1999 SUMMARY REPORT
ON THE
SILVERTIP PROPERTY,
BRITISH COLUMBIA

Geophysics and
Diamond Drilling

BULL 16, 23

Liard Mining Division

59° 55' N, 130° 20' W
NTS 104-O/16W

Owner: Silvertip Mining Corporation
Operator: Silvertip Mining Corporation,
Suite 420 - 355 Burrard Street,
Vancouver, B.C. V6C 2G8

Submitted November 12, 1999

Chris Rees, P.Geo.
Stephen Robertson, P.Geo.

SUMMARY

Silvertip is a blind, high grade, silver-lead-zinc manto-type deposit, situated in the Cassiar Mountains just south of the British Columbia-Yukon border. It is owned and operated by Silvertip Mining Corporation (SMC), a wholly owned subsidiary of Imperial Metals Corporation. Mineralization is hosted by middle Paleozoic carbonates, and consists of stratigraphically and structurally controlled bodies of pyrite-sphalerite-galena-sulphosalt massive sulphide, formed by carbonate replacement. The estimated geological resource (to January 1998) is 2.57 million tonnes grading 325 g/t silver, 6.4% lead, 8.8% zinc and 0.63 g/t gold.

The 1999 exploration program cost $450,000 in total, and consisted of geophysics and 1,285 metres of diamond drilling. It was financed by Peruvian Gold Limited under the terms of an option agreement with SMC. A detailed CSAMT geophysical survey was done to clarify and augment a reconnaissance survey done in 1998 in which a large, vertically-oriented low resistivity anomaly was detected in the Silver Creek South zone. In 1999, this anomaly was confirmed, along with other conductive features south of the main deposit area.

The two best CSAMT targets were subsequently tested by diamond drilling. Hole SSD-99-64 intersected 4.0 metres of massive sulphide and represents a significant, 250-metre step-out from the known mineral resource. The next hole, SSD-99-65, targeted the main, vertical anomaly, which was speculated to indicate a structurally-hosted feeder. This drill hole intersected a 31.4-metre thick interval of massive sulphide and mineralized limestone. The exceptional thickness and structural texture of the mineralization strongly suggests proximity to a major hydrothermal fluid conduit, which may have fed this and other massive sulphide zones in Silver Creek South. The third hole drilled was basically a fill-in, geological target, and did not intersect mineralization.

The program was a considerable success in delineating thick, feeder-style mineralization in an area already suspected of hosting a network of stacked mantos. The proposal is to track the main new zone outwards and to depth, which is best accomplished by re-opening the underground workings and proceeding with a program of detailed drill fans, and also exploratory drilling towards the suspected thermal source to the southeast of Silver Creek South.

TABLE OF CONTENTS

SUMMARY	i
TABLE OF CONTENTS	ii
LIST OF TABLES	iv
LIST OF FIGURES	iv
1.0 INTRODUCTION	1
1.1 Location and Access	1
1.2 Physiography	1
1.3 Land Tenure	1
1.4 Status of Project	1
1.5 Property History	5
1.6 Acknowledgements	8
2.0 GEOLOGY	9
2.1 Regional Geology	9
2.2 Property Geology	14
2.2.1 Stratigraphy	14
2.2.2 Structure	18
2.2.3 Mineralization and Alteration	19
3.0 GEOPHYSICS – CSAMT SURVEY	21
3.1 Introduction	21
3.2 Results	21
4.0 DIAMOND DRILLING	23
4.1 Objectives	23
4.2 Implementation	23
4.3 Sample Analysis	24
4.4 Results	24
5.0 CONCLUSIONS AND RECOMMENDATIONS	27
5.1 CSAMT Geophysics	27
5.2 Diamond drilling	28
5.3 Summary of recommendations and budget proposal	29

SELECTED BIBLIOGRAPHY 30

PROJECT STATEMENTS FOR 1999 32
List of Personnel 33
Statement of Expenditures 34
Statements of Qualifications 35
Statement of Work 37

APPENDIX A Silvertip 1999 CSAMT Survey (Whytecliff Geophysics Ltd.)

APPENDIX B Diamond drill logs

APPENDIX C Assay results

LIST OF TABLES

Table 1.1	List of claims	3
Table 1.2	Summary of Silvertip property history	7

LIST OF FIGURES

Fig. 1.1	Property location map	2
Fig. 1.2	Map showing 1999 work with reference to claims	6
Fig. 2.1	Location of Silvertip in the Canadian Cordillera	10
Fig. 2.2	Main tectonic elements of northern B.C. and southern Yukon	11
Fig. 2.3	Regional geology of the Silvertip area	12
Fig. 2.4	Regional geology stratigraphic column	13
Fig. 2.5	Geology map with 1999 drill holes and CSAMT survey	15
Fig. 2.6	Stratigraphic column of the Silvertip area	16

LIST OF MAPS

Map 1	Silvertip property claim map	(in pocket)

1.0 INTRODUCTION

1.1 LOCATION AND ACCESS

The Silvertip property is situated in northern British Columbia, just south of the Yukon border, approximately 90 km by air west-southwest of Watson Lake, Yukon (Fig. 1.1). The property is accessible via a 25-km gravel road starting from Mile 701 (kilometre 1128) of the Alaska Highway, about 15 km east of Rancheria, Yukon.

1.2 PHYSIOGRAPHY

The property lies on the northeastern flank of the Cassiar Mountains. The terrain is moderately mountainous, with generally rounded peaks and ridges separated by U-shaped valleys. The highest peaks are about 1950 metres; topographic relief is typically about 300 to 500 metres. Roughly 35% of the property is above tree line, which is at approximately 1450 metres.

1.3 LAND TENURE

The Silvertip property is owned and operated by Silvertip Mining Corporation (SMC), a wholly owned subsidiary of Imperial Metals Corporation (IMC) of Vancouver. The property currently comprises 887 units in 63 claims and 26 fractional claims, covering an area of approximately 200 square kilometres (Fig. 1.1, Map 1). The claims and their current status, pending acceptance of this report, are listed in Table 1.1.

1.4 STATUS OF PROJECT

Silvertip (formerly Midway) is an epigenetic massive sulphide deposit, formed by carbonate replacement in limestone. A blind deposit, it is characterized by high grade silver-lead-zinc mineralization. The project is at the pre-feasibility stage, accompanied by advanced exploration. Currently, the total geological resource stands at 2.57 million tonnes grading 325 grams per tonne silver, 6.4% lead, 8.8% zinc, and 0.63 grams per tonne gold (Appendix E in Silvertip Mining Corporation, 1998).

In April 1999, SMC negotiated an option agreement with Peruvian Gold Limited of Vancouver, which allows Peruvian the option to earn a 60% interest in the Silvertip property by spending $5.0 million (Cdn) over 3 years. Upon completion, SMC can then

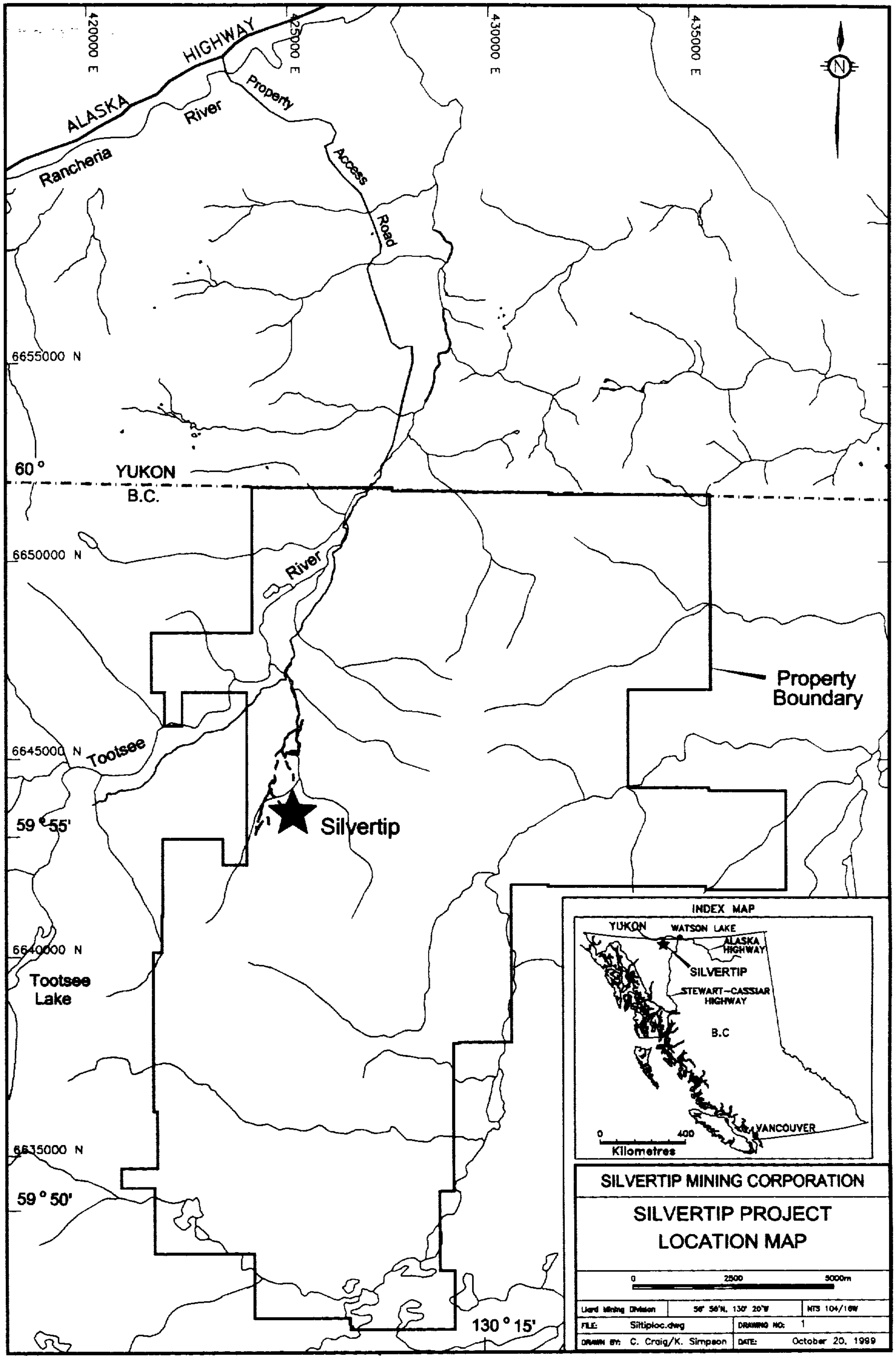


Fig. 1.1: Property location map

Table 1.1: List of claims on Silvertip property

TITLE NAME	TITLE #	UNITS	RECORD DATE	EXPIRY DATE	REQ'D EXP.
TOOTS 4	221837	20	July 6, 1979	October 15, 2009	4,000.00
RENEE 1	221908	12	November 2, 1979	October 15, 2009	2,400.00
BETH 1	222004	12	August 8, 1980	October 15, 2009	2,400.00
BETH 2	222005	20	August 8, 1980	October 15, 2009	4,000.00
BETH 3	222006	20	August 8, 1980	October 15, 2009	4,000.00
BETH 4	222007	18	August 8, 1980	October 15, 2009	3,600.00
WAY # 1	222040	20	October 20, 1980	October 15, 2008	4,000.00
WAY # 2	222041	20	October 20, 1980	October 15, 2008	4,000.00
WAY # 3	222042	20	October 20, 1980	October 15, 2008	4,000.00
WAY # 4	222043	20	October 20, 1980	October 15, 2008	4,000.00
WAY # 5	222044	20	October 20, 1980	October 15, 2008	4,000.00
BULL #1	222049	12	November 12, 1980	October 15, 2009	2,400.00
BULL #2	222050	20	November 12, 1980	October 15, 2008	4,000.00
POST 1	222051	4	November 12, 1980	October 15, 2008	800.00
CLIMAX # 2	222052	20	November 12, 1980	October 15, 2009	4,000.00
CLIMAX # 3	222053	20	November 12, 1980	October 15, 2009	4,000.00
CLIMAX # 1	222055	8	November 26, 1980	October 15, 2009	1,600.00
CLIMAX # 4	222056	20	November 26, 1980	October 15, 2009	4,000.00
CLIMAX # 5	222057	20	November 26, 1980	October 15, 2009	4,000.00
CLIMAX # 6	222058	15	November 26, 1980	October 15, 2009	3,000.00
CLIMAX # 7	222059	15	November 26, 1980	October 15, 2009	3,000.00
CLIMAX # 8	222060	15	November 26, 1980	October 15, 2009	3,000.00
CLIMAX # 9	222061	15	November 26, 1980	October 15, 2009	3,000.00
CLIMAX #10	222062	20	November 26, 1980	October 15, 2009	4,000.00
CLIMAX #11	222063	6	November 26, 1980	October 15, 2008	1,200.00
BULL #4 FR	222064	1	November 26, 1980	October 15, 2009	200.00
WAY # 6	222065	20	November 26, 1980	October 15, 2008	4,000.00
WAY # 7	222066	20	November 26, 1980	October 15, 2008	4,000.00
WAY # 8	222067	20	November 26, 1980	October 15, 2008	4,000.00
WAY # 9	222068	15	November 26, 1980	October 15, 2008	3,000.00
WAY #10	222069	20	November 26, 1980	October 15, 2008	4,000.00
WAY #11	222070	20	November 26, 1980	October 15, 2008	4,000.00
WAY #12	222071	15	November 26, 1980	October 15, 2008	3,000.00
WAY #16	222072	20	November 26,,1980	October 15, 2008	4,000.00
WAY #17	222073	20	November 26, 1980	October 15, 2008	4,000.00
WAY #18	222074	15	November 26, 1980	October 15, 2009	3,000.00
WAY #19	222075	20	November 26, 1980	October 15, 2008	4,000.00
WAY #20	222076	20	November 26, 1980	October 15, 2008	4,000.00
WAY #21	222077	20	November 26, 1980	October 15, 2008	4,000.00
WAY #22	222078	10	November 26, 1980	October 15, 2008	2,000.00
WAY #23	222079	18	November 26, 1980	October 15, 2008	3,600.00
BULL #5	222110	12	July 21, 1981	October 15, 2009	2,400.00
POST 2	222155	9	April 20, 1982	October 15, 2009	1,800.00
POST 3	222156	20	April 20, 1982	October 15, 2009	4,000.00
CLIMAX #12	222183	12	August 24, 1982	October 15, 2009	2,400.00
POST 11	222184	10	August 24, 1982	October 15, 2009	2,000.00
POST 12	222185	15	August 24, 1982	October 15, 2009	3,000.00
POST 13	222186	18	August 24, 1982	October 15, 2008	3,600.00
BULL 7	222187	18	August 24, 1982	October 15, 2009	3,600.00
CLIMAX #13	222233	1	October 20, 1982	October 15, 2009	200.00
CLIMAX #14 FR	222234	1	October 20, 1982	October 15, 2008	200.00
POST 14	222235	2	October 20, 1982	October 15, 2009	400.00
BULL 8	222244	15	January 18, 1983	October 15, 2008	3,000.00
BULL 10	222245	2	January 18, 1983	October 15, 2008	400.00
BULL 11 FR	222246	1	January 18, 1983	October 15, 2008	200.00
BULL 12 FR	222247	1	January 18, 1983	October 15, 2008	200.00
WAY 24 FR	222260	1	June 14, 1983	October 15, 2009	200.00
WAY 25 FR	222261	1	June 14, 1983	October 15, 2009	200.00

Table 1.1 (cont'd.): List of claims on Silvertip property

TITLE NAME	TITLE #	UNITS	RECORD DATE	EXPIRY DATE	REQ'D EXP.
WAY 26 FR	222262	1	June 14, 1983	October 15, 2009	200.00
WAY 27 FR	222263	1	June 14, 1983	October 15, 2009	200.00
WAY 29 FR	222264	1	June 14, 1983	October 15, 2009	200.00
WAY 30 FR	222265	1	June 14, 1983	October 15, 2009	200.00
WAY 31 FR	222266	1	June 14, 1983	October 15, 2009	200.00
WAY 32 FR	222267	1	June 14, 1983	October 15, 2009	200.00
WAY 33 FR	222268	1	June 14, 1983	October 15, 2009	200.00
WAY 34 FR	222269	1	June 14, 1983	October 15, 2009	200.00
WAY 35 FR	222270	1	June 14, 1983	October 15, 2009	200.00
STAR 2 FR	222271	1	June 14, 1983	October 15, 2009	200.00
BULL 15 FR	222272	1	June 14, 1983	October 15, 2009	200.00
BULL 16	222273	2	June 14, 1983	October 15, 2009	400.00
BULL 17	222274	2	June 14, 1983	October 15, 2009	400.00
BULL 18	222275	2	June 14, 1983	October 15, 2009	400.00
BULL 19	222276	2	June 14, 1983	October 15, 2009	400.00
BULL 20	222277	2	June 14, 1983	October 15, 2009	400.00
BULL 21	222278	2	June 14, 1983	October 15, 2009	400.00
BULL 22	222279	2	June 14, 1983	October 15, 2009	400.00
BULL 23	222280	2	June 14, 1983	October 15, 2009	400.00
BULL 24 FR	222281	1	June 14, 1983	October 15, 2009	200.00
BULL 25 FR	222282	1	June 14, 1983	October 15, 2009	200.00
BULL 26 FR	222283	1	June 14, 1983	October 15, 2009	200.00
POST 4 FR	222284	1	June 20, 1983	October 15, 2009	200.00
POST 5 FR	222285	1	June 20, 1983	October 15, 2009	200.00
STAR 3	222299	4	July 6, 1983	October 15, 2009	800.00
POST 15	222332	20	September 19, 1983	October 15, 2009	4,000.00
BULL 27 FR	222333	1	September 19, 1983	October 15, 2009	200.00
POST 16	222336	2	October 3, 1983	October 15, 2008	400.00
CLIMAX #15 FR	222345	1	October 17, 1983	October 15, 2009	200.00
CLIMAX #16 FR	222346	1	October 17, 1983	October 15, 2009	200.00
BULL 28 FR	306683	1	October 14, 1986	October 15, 2009	200.00

earn back 20% (to 60%) by spending $2.0 million (Cdn) over 18 months. SMC remains the operator throughout the agreement. The 1999 program called for a minimum commitment of $450,000 to be spent on a detailed geophysical survey (CSAMT), followed by a limited diamond drilling program to test the best targets for chimney mineralization.

The claims worked in 1999 were Bull 16 and 23, as shown in Fig. 1.2. The CSAMT survey covered 5.35 km over 10 lines, and the diamond drilling consisted of 3 holes totalling 1,285 metres.

In this report, the geology and mineralization of the Silvertip property is summarized in Chapter 2, as a framework for the geophysics and diamond drilling chapters. Some background of the CSAMT is given in Chapter 3, and the survey details and results are contained in Appendix A. The drilling program is described in Chapter 4; the drill logs are in Appendix B and the assay results are in Appendix C.

1.5 PROPERTY HISTORY

The property history of Silvertip is summarized in Table 1.2, and a detailed account is in Silvertip Mining Corporation (1998, Appendix I). A brief outline and update follows.

Galena-rich float was discovered by prospectors on Silvertip Hill in 1955. In late 1956 and 1957, Conwest Exploration Company explored gossanous zones in the McDame Group limestone by drilling and surface and underground workings. Zones of galena and silver-rich values were found but most of the sulphides were thoroughly oxidized.

In 1958, drilling was continued by a joint venture between Noranda Mines Limited, Canex Aerial Exploration Limited and Bralorne Mines Limited. A number of other companies optioned the property between 1960 and 1966, conducting AFMAG and IP surveys over Silvertip Hill to identify drill targets. Other work included photo- and geological mapping, rock and soil sampling, and trenching and stripping. Some good anomalies were found, but follow-up drilling found only deeply oxidized mineralization with generally uneconomic silver grades.

Silverknife Mines Limited owned the Silvertip claims from 1966 until the claims lapsed in the early 1970s. During this time, four rotary holes were drilled (1966) to test IP anomalies, and two diamond drill holes were done on EM survey targets (1967). Two diamond drill holes tested geophysical anomalies in 1968. By this time, the idea that silver-lead mineralization was related to replacement of limestone at its contact with overlying 'shale' was the dominant exploration model for the Silvertip Hill area. However, results were still not encouraging due to various drilling problems, weak mineralization, or deep oxidation.

Very little work was done in the 1970s. The main phase of exploration began in 1980 when Cordilleran Engineering, on behalf of property owner Regional Resources Limited, were conducting regional reconnaissance in search of shale-hosted, lead-zinc sedex deposits. They found base metal anomalies in soils and stream sediments about 1500 metres northeast of Silvertip Hill, which led to the discovery of baritic and siliceous gossans of exhalite origin within the Earn Group. The property was then known as

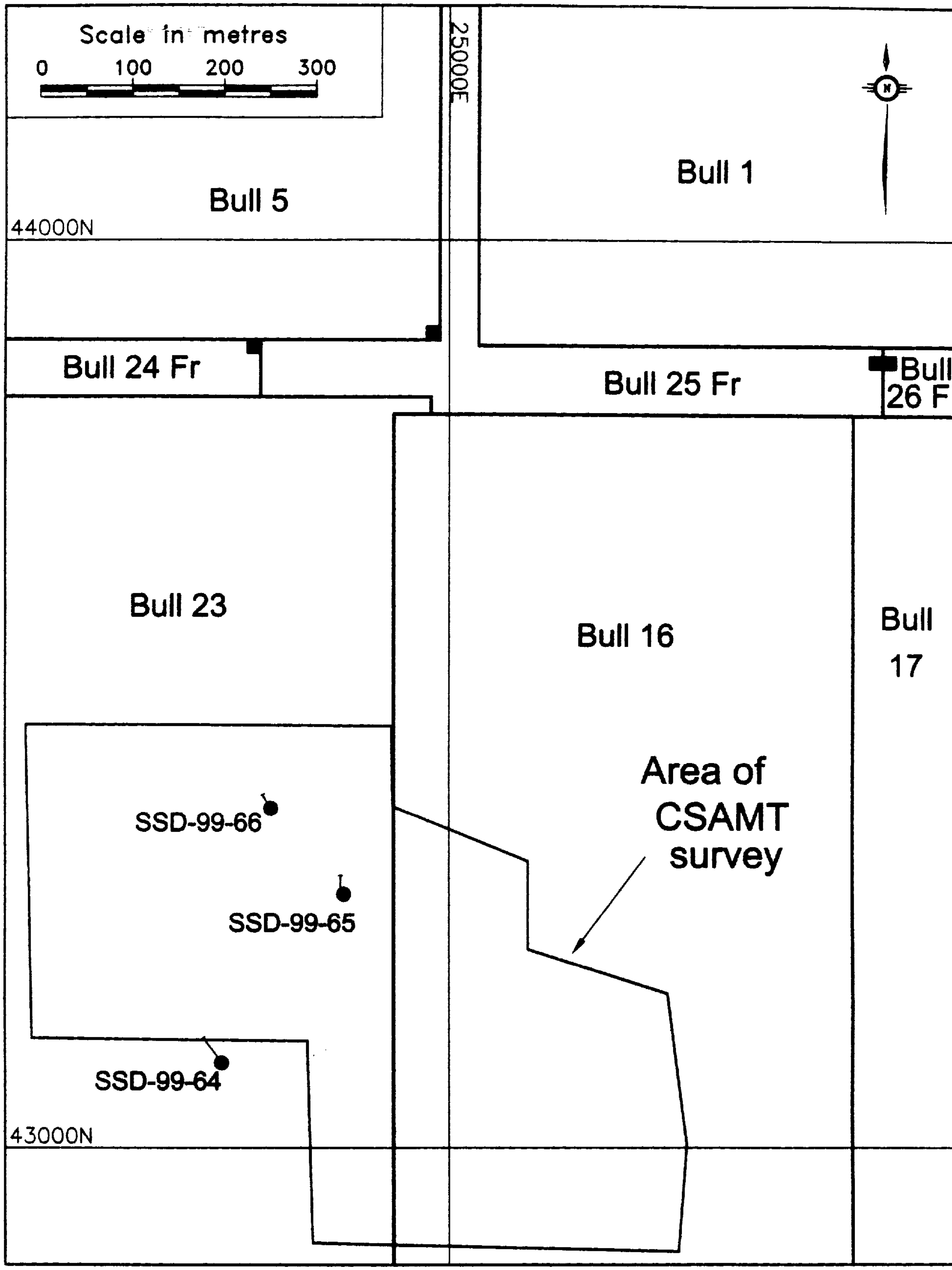


Fig. 1.2: Map showing location of CSAMT survey and diamond drill holes completed in 1999 with reference to claims (cf. Silvertip property claim map in pocket).

Table 1.2: Summary of Silvertip Property History

Year	Work	Amount/Type	Surface Drilling: Diamond Holes	Surface Drilling: Diamond Metres	Surface Drilling: Other Holes	Surface Drilling: Other Metres	Underground: Development	Underground: Diamond Drillin Holes	Underground: Diamond Drillin Metres	Mineral Resource Calculation: Size (mt)	Ag (g/t)	Pb (%)	Zn (%)	Au (g/t)
1955	Discovery Claim Staking							9						
1956	Claim Staking													
1957	Trenching Mapping Drilling						Upper adit 155 m Lower adit 393 m	6	204					
1958	Drilling							3	972					
1960	AFMAG													
1961/62	IP Survey Drilling	8.3 km	4	495										
1963	Geochemistry (THM) Mapping Photogeology Trenching Drilling Mercury Vapour Test	1650 samples 80 samples	1	51										
1966	Drilling	Rotary			4	684								
1967	Airborne EM Drilling		2	152						1.8	2778	50.3	1.22	
1968	Gravity Drilling		2	388										
1973	Claim Staking													
1980	Geochemistry Claim Staking													
1981	Drilling Geochemistry Line Cutting PEM, Gravity Trenches Claim Staking	 8000 samples 435 km 8.5 km, 8.9 km 19	6	857										
1982	Drilling Geochemistry Geophysics		15	5,283						3.6	452	6.7	12.5	
1983	Drilling Petrography, Mineralogy, Metallurgy		32	11,733						4.7	350	5.1	12.3	
1984/85	Drilling Geophysics Development		50	10,981			Main adit 1,453 m	170	12,383	5.4	390	6.4	12.3	0.54
1986	Drilling PEM Downhole PEM Magnetometer Geochemistry	RC 74.8 km 2,340 m 182.7 km 166.2 km	14	2,660	9	984				1.19	410	7	9.6	
1989	Explor. Development						765 m							
1990	Drilling							68	9620	1.74	352	6.4	10	
1997	Drilling Seismic Mapping	 7 km, 12 lines	63	8594	4	844				2.57	325	6.4	8.8	0.63
1998	ARD Geochemistry CSAMT Geophysics Geotechnical Drilling Environmental	 3.8 km, 5 lines			4	92.35								
1999	CSAMT Geophysics Drilling	5.35 km, 10 lines	3	1,285										

Midway. Regional mapping, soil and EM surveys followed in 1981, with six diamond drill holes around the exhalite showings. Four of these unexpectedly intersected massive sulphide below the base of the Earn Group, at the top of the McDame Group limestone, and by the end of 1982 the exploration focus had again shifted back to limestone-hosted replacement mineralization.

An aggressive surface drill program was conducted between 1982 and 1984, along with geophysics and petrographic and metallurgical research. Two main, blind areas of mineralization were outlined, Silver Creek and Discovery, and a manto-type deposit model was formulated. Encouraged by the apparent size of the mineralized area and the good grade and thickness of sulphides, the company began underground exploration development in the Silver Creek area (1984 to 85), followed by 12,383 metres of underground drilling over 170 holes, in fans spaced 20 metres apart. The results showed that the mineralization was more erratic and discontinuous than had been modelled from the widely spaced surface drill pattern, leading to a reduced estimate of the size of the resource.

A new underground development initiative was carried out between 1989 and 1991 by operator Strathcona Mineral Services, opening a decline to the east towards the Discovery area, and completing 9,620 metres of underground drilling.

In 1996, Imperial Metals Corporation of Vancouver acquired Regional Resources and renamed the company Silvertip Mining Corporation (SMC). A large exploration program in 1997 involving diamond drilling, seismic surveying, and surface geological mapping resulted in the discovery of a new zone, the Silver Creek Extension. This added significantly to the total geological resource, which was subsequently recalculated (January 1998) at 2.57 million tonnes grading 325 g/t Ag, 6.4% Pb, 8.8% Zn and 0.63 g/t Au. In 1998, SMC entered the Environmental Assessment review process with the provincial government for project certification. That year, various environmental baseline studies were done and monitoring procedures instigated, along with a reconnaissance CSAMT survey.

1.6 ACKNOWLEDGEMENTS

The program was carried out in the field by the second author (project manager), with the assistance of Chris Akelaitis, and Ivor Saunders (camp manager). Program design and planning was completed by the second author, with technical assistance from Clay Craig. The support and guidance provided by Pat McAndless (Vice President, Exploration, IMC) is acknowledged and appreciated. David Henstridge (President, Peruvian Gold Limited) is thanked for his constructive input with respect to program design and direction.

2.0 GEOLOGY

The regional and property geology pertaining to the Silvertip project was given in some detail in the 1997 report (Silvertip Mining Corporation, 1998). Other sources of good information are Cordilleran Engineering (1985), Curtis (1986), and Bradford (1988). This chapter is a summary, taken from the 1998 project report (Silvertip Mining Corporation, 1999), with minor modifications.

2.1 REGIONAL GEOLOGY

The Silvertip property is situated in the northern Omineca Belt of the Canadian Cordillera (Fig. 2.1). The most important element of this region is the Cassiar terrane, composed of Upper Proterozoic through Middle Devonian carbonate and clastic sedimentary rocks formed on a marine platform on the ancient continental margin of western North America (Cassiar Platform), and overlying Devono-Mississippian rift-related clastics (Earn Assemblage). Structurally overlying the Cassiar terrane is a tectonic assemblage of marginal basin and island arc sediments and igneous rocks of the Upper Paleozoic Sylvester allochthon (Fig. 2.2).

The region was moderately deformed by folding and thrust faulting in the Jurassic, and later by extensional and dextral transcurrent faulting in the Late Cretaceous to early Tertiary (Fig. 2.3). The Cassiar Batholith, a large, granite to granodiorite intrusion of mid-Cretaceous age, lies west of the property. Small intrusions and related hydrothermal alteration of possibly Late Cretaceous age are minor but important features of the region.

The main mineral deposits are syngenetic barite +/- lead, zinc prospects in Paleozoic sediments, and skarn and replacement deposits related to Cretaceous intrusive and hydrothermal activity. An account of mineralization in the Rancheria district, including the Silvertip area, is given by Abbott (1983).

The principal sources of regional geology data are Gabrielse (1963), Nelson and Bradford (1993), and Nelson and Bradford's (1987) open file map of the Tootsee Lake area, from which Fig. 2.3 is adapted. The regional stratigraphy is shown in the stratigraphic column in Fig. 2.4.

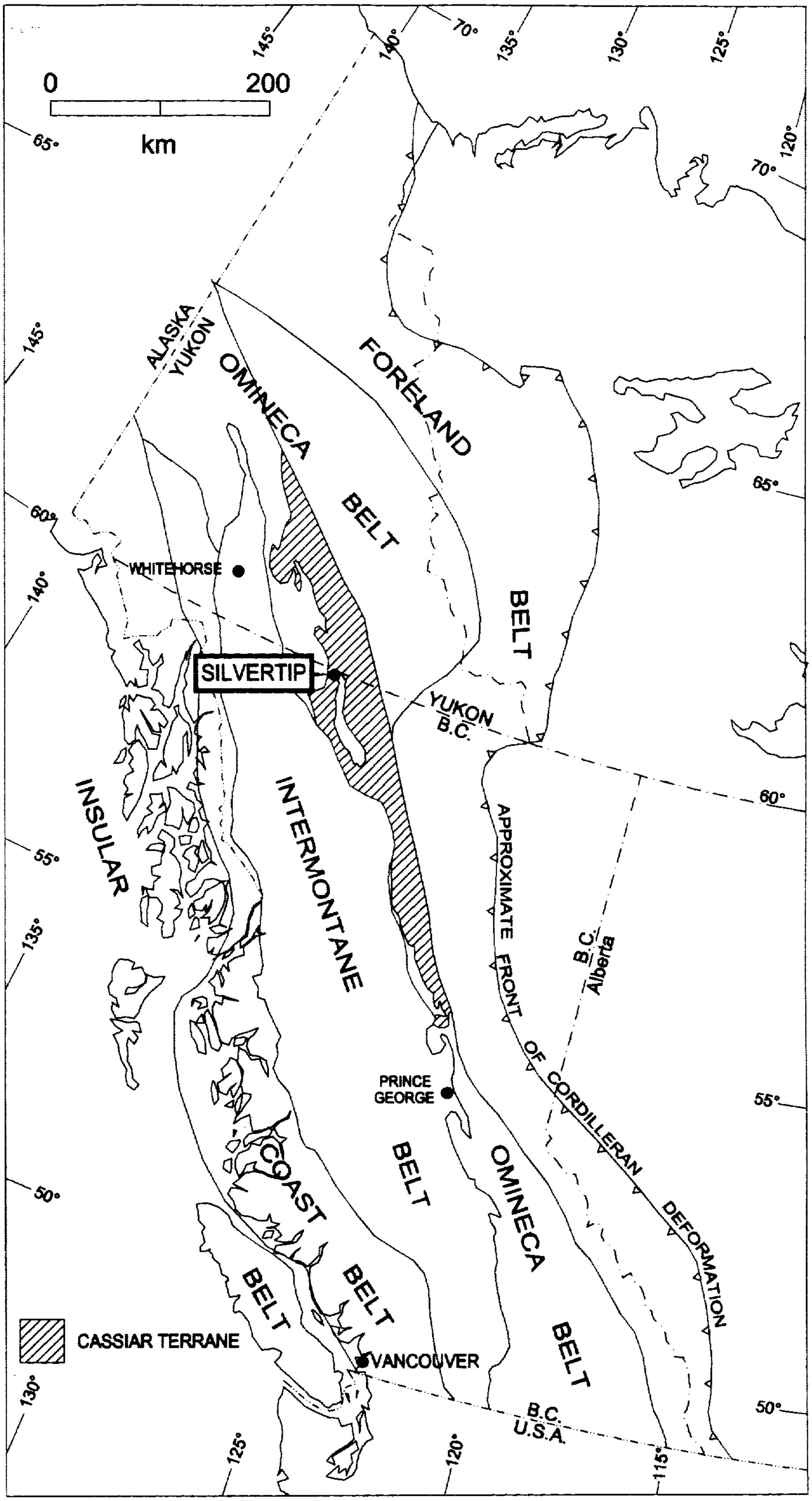


Fig. 2.1: Location of Silvertip with respect to Cassiar terrane and morphogeological belts of the Canadian Cordillera.

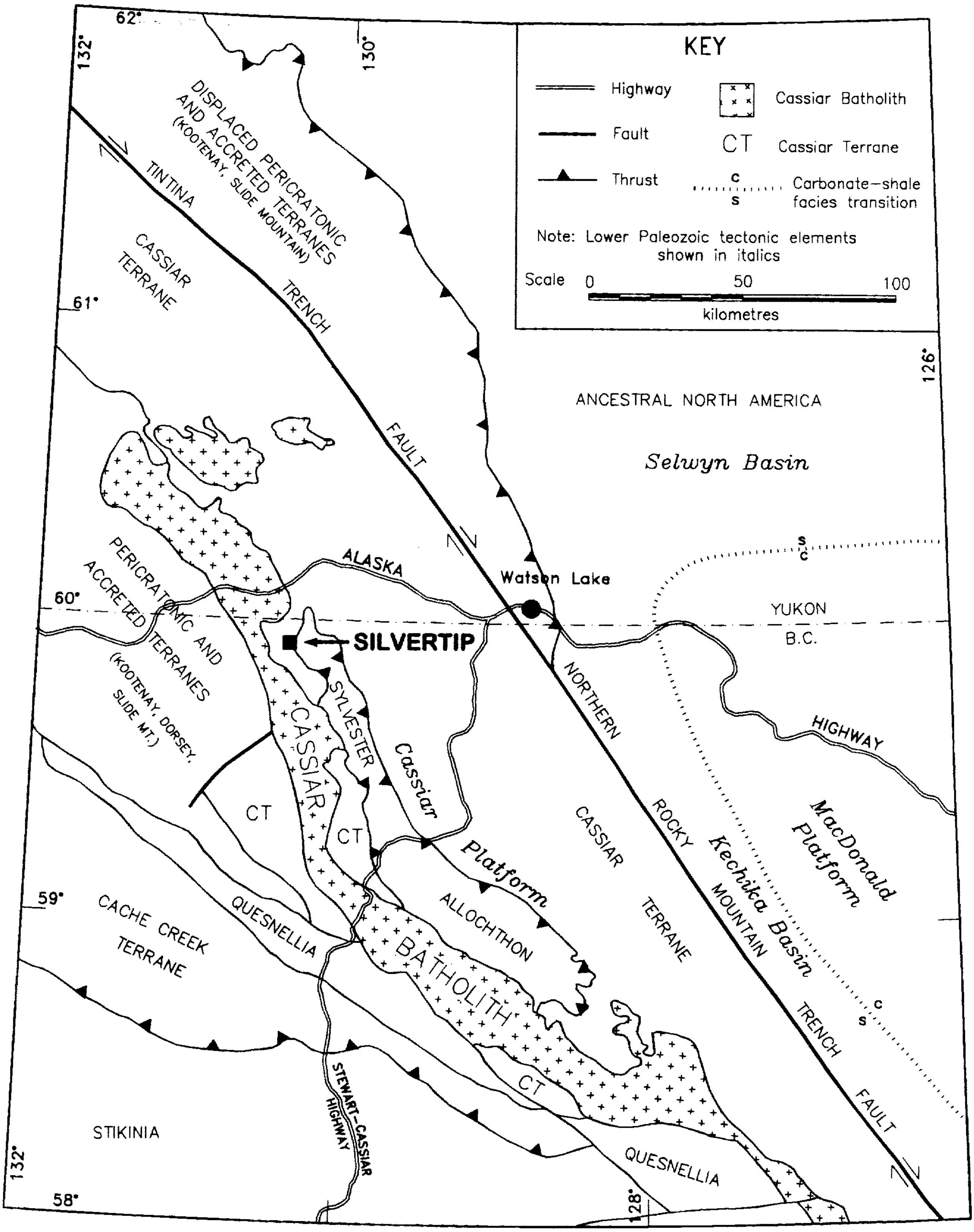


Fig. 2.2: Main tectonic elements of northern British Columbia and southern Yukon showing regional setting of Silvertip.

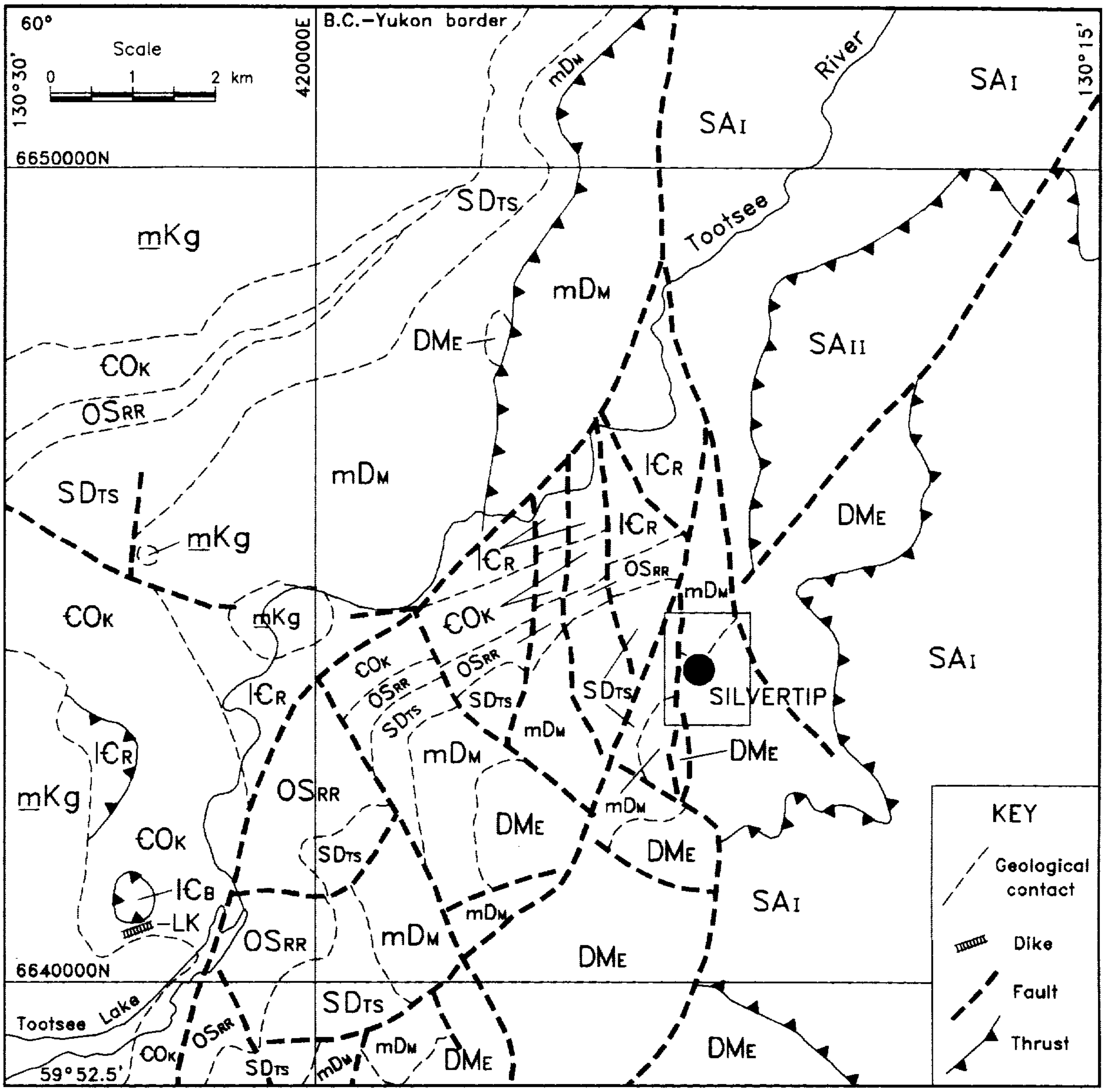


Fig. 2.3: Regional geological setting, showing location of Silvertip with respect to stratigraphic units of the Cassiar Platform, the eastern margin of the Cassiar Batholith, and the western margin of the Sylvester allochthon. Adapted from Nelson and Bradford (1987). Geology differs slightly from that in Fig. 2.5 (outlined). Array of faults are part of Tootsee River fault system. For Legend, see Fig. 2.4.

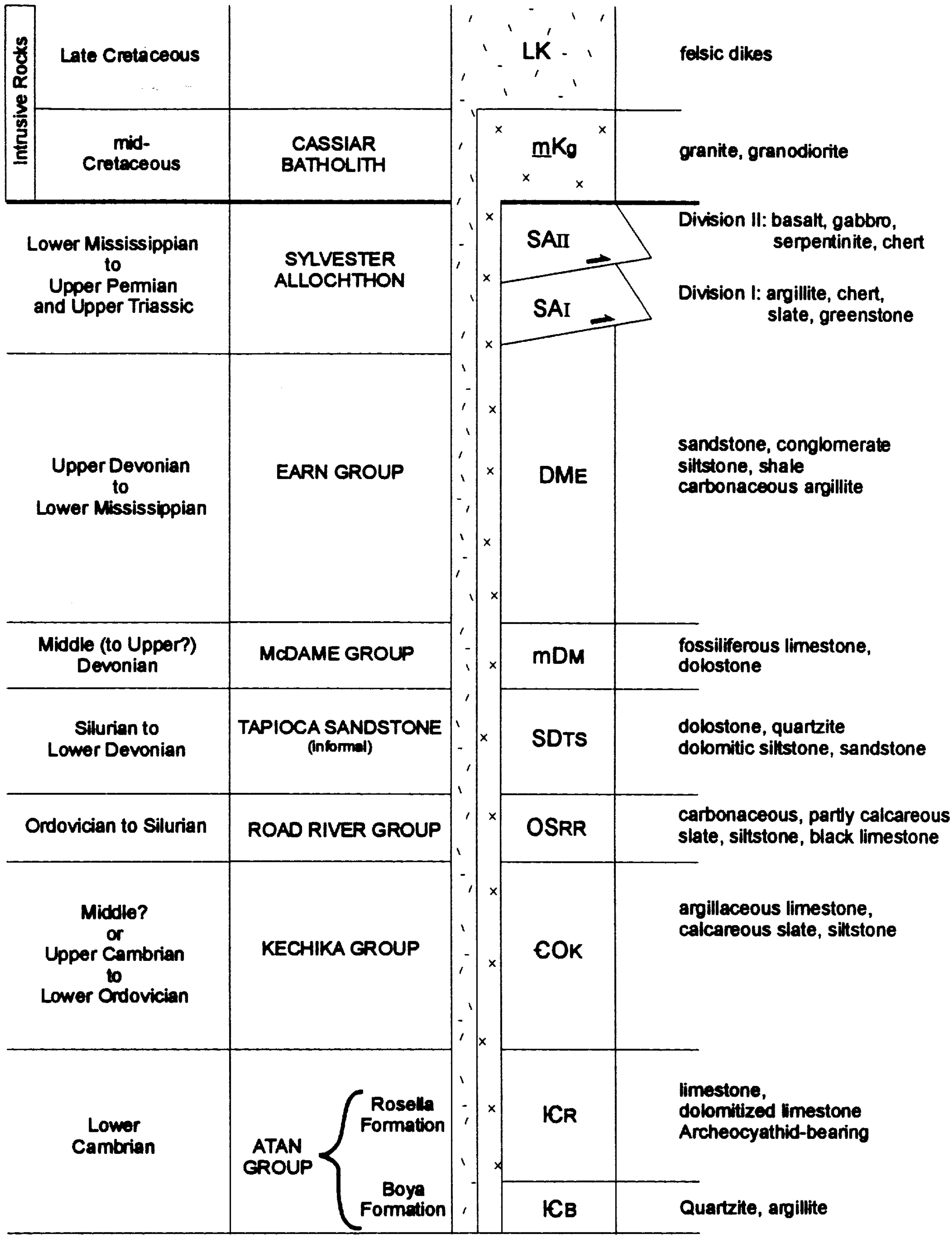


Fig. 2.4: Regional geology stratigraphic column.

2.2 PROPERTY GEOLOGY

2.2.1 Stratigraphy

The geology of part of the Silvertip property where work was done is shown in Fig. 2.5, and the stratigraphic column in Fig. 2.6. Essentially, the area comprises easterly to southeasterly dipping Tapioca sandstone and McDame Group, overlain by the Earn Group. All these rocks are deformed by generally north-trending faults related to the Tootsee River fault system (Nelson and Bradford, 1993), the most important of which is the Camp Creek fault.

Tapioca Sandstone

This is an informal unit, partly equivalent to the (formal) Sandpile Group. The Tapioca is Silurian to Lower Devonian in age, and roughly 475 metres thick. It consists of pale buff-grey dolomitic sandstone to quartzite, silty dolostone and dolostone. The characteristic texture is well-rounded sand grains in a dolomitic cement. Good cross-bedding is present locally.

McDame Group

This carbonate unit hosts the massive sulphide mineralization at Silvertip. It consists of a lower dolomitic unit, about 100 metres thick, and an upper limestone unit up to 260 metres thick. The McDame is Middle Devonian, but may extend into the Upper Devonian.

The lower dolomitic unit consists of pale to dark buff-grey or blue-grey, very fine grained dolostone and silty dolostone, grading upwards into dolomitic limestone. The rocks are fairly well bedded, and locally have fine cryptalgal laminations. In contrast to the overlying limestone unit, this unit has a uniform, non-bioclastic texture. It is distinguished from the underlying Tapioca sandstone by the absence of sand grains or siliceous component, and by its colour and less blocky weathering.

The main, upper part of the McDame Group is composed of distinctive bioclastic limestone, noted for its rich fauna of stromatoporoids, corals and brachiopods. The limestone is pale to dark bluish-grey, and fine to medium grained with a crystalline texture. It is moderately to thickly bedded (up to 1 or 2 metres). Parts of the limestone have been hydrothermally altered to a buff-grey, medium-grained dolostone, or to a pink or white, crystalline 'marble'.

The stromatoporoid Amphipora is characteristic of the limestone, as are several forms of massive stromatoporoids. The stratigraphic distribution of these fossils and of solitary and colonial corals and thick- and thin-shelled brachiopods has been used to construct a detailed biostratigraphy of the McDame, resulting in its subdivision into 8 subunits (cf. Fig. 2.5). This scheme is the principal tool used in drill core logging and the subsurface reconstruction of the McDame, although the bioclastic facies are generally not recognizable in surface outcrops because of weathering.

Brecciation is another important feature of the McDame limestone, again most conspicuous in drill core. Some of these are primary depositional breccias related to

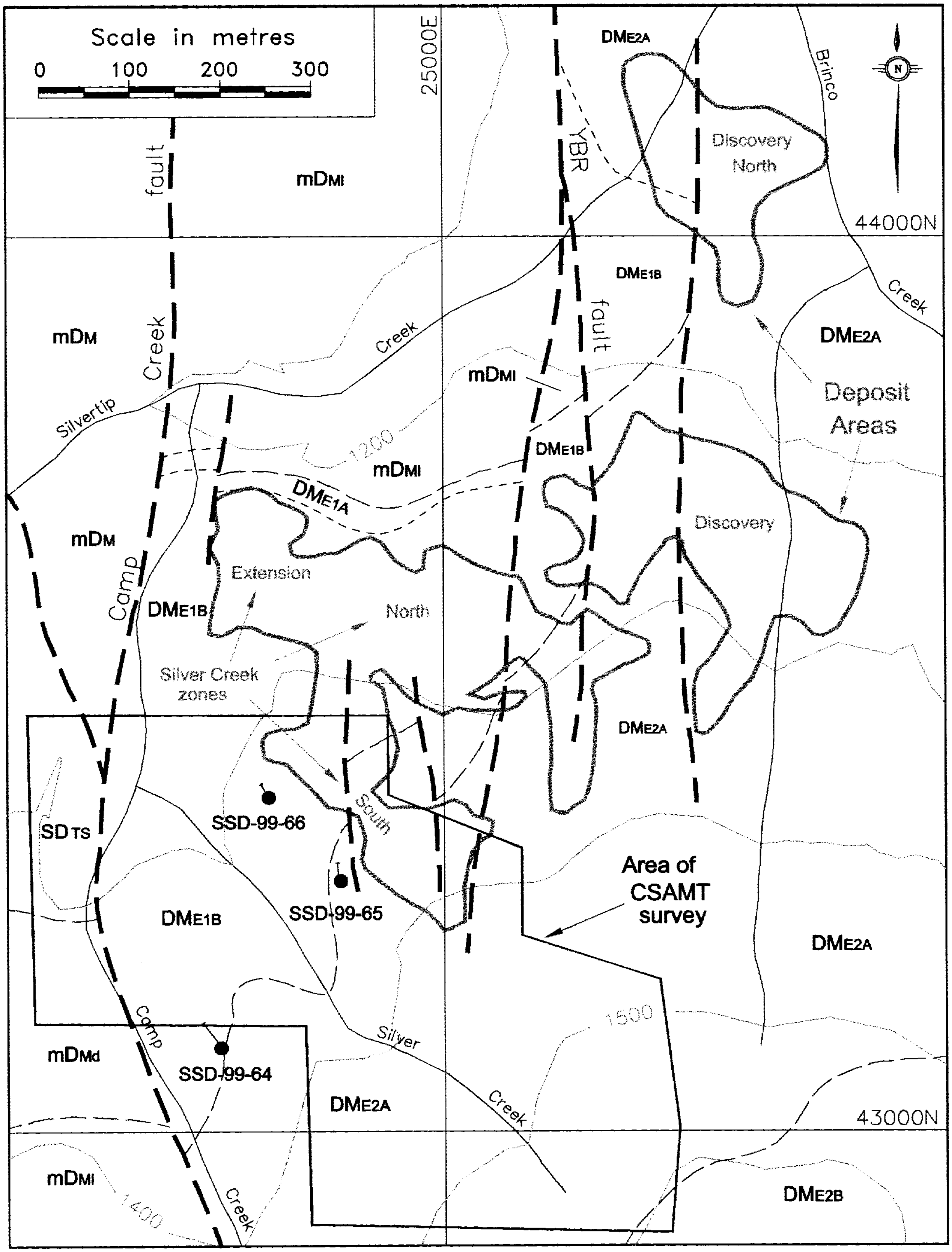


Fig. 2.5: Geological setting of 1999 geophysical survey and diamond drill holes (3). Also shown are known deposit areas. For map location, see Fig. 2.3. For explanation of units, see Fig. 2.6 and text.

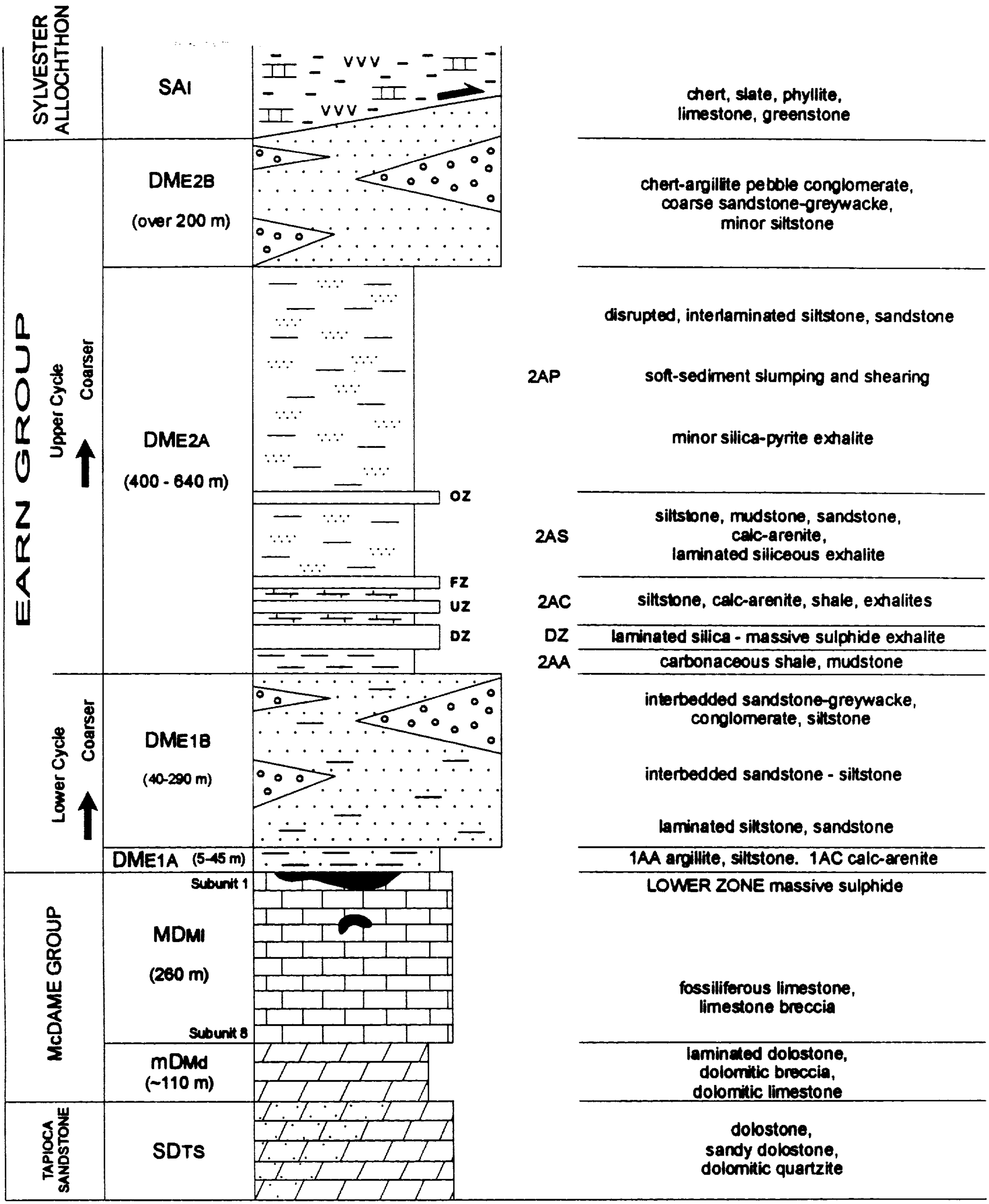


Fig. 2.6: Stratigraphic column of the Silvertip area.

karst erosion (see below), and others were formed much later by solution collapse processes due to hydrothermal activity accompanying mineralization.

Earn Group

In the Late Devonian, the carbonate platform emerged above sea level for a time, and the McDame limestone was karst eroded. This episode ended with crustal extension, re-submergence, and the deposition of the succeeding Earn Group siliciclastics in the Late Devonian through Early Mississippian. The basal Earn was deposited disconformably on the McDame with little or no angular discordance, but stratigraphic relief due to dissection at the unconformity is up to 165 metres. The top of the Earn is not preserved; the known thickness in the area varies between 600 and 1000 metres.

The Earn comprises two coarsening-upward cycles (1 and 2) of distal to proximal turbiditic siliciclastics. In each sequence, the lower part is characterized by carbonaceous, siltstone-mudstone and lesser sandstone or greywacke (1A and 2A), and the coarser, upper part by sandstone-greywacke and chert-pebble conglomerate (1B and 2B). The rocks were deposited as intertonguing turbidite fans in extensional basins or half-grabens with restricted circulation.

Unit 1A

The basal Earn Group consists of very carbonaceous mudstone to siltstone (1AA), deposited directly on top of the McDame limestone, or in cavities at some depth below the unconformity, due to the muddy sediment infiltrating the karst features. These inclusions of Earn in the McDame are termed 'enclaves'. The rocks are fine grained and finely laminated, and indicate low energy deposition under euxinic conditions. Syngenetic or diagenetic pyrite is present, generally less than 2%. The bottom few metres of 1A are commonly calcareous (1AC). Total thickness is up to 45 metres.

Unit 1B

The upper, coarser part of the lower cycle begins with interlaminated siltstone and sandstone, which becomes predominantly medium- to thickly bedded sandstone up-section. The sandstone is grey, medium- to coarse-grained greywacke, characterized by chert-rich detritus. Sandstone beds are generally centimetres to decimetres thick, separated by beds of siltstone or interlaminated sandstone-siltstone. These lithologies are only rarely calcareous. Pyrite, mainly syngenetic or diagenetic, typically varies between 1 and 3 %, and is more prominent in the more argillaceous beds or laminae than in the sandstones. Graded beds of chert-argillite pebble conglomerate are common; they may be two metres thick in the upper part of the unit.

The higher energy conditions implied by unit 1B suggest increasingly active, fault-controlled block uplifts and erosion in the basin. This mode of formation probably contributes to the wide variation in the thickness of unit 1B, which ranges from as little as 60 metres to 200 to 300 metres.

Unit 2A

This is the lower, finer grained part of the upper cycle, and is the thickest and most inhomogeneous unit in the Earn Group. It is between 200 and 640 metres thick. Subunit 2AA at the base is recessive, dark grey to black carbonaceous mudstone to siltstone. Above it is the lowest and generally thickest and most important of the several exhalite subunits that are diagnostic of Unit 2A: the D-zone exhalite. It consists of pale grey to buff, fine-grained, siliceous and pyritic, laminated exhalite. Above the D-zone is 2AC, a calcareous interval comprising interlaminated siltstone, calc-arenite and locally impure limestone; it is 5 to 80 metres thick. This is followed by a more siliceous subunit up to 100 metres thick, 2AS, consisting of thinly laminated siliceous siltstone, slate and fine sandstone. In addition to the D-zone, several other minor exhalites occur within subunits 2AC and 2AS. They are typically no more than a few metres thick, and some are probably not very laterally continuous. It is not clear if they occur consistently at the same stratigraphic horizons from place to place.

The thickest (up to 450 metres) and most characteristic subunit of unit 2A is 2AP, which is composed of thinly to thickly interbedded and finely laminated slaty siltstone and fine- to medium-grained sandstone. The main feature of 2AP is the disrupted structure of the sandstone laminae which have been broken into discrete, sheared and rotated lenses millimetres to centimetres in size, due to slumping and soft-sediment deformation of a semi-consolidated turbidite sequence.

Unit 2B

The highest unit of the Earn is 2B, which is marked by the abrupt appearance of coarse, chert- and argillite pebble conglomerates above subunit 2AP. It represents the upper coarse-grained component of the second cycle. These polymictic conglomerates are thickly bedded, and commonly grade into very well bedded greywacke-sandstone. They are typically matrix supported, and the clasts are rounded to subrounded. Unit 2B is at least 200 metres thick. It is quite similar to unit 1B, but is distinguished by its coarser components, thicker bedding, and a lower amount of siltstone.

2.2.2 Structure

The basic structure of the Silvertip area is not complicated. Like the rest of the region, it is dominated by faulting rather than folding. Strata generally strike north to northeast and dip gently to moderately east to southeast. There are no fold closures affecting the local map pattern, which is characterized by a general younging of units eastwards, broken up by faults.

The main regional ductile deformation resulted from crustal shortening in the Jurassic, when the Sylvester allochthon was tectonically emplaced onto the Cassiar stratigraphy and all units were subjected to folding, thrusting and foliation development, accompanied by very low grade metamorphism. The main foliation is generally parallel to bedding. A prominent extension lineation, trending north-northwest, is represented by elongated clasts in the Earn conglomerates, and is kinematically related to the foliation. A north-northwest-striking, moderately dipping crenulation of this foliation is discernible in argillaceous laminae and locally on foliation surfaces. Drilling and mapping in the main Silvertip deposit area indicates that no significant folds are present here, but minor thrusts do occur and larger thrusts have been mapped farther west towards the Cassiar Batholith and elsewhere in the Cassiar terrane.

Faults related to the Tootsee River fault system are Late Cretaceous through early Tertiary in age. The faults are mainly extensional with dominantly dip slip to oblique slip, east-side-down displacement. They strike predominantly north, ranging between northwest and northeast, and dip steeply. The most important fault in the deposit area is the Camp Creek fault, which in cross-section has a vertical separation in the order of several hundred metres, down to the east. Several other faults with the same general geometry are known in the area from drill hole information and surface mapping, but have much smaller, down-to-the-east displacements, in the range of metres to tens of metres.

2.2.3 Mineralization and Alteration

The Silvertip mineralization is manto-type, silver-lead-zinc massive sulphide, formed by hydrothermal replacement processes in McDame Group limestone. In Silvertip terminology it is known as "Lower Zone" (Fig. 2.6). The main mineralized zones are not exposed, lying between about 50 and several hundred metres beneath the surface, and covered by the Earn Group. These zones are mainly north of Silvertip Mountain and east of Camp Creek (Fig. 2.5). The 'Silver Creek' area is in the west and northwest; the 'Discovery' area lies farther east and at greater depth. To the north, the 'Discovery North' area has received relatively little attention to date, but is likely continuous with the other zones.

Another type of lead-zinc sulphide mineralization is present on the property, namely Early Mississippian syngenetic 'sedex' deposits associated with siliceous to baritic exhalite subunits in unit 2A of the Earn Group (see 2.2.1, above). These were the original exploration target on the property in 1980, but they are not considered economic, although they are of interest because they contain a sulphide overprint that may be related to the much younger hydrothermal event that mineralized the McDame carbonates structurally below.

The main, manto deposits formed by the interaction of magmatically derived, metal-enriched hydrothermal fluids with McDame carbonate rocks. The source of the fluids has not been found, but an area of quartz-sericite-pyrite alteration south and southeast of Silvertip Mountain might indicate a buried intrusion. This alteration has a fluorine signature, and has been dated at around 70 Ma (Late Cretaceous), the same age as felsic intrusions exposed elsewhere in the region. On this basis, the mineralization event is assumed to be Late Cretaceous, although it may be slightly older.

Most of the mineralization so far defined occurs at the top of the McDame limestone, at or near the unconformable contact with the Earn Group, although significant sulphides are also present much deeper in the McDame. Mantos at the unconformity form stratabound, anastomosing tubes up to several metres thick and 30 metres wide, and extend for at least 200 metres in places. Narrower and thicker bodies of massive sulphide, between 20 and 30 metres thick, have been intersected locally by past drilling, and are more likely discordant, vertically oriented feeders connecting mantos at different levels.

Contacts between the massive sulphides and the host limestone can be remarkably sharp, but transitional zones of alteration (silicification, dolomitization) and recrystallization and brecciation are common. The mineralization consists of massive, early-formed pyrite, pyrrhotite and sphalerite and lesser galena, and a slightly younger, higher temperature, sulphosalt-sulphide suite of minerals. The latter contain the main silver-bearing phases including pyrargyrite-proustite, boulangerite-jamesonite and tetrahedrite (freibergite), as well as silver-rich galena. Quartz and calcite are the main gangue minerals and locally fill late-stage vugs and cavities. Brecciation of sulphides, mixed with limestone and vein quartz and calcite, attest to multiple phases of fluid infusion or syn-mineral, solution collapse processes. Unmineralized, crackle- or rubble brecciated limestone is common, as are tectonic stylolites.

The main control on the mineralization is the Earn unconformity which formed a relatively impermeable cap to the upwelling fluids, concentrating the development of mantos. The mantos are believed to have been fed from depth by structurally controlled feeders or chimneys, probably channelled in faults such as the Camp Creek fault and numerous subsidiary fractures. Intra-limestone mantos formed by lateral fluid flow emanating from the feeders, and controlled by a combination of structural and stratigraphic permeability contrasts.

Structurally controlled mineralization below the unconformity was the focus of the 1999 program.

3.0 GEOPHYSICS - CSAMT SURVEY

3.1 INTRODUCTION

A CSAMT (Controlled Source Audio frequency MagnetoTelluric) geophysical survey was completed over the Silver Creek South deposit area in July, 1999, in order to identify deep-level targets for a limited drill program to follow. The CSAMT technique is believed to be effective in imaging contrasting physical properties across high-angle boundaries in the subsurface, such as significant faults or (sub-)vertical sulphide bodies. The objective was to detect feeders to the unconformity mantos at Silvertip, which most likely have a steep tabular or pipe-like form, and may extend to considerable depth.

A major low-resistivity (i.e. conductive) anomaly was found on a reconnaissance CSAMT survey late in the previous field season in 1998 (Silvertip Mining Corporation, 1999), situated just east of the Camp Creek fault around ^{4}24880E, ^{66}43325N. This was an apparently large, vertically oriented low resistivity anomaly, provisionally interpreted as a massive sulphide body, possibly a feeder or chimney occupying a high-angle structure in the hangingwall of the fault. This was judged to be a high priority exploration target for drilling. First, a more detailed CSAMT survey was necessary for more precise delineation of this and any other anomalies in the vicinity, in order to optimize the location of holes for the 1999 drill program.

The detailed 1999 survey was done by Whytecliff Geophysics Ltd. of Vancouver, and is described in a self-contained report comprising Appendix A. (Note: The line or section numbers used throughout this survey report are the last four numbers of the UTM or mine grid.)

3.2 RESULTS

The 1999 CSAMT survey results generally confirmed the anomalies obtained in 1998. However, due to the different instrumentation and parameters employed, and the greater detail of the data, the anomalies are more fragmented than in the earlier survey. The new survey also revealed a curious tendency to locate the focus of low resistivity higher in the stratigraphy than would be expected, above the Earn-McDame unconformity instead of within the limestone.

Despite these uncertainties, the main conductor was corroborated, and several others were revealed. Three anomalies were chosen as drilling targets, the first two of which were drilled (see the following section on diamond drilling). For a full account of the CSAMT methodology and procedure, and a discussion of the survey results and targets, see Appendix A. (Note: The geological interpretations of the CSAMT sections included in Appendix A are based on past drilling and surface mapping, and are not interpretations of the CSAMT data itself.)

4.0 DIAMOND DRILLING

4.1 OBJECTIVES

A small diamond drilling program, consisting of 3 holes totalling 1,285 metres (Fig. 2.5), was carried out to test the low-resistivity CSAMT anomalies obtained in the 1999 geophysical survey (see previous chapter and Appendix A). The main objective was not simply to test the Earn-McDame unconformity for stratabound manto mineralization, but to drill as far down as reasonable (subject to results and drilling conditions) to determine whether the CSAMT features represented a deeply rooted feeder system(s), or chimney(s).

Note: The drill hole numbering system (SSD-99-64 through 99-66) follows from the 1997 SMC program, in which holes SSD-97-1 through 97-63 were drilled.

The drill core logs and assay results are given in Appendix B and C, respectively.

4.2 IMPLEMENTATION

DJ Drilling Company Ltd. of Surrey, B.C. was contracted to complete the drilling, which was done between July 15 and August 14. A JKS Boyles 56 drill rig was used. Core diameter was HQ (2.5 inches) throughout. Bentonite mud and polymer were used to maintain the integrity of the hole. All three holes were drilled with an inclination of -90° to minimize deviation. The collar locations had been planned assuming a pattern of deviation based on past drilling experience; however, the actual holes deviated less than anticipated.

Ground conditions encountered were similar to those of the previous program in 1997. However, recovery was greatly improved by the use of a more sophisticated mud program. Loss of circulation in the limestone occurred, but did not hinder the drilling performance nor production. Recovery was excellent other than in a few isolated intervals.

Downhole surveys were done using a 'Reflex EZ-Shot' instrument provided by Reflex Instrument Canada. Readings were taken at 45 ± 5-metre intervals or less. The instrument measured magnetic azimuth (subsequently corrected to grid north), inclination, temperature and total magnetic field. Following drilling, the collar locations were marked with wooden stakes. Core is stored on site in core racks.

4.3 SAMPLE ANALYSIS

Intertek Testing Services (Bondar Clegg) of North Vancouver were contracted to analyze the core samples. All samples were pulverized to meet 90%, -150 mesh specifications, using an LM-2 (or equivalent) pulverizer. The fineness of the samples was required to ensure excellent digestion for the best results.

ICP (Inductively Coupled Plasma) analyses of 34 elements were performed on all samples to determine the trace element suite. Aqua Regia ($3HCl:HNO_3$) digestion was used. Gold was done by wet geochemical analysis only. Special instructions applied for silver, lead and zinc, as follows:

- If ICP Pb and Zn were greater than 0.1% (1000 ppm), a 0.5 g sample would be treated with 4-acid digestion.
- If ICP Pb and Zn were greater than 15%, titration would be implemented.
- If Ag was greater than 50 g/t, it would be analyzed by fire assay with a gravimetric finish.

A blank or duplicate sample was taken alternately at approximately every tenth sample interval.

4.4 RESULTS

Hole SSD-99-64

The first hole, SSD-99-64 (Target #1 in Appendix A), was aimed at a large and strong CSAMT resistivity anomaly apparently centred at the unconformity very close to its intersection with the steeply east-dipping Camp Creek fault. This was considered to be a very favourable setting due to the size of this fault and its potential as a major conduit for hydrothermal fluids from depth. Although the fault would probably cut off the McDame limestone short of its full thickness, the footwall Tapioca Sandstone is also sufficiently calcareous for replacement mineralization, allowing for the deeper development of massive sulphides.

The hole began in carbonaceous siltstone, mudstone and argillite near the base of Earn unit 2A. After approximately 20 metres, the contact with greywacke-sandstone of unit 1B was crossed. This 2A/1B contact was repeated due to a reverse fault or minor thrust at 44.7 metres down-hole, where a further 12 metres of 2A siltstone and mudstone was encountered, before crossing into 1B sandstone again.

The unconformity with McDame Group limestone was intersected at a depth of 217.7 metres. Lower Zone massive sulphide occurred after drilling 6.9 metres of barren limestone, at 224.6 metres. Contacts with the limestone are irregular, and the zone includes remnants of the host rock. The zone is 4.0 metres thick, and dominantly pyrite with minor galena and sphalerite. Sphalerite is stronger in the middle of the zone. The Lower Zone averages 117 g/t Ag, 2.1% Pb and 9.72% Zn over 3.22 metres. The limestone below the zone for the next 94 metres is variably bleached, altered, brecciated and veined, but is unmineralized except for local zones of pyrite.

This hole is important because the presence of a good thickness of massive sulphide about 250 metres southwest of the nearest mantos in Silver Creek South represents a significant step-out with respect to the known mineralization. This implies that the system is considerably larger than has been modelled with confidence so far. The thickness of the Lower Zone intersected (about 4 metres) is difficult to reconcile with the strength and size of the CSAMT anomaly that was targeted, because the correlation between the amount of resistivity measured and the volume of the massive sulphide responsible is an unknown factor. However, the thickness of the Lower Zone is not particularly large given the very low value of the resistivity, and it is not unreasonable to speculate that the drill hole did not penetrate the thickest part of the mineralization.

Hole SSD-99-65

The second hole, SSD-99-65, (Target #2 in Appendix A) was aimed at the narrow, vertically oriented CSAMT anomaly referred to in Chapter 3, first identified in 1998. Geological projections imply the anomaly could occupy a structure splaying off the Camp Creek fault at depth. Unlike the first target, this one is much closer to known mantos in Silver Creek South. The down-hole survey indicates that the drill hole did not penetrate CSAMT anomaly due to a less than expected deviation.

This hole began at the base of unit 2A, in mudstone of 2AA, before passing into sandstone and conglomerate of unit 1B. Like hole 99-64, however, there may be a repeat of 2AA at a depth of 40 metres, due to a reverse fault or thrust. After the repeated 2AA, about 200 metres of 1B sandstone and siltstone were intersected, with a few fault zones near the bottom. At the base of the Earn Group was 16 metres of very carbonaceous slate or mudstone of subunit 1AA.

Lower Zone mineralization was encountered immediately below 1AA, though the contact is irregular and both the Earn and massive sulphides are strongly brecciated. This first sub-zone comprises pyritic massive sulphide and massive sulphide breccia, with various amounts of remnant limestone host rock and pyrite-rich sulphide. It averages 344 g/t Ag, 6.7% Pb and 9.35% Zn over 10.3 metres. The grade, mineralogy and texture of this interval are typical of unconformity-hosted mantos elsewhere in the deposit.

It is followed by 6 metres of weakly mineralized fossiliferous McDame Group limestone. The limestone is variably brecciated and locally bleached. Narrow zones of pyrite and sphalerite replacement are present (but no appreciable galena).

This limestone is succeeded by another, strongly mineralized Lower Zone, over 16 metres thick. This sub-zone is different from the higher one, and is characterized by a heterogeneous and brecciated texture, suggesting several stages of fluid penetration, dissolution and mineralization. At least three varieties of sphalerite were noted (dark red, black marmatite, and translucent honey-brown), as was pyrite replacing pyrrhotite. Galena is irregular but locally very strong, and appears to be a later replacement phase. Sphalerite is also very strong locally. Fragments of limestone are common in massive sulphide breccia. This sub-zone averages 396 g/t Ag, 6.46% Pb and 8.79% Zn over 16.2 metres.

The next interval is 3 metres of limestone, followed by 0.5 metre of mixed limestone-massive sulphide breccia. The entire zone, including the middle 6 metres of limestone, averages 318.4 g/t Ag, 5.52% Pb and 8.65% Zn over 31.4 metres. The rest of the hole comprises fossiliferous limestone, with minor brecciation and bleaching, and a trace of sulphides.

This drill hole was the most significant result of the program, and in fact the largest aggregate thickness of mineralization ever intersected in a single hole on the property. Apart from its unusual thickness, the zone is also noteworthy for having a different character from other Lower Zones drilled in, for example, Silver Creek North and Silver Creek Extension, where most of the massive sulphide is relatively intact rather than brecciated. The lower and thicker sub-zone in 99-65 shows evidence of several stages of sulphide mineralization, and reworking of both massive sulphides and the limestone host rock. Reaction rims around limestone clasts attest to disequilibrium and a changing fluid environment. All this is interpreted to represent vertically oriented, feeder style fluid flow as opposed to the typical lateral fluid flow and replacement that is usually observed at Silvertip. It is thought that 99-65 passes close to a high-angle structure or fluid conduit which allowed successive pulses of solutions to both mineralize and modify the adjacent rock as the feeder expanded outwards. This explanation could account for the observed textures, the thickness of the zone, and the associated geophysical signature.

Hole SSD-99-66

The third and final hole, SSD-99-66, was not primarily based on CSAMT results, but was a geological target which was raised in priority after the success of SSD-99-65. It was a step-out to the west of Silver Creek South, filling in a poorly tested area within older, widely-spaced holes between Silver Creek South and the Camp Creek fault.

The hole began in Earn unit 1B, and penetrated around 210 metres of interbedded sandstone, siltstone and mudstone, with minor conglomerate. This was followed by approximately 40 metres of laminated slaty siltstone before the unconformity with the McDame limestone was intersected. The limestone is variably crackle- and rubble-brecciated and frequently altered, bleached and recrystallized. Recrystallization and calcite veinlets are locally strong, but no mineralization was encountered except for minor disseminated pyrite.

A major fault zone occurs at 312 metres depth and is believed to be the Camp Creek fault. It is characterized by carbonate fault gouge and mixed limestone-dolostone porphyroclasts, and locally has a few per cent (up to 10%) fine-grained disseminated pyrite. The footwall of the fault, at 326 metres, is Tapioca Sandstone, which also contains some minor fault zones at intervals.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CSAMT GEOPHYSICS

Both CSAMT drill targets intersected significant mineralization. Despite the apparent success, confidence in the CSAMT technique is somewhat weakened by certain features of the data, leading to difficulties in interpreting it and doubts that the anomalies targeted have been truly tested, and that these targets were the right ones.

- Computer projections indicate that each hole actually missed the centre of the respective anomalies because the deviation of the drill holes was less than had been accounted for in the location of their collars. Also, it may be argued that at least one of the two anomalies was not particularly well defined in the first place. In the end, it may be that the source of each anomaly was sufficiently large that even a near miss with the drill was still productive.

- The 1999 detailed survey used a different set of instruments and data processing from the 1998 survey, and this produced somewhat different and ambiguous characteristics in the data. The ambiguity associated with the unexpectedly shallow anomalies, located in the Earn Group, is cause for concern. Some of these might be attributable to exhalite mineralization. Precluding exhalites as the cause, these shallow anomalies could be an artifact of the methodology (although topographic corrections were carried out), or if taken at face value could indicate epigenetic sulphide-rich veins in the Earn. The latter possibility does have potential exploration utility: if these sulphides were introduced along a structure that roots in the McDame limestone, the anomaly could represent a useful marker of fault-controlled feeder mineralization in the carbonates at depth, even if it actually records something much higher in the section (Peter Megaw, Imdex, personal communication).

Whatever the significance of the shallow anomalies, the future interpretation of CSAMT data might be improved by first doing bench-scale analysis of representative stratigraphic units, in order to characterize 'background' response. Sulphide-rich vein material from the Earn Group should be tested.

Exploration for carbonate replacement deposits requires a multi-disciplinary approach, and that may include the continued utilization of CSAMT in the future, especially if confidence in the method can be refined. Despite the uncertainties and difficulties discussed above, it has to be conceded that neither of holes 99-64 and 99-65 would likely have been drilled at this stage of the project without the guidance of CSAMT.

5.2 DIAMOND DRILLING

The three-hole drilling program was a major success, as the first two holes (both CSAMT targets) hit significant mineralization. Hole SSD-99-64 intersected Lower Zone 4.0 metres thick, 250 metres southwest of the boundary of the current mineral resource, and thus represents a substantial step-out.

Hole SSD-99-65 intersected the biggest aggregate thickness, 31.4 metres, of massive sulphide and mineralized limestone yet on the property. The zone exhibits several features strongly suggestive of feeder-style as well as manto mineralization, and the average grade is comparable to the mantos in the Silver Creek zones to the north.

The latter hole lies on or close to a long-recognized trend of mineralization in Silver Creek South that runs NW-SE. Interpretations of past drilling in this zone suggest the upward progression of mantos from a deep source in the southeast direction, possibly linked by vertical, structurally controlled feeders. Perhaps the mineralization in hole 99-65 is marginal to one of these feeders. Whether it represents part of a chimney or a smaller-scale connector between stacked mantos, it is strong evidence of the growing importance in this area of the vertical component of the fluid system.

This NW-SE trend leads towards the surface trace of quartz-sericite-pyrite alteration on and south of Silvertip Mountain, and a magnetic anomaly in the Brinco Creek valley, both of which suggest an intrusive centre. This is still highly speculative, but the implications of all these features are impossible to ignore. The next phase of exploration should build on the encouragement from hole 99-65, and search for more evidence of deeper, vertically oriented replacement mineralization along this trend.

Opening the underground workings and drilling from the southern extent of Drift E would facilitate the tracking of mineralization intersected in hole 99-65. The holes would be much shorter than would be possible from surface, and the capability of drilling closely spaced step-out fans would improve the chance of successfully tracing this presumed feeder zone, which is open for tens of metres or more in almost every direction except up. This area was previously drilled (from underground) with N-S vertical fans rather than with a range of azimuths, so drilling at a high angle to those N-S fans will provide a new perspective on the configuration of mineralization. In addition, it is recommended drilling some long, exploratory holes south and southeastwards from the end of the drift to test previously undrilled ground beneath the summit of Silvertip Mountain, an area virtually impossible to explore from surface.

