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SUMMARY REPORT ON THE  
FETISH PROPERTY  
FINLAYSON LAKE DISTRICT, Y.T.

R.J. Cathro

April 15, 1979

# ARCHER, CATHRO

AND ASSOCIATES LTD.

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## INTRODUCTION

The Fetish property was discovered in June, 1973 by Archer, Cathro and Associates Ltd. on behalf of Finalyson Joint Venture (FJV), comprised of Chevron Canada Limited, Union Oil Company of Canada Ltd., Marietta Resources International Ltd., and Messrs. L.T. and Harris Clay. The Clay's abandoned their interests in FJV and the Fetish property on December 31, 1974. FJV explored the showing with mapping, hand pitting, and geochemical sampling and magnetic surveys in 1973 and two drill holes (205 feet) in 1974. Drilling was necessary to determine the type of mineralization present since the host rocks have weathered deeply and recessively and all sulphides have been leached at surface. During the reconnaissance work in 1973, a second target, named Palsy, was found about 8 km northwest of Fetish.

The 1974 drilling showed that banded copper-zinc-lead sulphides are conformable with foliation in a talcose schist and suggested that this occurrence might have a volcanogenic origin. However, no further work has been done due to low grades in the drill holes and depressed metal prices. Since 1974, two nearby showings, Fyre and Pack, have been reinterpreted as similar volcanogenic occurrences, while several other showings farther west, including MM (Arnold) and Hasselberg (Joe), have also been recognized as volcanogenic. These occurrences are plotted on Figure 1 on the following page, and the Fetish property is well illustrated in the photographs that follow Figure 1.

This report is intended as a summary of previous work and the exploration potential of this property, and includes recommendations for further work. Since the drill holes and grid surveys were measured in feet, those units are retained in this report for property descriptions. However, all geographic information is given in metric units.

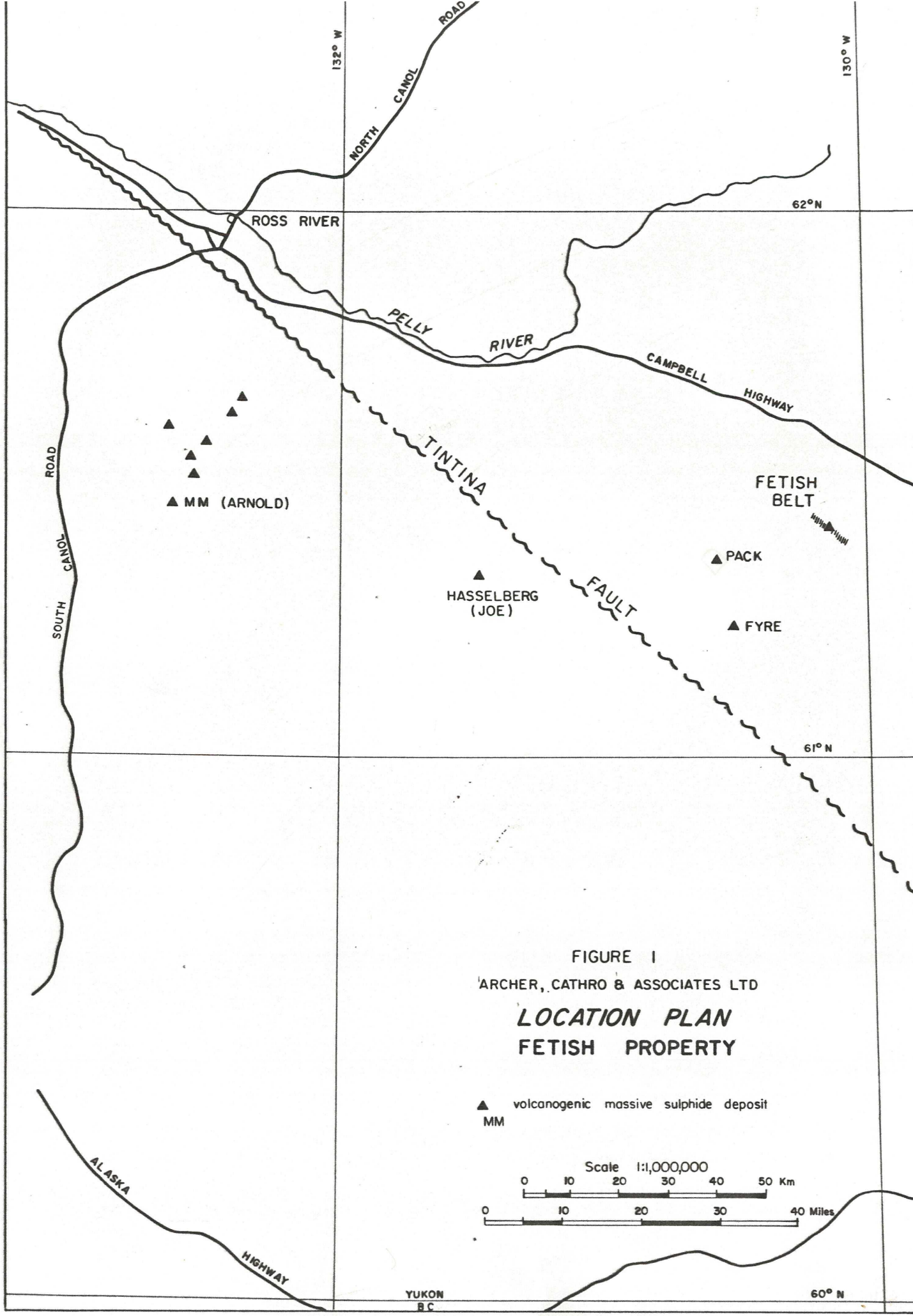
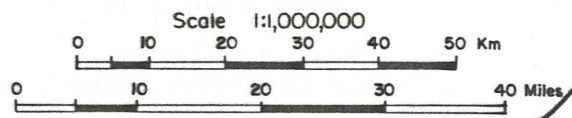


FIGURE 1  
 ARCHER, CATHRO & ASSOCIATES LTD  
**LOCATION PLAN**  
**FETISH PROPERTY**

▲ volcanogenic massive sulphide deposit  
 MM

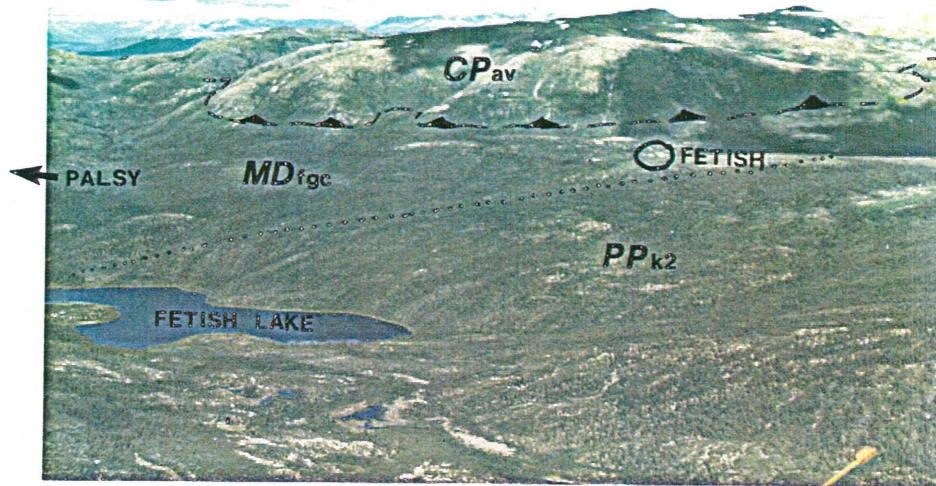


YUKON  
 B.C.

FETISH GOSSAN - FJV - 1973

PHOTOGRAPH ONE (RIGHT)

Fetish property showing  
Fetish Lake.



PHOTOGRAPH TWO (BELOW)

Fetish property showing  
hole location, main gossan  
and campsite.



CLAIM STATUS, LOCATION AND ACCESS

The Fetish showing is covered by 34 contiguous claims recorded in the Watson Lake Mining District in the name of Archer, Cathro and Associates Ltd., as follows:

<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>	<u>EXPIRY DATE</u>
Fetish 4-1*	Y73634-Y73637	15 July, 1980
Fetish 5-6	Y73694-Y73695	20 July, 1980
Fetish 7-8	Y73696-Y73697	20 July, 1979 )
Fetish 9-10	Y73698-Y73699	20 July, 1980
Fetish 11-20	Y73700-Y73709	20 July, 1979 )
Fetish 21-34	Y83175-Y83188	8 August, 1980

\* note reversal

The property is located at latitude 61°25'N, longitude 130°07'W, approximately 16 km south of Milepost 130 on the Campbell Highway. The claim block is plotted on Figure 1 following page 1. Access is by helicopter or by a 2.0 km trail from Fetish Lake, at the south end of Wolverine Lake. Both of these lakes are suitable for float-equipped aircraft.

The Palsy showing has never been staked.

### THE VOLCANOGENIC MODEL

The Fetish, Pack and Fyre occurrences all have a close resemblance to the classical Besshi deposits in Japan, which are known as "Kieslager" deposits in Europe. The term Besshi is used to describe extensive stratiform deposits of pyrite, chalcopyrite, sphalerite and pyrrhotite with these general characteristics:

(1) the deposits are found in complex metamorphic terrains within rocks believed to have originated in the mid-Paleozoic. Two stages of deformation, one in the late Paleozoic/early Mesozoic and the other in the late Mesozoic, can often be recognized. Metamorphism ranges from glaucophane to epidote-amphibolite facies;

(2) the deposits occur within extensive pyritic horizons that range up to 7000 m long, 1500 m downdip and 100 m thick. The ore mineralization occurs in erratic pods, often localized by folds and other structures. Grades are usually better than 1% Cu with variable Zn and size commonly ranges from 2 to 5 million tonnes;

(3) the deposits occur within specific horizons believed to be of one age;

(4) the host rock is usually a "basic schist", a chlorite-albite-epidote-hematite-quartz schist (with minor actinolite, calcite, sphene and hornblende) that has a basaltic composition;

(5) common accessory minerals include sericite, actinolite, and biotite;

(6) the "basic schists" occur within alternating sequences of pelagic sediments (pelitic schists) with minor limestones and ultramafics. Intrusions are not common. This sequence is interpreted as a sequence of

pyroclastics, siliceous chemical sediments and fine-grained to medium-grained clastics peripheral but distal to a volcanic center. The environment is typically eugeosynclinal.

The Fyre and Pack showings were studied in 1977 and 1978 by J.A. Morin of DIAND, whose results have not been published as yet. He recognized previously unreported bedded magnetite at each locality and found that both occur in a meta-volcanic sequence resembling that at Fetish. His model for these occurrences is shown diagrammatically below:

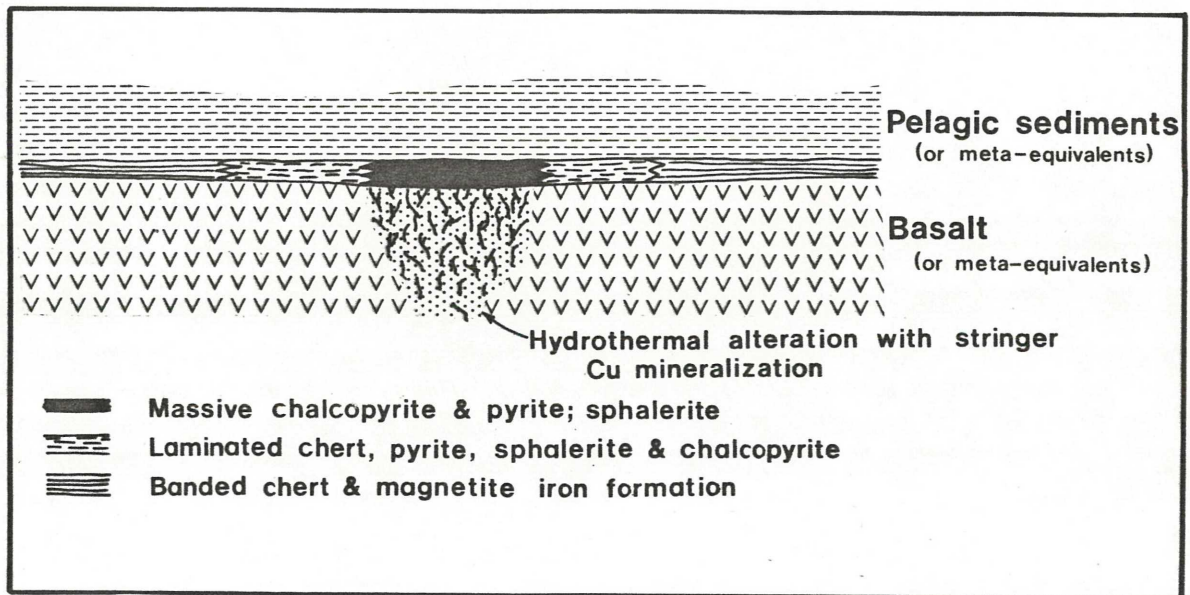


Figure 2 - Diagrammatic Longitudinal Section of Fyre-Pack-Fetish Model (after Morin)

The other volcanogenic occurrences shown on Figure 1 are situated on the opposite side of the Tintina Fault and are significantly different. They are associated with felsic volcanic centers and are mineralized with the assemblage Zn-Pb-Ba (Kuroko-type) rather than the Cu-Zn-Fe assemblage of the Besshi-type.

