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Rapportarkivet

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Tittel Ground surveys at Javrehuosjokka- south, 1976, Masi.				
Forfatter E Kreivi, K Taipale		Dato 1976	Bedrift Sulfidmalm A/S	
Kommune Kautokeino	Fylke Finnmark	Bergdistrikt Finnmark	1: 50 000 kartblad 18342 19343 18331 19334	1: 250 000 kartblad Nordreisa
Fagområde Geologi, geofysikk, geokjemi	Dokument type Rapport	Forekomster Javrehuosjokka south		
Råstofftype Malm/metall	Emneord Cu Ni Co Zn			
Sammendrag The fieldwork in 1976 suggested that there is a possible synform, where the northermost limb is in the Javrehuosjokka -74 grid (Sulfidmalm reports 336-74-17 og 363-75-17). At the base there seems to be micashists on which is the bed of quartzbanded iron formation and in the midle, a serie of basic and acid volcanics. The acid volcanics are often graphitic rich and brecciated by ironsulphides, mainly pyrrhotite with minor chalcopyrite. The geochemical and EM-anomalies are probably caused by weathered po-mineralized graphitic beds. Best aanalyzes in hand specimen gave: 0,65% Cu. No further work was recommended.				

FOR FALCONBRIDGE NIKKELVERK A/S
A/S SULFIDMALM

Project 905-17

Ground surveys at Javrehuosjokka-S
in 1976, Masi

By

E. Kreivi

K. Taipale

Report No. 408/76/17

Introduction (Fig.1)

The Javrehuosjokka-76 grid is like Unna Vuovdas grid a part of the 12 kms long main Salggangrid. It is situated at the northern end of a lake called Javrehuosjavrrre. 1300 ms long baseline is running from the point 5000N/200W northwards, the linespacing of the 600 ms long profiles was 100 ms. The grid was laid out for testing, if there is any continuation to the geochemical anomalies on Javrehuosjokka-74 grid.

The grid area forms of a swampy, steep-sided river valley. Exposure is poor because of the swamps and drift.

The northernmost part of the grid was drilled in 1975 (diamond drill holes J-10 and J-11/1775 (Rep. 363/75/17). The grid area was mapped in detail and shallow till-samples were collected from all the profiles and two northernmost profiles were till-sampled by Partner-percussion drill. 5 profiles were measured by Shoot-Back-EM.

Geology by Kalle Taipale (Fig.2)

Petrography

1. Greywacke

Greywacke consists of amphibole, plagioclase, mica, chlorite and carbonate. It is rather foliated and medium grained. Carbonate occurs as thin veinlets and fracture fillings and it is probably of secondary origin, at least partly.

2. Quartz banded iron ore

Oxide facies adjoining to sulphide facies is quite well exposed in this area. This rock type consists of quartzose rock intercalated with magnetic bands. Garnet seems to occur very abundantly in places. Quartz banded magnetite ore is without exception very tightly minor folded.

3. Albite carbonate rock

This rock type occurs only in one outcrop on this area. It consists of albite and carbonate. The structural setting of albite-carbonate rock is obscure, whether it is stratiform or a cutting dyke. A metasomatic alteration of a volcanic rock could be possible.

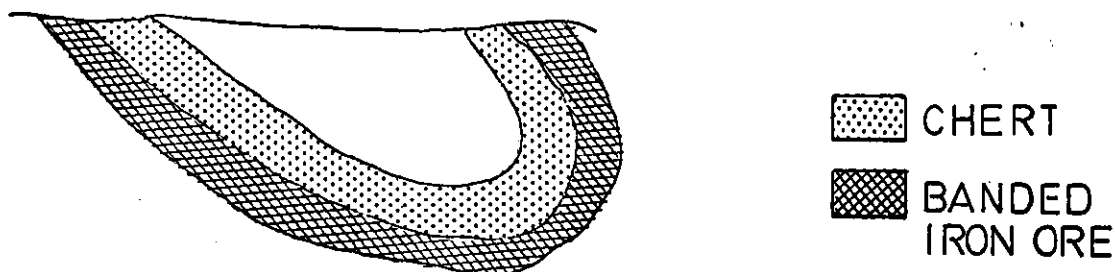
4. Greenstone, chert and graphite schist

These rock types have been described already in both Havggajavrre and Unna Vuovdas reports, and so they will not be described here anymore.

