

FOR FALCONBRIDGE NIKKELVERK A/S

A/S SULFIDMALM

PROJECT 905-17

BAESKADAS MAP SHEET 1934 III.
RECONNAISSANCE INTERPRETATIONS OF NGU'S
MAPS, 1972 TILL SAMPLING IN THE
BRAAKVANN AREA

PIERTUJAVRI
(Bråkvann)

by

Erkki Kreivi



Report no. 220/72/17

Introduction.

The following maps at a scale of 1:50000 are attached to this report:

Aerogeophysical map	(NGU) 1-220-72-17
Geological "	(NGU) 2-220-72-17
Explorations in 1972	3-220-72-17
Braakvann till-anomaly maps	(4-8)-220-72-17

(at the scale 1:20000)

The stream sediment sampling has probably been done by NGU in the great part of the area, but not published yet. This map sheet is one of the northernmost parts of the greenstone belt. Precambrian rocks disappear under Eocambrian mountains in the line Aksojavrrre-Gjerdevann.

The rock-types in the area are: hornblendites, amphibolites, mica-schists, quartzites, graphite-schists, granites.

According to the geological map the distinct Mag-anomaly-zone is following hornblendites and crossing mica schists to another hornblendite-amphibolite-intrusive.

The clear EM-anomaly groups near Suolojavrrre and Aksujavrrre seem to lie on mica-schists.

NGU's till sampling in 1970 (see the report 215-72-17) detected Cu, Sn, Mo, Co, Ti and V-anomalies near the geophysical anomalies, mentioned above.

During our reconnaissance boulder tracing and prospecting in 1972 there were found several blocks of almost massive pyrrhatite and pyrite in quartzitic rock near Suolojavrrre in the EM anomalous area. One sample, 33/Th, is probably from bedrock and contains 0,44% Co. with 27,4% sulphur. One sample had up to 1,60% Cu with 19,6% sulphur.

The EM-anomalies are possibly caused by sulfide-grafite-conductors.

The collected samples near Suolojavrrres:

	Cu	Ni	Zn	Co	S	Au
33/TH quartzite	<0,005	0,05	0,003	0,44	27,4	<0,005
34/TH "	0,11	<0,005	0,003	0,45	21,5	<0,005
35/TH "	0,20	0,06	0,002	0,03	19,0	<0,005
36/TH "	<0,05	<0,06	0,003	0,03	9,9	<0,005
37/TH "	0,22	<0,05	0,003	0,09	17,4	<0,005
8/EK "	1,60	0,07	0,003	0,06	19,6	<0,005

7,9,10/EK quartzite + massive po + traces of cp.

In Aksojokka valley near the Aksojavrrris EM-anomalies there were found the following blocks:

	Cu	Ni	Fe	Co	S
72/EK quartzite + graf.	1,2	0,10	21,2		8,6
74/EK grafite-schist	0,24	0,10	42,8	0,003	22,3

73/EK grafite-amphibole-rock + massive po.

In 1966 A/S Sulfidmalm's staff has prospected couple profiles over the Hyolithus zone in A-sojokka-valley.

In 1972 prospecting an till-sampling was done in the Braakvann area. See the report 188-72-17. The assay results have been plotted on the enclosed maps. The highest detected values were:

Cu	Ni	Zn	Co
360 ppm	1420 ppm	54 ppm	89 ppm

The best rock samples were assayed:

	Cu	Ni	Zn	S	As
136/LR greenstone	0,13	<0,05		1,9	
37/LR "	0,24	<0,05	0,002	0,51	
41a/LR "	0,78	<0,05		0,63	
41b/LP "	0,56	<0,05	0,005	3,0	0,011
48/LR "	16,8	<0,05	0,008	14,9	
167/LR "	0,94	0,07		1,5	
213/LR meta pyroxenite	0,11	0,19		1,6	

Interesting areas:

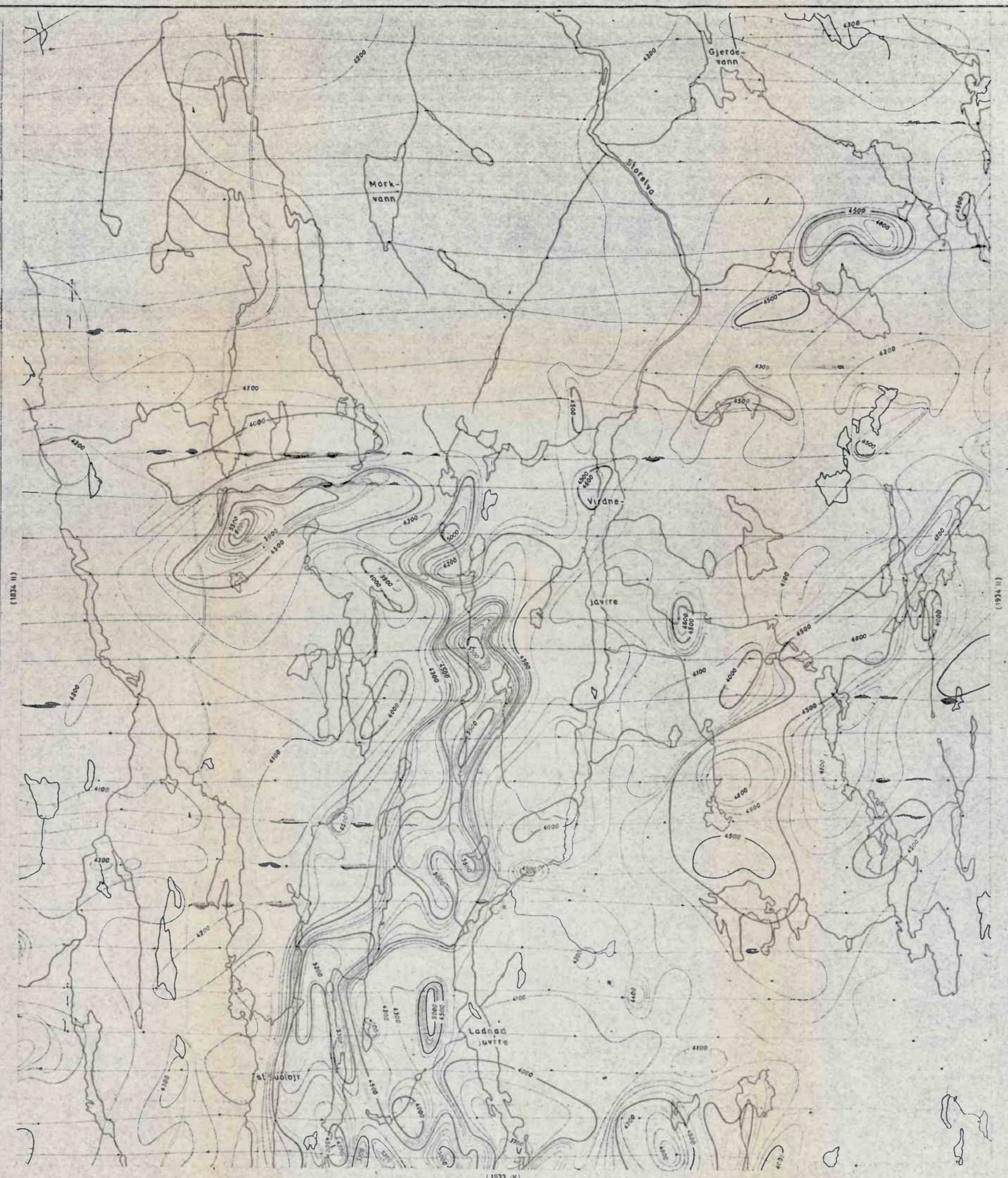
- 1) Vuoidasjavrra
- 2) Suolojavrra
- 3) Aksojavrra
- 4) Ladnatjavrra, N-end
- 5) Duoddarvindnejavrra
- 6) Braakvann
- 7) Storelven, W of Gjerdevann

- 1) Vuoidasjavrra
 - no aerogeophysical anomaly
 - mapped a grafite-zone
 - found chalcopyrite in bedrock in grafite-schist and Zn-anomaly up to 3000 ppm near Hyolithus-zone in streams
 - needs prospecting
- 2) Suolojavrra
 - Mag/EM-anomalies
 - mica-schists, hornblendites, amphibolites
 - found massive po and py with a little cp (up to 1,6% Cu) in quartzite-grafite-blocks and bedrock
 - needs prospecting and till sampling
- 3) Aksojavrra
 - Mag/EM-anomalies
 - micaschists, hornblendites, grafite schists
 - found quartzite-grafite-blocks with sulfides (up to 1,2% Cu)
 - needs prospecting, till sampling

- 4) Ladnatjavrra
N-end
- Mag anomaly
 - hornblende
 - found malachite in bedrock
 - needs prospecting
- 5) Dvoddarvirdnejavrre
- EM-anomaly-group
 - quartzite, mica schists
 - needs prospecting
- 6) Braakvann
- Mag-anomalies
 - quartzites, mica schists, greenstones
gabbros, pyroxenites
 - found cp amygdules in bedrock
 - Cu-Ni-anomalies in till
 - needs geophysical and geological
prospecting and more till sampling
- 7) Sterelven,
W of Gjerdevann
- no aerogeophysical anomaly
 - Hyolithus zone is cut by river
 - Cu, Pb-anomalies in streams
 - needs prospecting

Conclusion.

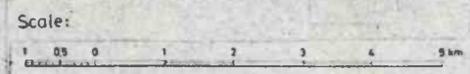
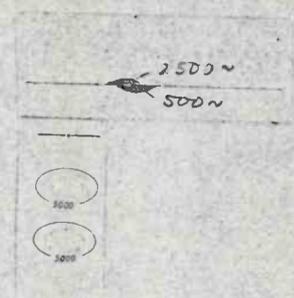
The targets 1), 2), 3) and 4) are accessible from the main highway, Kautokeino-Alta. According to the promising assay results the targets are classified as high priority ones.



