INDIAN AND NORTHERN AFFAIRS

TRANSMITTAL FORM

S.M.R. File No.

Date Fwd: ~~27/4/81~~ 25/5/81

FROM: Mining Recorder at ..... MAYO .....

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

Office of the Supervising Mining Recorder
MAY 28 1981
WHITEHORSE
Yukon Territory

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: EAGLE 1-161, OTTER 1-124, VOLE 1-43
Claim sheet no. 106-E-1, 106-C-13, 106-F-4
Type of report: GEO, TRENCHING, G.P, GC. D.D.
Submitted by: PAN OCEAN OIL LTD
Cls. work performed on: EAGLE 39, 41, 159; VOLE 13
$ Req. for ren. application 149,938.00

Signature

REPLY ACTION: Date Ret.

Signature

Office of the Supervising Mining Recorder
MAY 28 1981
WHITEHORSE
Yukon Territory

MOUNTAINEER MINES LTD. - PAN OCEAN OIL LTD.

JOINT VENTURE

ASSESSMENT REPORT

ON THE

Eagle 1-161 Mineral Claims

Otter 1-124 Mineral Claims

Vole 1-43 Mineral Claims

NTS 106E/1, 106C/13, 106F/4

65°00'N Latitude, 134°00'W Longitude

Yukon Territory

RECEIVED
24 APR 1981
MINING RECORDER
MAYO, Y.T.
L.A. & N.D.

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

Report Date:
February, 1981
Report No. 11-81

090817

Pan Ocean

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

$ 149,938.00

R. Debicki A Reg Geol

Resident Geologist or
Resident Mining Engineer June 1/81

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

R. R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

TABLE OF CONTENTS

	Page
Table of Contents	i
List of Appendices and Figures	ii
List of Drawings	iii
1. INTRODUCTION	1
2. LIST OF CLAIMS	1
3. LOCATION AND ACCESS	1
4. TOPOGRAPHY AND VEGETATION	2
5. REGIONAL GEOLOGY	3
6. GEOLOGY OF IMMEDIATE VICINITY OF FAIRCHILD LAKE	11
6.1 Introduction	11
6.2 Lithology	11
6.3 Structure	14
6.4 Mineralization	15
7. OTTER 1-124 CLAIM GROUP	16
7.1 Introduction	16
7.2 List of Claims	17
7.3 Location and Access	17
7.4 Topography and Vegetation	17
7.5 Geology	17
7.6 Property Activities, 1980	18
7.7 Trenching	20
7.8 Summary and Recommendations	20
8. VOLE 1-43 CLAIM GROUP	21
8.1 Introduction	21
8.2 List of Claims	21
8.3 Location and Access	22
8.4 Topography and Vegetation	22
8.5 Summary of Activities, 1980	22
8.5.1 Geological Mapping and Lithology	22
8.5.2 Prospecting	25
8.5.3 Geochemistry	25
8.5.4 Geophysics	26
8.5.5 Mineralization	27
8.5.6 Diamond Drilling	27
8.6 Summary and Recommendations	28
9. EAGLE 1-161 CLAIM GROUP	28
9.1 Introduction	28
9.2 List of Claims	29
9.3 Geological Mapping	29
9.4 Diamond Drilling	32
9.5 Trenching	38
9.6 Summary and Recommendations	38

LIST OF APPENDICES

APPENDIX I	Geochemical and Assay Results
APPENDIX II	Diamond Drill Logs
APPENDIX III	Engineer's Certificate

LIST OF FIGURES

Figure No.	TITLE	Page No.
1	Idealized Section Showing Regional Correlations and Structural History	7
2	Geology of the Immediate Vicinity of Fairchild Lake----------	8
2a	Legend----------	9
2b	List of Symbols----------	10

Replace same page in Report 11-81

LIST OF DRAWINGS

Drawing No.	TITLE	
1 C-1220	Prospecting Traverses-Eagle, Otter, Vole Claims----------	
2 D-1221	Diamond Drill Profile - OA 1-80----------	in box
3 C-1222	Diamond Drill Profile - OA 2a, 2b, 2c-80-----	in box
4 B-1223	Vertical View of Backwall-Otter "A" Drill Pad----------	in box
5 B-1224	Trench 1 - Otter "A"----------	in box
6 B-1225	Trench 2 - Otter "A"----------	in box
7 B-1226	Trench 3 - Otter "A"----------	in box
8 B-1227	Trench 4 - Otter "A"----------	in box
9 B-1228	Trench 5 - Otter "A"----------	in box
10 D-1229	Surface Geology of Vole Showings & Plan View of Diamond Drill Sections----------	in box
11 C-1230	Diamond Drill Profile V-1-80----------	in box
12 C-1231	Diamond Drill Assay Results - V-1-80---------	in box
13 C-1232	Diamond Drill Profile V-2-80----------	in box
14 C-1233	Diamond Drill Assay Results - V-2-80---------	in box
15 D-1234	Diamond Drill Profile V-3-80 & V-4-80--------	in box
16 D-1235	Diamond Drill Assay Results V-3-80 & V-4-80--	in box
17,18 E-1236	Detailed Geology-Eagle Grid (2 sheets)-------	in box
19 E-1237	Geology - Eagle Grid----------	in box
20 E-1238	Altimeter Survey - Eagle Grid----------	in box
21 E-1239	Magnetometer Survey - Eagle Grid----------	in box
22 E-1240	Copper-Soil Sample Survey-Eagle Grid---------	in box
23 E-1241	Cobalt-Soil Sample Survey-Eagle Grid---------	in box
24 E-1242	Lead -Soil Sample Survey-Eagle Grid---------	in box
25 E-1243	Manganese-Soil Sample Survey-Eagle Grid------	in box
26 E-1244	Nickel-Soil Sample Survey-Eagle Grid---------	in box
27 E-1245	Zinc - Soil Sample Survey-Eagle Grid---------	in box
28 B-1246	Diamond Drill Hole Locations-Eagle Grid-E-1,2,3,4,5,6,7,8A,9-80----------	in box
29 C-1247	Diamond Drill Profile - E-1-80 & 2-80 - Eagle Grid----------	in box
30 C-1248	Diamond Drill Geochem & Assay Results - E-1-80 & E-2-80----------	in box
31 -1249	Diamond Drill Profile, E-3-80-Eagle Grid-----	in box
32 X-1250	Diamond Drill Profile, E-4-80-Eagle Grid-----	in box
33 C-1251	Diamond Drill Profile, E-5-80-Eagle Grid-----	in box
34 D-1252	Diamond Drill Profile, E-6-80-Eagle Grid-----	in box
35 D-1253	Diamond Drill Profile, E-7-80-Eagle Grid-----	in box
36 E-1254	Diamond Drill Profile, E-8A-80, Eagle Grid---	in box
37 B-1255	Diamond Drill Profile, E-9-80-Eagle Grid-----	in box
38 D-1256	Diamond Drill Profile, S-1-80-Eagle Grid-----	in box
39 A-1257	Eagle Creek Trench -West Bank----------	in box
40 B-1258	Upper Eagle Trench----------	in box
41 E-1259	Compilation Map-Otter Zone-Imaginary Grid to Tie In Otter Main-Otter A-Otter B-------	in box
42 X-1261	Composite Trench Map and Plan View of Drill Profile - Otter A----------	in box

1. INTRODUCTION

The Otter 1-124 mineral claims were staked between August 1977 and October 1979. The Eagle 1-161 and Vole 1-43 claim groups were staked during the 1980 field season. The Eagle group adjoins the Otter 5, 7, 9, 11, 13 and 15 claims on the western boundary of the Otter claim group. The Vole group adjoins the northeast corner of the Otter group.

Activities during 1980 included regional prospecting and geological reconnaissance, detailed field mapping, diamond drilling and trenching.

2. LIST OF CLAIMS

Claim Name	Recording Date	Grant No.
Otter 1-4	August 1, 1977	YA15886-15889
Otter 5-36	September 11, 1978	YA38210-38241
Otter 37-88	August 10, 1979	YA40567-40618
Otter 89-124	October 9, 1979	YA41396-41341
Vole 1-38	July 21, 1980	YA41955-92
Vole 39-43	August 15, 1980	YA42335-39
Eagle 1-32	July 2, 1980	YA41720-41751
Eagle 33-40	July 21, 1980	YA41993-42000
Eagle 41-112	July 2, 1980	YA41752-41823
Eagle 113-120	July 21, 1980	YA42001-42008
Eagle 121-128	July 2, 1980	YA41824-41831
Eagle 129-136	July 21, 1980	YA42009-42016
Eagle 137-161	July 2, 1980	Ya41823-41856

3. LOCATION AND ACCESS

The Otter, Vole, and Eagle claim groups are located within a five-mile radius of Fairchild Lake. The Eagle group adjoins the

Otter group on the west, and the Vole group adjoins the Otter group on the northeast. The property is approximately 180 km northeast of Mayo.

The approximate coordinates of the groups are 65°N latitude, and 134°W longitude.

Access to the property is recommended by float-equipped, fixed wing aircraft to Fairchild Lake. Wheeled aircraft may be used on the serviceable Bear River airstrip. Helicopter transport is required from either of these locations to reach the property.

4. 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. 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 redesignated 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. Extensive 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, hozoxide, carbonate, and oxide mineralization of variable intensity occur in relation to the breccia zones. The mineralization includes elements of copper, lead, zinc, gold, silver, tungsten, molybdenum, iron, tin and manganese.

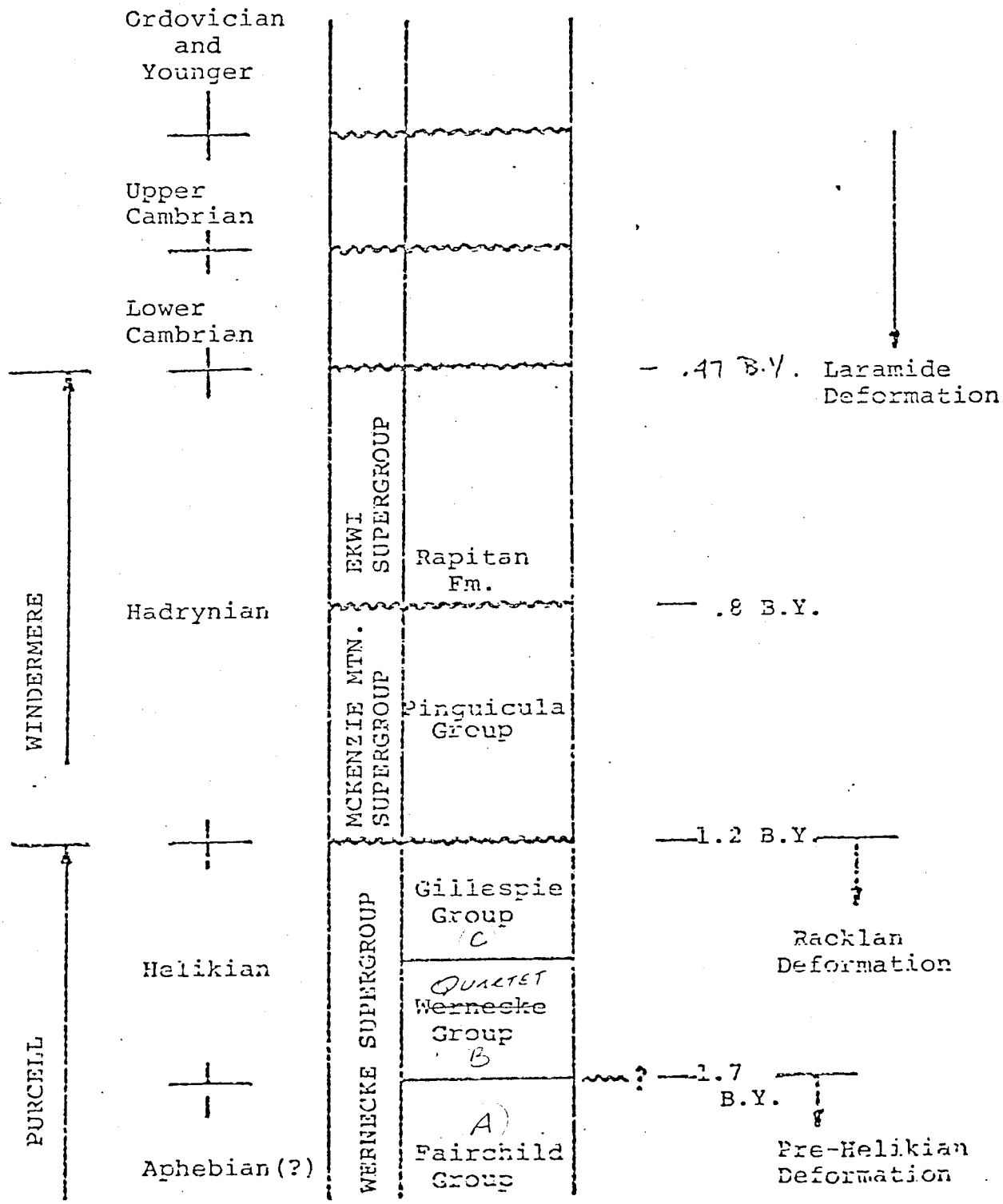
Complex metamorphic regimes involving regional, dynamic, thermal, contact and metasomatic processes are locally imprinted on each other in varying degrees, resulting in widely different alteration and metallogenic effects.

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

FIG. 1

IDEALIZED SECTION SHOWING REGIONAL CORRELATIONS & STRUCTURAL HISTORY



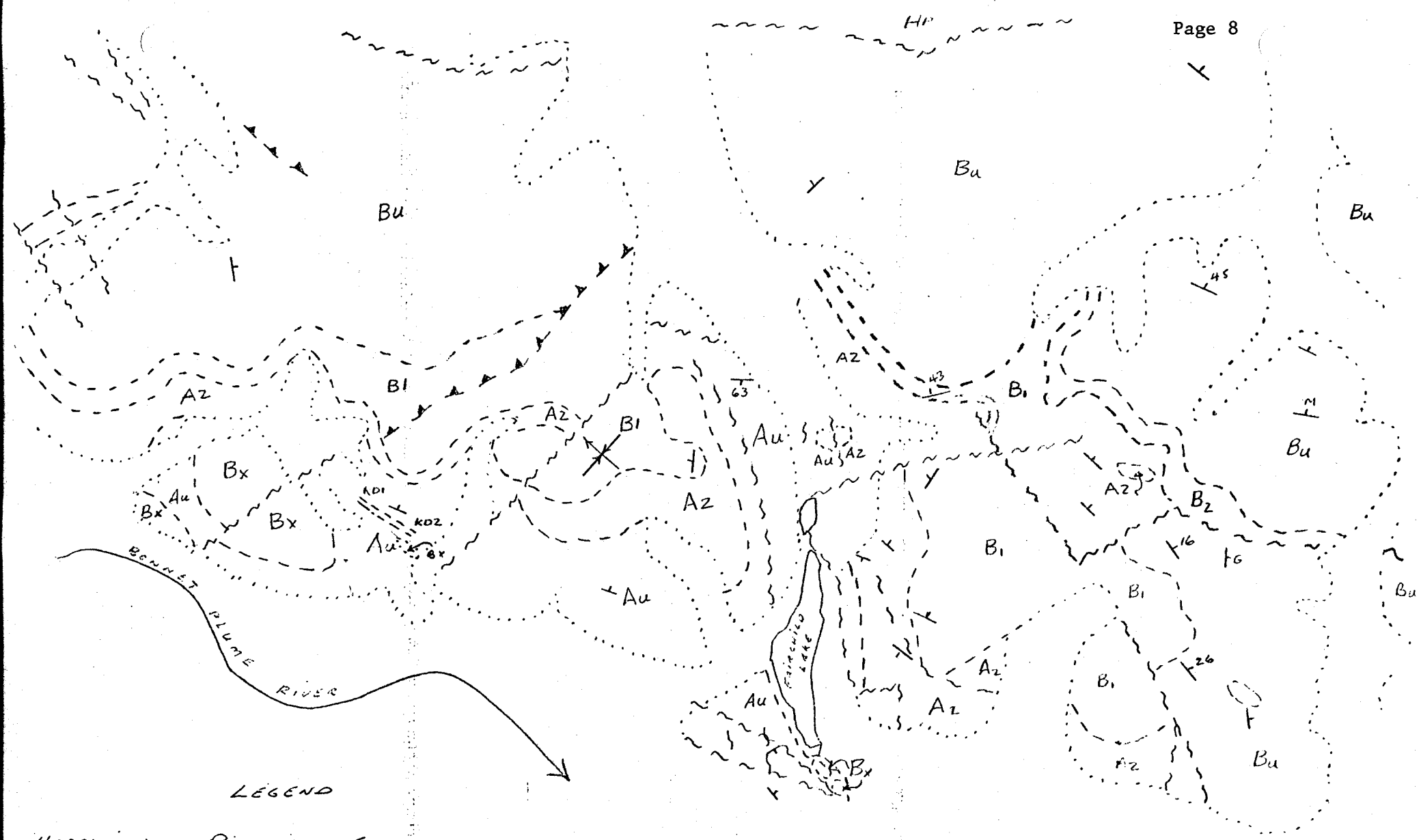

Bu
Az
B1
Bx
Au
KD1
KD2
BENNETT PLUME RIVER
FAIRCHILD LAKE
B2
LEGEND
HADRYNIAN
PINGUICULA GROUP
BRECCIA
SYMBOLS.
1:10CD00

Figure 2

FIGURE 2a

LEGEND

Kd/Kdi — Diabase, Kdi - Diorite

D — Carbonates

Є — Undivided clastics and Carbonates

PINGUICULA GROUP

Hp — Undivided clastics and Carbonates

Bx — Breccia.

GILLESPIE GROUP

Cu — Undivided orange weathering dolomite, grey-green weathering dolomite, stromatolitic dolomite, oolitic dolomite occasional shale.

Cl — Interbedded orange weathering dolomite and dark siltstone, Transition from Wernecke Group to Gillespie Group

WERNECKE GROUP

Bu — Undivided sandstone and shale, occasional massive quartzites.

B2 — Lightly pyritic quartzite. Minor thin shale

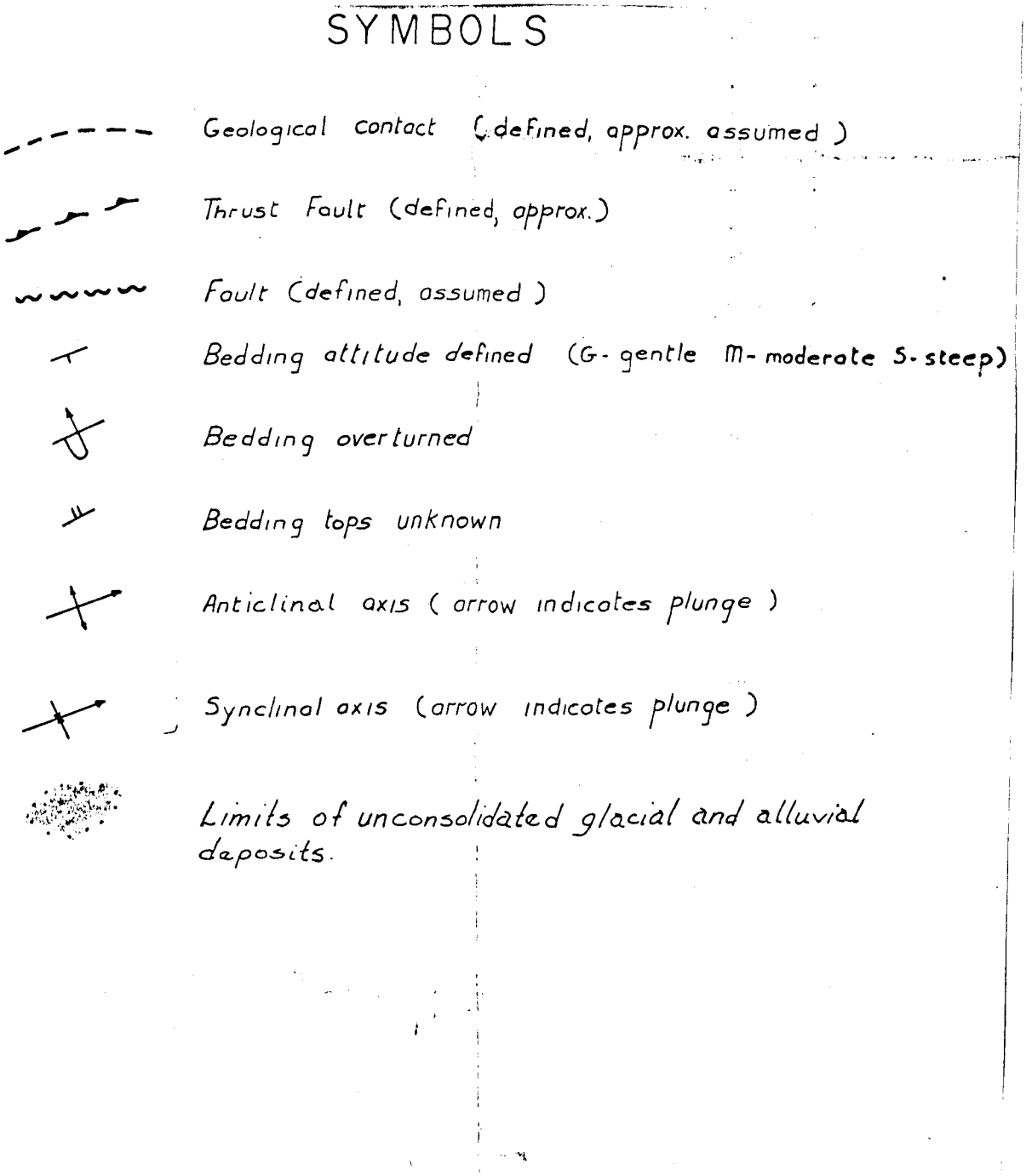
B1 — Black shale, sandstone and shale interbeds

FAIRCHILD GROUP

A2 — Interbedded brown weathering dolomite and black shale, white limestone marker bed, massively bedded rusty weathering pyritic shale,

Au — Undivided grey weathering calcareous siltstone, interbedded siltstone and limestone, phyllite minor limestone and quartzite

FIGURE 2b



Pan Ocean

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. GEOLOGY OF IMMEDIATE VICINITY OF FAIRCHILD LAKE

6.1 Introduction

The area of discussion, encompasses the Eagle, Otter and Vole claim groups.

The region was preliminarily mapped at a scale of 1/2" = 1 mile by the geologists of Pamicon Developments Ltd. in 1976 and 1977. During the field season of 1979 and 1980, detailed geological mapping of selected areas and general regional reviews were carried out by geologists of Pan Ocean Oil Ltd. and Pamicon Developments Ltd.

6.2 Lithology

The southern limit of the area of interest and along the north wall of Bonnet Plume Valley is underlain by the basement forming undivided grey weathering, calcareous and ribbed siltstone, interbedded siltstone and limestone, phyllite, minor limestone and quartzite sequence of lower Unit A (Au).

In the vicinity of the large breccia diatreme (Slab Mountain) on the southwestern limit of the region, the above rock types have

been extensively thermally metamorphosed and carbonate-metasomatised. Immediately adjacent to this main breccia body, the siltstones have been altered to talcose chloritoid schist containing only minor to moderate carbonate. Up to 1.5 km to the east, the lower Unit A sequence has been altered to scapotalized, spotted metasiltstone in the vicinity of a buried and partially exposed diatreme breccia complex. Also, in this immediate area, extensive alteration involving the development of a grossularite, tourmaline, wollastonite, polysulphide, biotite skarn occurs in complex relationship with an east-west trending metadiorite intrusion. Extensive carbonate activity is associated with the skarn.

Immediately overlying Subunit Au, and to the north and east, the interbedded brown weathering dolomite, black shale, and massively bedded rusty weathering pyritic shale sequence of upper Unit A (A2) occurs. A white limestone marker bed can be traced over a distance of a few kilometres within this subunit.

In the vicinity of the Vole claim group, the A2 sequence has been skarn altered by association with a narrow (up to 50' thick) east-west trending massive, metadiorite intrusive. The skarn alteration is somewhat confused by the extremely weathered character of the host rock down to at least 300' of depth. Idocrase mineralization appears to have developed in favour of wollastonite as in the Eagle area. Grossularite or diorite and scapolite mineralization appear to occur in narrow alternating bands. The area has been intensely

carbonated. Probably this is due to a chemical weathering process, combined with an igneous related metasomatism. A breccia unit was not found in the area, either on surface or from drill core.

North and east, again, the lower and upper sequences of Unit B overlie Subunit A2. The lower sequence (B1) is comprised of black shale, while the upper sequence (Bu) is comprised of undivided sandstone and shale with occasional massive quartzites.

Along the northern margin, undivided clastics and carbonates of Hadrynian age unconformably overlie the Upper B sequence, the entire Unit C being absent.

At least six breccia occurrences have been noted as follows:

1. A major breccia body comprises Slab Mountain.
2. A cusp of breccia divided from Slab Mountain by a band of Unit A altered siltstones which may join the main breccia at depth.
3. A small flat-lying buried breccia, with well-rounded heterolithic clasts occurs in the immediate NW of the Eagle skarn.
4. A larger, more angular, transitional breccia occurs in the far west of the Eagle skarn and outcrops in an adjacent lake.
5. A small breccia body occurs in the mid-Otter area over Fairchild Lake.
6. A small complex of breccia bodies occurs off the south end of Fairchild Lake.

The breccia is generally heterolithic clastic occurring in a chloritic to fine grained felsic matrix, but occasionally displays a transitional characteristic with respect to the country rock as in Example #4.

The metadiorite dyke in the Eagle area grades from a typical "salt and pepper" variety to a grey, fine grained variety along strike. Within the mineralized zone, it is intimately intercalated with chert and greisen altered siltstones and exhibits similar metamorphic alteration (scapolitization) as the altered siltstones.

The metadiorite dyke in the Vole area occurs as a massive, fine grained grey-green variety and exhibits only minor calcite alteration and very fine breccia banding. The dyke has not been traced back to the Eagle area, but appears to be controlled by the same east-west, northerly dipping cross-fracture system and may be of similar age.

6.3 Structure

The Helikian units apparently have been block faulted into place about a fault system trending along the Bonnet Plume Valley.

Locally, the folding is intense, steep, isoclinal with complex drag fold and fault relationships with well developed axial plane cleavage. Overall, however, the individual units appear to be controlled by gently dipping pinch and swell envelopes conformably overlying each other.

The regional trend is east-west with northerly dips being common.

The regional faulting is only partially defined, and is complicated by a late, dominant fracture system in which there is virtually no displacement apparent, but a remarkable topographic control is exhibited, particularly on the north-south striking trends.

6.4 Mineralization

Numerous occurrences of oxides, carbonates, hydroxides, arsenides and sulphides of copper, cobalt, iron, manganese, barium, arsenic, uranium and minor silver, lead, zinc, and tungsten were outlined by prospecting and mapping.

The showings occur along an east-west trend extending from Slab Mountain to the Vole area. The trend is coincidental with the elongation of the breccia bodies, and the strike of the diorite intrusions.

The tenor of mineralization is highly variable extending from subeconomic concentrations of copper and cobalt over hundreds of feet to in excess of 10% copper and/or cobalt over a few feet.

The most significant mineralization occurs within the Unit A sequence, and only minor mineralization was noted within the Bu unit, and virtually no mineralization was found in the B1 unit (black shale).

Four modes of mineralization were noted, as follows:

1. Mineralized breccias
2. Mineralized skarns
3. Mineralized vein replacement and dilation-filled zones
4. Minor but high-grade supergene occurrences.

The unifying feature of these modes of mineralization is an anastomosing east-west fracture set which appears to control the occurrences.

7. OTTER 1-124 CLAIM GROUP

7.1 Introduction

The Otter 1-43 claims were staked between August 1977 and September 1979 by the Pan Ocean Oil Ltd.-Mountaineer Mines Ltd. joint venture to cover favourable geologic targets within the Quartet Lakes/Fairchild Lake mineral belt.

In 1977, four claims were located to protect carbonate veins carrying cobaltite and chalcopyrite mineralization on a cliff immediately west of Fairchild Lake (Otter Main Showing). During the 1978 season, a program of reconnaissance geological mapping discovered the Otter "A" showing. Subsequently the Otter 5 to 36 claims were located. During the 1979 season, detailed evaluation of the Otter Main Showing and regional prospecting of the surrounding area was undertaken. Subsequent to this, the Otter 37 to 124 claims were staked.

During the 1980 field season, a program of prospecting, geological mapping, elevation survey and trenching and drilling of the Otter "A" showing was performed by Pan Ocean Oil Ltd., Pamicon Developments Ltd., McCrory Holdings Ltd., and E. Caron Diamond Drilling personnel.

7.2 List of Claims

Name	Recording Date	Grant No.
Otter 1-4	August 1, 1977	YA15886-15889
Otter 5-36	September 11, 1978	YA38210-41
Otter 37-88	August 10, 1979	YA40567-40618
Otter 89-124	October 9, 1979	YA41306-41341

7.3 Location and Access

The property lies to the west of Fairchild Lake in the Wernecke Mountains on NTS sheets 106C/13, and 106F/4. Fairchild Lake is approximately 120 air miles northeast of the village of Mayo. Access to the property is by helicopter from the base camp at the southeast corner of Fairchild Lake.

7.4 Topography and Vegetation

Topographically, the property occupies the cliffs along the west shore of Fairchild Lake. The majority of the property lies above the tree line.

The Fairchild area lies south of the area affected by the Pleistocene glaciation (Laurentide ice sheet).

7.5 Geology

The Otter property covers a series of layered metasediments of the Helikian (M. Proterozoic) Fairchild and Quartet groups. The

Fairchild group consists largely of siltstones overlain by limestones and dolomites. The latter are transitional into black shales of the Quartet group. The metasediments are oriented with a northerly strike and moderate to steep westerly dip.

A large regional fault "Fairchild Fault" with NNW strike extends from Fairchild Lake along the cliffs on the north shore. It forms a prominent topographical lineament which, broadly speaking, follows an intensely deformed calcareous siltstone unit. This fault is cut off to the north by a succession of black shales of the Quartet group.

The metasediments are intruded by diatreme breccia pipes of supposed Hadrynian age. The intrusives are surrounded by large contact alteration halos.

The Fairchild fault is probably associated with the emplacement tectonics of the breccia diatremes, but there is no detailed data available.

7.6 Property Activities, 1980

An intensive prospecting, trenching and diamond drilling program was carried out over the Otter claim group.

Prospecting and geological traversing was utilized to review the previous season's program. Geological mapping was kept to a minimum due to the hazardous slopes, and was restricted to detailed trench mapping and reconnaissance traverses by foot and helicopter. One prospecting crew was active through most of the season.

Discontinuous copper-cobalt showings were located along an approximately 4 km long north-south trend. A tendency for low-grade disseminated copper-cobalt mineralization to dominate at the north-south limits, and for massive high grade cobalt mineralization with minor copper mineralization to dominate in the central region was indicated.

This central region was designated Otter "A" and was subjected to the most intensive study. Trench mapping and sampling indicated exceptionally high grade cobalt-copper mineralization (up to 13% Co over 1 m) occurs with lenses from 15 to 60 feet long, and up to 1 m wide within subparallel north-south veins, approximately 200 feet apart laterally. Minor silver was indicated to be occurring intimately with the chalcopyrite.

The steep slopes, the distance from water source and poor rock mechanic conditions, hindered the diamond drill program. Two out of three of the rock cut drill platforms collapsed prior to installation of the drills, and the geometry of the mountainside relative to the downdip trend of the mineralization made economic delineation unlikely.

Only one of four holes was completed from the single drill platform successfully established. Mineralization or vein alteration was not encountered. A description of the core has been included in this report, Appendix II, as well as drill profiles (Drawings 2 and 3).

7.7 Trenching

Five trenches were excavated on the Otter "A", at approximately 200 m A.S.L. (see Drawings 5, 6, 7, 8, 9). The trenches lie within an anomalous, linear zone trending roughly 105°.

The trenches uncovered significant vein mineralization of the Co, Ni, As, Cu, Ag, paragenesis or type associated with late stage, post tectonic carbonate veining. The mineralization is likely of igneous hydrothermal origin related to the breccia diatremes and/or the Fairchild fault.

The vein mineralization has been observed in massive, disseminated and veinlike form, predominantly sulphides and arsenides such as cobaltite, chalcopyrite, pyrite and unidentified nickel-cobalt arsenides

7.8 Summary and Recommendations

The large Super 38 diamond drill was selected for the region because of the high recovery and depth potential expected from the "H" size core, however, the large rock cut platform required to install the drill proved non-feasible.

The structural control exhibited by the narrow, short, high grade showings indicate a requirement for a tight spaced drill pattern, and the geometry of the mountain slope restricts exploration to shallow depths; consequently, a small, light drill such as a Hydrawink is recommended. The core recovery may be reduced, but the drill pad requirements are more feasible, particularly for the close drill pattern required.

In order for the potential for the showings to be assessed, after the drill program, an adit development will be required.

The area should not be considered an economic write-off on the basis of the 1980 program, but should be retained as a potential high-grade cobalt satellite and in this case, take a second priority to other larger scale regional targets.

8. VOLE 1-43 CLAIM GROUP

8.1 Introduction

The Vole 1-43 mineral claims were staked in June and July 1980 by the Pan Ocean Oil Ltd.-Mountaineer Mines Ltd. joint venture to cover favourable geologic targets within the Quartet Lakes/ Fairchild Lake mineral belt.

During the field season, a preliminary investigation of the region was conducted utilizing ground prospecting, rock geochemistry, geological mapping, and finally diamond drilling. The program was performed by Pan Ocean Oil Ltd., Pamicon Developments Ltd., McCrory Holdings (Yukon) Ltd., and E. Caron Diamond Drilling personnel.

8.2 List of Claims

Claim Name	Recording Date	Grant No.
Vole 1-38	July 21, 1980	YA41955-41992 incl.
Vole 38-43	August 15, 1980	YA42335-42339 incl.

8.3 Location and Access

The Vole 1-43 claims are located on NTS sheets 106F/4 and 106C/13, approximately 195 km northeast of the community of Mayo, Yukon. The approximate coordinates of the claim group are: 133°43'W longitude, 65°02'N latitude.

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

8.4 Topography and Vegetation

Elevations within the area of investigation range from 762 m (2,500 ft.) to 1,650 m (5,500 ft.) A.S.L. where topography is extreme in most cases.

Outcrop exposure is fairly good at higher elevations; however, about 70% of the ground is covered by talus and overburden.

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

8.5 Summary of Activities, 1980

8.5.1 Geological Mapping and Lithology

Detailed geological mapping was carried out at a scale of 1:200 over the main showing area. No further mapping was initiated.

The area of investigation occurs within a small linear island of tightly folded Upper Fairchild Group rocks, generally consisting

of an assemblage of thin to medium bedded, metamorphosed impure meta-carbonates intruded by a medium to coarse grained metadiorite.

The top of the section consists of a medium grained, massive unit of limy quartzite which has been moderately to strongly silicified throughout. Underlying the quartzite lies a thin unit of poorly sorted and metamorphically banded limy meta-arkose. Clasts are composed essentially of calcite (gritty limestone), quartz and plagioclase. Underlying the meta-arkose exists a massive, bedded, moderately thick unit of metamorphosed medium grained clastic meta-limestone which contains quartz of detrital plagioclase grains. The next underlying unit can be broken into two subunits, based on mineralogical content. The top subunit, a scapolitic calcareous metacarbonate is related to a regional metamorphic phase which, progressing downwards and presumably into a higher temperature domain, gives way to a banded, siliceous, cordierite-marble. The increase in cordierite content is observed laterally, approaching the metadiorite intrusive. Adjacent to the intrusive, within the metasomatic, thermal aureole, the marble is well banded. The bands consist of:

1. very coarse grained cordierite rich layers
2. medium grained layers with abundant cordierite
3. very fine grained layers of quartz-microcline with lesser calcite.

This cordierite-rich marble contains minor and trace amounts of pyrite, chalcopyrite and ilmenite.

The youngest unit consists of a medium to coarse grained metadiorite having undergone minor calcic and sericitic alteration. The metadiorite is composed essentially of plagioclase, amphibole and moderate amounts of magnetite.

The contact between the metacarbonates and meta diorite is quite sharp.

The sedimentary bedding appears quite uniform throughout the metasedimentary units. The tight folding observed does not appear to have affected the bedding attitude to a large extent where the fold axis lies roughly parallel to the strike of the carbonates. Faulting, too, lies subparallel to strike where fairly low-angle dip faults are presumed to exist, oriented along lithological boundaries. Minor N-S faulting is also suggested.

The main zone is strongly fractured and sheared. Through the metacarbonates a N-S fracture orientation is preferred which becomes more open and complex, approaching the E-W trending metadioritic intrusive.

The main zone is intensely weathered and leached giving a drab brown-orange weathered surface. This chemical weathering may well have influenced the chemical characteristics of the described lithologies. Diamond drilling evidence suggests the oxidation, weathered zone extends to a depth of at least 100 m.

8.5.2 Prospecting

During the period of June and July 1980, ground prospecting crews located anomalous copper-cobalt mineralization along fractures subparalleling a metavolcanic intrusion. Local uranium anomalies were also located, as well as additional showings.

The mineralization occurred along a NE-SE linear although the mineralized main zone was oriented E-W. The property was staked as a result of the favourable economic potential.

8.5.3 Geochemistry

Talus flour and grab samples were taken over the main showing area. A more systematic talus flour survey was to be performed, but weather conditions at this location and elevation hindered further sampling activity. The talus flour and grab samples denoted anomalous values of copper, ranging from 9,000 to >10,000 ppm. Precious metals including silver and gold revealed favourable values ranging from 8 to 14 ppm silver and 1,000 to >5,000 ppb gold, respectively. Those anomalous values appear spatially related to the breccia intrusion and also contain appreciable, though expected, values of cobalt and molybdenum.

Geochemical sampling of selected mineralized trench showings revealed ubiquitous copper values, but were rather deficient in additional minerals. Uranium values continue to be sporadic as evidenced both in trench sampling and geological field observations. The uranium mineralization appears fracture controlled and associated with metasomatic alteration within the breccia-siltstone matrix.

8.5.4 Geophysics

During the 1980 summer field season, a geophysical orientation survey was carried out over portions of the property. No grid was established, so a traverse-type survey was performed to best delineate trends within the immediate area of interest.

Ground magnetometer and ground scintillometer readings were taken at each station. The survey was undertaken in the hopes of following the strike of the known mineralized breccia body as well as delineating additional subcropping bodies based on relative anomalous magnetic and radioactive response.

The scintillometer survey failed to adequately delineate any trends other than high background levels associated with the major known breccia pipe. Deep and extensive talus cover in medium and lower elevations resulted in locating only spot highs associated with breccia float.

Results of the magnetometer survey were two-fold, they followed the trend of the main breccia zone (massive specularite and anomalous magnetite), while also indicating a magnetic zonation within the breccia body with respect to polarization effects due to the magnetic responses of large quantities of disseminated magnetite.

8.5.5 Mineralization

Within the main zone of investigation, anomalous values of copper and cobalt were detected.

Malachite gossan was observed quite often throughout the immediate area. While erythrite staining was noted spatially associated within a presumed thermal aureole adjacent to the intrusive metadiorite, the erythrite gossan appeared calcite-filled and fracture controlled.

The main mineralized zone was found within a massive marble (limestone) unit bordering the intrusive contact. The marble is cut by a vein up to 2 cm wide, composed of calcite and carrying appreciable amounts of skutterudite and irregular patches of chalcopyrite. The sulphides are associated with a minor amount of hematitic alteration. Geochemical analysis revealed 1.67% Co, 1.75% Cu, and 0.1% Ag.

The mineralization is felt to have been mobilized after recrystallization due to metamorphism, possibly synchronous with the emplacement of the dioritic body where sulphide minerals were introduced along with carbonate or calcite-rich hydrothermal solutions.

8.5.6 Diamond Drilling

Based on a favourable geological setting and known economic potential, four diamond drill holes totalling 399.56 m (1,310.6 ft.) were drilled within the Vole claim group. The philosophy of the drilling program was to test known mineralized veins to depth and to

sample the contact between the carbonate metasediments and the dioritic intrusive (mapped as a metavolcanic unit).

A drill pad was excavated (see Drawing 10) which served as the collar for all holes drilled. Collar elevation was 1,606 m and the drill collar was located on Vole 13.

A description of the core has been included in this report, Appendix II, as well as drill profiles and their respective geochemical analyses. The results of the drilling proved discouraging as no anomalous mineralization was intersected.

The structural and lithological complexity of the immediate area is represented in the correlative irregularities amongst the core holes.

8.6 Summary and Recommendations

Drilling failed to reach below the leached horizon, consequently a zone of secondary enrichment may exist at depth.

However, the target is considered second priority, and should be reviewed pending success on one of the higher priority regional targets.

9. EAGLE 1-161 CLAIM GROUP

9.1 Introduction

The Eagle claim group was staked by personnel of Pamicon Developments Ltd. on behalf of Pan Ocean Oil Ltd. during May of 1980. The group comprises 161 claims and joins the Otter 5, 7, 9, 11, 13 and 15 claims on the western boundary of the Otter claim group.

Activities during 1980 included regional prospecting and geological reconnaissance, detailed field mapping, diamond drilling and trenching.

9.2 List of Claims

Claim Name	Record Date	Record No.
Eagle 1-32	July 2, 1980	YA41720-41751
Eagle 33-40	July 21, 1980	YA41993-42006
Eagle 41-112	July 2, 1980	YA41752-41823
Eagle 113-120	July 21, 1980	YA42001-42008
Eagle 121-128	July 2, 1980	YA41824-41831
Eagle 129-136	July 21, 1980	YA42009-42016
Eagle 137-161	July 2, 1980	YA41823-41856

9.3 Geological Mapping

In the course of prospecting a creek in the Eagle area, cobalt-copper showings were found in the east and west walls of the creek. Follow-up prospecting outlined a series of continuous narrow east-west trending cobalt-copper fractures, approximately 1 km in strike and dipping moderately to the north. Locally, massive cobaltite-erythrite and chalcopyrite-malachite speciment were taken from the exposed vein outcroppings.

A detailed 1:250 geological mapping program was initiated over the major trend of the showings, as shown in Drawings 17 and 18.

The local host rocks are comprised of spotted grey-green siltstones and ribbed calcareous siltstones of the lower Unit A. The spotting and banding exhibit mineralization indicating a broad temperature environment extending from grossularite to calcite.

The heat source is not clear, but generally appears to be related to a contemporaneous igneous diatreme and diorite intrusive event, combined with contact metamorphic and regional carbon dioxide and water metasomatic processes.

Within the skarn area, the siltstones have been intensively silicified (chert) and granitized (greisen) in the vicinity of the metadiorite intrusion.

The chert occurs as a massive, hard, fine grained, light coloured rock with a porcelain aspect in the core. The greisen is a moderately coarse grained, grey, biotite rich granitic rock. The greisen occurs as a fairly distinct unit overlying the complexly intercalated chert and metadiorite.

Along the core of the skarn, a series of subparallel veins containing massive chalcopyrite (malachite), cobaltite (erythrite) silica, carbonate, magnetite and various white, yellow and apple-green carbonates, strike WNW and dip moderately to the NE. In the vicinity of the collar of E-1-80, the veins appear to splay off the curving skarn envelope and continue on strike to the lower creek wall showings, and then for a few hundred metres, up the slope of the adjacent mountainside.

The veins are generally narrow (6"-1') in the massive sections (up to several per cent copper and cobalt) with broad weakly to moderately disseminated halos. In some locations an interbranching characteristic was observed.

The area is intensively fractured and faulted in various directions and overall appears to be controlled by a warp in the axial plane of a WNW plunging, north-easterly dipping anticlinal fold.

A suggested sequence of events leading to the present mineralized environment is as follows:

1. Possible stratabound copper-cobalt mineralization was concentrated during the process of intense, slow regional metamorphism.
2. A later dynamic metamorphic event occurred related to the emplacement of the diatreme breccias and contemporaneous emplacement of the metadiorite intrusives along a compression-extension regime of fractures, controlled to some extent by the preexisting axial plane cleavage.
3. Contact metamorphism occurrred along the margins of the breccias and metadiorites.
4. Contemporaneous with the preceding two events, carbon dioxide and water metasomatism occurred regionally causing the remobilization of preexisting mineralization through processes primarily of replacement, and secondarily of dilation pore filling within the calcareous siltstones to form the existing mineralized environment. It is quite possible that later mineralization (sulphides etc.) was also introduced hydrothermally in conjunction with the diatreme event.

5. Through the processes of weathering and erosion, pockets of supergene enriched polymetallic mineralization were formed along with conglomeratic calcareous surface crusts of calcrete etc.

9.4 Diamond Drilling

Ten diamond drill holes were drilled totalling 3,906.3 feet. The program was carried out in four stages:

1. A section of four holes were collared and drilled in the vicinity of 3000+30E. The program was drilled to test the vicinity of the sulphide till zone and the multicarbonate stained outcrop. The holes were designed to track the skarn envelope as it rolled at depth. At the flat of the roll, the best economic mineralization was expected.

Drill Hole E-1-80 returned an intensely grossularized, spotted and banded oxidized siliceous metasiltstone which passed into a more calcareous wollastonite and sillimanite rich metasiltstone, and then into an intensely biotite rich granitized siltstone and bottomed in a white, tough, biotite banded chert with intercalated layers of metadiorite.

Drill Hole E-2-80 was collared on the same setup as E-1-80, and followed the azimuth 252°, but dipped at -75°. The hole intersected an oxidized, moderate grossularite banded and spotted siliceous siltstone, grading locally into intense grossularite and biotite banding, and bottomed in a biotite rich greisen (granitized metasiltstone).

Drill Hole E-3-80 was collared approximately 20 m ENE of E-2-80, following azimuth 232° and dipping -45° for a length of 246.85 m. This hole intersected less intensely altered spotted and banded metasiltstone, with scapolite possibly more common, the grossularite in the spotting and banding. Towards the end of the section minor wollastonite and sillimanite were noted. The hole then passes into a well rounded, multicoloured, heterolithic breccia, comprised of chert and metasiltstone clasts in a chloritic matrix, carrying abundant finely crystalline arsenopyrite, and then into a biotite-rich greisen (as in E-1-80 and E-2-80). The next section is extensive intercalated metadiorite and chert which is transitional into a well banded and spotted metasiltstone as at the beginning of the hole. The hole bottoms in a monolithic, locally biotic, sharp angled greyish breccia.

Drill Hole E-4-80 was collared approximately 70 m ENE of E-2-80. The dip is vertical for a length of 146.91 m. The hole intersected a section of spotted scapolitic metasiltstone, slate, banded siliceous siltstone, banded calcic and apatatic siltstone, intermixed siliceous siltstone and banded siltstone, and finally banded siltstone. Towards the end of the section a zone of chert banding, similar to the preceding holes occurs.

The last hole, E-4-80, essentially closes the section. In section, the intersections of the four holes suggest a temperature zone of skarn envelope occurring within the axial plane of a

recumbent isoclinal fold. The upper breccia and greisen zone appear to be structurally related.

The assay section indicates the tenor of mineralization. At least two horizons of mineralization occur. The upper zone occurs approximately at the boundary of the siliceous and calcareous meta-siltstones. It is comprised primarily of chalcopyrite, pyrrhotite, pyrite, minor galena, minor cobaltite, and various carbonates and oxides of copper, manganese, cobaltite etc. The mineralization occurs as blebs, disseminations and locally as replacement(?) veins. The lower zone occurs as a broad disseminated envelope within the metasiltstone, breccia, greisen and lower chert unit over an interval in excess of 300 feet. The disseminations occur both as oxidized blebs and fracture fillings, and as very fine crystals of arsenopyrite, pyrite, chalcopyrite, strutterudite, etc. A series of narrow, relatively massive veins occurs towards the core. Both of the afore-mentioned zones appear to occur at local flats or rolls within the structure.

2. A second section of four holes was drilled at approximately B.L. 2700+70 to test a fracture controlled lense exhibiting malachite and erythrite staining on both banks of the creek.

Diamond drill hole E-5-80 was collared approximately 40 m ENE of the baseline on azimuth 222°, dipping -45°, along a length of 108.5 m.

The hole intersected a sequence of banded, spotted meta-siltstones and meta-argillites locally zoned to carbonate, chlorite

scapolite and grossularite. Intimately intercalated in bands, from a few inches to several feet, is a greisenlike unit which resembles a wavy banded, brecciated granitized (biotite) metasiltstone flooded by a calcic-siliceous matrix. There is the occasional interbands of chert in zones up to 8 m wide, similar to the "porcelain" chert noted in the upper drill section.

Diamond drill hole E-6-80 and E-7-80 were collared on the same setup as E-5-80, but E-6-80 followed azimuth 195°, dipping -45° for a length of 126.8 m, and E-7-80 followed azimuth, dipping -75° for a length of 114.91 m.

Diamond drill hole E-8A-80 was collared 63 m ENE of DDH E-5-80, along azimuth 220° and dipping -60° for a length of 194.77 m.

DDH's E-6-80, E-7-80, intersected similar rock sequences with a suggestion of flattening foliation with depth, except E-8A-80 which encountered an alteration zone comprising dark grey intensely grossularized argillic bands with epidote, chlorite and hematite-filled fractures being common. There is an overall suggestion of flattening in the foliation with depth.

All holes intersected sulphide mineralization in the form of narrow massive bands and fracture stringers of pyrrhotite, chalcopyrite and pyrite and possibly strutterudite. The ore oxidation of the mineralized fractures was spurious, varying from relatively flat to nearly vertical. Dissemination of sulphides is absent.

The metasiltstones and meta-argillites are similar to the upper drill section, but the metadiorite was not recognized, and the wavy-bedded metasiltstone is similar in some aspects to the greisen (biotite gneiss etc.) mentioned previously, but occurs as structurally complex interbands of variable thickness within the metasedimentary unit rather than as a distinct zoned sequence as in the upper drill section. Zones of narrow chert interbands were noted in E-5-80, E-6-80 and E-7-80 that are similar to those in upper skarn but are not nearly as extensive. Breccias were not encountered. The zoning of alteration minerals (carbonate-scapolite-grossularite-silica-epidote etc.) is not distinct.

3. Diamond drill hole E-9-80 was collared approximately 50 m below the sulphide till zone at BL station 3000+30SE. The hole followed the azimuth 185°, dipping -45° for a length of 55.17 m.

The purpose of the hole was to test for the high grade sulphide vein indicated by trenching and mapping of the till zone.

The hole intersected a sequence of scapolitic and grossularitic interbedded metasiltstone-meta-argillite, similar to DDH E-1-80 and passed through a minor greisenlike unit between 8.23 and 14 m.

An alteration zoning was suggested, grading from scapolite-grossularite, to grossularite and carbonates, and then to an epidote green metasilstone.

4. A diamond drill hole SL-1-80 was collared in the saddle separating Slab Mountain from the prominent slab at the SW corner of the mountain, in the centre of mineral claim Eagle 159. The hole followed azimuth 215°, dipping -45° for a length of 152.4 m.

After a brief program of prospecting and geological reconnaissance of this area, a diamond drill hole was collared to test for downdip mineralization of the spectacular copper mineralized showing comprising the upper half of the anomalous slablike structure.

The setup was less than ideal in view of the particularly rugged terrain and an attempt was made to drill across the foliation of an intervening chloritoid schist unit to intersect the mineralized breccia at a depth assumed to be in the order of 100 m to 125 m.

Considerable difficulty was encountered drilling through the overlying 17 m of talus. The hole went into a dark green, soft, chloritized schist then into a greyish-green metasiltstone breccia at 43 m. At 70 m, a highly fractured, grey to dark grey interbedded metasiltstone/meta-argillite sequence was intersected. The hole was stopped at 152.4 m, as it was suspected that the hole was veering and rolled into the foliation.

No significant mineralization was encountered.

Carbonate and epidote alteration was noted in all three units.

9.5 Trenching

Two trenches were blasted by McCrory Holdings (Yukon) Ltd. personnel. The one trench, located at 30+35 m along the baseline in the vicinity of the E 1-4 drill holes, uncovered an erythritic (Co), cobaltite, and abundant malachite staining. Eleven samples were analyzed. The other trench, on the bank of Eagle Creek uncovered 6" wide massive calcite-erythrite (Co) vein and a narrow malachite-azurite vein. The country rock is highly fractured metasiltstone.

9.6 Summary and Recommendations

Following an R and D study on ore deposition controls and genetic interrelationships, a penetrative EM method should be employed, particularly above the upper drill section and over the down-plunge of the skarn in preparation for down-plunge drilling of of the mineralized skarn.

This target is considered high priority, due to the large scale potential of the area.

DDH E-8-80 intersected a major rolling alteration zone comprising grossularization, epidotization and hematization in the vicinity of 100 m. This alteration zone should be subjected to intense spectral analysis, including rare earth elements.

APPENDIX I

GEOCHEMICAL & ASSAY RESULTS

OTHER

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 4670

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

INVOICE NO. 36752

RECEIVED June 30/80

ANALYSED July 10/80

ATTN: FAIRCHILD LAKE CC. Mayo, Y.T.

SAMPLE NO. :	F.C.L. 80 W.S. #2
Total Co ppm	-0.02
Ni	-0.02
Hg ppb	-0.05
Total As ppb	-1.

Note: - denotes less than

water sample from Fairchild Lake

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Carolyn Lord

27 TEK

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. W 4695

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

ATTN:

c.c.-Pamicon Dev. Ltd.,
Mayo, Y.T.

INVOICE NO. 36966

RECEIVED July 10, 1980

ANALYSED July 17, 1980

SAMPLE NO. :	July 7/80 F.C.L.-3-80	Water sample from Fairchild Lake.
Co (ppm)	<0.02	
Ni (ppm)	<0.02	
Hg (ppb)	<0.05	
As (ppb)	<1.	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

OTTER

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP A602A
INVOICE NO. 36328
RECEIVED June 4/80
ANALYSED June 18/80

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

ATTN: Fairchild Project CC: Pan Ocean

From #53341 & 53342.

SAMPLE NO. :	Lower Concentration Limit (PPM)	OA-1V-10	OA-2V-11	OA-2V-21
Antimony	50	>5000	>5000	>5000
Arsenic	50	>5000	>5000	>5000
Barium	5	500	2000	200
Beryllium	5	bcl	bcl	bcl
Bismuth	5	50	150	150
Boron	20	bcl	bcl	bcl
Cadmium	20	bcl	bcl	bcl
Calcium	0.05%	10%	2%	7%
Chromium	10	150	100	100
Cobalt	10	>5000	>>5000	>>5000
Copper	1	5000	>5000	500
Gallium	5	10	< 20*	< 20*
Germanium	20	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl
Iron	0.05%	3%	5%	7%
Lead	5	50	100	150
Magnesium	0.02%	1%	1%	1.5%
Manganese	5	5000	500	1500
Molybdenum	10	bcl	bcl	bcl
Nickel	5	700	2000	>5000
Niobium	50	bcl	bcl	bcl
Silver	1	1	5	1
Strontium	2	500	100	200
Tellurium	200	bcl	bcl	bcl
Thorium	200	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl
Titanium	5	1500	1500	1000
Vanadium	20	150	bcl	30
Zinc	50	50	100	70
Zirconium	20	50	70	50

NOTE: * Higher Detection Limit Quoted Due to nearby Spectral Interference Obscuring Analyte Emission Line.

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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68484

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

ATTN: FAIRCHILD PROJECT

CC. Calgary, Pan Ocean
CC. Pamicon, Mayo, Y.T.

INVOICE NO. 37115

RECEIVED June 4/80

ANALYSED July 22/80

SAMPLE NO. :	Percent Cu	Percent As	Percent Co	oz/ton Ag
OA 2V 20	0.04	0.303	0.330	0.02
OA 2V 21	0.06	12.540	10.0	0.02

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

OTTER TRAVERSE

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68483

INVOICE NO. 37115

RECEIVED June 4/80

ANALYSED July 22/80

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

CC. Calgary, Pan Ocean
CC. Pamicon, Mayo

SAMPLE NO. :	Percent Cu	Percent As	Percent Co	oz/ton Ag
1 OA-CP	0.05	17.50	14.8	0.04
OA 1C 1	2.11	0.514	0.345	0.34
2	1.77	0.535	0.395	0.30
3	3.32	0.920	0.775	0.48
4	3.60	0.212	0.130	0.56
5	10.2	0.150	0.081	1.60
6	0.46	0.016	0.016	0.08
7	0.15	0.007	0.006	0.06
8 OA 1C	0.31	0.007	0.014	0.04
1 OA 1V	6.30	6.330	5.10	1.00
2	3.37	1.670	1.06	0.62
3	1.35	11.930	10.4	0.30
4	0.61	15.390	14.0	0.30
5	0.77	11.480	8.90	0.20
6	0.41	3.730	3.40	0.12
7	4.68	1.330	0.960	0.66
8	1.54	4.570	3.40	0.26
9	0.77	18.500	16.2	0.32
10	0.26	1.140	0.740	0.04
11	0.18	0.082	0.075	0.06
12 OA 1V	0.13	0.015	0.034	0.04
1 OA 2V	0.29	0.012	0.021	0.02
2	0.58	0.009	0.010	0.08
3	0.39	0.003	0.007	0.06
4	5.75	0.358	0.250	0.92
5	0.25	0.056	0.036	0.08
6	0.31	0.024	0.029	0.06
7	5.10	0.347	0.330	0.78
8	1.48	0.133	0.155	0.24
9	1.64	0.022	0.028	0.24
10	0.79	0.631	0.365	0.12
11	1.64	9.090	6.70	0.14
12	2.71	5.890	4.40	0.46
13	0.33	13.200	9.50	0.16
14	0.68	1.230	0.710	0.10
15	0.21	1.290	0.820	0.08
16	0.12	0.467	0.850	0.04
17	0.69	10.500	8.10	0.14
18	0.05	10.500	8.10	0.06
19 OA 2V	0.04	0.230	0.210	0.02

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68483

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

INVOICE NO.

RECEIVED June 4/80

ATTN: FAIRCHILD PROJECT
CC. Mayo, Yukon
CC. Pan Ocean, Calgary

ANALYSED

SAMPLE NO. :	% Cu	% As (NA)	% Co	oz/ton Ag
OA-CP-1	0.05		14.8	0.04
OA-IC-1	2.11		0.345	0.34
2	1.77		0.395	0.30
3	3.32		0.775	0.48
4	3.60		0.130	0.56
5	10.2		0.081	1.60
6	0.46		0.016	0.08
7	0.15		0.006	0.06
OA-IC-8	0.31		0.014	0.04
OA-IV-1	6.30		5.10	1.00
2	3.37		1.06	0.62
3	1.35		10.4	0.30
4	0.61		14.0	0.30
5	0.77		8.90	0.20
6	0.41		3.40	0.12
7	4.68		0.960	0.66
8	1.54		3.40	0.26
9	0.77		16.2	0.32
10	0.26		0.740	0.04
11	0.18		0.075	0.06
OA-IV-12	0.13		0.034	0.04
OA-2V-1	0.29		0.021	0.02
2	0.58		0.010	0.08
3	0.39		0.007	0.06
4	5.75		0.250	0.92
5	0.25		0.036	0.08
6	0.31		0.029	0.06
7	5.10		0.330	0.78
8	1.48		0.155	0.24
9	1.64		0.028	0.24
10	0.79		0.365	0.12
11	1.64		6.70	0.14
12	2.71		4.40	0.46
13	0.33		9.50	0.16
14	0.68		0.710	0.10
15	0.21		0.820	0.08
16	0.12		0.850	0.04
17	0.69		8.10	0.14
18	0.05		8.10	0.06
OA-2V-19	0.04		0.210	0.02

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68484

INVOICE NO.

