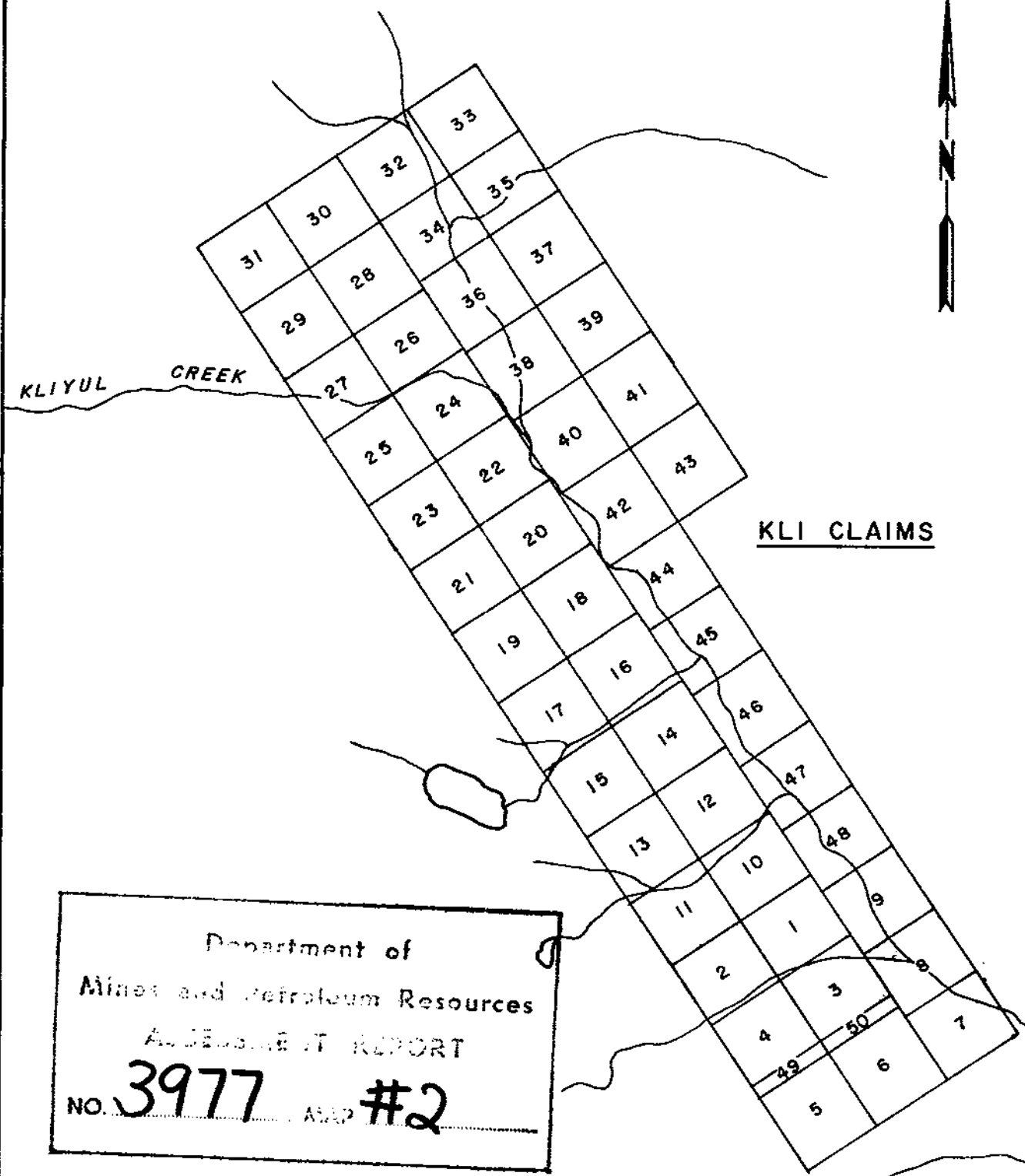
KLIYUL CR., OMINECA AREA, B.C.

SCALE: 1 INCH = 30 MILES

HM 77PE

Department of
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ASSESSMENT REPORT
NO. 3977 #1

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 ASSESSMENT REPORT
 NO. **3977** AMP **#2**

FIGURE 2
 CLAIM SKETCH
 KLI CLAIMS
 KLIYUL CREEK, OMINCA AREA, B.C.

K.L.J. OCT. 1972
 1 INCH = 1/2 MILE

4/32

INTRODUCTION

Between July 16 and July 28, 1972, a crew of four men completed reconnaissance geological mapping and stream silt sampling over the Kli property which is owned by El Paso Mining and Milling Company.

The property consists of 48 claims, Kli 1-48 inclusive, and is located in the Omineca Mining Division about 12 miles west of Aiken Lake, B.C. The claims straddle Kliyul Creek, a tributary of the Mesilinka River (see Figure 1). The 1972 fieldwork was done on, and for the benefit of, Kli 9-48 claims which form the north group of the property (Figure 2).

