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Sammendrag / innholdsfortegnelse A short prospecting program was conducted in the Rombak Window during the summer 1983.  The field program was primarily a geological investigation coupled with regional rock and soil sampling. It contained further ground geophysical examinations. They were restricted to zones of very special interest.  The Gautelis area contains two parallel running supracrustal belts. The westerly - Kjørisvann belt - is not of any importance. The Gautelis supracrustal series is previously known by its massive arsenopyrite mineralization located at the west slope of Gautelisfjell. The massive ore is proved carrying up to 23 ppm Au. A very promising gold value of 31 ppm was assayed with rock samples NR-15-83. Soil samples from the carbonate series indicated within the Gautelisfjell region several zones anomalous in gold There is good hope for the discovery of at present unknown mineralizations.  The Cunovavri-area contains considerable intermediate to felsic metavolcanics that are often mineralized by disseminated pyrrhotite and pyrite. Indications of arsenopyrite were found at some locations. The occurrences do carry no Au. Geological investigation and rock geochemistry gave no indication for any mineralization that perform further exploration. 3 duplikat. <b>Kart i tilknytning til rapporten finnes på BV 2954.</b>				

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SUMMARY REPORT

1983

ROMBAK PROJECT

(330 250)

FOLLDAL VERK A/S - AMOCO NORWAY OIL COMPANY

JANUARY 1984

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SUMMARY a. CONCLUSION  
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A short prospecting program was conducted in the Rombak window (68°15' lat., 17°45' long.) during the summer 1983 in order to investigate the Folldal Verk A/S - Amoco Norway Oil Company J.V. properties. The claims had been staked in early spring 1983 as a result of a study about Au-potential in northern Norway.

The area is previously known by its arsenopyrite-gold, its copper and its lead-zinc occurrences. The mineralizations are bound to precambrian - proterozoic - supracrustals that consist of metasediments and metavolcanics.

The field program was primarily a geological investigation coupled with regional rock and soil sampling. It contained further ground geophysical examinations. They were restricted to zones of very special interest. The works were concentrated on two areas - Gautelis area and Cunojavri area - that lie about 20 km apart. The adjoining ground was checked only very briefly.

The Gautelis area contains two parallel running supracrustal belts. The westerly - Kjørisvann belt - is not of any importance. The Gautelis supracrustal series is previously known by its massive arsenopyrite mineralization located at the west slope of the Gautelisfjell. The massive ore is proved carrying up to 23 ppm Au. The occurrence is situated at the boundary of metasedimentary/metavolcanic sequence and carbonate series. The ore potential seems to be very small.

A very promising gold value of 31 ppm was assayed with rock sample NR-15-83. This sample originates from the same lithological sequence but 1 km further south than the main arsenopyrite occurrence. The surrounding area is well covered by soil.

Soil samples from the carbonate series indicated within the Gautelisfjell region several zones anomalous in gold.

There is good hope for the discovery of at present unknown mineralizations. But they all will be probably of a lower potential. ??

The Cunojavri-area contains considerable intermediate to felsic metavolcanics that are often mineralized by disseminated pyrrhotite and pyrite. Indications of arsenopyrite were found at some locations around the boundary between metasedimentary/metavolcanic series and carbonate section. The occurrences do carry no Au. A very small stringery Zn-mineralization is found near the Cunojavri lake.

Geological investigation and rock geochemistry gave no indication for any mineralization that perform further exploration.

#### RECOMMENDATIONS

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The 1984 activities will be concentrated around the Gautelisfjell, Gautelis area. Intensive prospecting combined with soil sampling and ground VLF - Mag surveys are required for the southwest slope of the Gautelisfjell, in order to follow up the high gold result assayed with sample NR-15-83.

The Au-anomalies within the carbonate series which were outlined by soil geochemistry should be investigated by soil stripping and additional rock sampling. A geophysical examination will be efficient locally. *→ and soil geochemistry*

Diamond drilling is planned for the Gautelis As, Au-prospect and for the gold mineralization at NR-15-83.

Further prospecting should be centered around the Kaliks-  
dalen and Gallanvåggi. These areas were previously named  
as containing further arsenopyrite mineralizations. A  
good soil coverage is frequent throughout the areas.

A total of 81 claims are good for 1984. A large number  
can be dropped within the end of this year. The Gautelis  
claim groups should be extended further to east.



## INTRODUCTION

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A program of rock and soil sampling and ground geophysical surveys was conducted in the Rombak project area during the summer of 1983. The activities commenced in early August and lasted until the middle of September.

The program was recommended in a case study about Au-potential in Nordland, Norway (Generative project, M. KRAUSE, 1982). Gold enrichments with up to 10 ppm Au found in arsenpyrite mineralizations were described from some locations. The area is further known for copper and/or bornite occurrences and one sphalerite mineralization. A number of uranium indications certainly of very minor economic interest are reported.

The mineralizations are connected to precambrian - proterozoic - supracrustal rocks consisting of metavolcanics and metasediments. They occur as discrete bodies in granitic gneiss. The rock sequence is described as the Rombak window.

Besides Folldal Verk A/S - Amoco Norway Oil Company two other companies are involved in the Rombak area mainly prospecting for gold. ARCO Norway Minerals Inc. (Anaconda) carried out a regional stream sediment program. Norsk Hydro is holding claims within the Gautelis area of Folldal Verk A/S. Furthermore the NGU/USB is working on uranium mineralizations. Skjangelv Norsk A/S is holding one claim group just north of the Cunojavri area.



LOCATION a. ACCESS.  
-----

The Romabk project area is located in Nordland fylke, Northern Norway, centered at 68°05' N and 18°00' E (Fig. 1,2). It is situated within the Rombak - Skjomen mountain region what lies east and southeast of the town of Narvik. This region borders to the Norrbottens Län of Sweden.

The area is a typical high mountain region with variable heights from 700 m to 1800 m a.s.l.. Extensive glacial erosion is responsible for the relative soft appearance of the landscape. There exists normally a very good outcrop situation. However the flat, u-shaped valleys are often covered by glacial residues. Scattered patches of névé and huge glaciers are mostly restricted to the higher elevations. The vegetation is very scarce. It comprises gras, mosses, some kinds of berries and plants and lichen.

The project area covers a narrow seam which extends from the southeastern corner of the region (Gautelisfjell) 20 km to the north (Cunojavri). It lies very close to the Swedish border. The area comprises about 80 km<sup>2</sup>.

Only the southern part of the area is easy in access. A gravel road of good standard continues from the Skjomen valley to the damning at the Gautelis lake. The northern parts can be reached on trails or by helicopter or waterplane.

The nearest supply centers are Elvegård (Skjomen valley) and Narvik (Ofotfjord), approximately 30 km and 70 km respectively.

