

ASSESSMENT REPORT

MOSQUITO KING

NATURE OF REPORT: Crone Electromagnetic Survey
CLAIMS: Fox, MK1, MK2, MK4, Bee 7, Hiltec 1 & 2
MINING DIVISION: Kamloops
NATIONAL TOPOGRAPHIC SERIES: ~~82M3~~, 82M4 E
LATITUDE: 51° 03' North
LONGITUDE: 119° 31' West
OWNER AND OPERATOR: Orell Resources Ltd.
AUTHOR: James Black, P.Eng.
DATE: April 15, 1982

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,264

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- Pseudo - Section	Appended to Back

INTRODUCTION

Location and Access

(i) The Mosquito King mineral claims are located near the top of the Adams Plateau between the heads of Nikwikwaia and Gash Creeks. The area is on NTS 82M3W and can be reached by a good logging road that leaves Shuswap Lake about 1 mile east of the bridge over Adams River.

HISTORY AND OWNER

(ii) Showings of silver lead mineralization were found over 50 years ago. The ground since then has been held on option by a series of companies. The showings were drilled in the 40's and 60's.

For the last 8 years, Orell Resources Ltd. has held most of the ground. For 2 of these years, the claims were optioned by Craigmont Mines Ltd. This company made a geophysical and geochemical survey, mapped the geology and drilled some of the showings and anomalies. At 2 points mineralizations was cored that is of interest if a sufficient tonnage can be proven. Additional trenching has uncovered meneralization in areas where little outcrop exists. Further geophysics by Orell has indicated folding on the Spar and A1 and A2 mineral claims.

The area is underlain by an argillaceous, cherty sequence of beds that include some tuff and limestone. Generally, the beds dip gently to moderately northwards. Minor dragfolds indicate that the structure may be much more complex than previously realized. The beds are cut by granitic and dark dykes, most of which strike northwards.

Mineralization comprises pyritic zones, conformable or nearly conformable to the bedding. Associated with the pyrite are quartz, galena, sphalerite, pyrrhotite, minor chalcopyrite and in places magnetite. The galena contains silver. Minor gold is present. The mineralized zones, which include some

country rock, grade into the overlying and underlying unmineralized beds by decrease in the proportion of mineralization.

Most of the showings are from a few centimetres to a metre thick. Some have been followed by trenches and geophysical response for as much as 200 metres.

SUMMARY OF WORK PERFORMED

(iii) Geophysical

An additional 13,020 meters of gridline was established on the Fox, MK 1, MK 2, MK 4, Bee 7, Hiltec 1 & 2 mineral claims. Pickets were placed every 40 metres. The gridlines were 100 metres apart. The gridlines had a bearing of N30°W.

Measurements of the 390 Hz, 1830 Hz and 5010 Hz frequencies were taken of each station and the results are presented in contour form on individual "pseudo-sections" of the lines surveyed. These contour maps can be found in the jacket of this report.

SURVEY SPECIFICATIONS

(iv) The Crone Electromagnetic Survey on the Mosquito King claim group was carried out by equipment supplied by Crone Geophysics Ltd. of 3607 Wolfedale Road, Mississauga, Ontario, L5C 1V8. Manpower was provided by Orell Resources Ltd. consisting of a third year geology student, Luke Burlett, two college students, Kevin Kane and Tom O'Brien and the president of Orell Resources Ltd., Cyril Cecil Kane, prospector. The survey was a follow-up to earlier work completed in 1979 but the direction of the grid lines changed to intersect the rock structure at a right angle. The personnel used had previous experience in the use of the Crone equipment having received field instructions from Crone personnel in the use of the instruments and completing other surveys in previous years.

With the Crone horizontal shootback EM method both operators traverse along

the same line. Both operators in turn transmit and receive - measuring the dip angle of the field. The two dip angles are then added together and equal "0" if no conductors are present. The station measured is the mid-point between the two men. The separation between the two men can vary from 100' to 600' (30 metres to 200 metres). Readings are generally taken at two frequencies if a conductor is detected. The ratio of the resultant dip angles permits an evaluation of the conductivity of the body.

OPERATION - The way the coils are held in the transmit and receive positions is very important and is as follows:

The two operators proceed along the survey line until they reach their positions. The leading operator receives first (switch at Rx). The trailing operator who is the chief operator (he records the readings) places his coil in the transmit position - accurately horizontal - and switches it on Tx. Note both operators must be perpendicular to the line of traverse with the other operator always on his left hand side.

The gain control position is not critical - if the field strength meter remains off scale when the coil is rotated, then the gain is set too high.

(1)	OPERATOR RECEIVING	OPERATOR TRANSMITTING
	- Switch at Rx	- Switch at Tx
	- Coil moved to Null	- Coil Horizontal
	- Inclinator read on red scale (Example -8°)	- Inclinator accurately kept on red T mark
	- Other operator to his left	- Other operator to his left

(2) Leading operator shouts "Off" and calls reading -8° to chief (over 300' use Walkie-Talkies)

(3) Both operators remaining in the same position and facing in the same direction reverse the procedure

LEADING OPERATOR TRANSMITTING

- Switch at Tx
- Coil Horizontal
- Inclinometer accurately kept on red T mark
- Other operator to his left

OPERATOR RECEIVING

- Switch at Rx
- Coil moved to Null
- Inclinometer read on red scale (Example +8°)
- Other operator to his left

(4) Operator records readings - Shouts "Off" - Both men switch to "Off" and move to next station.

FREQUENCIES - In most areas use 1830 Hz for basic coverage and 390 Hz in anomalous areas. In areas of highly conductive background conditions, where the 1830 Hz frequency produces -5° to -20° readings over wide areas, then both 390 Hz and 1830 Hz frequencies should be used for basic coverage. In the exploration for weak conductors use 5010 Hz and 1830 Hz.

CONCLUSIONS AND RECOMMENDATIONS

Several anomalies have been outlined. Some of these coincide with others outlined by EM and magnetometer.

It is recommended that these coincident anomalies be explored by trenches, where feasible, and drilled.

ITEMIZED COST STATEMENT

1. Grid lay out and line cutting - Wages	\$ 1,423.63
2. Survey with Crone EM - Wages	4,233.74
3. Equipment rental - Crone Geophysics	1,239.90
4. Supplies	198.57
5. Vehicles - 4 X 4 51.75 days	2,585.86
6. Camp Costs 51.75 days (4 men)	2,585.86
7. Drafting 10 days	850.00
8. Engineer Report	500.00
	<u>\$13,617.56</u>

<u>CLAIM</u>	<u>RECORD NUMBER</u>
Fox	490 (8)
MK 1	565 (10)
MK 2	566 (10)
MK 4	568 (10)
Bee 7	2536 (4)
Hiltec 1 & 2	114 (10)

AUTHOR'S QUALIFICATIONS

I am a graduate in geological engineering from the university of B.C. and have a Ph.D in economic geology from McGill University. I am a registered geological engineer with the Association of Professional Engineers of B.C. I have had over 40 years experience in examination and exploration of mineral occurrences, especially in the cordilleran area.

Aug 23/83
J.M. Black

J.M. Black, P.Eng.

CERTIFICATE

I, J.M. Black of North Vancouver, B.C. do hereby certify that

- i) I am a geological engineer with an office at 843 Prospect Avenue, North Vancouver, B.C., V7R 2M2.
- ii) I am a graduate of UBC with degree of M.Sc. in geological engineering, 1935. I am a graduate of McGill University with degree of Ph.D. in economic geology, 1942. I am a member of the Association of Professional Engineers of B.C. I have practiced my profession for over 40 years.
- iii) I am the author of the accompanying report, which is based on personal knowledge of the property.
- iv) I have no beneficial interest in the property or claims discussed and I do not expect to receive any.

Aug 33/83
J.M. Black

J.M. Black, P.Eng.

Horizontal Shootback

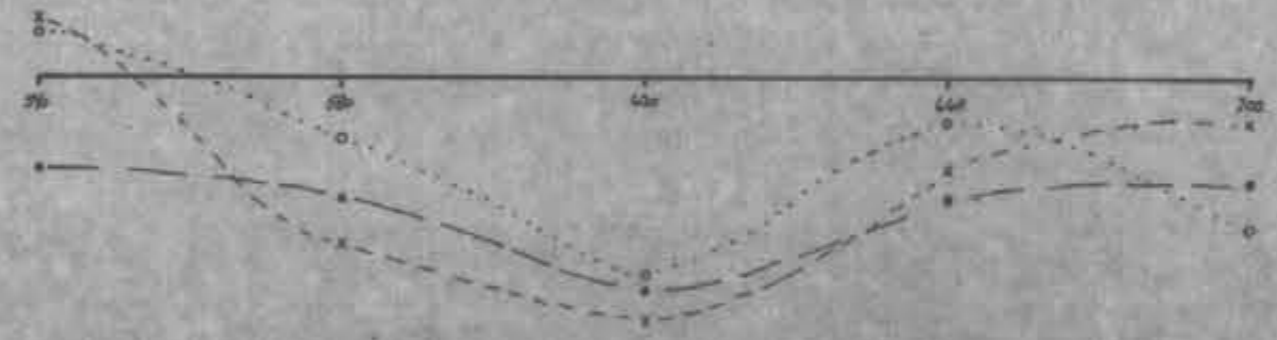
CEM Survey

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Line 0+80w

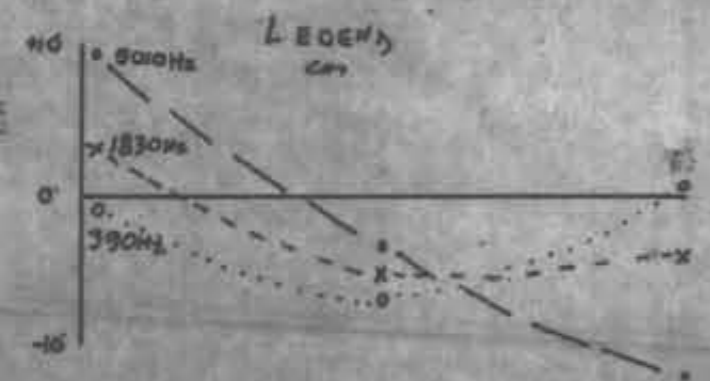


Line 1+20w

1981 Mosquito King Grid

Extensions

Scale 1:1000

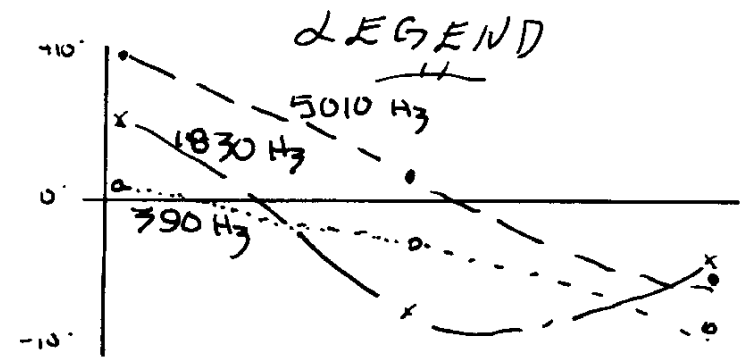
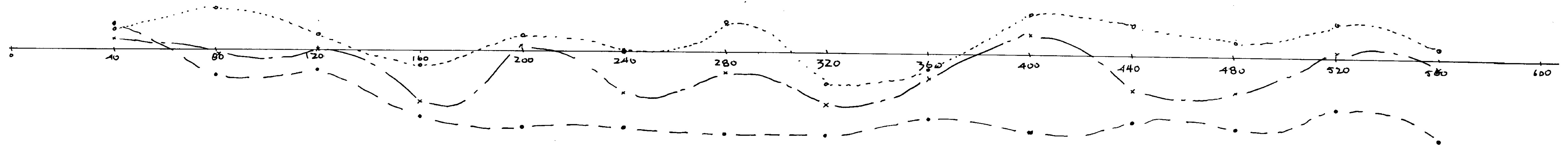


