

MAP NO.: ASSESSMENT REPORT X  
105 F 10 PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 002899  
MINING DISTRICT: WATSON LAKE  
TYPE OF WORK: GEOLOGICAL

REPORT FILED UNDER: NORTHERN HORIZONS RESOURCE CORPORATION

DATE PERFORMED: JULY-AUG 1981 DATE FILED: DEC. 30, 1981

LOCATION: LAT.: 61°35'N AREA: SEAGULL CREEK  
LONG.: 132°40'W VALUE \$:

CLAIM NAME & NO.: MAT 1-16, 28-45, 50-64  
SUN 1-16, DM 1-12, JD 1-24  
GRAY 1-24, GULL 1-8, 13, 14  
JDX 1-24

WORK DONE BY: STEVEN LIGHTBURN

WORK DONE FOR: NORTHERN HORIZON RESOURCE CORP.

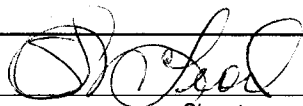
DATE TO GOOD STANDING:

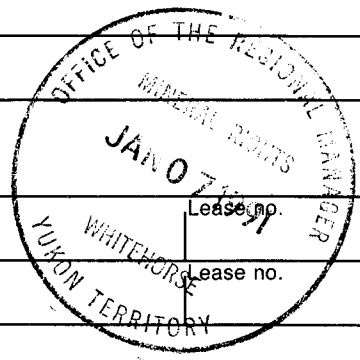
REMARKS: A mineralized zone 60 feet long, 30 feet high, 15 feet wide exposed in trenching. 20 foot channel sample returned 13.4 opt Ag, .56 % Cu, 17.9% Pb, and 0.42% Zn. 1981 work increased the length to 120 and width to 50 feet. Sulphides appear related to syenite intrusions. This report contains ~~very little~~ information of value.  
no



M.R. file no.
R.M.M.R. file no.
Date forwarded <b>04 JAN 1991</b>

### TRANSMITTAL FORM

From ► Mining Recorder at:	<b>Watson Lake</b>		
To ► Regional Manager, Mineral Rights at Whitehorse, Y.T.			
For action are:			
<input type="checkbox"/> NEW APPLICATION FOR PLACER LEASE TO PROSPECT	Name		
<input type="checkbox"/> RENEWAL APPLICATION PLACER LEASE TO PROSPECT	Name	Lease no.	
<input type="checkbox"/> AFFIDAVIT OF EXPENDITURE ON PLACER LEASE	Name	Lease no.	
<input type="checkbox"/> SECURITY DEPOSIT			
<input type="checkbox"/> FINANCIAL ABILITY			
<input type="checkbox"/> ASSIGNMENT OF PLACER LEASE NO.	From	To	
<input type="checkbox"/> GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT.	Owner		
<input type="checkbox"/> DIAMOND DRILL LOGS	Claims	Claim sheet no.	
<input checked="" type="checkbox"/> QUARTZ ASSESSMENT REPORT	Claims <b>Mat 1-16, 28-45, 50-64, Sun 1-16 DM 112</b>	Claim sheet no.	<b>105-F-10</b>
<b>FOR Numbering Only</b> <b>We have kept one copy here</b>	Type of report <b>Geological</b>	Submitted by	<b>Northern Horizon Resource Corp.</b>
	Cl. work performed on	<b>JD 1-24</b>	
			\$ req. for ren. application
 Signature			



REPLY ACTION	Date returned
<div style="text-align: right; font-size: 2em; font-weight: bold; margin-top: 100px;">092899</div>	
_____ Signature	



GEOLOGICAL REPORT

ON THE

MAT 1-16, MAT 28-<sup>17</sup>45, MAT 50-<sup>14</sup>64

SUN 1-16 AND DM 1-12 CLAIMS

JD 1-12 JD 13-24

GRAY 1-24, GULL 1-8 - GULL 13, 14,

JDX 1-24

(123)

Longitude 132°40'W

Latitude 61°35'N

WATSON LAKE MINING DISTRICT

YUKON TERRITORY

NTS 105 F-10

092889

January, 1982

Steven Lightburn

## HISTORY RESULTS

The property consists of 100 full-sized claims, owned by Marvin Sherman, 23 claims owned by Nithex Exploration and 24 claims owned by Northern Horizon Resource Corporation. The 123 claims are held under Option to Purchase by Northern Horizon Resource Corporation. The property is located twenty-eight miles south of Ross River in the Pelly Mountains.

