

2267

ELECTRO MAGNETIC SURVEY

T and ZZ Claims

Sooke Area

92B/5E

for

CITATION EXPLORATION LIMITED (N.P.L.)

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 2267 MAP.....

REPORT  
ON  
ELECTRO MAGNETIC SURVEY  
T AND ZZ CLAIMS  
SOOKE AREA  
VANCOUVER ISLAND  
FOR  
CITATION EXPLORATIONS LIMITED (N.P.L.)

*Map #1 - Electro Magnetic Survey - 1" = 1000' — Rear*  
*Map #2 - Electro Magnetic Survey — Rear Pocket*  
*1" = 2000'*  
*Map #3 - Electro Magnetic Survey (Detail) — Rear Pocket*

REPORT  
ON  
ELECTRO MAGNETIC SURVEY  
FOR  
CITATION EXPLORATIONS LIMITED (N.P.L.)  
SOOKE AREA, VANCOUVER ISLAND  
BY  
VELOCITY SURVEYS LIMITED

INTRODUCTION

Following a geological evaluation, by Mr. C. T. Pasioka of Velocity Surveys Limited, of the T and ZZ claims in the Sooke area on Vancouver Island in the Victoria Mining Division of the Province of British Columbia, a report was written in respect to this evaluation, dated March 27th, 1969, in which a programme of electro-magnetic surveying was recommended. The programme was initiated in April 1969 and some 12.7 miles was completed which yielded 6 separate conductive features.

All of the above noted features have the same strike direction and one of these at least (conductor C) appears to be associated with known mineralization. A recommendation has been made to test each of the conductors by magnetometer surveying, to carry out a limited amount of geochemical test work and to drill some 6 holes.

PROPERTY DESCRIPTION

The property consists of 20 located mineral claims that may be more particularly described as follows:

<u>Claims</u>	<u>Record Numbers</u>
T Claims Nos. 1-8 incl.	14662-14669 incl.
ZZ Claims Nos. 1-12 incl.	14790-14801 incl.

The above claims are recorded at the mining recorders office in Victoria Mining Division, Province of British Columbia.

LOCATION AND ACCESS

The property is located some seventeen and one half miles SSW of Victoria, B.C. along the south shore of the Sooke Peninsula. Access is available by means of 4 w.d. vehicles along various logging roads making connection with the Island Highway some two miles north of the property. Water access is feasible since the south margin of the property parallels the coast line. A small beach along the south margin of Claim No. T-7 would allow small boat landings at any state of the tide.

TIMBER, TOPOGRAPHY AND WATER

The timber cover in the area is quite complete with stands of pine, fir and cedar. Tripod legs for a diamond drill programme would be reasonably easy to obtain on the claim group itself.

Topographically the claim group is generally rough with several steep faces. Elevation changes are from 0 along the sea coast to 300 feet in the north central part of the property.

Water would be available for drilling from a drainage system that runs through a draw entering the sea at about 2N, 8W. A sump might have to be dug as a reservoir to allow sufficient water accumulation for the drilling.

#### FIELD METHODS

Basically the method employed to make the electromagnetic observations was one in which parallel swathes of profiles, each approximately 1000 feet long, were read in a grid east-west direction to cover the area of the property on which lines were cut and chained. The transmitter locations were in the centre of each swathe with readings beginning from a line 400 feet away from the transmitter. The subsequent transmitter locations were located in such a fashion that complete coverage of the grid could be obtained. Three additional transmitter set ups were located on conductors found in the first work so that continuity could be checked. Readings of dip angle were taken at each station and profiles plotted using a convention where-by a right way cross-over goes from the right side on the line of observation to the left side.

The results have been compiled and shown on the accompanying maps as profiles of dip angles with a scale of 1" = 20°. Conductor indications have been marked with a solid line where positive and dashed lines where less positive.

## DISCUSSION OF RESULTS

Some six distinct conductor indications were located in the course of the survey as well as three one line cross-overs. Each of the six major conductors has been given a letter of identification and there follows a discussion of these in terms of length, conductor shape and strength and possible cause.