O'NEILL RESOURCES LTD.
SALMON

Horizontal Shootback
CEN SURVEY

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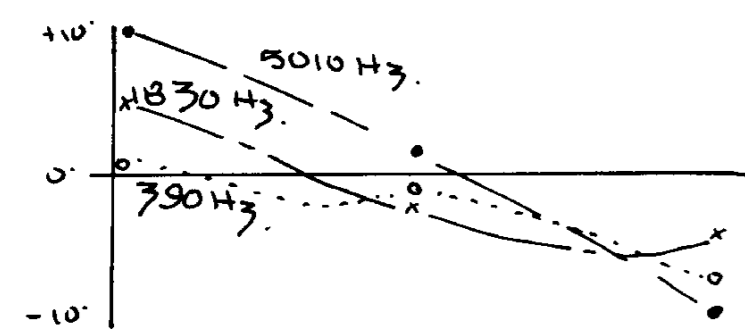
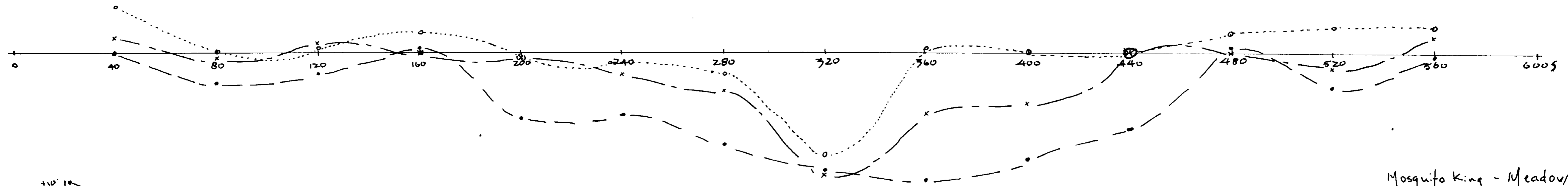


Mosquito King - Meadow Grid
Line 1400V

Horizontal Shootback
CEM SURVEY

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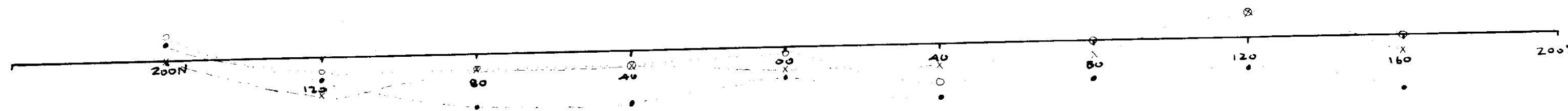
Mosquito King - Meadow Grid
Line 1+00 E
scale 1:1000

ORELL RESOURCES LTD.
BO
SALMON AREA 30, VNE 210

Horizontal Shoot back
CEM SURVEY

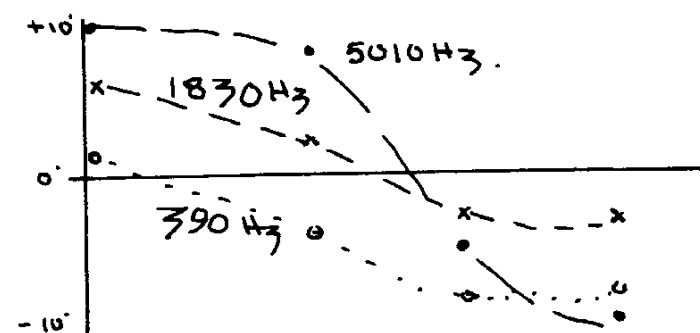
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Mosquito King - Dynamite Grid
Line 1400E
Scale 1:1000

LEGEND

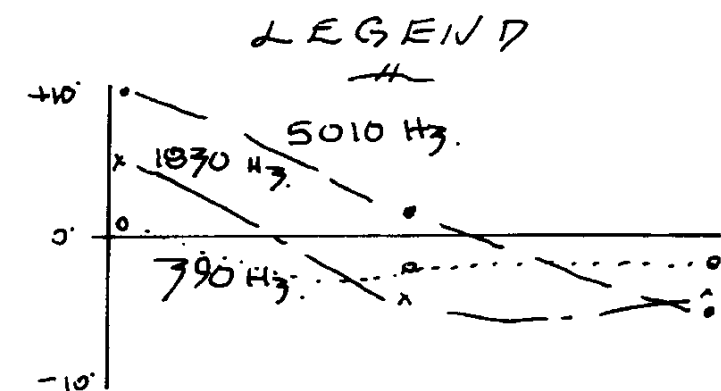
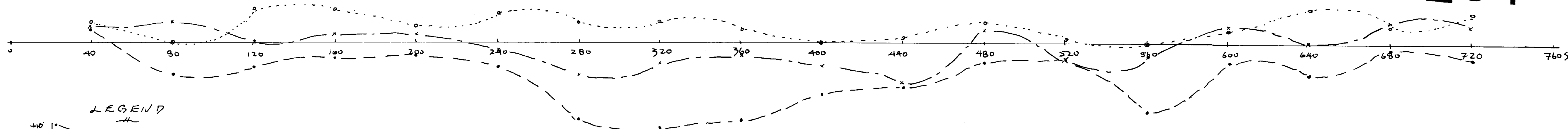


ORELL RESOURCES LTD.
BOX 111
SALMON ARM, B.C. V0E 2T0

Horizontal shootback
CEM SURVEY

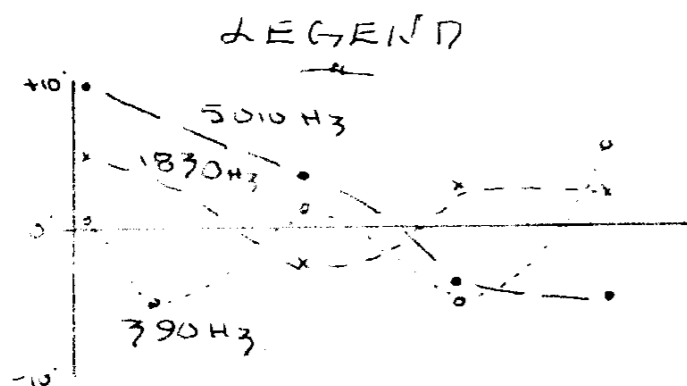
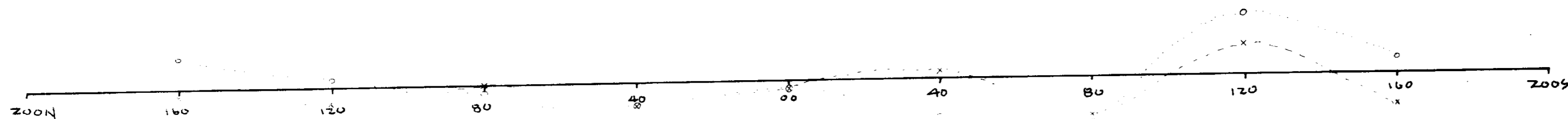
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Mosquito King - Meadow Grid.
Line 0+00 E/W
scale 1:1000

Horizontal Shootback
CEM SURVEY



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Mosquito King - Dynamite Grid

line 0+00

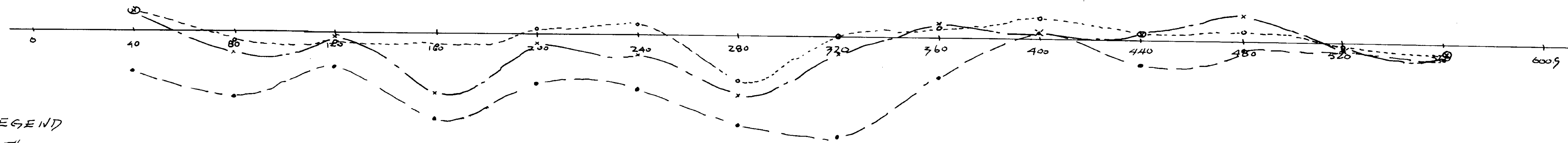
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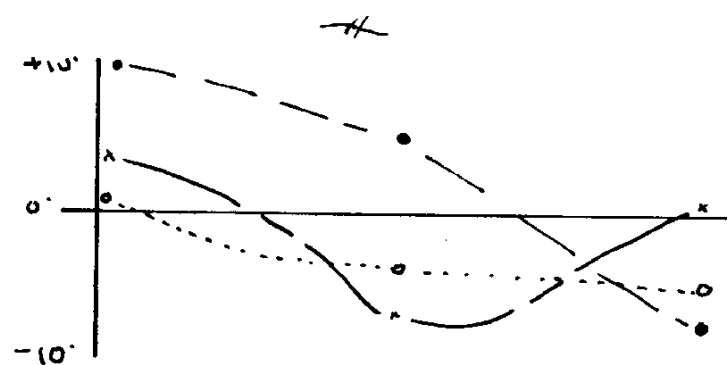
Horizontal Shootback
CEM SURVEY

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LEGEND



Mosquito King - Meadow Grid
Line 3400E
scale 1:1000

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B.C. 23
SALMON ARM, B.C. V0E 2T0

Horizontal Shootback
CRIM SURVEY

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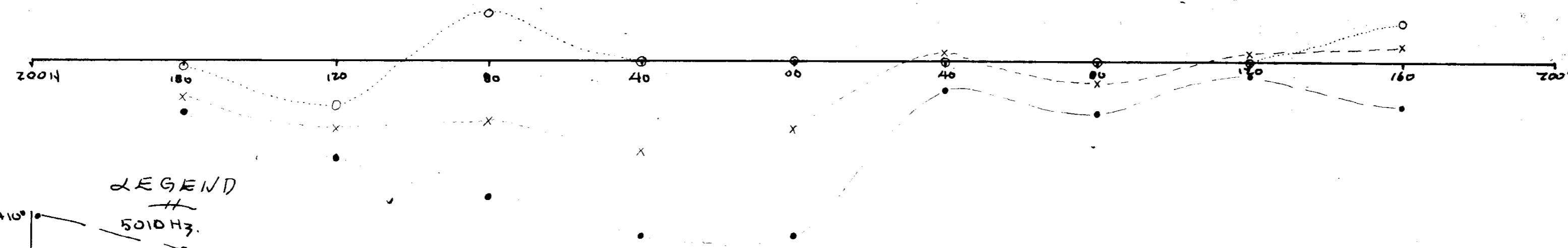
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Mosquito King - Dynamite Grid