The town of Narvik is the seat of the local government. The town is serviced by daily propeller flights from Oslo

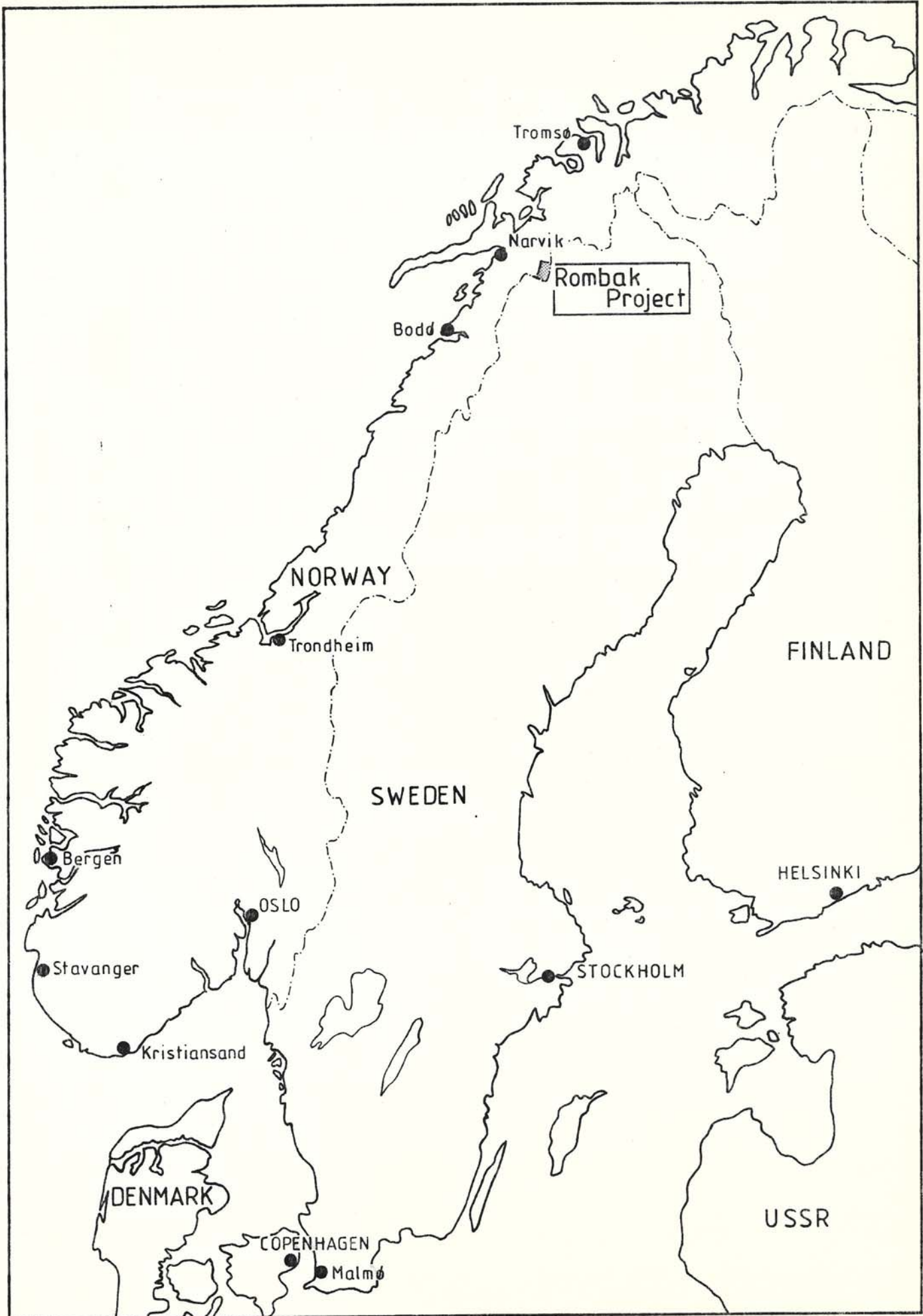


Fig. 1: Project location map, Rombak Project

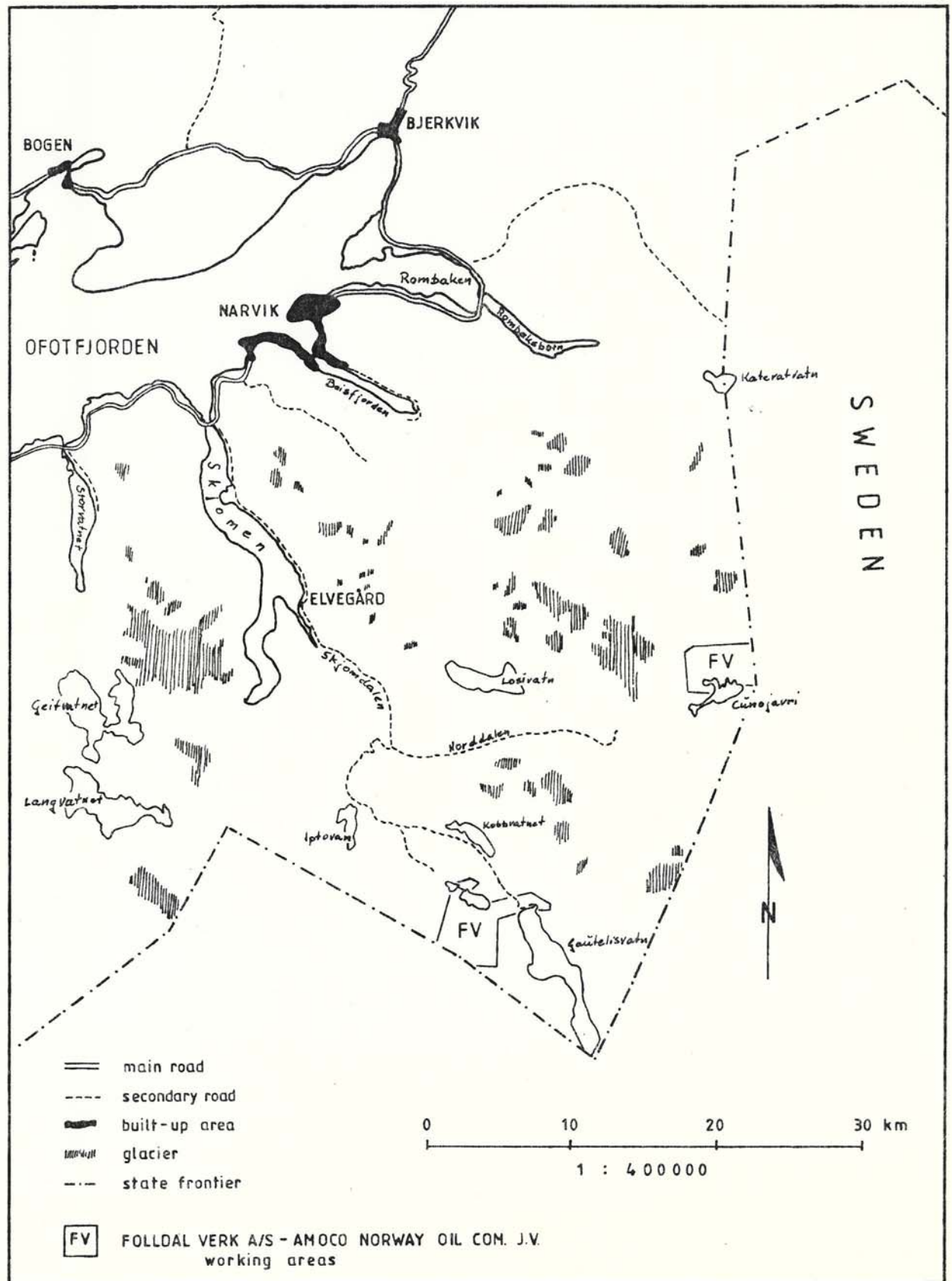


Fig. 2: Location of the working areas, Rombak Project.



and Trondheim. The main airport of the district is Evenes, about 80 km by road from Narvik. It is serviced by daily jet flights from all sites of the country.

Helicopter service is available from Bardufoss (Lufttransport A/S), 110 km distance by air. A waterplane is thus far only available from Bodø, about 1 h by air.

#### LAND STATUS

Presently Folldal Verk A/S is holding 5 claim blocks with together 81 claims. At the end of 1983 a number of 27 claims were dropped.

The breakdown of claims in claimgroups is as follows:

	number of claims
KJØRISVANN	7
GAUTELISFJELL	33
AKSU	6
VAVRAT	15
RUSSOT	20

Our competition within the Rombak window is that of Norsk Hydro, what is holding two claim groups in the Gautelis area and that of the ARCO Norway Minerals Inc. what staked large areas of land throughout the district. Skjangel Norsk A/S is holding one claimgroup with together 7 claims within the Cunojavri area. The NGU/USB has properties at Iptovann and Aksu (west of Cunojavri).

