Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

Bergvesenet rapport nr	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
BV 489			Trondheim	**Åpen**
Kommer fra ..arkiv	**Ekstern rapport nr**	**Oversendt fra**	**Fortrolig pga**	**Fortrolig fra dato:**
Falconbridge	Sul 329-74-23	Sulfidmalm A/S		

Tittel

Geophysical coverage of the Fagermo (Skogfoss) Arch area, vinter/ spring 1974

Forfatter	Dato	Bedrift
F Hansen	1974	Sulfidmalm A/S

Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Sør-Varanger	Finnmark	Finnmark	24334 23331	Kirkenes

Fagområde	Dokument type	Forekomster
Geofysikk	Rapport	Oksfjell Fagermo
Råstofftype	**Emneord**	
Malm/metall	Ni	

Sammendrag

Totalt 270 profilkm ble bakkemålt vårvinteren 1974 med VLF-EM og Flux-gate magnetometer og fordelte seg på:
Oksfjell west grid 71 profil km
Oksfjell east grid 90 profil km
Fagermo west grid 77 profil km
Fagermo øst grig 29 profil km (ikke ferdig)

13 kartbilag.

FOR FALCONBRIDGE NIKKELVERK A/S

- A/S SYDVARANGER Pasvik Joint Venture.

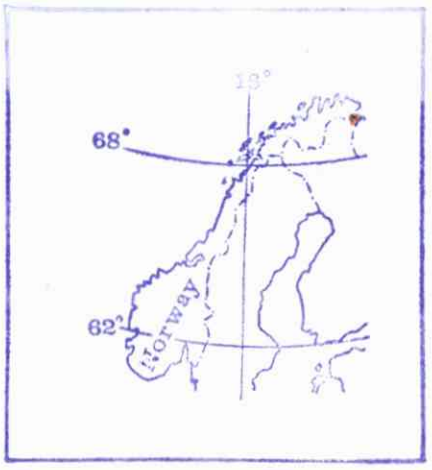
A/S SULFIDMALM

PROJECT 905-23N

Geophysical coverage of the Fagermo Arch area, spring 1974.

by

F. Hansen



Report Nr 329/74/23

A/S SULFIDMALM

INTER-OFFICE MEMORANDUM

Date: 29. juli 1974

To: Falconbridge Nikkelverk A/S
A/S Sydvaranger ved prospekteringssjef Sverdrup

cc: A. M. Clarke, H. T. Berry, R. B. Band,
B. Lieungh, Prof. J. A. W. Bugge

From: J. B. Gammon

Subject:

905-23. Pasvik geophysics. Report Nr 329/74/23.

Please find enclosed the results of the winter geophysical survey in the Vagermo Arch, Pasvik area. This data is distributed now for your information. It is anticipated that Prof. Bugge and Lieungh will provide a detailed interpretation with comments in the fall at the end of this summers fieldwork.

J B Gammon

MOTTATT 31. 07. 74	BESV.	ARK.
2J	FORSKN./UTV.	
	EL. LYSEAVD.	
	M.L. AVD.	
	R. & SM. AVD.	
	EL.TEKN.AVD.	
	INSTR. AVD.	
	MEK. AVD.	
	PROSJ. AVD	
KOPI SENDT		SVARDATO

Available information.

HEM and mag. measurements by Terratest 1970 (250-73-23).

Ground recovery of drill targets from Helicopter geophysics (253-73-23)

Reinterpretation of Terratest data by Dighem Ltd. (256-73-23).

Ferrometer measurements on drill core (297-73-23).

This assignment.

This work was agreed upon at a meeting between A/S Sydvaranger and A/S Sulfidmalm at Blindern, Oslo 2nd April -74.

The aim was to cover the most favourable parts of the Skogfoss arch from Fagermo - Oksfjell, on the basis of above mentioned information, with ground VLF-EM and magnetics. The results obtained should give a very good basis for 1974 summer work, and detailed geophysics prior to drilling in 1975.

The Grid.

