



Bergvesenet

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Rapportarkivet

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Tittel Reconnaissance prospecting in the Skjomen-Rombaksbotn area, summer 1972				
Forfatter T Birkeland		Dato 1972	Bedrift Sulfidmalm A/S	
Kommune Narvik	Fylke Nordland	Bergdistrikt Nordlandske	1: 50 000 kartblad 13312 14313 14312 14314	1: 250 000 kartblad Narvik
Fagområde Geologi	Dokument type Rapport	Forekomster Lappviklemmen, Sildviksskaret, Rossokkatoppen		
Råstofftype Malm/metall	Emneord Mo Zn Pb Cu			
Sammendrag Geologisk undersøkelse og jordprøvetaking. Lappviklemmen (mo) Sælkacokka feltet (jordprøver) Sildviksskaret (Zn Pb) Rossokkatoppen (Cu)				

FOR FALCONBRIDGE NIKKELVERK A/S

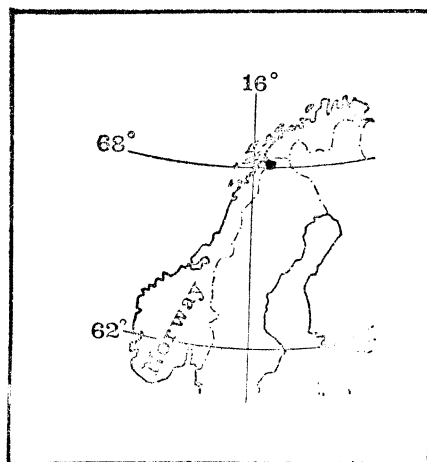
A/S SULFIDMALM

PROJECT 905-3

RECONNAISSANCE PROSPECTING IN THE
SKJOMEN - ROMBAKSBOTN AREA,
SUMMER, 1972.

by

T. Birkeland



Report from the Skjomen - Rombaksbotn area.

From Tore Birkeland 1972.

I. Lappviklemmen.

Two days were spent here searching for molybdenite. The first day we searched along the line C_{12} - C_{11} - C_{10} , and then along the top of the hill south to 960 m (C_9). From C_9 we went via C_6 down to the hydro tunnel portal.

The next day we searched westward above the highly anomalous area (400 ppm Mo) up to the steep cliffs.

During these days no molybdenite was observed with the naked eye. Some rock specimens were sampled. The localities of the samples are marked on the map enclosed

This area consists of a fairly homogenous grey coarsegrained granite. Parts of the granite are quartz-poor and have a syenitic composition. The dark minerals are ^{mica}(largely biotite), but amphibole is also seen. Well developed magnetite-crystals can be seen on several localities and also sulphides (mainly pyrite) are observed. The granite exhibits a few small (2-3 m x 1-2 dm or less) lenses of pegmatite and quartz. The mineral composition of the pegmatites seems to be similar to the granite. The lenses seems to be subparallel, nearly horizontal. Fine grained, aplitic rocks are observed, for instance east of C_{10} . This rock is slightly younger than the main granite type. A few minor inclusions of biotite-schist can also be seen in the granite. Most of the granite is foliated and parts of the granite also exhibits alkaline feldspar porphyroblasts (augen-gneiss). In this area the foliation is near vertical with east-west strike. Joints are seen. The most prominent goes north east - south west.

II. Sælkačokka-area.

Three days were spent in this area. We walked from the west end of Sælkajavre westward along the south and the west shores of lake 851 (Lille Sælkajavre) and up on Sælkačokka (on the map). The purpose was to sample soil along this profile and also to reconnaicance the geology.

We also went up east of lake 974 to north of 1667 and then (in dense fog) along the ridge of Stortind.

The relationship between the inclosed schist and the intruded granite is seen on the map (enclosed).

The granite is mainly similar to the Lapviklemmen granite. East of the schist-zone the granite is more fine grained, but the mineral composition is fairly similar to the coarse-grained type.

The schist is a biotite-quartz-schist with variable contents of these two minerals. Near the west-end of Lille Lækjavre was seen a ca. 100 m broad zone of green schist (vulcanites?).

The strike of the schistosity was about N-S in the eastern parts of the area, but became NW-SE in the western parts. The dip was about 50° W in average.

A few small (2-3 m) isoclinal folds were observed. From observations in other parts of the schistzone it is reasonable to suggest that the schist is isoclinal folded in large scale (up to several km). The prominent schistosity is a axialplane schistosity.