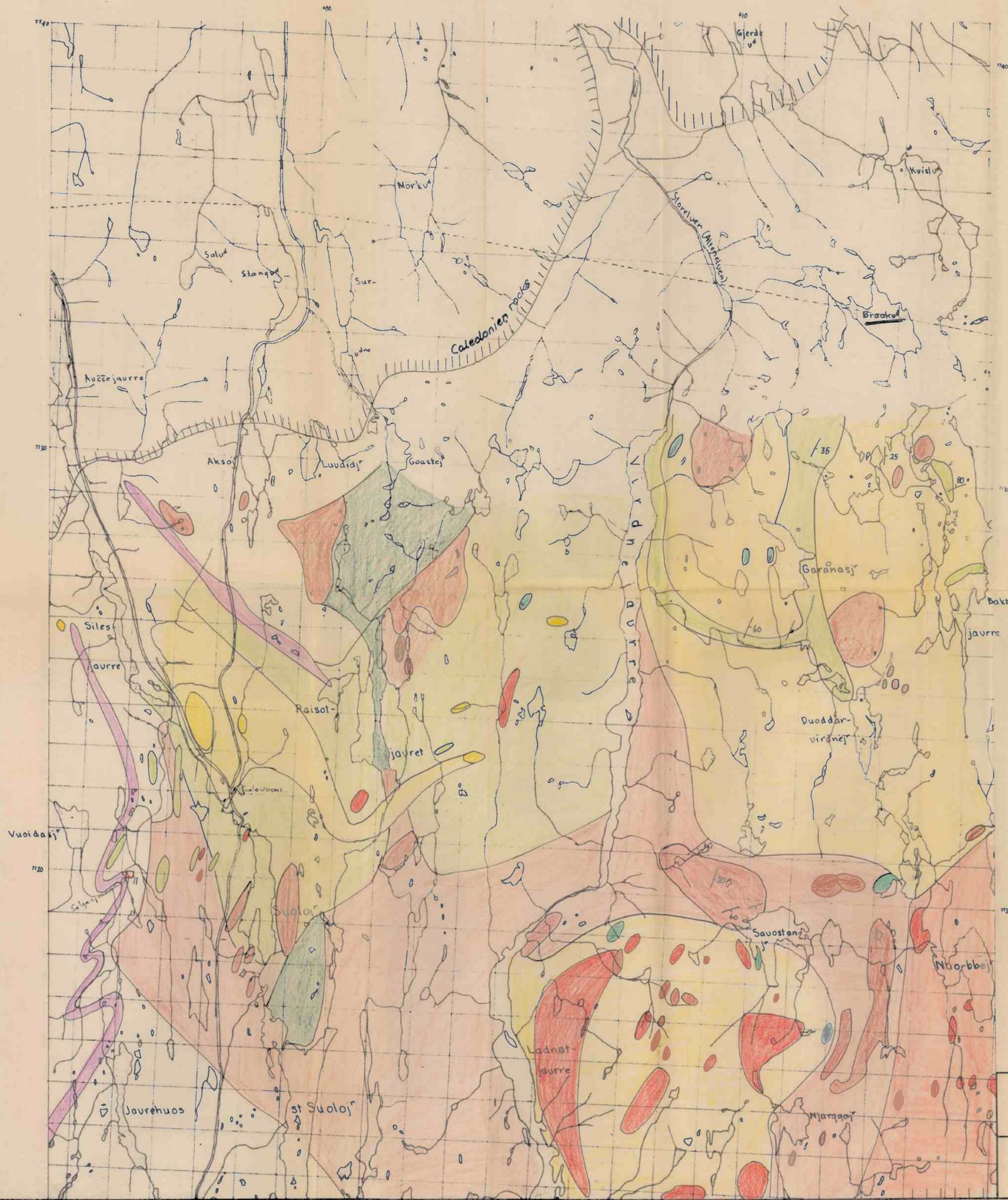
(1833 II)

(1914 I)

(1933 IV)



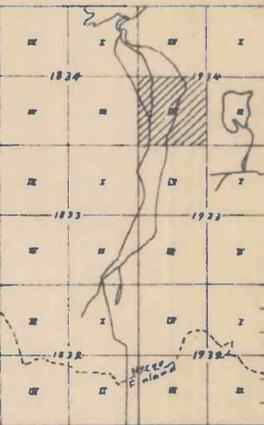
BAESKADAS Aeromagnetic map with EM anomalies	SCALE	OBS. NGU
	1:50 000	DRW.
1/2 SULFIDMALM	TRAC.	
	CHR.	
	MAP NO.	1-220-72-17
	MAP SHEET	1934 III



KEY:

- Granite, pegmatite, granitic gneiss
- Quartzite, feldspathic gneiss
- Conglomerate
- Quartz-mica schist
- Albite-carbonate rock
- Graphite schist
- Dark schists, greenschists
- Amphibolite, greenstone
- Hornblende, albite diabase
- Argillite
- Ore-minerals in block/bedrock

- Chromite
- Chalcopyrite
- Chalcosite
- Pyrite
- Pyrrhotite
- Pentlandite
- Sphalerite
- Galena
- Molybdenite
- Magnetite
- Hematite
- Arseno-pyrite



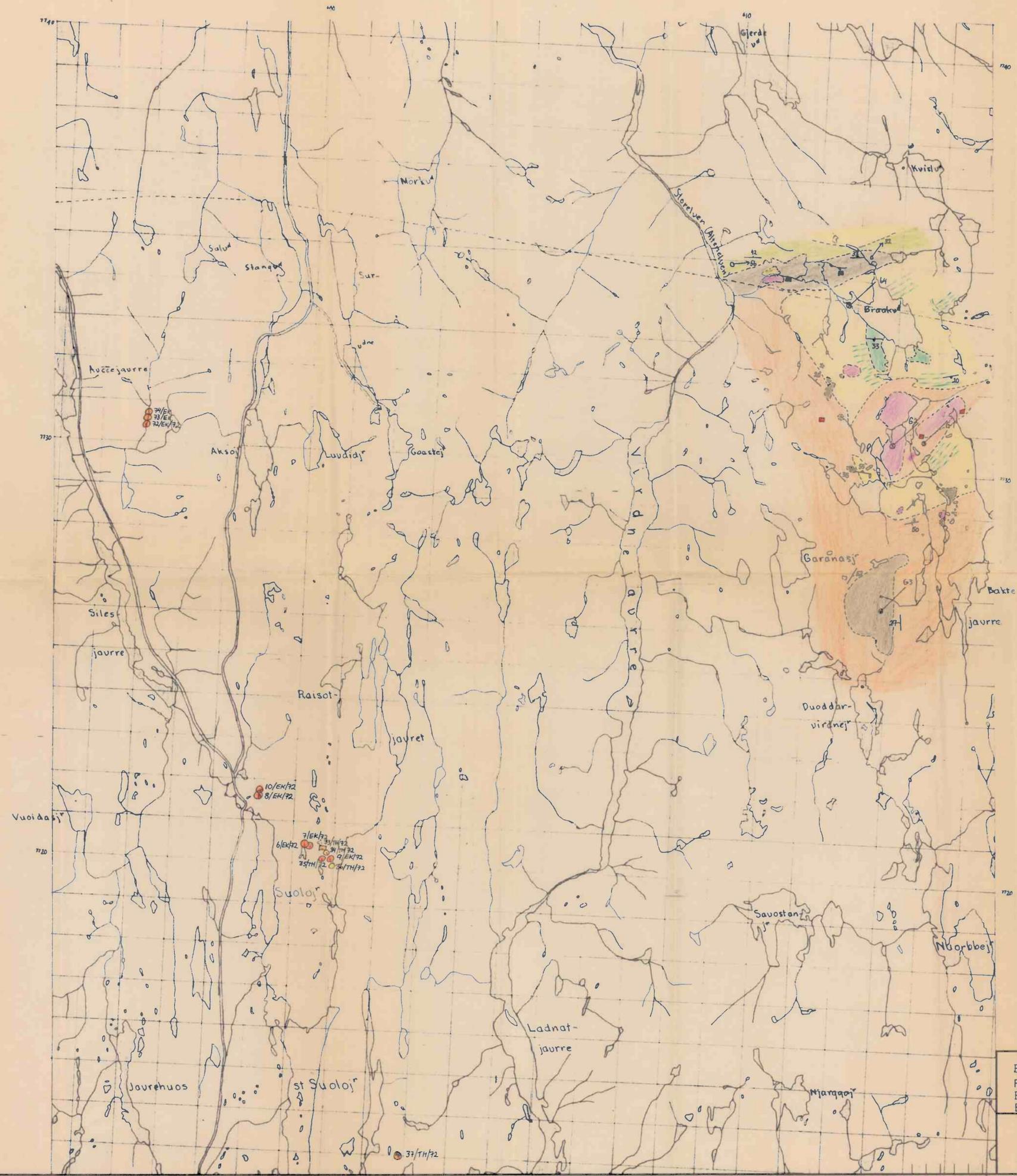
BÆSKADAS
Geology according to NGU

SCALE	OBS. NGU
1:50,000	DRAW. EK
	TRAC. BL 7-73
	CHK.