The definite locations of all these claims can be taken from the Grid Location Map.



## HISTORY a. PREVIOUS EXPLORATION

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The Rombak-window has been previously noted for its arsenopyrite and copper mineralizations. More recently several Pb - Zn occurrences and some uranium indications were part of investigation.

The early prospecting was done either privately or by small exploring companies. These works were concentrated between 1916 and 1924. The investigations included sampling, trenching and pitting. Today several smaller showings and shafts and tunnels point from these activities. The mining works were concentrated mainly around one arsenopyrite mineralization what occurs at the western slope of the Gautelisfjell. This mineralization of massive and partly disseminated ore is restricted to the junction of a metasiltstone series and a carbonate section. The occurrence is very limited. While the mining operations a 13 m deep shaft was put down following the arsenopyrite lode. In addition several smaller showings and one trench were established. About 500 tonnes of ore with an average of 30 % As and 11 ppm Au were produced under the test period.

Further arsenopyrite mineralizations were investigated at different locations (Kjørsvann: 611320 7554050, Ruvssot: 380900 7569650). Copper and bornite mineralizations all of spotty occurrence were tested at Nuorjokka (615430 7554170, 615470 7554340, 615300 7554280) and at Ruvssot (380460 7550540). One vein-like Zn enrichment located near Cunojavri (37900 7568500) was investigated by trenching.

The Rombak-window was part of a brief prospecting program on uranium carried out by the NGU/USB in 1975 (NGU-rapport 1389/2). Within the Norddalen (Losi) two weak radiometric anomalies were found. The uranium minerali-

zation is bound to fine grained quartz-rich varieties of a granitic gneiss. Another uranium indication was picked up at Vavrat (Cunojavri). It occurs here within a supracrustal rock sequence consisting of greenschists and rusty mica schists. The ground radiometric measurements pointed out a very limited mineralization with an uranium content of 34 ppm and nearly no Th.

In 1976/78 the NGU/USB (NGU-rapport 1430/5) investigated the Pb - Zn mineralizations centered around the western side of the Katterat lake. These occurrences are prior described by Smith, 1929 (Bergarkiv rapport 4568). They are partly tested by trenching, pitting and tunneling (1890). The more recent works included geological mapping and rock sampling.

The Pb - Zn mineralization is bound to steep dipping carbonate veins of variable - cm to dm - thickness. They only in places do carry quartz, feldspar, epidot, some asbestors and fluorite. The veins are mostly N - S orientated following the main foliation plan. The majority of them occurs in granitic gneiss but some do even exist in supracrustal rocks. A small number of rock samples were assayed for Pb, Cu, Zn, Ni and Ag. The values remained generally low.

From the same location a number of sulphide mineralizations are reported. They are bound to gabbroic rock types and metamorphosed supracrustals. The ore contains mainly of pyrrhotite with minor constituents of sphalerite, chalcopyrite and galena. Very local is the occurrence of arsenopyrite. The mineralization is always of a disseminated type and very limited and forms strata-bound bodies.

Both types of the mineralization located at the Katterat lake seem to be not economic (NGU-rapport 1430/5 A).



Recently the NGU/USB started several new programs regarding the Rombak window. Two smaller areas were subjected by an airborne helicopter survey comprising Mag and radiometric measurements (NGU-rapport 1836). A stream sediment program of widely scattered sample locations covered the main part of the window. Geological mapping started in 1982 subjecting a meta sedimentary - meta-volcanic series with sulphide and uranium mineralization occurring at Iptovann (Skjomen area).

ARCO Norway Minerals Inc. and Norsk Hydro got involved within the Rombak window in 1983. They both concentrated their activities on the investigation of the supracrustal series. ARCO started with a regional stream sediment program.

#### REGIONAL GEOLOGY

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The Rombak window is underlain by precambrian rocks of supposedly proterozoic age ( $1707 \pm 70$  Ma, granite) (HEIER a. COMPSTON, 1969). The sequence consists of at least two main rock groups, designated as first the Rombak granite or granitic gneiss and second the assemblage of supracrustal rocks. The chronological relationships between these two groups are still uncertain. The geological patterns indicate a somewhat older age for the supracrustal rocks.

The Rombak granite is the dominating rocktype within the precambrian window (Geological map). It is described as a mostly coarse grained, grey to slightly reddish coloured rock which often occurs with a marked "eye texture" (Fig. 3).

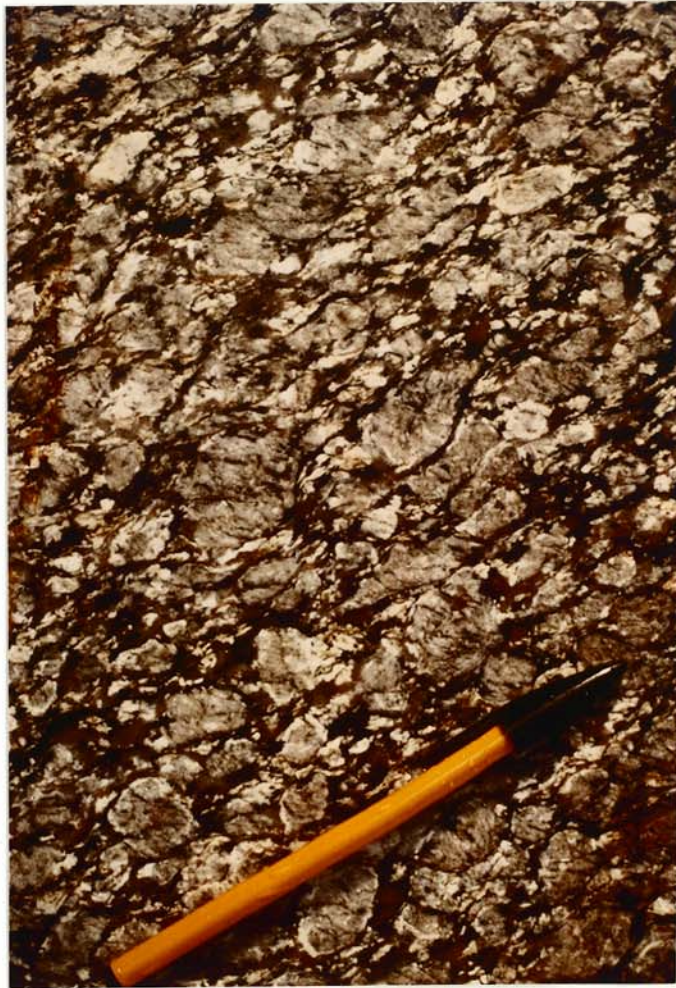


Fig. 3: Rombak granite slightly foliated with "eye texture" due to the occurrence of potash feldspar megacrysts

The most common type is a quartzo-feldspatic gneiss of slightly foliation containing biotite, potash feldspar - of the "patch perthite" type - and quartz in various proportions. Accessory constituents are commonly ilmenite and titanite.

The mostly very homogeneous looking Rombak granite is locally intruded by allochthonous granites and syenites.



The supracrustals appear as lenses and sheets of dm to km size within the Rombak granite. They often show a distinct N - S orientation. The contacts to the granitic gneiss are often sharp but can be in places too of gradual nature.