The claim area is underlain by late Paleozoic phyllites after intermediate pyroclastic volcanoclastic and sedimentary rocks.

Over the years substantial amounts of angular mineralized float consisting of lead, zinc and silver has been discovered on the claims by Marvin Sherman. In late October, 1979, Sherman uncovered extensive high grade silver, lead, zinc ore on the Mat #4 claim by bulldozer trenching. Chip sampling by Noranda indicated a grade of 35.65 oz silver and 16.46 lead across 10 feet.

In 1980, Larry Nicoll, consultant to Northern Horizon, trenched the Mat #4 showing. A mineralized zone 60 feet long, 30 feet high and in excess of 15 feet wide was evident.

A 20 foot channel sample across the zone graded 13.4 oz silver, .56% copper, 17.9% lead and .42% zinc. In the summer of 1981 Steve Lightburn trenched the showing for 500 feet in length, a maximum of 40 feet deep and 50 feet wide.

The grade did not appear to be any different than the zone assayed by Larry Nicoll. Only one assay was taken from a

pyrite sample in the fault zone and that sample did not appear to have any mineralization.

It was surprising to learn that the sample assayed as follows:

oz/ton	oz/ton	%	%
Gold	Silver	Lead	Zinc
0.020	9.05	7.50	0.03

The length of the mineralization was increased to 120 feet and 50 feet wide. Four geochem samples were taken along 500 feet of the structure. These samples graded as follows:

	Ag ppm	Cu ppm	Pb ppm	Zn ppm
301	0.6	8	93	704
302	0.8	24	136	1068
303	0.6	12	88	340
304	1.1	18	109	269

The results are clearly anomalous and suggest the possibility of continuation of the mineralization along the 500 feet trenched depth. The structure in which the mineralization occurs has a length of 3200 feet.

#### ORE OCCURRENCES

The property lies in a silver-lead zinc province with economic minerals within calcareous rocks. Sulphide genesis appears to be related to syenite intrusives, of which two are known to exist on or nearby the property. The mineralization on the Canol properties to the north of Northern Horizon's claims occurs in fracture fillings, breccia and shear zones. The source of the mineralizing

fluids appear to have been from a third syenite stock. Foliation in folds around the periphery of the stock also seems to play a major role in localizing ore. On the Horizon properties normal and thrust faults also may provide excellent conduits for mineralization, from the two nearby syenite stocks.

An examination of several geological reports on the property and discussions with geologists familiar with the property suggests that there are two main showings that merit drilling. The first showing was examined by R. G. Hilker. He reports the following two assays from random grab samples from trenches on the Gull #1 mineral claim:

<u>Sample #</u>	<u>Lead %</u>	<u>Zinc %</u>
3536	6.15	5.38
3538	4.88	0.91

Hilker also states the sulphide mineralization appeared to occur in the tuffaceous or rhyolitic host rock as discontinuous veins of "sweat" blebs along fracture and joint planes. The massive sulphides in the Gull #1 trenches are possible evidence of an indication of Stringer Ore, which is usually found on the stratigraphic footwall of a massive sulphide deposit. Therefore, the central part of the Full claims may be located slightly below the massive sulphide ore horizon, but within the acidic host rocks and stringer ore zone. The Gull claim troupe therefore, has the potential of being located on a very favourable stratigraphic horizon in a volcanogenic sequence which may contain massive sulphide mineralization. Northern Horizon has not been able to examine this showing.

The mat showing uncovered during October, 1979 is located on the Mat Claim #4A. It clearly requires drilling.

