

GEOLOGICAL AND GEOCHEMICAL ASSESSMENT

REPORT ON ROSE 1-40 M.C.

95-E-6

61°26' - 127°23'



NORANDA EXPLORATION COMPANY LIMITED

(No Personal Liability)

090412

August 17-22, 1978

G. Macdonald  
A. W. Hyde

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

\$4,000.00

*[Signature]*  
Resident Geologist or  
~~Resident Mining Engineer~~

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

*[Signature]*  
B. R. BAXTER  
Supervising Mining Recorder  
Commissioner of Yukon Territory

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GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT  
ON ROSE 1-40 M.C.

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INTRODUCTION

The claims referred to in this report are registered in the name of Noranda Exploration Company Limited (No Personal Liability). The group consists of 40 Rose claims.

The property is located 5 miles southwest of Lucky Lake, on the Coal River, 105 air miles northeast of Watson Lake, Yukon Territory. Access in 1978 was by helicopter from Watson Lake.

In 1978 the property was mapped and geochemically soil sampled on a reconnaissance basis (between August 17th and 22nd) by G. Macdonald and W. Hyde, working under the direction of G. Dirom. All are employees of Noranda Exploration Company (N.P.L.) Limited.

Survey control was provided by 1:10000 scale topographic maps.

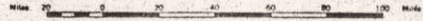


CANADA  
DEPARTMENT OF  
MINES AND TECHNICAL SURVEYS  
SURVEYS AND MAPPING BRANCH

# YUKON TERRITORY

SCALE 1:4,444,444

1 inch equals approximately 71 miles



Road .....  
Railway .....  
Territorial capital .....

### POPULATED PLACES

500 to 2,000 .....  
Under 500 .....

Lambert Conformal Conic Projection with Standard Parallels at 49°N and 77°N

Reproduced from the 1:2,000,000 map of Canada by the  
Surveys and Mapping Branch, Ottawa, 1963.

