

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 90.04.06

ASSESSMENT REPORT 18813

MINING DIVISION: Victoria

PROPERTY: D.J.  
LOCATION: LAT 48 32 30 LONG 123 52 00  
UTM 10 5376650 436028  
NTS 092B12W

CAMP: 022 Leech River Gold Belt

CLAIM(S): D.J. 1  
OPERATOR(S): Milwarde-Yates, D.  
AUTHOR(S): Milwarde-Yates, D.  
REPORT YEAR: 1989, 47 Pages  
KEYWORDS: Cretaceous, Leach River Complex, Pelites, Schists, Amphibolites  
Phyllites

WORK  
DONE: Geophysical, Physical  
EMGR 22.6 km; VLF  
LINE 9.3 km

LOG NO:	0809	RD.
ACTION:		
FILE NO:		

GEOPHYSICAL REPORT

VLF-EM SURVEY  
ON  
THE D.J. 1 MINERAL CLAIM  
VICTORIA MINING DIVISION  
SAN JUAN RIVER, BRITISH COLUMBIA

LOCATION:

NTS 92B/12  
LATITUDE 48°-32'-30"  
LONGITUDE 123°-52'-00"

OWNER/OPERATOR:

DEV MILWARDE-YATES  
5598 ROCKY POINT ROAD  
RR #1 VICTORIA, BC  
V9B 5B4

FILMED

AUTHOR:

DEV MILWARDE-YATES

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,813

## TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>
TABLE OF CONTENTS	1
SUMMARY	2
INTRODUCTION	2
OBJECTIVE	2
LOCATION & ACCESS	2
TOPOGRAPHY & VEGETATION	2-3
CLIMATE	3
HISTORY	3
REGIONAL GEOLOGY	3-4
GEOPHYSICS	10-11
DISCUSSION OF FIELD WORK	12-13
RECOMMENDATIONS	13
RESULTS & CONCLUSIONS	13
VLF-EM SURVEY SHEETS	15-28
ITEMIZED COST STATEMENT	44
STATEMENT OF QUALIFICATIONS	45
REFERENCES	46

<u>ILLUSTRATIONS</u>	<u>FIG. NO.</u>	<u>PAGE</u>
KEY PLAN	1	5
REGIONAL GEOLOGY	2	6
LOCATION PLAN	3	7
ACCESS PLAN	4	8
TOPGRAPHY	5	9
GRID FOR VLF-EM SURVEY	6	14
VLF-EM PROFILES	7-20	29-42
CONTOURED FRASER FILTERED DATA	21	43

### SUMMARY

A VLF-EM survey was conducted over 22.6 kilometers of grid lines on the D.J. 1 claim. It was successful in outlining a series of weak parallel anomalies throughout the claim which are generally coincident with some small parallel ridges. These ridges have a strike of approximately S78°E astronomic and dip approximately 80° to the north. They consist of schists and greywacke containing small quartz veins with occasional epidote. The Fraser filtered data suggests that a series of minor parallel faults are located in the immediate area.

A potentially strong anomaly is located on line 13+00W x 7+50S. A VLF-EM survey should be conducted over the remainder of the claim. A magnetometer survey should also be conducted over the whole claim. Rock sampling and geochemical soil sampling should be conducted in anomalous areas. Care should be taken when soil sampling is in progress because much of the surface area has been disturbed by logging.

### INTRODUCTION

A VLF-EM survey was conducted by the writer over approximately half the D.J. 1 claim which consists of 15 units. The work was carried out between November 10 1988 and March 19 1989. The following report is based on the results of the VLF-EM survey.

### OBJECTIVE

A VLF-EM survey was conducted to locate faulting, shear zones, structural changes and areas of mineralization.

### LOCATION & ACCESS

The D.J. 1 claim is situated in the Victoria Mining Division approximately 26 kilometers north of the Village of Sooke, BC. It is situated west of the North fork of the Leech river, opposite Survey Mountain. The claim is reached by Otter Point Road, a paved public road which starts in the Village of Sooke and thence by private logging roads known as the Butler Main then north on a branch road known as the North Jordan Main which runs through the claim.

These logging roads are the property of C.I.P., and have restricted travel on weekdays due to logging operations.

### TOPOGRAPHY & VEGETATION

The D.J. 1 claim, consisting of 15 units, lies at the headwaters of the west fork of the Leech river west of Survey Mountain. It is located on a large high plateau which reaches the eastern slopes of Valentine Mountain. The general topography of the area consists of small rolling ridges and valleys interlaced with small winter streams.

Most of the claim is open logging slash. Some small to medium-sized "Christmas trees" and scattered underbrush lie in the southeast part of the claim.

Elevation on the claim runs from approximately 640 metres at the southeast corner of the claim to 840 metres along the West boundary.

Numerous small streams flow south through the claim to the Leech river, and there are several low swampy depressions within the claim boundaries. There is sufficient water available on the claim for mining purposes. However, the Greater Victoria Water District is constructing a diversion dam on the Leech River approximately 10 km downstream from the D.J. 1 claim. Conceivably, land use restrictions might well be imposed on the area at some point in the future.

#### CLIMATE

The climate of the area is moderate. Annual rainfall in the area is approximately 1000 mm. Winter snows could curtail access to the claims from November to March.

#### HISTORY

The D.J. 1 Claim, consisting of 15 units, was currently staked and recorded in April 1988. A large Keuffel and Esser surveyor's compass and tripod were used to establish grid lines. All distances were measured using a hip chain, and chainages were slope corrected except for the overruns beyond the north and south boundaries, which were done by the pace and compass method.

There are no known records or physical evidence of any previous work being done on the D.J. 1 Claim. The area was first staked in the staking rush of 1982-83.

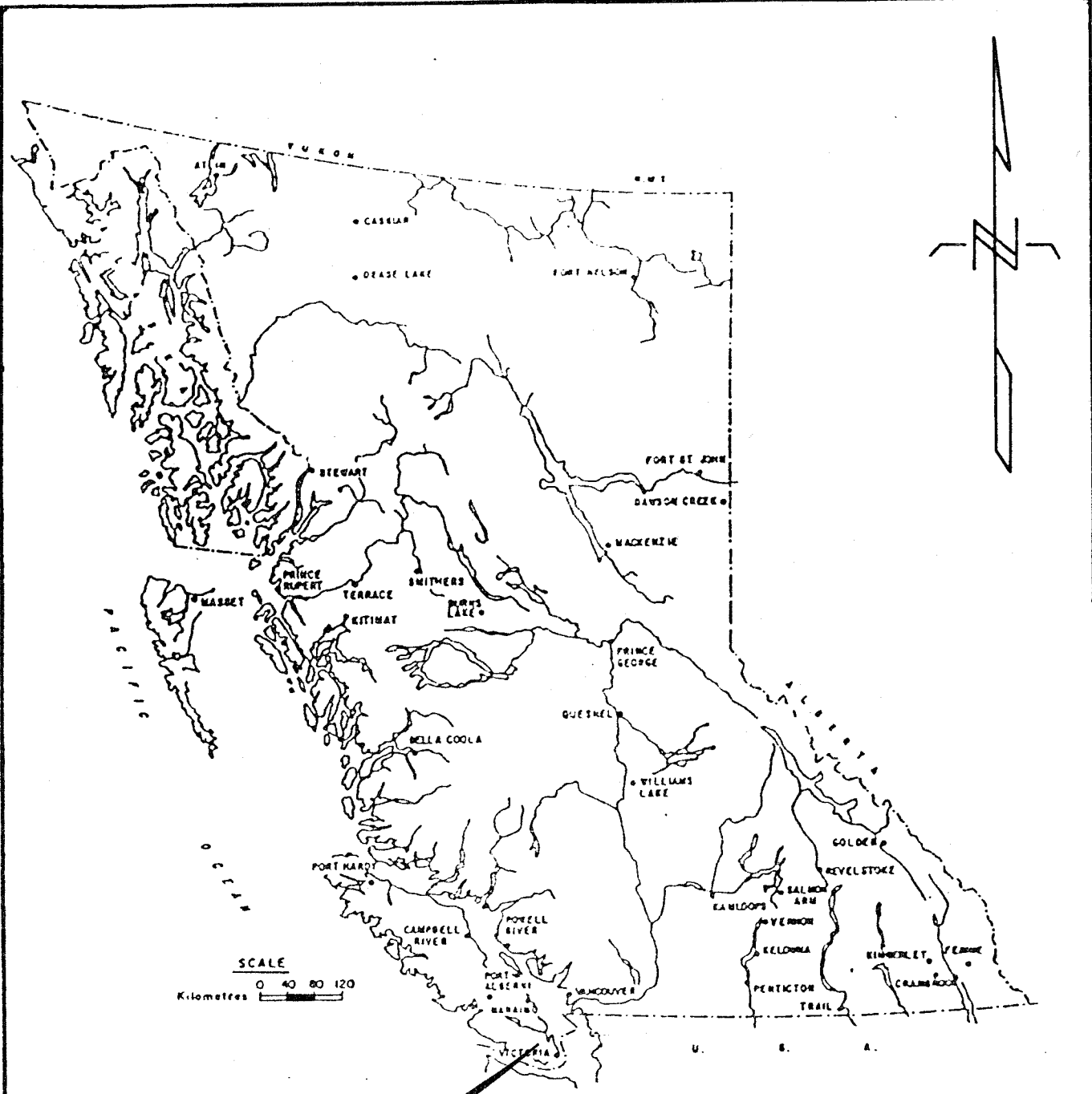
<u>CLAIM NAME</u>	<u>NO OF UNITS</u>	<u>RECORD NO</u>	<u>DATE RECORDED</u>	<u>OWNER</u>
D.J. 1	15	2115	April 7, 1988	D. Milwarde-Yates

#### REGIONAL GEOLOGY

The D.J. 1 claim is situated in the vicinity of the Leech River fault which separates the early Eocene Metchosin Formation of volcanics and related intrusions as well as the Sooke Gabbros. The Leech River fault is considered by Fairchild and Cowan to be comprised of two to four subparallel, linear and steeply dipping faults that are interpreted to be left-lateral strike-slip faults which were active after metamorphism and deformation of the Leech River complex, and were involved in the placement of the complex as an allochthonous block with respect to the surrounding terraines.

The Leech River complex comprises metamorphosed pelites, sandstones and volcanics that have been metamorphosed to low-pressure greenschist to amphibolite facies (andalusite-staurolite-biotite) during two deformational stages. Deformation and metamorphism were accompanied by composite foliated to non-foliated sills and dykes of granitic to dioritic composition and related later pegmatites and quartz-tourmaline veins; the conclusion of these events has been dated at 39-41 Ma. The two deformational events resulted in "macroscopic east-plunging folds and related coaxial, mesoscopic linear structures, parasitic folds, and axial plane cleavages". (Fairchild and Cowan, 1982).

















Retrograde metamorphism has been documented by Grove (1984), Wingert (1984) and Read (1986) and is postulated to overprint earlier metamorphic events. Grove (1984) suggests a relationship between this retrograde event and the Leech River shear-fault event. Gold mineralization, with accessory pyrite or arsenopyrite and associated quartz and quartz-calcite veining, appears to belong to the superimposed, later and lower grade, metamorphic event (Read, 1986). Peatfield (1986) suggests a possible "pre-folding decollement, as suggested by the apparent repetition of the amphibolite units on the nose of the anticline" (east of Valentine Mountain).