#### REGIONAL GEOLOGY

The region has been mapped by the GSC at 1:250,000 scale and by FJV at 1 inch: 1 mile (1:63,360) and is shown in simplified form on Figure 3 on the following page. The original GSC mapping (Map 8-1960) indicated that the Fetish property is underlain by Unit A, a quartz-biotite and quartz-chlorite schist sequence with micaceous quartzite and minor phyllite and limestone members. More detailed mapping by FJV (1973) showed that this unit is composed mainly of chloritic schist and quartzite near the showing and defined the southerly contact of this unit with nearby Unit C, a biotite-muscovite-quartz-feldspar gneiss. The stratigraphic relationship between the schist and gneiss units and their age is unknown. They are overlain by a thick, massive, relatively unmetamorphosed, basalt sequence. The youngest rock-type in the area is a small Cretaceous porphyry body near the Palsy target.

Remapping and reinterpretation of the regional geology at a scale of 1:250,000 by D.J. Tempelman-Kluit of the GSC in 1977 (Open File 486) recognized that the basalt sequence is an allochthonous unit that has been regionally overthrust onto the schist-gneiss assemblage. It is referred to as the Anvil-Campbell Allochthon and includes ultramafic rocks in many localities.

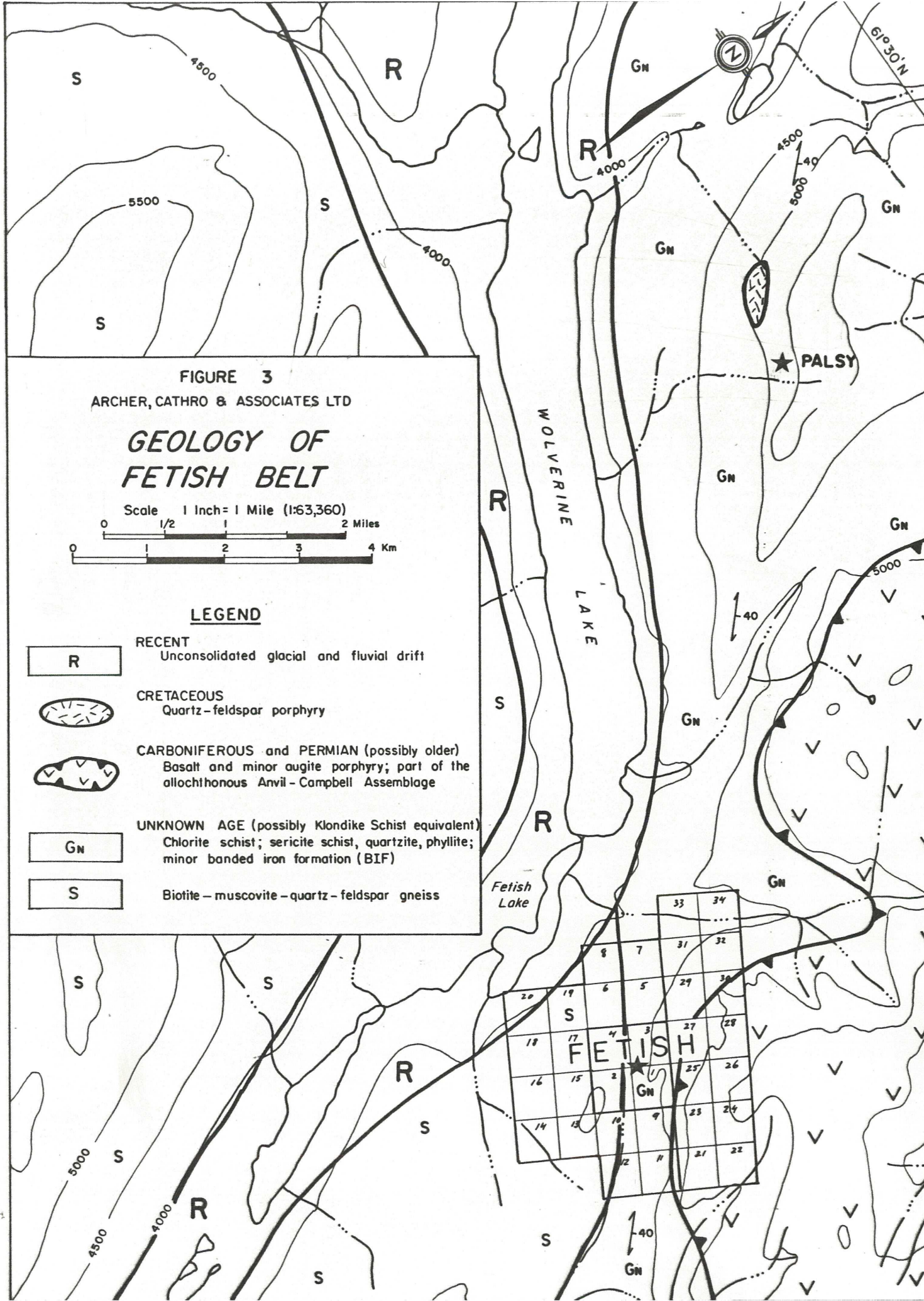




FIGURE 3  
 ARCHER, CATHRO & ASSOCIATES LTD

**GEOLOGY OF  
 FETISH BELT**

Scale 1 Inch = 1 Mile (1:63,360)  
 0 1/2 1 2 Miles  
 0 1 2 3 4 Km

**LEGEND**

- R** RECENT  
 Unconsolidated glacial and fluvial drift
-  CRETACEOUS  
 Quartz-feldspar porphyry
-  CARBONIFEROUS and PERMIAN (possibly older)  
 Basalt and minor augite porphyry; part of the  
 allochthonous Anvil-Campbell Assemblage
- Gn** UNKNOWN AGE (possibly Klondike Schist equivalent)  
 Chlorite schist; sericite schist, quartzite, phyllite;  
 minor banded iron formation (BIF)
- S** Biotite - muscovite - quartz - feldspar gneiss






Templeman-Kluit attempted to correlate rocks in the Fetish belt with Devonian-Mississippian rocks farther to the east but this is probably not valid. The rocks found by FJV at the Fetish and Palsy targets are more likely equivalent with rocks elsewhere in this district that he assigned to the Kondike Schist, of unknown age.

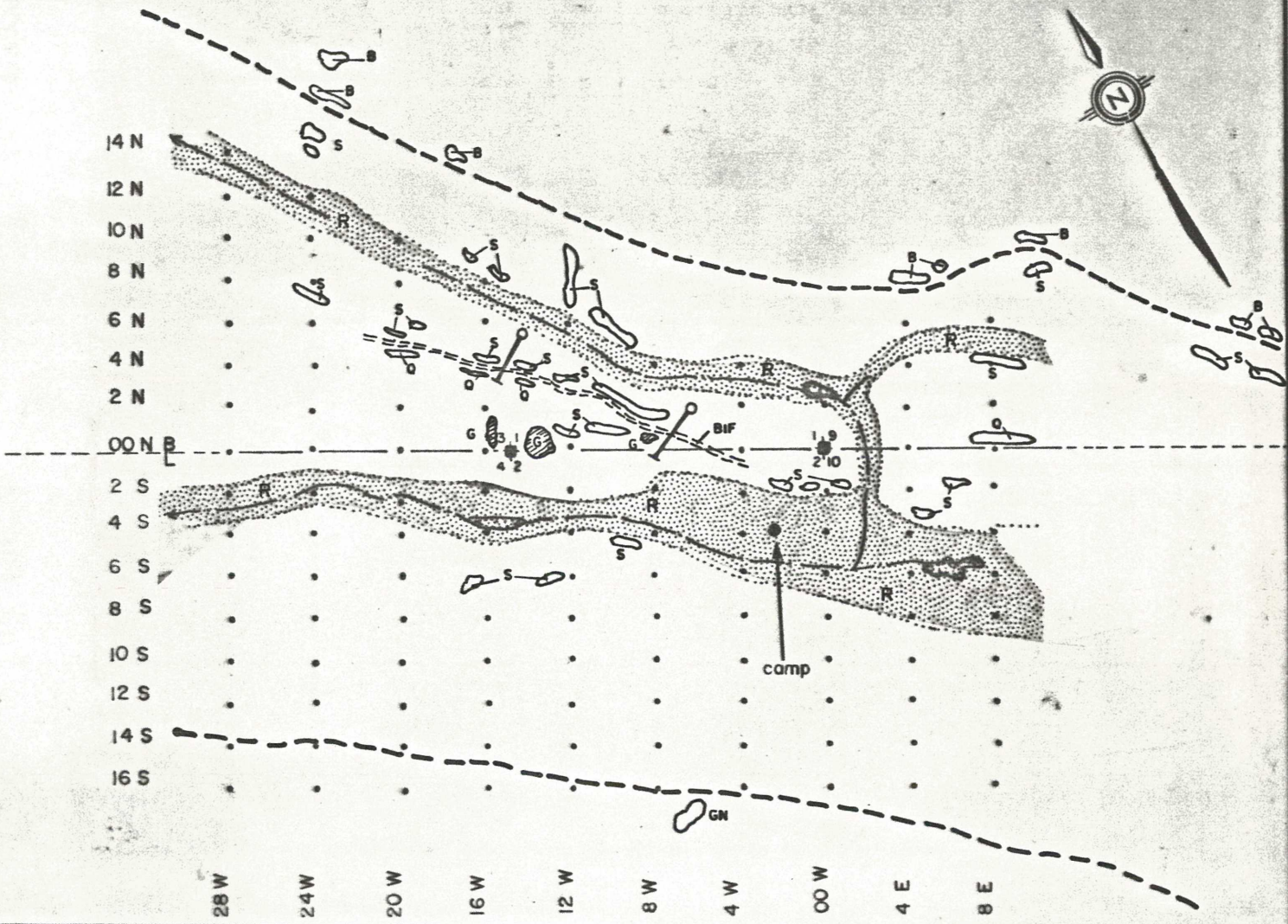
#### GEOLOGY OF THE FETISH SHOWING

Outcrop is very scarce in the vicinity of the showing, in part because the schist unit weathers recessively. This is particularly evident near the showing where the schist is hydrothermally altered to a talcose phyllite-quartz rock. The detailed geology near the showing is plotted on Figure 4 on the following page at a scale of 1 inch to 800 feet.

Foliation within the schist and gneiss units consistently strikes about N40°W and dips about 40° NE. The banded iron formation (BIF) consists of several thin beds of magnetite within the quartzite member that lies stratigraphically above the mineralized horizon. Similar magnetite float was found at the Palsy target.

The surface showing on the Fetish claim block consists of malachite-stained schist and traces of galena encapsulated in vein quartz. This was found as float in and near partially consolidated ferricrete gossans. These gossans have precipitated from springs draining the schist member below the quartzite horizon.

-  partially consolidated ferricrete gossan
-  drill hole
-  claim posts



**LEGEND**







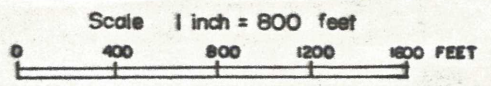
- RECENT**
  -  Glacial and fluvial drift
- CARBONIFEROUS and PERMIAN**  
(possibly older)
  -  Basalt
- UNKNOWN AGE**  
(possibly Klondike Schist equivalent)
  - SCHIST UNIT**
    -  Chlorite schist, phyllite, quartz-muscovite schist
    -  Quartzite
    -  Banded iron formation
  - GNEISS UNIT**
    -  Biotite-muscovite-quartz-feldspar or gneiss

FIGURE 4  
ARCHER, CATHRO & ASSOCIATES LTD

**GEOLOGY**  
**FETISH PROPERTY**



GEOCHEMISTRY

Regional

During 1973, FJV collected reconnaissance soil and silt samples at a density of 5 to 20 samples per square mile within the 15 mile (25 km) belt of chlorite schist that encloses the Fetish and Palsy targets. The northwest end of the belt, near Wolverine Lake, is best exposed whereas the southeast end extends into gentler terrain and is covered by thicker but variable amounts of overburden, as illustrated in the photographs. All samples were analyzed for copper, molybdenum, lead and zinc by hot acid extraction at Chemex Labs, North Vancouver, B.C. and the assays are plotted on Figures 5 and 6 on the following pages.

Based on an extensive regional program, threshold in this district is considered to be 50 ppm Cu, 1 ppm Mo, 40 ppm Pb and 100 ppm Zn. Above-threshold values in all four metals were obtained at many places along this belt with the strongest clusters at the Fetish and Palsy targets. BIF was found at both localities. Although no direct evidence of mineralization was found at Palsy, a stream draining the target returned silt assays of up to 268 ppm Cu, 6 ppm Mo, 107 ppm Pb, 1000 ppm Zn and 80 ppb Au.