The access road from Germansen Landing follows the north bank of Omineca River westerly to Discovery Creek, then swings north crossing the Osilinka and Mesilinka Rivers. From this point, the road follows the north side of the Mesilinka northwesterly to Aiken Lake, about 80 miles from Germansen Landing. The Kli property was serviced by helicopter from Aiken Lake or Germansen Landing.

FIELD WORK

A total of 13 days was spent in geological mapping and stream silt sampling by the four-man crew. Stream silt samples were taken at 500 foot intervals along Kliyul Creek

1/10/72

and all of its tributaries lying within the external boundaries of the claim block. The sample locations are shown on the 1" = 1000' regional base map which was prepared from air photographs. The sample sites are located in the field with orange flagging marked with the sample number. A total of 73 samples was collected and analyzed for total copper and molybdenum in parts per million by Min-En Laboratories Ltd., 705 West 15th Street, North Vancouver, B.C., using the following procedure:

- 1) The silt sample was air dried at 95° C.
- 2) The sample was then sieved through a -80 mesh nylon and stainless steel sieve.
- 3) 1.0 gram of the -80 mesh material was weighed into a test tube and digested for six hours in hot 70% HClO₄ and HNO₃.
- 4) The sample volume was diluted to 25 mls. and mixed thoroughly.
- 5) Copper and molybdenum content was determined by atomic absorption analysis.

The geology was mapped from ridge-line, talus and stream channel traverses using the 1" = 1000' base map prepared from air photographs. The air photos were also used to determine location of outcrops and to provide some measure of control.

AKM

GEOLOGY

The Kli claims are underlain by andesitic flows, including pillow lavas, of the Takla Group of Upper Triassic and Jurassic age. These flows mainly occupy the southwest side of Kliyul Creek (northeast - facing slope) and are intruded by quartz monzonite which outcrops in the valley and along the northeast side of Kliyul Creek.

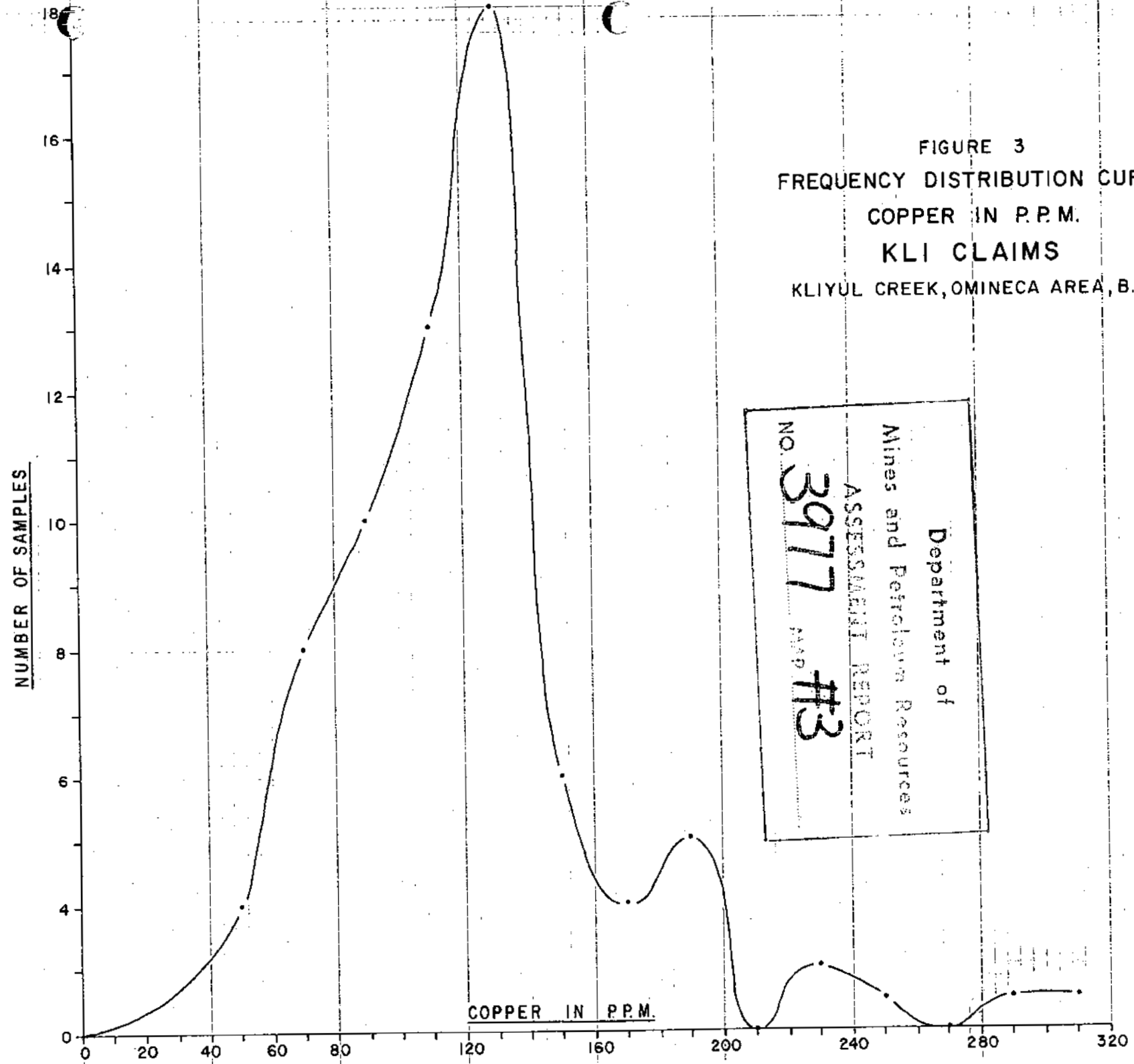
The flows are generally flat lying and extend from 4200 to 5800 feet elevation. They are overlain by interbedded shale, limestone and sandstone, which occupy the higher elevations on the ridge. A silicified (skarn?) and highly pyritized zone marks the contact between the flows and the sediments.