A total of 16,1 km basisline was put out by a contracting company Fjellanger Widerøe. The baseline was marked in the field every 200 m with a 2 m high picket with a red flag on top. A/S Sulfidmalm carried out intermediate marking on the baseline every 100 m. during the measurements. The profiles were also put out during the measurement by means of pace and compass. Profile-spacing was 100 m. with stations every 25 m marked in the field with a plastic ribbon with grid coordinates written on it. See map no. 329 74-23 01.

Equipment.

Three VLF-EM instruments from CRONE Geophysics, type RADEM, measuring the dip angle in degrees were in use together with three McPhar M700 fluxgate magnetometers measuring the vertical component of the earth's magnetic field.

The Survey.

The work was carried out by three two man teams carrying a magnetometer and a VLF-EM instrument each.

The survey area was divided into four separate grids named:

Oksfjell west	=	71 profilkm.	
" east	=	90 "	
Fagermo west	=	77 "	x)
" east	=	29 "	xx)
Total		270 profilkm	

The job was done in 21 days.

x) three profiles extended to the north ~3,3 profilkm.

xx) ten profilkm. were not surveyed in this grid.

The results.

The results are presented as follows:

Map no.	329	74-23-01	Location map	1:20000
"	"	74-23-02	Oksfjell west mag.	1:5000
"	"	74-23-03	" " VLF-EM dip angle	1:5000
"	"	74-23-04	" " Fraser data*)	1:5000
"	"	74-23-05	Oksfjell east mag.	"
"	"	74-23-06	" " VLF-EM dip angle	"
"	"	74-23-07	" " Fraser data*)	"

../3

Map no.	329	74-23-08	Fagermo west mag.		1:5000
"	"	74-23-09	"	" VLF-EM dip angle	"
"	"	74-23-10	"	" Fraser data*)	"
"	"	74-23-11	Fagermo east mag.		"
"	"	74-23-12	"	" VLF-EM dip angle	"
"	"	74-23-13	"	" Fraser data*)	1:5000

*) The Fraser data maps are the dip angle data processed as described by Fraser 1969, by a computer.

OKSFJELL VEST, PASVIK

VLF EM dip angle data

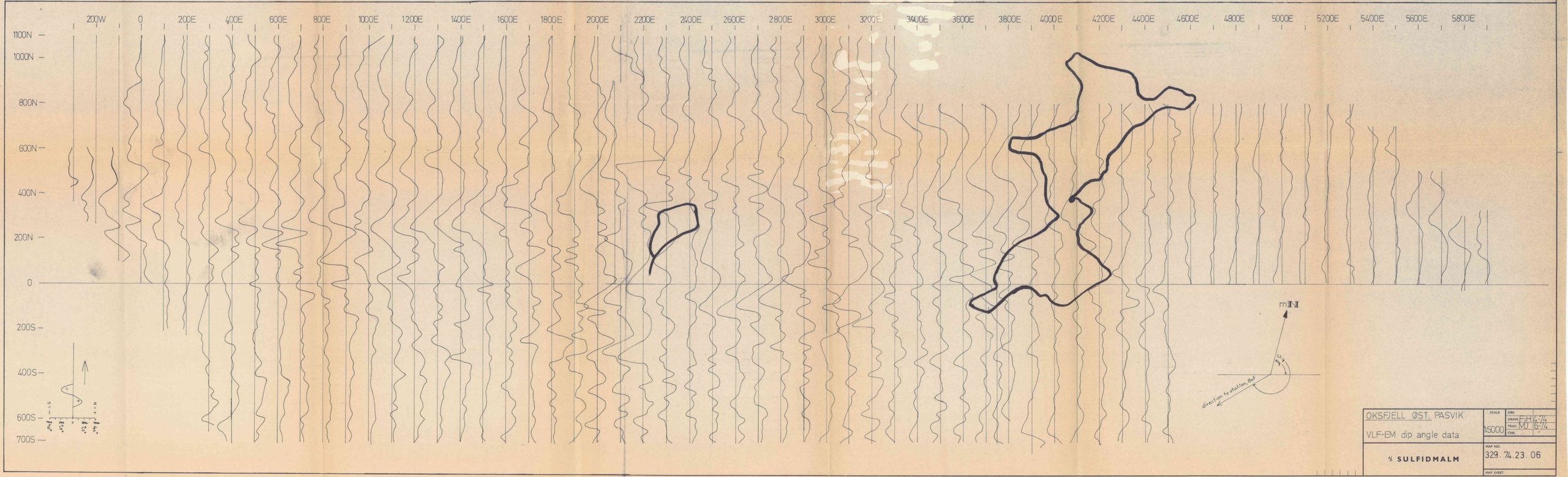
SCALE		
1:5000	OBS.	
	DRAW. FiH	4-74
	TRAC. MJ	6-74
	CHK.	"

