



Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

Bergvesenet rapport nr BV 502	Intern Journal nr	Internt arkiv nr	Rapport lokalisering Trondheim	Gradering Åpen
Kommer fra ..arkiv Falconbridge	Ekstern rapport nr Sul 368-75-17	Oversendt fra Sulfidmalm A/S	Fortrolig pga	Fortrolig fra dato:
Tittel Geological and geochemical investigations in the Salgganjokka East Grid, Masi.				
Forfatter E Kreivi P Ericsson		Dato 1975	Bedrift Sulfidmalm A/S	
Kommune Kautokeino	Fylke Finnmark	Bergdistrikt Finnmark	1: 50 000 kartblad 18342 19343	1: 250 000 kartblad Nordreisa
Fagområde Geologi Geokjemi	Dokument type Rapport	Forekomster Salgganjokka		
Råstofftype Malm/metall	Emneord Cu			
Sammendrag Salgganjokka øst grid, er en utvidelse av det tidligere Salgganjokka grid som ble nedprioritert etter resultatløs boring i 1975. I Salgganjokka øst grid dominerer amfibolitt - gabbro - pyroksenitt bergarter. blottninger av kvartskratofyr og grafittskifer fører lite synlige sulfider sammenlignet med Salgganjokka grid. En ca 200m bred Ni - Zn anomali i morenen ble funnet mellom to større VLF-EM anomalier. De høyeste verdiene som var på: Ni 800 ppm, Zn 825 ppm, Cu 510 ppm, Pb 92 ppm representerer ikke samme prøve. Prosjektet er nedprioritert men den geokjemiske anomalien er ikke forklart.				

FOR FALCONBRIDGE NIKKELVERK A/S
A/S SULFIDMALM

PROJECT 905-17

Geological and geochemical investigations
in the Salgganjokka East Grid, Masi 1975.

By
E. Kreivi
P. Ericson



11 Jul. 19.10.77
EW

A/S SULFIDMALM
INTER-OFFICE MEMORANDUM

Date: 12th October, 1977 ✓
To: Falconbridge Nikkelverk A/S
cc: W. D. Harrison, H. T. Berry, R. Jahnsen,
F. Nixon, E. Kreivi
From: J. B. Gammon
Subject:

Report No. 368/75/17. Salgganjokka East Grid, Masi.

Please find attached a belated summary of work carried out on this grid during 1975. Drilling at the main Salgganjokka showing gave dissapointing results and this whole area was downgraded. The presence of these geochemical anomalies in an interesting geological milieu should not be forgotten if we become active in this area again.

J B Gammon

1. INTRODUCTION

The "Salgganjokka East" grid is an extension to the main Salgganjokka Grid. It was laid-out in 1975 to trace the north-eastward extension of the Salgganjokka conductor zone, and was covered first with a VLF-EM survey, and subsequently by a shallow till geochemistry survey. The grid was also mapped geologically by P. Ericson. Fig.1 shows the location of the Salgganjokka East grid in relation to other targets in the Masi area, and summarizes the reconnaissance indications leading to the selection of this locality as an exploration target. After the negative results of the 1975 diamond drilling programme the Salgganjokka locality has been down-graded and no further major work is planned there.

2. GEOLOGICAL MAPPING RESULTS

Geological mapping results are presented in Figs. 2 and 3. The dominant rock type is an amphibolite-gabbro-pyroxenite suite. This is in marked contrast to the main Salgganjokka grid where gabbroic rocks are of only minor importance. Outcrops of the quartz-keratophyre unit, which at Salgganjokka carries abundant pyrite, have only minor pyrite (generally < 1%) in the Salgganjokka East Grid. Similarly, the graphite schist outcrops in the Salgganjokka East grid, although strongly rusted, contain no visible sulphides.

Two large blocks of almost massive sulphide were found during the course of the geological mapping programme (coordinates 3140N/0E and 3040N/400E). These consist of pyrite, pyrrhotite with minor chalcopyrite.

GEOCHEMISTRY (Fig.3)

A distinctive, 200 m wide Ni-Zn-anomalous area was found between the two main VLF-EM -anomalies between profiles 2750N and 3000N from 50E to 250E.

Max value for Ni was	800 ppm Ni	at 2850N/175E
" " " Zn "	825 ppm Zn	at 2850N/125E
" " " Cu "	510 ppm Cu	at 2850N/500E
" " " Pb "	92 ppm Pb	at 3000N/275E

The highest Cu-values are 150 ms east of the eastermost main VLF-anomaly, but just in this area there are several short VLF-anomalies.

CONCLUSIONS

The relatively high values of Ni and Zn related to VLF-EM-anomalies are interesting in the area, where gabbroic blocks are in a contact with acid volcanics and acid weathering sediments. Should be checked more carefully.

SALGGANJOKKA -E/PER ERICSSON/1775.