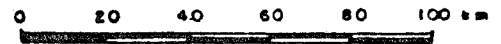
**CLAIM  
LOCATION**

SUBJECT KEY PLAN	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M-Y.	DATE 89-06-01
SCALE AS SHOWN	FIG. 1

**LEGEND**

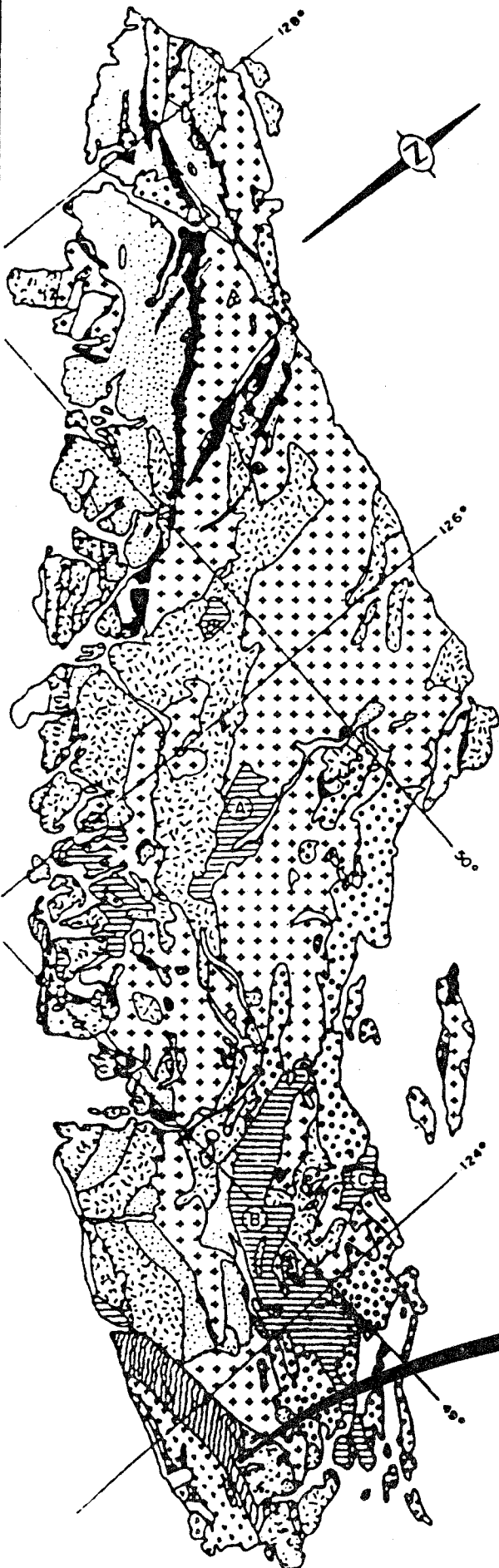
-  Carmanah Group Middle Tertiary
  -  Carface Intrusions Early to Middle Tertiary
  -  Melchosi Volcanics Early Tertiary
  -  Nanaimo Group Late Cretaceous
  -  Queen Charlotte Group } Late Jurassic
  -  Kyuquot Group } 10  
Early Cretaceous
  -  Leech River Formation } Early and (?) Middle Jurassic
  -  Pacific Rim Complex } Early Jurassic
  -  Island Intrusions Early and (?) Middle Triassic
  -  Bonanza Group Early and (?) Middle Triassic
  -  Vancouver Group } Early and (?) Middle Triassic
  -  Parson Bay Formation } Early and (?) Middle Triassic
  -  Quatsino Formation } Early and (?) Middle Triassic
  -  Karmutsen Formation Paleozoic
  -  Sicker Group Paleozoic
  -  Metamorphic Complexes Jurassic and Older
- (A) Buttle Lake Uplift
  - (B) Cowichan - Horne Lake Uplift
  - (C) Nanoose Uplift

*After Muller, GSC, 1980*

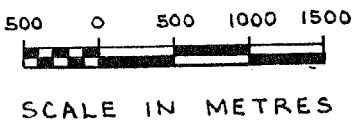
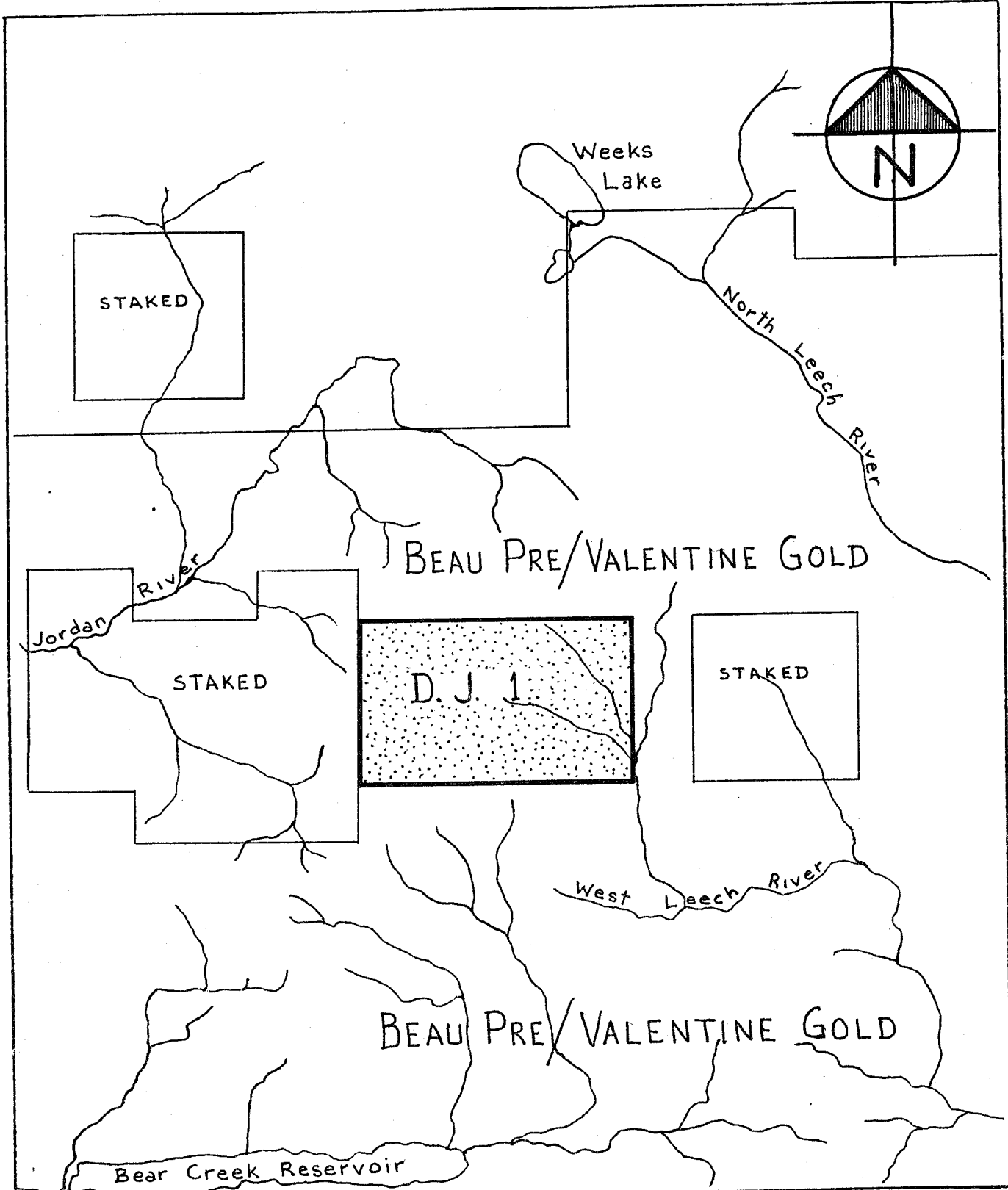


**LOCATION**

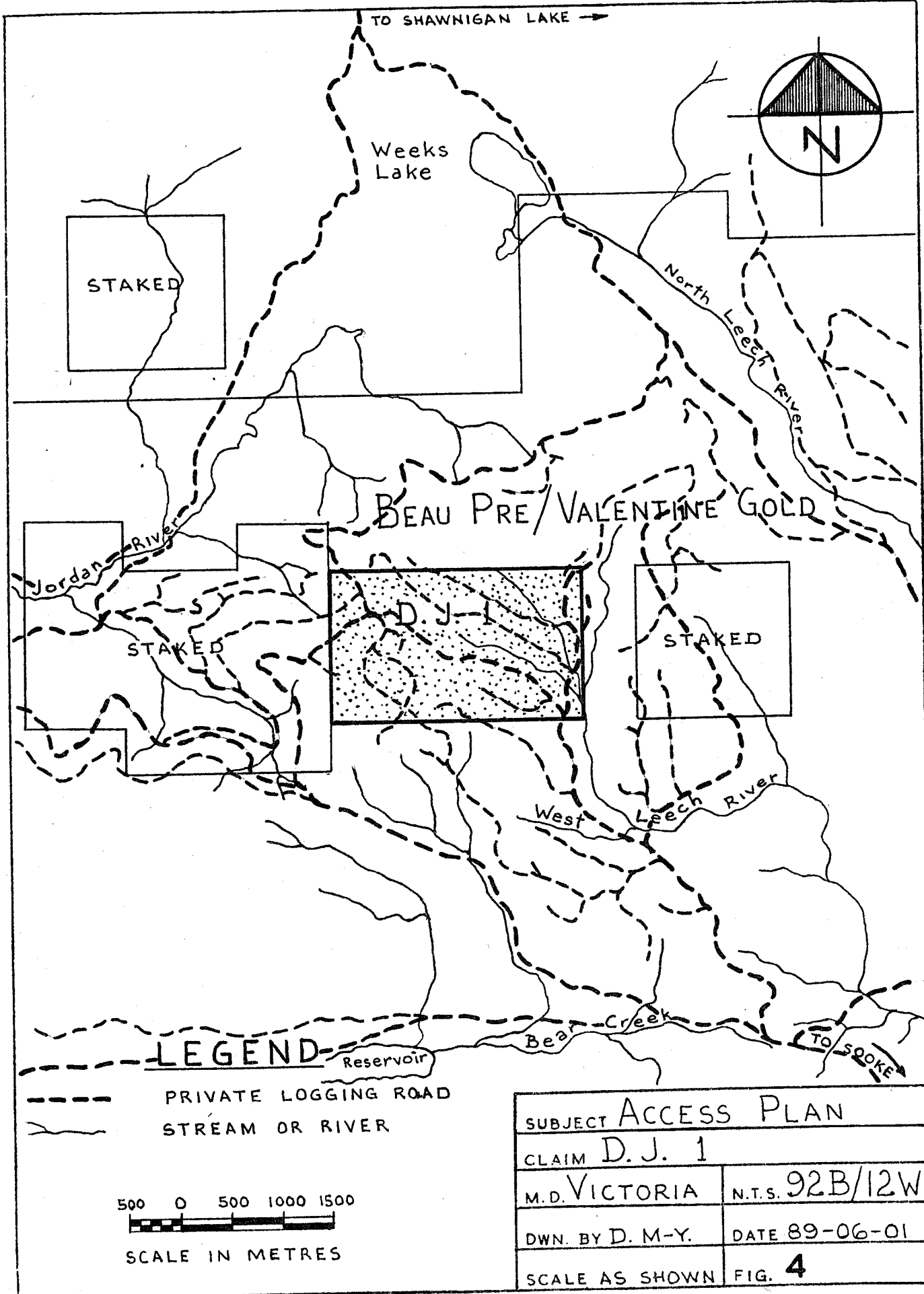
SUBJECT REGIONAL GEOLOGY	
CLAIM D.J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M.-Y.	DATE 89-06-01
SCALE AS SHOWN	FIG. 2

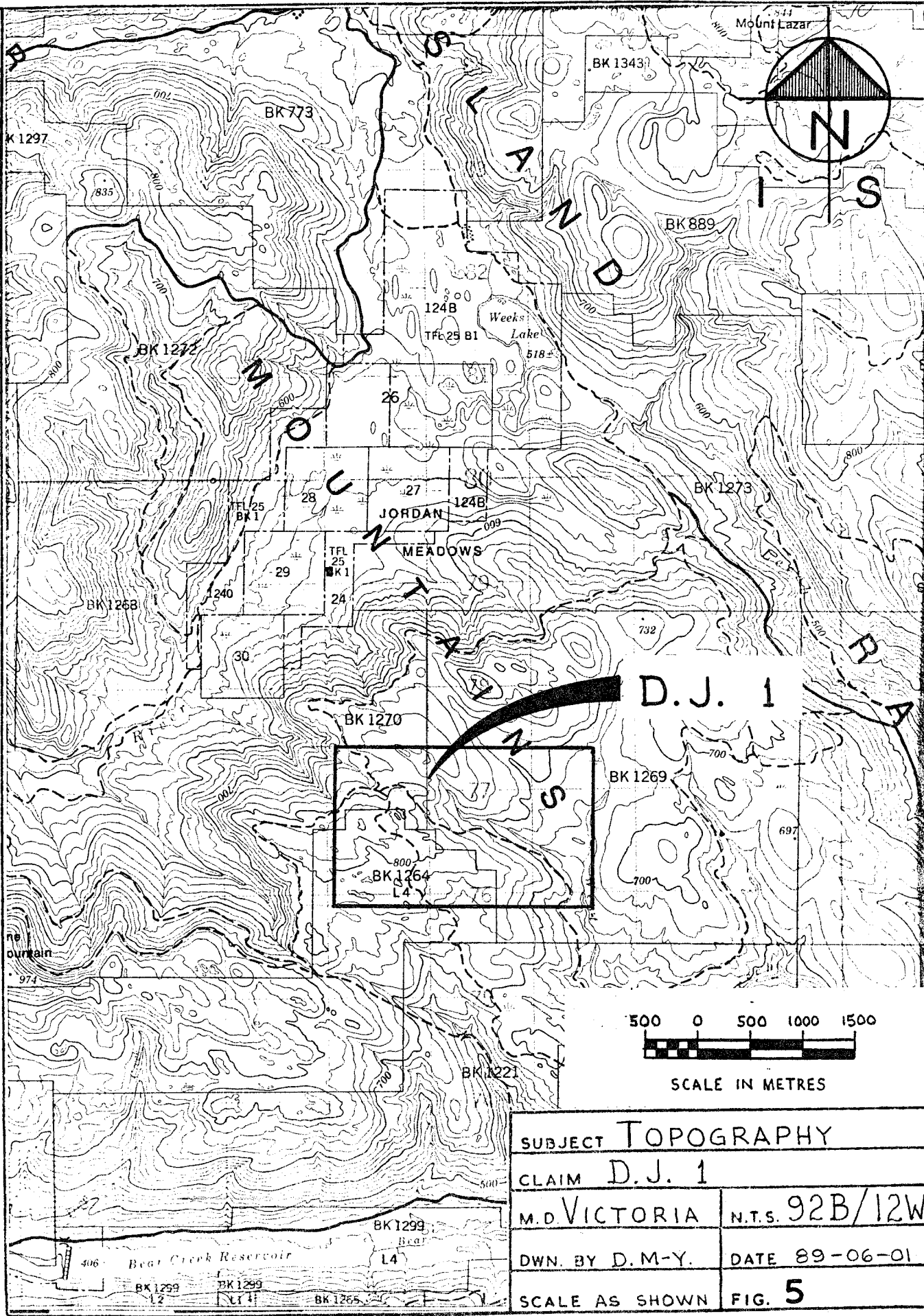






SUBJECT LOCATION PLAN	
CLAIM D. J. 1	
M. D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M-Y.	DATE 89-06-02
SCALE AS SHOWN	FIG. 3





## GEOPHYSICS

A VLF-EM survey was conducted over approximately 50% of the D.J. 1 Claim. Grid and base lines were laid out at 100 x 50 metre intervals. 9.3 km of base and grid lines were cut. The remainder were done by previous assessment work. A total of approximately 22.6 kilometres of line were covered by the VLF-EM survey.

