84-1070-13239

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,239

10/85

REPORT OF WORK

GEOPHYSICAL SURVEYS ON THE

MK 1, MK 2, MK 3, SPAR 1, and SPAR 2

MINERAL CLAIMS

N.T.S. 82M/3W, 4E

51°04'N Latitude 119°30'W Longitude

KAMLOOPS MINING DIVISION

Owner : Orell Resources Ltd.
Operator : Noranda Exploration Company, Limited
(No Personal Liability)
Authors : L. Bradish
Division Geophysicist
G. Shevchenko
Junior Geologist
Vancouver, B.C.
November 1984

TABLE OF CONTENTS

1.0 INTRODUCTION

The MK 1, MK 2, MK 3, Spar 1 and Spar 2 mineral claims are part of the Mosquito King claim group which is owned by Orell Resources Ltd., and operated by Noranda Exploration Company, Limited.

During September 1984, 40.4 line kilometers of Horizontal Loop E.M. (HLEM) and total field surveys were conducted on the Spar grid. The services of Peter Walcott and Associates were contracted for this purpose.

2.0 LOCATION AND ACCESS

The claims, located on Adams Plateau, are centered at latitude 51°04'N and longitude 119°30'W. The plateau is flanked by Adams Lake to the northwest and Shuswap Lake to the south. (Figure 1).

The property is accessible by a paved secondary road that leaves the Trans Canada Highway at Squilax and a good gravel logging road at Corning Creek.