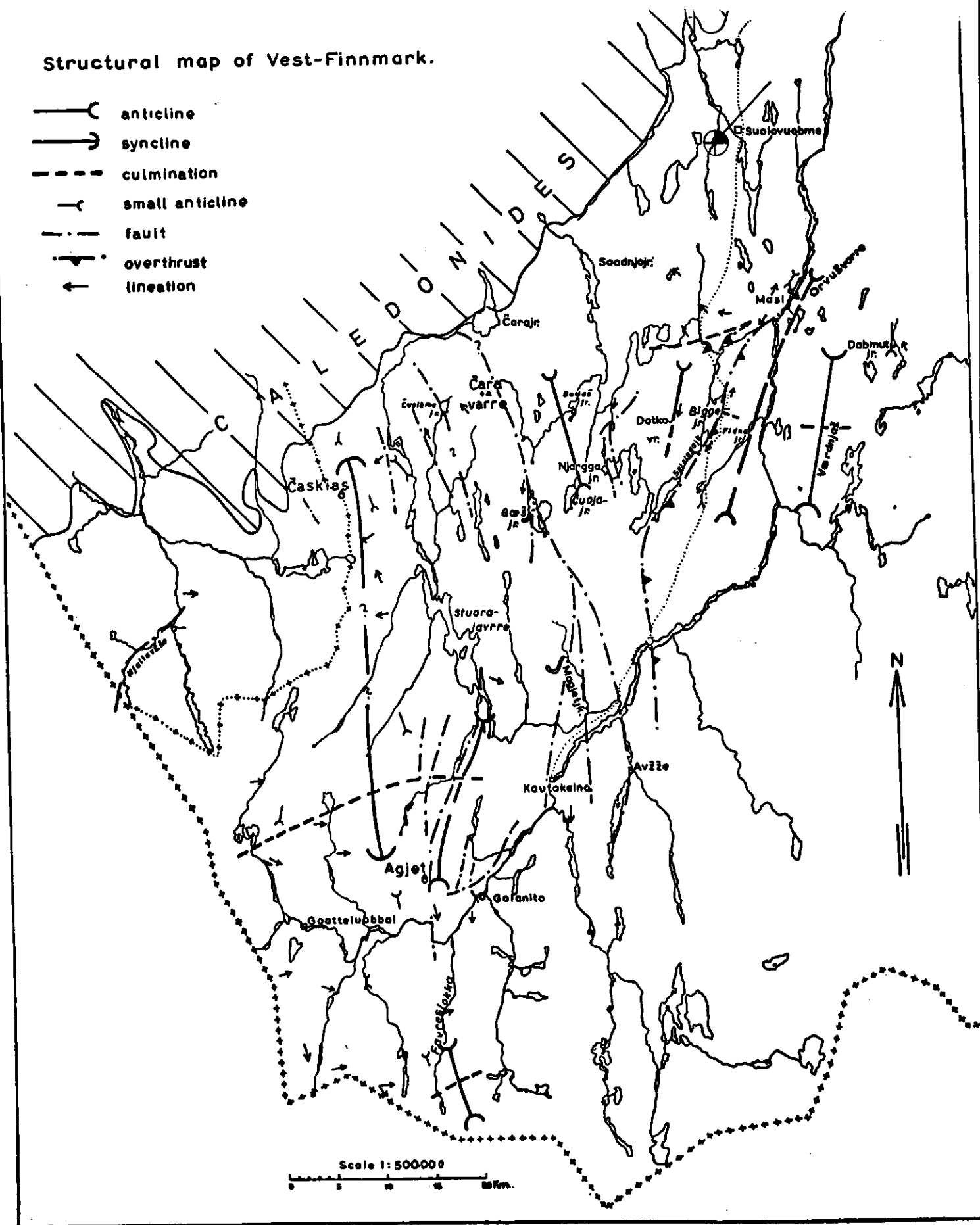
1. Quartz/mica schist, tend to quartzite, S175/53W. Upon is an monzonitic gabbro, the contact zone is a fine grained amphibolite. This fine grained amphibolite brecciates both the schist and the gabbro.
2. Coarse grained dioritic amphibolite, S190/27W, ↓190/200. Some py.
3. Coarse amphibolite, some py, S160/30W.
4. Medium grained amphibolite, some py, S40/24N.
5. Quartz/mica-schist, some py, S150/30SW.
6. Gabbro, tend. to pyroxenite.
7. Fine grained amphibolite, S140/32W.
8. Quartz/mica schist, some rust, S205/30W. Fine-grained amphibolite on top, some schistosity.
9. Fine grained amphibolite with thin carbonate veins, S190/30W.
10. Fine grained amphibolite.
11. Coarse amphibolite.
12. Gabbro/pyroxen., slightly sheared, 2% py+po, towards E chlorite schist, carbonate filled veinlets.
13. Gabbro
14. Gabbro/pyroxenite, 0.5% py + po in patches.

15. Gabbro, some py
16. Gabbro, slightly sheared, S170/12W. In joints actinolite, py, carbonate.
17. Sheared gabbro, S190/20N.
18. Gabbro
19. "
20. "
21. "
22. " , under: very rusty graphite/quartz breccia.
23. Quartz/mica-schist, ~1% py on top is a gabbro, SX.
24. Gabbro, slightly sheared, S180/40W.
25. Coarse amphibolite, S110/20S. Some secondary qz-veins.
26. Quartzite or qz-keratophyre, very rusty, B(?) 75/20N. On top is a chlorite schist.
27. Very rusty graphite-breccia. Sub-outcrop.
28. Fine grained amphibolite, tend to chlorite-schist, S160/34SW.
29. Gabbro, carbonate/albite altered, some rust.
30. Same as 28, carbonate veins.

- 31. Gabbro
- 32. Chlorite-schist
- 33. " , some rust.
- 34. Gabbro, rust
- 35. "
- 36. Quartz-keratophyre, some rust B76/78N, P 90/60N, 130/36W,
towards N contact via carbonate altered gabbro to fresh
gabbro, S162/12W. The contact runs along the layering of
the keratophyre.
- 37. Quartz-keratophyre, rusty, S170/32SW.
- 38. " " , 0.5% py, B82/20N.
- 39. " " , rusty, B140/10W.
- 40. Chlorite-schist, partly rusty.
- 41. Quartz-keratophyre, some py, S160/20E.
- 42. Quartz-keratophyre, B(?) 118/72S.
- 43. " " , tend. to quartz/mica-schist,
secondary qz-veinlets, some py, B(?) 172/73W.
- 44. Same rock as 43, S30/32E.
- 45. Fine-grained amphibolite, S110/15N.

