

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 92.04.18

ASSESSMENT REPORT 21506

MINING DIVISION: Fort Steele

PROPERTY: Laurie
LOCATION: LAT 49 23 00 LONG 116 04 00
UTM 11 5470270 567742
NTS 082F08E
CAMP: 001 Purcell Belt (Sullivan)
CLAIM(S): Laurie 1-12, Laurie 14-20
OPERATOR(S): Morgan, L.D. Klewchuck, P.
AUTHOR(S): Klewchuck, P.
REPORT YEAR: 1991, 18 Pages
COMMODITIES
SEARCHED FOR: Gold, Lead, Zinc, Copper, Silver
KEYWORDS: Helikian, Purcell Supergroup, Aldridge Formation, Quartzites
Siltstones, Argillites, Shear zones, Quartz veins
WORK
DONE: Geophysical
EMGR 23.2 km; VLF
RELATED
REPORTS: 20140

ASSESSMENT REPORT

on

GEOPHYSICS

LAURIE CLAIMS

Moyle River Area

Fort Steele Mining Division

NTS 82 F/8 E

Latitude $49^{\circ} 23'N$
Longitude $116^{\circ} 04'W$

by

PETER KLEWCHUK
Geologist

July 15, 1991

LOG NO: JUL 19 1991 RD.

ACTION:

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,506

1.00 INTRODUCTION

1.10 Location and Access

The Laurie claims are located in the Moyie River area, approximately 32 kilometers southwest of Cranbrook, B.C., in the Fort Steele Mining Division, reference map NTS 82 F/8 E (Figures 1 & 2). Access is by road along the Lumberton and Moyie logging roads from Cranbrook. A series of logging roads within tributary drainages provide good access to much of the claim block.

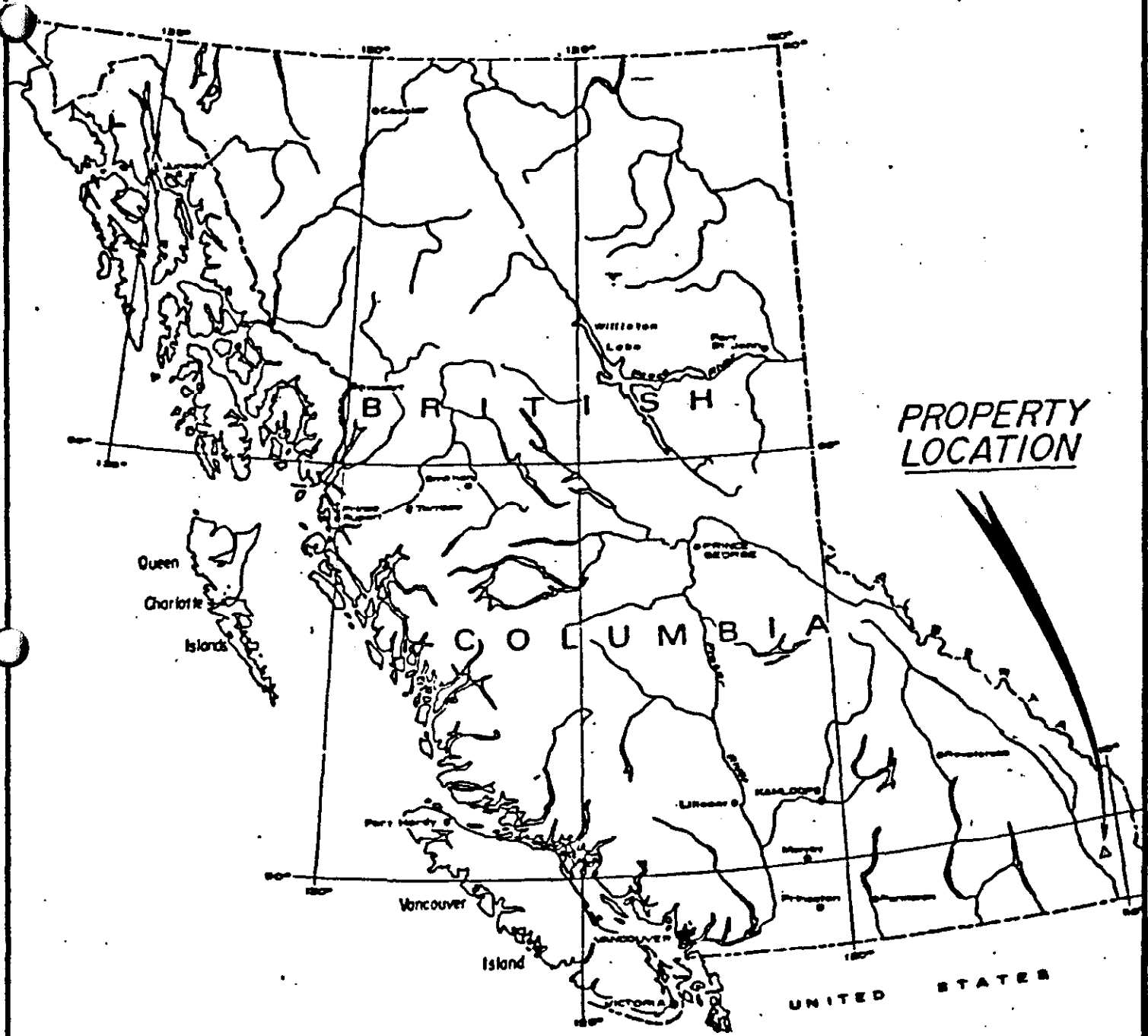
1.20 History

The area of the present Laurie property was formerly held by Cominco Ltd. as the Lew claims. Cominco held the ground for about 8 years during which time work was directed toward the discovery of a Sullivan-type stratiform lead-zinc-silver deposit. Geological mapping, geochemistry and geophysics were conducted on the Lew claims.

1.30 Property

The Laurie claim block (Figure 2) consists of 127 contiguous 2-post and 4-post claim units. This report deals with the Laurie 1 to 20 claims, a total of 81 units. All of the claims reported on here were staked by L.D. Morgan in 1989:

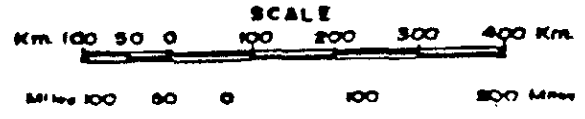
Claim Name	Number of Units	Record Number	Date Staked	Date Due
Laurie 1	20	3392	April 18, 1989	1992
Laurie 2	16	3432	April 26, 1989	1992
Laurie 3	20	3444	May 7, 1989	1992
Laurie 4	1	3445	May 6, 1989	1992
Laurie 5	1	3446	May 6, 1989	1992
Laurie 6	1	3447	May 6, 1989	1992
Laurie 7	1	3448	May 6, 1989	1992
Laurie 8	1	3449	May 6, 1989	1992
Laurie 9	10	3494	June 15, 1989	1992
Laurie 10	1	3506	July 1, 1989	1992
Laurie 11	1	3507	July 1, 1989	1992
Laurie 12	1	3508	July 1, 1989	1992
Laurie 14	1	3509	July 1, 1989	1992
Laurie 15	1	3574	July 15, 1889	1992
Laurie 16	1	3575	July 15, 1989	1992
Laurie 17	1	3576	July 15, 1989	1992
Laurie 18	1	3577	July 15, 1989	1992
Laurie 19	1	3578	July 15, 1989	1992
Laurie 20	1	3579	July 15, 1989	1992