Structure

The relation of tectonic observations and the setting of rock types is a little peculiar. Both bedding and schistosity, often bedding plane schistosity, dip eastwards. On the western side of the area the order the rocks is following: banded iron ore, chert, and greenstone from W to E and on the eastern side the corresponding order is: greenstone, chert and banded iron ore.

This order could be explained with an asymmetrical fold like the drawing shows:



The contact zone of banded iron ore and greywacke in the northern part of the grid is mylonitized.

Block searching and till geochemistry

Block searching did not disclose anything special. Near the shoreline of lake Javrehuos was found a concentration of compact pyrrhotite boulders with some chalcopyrite. These boulders are very local indicating a sulphide/graphite bearing horizon being underneath.

The almost only geochemical Cu-anomalies came out at the northern end of the grid, where sampling took place with the Partner-sampler deeper than the ordinary sampling. Judging by these few examples the deep sampling seems to give better results than the ordinary sampling, at least in this special case, when the overburden was thick at the bottom of a river valley.

Geophysics (Fig.3)

A Shoot-Back-survey with 50 ms coil-separation was done on five profiles: 5500N, 6000N, 6100N, 6200N and 6300N.

On every profile the curve is quite similar to each other starting about from 0-level at 150E, sinking very deep, until an amplitude value of 120 at around 150W. From this point the curve is slightly raising up again. The whole thing means that a conductive layer starts from the surface at around 150E and dips westwards and climbs up again after 400W. Some interferences are around 100W and still stronger around 300W.

Geochemistry (Fig.4)

The till-samples were collected with hand auger mostly from C-layers 50-60 ms deep with 25 ms sample-interval from the whole grid-area. Two profiles, 6200N and 6300N, were sampled by Partner-percussion drill. Because the area is very blocky it was found too difficult and too slow to use Partner in the whole grid. Also stream- and lake shore-sediment-samples were collected. Atom Energy Laboratory assayed the samples for Ni, Cu, Co, Zn and Ag.

the anomalous assays are very scattered in the whole area except on the profile 6300N, where the samples were collected from deeper layers (max 1.2 m) with Partner-drill. On that profile we got two distinctive anomalous areas between 400W-350W and 250W-0. In the first area Ni, Co and Zn are anomalous and in the second area Cu, Ni and Co.

A/S SULFIDMALM
INTER-OFFICE MEMORANDUM

Date: 3rd May, 1977 ✓
To: Falconbridge Nikkelverk A/S
cc: W. D. Harrison, H. T. Berry, R. Jahnsen,
R. B. Band, E. Kreivi, Bergmester Vasshaug
From: J. B. Gammon
Subject:

Rept. No. 408/76/17. Javrehuosjokka South grid, Masi

This report summarises work carried out on the Javrehuosjokka south grid in 1976. The work was aimed at outlining a possible source of rich copper bearing boulders found during previous prospecting to the north of this grid. Geophysics, mapping and geochemistry failed to outline any target promising enough to warrant additional work.

J. B. Gammon

✓

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ADM. DIR.				PROD. SJEF	
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INNKJ. AVD.				EL. TEKN. AVD.	
REGNSK. AVD.				INSTR. AVD.	
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27.

The highest values in the whole area are:

Ni	390 ppm	at	6300N/375W
Cu	1220 ppm	at	6300N/100W
Co	325 ppm	at	6300N/100W
Zn	310 ppm	at	6300N/400W

The first anomaly is near a mineralized exposure and EM-anomaly on acid volcanic rock. The second anomaly lies on a rusty stream-valley, where it was found several, usually weathered exposures of po (+py)- mineralization which minor chalcopyrite brecciating graphite-bearing acid volcanics.