It should be noted that these recommendations are not intended specifically to increase tonnage of the resource. Drilling success would indeed imply additional tonnage, but the proposal is primarily designed to increase knowledge regarding a style of mineralization that, if present to a significant degree, could greatly improve the economic outlook for the deposit.

5.3 SUMMARY OF RECOMMENDATIONS AND BUDGET PROPOSAL

The focus of the proposed next phase of exploration is to track the thick mineralization found in hole 99-65, and seek more feeder-style zones in Silver Creek South.

- Open and dewater the underground workings to the southern end of Drift E.

  Cost projection: $275,000 (5 weeks at $55,000 per week).

- Drill initially close-spaced vertical fans around 99-65 to establish dimensions of the zone. Follow up with infill drilling in the vicinity of known, sub-unconformity mantos to find more connecting feeders between them.

- Drill longer, exploratory holes under Silvertip Mountain to explore the potential for progressively deeper and thicker mineralization towards a hypothetical thermal source in the southeast direction.

  Drilling cost: $875,000 (3,500 m at $250 per metre all in).

- Total proposed budget: $1,150,000.

SELECTED BIBLIOGRAPHY

Abbott, G. (1983): Silver-bearing veins and replacement deposits of the Rancheria district; in Yukon Exploration and Geology 1983, Indian and Northern Affairs Canada, Exploration and Geological Services Division, Whitehorse, p. 34-44.

Bradford, J.A. (1988): Geology and genesis of the Midway silver-lead-zinc deposit, north-central British Columbia; unpublished M.Sc. thesis, University of British Columbia, 285 pp.

Bradford, J.A. and Godwin, C.I. (1988): Midway silver-lead-zinc manto deposit, northern British Columbia; in B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1987, Paper 1988-1, p. 353-360.

Cordilleran Engineering (1985): Midway - 1984 Summary Report, Volume 1 (text), August 1985; SMC company files.

Curtis, L.W. (1986): Report on an examination of the Midway property; Curtis and Associates Inc.; SMC company files.

Gabrielse, H. (1963): McDame map-area, Cassiar District, British Columbia; Geological Survey of Canada, Memoir 319, 138 pp.

Megaw, P. K.M. (1998): Report on field visit to Silvertip project, northern British Columbia, Canada; SMC company files, dated August 10, 1998.

Nelson, J.L. (1993): The Sylvester Allochthon: Upper Paleozoic marginal basin and island arc terranes in northern British Columbia; in Canadian Journal of Earth Sciences, Vol. 30, p. 631-643.

Nelson, J.L. and Bradford, J.A. (1987): Geology of the Midway area, northern British Columbia (104O/16); B.C. Ministry of Energy, Mines and Petroleum Resources, Open File 1987-5.

Nelson, J.L. and Bradford, J.A. (1993): Geology of the Midway-Cassiar area, northern British Columbia (104O, 104P); B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 83, 94 pp.

Silvertip Mining Corporation (1998): Silvertip Project, 1997 Summary Report: Geological mapping, seismic surveying and diamond drilling; Rees, C. (author), SMC company files and B.C. Ministry of Energy and Mines Assessment Report 25,495.

Silvertip Mining Corporation (1999): Silvertip Project, 1998 Summary Report: Geochemistry, Geophysics, Geology, and Geotechnical Drilling; Rees, C. (author), SMC company files and B.C. Ministry of Energy and Mines Assessment Report 25,791.

PROJECT STATEMENTS FOR 1999

Silvertip Project - 1999 Surface Exploration
List of Personnel on site to October 15

	Name	Position	Days	Dates	Daily Rate	Total
Staff						
	Steve Robertson	Project Manager	56	June 28 - July 17, Aug 14 - Sept 18	$350	$19,600
	Chris Akelaitis	Geological Assistant	29	Aug 20 - Sept 18	$175	$5,075
	Ivor Saunders	Camp Manager	127	June 3 - Aug 20, Aug 31 - Oct 15	$185	$23,495
	Sandra Lussier	Camp Cook/first Aid	56	June 23 - July 14, Aug 15 - Sept 18	$250	$14,000
Line Cutters						
	Bruce Hobson		13	June 23 - July 5		
	Alan Pickard		8	June 23 - June 30		
	Andrea Ross		13	June 23 - July 5		
CSAMT Crew						
	David Butler		15	June 30 - July 14		
	Candice Wingerter		15	June 30 - July 14		
	Greg Zembik		15	June 30 - July 14		
	Adam		15	June 30 - July 14		
Drilling Crew						
	Ed Gartner	Foreman	30	Aug 15 - Sept 14		
	Gerry Gartner	Helper / Driller	30	Aug 15 - Sept 14		
	Sion Thompson	Helper	12	Sept 3 - Sept 14		
	Malcolm McLean	Driller	19	Aug 26 - Sept 14		
	George Millen	Helper	19	Aug 26 - Sept 14		
	Kelly Reimer	Driller	12	Aug 16 - Aug 27		
	Brian Anderson	Helper	12	Aug 16 - Aug 27		
	Will	Hoe Operator	3	Aug 15 - Aug 18		
TOTAL			499 person-days			$62,170

Silvertip Project - 1999 Surface Exploration
Statement of Expenditures

Salaries			
	Staff and contractors on site	62,170	
	Technical support staff	27,830	
			90,000
Camp and General Support			
	Accommodation (499 person-days @ $25/day)	12,475	
	Food	10,710	
	Fuel	8,300	
	Materials, Field and hardware supplies, repair & maintenace	15,540	
	Communications (satellite phone, radiophone, long distance)	11,105	
			58,130
Transportation and Travel			
	Airfare, vehicle rentals & insurance	35,170	
	Hotels, incl. meals	1,620	
			36,790
Water Sampling and Winter Security			
			14,785
Grid Installation			
	Watershed Resources Linecutting		21,600
Geophysics			
	CSAMT survey, 5.35 km over 10 lines		60,480
Diamond Drilling			
	DJ Drilling (3 holes, 1,285 m)		127,700
Assays			
	77 samples @ $35.05		2,700
Computer Rental and Software			2,850
Reproductions and Imaging			765
Report writing			8,000
Drafting			1,200
Subtotal			425,000
Filing Fees			27,620
TOTAL			452,620

STATEMENT OF QUALIFICATIONS

I, Christopher John Rees, currently of Imperial Metals Corporation, Suite 420-355 Burrard Street, Vancouver, British Columbia, certify that

- I hold degrees in geology from Carleton University (Ph.D. 1987), University of Regina (M.Sc. 1980) and University College of Wales (B.Sc. 1976).
- I have been engaged in geological mapping and mineral exploration services in Canada since 1976.
- I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia.

Signed this 9th day of November, 1999

C.J. Rees

PROFESSIONAL GEOSCIENTIST PROVINCE OF BRITISH COLUMBIA C. J. REES

Stephen B. Robertson, P.Geo.

Statement of Qualifications

I, Stephen Robertson, of 1969 Lower Road, Roberts Creek, British Columbia, hereby certify that:

- I am a geologist, employed by Imperial Metals Corporation.
- I am a 1989 graduate of the University of Alberta in Edmonton, with a Bachelor of Science degree in Geology.
- I have been employed in mining since 1988 and have continuously practiced my profession since 1989.
- I am a Professional Geoscientist, registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- I personally supervised, and was involved in the planning and implementation, of the programs described in this report.
- This report is based on the information gained during the 1999 field season and a review of private and public reports.
- This report may be used for development of the property or raising of funds, provided that no portion of it is used out of context, or in such a manner as to convey a meaning different from that set out in the whole.

Signed at Vancouver, British Columbia, this 9th day of November, 1999.

Stephen Robertson, P.Geo.

PROFESSIONAL
PROVINCE OF
S.B. Robertson
BRITISH COLUMBIA
GEOSCIENTIST

APPENDIX A

Silvertip 1999 CSAMT Survey
(Whytecliff Geophysics Ltd.)

Silvertip 1999 CSAMT Survey

Final Report

♦

Whytecliff Geophysics Ltd.

August 8, 1999

By
Kevin D.G. Jarvis, P. Geo.
David B. Butler, Ph. D.

Prepared for
Silvertip Mining Corporation

PROFESSIONAL
PROVINCE
K. D. G. JARVIS
BRITISH COLUMBIA
99-08-16

Table of Contents

Executive Summary 3

Introduction 4

Survey Location 5

Field Procedures 5

Data Processing 6

Results and Interpretation 6

Discussion 8

Conclusions 8

References 9

Appendix 1: Station Coordinates 10

Appendix 2: TM Mode Bostick Transformations, East-West Sections 11

Appendix 3: TM Mode Bostick Transformations, North-South Sections 12

Appendix 4: TE Mode Bostick Transformations, East-West Sections 13

Appendix 5: TE Mode Bostick Transformations, North-South Sections 14

Appendix 6: Two-dimensional Inversions, East-West Sections 15

Appendix 7: Geology Overlays 16

Executive Summary

The 1999 detailed CSAMT survey identified three potential drill targets. One is associated with a large anomaly detected in a 1998 reconnaissance CSAMT survey. One is between Camp Creek and Silver Creek, and one is deep under Silvertip Mountain. However, current depth estimates suggest that these target anomalies may be caused by rocks that are too shallow to be in the McDame limestone, the normal host for manto massive-sulphide deposits on the property. Because of the uncertainty surrounding the true depths of the rocks associated with the low-resistivity anomalies, the targets should be drilled vertically whenever possible. The targets should be re-evaluated after the first drill hole. If the first hole hits sulphides in the McDame, then the other targets should be drilled. If it instead only hits exhalite, or some other conductor such as graphite, then any additional drilling should rely more on geologic targets than on CSAMT targets.

Introduction

This report describes a controlled-source audio-frequency magnetotelluric (CSAMT) survey carried out at the Silvertip property during July of 1999. The survey was designed as a detailed follow-up program, to better delineate electrically conductive anomalies detected on a reconnaissance CSAMT survey conducted in 1998.

Massive sulphide ore exists on the Silvertip property as manto deposits in the McDame limestone. The Earn Group, a series of sandstones, siltstones, and conglomerates, unconformably overlies the limestone. The McDame outcrops on the west side of the area of interest, but is covered on the east side by up to 800 m of Earn. The Camp Creek fault, a nearly vertical, north-south normal fault, separates these two regions.

The known mantos exist at or just below the unconformity at the top of the limestone. In 1998, Silvertip Mining Corporation believed that these mantos may have been fed from below through fractures or faults, which would also be mineralized. It was thought that potential feeders would be associated with the Camp Creek or associated splay faults. Therefore Silvertip Mining Corp. contracted a reconnaissance CSAMT survey, to explore for mineralized feeders or chimneys.

The reconnaissance survey identified two anomalously electrically conductive features, one associated with the Camp Creek fault, and one deep under Silvertip Mountain. The main feature, near the fault, was vertically oriented, and suggested the presence of a mineralized feeder. However, the survey was not sufficiently detailed to allow the picking of drill targets. Therefore a detailed survey was conducted in 1999 to delineate the target, and to determine whether the two conductive features identified in 1998 were connected by a larger system.

The results of the 1999 survey suggest that three potential drill targets exist on the property – the two previously identified, and an additional target between Camp Creek and Silver Creek. However, current depth estimates suggest that these target anomalies are caused by rocks that are too shallow to be in the McDame limestone, the normal host for carbonate-replacement manto massive-sulphide deposits.

Survey Location

Figure 1 shows the location of the CSAMT grid at a scale of 1:5000 (the scale used throughout this report). Silvertip Mining Corporation provided line cutting and station coordinates. The station coordinates are provided in Appendix 1. Eighteen positions in the grid were not surveyed, and are therefore not shown on this map: three positions east of Line 3475 were missed because of equipment problems; three positions in the centre of Line 3000 were missed for safety reasons; and six positions east of Line 3000, and six positions east of Line 2900 were missed because of budget constraints.

The heavy dashed line in the centre of Figure 1 represents the approximate position of the major anomaly detected in the 1998 survey. Lines 3475 through 3225 in the 1999 grid were chosen to better define the extent of this anomaly. Lines 3175 through 2900 were chosen to determine whether the major 1998 anomaly was connected to another anomaly deep under Silvertip Mountain, to the southeast.

Field Procedures

CSAMT is an electromagnetic sounding technique that uses inductive loops or grounded electric dipoles as artificial signal sources. In 1998, the reconnaissance survey was conducted using the Stratagem® system, manufactured by Geometrics Inc. and EMI Inc. of San Jose, California. That system uses an inductive loop, as well as naturally occurring fields, as the sources. The description of that technique can be found in the report for that survey (Jarvis and Butler, 1998). For reasons of cost, the 1999 survey was conducted using equipment manufactured by Zonge Engineering and Research Organization Inc., of Tucson, Arizona. The Zonge equipment uses a grounded dipole as its source, and does not use natural fields. A summary of the method and the different styles of data acquisition can be found in Zonge (1992).

The survey used two perpendicular dipoles, placed approximately five kilometres from the survey grid. The dipoles were centred at 6,648,000 m N, 425,004 m E. Each dipole was 800 m in length, with one oriented at 105°, and the perpendicular at 195°. The equipment used consisted of: a Zonge GDP-32 geophysical data processor, as the receiver; a GGT-10 10 kV electromagnetic signal source, and a ZMG 7.5 kW generator, as the transmitter; two ANT/1b magnetic antennae; and copper-sulphate porous pots as the electrical sensors. The data were collected in a tensor mode, to obtain both east-west, and north-south components of the subsurface electrical resistivity distribution. Three stations were surveyed at each equipment set-up, with the stations oriented side-by-side in an east-west direction.

At each station, data were collected over a frequency range from 0.125 Hz to 8192 kHz. At each frequency, signals were collected for between two seconds (for the high frequencies) to two minutes (for the low frequencies). Getting good quality data at the lower frequencies was difficult, as the signal strength was very low. In fact, the transmitter was initially set up at the B.C. / Yukon border, approximately 10 km from the survey grid, but was moved closer after initial tests showed that at that distance, signal quality was very poor throughout the entire frequency range.

Data Processing

Two types of data processing were performed. First, the data were transformed from resistivity-verses-frequency to resistivity-verses-depth, using the Bostick transformation (Jones, 1983). Static corrections were made to the data prior to the transformation, by smoothing the 4096 Hz resistivities, using a three-station smoother in both north-south and east-west directions, and then applying the resultant correction factor to the rest of the data. During the Bostick transformation, some data at low frequencies were transformed to depths that were shallower than those calculated for data from higher frequencies. This was indicative of significant noise in the data, since data from successively lower frequencies should always transform to deeper depths. Therefore some data were smoothed or edited in an attempt to produce meaningful resistivity sections.

This processing produces two sets of results: the transverse magnetic (TM) mode, which in this survey represents the east-west component of the subsurface resistivity; and the transverse electric (TE) mode, which in this survey represents the north-south component of the subsurface resistivity. It is important to understand that these two sets of results will not be identical. Since the resistivity of a rock is affected by structures such as faults and bedding, and by three-dimensional ore bodies, the resistivity will change with direction.

The data were also sent to Zonge Engineering and Research Organization Inc., to be processed using their proprietary inversion software. This processing produces a two-dimensional minimum-structure model of the subsurface resistivity distribution that matches the measured data. The technique initially produces one-dimensional models of resistivity-verses-depth at each station. It then places all the models from stations on one line side-by-side, using the correct elevation of each station, and smoothes the result. The smoothed result is then fed into a two-dimensional inversion procedure as a starting model. The model is then altered until a reasonable fit is obtained between its predicted data and the measured data. This processing does not incorporate topography in the north-south direction.

Results and Interpretation

Two sets of results are shown, representing the two different types of processing. The Bostick transformation results are shown in four sets of sections: the TM mode, in east-west sections, shown in Appendix 2; the TM mode, in north-south sections, shown in Appendix 3; the TE mode, in east-west sections, shown in Appendix 4; and the TE mode, in north-south sections, shown in Appendix 5. The two-dimensional inversion results are shown as east-west sections in Appendix 6.

In addition to the resistivity sections, geologic overlays are provided for both east-west and north-south sections. The overlays, created by Silvertip Mining Corporation, are contained in Appendix 7, loose, so that they may be used on all three processing results. They are based on drill-hole and outcrop information, and are useful for determining whether target anomalies originate in the McDame limestone or the Earn Group.

Targets

Three targets have been identified in the sections, two with higher priority, and one with lower priority.

Target #1: Line 3125 N

The first higher-priority target is best seen on the TM mode of Line 3125 N, in Appendix 2. The target is centred at approximately 424,750 m E. The strongest part of the anomaly ranges in depth from 1300 m to 1100 m. A similar, narrower anomaly exists at 425,000 m E.

The overlay for this section shows that the low-resistivity cores of both of these anomalies correlate with rocks in the Earn. The probable position of an exhalite, which is known to exist at the base of Unit 2 in the Earn, is shown on the overlay. This suggests that the eastern anomaly is caused by the exhalite, and should therefore not be drilled. However, the larger western anomaly at 424,750 m E cannot be explained by the exhalite.

The TE mode of Line 3125 only shows one anomaly, centred slightly to the east at 424,800 m E. However, the two-dimensional inversion agrees more closely with the TM mode, centering the anomaly at 424,725 m E, with a depth range from approximately 1220 m to 1050 m. Again, the target cannot be explained solely by an exhalite.

In all three processing treatments, the anomaly begins in the Earn, and may or may not extend far into the McDame. However, it is centred too far west to be caused solely by the exhalite, and Silvertip Mining Corp. is unaware of other rocks in the Earn that could generate such a low-resistivity anomaly. The anomaly is also close to the Camp Creek fault, which was thought by Silvertip Mining Corp. to be a possible conduit for mineralizing fluids. This target appears to be the best of all detected in the survey. It is possible that it represents an ore body hosted by both the McDame and the Earn, or it may represent conductive rocks entirely in the Earn.

Target #2: Line 3325 N

The second higher-priority target is centred under Line 3325, at approximately 424,850 to 424,900 m. It extends, on the TM mode section, at 424,850 m E, from approximately 1260 m to 950 m elevation; and from approximately 1200 m to 800 m elevation, at 424,900 m E, in the TE section. The geologic overlay for this line shows that the anomaly again begins in the Earn, and extends into the McDame. The two-dimensional inversion suggests that the anomaly is centred in the Earn. The base of Unit 2 in the

Earn, where an exhalite may exist, is present in the eastern third of the section. However, it cannot be used to explain the anomaly at 424,850 m E.

Therefore, this target is similar to target #1, in that it may represent an ore body that extends from the McDame up into the Earn, or it may represent a body solely in the Earn.

Target #3: Lines 5200 E and 5250 E
The third target is a lower priority target, and should be re-evaluated after the results from the first target are known. The anomaly appears on both the TE and TM sections of Lines 5200 E and 5250 E, centred at approximately 3150 m N. On the TE sections, the target extends from approximately 1400 m to 800 m, placing it again in both the Earn and the McDame. However, exhalites may exist throughout this section, and so this target should be treated with caution. It is also much deeper than the other targets, and therefore would be harder to drill.

Discussion

The two different types of data processing can lead to very different images of the subsurface. For instance, target #2 appears in the Bostick transformations, but does not appear strongly in the two-dimensional inversion. On the other hand, the inversions can produce large anomalies where no anomalies are present in the Bostick transformations. This occurs on Line 3275. The inversion produces two anomalies: one in the eastern half of the section, centred at 1200 m elevation, that appears to correlate with an exhalite; and a large anomaly in the western half that extends from the Earn, through the McDame limestone, and into the underlying McDame dolostone. However, there is little or no correlation with the Bostick sections. Therefore, this may represent an additional target, if the first drill holes indicate that the inversion results are accurate, whereas the Bostick results are not.

It should be noted that signal quality of the low-frequency data was very poor. This means that the signal strength from the deeper rocks such as the McDame was poor.

Conclusions

The anomalies detected in this survey are all similar in that they appear to correlate, at least in part, to rocks in the Earn. They may represent ore bodies that extend into the McDame, but there are no anomalies that correlate solely to rocks in the McDame. This should introduce a note of caution in the interpretation of the anomalies. Because of the uncertainty surrounding the true depths of the rocks associated with the low-resistivity anomalies, the targets should be drilled vertically whenever possible. The targets should be re-evaluated after the first drill hole. If the first hole hits sulphides in the McDame, then the other targets should be drilled. If it instead only hits exhalite, or some other conductor such as graphite, then any additional drilling should rely more on geologic targets than on CSAMT targets.

References

Jarvis, K. D. G., and Butler, D. B., 1998, Silvertip CSAMT Survey: Final Report, submitted by Whytecliff Geophysics to Silvertip Mining Corporation.

Jones, A. G., 1993, On the equivalence of the "Niblett" and "Bostick" transformations in the magnetotelluric method, Journal of Geophysics, **53**, 72-73.

Megaw, P. K. M., 1998, Report on field visit to Silvertip Project, B. C.: memo from IMDEX Inc. to Imperial Metals, p. 1-29.

Zonge, K. L., 1992, Introduction to CSAMT, *in* Practical Geophysics II, Northwest Mining Association.

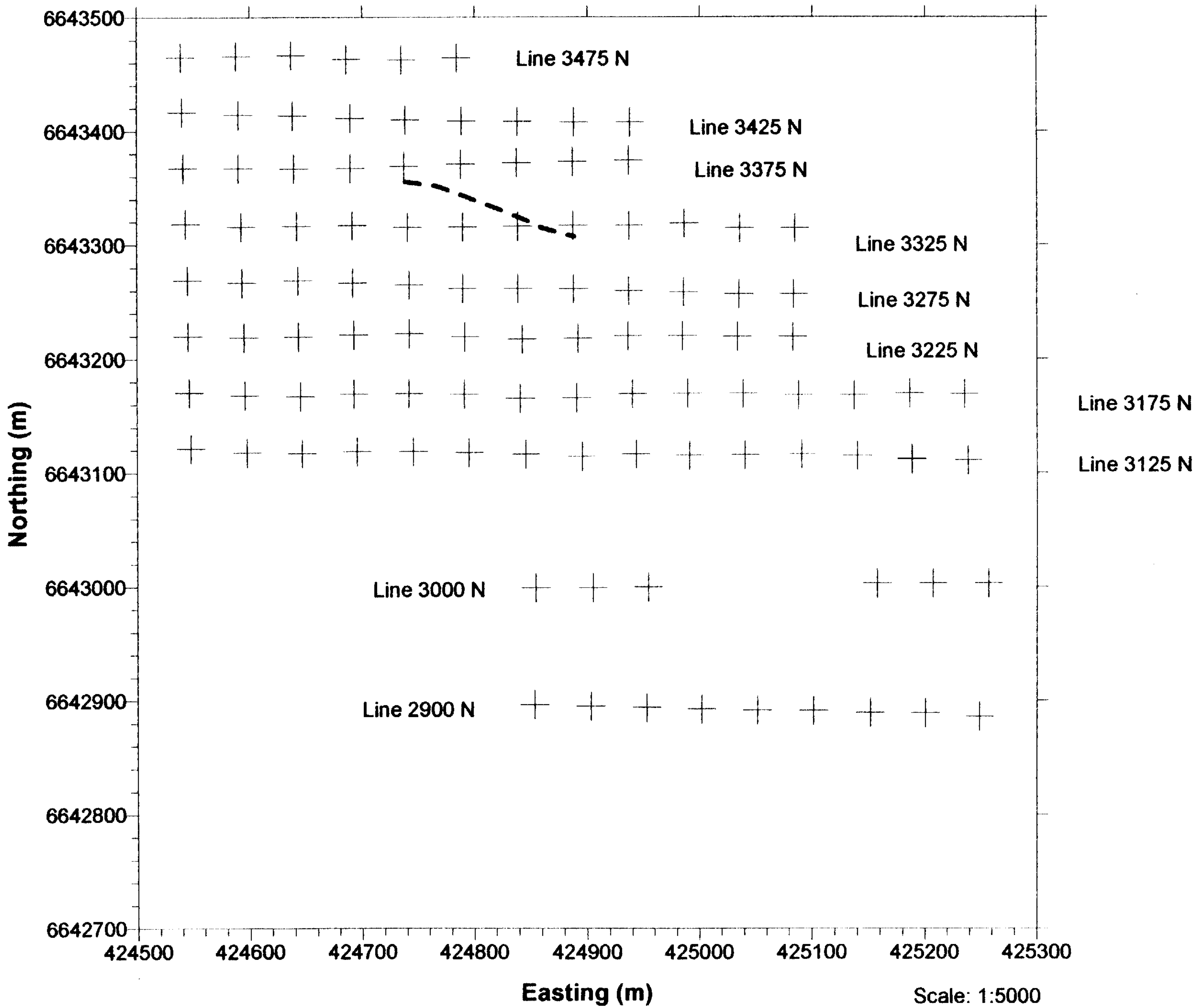


Fig. 1: 1999 CSAMT survey grid. The thick dashed line shows the approximate position of the major 1998 anomaly.

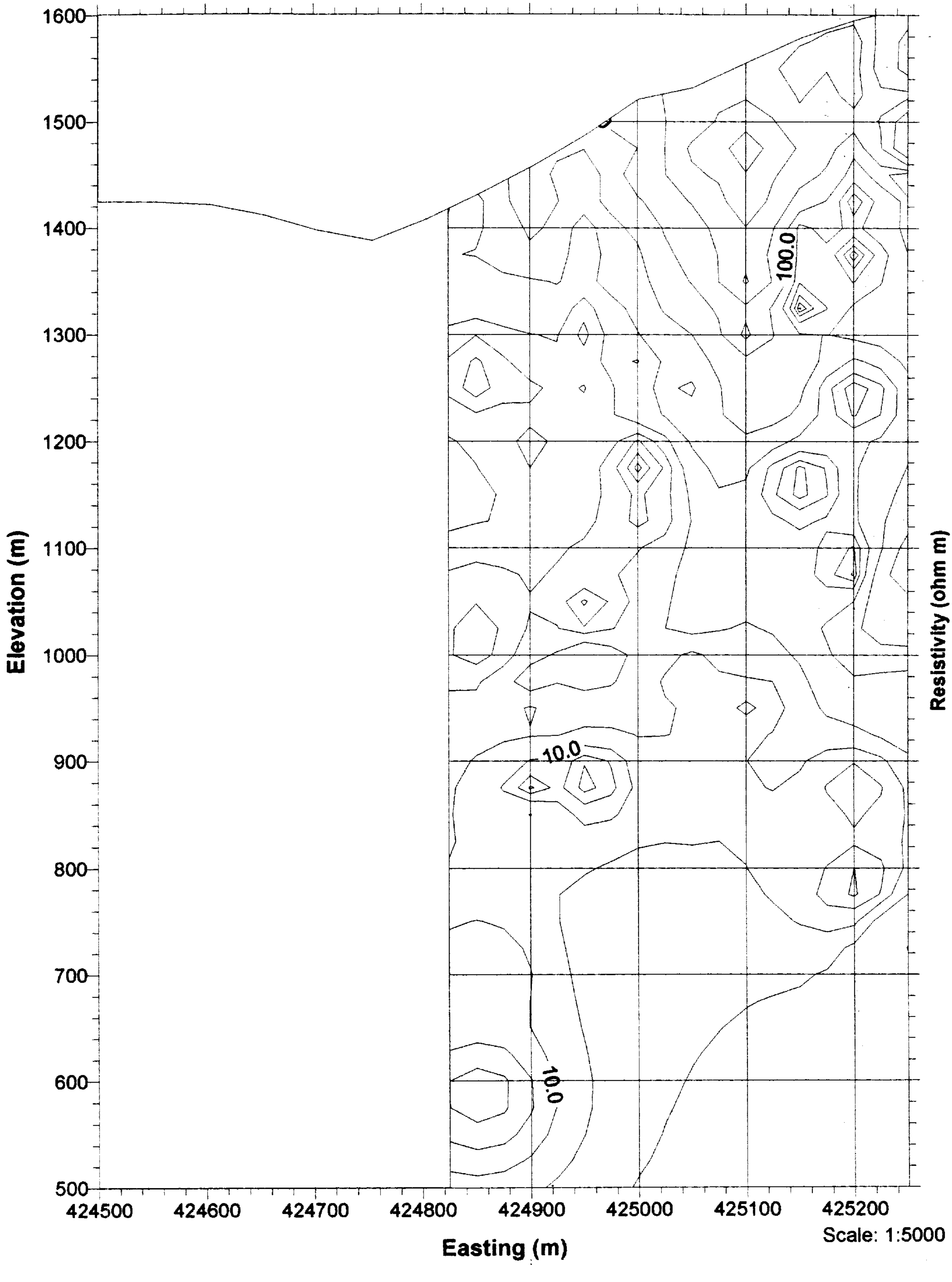
Appendix 1: CSAMT Station Locations

The following are the locations of the CSAMT stations, as provided by Silvertip Mining Corporation.

Line	Station	Easting(m)	Northing (m)	Line	Station	Easting(m)	Northing()
2900 N	4850	424853.5	6642896.3	3225 N	4900	424891.6	6643217.7
2900 N	4900	424903.3	6642895.2	3225 N	4950	424935.9	6643220.5
2900 N	4950	424952.9	6642894.1	3225 N	5000	424984.8	6643220.3
2900 N	5000	425001.9	6642892.6	3225 N	5050	425033.7	6643219.7
2900 N	5050	425051.7	6642891.7	3225 N	5100	425083.1	6643219.5
2900 N	5100	425101.5	6642891.1	3275 N	4550	424545.0	6643269.2
2900 N	5150	425151.4	6642889.5	3275 N	4600	424593.4	6643267.2
2900 N	5200	425200.4	6642888.9	3275 N	4650	424642.7	6643269.1
2900 N	5250	425248.9	6642885.9	3275 N	4700	424691.5	6643267.1
3000 N	4850	424854.5	6642998.8	3275 N	4750	424742.0	6643265.0
3000 N	4900	424904.7	6642999.1	3275 N	4800	424789.5	6643261.9
3000 N	4950	424954.5	6643000.1	3275 N	4850	424838.7	6643261.8
3000 N	5150	425157.4	6643002.9	3275 N	4900	424887.5	6643261.3
3000 N	5200	425207.2	6643003.0	3275 N	4950	424936.6	6643260.1
3000 N	5250	425257.1	6643003.2	3275 N	5000	424985.5	6643259.1
3125 N	4550	424547.9	6643121.3	3275 N	5050	425034.9	6643257.0
3125 N	4600	424597.6	6643118.2	3275 N	5100	425083.8	6643256.8
3125 N	4650	424646.4	6643117.4	3325 N	4550	424543.4	6643318.7
3125 N	4700	424695.2	6643119.0	3325 N	4600	424592.6	6643316.1
3125 N	4750	424745.4	6643119.1	3325 N	4650	424641.6	6643316.6
3125 N	4800	424795.0	6643117.8	3325 N	4700	424691.1	6643317.4
3125 N	4850	424845.6	6643116.3	3325 N	4750	424740.6	6643315.6
3125 N	4900	424895.3	6643114.4	3325 N	4800	424789.7	6643315.8
3125 N	4950	424943.5	6643116.4	3325 N	4850	424838.6	6643316.6
3125 N	5000	424991.1	6643115.5	3325 N	4900	424887.2	6643317.5
3125 N	5050	425040.6	6643116.1	3325 N	4950	424937.1	6643317.3
3125 N	5100	425090.8	6643116.3	3325 N	5000	424986.5	6643318.9
3125 N	5150	425139.7	6643114.7	3325 N	5050	425035.8	6643315.0
3125 N	5200	425188.2	6643112.7	3325 N	5100	425084.8	6643315.2
3125 N	5250	425188.6	6643111.3	3375 N	4550	424541.3	6643367.3
3125 N	5300	425238.5	6643111.2	3375 N	4600	424590.3	6643367.5
3175 N	4550	424546.4	6643170.5	3375 N	4650	424639.4	6643367.0
3175 N	4600	424596.1	6643167.8	3375 N	4700	424689.3	6643367.6
3175 N	4650	424645.0	6643167.5	3375 N	4750	424737.5	6643368.9
3175 N	4700	424692.6	6643169.4	3375 N	4800	424787.6	6643371.4
3175 N	4750	424741.7	6643169.9	3375 N	4850	424837.6	6643372.5
3175 N	4800	424790.9	6643169.2	3375 N	4900	424886.8	6643373.7
3175 N	4850	424840.7	6643165.7	3375 N	4950	424936.5	6643374.7
3175 N	4900	424890.4	6643166.0	3425 N	4550	424540.2	6643416.4
3175 N	4950	424939.9	6643169.5	3425 N	4600	424590.2	6643414.6
3175 N	5000	424989.4	6643170.0	3425 N	4650	424638.3	6643413.4
3175 N	5050	425038.6	6643170.0	3425 N	4700	424689.4	6643411.6
3175 N	5100	425087.9	6643168.3	3425 N	4750	424738.3	6643409.9
3175 N	5150	425137.0	6643168.7	3425 N	4800	424788.6	6643409.0
3175 N	5200	425186.4	6643170.1	3425 N	4850	424838.3	6643408.4
3175 N	5250	425235.3	6643169.1	3425 N	4900	424887.9	6643407.9
3225 N	4550	424545.6	6643219.8	3425 N	4950	424937.8	6643408.1
3225 N	4600	424595.1	6643219.2	3475 N	4550	424539.2	6643465.0
3225 N	4650	424643.3	6643219.7	3475 N	4600	424588.2	6643466.2
3225 N	4700	424692.6	6643221.3	3475 N	4650	424636.6	6643466.4
3225 N	4750	424742.1	6643222.6	3475 N	4700	424685.7	6643463.5
3225 N	4800	424791.5	6643219.7	3475 N	4750	424734.9	6643462.4
3225 N	4850	424842.6	6643217.4	3475 N	4800	424784.2	6643464.5

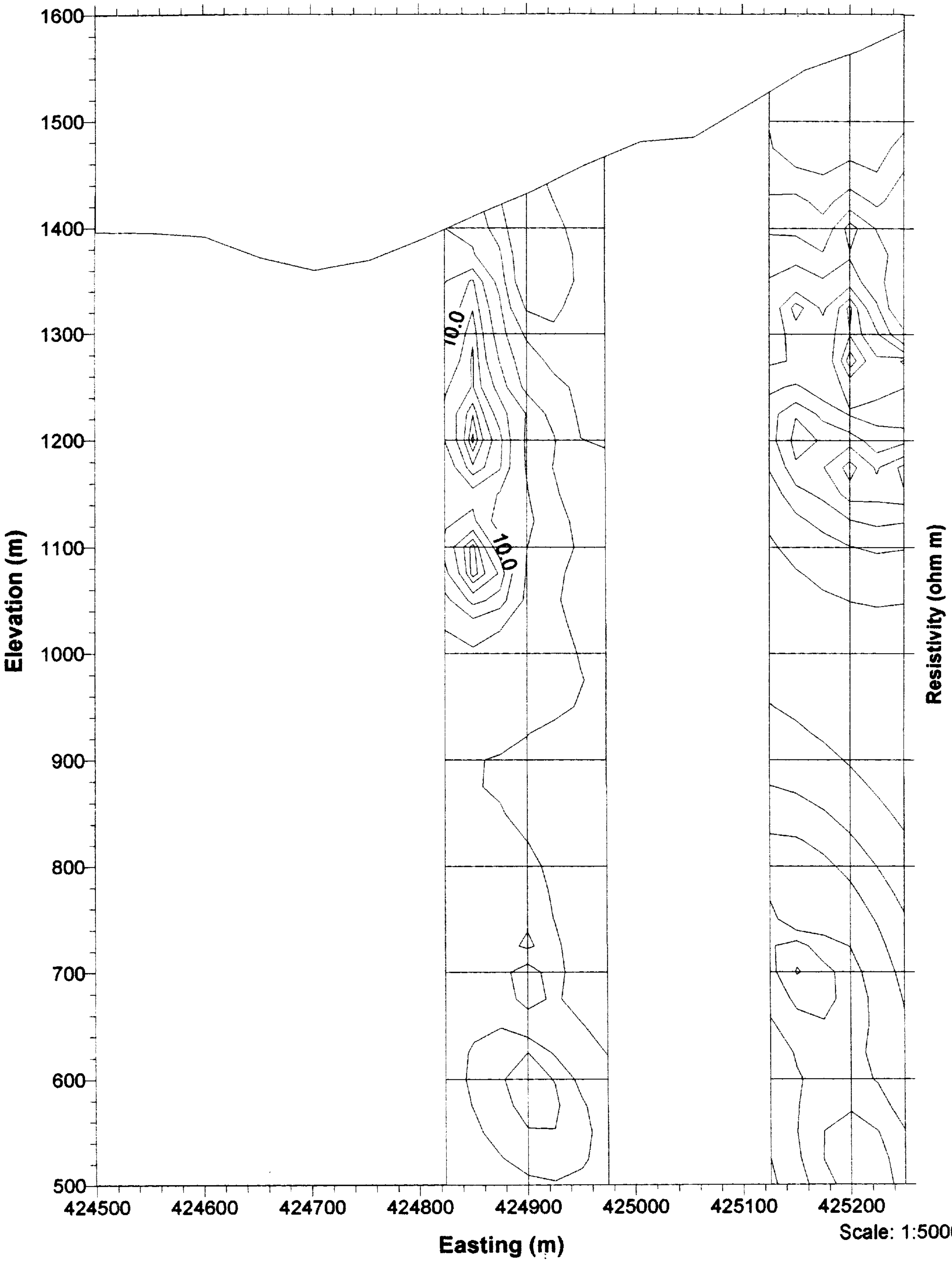
Appendix 2: TM Mode Bostick Transformations, East-West Sections

CSAMT Section 2900 N, TM Mode



Scale: 1:5000

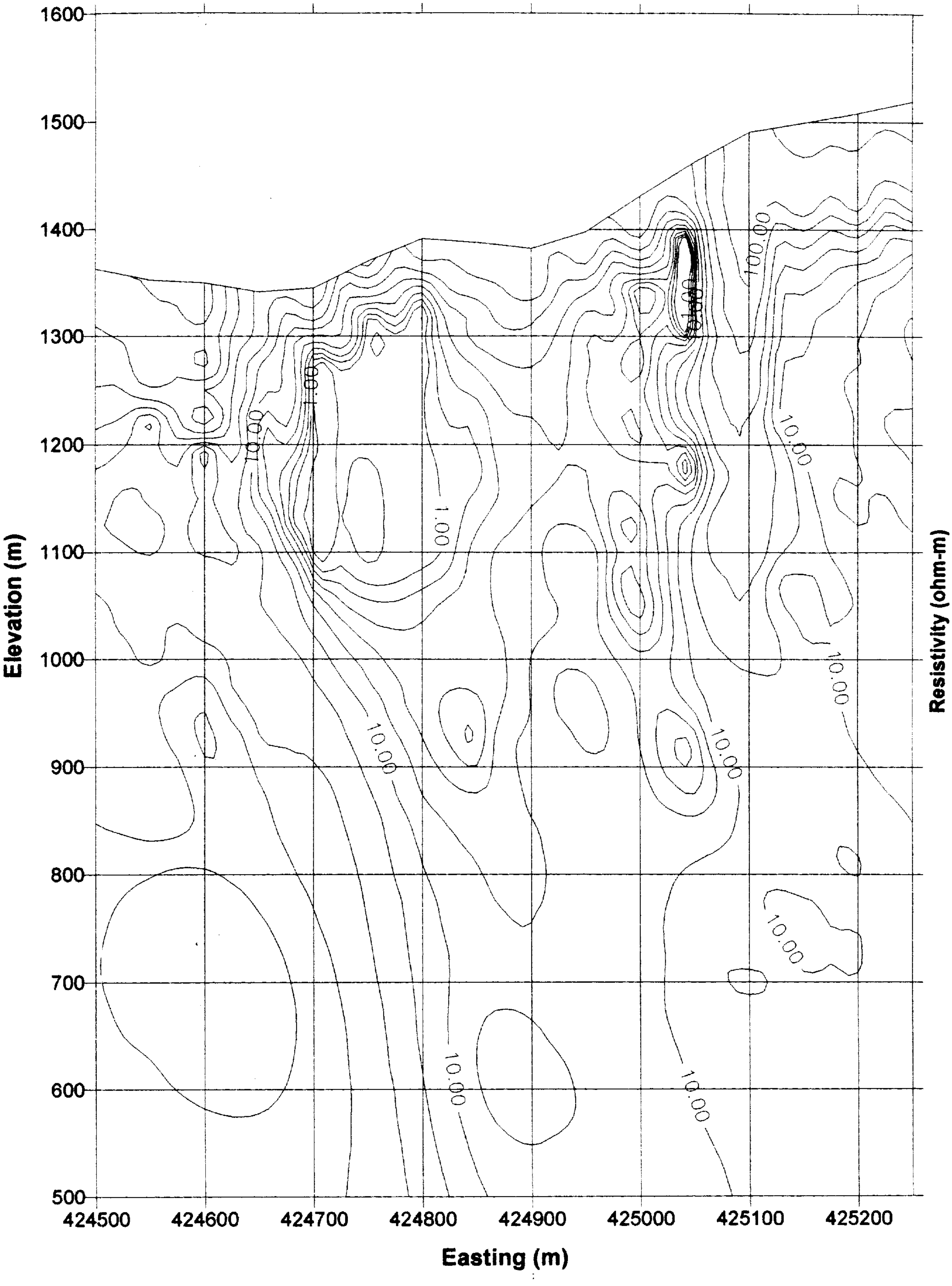
CSAMT Section 3000 N, TM Mode



Scale: 1:5000

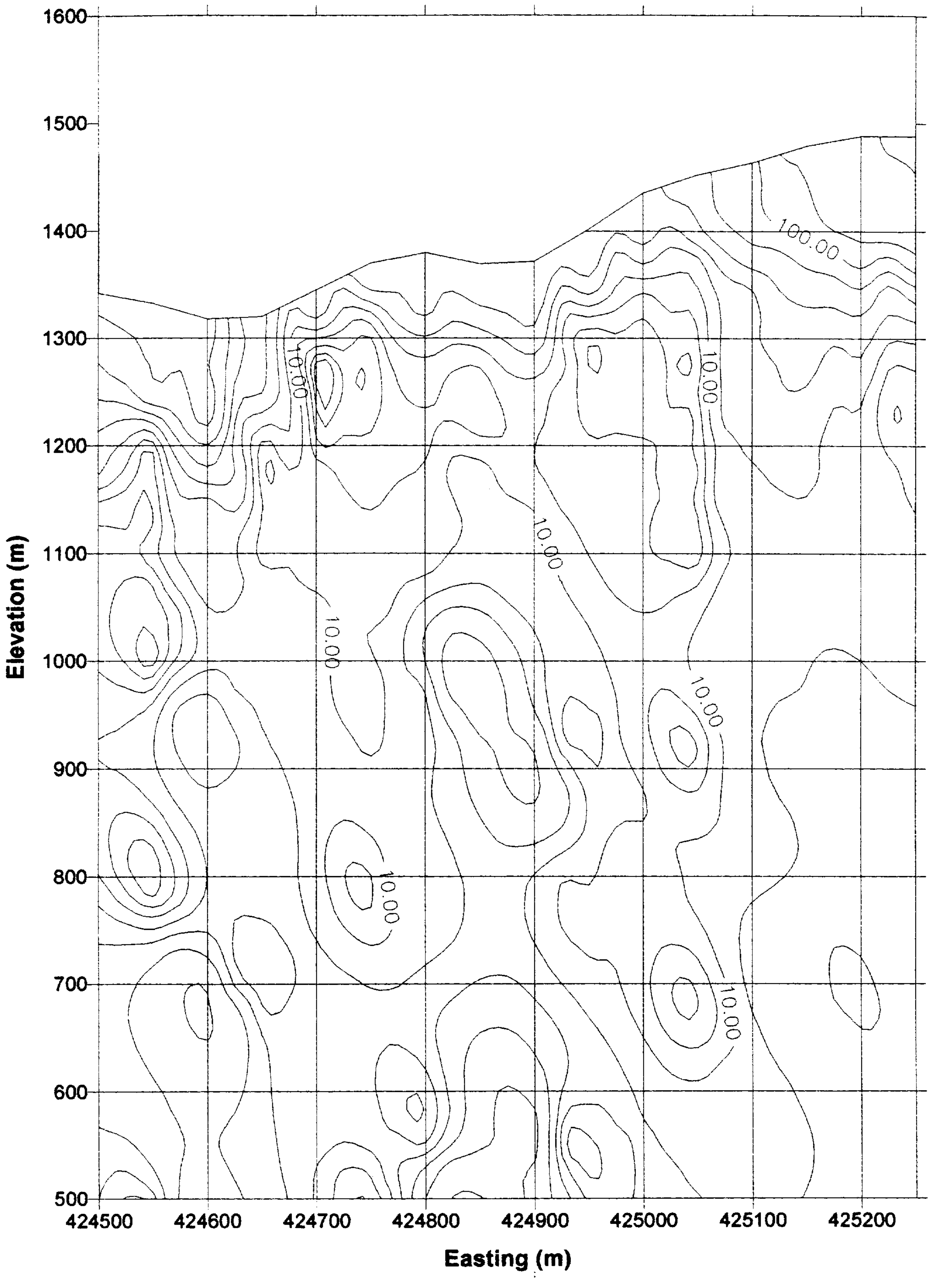
CSAMT Section 3125-N TM Mode

Scale: 1:5000



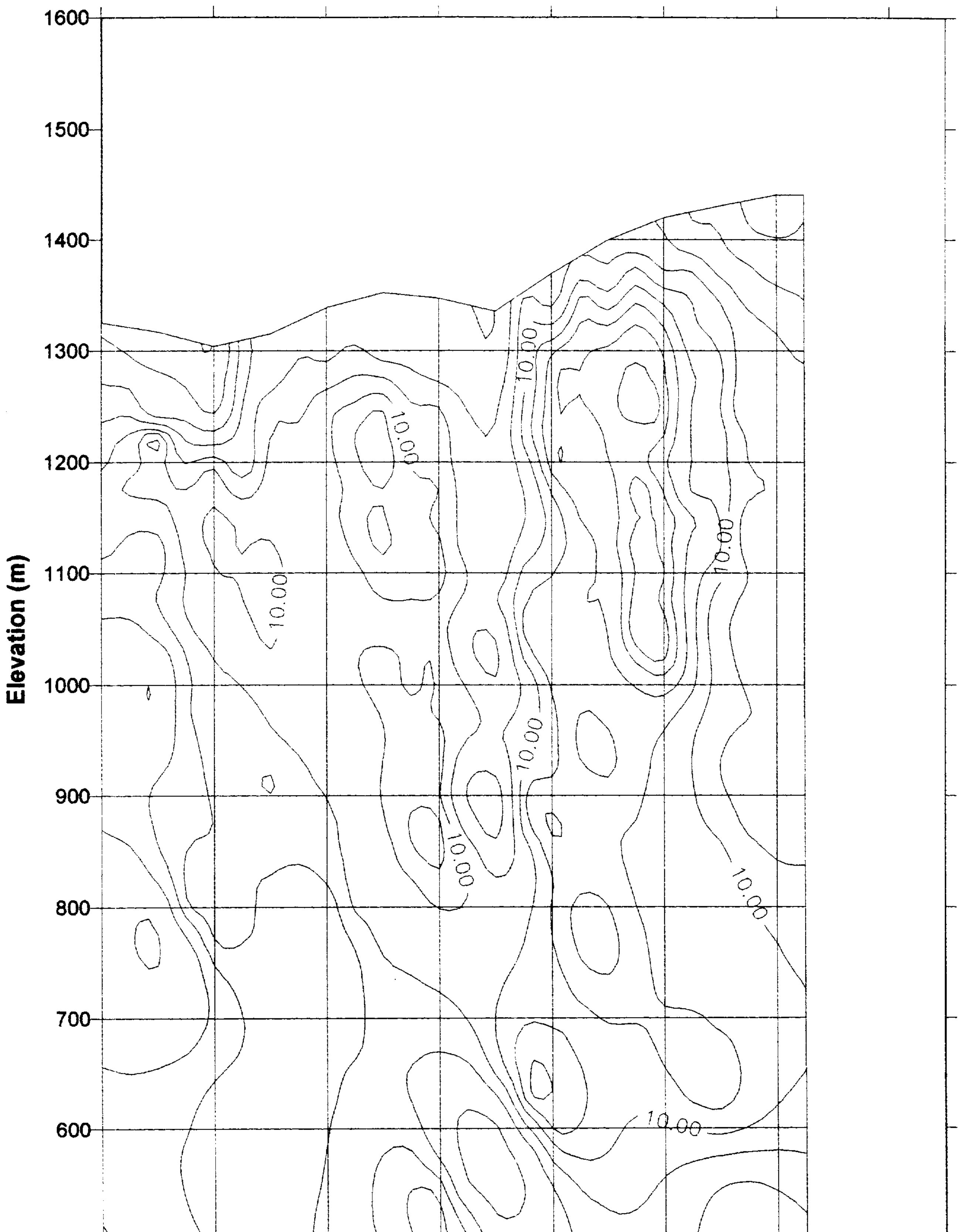
CSAMT Section 3175-N TM Mode

Scale: 1:5000



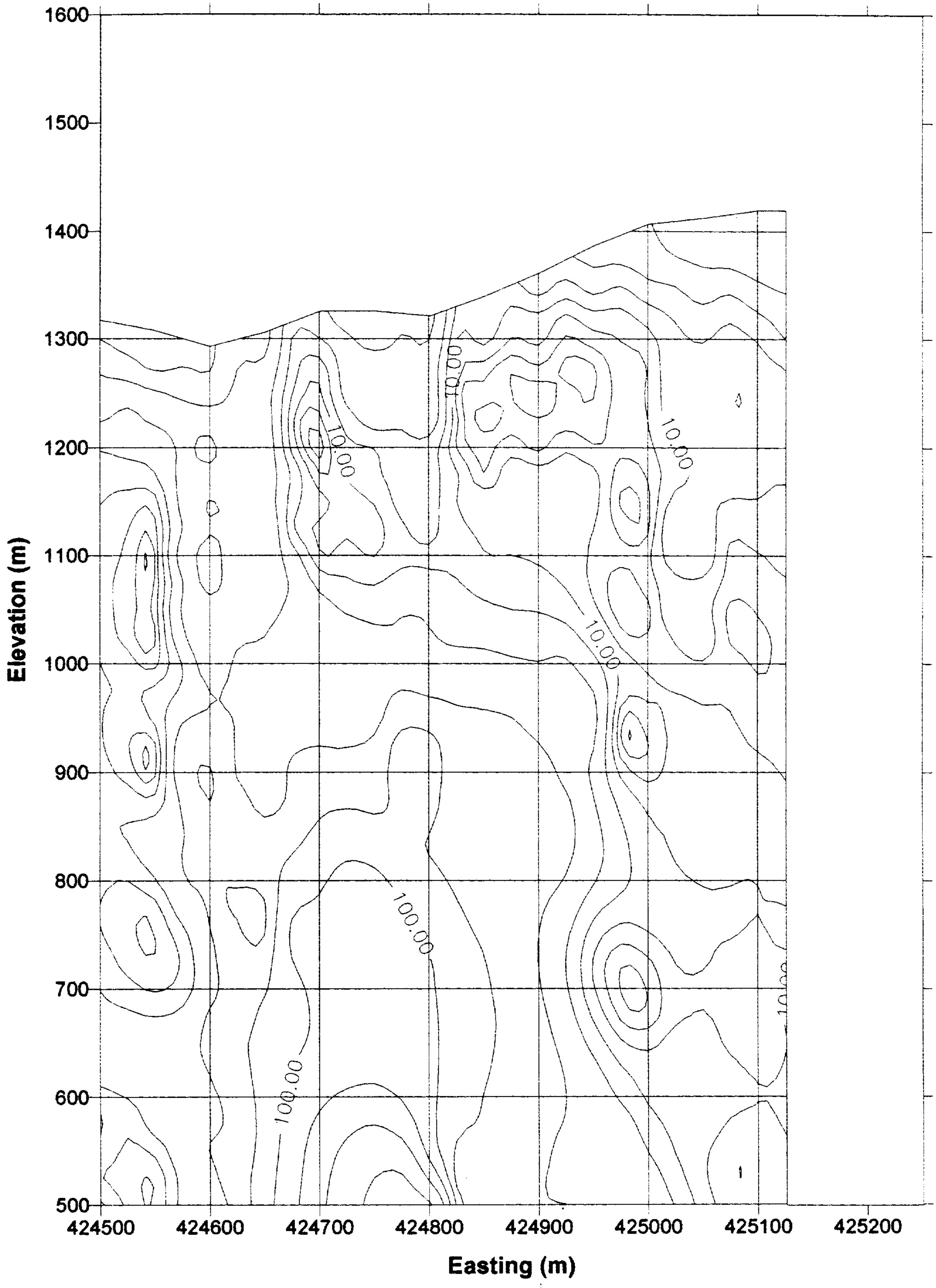
CSAMT Section 3225-N TM Mode

Scale: 1:5000



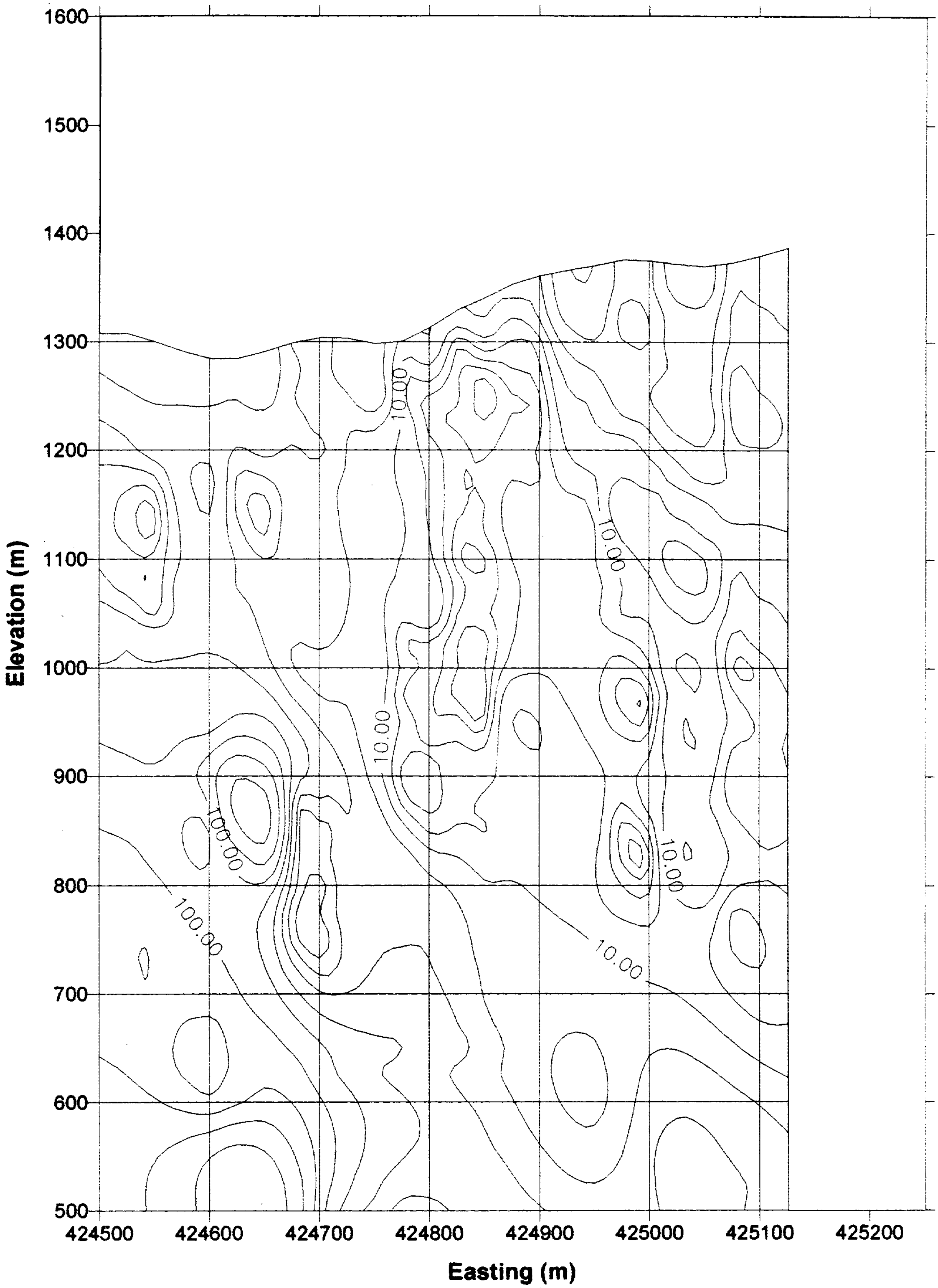
CSAMT Section 3275-N TM Mode

Scale: 1:5000

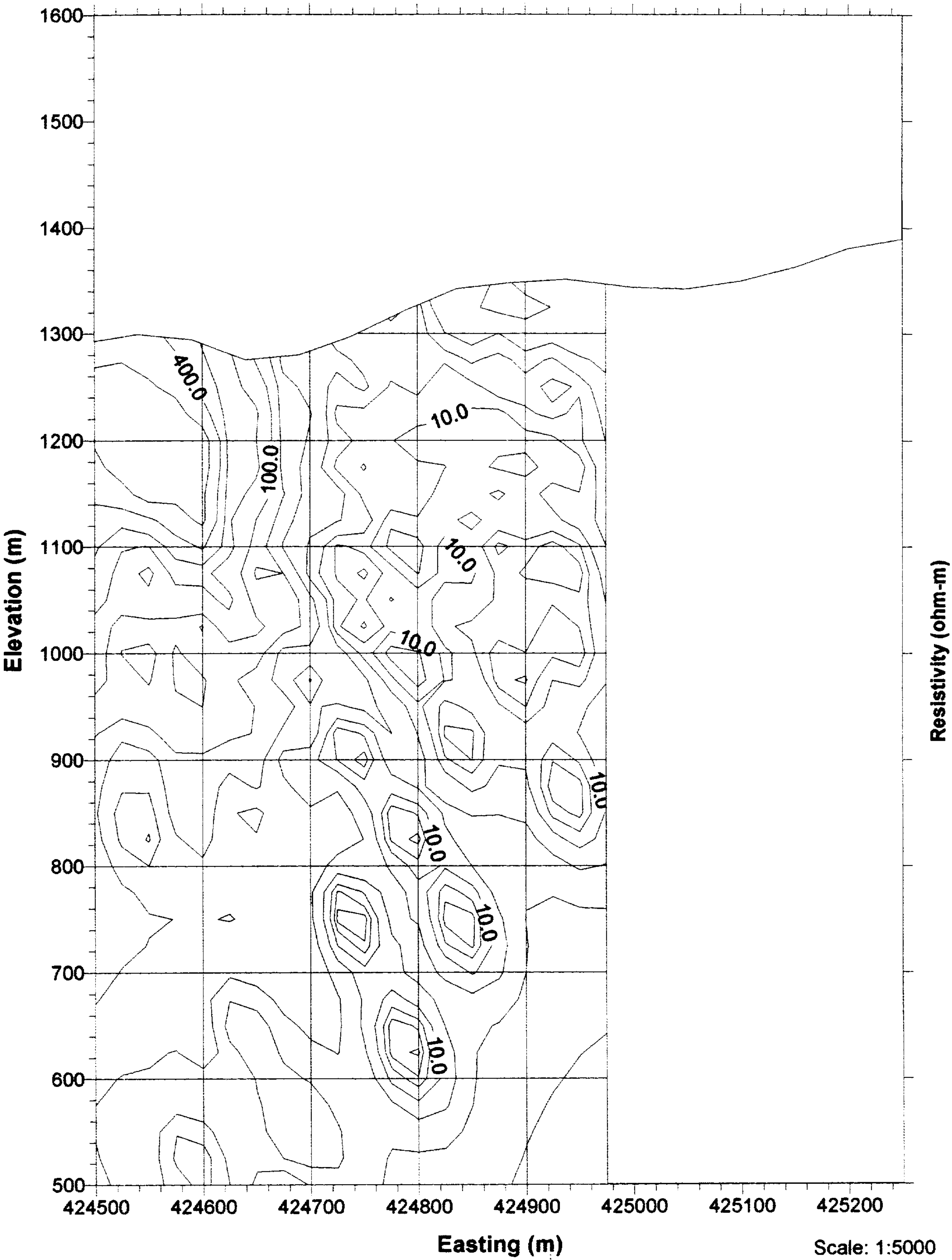


CSAMT Section 3325-N TM Mode

Scale: 1:5000

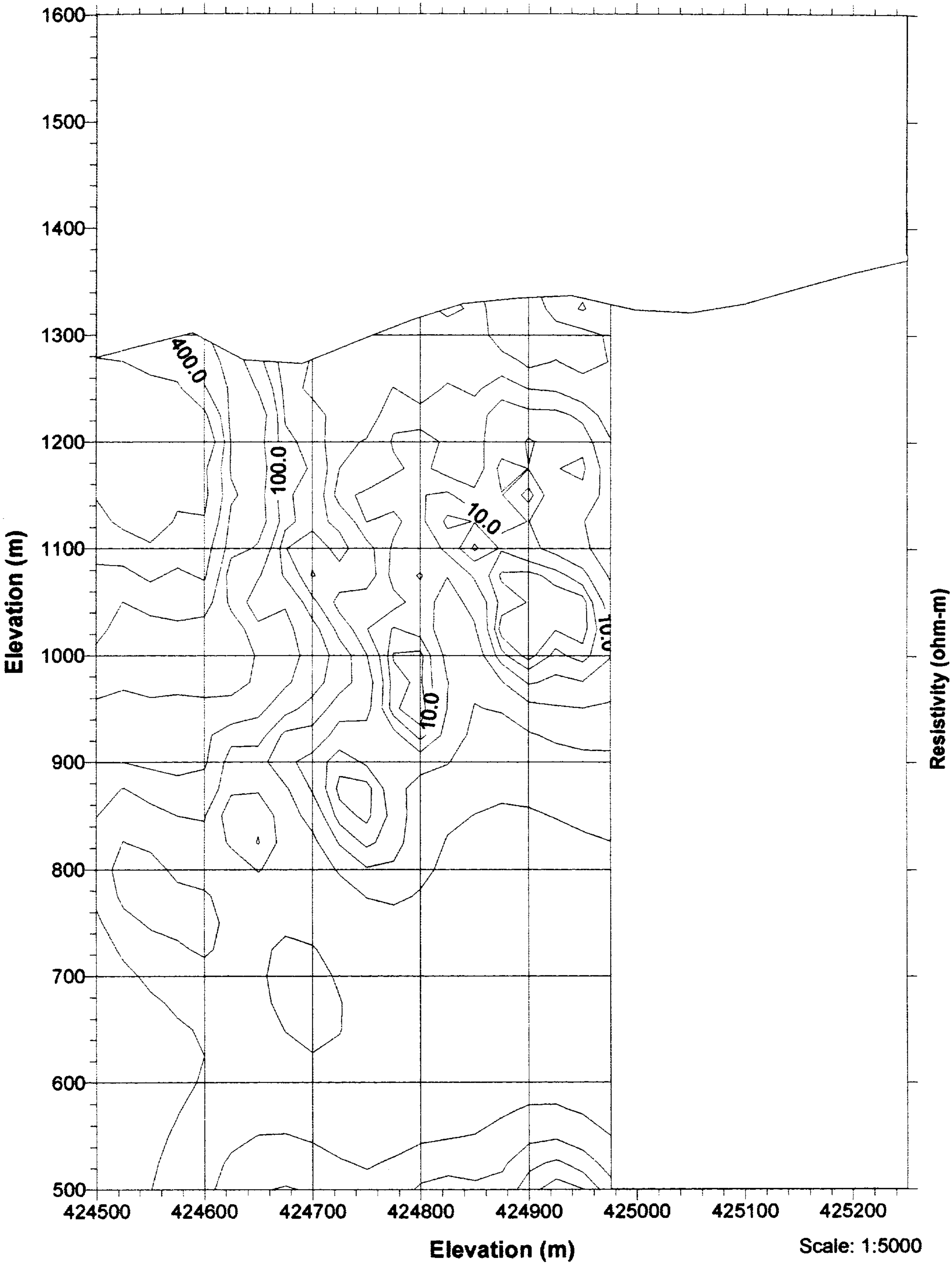


CSAMT Section 3375 N, TM Mode

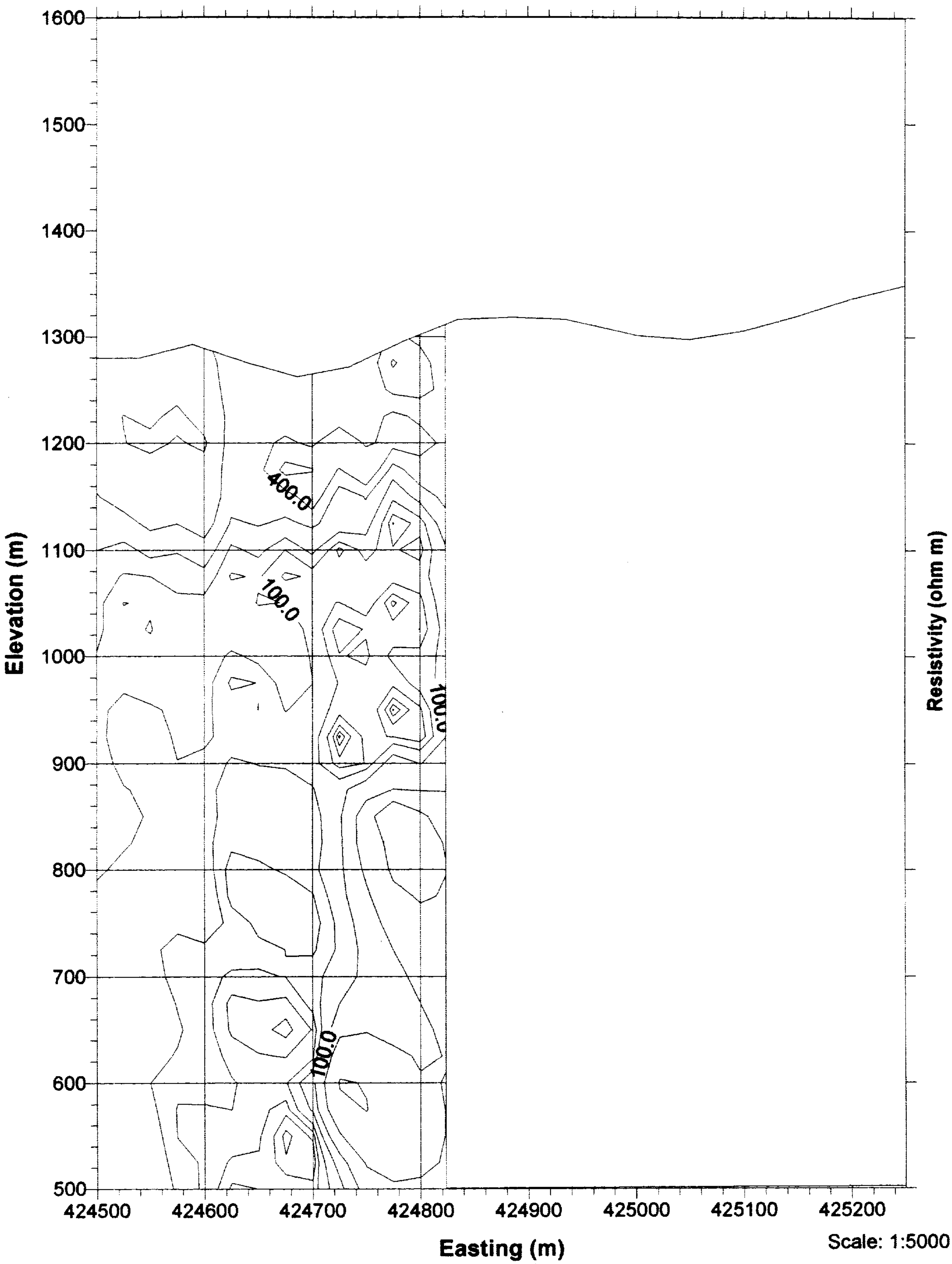


Scale: 1:5000

CSAMT Section 3425 N, TM Mode

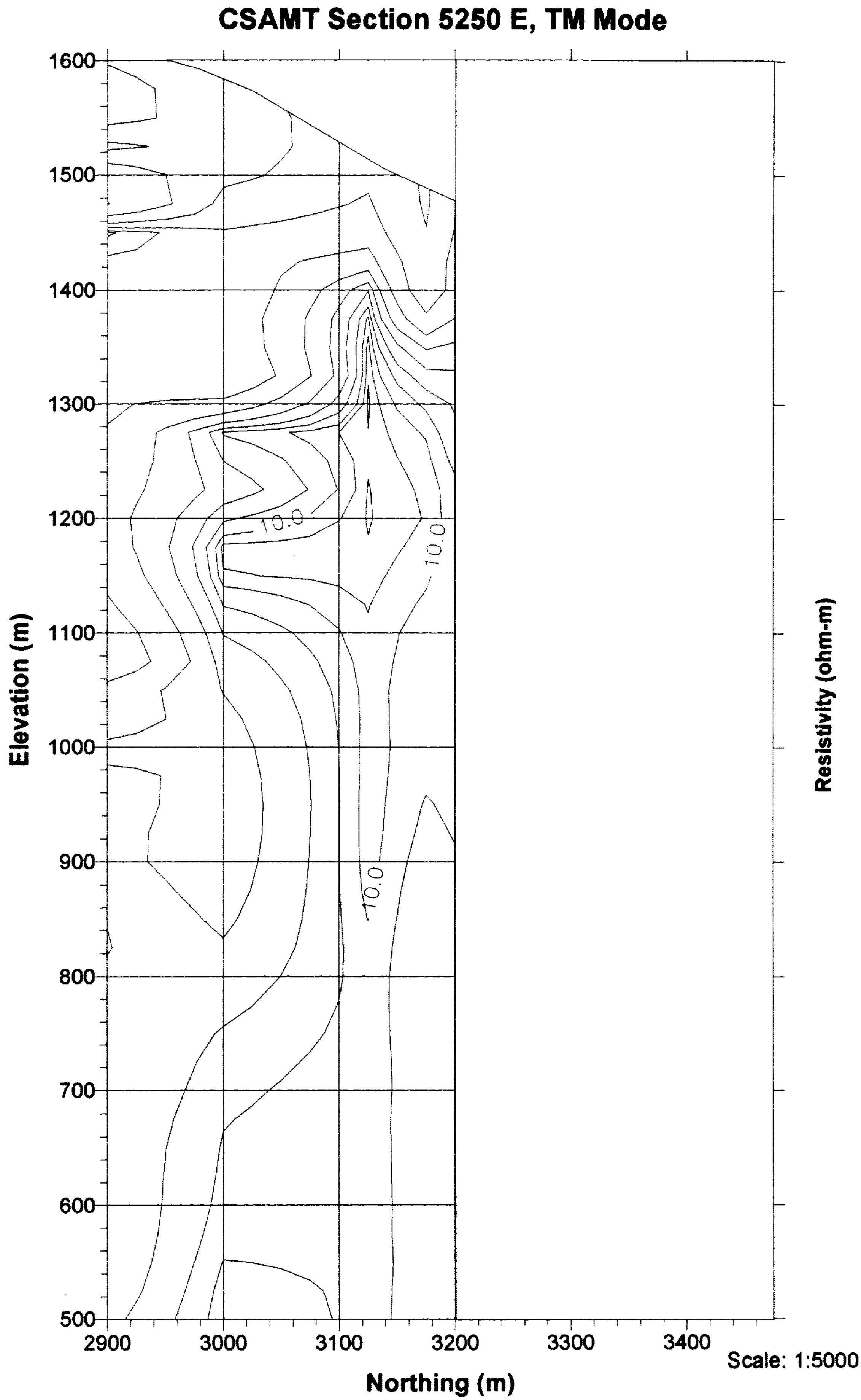


CSAMT Section 3475 N, TM Mode

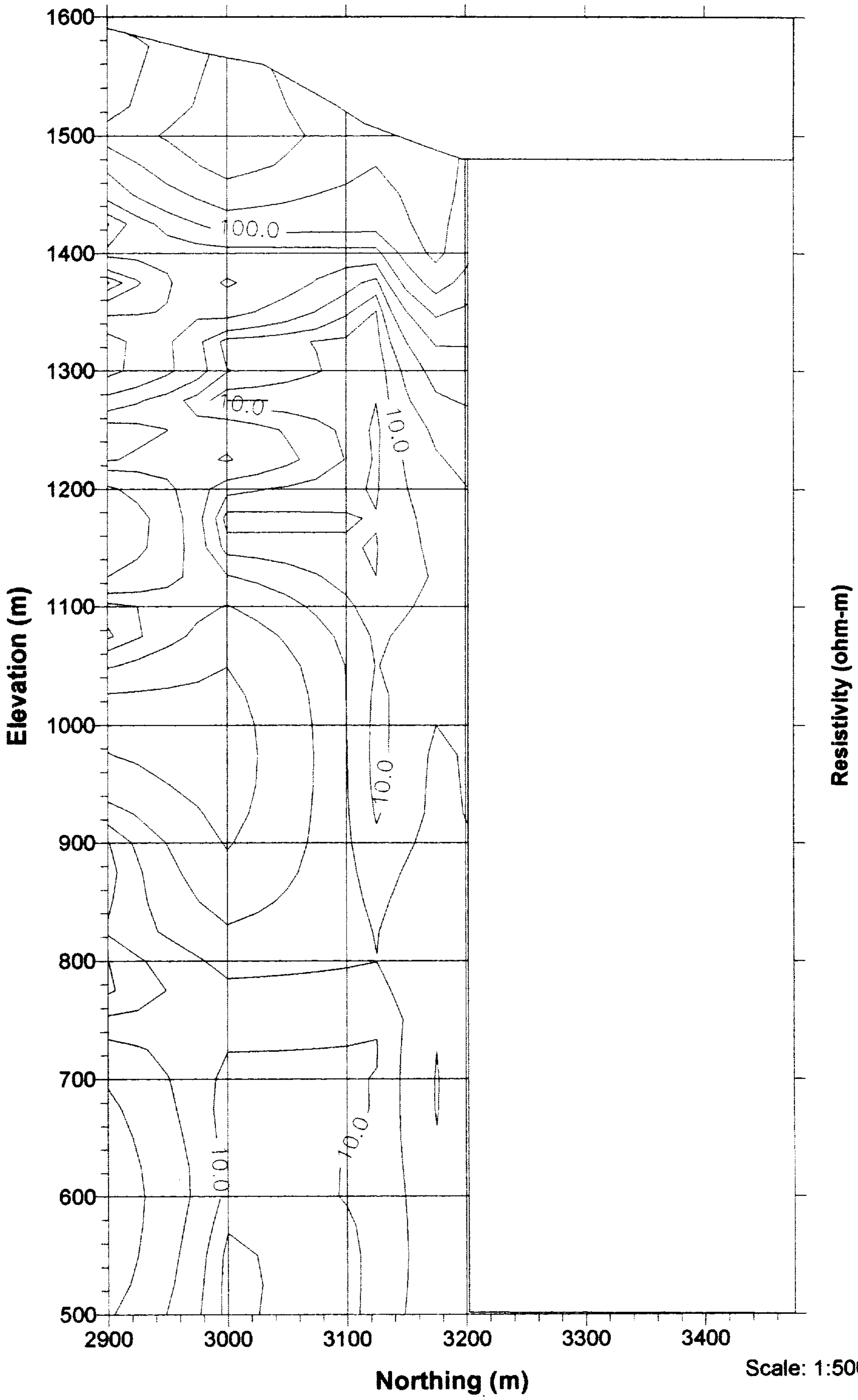


Scale: 1:5000

Appendix 3: TM Mode Bostick Transformations, North-South Sections

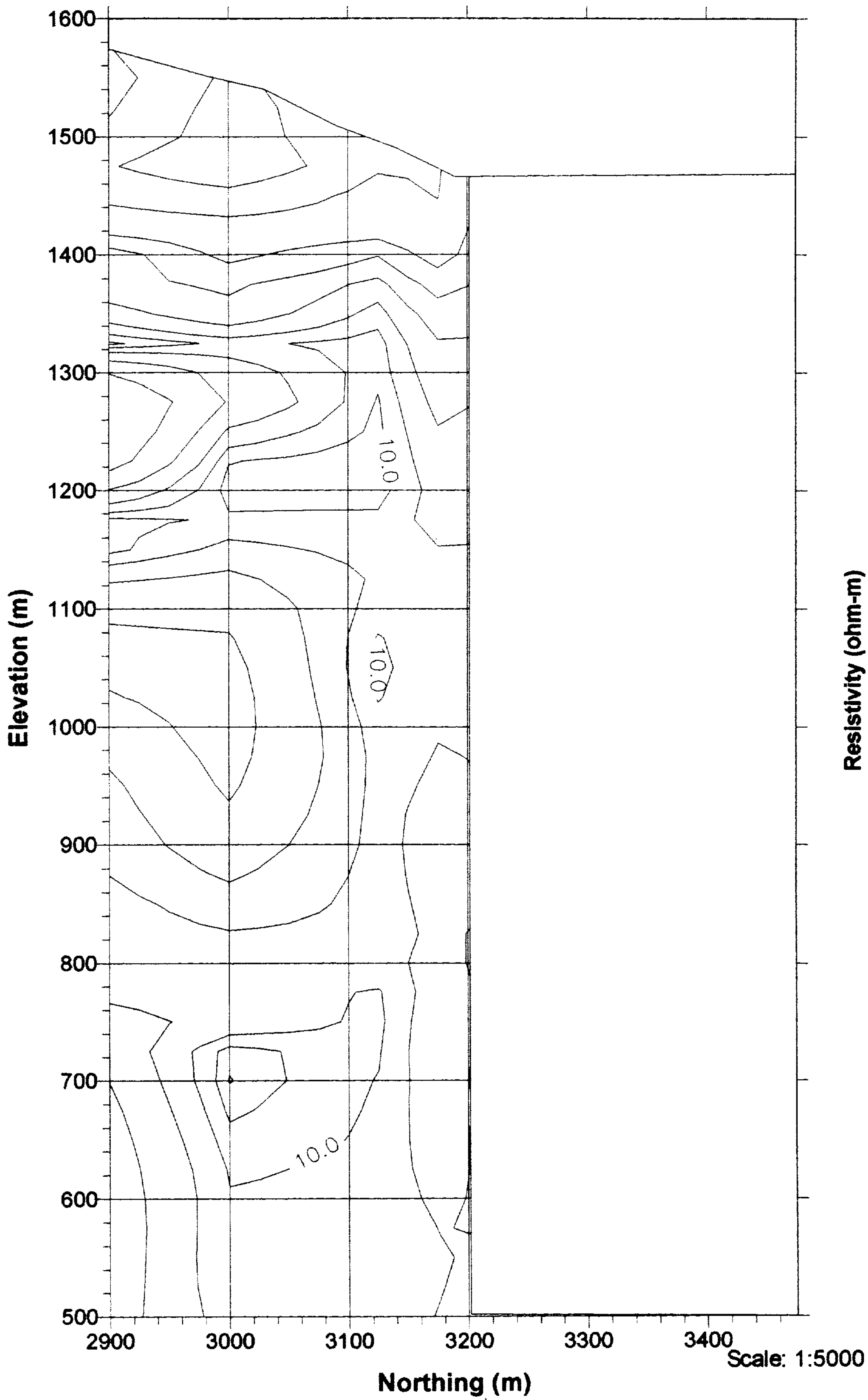

CSAMT Section 5250 E, TM Mode
Elevation (m)
Northing (m)
Resistivity (ohm-m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
2900
3000
3100
3200
3300
3400
10.0
10.0
10.0
Scale: 1:5000