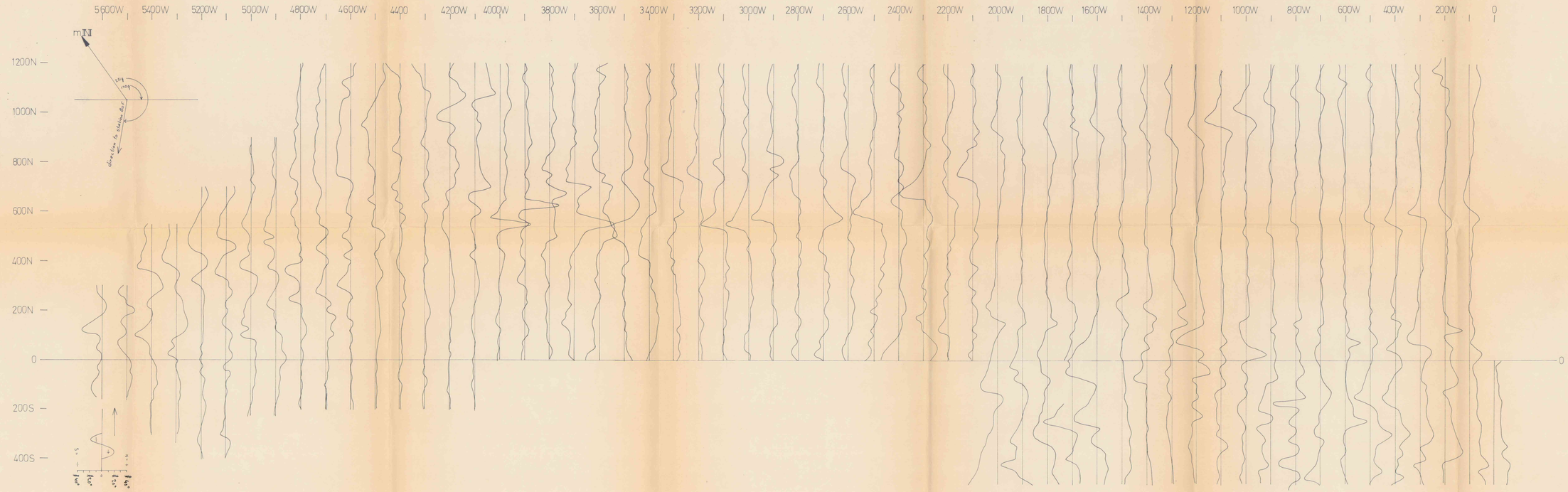
A/S SULFIDMALM

MAP NO. 329. 74.23.03

MAP SHEET

A.s Tørrkopi. 3000. A 1. E 9 gl. 10-71. Sentrum Trykkeri.


200W
0
200E
400E
600E
800E
1000E
1200E
1400E
1600E
1800E
2000E
2200E
2400E
2600E
2800E
3000E
3200E
3400E
3600E
3800E
4000E
4200E
4400E
4600E
4800E
5000E
5200E
5400E
5600E
5800E
1100N
1000N
800N
600N
400N
200N
0
200S
400S
600S
700S
mN
direction to station Ref
OKSFJELL ØST. PASVIK
VLF-EM dip angle data
SULFIDMALM
SCALE
1:5000
OBS.
DRAW. EH 6-74
TRAC. MJ 6-74
CHK. "
MAP NO.
329.74.23.06
MAP SHEET



FAGERMO VEST, PASVIK

VLF-EM dip angle data

SCALE 1:5000

OBS.