ASSESSMENT WORK

The work to mobilize the exploration program commenced on July 22, 1981. Camp was established on the property July 30. The exploration program ended on August 29, 1981. The program consisted largely of Cat trenching and tote road repair. A drill program was scheduled and the driller arrived at the property with a BBS #1 drill. For some unexplained reason the driller left and did not complete his contract. The drilling company was B.B.S. Drilling, of Whitehorse. Dr. Douglas Craig was retained as Geological Consultant. Dr. Craig expected to map the property as well as supervise the sampling and drilling. An alternative drill company was not found due to the lateness of the season.

The crew employed on the project was:

S. Lightburn	Vancouver	Geologist Cat Operator
L. Lightburn	Mission	Mechanic Labourer
W. Surette	Whitehorse	Mechanic Cat Operator
T. Fekete	Whitehorse	Cat Operator
D. Craig	Whitehorse	Visitor Geologist

Two Cats were required because large areas of the property are swampy. Attractive exploration targets have been avoided by others exploring the property because of these swamps. One Cat or another was stuck in the mud two to three times a day. On one occasion both were stuck and it became necessary to bring in a third Cat (Tony Fekete). A large trench measuring approximately 500 feet long, 50 feet maximum width and 40 feet deep was bulldozed.

A continuing program of cat trenching and diamond drilling should be initiated to property investigate the potential of the two main showings.

CONCLUSIONS AND RECOMMENDATIONS

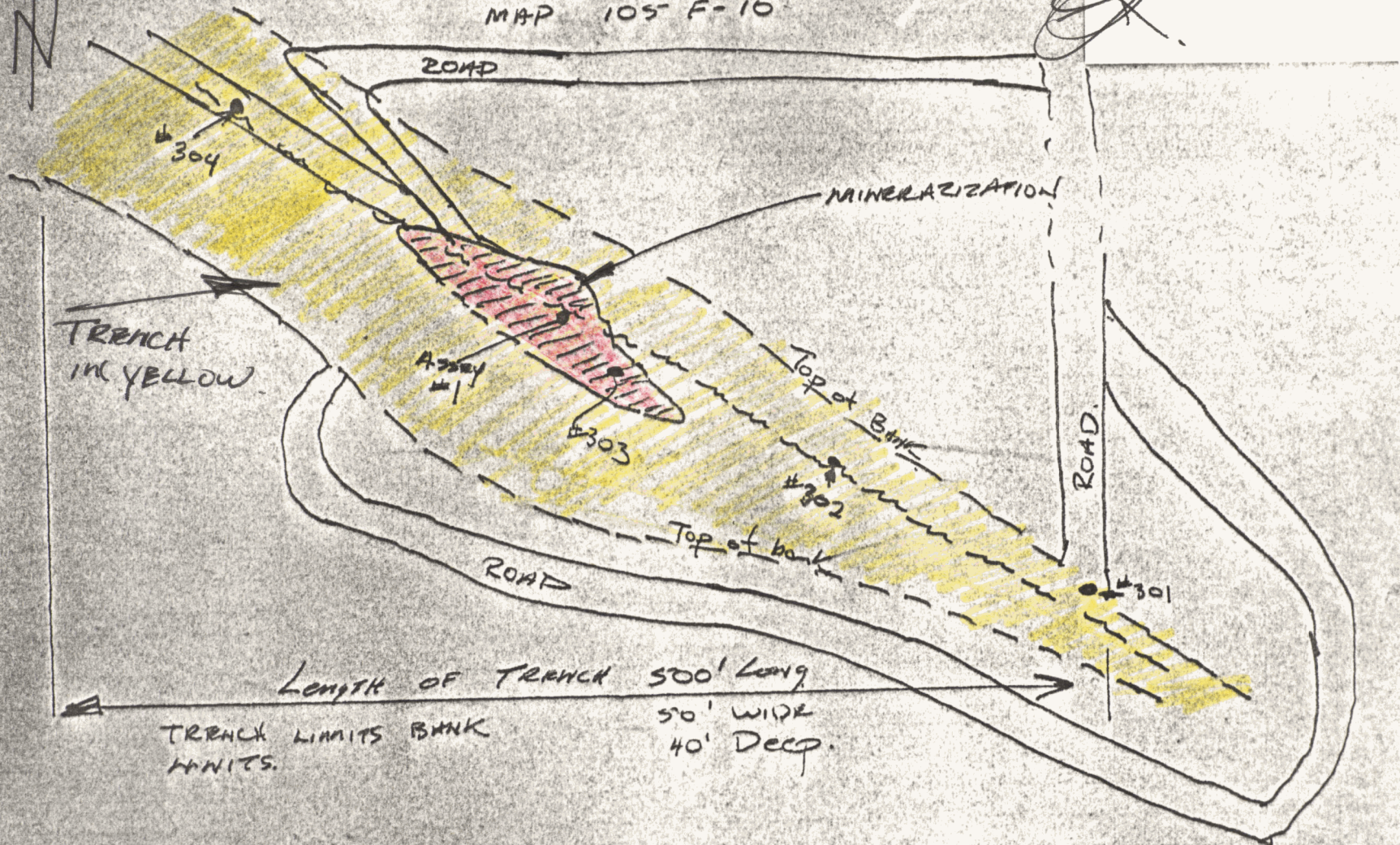
In view of the work done Northern Horizon's optioned claims offer a very attractive exploration prospect. On one hand, the example of Canol Metal Mines direct shipping ore experience indicates the potential for immediate revenue. On the other hand, the continuing exploration program by Cyprus Anvil of the MM claims immediately to the south of the claim group attests to the possibility of locating a large tonnage Lead-Zinc-Silver deposit.