Very little copper mineralization can be seen except in several float occurrences. However, silicified zones with pyrite occur along shears and fractures in andesite near the intrusive contact and to some extent in the intrusive particularly towards the northwest end of the property. A chip sample cut across 10 feet of pyritized veins in the northwest tributary of Kliyul Creek at the northwest end of the claim group assayed as follows:

- Cu 0.03%
- Mo <0.001%
- Zn 0.01%
- Ag 0.04 oz/ton
- Au <0.003 oz/ton

Handwritten signature

FIGURE 3
FREQUENCY DISTRIBUTION CURVE
COPPER IN P.P.M.
KLI CLAIMS
KLIYUL CREEK, OMINECA AREA, B.C.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3977 MAP #3

The quartz monzonite outcrops may represent dikes which would conform with the geology mapped in 1971 on the Kli 1-4 claims. These dikes show a WNW trend parallel to the shearing and schistosity.

GEOCHEMICAL RESULTS

A frequency curve was plotted for copper and is shown in Figure 3. The following ranges for anomalous values have been used based on Figure 3 and a background value of 100 ppm copper:

| <u>Anomalous Designation</u> | <u>Range-ppm Cu</u> | <u>Color</u> |
|------------------------------|---------------------|--------------|
| Possibly | 150-200 | Yellow |
| Probably | 200-300 | Orange |
| Definitely | >300 | Red |

The tributary of Kliyul Creek that flows across Kli 1-4 claims shows possibly anomalous silts over about 1500 feet and these appear to be associated with the skarn zones which trend N50° W across the central part of this claim block. (See Map No. 94D8-B5).

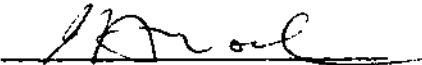
The north fork of Kliyul Creek shows anomalous values in silts over at least one mile with a build-up from 178 ppm to >300 ppm copper. These anomalous silts occur in the area of the quartz monzonite dikes and strongly altered volcanics. The rocks in this area show considerable

surface gossan due to pyrite.

The molybdenum content of the stream-silt samples ranged from 1 to 5 ppm with the background about 2 ppm. Three samples showed a value of 4 ppm molybdenum and only one sample showed a value of 5 ppm molybdenum. As a result it was concluded that none of the stream silts showed anomalous molybdenum values. (See Map No. 94D8-B6).

CONCLUSIONS

The area underlain by Kli 32-35 claims is considered the most interesting section of the Kli property from both the geological complexity and the geochemical stream silt results. This area should be carefully prospected and the more interesting ground checked with a geochemical soil survey.