Conclusions

The field work in 1976 suggested that there is a possible syn-form, where the northernmost edge is in the Javrehuosjokka-74 grid (Rep. 336/74 and 363/75. At the base there seems to be mica-schists on which is the bed of quartz-banded ironformation and, in the the middle, a series of basic and acid volcanics. The acid volcanics are often graphitic rich and brecciated by iron-sulphides, mainly pyrrhotite with minor chalcopyrite. The geochemical and EM-anomalies are probably caused by weathered and po-mineralized graphitic beds.

The best analyzes in the hand specimens gave:

0.65% Cu in 128/KT/76

Point no. *Masi 17/76*

Date *5/7 1976*

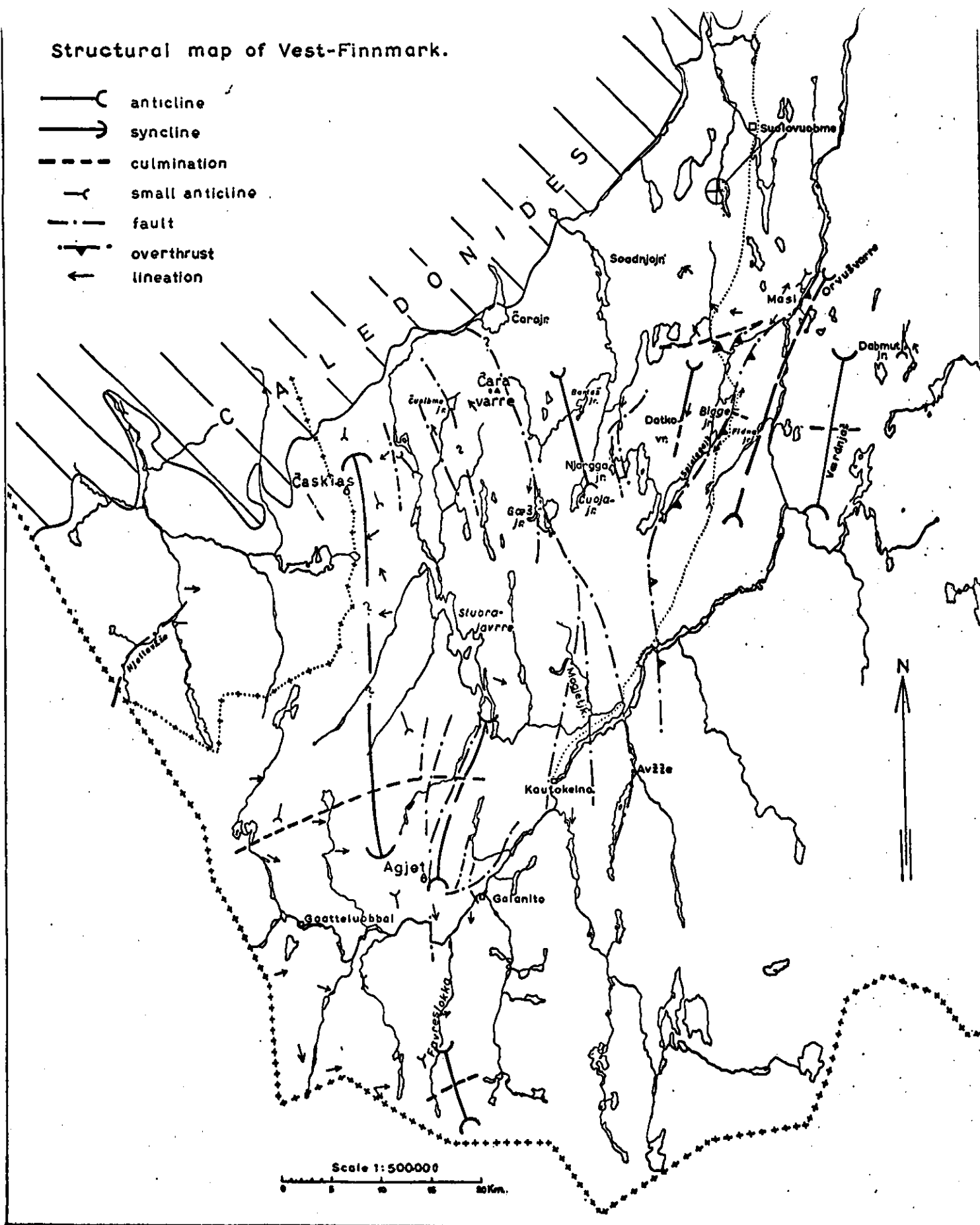
Inspector: *E. Kieiv.*

	Probe- nr.	Lokalitet	Provetype	Beskr.	N.	Cu									Bemerk:
	26/KT	<i>Vana Vanda</i>	<i>grab</i>		0,18	1,10									
	29/KT	---	---		0,02	0,58									
2	31/KT	---	---		0,20	0,14									
3	45/KT	---	---		0,04	0,76									
4	47/KT	---	---		0,14	0,82									
	59a/KT	---	---		0,01	0,88									
	145/KT	---	---		0,08	0,38									
7	150c/KT	---	---		0,09	1,00									
8	151c/KT	---	---		0,12	0,24									
9	161/KT	---	---		0,12	0,40									
10	162/KT	---	---		0,02	1,10									
11	137/KT	---	---		0,04	0,50									
12	151a/KT	---	---		0,01	0,60									
13	128/KT	<i>Ju. vedhussp.</i>	---		0,03	0,65									

Erkninger:

Shipment No. *17/1*

Structural map of Vest-Finnmark.