The supracrustal rock assemblage comprises volcanic and sedimentary units, metamorphosed in lower to middle amphibolite facies. The different peaces occuring have often their very own lithostratigraphy what render a general correlation. However it predominate features characteristic of a subaqueous origin in a volcanic environment. A shallow water deposition is indicated for the majority of them. The present main rocktypes are phyllites with or without any graphite (metasiltstones) amphibolites (metabasic lava), serpentinites (meta-ultrabasic flows), carbonates (meta-limestones or dolomites), quartz - feldspar - biotite schists (supposely meta - intermediate to felsic tuffs), graphite bearing quartz - biotite - chlorite schists (meta-tuffites), quartz - feldspar rocks (supposely felsic meta-tuffs) and quartzites (meta-arenites). As intrusive bodies do exist gabbros and diorites and unaffected dunites with significant amounts of magnetite.

The series contain different kinds of sulphide mineralizations which in the majority form strata-bound bodies.

The occurence of the eocambrian sediments as indicated on the geological map by Foslie is not proved. The this-ayears geological examination gives rise to the assumption that the significant rock formations do belong too to the precambrian supracrustal rock assemblage.

Tectonical studies concerning the area are spare.

## 1983 PROGRAM

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The 1983 season of the Rombak project commenced in early August and ended in the middle of September. The program was primarily a geological investigation of the Folldal Verk A/S - Amoco Norway Oil I.V. properties located at Gautelis and at the Cunojavri-lake. It was coupled with regional soil and rock sampling and ground geophysical measurements. Little time was spent on the evaluation of adjoining areas.

A number of three combined geophysical geochemical grids with a line spacing of 25 m to 50 m and 12,5 m to 25 m profile reading stations were established. In addition 11 profiles of different length were constructed.

A total of 227 rock samples were taken. Within sampling grids or along single profiles the collecting of samples happened with defined intervals which tended to be between 12,5 m and 25 m. A sampling space of 5 m was elected only for the 0-profile of the grid covering the Gautelis As, Au-prospect. The junction between the metasedimentary/metavolcanic series and the carbonate section was part of an extensive investigation especially within the Gautelisfjell area. Samples were taken here at nearly every 25 m within an extension of 600 m.

A large number of samples are scattered randomly over the investigation areas. They come from all kinds of rockunits. Of special interest were volcanic layers and carbonate horizons. Stringers, lenses or bands of rusty appearance were sampled directly.

A quantity of 14 slit samples (mostly 1 m sections) was confined to the Gautelis - As, Au occurrence.



Soil sampling was concentrated around the Gautelis - As, Au prospect. A number of 131 samples were taken from a commonly 0,2 to 0,5 meter overburden with normally good "Bo" horizon.

Both soils and rock samples were analyzed for Au, Ag, As, Cu, Pb and Zn. Only geochemical methods had been required. With soils values of  $\geq 40$  ppb Au,  $\geq 200$  ppm Cu,  $\geq 200$  ppm Zn,  $\geq 200$  ppm As and  $\geq 20$  ppm Pb were taken to be abnormal. Concentrations of more than 1000 ppb Au assayed from rock samples were specially indicated on maps.

The ground geophysical surveys applied consisted of C.E.M. horizontal shootback (Crone Geophysics Ltd., Mississauga, Ontario, CAN , APEX Max - Min (APEX Parametrics Limited, Ont., CAN.), protonmagnetometer (GeoMetrics INC., California, USA) and VLF (S. Paulsen, Trondheim, Norway) measurements.

The results of geological mapping and geochemical and geophysical surveys are presented on maps attached to the report.

A total of 93 claims had been staked in early spring 1983 by Folldal Verk A/S. An additional number of 15 claims were recorded while the summer month.

#### STAFF a. ACCOMODATION

-----

A staff of three Karasjok-persons was assisting with three weeks of the working period. They carried out all of the ground geophysical works and did most of the sampling. Folldal Verk A/S geophysicist I. Killi was mainly involved with the Apex Max - Min and field strength measurements.

The crew was based at the Bokholmen riding center, located in the Skjomdalen about 25 km by road from the Gautelis area.

#### GAUTELIS AREA -----

The Gautelis area is situated in the southeastern corner of the norwegian part of the Rombak window. Two claim groups are established on about parallel running supracrustal belts occuring at Kjørisvann and at the Gautelisfjell. The series are separated from each other by granitic gneiss.

##### 1. Kjørisvann Supracrustal Belt.

The Kjørisvann supracrustals form a discontinuous belt extending from the Swedish border (south) to about 1 km north of øvre Kjørisvann, a distance of about 5 km. The discontinuous sheets are crescent shaped arranged. They are mostly not more than 50 m in length but sometimes can reach extensions of 1 km. Normal thicknesses vary between 1 m and 3 m, though even 20 m can be reached with extensive folding. The contact rock is always a granitic gneiss.

The series consits mainly of a carbonate sequence inter-layered by some bands of mafic to ultramafic volcanics occuring as peridotites or serpentinites or amphibolites. Stringers and smaller bands (dm to m thickness) of quartz - feldspar rock, supposedly metamorphosed acidic volcanics, are often closely associated with the carbonate section, but they can be found too isolated in granitic gneiss. They exist for the most with a marked rusty weathering. Pyrite appearse often as idiomorphic crystals of 1 mm size. It is the main constituent of the sulphide mineralization. Very scarce are disseminations of galena, arsenopyrite and chalcopyrite.



The Kjørsvann area shows a very good outcrop situation. A coverage consists in most of the cases of rubble (glacial residue). The occurrence of marked soils is very limited.

Sampling was done at 4 different locations. Together 9 rock samples were collected from mostly quartz-feldspar rock varieties. None of the samples showed up with interesting values in Au, Ag, As, Cu, Pb or Zn.

There is no potential for any economic Au-mineralization within this claim group. It is therefore recommended to drop the majority of the claims held by Folldal Verk A/S.

?  
disagree  
Should  
soil  
sample!

## 2. Gautelis Supracrustal Belt

The Gautelis supracrustals can be traced as a nearly continuous belt from the Swedish border to the damming at Gautelivann, a distance of about 7 km. A further continuation of the rock unit towards the northeast is supported by several spotty occurrences located within the Trehakfjelldal.

The belt shows high variable thicknesses ranging between 1 m and 2 km. The average thickness is about 1 km.

Within the Gautelisfjell region there occur a number of E - W trending faults which produced limited displacements by an easterly orientated normal slip. The movement direction along the fault is illustrated by the foliation especially of the carbonate horizons. Corresponding tectonic features are represented by nearly north - south running fault zones which were observed at Nuorjojokka and within the Trehakfjelldal.

The supracrustal series consists of metasediments and metavolcanics. It forms one lithostratigraphic unit, what has been divided into two formations. The lower one contains

mostly metamorphosed pelitic sediments (quartz phyllites) interlayered by several dm to m thick bands of volcanic material. It is called the metasedimentary/metavolcanic sequence. The following carbonate series is composed of an alternation of dm to m thick bands of either meta-volcanics (ultramafic to mafic flows) or sill type gabbros (amphibolites with ophitic textures) or metaarenites or fine to medium grained quartz-feldspar gneiss with thick layers of carbonate. The latter occurs with a marked cm-banding caused by the rhythmic emplacement of phyllosilicates. More a scarcity are beds or lenses of sulphide (Fig. 4). The carbonates are supposedly of sedimentary origin.

The junction between the two members is always very sharp (Fig. 5). The lying contact rock is mostly a quartz phyllite what only regional alternates in a fine grained quartz-feldspar rock, supposedly a meta-felsic tuff. Very sparse is the occurrence of sill type gabbro or serpentinites or amphibolites. In places finest network like features of serpentine are observed within the border zone extending from the carbonate section into the lower series (sampled with NR-115-83).

Several kinds of sulphide mineralizations do occur within the supracrustal rock unit. The most important one is the arsenopyrite-gold mineralization located at the western slope of the Gautelisfjell. The occurrence was already in 1924 part of smaller mining activities and an extensive investigation. Today one shaft, one trench and several diggings remember from these activities (Fig. 6,7).