- Conductor A** This conductor is located between line 68 and 64N at the north edge of the grid. The conductor is open at its north end. In respect to strength it must be considered a weak conductor with a shape suggestive of a more deeply buried sulphide conductor or one due to weaker conductivity such as might be found in a shear or other water filled structure or topographic feature. It is not considered to be of relatively great importance, however it does appear to carry the same strike as the shearing in which known mineralization occurs.
- Conductor B** This feature is located at the west ends of line 48N, 52N and 56N. It seems to be cut off at both the north and south ends and has a strength somewhat better than conductor A and therefore could be due to more metallic sulphides closer to surface. The strike is again parallel to the known shearing in which mineralization occurs and the cause of the conductor should be determined by drilling or trenching.
- Conductor C** This is probably the best feature disclosed in the course of the survey and on which a second pair of set-ups was made in order to confirm its continuity and location. The conductor extends from line 1N to line 28N where it is cut off. The strength and shape of the conductor is such that a heavier sulphide accumulation might be expected than in the two conductors previously discussed. There is an indication that the dip direction would favour an easterly sense. Detailing of the conductor did not move the original location by very much and certainly serves to confirm that the feature does, in fact, exist. Further substance

is given to the feature in that known mineralization occurs at its south end and, in fact, previous holders of the property had evidently drilled a hole at a dip of 60° to the east to intersect the feature - the results of this drilling are not known to the writer. It is considered that this feature is of prime importance in so far as the property is concerned and its cause should be determined in future exploration work.

**Conductor D** Again a zone of conductivity has been located in which a strike direction parallel to known shearing has been evident. The strength of this feature, except on line 32N is not as important as that of conductor C, however due to its location, strike and length (1600'), it merits further attention. A second set up was made on line 12N at the location of a one line feature in order to determine whether this feature, in fact, was an extension of feature D. This does not appear to be the case. The strength and shape are suggestive of medium sulphides or a wet shear. The cause of this conductor should be determined.

**Conductor E** The location of this feature is 1000' on the east side of the base line and extending from 4N to 20N for a distance of 1600'. The strength is moderate and the shape more suggestive of shearing than of metallic sulphides. It is considered to be of secondary importance and pending the determination of the causes of the previously mentioned conductors might be considered as a target for further exploration.

**Conductor F** This 300' zone of conductivity is located some 2600' east of the base line between 8N and 16N. At its extremities the shape is reasonably interesting in terms of metallic sulphides and it is considered because of its shape and strength and parallel strike direction to the conductors previously discussed and known direction of shearing and mineralization that a cause for this particular feature is worth determining by further exploration work.

## SUMMARY AND CONCLUSIONS

A programme of electro-magnetic surveying designed to test possible extensions of known mineralization and to explore for indications of unknown mineralization has been carried out over the Vancouver Island property of Citation Explorations Limited in the Sooke area. The results of this survey have been to indicate six zones of conductivity, four of which are considered to be of sufficient importance, to require further exploration work. The remaining two would be considered as secondary targets pending the results of the first evaluation.

There are known zones of mineralization along shears which have a strike parallel to or coincident with the conductors turned up in the course of the above noted survey. This fact lends encouragement to the results of the survey and justification for further exploration work to determine the causes of the conductivity disclosed thereby.

It has been noted in some mineralized zones in the area that the mineral, pyrrhotite may occur with the sulphides; apparently there is no known association of pyrrhotite and chalcopyrite and therefore a second geophysical test method (magnetics) is suggested in classifying further the conductivity discovered by the current survey.

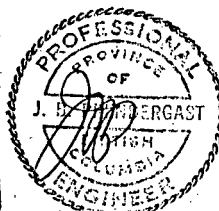


RECOMMENDATIONS

In view of the foregoing discussion it is recommended that a programme of evaluating results of the present survey be considered. This programme should consist of the running of magnetic profiles across all known conductivity in order to determine whether the existence of pyrrhotite mineralization along the conductor zones is to be expected. Geological, geochemical investigations and diamond drilling should also be considered as a means of determining the cause of the conductivity indications. Such a programme could be phased and budgeted as follows:

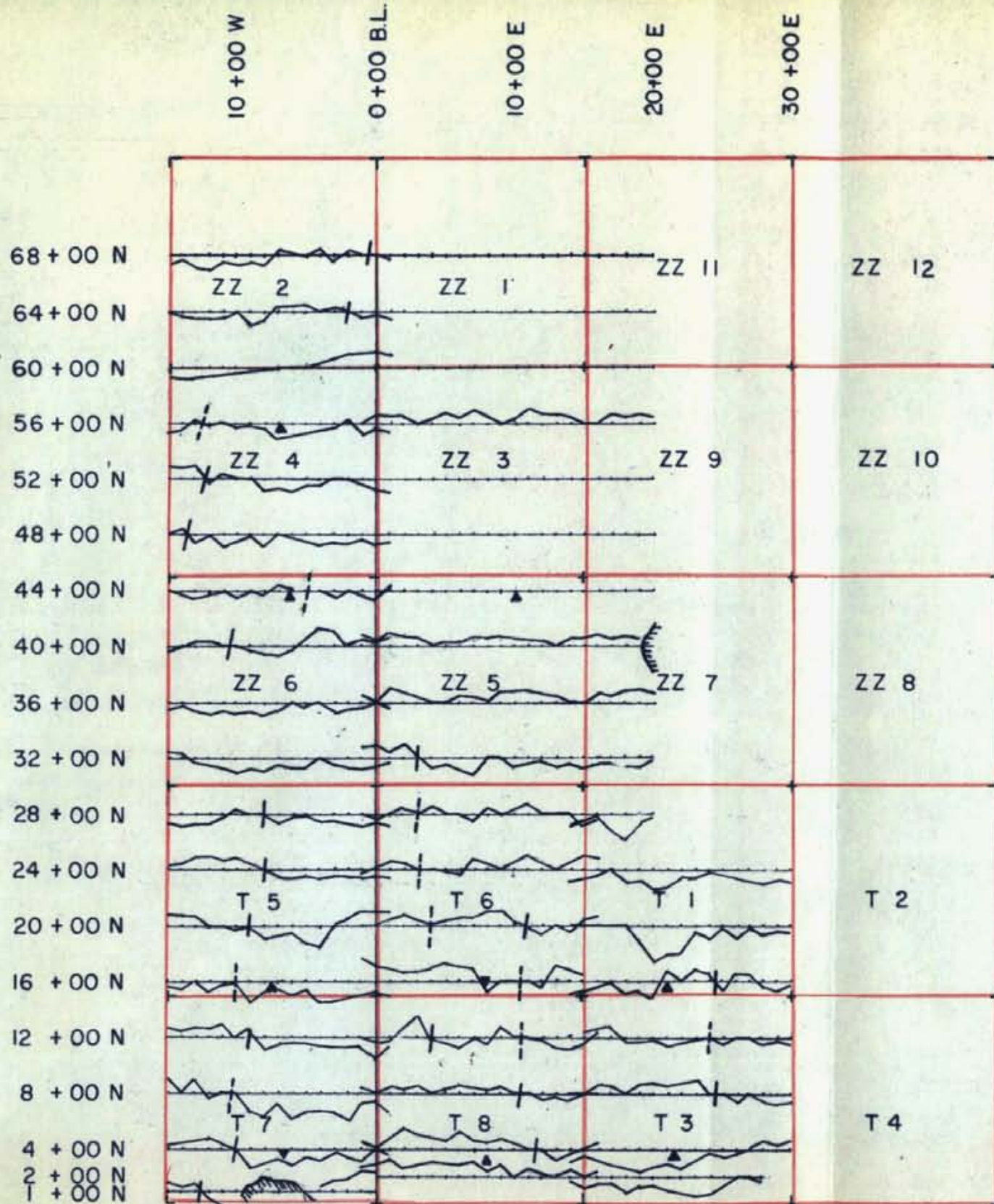
A)	Magnetometer check work		
	Estimated cost	\$	500.00
B)	Geochemical sampling of the area of conductivity at a 100 foot station interval for approx. 300 stations		
	Estimated cost	\$	1,000.00
C)	Diamond drilling to test zones of known conductivity 6 holes at 400' each as indicated on the accompanying plan including the cost of engineering and sampling		
	Estimated cost	\$	30,000.00
D)	Geological evaluation of all data obtained in A and B		
	Estimated cost	\$	<u>2,000.00</u>
	Sub total	\$	33,500.00
	Contingency	\$	<u>3,500.00</u>
	TOTAL	\$	<u><u>37,000.00</u></u>

Respectfully submitted,



Expiry Date: May 28, 1969

*J. B. Prendergast*  
J. B. Prendergast, M.A., P. Eng.  
Manager - Mining and Gravity Division.