DRAW. EH 5-74

TRAC. MJ 6-74

CHK.

MAP NO. 329. 74. 23. 09

MAP SHEET

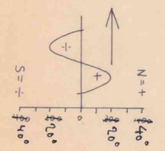
% SULFIDMALM

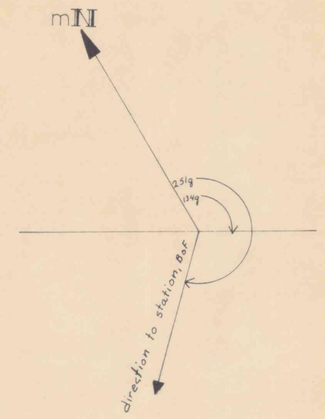
100W 0 200E 400E 600E 800E 1000E 1200E 1400E 1600E 1800E 2000E 2200E 2400E 2600E 2800E

600N
400N
200N
0
200S
400S
600S
800S
1000S

0

Fence parallel to line, no data





FAGERMO ØST, PASVIK

VLF-EM dip angle data

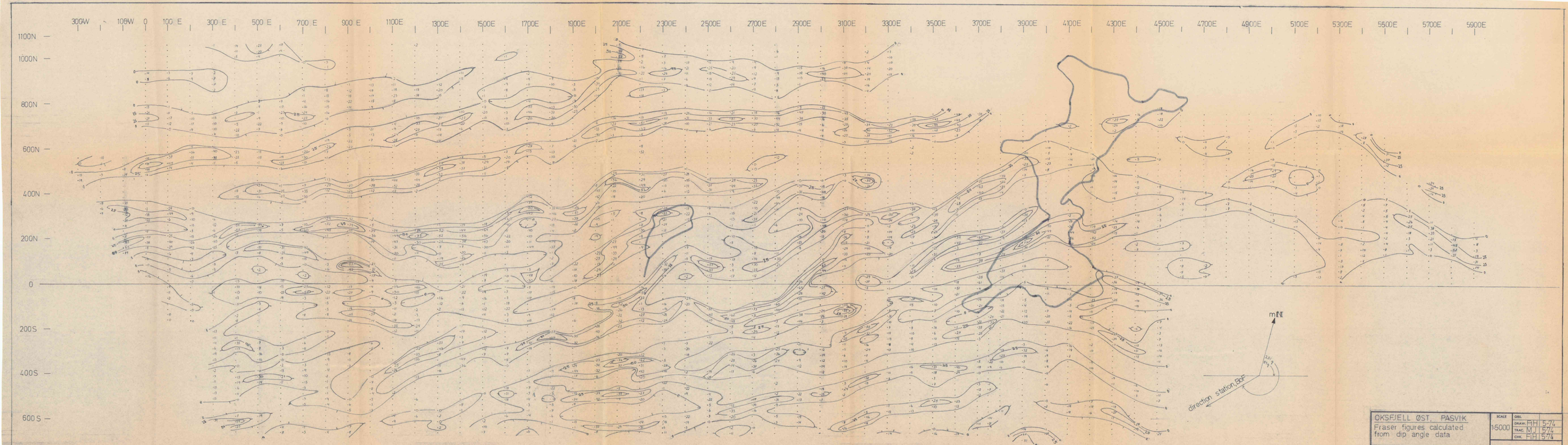
⅛ SULFIDMALM

SCALE	OBS.	
1:5000	DRAW.	
	TRAC. MJ	6-74
	CHK.	"

MAP NO. 329 74 23 12

MAP SHEET

A.s Terrkopi. 3000. A 1. E 9 gl. 10-71. Sentrum Trykkeri.