The mineralization occurs at the boundary between the metasedimentary/metavolcanic series and the carbonate section.



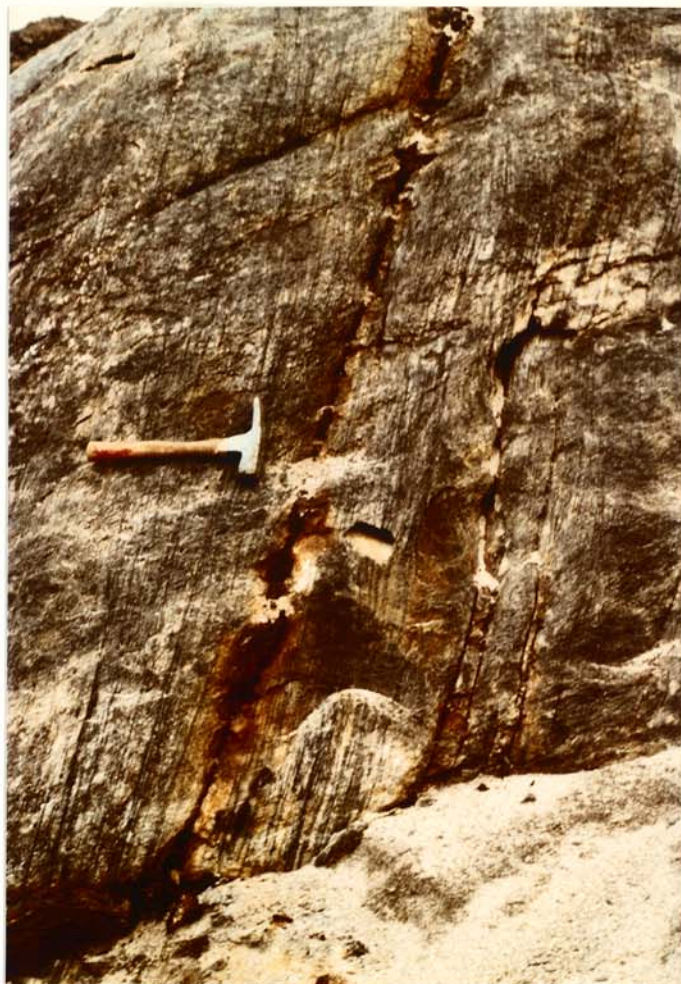


Fig. 4: Typical carbonate horizon from the carbonate section, cm-banding of phyllosilicates and continuous bands of sulphide mineralization (higher weathered).



Fig. 5: Contact between metasedimentary/metavolcanic series and carbonate section at Gautelisfjell 400 m north of the Gautelis As, Au prospect. Sample location of rock sample NR-99-83.





Fig. 6: Main showing at the Gautelis As, Au prospect. Massive arsenopyrite ore with a thickness of 2,5 m. Shaft followed the mineralization down-over for about 13 m.



Fig. 7: Diggings at 25 m south of the main showing. Location of slit sample I (covering 1,80 m). Left side border between metasedimentary/metavolcanic series and carbonate series. The reddish brown coloured quartz-feldspar rock and quartzphyllite from the right side carries disseminated and vein-type arsenopyrite mineralization (see too Fig. 8).



The ore builds an approximately 50 m long and up to 2,5 m thick, lense shaped body what pinches out rapidly both in a northern and southern direction. The mineralization exists either as massive ore - with up to 80 % arsenopyrite - or as vein-like features and disseminations (Fig. 8). The bedrock is mostly a quartz phyllite (metasiltstone) but can be as well a quartz-feldspar rock what represents supposedly a meta-felsic tuff. This rock type is placed as a marked seam between the metasiltstones and the carbonate horizons. Very minor disseminations of sulphides may occur too in the adjoining carbonate band.

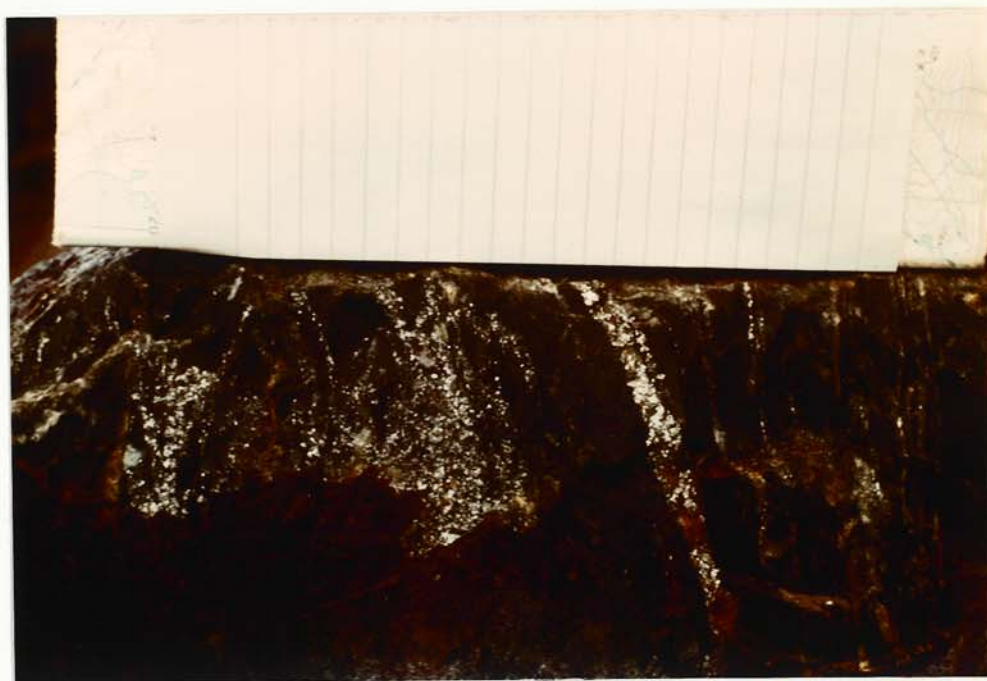


Fig. 8: Vein-like features and disseminations of arsenopyrite mineralization in a quartz phyllite. Showing 25 m south of main shaft at Gautelisfjell (see fig. 7).  
Scale: paperlines in natural with a 0,7 cm spacing.

The arsenopyrite mineralization is centered<sup>d</sup> within an area of lithological and geological particularities. There is found a conspicuous higher sulphide content within the basal country rock lying close to the orebody. Carbonate horizons

as a rule restricted to the carbonate section do occur here as 1 m thick interlayers already in the metasedimentary/metavolcanic member. The maximum thickness of the carbonate sequence is reached at the arsenopyrite mineralization.

No comparable further arsenopyrite enrichments were recognized by the geological investigation. In places very rare disseminations of arsenopyrite occurred but they were not of any importance.

The other sulphide mineralizations are mostly of the pyrrhotite type but do also carry locally somewhat higher values of copper or lead. They are summarized briefly below:

- disseminations of pyrrhotite accompanied by pyrite and with regionally sparse arsenopyrite and or chalcopyrite are frequent throughout the quartz phyllites. Intensive rusty weathering as an indication for somewhat higher concentrations - but anyways  $\leq 2$  Vol.-% - is observed in the country rock of the arsenopyrite mineralization at Gautelisfjell (see above) and near the damming of the Gautelismann (samples NR -123, 124, 125-83)
- bands of felsic volcanics carry often accessory amounts of pyrite and sometimes spots of galena (samples NR - 8, 9, 121-83).
- carbonate horizons contain in places mm to dm bands and lenses of massive chalcopyrite - pyrrhotite ore what in most of the cases is deeply weathered and shows locally coatings of malachite (samples NR-28-83 and NR-127-83) (Fig. 4).
- serpentinite bands of the carbonate member are mineralized by idiomorphic pyrite ( $\leq 5$  mm in size) and xenomorphic - squeezed - magnetite (sample NR-98-83).