Parts of the schistzone have a rusty appearance in this area. The rusty areas are marked on the map. The cause of the rusty appearance seems to be disseminated pyrite which probably is of sedimentary origin. N-E of peak 1957 was a higher concentration of pyrite which can be found in the scree underneath. Sphalerite is also found here.

The copper anomaly found in stream sediments in the stream from lake 974 can ~~be~~ very well be caused by the sulphides in the schists especially because the only stream into the lake came from the area with a higher sulphide concentration.

III. Sildvik - Aksla.

Only one day was spent in this area.

From Sildvik railway station we went up in the lead-zink-prospect in Sildviksskardet. We went further about 1 km against south-west and then straight down to Sildvik station. We did not go up to Aksla because of fog in higher regions.

The schist in this area is a fairly massive finegrained, homogenous quartz-biotite schist which is part of the same schist-zone which goes to the Sælkačokka area. No primary bedding is visible. The most prominent feature is the mullion structure. The ore in Sildviksskardet prospect pit appear as thin (up to a few cm) layers and impregnation in the schist. The ore is mainly a dark sphalerite with some galena.

Two small prospect pits were observed a few hundred meter SSE of the main pit. The pits were arranged along a line as showed by

J.C. Torgersen (N.G.U. 142, 1935). If one follows the line further south one will end up on top of Aksla. Because of the earlier mining activity in the area all possible mineralisation seen in the field is certainly investigated.

IV. Rosokkatoppen area.

Five days were spent in this area.

The purpose of the visit was to reconnaissance the area around the valley NW of Rosokkatoppen, because of the copper-anomalies found in some stream sediments. Further Birkelands sketch-map from the area should be improved and one should explain the result of the magnetic survey, especially "the Sælkajokka fault" marked on map 02-72-4.

It was not possible in course of a few days to carry out these tasks satisfactorily. The topographic map is not good for detailed geological mapping.

Only one day was used for reconnaissance in the NW-area. The valley consists of coarse grained grey granite (similar to the granite on Lappviklemmen). On the SE-side was a biotite-quartz schist, parts of it were rusty. Numerous granite intrusions were seen in the schist. On the NW-side were inclusions of schist in the granite, some of these inclusions were also rusty. The schist was very similar to the schist found in the Sælkačokka area. The rustiness is probably caused by disseminated pyrite as in the Sælkačokka-schist. The Cu-anomalies might be caused by the sulphide in the schist.

A revised and probably more correct map is enclosed. This is mainly an interpretation-map, and is in no way completed.

It seems convenient to distinguish between two major units. A lower(?) unit consists of crystalline dolomite and basic vulcanites, that is green schists, hornblende-schists, greenstones. Parts of the greenstones is fairly coarse grained and massiv and may be interpreted as gabbroes (as done by Matilla). The coarser parts gradually change however to more finegrained greenstones as in most other greenstone belts. Greywacke-sediments are intercalated in the vulcanites. The dolomites swell up in some areas to a thickness of several hundred meters and pinch out to nothing in course of a few hundred meters along the strike. The dolomite is intimately connected with the basic rocks as is well demonstrated in the Unna Alakatz-copper field mapped by W. Peterson.

The higher(?) unit consists first of different greywacke-rocks above(?) the vulcanites then followed by biotite-quartz-schists (Matilla's

mica-gneiss). This schist might be part of the schistzone found in the Sælkačokka area and further north to the Rombakfjord.

The structure in this area is complicated. The rocks are isoclinal folded in an early fold phase and are later refolded at least once. The result is a complex bedrock pattern. The isoclinal foldstyle may explain why strongly anomalous magnetic zones suddenly disappear along the strike direction as SW of Rosokkatoppen and from Unna Alakats. Another reason for the disappearance of the last mentioned anomaly might be the granite-contact near the Swedish border.

A late fold is shown on the magnetic anomaly map NE of Čunojavre. The change in strike direction across Sælkajokka can easily be explained by the fold shown on the map enclosed. No fault was observed.

The schistosity seen in the field is probably an axial plane-schistosity from the first isoclinal foldphase. When the bedding is preserved this is parallel to the schistosity.

The structure in this area is far from completely understood. For that purpose it is necessary with a detail mapping program extending also into Swedish areas.

The magnetite and Cu-mineralisation seems to be restricted to the vulcanit-dolomite zone judged by the prospect-pits seen in the field. The iron-prospect shown on the topographic map close to Sælkajokka was not found in the field. The position of the zinc-prospect is in the higher(?) schist-unit, it might be a parallel to some of the prospect-pits found in the schist south of the Rombakfjord.

LEGEND.



QUARTZ-BIOTITE-SCHIST WITH RUST.



