

MICROFILMED

DATE.....

PROSPECTUS

April 24, 1985.

062201

A PRELIMINARY REPORT

on the

HIGHLAND

PATRICIA CLAIM GROUP

HIGHLAND RIVER AREA

WATSON LAKE MINING DIVISION

YUKON

NTS 105-H-I

for

FRONTEND RESOURCES LIMITED

709-525 Seymour Street

Vancouver, B.C.

by

CHARLES J. BROWN, P. ENG.

May 10, 1983

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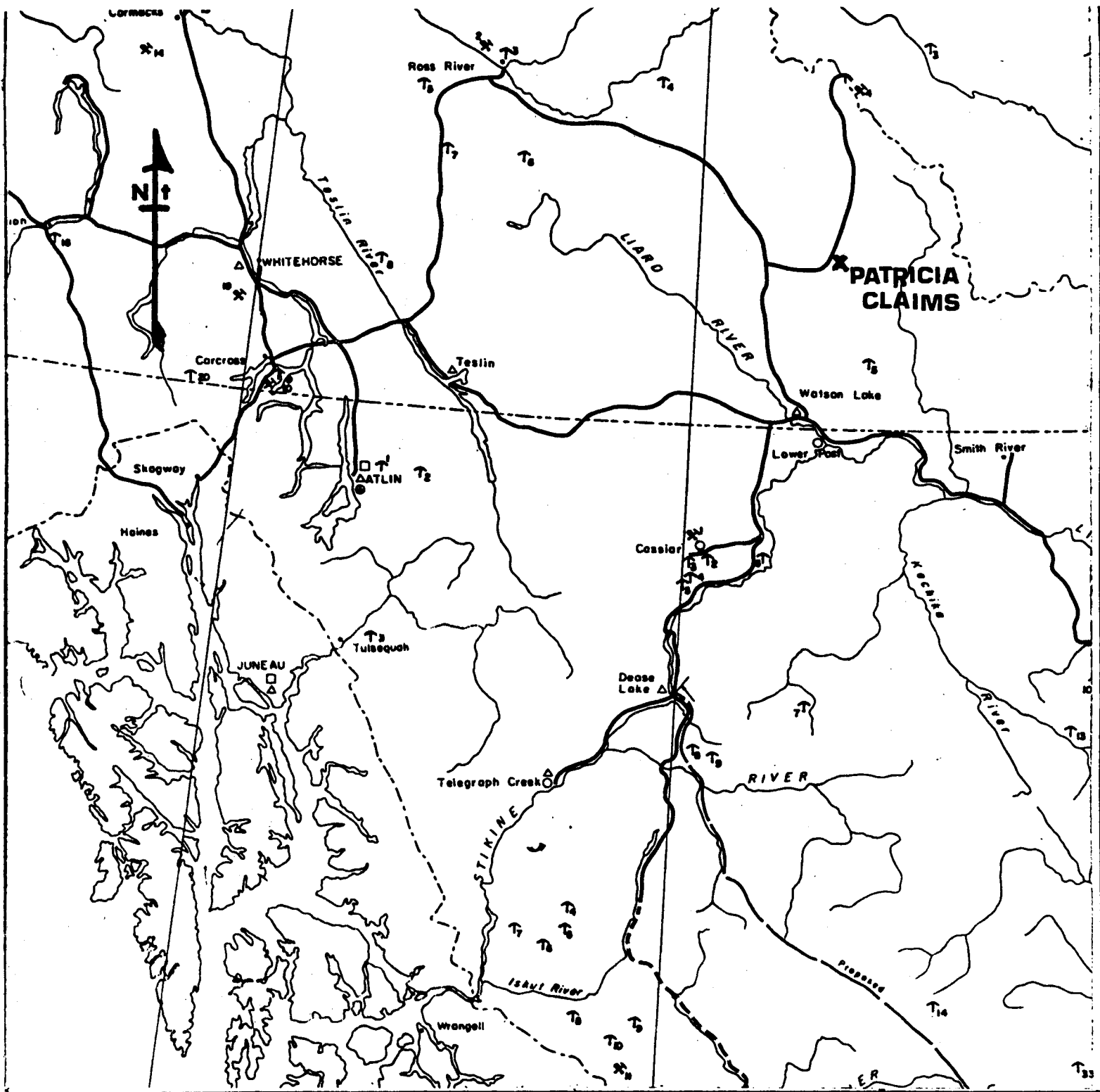
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INTRODUCTION