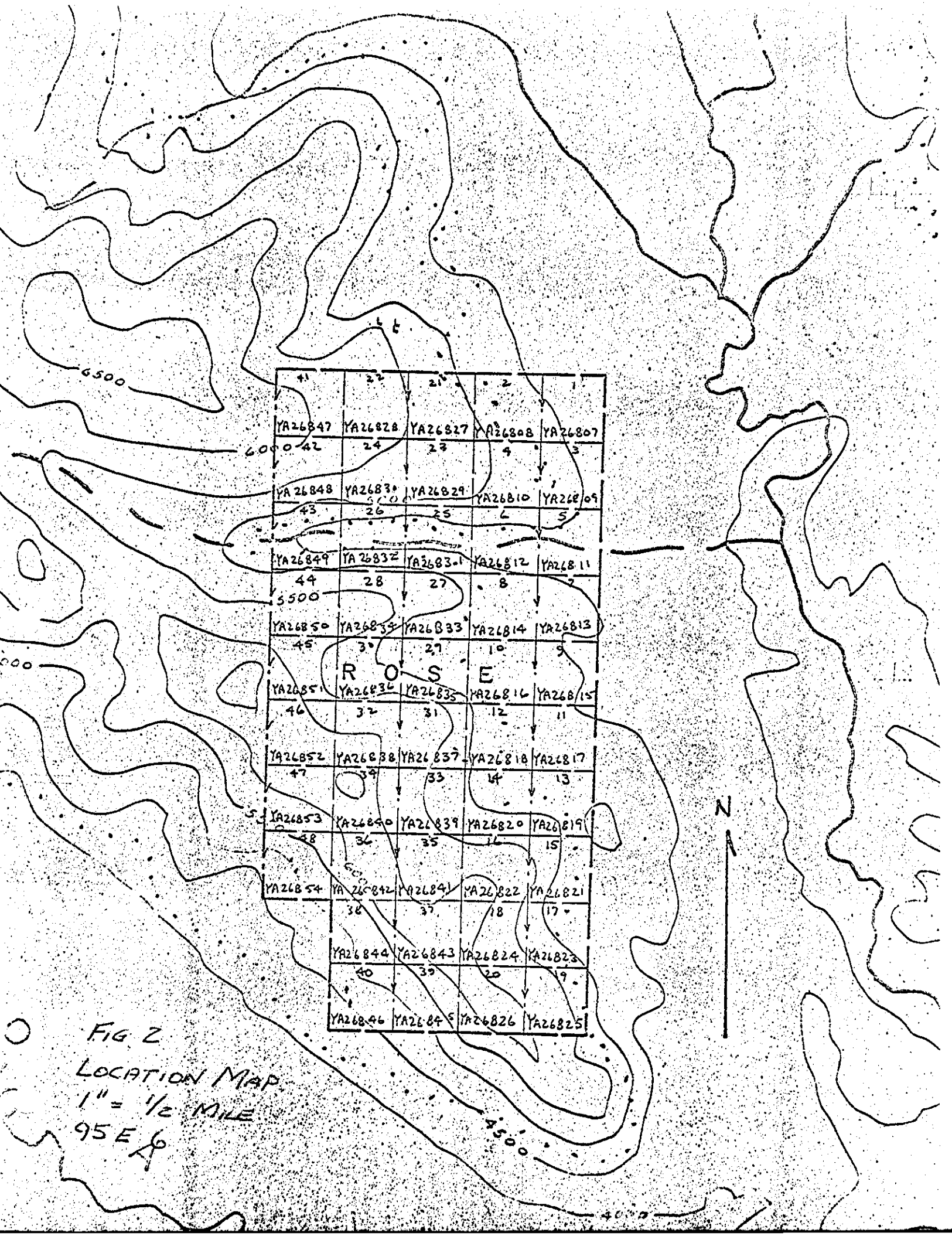


FIG 2  
 LOCATION MAP  
 1" = 1/2 MILE  
 95 E

## GEOLOGICAL RECONNAISSANCE

The property is underlain by Cambro-Ordovician and Ordovician-Silurian sediments intruded by Cretaceous granites and granodiorite. Calcareous sediments have been altered to skarn and pelitic sediments to hornfels near their contacts with intrusive. A geological summary appears in Table I.

TABLE I  
Table of Formations

Cretaceous	Granites (Kg)	Medium-grained quartz-monzonite to granodiorite
Ordovician-Silurian	Black shale, black chert (OSDp)	Road River Formation interbedded shales and cherty siltstones
Cambro-Ordovician	Limestone, siltstone (fOr)	Rabbitkettle Formation limestone and interbedded siltstones

### Granitic Intrusives (Kg)

Quartz-monzonite to granodioritic rocks intrude sediments underlying the Rose claims. The typical rock is a grey, medium-grained biotite quartz monzonite of the "Coal River Batholith". Hornblende, apatite, zircon and magnetite are common accessory minerals. The intrusive is fresh and unaltered.

### Ordovician-Silurian (Road River Formation)

The Road River Formation is represented at the Rose claims by thin bedded, recessive-weathering black shale and a fine-grained cherty grey-green hornfels containing up to 15% of disseminated pyrrhotite. The cherty rocks are highly fractured and weather rusty orange.

### Upper Cambrian and Lower Ordovician (Rabbitkettle Formation)

The Rabbitkettle Formation underlies most of the Rose claims. Rock of this unit here is characterized by thick-bedded silty limestone. Lime-rich beds are altered to garnet-diopside-calcite-wollastonite-magnetite skarn while silty zones are highly silicified. These rocks may be in part Sekwi Formation sediments.

### Economic Geology

The source of tungsten float material was not discovered. Minor scheelite was found in diopside-rich skarn material. The significance of this mineralization remains to be tested.