G. A. Noel

APPENDIX A
GEOCHEMICAL ANALYSES

| Sample Number | Mo ppm | Cu ppm | Pb ppm | Zn ppm | Ni ppm | Co ppm | Ag ppm | Fe ppm | Hg ppb | As ppm | Mn ppm | Au ppm | | | |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|-----|-----|
| 6 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 |
| 81 | 86 | 95 | 100 | 105 | 110 | 115 | 120 | 125 | 130 | 135 | 140 | 145 | 150 | 155 | 160 |
| E213001 | 1 | 110 | | | | | • | | | | | • | | | |
| 02 | 2 | 120 | | | | | • | | | | | • | | | |
| 03 | 2 | 64 | | | | | • | | | | | • | | | |
| 04 | 2 | 110 | | | | | • | | | | | • | | | |
| 05 | 1 | 144 | | | | | • | | | | | • | | | |
| 06 | 3 | 110 | | | | | • | | | | | • | | | |
| 07 | 2 | 106 | | | | | • | | | | | • | | | |
| 08 | 2 | 96 | | | | | • | | | | | • | | | |
| 09 | 2 | 120 | | | | | • | | | | | • | | | |
| 10 | 2 | 130 | | | | | • | | | | | • | | | |
| 11 | 2 | 146 | | | | | • | | | | | • | | | |
| 12 | 4 | 144 | | | | | • | | | | | • | | | |
| 13 | 3 | 100 | | | | | • | | | | | • | | | |
| 14 | 2 | 180 | | | | | • | | | | | • | | | |
| 15 | 2 | 124 | | | | | • | | | | | • | | | |
| 16 | 4 | 126 | | | | | • | | | | | • | | | |
| 17 | 3 | 114 | | | | | • | | | | | • | | | |
| 18 | 2 | 116 | | | | | • | | | | | • | | | |
| 19 | 3 | 136 | | | | | • | | | | | • | | | |
| 20 | 2 | 138 | | | | | • | | | | | • | | | |
| 21 | 3 | 124 | | | | | • | | | | | • | | | |
| 22 | 2 | 124 | | | | | • | | | | | • | | | |
| 23 | 3 | 112 | | | | | • | | | | | • | | | |
| 24 | 4 | 156 | | | | | • | | | | | • | | | |
| 25 | 2 | 176 | | | | | • | | | | | • | | | |
| 26 | 1 | 170 | | | | | • | | | | | • | | | |
| 27 | 3 | 150 | | | | | • | | | | | • | | | |
| 28 | 2 | 116 | | | | | • | | | | | • | | | |
| 29 | 1 | 130 | | | | | • | | | | | • | | | |
| 30 | 3 | 160 | | | | | • | | | | | • | | | |

APPENDIX B
STATEMENT OF COSTS

Canada

Province of British Columbia

To Wit:

In the Matter of

Wages and costs incurred in a Geological and Geochemical Survey of Kli 9-48 Claims, Aiken Lake Area, Omineca M.D., B.C.

I, **G. A. Noel**, of **Vancouver** in the Province of British Columbia.

Do Solemnly Declare that the following wages and costs were directly expended on a Geological - Geochemical Survey of the Kli 9-48 claims from July 16 - 28, 1972:

Wages:

| | | |
|-----------------|---------|-----------------------------------|
| V. Ryback-Hardy | 13 days | July 16-28, 1972 @ \$856.00/month |
| D. Patterson | 13 days | July 16-28, 1972 @ \$575.00/month |
| J. Ruza | 13 days | " @ \$650.00/month |
| R. Warner | 13 days | " @ \$525.00/month |

Total Wages \$ 1,092.70

Geochemical analyses - 73 samples @ \$1.65/sl. 120.45

Camp costs \$6.00/man/day - (4 men - 13 days) 312.00

Helicopter servicing 1,278.00

Total Costs \$ 2,803.15

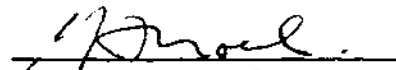
And I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath, and by virtue of the Canada Evidence Act.

Declared before me

Vancouver

the Province of British Columbia.