The Patricia mineral showings have been known for a number of years, however no serious work on them has been undertaken to date. James W. McLeod, B.Sc. and Don Tully, P. Eng. have reported favourably on these claims. Tully recommended a work program in 1981 amounting to \$41,713. The writer is familiar with the geology and mineral deposits of the Logan Mountains and therefore because of existing snow conditions did not visit the property. The following report is based on existing reports, private files and personal experiences in the area.

SUMMARY

The Patricia mineral claims consist of four full size claims located adjacent to the Nahanni Range road 136 kilometres north of Watson Lake, Yukon. Limited prospecting and hand trenching have uncovered interesting values in copper and gold. The deposits are of a skarn type and appear to be distributed stratigraphically and related to a nearby granitic intrusive. A preliminary mapping and geochemical program is recommended augmented by further close prospecting and geophysics. This program is estimated to cost \$45,360.00.



scale 1" = 50mi

LOCATION MAP PATRICIA CLAIMS

Fig 1

PROPERTY

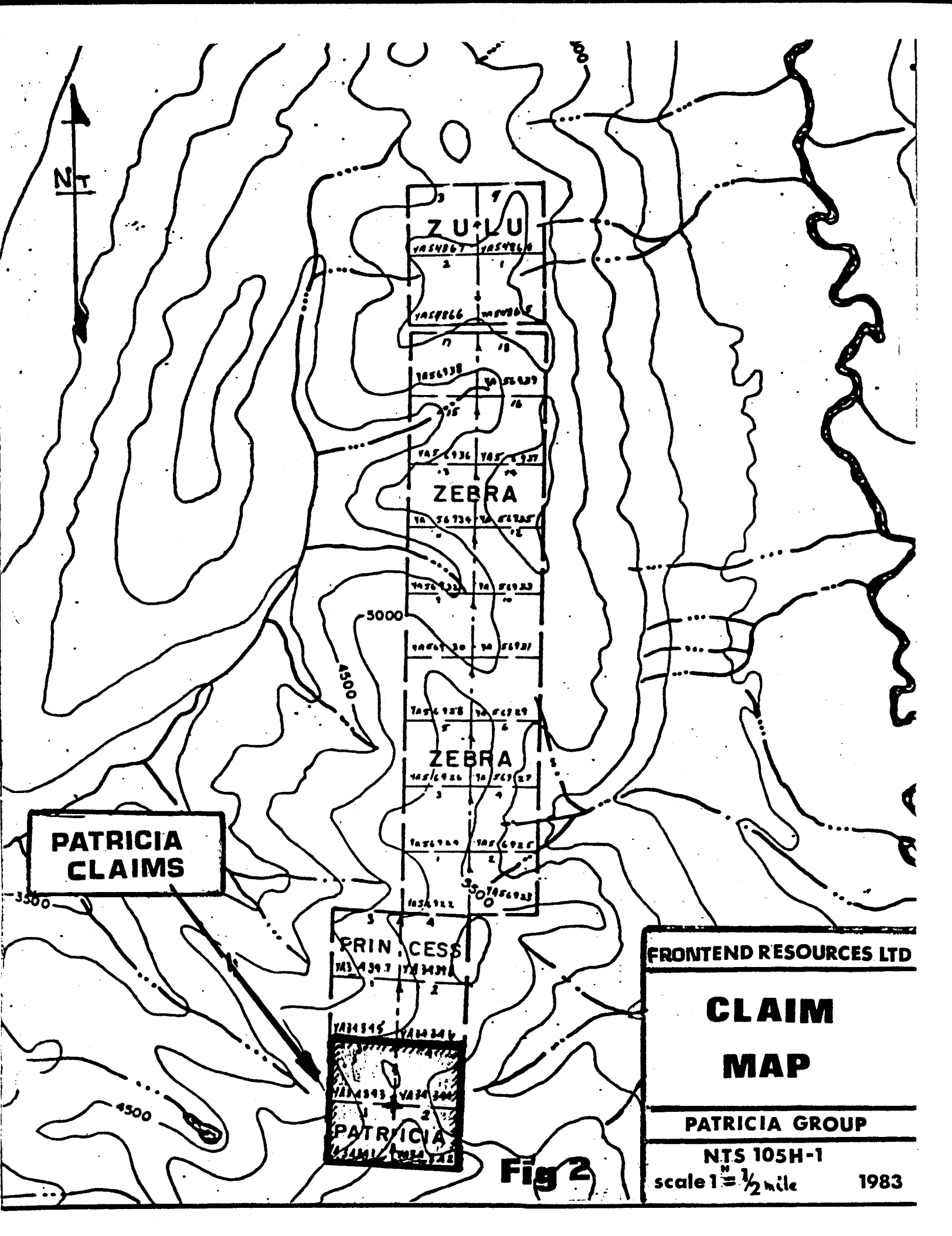
The property consists of four mineral claims held by right of location. These claims are wholly owned by Frontend Resources Limited and are recorded in the recording office Watson Lake, Yukon. The claims consist of