PROPERTY
LOCATION

Laurie Claims

LOCATION MAP



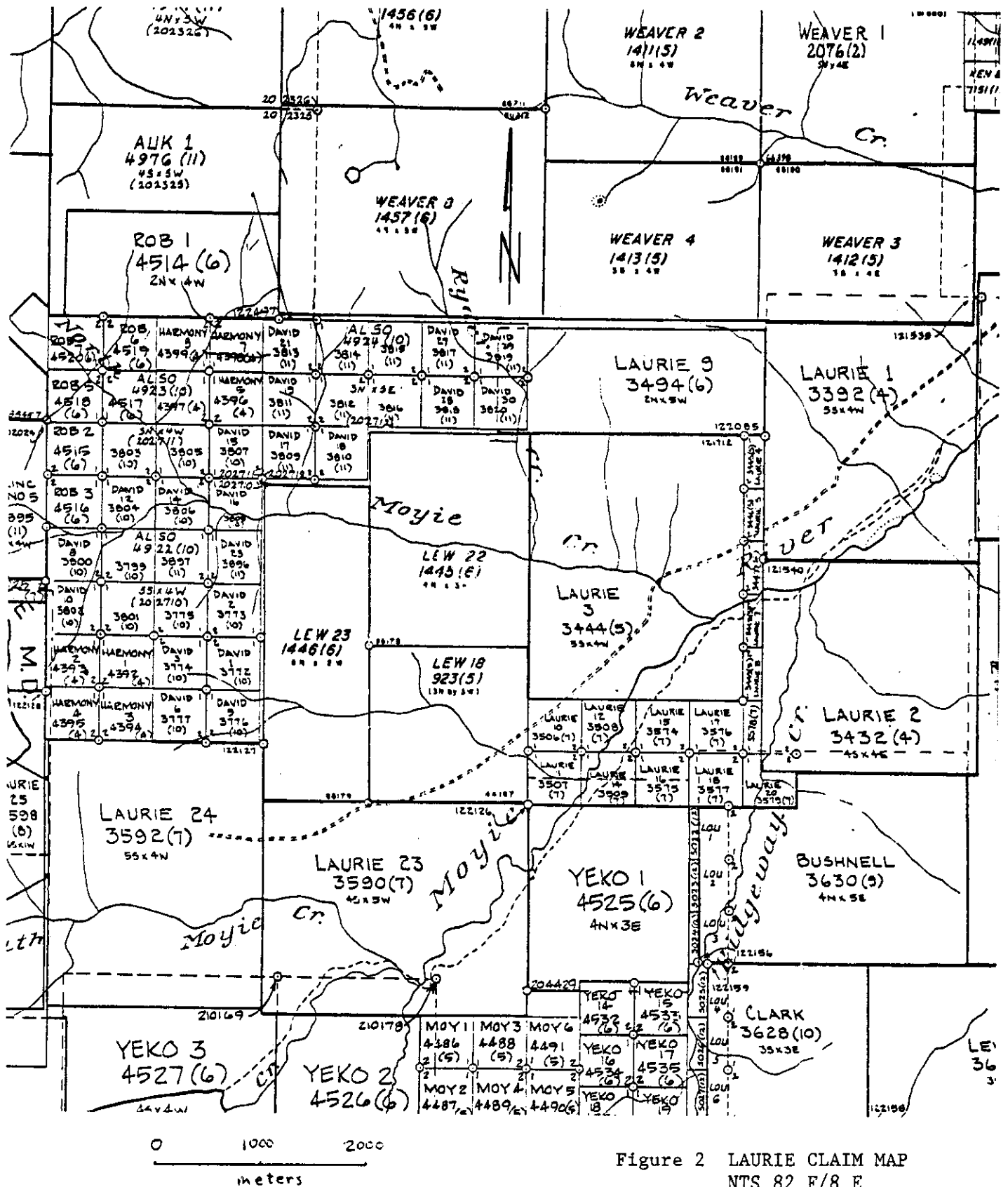


Figure 2 LAURIE CLAIM MAP
NTS 82 F/8 E

1.40 Scope of Present Program

A program of geophysical surveying has been done on the Laurie claims to help identify structural breaks which might be controls of bedrock mineralization. Total Field Ground Magnetics and VLF-EM surveying were both done on the property. These include reconnaissance road traverses of 14.6 km and a grid of 9.1 km.

2.00 GEOLOGY

2.10 Regional Geology

The area of the Laurie claims is underlain by Precambrian Purcell Supergroup rocks of the Aldridge Formation. These are fine-grained clastics that include impure quartzites, siltstones and argillites. The rocks have been metamorphosed to lower greenschist facies and have been intruded by a series of basaltic composition sills and dykes.

2.20 Property Geology

The dominant bedding attitude on the property is northeast striking and steep to moderately west-dipping. A series of shear zones cross the property, oriented northeasterly with steep west dips. These shears occur east of the regional Old Baldy Fault system which is exposed just northwest of the Laurie property boundary.

Quartz veins either parallel the shearing or are southeast-northwest oriented, roughly parallel to the St. Eugene and Vine vein systems. Recently discovered lode gold mineralization on the David claims adjacent to the Laurie claims is hosted by a NNE-oriented shear zone. Prospecting on the Laurie claims has discovered a number of structural breaks which carry evidence of hydrothermal alteration similar to that of the David claims.

3.00 GEOPHYSICS

A geophysical exploration program has recently been completed on the Laurie claims to help define structure which might be related to bedrock gold mineralization. Reconnaissance surveying was carried out on the roads which cross the property with the expectation of identifying anomalies that would then be detailed by grid surveying. Figure 3 shows roads on the claim block which have been surveyed and a grid area where detailed VLF-EM surveying has been completed.