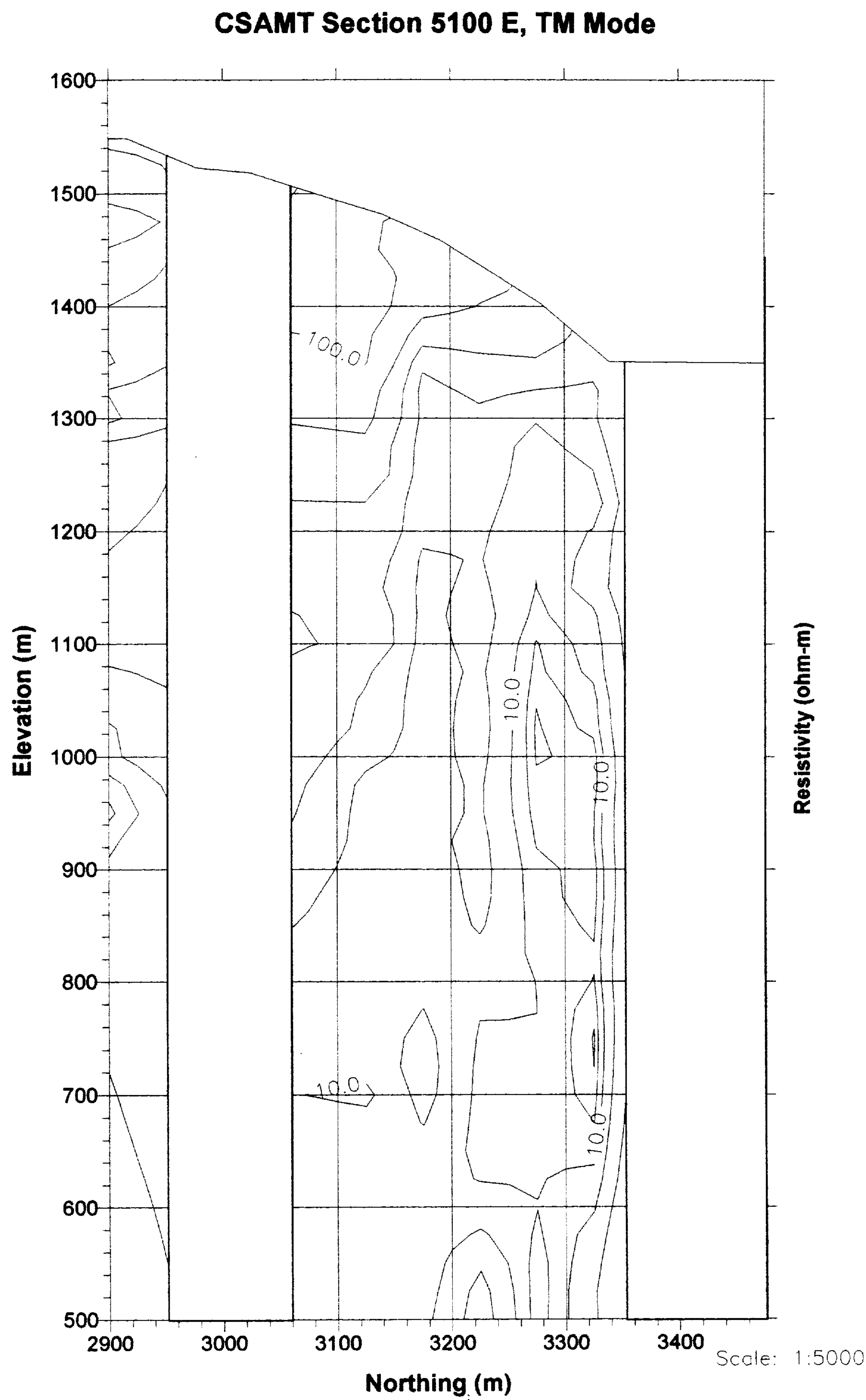
CSAMT Section 5200 E, TM Mode



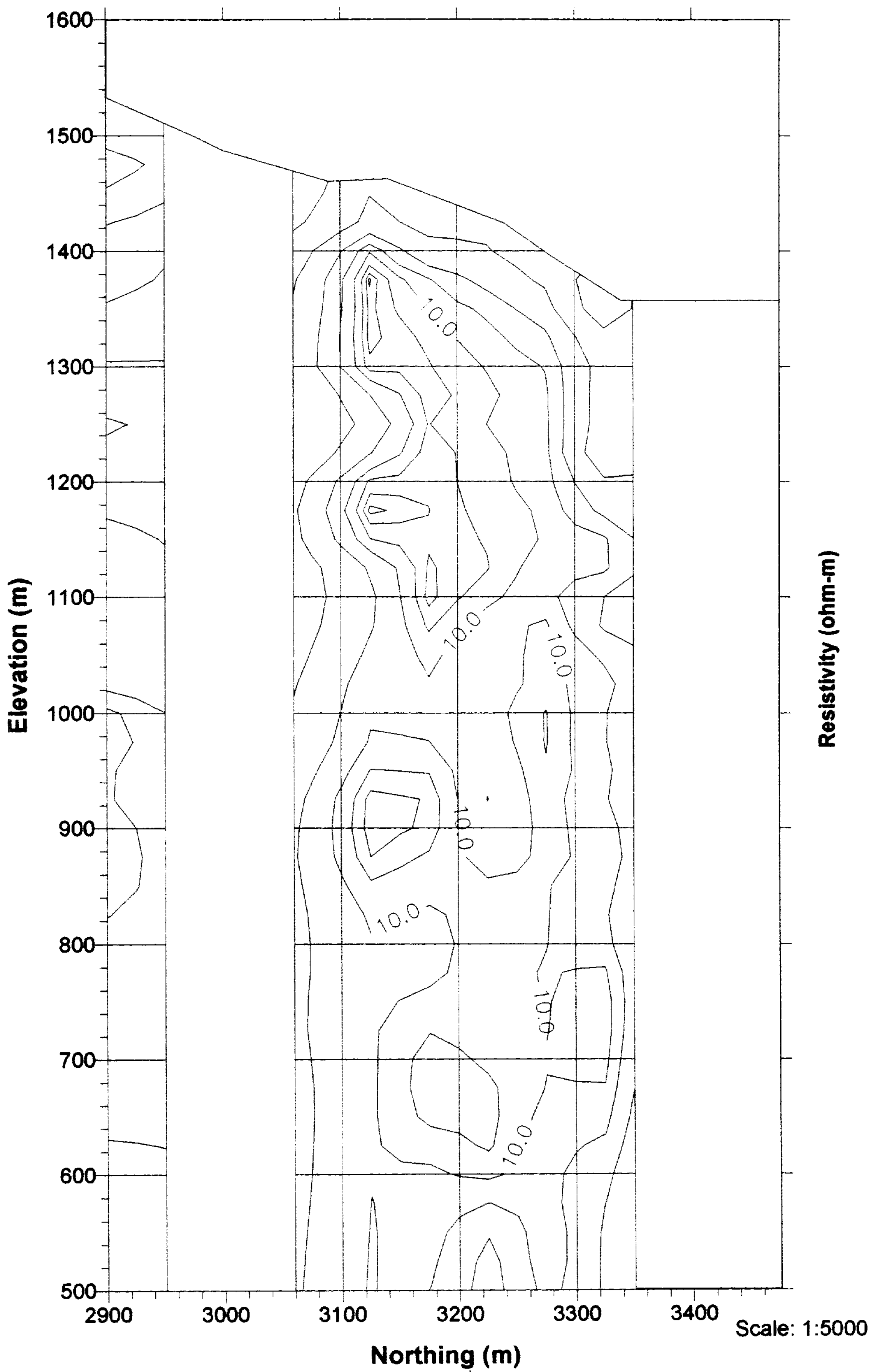
Scale: 1:5000

CSAMT Section 5150 E, TM Mode

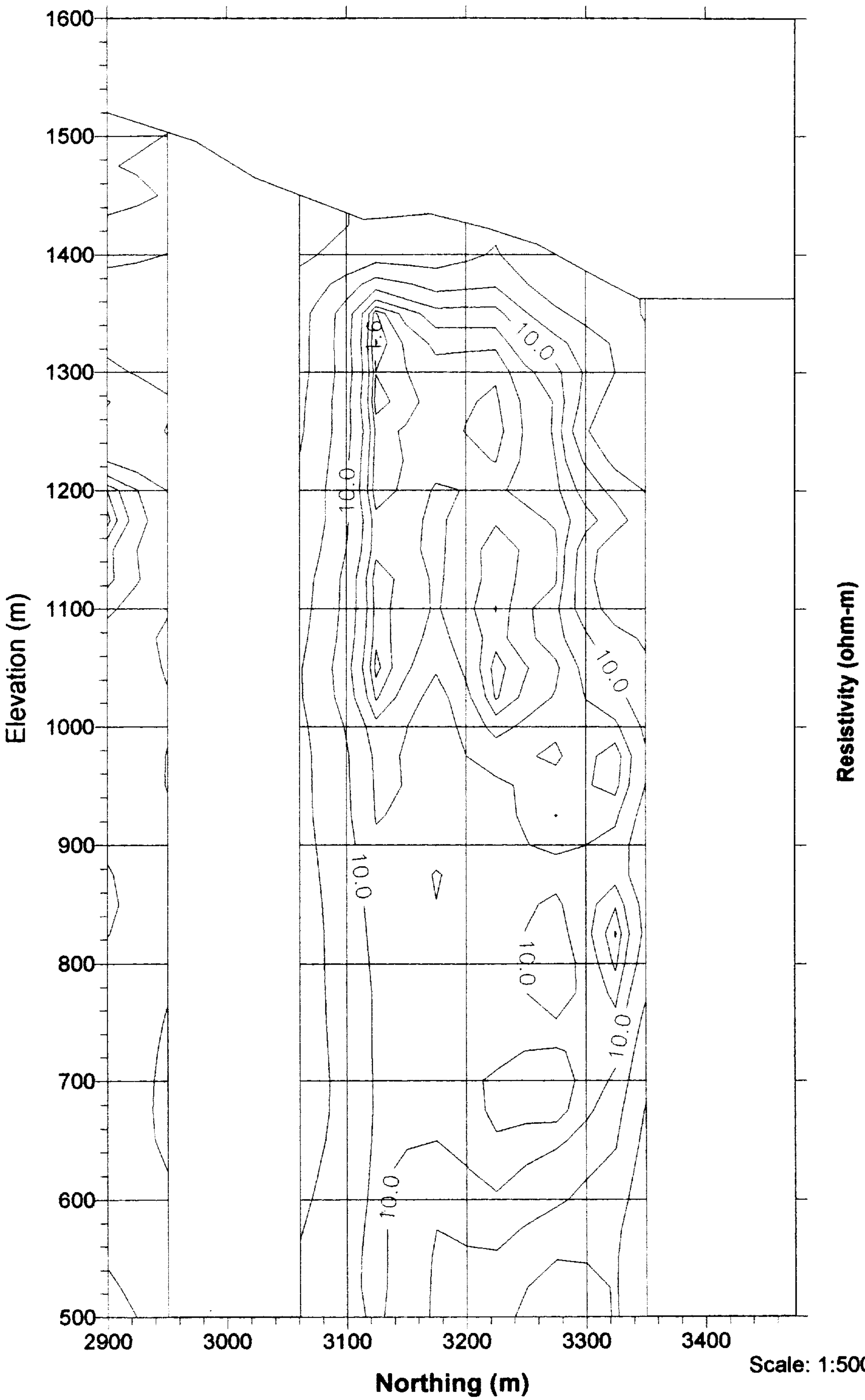



CSAMT Section 5100 E, TM Mode
Elevation (m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
2900
3000
3100
3200
3300
3400
Northing (m)
Resistivity (ohm-m)
100.0
10.0
10.0
10.0
10.0
Scale: 1:5000

CSAMT Section 5050 E, TM Mode

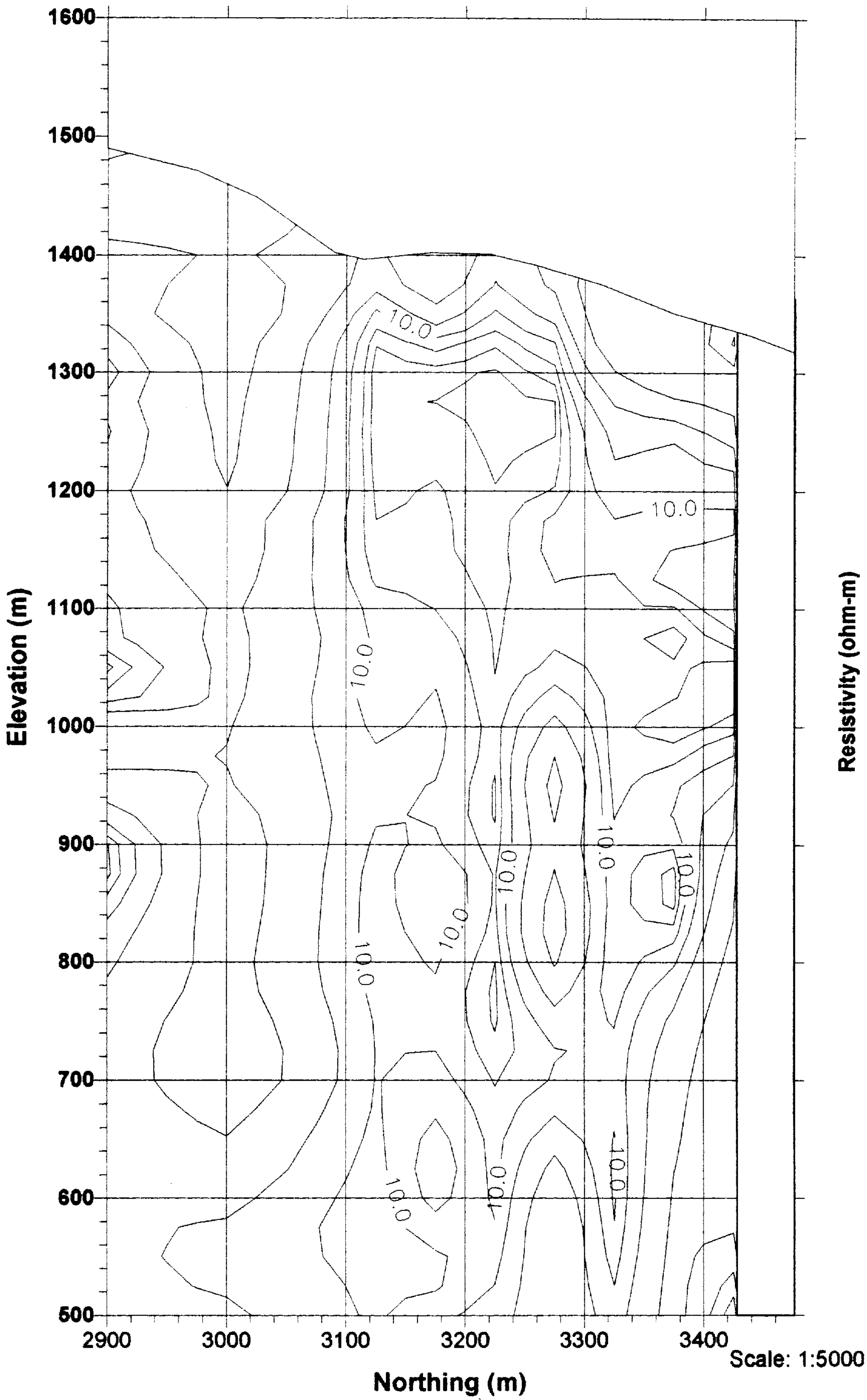


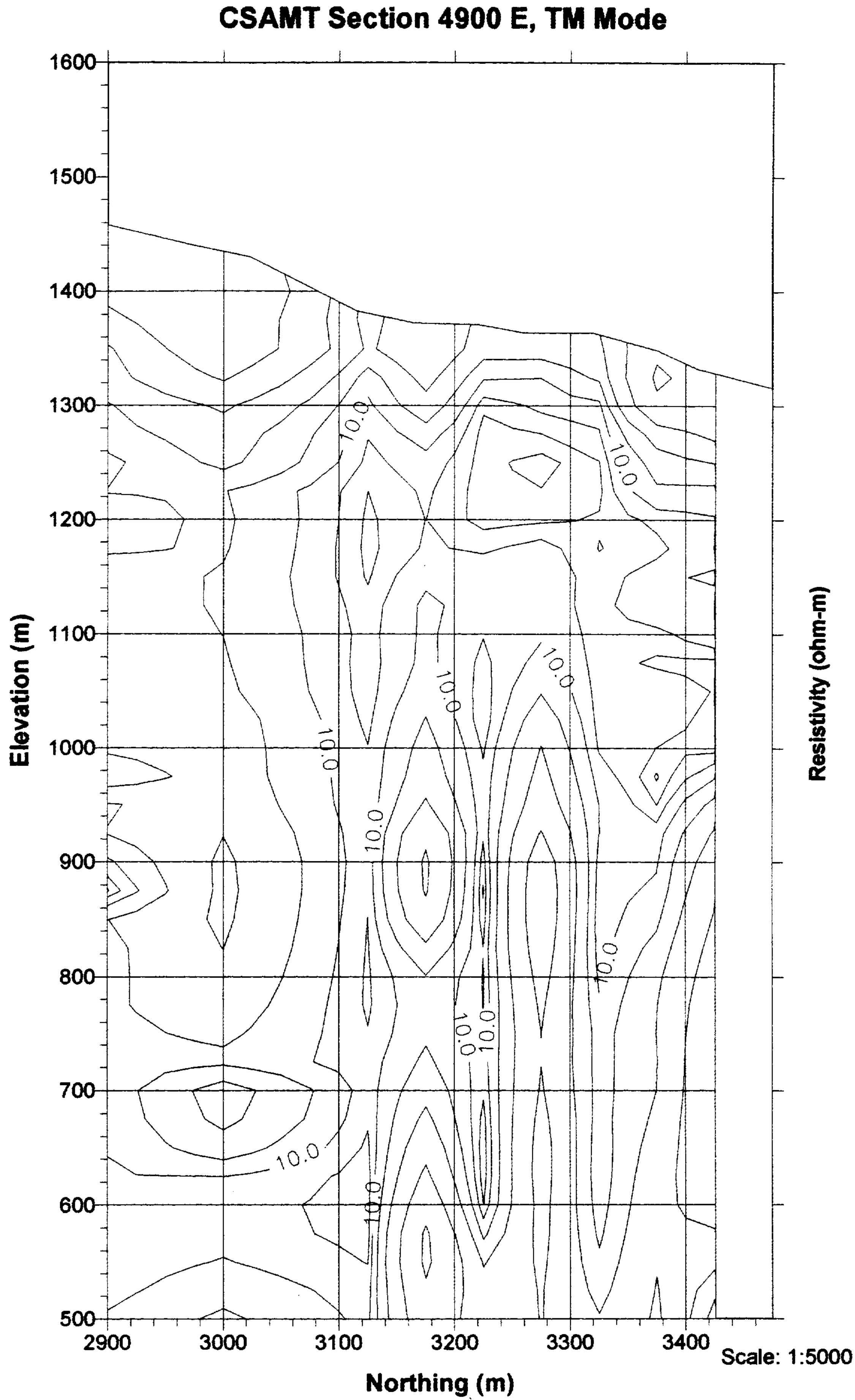
CSAMT Section 5000 E, TM Mode



Scale: 1:5000

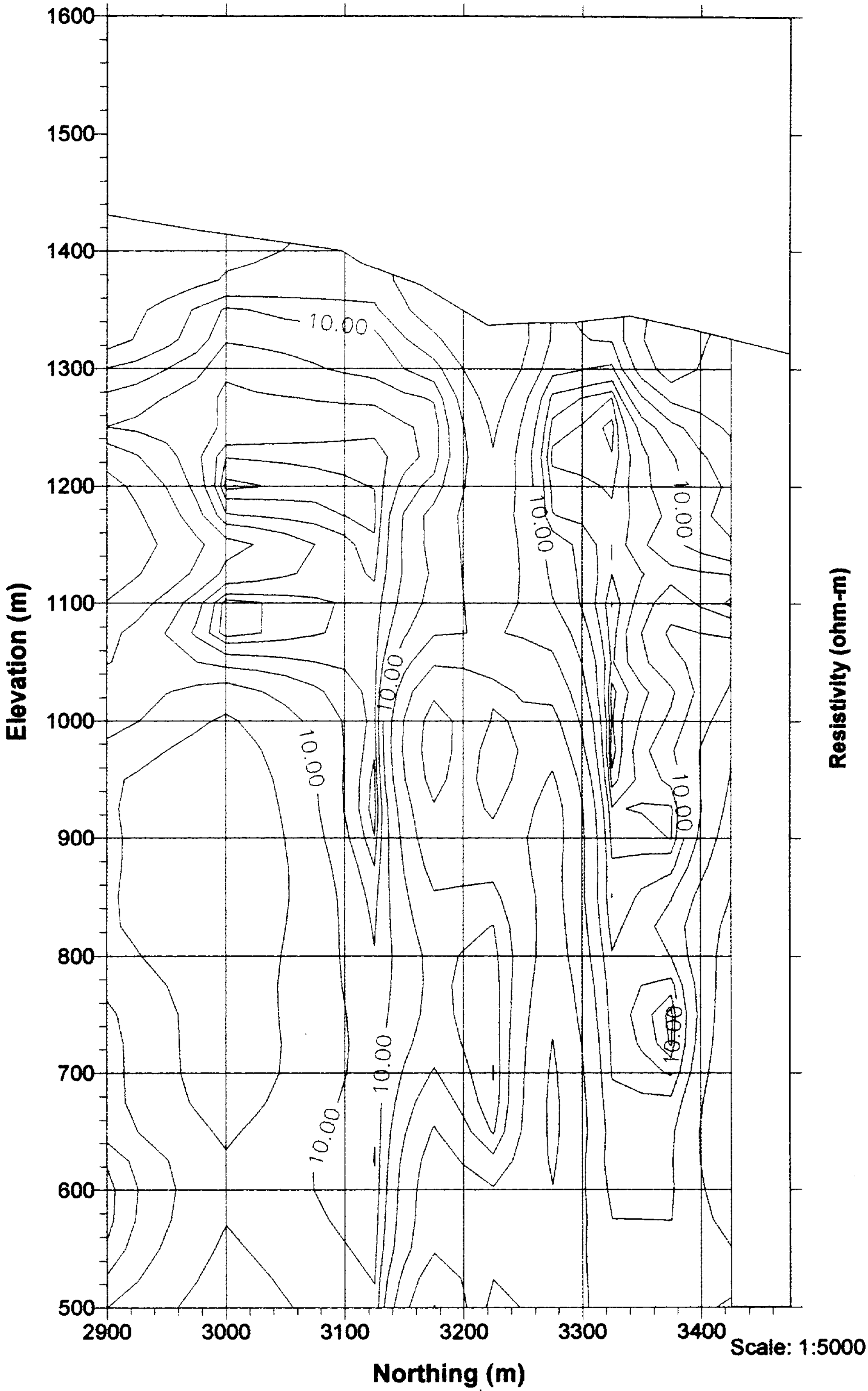
CSAMT Section 4950 E, TM Mode

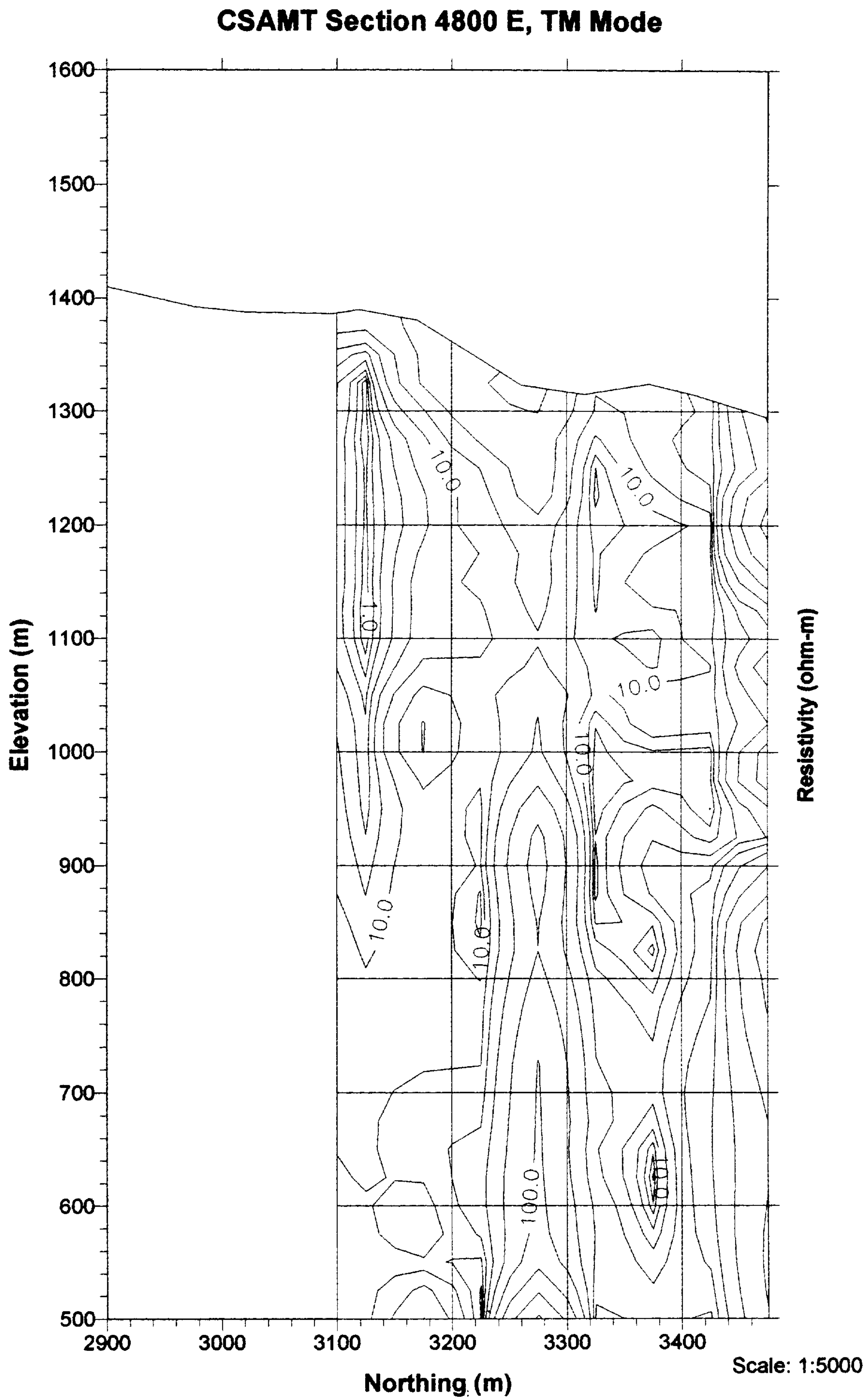




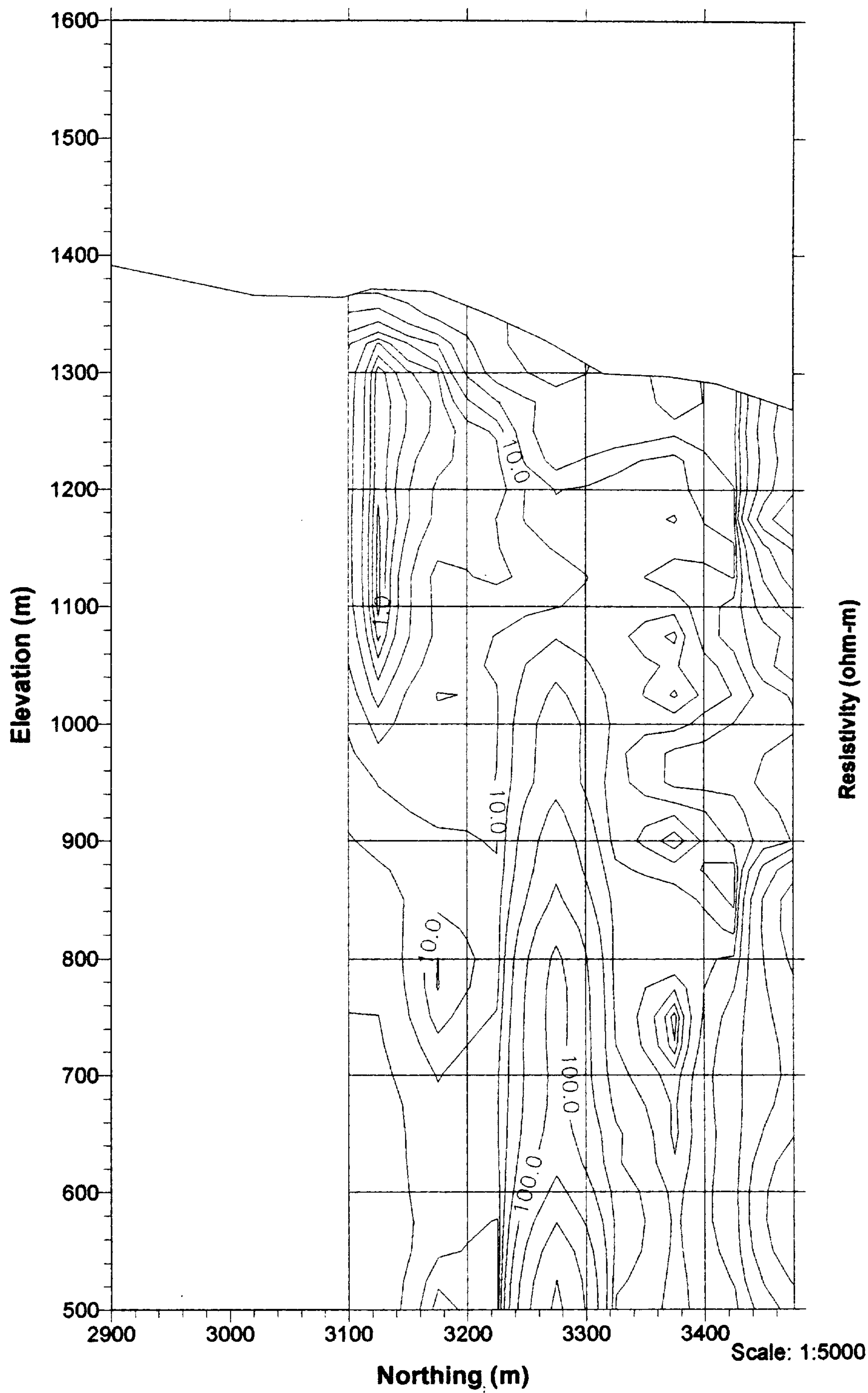
CSAMT Section 4900 E, TM Mode
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
Elevation (m)
2900
3000
3100
3200
3300
3400
Northing (m)
10.0
Resistivity (ohm-m)
Scale: 1:5000

CSAMT Section 4850 E, TM Mode

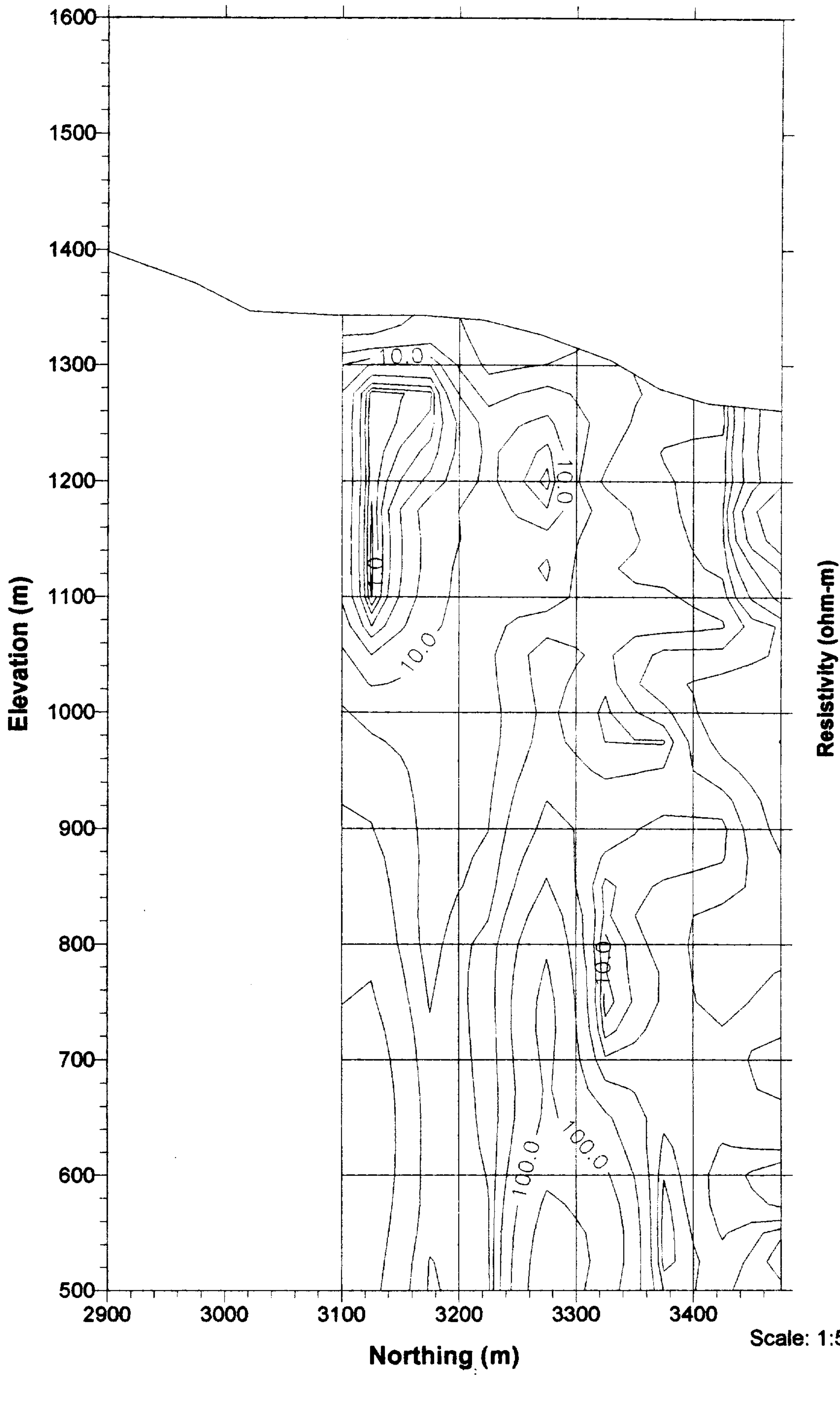



CSAMT Section 4800 E, TM Mode
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
Elevation (m)
2900
3000
3100
3200
3300
3400
Northing (m)
Resistivity (ohm-m)
10.0
1.0
100.0
Scale: 1:5000

CSAMT Section 4750 E, TM Mode

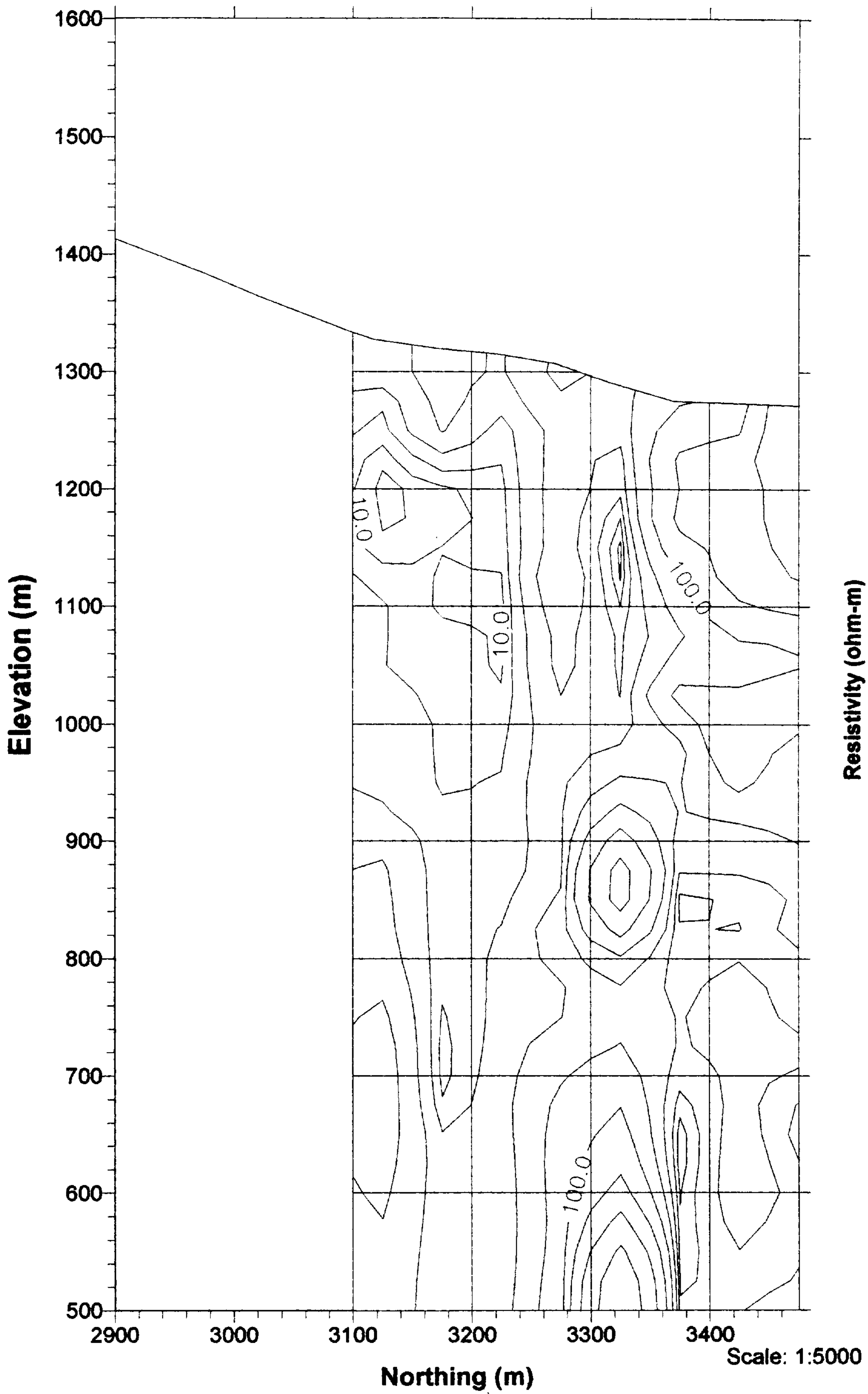


CSAMT Section 4700 E, TM Mode

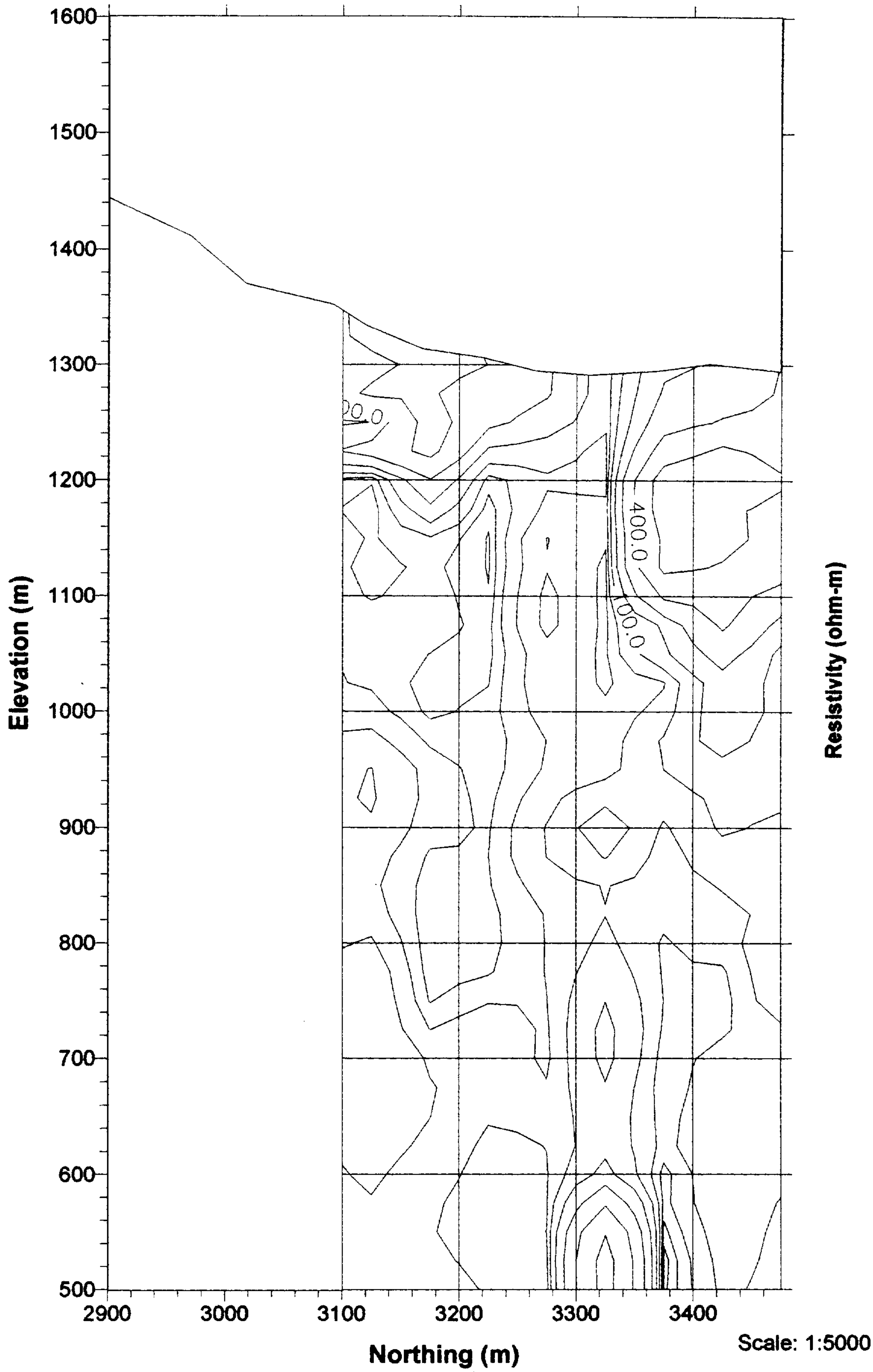


Scale: 1:5000

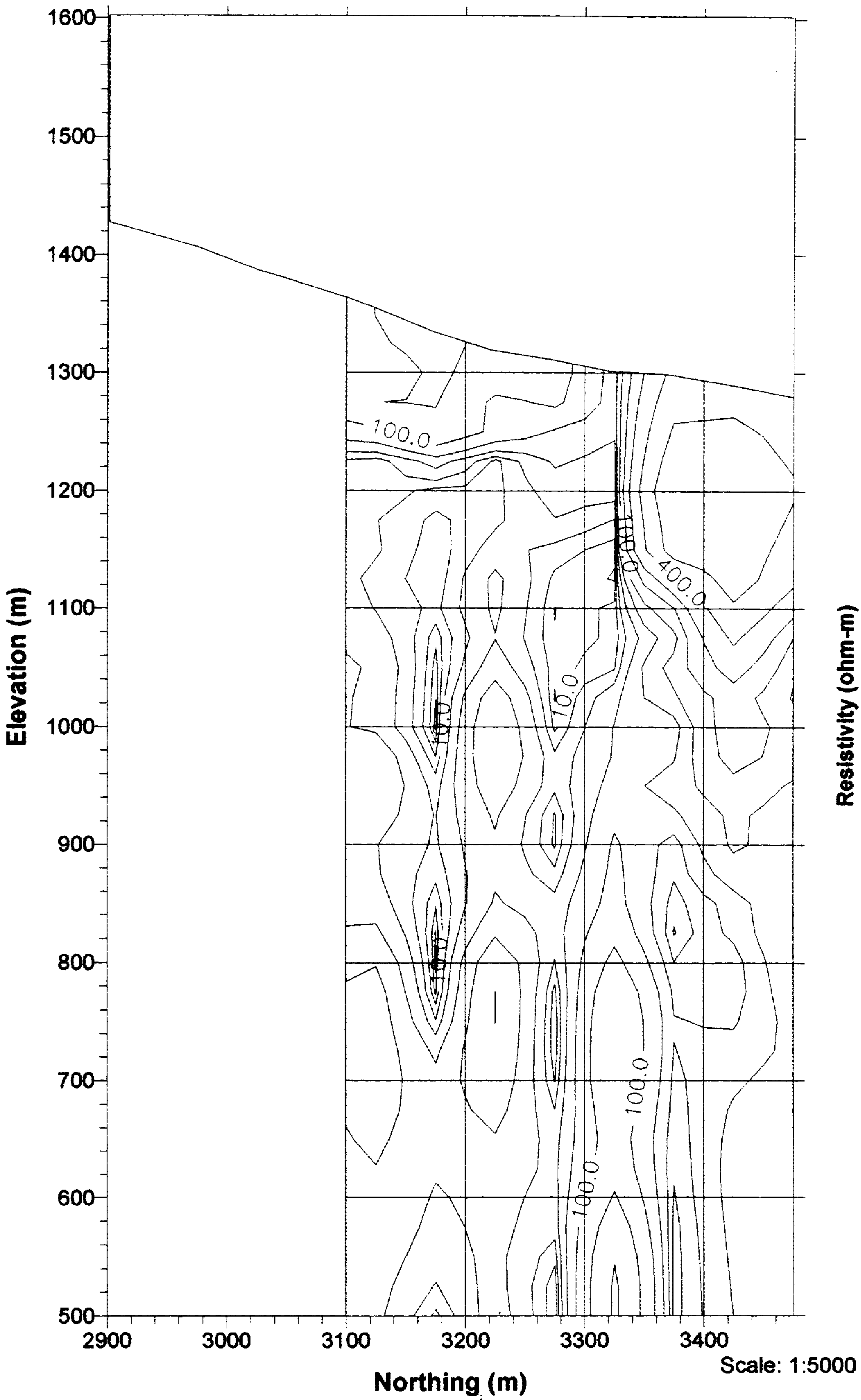
CSAMT Section 4650 E, TM Mode



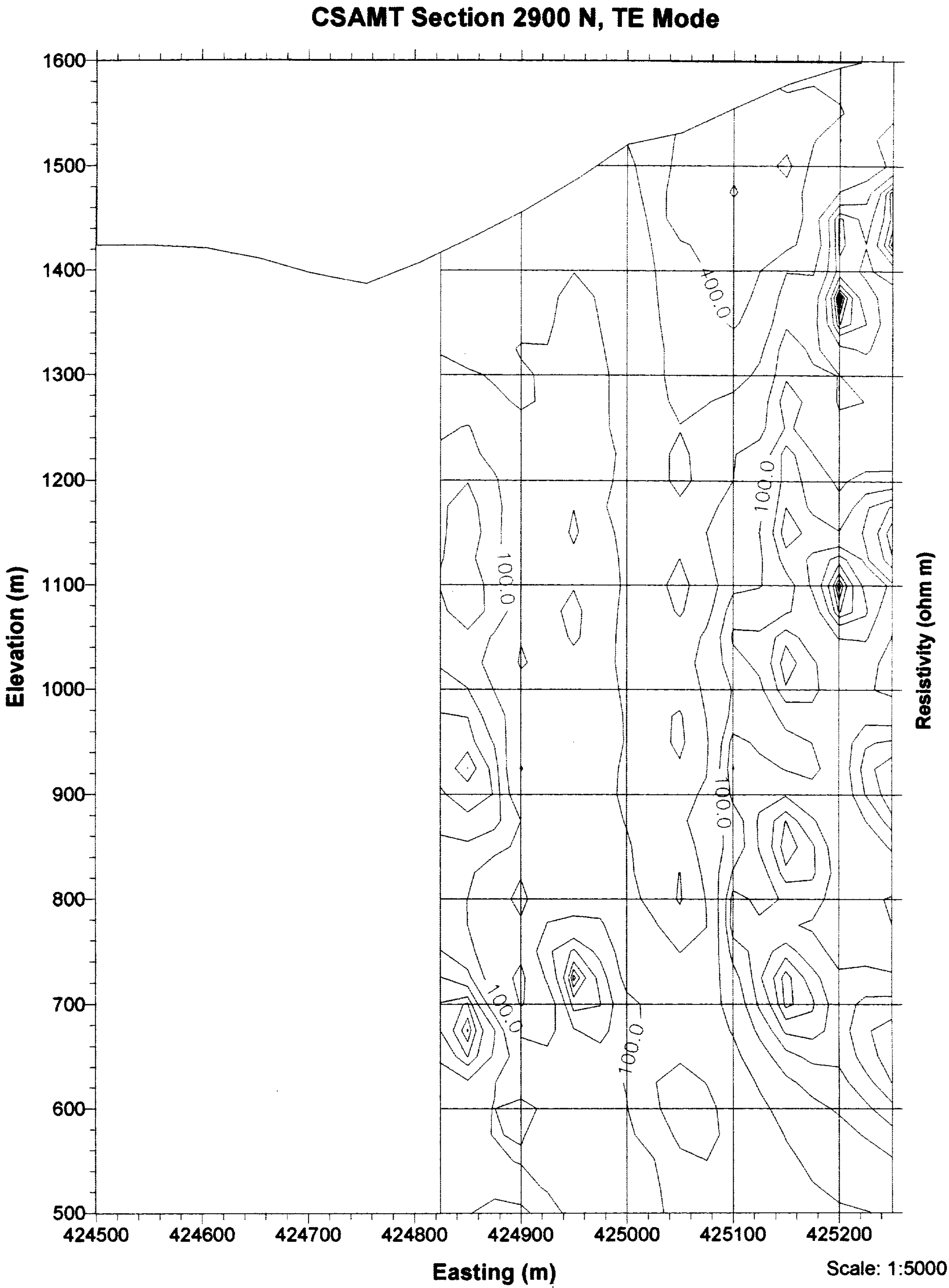
CSAMT Section 4600 E, TM Mode

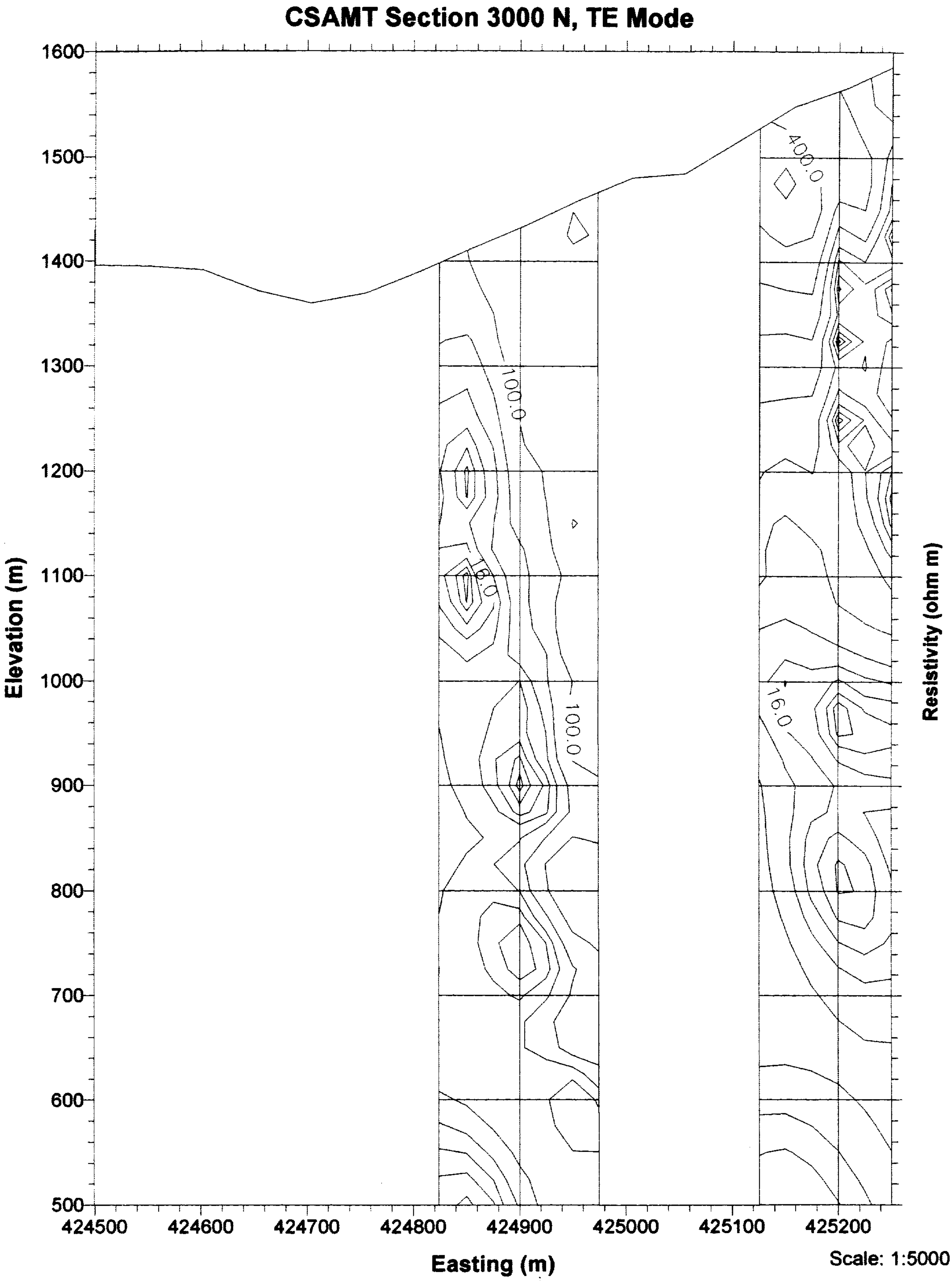


CSAMT Section 4550 E, TM Mode



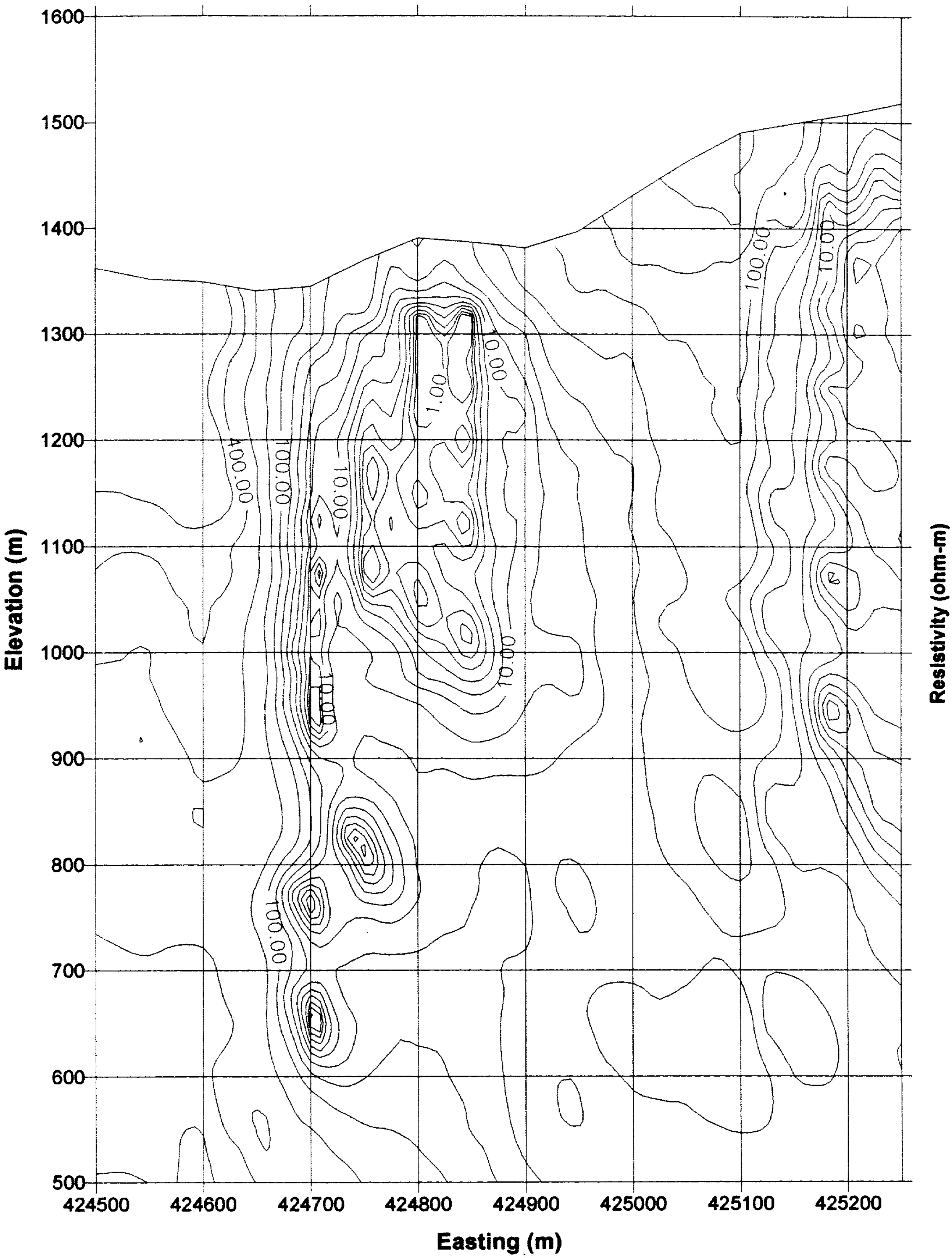
Appendix 4: TE Mode Bostick Transformations, East-West Sections


CSAMT Section 2900 N, TE Mode
Elevation (m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400.0
100.0
100.0
100.0
100.0
100.0
100.0
Resistivity (ohm m)
424500
424600
424700
424800
424900
425000
425100
425200
Easting (m)
Scale: 1:5000


CSAMT Section 3000 N, TE Mode
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
Elevation (m)
424500
424600
424700
424800
424900
425000
425100
425200
Easting (m)
Resistivity (ohm m)
400.0
100.0
16.0
100.0
16.0
Scale: 1:5000

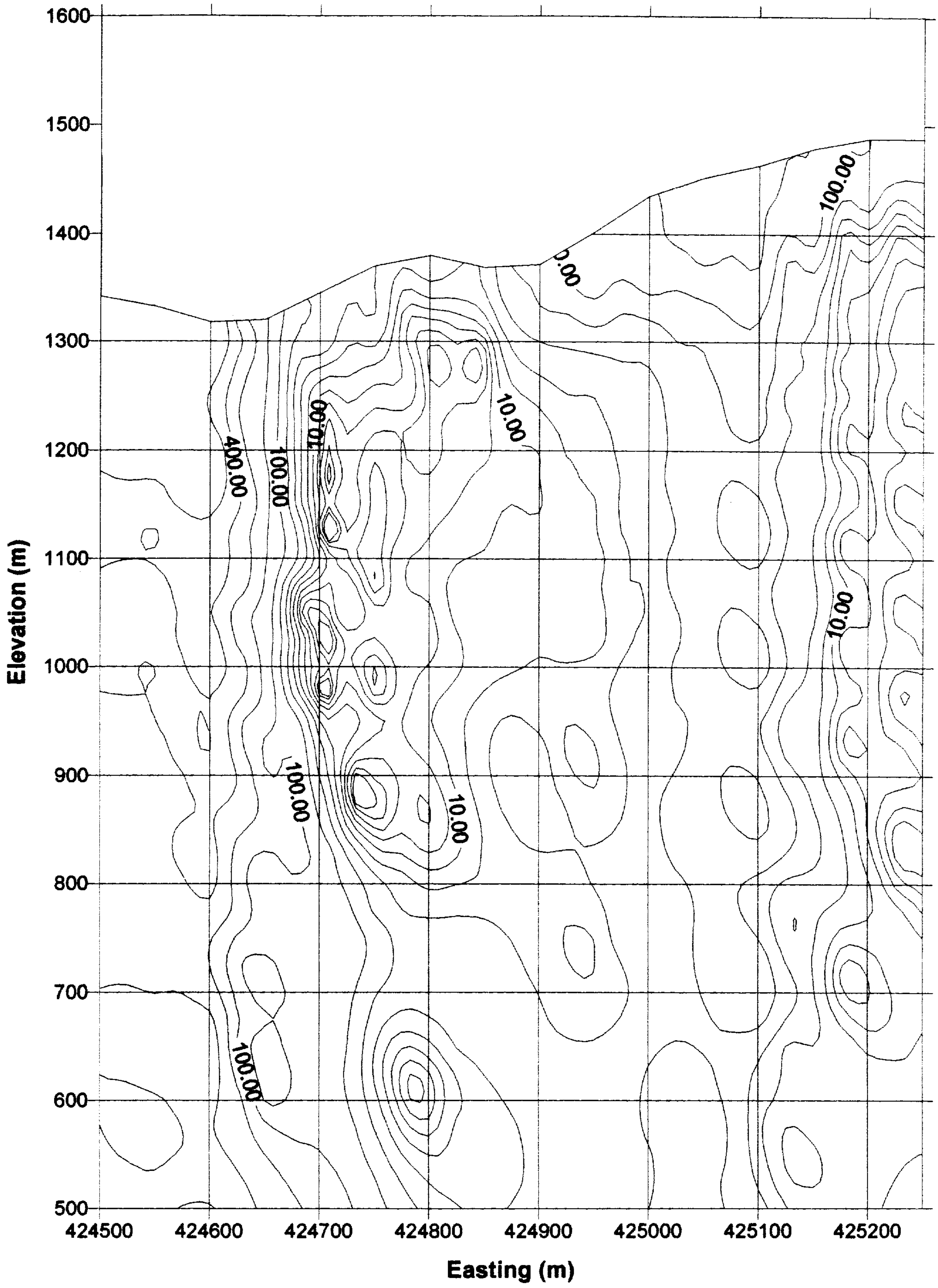
CSAMT Section 3125-N TE Mode

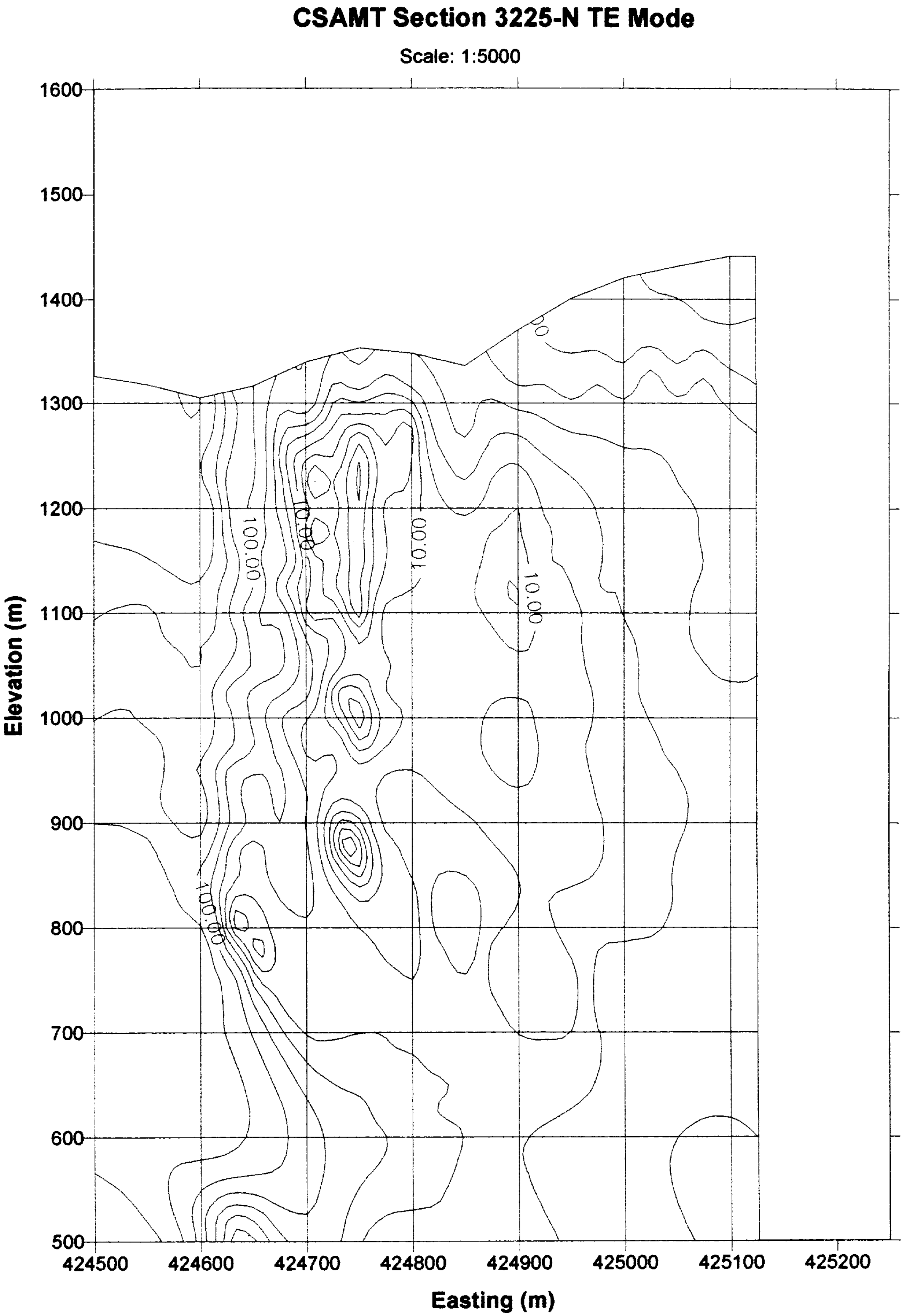
Scale: 1:5000



CSAMT Section 3175-N TE Mode

Scale: 1:5000

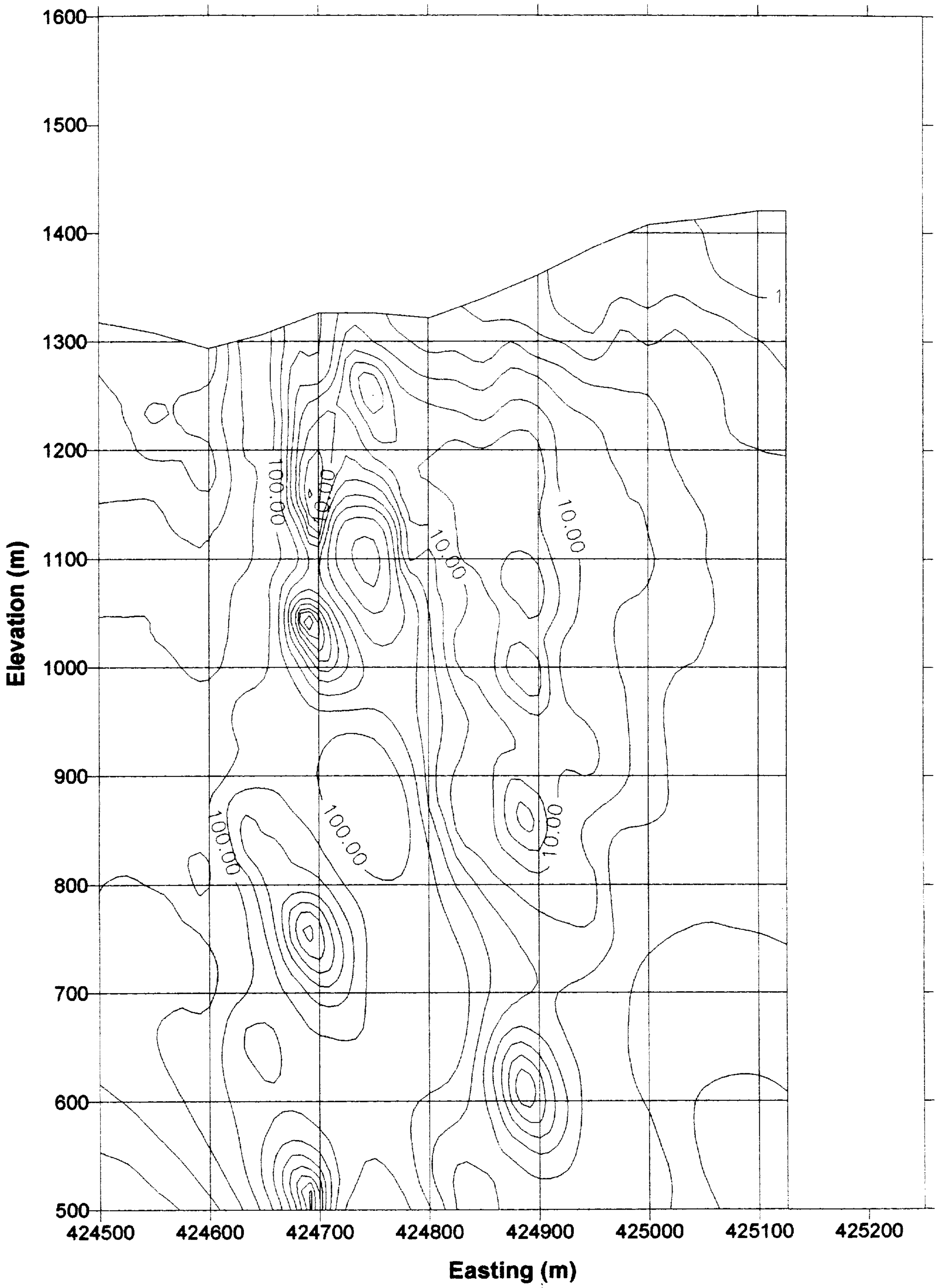




CSAMT Section 3225-N TE Mode
Scale: 1:5000
Elevation (m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
100.00
10.00
10.00
10.00
100.00
424500
424600
424700
424800
424900
425000
425100
425200
Easting (m)

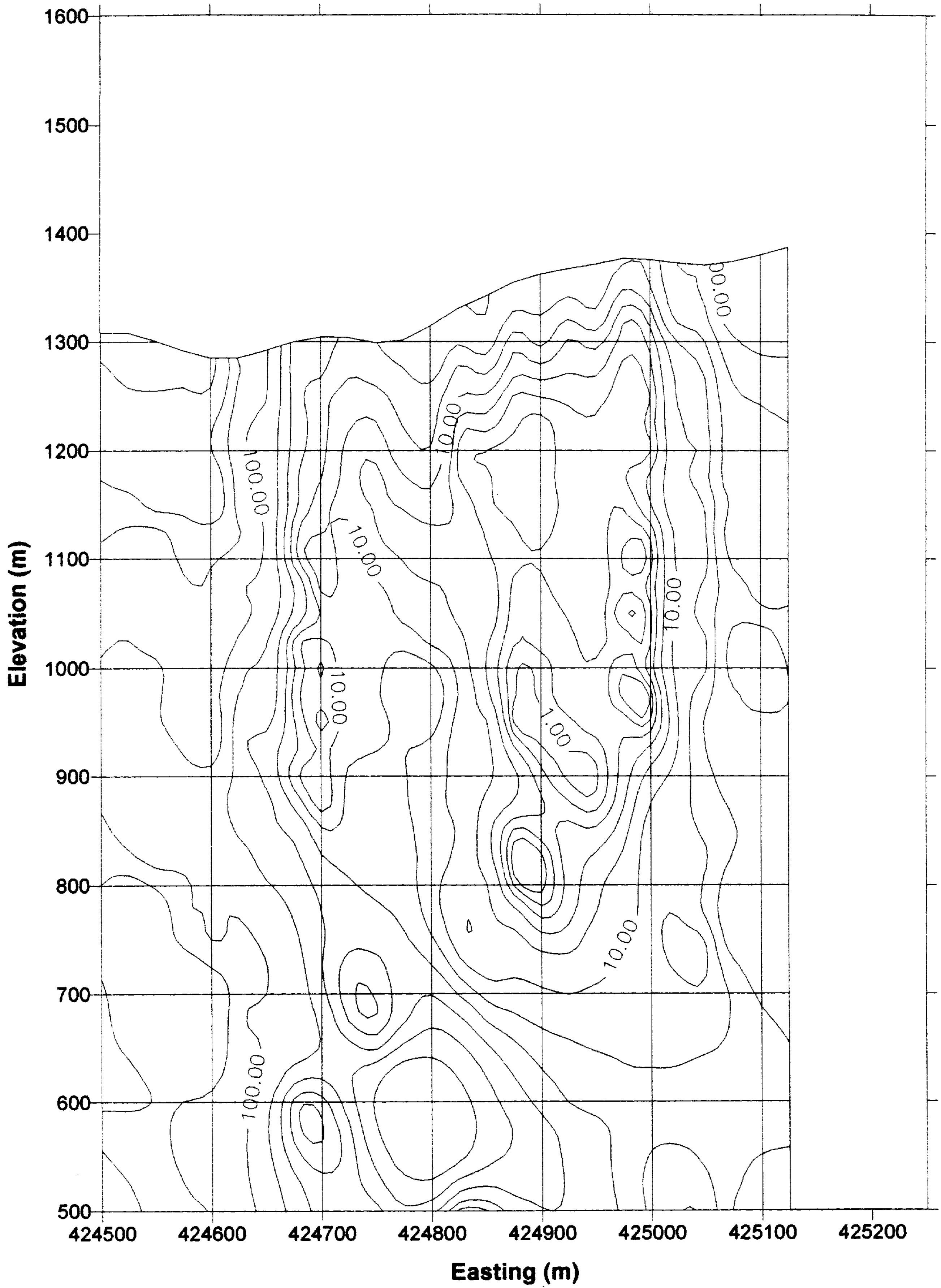
CSAMT Section 3275-N TE Mode

Scale: 1:5000

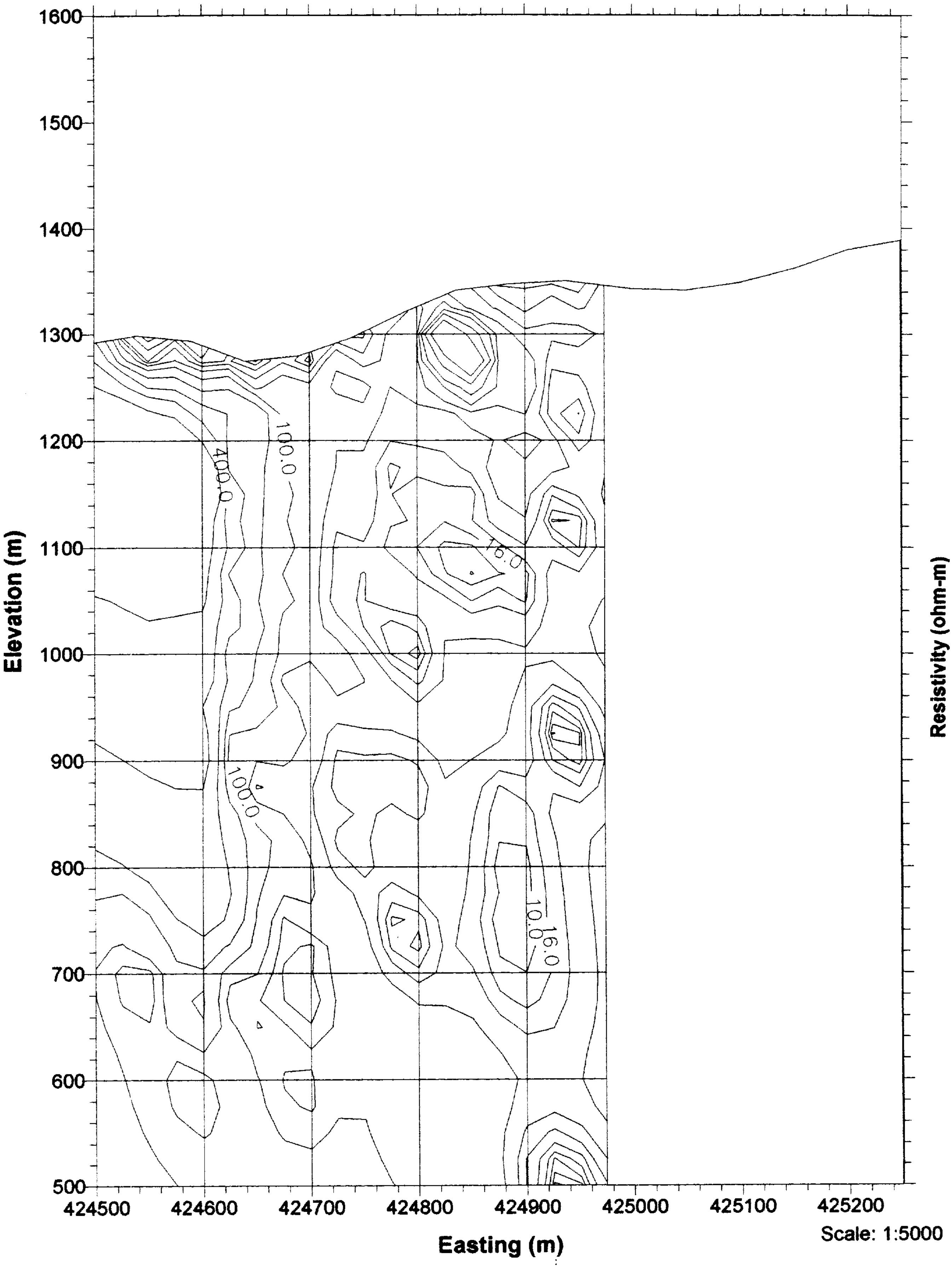


CSAMT Section 3325-N TE Mode

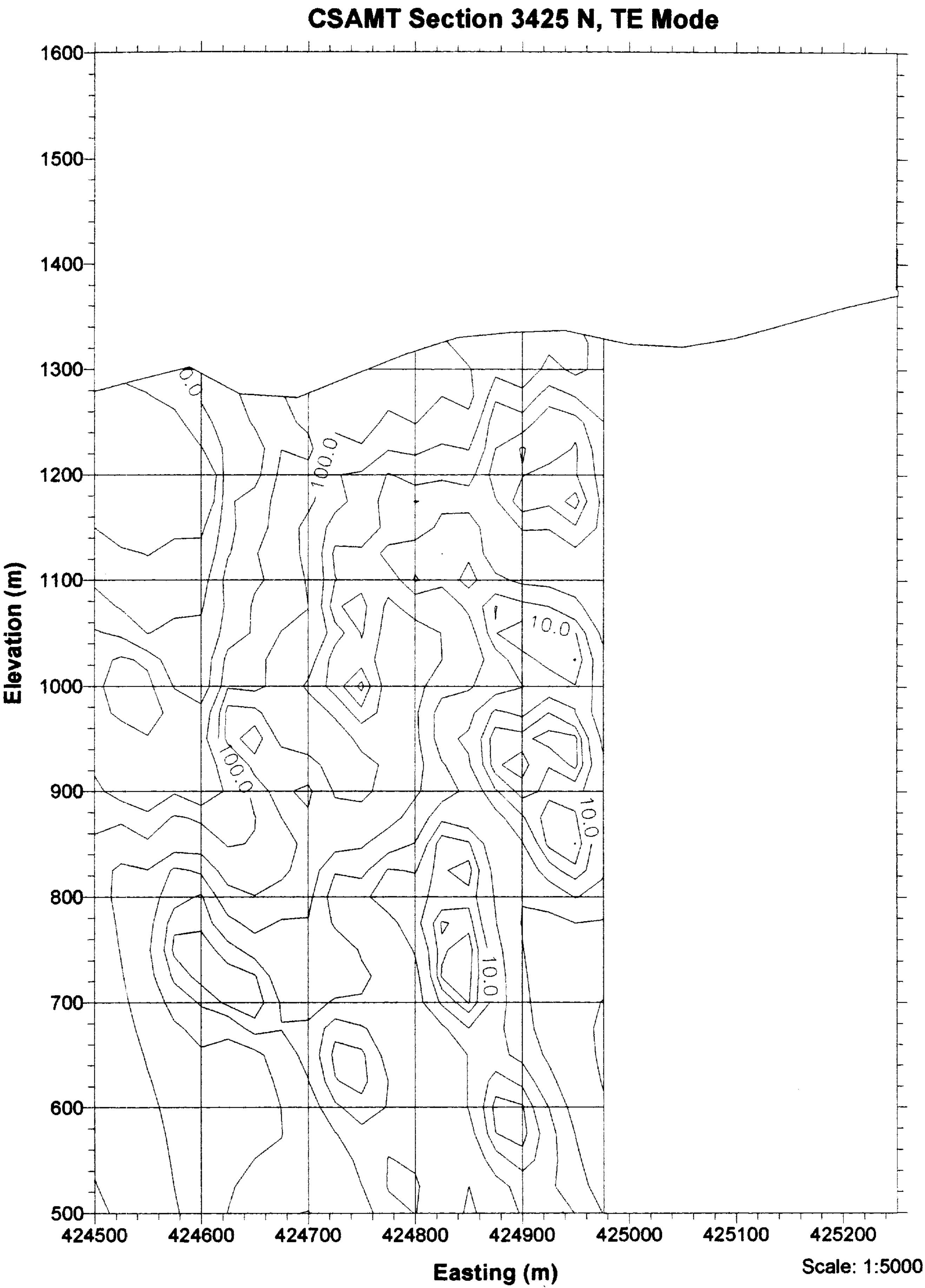
Scale: 1:5000



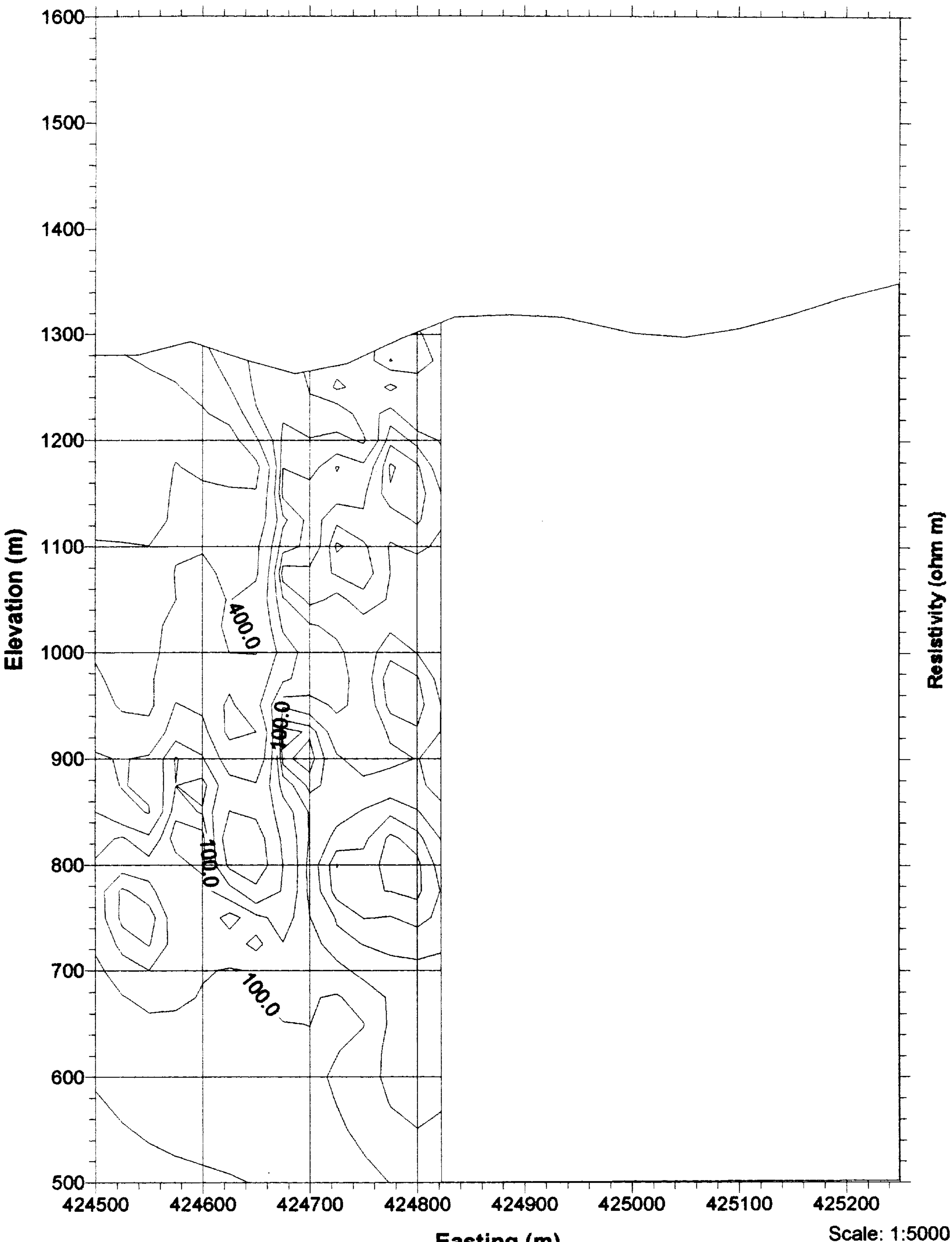
CSAMT Section 3375 N, TE Mode



Scale: 1:5000


CSAMT Section 3425 N, TE Mode
Elevation (m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
424500
424600
424700
424800
424900
425000
425100
425200
Easting (m)
Resistivity (ohm-m)
100.0
10.0
Scale: 1:5000