| <u>Claim</u> | <u>Record Number</u> | <u>Expirey Date</u> |
|--------------|----------------------|---------------------|
| Patricia 1 | YA34341 | October 31, 1983 |
| Patricia 2 | YA34342 | " |
| Patricia 3 | YA34343 | " |
| Patricia 4 | YA34344 | " |

These claims comprise an area of approximately 84 hectares.

LOCATION, ACCESS AND CLIMATE

The property is located 136 kilometres north of Watson Lake at Longitude 128°15' west and Latitude 61°04' north. Access is by way of the Campbell Highway to kilometre 110 (Mile Post 68) then by the Nahanni Range road to kilometre 60 (Mile Post 38). A trail traverses easterly a distance of eight kilometres from this point to the claims. Crossing the Highland River requires a boat. The claims vary in elevation from 1370 metres (4500 feet) to 1800 metres (6000 feet). Access for exploration purposes would best be by helicopter out of Watson Lake.



N

ZULU
YAS4867 YAS4868
2 1

YAS4866 YAS4865

YAS4868 YAS4867

YAS4866 YAS4865

ZEBRA
YAS4864 YAS4865

YAS4863 YAS4862

YAS4861 YAS4860

YAS4858 YAS4859

ZEBRA
YAS4856 YAS4857

YAS4854 YAS4855

YAS4852 YAS4853

PRIN. CESS
YAS4847 YAS4848

YAS4845 YAS4846

YAS4843 YAS4844

PATRICIA
YAS4841 YAS4842

5000

4500

PATRICIA CLAIMS

