#81-436
-9194

GEOPHYSICAL REPORT

ON A

MAXMIN ELECTROMAGNETIC SURVEY

OVER THE

LUCK CLAIM

QUILCHENA CREEK, ASPEN GROVE AREA

NICOLA M.D., B.C.

LUCK CLAIM	: 12 km N85E of Aspen Grove and 29 km S55E of Merritt
	: 49° 120° NE
	: N.T.S. 92H/16W
WRITTEN FOR	: CORE ENERGY CORPORATION 980-789 West Pender Street Vancouver, B.C. V6C 1H2
BY	: David G. Mark, Geophysicist GEOTRONICS SURVEYS LTD. 403-750 West Pender Street Vancouver, B.C., V6C 2T7
DATED	: May 5, 1981

GEOTRONICS

GEOTRONICS SURVEYS LTD.
Engineering & Mining Geophysicists
VANCOUVER, CANADA

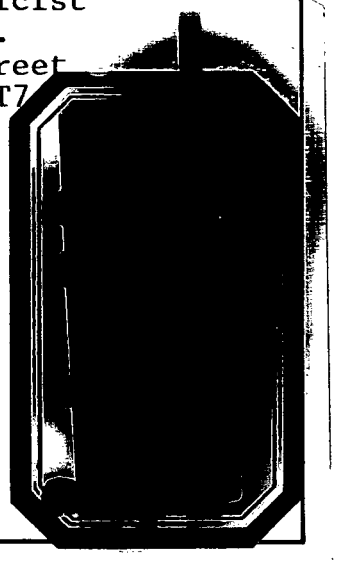


TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

SUMMARY

A MaxMin II survey was carried out over the LUCK Claim during October and November, 1980. The purpose of the survey was to further detail anomalies found in a VLF-EM survey carried out earlier in 1980.

The Claim is located 12 km N85E of Aspen Grove in the Nicola Mining District, B.C. Access is by Highway and secondary road out of Aspen Grove. The terrain is generally flat or rolling hills. Vegetation varies from light to moderately dense forest.

The property is underlain by felsic plutonic igneous rocks in the form of a batholith intrusion.

Numerous copper, silver and molybdenum showings are found in the Penask Batholith. The most significant one to date is the Brenda molybdenum mine in the southern part of the Penask Batholith. To the immediate west of the LUCK Claim is a skarn deposit containing disseminated pyrite, minor chalcopyrite, magnetite, chalcocite and malachite.

The MaxMin survey was carried out with a two-man portable unit. Dip angle, depth to the top and thickness-conductivity factor of the conductor readings were taken. The analysis involved complex ratios and picking out the critical values of the resultant curves of the extreme high and low readings.

CONCLUSIONS

1. Mineralization in this area is mainly copper and molybdenum sulphides associated with shear zones.

2. The MaxMin EM survey reconfirmed the existence of VLF-EM zones A and B. Both anomalies strike northwesterly, have shallow depth and have fairly weak conductivity. The weak conductivity indicates geological structure as the probable causitive source.

3. It is reasonable to expect, because of the general geologic environment in this region, that these shear zones could contain some mineralization.

RECOMMENDATIONS

Zones A and B could be drilled, though further work should be done for better delineation. If drilled, the location of each collar should be about 50 m to the southeast of each conductor on lines 600 S (Zone A) and 200 S (Zone B). The dip of the hole should be about -60° to the northwest. Intersection should be within 50 to 70 m.

GEOPHYSICAL REPORT

ON A

MAXMIN II ELECTROMAGNETIC SURVEY

OVER THE

LUCK CLAIM

QUILCHENA CREEK, ASPEN GROVE AREA

NICOLA M.D., B.C.

INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data, and the interpretation of a MaxMin II Electromagnetic Survey carried out on the LUCK Claim during October and November, 1980.

The survey was done under the supervision of the writer and under the field supervision of S. Seney with the aid of a helper. A total of 4.8 line km of MaxMin II Electromagnetic surveying were done at different spacings and different frequencies.

The primary purpose of the MaxMin II EM survey was to further detail anomalies from a VLF-EM survey carried out in the first part of 1980. A MaxMin II EM survey gives much more definitive drill targets than a VLF-EM survey does.

PROPERTY AND OWNERSHIP

The LUCK Claim consists one one claim of ~~16~~ 18 units as shown on Figure 2 and as described below:

Claim Name	No. Units	Record No.	Tag No.	Expiry Date
LUCK	18 (3 x 6)	826 (4)	21607	April 8, 1981

The property is owned by Core Energy Corporation of Vancouver, British Columbia.