RECEIVED June 4/80

ANALYSED

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

ATTN: FAIRCHILD PROJECT

CC. Mayo, Yukon
CC. Pan Ocean, Calgary

SAMPLE NO. :	% Cu	% As(NA)	% Co	oz/ton Ag
OA-2V-20	0.04		0.330	0.02
OA-2V-21	0.06		10.0	0.02

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68484

INVOICE NO. 37115

RECEIVED June 4/80

ANALYSED July 22/80

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

ATTN: FAIRCHILD PROJECT

CC. Calgary, Pan Ocean
CC. Pamicon, Mayo, Y.T.

SAMPLE NO. :	Percent Cu	Percent As	Percent Co	oz/ton Ag
OA 2V 20	0.04	0.303	0.330	0.02
OA 2V 21	0.06	12.540	10.0	0.02

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

OVER

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 55090

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

INVOICE NO. 37095

RECEIVED July 30/80

ANALYSED Aug. 11/80

ATTN: ROCK FAIRCHILD LK. CC. Pan Ocean Oil

SAMPLE NO. :	PPM Cu	PPM As	PPM Co	PPM Ag
86340	46	40	32	0.1
86341	26	11	20	0.1
86342	8	17	26	0.1
86343	6	10	16	0.1
86344	6	3	8	0.1
86345	14	2	14	0.1
86346	20	4	8	0.1
86347	4	17	16	0.1
86348	26	7	14	0.1
86349	22	9	16	0.1
86350	20	7	12	0.1
86352	14	10	14	0.1
86353	14	9	14	0.1
86354	16	6	12	0.1
86355	24	9	8	0.1
86356	18	7	10	0.1
86357	14	9	10	0.1

DA-1-80

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

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

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP A602
INVOICE NO. 36328
RECEIVED June 4/80
ANALYSED June 18/80

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

ATTN: Fairchild Project CC: Pan Ocean

From #53341 & 5334

SAMPLE NO. :	Lower Concentration Limit (PPM)	OA-CP-1	OA-IC-5	OA-IV-1	OA-IV-6
Antimony	50	>5000	200	>5000	>5000
Arsenic	50	>5000	2000	>5000	>5000
Barium	5	150	700	1000	700
Beryllium	5	bcl	bcl	bcl	bcl
Bismuth	5	200	200	150	70
Boron	20	bcl	bcl	bcl	bcl
Cadmium	20	bcl	bcl	bcl	bcl
Calcium	0.05%	0.7%	3%	1%	2%
Chromium	10	200	150	150	200
Cobalt	10	>>5000	1000	>5000	>5000
Copper	1	700	>>5000	>>5000	5000
Gallium	5	< 20*	bcl	< 20*	20
Germanium	20	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl
Iron	0.05%	5%	10%	15%	3%
Lead	5	150	150	100	100
Magnesium	0.02%	1%	1%	1%	1%
Manganese	5	500	2000	700	1500
Molybdenum	10	bcl	bcl	bcl	bcl
Nickel	5	>5000	100	3000	1000
Niobium	50	bcl	bcl	bcl	bcl
Silver	1	1	15	15	1
Strontium	2	70	100	50	70
Tellurium	200	bcl	bcl	bcl	bcl
Thorium	200	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl
Titanium	5	1000	700	1000	1500
Vanadium	20	bcl	20	30	30
Zinc	50	50	(500)	200	100
Zirconium	20	50	70	70	70

NOTE: * Higher Detection Limit Quoted due to nearby Spectral Interference Obscuring Analyte Emission Line.

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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. W 4651

INVOICE NO. 36680

RECEIVED June 16/80

ANALYSED

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

ATTN: CC: Mayo, Y.T. PROJECT: Fairchild Lake

SAMPLE NO. :	Water Sample
Co (ppm)	<0.02
Ni (ppm)	<0.02
Hg (ppb)	<0.10*
As (ppb)	<1

* Higher Detection limit due to small volume of sample available for analysis.

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Carolyn Lowe

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 53461

INVOICE NO. 36404

RECEIVED June 11, 1980

ANALYSED June 23, 1980

TO: Pamicon Developments Ltd.
Fairchild Lake
c/o Tintina Expediting
Box 159
ATTN: Mayo, Y.T.

c.c. Pamicon, Vancouver and
Pan Ocean, Calgary

SAMPLE NO. :	PPM Cu	PPM U	PPM Ni	PPM Co	PPM Ag	PPB Au
OW - BOIL	>4000	3.0	50	470	0.8	<10
OW - FBS - 9	>4000	4.5	68	390	5.8	170
OW - CREEK	180	3.0	28	24	0.1	<10
OW - KZ	>4000	15.0	3100	>4000	3.2	130

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Howard Sicilla

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 53461
INVOICE NO. 36404
RECEIVED June 11, 1980
ANALYSED June 23, 1980

TO: Pamicon Developments Ltd.
Fairchild Lake
c/o Tintina Expediting
Box 159
ATTN: Mayo, Y.T.

c.c. Pamicon, Vancouver and
Pan Ocean, Calgary

SAMPLE NO. :	PPM Cu	PPM U	PPM Ni	PPM Co	PPM Ag	PPB Au
OW - BOIL	>4000	3.0	50	470	0.8	<10
OW - FBS - 9	>4000	4.5	68	390	5.8	170
OW - CREEK	130	3.0	28	24	0.1	<10
OW - KZ	>4000	15.0	3100	>4000	3.2	130

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: July 11	LAB:	REPORT NO. 20-1109	EXTRACTION: SEE
PROJECT:	WT. USED:		METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Co ppm	Ni ppm	Ba ppm	Mn ppm								I.D.
1 2 3 4 5	6 7	8 19	20 25	30	35	40	45	50	55	60	65	70	75	
	80	FDS0009	-		-									C
		10	-		-									
		11	-		-									
		14	17		283									
		15	13		900									
		16	35		1150									
		17	12		255									
		18	9		150									
		19	10		244									
		20	9		260									
		21	8		335									
		22	17		410									
		23	8		136									
		24	9		174									
		FDS0025	10		146									
		FHR00012	20000		-									
	80	FHR00021	2800		-									C
1 2 3 4 5	6 7	8 19	20 25	30	35	40	45	50	55	60	65	70	75	

cc Fairchild Project - Mayo
Pamicon Devlopment Ltd.

To follow

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: July 11	LAB:	REPORT NO. 20-1109	EXTRACTION: SEE
PROJECT:	WT. USED:		METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm	Au ppb	As ppm	Sb ppm	W ppm	Fe %	U ppm	U ppm	Lo.
	80	FDS0009	-	10	11		-								B
		10	-	3	14		-								
		11	-	4	16		-								
		14	91	67	-		-								
		15	233	154	-		-								
		16	104	152	-		-								
		17	75	69	-		-								
		18	82	350	-		-								
		19	55	35	-		-								
		20	55	42	-		-								
		21	44	67	-		-								
		22	68	51	-		-								
		23	28	92	-		-								
		24	57	42	-		-								
		FDS0025	82	25	-		-								
		FHR0001	2290	-	-		0.2								
	80	FHR0002	3420	-	-		0.2								B

Sb to follow

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: July 11	LAB:	REPORT NO. 20-1109	EXTRACTION: SEE
PROJECT:	WT. USED:		METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Co ppm	Ni ppm	Ba ppm	Mn ppm									I.D.
1 2 3 4 5	6 7	8 19	20	25	30	35	40	45	50	55	60	65	70	75	
	80	FDS0009	-			-									C
		10	-			-									
		11	-			-									
		14	17			283									
		15	13			900									
		16	35			1150									
		17	12			255									
		18	9			150									
		19	10			244									
		20	9			260									
		21	8			335									
		22	17			410									
		23	8			136									
		24	9			174									
		FDS0025	10			146									
		FHR00012	0000			-									
	80	FHR00021	2800			-									C
1 2 3 4 5	6 7	8 19	20	25	30	35	40	45	50	55	60	65	70	75	

cc Fairchild Project - Mayo
Pamicon Devlopment Ltd.

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: July 11	LAB:	REPORT NO. 20-1109	EXTRACTION: SEE
PROJECT:	WT. USED:	METHOD:	ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm	Au ppb	As ppm	Sb ppm	W ppm	Fe %	U ppm	U ppm	Lo
	80	FDS0009	-	10	11		-			1					B
		10	-	3	14		-			1					
		11	-	4	16		-			1					
		14	91	67	-		-			-					
		15	233	154	-		-			-					
		16	104	152	-		-			-					
		17	75	69	-		-			-					
		18	82	350	-		-			-					
		19	55	35	-		-			-					
		20	55	42	-		-			-					
		21	44	67	-		-			-					
		22	68	51	-		-			-					
		23	28	92	-		-			-					
		24	57	42	-		-			-					
		FDS0025	82	25	-		-			-					
		FHR0001	2290	-	-		0.2			-					
	80	FHR0002	3420	-	-		0.2			-					B

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: July 11	LAB:	REPORT NO. 20-1109	EXTRACTION: SEE
PROJECT:		WT. USED:	METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ag ppm	Au ppb	As ppm	Sb ppm	W ppm	Fe %	U ppm	U ppm	C.
1 2 3 4 5	6 7	8 19	20	25	30	35	40	45	50	55	60	65	70	75	
	80	FDS0009	-	10	11		-								B
		10	-	3	14		-								
		11	-	4	16		-								
		14	91	67	-		-								
		15	233	154	-		-								
		16	104	152	-		-								
		17	75	69	-		-								
		18	82	350	-		-								
		19	55	35	-		-								
		20	55	42	-		-								
		21	44	67	-		-								
		22	68	51	-		-								
		23	28	92	-		-								
		24	57	42	-		-								
		FDS0025	82	25	-		-								
		FHR0001	2290	-	-		0.2								
	80	FHR0002	3420	-	-		0.2								B
1 2 3 4 5	6 7	8 19	20	25	30	35	40	45	50	55	60	65	70	75	

Sb to follow

PAN OCEAN GEOCHEMICAL DATA FORM

DATE: July 11	LAB:	REPORT NO. 20-1109	EXTRACTION: SEE
PROJECT:	WT. USED:		METHOD: ATTACHED

PROJECT	YR.	SAMPLE NUMBER	Co ppm	Ni ppm	Ba ppm	Mn ppm									I.D.
1 2 3 4 5	6 7	8 19	20	25	30	35	40	45	50	55	60	65	70	75	
	80	FDS0009	-			-									C
		10	-			-									
		11	-			-									
		14	17			283									
		15	13			900									
		16	35			1150									
		17	12			255									
		18	9			150									
		19	10			244									
		20	9			260									
		21	8			335									
		22	17			410									
		23	8			136									
		24	9			174									
		FDS0025	10			146									
		FHR0001	20000			-									
	80	FHR0002	12800			-									C
1 2 3 4 5	6 7	8 19	20	25	30	35	40	45	50	55	60	65	70	75	

cc Fairchild Project - Mayo
Pamicon Devlopment Ltd.

Sb to follow

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

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

CERT. # : A8010580-004-
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 E-3-80 Line	205	8000	--	--	--	--	--
86234	205	9500	--	--	--	--	--
86235	205	>10000	--	--	--	--	--
86236	205	5200	--	--	--	--	--
86237	205	6000	--	--	--	--	--
86238	205	190	--	--	--	--	--
86239	205	770	--	--	--	--	--
E-3-80 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 V-1-80	205	75	--	--	--	0.1	--
86259	205	3900	--	--	--	0.1	--
86288	205	240	--	--	--	--	--
86289	205	80	--	--	--	--	--
86290	205	350	--	--	--	--	--
86291	205	90	--	--	--	--	--
86292 V-4-80	205	120	--	--	--	--	--
86293 Core	205	50	--	--	--	--	--
86294	205	265	--	--	--	--	--
86295	205	45	--	--	--	--	--
86296	205	20	--	--	--	--	--
86297	205	190	--	--	--	--	--
86298 E-9-80	205	710	--	--	--	--	--
86299	205	370	--	--	--	--	--
86404	205	--	--	--	--	--	--
86443 - VOLE	205	140	--	--	--	0.1	--
86444 - RAM TECNIK	205	130	--	--	--	0.2	--

Certified by .....

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

212 BROOKSBANK AV
NORTH VANCOUVER, B
CANADA V7J 2(
TELEPHONE: (604)984-02
TELEX: 043-525

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Pamicon Developments Ltd.,
208 - 850 W. Hastings St.,
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	--	--	--
86230	205	215	--	--	--	--	--
86231	205	830	--	--	--	--	--
86232	205	196	--	--	--	--	--
86233	205	350	--	--	--	--	--
86234	205	990	--	--	--	--	--
86235	205	290	--	--	--	--	--
86236	205	174	--	--	--	--	--
86237 E-3-80 Core	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	--	--	--

Certified by ...Hugh Riddle...

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

212 BROOKSBANK AVE
NORTH VANCOUVER, B.C
CANADA V7J 2C
TELEPHONE: (604)984-022
TELEX: 043-5259

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-001-
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
86051	205	6	--	--	--	--	--
86052	205	6	--	--	--	--	--
86053	205	290	--	--	--	--	--
86055	205	68	--	--	--	--	--
86056	205	3800	--	--	--	--	--
86057	205	360	--	--	--	--	--
86058	205	12	--	--	--	--	--
86059	205	6	--	--	--	--	--
86060	205	1300	--	--	--	--	--
86061	205	200	--	--	--	--	--
86062	205	8	--	--	--	--	--
86063	205	182	--	--	--	--	--
86064	205	790	--	--	--	--	--
86065	205	230	--	--	--	--	--
86066	205	138	--	--	--	--	--
86067	205	310	--	--	--	--	--
86068	205	86	--	--	--	--	--
86069	205	72	--	--	--	--	--
86070	205	66	--	--	--	--	--
86071	205	96	--	--	--	--	--
86072	205	14	--	--	--	--	--
86073	205	8	--	--	--	--	--
86074	205	6	--	--	--	--	--
86075	205	6	--	--	--	--	--
86076	205	6	--	--	--	--	--
86077	205	6	--	--	--	--	--
86078	205	6	--	--	--	--	--
86079	205	4	--	--	--	--	--
86080	205	4	--	--	--	--	--
86081	205	4	--	--	--	--	--
86082	205	8	--	--	--	--	--
86083	205	92	--	--	--	--	--
86084	205	6	--	--	--	--	--
86085	205	94	--	--	--	--	--
86086	205	8	--	--	--	--	--
86087	205	470	--	--	--	--	--
86088	205	126	--	--	--	--	--
86089	205	74	--	--	--	--	--
86090	205	400	--	--	--	--	--
86091	205	38	--	--	--	--	--

Certified by ..

CTA MEMBER CANADIAN TESTING ASSOCIATION

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

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

CERT. # : A8010580-001-
INVOICE # : 39737
DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86051	205	10	--	--	--	--	--
86052	205	6	--	--	--	--	--
86053	205	8	--	--	--	--	--
86055	205	4	--	--	--	--	--
86056	205	275	--	--	--	--	--
86057	205	40	--	--	--	--	--
86058	205	34	--	--	--	--	--
86059	205	20	--	--	--	--	--
86060	205	28	--	--	--	--	--
86061	205	26	--	--	--	--	--
86062	205	14	--	--	--	--	--
86063	205	32	--	--	--	--	--
86064	205	42	--	--	--	--	--
86065	205	18	--	--	--	--	--
86066	205	18	--	--	--	--	--
86067	205	40	--	--	--	--	--
86068	205	14	--	--	--	--	--
86069	205	12	--	--	--	--	--
86070	205	12	--	--	--	--	--
86071	205	24	--	--	--	--	--
86072	205	8	--	--	--	--	--
86073	205	14	--	--	--	--	--
86074	205	8	--	--	--	--	--
86075	205	8	--	--	--	--	--
86076	205	6	--	--	--	--	--
86077	205	6	--	--	--	--	--
86078	205	8	--	--	--	--	--
86079	205	10	--	--	--	--	--
86080	205	14	--	--	--	--	--
86081	205	14	--	--	--	--	--
86082	205	12	--	--	--	--	--
86083	205	14	--	--	--	--	--
86084	205	6	--	--	--	--	--
86085	205	10	--	--	--	--	--
86086	205	8	--	--	--	--	--
86087	205	80	--	--	--	--	--
86088	205	106	--	--	--	--	--
86089	205	76	--	--	--	--	--
86090	205	96	--	--	--	--	--
86091	205	46	--	--	--	--	--

Certified by .....

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CHEMEX LABS LTD.

212 BROOKSBANK AV
NORTH VANCOUVER, B
CANADA V7J 2

TELEPHONE: (604)984-02
TELEX: 043-525

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

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 FLR-28	205	9500	--	--	--	13.0	--
86447 LOST FINLAY ROC -183	205	58	3	--	--	0.2	--
86448 -185	205	20	--	--	10	0.4	--
86449 -188 -192	205	--	--	--	--	--	--
86450	205	9700	1	--	6	0.6	--
86451 SLAB FAR-1 -2	205	7300	12	--	--	1.2	--
86452	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 MAPPING SAMPLES	205	>10000	1	--	--	1.4	--
86461	205	620	62	--	--	5.4	--
86462	205	>10000	250	--	--	14.0	--
86463	205	>10000	100	--	--	3.0	--
86464	205	1400	4	--	--	0.2	--
86465 URSUS [illegible] #1	205	1800	4	--	--	0.2	--
86466	205	950	4	--	--	--	--
86467	205	500	7	--	--	0.1	--
86468 URSUS	205	530	66	--	--	0.2	--
86469 [illegible]	205	340	1	--	--	0.1	--
86470 #3	205	1200	5	--	--	0.1	--
86471	205	380	10	--	--	0.1	--
86472	205	--	--	--	--	--	--
86473 URSUS	205	>10000	120	--	--	1.4	--
86474 [illegible] #4	205	>10000	98	--	--	0.8	--
86475	205	8900	30	--	--	0.2	--
86476			--	--			--
86477			--	--	--		--
86478 VOLC	205	>10000	--	--	--	3.8	--
86479 [illegible]	205	>10000	--	--	--	2.4	--
86480	205	>10000	--	--	--	2.2	--
86481	205	>10000	--	--	--	>20.0	--
86482	205	--	--	--	--	--	--
86483 ARCTOS	205	>10000	--	--	--	>20.0	--
86484 PROSPECTING	205	>10000	--	--	--	>20.0	--
86485 & MAPPING GEOCHEM	205	3900	--	--	--	13.0	--
86486	205	>10000	--	--	--	1.0	--
86487 SLAB PROSPECTING	205	--	--	--	--	--	--
86488 TELUS	205	--	--	--	--	--	--

Certified by .....

CTA MEMBER CANADIAN TESTING ASSOCIATION

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. # : A8010580-005-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			
86445-Rom	205	14	~~>400.0~~ >2500	--	--	--	--
86446-Arctos	205	220	~~>400.0~~ 983	--	--	--	--
86447	205	72	395.0	--	--	--	--
86448 lost fuel	205	12	--	--	--	--	--
86449	205	--	--	10	--	--	--
86450	205	6	--	--	--	--	--
86451 SLAG	205	24	--	245	--	--	--
86452	205	24	--	115	--	--	--
86457	205	1300	--	1600	--	--	--
86458	205	46	--	15	--	--	--
86459	205	52	--	975	--	--	--
86460	205	44	--	105	--	--	--
86461	205	66	--	270	--	--	--
86462	205	52	--	>5000	--	--	--
86463	205	66	--	445	--	--	--
86464	205	6	19.0	--	--	--	--
86465	205	10	8.0	--	--	--	--
86466 CURSUS	205	12	29.0	--	--	--	--
86467	205	26	125.0	--	--	--	--
86468	205	58	~~>400.0~~ 1925	--	--	--	--
86469	205	32	11.0	--	--	--	--
86470	205	58	35.0	--	--	--	--
86471	205	72	~~>400.0~~ >2500	--	--	--	--
86472	205	--	--	465	--	--	--
86473	205	64	281.0	--	--	--	--
86474	205	52	65.0	--	--	--	--
86475	205	52	35.0	--	--	--	--
86476	205	>10000	--	--	--	--	--
86477	205	132	--	<5	--	--	--
86478	205	26	--	--	--	--	--
86479 Dole	205	12	--	--	--	--	--
86480	205	24	--	--	--	--	--
86481	205	470	--	--	--	--	--
86482	205	--	--	5	--	--	--
86483	205	34	--	--	--	--	--
86484 Arctos	205	32	--	--	--	--	--
86485	205	355	--	--	--	--	--
86486	205	172	--	--	--	--	--
87 slab	205	--	--	120	--	--	--
86488	205	--	--	95	--	--	--

Certified by .....

MEMBER
CANADIAN TESTING
ASSOCIATION

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 ASSAY

TO : Pemicon 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.)	Ag oz/t	Au oz/t
86136 E-6-80	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-8-80	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	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	3.75	--	--	--	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	--

.....
Registered Assayer, Province of British Columbia

CTA MEMBER CANADIAN TESTING ASSOCIATION

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS ••GEOCHEMISTS ••REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 55089
INVOICE NO. 37695
RECEIVED July 30/80
ANALYSED Aug. 11/80

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

ATTN: CC: Pan Ocean Oil ROCKS

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM Mn	PPM Ni	PPM Co	PPM Ag
A-ET1	3100	4	48	7100	325	2150	0.1
B	2450	8	42	4650	820	4550	0.1
C	2400	10	50	4800	320	1150	0.1
D	1350	8	42	3300	96	3100	0.1
E-ET1	1750	10	36	3550	106	1700	0.1

$5\overline{)12650}$

$.253 = 5 \cdot 25 = 125.$

EAGLE TRENCH # 1

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68763
INVOICE NO. 37040
RECEIVED June 30/80
ANALYSED July 18/80

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

ATTN: R. W. Foster ROCK CC. Pan Ocean

SAMPLE NO. :	PPB Au
86001	20
86002	-5
86003	-5
86004	-5
86005	-5
86006	-5
86007	-5
86008	-5
86009	-5
86010	5
86011	-5
86012	-5
86013	-5
86034	-5
86035	-5

Note: - denotes less than

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

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 E-6-80	205	200	--	--	--	--	--
86135	205	178	--	--	--	--	--
86136	205	12	--	--	--	--	--
86137	205	120	--	--	--	--	--
86138	205	--	--	10	--	--	--
86139 RED-BREAK TRENCH	205	--	--	20	--	--	--
86140	205	--	--	80	--	--	--
86141	205	--	--	95	--	--	--
86142	205	--	--	<5	--	--	--
86151	205	10	--	5	--	--	--
86152	205	46	--	--	--	--	--
86153 E-7-80 CORE	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 E-3-80 CORE	205	295	--	--	--	--	--
86216	205	200	--	--	--	--	--
86217	205	130	--	--	--	--	--
86218	205	52	--	--	--	--	--
86219	205	38	--	--	--	--	--
86220	205	66	--	--	--	--	--
86221	205	48	--	--	--	--	--
86222	205	80	--	--	--	--	--
[illegible] 23	205	610	--	--	--	--	--
86224	205	164	--	--	--	--	--

Certified by Hank Biddle

MEMBER
CANADIAN TESTING
ASSOCIATION

CHEMEX LABS LTD.

212 BROOKSBANK AVE
NORTH VANCOUVER, B.C
CANADA V7J 2C

TELEPHONE: (604)984-022
TELEX: 043-5259

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-003-
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
86132	205	290	--	--	--	--	150
86133	205	380	--	--	--	--	--
86134	205	1200	--	--	--	--	--
86135	205	>10000	--	--	--	--	--
86136	205	3700	--	--	--	--	--
86137	205	350	--	--	--	--	--
86138	205	1300	--	--	--	--	--
86139	205	740	--	--	--	--	--
86140	205	7900	--	--	--	--	--
86141	205	2400	--	--	--	--	--
86142	205	1100	--	--	--	--	--
86151	205	470	--	--	--	--	--
86152	205	3250	--	--	--	--	--
86153	205	2500	--	--	--	--	76
86154	205	1200	--	--	--	--	42
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	--	--	--	--	--
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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TELEX: 043-5259

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

CERT. # : A8010580-004-
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 E-3-80 LOOP	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 V-1-80	205	75	--	--	--	0.1	--
86259	205	3900	--	--	--	0.1	--
86288	205	240	--	--	--	--	--
86289	205	80	--	--	--	--	--
86290	205	350	--	--	--	--	--
86291	205	90	--	--	--	--	--
86292 V-4-80	205	120	--	--	--	--	--
86293 CORE	205	50	--	--	--	--	--
86294	205	265	--	--	--	--	--
86295	205	45	--	--	--	--	--
86296	205	20	--	--	--	--	--
86297	205	190	--	--	--	--	--
86298 E-9-80	205	710	--	--	--	--	--
86299	205	370	--	--	--	--	--
86404	205	--	--	--	--	--	--
86443 - VOLE	205	140	--	--	--	0.1	--
86444 - RAM TRENCH	205	130	--	--	--	0.2	--

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TELEX: 043-525

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TO : Pamicon Developments Ltd.,
208 - 850 W. Hastings St.,
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	--	--	--	
86230	205	215	--	--	--	--	--	
86231	205	830	--	--	--	--	--	
86232	205	196	--	--	--	--	--	
86233	205	350	--	--	--	--	--	
86234	205	990	--	--	--	--	--	
86235	205	290	--	--	--	--	--	
86236	205	174	--	--	--	--	--	
86237 E-3-80 Core	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	--	--	--	

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TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-002-
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
86092	E-2-80 Core	205	1400	--	--	--	--	--
86093		205	380	--	--	--	--	--
86094		205	1400	--	--	--	--	--
86095		205	2800	--	--	--	--	--
86096		205	3300	--	--	--	--	--
86097	E-2-80	205	7900	--	--	--	--	--
86098		205	>10000	--	--	--	--	--
86099		205	3100	--	--	--	--	--
86100		205	>10000	--	--	--	--	--
86101		205	3200	--	--	--	--	--
86102		205	96	--	--	--	--	--
86103		205	700	--	--	--	--	--
86104	E-2-80 Core	205	570	--	--	--	--	--
86105		205	>10000	--	--	--	--	--
86106		205	>10000	--	--	--	--	--
86107		205	1450	--	--	--	--	--
86108		205	108	--	--	--	--	--
86109		205	325	--	--	--	--	--
86110		205	260	--	--	--	--	--
86111		205	2200	--	--	--	--	--
86112		205	670	--	--	--	--	--
86113		205	5300	--	--	--	--	--
86114		205	4400	--	--	--	--	--
86115		205	7500	--	--	--	--	--
86116		205	5300	--	--	--	--	--
86117	E-8A-80 Core	205	5200	--	--	--	--	--
86118		205	2000	--	--	--	--	--
86119		205	2550	--	--	--	--	--
86120		205	5500	--	--	--	--	--
86121		205	>10000	--	--	--	--	--
86122		205	260	--	--	--	--	--
86123		205	1700	--	--	--	--	--
86124		205	9500	--	--	--	--	--
86125		205	2800	--	--	--	--	--
86126		205	138	--	--	--	--	--
86127		205	810	--	--	--	--	--
86128		205	30	--	--	--	--	--
86129	E-6-80 Core	205	1550	--	--	--	--	--
86130		205	5500	--	--	--	--	--
86131		205	720	--	--	--	--	--

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Vancouver, B.C.
V6B 1P1

CERT. # : A8010580-002-
INVOICE # : 39737
DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86092	205	106	--	--	--	--	--
86093	205	86	--	--	--	--	--
86094	205	235	--	--	--	--	--
86095	205	200	--	--	--	--	--
86096	205	72	--	--	--	--	--
86097	205	330	--	--	--	--	--
86098	205	370	--	--	--	--	--
86099 E-2-80 Core	205	76	--	--	--	--	--
86100	205	4300	--	--	--	--	--
86101	205	480	--	--	--	--	--
86102	205	30	--	--	--	--	--
86103	205	20	--	--	--	--	--
86104	205	18	--	--	--	--	--
86105	205	118	--	--	--	--	--
86106	205	88	--	--	--	--	--
86107	205	22	--	--	--	--	--
86108	205	32	--	--	--	--	--
86109	205	725	--	--	--	--	--
86110	205	200	--	--	--	--	--
86111	205	26	--	--	--	--	--
86112	205	94	--	--	--	--	--
86113	205	142	--	--	--	--	--
86114	205	18	--	--	--	--	--
86115	205	12	--	--	--	--	--
86116	205	154	--	--	--	--	--
86117	205	770	--	--	--	--	--
86118	205	545	--	--	--	--	--
86119 E-8-80 Core	205	106	--	--	--	--	--
86120	205	12	--	--	--	--	--
86121	205	490	--	--	--	--	--
86122	205	34	--	--	--	--	--
86123	205	8	--	--	--	--	--
86124	205	620	--	--	--	--	--
86125	205	68	--	--	--	--	--
86126	205	88	--	--	--	--	--
86127	205	26	--	--	--	--	--
86128	205	56	--	--	--	--	--
86129	205	14	--	--	--	--	--
86130 E-6-80	205	34	--	--	--	--	--
86131	205	176	--	--	--	--	--

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Vancouver, B.C.
V6B 1P1

CERT. # : A8010580-002-
INVOICE # : 39737
DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Sample description		Prep code	Co ppm	U ppm	AU-FA+AA ppb				
86092		205	106	--	--	--	--	--	
86093		205	86	--	--	--	--	--	
86094		205	235	--	--	--	--	--	
86095		205	200	--	--	--	--	--	
86096		205	72	--	--	--	--	--	
86097		205	330	--	--	--	--	--	
86098	E-2-80 Core	205	370	--	--	--	--	--	
86099		205	76	--	--	--	--	--	
86100		205	4300	--	--	--	--	--	
86101		205	480	--	--	--	--	--	
86102		205	30	--	--	--	--	--	
86103		205	20	--	--	--	--	--	
86104		205	18	--	--	--	--	--	
86105		205	118	--	--	--	--	--	
86106		205	88	--	--	--	--	--	
86107		205	22	--	--	--	--	--	
86108		205	32	--	--	--	--	--	
86109		205	725	--	--	--	--	--	
86110		205	200	--	--	--	--	--	
86111		205	26	--	--	--	--	--	
86112		205	94	--	--	--	--	--	
86113		205	142	--	--	--	--	--	
86114		205	18	--	--	--	--	--	
86115		205	12	--	--	--	--	--	
86116		205	154	--	--	--	--	--	
86117		205	770	--	--	--	--	--	
86118	E-84-80 Core	205	545	--	--	--	--	--	
86119		205	106	--	--	--	--	--	
86120		205	12	--	--	--	--	--	
86121		205	490	--	--	--	--	--	
86122		205	34	--	--	--	--	--	
86123		205	8	--	--	--	--	--	
86124		205	620	--	--	--	--	--	
86125		205	68	--	--	--	--	--	
86126		205	88	--	--	--	--	--	
86127		205	26	--	--	--	--	--	
86128		205	56	--	--	--	--	--	
86129		205	14	--	--	--	--	--	
86130	E-6-80	205	34	--	--	--	--	--	
86131		205	176	--	--	--	--	--	

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TELEPHONE: (604)984-022
TELEX: 043-5259

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CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-006-
INVOICE # : 39737
DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Co, Cu, Ni, Zn
1-9'

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86489 SOILS FILES	205	--	--	370	--	--	--
86501	205	--	--	35	--	--	--
86502	205	--	--	115	--	--	--
86503	205	--	--	75	--	--	--
86504	205	--	--	900	--	--	--
86505 UPPER EAGLE TRENCH	205	--	--	575	--	--	--
86506	205	--	--	1225	--	--	--
86507	205	--	--	230	--	--	--
86508	205	--	--	210	--	--	--
86509	205	--	--	355	--	--	--
86510	205	--	--	300	--	--	--
86511	205	--	--	280	--	--	--
86512 ELK TRENCH	205	--	--	20	--	--	--
86513	205	--	--	35	--	--	--
86514	205	--	--	3	--	--	--
86515	205	--	--	65	--	--	--
86516	205	--	--	20	--	--	--
86517 ARCTOS TRENCH	205	--	--	775	--	--	--
86518	205	--	--	360	--	--	--
86519	205	--	--	20	--	--	--
86520	205	--	--	130	--	--	--
86521	205	100	--	--	--	--	--
86522	205	70	--	--	--	--	--
86523	205	660	--	--	--	--	--
86524 E-5-80	205	260	--	--	--	--	--
86525	205	162	--	--	--	--	--
86527	205	54	--	5	--	--	--
86528	205	330	--	--	--	--	--
86529	205	--	--	20	--	--	--
86551 LOST FOLIN	205	20	>400.0	>2500 --	--	--	--
86552 JAZZ	205	36	>400.0	663 3225	--	--	--

X 5 ppb

≠ 86526 ?

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V6B 1P1

CERT. # : A8010580-006
INVOICE # : 39737
DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Lo, Cu, Ni, Zn

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86489 S-45 PEELS	205	--	--	370	--	--	--
86501	205	--	--	35	--	--	--
86502	205	--	--	115	--	--	--
86503	205	--	--	75	--	--	--
86504	205	--	--	900	--	--	--
86505 UPPER EAGLE TRENCH	205	--	--	575	--	--	--
86506	205	--	--	1225	--	--	--
86507	205	--	--	230	--	--	--
86508	205	--	--	210	--	--	--
86509	205	--	--	355	--	--	--
86510	205	--	--	300	--	--	--
86511	205	--	--	280	--	--	--
86512 ELK TRENCH	205	--	--	20	--	--	--
86513	205	--	--	35	--	--	--
86514	205	--	--	3	--	--	--
86515	205	--	--	65	--	--	--
86516	205	--	--	20	--	--	--
86517 ARCTOS TRENCH	205	--	--	775	--	--	--
86518	205	--	--	360	--	--	--
86519	205	--	--	20	--	--	--
86520	205	--	--	130	--	--	--
86521	205	100	--	--	--	--	--
86522	205	70	--	--	--	--	--
86523	205	660	--	--	--	--	--
86524 E-5-80	205	260	--	--	--	--	--
86525	205	162	--	--	--	--	--
86527	205	54	--	5	--	--	--
86528	205	330	--	--	--	--	--
86529	205	--	--	20	--	--	--
86551 LOST FULCH	205	20	>400.0	>2500 --	--	--	--
86552 JAZZ	205	36	>400.0	663 3225	--	--	--

X, 5 ppb

86526 ?

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NORTH VANCOUVER, B.
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D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm
86489 SCASTALUS	205	--	--	--	--	--	--
86501	205	--	--	--	--	--	--
86502	205	--	--	--	--	--	--
86503	205	--	--	--	--	--	--
86504	205	--	--	--	--	--	--
86505	205	--	--	--	--	--	--
86506	205	--	--	--	--	--	--
86507	205	--	--	--	--	--	--
86508	205	--	--	--	--	--	--
86509	205	--	--	--	--	--	--
86510	205	--	--	--	--	--	--
86511	205	--	--	--	--	--	--
86512	205	--	--	--	--	--	--
86513	205	--	--	--	--	--	--
86514	205	--	--	--	--	--	--
86515	205	--	--	--	--	--	--
86516	205	--	--	--	--	--	--
86517	205	--	--	--	--	--	--
86518	205	--	--	--	--	--	--
86519	205	--	--	--	--	--	--
86520	205	--	--	--	--	--	--
86521	205	1400	--	--	--	--	34
86522	205	2400	--	--	--	--	20
86523	205	1000	--	--	--	--	66
86524	205	>10000	--	--	--	--	60
86525	205	160	--	--	--	--	14
86527	205	86	--	--	--	--	16
86528	205	30	--	--	--	--	34
86529	205	--	--	--	--	--	--
86551 LOST FOUCH	205	360	1	--	--	0.1	--
86552 JAZZ	205	>10000	--	--	--	>20.0	--

8552's missing

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by .....

CHEMEX LABS LTD.

212 BROOKSBANK AV
NORTH VANCOUVER, B.
CANADA V7J 2C
TELEPHONE: (604)984-02
TELEX: 043-525

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-006
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
86489 SLASTALUS	205	--	--	--	--	--	--
86501	205	--	--	--	--	--	--
86502	205	--	--	--	--	--	--
86503	205	--	--	--	--	--	--
86504	205	--	--	--	--	--	--
86505	205	--	--	--	--	--	--
86506	205	--	--	--	--	--	--
86507	205	--	--	--	--	--	--
86508	205	--	--	--	--	--	--
86509	205	--	--	--	--	--	--
86510	205	--	--	--	--	--	--
86511	205	--	--	--	--	--	--
86512	205	--	--	--	--	--	--
86513	205	--	--	--	--	--	--
86514	205	--	--	--	--	--	--
86515	205	--	--	--	--	--	--
86516	205	--	--	--	--	--	--
86517	205	--	--	--	--	--	--
86518	205	--	--	--	--	--	--
86519	205	--	--	--	--	--	--
86520	205	--	--	--	--	--	--
86521	205	1400	--	--	--	--	34
86522	205	2400	--	--	--	--	20
86523	205	1000	--	--	--	--	66
86524	205	>10000	--	--	--	--	60
86525	205	160	--	--	--	--	14
86527	205	86	--	--	--	--	16
86528	205	30	--	--	--	--	34
86529	205	--	--	--	--	--	--
86551 COST FOLCH	205	360	1	--	--	0.1	--
86552 JAZZ	205	>10000	--	--	--	>20.0	--

86529 missing

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by Hawk Biddle

CHEMEX LABS LTD.

212 BROOKSBANK AVE
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CANADA V7J 2C

TELEPHONE: (604)984-022
TELEX: 043-5259

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-001-
INVOICE # : 39737
DATE : 22-OCT-30

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86051	205	10	--	--	--	--	--
86052	205	6	--	--	--	--	--
86053	205	8	--	--	--	--	--
86055	205	4	--	--	--	--	--
86056	205	275	--	--	--	--	--
86057	205	40	--	--	--	--	--
86058	205	34	--	--	--	--	--
86059	205	20	--	--	--	--	--
86060	205	28	--	--	--	--	--
86061	205	26	--	--	--	--	--
86062	205	14	--	--	--	--	--
86063	205	32	--	--	--	--	--
86064	205	42	--	--	--	--	--
86065	205	18	--	--	--	--	--
86066	205	18	--	--	--	--	--
86067	205	40	--	--	--	--	--
86068	205	14	--	--	--	--	--
86069	205	12	--	--	--	--	--
86070	205	12	--	--	--	--	--
86071	205	24	--	--	--	--	--
86072	205	8	--	--	--	--	--
86073	205	14	--	--	--	--	--
86074	205	8	--	--	--	--	--
86075	205	8	--	--	--	--	--
86076	205	6	--	--	--	--	--
86077	205	6	--	--	--	--	--
86078	205	8	--	--	--	--	--
86079	205	10	--	--	--	--	--
86080	205	14	--	--	--	--	--
86081	205	14	--	--	--	--	--
86082	205	12	--	--	--	--	--
86083	205	14	--	--	--	--	--
86084	205	6	--	--	--	--	--
86085	205	10	--	--	--	--	--
86086	205	8	--	--	--	--	--
86087	205	80	--	--	--	--	--
86088	205	106	--	--	--	--	--
86089	205	76	--	--	--	--	--
86090	205	96	--	--	--	--	--
86091	205	46	--	--	--	--	--

Certified by .....

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

212 BROOKSBANK AVE
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CANADA V7J 2C
TELEPHONE: (604)984-022
TELEX: 043-5259

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-001-
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
86051	205	6	--	--	--	--	--
86052	205	6	--	--	--	--	--
86053	205	290	--	--	--	--	--
86055	205	68	--	--	--	--	--
86056	205	3800	--	--	--	--	--
86057	205	360	--	--	--	--	--
86058	205	12	--	--	--	--	--
86059	205	6	--	--	--	--	--
86060	205	1300	--	--	--	--	--
86061	205	200	--	--	--	--	--
86062	205	8	--	--	--	--	--
86063	205	182	--	--	--	--	--
86064	205	790	--	--	--	--	--
86065	205	230	--	--	--	--	--
86066	205	138	--	--	--	--	--
86067	205	310	--	--	--	--	--
86068	205	86	--	--	--	--	--
86069	205	72	--	--	--	--	--
86070	205	66	--	--	--	--	--
86071	205	96	--	--	--	--	--
86072	205	14	--	--	--	--	--
86073	205	8	--	--	--	--	--
86074	205	6	--	--	--	--	--
86075	205	6	--	--	--	--	--
86076	205	6	--	--	--	--	--
86077	205	6	--	--	--	--	--
86078	205	6	--	--	--	--	--
86079	205	4	--	--	--	--	--
86080	205	4	--	--	--	--	--
86081	205	4	--	--	--	--	--
86082	205	8	--	--	--	--	--
86083	205	92	--	--	--	--	--
86084	205	6	--	--	--	--	--
86085	205	94	--	--	--	--	--
86086	205	8	--	--	--	--	--
86087	205	470	--	--	--	--	--
86088	205	126	--	--	--	--	--
86089	205	74	--	--	--	--	--
86090	205	400	--	--	--	--	--
86091	205	38	--	--	--	--	--

Certified by ..

CTA
MEMBER
CANADIAN TESTING
ASSOCIATION

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68762
INVOICE NO. 37066
RECEIVED June 30/80
ANALYSED July 18/80

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

ATTN: R.W. Foster CC: Pan Ocean

SAMPLE NO. :	Percent Cu Total	Percent Mo Total	Percent Pb	Percent Zn	Percent Ni
86014	-0.01	-0.001	-0.01	-0.01	-0.01
86015	0.09	-0.001	-0.01	-0.01	-0.01
86016	0.11	-0.001	-0.01	-0.01	-0.01
86017	1.00	-0.001	-0.01	0.01	-0.01
86018	0.39	-0.001	-0.01	-0.01	-0.01
86019	0.15	-0.001	0.01	-0.01	-0.01
86020	0.08	-0.001	-0.01	-0.01	-0.01
86021	-0.01	-0.001	-0.01	-0.01	-0.01
86022	0.10	-0.001	-0.01	-0.01	-0.01
86023	0.32	-0.001	-0.01	-0.01	-0.01
86024	0.05	-0.001	-0.01	-0.01	-0.01
86025	-0.01	-0.001	-0.01	-0.01	-0.01
86026	3.28	-0.001	-0.01	-0.01	-0.01
86027	0.20	-0.001	-0.01	-0.01	-0.01
86028	0.07	-0.001	-0.01	-0.01	-0.01
86029	0.06	-0.001	-0.01	-0.01	-0.01
86030	-0.01	-0.001	-0.01	-0.01	-0.01
86031	0.01	-0.001	-0.01	-0.01	-0.01
86032	0.01	-0.001	-0.01	-0.01	-0.01
86033	0.05	-0.001	-0.01	-0.01	-0.01
86036	0.06	-0.001	-0.01	-0.01	-0.01
86037	0.05	-0.001	-0.01	-0.01	-0.01
86038	0.05	-0.001	-0.01	-0.01	-0.01
86039	0.04	-0.001	-0.01	-0.01	-0.01
86040	-0.01	-0.001	-0.01	-0.01	-0.01
86041	-0.01	-0.001	-0.01	-0.01	-0.01
86042	-0.01	-0.001	-0.01	-0.01	-0.01
86043	0.16	0.001	-0.01	-0.01	0.03
86044	0.29	-0.001	-0.01	-0.01	0.03
86045	0.05	-0.001	-0.01	-0.01	-0.01
86046	0.15	-0.001	-0.01	-0.01	-0.01
86047	0.41	-0.001	-0.01	-0.01	-0.01
86048	0.05	-0.001	-0.01	-0.01	-0.01
86049	0.28	-0.001	-0.01	-0.01	-0.01
86050	0.11	-0.001	-0.01	-0.01	-0.01

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

212 BROOKSBANK AVE
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE 984-0221
AREA CODE 604
TELEX: 04-352597

CHEMEX LABS LTD.

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 53910

INVOICE NO. 36804

RECEIVED June 27/80

ANALYSED July 11/80

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

ATTN: CC: Pan Ocean

ROCKS

SAMPLE NO.	PPM Cu	PPM Mo	PPM Pb	PPM Zn	PPM Co	PPM Cd	PPM Ag
86301B	2000	2	8	20	315	0.1	0.1
86302	3000	2	2	20	520	0.1	0.1
86303	178	1	4	20	300	0.1	0.1
86304	340	2	8	15	172	0.1	0.1
86305	990	1	6	15	138	0.1	0.1
86306	540	1	8	25	50	0.1	0.1
86307	1000	1	16	40	64	0.1	0.1
86308	700	1	14	35	154	0.1	0.1
86309	1100	1	6	40	108	0.1	0.1
86310	290	1	4	15	72	0.1	0.1
86311	775	1	6	20	16	0.4	0.1
86312	1650	2	2	20	14	0.1	0.1
86313	560	3	1	10	16	0.1	0.1
86314	1500	1	4	8	78	0.1	0.1
86315	+4000	1	20	10	148	0.1	0.8
86316	+4000	1	30	12	475	0.2	0.6
86317	545	1	4	6	56	0.1	0.1
86318	34	1	2	4	24	0.1	0.1
86319	12	1	2	2	18	0.1	0.1
86321	16	1	4	2	14	0.1	0.1
86322	20	1	2	2	22	0.1	0.1
86323	18	1	2	4	10	0.1	0.1
86324	10	1	4	4	6	0.2	0.1
86325	8	2	4	6	10	0.1	0.1
86326	8	1	2	4	10	0.1	0.1
86327	54	1	2	2	8	0.1	0.1
86328	26	1	2	2	8	0.1	0.1
86329	6	1	4	2	6	0.1	0.1
86330	8	2	2	2	10	0.2	0.1
86331	10	1	2	4	10	0.1	0.1
86332	138	1	2	4	12	0.1	0.1
86333	190	1	2	6	44	0.1	0.1
86334	220	1	2	2	12	0.1	0.1
86335	6	1	2	2	8	0.1	0.1
86336	12	1	2	2	4	0.2	0.1
86337	6	1	2	2	4	0.1	0.1
86338	6	1	2	1	2	0.1	0.1
86339B	6	1	2	2	4	0.1	0.1

Also on #68719.

RECEIVED JUL 2 2 1980

NOTE: + Denotes Greater Than.

CERTIFIED BY: Harold Bridle

CTA MEMBER CANADIAN TESTING ASSOCIATION

E-1-80

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 53910

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

INVOICE NO. 36804

RECEIVED June 27/80

ANALYSED July 11/80

ATTN: CC: Pan Ocean ROCKS

SAMPLE NO. :	PPM Sn	PPM W
86301B	1	1
86302	1	75
86303	1	2
86304	1	1
86305	1	1
86306	1	1
86307	1	1
86308	1	1
86309	1	1
86310	1	1
86311	1	1
86312	1	1
86313	1	1
86314	1	1
86315	1	1
86316	1	1
86317	1	4
86318	1	3
86319	1	3
86321	1	5
86322	1	5
86323	1	4
86324	1	12
86325	1	10
86326	1	6
86327	1	4
86328	1	2
86329	1	3
86330	1	4
86331	1	3
86332	1	2
86333	1	1
86334	1	2
86335	1	2
86336	1	2
86337	1	2
86338	1	1
86339B	1	3

Also on #68719.

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CHEMEX LABS LTD.

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

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CERTIFICATE OF ASSAY

CERTIFICATE NO. 68762

INVOICE NO. 37066

RECEIVED June 30/80

ANALYSED July 18/80

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

ATTN: R.W. Foster CC: Pan Ocean

SAMPLE NO. :	Percent Co	oz/ton Ag	oz/ton Au
86014	0.002	-0.01	< 0.003
86015	0.003	-0.01	< 0.003
86016	0.003	-0.01	< 0.003
86017	0.038	0.08	< 0.003
86018	0.009	0.01	< 0.003
86019	0.008	-0.01	< 0.003
86020	0.006	-0.01	< 0.003
86021	0.005	-0.01	< 0.003
86022	0.005	-0.01	< 0.003
86023	0.008	-0.01	< 0.003
86024	0.003	-0.01	< 0.003
86025	0.003	-0.01	< 0.003
86026	0.015	0.25	< 0.003
86027	0.004	0.01	< 0.003
86028	0.005	0.01	< 0.003
86029	0.005	-0.01	< 0.003
86030	0.003	-0.01	< 0.003
86031	0.002	-0.01	< 0.003
86032	0.002	-0.01	< 0.003
86033	0.002	-0.01	< 0.003
86036	0.003	0.05	< 0.003
86037	0.003	0.04	< 0.003
86038	0.003	-0.01	< 0.003
86039	0.002	-0.01	< 0.003
86040	0.002	-0.01	< 0.003
86041	0.006	-0.01	< 0.003
86042	0.004	-0.01	< 0.003
86043	0.089	-0.01	< 0.003
86044	0.092	-0.01	< 0.003
86045	0.013	-0.01	< 0.003
86046	0.016	-0.01	< 0.003
86047	0.072	-0.01	< 0.003
86048	0.005	-0.01	< 0.003
86049	0.011	-0.01	< 0.003
86050	0.005	-0.01	< 0.003

CTA MEMBER CANADIAN TESTING ASSOCIATION

B. Grantes

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 54002

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

INVOICE NO. 36767

RECEIVED June 30/80

ATTN: ROCKS

ANALYSED July 11/80

c.c. Pan Ocean Oil Ltd; Calgary

SAMPLE NO. :	PPM Cu	PPM Mo	PPM Pb	PPM Zn	PPM Ni	PPM Co	PPM Cd	PPM Ag
86001	34	1	56	85	72	510	3.4	1.2
86002	78	1	18	40	48	320	0.2	1.4
86003	42	1	72	50	34	180	0.2	1.0
86004	1650	2	38	60	56	450	0.1	2.0
86005	655	4	2	30	86	1750	0.1	0.2
86006	1200	2	6	45	32	145	0.1	0.8
86007	570	1	1	30	28	100	0.1	0.1
86008	630	1	1	20	20	45	0.1	0.1
86009	1000	2	1	20	20	20	0.1	0.1
86010	530	3	1	20	20	20	0.1	0.1
86011	420	2	1	20	20	20	0.1	0.1
86012	255	1	1	10	20	15	0.1	0.1
86013	60	1	1	30	22	25	1.4	0.1
86034	1050	1	6	25	16	25	0.1	0.1
86035	570	1	1	20	22	20	0.1	0.1

Also on 68763

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68763
INVOICE NO. 37040
RECEIVED June 30/80
ANALYSED July 18/80

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

ATTN: R. W. Foster ROCK CC. Pan Ocean

SAMPLE NO. :	PPB Au
86001	20
86002	-5
86003	-5
86004	-5
86005	-5
86006	-5
86007	-5
86008	-5
86009	-5
86010	5
86011	-5
86012	-5
86013	-5
86034	-5
86035	-5

Note: - denotes less than

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

E-1-20

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 53910

INVOICE NO. 36804

RECEIVED June 27/80

ANALYSED July 11/80

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

ATTN: CC: Pan Ocean

ROCKS

SAMPLE NO. :	PPM Cu	PPM Mo	PPM Pb	PPM Zn	PPM Co	PPM Cd	PPM Ag
86301B	2000	2	8	20	315	0.1	0.1
86302	3000	2	2	20	520	0.1	0.1
86303	178	1	4	20	300	0.1	0.1
86304	340	2	8	15	172	0.1	0.1
86305	990	1	6	15	138	0.1	0.1
86306	540	1	8	25	50	0.1	0.1
86307	1000	1	16	40	64	0.1	0.1
86308	700	1	14	35	154	0.1	0.1
86309	1100	1	6	40	108	0.1	0.1
86310	290	1	4	15	72	0.1	0.1
86311	775	1	6	20	16	0.4	0.1
86312	1650	2	2	20	14	0.1	0.1
86313	560	3	1	10	16	0.1	0.1
86314	1500	1	4	8	78	0.1	0.1
86315	+4000	1	20	10	148	0.1	0.8
86316	+4000	1	30	12	475	0.2	0.6
86317	545	1	4	6	56	0.1	0.1
86318	34	1	2	4	24	0.1	0.1
86319	12	1	2	2	18	0.1	0.1
86321	16	1	4	2	14	0.1	0.1
86322	20	1	2	2	22	0.1	0.1
86323	18	1	2	4	10	0.1	0.1
86324	10	1	4	4	6	0.2	0.1
86325	8	2	4	6	10	0.1	0.1
86326	8	1	2	4	10	0.1	0.1
86327	54	1	2	2	8	0.1	0.1
86328	26	1	2	2	8	0.1	0.1
86329	6	1	4	2	6	0.1	0.1
86330	8	2	2	2	10	0.2	0.1
86331	10	1	2	4	10	0.1	0.1
86332	138	1	2	4	12	0.1	0.1
86333	190	1	2	6	44	0.1	0.1
86334	220	1	2	2	12	0.1	0.1
86335	6	1	2	2	8	0.1	0.1
86336	12	1	2	2	4	0.2	0.1
86337	6	1	2	2	4	0.1	0.1
86338	6	1	2	1	2	0.1	0.1
86339B	6	1	2	2	4	0.1	0.1

Also on #68719.

NOTE: + Denotes Greater Than.

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

E-1-80

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68719

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

ROCK
c.c.-Pan Ocean Ltd.

INVOICE NO. 36862

RECEIVED June 27, 1980

ANALYSED July 15, 1980

ATTN:

SAMPLE NO. :	PPB Au (Combo)
86301B	15
86302	20
86303	<5
86304	<5
86305	5
86306	5
86307	<5
86308	<5
86309	5
86310	<5
86311	<5
86312	<5
86313	<5
86314	<5
86315	10
86316	80
86317	<5
86318	<5
86319	<5
86321	<5
86322	<5
86323	<5
86324	5
86325	5
86326	<5
86327	<5
86328	<5
86329	<5
86330	<5
86331	<5
86332	<5
86333	<5
86334	<5
86335	<5
86336	<5
86337	<5
86338	<5
86339B	20

From #53910

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

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 ASSAY

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

CERT. # : A8011149-001-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
86092	214	0.12	--	--	--	--	--
86093	214	0.40	--	--	--	--	--
86094	214	0.12	--	--	--	--	--
86095	214	0.24	--	--	--	--	--
86096	214	0.32	--	--	--	--	--
86097	214	0.77	--	--	--	--	--
86098	214	1.12	--	--	--	--	--
86099	214	0.31	--	--	--	--	--
86100	214	1.80	--	--	--	--	--
86101	214	0.29	--	--	--	--	--
86102	214	<0.01	--	--	--	--	--
86103	214	0.06	--	--	--	--	--
86104	214	0.05	--	--	--	--	--
86105	214	4.22	--	--	--	--	--
86106	214	2.61	--	--	--	--	--
86107	214	0.15	--	--	--	--	--
86108	214	<0.01	--	--	--	--	--
86109	214	0.03	--	--	--	--	--
86110	214	0.02	--	--	--	--	--
86111	214	0.21	--	--	--	--	--
86112	214	0.06	--	--	--	--	--
86113	214	0.52	--	--	--	--	--
86114	214	0.44	--	--	--	--	--
86115	214	0.72	--	--	--	--	--
86116	214	0.48	--	--	--	--	--
86117	214	0.49	--	--	--	--	--
86118	214	0.20	--	--	--	--	--
86119	214	0.22	--	--	--	--	--
86120	214	0.50	--	--	--	--	--
86121	214	5.59	--	--	--	--	--
86122	214	0.03	--	--	--	--	--
86123	214	0.16	--	--	--	--	--
86124	214	0.87	--	--	--	--	--
86125	214	0.27	--	--	--	--	--
86126	214	0.01	--	--	--	--	--
86127	214	0.08	--	--	--	--	--
86128	214	<0.01	--	--	--	--	--
86133	214	0.09	--	--	--	--	--
86134	214	0.11	--	--	--	--	--
86135	214	4.40	--	--	--	--	--

.....
Registered Assayer, Province of British Columbia

CTA
MEMBER
CANADIAN TESTING
ASSOCIATION

Eagle

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted]8 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 68762

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

INVOICE NO.