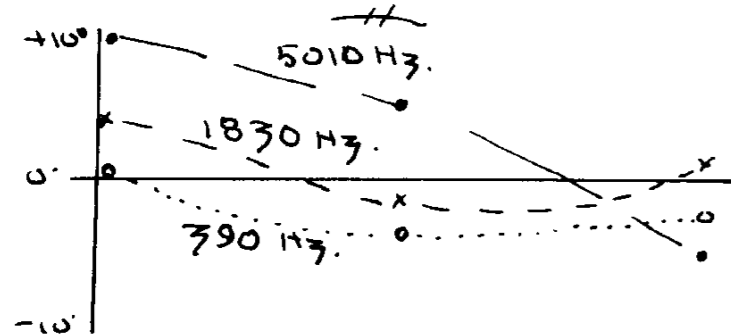
Line 3+00E

Scale 1:1000

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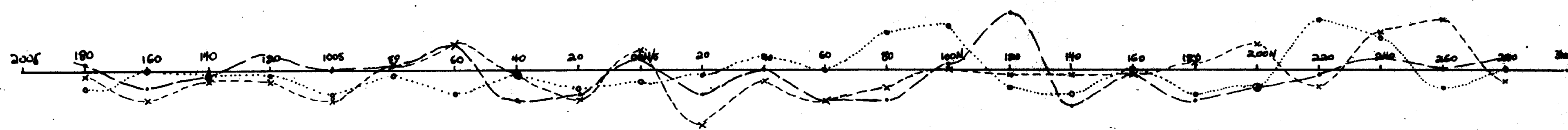
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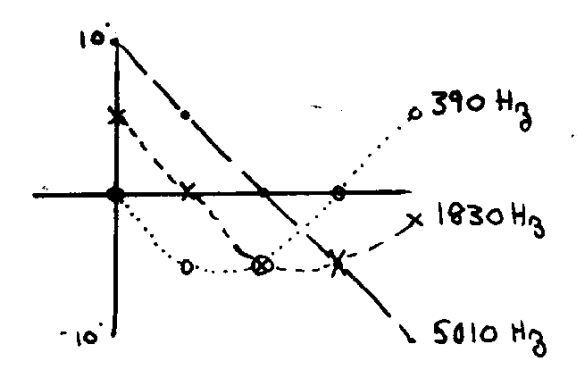
Horizontal Shootback
C. E. M. Survey

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Legend



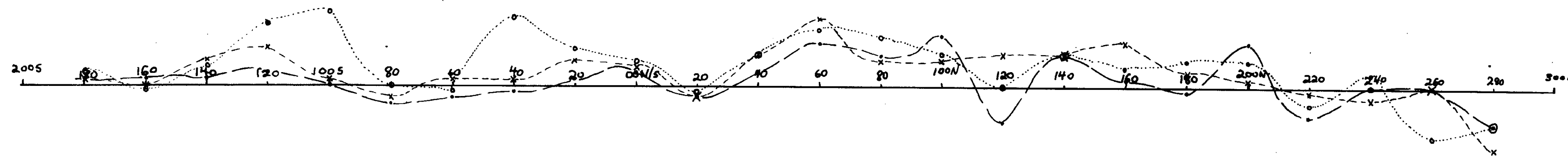
Mosquito King- 1981 Grid
Line 2+80 E
scale 1:1000

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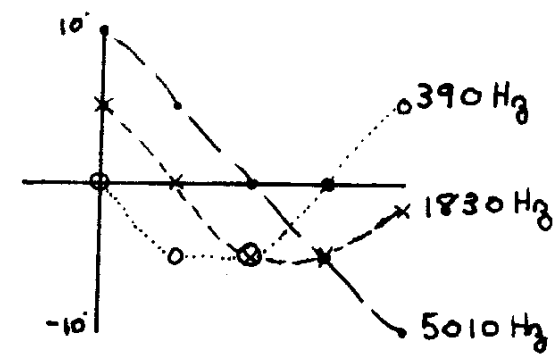
Horizontal Shootback
C.E.M. Survey

GEOLOGICAL BRANCH
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Legend



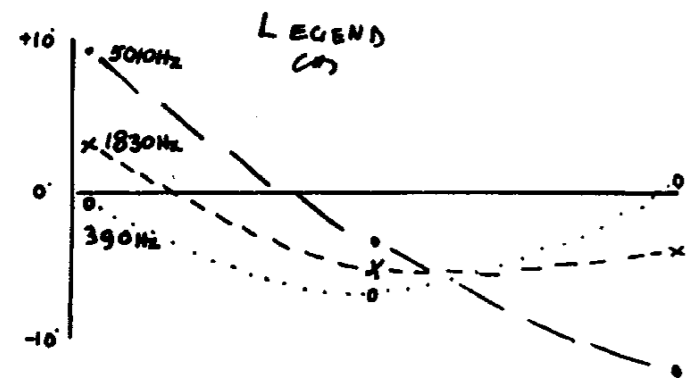
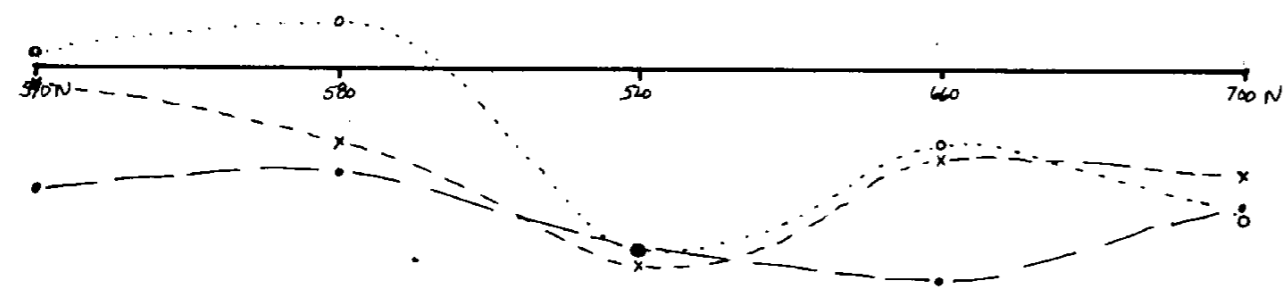
Mosquito King - 1981 Grid
Line 2+40 E
scale 1:1000

O'NEILL RESOURCE LTD.
BOYD
SALMON ARM, B.C. V9E 2M7

Horizontal Shootback
CEM Survey

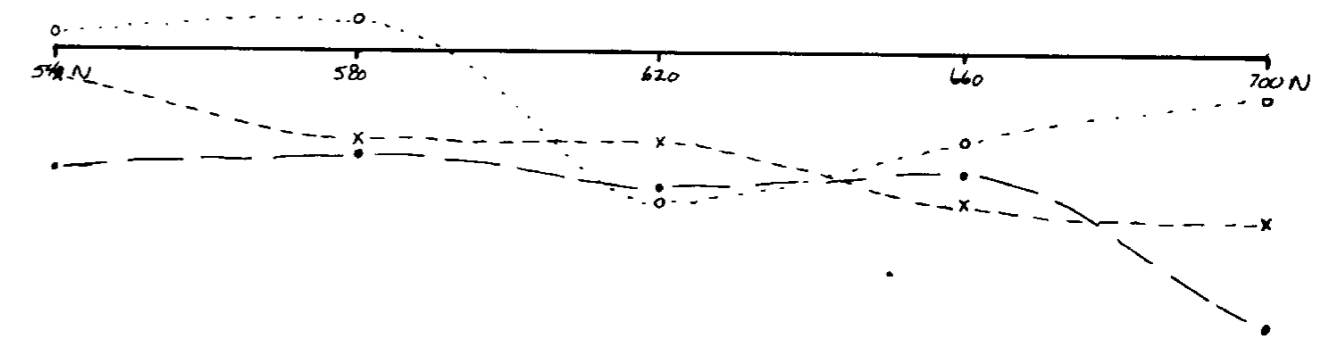
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Line 1+60W

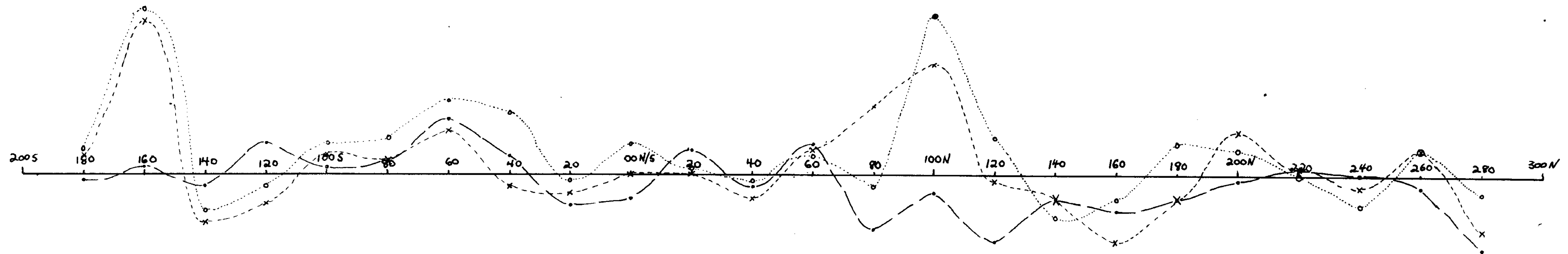
1981 Mosquito King Grid
Extensions
Scale 1:1000



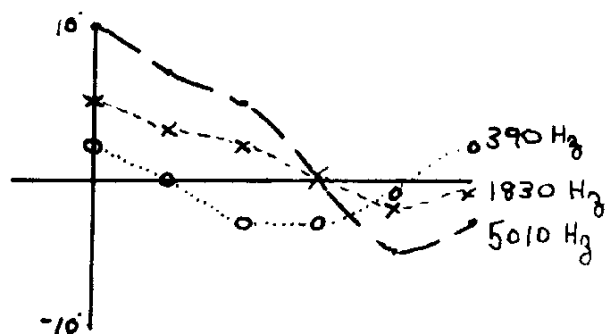
Line 2+00W

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BOX 111
SALMON AREA, B.C. V0E 2T0

Horizontal Shootback
C.E.M. Survey



Legend



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Mosquito King - 1981 Grid
Line 2+00E
scale 1:1000