LOCATION AND ACCESS

The center of the LUCK Claim is found about 12 km N85E of Aspen Grove and about 29 km S55E of Merritt, B.C.

The geographical coordinates are 49° 58' N latitude, and 120° 28' W longitude.

Access to the property is quite good and can be gained by a passenger car providing the road is dry. One travels along Highway 5 for 30 km south of Merritt or 5 km south of Aspen Grove and then turns east on a well-used gravel road. The property is about 24 km from the Highway 5 turnoff along a series of gravel and dirt roads.

PHYSIOGRAPHY

The LUCK Claim lies in the southern part of the physiographic division known as the Thompson Plateau which is part of the Interior Plateau System. The terrain is generally that of flat or rolling hills over most of the property. The general trend of the topography runs north-south. Elevations vary from 1,150 meters a.s.l. in the northwest corner to 1,350 meters a.s.l. in the south central section to give

a relief of only 200 meters.

The main water source is a westerly and northerly flowing creek which borders the southern and western portions of the property.

Vegetation on the property varies from lightly dense to moderately dense forest. In consists of pine, fir and spruce.

HISTORY OF PREVIOUS WORK

Since Core Energy Corporation filed the claim, VLF-EM and magnetometer surveys as well as trenching have been carried out.

GEOLOGY

The property is located in the Penask Batholith which was formed in the Lower Jurassic or later. The rock types are mainly biotite and hornblende rich granodiorite and quartz monzonite. A few km to the west is the Nicola suite of rock types; these being mainly grey to green, massive andesite (pyroxene-rich) of Triassic Age.

Numerous copper, silver and molybdenum showings are to be found in both the Nicola Group and the Penask Batholith. The most significant of these showings is the Brenda molybdenum mine, whose host rocks are granodiorites of the southern portion of the Penask Batholith.

The following is a quote from D.W. Tully's, P.Eng. report for Core Energy Corporation, dated 28 April, 1980:

"The principal mineral showing in the area occurs immediately

to the west of the LUCK Claim on the SOL Claim (Figure 3). The host rock is a skarn composed of epidote, garnet and altered volcanics carrying disseminated pyrite, minor chalcopyrite, magnetite, chalcocite and malachite. According to reports, this zone is at least 20 feet in width and has been traced to a depth of 350 feet by drilling. The best copper intersection was reported to be 1.62% over a core length of 20 feet. Similar geology on the LADY Claim could give similar conditions for mineralization."

INSTRUMENTATION AND THEORY

A MaxMin II portable 2-man electromagnetometer, manufactured by Apex Parametrics Ltd. of Toronto, Ontario was used for this survey. This instrument is designed for measuring the electromagnetic field which results from a conductive body; that is a structure which conducts electricity better than barren rock-types do. This particular instrument has the advantage of flexibility over most other EM units in that it can opperate with different modes, frequencies and distances between transmitter and receiver. Five frequencies can be used (222, 444, 888, 1777, and 3555 Hertz) and six different coil separations (25, 50, 100, 150, 200 and 250 meters).

In all electromagnetic prospecting, a transmitter produces an alternating magnetic field (called the primary field) by having a strong alternating current move through a coil of wire. This primary field travels through any medium and if a conductive mass such as a sulphide body is present the primary field induces a secondary alternating current in the conductor and this current in turn induces a secondary magnetic field. The receiver picks up the primary field and, if a conductor is present, the secondary field. The fields are expressed as a vector which has two components,

the in-phase (or real) component and the out-of-phase (or quadrature) component. The results are expressed as the percent deviation of each component from what the values would be if no secondary field (and therefore no conductor) was present. Since the fields loose strength proportionally with the distance they travel a distant conductor has less of an effect, than a close conductor. Also the lower frequency of the primary field, the further the field can travel, and so the greater the depth penetration. This unit can vary the strength of primary field and so use different coil separation between transmitter and receiver coils, change the frequency of the primary field for varying depth penetration, and use three different ways of orienting the coils to duplicate the surveys in three styles so that more accuracy is possible in the interpretation of the data.

The use of the MaxMin electromagnetometer allows for better discrimination between low conductive structures such as clay beds and barren shear zones and more conductive bodies like massive sulphide mineralization. It also gives several different types of data over a given area so that statistical analysis can result in less error in the interpretation.