- massive pyrrhotite - chalcopyrite ore is bound to a sizeable fault zone affecting the carbonate series at Nuorjojokka (sample NR -126-83).

#### Grids and Profils Geophysical and Geochemical Results

The Gautelis As, Au - prospect and its surrounding area were covered by VLF (dip angle and field strength), Mag., C.E.M. and APEX Max - Min measurements. In addition soil samples were collected from all the survey lines.

A program of rock sampling was restricted to the eastern coordinates of the lines 100 N (PN sample numbers), ONS (PO sample numbers) and 75 S (PS sample numbers). Samples were taken here at 12,5 m intervals when possible. A 5 m sampling space was referred only to the line ONS. Additional samples were collected from some locations lying between the sample lines and from border material to the carbonate series. A considerable amount of rock samples originates from the arsenopyrite mineralization.

A total of 14 slit samples were placed over the border between metasedimentary section and carbonate series. The samples I to V are concentrated around the massive arsenopyrite mineralization while SL 6 to SL 14 were derived from south of the normal fault that occurs about 50 m south of the main showing.

A survey of VLF and Mag. connected with soil sampling was undertaken on one profile situated at the southwest slope of the Gautelisfjell about 1 km south of the main showing. It covers the same lithological sequence that was investigated at the arsenopyrite mineralization.

Grid Gautelis As, Au-Prospect

The ground geophysics gave very indistinct curves even for the massive arsenopyrite mineralization. The dip angle measurements showed up in the nearea of the As, Au - prospect with only a suggestion of a cross-over point. The field strength of 125 is only a little higher than the normal background what lay at 100. The Mag. survey signified some higher pyrrhotite mineralization for the country rock east of the main showing (see above).

The program of the soil geochemistry pointed out several more or less spotty Au anomalies. These indications are not only restricted to the lower lithological sequence. Even the highest values with 360 ppb or 410 ppb Au were reached within the carbonate series. Astonishing is the fact that the massive arsenopyrite mineralization which carries significant contents in gold - up to 0,72 oz/t - do effect no geochemical halo. The occurrence of lead anomalies is mainly restricted to the carbonate series. Some further indications seem to be connected to normal faulting. Higher Cu-concentrations of more than 350 ppm in soils are always bound to carbonate horizons. They are supposedly effected by the pyrrhotite - chalcopyrite mineralizations what already were named before.

The assayed rock samples from the Gautelis arsenopyrite occurrence carry between 18,4 % and 28,4 % As. The values for gold range between 0.047 oz/t and 0,72 oz/t. The material includes both fresh samples from the pit and partly weathered ones from the dump . Further high gold concentrations of 0,066 oz/t were proved from a digging located about 25 m south of the main mineralization. The showing is situated within the southern outdying end of the ore body. The arsenopyrite occurs here as vein-like features or poor disseminations (see below: slit sample I) (Fig. 8).



The gold content of the rock samples of the surrounding area remained constantly low. Exceptions to the rule were the samples NR-110-83 (gz-rich metasiltstone) and PO-12-83 (metasiltstone) with 1400 ppb and 1200 ppb Au respectively. These remarkable anomalies are accompanied by somewhat higher concentrations in copper (670 ppm and 1200 ppm). The sample PO-12-83 is further interesting because of its 6,5 ppm Ag.

Somewhat higher copper of 3000 ppm and 1100 ppm (600 ppb Au) was proved with the samples NR-28-83 and NR-127-83. Both represent the pyrrhotite - chalcopyrite ore occurring within the carbonate horizons. The best Zn concentrations were found with NR-33-83 (1300 ppm Zn) and NR-93-83 (1900 ppm Zn), samples which comprises metasiltstones from the border of the metasedimentary/metavolcanic section to the carbonate series.

The majority of the slit samples came up with discouraging results. The only exceptions are sample I situated at the digging 25 m south of the main showing and sample IV located at the As, Au-prospect itself. The slit sample I was assayed carrying 1700 ppb Au and >1000 ppm As over a distance of 1,80 m. The sequence is presented on Fig. 7. It is described in detail as follows:

west

- wallrock carbonate
- 7,5 cm massive, highly weathered arsenopyrite ore
- 2,0 cm seam of carbonate
- 8,0 cm quartz-feldspar rock (metafelsic tuff)  
with finest disseminations of arsenopyrite
- quartz phyllite, slightly banded, nearly vertical  
dip, with vein-like features and disseminations  
of arsenopyrite (Fig. 8).

east



The sample IV covers the "contact zone" between massive arsenopyrite ore and the carbonate horizon. It contains mostly disseminated or stringer ore occurring both in a fine grained quartz - feldspar rock (meta-felsic tuff) and in the adjoining carbonate. The 1 m section shows an attractive gold concentration of 4200 ppb.

#### Profile Southwest Slope Gautelisfjell

Very encouraging results for soils isolated at least three gold anomalies with values between 84 ppb and 410 ppb Au. A nearly continuous zone of high gold is indicated lying between 312,5 Ø to 375 Ø. It is coincident with a moderate height in field strength and is further flanked by a distinct cross over of the VLF survey. The other gold indications are of spotty occurrence. They are placed at 212,5 Ø and 450 Ø.

A number of two rock samples were taken within 400 Ø and 500 Ø of the profile. Sample NR-15-83 containing a serpentinite with poor chalcopyrite and pyrrhotite disseminations was assayed carrying 31 ppm Au by only traces of arsenic and very low copper, lead and zink. The sample represents a 30 cm thick deeply weathered rust band what was uncovered for only a distance of 0,3 m. The local geology is very dubious. Bodies of metasiltstone and carbonate are irregular pieced together ( megabreccia). But there is no doubt that the mineralization occurs within the border zone between the carbonate series and the metasiltstones.

Sample NR-16-83 originates from a rusty zone in metasiltstone located about 5 m further east of NR-15-83. This sample was proved having no gold.

#### Rock Sample Program

A considerable amount of rock samples were taken from all parts of the Gautelis supracrustal belt. A large number of them was referred to the Gautelis As, Au-prospect and its

adjoining area. Their results are already discussed with the previous chapters. A further large quantity of samples comprised rockmaterial taken from the boundary of the two stratigraphical units. This specific line was especially within the Gautelisfjell area part of an extensive investigation. Additional samples originate from slightly mineralized quartz phyllites, different kinds of volcanics and limited ore occurrences.

None of the samples came up with interesting gold results. The concentrations remained very low and did not overestimate 310 ppb Au. Somewhat higher copper with values around 2000 ppm do occur very sporadically. All the samples are very low in As ( $\leq 100$  ppm), Zn ( $\leq 510$  ppm) and Ag ( $\leq 2,0$  ppm). The lead content does reach 1500 ppm only in sample NR-9-83 (meta-felsic tuff, Trehakfjelldal).

As a resumé, sufficient gold is thus far proved only for two locations of the Gautelis area. The Gautelis arsenopyrite occurrence showed up with very interesting results, however it looks very limited. The highest gold content was assayed with a sample from a 30 cm thick rust band in serpentinite, situated at the southwest slope of the Gautelisfjell. Nothing can be said about the size or even about the character of this mineralization. Its surrounding area is well covered by a thin layer of soil. The local geology gives little promise for an occurrence of a somewhat higher potential. Anyways the area should be investigated by extensive soil sampling and some trenching. Diamond drilling will be the second step of further prospecting.

?

↓  
he means  
the carbonate horizon  
is restricted in size.