RECEIVED June 30/80

ATTN: R.W. Foster CC: Pan Ocean

ANALYSED

SAMPLE NO. :	Percent Co	oz/ton Ag
86014	0.002	-0.01
86015	0.003	-0.01
86016	0.003	-0.01
86017	0.038	0.08
86018	0.009	0.01
86019	0.008	-0.01
86020	0.006	-0.01
86021	0.005	-0.01
86022	0.005	-0.01
86023	0.008	-0.01
86024	0.003	-0.01
86025	0.003	-0.01
86026	0.015	0.25
86027	0.004	0.01
86028	0.005	0.01
86029	0.005	-0.01
86030	0.003	-0.01
86031	0.002	-0.01
86032	0.002	-0.01
86033	0.002	-0.01
86036	0.003	0.05
86037	0.003	0.04
86038	0.003	-0.01
86039	0.002	-0.01
86040	0.002	-0.01
86041	0.006	-0.01
86042	0.004	-0.01
86043	0.089	-0.01
86044	0.092	-0.01
86045	0.013	-0.01
86046	0.016	-0.01
86047	0.072	-0.01
86048	0.005	-0.01
86049	0.011	-0.01
86050	0.005	-0.01

RECEIVED JUL 2 2 1980

CTA MEMBER CANADIAN TESTING ASSOCIATION

B. Swaite

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

Eagle

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

RECEIVED NOV 1 2 1980

"CORRECTED COPY" "Sb changed "

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP A767

INVOICE NO. 40009

RECEIVED Sept. 29, 1980

ANALYSED Oct. 31/80

TO: PAMICON DEVELOPMENTS LTD. also on A8010580
#208, 850 W. Hastings Street
Vancouver, B.C.
V6B 1P1

PROJECT: FAIRCHILD LAKE

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

SAMPLE NO. :	Lower Concentration Limit (PPM)	86502 VET-2	86503 VET-3	86504 VET-4	86505 VET-5	86506 VET-6	86507 VET-7	86508 VET-8	86509 VET-9
Antimony	50	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Arsenic	50	>5000	>5000	>5000	>5000	>5000	>5000	>5000	>5000
Barium	5	>5000	>5000	>5000	>5000	>5000	>5000	>5000	>5000
Beryllium	5	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Bismuth	5	70	50	500	200	300	100	100	100
Boron	20	bcl	bcl	bcl	bcl	bcl	150	bcl	bcl
Cadmium	20	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Calcium	0.05%	0.5%	0.3%	3%	2%	2%	1%	3%	1%
Chromium	10	20	30	20	50	20	100	50	50
Cobalt	10	>5000	3000	>5000	>5000	>5000	>5000	>5000	>5000
Copper	1	5000	1000	>5000	>5000	2000	2000	2000	3000
Gallium	5	bcl	bcl	bcl	bcl	bcl	10	bcl	bcl
Germanium	20	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Iron	0.05%	20%	20%	10%	20%	10%	20%	20%	20%
Lead	5	50	30	200	150	200	70	70	50
Magnesium	0.02%	0.2%	1%	1%	1%	0.7%	1%	1%	0.7%
Manganese	5	5000	1000	3000	5000	2000	3000	<5000	3000
Molybdenum	10	<100	<100	<100	<100	<100	<100	<100	<100
Nickel	5	500	500	5000	5000	<5000	1000	1500	1000
Niobium	50	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Silver	1	1	1	3	2	1.5	1	1	1
Strontium	2	1500	2000	7000	1000	1000	700	1500	1000
Tellurium	200	bcl	bcl	300	200	500	bcl	bcl	bcl
Thorium	200	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Titanium	5	150	500	500	1000	300	1000	700	300
Vanadium	20	bcl	bcl	20	50	50	50	50	50
Zinc	50	100	50	100	100	50	70	100	50
Zirconium	20	20	30	20	70	20	100	70	50

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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: H P Shaffer

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 ASSAY

TO : Pemicon 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
86136 E-6-80	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-7-80	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	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	3.75	--	--	--	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	--
96505	214	0.27	0.74	7.000	--	DELAYED	--
86506	214	0.52	1.30	10.600	--	DELAYED	--

.....
Registered Assayer, Province of British Columbia

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 766 & 767

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

INVOICE NO. 40009

RECEIVED Sept. 29/80

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

ANALYSED Oct. 28/80

SAMPLE NO. :	Lower Concentration Limit (PPM)	86489	86501	86502	86503	86504	86505
Antimony	50	bcl	> 5000	> 5000	3000	> 5000	> 5000
Arsenic	50	bcl	> 5000	> 5000	> 5000	> 5000	> 5000
Barium	5	1000	> 5000	> 5000	> 5000	> 5000	> 5000
Beryllium	5	bcl	bcl	bcl	bcl	bcl	bcl
Bismuth	5	bcl	30	70	50	500	200
Boron	20	100	bcl	bcl	bcl	bcl	bcl
Cadmium	20	bcl	bcl	bcl	bcl	bcl	bcl
Calcium	0.05%	3%	1%	0.5%	0.3%	3%	2%
Chromium	10	150	100	20	30	20	50
Cobalt	10	100	5000	> 5000	3000	> 5000	> 5000
Copper	1	5000	1000	5000	1000	> 5000	> 5000
Gallium	5	20	bcl	bcl	bcl	bcl	bcl
Germanium	20	bcl	bcl	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl	bcl	bcl
Iron	0.05%	3%	20%	20%	20%	10%	20%
Lead	5	10	10	50	30	200	150
Magnesium	0.02%	1%	1%	0.2%	1%	1%	1%
Manganese	5	500	> 5000	5000	1000	3000	5000
Molybdenum	10	200	< 100	< 100	< 100	< 100	< 100
Nickel	5	50	500	500	500	5000	5000
Niobium	50	bcl	bcl	bcl	bcl	bcl	bcl
Silver	1	bcl	bcl	1	1	3	2
Strontium	2	100	500	1500	2000	700	1000
Tellurium	200	bcl	bcl	bcl	bcl	300	200
Thorium	200	bcl	bcl	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl	bcl	bcl
Titanium	5	1000	1000	150	500	500	1000
Vanadium	20	100	50	bcl	bcl	20	50
Zinc	50	50	200	100	50	100	100
Zirconium	20	100	100	20	30	20	70

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

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

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

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

RECEIVED NOV 1 0 1980

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP A 768

TO: PAMICON DEVELOPMENTS LTD.
#208, 850 W. Hastings Street
Vancouver, B.C. Also on A8010588
V6B 1P1 Project: Fairchild Lake

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

INVOICE NO. 40187

RECEIVED Sept. 29, 1980

ANALYSED Nov. 4, 1980

SAMPLE NO. :	Lower Concentration Limit (PPM)	87510 VE-10	86511 VE-11	86512 Ex-2	86513 Ex-1	86514 Leach 1	86515 Leach 2	86516 Leach 3	86517 Leach 4
Antimony	50	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Arsenic	50	>5000	>5000	>5000	1500	500	300	200	1000
Barium	5	>5000	>5000	>5000	>5000	5000	5000	>5000	>5000
Beryllium	5	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Bismuth	5	70	100	5	10	bcl	bcl	bcl	bcl
Boron	20	bcl	bcl	20	300	bcl	bcl	70	bcl
Cadmium	20	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Calcium	0.05%	1%	1.5%	10%	0.7%	5%	10%	10%	1%
Chromium	10	70	50	70	100	500	150	150	150
Cobalt	10	>5000	>5000	2000	700	500	300	150	1000
Copper	1	2000	2000	200	>5000	500	100	150	2000
Gallium	5	bcl	bcl	bcl	20	bcl	bcl	10	10
Germanium	20	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Iron	0.05%	>20%	20%	2%	3%	2%	10%	5%	10%
Lead	5	70	70	5	10	5	7	10	10
Magnesium	0.02%	1%	1%	1%	1%	1.5%	2%	2%	1%
Manganese	5	3000	3000	1500	500	2000	3000	5000	300
Molybdenum	10	<100	<100	<100	<100	<100	<100	<100	<100
Nickel	5	2000	2000	300	300	100	50	20	150
Niobium	50	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Silver	1	1	1	bcl	15	bcl	bcl	bcl	bcl
Strontium	2	1000	1000	500	500	70	100	700	50
Tellurium	200	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Thorium	200	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl	bcl	bcl	bcl	bcl
Titanium	5	300	500	300	1500	200	700	1000	2000
Vanadium	20	50	bcl	bcl	100	50	70	50	150
Zinc	50	100	100	bcl	bcl	bcl	bcl	bcl	bcl
Zirconium	20	70	70	20	200	bcl	50	70	200

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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: A.B. Shyp

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

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 846

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

ATTN: D. Dick

INVOICE NO. 41252

RECEIVED Dec. 11, 1980

ANALYSED Dec. 17, 1980

SAMPLE NO. :	Lower Concentration Limit (PPM)	86100 E-2-80	86140 Rae-Beck	86215 E-3-80	86234 E-3-80	Originally on
Antimony	50	3000	100	50	150	A8010580-002
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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

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

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

RECEIVED NOV 1 2 1980

"CORRECTED COPY" " Sb changed "

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP A 766

TO: PAMICON DEVELOPMENTS LTD.
#208, 850 W. Hastings Street
Vancouver, B.C.
V6B 1P1

also on
A801058
70276

INVOICE NO. 40009

RECEIVED Sept. 29, 1980

ATTN: D. Yeager PROJECT: FAIRCHILD LAKE

ANALYSED Oct. 31, 1980

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

SAMPLE NO. :	Lower Concentration Limit (PPM)	86404	86449 Lost Fish FLK-168	86472	86482	86487	86488 Sleb	86489 Sleb	86501 UST-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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: A. J. Sheffer

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

RECEIVED NOV 1 0 1980

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 769

INVOICE NO. 40187

RECEIVED 29-SEPT-80

ANALYSED 05-NOV-80

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

ATTN: c.c. Pan Ocean Oil Prj: Fairchild Lk.

SAMPLE NO. :	Lower Concentration Limit (PPM)	86518	86519	86520	86526
Antimony	50	bcl	bcl	bcl	bcl
Arsenic	50	1500	200	200	bcl
Barium	5	>5000	>5000	>5000	1500
Beryllium	5	bcl	bcl	bcl	5
Bismuth	5	5	bcl	bcl	bcl
Boron	20	bcl	bcl	150	200
Cadmium	20	bcl	bcl	bcl	bcl
Calcium	0.05%	2%	2%	5%	10%
Chromium	10	100	200	300	300
Cobalt	10	1000	150	200	bcl
Copper	1	1000	150	5000	20
Gallium	5	7	7	5	10
Germanium	20	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl
Iron	0.05%	10%	2%	3%	3%
Lead	5	150	30	10	7
Magnesium	0.02%	1.5%	1.5%	1.5%	1.5%
Manganese	5	1000	1000	1000	1000
Molybdenum	10	<100	<100	<100	<100
Nickel	5	150	10	15	15
Niobium	50	bcl	bcl	bcl	bcl
Silver	1	2	1	1	bcl
Strontium	2	100	100	70	300
Tellurium	200	bcl	bcl	bcl	bcl
Thorium	200	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl
Titanium	5	1500	1000	1000	1000
Vanadium	20	100	50	50	50
Zinc	50	bcl	bcl	bcl	bcl
Zirconium	20	200	100	150	150

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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

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

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

CERT. # : A8010580-006-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			
86489	205	--	--	370	--	--	--
86501	205	--	--	35	--	--	--
86502	205	--	--	115	--	--	--
86503	205	--	--	75	--	--	--
86504	205	--	--	900	--	--	--
86505	205	--	--	575	--	--	--
86506	205	--	--	1225	--	--	--
86507	205	--	--	230	--	--	--
86508	205	--	--	210	--	--	--
86509	205	--	--	355	--	--	--
86510	205	--	--	300	--	--	--
86511	205	--	--	280	--	--	--
86512	205	--	--	20	--	--	--
86513	205	--	--	35	--	--	--
86514	205	--	--	3	--	--	--
86515	205	--	--	65	--	--	--
86516	205	--	--	20	--	--	--
86517	205	--	--	775	--	--	--
86518	205	--	--	360	--	--	--
86519	205	--	--	20	--	--	--
86520	205	--	--	130	--	--	--
86521	205	100	--	--	--	--	--
86522	205	70	--	--	--	--	--
86523	205	660	--	--	--	--	--
86524	205	260	--	--	--	--	--
86525	205	162	--	--	--	--	--
86527	205	54	--	5	--	--	--
86528	205	330	--	--	--	--	--
86529	205	--	--	20	--	--	--
86551	205	20	>400.0	>2500	--	--	--
86552	205	36	>400.0	643 3225	--	--	--

= 86526 ?

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by Hart Biddle

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

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

RECEIVED JUL 17 1980

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP A647

INVOICE NO. 36837

RECEIVED July 8/80

ANALYSED July 10/80

TO: Pan Ocean Oil Ltd.
1050 Three Calgary Place
355 - 4th Ave., W.
Calgary, Alta. T2P 0J1

ATTN: R. Foster

SAMPLE NO. :	Lower Concentration Limit (PPM)	86651	86652	86653	86654		
Antimony	50	bcl	bcl	bcl	bcl		
Arsenic	50	bcl	bcl	200	1500	.15	
Barium	5	1000	100	150	150		
Beryllium	5	bcl	bcl	bcl	5		
Bismuth	5	bcl	bcl	bcl	bcl		
Boron	20	bcl	bcl	bcl	1000	.10	
Cadmium	20	bcl	bcl	bcl	bcl		
Calcium	0.05%	2%	1.5%	10%	10%		
Chromium	10	2000	150	100	150		
Cobalt	10	30	10	500	1500	.15	$75
Copper	1	500	30	>5000	5000	.50	$10
Gallium	5	20	30	5	5		
Germanium	20	bcl	bcl	bcl	bcl		
Indium	50	bcl	bcl	bcl	bcl		
Iron	0.05%	>20%	2%	5%	10%		
Lead	5	20	10	5	5		
Magnesium	0.02%	1%	2%	2%	0.5%		
Manganese	5	5000	300	3000	1000	.10	$4
Molybdenum	10	<100	<100	<100	<100		
Nickel	5	150	20	100	100		
Niobium	50	bcl	bcl	bcl	bcl		
Silver	1	bcl	bcl	bcl	bcl		
Strontium	2	20	20	50	50		
Tellurium	200	bcl	bcl	bcl	bcl		
Thorium	200	bcl	bcl	bcl	bcl		
Tin	10	70	bcl	bcl	bcl		
Titanium	5	1000	2000	1000	1000	.10	
Vanadium	20	150	50	50	50		
Zinc	50	<1000	bcl	70	bcl		
Zirconium	20	70	70	70	70		

$89/TON

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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

Eagle

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 ASSAY

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

CERT. # : A8011149-003-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
86507	214	0.39	0.26	1.680	--	DELAYED	--
86508	214	0.41	0.35	3.080	--	DELAYED	--
86509	214	0.47	0.33	1.540	--	DELAYED	--
86510	214	0.44	0.37	1.660	--	DELAYED	--
86511	214	0.41	0.42	3.080	--	DELAYED	--

R. G. Swaite

Registered Assayer, Province of British Columbia

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 767
INVOICE NO. 40009
RECEIVED Sept. 29/80
ANALYSED Oct. 28/80

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

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

SAMPLE NO. :	Lower Concentration Limit (PPM)	UET 86506	UET 86507	UET 86508	UET 86509
Antimony	50	> 5000	> 5000	> 5000	> 5000
Arsenic	50	> 5000	> 5000	> 5000	> 5000
Barium	5	> 5000	> 5000	> 5000	> 5000
Beryllium	5	bcl	bcl	bcl	bcl
Bismuth	5	300	100	100	100
Boron	20	bcl	150	bcl	bcl
Cadmium	20	bcl	bcl	bcl	bcl
Calcium	0.05%	2%	1%	3%	1%
Chromium	10	20	100	50	50
Cobalt	10	> 5000	> 5000	> 5000	> 5000
Copper	1	> 2000	2000	2000	3000
Gallium	5	bcl	10	bcl	bcl
Germanium	20	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl
Iron	0.05%	10%	20%	20%	20%
Lead	5	200	70	70	50
Magnesium	0.02%	0.7%	1%	1%	0.7%
Manganese	5	2000	3000	> 5000	3000
Molybdenum	10	< 100	< 100	< 100	< 100
Nickel	5	> 5000	1000	1500	1000
Niobium	50	bcl	bcl	bcl	bcl
Silver	1	1.5	1	1	1
Strontium	2	1000	700	1500	1000
Tellurium	200	500	bcl	bcl	bcl
Thorium	200	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl
Titanium	5	300	1000	700	300
Vanadium	20	50	50	50	50
Zinc	50	50	70	100	50
Zirconium	20	20	100	70	50

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

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

CHEMEX LABS LTD.

212 BROOKSBANK AV
NORTH VANCOUVER, B.C
CANADA V7J 2C
TELEPHONE: (604)984-022
TELEX: 043-525

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-006
INVOICE # : 39737
DATE : 22-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN

Lo, Cu, Ni, Lu
Ag

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86489 SLAG PILES	205	--	--	370	--	--	--
86501	205	--	--	35	--	--	--
86502	205	--	--	115	--	--	--
86503	205	--	--	75	--	--	--
86504	205	--	--	900	--	--	--
86505	205	--	--	575	--	--	--
86506 UPPER EAGLE TRENCH	205	--	--	1225	--	--	--
86507	205	--	--	230	--	--	--
86508	205	--	--	210	--	--	--
86509	205	--	--	355	--	--	--
86510	205	--	--	300	--	--	--
86511	205	--	--	280	--	--	--
86512	205	--	--	20	--	--	--
86513 ELK TRENCH	205	--	--	35	--	--	--
86514	205	--	--	3	--	--	--
86515	205	--	--	65	--	--	--
86516	205	--	--	20	--	--	--
86517 ARCTOS TRENCH	205	--	--	775	--	--	--
86518	205	--	--	360	--	--	--
86519	205	--	--	20	--	--	--
86520	205	--	--	130	--	--	--
86521	205	100	--	--	--	--	--
86522	205	70	--	--	--	--	--
86523	205	660	--	--	--	--	--
86524 E-5-80	205	260	--	--	--	--	--
86525	205	162	--	--	--	--	--
86527	205	54	--	5	--	--	--
86528	205	330	--	--	--	--	--
86529	205	--	--	20	--	--	--
86551 LOST FORK	205	20	>400.0	>2500 --	--	--	--
86552 JAZZ	205	36	>400.0	663 3225	--	--	--

X, Sep

≠ 86526 ?

Certified by Hewitt Biddle

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

212 BROOKSBANK AV
NORTH VANCOUVER, B.
CANADA V7J 2C
TELEPHONE: (604)984-02
TELEX: 043-525

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-006
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
86439 SLOCAN	205	--	--	--	--	--	--
86501	205	--	--	--	--	--	--
86502	205	--	--	--	--	--	--
86503	205	--	--	--	--	--	--
86504	205	--	--	--	--	--	--
86505	205	--	--	--	--	--	--
86506	205	--	--	--	--	--	--
86507	205	--	--	--	--	--	--
86508	205	--	--	--	--	--	--
86509	205	--	--	--	--	--	--
86510	205	--	--	--	--	--	--
86511	205	--	--	--	--	--	--
86512 ELK	205	--	--	--	--	--	--
86513	205	--	--	--	--	--	--
86514	205	--	--	--	--	--	--
86515	205	--	--	--	--	--	--
86516	205	--	--	--	--	--	--
86517 ARCTOS TRENCH	205	--	--	--	--	--	--
86518	205	--	--	--	--	--	--
86519	205	--	--	--	--	--	--
86520	205	--	--	--	--	--	--
86521	205	1400	--	--	--	--	34
86522	205	2400	--	--	--	--	20
86523	205	1000	--	--	--	--	66
86524 E-5-80	205	>10000	--	--	--	--	60
86525	205	160	--	--	--	--	14
86527	205	86	--	--	--	--	16
86528	205	30	--	--	--	--	34
86529	205	--	--	--	--	--	--
86551 COST FOUCH	205	360	1	--	--	0.1	--
86552 JAZZ	205	>10000	--	--	--	>20.0	--

86526 missing

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by Howard Biddle

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

Don Dic

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 70276
INVOICE NO. 40019
RECEIVED Sept. 29/80
ANALYSED Oct. 29/80

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

ATTN: D. Yeager FAIRCHILD LAKE CC. Pan Ocean Oil.

SAMPLE NO. :	PPB Pt	
86404	< 50	-> Rad/Break Trench.
86488	< 50	-> SLAB
86489	< 50	-> SLAB

RECEIVED NOV - 4 1980

B Gwatkin

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

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TELEPHONE: (604)984-022
TELEX: 043-5259

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

CERT. # : A8010581-001-
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm
86401	202	2200	14	22	46	0.4	36
86402	202	560	7	12	38	0.1	30
86403	202	146	4	2	32	0.1	38
86405	202	470	--	--	--	0.1	--
86406	202	1500	--	--	--	0.1	--
86407	202	340	--	--	--	0.1	--
86408	202	560	--	--	--	0.1	--
86409	202	196	--	--	--	0.1	--
86410	202	22	--	--	--	0.1	--
86411	202	86	--	--	--	0.1	--
86412	202	1200	--	--	--	0.1	--
86413	202	102	--	--	--	0.1	--
86414	202	158	--	--	--	0.1	--
86415	202	44	--	--	--	0.1	--
86416	202	24	--	--	--	0.1	--
86417	202	36	--	--	--	0.1	--
86418	202	28	--	--	--	0.1	--
86419	202	18	--	--	--	0.1	--
86420	202	30	--	--	--	0.1	--
86421	202	12	--	--	--	0.1	--
86422	202	54	--	--	--	0.1	--
86423	202	6700	--	--	--	0.1	--
86424	202	106	--	--	--	0.1	--
86425	202	285	--	--	--	0.1	--
86426	202	390	--	--	--	0.1	--
86427	202	340	--	--	--	0.1	--
86428	202	2950	--	--	--	0.1	--
86429	202	1200	--	--	--	0.1	--
86430	202	680	--	--	--	0.1	--
86431	202	350	--	--	--	0.1	--
86432	202	4500	--	--	--	0.6	--
86433	202	52	--	--	--	0.1	--
86434	202	4000	--	--	--	0.1	--
86435	202	80	--	--	--	0.1	--
86436	202	265	--	--	--	0.1	--
86437	202	28	--	--	--	0.1	--
86438	202	240	--	--	--	0.1	--
86439	202	200	--	--	--	0.1	--
86440	202	198	--	--	--	0.1	--
86441	202	700	--	--	--	0.1	--

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by .....

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

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

CERT. # : A8010581-002-E
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86442	202	~~4000~~ 400	4.5	--	--	--	--
86453	202	~~2200~~ 220	--	DELAYED	--	--	--
86454	202	24	--	DELAYED	--	--	--
86455	202	40	--	DELAYED	--	--	--
86456	202	54	--	DELAYED	--	--	--
86490	202	108	--	DELAYED	--	--	--
86491	202	22	--	DELAYED	--	--	--
86492	202	182	--	DELAYED	--	--	--
86493	202	42	--	DELAYED	--	--	--
86494	202	44	--	DELAYED	--	--	--
86495	202	~~2700~~ 270	--	DELAYED	--	--	--
86496	202	~~2700~~ 270	--	DELAYED	--	--	--
86497	202	184	--	DELAYED	--	--	--
86498	202	56	--	DELAYED	--	--	--
86499	202	140	--	DELAYED	--	--	--
86500	202	192	--	DELAYED	--	--	--

Certified by Hart Biddle

CTA MEMBER CANADIAN TESTING ASSOCIATION

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

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

CERT. # : A8010581-002-
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm
86442	202	1200	--	--	--	0.1	--
86453	202	295	85	--	--	8.0	--
86454	202	32	42	--	--	0.4	--
86455	202	60	30	--	--	0.1	--
86456	202	2250	8	--	--	4.4	--
86490	202	700	3	12	124	0.1	68
86491	202	265	2	4	66	0.1	20
86492	202	1350	4	12	60	0.1	64
86493	202	300	4	8	64	0.1	26
86494	202	330	2	4	44	0.1	24
86495	202	4350	15	8	102	0.1	112
86496	202	10000	25	8	66	0.1	94
86497	202	2300	12	10	74	0.1	74
86498	202	970	4	1	24	0.1	26
86499	202	10000	22	4	76	0.2	58
86500	202	4100	12	4	34	0.1	44

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CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

212 BROOKSBANK AV
NORTH VANCOUVER, B
CANADA V7J 2

TELEPHONE: (604)984-02
TELEX: 043-525

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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

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 FLR-28	205	9500	--	--	--	13.0	--
86447 LOST FINES FOR -183	205	58	3	--	--	0.2	--
86448 -185	205	20	--	--	10	0.4	--
86449 -188 -192	205	--	--	--	--	--	--
86450	205	9700	1	--	6	0.6	--
86451 SLAB FLR-1 -2	205	7300	12	--	--	1.2	--
86452	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 MAPPING SAMPLES	205	>10000	1	--	--	1.4	--
86461	205	620	62	--	--	5.4	--
86462	205	>10000	250	--	--	14.0	--
86463	205	>10000	100	--	--	3.0	--
86464 URSUS	205	1400	4	--	--	0.2	--
86465 TRENCH #1	205	1800	4	--	--	0.2	--
86466	205	950	4	--	--	--	--
86467	205	500	7	--	--	0.1	--
86468 URSUS	205	530	66	--	--	0.2	--
86469 TRENCH	205	340	1	--	--	0.1	--
86470 #3	205	1200	5	--	--	0.1	--
86471	205	380	10	--	--	0.1	--
86472	205	--	--	--	--	--	--
86473 URSOS	205	>10000	120	--	--	1.4	--
86474 TRENCH #4	205	>10000	98	--	--	0.8	--
86475	205	8900	30	--	--	0.2	--
86476			--		--		--
86477			--	--	--		--
86478 VOLE	205	>10000	--	--	--	3.8	--
86479 NW OF MAIN SHOWING	205	>10000	--	--	--	2.4	--
86480	205	>10000	--	--	--	2.2	--
86481	205	>10000	--	--	--	>20.0	--
86482	205	--	--	--	--	--	--
86483 ARCTOS	205	>10000	--	--	--	>20.0	--
86484 PROSPECTING & MAPPING GEOCHEM	205	>10000	--	--	--	>20.0	--
86485	205	3900	--	--	--	13.0	--
86486	205	>10000	--	--	--	1.0	--
86487 SLAB PROSPECTING TELUS	205	--	--	--	--	--	--
86488	205	--	--	--	--	--	--

Certified by .....

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

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CANADA V7J 2C1
TELEPHONE: (604)984-0221
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CERTIFICATE OF ANALYSIS

RECEIVED OCT 2 4 1980

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

CERT. # : A8010581-002-B
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86442	202	4000	4.5	--	--	--	--
86453	202	2200	--	DELAYED	--	--	--
86454	202	24	--	DELAYED	--	--	--
86455	202	40	--	DELAYED	--	--	--
86456	202	54	--	DELAYED	--	--	--
86490	202	108	--	DELAYED	--	--	--
86491	202	22	--	DELAYED	--	--	--
86492	202	182	--	DELAYED	--	--	--
86493	202	42	--	DELAYED	--	--	--
86494	202	44	--	DELAYED	--	--	--
86495	202	2700	--	DELAYED	--	--	--
86496	202	2700	--	DELAYED	--	--	--
86497	202	184	--	DELAYED	--	--	--
86498	202	56	--	DELAYED	--	--	--
86499	202	140	--	DELAYED	--	--	--
86500	202	192	--	DELAYED	--	--	--

Certified by .....

CTA MEMBER CANADIAN TESTING ASSOCIATION

CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

RECEIVED OCT 2 4 1980

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

CERT. # : A8010581-001-A
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm
86401	202	2200	14	22	46	0.4	36
86402	202	560	7	12	38	0.1	30
86403	202	146	4	2	32	0.1	38
86405	202	470	--	--	--	0.1	--
86406	202	1500	--	--	--	0.1	--
86407	202	340	--	--	--	0.1	--
86408	202	560	--	--	--	0.1	--
86409	202	196	--	--	--	0.1	--
86410	202	22	--	--	--	0.1	--
86411	202	86	--	--	--	0.1	--
86412	202	1200	--	--	--	0.1	--
86413	202	102	--	--	--	0.1	--
86414	202	158	--	--	--	0.1	--
86415	202	44	--	--	--	0.1	--
86416	202	24	--	--	--	0.1	--
86417	202	36	--	--	--	0.1	--
86418	202	28	--	--	--	0.1	--
86419	202	18	--	--	--	0.1	--
86420	202	30	--	--	--	0.1	--
86421	202	12	--	--	--	0.1	--
86422	202	54	--	--	--	0.1	--
86423	202	6700	--	--	--	0.1	--
86424	202	106	--	--	--	0.1	--
86425	202	285	--	--	--	0.1	--
86426	202	390	--	--	--	0.1	--
86427	202	340	--	--	--	0.1	--
86428	202	2950	--	--	--	0.1	--
86429	202	1200	--	--	--	0.1	--
86430	202	680	--	--	--	0.1	--
86431	202	350	--	--	--	0.1	--
86432	202	4500	--	--	--	0.6	--
86433	202	52	--	--	--	0.1	--
86434	202	4000	--	--	--	0.1	--
86435	202	80	--	--	--	0.1	--
86436	202	265	--	--	--	0.1	--
86437	202	28	--	--	--	0.1	--
86438	202	240	--	--	--	0.1	--
86439	202	200	--	--	--	0.1	--
6440	202	198	--	--	--	0.1	--
86441	202	700	--	--	--	0.1	--

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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

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

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CERTIFICATE OF ANALYSIS

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

CERT. # : A8010580-006-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			
86489	205	--	--	370	--	--	--
86501	205	--	--	35	--	--	--
86502	205	--	--	115	--	--	--
86503	205	--	--	75	--	--	--
86504	205	--	--	900	--	--	--
86505	205	--	--	575	--	--	--
86506	205	--	--	1225	--	--	--
86507	205	--	--	230	--	--	--
86508	205	--	--	210	--	--	--
86509	205	--	--	355	--	--	--
86510	205	--	--	300	--	--	--
86511	205	--	--	280	--	--	--
86512	205	--	--	20	--	--	--
86513	205	--	--	35	--	--	--
86514	205	--	--	3	--	--	--
86515	205	--	--	65	--	--	--
86516	205	--	--	20	--	--	--
86517	205	--	--	775	--	--	--
86518	205	--	--	360	--	--	--
86519	205	--	--	20	--	--	--
86520	205	--	--	130	--	--	--
86521	205	100	--	--	--	--	--
86522	205	70	--	--	--	--	--
86523	205	660	--	--	--	--	--
86524	205	260	--	--	--	--	--
86525	205	162	--	--	--	--	--
86527	205	54	--	5	--	--	--
86528	205	330	--	--	--	--	--
86529	205	--	--	20	--	--	--
86551	205	20	>400.0	>2500	--	--	--
86552	205	36	>400.0	663 3225	--	--	--

= 86526 ?

Certified by .....

CTA MEMBER CANADIAN TESTING ASSOCIATION

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

CHEMEX LABS LTD.

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RECEIVED NOV 1 2 1980

"CORRECTED COPY" " Sb changed "

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP A 766

TO: PAMICON DEVELOPMENTS LTD.
#208, 850 W. Hastings Street
Vancouver, B.C.
V6B 1P1

also on
A801058
70276

INVOICE NO. 40009

RECEIVED Sept. 29, 1980

ATTN: D. Yeager PROJECT: FAIRCHILD LAKE

ANALYSED Oct. 31, 1980

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

SAMPLE NO. :	Lower Concentration Limit (PPM)	86404 Bear Creek	86449 Lost Fish PDR-188	86472 Moose Trail	86482 Area [illegible]	86487 Arctos	86488 Slab	86489 Slab	86501 VET-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 %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

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

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 766 & 767

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

INVOICE NO. 40009

RECEIVED Sept. 29/80

ANALYSED Oct. 28/80

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

SAMPLE NO. :	Lower Concentration Limit (PPM)	SLAG TAILS 86489	VET 86501	VET 86502	VET 86503	VET 86504	VET 86505
Antimony	50	bcl	> 5000	> 5000	3000	> 5000	> 5000
Arsenic	50	bcl	> 5000	> 5000	> 5000	> 5000	> 5000
Barium	5	1000	> 5000	> 5000	> 5000	> 5000	> 5000
Beryllium	5	bcl	bcl	bcl	bcl	bcl	bcl
Bismuth	5	bcl	30	70	50	500	200
Boron	20	100	bcl	bcl	bcl	bcl	bcl
Cadmium	20	bcl	bcl	bcl	bcl	bcl	bcl
Calcium	0.05%	3%	1%	0.5%	0.3%	3%	2%
Chromium	10	150	100	20	30	20	50
Cobalt	10	100	5000	> 5000	3000	> 5000	> 5000
Copper	1	5000	1000	5000	1000	> 5000	> 5000
Gallium	5	20	bcl	bcl	bcl	bcl	bcl
Germanium	20	bcl	bcl	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl	bcl	bcl
Iron	0.05%	3%	20%	20%	20%	10%	20%
Lead	5	10	10	50	30	200	150
Magnesium	0.02%	1%	1%	0.2%	1%	1%	1%
Manganese	5	500	> 5000	5000	1000	3000	5000
Molybdenum	10	200	< 100	< 100	< 100	< 100	< 100
Nickel	5	50	500	500	500	5000	5000
Niobium	50	bcl	bcl	bcl	bcl	bcl	bcl
Silver	1	bcl	bcl	1	1	3	2
Strontium	2	100	500	1500	2000	700	1000
Tellurium	200	bcl	bcl	bcl	bcl	300	200
Thorium	200	bcl	bcl	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl	bcl	bcl
Titanium	5	1000	1000	150	500	500	1000
Vanadium	20	100	50	bcl	bcl	20	50
Zinc	50	50	200	100	50	100	100
Zirconium	20	100	100	20	30	20	70

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

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

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

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 766
INVOICE NO. 40009
RECEIVED Sept. 29/80
ANALYSED Oct. 28/80

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

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

SAMPLE NO. :	Lower Concentration Limit (PPM)	86404 RAD-Black	86449 Lost Fork	URSUS 86472 #4	ARCTOS 86482	ARCTOS 86487	SLABTALUS 86488
Antimony	50	bcl	bcl	bcl	bcl	bcl	bcl
Arsenic	50	50	bcl	bcl	100	200	bcl
Barium	5	500	bcl	bcl	200	1000	200
Beryllium	5	200	700	> 5000	1500	1000	700
Bismuth	5	bcl	bcl	bcl	bcl	bcl	bcl
Boron	20	70	bcl	20	70	5	bcl
Cadmium	20	bcl	150	20	bcl	bcl	100
Calcium	0.05%	bcl	bcl	bcl	bcl	bcl	bcl
Chromium	10	2%	0.3%	0.3%	0.5%	0.07%	7%
Cobalt	10	200	150	100	30	100	150
Copper	1	70	10	100	300	500	70
Gallium	5	> 5000	300	>5000	> 5000	> 5000	> 5000
Germanium	20	bcl	10	20	bcl	5	20
Indium	50	bcl	bcl	bcl	bcl	bcl	bcl
Iron	0.05%	bcl	bcl	bcl	bcl	bcl	bcl
Lead	5	3%	7%	> 20%	7%	20%	2%
Magnesium	0.02%	20	300	20	20	5	70
Manganese	5	1%	0.15%	0.5%	0.7%	0.02%	1.5%
Molybdenum	10	700	2000	150	500	150	500
Nickel	5	<100	< 100	< 100	< 100	< 100	500
Niobium	50	100	20	70	5	15	20
Silver	1	bcl	bcl	bcl	bcl	bcl	bcl
Strontium	2	20	bcl	bcl	500	15	1
Tellurium	200	10	10	300	7	7	150
Thorium	200	bcl	bcl	bcl	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl	bcl	bcl	bcl
Titanium	5	70	1500	700	500	70	1000
Vanadium	20	50	200	100	200	200	100
Zinc	50	150	bcl	50	bcl	bcl	100
Zirconium	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

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: [signature]

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. # : A8010580-005-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			
86445-Rom	205	14	~~>400.0~~ >2500	--	--	--	--
86446-Arctos	205	220	~~>400.0~~ 983	--	--	--	--
86447	205	72	395.0	--	--	--	--
86448 Lost Fuel	205	12	--	--	--	--	--
86449	205	--	--	10	--	--	--
86450	205	6	--	--	--	--	--
86451 SLAB	205	24	--	245	--	--	--
86452	205	24	--	115	--	--	--
86457	205	1300	--	1600	--	--	--
86458	205	46	--	15	--	--	--
86459	205	52	--	975	--	--	--
86460	205	44	--	105	--	--	--
86461	205	66	--	270	--	--	--
86462	205	52	--	>5000	--	--	--
86463	205	66	--	445	--	--	--
86464	205	6	19.0	--	--	--	--
86465	205	10	8.0	--	--	--	--
86466 CURSUS	205	12	29.0	--	--	--	--
86467	205	26	125.0	--	--	--	--
86468	205	58	~~>400.0~~ 1925	--	--	--	--
86469	205	32	11.0	--	--	--	--
86470	205	58	35.0	--	--	--	--
86471	205	72	~~>400.0~~ >2500	--	--	--	--
86472	205	--	--	465	--	--	--
86473	205	64	281.0	--	--	--	--
86474	205	52	65.0	--	--	--	--
86475	205	52	35.0	--	--	--	--
86476	205	>10000	--	--	--	--	--
86477	205	132	--	<5	--	--	--
86478	205	26	--	--	--	--	--
86479 Ucle	205	12	--	--	--	--	--
86480	205	24	--	--	--	--	--
86481	205	470	--	--	--	--	--
86482	205	--	--	5	--	--	--
86483	205	34	--	--	--	--	--
86484 Arctos	205	32	--	--	--	--	--
86485	205	355	--	--	--	--	--
86486	205	172	--	--	--	--	--
87 slab	205	--	--	120	--	--	--
86488	205	--	--	95	--	--	--

Certified by Howard Biddle

CTA MEMBER CANADIAN TESTING ASSOCIATION

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

RECEIVED OCT 2 4 1980

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

CERT. # : A8010581-001-A
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm
86401	202	2200	14	22	46	0.4	36
86402	202	560	7	12	38	0.1	30
86403	202	146	4	2	32	0.1	38
86405	202	470	--	--	--	0.1	--
86406	202	1500	--	--	--	0.1	--
86407	202	340	--	--	--	0.1	--
86408	202	560	--	--	--	0.1	--
86409	202	196	--	--	--	0.1	--
86410	202	22	--	--	--	0.1	--
86411	202	86	--	--	--	0.1	--
86412	202	1200	--	--	--	0.1	--
86413	202	102	--	--	--	0.1	--
86414	202	158	--	--	--	0.1	--
86415	202	44	--	--	--	0.1	--
86416	202	24	--	--	--	0.1	--
86417	202	36	--	--	--	0.1	--
86418	202	28	--	--	--	0.1	--
86419	202	18	--	--	--	0.1	--
86420	202	30	--	--	--	0.1	--
86421	202	12	--	--	--	0.1	--
86422	202	54	--	--	--	0.1	--
86423	202	6700	--	--	--	0.1	--
86424	202	106	--	--	--	0.1	--
86425	202	285	--	--	--	0.1	--
86426	202	390	--	--	--	0.1	--
86427	202	340	--	--	--	0.1	--
86428	202	2950	--	--	--	0.1	--
86429	202	1200	--	--	--	0.1	--
86430	202	680	--	--	--	0.1	--
86431	202	350	--	--	--	0.1	--
86432	202	4500	--	--	--	0.6	--
86433	202	52	--	--	--	0.1	--
86434	202	4000	--	--	--	0.1	--
86435	202	80	--	--	--	0.1	--
86436	202	265	--	--	--	0.1	--
86437	202	28	--	--	--	0.1	--
86438	202	240	--	--	--	0.1	--
86439	202	200	--	--	--	0.1	--
440	202	198	--	--	--	0.1	--
86441	202	700	--	--	--	0.1	--

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by .....

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

RECEIVED OCT 24 1980

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

CERT. # : A8010581-001-B
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Co ppm	U ppm	AU-FA+AA ppb			
86401	202	52	--	DELAYED	--	--	--
86402	202	28	--	DELAYED	--	--	--
86403	202	10	--	DELAYED	--	--	--
86405	202	124	3.0	--	--	--	--
86406	202	62	3.0	--	--	--	--
86407	202	76	2.5	--	--	--	--
86408	202	140	3.0	--	--	--	--
86409	202	76	2.5	--	--	--	--
86410	202	14	2.5	--	--	--	--
86411	202	26	3.0	--	--	--	--
86412	202	22	3.0	--	--	--	--
86413	202	24	3.5	--	--	--	--
86414	202	24	2.0	--	--	--	--
86415	202	24	1.5	--	--	--	--
86416	202	18	1.0	--	--	--	--
86417	202	36	2.5	--	--	--	--
86418	202	26	2.5	--	--	--	--
86419	202	14	2.0	--	--	--	--
86420	202	18	1.5	--	--	--	--
86421	202	12	2.0	--	--	--	--
86422	202	24	2.5	--	--	--	--
86423	202	122	7.0	--	--	--	--
86424	202	24	2.0	--	--	--	--
86425	202	140	3.0	--	--	--	--
86426	202	130	2.5	--	--	--	--
86427	202	54	4.5	--	--	--	--
86428	202	3600	9.5	--	--	--	--
86429	202	42	3.0	--	--	--	--
86430	202	24	2.0	--	--	--	--
86431	202	32	3.0	--	--	--	--
86432	202	180	5.0	--	--	--	--
86433	202	6	4.0	--	--	--	--
86434	202	132	6.0	--	--	--	--
86435	202	34	3.5	--	--	--	--
86436	202	26	3.0	--	--	--	--
86437	202	92	3.5	--	--	--	--
86438	202	162	4.0	--	--	--	--
86439	202	46	4.0	--	--	--	--
86440	202	24	2.5	--	--	--	--
86441	202	158	4.5	--	--	--	--

Certified by ..Hans Bielle...

CTA MEMBER CANADIAN TESTING ASSOCIATION

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

RECEIVED OCT 2 4 1980

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

CERT. # : A8010581-002-/
INVOICE # : 39656
DATE : 20-OCT-80

D.YEAGER-FAIRCHILD

CC: PAN OCEAN D. FOSTER

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm
86442	202	1200	--	--	--	0.1	--
86453	202	295	85	--	--	8.0	--
86454	202	32	42	--	--	0.4	--
86455	202	60	30	--	--	0.1	--
86456	202	2250	8	--	--	4.4	--
86490	202	700	3	12	124	0.1	68
86491	202	265	2	4	66	0.1	20
86492	202	1350	4	12	60	0.1	64
86493	202	300	4	8	64	0.1	26
86494	202	330	2	4	44	0.1	24
86495	202	4350	15	8	102	0.1	112
86496	202	10000	25	8	66	0.1	94
86497	202	2300	12	10	74	0.1	74
86498	202	970	4	1	24	0.1	26
86499	202	10000	22	4	76	0.2	58
86500	202	4100	12	4	34	0.1	44

Certified by .....

MEMBER
CANADIAN TESTING
ASSOCIATION

APPENDIX II

DIAMOND DRILL LOGS

GEOLOGICAL LOG			ASSAY RECORD			
METERAGE	G LOG	DESCRIPTION	FROM (M)	TO (M)	% RECOVERY	COMPOSITE
		By 24.0m minute flakes chlorite and minor goethite stringers observed. From 25.4 to 26.22m, minor chalcopyrite and magnetite observed, associated with quartz-carbonate hairline fractures.	0.00	0.88	100	
26.22 - 28.9		Progression into weakly calcic, strongly weathered, chloritic, scapolitic meta-argillite. Minor calcite observed within chloritic matrix. Banding occasionally observed, normally in calcitic zones, trending 35°. Strongly weathered grains wollastonite also observed in the more calcic zones. From 28.32 to 29.32m - broken, fractured zone; well washed. Quartz vein trends 25° while fracture trends 35°. Fracture surfaces contain weak to medium limonite, calcite and pyrolusite. Minor blebs sulphides and cordierite observed within more calcic zones.	0.88	1.42	100	
			1.42	4.88	100	
			4.88	5.48	100	
			5.48	6.7	100	
			6.7	8.22	100	
			8.22	9.75	100	
			9.75	11.27	100	
			11.27	12.8	100	
			12.8	14.32	100	
			14.32	15.84	100	
			15.84	17.37	100	
			17.37	18.81	100	
			18.81	20.42	100	
			20.42	21.94	100	
			21.94	23.46	95	
			23.46	24.68	100	
			24.68	26.21	100	
28.9 - 29.35		Zone of highly siliceous, weakly calcic metasiltstone. Section moderately fractured throughout (dominantly 40°), surfaces containing limonite, quartz and calcite.	26.21	27.73	100	
			27.73	28.05	100	
			28.05	30.78	62	
			30.78	32.3	100	
29.35 - 34.12		Return to granular, calcic meta-argillite - weakly banded at 40° moderate to strongly siliceous throughout. Banded zones composed of a siliceous-chloritic-scapolitic argillaceous greisen (fabric more granular). White mica also present as well as weathered grains of tremolite/actinolite. Minor blebs cordierite. Minor dissemination of sulphides occur along band contacts and as minute grains within greisen unit. At 32.0m, altered-weathered wollastonite observed in more calcic rock. At 32.3-32.66m - limonitic clay gouge.	32.3	34.13	99	
			34.13	35.66	100	
			35.66	37.18	100	
			37.18	37.49	71	
			37.49	38.7	100	
			38.7	40.23	100	
			40.23	41.75	100	
			41.75	43.78	74	
			43.78	44.88	100	
			44.88	46.32	92	
			46.31	47.85	100	
			47.85	49.37	98	
34.13 - 43.84		Similar unit to above though much more siliceous - cherty alteration. Chlorite not as abundant as calcite content increase. Banding much more pronounced by 37.6m, trends 45°. Banded unit composed of a strongly siliceous, weakly chloritic, scapolitic, calcic meta-argillite. Unit weakly fractured throughout, dominant direction 40°. Fractured zones appear weakly calcic, chloritic and somewhat mylonitic. Surfaces contain limonite and pyrolusite. Unit cut by numerous quartz-carbonate stringers, generally perpendicular to banding.	49.37	50.9	89	
			50.9	52.42	100	
			52.42	53.94	100	
			53.94	55.47	97	
			55.47	56.99	100	
			56.99	58.52	94	
			58.52	60.04	100	
			60.04	61.26	100	
			61.26	63.09	92	
			63.09	63.7	77	
			63.7	64.31	100	
43.84 - 47.3		Strongly siliceous, scapolitic meta-argillite. Unit weakly calcic, calcite also infills hairline fractures. Fractures trend 40° and 60° while surfaces contain minor limonite, calcite, neotasite, pyrolusite. 44.5 - 44.7m - cherty horizon containing disseminated pyrite; associated with Fe-calcite stringers. 46.3 - 47.3m - similar cherty horizon, more calcic - micro-fractures 45°, contorted and contain 1% pyrite, chalcopyrite and pyrrhotite.	64.31	65.53	91	
			65.53	65.83	100	
			65.83	67.66	100	
			67.66	69.18	100	
			69.18	70.71	93	
			70.71	72.23	100	
			72.23	73.76	97	
			73.76	75.28	100	
			75.28	76.8	100	
			76.8	78.33	100	
			78.33	79.85	98	

GEOLOGICAL LOG			ASSAY RECORD			
METERAGE	G LOG	DESCRIPTION	FROM (M)	TO (M)	% RECOVERY	COMPOSITE
		Sharp transition into finely banded (45°) calcic meta-argillite. Appears to be 2 banded subunits these are: a) siliceous scapolitic meta-argillite b) Carbonate veins including idiocrase, tourmaline of possibly corrundum. Disseminated sulphides (ie. pyrite, chalcopyrite, pyrrhotite) and oxides (ie. ilmenite) observed within calcareous material as well as along contacts of (a) & (b). Silica alteration becoming stronger at 55.4m., by 56.99 resembles a banded chert and by 58.64 is completely silicified and contains minor disseminated chalcopyrite and pyrite throughout. At 58.0m. zone of massive sulphides 2% chalcopyrite, pyrite and magnetite.	79.85	81.38	100	
			81.38	82.9	98	
			82.9	84.42	99	
				END OF HOLE		
58.64 - 84.42		Transition into steel-grey metavolcanic unit. Top 3 m. weakly hematized and strongly fractured mylonitic. Metavolcanic unit contains myriad of quartz-carbonate stringers and fracture-fill veins. Fractures trend 35-50°. Where highly fractured, unit is leached, limonitic and altering to clay. The calcareous veinlets contain trace amounts of disseminated sulphides. END OF HOLE - 84.42m.				

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No V-2-80 PAGE 1 OF 2
PROJECT Fairchild

LOCATION Vole Group	START August 8, 1980 FINISH August 11, 1980	ASSAY BY Chemex Labs Ltd.
BEARING Az 200° DIP -45° ELEVATION 1606 m	CONTRACTOR E. Caron Diamond Drilling	CERTIFICATE (S)
LENGTH 95.09 m PROPOSED LENGTH	TESTS Sperry-Sun	
CORE SIZE HQ OVERALL RECOVERY 95-98%	LOGGED BY K. McNaughton, B. Harmeson DATE LOGGED	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Sperry-Sun Deviation test: (@ 95.09 m)
	- 50° @ Az 196°
0 - 2.7	OVERBURDEN
2.7 - 12.8	Unit composed of very fine grained to fine grained siliceous, calcic metasiltstone. Strongly weathered and leached appearance.
	Banding not always present, becomes slightly more pronounced below 5.84 m where trends 60°, and below 6.18 m trends 45°.
	Unit weakly to moderately fractured throughout, fractures trend parallel to banding 60°. Strongly fractured between 6.18 & 12.44 m where trends 45°. Fracture surfaces contain limonite, CO_3 and fine grains wollastonite. Fracture surfaces also contain minor malachite, azurite associated with trace disseminated sulphides, (ex. 3.0-4.78 m)
	12.44-12.8 m- leached fault gouge
12.8 - 19.3	Very fine to fine grained calcic metasiltstone. Section poorly banded and where present appears somewhat contorted, trending 20°. Some micro-folding reflected through some of the bands.
	Unit weakly fractured, dominant orientation parallels banding at 20°. Fracture surfaces contain limonite and pyrolusite, minor neotasite.
	Trace amounts of disseminated sulphides.
19.3 - 28.2	Similar siliceous metasiltstone, section contains higher calcite content. Majority of carbonate contained within quartz carbonate stringers.
	Unit poorly banded throughout, where present trends 5°. Fine grains wollastonite observed within isolated bands.
	In isolated areas unit appears slightly brecciated. Fractures nearly vertical; limonite and pyrolusite along fracture surfaces.
	Trace disseminated sulphides observed as well as fine grains specularite.

ASSAY RECORD (ppm)

NO.	FROM (m)	TO (m)	FT	Cu	Co					COMPOSITE
	16.0	16.7		6.0	10.0					
	36.5	37.3		6.0	6.0					

GEOLOGICAL LOG			ASSAY RECORD											
METERAGE	G LOG	DESCRIPTION	NO.	FROM (m)	TO (m)	% Recovery FT / m			From (m)	To (m)	% Recovery		COMPOSITE
				0	3.69				87.17	88.69	100		
28.2 - 34.97		Banded layers of weakly brecciated very fine grained to fine grained metasiltstone. Bands seem to trend 45°. Unit contains higher % carbonate calcite both within matirx and as vein material.		3.69	5.18	100			88.69	90.22	100		
				5.18	6.9	100			90.22	92.04	88		
				6.9	8.22	100			92.04	93.57	100		
				8.22	9.75	100			93.57	95.09	98		
				9.75	11.27	100							
		At 32.0 m, first occurrence of fragments of silicified mudstone within siltstone, also at 32.0 m banding not as well defined.		11.27	12.8	93							
				12.8	14.32	100							
				14.32	15.34	100							
		Unit is weakly fractured throughout, trend 45° and surfaces contain minor limonite, pyrolusite.		15.34	17.0	100							
				17.0	18.59	100							
				18.59	20.11	100							
		Minor disseminated sulphides observed, normally associated with quartz carbonate stringers & CO_3 veins. Few specks ilmenite present.		20.11	21.64	100							
				21.64	23.46	93							
				23.46	24.99	100							
				24.99	26.51	100							
34.97 - 48.61		Unit consists of a siliceous weak to moderately calcareous scapolitic meta-argillite (metapelite?)		26.51	28.93	64							
				28.93	29.56	100							
				29.56	31.08	100							
		Banding more prominent in calcic rich zones, trend 40°. Few altered wollastonite lathes also observed within calcic zones.		31.08	32.0	100							
				32.0	33.52	100							
				33.52	34.13	100							
		Quartz/CO_3 veins often carry minor amounts of very fine grained pyrrhotite and pyrite.		34.13	35.66	100							
				35.66	37.18	89							
				37.18	38.7	100							
		Minor disseminated sulphides observed within meta-argillite observed (38.05-38.3 m)		38.7	40.23	100							
				40.23	41.95	93							
				41.95	43.28	100							
48.61 - 53.9		Banded, weakly calcareous albitized metasiltstone; moderately leached. Contains siliceous, cherty bands. Fine grains of actinolite, tremolite, wollastonite etc. observed along contact auveoles between the cherty lenses and calcareous metasiltstone. Banding generally trends 45°.		43.28	44.8	100							
				44.8	46.32	92							
				46.32	47.85	100							
				47.85	48.46	100							
				48.46	49.37	100							
				49.37	50.9	100							
		Section normally weakly fractured Between 50.7 & 52.35 m a marked increase in fracturing (45°) where disseminated chalcopyrite, pyrite (1-2%) is observed. Fracture surfaces contain limonite, dendritic pyrolusite and occasional malachite staining.		50.9	52.42	100							
				52.42	55.47	100							
				55.47	56.99	100							
				56.99	58.52	100							
				58.52	60.04	100							
				60.04	61.26	82							
53.9 - 57.62		Very strongly silicified, poorly banded, weakly calcareous metasiltstone. Similar to above. A thermal contact zone containing minor disseminated sulphide mineralization plus fine grains of ilmenite.		61.26	63.09	100							
				63.09	64.51	100							
				64.51	66.14	83							
				66.14	67.66	100							
				67.66	69.18	100							
57.62 - 95.09		Contact with metavolcanic sequence.		69.18	70.71	92							
				70.71	72.23	100							
		57.62-61.26 - a moderately hematized agglomeratic section, moderately siliceous and containing minor disseminated sulphides (< 1%) and traces ilmenite.		72.23	73.76	100							
				73.76	75.28	100							
				75.28	76.8	100							
				76.8	78.33	100							
				78.33	79.85	92							
		At 61.26 m - progression into steel-grey metavolcanic section. Unit cut by myriad of quartz/CO_3 veining and occassional hematized breccia carrying trace amounts of sulphides and varying amounts of massive and disseminated specularite.		79.85	80.77	92							
				80.77	82.29	100							
				82.29	83.82	100							
				83.82	85.64	100							
		END OF HOLE - 95.09 m		85.64	87.17	100							

D.D.H. Nº V-2-80 PAGE 2 OF 2

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No V-4-80 PAGE 1 OF 2
PROJECT FAIRCHILD

LOCATION Vole Group
BEARING Az 229° DIP -60° ELEVATION 1606 m
LENGTH 93.57 m PROPOSED LENGTH
CORE SIZE NQ OVERALL RECOVERY

START August 15, 1980 FINISH August 18, 1980
CONTRACTOR E. Caron Diamond Drilling
TESTS
LOGGED BY K. McNaughton DATE LOGGED

ASSAY BY Chemex Labs Ltd.
CERTIFICATE (S)
SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0 - 3.2	OVERBURDEN
3.2 - 37.2	Fine grained spotty, scapolitic calcareous (Mg) metacarbonate Blebs of scapolite, carbonate measure 2-3 mm in size. The unit remains moderately banded (regional?) throughout banding trends 70° at top of section & trends 40° towards the base of the section. Isolated fractures are well washed & are oriented sub-parallel to banding. 5.8-6.4 m - fine grained disseminated chalcopyrite and pyrrohotite with minor malachite and neotasite 14.58-15.36- very fine grained sulphides in CO_3 vein (.5%) 29.1 -29.54- fine grained chalcopyrite and cobaltite (.25-1%) 31.9 -32.27- very fine grained cobaltite with CO_3 infilling micro-fractures
37.02 - 58.54	Banded calcareous metasiltstone unit composed of alternating bands of green-black siltstone. Unit contains lathes of (Fe) actinolite-diopside (?) which concur with banding trending 40°. 34.2-37.0 - massive chalcopyrite, pyrite, arsenopyrite & possible cobaltite which appear to have replaced CO_3 along bedding/ banding fractures 38.4-48.2 - pyrite, arsenopyrite, chalcopyrite, minor cobaltite (?) deposited along micro-fractures within CO_3 stringers; they are associated with grains actinolite, hornblende. 48.2-58.54- fine grained disseminated grains of sulphides throughout (.25%)
58.54 - 92.17	Unit composed of a interlaminated cherty-breccia, both sub-units are moderately calcareous. 60.34-61.45 - fine grains pyrite in CO_3 veins (5%) - appears as replacement along micro-fractures

ASSAY RECORD (ppm)

FROM (m)	TO (m)	Cu	Co	COMPOSITE
7.2	7.8	240.0	22.0	
19.9	20.6	80.0	12.0	
23.1	24.0	250.0	12.0	
31.6	32.4	90.0	26.0	
37.5	38.0	120.0	12.0	
43.5	44.0	50.0	14.0	
63.2	63.7	265.0	68.0	
68.2	68.7	45.0	22.0	
77.6	78.2	20.0	10.0	

GEOLOGICAL LOG			ASSAY RECORD			
METERAGE	G LOG	DESCRIPTION	FROM (m)	TO (m)	% RECOVERY	COMPOSITE
			0	4.1		
		69.1-70.6 - very fine grained specularite disseminated within breccia lens	4.1	7.92	100	
			7.92	11.27	100	
		72.22-73.37-fine grained pyrite, replacement along CO_3 micro-fracture	11.27	12.19	100	
			12.19	14.63	100	
		74.41-74.79-very fine grained pyrite disseminated throughout	14.63	16.15	100	
			16.15	17.37	100	
			17.37	19.2	100	
		79.73-80.23-very fine grained disseminated sulphides, replacing CO_3 along microfractures	19.2	21.03	55	
			21.03	22.25	100	
			22.25	23.46	100	
		85.57-87.07-fracture surfaces containing minor disseminated chalcopyrite and pyrite with malachite and neotasite	23.46	25.9	100	
			25.9	28.16	81	
			28.16	31.08	95	
92.17 - 93.57		Dark steel-grey metavolcanic unit. Fracture-filling common and totally composed of calcite. Unit contains few breccia lenses (commonly associated with hematite & specularite.	31.08	33.52	100	
			33.52	35.66	100	
			35.66	38.7	98	
			38.7	41.75	94	
			41.75	44.8	100	
			44.8	45.72	93	
			45.72	47.85	100	
			47.85	50.9	94	
			50.9	53.94	100	
			53.94	56.99	100	
			56.99	60.44	100	
			60.44	63.09	100	
			63.09	65.22	92	
			65.22	68.27	100	
			68.27	71.32	100	
			71.32	74.37	100	
			74.37	77.47	98	
			77.47	78.33	99	
			78.33	81.38	100	
			81.38	84.42	100	
			84.42	87.47	100	
			87.47	90.52	100	
		END OF HOLE 93.57 m	90.52	93.57	93	

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-6-80 PAGE 1 OF 2
PROJECT Fairchild

LOCATION Eagle Grid
BEARING 195° DIP -45° ELEVATION 850 m
LENGTH 126.8 m PROPOSED LENGTH
CORE SIZE NQ OVERALL RECOVERY 93.8%

START August 21, 1980 FINISH August 24, 1980
CONTRACTOR
TESTS
LOGGED BY G. Chabot DATE LOGGED Sept. 7, 1980

ASSAY BY Chemex Labs Ltd.
CERTIFICATE (S)
SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0.0 - 1.22	OVERBURDEN
1.22 - 12.77	SPOTTED INTERBEDDED METASILTSTONE/META-ARGILLITE/METACARBONATE -light grey to dark grey in color -interbedded metasiltstone/argillite - the banding has been distorted and locally destroyed by metamorphic alteration ie. scapolite and grossularite -grossularite increases in size and abundance downwards, giving the core a pinkish colour and texture - it is generally found in bands which are at approximately 90° to the core axis. -core is quite calcic with wollastonite being commonly observed -core is weakly fractured @ 30° to core axis -minor disseminated sulphides present -broken core at 6.5 to 6.8 m -5.0-5.1; 6.8-6.9; quartz-CO_3 veinlets @ 45° to core axis -9.65-9.85; quartz-CO_3 vein parallell to core axis - $\leq$ 1% disseminated cpy, py.
12.77 - 14.2	WAVY BEDDED SCAPOLITIC SILTSTONE (POSSIBLE GREISEN) -siltstone with undulating alteration bands -strongly altered - mainly grossularite -weakly fractured @ 40° to core axis -minor disseminated sulphides - mainly cpy.
14.2 - 25.71	SPOTTED INTERBEDDED METASILTSTONE/META-ARGILLITE -similar to 1.22-12.77 -grossularite often found as augens -20.1-20.6 - coarse grained, strongly grossularitzed -minor disseminated sulphides especially along CO_3 fracture fillings eg. 20.82 cpy in CO_3
25.71-31.60	WAVY BEDDED SCAPOLITIC SILTSTONE (POSSIBLE GREISEN) -similar to 12.77 m to 14.2 m -sulphides ($\leq$ 3%) mainly pyrrhotite with chalcopyrite and pyrite found conformable to wavy beds -2 quartz CO_3 filled fractures ($\leq$ 4 cm wide) at 26.26 to 27.26 and 30.16 to 30.36 and both folded about the core axis -the first stone contains blebs of cpy, the second contains pods of cpy ($\leq$ 2 %)

ASSAY RECORD (ppm)

FROM (m)	TO (m)	Cu	Co	COMPOSITE
30.18	30.48	1500	14	
32.53	32.68	5500	34	
35.9	36.05	720	176	
37.8	37.95	290	245	
43.82	43.97	880	178	
45.03	45.18	1200	200	
56.62	56.77	>10000	178	
62.1	62.26	3700	12	
122.45	122.6	350	120	

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
			86129	34.45	34.80							
31.60 - 37.75		META-ARGILLITE	86130	37.24	37.59							
		-dark grey to black, very fine grained, massive	86131	41.06	41.41							
		-less calcic, more silicic; exhibits fine banding at 90° to core axis	86132	43.15	43.50							
		-moderately fractured at 50° to core axis	86133	50.11	50.46							
		-contains pyrite with cpy especially along fracture surface 2% - also stringers conformable to bedding	86134	51.50	51.85							
			86135	64.73	65.08							
			86136	70.99	71.34							
			86137	139.90	140.25							
37.75 - 126.8		INTERBEDDED SCAPOLITIC METASEDIMENTS/META-ARGILLITE										
		-light grey to dark grey in color with a hardness of 4 to 5										
		-generally calcic with local siliec zones - eg. 37.1-44.3 - more brittle, almost cherty - numerous hairline fractures often filled with CO_3										
		-bedding angle is ~ 90° to core axis from 37.75 to 60.0 m										
		-from 60.0 m to 126.8 m the bedding angle is approximately 75°										
		-minor epidote along fractures - eg. 76.2										
		-39.7-40.5 - sulphides along fractures at 0° and 30° to core axis - py and cpy $\leq$ 1%										
		-56.69-57.29 - massive pyrrhotite with chalcopyrite @ 30° to core axis ($\leq$ 1 cm) at 56.69 to 56.91 and from 57.05 to 57.29 there is massive cpy within pyrrhotite.										
		-76.6-76.9 - chalcopyrite stringers in and across quartz CO_3 veins $\leq$ 5%										
		-122.6-122.8 - stringers and disseminations on pyrrhotite and trigonal sulphide crystals (arsenopyrite?)										
126.8 m		END OF HOLE										
		CORE STORED AT FAIRCHILD LAKE CAMP										

D.D.H. Nº E-6 80 PAGE 2 OF 2

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-1-80 PAGE 1 OF 14
PROJECT FAIRCHILD LAKE

LOCATION EAGLE GRID 29+89SW/30+32NW	START June 13, 1980 FINISH June 19, 1980	ASSAY BY CHEMEX
BEARING 252° DIP -45° ELEVATION 937.47 m	CONTRACTOR E. CARON DIAMOND DRILLING	CERTIFICATE (S)
LENGTH 107.48 m PROPOSED LENGTH	TESTS B. Harmeson	
CORE SIZE HQ OVERALL RECOVERY 98%	LOGGED BY R. Beaton DATE LOGGED	SEE CALCULATION SHEET NO.

