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Rapportarkivet

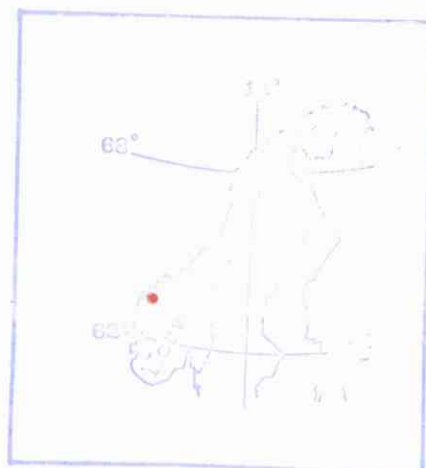
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Tittel Diamond drilling in Gomsdalen (west grid) Geiranger 1976.				
Forfatter B Lieungh		Dato 1976	Bedrift Sulfidmalm A/S	
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Råstofftype Malm/metall	Emneord Cu Ni			
Sammendrag Se også BV 533 og BV 535				

FOR FALCONBRIDGE NIKKELVERK A/S
A/S SULFIDMALM

PROJECT 905-9

Diamond Drilling in Gomsdalen (west grid)
Geiranger 1976.

By
B. Lieungh



Report No. 440/76/9



Fig.1

View from Geiranger towards Gomsdalen.

SUMMARY

The drilling was carried out in late autumn and was interrupted by heavy snowfall in the end of November. Out of the two VLF-EM conductors only the one situated around Sleddalselva gave inter-sections of ore.

A maximum of 3 m with 0.85% Ni and 0.36% Cu
or 4 " " 0.67% Ni " 0.52% Cu

was reported from DDH 6. The best assay from two different levels on this hole gave 1.32% Ni, 0.33% Cu and 0.13% Ni, 1.00% Cu. The ore is possibly situated as linear shaped lenses in the metagabbro. Rough ore estimate gave an optimistic amount of:

25600 tons of 0.85% Ni 0.36% Cu and
5200 " " 0.36% Ni 0.20% Cu

and a more reasonable estimate of:

8000 tons of 0.85% Ni 0.36% Cu +
3200 " " 0.36% Ni 0.20% Cu

forecasting a constant grade and shape of the orebody along its length.

LOCATION

The Gomsdalen (Gausdal) area is situated 650-900 m above sea level, 6.5 kms from the Geiranger village on the north west coast of S-Norway. Steep mountains of 1400-1600 m height surround the valley. No road leads to the valley, only a bad path which is only walkable under good summer conditions. All equipment has to be transported into the valley by helicopter (see map no. 1 and fig.1).

EQUIPMENT

The drilling was carried out by the Norwegian drilling company Terranor in Trondheim, using a hydraulic Diamec 250 machine mounted on a double iron frame with a total weight of 1700 kg. A small Muskeg was used to transport equipment in the field.

Lodging problems were solved by using two caravanes and a small working/drying house. A Bell 204 helicopter was used to transport the equipment into the field - approx. total 10 tons. Three of the drill machine moves were carried out by helicopter. Radio communication was a problem in the area outside the Mobile telephone covered area. This was solved by using a Walkie-talkie (Citisen band radio) connected to people down in the Geiranger village.

PROGRESS OF DRILLING

The drilling in Gomsdalen started very late in the autumn on the 21. October and ended 26th November. The drilling was carried out by two men with a total of 570 m during the period. In "normal" years the difficult snow-rich winter weather will start in the middle of October and make drilling impossible.

Fortunately the weather this autumn turned out to be pretty dry and cold (+5°C - -10°C) for most of the period, but during the last week we got about 1.50 m of dry snow and a snowstorm isolating the people in the valley. This put an end to the drilling programme. Minor but expected problems with supply of drilling water due to the strong undercooling of the water in the creeks, slowed down the drilling progress to some extent.

Because of the steep slopes the terrain had to be taken into consideration when locating the drill holes. A compressed drill programme had to be set up because of the late start in the autumn. On the basis of this it was decided to carry out most of the drilling with as few movings as possible and a fan-shaped drilling to get an impression of the quality, shape and orientation of the mineralization. The drilling was concentrated on the two strong VLF-EM anomalies at Pilsbekken and Sleddalselva.

Previous geological information concluded with a gentle dip of $10-20^{\circ}$ towards SSW of the ore bearing metagabbro in the Sleddalselva area.

This geological survey concluded with a vertical or steep dip of the amphibolite, but because of the few outcrops and the intensive folding it was not possible to say for sure before the drilling started.

Several rock-dip possibilities therefore had to be taken into consideration during the location of the drillhole and the drill hole angle.

DRILLING RESULTS

Drill holes 1 and 2 (475W-21N) were put out to test the Pilsbekken VLF-EM anomaly (fig.2). Geological information indicated a steep NNE or vertical dip of the ore bearing metagabbro.

Biotite bearing amphibolites were registrated in the upper part of both drill hole 1 and 2. Only a few grains of sulphides. No VLF-EM anomaly over this amphibolite close to the surface - and no ore bearing rock further down the drillhole that could explain the VLF-EM anomaly. Even between the two drill holes it was impossible to make a satisfactory correlation.

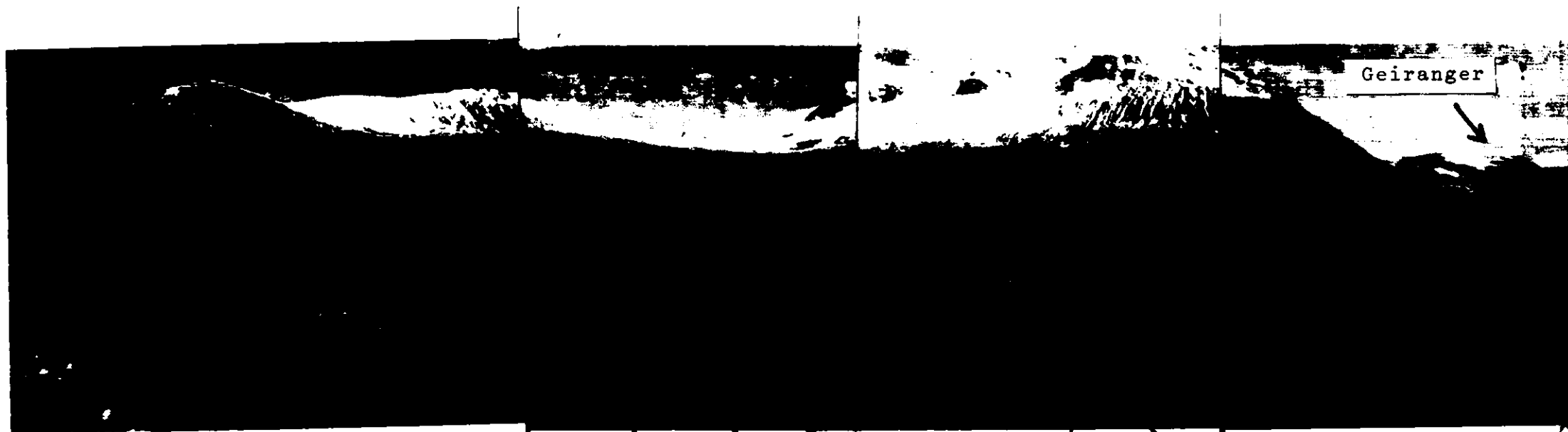
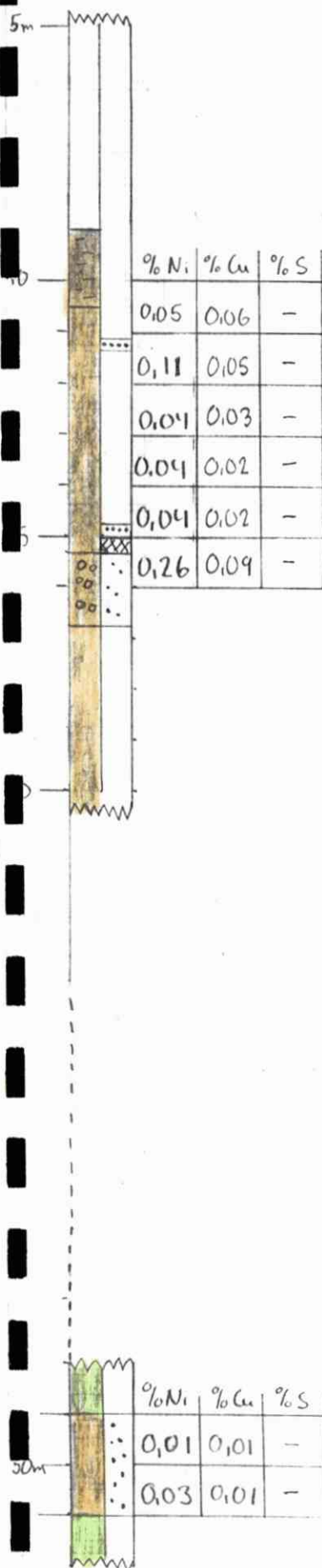


