



MOUNTAINEER MINES LTD. - PAN OCEAN OIL LTD.

JOINT VENTURE

ASSESSMENT REPORT

ON THE

Rad (1-24)/Break (1-32) Mineral Claim Group

NTS 106-E-1, 106-D-16

65°00'N Latitude, 134°19'W - 134°22'W Longitude

Yukon Territory

Report Date:
February, 1981
Report No. 7-81

D.L. Dick
D.B. Harneson
PAN OCEAN OIL LTD.
Calgary, Alberta

090820

This report has been examined by the Geological Evaluation Unit and is recommended to be considered as representing the amount of

5,600.00

R. DeBick

A. Res. Geol.

Resident Geologist or
Registered Mining Engineer June 1/81

Considered as representation work under Section 50 (3) Yukon Quartz Mining Act.

E. R. BAXTER

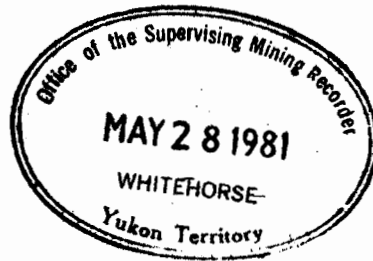
Supervising Mining Recorder

Commissioner of Yukon Territory

~~25/5/81~~
25/5/81

FROM: Mining Recorder at MAYO

TO: Supervising Mining Recorder at Whitehorse, Y.T.



FOR ACTION ARE:

NEW APPL'N for PLACER LEASE to PROSPECT: Name:

RENEWAL APPL'N PLACER LEASE to PROSPECT: Name:

Lease No.

AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name:

Lease No.

ASSIGNMENT of PLACER LEASE No.

From:

To:

GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.

Owner:

DIAMOND DRILL LOGS:

Claims:

Claim sheet no:

QUARTZ ASSESSMENT REPORT:

Claims:

PAD 1-24
BREAK 1-32

Claim sheet no.

106-E-1
106-D-16

Type of report:

Submitted by:

GEOCHEM; GEO; TRENCHING

PAN OCEAN OIL LTD.

Cls. work performed on:

\$ Req. for ren. application

BREAK 26

\$ 5600⁰⁰

[Signature]
Signature

REPLY ACTION:

Date Ret.

Signature

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| 1 (B-1219) | Rad-Break Trench----- | in back pocket |

1.0 INTRODUCTION

The Rad/Break mineral claim group, totalling 56 claims, was staked: a) Rad (1-24) on August 6, 1976

b) Break (1-32) on September, 1976, by the Pan Ocean Oil Ltd. - Mountaineer Mines Ltd. joint venture to cover favourable geological targets within the Quartet/Fairchild mineral belt.

During the 1980 field season a trenching/mapping program was performed by McCrory Holdings (Yukon)Ltd. and Pamicon Developments Ltd. personnel under the field supervision of D.L. Dick (Pan Ocean Oil Ltd.).

2.0 LIST OF CLAIMS

| <u>Claim Name</u> | <u>Staking Date</u> | <u>Recording Date</u> | <u>Grant Number</u> |
|-------------------|---------------------|-----------------------|-----------------------|
| Break 1 - 32 | September 16, 1976 | September 24, 1976 | YA 7104-YA 7135 incl. |
| Rad 1 - 24 | August 6, 1976 | August 19, 1976 | YA 6443-YA 6466 incl. |

3.0 LOCATION AND ACCESS

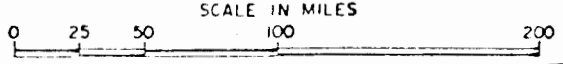
The Rad/Break claims are located on N.T.S. sheet 106-E-1, 106-D-16 approximately 188 Km. northeast of the community of Mayo, Yukon. The approximate co-ordinates of the claim group are:

65°00'N Latitude, 134°19'W to 134°22'W Longitude.

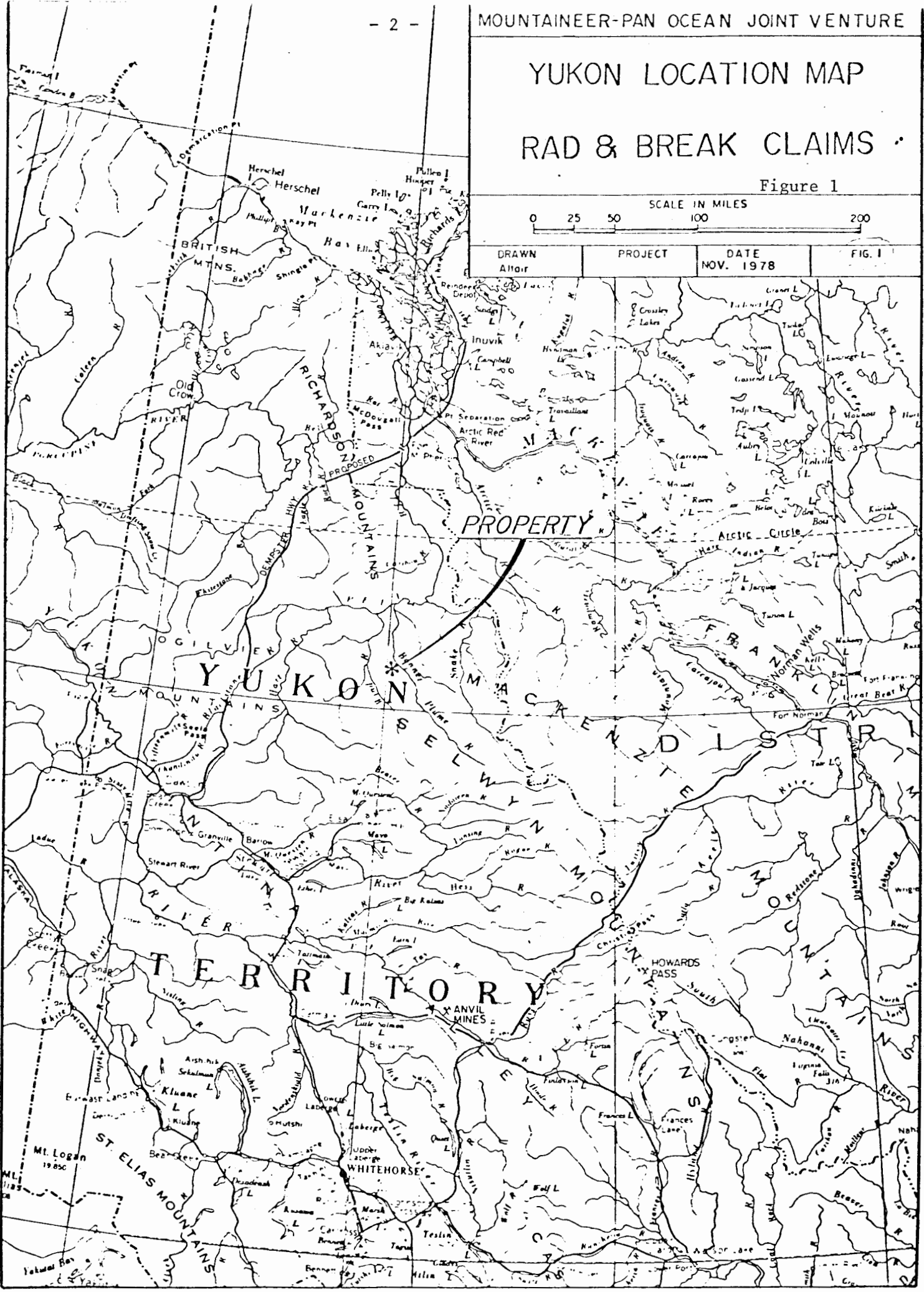
Access to the property is by helicopter and fixed-wing aircraft; full expediting services are available in Mayo. A winter road exists from Elsa to Dolores Creek and Fairchild Lake via Braine Pass.

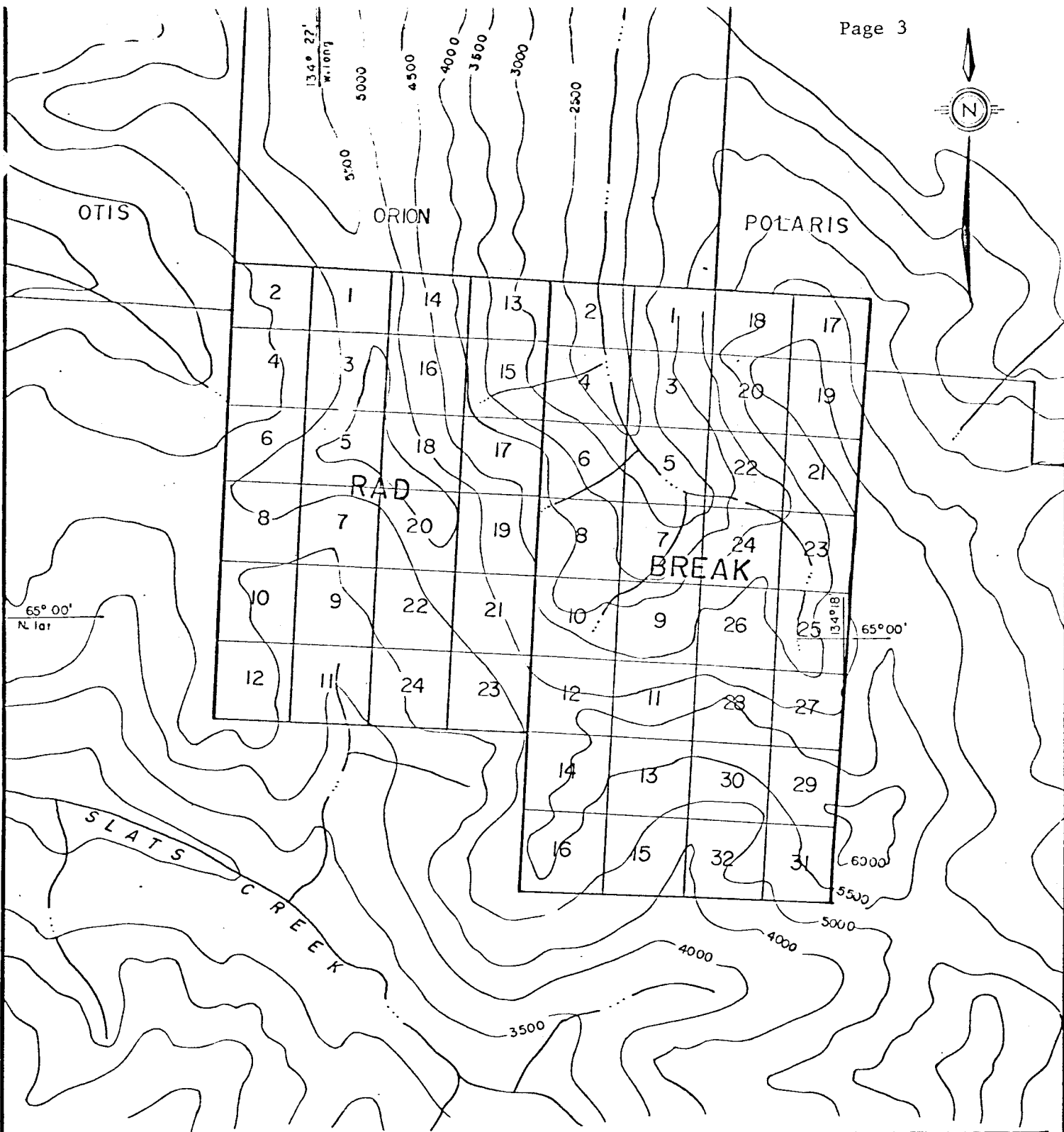
YUKON LOCATION MAP RAD & BREAK CLAIMS

Figure 1



| | | | |
|-----------------|---------|-------------------|--------|
| DRAWN A.Hair | PROJECT | DATE NOV. 1978 | FIG. 1 |
|-----------------|---------|-------------------|--------|