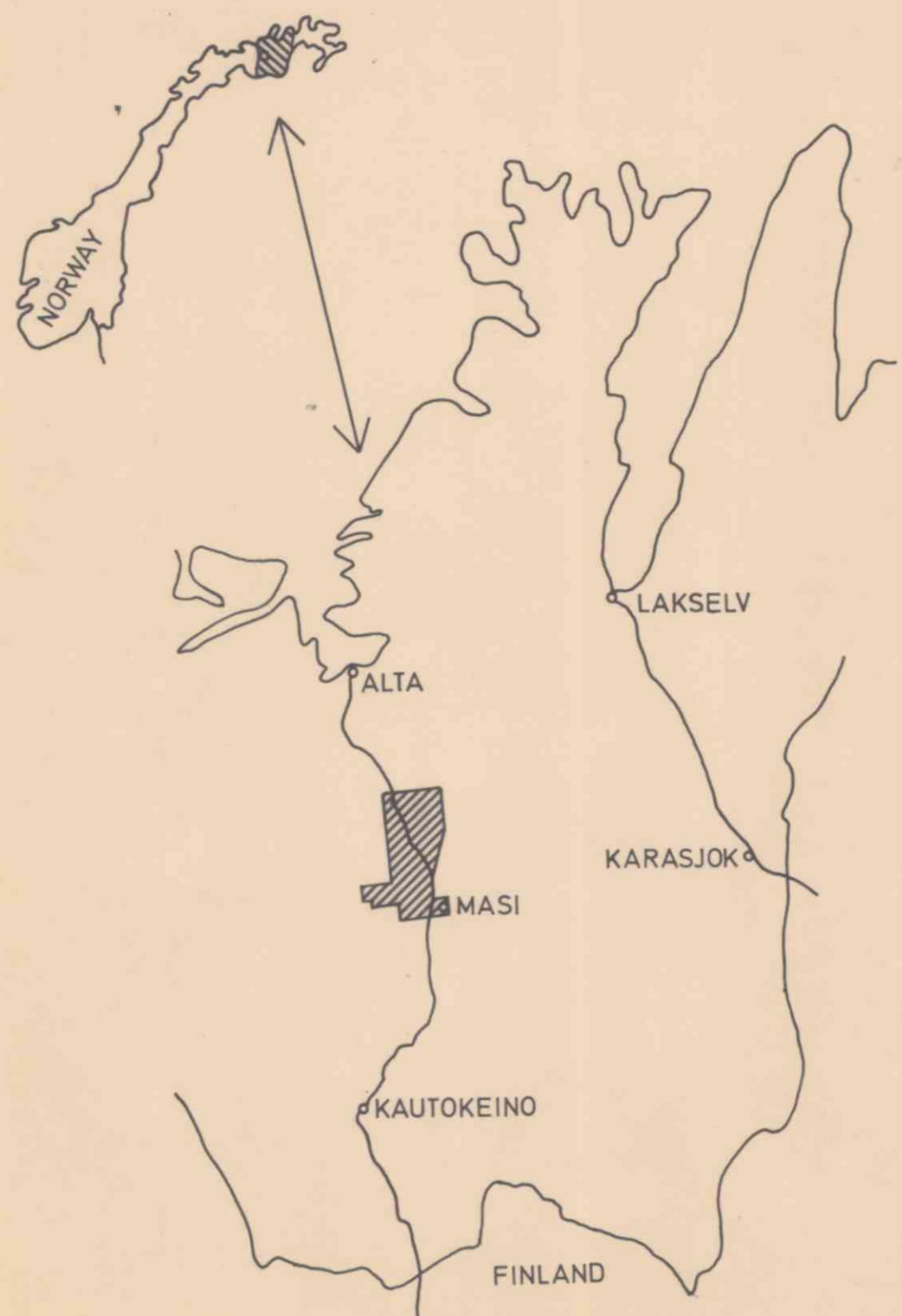
46. Fine-grained amphibolite, tend. to chlorite-schist, S18/90.
47. Quartz/mica-schist (?) somewhat rusty, S144/14SW.
48. Same as 47, Sx
49. Amphibolite, S130/40N.
50. Same as 47, some rust, S140/28SE.
51. Gabbro/amphibolite, S120/20S.
52. Gabbro/amphibolite, S130/12NE.
53. Fine grained amphibolite, tend. to chlorite-schist, S105/20N.
54. Gabbro/amphibolite, S82/20N.
55. Quartz/mica-schist (??), plag. megagrain.
56. Same as 53, S10/26NV.
57. Coarse amphibolite, very plag. rich, S150/20NE.
58. Fine grained amphibolite, S70/20N.
59. Gabbro/amphibolite, S100/28N.
60. Same as 53, S170/15W.
61. Block ~ 50 kg heavily mineralized.
62. ", ~100 kg " ", py, po, cp, graphite-breccia
63. Gabbro+amphibolite, S118/42S.

Structural map of Vest-Finnmark.