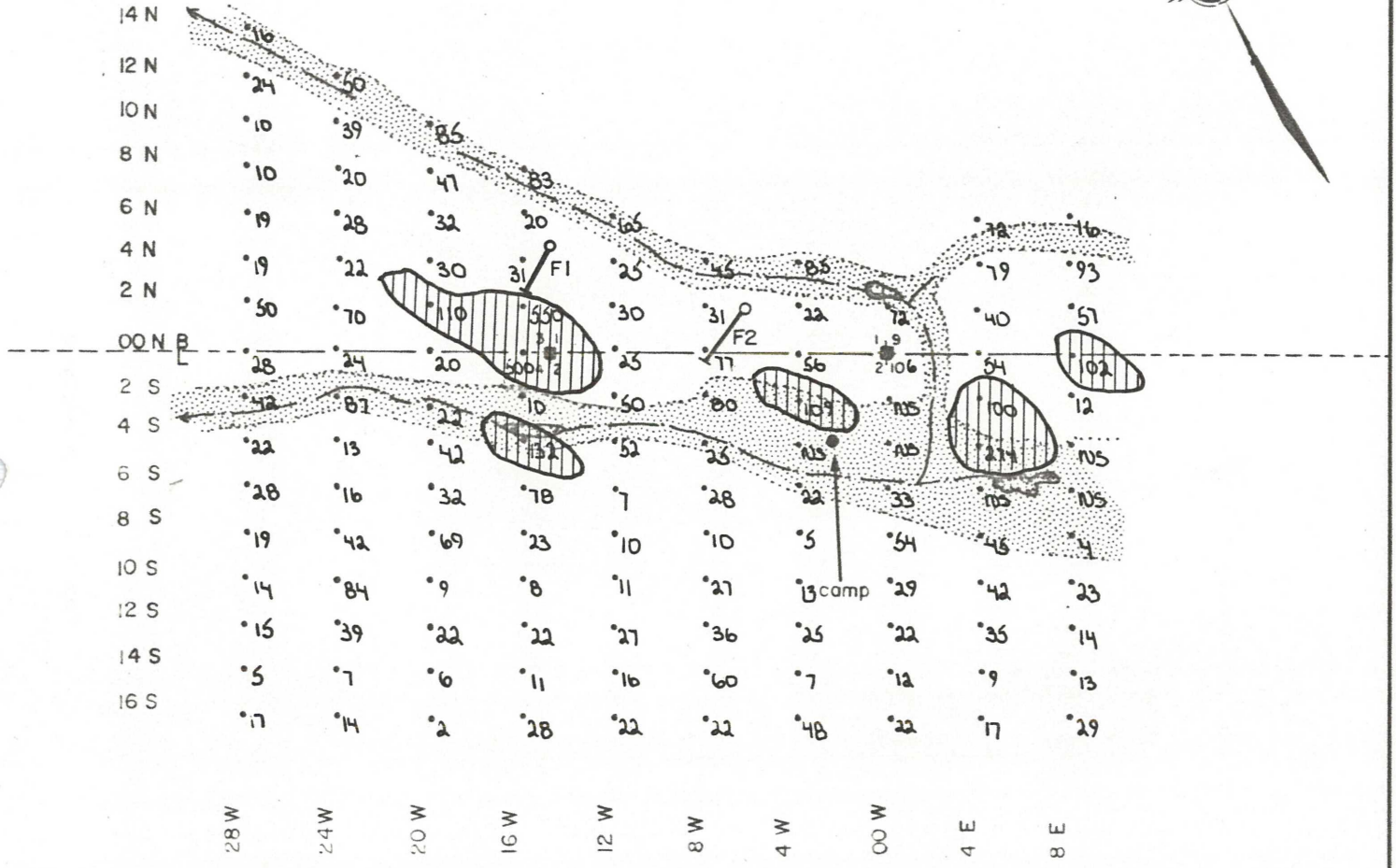
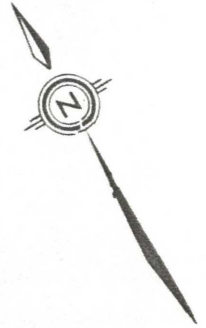
Fetish Property (see Figures 7 to 10 on the following pages)

During 1973, a crude pace and compass grid was established around the main gossan and 138 soil samples were collected at 200 ft by 400 ft spacing and analyzed for copper, zinc, lead and molybdenum (see Figures 7 to 10 on the following pages). This work outlined distinct linear anomalies in copper, zinc, and lead (samples which assay over 100 ppm Cu, 240 ppm Zn and 50 ppm Pb), as well as some concentration along swampy creek beds.





# COPPER



### LEGEND

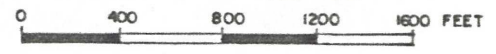
- Fetish claim posts
- Geochemical assay in ppm
- Glacial and fluvial drift
- Over 100 ppm Cu

FIGURE 7

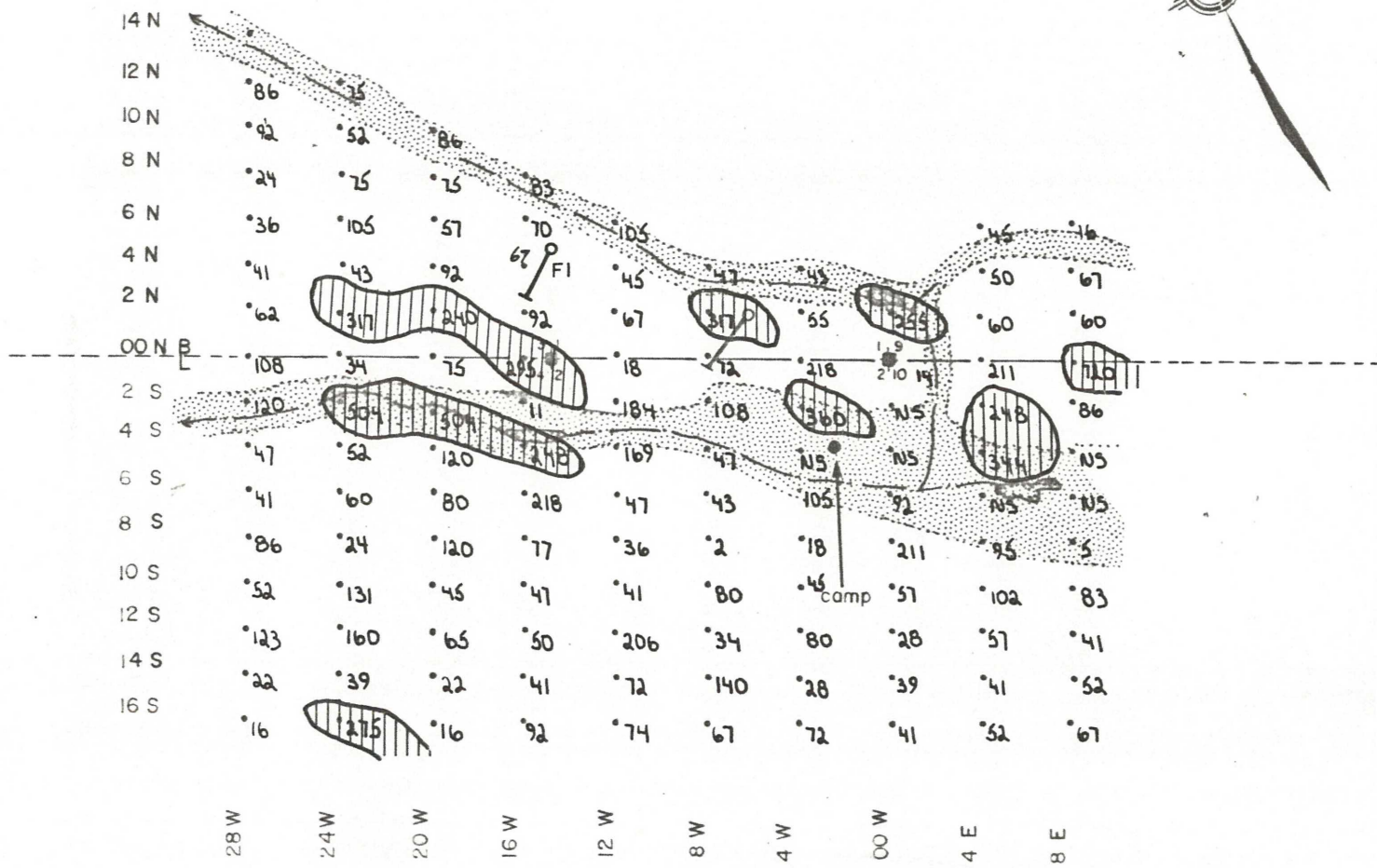
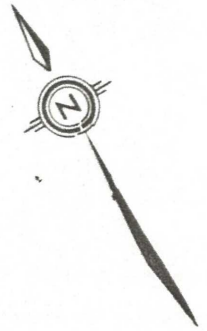
ARCHER, CATHRO & ASSOCIATES LTD

## **COPPER GEOCHEMISTRY FETISH PROPERTY**

Scale 1 inch = 800 feet



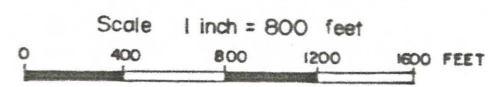
# ZINC



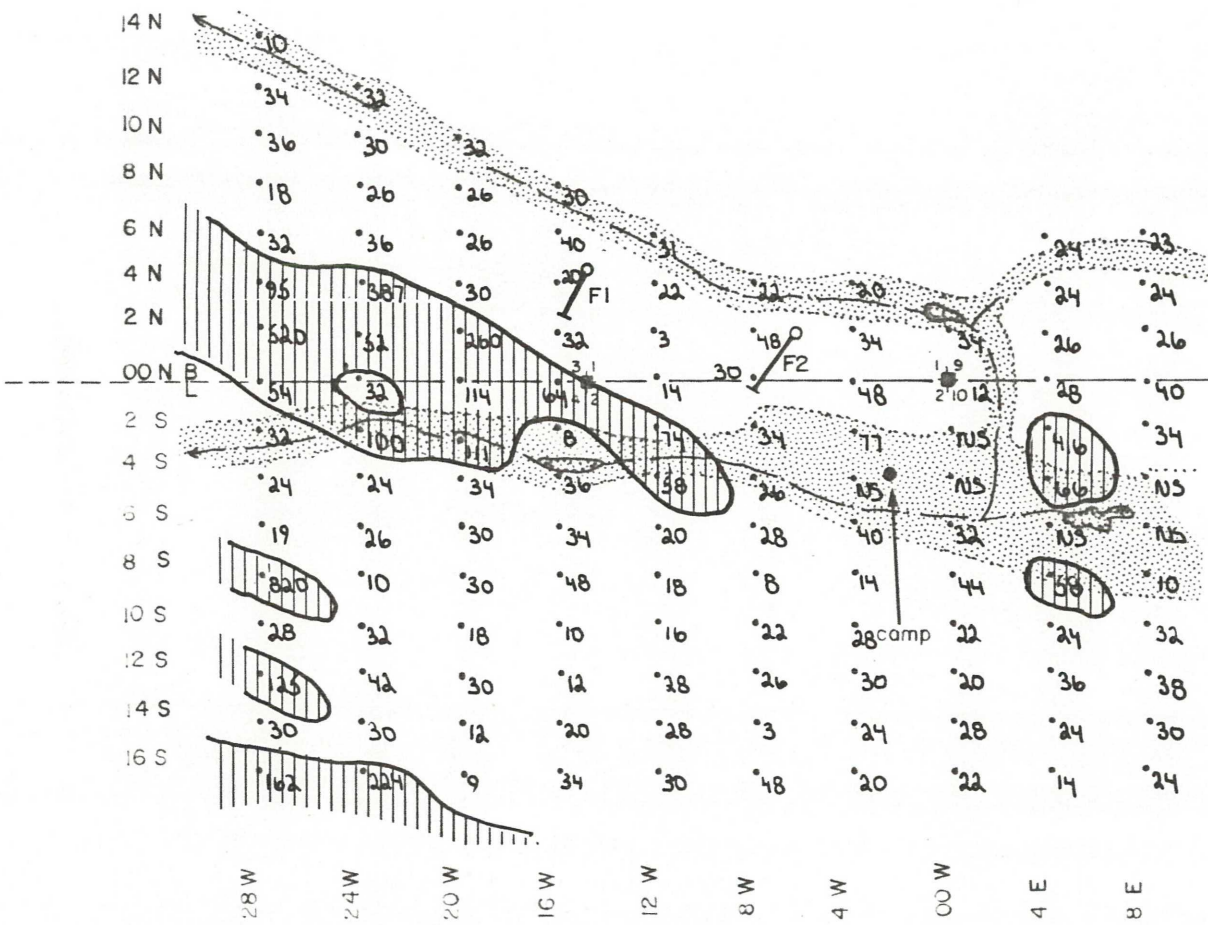
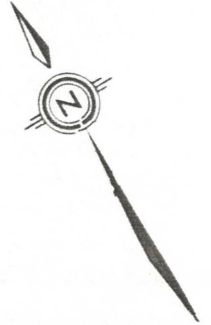
## LEGEND

- Fetish claim posts
- Geochemical assay in ppm
- Glacial and fluvial drift
- Over 240 ppm Zn