— CLAIM BOUNDARIES

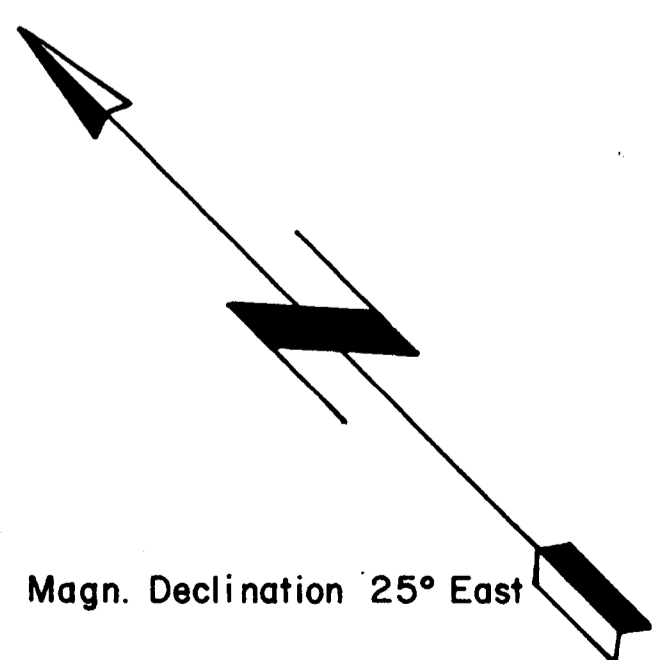
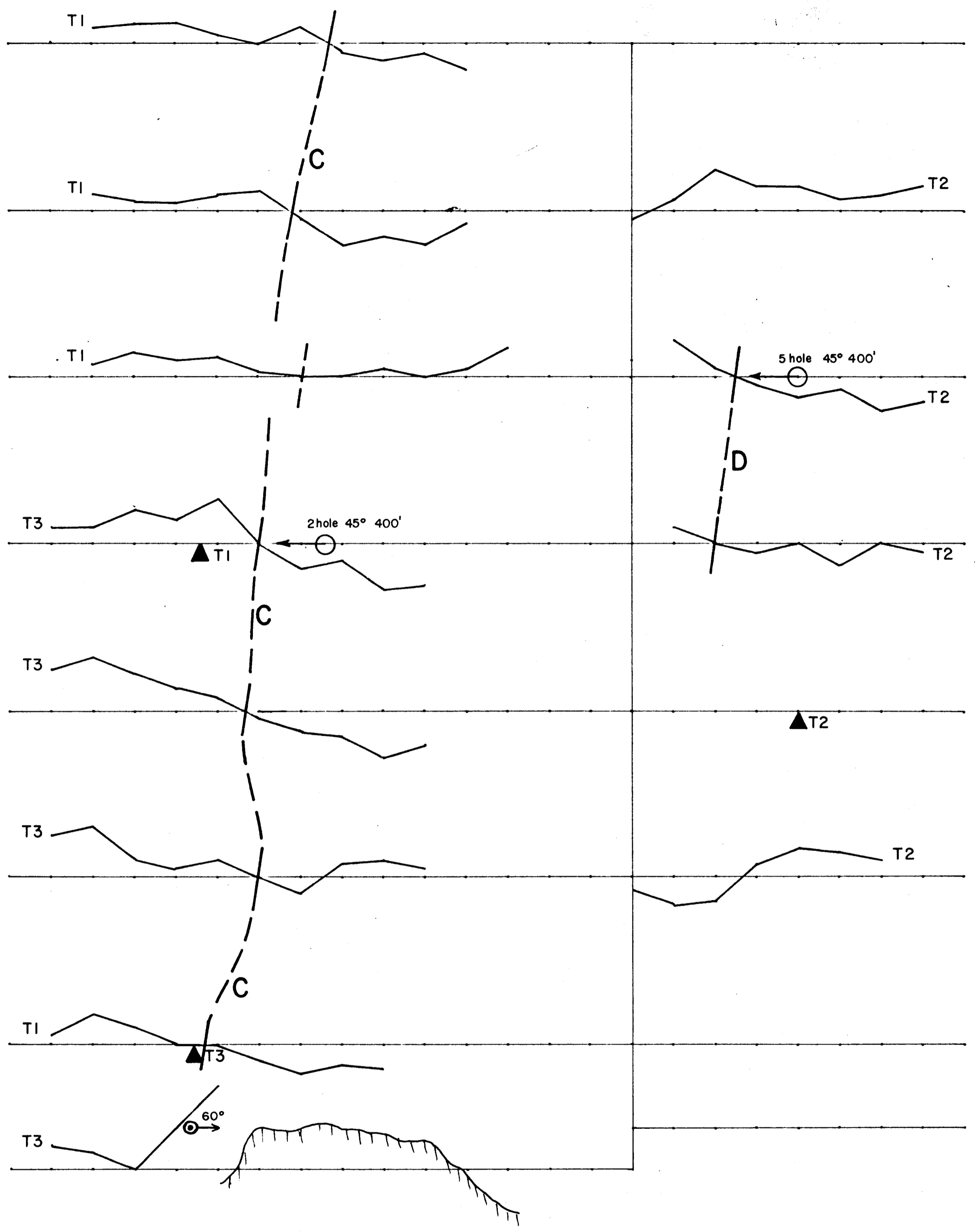
/ Conductor axis