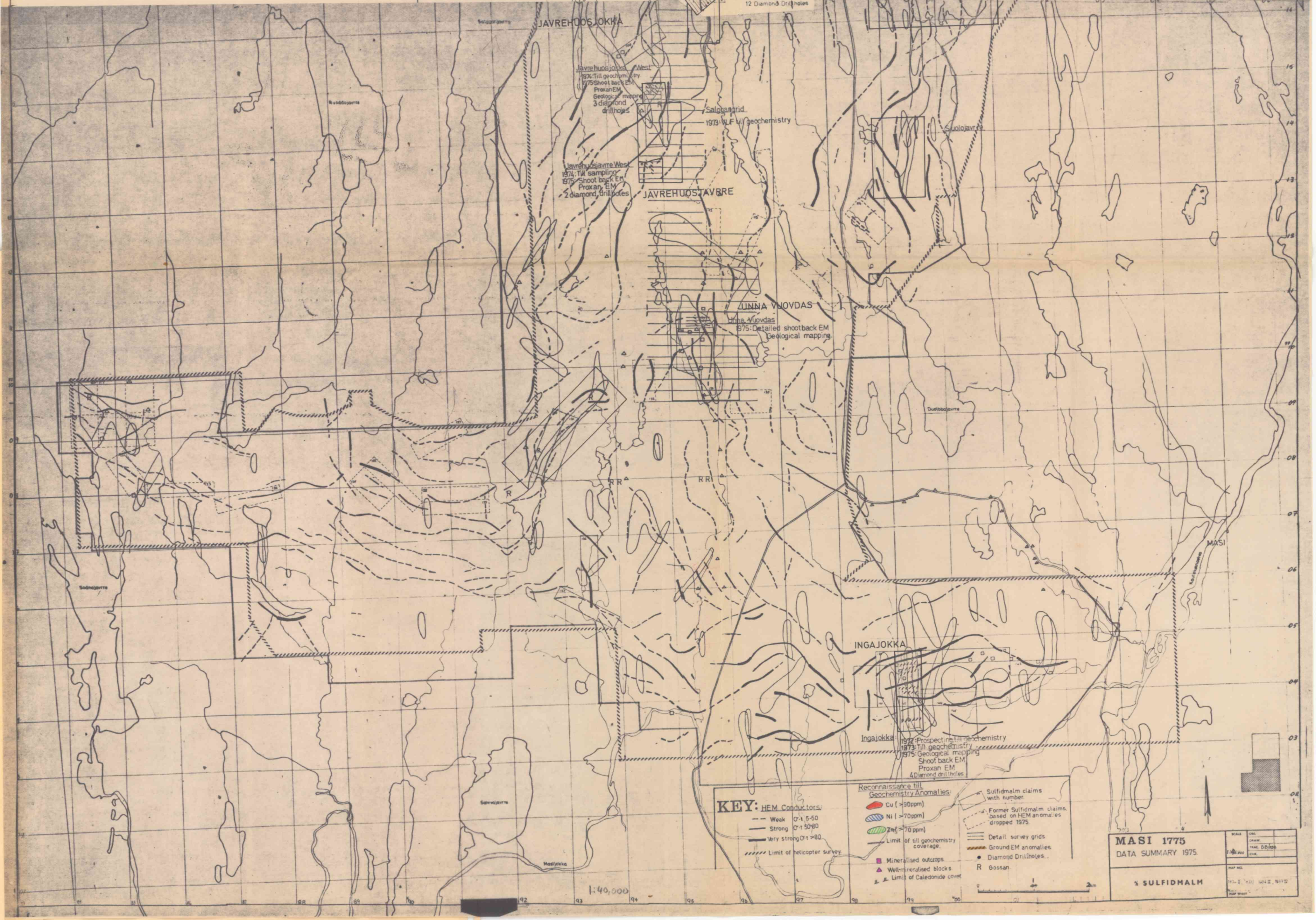
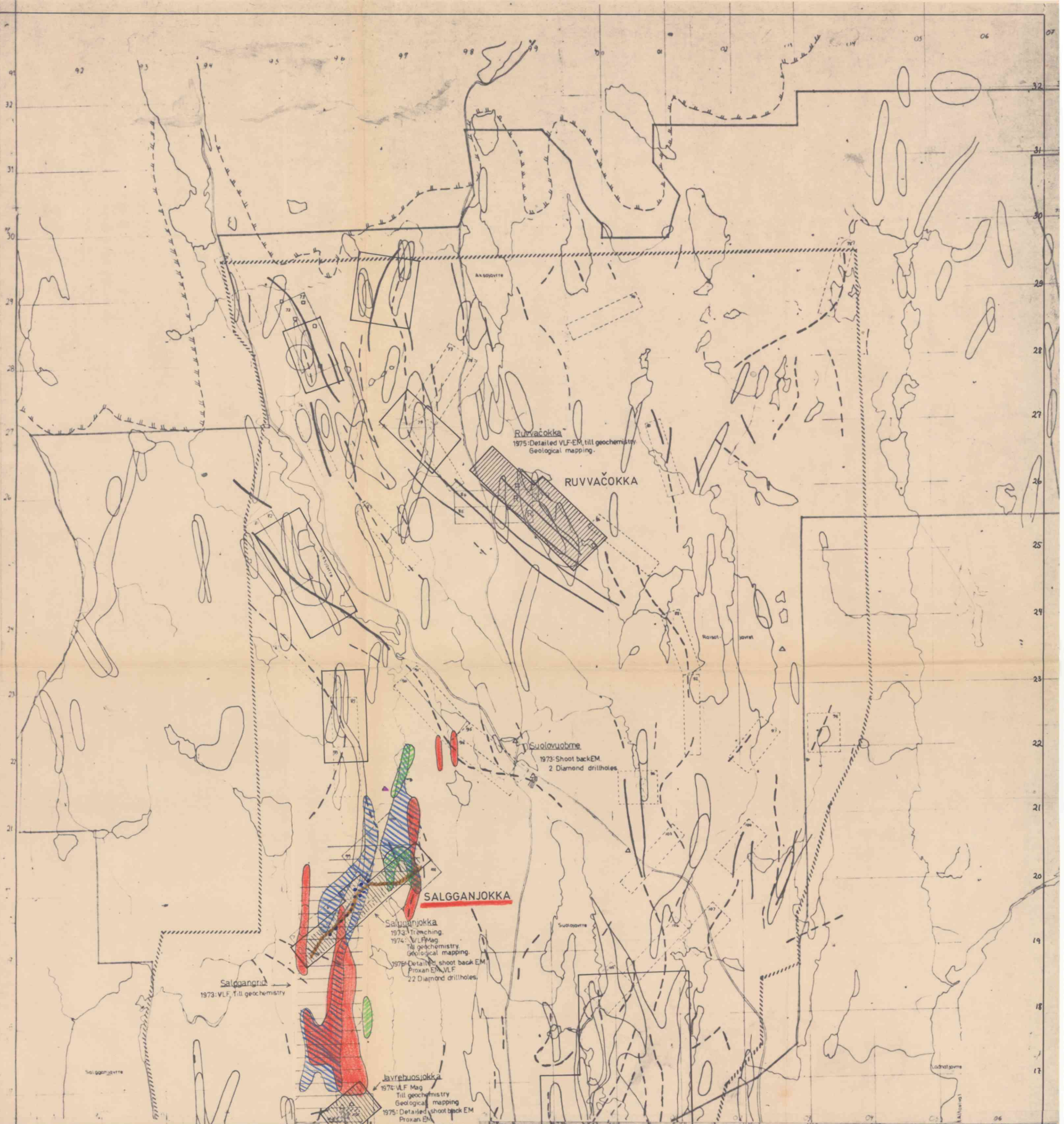


LOCALITY MAP





- (UNDERSØKT 1975) Investigated 1975.
 (PLANLAGT UNDERSØKT 1976) Planned investigation 1976.



KEY: HEM Conductors:

- Weak 0.1-5.0
- Strong 0.1-50.0
- Very strong 0.1-80

Limit of helicopter survey

Reconnaissance till Geochemistry Anomalies

- Cu (>50ppm)
- Ni (>70ppm)
- Zn (>10ppm)

Limit of all geochemistry coverage

Sulfidmalm claims with number

- Former Sulfidmalm claims based on HEM anomalies dropped 1975
- Detail survey grids
- Ground EM anomalies
- Diamond Drillholes
- R Gossan