FIGURE 8  
 ARCHER, CATHRO & ASSOCIATES LTD  
**ZINC GEOCHEMISTRY**  
**FETISH PROPERTY**



# LEAD



### LEGEND





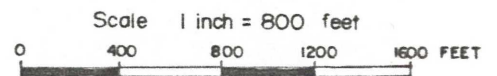
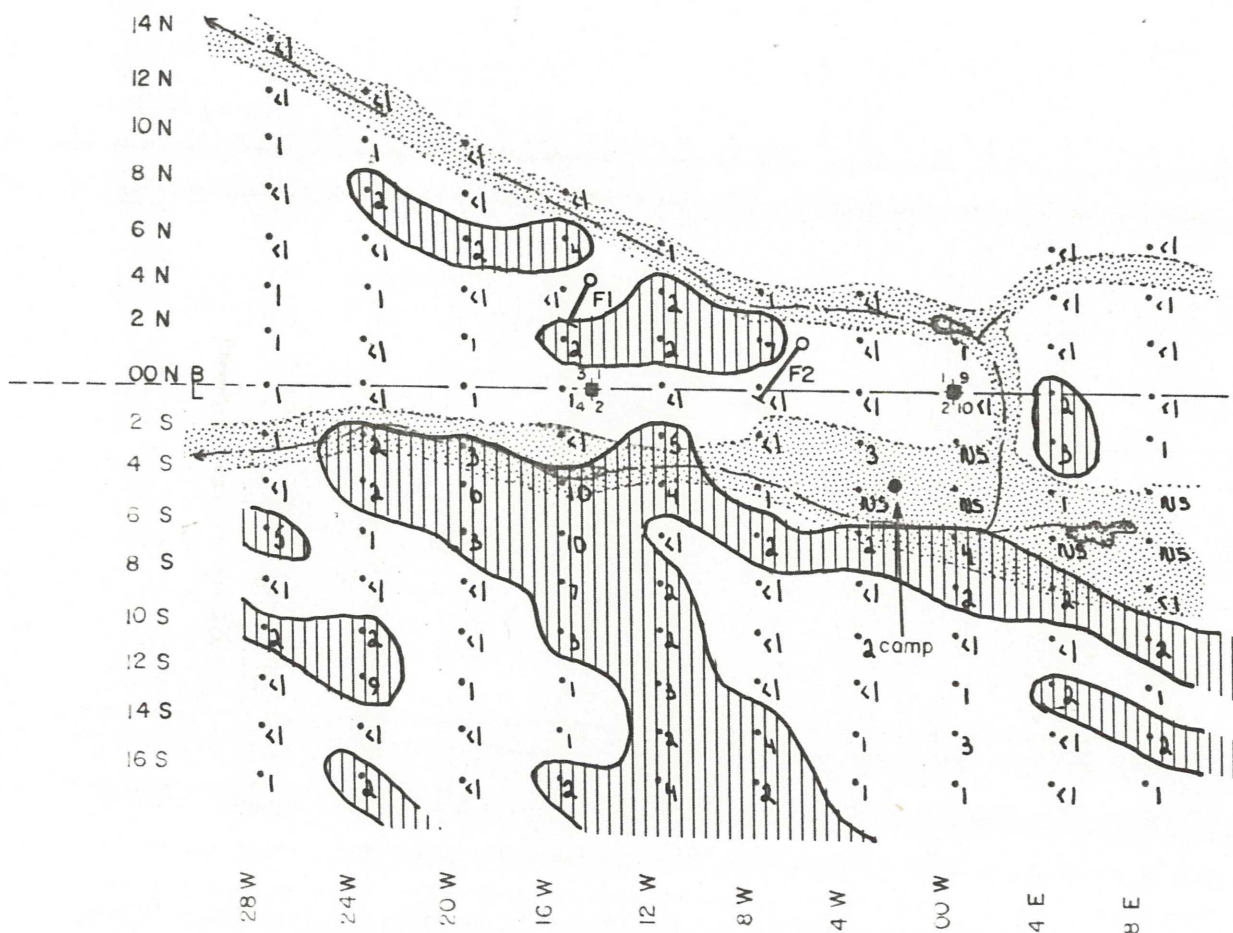
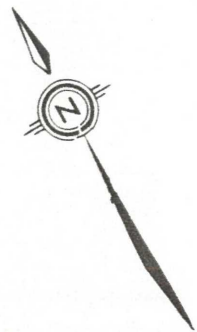
-  Fetish claim posts
-  Geochemical assay in ppm
-  Glacial and fluvial drift
-  Over 50 ppm Pb

FIGURE 9

ARCHER, CATHRO & ASSOCIATES LTD  
**LEAD GEOCHEMISTRY**  
**FETISH PROPERTY**



# MOLYBDENUM



### LEGEND





-  Fetish claim posts
-  Geochemical assay in ppm
-  Glacial and fluvial drift
-  Over 1 ppm Mo

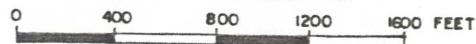
FIGURE 10

ARCHER, CATHRO & ASSOCIATES LTD

## *MOLYBDENUM GEOCHEMISTRY*

### FETISH PROPERTY

Scale 1 inch = 800 feet



### DIAMOND DRILLING

In 1974, two AQ holes were diamond drilled to depths of 353 ft each and cut the target about 800 ft apart along strike. Brief logs and cross-sections of each hole, with assays, are appended to this report. The drill core is stored at the government core library in Whitehorse.

Both holes intersected weakly mineralized talcose sericite-chlorite-quartz schist. This zone was 65 ft thick in Hole F1 but was partially cut out by a gouge-filled fault and was only 40.5 ft thick in Hole F2. The highly fissile and soft nature of the talcose schist made it extremely difficult to drill with AQ equipment and core recovery averaged only 40 per cent and was as low as 5 per cent. Core assays were consequently inadequate and sludge samples were collected for confirmation assays.

Mineralization consists of 1 to 5 per cent fine-grained pyrite in thin bands parallel to foliation. Occasional narrow bands (up to 6 mm wide) contain abundant, medium-grained chalcopyrite and/or chocolate brown sphalerite and traces of galena. The best section in Hole F1 assayed 0.05 per cent Cu, 0.49 per cent Zn and 0.015 per cent Pb over a core length of 43.0 feet (from 274 to 317 feet). Core recovery for this interval averaged only 27 per cent and sludge assays ranged from 0.06 to 0.59 per cent Cu, 0.07 to 1.6 per cent Zn and 0.01 to 0.05 per cent Pb. The best interval of core from hole F2 was 2 inches assaying 8.0 per cent Cu, 1.14 per cent Zn and 2.2 oz/ton Ag at a depth of 132.5 feet, followed by 15.5 feet assaying 0.24 per cent Cu and 0.21 per cent Zn. Core recovery from that intersection averaged 36 per cent and sludge assayed 0.16 per cent Cu, 0.39 per cent Zn and 0.08 per cent Pb.

Spectrographic analysis indicated that no other metals of interest are present.

CONCLUSIONS AND RECOMMENDATIONS

The Fetish showing was discovered and staked by Archer, Cathro and Assoc. Ltd. for Finlayson Joint Venture in 1973. Two exploratory holes drilled in 1974 for geological information showed that thin bands of pyrite, chalcopyrite and sphalerite are conformable with foliation in a hydrothermally altered chlorite-quartz schist sequence of unknown age. Banded magnetite-pyrite iron formation up to 3 m thick occurs within quartzite members of the schist sequence.

Subsequent study by J.A. Morin of DIAND of two nearby showings that have been explored on and off for 15 years, Fyre and Pack, has indicated that they have many similarities to the Fetish and suggests that all three are probably "Besshi"-type, distal volcano-sedimentary exhalative massive sulphide occurrences. These deposits are typically zoned stratiform concentrations of copper and zinc surrounded by a pyrite halo that grades outwards through a facies change into banded iron formation. Besshi deposits commonly reach five million tonnes in size in Japan and grade over one per cent copper with a high zinc content. Several important examples are known in B.C., including the Kutcho Creek and Granduc deposits.

Although the assays obtained from the initial drill holes on the Fetish property graded only 0.4 per cent combined copper-zinc, it occurs in a 25 km long belt that has been only lightly explored and contains the potential for one or more Besshi-type deposits. Now that the market outlook for base metals is improving, additional exploration of this belt is justified.

Twelve of the 34 Fetish claims have expiry dates in July, 1979 but they are not critical claims and should be allowed to lapse since they can only be

renewed with physical work or cash payment. The remaining claims expire in 1980.

The Fetish belt should be staked for its entire length of 25 km and width of 2 to 4 km, a total of 200 to 250 claims. In this way, competition can be eliminated and exploration of this belt will earn assessment credit. The preliminary exploration phase should consist of stratigraphic mapping and grid geochemical sampling directed towards locating massive sulphide centers. Magnetic orientation surveys should be conducted in this phase to determine if they are capable of tracing bedded iron formation.

This program is estimated to cost \$90,000, of which \$25,000 will be for staking.

Respectfully submitted,

ARCHER, CATHRO AND ASSOCIATES LTD.



R.J. Cathro.

/mc

APPENDIX

# DRILL HOLE LOG

COORDINATES 1480 W, 480 N  
ELEVATION -  
DIP 50° SW  
AZIMUTH 228°  
SCALE 1" = 10'

CORE SIZE A Q  
HOLE STARTED JULY 31, 1974  
HOLE COMPLETED 10 August, 1974  
LOGGED BY R. CATHRO  
FINAL DEPTH - 352'

FOOTAGE	DESCRIPTION	DIP
0	AX CASING TO 52.0' CEMENTED AT 269' and 352'	
10	QUARTZITE (0-166') - thin bedded, white to light grey, strongly foliated along thin shale partings. Occasional thin (1/4"-1/2") phyllitic shale bands. Foliation varies from 75° to 90° to core.	
6'		
20		
3'		
30	0'-50' - about .1% leached, limonite stained pits - probably after pyrite.	
2'		
40		
5'		
50		
8'		

# DRILL HOLE LOG

No. F 1  
PAGE 2 OF 6

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

F1

FOOTAGE	DESCRIPTION	DIP
60		
6'		
70		
7'		
80	50'-100' - about 1% disseminated, partially leached pyrite	
10'	68.5'-72', 76'-77', 89'-92' - about 1% disseminated magnetite.	
90		
8'		
100	115-118' - Iron Formation - estimate 6% pyrite and 10% magnetite in fine disseminations following foliation.	
3'		
110		
10'		

# DRILL HOLE LOG

HOLE NO. \_\_\_\_\_  
PAGE 3 OF 6

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

F1

FOOTAGE	DESCRIPTION	DIP
120		
10'		
130	118'-166' - quartzite slightly lighter coloured than previous section, contains local concentrations of disseminated pyrite and magnetite.	
6'	123'-129' - 7% pyrite	
	133-134 - 10% pyrite	
	134-165 - 4% pyrite	
140	151-154 - 1% magnetite	
3'	151' - 1/16" wide pyrite veinlet cutting foliation at 40°	
	165' - 1/16" wide pyrite veinlet cutting foliation at 30°	
150	165.7' - 1" white vitreous fractured quartz.	
8'		
160		
7'	SHALE (166'-193') - dark grey, phyllitic, contains occasional thin quartzite bands.	
170		
6'	172.0' - 3" wide vitreous, fractured, quartz.	

# DRILL HOLE LOG

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
180		
3'		
190		
3'	QUARTZITE (193'-233') - slightly more shaley than previous section, no pyrite or magnetite. Foliation at 90° to core.	
200		
3'	205' - 3" white, vitreous, fractured quartz.	
210		
2'		
220		
0'		
230		
0.5'	SHALE (233'-243') - dark grey, broken. Foliation flattens to 40° at 243' - probably indicates a fault.	

# DRILL HOLE LOG

HOLE No. \_\_\_\_\_  
PAGE 5 OF 6

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
240	CHLORITE SCHIST (243'-259') - light green, strongly phyllitic - foliation flattens to 0° at 250', probably due to weak faulting.	
3.5		
250	249' - 2" white vitreous fractured quartz.	
0	259' - 1/4" graphitic gouge, foliation at 80° to core.	
260	<u>MINERALIZED SERICITE, TALC, QUARTZ SCHIST (259'-324')</u>	
4	- soft, broken (no evidence of faulting) with foliation at 80° to 90° to core. Minor weakly chloritic sections. Faint cross-foliation at 35° to core. Up to 5% fine disseminated pyrite which tends to concentrate in bands in foliation and cross-foliation direction. Sphalerite and chalcopyrite occurs mainly as concentrations in thin bands (1/4") parallel to foliation and occasionally as fine disseminations. Both sphalerite and chalcopyrite tend to occur separately from pyrite and each other. Minor unmineralized quartz occurs as thin (3" max.) lenses or boudins.	
270		
9		
280	271' - weak fault (1/4"), foliation drops to 35° to core for several inches on either side.	
1.5		
290	sludge samples were taken from 286' to 345'. Both sludge and core samples were assayed geochemically at Chemex Labs. Ltd., North Vancouver, B.C., by atomic absorption spectrometry of a nitric-perchloric extraction of a -80 mesh fraction from a pulverized split. Values, in parts per million (ppm) are listed on	
3.2		