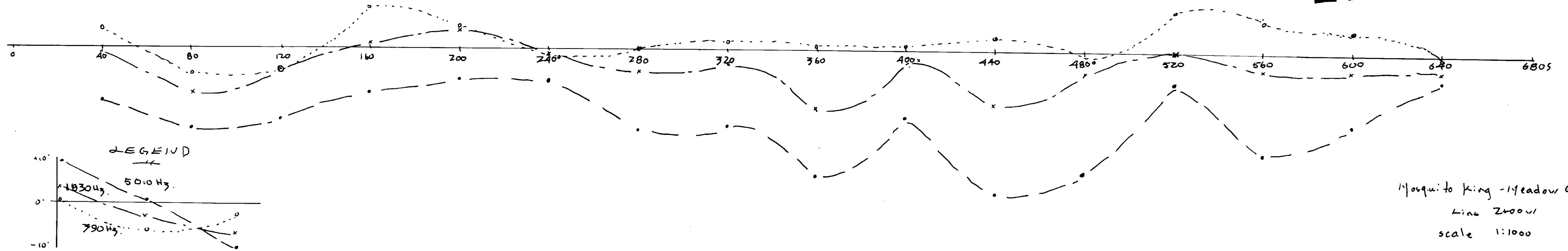
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807-11
SALMON ARM, B.C. V0E 2T0

Horizontal Shootback

CEM SURVEY

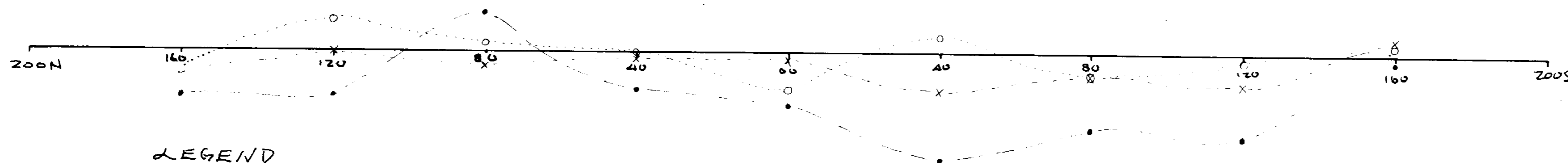
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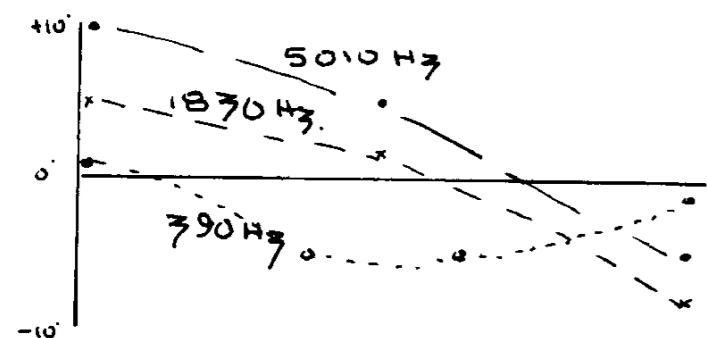


Mosquito King - Meadow Grid
Line 2+0001
scale 1:1000

Horizontal Shootback
CEM SURVEY



LEGEND



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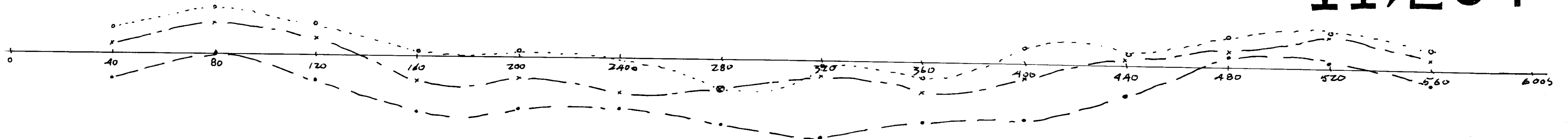
Mosquito King - Dynamite Grid
Line 2400 E
scale 1:1000

OCELL RESOURCES LTD.
BOX 41
SALMON ARM, B.C. V0E 2T0

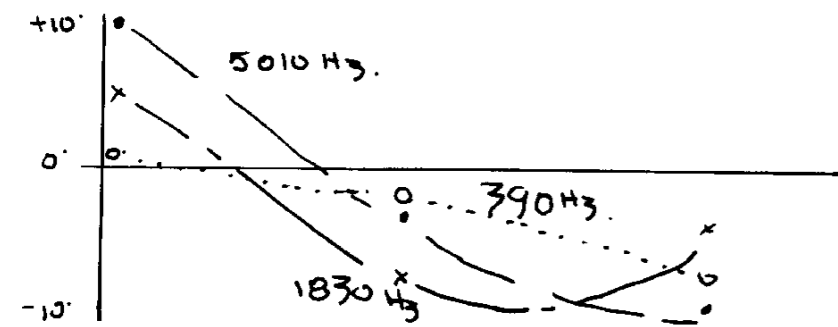
Horizontal Shootback
 LEM SURVEY

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LEGEND



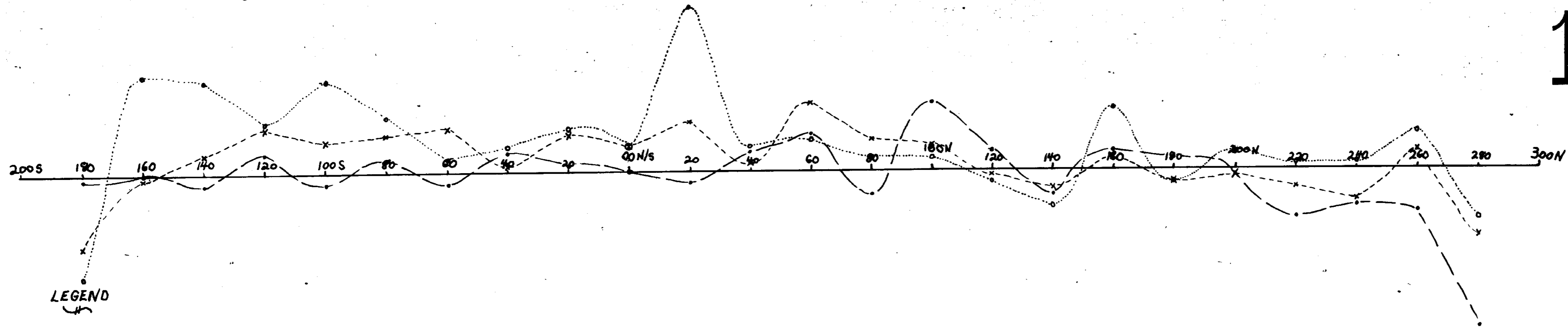
Mosquito King - Meadow Grid.
 Line 200F
 scale 1:1000

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 SALMON ARM, B.C. V0E 2T0

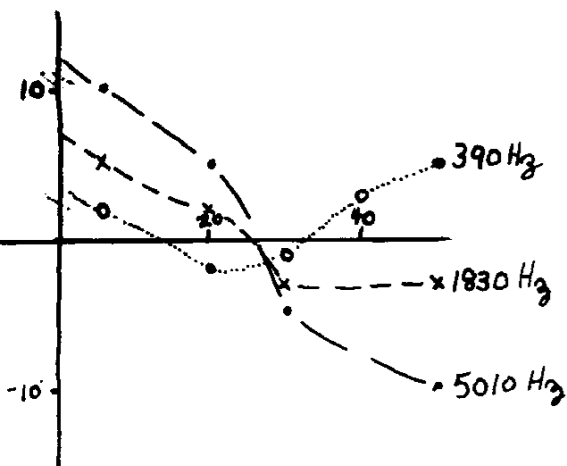
Horizontal Shootback
C.E.M. Survey

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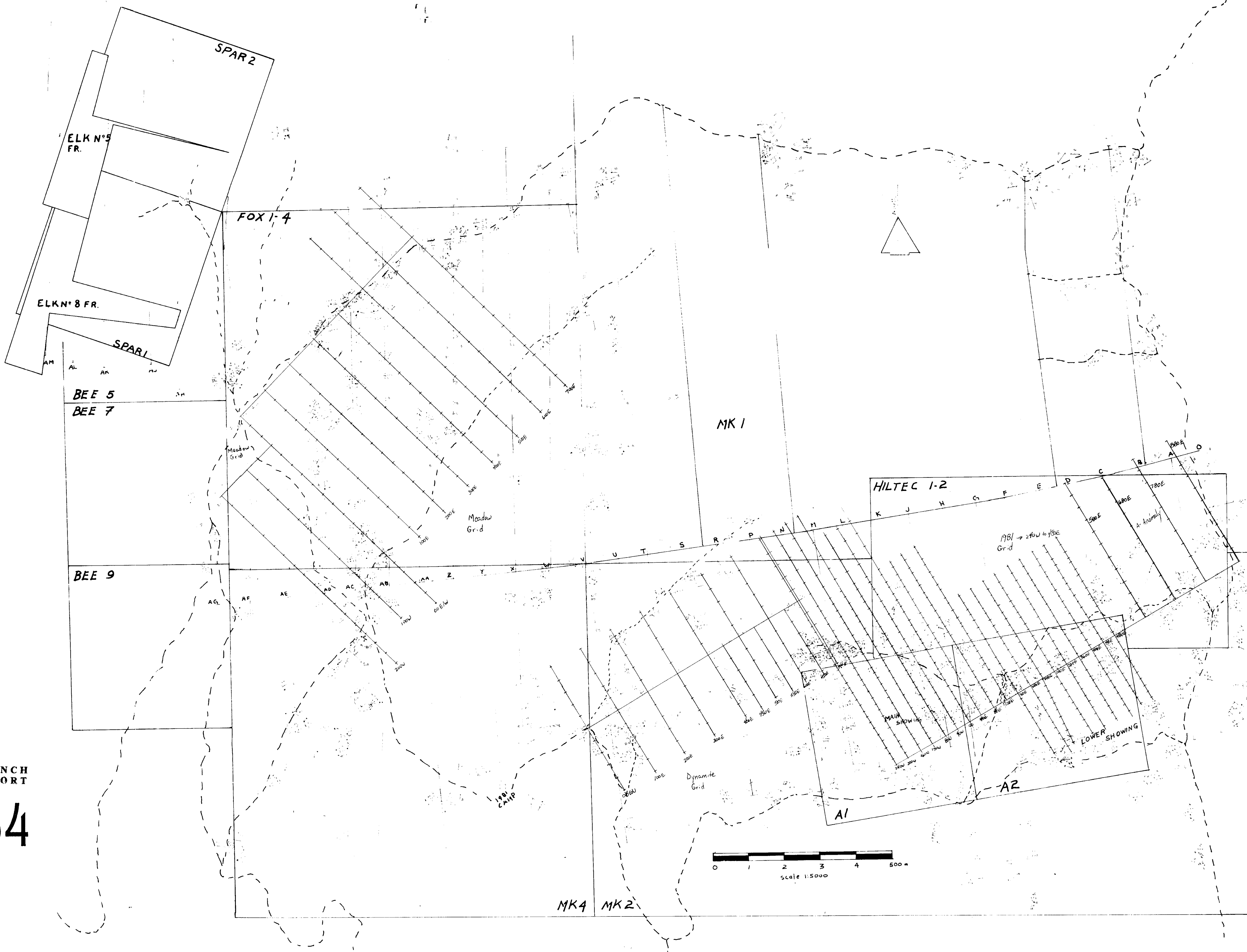
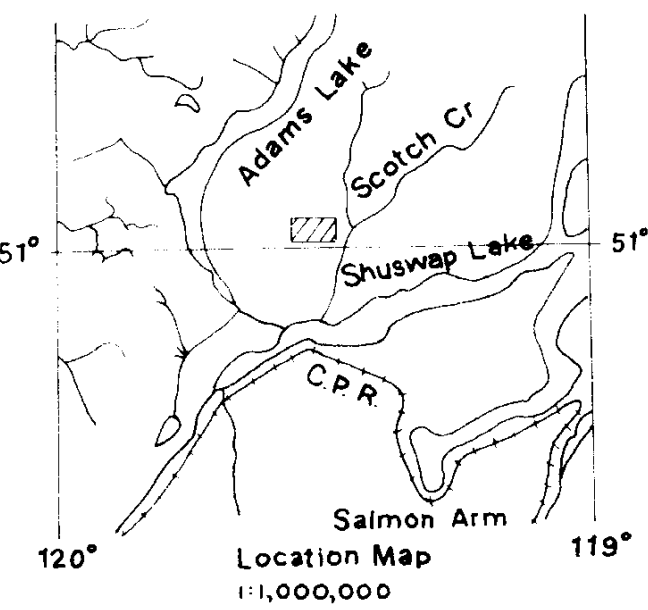
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Mosquito King - 1981 Grid
Line 1+60 E
scale 1:1000