3500

4500

FRONTEND RESOURCES LTD

**CLAIM
MAP**

PATRICIA GROUP

NTS 105H-1

scale 1" = 1/2 mile

1983

Fig 2

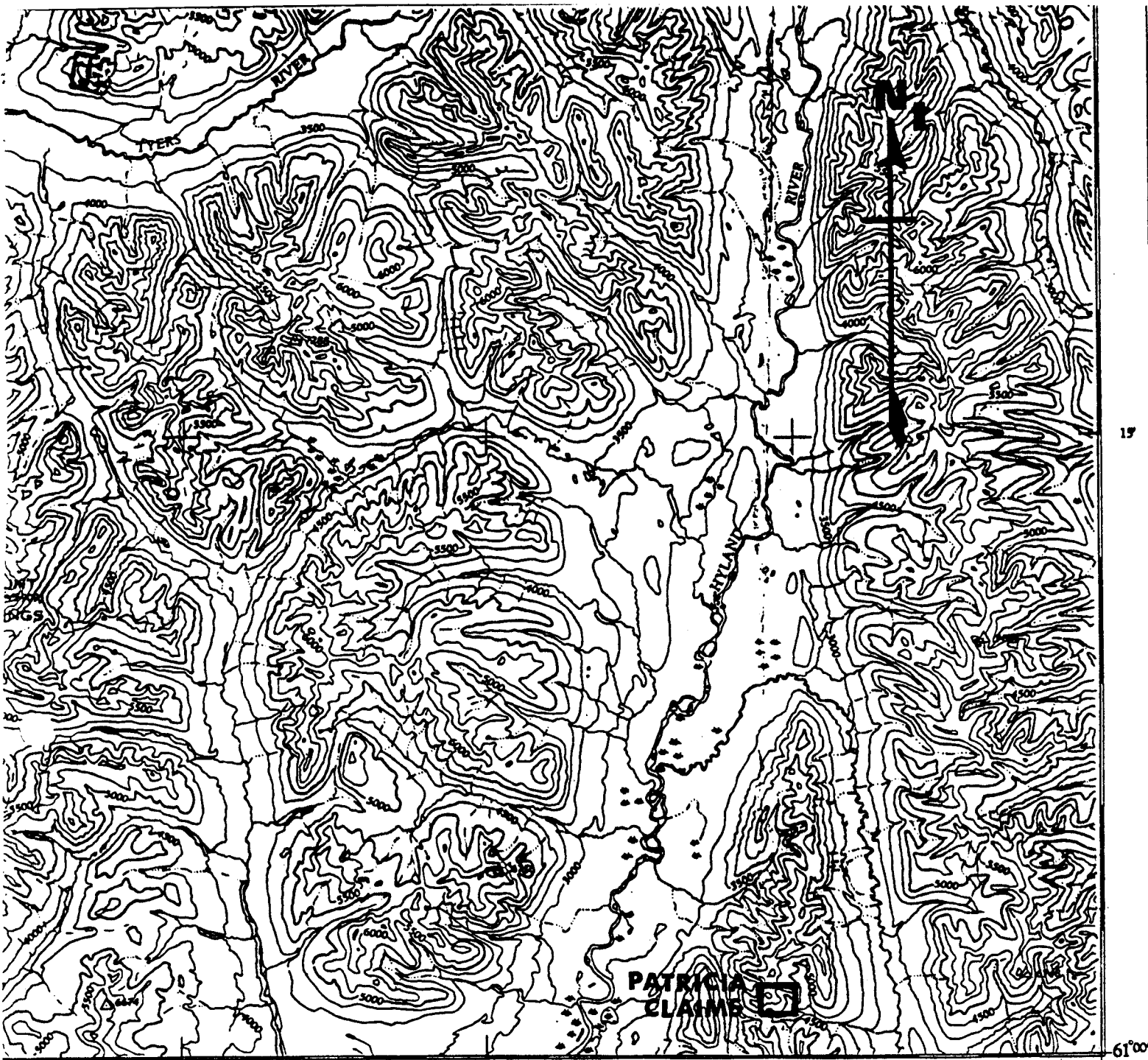
The claims lie on the western slopes of the Logan Mountains and therefore are subject to considerable precipitation, particularly in the winter as snow. The summers are warm and relatively dry and the winters cold. At the elevation of the claims frost can occur any time of the year, however July and August are usually frost free. The steepness of the topography causes rapid runoff. Obtaining water for drilling may be difficult later in the season.

HISTORY

In recent times the area received attention with the discovery of the Canada Tungsten Mine by the Mackenzie Syndicate. The area was mapped by the Geological Survey of Canada 1960-1965.

The Patricia claims were located prior to 1968. In 1968 Highland River Mines Limited excavated a number of hand trenches and conducted a limited magnetometer survey. The result of this work was inconclusive.

In 1978 James W. McLeod, geologist, sampled the test pits and trenches excavated in 1968. The results of his work was reported by him in his report of September 20, 1978. The claims were restaked in 1980.