2-220-72-17

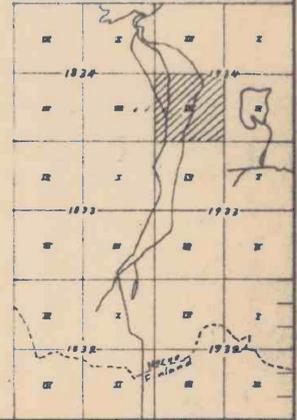
1/2 SULFIDMALM

MAP NO.	1934 III
	BÆSKADAS
MAP SHEET	

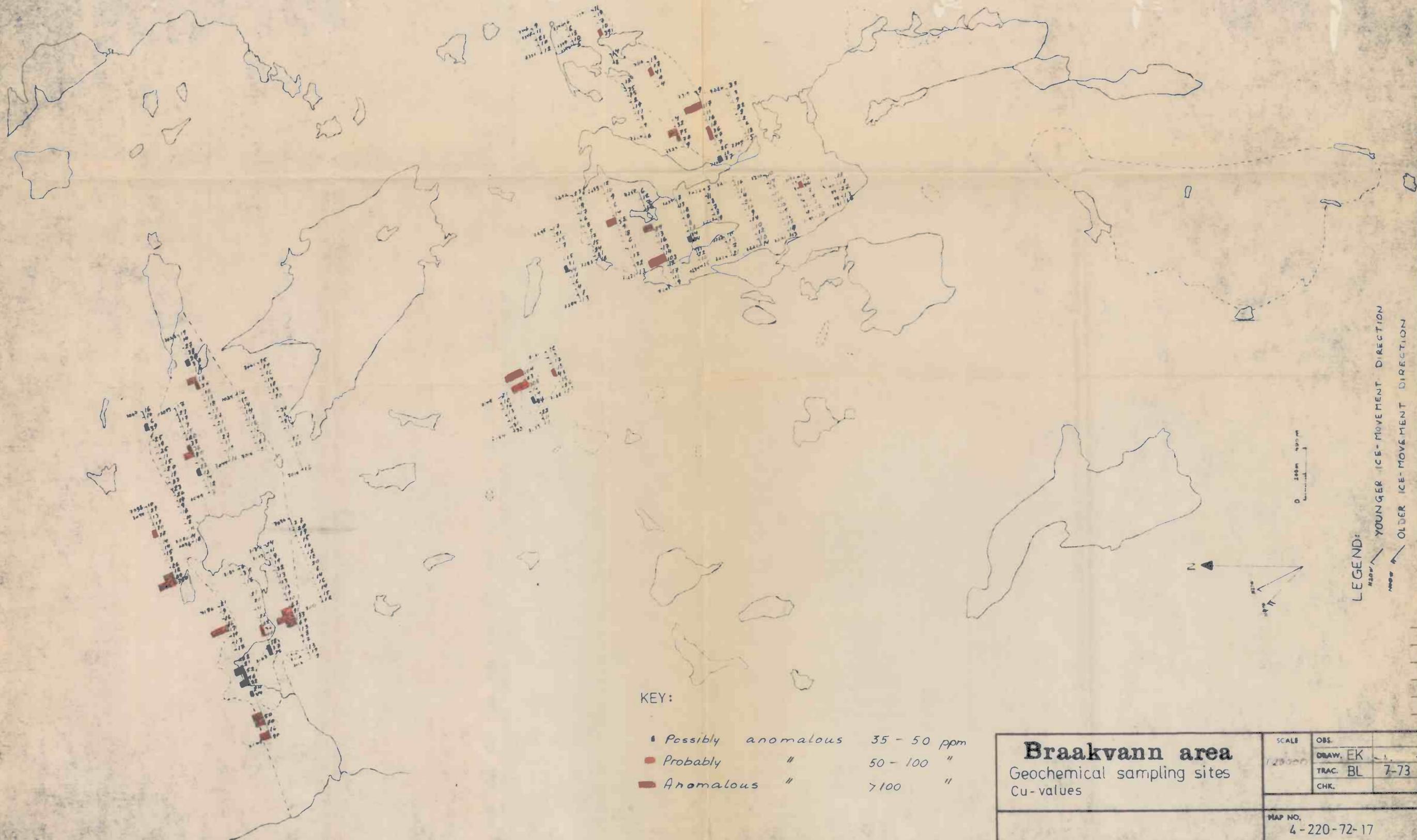


KEY:

- ultrabasic
- Gabbro
- Amphibolite
- Chlorite-hornblende chist in mica schist
- Mica schist
- Amphibolite bands in mica schist
- Sandstone
- Sulphides in block/bedrock



BÆSKADAS Reconnaissance exploration - 72 Boulder tracing Mapping in BRAAKVANN area		SCALE 1:50 000	OBS. NGU DRAW. EK TRAC. BL 7-73 CHK. 3-220-72-17
MAP NO. 1/4 SULFIDMÅLM 1934 III BÆSKADAS		MAP SHEET	