| | | | |
|-------------------------------------|---------|-------------------|-----------|
| MOUNTAINEER-PAN OCEAN JOINT VENTURE | | | |
| RAD & BREAK CLAIMS | | | |
| <i>CLAIM MAP</i> Figure 2 | | | |
| 106-E-1 | | | |
| QUARTET LAKES AREA | | | |
| YUKON TERRITORY | | | |
| SCALE IN MILES | | | |
| 1/2 | 1/4 | 0 | 1/2 |
| DRAWN Altair | PROJECT | DATE NOV. 1978 | FIG. 2 |

4.0 TOPOGRAPHY AND VEGETATION

The Quartet-Fairchild region lies in the Wernecke Mountains of the northeastern Yukon Territory. In the general area, the Werneckes consist of local ranges which include the Racklan Range, Bonnet Plume Range and Knorr Range. Elevation within the area of investigation ranges from 610 to 1,980 m. (3,000 to 6,500 ft.) A.S.L. where topography is extreme in most cases.

The major river valleys are broad, timbered and extensively overburden covered, while most mountain slopes present greater than 60% outcrop above the 1,220 m. (4,000 ft.) level.

The vegetation throughout the immediate region is composed largely of black spruce and willow thickets at low elevations which give way to dwarf birch, grasses and moss above the 910 m. level.

5.0 REGIONAL GEOLOGY

The entire area has been mapped by the Geological Survey of Canada, and three separate publications are presented. The following memoir and open file reports give 1" = 4 miles geological coverage of the Nash Creek, Nadaleen River, Wind River and Snake River map areas.

- 1) Geology of Nash Creek, Larsen Creek and Dawson Map-Area. Yukon Territory by L.H. Green 1972 (Memoir 364).
- 2) Open File 205 (Geology of Nadaleen River and Bonnet Plume Lake Map sheets by S. Blusson) 1975.

- 3) Open File 279 (Geology of Snake River and Wind River sheets by D.K. Norris) 1975.

In the Quartet-Fairchild-Gillespie Lakes region, Helikian rocks are exposed over an area of some 1,500 sq. miles in a roughly circular fashion centered near longitude 134°00'W and latitude 65°00'N.

These rocks have been described as Units 1 and 2 by L. Green on the Nash Creek Sheet.

Recent GSC stratigraphic work by Bell and Delaney (1976) has re-designated Units 1A, 1 and 2 (Green 1972) as Units A, B, and C respectively. The unit designations as established by Bell and Delaney will be used in this report.

The area of immediate economic interest lies on the northern half of the Helikian assemblage along a sinuous linear approximately 45 km long and 15 km wide, following the Kiwi Lake, and Bonnet Plume River drainage system.

About this linear, a window of upper Lower Proterozoic rocks is exposed. Extension exposures of the basement forming succession of moderately metamorphosed and structurally complex fine grained clastic sediments with interbedded carbonates forming Unit A (Fairchild Group) are overlain by the shale-slate-quartzite sequence of Unit B (Quartet Group).

To the south and southwest, Units B and C (Gillespie Group) outcrop within a lobe approximately 20 km wide by 30 km long with faulted fingers trailing out to the west.

Unit C comprises a sequence of thickly bedded orange weathering dolomites having a basal sequence of transitional beds of alternating buff weathering dolomites and intercalated slates and quartzites.

The conformable relationships within the supergroup are complicated by local uplift and subsidence and by the division of the assemblage into two main blocks as described above. Units A and B are conformable to a high degree north of the Unit B-Unit C contact and Unit B and C are relatively conformable south of this contact. An overturned block of Fairchild Group occurs south of Fairchild Lake.

The Helikian assemblage is regionally bounded by the following unconformable units:

1. To the east a unit of undivided clastics and carbonates of Hadrynian age overlie Unit C.
2. To the south and west, carbonates of Ordovician-Devonian age overlie Units B and C.
3. To the north, the Hadrynian sediments directly overlie Unit B.
4. In the upper west region undivided clastics and carbonates of Cambrian age directly overlie Units A and B and in turn are unconformably overlain by Ordovician-Devonian carbonates.
5. To the north and west, Tertiary and Cretaceous strata of the Bonnet Plume Basin abound.

Throughout the Helikian section, local zones of brecciation occur. The presence of contact metamorphic effects along the margins, the common occurrence of country rock clast development, and the apparent transitional gradation of brecciation suggest a structurally controlled diatreme igneous event.

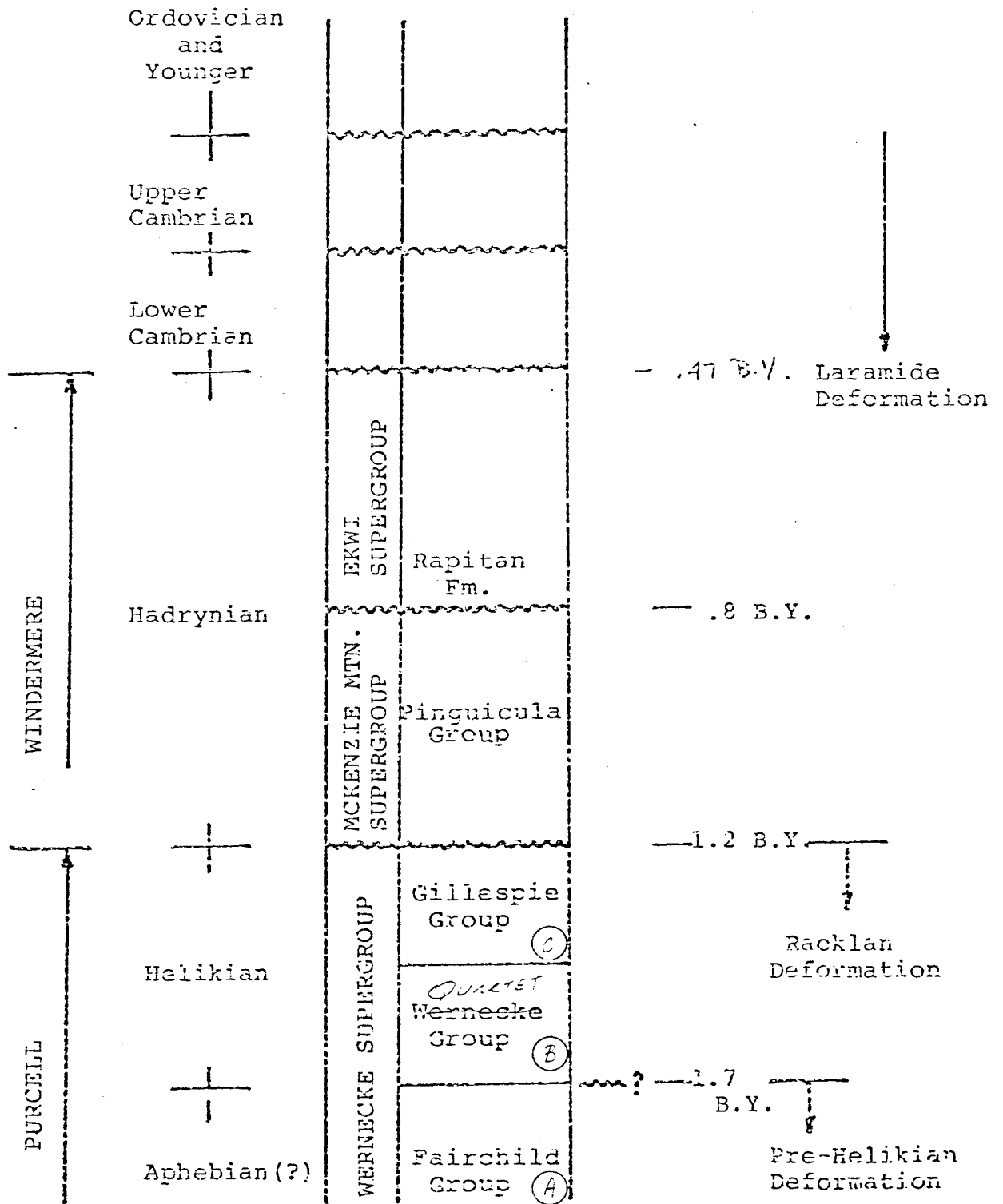
Locally, the breccia zones are of erratic distribution and of variable dimension, but overall appear to occur along two arcuate trends north and south of the central sinuous linear in close proximity to or within Unit A. Occasional outcrops of breccia occur north and south of these trends within Units B and C.

Alteration zones exhibiting moderate to intense K-feldspar and/or hematite alteration are common. The intensely hematized breccias have a purplish scintered appearance, whereas the intensely feldspathized breccias have a buff to pink coarse igneous appearance.

Within, immediately adjacent to and following regional trends, fracture controlled occurrences of metallogenically complex sulphide, arsenide, hoioxide, carbonate, and oxide mineralization of variable intensity occur in relation to the breccia zones. The mineralization included elements of copper, lead, zinc, gold, silver, tungsten, molybdenum, iron, tin and manganese.

Complex metamorphic regimes involving regional, dynamic, thermal, contact and metasomatic processes are locally imprinted on each other in varying degrees, resulting in widely different alteration and metallogenic effects.