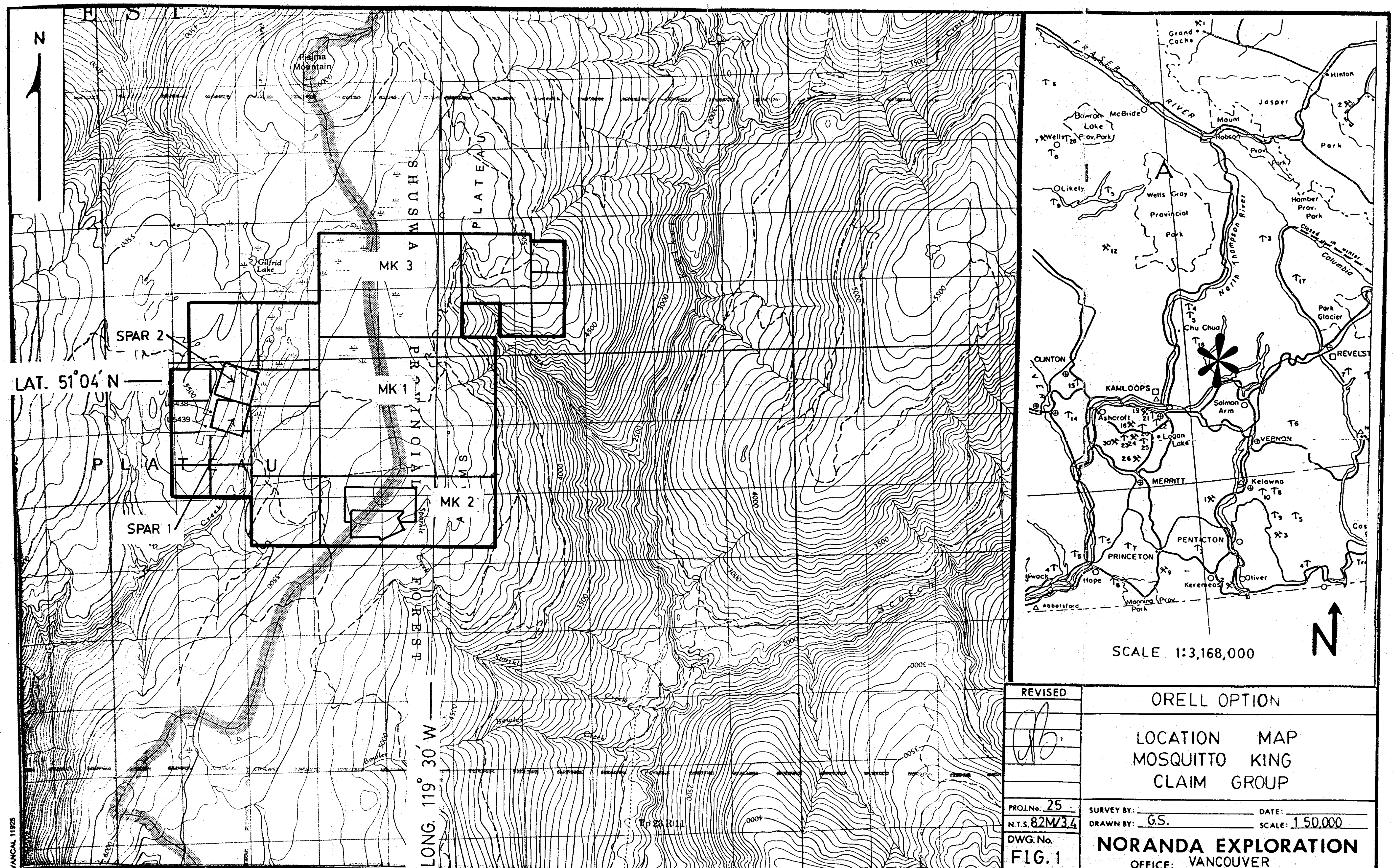
3.0 TOPOGRAPHY

The Mosquito King claim group is situated on gently sloping to level terrain with a maximum relief of 75 meters and a maximum elevation of 1640 meters. The property is moderately timbered with various logged areas and meadows.

4.0 CLAIM STATUS

The claims are part of the Mosquito King claim group which are owned by Orell Resources Ltd., 2411 Lakeshore Road N.E., Salmon Arm, B.C., and operated by Noranda Exploration Company, Limited, (No Personal Liability), 1050 Davie Street, Vancouver, B.C.

CLAIM NAME	RECORD NO.	UNITS	EXPIRY DATE
MK 1	00565	20	Oct. 18/84
MK 2	00566	10	Oct. 18/84
MK 3	00567	12	Oct. 18/84
Spar 1	127210	1	Nov. 5/85
Spar 2	127211	1	Nov. 5/85



REVISED	ORELL OPTION
	LOCATION MAP MOSQUITTO KING CLAIM GROUP
PROJ. No. 25	SURVEY BY: DATE:
N.T.S. 82M/3,4	DRAWN BY: G.S. SCALE: 1:50,000
DWG. No. FIG. 1	**NORANDA EXPLORATION** OFFICE: VANCOUVER

P.J.A.

Claim Leases are as follows:

Spar 1 and 2 two post claims.

Record No. : 127210 and 127211

Leased From : Quintaine Resources Inc.
1103 - 84th. Avenue,
Edmonton, Alberta
T6G 0V6

Term : 10 years from November 14, 1980, and thereafter as long as mining takes place.

Rental : Annual assessment to keep claims in good standing. ($200.00 per claim year)

Royalties : 10% of Net Smelter returns.

5.0 INSTRUMENTATION

5.1 Horizontal Loop E.M. Survey

The SE-88 unit differs from the normal HLEM systems such as the MaxMin 11 in that it measures without regard to phase, the ratio of signal amplitude between two frequencies which are transmitted and received simultaneously. A low frequency of 112 Hz is used as a reference frequency. The signal difference is integrated or averaged over a period of time in order to improve the signal to noise ratio thus giving a sensitivity that rivals the normal HLEM in Phase/Quadrature systems.

The survey parameters employed on the follow-up programme are as follows:

Coil Separation	: 100 meters
Frequencies	: 3037, 1012, 337 Hz
Reference Frequency	: 112 Hz.
Integration Period	: 16 or 8 seconds
Reading Interval	: 25 meters
Measurement	: ratio of amplitude between reference and signal frequencies (%).

5.2 Magnetometer Survey

The magnetometer survey completed on the grid employed a GEM field and base station magnetometer system with a usable reading accuracy of $\pm$ 0.1 gamma. All applicable corrections to the field data were carried out. The magnetic datum is set at 57,000 gammas.

6.0 DISCUSSION OF RESULTS

Horizontal Loop E.M. and magnetometer surveys were completed over the gridded area employing survey parameters as listed in the section titled "Instrumentation".

The HLEM survey is characterized by numerous zones of conductivity of various dimensions and attitudes. On the plan map the more significant conductor axes are shown however, there are numerous high frequency anomalies that have no interpreted axes shown.

The magnetic survey has defined several distinct magnetic packages that show high susceptibility contrasts. The high susceptibility unit (A) is characterized by narrow, high amplitude responses and is recorded over 40% of the grid area and occurs east of 8900E. Within this package there are a few short strike length conductors of low conductivity (<10 Siemens) as well as numerous "weak" zones which have not been identified on the map but occur primarily east of 9100E and north of 17400N. South of L.17400N a more uniform background conductivity is recorded.