SCALE: 1" = 1000'

Department of  
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NO. **2267** MAP **#1**

MINES  
**CITEX EXPLORATION LTD.**  
ELECTROMAGNETIC SURVEY  
T and ZZ Claims  
SOOKE AREA  
VICTORIA M.D., VANCOUVER ISLAND, B.C.  
PRIMAC EXPLORATION SERVICES LTD.

28+00 N  
24+00 N  
20+00 N  
16+00 N  
12+00 N  
8+00 N  
4+00 N  
2+00 N  
1+00 N



Conductor axis

2267

CITATION EXPLORATION LTD.

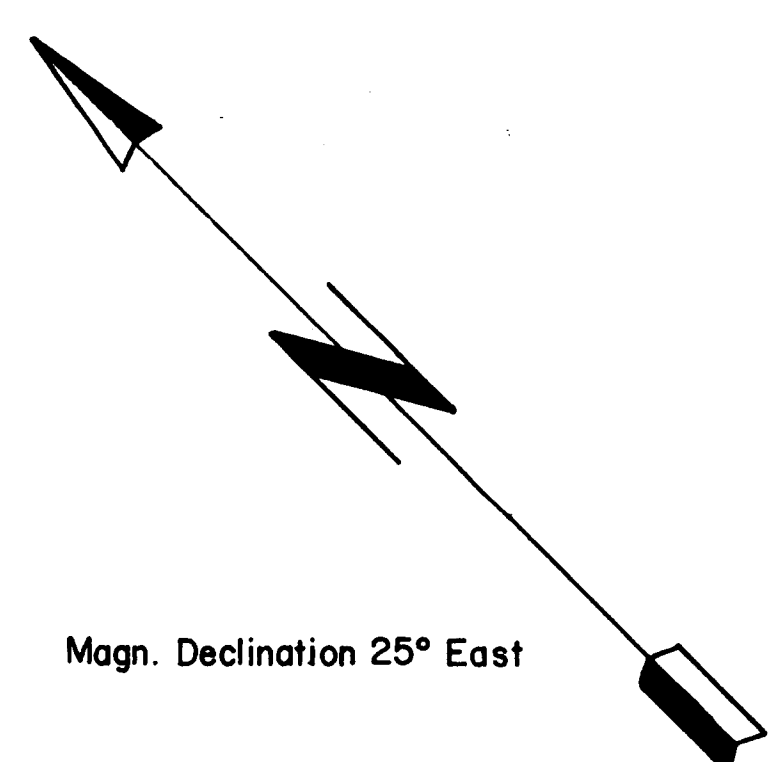