### a. Equipment

- VLF-EM instrument      - Sabre Electronics  
Model 27, Serial No 327
- VLF Transmitting      - Seattle, Frequency 24.8  
Station                      KHz

### b. Field Method

A VLF-EM survey, utilizing a Sabre Model 27 receiver was conducted on grid lines running North/South astronomic. Lines were spaced one hundred metres apart and readings were taken at fifty metre intervals along the grid lines. The U.S. Navy submarine transmitter station located near Seattle Washington was used. Its transmitting frequency is 24.8 KHz.

The detailed field procedure as laid out in the manufacturer's operating manual was used. Two base station were established for the survey. The field strength was set at approximately 100. The field strength button which reduces the reading by half was depressed and the 1/2 value of field strength was adjusted to give a value of 50 by adjusting the gain control. Half values of field strength were recorded at all stations. The value of 50 was used as the datum line of field strength on the profiles. Thus values greater than 50 are shown as positive readings and values less than 50 are shown as negative values. The gain control reading was adjusted from time to time during the survey to reduce the variance of readings caused mainly by sun-spot activity. Refer to Discussion of Field Work.

Dip angle readings were taken with the receiver held in the vertical position in a plane perpendicular to the transmitter station. The receiver unit was then tilted in this vertical plane until a null or minimum reading was observed on the inclinometer. This dip angle of null was recorded with the appropriate + or - sign.

c. Compilation of Data

The dip angle readings were reduced by applying the Fraser Filter. The filtered readings were plotted in a South to North direction of travel. Filtered values of 10 or greater were contoured and plotted on Figure 21. Individual grid line profiles showing filtered data and field strength readings were also plotted. Fraser filtered lows and field strength lows are also plotted on the countoured data sheet and are shown as dotted lines.

d. Theory

In electromagnetic exploration, a transmitter produces an alternating primary magnetic field with a strong alternating current usually through a wire coil. If a conductive mass such as a sulphide body or a significant fault is within this magnetic field, a secondary alternating current is induced which in turn induces a secondary magnetic field that distorts the primary magnetic field. The VLF-EM receiver measures this distortion. The VLF-EM uses a radio frequency range from 12 to 24 KHz. Due to the frequency range, the VLF-EM can pick up bodies of low conductivity. Consequently, it is more susceptible to react to clay beds, electrolyte-filling fault/shear zones and porous horizons, graphite, carbonaceous, sediments, lithological contacts and sulphide bodies of such low conductivity that other EM methods fail to respond to. As the VLF-EM signal derives from an infinite source, faults of great horizontal and vertical extent give particularly strong responses. The Leech River fault is such a fault.

The VLF-EM is a useful instrument for mapping structures and for detecting sulphide bodies of too low a conductivity for conventional EM methods and too small for induced polarization. However, its response to lower conductive bodies often results in a number of anomalies, many of which are difficult to explain. Therefore, VLF-EM surveys should not be interpreted without good geological knowledge and/or other geophysical and geochemical knowledge of the property.

In recent years, the field strength value has taken on a greater importance in interpretation of data.

The Fraser Filter is essentially a 4-point difference operation which transforms zero crossings into peaks by means of simple numerical filtering technique. Thus, it shows conductors which don't show up as cross-overs on unfiltered data. It also reduces high frequency noise in the data.

## DISCUSSION OF FIELD WORK

Slope readings exceeding 20% grade were recorded to assist in interpolation of data. Most of the grid lines were established by previous assessment work in 1985 and 1986. Some stations had to be re-established for various reasons, including fire.

The VLF-EM Survey commenced in November 1988, but most of the work was done in March 1989. The work done in March 1989 produced some erratic field strength readings initially. Batteries in the Sabre equipment were changed but the readings continued to be erratic as they increased or reduced rapidly at times without apparent reason, and the result was that relative field strength values from grid line to grid line were not consistent. As field strength has taken on a role of greater importance in recent years, it was decided to set up a series of temporary base stations and repeat the survey on certain lines in order to achieve a better overall picture of relative field strength values over the whole grid.

Base stations were checked into frequently, and this led to a change in hours of operation. The remainder of the VLF-EM survey and the re-runs were conducted between 10:30 am and 3:30 pm which generally appeared to be the most stable time of day. The gain control on the Sabre equipment was adjusted from time to time when readings at the base stations deviated more than 20% of their original value. Several times the Cutler and Hawaii Stations were also checked and the results are shown in Table 1.

After much discussion with others, it was decided that the major cause of the unstable field strength was sun-spot activity, ionospheric storms or a combination of both. Sun-spots generate electromagnetic radiation and emit a spectrum of radiowaves which can directly affect readings. Sun-spot activity also affects the ionosphere which normally can change reception by skip and other means. Two definitions from the Modern Dictionary of Electronics perhaps best describe this phenomenon.

Ionospheric Error, or Sky Error... "Systematic and random error resulting from reception of navigational signal after it has been reflected from the ionosphere due to variations in the transmission path, uneven height of ionosphere or uneven propagation with the ionosphere."

Ionospheric Storm... "An ionospheric disturbance associated with abnormal solar activity and characterized by wide variations from normal including turbulence in the F-region and increases in absorption. After the ionization density is decreased and the virtual height is increased. The effects are most marked in high magnetic latitudes".

A combination of the above activities can generate field strength readings exceeding 100% of normal. Radio reception is usually considerably better at night, and this phenomenon also holds true for VLF-EM transmissions as evidenced in the 8:15 pm readings of Table 1. Some variance of transmitter power may also have taken place during the survey, but the US Navy has apparently been reluctant to give out any information concerning its transmission activities in recent months.

TABLE 1

Time/Day	4:30 pm Sat.	8:30 pm Sat.	8:00 am Sat.
Gain Control Setting	20	20	7
Cutler, Maine	15	110+ "night	25
Seattle, Wash	65	110+ effect"	67
Oahu, Hawaii	6	3	1

RECOMMENDATIONS

Phase I

Conduct a VLF-EM survey over the remainder of the claim.

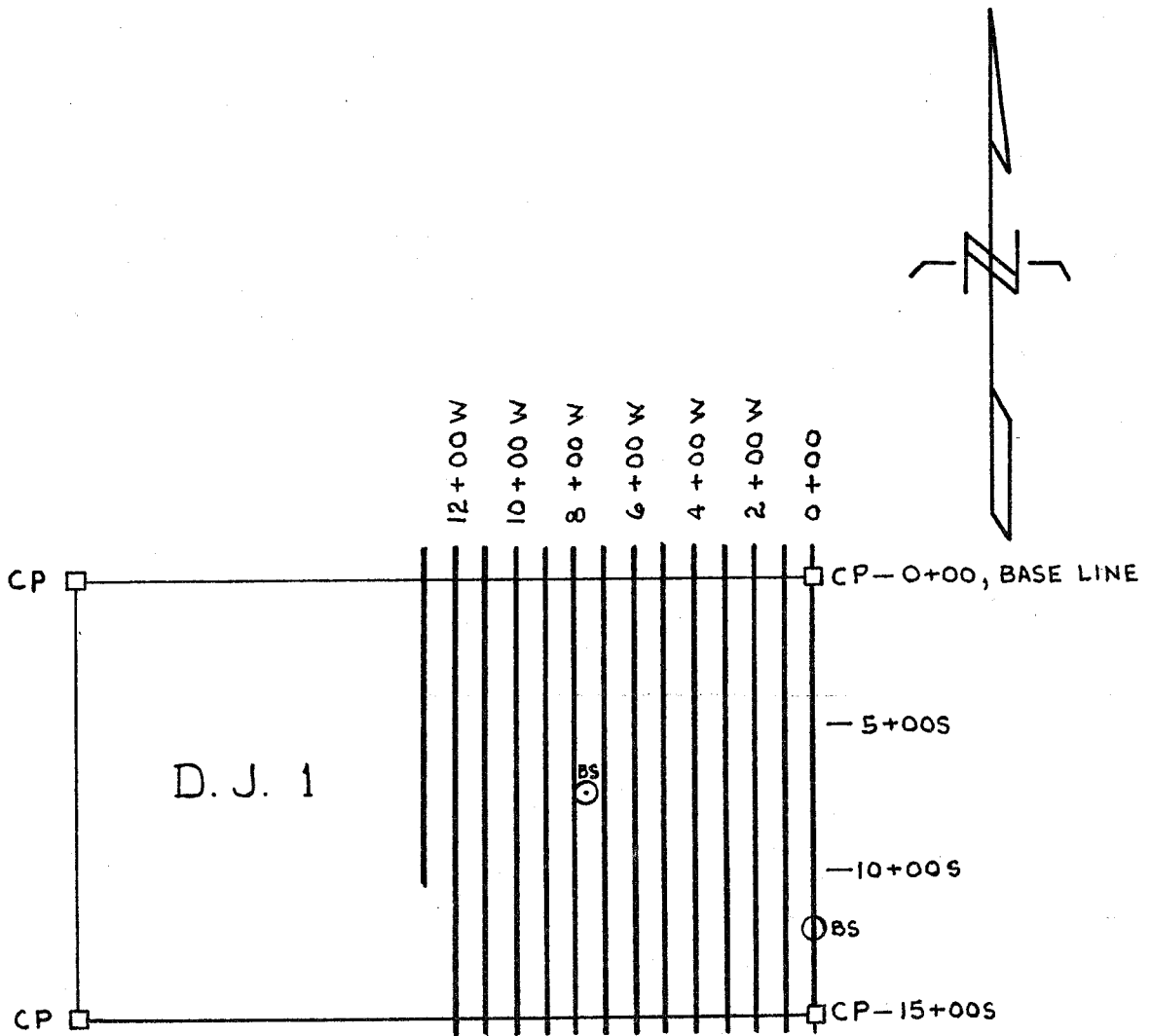
Phase 2

Conduct a magnetometer survey over the entire claim.

RESULTS AND CONCLUSIONS

The VLF-EM Survey outlined a series of weak parallel anomalies over the entire grid which are generally coincident with a series of small parallel ridges that strike approximately S78°E astronomic and dip approximately 80° to the north. These ridges consist of greywacke and schists interlaced with small quartz veins with occasional epidote.

The Frazer filtered data also suggests that a series of minor parallel faults and one more significant fault in the southeast part of the claim are present. These faults are probably directly associated with the Leech River fault system.