Core axis - 90°

0°

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0 - 3.14	Overburden and completely broken rock, some chalcopyrite, pyrite and erythrite.
3.14 - 3.65	Unit consists of very fine to fine grained dark green meta-argillite, contains little or no carbonate. Very fine stringers of quartz observed. Unit appears massive as no attitude of bedding is seen. Unit is well broken throughout. Fracture surfaces contain limonite, MnO_2, and brown Fe gossan. Few fracture surfaces contain minor amounts of talc. Unit appears strongly chloritic throughout. Fracture surfaces seen to contain, in addition, specks malachite, dark blue tarnished chalcopyrite, pyrite and erythrite (3.27 m).
3.65 - 5.73	With depth unit remains the same, ~3.65 m, meta-argillite contains a slightly higher percentage of fine quartz bands (parallel to core axis) which contain minor amounts of pyrite, chalcopyrite. Neotasite seen along laminae parting. Fine plates covellite also observed. Brown Fe gossan throughout. White hydro-zincite. Blebs pyrolusite, chlorite throughout. Leached zones contain pyritic cubes. No calcite. Intensely fractured and broken to 5.73 m.
5.73 - 6.0	Similar unit, not as fractured and broken. Fine quartz stringers (perpendicular to core axis) carry trace amounts of sulphides. Stringers seen at 0°, 45°, 90°. Unit appears more laminated. Fracture at 6.17 m at 30° contains CO_3 as well as trace amounts malachite, ozurite, hydro-zincite, neotasite and pyrolusite within limonitic and brown Fe gossan zone.
6.0 - 7.07	At 6 m, increase in fractures, minor calcite within meta-argillite little or none along fracture surfaces. Fracture surfaces contain neo-tasite, pyrolusite, tarnished film of chalcopyrite as well as abundant limonite and Fe gossan. Laminae more pronounced within meta-argillite.
7.07 - 7.62	Fracturing not as pronounced. Meta-argillite gradually attaining a "spotty" porphyritic nature. Blebs of quartz grains dot the dark green ground mass (7-7.27 m). Laminae mentioned above caused by fine quartz horizons within the unit, seen to contain minor amounts of disseminated sulphides. Laminae seen to range from 0-10°. Few zones within the argillite contain subeuhedral fine grains garnet. Fracture surfaces contain the usual limonite, pyrolusite. From 7.35-7.62 m a thin coating or minor erythrite coating on fracture surfaces. Fractures oriented 20° and 50°. Pyrolusite well represented on limonitic fracture as well as trace amounts of malachite and blue tarnished chalcopyrite.

ASSAY RECORD

NO.	FROM	TO	% Re-covery	COMPOSITE
	0	3.65	-	
	3.65	4.88	100	
	4.88	6.4	100	
	6.4	7.62	100	
	7.62	9.14	100	
	9.14	9.75	100	
	9.75	12.11	88	
	12.11	12.8	100	
	12.8	14.32	100	
	14.32	15.84	100	
	15.84	16.45	100	
	16.45	17.98	100	
	17.98	18.89	100	
	18.89	20.42	100	
	20.42	21.94	100	
	21.94	23.46	100	
	23.46	24.96	100	
	24.96	26.51	100	
	26.51	28.04	100	
	28.04	29.56	100	
	29.56	31.08	89	
	31.08	32.61	100	
	32.61	34.13	97	
	34.13	35.66	100	
	35.66	37.18	100	
	37.18	38.7	100	
	38.7	40.23	100	
	40.23	41.75	100	
	41.75	43.28	100	
	43.28	44.8	100	
	44.8	46.32	100	
	46.85	47.85	100	
	47.85	50.9	100	
	50.9	52.52	100	
	52.52	53.94	100	
	53.94	55.47	100	
	55.47	56.99	100	
	56.99	58.52	100	
	58.52	60.04	100	
	60.04	61.56	100	
	61.56	64.61	100	
	64.61	66.14	100	
	66.14	69.18	100	
	69.18	73.15	100	
	73.15	75.58	100	
	75.58	76.8	100	

GEOLOGICAL LOG			ASSAY RECORD								
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	% Recovery					
				76.80	78.33	100					
7.62 - 8.68		Unit appears the same though very massive and somewhat more siliceous than earlier. Quartz stringers (and very minor amounts calcite) observed through the section. Intersect the meta-argillite at 0° and 60° (60° is parallel to isolated fractures). Very trace amounts of disseminated sulphides observed within the stringers and odd isolated quartz/low CO_3-0° banding.		78.33	79.85	98					
				79.85	81.38	100					
				81.38	82.90	100					
				82.90	84.42	100					
				84.42	85.45	100					
				85.45	87.47	100					
				87.47	89.00	100					
				89.00	90.52	100					
		Similar very fine to fine grained dark green shaly meta-argillite. Chloritic and weakly siliceous. Unit weakly laminated, laminae subhorizontal (45-50° true). Seen to contain fine quartz and minor calcic microfractures (10°, 30°, 80° from horizontal) observed to contain disseminated and vein chalcopyrite and pyrite (< 5-20% by vol.). Unit weakly fractured, fractures fairly isolated and trend 70°, fracture surfaces contain limonite, chlorite with a film of hydro-zincite, specks covellite, chalcopyrite, disseminated erythrite.		90.52	92.04	100					
				92.04	93.57	100					
				93.57	95.09	100					
				95.09	96.67	100					
				96.67	98.15	100					
				98.15	99.66	100					
				99.66	101.19	96					
				101.19	102.71	100					
				102.71	104.54	91					
		With depth, unit contains a slightly higher proportion of calcic laminae, these invariably contain amounts of sulphide mineralization. Bedding ~ 10° from horizontal. Grossularitized zones observed cutting unit. These zones vary in intensity. Tend to be mineralized - chalco, pyrite, disseminated erythrite, pyrolusite, neotasite as well as limonite, chlorite and Fe tarnish. Minor amounts CO_3.		104.54	105.76	100					
				105.76	107.48	100					
8.68 - 9		Grossularitized zone bounded by schistose zone which is highly calcic unit, also contains an irregular mass of wollastonite. Dark bands produced by biotite chlorite minor magnetite. Attitude of foliation 0-5°. This schistose unit contains ~ <5% sulphides (chalcopyrite). The sulphides normally contained along foliation and banding. Few grains chalcocite observed along isolated fracture sufaces. Possible disseminated grains cobaltite(?).									
		Below this schistose lens, graduate back into grossularitized zone, again carrying ~ 2-3% sulphides. The grossularitized zones ~ generally moderately calcic.									
9.00 - 11.27		By 9 m, unit returns to a much more argillitic character. Isolated fractures seen to contain pyrolusite (neotasite), trace of malachite and patches. Microfractures observed throughout, oriented 10 and 50° again contain appreciable sulphides 2-3%. With depth, unit continues, occasional microstringers-microfolded zones of grossularized argillite resemble bands within the country rock. 9.75 m - fracture surface containing neotusite (black), pyrolusite (bluish-black) chalcocite (grey). Fracture trends 90° (subparallel to core axis) and exists to 10.2 m. Microstringers present - again contain disseminated fractures, some microfolding. Again contains grossularized zones (disseminated sulphides <2%). Extending from fracture down to 10.7 m is quartz veinlet which too contains grossularitic zoning and < 2% dissminated sulphides.									
		With depth, weakly banded (quartz/CO_3 bands ~.5 cm) meta-argillite continues. Isolated fractures observed (oriented 50°) along fracture, surfaces contain minor calcite, pyrolusite, limonite with isolated traces of malachite, hydro-zincite.									

GEOLOGICAL LOG

METERAGE	G LOG	DESCRIPTION
11.27 - 18.08		Similar unit, observed also to contain varying thicknesses of grossularitized lenses (.5-2 cm). These zones lie ~5° from horizontal, contain minor albite and carry trace of disseminated sulphides (chalco, pyrite). Fine quartz/CO_3 stringers subparallel to these zones, which also contain minor blebs sulphides. These fine stringers appear fairly planar and trend <10°; fine stringers also observed oriented at 20 and 40°, these too contain minor sulphide mineralization. With depth, similar unit continues, composed of fine grained meta-argillite interlaminated with weakly calcic grossularitized zones (trend 0-20°) and minor harline stringers of quartz and CO_3. Isolated fractures dispersed throughout, trending 40, 60, and 80°. Sulphide mineralization contained in 1-3% throughout above-mentioned areas. At around 14.8 m, speckled grossularitized or metasomatized zones more common, normally trending 10°. Not as planar as before as tend towards a wavy profile. In general, unit has undergone grain size increase. Fracture surfaces containing limonite, chlorite, pyrolusite (neotasite) and minor blebs malachite, and occasional trace azurite. Grosullarite garnet in varying stages of development. 16.45 m, 60° fracture containing malachite and visible chalcopyrite along fracture surface. Fracture surface observed to be anomalously limonitic and calcic with few flakes serecite and talc. The chalco-pyrite is located within an envelope about the fracture surface. With depth, unit appears spotty due to varying degrees of grossularitization.
18.08 - 18.50		At 18.08 m, unit undergoes slight change in that grossularitized zones are not as widespread. Unit now appears slightly more chloritic, still weakly siliceous and slightly finer grained. Grossularitized zones still present, but now generally thinner. Unit still banded (~ 10-15°) and contains microfractures of quartz and CO_3 running ~10-20°.
18.50 - 20.57		Around 18.5 m, unit regains a more spotty apperance as alteration increases. At 18.8 m, fracture running 70°, abundant blebs pyro-lusite, limonite and talc. Few isolated grains azurite/covellite. Fracture set/system continues to 19.7 m. Some kyanotic material observed also along fracture surface. At 19.7 m, unit contains veins of grossularitic alteration. Vein at 70-90° contains fine to very coarse anhedral-subhedral garnet, coarse grains quartz, moderately calcitic. Minor blebs malachite observed. This vein is later in emplacement, biotite observed along outer margins of veinlike envelope. This grossularitized vein extends to ~20.4 m. Very minor sulphides. At 20.9 m, isolated fracture at 60°, containing 3% sulphides and moderate neotasite and malachite gossan. Unit remains same. Grossularitic lenses well represented.

ASSAY RECORD

CORE SAMPLED

NO.	FROM	TO	FT / m	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ni ppm	Au ppb	Co ppm	Cd ppm	SN ppm	W ppm	Ag ppm
1	0	3.65	↑	34	1	56	85	72	20	510	3.4			1.2
2	3.65	4.87		78	1	18	40	48	< 5	320	0.2			1.4
3	4.87	6.5		42	1	72	50	34	< 5	180	0.2			1.0
4	6.5	7.42		1650	2	38	60	56	< 5	450	0.1			2.0
5	7.42	8.75		655	4	2	30	86	< 5	1750	0.1			0.2
6	8.75	9.75	ppm	1200	2	6	45	32	< 5	145	0.1			0.8
7	9.75	11.28		570	1	1	30	28	< 5	100	0.1			0.1
8	11.28	12.81		630	1	1	20	20	< 5	45	0.1			0.1
9	12.81	14.34		1000	2	1	20	20	< 5	20	0.1			0.1
10	14.34	15.87		530	3	1	20	20	< 5	20	0.1			0.1
11	15.87	17.40		420	2	1	20	20	< 5	20	0.1			0.1
12	17.40	18.93		255	1	1	10	20	< 5	15	0.1			0.1
13	18.93	20.46	↓	60	1	1	30	22	< 5	25	1.4			0.1
14	20.46	20.76	↑	<0.01%	<0.001	<0.01	<0.01	<0.01	<.003	.002%				<.01 oz/ton
15	20.76	21.07		0.09					oz/ton	.003%				<.01
16	21.07	21.37		0.11						.003%				<.01
17	21.37	21.68		1.0						.038%				.08
18	21.68	21.98		0.39						.009%				.01
19	21.98	22.29		0.15						.008%				<.01
20	22.29	22.60		0.08						.006%				<.01
21	22.60	22.90	<	0.01						.005%				<.01
22	22.90	23.20		0.1						.005%				<.01
23	23.20	23.50	%	0.32						.008%				<.01
24	23.50	23.81		0.05						.003%				<.01
25	23.81	24.11	<	0.01						.003%				<.01
26	24.11	24.42		3.28						.015%				.25
27	24.42	24.72		0.2						.004%				<.01
28	24.72	25.03		0.07						.005%				<.01
29	25.03	25.33		0.06						.005%				<.01
30	25.33	25.64	<	0.01						.003%				<.01
31	25.64	25.94		0.01						.002%				<.01
32	25.94	26.25		0.01						.002%				<.01
33	26.25	26.55	↓	0.05	↓	↓	↓	↓	↓	.002%				<.01
34	26.55	28.08	↑	1050	1	6	25	16	< 5	25	0.1			0.1
35	28.08	29.61	ppm ↓	570	1	1	20	22	< 5	20	0.1			0.1
36	29.61	29.92	↑ <	0.06	<0.001	<.001	<.01	<.01	<.003	.003%				.05 oz/ton
37	29.92	30.22		0.05					oz/ton	.003%				.04
38	30.22	30.53		0.05						.003				<.01
39	30.53	30.8		0.04						.002				
40	30.8	31.1	<	0.01						.002				
41	31.1	31.41	<	0.01						.006				
42	31.41	31.71	<	0.01						.004				
43	31.71	32.02	%	0.16				.03		.089				
44	32.02	32.32		0.29				.03		.092				
45	32.32	32.53		0.05				.01		.013				
46	32.53	32.84		0.15						.016				
47	32.84	33.14		0.41						.072				
48	33.14	33.45		0.05						.005				
49	33.45	33.76		0.28						.011				
50	33.76	34.07	↓	0.11	↓	↓	↓	↓	↓	.005				↓
51	34.07	35.25	↑	2000	2	8	20		15	315	0.1	1.0	1.0	0.1
51B	35.25	37.6		3000	2	2	20		20	520	↓	1.0	75	↓
52	37.6	38.7		178	1	4	20		5	300		1.0	2	
52B	38.7	40.32	%	340	2	8	15		5	172		1.0	1.0	
53	40.32	42.23		990	1	6	15		5	138		1.0	1.0	
54	42.23	43.28		540	1	8	25		5	50		1.0	1.0	
54B	43.28	45.00	↓	1000	1	16	40		5	64		1.0	1.0	↓

GEOLOGICAL LOG

METERAGE	G LOG	DESCRIPTION
		Similar grossularitic meta-argillite unit continues. Sulphides not abundant. Quartz content appears to be increasing slightly. Unit remains banded throughout. Grossularitized veins are non conformable to bedding but fairly gradual. Isolated fractures contain limonite, pyrolusite and minor specks malachite.
20.57 - 20.76		At 20.57 m, limonitic fracture at 40°, contains chalcopyrite. At 20.6 m, enter a fairly thick grossularitized zone (~20 cm), carrying goethite, pyrolusite, weakly siliceous, ground mass of chloritic green-grey meta-argillite. Garnets small and fairly well developed.
20.76 - 21.81		Isolated fractures at 40° - carrying abundant chalcopyrite and crystals of pyrite/arsenopyrite. Ground mass of argillite moderately to strongly siliceous. Here unit contains fine blebs of calcite/quartz which also carry varying sulphide mineralization. At 21.67 m, unit becomes slightly more siliceous, resembling a poorly segregated gneiss. This unit is moderately to strongly grossularitized throughout composed of garnet, quartz, sillimanite, serecite and fine-grained meta-argillic ground mass.
21.81 - 24.00		At 21.81 m, similar unit - banding destroyed. Unit contains moderate amounts of CO_3 and much of biotite has been metamorphically changed to magnetite. Again garnets and wollastonite observed with calcite. Unit 20-25% magnetite. Biotite grains still present, seen associated with minor specks disseminated chalcopyrite. Garnets appear randomly oriented. With depth, this magnetitic zone contains much more grossularitized, or garnet rich zones. These too are quartz rich and carry no sulphides. These more highly grossularite zones are also weak to strongly chloritic. Isolated fractures observed (20°) - normally limonitic, Fe gossan - lack of sulphide gossan. With depth biotite taking place of magnetite (gradually). Ground mass highly siliceous ~ ferromags. Garnets occur throughout, sulphides <1% observed about regions containing garnets or larger grain size. Sillimanite observed along foliation (0-5°). More calcic regions observed to carry disseminated chalcopyrite (23.3-23.46 m). Grossularitic zone 23.46 to 24.06 m - no sulphides observed here - strongly siliceous, this siliceous zone does not carry sillimanite.
24.00 - 25.29		3 cm thick vein-fill chalcopyrite, with fine blades (< 3%) arsenopyrite. Mineralized zone also contains fractured garnets and isolated flakes biotite. Below chalcopyrite zone sillimanite unit reappears, ample calcite and biotite and garnetiferous. Drastic decrease in sulphides. Same vein-fill cavities filled with siliceous, chloritic dark green ground mass. Disseminations of pyrolusite. Ground mass highly siliceous and contains very fine fragments biotite.

CORE SAMPLED / ASSAY RECORD (ppm)

NO.	FROM	TO	FT/m	Cu	Mo	Pb	Zn	Au ppb	Ag	Co	Cd	SN	W
55	45.0	46.5		700	1	14	35	< 5	0.1	154	0.1	1.0	1.0
55B	46.5	48.0		1100	1	6	40	5		108	0.1		1.0
56	48.0	50.0		290	1	4	15	< 5		72	0.1		1.0
56B	50.0	52.4		775	1	6	20			16	0.4		1.0
57	52.4	54.5		1650	2	2	20			14	0.1		1.0
57B	54.5	56.72		560	3	1	10			16	0.1		1.0
58	56.72	59.0		1500	1	4	8	↓	↓	78	0.1		1.0
58B	59.0	61.0		>4000	1	20	10	10	0.8	148	0.1		1.0
58C	61.0	63.48		>4000	1	30	12	80	0.6	475	0.2		1.0
59	63.48	65.5		545	1	4	6	< 5	0.1	56	0.1		4
59B	65.5	67.5		34	1	2	4			24	0.1		3
59C	67.5	69.8		12	1	2	2			18	0.1		3
60	69.8	71.5		16	1	4	2			14	0.1		5
60B	71.5	73.68		20	1	2	2			22	0.1		5
61	73.68	75.5		18	1	2	4	↓		10	0.1		4
61B	75.5	77.95		10	1	4	4	5		6	0.2		12
62	77.95	80.0		8	2	4	6	5		10	0.1		10
62B	80.0	82.04		8	1	2	4	< 5		10	0.1		6
63	82.04	84.10		54	1	2	2			8	0.1		4
63B	84.1	86.23		26	1	2	2			8	0.1		2
64	86.23	88.23		6	1	4	2			6	0.1		3
65	88.23	90.5		8	2	2	2			10	0.2		4
66	90.5	92.5		10	1	2	4			10	0.1		3
67	92.5	94.39		138	1	2	4			12	0.1		2
68	94.39	96.4		190	1	2	6			44	0.1		1
69	96.4	98.4		220	1	2	2			12	0.1		2
70	98.4	100.4		6	1	2	2			8	0.1		2
71	100.4	102.4		12	1	2	2			4	0.2		2
72	102.4	104.4		6	1	2	2			4	0.1		2
73	104.4	106.4		6	1	2	1	✓		2	0.1		1
74	106.4	107.48		6	1	2	2	20	↓	4	0.1	↓	3

D.D.H. Nº E-1-80 PAGE 4 OF 14

GEOLOGICAL LOG			ASSAY RECORD											
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
		Isolated fractures not too common, appear largely limonitic, minor malachite, sericitic and trend 40 and 80°. Siliceous, grossularitized unit continues.											
25.29 - 26.83		Unit similar but appears slightly more siliceous, basically a fine-grained siliceous ferro-magnesian rich meta-argillite. Specks preserved as before, but these "flakes" appear to be white mica. Again seen to contain few grains sillimanite. With depth, unit attains an equidimensional sugary texture, higher CO_3 content. Unit contains odd Qtz/CO_3/very fine grains garnet stringers - contain minor disseminated chalcopyrite/pyrite (25.87 m).											
26.38 - 29.98		Unit moderately fractured and broken - fracture surfaces contain abundant CO_3, serecite, chlorite, talc (oriented 70-80° - fractures) hydro-zincite pyrolusite. Banding (still thin) observed. At 28 m trace of malachite on fracture surface, 28.04 m microfracture (30°) containing disseminated chalcopyrite. Fractured zone contains ample Fe gossan. From 28 to 29.06 m, slightly more malachite observed along fracture surfaces. Occasional Qtz/CO_3 carrying chalcopyrite (30 and 60°). Unit carries abundant pyrolusite along fractures. Fractured zone continues to 29.67 m. From 29.67-29.98 m zone of intensely broken rock--abundant kaolin, talc, low CO_3 - well bleached. Few grains malachite.											
29.98 - 31.84		Similar spotty fine-grained meta-argillite continues. Laminae trend 10-20° from horizon. Area weakly fractured throughout: Fe gossan, minor CO_3, limonite, serecite, local talc.											
31-84 - 32.43		At 31.84 m, vertical lying breccia or vein-fill area of mainly (~ 20%) pyrrhotite with minor pyrite and arsenopyrite and chalcopyrite. Unit observed to be banded and microfolded (attitude of flakes of biotite). Unit seen to be cut by fine qtz/CO_3 veinlets which are associated with above mineralization, but on a smaller scale. Minor grains albite along veinlet (?).											
32.43 - 32.9		Considerable decrease in mineralization as contorted unit composed of calcite, quartz, biotite, grossularite with few blebs magnetite becomes more dominant - foliation very contorted but roughly trends 10-15°. Pyrolusite observed long foliation. 32.61-32.77 m - bleached, fractured chloritic zone contains ample chlorite, talc and minor < 2% sulphides. To 32.9 m calcic/biotite unit continues, contains < 3% chalco (dispersed) and occasional pyrrhotitic lens sub-parallel to foliation.											
32.9 - 33.17		At 32.9 m, breccia or vein-fill zone of pyrrhotite and minor chalco and pyrite. Associated with coarse grained quartz vein intrusion. Quartz/pyrrhotite vein extends @ 75-80°) to 33.17 m.											

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
33.17 - 34.84		Below 33.17 m, unit returns to more normal weakly banded, spotty meta-argillite. Fine hairline "chloritic" fractures trending @ 40-60°, 0 & 80° - 80° hairline fractures seen to contain < 1% sulphides. At 33.56, similar quartz vein (75°) containing pyrrhotite, chalcopyrite and pyrite again associated with biotite. At 33.67 m, fracture surface with pyrolusite, calcite and minor sulphides (as above). Trends 70-80°. This continues to 34.84 m, this weakly mineralized zone is associated with medium to coarse-grained quartz and minor CO_3 vein running subparallel to core axis. Contains < 2% chalcopyrite.										
34.84 - 35.42		At 34.84 m, return to fine to medium-grained, weakly siliceous meta-argillite unit. Country rock contains <1% disseminated sulphides. Fine quartz stringers run 60° which contain trace amounts chalcopyrite. At 35.33 m, minor albite observed with quartz stringer, still containing masses chalcopyrite.										
35.42 - 35.77		Contact with fine to medium-grained "white" unit composed primarily of quartz with moderate calcite, and minor amounts of biotite, heavy mineralization (monazite?) and <3% disseminated chalcopyrite.										
35.77 - 37.83		Here above unit seen to have increased in biotite content. With this, unit also contains ~5% pyrrhotite and minor chalcopyrite and pyrite. Mineralization observed sub-parallel to foliation (< 10% from horizontal). Mineralization appears closely related to biotite. Unit cut by thin quartz stringers parallel to foliation. At 36.8 m, within similar unit, here foliation is less contorted as unit seen to contain some actinolite/tremolite. At 36.9 m, lens of quartz vein invading country rock. 37.41 m - trace of erythrite along fracture surface and again at 37.7 m, where observed within hairline fractures trending 60°. Unit gradually resembling siliceous, fine to medium-grained meta-argillite. Minor pyrrhotite observed within biotite/quartz/CO_3 unit. Erythrite observed along series of microfractures at 60-70° cut into country rock at quartz intrusion.										
37.83 - 38.16		Fractured unit, surfaces contain disseminated erythrite, (trend 20 & 80°), associated with minor chlorite, talc and biotite.										
38.16 - 39.03		Fractured unit continues, less erythrite, more chloritic and trace malachite.										
39.03 - 40.32		Unit transitional between fine to medium "gneissic" meta-argillite and dirty siliceous dolastone(?). Cut by quartz veins (0.5-2 cm) @ 60°, observed to carry minor disseminated sulphides. Grains biotite associated with quartz trend. Veinlet contains CO_3, unit contains <1% disseminated sulphides. Transitional unit continues at depth, abundant biotite (also along isolated fractures). Foliation trends 60°. Unit still contains veinlets of quartz/CO_3 disseminated sulphides. Transitional unit, including veining (20 & 50°) continues to 40.32 m.										

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
40.32 - 41.44		Contact medium to coarse grained, dirty biotitic--low quartz--dirty dobstone. Unit contains poorly segregated foliation (through biotite), plus specks garnet. Foliation roughly trends horizontal. Fairly stable unit fractures isolated and fresh. Unit contains fine micro-quartz-fractures (35°) also contains larger grained calcic bands which contain disseminated chalcopyrite (~20%).										
41.44 - 41.76		Fractured zone which marks contact with fine to medium, weakly siliceous spotted meta-argillite. Seen to contain biotitic streaks @ 30°, very trace amounts disseminated sulphides.										
41.76 - 42.23		Transition back into biotitic dirty calcic dolostone unit. Fractures not common, where present (~30-50°) fairly fresh.										
42.23 - 52.1		Contact back to similar fine to medium grained spotted meta-argillite. 35 and 75° fractures contain ~2% chalco and pyrite. With depth, unit more banded (grossularitic zones) trending 10-15°. Unit contains fine quartz/CO_3 stringers which carry minor sulphide mineralization (60°, 85°). Isolated fractures (50-70°) lined with pyrolusite, somewhat chloritic, specks malachite/azurite. Certain more definite grossularitic zones contain minor disseminated chalco. At 45.34 m vertical "barren" quartz vein (1-2 cm). By 46.32 m unit gradually becomes more siliceous as biotite content decreases. Isolated fractures which are parallel to weak banding (10-15°) observed to contain minor erythrite stain. With depth, similar unit contains isolated quartz/CO_3 vein (10-15°) which carries disseminated grains of chalcopyrite. Zone adjacent to veins is much more biotitic. With depth similar unit continues isolated fractures (60 and 90°) are limonitic, occasional chlorite, pyrolusite with both malachite and erythrite. Fracture surfaces moderately calcic and minor talc. Meta-argillite unit CO_3 deficient. Country rock is similar meta-argillite, also contains grossularitic zones which are normally separated by a finer grained, more chloritic "shaley" argillite. Remains moderately chloritic throughout. Banding remains 10-20° and associated sulphides (<1%) observed along margins of more strongly grossularitized zones. Erythrite staining along fairly fresh or clean (~48 m) fractures, erythrite observed along more vertical fractures (70-90°). With depth, calcic/gross. banded, fine to medium grained, weakly siliceous meta-argillite continues, contains lenses which are much more calcic.										
52.1 - 52.4		From 52.1 to 52.4, moderately fractures chloritic (epidote?) zone, moderately calcic, with abundant pyrolusite.										
52.4 - 54		At 52.4 m, return to dirty biotite dolostone, minor quartz and <1% disseminated sulphides. Biotite is well represented, unit also contains isolated biotitic bands trending 30°. Isolated fractures not common, normally trend 30 and 50°. More calcic zones contain trace chalco and pyrite.										

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
54 - 54.33		Unit seen becoming more argillaceous - chloritic.										
54.33 - 56.72		Return to similar dirty dolostone horizon. Majority of unit is calcite and biotite with minor amounts of quartz, and few isolated grains actinolite(?). Occasionally biotite or chlorite grains are oriented into a weak foliation ~20°, isolated thin quartz stringers at 30°. Very trace amounts disseminated chalco and pyrite.										
56.72 - 58.9		Return to familiar meta-argillite unit, again spotty and containing grossularitized zones (garnets very poorly developed) ~20°. Isolated fractures not common though generally trend 30 and 60°. Contain hairline quartz stringers at 75°, minor limonite and occasionally malachite. Both grossularitic and stringers carry very minute sulphide mineralization. Meta-argillite again chloritic, weakly siliceous with isolated more calcic zones. Isolated fractures 30-40°, fairly clean though do contain CO_3, some chlorite, limonite and pyrolusite. No mineralization observed. With depth, ~57.7 m, unit becoming more siliceous, more chloritic and somewhat kaolinized. Great decrease in biotite compared to last argillaceous unit. Grossularitic zones not as well represented. No CO_3 observed. Number of quartz stringers increases around 58 m, ~25 and 45°. Grain size too appears to have increased slightly. Specks limonite within argillaceous unit. Calcite content has increased as a whole. At 58.52 m, fractured zone with calcite/quartz vein (2 cm thick) trending 60°. Vein material medium to coarse grained, higher percentage calcite, contains medium to coarse grains chalcopyrite and pyrite (subhedral). Fracture surface Fe gossan, abundant pyrolusite with minor neotasite and malachite. At 58.2 m, biotite content seen to increase, and by 58.6 m biotite comprises 15%. Foliation of biotite ~25°. Unit contains fine grains calcite throughout as grossularitic zones have depleted markedly.										
58.9 - 59.54		At 58.9 m, unit quickly becomes ~cherty as becomes very siliceous, decrease in both biotite and calcite. This cherty siliceous zone contains a myriad of hairline calcic stringers, Unit weakly chloritic. Isolated fractures are not common, quite clean and trend 45°. Blebs neotasite, CO_3 and kaolin observed along fracture surfaces. At 59.54 m from surface, at 55° containing < 10% malachite. Kaolin present as well.										
59.54 - 62.14		Transition back to normal biotitic granitoid, fine to medium grained meta-argillite. Again moderately calcic throughout. Specks limonite and goethite also observed. At 59.56 to 60.17 m, strongly fractured and broken zone. This zone is largely the above cherty unit. At 60.17 m, fracture surface paralleling quartz stringer. Seen to contain ample quartz, chalcopyrite, bornite(?) neotasite. Unit only weakly to moderately fractured to 60.69 m, and again the cherty unit. Sharply at 60.69 m, unit becomes fine to medium grained "granitoid", strongly calcic meta-argillite, then at 60.97 m becomes weak to moderately grained cherty unit.										

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
		Fracture surfaces clean and moderately kaolinitic and calcic. Fine quartz stringers at 25°, bands of biotitic granitoid at 61.1-61.2 m with banded mafics and limonite, hydrozincite on surfaces. Pyrite crystals in core of some limonite stains, bands at 15°, pyrolusite staining throughout chertlike zone. Another 3 cm band of banded, biotitic granitoid at 61.45 m, 6 cm band at 61.67, also limonite and pyrolusite staining near end at 61.75 m to 61.80. From 61.80 to 62.08 m, biotitic granitoid with disseminated chalcopyrite throughout some very minor geotricite staining. At 62.08 m returns to chertylike rock, highly fractured, hydrozincite on some fracture surfaces, pyrolusite staining throughout.									
62.14 - 63.48		At 62.14, fine-medium grained quartzite, some limonite, malachite staining, massive chalcopyrite in both veins and scattered spots, veins at 42°. At 62.58 m rock turns mafic, goes to chertlike band, then back to mafic and finally quartzite at 62.67 m, very minor chalcopyrite mineralization in transition mafic zones. Limonite staining on 47° fracture at 62.75 m, banding at 32°, chalcopyrite veins at 40° crosscut banding. At 63.20 m rock becomes more fine-grained and mafic, on fractures at 63.30 m limonite stain, red iron oxide, massive chalcopyrite and pyrolusite found, very small quartz stringers on fractures at 50°. At 63.48 m banded pyrolusite, limonite, malachite staining, quartz and chalcopyrite and calcite.									
63.48 - 69.39		Unit becomes fine to medium grained calcitic biotitic quartzite, biotite-rich bands at 23°, pod of calcite, malachite, chalcopyrite at 63.68 m. Chalcopyrite finely disseminated throughout rock, found in quartz vein at 45°. At 63.87 m, here rock changes to more chertlike, small ≃ 1 mm quartz veins cut rock at 45°, banding at 30°. At 64.05 m, rock getting more coarser grained, again some finely disseminated chalcopyrite, chalcopyrite becoming more massive at 64.15 m. At 64.20 m limonite malachite, iron oxide, pyrolusite, staining and chalcopyrite found in calcite vein, fractures along veins show stains. At 64.35 m, rock is becoming more calcitic, calcic meta-argillite, limonite and hydrozincite on fracture surfaces at 64.60 m, some pyrolusite staining. At 64.61 m, not so calcic layers, banding of mafics at 13°. 3 mm wide quartz vein at 50°, hydrozincite, limonite stain at 64.80 m along fracture surface, tarnished cubes of chalcopyrite on surface at 64.94 m, quartz and biotite-rich band at 64.97 m. Chert-like layer at 65.04 m, banded quartz, biotite with very minor malachite staining at 65.09 m, rock goes back to calcic meta-argillite at 65.16. 8 cm chertlike band at 65.30 m, small quartz vein at 65.37 has malachite staining, dips 52°, fracture with limonite and minor pyrolusite at 65.52. 6 cm chert band at 65.55 m, rock gets coarser crystals at 65.61 m, thin bands of biotite run through it at 15°, gets fine grained cherty again at 65.75. (End of box 65.85.)									

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
		Rock is fine to medium grained calcic, biotite-rich meta-argillite cut at 66, 66.25, 66.92 m by quartz veins ≃1 cm thick at 50°, banding at 25°, very minor limonite staining on a few surfaces, coarse grained vein at 66.5 m contains biotite quartz and chalcopyrite, some minor quartz veins running at 80° found in rock. At 67.38 m rock turns to chertlike for 4 cm, then to chlorite-rich quartzite, then back to chertlike at 67.59 m. Returns to calcic meta-argillite at 67.83 m, still has biotite-rich bands and quartz veins at 50°. Gets cherty again at 68.50 to 68.75 m, limonite, hydrozincite and minor pyrolusite along some fracture surfaces along quartz veins.										
69.39 - 69.80		Fine grained cherty, highly fractured, hydrozincite, some limonite and minor pyrolusite on fracture surfaces, calcite on fracture surfaces also.											
69.80 - 74		Rock is calcitic, biotite-rich meta-argillite. Banded at 25-35°, quartz veins running between 35 and 40°, banding is poorly developed, gneissic banding limonite, hydrozincite staining at 70.07, 70.42, 70.77, 70.97, 71.88, 72.05, 72.35 m (with minor pyrolusite), 72.55, 72.85, 73 m red iron oxide and limonite, 73.80 hydrozincite. Chertlike between 70.88 and 71.07m, 71.32 and 71.54 m, 72.10 and 72.63 m, 73.04 and 73.30 m, quartz vein at 72.55 m, about 3 cm thick at 30°.										
74 - 77.72		At 73.68-77.95 m rock is calcitic biotite-rich meta-argillite. It contains bands of chertlike rock at 73.96 to 74.44 m, 74.54 to 74.91 m, 75.57 to 75.64 m, 75.80 to 75.05 m, 76.50 to 77 m, 77.19 to 77.40 m, 77.59 to 77.83 m, minor pyrolusite staining found on fracture surfaces in all cherty zones. Hydrozincite found on more open fractures, red iron oxide found at 73.80, 75.26, 75.91, 77.24, 77.45 m, biotite rich bands due to poorly developed gneissose banding is at 25°, some quartz veins from 2 mm to 1 cm at 30°. Biotite-rich lenses at 76.90 m, some minor limonitic staining at 77.50 m within rock, very fine stringers of iron oxide dip 30° at 77.17 m.										
77.72 - 78.12		Fine, occasionally medium-grained, strongly siliceous biotite meta-quartzite. Stringers of quartz veins associated with some iron staining at 25, 55, 85°; biotite rich band horizontally across core at 77.85 m, ≃2 cm wide. Chalcopyrite and pyrite ∠0.5% found here. At 77.88 m fine-grained quartzite with minor quartz on fracture surfaces, has cream brown colour, cut by veins of quartz with biotite, geothite, trend 42 and 20°, some chlorite in veins too. 78.02 m dendritic pyrolusite on fracture surfaces along with limonite stains. Pyrolusite also speckled along surfaces, some calcite along surfaces.										
78.12 - 78.65		Calcite vein at 40°, ≃3 cm thick chlorite-rich band on either side, medium-grained siliceous dirty metadolomite. Biotite concentrated in thin bands at 15°, also, some chlorite along fractures.											

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
		At 78.30 m, appears to be chert, but it is banded (calcedony) bands trend 30°, thin quartz stringers at 20°, pyrolusite begin to appear along some fractures near 78.62 m, comes from pyrolusite, chlorite veins ≈ 1-2 mm thick on either side of a calcite vein at 78.62.										
78.65 - 79.09		Siliceous metaquartzite, containing biotite, chlorite and very littel covellite (only one crystal seen), some minor goethite, quartz stringers present but not too many, trend 23°, some concentration of mafics in these stringers, number of stringers increases at 78.90 m, chlorite percentage increases also. Isolated grains of chlorite throughout.										
79.09 - 79.32		Fine grained quartzite, pyrolusite speckled on some surfaces. Bands at 30°, some bands approach chertlike appearance.										
79.32 - 82.04		Many more mafcis in rock. Biotite-metaquartzite, biotite in groundmass and concentrated in stringers, similar to quartzite between 78.65-79.09 m, but contains more calcite. Stringers at 25°, 35°, 20°, higher concentration of stringers around 80.75 m, chlorite rich band at 80.90 m. Begin to get chloritic, very fine grained bands, almost chert-calcedony with coarser grained quartzite. These bands do not contain calcite. These chertlike rocks contain pyrolusite on some surfaces. They are also much more fractured. Some goethite staining in places. At 81.68 get chertlike band, at 81.80 m get calcitic band, calcite layer at 82.01 m, then quartzite (calcite-rich again) end at 82.04 m.										
82.04 - 86.23		Biotite rich quartzite with very thin stringers rich in boitite . stringers at 10°, less than 1 mm wide, also quartz rich band about 1 cm across with same trend. Calcite and yellow carbonate along fractures, at 82.2 m more into biotite poor quartzite layer. This moves into hard cherty layer, yellow carbonate and calcite still found on surface. At 82.10 m, band of medium grained biotite-rich quartzite, banding of biotite and quartz, some minor amounts of covellite (< 5%) here. At 82.45 m, 4 cm band of very fine grained (cherty like) mafic poor quartzite, followed by 4 cm band of medium grained biotite rich quartzite, with a minor amount of chlorite, followed again by a chertylike mafice poor quartzite layer. At 82.70 m, malchite, yellow carbonate stain on surface, iron oxide stain, pyrolusite on fracture, some chalcopyrite layering at 10°. At 82.90 m, get chert-like quartzite. At 83.05 m, layer of medium grained biotite-rich quartzite. At 83.20 m, quartz vein 0.5 cm thick with pyrite and limonite staining, very coarse grained quartz. At angle of 37° calcite and limonite staining. At 83.40 some pyrolusite staining. At 83.30 m, get medium grained biotite rich quartzite. At 83.50 m, quartz layer with a lot of limonite staining, limonite staining on surfaces. At 83.70 m, banded light and dark quartzites change to very fine grained. At 83.85 limonite staining on surfaces.										

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
		At 84 m limonite and yellow carbonate stain, also a lot of calcite, returns to medium grained biotite quartzite. Spots of limonitic staining at 84.45 m, chalcopyrite (1%) at 84.45 m, also pyrolusite staining on fracture surfaces here, fine grained but not so chert-like. At 84.60 m returns to being more coarse grained. At 84.90 m quartz veins ≈2 m wide at 25°, cut rock here. Fine grained chert-like band 5 cm wide at 85.10 m, medium grained biotite-rich quartzite for 10 cm, then mafic poor quartzite. Quartz band at 85.18 m, with minor amount of chalcopyrite. Fine grained quartzite at 85.20 m, coarse grained at 85.30 m. At 85.63 m limonite stain and yellow carbonate on fracture, no banding in rock from 85.30 to 85.95 m. Begin to get very poor banding near 86 m, minor amounts chalcopyrite at 86 m. At 86.10 m get fine-grained chertlike quartzite. Quartz band containing limonite staining at 86.2 m. End of box 86.23 m.											
86.23 - 90.50		At 86.23 m, medium grained siliceous dolostone, fine grained at 86.30 m, with minor amounts calcite throughout. Quartz vein at 86.43 m, at 30°, large amount biotite at 86.63 m. 1 cm wide quartz vein at 89.50 m, medium grained biotite quartzite 4 cm wide, at 87 m limonite stain present here, 2 cm light quartzite at 87.07 m, mafic bands of biotite appear in quartzite at 15°, very fine stringers of quartz not seen on broken surface trend at 57°, yellow carbonate stain at 87.45 m on fracture. At 87.57 m some calcite, dark green band, possibly due to chlorite, minor limonite stain throughout rock, pyrolusite staining on fracture surface at 87.70 m, lighter coloured quartzite from 87.70 to 88.25 m, area speckled with limonite stain at 88 m. Biotite and limonite stain on fracture at 88.30 m. Medium grained biotite quartzite from 88.25 5o 88.39 m, then 7 cm of fine grained less mafic quartzite with green tinge, possibly due to epidote. Some calcite on fracture surfaces between 88.53 and 88.83 m, also some limonite stain. Rock here is medium grained banded quartz. Band at 88.92 m has green colour, possibly due to chlorite, 2 cm wide quartz vein at 88.96 m, and 30°. At 89.15 m, thin bands of biotite in biotite rich quarzite at 30°, pyrolusite, limonite stain and calcite on fracture surface at 89.26 m, fine grained quartzite at 89.33 to 89.44 m, and again at 89.50 to 89.53 m. Limonite staining in medium grained biotite quartzite between 89.53 and 89.65 m, 14 cm band of medium grained light coloured quartzite, has yellow carbonate on surfaces, chlorite scattered throughout. At 89.85 m, limonite stain scattered in biotite-rich quartzite, at 89.95 m fracture surface of biotite at 53°. At 90.07 m, rock becomes much coarser grained, small biotite lenses along with thin bands. Between 90.2 and 90.45 m heavily stained by limonite. At 90.25 m, layer of quartz and very corroded rock and non-residual, possible specks of limonite(?). At 90.40 m, very soft granular rock moderately to strongly kaolinized(?) section from 90.20-90.45 m is strongly leached, fractured and altered, fine grained quartzite at 90.45 m, green band at 90.49 m.											

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
90.50 - 94.39		Limonite-brown carbonate stain on fracture surface. At 90.52 m, minor amounts of limonite spread throughout rock, yellow carbonate stain on fractures at 90.85 and 90.95 m. At 91.1 m pyrolusite, malachite some chalcopyrite limonite, at 91.3 m calcitic rocks with limonite, yellow carbonate staining, fractures at 50°. At 91.5 m get highly fractured, leached altered zone, much like rock at 90.49 m. This rock contains some large pieces of unaltered rock. At 91.65 m kaolinized(?) zone ends, banded quartzite (chertlike) unit begins. 10 cm of highly fractured, leached kaolinized(?) rock at 92 m. At 92.06 get chertlike quartzite with some minor limonite staining, and some calcite on fracture surfaces. At 92.28, get medium graned biotite quartzite, biotite banding at 14°. At 92.6 m have yellow carbonate stain on fracture surfaces. Stain has green tinge to it, limonite stains disseminated throughout rock, but very minor. Also on fractures, highly fractured kaolinized rock occurs again at 93.04 m, for 4 cm fine grained chertlike quartzite to 93.30 m. Some pyrolusite staining throughout. Yelllow oxide staining (not carbonate) on fractures. From 93.3 to 94.4 m, biotite rich quartzite, with scattered pyrolusite staining, limonite and carbonate staining on fractures. Quartz vein at 93.57 m at angle of 40°, small biotite-rich bands at 35°, malachite staining on fractures and some chalcopyrite at 93.80 m, 93.95, 94 and 94.10. Pyrolusite, limonite and minor calcite on fracture at 94.13 m, minor disseminated chalcopyrite at 94.35 m.										
94.39 - 98.4 m		At 94.40 m, green epidote or chlorite coloration on fracture surfaces, small quartz veins (< 1mm) at 42°, specularite garnets spotted throughout rock from 94.49 m, rock is fine to medium grained, garnetiferous meta-argillite, some malachite staining on fracture surface at 95 m, pyrolusite staining between 94.05 and 94.62 m, chalcopyrite at 95.61 m. Limonite, white weathering, pyrolusite on fracture surfaces between 96 and 96.30 m, small pod of quartz with chalcopyrite in it at 96.54 m. Limonite on fracture at 96.62 m, chalcopyrite disseminated throughout rock up to 96.76 m. From 96.60 m limonite, pyrolusite and malachite staining on fracture surface at 96.95 m, hydrozincite on fracture surface at 97 m. Hydrozincite, pyrolusite and limonite on fracture surfaces at 97 m. Limonite on fracture at 97.35 m. Garnets last seen at 96.70 m. Rock is biotite rich quartzite at 97.50 m. Chalcopyrite disseminated throughout, rock begins to get finer grained at 98 m. Disseminated chalcopyrite disappears, at 98.40 m massive chalcopyrite is found.										
98.40 - 102.67		Massive chalcopyrite at 98.40, also along quartz band at 98.45. Limonite staining speckled in rock between 98.45 and 98.61 m. Two 1 cm bands of fine-grained chertlike quartzite on either side of a quartz band at 98.78 m at 10°. Fine-grained green tinged calcitic unit between 97.90 and 98.43 m. Limonite staining										

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
		between 99.66 and 99.79 m, limonite staining on fracture at 100.05 m. Less mafic quartzite and 100.37 to 100.48 m, hydrozincite and minor limonite on surface at 101.80 m. Rock begins to get lighter at 102.10 m, hydrozincite pyrolusite staining, chlorite around 102.50 m, banding throughout as within 10° of horizontal.										
102.67 - 106.42		Splattered staining of limonite thin biotite bands at 30° throughout, hydrozincite on fracture surface at 103.57 m, limonite staining (very minor) spread throughout rock. Limonite stained vein at 75° at 102.80 m, hydrozincite on fracture surface at 104.24 to 104.56 m, also some pyrolusite staining, very mafic biotite rich band at 104.63 m, more hydrozincite and some limonite staining on fracture surfaces from 104.72 to 104.95 m. Another biotite rich mafic band at 104.97 m, slopes 30°, thin quartz veins here at 60° and 90°. Limonite staining and pyrolusite staining, also green due to chlorite on epidote on fracture surface at 105 m. Also some minor hydrozincite pyrolusite and green stain on fracture at 105.15 m. Biotite rich band at 80° and quartz rich band at 52° at 105.22 m. 1 cm wide biotite-quartz vein at 50° at 105.61 m. Limonite staining splattered throughout rock. 1 cm wide quartz vein at 50° at 105.75 m. Biotite bands at 106.26 have angles 40° and 130°.										
106.42 - 107.48		Rock is similar biotite rich quartzite with biotite rich bands. Banding at 25-30°. Limonite, minor pyrolusite and hydrozincite staining at 107.20 m along fracture, and along fracture at 107.35 m. At 107.24 m get fine grained (chertlike) quartzite for 10 cm.										
		END OF HOLE AT 107.48 m.										

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-2-80 PAGE 1 OF 6
PROJECT ~~FAIRCHILD LAKE~~

LOCATION EAGLE GRID 29.89SW/30+32NW
BEARING 252° DIP -75° ELEVATION 937.47 m
LENGTH 63.7 m PROPOSED LENGTH 350'(106.68)
CORE SIZE HQ OVERALL RECOVERY 95%

START June 19, 1980 FINISH June 21, 1980
CONTRACTOR E. Caron Diamond Drilling
TESTS
LOGGED BY B. Harmeson DATE LOGGED

ASSAY BY CHEMEX LABS LTD.
CERTIFICATE (S)
SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0 - 2.13	Overburden
2.13 - 3.65	Very fine to fine grained meta-argillite--weakly chloritic. Banded @ 30°. Banding observed through spotted grossularitic zones. 1% disseminated chalco. observed along margins of grossularized zones. From 2.59 to 3.3 m, highly broken and fractured zone. Country rock similar to above. Isolated patches erythrite observed along fracture directions. Dominant fracturing @ 40°. Fracture surfaces contain limonite, some white CO_3, pyrolusite (neotasite)-Fe gossan. Banding within grossularized unit @ 30°.
4.25 - 5.18	Unit again strongly fractured and broken, isolated patches erythrite. Quartz stringers @ 5.38 m trend 60° carry disseminated chalco & pyrite. With depth, spotty grossularitic meta-argillite continues. Isolated fractures run 15°, 55°. Banding remains @ 30°.Disseminated sulphides are observed associated with more intense garnet development (e.g. 6.15 m), minor amounts CO_3, with the grossularitized zones.
7.44 - 8.22	Moderately fratured, broken zone--fracture surfaces contain ample pyrolusite (neotasite), limonite and patches erythrite. This region also contains quartz/limonite stringers trending 50 and 95° which contain trace amounts chalco. & pyrite.
8.6 - 9.2	Weak to moderately fractured zone--similar to above. Fracture surfaces similar to above, plus carry malachite, CO_3 and white gossan. Spotty grossularitized meta-argillite continues. Isolated fractures trend 70°, some talc observed. 9.7 m, spotty grosullaritic meta-argillite appears more siliceous. Unit cut by numerous hairline fractures containing quartz, pyrlusite and chlorite. Isolated fractures not common, trend 70-80°, small isolated patches malachite observed. Again grosullaritized bands carry trace amounts disseminated sulphides (2% chalco/pyrite). Isolated fractures carry chlorite and moderate CO_3. With depth, siliceous unit continues.

ASSAY RECORD (ppm)

NO.	FROM	TO	FT.	Co	Cu					COMPOSITE
	20.1	20.6		80	470					
	48.6	48.75		106	126					
	49.3	49.45		76	74					
	49.9	50.1		96	400					
	50.1	50.25		46	38					
	42.3	42.45		106	1400					
	52.15	52.3		86	380					
	52.8	52.95		235	1400					
	53.55	53.7		200	2800					
	53.9	54.15		72	3300					
	54.75	54.9		330	7900					
	55.4	55.55		370	>10,000					
	56.15	56.3		76	3100					
	56.5	56.75		4300	>10,000					
	57.3	57.45		480	3200					
	57.45	57.9		30	96					
	57.9	58.52		20	700					
	58.52	59.5		18	570					
	59.5	60.1		118	>10,000					
	60.1	60.4		88	>10,000					
	60.4	61.0		22	1450					
	61.0	62.0		32	108					
	62.0	62.75		725	325					
	62.75	63.09		200	260					
	63.09	63.7		26	2200					

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
10.33 - 12.3		Weak to moderately fractured and broken zone. Fracture surfaces contain chlorite, pyrolusite and talc. Minor amounts chalco and pyrite observed on fractures and along grossularitized bands. Some malachite found along fracture surfaces. Quartz stringers cut meta-argillite 30-90°. Grosullaritic zones trend 20-30°. Quartz stringers contain minor CO_3 and 1% disseminated sulphides. Isolated fractures trend 60-80°--strong Fe-gossan, pyrolusite, limonite, At 14 m, unit becoming less siliceous and slightly more chloritic.										
15.4 - 17.03		At 15.4 m, sudden increase in grossularitized zoning. The zones appear thicker and increased garnet development. Appears as one garnetiferous zone with thin contorted horizons of chloritic, fine-grained meta-argillite. These contorted zones host chalco/pyrite/minor bornite (2%). Sulphides also observed along fine hairline fractures trending 40°. Vertical fracture (90°) from 15.84 to 16.29 m contains 5% chalcopyrite (1 cm wide). Fracture surfaces contain ample Fe-gossan, limonite, pyrolusite and quartz. Absence of CO_3. Few specks malachite, azurite. With depth, grossularitic zone appears more intensely altered and contorted. Resembles breccia-fill. Trace amounts sulphides observed. At 17.03 m, grossularitic zones not as common. Unit progresses to a fine to medium-grained moderately siliceous, occasionally "spotted" (CO_3?) meta-argillite. Isolated fractures not too common; trending 55 and 80°. Fractures surfaces strongly limonitic and moderately calcic.										
17.81 - 81.1		Grosullaritic zone trending along quartz vein, trending 70°. No sulphides present. With depth, fine to medium-grained, occasionally spotted meta-argillite continues. Seen to contain a few grossularitic bands, 20-30°. Unit moderately siliceous throughout. Isolated fractures not common (20-30°, 60°), surfaces contain limonite, pyrolusite, minor CO_3--generally a fresh appearance. Thin quartz (minor CO_3) stringers ocur throughout section (40 and 75°). Few stringers carry chlorite and minor chalcopyrite. Majority of sulphides along more steeply dipping stringers/fractures. Trace of sulphides present within grossularitic zones.										
20.93 - 23.12		Emerge into more definite grossularitized zonation, 20-30°. This change also associated with increase in CO_3 content. (Located along microfractures and stringers. This zone also appears more siliceous.) Unit cut by quartz/minor CO_3 stringers, trending 60-80°. 80°.											

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
		Some grossularitized zones more strongly developed than others. Sulphides again present in minor amounts, both along stringers and within grossularitized bands. Some bands much more siliceous. Some bands quite contorted. Fracture at 23.12 m, moderately chloritic with talc.											
23.12 - 26.26		Emerge into a contorted garnetiferous calcic biotite/sillimanite gneiss. This unit contains 2-3% sulphides (pyrrhotite, chalco and pyrite)--tend associated with biotite-rich segments. Isolated fractures are moderately chloritic, talc and minor kyanite; these trend 40-60°. Laminae (biotite foliation) trend 20-30°.											
		At 24.47 m, increase in grossularite intensity, 3-5% sulphides present. 24.47 to 24.99 m may contain up to 10% sulphides, which exist parallel to foliation (20-30°).											
		24.99 to 25.8 m, grossularitized zone interlaminated wtih fine-grained chloritic argillite. Very trace amounts sulphides. Cut by quartz stringers and fresh fractures trending 60-70° - talc, chlorite, Fe-gossan. Unit remains slightly contorted.											
26.26 - 26.5		Unit undergoes increase in biotite content and CO_3 content and contains 10% disseminated sulphides (predominantly pyrrhotite, minor chalco and pyrite).											
		Below 26.42 m, unit composed of varying grossularitized and chloritic meta-argillite zones (20-30°). Trace amounts disseminated sulphides. Contains few quartz stringers of similar attitude. Biotite still present but content down considerably. Isolated fractures not common, trending 20°, 50-60°; surfaces contain CO_3, talc, minor limonite, chlorite. Minor amounts epidote observed.											
		Return to spotty chloritic, siliceous fine to medium-grained meta-argillite. No sulphides observed. Isolated fractures trend 50-70°, surfaces contain moderate CO_3, Fe-gossan, white gossan (Zn?), pyrolusite, limonite, minor chlorite. At 28.82 m, quartz stringer (50°) containing chalco.											
29.16 - 30.82		Weakly fractured and broken interval, trends 30-70°. Surfaces clean.											
		At 30.34 m, unit much more spotty and grossularitized, minor CO_3.											
		By 30.82 m, medium grained garnets throughout, groud mass is fine-grained, siliceous, chloritic meta-argillite. Biotite observed through more garnetiferous regions. Slight increase in general grain size, as well as presence of medium grained quartz.											
		31.4 to 31.7 m, contorted fine to medium-grained biotite-quartz-gneiss, trending 30°. Sulphides present conformable to foliation. Sulphides observed with chloritic alteration.											