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BOX 111
SALMON ARM, B.C. V0E 2T0



- Filiation
 - Lineations
 - Axial plane of fold with plunge
 - Vergence of folds

- A Sulphides
- B Siliceous Phyllite
- C Phyllitic Limestone
- D Calcisilicate
- E Black Phyllite
- G Quartzite
- H Siliceous Tuffite
- J Felsic Intrusives
- Ja Feldspar Quartz Porphyry
- JB Aplite
- K Basic Intrusives
- Ka Andesite
- Kb Diorite
- Kc Gabbro

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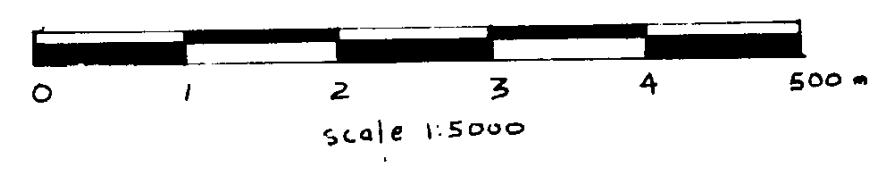
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MK and SPAR

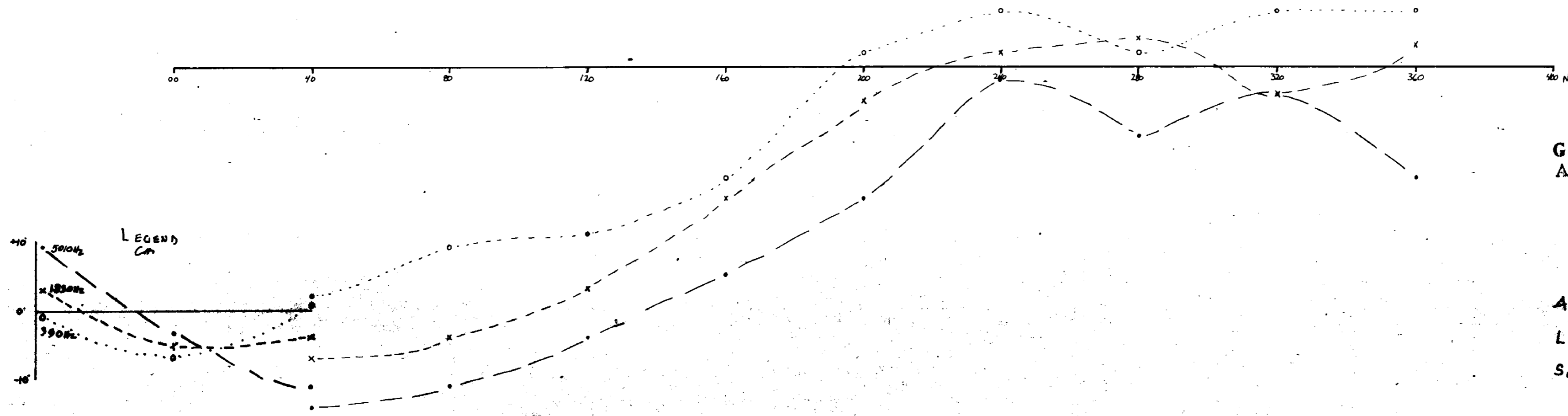
ADAMS PLATEAU B.C.
GEOLOGY

A₁, A₂, HILTEC 1-2 MAP # 6 of 6
MK and SPAR 82 M3/4



grid
 Aug 23/83
 JH/66

Horizontal Shootback
CEM Survey



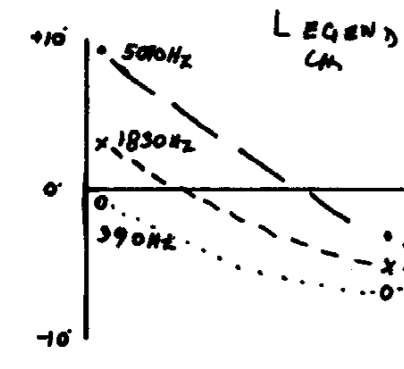
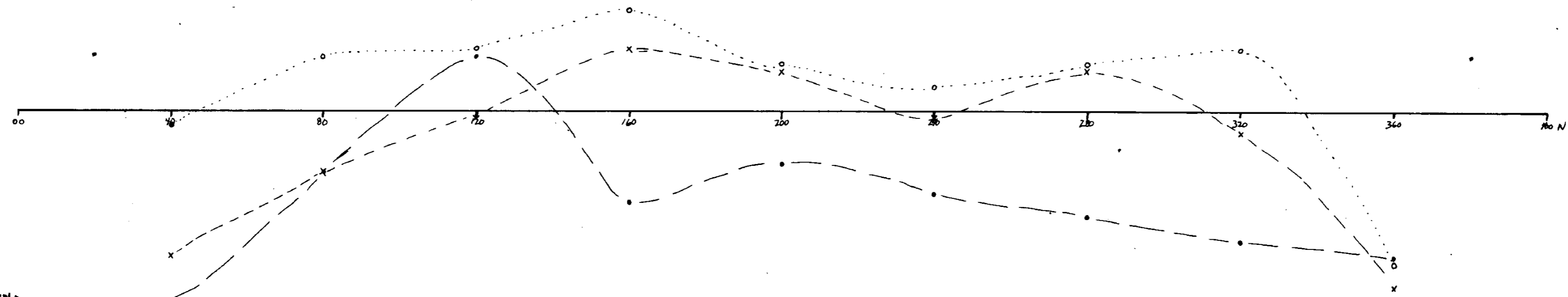
GEOLOGICAL BRANCH
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4-7 anomaly
Line 8-80E
Scale 1:1000

CRELL RESOURCES LTD.
BOX 5113
SALMON ARM, B.C. V0E 2T0

Horizontal Shootback
CEM Survey



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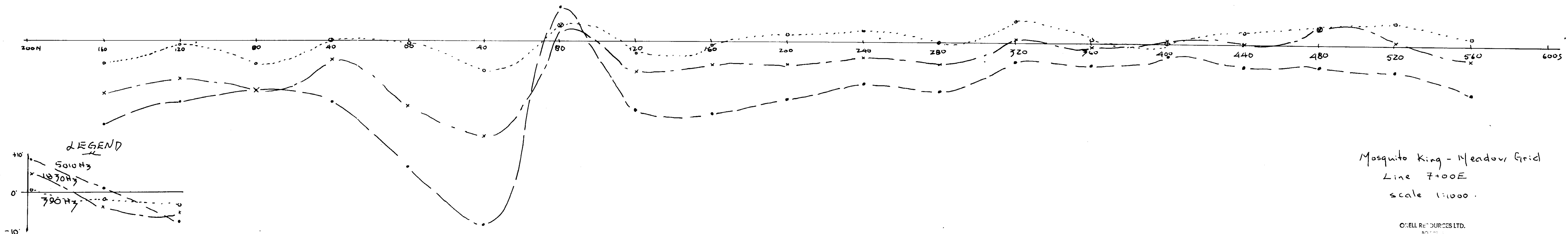
A-Anomaly
Line 7+80E
Scale 1:1000

Horizontal Shootback

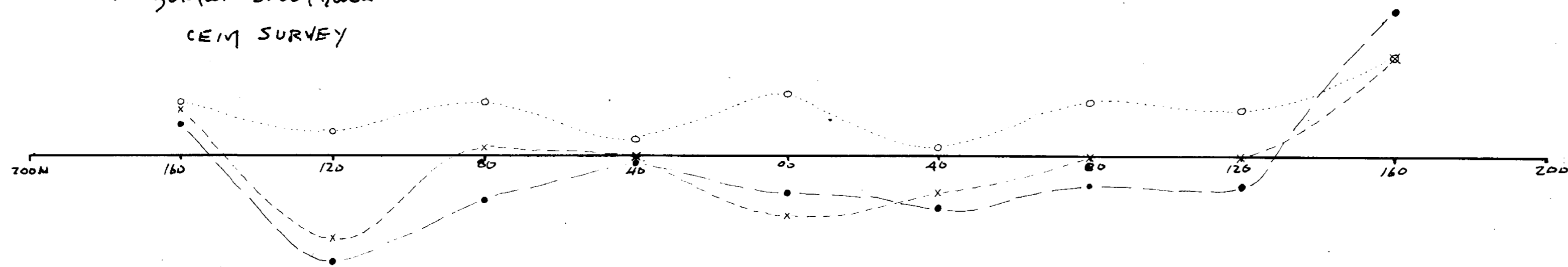
CEM SURVEY

GEOLOGICAL BRANCH
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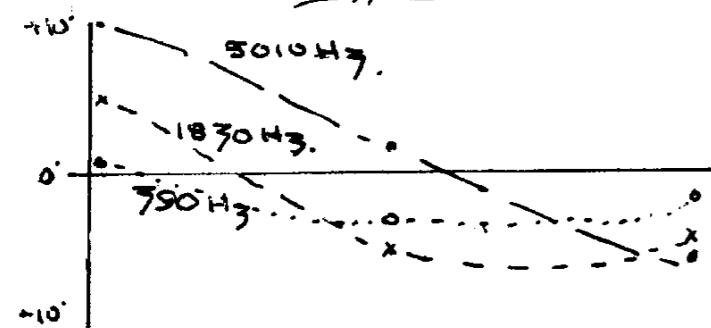
11,264