# DRILL HOLE LOG

HOLE NO. \_\_\_\_\_  
PAGE 6 OF 6

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE	DESCRIPTION	DIP																																																																																																																																																																																								
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	<table border="1"> <thead> <tr> <th>SAMPLE No.</th> <th>INTERVAL</th> <th>CORE REC'D (%)</th> <th>Cu (ppm)</th> <th>Pb (ppm)</th> <th>Zn (ppm)</th> <th>Ag (ppm)</th> </tr> </thead> <tbody> <tr> <td colspan="7" style="text-align: center;">CORE</td> </tr> <tr> <td>451</td> <td>262' to 265.8'</td> <td>9" (25)</td> <td>88</td> <td>88</td> <td>1304</td> <td>3.5</td> </tr> <tr> <td>452</td> <td>265.8' to 269</td> <td>10" (26)</td> <td>64</td> <td>46</td> <td>1280</td> <td>20.5</td> </tr> <tr> <td>453</td> <td>269' to 269.4</td> <td>5" (100)</td> <td>68</td> <td>18</td> <td>248</td> <td>20.5</td> </tr> <tr> <td>454</td> <td>269.4' to 271</td> <td>16" (84)</td> <td>64</td> <td>32</td> <td>155</td> <td>0.5</td> </tr> <tr> <td>455</td> <td>271.0' to 274'</td> <td>39" (100)</td> <td>430</td> <td>84</td> <td>420</td> <td>1.0</td> </tr> <tr> <td>310</td> <td>456</td> <td>274' to 277'</td> <td>32" (89)</td> <td>440</td> <td>38</td> <td>10300</td> <td>1.5</td> </tr> <tr> <td></td> <td>457</td> <td>277' to 281'</td> <td>38" (79)</td> <td>116</td> <td>32</td> <td>525</td> <td>1.0</td> </tr> <tr> <td></td> <td>458</td> <td>281' to 287'</td> <td>9" (12)</td> <td>363</td> <td>191</td> <td>12500</td> <td>4.5</td> </tr> <tr> <td></td> <td>459</td> <td>288.3' to 292'</td> <td>5" (9)</td> <td>96</td> <td>30</td> <td>295</td> <td>20.5</td> </tr> <tr> <td></td> <td>460</td> <td>292' to 296'</td> <td>28" (58)</td> <td>300</td> <td>66</td> <td>12500</td> <td>0.5</td> </tr> <tr> <td>0.3'</td> <td>461</td> <td>296' to 299'</td> <td>8" (22)</td> <td>372</td> <td>64</td> <td>6100</td> <td>0.5</td> </tr> <tr> <td></td> <td>462*</td> <td>303' to 306'</td> <td>14" (39)</td> <td>2968</td> <td>191</td> <td>8700</td> <td>2.0</td> </tr> <tr> <td></td> <td>463*</td> <td>306.5' to 317'</td> <td>6" (5)</td> <td>1620</td> <td>350</td> <td>766</td> <td>6.5</td> </tr> <tr> <td></td> <td>464*</td> <td>322.5' to 324'</td> <td>26" (87)</td> <td>430</td> <td>2240</td> <td>1244</td> <td>24.0</td> </tr> <tr> <td></td> <td colspan="6" style="text-align: center;">SLUDGE</td> </tr> <tr> <td>320</td> <td>466</td> <td>286' to 296'</td> <td>—</td> <td>635</td> <td>116</td> <td>7400</td> <td>0.5</td> </tr> <tr> <td></td> <td>467</td> <td>296' to 303'</td> <td>—</td> <td>910</td> <td>191</td> <td>15800</td> <td>1.0</td> </tr> <tr> <td></td> <td>468</td> <td>303' to 312'</td> <td>—</td> <td>1760</td> <td>300</td> <td>5600</td> <td>2.0</td> </tr> <tr> <td></td> <td>469</td> <td>312' to 322'</td> <td>—</td> <td>4400</td> <td>96</td> <td>660</td> <td>2.0</td> </tr> <tr> <td></td> <td>470*</td> <td>322' to 333'</td> <td>—</td> <td>5900</td> <td>583</td> <td>1488</td> <td>9.0</td> </tr> <tr> <td>3.3</td> <td>471</td> <td>333' to 343'</td> <td>—</td> <td>780</td> <td>126</td> <td>420</td> <td>1.5</td> </tr> <tr> <td></td> <td>389</td> <td>343' to 345'</td> <td>—</td> <td>190</td> <td>122</td> <td>434</td> <td>20.5</td> </tr> </tbody> </table>	SAMPLE No.	INTERVAL	CORE REC'D (%)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	CORE							451	262' to 265.8'	9" (25)	88	88	1304	3.5	452	265.8' to 269	10" (26)	64	46	1280	20.5	453	269' to 269.4	5" (100)	68	18	248	20.5	454	269.4' to 271	16" (84)	64	32	155	0.5	455	271.0' to 274'	39" (100)	430	84	420	1.0	310	456	274' to 277'	32" (89)	440	38	10300	1.5		457	277' to 281'	38" (79)	116	32	525	1.0		458	281' to 287'	9" (12)	363	191	12500	4.5		459	288.3' to 292'	5" (9)	96	30	295	20.5		460	292' to 296'	28" (58)	300	66	12500	0.5	0.3'	461	296' to 299'	8" (22)	372	64	6100	0.5		462*	303' to 306'	14" (39)	2968	191	8700	2.0		463*	306.5' to 317'	6" (5)	1620	350	766	6.5		464*	322.5' to 324'	26" (87)	430	2240	1244	24.0		SLUDGE						320	466	286' to 296'	—	635	116	7400	0.5		467	296' to 303'	—	910	191	15800	1.0		468	303' to 312'	—	1760	300	5600	2.0		469	312' to 322'	—	4400	96	660	2.0		470*	322' to 333'	—	5900	583	1488	9.0	3.3	471	333' to 343'	—	780	126	420	1.5		389	343' to 345'	—	190	122	434	20.5	
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	<p>* SPECTROGRAPHIC ANALYSES - SEE ATTACHED CHEMEX LABS. CERTIFICATE</p> <p>- core intervals 287'-288.5' and 299'-303' not assayed due to insufficient recovery.</p> <p>CHLORITE SCHIST (324'-352') - very broken, soft, talcose. Foliation at 90° to core.</p>																																																																																																																																																																																									
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# CHEMEX LABS LTD.

NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO: Archer Cathro & Assoc. Ltd.,  
Box 4127  
Whitehorse, Y. T.

CERTIFICATE NO. SP 145

INVOICE NO. 12435

RECEIVED

ATTN: ANALYSED Sept. 6/74

SAMPLE NO. :	Lower Concentration Limit (PPM)	#462	#463	#464	#470
Antimony	50	bcl	bcl	bcl	50
Arsenic	20	bcl	100	50	100
Barium	5	2000	500	200	200
Beryllium	5	bcl	bcl	bcl	bcl
Bismuth	5	bcl	50	200	100
Boron	20	bcl	bcl	bcl	bcl
Cadmium	20	100	bcl	bcl	bcl
Calcium	0.05%	0.2%	0.5%	0.5%	0.2%
Chromium	10	20	50	20	100
Cobalt	10	10	10	10	10
Copper	1	2000	1000	500	5000
Gallium	2	20	10	20	20
Germanium	20	bcl	bcl	bcl	bcl
Iron	0.05%	2%	2%	5%	5%
Lead	5	500	500	2000	500
Magnesium	0.02%	2%	2%	5%	2%
Manganese	5	500	1000	1000	1000
Molybdenum	10	bcl	10	bcl	bcl
Nickel	5	bcl	bcl	10	20
Niobium	50	bcl	bcl	bcl	bcl
Silver	1	2	5	10	5
Strontium	20	50	50	50	bcl
Tantalum	200	bcl	bcl	bcl	bcl
Tellurium	200	bcl	bcl	bcl	bcl
Thorium	100	bcl	bcl	bcl	bcl
Tin	20	10	bcl	10	20
Titanium	5	1000	500	1000	1000
Vanadium	10	10	10	10	10
Zinc	50	> 5000	2000	> 5000	5000
Zirconium	20	200	50	100	200

### Concentration Range

>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

Ranges for Iron, Calcium & Magnesium are reported in %



MEMBER  
CANADIAN TESTING

CERTIFIED BY: *[Signature]*

# DRILL HOLE LOG

HOLE No. 1  
PAGE 1 OF 7

COORDINATES 700 W, 180 N.

ELEVATION

DIP 50° 5 W

AZIMUTH 228°

SCALE 1" = 10'

CORE SIZE AQ

HOLE STARTED 16 August, 1974

HOLE COMPLETED 23 August, 1974

LOGGED BY R. CATHRO

FINAL DEPTH - 353'

FOOTAGE

DESCRIPTION

DIP

0'

Ax casing to 9.0'

-7'

10-

SHALE (7'-21') - dark grey, strongly foliated at 90° to core

3'

15'-18' - quartzitic

20-

-21'

7'

QUARTZITE (21'-102') - white to light grey, strongly foliated on 1/4" to 3/4" spaced shaley partings

30-

4'

40-

3'

50

2'

# DRILL HOLE LOG

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
3'		
70-	70' - foliation at 85° to core	
4.5'		
80-	77'-87' - Iron formation - 30 to 60% finely disseminated magnetite and minor pyrite in quartzite. Mineralization occurs in concentrations parallel to foliation. Foliation flattens to 75° at 80'	
7'		
90-	90' - foliation at 90° to core	
4'		
100-		
1'	102'-132.3' - strong fault zone, angular silica cemented quartzite breccia to 122', remainder graphitic gouge with 15% well rounded quartz fragments.	
110-		
2'		

# DRILL HOLE LOG

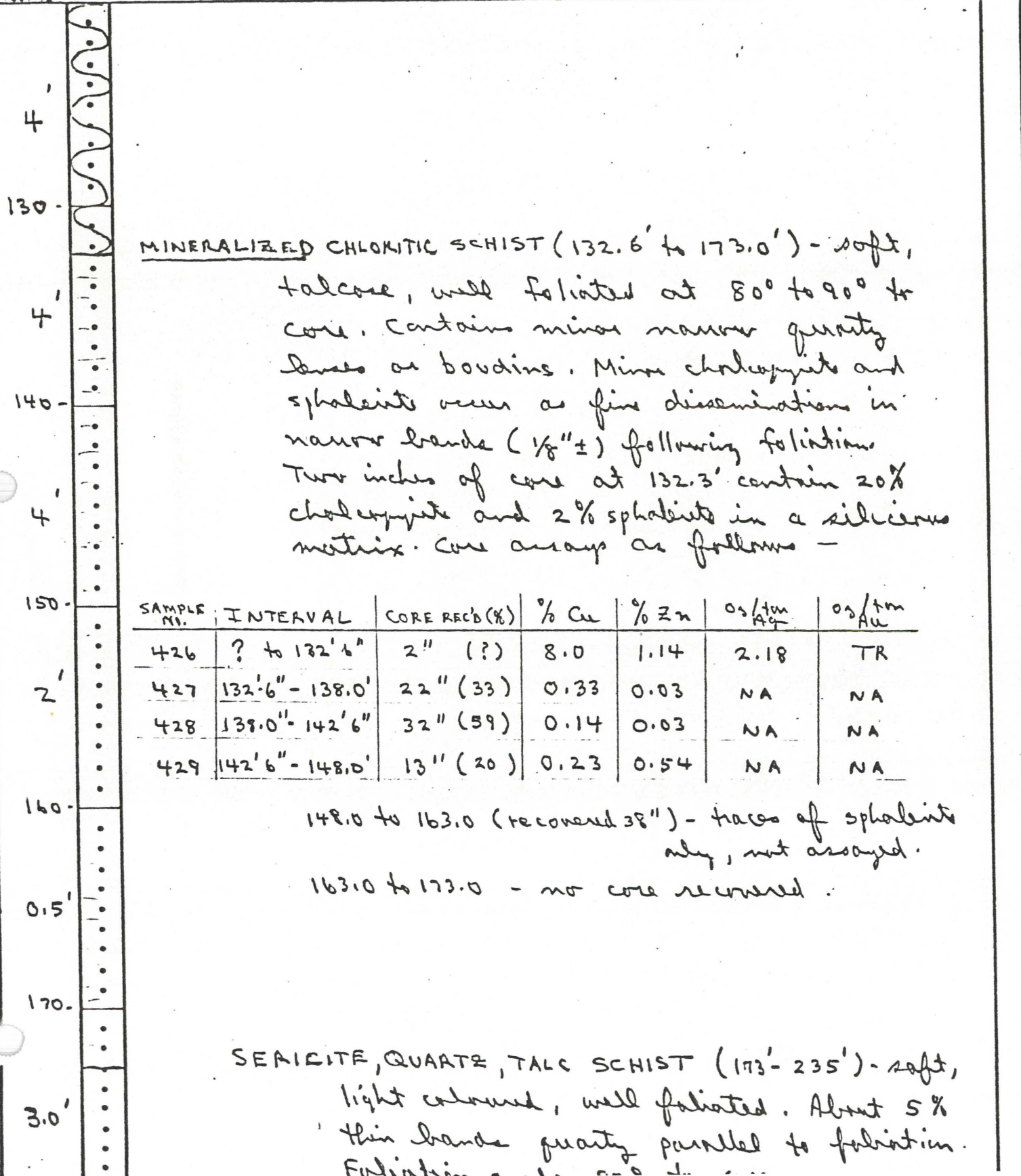
COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE

DESCRIPTION

DIP



MINERALIZED CHLORITIC SCHIST (132.6' to 173.0') - soft, talcose, well foliated at 80° to 90° to core. Contains minor narrow quartz lenses or boudins. Minor chalcopyrite and sphalerite occur as fine dissemination in narrow bands ( $\frac{1}{8}'' \pm$ ) following foliation. Two inches of core at 132.3' contain 20% chalcopyrite and 2% sphalerite in a siliceous matrix. Core assays as follows -

SAMPLE NO.	INTERVAL	CORE REC'D (%)	% Cu	% Zn	Os/tm Ag	Os/tm Au
426	? to 132'6"	2" (?)	8.0	1.14	2.18	TR
427	132'6" - 138.0'	22" (33)	0.33	0.03	NA	NA
428	138.0" - 142'6"	32" (59)	0.14	0.03	NA	NA
429	142'6" - 148.0'	13" (20)	0.23	0.54	NA	NA

148.0 to 163.0 (recovered 38") - traces of sphalerite only, not assayed.

163.0 to 173.0 - no core recovered.

SEPIOLITE, QUARTZ, TALC SCHIST (173' - 235') - soft, light coloured, well foliated. About 5% thin bands quartz parallel to foliation. Foliation -

# DRILL HOLE LOG

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
180		
5.0'		
190		
7.0'		
200		
3.0'		
210		
1.0'		
220		
5.0'		
230		
3.0'	CHLORITIC SCHIST (235'-253') - soft, talcose, well foliated at 90° to core	

# DRILL HOLE LOG

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
240	241' - 3" shattered vitreous white quartz.	
240	244' - possible fault, sandy-clay gouge	
250	QUARTZ, SERICITE SCHIST (253'- 343') - soft, talcose, very broken. Foliation at 90° to core	
0.5'		
260		
0'		
270	- poor recovery appears to be due to soft bedrock rather than faulting	
0'		
280		
2.0'		
290		
2.0'		

# DRILL HOLE LOG

TRAIL No. \_\_\_\_\_  
PAGE 6 OF 7

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE	DESCRIPTION	DIP
300		
0'		
310		
0'		
320		
0'		
330		
0'		
340		
1.0'	SHALE (343'-353') - dark grey, strongly foliated at 90° to core.	
350		
1.0'		
353		
END		

# DRILL HOLE LOG

COORDINATES  
ELEVATION  
DIP  
AZIMUTH  
SCALE

CORE SIZE  
HOLE STARTED  
HOLE COMPLETED  
LOGGED BY

FOOTAGE DESCRIPTION DIP

sludge samples were collected from 68' to 353'. These were assayed geochemically at Chemex Labs. Ltd., North Vancouver, B.C., by atomic absorption spectrometry of a nitric-perchloric digestion of a -80 mesh fraction from a pulverised split. Values in parts-per-million (ppm) are as follows.