Mineralised outcrops

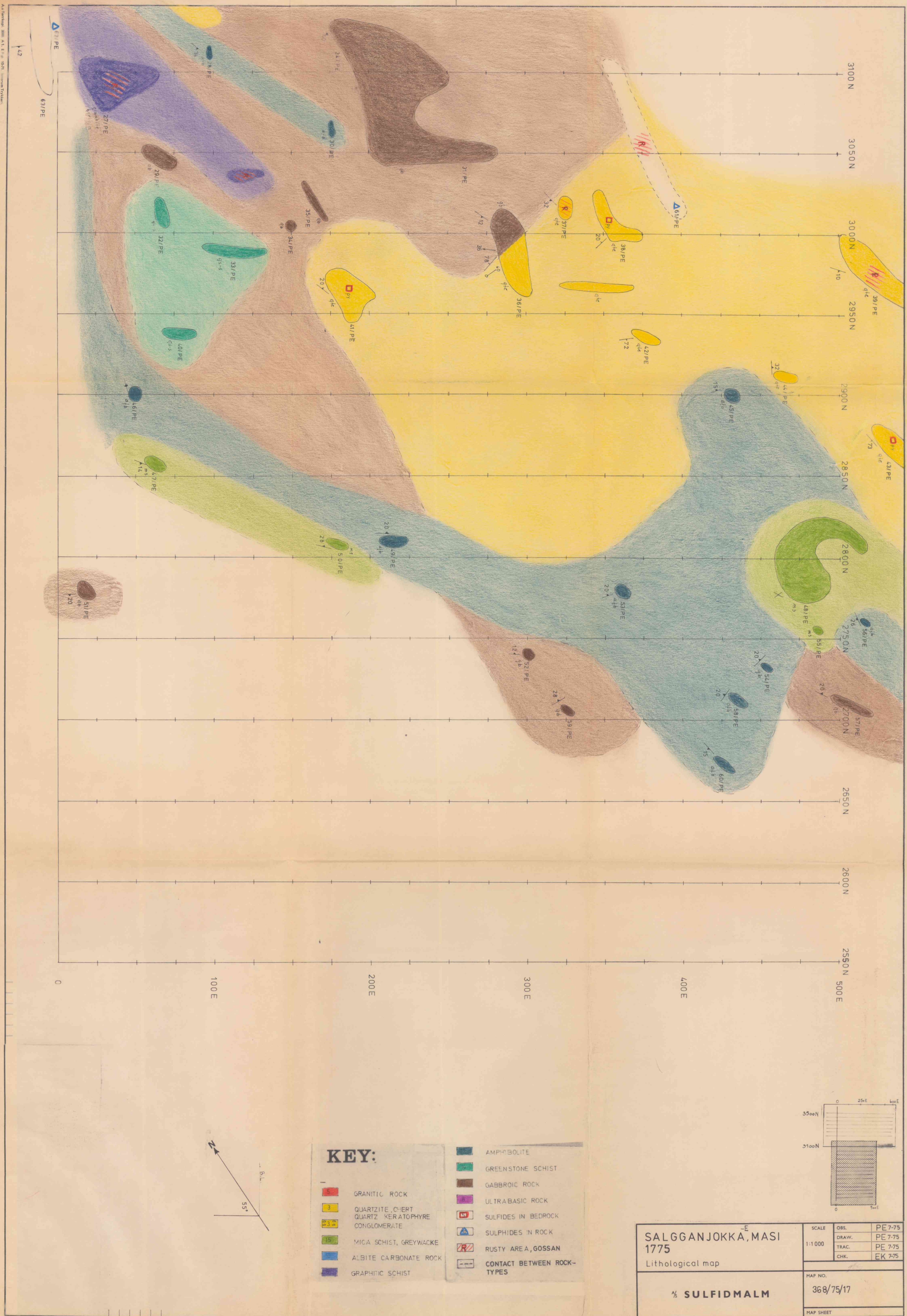
Water-released blocks

Limit of Caledonide cover

MASI 1775
DATA SUMMARY 1975

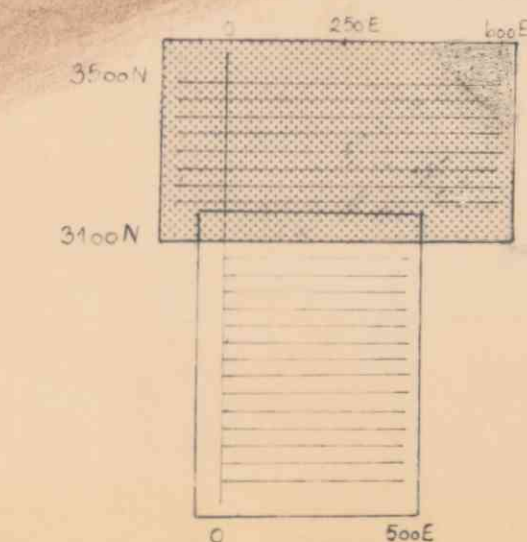
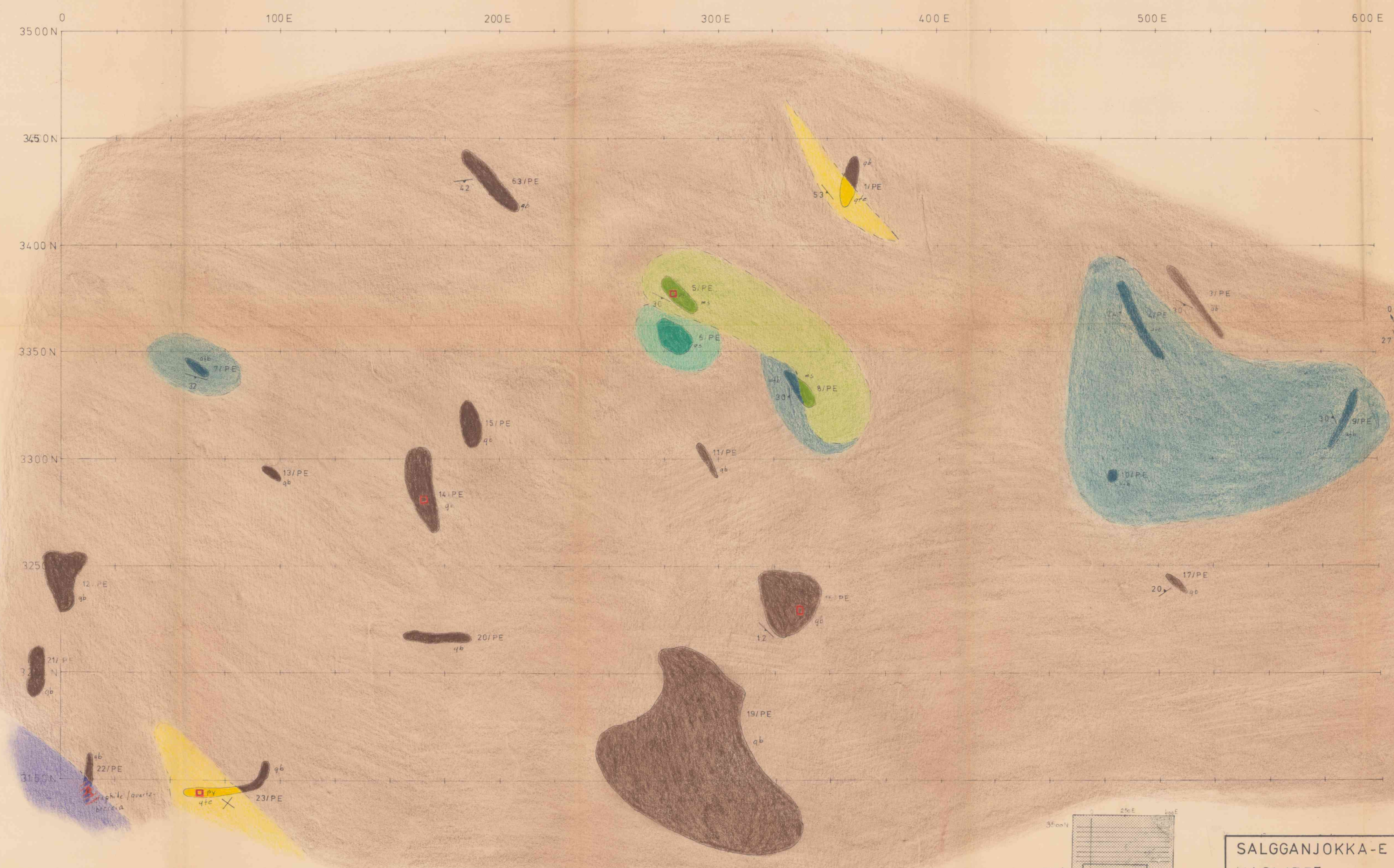
% SULFIDMALM