SURVEY PROCEDURE

The survey was carried out on six of the east-west survey lines over areas of anomalous VLF-EM response. The line separation was 100 m and readings were taken every 25 m, except in anomalous areas where they were reduced to 12.5 m. The coil separation used was 100 m and the frequency, 444 Hz and 1777 Hz. Line 400 S was also run using a coil separation of 200 m.

COMPILATION OF DATA

The results were profiles with the 444 Hz results on Sheet 3, and the 1777 Hz results on Sheet 4. From these profiles, the anomalous sections were reprofiled for easy comparison with published type curves. The type curves are the results from laboratory situations using models.

After correction of conductive overburden the anomalous curve was analyzed to give the dip, depth to the top and the thickness-conductivity factor of the conductor. This analysis involces complex ratios and picking out the critical values of the resultant curves which are the extreme high and low readings.

DISCUSSION OF RESULTS

The purpose of the MaxMin survey was to reconfirm the VLF-EM results as well as give additional quantitative interpretation. The two anomalous zones checked were A and B. Both zones were picked up quite well with the MaxMin system.

Zone A is centered at 300 E on line 600 S. It is composed of two parallel conductors that strike at about N50^{o}E. The dip is somewhat difficult to determine because of the closeness of the two conductors which consequently complicate the curve. But is appears to be to the east, say 60^{o}. The minimum strike length is 300 m with it being open to the northeast as well as the southwest. The depth to the top is quite shallow, say within 15 m.

The conductivity is poor because of the almost non-existent in-phase response. The indication is therefore that the causitive source is geological structure such as shear zones.

There is an additional conductor located to the east on line 600 S. The strike is assumed to be northeast, and its dip appears to be easterly. Its conductivity is also quite poor.

Zone B appears to be composed of three parallel conductors. The strike varies from N60E to N50E and the minimum length is 300 m with it being open to the northeast as well as the southwest. The curve is quite complicated and therefore the dip is difficult to determine. The conductivity, as in zone A, is low, indicating geological structure to be the causitive source. The depth to the top is somewhat deeper being within about 35 m.

Both zones correlate with a magnetic high which could be reflecting a different rock-type. The causitive source of the EM anomaly may therefore be a contact zone. The magnetic high could also be possibly caused by magnetite associated with sulphide mineralization.

The cause of the large percentage of electromagnetic anomalies is one of a variety of geologic structures such as fault, shear and breccia zones. This is especially true with weak or medium conductors such as are found in this case. Because of the method's sensitivity to geological structures, the possibility of associated mineralization should not be precluded.

Respectfully submitted,
GEOTRONICS SURVEYS LTD.

David G. Mark,
Geophysicist

May 5, 1981

SELECTED BIBLIOGRAPHY

Aeromagnetic Map, Paradise Lake, B.C. Geological Survey of Canada, Map 8528G, Sheet 92H/16, 1973.

Cockfield, W.E., Geology and Mineral Deposits of the Nicola Map Area, B.C., Geological Survey of Canada, mem. 249, 1961.

Preto, V.A., Kalvins, T.F., Thomson, N.A., and Nebocat, J. Preliminary Geological Map of Aspen Grove Area (parts of 92H/15 and 92I/2E, B.C. Department of Mines and Petroleum Resources, Map 15, 1974.

Rice, H.M.A., Geology & Mineral Deposits of the Princeton Map Area, British Columbia, Geological Survey of Canada, mem. 243, 1960.

Tully, Donald W., VLF-EM Profiles and Magnetic Contours - LUCK Claim , Aspen Grove - Tommy Lake Area, April, 1980.

Tully, Donald W., Report on the LUCK CLaim, Aspen Grove, Tommy Lake Area, Nicola M.D., B.C. for Core Energy Corporation, April, 1980.

GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

THAT I am a Consulting Geophysicist of Geotronics Surveys Ltd., with offices at #403 - 750 West Pender Street, Vancouver, British Columbia.

I further certify:

1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.

2. I have been practising my profession for the past 13 years and have been active in the mining industry for the past 15 years.

3. I am an active member of the Society of Exploration Geophysicists and a member of the European Association of Exploration Geophysicists.

4. This report is compiled from data obtained from a MaxMin II Electromagnetic survey carried out under the supervision of my self during October and November, 1980.