; 24th day of October A.D. 19 72


G. A. Noel



Notary Public in and for the Province of British Columbia

DAVID DONALD DAVIS
A Notary Public in and for the Province of British Columbia


Dated

19

In the Matter of

Statutory Declaration

Form No. Z 1 - 220

 WALSON STATIONERS

APPENDIX C

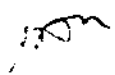
STATEMENT OF QUALIFICATIONS

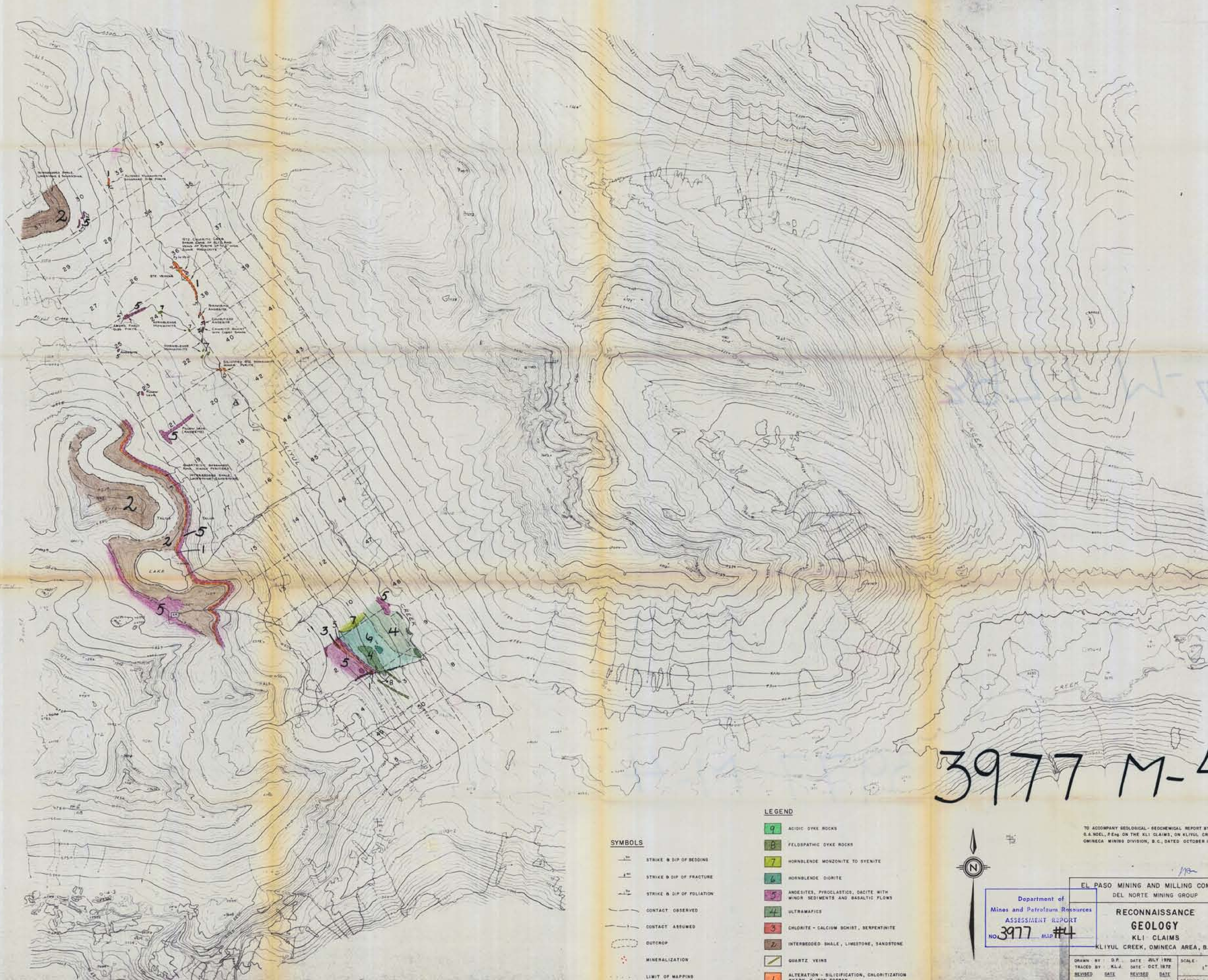
STATEMENT OF QUALIFICATIONS

The fieldwork for this report was done under the supervision of G. A. Noel, whose qualifications are outlined below:

G. A. NOEL: P. Eng. (Geol. Eng.), Manager of Canadian Exploration for El Paso Mining and Milling Company, Vancouver, B.C.

Completed B.A. Sc. (Geology) at University of B.C. in 1950 and M.A. Sc. (Geology) at University of Toronto in 1951; employed by Kennco Explorations (Canada) Ltd. from May 1951 through March 1956 as a field geologist in B.C. and Yukon Territory under the supervision of J. S. Scott; employed by Utah Construction and Mining Co. from March 1956 through September 1969 in B. C. and Alaska mineral exploration as a project geologist, acting district geologist and senior project geologist under L. C. Clark, W. Bourret, H. G. Peacock and E. S. Rugg; employed by El Paso Mining and Milling Company in Vancouver, B.C. since October 1970.





3977 M-4

SYMBOLS

- STRIKE & DIP OF BEDDING
- STRIKE & DIP OF FRACTURE
- STRIKE & DIP OF FOLIATION
- CONTACT OBSERVED
- CONTACT ASSUMED
- OUTCROP
- MINERALIZATION
- LIMIT OF MAPPING