IDEALIZED SECTION SHOWING REGIONAL
CORRELATIONS & STRUCTURAL HISTORY



Intrusive activity involving diabase-diorite dyke development is present within the Helikian section. The diabase-diorite relationship appears to be transitional. Metasomatic alteration in one locality suggests that this development is either earlier or contemporaneous with the regional diatreme event. The location and local metasomatic effects of these dykes is still only sketchy and it may be that there is more than one generation.

At least two major periods of deformation have affected the region. The pre-Hadrynian Racklan deformation moderately deformed the Helikian assemblage resulting in steep to isoclinal folding within the development of axial plane cleavage. A more recent deformation, the Laramide, has resulted in broad gentle folding. Block movement and local thrusting is indicated for both orogenies and a number of minor movements may have taken place. The basement forming Fairchild Group exhibits the most intense deformation, and this may be related to an earlier Aphebian event.

6.0 PROPERTY EVALUATION, SUMMARY OF PREVIOUS ACTIVITY (1977-1979)

6.1 Break Claims

6.1.1 Introduction

Preliminary geological mapping was carried out from 1977 to 1978, a summary of the geological mapping is presented in Figure 4 of this report. The property is underlain by a variety of rock types, belonging to map units A (Fairchild) and B (Quartet) of the Proterozoic section.

Geological mapping of the area revealed copper mineralization along major vein-trends as well as major faulting and folding.

6.1.2 Lithology

The northern portion of the claims is underlain by limonitic black slates which correspond to the lower most pyritic black shale sequence at the base of Unit B.

Rocks of Unit A, which lie along the southern two-thirds of the claim group, consist largely of slatey-siltstone, siltstone, interbedded siltstone and dolomite. A grey weathering chert was noted locally ranging from 1.5 m to 3.6 m in thickness.

6.1.3 Structure and Stratigraphy

The property geology is roughly divided into three parts by two southeasterly trending faults that cross the claim group. The southernmost fault is a southwesterly dipping, high angle reverse fault felt to be an extension of a major reverse fault shown on the G.S.C. map of the area to extend some twelve miles to the WNW of the property. Evidence seen to the northwest on the adjoining RAD claims indicates that the fault strikes 145° and dips approximately 57° SW. Lying to the southwest of the fault is a sequence of thin bedded slate and interbedded mudstone/dolomite units approximately 1,500 feet thick. The sequence is folded about a northeasterly striking synclinal fold axis. The eastern limb of the fold dips approximately 25° to the northwest and the western limb dips vertically.

The presence of the northernmost fault is inferred from the topography and the sudden change in lithology and bedding attitudes evident in the northern portion of the claims. No direct evidence indicating directions of relative movement was seen. Lying to the north of the fault is a large area of intensely deformed limonitic black slates.

Lying between the two faults is a thick sequence of sedimentary rocks including mudstones, siltstones, dolomites, argillite, quartzite, chert, and slates. The sequence is folded about a northeasterly trending synclinal fold axis. The northern limb of the fold strikes northwesterly and dips 23° to 38° to the northeast. Bedding in the southern limb is overturned, striking northeasterly and dipping 64° to 81° to the northwest. This folded sedimentary sequence is intruded by a vertical quartz calcite/dolomite vein swarm trending approximately 105°. Copper mineralization was seen associated with the vein swarm in two locations on the property.

6.1.4 Mineralization

The westernmost showings occur as veins within interbedded grey quartzites and argillites in the Break 11 area. The unit is strongly fractured at 105/90° and is intruded by quartz/calcite/dolomite veins associated with chlorite and sericite alteration. Chalcopryrite mineralization occurs within the veins, along vein margins and as leakages into the surrounding host rocks. Malachite and azurite occur on weathered outcrops.

The second showing occurs in the Break 26 area. The host quartzite is strongly fractured by the vein swarm and locally the shattered quartzite contains quartzitic breccia bands. Chalcopryrite mineralization occurs within the veins, along vein margins and within the matrix of quartzitic breccia. Assay results range from 0.9 - 1.8% Cu.

6.1.5 Geochemistry

Geochemical water and silt surveys carried out from 1977-1979 indicate the presence of anomalous values of uranium in streams draining the south end of the property.

6.2 Rad Claims

6.2.1 Introduction

Preliminary geological mapping was carried out from 1976 to 1978. A summary of the geological mapping is presented in Figure 4 of this report. The property is underlain by a variety of rock types, all belonging to Unit A (Fairchild Group) of the Proterozoic section. Several intrusive phases occur as well as several major faults. Uranium and copper mineralization appear to be related to both the intrusive and structural events present.

6.2.2 Lithology

The northeast portion of the property is underlain by a light green chloritic, biotite schist felt to be the lowest section of the Unit A sequence, lower than any of the rocks within the Rad/Break claims. This high grade metamorphic unit also contains a fine grained siliceous, cherty material contained partway through the schist section.

Within the north central portion of the claims, overlying the metamorphic schist, is a unit composed of slatey to phyllitic dark green mudstones and siltstone.

Lying along the western boundary of the claims is a prominent white-grey siltstone unit containing local brecciation. The siltstone

appears more calcareous towards the contacts with adjoining units. Also noted in the area were: a grey to black locally slatey shale in the south central portion of the property, a light grey to tan phyllite with dolomite lenses and segregations in the southwestern portion of the property, and an orange to brown weathering dolomite immediately south of the claims.

6.2.3 Structure and Stratigraphy

All the rocks seen on the property belong to map Unit A.

The metamorphic section in the northeast part of the property is apparently flat lying; although the identical appearance of the schists lying above and below the fine grained siliceous unit suggests the existence of a recumbent isoclinal fold cored by the siliceous material. Over 500 vertical feet of the metamorphic section is exposed.

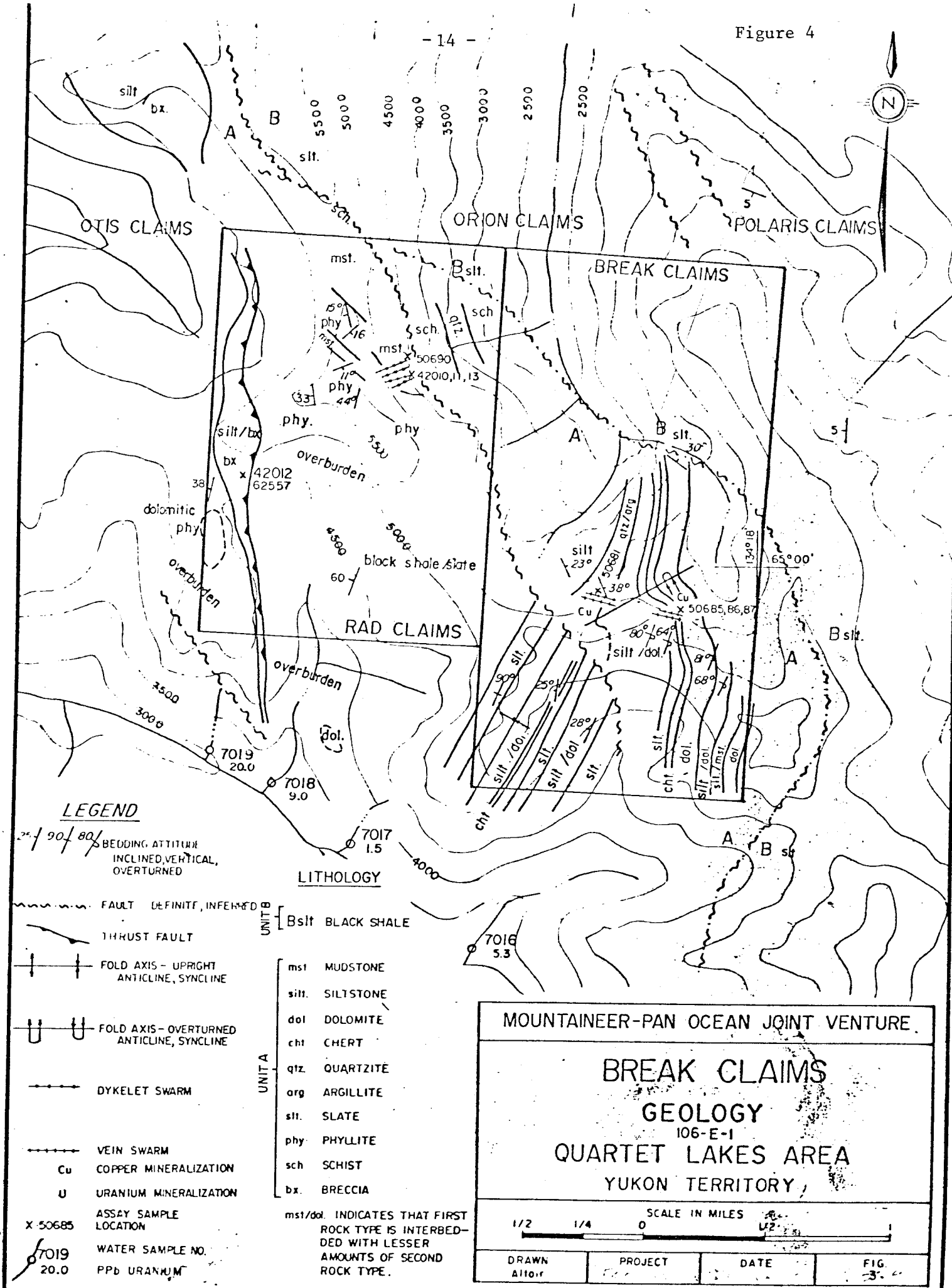
The overlying phyllite/siltstone/mudstone unit is basically flat lying but the variety of bedding attitudes indicates extensive folding within the unit itself. The rest of the sedimentary rocks on the property generally strike north-south and dip moderately to steeply to the west.

Faulting appears to have been the most common structural feature. Two major faults occur on the property and alteration associated with them consists of chloritization, bleaching and calcification; with slickensides and fracturing along fault traces.

The first fault, separating the schists from the mudstone/phyllite rocks in the northeastern part of the property, is a northwesterly trending, southwesterly dipping, high angle reverse fault.

Figure 4

the assay sample locations, water sample No.'s, PPb uranium



LEGEND

- $20^\circ / 90^\circ / 80^\circ$ BEDDING ATTITUDE
INCLINED, VERTICAL,
OVERTURNED
- FAULT DEFINITE, INFERRED
- THRUST FAULT
- FOLD AXIS - UPRIGHT
ANTICLINE, SYNCLINE
- FOLD AXIS - OVERTURNED
ANTICLINE, SYNCLINE
- DYKELET SWARM
- VEIN SWARM
- Cu COPPER MINERALIZATION
- U URANIUM MINERALIZATION
- X 50685 ASSAY SAMPLE
LOCATION
- 7019 WATER SAMPLE NO.
20.0 PPb URANIUM

LITHOLOGY

- UNIT B [Bslt BLACK SHALE
- mst MUDSTONE
- silt. SILTSTONE
- dol DOLOMITE
- chert CHERT
- qtz QUARTZITE
- org ARGILLITE
- slt. SLATE
- phy PHYLLITE
- sch SCHIST
- bx. BRECCIA
- UNIT A

mst/dol. INDICATES THAT FIRST
ROCK TYPE IS INTERBED-
DED WITH LESSER
AMOUNTS OF SECOND
ROCK TYPE.