5. I do not hold any interest in Core Resources Corporation, or the LUCK Claim, nor do I expect to receive any interest as a result of writing this report.

David G. Mark,
Geophysicist

May 5, 1981

AFFIDAVIT OF EXPENSES

The MaxMin II EM survey was carried out on the LUCK Claim, Quilchena Creek, Nicola M.D., B.C. to the value of the following:-

FIELD:

Geophysical Technician and helper 70 hours at $40/hour	$2,800.00
Vehicle rental, 9 days at $60.00/day	540.00
Room and board, 2 men at $40/day/man 9 days	740.00
MaxMin II EM instrument rental, 2 weeks at $350/week	700.00
	$4,860.00

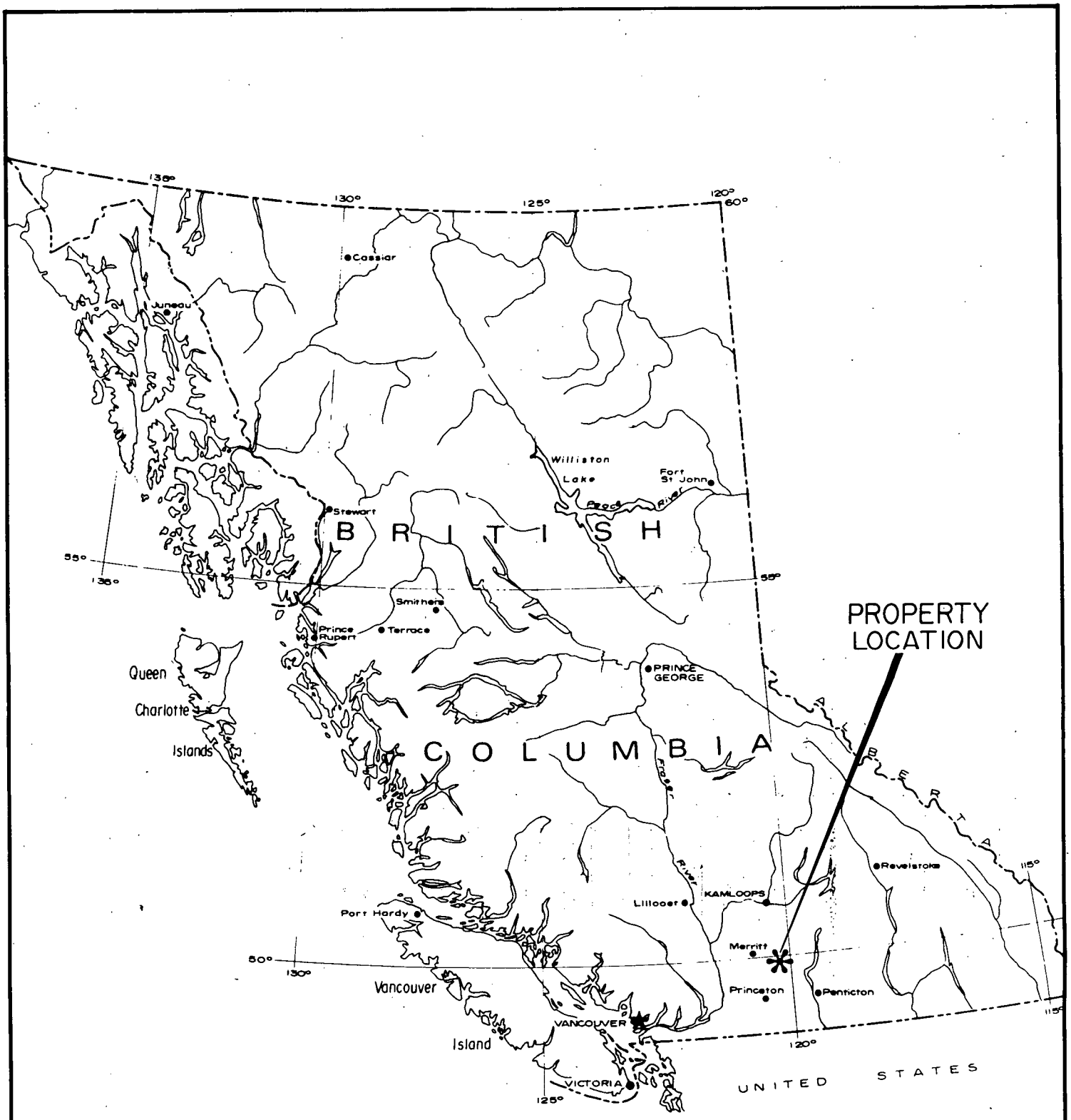
REPORT:

Geophysicist, 15 hours at $37.50/hour	$ 562.50
Geophysical Technician, 15 hours at $22.50/hour	337.50
Drafting and printing	650.00
Typing, photocopying and compilation	120.00
	$1,670.00

TOTAL	$6,530.00

Respectfully submitted,
GEOTRONICS SURVEYS LTD.