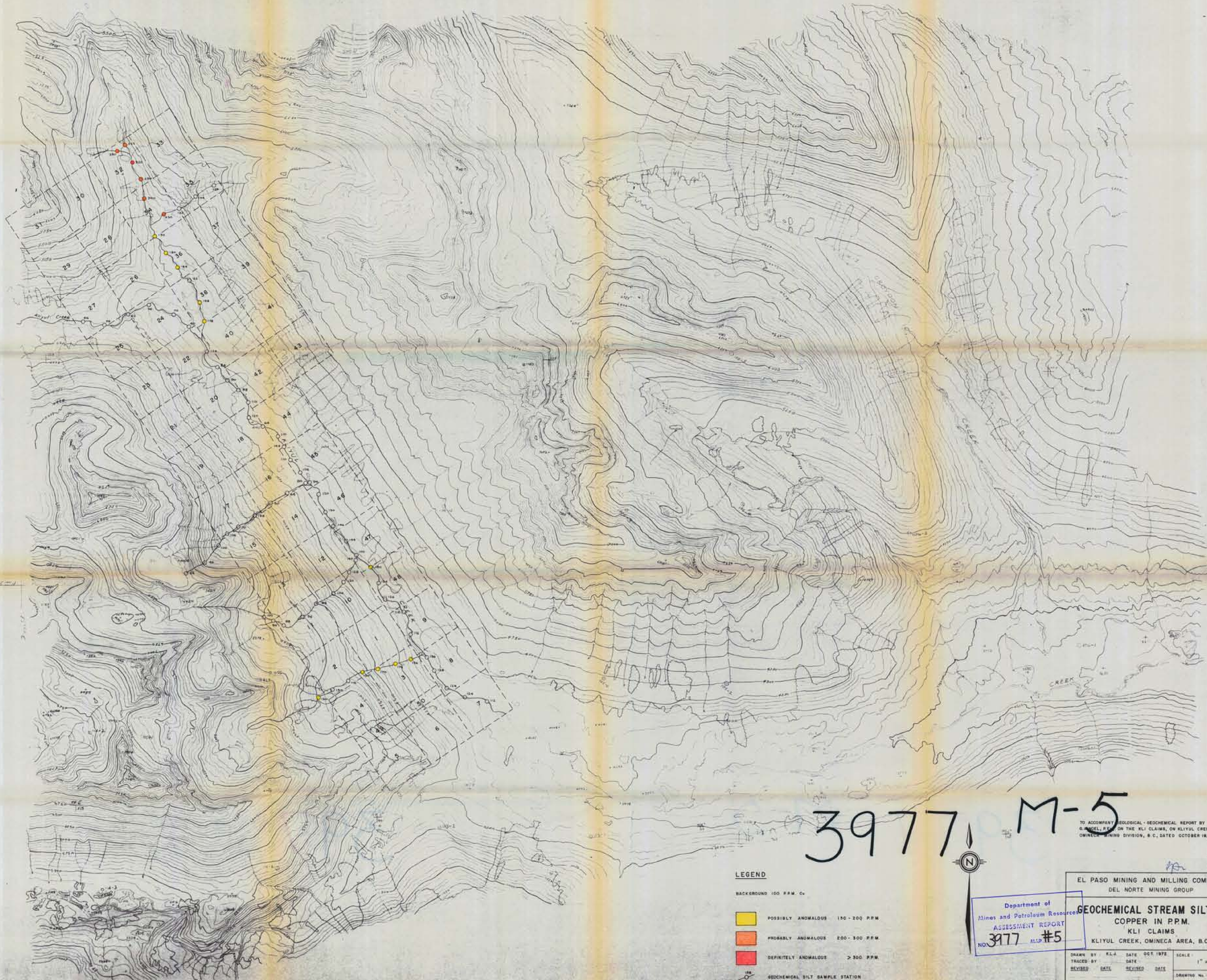
LEGEND

- 9 ACIDIC DYKE ROCKS
- 8 FELDSPATHIC DYKE ROCKS
- 7 HORNBLENDE MONZONITE TO SYENITE
- 6 HORNBLENDE DIORITE
- 5 ANDESITES, PYROCLASTICS, DACITE WITH MINOR SEDIMENTS AND BASALTIC FLOWS
- 4 ULTRAMAFICS
- 3 CHLORITE - CALCIUM SCHIST, SERPENTINITE
- 2 INTERBEDDED SHALE, LIMESTONE, SANDSTONE
- 1 QUARTZ VEINS
- 1 ALTERATION - SILICIFICATION, CHLORITIZATION SKARN & IRON BOSSAN



TO ACCOMPANY GEOLOGICAL - GEOCHEMICAL REPORT BY S.A. NOEL, P.Eng. ON THE KLI CLAIMS, ON KLIYUL CREEK, OMECA MINING DIVISION, B.C., DATED OCTOBER 18, 1972

| | | | |
|--|--------|---|------------|
| Department of Mines and Petroleum Resources | | EL PASO MINING AND MILLING COMPANY DEL NORTE MINING GROUP | |
| ASSESSMENT REPORT NO. 3977 MAP #4 | | RECONNAISSANCE GEOLOGY KLI CLAIMS KLIYUL CREEK, OMECA AREA, B.C. | |
| DRAWN BY | G.P. | DATE | JULY 1972 |
| TRACED BY | K.L.J. | DATE | OCT. 1972 |
| REVISED | DATE | REVISED | DATE |
| SCALE | | | 1" = 1000' |
| DRAWING No. 34 D 8 - 84 | | | |



3977 M-5

TO ACCOMPANY GEOLOGICAL - GEOCHEMICAL REPORT BY
 G. W. HALL, P.E., ON THE KLI CLAIMS, ON KLIYUL CREEK,
 OMINECA MINING DIVISION, B.C., DATED OCTOBER 18, 1972