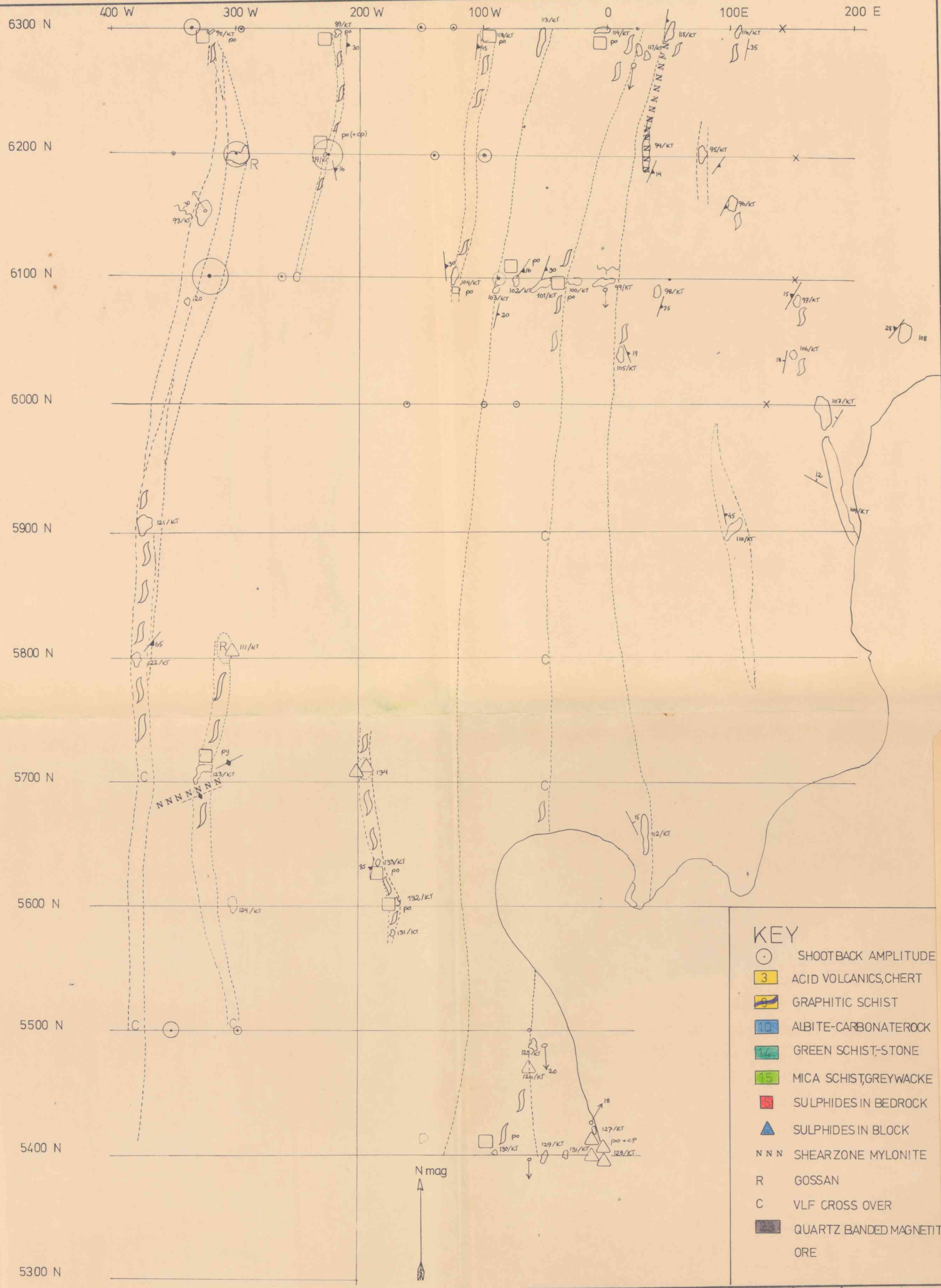
GEOLOGY



Skilleblad nr. 1067

R.A.

As. Tervehoitu: 2000 A.2 E.9 p.10-71. Santrun Työkalu.



- KEY**
- SHOOTBACK AMPLITUDE
 - 3 ACID VOLCANICS, CHERT
 - 9 GRAPHITIC SCHIST
 - 10 ALBITE-CARBONATEROCK
 - 14 GREEN SCHIST, STONE
 - 15 MICA SCHIST, GREYWACKE
 - 5 SULPHIDES IN BEDROCK
 - ▲ SULPHIDES IN BLOCK
 - NNN SHEAR ZONE MYLONITE
 - R GOSSAN
 - C VLF CROSS OVER
 - QUARTZ BANDED MAGNETITE ORE