QUARTZ-BIOTITE-SCHIST.



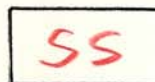
LARGELY GREY-WACKES.



DOLOMITE.



GRANITE.



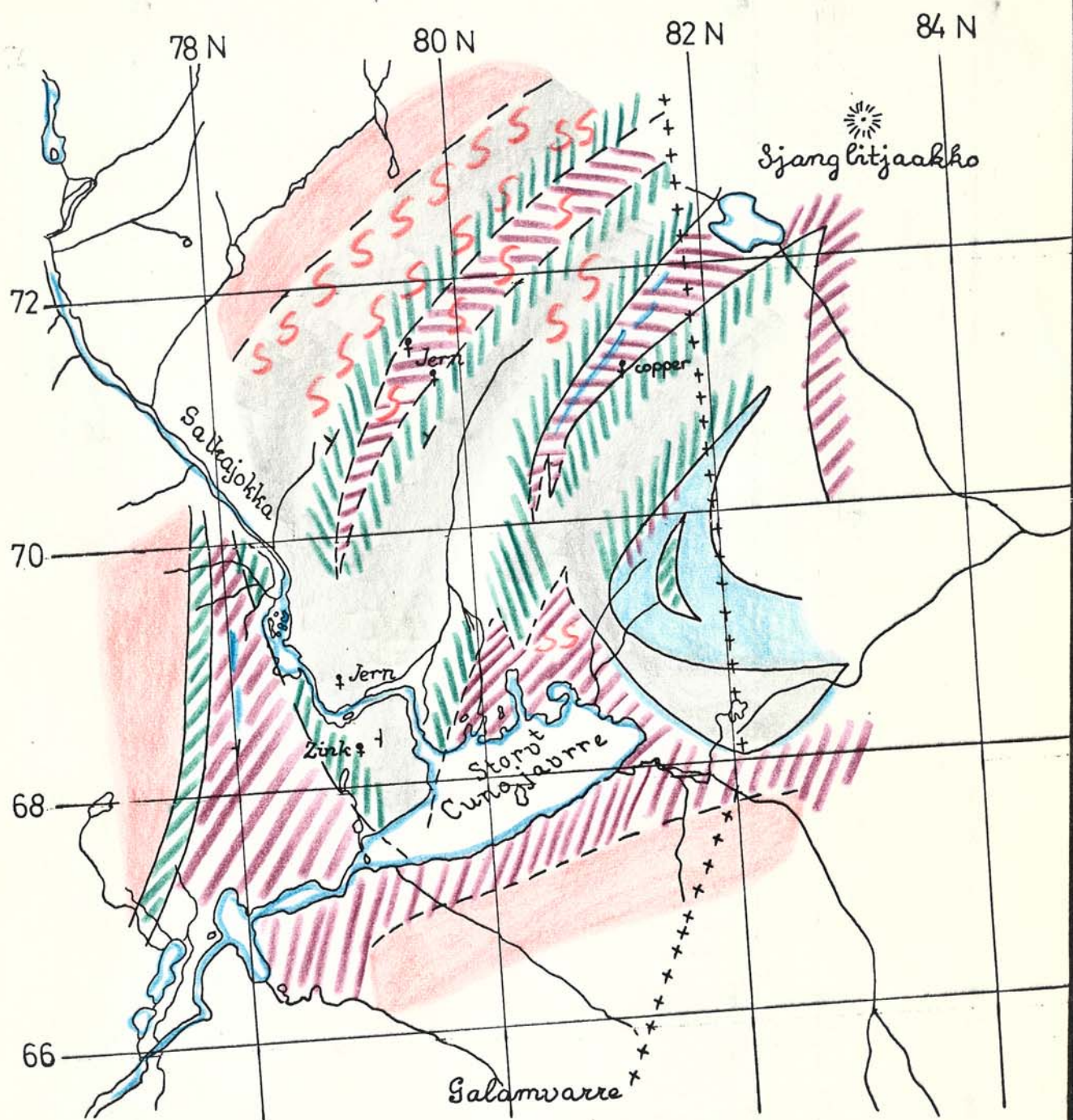
SEVERAL GRANITE-INTRUSIONS.