A distinct unit (B)is defined by both the magnetic and HLEM surveys south of L.16600N and west of 8100E. The magnetic activity and susceptibility is somewhat less than Unit A but it has numerous zones of closely spaced parallel conductors.

Emanating from this unit B are two zones of conductivity at 8200E - 8300E for a strike length of 600 meters and at 7800E - 8100E for a minimum length of 1800 meters. The short zone occurs within a mildly active zone of magnetics but of less intensity than units A or B. There is no magnetic expression of interest associated with the longer conductor.

At the top north (grid north west) of the grid a third magnetic signature is noted which differs from Units A or B in that the amplitudes of the anomalies are significantly greater and are of shorter strike length. Very minor conductivity is recorded with these magnetic sources. This would generally infer the magnetic anomalies to be sourced by magnetite rather than pyrrhotite.

The last magnetic unit (D) has variations of typically 200 nT in amplitude and minor conductivity is noted.

There are several interesting E.M. responses recorded on this survey and some are listed below for interest:

1) L.16600N/8925E - A conductor of limited depth extent in relation to the coil separation.

2) L.18400N/7300E-8125E - A broad zone (525 m) of conductivity probably due to a conductive rock unit. This particular feature narrows down to line 17800N and this effect can be seen throughout the survey grid.

Of all the conductors mapped by the HLEM survey few of the profiles exhibit what can be described as good E.M. responses. Two conductive axes (L.16400N/8075E, 8140E) were defined that have good E.M. characteristics i.e. high conductivity and steep profile gradients. As the spacing of these two conductors is between .5 and 1.0 of the coil spacing the source is indeterminant as to whether it is composed of two narrow zones as shown or a single wide zone.

7.0 CONCLUSIONS

The geophysical data has located a vast number of "targets" of which any could prove to be of economic interest. However, due to the sheer quantity of targets any of those selected for drill testing should be chosen in light of other parameters such as geology and geochemistry.

L. Bradish

G. Shevchenko

APPENDIX 1

STATEMENT OF COST

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

DATE NOVEMBER 1984

PROJECT - MOSQUITO CREEK GROUP
TYPE OF REPORT Geophysics

a) **Wages:**

No. of Days -
Rate per Day -
Dates From -
Total Wages

b) **Food and Accommodation:**

No. of Days -
Rate per Day -
Dates From -
Total Cost -

c) **Transportation:**

No. of Days -
Rate per Day -
Dates From -
Total cost

d) Cost of Preparation of Report

Author	$ 200.00
Drafting	$ 200.00
Typing	$ 200.00

f) Other:

Contractor	$16,507.30
Total Cost	$17,107.36

UNIT COSTS

Unit Costs for Geophysics

No. of Days -		
No. of Units -	40.4 Kilometers	
Unit Costs -	423.45 / Kilometer	
Total cost	40.4 X 423.45	$17,107.30

APPENDIX II

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS
****

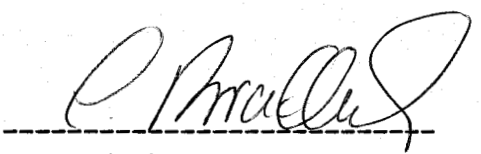
I, Lyndon Bradish of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a Geophysicist residing at 1826 Trutch Street, Vancouver British Columbia.

2. I am a graduate of the University of British Columbia with a B.Sc. (geophysics).

3. I am a member in good standing of the Society of Exploration Geophysicists, Canadian Institute of Mining and the Prospector's and Developer's Association.

4. I presently hold the position of Division Geophysicist with Noranda Exploration Company, Limited and have been in their employ since 1973.



L. Bradish.

STATEMENT OF QUALIFICATIONS
****

I, Glenn Shevchenko of the City of Vancouver, Province of British Columbia do hereby certify that:

1. I am a graduate of Condordia University, Montreal, Quebec, with a Bachelor of Science Degree in Geology.

2. I have been active in the field of exploration for 8 years.

3. I have been a temporary employee with Noranda Exploration Company, Limited since May, 1984.

Glenn Shevchenko

- 70 00 E
- 72 00 E
- 74 00 E
- 76 00 E
- 78 00 E
- 80 00 E
- 82 00 E
- 84 00 E
- 86 00 E
- 88 00 E
- 90 00 E
- 92 00 E
- 94 00 E
- 96 00 E
- 98 00 E
- 100 00 E
- 102 00 E
- 104 00 E

L 184 00 N
L 182 00 N
L 180 00 N
L 178 00 N
L 176 00 N
L 174 00 N
L 172 00 N
L 170 00 N
L 168 00 N
L 166 00 N
L 164 00 N
L 162 00 N
L 160 00 N