NTS 105-H

scale 1:250000

TOPOGRAPHIC MAP

PATRICIA CLAIMS

Fig 3

FRONTEND RESOURCES LTD

In 1980 J.C. Turner and Associates conducted a prospecting program. Samples were submitted and were reported on by Tully. A copy of these geochemical samples is appended to this report.

GEOLOGY

The claims are underlain by northwesterly trending metasediments. The horizons are relatively flat lying and consist of gray calcareous rocks which in part are altered to skarn, mica schists and hornfels. To the north the rocks are represented by less altered brown, grey, green and purplish argillite and slaty siltstone which may be calcereous. These rocks are believed to be the less altered representative of the metasediments underlying the Patricia claims.

To the south the metasediments are in contact with a quartz monzonite intrusive. The zone of metamorphism adjacent to the contact is wide. It is believed that the intrusion of quartz monzonite is responsible for the schists and gneisses represented by the metasediments. It is in these metasediments that the mineral deposits occur.

MESOZOIC CENOZOIC

QUATERNARY

16 Unconsolidated glacial and alluvial deposits

CRETACEOUS (?)

15 Fine- to medium-grained biotite-quartz monzonite, granodiorite, minor diorite and gneiss; 15a, fine- and medium-grained biotite hornblende quartz monzonite and granodiorite, in part porphyritic; 15b, hornblende syenite

DEVONIAN AND (?) MISSISSIPPIAN

13 Brown and black shale, black and grey chert, quartzite, greywacke, chert-pebble conglomerate; 13a, fine-grained light grey limestone and minor dolomite; 13b, greenstone; 13c, serpentinite

14 Rusty brown weathering fine-grained schistose and spotted biotite hornfels, fine-grained quartzite, black pyritic argillite, dense light green to grey calc-silicate hornfels and fine-grained marble; minor slate, silty limestone and greywacke; 14a, light grey thin-bedded fine-grained marble and calc-silicate hornfels. May include some 1 and 2

SILURIAN AND DEVONIAN (?)

12 Fine-grained light to dark grey dolomite and quartzite; minor buff-grey dolomitic quartzite and silty to sandy dolomite

ORDOVICIAN AND SILURIAN

11 Black shale, slate; minor chert, siltstone, dark limestone

CAMBRIAN

MIDDLE AND LATE CAMBRIAN

9 Light grey and brownish grey weathering, intercalated platy argillaceous silty limestone, siltstone, and fine-grained grey limestone

10 Dark grey and brown silty shale and finely laminated siltstone, dark grey slate, thin-bedded brown-grey fine-grained sandstone; minor hornfels

EARLY AND/OR MIDDLE CAMBRIAN

7 Buff-weathering dolomite, silty and sandy dolomite; minor sandstone and shale

6 Bright yellow and orange-weathering silty and sandy dolomite

8 Dark brown-grey to black, in part pyritic, calcareous argillite, slate, shale, and minor thin-bedded argillaceous limestone

EARLY CAMBRIAN

5 Sandstone, buff-weathering sandy and silty dolomite, dolomite, minor quartzite and argillaceous limestone; basic volcanic flows

4 'Swiss-cheese' limestone, irregular interbanded dolomitic siltstone and argillaceous to silty limestone; pods and lenses of limestone; minor blue-grey fine-grained limestone and orange-weathering dolomite

CAMBRIAN AND/OR EARLIER

3 Brown to red-brown weathering slate, phyllite, siltstone and fine-grained quartzite; 3a, green-grey slate and phyllite

1 Brown, grey, maroon and green shale; grey to green slate and phyllite, gritty feldspathic quartzite, quartz- and feldspar-pebble conglomerate, sandstone; 1a, minor limestone, 1b, light grey weathering, fine-grained grey limestone; 1c, mainly grey to green slate and phyllite; 1d, maroon and green shale and slate, 1e, mainly brown and grey shale and slate, minor maroon and green shale. 1d and 1e are probably equivalent and perhaps correlative with 1c