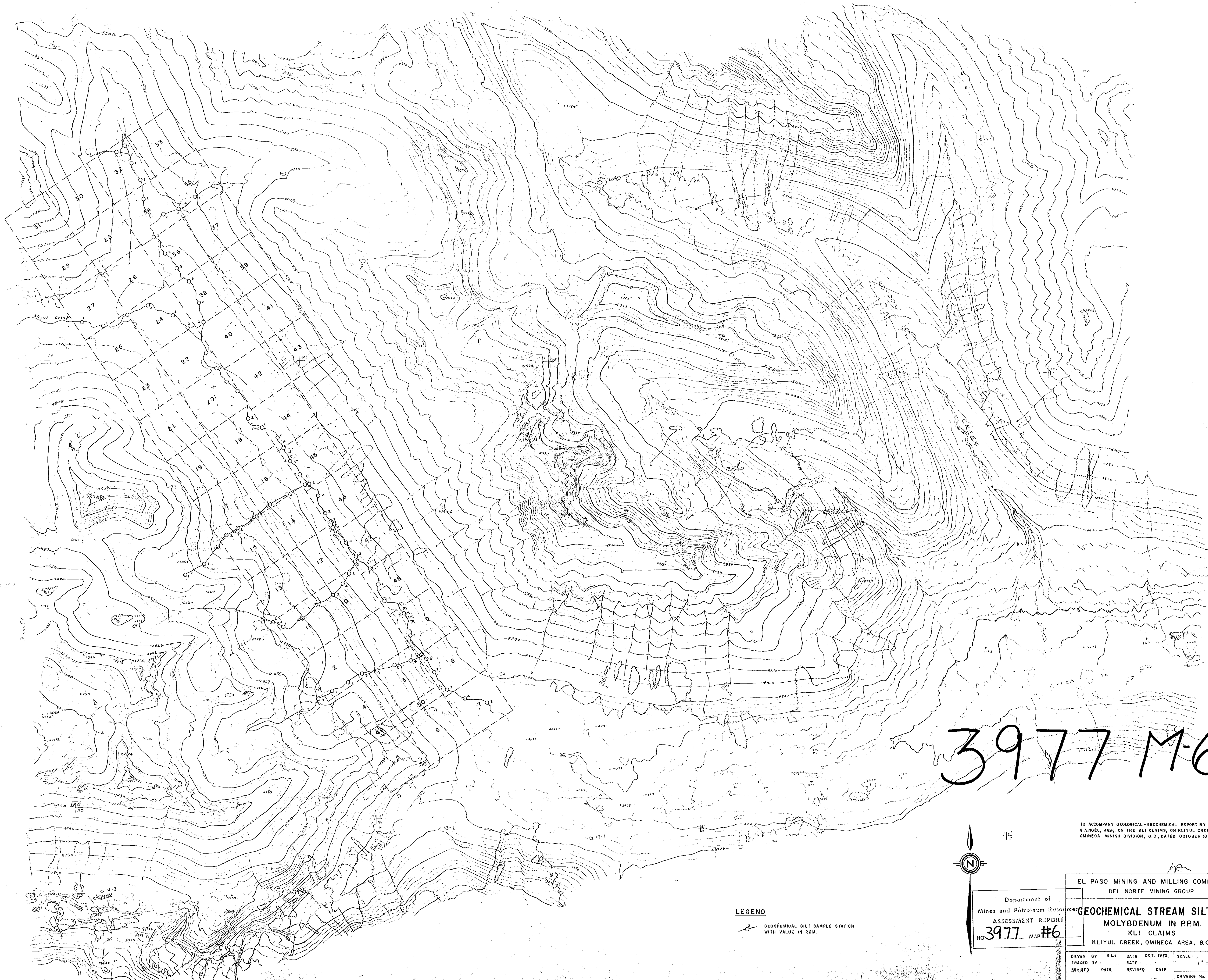
LEGEND

- BACKGROUND 100 P.P.M. Cu
- POSSIBLY ANOMALOUS 100-200 P.P.M.
- PROBABLY ANOMALOUS 200-300 P.P.M.
- DEFINITELY ANOMALOUS > 300 P.P.M.
- GEOCHEMICAL SILT SAMPLE STATION WITH VALUE IN P.P.M.