MOUNTAINEER-PAN OCEAN JOINT VENTURE

BREAK CLAIMS

GEOLOGY

106-E-1

QUARTET LAKES AREA

YUKON TERRITORY

SCALE IN MILES

1/2 1/4 0 1/2 1

| | | | |
|----------------|---------|------|-----------|
| DRAWN Allor | PROJECT | DATE | FIG. 3 |
|----------------|---------|------|-----------|

An intensely sheared and slickensided outcrop of chloritized mudstone lying near the fault trace at the northern edge of the claims exhibits well defined shear planes with attitude $145/57^{\circ}\text{SW}$. This is presumed to be approximately parallel to the fault plane. This fault appears to extend some eleven miles to the WNW of the property.

The second fault brings the light grey siltstone in fault contact with the underlying units, and within the RAD claims thrusts the siltstone over the mudstone/phyllite and the black shale. Fracturing is particularly intense in the siltstone and is commonly accompanied by small scale cross faulting trending generally east-west.

6.2.4 Mineralization

Several local uranium occurrences were discovered on the Rad claims. The mineralization appears structurally controlled by shearing within and/or adjacent to fault zones; thereby, providing channels for hydrothermal solutions carrying and/or localizing mineralization.

In the northeast portion of the claims, a series of felsic pegmatitic dyklets, (attitude $\sim 042/76^{\circ}\text{S}$), occur within the phyllitic mudstone unit. This occurrence is associated with a prominent northwest-southeast trending fault. The uranium mineralization within the dyklet swarm occurs as sporadic grains of brannerite and to a lesser extent an unidentified crystalline, radioactive mineral.

Minor and local brannerite was also noted within the white-grey siltstone along the western boundary of the claims, possibly associated with an east-west trending cross-fault. Minor amounts of chalcopyrite, pyrite and hematite occur in this locale.

The results of geochemical assays of chip samples indicate a range of 0.002 - .256% U^{308} .

7.0 ACTIVITIES, 1980

Following the results of the previous summer programs, a trenching program was carried out in August, 1980 to further delineate the mineral potential of the Rad/Break claims.

7.1 Trenching/Geology

A trench measuring 31.5 feet long x 9.8 feet wide x 13.8 feet deep was excavated using a Jackleg Hammer Atlas Copco XA 50 (105 cfm) compressor, explosives and hand-mucking equipment. The trenching was performed by McCrory Holdings (Yukon) Ltd. personnel.

The trench is located in the northernmost central portion of Break 11 over the copper mineralized vein-swarm within the inter-bedded grey quartzites and argillites. The trench lies 1000 ft. from Break 26, Post 1 at Az 098°. A total of 157.9 cu.yds. was excavated from the trench.

The trench was oriented sub-parallel to the quartzitic unit and cut the 105° trend of the sulphide vein system on surface. Mapping of the trench revealed a well-jointed and fractured grey quartzite containing relative degrees of limonitic-sericitic alteration. Sulphide mineralization, composed of massive to finely disseminated chalcopyrite and pyrite, was contained as:

- a) fine disseminations throughout the steeply dipping thin cross-fractures within the quartzitic unit

- b) within steeply dipping quartz-breccia veins
- c) localized pods of massive chalcopyrite located at the coalescence of intensely limonitized fractures.

A large blue-grey banded quartz vein was intersected and associated with the disseminated chalcopyrite and was sampled for precious metals.

8.0 SUMMARY AND RECOMMENDATIONS

The gold values returned from trench sample assays are obviously sub-economic, however the threshold differentiation of values suggests local gold enrichment.

The ground should be held pending further understanding of the regional mineralization controls.

APPENDIX I

ENGINEER'S CERTIFICATE

ENGINEER'S CERTIFICATE

I, Donald L. Dick, of #11-15 Point Drive N.W., Calgary, in the Province of Alberta, do hereby certify that:

1. I am a graduate of the University of Saskatchewan and hold a B.Sc. degree in Geology.
2. The work reported herein was conducted during a program under my supervision and under the supervision of geologists whom I have confidence in.

Dated this 2 day of April, 1981



Donald L. Dick, B.Sc.

LIST OF PERSONNEL

RAD/BREAK MINERAL CLAIMS
AUGUST 3 - SEPTEMBER 2

| | | |
|--|-----------------|---------------|
| Neil Debock 3506 R.R. #1 Clearwater, B.C. | Prospector | Aug. 2, 4, 15 |
| Ken McNaughton 1584 Moy Street Windsor, Ontario | Asst. Geologist | Aug. 15 |
| Rene Flinn 208, 850 West Hastings Street Vancouver, B.C. | Labourer | Aug. 15, 16 |
| Donald Dick P.O. Bag 2533 Station M Calgary, Alberta | Geologist | Aug. 17 |
| Bruce Harmeson P.O. Bag 2533 Station M Calgary, Alberta | Geologist | Aug. 8 |
| Yasu Hashimoto 72 - 12th Avenue Whitehorse, Y.T. | Blaster | Aug. 9, 15 |
| Gorden Clark 72 - 12th Avenue Whitehorse, Y.T. | Trencher | Aug. 9, 15 |

CANADA) In the matter of an evaluation program on the Rad (1-24)/
) Break (1-32) Mineral Claims.

TO WIT) On behalf of PAN OCEAN OIL LTD.

I, David Yeager for Pamicon Developments Ltd., of 208, 850 West Hastings Street, Vancouver, B.C. do solemnly declare that a trenching/mapping program was performed on the Rad (1-24)/Break (1-32) Mineral Claims during the period of August 3 to September 2, 1980.

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

| | |
|------------------------------|--------------------------|
| Food | \$ 152.32 |
| Expediting | 39.96 |
| Travel and Accommodation | 91.82 |
| Sundry | 155.50 |
| Camp and Miscellaneous Fuels | 59.19 |
| Camp Fixed Wing Support | 339.75 |
| Wages | 650.00 |
| Helicopter Support | 2,628.00 |
| Assaying and Geochemistry | 36.09 |
| Trenching | <u>1,800.00</u> |
| TOTAL | <u><u>\$5,952.63</u></u> |

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 at Vancouver in)
the Province of British Columbia this)
16 day of April, 1981)

David A. Yeager

H.S. Atherton

A Commissioner for Oaths for,
or Notary Public for the Yukon Territory

APPENDIX V

GEOCHEMICAL AND ASSAY RESULTS



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: (604)984-0221
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

| |
|-------------------------|
| CERTIFICATE OF ANALYSIS |
|-------------------------|

: Pamicon Developments Ltd.,
 208 - 850 W. Hastings St.,
 Vancouver, B.C.
 V6B 1P1

CERT. # : A8010580-C03-B
 INVOICE # : 39737
 DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

| Sample description | Prep code | Co ppm | U ppm | AU-FA+AA ppb | | | | |
|--------------------|-----------|--------|-------|--------------|----|----|----|----|
| 86132 | 205 | 245 | -- | -- | -- | -- | -- | -- |
| 86133 | 205 | 178 | -- | -- | -- | -- | -- | -- |
| 86134 | 205 | 200 | -- | -- | -- | -- | -- | -- |
| 86135 | 205 | 178 | -- | -- | -- | -- | -- | -- |
| 86136 | 205 | 12 | -- | -- | -- | -- | -- | -- |
| 86137 | 205 | 120 | -- | -- | -- | -- | -- | -- |
| 86138 | 205 | -- | -- | 10 | -- | -- | -- | -- |
| 86139 | 205 | -- | -- | 20 | -- | -- | -- | -- |
| 86140 | 205 | -- | -- | 80 | -- | -- | -- | -- |
| 86141 | 205 | -- | -- | 95 | -- | -- | -- | -- |
| 86142 | 205 | -- | -- | <5 | -- | -- | -- | -- |
| 86151 | 205 | 10 | -- | 5 | -- | -- | -- | -- |
| 86152 | 205 | 46 | -- | -- | -- | -- | -- | -- |
| 86153 | 205 | 98 | -- | -- | -- | -- | -- | -- |
| 86154 | 205 | 70 | -- | -- | -- | -- | -- | -- |
| 86155 | 205 | 118 | -- | -- | -- | -- | -- | -- |
| 86201 | 205 | 130 | -- | -- | -- | -- | -- | -- |
| 86202 | 205 | 126 | -- | -- | -- | -- | -- | -- |
| 86203 | 205 | 26 | -- | -- | -- | -- | -- | -- |
| 86204 | 205 | 118 | -- | -- | -- | -- | -- | -- |
| 86205 | 205 | 76 | -- | -- | -- | -- | -- | -- |
| 86206 | 205 | 88 | -- | -- | -- | -- | -- | -- |
| 86207 | 205 | 94 | -- | -- | -- | -- | -- | -- |
| 86208 | 205 | 162 | -- | -- | -- | -- | -- | -- |
| 86209 | 205 | 96 | -- | -- | -- | -- | -- | -- |
| 86210 | 205 | 200 | -- | -- | -- | -- | -- | -- |
| 86211 | 205 | 220 | -- | -- | -- | -- | -- | -- |
| 86212 | 205 | 54 | -- | -- | -- | -- | -- | -- |
| 86213 | 205 | 240 | -- | -- | -- | -- | -- | -- |
| 86214 | 205 | 250 | -- | -- | -- | -- | -- | -- |
| 86215 | 205 | 295 | -- | -- | -- | -- | -- | -- |
| 86216 | 205 | 200 | -- | -- | -- | -- | -- | -- |
| 86217 | 205 | 130 | -- | -- | -- | -- | -- | -- |
| 86218 | 205 | 52 | -- | -- | -- | -- | -- | -- |
| 86219 | 205 | 38 | -- | -- | -- | -- | -- | -- |
| 86220 | 205 | 66 | -- | -- | -- | -- | -- | -- |
| 86221 | 205 | 48 | -- | -- | -- | -- | -- | -- |
| 86222 | 205 | 80 | -- | -- | -- | -- | -- | -- |
| 8 3 | 205 | 610 | -- | -- | -- | -- | -- | -- |
| 86224 | 205 | 164 | -- | -- | -- | -- | -- | -- |

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TELEPHONE: (604)984-0221
TELEX: 043-52597