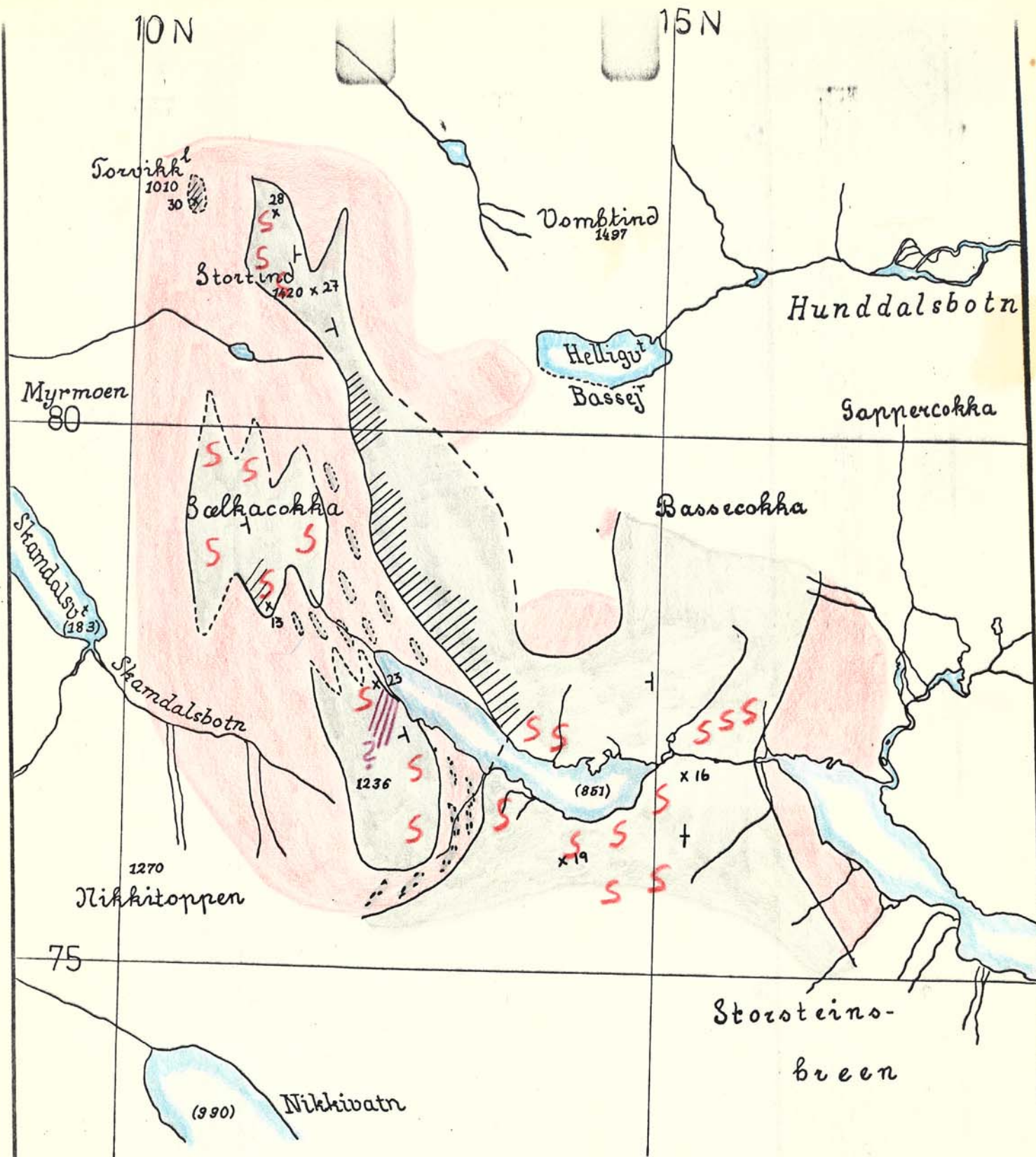
SEVERAL SCHIST XENOLITHS.



LARGELY BASIC VULCANICS.



A/S SULFIDMALM		
ROSOKKATOPPEN		
ROMBAKSBOTN		
SCALE	1:50 000	DRAWN
DATE	12-72	TRACED BL



A/S SULFIDMALM	
SÆLKAJOKKA AREA	
ROMBAKSBOTN	
SCALE	1:50 000
DATE	12-72
DRAWN	TRACED BL

A/S SULFIDMALM
INTER-OFFICE MEMORANDUM

Date: 14th December, 1972

To: Falconbridge Nikkelverk A/S ✓

cc: A. M. Clarke, D. R. Lochhead,
R. B. Band

From: J. B. Gammon

Subject:

905-3, Rombaksbotn area (Report No. 208/72/3).

Please find attached Birkeland's report on reconnaissance prospecting in the Skjomen - Rombaksbotn area. Nothing warranting further attention was encountered.



INITIAL		18. 12. 72	REV.	ARK.
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Mixen,