**LEGEND**

○ BS

□ CP

GRID LINE  
BASE STATION  
CORNER POST



SUBJECT GRID PLAN FOR VLF-EM	
CLAIM D.J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-06-02
SCALE AS SHOWN	FIG. 6





VLF-EM SURVEY

CLAIM.....D.J. 1..... VICTORIA.. M.D. LINE 12+00W DATE 89-03-19

STATION	SLOPE	IN-PHASE	FIELD STR	FILTER	REMARKS
15 + 50S		+ 6	50		N. of road
15 + 00S	+20% N.	+12	100	+ 19	
14 + 50S		+ 2	95	+ 21	
14 + 00S		- 3	85	+ 11	
13 + 50S		- 4	86	+10	
13 + 00S		- 8	98	+ 8	
12 + 50S		- 9	89	+ 8	
12 + 00S		-11	86	+11	
11 + 50S	-20% N	-14	83	+ 5	30m N. to road
11 + 00S		-17	75	- 8	
10 + 50S		-13	56	-16	
10 + 00S		-10	50	-27	20m N. to creek
9 + 50S		- 4	45	-45	
9 + 00S		+ 8	40	-25	
8 + 50S		+23	50	+17	
8 + 00S		+ 6	77	+18	
7 + 50S	+32% N.	+ 8	80	-10	just E. of creek
7 + 00S		+ 3	57	- 8	
6 + 50S		+21	61	+22	12m N. of road
6 + 00S	-34% S.	- 2	65	+17	
5 + 50S	-28% S.	+ 4	66	+12	
5 + 00S		- 2	85	+ 5	12m S. of road
4 + 50S		- 8	65	- 6	
4 + 00S		+ 5	51	+18	
3 + 50S		- 9	71	+12	
3 + 00S		-12	53	-19	
2 + 50S		- 4	45	-21	
2 + 00S		+ 2	53	+ 9	on N. edge of road
1 + 50S		+ 3	51	+26	
1 + 00S		-14	45	- 8	
0 + 50S		- 7	36	-30	
0 + 00		+ 4	55	- 6	
0 + 50N		+ 5	58		
1 + 00N		- 2	53		



















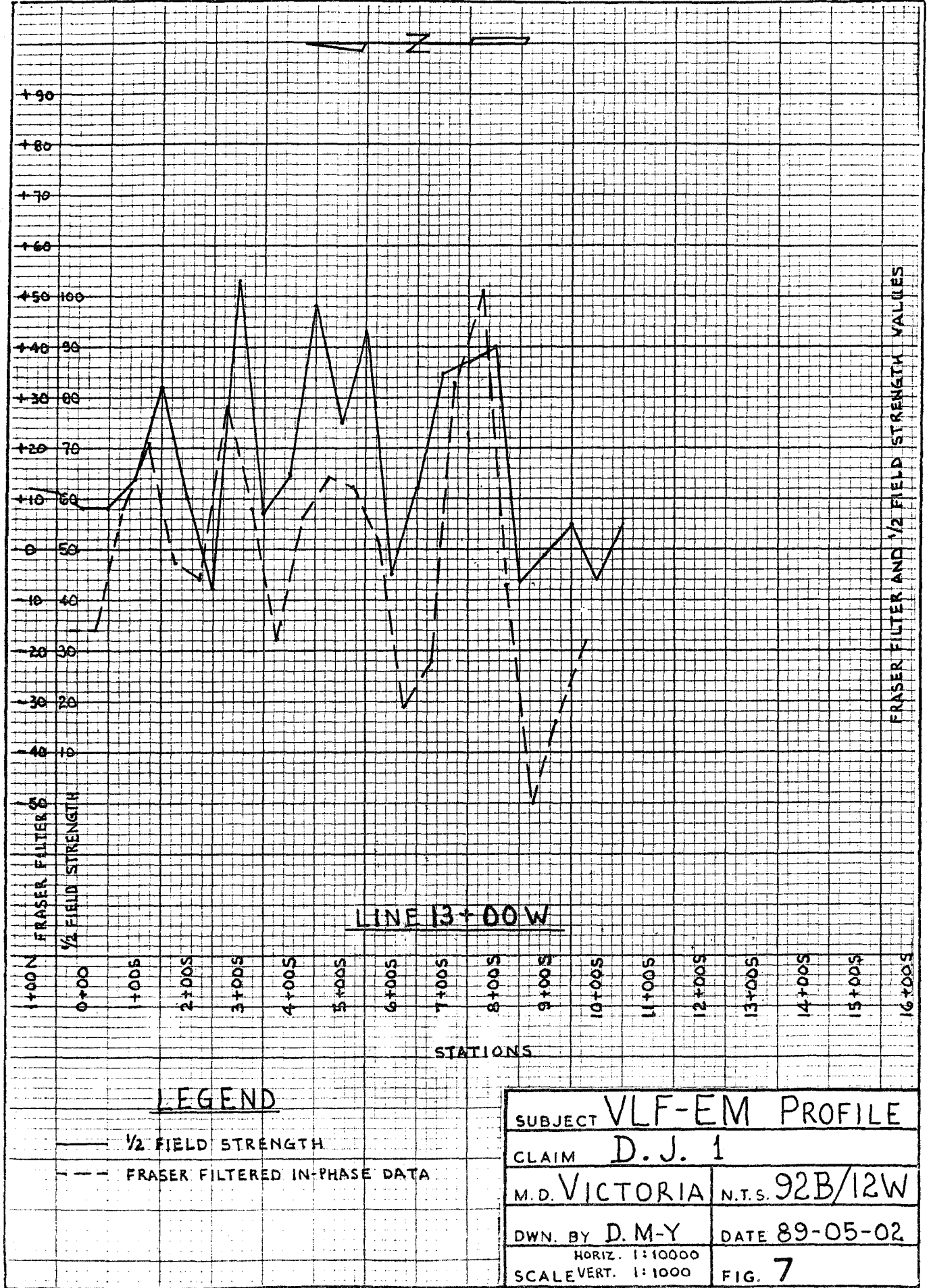




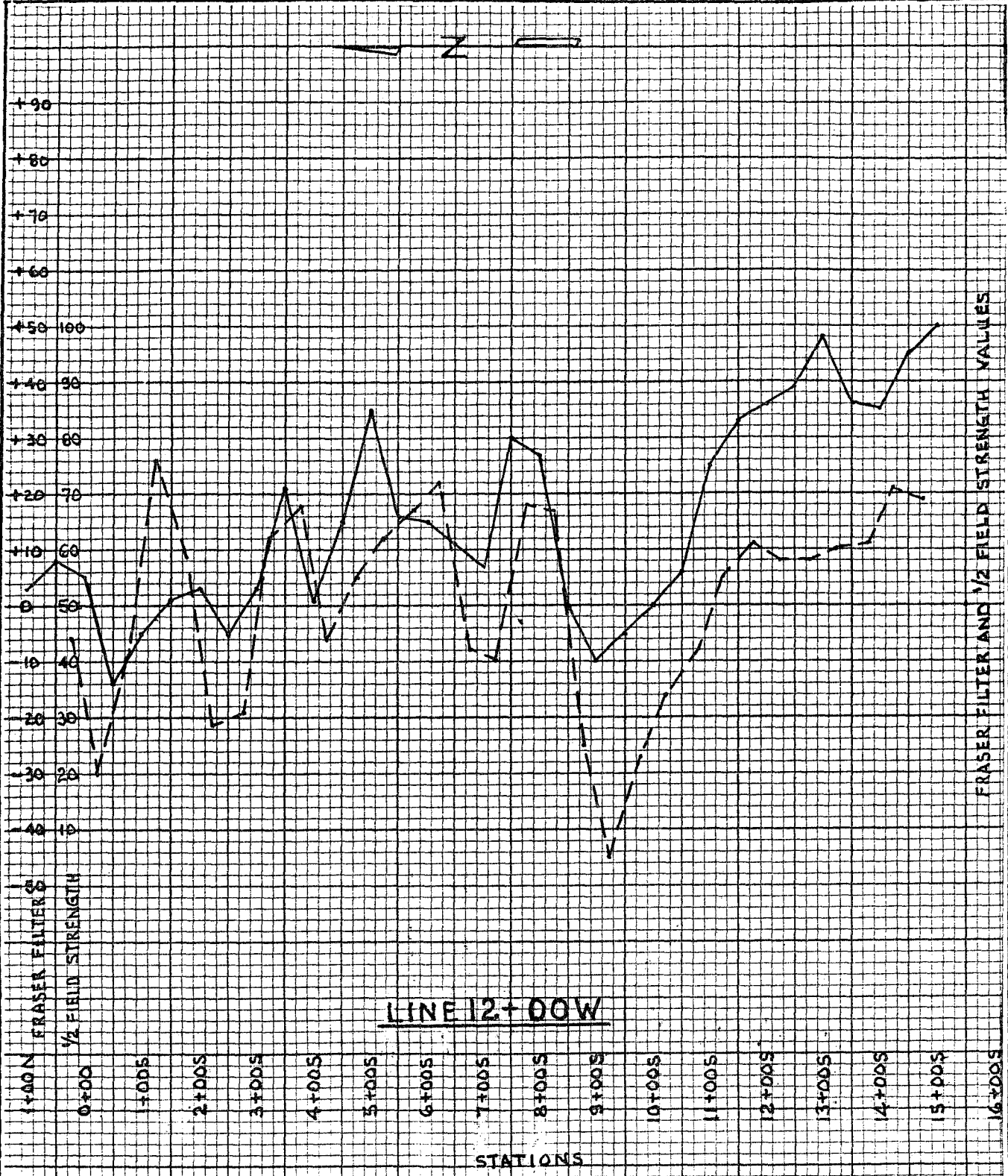
VLF-EM SURVEY

CLAIM... D.J. 1 .....		VICTORIA... M.D.		LINE. 1+00W.	DATE 88-11-12.
STATION	SLOPE	IN-PHASE	FIELD STR	FILTER	REMARKS
15 + 50S		-9	75		
15 + 00S	-30%N	-14	71	-21	-30% for 35m to N.
14 + 50S		-6	60	-33	
14 + 00S		+4	50	-18	Swampy
13 + 50S		+9	56	+5	6m S. of creek
13 + 00S		+7	56	+8	15m S. of swamp
12 + 50S		+1	63	-1	in swampy flat
12 + 00S		+7	75	+2	on N. edge of swamp
11 + 50S		+2	57	+6	
11 + 00S		+4	68	+17	12m S. to road
10 + 50S		-1	69	+7	
10 + 00S		-10	48	-11	
9 + 50S		+6	58	-5	just into swamp
9 + 00S		-6	40	-8	just N. of creek & swamp
8 + 50S		+7	44	0	
8 + 00S		+1	51	+9	
7 + 50S		0	61	+1	just N. of small stream, wet
7 + 00S		-1	44	+5	
6 + 50S		+1	51	+5	
6 + 00S		-7	47	-16	
5 + 50S		+2	40	-10	
5 + 00S		+8	53	-2	
4 + 50S		-3	41	-19	
4 + 00S		+15	44	-9	just N. of creek
3 + 50S	+40%N	+9	51	+7	+40% N. for 10m
3 + 00S		+12	51	+20	on S. edge of road
2 + 50S		+5	65	+15	
2 + 00S		-4	57	-8	
1 + 50S		+6	53	-2	
1 + 00S		+3	55	+7	
0 + 50S		+1	60	0	
0 + 00		+1	57	-6	
0 + 50N		+3	54		
1 + 00N		+5	50		







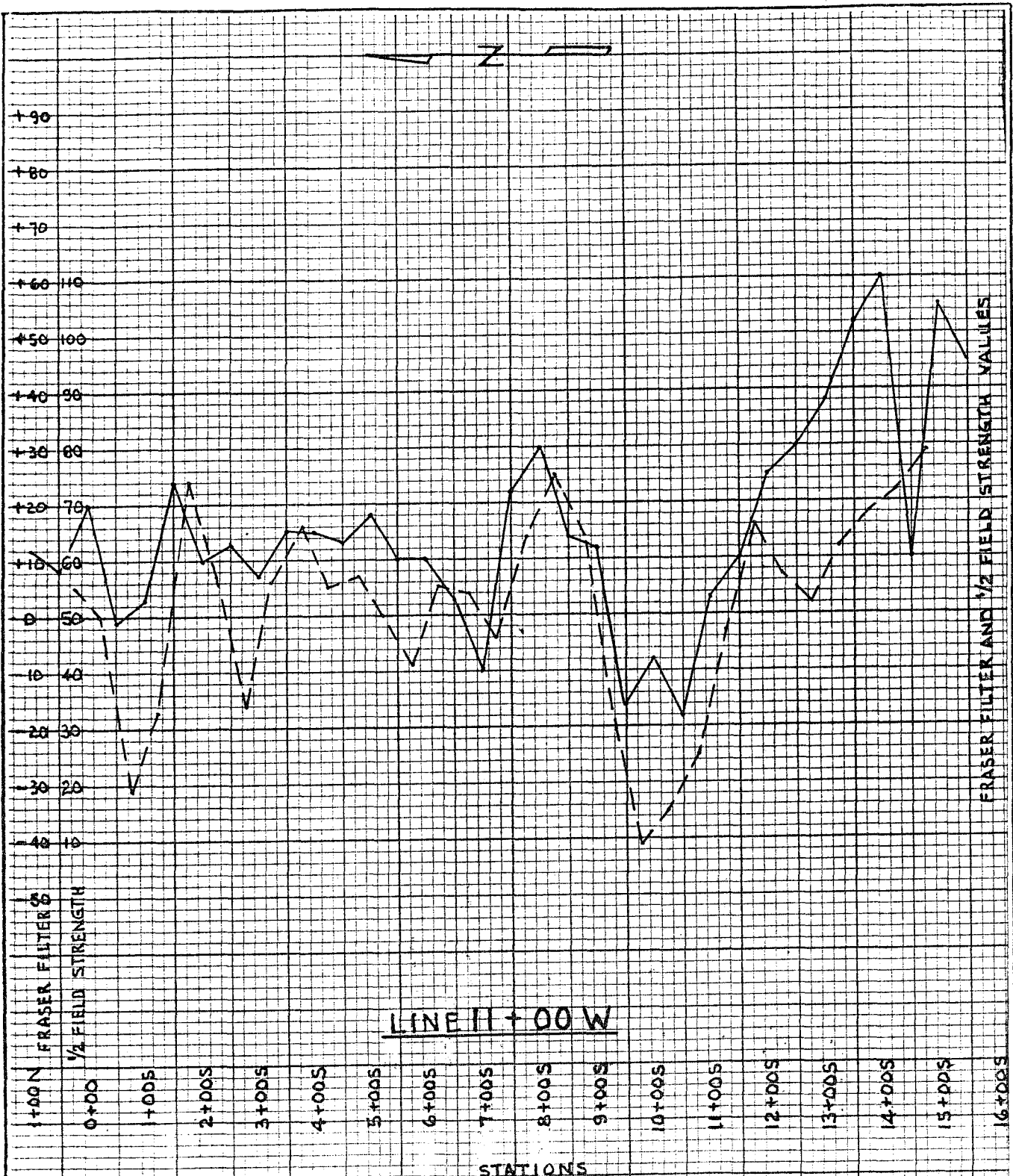


LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M.-Y.	DATE 89-05-02
HORIZ. 1:10000	FIG. 8
SCALE VERT. 1:1000	