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TO : Pamicon Developments Ltd.,
208 - 850 W. Hastings St.,
Vancouver, B.C.
V6B 1P1

CERT. # : A8010580-004-A
INVOICE # : 39737
DATE : 22-OCT-80

D. YEAGER-FAIRCHILD

CC: PAN OCEAN

| Sample description | Prep code | Cu ppm | Mo ppm | Pb ppm | Zn ppm | Ag ppm | Ni ppm |
|--------------------|-----------|--------|--------|--------|--------|--------|--------|
| 86225 | 205 | 185 | -- | -- | -- | -- | -- |
| 86226 | 205 | 280 | -- | -- | -- | -- | -- |
| 86227 | 205 | 380 | -- | -- | -- | -- | -- |
| 86228 | 205 | 200 | -- | -- | -- | -- | -- |
| 86229 | 205 | 3800 | -- | -- | -- | -- | -- |
| 86230 | 205 | 4800 | -- | -- | -- | -- | -- |
| 86231 | 205 | >10000 | -- | -- | -- | -- | -- |
| 86232 | 205 | 9700 | -- | -- | -- | -- | -- |
| 86233 | 205 | 8000 | -- | -- | -- | -- | -- |
| 86234 | 205 | 9500 | -- | -- | -- | -- | -- |
| 86235 | 205 | >10000 | -- | -- | -- | -- | -- |
| 86236 | 205 | 5200 | -- | -- | -- | -- | -- |
| 86237 | 205 | 6000 | -- | -- | -- | -- | -- |
| 86238 | 205 | 190 | -- | -- | -- | -- | -- |
| 86239 | 205 | 770 | -- | -- | -- | -- | -- |
| 86240 | 205 | 340 | -- | -- | -- | -- | -- |
| 86241 | 205 | 480 | -- | -- | -- | -- | -- |
| 86242 | 205 | 410 | -- | -- | -- | -- | -- |
| 86243 | 205 | 400 | -- | -- | -- | -- | -- |
| 86244 | 205 | 2100 | -- | -- | -- | -- | -- |
| 86245 | 205 | 3800 | -- | -- | -- | -- | -- |
| 86246 | 205 | 4700 | -- | -- | -- | -- | -- |
| 86247 | 205 | >10000 | -- | -- | -- | -- | -- |
| 86258 | 205 | 75 | -- | -- | -- | 0.1 | -- |
| 86259 | 205 | 3900 | -- | -- | -- | 0.1 | -- |
| 86288 | 205 | 240 | -- | -- | -- | -- | -- |
| 86289 | 205 | 80 | -- | -- | -- | -- | -- |
| 86290 | 205 | 350 | -- | -- | -- | -- | -- |
| 86291 | 205 | 90 | -- | -- | -- | -- | -- |
| 86292 | 205 | 120 | -- | -- | -- | -- | -- |
| 86293 | 205 | 50 | -- | -- | -- | -- | -- |
| 86294 | 205 | 265 | -- | -- | -- | -- | -- |
| 86295 | 205 | 45 | -- | -- | -- | -- | -- |
| 86296 | 205 | 20 | -- | -- | -- | -- | -- |
| 86297 | 205 | 190 | -- | -- | -- | -- | -- |
| 86298 | 205 | 710 | -- | -- | -- | -- | -- |
| 86299 | 205 | 370 | -- | -- | -- | -- | -- |
| 86404 | 205 | -- | -- | -- | -- | -- | -- |
| 86443 - VOLE | 205 | 140 | -- | -- | -- | 0.1 | -- |
| 86444 - RAM TRENCH | 205 | 130 | -- | -- | -- | 0.2 | -- |

E-3-80
LORE

E-3-80

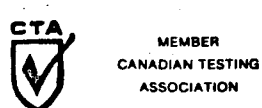
V-1-80

V-4-80

CORE

E-9-80

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CERTIFICATE OF ANALYSIS

TO : Pamicon Developments Ltd.,
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Vancouver, B.C.
V6B 1P1

CERT. # : A8010580-004-
INVOICE # : 39737
DATE : 22-OCT-80

D. YEAGER-FAIRCHILD

CC: PAN OCEAN

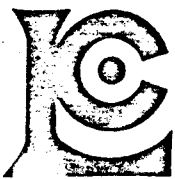
| Sample description | Prep code | Co ppm | U ppm | AU-FA+AA ppb | | | |
|--------------------|-----------|--------|--------|--------------|----|----|----|
| 86225 | 205 | 88 | -- | -- | -- | -- | -- |
| 86226 | 205 | 118 | -- | <5 | -- | -- | -- |
| 86227 | 205 | 260 | -- | 5 | -- | -- | -- |
| 86228 | 205 | 76 | -- | 5 | -- | -- | -- |
| 86229 | 205 | 68 | -- | 35 | -- | -- | -- |
| 36230 | 205 | 215 | -- | -- | -- | -- | -- |
| 86231 | 205 | 830 | -- | -- | -- | -- | -- |
| 86232 | 205 | 196 | -- | -- | -- | -- | -- |
| 86233 | 205 | 350 | -- | -- | -- | -- | -- |
| 86234 | 205 | 990 | -- | -- | -- | -- | -- |
| 86235 | 205 | 290 | -- | -- | -- | -- | -- |
| 86236 | 205 | 174 | -- | -- | -- | -- | -- |
| 86237 | 205 | 570 | -- | -- | -- | -- | -- |
| 86238 | 205 | 285 | -- | -- | -- | -- | -- |
| 86239 | 205 | 64 | -- | -- | -- | -- | -- |
| 86240 | 205 | 260 | -- | -- | -- | -- | -- |
| 86241 | 205 | 134 | -- | -- | -- | -- | -- |
| 86242 | 205 | 420 | -- | -- | -- | -- | -- |
| 86243 | 205 | 118 | -- | -- | -- | -- | -- |
| 86244 | 205 | 90 | -- | -- | -- | -- | -- |
| 86245 | 205 | 70 | -- | -- | -- | -- | -- |
| 86246 | 205 | 110 | -- | -- | -- | -- | -- |
| 86247 | 205 | 210 | -- | -- | -- | -- | -- |
| 86258 | 205 | 136 | -- | -- | -- | -- | -- |
| 86259 | 205 | 50 | -- | -- | -- | -- | -- |
| 86288 | 205 | 22 | -- | -- | -- | -- | -- |
| 86289 | 205 | 12 | -- | -- | -- | -- | -- |
| 86290 | 205 | 12 | -- | -- | -- | -- | -- |
| 86291 | 205 | 26 | -- | -- | -- | -- | -- |
| 86292 | 205 | 12 | -- | -- | -- | -- | -- |
| 86293 | 205 | 14 | -- | -- | -- | -- | -- |
| 86294 | 205 | 68 | -- | -- | -- | -- | -- |
| 86295 | 205 | 22 | -- | -- | -- | -- | -- |
| 86296 | 205 | 10 | -- | -- | -- | -- | -- |
| 86297 | 205 | 8 | -- | -- | -- | -- | -- |
| 86298 | 205 | 90 | -- | -- | -- | -- | -- |
| 86299 | 205 | 32 | -- | -- | -- | -- | -- |
| 86404 | 205 | -- | -- | 215 | -- | -- | -- |
| 86443 - VOLE | 205 | 36 | >400.0 | >1600 | -- | -- | -- |
| 86444 - RAM | 205 | 10 | >400.0 | >1600 | -- | -- | -- |

*E-3-80
LORE*



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CERT. # : A8010580-003-A
INVOICE # : 39737
DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

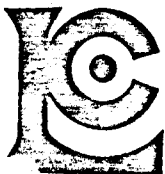
CC: PAN OCEAN

| Sample description | Prep code | Cu ppm | Mo ppm | Pb ppm | Zn ppm | Ag ppm | Ni ppm |
|--------------------------|-----------|--------|--------|--------|--------|--------|--------|
| E-6-80 CORE | 86132 | 205 | 290 | -- | -- | -- | 150 |
| | 86133 | 205 | 880 | -- | -- | -- | -- |
| | 86134 | 205 | 1200 | -- | -- | -- | -- |
| | 86135 | 205 | >10000 | -- | -- | -- | -- |
| | 86136 | 205 | 3700 | -- | -- | -- | -- |
| RAD. -BREEK TRENCH | 86137 | 205 | 350 | -- | -- | -- | -- |
| | 86138 | 205 | 1300 | -- | -- | -- | -- |
| | 86139 | 205 | 740 | -- | -- | -- | -- |
| | 86140 | 205 | 7900 | -- | -- | -- | -- |
| | 86141 | 205 | 2400 | -- | -- | -- | -- |
| 86142 | 205 | 1100 | -- | -- | -- | -- | |
| E-7-80 CORE | 86151 | 205 | 470 | -- | -- | -- | -- |
| | 86152 | 205 | 3250 | -- | -- | -- | -- |
| | 86153 | 205 | 2500 | -- | -- | -- | 76 |
| | 86154 | 205 | 1200 | -- | -- | -- | 42 |
| E-8-80 A | 86155 | 205 | 8650 | -- | -- | -- | 66 |
| | 86201 | 205 | 80 | -- | -- | -- | -- |
| | 86202 | 205 | 4900 | -- | -- | -- | -- |
| | 86203 | 205 | 4200 | -- | -- | -- | -- |
| | 86204 | 205 | >10000 | -- | -- | -- | -- |
| | 86205 | 205 | 3700 | -- | -- | -- | -- |
| | 86206 | 205 | 600 | -- | -- | -- | -- |
| | 86207 | 205 | 50 | -- | -- | -- | -- |
| 86208 | 205 | 30 | -- | -- | -- | -- | |
| 86209 | 205 | 50 | -- | -- | -- | -- | |
| E-3-80 CORE | 86210 | 205 | 25 | -- | -- | -- | -- |
| | 86211 | 205 | 100 | -- | -- | -- | -- |
| | 86212 | 205 | 20 | -- | -- | -- | -- |
| | 86213 | 205 | 20 | -- | -- | -- | -- |
| | 86214 | 205 | 25 | -- | -- | -- | -- |
| | 86215 | 205 | 20 | -- | -- | -- | -- |
| | 86216 | 205 | 50 | -- | -- | -- | -- |
| | 86217 | 205 | 160 | -- | -- | -- | -- |
| 86218 | 205 | 1050 | -- | -- | -- | -- | |
| 86219 | 205 | 510 | -- | -- | -- | -- | |
| 86220 | 205 | 1700 | -- | -- | -- | -- | |
| 86221 | 205 | 540 | -- | -- | -- | -- | |
| 86222 | 205 | 880 | -- | -- | -- | -- | |
| 86223 | 205 | 9700 | -- | -- | -- | -- | |
| 86224 | 205 | 3250 | -- | -- | -- | -- | |