L.C.P
L.C.P
MK 3
L.C.P
L.C.P
MK 5
CAT 2
L.C.P
FOX
L.C.P
MK 1
MK 2
MK 4

BEE 1
BEE 2
BEE 3
BEE 4
BEE 5
BEE 6
BEE 7
BEE 8
BEE 9
BEE 10

SPAR 1
SPAR 2
REV CG
REV CG

Scale (Metres)
100 50 0 100 200 300 400

REVISED	OREL OPTION
	SPAR GRID
	CLAIM AND GRID MAP
PROJ. No. 25	SURVEY BY: DATE:
N.T.S. 82 M/4	DRAWN BY: (traced) - W.M.R. SCALE: 1:5000
DWG. No. 1	NORANDA EXPLORATION
	OFFICE: Vancouver

- 70 00 E
- 72 00 E
- 74 00 E
- 76 00 E
- 78 00 E
- 80 00 E
- 82 00 E
- 84 00 E
- 86 00 E
- 88 00 E
- 90 00 E
- 92 00 E
- 94 00 E
- 96 00 E
- 98 00 E
- 100 00 E
- 102 00 E
- 104 00 E

L.C.P.

L.C.P. MK 3

BEE 1
L.C.P.
BEE 3

MK 5
L.C.P.

CAT 2
L.C.P.

FOX
L.C.P.

MK 1
MK 2
MK 4

L. 184 00 N
L. 182 00 N
L. 180 00 N
L. 178 00 N
L. 176 00 N
L. 174 00 N
L. 172 00 N
L. 170 00 N
L. 168 00 N
L. 166 00 N
L. 164 00 N
L. 162 00 N
L. 160 00 N

Scale (Metres)
100 50 0 100 200 300 400

LEGEND

INSTRUMENT	:	Scintrex MP-3
FIELD MEASUREMENT	:	Total
DATUM	:	57,000 gamma
CONTOURS	:	-2000, -1000, -500, 0, 500, 1000, 1500, 2000, 2500, 3000 gamma
CONDUCTOR AXIS	:	Defined
		Wide Conductor axis
SURVEY DATE	:	Sept. /84
OPERATOR	:	P.E. Walcott & Assoc.

REVISED	OREL OPTION
	SPAR GRID
	MAGNETOMETER SURVEY
PROJ. No. 25	SURVEY BY: P.E. Walcott & Assoc. DATE: Oct./84
N.T.S. 82 M/4	DRAWN BY: (traced) - W.M.R. SCALE: 1:5000
DWG. No. 2	NORANDA EXPLORATION
	OFFICE: Vancouver

- 70 00 E
- 72 00 E
- 74 00 E
- 76 00 E
- 78 00 E
- 80 00 E
- 82 00 E
- 84 00 E
- 86 00 E
- 88 00 E
- 90 00 E
- 92 00 E
- 94 00 E
- 96 00 E
- 98 00 E
- 100 00 E
- 102 00 E
- 104 00 E

L.C.P

L.C.P MK 3

BEE 1
L.C.P
BEE 3

MK 5
L.C.P

CAT 2
L.C.P

FOX
L.C.P
MK 4

MK 1
MK 2

L. 184 00 N
L. 182 00 N
L. 180 00 N
L. 178 00 N
L. 176 00 N
L. 174 00 N
L. 172 00 N
L. 170 00 N
L. 168 00 N
L. 166 00 N
L. 164 00 N
L. 162 00 N
L. 160 00 N

Scale
(Metres)
100 50 0 100 200 300 400

LEGEND

INSTRUMENT	:	SE - 88
COIL SPACING	:	100 m
FREQUENCY	:	Low —— 337 Hz Med. - - - 1012 Hz High ---- 3037 Hz
INTEGRATION TIME	:	16 sec.
REF. FREQ.	:	112 Hz
PROFILE SCALE	:	1 cm = 20 %
CONDUCTOR AXIS	:	Defined
		Wide Conductor axis
		Conductive unit
		Conductor axis of limited depth extent
SURVEY DATE	:	Sept. /84
OPERATOR	:	P.E. Walcott & Assoc.

REVISED	
	ORELL OPTION
	SPAR GRID
	H.L.E.M. SURVEY
PROJ. No. 25	SURVEY BY: P.E. Walcott DATE: Oct. /84
N.T.S. 82 M/4	DRAWN BY: (traced) - W.M.R. SCALE: 1:5000
DWG. No. 3	NORANDA EXPLORATION
	OFFICE: Vancouver