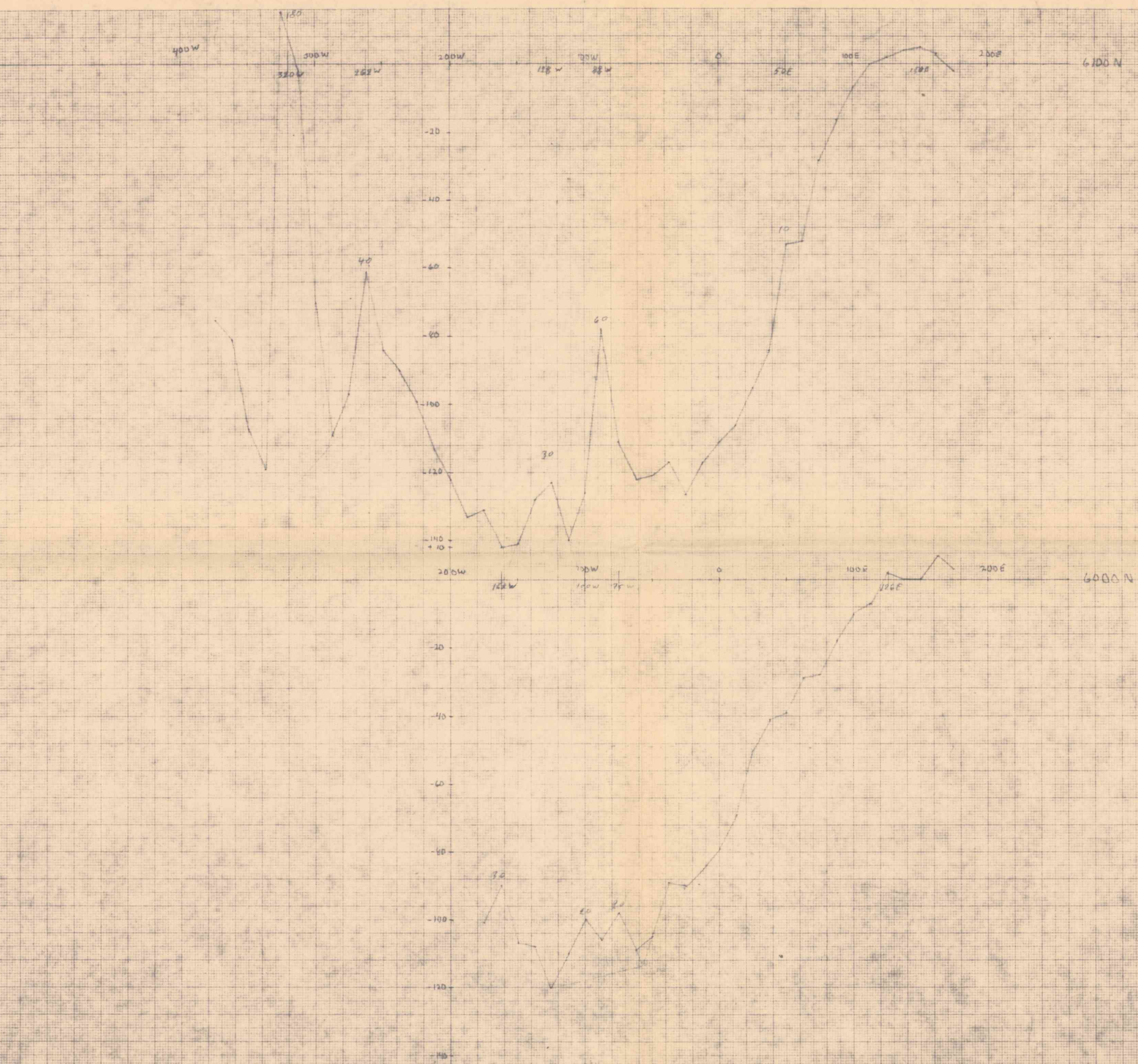
JAVREHUOSJOKKA MASI 1776 GEOLOGY	SCALE 1:2000	OBS. KT	JUNE-7
		DRAW. KT	JULY-7
		TRAC. KA.	3 - 7
		CHK. <i>18</i>	
1/2 SULFIDMALM	MAP NO. 408/76/17		
		MAP SHEET	