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
31.7 - 33		At 31.7 m, unit returns to moderately siliceous, chloritic spotty meta-argillite. Occasional bands grossularitic (20-30°). 32.86-33 m, moderately fractured and broken interval, surfaces moderately chloritic, limonite, minor CO_3.											
33 - 33.75		At 33 m, unit progresses into a contorted biotite-quartz-calcic gneiss (20°) which contains 2% chalco and 5% magnetite. The magnetite appears associated with CO_3/quartz bands.											
33.75 - 33.85		At 33.75 m, unit gives way to a biotite-garnet zone. Below this lies a brecciated-chloritic zone rich in CO_3 and quartz. This interval contains 10% chalco and minor pyrite.											
34.1 - 34.44		Highly shattered quartz-rich unit, containing blebs disseminated chalco., pyrite and arsenopyrite. This siliceous zone cuts country rock @ 70°.											
34.5 - 35.14		At 34.5 m, quartz-filled breccia zone 5% pyrite. Isolated fractures (@ 60°) contain limonite, CO_3, minor pyrolusite, malachite and specks chalcocite. Unit returns to familiar spotty meta-argillite - moderately siliceous, serecitic. 35.14 to 35.66 m, 80° fracture containing chlorite, limonite, pyrolusite (neotasite), chalcocite. 35.63 m - quartz/CO_3/biotite vein cutting country rock 5% chalco. Weak fracturing, 50-70°, continues to 35.87 m. Normal country rock unit continues, trending 10-15°, moderately garnetiferous throughout. From 35.87 to 36.3 m, isolated segment of previous biotite-rich material, this interval contains 5-7% chalco y pyrite.											
35.14 - 36.3		Return to familiar fine to medium-grained siliceous, chloritic spotty meta-argillite. Isolated fractures not common, appear quite washed and clean, and trend 15, 40, 70°. At 37.1 m, quartz vein trending 70°. Minor amounts of sulphides located adjacent to vein. Country rock taking on contorted appearance. Unit cut by quartz stringers (40-60°). Some of the stringers contain a chloritic margin; unit moderately siliceous with minor serecitic alteration.											
36.3 - 40		At 40 m, isolated fracture trends 40-70°, contains spotty erythrite (1%) along with chlorite, serecite, pyrolusite (neotasite), limonite, CO_3. With depth, unit appears more silicified, content of biotite decreased markedly. Minor CO_3 observed within microfractures. With depth, this siliceous, chloritic unit continues. In those completely silicified areas unit appears shattered (breccia?). This unit is weakly fractured throughout (60-90°), surfaces contain pyrolusite, trace malachite, and disseminated erythrite, minor CO_3. Erythrite appears with quartz-rich segments. Interval contains 1% sulphides, located along fracture surfaces and within calcic microstringers. As quartz content decreases, so does erythrite.											

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
42.6 - 42.75		Unit not as silicified, trace albite. Disseminated sulphides still present (chalco, pyrite, arsenopyrite), normally associated with Fe-ox and flakes biotite.											
42.75 - 43.44		Unit weakly to moderately fractured and broken throughout. Surfaces weakly chloritic with minor talc, moderate CO_3, pyrolusite, some kaolin. Interval appears quite leached and friable.											
43.44 - 44.1		Quartz-rich zone (white to yellow), weakly limonitic/chloritic. Trend of fractures - emplacement @ 65-75°.											
44.1 - 45.84		Brecciated unit of calcic/chloritic material containing 1-2% subhedral to euhedral crystals of chalco and pyrite. Rounded silicified fragments observed throughout the breccia (conglomerate?). Minor calcic micro-fractures (host trace sulphides). With depth, slight increase in sulphide content 3-5% - within more calcic horizons. Isolated fractures (60-70°) appear quite fresh and washed. Sulphide veins often appear marginal to contact with quartz clasts (60°). Breccia unit trends 65-70°.											
45.84 - 46.84		Return to chlorite-siliceous shattered zone. Abundant hairline fractures - low CO_3 content. Unit is moderately to strongly chloritic (adjacent to fractures and quartz-rich veinlets). Isolated fractures contain chlorite, pyrolusite, limonite, white gossan, malachite, Fe-gossan, quartz. Fractured areas are friable and talc rich. Unit appears as rounded quartz clasts in chloritic matrix. Minor amounts of feldspathization.											
46.84 - 47		Shattered zone becoming more siliceous. Weakly fractured and contains quartz/CO_3 stringers which carry 2% sulphides (chalco/pyrite) and trend 30-40°, 60°.											
47 - 47.5		At 47 m, becoming even more silicified. Isolated fractures not common (trend 0-40°); contain pyrolusite, (neotasite), chalcocite with moderate amounts CO_3, chlorite and talc.											
47.5 - 48.56		Quartz-rich breccia zone. Again a chloritic ground mass. 2% sulphides observed locally.											
48.56 - 52.85		Unit becoming more chloritic, as general decrease in silicification and alteration. By 48.7 m, unit much more altered as invaded by a myriad of irregular quartz veins and stringers. This zone is also rich in calcite (white and green), observed both within country rock and the intrusive vein material. Minor amounts of disseminated sulphides. This unit is moderately altered throughout - chlorite/calcite/talc. Isolated fractures uncommon (though trend 50-65°); surfaces contain the above alteration minerals plus pyrolusite, (neotasite) and possibly chalcocite. Blebs of feldspathic material observed in more quartz-rich intervals. At 52.63 m, 2% euhedral grains pyrite/chalco. The breccia unit cuts country rock @ 40-50°.											

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
52.85 - 54.6		A fine to medium-grained, contorted biotitic gneiss with much higher percentage calcite (white to green). Minor flakes chlorite observed with biotite. Majority of unit consists of calcite-quartz-biotite. Trend of biotite is 30°. Subhedral to euhedral crystals of pyrite and chalco present throughout (2%). Minute blebs Fe-oxide and heavy minerals present. With depth, irregular masses of sillimanite. Quartz/calcite stringers trend 40-50°. With depth content of biotite increases as sulphide content decreases.										
54.6 - 55.47		Strongly fractured and leached zone. Consists of limonite, pyrolusite, fine grains Mn-apatite.										
55.47 - 56.4		Unit resembles above calcic-biotite-gneiss, quite distorted appearance and moderately leached throughout. Biotitic veinlets trend 50-70°. Isolated fractures trend 50-70°, 90°; surfaces contain limonite, pyrolusite, hydro-Zn(?), calcite, minor Mn-apatite. Very trace amounts sulphides disseminated through gneissic unit.										
56.4 - 57.8		Unit gradually becoming more biotitic and generally more calcic. Albite grains suggested. A transition zone. Tarnished crystals of chalco and pyrite observed (2%). Biotite grains trend 20-30°, banding is not continuous. At 56.5 m, biotite content drops as unit consists of quartz/calcite/chlorite. Similar to dirty dolostone. 2% disseminated chalco/pyrite throughout. Contains isolated quartz/calcite stringers @ 50°. Biotite content drops considerably. Isolated fractures not common (40-50°) and surfaces appear quite clean. Unit appears to be becoming somewhat more siliceous. Cherty bands observed beginning @ 57.18 m.										
57.8 - 59.03		Unit progresses into weakly gneissic biotitic quartzite, banding 10-15°, minor calcite and few grains garnet. Observed to contain calcic lenses (0.5 cm) within more Fe-rich horizons, these contain 1-3% chalco and minor pyrite, conformable to banding. With depth, biotite is more segregated into bands as unit progressively becoming more siliceous, 2% disseminated sulphides throughout. Isolated fractures not common (70-80°), surfaces appear washed and fine blebs malachite.										
59.03 - 61.56		Appears as banded light green and brown cherty lenses. Occasionally contain calcic horizons which invariably contain 2% disseminated sulphides. Isolated fractures uncommon and trend 5-10° (along banding). Unit also contains remnant biotitic material (from above), trace sulphides present within this contorted segment. Unit continues at depth. Calcic vein @ 70° - 60.94 m - chalcopyrite vein.										
61.56 - 63.7		Transitional between banded chert and biotitic quartzite. Isolated fractures run 50°. Quartz/CO_3 stringers trend 50°. END OF HOLE AT 63.7 m.										

D.D.H. Nº E-2-80 PAGE 6 OF 6

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-3-80 PAGE 1 OF 10
PROJECT FAIRCHILD LAKE

LOCATION EAGLE GRID 30+23.5 NW, 29+68.5 SW	START June 22, 1980 FINISH July 3, 1980	ASSAY BY
BEARING 232° DIP -45° ELEVATION 933.1m.	CONTRACTOR E. CARON DIAMOND DRILLING	CERTIFICATE (S)
LENGTH 246.85m. PROPOSED LENGTH	TESTS SPERRY-SUN - DEVIATION TEST	
CORE SIZE HQ & NQ OVERALL RECOVERY 96%	LOGGED BY R. Beaton DATE LOGGED	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	E-3-80 was drilled HQ to a depth of 207m., then was reduced to NQ to completion of hole. Results of Sperry-Sun - one test taken at 243.84 m.: 234° at -46°.
0 - 3.53	Mixture of overburden and crushed core.
3.53 - 7.10	Unit is fine grained mafic meta-argillite, unit is very faintly banded at 5°, some very thin quartz-biotite rich stringers at 17°, limonite some iron oxide staining on some fracture surfaces, dusty, cream-white gossan staining in most fracture surfaces. Rock is highly fractured in most places. Some minor mineralization in quartz-biotite-rich stringers that have been altered. At 5.30 find iron oxide and pyrite in vein at 20°, on fracture surface at same spot malachite staining and some chalcopyrite seen, this is minor. 1%, some minor pyrolusite and hydrozincite? found on some fracture surfaces such as at 5.59 m., malachite stain seen on various fractures. Sulfides scattered throughout fractures. (1%). Garnetiferous zones very thin (1 cm) at 4.85 m and appear locally within massive meta-argillite unit.
7.10 - 11.51	Rock is mainly fine grained mafic meta-argillite, shows banding much clearer than previous, also not as fractured, bands of coarser grained rock at 10.10 to 10.36 m. This is a medium grained calcic meta-argillite layer, Banding in the principal rock unit is at 5° to 10°, some small quartz stringers at 15° in some spots. Iron oxide, some pyrolusite, minor hydrozincite, dusty cream white gossan and minor malachite staining seen on fracture surfaces. Some neotasite found also notably at 9.70 m, alot of sulfides and staining seen on fracture surfaces at 70°, in coarse grained zone at 10.10 m banding at 10°, this layer has sulfides disseminated throughout. Also some garnets. Some biotite. This banding appears to be very poorly developed gneissose banding whereas major rock type has very finely laminated, almost slaty banding, chalcopyrite seen in banding at 8.47 m and 9.08 m. Rock is a little more fractured between 10.70 m and 10.8 m but not as much as in first section. Iron oxide, dusty cream white oxide, pyrolusite, hydrozincite, malachite and some neotasite on fracture.

ASSAY RECORD

FROM (M)	TO (M)	% RECOVERY	COMPOSITE
0	4.57	-	
4.57	6.7	95	
6.7	7.62	100	
7.62	9.14	100	
9.14	10.97	100	
10.97	12.8	100	
12.8	13.41	100	
13.41	14.93	100	
14.93	16.45	91	
16.45	17.37	100	
17.37	18.89	100	
18.89	20.42	89	
20.42	21.33	87	
21.33	23.46	100	
23.46	24.99	100	
24.99	26.51	100	
26.51	28.01	100	
28.01	29.56	100	
29.56	31.08	100	
31.08	32.61	100	
32.61	34.13	100	
34.13	35.66	100	
35.66	37.18	100	
37.18	38.1	100	
38.1	40.23	71	
40.23	41.75	100	
41.75	43.28	100	
43.28	44.8	100	
44.8	46.32	100	
46.32	47.85	100	
47.85	49.37	100	
49.37	50.9	100	
50.9	52.42	100	
52.42	53.94	100	
53.94	55.47	100	
55.47	56.99	100	
56.99	58.52	99	
58.52	60.04	100	
60.04	61.56	100	
61.56	63.09	100	
63.09	64.14	100	
64.14	67.66	100	
67.66	69.18	100	
69.18	70.71	100	

GEOLOGICAL LOG			ASSAY RECORD			
METERAGE	G LOG	DESCRIPTION				COMPOSITE
		surfaces. Some sulfides on 70° fracture. Along veins, sulfides in veins at 10° also. Chalcopyrite in vein at 12.50 m, at 11.50 m sulfide rich vein at contact between meta-argillite and coarse grained calcic meta-argillite at 11.51.	70.71	72.23	97	
			72.23	73.76	100	
			73.76	75.28	100	
			75.28	76.8	100	
			76.8	78.33	100	
			78.33	79.85	100	
			79.85	81.31	100	
11.51 - 15.95		Fine to medium grained calcic meta-argillite, white-green colour so possibly contains chlorite, contains biotite, some disseminated chalcopyrite, at 11.66 m returns to meta-argillite but not quite so fine grained, Shows banding better, banding is still around 5-10°, some sulfide and quartz rich bands at 5-10° also. Range from few mm. to 3 cm. across, iron oxide and metallic grains on 70° fracture surface at 13.12, calcic meta-argillite band at 13.30 to 13.34 m, heavily limonitic, fractured rock for 3 cm. then 4 cm. of fine grained meta-argillite. Some small spots of eurythrite staining in this zone. At 13.46 m get coarser grained calcic meta-argillite, sulfides in this zone, especially at contact. Eurythrite, pyrolusite, iron oxide and hyrdozinate on 80° fracture running through this band, eurythrite also on fresh surface, all eurythrite disappears at 13.55m, Rock becomes fine grained meta-argillite at 13.79m. Fine grained meta-argillite not as fine grained as first section though, iron oxide, pyrolusite, white gossan, hydrozinate, some minor malachite staining along fracture surfaces at 40°, calcitic bands 2-5 mm. wide at 40° also.	81.31	82.9	100	
			82.9	84.42	100	
			84.42	85.95	100	
			85.95	87.47	100	
			87.47	89.0	100	
			89.0	90.52	100	
			90.52	92.04	100	
			92.04	93.57	100	
			93.57	95.09	94	
			95.09	96.62	100	
			96.62	99.66	80	
			99.66	101.66	77	
			101.66	102.71	100	
			102.71	104.24	100	
			104.24	105.76	100	
			105.76	107.28	100	
			107.28	108.81	100	
			108.81	110.33	100	
			110.33	111.86	92	
15.95 - 21.94		Rock is similar to previous segment but has well developed gneissose banding. Has staining as previous section but not quite as much iron oxide staining and a little more pyrolusite, banding at 7°, some minor malachite in places. Fractures at 50°, eurythrite staining at 19.06 m. in rock and along fracture surface . Rock is calcic meta-argillite with gneissose banding. Sulfides, pyrite and chalcopyrite along fracture and vein and 19.52 m rock is heavily fractured throughout. Fine grained meta-argillite, non-calcic between 20.30 and 21.00 m from 21.50-21.94 m not so fractured, fractures at 42° and 30°.	111.86	113.38	100	
			113.28	114.98	100	
			114.98	115.82	100	
			115.82	116.43	100	
			116.43	117.95	100	
			117.95	119.48	100	
			119.48	121.92	100	
			121.92	122.52	92	
			122.52	124.05	95	
			124.05	125.07	100	
			125.07	127.1	78	
			127.1	128.62	100	
			128.62	130.14	100	
			130.14	131.67	100	
			131.67	133.19	100	
21.94 - 32.60		At 21.94 no longer calcic, small calcic veins or calcic grains deposit along fractures, vertical 35°, 40° fractures iron oxide, minor pyrolusite, hydrozincite. Staining on fractures some yellow iron oxide(?) at 23.00, fractures at 52°, 8° also, banding at 6°, could possibly be very poorly developed gneissose banding. Massive chalcopyrite at 23.92 m with quartz vein 1 cm. thick at 30°, iron oxide stain not found much after 22.00 m only found on a few fractures. Cahlcopyrite found in calcitic stringers 1 mm. thick also found very finely disseminated in rock around 27.00m Quartz veins found at 80° at 26.66 m very small malachite spots found in some places, quartz vein at 26.00 m, a lot of calcite in stringers beginning to appear. Chlorite at 26.35 m, rock begins to get omre chloritic at	133.19	134.41	100	
			134.41	134.72	100	
			134.72	136.24	100	
			136.24	137.76	100	
			137.76	139.29	100	
			139.29	140.81	100	
			140.81	142.34	100	
			142.34	143.86	100	
			143.86	145.38	100	
			145.38	146.91	97	
			146.91	148.43	100	
			148.43	149.96	100	
			149.96	151.48	100	
			151.48	153.0	96	
			153.0	154.53	92	

GEOLOGICAL LOG			ASSAY RECORD			
METERAGE	G LOG	DESCRIPTION				COMPOSITE
		25.85 m, malachite staining on fracture surfaces between 28.77 and 2986 m, small calcite stringers still present. Fractures at 40°, 75°, most at 40° alot of iron oxide, some malachite and hydrozincite staining on fracture at at 29.86m. After 29.86 m hydrozincite, pyrolusitie and minor iron oxide on surfaces, some quartz stringers as at 30.08 m, banding at 20o banding is not good but could be very poorly developed gneissose banding. Garnets found at 31.35 m with quartz vein 1 mm width at 90°. Some fractures at 15° also. Heavy iron oxide on fractures at 32.32 m. Calcite stringers at 40° found near 32.45 m. More iron oxide in fracture surfaces at 32.61 m. Fine, disseminated chalcopyrite and pyrite near 32.85 m.	154.53	156.05	100	
			156.05	157.58	100	
			157.58	159.1	100	
			159.1	160.62	100	
			160.62	162.15	96	
			162.15	163.67	100	
			163.67	165.2	99	
			165.2	166.72	100	
			166.72	168.24	74	
			168.24	169.77	88	
			169.77	170.99	94	
			170.99	172.82	100	
			172.82	174.34	100	
			174.34	175.86	99	
			175.86	177.39	100	
			177.39	178.91	100	
32.60 - 33.05		Rock becomes medium to coarse grained chloritic, calcic meta-argillite with inclusions of chert 2-4 mm. across, fine grained disseminated pyrite and chalcopyrite throughout fractures at 30°.	178.91	180.44	100	
			180.44	181.96	100	
			181.96	182.88	100	
			182.88	183.48	100	
			183.48	185.01	100	
33.05 - 33.35		Calcic breccia, finely disseminated pyrite throughout.	185.01	186.53	91	
			186.53	188.06	100	
33.35 - 34.13		Calcic meta-argillite, chloritic, banding and fractures at 20°, calcite stringers at 33.80-34.00 m at 33°.	188.06	189.28	99	
			189.28	189.58	63	
			189.58	190.8	94	
34.13 - 34.50		Contorted banded garnetiferous meta-argillite. Massive chalcopyrite surrounded by massive pyrite at 31.30 m calcite veining near this.	190.8	192.32	100	
			192.32	192.63	100	
			192.63	194.15	100	
			194.15	195.68	97	
35.20 - 37.63		Siliceous fine grained spotted meta-argillite, chloritic, very poor banding 5°, malachite staining on fractures throughout, contains finely disseminated chalcopyrite. Fractures at 90° and 10° highly fractured between 37.28 and 37.37 m	195.68	197.2	99	
			197.2	198.72	100	
			198.72	200.25	100	
			200.25	201.47	98	
			201.47	202.99	88	
37.63 - 37.97		Banded garnetiferous meta-argillite. Some disseminated chalcopyrite in places. Malachite staining present also. Banding at 20°-25°, fractures at 30°.	202.99	204.82	50	
			204.82	206.34	100	
			206.34	206.95	100	
			206.95	209.39	89	
37.97 - 38.30		Dirty biotitic chloritized dolostone, some minor malachite staining on fractures, fractures at 32°, chalcopyrite along bands at 34°.	209.39	212.44	100	
			212.44	215.49	100	
			215.49	218.54	100	
			218.54	221.89	92	
38.30 - 44.00		Calcic breccia containing quartz and chert, finely disseminated chalcopyrite and pyrite, fractures at 70°, 40°. Malachite staining on some fractures, pods of massive chalcopyrite found also, (not to common).	221.89	224.99	100	
			224.99	227.99	94	
			227.99	231.03	100	
			231.03	234.08	100	
			234.08	237.13	97	
44.00 - 48.13		Rock is spotted, fine grained siliceous meta-argillite some garnetiferous layers, most fractures at 20°, small calcic stringers, irregular 90°, and along fractures at 60° small band of breccia at 45.98-46.08 m, highly fractured zones from 45.22 to 45.38 m and 47.15 to 47.61 m, heavily fractured zone from 46.32 to 46.82 m, some minor disseminated chalcopyrite mineralization around breccia band.	237.13	238.04	100	
			238.04	238.96	100	
			238.96	242.92	100	
			242.92	245.96	100	
			245.96	246.89	99	
			END OF HOLE			

GEOLOGICAL LOG			ASSAY RECORD					
METERAGE	G LOG	DESCRIPTION	FROM (m)	TO (m)	Cu	Co	Au(ppb)	COMPOSITE
48.13 - 50.48		Calcic breccia containing, quartz, chert pieces, finely disseminated chalcopyrite and pyrite, very few fractures, fractures at 25°, 60°.	34.89	35.2	80	130		
			35.2	35.5	4900	126		
			35.5	35.8	4200	26		
			35.8	36.42	>10000	118		
50.48 - 54.57		Fine grained siliceous meta-argillite, calcic along fractures at various angles, chloritic, heavily fractured between 51.51 and 51.92, 53.50 and 54.34 m, malachite observed between 54.34 and 54.57 m.	36.42	37.04	3700	76		
			37.04	37.66	600	88		
			37.66	38.25	50	94		
			38.25	38.86	30	162		
			38.86	39.47	50	96		
54.57 - 54.67		Chlorite rich chert, 1-2% chalcopyrite present. Neotasite and thin malachite on fracture surfaces.	39.47	40.08	25	200		
			40.08	40.69	100	220		
			40.69	41.3	20	54		
54.67 - 55.97		Contact of chlorite rich carbonate. Chlorite concentrated in fractures. Bedded at 40°. Malachite, Neotacite, Pyrolusite on fracture surfaces as well, Minor iron staining on some fractures. Fracture band at 48° to bedding.	41.3	41.91	20	240		
			41.91	42.52	25	250		
			42.52	43.13	20	295		
			43.13	43.74	50	200		
			43.74	44.35	160	130		
56.94 - 58.72		Chlorite Albite carbonate. Calcite dominant. Pyrolusite, limonite strongly penetrate a .6 m. section from 57.20-52.90 m, 1-3% v.f. chalcopyrite and pyrite present. Calcite content decrease out of the heavily mineralized section. Minor malachite throughout.	44.35	44.96	1050	52		
			44.96	45.57	510	38		
			45.57	46.18	1700	66		
			46.18	46.79	540	48		
			46.79	47.4	880	80		
			47.4	48.0	9700	610		
			48.0	48.62	3250	164		
58.72 - 60.04		Same as previous. Calcite content increased. Pyrite and pyrolusite content increased. (2-5%) Better segregation of carbonate from chlorite. On the fractures present there is strong neotacite; iron stain and pyrolusite. Fractures trend 60°. Pseudo bedding at 30°.	48.62	49.23	185	88		
			49.23	49.83	280	118	< 5	
			49.83	50.44	380	260	5	
			50.44	51.05	200	76	5	
			51.05	51.66	3800	68	35	
60.04 - 62.44		Carbonate with a lower chlorite content. Massive quartz up to 50% but generally 10 to 20%. Pyrite content slightly lower with increased chalco. Chlorite, strong neotacite, pyrolusite and minor iron stain on fractures. Fractures at 60°, pseudo bedding at 40° becomes shallower at base of section almost undistinguishable. Sulphide content also slightly higher at the base.	51.66	52.27	4800	215		
			52.27	52.88	>10000	830		
			52.88	53.49	9700	196		
			53.49	54.1	8000	350		
			54.1	54.71	9500	990		
			54.71	55.32	>10000	290		
			55.32	55.93	5200	174		
			55.93	56.24	6000	570		
62.44 - 62.74		Sulphide rich replacement zone. Massive limonite and malachite with chalco grains (5%) appears to have replaced the carbonate along an old fracture.	56.25	56.54	190	285		
			56.54	57.15	770	64		
			57.15	57.76	340	260		
			57.76	58.37	480	134		
			58.37	58.98	410	420		
			58.98	59.6	400	118		
62.74 - 64.40		Carbonate with dolomite and chlorite dominant. Pyrite and chalco present in varying amount (5-15%) increased sulphide content at base which also grades into a chert. (5 cm.) 2 small sulphide replacement zones. 1 at 63.29 m is the same as the previous (6 cm.) Second at 63.85 m is also 6 cm. wide is rich in neotacite and pyrolusite with malachite and limonite almost absent. Fractures have strong neotasite and pyrolusite with some iron and malachite stain. Sulphide appear to be deposited along old fracture. Fractures at 50°. Pseudo bedding at 10°.	59.6	60.2	2100	90		
			60.2	60.81	3800	70		
			60.81	61.42	4700	110		
			61.42	62.03	>10000	210		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
64.40 - 65.20		Chert 5-10% massive chalco with pyrite along old fractures, malachite on fractures at 50°. Poorly fractured.		
65.20 - 66.14		Transition into breccia stringer of chlorite trending 25°, 5-10% pyrite and chalco primarily along old fractures.		
66.14 - 69.88		Breccia. Chert fragments in chlorite. Chalcopyrite and pyrite exist as small unconformable pods. Breccia not as pronounced in last 20 cm.		
69.88 - 74.88		Calcite stringer with 40-50%. Chalco and pyrite at 70.08 m trending 50°. Contorted chert interbedded with a chloritized calc-silicate gneiss. Two larger carbonate veins at 70.51m., 70.71m., 3 and 10 cm. respectively, both trending 50°, same as the first only with 10-30° sulphides. Fracture trends at 72.23 and 73.76 both 60°. Minor malachite on isolated fractures.		
74.88 - 79.96		Rock is calcic meta-argillate, light colour due to bleaching, disseminated chalcopyrite throughout. Some massive chalcopyrite along calcite veins at 75.38, 79.20, other blebs of massive chalcopyrite found in various places. Most fractures at 40° some at 20°, alot of very fine fractures containing calcite, all at various angles; same sections of dolomite.		
79.96 - 81.38		Granitoid-biotitic calcic gneiss, minor dissemination of chalcopyrite in gneiss. At 81.38 m, less biotitic.		
81.38 - 81.83		Fine grained siliceous meta-argillite.		
81.83 - 86.90		Fine grained calcic meta-argillite, malachite staining on some fracture surfaces especially at 82.40, very fine grained chalcopyrite disseminated throughout, shows very poor gneissose banding. Interbedded calcic, siliceous, meta-argillite, chert, the cherty layers have hairline cracks at various angles filled with calcite, fractures at 40°, 30°, 60°.		
86.90 - 87.47		Very fine grained, banded, chert and siliceous meta-argillite. Bands at 30°, fractures at 40°, 20°.		
87.47 - 88.79		Calcic meta-argillite, fine to medium grained. Fractured cherty section (non calcic for 30 cm. at 87.97 fractures at 60°, 40°)		
88.79 - 89.20		Medium grained calcic chloritized meta-argillite fractures at 60°, 50°.		
89.20 - 90.46		Very fine grained banded, chert and siliceous meta-argillite fractures at 50°, 20°, 35°.		
90.46 - 91.00		Medium grained, calcic chloritized meta-argillite weak banding at 30°, fractured at 45°.		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
91.00 - 91.38		Highly fractured, altered chert and siliceous meta-argillite alot of iron oxide, calcite, yellow oxide.		
91.38 - 91.97		Medium grained calcic chloritized meta-argillite. Fractured at 60°, chalcopyrite, malachite found at 91.97 chalco disseminated, malachite along fractures.		
91.97 - 92.22		Highly fractured, very slightly altered chert and siliceous meta-argillite.		
92.22 - 93.50		Medium grained, calcic chloritized meta-argillite. Fractures at 30°, 40°, 50°.		
93.50 - 93.86		Fine grained, weakly calcic, chloritized meta-argillite. Fractures at 75°, 25°.		
93.86 - 94.05		Very fine grained banded, chert, banded at 40°, fractured at 25°.		
94.05 - 94.29		Fine to medium grained biotitic, siliceous meta-argillite some disseminated chalcopyrite, fractures at 20°, 40°.		
94.29 - 94.80		Very fine grained banded chert, banding at 20°, fractures at 40°.		
94.80 - 95.42		Fine to medium grained, calcic meta-argillite, finely disseminated sulfides throughout, fractures at 45°, 65°.		
95.41 - 95.73		Fine grained banded chert, very fine hairline fractures at 40°.		
95.73 - 95.99		Fine to medium calcic meta-argillite, finely disseminated sulfides throughout.		
95.99 - 96.23		Banded chert at 30°, iron oxide and malachite staining and some chalcopyrite.		
96.23 - 99.42		Weakly calcitic, fine to medium grained meta-argillite finely disseminated sulfides throughout. Fractures at 30°, 65°, 45°. Bands of chert from 96.51 to 96.74, 97.25 to 97.5m, 99.01m to 99.42 m.		
99.42 - 105.25		Rock much more calcic biotitic meta-argillite, still has very finely disseminated sulfides throughout. Malachite staining on some fractures, get more chalcopyrite concentrated in some spots as at 99.73 and at 101.10, cherty bands from 99.55 to 99.64, 101.19 to 101.84, 102.00 to 102.21, 103.40 to 104.20 sulfides appearing along calcite veins at 50°, malachite appears on various fracture surfaces, weakly calcic band between 102.71 and 1 103.05, 104.85 and 105.13 fractures at 10°, 30°, 50°.		
105.25 - 105.42		Highly fractured cherty rock.		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
105.42 - 109.23		Chloritc calcic gneiss, gneissose banding poorly developed at 105.42 gneiss gets more biotitic at 108.00 m highly fractured sections between 108.2 and 108.6 m. Fractures at 85°, 40°, 20°.		
109.23 - 112.91		Fine to medium grained, calcic meta-argillite cut by some biotite rich veins. 1.3 mm. wide at 45°. Some sulfide mineralization along these veins. Gradually becomes spotted with biotite, is spotted meta-argillite at 109.95 m. Some biotite pods, becomes more mafic and gneissose banding appears at 111.25 m, at 111.40 m becomes less mafic and gneissosity becomes very weak, at 112.02 gneissosity reappears, rock is contorted, rock more chloritic.		
112.91 - 113.15		Rock is pink calcite.		
113.15 - 113.53		Rock is chert, fractured at 45°, 70°, very small amount 0.5%, disseminated sulfides, specks of goethite.		
113.53 - 114.90		Banded chert and biotitic calcic gneiss. Gneissose banding poorly developed in some sections. Contorted banding slot of calcite bands and pods, chloritized, some minor 1% chalcopyrite, banding at 20°, fractured at 35°, 60°.		
114.90 - 115.60		Rock is highly fractured, cherty, thin quartz stringers along fractures at 70°, malachite on fractures, disseminated chalcopyrite.		
115.60 - 128.62		Banded gneiss, white and chert layers, sulfides along mafic bands in gneiss, chloritized gneiss. Very soft, iron oxidized chloritized band between 116.61 and 116.94 m, banding and fractures at 25°, fractures at 35°, 70°, contorted, heavily fractured between 120.70 and 121.05 m at 121.20 rock gets more chloritized increase in chert layers between 121.20 and 121.80 m, more gneiss layers between 121.80 and 124.05, disseminated chalcopyrite in gneissose layers pink calcite bands between 124.30 and 124.38 m, 128.35 and 128.42 m.		
128.62 - 132.33		Fairly equal amounts of gneiss and chert bands. Chloritized gneiss with small amount disseminated chalcopyrite, fractures at 25°, 20°, 45°, 50°.		
132.33 - 138.90		More gneiss, very little chert in bands, poorly developed gneissose banding, not as chloritized as before, calcic gneiss, heavily fractured at 30°, 80°, 20°, 55°, no sulfides seen, iron oxide appears on fracture surfaces beginning at 135.77 m, very minor amount of sulfides disseminated in rock (137.61 m) rock gets chloritic again between 134.00 and 135.47 m.		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
138.90 - 142.61		Rock is much more massive, very poor gneissose banding at 20°, 0.5% chalcopyrite disseminated within rock. Chalcopyrite along calcite vein at 139.84 at 30°, siliceous, calcite poor layer between 140.02 and 141.06, this layer shows gneissose banding much better, calcitic between 141.06 and 142.61.		
142.61 - 159.59		No longer has gneissose banding is garnetiferous banded meta-argillite, garnets in bands 3-5 cm. wide, siliceous, banded at 17°, very finely disseminated chalcopyrite throughout garnetiferous layers, fracturing at 75°, 10°, 65°, very garnetiferous layers are calcic, some calcite veins at 30°, some sections of very fine grained, mafic, siliceous meta-argillite, such as between 149.96 and 150.48, rock becomes mainly fine grained siliceous meta-argillite at 151.00, garnetiferous bands not as wide or as many, garnets found in calcite viens, very minor amounts of disseminated sulfides found with garnets.		
159.59 - 165.50		Rock is very fine grained mafic siliceous meta-argillite. 6 cm. bands of garnets in calcic meta-argillite every 25 cm., bands at 35°, a few fractures at 35°, 10°. A few small mico fractures filled with calcite or quartz at 55°, some sulfides pyrite, chalcopyrite in quartz filled fracture at 167.40 at 50°.		
165.50 - 168.37		Rock is highly fractured, malachite, pale iron oxide stain on fractures, rock is chloritized, siliceous meta-argillite.		
168.37 - 170.98		Rock is poorly banded garnetiferous meta-argillite, contains calcite veins, garnets and chalcopyrite in calcite veins at 75°, 50°, 35°, fractured at 40°, 60°.		
170.98 - 174.73		Rock is weakly banded para gneiss, siliceous, finely disseminated chalcopyrite throughout, chlorite and biotite in rock also, at 123.37 gets coarser grained, contains both quartz veins and band of coarse grained quartz biotite rock between 174.34 and 174.73, fractures at 70°, 50°, 40°, banding at 25°-30°, rock also contains pyrrhotite, chalcopyrite and pyrite in quartz veins not much pyrrotite, no minerals in quartz-biotite section.		
174.73 - 193.66		Very poorly banded siliceous meta-argillite, scattered and fine grained chalcopyrite disseminated throughout banding at 40°, fracture at 50°, 40°, 55°, some calcite begins appearing around 178.45, a few calcite veins containing chlorite and chalcopyrite, speck of azurite staining seen, gets less mafic at 180.99, some gneissose banding and calcite around 181.40, banding at 55° beginning here, mainly fine-medium grained meta-argillite with some bands of fine grained rock; medium and coarse grained biotite, calcite rich, highly fractured zone from 183.37 to 183.78, some poor gneissose banding occurs in other places also, biotite is major mafic in bands		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
		at 180.86, magnetite rich zone from 190.80 to 191.90 also from 192.32 to 193.25.		
193.66 - 196.68		Rock is a breccia, not very many fractures, fractures at 45°, 65°, some calcic segments, rock is very chloritized and highly fractured between 196.25 and 196.68.		
196.68 - 197.67		Altered meta-diorite, contains calcite, quartz, biotite, chlorite has red hematitic stain on some fracture surfaces.		
197.67 - 201.53		Rock is fine grained calcic meta-argillite, fractured at 40°, 65°, bands of breccia from 199.03 to 199.34 and 199.64 to 200.25, breccia contains biotite, calcite, quartz chlorite.		
201.53 - 211.12		Rock becomes breccia, contains rock fragments, calcite, biotite, chlorite, very fine grained ilmenite(?) speckly throughout breccia, some small calcite stringers in random directions, breccia is highly broken between 205.61 and 211.12		
211.12 - 214.20		Fine to medium grained calcic, banded meta-argillite bands at 60°, fractures at 60°, 20° 85°, calcite stringers at various angles, show minor faults within core, some minor chlorite and biotite, at 213.45 becomes more mafic, rock contains magnetite, is highly fractured to 214.10		
214.20 - 215.93		Return to breccia unit, section of lighter coloured breccia from 214.78 to 215.06 m, some disseminated hematized appears in rock at 215.30 m		
215.93 - 218.12		Rock is fine grained calcic meta-argillite, very poor banding and fractures at 20°, gets chloritized and coarser grained around 217.76 m, very fine grained chalcopyrite disseminated within rock.		
218.12 - 227.99		Breccia as before, spotted calcic meta-argillite between 218.34 to 218.68 m, some very fine grained chalcopyrite disseminated throughout.		
227.99 - 229.47		Zone of mud rich in pyrrhotite and possibly other sulfides mud is very magnetic. (possibly flakes from drill rods?)		
229.47 - 238.65		10 cm. of breccia, appears to be out of place as next starts gradational change of mud alteration to unaltered rock, becomes breccia, rock becomes highly fractured at 236.80 has hematite stains on some fracture surfaces, fractures at 10°, 40°, some pink calcite in places.		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
238.65 - 242.92		Rock continues to be highly fractured, is a fine medium grained meta-argillite. Rock is banded at 60^{o}. Fractures at 60^{o}, 40^{o}, 50^{o}. Rock is very calcitic, cut by very fine calcite stringers at various angles. Pyrolusite on fracture surfaces between 238.90 and 239.62.		
242.92 - 246.85		Breccia, highly fractured, calcic, some sections of mafic meta-argillite, fine grained, fractures at 50^{o}, 70^{o}.		
246.85		END OF HOLE - Core stored at Fairchild Lake Camp		

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No F-4-80 PAGE 1 OF 3
PROJECT FAIRCHILD

LOCATION Eagle Grid 30 + 4.75NW, 29 + 21SW	START July 4, 1980 FINISH July 8, 1980	ASSAY BY
BEARING DIP -90° ELEVATION 931.04 m	CONTRACTOR E. Caron Diamond Drilling	CERTIFICATE (S)
LENGTH 146.91 PROPOSED LENGTH	TESTS Sperry Sun Deviation	
CORE SIZE HQ OVERALL RECOVERY 98%	LOGGED BY R. Beaton DATE LOGGED	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Sperry Sun test @ 146.9 m -82° @ Az 166°
3.20 - 6.55	SPOTTED CALCIC META-ARGILLITE - highly fractured and broken, some bands 5-10 cm wide of siliceous mafic meta-argillite, band of pink quartz with biotite at 3.40, rock is banded at 30°, banding is poor, fine to medium grained
6.55 - 30.75	SLATE - METAPELITE - very fine grained, mafic, heavily fractured every 4 cm on average, fracturing along banding at 30°, highly fractured and broken to 10.60, limonite staining on fracture surfaces, talc appears on faces also, some chalcopyrite on fracture surfaces but not common, chlorite also formed - fractures also at 60°, 50°, at 14 m becoming more massive - not as slaty banded meta-argillite, fractures further apart, fine stringers of quartz along fractures, chalcopyrite begins to appear more frequently around 18.80, appears in pods and along fractures - a lot of fine grained biotite on some fracture surfaces at 28.04 banding at 35° banding well shown throughout
30.75 - 31.28	SPOTTED META-ARGILLITE - 15 cm of massive calcite-apatite with disseminated chalcopyrite - minor amounts of bornite also with quartz vein, after 15 cm becomes much less mafic and has contorted gneissose banding contains less apatite (?) but still present also contains biotite and calcite
31.28 - 59.28	SILICEOUS META-ARGILLITE - fine grained mafic as before banding and fractures as before, not as slate-like; thin bands of mineralization with calcite begin appearing at 35.50 spaced 10 cm apart for 1.5 m, at 46.00, banding and fractures still at 35°, mineralized veins also contain apatite at 53.76 - at 53.76 band of coarse grained calcite with some chalcopyrite end at 54.23, another band between 55.95 and 56.34

ASSAY RECORD

FROM (m)	TO (m)	% RECOVERY	COMPOSITE
0	6.7		
6.7	8.22	57	
8.22	9.75	100	
9.75	11.27	99	
11.27	12.8	100	
12.8	13.7	100	
13.7	15.84	100	
15.84	17.37	100	
17.37	18.89	100	
18.89	20.42	100	
20.42	21.94	100	
21.94	23.46	100	
23.46	24.99	100	
24.99	26.51	100	
26.51	28.04	100	
28.04	30.48	89	
30.48	31.69	100	
31.69	32.69	100	
32.69	34.13	70	
34.13	35.05	100	
35.05	36.57	100	
36.57	37.18	80	
37.18	38.7	100	
38.7	40.23	100	
40.23	41.75	100	
41.75	43.28	100	
43.28	44.8	99	
44.8	46.32	100	
46.32	47.85	100	
47.85	49.37	100	
49.37	50.59	89	
50.59	51.51	100	
51.51	52.42	99	
52.42	53.94	100	
53.94	55.42	100	
55.42	56.99	99	
56.99	58.52	100	
58.52	60.04	100	
60.04	61.56	100	
61.56	63.09	100	

GEOLOGICAL LOG			ASSAY RECORD			
METERAGE	G LOG	DESCRIPTION	FROM (m)	TO (m)	% RECOVERY	COMPOSITE
			63.09	64.61	89	
59.28 - 76.80		SPOTTED MEDIUM GRAINED CALCIC META-ARGILLITE - shows gneissose banding in some spots especially 60.04, some disseminated chalcopyrite in places, banding at 30°, fractures at 5°, 65°,85° except for gneissose banding - banding is very poor, at 63.50 gets a little more coarser grained - banding is at 35°, about 15 cm of calcite -apatite richbbands at 72.8	64.61	66.14	100	
			66.14	69.18	99	
			69.18	70.71	100	
			71.71	72.23	100	
			72.23	73.76	81	
			73.76	75.28	100	
			75.28	76.8	98	
76.80 - 81.58		APATITIC METASILTSTONE - medium grained, disseminated pyrite throughout - small amounts of apatite & chalcopyrite concentrated in thin bands few mm wide, banding at 40°, 30° - fracture at 30°, 60°, rock is calcic	76.8	78.33	99	
			78.33	79.85	100	
			79.85	81.38	94	
81.58 - 95.51		SILTSTONE AND ALTERNATING LAYERS OF APATITE RICH SILTSTONE - siltstone as fine grained, mafic, slightly chloritized poorly banded at 40°, has malachite stain at 88.40 - some bands of apatite rich siltstone have very fine grains of disseminated pyrite and possibly some chalcopyrite	81.38	82.9	94	
			82.9	84.42	94	
			84.42	85.95	94	
			85.95	87.47	94	
			87.47	89.0	94	
			89.0	90.52	94	
			90.52	92.04	94	
			92.04	93.57	94	
			93.57	95.09	94	
95.51 - 146.91		SPOTTED METASILTSTONE - some small bands of fine grained mafic siltstone but these are minor, disseminated sulfides are very minor - banding is at 30°, calcite veins are 1 cm thick at 85° found at 102.40, 102.80, 104.40, 109.10 - 25 cm layer of coarse grained calcite, quartz and chlorite formed at 108.87, very minor amount of biotite and chalcopyrite here also - banding at 103.60 appears to be remanent cross-bedding, alot of fine grained mafic siltstone between 110.55 and 114.50, banding continues at 30° but is poor, fractures at 50°, 60°, 30°, some more fine grained mafic, non calcic siltstone bands at 134.50, 135.20, 128.35 - chlorite appears in some fracture surfaces, disseminated sulfides no longer seen - some specks of limonite stain in rock around 118.00 - rough, some limonite on some fractures - fractures at 50°, 70°, 10° between 140.81 and 146.91 - bedding is at 20°, 30° - some chert or cherty siltstone layers at 121.89 to 122.39, 123.11 to 123.26, 125.50 to 125.92, 128.33 to 128.57 and 136.24 to 136.42	95.09	96.62	94	
			96.62	98.14	94	
			98.14	99.66	94	
			99.66	101.19	94	
			101.19	102.71	95	
			102.71	104.24	100	
			104.24	105.76	100	
			105.76	107.28	100	
			107.28	108.81	95	
			108.81	110.33	100	
			110.33	111.86	100	
			111.86	113.38	100	
			113.38	114.9	100	
			114.9	116.43	96	
			116.43	117.95	100	
			117.95	119.48	100	
			119.48	121.0	100	
			121.0	122.52	100	
			122.52	123.44	100	
			123.44	124.66	89	
			124.66	125.57	100	
			125.57	126.18	100	
			126.18	127.71	100	
			127.71	128.62	100	
			128.62	130.14	100	
			130.14	131.67	100	
			131.67	133.19	100	
			133.19	134.72	94	
			134.24	136.24	84	
			136.24	137.76	100	
			137.76	139.29	100	
			139.29	140.81	100	
			140.81	142.34	100	
146.91		END OF HOLE CORE STORED AT FAIRCHILD LAKE CAMP				

GEOLOGICAL LOG			ASSAY RECORD			
METERAGE	G LOG	DESCRIPTION	FROM (m)	TO (M)	% RECOVERY	COMPOSITE
			142.34	143.58	100	
			143.58	145.06	100	
			145.06	146.91	100	
			END OF HOLE			

D.D.H. Nº E-4-80 PAGE 3 OF 3

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-5-80 PAGE 1 OF 4
PROJECT FAIRCHILD

LOCATION EAGLE GRID	START August 21/80 FINISH Aug. 24/80	ASSAY BY CHEMEX LABS LTD.
BEARING Az 222° DIP -45° ELEVATION 850m	CONTRACTOR E. CARON DIAMOND DRILLING	CERTIFICATE (S)
LENGTH 357' (108.5m) PROPOSED LENGTH	TESTS SPERRY-SUN DEVIATION	
CORE SIZE HQ OVERALL RECOVERY 95%	LOGGED BY B. Harmeson DATE LOGGED	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Sperry Sun measurement at 357 (108.5m) Az 225°/-41°
0 - 1.8	OVERBURDEN
1.8 - 8.22	Unit composed of grey-green moderately banded scapotilitic metasiltstone. Moderately siliceous throughout with highly siliceous bands running through unit, oriented at 0-10°, paralleling most scapolitic bands. Grossularite garnets also observed within unit. The garnets are associated either as individual grains associated with scapolitic bands or as garnetiferous bands cutting the units foliation at 20-30° or parallel to foliation. Microfractures well represented though unit not highly fractured and broken. Fractures trend 60-80° and cemented by chloritic, siliceous, calcic alteration. Sulphide mineralization is minor, mainly chalcopyrite and minor pyrite observed. Mineralization appears most commonly within garnetiferous bands. At 6.1 m. - 3 cm. thick band of brecciated and strongly silicified and chloritized, weakly calcic metasiltstone. Very minor sulphides observed.
8.22 - 9.75	Area of broken and fractured rock. Section highly scapolitic with bands cherty-like quartz the section is moderately calcic of silicified throughout. Minor specks chalco, pyrite and arsenopyrite adjacent to siliceous bands.
9.75 - 11.45	Zone which is weakly fractured moderately calcic throughout and composed of similar scapolitic - garnetiferous metasiltstone. Banding is not as developed as fabric is more "augen" in nature (oriented 0° and 25-30°), the grain size of both scapolite and garnet has increased to medium coarse grain. The unit is cut by

ASSAY RECORD

FROM (M)	TO (M)	Co	Ni	Cu	Au (ppb)	COMPOSITE
28.8	29.1	100	34	1400		
30.05	30.66	70	20	2400		
38.4	39.01	660	66	1000		
46.33	46.94	260	60	10,000		
74.98	75.29	162	14	160		
76.44	76.87					+30 element spec
78.94	79.25	54	16	86	5	
96.74	97.05	330	34	30		
100.46	100.77				20	

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
		lenses of cherty silica quartz which generally contain no scapolite or garnet. These silica bands are much darker in colour. Isolated chloritic, siliceous, calcic and limonitic fractures trend 20 and 45°. The zone contains minor to locally moderate sulphide mineralization. Chalcopyrite and pyrrhotite are observed along isolated fractures as well as along or ajacent to the silico bands or as disseminated grains within the scapolitic/ garnetiferous lenses. (generally as a whole 2%). At around 11.27, unit no longer fractured but contains a granular texture and moderate calcic alteration. through-out as well as fine biotitic streaks trending at 10°. This section contains minute specks of hematized disseminated sulphides (chalcopyrite, pyrite?)		
11.45 - 12.2		Return to similar scapolitic, minor grossularitized siliceous metasiltstone. Unit is moderately banded at 10°.		
12.2 - 14.02		Here grain size of scapolite increases, similar to previous section. Again a sort of "augen" texture is developed, oriented 15-20°. Minor grains chalcopyrite, pyrrhotite observed as well as stringers of finely grained biotite. Unit moderately calcic throughout. Micro-folding is developed around 12.7 m. Siliceous banding is again developed. As with previous section finely disseminated grains sulphides are scattered throughout the calcic matrix (2-3%). (Flakes molybdenum?). Isolated fractures not common, normally trend 50-60°. They are weakly chloritized, siliceous, calcic and limonitic. Hematitic stain again observed with sulphides within matrix.		
14.7 - 14.7		Return to scapolitic fine to medium grain metasiltstone. Moderately siliceous throughout. Banding not as well developed as fabric more granular. Few isolated streaks of biotite observed. Trace amounts disseminated sulphides. Section weakly calcic (decrease from previous section) Quartz vein at 14.6 m. trends 70°, contains minor chalco-pyrite grains. Isolated fractures not common (50-70°), chloritic, siliceous, limonite - minor grains sulphides.		
14.7 - 15.08		Highly siliceous zone.		
15.08 - 18.83		Return to similar scapolitic siliceous metasiltstone. Bands moderately developed and generally thicker than earlier. Bands composed of scapolitic zones and more siliceous zones of chloritic metasiltstone. Bands 1-3 cm. Banding or foliation (on a small scale) observed within scapolitic zones (tend to be more calcic), these siliceous bands associated with minor chalco and pyrite mineralization.		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
18.83 - 20.05		Again into scapolitic-garnetiferous (weak) - biotitic augen unit, again increase in carbonate. Disseminated sulphides.		
20.05 - 28.08		Return to foliated/banded scapolitic - siliceous metasiltstone. Banding not as regular. Unit weakly to moderately calcic. Banding 0-10°. Unit composed of lenses or layers of scapolitic-chloritic-biotitic-calcic bands which carry disseminated sulphides and layers of more siliceous, slightly hematized darker bands which too contain trace sulphide mineralization. Unit contains isolated fractures (not common) which look well washed with minor chlorite, calcic, siliceous, limonitic alteration. These trend 40-50°. Rare, isolated quartz, carbonate veins (1-2 cm.) trending 60-70°, carry very minor sulphides.		
28.08 - 33.3		Similar unit, but banding becomes more compact and contorted in nature. Banding trends 0-10°. Unit composed primarily of quartz-minor scapolite-calcite-biotite, is moderately calcified throughout. Disseminated sulphides observed throughout section often haloed by red hematite. Sulphides also observed within hairline quartz-carbonate fractures trending parallel to foliation (0-10°). Sulphide minerals are chalcopyrite and pyrite and possibly arsenopyrite. Unit also contains more silicified sections trending parallel to foliation, these silico bands contain minor thin scapolitic lenses. Minor sulphides. Fractures again not common, trend 60-70° contain minor calcic, chloritic and silica alteration. Unit appears more chloritic near base.		
33.3 - 38.7		From 33.3 to 34.44 - moderately fractured and broken section of weakly siliceous, moderately chloritic metasiltstone (Decrease in carbonate, increase in chlorite). Fractures fairly clean and trend 10 and 70°. This same chloritic meta-siltstone unit continues. Laminae trend 0-5°, marked by lack of scapolite. This chloritic unit is quite constant and competent along section. Minor amounts chalco and pyrite along quartz-carbonate hairline fractures at 70°.		
38.7 - 39.0		Transition into similar "augen" gneissic unit. Foliation trends 5°. Unit is occasionally banded by chloritic-scapolitic lenses. Unit contains quartz-calcite (white and green) - biotite plus certain opaque heavy veins. Sulphide mineralization observed throughout; chalcopyrite, pyrrhotite and pyrite (3%) grains seen disseminated within matrix along 70° micro-fractures. Zone bounded on both sides by scapolitic section.		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
39.0 - 43.44		Return to chloritic-siliceous metasiltstone (similar to 33 m.). Appears slightly more chloritized and siliceous than previous sample. Well banded, 5-10°, and contains compact scapolitic lenses (tend to be more calcic). Disseminated sulphides throughout, 1%, seem slightly more concentrated within the scapolitic-calcite zones. 42.27 - 42.57 m. - other augen zone (similar to above). Isolated fractures not common, altered as above plus neotasite. Contain sulphides chalo, pyrrhotite, pyrite. Trend 30-50°.		
43.44 - 45.54		Rather sharp transition into a strongly siliceous almost porcelain unit. This unit contains randomly distributed bands of scapolitic-weakly garnetiferous calcic bands trending 10°. The top .4m. of this unit contains myriad of fine quartz-carbonate stringers trending 70-90°. Isolated fractures not common, trend 30° and although surfaces appear washed have undergone chloritic and minor limonite alteration. Sulphide mineralization, chalco and pyrite is located both along microfractures and within matrix of scapolite-calcite (2%).		
45.54 - 46.84		Above unit becomes much more contorted. Resembles a somewhat deformed brecciated unit where mineralizing calcic-siliceous fluids intrude the metasiltstone. The unit is poorly banded, resembling a mixture of breccia and augen and porcelain. Foliation remains roughly 40°. Banding occurs as contorted scapolitic-biotitic-garnetiferous weakly hematized lenses within "augen" gneiss of same mineralogy. Isolated fractures trend 40-50° and contain neotasite, calcite, quartz, chlorite alteration. Unit is moderately calcic and weakly albitized. Sulphide mineralization ranges from trace to 20% is composed largely of chalcopyrite, pyrrhotite with pyrite and minor magnetite. The mineralization occurs as disseminated gains and as massive strataform. Best developed at 46.84 m.		
46.84 - 48.65		Gradual transition into moderately to strongly siliceous unit of thinly banded scapolitic-minor-garnet-weakly calcic metasiltstone. Banding is moderately developed and trends 20°. This section contains moderate carbonate veining trending 60-70° and 80°. Isolated fractures trend 20 and 60° and are somewhat chloritic, siliceous and calcic. Sulphide mineralization (mainly chalcopyrite and pyrite) occurs as disseminations within unit and within adjacent to carbonate veins. Fracture-filling carbonate at 48.65m.		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
48.65 - 53.16		From 48.65 to 53.16 m., unit composed of strongly siliceous, porcelain-like light-grey metasiltstone. Unit is occasionally moderately fractured and broken. Vertical carbonate veins and carbonate fracture-filling is located throughout. Minor grossularite/scapolite associated with fracture filling. Fractures trend 40-60° and 80°. Sulphide mineralization, 1%, appears restricted to the carbonate veins and microfractures. Kaolin alteration (weak) also apparent.		
53.16 - 72.7		Unit composed of moderately to strongly well-banded scapolitic-weakly garnetiferous metasiltstone. Unit banded into bands of (oriented 20-30°) a) darker, more iron-rich, highly siliceous b) lighter, calcic and chloritic (occasionally biotitic) rich, moderately siliceous zones containing scapolite, garnet. Isolated fractures not common, seen to trend. Fracture surfaces underwent strong siliceous alteration, with moderate calcic of chloritic. Sulphide mineralization (1%) - chalcopyrite, pyrite mostly - appears: a) disseminated within calcic matrix b) contact along bands c) along fracture surfaces. Around 65.0 m. - unit decrease in silica, increase in chlorite. Very few irregular or contorted zones contained. Banding, with depth, becomes tighter and more laminar (20-25°). Isolated fractures moderately calcic throughout with minor limonite, these trend parallel to foliation as well as 50-70°. Similar griessen or augen zone (biotitic) at 67.05 to 67.35 m. Very granular texture and minor amounts disseminated sulphide specks.		
72.7 - 108.5		At 72.7 m. - unit observed to be slightly more siliceous, this seen to occur with medium to high degree of quartz-carbonate fracture fill and veining. Veining trends 60-80°. Isolated fractures trend 30-50°. Sulphides, chalcopyrite and pyrite, appears restricted to the carbonate veins and along calcic/siliceous fracture surfaces (1%). Similar finely banded unit, remains moderately, to strongly siliceous - moderately calcic and chalcopyrite throughout. With depth unit remains the same. Section contains isolated carbonate vein or fracture-fill areas containing magnetite plus pyrrhotite with occasionally trace amounts of chalco and pyrite. These intervals in all cases are associated with quartz-carbonate vein material, occasionally biotite masses and a general increase in scapolite/ grossuarite development. These intervals occur at:		

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
		1) 74.35 - 74.6 - large grains magnetite in carbonate material trending 70° 2) 79.02 - 79.3 - magnetite and pyrrhotitie within contorted carbonate fracture-fill zone. 3) 79.65 - 79.68 and 79.8 - 79.87 - disseminated magnetite within calcic biotitic augen (contorted) 4) 82.55 - 83.14 - magnetite grains with pyrrhotite and minor chalcopyrite within contorted carbonate fracture-fill zone, trending 30°. 5) 94.7 - magnetite, minor pyrrhotite within carbonate fracture-fill vein at 25° 6) 95.69 - 95.93 - magnetite, minor chalco with biotite within carbonate fracture-fill vein trending 25°. 7) 95.98 - 96.23 - similar to above. 8) 96.4 - 96.68 - similar to above, minor pyrrhotite within fracture-fill vein trending 70-80°. 9) 96.86 - 96.95 - similar to above, trending 50° 10) 97.12 - 97.28 - similar to above, trending 70° (disseminated magnetite/pyrrhotite) 11) 100.84 m. - magnetite grain within carbonate vein at 25°. Isolated fractures not well concentrated but consistent, trend 25°, 50-70°, and 90°. In this interval, minor sections are weakly to moderately fractured and broken. With depth unit not as altered with carbonate veining. By 101 m. similar ribbed or well banded moderately to strongly siliceous metasiltstone resumes. Banding 20-25°. By 102 m. presence of grossulavite garnets, these lie within the more calcareous bands. White the darker bands are composed of chlorite and silicia. Isolated fractures not common and well washed. These trend 40-60° and are moderately siliceous and chloritic. Quartz-carbonate vein present at 108 m. trending 70°. END OF HOLE - 108.5 m. (356') CORE STORED AT FAIRCHILD LAKE CAMP.		

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-7-80 PAGE 1 OF 2
PROJECT FAIRCHILD PROJECT

LOCATION Eagle Creek	START August 27, 1980 FINISH August 30, 1980	ASSAY BY Chemex Labs Ltd.
BEARING ____ DIP -75° ELEVATION ____	CONTRACTOR E. Caron Diamond Drilling	CERTIFICATE (S) ____
LENGTH 377' (114.91 m) PROPOSED LENGTH ____	TESTS ____	____
CORE SIZE HQ-NQ OVERALL RECOVERY 98%	LOGGED BY D. Dick DATE LOGGED Sept. 14, 1980	SEE CALCULATION SHEET NO. ____

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0 - 2.44	CASING
2.44 - 114.91	BANDED AND SPOTTED METASILTSTONE Color: Dark grey to blue. Light green in chloritized sections to pale green in siliceous sections. Hardness: 4 to 5 Composition: 30% feldspar, 40% quartz and 20% mafics and chorite Structure: consistently banded and spotted with bands 1/8" to 6" wide, averaging 1/2", locally massive and interelated with siliceous bands. Foliation core angles consistent between 30° and 45° to core axis Alteration: Metamorphic grade appears to increase with depth with scapolitized bands or beginning of hole and grossularized bands at bottom of hole. Banding fairly consistent at 45° to core, locally flattening to 30° to core. Locally calcareous. General Fracturing: Spurious carbonate filled fractures at various angles with the low angle (0° to 5°) predominant. Occasional quartz sulphide veins: - (1/2" thick at 11.23 m, 28.04 & 65.84 m at low angle to core) - (1/2" to 1" thick veins at 50.60 m and 79.55 m at high angle to core) GENERAL ALTERATION: Silicification - Pale green massive sections from 31.70-32.31, 46.02-58.83, 66.45-71.32, 94.18- 94.49, 77.72-78.03, 104.24-104.55, 102.72-103.02 with numerous pale green bands 1/4" to 1/2" thick.