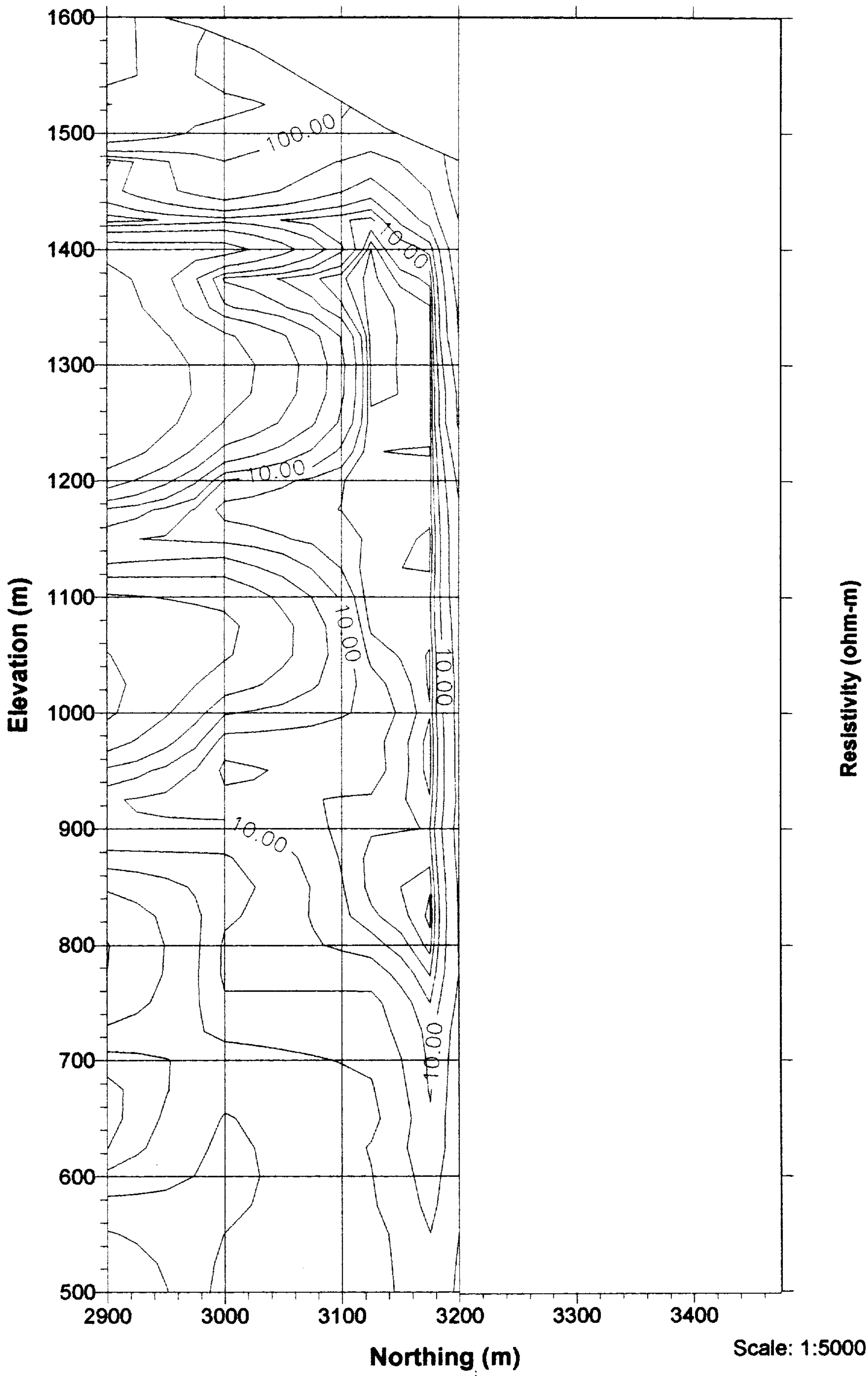
CSAMT Section 3475 N, TE Mode



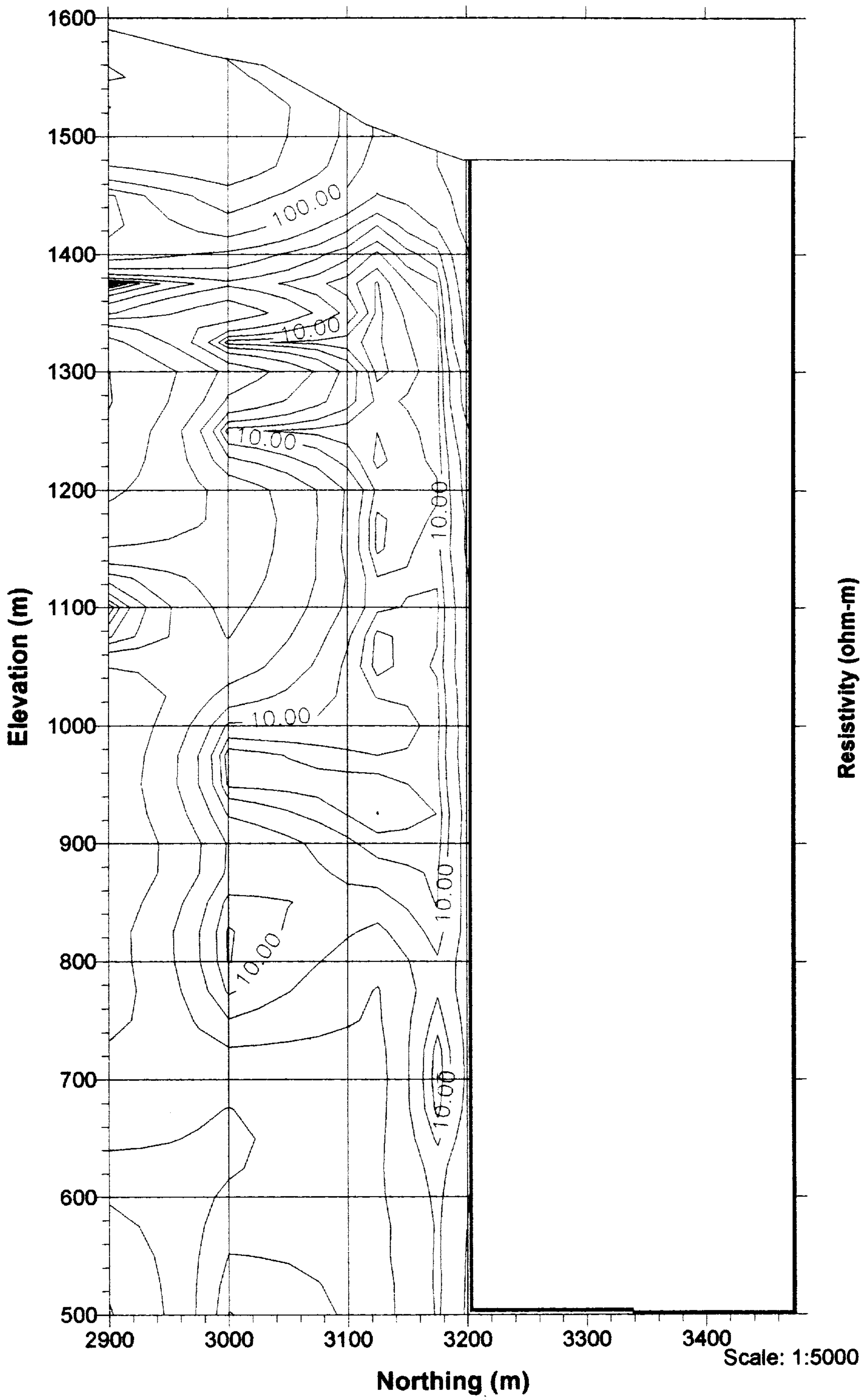
Scale: 1:5000

Appendix 5: TE Mode Bostick Transformations, North-South Sections

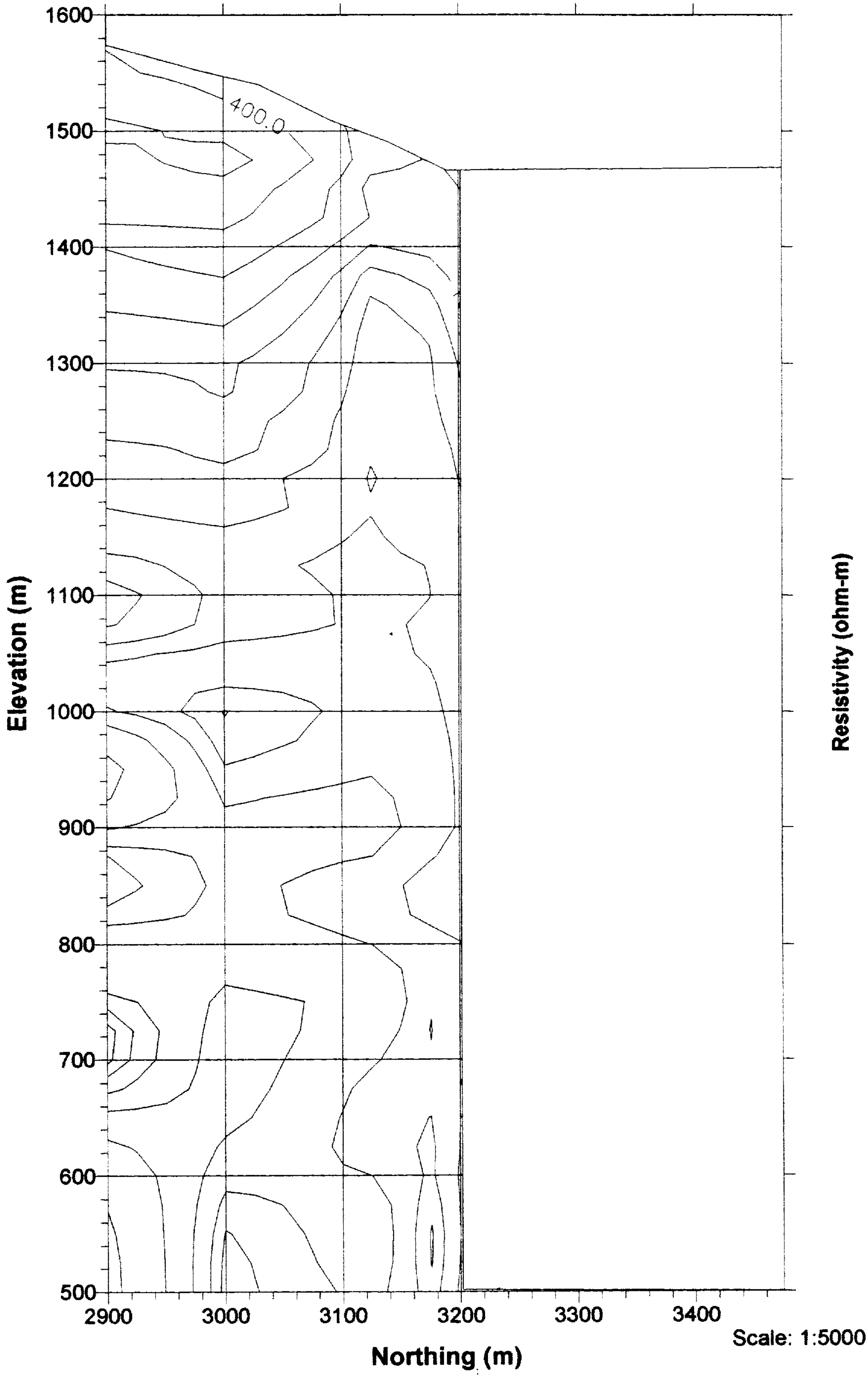
CSAMT Section 5250 E, TE Mode

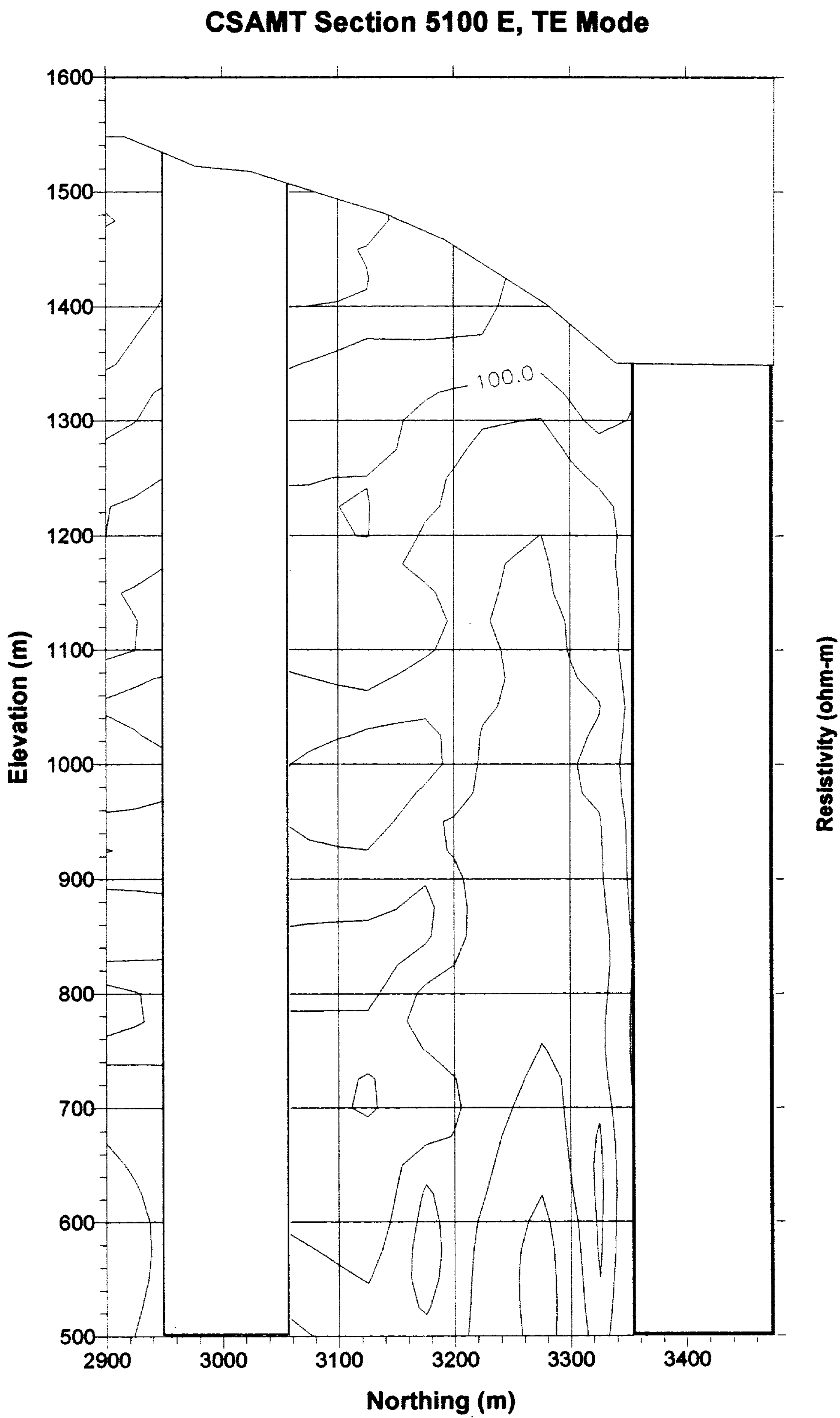


CSAMT Section 5200 E, TE Mode



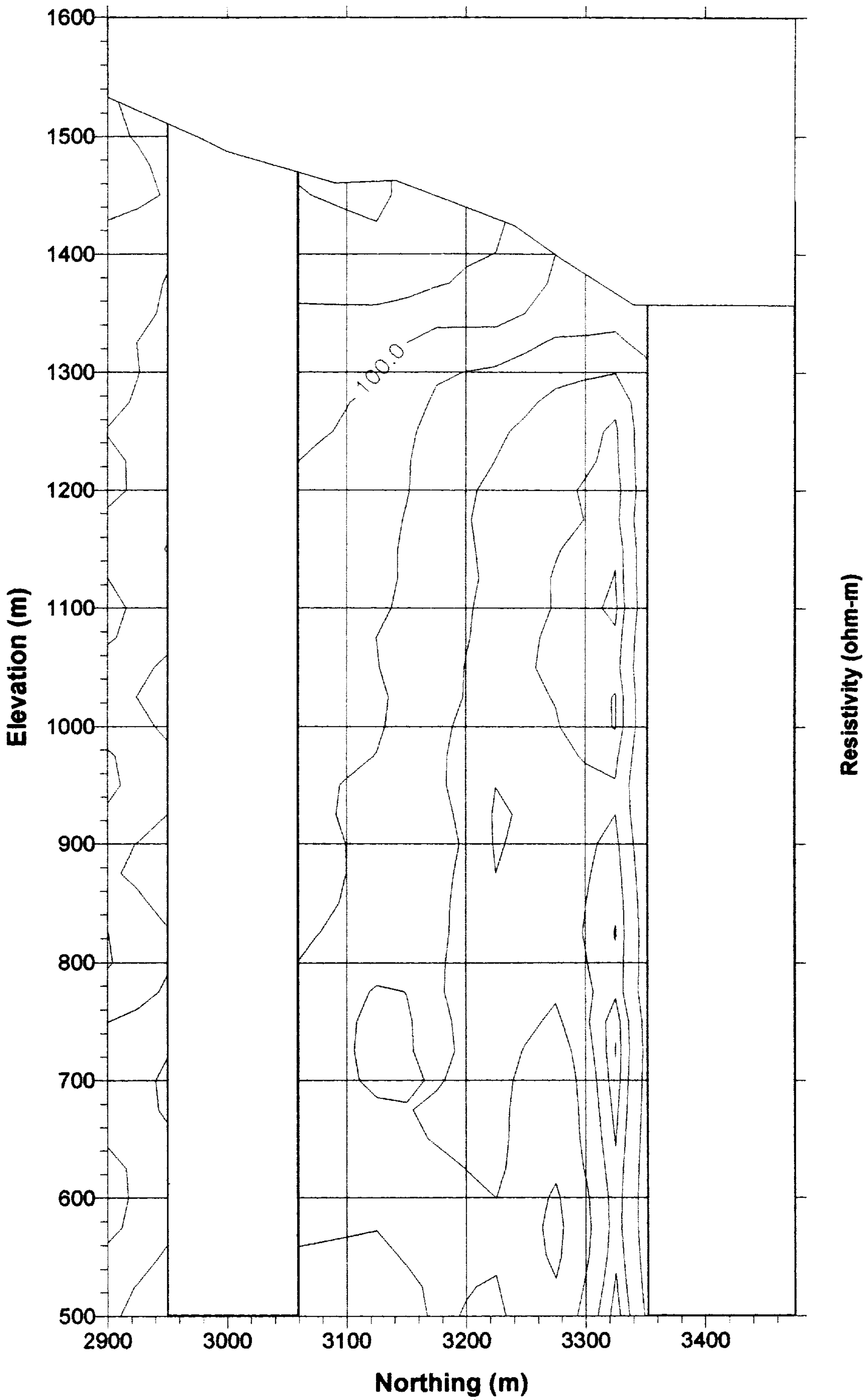
CSAMT Section 5150 E, TE Mode



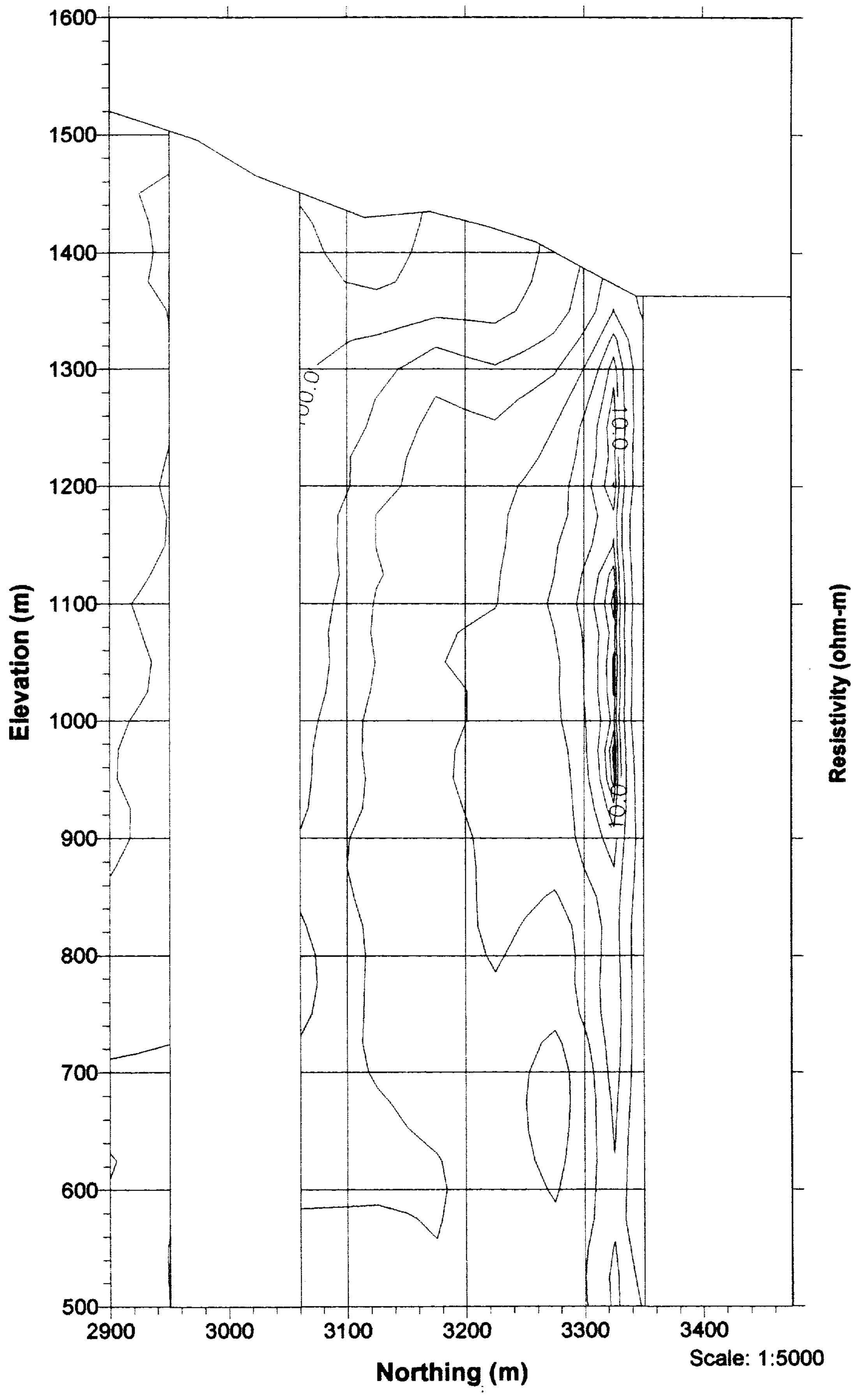


CSAMT Section 5100 E, TE Mode
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
Elevation (m)
100.0
2900
3000
3100
3200
3300
3400
Northing (m)
Resistivity (ohm-m)

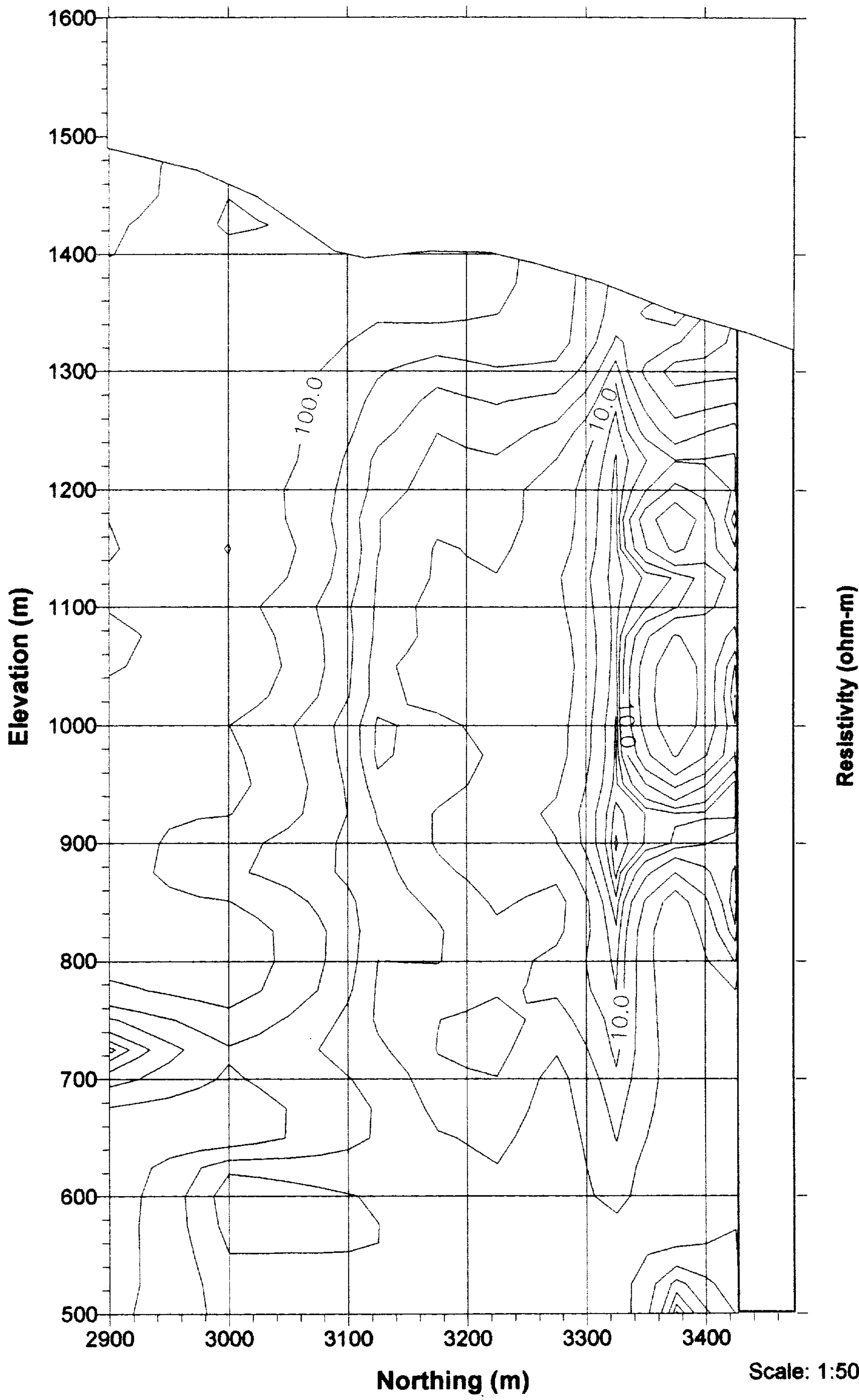
CSAMT Section 5050 E, TE Mode



CSAMT Section 5000 E, TE Mode

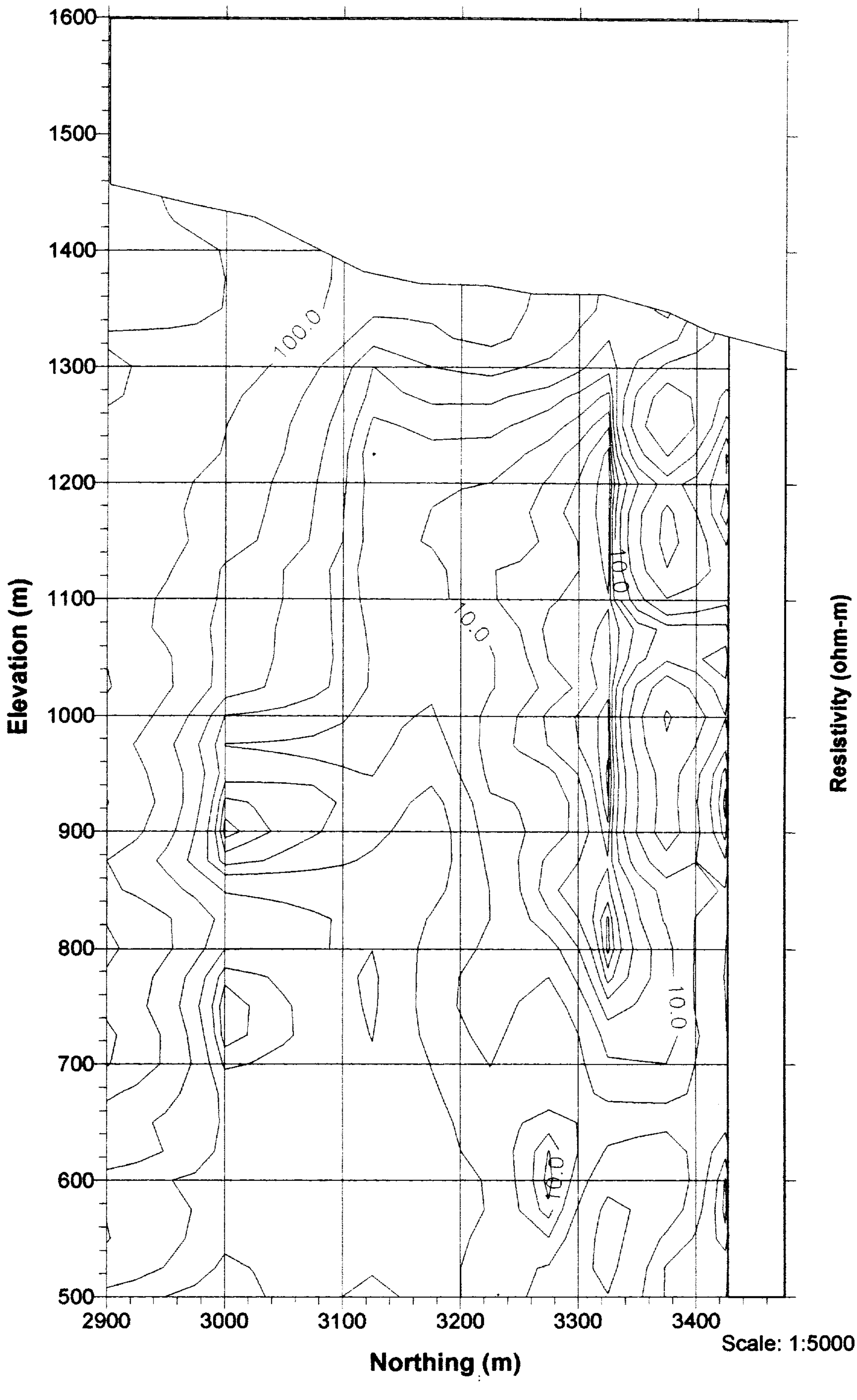


CSAMT Section 4950 E, TE Mode

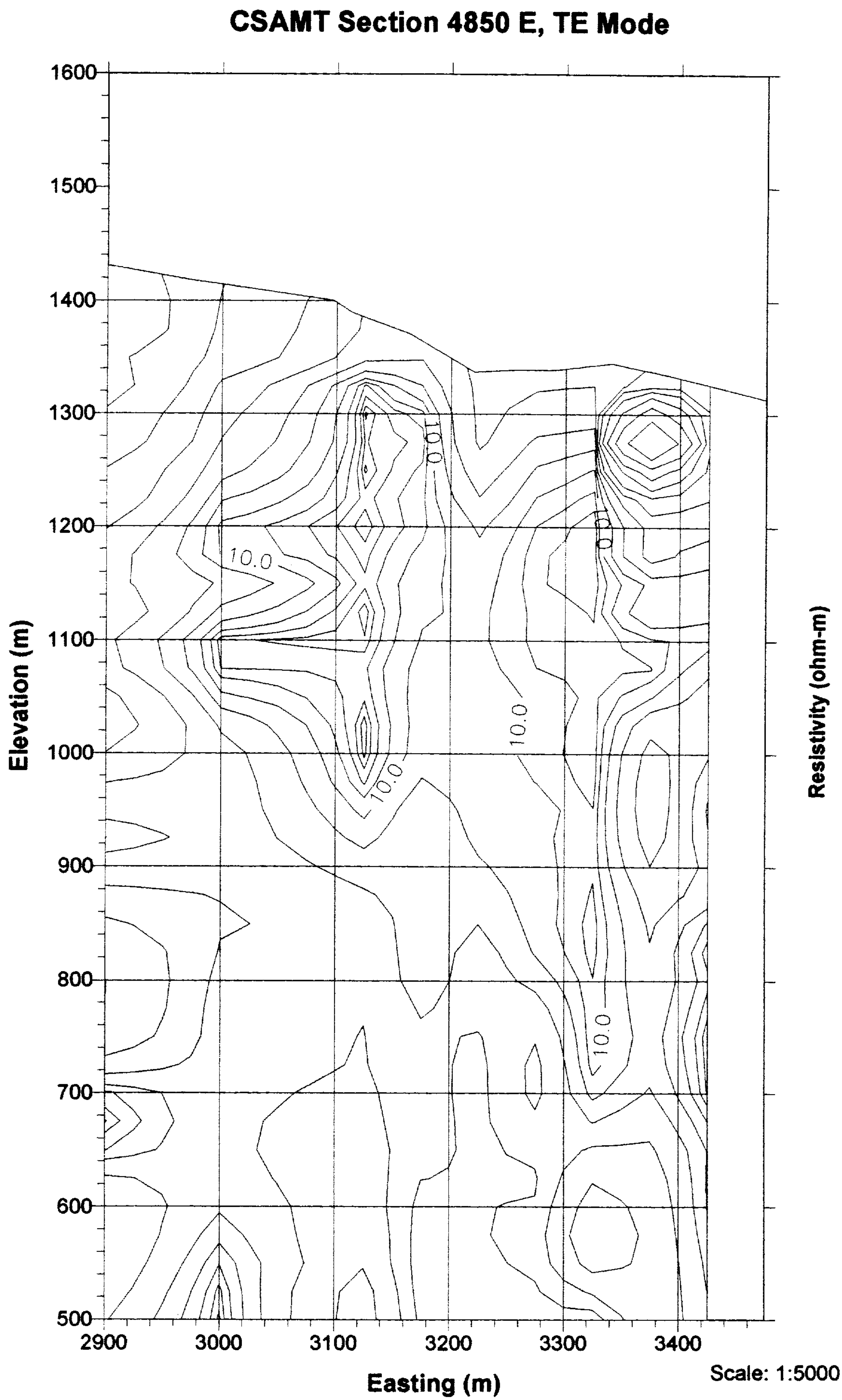


Scale: 1:5000

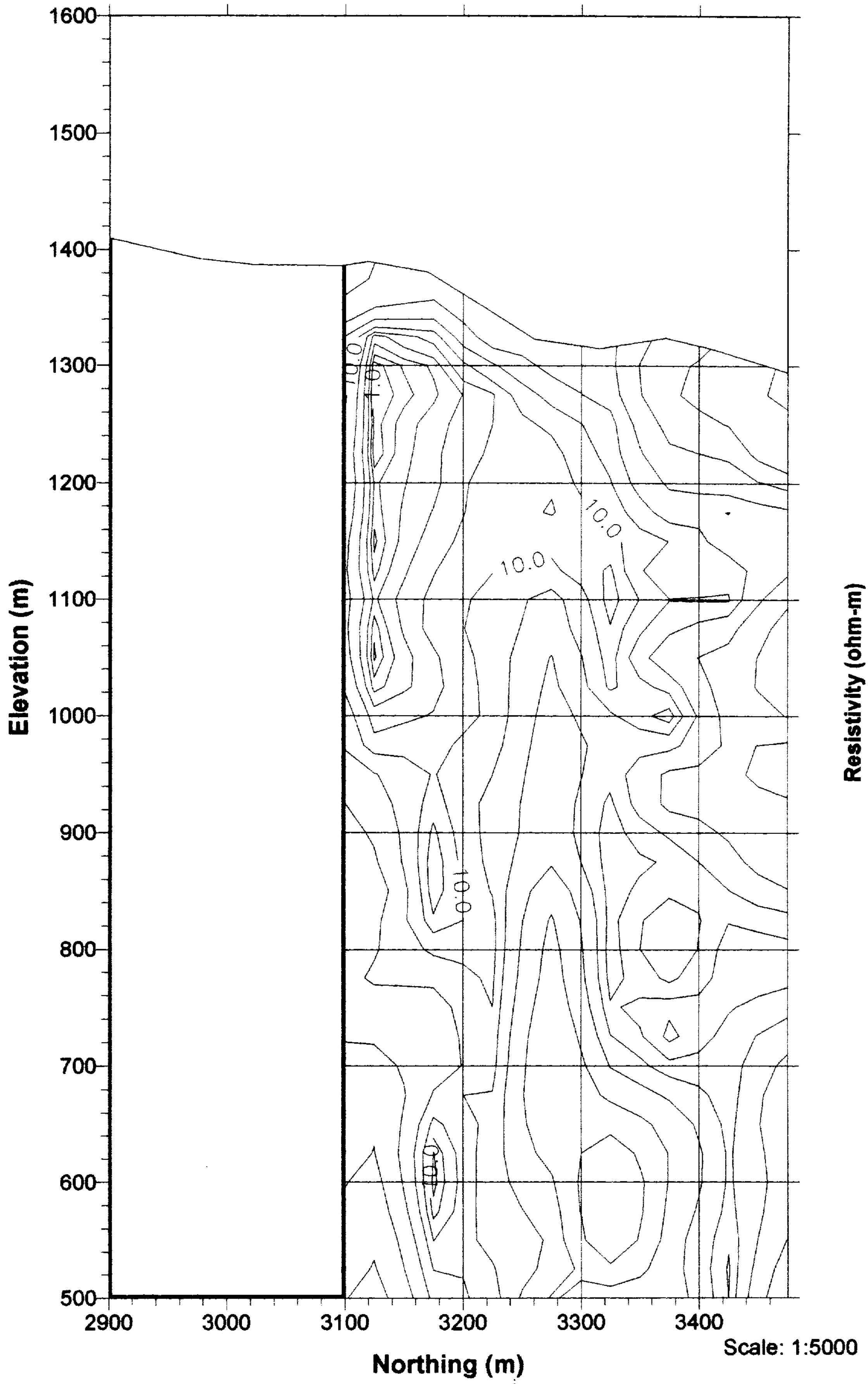
CSAMT Section 4900 E, TE Mode



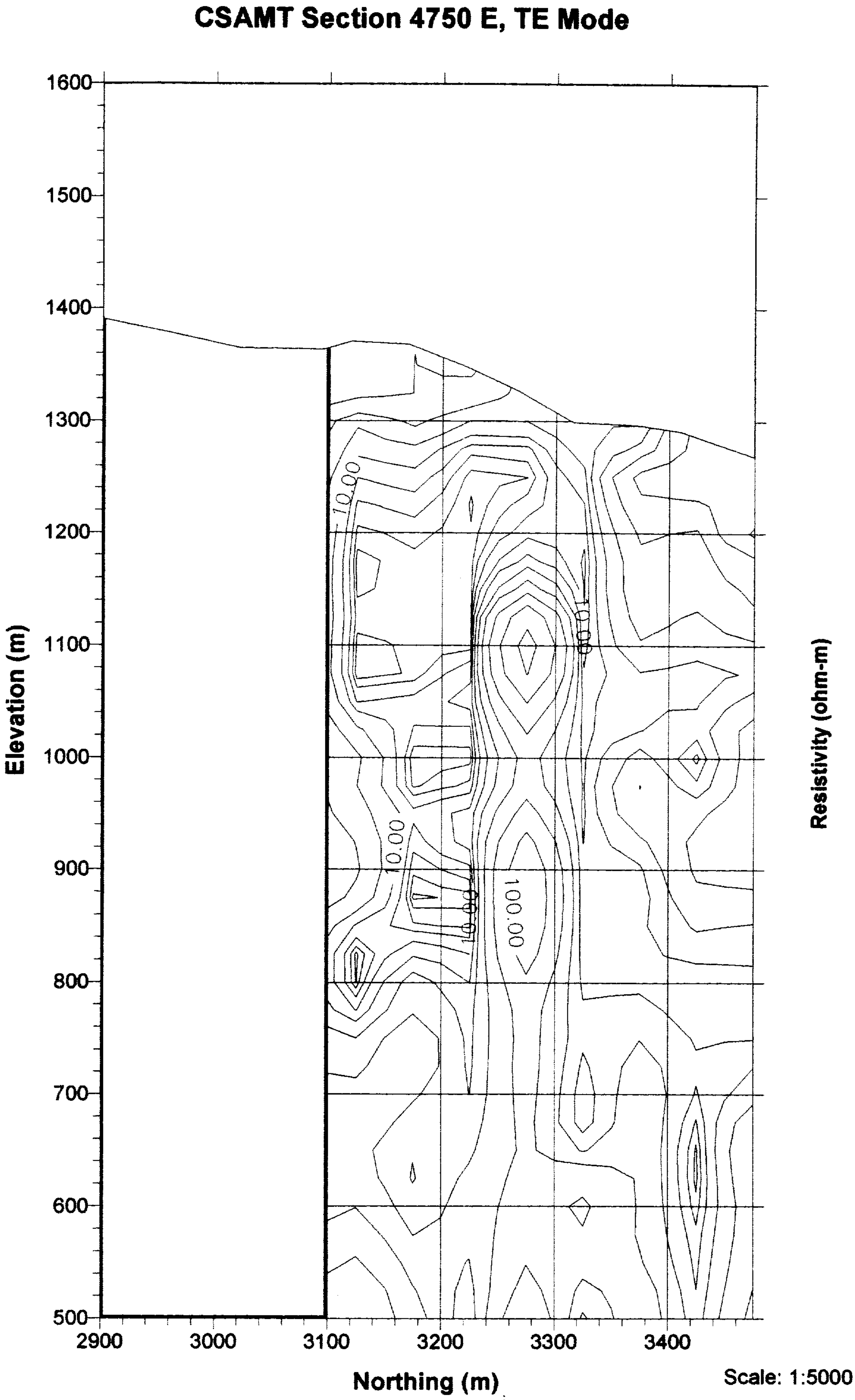
Scale: 1:5000


CSAMT Section 4850 E, TE Mode
Elevation (m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
2900
3000
3100
3200
3300
3400
Easting (m)
Resistivity (ohm-m)
10.0
Scale: 1:5000

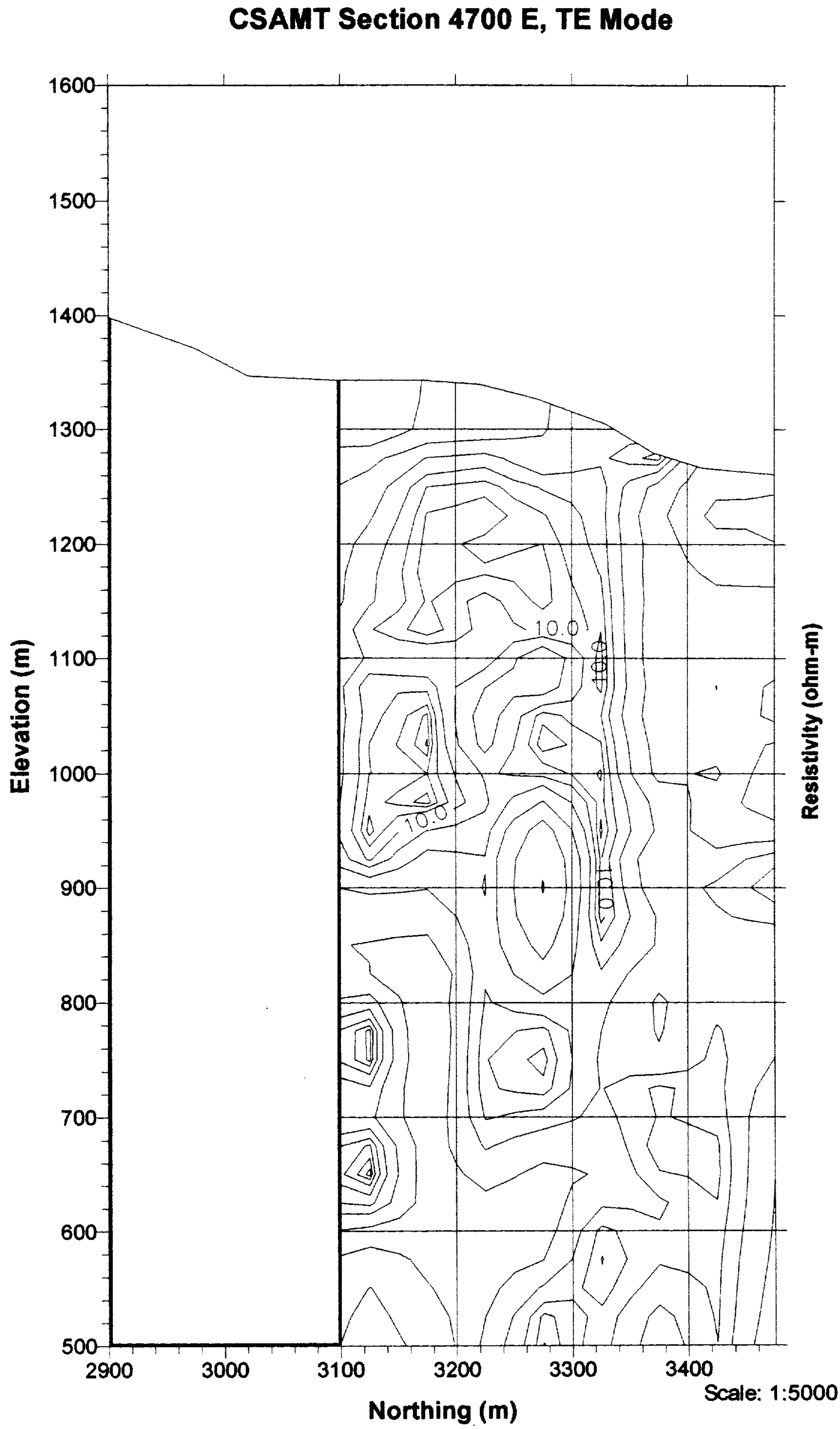
CSAMT Section 4800 E, TE Mode



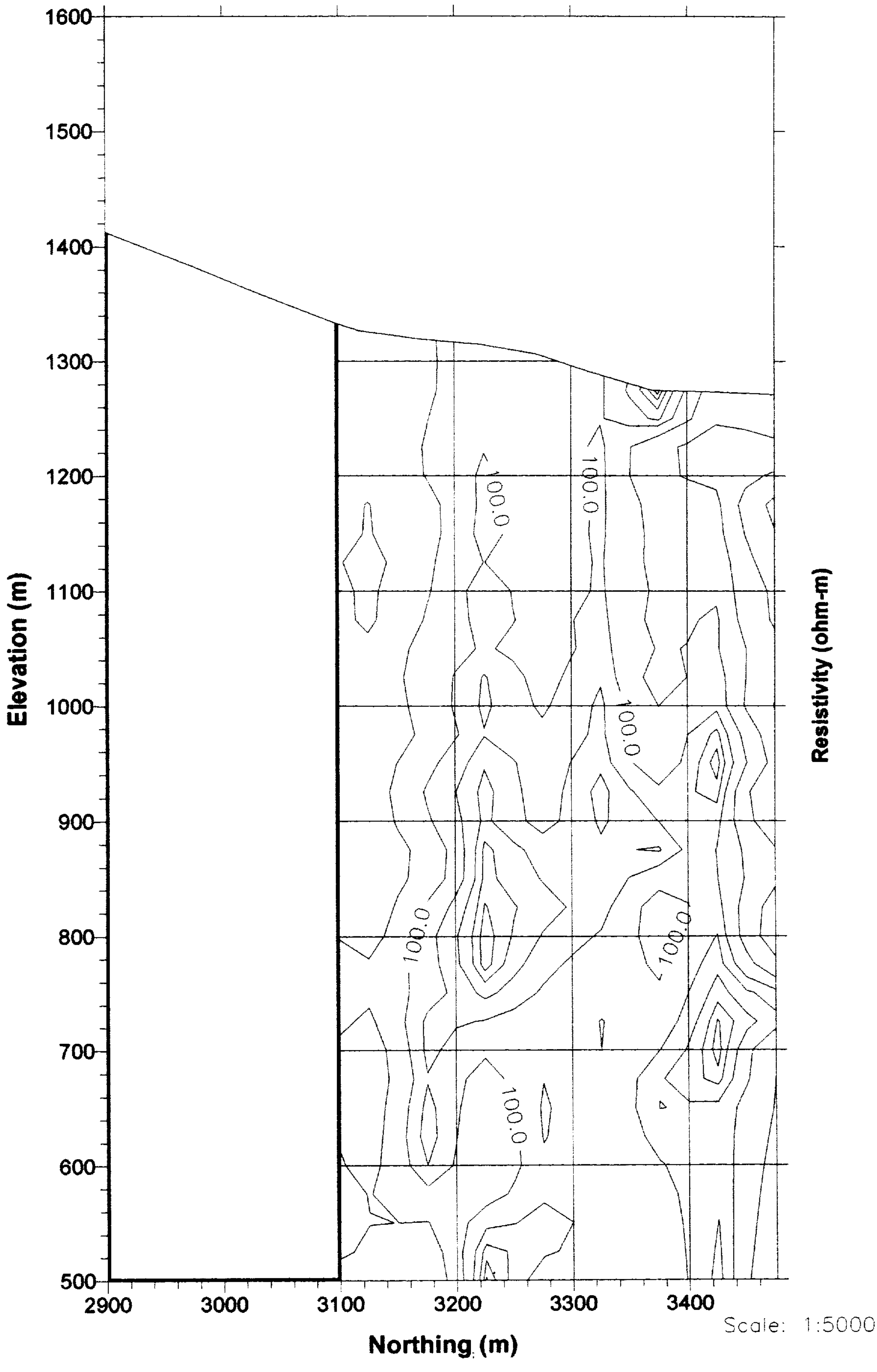
Scale: 1:5000

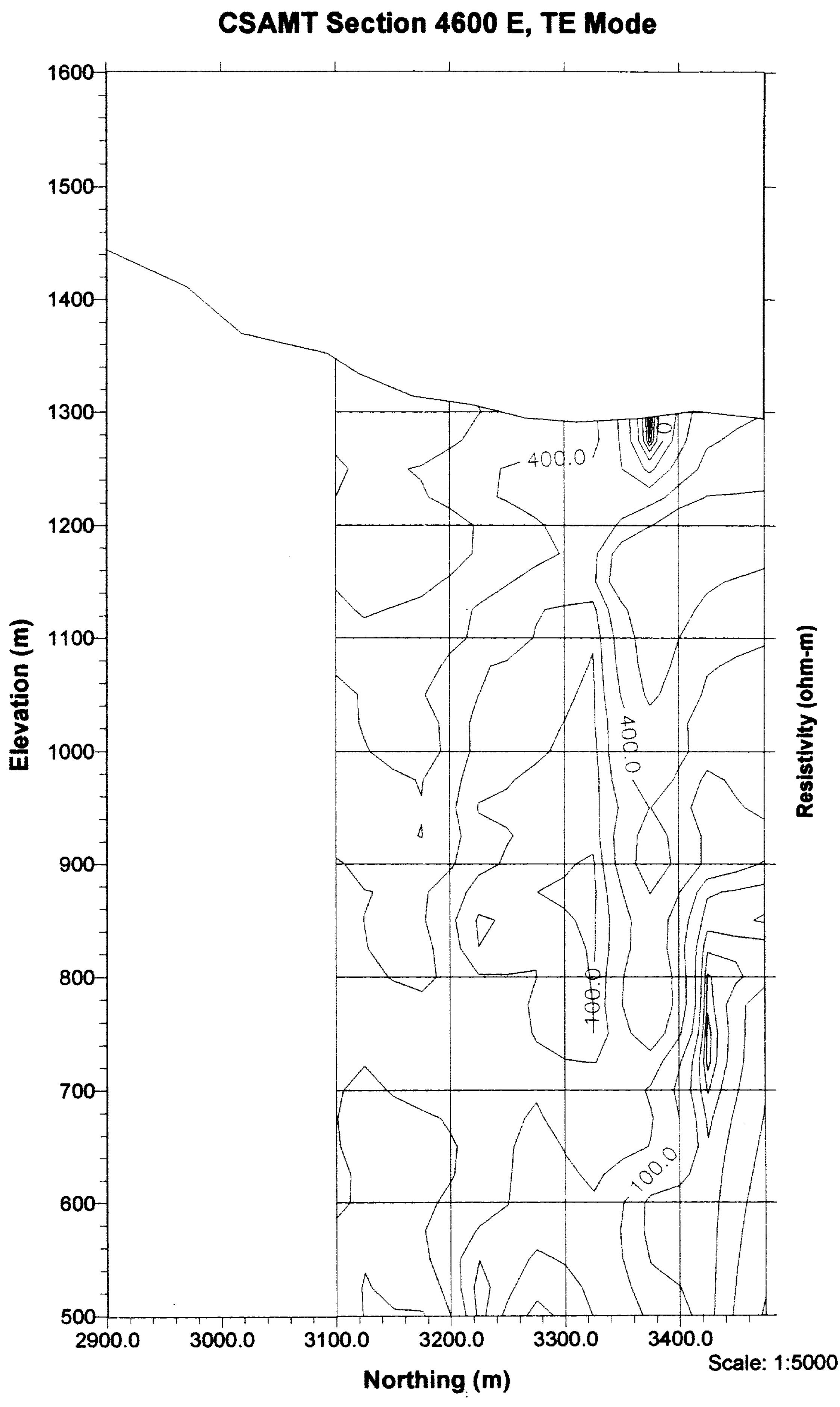


CSAMT Section 4750 E, TE Mode
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
Elevation (m)
10.00
10.00
10.00
100.00
1.00
2900
3000
3100
3200
3300
3400
Northing (m)
Resistivity (ohm-m)
Scale: 1:5000

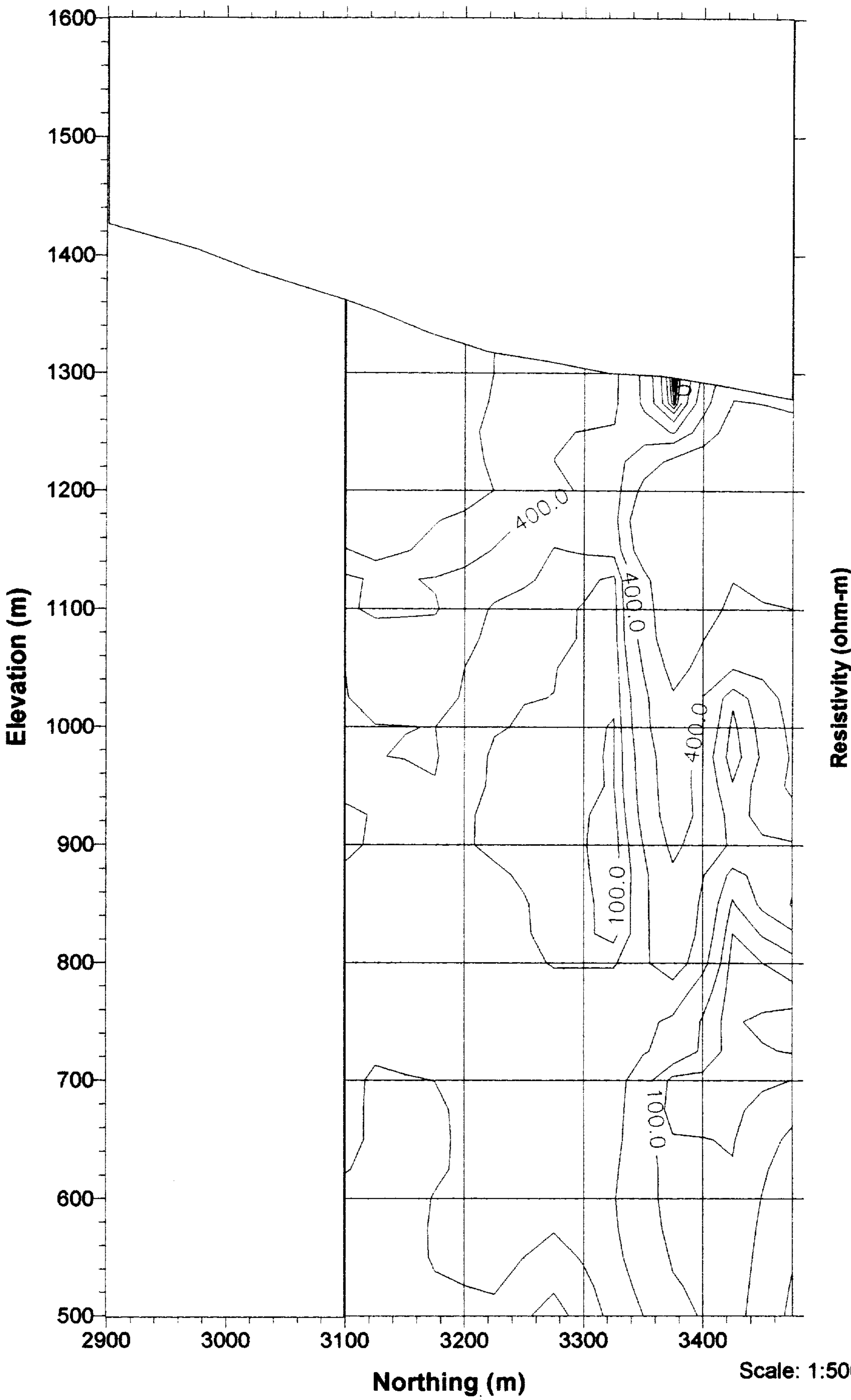

CSAMT Section 4700 E, TE Mode
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
Elevation (m)
10.0
100
10.0
100
Resistivity (ohm-m)
2900
3000
3100
3200
3300
3400
Northing (m)
Scale: 1:5000

CSAMT Section 4650 E, TE Mode




CSAMT Section 4600 E, TE Mode
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
Elevation (m)
400.0
400.0
100.0
100.0
Resistivity (ohm-m)
2900.0
3000.0
3100.0
3200.0
3300.0
3400.0
Northing (m)
Scale: 1:5000

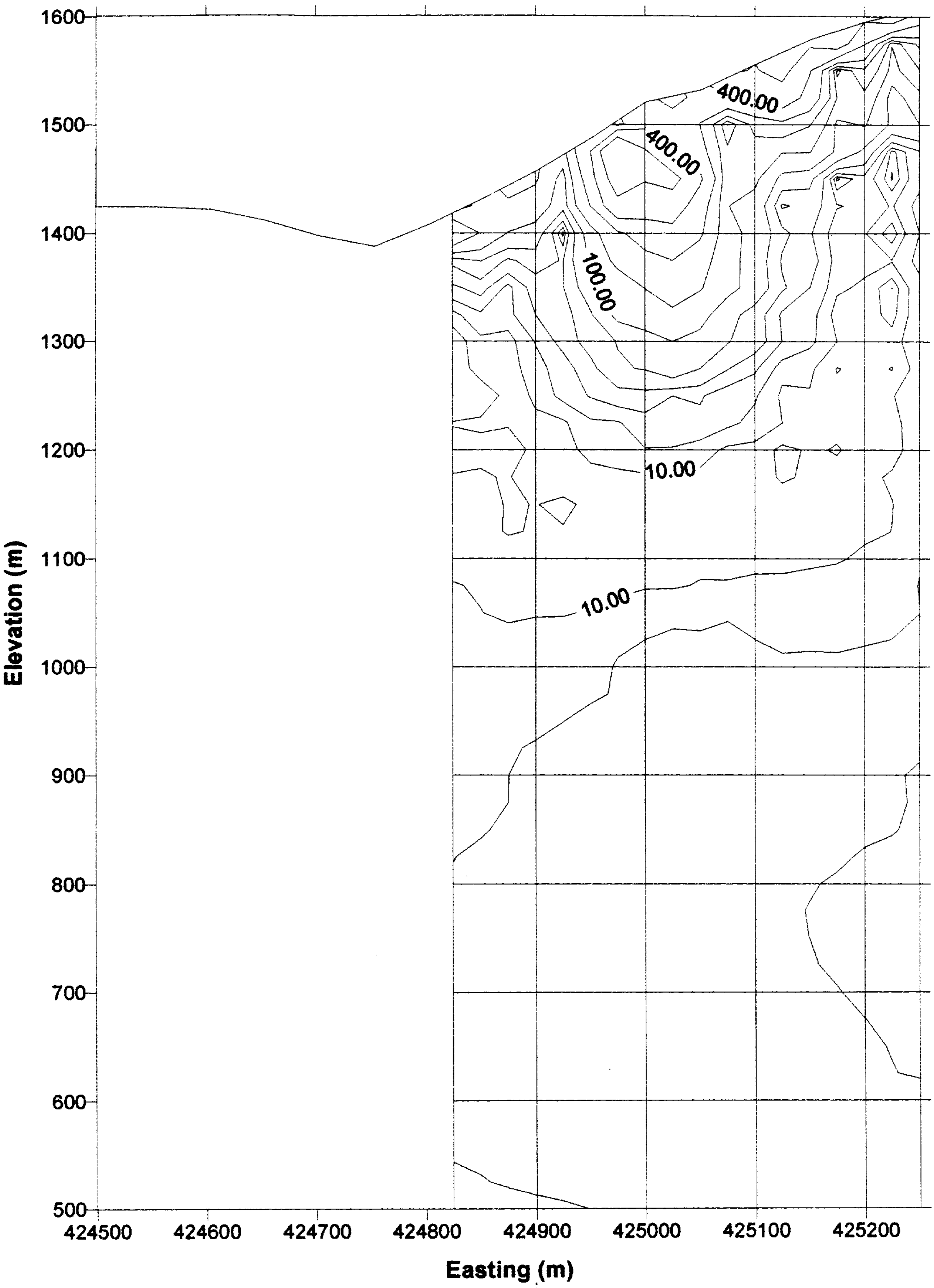
CSAMT Section 4550 E, TE Mode

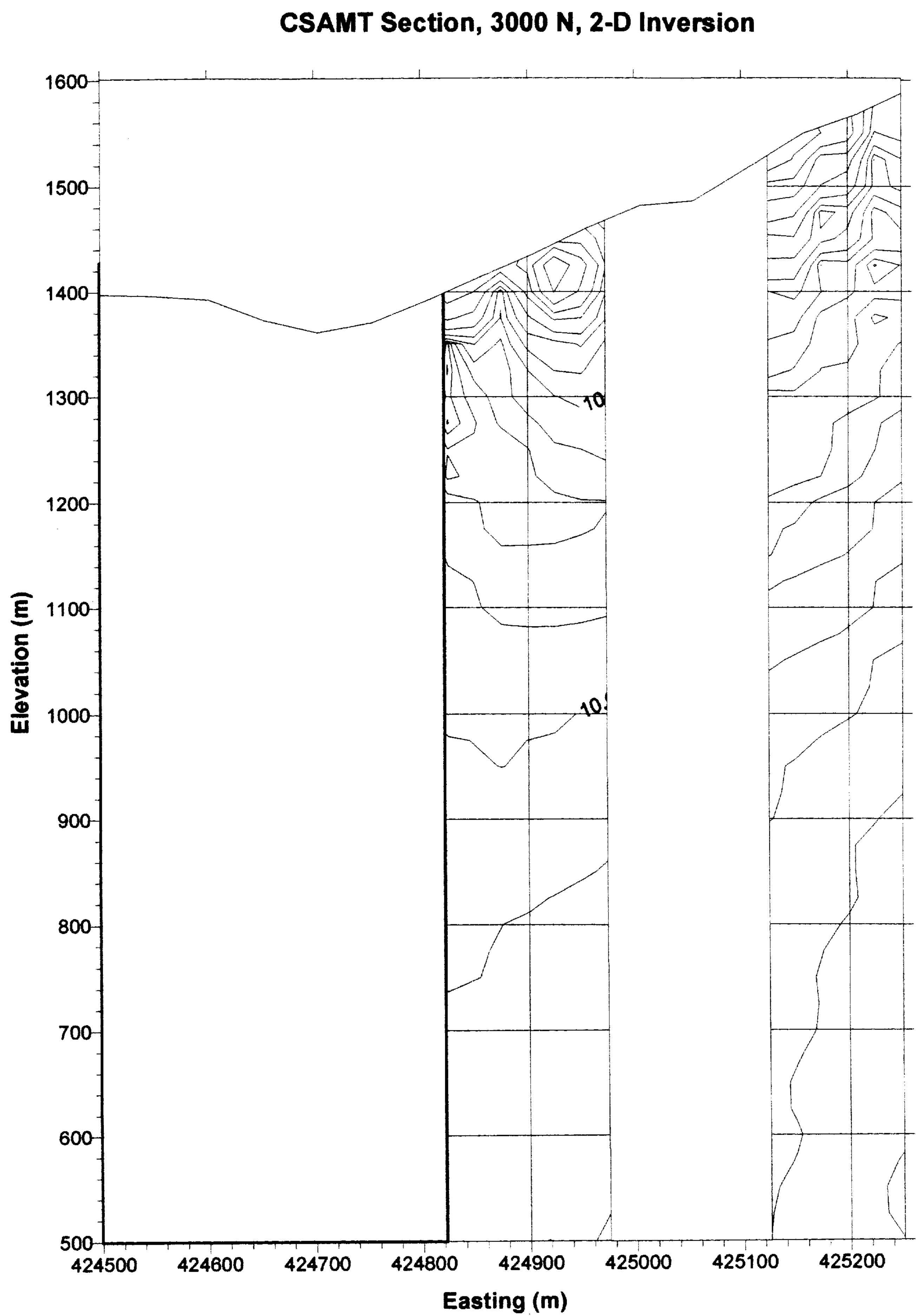


Scale: 1:5000

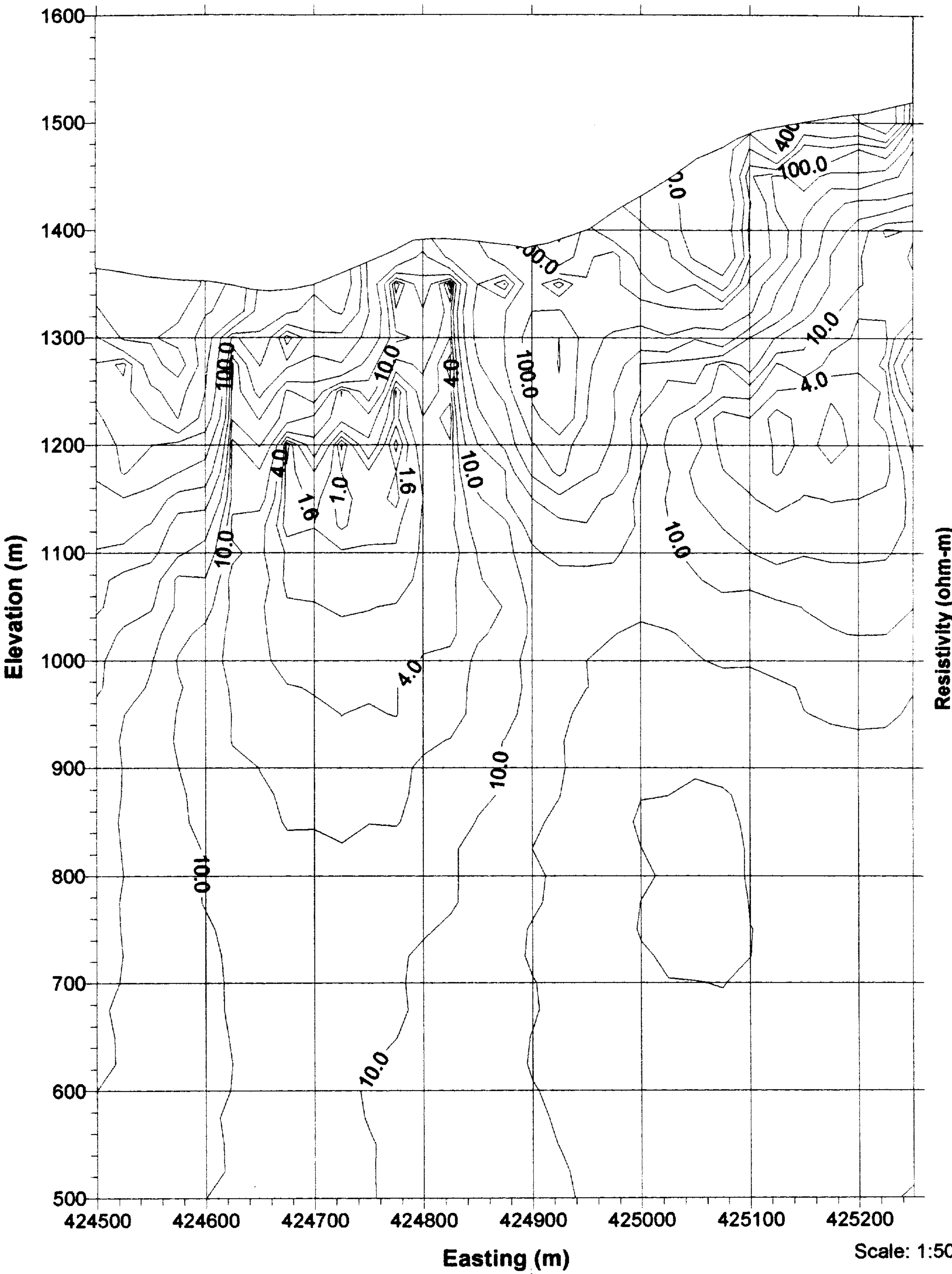
Appendix 6: Two-dimensional Inversions, East-West Sections

CSAMT Section 2900 N, 2-D Inversion

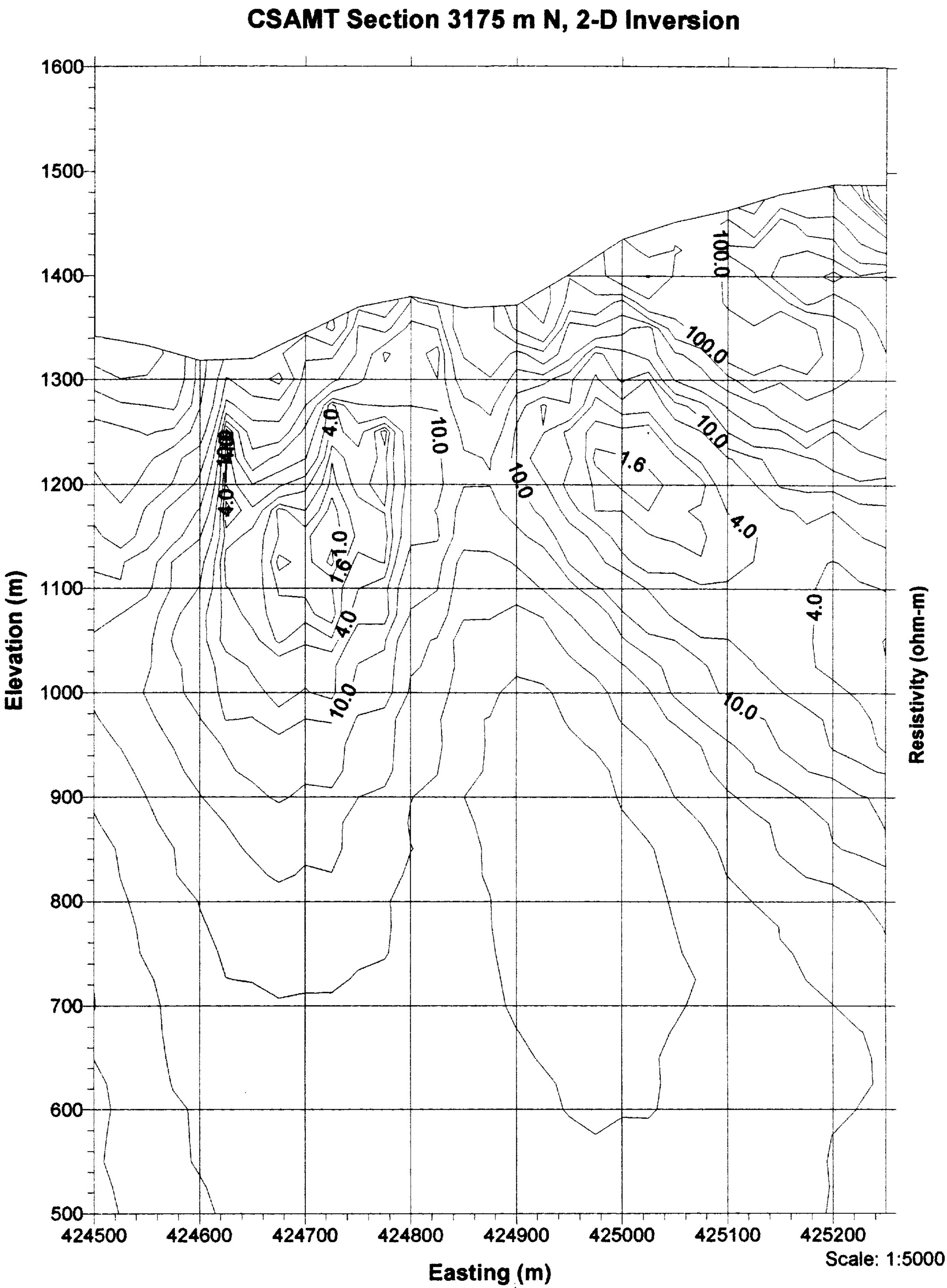



CSAMT Section, 3000 N, 2-D Inversion
Elevation (m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
424500
424600
424700
424800
424900
425000
425100
425200
Easting (m)

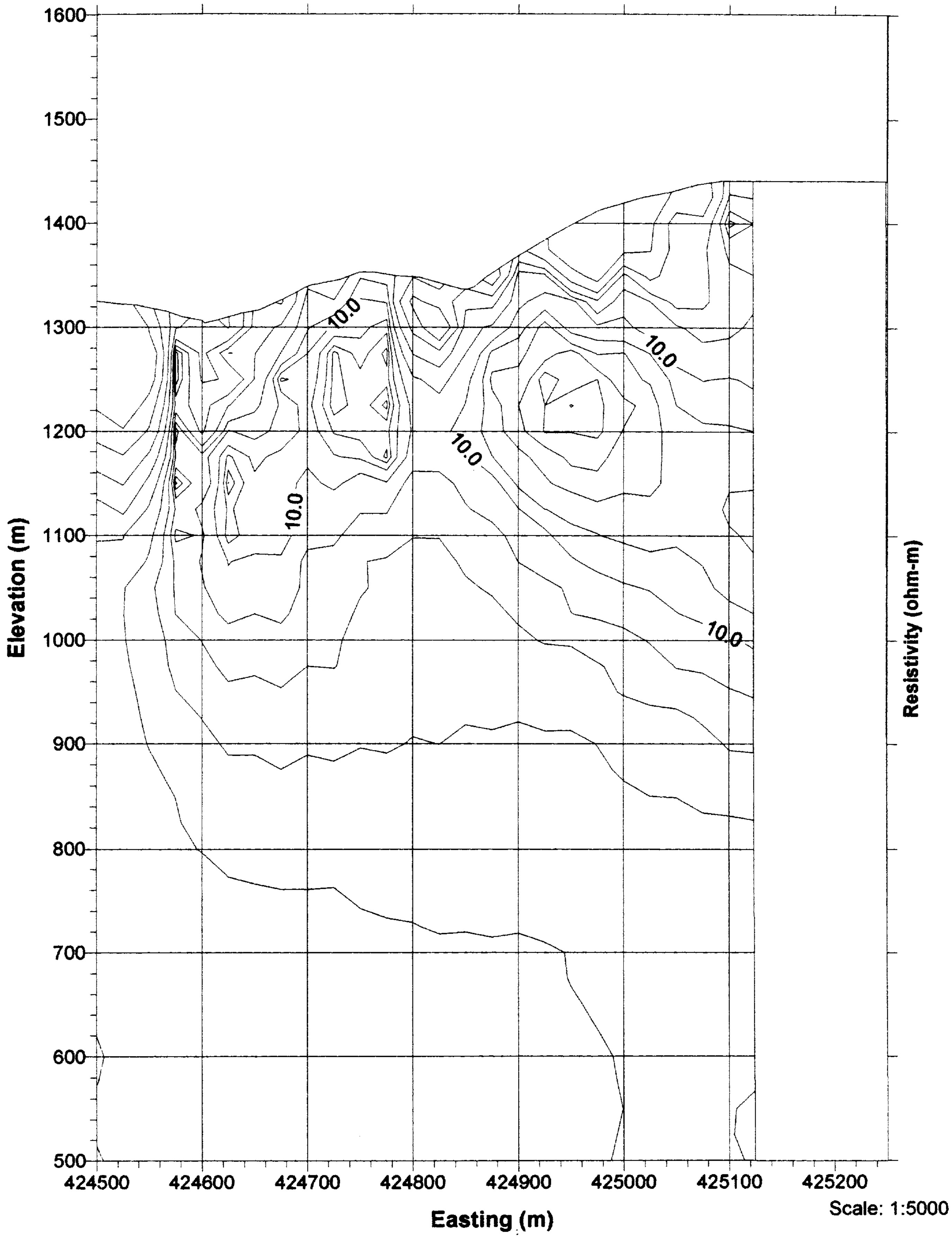
CSAMT Section 3125 N, 2-D Inversion



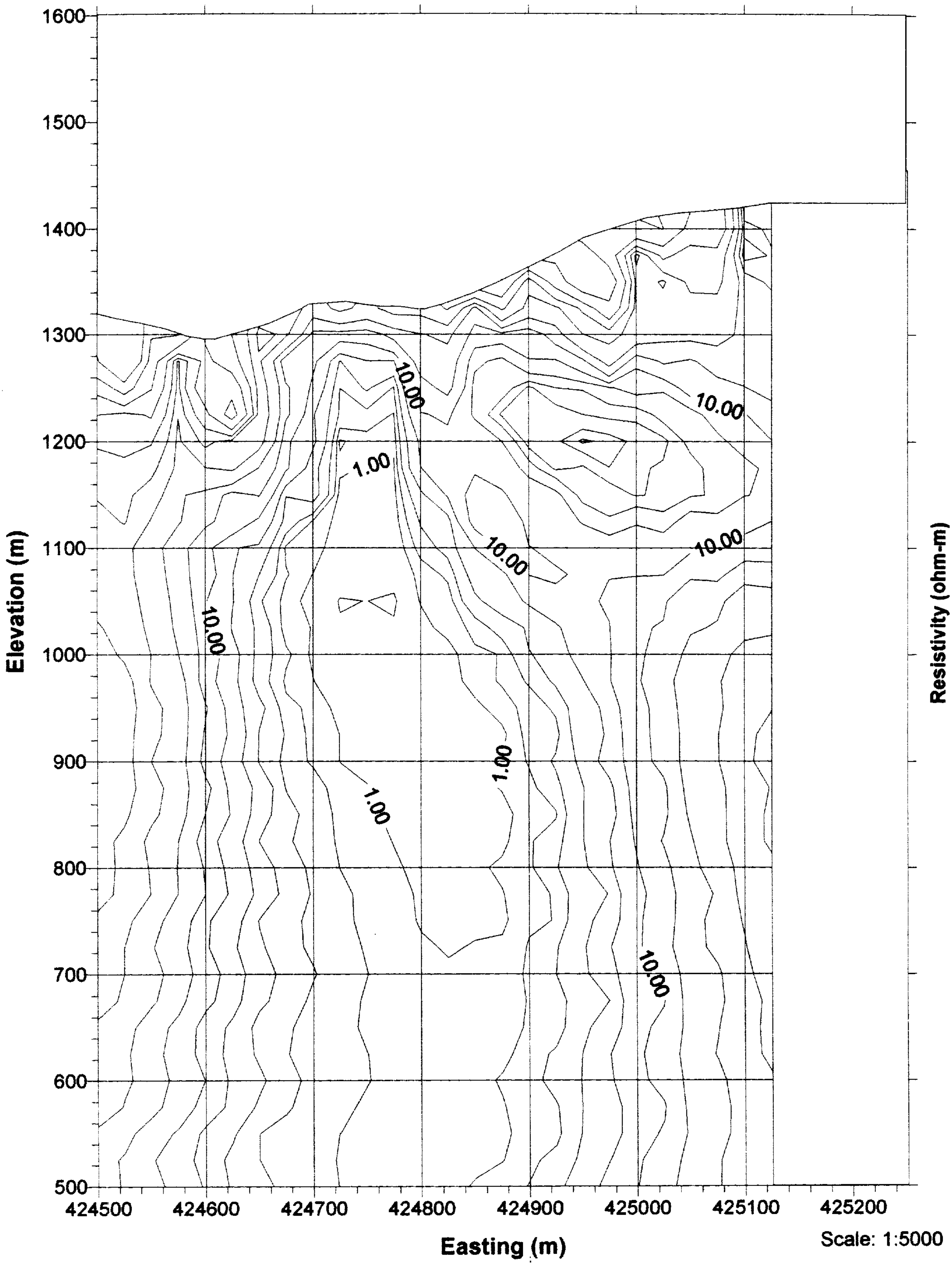
Scale: 1:5000


CSAMT Section 3175 m N, 2-D Inversion
Elevation (m)
Easting (m)
Resistivity (ohm-m)
Scale: 1:5000
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
424500
424600
424700
424800
424900
425000
425100
425200
100.0
10.0
1.6
4.0
1.0