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CERT. # : A8010580-005-
 INVOICE # : 39737
 DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

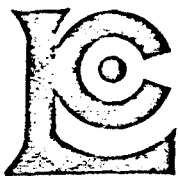
CC: PAN OCEAN

| Sample description | Prep code | Cu ppm | Mo ppm | Pb ppm | Zn ppm | Ag ppm | Ni ppm |
|-----------------------|-----------|--------|--------|--------|--------|--------|--------|
| 86445 - RAM | 205 | 2200 | -- | -- | -- | 0.6 | -- |
| 86446 - ARCTOS CLR-28 | 205 | 9500 | -- | -- | -- | 13.0 | -- |
| 86447 } LAST FULL FOR | 205 | 58 | 3 | -- | -- | 0.2 | -- |
| 86448 } -183 | 205 | 20 | -- | -- | 10 | 0.4 | -- |
| 86449 } -188 | 205 | -- | -- | -- | -- | -- | -- |
| 86449 } -172 | 205 | -- | -- | -- | -- | -- | -- |
| 86450 | 205 | 9700 | 1 | -- | 6 | 0.6 | -- |
| 86451 } SLAB FHR-1 | 205 | 7300 | 12 | -- | -- | 1.2 | -- |
| 86452 } -2 | 205 | >10000 | 3 | -- | -- | 1.0 | -- |
| 86457 | 205 | >10000 | >250 | -- | -- | 2.2 | -- |
| 86458 | 205 | 255 | 5 | -- | -- | 0.2 | -- |
| 86459 | 205 | 9300 | 32 | -- | -- | 1.6 | -- |
| 86460 } URSUS | 205 | >10000 | 1 | -- | -- | 1.4 | -- |
| 86461 } MAPPING | 205 | 620 | 62 | -- | -- | 5.4 | -- |
| 86462 } SAMPLES | 205 | >10000 | 250 | -- | -- | 14.0 | -- |
| 86463 | 205 | >10000 | 100 | -- | -- | 3.0 | -- |
| 86464 | 205 | 1400 | 4 | -- | -- | 0.2 | -- |
| 86465 } URSUS | 205 | 1800 | 4 | -- | -- | 0.2 | -- |
| 86466 } TEENEN #1 | 205 | 950 | 4 | -- | -- | -- | -- |
| 86467 } -1 | 205 | 500 | 7 | -- | -- | 0.1 | -- |
| 86468 } URSUS | 205 | 530 | 66 | -- | -- | 0.2 | -- |
| 86469 } TEENEN | 205 | 340 | 1 | -- | -- | 0.1 | -- |
| 86470 } #3 | 205 | 1200 | 5 | -- | -- | 0.1 | -- |
| 86471 } -1 | 205 | 380 | 10 | -- | -- | 0.1 | -- |
| 86472 } -2 | 205 | -- | -- | -- | -- | -- | -- |
| 86473 } URSUS | 205 | >10000 | 120 | -- | -- | 1.4 | -- |
| 86474 } TEENEN #4 | 205 | >10000 | 98 | -- | -- | 0.8 | -- |
| 86475 } -1 | 205 | 8900 | 30 | -- | -- | 0.2 | -- |
| 86476 } -2 | 205 | -- | -- | -- | -- | -- | -- |
| 86477 } -3 | 205 | -- | -- | -- | -- | -- | -- |
| 86478 } VOLE | 205 | >10000 | -- | -- | -- | 3.8 | -- |
| 86479 } N. OCEAN | 205 | >10000 | -- | -- | -- | 2.4 | -- |
| 86480 } MAPPING | 205 | >10000 | -- | -- | -- | 2.2 | -- |
| 86481 } -1 | 205 | >10000 | -- | -- | -- | >20.0 | -- |
| 86482 } -2 | 205 | -- | -- | -- | -- | -- | -- |
| 86483 } LECTOS | 205 | >10000 | -- | -- | -- | >20.0 | -- |
| 86484 } PROSPECTING | 205 | >10000 | -- | -- | -- | >20.0 | -- |
| 86485 } MAPPING | 205 | 3900 | -- | -- | -- | 13.0 | -- |
| 86486 } GEOCHEM | 205 | >10000 | -- | -- | -- | 1.0 | -- |
| 86487 } SLAB | 205 | -- | -- | -- | -- | -- | -- |
| 86488 } PROSPECTING | 205 | -- | -- | -- | -- | -- | -- |
| 86488 } TELUS | 205 | -- | -- | -- | -- | -- | -- |

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TO: PAMICON DEVELOPMENTS LTD. also on
 #208, 850 W. Hastings Street A801058
 Vancouver, B.C. 70276
 V6B 1P1
 ATTN: D. Yeager PROJECT: FAIRCHILD LAKE

CERTIFICATE NO. SP A 766

INVOICE NO. 40009

RECEIVED Sept. 29, 1980

ANALYSED Oct. 31, 1980

cc - Pan Ocean Oil, Calgary, Attn: D. Foster

| SAMPLE NO. : | Lower Concentration Limit (PPM) | 86404 EPA | 86449 Lof Fitch JFK-168 | 86472 Ovens Tr. 4 | 86482 Lof Fitch | 86487 Archie | 86488 Slate | 86489 Slate | 86501 DET-1 |
|--------------|---------------------------------|--------------|-------------------------------|----------------------|--------------------|-----------------|----------------|----------------|----------------|
| Antimony | 50 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Arsenic | 50 | 500 | bcl | bcl | 200 | 1000 | 200 | bcl | > 5000 |
| Barium | 5 | 20 | 700 | >5000 | 1500 | 1000 | 700 | 1000 | > 5000 |
| Beryllium | 5 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Bismuth | 5 | 70 | bcl | 20 | 70 | 5 | bcl | bcl | 30 |
| Boron | 20 | bcl | 150 | 20 | bcl | bcl | 100 | 100 | bcl |
| Cadmium | 20 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Calcium | 0.05% | 2% | 0.3% | 0.3% | 0.5% | 0.07% | 7% | 3% | 1% |
| Chromium | 10 | 200 | 150 | 100 | 30 | 100 | 150 | 150 | 100 |
| Cobalt | 10 | 70 | 10 | 100 | 300 | 500 | 70 | 100 | 5000 |
| Copper | 1 | > 5000 | 300 | > 5000 | >5000 | > 5000 | >5000 | 5000 | 1000 |
| Gallium | 5 | bcl | 10 | 20 | bcl | 5 | 20 | 20 | bcl |
| Germanium | 20 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Indium | 50 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Iron | 0.05% | 3% | 7% | > 20% | 7% | 20% | 2% | 3% | 20% |
| Lead | 5 | 20 | 300 | 20 | 20 | 5 | 70 | 10 | 10 |
| Magnesium | 0.02% | 1% | 0.15% | 0.5% | 0.7% | 0.02% | 1.5% | 1% | 1% |
| Manganese | 5 | 700 | 2000 | 150 | 500 | 150 | 500 | 500 | > 5000 |
| Molybdenum | 10 | < 100 | < 100 | < 100 | < 100 | < 100 | 500 | 200 | < 100 |
| Nickel | 5 | 100 | 20 | 70 | 5 | 15 | 20 | 50 | 500 |
| Niobium | 50 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Silver | 1 | 20 | bcl | bcl | 500 | 15 | 1 | bcl | bcl |
| Strontium | 2 | 10 | 10 | 300 | 7 | 7 | 150 | 100 | 500 |
| Tellurium | 200 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Thorium | 200 | bcl | bcl | bcl | bcl | bcl | bcl | bcl | bcl |
| Tin | 10 | bcl | bcl | 20 | bcl | bcl | bcl | bcl | bcl |
| Titanium | 5 | 70 | 1500 | 700 | 500 | 70 | 1000 | 1000 | 1000 |
| Vanadium | 20 | 50 | 200 | 100 | 200 | 200 | 100 | 100 | 50 |
| Zinc | 50 | 150 | bcl | 50 | bcl | bcl | 100 | 50 | 200 |
| Zirconium | 20 | bcl | 100 | 70 | 20 | 50 | 100 | 100 | 100 |

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm = > 5000 ppm 50 ppm = 25-100 ppm
 5000 ppm = 2500-10000 ppm 20 ppm = 10-50 ppm
 2000 ppm = 1000-4000 ppm 10 ppm = 5-20 ppm
 1000 ppm = 500-2000 ppm 5 ppm = 2-10 ppm

500 ppm = 250-1000 ppm 2 ppm = 1-4 ppm
 200 ppm = 100-400 ppm 1 ppm = 0.5-2 ppm
 100 ppm = 50-200 ppm bcl = below concentration limit

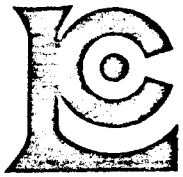
Ranges for Iron, Calcium & Magnesium are reported in %



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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 846
 INVOICE NO. 41252
 RECEIVED Dec. 11, 1980
 ANALYSED Dec. 17, 1980

TO: PAN OCEAN OIL LTD.
 P.O. Box 2533, Station "M"
 Calgary, Alta.
 T2P 2M7
 ATTN: D. Dickson

| SAMPLE NO. : | Lower Concentration Limit (PPM) | 86100 <i>E-2-80</i> | 86140 <i>R40-6111</i> | 86215 <i>E-3-80</i> | 86234 <i>E-3-80</i> | Originally on |
|--------------|---------------------------------|------------------------|--------------------------|------------------------|------------------------|---------------|
| Antimony | 50 | 3000 | 100 | 50 | 150 | 88010580-002 |
| Arsenic | 50 | 2000 | 500 | 50 | 300 | 003 |
| Barium | 5 | 1000 | 150 | 2000 | 3000 | 004 |
| Beryllium | 5 | bcl | bcl | bcl | bcl | 006 |
| Bismuth | 5 | 15 | 30 | bcl | bcl | |
| Boron | 20 | 70 | 20 | 20 | 1000 | |
| Cadmium | 20 | bcl | bcl | bcl | bcl | |
| Calcium | 0.05% | 3% | 1% | 3% | 3% | |
| Chromium | 10 | 100 | 100 | 100 | 100 | |
| Cobalt | 10 | 5000 | 200 | 300 | 500 | |
| Copper | 1 | > 5000 | > 5000 | 200 | > 5000 | |
| Gallium | 5 | 10 | bcl | 15 | 10 | |
| Germanium | 20 | bcl | bcl | bcl | bcl | |
| Indium | 50 | bcl | bcl | bcl | bcl | |
| Iron | 0.05% | 10% | 2% | 2% | 2% | |
| Lead | 5 | 20 | 50 | 15 | 30 | |
| Magnesium | 0.02% | 1% | 1% | 0.5% | 1% | |
| Manganese | 5 | 700 | 1000 | 700 | 700 | |
| Molybdenum | 10 | < 100 | < 100 | <100 | <100 | |
| Nickel | 5 | 150 | 100 | 100 | 15 | |
| Niobium | 50 | bcl | bcl | bcl | bcl | |
| Silver | 1 | 2 | 5 | bcl | 1 | |
| Strontium | 2 | 30 | 30 | 50 | 50 | |
| Tellurium | 200 | bcl | bcl | bcl | bcl | |
| Thorium | 200 | bcl | bcl | bcl | bcl | |
| Tin | 10 | bcl | bcl | bcl | bcl | |
| Titanium | 5 | 700 | 700 | 1500 | 1000 | |
| Vanadium | 20 | bcl | bcl | bcl | 50 | |
| Zinc | 50 | 70 | 300 | 50 | 50 | |
| Zirconium | 20 | 70 | 20 | 100 | 100 | |