David G. Mark,
Manager



Km 100 0 100 200 300 400 Km

Miles 100 50 0 100 200 Miles

GEOTRONICS SURVEYS LTD.

CORE ENERGY CORPORATION

LUCK CLAIM

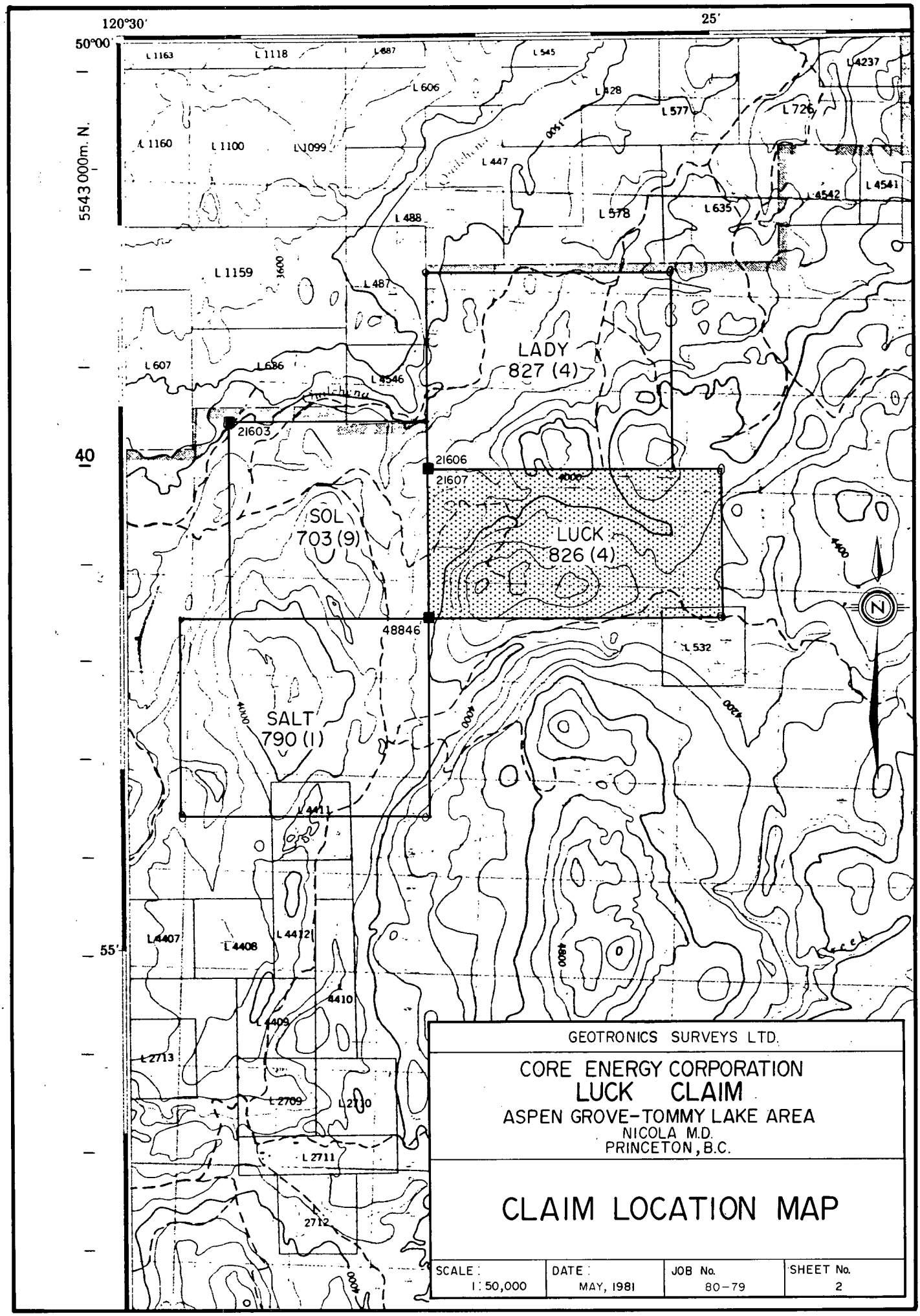
ASPEN GROVE-TOMMY LAKE AREA

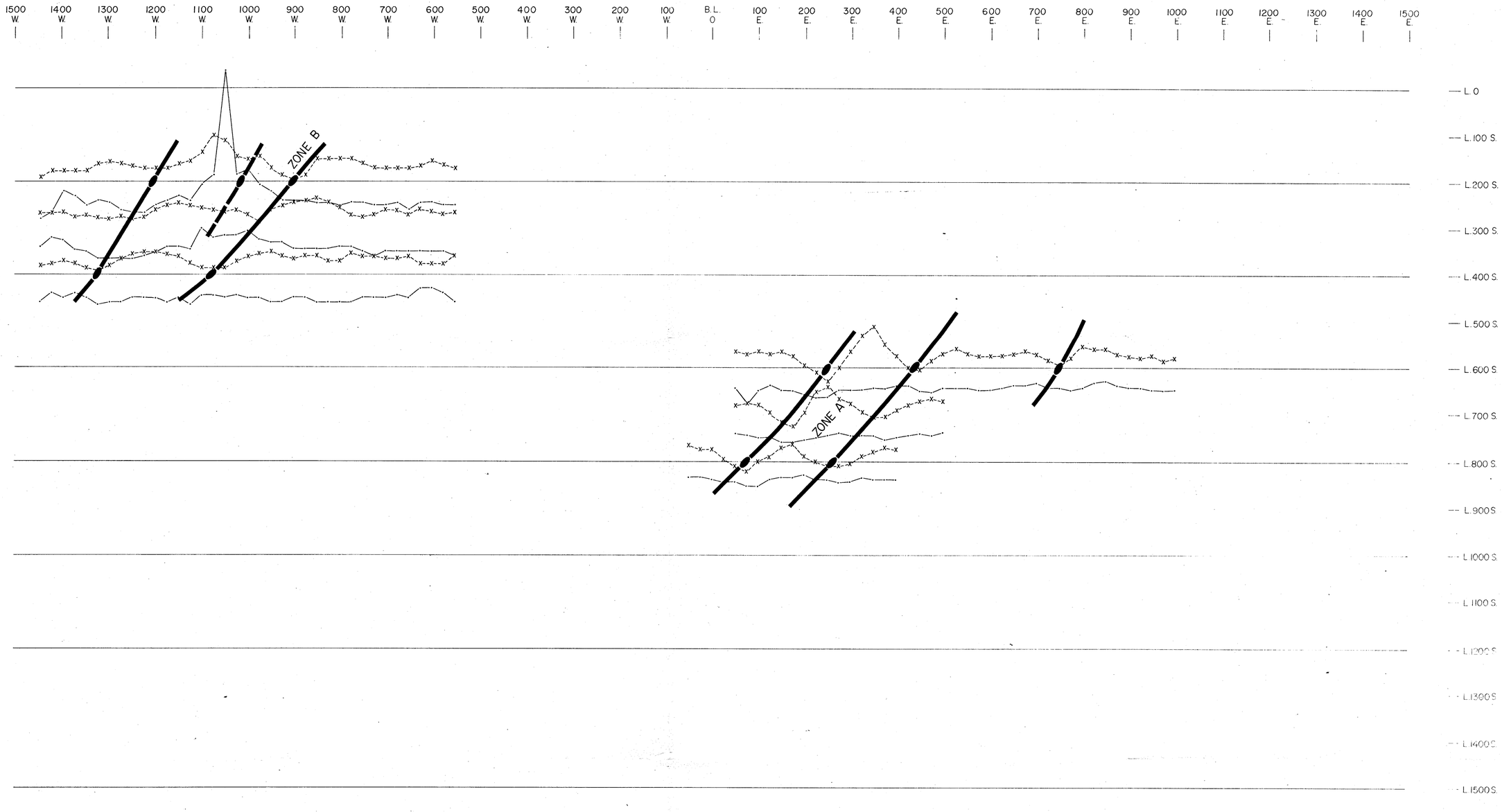
NICOLA M.D.