SAMPLE NO.	INTERVAL (ft)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
390	68-76	363	10	169	<0.5
391	76-89	355	6	140	<0.5
392	89-102	385	88	700	<0.5
393	102-112	190	387	1220	0.5
394	112-117	190	46	466	<0.5
1275	117-126	122	56	1644	<0.5
395	126-148	1600	835	3880	2.5
396	148-163	295	180	1148	0.5
397	163-173	220	172	1388	<0.5
398	173-193	275	680	1704	0.5
399	193-222	310	200	552	0.5
400	222-300	136	54	550	<0.5
1273	300-320	112	36	450	<0.5
1274	320-353	86	50	482	<0.5

### CORE ASSAYS

(geochemical analysis in parts per million)

Sample No	INTERVAL	CORE REC'D (%)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
451	262' to 265.8'	9" (25)	88	88	1304	3.5
452	265.8' to 269'	10" (26)	64	46	1280	<0.5
453	269' to 269.4'	5" (100)	68	18	248	<0.5
454	269.4' to 271'	16" (84)	64	32	155	0.5
455	271.0' to 274'	39" (100)	430	84	420	1.0
456	274' to 277'	32" (89)	440	38	10300	1.5
457	277' to 281'	36" (79)	116	32	525	1.0
458	281' to 287'	9" (12)	363	191	12500	4.5
459	288.3' to 292'	5" (9)	96	30	295	<0.5
460	292' to 296'	28" (58)	300	66	12500	0.5
461	296' to 299'	8" (22)	372	64	6100	0.5
462	303' to 306'	14" (39)	2968	191	8700	3.0
463	306.5' to 317'	6" (5)	1620	350	766	6.5
464	322.5' to 324'	26" (87)	430	2240	1244	24.0

NOTE: Core intervals 259'-262', 287'-288.3' and 299'-303' not assayed due to insufficient recovery

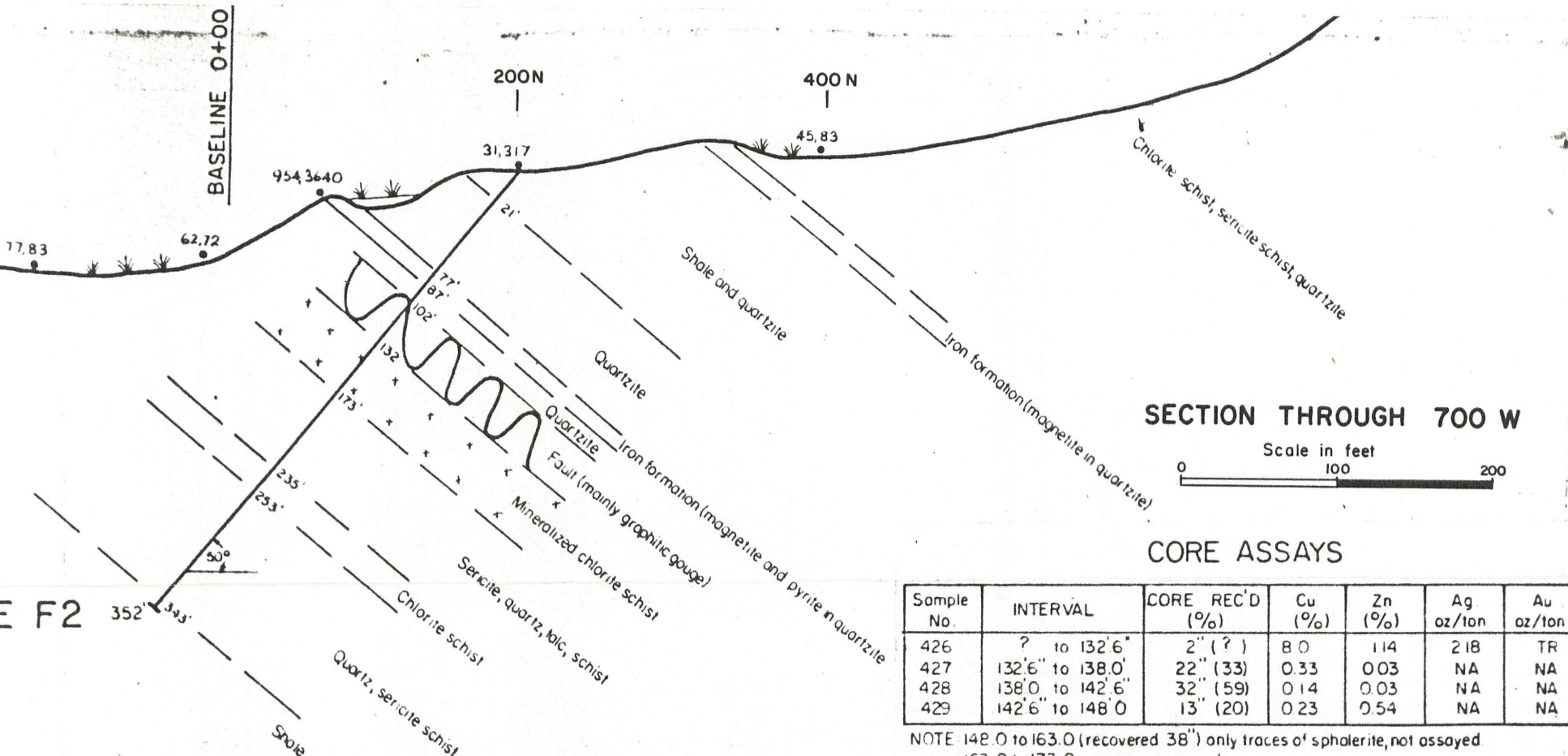
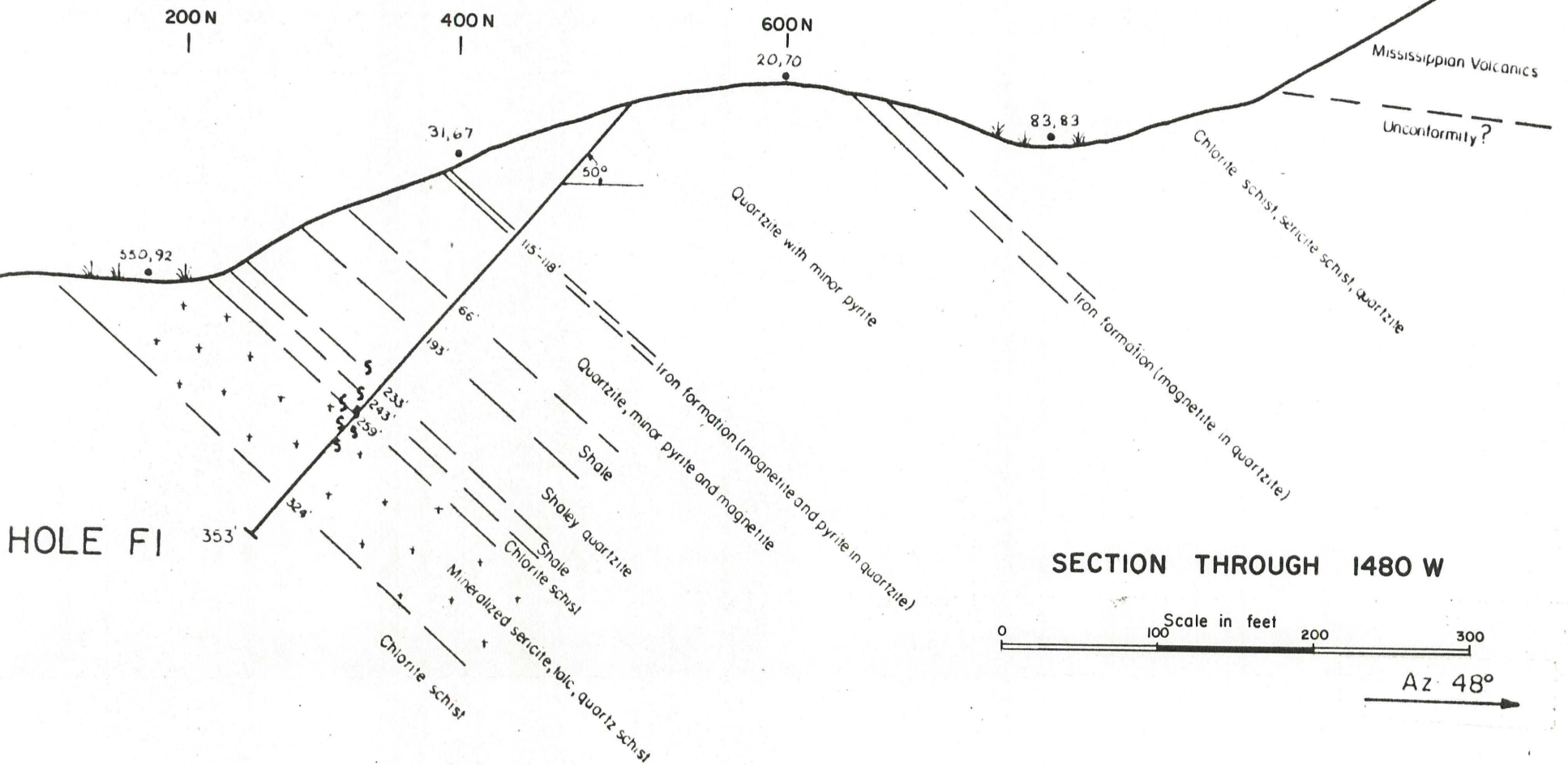
### SLUDGE ASSAYS

(geochemical analysis in parts per million)

Sample No	INTERVAL	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
466	286' to 296'	635	116	7400	0.5
467	296' to 303'	910	191	15800	1.0
468	303' to 312'	1760	300	5600	2.0
469	312' to 322'	4400	96	660	2.0
470	322' to 333'	5900	583	1488	9.0
471	333' to 343'	780	126	420	1.5
389	343' to 345'	190	122	434	<0.5

NOTE: 10,000 ppm = 1%  
34.3 ppm = 1oz/ton

Az 48°



### CORE ASSAYS

Sample No	INTERVAL	CORE REC'D (%)	Cu (%)	Zn (%)	Ag oz/ton	Au oz/ton
426	? to 132'6"	2" (?)	8.0	1.14	2.18	TR
427	132'6" to 138'0"	22" (33)	0.33	0.03	NA	NA
428	138'0" to 142'6"	32" (59)	0.14	0.03	NA	NA
429	142'6" to 148'0"	13" (20)	0.23	0.54	NA	NA

NOTE: 148.0 to 163.0 (recovered 38") only traces of sphalerite, not assayed  
163.0 to 173.0 no core recovered

### SLUDGE ASSAYS

(geochemical analysis in parts per million)

Sample No	INTERVAL	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
390	68' to 76'	363	10	169	<0.5
391	76' to 89'	355	6	140	<0.5
392	89' to 102'	385	88	700	<0.5
393	102' to 112'	190	387	1220	0.5
394	112' to 117'	190	46	466	<0.5
1275	117' to 126'	122	56	1644	<0.5
395	126' to 148'	1600	835	3880	2.5
396	148' to 163'	295	180	1148	0.5
397	163' to 173'	220	172	1388	<0.5
398	173' to 193'	275	680	1704	0.5
399	193' to 222'	310	200	552	0.5
400	222' to 300'	136	54	550	<0.5
1277	300' to 320'	112	36	450	<0.5
1274	320' to 353'	86	50	482	<0.5

ARCHER, CATHRO & ASSOCIATES LTD

**SECTIONS DRILL HOLES F1 & F2**  
**FETISH PROJECT**

# NON-HYDROCARBON MINERALS

WORK PROJECT FORM CORP-966

PROJECT No. m409  
*Company Geographical Numerical*

DATE: June 1/81

TITLE:

*Archie, Carter & Associates  
 for Clewton Resources Ltd.  
 OPERATING COMPANY*

*FINLAYSON JV,*

NEW PROJECT

EST. COSTS \$ 48,000 U.S. \$

	1st.	2nd.	3rd.	4th.	Total
Year 19__			48		
Year 19__					

APPROVED BY \_\_\_\_\_

*[Signature]*  
 RECOMMENDED BY \_\_\_\_\_

DESCRIPTION: *airborne magnetometer surveys  
 over 25 km ~~belt~~ of Felsich Belt.  
 Reconnaissance IP surveys followed by detail  
 areas of interest.*

GEOGRAPHICAL AREA:

Canada COUNTRY      Quebec STATE OR PROVINCE      1056 REGION      \_\_\_\_\_ COUNTY

CLASSIFICATION:

PRODUCT	EXPENSE TYPE PROJECT	CAPITAL TYPE PROJECT
<u>Copper, lead, zinc, silver</u>	REGIONAL <input type="checkbox"/>	GENERAL AREA <input type="checkbox"/>
_____	GENERAL KNOWLEDGE <input type="checkbox"/>	AREA OF INTEREST <input checked="" type="checkbox"/>

COMPLETE THIS PART OF FORM IF PROJECT IS TO BE CLOSED OR SUB-DIVIDED INTO AREAS OF INTEREST

DATE PROJECT WAS COMPLETED: \_\_\_\_\_

RESULTS OF PROJECT:

	<u>Can.</u>	us.
out Home	55,000	48,000.
In Home	5,000	
	<u>60,000</u>	

DISPOSITION OF COSTS:

- EXPENSE-PROJECT — DID NOT OR WILL NOT LEAD TO ACQUISITION OF PROPERTIES
- SUB-DIVIDE INTO NEW PROJECTS, AS ATTACHED
- DEFER UNTIL ACREAGE IS ACQUIRED (SUBMIT ANOTHER FORM AND FURNISH DISPOSITION OF COSTS WHEN ACREAGE IS ACQUIRED)
- CAPITALIZE TO PROPERTIES (FURNISH LIST OF PROPERTIES & ACREAGE)

# Memorandum

Vancouver, B. C.  
1981-06-01

FETISH BELT EXPLORATION  
Finlayson J.V. - M409

EARL D. DODSON:

Work in the FETISH BELT area (Fig. 1) started in 1973 by Archer, Cathro & Associates on behalf of Finlayson J.V. (Chevron Canada, Union Oil, Marietta Resources, Clay Bros.).