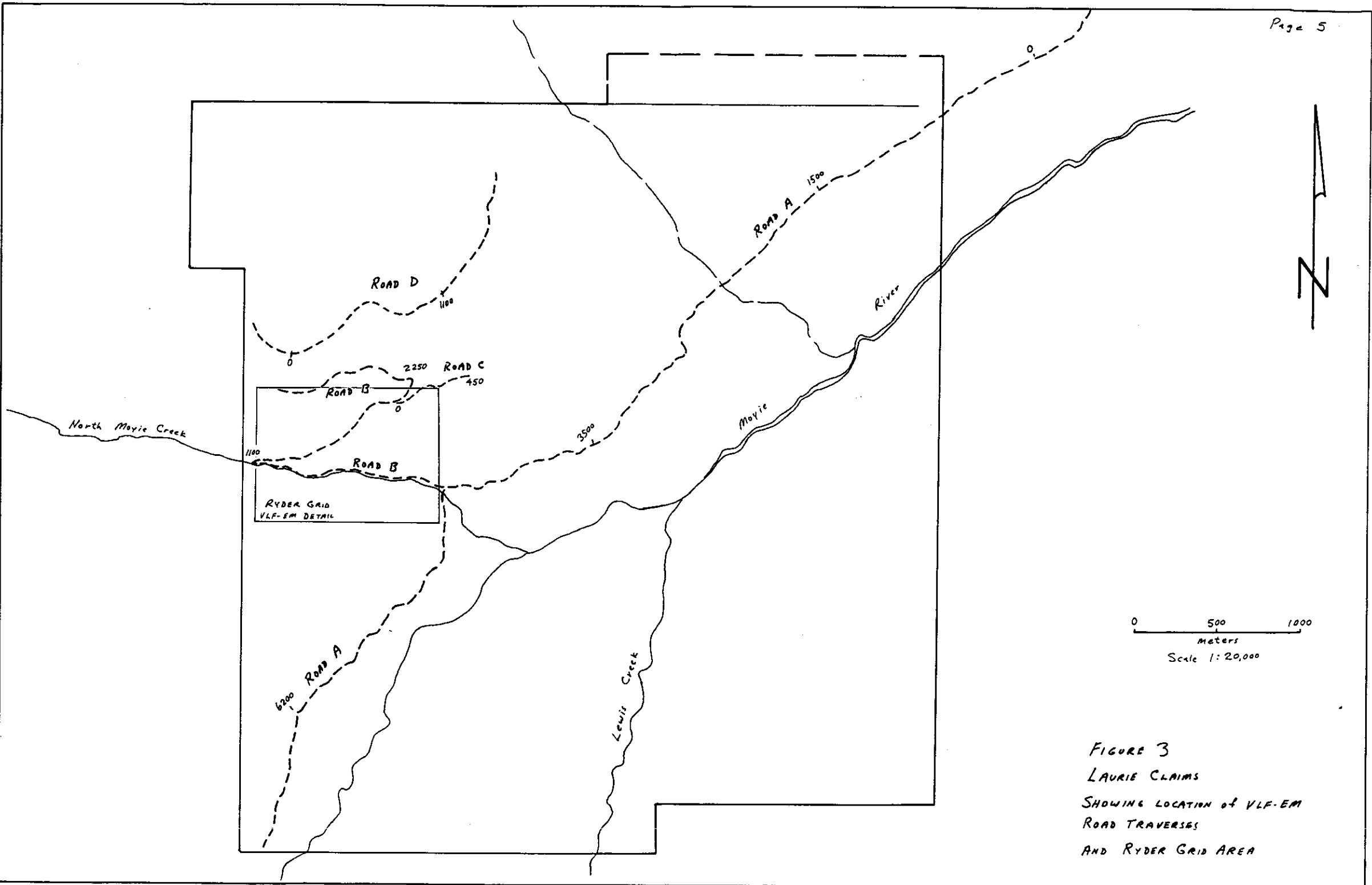


FIGURE 3
LAURIE CLAIMS
SHOWING LOCATION OF VLF-EM
ROAD TRAVERSES
AND RYDER GRID AREA

3.10 Total Field Magnetic Survey

A reconnaissance mag surveying program was started on the roads; initial results were quite flat, problems were experienced with frequent bouts of strong magnetic interference, and VLF-EM results seemed to be more productive, so the magnetic surveying was discontinued and the remainder of the survey concentrated on the VLF-EM work.

3.20 VLF-EM

Reconnaissance surveying was completed along 14.1 km of roads on the Laurie claims and detailed surveying was done over 9.1 km of grid lines. A Crone Radem unit, manufactured by Crone Geophysics Limited of Mississauga, Ontario was used for the survey. Most of the work was done using Seattle, Washington as the transmitting station (24.8 KHz). Some work was done using Annapolis, Maryland (21.4 KHz) and Lualualei, Hawaii (23.4 KHz).

3.21 Reconnaissance VLF-EM

Four roads, referred to as roads A, B, C and D were traversed and surveyed at 25 meter stations.

Road A crosses the claim block at a northeasterly orientation and runs sub-parallel to a large power line which produced strong interference with the VLF-EM readings where the road came close to the power line (Figure 4). A number of possible anomalies detected by the survey warrant additional work to determine if they are reproducible and to establish their orientation and extent.

Surveying along road B produced a strong anomaly about 650 meters west of the Moyie - North Moyie road junction (Fig. 5). This anomaly was subsequently detailed by the Ryder Grid (section 3.22). Another response at about 1900 meters on the road remains to be looked at in detail.

Road C which extends eastward off road B has a broad, fairly strong response near 300 meters, just northeast of the Ryder Grid (Figures 3 and 6).

Road D (Fig. 6) shows a possible response near 400 meters, possibly related to the features seen on the Ryder Grid.