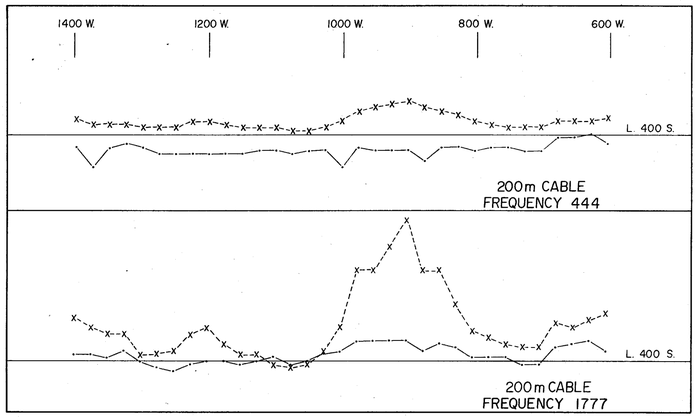
PRINCETON, B.C.

LOCATION MAP

SCALE:	DATE:	JOB No.	SHEET No.
As shown	MAY, 1981	80-79	1


120°30'
25'
50°00'
55'
40
5543 000m. N.
L 1163
L 1118
L 687
L 545
L 606
L 828
L 577
L 726
L 4237
L 1160
L 1100
L 1099
L 447
L 4542
L 4541
L 635
L 578
L 488
L 1159
3600
L 487
LADY
827 (4)
L 607
L 686
L 4546
21603
21606
21607
4000
SOL
703 (9)
LUCK
826 (4)
4400
48846
L 532
SALT
790 (1)
L 4411
L 4407
L 4408
L 4412
4410
L 4409
L 2713
L 2709
L 2710
L 2711
2712
GEOTRONICS SURVEYS LTD.
CORE ENERGY CORPORATION
LUCK CLAIM
ASPEN GROVE-TOMMY LAKE AREA
NICOLA M.D.
PRINCETON, B.C.
CLAIM LOCATION MAP
SCALE: 1:50,000
DATE: MAY, 1981
JOB No. 80-79
SHEET No. 2





LEGEND

+10%
+ 5%
0 — PERCENT DEVIATION FROM NORMAL FIELD
- 5%
-10%

IN - PHASE RESPONSE

OUT - OF - PHASE RESPONSE

INSTRUMENTATION : APEX MAX - MIN II E.M.

FREQUENCY : 1777 HERTZ

DEFINITE CONDUCTOR

POSSIBLE CONDUCTOR

N

COIL SPACING 100m.

To accompany geophysical report by David G Mark, geophysicist, dated April, '81

GEOTRONICS SURVEYS LTD.