NORTHERN HORIZON  
 STATEMENT OF COSTS  
 ROSS RIVER  
 MAT JD JDX SUN  
 GULL GRAY DM  
CLAIMS

Air Fare		\$ 362.50
<u>Labour:</u>		
S. G. Lightburn - Geologist - Cat Operator	\$7,800.00	
L. I. Lightburn - Mechanic - Labourer	4,000.00	
W. Surette - Mechanic - Cat Operator	<u>1,500.00</u>	\$ 13,300.00
<u>Cat Time (Incl. Fuel)</u>		
Case with 680 Backhoe		
32 days x 8 hr. x \$80/hr.	20,580.00	
(July 29 - Aug. 29)		
D7 August 6 - August 29		
23 days x 8 hr. x \$80/hr.	15,720.00	
D7 Tony Fekete	<u>2,300.00</u>	38,600.00
<u>Pickup Trucks (Incl. Fuel &amp; Mileage)</u>		
Rental - 4x4 with camper	3,200.00	
HHRC 4x4 37 days @ \$60	<u>2,220.00</u>	5,420.00
<u>Cat Transport</u>		
Fekete	1,400.00	
Pedersen	1,050.00	
922	<u>840.00</u>	3,290.00
Assay		53.75
Food and Supplies		600.00
Report		<u>1,000.00</u>
TOTAL		<u>\$62,626.25</u>

NORTHERN HORIZON RESOURCES,  
MAT SILVER PROJECT,  
WATSON LAKE M.D.  
MAP 105 F-10

DRAWN BY SGL  
DECEMBER 1981



TRENCH  
IN YELLOW

ROAD

MINERALIZATION

Assay  
#1

Top of Bank

#303

#302

Top of bank

ROAD

ROAD.