ASSAY RECORD (ppm)

FROM (m)	TO (m)	Cu	Co	COMPOSITE
11.5	12.19	470.0	10.0	
38.7	39.3	3250.0	46.0	
53.34	53.95	2500.0	98.0	
66.14	66.9	1200.0	70.0	
70.1	70.4	8650.0	118.0	

GEOLOGICAL LOG			ASSAY RECORD	
METERAGE	G LOG	DESCRIPTION		COMPOSITE
		Argillization - dark green massive sections at 35.37-35.96 and 36.58-43.89 with occcasional bands to 71.63. From 71.63 to end of hole dark argillized banding common. Callification and Minor Biotitization - form "wavy banded"(greisen? sections 12.8-15.85 locally chloritized and spotted , 17.68-17.98, 23.47-24.08, 32.31-35.36, and 53.64-54.56 MINERALIZATION: Local very finely disseminated sulphides parallel to bands, greater concentration of sulphides in wavy calcic sections and spurious quartz-carbonate veins. Mineralization comprised of pyrite, chalcopyrite, pyrrohotite, arsenopyrite, and skuttervoite. Sampled Sections; #86151 - 11.58-12.19 - blue grey, brecciated and are healed quartz vein - fine sulphides of pyrrohotite, pyrite & chalcopyrite #86152 - 38.71-39.32 - banded scapatolized meta-siltstone - sulphides - blebs along bands fine disseminations along bands and as fracture coatings on chlorite slips. #N.S. - 44.65 - sulphides chlorite fracture 30° to core - 1/4" thick - pyrite, pyrrohotite, chalcopyrite #86153 - 53.34-53.94 - narrow Z" band of massive sulphides at 80° to core and local blebs and disseminated sulphides #86154 - 66.14-66.90 - massive sulphides in quartz carbonate vein at 30° to core BROKEN CORE: 6" - 30.78 (gouge) 6" - 57.00 4" - 61.26 (gouge) 12" - 74.07 Core recovery 98% overall. END OF HOLE CORE STORED AT FAIRCHILD LAKE CAMP		
114.91 m				

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-8-80 PAGE 1 OF 1
PROJECT Fairchild

LOCATION Eagle Grid	START August 31, 1980 FINISH September 1, 1980	ASSAY BY
BEARING ____ DIP -45° ELEVATION ____	CONTRACTOR E. Caron Diamond Drilling Ltd	CERTIFICATE (S)
LENGTH 3.05 m PROPOSED LENGTH ____	TESTS	
CORE SIZE HQ OVERALL RECOVERY ____	LOGGED BY ____ DATE LOGGED ____	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Hole abandoned due to difficulty in drilling at 45° - The hole was re-drilled at 60° as E-8A-80.

ASSAY RECORD

NO.	FROM	TO	FT.							COMPOSITE

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-8A-80 PAGE 1 OF 3
PROJECT Fairchild

LOCATION Eagle Grid
BEARING _____ DIP -60° ELEVATION _____
LENGTH 194.77 m PROPOSED LENGTH _____
CORE SIZE NQ OVERALL RECOVERY 92-95%

START September 1, 1980 FINISH September 6, 1980
CONTRACTOR E. Caron Diamond Drilling Ltd.
TESTS Sperrysun AZ1 213° - Dip - 61° at 191.67 m
LOGGED BY G. Chabot DATE LOGGED Sept. 14/80

ASSAY BY Chemex Labs Ltd.
CERTIFICATE (S) _____
SEE CALCULATION SHEET NO. _____

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0.0 - 0.60	OVERBURDEN
0.60 - 5.18	INTERBEDDED METASILTSTONE/META-ARGILLITE -light grey to dark grey in color -weakly scapolitic - moderately to strongly calcic 1.41-1.91 - fault gouge .8 - 1.21 - CO_3 veins at 90° to core axis - minor disseminated chalcopyrite and pyrite
5.18 - 15.30	SCAPOLITIC META-ARGILLITE -dark grey to black - very fine grained -more silicic than 0.6-5.18 - noticably less calcic -generally massive poorly banded - some metamorphic banding (scapolitic) at 90° to the core axis 8.72-9.32 - fault gouge - no visible mineralization
15.30 - 19.60	METASILTSTONE -light grey in color -moderately to strongly calcic with wollastonite common -generally massive -some metamorphic banding -no visible mineralization
19.60 - 33.00	WAVY BEDDED METASILTSTONE (POSSIBLE GREISEN) -grey siltstone with thin, discontinuous argillite bands which gives it a wavy appearance -weakly altered - some grossularite present -quite competent with only very minor fracturing -22.80-23.46 - fault gouge -no visible mineralization
33.00 - 42.50	METASILTSTONE -similar to 15.30-19.60 -more scapolitic and grossularized -weakly fractured at 45° to the core axis -minor CO_3 filled fractured at 45° to core axis -no visible mineralization

ASSAY RECORD (ppm)

From (m)	To (m)	Cu	Co	COMPOSITE
46.56	46.7	2200	26	
53.65	54.6	670	94	
68.28	68.58	5300	142	
69.11	69.27	4400	18	
69.27	69.8	7500	12	
73.08	73.23	5300	154	
75.21	75.36	5200	770	
76.43	76.56	2000	545	
78.88	79.04	2550	106	
82.3	82.6	5500	12	
83.2	83.5	>10,000	490	
92.96	93.26	260	34	
94.8	95.1	1700	8	
103.25	103.4	9500	620	
107.8	108.0	2800	68	
113.61	113.77	138	88	
113.08	113.38	810	26	
163.37	163.37	30	56	

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
42.50 - 64.10		SCAPOLITIC META-ARGILLITE -similar to 5.18-15.3 -51.8-64.1 - very strongly grossularitized -53.64-54.20 - disseminated pods and veinlets of chalcopyrite, pyrrhotite and pyrite ($\leq 1\%$) -55.2 -pods of pyrrhotite with chalcopyrite -58.2 - CO_3 veinlets at 45° to core axis ($<$ 1 cm wide) containing pods of chalcopyrite with pyrrhotite	86111 86112	53.24 61.25	53.59 62.29								
64.10 - 67.96		WAVY BEDDED METASILTSTONE (POSSIBLE GREISEN) -similar to 19.60-33.00 -67.16-67.96 - strongly cabonitized -weakly fractured at $\sim 30^{\circ}$ to core axis eg. 26.2 -no visible mineralization											
67.96 - 83.20		INTERBEDDED METASILTSTONE/META-ARGILLITE -similar to 0.6-5.18 -finely bedded at approximately 90° to core axis -local moderate to strong grossularization - these metamorphic alteration bands have a wavy appearance -unoriented hairline fractures are common -81.2-82.9 - strongly siliceous, almost cherty- light grey in color -68.5-69.6 - pods and disseminations of pyrrhotite and chalcopyrite along CO_3 filled fracture system -72.84-73.10 - mainly pyrrhotite with chalcopyrite veinlets oriented at $\sim 90^{\circ}$ to core axis -77.9-78.1 - similar to 74.89 -79.4 - mainly pyrrhotite with chalcopyrite and pyrite disseminated through strongly grossularized meta-argillite -82.8-83.2 - chalcopyrite stringers and disseminations in siliceous metasiltstone	86113 86114 86115	77.95 78.65 79.00	78.30 79.00 79.70								
83.20 - 91.79		STRONGLY ALTERED INTERBEDDED METASILTSTONE/META-ARGILLITE -dark grey in color with pink zones due to grossularite -bedding at 75° to core axis -local epidolization -83.5-83.8 - massive pyrite with chalcopyrite and associated stringers	86116 86117 86118 86119	83.52 85.96 87.35 90.13	83.87 86.31 87.70 90.48								
91.79 - 94.79		WAVY BEDDED METASILTSTONE -similar to 19.60-33.0 -strongly altered - grossularite with scapolite -fracture surfaces coated with chlorite and epidote -minor disseminated sulphides	86120	93.96	94.31								
94.79 - 100.88		STRONGLY ALTERED INTERBEDDED METASILTSTONE/META-ARGILLITE -similar to 83.2-91.79 -fracture surface often coated with epidote -95.00-95.35 - chalcopyrite with pyrite along fractures	86121	95.00	95.35								

GEOLOGICAL LOG			ASSAY RECORD										
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m							COMPOSITE
100.88 - 107.12		WAVY BEDDED METASILTSTONE -similar to 91.79-94.79 -CO_3 filled fractures are parallel to the core axis -104.65-105.0 massive pyrrhotite, chalcopyrite and pyrite interbedded with metasiltstone	86122	106.14	106.49								
107.12 - 111.25		STRONGLY ALTERED INTERBEDDED METASILTSTONE/META-ARGILLITE -similar to 83.2-91.79 -no visible mineralization	86123	108.23	108.58								
111.25 - 194.77		INTERBEDDED METASILTSTONE/META-ARGILLITE -light grey to dark grey in color -bedding at 65-70° to core axis -moderately to strongly carbonatized - CO_3 is present as blebs and veinlets -eg. 113.8 - 4 cm CO_3 veinlets carrying sulphides - mainly pyrite -164.03-164.43 - similar to 113.8 -111.25-168.0 - chlorite and epidote on fracture surfaces -168.0-194.77 - fracture surfaces are hematized	86124 86125 86126 86127	117.97 123.19 129.80 129.11	118.33 123.54 130.15 129.80								
194.77		END OF HOLE CORE STORED AT FAIRCHILD LAKE CAMP											

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No E-9-80 PAGE 1 OF 2
PROJECT FAIRCHILD

LOCATION Eagle Grid
BEARING ____ DIP -45° ELEVATION ____
LENGTH 55.17 m (1810') PROPOSED LENGTH ____
CORE SIZE NQ OVERALL RECOVERY 95%

START Sept. 9, 1980 FINISH Sept. 17, 1980
CONTRACTOR E. Caron Diamond Drilling Ltd.
TESTS ____
LOGGED BY G. Chabot DATE LOGGED Sept. 4, 1980

ASSAY BY Chemex Labs Ltd.
CERTIFICATE (S) ____
SEE CALCULATION SHEET NO. ____

GEOLOGICAL LOG

METERAGE	DESCRIPTION
3.7 - 8.23	OVERBURDEN
3.7 - 8.23	INTERBEDDED METASILTSTONE/META-ARGILLITE -alternating light grey and dark grey-green bands averaging 2 cm in width - the light grey bands are more calcic (limey) while the lighter color bands are more siliceous -the attitude of the beds is generally at 45° to the core axis -the section is moderately to strongly scapolitic with the scapolite being generally confined to the more calcic siltstone -the alternation (scapolite) is found in bands conformable to the bedding - locally the scapolite bands become more pink in color as a result of the metamorphic alteration of scapolite to grossularite. -fracturing is variable but is moderate to strong in the more siliceous argillite units where the general fracture direction is perpendicular to the bedding. -no significant mineralization -broken core at 3.58-5.0; 5.6-7.4 m.
8.23 - 14.0	WAVY BEDDED METASILTSTONE (POSSIBLE GREISEN) -light and dark bands are wavy and discontinuous -geneally strongly calcic (limey) - also biotitic -disseminated sulphides (cpy, pyrh & py) generally ≤ 1% are often found conformable to the wavy beds -broken core @ 10.67-11.07 m; 12.59-12.64 m
14.0 - 55.17	INTERBEDDED METASILTSTONE/META-ARGILLITE -similiar to 3.7 to 8.23 m -still strongly scapolitized - occassional presence of augen texture -local zones of strong epidotization at depth - massive pale green in color ie. 37.49-40.03; 41.03-42.25 and 45.72-46.15 m -also find epidote locally associated with scapolitic zones, eg. 16.26 and 23.87 m. -towards the end of the hole (44.67-53.45), there is a noticeable increase in CO_3 and grossularite and a decrease of scapolite - CO_3 observed asaugen shaped blebs -section is generally poorly mineralized -19.2-19.3 - disseminated, rusty sulphides assoc. within scapolitic zones 23.57-24.67 - malachite and niodisite on fracture surfaces 27.69 - rusty disseminated sulphides 44.67-53.45 - increase in disseminated sulphides (mainly chalcopyrite & neotasite and malachite along fractures 53.45-54.74 - quartz - CO_3 vein carrying disseminated cpy

ASSAY RECORD (ppm)

NO.	FROM	TO	FT.	Cu	Co					COMPOSITE
	7.10	7.4		190	8					
	14.1	14.4		710	90					
	51.82	52.43		370	32					

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
		-core broken at 17.17-18.27; 20.23-21.03 & 24.57-25.07 m END OF HOLE CORE STORED AT FAIRCHILD LAKE CAMP										

D.D.H. Nº E-9-80 PAGE 2 OF 2

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No S-1-80 PAGE 1 OF 1
PROJECT Fairchild

LOCATION Slab Mountain Eagle Group
BEARING ? DIP -45° ELEVATION
LENGTH 152.4 meters PROPOSED LENGTH
CORE SIZE NQ OVERALL RECOVERY

START September 11, 1980 FINISH September 17, 1980
CONTRACTOR E.Caron Diamond Drilling Ltd.
TESTS Sperry-Sun Azimuth 236° dip 50.5° @ 134.11 m
LOGGED BY G. Chabot DATE LOGGED September 18/80

ASSAY BY Chemex Labs Ltd.
CERTIFICATE (S)
SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0 - 17.07	OVERBURDEN AND TALUS
17.07 - 63.40	CHLORITIC SCHIST -dark green in color: greasy: very soft -exhibits distinct fracture cleavage which is variable through the section: 19.8 - 22.56 - 40° to core axis 22.56 - 29.57 - 85° to core axis 29.53 - 63.4 - variable from 25 to 55 -58.52-61.57 - pink and white CO_3 veinlets conform to the foliation - also minor epidote along fractures - no visible mineralization
63.40 - 70.71	BRECCIA ZONE -greyish green in color -contains mainly siltstone and argillite fragments in a silty/tuffaceous(?) matrix. -63.40-67.60 - epidote alteration -67.60-70.71 - chloritic with numerous CO_3 stringers and blebs in matrix. -no visible mineralization
70.1 - 152.4	INTERBEDDED META-SILTSTONE/META-ARGILLITE -light grey to dark grey in color with the light grey rock being siltstone and the dark grey material being argillite -the bedding angle varies between 35° and 45° but is generally closer to 45° -core is strongly fractured - fracture cleavages are common with the prominent angle being 55-60°. -in addition there are fractures perpendicular to bedding which locally offsets the beds eg. 83.21 m - all fractures are CO_3 filled. -106.22-110.64 - core is chloritic - Strongly fractured and filled with CO_3. -138.4-152.4 - increase in epidote with CO_3 - epidote more abundant -no significant mineralization -114.5 - very minor disseminated sulphides
152.4	END ON HOLE CORE STORED AT FAIRCHILD LAKE CAMP.

ASSAY RECORD

NO.	FROM	TO	FT.							COMPOSITE

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No OA-1-80 PAGE 1 OF 5
PROJECT FAIRCHILD

LOCATION Otter A
BEARING 110° DIP -57° ELEVATION 1,047.8 m
LENGTH 122.53 m (402 ft.) PROPOSED LENGTH 400'
CORE SIZE HQ OVERALL RECOVERY 90-92%

START July 16, 1980 FINISH July 20, 1980
CONTRACTOR E. Caron Diamond Drilling
TESTS Sperry Sun Deviation @ 122.53 m
B. Harmeson
LOGGED BY K. McNaughton DATE LOGGED

ASSAY BY Chemex Labs Ltd.
CERTIFICATE (S)

SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Sperry Sun test @ 122.53 m, -51° @ Az. 086°
0 - 0.62	Overburden.
0.62 - 1.22	Strongly fractured and broken. Unit comprised of very fine to fine-grained chloritic metasiltstone-argillite. Dark green in colour. Unit ribbed with calcite laminae (Fe-rich?). Fracture surfaces moderately to strongly calcified, few isolated hematitic patches within calcic ribs. Calcite also observed interstitial to metapelite matrix (though in small amounts).
1.22 - 5.28	Similar metapelite-siltstone unit, contains few slaty horizons or laminae intercalated within argillaceous siltstone. Calcite ribs still dominant, vary from 0.1 to 1.4 cm in thickness. Within thicker calcic bands, observe frays of pelitic country rock--intraformational breccia? Calcic banding trends quite consistently 20-25°. Isolated fractures not too common, observed to trend parallel to banding. Fracture surfaces relatively clean, contain various Fe-oxides (limonite-hematite-goethite amorphous masses), calcite and minor MnO_2. With depth, unit remains quite similar. Unit appears as interlayers of a more pelitic-argillaceous-"slaty" very fine to fine-grained siltstone-quite chloritic, minor grains calcite and a fine grained more granular siltstone containing higher calcite percentage throughout. Calcite ribs cut both sections equally. Fine grains chalcopyrite (often tarnished red) and pyrite observed along microfractures within calcite ribs and also observed within the calcic, "sugary" textured metasiltstone adjacent to the calcic ribs. The metasiltstone also contains minor Fe-oxide stains within the matrix (hematite-goethite). More commonly observed in calcite with the more sugary textured argillaceous siltsonte. Calcite ribs are normally quite consistent though occasionally are kinked (Chevron) and microfolded. Foliation is parallel to banding and more prominent in more chloritic, slaty metasiltstone. With depth, unit quite similar. White-yellow carbonate observed along isolated fracture surfaces.

ASSAY RECORD (ppm)

NO.	FROM (m)	TO (m)	FT.	Co	Cu	Ag	As			COMPOSITE
1	9.5	10.5		32.0	46.0	0.1	40.0			
2	19.5	20.5		20.0	26.0	0.1	11.0			
3	29.5	30.5		26.0	8.0	0.1	17.0			
4	39.5	40.5		16.0	6.0	0.1	10.0			
5	49.5	50.5		8.0	6.0	0.1	3.0			
6	59.5	60.5		14.0	14.0	0.1	2.0			
7	69.5	70.5		8.0	20.0	0.1	4.0			
8	79.5	80.5		16.0	4.0	0.1	17.0			
9	89.5	90.5		14.0	26.0	0.1	7.0			
10	99.5	100.5		16.0	22.0	0.1	9.0			
11	107	109		12.0	20.0	0.1	7.0			
12	109	111		14.0	14.0	0.1	10.0			
13	111	113		14.0	14.0	0.1	9.0			
14	113	115		12.0	16.0	0.1	6.0			
15	115	117		8.0	24.0	0.1	9.0			
16	117	119		10.0	18.0	0.1	7.0			
17	119	122.5		10.0	14.0	0.1	9.0			

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No 0A-2A-80 PAGE 1 OF 1
PROJECT Fairchild

LOCATION Otter A
BEARING _____ DIP -50° ELEVATION 1047.8 m
LENGTH 8.53 m PROPOSED LENGTH _____
CORE SIZE HQ OVERALL RECOVERY _____

START July 21, 1980 FINISH July 22, 1980
CONTRACTOR E. Caron Diamond Drilling
TESTS _____
LOGGED BY R. Beaton DATE LOGGED _____

ASSAY BY _____
CERTIFICATE (S) _____
SEE CALCULATION SHEET NO. _____

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Hole abandoned as driller did not have hole set up on proper azimuth.
1.95 - 8.53	- grey-green very fine, fine grained metasiltstone has been chlogitized cut by stringers of calcite at various angles, most between 10° and 30°, some stringers crosscut each other. - these stringers are approximately 2 to 5 mm in width, most fractures along these stringers small amounts of very fine grained sulphides disseminated in rock, limonite staining throughout core. Sulphides composed of pyrite with subordinate amounts of chalcopyrite.
	END OF HOLE 8.53 m

ASSAY RECORD

NO.	FROM	TO	FT.							COMPOSITE

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No QA-2B-80 PAGE 1 OF 1
PROJECT Fairchild

LOCATION Otter A	START July 22/80 FINISH July 24/80	ASSAY BY
BEARING DIP -50° ELEVATION 1047.8 m	CONTRACTOR E. Caron Diamond Drilling	CERTIFICATE (S)
LENGTH 22.55 m PROPOSED LENGTH	TESTS	
CORE SIZE HQ OVERALL RECOVERY	LOGGED BY R. Beaton DATE LOGGED	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Hole abandoned, driller improperly reamed casing - unable to continue.
0 - 22.55	- Chloritized siltstone, with carbonate stringers - dark grey to green grey in color - carbonates are white to pale green in color - generally medium softness - chloritization slightly increases with depth - minor limonite and chlorite on fracture surfaces - a once slately cleavage is now infilled by carbonate - the trend is fairly consistent at 10° to 20° - however there are small bands in which these bands and the host rock are very disrupted and contorted - eg. 9.60-9.93 m - there are a second set of subordinate carbonate bands which are randomly oriented and often off set the cleavage bands as well as that of the siltstone - most mineralization is restricted to the carbonate veins - the dominant sulphide is pyrite with small limonite halos, and minor arsenopyrite - these can make up to 5% of carbonate but generally are < 5% - the sulphides are fairly evenly distributed through the hole and are not concentrated in discrete bands END OF HOLE CORE STORED AT FAIRCHILD LAKE CAMP

ASSAY RECORD

NO.	FROM	TO	FT.							COMPOSITE

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No OA-2C-80 PAGE 1 OF 4
PROJECT Fairchild

LOCATION Otter A	START July 24/80 FINISH Aug. 1/80	ASSAY BY
BEARING 080° DIP -63° ELEVATION 1047.8 m	CONTRACTOR E. Caron Diamond Drilling	CERTIFICATE (S)
LENGTH 85.95 m PROPOSED LENGTH 121.92 m	TESTS Sperry Sun @ 28.96 m and 79.86 m	
CORE SIZE HQ (NQ) OVERALL RECOVERY 92-95%	LOGGED BY K. McNaughton DATE LOGGED	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
	Sperry Sun deviation test @ 95' (28.9 m) - 61° @ Az 078° @ 262'(79.8 m) - 65° @ Az 065° Hole abandoned due to ice and HQ rods stuck in hole. Attempted to reduce to NQ but unable to remove HQ core barrel, etc. blew rods off just above HQ core barrel.

ASSAY RECORD

NO.	FROM	TO	FT.							COMPOSITE

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
			0	3.65								
			3.65	5.18	100							
			5.18	6.7	100							
			6.7	8.22	100							
			8.22	9.75	83							
			9.75	11.27	96							
			11.27	12.8	100							
			12.8	14.33	88							
			14.33	15.85	100							
			15.85	17.37	93							
			17.37	18.9	90							
			18.9	20.42	74							
			20.42	21.94	100							
			21.94	23.41	100							
			23.41	25.0	90							
			25.0	26.52	100							
			26.52	28.04	72							
			28.04	29.56	89							
			29.56	30.73	75							
			30.73	32.61	82							
			32.61	34.13	100							
			34.13	35.66	100							
			35.66	37.18	100							
			37.18	38.7	89							
			38.7	40.23	100							
			40.23	41.75	100							
			41.75	43.28	97							
			43.28	44.8	100							
			44.8	46.32	96							
			46.32	47.85	100							
			47.85	49.38	92							
			49.38	50.9	100							
			50.9	52.43	79							
			52.43	53.95	91							
			53.95	54.87	98							
			54.87	56.39	100							
			56.39	58.07	100							
			58.07	59.74	80							
			59.74	61.27	95							
			61.27	62.97	89							
			62.97	64.5	93							
			64.5	66.02	96							
			66.02	67.55	89							
			67.55	69.19	92							
			69.19	72.24	97							
			72.24	73.76	100							
			73.76	75.29	100							
			75.29	76.81	97							
			76.81	78.34	100							
			78.34	79.86	100							
			79.86	81.38	100							
			81.38	82.91	88							
			82.91	84.43	99							
			84.43	85.95	92							
			END OF HOLE.									

D.D.H. Nº 0A-2C-80 PAGE 2 OF 3

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
0 - 85.95 m		Unit composed of ribbed calcic-chlortic metasiltstone. Bands within metasiltstone composed of fine calcic laminar stringers. Isolated, uncommon bands of cherty quartzite also observed (ex. 37.58 m & 39.73 m). No definite zoning with respect to silica and chlorite content was observed. The metasiltstone varies from dark grey to light green in color and appears dependent upon chlorite calcite and silica content. The unit appears moderately contorted throughout, calcic banding has no definite orientation as bands trend 0-90° (from core axis). In more chloritized sections a mozaic of kink banding is more pronounced while in more siliceous, more competent sections a 20° & 50° orientation is most commonly observed. The majority of bands/micro-fractures are carbonate-filled while some have been leached clean. Banding appears sedimentary in nature though in few places later chloritic alteration has also enhanced banding. Bedding angles appear sub-parallel to the dominant fracture direction (20-30°). The metasiltstone is very fine to fine grained throughout. Few isolated fractures contain medium to coarse euhedral graius of calcite (ex. 81.78, 85.5 m). Mineralization throughout the section is generally restricted to the carbonate veinlets, either located along the vein margins or within the vein material. The contained sulphides are generally < 1 mm in size and often resemble thin flakes or plates along micro-fracture surfaces. Occassionally disseminated sulphides are present as apparent "replacements" in and along the micro-fractures within the metasiltstone unit. The sulphides are primarily pyrite and with subordinate chalcopyrite and possible minor skutterudite and glaucodot (?) Mineralization is very minor, normally < 0.5% and may range to 2% within calcic veins. Neotasite and limonite are observed in varying amounts along the usually well washed fracture surfaces. Geothite is observed rarely (ex. 72.24 m).. A minor fault gouge exist at 59.94 m. END OF HOLE 85.95 m CORE STORED AT FAIRCHILD LAKE CAMP										

D.D.H. Nº 0A-2C-80 PAGE 3 OF 3

GEOLOGICAL LOG			ASSAY RECORD								
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	% Recovery						COMPOSITE
				0	1.22	–						
		Occasional calcic stringers running along core axis (90°).		1.22	3.35	85						
				3.35	5.49	78						
		4.6 m – Minor amounts disseminated sulphides (chalco and pyrite) observed marginal to calcic bands. Also fine grains sulphides observed within pelitic matrix.		5.49	7.62	75						
				7.62	9.75	88						
				9.75	11.28	100						
				11.28	12.8	100						
				12.8	14.33	100						
5.28 – 7.0		Calcic bands appear also to contain varying amounts granular silica.		14.33	15.54	92						
				15.54	17.07	100						
				17.07	18.59	100						
		5.28-7 m – weakly fractured and broken.		18.59	20.12	100						
		5.64 m – vein of silica-calcite ~20 cm thick, contains bands folded metasiltstone – folded and shattered		20.12	21.95	100						
				21.95	23.47	100						
				23.47	24.99	100						
		With depth, similar ribbed-calcic metasiltstone. Sulphides (chalco and pyrite) more commonly observed within and adjacent to calcic ribs (also within metasiltstone adjacent to calcic ribs).		24.99	26.82	86						
				26.82	28.35	93						
				28.35	29.87	86						
				29.87	31.09	100						
				31.09	32.61	100						
		Contains occasional zones where calcite filled microfractures cut normal ribs at 80°. No apparent offsets observed.		32.61	34.14	100						
				34.14	35.66	100						
				35.66	35.97	100						
7.0 – 15.9		Brecciated siltstone surrounded by calcite occasionally present. Ribbed calcic-siltstone continues at depth. Occasional isofractures observed, most commonly trend 20-25°, minor fractures trend 80°. Hematitic stain observed along these steeper fractures.		35.97	37.19	100						
				37.19	38.1	100						
				38.1	39.01	100						
				39.01	40.23	80						
				40.23	41.76	98						
				41.76	43.28	97						
		9.7-10.2 m – calcic veins cut unit at 80-90°, these show pinch and swell features and are offset by thinner (later) horizontal calcic veinlets.		43.28	44.81	100						
				44.81	46.33	94						
				46.33	47.85	100						
				47.85	49.38	100						
		Beginning around 10 m, metasiltstone appears more siliceous. This siliceous-chlorite metasiltstone still contains conformable calcic ribs though on occasion the calcic ribs are slightly transverse to the more siliceous metasiltstone bands. Calcic cavity-filling occasionally observed. Fine bands of sulphides, similar to above, continue. These again occur:		49.38	59.6	93						
				59.6	52.27	85						
				52.27	53.8	97						
				53.8	55.32	95						
				55.32	56.85	100						
				56.85	58.52	90						
				58.52	60.05	100						
		a) within calcic ribs and along margins		60.05	61.57	90						
		b) along calcic hairline fractures within pelitic matrix		61.57	63.09	84						
		c) as isolated, distinct grains within pelitic matrix (associated with calcite blebs).		63.09	64.62	92						
				64.62	66.14	85						
				66.14	67.67	100						
		Unit continues with depth. Remains weakly to moderately siliceous throughout. Calcic bands too appear relatively siliceous throughout. Banding remains trending 20-25°.		67.67	69.19	93						
				69.19	70.71	100						
				70.71	72.24	98						
				72.24	73.76	96						
		Isolated fractures slightly more common. Again appear quite clean with calcite and varying amounts Fe oxide. A noticeable lack of sulphides along fracture surfaces.		73.76	75.29	100						
				75.29	76.81	99						
				76.81	78.33	70						
				78.33	79.86	100						
		Occasional 80° hairline calcic microfractures observed. No distinct offsets observed.		79.86	81.38	100						
				81.38	82.91	92						
				82.91	84.43	92						
				84.43	85.95	100						

GEOLOGICAL LOG			ASSAY RECORD								
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	% Recovery						COMPOSITE
				85.95	87.48	72						
		@ 13.6 m - unit continues but calcic banding appears somewhat contorted and irregular, even conformable ribs do not appear as planar. Bands appear more variably spaced and late stage, more siliceous bands cut older bands at 35-40°. An increase in 80-90° calcic stringers also noted. Metapelite also appears slightly more siliceous. Overall calcite content appears to have increased to a certain degree. Foliation of unit remains 20-25°. Sulphides present in similar fashion as before.		87.48	89.0	97						
				89.0	90.53	100						
				90.53	92.04	98						
				92.04	93.57	100						
				93.57	95.09	99						
				95.09	96.62	91						
				96.62	98.14	100						
				98.14	99.66	100						
				99.66	101.19	100						
				101.19	102.71	97						
		14.8-15 m - vertical cavity filling		102.71	104.27	90						
				104.27	105.76	100						
				105.76	107.28	68						
15.9 - 20.35		15.9- 16.8 m - weakly fractured throughout, surfaces calcite, chlorite		107.28	108.81	95						
				108.81	110.32	100						
				110.32	111.86	100						
		From 16.03 to 16.27 m unit contains 85-90° calcite veins. These are cut by 0-5° microfractures. Sulphide mineralization observed following both orientations.		111.86	113.38	88						
				113.38	114.9	100						
				114.9	116.43	93						
		Irregular calcic veins seen to envelop fractured zone. Pelitic unit appears siliceous and chloritic.		116.43	117.95	100						
				117.95	119.48	95						
				119.48	121.0	100						
		From 17.07 to 19.47 m, weak to moderately fractured zone. Pelitic unit again siliceous and chloritic. Sulphides present as before.		121.0	122.53	100						
				End	of	hole						
		From 17.75 to 18.04 m, pelitic unit cut by late stage calcic veining 50-80°, foliation of unit changed (fold) to 80°. Fractured zone contains minor mylonitic clay/chlorite along fracture surfaces.										
		At 19.86 more regular ribbed appearance returns to metasiltstone. Unit moderately siliceous throughout, slight decrease in chlorite. Prior to 19.86 m, calcite veins trending 70-80°. Below 19.86 m calcic banding trends 45°.										
20.35 - 22.4		20.35-20.66 m - unit cut by horizontal bands (at each end) and between calcic veins run 70-90° in an irregular manner. Sulphides (both within veins and pelite) run parallel to this late stage orientation. Foliation of metasiltstone observed at 20-25° (cleavage direction). Unit remains quite siliceous. Calcic veins microfolded.										
		With depth, ~21 m, unit becomes slightly more regular. Calcic ribs and foliation trend ~50°. Calcic ribs conformable to foliation, not as numerous in quantity as higher up in section.										
		With depth, similar pelitic unit. Sulphides present as before. Unit still moderately siliceous throughout.										

GEOLOGICAL LOG			ASSAY RECORD								
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
		Occasional cavity-filled areas present fragments metasiltstone contained. Trend of these calcite-filled fractures ~75°.										
		21.8-22.3 m - irregular calcic veins cutting metasiltstone. Microfolding observed within the section which is also associated with a 50° cavity-fill. Other calcic veins trend 80° at right angles to 50°.										
22.4 - 25.5		At 22.4 m, slight decrease in siliceousness, unit appears somewhat more slaty. Unit continues to be siliceous, calcic and chloritic.										
		At 23.15 m - cross-cutting quartz/minor CO_3 vein cuts across calcic ribs @ 50°. Disseminated sulphides present as before.										
		Patches of calcite-filled cavities observed throughout as isolated regions. These cut calcic ribs at ~25°. Foliation of pelitic metasilstone runs ~45-50°.										
		At 24.5 m - shift in calcic veins, as becomes slightly more regular - 50°. Isolated fractures not too common, large majority tread parallel to banding/foliation (50°) while cross fractures trend 70-80°. Fracture surfaces remain fairly clean, contain chlorite, calcite silica, Fe-oxides and minor talc.										
25.5 - 80.0		Trend of major calcite veining changes from 50° to 90°. Trend of carbonate controlled by the slaty cleavages of the siltstone. Minor disseminated sulphides in siltstone. Majority of sulphides (pyrite and chalco.) occur along contact between carbonate veins and siltstone. Crosscutting carbonate veins infilling fractures at 20°.										
		Very fine grained stilstone. Slaty cleavage developed from poorly to very well defined. Through the hole the silica, chlorite content is seen to vary. Fracture patterns developed along and across cleavage are infilled with carbonate. The carbonate is dominantly calcite. Fine grained sulphides appear associated with these carbonate veins. Sulphides occur marginally around the vein or as fine stringers within the vein. Sulphides also occur as disseminated fine grained aggregates within the siltstone. They will often lie along fine calcic microfractures within the siltstone.										
		The colour of the siltstone ranges from black to light green, depending on the chlorite content. The carbonate veins are generally white, but take on a greenish tinge with increased chlorite.										
		The hardness, except for a cherty band from 34.14 to 36.5 m, normally ranges from 3 to 6 depending on relative silica content.										

GEOLOGICAL LOG			ASSAY RECORD									
METERAGE	G LOG	DESCRIPTION	NO.	FROM	TO	FT / m						COMPOSITE
		Alteration occurs as a zonation around the carbonate veins. This consists of a zone of strong chloritization which affects the carbonate to the greatest degree. It is in this alteration zone that the majority of the sulphides occur. The siltstone appears weakly banded. Banding is more obvious when the slaty cleavage is present. Also, when this cleavage is present in the upper half of the core, fractures are along this cleavage generally to the exclusion of all other fractures. The cleavage plane varies from 0° to 90°. In isolated bands, the unit is very contorted and the cleavage planes are now severely bent and contorted (73.76 to 77.25 m).									
80.0 - 122.53		Just below this zone is a large section extending from 80 to 122.53 m, abundant fractures along the cleavage plane as well as crosscutting fractures give the rock a fracture-fill, brecciated appearance. Chloritization is somewhat higher in this calcic unit. Where cavity filling is not complete, euhedral crystals of calcite will form on cavity walls. This is a product of late stage calcite veining and is not produced during the carbonate veining along the cleavage. Mineralization throughout the core is fairly consistent. As mentioned earlier, most of the sulphides are associated with the carbonate veining. The sulphides are dominantly pyrite and chalcopyrite. Euhedral crystals of arsenopyrite are present in discrete bands in the carbonate only. Isolated cyrstals of the major sulphides are common in the siltstone. A restricted area of sparse bornite is located at 35.66 m in the previously mentioned cherty band. Occasional crystals of euhedral arsenopyrite are noted in the carbonate veins, e.g. 95.09 m. A restricted area 5 m long centering around 92.04 m contains crystalline goethite on some of the fracture surfaces. These fractures show no preferred orientation. Total mineralization is constant, however, low ranging from 0.5 to 1% sulphides. The exception to this starts at 108.81 m to the bottom of the hole. In this zone, the overall content is generally higher ranging from 1 to 2% disseminated sulphides The calcite veining is a product of at least two phases of fracturing. The later stage of veining is controlled by micro-fractures which either run parallel to subparallel to the core axis, or at 90° to the cleavage fracture in the contorted silt unit (~20°). There are five apparent fault or major fracture zones located at: 36.41, 38.83, 44.95, 52.27, 105.76 m. END OF HOLE 122.53 m. CORE STORED AT FAIRCHILD LAKE CAMP.									

PAN OCEAN OIL LTD.
MINING DIVISION

DIAMOND DRILL HOLE GEOLOGICAL LOG AND ASSAY RECORD

DDH: No V-1-80 PAGE 1 OF 3
PROJECT FAIRCHILD

LOCATION VOLE GROUP	START August 4, 1989 FINISH August 8, 1980	ASSAY BY CHEMEX LABS LTD
BEARING 168° Az DIP -45 ELEVATION 1606M	CONTRACTOR E. CARON DIAMOND DRILLING	CERTIFICATE (S)
LENGTH 84.42M PROPOSED LENGTH	SPERRY-SUN DEVIATION TEST: TESTS (at 84.42m) -46° at 160° Az	
CORE SIZE HQ OVERALL RECOVERY 92-95%	LOGGED BY Harmeson Chabot DATE LOGGED	SEE CALCULATION SHEET NO.

GEOLOGICAL LOG

METERAGE	DESCRIPTION
0 - 7.5	Unit composed of a well fractured, strongly weathered and leached, weakly calcic arkosic metasiltstone. Metamorphosed and poorly banded Blebs of grit-sized feldspar completely clay altered. Where banded trends 35°. Interlaminae of calcic argillite observed throughout. Fractured surfaces moderately limonitic throughout, also contain varying amounts of pyrolusite, malachite, calcite and minor quartz. Majority of fractures parallel banding. Few thin mylonitic "gouge" zones.
7.5 - 26.22	Transition to strongly siliceous, poorly banded, fine to medium grain calcareous metasiltstone. Contact marked by silica bands at 40°, approaching quartzite. Moderately calcic throughout. Siliceous argillite scattered randomly throughout. Unit moderately fractured throughout. Surfaces well washed and contain calcite, limonite, pyrolusite, minor neotasite and and minor earthy hematite. Fractures trend parallel to banding 35° and 15°. Also observe fine specks strongly altered/weathered scapolite. At 11.27m. unit seen to contain weathered lathes of wollastonite within quartz-carbonate matrix. Quartz-carbonate stringers seen randomly distributed throughout. By 12.5m. unit composed of a poorly banded siliceous metasiltstone calcic throughout and containing strongly silicified mudstone fragments. Sinuous bands of quartz-carbonate intrude country-rock at 15°. These bands seen to contain minute disseminated sulphides (green & white calcite present). Unit moderately fractured throughout trend 50° and 70°. Fracture surfaces strongly leached with minor pyrolusite, limonite. At 18.89m., banding not as pronounced as decrease in quartz-carbonate veining. Unit appears more granular in texture (similar mineralogy). Where present quartz-carbonate stringers trend 15° and appear somewhat contorted. Siliceous argillite fragments still observed, occasionally brecciated by later stage quartz-carbonate stringers. General decrease in wollastonite, now restricted to thin alteration bands. Minute amounts of sulphides observed as well as flakes of white mica. With depth, unit appears somewhat more siliceous throughout, calcite content remains fairly constant. Fracturing no longer as common, trend 10° and 50°. Surfaces again appear well washed and contain minor limonite, pyrolusite and calcite.

ASSAY RECORD (ppm)

FROM (M)	TO (M)	CU	CO	AG	30-Element Spectro.	COMPOSITE
20.1	20.6	290.0	8.0			
24.68	25.68	8.0	8.0			
39.6	40.1	68.0	4			
47.32	47.62	12.0	34.0	0.1		
48.77	49.37	3800.0	275.0	0.1		
54.3	55.6	6.0	20.0			
57.6	58.2	360.0	40.0			

APPENDIX III

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

D. L. Dick

Donald L. Dick, B.Sc.

LIST OF PERSONNEL

EAGLE 1-161 MINERAL CLAIMS
JULY 2 - SEPTEMBER 5

Donald Dick P.O. Bag 2533 Station M Calgary, Alberta	Geologist	Aug. 3, Sept. 4, 5
Bruce Harmeson P.O. Bag 2533 Station M Calgary, Alberta	Geologist	
David Yeager 208, 850 West Hastings St. Vancouver, B.C.	Geologist	Sept. 4, 5
Kevin Milledge 208, 850 West Hastings St. Vancouver, B.C.	Prospector	Aug. 26, 27, 31
Neil Debock 3506 R.R. #1 Clearwater, B.C.	Prospector	July 4, 10, 11, Aug. 7, 18, 22, 25, 31
Ken McNaughton 1584 Moy Street Windsor, Ontario	Asst. Geologist	July 2, Aug. 17, 18, 21
James Cowie 1045 Varsity Court Calgary, Alberta	Prospector	
Rodden McGowan 431 Pitt Street Cornwall, Ontario	Labourer	July 4
Dave Leis 4831 Harkin Street Burnaby, B.C.	Prospector	July 10, 11
Lee Weitzel 4921 - 5th Street Delta, B.C.	Surveyor	July 7, 8, Aug. 4, 18, 23, 24, 26
Randy Beaton 1405 Spartan Avenue Sarnia, Ontario	Asst. Geologist	July 6, 7, 8, 11, Aug. 17, 21, 26
Don Dombrowski R.R. #1 Sechelt, B.C.	Labourer	Aug. 4

LIST OF PERSONNEL (Continued)

Yasu Hashimoto 72 - 12th Avenue Whitehorse, Y.T.	Blaster	Aug. 1-7, 30, Sept. 5
Gorden Clark 72 - 12th Avenue Whitehorse, Y.T.	Trencher	Aug. 1-7, 30, Sept. 5
Rene Flinn 208, 850 West Hastings St. Vancouver, B.C.	Labourer	Aug. 24
Jacques	McCrory Line Cutter	Aug. 26, 27, 28
Rick	McCrory Line Cutter	Aug. 26, 27, 28
Billy Germaine General Delivery Mayo, Y.T.	Labourer	Sept. 5

CANADA) In the matter of an evaluation program on the Eagle 1-161
) 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 program consisting of regional prospecting, detailed field mapping, diamond drilling and trenching was carried out on the Eagle 1-161 Mineral Claims during the period of July 2 to September 5, 1980.

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

Expendible Field Supplies	$ 540.64
Food	812.37
Expediting	213.12
Freight	137.01
Camp and Miscellaneous Fuels	315.69
Camp Fixed Wing Support	1,811.98
Wages	4,062.50
Helicopter Support	7,632.00
Assaying and Geochemistry	611.72
Trenching/Site Preparation	3,500.00
Contracting Fees - Drilling	113,255.51
TOTAL	$132,892.54

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. [illegible]

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

LIST OF PERSONNEL

OTTER 1-88 MINERAL CLAIMS

David Yeager 208, 850 West Hastings St. Vancouver, B.C.	Geologist	May 25, June 3, 4, July 4
Neil Debock 3506 R.R. #1 Clearwater, B.C.	Prospector	May 26, June 4
Randy Beaton 1405 Spartan Avenue Sarnia, Ontario	Asst. Geologist	May 22, 23, 25-30, June 4, 28, 29, July 1, 2, 3, 14, Aug. 8
Ken McNaughton 1584 Moy Street Windsor, Ontario	Asst. Geologist	May 22, 23, 25-30, June 2, 4, 28, 29
James Cowie 1045 Varsity Court Calgary, Alberta	Prospector	May 25-31, June 18, 19, July 1, 2, 3, 4
Rodden McGowan 431 Pitt Street Cornwall, Ontario	Prospector	May 22, 23, 25-30, June 3, 18, 19, 24, 25, July 2, 3
Dave Leis 4831 Harkin Street Burnaby, B.C.	Prospector	May 26, 27, June 3, July 2, 3, 4, 20
Lee Weitzel 4921 - 5th Street Delta, B.C.	Surveyor	May 26, 27, 28, 29, 30, June 3, 13, 24, 25, July 4, 6, Aug. 5, 7, 21
Don Dombrowski R.R. #1 Sechelt, B.C.	Labourer	June 13, July 15, 16, Aug. 5
Rene Flinn 208, 850 West Hastings St. Vancouver, B.C.	Labourer	July 6, 15, 16, 20, 25, 26, Aug. 7, 25
Donald Dick P.O. Bag 2533 Station M Calgary, Alberta	Geologist	May 25, June 4
Bruce Harmeson P.O. Bag 2533 Station M Calgary, Alberta	Geologist	May 28, 29, 30, June 2, 3, 4, July 4

APPENDIX III

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

D. L. Dick

Donald L. Dick, B.Sc.

LIST OF PERSONNEL

EAGLE 1-161 MINERAL CLAIMS
JULY 2 - SEPTEMBER 5

Donald Dick P.O. Bag 2533 Station M Calgary, Alberta	Geologist	Aug. 3, Sept. 4, 5
Bruce Harmeson P.O. Bag 2533 Station M Calgary, Alberta	Geologist	
David Yeager 208, 850 West Hastings St. Vancouver, B.C.	Geologist	Sept. 4, 5
Kevin Milledge 208, 850 West Hastings St. Vancouver, B.C.	Prospector	Aug. 26, 27, 31
Neil Debock 3506 R.R. #1 Clearwater, B.C.	Prospector	July 4, 10, 11, Aug. 7, 18, 22, 25, 31
Ken McNaughton 1584 Moy Street Windsor, Ontario	Asst. Geologist	July 2, Aug. 17, 18, 21
James Cowie 1045 Varsity Court Calgary, Alberta	Prospector	
Rodden McGowan 431 Pitt Street Cornwall, Ontario	Labourer	July 4
Dave Leis 4831 Harkin Street Burnaby, B.C.	Prospector	July 10, 11
Lee Weitzel 4921 - 5th Street Delta, B.C.	Surveyor	July 7, 8, Aug. 4, 18, 23, 24, 26
Randy Beaton 1405 Spartan Avenue Sarnia, Ontario	Asst. Geologist	July 6, 7, 8, 11, Aug. 17, 21, 26
Don Dombrowski R.R. #1 Sechelt, B.C.	Labourer	Aug. 4

LIST OF PERSONNEL (Continued)

Yasu Hashimoto 72 - 12th Avenue Whitehorse, Y.T.	Blaster	Aug. 1-7, 30, Sept. 5
Gorden Clark 72 - 12th Avenue Whitehorse, Y.T.	Trencher	Aug. 1-7, 30, Sept. 5
Rene Flinn 208, 850 West Hastings St. Vancouver, B.C.	Labourer	Aug. 24
Jacques	McCrory Line Cutter	Aug. 26, 27, 28
Rick	McCrory Line Cutter	Aug. 26, 27, 28
Billy Germaine General Delivery Mayo, Y.T.	Labourer	Sept. 5

CANADA) In the matter of an evaluation program on the Eagle 1-161
) 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 program consisting of regional prospecting, detailed field mapping, diamond drilling and trenching was carried out on the Eagle 1-161 Mineral Claims during the period of July 2 to September 5, 1980.

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

Expendible Field Supplies	$ 540.64
Food	812.37
Expediting	213.12
Freight	137.01
Camp and Miscellaneous Fuels	315.69
Camp Fixed Wing Support	1,811.98
Wages	4,062.50
Helicopter Support	7,632.00
Assaying and Geochemistry	611.72
Trenching/Site Preparation	3,500.00
Contracting Fees - Drilling	113,255.51
TOTAL	$132,892.54

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. [illegible]

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

LIST OF PERSONNEL

OTTER 1-88 MINERAL CLAIMS

David Yeager 208, 850 West Hastings St. Vancouver, B.C.	Geologist	May 25, June 3, 4, July 4
Neil Debock 3506 R.R. #1 Clearwater, B.C.	Prospector	May 26, June 4
Randy Beaton 1405 Spartan Avenue Sarnia, Ontario	Asst. Geologist	May 22, 23, 25-30, June 4, 28, 29, July 1, 2, 3, 14, Aug. 8
Ken McNaughton 1584 Moy Street Windsor, Ontario	Asst. Geologist	May 22, 23, 25-30, June 2, 4, 28, 29
James Cowie 1045 Varsity Court Calgary, Alberta	Prospector	May 25-31, June 18, 19, July 1, 2, 3, 4
Rodden McGowan 431 Pitt Street Cornwall, Ontario	Prospector	May 22, 23, 25-30, June 3, 18, 19, 24, 25, July 2, 3
Dave Leis 4831 Harkin Street Burnaby, B.C.	Prospector	May 26, 27, June 3, July 2, 3, 4, 20
Lee Weitzel 4921 - 5th Street Delta, B.C.	Surveyor	May 26, 27, 28, 29, 30, June 3, 13, 24, 25, July 4, 6, Aug. 5, 7, 21
Don Dombrowski R.R. #1 Sechelt, B.C.	Labourer	June 13, July 15, 16, Aug. 5
Rene Flinn 208, 850 West Hastings St. Vancouver, B.C.	Labourer	July 6, 15, 16, 20, 25, 26, Aug. 7, 25
Donald Dick P.O. Bag 2533 Station M Calgary, Alberta	Geologist	May 25, June 4
Bruce Harmeson P.O. Bag 2533 Station M Calgary, Alberta	Geologist	May 28, 29, 30, June 2, 3, 4, July 4

LIST OF PERSONNEL (Continued)

May Touborg P.O. Bag 2533 Station M Calgary, Alberta	Geologist	May 25
Yasu Hashimoto 72 - 12th Avenue Whitehorse, Y.T.	Blaster	May 24-30, June 2, 3, 4, 13, 14, (15-21), (22-30), July (1-7) (8-12), 24, 25, 26, 28, Aug. 26, 27
Gorden Clark 72 - 12th Avenue Whitehorse, Y.T.	Trencher	May 24, 25, 26, 27, 28, 29, 30, June 2, 3, 4, 13, 14, (15-21) (22-30), July (1-7), (8-12), 24, 28, Aug. 26, 27
Terry McCrory 72 - 12th Avenue Whitehorse, Y.T.	Blaster	May 24, 25, 26
B. Wymar 72 - 12th Avenue Whitehorse, Y.T.	Trencher	May 24, 25, 26

CANADA) In the matter of an evaluation program on the Otter 1-88
) 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 program of prospecting, geological mapping, trenching and drilling was carried out on Otter 1-88 Mineral Claims during the period of May to August 1980.

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

Food	$ 2,565.50
Expediting	672.66
Freight	432.70
Travel and Accommodation	258.95
Camp and Miscellaneous Fuels	996.96
Camp Fixed Wing Support	5,722.36
Wages	8,531.25
Helicopter Support	9,828.00
Assaying and Geochemistry	560.87
Trenching	23,750.00
Contracting Fees - Drilling	42,611.00
TOTAL	$95,930.25

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 ~~August~~ April 1981

David Yeager

H.S.A.

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

LIST OF PERSONNEL

VOLE 1-43 MINERAL CLAIMS
JULY 22 - SEPTEMBER 6

David Yeager 208, 850 West Hastings St. Vancouver, B.C.	Geologist	Aug. 3
Kevin Milledge 208, 850 West Hastings St. Vancouver, B.C.	Prospector	Aug. 29
Randy Beaton 1405 Spartan Avenue Sarnia, Ontario	Asst. Geologist	Aug. 7
Dave Leis 4831 Harkin Street Burnaby, B.C.	Prospector	Aug. 7
Lee Weitzel 4921 - 5th Street Delta, B.C.	Surveyor	July 22
Bruce Harmeson P.O. Bag 2533 Station M Calgary, Alberta	Geologist	July 22, Aug. 3
Yasu Hashimoto 72 - 12th Avenue Whitehorse, Y.T.	Blaster	July 22, 23, 30, 31, Sept. 6
Gorden Clark 72 - 12th Avenue Whitehorse, Y.T.	Trencher	July 22, 23, 30, 31, Sept. 6
Jacques	Labourer	Aug. 29
Rick	Labourer	Aug. 29

LIST OF PERSONNEL

OTTER 89-124 MINERAL CLAIMS

David Yeager 208, 850 West Hastings Street Vancouver, B.C.	Geologist	May 21, 22
James Cowie 1045 Varsity Court Calgary, Alberta	Prospector	May 21, 22
Donald Dick P.O. Bag 2533 Station M Calgary, Alberta	Geologist	May 21, 22
Jens Touborg P.O. Bag 2533 Station M Calgary, Alberta	Geologist	May 21, 22

CANADA) In the matter of an evaluation program on the Vole 1-43
) 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 program consisting of prospecting, rock geochemistry, geological mapping and diamond drilling was conducted on the Vole 1-43 Mineral Claims during the period of July 22 to September 6, 1980.

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

Food	$ 241.09
Expediting	63.27
Freight	40.66
Camp and Miscellaneous Fuels	93.69
Camp Fixed Wing Support	537.75
Wages	568.75
Helicopter Support	2,016.00
Trenching/Site Preparation	2,500.00
Contracting Fees - Drilling	43,955.00
TOTAL	$50,016.21

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.A.

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

CANADA) In the matter of an evaluation program on the Otter 89-124
) 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 program consisting of geological reconnaissance, prospecting and detailed field mapping during the 1980 field season.

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

Expendible Field Supplies	$ 67.57
Food	101.55
Expediting	26.64
Camp and Miscellaneous Fuels	39.46
Camp Fixed Wing Support	226.50
Wages	650.00
Helicopter Support	2,880.00
TOTAL	$3,991.72

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. Ali

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

134°00'

65°00'

N

EAGLE

OTTER

VOLE

FAIRCHILD LAKE

BONNET PLUME RIVER

ND 18/6/80

JC 13/6/80

ND 7/8/80

ND 16/6/8

ND 18/8/80

ND 7/6/80 24-29 OXIDE-STAINS

No.	CLAIM	RECORD No.	RECORD DATE	IN GOOD STANDING
161	EAGLE 1-161	YA41720 - 41856	JULY 2 & 21/80	JULY 2 & 21/86
43	VOLE 1-43	YA41955 - 42339	JULY 21 & AUG. 15/80	JULY 21 & AUG. 15/86
52	OTTER 37-88	YA40567 - 40618	AUG. 10/79	DEC. 31/85
36	OTTER 89-124	YA41306 - 41341	OCT. 9/79	OCT. 9/80

Mi. 1/2 1/4 0 1/2 1 2 Mi.

TO ACCOMPANY REPORT NO. 11-81 BY D.L.D. & D.B.H.

100% PAN OCEAN OIL LTD.
10% NPI CANADIAN MINERAL CORP.

JCC

PAN OCEAN OIL LTD.
CALGARY ALBERTA

TRAVERSING
ON
EAGLE CLAIMS
FAIRCHILD LAKE PROJECT

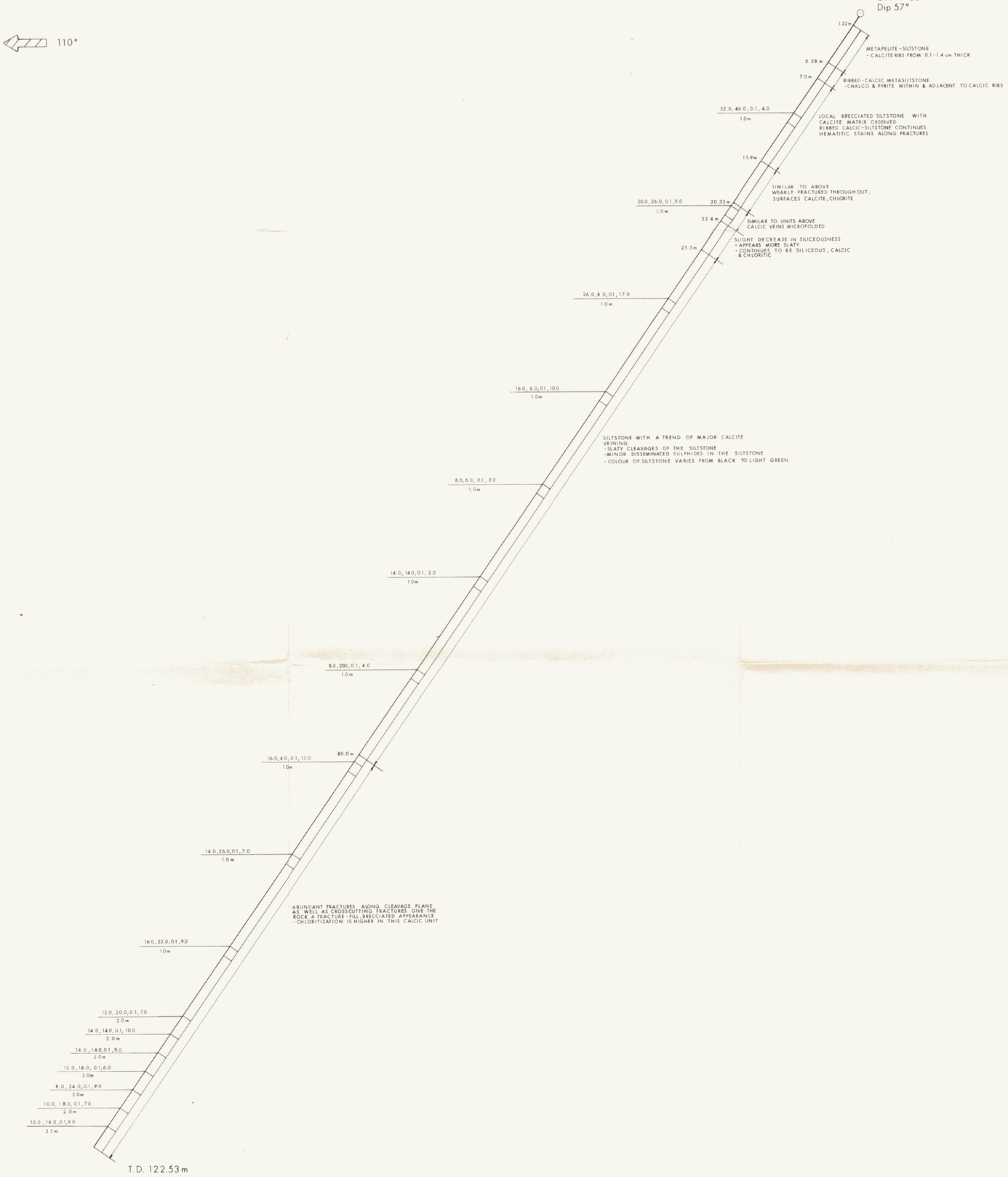
DATE	SCALE	NTS	DRAWING NO.
APR., 1981	1" = 1/2 Mi.	106 C-13, D-16, E-1, F-4	C-1220

DRAWING NO.
D-1221

110°

290°

OA-1-80
Dip 57°



Co, Cu, Ag, As (ppm)
sample length

m4 0 4 8 12 16m

TO ACCOMPANY REPORT NO. 11-81 BY D.L.D. & D.B.H.