Horizontal Shootback
CEM SURVEY



LEGEND



GEOLOGICAL BRANCH
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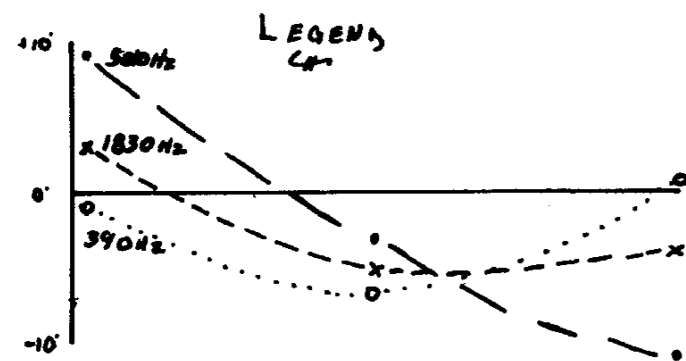
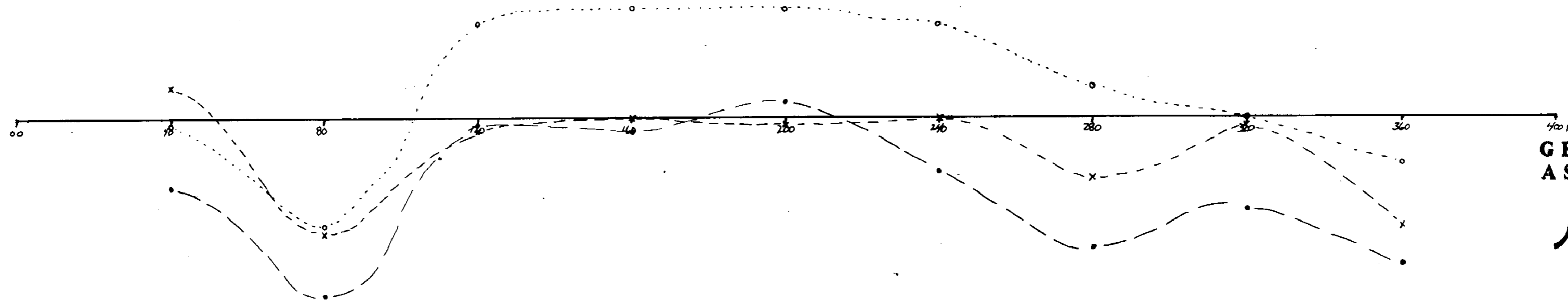
Mosquito King - Dynamite Grid

Line 7400E

scale 1:1000

ORELL RESOURCES LTD.
BOX 3133
MONTREAL, P.Q. H3C 2T0

Horizontal Shootback
CEM Survey



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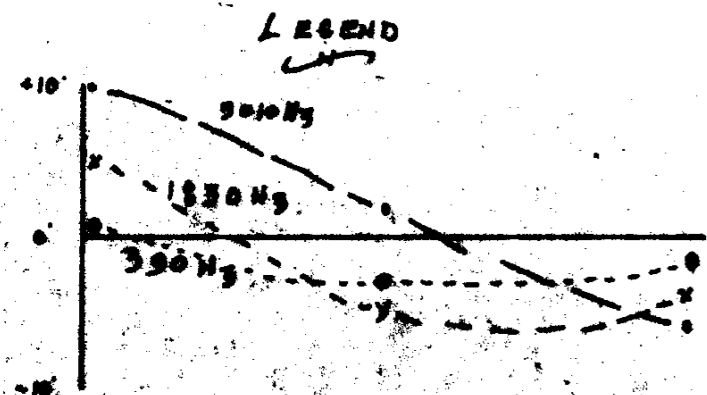
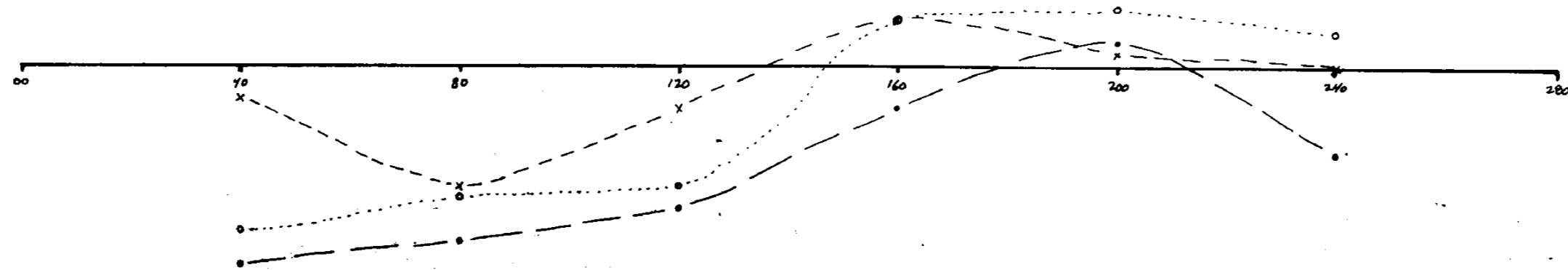
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A-A anomaly
Line 6+80E
Scale 1:1000

Horizontal Shootback
CEM Survey

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Mosquito King - Dynamite Grid
Line 6+50E
scale 1:1000 metres

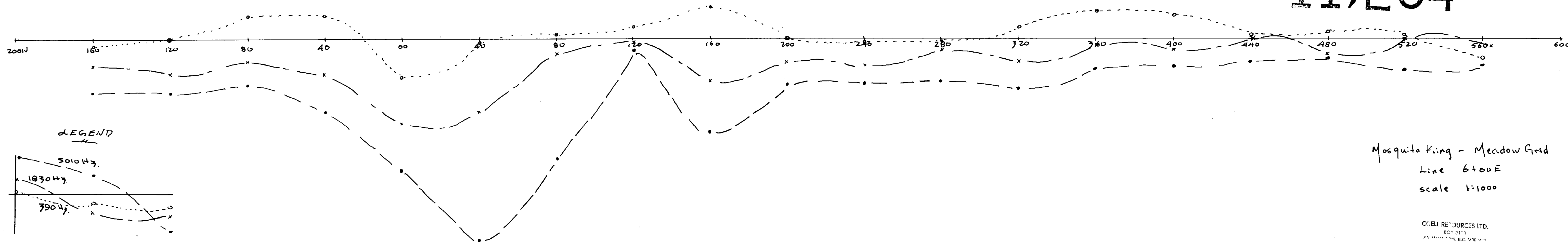
OCELL RESOURCES LTD.
BOX 31
SALMON SPRING, N.S.W. 270

Horizontal Shootback

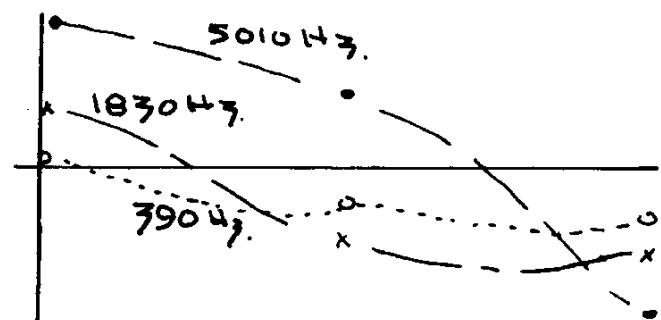
CEN SURVEY

GEOLOGICAL BRANCH
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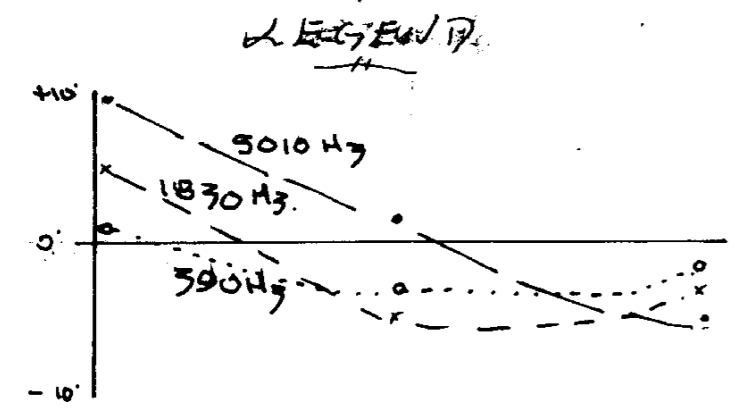
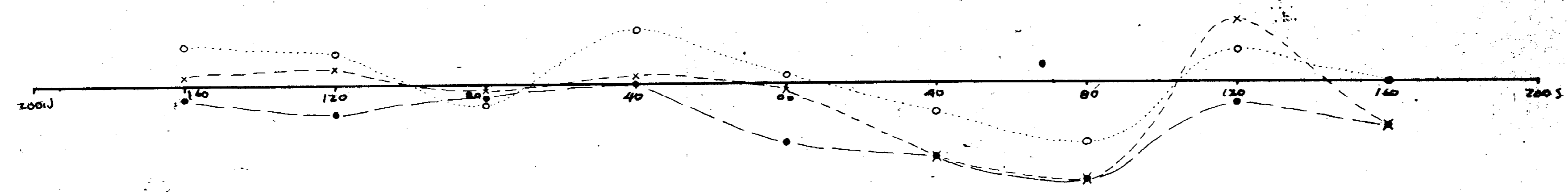
LEGEND



Mosquito King - Meadow Grid
Line 6+00E
scale 1:1000

ORELL RESOURCES LTD.
BOX 3113
SALMON ARM, B.C. V9E 2T8

Horizontal Shootback
CEM SURVEY



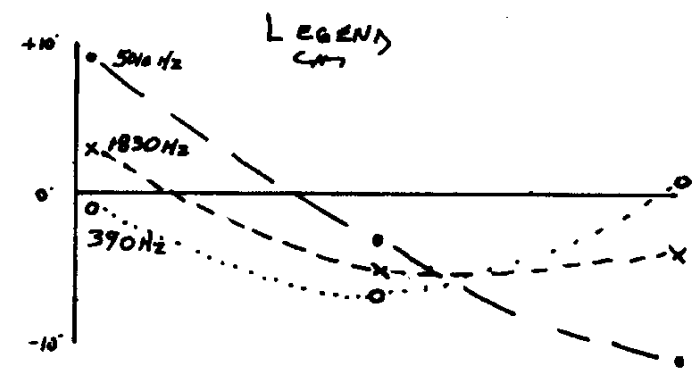
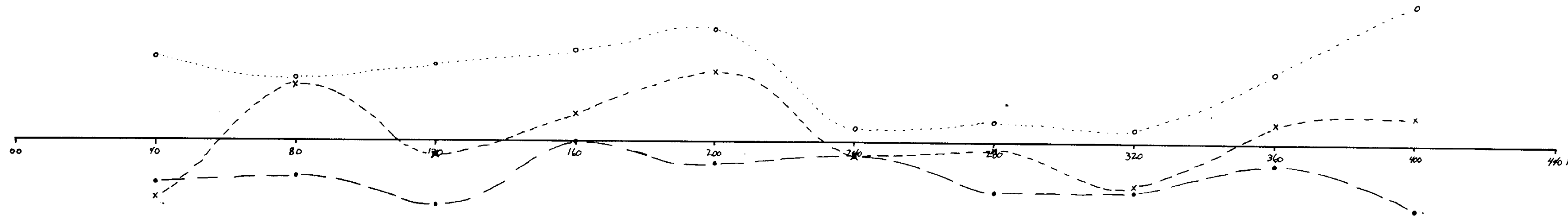
GEOLOGICAL BRANCH
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Mosquito King - Dynamite Grid
Line 6700E
Scale 1:1000