Additional gold anomalies were pointed out for the meta-siltstones adjoining the As, Au-prospect. They are of a certain interest but seem to have no economic importance because of their very spotty occurrence. The high gold indications from soils of the carbonate horizon - southwest of the main showing and profile southwest slope - give rise



to the hope for the discovery of at the present unknown mineralizations. These anomalies should therefore be checked as well on a first priority base.

The remaining areas were all negative in Au. They should be dropped after a brief additionally check.

#### CUNOJAVRI AREA

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The Cunojavri area is situated at the Cunojavri lake what occurs at the end of the W - E trending "Norddalen" very close to the Swedish border. The area lies about 20 km NNE of the southern investigation area.

Three adjoining claimgroups of together 41 claims are hold by Folldal Verk A/S within this region.

The area is underlain by supracrustal rocks which form one lithostratigraphic unit. It consists of metamorphosed epiclastic sediments, carbonates and basic (ultrabasic) to felsic volcanics. The series is intruded by either gabbros and diorites or dunite bodies. Meta-rhyolite dykes are restricted to the more upper parts of the unit. A possible make-up of the stratigraphic succession is as follows:

NNW

- series of metamorphosed intermediate and felsic volcanics (tuffs and tuffices), locally graphite bearing accessory, pyrrhotite, pyrite, sphalerite, chalcopryrite and galena
- rhyolite (quartz - feldspar - biotite schists, quartz -  
dykes feldspar rocks, biotite - chlorite schists)
- metapelites (quartz phyllites) and quartz-feldspar gneiss
- carbonate band (limited occurrence)



- series of metamorphosed intermediate and felsic rhyolite volcanics (tuffs and tuffites), locally graphite bearing, accessory sulphide mineralization
- (quartz - feldspar - biotite schists, quartz-feldspar gneis, quartz-feldspar rock)
- banded section of epiclastic metasediments, carbonates and meta-basic flows
- fault
- meta basic flow (amphibolite)
- meta-felsic tuffs (quartz-feldspar rocks, quartz-biotite - chlorite schists)
- dunite-  
body - metapelites (quartz phyllites)
- Carbonate series
- metapelites (quartz phyllites)

#### SSE

The main strike direction of the supracrustals is about NNE - SSW. A distinct E - W trend is obvious only in the most eastern part of the investigation area. The dip of the horizon is either to the northwest or to the north. The dip angles vary in most of the cases between  $40^{\circ}$  and  $60^{\circ}$ .

While the field observations two normal faults were observed striking from the adjoining Skjangelj Norske A/S claims into the eastern part of the Folldal Verk A/S properties. The faults are about E - W orientated with slide planes northwards inclined. The dislocation sense was towards the eastsoutheast.

The supracrustal series contains a number of sulphide mineralizations. They are entirely small and carry beyond that for the most pyrrhotite and pyrite as the main constituents. Besides the normal iron sulphides there occurs too in general chalcopyrite and sphalerite, while accessory arsenopyrite or galena were observed only in some minor cases. A basic breakdown of the sulphide occurrences is as follows:

- poor arsenopyrite disseminations occur locally in quartzphyllites or quartz-feldspar rocks (metaarenites) situated at the boundary between metapelites and the lower carbonate horizon. Signs of previous prospecting (very small diggings) are present. (see below: grid descriptions).
- minor pyrrhotite and pyrite disseminations are frequent throughout the metapelites.
- the series of metamorphosed intermediate to felsic volcanics carry often significant amounts of iron sulphides. Their concentration can reach regionally 5 Vol.-%. The main sulphides of pyrrhotite and pyrite are often accompanied by chalcopyrite and or sphalerite. Galena is proved being mineralized only sporadically. The series build distinct rust zones. (see below: grid descriptions).
- massive pyrrhotite - chalcopyrite ore occurs as cm to dm thick boudines within a 25 m long zone in the nearea of the Ruvssot top 1191 m. The mineralization is restricted to the northern end of a meta-felsic tuff horizon. (see below: grid descriptions).
- a stringery Zn-enrichment occurs within a huge belt of metavolcanics that strikes from the Cunojavri lake towards the NNE. The mineralization is situated in the very nearea of the Cunojavri mountain cabin. Several mm-bands or fissures of massive Fe-rich sphalerite are parallel aligned within a 20cm thick zone that can be traced over a strike length of about 50 m. A number of lenslike features of good ore is present locally. The mineralization occurs in a biotite schist but can be found as well in a meta-quartzkeratophyr (quartz-feldspar rock with some amounts of muscovite). The country rock is a biotite schist of the same kind named before. The deposit is flanked by a graphite schist. Previous prospecting happened at four locations. The works were very limited.



## Grids and Profils Geophysical and Geochemical Results

A number of three areas were investigated by ground geophysical surveys. These works were combined with extensive rock sampling.

### Profiles Vavrat

A wide zone of sulphide bearing metavolcanics that extends from about the mountain cabin at Cunojavri to the top of Vavrat, from where it continues further to the NNE, was investigated by 10 profiles (no defined spacing) ground geophysics. The instrumental works included VLF (dip angle, ima. component and field strength), Mag. and C.E.M. measurements. A considerable amount of rock samples were taken mostly along the profile lines. The sampling was concentrated to areas of good geophysical results.

A strong conductive zone of locally three or even more coexisting horizons was outlined by the C.E.M. survey within six southern profiles (P 1 to P 6). A field check of the anomalies which were coincident with a good field strength and distinct VLF cross overs brought to light several bands of graphite bearing volcanics. At some places even high grade graphite schists were discovered.

The more northern profiles P 7 to P 10 show a very indistinct picture regarding the C.E.M. and as well the Mag data. At least the VLF isolated one but locally two broad conductores. The indicated zones are visuable higher mineralized by pyrrhotite (see too Mag results) and pyrite than the other surrounding supracrustals. The bedrock is mostly a quartz-feldspar rock which carries additional amounts of muscovite and some chlorite. It may represent a meta-felsic tuff or tuffite.

The results of the rock sampling were discouraging in every respect. By the exception of the Zn-enrichment at Cunojavri - covered by P 6 - only very low values of Au, Cu, Zn, As, Ag and Pb were received.

No further works are recommended regarding this mineralization.

#### Grid As, Au-showing Ruvssot South Slope

VLF and Mag. measurements were undertaken covering the As, Au-showing what occurred at the south slope of Ruvssot and its surrounding area. The established grid contains 5 lines, each of 200 m length. A line space of 50 m was elected.

Rock samples were taken in addition from three locations. A poor arsenopyrite mineralization was proved with the samples NR-61-83 and NR-62-83. They both represent quartz-feldspar rocks, metamorphosed arkoses or quartzkeratophyrs.

The investigation ended with negative results.

#### Grid Rust Zone Ruvssot Top 1191

A discontinuous belt of acidic volcanics what occurs about 300 m southwest of the top 1191 m at Ruvssot was investigated by a combined VLF - Mag survey. The series consists mainly of meta-felsic tuffs. The latter are interbedded by other volcanics of more intermediate composition. An intensive reddish brown staining is due to a high pyrrhotite and pyrite content (in places reaching 10 Vol.-%). The zone dies out towards the north with a massive pyrrhotite-chalcopryrite occurrence, what previously was part of small mining activities (4 diggings). The volcanics are bordered



in the east by a huge dunite body what contains considerable amounts of magnetite (see Mag. results). The western country rock is a series of arenaceous and argillaceous metasediments. The northern "appendix" of the zone which contains the po, cy-ore is flanked by quartz-feldspar-hornblende gneisses (east) and a subvolcanic gabbro (west).

The ground geophysical investigations give no indications for a mineralization of greater promise.

The majority of the rock samples, even that from the massive po, cy-ore (NR-45-83), came up with negative results. The only exception is sample NR-46-83 what was assayed carrying 1500 ppb Au by an arsenic content of >1000 ppm. This sample represents a quartz-feldspar-hornblende rock with disseminated sulphide mineralization. It locally borders the massive po, cy-ore.