NOTE: LOCATED ON OTTER 24 - YA 41978

D.A.

DRSSS A1 P00

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE
OA-1-80

FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV., 1980	1:200	106 C	D-1221

OA-2a-80

FINE GRAINED CHLORITIZED METASILTSTONE
- CALCITE STRINGERS 2-5mm WIDE
- GREY-GREEN

Dip 50°
T.D. 8.53m

HOLE ABANDONED

CHLORITIZED SILTSTONE
- DARK GREY TO GREEN-GREY
- CARBONATE STRINGERS
- SULPHIDES PRESENT

HOLE ABANDONED

OA-2b-80
Dip 50°
T.D. 22.55m

CALCIC-CHLORITIC METASILTSTONE
- VARIES FROM DARK GREY TO LITTLE GREEN IN COLOUR
- MINERALIZATION IS GENERALLY RESTRICTED TO THE CARBONATE VEINLETS

OA-2c-80
Dip 63°
T.D. 85.95m

HOLE ABANDONED

m 4 0 4 8 12m

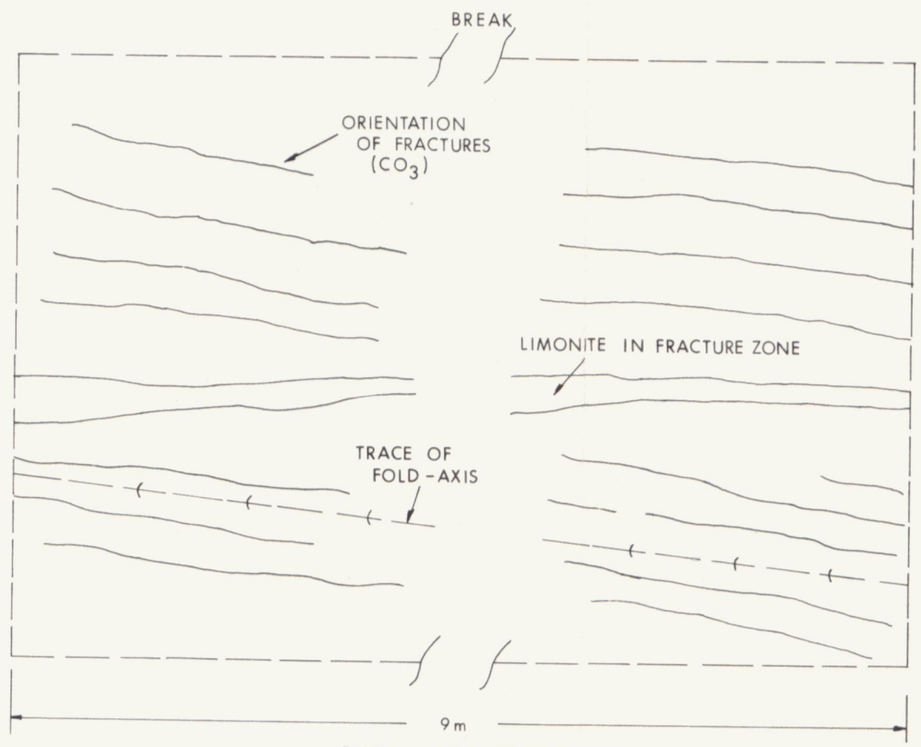
TO ACCOMPANY REPORT NO. 11-81 BY D.L.D. & D.B.H

PAN OCEAN OIL LTD.
CALGARY ALBERTA

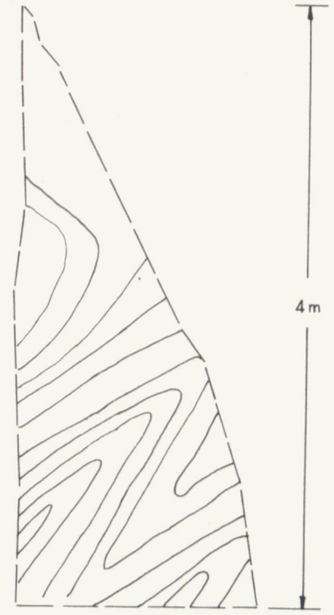
DIAMOND DRILL PROFILE
OA-2a, 2b, 2c-80
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV., 1980	1 : 200	106 C	C-1222

D.A.



VERTICAL VIEW OF BACK WALL



KINK BANDING
OF CALCITE BANDS
WITHIN DEFORMED CHLORITIC
META-ARGILLITE

m 80 0 80 160 240cm

TO ACCOMPANY REPORT NO. 11-81 BY D.L.D. & D.B.H.

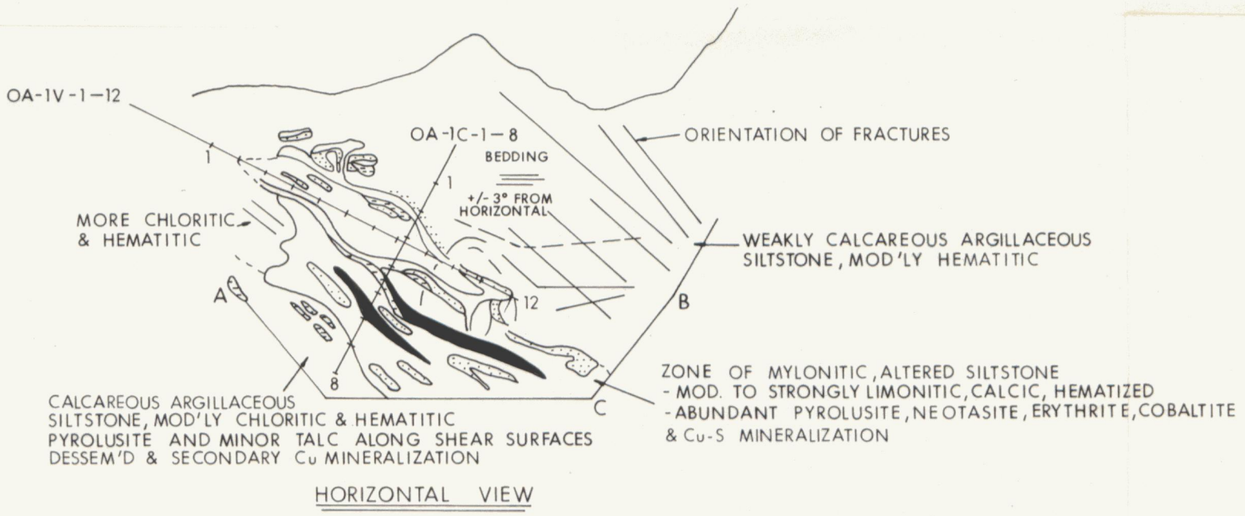
PAN OCEAN OIL LTD.
CALGARY ALBERTA

VERTICAL VIEW OF BACK WALL
"OTTER A" DRILL PAD

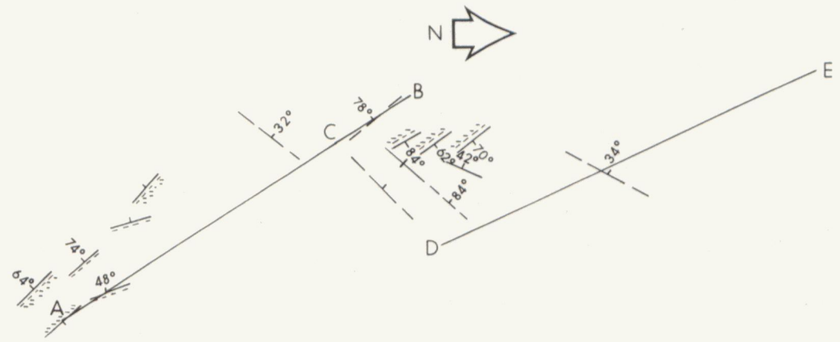
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1:40	106C/13	B-1223

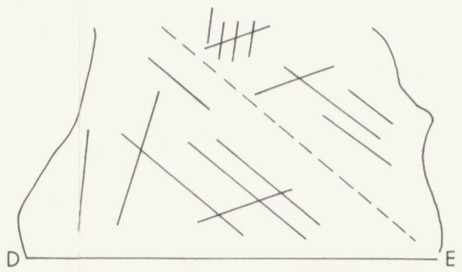
D.A.



HORIZONTAL VIEW



PLAN VIEW



VERTICAL VIEW OF JOINT SETS

RESULTS OF SPECTROGRAPHIC ANALYSIS

	OA-1C-5	OA-IV-1	OA-IV-6	OA-IV-10
ANTIMONY	200	>5000	>5000	>5000
ARSENIC	2000	>5000	>5000	>5000
BARIUM	700	1000	700	500
COBALT	1000	>5000	>5000	>5000
COPPER	>>5000	>>5000	5000	5000
IRON	10%	15%	3%	3%
LEAD	150	100	100	50
MAGNESIUM	1%	1%	1%	1%
MANGANESE	2000	700	1500	5000
NICKEL	100	3000	1000	700
TITANIUM	700	1000	1500	1500
ZINC	500	200	100	50
% Co	3	1	2	10

ASSAY RESULTS

SAMPLE NO.	% Cu	% As	% Co	OZ/TON AG
OA-1C-1	2.11		0.345	0.34
1C-1	1.77		0.395	0.30
1C-3	3.32		0.775	0.48
1C-4	3.60		0.130	0.56
1C-5	10.2		0.081	1.60
1C-6	0.46		0.016	0.08
1C-7	0.15		0.006	0.06
OA-1C-8	0.31		0.014	0.04
OA-1V-1	6.30		5.100	1.00
1V-2	3.37		1.060	0.62
1V-3	1.35		10.40	0.30
1V-4	0.61		14.00	0.30
1V-5	0.77		8.900	0.20
1V-6	0.41		3.400	0.12
1V-7	4.68		0.960	0.66
1V-8	1.54		3.400	0.26
1V-9	0.77		16.20	0.32
1V-10	0.26		0.740	0.04
1V-11	0.18		0.075	0.06
OA-1V-12	0.13		0.34	0.04

LEGEND

40°/ ATTITUDE OF MINERALIZED VEIN
40°/ ATTITUDE OF BEDDING
40°/ ATTITUDE OF DOMINANT FRACTURE

- ERYTHRITE, MASSIVE TO DESSEMINATED COBALTITE
- SULPHIDES, PYRITE &, OR CALCOPYRITE
- CARBONATE VEIN MATERIAL
- PYROLUSITE + /- NEOTASITE

cm 80 0 80 160 240 cm

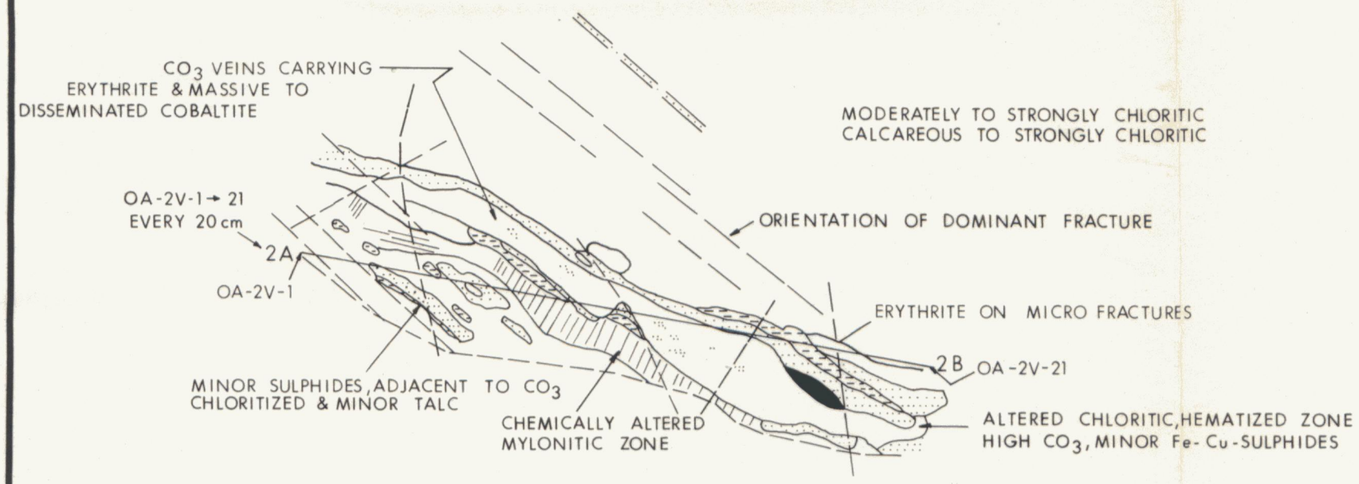
TO ACCOMPANY REPORT NO. 11-81 BY D.L.D. & D.B.H.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

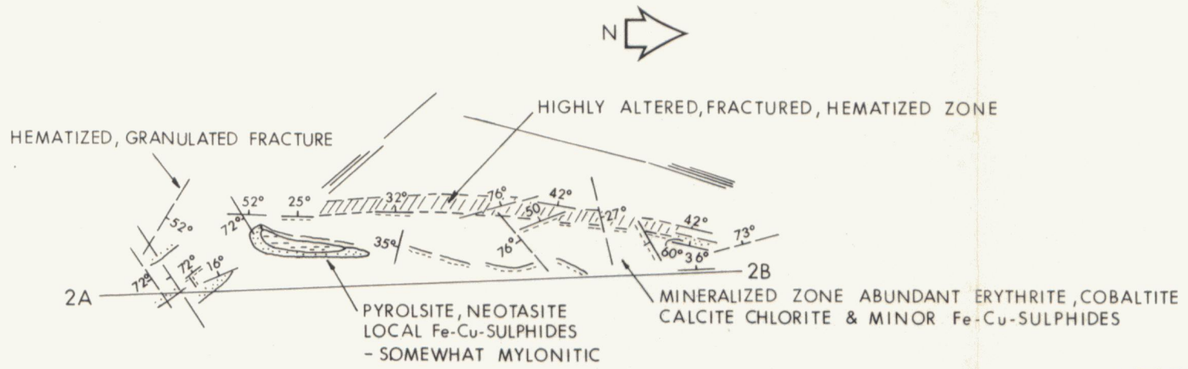
TRENCH 1
"OTTER A"
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1:40	106C/13	B-1224

D.A.



VERTICAL VIEW



PLAN VIEW

LEGEND

- 40°/ ATTITUDE OF MINERALIZED VEIN
- 40°/ ATTITUDE OF BEDDING
- 40°/ ATTITUDE OF DOMINANT FRACTURE

- ERYTHRITE, MASSIVE TO DESSEMINATED COBALTITE
- SULPHIDES, PYRITE &, OR CALCOPYRITE
- CARBONATE VEIN MATERIAL
- PYROLUSITE + /- NEOTASITE

m 80 0 80 160 240 cm

D.A.

RESULTS OF SPECTROGRAPHIC ANALYSIS

	OA 2V-11	OA 2V-21
ANTIMONY	>5000	> 5000
ARSENIC	>5000	> 5000
BARIUM	2000	200
COBALT	>>5000	>>5000
COPPER	>5000	500
IRON	5%	7%
LEAD	100	150
MAGNESIUM	1%	1.5%
MANGANESE	500	1500
NICKEL	2000	>5000
TITANIUM	1500	1000
ZINC	100	70
	2% Ca	7% Ca

ASSAY RESULTS

SAMPLE NO.	%Cu	%As	%Co	OZ/TON Ag
OA-2V-1	0.29		0.021	0.02
2V-2	0.58		0.010	0.08
2V-3	0.39		0.007	0.06
2V-4	5.75		0.250	0.92
2V-5	0.25		0.036	0.08
2V-6	0.31		0.029	0.06
2V-7	5.10		0.330	0.78
2V-8	1.48		0.155	0.24
2V-9	1.64		0.028	0.24
2V-10	0.79		0.365	0.12
2V-11	1.64		6.700	0.14
2V-12	2.71		4.400	0.46
2V-13	0.33		9.500	0.16
2V-14	0.68		0.710	0.10
2V-15	0.21		0.820	0.08
2V-16	0.12		0.850	0.04
2V-17	0.64		8.100	0.14
2V-18	0.05		8.100	0.06
2V-19	0.04		0.210	0.02
2V-20	0.04		0.330	0.02
OA-2V-21	0.06		10.00	0.02

TO ACCOMPANY REPORT NO. 11-81 BY D.L.D & D.B.H.

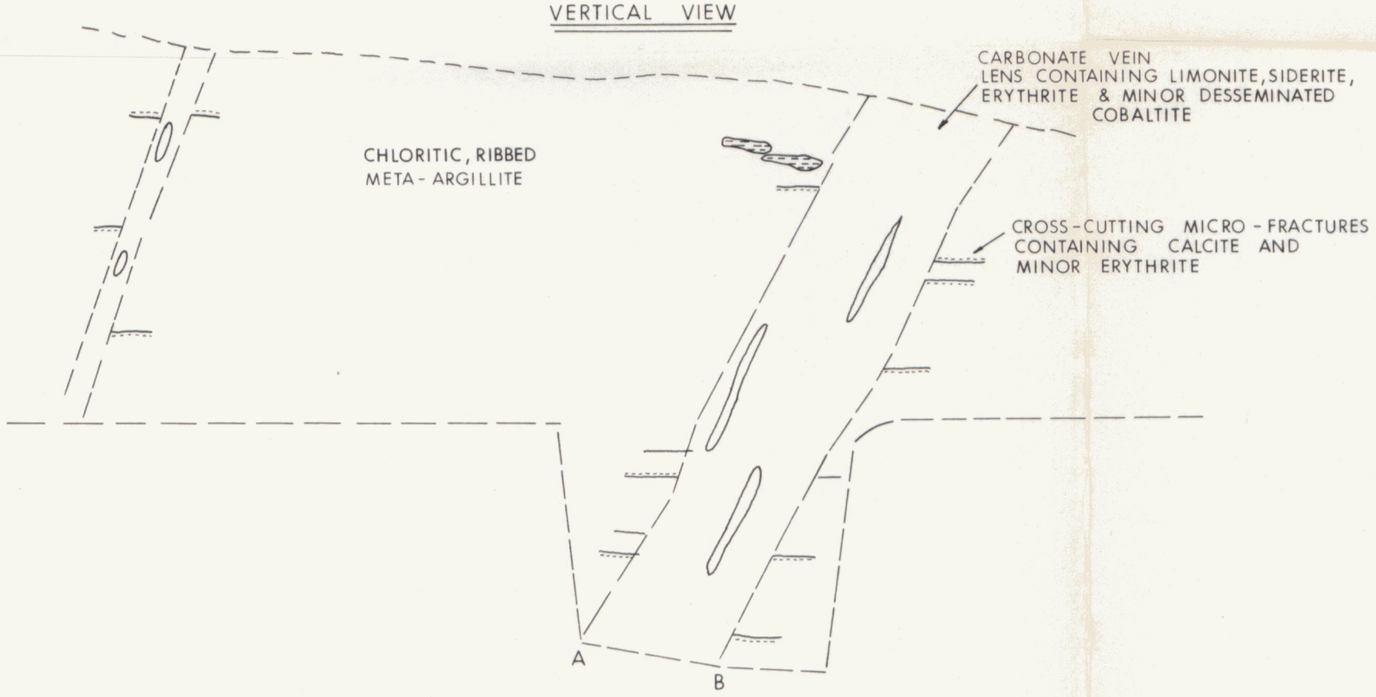
PAN OCEAN OIL LTD.
CALGARY ALBERTA

TRENCH 2
"OTTER A"

FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1:40	106C/13	B-1225

VERTICAL VIEW



PLAN VEIW

LEGEND

40° ATTITUDE OF MINERALIZED VEIN
40° ATTITUDE OF BEDDING
40° ATTITUDE OF DOMINANT FRACTURE

- ERYTHRITE, MASSIVE TO DESSEMINATED COBALTITE
- SULPHIDES, PYRITE &, OR CALCOPYRITE
- CARBONATE VEIN MATERIAL
- PYROLUSITE + / - NEOTASITE

cm 80 0 80 160 240 cm

TO ACCOMPANY REPORT NO. 11 - 81 BY D.L.D. & D.B.H.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

TRENCH 3

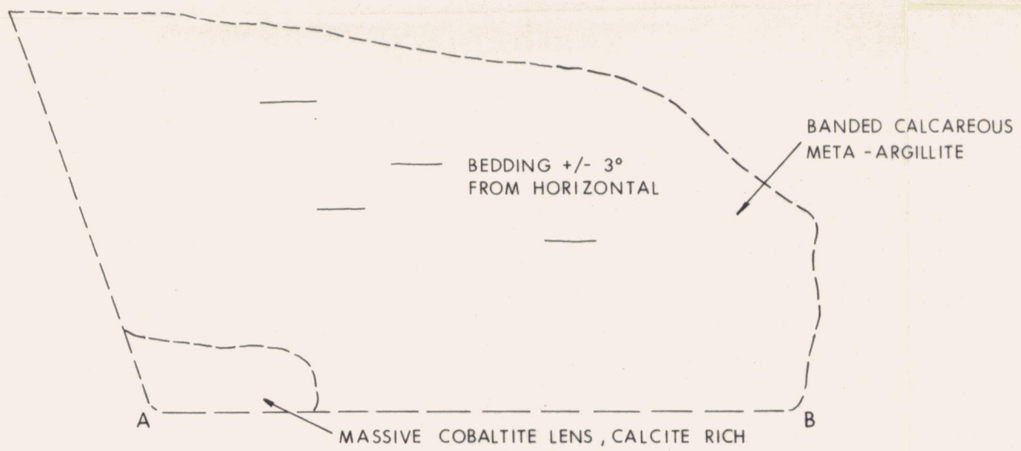
"OTTER A"

FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1:40	106C/13	B-1226

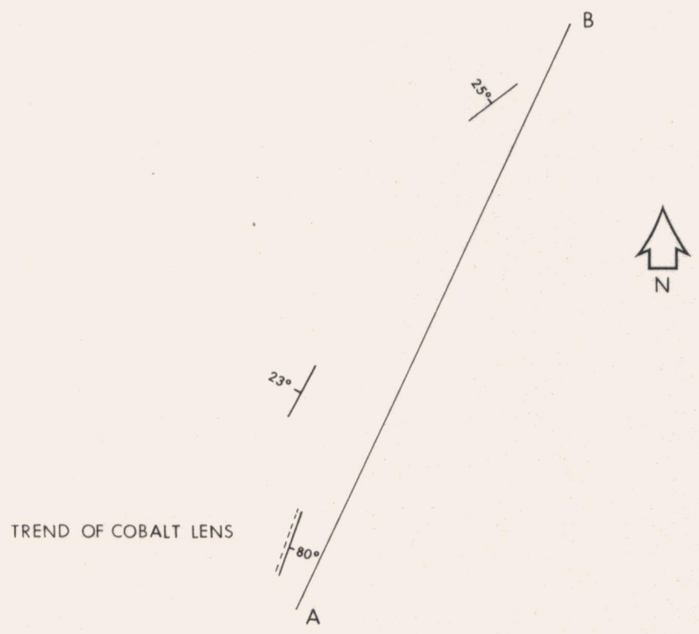
D.A.

VERTICAL VEIW



ASSAY RESULT: 0.05% Cu , 14.8% Co , 0.04 OZ. / TON Ag

PLAN VEIW



LEGEND

40° ATTITUDE OF MINERALIZED VEIN
40° ATTITUDE OF BEDDING
40° ATTITUDE OF DOMINANT FRACTURE

- ERYTHRITE, MASSIVE TO DESSEMINATED COBALTITE
- SULPHIDES, PYRITE &, OR CALCOPYRITE
- CARBONATE VEIN MATERIAL
- PYROLUSITE + / - NEOTASITE

cm 80 0 80 160 240 cm

TO ACCOMPANY REPORT NO. 11 - 81 BY D.L.D. & D.B.H.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

TRENCH 4

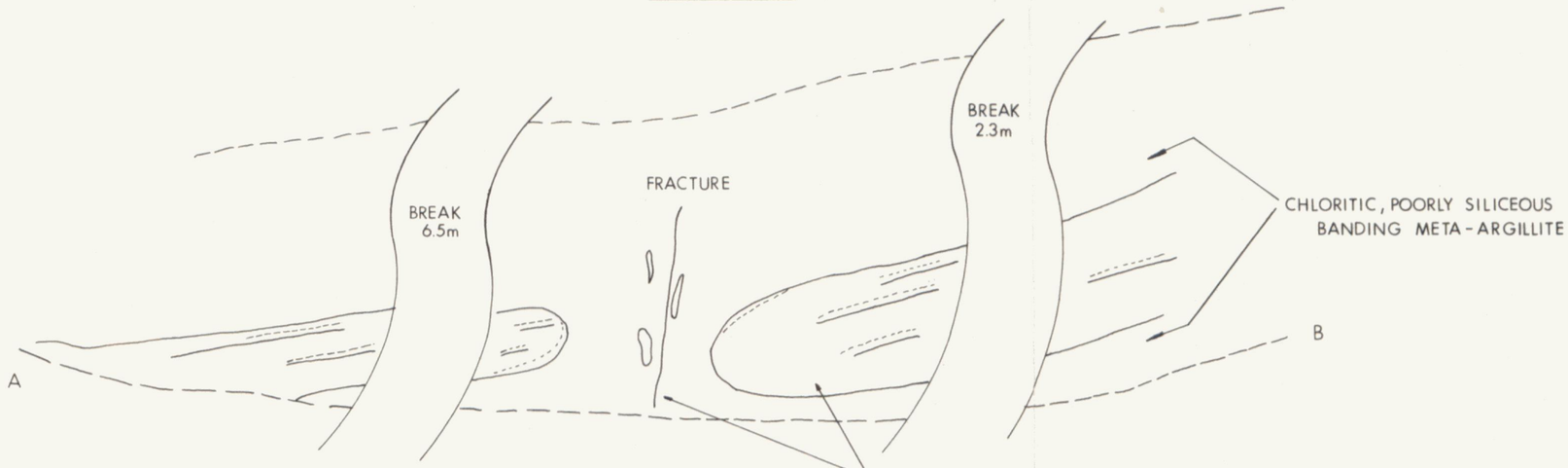
"OTTER A"

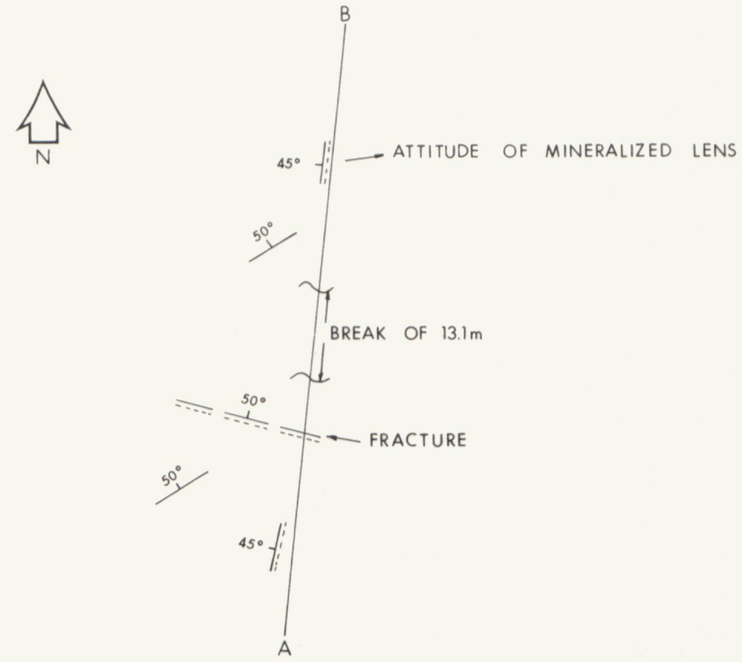
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1:40	106 C/13	B - 1227

D.A.

VERTICAL VEIW





PLAN VIEW

LEGEND

- 40° ATTITUDE OF MINERALIZED VEIN
- 40° ATTITUDE OF BEDDING
- 40° ATTITUDE OF DOMINANT FRACTURE
- ERYTHRITE, MASSIVE TO DESSEMINATED COBALTITE
- SULPHIDES, PYRITE &, OR CALCOPYRITE
- CARBONATE VEIN MATERIAL
- PYROLUSITE + / - NEOTASITE

cm 80 0 80 160 240 cm

TO ACCOMPANY REPORT NO. 11-81 BY D.L.D & D.B.H.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

TRENCH 5

"OTTER A"

FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1:40	106 C/13	B-1228

D.A.

DRAWING NO
D-1229

HELICOPTER PAD

V-80-4, Dip 60° Az 220°
V-80-3, Dip 45° Az 220°
V-80-1, Dip 45° Az 200°
V-80-2, Dip 45° Az 168°

RANDED QUARTZ-RICH CALCAREOUS METAARKOSE, MINOR DISSEMINATED SULPHIDES

Ma

LQ

CALCAREOUS-LIMEY QUARTZITE

SILICEOUS, CALCAREOUS METALIMESTONE

CALCITE INFILLING FRACTURES

Smc

Mls

SILICEOUS CALCAREOUS METALIMESTONE

QUARTZ-RICH CALCAREOUS METALIMESTONE

BANDED, SILICEOUS LIMEY METASILTSTONE

METAMORPHOSE CLASTIC LIMESTONE

MINOR ERYTHRITE ADJACENT TO FRACTURED DOLOMITIC LENS

1m THICK DOLOMITE LENSES, PARALLEL BEDDING INTERLAMINATED WITH CALCAREOUS METASILTSTONE, WELL FRACTURED, MINOR SULPHIDES

MINERALIZED-ERYTHRITIC CALCIC FRACTURES SCAPOLITIC, CALCAREOUS METASILTSTONE

Co 2 %
Cu 1.28 %
Ag 0.2 ppm

ERYTHRITE GOSSEN

MINERALIZED CALCITE VEIN ABUNDANT SULPHIDES WITH COBALTITE

BANDED, CORDIERITE BEARING SILICEOUS MARBLE

BANDED, SILICEOUS METACARBONATE

Cm

BANDED SCAPOLITIC CALCAREOUS METASILTSTONE

Fe-RICH SILICEOUS CHERT METACARBONATE CONTACT SKARN

SCAPOLITE-CORDIERITE CALCAREOUS METASILTSTONE

DISS'D Fe-Cu SULPHIDES

METAVOLCANICS

METAVOLCANICS ADJACENT TO CHERTY, CALCAREOUS METACARBONATE SKARN, +2% DISSEMINATED Fe-Cu SULPHIDES

THERMALLY ALTERED CHERTY, CALCAREOUS METACARBONATE "SKARN"

BANDED CORDIERITIC-SILICEOUS MARBLE

Co 1.67 %
Cu 1.74 %
Ag 0.1 ppm

MINERALIZED CO_3 VEIN CONTAINING PYRITE, CHALCOPYRITE, SKUTTERUDITE & ERYTHRITE

METADIORITE

V - METAVOLCANICS MINOR HEMATITE, CALCITE STRINGER

METAVOLCANICS, HEMATIZED, Fe-RICH CALCITE STRINGERS

N

LEGEND

- OUTLINE OF SURFACE OUTCROP
- FRACTURE
- BEDDING
- FAULT CAPPARENT, PROPOSED
- MINERALIZED VEIN
- GENERALIZED LITHOLOGIC BOUNDARIES
- TREND OF OUTCROP
- ▲ LOCATION OF SAMPLES FOR PETROGRAPHIC ANALYSIS

ROCK UNITS

- V METADIORITE
- LQ CALCAREOUS, LIMEY-QUARTZITE
- Ma BANDED, CALCAREOUS METAARKOSE
- Mls SILICEOUS, CLASTIC METALIMESTONE
- Smc SCAPOLITE CALCAREOUS METACARBONATE
- Cm BANDED, SILICEOUS CORDIERITIC MARBLE

m 4 0 4 8 12 16m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

SURFACE GEOLOGY OF VOLE SHOWINGS & PLAN VIEW OF DIAMOND DRILL SECTIONS

FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:200	106 C/13	D-1229

D.A.

DD555 A1 PM0

200°

20°

1615 m

1605 m

1595 m

1585 m

1575 m

1565 m

1555 m

1545 m

V-1-80

-45° Az 200°

2 m OVERBURDEN

7.5m WELL FRACTURED STR'LY WEATHERED ARKOSIC CALCAREOUS META-SILTSTONE

- STR'LY SILICEOUS, POORLY BANDED F-M GR'D META-SILTSTONE, MOD-STR'LY CALCAREOUS
- ABUNDANT Qtz/CO_3 VEINING (II BANDING)
- FRACTURE SURFACES WELL-LEACHED
- GR'NS WOLLATONITE/TACTINOLITE/EPIDOTE

MINERALIZED VEIN (CO_3)

UNIT MORE GRANULAR & WK'LY CONTORTED

26.2 m MINOR CHALCO & MAGNETITE (ASSOC'D WITH CO_3 MICROFRACTURES)

28.9 m WEAKLY CALCIC CHLORITIC SCAPOLITIC META-ARGILLITE MINOR SULPHIDES, CORDIERITE

29.4 m HIGHLY FRACTURED & SILICEOUS

MORE CALCIC

34.1m GRANULAR, CALCIC META-ARGILLITE, MODERATELY TO STR'LY SILICEOUS BANDS OF CHLORITE, SCAPOLITE MINOR DISSEM'D SULPHIDES ALONG BANDS

UNIT SIMILAR TO ABOVE, MUCH MORE SILICEOUS, SOME CHERTY BANDS INCREASE IN CALCITE CONTENT Qtz-CO_3 STRINGER PERPENDICULAR TO BANDING WEAKLY FRACTURE THROUGHOUT

CHERTY

43.84m

47.3m CALCIC, SCAPOLITIC META-ARGILLITE (PELITE) CHERTY LENSES CONTAIN DISSEM'D SULPHIDES (CHALCOPYRITE, PYRITE, PYRRHOTITE) ASSOC'D WITH CO_3 STRINGERS

SKARN ZONE

FINELY BANDED CALCIC META-ARGILLITE (PELITE)
- SKARN ZONE, INCLUDING IDIOCRASE, TOURMALINE, CORRUNDUM, CORDIERITE
- DISSEM'D PYRITE, CHALCOPYRITE, PYRRHOTITE, ILMENITE

CHERTY

MOVE SILICEOUS, CHERTY

58.64m INCREASE IN DISSEM'D SULPHIDES

MASSIVE SULPIDES (2%) - CHALCOPYRITE, PYRITE, MAGNETITE

TOP OF META-VOLCANICS HEMATIZED MYLONITIC STRONGLY FRACTURED

STEEL GREY META-VOLCANIC UNIT
MYRIAD OF CO_3 FRACTURE-FILLING
MOD'LY SILICEOUS
MINOR DISSEM'D SULPHIDES
ISOLATED BRECCIA LENSES (HEMATITE SPECULARITE)

T.D. 84.42m

-50° Az 197°

(SPERRY-SUN MEASURED DEVIATION)

D.A.

NOTE: LOCATED ON VOLE 13 - YA41967

m 4 0 4 8 12m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE
V-1-80
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1: 200	106C/13	C-1230

200°

20°

1615 m

1605 m

1595m

1585m

1575 m

1565 m

1555m

1545m

V-1-80

-45° Az 200°

20.1 / 20.6 — 290, 8 — 0.5 m

24.68 / 25.68 — 8 , 8 — 1.0 m

39.6 / 40.1 — 68, 4 — 0.5 m

47.32 / 47.62 — 12, 34, 0.1 ppm Ag. — 0.3 m

48.77 / 49.37 — 3800, 275, 0.1 ppm Ag. — 0.6 m

54.3 / 55.6 — 6, 20 — 1.3 m

57.6 / 58.2 — 360, 40 — 0.6 m

T.D. 84.42m

-50° Az 197°

(SPERRY - SUN MEASURED DEVIATION)

DA.

LEGEND

Cu, Co ppm

length of sample

m 4 0 4 8 12m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.

CALGARY ALBERTA

DIAMOND DRILL ASSAY RESULTS
V-1-80

FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1: 200	106C/13	C-1231

1610 m

1595 m

1580 m

1565 m

1550 m

1535 m

168°

V-2-80

12°

-45° Az 168°

2.7m

OVERBURDEN

STV'LY FR'D
MINOR MALACHITE

VF-F. GR'D SILICEOUS,
CALCIC META-SILTSTONE
MINOR CALC SILICATE

12.8m

LEACHED FAULT GOUGE

VF-F.GR'D CALCIC META-SILTSTONE
-THIN CALCITE VEINS & ASSOCIATED DESSEMINATED SULPHIDES, ISOLATED MICACEOUS BANDS
-CONTORTED BANDING

19.3m

VF-F.GR'D CALCIC META – SILTSTONE, SOMEWHAT MORE SILICEOUS & HIGHER CALCITE CONTENT ($Qtz-CO_3$ STRINGERS)
-POORLY BANDED, F.GRNS CALC-SILICATES
-TRACE AMTS DESSEMINATED SULPHIDES
-MINOR LENSES BRECCIA - HEMATITE, SPECULARITE

28.2 m

FRAGS. SILICIFIED
MUDSTONE

34.97 m

WEAKLY BANDED CALCAREOUS META-SILTSTONE, HIGHER Ca CONTENT
-MINOR SULPHIDES ASSOCIATED WITH CO_3 STRINGERS
-ISOLATED BRECCIA LENSES

MINOR SULPHIDES

SILICEOUS, MOD'LY CALCAREOUS SCAPOLITIC META-ARGILLITE (PELITE)
BANDING PRESENT IN MORE CALCIC ZONES
CO STRINGERS LIE II TO COVE AXIS

SKARN ZONE

DISSEMINATED
SULPHIDES ASSOC'D WITH
FRACTURING

48.6m

PROPOSED
INTERSECTION

BANDED, WEAKLY CALCAREOUS ALBITIZED META-SILTSTONE
CONTAINS SILICEOUS, CHERTY BANDS & CALC-SILICATES
-WEAKLY FRACTURED

53.9m

MOD'LY HEM'Z'D
AGGLOMEVATE MINOR
SULPHIDES

57.6m

STRONGLY SILICEOUS, POORLY BANDED CALCAVEOUS META SILTSTONE, OCCASSIONAL CHERTY LENSES
-THERMAL CONTACT ZONE - MINOR SULPHIDE MINERALIZATION & ILMENITE

F. GR'D META-VOLCANIC UNIT - ISOLATED SECTIONS STRONGLY SILICEOUS & WEAKLY HEMATITIC, MYRIAD OF CO_3 STRINGERS
CONTAINS FRACTURED INTERVALS WHICH ARE GENERALLY LIMONITIC & FAIRLY CLEAN
FEW THIN BRECCIATED INTERVALS WHICH CONTAIN CLAY ALTERATION, SOME BRECCIA INTERVALS
ARE MODERATELY TO STRONGLY HEMATITIC (OCCASSIONALLY SPECULARITIC)
TRACE AMOUNTS DESSEMINATED SULPHIDES ARE OBSERVED LOCALLY.

T. D. 95.1 m

-46° Az 160° (SPERRY-SUN MEASURED DEVIATION)

D. A.

NOTE: LOCATED ON VOLE 13 - YA41967

m 4 0 4 8 12m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE
V-2-80
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1: 200	106 C/13	C-1232

1610 m

168°

V-2-80 12°
-45° Az 168°

1595 m

16.0
16.7
6,10
0.7m

1580 m

36.6
37.3
6.6
0.8m

1565 m

1550 m

1535 m

T.D. 95.1 m

-46° Az 160° (SPERRY-SUN MEASURED DEVIATION)

D.A.

LEGEND

Cu, Co ppm
length of sample

m4 0 4 8 12m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL ASSAY RESULTS
V-2-80

FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1: 200	106C/13	C-1233

DRAWING NO. D-1234

1625 m

229°

49°

MINERALIZED VEIN (ERYTHRITE WITH CALCITE)

1610 m

1595 m

1580 m

1565 m

1550 m

1535 m

1520 m

OVERBURDEN 3.2 m

STRONGLY WEATHERED F-M. GR'D. CALCAREOUS META-SILTSTONE, POOR-TO WELL-BANDED. FRACTURES COMMON. FRACTURES LIMONITIC, MINOR HEMATITE. MINOR SPECKS MALACHITE, CHALCOPYRITE. 9.4 m

3.2 m

DISS'D CHALCOPYRITE, PYRRHOTITE

BANDED FINE TO MED.COARSE GR'D. CALCAREOUS META-SILTST. DECREASE IN NO. OF FRACTURES (CALCIC, LIMONITIC) UNIT CONTAINS FINE LATHES CALC-SILICATES THROUGHOUT. MINOR ISOLATED AREAS OF DISS'D CHALCOPYRITE.

21.3 m

STR'LY LIM'C ZONE OF CALCIC META-SILTSTONE & CALCITE. HIGHLY FR'D PYROLUSITE, MALACHITE. 23.0 m

SULPHIDES IN CARBONATE VEIN

SCAPOLITIC, CALCAREOUS META-SILTSTONE

BANDED F-M.GR'D.CALCAREOUS META-ARGILLITE (PELITE) MOD. SILICEOUS THROUGHOUT. ISOLATED FRACTURES WELL REPRESENTED. MINOR SULPHIDES DISS'D THROUGHOUT.

BECOMING MORE CALCIC WITH DEPTH.

F. GR'D. CHALCO AND Co (?)

CoS IN FRACTURE FILL CALCITE VEINS

LIMONITIC / CALCIC ZONE CONTAINING POSSIBLE Co MINERALIZATION. 43.0 m 44.5 m

34.2 m

CHALCOPYRITE, PYRITE, ARSENOPYRITE, CoS (?) REPLACING CARBONATES ALONG BEDDING FRACTURES.

37.0 m

38.4 m

PYRITE, ARSENOPYRITE, POSSIBLE MINOR CoS IN CARBONATE MICRO-FRACTURES.

54.0 m

POSSIBLE PYRITEROUS ZONE, SPEC. HEMATITE IN CALCITE VEINS WITHIN CHERTY BANDED ARGILLITE. SULPHIDES THROUGHOUT. 57.0 m

WEAKLY BRECCIATED, MAFIC F. GR'D. META-SILTS., WEAKLY HEM'Z'D 59.9 m

BANDED CALCAREOUS META-SILTSTONE. ALTERNATING BANDS CHLORITIC SILTSTONE WITH CALCAREOUS "CALC-SILICATE" META-SILTSTONE.

48.2 m

63.0 m

AMTS. SPECULAR HEM.

66.0 m

CHLORITIZED, MAFIC F. GR'D META-SILTSTONE. CALCITE PODS, LENSES COMMON THROUGHOUT. FEW BRECCIATED LENSES.

DISSEMINATED SULPHIDES THROUGHOUT.

BRECCIATED SECTIONS 73.0 m 74.5 m 76.0 m

58.4 m

60.3 m

61.5 m BLEBS PYRITE IN CARBONATE VEINS - REPLACEMENT ALONG MICRO-FRACTURES.

BRECCIATED CALCIC META-SILTSTONE. CALCIC BRECCIATED ZONES THROUGHOUT ASSOC'D WITH SPECULAR HEMATITE. UNIT LIMONITIC THROUGHOUT.

87.47 m

BANDS INTERBEDDED BRECCIATED-CHERTY META-SILTSTONE.

69.1 m

70.6 m DISS'D SPECULARITE WITHIN BRECCIA LENS.

72.2 m

73.4 m DISS'D PYRITE.

74.4 m

74.8 m DISS'D PYRITE.

77.0 m

78.0 m RED TARNISHED SULPHIDE MINERALS.

79.7 m

80.2 m DISS'D SULPHIDES.

BANDED CALCIC META-SILTSTONE. SCATTERED SULPHIDE THROUGHOUT (POSSIBLY Co) UNIT CONTAINS ISOLATED SPEC. HEMATITE & HEM'C ALTERATION.

MALACHITE STAINING

101.8 m

HEMATIZED BRECCIA (POSSIBLE GLAUCODOT) 102.8 m

85.6 m

87.1 m DISS'D SULPHIDES PLUS MALACHITE / NEOTASITE ALONG FR. SURFACES

92.17 m

MILDLY BRECCIATED META-VOLCANIC UNIT - MOD. HEM'Z'D.

T.D. 93.57 m

V-4-80

CHLORITIC, MAFIC V.F. GR'D. META-ARGILLITE. MYRIAD CALCITE STRINGERS. BIOTITE ASSOC'D WITH CALCITE. ISOLATED FRACTURES CONTAIN LIMONITE / PYROLUSITE.

T.D. 126.47 m

-41 Az. 234°
(SPERRY-SUN MEASURED DEVIATION)

V-3-80

NOTE: LOCATED ON VOLE 13 - YA41967

LEGEND

- ORIENTATION OF BANDING AND/OR FOLIATION
- ORIENTATION OF DOMINANT FRACTURES
- 1565m — METERS ABOVE SEA LEVEL

m 4 2 0 4 8 12 16 m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE

V-3-80 & V-4-80

FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV., 1980	1:200	106 C/13	D-1234

JCC

DRAWING NO. D-1234

DRAWING NO
D-1235

1625 m
229°
1610 m
1595 m
1580 m
1565 m
1550 m
1535 m
1520 m
49°

1300 , 28 / 0.82m
200 , 26 / 0.5m
8 , 14 / 0.7m
182 , 32 / 0.22m
790 , 42 / 0.4m
240 , 12 / .6m
230 , 18 / 0.75m
138 , 18 / 0.74m
310 , 40 / 0.76m
86 , 14 / 1.24m
72 , 12 / 1.0m
66 , 12 / 0.9m
80 , 12 / .7m
350 , 12 / .9m
96 , 24 / 0.86m
72 , 12 / 0.75m
14 , 8 / 0.75m
8 , 14 / 1.0m
90 , 26 / .8m
120 , 12 / .5m
6 , 8 / 0.32m
6 , 8 / 0.39m
6 , 6 / 0.86m
6 , 6 / 0.4m
6 , 8 / 0.2m
4 , 10 / 0.2m
4 , 14 / 0.2m
4 , 14 / 0.6m
50 , 14 / .5m
8 , 12 / 0.55m
92 , 14 / 0.77m
6 , 6 / 0.45m
94 , 10 / 0.2m
8 , 8 / 0.7m
265 , 68 / .5m
45 , 22 / .5m
20 , 10 / .6m
470 , 80 / 1.0m

T.D. 126.47m
-41 Az. 234°
(SPERRY-SUN MEASURED DEVIATION)
V-3-80

T.D. 93.57m
V-4-80

LEGEND

50 , 12 / .5m = Cu, Co ppm / LENGHT OF SAMPLE

m 4 2 0 4 8 12 16 m

TO ACCOMPANY REPORT NO 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL ASSAY RESULTS

V-3-80 & V-4-80

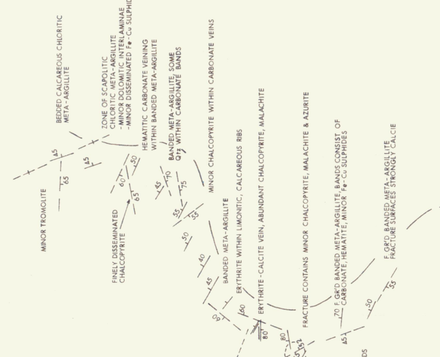
FAIRCHILD LAKE PROJECT, 1980

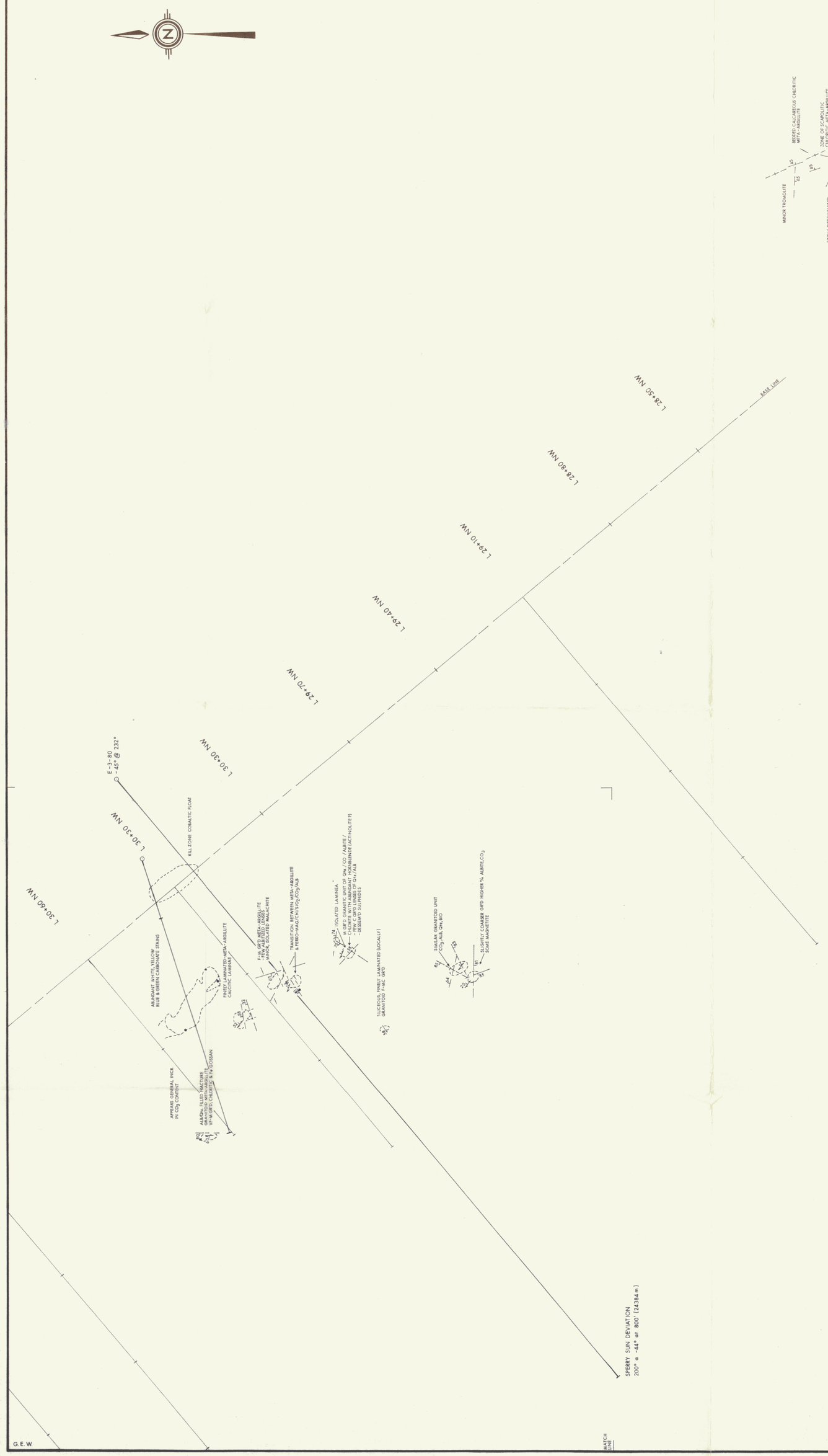
DATE	SCALE	NTS	DRAWING NO.
NOV., 1980	1:200	106 C/13	D-1235

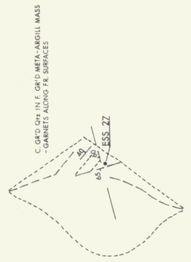
DP555 A1 P00

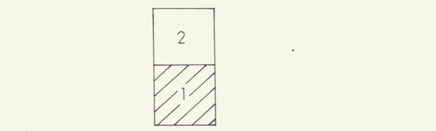
JCC

DRAWING NO
E-1236









TO ACCOMPANY REPORT NO. 11-81 BY D.L.D. & D.B.H.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

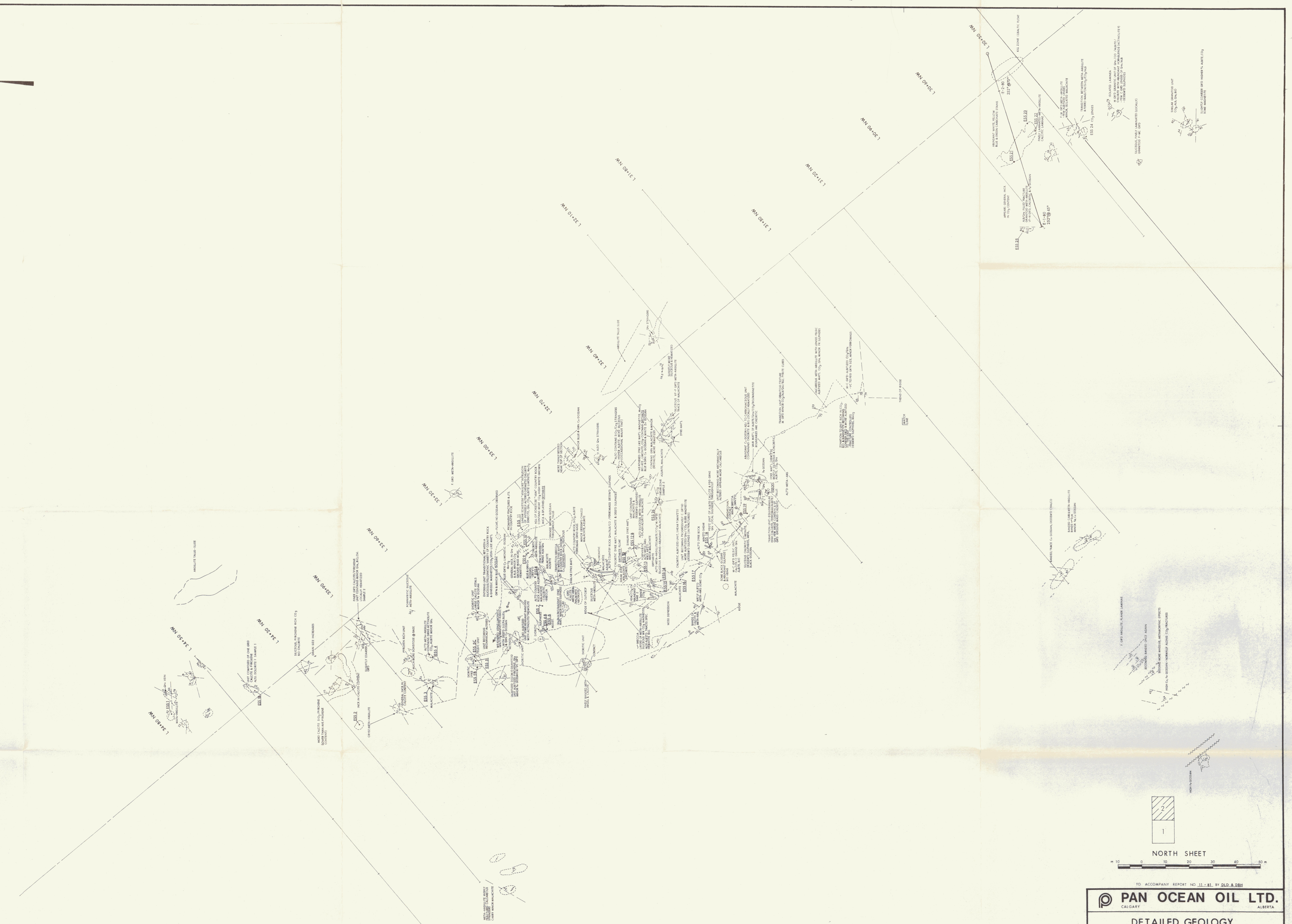
DETAILED GEOLOGY EAGLE GRID

FAIRCHILD LAKE PROJECT

DATE	SCALE	NTS	DRAWING NO.
JANUARY, 1981	1:500	106 C	E - 1236

DP468A0P00

DRAWING NO.
E-1236


L 32-40 NW
L 32-10 NW
L 32-00 NW
L 33-20 NW
L 33-60 NW
L 33-40 NW
L 34-20 NW
L 34-50 NW
L 34-80 NW
L 31-80 NW
L 31-20 NW
L 31-60 NW
L 30-40 NW
L 30-00 NW
ARGILLITE FAULT ZONE
F. GRD. META-ARGILLITE
MINOR CALCITE & PYRITE
MINOR CALCITE & PYRITE
MINOR CALCITE & PYR

DRAWING NO
E-1237

m20 0 20 40 60 80 100m

TO ACCOMPANY REPORT NO 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

GEOLOGY

EAGLE GRID

FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV, 1980	1:1000	106 C	E-1237

GEW

DP468A0P00

DRAWING NO
E-1238

35+10 NW
34+50 NW
33+90 NW
33+30 NW
32+70 NW
32+10 NW
31+50 NW
30+90 NW
30+30 NW
29+70 NW
29+10 NW
28+50 NW

32+10SW
BASE LINE
25+80SW

EAGLE CREEK
EAGLE CREEK

m20 0 20 40 60 80 100m

TO ACCOMPANY REPORT NO. 11-81, BY DLD & DBH

NOTE:
VALUES = METERS ABOVE SEA LEVEL

PAN OCEAN OIL LTD.
CALGARY ALBERTA

ALTIMETER SURVEY

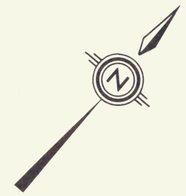
EAGLE GRID
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:1000	106 C	E-1238

JCC

DP468A0P00

DRAWING NO
E-1239



m20 0 20 40 60 80 100m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

MAGNETOMETER SURVEY

EAGLE GRID

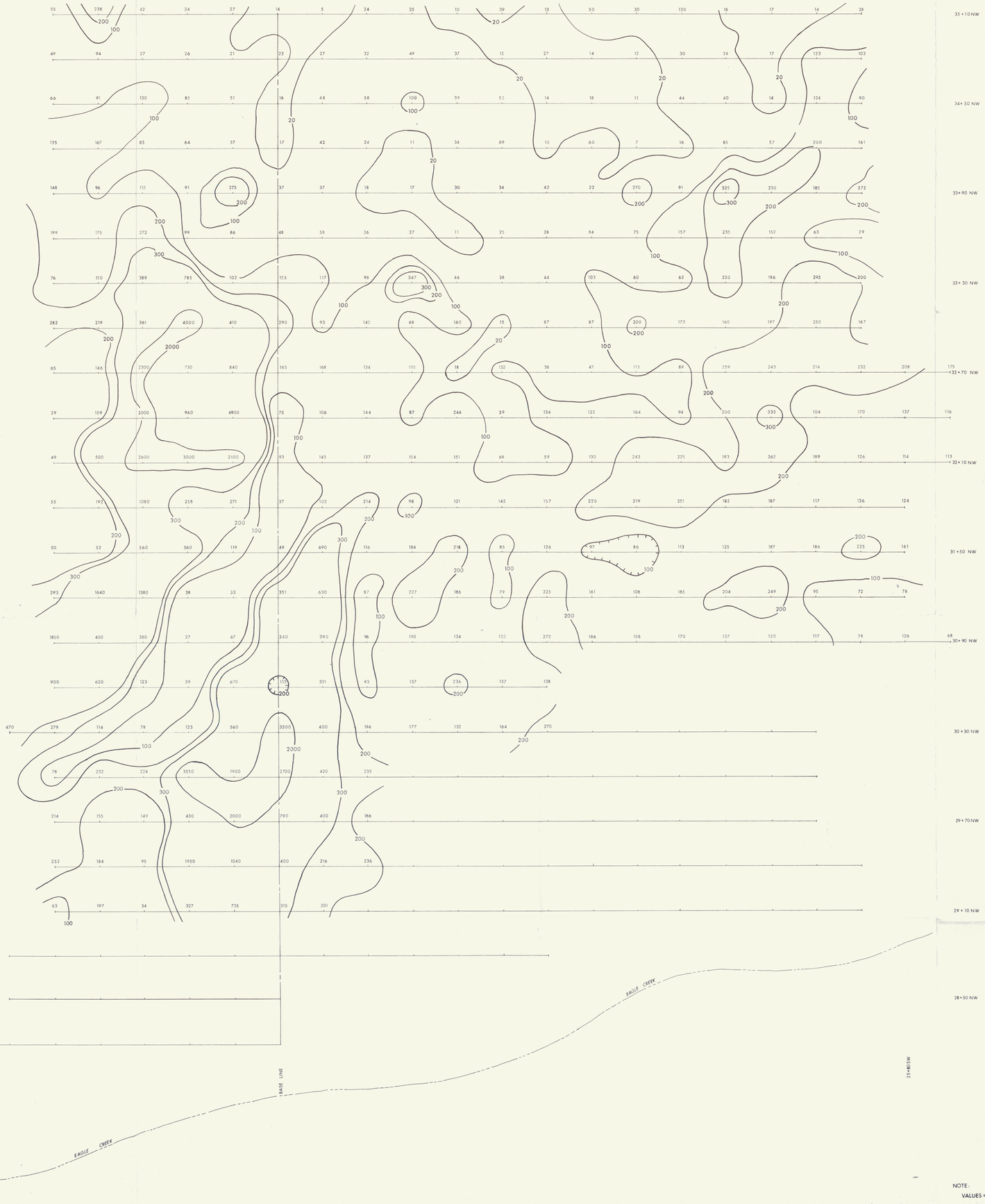
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT, 1980	1:1 000	106/C	E-1239

D.A.