#301

LENGTH OF TRENCH 500' Long

50' WIDE

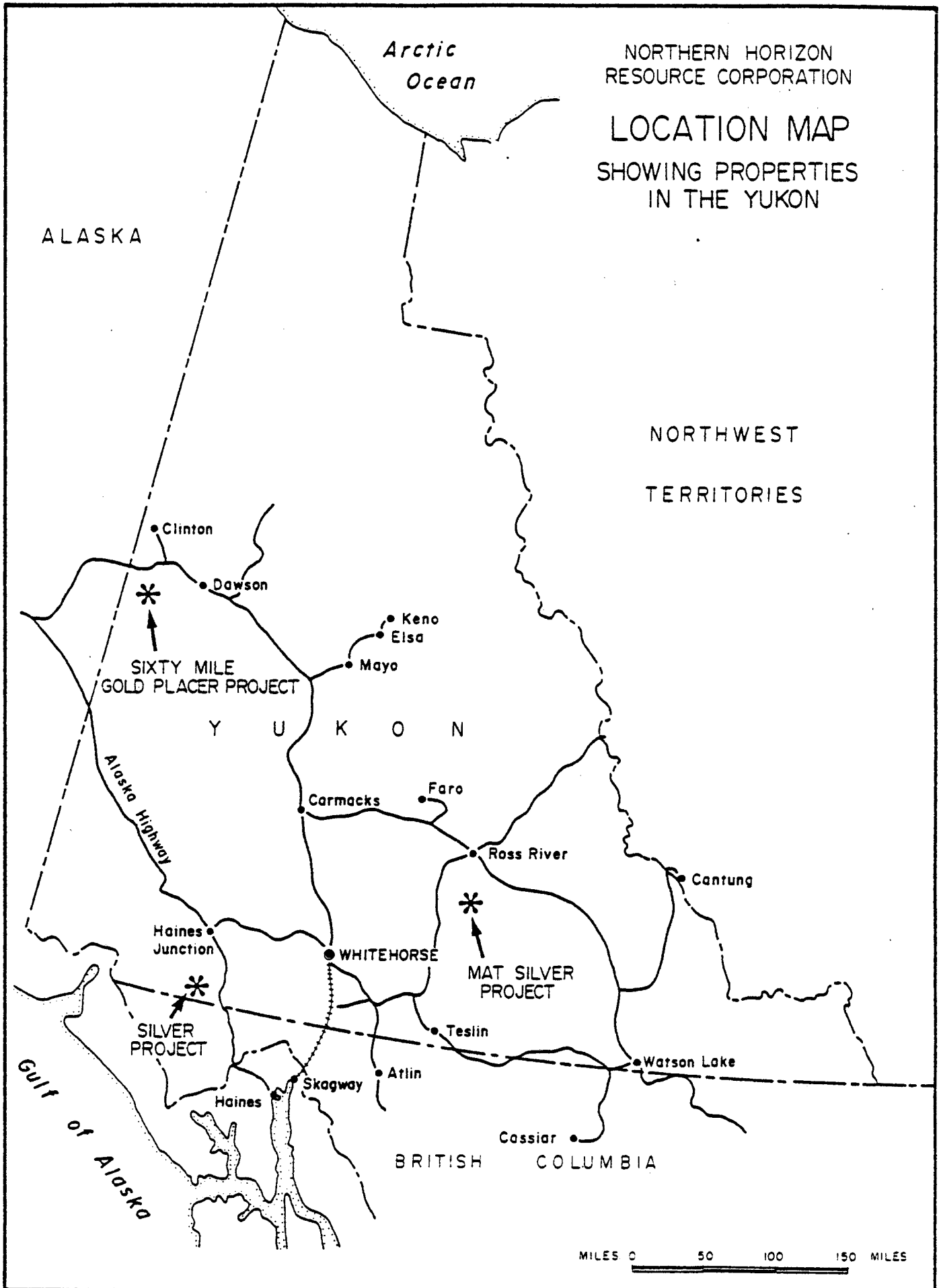
40' DEEP.

TRENCH LIMITS BANK  
LIMITS.