OKSFJELL ØST, PASVIK
Fraser figures calculated from dip angle data

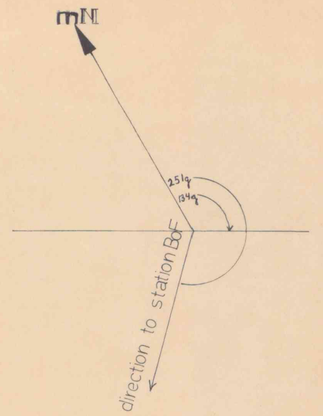
SCALE 1:5000

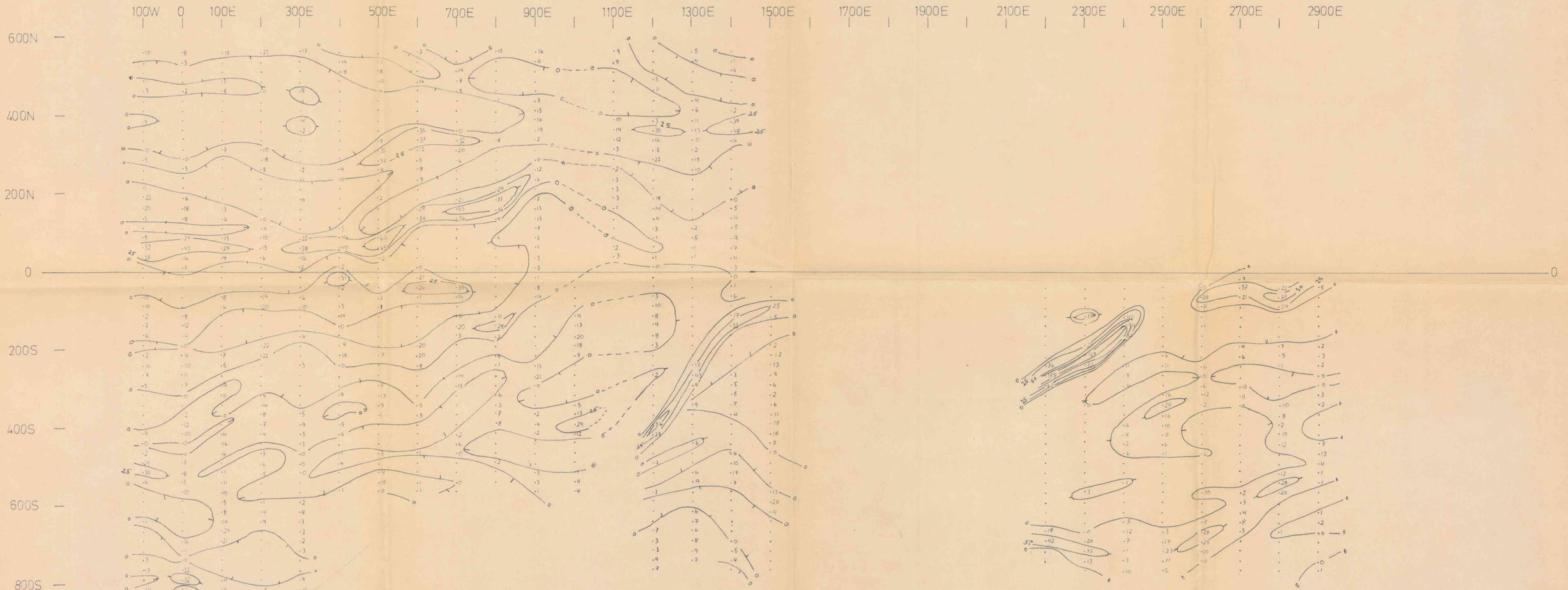
DRG. NO.
DRAW. MH 1574
TRAC. MJ 1574
CHK. MH 1574

½ SULFIDMALM

MAP NO. 329. 74.23. 07

MAP SHEET





FAGERMO ØST PASVIK

Fraser figures calculated from dip angle data.