Fig.2

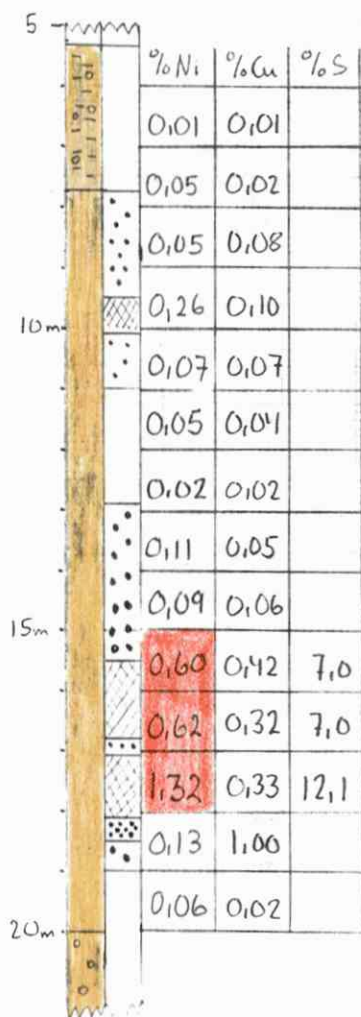
Drill hole position in Gomsdalen valley. DDH 3,4 DDH 10 DDH 1,2 DDH 5,6,7,8 DDH 9

Compilation of geology, sulphide mineralisation and assays

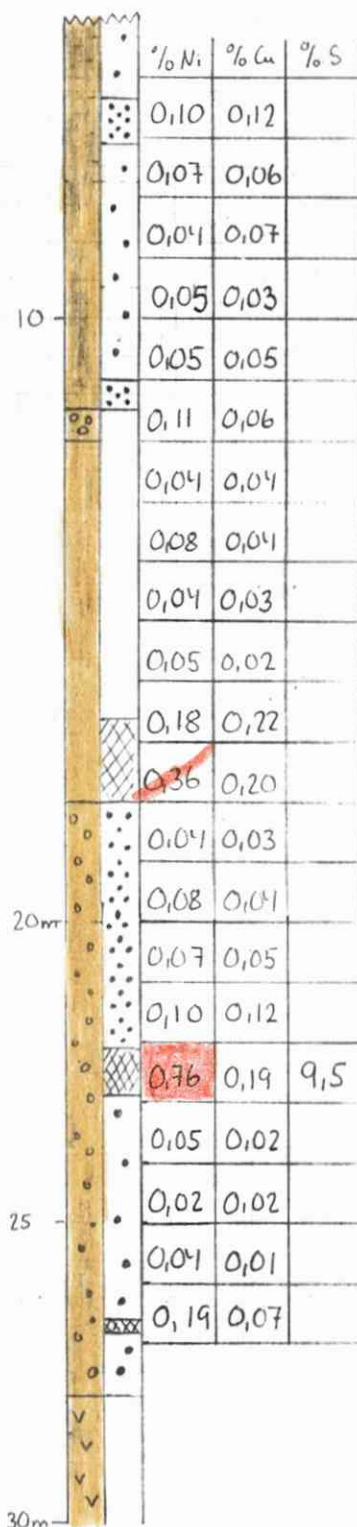
DDH - 5



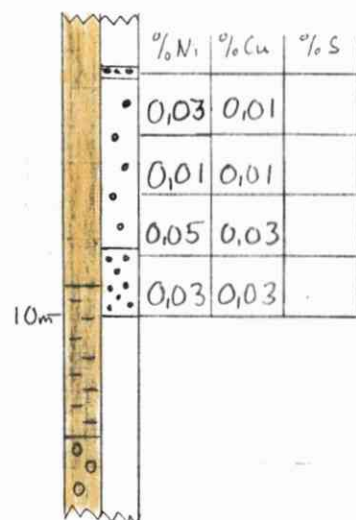
DDH - 6



DDH - 7



DDH - 8



- Shistose amphibolite
- Amphibolite
- Amphibolite with garnet

- "Massive ore" >50% sulfides
- Sulfide impregnated rock
- Barren rock

Fig 3

Drill holes 3 and 4 (603W-15N) were drilled from a possibly better position towards the middle part of the Pilsbekken anomaly (fig.6).

The result was not exciting, only a few intersections of amphibolite schist and a single metagabbro. The former mainly without sulphides and the latter with a very weak impregnation in the upper part (see DDH 3). Nothing in the drill holes could really explain the VLF-EM anomaly on the surface. A mica schist zone in DDH 3 and 4 indicated a 45° dip towards grid-N. This could indicate the possibility of the amphibolite/metagabbro at DDH 3 40-47.30 m being the continuation of the presumably ore bearing metagabbro.

At the end of the drilling programme a vertical drill hole DDH 10 (512.5W-12.5S) was located on the top of the strongest part of the Pilsbekken anomaly. The drill core showed only 21.5 m with very weak sulphide impregnated amphibolite. Bad winter conditions put a stop to further drilling from this site.

After the not too exciting results in DDH 1-4 the drill machine was moved to the stronger part of the Sleddalselva anomaly. Again the terrain had to be taken into consideration and a fan-shaped drilling started on DDH 5-7 (12.5W-20N) dipping grid south and DDH 8 (12.5W-22N) dipping grid N. A vertical hole DDH 9 was added to the 12W-baseline.