FIELD STRENGTH DIP

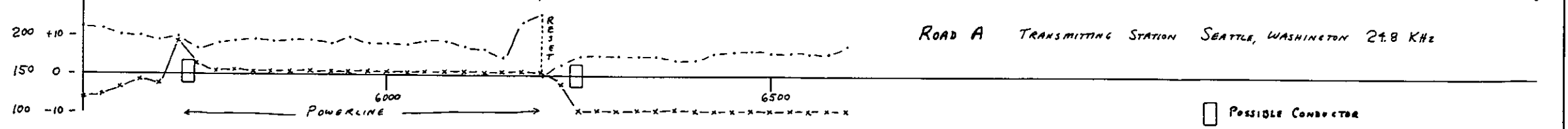
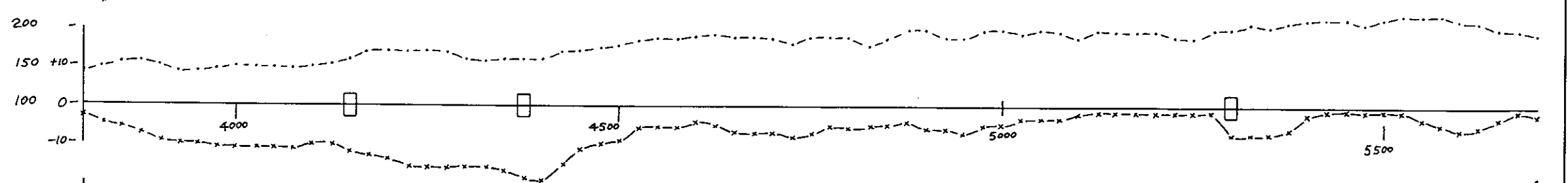
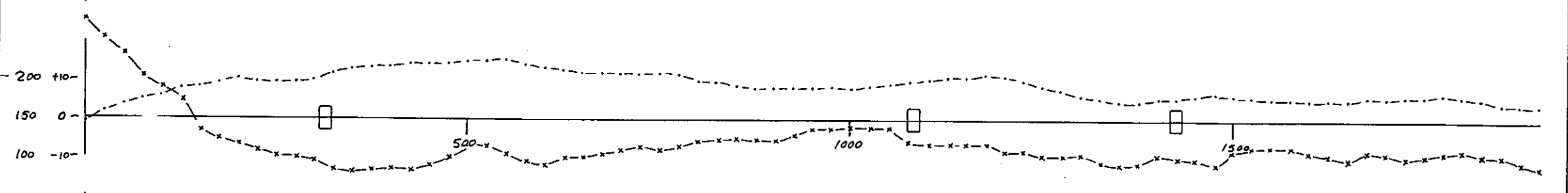
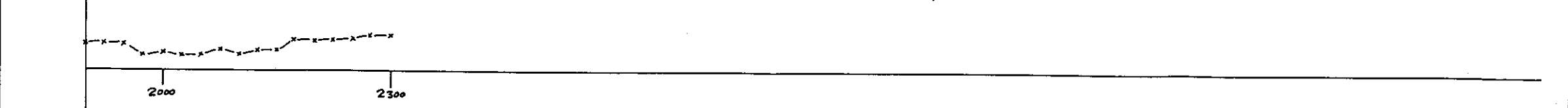
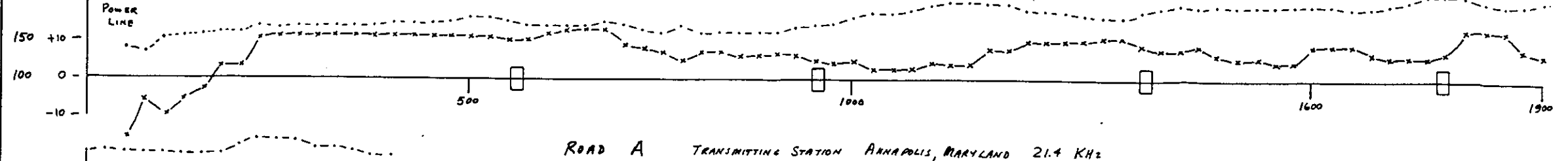
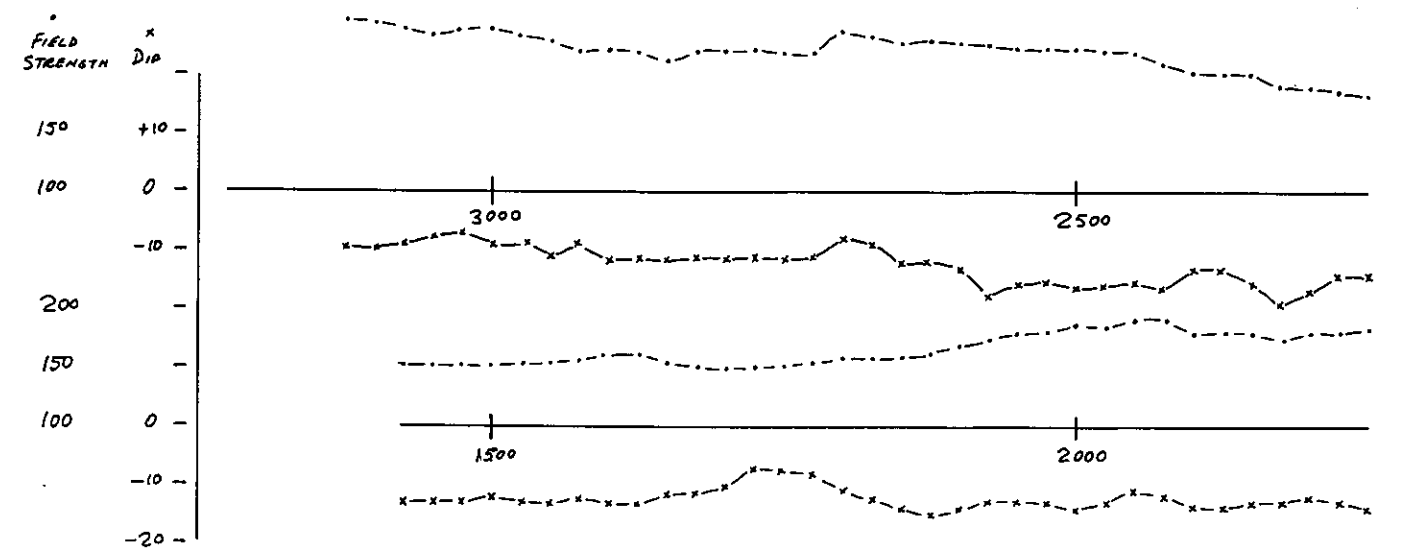
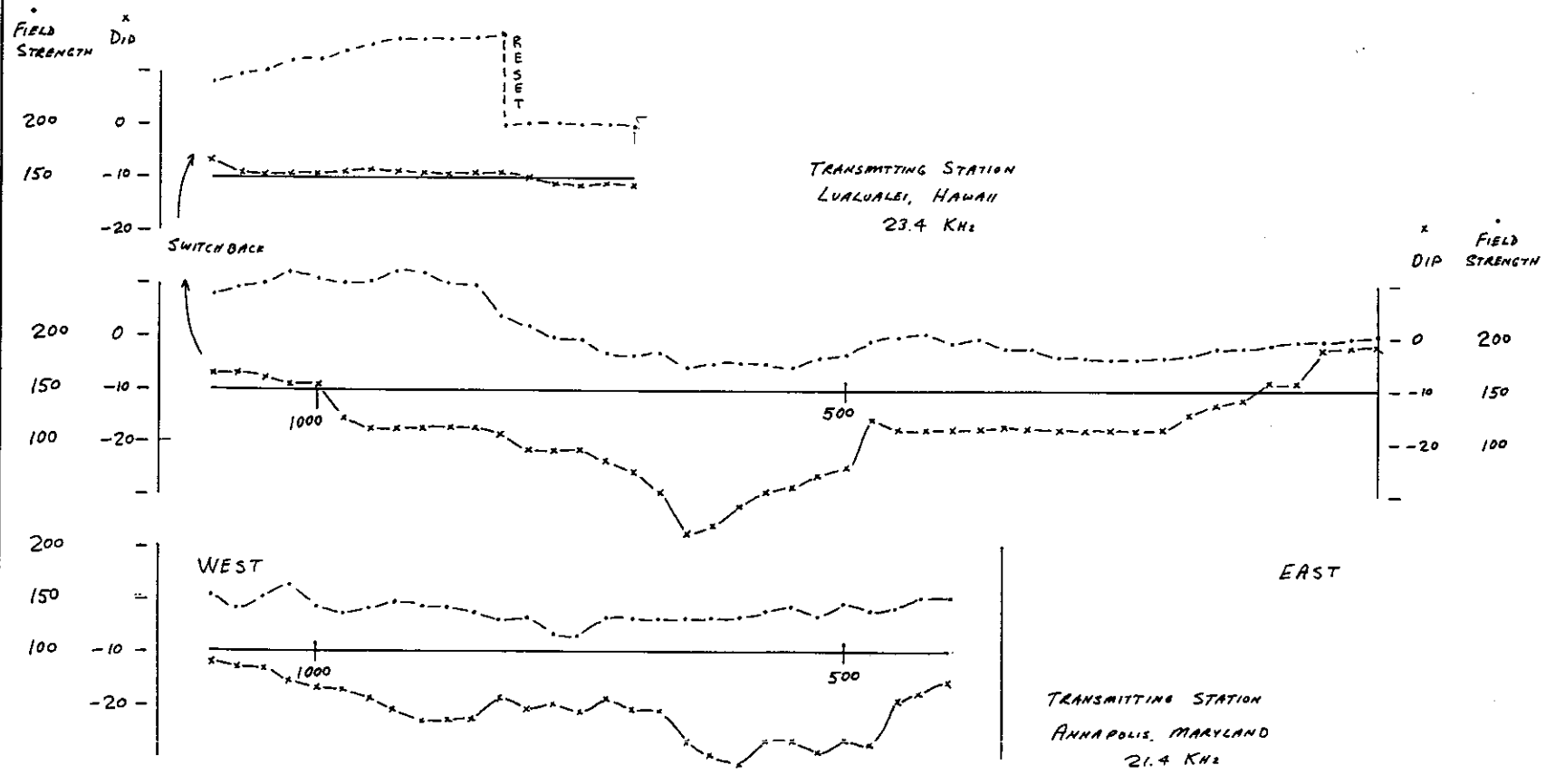
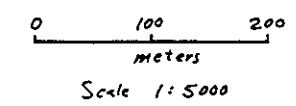