Block	Area	Area	Area
1	2	3	4
5	6	7	8
9	10	11	12



KEY:

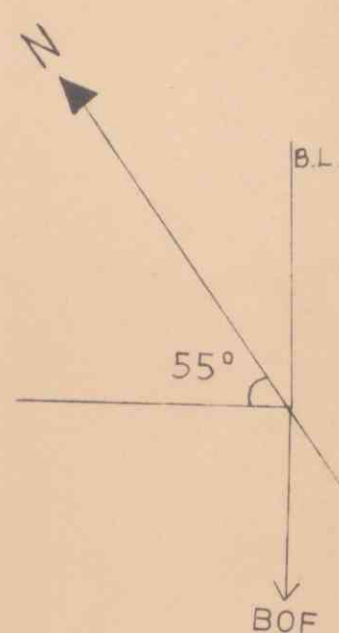
- GRANITIC ROCK
- QUARTZITE, CHERT
- QUARTZ KERATOPHYRE
- CONGLOMERATE
- MICA SCHIST, GREYWACKE
- ALBITE CARBONATE ROCK
- GRAPHITIC SCHIST
- AMPHIBOLITE
- GREENSTONE SCHIST
- GABBROIC ROCK
- ULTRABASIC ROCK
- SULFIDES IN BEDROCK
- SULPHIDES IN ROCK
- RUSTY AREA, GOSSAN
- CONTACT BETWEEN ROCK-TYPES



SALGGANJOKKA - E		SCALE 1:1000	OBS. PE	7-75
MASI 1775			DRAW. PE	7-75
Lithological map			TRAC. PE	7-75
			CHK. EK	7-75
% SULFIDMALM		MAP NO.		
		368/75/17		
		MAP SHEET		

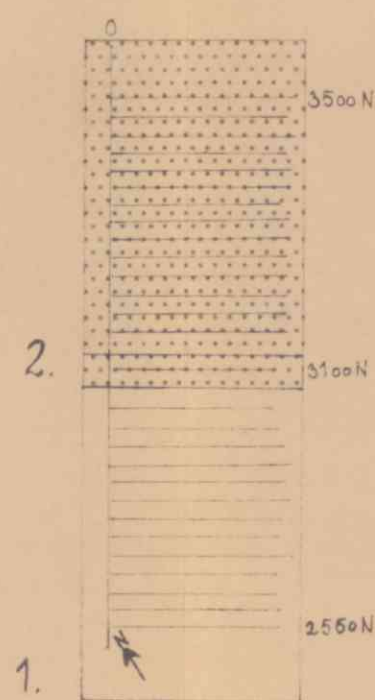
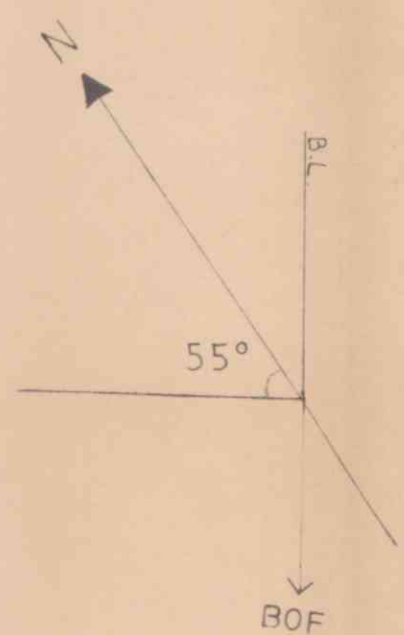
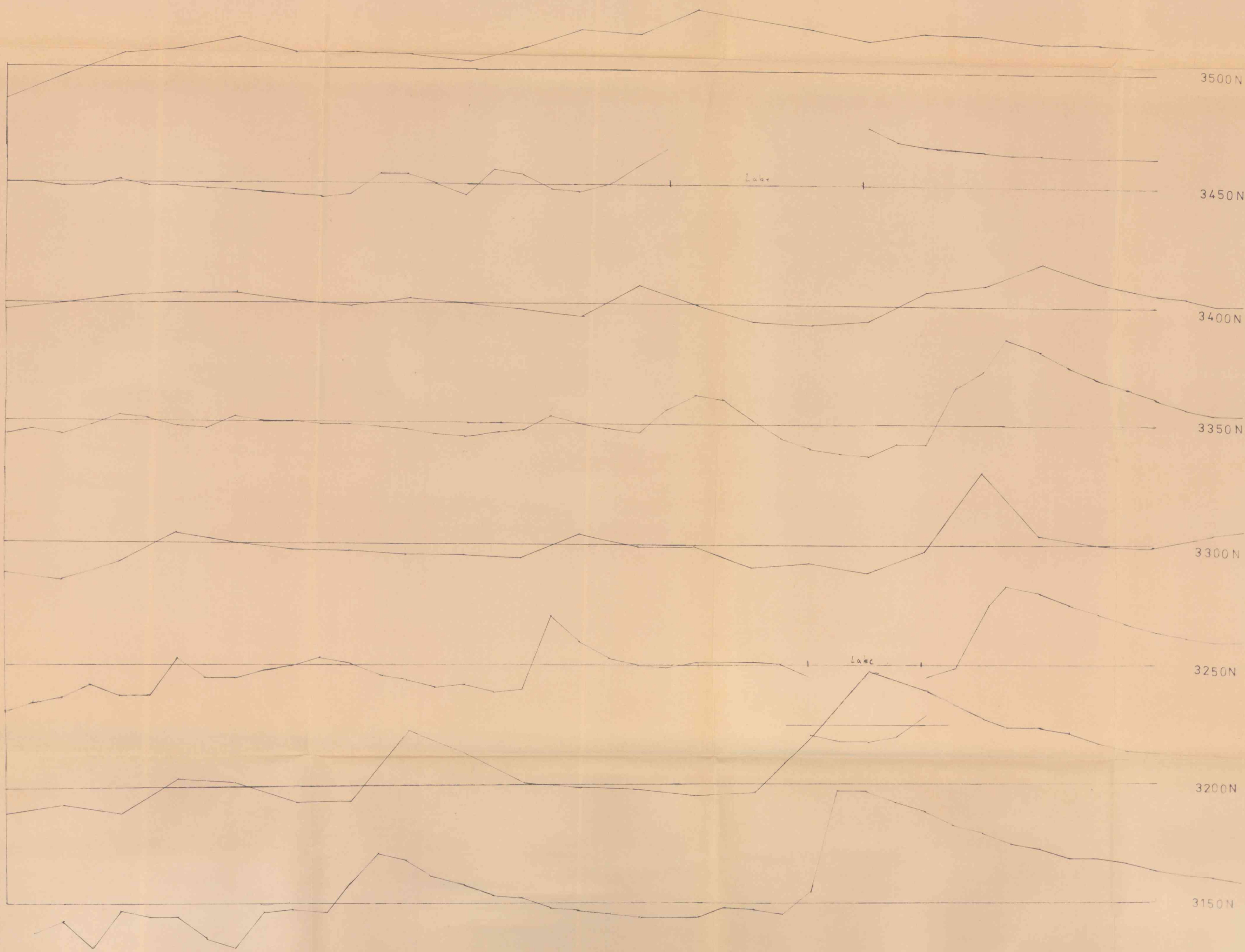
LOCALITY MAP