Drill holes 5, 6 and 7 cut through massive ore at several stages, drill holes 8 and 9 showed only weak impregnations. See section fig. no. 3, 4, 7 and 8.

Based on fig.7 one can play with the data and construct connections between the different massive ore intersections. But based on the geological and structural information it is most reasonable that we do not have a definitive ore horizon here, but a lot of minor sulphide lenses in a gabbroic matrix.

These lenses probably have a strong lineated form in E-W direction due to the regional deformation.

Compilation of drill hole data - Gomsdalen, Geiranger.

	Started	Ended	Gomsdalen west location	Dip	Direction	Over- burden	End of hole	"Massive ore">50% sulphides
DDH 1	24/10	26/10	475W-21N	45°S	N207°	8.30 m	81.55 m	
" 2	27/10	28/10	"	75°S	"	5.70 m	59.90 m	
" 3	29/10		603W-15N	45°S	"	4.00 m	87.70 m	
" 4		2/11	"	75°S	"	2.70 m	71.80 m	
" 5	10/11	13/11	12.5W-20N	45°S	"	8.00 m	95.60 m	15.00-15.30 m
" 6	13/11	15/11	"	60°S	"	5.30 m	50.50 m	9.50-10.10 m, 15.50-16.80 m, 17.0-18.10 m
" 7	16/11	16/11	"	85°S	"	4.50 m	39.00 m	16.60-18.00 m, 22.10-22.90 m, 26.60-26.80m
" 8	17/11	17/11	12.5W-22N	65°N	N027°	3.00 m	38.20 m	
" 9	18/11	18/11	12.5W-0	90°	vertical	3.25 m	13.20 m	
" 10	20/11	23/11	512.5W-12.5S	90°	"	2.10 m	32.40 m	

Total = 569,85 m

In fig.4 I have made a careful construction of possible ore-shape, trying to calculate the approx. amount of ore.

Remarks:

In DDH 5 we have an intersection of 30 cm "massive ore". Assays over 1 m gave 0.36% Ni but 2/3 of this was very weak impregnation. As a roughestimate these 30 cm have a grade of $0.26 \frac{100}{30} = \underline{0.87\% \text{ Ni}}$.

In DDH 6 we have a section of 3 m giving an average grade of 0.85% Ni and 0.36% Cu (If we include the underlying Cu-rich ore we would get 5 m of 0.67% Ni and 0.52% Cu).

In DDH 7 we have 2 main intersections. One meter with 0.36% Ni and a richer one - 1 m of 0.76% Ni.

From fig. 3 we get roughly 16 m^2 of ore with approx. 0.85% Ni
and 64 m^2 " " " " 0.36% Ni.

From the geophysical survey we got a VLF-EM conductor with a total length of 400 m. Thinking of the area and grade as constant along the conductor we get a very optimistic calculation giving max:

$6400 \text{ m}^3 \approx 25600 \text{ tons of } 0.85\% \text{ Ni}$

$1300 \text{ m}^3 \approx 5200 \text{ tons of } 0.36\% \text{ Ni}$

It is more reasonable to think that the ore lense has approx. 125 m strike length due to the stronger part of the VLF-EM anomaly.

In that case we have only: 8000 tons of 0.85% Ni
3200 " " 0.36% Ni

which of course is not en economic ore body.

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 475W-21N BEARING: DIP: 45°S HOLE NO: 1 SHEET NO: 1
 LOGGED BY: BjL STARTED: 24/10-76 PROPERTY Gomsdalen west
 CASING: 66/56 FINISHED: 26/10-76 Geiranger
 CORE SIZE: 46/35 TESTS (CORRECTED):

From	To	Description
0.00	8.30	Overburden
8.30	13.90	Grey-green biotite rich amphibolite with small cpy and po grains.
13.90	20.00	Same rock but more biotite and schistose
20.00	21.40	Fine grained grey mica schist
21.40	22.45	Grey gneiss partly with eyes lineary orientated.
22.45	23.80	Coarse grained sauseritt gabbro. Strongly lineated hbl-needles and aggregates approx 1x1x2cm few sulphide specks
23.80	26.80	Grey green amphibolite - partly with mica schist zones
26.80	29.70	Grey mica schist
29.70	33.10	Grey augen gneiss
33.10	42.00	Short gradual transition to dark grey mica schist Schistose and banding parallel.
42.00	44.00	Light weakly read augen geniss, augen is red.
44.00	48.00	Mica schist dominated augen gneiss.
48.00	50.10	Augen gneiss with weak red eyes.
50.10	63.75	Mica schist with some thin augen gneiss zones.
63.75	80.00	Sharp contact towards light coloured massive gneiss no foliation. Big red feldspar augens and some biotite
80.00	81.55	Same rock but with magnetite.

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 475W-21N

BEARING: DIP: 45° S HOLE NO: 1 SHEET NO: 2

LOGGED BY: BjL

STARTED 24/10-76 PROPERTY Gomsdalen west

CASING: 66/56

FINISHED: 26/10-76
PROPERTY: Geiranger

CORE SIZE: 46/35

TESTS (CORRECTED):

CORE SIZE: 46/35

TESTS (CORRECTED):

From	To	Description
		Core angles
	8.30	-50° schistosity
	10.00	-40° "
	15.00	-45° "
	22.00	-35° "
	-	25° banding prim?
	-	80° lineation, max. angle
	23	45° schistosity
	29	45° "
	35	40-45 schistosity - banding
	43	parallel to core
	63.75	Contact 35°

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 475W-21N

LOGGED BY: BjL

CASING:

CORE SIZE:

BEARING:

DIP: 75°S

HOLE NO

2

SHEET NO: 1

STARTED: 27/10-76

PROPERTY Gomsdalen west

FINISHED: 28/10-76

Geiranger

TESTS (CORRELATED):

From	To	Description
0.00	5.70	Overburden
5.70	9.00	Mica bearing greenstone
9.00	9.80	Massive grey mica gneiss
9.80	14.00	Massive white gneiss with some biotite
14.00	18.40	Dark mica schist, some gneiss
18.40	23.60	Light massive gneiss, light red augen
23.60	24.50	Medium-coarse sauseritt gabbro
24.50	31.20	Light grey augen gneiss with biotite and red augens
31.20	32.05	Mica schist with gneiss zones
32.05	39.30	Massive augen gneiss with light red augens
39.30	43.10	Grey mica schist with gneiss zones
43.10	43.25	Green schist
43.25	43.50	Mica schist with gneiss zones
43.50	43.55	Medium grained sauseritt gabbro
43.55	44.60	Gneiss, with some mica schist
44.60	44.65	Sauseritt gabbro
44.65	48.00	Mica gneiss grey with some few augens
48.00	59.90	Mica schist with some gneiss zones , some few augens Green schist zone 53.80 m and 59.80 m.