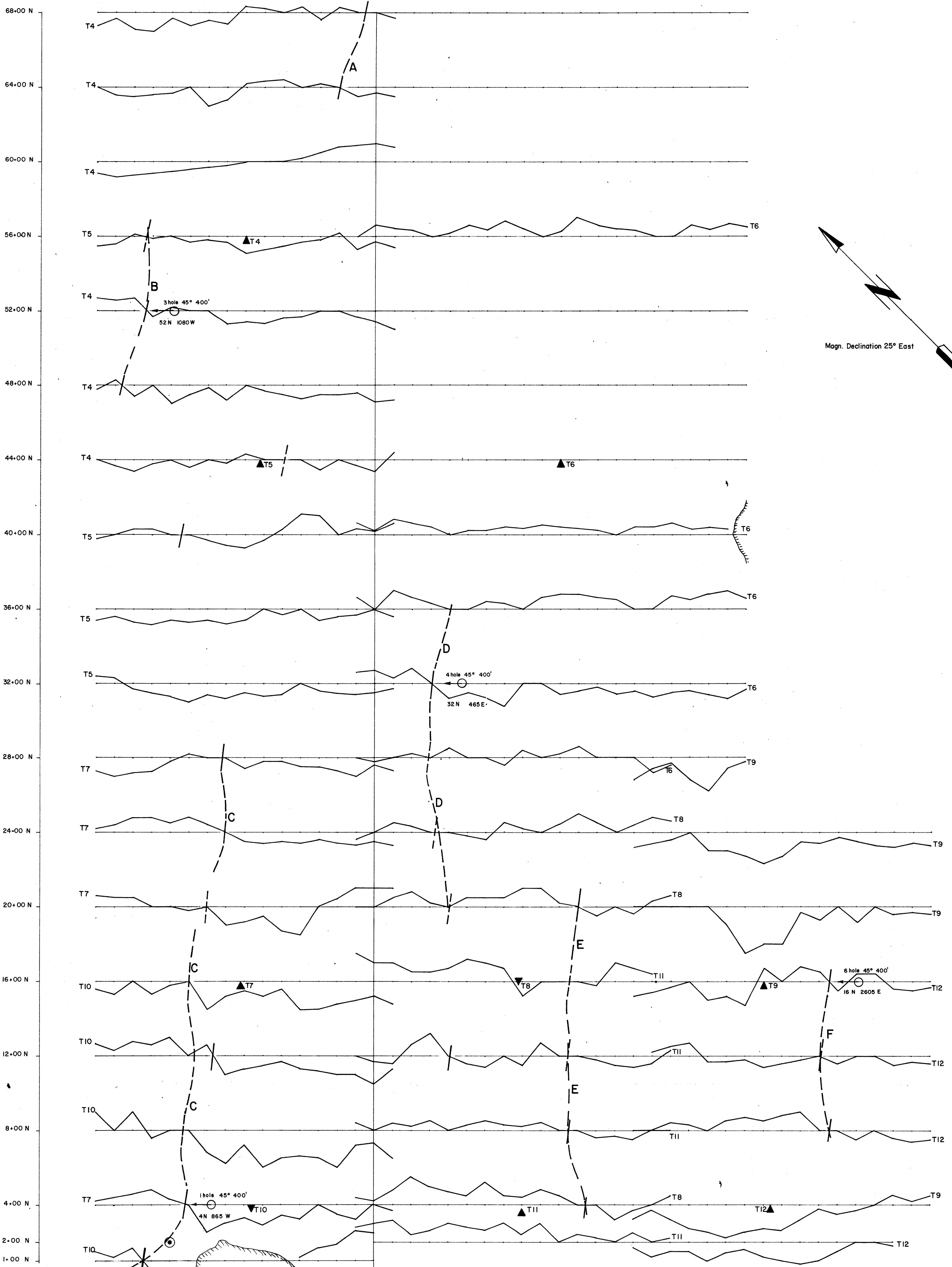
Electro Magnetic Survey (detail)

Scale 1"=200'

VELOCITY SURVEYS LIMITED.

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Conductor axis  
1" = 20'

2267

Department of  
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**Electro Magnetic Survey.**  
T and ZZ Claims  
Sooke Area.  
Vancouver Island  
VICTORIA MINING DIVISION. B.C.  
Scale 1" = 200'  
**VELOCITY SURVEYS LIMITED.**  
To accompany report by J.B. PRENDERGAST.