DP468A0P00

DRAWING NO
E-1240



m20 0 20 40 60 80 100m

NOTE:
VALUES = Cu ppm

TO ACCOMPANY REPORT NO. 11-81, BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

COPPER
SOIL SAMPLE SURVEY
EAGLE GRID
FAIRCHILD LAKE PROJECT , 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:1000	106 C	E-1240

JCC

DP468A0P00

DRAWING NO E-1241

NOTE:
VALUES = Co ppm

TO ACCOMPANY REPORT NO. 11-81, BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

COBALT
SOIL SAMPLE SURVEY
EAGLE GRID
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:1000	106 C	E-1241

JCC

DP468A0P00

E-1242

35+10 NW
34+50 NW
33+90 NW
33+30 NW
32+70 NW
32+10 NW
31+50 NW
30+90 NW
30+30 NW
29+70 NW
29+10 NW
28+50 NW

32+10SW
23+80SW

BASE LINE

EAGLE CREEK

EAGLE CREEK

m20 0 20 40 60 80 100m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

LEAD
SOIL SAMPLE SURVEY
EAGLE GRID
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:1000	106 C	E-1242

NOTE:
VALUES = Pb ppm

JCC

DP468A0P00

DRAWING NO
E-1243

NOTE:
VALUES = Mn ppm

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

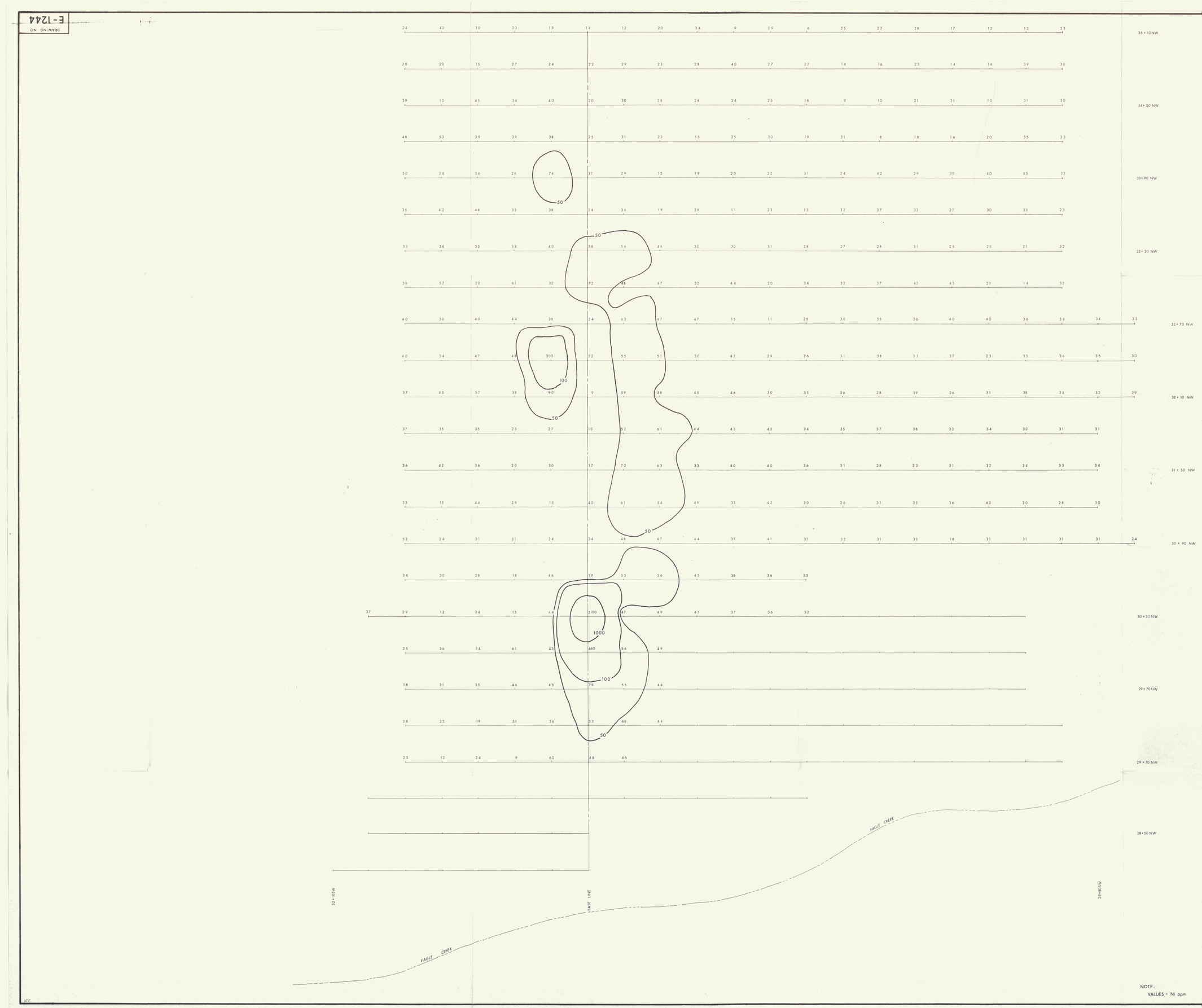
MANGANESE
SOIL SAMPLE SURVEY
EAGLE GRID
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:1000	106 C	E-1243

JCC

DP468AOPOO

DRAWING NO. E-1244



TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.

CALGARY ALBERTA

NICKEL
SOIL SAMPLE SURVEY
EAGLE GRID

FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:1 000	106 C	E-1244

NOTE:
VALUES = Ni ppm

JCC

DP468A0P00

DRAWING NO. E-1245

35+10NW
34+50 NW
33+90 NW
33+30 NW
32+70 NW
32+10 NW
31+50 NW
30+90 NW
30+30 NW
29+70NW
29+10 NW
28+50 NW

N

m20 0 20 40 60 80 100m

NOTE:
VALUES = Zn ppm

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DRH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

ZINC
SOIL SAMPLE SURVEY
EAGLE GRID
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
NOV., 1980	1:1 000	106 C	E-1245

K.B.B.

DP468A0P00

25 + 50 SW

26 + 40 SW

27 + 30 SW

28 + 20 SW

29 + 10 SW

30 + 00 SW Az. 140 BASE LINE

30 + 90 SW

31 + 80 SW

32 + 70 SW

35 + 10 NW

34 + 20 NW

33 + 30 NW

32 + 40 NW

31 + 50 NW

30 + 60 NW

29 + 70 NW

28 + 80 NW

N

E-4-80
TD - 146.81m

E-9-80
TD - 55.17m

E-2-80
TD - 63.7m

E-1-80
TD - 107.5m

E-3-80
TD - 246.9m

TRENCH

E-5-80
TD - 108.5 m

E-6-80 TD - 89.65 m

E-7-80 TD - 114.91 m

E-8A - 80 TD - 194.8 m

m 60 30 0 60 120 180m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL HOLE LOCATIONS - EAGLE GRID

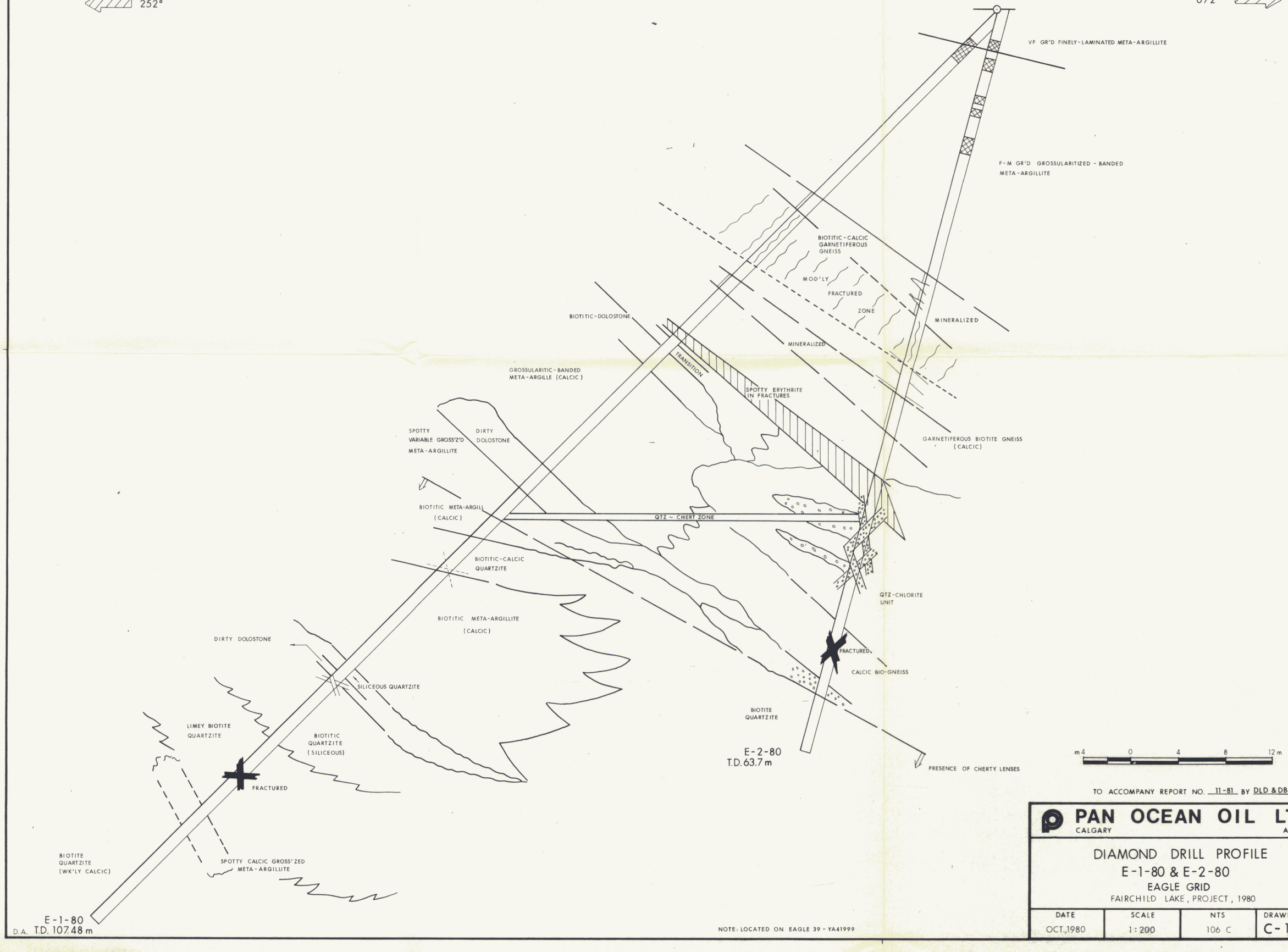
E-1, 2, 3, 4, 5, 6, 7, 8A, 9 - 80
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
MAR., 1981	1 : 3000	106 C	B - 1246

JCC

252°

072°



NOTE: LOCATED ON EAGLE 39 - YA41999

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE
E-1-80 & E-2-80
EAGLE GRID
FAIRCHILD LAKE, PROJECT, 1980

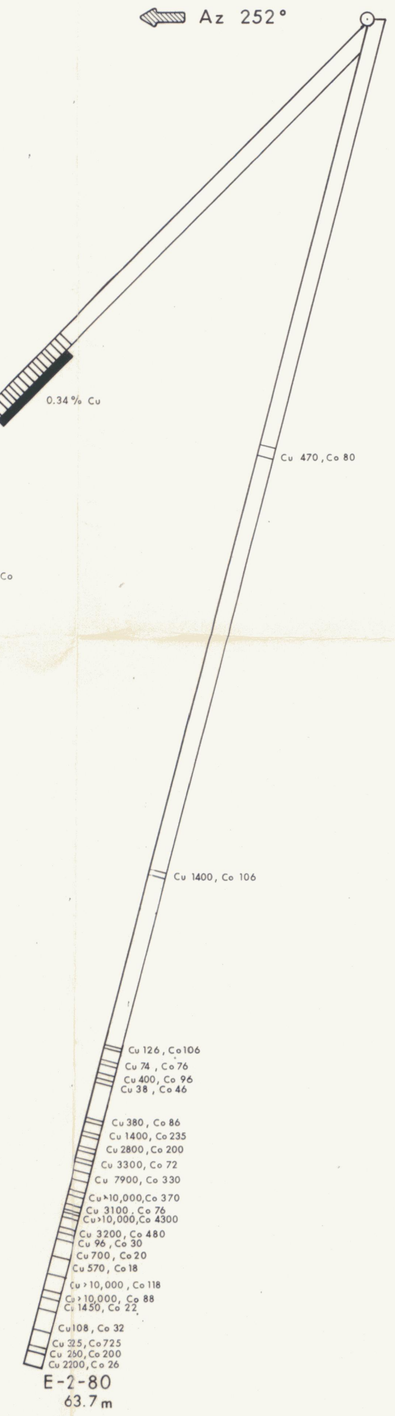
DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:200	106 C	C-1247

E-1-80 ASSAYS

DEPTH	Cu %	Co %	AG oz/Ton
20.46 - 20.76	0.01%	0.002	
20.76 - 21.07	0.09	0.003	
21.07 - 21.37	0.11	0.003	
21.37 - 21.68	1.00	0.038	0.08
21.68 - 21.98	0.39	0.009	0.01
21.98 - 22.29	0.15	0.008	
22.29 - 22.60	0.08	0.006	
22.60 - 22.90	0.01	0.005	
22.90 - 23.20	0.10	0.005	
23.20 - 23.50	0.32	0.008	
23.50 - 23.81	0.05	0.003	
23.81 - 24.11	0.01	0.003	
24.11 - 24.42	3.28	0.015	0.25
24.42 - 24.72	0.20	0.004	0.01
24.72 - 25.03	0.07	0.005	0.01
25.03 - 25.33	0.06	0.005	
25.33 - 25.64	0.01	0.003	
25.64 - 25.94	0.01	0.002	
25.94 - 26.25	0.01	0.002	
26.25 - 25.55	0.05	0.002	
29.61 - 29.92	0.06	0.003	0.05
29.92 - 30.22	0.05	0.003	0.04
30.22 - 30.53	0.05	0.003	
30.53 - 30.80	0.04	0.002	
30.80 - 31.10	0.01	0.002	
31.10 - 31.41	0.01	0.006	
31.41 - 31.71	0.01	0.004	
31.71 - 32.02	0.16	0.089	
32.02 - 32.32	0.29	0.092	
32.32 - 32.53	0.05	0.013	
32.53 - 32.84	0.15	0.016	
32.84 - 33.14	0.41	0.072	
33.14 - 33.45	0.05	0.005	
33.45 - 33.76	0.28	0.011	
33.76 - 34.07	0.11	0.005	

E-1-80
107.48 m.

K.B.B.



E-2-80
63.7 m

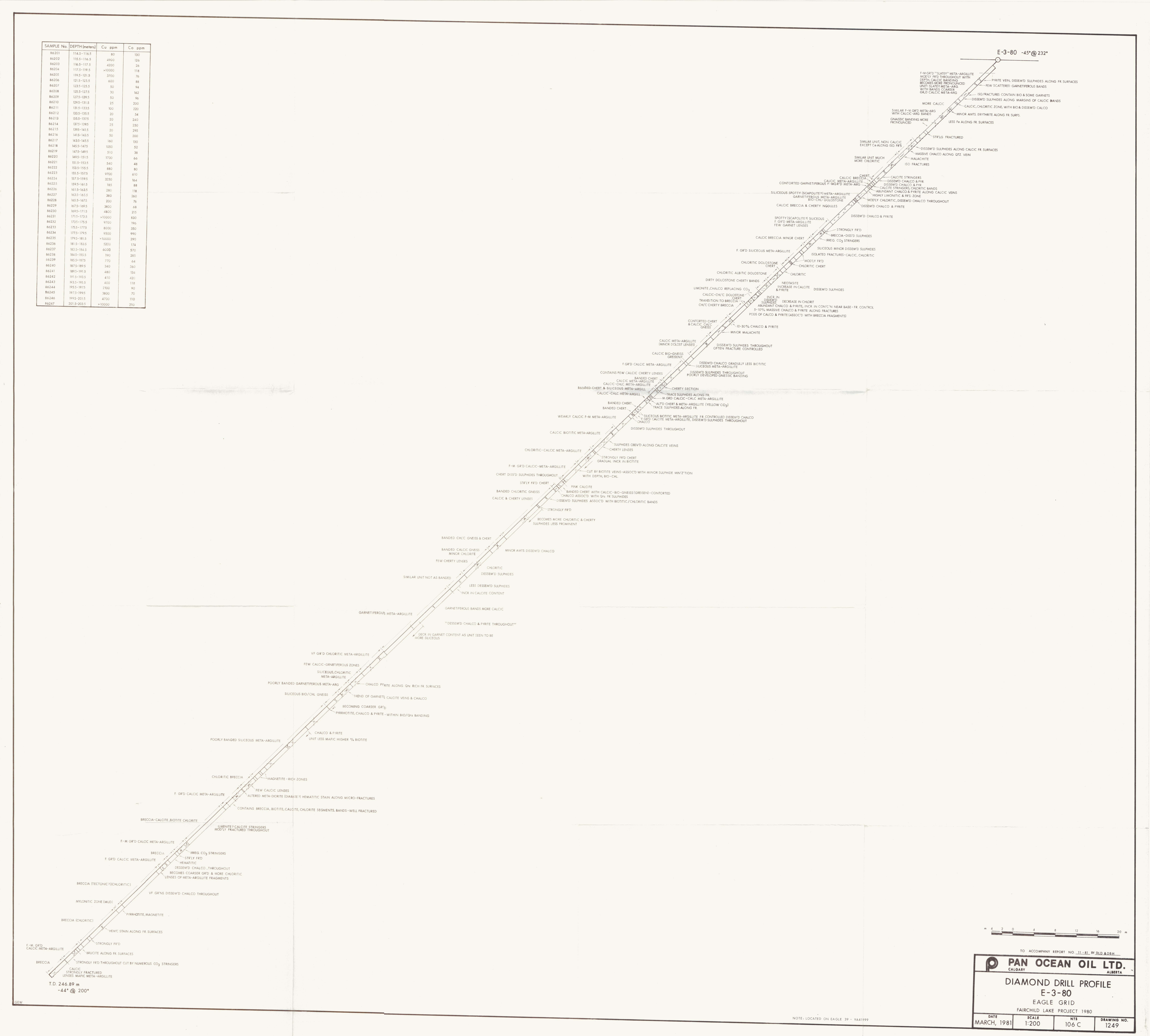
TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL GEOCHEM & ASSAY RESULTS
E-1-80 & E-2-80
'EAGLE GRID'
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
MAR., 1980	1: 200	106 C	C-1248

SAMPLE No.	DEPTH (meters)	Cu ppm	Co ppm
86201	114.5–116.5	80	130
86202	115.5–116.5	4900	126
86203	116.5–117.5	4200	26
86204	117.5–119.5	>10000	118
86205	119.5–121.5	3700	76
86206	121.5–123.5	600	88
86207	123.5–125.5	50	94
86208	125.5–127.5	30	162
86209	127.5–129.5	50	96
86210	129.5–131.5	25	200
86211	131.5–133.5	100	220
86212	133.5–135.5	20	54
86213	135.5–137.5	20	240
86214	137.5–139.5	25	250
86215	139.5–141.5	20	295
86216	141.5–143.5	50	200
86217	143.5–145.5	160	130
86218	145.5–147.5	1050	52
86219	147.5–149.5	510	38
86220	149.5–151.5	1700	66
86221	151.5–153.5	540	48
86222	153.5–155.5	880	80
86223	155.5–157.5	9700	610
86224	157.5–159.5	3250	164
86225	159.5–161.5	185	88
86226	161.5–163.5	280	118
86227	163.5–165.5	380	260
86228	165.5–167.5	200	76
86229	167.5–169.5	3800	68
86230	169.5–171.5	4800	215
86231	171.5–173.5	>10000	830
86232	173.5–175.5	9700	196
86233	175.5–177.5	8000	350
86234	177.5–179.5	9500	990
86235	179.5–181.5	>10000	290
86236	181.5–183.5	5200	174
86237	183.5–184.5	6000	570
86238	184.5–185.5	190	285
86239	185.5–187.5	770	64
86240	187.5–189.5	340	260
86241	189.5–191.5	480	134
86242	191.5–193.5	410	420
86243	193.5–195.5	400	118
86244	195.5–197.5	2100	90
86245	197.5–199.5	3800	70
86246	199.5–201.5	4700	110
86247	201.5–203.5	>10000	210



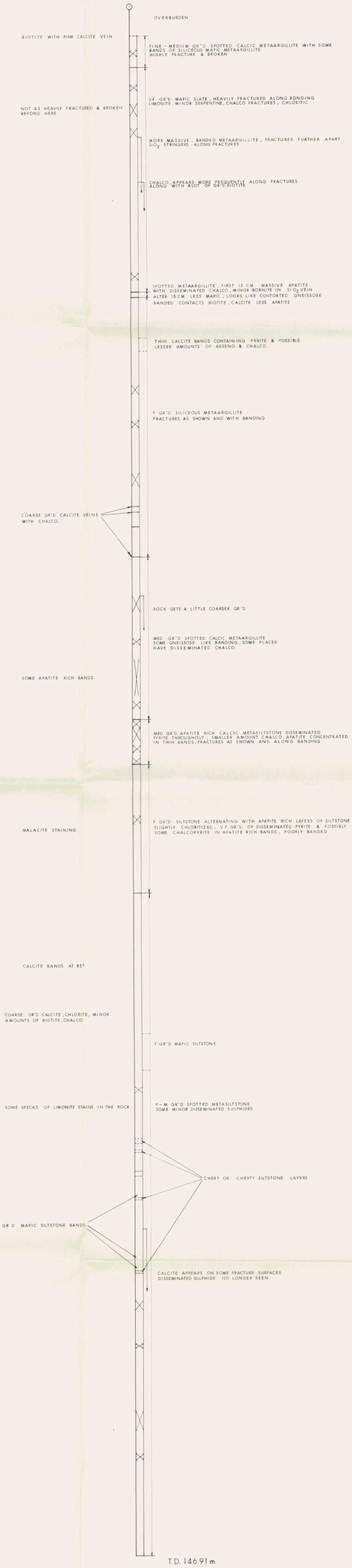
DRAWING NO
X - 1250

DP-41B(P)0

E - 4 - 80
Dip 90°

235°

055°



m 4 0 4 8 12 m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE

E - 4 - 80

EAGLE GRID
FAIRCHILD LAKE PROJECT 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:200	106 C	X-1250

NOTE: LOCATED ON EAGLE 39 - YA41999

D.A.

222°

042°

E-5-80
Dip 45°

1.82 m — OVERBURDEN

8.22 m — MODERATELY BANDED, SCAPOLITIC METASILTSTONE
- MODERATELY SILICEOUS WITH HIGHLY SILICEOUS BANDS
- MINOR CPY, PY

9.75 m

11.45 m — BROKEN & FRACTURED SCAPOLITIC ZONE
- HIGHLY SILICEOUS BANDS - MINOR SULPHIDES
GARNETIFEROUS SCAPOLITIC METASILTSTONE
≤2% CPY & PY

14.02 m

14.7 m
15.08 m — SCAPOLITIC SILICEOUS METASILTSTONE
- FINELY DISSEMINATED SULPHIDES

LESS SILICEOUS SCAPOLITIC METASILTSTONE
HIGHLY SILICEOUS ZONE

18.83 m — SILICEOUS SCAPOLITIC METASILTSTONE
- SILICEOUS BANDING

20.05 m — SCAPOLITIC GARNETIFEROUS - BIOTITIC AUGEN METASILTSTONE

28.08 m — BANDED SCAPOLITIC SILICEOUS METASILTSTONE
- MINOR SULPHIDE MINERALIZATION

400, 100, —, 34
.31 m
2400, 70, — 20
.16 m

33.3 m — BANDED SCAPOLITIC SILICEOUS METASILTSTONE
- SIMILIAR TO 20.05 - 28.08 m BUT MORE COMPACT AND BANDING MORE CONTORTED
- DISSEMINATED CPY & PY OBSERVED THROUGHOUT

1000, 660, —, 66
.61 m

38.7 m
39.0 m — WEAKLY SILICEOUS, CHLORITIC METASILTSTONE
- LESS COLCIC
- MINOR CPY & PY ALONG QTZ - CO_3 HAIR-LINE FRACTURES

TRANSITION INTO "AUGER" GNEISS
- DISSEMINATED CPY, PYRH. & PY (<3%) WITHIN MATRIX & ALONG MICROFRACTURES

43.44 m — CHLORITIC SILICEOUS METASILTSTONE
- CONTAINS COMPACT SCAPOLITIC LENSES
- CPY, PY & PYRH. FOUND ALONG FRACTURES (42.27 - 42.57 m)

45.54 m

>10 000, 260, —, 60
.61 m

46.84 m — STRONGLY SILICEOUS, PARCELAIN UNIT
- CONTAINS BANDS OF SCAPOLITIC - WEAKLY GARNETIFEROUS CALCIC BANDS

48.65 m — SIMILIAR TO ABOVE BUT MORE CONTORTED
MINOR SULPHIDES

STRONGLY SILICEOUS, THINLY BANDED SCAPOLITIC - WEAKLY CALCIC METASILTSTONE
- CPY & PY IS DISSEMINATED THROUGHOUT

53.16 m — STRONGLY, SILICEOUS, PORCELAIN LIKE LIGHT GREY METASILTSTONE
- SULPHIDE MINERALIZATION (<1%) RESTRICTED TO CARBONATE VEIN & MICROFRACTURES

MODERATELY TO STRONGLY SILICEOUS, WELL-BANDED, SCAPOLITIC, WEAKLY GARNETIFEROUS METASILTSTONE
- BAND ARE:
  A) DARKER, MORE IRON-RICH, HIGHLY SILICEOUS
  B) LIGHTER, CALCIC & CHLORITIC, MODERATELY SILICEOUS ZONES CONTAINING SCAPOLITE & GARNET
- SULPHIDE MINERALIZATION (<1%) - CPY & PY OCCUR:
  A) DISSEMINATED WITHIN CALCIC MATRIX
  B) CONTACT ALONG BANDS
  C) ALONG FRACTURE SURFACE

72.7 m

60, 162, —, 14
.28 m
.43 m

86, 54, 5 ppb, 16

UNIT OBSERVED TO BE SLIGHTLY MORE SILICEOUS AS SEEN MODERATE TO HIGH DEGREE OF QTZ / CO_3 FRACTURE FILLING & VEINING
- SULPHIDE, CPY & PY, APPEAR RESTRICTED TO THE CO VEIN & ALONG CALCIC / SILICEOUS FRACTURES
- VEINING DECREASES WITH DEPTH

30, 330, —, 34
.31 m

—, —, 20 ppb, —
.31 m

T.D. 108.5 m
D.A.

NOTE: LOCATED ON EAGLE 41 - YA41752

Cu, Co, Ni (ppm)
length of sample

m 4 0 4 8 12 m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE
E-5-80
EAGLE GRID
FAIRCHILD LAKE, PROJECT, 1980

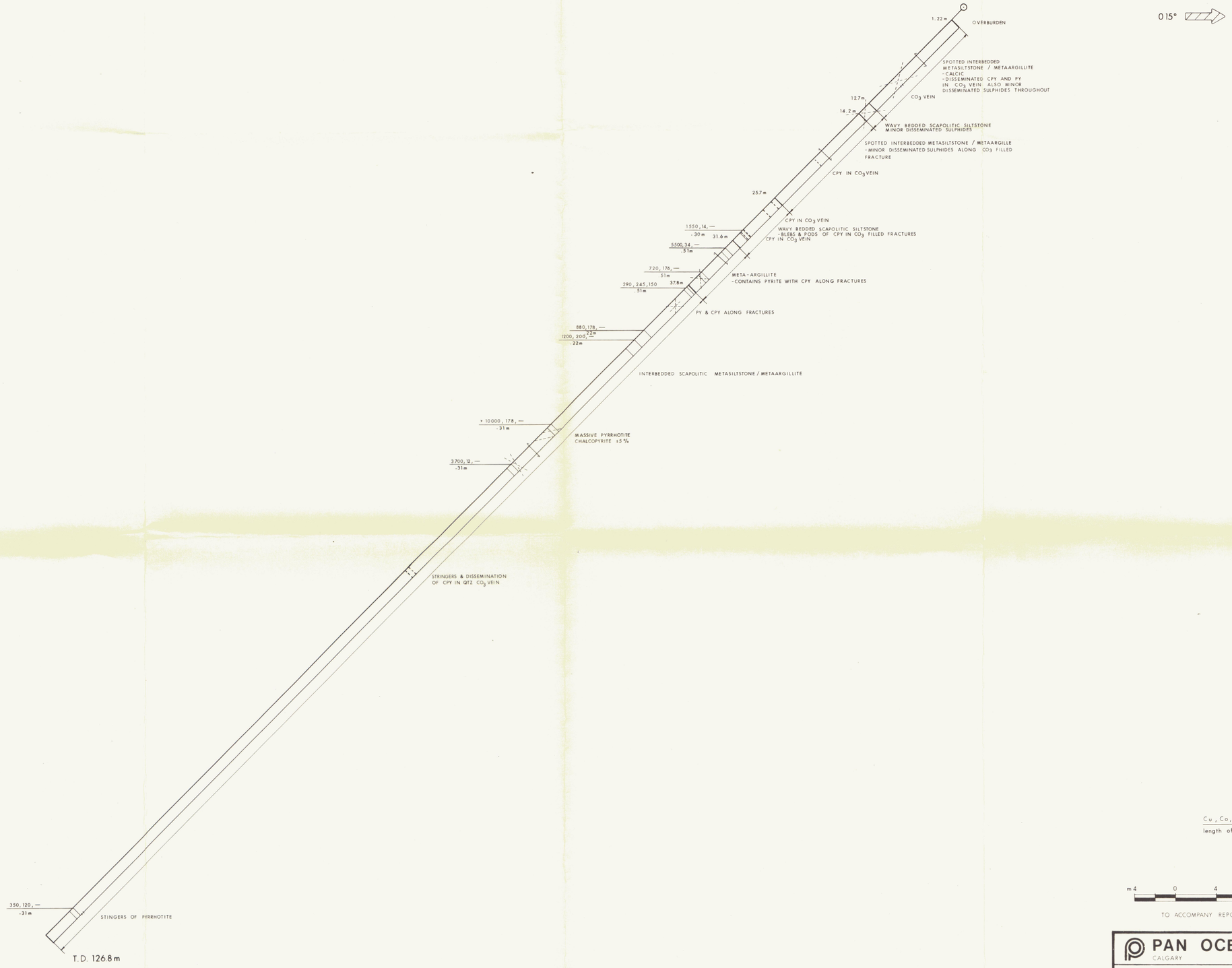
DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:200	106 C	C-1251

DRAWING NO. D-1252

195°

E-6-80
Dip 45°

015°



$\frac{Cu, Co, Ni\ (ppm)}{length\ of\ sample}$

m 4 0 4 8 12 16m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

NOTE: LOCATED ON EAGLE 41 - YA41752

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE

E - 6 - 80

EAGLE GRID
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT, 1980	1:200	106 C	D-1252

DP555, A1 P90

D.A.

DRAWING NO. D-1253

155°

335°

E-7-80
Dip 75°

470, 10, —, 5
.61 m

CALCIFICATION & MINOR BIOTITIZATION

CALCIFICATION & MINOR BIOTITIZATION

CALCIFICATION & MINOR BIOTITIZATION

SILICIFICATION

CALCIFICATION & MINOR BIOTITIZATION

ARGILLIZATION

3250, 46, —
.61 m

ARGILLIZATION

SILICIFICATION

2500, 98, 76, —
.61 m

CALCIFICATION & MINOR BIOTITIZATION

SILICIFICATION

BANDED & SPOTTED METASILTSTONE

1200, 70, 42, —
.76 m

SILICIFICATION

8650, 118, 66, —
.31 m

SILICIFICATION

SILICIFICATION

SILIFICATION

SILIFICATION

T.D. 114.91m

D.A.

NOTE: LOCATED ON EAGLE 41 - YA41752

Cu, Co, Ni, (ppm) Au (ppb)
length of sample

m 4 0 4 8 12 16m

TO ACCOMPANY REPORT NO 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE

E - 7 - 80

EAGLE GRID
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT.,1980	1:200	106 C	D-1253

DP555, A1, P00

DRAWING NO. E-1254

215°

035°

E-8A-80
Dip 45°

OVERBURDEN
FAULT GOUGE

5.18 m — INTERBEDDED METASILTSTONE / METAARGILLITE

FAULT GOUGE

15.30 m — SCAPOLITIC METAARGILLITE

19.6 m — METASILTSTONE

FAULT GOUGE

WAVY BEDDED METASILTSTONE (POSSIBLE GREISEN)
- MODERATELY TO STRONGLY CALCIC WITH WOLLASTONITE PRESENT
- WEAKLY GARNETIFEROUS

45°

33.0 m — METASILTSTONE
-MODERATELY SCAPOLITIC & GARNETIFEROUS

42.50 m — 2200, 26 / 30m — SCAPOLITIC METAARGILLITE

670, 94 / 92 m — VERY STRONGLY GROSSULARIZED, DISS. & PODS OF PYRH & PY
PODS OF PYRH WITH CPY
CO_3 VEINLETS CONTAINING PODS OF CPY WITH PYRH

64.10 m — WAVY BEDDED METASILTSTONE (POSSIBLE GREISEN)

5300, 147 / 67.96 m
4400, 53 / 30m
7500, 53 / 61m — PODS & DISS. OF PYRH & CPY ALONG CO_3 FILLED FRACTURES

5300, 154 / 32m — PYRH & CPY

5200, 770 / 3000, 265 / 37m — CO_3-EPIDOTE FILLED FRACTURES WITH PY, PYRH & CPY

INTERBEDDED METASILTSTONE / METAARGILLITE
- FINELY BEDDED

2550, 106 / 31 m — CO_3-EPIDOTE FILLE FRACTURES WITH PY, PYRH & CPY
DISSEMINATED PYRH WITH CPY & PY

5500, 12 / 220 / +10 000, 490 / 31 m — 83.20 m — STRONGLY SILICEOUS ALMOST CHERTY
CPY, DISS & STRINGERS
MASSIVE PY WITH CPY

91.79 m — STRONGLY ALTERED INTERBEDDED METASILTSTONE / METAARGILLITE
- STRONGLY ALTERED - GROSSULARITE WITH SCAPOLITE
- FRACTURE SURFACES COATED WITH MALACHITE & CALCITE

260, 34 / 31m — 94.79 m — WAVY-BEDDED METASILTSTONE
1700, 8 / 31 m — CPY WITH PY ALONG FRACTURE

100.88 m — STRONGLY ALTERED INTERBEDDED METASILTSTONE / METAARGILLITE
-FRACTURE SURFACES COATED EPIDOTE

8500, 620 / 31 m — WAVY BEDDED METASILTSTONE
- CO_3 FILLED FRACTURES

107.12 m — MASSIVE PYRH, CPY & PY

2800, 68 / 30 m — 111.5 m — STRONGLY ALTERED INTERBEDDED METASILTSTONE / METAARGILLITE

138, 88 / 30 m
850, 25 / 31 m — CO_3 VEINLETS CARRYING SULPHIDES (MAINLY PY)

70°
70° — INTERBEDDED METASILTSTONE / METAARGILLITE
- MODERATELY TO STRONGLY CALCIC

FRACTURE SURFACES HEMATIZED

30, 56 / 31 m — CO_3 VEINLETS CARRYING SULPHIDES

T.D. 194.77m

Cu, Co ppm
length of sample

m 4 0 4 8 12 16 20m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

NOTE: LOCATED ON EAGLE 41-YA41752

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE
E-8A-80
EAGLE GRID
FAIRCHILD LAKE, PROJECT, 1980

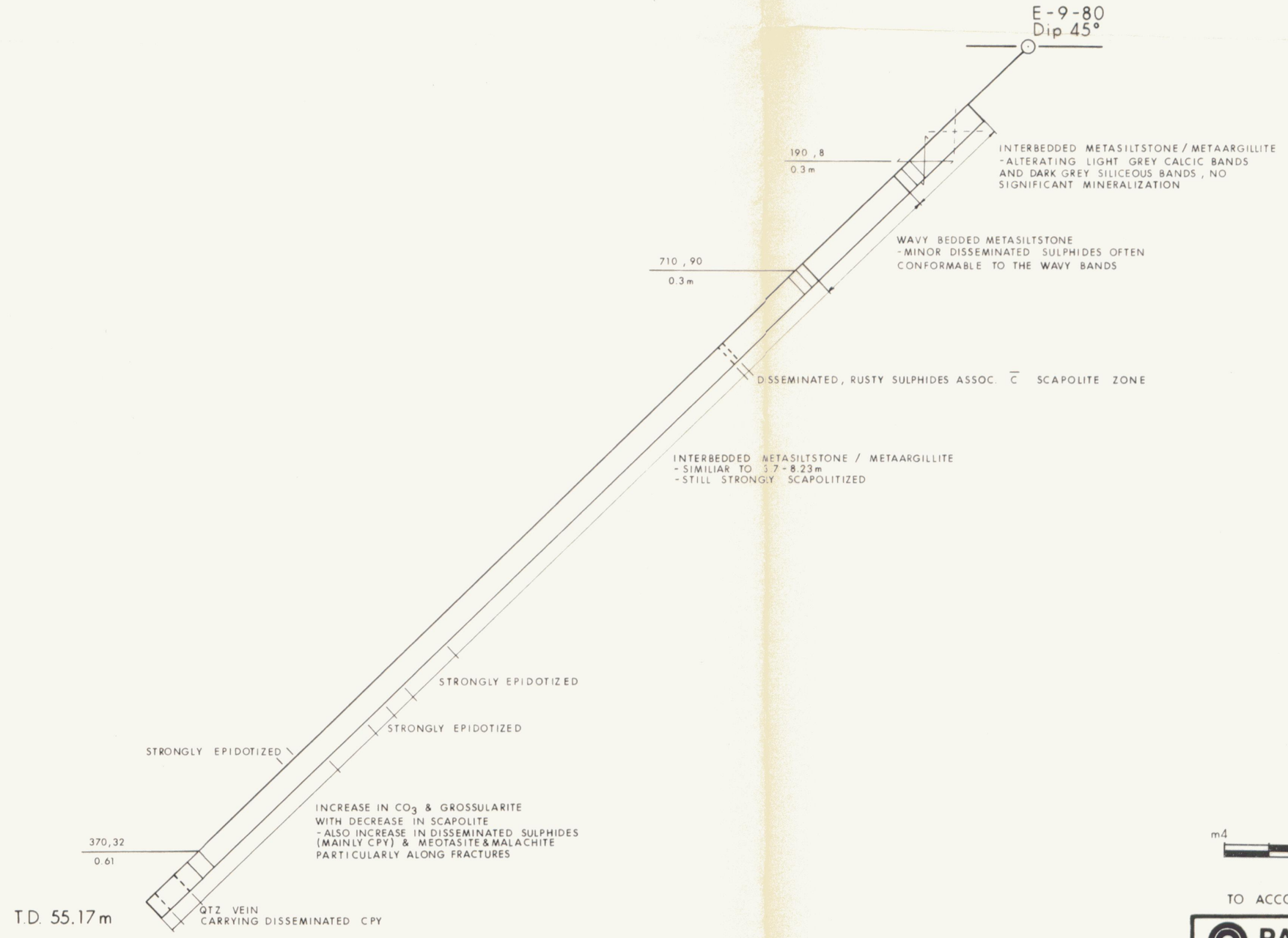
DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:200	106 C	E-1254

D.A.

DP468A0P00

185°

005°



Cu, Co

m4 0 4 8 12m

TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE

E-9-80

EAGLE GRID
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:200	106 C	B-1255

D.A.

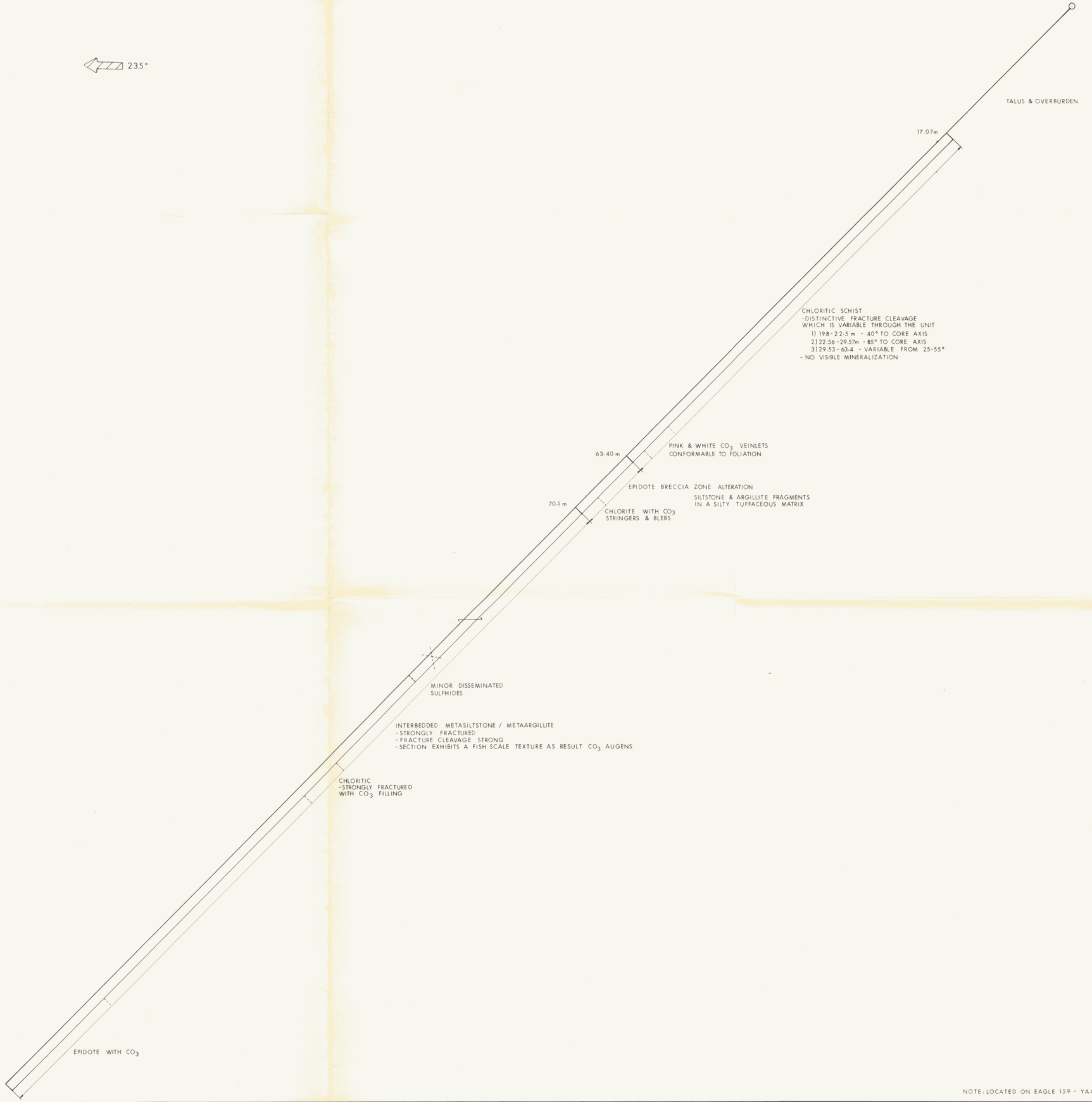
NOTE: LOCATED ON EAGLE 39 - YA41999

DRAWING NO D-1256

235°

055°

S-1-80
Dip 45°



T.D. 152.4 m
D.A.

NOTE: LOCATED ON EAGLE 159 - YA41854

m4 0 4 8 12 16 m

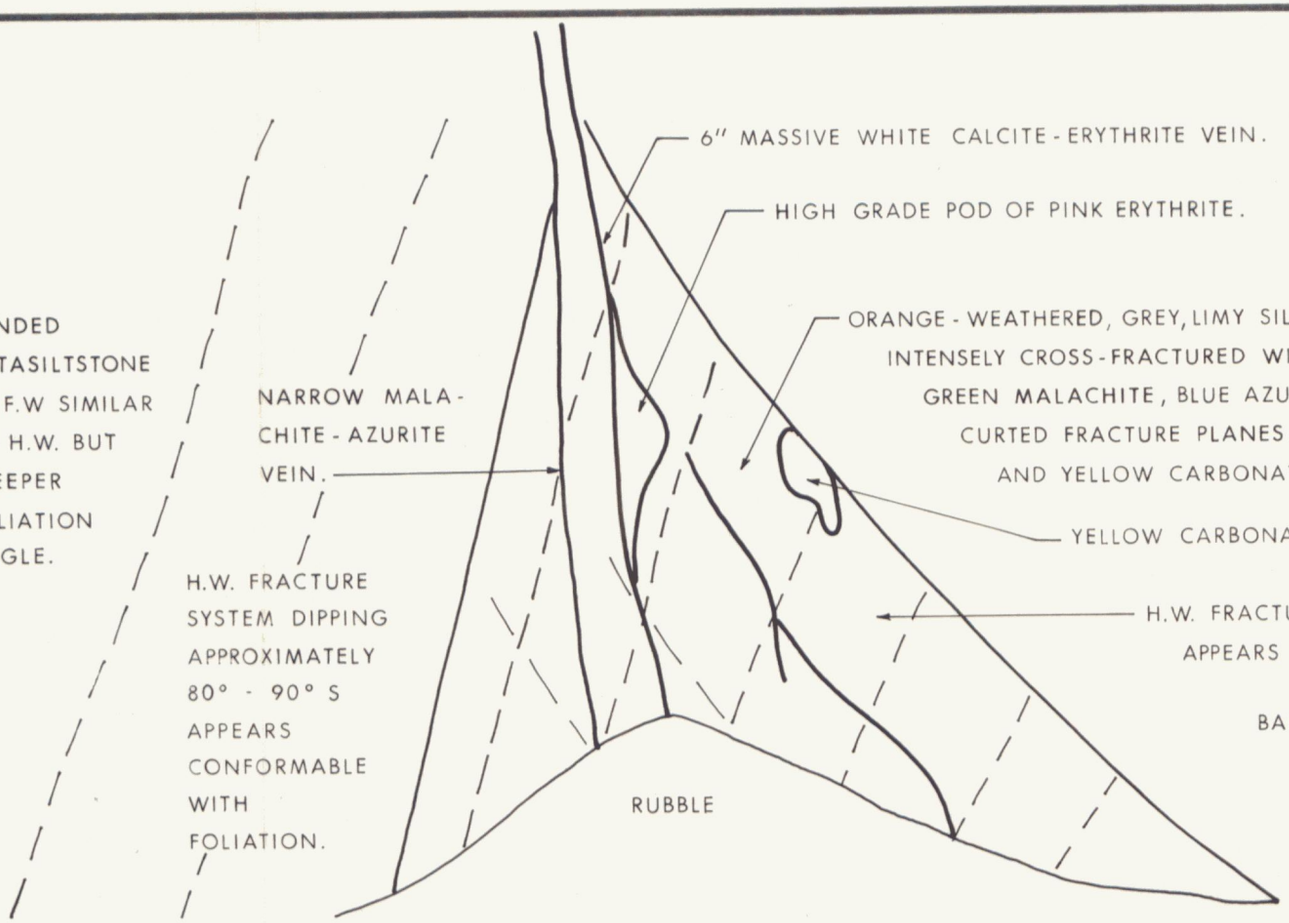
TO ACCOMPANY REPORT NO. 11-81 BY DLD & DBH

PAN OCEAN OIL LTD.
CALGARY ALBERTA

DIAMOND DRILL PROFILE
S-1-80
EAGLE GRID
FAIRCHILD LAKE, PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
OCT., 1980	1:200	106 C	D-1256

DP555 A1 P00



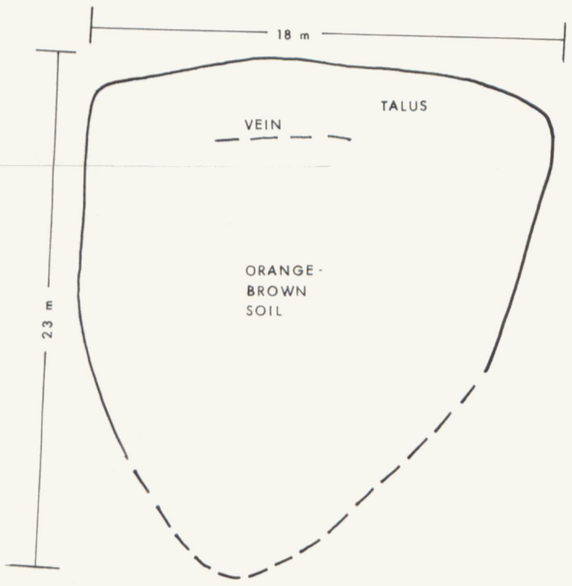
TO ACCOMPANY REPORT NO. 11-81 BY D.L.D & D.B.H.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

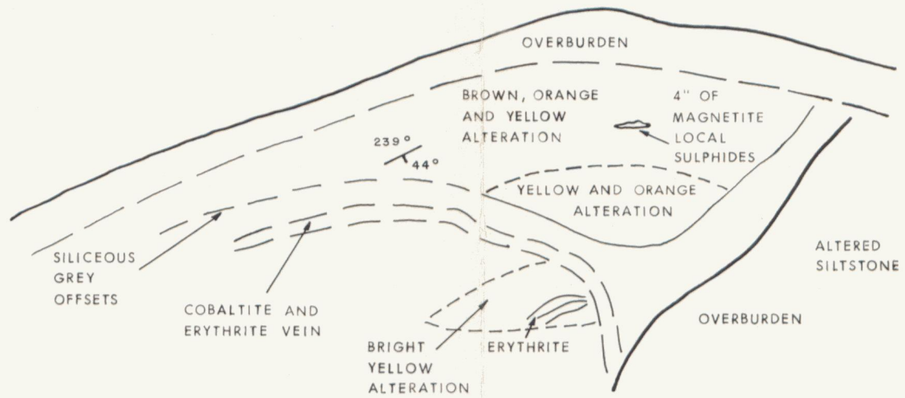
EAGLE CREEK TRENCH
WEST BANK
FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
MAR., 1981	1:120	106 C/13	A-1257

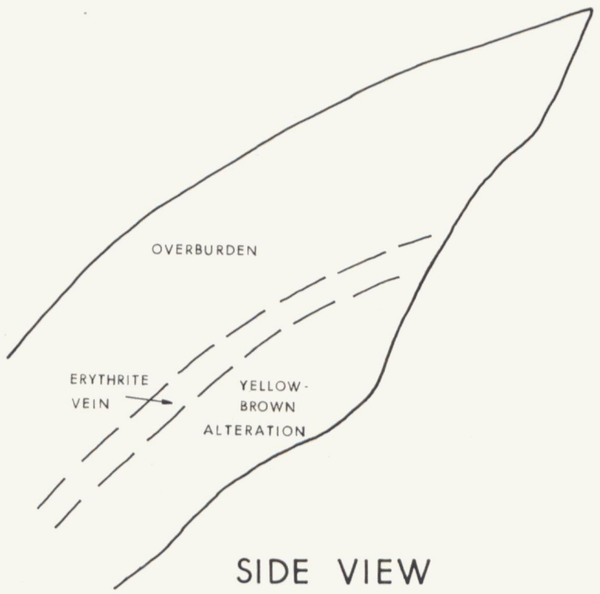
JCC



PLAN VIEW



FRONT VIEW



SIDE VIEW
OF VEIN

JCC

NOTE: LOCATED ON EAGLE 39 - YA41999

NOTE: NOT DRAWN TO SCALE

TO ACCOMPANY REPORT NO. 11 - 81 BY D.L.D. & D.B.H.

PAN OCEAN OIL LTD.
CALGARY ALBERTA

UPPER EAGLE TRENCH

FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO.
APRIL, 1981	—	106 C /13	B-1258

DRAWING NO. E-1259

LEGEND

1. VARIABLY MAGNETIC SLATE AND SILTSTONE - NON-CALCAREOUS
2. CALCAREOUS SILTSTONE - NON-MAGNETIC
3. ALTERED SILTSTONE - METASOMATIZED
4. MAGNETIC CALCAREOUS SILTSTONE
5. MAGNETIC SILTSTONE - NON-CALCAREOUS

OTTER MAIN SHOWING

NOTE
CONTOUR INTERVAL - 5 m

OTTER A SHOWING

NOTE
o SAMPLE LOCATIONS - SEE DRG No. B-0778, REPORT No. 24-79

OTTER B SHOWING

LEGEND

- OUTCROP
- DRILL SITE
- STRIKE AND DIP OF BEDDING
- STRIKE AND DIP OF JOINTING
- STRIKE AND DIP OF COBALT AND/OR COPPER MINERALIZED VEIN
- COBALT AND/OR COPPER MINERALIZED VEIN
- AXIAL PLANE SHEAR
- 1054.8 - ELEVATION IN METERS

m 50 0 50 100 150 200 250

TO ACCOMPANY REPORT NO. 11-81 BY D.L.D. & D.R.H.

PAN OCEAN OIL LTD.
CALGARY AT ALBERTA

COMPILATION MAP, OTTER ZONE
IMAGINARY GRID TO TIE - IN
OTTER MAIN - OTTER A - OTTER B
FAIRCHILD LAKE PROJECT

DATE	SCALE	NTS	DRAWING NO.
MARCH, 1981	1 : 2500	106 C/13	E-1259

M. A. P.

DP468A0P00

DRAWING NO X-1261

2 SPORADIC COBALT LENSES PINCHING OUT IN THE MIDDLE

TRENCH # 5

MONOTONOUS SEQUENCE OF RIBBED CHLORITIC, SILICEOUS META-SILTSTONE. THE META-SILTSTONE IS INTERLAMINATED WITH CALCITE-VEINS (VIBS) WHICH LIE PARALLEL TO BEDDING (25-65°w) AND AS FRACTURE-FILL MATERIAL. DOMINANT FRACTURES LIE EITHER PARALLEL OR PERPENDICULAR TO BEDDING. THE EXISTS FEW FRACTURED OR BROKEN INTERVALS. THESE ARE INVARIABLE LIMONITIC, CHLORITIC & QUITE CLEAN IN APPEARANCE. PYRITE, CHALCOPYRITE & TO A LESSER DEGREE, ARSENOPYRITE ARE OBSERVED IN MINOR AMOUNTS THROUGHOUT THE DRILLED INTERSECTION (1%). THESE SULPHIDES LIE MAINLY WITHIN THE CALCIC VIBS & IT IS OBSERVED THAT A SLIGHTLY % OF SULPHIDES OCCUR WITH INCREASED CHLORITIC ALTERATION. THE SULPHIDES OCCUR AS FINE DESSEMINATIONS AND AS FINE GRAINED SUB TO EUHEDRAL CRYSTALS. NO COBALT MINERALIZATION WAS DETECTED VISUALLY.

TRENCH # 3

IRON OXIDE STAINED CO_3 VEIN IN CHLORITIZED ARGILLITE
-ERGTHRITE FOUND IN VEIN AS WELL AS IN FRACTURES ADJACENT TO VEIN

62° at 065°

51° at 086°

1115 m
1120 m
1125 m
1130 m
1135 m
1140 m
1110 m

AO-2-80
-63° at 080°

AO-1-80
-57° at 110°

DRILL PAD #1

MINOR SULPHIDES ALONG CALCITE VEINS
-3 PARALLEL KINK BANDS
HAS CALCITE VEINING THROUGHOUT
CALCITE WEATHERS TO A DEEP RUST LIMONITE

UNMAPPED POORLY-EXPOSED COBALT SHOWING

1070
1075
1080
1085
1090
1095
1100
1105
1110

GORGE

MINERALIZATION SILLS PORE SPACES IN STRONGLY ARGILLACEOUS, CARBONACEOUS SILICEOUS SILTSTONE WHICH ALSO EXISTS AS MASSIVE LENSES (VEIN-LIKE) WITHIN THE ALTERED UNIT.

TRENCH #2

TRENCH #1

ALTERED ARGILLACEOUS SILTSTONE - CO_3 ALTERATION, WEAKLY HEMATIZED MODERATELY TO STRONGLY CHLORITIC - CONTAINS DISSEMINATIONS & LENSES OF Cu, MnO_2, CO_3.

LEGEND

- ATTITUDE OF BEDDING (FINE TO MEDIUM-GRAINED META-ARGILLITE)
- ATTITUDE OF MINERALIZED VEINS OF COBALT AND VARIOUS SULPHIDES
- ATTITUDE OF DOMINANT FRACTURE SETS.
- OUTCROP
- INFERRED VEIN

m 5 2.5 0 5 10 15 20 25 m

TO ACCOMPANY REPORT NO 11-81 BY D.L.D. & D.B.H.

PAN OCEAN OIL LTD.

CALGARY ALBERTA

COMPOSITE TRENCH MAP
AND
PLAN VIEW OF DRILL PROFILE
OTTER A

FAIRCHILD LAKE PROJECT, 1980

DATE	SCALE	NTS	DRAWING NO
APR., 1981	1:250	106 C/13	X-1261

K.B.B
DP441B1P00