^A/_S SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 475W-21N

LOCATION:
LOGGED BY: BjL

CASING:

CORE SIZE:

BEARING: DIP: 75° S HOLE NO: 2 SHEET NO: 2

STARTED: 27/10-76 PROPERTY Gomsdalen west

FINISHED: 28/10-76 Geiranger

TESTS (CORRECTED):

From	To	Description
		Core angles
	18 m	30° schistosity
	25 m	75-80° "
	35 m	45° "
	44.60	35° Rock border
	44.65	45° "

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 603W-15N
 LOGGED BY: BjL
 CASING:
 CORE SIZE:
 BEARING: DIP: 45°S
 STARTED: 29/10-76
 FINISHED:
 TESTS (CORRECTED):
 HOLE NO: 3
 SHEET NO: 1
 PROPERTY: Gomsdalen west
 Geiranger

From	To	Description
0.00	4.00	Overburden
4.00	14.00	White massive gneiss with some few biotite and amphibole grains.
14.00	15.50	Greenschist - biotite schist
15.50	19.00	Mica schist with gneiss beds
19.00	22.00	Massive white gneiss with red augens
22.00	25.90	Fine grained greenschist with some few sulphide grains
25.90	40.00	Grey augen gneiss with red eyes and micaschist
40.00	44.20	Gradual transition to a <u>greenschist</u>
44.20	47.30	Medium grained metagabbro with some fine grained sulphide impregnation in upper part. 44.20-45.00
47.30	48.90	White gneiss with red augens
48.90	62.50	Amphibole-biotite gneiss, feldspar-rich. Some minor sulphides in parts.
62.50	65.00	Transition to greenschist
65.00	70.00	Greenstone
70.00	72.00	Gradually decreasing greenschist material
72.00	87.70	Dark mica-schist.

^A/_s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 603W-15N BEARING: _____ DIP: 45°S HOLE NO: 3 SHEET NO: 2
LOGGED BY: BjL STARTED: 29/10-76 PROPERTY Gomsdalen west
CASING: _____ FINISHED: _____ Geiranger
CORE SIZE: _____ TESTS (CORRECTED): _____

From	To	Description
		Core angles
10 m	90°	Schistosity
15.50	55°	"
24.00	55°	"
35.00	0°	"

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 603W-15N BEARING: DIP: 75°S HOLE NO: 4 SHEET NO: 1
 LOGGED BY: B. Lieungh STARTED: FINISHED: 2/11 PROPERTY: Gomsdalen west
 CASING: Geiranger
 CORE SIZE: TESTS (CORRECTED):

From	To	Description
0	2.70	Overburden
2.70	15.50	Coarse white coloured biotite gneiss with some hbl in aggregates and layers.
15.50	22.00	Gradual transition from gneiss to mica schist with some layers of greenschist material.
22.00	22.50	Gneiss with red coloured feldspar
22.50	23.30	Grey mica schist with some gneiss material
23.30	24.50	Red coloured fine grained gneiss with some thin green stripes.
24.50	25.00	Biotite bearing gneiss
25.00	25.70	Greenstone with garnets
25.70	27.60	Grey massive biotite gneiss
27.60	30.00	Grey-white augen gneiss, some red coloured augens and biotite in stripes
30.00	30.70	Greenschist alternating with micaschist.
30.70	40.00	Massive grey gneiss alternating with minor mica schist. Red coloured augens and beds with white gneiss. Folds parallel to core
40.00	44.35	Massive white gneiss with red coloured augens and some biotite
44.35	48.20	Grey mica gneiss
48.20	49.10	Greenschist
49.10	71.80	Grey mica gneiss.

DIAMOND DRILL RECORD

From	To	Description
		Core angles
	15.00	Core angle 90° schistosity
	24.00	" 90° "
	25.50	" 30° "
	28.00	" 30° "
	30.50	" 0° "
30.70	40.00	" folded partly 0° Schistosity
	55.00	" 45° "
	59.50	" 0 "

A/S SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 125W-20N

LOGGED BY: Bjl

CASING:

CORE SIZE:

BEARING: DIP: 45°S

STARTED 10/11-76

FINISHED 13/11-76

TESTS (CORRECTED):

HOLE NO: 5

SHEET NO: 1

PROPERTY Gomsdalen west

Geiranger

From	To	Description
0	8.00	Overburden
8.00	10.50	Greenschist
10.50	15.30	Amphibolite partly schistose in upper part sulphides at 11.20 as dissemination 14.80-15.00 increasing impregnation 15.00-15.30 massive ore 40-50% sulphides po-py + some cpy
15.30	16.80	Garnet bearing amphibolite some py-po grains of interesting type
16.80	26.50	Amphibolite with mica. some grains of py.
26.50	34.05	Garnet bearing amphibolite
34.05	49.00	Biotite rich dark gneiss or mica schist brecciated core between 46-47 m.
49.00	51.20	Amphibolite with some few po-fillings and crack-fillings, more sulphides towards bottom.
51.20	56.60	Grey mica gneiss with some mica rich layers
56.60	57.50	Light coloured gneiss
57.50	60.00	Garnet bearing amphibolite with some sulphides
60.00	87.00	Amphibolite with biotite aggregates, some weak sulphide dissemination py-po. More greenschist like between 70-74 m.
87.00	87.40	Garnet bearing amphibole
87.40	89.90	Amphibole with biotite sulphides in cracks
89.90	93.25	Dark quartz rich mica schist, some few sulphide grains.
93.25	95.60	Quartz feldspat gneiss with some mica schist partly red feldspar
	95.60	End of hole

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 125W-20N

LOGGED BY: BjL

CASING:

CORE SIZE:

BEARING:

DIP: 45° S

HOLE NO: 5

SHEET NO. 2

STARTED: 10/11-76

PROPERTY Gomsdalen west

FINISHED: 13/11-76

Geiranger

TESTS (CORRECTED):

From	To	Description
87.40	89.90	Amphibolite with biotite, sulphides in cracks
89.90	93.25	Dark quartz-rich mica-schist, some few sulphide grains.
93.25	95.60	Quartz feldspar gneiss with some mica schist partly red feldspar
	95.60	End of hole.

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 12.5W-20N

LOGGED BY: BjL

CASING:

CORE SIZE:

BEARING:

DIP: 40°S

HOLE NO: 5

SHEET NO: 3

STARTED: 10/11-76

PROPERTY Gomsdalen west

FINISHED: 13/11-76

Geiranger

TESTS (CORRECTED):

From	To	Description	
		Core angles	
	11.20	Core angle 30°	Schistosity
	15.00	" 45°	"
30.00	40.00	" 40°-45°	"
57.00	60.00	" 45°-60°	"
	69.80	" 45°	banding
		Assays	
		% Ni	%Cu
10.00	11.00	0.05	0.06
11.00	12.00	0.11	0.05
12.00	13.00	0.04	0.03
13.00	14.00	0.04	0.02
14.00	15.00	0.04	0.02
15.00	16.00	0.26	0.09
49.00	50.00	0.01	0.01
50.00	51.00	0.03	0.01

^A/_s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 12.5W-20N BEARING: _____ DIP: 60°S HOLE NO: 6 SHEET NO: 1
 LOGGED BY: Bjl STARTED: 13/11-76 PROPERTY: Gomsdalen west
 CASING: _____ FINISHED: 15/11-76 Geiranger
 CORE SIZE: _____ TESTS (CORRECTED): _____

From	To	Description
0	5.30	Overburden
5.30	7.70	Greenschist, in parts garnet-bearing
7.70	20.00	Biotite-bearing amphibolite with sulphides
		Sulphides: 7.70- 9.50 10% dissemination
		9.50 -10.10 "massive ore" some garnets
		10.10 -11.00 weak dissemination
		12.90 -15.50 increasing sulphide content
		15.50 -16.80 "Massive ore" 50%
		16.80 -17.10 weak impregnation
		17.10 -18.10 Massive ore po, py, cpy
		increasing cpy towards
		bottom
		18.10 -18.50 strong cpy - impregnation in
		cracks and as single grains
		18.50-19.00 Weak dissemination
20.00	28.50	Garnet-bearing amphibolite
		sulphides 24.70-25.40 weak dissemination
28.50	30.50	Amphibolite, some few sulphide grains
30.50	42.10	Garnet amphibolite with some few scattered sulphide grains.
42.10	43.60	White gneiss with high mica content, some red feldspar. No visible sulphides.
43.60	45.50	Greenschist with sulphides. Garnet-bearing towards bottom.
45.40	50.50	Amphibolites with some sulphides
		some bigger grains at 48.40 in the more massive part of the rock.
	50.50	End of hole.