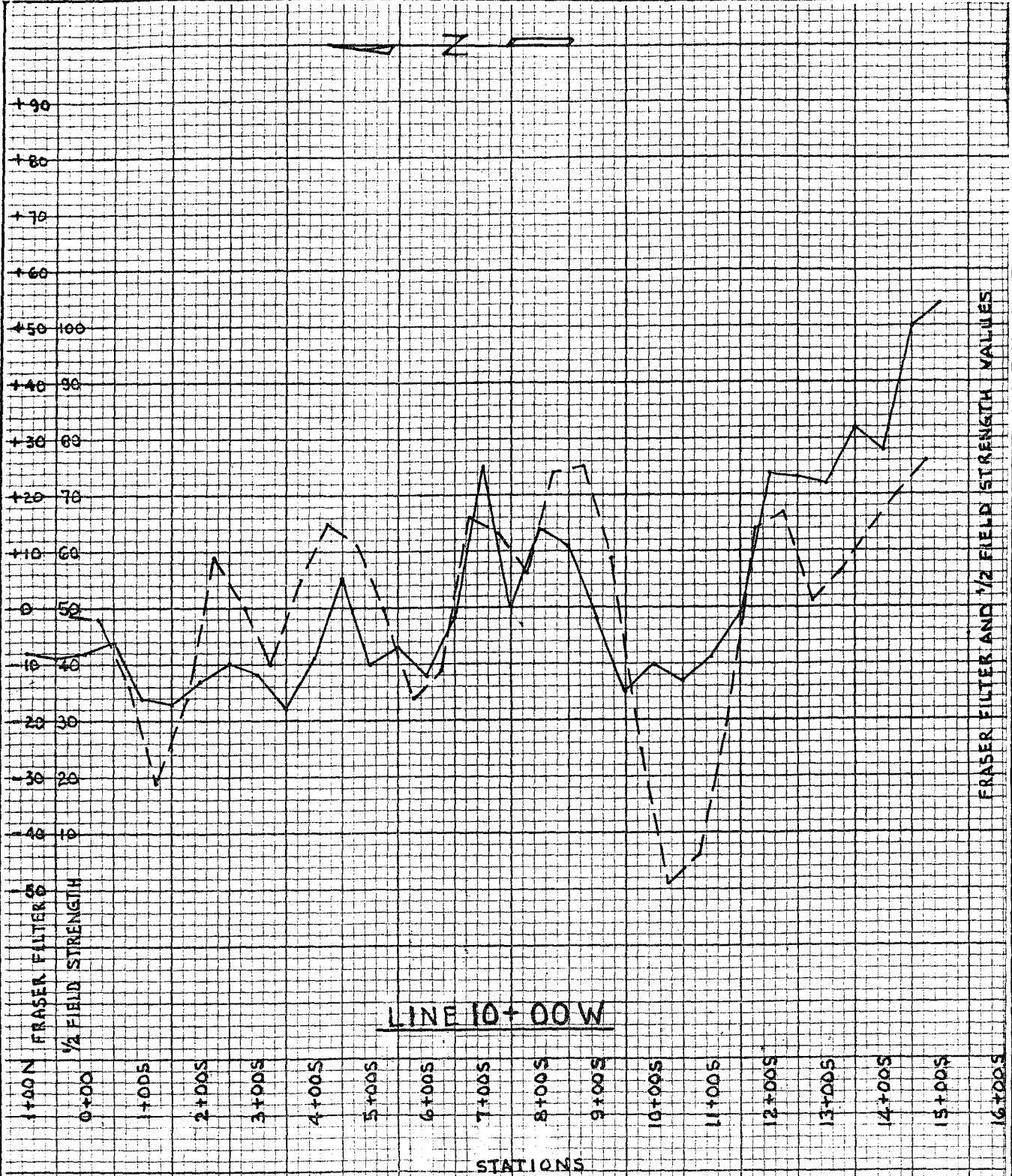
LEGEND

—— 1/2 FIELD STRENGTH

- - - FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-05-02.
HORIZ. 1:10000	FIG. 9
SCALE VERT. 1:1000	

FRASER FILTER AND 1/2 FIELD STRENGTH VALUES



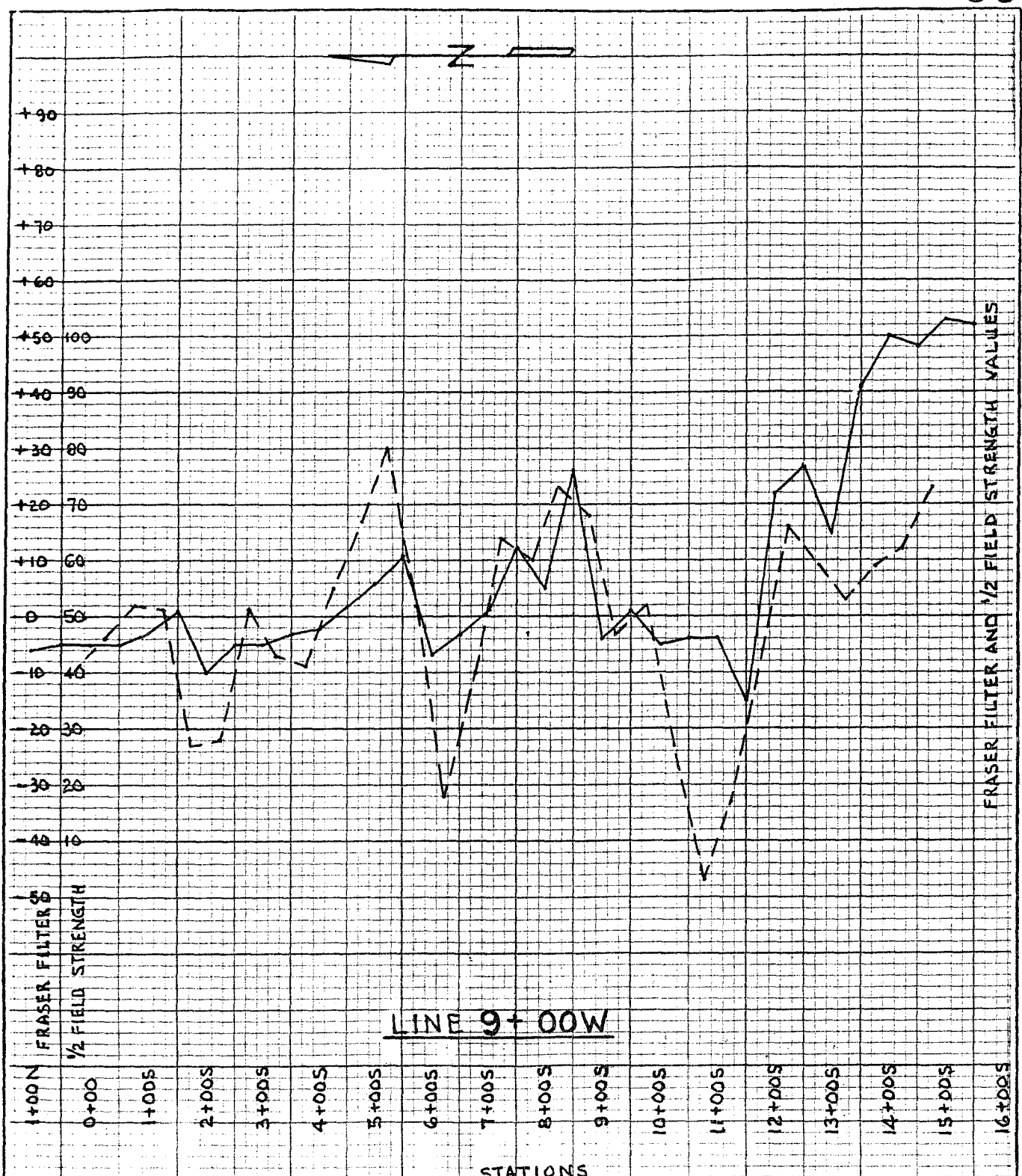
FRASER FILTER & 1/2 FIELD STRENGTH VALUES

FRASER FILTER AND 1/2 FIELD STRENGTH VALUES

LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

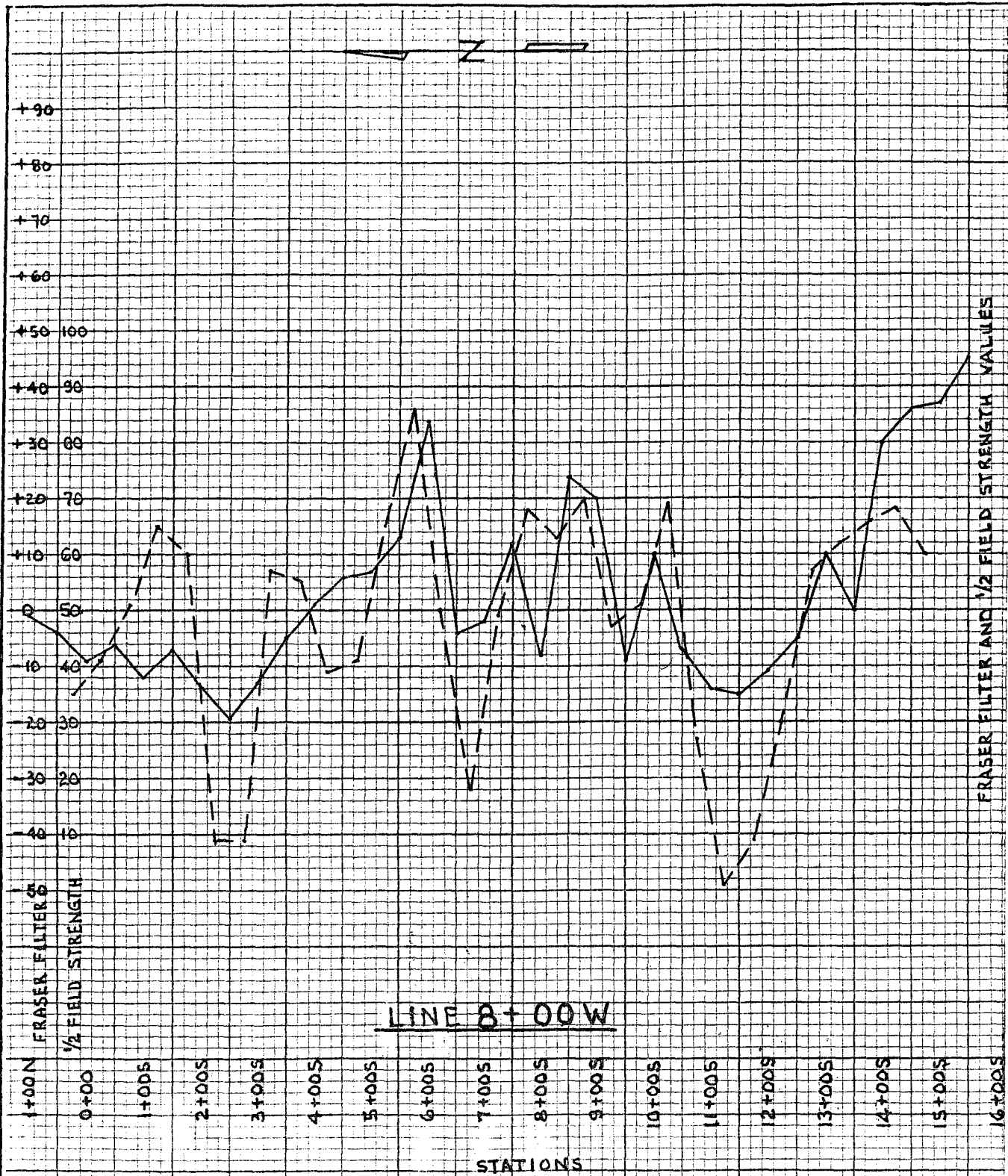
SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M.-Y.	DATE 89-05-03
HORIZ. 1:10000 SCALE VERT. 1:1000	FIG. 10