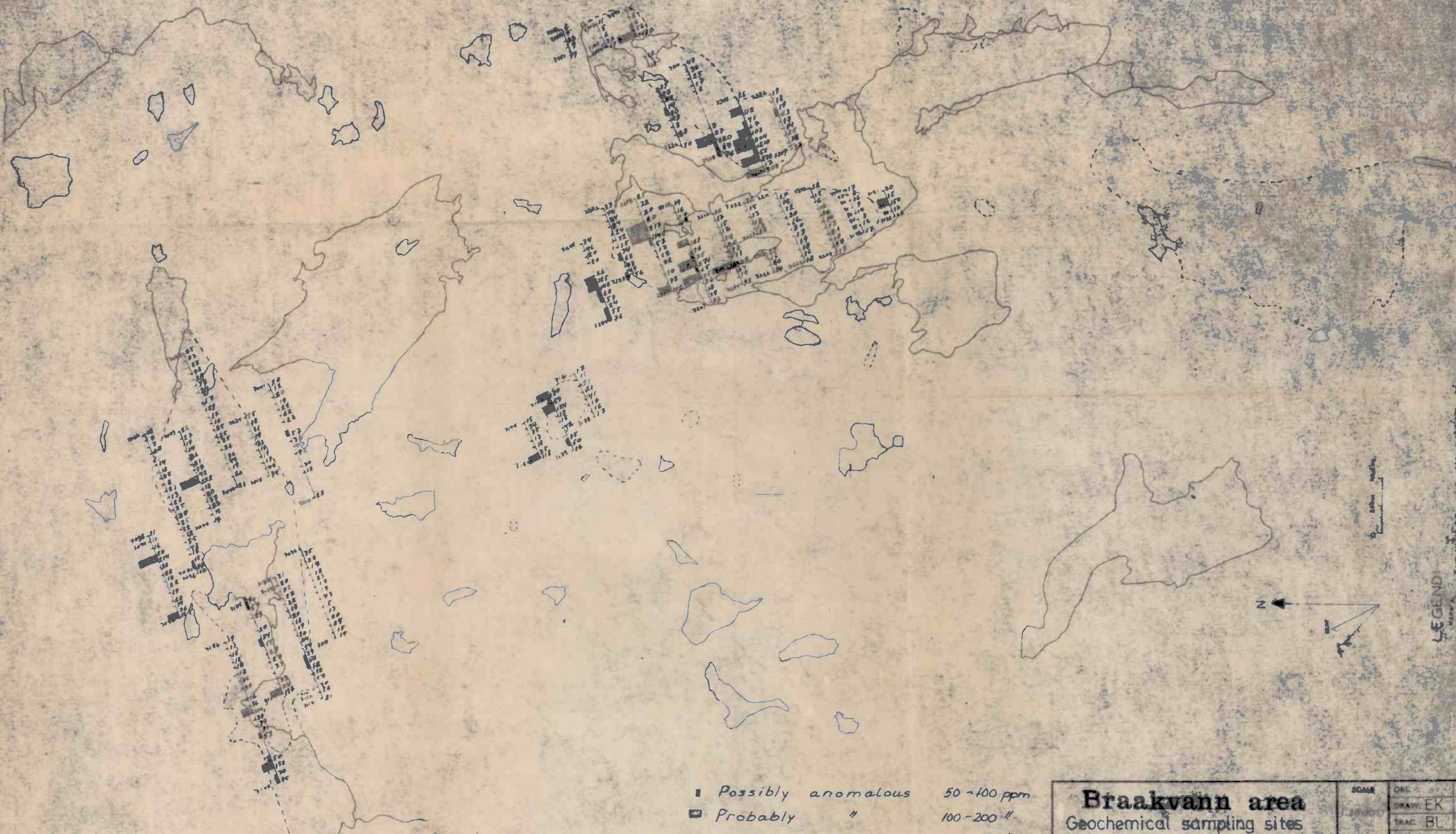


KEY:

- Possibly anomalous 35 - 50 ppm
- Probably " 50 - 100 "
- Anomalous " >100 "

LEGEND:
 --- YOUNGER ICE-MOVEMENT DIRECTION
 --- OLDER ICE-MOVEMENT DIRECTION

Braakvann area Geochemical sampling sites Cu-values	SCALE	OBS.	
	1:20000	DRAW. EK	
1/2 SULFIDMALM		TRAC. BL	7-73
		CHK.	
	MAP NO. 4-220-72-17		
MAP SHEET 19304 (1:20000) / 019-6			