CSAMT Section 3225 N, 2-D Inversion

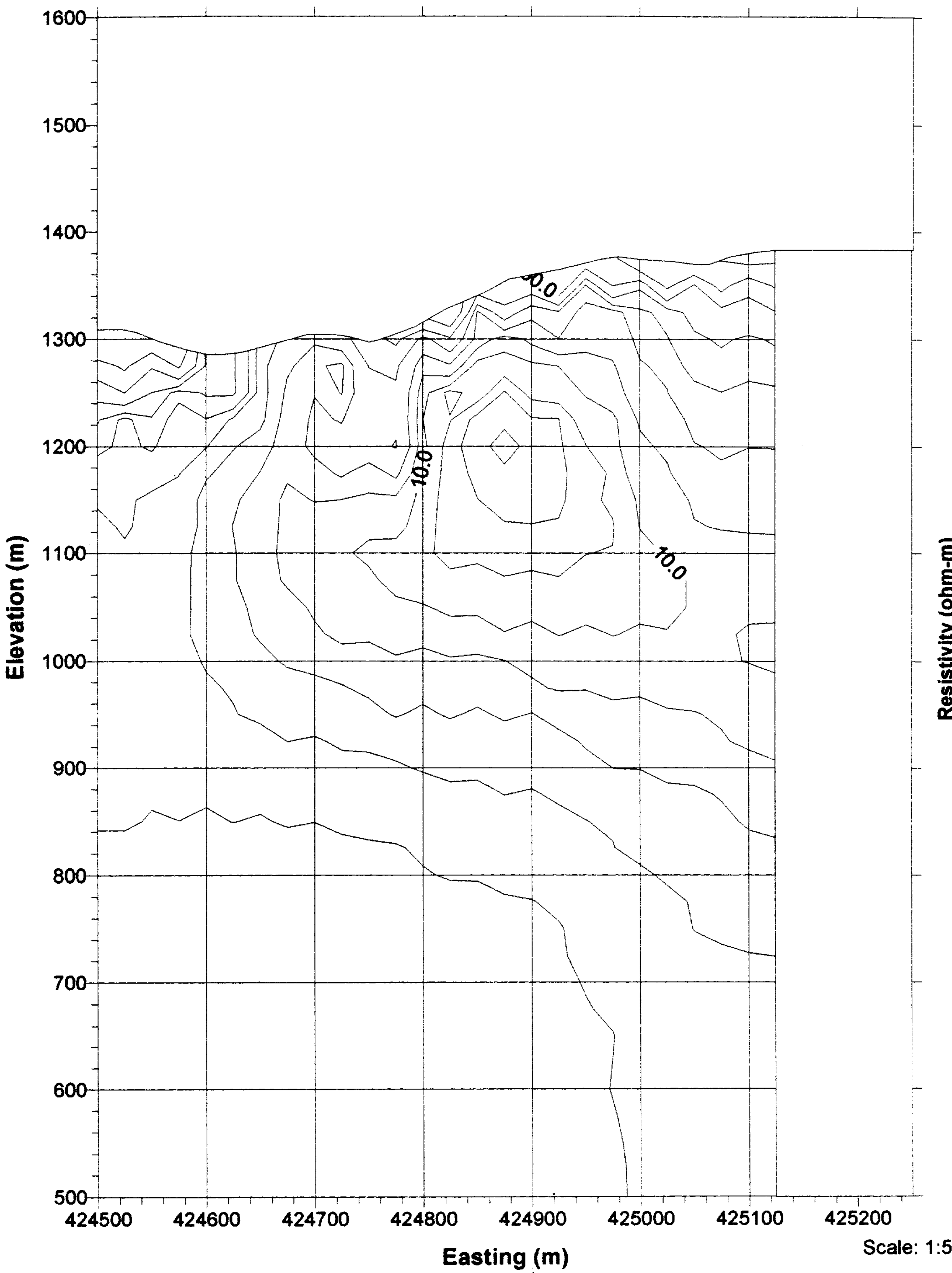


CSAMT Section 3275 N, 2-D Inversion

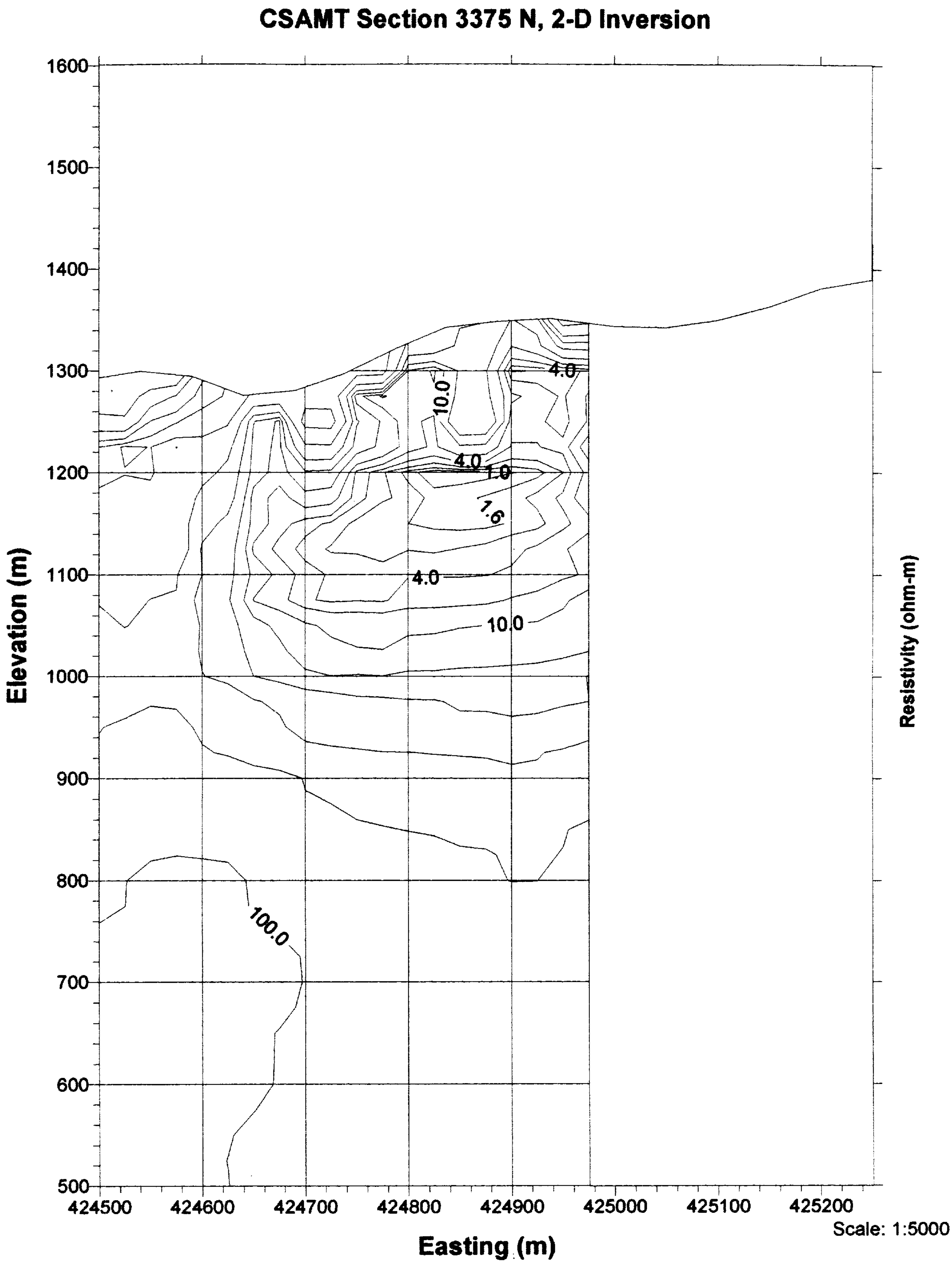


Scale: 1:5000

CSAMT Section 3325 N, 2-D Inversion

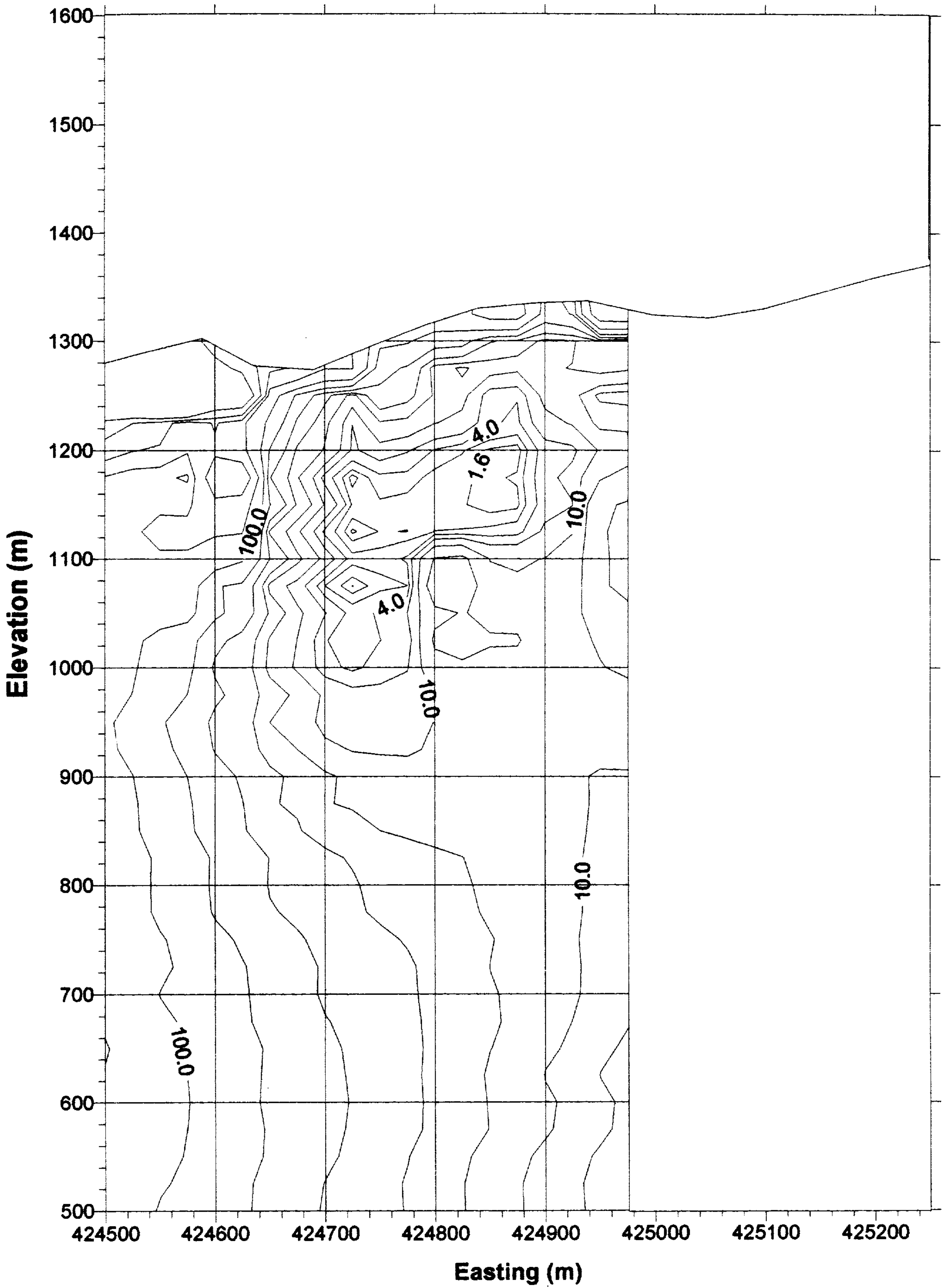


Scale: 1:5000

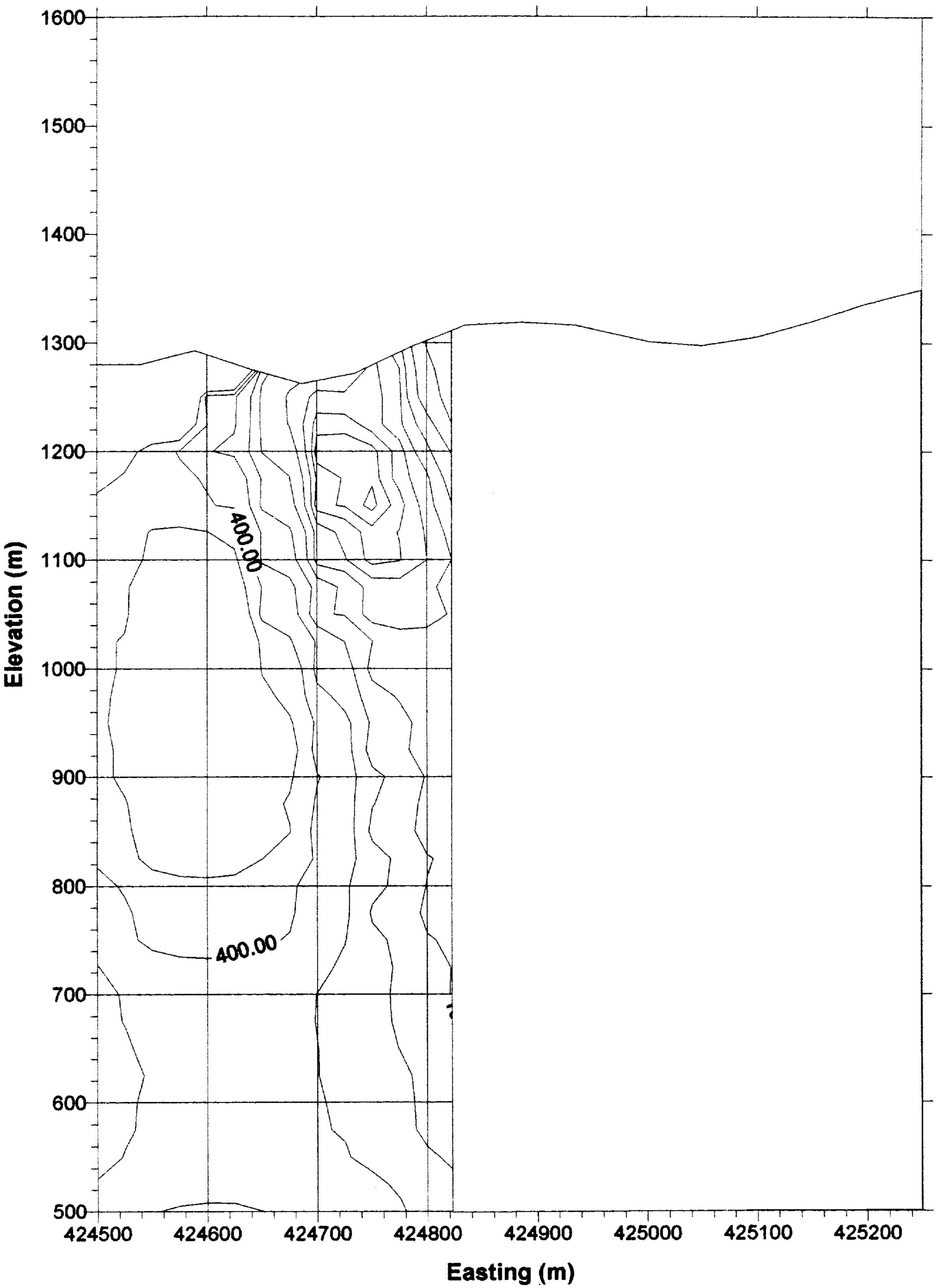


CSAMT Section 3375 N, 2-D Inversion
Elevation (m)
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
424500
424600
424700
424800
424900
425000
425100
425200
Easting (m)
Resistivity (ohm-m)
4.0
10.0
4.0
1.0
1.6
4.0
10.0
100.0
Scale: 1:5000

CSAMT Section 3425 N, 2-D Inversion

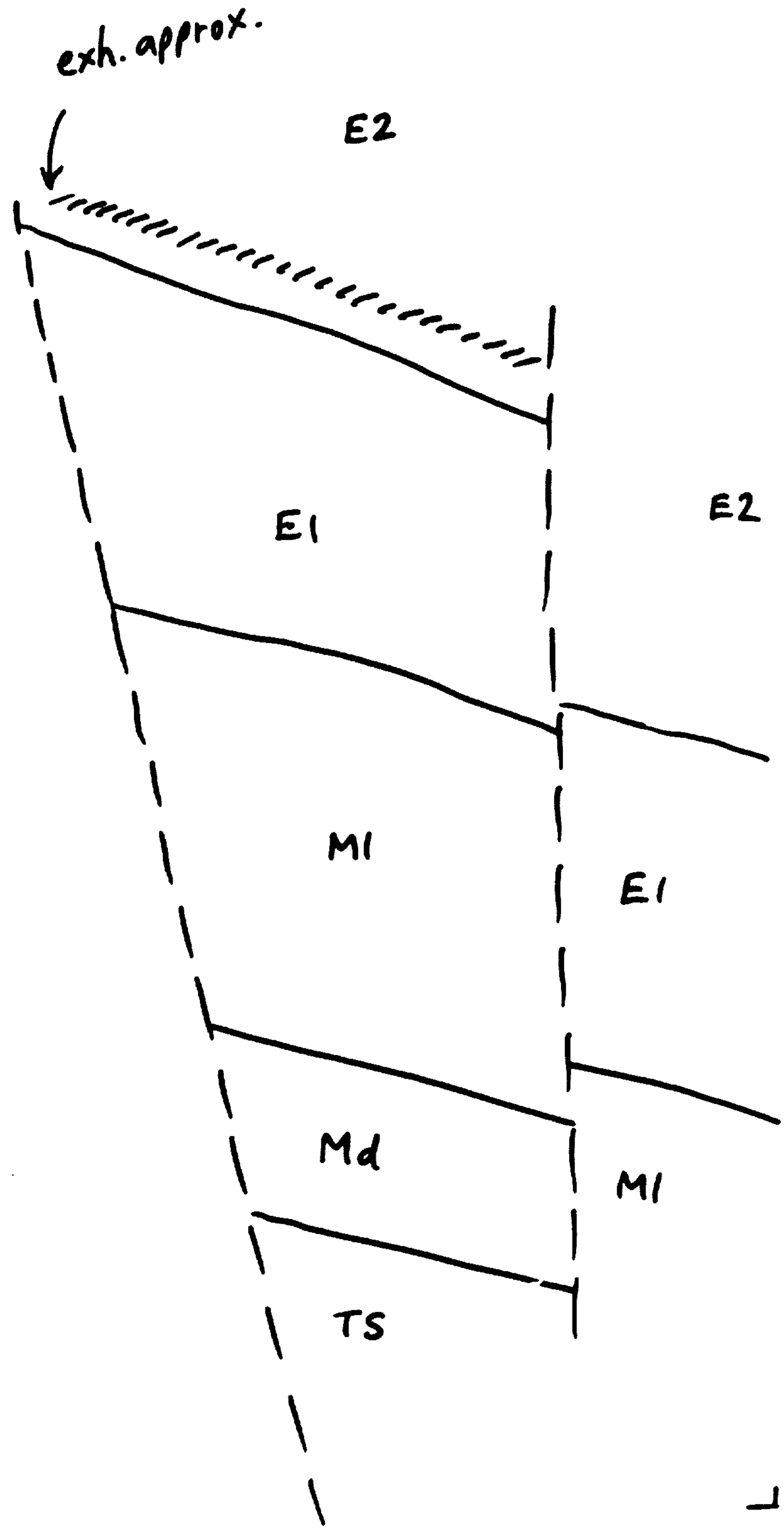


CSAMT Section 3475 N, 2-D Inversion

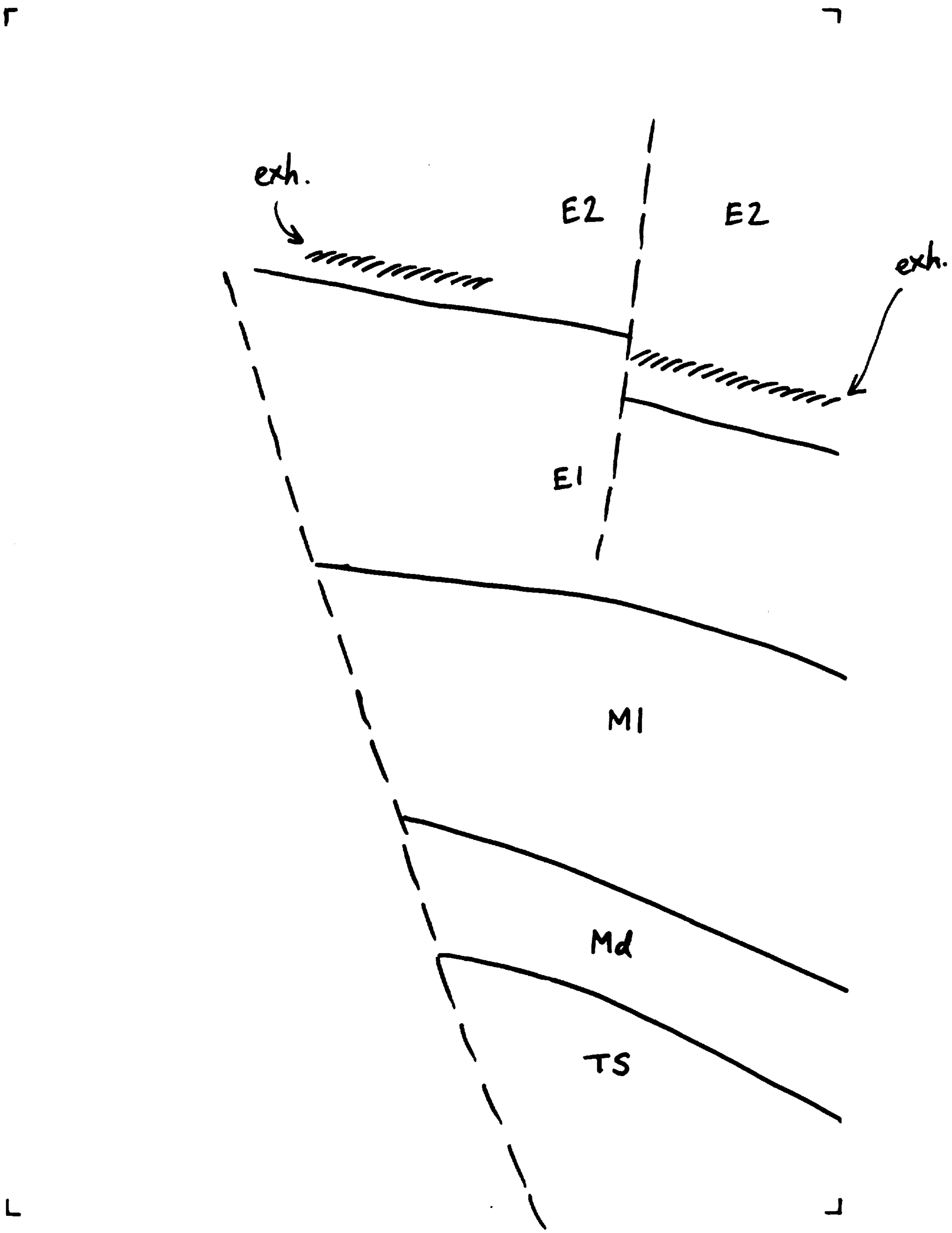


Appendix 7: Geology Overlays

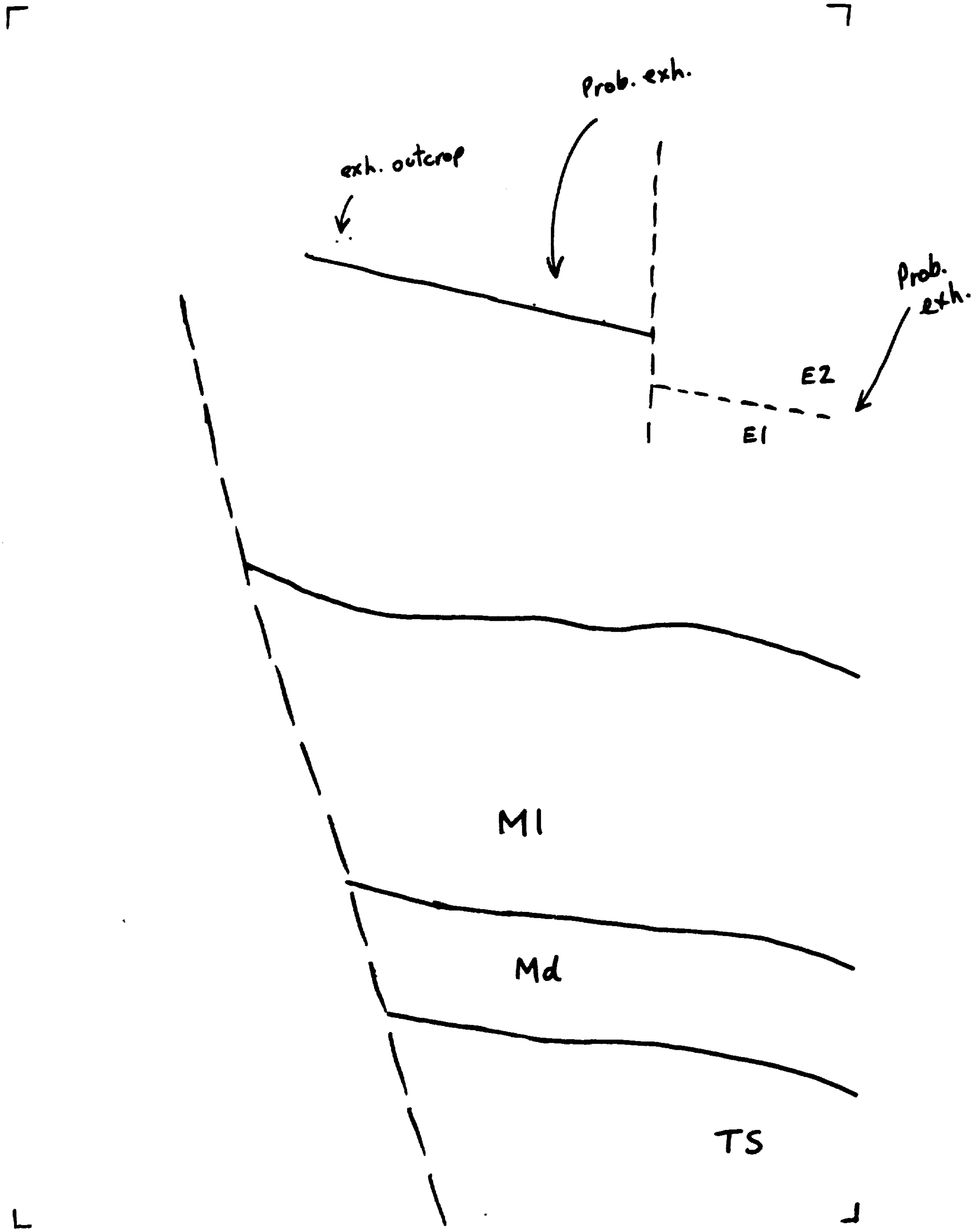
2900 N TM



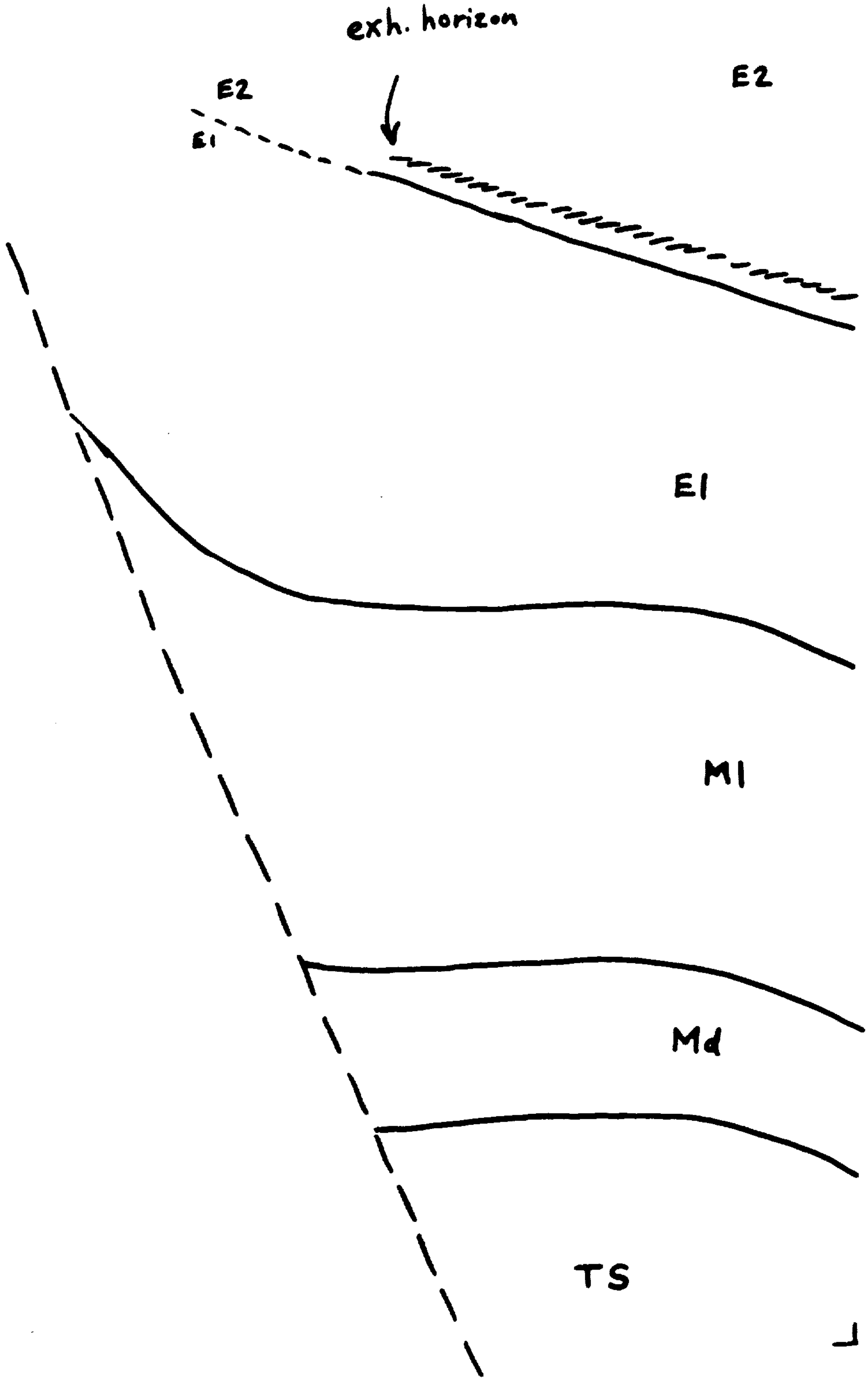
3000N TM



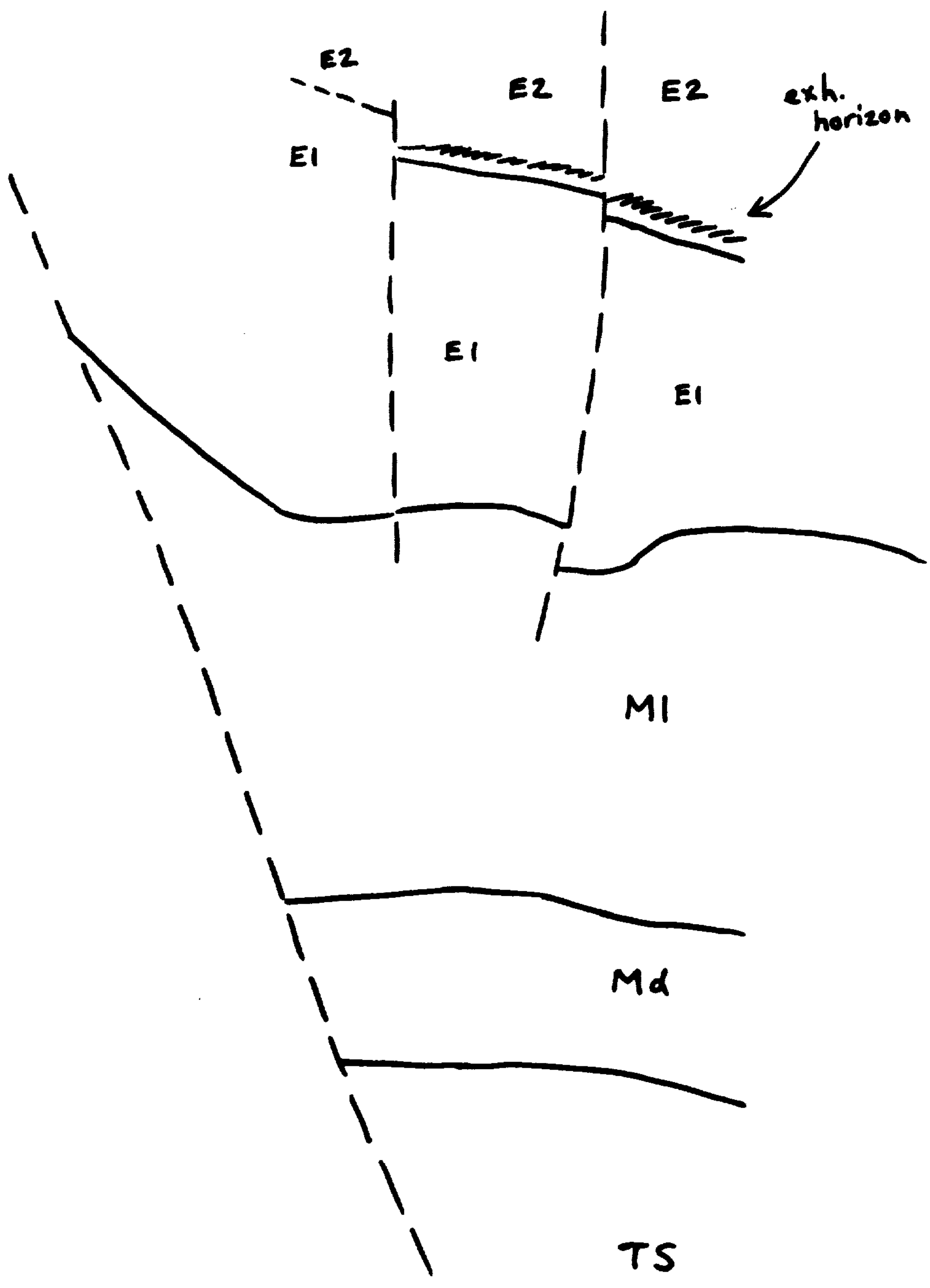
3125 N TM



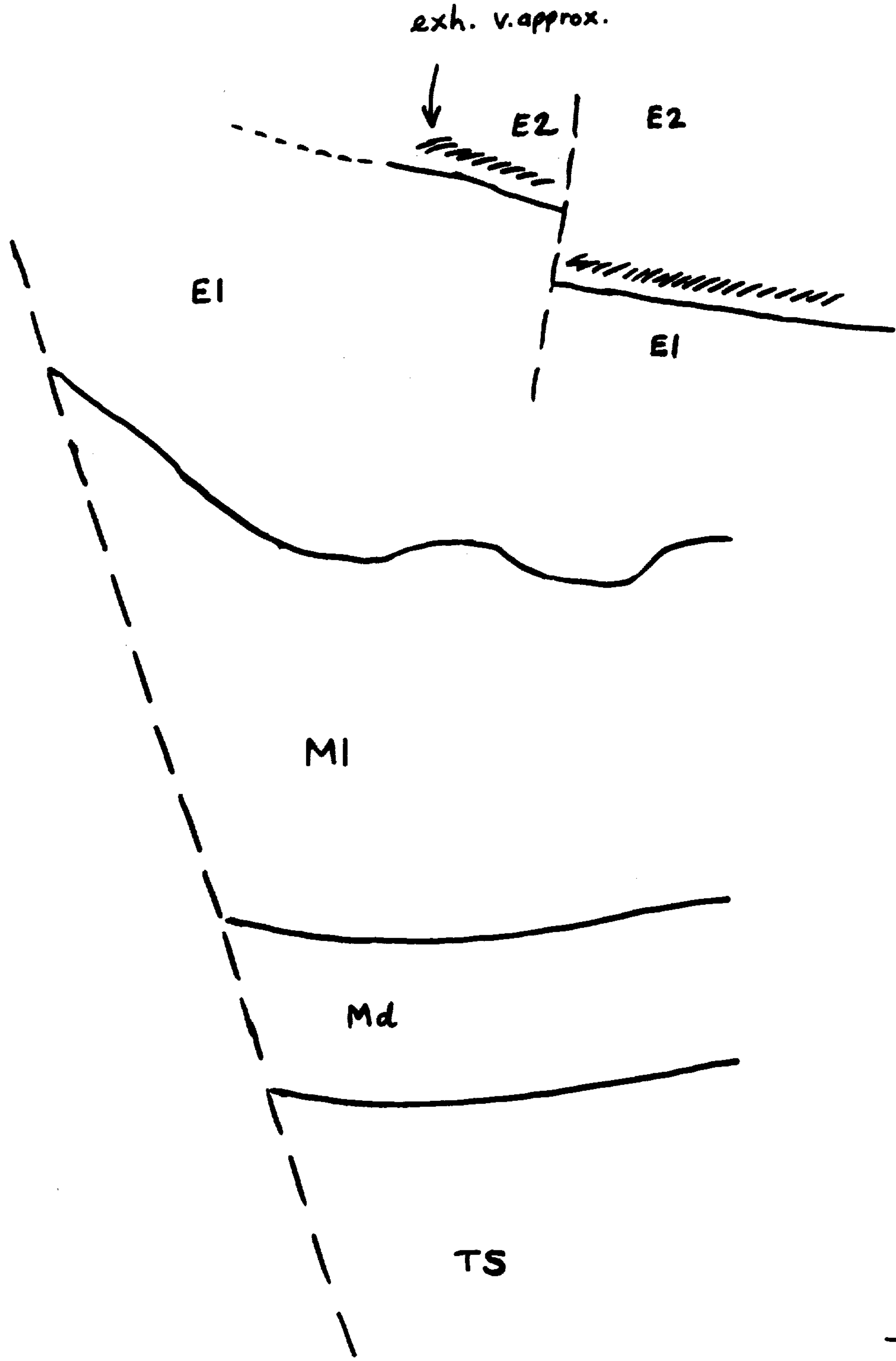
3175N TM



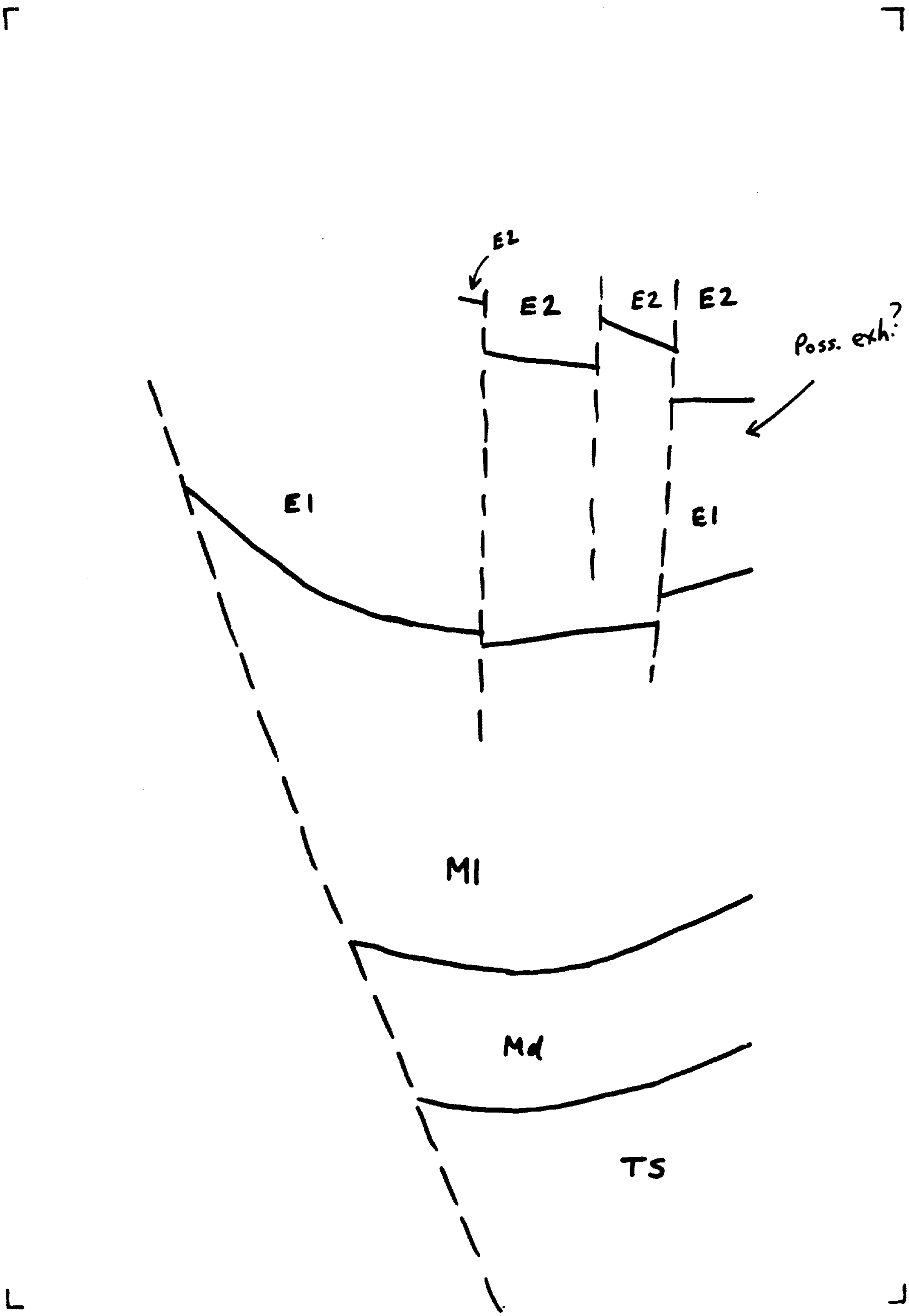
3225 TM



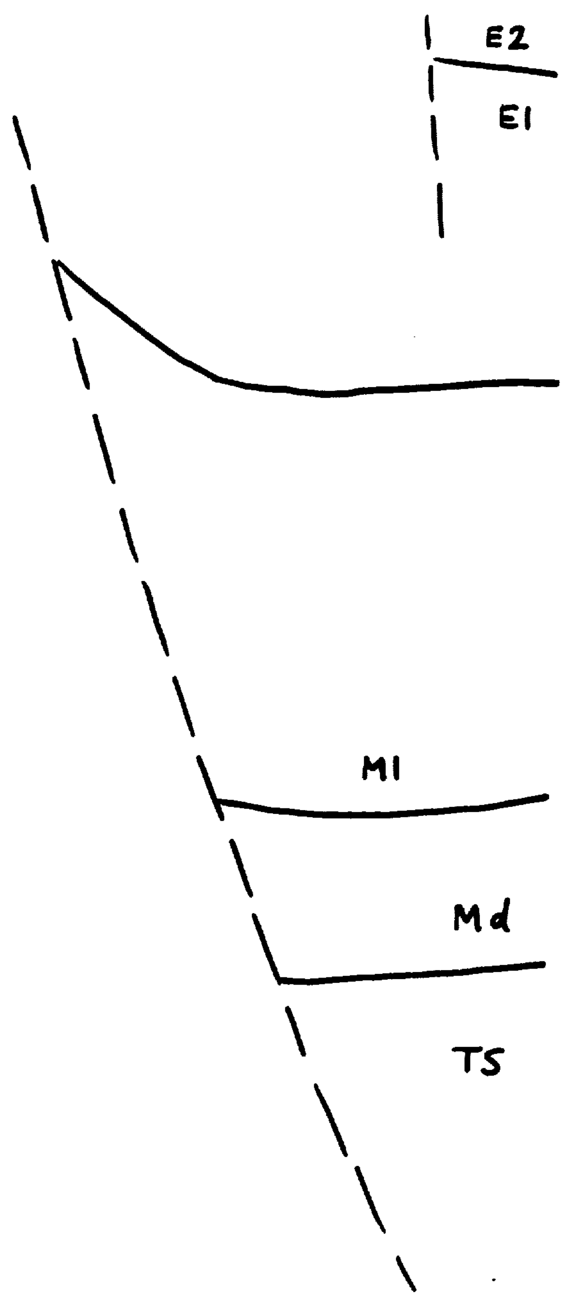
3275 N TM



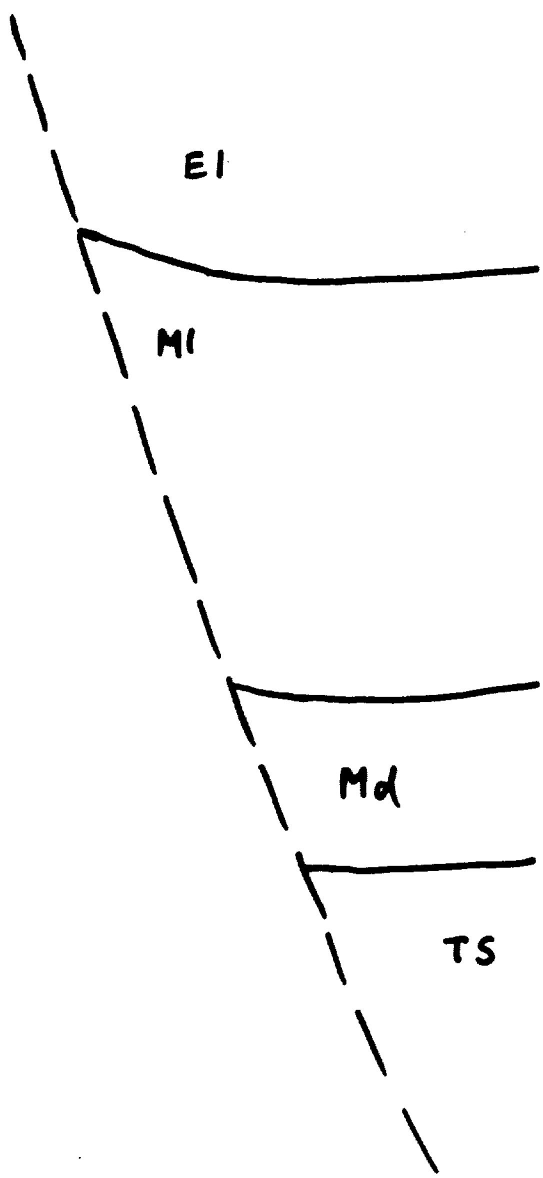
3325N TM



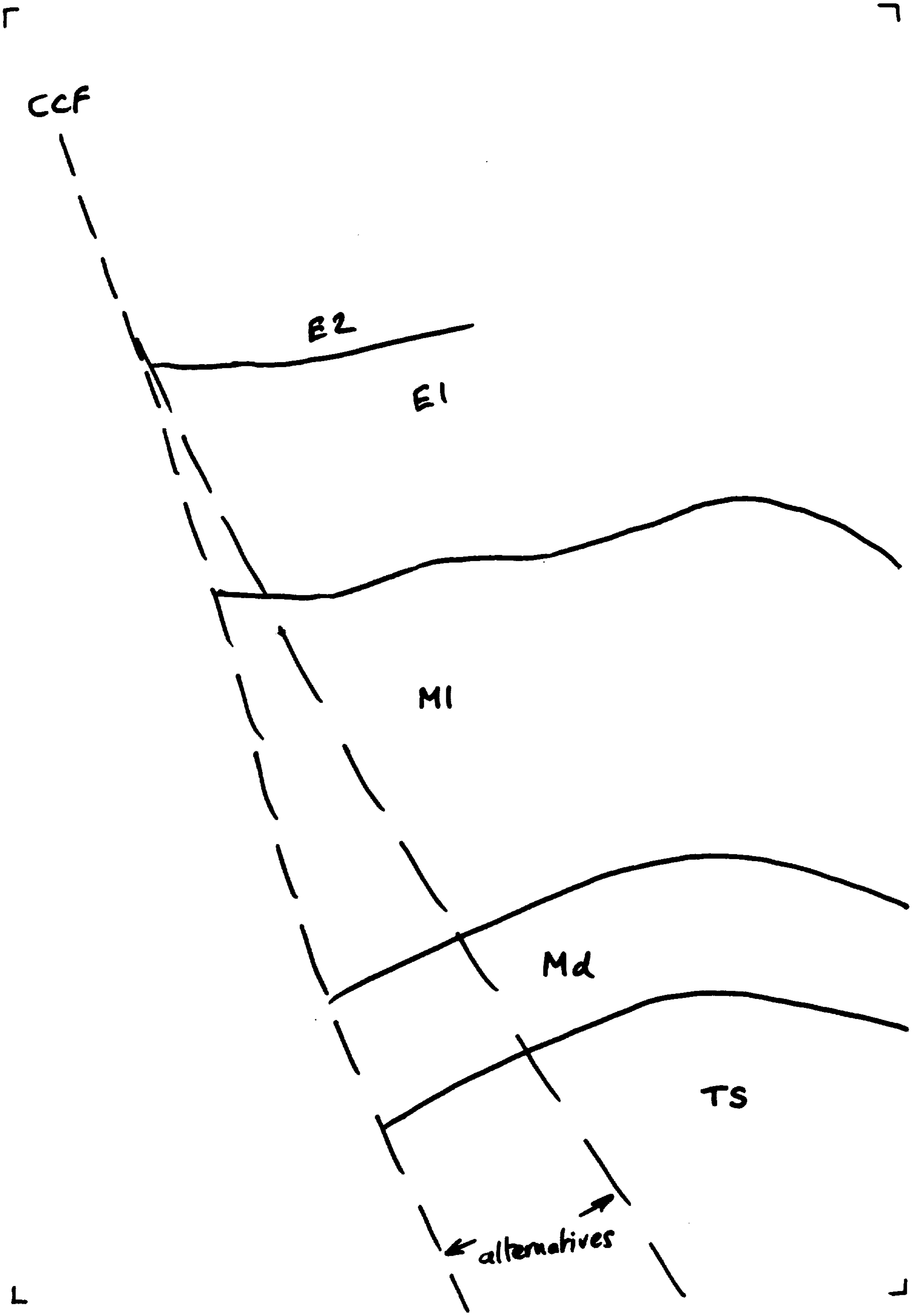
3375N TM



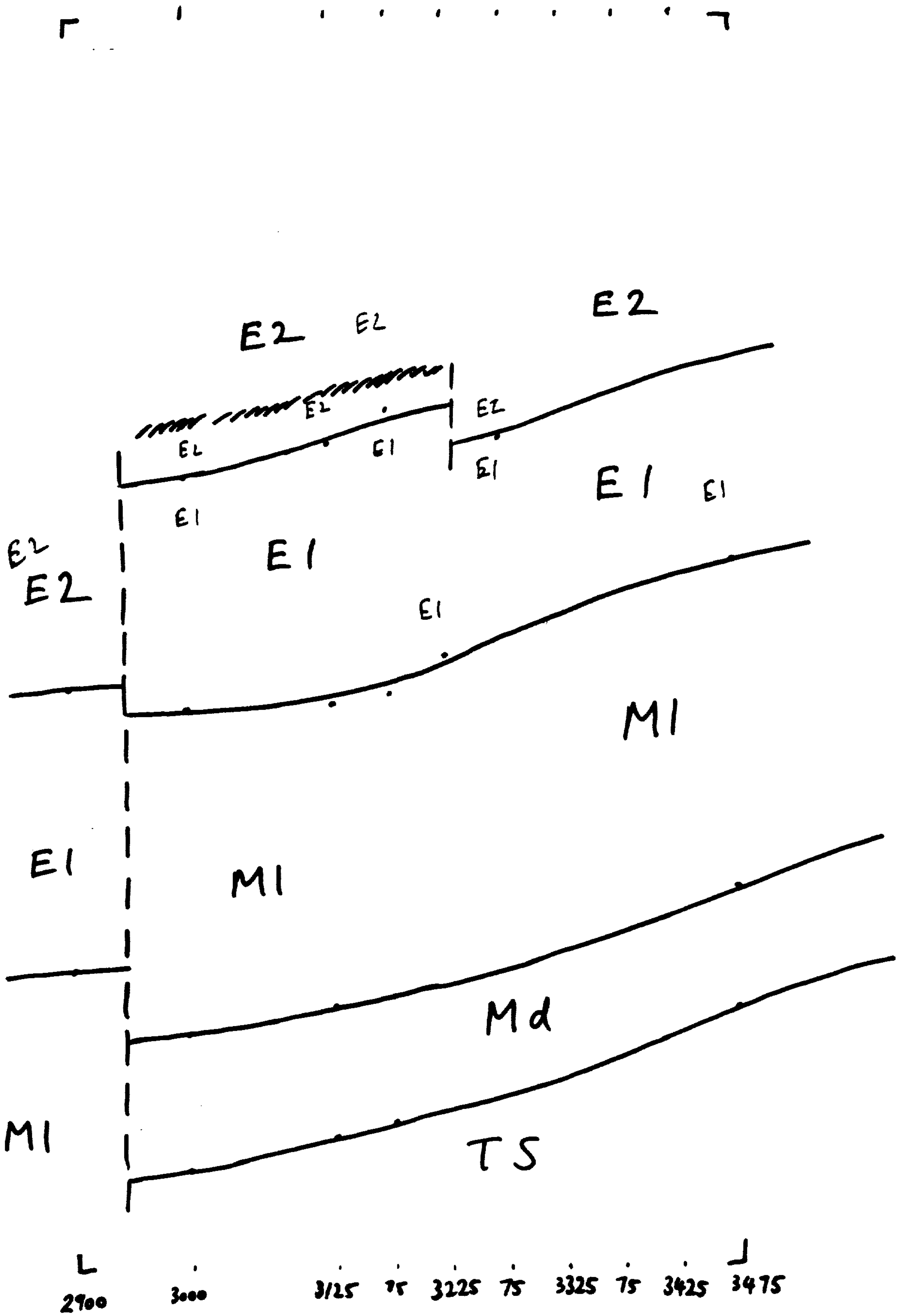
3425N TM



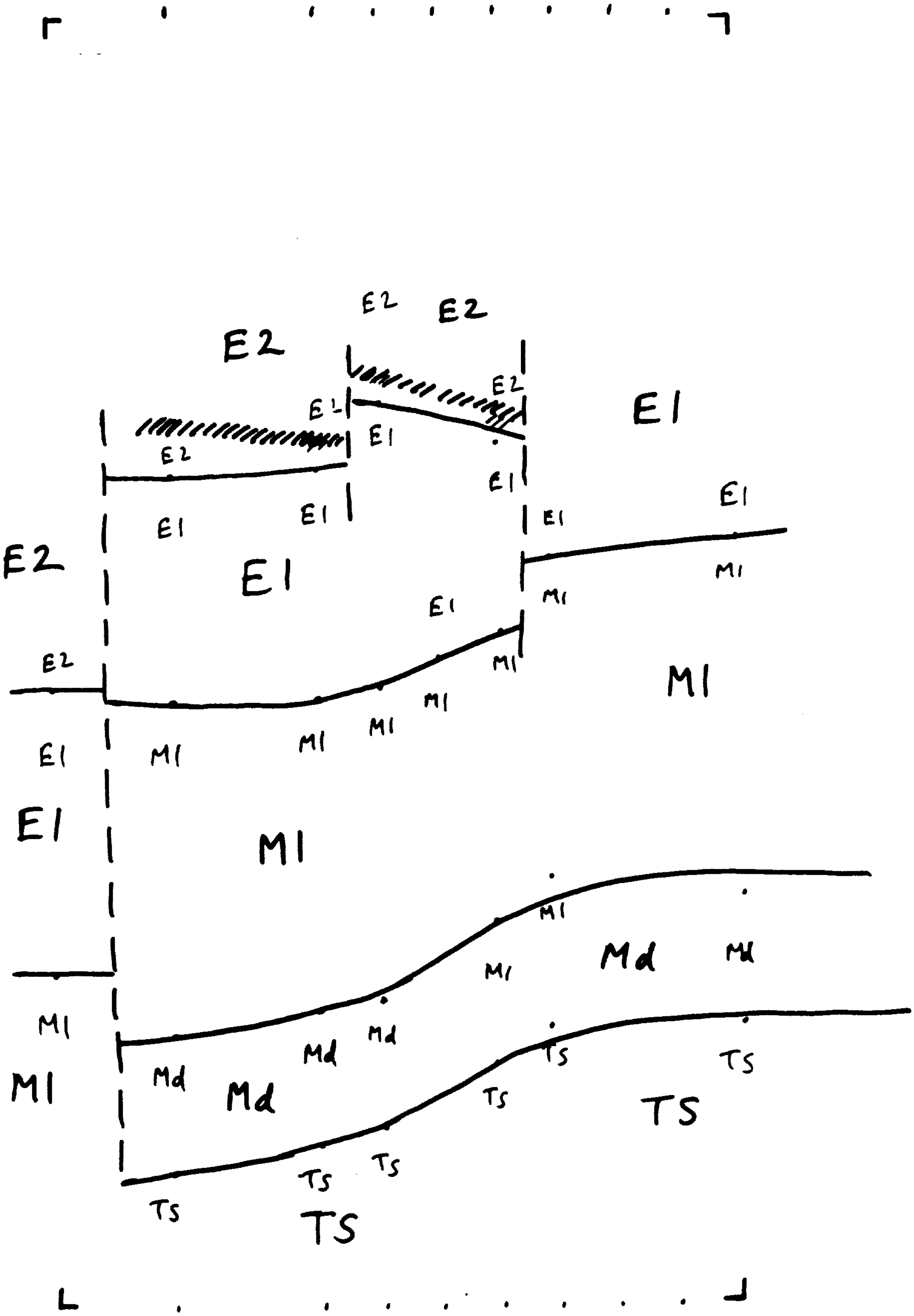
3475 N TM



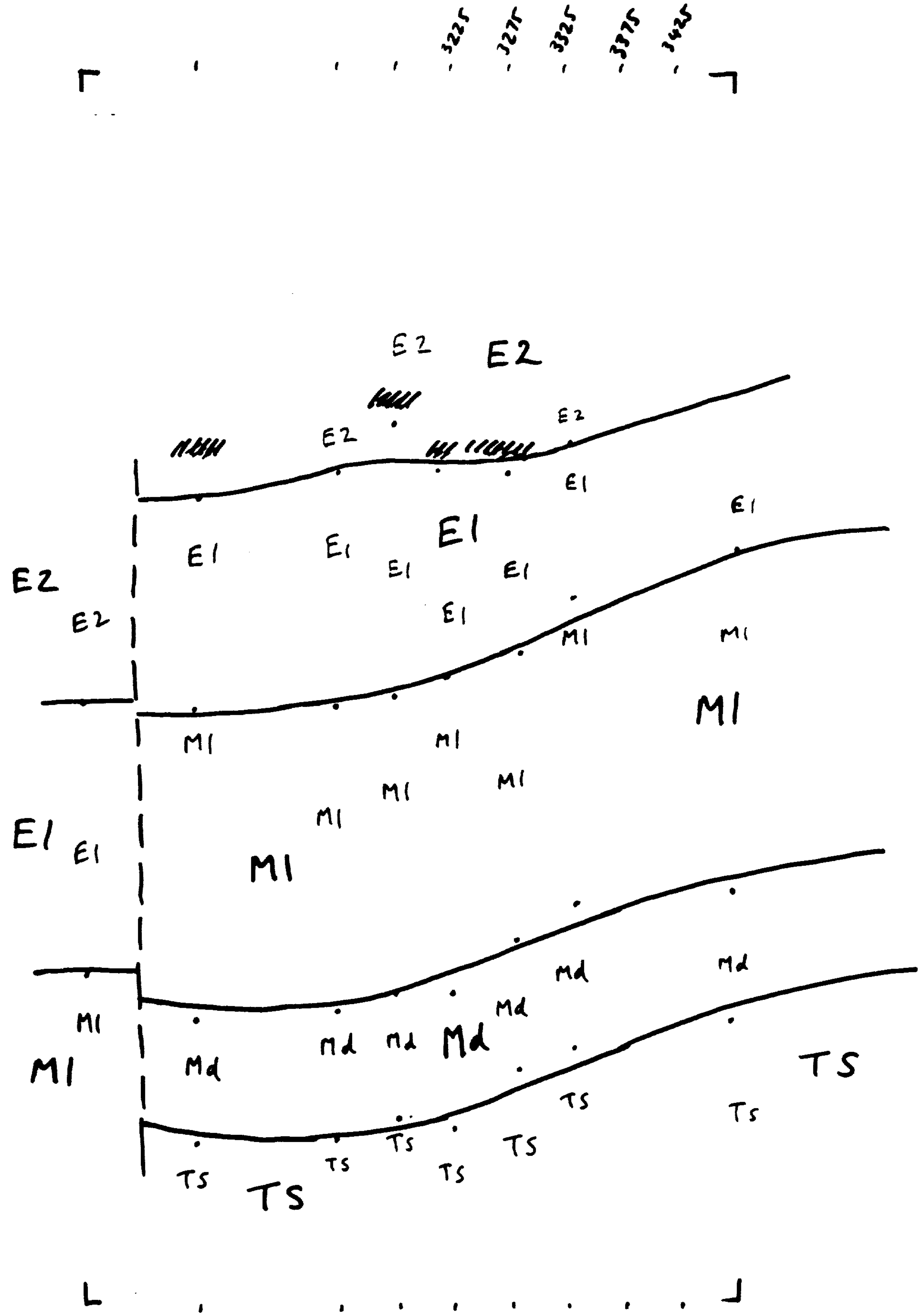
5250 E TM


E2
E2
E2
E2
E2
E1
E2
E1
E1
E1
E1
E2
E2
E1
E1
E1
M1
E1
M1
Md
M1
TS
2900
3000
3125
75
3225
75
3325
75
3425
3475

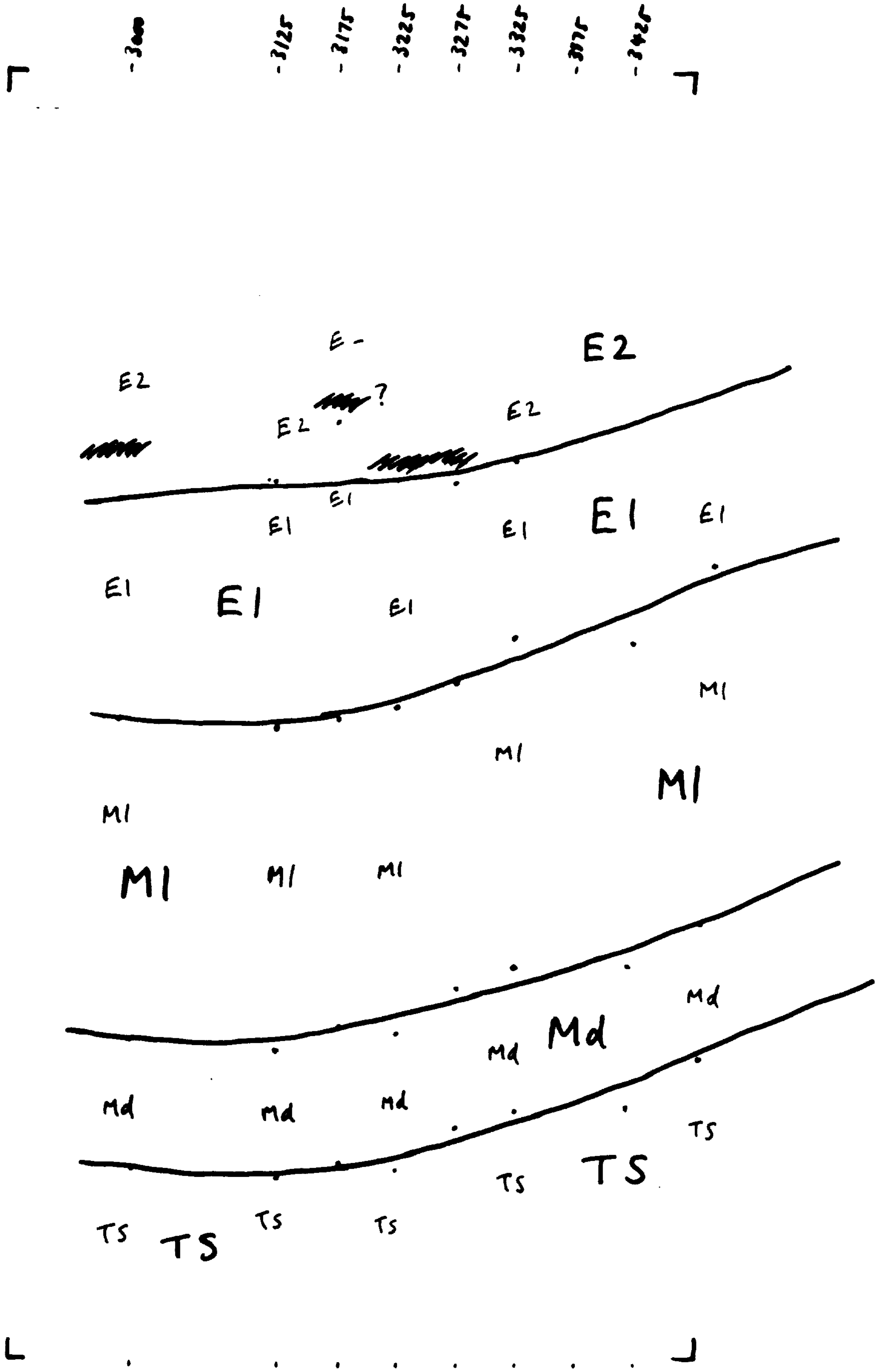
5200E TM


E2
E2
E2
E1
E2
E2
E2
E1
E2
E1
E1
E1
E1
E1
E1
E2
E1
E1
E2
M1
E1
M1
M1
M1
M1
M1
M1
E1
M1
M1
M1
M1
Md
Md
Md
M1
Md
M1
Md
Md
Md
Ts
TS
TS
Ts
Ts
Ts
Ts
TS

5150 E TM

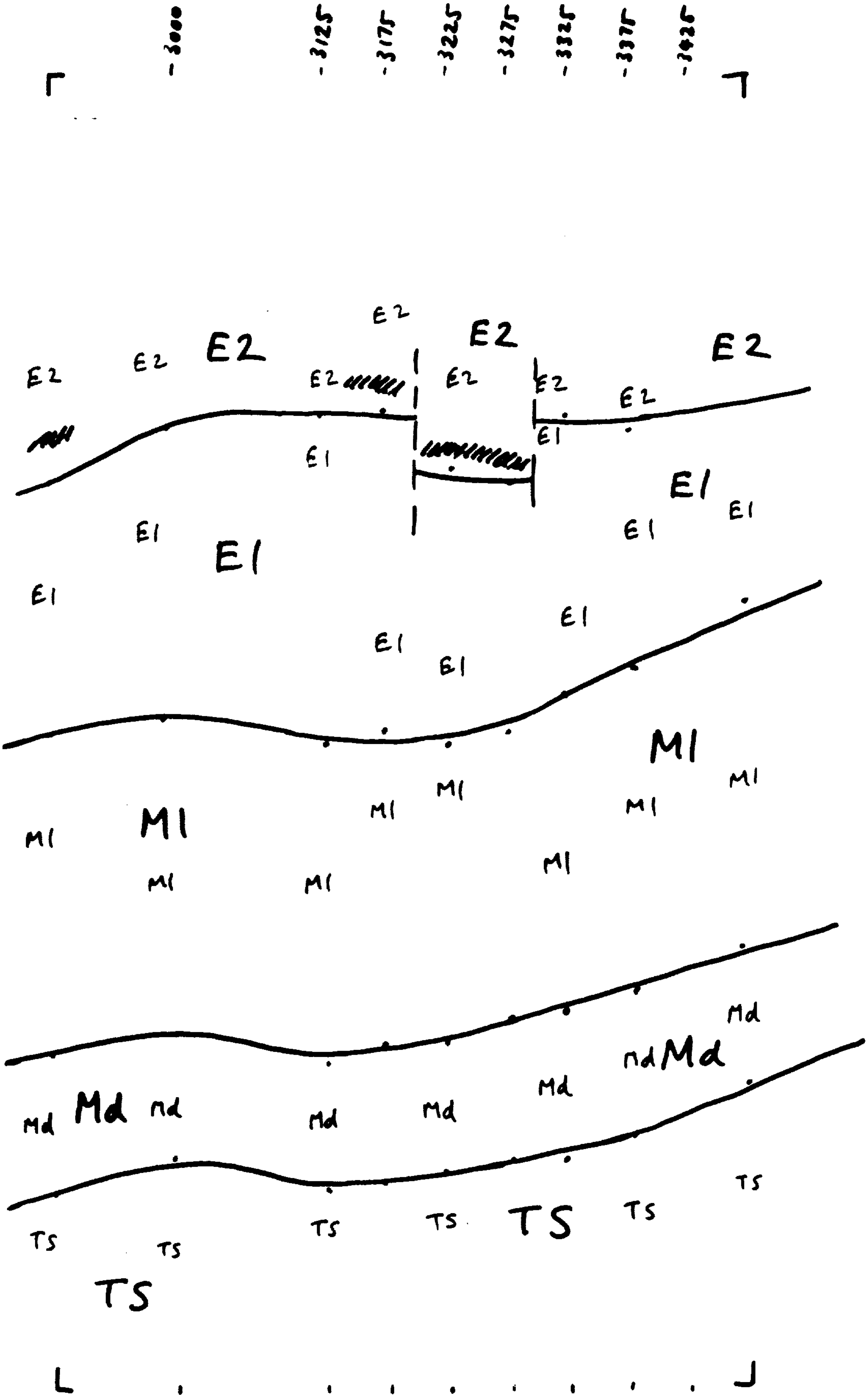

3225
3275
3325
3375
3425
E2
E2
E2
E2
E1
E1
E1
E1
E1
E1
E1
E1
E2
E2
M1
M1
M1
M1
M1
M1
M1
M1
E1
E1
M1
Md
Md
Md
Md
Md
Md
M1
M1
TS
Ts
Ts
TS
Ts
Ts
TS
Ts

5100 E TM

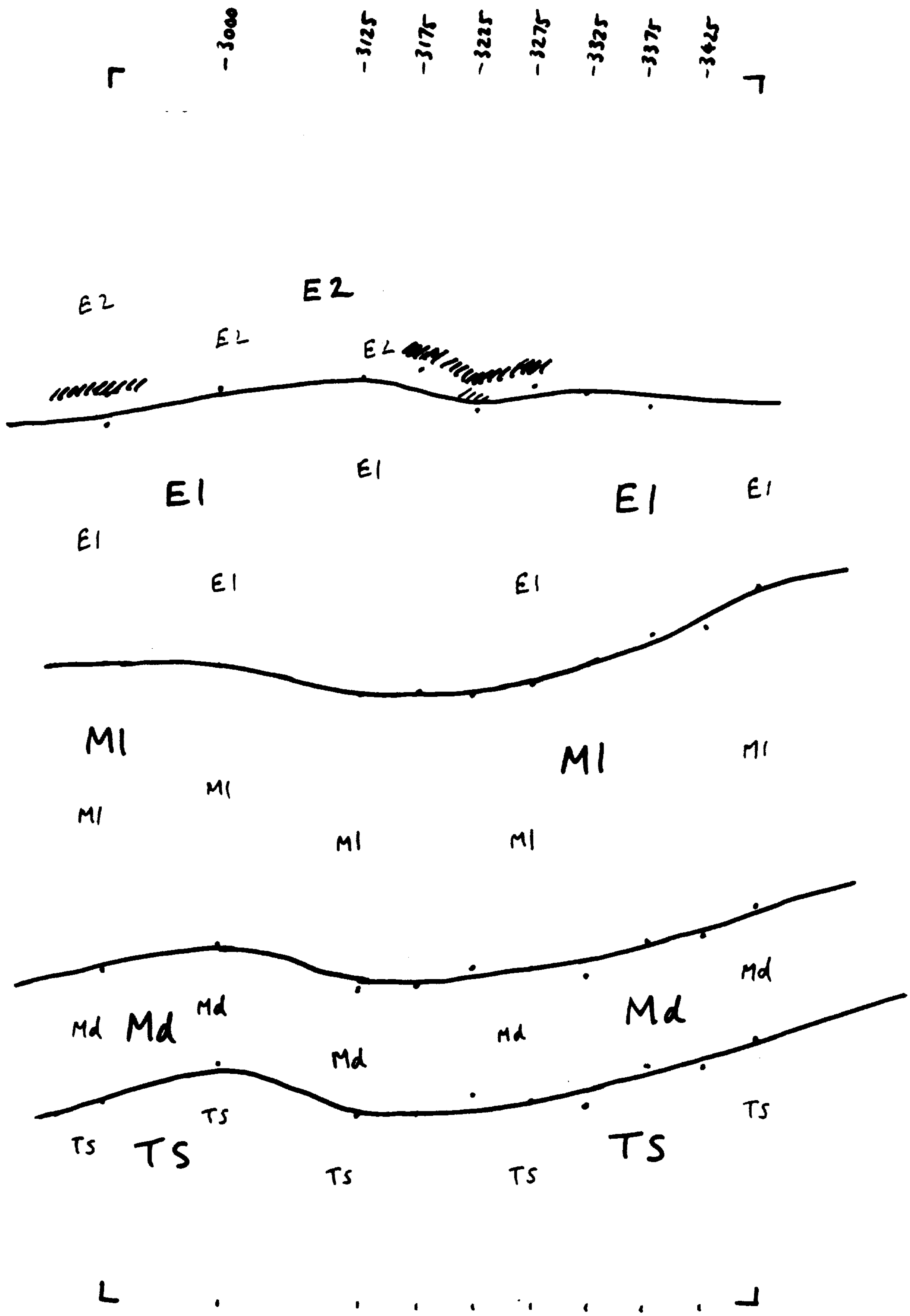


-3125
-3175
-3225
-3275
-3325
-3425
E -
E2
E2
?
E2
E2
E1
E1
E1
E1
E1
E1
E1
E1
M1
M1
M1
M1
M1
M1
M1
Md
Md
Md
Md
Md
Md
TS
TS
TS
TS
TS
TS

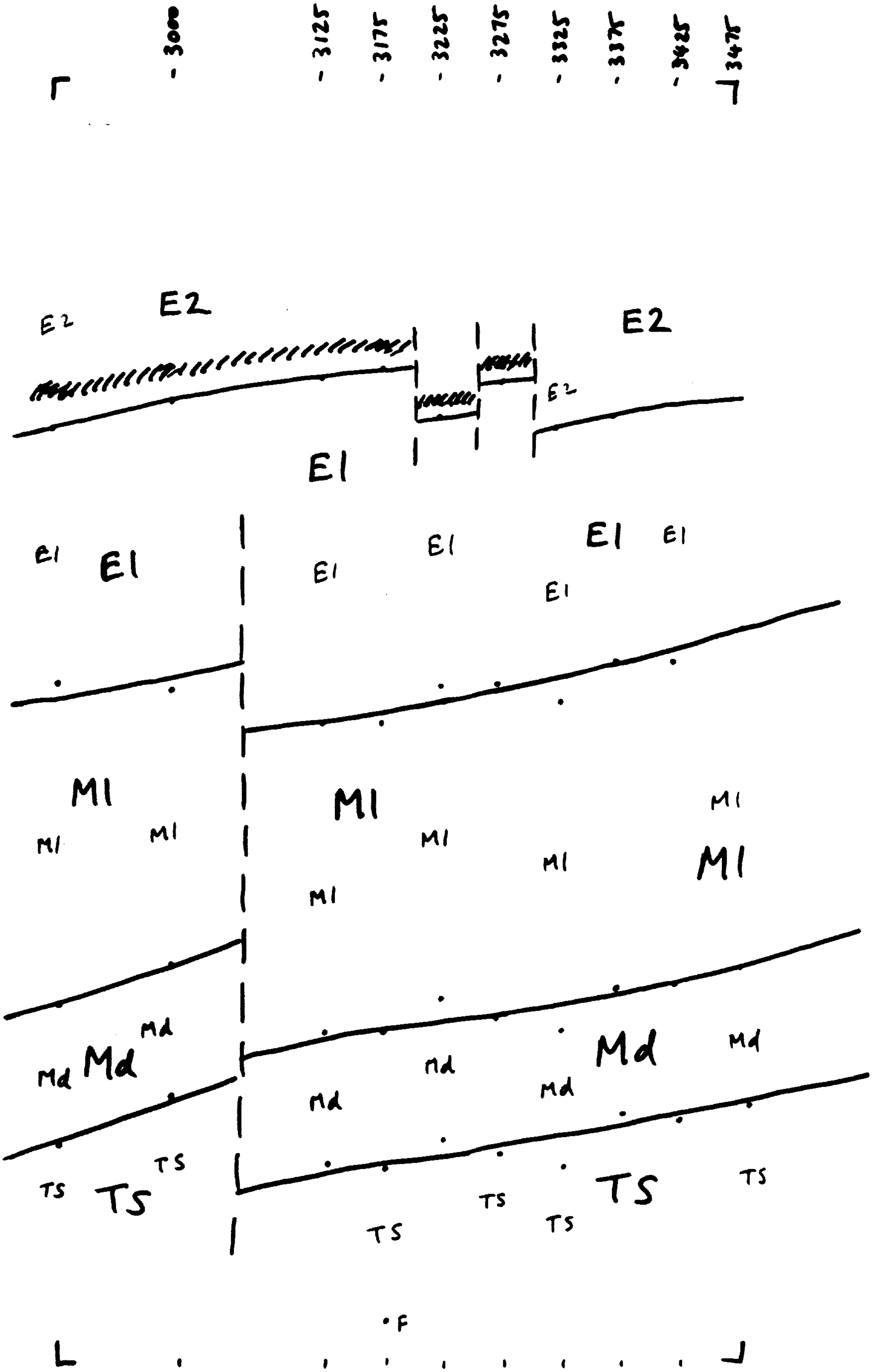
5050 E TM



5000E TM

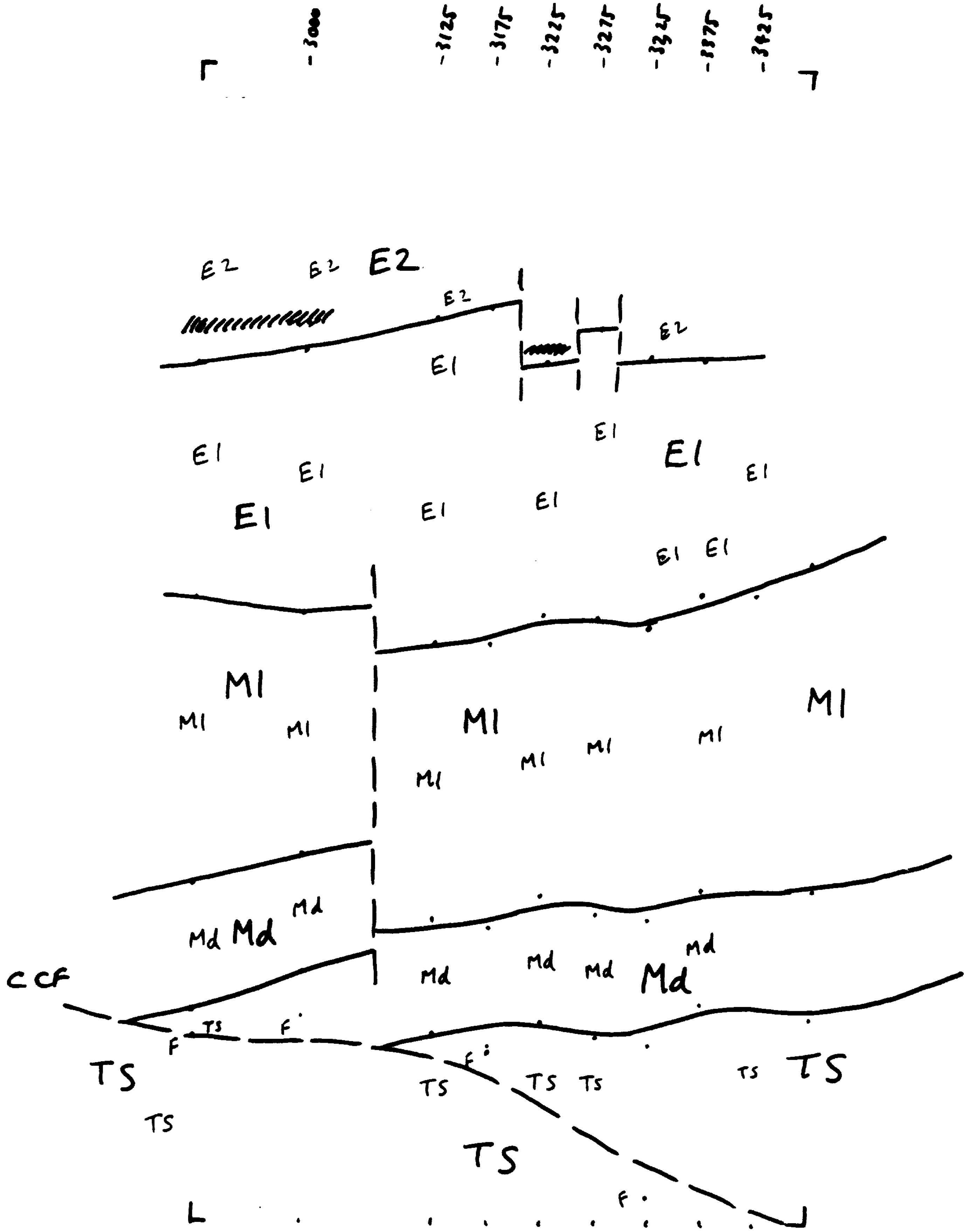

-3000
-3125
-3175
-3225
-3275
-3325
-3375
-3425
E2
E2
E2
E2
E1
E1
E1
E1
E1
E1
E1
M1
M1
M1
M1
M1
M1
M1
Md
Md
Md
Md
Md
Md
Md
TS
TS
TS
TS
TS
TS
TS