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 12.5W-20N

BEARING:

DIP: 60°S

HOLE NO: 6

SHEET NO: 2

LOGGED BY: BjL

STARTED 12/11-76

PROPERTY

Gomsdalen west

CASING:

FINISHED

15/11-76

Geiranger

CORE SIZE:

TESTS (CORRECTED)

From	To	Description		
	15.50	Core angle 60°	Silicate banding in ore	
	16.80	" 45°	" " "	
42.10	43.60	" 60-80°	schistosity	
Assays				
		Ni%	Cu%	S%
6.00	7.00	0.01	0.01	
7.00	8.00	0.05	0.02	
8.00	9.00	0.05	0.08	
9.00	10.00	0.26	0.10	
10.00	11.00	0.07	0.07	
11.00	12.00	0.05	0.04	
12.00	13.00	0.02	0.02	
13.00	14.00	0.11	0.05	
14.00	15.00	0.09	0.06	
15.00	16.00	0.60	0.42	7.0
16.00	17.00	0.62	0.32	7.0
17.00	18.00	1.32	0.33	12.1
18.00	19.00	0.13	1.00	
19.00	20.00	0.06	0.02	

DIAMOND DRILL RECORD

CORE SIZE:

BEARING: DIP: 85°S HOLE NO: 7 SHEET NO: 1
 STARTED: 16/11-76 PROPERTY Gomsdalen west
 FINISHED: 16/11-76 Geiranger
 TESTS (CORRECTED):

E. H. A. 5000 5 73

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 12.5W-20N BEARING: DIP: 85°S HOLE NO: 7 SHEET NO: 2
LOGGED BY: Bjl STARTED: 16/11-76 PROPERTY Gomsdalen west
CASING: FINISHED: 16/11-76 Geiranger
CORE SIZE: TESTS (CORRECTED):

From	To	Description		
		Assays		
		% Ni	% Cu	% S
6.00	7.00	0.10	0.12	
7.00	8.00	0.07	0.06	
8.00	9.00	0.04	0.07	
9.00	10.00	0.05	0.03	
10.00	11.00	0.05	0.05	
11.00	12.00	0.11	0.06	
12.00	13.00	0.04	0.04	
13.00	14.00	0.08	0.04	
14.00	15.00	0.04	0.03	
15.00	16.00	0.05	0.02	
16.00	17.00	0.18	0.22	
17.00	18.00	0.36	0.20	
18.00	19.00	0.04	0.03	
19.00	20.00	0.08	0.04	
20.00	21.00	0.07	0.05	
21.00	22.00	0.10	0.12	
22.00	23.00	0.76	0.19	9.5
23.00	24.00	0.05	0.02	
24.00	25.00	0.02	0.02	
25.00	26.00	0.04	0.01	
26.00	27.00	0.19	0.07	

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 12.5W-22N

BLARING:

DIP: 65°N

HOLE NO: 8

SHEET NO: 1

LOGGED BY: BjL

STARTED: 17/11-76

PROPERTY: Gomsdalen west

CASING:

FINISHED: 18/11-76

Geiranger

CORE SIZE:

TESTS (CORRECTED):

From	To	Description
0	3.00	Overburden
3.00	4.50	Greenschist with minor mica schist
4.50	9.50	Massive greenstone
		weak sulphide impregn. 5.90-6.10
		" 6.10-8.90
		" 8.90-9.50
4.50	12.00	Greenschist - no visible sulphides
12.00	17.10	Garnet bearing amphibolite
		fine grained dissemination 12.60-12.70
		and 16.80-17.10, partly sulphides along cracks
17.10	20.65	Coarse grained lineated sauseritt gabbro
20.65	21.10	Dark grey mica schist
21.10	21.50	Red feldspar vein
21.50	21.90	Dark grey mica schist
21.90	28.50	Coarse grained lineated sauserit gabbro
28.50	30.30	Dark grey mica schist
30.30	30.90	Coarse sauserite gabbro
30.90	33.70	Massive fine grained greenstone, some few sulphide grains
33.70	38.90	Dark feldspathic gneiss
	38.90	End of hole

DIAMOND DRILL RECORD

PROPERTY Gomsdalen west
Geiranger

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 12.5W-0

BEARING: DIP: 90°

HOLE NO: 9

SHEET NO: 1

LOGGED BY: BjL

STARTED: 18/11-76

PROPERTY Gomsdalen west

CASING:

FINISHED: 18/11-76

Geiranger

CORE SIZE:

TESTS (CORRECTED):

From	To	Description
0	3.25	Overburden, sand and blocks
3.25	3.50	Garnet bearing amphibolite
3.50	5.95	Amphibolite with some greenschist/mica schist zones py-po impregnation in amphibolite between 5.20-5.95
5.95	9.40	Garnet bearing amphibolite weakly dissemination of mainly py-po.
9.40	12.20	Amphibolite with some py, po brecciated parts with bad cores
12.20	13.20	Garnet bearing amphibolite with some few sulphide grains.
	13.20	End of hole
	4.50	Core angle 90°

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: 512.5W-12.5S

BEARING:

DIP: 90°

HOLE NO: 10

SHEET NO: 1

LOGGED BY: BjL

STARTED: 20/11-76

PROPERTY Gomsdalen west

CASING:

FINISHED: 23/11-76

Geiranger

CORE SIZE:

TESTS (CORRECTED):

From	To	Description
0	2.10	Overburden
2.10	10.00	Medium grained amphibolite some sulphides, less than 5% between 6.90-7.60 slightly more sulphides between 6.95-7.00
10.00	10.50	Grey quartz-rich gneiss
10.50	13.00	Fine-medium grained amphibolite with weak sulphide dissemination, some sulphides in cracks.
13.00	13.45	Gneiss
13.45	18.95	Fine-medium grained amphibolite with increasing grain size and biotite content from 16.00 m poor dissemination of sulphides between 14.25-14.90
18.95	21.50	Sauserite gabbro, medium to coarse grained weak magnetic
21.50	23.70	Dark mica schist
23.70	26.30	Light coloured gneiss
26.30	30.30	Dark mica schist with some gneiss Magnetite bearing schist
30.30	32.25	Quartz-rich massive gneiss with some augens partly redish coloured
	32.25	End of hole.