## GEOCHEMICAL RECONNAISSANCE

All soils were analyzed for copper, lead, zinc, molybdenum and tungsten in the Noranda Exploration Company Limited laboratory located at 1050 Davie Street, Vancouver, British Columbia; analyst was Evert Van Leeuwen.

### Sampling Method

Samples were obtained by digging holes with a maddock to a depth, if feasible, where the visible B horizon or sub-outcrop was encountered. The B horizon was sampled whenever possible. The samples were placed in "Hi Wet Strength Kraft 3½ x 6 1/8" Open End" envelopes and the grid station was marked on the envelopes with indelible felt pen.

### Laboratory Determination Method

The samples are first placed in a drying cabinet for a period of 24 to 48 hours; the sample material is then screened and sifted to obtain a -80 mesh fraction.

The determination procedure for total copper, lead, zinc and molybdenum is as follows:

0.200 grams of the -80 mesh material is digested in 2 ml of  $\text{HClO}_4$  and 0.5 ml of  $\text{HNO}_3$  for approximately 4 hours. Following digestion, each sample is diluted to 5 ml with de-mineralized  $\text{H}_2\text{O}$ . A varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million copper, lead, zinc and molybdenum content in each sample.

The Theory of Atomic Absorption Spectrophotometer is fully described in the literature and will not be elaborated upon in this report.

Results are presented in Drawing no.3 of this report (plan map with a scale of 1:10000).

### Discussion of Results

Erratic anomalous tungsten values were obtained in the vicinity of skarn horizons. Other elements were generally anomalous in the same regions. These results indicate the potential for the skarn zones to contain mineralization.

### CONCLUSIONS AND RECOMMENDATIONS

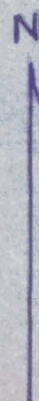
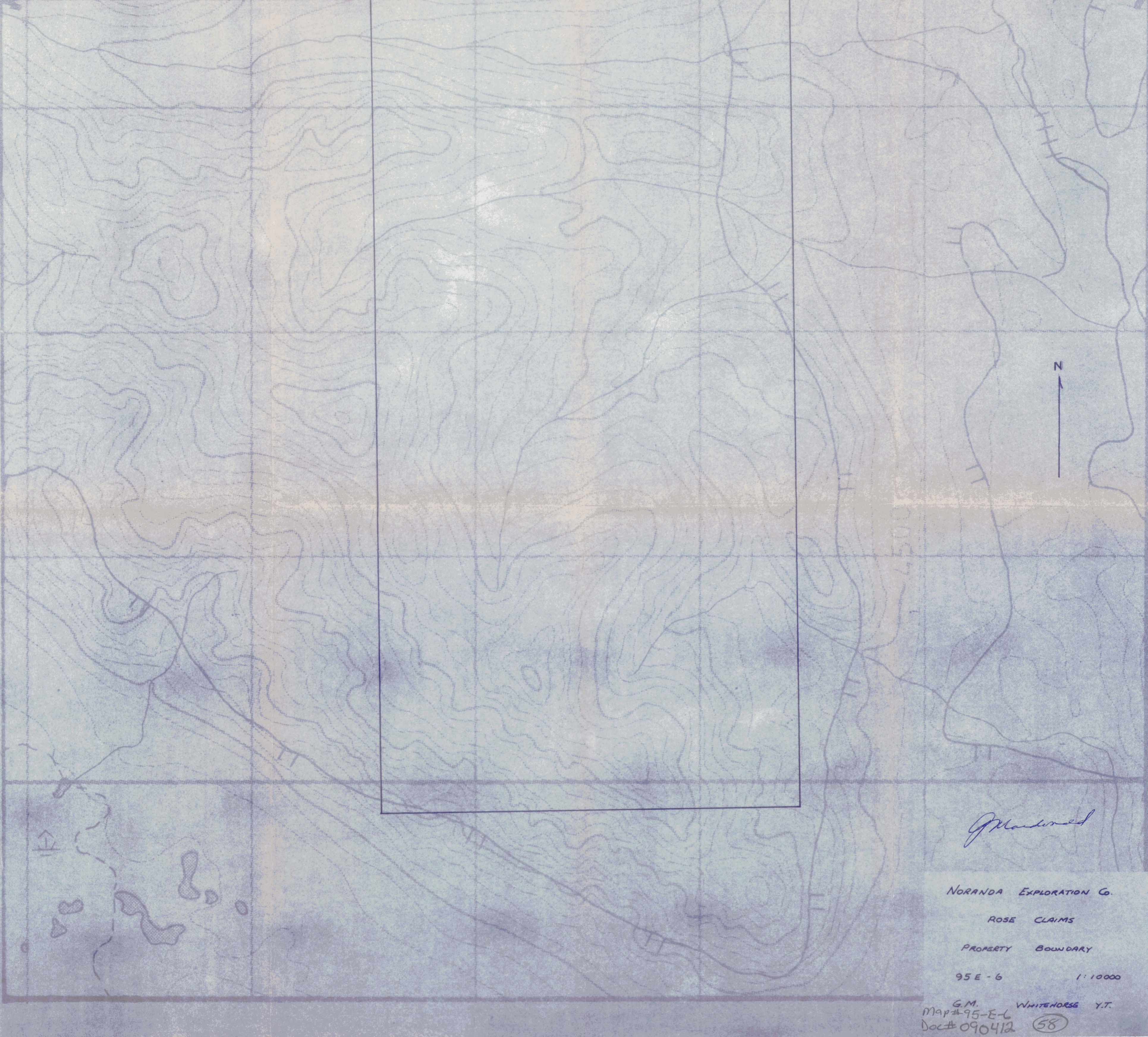
Minor scheelite occurrences and geochemical soil anomalies indicate that skarn horizons on the Rose claims contain mineralization. The extent of possible mineralization should be tested with grid geochemistry and prospecting and possibly diamond drilling.