LEGEND

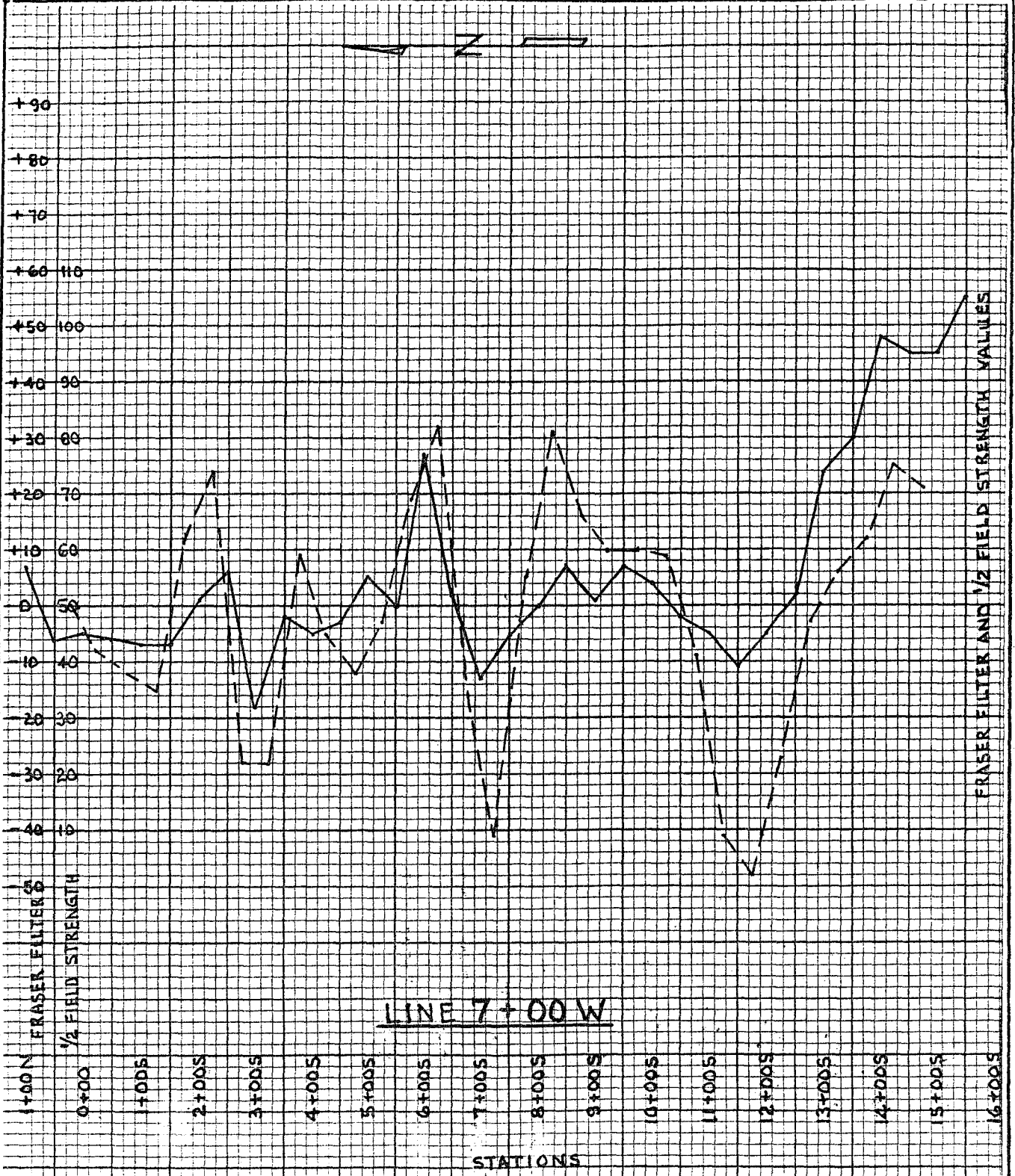
- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-05-03
HORIZ. 1:10000	FIG. 11
SCALE VERT. 1:1000	



<b>LEGEND</b>	
—	1/2 FIELD STRENGTH
---	FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-05-05
HORIZ. 1:10000	FIG. 12
SCALE VERT. 1:1000	

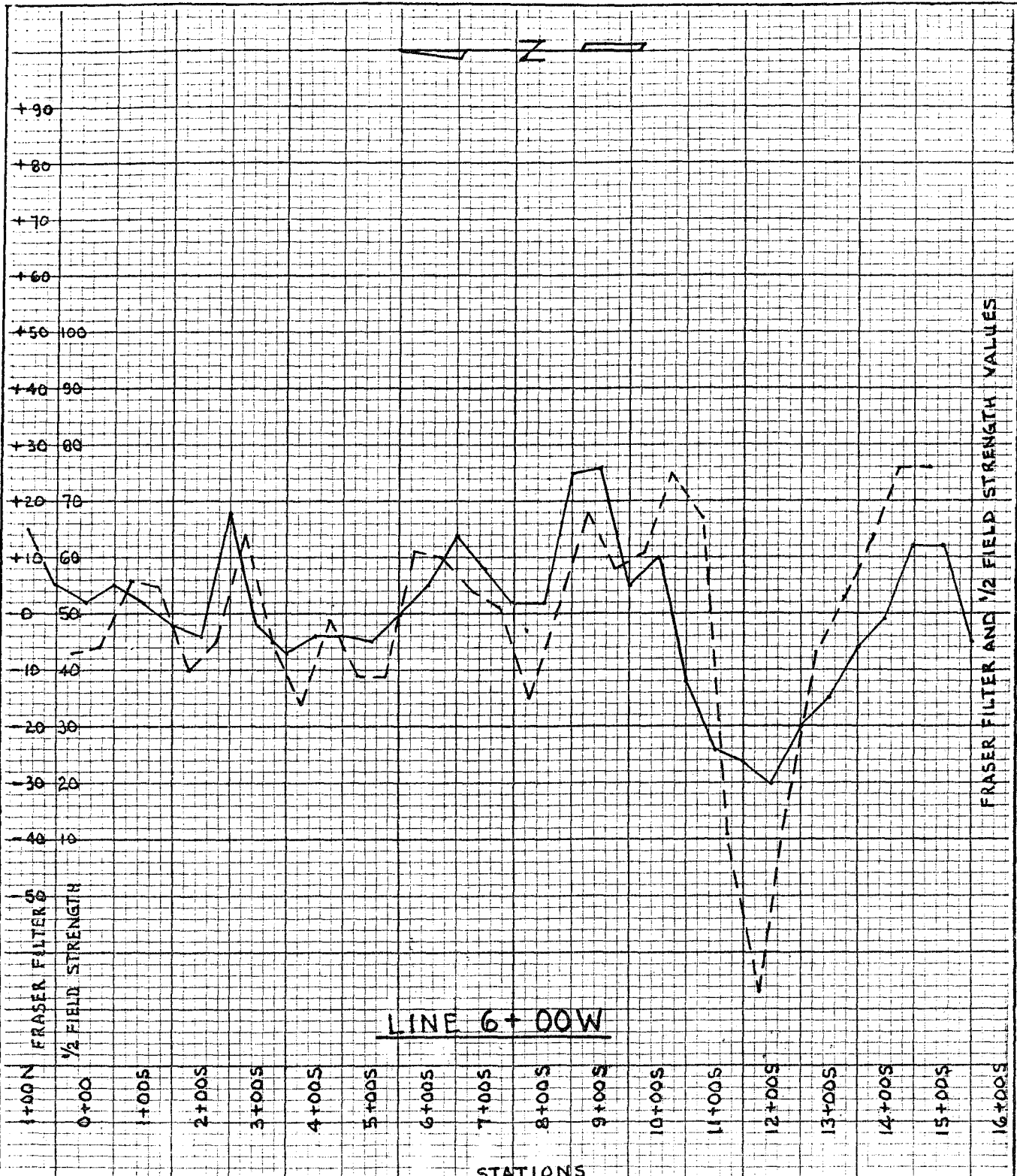


LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M-Y,	DATE 89-05-05
HORIZ. 1:10000 SCALE VERT. 1:1000	FIG. 13