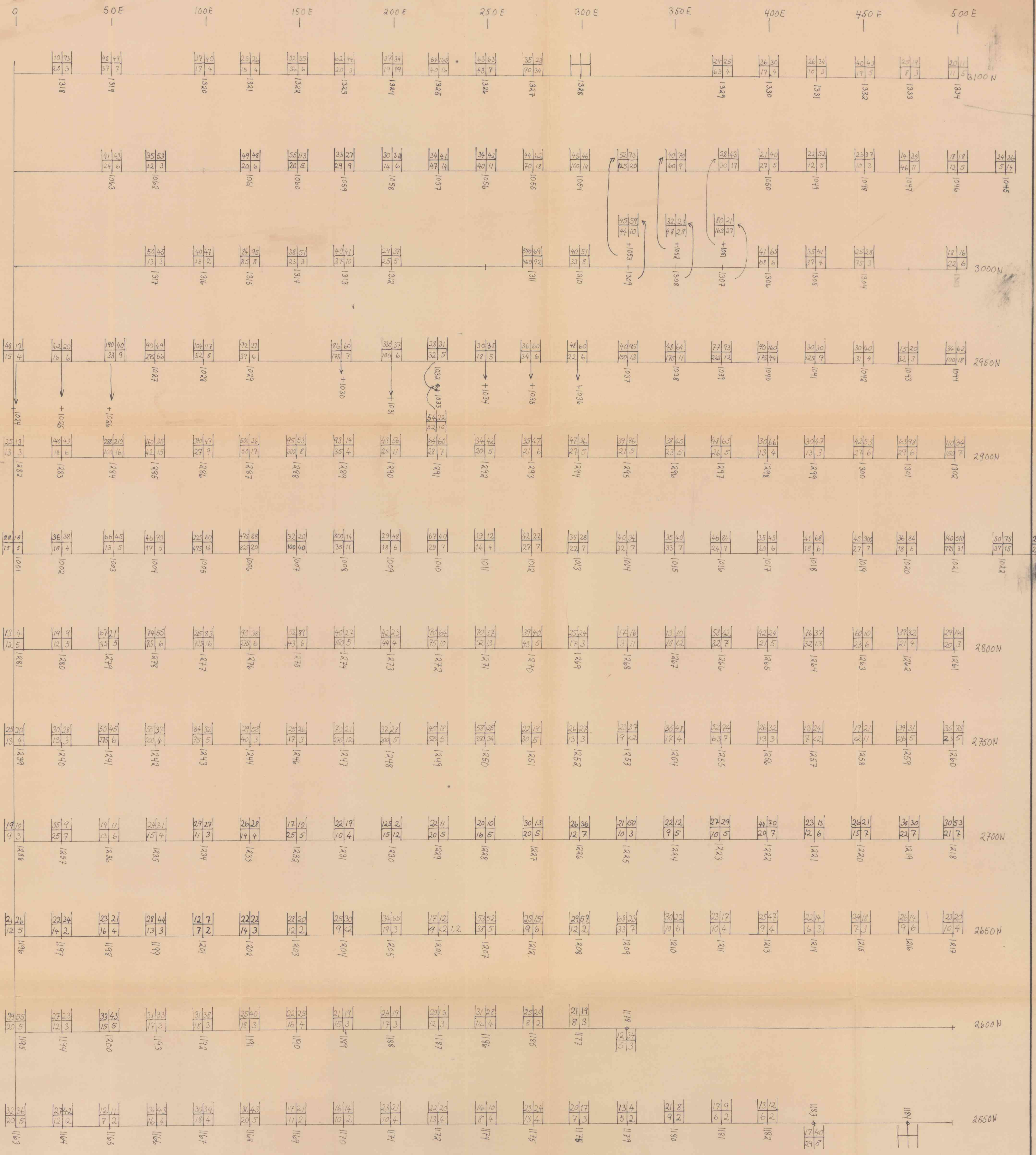


SALGANJOKKA-E VLF-data 2550N-3100N 0-500E	SCALE 1:1000	OBS. MP	7-75
		DRAW. MP	7-75
SULFIDMALM	MAP NO. 368-75-17	TRAC. MP	7-75
		CHK. E/K	1-76
	MAP SHEET		