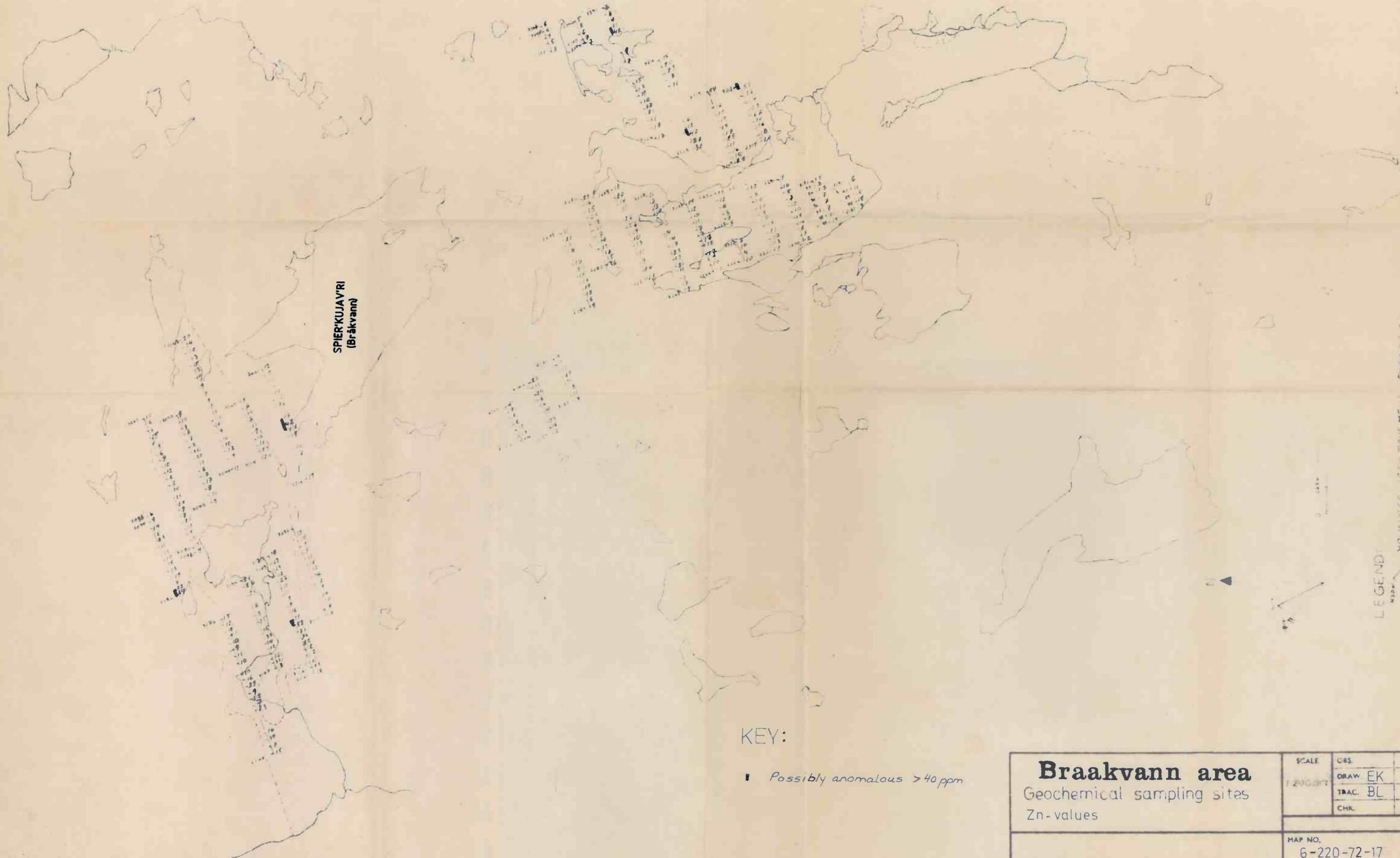
- Possibly anomalous 50 - 100 ppm
- ◻ Probably " 100 - 200 "
- Anomalous > 200 "

Braakvann area
 Geochemical sampling sites
 Ni - values

★ SULFIDMALM

SCHE	DRS	
20000	DRAWN	EK
	TRAC	BL 7-73
	CHK	
MAP NO.		5-220-72-17
MAP SHEET (1390 (12))		21-7-74

LEGEND
 Dashed line: ICE - MOVEMENT DIRECTION
 Solid line: OLDER ICE MOVEMENT DIRECTION