DIAMOND DRILL RECORD

CORE SIZE:

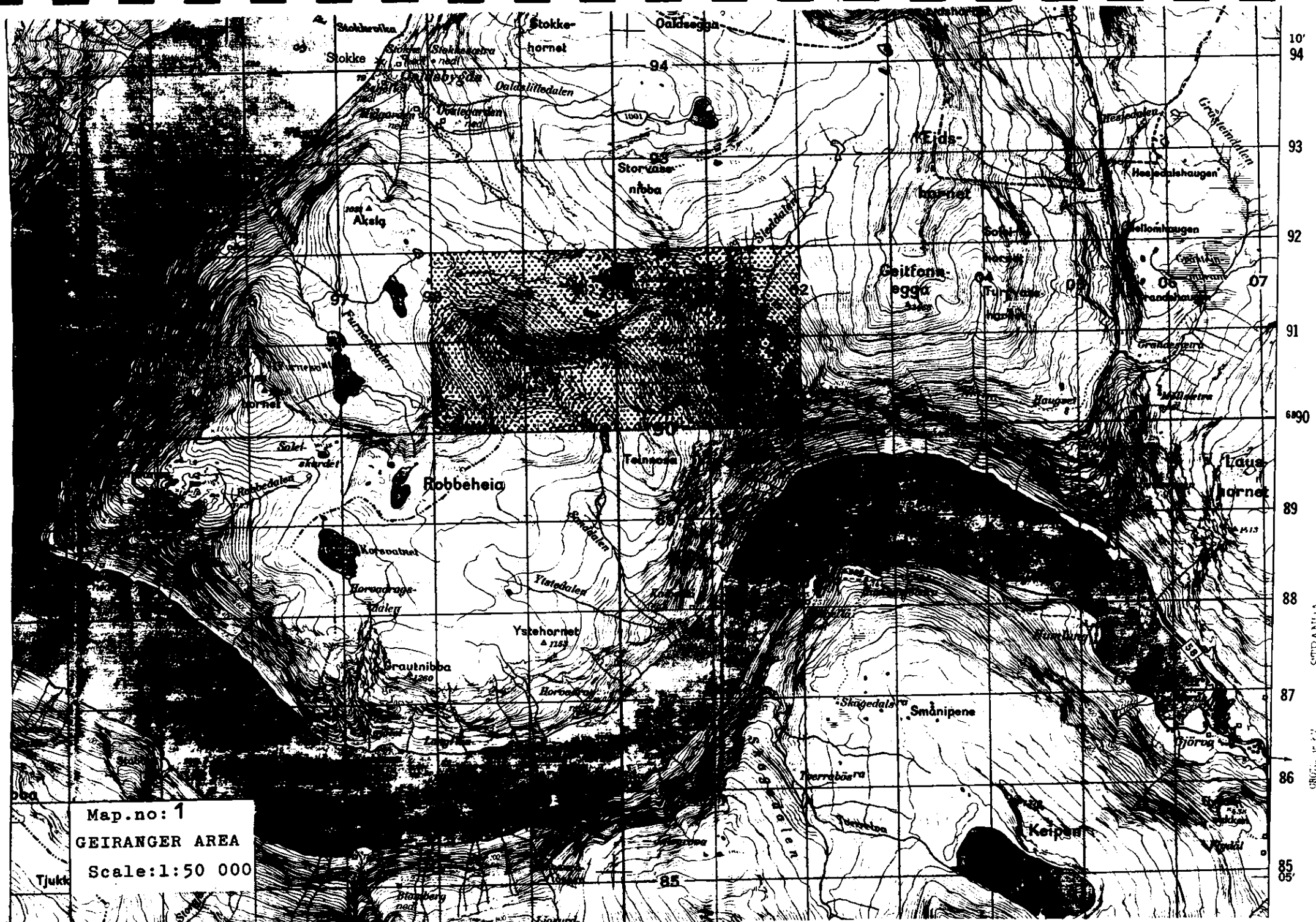
SHEET NO: 2

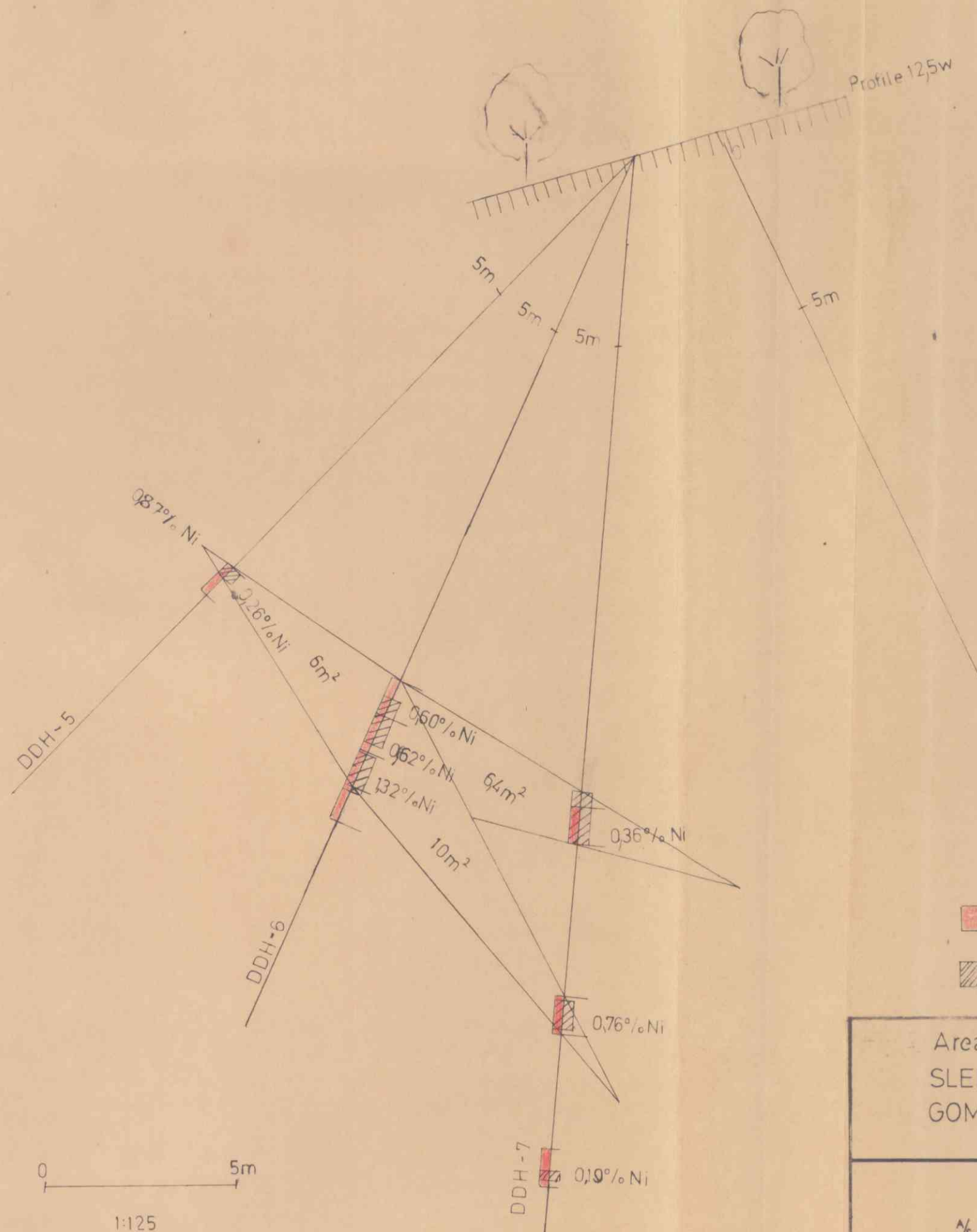
PROPERTY Gomsdalen west

Geiranger

TESTS (CORRECTED):

From	To	Description
		Core angle:
13.90	25°	rock contact
14.25	25°	"
22.50	80°	schistosity
4.00	90°	schistosity
13.90	25°	rock contact towards gabbro
22.00	80°	schistosity
32.00	45°	schistosity





assayed part.

massive ore.