FIGURE 4
ROAD A RECONNAISSANCE
VLF-EM PROFILES
For location see Figure 3



TRANSMITTING STATION
SEATTLE, WASHINGTON
24.8 KHz

SWITCH BACK



TRANSMITTING STATION
LUALUALEI, HAWAII
23.4 KHz

SWITCH BACK

WEST

EAST

TRANSMITTING STATION
ANNAPOLIS, MARYLAND
21.4 KHz

FIGURE 5
ROAD B RECONNAISSANCE
VLF-EM PROFILES
For location see Figure 3

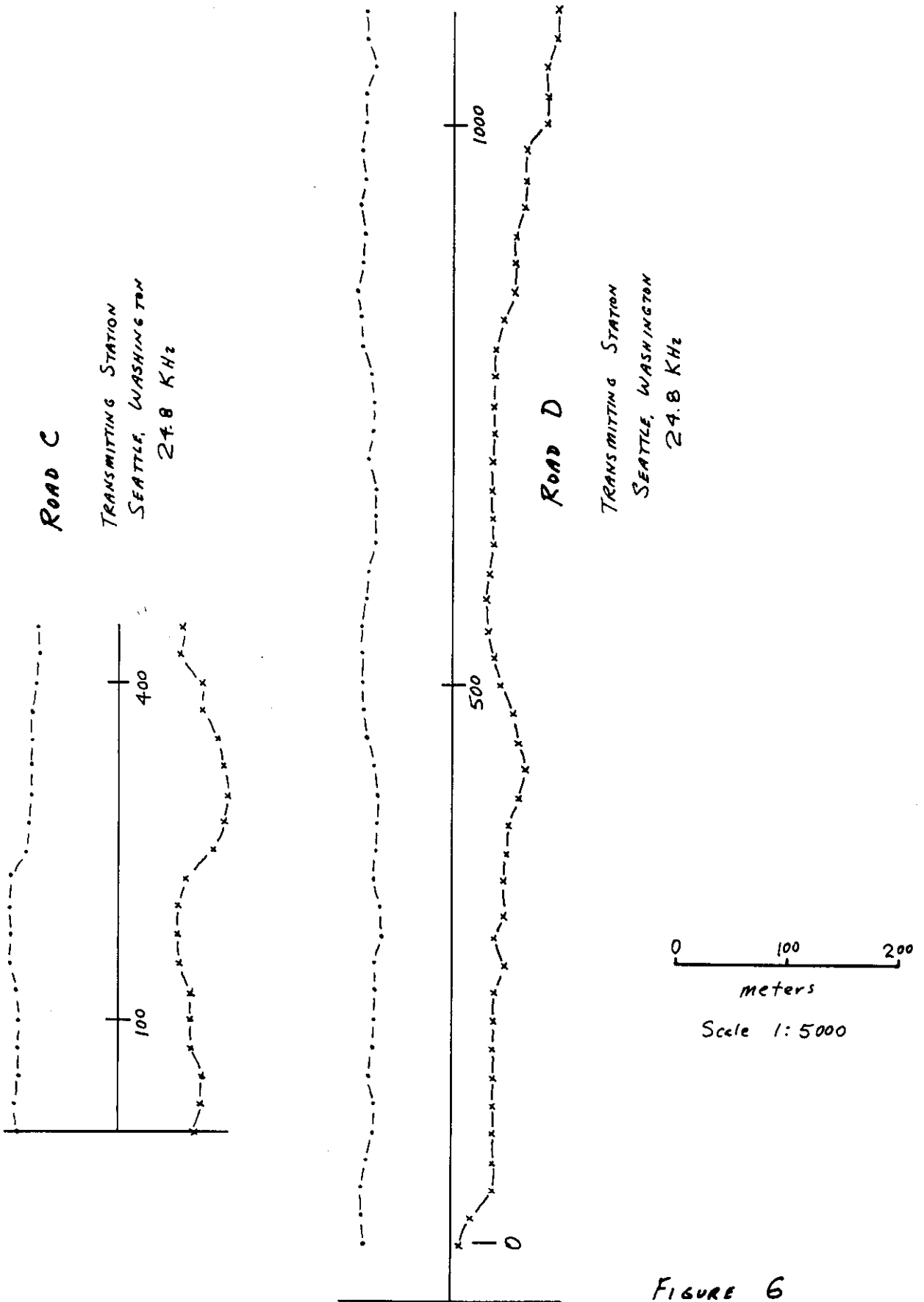


FIGURE 6
RECONNAISSANCE VLF-EM
ROADS C & D
For location see Figure 3.

3.22 Ryder Grid

The strongest VLF-EM anomaly detected by the reconnaissance road traverses occurs on road B. This anomaly was detailed by 9.1 km of grid surveying. North-south grid lines were established at 50 and 100 meter separations with survey stations every 25 meters along the lines.

The results are plotted as line profiles on Figures 7a to 7d and as a plan of Fraser filtered data on Figure 8. A number of areas of anomalous responses have been identified and partially delineated by the survey. The results suggest an easterly-oriented (110 azimuth) structural break or conductor exists just north of North Moyie Creek. The anomaly varies in intensity and there are a series of anomalous responses in the vicinity of this inferred break, both to the north and the south (Fig. 8) indicating that the structural picture may be quite complex.