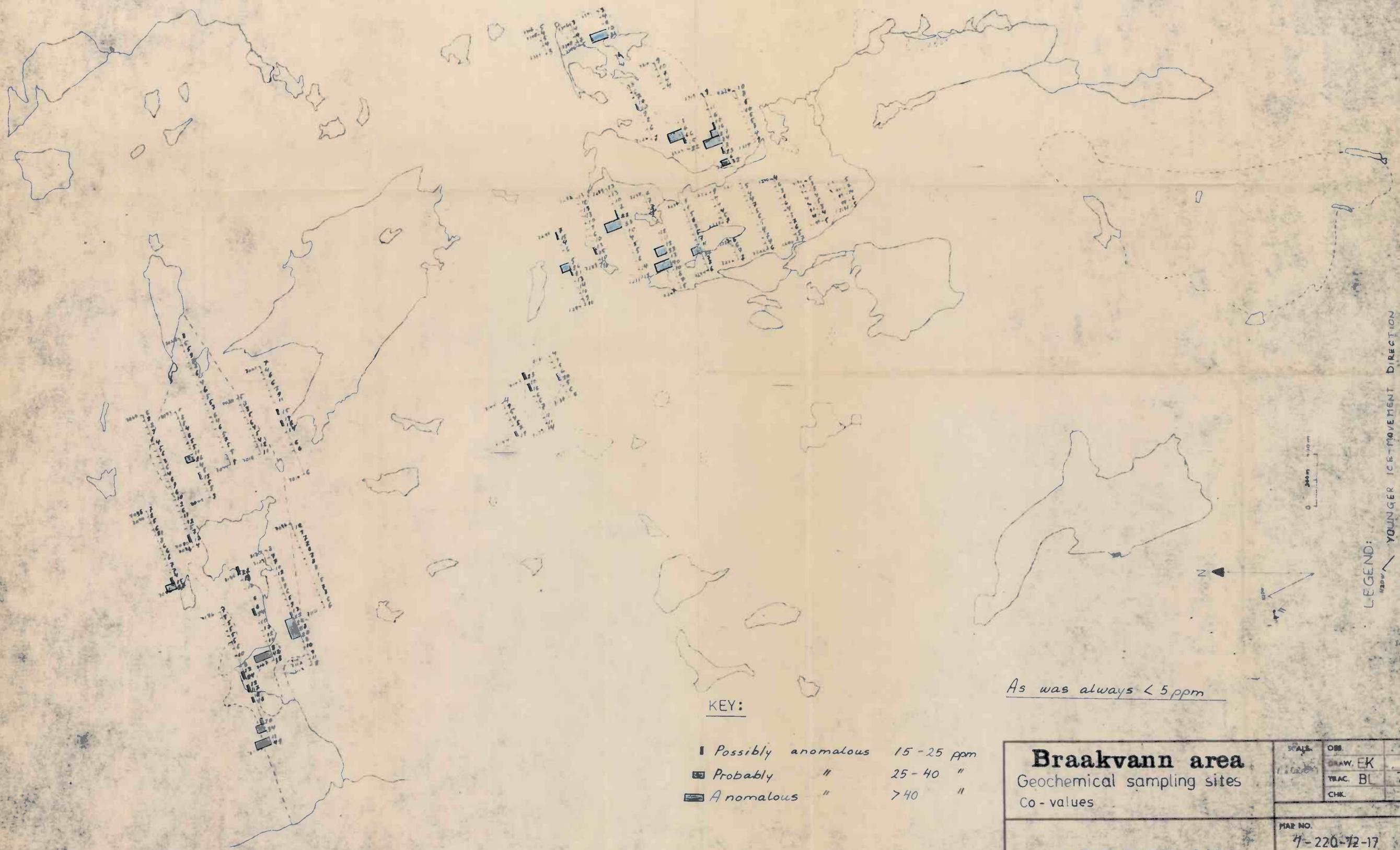
SPIERKUJAVRI
(Bråkvann)

KEY:

■ Possibly anomalous > 40 ppm

LEGEND:
 [Symbol] YOUNGER ICE MOVEMENT DIRECTION
 [Symbol] OLDER ICE MOVEMENT DIRECTION

Braakvann area Geochemical sampling sites Zn-values	SCALE	CBS	
	1:25000	DRAW. EK	
% SULFIDMALM	MAP NO.	TRAC. BL	7-73
	6-220-72-17	CHK.	
MAP SHEET 67348 (1974)			



KEY:

- Possibly anomalous 15 - 25 ppm
- ▣ Probably " 25 - 40 "
- ▤ Anomalous " > 40 "

As was always < 5 ppm

LEGEND:
 ——— YOUNGER ICE-MOVEMENT DIRECTION
 - - - - - OLDER ICE-MOVEMENT DIRECTION

Braakvann area Geochemical sampling sites Co - values	SCALE	0 500m 1000m
	OBS. DRAW. EK TRAC. BL 7-73 CHK.	
1/2 SULFIDMALM		MAP NO. 4-220-72-17
		MAP SHEET

590

N

7702



key:

	Cu	Ni	Zn	Co	As	
Pass anomalous	30-50	50-100	30-80	20-30	5-8	in ppm.
prob. "	50-100	100-200	50-80	30-50	8-15	
anomalous	> 100	> 200	> 80	> 50	> 15	



BURGUNVARRE, KAUTOKEINO Reconnaissance till sampling 1972 Cu, Ni, Zn, Co, As.	SCALE	OBS.	
	1:25 000	DRAW. EK	
½ SULFIDMALM		TRAC. BL	2-73
		CHK.	
	MAP NO.	15-218-72-17	
	MAP SHEET	1833 I	

A/S SULFIDMALM
INTER-OFFICE MEMORANDUM

Date: 16.7.73

To: Falconbridge Nickelverk A/S
A.M. Clarke

cc: B.T. Perry ✓
E. Kroivi
R.B. Sand

From: J.B. Palmer ✓

Subject: 995-17. Mackadan Map Sheet. Report nr. 223/72/17

Please find Kroivi's summary of NCU's information on this map sheet. Some reconnaissance was also carried out in the area in 1972, the results of which are summarised in the report referred to on pp. 3. Plans 4-6 show the results of 1972 work in the Mackadan area on this map sheet.