Areal estimate of ore body,
SLEDDALSELVA,
GOMSDALEN, GEIRANGER.

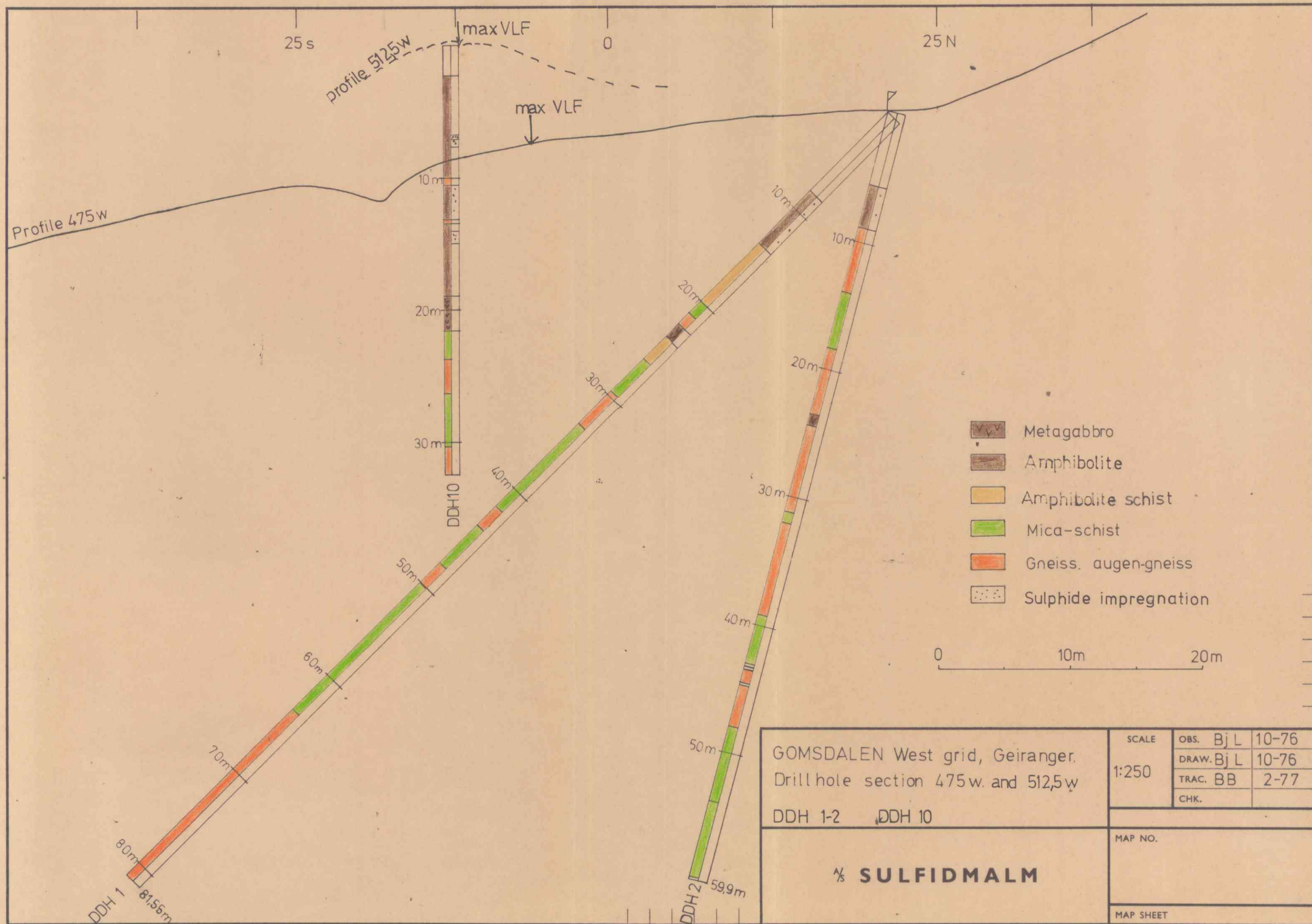
1/2 **SULFIDMALM**

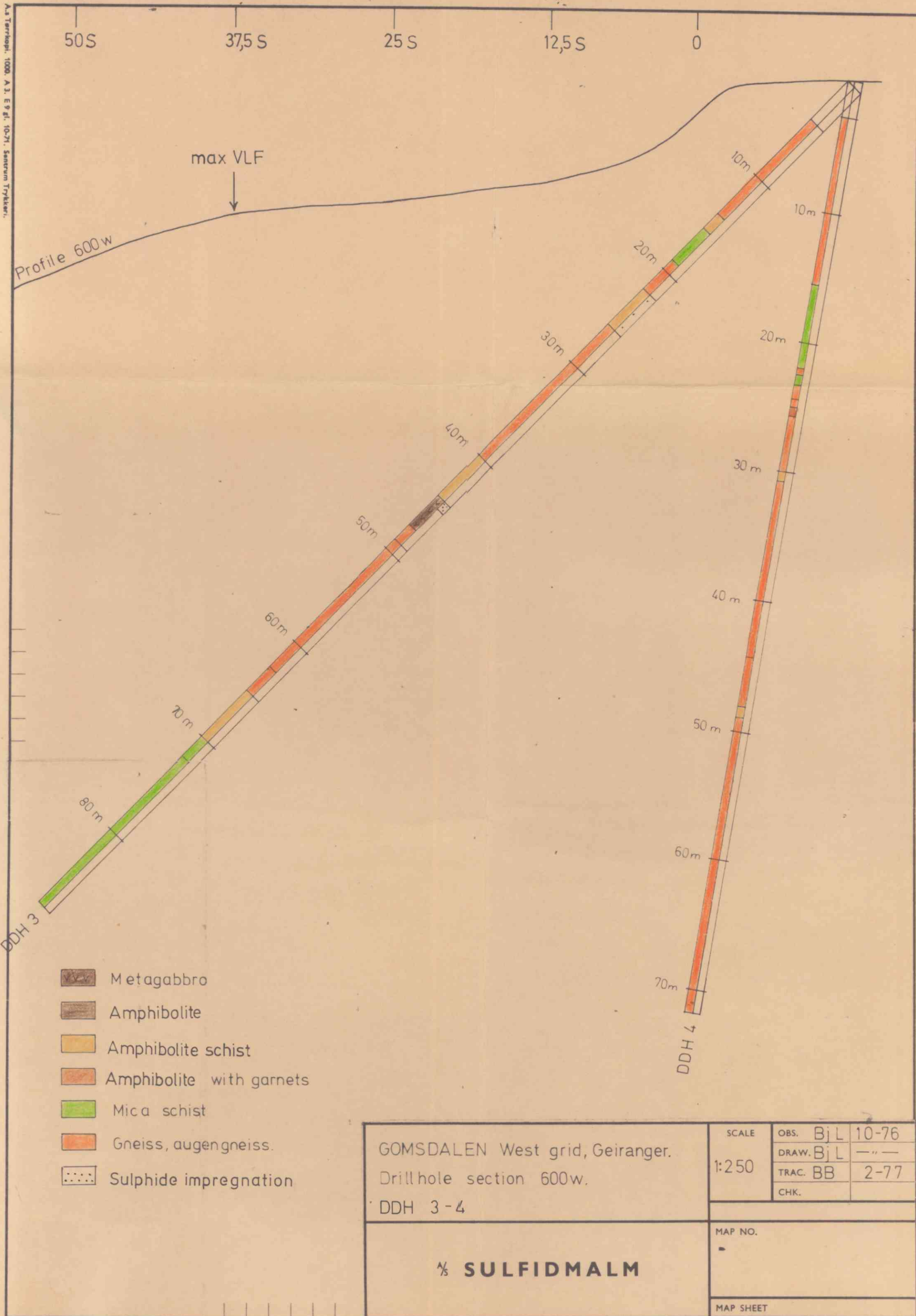
SCALE 1:125	OBS.	BjL 77
	DRAW.	BjL 77
	TRAC.	LH 77
	CHK.	