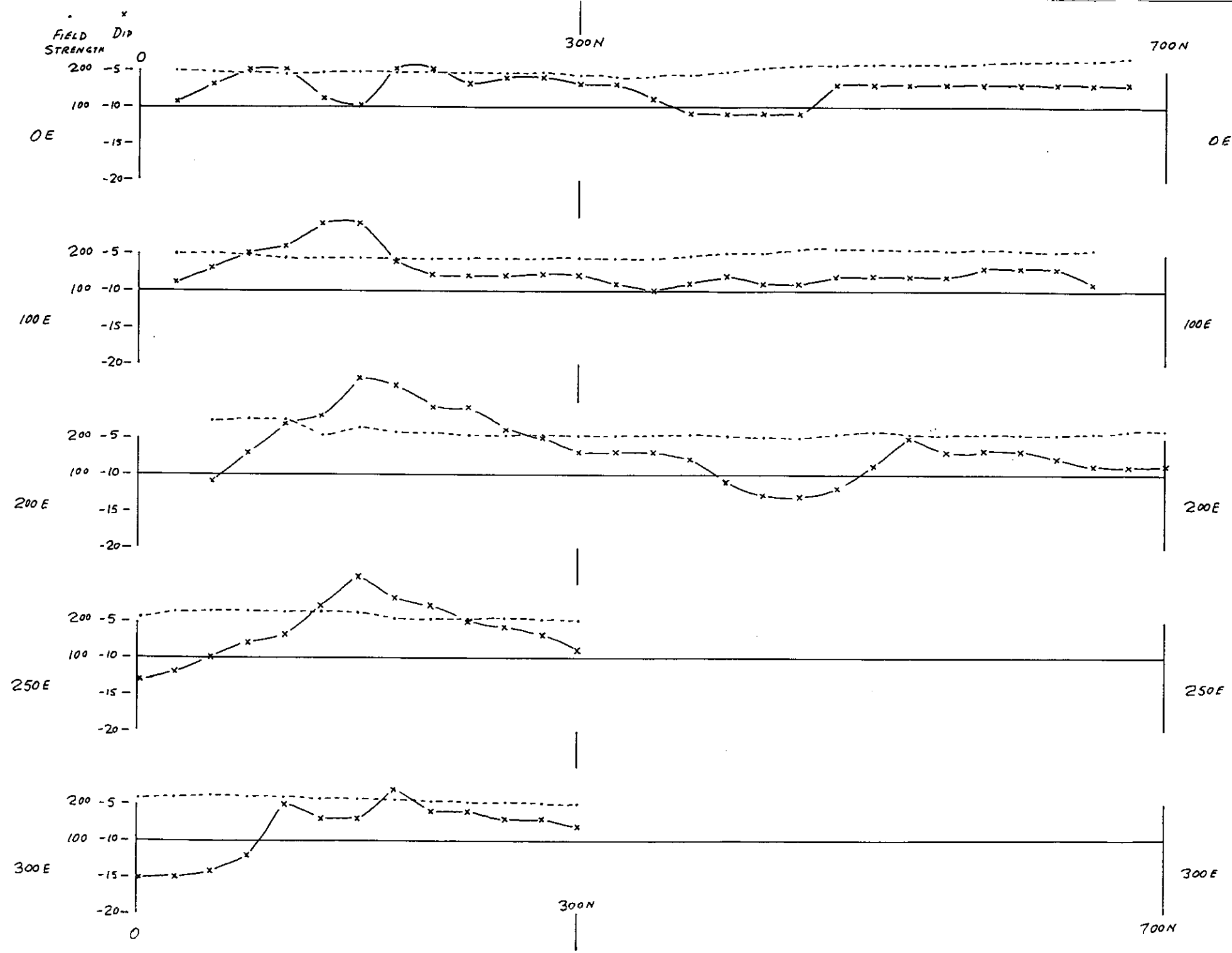
4.00 CONCLUSIONS

Reconnaissance and detailed VLF-EM surveying on the Laurie claims has identified a number of weak to strong responses. Detailed surveying on the strongest reconnaissance anomaly has partly defined an easterly oriented structural break or conductor immediately north of and parallel to North Moyie Creek. The strongest parts of the anomaly should be trenched.

VLF-EM surveying appears to be a useful exploration tool for locating buried structure.

5.00 STATEMENT OF COSTS

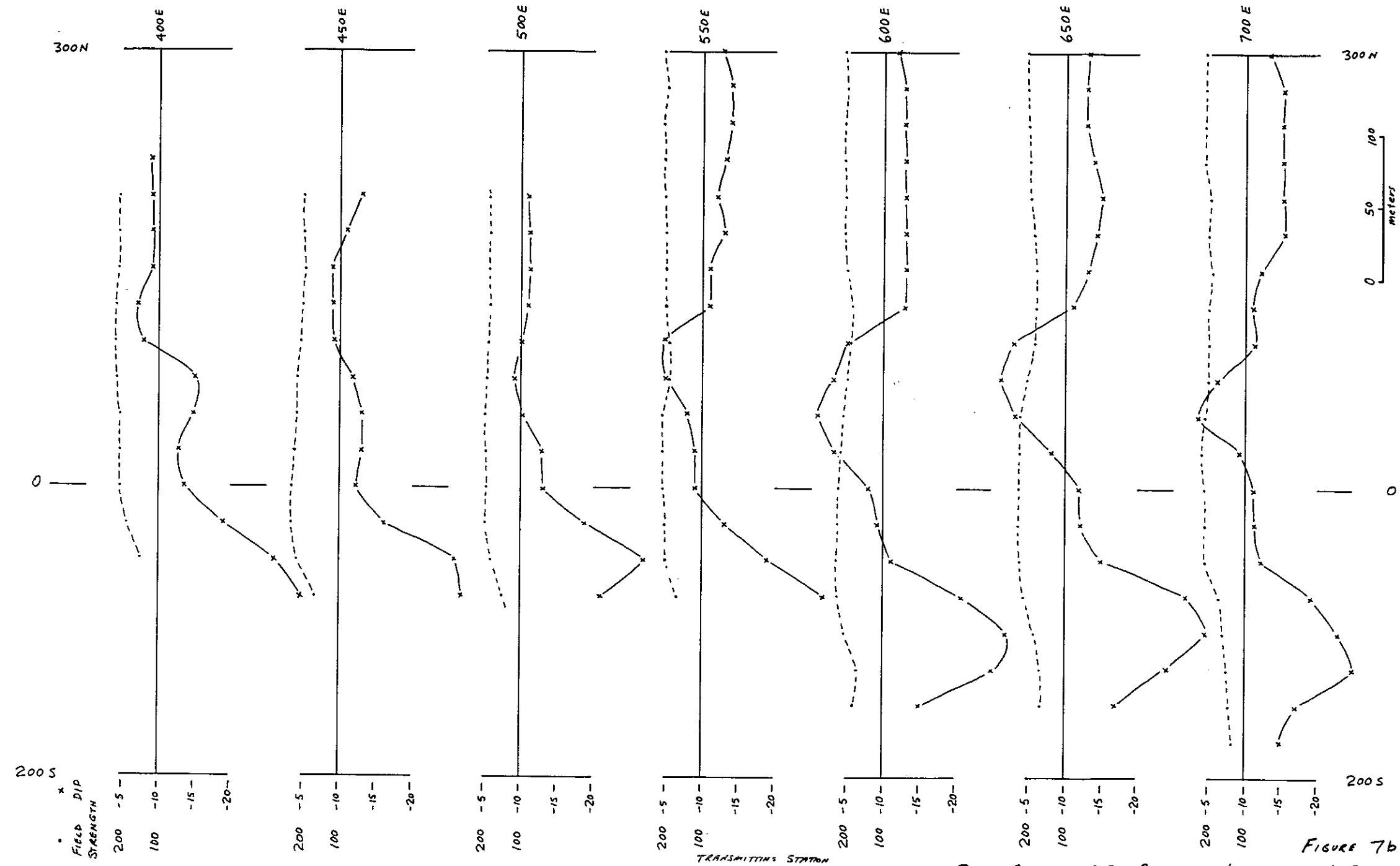
27 man-days fieldwork @ \$200.00/day	\$5400.00
18 days truck rental @ \$50.00/day	900.00
8 days Ski-doo rental @ \$40.00/day	320.00
VLF-EM and Mag rental 23 days @ \$30.00/day	690.00
Report 4 days @ \$225.00/day	450.00
Drafting and supplies	605.00
TOTAL COST	\$8365.00
	=====