ORELL RESOURCES LTD.
8011
SALMON FALLS, B.C. V0E 2T0

Horizontal Shootback
CEM Survey



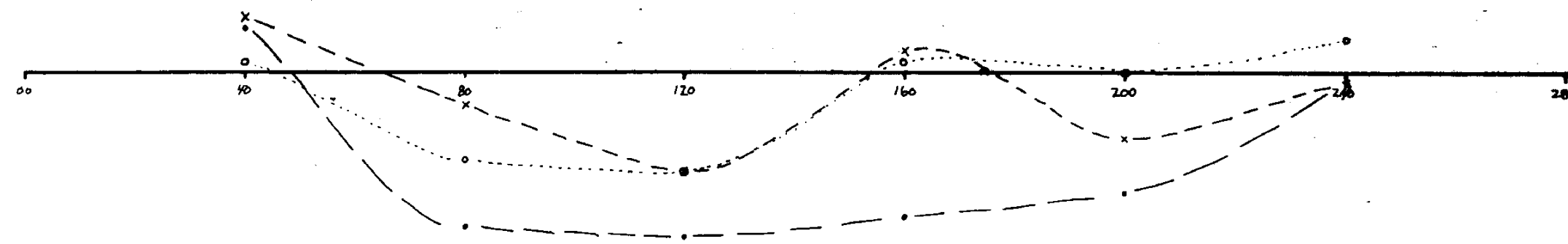
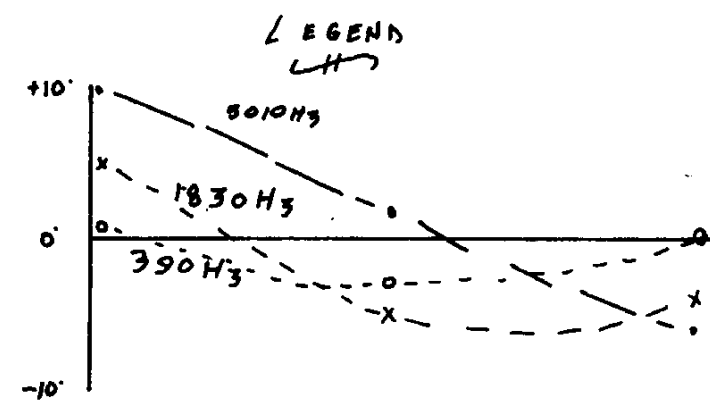
A-Anomaly
Line 5+80E
Scale 1:1000

ORELL RESOURCES LTD.
BOX 111
SALMON ARM, B.C. V0E 2T0

GEOLOGICAL BRANCH
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Horizontal Shootback
CEM Survey



GEOLOGICAL BRANCH
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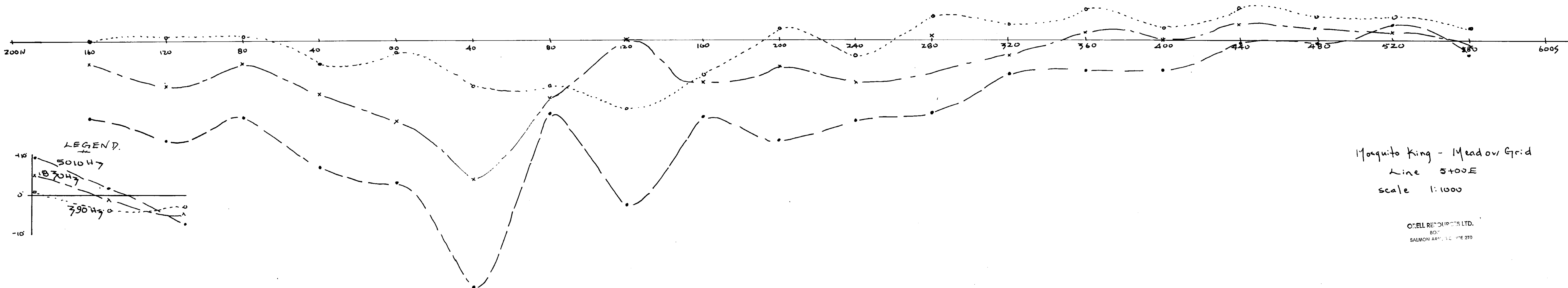
Mosquito King - Dynamite Grid
Line S+50E
scale 1:1000 metres

ORELL RESOURCES LTD.
BOULEVARD
SALMON ARM, B.C. V0E 2T0

Horizontal Shootback
LEM SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

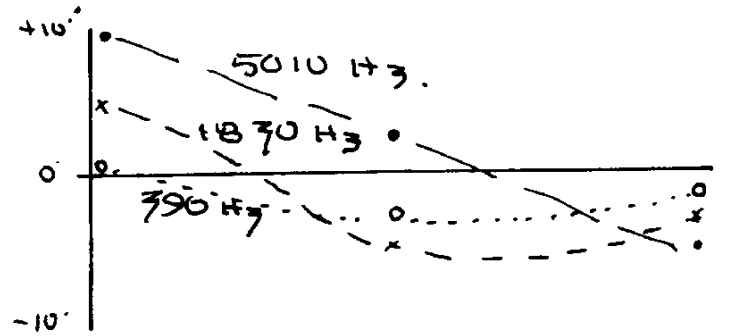
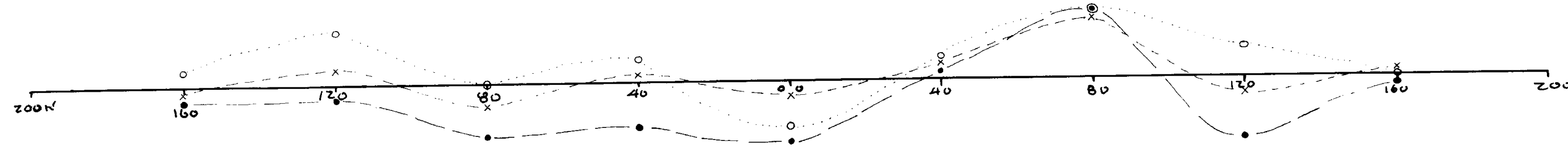
11,264



Mosquito King - Meadow Grid
Line 5+00E
scale 1:1000

ORILL RESOURCES LTD.
807
SALMON ARM, B.C. V9E 2T0

Horizontal Shootback
CEIV SURVEY



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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Mosquito King - Dynamite Grid
Line 5+00E
scale 1:1000

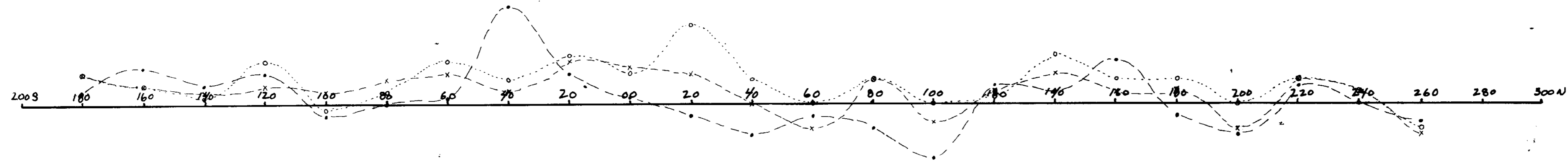
O'NEILL RESOURCES LTD.
8011
SALMON ARM, B.C. V0E 2T0

Horizontal Shootback
C. E. M. Survey

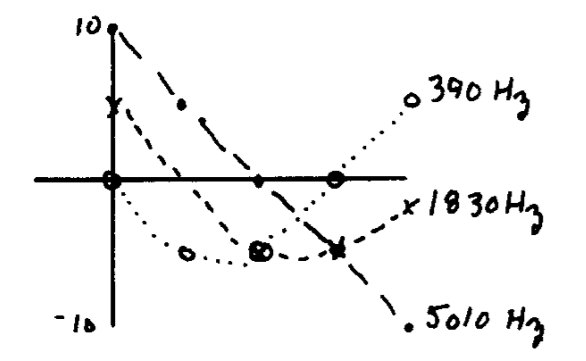
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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Mosquito King - 1981 Grid
Line 4+80E
Scale 1:1000

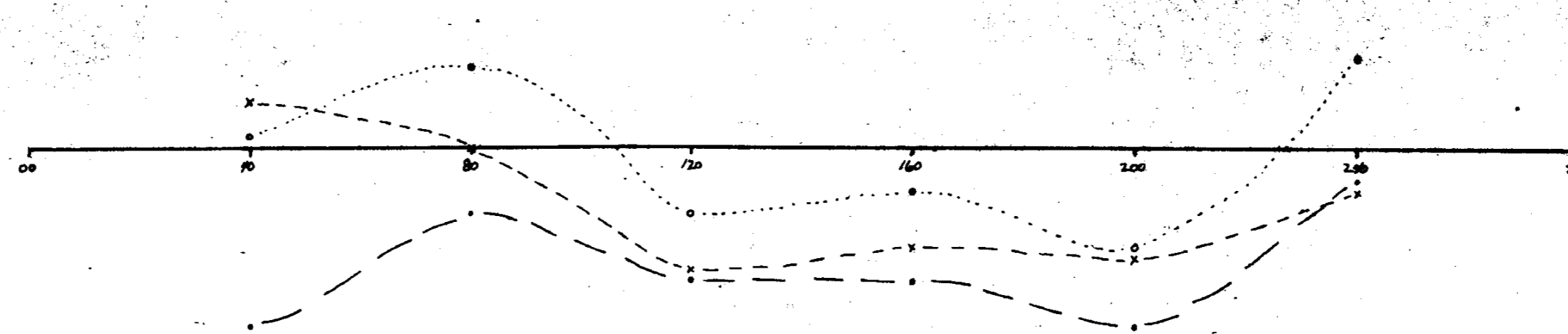
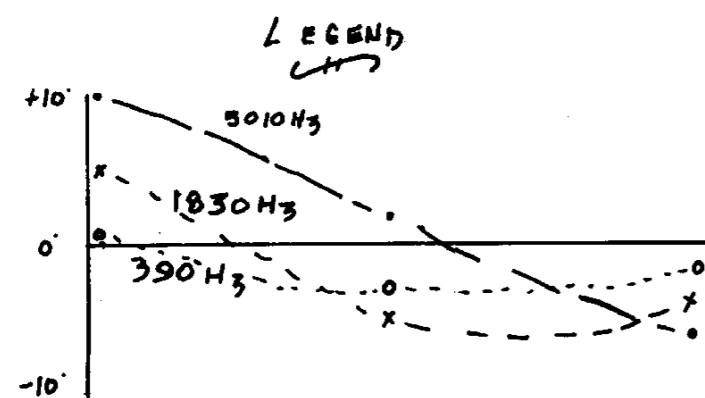