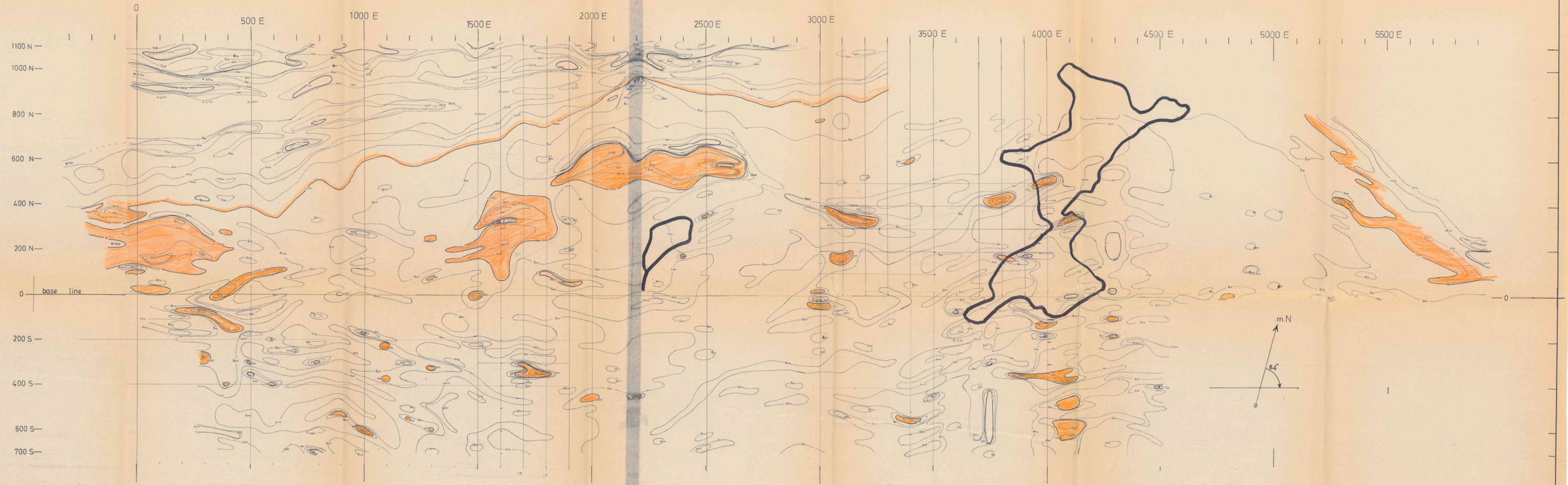
SCALE	OBS.	
1:5000	DRAW. FiH	574
	TRAC. MJ	574
	CHK. FiH	574

½ SULFIDMALM

MAP NO. 329 74 23 13

MAP SHEET

A.s Terrkopi. 3000. A 1. E 9 gl. 10-71. Sentrum Trykkeri.