Fig. 2
Sheet 1.
JAVRE HUOSJOKKA MASI 1776 GEOLOGY



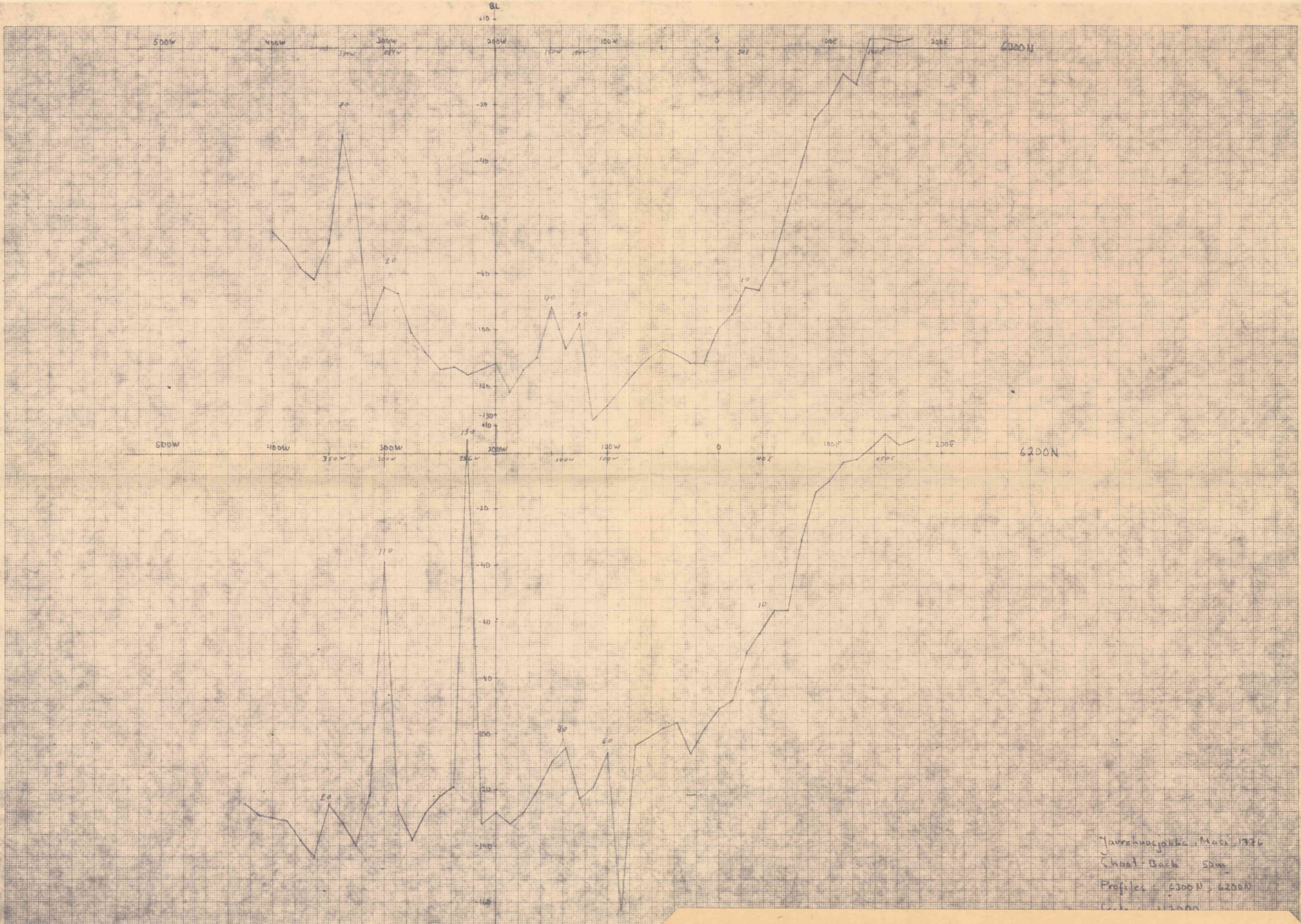
JAVRE HUOSJOKKA, Masi 1776 shoot-back 50m Profile 5500N