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm 50 ppm = 25-100 ppm
 5000 ppm = 2500-10000 ppm 20 ppm = 10-50 ppm
 2000 ppm = 1000-4000 ppm 10 ppm = 5-20 ppm
 1000 ppm = 500-2000 ppm 5 ppm = 2-10 ppm

500 ppm = 250-1000 ppm 2 ppm = 1-4 ppm
 200 ppm = 100-400 ppm 1 ppm = 0.5-2 ppm
 100 ppm = 50-200 ppm bcl = below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %



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[Signature]



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 766

TO: Pamicon Developments Ltd.,
 208 - 850 W. Hastings St.,
 Vancouver, B.C.

INVOICE NO. 40009

V6B 1P1

RECEIVED Sept. 29/80

ATTN: D. Yeager CC. Pan Ocean Oil, Calgary, Alta.

ANALYSED Oct. 28/80

| SAMPLE NO. : | Lower Concentration Limit (PPM) | 86404 <i>R40-86404</i> | 86449 <i>Lost Pass</i> | ORBUS 86472 <i>R4</i> | ACTOS 86482 | ACTOS 86487 | SIABTALUS 86488 |
|----------------------|---------------------------------|---------------------------|---------------------------|-----------------------------|----------------|----------------|--------------------|
| Antimony <i>Sp</i> | 50 | 50 <i>70</i> | bcl | bcl | 100 | 200 | bcl |
| Arsenic <i>As</i> | 50 | 500 | bcl | bcl | 200 | 1000 | 200 |
| Barium <i>Ba</i> | 5 | 200 | 700 | > 5000 | 1500 | 1000 | 700 |
| Beryllium <i>Be</i> | 5 | bcl | bcl | bcl | bcl | bcl | bcl |
| Bismuth <i>Bi</i> | 5 | 70 | bcl | 20 | 70 | 5 | bcl |
| Boron <i>B</i> | 20 | bcl | 150 | 20 | bcl | bcl | 100 |
| Cadmium <i>Cd</i> | 20 | bcl | bcl | bcl | bcl | bcl | bcl |
| Calcium <i>Ca</i> | 0.05% | 2% | 0.3% | 0.3% | 0.5% | 0.07% | 7% |
| Chromium <i>Cr</i> | 10 | 200 | 150 | 100 | 30 | 100 | 150 |
| Cobalt <i>Co</i> | 10 | 70 | 10 | 100 | 300 | 500 | 70 |
| Copper <i>Cu</i> | 1 | > 5000 | 300 | > 5000 | > 5000 | > 5000 | > 5000 |
| Gallium <i>Ga</i> | 5 | bcl | 10 | 20 | bcl | 5 | 20 |
| Germanium <i>Ge</i> | 20 | bcl | bcl | bcl | bcl | bcl | bcl |
| Indium <i>In</i> | 50 | bcl | bcl | bcl | bcl | bcl | bcl |
| Iron <i>Fe</i> | 0.05% | 3% | 7% | > 20% | 7% | 20% | 2% |
| Lead <i>Pb</i> | 5 | 20 | 300 | 20 | 20 | 5 | 70 |
| Magnesium <i>Mg</i> | 0.02% | 1% | 0.15% | 0.5% | 0.7% | 0.02% | 1.5% |
| Manganese <i>Mn</i> | 5 | 700 | 2000 | 150 | 500 | 150 | 500 |
| Molybdenum <i>Mo</i> | 10 | < 100 | < 100 | < 100 | < 100 | < 100 | 500 |
| Nickel <i>Ni</i> | 5 | 100 | 20 | 70 | 5 | 15 | 20 |
| Niobium <i>Nb</i> | 50 | bcl | bcl | bcl | bcl | bcl | bcl |
| Silver <i>Ag</i> | 1 | 20 | bcl | bcl | 500 | 15 | 1 |
| Strontium <i>Sr</i> | 2 | 10 | 10 | 300 | 7 | 7 | 150 |
| Tellurium <i>Te</i> | 200 | bcl | bcl | bcl | bcl | bcl | bcl |
| Thorium <i>Th</i> | 200 | bcl | bcl | 20 | bcl | bcl | bcl |
| Tin <i>Sr</i> | 10 | 70 | 1500 | 700 | 500 | 70 | 1000 |
| Titanium <i>Ti</i> | 5 | 50 | 200 | 100 | 200 | 200 | 100 |
| Vanadium <i>V</i> | 20 | 150 | bcl | 50 | bcl | bcl | 100 |
| Zinc <i>Zn</i> | 50 | bcl | 100 | 70 | 20 | 50 | 100 |
| Zirconium <i>Zr</i> | 20 | bcl | 100 | 70 | 20 | 50 | 100 |

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm 50 ppm = 25-100 ppm
 5000 ppm = 2500-10000 ppm 20 ppm = 10-50 ppm
 2000 ppm = 1000-4000 ppm 10 ppm = 5-20 ppm
 1000 ppm = 500-2000 ppm 5 ppm = 2-10 ppm

500 ppm = 250-1000 ppm 2 ppm = 1-4 ppm
 200 ppm = 100-400 ppm 1 ppm = 0.5-2 ppm
 100 ppm = 50-200 ppm bcl = below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %

RECEIVED NOV - 4 1980



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *[Signature]*



CHEMEX LABS LTD.

3/22/80

212 BROOKSBANK AVE.
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CANADA V7J 2C1
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TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

: Pamicon Developments Ltd.,
208 - 850 W. Hastings St.,
Vancouver, B.C.
V6B 1P1

CERT. # : A8010580-005-B
INVOICE # : 39737
DATE : 22-OCT-80

D. YEAGER-FAIRCHILD

CC: PAN OCEAN

| Sample description | Prep code | Co ppm | U ppm | AU-FA+AA ppb | | | |
|--------------------|-----------|--------|--------|--------------|-------|----|----|
| 36445-Rom | 205 | 14 | >400.0 | >2500 | -- | -- | -- |
| 36446-Arctos | 205 | 220 | >400.0 | 983 | -- | -- | -- |
| 36447 | 205 | 72 | 395.0 | | -- | -- | -- |
| 36448 } LOST FULL | 205 | 12 | -- | | -- | -- | -- |
| 36449 | 205 | -- | -- | | 10 | -- | -- |
| 36450 | 205 | 6 | -- | | -- | -- | -- |
| 36451 } SLAB | 205 | 24 | -- | | 245 | -- | -- |
| 36452 | 205 | 24 | -- | | 115 | -- | -- |
| 36457 | 205 | 1300 | -- | | 1600 | -- | -- |
| 36458 | 205 | 46 | -- | | 15 | -- | -- |
| 36459 | 205 | 52 | -- | | 975' | -- | -- |
| 36460 | 205 | 44 | -- | | 105 | -- | -- |
| 36461 | 205 | 66 | -- | | 270 | -- | -- |
| 36462 | 205 | 52 | -- | | >5000 | -- | -- |
| 36463 | 205 | 66 | -- | | 445 | -- | -- |
| 36464 | 205 | 6 | 19.0 | | -- | -- | -- |
| 36465 | 205 | 10 | 8.0 | | -- | -- | -- |
| 36466 } CURSUS | 205 | 12 | 29.0 | | -- | -- | -- |
| 36467 | 205 | 26 | 125.0 | | -- | -- | -- |
| 36468 | 205 | 58 | >400.0 | 1925 | -- | -- | -- |
| 36469 | 205 | 32 | 11.0 | | -- | -- | -- |
| 36470 | 205 | 58 | 35.0 | | -- | -- | -- |
| 36471 | 205 | 72 | >400.0 | >2500 | -- | -- | -- |
| 36472 | 205 | -- | -- | | 465 | -- | -- |
| 36473 | 205 | 64 | 281.0 | | -- | -- | -- |
| 36474 | 205 | 52 | 65.0 | | -- | -- | -- |
| 36475 | 205 | 52 | 35.0 | | -- | -- | -- |
| 36476 | 205 | >10000 | -- | | -- | -- | -- |
| 36477 | 205 | 132 | -- | | <5 | -- | -- |
| 36478 | 205 | 26 | -- | | -- | -- | -- |
| 36479 } Core | 205 | 12 | -- | | -- | -- | -- |
| 36480 | 205 | 24 | -- | | -- | -- | -- |
| 36481 | 205 | 470 | -- | | -- | -- | -- |
| 36482 | 205 | -- | -- | | 5 | -- | -- |
| 36483 | 205 | 34 | -- | | -- | -- | -- |
| 36484 } Arctos | 205 | 32 | -- | | -- | -- | -- |
| 36485 | 205 | 355 | -- | | -- | -- | -- |
| 36486 | 205 | 172 | -- | | -- | -- | -- |
| 3 } slab | 205 | -- | -- | | 120 | -- | -- |
| 36488 | 205 | -- | -- | | 95 | -- | -- |