OKSFJELL ÖST PASVIK

mag. data vert. field

% SULFIDMALM

SCALE	1: 5000
ORI.	4.74
DRAW. F.H	4.74
TRAC. F.H	7.74
CHK. F.H	7.74
MAP NO.	329.74.23.05
MAP SHEET	

3500 W 3000 W 2500W 2000W 1500W 1000W 500W 0

800 N
600 N
400 N
200 N
0
200 S
400 S
600 S
800 S
1000 S
1200 S
1400 S

0

mN

7.5°

OKSFJELL VEST PASVIK
mag. data vert. field

SCALE 1: 5000

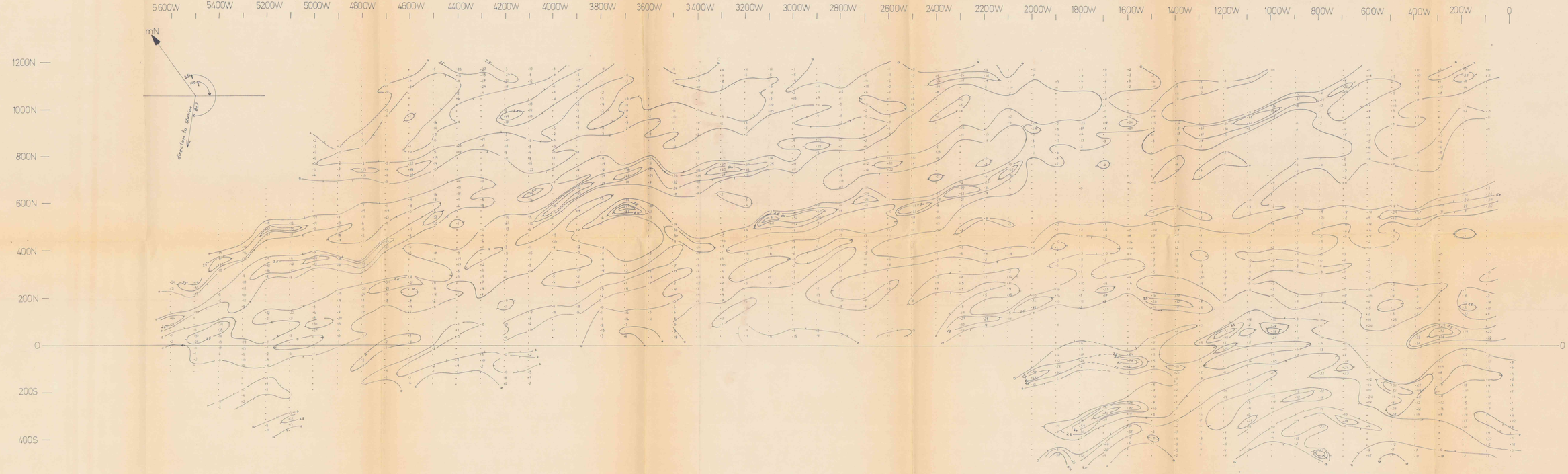
OBS.		4.74
DRAW.	FIH	4.74
TRAC.	DFYL	7.74
CHK.	FIH	7.74

⅛ SULFIDMALM

MAP NO. 329. 74. 23. 02

MAP SHEET

A.s Terrikopi. 3000. A 1. E 9 gl. 10-71. Sentrum Trykkeri.