Submitted by:



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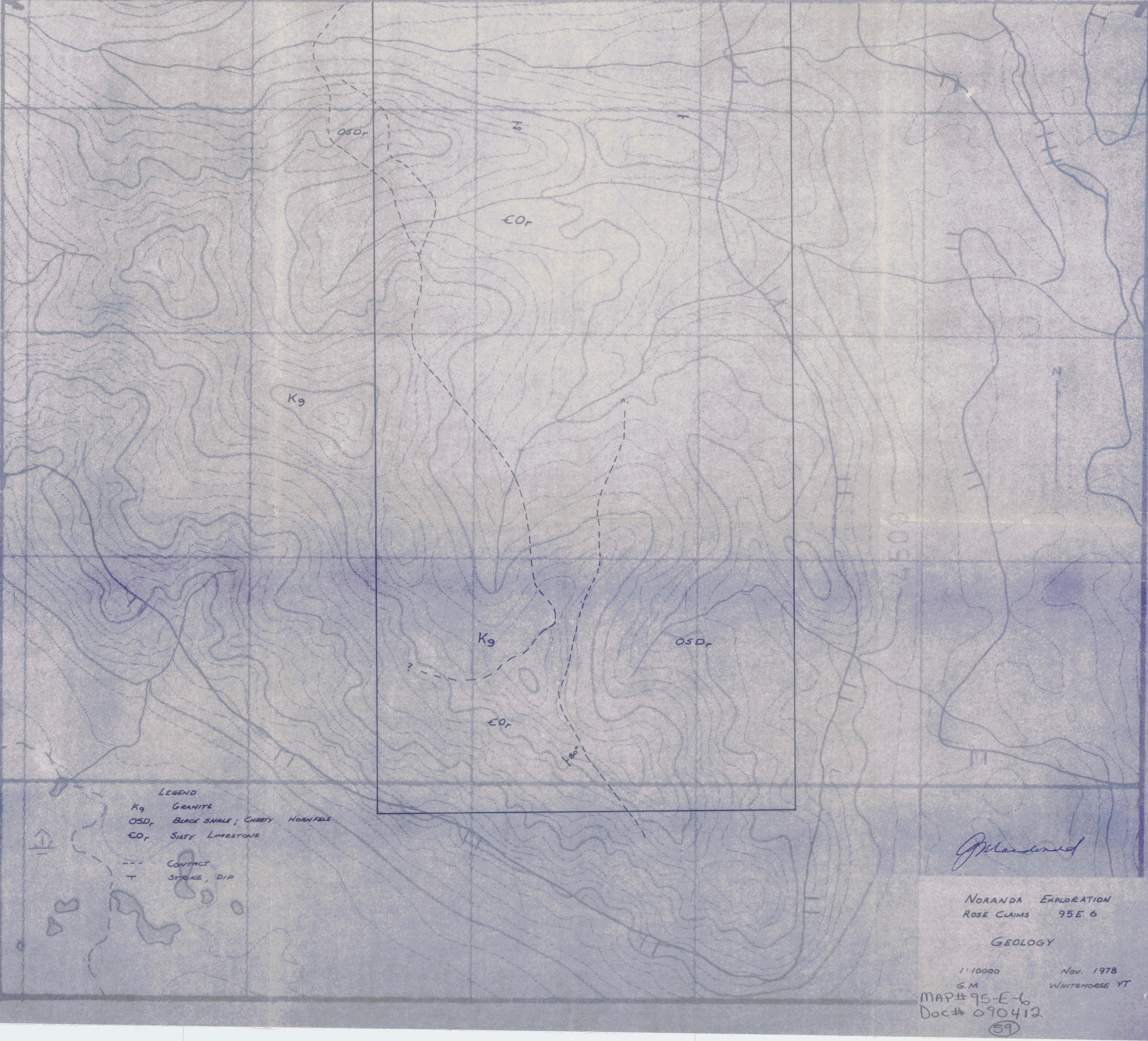
G. Macdonald,  
Geologist.