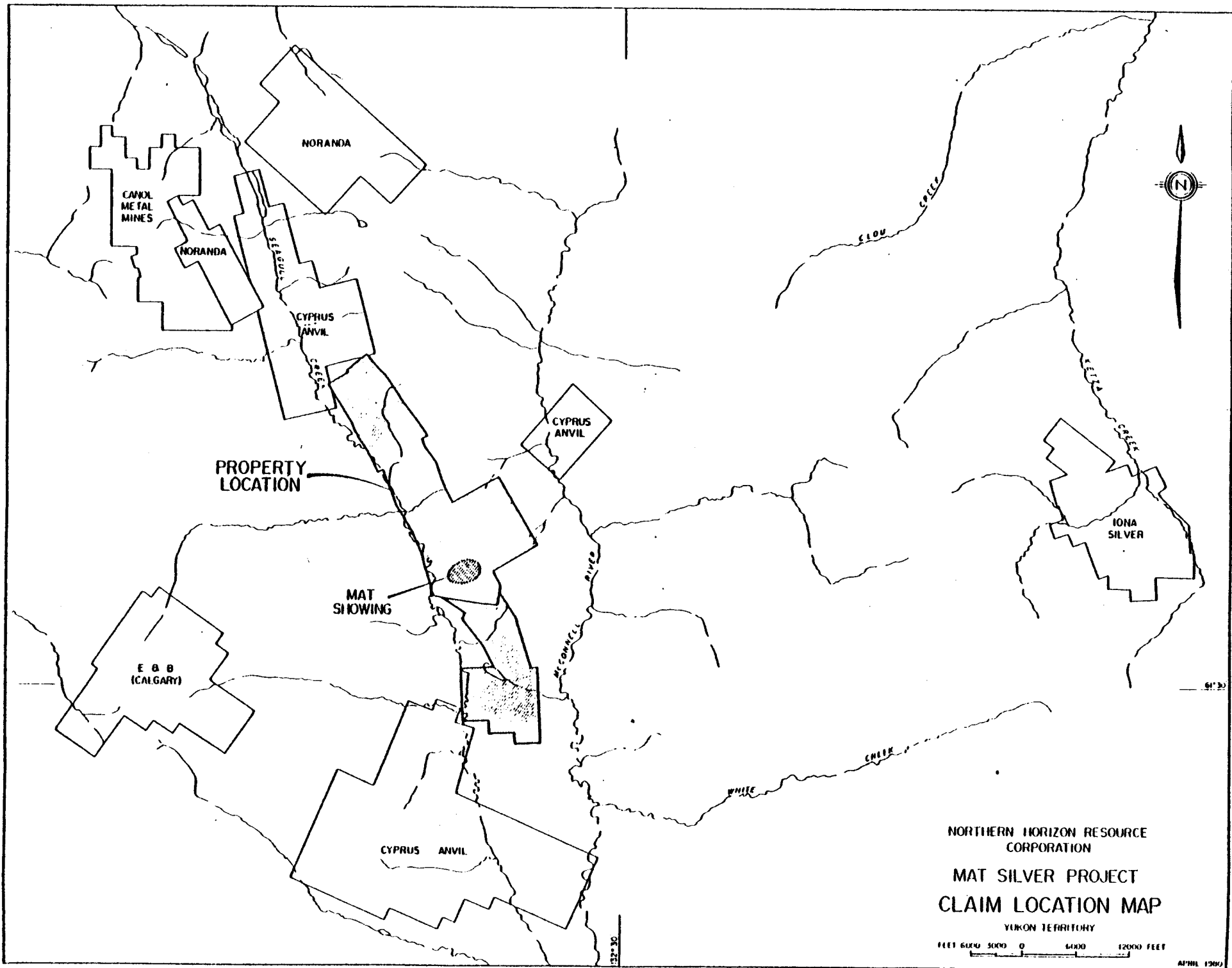
FAULT

NORTHERN HORIZON  
RESOURCE CORPORATION

LOCATION MAP  
SHOWING PROPERTIES  
IN THE YUKON



MILES 0 50 100 150



CANAL  
METAL  
MINES

NORANDA

NORANDA

CYPRUS  
ANVIL

CYPRUS  
ANVIL

PROPERTY  
LOCATION

MAT  
SHOWING

E & B  
(CALGARY)

CYPRUS ANVIL

IONA  
SILVER

NORTHERN HORIZON RESOURCE  
CORPORATION  
MAT SILVER PROJECT  
CLAIM LOCATION MAP  
YUKON TERRITORY

FEET 6000 5000 0 6000 12000 FEET

APRIL 1980