Certified by Hart Biddle



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CERTIFICATE OF ASSAY

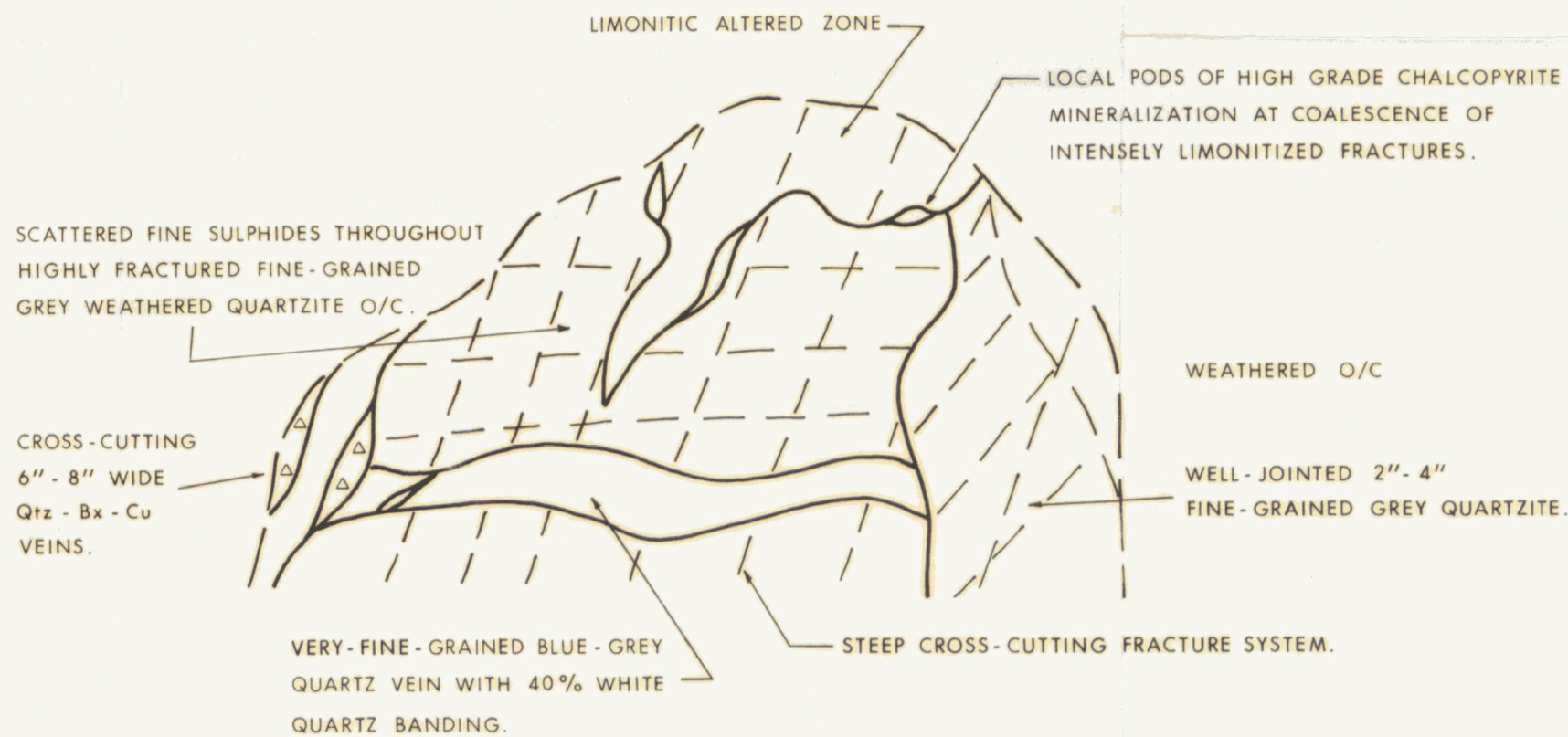
Client: Pamicon Developments Ltd.,
 208 - 850 W. Hastings St.,
 Vancouver, B.C.
 V6B 1P1

CERT. # : A8011149-002-A
 INVOICE # : 40684
 DATE : 24-NOV-80
 P.O. # : NONE

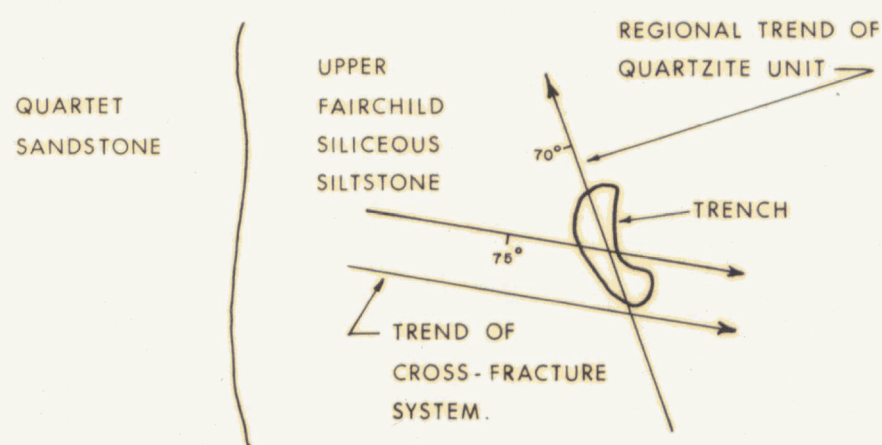
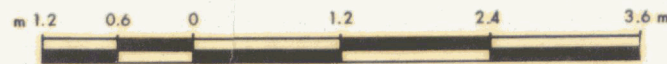
| Sample description | Prep code | Cu percent | Ni percent | Co percent | U3O8 (%) (conc.) | As oz/t | Au oz/t |
|--------------------|-----------|------------|------------|------------|------------------|---------|---------|
| 86138 E-G-50 | 214 | 0.35 | -- | -- | -- | -- | -- |
| 86229 | 214 | 0.38 | -- | -- | -- | -- | -- |
| 86230 | 214 | 0.48 | -- | -- | -- | -- | -- |
| 86231 | 214 | 3.85 | -- | -- | -- | -- | -- |
| 86232 | 214 | 0.93 | -- | -- | -- | -- | -- |
| 86233 | 214 | 0.76 | -- | -- | -- | -- | -- |
| 86234 | 214 | 0.90 | -- | -- | -- | -- | -- |
| 86235 | 214 | 1.64 | -- | -- | -- | -- | -- |
| 86236 | 214 | 0.51 | -- | -- | -- | -- | -- |
| 86237 E-S-20 | 214 | 0.59 | -- | -- | -- | -- | -- |
| 86238 | 214 | 0.08 | -- | -- | -- | -- | -- |
| 86239 | 214 | 0.03 | -- | -- | -- | -- | -- |
| 86240 | 214 | 0.02 | -- | -- | -- | -- | -- |
| 86241 | 214 | 0.05 | -- | -- | -- | -- | -- |
| 86242 | 214 | 0.04 | -- | -- | -- | -- | -- |
| 86243 | 214 | 0.04 | -- | -- | -- | -- | -- |
| 86244 | 214 | 0.21 | -- | -- | -- | -- | -- |
| 86245 | 214 | 0.39 | -- | -- | -- | -- | -- |
| 86246 | 214 | 0.43 | -- | -- | -- | -- | -- |
| 86247 | 214 | 1.17 | -- | -- | -- | -- | -- |
| 86443 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86444 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86445 RAM | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86446 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86468 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86469 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86470 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86471 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86551 | 214 | -- | -- | -- | DELAYED | -- | -- |
| 86552 | 214 | 1.66 | -- | -- | DELAYED | DELAYED | DELAYED |
| 86462 | 214 | -- | -- | -- | -- | -- | DELAYED |
| 86481 | 214 | 5.75 | -- | -- | -- | DELAYED | DELAYED |
| 86483 | 214 | 36.00 | -- | -- | -- | DELAYED | DELAYED |
| 86484 | 214 | 12.40 | -- | -- | -- | DELAYED | DELAYED |
| 86501 | 214 | 0.17 | 0.06 | 0.830 | -- | DELAYED | -- |
| 86502 | 214 | 0.55 | 0.10 | 0.840 | -- | DELAYED | -- |
| 86503 | 214 | 0.18 | 0.06 | 0.360 | -- | DELAYED | -- |
| 86504 | 214 | 1.28 | 1.30 | 11.100 | -- | DELAYED | -- |
| 86505 | 214 | 0.27 | 0.74 | 7.000 | -- | DELAYED | -- |
| 86506 | 214 | 0.52 | 1.30 | 10.600 | -- | DELAYED | -- |

..... *V. J. Swates*
 Registered Assayer, Province of British Columbia





RAD-BREAK TRENCH
FRONT VIEW
SCALE - 1:60



RAD-BREAK TRENCH
PLAN VIEW
SCALE - 1:600



NOTE: LOCATED ON BREAK 26 - YA7129

RESULTS OF ROCK GEOCHEMISTRY ANALYSES

| No. | Cu (ppm) | Co (ppm) | Au (ppb) |
|-------|----------|----------|----------|
| 86138 | 1300 | — | 10 |
| 86139 | 740 | — | 20 |
| 86140 | 7900 | — | 80 |
| 86141 | 2400 | — | 95 |
| 86142 | 1100 | — | <5 |

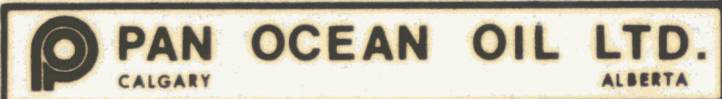
RESULTS OF SEMI-QUANTITATIVE SPECTROGRAPHIC ANALYSES

| | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Sb | As | Ba | Be | Bi | Bo | Cd | Ca | Cr | Co |
| 50 | 500 | 200 | bcl | 70 | bcl | bcl | 2% | 200 | 70 |
| Cu | Ga | Ge | In | Fe | Pb | Mg | Mn | Mo | Ni |
| >5000 | bcl | bcl | bcl | 3% | 20 | 1% | 700 | <100 | 100 |
| Nb | Ag | Sr | Te | Th | Sn | Ti | V | Zn | Zr |
| bcl | 20 | 10 | bcl | bcl | bcl | 70 | 50 | 150 | bcl |

SEMI-QUANTITATIVE SPECTROGRAPHIC ANALYSES

| | | |
|---------------------------------|--------------------------|----------------------|
| 5000 ppm = 5000 ppm | 500 ppm = 250 - 1000 ppm | 20 ppm = 10 - 50 ppm |
| 5000 ppm = 2500 - 10 000 ppm | 200 ppm = 100 - 400 ppm | 10 ppm = 5 - 20 ppm |
| 2000 ppm = 1000 - 4000 ppm | 100 ppm = 50 - 200 ppm | 5 ppm = 2 - 10 ppm |
| 1000 ppm = 500 - 2000 ppm | 50 ppm = 25 - 100 ppm | 2 ppm = 1 - 4 ppm |
| bcl = below concentration limit | | 1 ppm = 0.5 - 2 ppm |

TO ACCOMPANY REPORT NO. 7-81 BY DLD & DBH



RAD-BREAK TRENCH

FAIRCHILD LAKE PROJECT, 1980

| DATE | SCALE | NTS | DRAWING NO. |
|------------|----------|--------------|-------------|
| MAR., 1981 | AS SHOWN | 106D/16, E/1 | B-1219 |