EAGERMO VEST, PASVIK
Fraser figures calculated from dip angle data

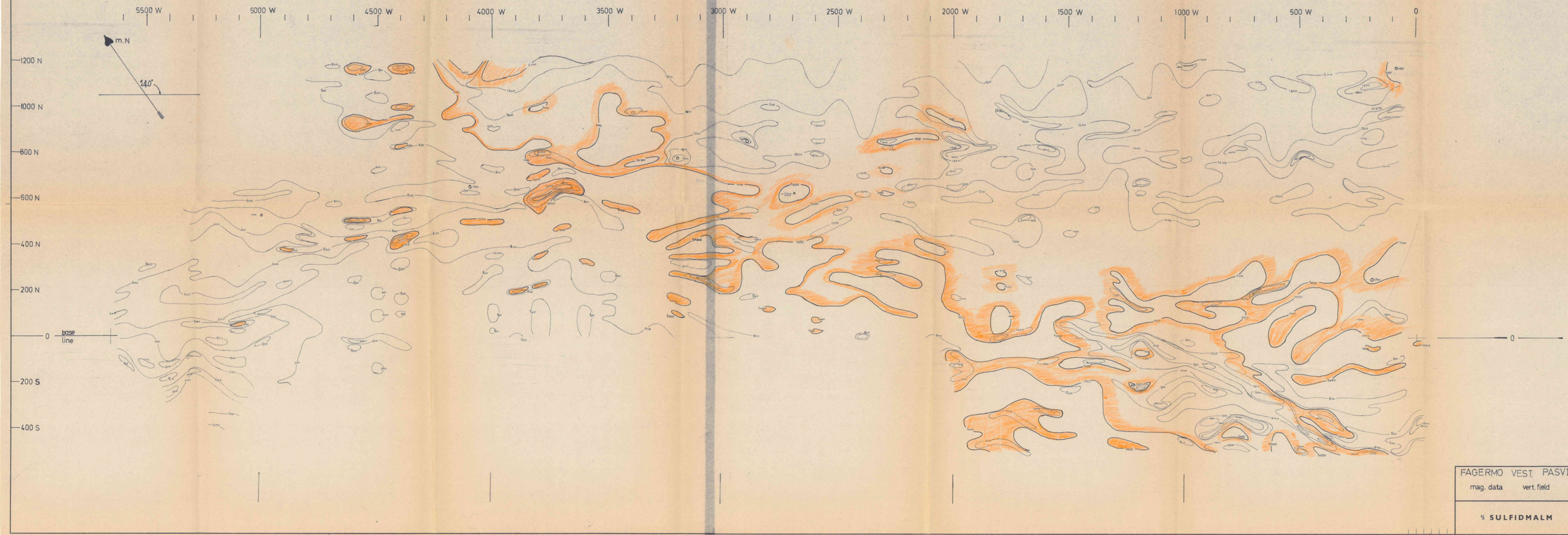
SCALE 1:5000

OBS.
DRAW. RH 5.74
TRAC. MJ 6.74
CHK. FH

½ SULFIDMALM

MAP NO. 329. 74. 23.10

MAP SHEET



FAGERMO VEST. PASVIK	SCALE 1: 5000	OBS.	S. Ø.
		DRAW. FIH	S. Ø.
mag. data vert. field		TRAC. OPL	S. Ø.
		CHK. FIH	S. Ø.
% SULFIDMALM	MAP NO. 329. 74. 23. 08		
	MAP SHEET		

OKSVANN

OKSFJELL

OKSFJELL EAST

OKSFJELL WEST

KILTJONNA

SKJELTVANN

KROKVANN

MALBEKKVANN

FAGERMO WEST

FAGERMO EAST

RV 885

PASVIKELVA

SKOGFOSS

USSR

Instrument calibration point

N

0 500 E 1000 E 1500 E 2000 E 2500 E 3000 E 3500 E 4000 E 4500 E 5000 E 5500 E

300 W 200 W 100 W 0 500 W 1000 W 1500 W 2000 W 2500 W 3000 W 3500 W 4000 W 4500 W 5000 W

0 500 W 1000 W 1500 W 2000 W 2500 E

100 W 0 100 E 500 E 1000 E 1500 E 2000 E 2500 E 2900 E

Pasvik Finnmark

Sulfidmalm survey 1974 EM and Mugn

Location map of ground recovery profiles

SCALE 1:20000

OBS. B Lgh

DRAW. B Lgh

TRAC. B Lgh

CHK.

⅛ SULFIDMALM

MAP NO. 329.74.23.01

MAP SHEET

A.s Terrkop. XXXII. A.1. E.9 gl. 10-71. Senorum Trykkeri

0 500 E 1000 E 1500 E 2000 E 2500 E

600 N
400 N
200 N
base line 0
200 S
400 S
600 S
800 S
1000 S

m.N
134°

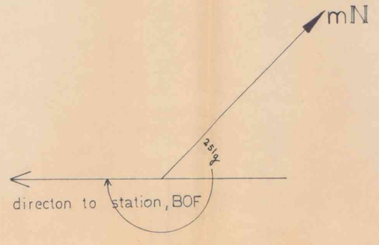
FAGERMO ÖST, PASVIK mag. data vert. field	SCALE 1: 5000	OBS.	5 '74
		DRAW. EH	5 '74
		TRAC. DL	7 '74
		CHK. EH	7 '74
½ SULFIDMALM	MAP NO. 329 74 23 11		
	MAP SHEET		

A.s Terrkopi. 3000. A 1. E 9 gl. 10-71. Sentrum Trykkeri.

3700W 3600W 3500W 3400W 3300W 3200W 3100W 3000W 2900W 2800W 2700W 2600W 2500W 2400W 2300W 2200W 2100W 2000W 1900W 1800W 1700W 1600W 1500W 1400W 1300W 1200W 1100W 1000W 900W 800W 700W 600W 500W 400W 300W 200W 100W 0

600N
400N
200N
0
200S
400S
600S
800S
1000S

600N
400N
200N
0
200S
400S
600S
800S
1000S
1200S
1400S
1600S



OKSFJELL VEST, PASVIK

FRASER FIGURES CALCULATED FROM DIP ANGLE DATA

SCALE 1:5000

OBS.		
DRAW. FIH	5-74	
TRAC. MJ	5-74	
CHK. FIH	5-74	

⅛ **SULFIDMALM**

MAP NO. 329. 74. 23. 04

MAP SHEET

A.s Terrkopi. 3000. A 1. E 9 gl. 10-71. Sentrum Trykkeri.