0 50 100
meters
Scale 1:250

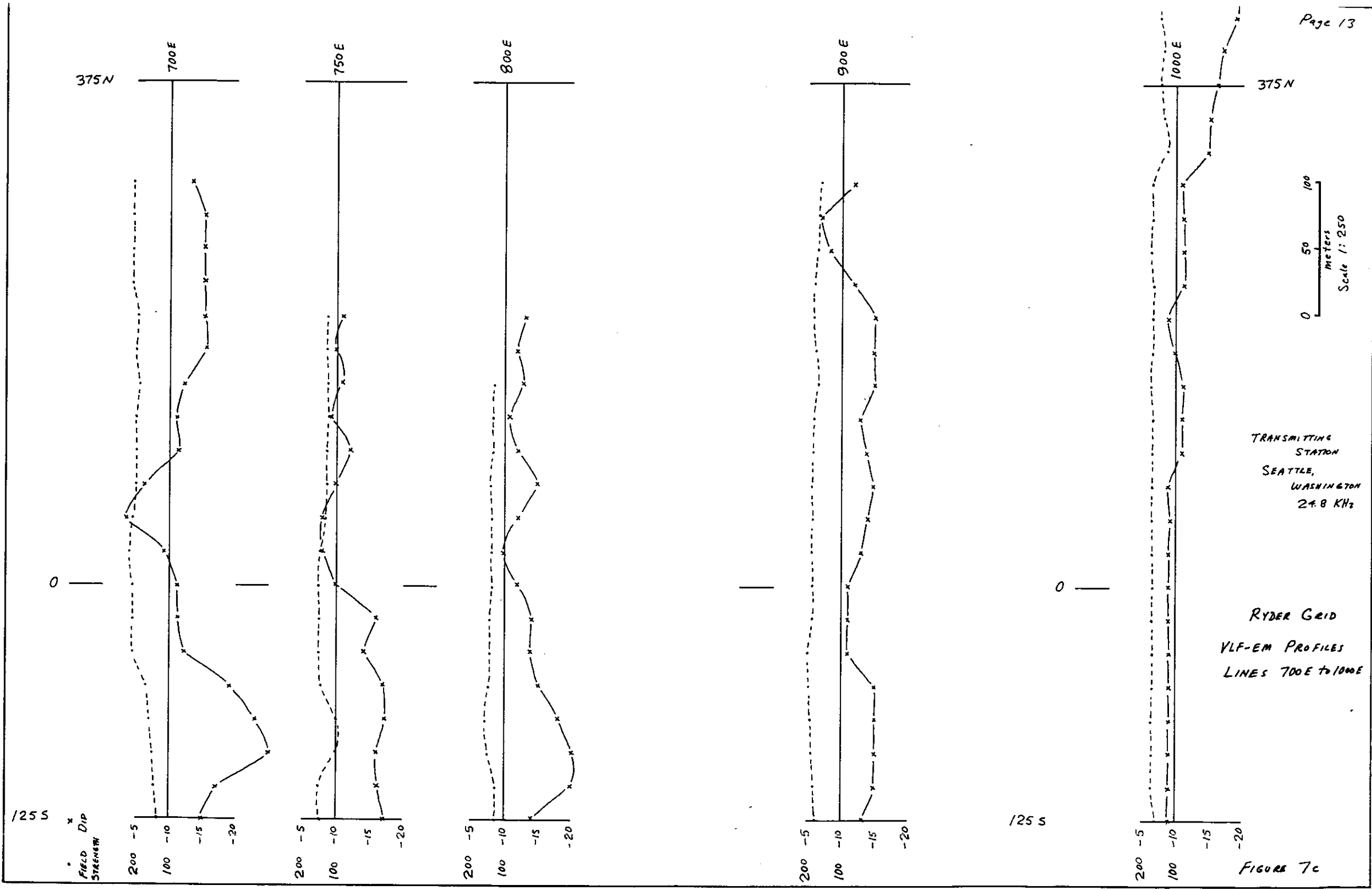
TRANSMITTING STATION
SEATTLE, WASHINGTON
24.8 KHz

FIGURE 7a
RYDER GRID
VLF-EM PROFILES
LINES OE TO 300E



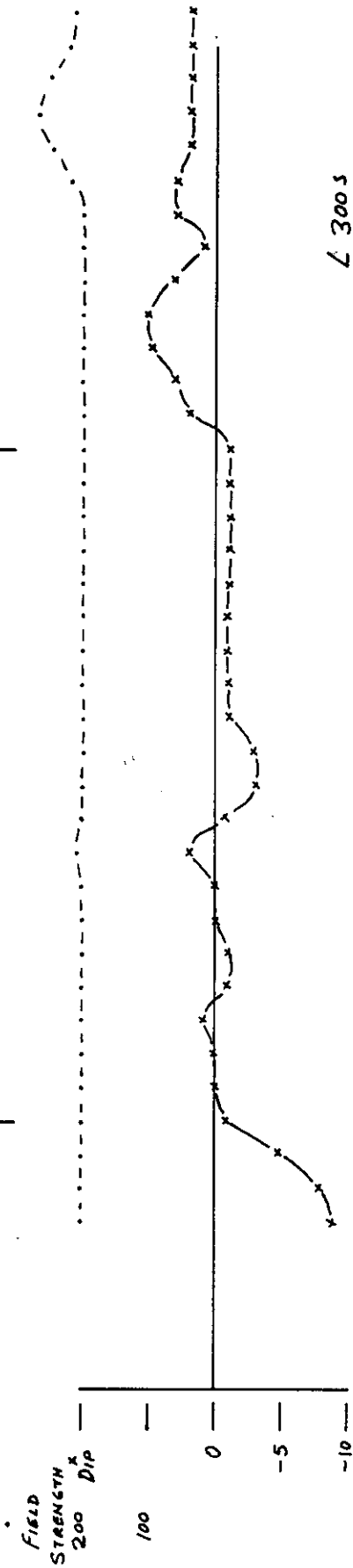
TRANSMITTING STATION
 SEATTLE, WASHINGTON 24.8 KHz
 RYDER GRID VLF-EM PROFILES LINES 400E TO 700E