MAP NO.

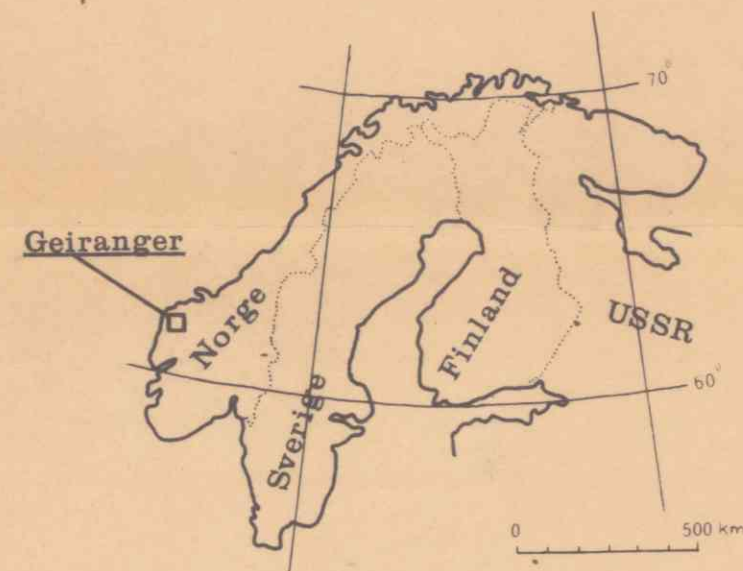
Fig 4.

MAP SHEET





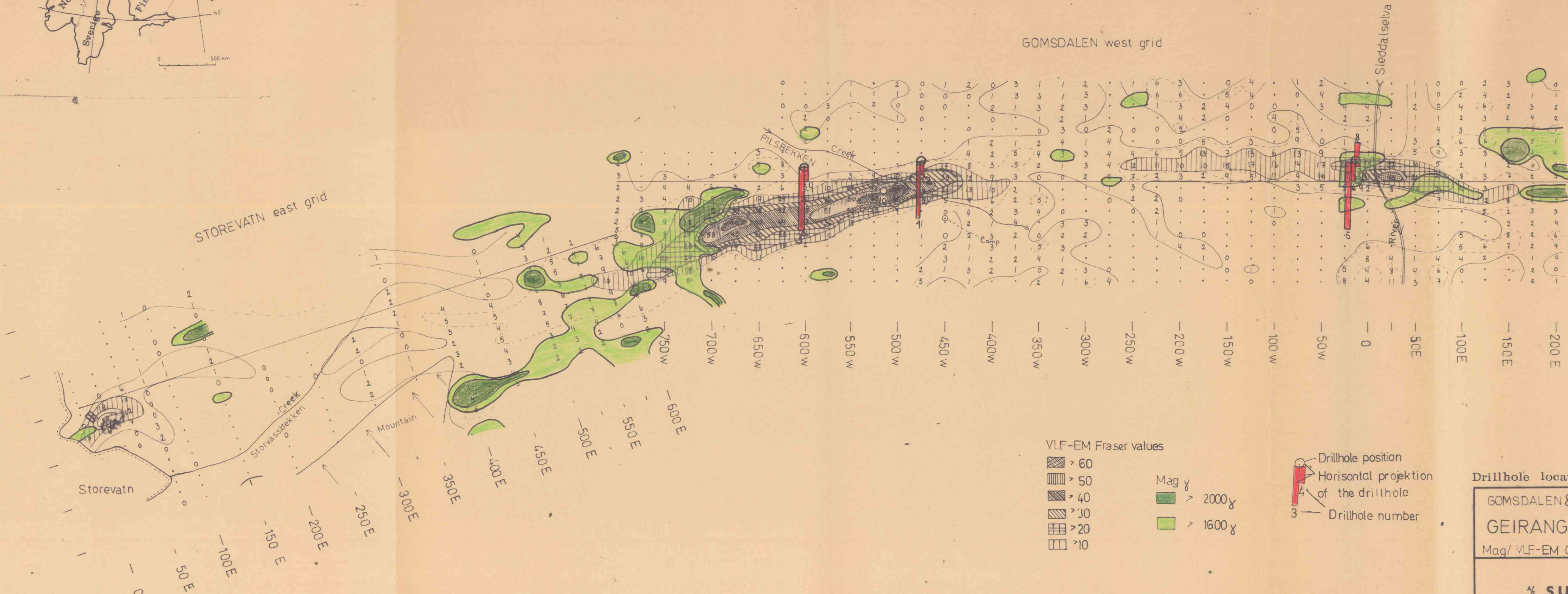




GOMSDALEN west grid

STOREVATN east grid

125 N
100 N
75 N
50 N
25 N
0
25 S
50 S
75 S
100 S
125 S



VLF-EM Fraser values

- > 60
- > 50
- > 40
- > 30
- > 20
- > 10

Mag γ
 > 2000 γ
 > 1600 γ

- Drillhole position
- Horizontal projection of the drillhole
- Drillhole number

Drillhole location

GOMSDALEN & STOREVATN GRID
 GEIRANGER
 Mag/ VLF-EM Compilation map

$\frac{1}{2}$ SULFIDMALM

SCALE 1:2500	OBS.	BjL	9 76
	DRAW.	BjL	—
	TRAC.	BB	—
	CHK.		—
MAP NO.			
MAP SHEET			