The FETISH claims were staked in 1973 to cover a Cu-Zn prospect in the Belt. It was explored by mapping, hand-pitting, geochemical sampling and magnetic surveys the same year. Drilling in 1974 (2 holes - 705 ft.) showed that banded Cu-Zn-Pb sulphides are conformable with foliation in a talcose-sericite-chlorite-quartz schist unit which is up to 65 ft. in thickness. An intersection of 0.24% Cu, 0.21% Zn over 15.5 ft. (36% core recovery) was cut in this unit.

From 1975-79 there was no work performed on the Belt by the J.V. The FETISH claims have been maintained for the past two years by payments in lieu of work.

In 1979, Archer, Cathro completed a summary report in which they recommended claim staking (200-250 claims), stratigraphic mapping, geochemistry and magnetic surveys. This followed studies by D.I.A.N.D. government geologists which interpreted the FETISH mineralization to be of volcanogenic (Besshi-type) origin. The Archer, Cathro program was not implemented and all but Chevron have now withdrawn from the Joint Venture.

Alternative exploration strategies for FETISH BELT volcanogenic-type mineralization have been investigated by John Steele (Memo 81-05-27). In view of the growing awareness by others of the volcanogenic-style mineralization in the FETISH BELT it is recommended that the geophysical program outlined by John Steele [costing \$48,000. U.S.(O.H.)] be implemented forthwith in order to take advantage of our knowledge of the area.



C. V. DYSON

CVD:am

*The claims come due again in Aug 81.  
See also CVD's memo at the back (1981-04-02)*



M409  
Vancouver, B. C.  
1981-04-02

RE: FETISH PROPERTY - M409

EARL D. DODSON:

The FETISH 1-6, 9-19, 21-34 claims (22 total) cover a Cu-Zn prospect that has a resemblance to a Besshi-type volcanogenic deposit.

The property was discovered in June 1973. It has been explored by mapping, hand-pitting, geochemical sampling and magnetic surveys in 1973 and by diamond drilling (2 holes - 205 feet) in 1974.

During reconnaissance work in 1973, a second target named PALSY, was found about 8 km northwest of FETISH (Fig. 1).

The property has essentially received no work since 1974. It has been maintained for the past two years by payments in lieu of work. Chevron appears to be the sole J.V. partner to retain an interest in the property.

In 1979, Archer, Cathro on behalf of Finlayson J.V. completed a summary report on the property. They recommended staking 200 - 250 claims in the area, followed by stratigraphic mapping, grid geochemistry and magnetic orientation surveys. This program was not implemented.

Preussag Canada Ltd. showed some interest in optioning the property in 1980, however, because of possible conflicts with the ongoing GRASS project (M462) at that time, the option talks were discontinued.

Alternative exploration strategies for evaluation of the FETISH property and "Belt" are under investigation. John Steele will review the data to see what suitable airborne or ground geophysical techniques might appropriately be used to define potential targets.

Since only physical work can be applied for assessment purposes on the FETISH claims, payment in lieu of work (\$2,200.) is recommended to maintain these claims (until August 1982).

C. V. DYSON

CVD:am

# Memorandum

Vancouver, B. C.  
1981-06-01

## FETISH BELT Au POTENTIAL IN THE Fe FORMATION

EARL D. DODSON:

Work in the Fetish Belt area (Fig. 1) started in 1973 by Archer, Cathro & Associates on behalf of Finlayson J.V. (Chevron Canada, Union Oil, Marietta Resources, Clay Bros.). The Fetish showing and the Palsy target (Fig. 2) were discovered that same year.

Drilling in 1974 on Fetish showed that banded copper-zinc lead sulphides are conformable with foliation in a talcose schist and suggested the occurrence might have a volcanogenic origin. Two nearby showings Fyre and Pack (currently held as Howdee claims by Grass Venture - M642) have been re-interpreted by D.I.A.N.D. as similar volcanogenic occurrence.

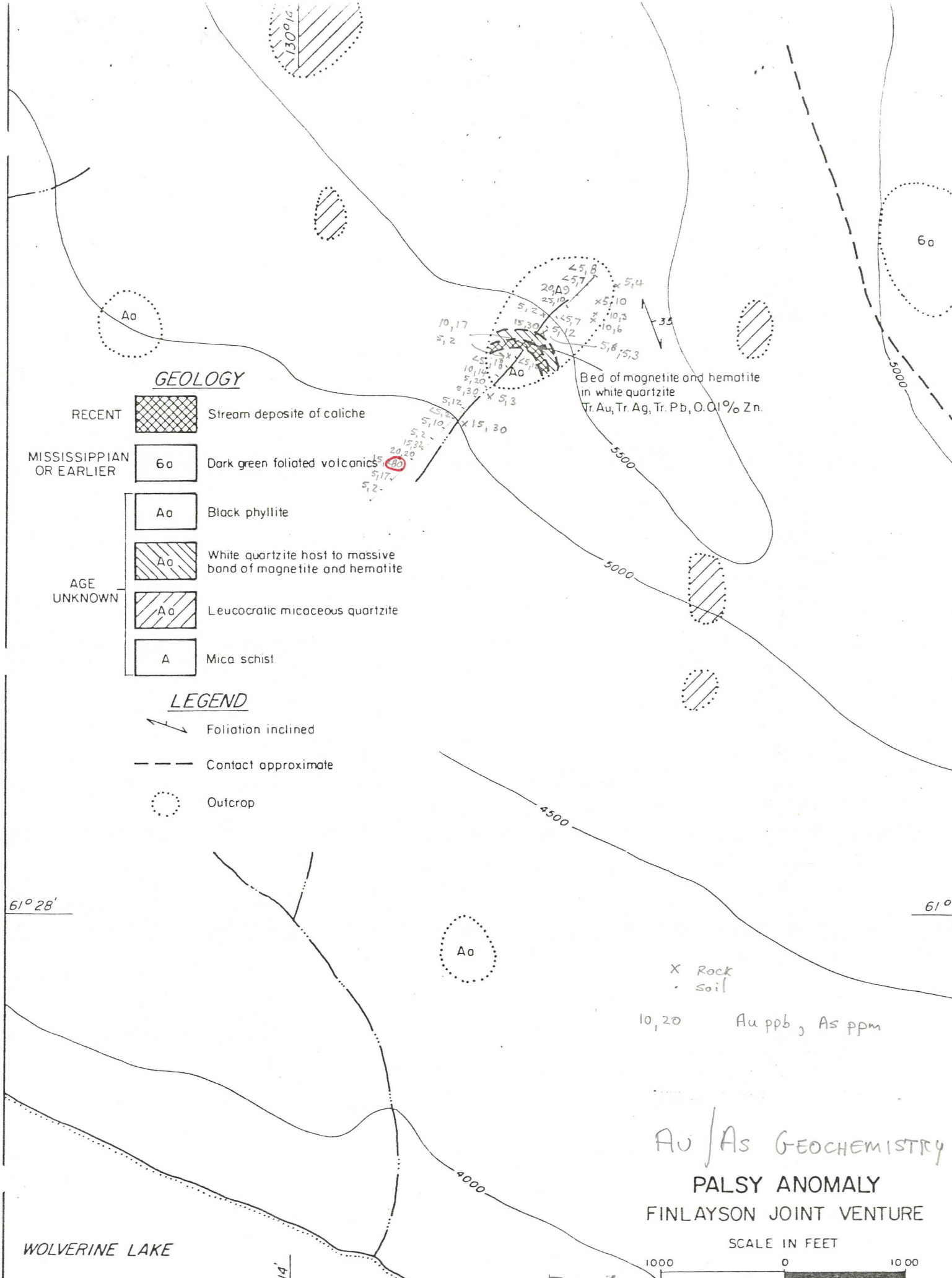
A banded iron formation, consisting of thin magnetite beds in quartzite, lies stratigraphically above the mineralized schist horizon at Fetish and Palsy.

In 1981, L. Dick collected soil and rock samples on traverses across the schist and iron formation at Fetish (Fig. 3) and Palsy (Fig. 4) and analyzed them for Au and As. The objective was to ascertain whether there was any significant precious metal enrichment in either environment. Results were universally low in Fe Formation, i.e. <5 ppb Au, <10 ppm As and occasionally weakly anomalous in the mineralized schist (up to 25 ppb Au 42 ppm As).

It is concluded that the potential for significant Au mineralization in the Fetish Belt iron formation is low. It is recommended that no further gold orientated surveys are warranted in the Fetish Belt, however, gold analysis should be routinely completed as part of any investigations into volcanogenic mineralization in the Belt.

  
C. V. DYSON

CVD:am



**GEOLOGY**

RECENT		Stream deposit of caliche
MISSISSIPPIAN OR EARLIER	6o	Dark green foliated volcanics
AGE UNKNOWN	Ao	Black phyllite
		White quartzite host to massive band of magnetite and hematite
		Leucocratic micaceous quartzite
	A	Mica schist

**LEGEND**

- Foliation inclined
- Contact approximate
- Outcrop

Bed of magnetite and hematite in white quartzite  
Tr. Au, Tr. Ag, Tr. Pb, O. Cl % Zn.

X Rock  
• soil  
10,20 Au ppb, As ppm

**AU / AS GEOCHEMISTRY  
PALSY ANOMALY  
FINLAYSON JOINT VENTURE**

SCALE IN FEET



61° 28'

61°

WOLVERINE LAKE

130° 14'

# Memorandum

Vancouver, B. C.  
1981-05-27

SUBJECT: FETISH PROPERTY (M409)  
A GEOPHYSICAL APPROACH TO THE  
BESSHI MODEL OF MINERALIZATION

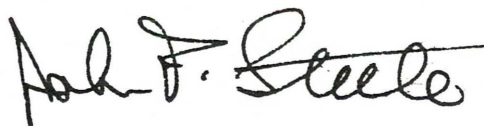
E. D. DODSON:  
H. WOBER:  
C. DYSON:

If mineralization in the Fetish Belt can be characterized by the "Besshi" model as proposed by R. J. Cathro in his 1979 report, two geophysical tools would probably be useful to define areas where mineralization may exist. The Besshi model says that the mineralization should be surrounded by a pyritic halo which in turn grades outward into a banded iron formation.

The first geophysical step could be to define the areas where there is no banded iron formation (i.e. areas which could contain the mineralization and the pyrite halo). This could be achieved most effectively by flying the Fetish Belt with an airborne magnetometer. Such a survey could be done using a helicopter-borne instrument for a cost of approximately \$25,000.00 and the entire Fetish Belt would be covered.

The next stage geophysically would be to delineate zones within the areas which do not have banded iron formation and show the presence of pyrite and/or the sought after copper-zinc mineralization. This could be achieved by performing a reconnaissance Induced Polarization survey with detailed work in areas where a response is found. This could be done for approximately an additional \$30,000.00.

Target areas defined by the above procedure could then be detailed geologically, geochemically and drilled.



JOHN STEELE

JPS:am

# Memorandum

Vancouver, B. C.  
1981-05-27

SUBJECT: FETISH PROPERTY (M409)  
A GEOPHYSICAL APPROACH TO THE  
BESSHI MODEL OF MINERALIZATION

E. D. DODSON:  
H. WOBER:  
C. DYSON:

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JOHN STEELE

JPS:am

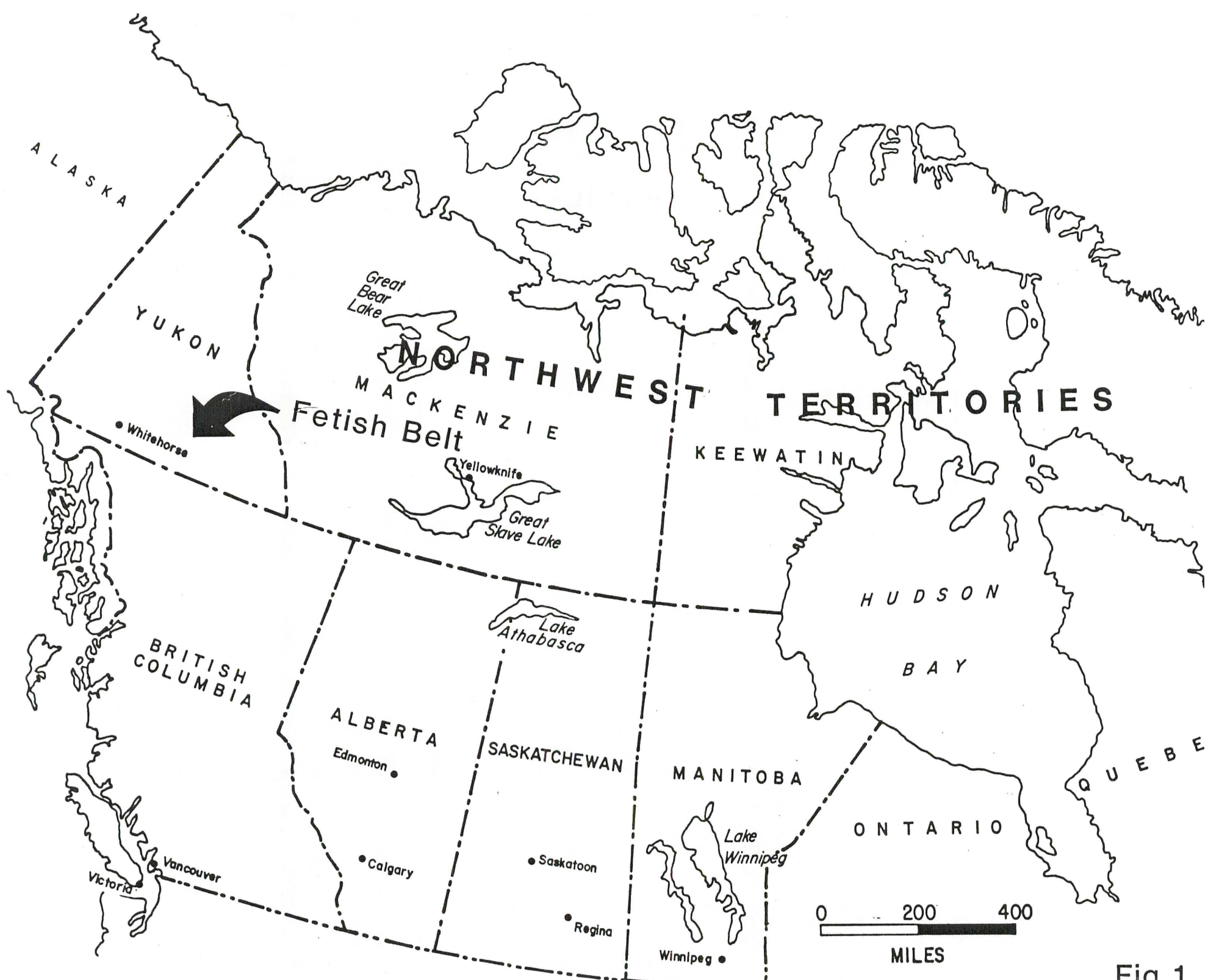


Fig 1

Add \$2000 US to  
budget to allow for  
1981 payment in lieu of physical  
work on 22 Fetish work

AD

ACCOMPLISHMENTS TO DATE: \_\_\_\_\_

Finlayson J.V.: 1973 - Grid and reconnaissance soil sampling, mapping, hand-pitting. \_\_\_\_\_

1974 - Diamond drilling (2 holes - 705 feet). \_\_\_\_\_

CHEVRON 1980 EXPENDITURES \$2,000. US CHEVRON PRE 1980 EXPENDITURES \$40,000. US

1981 BUDGET PROPOSAL

PROPOSED FIRM BUDGET \$ US CHEVRON MAN-MONTHS: 2

TEMPORARY MAN-MONTHS: \_\_\_\_\_

RECOMMENDED PROGRAM: Airborne magnetometer survey over 25 km FETISH Belt. Reconnaissance I.P. in defined areas of interest.