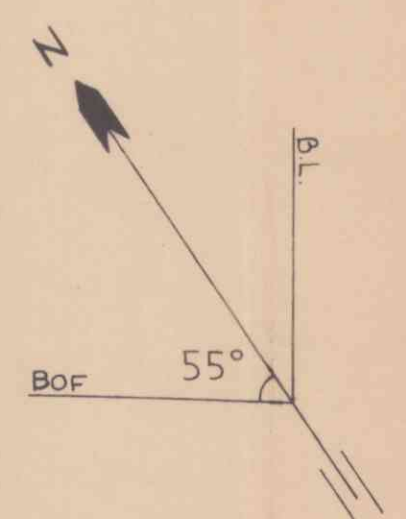
0 50E 100E 150E 200E 250E 300E 350E 400E 450E 500E



SALGGANJOKKA - E VLF-data 3150N-3500N 0-550E	SCALE	OBS. MP	7-75
	1/1000	DRAW. MP	7-75
		TRAC. MP	7-75
		CHK. EK	7-76
% SULFIDMALM	MAP NO.		
	368-75-17		
	MAP SHEET		



+ 1229 Till-sampling
1178 Lake/stream sediment-sampling



Till-sample location		Stream/lake-sample location	
Ni	Cu	Ni	Cu
Zn	Pb	Zn	Pb
Ag		Ag	
Possible 90-95%	50-70	Possible 90-120	65-95
Probable 95-98%	70-90	Probable 120-170	95-127
Anomalous 98-100%	90-200	Anomalous 170-300	127-250
	> 200		> 250

MASI 1775
Salggnajokka-E
Till-sampling
Sample locations

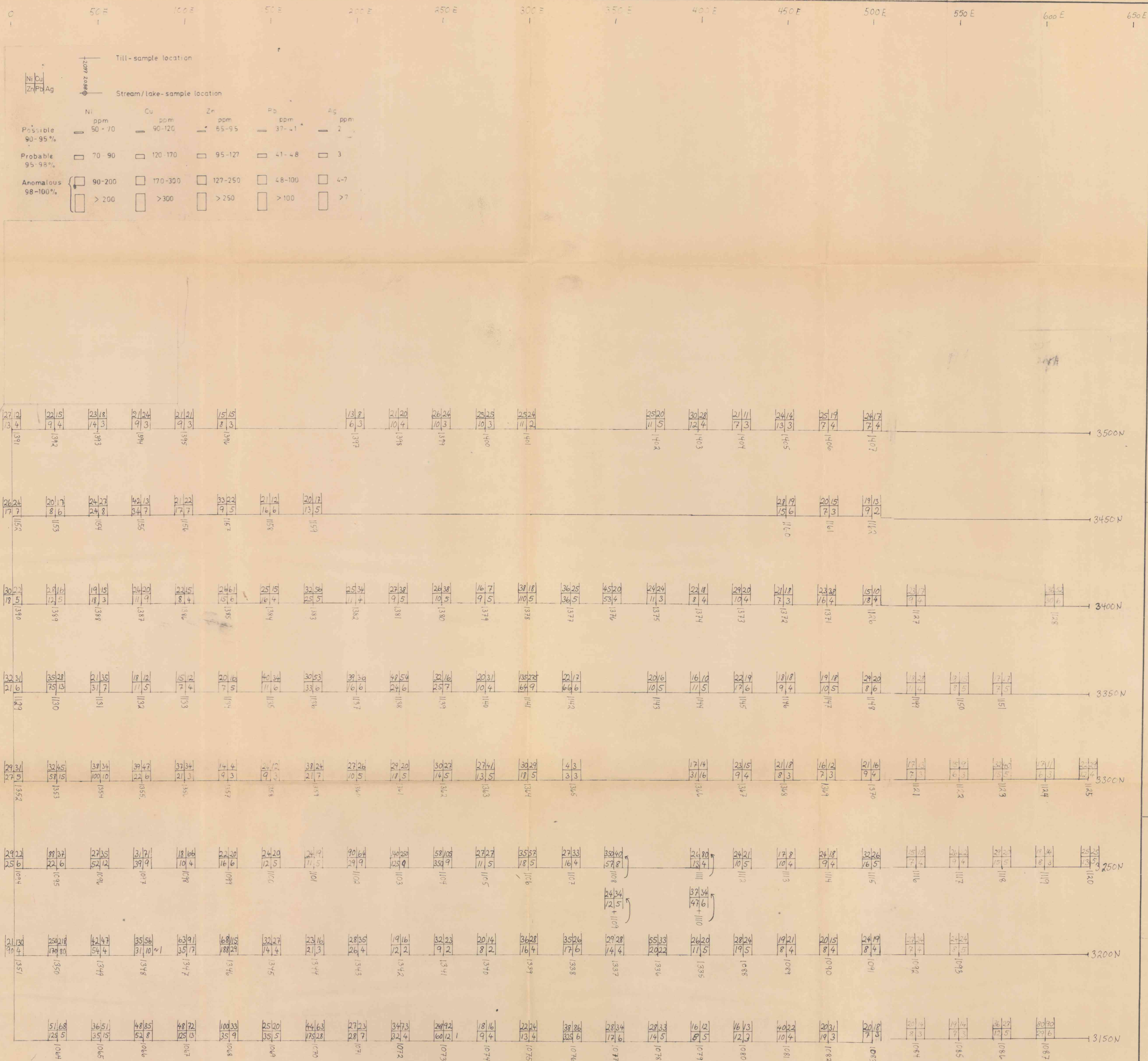
SCALE
1:1000

OBS. OH 7-75
DRAW. OH 7-75
TRAC. OH 7-75
CHK. EK 1-76

MAP NO.
368-75-17

MAP SHEET

1/2 Sulfidmalm



MASI 1775 Salganjokka-E Till-sampling Samples' locations	SCALE	OBS. O.H.	7-75
	1:1000	DRAW. O.H.	7-75
		TRAC. O.H.	7-75
		CHK. EK	1-76
% SULFIDMALM	MAP NO.	368-75-17	
	MAP SHEET		