Legend



ORELL RESOURCES LTD.
BOX 111
SALMON ARM, B.C. V0E 2T0

Horizontal Shootback
CEM Survey



GEOLOGICAL BRANCH
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Mosquito King - Dynamite Grid
Line 4+50E
Scale 1:1000 metres

OCELL RESOURCES LTD.
BOX 311
SALMON ARMA, B.C. V0E 2T0

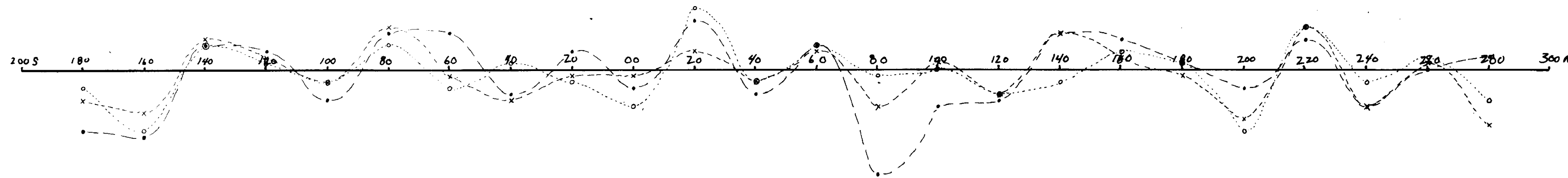
Horizontal Shootback
C. E. M. Survey

GEOLOGICAL BRANCH
ASSESSMENT REPORT

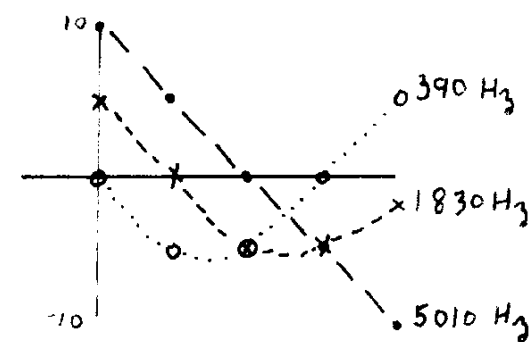
11,264

Mosquito King - 1981 Grid
Line 4+40E
scale 1:1000

OCELL RESOURCES LTD.
BOX 111
SALMON SPRINGS, B.C. V0E 2T0



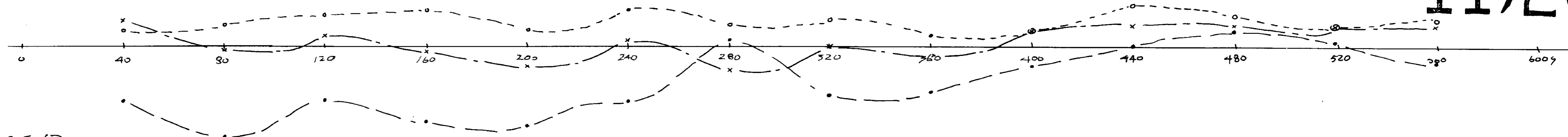
Legend



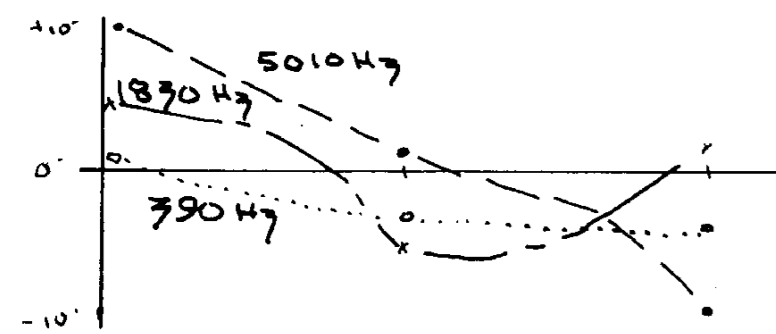
Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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LEGEND



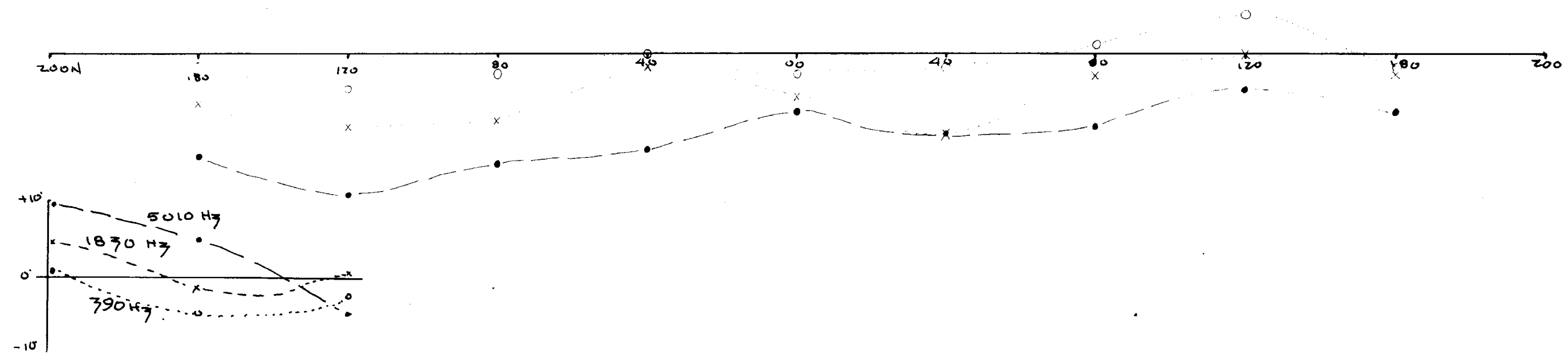
Mosquito King - Meadow Grid
Line 4+00E
scale 1:1000

O'NEILL RESOURCES LTD.
SALMON, B.C. V0E 2T0

Horizontal Shootback
CEM SURVEY

GEOLOGICAL BRANCH
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Mosquito King - Dynamite Grid
line 4+00E
scale 1:1000

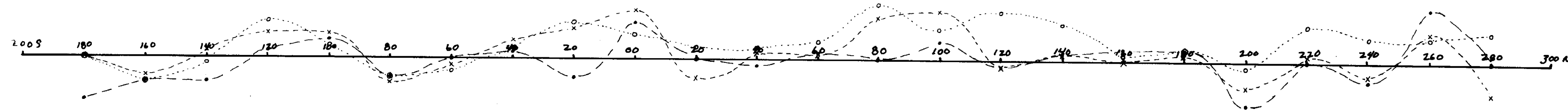
O'NEILL RESOURCES LTD.
BOYD
SALMON ARM, B.C. V0E 2T0

L 400 E

Horizontal Shootback
C.E.M. Survey

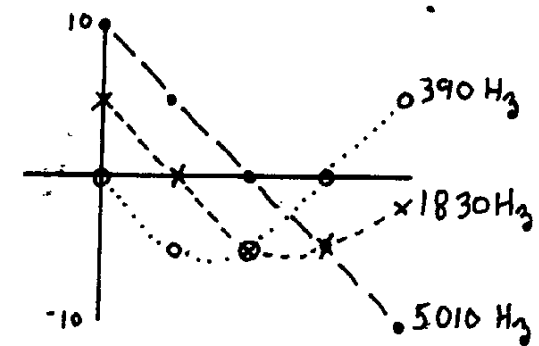
GEOLOGICAL BRANCH
ASSESSMENT REPORT

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Mosquito King- 1981 Grid
Line 4+00E
Scale 1:1000

Legend

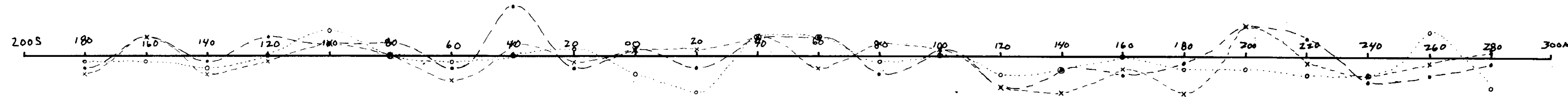


ORELL RE...
BC...
SALMON...

Horizontal Shootback
C. E. M. Survey

GEOLOGICAL BRANCH
ASSESSMENT REPORT

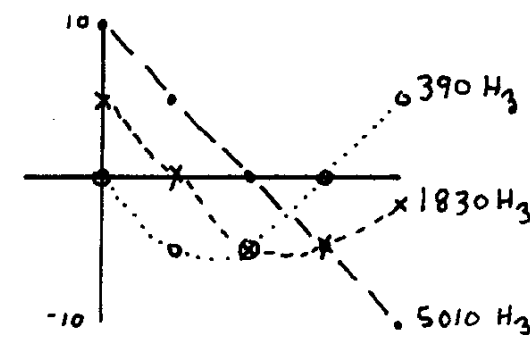
11,264



Legend

Mosquito King - 1981 Grid
Line 3+60E
scale 1:1000

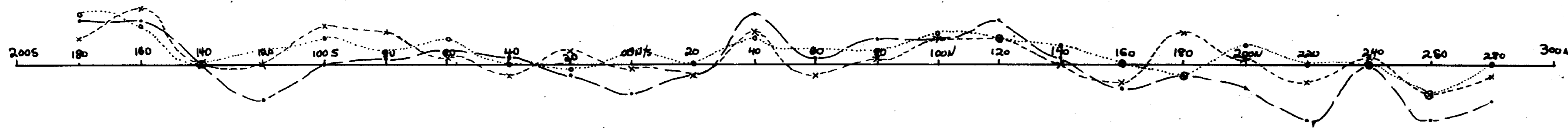
O'ELL RESOURCES LTD.
BOX 81
SALMON ARM, B.C. V0E 2T0



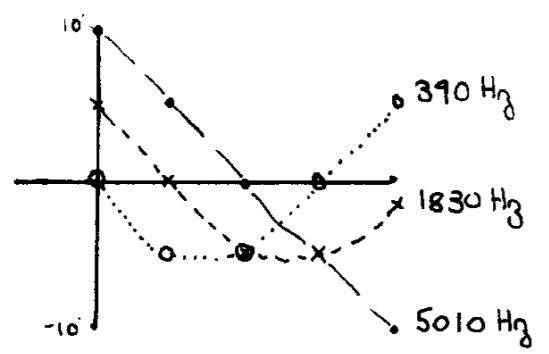
Horizontal Shootback
C.E.M. Survey

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,264



Legend



Mosquito King - 1981 Grid
Line 3+20 E
scale 1:1000

ORIEL RESOURCES LTD.
8000
SALMON ARM, B.C. V0E 2T0