4950 E TM

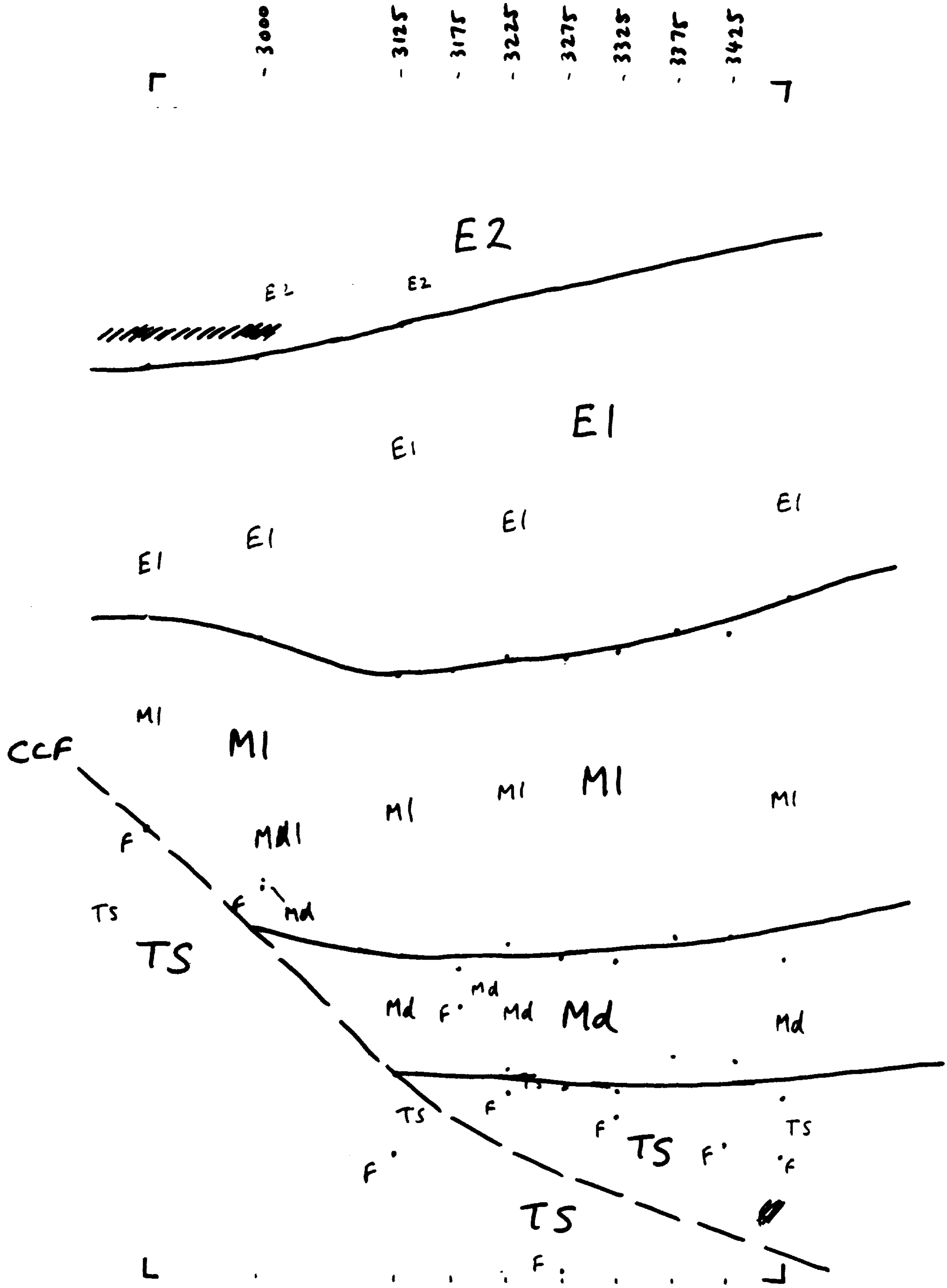


3000
3125
3175
3225
3275
3325
3375
3425
3475
E2
E2
E2
E2
E1
E1
E1
E1
E1
E1
E1
E1
M1
M1
M1
M1
M1
M1
M1
M1
M1
Md
Md
Md
Md
Md
Md
Md
Md
TS
TS
TS
TS
TS
TS
TS
TS
F

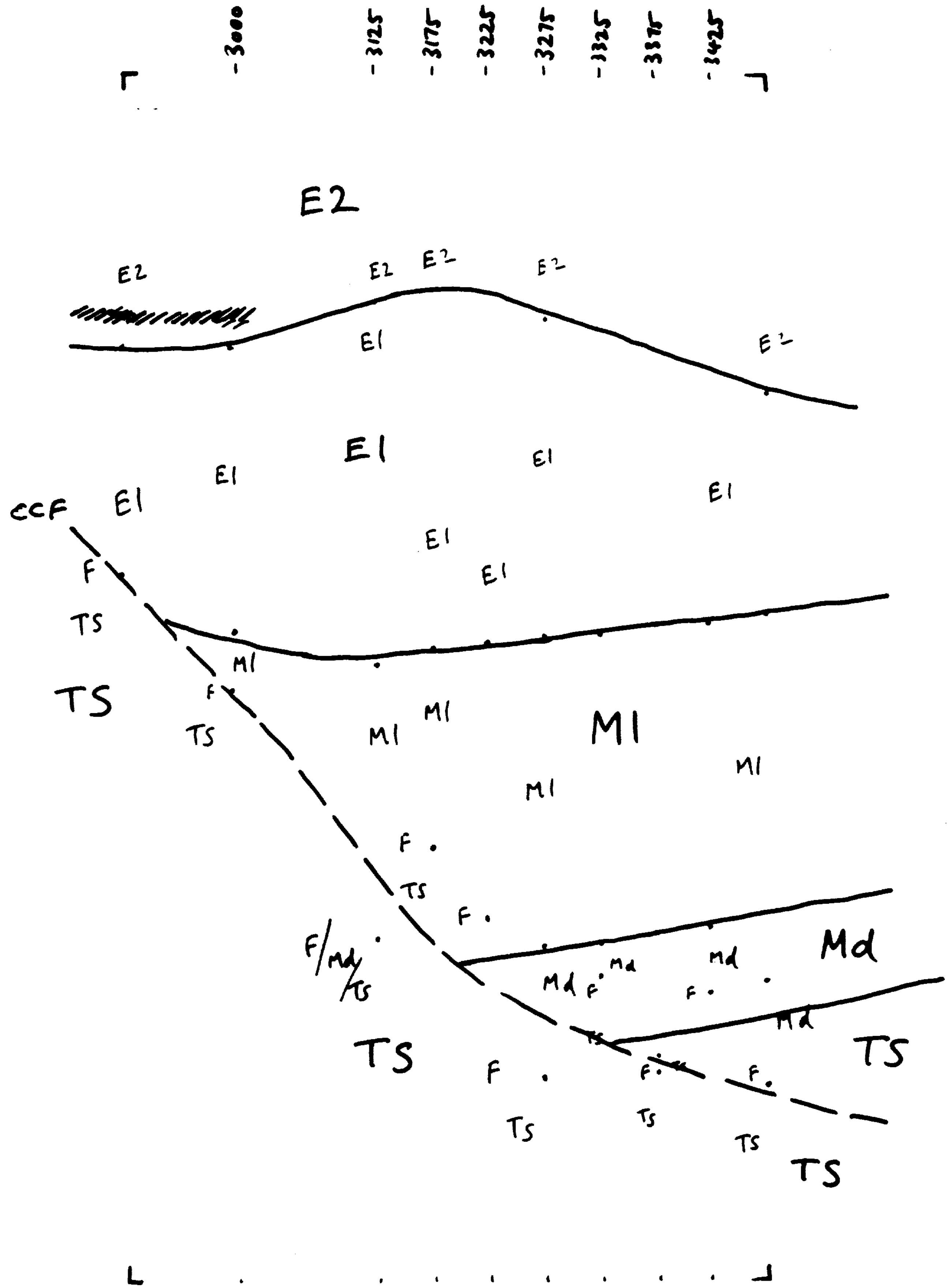
4900 E TM



4850 E TM

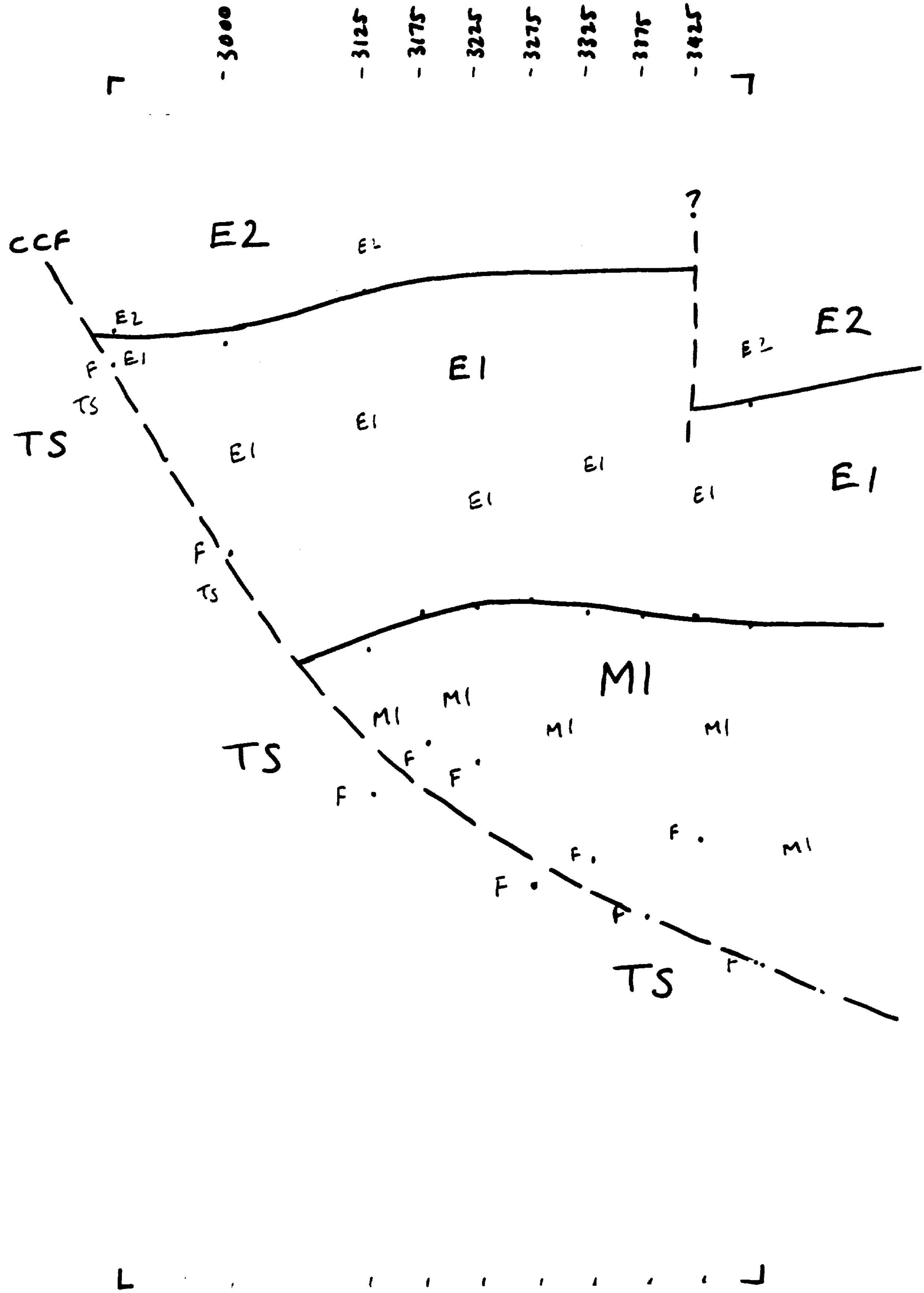


4800E TM

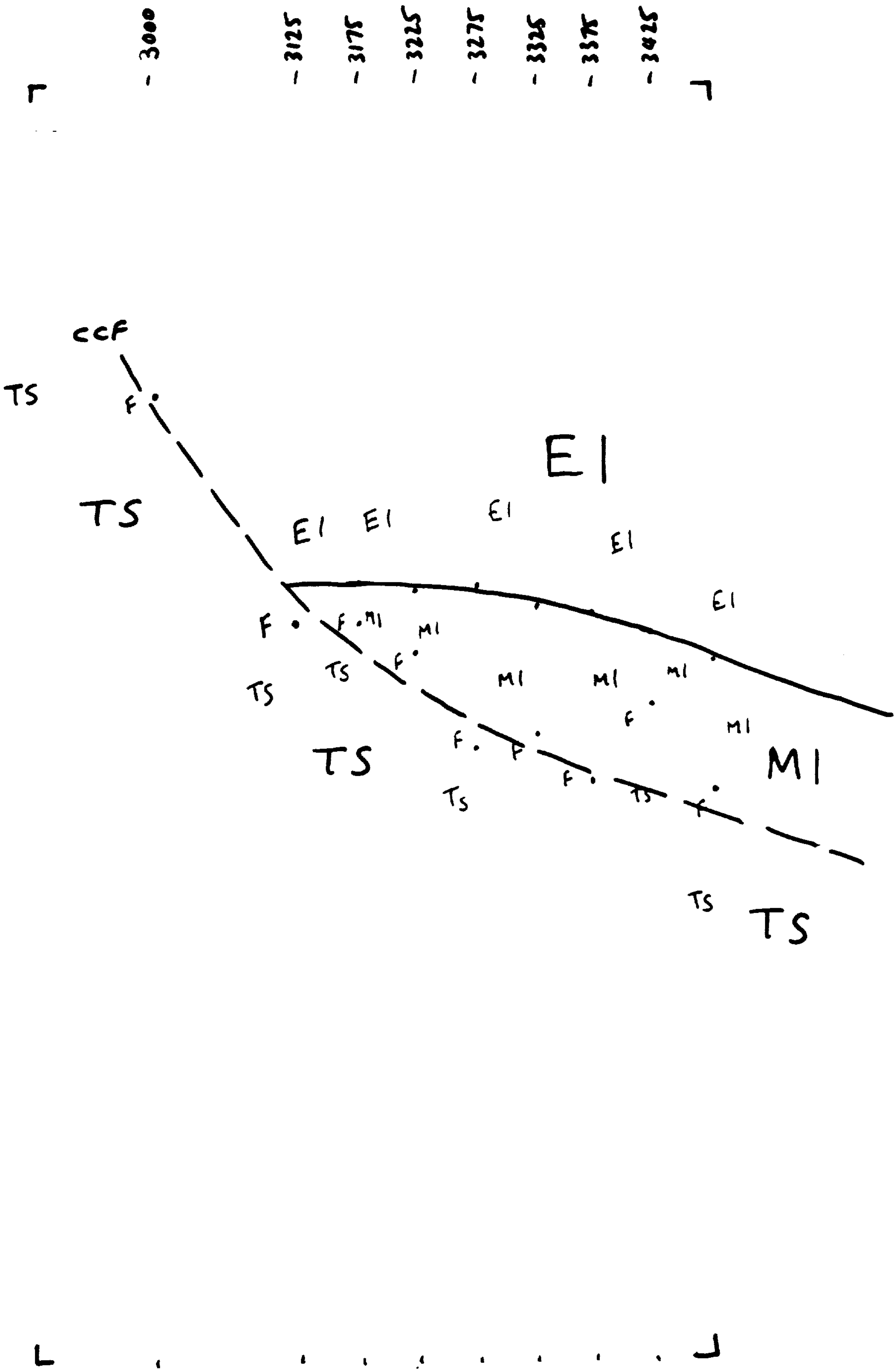


-3000
-3125
-3175
-3225
-3275
-3325
-3375
-3425
E2
E1
CCF
F
TS
M1
F/Md/TS
Md

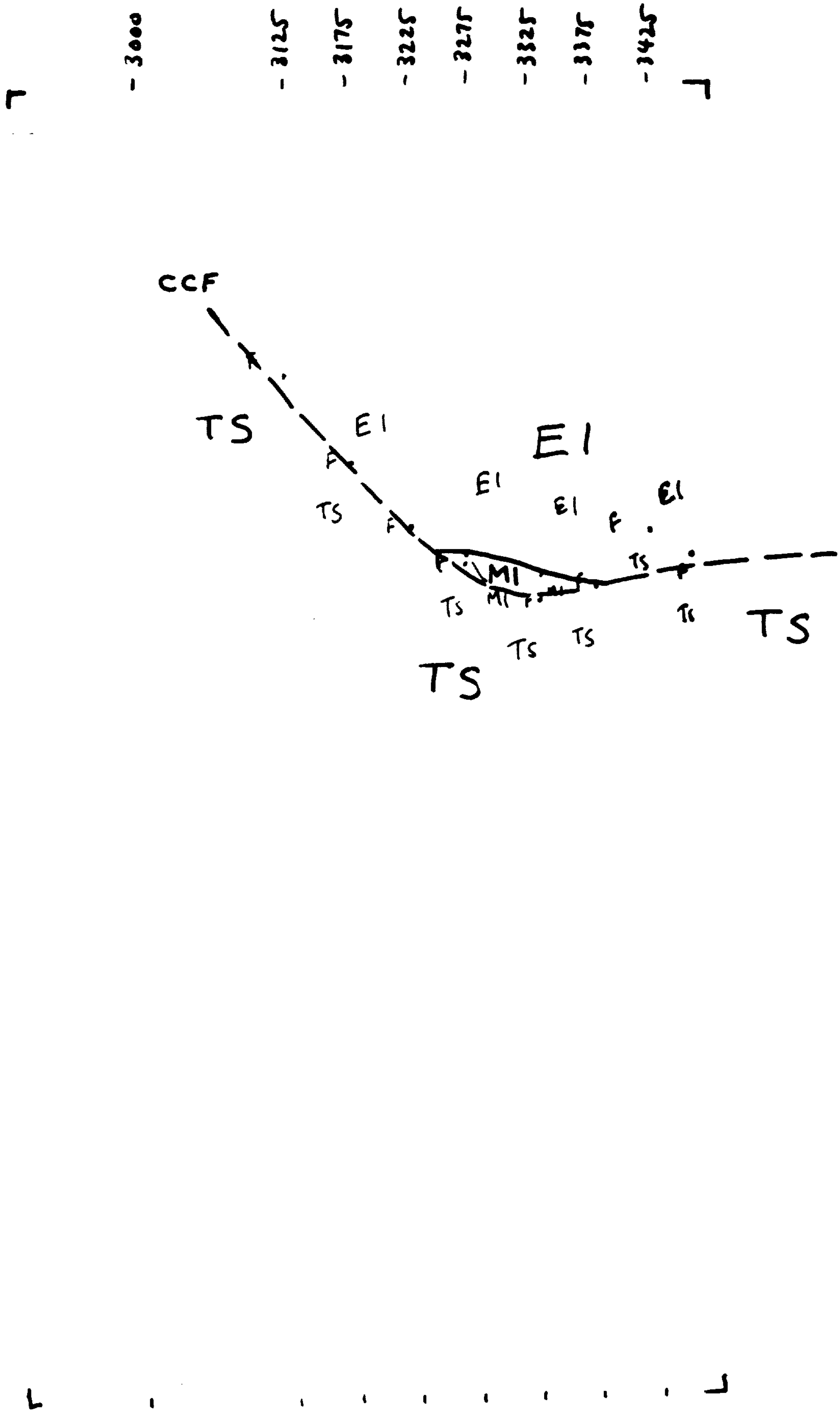
4750 E TM



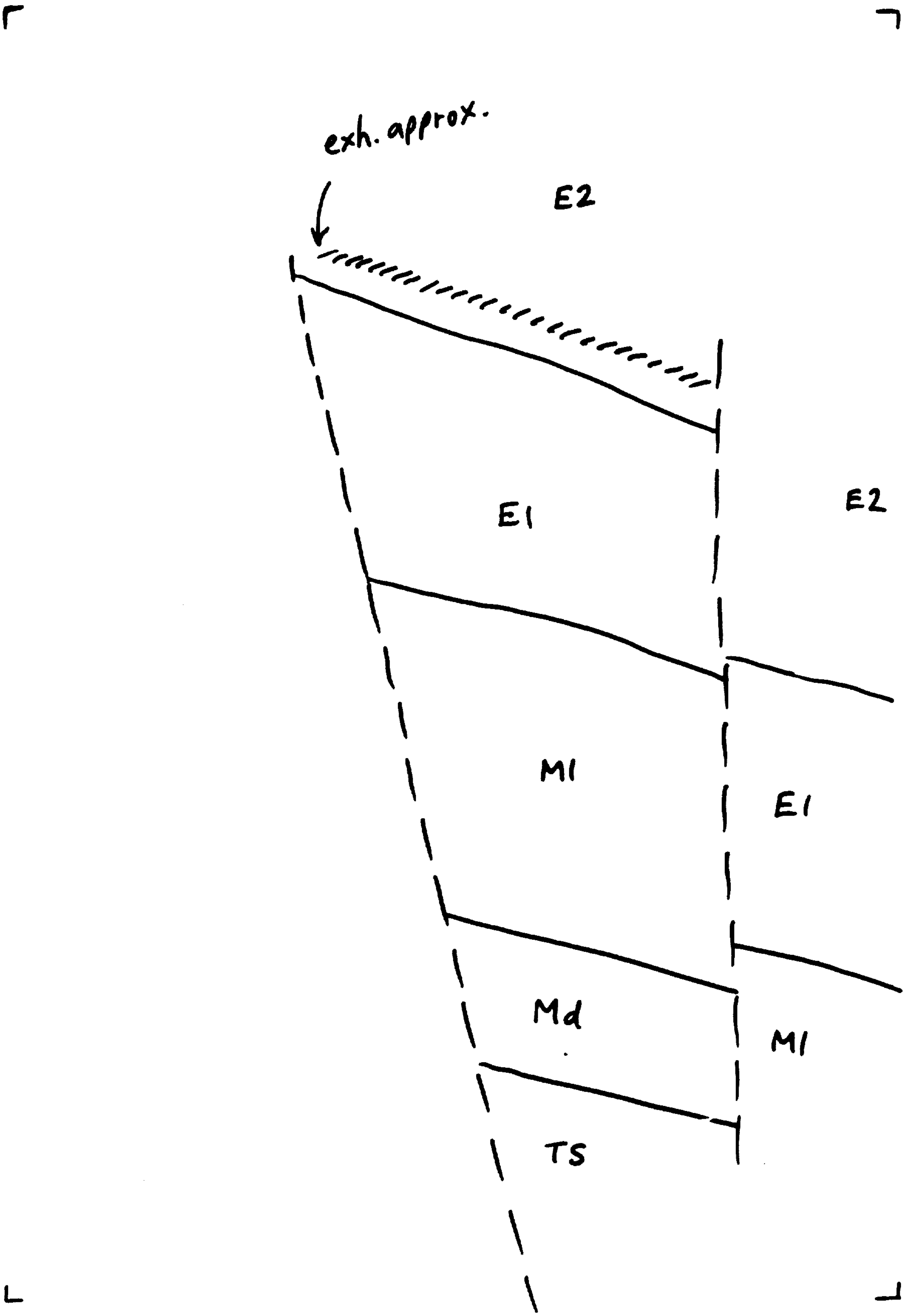
4700 E TM



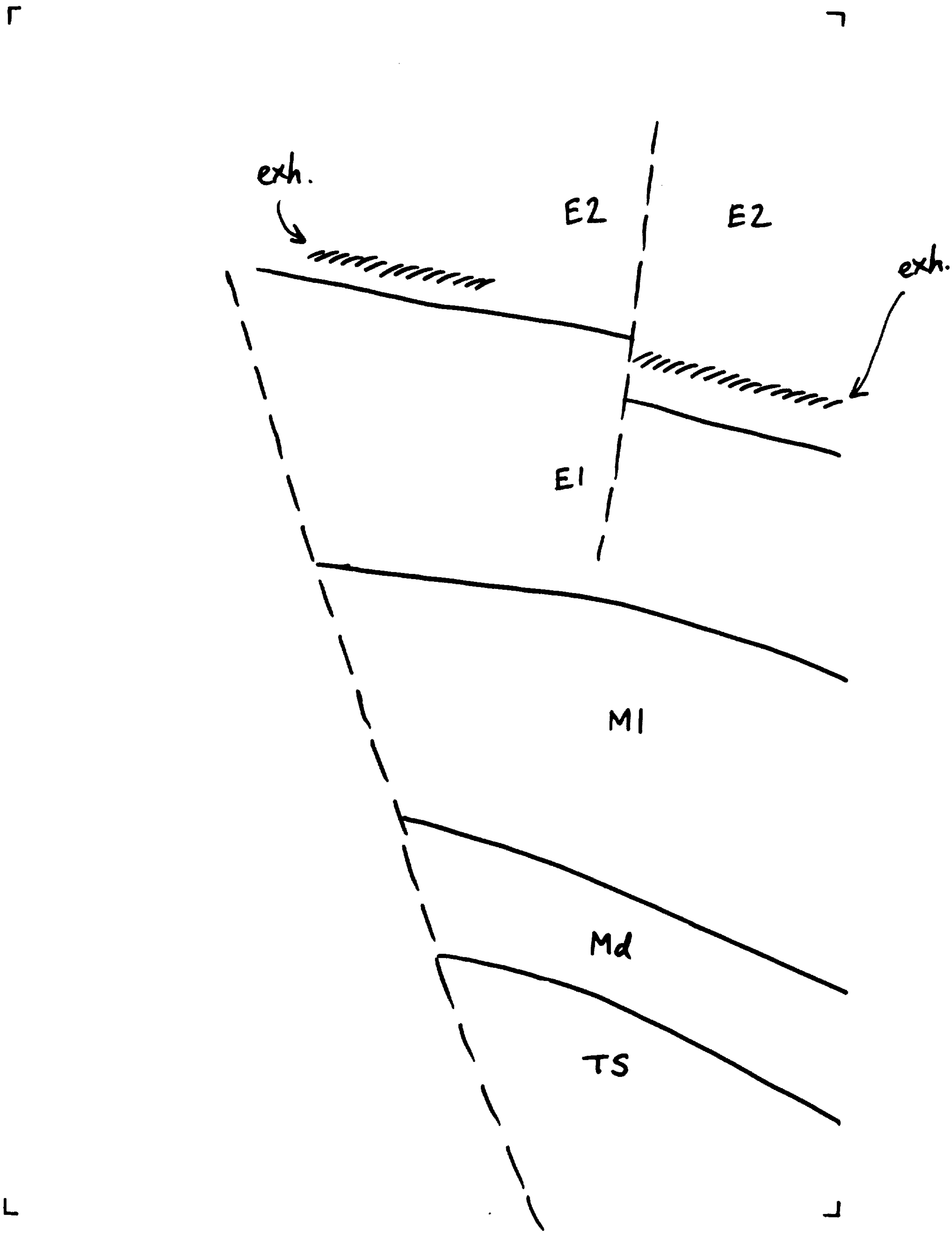
4.650 E TM


-3000
-3125
-3175
-3225
-3275
-3325
-3375
-3425
CCF
TS
E1
E1
E1
E1
E1
F
F
F
TS
MI
MI
Ts
Ts
TS
TS
TS
TS

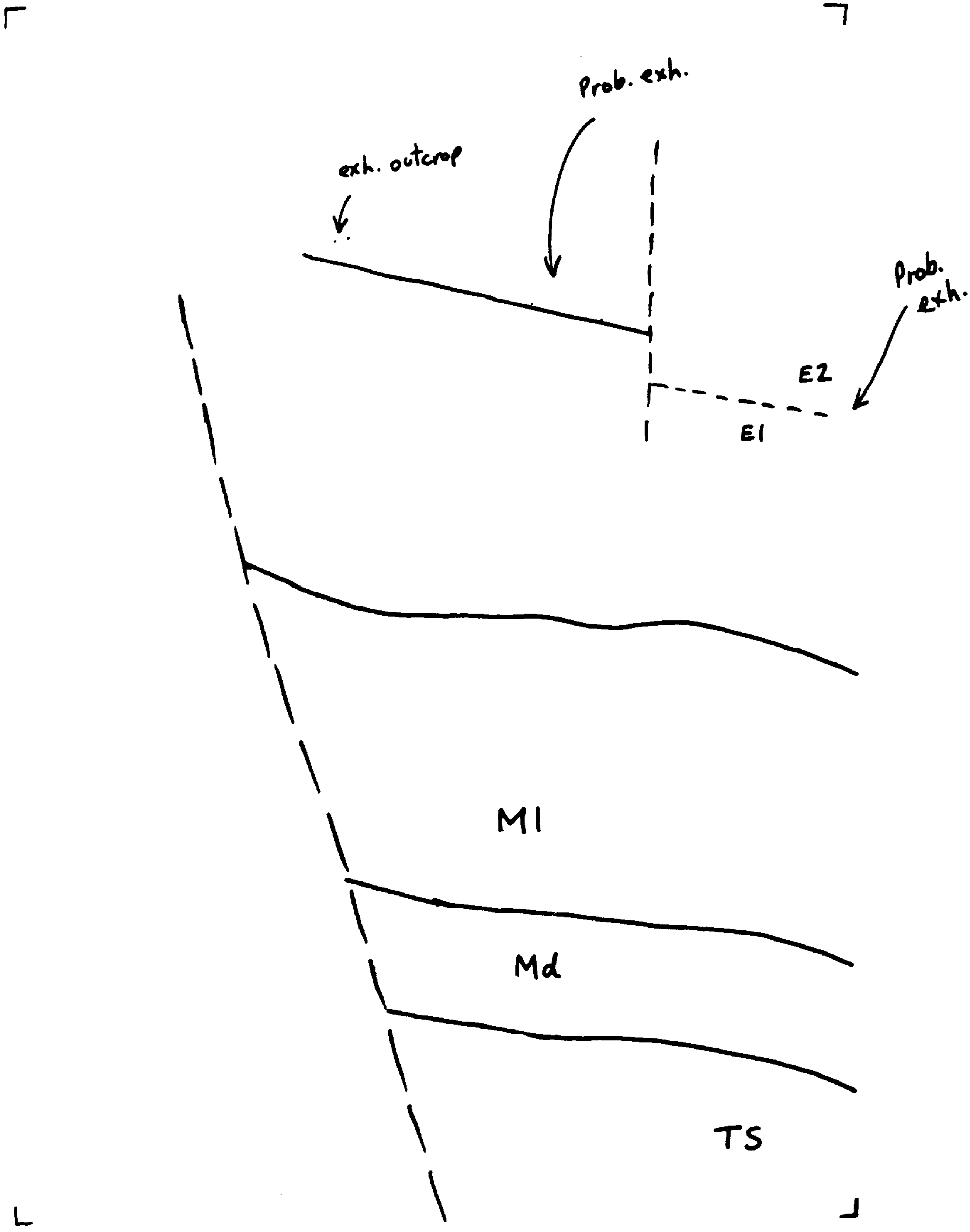
2900N TM



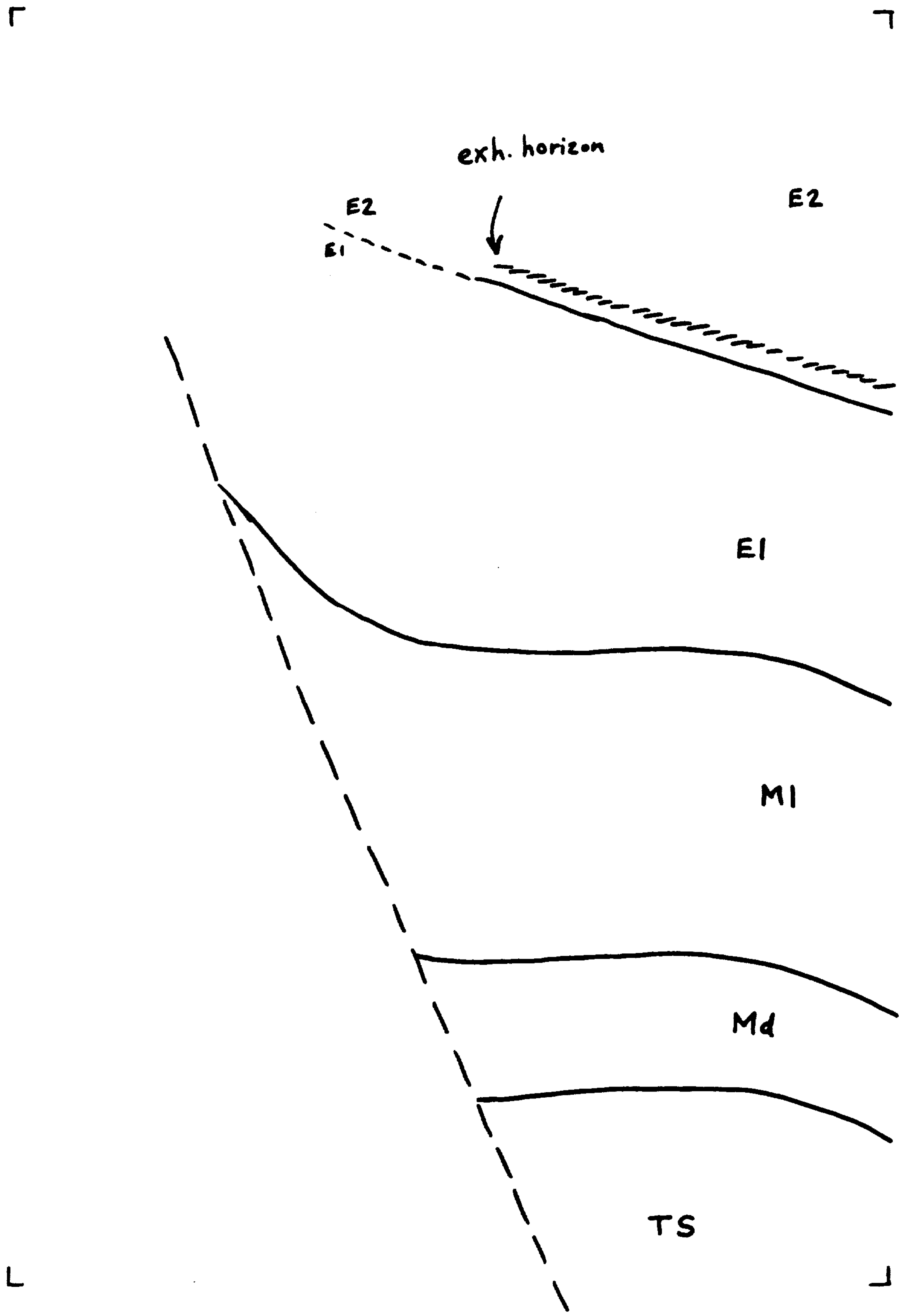
3000N TM



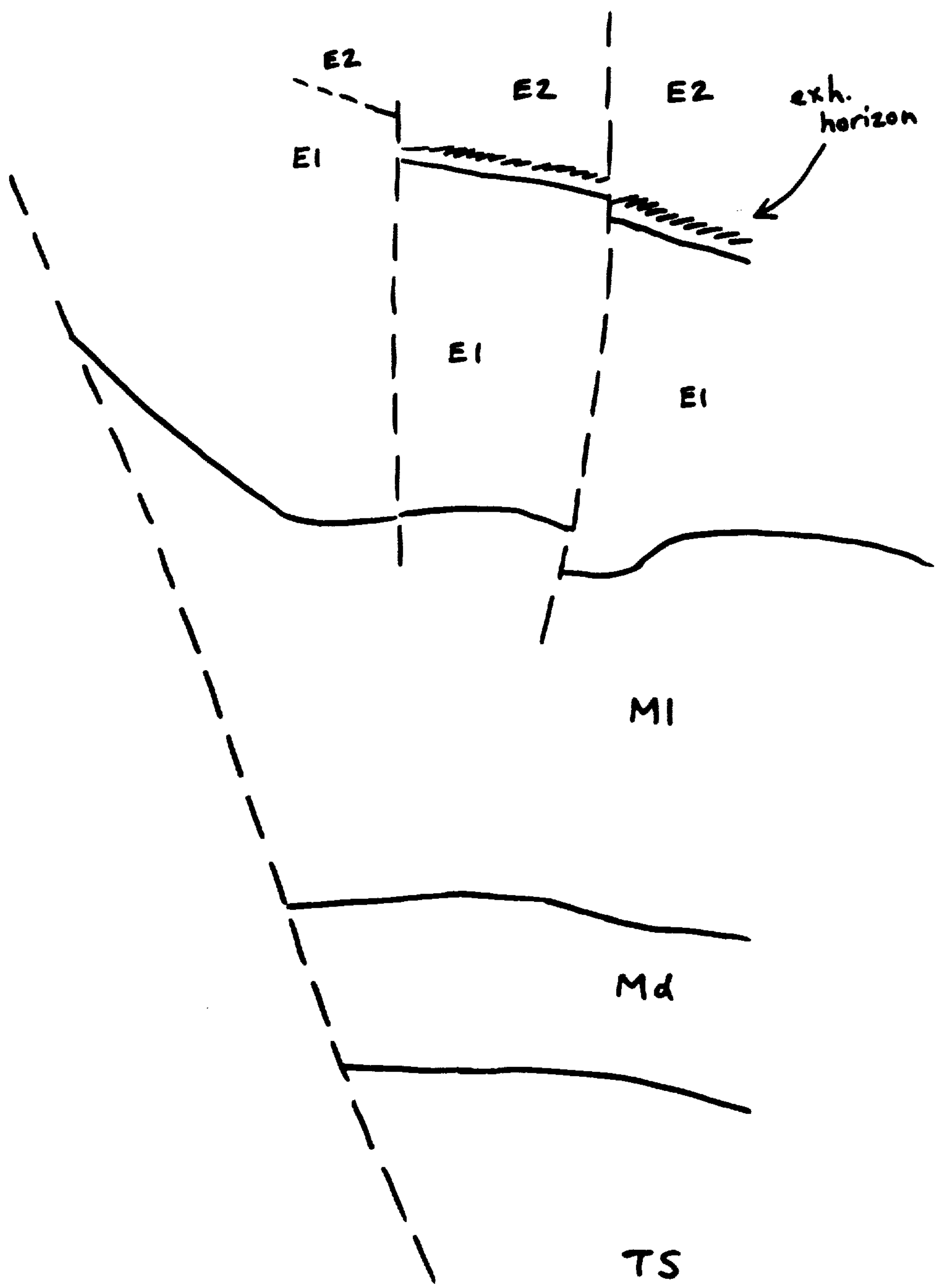
3125N TM



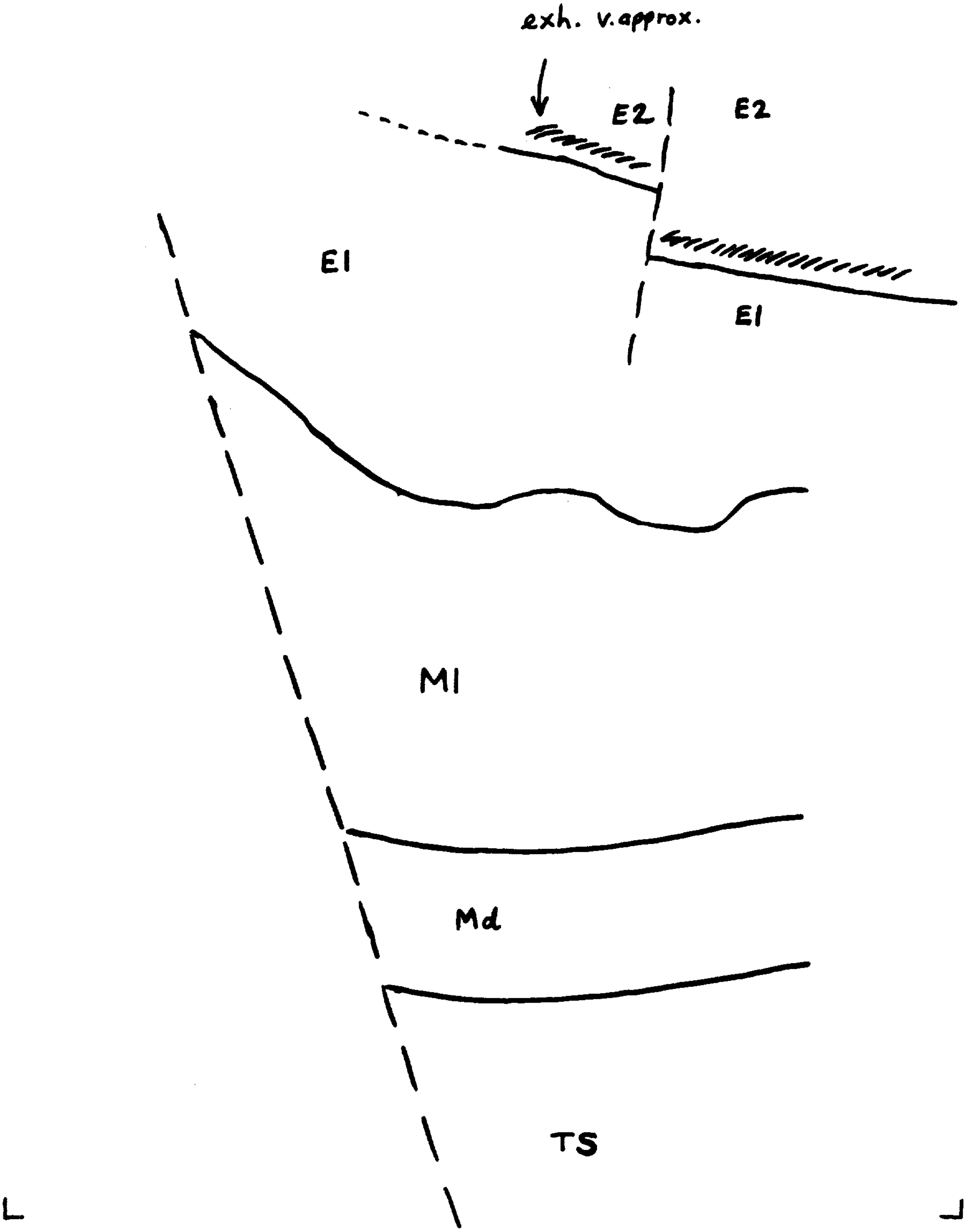
3175N TM



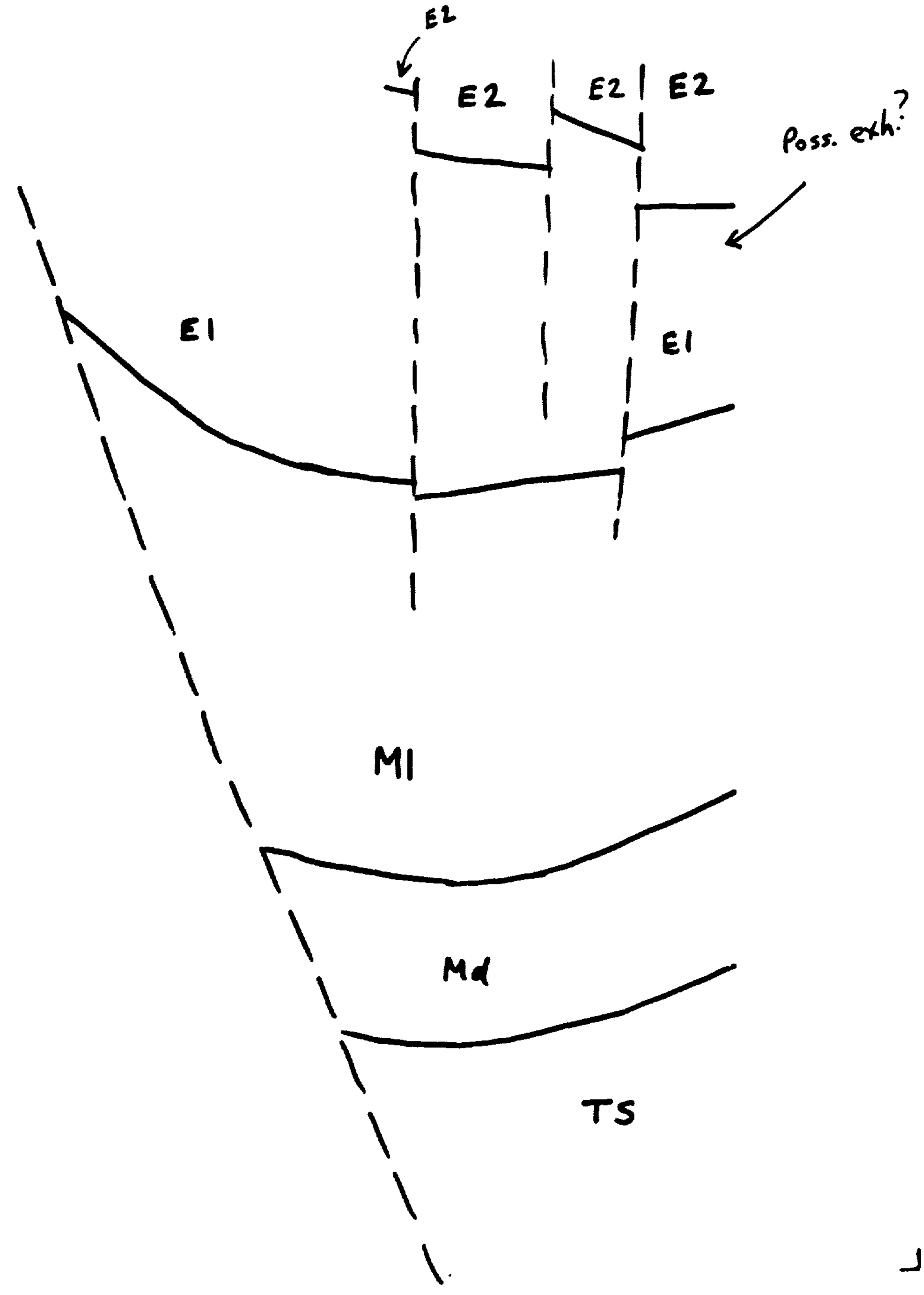
3225 TM



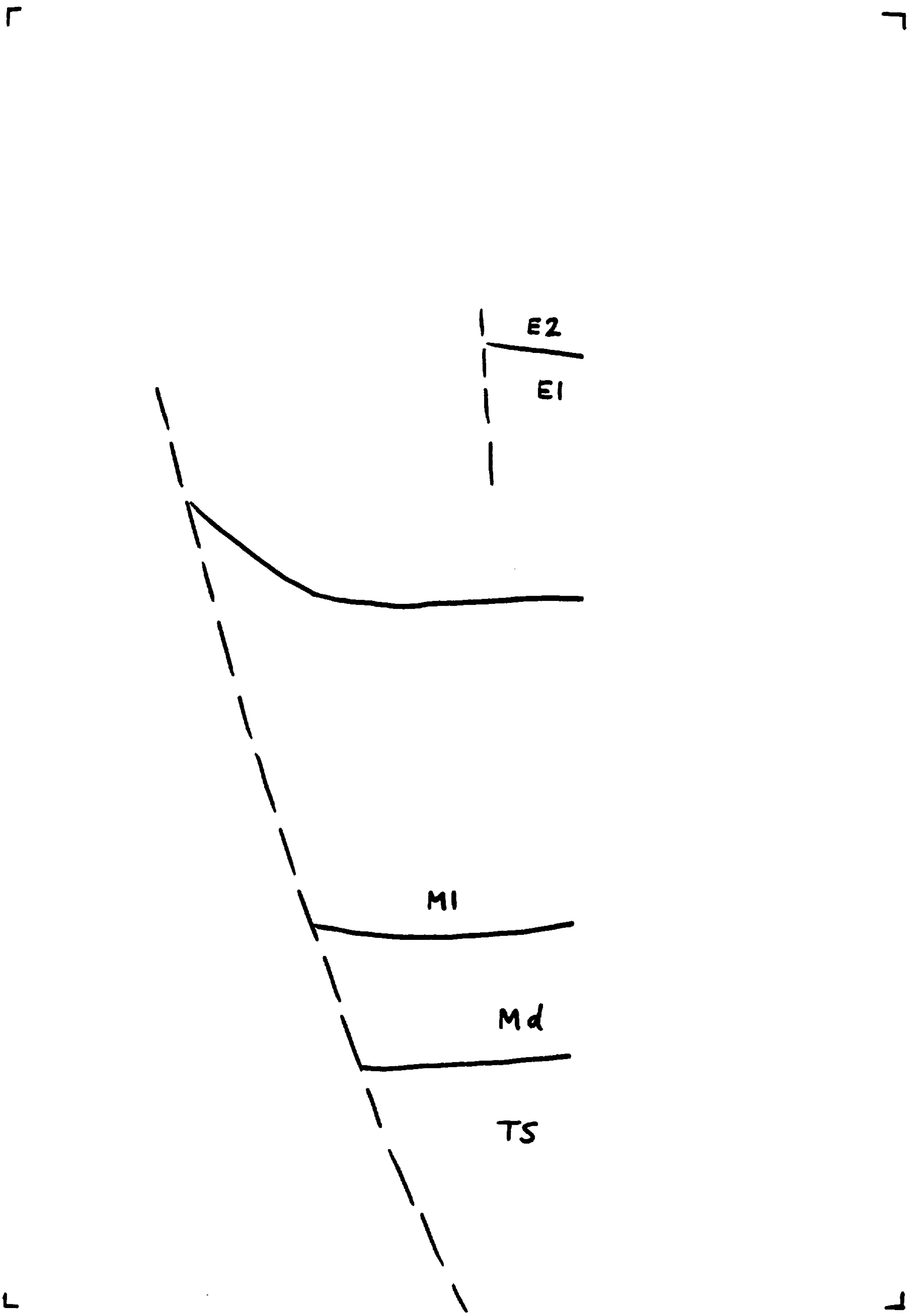
3275 N TM



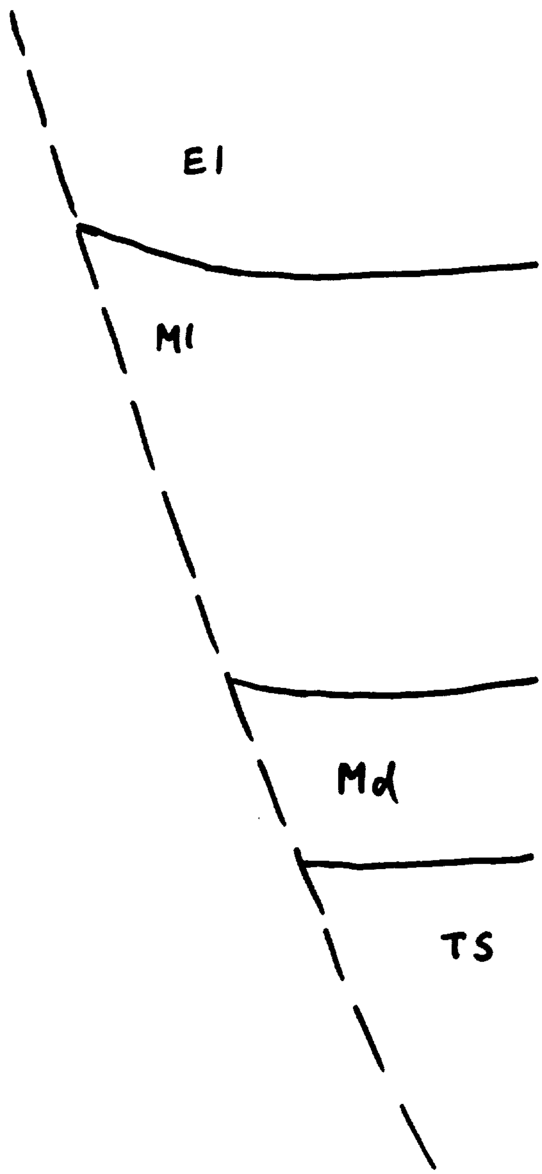
3325N TM



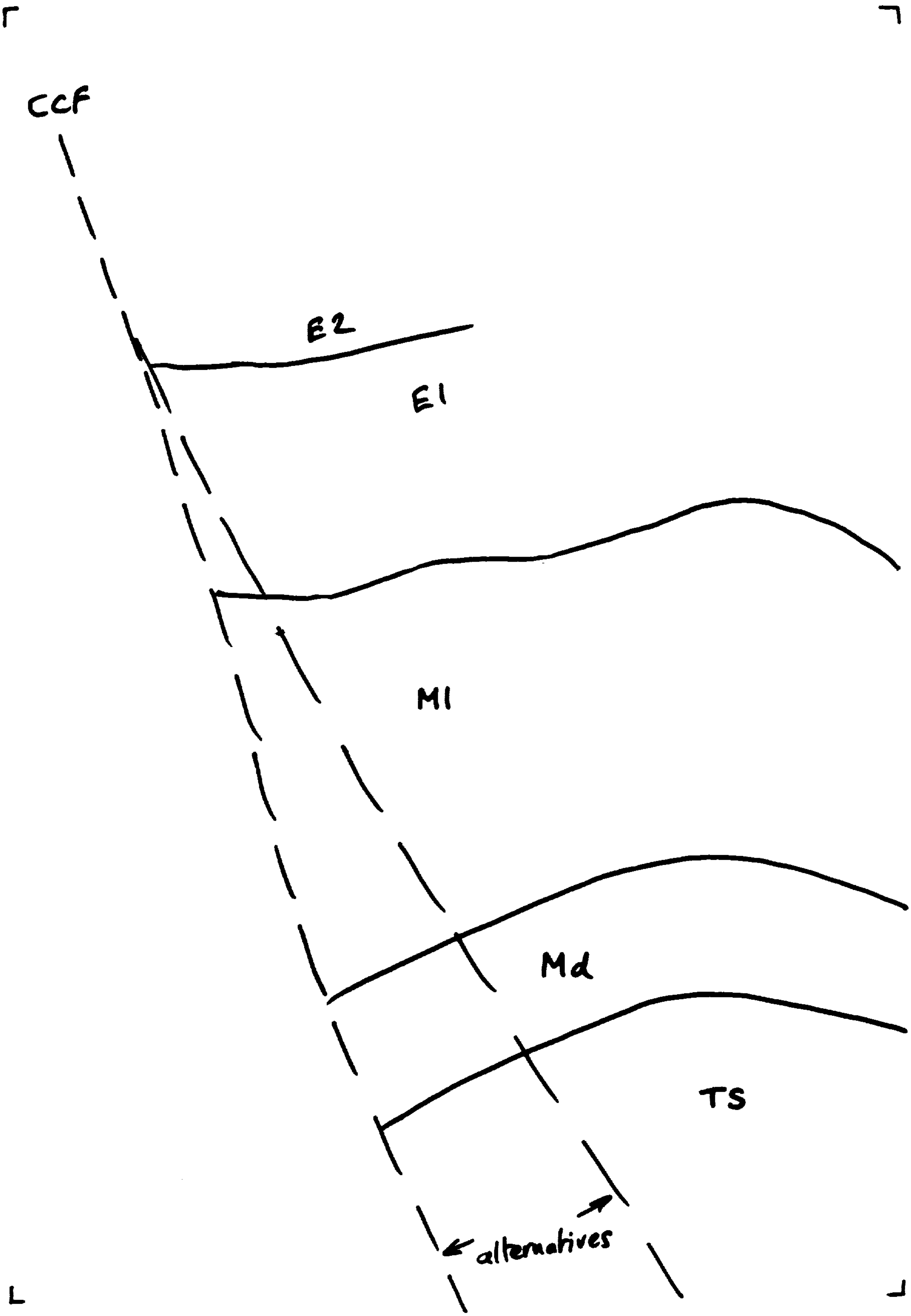
3375N TM



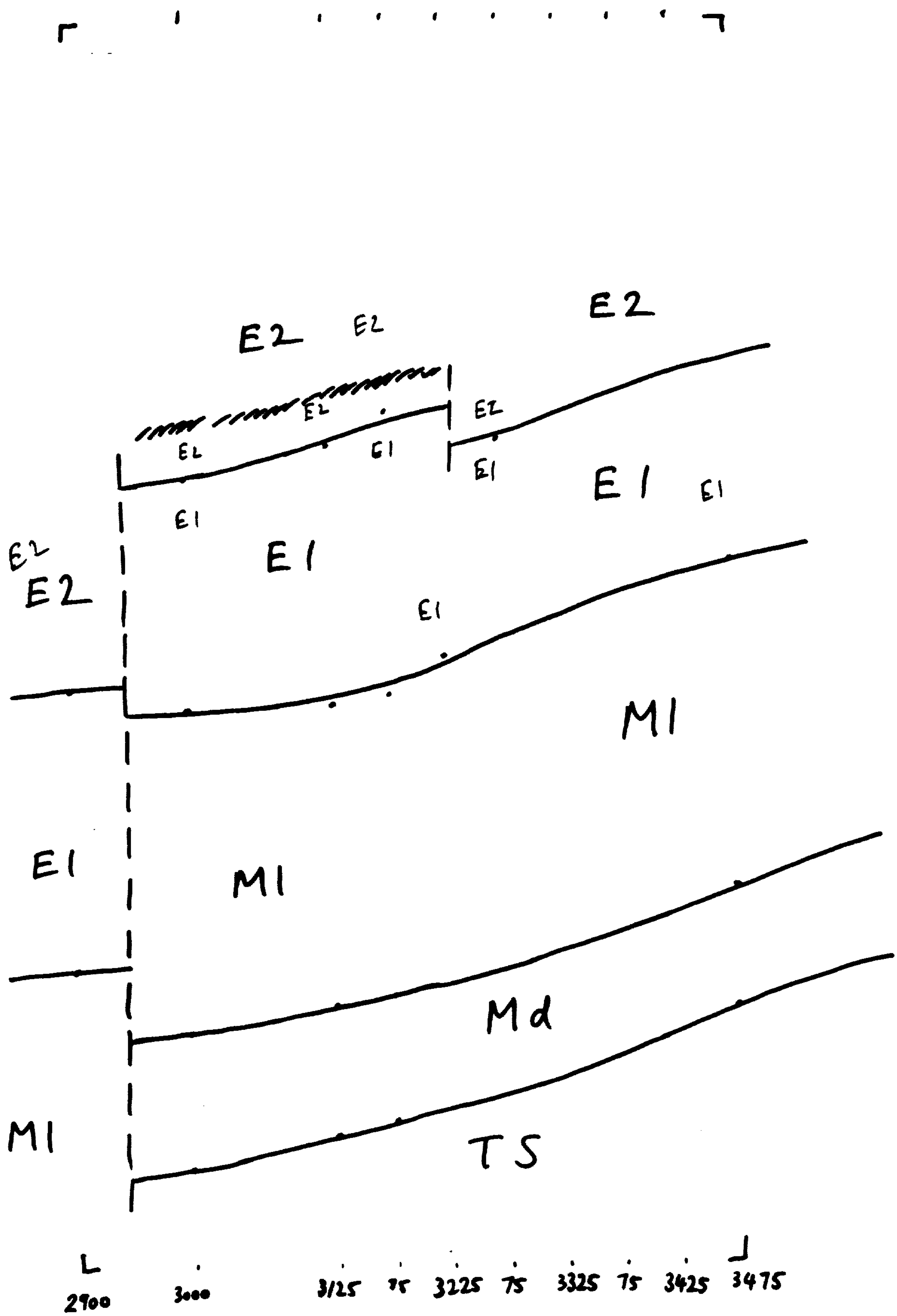
3425N TM



3475N TM

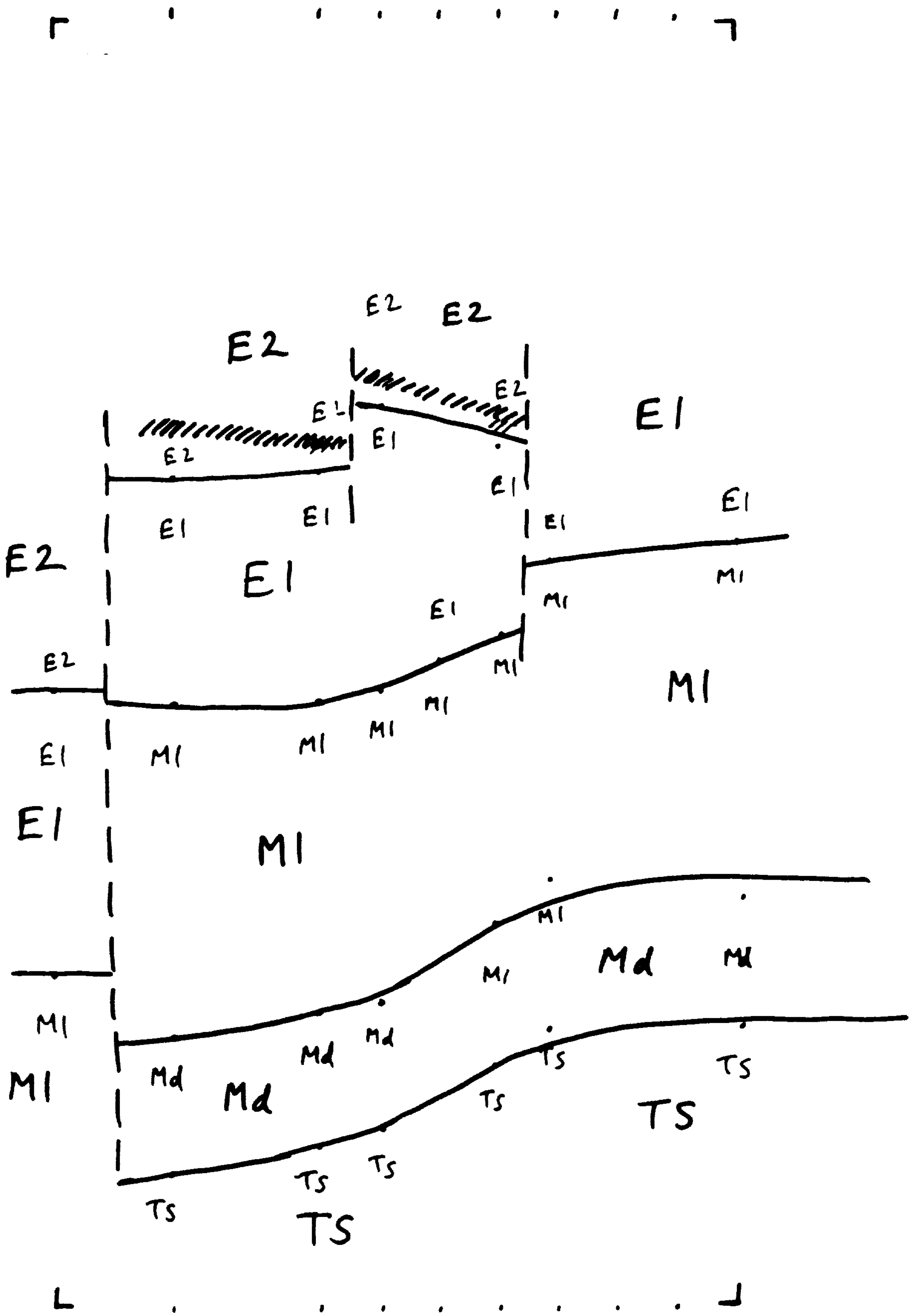


5250 E TM

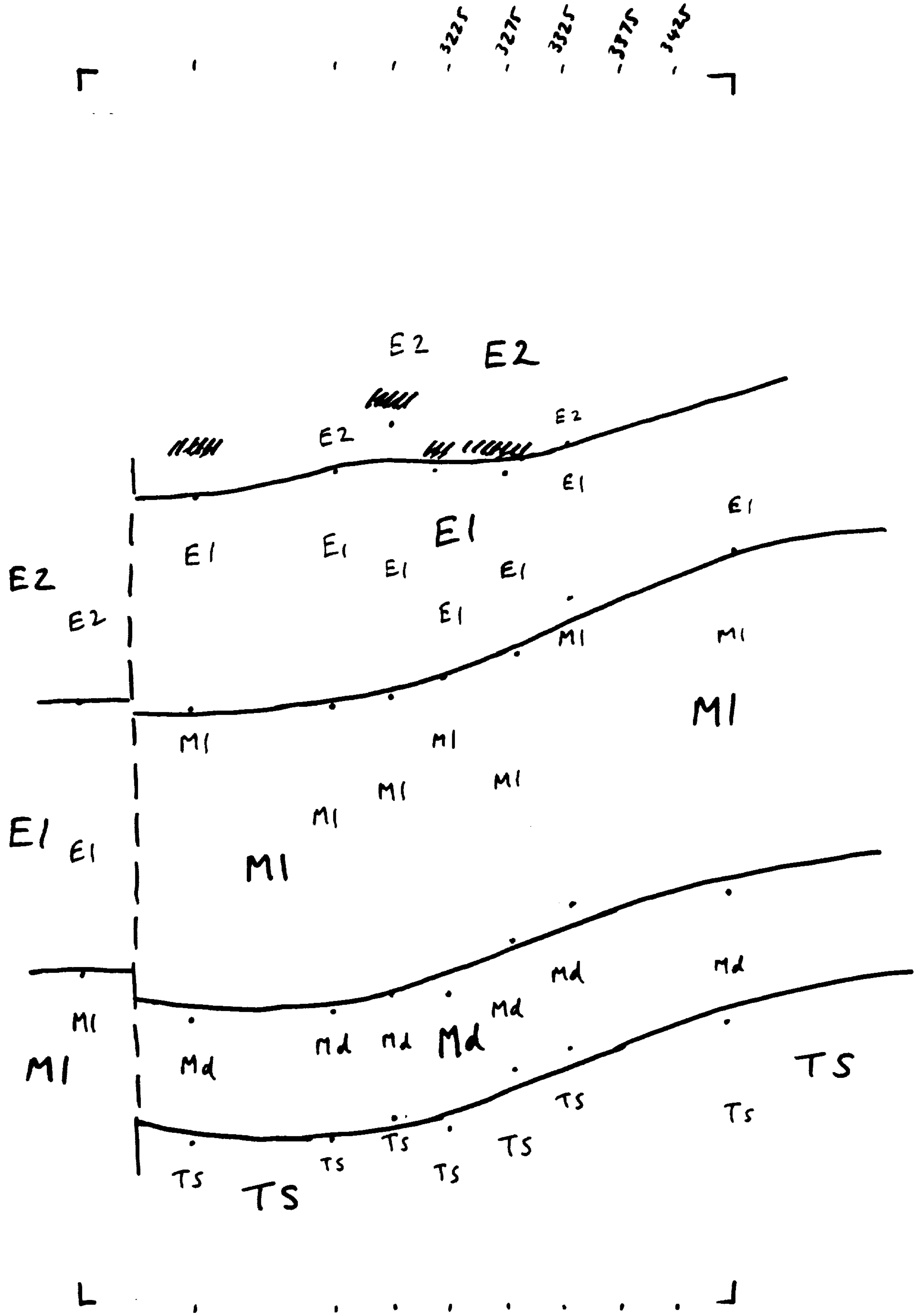


E2
E2
E2
E2
E2
E2
E2
E1
E1
E2
E2
E1
E1
E1
E1
E1
E1
M1
E1
M1
Md
M1
TS
2900
3000
3125
75
3225
75
3325
75
3425
3475

5200E TM

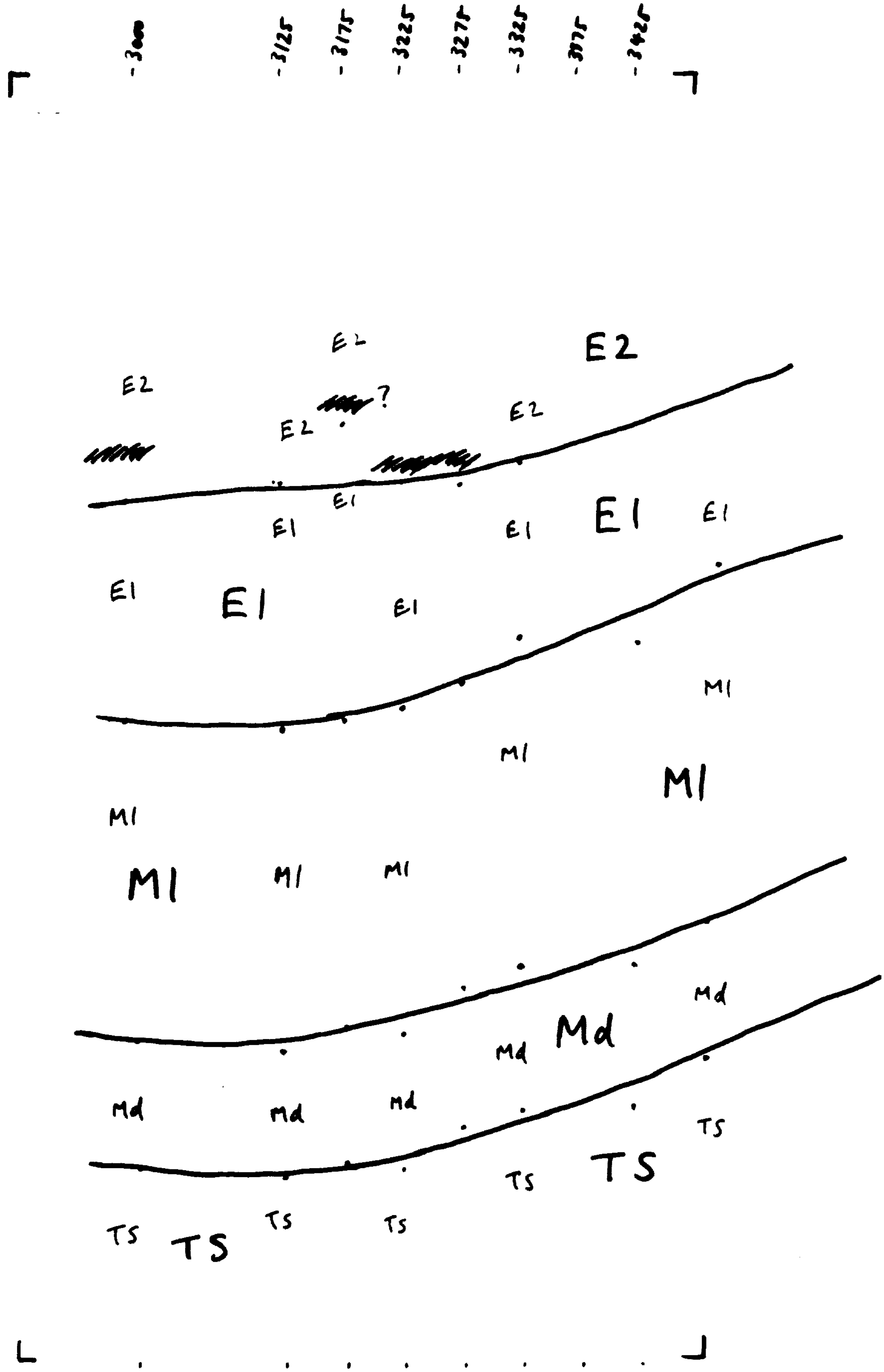

E2
E2
E2
E2
E1
E2
E1
E1
E1
E1
E1
E1
E1
E2
E1
E1
M1
E2
M1
M1
E1
M1
M1
M1
M1
M1
E1
M1
M1
Md
Md
M1
Md
M1
Md
Md
TS
TS
Ts
Ts
TS
Ts
Ts
Ts
TS

5150 E TM

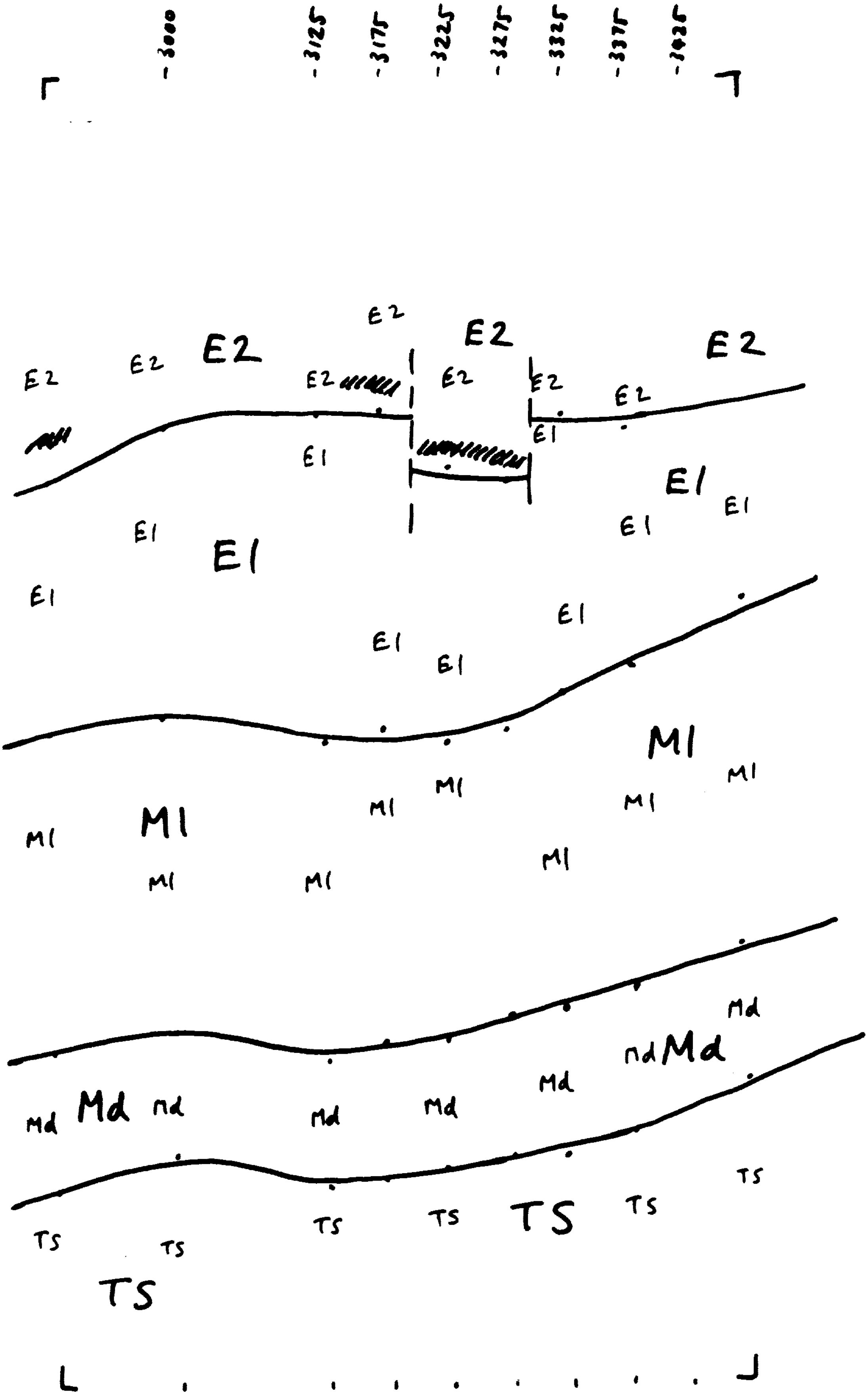


3225
3275
3325
3375
3425
E2
E2
E2
E2
E1
E1
E1
E1
E1
E1
E1
E1
E2
E2
M1
M1
M1
M1
M1
M1
M1
M1
M1
E1
E1
M1
Md
Md
M1
M1
Md
Md
Md
Md
Md
TS
TS
Ts
Ts
Ts
TS
Ts
Ts
TS