+200



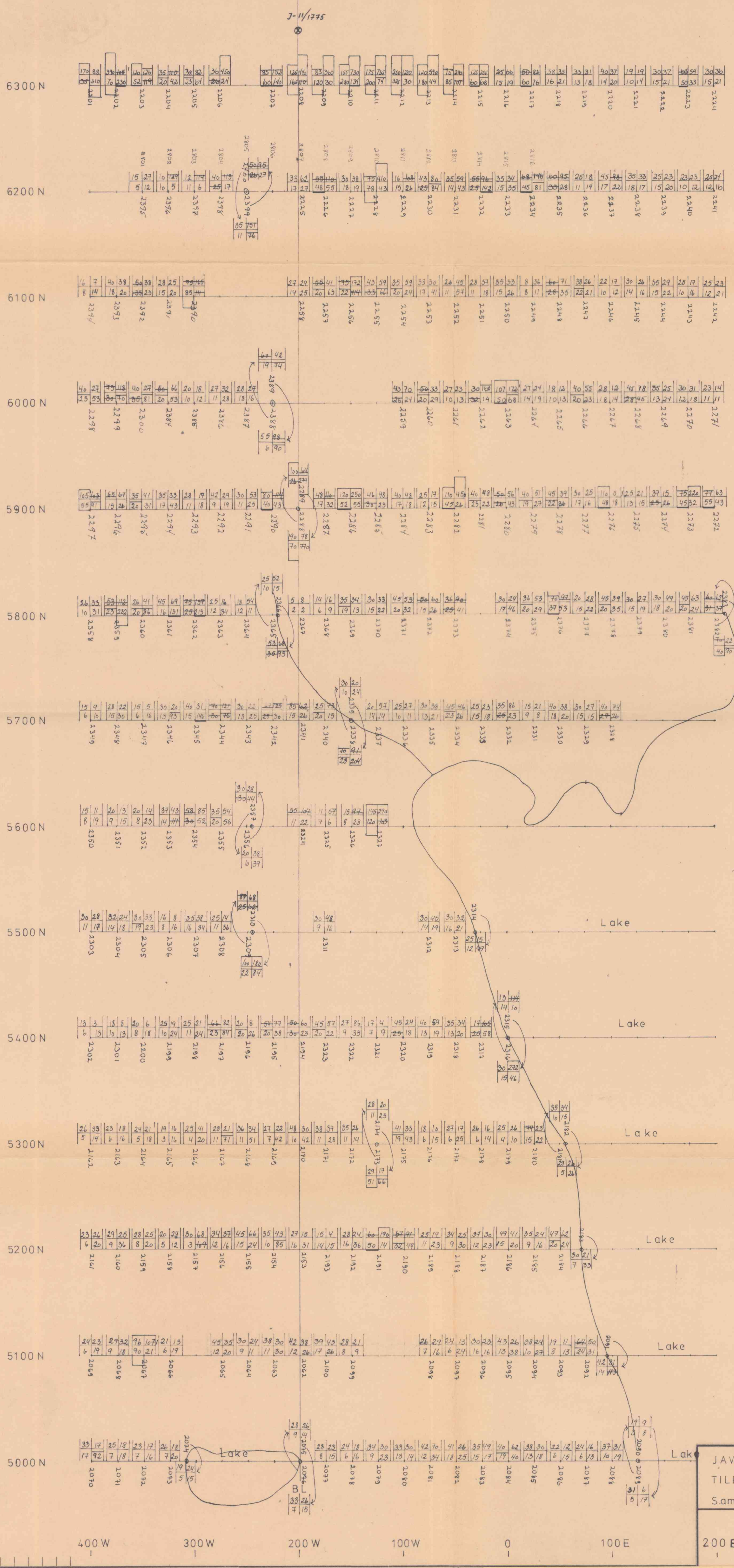
JAVREHUOSJOKKA, Masi 1776
 Shoot-back 50m
 Profiles: 6100 N, 6000 N

JAVREHUOSJOKKA, Masi 1776 shoot-back 50m Profiles: 6100 N, 6000 N Fig3. Sheet 2



JAVREHUOSJOKKA, Masi 1776
 Shoot-back 50m
 Profiles: 6300N, 6200N
 Date: 11/1/00

JAVREHUOSJOKKA, Masi 1776 shoot-back 50m Profiles: 6300N, 6200N Fig 3 Sheet 3



2379 Till sample collected by hand auger
2816 Till sample collected by Partner-drill
2289 Stream sediment sample

	Ni ppm	Cu ppm	Co ppm
Possible 90-95%	50-70	90-120	19-25
Probable 95-98%	70-90	120-170	25-37
Anomalous 98-100%	90-200 > 200	170-300 > 300	37-70 > 70

Zn ppm	Pb ppm	Ag ppm x 10 ⁻¹
65-95	37-41	2
95-127	41-48	3
127-250	48-100	4-7
> 250	> 100	> 7

Nmag

JAVREHUOSJOKKA, MASI 1776 TILL - SAMPLING Samples' locations, Assays	SCALE 1:2000 OBS. MRA 6-76 DRAW. MP 6-76 TRAC. MP 6-76 CHK.
200 E % SULFIDMALM	MAP NO. 408/76/17 MAP SHEET

JAVREHUOSJOKKA, Masi 1776 Till-sampling Samples' locations, assays. Fig. 4 sheet