2 Quartz-feldspar-mica gneiss and schist, granitoid gneiss, feldspathic and micaceous quartzite, biotite schist, minor marble and skarn; numerous small granitic bodies, aplite and pegmatite; 2a, fine- to coarse-grained marble

PALAEOZOIC

PROTEROZOIC

Fig 4a

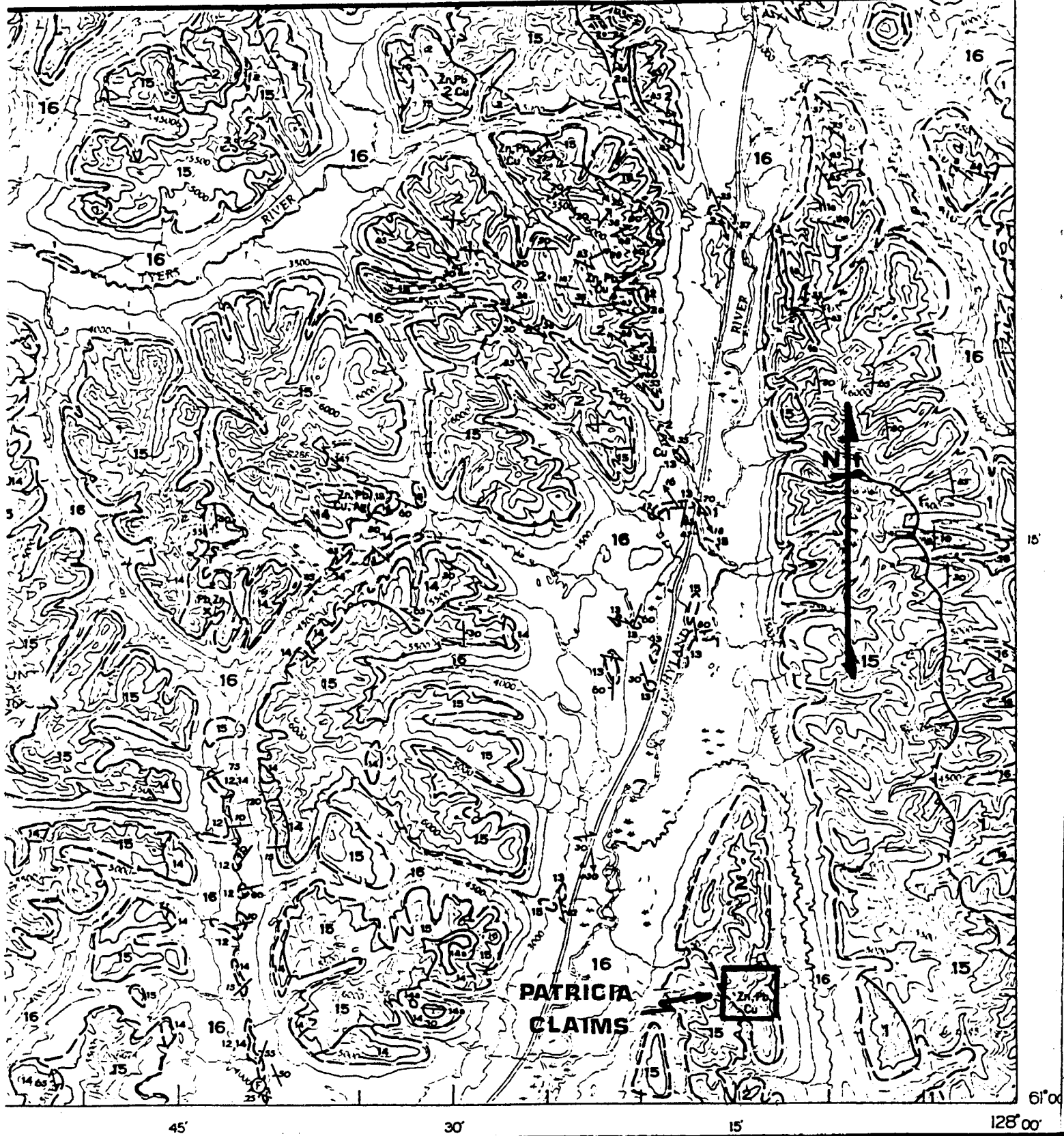


Fig 4b

MAP 6-1966

GEOLOGY

FRANCES LAKE

YUKON TERRITORY AND DISTRICT OF MACKENZIE

Scale 1:253,440

MINERALIZATION

Chalcopyrite, pyrrhotite and pyrite occur in silicated members of the metasediments. This mineralization is controlled by and confined to the favourable calcareous and in some cases hornfels horizons.

The following table is a list of samples taken from the property by James W. McLeod and reported by him in 1978.

| <u>Location</u> | <u>Type</u> | <u>Copper %</u> | <u>Gold oz/T</u> | <u>Interval</u> |
|-----------------|-------------|---------------------|----------------------|-----------------|
| Main | Grab | 1.83 | 0.02 | - |
| Main | Grab | 2.25 | 0.02 | - |
| Main | Grab | 1.74 | Trace | - |
| Main | Grab | 1.87 | 0.84 | - |
| Trench No. 1 | Grab | 0.22 | Trace | - |
| Trench No. 2 | Grab | 0.34 | Trace | - |
| Trench No. 3 | Grab | 0.44 | Trace | - |
| Trench No. 4 | Grab | 0.59 | 0.02 | - |
| Trench No. 5 | Grab | 0.39 | Trace | - |
| Trench No. 6 | Grab | 0.28 | 0.005 | - |
| Trench No. 7 | Grab | 0.64 | 0.01 | - |
| Trench No. 8 | Grab | 0.51 | 0.005 | - |
| Trench No. 9 | Grab | 0.37 | 0.06 | - |
| Trench No. 10 | Grab | 0.05 | 0.01 | - |
| Trench No. 1 | Chip | 0.72 | 0.02 | 0' - 6' = 6' |
| Trench No. 1 | Chip | 0.90 | 0.01 | 6' - 12' = 6' |