*Abandoned*

NORANDA EXPLORATION Co.  
ROSE CLAIMS  
PROPERTY BOUNDARY  
95 E - 6 1:10000

G.M. WHITEHORSE Y.T.  
Map # 95-E-6  
Doc # 090412 (58)



LEGEND

- K<sub>9</sub> GRANITE
- OSD<sub>r</sub> BLACK SHALE; CHERTY HORNFELS
- EO<sub>r</sub> SILTY LIMESTONE
- CONTACT
- T STRIKE, DIP

*Anderson*

NORANDA EXPLORATION  
ROSE CLAIMS 95E 6

GEOLOGY

1:10000 Nov. 1978  
G.M. WHITEHORSE YT

MAP# 95-E-6  
Doc# 090412



549/2200/5

26/290/2      2200/56/2

20/52/0  
20/150/5  
44/110/20

8/56/65      22/110/15      130/830/0  
6/56/20

14/200/40      220/110/2  
6/440/0      280/2000/750      8/280/15      22/140/2

10/60/300

PROPERTY BOUNDARY

4/56/20      86/1300/10

4/52/20      130/1100/0  
44/76/0

280/16/2      18/300/10  
410/32/2

52/560/0      14/210/15  
18/150/15

16/130/40

34/110/0      10/130/0      100/1300/20  
42/100/1000      36/120/5

18/160/40      76/84/2      16/110/15      92/650/50  
16/130/40      14/250/700      6/52/5      6/120/20

6/56/15      6/100/20      6/94/20      66/470/60

64/1450/10      18/28/10      6/78/20  
120/200/2      6/66/15

8/70/20

8/110/0  
58/850/0

LEGEND  
• SAMPLE (PPM - Cu/Zn/W)

*J. McDonald*

NORANDA EXPLORATION  
ROSE CLAIMS  
GEOCHEMISTRY

1:10000      Nov 1978  
MAP# 95-E-6M  
Doc #090412  
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