PROGRAM OBJECTIVES: (1) Distinguish areas of belt where oxide facies (magnetite) absent and sulphide facies (pyrite/Cu/Zn/Pb) might occur (magnetics).

(2) Delineate zones within sulphide facies (Recce. I.P.) with follow-up in areas where response found (detail I.P.).



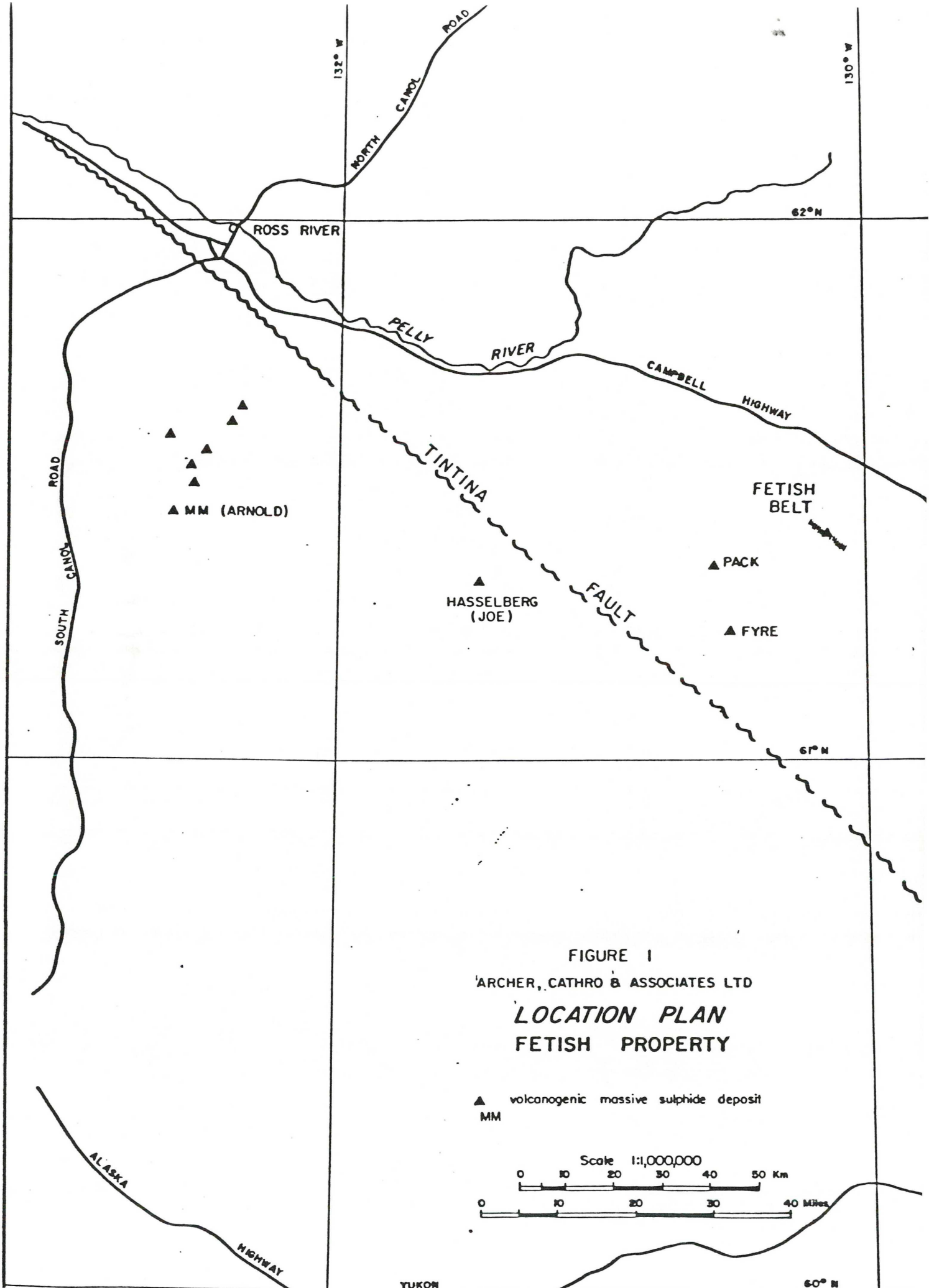
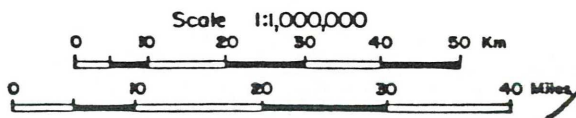


FIGURE I  
 ARCHER, CATHRO & ASSOCIATES LTD  
**LOCATION PLAN**  
**FETISH PROPERTY**

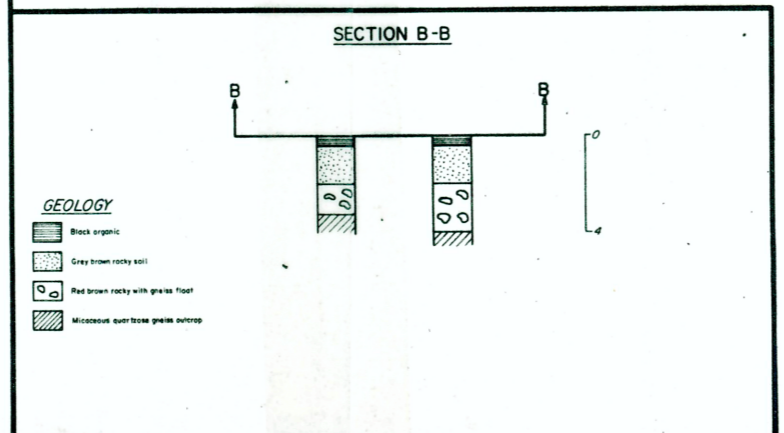
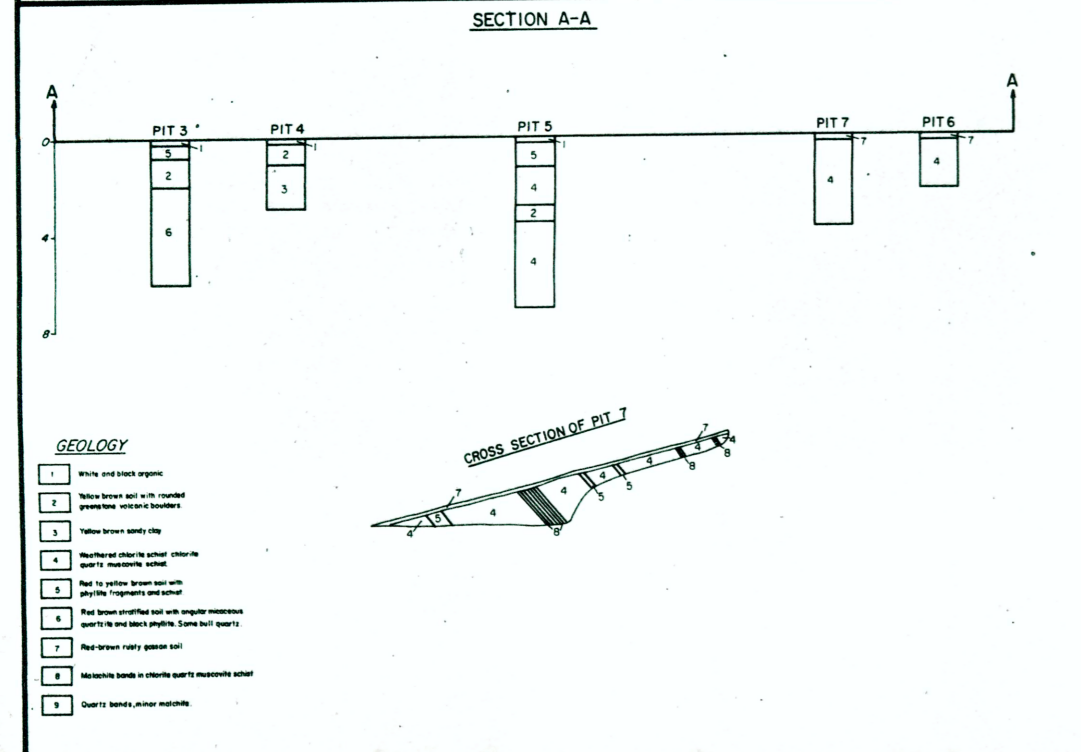
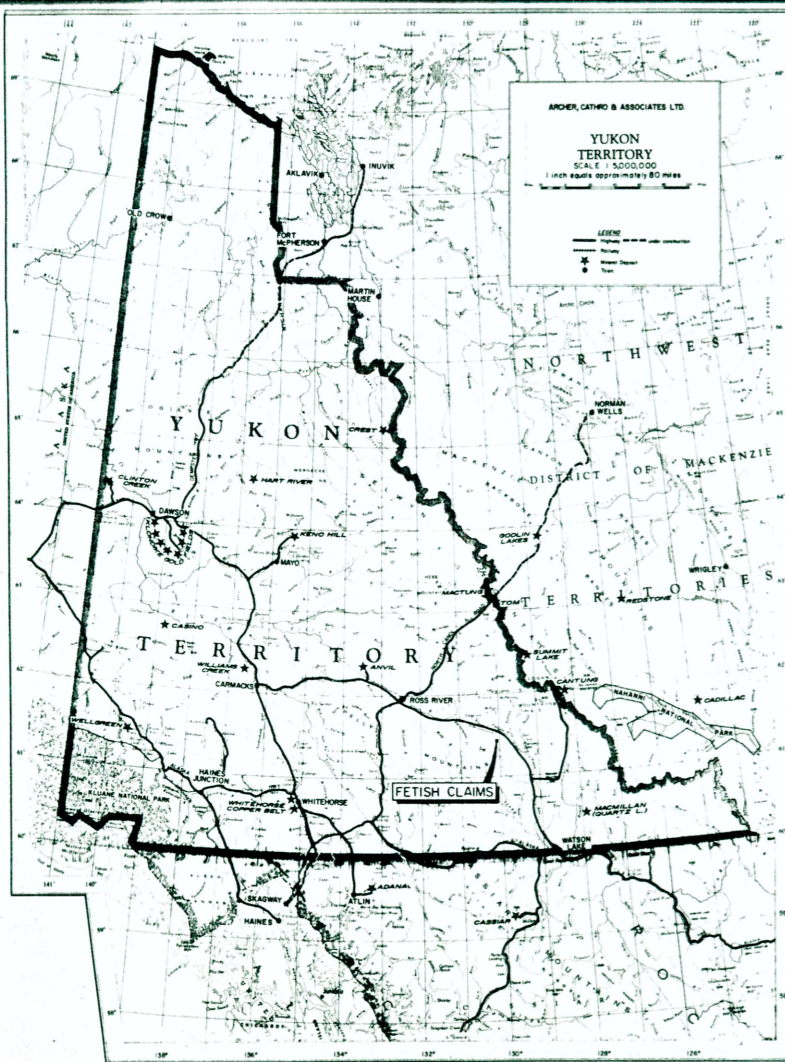
▲ volcanogenic massive sulphide deposit  
 MM



YUKON

60° N





**GEOLOGY**

909 MISSISSIPPIAN OR EARLIER

910 Dark green foliated volcanics

931 Chlorite schist, black phyllite, quartz muscovite schist, micaceous quartzite, quartz veins

942 Metagranite, with magnetite up to 30%, minor pyrite

Quartzose muscovite super groups

Approximate location non formations in quartzite

**LEGEND**

- Hand pit
- Claim pit
- Graben
- Mineral occurrence
- Boulder train
- Swamp
- Foliation incised
- Outcrop
- Geological boundary approximate

**GEOLOGY**

- Black organic
- Black organic
- Grey to black silty clay
- Red brown heavy with quartz 'float'
- Metasedimentary quartzite

Soil Rock

5,2 Au ppb, As ppm.

**FIG. 3**

SCALE IN FEET

1000 559 294

**GEOLOGY**

FIG. 31

ARCHER, CATHRO & ASSOCIATES LTD.

**GEOLOGY**

FETISH PROPERTY

FINLAYSON JOINT VENTURE