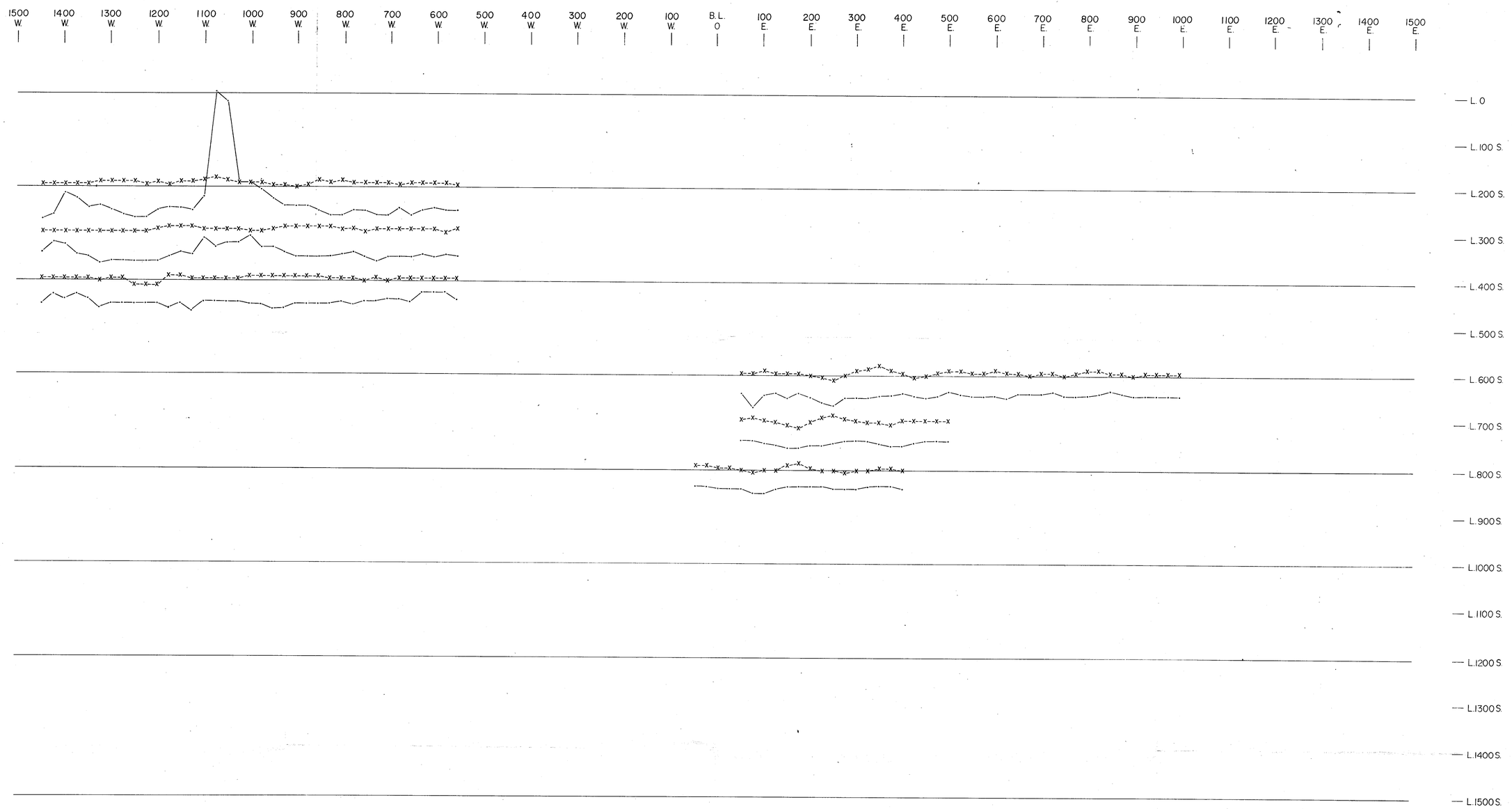
CORE ENERGY CORPORATION

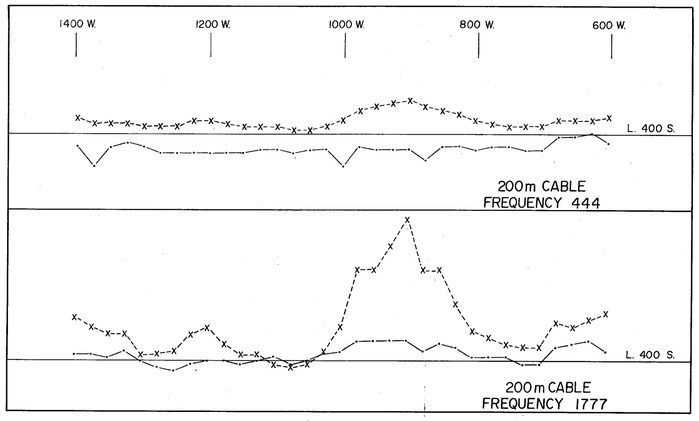
LUCK CLAIM

ASPEN GROVE - TOMMY LAKE AREA
NICOLA, M.D.
PRINCETON, B.C.

MAX. MIN. II ELECTROMAGNETIC SURVEY PROFILES

DRAWN BY:	JOB No.:	DATE:	SCALE:	SHEET No:
J.C. / J.W.	80-79	MAY, 1981	1:5000	3





LEGEND

+10%
+5%
0
-5%
-10%
PERCENT DEVIATION FROM NORMAL FIELD

IN-PHASE RESPONSE

OUT-OF-PHASE RESPONSE

INSTRUMENTATION : APEX MAX-MIN II E.M.

FREQUENCY : 444 HERTZ

COIL SPACING 100m.

To accompany geophysical report by David G Mark, geophysicist, dated April, '81

GEOTRONICS SURVEYS LTD.

CORE ENERGY CORPORATION

LUCK CLAIM

ASPEN GROVE - TOMMY LAKE AREA
NICOLA, M.D.
PRINCETON, B.C.

MAX. MIN. II ELECTROMAGNETIC SURVEY PROFILES

DRAWN BY :	JOB No. :	DATE :	SCALE :	SHEET No. :
J.C. / J.W.	80-79	MAY, 1981	1:5000	4