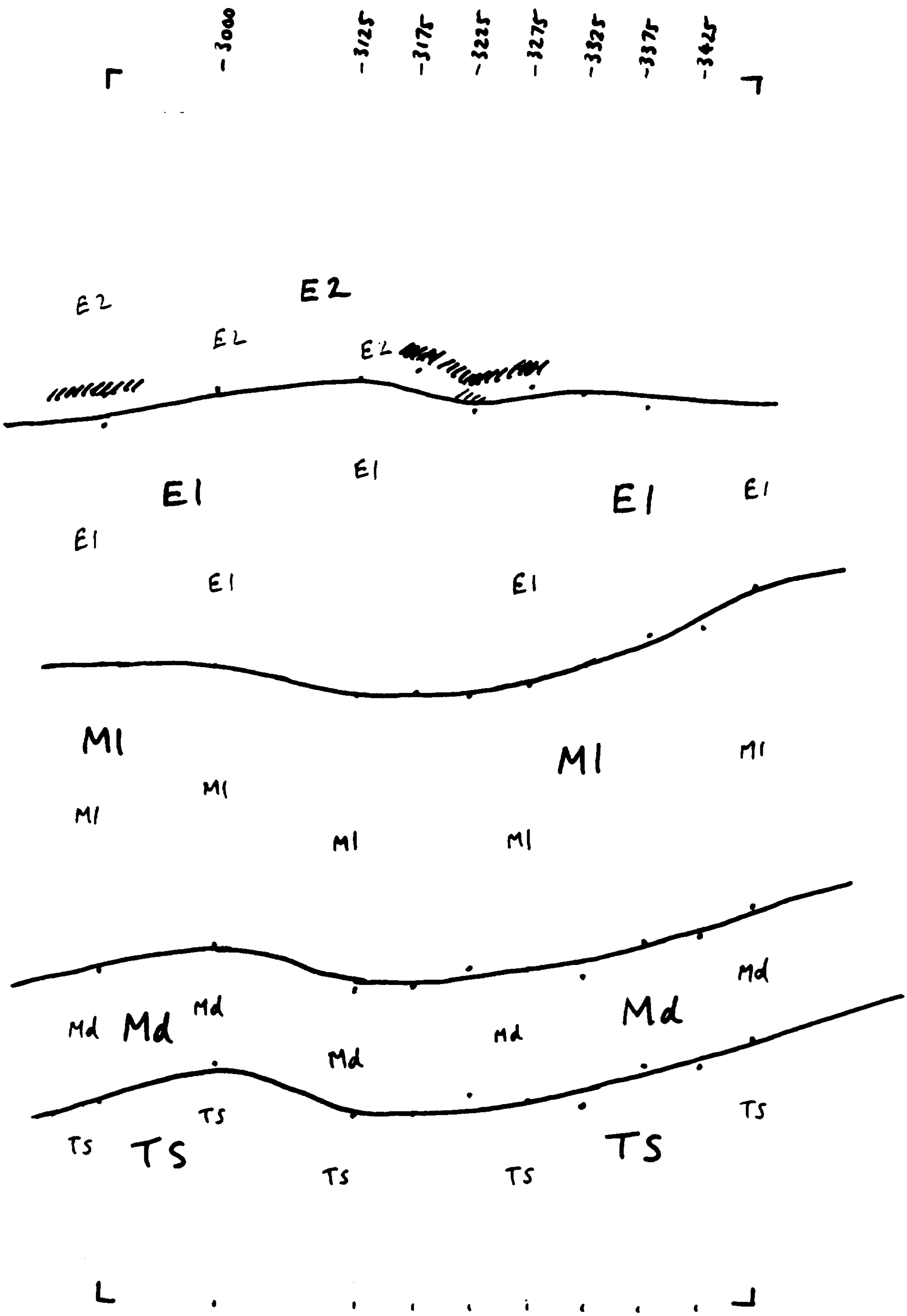
5100 E TM



5050 E TM

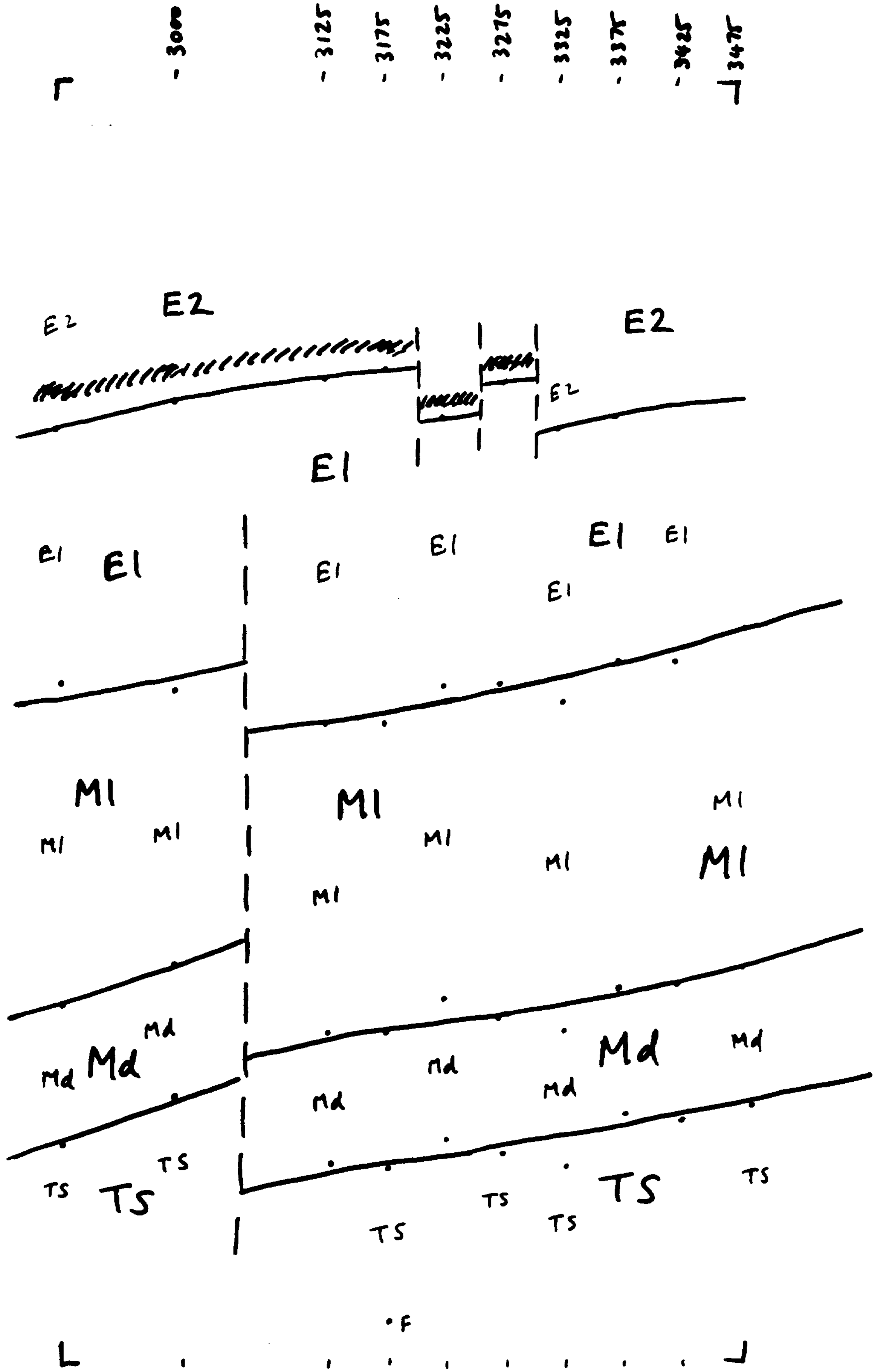


5000E TM

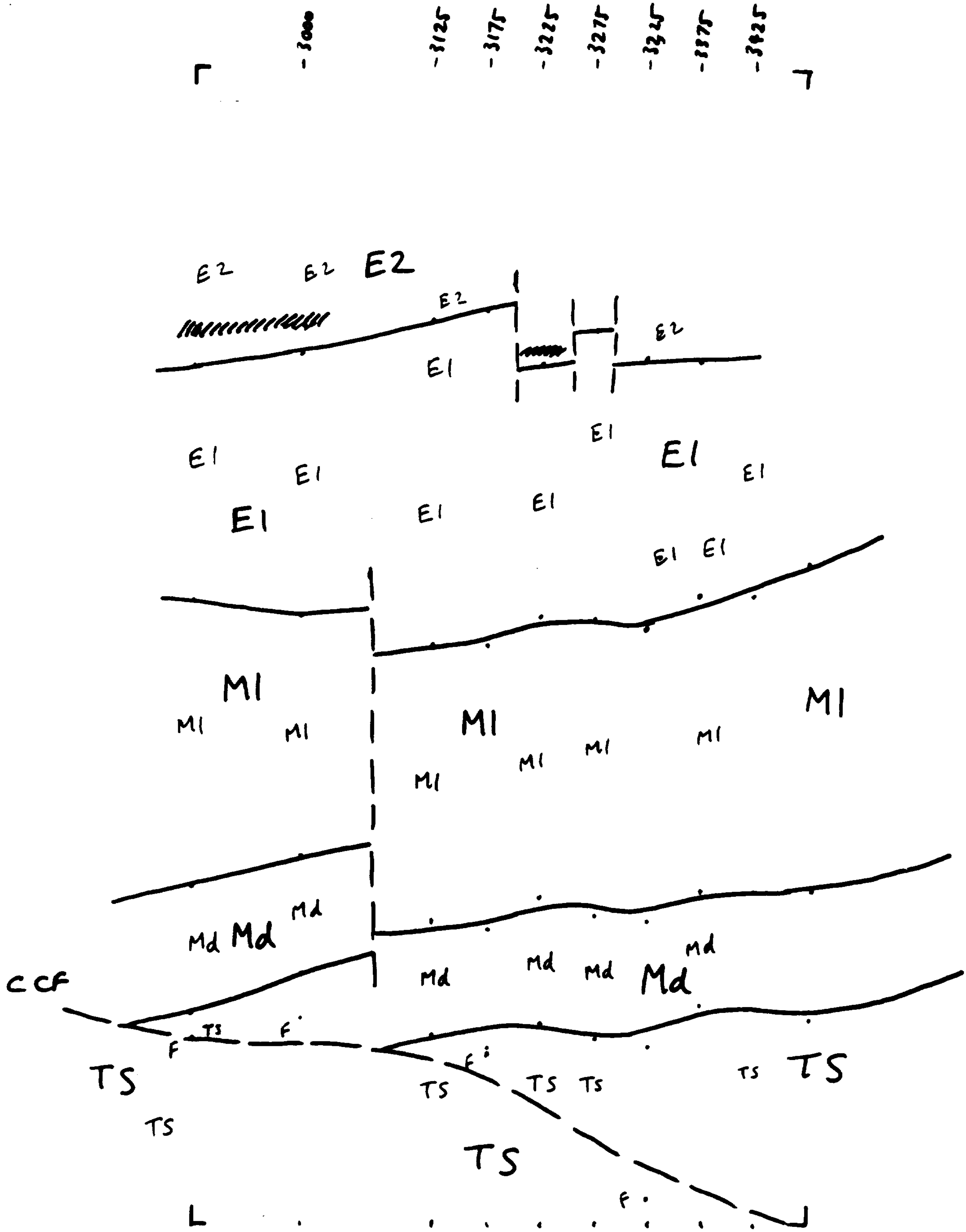


-3000
-3125
-3175
-3225
-3275
-3325
-3375
-3425
E2
E2
E2
E2
E1
E1
E1
E1
E1
E1
E1
M1
M1
M1
M1
M1
M1
M1
Md
Md
Md
Md
Md
Md
Md
TS
TS
TS
TS
TS
TS
TS

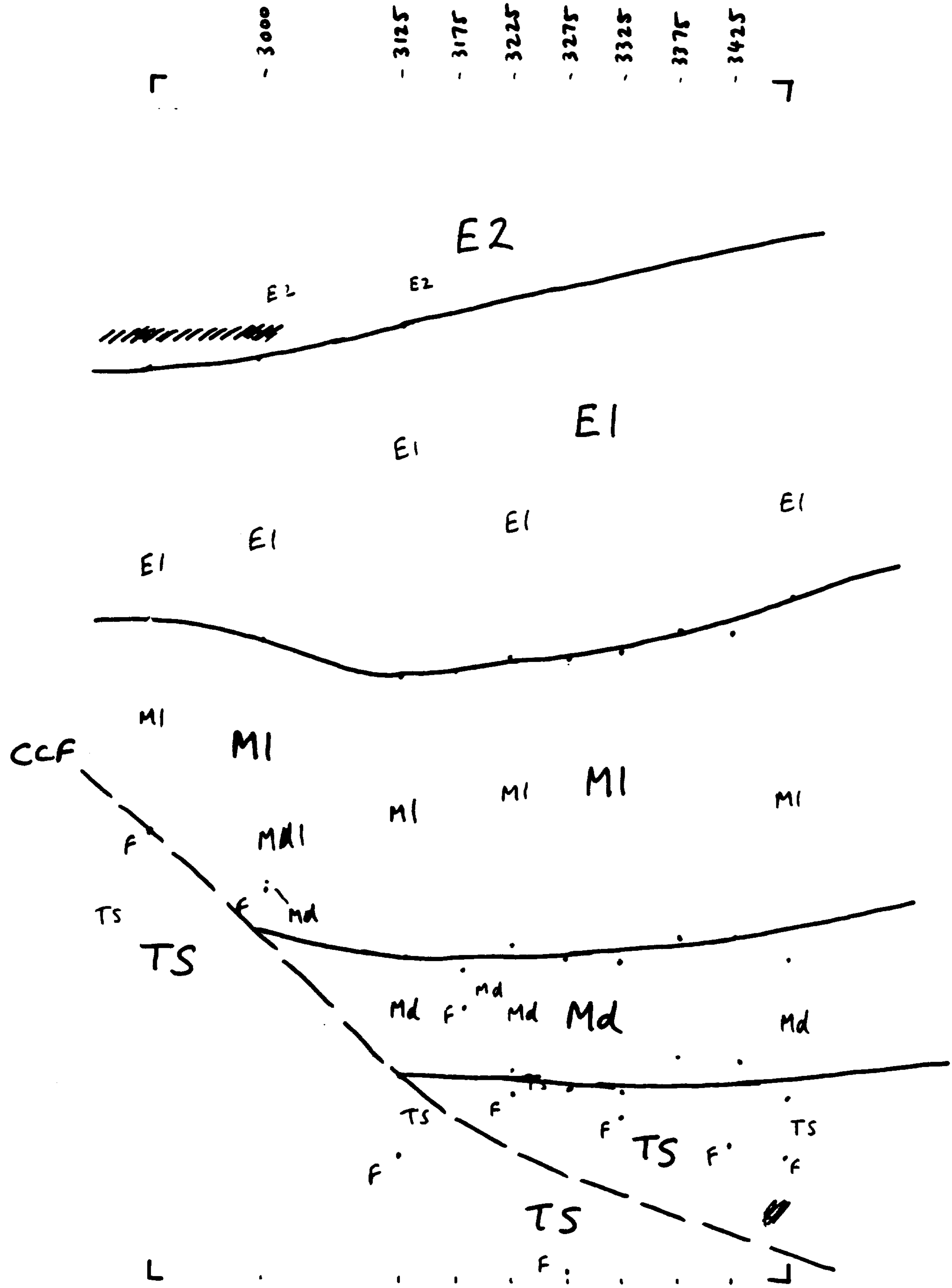
4950 E TM



4900 E TM

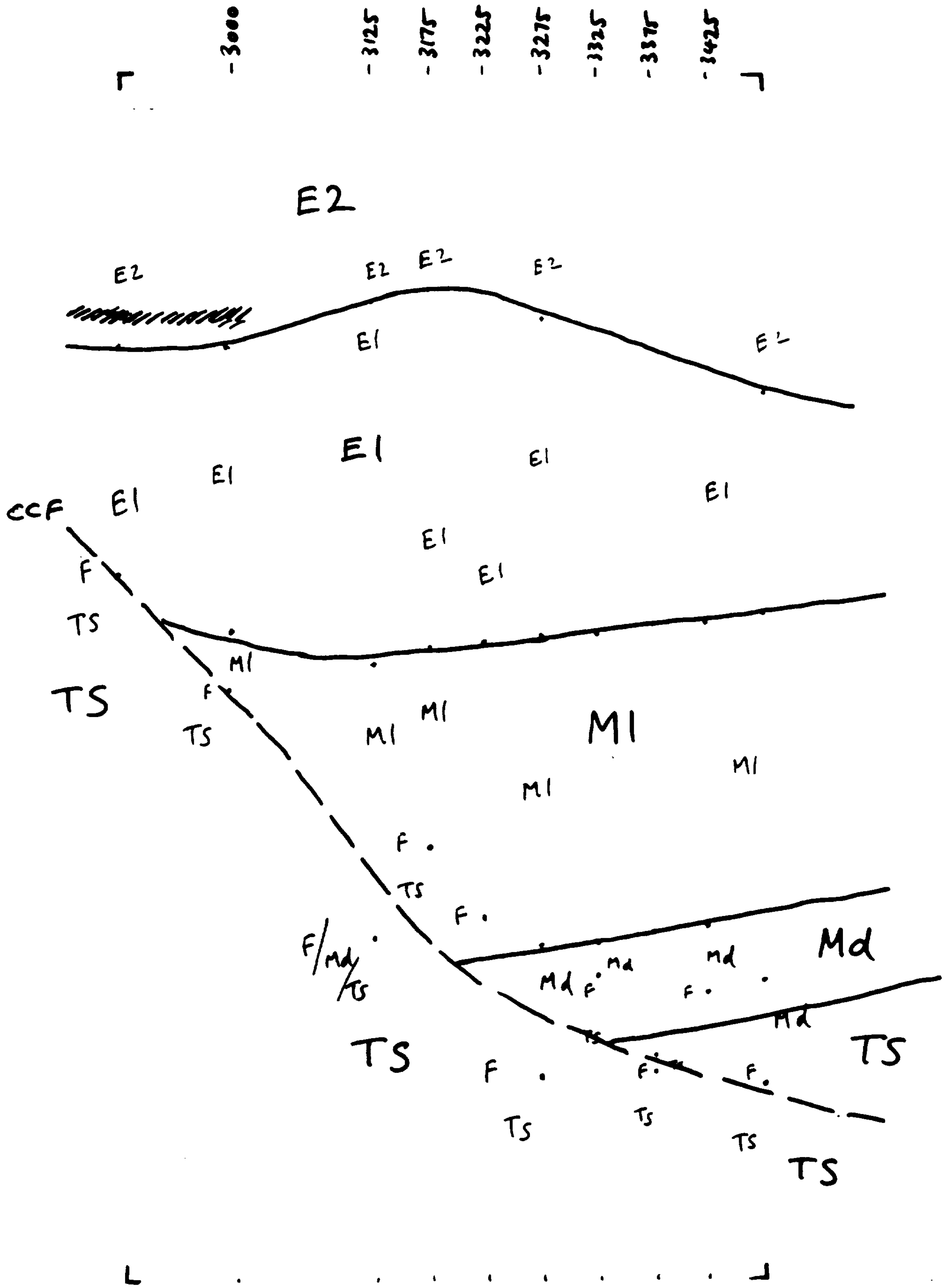


4850 E TM

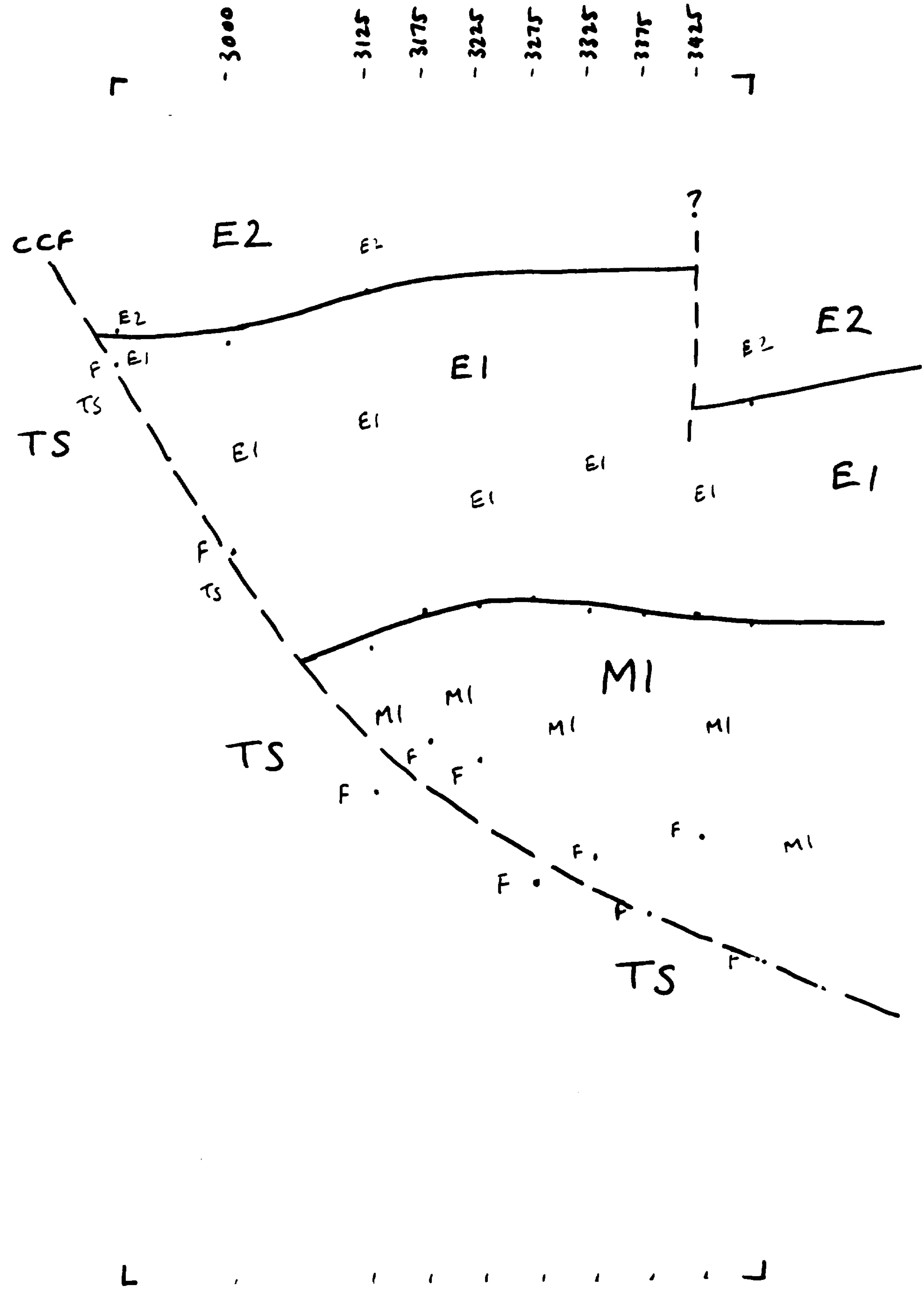


3000
3125
3175
3225
3275
3325
3375
3425
E2
E2
E2
E1
E1
E1
E1
E1
E1
M1
M1
CCF
M1
M1
M1
M1
F
Md1
TS
F
Md
TS
Md
F
Md
Md
Md
Md
TS
F
TS
F
TS
F
TS
F
F
TS
F

4800E TM

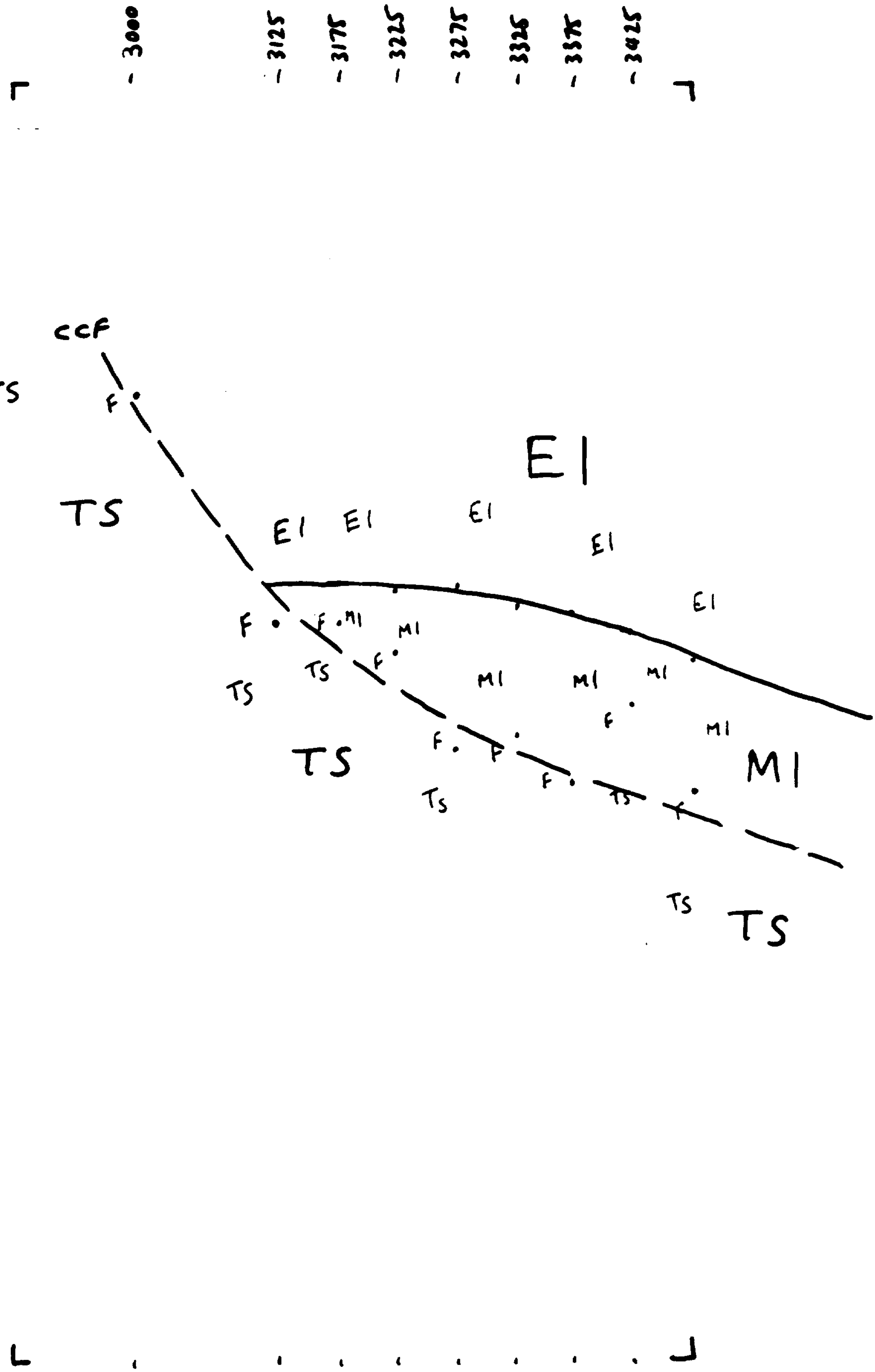

-3000
-3125
-3175
-3225
-3275
-3325
-3375
-3425
E2
E2
E2
E2
E2
E2
E1
E1
E1
E1
E1
E1
E1
E1
CCF
F
TS
TS
M1
F
TS
M1
M1
M1
M1
M1
F
TS
F
F/Md/TS
Md
Md
Md
Md
F
F
Md
TS
TS
F
F
F
Ts
Ts
TS
TS

4750 E TM

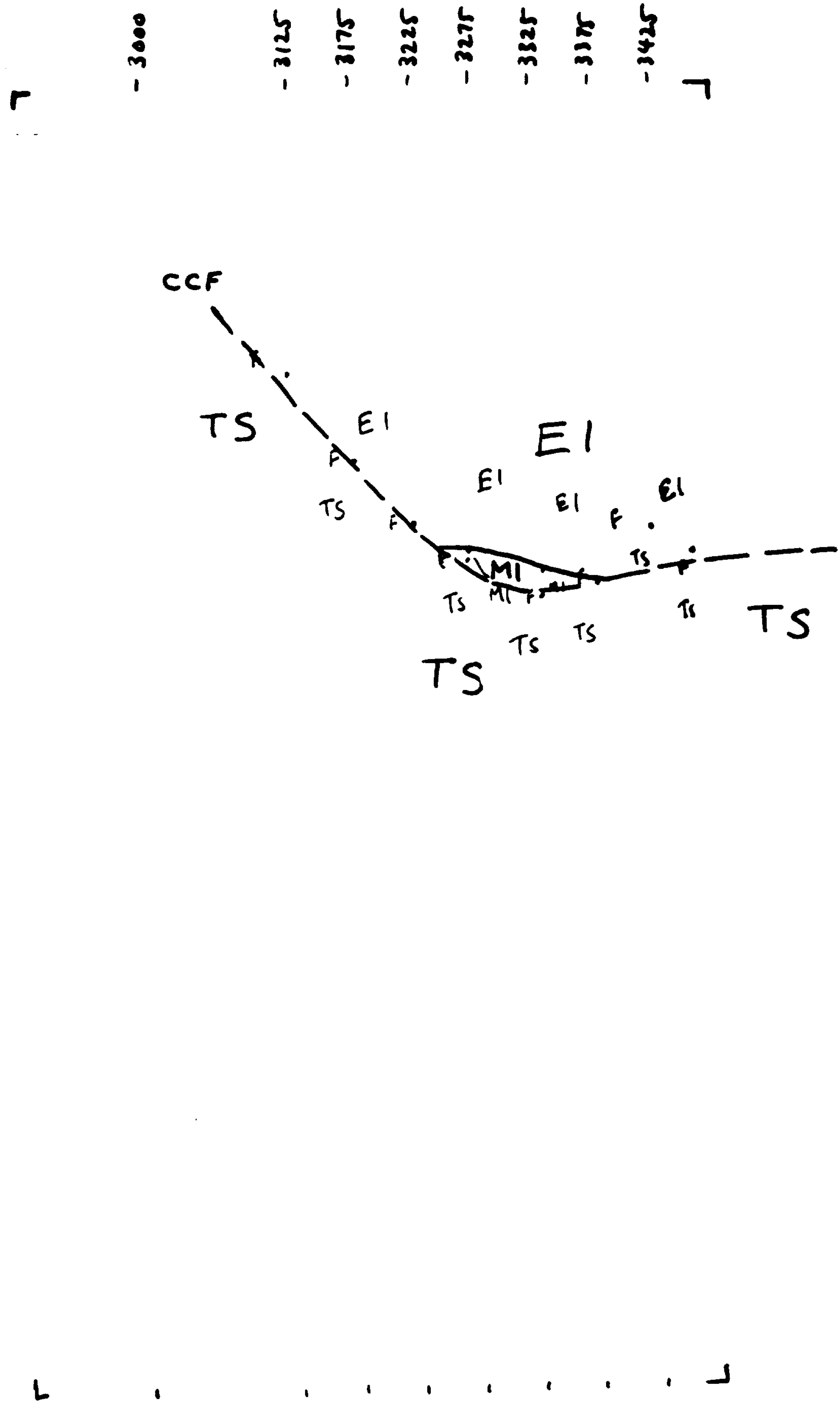


3000
3125
3175
3225
3275
3325
3375
3425
?
CCF
E2
E2
E2
E1
F
TS
TS
E1
E2
E2
E1
E1
E1
E1
E1
E1
E1
F
TS
M1
M1
M1
M1
M1
TS
F
F
F
F
F
F
F
F
M1
TS

4700 E TM


3000
3125
3175
3225
3275
3325
3375
3425
CCF
TS
TS
F
E1
E1
E1
E1
E1
E1
E1
F
F
M1
M1
F
TS
TS
M1
M1
M1
F
M1
F
F
TS
F
M1
Ts
TS
TS
TS

4650 E TM



APPENDIX B

Diamond Drill Logs

HOLE NO: SSD-99-64 SECTION:43100N GRID:SILVER CK S

PROJECT CODE :SILVERTIP
TENEMENT :SILVERTIP MINING
PROSPECT :CORPORATION
:
GRID :SILVER CK S
MAP REFERENCE: 104/O-16W
LOCATION :LIARD MD, BC
HOLE TYPE S

*** COLLAR COORDINATES AND RL ***

NOMINAL 43094.00mN 24752.00mE 1370.00RL

Pre-collar depth: Final depth: 502.00

Purpose of hole: TEST CSAMT ANOMALY A
Hole status: COMPLETED
Comments: NO CHIMNEY MINERALIZATION INTERCEPTED. 3.9 METRES LOWER ZONE.

*** SURVEYDATA ***

Survey Method: REFLEX EZ-SHOT

Depth	Azimuth	Inclination
0.00	0.00	-90.00
11.30	102.10	-89.70
46.30	310.50	-89.40
70.70	323.80	-89.00
116.40	330.50	-86.40
206.30	329.70	-85.70
248.40	322.80	-85.70
294.70	322.90	-85.80
343.50	322.90	-85.50
386.20	323.90	-84.90
404.50	323.50	-85.30
447.10	322.60	-84.50
498.00	323.40	-84.00

*** SUMMARY LOG ***

0.00	6.10	OVERBURDEN
6.10	20.90	CARBONACEOUS ARGILLITE INTERBEDDED SILTSTONE / ARGILLITE
20.90	25.90	MUDSTONE
25.90	26.50	FAULT ZONE
26.50	29.60	1B
29.60	29.90	FAULT ZONE
29.90	44.70	SANDSTONE MUDSTONE CONGLOMERATE
44.70	44.90	FAULT ZONE
44.90	56.60	INTERBEDDED SILTSTONE / MUDSTONE
56.60	144.00	SANDSTONE

*** DRILLING SUMMARY ***

DIAMOND	0.00 6.10 11.43 CM
Drill contractor:	DJ DRILLING
Drill rig:	JKS BOYLES 56
Date started:	17/8/99
Date finished:	28/8/99
Logged by:	STEVE ROBERTSON
Relogged by:	
Sampled by:	CHRIS AKELAITIS
DIAMOND	6.10 502.00 9.56 CM
Drill contractor:	DJ DRILLING
Drill rig:	JKS BOYLES 56
Date started:	17/8/99
Date finished:	28/8/99
Logged by:	STEVE ROBERTSON
Relogged by:	
Sampled by:	CHRIS AKELAITIS

Material left in hole: NONE
Base of complete oxidation 6.10
Top of fresh rock: 6.10
Water first encountered: 35
Water inflow estimate: 0

*** SIGNIFICANT ASSAYS ***

From	To	Width	Ag g/t	Pb %	Zn %
224.64	224.91	0.27	128.20	3.17	3.56
225.45	227.86	2.41	139.89	2.41	12.52

Checked and signed:__________ Date:________

HOLE NO: SSD-99-64	SECTION:43100N	GRID:SILVER CK S

144.00	151.30	MUDSTONE SILTSTONE SANDSTONE
151.30	151.70	FAULT ZONE
151.70	168.00	SILTSTONE MUDSTONE
168.00	207.00	MUDSTONE SANDSTONE / SILTSTONE FAULT ZONE
207.00	217.70	CALCAREOUS ARGILLITE
217.70	224.60	LIMESTONE
224.60	228.60	BASE METAL MASSIVE SULPHIDE
228.60	322.60	MCDAME LIMESTONE
322.60	331.00	FAULT ZONE
331.00	354.40	MCDAME LIMESTONE
354.40	358.30	DOLOSTONE
358.30	473.00	DOLOSTONE
473.00	502.00	TAPIOCA SANDSTONE DOLOSTONE
502.00		END OF HOLE

Checked and signed:________________ Date:________

1999
S DRILL LOG

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
0.00	6.10	OVERBURDEN Casing through loose bedrock								
6.10	20.90	CARBONACEOUS ARGILLITE INTERBEDDED SILTSTONE / ARGILLITE Very broken core for entire interval. 6.70-20.90 MUDSTONE SILTSTONE Dark grey mudstone with occasional silty/sandy beds up to 6 centimetres thick. Finely laminated. Angle to core axis averages 70 - 90 degrees but is locally very variable. Pyrite is very fine grained (< 1mm), disseminated and ubiquitous. Very poor recovery 6.70 - 11.30m. Selected areas very carbonaceous. Locally calcareous. Abundant fault zones sub parallel to bedding. Can be gougy over few mm to 5 centimetres. Strongly graphitic in selected areas.	2AA							
20.90	25.90	MUDSTONE Dark grey to black mudstone, very incompetent and friable. 20.90-24.50 2AA CARBONACEOUS ARGILLITE Dark gray to black, very incompetent, and friable core. Thinly laminated, with strong pyrite where more carbonaceous. Frequent small gougy or graphitic slip planes. Limonitic quartz veins are generally parallel to bedding. 24.50-25.90 2AA CARBONACEOUS ARGILLITE Similar to previous interval with only minor quartz.	2AA							
25.90	26.50	FAULT ZONE Graphitic and Gougy. Core too broken to get an orientation.	FZ							
26.50	29.60	1B SANDSTONE Immature sandstone. Finely laminated to semi massive. Fragments flattened parallel to bedding which is approximately 10 degrees to core axis. Core is moderate competent although very few pieces greater than 10 centimetres long. Most fractures limonitic. Trace amount pyrite	1B							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
29.60	29.90	FAULT ZONE 30 degrees to core axis. 8 centimetres of quartz at top of interval. Very gouge and graphite rich.	FZ							
29.90	44.70	SANDSTONE MUDSTONE CONGLOMERATE 29.90-30.10 MUDSTONE MUDSTONE Dark gray finely laminated mudstone 30.10-33.00 MUDSTONE / SANDSTONE Med to dark gray mudstone with interbeded sandstone. Mudstone dominated by ripup clasts indicating turbiditic environment. Frequent slip planes at 45 to 65 degrees to core axis. Beds of sandstone up to 15 centimetres thick. 33.00-37.10 SANDSTONE Several series of graded bedding, with each series up to 50 centimetres thick. Coarsest fragments are up to 2mm X 8mm. Strongly mixed fragment lithology and grain size. Soft sediment slumps and growth faults. Bedding at 25 degrees to core axis. Lower 1m of interval is dominated by slip planes (1 - 2 centimetres) at 10 - 20 degrees to core axis. Also contains up to 25% limonitic quartz filling fracture at 10 - 90 degrees to core axis. 37.10-44.70 SANDSTONE At 37.1 core is competent and dominated by sandstone. Weakly bedded at 5 - 15 degrees to core axis. 1cm quartz veinlets at 0 - 15 degrees to core axis. No mudstone in interval. Noncarbonaceous. Noncalcareous. Pyrite blebs from 5mm to 1 centimetre across, and minor disseminated pyrite grains in matrix of sandstone. Some pyrite grains have distinct quartz pressure shadows perpendicular to core axis.	1B	199251	44.68	45.50		12.80	0.29	0.81
44.70	44.90	FAULT ZONE 65 degrees to core axis. Gouge and graphitic. 2cm wide sulphide veinlet - 65% pyrite, 35% quartz. Minor hairline fracture of galena.	FZ							
44.90	56.60	INTERBEDDED SILTSTONE / MUDSTONE Possible repeat of unit 2AA 44.90-45.60 INTERBEDDED SILTSTONE / MUDSTONE Strongly brecciated with many clasts of sulphide and quartz. Sulfides clasts are dominantly pyrite with lessor pyrrhotite and possibly sphalerite. Fragments appear to be water lain in a matrix of fine laminated mudstone.	2AA	199252	45.50	45.72		5.60	0.02	0.01

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		45.60-45.85 MASSIVE SULPHIDE VEIN Is parallel to stratigraphy (15 degrees to core axis) but does not appear to be exhalite in origin. Massive pyrite with minor quartz and possibly sphalerite. 45.85-56.60 MUDSTONE Dark grey to black arg with abundant (10 - 15%) pyrite nodules. Laminated drape over nodules. 15% py/qtz vein @ 46.60 - 46.75 metres, parallel to stratigraphy. (15 degrees to core axis). Core is badly broken and 15% qtz/py to 50.00 metres. Then core becomes more competent and sulphide occurs as laminae and as small (<5mm) nodules along bedding. Host is very black and carbonaceous.		199253	45.72	47.12	0.01	5.00	0.10	0.02
56.60	144.00	SANDSTONE Greywacke sandstone, consisting of serveral series of fining upward sequences. 56.60-64.95 sandstone Small broken zone (10 centimetres) may have been a fault. Dominantly sand with lessor silt and mudstone. Some fragments of finer material within a sandy matrix. 64.95-68.70 sandstone Gradual transition with interval above. Core more broken and finer grained with more turbidite textures. Sulfides component is much higher in finer material. Bedding at 65 degrees to core axis. 68.70-89.00 sandstone Greywacke similar to 56.6 - 64.95m Core is competent. Sandy material with fining upwards sequences. Coarsest fragments up to 4 mm X 8mm (fine conglomerate). Occasional gougy slip planes at 20 - 50 degrees to core axis. Storng inc in diagenetic pyrite with mudstone content. Occurs as pyrite laminated or stringer. 5 centimetres gouge fault at 65 degrees to core axis at 89.0m. Some hairline fracture filled w/ cpy near fault. 89.00-91.70 INTERBEDDED SILTSTONE / ARGILLITE Interval dominated by argillite. Rip up clasts and graded bedding throughout. Small area of quartz infiltration at 90.70 - 90.85 metres. Core very broken and carbonaceous from 90.5 - 91.7 metres. 91.70-117.00 SANDSTONE CONGLOMERATE As interval 68.7 - 89.0 metres. 1 - 2 centimetreqtz veinlets +/-	1B							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		pyrite parallel to bedding at 95.2, 107.7 and 112.7 metres. Conglomerate more common than previous interval. 1 centimetre sulphide veinlet at 55 degrees to core axis at 101. 8m. Veinlet is 75% sphalerite, 2% galena 5% quartz 18% pyrite. 117.00-144.00 MUDSTONE SANDSTONE Gradational with interval above. Finer grained downhole. Fining upwards sequences become much thinner (few centimetres). Cross bedding and soft sediment deformation features are abundant. At 130.15 metres, gougy fault (15 centimetres) at 30 degrees to core axis. Bedding is oriented at 45 degrees to core axis.								
144.00	151.30	MUDSTONE SILTSTONE SANDSTONE Gradational contact with above unit. But sandstone component lessens very quickly down-hole. Pyrite ave 5% in stringers, disseminations, and in occasional nodules. Bedding 0 - 10 degrees to core axis. Graphitic in selected areas. Noncalcareous. Core still moderately competent. Bedding < 10 degrees to core axis.	1BA							
151.30	151.70	FAULT ZONE 25 degrees to core axis. Mildly gougy and graphitic.	FZ							
151.70	168.00	SILTSTONE MUDSTONE Same as 144.0 - 151.3 metres. Very distinctly laminated. At 153.0 metres the bedding angle starts to increase from 10 degrees to c/a; to 45 degrees to core axis at 160.0 metres. Core is moderately competent but displays frequent zones of breccia (very incompetent) probably associated with fault planes.	1BA							
168.00	207.00	MUDSTONE SANDSTONE / SILTSTONE FAULT ZONE 168.00-178.80 MUDSTONE Gradational transition from above unit. Silty component absent below 168 metres. Rock is black and relatively homogenous. Distinctly less competent than above section. Many zones of breccia and minor gouge. These zones have not been worked significantly as fragments of host are still intact. Rock generally contains 5% diagenetic pyrite as very fine laminae and very fine grained disseminations. Small fault zone at 171.8 metres to 179.0 metres. Pyrite laminations thicker (to 1cm) and 174 - 179 metres has significant quartz (5%) with pyrite. 178.80-181.10 FAULT ZONE Zone contains many rafts of original host rock (in original position)	1AA							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		between areas of moderate gouge and minor graphite. Zone at 65 degrees to core axis. 181.10-185.00 SANDSTONE/MUDSTONE SILTSTONE Coarser grained and less carbonaceous than above fault. Up to 5% quartz stringers and veinlets at all angles to core axis. Calcareous in some areas. 185.00-195.30 SANDSTONE/MUDSTONE FAULT ZONE Strongly disturbed zone with frequent breccia and fault gouge. 20 centimetre quartz vein at 60 degrees to core axis at 188 metres. Contacts are very irregular. 15 centimeter quartz vein at 40 degrees to core axis at 189.5 metres. Rock is very incompetent. 195.30-196.50 DYKE Aplite Dyke. Top contact broken; bottom contact very irregular but approximately 40 degrees to core axis. Light green, very fine grained and homogeneous. No phenocrysts. Nonmagnetic. Minor disseminated pyrite grains. Some degredation of feldspars to clay. 196.50-203.00 SANDSTONE/MUDSTONE FAULT ZONE Same as 185.0 - 195.3 metres. Strongest faulting towards bottom of interval. Bedding of intact sandstone at 40 - 50 degrees to core axis. 203.00-207.00 CARBONACEOUS MUDSTONE Gradational contact with unit above. Core slightly more competent down hole to point where a very carbonaceous, homogenous argillite is recogonizable at 203 metres. Bedding at 45 degrees to core axis. Contains up to 5% calcite filled tension gashes.								
207.00	217.70	CALCAREOUS ARGILLITE Still strongly carbonaceous, but also calcareous. Beds are up to 1 centimetre thick. Frequent soft sediment features. 5% of rock is calcite as tension gash filling. Tension gashes generally perpendicular to bedding (some parallel).	1AC							
217.70	224.60	LIMESTONE Abundant stylolites. Strong mosaic breccia, with up to 10% of rock as calcite in fractures. Breccia has light grey limestone fragments within a dark grey lime mud and calcite matrix. Syringapora.	MLS	199254	223.63	224.64		1.20	0.00	0.01

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
224.60	228.60	BASE METAL MASSIVE SULPHIDE Very irregular contact with limestone. Occasional remnant of limestone within massive sulfide. Sulfides at top and bottom of interval are dominantly pyrite with some galena and sphalerite in pyrite/quartz matrix around pyrite fragments. Middle of zone is dominantly sphalerite with lessor pyrite. This area is very incompetent, cumbling in most areas and some loss in interval (30 centimetres). Sphalerite forms large bladed crystals (to 15 mm), with at least two species readily identified (honey and dark red).	LZ	199255 199256 199257 199258 199259 199260	224.64 224.91 225.45 226.53 227.86 228.53	224.91 225.45 226.53 227.86 228.53 229.53	0.01 0.01 0.01 0.01 0.03	128.20 10.80 175.60 110.90 19.60 1.70	3.17 0.20 3.50 1.52 0.14 0.01	3.56 0.28 4.47 19.06 0.50 0.03
228.60	322.60	MCDAME LIMESTONE 228.60-234.00 LAMINATED SILTSTONE MOSAIC BRECCIA Intense bleaching of rock in upper 1.5 metres of interval. Stylolites throughout interval, many with pyrite. 234.00-238.40 LIMESTONE RUDSTONE - Massive stromatoporids with some rugose corals and one 2 centimetre bivalve. Stylolitic breccia 236.0 - 238.4 metres. 238.40-243.80 LIMESTONE MOSAIC BRECCIA MOSAIC BRECCIA - strongly stylolitic 243.80-248.80 LIMESTONE CRACKLE BRECCIA Brecciated amphipora rudstone. Contains up to 25% pyrite over 8 centimetres at 245.6 metres. Several small gougy faults at 60 degrees to core axis at 248.4 - 249.0 metres. 248.80-261.10 LIMESTONE CREAM COLOURED Bleached limestone. Intense recrystallization as envelopes along healed fractures. Very strong stylolite development. Possibly some remnant Thamnopora. Crackle breccia in selected areas. 261.10-271.40 LIMESTONE Medium grey laminated limestone mudstone. Laminations are0.1 - 1.0 centimetre thick and are oriented at 35 - 45 degrees to core axis. Minor areas of weak crackle breccia. Small intervals of strong amphipora floatstone but generally nonfossiliferous. 271.40-279.70 LIMESTONE As above interval but more fossiliferous and increased crackle breccia. Vug at 273.6 metres lined with calcite crystals and small amounts of a brilliant emerald green mineral. Strong amphipora rudstone at 272.0 - 272.8, Euriamphipora at 275.6 - 275.9 and	 MLS							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		small brachiopods, amphipora and Euryamphipora at 277.7 - 278. 3 metres. 279.30-296.80 LIMESTONE MOSAIC BRECCIA Mostly heterolithic medium grey limestone fragments in calcite/lime mud matrix. Minor pyrite flooding (10%) over 10 centimetres interval at 286.0 metres. Gougy fault zone at 287.3 - 287.5 metres at 30 degrees to core axis. Irridescent blue mineral (clay or zeolite) on slip planes. Breccia more heterolithic at 291.7 - 295.6 metres. 296.80-315.00 LIMESTONE FRACTURED As above but more broken. Strong light grey crackle breccia gives way to a strongly broken but unhealed rock. Slip planes at 0 - 10 degrees to the core axis. Many gougy areas. 315.00-322.60 LIMESTONE Medium grey, competent limestone. Some pyrite with minor galena flooding into fractures near a strong slip plane at 10 degrees to core axis at 317.2 metres. Took sample from 321.6 to 322.6 metres.		199262	321.60	322.60	0.01	0.70	0.00	0.01
322.60	331.00	FAULT ZONE Intensely disturbed interval. Quartz vein at 70 degrees to core axis bounded by and cut by zones of sulfide. Gougy with dominantly pyrite and lesser sphalerite and galena observed. Zone becomes gradually less disturbed towards the bottom of the interval.	FZ	199263 199264 199265 199266 199267	322.60 323.00 323.40 324.90 327.20	323.00 323.40 324.90 327.20 328.00	 0.01	0.70 0.50 0.70 0.80 1.10	0.00 0.00 0.00 0.00 0.02	0.01 0.01 0.01 0.01 0.05
331.00	354.40	MCDAME LIMESTONE Medium and dark grey limestone with patches of crackle breccia but mostly stylolitic, weakly fossiliferous mudstone. Pyrite observed along fractures and stylolites. Minor amphipora. Strong increase in sulfides and core becomes bleached to light grey at 352.0 metres.	MLS							
354.40	358.30	DOLOSTONE Recrystallized Dolomite. Intensely bleached ? Appears to be a detrital dolomite deposit. Has been intensely flooded with pyrite. Took a 0.4 metre sample with approximately 40% pyrite. Overall, interval is 20 % pyrite. Lower contact is very abrupt.	MDS	199268	356.26	356.52	0.01	0.30	0.00	0.00

1999
S DRILL LOG

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
358.30	473.00	DOLOSTONE Strongly brecciated (mosaic) in top part of interval (to 360.0), below which the rock is strongly fractured but unhealed to 368.0 metres. Below 377.0 metres, core is generally competent with only minor broken areas. Massive dolomite with intense pattern of small stylolites (bedding?). Small vugs (to 1 centimetres) lined with well developed transparent calcite crystals common. Bedding averages 80 degrees to core axis. Calcite nodules below 420 metres. Very monotonous unit with minor local variations. Detrital quartz found near 473.0 metres.	MDS							
473.00	502.00	TAPIOCA SANDSTONE DOLOSTONE Thinly laminated fine grained sandy dolomite. Very gradational contact with above unit. Rock darkens down hole to a dark grey and unit averages 2% diagenetic pyrite as laminations. Bedding very consistent at 75 - 80 degrees to core axis. Very competent rock with no signs of hydrothermal alteration.	TSS							

*** END OF HOLE *** 502.00

HOLE NO: SSD-99-65 | SECTION:43280N | GRID:SILVER CK S

PROJECT CODE :SILVERTIP
TENEMENT :SILVERTIP MINING
PROSPECT :CORPORATION
:
GRID :SILVER CK S
MAP REFERENCE: 104/O-16W
LOCATION :LIARD MD, BC
HOLE TYPE S

*** COLLAR COORDINATES AND RL ***

NOMINAL	43280.00mN	24885.00mE	1362.00RL

Pre-collar depth: Final depth: 399.90

Purpose of hole: TEST CSAMT ANOMALY B
Hole status: COMPLETED
Comments:

*** DRILLING SUMMARY ***

DIAMOND	0.00 8.23 11.43 CM
Drill contractor:	DJ DRILLING
Drill rig:	JKS BOYLES 56
Date started:	29/8/99
Date finished:	5/9/99
Logged by:	STEVE ROBERTSON
Relogged by:	
Sampled by:	CHRIS AKELAITIS
DIAMOND	8.23 399.90 9.56 CM
Drill contractor:	DJ DRILLING
Drill rig:	JKS BOYLES 56
Date started:	29/8/99
Date finished:	5/9/99
Logged by:	STEVE ROBERTSON
Relogged by:	
Sampled by:	CHRIS AKELAITIS

Material left in hole: HW CASING AND CAP
Base of complete oxidation 40
Top of fresh rock:
Water first encountered:
Water inflow estimate: 0

*** SURVEYDATA ***

Survey Method: REFLEX EZ-SHOT

Depth	Azimuth	Inclination
0.00	0.00	-90.00
32.60	206.70	-89.60
78.33	299.30	-89.20
124.10	332.00	-88.40
169.77	333.80	-87.60
215.50	343.30	-86.60
261.20	0.50	-85.30
306.90	357.40	-84.90
357.70	0.40	-84.60
398.40	357.40	-84.90

*** SIGNIFICANT ASSAYS ***

From	To	Width	Ag g/t	Pb %	Zn %
289.20	295.70	6.50	399.16	7.26	9.46
296.70	299.50	2.80	334.23	7.76	11.93
302.30	302.70	0.40	41.50	0.10	19.96
303.60	312.40	8.80	209.05	2.82	11.76
312.95	315.10	2.15	575.76	9.02	4.33
315.40	321.50	6.10	557.98	9.91	9.02
324.25	325.10	0.85	186.30	3.36	3.99

*** SUMMARY LOG ***

0.00	8.23	OVERBURDEN
8.23	19.50	MUDSTONE
19.50	40.00	SANDSTONE SILTSTONE CONGLOMERATE
40.00	58.20	MUDSTONE
58.20	159.30	SILTSTONE / SANDSTONE CONGLOMERATE
159.30	163.50	FAULT ZONE
163.50	173.40	SHALE SANDSTONE / SILTSTONE
173.40	174.90	GOUGE CARBONACEOUS
174.90	251.00	SANDSTONE / SILTSTONE MUDSTONE CONGLOMERATE
251.00	273.00	SHALE SILTSTONE SANDSTONE
273.00	289.20	SHALE

Checked and signed:__________ Date:________

HOLE NO: SSD-99-65	SECTION:43280N	GRID:SILVER CK S

289.20	299.50	MASSIVE SULPHIDE
299.50	305.30	MCDAME LIMESTONE
305.30	321.50	MASSIVE SULPHIDE
321.50	324.40	RUDSTONE LIMESTONE
324.40	325.10	LIMESTONE BRECCIA MASSIVE SULPHIDE RUBBLE BRECCIA
325.10	399.90	MCDAME LIMESTONE
399.90		END OF HOLE

Checked and signed:________________ Date:__________

1999
S DRILL LOG

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
0.00	8.23	OVERBURDEN No Return.								
8.23	19.50	MUDSTONE Core is extreemly incompetent, resulting in difficultly providing a detailed description. Jarosite and limonite common throughout interval. 10.50-12.00 QUARTZ VEIN Orientation not determined. Interval badly broken.	2AA							
19.50	40.00	SANDSTONE SILTSTONE CONGLOMERATE Core is very incompetent above 33 metres. Jarosite and limonite common. Bedding relatively consistent at 70 degrees to core axis. Core moderately competent below 33 metres. 39.00-40.00 QUARTZ VEINED GOUGE ZONE Very poor recovery. Badly broken.	1B							
40.00	58.20	MUDSTONE Laminated mudstone with 5% pyrite as disseminations, laminations, nodules and thick beds. Very carbonaceous. Bedding at 70 degrees to core axis. 47.10-47.70 PYRITE MASSIVE SULPHIDE VEIN Massive sulphide vein. Attitude not determined.	2AA	199270	47.10	47.70		13.50	0.07	0.03
58.20	159.30	SILTSTONE / SANDSTONE CONGLOMERATE Coarse grained detrital sediments, generally observed as thinning upwards sequences.Bedding at 70 degrees to core axis. 58.20-68.00 SILTSTONE Weakly laminated, weakly carbonaceous siltstone and shale with bedding at 70 degrees to core axis. Contains 2 % pyrite as laminated and nodules. Gradually coarser down-hole. Competent core. 68.80-69.20 FAULT ZONE Incompetent, badly broken core, with slip planes at 45 degrees to core axis. 69.20-69.50 QUARTZ VEIN Passive quartz vein at 60 degrees to core axis. 83.00-86.00 Bouma sequence Rock exhibits strong characteristics of turbiditic environment with rip up clasts. 89.40-101.50 CONGLOMERATE / SANDSTONE SILTSTONE Competent core, coarser sediments downhole. Several fining	1B							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		upwards sequences. 99.00-114.00 CONGLOMERATE / SANDSTONE SHALE Competent core, strongly gradational sedimentary sequences from medium pebble conglomerate to shale. 114.00-129.00 SANDSTONE SHALE As above interval but finer grained. 129.00-159.30 CONGLOMERATE / SANDSTONE SHALE As 99.0 - 114.0 metres. Bedding to 144 metres is at 70 degrees to core axis. Below 144 metres, bedding is variable to 45 degrees to core axis. Interval from 153 - 159.3 metres, the core is noticeably less competent. Slip planes are common at 45 - 70 degrees to core axis. Up to 5 % quartz in tension gashes (all angle to core axis) observed near bottom of interval.								
159.30	163.50	FAULT ZONE Carbonaceous, gougy fault with fragments of fine grained laminated shale with disseminated pyrite in fragments and gouge. Interval contains approximately 7% pyrite. Angle to core axis difficult to determine but appears to be approximately 40 degrees to core axis.	FZ							
163.50	173.40	SHALE SANDSTONE / SILTSTONE Very finely laminated shale, siltstone and sandstone. Mod carbonaceous with disseminated and laminated fine grained pyrite (3%). Bedding variable at 70 - 90 degrees to core axis. Sand content higher towards bottom of interval. 167.00-171.10 SHALE SILTSTONE / SANDSTONE Strongly contorted laminated with abundant evidance of soft sediment deformation and small scale growth faults. Tension gashes filled with quartz (1%).	1B							
173.40	174.90	GOUGE CARBONACEOUS Weakly gougy and carbonaceous. Quartz flooding through approximately 20% of zone. Pyrite content averages 7%. Orientation obscure but appears to be 60 degrees to core axis.	FZ							
174.90	251.00	SANDSTONE / SILTSTONE MUDSTONE CONGLOMERATE Small Bouma sequences grading from massive fine to medium grained sandstone up to moderate laminated siltstone/mudstone. Pyrite varies 0.5% to 2% locally, increasing with carbonaceous facies. Pyrite content 5% in areas of strong breccia or in carbonaceous faults and slips.	1B							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		179.90-191.50 SANDSTONE / SILTSTONE MUDSTONE Occasional small carbonaceous fault or slip planes with variable orientation, but generally 30 - 45 degrees to core axis. Bedding 75 - 90 degrees to core axis. Sand component is coarser and more dominant below 160 metres. Core in interval is relatively competent .Quartz / calcite +/- pyrite nodules observed in finer sediments. 191.50-194.50 SANDSTONE / SILTSTONE MUDSTONE Zone with several bedding parallel slips. 205.90-206.30 FAULT ZONE Moderately sized fault zone at 50 degrees to core axis. Zone is comprised of several small (1 - 30 centimetres) faults with moderate amount of gouge. 219.00-251.00 SANDSTONE / SILTSTONE MUDSTONE Below 219 metres rock becomes progressively more fine grained and at 237 metres shale/siltstone is at a 50/50 ratio with sand. Bedding or lamination is more distinctive where rock is finer grained. Bedding is at 70 - 90 degrees to core axis throughout interval. Core becomes less competent below 251 metres.								
251.00	273.00	SHALE SILTSTONE SANDSTONE Very finely laminated (<1cm) interbedded shale and siltstone, to very fine grained sandstone. Bedding varies 70 - 90 degrees to core axis. Core is moderately incompetent, breaking into poker chips. Rock is moderately carbonaceous with a dark grey colour. Interval contains 5 - 7% disseminated and laminated diagenetic pyrite. Quartz with minor calcareous often associated with pyrite in lower half of interval.	1BA							
273.00	289.20	SHALE Strongly carbonaceous shale.Contact is gradational with unit above. Can be mildly carbonaceous in local areas but not enough to be considered 1AC. Laminated at 70 to 90 degrees to core axis. Core has a pitted appearance, probably from whole fragments being plucked out by the bit rather than being cut through.	1AA	199271	287.80	288.80	0.03	0.90	0.07	0.09
		285.00-287.10 BRECCIA SYN-SEDIMENTARY BRECCIA Interval is strongly brecciated and healed in material of same composition. Most likely a result of partially lithified material being disturbed in a soft sediment deformation enviroment.		199272	288.80	289.20	0.01	16.40	0.22	0.93

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
289.20	299.50	MASSIVE SULPHIDE Very irregular contact with 1AA . Replacement and volume loss of limestone adjacent to overlying shale has caused the shale to form fractures in the lower 30 - 40 centimetres of interval which have been infiltrated by massive sulfide. MSx has been strongly reworked with evidence of multiple episodes of mineral deposition. Sulfides are pyrite, sphalerite, galena and pyrrhotite. Contains approximately 10% qtz/calc, mostly in blebs and nodules. Earlier sulphide fragments are quite rounded and usually very pyrite rich with galena and sphalerite rich areas in matrix. Fragments of shale observed 2m below the unconformity, well preserved within the matrix of sulphide. Razor straight edges of shale indicates no reaction with mineralizing fluids.								
		289.20-289.70 MASSIVE SULPHIDE BRECCIA	LZ							
		Some fragments of remnant limestone observed but most have been replace by sulphide. Unaltered fragments of shale also present.		199273	289.20	289.70		164.30	4.58	3.78
		289.70-290.70 MASSIVE SULPHIDE Zone is particularly galena rich.		199274	289.70	290.70		334.00	8.53	9.33
		290.70-291.70 MASSIVE SULPHIDE PYRITIC MINERALIZATION Rock in interval is mostly comprised of coarsely crystalline pyrite with crystals to 3 mm.		199275	290.70	291.70		425.40	6.62	11.09
		291.70-292.40 MASSIVE SULPHIDE		199276	291.70	292.70	0.01	495.90	9.78	7.85
		Very similar to 289.7 - 290.7 metres.		199277	292.70	293.70		382.70	7.06	7.28
				199278	293.70	294.70		544.30	7.99	11.49
		294.70-295.70 MASSIVE SULPHIDE MOSAIC BRECCIA Brecciated massive sulfide rich in sphalerite and pyrite.		199279	294.70	295.70		330.10	4.89	12.57
		295.70-296.70 MASSIVE SULPHIDE PYRITIC MINERALIZATION Strongly brecciated zone of pyrite rich massive sulfide mineralization.		199280	295.70	296.70	0.01	10.90	0.12	1.45
		296.70-297.70 MASSIVE SULPHIDE MOSAIC BRECCIA Limestone fragments mixed in with very rich massive sulfide mineralization.		199282	296.70	297.70	0.01	206.30	5.40	13.51
		297.70-298.70 MASSIVE SULPHIDE MOSAIC BRECCIA Strongly brecciated. Pyrite rich massive sulfide.		199283	297.70	298.70	0.01	335.80	7.38	10.34
		298.70-299.20 MASSIVE SULPHIDE Very strongly brecciated, rich galena and pyrite rich massive sulphide.		199284	298.70	299.20		604.60	14.71	13.55

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		299.20-299.50 MASSIVE SULPHIDE As above interval. Very galena rich.		199285	299.20	299.50	0.01	304.80	5.35	9.22
299.50	305.30	MCDAME LIMESTONE Fresh, medium grey fossiliferous limestone. Amphipora rudstone with massive stromatoporids from 299.5 - 301.4 metres. Upper contact with massive sulfide is relatively planar at 60 degrees to core axis. Core is heavily inundated with sphalerite and minor pyrite at 303.8 - 304.1, 304.4 - 304.6 and 304.8 - 304.9 metres.	MLS							
		299.50-301.40 amphipora rudstone Dense average sized amphipora (2 - 3 mm) with massive stromatoporids.		199286	299.50	301.50		2.70	0.04	0.11
		300.40-301.10 crackle breccia Minor bleaching of interval with brecciation.		199287	301.50	302.30		1.40	0.01	0.17
		301.40-302.80 mosaic breccia		199288	302.30	302.70	0.01	41.50	0.10	19.96
		Brecciation more intense than above interval. 6 centimetre zone of sphalerite replacement of limestone at 302.4 metres. 302.4 - 302.8 metres displays a network of sphalerite and minor pyrite in the matrix of a breccia		199289	302.70	303.60		6.20	0.07	0.66
		302.80-303.30 rubble breccia Angular fragments of 1AA shale (up to 8cm) which have collapsed		199290	303.60	304.40		83.70	0.90	13.42
		into a limestone karst cavern or a void created during massive		199291	304.40	304.70	0.01	95.80	0.26	34.70
		sulfide replacement.		199293	304.70	305.30		39.00	0.55	8.11
		303.30-305.30 rubble breccia Similar to above interval but fragments are dominantly limestone with occasional shale.								
305.30	321.50	MASSIVE SULPHIDE	LZ							
		Top contact is very irregular but top 20 centimetres of interval is banded at 65 degrees to core axis. The remainder of the interval does not exhibit the same fabric, often with a blotchy, heterogeneous appearance in both brecciated and replacement zones. Strong sphalerite mineralization through much of interval with a deep red coloured species being dominant but also frequent patches of marmatite (black jack) and minor honey sphalerite. Sphalerite commonly occurs with very fine grained pyrite. That combination can often be difficult to differentiate from pyrrhotite. Galena appears to be		199294	305.30	306.30		106.50	0.74	14.83

1999
S DRILL LOG

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		a								
		later mineral, forming coarse crystals, often in the matrix of breccias		199295	306.30	307.30		359.80	6.10	19.66
		or cross cutting other sulfides.		199296	307.30	308.80		125.40	2.15	8.41
		306.30-307.30 MASSIVE SULPHIDE		199297	308.80	309.80		213.60	2.04	3.33
		Very sphalerite rich interval.		199298	309.80	310.80		389.90	6.41	10.39
		308.80-310.80 MASSIVE SULPHIDE		199301	310.80	311.60		114.20	1.92	8.01
		Strong pyrite and sphalerite mineralization. Areas of massive								
		pyrite can be vuggy showing bladed crystals, indicating a pyrite								
		after pyrrhotite retrograde transformation. Up to 25% of interval is		199300	311.60	312.40		464.10	4.50	12.75
		remnant limestone fragments.								
		311.60-312.40 rubble breccia								
		Mixed collapse breccia with approximately 50/50 massive sulfide								
		and limestone fragments. Sphalerite and pyrite are the dominant		199302	312.40	312.95	0.01	27.90	0.68	1.17
		sulphide.								
		312.40-312.95 rubble breccia limestone								
		Fragments are dominantly limestone with a minor component of		199303	312.95	313.60		199.80	2.94	6.15
		sulphide fragments.								
		312.95-313.60 MASSIVE SULPHIDE rubble breccia								
		Very similar to 311.6 - 312.4, but has a slight fabric at an angle of		199304	313.60	314.00		2214.00	34.39	0.76
		approximately 30 degrees to core axis.								
		313.60-314.00 MASSIVE SULPHIDE LIMESTONE BRECCIA								
		Patch of coarse galena crystals (up to 6mm) which is 7								
		centimetres across. Many of the limestone fragments have been		199305	314.00	315.10	0.07	202.20	3.38	4.56
		partially or totally replaced by sulphide after brecciation.								
		314.00-315.10 LIMESTONE BRECCIA MASSIVE SULPHIDE								
		Limestone fragments dominant within this interval. Sphalerite and								
		pyrite are dominant sulphide with lessor galena. Breccia has a								
		lime mud and calcite matrix indicating the limestone and massive		199306	315.10	315.40	0.06	26.40	0.75	3.06
		sulfide were brecciated and deposited together.		199307	315.40	316.10	0.01	296.40	5.36	20.65
		315.10-316.10 MASSIVE SULPHIDE LIMESTONE BRECCIA								
		Brecciated massive sulfide with some limestone fragments. The		199308	316.10	316.60	0.01	837.20	12.20	8.56
		lower 30 centimetres of the interval is particularily sphalerite rich.		199309	316.60	317.60		1109.90	20.96	11.68
		316.10-318.20 MASSIVE SULPHIDE LIMESTONE BRECCIA		199310	317.60	318.20	0.01	406.30	7.16	8.90
		As above interval but is very rich in both sphalerite and galena.		199311	318.20	319.70		276.90	5.11	5.76
		Interval contains approximately 20% limestone and calcite.		199312	319.70	320.10		502.10	8.12	8.51
		318.20-321.30 LIMESTONE BRECCIA MASSIVE SULPHIDE		199314	320.10	320.60		1403.10	25.79	10.13
		Interval contains 20% massive sulfide fragments on average, but		199315	320.60	321.50		118.00	1.72	2.38
		increases to 50% massive sulfide at 319.7 - 320.6 metres.								

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
321.50	324.40	RUDSTONE LIMESTONE	MLS							
		Strongly stylolitic rudstone with massive stromatoporids and lessor		199316	321.50	322.50		9.50	0.19	0.29
		amphipora. Lower 50 centimetres of interval is a amphipora rudstone.		199317	322.50	324.25		3.80	0.06	0.08
		Interval is 2 - 3 % very fine grained pyrite, generally concentrated along stylolites.		199318	324.25	325.10		186.30	3.36	3.99
324.40	325.10	LIMESTONE BRECCIA MASSIVE SULPHIDE RUBBLE BRECCIA Interval is dominated by limestone fragments, but up to 25% are massive sulfide. Sphalerite content exceeds pyrite and lessor galena. Angular fragments range in size from a few mm to 5 centimetres. Some of the limestone fragments have been partially replaced by sulphide.	LZ							
325.10	399.90	MCDAME LIMESTONE								
		325.10-327.80 STYLOLITIC BRECCIA	MLS							
		Very strongly fossiliferous and stylolitic rudstone. Many large		199319	325.10	326.60		5.60	0.09	0.23
		fragments within a stylolitic breccia where fragments are amphipora rudstone. Other fossils observed include large brachiopods, rugose coral and massive stromatoporids.		199320	326.60	327.80		2.80	0.05	0.09
		327.80-328.60 LIMESTONE BRECCIA		199321	327.80	328.60		14.40	0.13	2.55
		Brecciated limestone (collapse) with less than 20 % limestone fragments.		199322	328.60	329.60		2.60	0.03	0.06
		331.80-333.00 LIMESTONE BRECCIA As interval 327.8 - 328.6 but sulfides comprises only 3% of interval. Most breccia fragments in zone are light grey fossiliferous limestone in a matrix of dark grey detrital lime mud. 333.00-344.00 CRACKLE BRECCIA LIMESTONE Weak crackle brecciation of amphipora floatstone. Lower 5 metres of interval is mildly bleached. 344.00-352.50 CRACKLE BRECCIA LIMESTONE As above interval but strongly bleached. 354.60-364.50 LIMESTONE Competent, fresh rock. Amphipora and stromatoporid (to 10 centimetres) floatstone. Amphipora are coarse (to 5 mm). Possible thin shelled brachiopods. 364.50-372.00 LIMESTONE Floatstone with amphipora and Rugosan Coral (Tryplasma). Occasional stromatoporids below 367 metres. Infrequent stringers and veinlets of calcite generally within 20 degrees of angle to core								

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		axis. Thin shelled brachiopods observed below 370 metres. 372.00-381.00 CRACKLE BRECCIA Amphipora floatstone with areas of intense crackle breccia and veinlets of calcite (many at 45 degrees to core axis). Secondary calcite comprises 20% of rock. 381.00-384.50 LIMESTONE Very fossil poor (occasional amphipora) laminated lime mudstone. Laminations could possibly be ?cryptalgal laminations? 384.50-389.20 LIMESTONE Fossil content slowly increases down-hole. 389.2 - 391.5 Amphipora / brachiopod floatstone. 391.5 - 393.3 Amphipora rudstone. 396.5 Possible Stringocephalus. 396.5 - 397.9 Euryamphipora. 398.30-399.90 LIMESTONE Weakly to moderately carbonaceous limestone with sparse fossils. Fault at 65 degrees to core axis @ 398.9 to 399.0. Fault is gougy with 10% py/po. Hole ends in a dark grey amphipora floatstone with 1 centimetre calcite veinlets @ 0 degrees to core axis.								

*** END OF HOLE *** 399.90

HOLE NO: SSD-99-66	SECTION:43375N	GRID:SILVER CK S

PROJECT CODE :SILVERTIP
TENEMENT :SILVERTIP MINING
PROSPECT :CORPORATION
:
GRID :SILVER CK S
MAP REFERENCE: 104/O-16W
LOCATION :LIARD MD, BC
HOLE TYPE S

*** COLLAR COORDINATES AND RL ***

NOMINAL	43374.00mN	24806.00mE	1331.00RL

Pre-collar depth: Final depth: 383.10

Purpose of hole: TEST TARGET D, CHIMNEY POTENTIAL

Hole status: DRILLED TO DEPTH

Comments: NO LOWER ZONE MS

*** SURVEYDATA ***

Survey Method: REFLEX EZ-SHOT

Depth	Azimuth	Inclination
0.00	0.00	-90.00
61.60	323.40	-89.40
107.30	315.40	-88.40
153.00	327.20	-88.00
198.70	337.80	-86.50
244.40	326.30	-86.30
290.20	333.30	-86.20
335.90	331.60	-86.30
381.60	334.30	-86.20

*** SUMMARY LOG ***

0.00	6.10	NO RECOVERY
6.10	19.40	CONGLOMERATE SANDSTONE
19.40	35.30	MUDSTONE SANDSTONE
35.30	65.40	SHALE SILTSTONE SANDSTONE
65.40	66.00	FAULT ZONE
66.00	79.10	SANDSTONE SILTSTONE MUDSTONE
79.10	81.80	FAULT ZONE GOUGE
81.80	96.00	SANDSTONE SILTSTONE
96.00	97.30	FAULT ZONE
97.30	215.50	SANDSTONE SILTSTONE MUDSTONE
215.50	226.60	SHALE SILTSTONE SANDSTONE
226.60	252.60	SHALE
252.60	311.90	MCDAME LIMESTONE
311.90	325.80	FAULT ZONE

*** DRILLING SUMMARY ***

DIAMOND	0.00 383.10 HQ
Drill contractor:	DJ DRILLING
Drill rig:	JKS BOYLES 56A
Date started:	6/9/99
Date finished:	13/9/99
Logged by:	S. ROBERTSON / C. AKELAITIS
Relogged by:	
Sampled by:	C. AKELAITIS

Material left in hole: NONE
Base of complete oxidation 52
Top of fresh rock: 6.1
Water first encountered:
Water inflow estimate: 0

*** SIGNIFICANT ASSAYS ***

From	To	Width	Ag g/t	Pb %	Zn %
79.10	81.80	2.70	5.80	0.17	0.39

Checked and signed:________________ Date:________

HOLE NO: SSD-99-66	SECTION:43375N	GRID:SILVER CK S

325.80	383.10	TAPIOCA SANDSTONE
383.10		END OF HOLE

Checked and signed:________________ Date:__________

1999
S DRILL LOG

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
0.00	6.10	NO RECOVERY Casing. No recovery.	NR							
6.10	19.40	CONGLOMERATE SANDSTONE Coarse grained Bouma sequences. 6.10-7.00 CONGLOMERATE Chert pebble conglomerate. Slightly coarser grained at the bottom of interval. Maximum grain size 1.2 centimetres. Majority of fragments are chert. Core relatively competent. 7.00-19.40 Bouma sequence SANDSTONE Several thin Bouma sequences with coarse grained sandstone to fine grained conglomerate at the base, fining up to a fine grained sand to mudstone. Strong limonite and jarosite deposits on fractures and along many laminations. Interval is dominated by greywacke sandstone. Rock is noticably less competent and gougy in selected areas below 15.4 metres. Rock is very broken up making determination of slip plane orientation difficult. One gougy zone at 15.5 metres is 75 degrees to core axis.	1B							
19.40	35.30	MUDSTONE SANDSTONE								
35.30	65.40	SHALE SILTSTONE SANDSTONE Fining upward sequences as in 7.0 - 19.4 but finer grained. Mod carbonaceous in finer sections. Core is moderately incompetent. Bedding and laminae are relatively consistent at 80 - 90 degrees to core axis. 10 centimetres quartz vein with 3 % pyrite, 30 degrees to core axis, at 43.8 and 44.7 metres. Below 44 metres, core is less oxidized and disseminated and laminated pyrite are observed. Core moderate competent below 49.5 metres. Soft sediment disturbance strong from 46.0 - 46.5 metres. Quartz and ankerite are also flooded into that same interval. Below 46.5 metres rock is strongly dominated by sandstone, with minor fine grained conglomerate and mudstone. Below 46.5 metres core contains 3% pyrite. Section of chert pebble conglomerate from 57.6 - 59.0 metres.	1B							
65.40	66.00	FAULT ZONE Fault at 50 degrees to core axis. Very poor recovery. Minor gouge. Very carbonaceous.	FZ							
66.00	79.10	SANDSTONE SILTSTONE MUDSTONE Top 1.5 metres of interval is very broken with abundant graphitic slip planes. Mediium to dark grey sandstone dominates interval. Finely laminated sections of mudstone are moderate to stringer	1B							

1999
S DRILL LOG

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		carbonaceous. 72.00-81.80 SANDSTONE MUDSTONE Fine grained sandstone to mudstone in this section of very incompetent core.								
79.10	81.80	FAULT ZONE GOUGE Gougy fault at 60 degrees to core axis.	FZ	199323	79.10	81.80		5.80	0.17	0.39
81.80	96.00	SANDSTONE SILTSTONE Thinnly bedded and laminated fine grained sandstone. Very strong xbdg. Competent core. Occasional pyrite nodules up to 1 centimetre across, with quartz pressure shadows. Pyrite also occurs as laminations and disseminated grains in highly carbonaceous, fine grained intervals. 94.70-96.00 SANDSTONE SILTSTONE Small (<1 centimetres) quartz sweats w/ 12 % sphalerite in crystals to 3 mm. Sweats oriented at 70 - 90 degrees to core axis. Overall, interval has approximately 0.5% sphalerite.	1B	199324	94.70	96.00			0.00	0.01
96.00	97.30	FAULT ZONE Gougy fault at 65 degrees to core axis.	FZ							
97.30	215.50	SANDSTONE SILTSTONE MUDSTONE 97.30-108.50 SANDSTONE Thick bedded to massive greywacke sandstone with minor siltstone. 108.50-108.60 QUARTZ VEIN 12 centimetres bull quartz vein at 90 degrees to core axis. 109.00-156.50 SANDSTONE SILTSTONE / SANDSTONE Thinnly bedded and laminated fine grained sandstone. Very strong xbdg. Competent core. Occasional pyrite nodules up to 1 centimetres across, with quartz pressure shadows. Pyrite also occurs as laminae and disseminated grains in highly carbonaceous, fine grained intervals. Minor flaser bedding observed. 156.50-169.00 MUDSTONE SILTSTONE / SANDSTONE Interlaminated shale, siltstone and sandstone with abundant cross bedding. 169.00-170.30 SYN-SEDIMENTARY BRECCIA SOFT SEDIMENT DEFORMATION Core is much less competent over this interval which displays a	1B							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		high degree of syn-sedimentary deformation. 170.30-170.40 FAULT ZONE Gougy fault at 85 degrees to core axis. 170.40-173.30 MUDSTONE SILTSTONE / SANDSTONE Core is very badyly broken but no gouge or graphitic slip planes. 173.30-185.60 MUDSTONE SILTSTONE / SANDSTONE Same as interval 156.5 - 169.0 metres. 185.60-185.80 MUDSTONE SILTSTONE / SANDSTONE As above but hosts three quartz carbonate veinlets, each 1 to 2 centimetres wide, with up to 30 % pyrite. Veinlets at 30 degrees to core axis 204.00-206.00 MUDSTONE SILTSTONE / SANDSTONE Several hairline stringers of pyrite at all angle to core axis. 213.50-213.70 FAULT ZONE Gougy fault zone at 65 degrees to core axis.								
215.50	226.60	SHALE SILTSTONE SANDSTONE Thinnly laminated shale, siltstone and minor sandstone. This section has a strong "Zebra" appearance from fine laminations of silica within the very dark carbonaceous shale. Core is quite hard and mildly siliceous.	1BA							
226.60	252.60	SHALE Strongly carbonaceous massive to thinnly laminated shale. Core is very incompetent with frequent graphitic striated slip planes. Irregular lower unconformable contact with limestone.	1AA							
252.60	311.90	MCDAME LIMESTONE Strong crackle breccia and patchy recrystallization over this very large interval. Overall colour is light grey. Bedding observed in many sections throughout interval and is generally at 70 degrees to core axis. Most of section is a healed rubble breccia which has been crackle brecciated. 252.60-255.20 ALTERED MCDAME LIMESTONE AMPHIPORA Fine amphipora rudstone to floatstone. 257.60-264.00 ALTERED MCDAME LIMESTONE Pyrite flooding along stylolites, partially replacing some fragments. Strongest flooding at 258.2 metres. Pyrite occurs as very fine grained crystals. (<0.5 mm). 268.50-269.50 MCDAME LIMESTONE No crackle breccia or recrystallization of rock. Upper 20	MLS							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		centimetres of interval is a sedimentary rubble breccia, with fragments up to 8 mm. Dark grey colour. Minor pyrite occurs along stylolites. 269.50-276.50 ALTERED MCDAME LIMESTONE Light grey crackle brecciated limestone. Bedding at 70 degrees to core axis. Colonial corals throughout this interval. At 271.0 there is some quartz calcite flooding, which carries a bright orange mineral, presumably a noncrystalline carbonate. From 275 - 276.7 metres, large colonial coral fossil are seen, however they don't appear to be Thamnopora. 276.70-279.00 MCDAME LIMESTONE Rubble breccia with weak crackle breccia. Tryplasma noted in some fragments. 279.00-282.50 MCDAME LIMESTONE Stylolitic breccia in stachiodes with massive stromatoporid floatstone. Weak crackle breccia. 282.50-289.00 LIMESTONE Mod crackle brecciation of amphipora, stromatoporid floatstone. Core has a patchy dark grey and light grey to white appearance. Lime mud is dark grey and fossils are bleached or recrystallized. 20% of the core is secondary calcite flooding. Possible thin brachiopods below 288 metres. Stachiodies observed at 288.6 - 289.0 metres. 289.00-290.60 LIMESTONE Amphipora, stromatoporid rudstone with weak crackle breccia and only minor recrystallization or crystalline calcite flooding. 290.60-291.10 FAULT ZONE Weak fault with minor limy gouge at 30 degrees to core axis. Interval is very badly broken. 291.10-294.20 LIMESTONE RUBBLE BRECCIA Strongly stylolitic section of mostly dark grey limestone fragments with 10 % secondary calcite. 294.20-298.30 LIMESTONE Interval of cryptalgal laminated limestone. Laminations lie at 30 degrees to core axis. Many minor slip planes along bedding. Secondary calcite increases from 10% at the top of the interval, to 25% at 297.5 and 297.9 - 298.3 is approximately 90% secondary									

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		calcite. 298.30-300.80 LIMESTONE Very strongly recrystallized with 25% secondary calcite, and remnant stachiodes observed at approximately 300.0 metres. 300.80-301.50 LIMESTONE RECRYSTALLIZED Strongly bleached and recrystallized limestone with up to 15 % secondary calcite. Intense veining causes the limestone to grade into a crackle breccia at the base of the interval. Veins are dominantly oriented at 40 - 50 to core axis. At 301 metres relict brachiopod fossils are preserved. 301.50-303.90 LIMESTONE STYLOLITIC BRECCIA Recrystallized and styolitic floatstone with up to 20 % secondary calcite. Within interval have areas up to 19 centimetres wide that are bounded by styolites and that have been completely recrystallized to grey sparry calcite. Styolites are dominantly oriented at 80 - 90 to core axis. Relict amphipora and brachiopods are preserved. 303.90-308.00 LIMESTONE FLOATSTONE Limestone with amphipora and lesser massive stromatoporoids. At 304.6 metres possible gastropods are visible. Bottom 2 metres of interval shows a weak lamination characterized by elongated fossils. Lamination is oriented at 30 to core axis. 308.00-308.30 LIMESTONE CRACKLE BRECCIA Strongly recrystallized and styolitic limestone crackle breccia with up to 30 % secondary calcite. Base of interval is bounded by a small 1 centimetre slip plane. Contact with slip plane is sharp and oriented at 80 to core axis. Fault gouge along the slip plane is grey in color and contains 2 % fine grained desseminated pyrite. 308.30-308.55 LIMESTONE RECRYSTALLIZED Recrystallized limestone with 20 % secondary calcite. At 7 centimetres from the top of the interval there is a 9 centimetre zone of fault gouge containing 1 % fine grained disseminated pyrite. The top contact of the fault is oriented at 70 to core axis and the basal contact is oriented at 30 to core axis. Above this fault laminations within the limestone are oriented at 70 to core axis whereas below this fault laminations are oriented at 40 to								