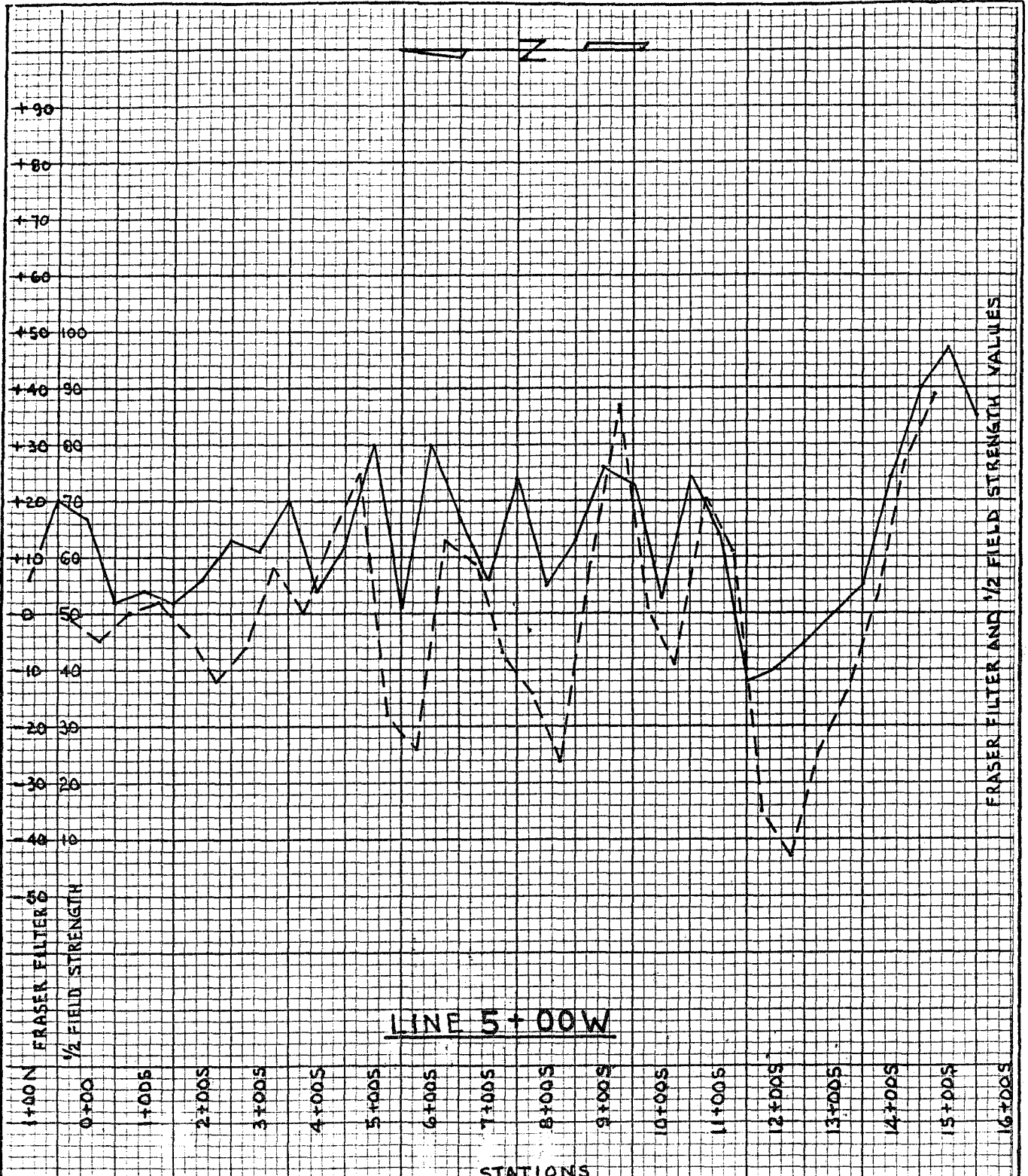




**LEGEND**

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

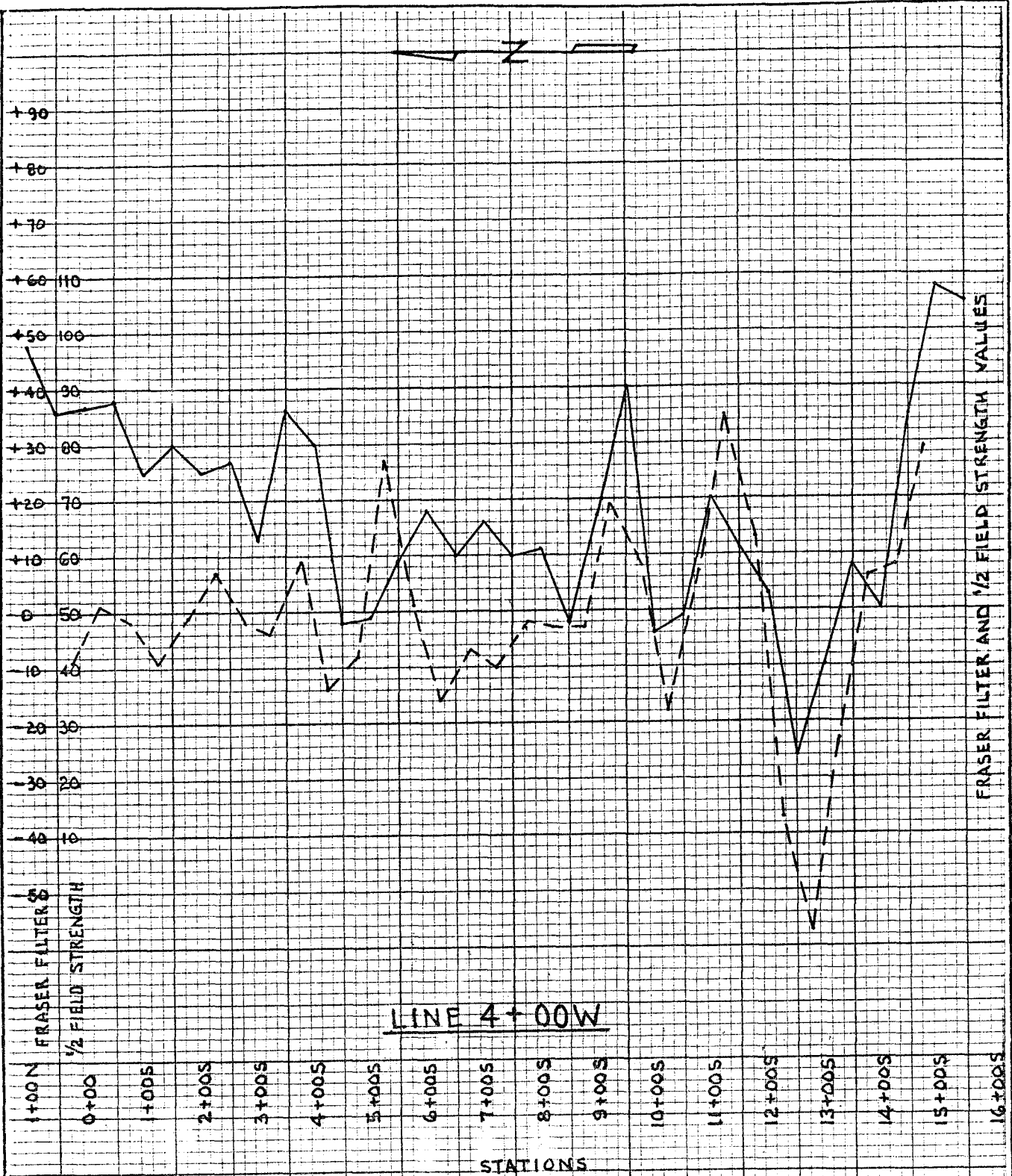
SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M-Y.	DATE 89-05-09
HORIZ. 1:10000	FIG. 14
SCALE VERT. 1:1000	



FRASER FILTERED	1/2 FIELD STRENGTH
FRASER FILTERED IN-PHASE DATA	1/2 FIELD STRENGTH

LEGEND

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-05-09
HORIZ. 1:10000	FIG. 15
SCALE VERT. 1:1000	



FRASER FILTER &  
1/2 FIELD STRENGTH

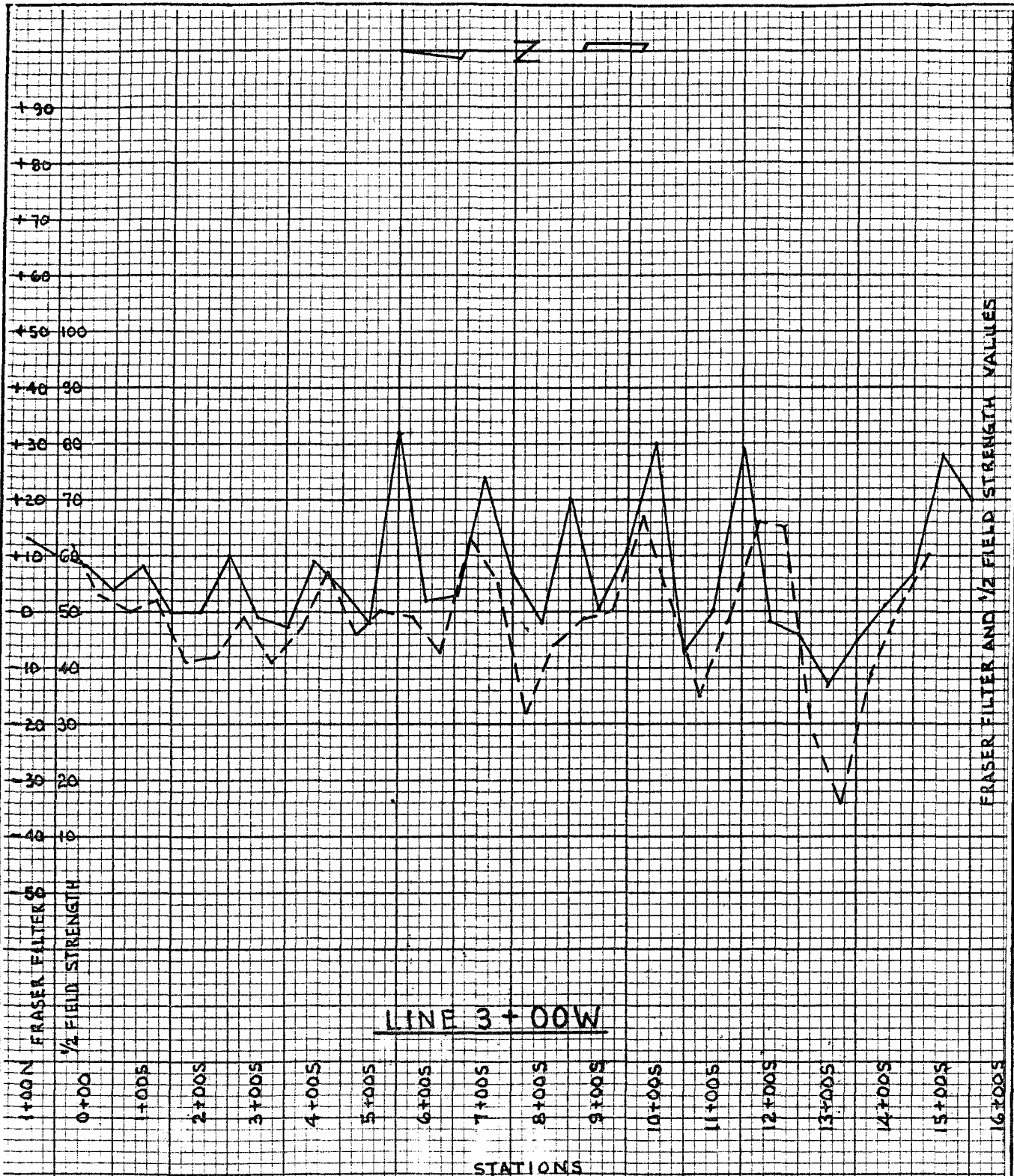
FRASER FILTER AND 1/2 FIELD STRENGTH VALUES

LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-05-11
HORIZ. 1:10000	FIG. 16
SCALE VERT. 1:1000	





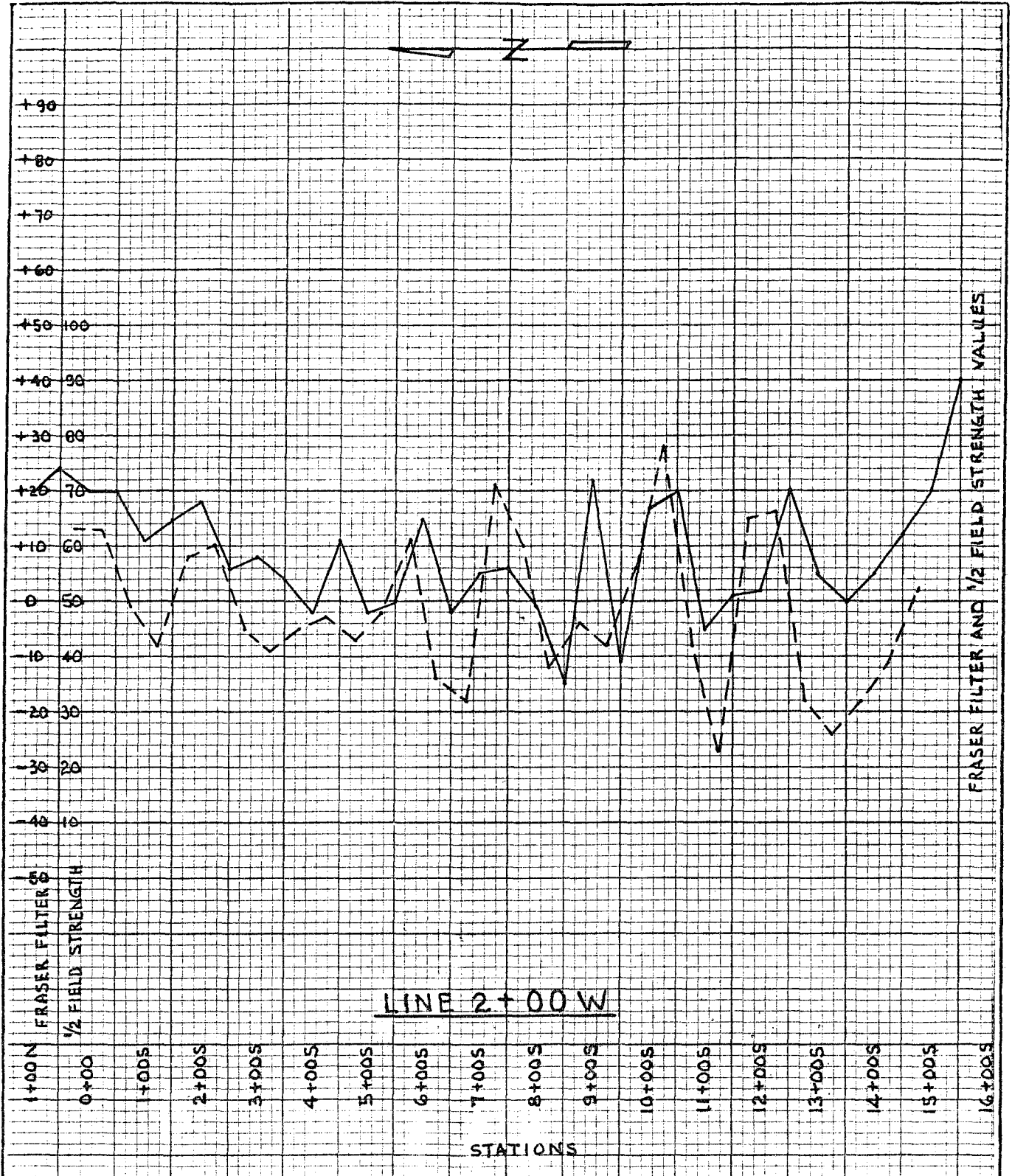
1+00N	0+00	1+00S	2+00S	3+00S	4+00S	5+00S	6+00S	7+00S	8+00S	9+00S	10+00S	11+00S	12+00S	13+00S	14+00S	15+00S	16+00S
STATIONS																	

LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-05-15
HORIZ. 1:10000	FIG. 17
SCALE VERT. 1:1000	