| Trench No. 1 | Chip | 0.56 | 0.01 | 12' - 18' = 6' |
| Trench No. 1 | Chip | 0.62 | 0.005 | 18' - 24' = 6' |
| Trench No. 1 | Chip | 0.51 | Trace | 24' - 30' = 6' |
| Trench No. 1 | Chip | 0.92 | 0.01 | 30' - 36' = 6' |
| Trench No. 1 | Chip | 0.30 | 0.005 | 36' - 42' = 6' |
| Trench No. 5 | Grab | 0.64 | 0.02 | - |
| Trench No. 3 | Grab | 0.87 | 0.02 | - |
| Trench No. 2 | Chip | 0.70 | 0.20 | 10' |
| Trench No. 4 | Chip | 0.31 | 0.03 | 0' - 12' = 12' |
| Trench No. 4 | Chip | 0.10 | 0.02 | 12' - 24' = 12' |

OBSERVATIONS

The mineralization and geological setting of the Patricia claims are similar to other mineral deposits in the area. Similar deposits exist near Anderson Lake, Tyres River and the Norquest Syndicate showing on the Watson Lake map sheet. This type of deposit is described in the "Descriptive Notes" accompanying Map 6-1966, Frances Lake 105H published by the Geological Survey of Canada. The location of the Patricia deposit is shown on this map sheet.

The occurrence of favourable geochemical samples and the wide spread occurrence of copper and gold on the Patricia claims warrants a mapping program coupled with a geochemical and geophysical survey. Close prospecting of the outlying areas is also required along with detailed sampling of surface mineralization.

RECOMMENDATIONS

A program similar to the one laid out by D. Tully, P. Eng in 1981 is recommended. This program would consist of;

Close prospecting
Geological mapping
Geochemical surveying
Geophysical surveying

The previous recommended program has been modified so as to reflect current conditions and costs.