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		core axis. Base of interval is bounded by a small 5 mm zone of grey clay gouge oriented at 60 to core axis. 308.55-311.80 RECRYSTALLIZED LIMESTONE FLOATSTONE White recrystallized floatstone with up to 20 % secondary calcite. Relict Amphipora and lesser stromatoporoids are preserved throughout the interval. At 80 centimetres from the top of the interval the limestone becomes strongly styolitic. 311.80-312.20 RUBBLE BRECCIA Dark grey to black rubble breccia containing rounded to angular clasts of grey fossiliferous limestone and black dolomite. Clasts are up to 4 centimetres in diameter. Breccia has been healed by calcite matrix.								
311.90	325.80	FAULT ZONE Camp Creek Fault 312.20-312.70 RUBBLE BRECCIA LIMESTONE Strongly styolitic limestone rubble breccia with limestone clasts being fully to partially replaced by secondary calcite. Many clasts contain relict recrystallized amphipora. 312.70-313.00 FAULT ZONE Grey to green fault gouge containing limestone fragments up to 3 centimetres in diameter which have been partially replaced by pyrite. Fault gouge contains 3 % fine-grained disseminated pyrite. The top contact of the fault is irregular but oriented at approximately 50 to core axis. Basal contact is missing. 313.00-314.40 LIMESTONE CRACKLE BRECCIA Partially recrystallized, crackle brecciated limestone block within the Camp Creek Fault. Interval contains 20 % secondary calcite and and 3 % fine-grained disseminated pyrite. At 35 centimetres from the top of the interval there is a 20 centimetre zone of grey green fault gouge. The top contact of this fault zone is sharp and oriented at 55 to the core axis. The basal contact is irregular. At 40 centimetres from the base of the interval there is a 20 centimetre section of completely recrystallized white sparry calcite. The bottom 20 centimetres of the interval consists of a limestone rubble breccia with clasts up to 4 centimetres in diameter. Limstone clasts have been partially replaced by pyrite (3	FZ							
		%) and secondary calcite (40 %).		199328	314.60	314.80				
		314.40-315.10 FAULT ZONE								

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		Grey-green fault gouge with up to 40 % fragments of limestone and dolomite and 10 % fine-grained disseminated pyrite. Limestone clasts have been partially replaced by pyrite (5 %) and secondary calcite (70 %). (Note: Sample 199328 taken for WR analysis only.)		199325	315.10	316.10		0.30	0.00	0.00
		315.10-316.30 FAULT ZONE Grey-green fault gouge with 10 % fine grained disseminated pyrite and 10 % fragments of limestone and dolomite. Clasts of limestone and dolomite are up to 4 centimetres in diameter.		199329	318.15	318.40				
		316.30-318.75 FAULT ZONE Grey-green fault gouge containing 10 % fine-grained disseminated pyrite and 40 % fragments of dolomite and lesser limestone. Fragments are up to 13 centimetres in diameter and are crackle brecciated. In addition, fragments have been replaced by up to 10 % pyrite and 40 % secondary calcite. (Note: Sample 199329 taken for WR analysis only.)		199326	319.35	320.35	0.01		0.00	0.01
		318.75-320.35 DOLOSTONE Strongly bleached fine-grained dolostone with minor silica. Contains 15 % fine-grained disseminated pyrite. At the base of the interval there is a 4 centimetres zone of grey-green fault gouge containing 5 % disseminated pyrite. Contact between dolostone and fault gouge is sharp and oriented at 40 to core axis. 320.35-325.80 DOLOSTONE RUBBLE BRECCIA Dark grey to black, very fine-grained rubble brecciated dolostone with carbonate cement. Clasts are up to 5 centimetres and have been partially silicified. The core throughout this section ranges from being very brittle and broken to being strongly competent.								
325.80	383.10	TAPIOCA SANDSTONE 325.80-330.70 SANDSTONE DOLOMITIZED Dark grey to black rubble brecciated fine-grained dolomitic sandstone with visible detrital quartz grains. Brecciated fragments are angular and up to 4 centimetres in diameter. The Breccia has been healed by carbonate cement. The core within this interval is very strong and competent. 330.70-331.80 FAULT ZONE	TSS							

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		Fault zone containing crushed and intact rubble brecciated dolomitic sandstone and grey clay gouge. The upper contact of the fault is sharp and oriented at 20 to the core axis. The basal contact is highly irregular.								
		331.80-341.55 SANDSTONE DOLOMITIZED Very fine grained, grey, crackle brecciated dolomitic sandstone. From 334.4 metres - 334.52 metres there is a localised zone of mosaic brecciation consisting of angular dolomitic sandstone clasts up to 3 centimetres in diameter within calcite matrix.		199327	341.70	341.90		0.60	0.00	0.00
		341.55-345.55 SANDSTONE DOLOMITIZED Grey to black crackle brecciated dolomitic sandstone. Between 341. 7 metres - 342.0 metres the rock forms a mosaic breccia which is healed by a light green-blue carbonate cement. This cement may be the Zn-carbonate smithsonite.								
		345.55-350.30 SANDSTONE DOLOMITIZED Grey fine-grained dolomitic sandstone with visible detrital quartz grains and bedding. Between 345.55 metres - 346.6 metres bedding is oriented at 20 to the core axis. Between 347. 1 metres - 350.3 metres bedding is oriented at 40 to the core axis. At 346.6 metres there is a 50 centimetre interval of mosaic breccia consisting of angular dolomitic sandstone clasts up to 4.5 centimetres within sparry calcite cement.								
		350.30-355.40 SANDSTONE CRACKLE BRECCIA Light grey weakly crackle brecciated dolomitic sandstone. Between 350.6 metres - 350.8 metres there is a locally developed mosaic breccia with 1 % pyrite stringers and blebs within calcite matrix.								
		355.40-358.80 FAULT ZONE Fault zone consisting of clay gouge with large mosaic brecciated fragments up to 15 centimetres in diameter. Pyrite is present within both the clay gouge and brecciated fragments and makes up 3 % of the interval.								
		358.80-367.90 SANDSTONE CRACKLE BRECCIA Light grey, strongly crackle brecciated dolomitic sandstone. Between 361.6 metres - 362.4 metres there is a rubble brecciated zone with angular dolomitic sandstone fragments up to 1 centimetres in diameter. At 365 metres disturbed bedding is visible and is oriented at 30 to the core axis. Core is very								

1999
S DRILL LOG

From	To	Geological Log	UNIT	SAMPLE	FROM (m)	TO (m)	Au gm/t	Ag gm/t	Pb %	Zn %
		competent throughout the interval. 367.90-380.80 SANDSTONE DOLOMITIZED Fine-grained dolomitic sandstone with bedding oriented from 20 - 30 to the core axis. 380.80-383.10 SANDSTONE CRACKLE BRECCIA Fine-grained, crackle brecciated dolomitic sandstone which grades into small localised intervals of mosaic brecciation. Mosaic breccias contain dolomitic sandstone fragments up to 5 centimetres in diameter within a crystalline calcite matrix. EOH								

*** END OF HOLE *** 383.10

APPENDIX C

Assay Results

APPENDIX C : 1999 ASSAY SUMMARY SILVERTIP PROJECT

Hole #	Work Order	QC	From (m)	To (m)	Length (m)	Sample #	Au g/t	Ag g/t	Pb %	Zn %	Au X length	Ag X length	Pb X Length	Zn X length
SSD-99-64	V99-01046.0		44.68	45.5	0.82	199251	0	12.8	0.29	0.81	0	10.496	0.2378	0.6642
SSD-99-64	V99-01046.0		45.5	45.72	0.22	199252	0	5.6	0.02	0.0069	0	1.232	0.0044	0.001518
SSD-99-64	V99-01046.0		45.72	47.12	1.40	199253	0.008	5	0.1	0.02	0.0112	7	0.14	0.028
SSD-99-64	V99-01046.0		223.63	224.64	1.01	199254	0	1.2	0.0026	0.008	0	1.212	0.002626	0.00808
SSD-99-64	V99-01046.0		224.64	224.91	0.27	199255	0.006	128.2	3.17	3.56	0.00162	34.614	0.8559	0.9612
SSD-99-64	V99-01046.0		224.91	225.45	0.54	199256	0.006	10.8	0.2	0.28	0.00324	5.832	0.108	0.1512
SSD-99-64	V99-01046.0		225.45	226.53	1.08	199257	0.009	175.6	3.5	4.47	0.00972	189.648	3.78	4.8276
SSD-99-64	V99-01046.0		226.53	227.86	1.33	199258	0	110.9	1.52	19.06	0	147.497	2.0216	25.3498
SSD-99-64	V99-01046.0		227.86	228.53	0.67	199259	0.006	19.6	0.14	0.5	0.00402	13.132	0.0938	0.335
SSD-99-64	V99-01046.0	D	227.86	228.53	0.67	199261	0	19.2	0.11	0.96	0	12.864	0.0737	0.6432
SSD-99-64	V99-01046.0		228.53	229.53	1.00	199260	0.028	1.7	0.0069	0.03	0.028	1.7	0.0069	0.03
SSD-99-64	V99-01046.0		321.6	322.6	1.00	199262	0.006	0.7	0.0009	0.0071	0.006	0.7	0.0009	0.0071
SSD-99-64	V99-01046.0		322.6	323	0.40	199263	0	0.7	0.0047	0.01	0	0.28	0.00188	0.004
SSD-99-64	V99-01046.0		323	323.4	0.40	199264	0	0.5	0.0015	0.008	0	0.2	0.4	0.0032
SSD-99-64	V99-01046.0		323.4	324.9	1.50	199265	0	0.7	0.0008	0.0059	0	1.05	0.0012	0.00885
SSD-99-64	V99-01046.0		324.9	327.2	2.30	199266	0	0.8	0.0013	0.0055	0	1.84	0.00299	0.01265
SSD-99-64	V99-01046.0		327.2	328	0.80	199267	0.006	1.1	0.02	0.05	0.0048	0.88	0.016	0.04
SSD-99-64	V99-01046.0		356.26	356.52	0.26	199268	0.012	0.3	0.0046	0.0018	0.00312	0.078	0.001196	0.000468
SSD-99-64	V99-01046.0	B	Blank			199269	0.006	0.9	0.0017	0.0004	0.006	0.9	0.0017	0.0004
SSD-99-65	V99-01048.0		47.1	47.7	0.60	199270	0	13.5	0.07	0.03	0	8.1	0.042	0.018
SSD-99-65	V99-01048.0		287.8	288.8	1.00	199271	0.033	4.9	0.07	0.09	0.033	4.9	0.07	0.09
SSD-99-65	V99-01048.0		288.8	289.2	0.40	199272	0.009	16.4	0.22	0.93	0.0036	6.56	0.088	0.372
SSD-99-65	V99-01048.0		289.2	289.7	0.50	199273	0	164.3	4.58	3.78	0	82.15	2.29	1.89
SSD-99-65	V99-01048.0		289.7	290.7	1.00	199274	0	334	8.53	9.33	0	334	8.53	9.33
SSD-99-65	V99-01048.0		290.7	291.7	1.00	199275	0	425.4	6.62	11.09	0	425.4	6.62	11.09
SSD-99-65	V99-01048.0		291.7	292.7	1.00	199276	0.005	495.9	9.78	7.85	0.005	495.9	9.78	7.85
SSD-99-65	V99-01048.0		292.7	293.7	1.00	199277	0	382.7	7.06	7.28	0	382.7	7.06	7.28
SSD-99-65	V99-01048.0		293.7	294.7	1.00	199278	0	544.3	7.99	11.49	0	544.3	7.99	11.49
SSD-99-65	V99-01048.0		294.7	295.7	1.00	199279	0	330.1	4.89	12.57	0	330.1	4.89	12.57
SSD-99-65	V99-01048.0	D	294.7	295.7	1.00	199281	0.006	175.5	2.52	13.2	0.006	175.5	2.52	13.2
SSD-99-65	V99-01048.0		295.7	296.7	1.00	199280	0.014	10.9	0.12	1.45	0.014	10.9	0.12	1.45
SSD-99-65	V99-01048.0		296.7	297.7	1.00	199282	0.006	206.3	5.4	13.51	0.006	206.3	5.4	13.51
SSD-99-65	V99-01048.0		297.7	298.7	1.00	199283	0.012	335.8	7.38	10.34	0.012	335.8	7.38	10.34
SSD-99-65	V99-01048.0		298.7	299.2	0.50	199284	0	604.6	14.71	13.55	0	302.3	7.355	6.775
SSD-99-65	V99-01048.0		299.2	299.5	0.30	199285	0.006	304.8	5.35	9.22	0.0018	91.44	1.605	2.766
SSD-99-65	V99-01048.0		299.5	301.5	2.00	199286	0	2.7	0.04	0.11	0	5.4	0.08	0.22
SSD-99-65	V99-01048.0		301.5	302.3	0.80	199287	0	1.4	0.0055	0.17	0	1.12	0.0044	0.136
SSD-99-65	V99-01048.0		302.3	302.7	0.40	199288	0.009	41.5	0.1	19.96	0.0036	16.6	0.04	7.984
SSD-99-65	V99-01048.0		302.7	303.6	0.90	199289	0	6.2	0.07	0.66	0	5.58	0.063	0.594
SSD-99-65	V99-01048.0		303.6	304.4	0.80	199290	0	83.7	0.9	13.42	0	66.96	0.72	10.736
SSD-99-65	V99-01048.0		304.4	304.7	0.30	199291	0.012	95.8	0.26	34.7	0.0036	28.74	0.078	10.41
SSD-99-65	V99-01048.0	B	Blank			199292	0	1.1	0.0011	0.02	0	1.1	0.0011	0.02
SSD-99-65	V99-01048.0		304.7	305.3	0.60	199293	0	39	0.55	8.11	0	23.4	0.33	4.866
SSD-99-65	V99-01048.0		305.3	306.3	1.00	199294	0	106.5	0.74	14.83	0	106.5	0.74	14.83

APPENDIX C : 1999 ASSAY SUMMARY SILVERTIP PROJECT

Hole #	Work Order	QC	From (m)	To (m)	Length (m)	Sample #	Au g/t	Ag g/t	Pb %	Zn %	Au X length	Ag X length	Pb X Length	Zn X length
SSD-99-65	V99-01048.0		306.3	307.3	1.00	199295	0	359.8	6.1	19.66	0	359.8	6.1	19.66
SSD-99-65	V99-01048.0		307.3	308.8	1.50	199296	0	125.4	2.15	8.41	0	188.1	3.225	12.615
SSD-99-65	V99-01048.0		308.8	309.8	1.00	199297	0	213.6	2.04	3.33	0	213.6	2.04	3.33
SSD-99-65	V99-01048.0		309.8	310.8	1.00	199298	0	389.9	6.41	10.39	0	389.9	6.41	10.39
SSD-99-65	V99-01048.0		310.8	311.6	0.80	199299	0.009	151.5	2.57	6.94	0.0072	121.2	2.056	5.552
SSD-99-65	V99-01048.0	D	310.8	311.6	0.80	199301	0	114.2	1.92	8.01	0	91.36	1.536	6.408
SSD-99-65	V99-01048.0		311.6	312.4	0.80	199300	0	464.1	4.5	12.75	0	371.28	3.6	10.2
SSD-99-65	V99-01048.0		312.4	312.95	0.55	199302	0.009	27.9	0.68	1.17	0.00495	15.345	0.374	0.6435
SSD-99-65	V99-01048.0		312.95	313.6	0.65	199303	0	199.8	2.94	6.15	0	129.87	1.911	3.9975
SSD-99-65	V99-01048.0		313.6	314	0.40	199304	0	2214	34.39	0.76	0	885.6	13.756	0.304
SSD-99-65	V99-01048.0		314	315.1	1.10	199305	0.068	202.2	3.38	4.56	0.0748	222.42	3.718	5.016
SSD-99-65	V99-01048.0		315.1	315.4	0.30	199306	0.059	26.4	0.75	3.06	0.0177	7.92	0.225	0.918
SSD-99-65	V99-01048.0		315.4	316.1	0.70	199307	0.008	296.4	5.36	20.65	0.0056	207.48	3.752	14.455
SSD-99-65	V99-01048.0		316.1	316.6	0.50	199308	0.006	837.2	12.2	8.56	0.003	418.6	6.1	4.28
SSD-99-65	V99-01048.0		316.6	317.6	1.00	199309	0	1109.9	20.96	11.68	0	1109.9	20.96	11.68
SSD-99-65	V99-01048.0		317.6	318.2	0.60	199310	0.006	406.3	7.16	8.9	0.0036	243.78	4.296	5.34
SSD-99-65	V99-01048.0		318.2	319.7	1.50	199311	0	276.9	5.11	5.76	0	415.35	7.665	8.64
SSD-99-65	V99-01048.0		319.7	320.1	0.40	199312	0	502.1	8.12	8.51	0	200.84	3.248	3.404
SSD-99-65	V99-01048.0	B	Blank			199313	0	1.9	0.03	0.03	0	1.9	0.03	0.03
SSD-99-65	V99-01048.0		320.1	320.6	0.50	199314	0	1403.1	25.79	10.13	0	701.55	12.895	5.065
SSD-99-65	V99-01048.0		320.6	321.5	0.90	199315	0	118	1.72	2.38	0	106.2	1.548	2.142
SSD-99-65	V99-01048.0		321.5	322.5	1.00	199316	0	9.5	0.19	0.29	0	9.5	0.19	0.29
SSD-99-65	V99-01048.0		322.5	324.25	1.75	199317	0	3.8	0.06	0.08	0	6.65	0.105	0.14
SSD-99-65	V99-01048.0		324.25	325.1	0.85	199318	0	186.3	3.36	3.99	0	158.355	2.856	3.3915
SSD-99-65	V99-01048.0		325.1	326.6	1.50	199319	0	5.6	0.09	0.23	0	8.4	0.135	0.345
SSD-99-65	V99-01048.0		326.6	327.8	1.20	199320	0	2.8	0.05	0.09	0	3.36	0.06	0.108
SSD-99-65	V99-01048.0		327.8	328.6	0.80	199321	0	14.4	0.13	2.55	0	11.52	0.104	2.04
SSD-99-65	V99-01048.0		328.6	329.6	1.00	199322	0	2.6	0.03	0.06	0	2.6	0.03	0.06
SSD-99-66	V99-01093.0		79.1	81.8	2.70	199323	0	5.8	0.17	0.39	0	15.66	0.459	1.053
SSD-99-66	V99-01093.0		94.7	96	1.30	199324	0	0	0.0012	0.01	0	0	0.00156	0.013
SSD-99-66	V99-01093.0		315.1	316.1	1.00	199325	0	0.3	0.002	0.0048	0	0.3	0.002	0.0048
SSD-99-66	V99-01093.0		319.35	320.35	1.00	199326	0.006	0	0.0023	0.01	0.006	0	0.0023	0.01
SSD-99-66	V99-01093.0		341.7	341.9	0.20	199327	0	0.6	0.0002	0.001	0	0.12	0.0004	0.0002

1999 Weighted Averages - Silvertip Project

Interval in Metres	Interval length in Metres	Au g/t	Ag g/t	Pb %	Zn %
		SSD-99-64			
224.64 - 227.86	3.22	0.00	117.26	2.10	9.72

Interval in Metres	Interval length in Metres	Au g/t	Ag g/t	Pb %	Zn %
		SSD-99-65			
289.2 - 320.6	31.40	0.00	318.41	5.52	8.65
289.2 - 299.5	10.30	0.00	343.81	6.70	9.35
305.3 - 321.5	16.20	0.01	396.00	6.46	8.79
316.1 - 320.6	4.50	0.00	686.67	12.26	8.54

Interval in Metres	Interval length in Metres	Au g/t	Ag g/t	Pb %	Zn %
		SSD-99-66			
79.1 - 81.8	2.70	0.00	5.80	0.17	0.39

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-64

Geochemical Lab Report

REPORT: V99-01046.0 (COMPLETE)

REFERENCE:

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP

SUBMITTED BY: C. AKELAITIS
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

DATE APPROVED	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
990910	1 Wet Au	Partial Ext. Gold	19	5 PPB	ASH/AQ REG/DIBK	ATOMIC ABSORPTION
990910	2 Ag	Silver	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	3 AgGrav	Silver (Grav.)	3	0.7 PPM	FIRE ASSAY	FIRE ASSAY-GRAV
990910	4 Cu	Copper	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	5 Pb	Lead	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	6 Pb	Lead	10	0.01 PCT	HF-HNO3-HCLO4-HCL	AAS LOW LEVEL ASSAY
990910	7 Zn	Zinc	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	8 Zn	Zinc	11	0.01 PCT	HF-HNO3-HCLO4-HCL	AAS LOW LEVEL ASSAY
990910	9 Mo	Molybdenum	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	10 Ni	Nickel	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	11 Co	Cobalt	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	12 Cd	Cadmium	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	13 Bi	Bismuth	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	14 As	Arsenic	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	15 Sb	Antimony	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	16 Fe	Iron	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	17 Mn	Manganese	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	18 Te	Tellurium	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	19 Ba	Barium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	20 Cr	Chromium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	21 V	Vanadium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	22 Sn	Tin	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	23 W	Tungsten	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	24 La	Lanthanum	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	25 Al	Aluminum	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	26 Mg	Magnesium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	27 Ca	Calcium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	28 Na	Sodium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	29 K	Potassium	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	30 Sr	Strontium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	31 Y	Yttrium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	32 Ga	Gallium	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	33 Li	Lithium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	34 Nb	Niobium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	35 Sc	Scandium	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	36 Ta	Tantalum	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990910	37 Ti	Titanium	19	0.010 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASM
990910	38 Zr	Zirconium	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASM
990910	39 Zn	Zinc	1	0.01 PCT		TITRIMETRIC

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK .	19	2 -150	19	CRUSH/SPLIT & PULV.	19
				RIVER ROCK CLEANING	19

REPORT COPIES TO: MR. STEVE ROBERTSON INVOICE TO: MR. STEVE ROBERTSON

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-64

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01046.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 1A(1/ 6)

SAMPLE NUMBER	Wet Au PPB	Ag PPM	AgGrav PPM	Cu PPM	Pb PPM	Pb PCT	Zn PPM	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM
199251	<5	12.8		106	2573	0.29	7224	0.81	49	109	6	67.7	<5	133	40	7.88	114	<10	53	110	317	38	<20	5	0.60	0.08	1.11	<.01	0.27	118	15	3	1	32
199252	<5	5.6		141	149	0.02	69		12	57	3	1.3	<5	80	37	>10.00	22	<10	20	52	79	<20	<20	2	0.12	0.01	0.55	<.01	0.06	95	7	<2	1	4
199253	8	5.0		118	820	0.10	181	0.02	21	66	3	5.9	<5	88	100	>10.00	29	<10	38	145	262	20	<20	4	0.41	0.03	1.33	<.01	0.19	168	17	<2	1	26
199254	<5	1.2		1	26		80		1	4	<1	0.4	<5	6	<5	0.08	243	<10	58	3	11	<20	<20	2	0.02	0.26	>10.00	<.01	<.01	148	2	<2	<1	<1
199255	6	117.7	128.2	413	>10000	3.17	>10000	3.56	1	9	1	135.2	<5	3904	561	>10.00	539	10	22	18	10	236	<20	3	0.02	0.29	>10.00	<.01	<.01	76	2	13	<1	<1
199256	6	10.8		28	1376	0.20	2114	0.28	1	5	<1	12.1	<5	287	20	1.58	3005	<10	27	5	9	<20	<20	5	0.01	0.38	>10.00	<.01	<.01	132	3	<2	<1	<1
199257	9	167.0	175.6	571	>10000	3.50	>10000	4.47	1	12	3	194.7	62	5807	268	>10.00	270	14	7	26	5	294	<20	2	<.01	0.07	2.06	<.01	<.01	37	<1	18	<1	<1
199258	<5	111.2	110.9	1163	>10000	1.52	>10000	>15.00	4	7	2	667.0	131	2590	178	>10.00	667	22	7	30	3	296	<20	1	<.01	0.04	1.64	<.01	<.01	34	<1	53	<1	<1
199259	6	19.6		76	862	0.14	3441	0.50	4	11	2	29.5	31	5115	21	>10.00	156	<10	7	38	5	40	<20	<1	<.01	0.02	1.35	<.01	<.01	39	<1	2	<1	<1
199260	28	1.7		3	69		199	0.03	2	1	<1	1.1	<5	43	<5	0.39	389	<10	161	4	2	<20	<20	3	<.01	0.24	>10.00	<.01	<.01	166	2	<2	<1	<1
199261	<5	19.2		246	750	0.11	6438	0.96	4	11	2	46.9	29	5320	23	>10.00	182	<10	7	44	5	132	<20	<1	<.01	0.02	1.38	<.01	<.01	42	<1	4	<1	<1
199262	6	0.7		<1	9		71		<1	3	<1	0.2	<5	<5	<5	0.61	496	<10	7	7	5	<20	<20	3	0.04	8.54	>10.00	0.01	0.02	129	2	<2	3	<1
199263	<5	0.7		3	47		105	0.01	1	6	8	0.4	<5	5	<5	2.63	412	<10	68	84	18	<20	<20	3	0.42	1.46	>10.00	<.01	0.19	66	8	<2	2	1
199264	<5	0.5		12	15		80		2	11	26	<0.2	<5	10	10	8.60	371	<10	36	32	51	<20	<20	5	1.24	1.24	6.99	0.01	0.54	53	15	<2	3	5
199265	<5	0.7		2	8		59		1	4	3	<0.2	<5	<5	<5	0.97	718	<10	8	12	7	<20	<20	3	0.17	5.15	>10.00	<.01	0.08	123	3	<2	2	<1
199266	<5	0.8		6	13		55		<1	5	9	<0.2	<5	<5	6	3.74	758	<10	29	11	17	<20	<20	4	0.68	2.68	>10.00	<.01	0.35	99	6	<2	6	<1
199267	6	1.1		20	143	0.02	356	0.05	1	7	11	0.8	<5	27	12	4.67	536	<10	40	29	36	<20	<20	7	1.06	3.19	>10.00	0.01	0.36	86	10	2	4	3
199268	12	0.3		35	46		18		1	12	34	<0.2	<5	24	10	>10.00	12	<10	24	31	35	<20	<20	9	0.92	0.13	1.01	0.01	0.55	30	16	<2	6	1
199269	6	0.9		2	17		4		1	2	<1	<0.2	<5	<5	<5	0.16	88	<10	189	3	2	<20	<20	2	0.04	0.80	>10.00	<.01	0.02	196	<1	<2	<1	<1

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-64

Geochemical
Lab
Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP
REPORT: V99-01046.0 (COMPLETE)
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Ta PPM	Ti PCT	Zr PPM	Zn PCT
199251		<5	<10	<.010	13	
199252		<5	<10	<.010	<1	
199253		<5	<10	<.010	6	
199254		<5	<10	<.010	<1	
199255		<5	<10	<.010	<1	
199256		<5	<10	<.010	<1	
199257		<5	<10	<.010	<1	
199258		<5	<10	<.010	<1	19.06
199259		<5	<10	<.010	<1	
199260		<5	<10	<.010	<1	
199261		<5	<10	<.010	<1	
199262		<5	<10	<.010	1	
199263		<5	<10	0.029	12	
199264		6	<10	0.094	54	
199265		<5	<10	<.010	4	
199266		<5	<10	0.015	14	
199267		<5	<10	0.032	15	
199268		<5	<10	0.034	11	
199269		<5	<10	<.010	<1	

Bondar-Clegg & Company Ltd., 130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, (604) 985-0681

ITS Intertek Testing Services
Bondar Clegg

SSD-99-64

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01046.0 (COMPLETE)

PROJECT: SILVER TIP

DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 2A(3/ 6)

STANDARD NAME	Wet Au PPB	Ag PPM	AgGrav PPM	Cu PPM	Pb PPM	Pb PCT	Zn PPM	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM
BCC Au STd.5	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	427	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET LAKE-SED 2	-	0.3	-	37	34	-	167	-	1	21	15	0.7	<5	11	<5	3.61	1754	<10	210	25	43	<20	<20	54	1.58	0.66	0.64	0.04	0.23	29	27	2	15	5
Number of Analyses	-	1	-	1	1	-	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	0.3	-	37	34	-	167	-	1	21	15	0.7	3	11	3	3.61	1754	5	210	25	43	10	10	54	1.58	0.66	0.64	0.04	0.23	29	27	2	15	5
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	0.8	-	36	40	-	200	-	2	23	17	0.8	-	9	1	3.50	1840	-	-	29	48	-	-	-	-	-	-	-	-	-	-	-	-	-
ANALYTICAL BLANK	-	<0.2	-	<1	<2	-	<1	-	<1	<1	<1	<0.2	<5	<5	<5	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	<2	<1	<1
Number of Analyses	-	1	-	1	1	-	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	0.1	-	<1	1	-	<1	-	<1	<1	<1	0.1	3	3	3	<0.01	<1	5	<1	<1	<1	10	10	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	1	<1	<1
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	1	0.2	<0.1	1	2	<.01	1	<0.01	1	1	1	0.1	2	5	5	0.05	1	<1	<1	1	1	<1	<1	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	<1	<1	<1
CANMET STD KC-1A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxide (Feldspar &	-	-	24.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	24.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET CERTIFIED STD	-	-	-	-	-	4.34	-	>15.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	4.34	-	15.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	4.33	-	19.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-

Intertek Testing Services
Bondar Clegg

SSD-99-64

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP
REPORT: V99-01046.0 (COMPLETE)
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 2B(4/ 6)

STANDARD NAME	ELEMENT UNITS	Sc PPM	Ta PPM	Ti PCT	Zr PPM	Zn PCT
BCC Au STd.5		-	-	-	-	-
Number of Analyses		-	-	-	-	-
Mean Value		-	-	-	-	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	-	-
CANMET LAKE-SED 2		<5	<10	0.063	3	-
Number of Analyses		1	1	1	1	-
Mean Value		3	5	0.063	3	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	-	-
ANALYTICAL BLANK		<5	<10	<.010	<1	-
Number of Analyses		1	1	1	1	-
Mean Value		3	5	0.005	<1	-
Standard Deviation		-	-	-	-	-
Accepted Value		<1	<1	<.001	<1	<0.01
CANMET STD KC-1A		-	-	-	-	34.37
Number of Analyses		-	-	-	-	1
Mean Value		-	-	-	-	34.37
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	-	34.65
Oxide (Feldspar &		-	-	-	-	-
Number of Analyses		-	-	-	-	-
Mean Value		-	-	-	-	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	-	-
CANMET CERTIFIED STD		-	-	-	-	-
Number of Analyses		-	-	-	-	-
Mean Value		-	-	-	-	-
Standard Deviation		-	-	-	-	-
Accepted Value		-	-	-	-	19.02

ITS Intertek Testing Services
Bondar Clegg

SSD-99-64

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01046.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 3A(5/ 6)

SAMPLE NUMBER	ELEMENT UNITS	Wet Au PPB	Ag PPM	AgGrav PPM	Cu PPM	Pb PPM	Pb PCT	Zn PPM	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM
199251		<5	12.8		106	2573	0.29	7224	0.81	49	109	6	67.7	<5	133	40	7.88	114	<10	53	110	317	38	<20	5	0.60	0.08	1.11	<.01	0.27	118	15	3	1	32
Duplicate							0.30		0.81																										
199255		6	117.7	128.2	413	>10000	3.17	>10000	3.56	1	9	1	135.2	<5	3904	561	>10.00	539	10	22	18	10	236	<20	3	0.02	0.29	>10.00	<.01	<.01	76	2	13	<1	<1
Duplicate				114.8																															
199257		9	167.0	175.6	571	>10000	3.50	>10000	4.47	1	12	3	194.7	62	5807	268	>10.00	270	14	7	26	5	294	<20	2	<.01	0.07	2.06	<.01	<.01	37	<1	18	<1	<1
Duplicate		6	167.3	185.7	556	>10000		>10000		1	12	3	198.8	63	5942	272	>10.00	274	14	7	26	5	301	<20	2	<.01	0.07	2.06	<.01	<.01	38	<1	17	<1	<1
199258		<5	111.2	110.9	1163	>10000	1.52	>10000	>15.00	4	7	2	667.0	131	2590	178	>10.00	667	22	7	30	3	296	<20	1	<.01	0.04	1.64	<.01	<.01	34	<1	53	<1	<1
Duplicate				120.8																															
199261		<5	19.2		246	750	0.11	6438	0.96	4	11	2	46.9	29	5320	23	>10.00	182	<10	7	44	5	132	<20	<1	<.01	0.02	1.38	<.01	<.01	42	<1	4	<1	<1
Duplicate							0.12		0.96																										

ITS Intertek Testing Services
Bondar Clegg

SSD-99-64

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP
REPORT: V99-01046.0 (COMPLETE)
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Ta PPM	Ti PCT	Zr PPM	Zn PCT
199251		<5	<10	<.010	13	
Duplicate						
199255		<5	<10	<.010	<1	
Duplicate						
199257		<5	<10	<.010	<1	
Duplicate		<5	<10	<.010	<1	
199258		<5	<10	<.010	<1	19.06
Duplicate						19.01
199261		<5	<10	<.010	<1	
Duplicate						

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

REPORT: V99-01048.0 (COMPLETE)

REFERENCE:

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP

SUBMITTED BY: C. AKELAITIS
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

DATE APPROVED		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
990911	1 Wet Au	Partial Ext. Gold	53	5 PPB	ASH/AQ REG/DIBK	ATOMIC ABSORPTION
990911	2 Ag	Silver	53	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	3 AgGrav	Silver (Grav.)	34	0.7 PPM	FIRE ASSAY	FIRE ASSAY-GRAV
990911	4 Cu	Copper	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	5 Pb	Lead	53	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	6 Pb	Lead	51	0.01 PCT	HF-HNO3-HCLO4-HCL	AAS LOW LEVEL ASSAY
990911	7 Pb	Lead	3	0.01 PCT		TITRIMETRIC
990911	8 Zn	Zinc	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	9 Zn	Zinc	52	0.01 PCT	HF-HNO3-HCLO4-HCL	AAS LOW LEVEL ASSAY
990911	10 Zn	Zinc	5	0.01 PCT		TITRIMETRIC
990911	11 Mo	Molybdenum	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	12 Ni	Nickel	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	13 Co	Cobalt	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	14 Cd	Cadmium	53	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	15 Bi	Bismuth	53	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	16 As	Arsenic	53	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	17 Sb	Antimony	53	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	18 Fe	Iron	53	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	19 Mn	Manganese	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	20 Te	Tellurium	53	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	21 Ba	Barium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	22 Cr	Chromium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	23 V	Vanadium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	24 Sn	Tin	53	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	25 W	Tungsten	53	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	26 La	Lanthanum	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	27 Al	Aluminum	53	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	28 Mg	Magnesium	53	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	29 Ca	Calcium	53	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	30 Na	Sodium	53	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	31 K	Potassium	53	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	32 Sr	Strontium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	33 Y	Yttrium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	34 Ga	Gallium	53	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	35 Li	Lithium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	36 Nb	Niobium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990911	37 Sc	Scandium	53	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASM
990911	38 Ta	Tantalum	53	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASM
990911	39 Ti	Titanium	53	0.010 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASM
990911	40 Zr	Zirconium	53	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASM

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	53	2 -150	53	CRUSH/SPLIT & PULV.	53
				RIVER ROCK CLEANING	53

REPORT COPIES TO: MR. STEVE ROBERTSON

INVOICE TO: MR. STEVE ROBERTSON

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP

REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP

DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 1A(1/16)

SAMPLE NUMBER	ELEMENT UNITS	Wet Au PPB	Ag PPM	AgGrav PPM	Cu PPM	Pb PPM	Pb PCT	Pb PCT	Zn PPM	Zn PCT	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
199270		<5	13.5		115	533	0.07		287	0.03		72	154	3	2.7	<5	190	48	>10.00	29	<10	16	128	124	<20	<20	2	0.43	0.03	0.04	<.01	0.22
199271		33	4.9		36	595	0.07		842	0.09		23	77	8	5.3	<5	359	18	2.50	270	<10	76	99	42	<20	<20	8	0.56	0.29	0.57	<.01	0.23
199272		9	16.4		82	1882	0.22		7990	0.93		29	121	10	52.0	<5	2335	41	7.71	95	<10	20	140	50	45	22	13	0.50	0.07	0.61	<.01	0.22
199273		<5	130.4	164.3	557	>10000	4.58		>10000	3.78		5	21	1	173.5	<5	4889	694	>10.00	151	<10	12	110	17	366	32	19	0.06	0.01	0.11	<.01	0.03
199274		<5	>200.0	334.0	1831	>10000	8.53		>10000	9.33		2	15	<1	399.2	<5	6226	843	>10.00	285	15	6	160	10	1180	69	3	0.02	<.01	0.09	<.01	<.01
199275		<5	>200.0	425.4	1281	>10000	6.62		>10000	11.09		3	10	1	403.0	225	2601	293	>10.00	518	22	8	103	9	635	78	4	0.03	0.14	1.24	<.01	0.01
199276		5	>200.0	495.9	649	>10000	9.78		>10000	7.85		1	8	1	231.5	372	1233	270	>10.00	255	28	8	65	3	253	43	<1	<.01	0.02	1.08	<.01	<.01
199277		<5	>200.0	382.7	417	>10000	7.06		>10000	7.28		<1	11	2	225.5	348	1319	200	>10.00	318	29	9	74	4	116	44	1	<.01	0.04	1.83	<.01	<.01
199278		<5	>200.0	544.3	2270	>10000	7.99		>10000	11.49		1	8	1	352.4	281	2951	304	>10.00	324	26	6	81	3	1198	67	3	<.01	0.02	0.88	<.01	<.01
199279		<5	>200.0	330.1	1633	>10000	4.89		>10000	12.57		1	10	2	371.4	208	3519	229	>10.00	342	21	7	89	4	801	77	4	<.01	0.02	0.94	<.01	<.01
199280		14	10.9		106	650	0.12		7610	1.45		<1	8	1	54.7	15	8584	55	>10.00	123	<10	6	65	2	41	<20	2	<.01	<.01	0.60	<.01	<.01
199281		6	112.0	175.5	972	>10000	2.52		>10000	13.20		3	11	2	396.1	134	4873	158	>10.00	330	21	7	125	5	389	95	5	<.01	0.01	0.86	<.01	<.01
199282		6	158.9	206.3	911	>10000	5.40		>10000	13.51		2	10	1	561.8	15	8737	967	>10.00	582	16	6	58	4	473	107	8	<.01	<.01	1.25	<.01	<.01
199283		12	>200.0	335.8	1353	>10000	7.38		>10000	10.34		<1	6	<1	428.0	<5	9165	714	>10.00	376	16	6	57	5	778	77	5	<.01	<.01	1.23	<.01	<.01
199284		<5	>200.0	604.6	1804	>10000	14.71		>10000	13.55		<1	6	<1	523.8	15	4693	765	>10.00	158	19	9	67	4	904	114	3	<.01	0.01	0.37	<.01	<.01
199285		6	>200.0	304.8	1035	>10000	5.35		>10000	9.22		2	12	1	303.4	152	4142	287	>10.00	293	18	50	125	8	466	68	4	0.02	0.12	1.23	<.01	0.01
199286		<5	2.7		11	219	0.04		728	0.11		3	3	<1	3.9	<5	63	7	0.53	939	<10	416	6	5	<20	<20	3	0.02	1.54	>10.00	<.01	<.01
199287		<5	1.4		2	55			1125	0.17		2	2	<1	5.6	<5	23	<5	0.12	952	<10	54	3	3	<20	<20	3	<.01	0.18	>10.00	<.01	<.01
199288		9	41.5		184	727	0.10		>10000	>15.00	19.96	1	2	<1	609.2	395	84	55	2.63	1167	20	33	10	4	<20	159	3	0.02	0.57	>10.00	<.01	<.01
199289		<5	6.2		39	416	0.07		4537	0.66		7	24	3	23.1	13	98	15	1.41	1342	<10	112	43	10	<20	<20	3	0.11	0.38	>10.00	<.01	0.05
199290		<5	63.9	83.7	213	5932	0.90		>10000		13.42	5	9	<1	444.7	271	268	76	4.82	2538	20	61	35	6	<20	106	4	0.02	0.25	>10.00	<.01	0.01
199291		12	76.0	95.8	671	1746	0.26		>10000	>15.00	34.70	<1	2	<1	1148.4	512	208	104	8.11	1274	29	7	29	2	<20	240	3	<.01	0.12	4.05	<.01	<.01
199292		<5	1.1		2	11			448	0.02		<1	1	<1	2.3	<5	<5	<5	0.11	88	<10	137	6	1	<20	<20	2	0.02	0.71	>10.00	<.01	<.01
199293		<5	39.0		128	3457	0.55		>10000	8.11		2	2	<1	245.0	113	169	40	2.45	2190	14	20	13	4	<20	45	4	<.01	0.12	>10.00	<.01	<.01
199294		<5	70.4	106.5	1003	4305	0.74		>10000	14.83		3	11	2	521.5	130	1704	187	>10.00	476	19	6	81	3	177	95	9	<.01	0.03	1.87	<.01	<.01
199295		<5	>200.0	359.8	1480	>10000	6.10		>10000	>15.00	19.66	1	11	1	651.0	145	1323	326	>10.00	464	26	5	80	1	533	130	6	<.01	<.01	1.60	<.01	<.01
199296		<5	104.6	125.4	1201	>10000	2.15		>10000	8.41		<1	13	<1	253.5	149	1293	218	>10.00	252	19	8	84	2	279	52	2	<.01	0.03	1.13	<.01	<.01
199297		<5	160.9	213.6	895	>10000	2.04		>10000	3.33		<1	10	<1	109.0	275	1299	203	>10.00	366	21	6	74	4	79	23	7	0.01	0.07	2.23	<.01	<.01
199298		<5	>200.0	389.9	963	>10000	6.41		>10000	10.39		2	11	1	407.7	143	1777	216	>10.00	644	21	7	91	3	435	80	4	<.01	0.04	2.69	<.01	<.01
199299		9	118.0	151.5	1158	>10000	2.57		>10000	6.94		<1	9	1	230.4	114	2425	160	>10.00	345	18	8	68	3	84	47	4	<.01	0.06	1.51	<.01	<.01

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
199270		18	7	3	2	11	<5	<10	<.010	6
199271		11	3	3	3	4	<5	<10	<.010	8
199272		12	2	7	2	4	<5	<10	<.010	11
199273		12	<1	12	<1	<1	<5	<10	<.010	<1
199274		18	<1	27	<1	<1	<5	<10	<.010	<1
199275		24	1	26	<1	<1	<5	<10	<.010	<1
199276		24	<1	20	<1	<1	<5	<10	<.010	<1
199277		31	<1	15	<1	<1	<5	<10	<.010	<1
199278		23	<1	40	<1	<1	<5	<10	<.010	<1
199279		23	<1	38	<1	<1	<5	<10	<.010	<1
199280		29	<1	8	<1	<1	<5	<10	<.010	<1
199281		23	<1	34	<1	<1	<5	<10	<.010	<1
199282		23	<1	42	<1	<1	<5	<10	<.010	<1
199283		24	<1	35	<1	<1	<5	<10	<.010	<1
199284		19	<1	34	<1	<1	<5	<10	<.010	<1
199285		24	<1	25	<1	<1	<5	<10	<.010	<1
199286		118	3	<2	<1	<1	<5	<10	<.010	<1
199287		135	2	<2	<1	<1	<5	<10	<.010	<1
199288		65	4	30	<1	<1	<5	<10	<.010	2
199289		71	4	<2	<1	<1	<5	<10	<.010	2
199290		55	5	21	<1	<1	<5	<10	<.010	<1
199291		22	7	48	<1	<1	<5	<10	<.010	<1
199292		159	<1	<2	<1	<1	<5	<10	<.010	<1
199293		80	5	11	<1	<1	<5	<10	<.010	<1
199294		23	3	35	<1	<1	<5	<10	<.010	<1
199295		19	1	60	<1	<1	<5	<10	<.010	<1
199296		23	1	23	<1	<1	<5	<10	<.010	<1
199297		28	5	10	<1	<1	<5	<10	<.010	<1
199298		24	2	41	<1	<1	<5	<10	<.010	<1
199299		32	<1	22	<1	<1	<5	<10	<.010	<1

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP　　PROJECT: SILVER TIP
REPORT: V99-01048.0 (COMPLETE)　　DATE RECEIVED: 10-SEP-99　　DATE PRINTED: 16-SEP-99　　PAGE 2A(3/16)

SAMPLE NUMBER	ELEMENT UNITS	Wet Au PPB	Ag PPM	AgGrav PPM	Cu PPM	Pb PPM	Pb PCT	Pb PCT	Zn PPM	Zn PCT	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
199300		<5	>200.0	464.1	1052	>10000	4.50		>10000	12.75		2	12	<1	607.8	612	1151	195	>10.00	834	34	9	77	3	340	139	4	<.01	0.17	4.02	<.01	<.01
199301		<5	74.6	114.2	1154	9968	1.92		>10000	8.01		<1	8	<1	229.2	70	1615	128	>10.00	250	16	6	72	2	79	55	3	<.01	0.04	1.10	<.01	<.01
199302		9	27.9		79	3902	0.68		6470	1.17		2	6	<1	39.8	12	350	43	2.53	1072	<10	76	18	4	<20	<20	4	<.01	1.00	>10.00	<.01	<.01
199303		<5	132.9	199.8	671	>10000	2.94		>10000	6.15		3	7	<1	190.0	92	1965	314	>10.00	269	16	6	31	3	118	42	6	<.01	0.07	1.63	<.01	<.01
199304		<5	>200.0	2214.0	365	>10000	>15.00	34.39	4926	0.76		1	7	<1	48.4	1163	754	961	>10.00	229	30	8	13	2	158	<20	3	<.01	0.14	2.83	<.01	<.01
199305		68	136.4	202.2	232	>10000	3.38		>10000	4.56		3	7	<1	137.2	90	720	134	6.24	1037	11	42	7	3	81	24	3	<.01	1.86	>10.00	<.01	<.01
199306		59	26.4		85	4209	0.75		>10000	3.06		2	10	<1	110.0	<5	6239	72	>10.00	233	<10	5	33	3	48	54	19	<.01	0.02	1.37	<.01	<.01
199307		8	>200.0	296.4	1375	>10000	5.36		>10000	>15.00	20.65	2	8	<1	827.0	77	3550	498	>10.00	655	21	6	18	2	743	144	11	<.01	0.12	1.89	<.01	<.01
199308		6	>200.0	837.2	1454	>10000	12.20		>10000	8.56		4	10	<1	363.4	34	4690	1549	>10.00	523	15	6	15	2	804	64	5	<.01	0.30	2.17	<.01	<.01
199309		<5	>200.0	1109.9	1101	>10000	>15.00	20.96	>10000	11.68		3	7	<1	565.5	91	2400	886	>10.00	501	19	4	15	2	598	123	3	<.01	0.04	2.26	<.01	<.01
199310		6	>200.0	406.3	592	>10000	7.16		>10000	8.90		3	13	2	357.0	86	3980	391	>10.00	461	15	6	21	3	243	80	7	<.01	0.31	2.28	<.01	<.01
199311		<5	192.1	276.9	608	>10000	5.11		>10000	5.76		3	9	<1	193.2	62	1114	211	>10.00	862	14	19	18	3	261	44	5	<.01	3.19	6.75	<.01	<.01
199312		<5	>200.0	502.1	2084	>10000	8.12		>10000	8.51		5	12	1	311.2	112	3159	375	>10.00	526	21	7	18	3	673	75	2	<.01	0.53	2.17	<.01	<.01
199313		<5	1.9		4	144	0.03		176	0.03		<1	1	<1	1.1	<5	<5	<5	0.12	97	<10	289	2	<1	<20	<20	2	0.02	1.06	>10.00	<.01	<.01
199314		<5	>200.0	1403.1	1358	>10000	>15.00	25.79	>10000	10.13		1	3	<1	424.2	167	912	921	>10.00	448	29	6	17	2	751	104	2	<.01	0.63	3.01	<.01	<.01
199315		<5	86.4	118.0	555	>10000	1.72		>10000	2.38		4	6	<1	87.4	66	588	115	>10.00	787	11	12	21	3	110	23	6	0.02	0.85	9.97	<.01	<.01
199316		<5	9.5		34	1134	0.19		1972	0.29		1	3	<1	11.1	6	95	10	1.00	703	<10	19	3	3	<20	<20	3	0.01	0.38	>10.00	<.01	<.01
199317		<5	3.8		9	375	0.06		516	0.08		<1	2	<1	2.9	<5	27	5	0.39	954	<10	13	3	2	<20	<20	2	0.01	0.71	>10.00	<.01	<.01
199318		<5	127.7	186.3	355	>10000	3.36		>10000	3.99		6	11	<1	129.3	79	966	168	>10.00	1061	11	10	44	3	53	32	3	0.01	0.28	7.93	<.01	<.01
199319		<5	5.6		21	588	0.09		1651	0.23		2	3	<1	9.1	<5	66	8	0.60	739	<10	9	9	2	<20	<20	3	0.01	0.75	>10.00	<.01	<.01
199320		<5	2.8		7	269	0.05		560	0.09		2	3	<1	3.1	<5	39	7	0.41	934	<10	10	13	2	<20	<20	2	0.02	0.76	>10.00	<.01	<.01
199321		<5	14.4		205	892	0.13		>10000	2.55		8	19	2	101.3	16	1704	148	>10.00	1267	<10	11	48	4	<20	22	10	0.03	1.35	9.92	<.01	0.01
199322		<5	2.6		6	198	0.03		406	0.06		1	3	<1	2.3	<5	47	7	0.32	900	<10	24	11	2	<20	<20	3	0.02	0.32	>10.00	<.01	<.01

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 2B(4/16)

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
199300		39	2	44	<1	<1	<5	<10	<.010	<1
199301		27	<1	20	<1	<1	<5	<10	<.010	<1
199302		104	3	3	<1	<1	<5	<10	<.010	<1
199303		26	2	20	<1	<1	<5	<10	<.010	<1
199304		26	6	4	<1	<1	<5	<10	<.010	<1
199305		95	3	10	<1	<1	<5	<10	<.010	<1
199306		25	<1	11	<1	<1	<5	<10	<.010	<1
199307		24	<1	62	<1	<1	<5	<10	<.010	<1
199308		23	<1	31	<1	<1	<5	<10	<.010	<1
199309		20	<1	45	<1	<1	<5	<10	<.010	<1
199310		26	1	30	<1	<1	<5	<10	<.010	<1
199311		54	2	18	<1	<1	<5	<10	<.010	<1
199312		29	<1	36	<1	<1	<5	<10	<.010	<1
199313		167	<1	<2	<1	<1	<5	<10	<.010	<1
199314		26	<1	54	<1	<1	<5	<10	<.010	<1
199315		66	4	9	<1	<1	<5	<10	<.010	<1
199316		146	2	<2	<1	<1	<5	<10	<.010	<1
199317		120	2	<2	<1	<1	<5	<10	<.010	<1
199318		51	3	9	<1	<1	<5	<10	<.010	<1
199319		129	1	<2	<1	<1	<5	<10	<.010	<1
199320		105	2	<2	<1	<1	<5	<10	<.010	<1
199321		50	3	7	1	<1	<5	<10	<.010	<1
199322		125	3	<2	<1	<1	<5	<10	<.010	<1

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP PROJECT: SILVER TIP
REPORT: V99-01048.0 (COMPLETE) DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 3A(5/16)

STANDARD ELEMENT	Wet Au	Ag	AgGrav	Cu	Pb	Pb	Pb	Zn	Zn	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Fe	Mn	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K
NAME UNITS	PPB	PPM	PPM	PPM	PPM	PCT	PCT	PPM	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT
BCC GOLD STD 90-1	6975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	6975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	6310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxide (Feldspar &	-	-	24.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxide (Feldspar &	-	-	25.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET STREAM-SED 4	-	0.2	-	59	15	-	-	262	-	-	1	22	10	1.3	<5	13	<5	2.63	1131	<10	918	28	43	<20	<20	11	1.12	0.66	1.18	0.05	0.11
Number of Analyses	-	1	-	1	1	-	-	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	0.2	-	59	15	-	-	262	-	-	1	22	10	1.3	3	13	3	2.63	1131	5	918	28	43	10	10	11	1.12	0.66	1.18	0.05	0.11
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	0.3	-	66	13	-	-	82	-	-	2	23	11	0.6	-	11	4	2.60	1200	-	-	30	51	-	-	-	-	-	-	-	-
Oxide (Feldspar &	-	-	10.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	10.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	10.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ANALYTICAL BLANK	<5	<0.2	-	<1	12	-	-	27	-	-	<1	<1	<1	<0.2	<5	<5	<5	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01
ANALYTICAL BLANK	-	<0.2	-	<1	<2	-	-	13	-	-	<1	<1	<1	0.4	<5	<5	<5	<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01
Number of Analyses	1	2	-	2	2	-	-	2	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mean Value	3	0.1	-	<1	7	-	-	20	-	-	<1	<1	<1	0.2	3	3	3	<0.01	<1	5	<1	<1	<1	10	10	<1	<.01	<.01	<0.01	<.01	<.01
Standard Deviation	-	-	-	-	8	-	-	10	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

STANDARD NAME	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
BCC GOLD STD 90-1		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
Oxide (Feldspar &		-	-	-	-	-	-	-	-	-
Oxide (Feldspar &		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
CANMET STREAM-SED 4		64	9	<2	8	5	<5	<10	0.075	<1
Number of Analyses		1	1	1	1	1	1	1	1	1
Mean Value		64	9	1	8	5	3	5	0.075	<1
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
Oxide (Feldspar &		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
ANALYTICAL BLANK		<1	<1	<2	<1	<1	<5	<10	<.010	<1
ANALYTICAL BLANK		<1	<1	<2	<1	<1	<5	<10	<.010	<1
Number of Analyses		2	2	2	2	2	2	2	2	2
Mean Value		<1	<1	1	<1	<1	3	5	0.005	<1
Standard Deviation		-	-	-	-	-	-	-	-	-

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP
REPORT: V99-01048.0 (COMPLETE)
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 4A(7/16)

STANDARD ELEMENT	Wet Au	Ag	AgGrav	Cu	Pb	Pb	Pb	Zn	Zn	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Fe	Mn	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K
NAME UNITS	PPB	PPM	PPM	PPM	PPM	PCT	PCT	PPM	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT
Accepted Value	1	0.2	<0.1	1	2	<0.01	<0.01	1	<0.01	<0.01	1	1	1	0.1	2	5	5	0.05	1	<1	<1	1	1	<1	<1	<1	<.01	<.01	<0.01	<.01	<.01
BCC Base Metal Ref.	-	-	-	-	-	8.37	-	-	2.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	8.37	-	-	2.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	8.28	8.28	-	3.04	3.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 5	-	0.5	-	87	8	-	-	73	-	-	<1	35	22	0.2	<5	7	<5	4.50	715	<10	204	50	115	<20	<20	7	3.17	1.66	1.09	0.07	0.32
Number of Analyses	-	1	-	1	1	-	-	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	0.5	-	87	8	-	-	73	-	-	<1	35	22	0.2	3	7	3	4.50	715	5	204	50	115	10	10	7	3.17	1.66	1.09	0.07	0.32
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	8	0.7	-	95	11	-	-	80	-	-	2	40	18	0.1	1	8	1	4.74	720	<1	200	54	133	4	2	5	3.09	1.83	1.08	0.06	0.32
BCC Au Std.9	265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCC standard ME89-2	-	-	-	-	-	1.34	-	-	6.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	1.34	-	-	6.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	2300	13200	1.32	1.32	67300	6.73	6.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CANMET STANDARD	-	-	-	-	-	-	64.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	64.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	625.7	-	2540	647000	64.70	64.74	44200	4.42	4.42	-	-	-	-	230	560	3600	8.43	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP
REPORT: V99-01048.0 (COMPLETE)
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

STANDARD NAME	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
Accepted Value		<1	<1	<1	<1	<1	<1	<1	<.001	<1
BCC Base Metal Ref.		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 5		43	7	<2	26	9	10	<10	0.188	9
Number of Analyses		1	1	1	1	1	1	1	1	1
Mean Value		43	7	1	26	9	10	5	0.188	9
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		39	9	4	-	1	18	1	-	9
BCC Au Std.9		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
BCC standard ME89-2		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-
CANMET STANDARD		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-

Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP PROJECT: SILVER TIP

REPORT: V99-01048.0 (COMPLETE) DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 5A(9/16)

STANDARD ELEMENT	Wet Au	Ag	AgGrav	Cu	Pb	Pb	Pb	Zn	Zn	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Fe	Mn	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K
NAME UNITS	PPB	PPM	PPM	PPM	PPM	PCT	PCT	PPM	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT
CANMET STD KC-1A	-	-	-	-	-	-	-	-	-	34.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	34.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	2.24	-	-	34.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical
Lab
Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 5B(10/16)

STANDARD NAME	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
CANMET STD KC-1A		-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP
REPORT: V99-01048.0 (COMPLETE)
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 6A(11/16)

SAMPLE NUMBER	ELEMENT Wet Au	Ag	AgGrav	Cu	Pb	Pb	Pb	Zn	Zn	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Fe	Mn	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K
UNITS	PPB	PPM	PPM	PPM	PPM	PCT	PCT	PPM	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT
199270	<5	13.5		115	533	0.07		287	0.03		72	154	3	2.7	<5	190	48	>10.00	29	<10	16	128	124	<20	<20	2	0.43	0.03	0.04	<.01	0.22
Duplicate						0.07			0.04																						
199273	<5	130.4	164.3	557	>10000	4.58		>10000	3.78		5	21	1	173.5	<5	4889	694	>10.00	151	<10	12	110	17	366	32	19	0.06	0.01	0.11	<.01	0.03
Duplicate			180.6																												
199274	<5	>200.0	334.0	1831	>10000	8.53		>10000	9.33		2	15	<1	399.2	<5	6226	843	>10.00	285	15	6	160	10	1180	69	3	0.02	<.01	0.09	<.01	<.01
Duplicate			356.1																												
199275	<5	>200.0	425.4	1281	>10000	6.62		>10000	11.09		3	10	1	403.0	225	2601	293	>10.00	518	22	8	103	9	635	78	4	0.03	0.14	1.24	<.01	0.01
Duplicate			392.9																												
199276	5	>200.0	495.9	649	>10000	9.78		>10000	7.85		1	8	1	231.5	372	1233	270	>10.00	255	28	8	65	3	253	43	<1	<.01	0.02	1.08	<.01	<.01
Duplicate			496.3																												
199277	<5	>200.0	382.7	417	>10000	7.06		>10000	7.28		<1	11	2	225.5	348	1319	200	>10.00	318	29	9	74	4	116	44	1	<.01	0.04	1.83	<.01	<.01
Duplicate			385.8																												
199278	<5	>200.0	544.3	2270	>10000	7.99		>10000	11.49		1	8	1	352.4	281	2951	304	>10.00	324	26	6	81	3	1198	67	3	<.01	0.02	0.88	<.01	<.01
Duplicate	<5	>200.0	523.9	2382	>10000			>10000			<1	8	1	375.4	293	3106	315	>10.00	346	27	7	92	3	1285	76	3	<.01	0.02	0.97	<.01	<.01
199279	<5	>200.0	330.1	1633	>10000	4.89		>10000	12.57		1	10	2	371.4	208	3519	229	>10.00	342	21	7	89	4	801	77	4	<.01	0.02	0.94	<.01	<.01
Duplicate			336.6			5.00			12.17																						
199283	12	>200.0	335.8	1353	>10000	7.38		>10000	10.34		<1	6	<1	428.0	<5	9165	714	>10.00	376	16	6	57	5	778	77	5	<.01	<.01	1.23	<.01	<.01
Duplicate			321.1																												
199284	<5	>200.0	604.6	1804	>10000	14.71		>10000	13.55		<1	6	<1	523.8	15	4693	765	>10.00	158	19	9	67	4	904	114	3	<.01	0.01	0.37	<.01	<.01
Duplicate						14.82			13.17																						
199286	<5	2.7		11	219	0.04		728	0.11		3	3	<1	3.9	<5	63	7	0.53	939	<10	416	6	5	<20	<20	3	0.02	1.54	>10.00	<.01	<.01
Prep Duplicate	<5	2.7		10	220	0.04		735	0.12		3	3	<1	4.0	<5	65	10	0.51	974	<10	400	3	5	<20	<20	3	0.02	1.59	>10.00	<.01	<.01
199288	9	41.5		184	727	0.10		>10000	>15.00	19.96	1	2	<1	609.2	395	84	55	2.63	1167	20	33	10	4	<20	159	3	0.02	0.57	>10.00	<.01	<.01
Duplicate										19.94																					

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
199270		18	7	3	2	11	<5	<10	<.010	6
Duplicate										
199273		12	<1	12	<1	<1	<5	<10	<.010	<1
Duplicate										
199274		18	<1	27	<1	<1	<5	<10	<.010	<1
Duplicate										
199275		24	1	26	<1	<1	<5	<10	<.010	<1
Duplicate										
199276		24	<1	20	<1	<1	<5	<10	<.010	<1
Duplicate										
199277		31	<1	15	<1	<1	<5	<10	<.010	<1
Duplicate										
199278		23	<1	40	<1	<1	<5	<10	<.010	<1
Duplicate		24	<1	41	<1	<1	<5	<10	<.010	<1
199279		23	<1	38	<1	<1	<5	<10	<.010	<1
Duplicate										
199283		24	<1	35	<1	<1	<5	<10	<.010	<1
Duplicate										
199284		19	<1	34	<1	<1	<5	<10	<.010	<1
Duplicate										
199286		118	3	<2	<1	<1	<5	<10	<.010	<1
Prep Duplicate		122	3	<2	<1	<1	<5	<10	<.010	<1
199288		65	4	30	<1	<1	<5	<10	<.010	2
Duplicate										

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 7A(13/16)

SAMPLE NUMBER	ELEMENT UNITS	Wet Au PPB	Ag PPM	AgGrav PPM	Cu PPM	Pb PPM	Pb PCT	Pb PCT	Zn PPM	Zn PCT	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
199289		<5	6.2		39	416	0.07		4537	0.66		7	24	3	23.1	13	98	15	1.41	1342	<10	112	43	10	<20	<20	3	0.11	0.38	>10.00	<.01	0.05
Duplicate							0.07			0.69																						
199291		12	76.0	95.8	671	1746	0.26		>10000	>15.00	34.70	<1	2	<1	1148.4	512	208	104	8.11	1274	29	7	29	2	<20	240	3	<.01	0.12	4.05	<.01	<.01
Duplicate				101.6																												
199294		<5	70.4	106.5	1003	4305	0.74		>10000	14.83		3	11	2	521.5	130	1704	187	>10.00	476	19	6	81	3	177	95	9	<.01	0.03	1.87	<.01	<.01
Duplicate				108.9			0.75			14.78																						
199295		<5	>200.0	359.8	1480	>10000	6.10		>10000	>15.00	19.66	1	11	1	651.0	145	1323	326	>10.00	464	26	5	80	1	533	130	6	<.01	<.01	1.60	<.01	<.01
Duplicate			>200.0	368.3	1325	>10000			>10000			<1	10	1	636.0	139	1280	316	>10.00	449	26	4	78	1	520	116	6	<.01	<.01	1.51	<.01	<.01
199296		<5	104.6	125.4	1201	>10000	2.15		>10000	8.41		<1	13	<1	253.5	149	1293	218	>10.00	252	19	8	84	2	279	52	2	<.01	0.03	1.13	<.01	<.01
Duplicate				130.4																												
199297		<5	160.9	213.6	895	>10000	2.04		>10000	3.33		<1	10	<1	109.0	275	1299	203	>10.00	366	21	6	74	4	79	23	7	0.01	0.07	2.23	<.01	<.01
Duplicate				226.5																												
199298		<5	>200.0	389.9	963	>10000	6.41		>10000	10.39		2	11	1	407.7	143	1777	216	>10.00	644	21	7	91	3	435	80	4	<.01	0.04	2.69	<.01	<.01
Duplicate				373.2																												
199299		9	118.0	151.5	1158	>10000	2.57		>10000	6.94		<1	9	1	230.4	114	2425	160	>10.00	345	18	8	68	3	84	47	4	<.01	0.06	1.51	<.01	<.01
Duplicate				135.3			2.58			6.95																						
199300		<5	>200.0	464.1	1052	>10000	4.50		>10000	12.75		2	12	<1	607.8	612	1151	195	>10.00	834	34	9	77	3	340	139	4	<.01	0.17	4.02	<.01	<.01
Duplicate				459.8																												
199301		<5	74.6	114.2	1154	9968	1.92		>10000	8.01		<1	8	<1	229.2	70	1615	128	>10.00	250	16	6	72	2	79	55	3	<.01	0.04	1.10	<.01	<.01
Duplicate		<5																														
199303		<5	132.9	199.8	671	>10000	2.94		>10000	6.15		3	7	<1	190.0	92	1965	314	>10.00	269	16	6	31	3	118	42	6	<.01	0.07	1.63	<.01	<.01
Duplicate							2.95			6.13																						
199304		<5	>200.0	2214.0	365	>10000	>15.00	34.39	4926	0.76		1	7	<1	48.4	1163	754	961	>10.00	229	30	8	13	2	158	<20	3	<.01	0.14	2.83	<.01	<.01
Duplicate				2095.2				34.37																								

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical
Lab
Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP
REPORT: V99-01048.0 (COMPLETE)
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 7B(14/16)

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
199289		71	4	<2	<1	<1	<5	<10	<.010	2
Duplicate										
199291		22	7	48	<1	<1	<5	<10	<.010	<1
Duplicate										
199294		23	3	35	<1	<1	<5	<10	<.010	<1
Duplicate										
199295		19	1	60	<1	<1	<5	<10	<.010	<1
Duplicate		18	1	57	<1	<1	<5	<10	<.010	<1
199296		23	1	23	<1	<1	<5	<10	<.010	<1
Duplicate										
199297		28	5	10	<1	<1	<5	<10	<.010	<1
Duplicate										
199298		24	2	41	<1	<1	<5	<10	<.010	<1
Duplicate										
199299		32	<1	22	<1	<1	<5	<10	<.010	<1
Duplicate										
199300		39	2	44	<1	<1	<5	<10	<.010	<1
Duplicate										
199301		27	<1	20	<1	<1	<5	<10	<.010	<1
Duplicate										
199303		26	2	20	<1	<1	<5	<10	<.010	<1
Duplicate										
199304		26	6	4	<1	<1	<5	<10	<.010	<1
Duplicate										

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99 PAGE 8A(15/16)

SAMPLE NUMBER	ELEMENT UNITS	Wet Au PPB	Ag PPM	AgGrav PPM	Cu PPM	Pb PPM	Pb PCT	Pb PCT	Zn PPM	Zn PCT	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT
199309		<5	>200.0	1109.9	1101	>10000	>15.00	20.96	>10000	11.68		3	7	<1	565.5	91	2400	886	>10.00	501	19	4	15	2	598	123	3	<.01	0.04	2.26	<.01	<.01
Duplicate				1131.9																												
199310		6	>200.0	406.3	592	>10000	7.16		>10000	8.90		3	13	2	357.0	86	3980	391	>10.00	461	15	6	21	3	243	80	7	<.01	0.31	2.28	<.01	<.01
Duplicate				369.1																												
199311		<5	192.1	276.9	608	>10000	5.11		>10000	5.76		3	9	<1	193.2	62	1114	211	>10.00	862	14	19	18	3	261	44	5	<.01	3.19	6.75	<.01	<.01
Duplicate				275.9			5.03			5.67																						
199312		<5	>200.0	502.1	2084	>10000	8.12		>10000	8.51		5	12	1	311.2	112	3159	375	>10.00	526	21	7	18	3	673	75	2	<.01	0.53	2.17	<.01	<.01
Duplicate				492.9																												
199314		<5	>200.0	1403.1	1358	>10000	>15.00	25.79	>10000	10.13		1	3	<1	424.2	167	912	921	>10.00	448	29	6	17	2	751	104	2	<.01	0.63	3.01	<.01	<.01
Duplicate			>200.0	1384.3	1311	>10000			>10000			1	3	<1	419.4	161	865	902	>10.00	443	30	6	15	2	739	113	2	<.01	0.63	3.07	<.01	<.01
199315		<5	86.4	118.0	555	>10000	1.72		>10000	2.38		4	6	<1	87.4	66	588	115	>10.00	787	11	12	21	3	110	23	6	0.02	0.85	9.97	<.01	<.01
Duplicate				116.3																												
199316		<5	9.5		34	1134	0.19		1972	0.29		1	3	<1	11.1	6	95	10	1.00	703	<10	19	3	3	<20	<20	3	0.01	0.38	>10.00	<.01	<.01
Duplicate							0.18			0.30																						
199317		<5	3.8		9	375	0.06		516	0.08		<1	2	<1	2.9	<5	27	5	0.39	954	<10	13	3	2	<20	<20	2	0.01	0.71	>10.00	<.01	<.01
Prep Duplicate		<5	4.0		11	402	0.07		605	0.09		<1	2	<1	3.3	<5	28	<5	0.37	1003	<10	14	6	2	<20	<20	2	0.01	0.74	>10.00	<.01	<.01
199318		<5	127.7	186.3	355	>10000	3.36		>10000	3.99		6	11	<1	129.3	79	966	168	>10.00	1061	11	10	44	3	53	32	3	0.01	0.28	7.93	<.01	<.01
Duplicate				185.8																												
199321		<5	14.4		205	892	0.13		>10000	2.55		8	19	2	101.3	16	1704	148	>10.00	1267	<10	11	48	4	<20	22	10	0.03	1.35	9.92	<.01	0.01
Duplicate							0.13			2.54																						
Prep Duplicate		<5	4.0		11	402	0.07		605	0.09		<1	2	<1	3.3	<5	28	<5	0.37	1003	<10	14	6	2	<20	<20	2	0.01	0.74	>10.00	<.01	<.01
Duplicate		6																														

ITS Intertek Testing Services
Bondar Clegg

SSD-99-65

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01048.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 10-SEP-99 DATE PRINTED: 16-SEP-99

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
199309		20	<1	45	<1	<1	<5	<10	<.010	<1
Duplicate										
199310		26	1	30	<1	<1	<5	<10	<.010	<1
Duplicate										
199311		54	2	18	<1	<1	<5	<10	<.010	<1
Duplicate										
199312		29	<1	36	<1	<1	<5	<10	<.010	<1
Duplicate										
199314		26	<1	54	<1	<1	<5	<10	<.010	<1
Duplicate		25	<1	52	<1	<1	<5	<10	<.010	<1
199315		66	4	9	<1	<1	<5	<10	<.010	<1
Duplicate										
199316		146	2	<2	<1	<1	<5	<10	<.010	<1
Duplicate										
199317		120	2	<2	<1	<1	<5	<10	<.010	<1
Prep Duplicate		123	2	<2	<1	<1	<5	<10	<.010	<1
199318		51	3	9	<1	<1	<5	<10	<.010	<1
Duplicate										
199321		50	3	7	1	<1	<5	<10	<.010	<1
Duplicate										
Prep Duplicate		123	2	<2	<1	<1	<5	<10	<.010	<1
Duplicate										

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-66

Geochemical Lab Report

REPORT: V99-01093.0 (COMPLETE)

REFERENCE:

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP

SUBMITTED BY: C. AKELAITIS
DATE RECEIVED: 20-SEP-99 DATE PRINTED: 27-SEP-99

DATE APPROVED	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
990921	1 Wet Au	Partial Ext. Gold	5	5 PPB	ASH/AQ REG/DIBK	ATOMIC ABSORPTION
990921	2 Ag	Silver	5	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	3 Cu	Copper	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	4 Pb	Lead	5	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	5 Pb	Lead	1	0.01 PCT	HF-HNO3-HCLO4-HCL	AAS LOW LEVEL ASSAY
990921	6 Zn	Zinc	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	7 Zn	Zinc	3	0.01 PCT	HF-HNO3-HCLO4-HCL	AAS LOW LEVEL ASSAY
990921	8 Mo	Molybdenum	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	9 Ni	Nickel	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	10 Co	Cobalt	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	11 Cd	Cadmium	5	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	12 Bi	Bismuth	5	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	13 As	Arsenic	5	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	14 Sb	Antimony	5	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	15 Fe	Iron	5	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	16 Mn	Manganese	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	17 Te	Tellurium	5	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	18 Ba	Barium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	19 Cr	Chromium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	20 V	Vanadium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	21 Sn	Tin	5	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	22 W	Tungsten	5	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	23 La	Lanthanum	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	24 Al	Aluminum	5	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	25 Mg	Magnesium	5	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	26 Ca	Calcium	5	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	27 Na	Sodium	5	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	28 K	Potassium	5	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	29 Sr	Strontium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	30 Y	Yttrium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	31 Ga	Gallium	5	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	32 Li	Lithium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	33 Nb	Niobium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	34 Sc	Scandium	5	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	35 Ta	Tantalum	5	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	36 Ti	Titanium	5	0.010 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
990921	37 Zr	Zirconium	5	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASM

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	5	2 -150	5	CRUSH/SPLIT & PULV.	5

REPORT COPIES TO: MR. STEVE ROBERTSON INVOICE TO: MR. STEVE ROBERTSON

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-66

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
PROJECT: SILVER TIP

REPORT: V99-01093.0 (COMPLETE)

DATE RECEIVED: 20-SEP-99 DATE PRINTED: 27-SEP-99

SAMPLE NUMBER	ELEMENT Wet UNITS	Au PPB	Ag PPM	Cu PPM	Pb PPM	Pb PCT	Zn PPM	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
199323		<5	5.8	69	1498	0.17	4259	0.39	4	68	12	15.7	<5	276	18	3.81	556	<10	88	121	48	<20	<20	11	0.76	0.62	1.48	<.01	0.20	65	7	3	3	4	<5	<10	<.010	14
199324		<5	<.2	16	12		147	0.01	3	70	6	0.6	<5	48	<5	2.02	238	<10	111	198	65	<20	<20	11	0.39	0.51	1.46	0.01	0.19	53	6	<2	1	6	<5	<10	<.010	9
199325		<5	0.3	10	20		48		3	12	31	<0.2	<5	13	7	8.66	89	<10	38	43	53	<20	<20	8	1.37	1.43	3.72	0.02	0.26	32	15	4	11	4	5	<10	0.016	9
199326		6	<.2	10	23		133	0.01	2	12	35	0.4	<5	7	7	9.32	110	<10	30	54	36	<20	<20	11	0.83	0.39	2.40	0.01	0.35	20	17	4	3	2	<5	<10	<.010	6
199327		<5	0.6	<1	2		10		<1	1	<1	<0.2	<5	<5	<5	0.12	316	<10	5	5	3	<20	<20	2	0.03	9.36	>10.00	0.02	<.01	86	<1	<2	3	<1	<5	<10	<.010	<1

ITS **Intertek Testing Services**
Bondar Clegg

SSD-99-66

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01093.0 (COMPLETE)

PROJECT: SILVER TIP
DATE RECEIVED: 20-SEP-99 DATE PRINTED: 27-SEP-99

STANDARD NAME	ELEMENT UNITS	Wet Au PPB	Ag PPM	Cu PPM	Pb PPM	Pb PCT	Zn PPM	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM
BCC GOLD STD 90-1		9225	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		9225	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		6310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STD GEOCHEM STD 6		-	<.2	138	17	-	132	-	2	125	31	0.3	<5	136	<5	7.48	1390
Number of Analyses		-	1	1	1	-	1	-	1	1	1	1	1	1	1	1	1
Mean Value		-	0.1	138	17	-	132	-	2	125	31	0.3	3	136	3	7.48	1390
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	0.2	148	20	-	148	-	4	135	35	0.2	1	145	1	7.20	1450
ANALYTICAL BLANK		-	<.2	<1	<2	-	2	-	<1	<1	<1	<0.2	<5	<5	<5	<.01	<1
Number of Analyses		-	1	1	1	-	1	-	1	1	1	1	1	1	1	1	1
Mean Value		-	0.1	<1	1	-	2	-	<1	<1	<1	0.1	3	3	3	<.01	<1
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		1	0.2	1	2	<.01	1	<0.01	1	1	1	0.1	2	5	5	0.05	1
CANMET CERTIFIED STD		-	-	-	-	4.31	-	>15.00	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	4.31	-	15.00	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	4.33	-	19.02	-	-	-	-	-	-	-	-	-

STANDARD NAME	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
BCC GOLD STD 90-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STD GEOCHEM STD 6	<10	8	196	47	<20	<20	3	1.90	2.71	3.86	0.02	0.05	81	3	6	21	2	7	<10	<.010	5
Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	5	8	196	47	10	10	3	1.90	2.71	3.86	0.02	0.05	81	3	6	21	2	7	5	0.005	5
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	<1	6	251	50	5	12	-	1.80	2.70	4.00	0.01	0.04	70	3	-	24	2	6	1	0.003	5
ANALYTICAL BLANK	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.010	<1
Number of Analyses	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value	5	<1	<1	<1	10	10	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	1	<1	<1	3	5	0.005	<1
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	<1	<1	1	1	<1	<1	<1	<.01	<.01	<0.01	<.01	<.01	<1	<1	<1	<1	<1	<1	<1	<.001	<1
CANMET CERTIFIED STD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-

ITS Intertek Testing Services
Bondar Clegg

SSD-99-66

Geochemical Lab Report

CLIENT: SILVERTIP MINING CORP
REPORT: V99-01093.0 (COMPLETE)

PROJECT: SILVER TIP

DATE RECEIVED: 20-SEP-99 DATE PRINTED: 27-SEP-99

SAMPLE NUMBER	ELEMENT UNITS	Wet	Au PPB	Ag PPM	Cu PPM	Pb PPM	Pb PCT	Zn PPM	Zn PCT	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
199323			<5	5.8	69	1498	0.17	4259	0.39	4	68	12	15.7	<5	276	18	3.81	556	<10	88	121	48	<20	<20	11	0.76	0.62	1.48	<.01	0.20	65	7	3	3	4	<5	<10	<.010	14
Duplicate							0.16		0.38																														
199326			6	<.2	10	23		133	0.01	2	12	35	0.4	<5	7	7	9.32	110	<10	30	54	36	<20	<20	11	0.83	0.39	2.40	0.01	0.35	20	17	4	3	2	<5	<10	<.010	6
Duplicate			<5	0.2	11	24		138		2	13	37	0.4	<5	8	7	9.76	115	<10	31	57	36	<20	<20	12	0.83	0.41	2.48	0.01	0.36	21	18	3	3	2	<5	<10	<.010	6


YUKON T.
B.C.
425000 E
430000 E
435000 E
6650000 N
6645000 N
6640000 N
6635000 N
WAY 35 Fr
WAY 9
WAY 8
WAY 7
WAY 3
WAY 2
WAY 1
WAY 34 Fr
WAY 33 Fr
WAY 12
WAY 11
WAY 10
WAY 6
WAY 32 Fr
WAY 5
WAY 4
WAY 31 Fr
Way 27 Fr
BULL 7
BULL 12 Fr
BULL 8
BULL 28 Fr
BULL 5
BULL 1
BULL 2
WAY 18
WAY 17
WAY 30 Fr
WAY 16
Trailer Camp
WAY 29 Fr
WAY 25 Fr
BULL 25 Fr
BULL 4 Fr
BULL 24 Fr
BULL 26 Fr
WAY 23
WAY 22
WAY 26 Fr
WAY 21
WAY 20
WAY 19
BULL 22
BULL 23
BULL 16
BULL 17
CLIMAX 12
BULL 10
TOOTS 4
WAY 24 Fr
BULL 21
BULL 20
BULL 19
BULL 18
BULL 11 Fr
BULL 27 Fr
Claim Boundary (within B.C.)
BULL 15 Fr
STAR 2 Fr
BETH 4
CLIMAX 7
CLIMAX 1
BETH 1
RENEE 1
CLIMAX 11
STAR 3
CLIMAX 14 Fr
CLIMAX 2
BETH 2
BETH 3
CLIMAX 6
CLIMAX 3
CLIMAX 4
CLIMAX 5
CLIMAX 13
CLIMAX 16
CLIMAX 15
CLIMAX 8
CLIMAX 9
CLIMAX 10
POST 14
POST 16
POST 4 Fr
POST 1
POST 2
POST 5 Fr
POST 15
POST 3
POST 11
POST 12
POST 13
Roads
Legal Corner Post of claim
Coordinates are given in NAD 27 UTM. It is possible that the Yukon data is not transformed to NAD 27, and possibly explains the discrepancy at the BC-Yukon border.
GEOLOGICAL SURVEY BRANCH
REPORT
26,073
PROFESSIONAL
PROVINCE OF
C. J. REES
BRITISH COLUMBIA
GEOSCIENTIST
99-11-9
SILVERTIP MINING CORPORATION
Silvertip Property
Claim Map
Map 1
SCALE 1 : 20000
0
800m
1600m
FILE: midcomp_20000.dwg
PLOT FILE: Mid20.plt
DRAWN BY: C. Craig
DATE: December 14, 1998