FIGURE 7b



500 E

1000 E



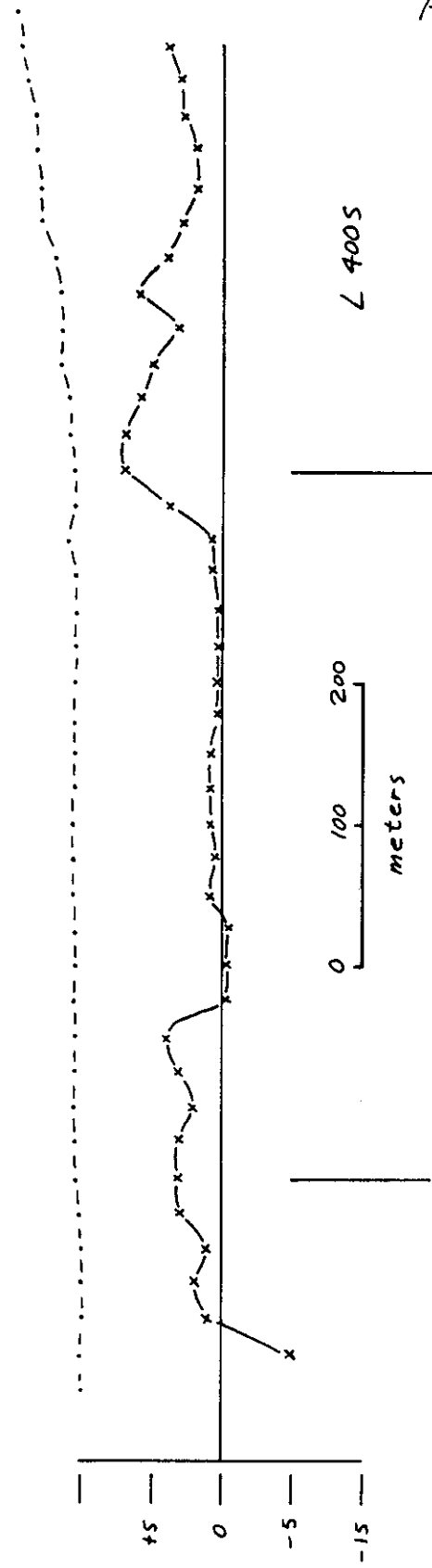
300 S

Vertical line marker

Vertical line marker

FIELD STRENGTH * Dip

200 100 0 -5 -15

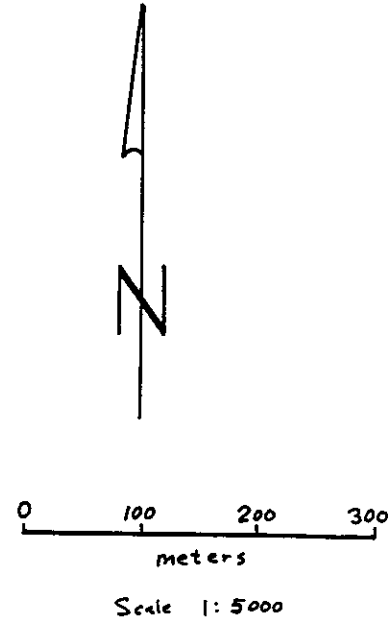
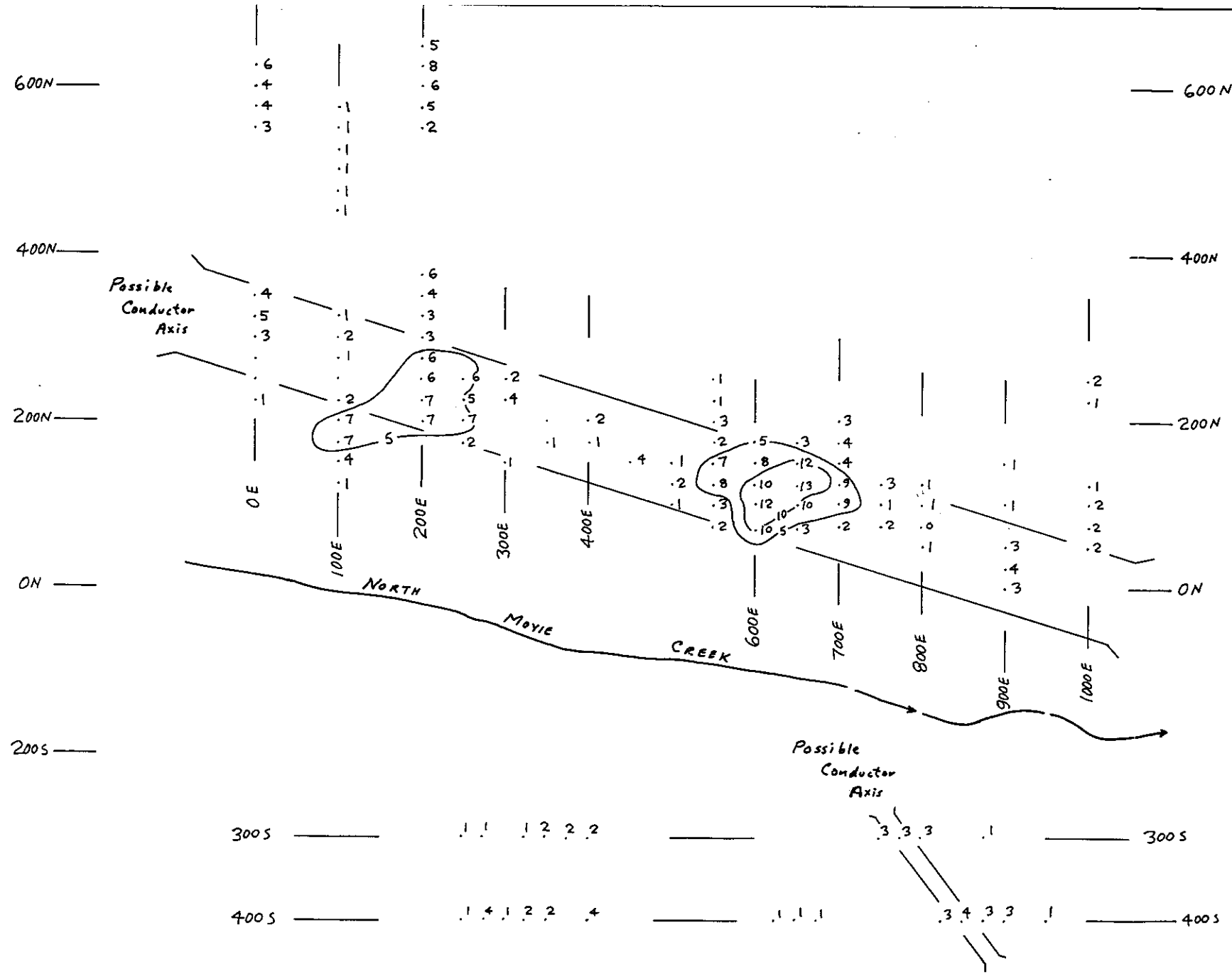


400 S

0 100 200 meters

RYDER GRID
VLF-EM PROFILES
LINES 300S & 400S

FIGURE 7d



RYDER GRID
PLAN OF FRASER FILTERED
VLF-EM DATA

FIGURE 8

6.00 AUTHOR'S QUALIFICATIONS

As author of this report I, Peter Klewchuk, certify that:

1. I am an independent consulting geologist with offices at 246 Moyie Street, Kimberley, British Columbia.
2. I am a graduate geologist with a BSc degree (1969) from the University of British Columbia and an MSc degree (1972) from the University of Calgary.
3. I am a Fellow in good standing of the Geological Association of Canada.
4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 18 years.
5. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 12th day of July, 1991.

Peter Klewchuk

Peter Klewchuk
Geologist