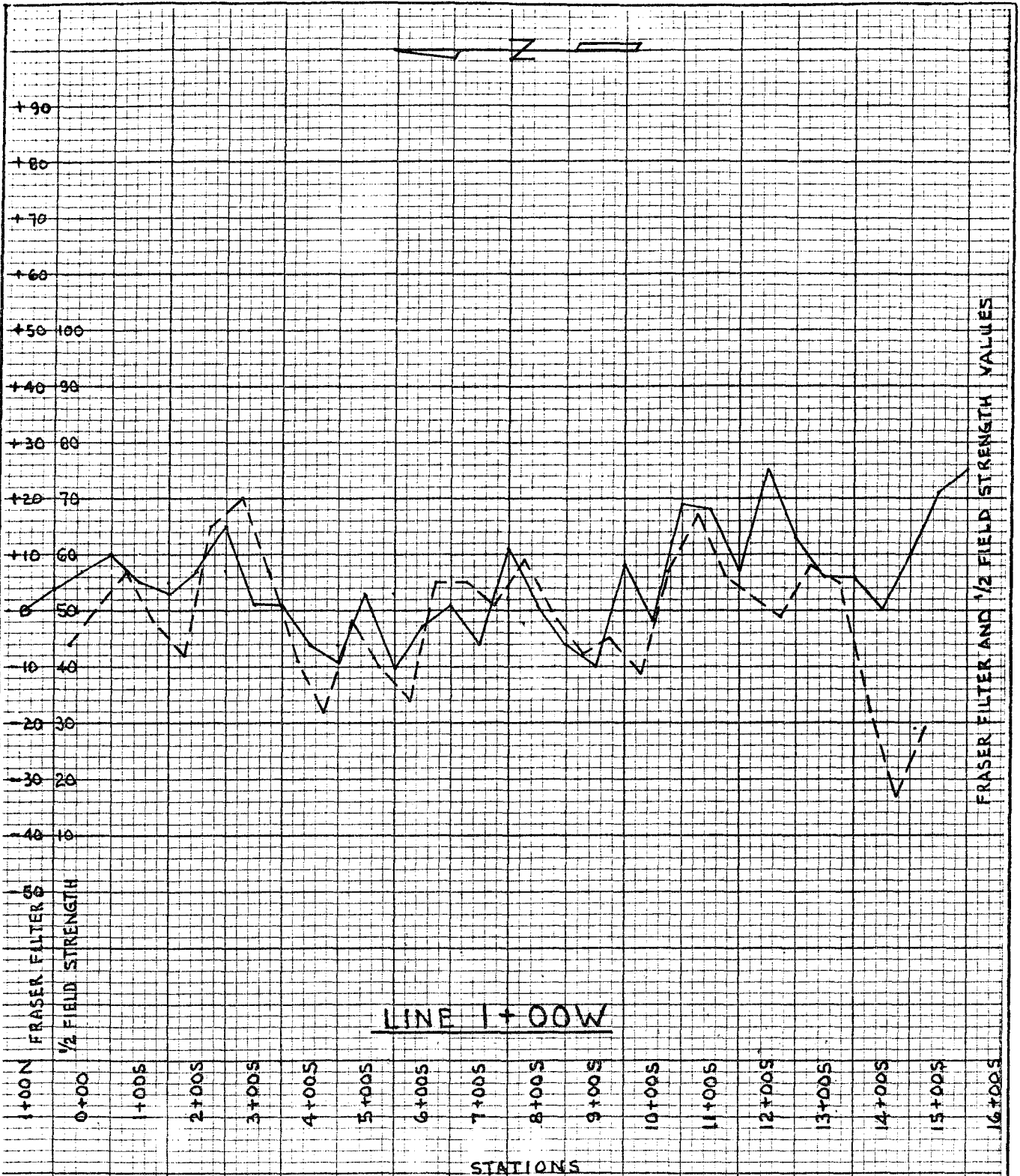
FRASER FILTER AND 1/2 FIELD STRENGTH VALUES



LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

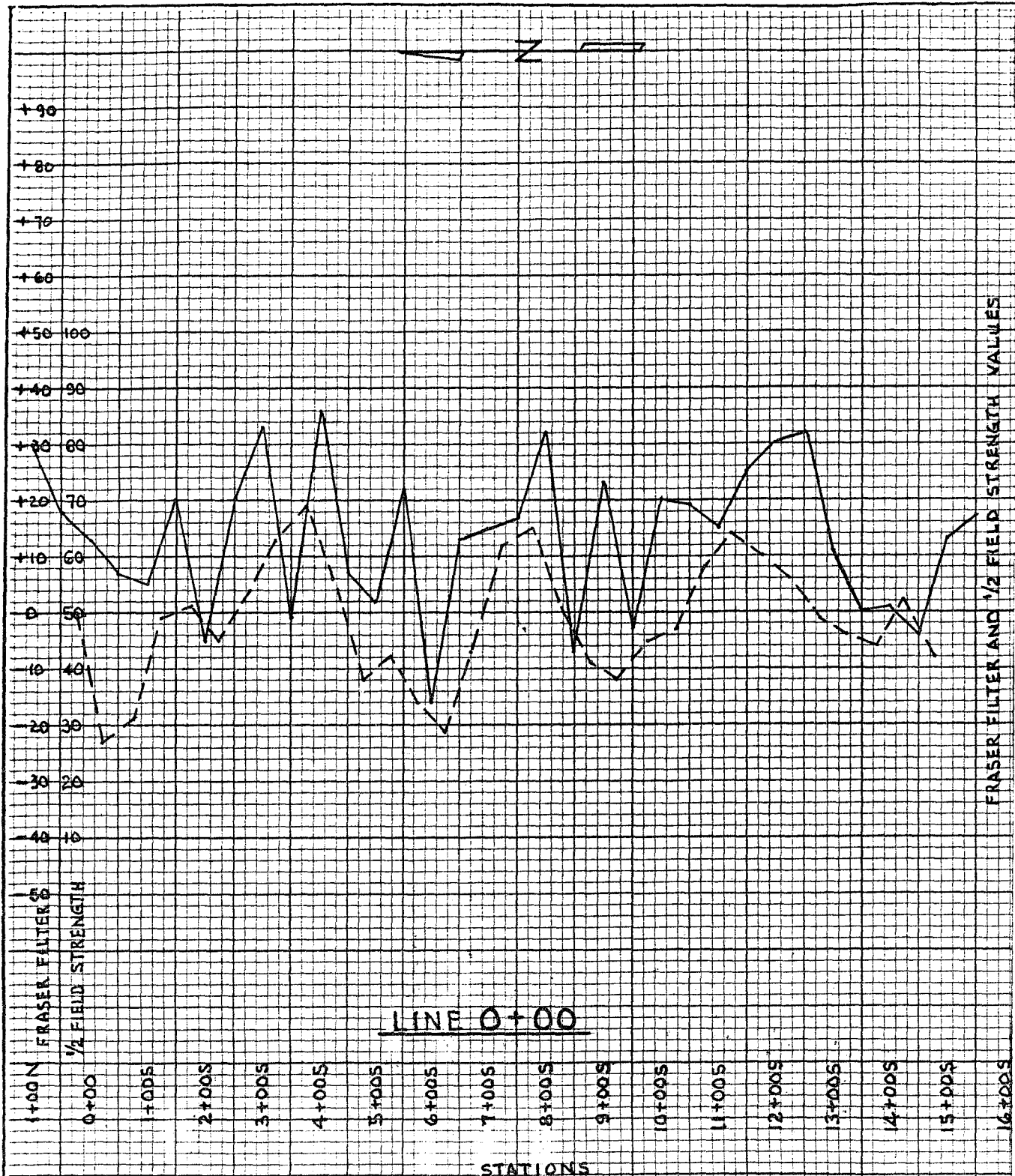
SUBJECT VLF-EM PROFILE	
CLAIM D.J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D.M-Y.	DATE 89-05-15
HORIZ. 1:10000	FIG. 18
SCALE VERT. 1:1000	



LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

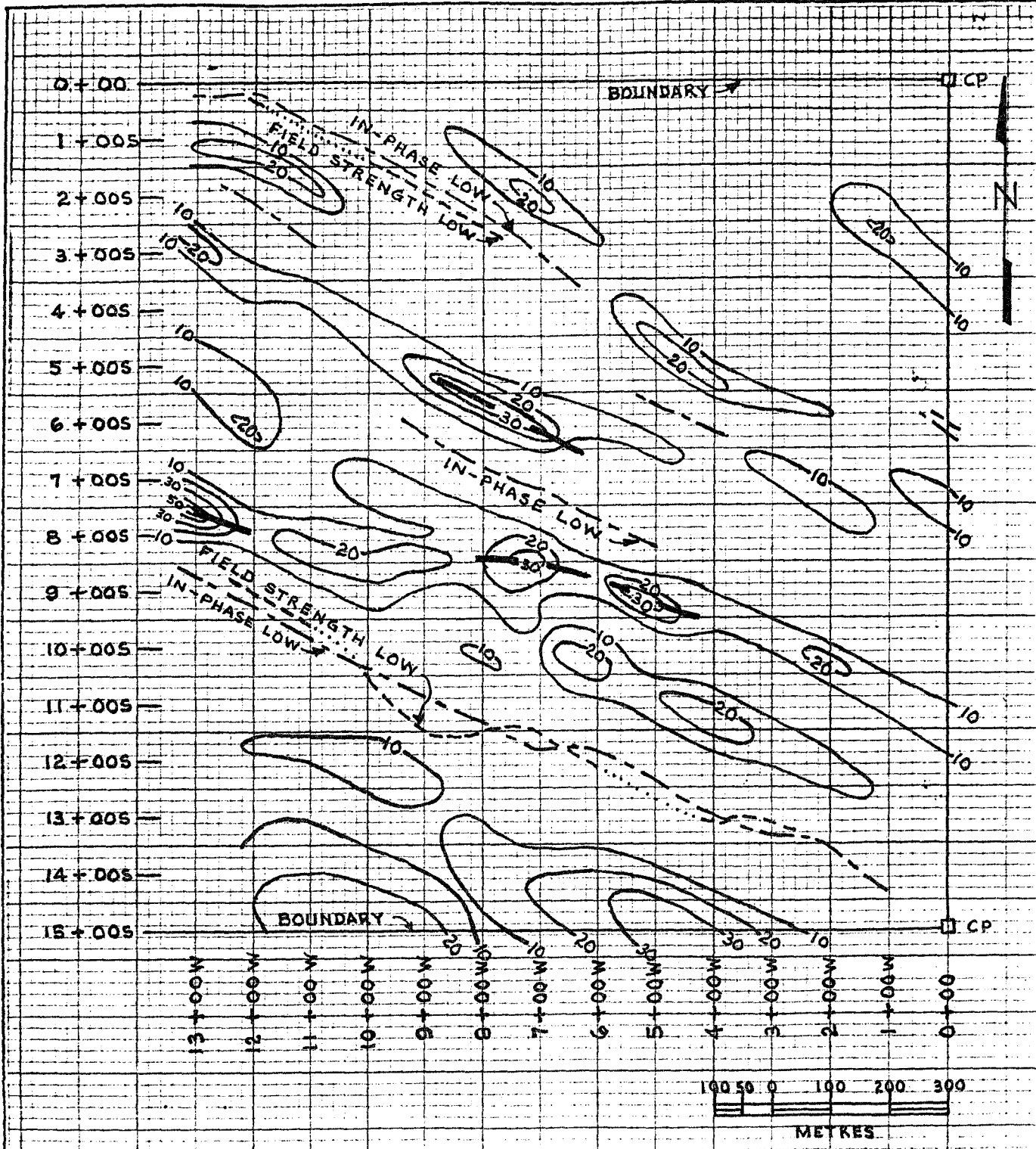
SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M.-Y.	DATE 89-05-18
HORIZ. 1:10000 SCALE VERT. 1:1000	FIG. 19







LEGEND

- 1/2 FIELD STRENGTH
- - - FRASER FILTERED IN-PHASE DATA

SUBJECT VLF-EM PROFILE	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M-Y.	DATE 89-05-19
HORIZ. 1:10000 SCALE VERT. 1:1000	FIG. 20



**LEGEND**

-  FRASER FILTERED IN-PHASE DATA CONTOURED AT 10° INTERVALS
-  EM CONDUCTOR
-  FRASER FILTERED IN-PHASE LOW FIELD STRENGTH LOW
-  CORNER POST

SUBJECT CONTOURED FRASER FILTERED DATA	
CLAIM D. J. 1	
M.D. VICTORIA	N.T.S. 92B/12W
DWN. BY D. M-Y.	DATE 89-06-04
SCALE AS SHOWN	FIG. 21

ITEMIZED COST STATEMENT

1. Cutting, flagging and picketing base line and grid lines, 9.3 km: Mr. D. Milwarde-Yates. 54 hrs @ \$11.50/hr	\$ 621.00
2. Conducting VLF-EM Survey over 22.6 KM of grid lines. Intermittent days between November 1988 and March 1989: D. Milwarde-Yates. 40 hrs @ \$20.00/hr	800.00
3. Cost of interpolation of data, plotting, drafting, report writing and printing. D. Milwarde-Yates. Intermittent days between Aug 1 and Oct 15, 1988	1500.00
4. Travel: D. Milwarde-Yates - 18 trips from Sooke to claim @ 70km/round trip, 1260 km @ 15¢/km	108.00
5. Meals at claim site: D. Milwarde-Yates - 24 @ \$5.00	120.00
6. Materials: Flagging, hip claim thread, etc	22.00
<u>TOTAL</u>	\$3171.00

STATEMENT OF QUALIFICATIONS

I, Dev Milwarde-Yates of 5598 Rocky Point Rd., Victoria, B.C. hereby certify the following:

1. That I am a graduate of the Annual Mineral Exploration Course (1984) at Cowichan Lake B.C.
2. That I am a graduate of the Basic Prospecting Course (1984) at Camosun College, Victoria, B.C.
3. That I have been actively prospecting in British Columbia in excess of ten years.
4. That I have been actively employed as a civil engineering technologist in British Columbia in excess of fifteen years.
5. That this report and the information contained herein was compiled from the field surveys and examination of a portion of the D.J. 1 claim which I conducted between November 10, 1988 and March 19, 1989.

Dated at Victoria, this 8th day of June, 1989.



D. Milwarde-Yates



REFERENCES

Garratt, G.L. 1986 Report which formed part of the Valentine Gold prospectus, including references to work done by Cowan, Fairchild, Grove, Peatfield, Read & Wingert.

Pacific Forest Products - Fire Access Map, 1982.

Parasnis - Mining Geophysics