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3977 MAP #5

| | | | |
|---|--------|---------|-------------|
| EL PASO MINING AND MILLING COMPANY. DEL NORTE MINING GROUP | | | |
| GEOCHEMICAL STREAM SILTS COPPER IN P.P.M. KLI CLAIMS KLIYUL CREEK, OMINECA AREA, B.C. | | | |
| DRAWN BY | K.L.H. | DATE | OCT 1972 |
| TRACED BY | | DATE | |
| REVISED | DATE | REVISED | DATE |
| SCALE | | | 1" = 1000' |
| DRAWING NO. | | | 94 D 8 - 85 |



3977 M-6

TO ACCOMPANY GEOLOGICAL-GEOCHEMICAL REPORT BY
G. A. NOEL, P. ENG. ON THE KLI CLAIMS, ON KLIYU CREEK,
OMINECA MINING DIVISION, B. C., DATED OCTOBER 18, 1972



LEGEND

GEOCHEMICAL SILT SAMPLE STATION
WITH VALUE IN PPM.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3977 MAP #6

EL PASO MINING AND MILLING COMPANY
DEL NORTE MINING GROUP
GEOCHEMICAL STREAM SILTS
MOLYBDENUM IN PPM.
KLI CLAIMS
KLIYU CREEK, OMINICA AREA, B. C.

| | | | | | |
|-------------|--------|---------|-----------|-------|-------------|
| DRAWN BY | K.L.J. | DATE | OCT. 1972 | SCALE | 1" = 1000' |
| TRACED BY | | DATE | | | |
| REVISED | DATE | REVISED | DATE | | |
| DRAWING No. | | | | | 94 D 8 - 86 |



DEPARTMENT OF MINES AND PETROLEUM RESOURCES

MINERAL ACT (Section 51) FORM B

SUB-MINING RECORDER RECEIVED SEP 8 1972 M.R.#... VANCOUVER, B. C.

Affidavit on Application for Certificate of Work

1. I, H. G. Hester Agent for El Paso Mining and Milling Company (Name) 500 - 885 Dunsmuir Street (Address) Vancouver 1, B. C. Free miner's Certificate No. 109255 Date issued May 2, 1972

make oath and say:

2. I have done, or caused to be done, work on the K11 32 - 35 Mineral Claim(s)

Record No.(s) 103593 - 103596 on the north side of Klilyul situate at Creek 14 miles west of Aiken in the Omineca Mining Division, Lake to the value of at least 1600 dollars. Work was done from the 16th day of July 1972, to the 28th day of July 1972

3. The following is a detailed statement of such work done in the twelve months in which such work is required to be done.

(COMPLETE APPROPRIATE SECTION(S) A, B, C, BELOW)

A. PHYSICAL (Trenching, drilling, tunnelling, and overburden removal.) (State dimensions of trenching, open pits, etc., footage drilled, and diameter of hole for drilling.)

Table with 2 columns: Description of work and COST. Includes a TOTAL row at the bottom.

I wish to apply \$... of this work to the claims listed below. (State number of years to be applied to each claim.)

B. ROAD or TRAIL WORK (Length and average width of road or trail.)

| | | COST |
|-------|--|------|
| | | |
| | | |
| | | |
| | | |
| TOTAL | | |

I wish to apply \$ _____ of this work to the claims listed below.
 (One year only to each claim and within the first three years of its life.) (Sec. 51 (3) M.A.)

C. GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL (Includes line cutting).
 (State type of work)

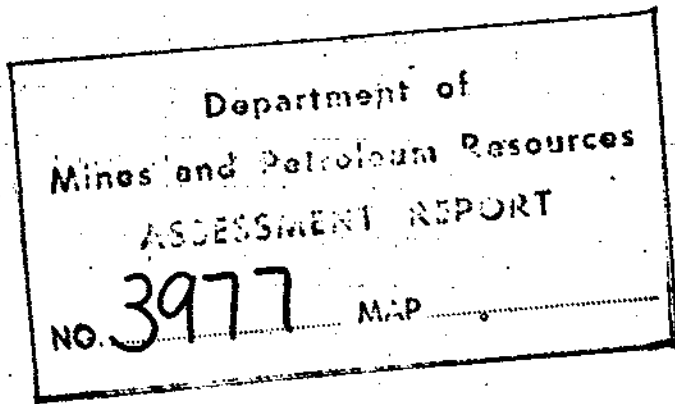
| | COST |
|--|-------------|
| Wages | \$ 1,400.00 |
| Camp costs - \$6.00/man/day - 13 days/4 men | 312.00 |
| Helicopter Servicing | 1,278.00 |
| Geochemical Analyses - 76 samples @ \$1.65/sl. | 125.00 |
| Geological-Geochemical Report to follow within one month | |
| TOTAL | \$ 3,115.00 |

I wish to apply \$ 1600 _____ of this work to the claims listed below.
 (State number of years to be applied to each claim.)

K11 32 - 35 4 years each - 16 Certificates

NOTE—Dollar value of work done under A, B, or C sections, totalling \$100, may be applied to a certificate of work.

Make a sketch of claims showing location of work declared in A or B above
 (if insufficient space, attach a sketch).



4. That I have not and will not use the work declared herein in any way for the purposes of obtaining tax exemption on a Crown-granted mineral claim under the terms of the Taxation Act.

SWORN and subscribed to at Vancouver, B.C.
 this 8th day of September
 19 72, before me—
 *

H. G. Hester
 H. G. Hester

* This affidavit may be taken by a person empowered to take affidavits by the Evidence Act of British Columbia.