It is important to map these claims geologically so that the rock type, mineralization, geochemical anomalies and geophysical results can be correlated. Good topographical control is necessary using photogrammetric maps. The steepness of topography and low dip of the horizons require close mapping.

Sample lines and base lines need to be chained and picketed. The resulting grid would serve for mapping, geochemical and geophysical plotting.

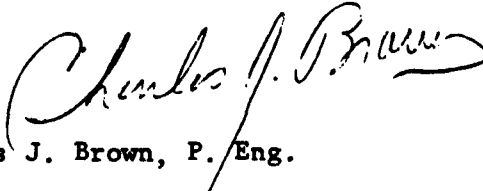
Close prospecting and opening of old and new trenches for sampling purposes would be necessary.

This program when complete should outline favourable target areas for further development.

ESTIMATE OF COSTS

| | |
|---|---------------------------|
| 1. Topograph Map from Air Photos 1:2500 | \$ 2,500.00 |
| 2. Geologist for mapping geochemical and geological surveying | \$ 6,000.00 |
| Assistant | 3,000.00 |
| Two helpers | <u>6,000.00</u> |
| | \$15,000.00 |
| 3. Establish ground control and grid | 2,500.00 |
| 50 metre grid for 914 metres = 18.32/Km | |
| 4. Geochemical soil sampling on 50 metre grid | |
| Collecting (400 @ \$1.25) | 500.00 |
| Assaying (400 @ \$9.00) | 3,600.00 |
| 5. Geophysical Survey over grid area | |
| VLF-EM survey 18.3 L/km @ \$125.00 | 2,300.00 |
| Magnetometer 18.3 L/km @ \$ 75.00 | 1,400.00 |
| 6. Camp supplies, food and instrument rentals | 4,000.00 |
| 7. Helicopter support | 6,000.00 |
| 8. Final Engineering report | 3,000.00 |
| | <u>\$40,800.00</u> |
| Contingencies @ 20% | <u>8,160.00</u> |
| Estimated cost total | <u><u>\$48,960.00</u></u> |

Respectfully submitted,



Charles J. Brown, P. Eng.

May 10, 1983

REFERENCES

Geological Survey of Canada Frances Lake Geology,
Map 6-1966, scale 1:253440

McLeod James W. Report on the Patricia Claims Patmor
Resources, September 20, 1978

Tully Don Report on the Patricia 1-4 Mineral Claim
Group, January 24, 1982

Brown C.J. Personal files and maps, 1960-1975

APPENDIX

General Testing Laboratories

A Division of SGS Supervision Services Inc.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA V6A 1W6
PHONE (604) 254-1847 TELEX 04-507514 CABLE SUPERVISE



TO:
DON TULLY ENGINEERING LTD.
102 - 2222 Bellvue Ave.,
West Vancouver, B.C.

PATRICIA

CERTIFICATE OF ASSAY

No.: 8010-2059 DATE: Nov. 12/80

We hereby certify that the following are the results of assays on:

Rock Geochem

| MARKED | GOLD | SILVER | Copper | Lead | Zinc | Nickel | XXX | XXX |
|--------|----------|----------|----------|----------|----------|----------|-----|-----|
| | Au (ppm) | Ag (ppm) | Cu (ppm) | Pb (ppm) | Zn (ppm) | Ni (ppm) | | |
| 035 | 0.02 | 0.1 | 62 | 38 | 207 | 9 | | |
| 036 | 0.03 | 0.1 | 122 | 36 | 293 | 6 | | |
| 037 | 0.03 | 0.2 | 77 | 28 | 83 | 54 | | |
| 038 | 0.03 | 0.1 | 33 | 28 | 72 | 63 | | |
| 039 | 0.03 | 0.1 | 9 | 12 | 59 | 5 | | |
| 040 | 0.03 | 0.1 | 21 | 16 | 54 | 5 | | |
| 041 | 0.03 | 0.1 | 2 | 16 | 41 | 6 | | |
| 042 | 0.03 | 0.1 | 33 | 134 | 161 | 7 | | |

SAMPLES RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS TO REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.

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R. Nadeau, Chemist

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