There is no reason for any further prospecting.

#### Rock Sample Program

A sufficient number of rock samples was taken in addition from areas which have been investigated only by their geology. One sample (NR-54-83) originates from an intensive rusty body of quartzkeratophyres occuring within the Skjange Norsk A/S properties.

No indications for any mineralization of importance has been proved.

#### CAINHAVAGGE AREA -----

A series of slates, graphitic slates, acidic and basic metavolcanics and sill type gabbros occures on top of a

mountainridge 10 km south of the Cunojavri area. The rock sequence was formerly described as being of eocambrian age. (Geological Map). This assumption seems to be not longer convenient. Both geology and lithology support a precambrian origin.

The area was briefly examined while the thisayears investigations. A total of 10 rock samples were taken from scattered locations. The assay results gave no indications for either gold or copper or lead and zinc mineralizations.

ARCO Norway Minerals Inc. claimed this region just recently.



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ASSAY RESULTS ROCK SAMPLES

ROMBAK PROJECT

1 9 8 3



# TABLE OF ABBREVIATIONS

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stone: slst       = siltstone  
          volc       = volcanic  
          carb       = carbonate

## minerals:

          qtz       = quartz  
          fspar     = feldspar  
          chl       = chlorite  
          musc     = muscovite  
          bio       = biotite  
          trem     = tremolite  
          hbl       = hornblende  
          mic       = mica  
          serp     = serpentine  
          graph    = graphite  
          cy        = chalcopyrite  
          aspy     = arsenopyrite  
          py        = pyrite  
          po        = pyrrhotite  
          mt        = magnetite  
          sph       = sphalerite

etc.    f         = felsic  
          mass     = massive  
          diss     = disseminated

ASSAY RESULTS ROCK SAMPLES -- ROMBAK PROJECT, K. RISVANN AREA.

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-1-83	qtz-fspar rock (f.volc)	< 2	130	23,0	1,0	0,5	26
NR-2-83	"	6	280	25,0	5,9	0,5	10
NR-3-83	"	6	57	6,5	2,1	< 0,5	6
NR-4-83	bio-qtz-fspar rock	81	140	88,0	0,7	1,0	10
NR-5-83	qtz-fspar-bio schist	< 2	270	30,0	0,5	0,5	4
NR-6-83	fspar-hbl gneiss	2	120	57,0	0,7	0,5	8
NR-7-83	qtz-fspar rock (f.volc)	3	170	7,5	0,2	0,5	12
		Au oz/t	Cu %	Zn %	As %		Pb %
83-ROM-R-13	qtz vein	0,001	0,06	+	0,01		-
83-ROM-R-14	"	-	0,02	-	+		+
83-ROM-R-15	"	+	0,08	+	+		0,01
83-ROM-R-16	amphibolite	-	0,03	0,01	-		+
83-ROM-R-17	"	-	+	0,02	0,03		-
83-ROM-R-18	"	-	-	0,02	-		+



ASSAY RESULT ROCK SAMPLES ROMBAK PROJECT, GAUTELIS AREA

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR- 8-83	qtz-fspar rock	2	110,0	12,0	10,0	1,5	150
NR- 9-83	qtz-fspar rock (f.volc)	170	100,0	510,0	1,5	4,5	1500
NR-10-83	phyllite	150	1900,0	97,0	1,8	4,0	14
NR-11-83	qtz-fspar gneiss	32	75,0	25,0	5,6	0,5	12
NR-12-83	qtz-fspar pegmatite	2	320,0	21,0	4,3	< 0,5	12
NR-13-83	metaslst	3	33,0	23,0	3,8	0,5	8
NR-14-83	py-ore	57	2000,0	25,0	18,0	2,0	10
NR-15-83	serpentine amphibolite	> 10000 (31ppm)	310,0	30,0	3,0	1,0	200
NR-16-83	metaslst	4	210,0	45,0	8,5	1,0	12
NR-17-83	slate, ± graphite	20	150,0	73,0	11,0	1,0	14
NR-28-83	cy-po ore	200	3000,0	30,0	31,0	4,0	32
NR-29-83	metaslst	< 2	130,0	57,0	2,3	1,0	350
NR-30-83	metaslst	10	220,0	99,0	4,6	1,0	12
NR-31-83	qtz-fspar rock	6	190,0	24,0	5,4	0,5	12
NR-32-83	metaslst	110	150,0	12,0	6,6	0,5	16
NR-33-83	metaslst	96	110,0	1300,0	200,0	2,0	550
NR-75-83	qtz-rich metaslst	310	69,0	47,0	13,0	1,0	8
NR-76-83	amphibolite	37	37,0	81,0	13,0	1,0	8
NR-77-83	metaslst	86	56,0	120,0	20,0	1,0	8
NR-78-83	carb., amphibolite, metaslst	80	67,0	73,0	13,0	1,0	2
NR-79-83	metaslst	55	75,0	100,0	10,0	1,0	10
NR-80-83	metaslst	27	61,0	110,0	14,0	1,0	10
NR-81-83	metaslst	250	2,5	120,0	14,0	1,0	20

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-82-83	13	88,0	95,0	12	1,0	8
NR-83-83	83	90,0	100,0	29	1,0	12
NR-84-83	21	72,0	66,0	18	0,5	6
NR-85-83	15	95,0	97,0	16	0,5	10
NR-86-83	8	120,0	130,0	40	0,5	12
NR-87-83	< 2	180,0	130,0	5,7	0,5	10
NR-88-83	< 2	100,0	93,0	140	0,5	10
NR-89-83	< 2	210,0	32,0	0,4	0,5	6
NR-90-83	46	130,0	79,0	16	0,5	10
NR-91-83	15	69,0	49,0	11	< 0,5	8
NR-92-83	56	110,0	14,0	9,1	< 0,5	6
NR-93-83	150	79,0	1900,0	18	1,0	48
NR-94-83	15	88,0	760,0	7,1	1,0	170
NR-95-83	52	240,0	54,0	0,8	0,5	6
NR-96-83	32	840,0	67,0	1,3	1,0	18
NR-97-83	3	17,0	76,0	13,0	0,5	8
NR-98-83	< 2	1,5	28,0	4,6	< 0,5	8
NR-99-83	13	260,0	63,0	6,0	0,5	6
NR-100-83	9	44,0	26,0	12,0	< 0,5	8
NR-101-83	< 2	140,0	43,0	6,6	0,5	8
NR-102-83	2	190,0	190,0	7,1	1,0	14
NR-110-83	1400	1200,0	96,0	57,0	1,5	18
NR-111-83	8	210,0	68,0	2,6	0,5	10



S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-113-83	< 2	68,0	29,0	18,0	0,5	4
NR-114-83	5	380,0	14,0	0,9	1,5	2
NR-115-83	< 2	10,0	10,0	0,8	< 0,5	6
NR-116-83	< 2	150,0	33,0	0,5	1,0	10
NR-117-83	< 2	63,0	36,0	1,4	0,5	4
NR-118-83	< 2	86,0	85,0	0,5	1,0	8
NR-119-83	< 2	200,0	48,0	1,7	0,5	6
NR-120-83	8	140,0	86,0	8,6	0,5	10
NR-121-83	< 2	300,0	63,0	1,7	1,0	8
NR-122-83	< 2	4,5	140,0	3,7	1,0	12
NR-123-83	11	54,0	99,0	11,0	1,0	28
NR-124-83	7	38,0	140,0	83,0	1,0	16
NR-125-83	44	210,0	160,0	2,9	1,0	18
NR-126-83	32	1400,0	70,0	0,7	1,0	4
NR-127-83	600	1100,0	21,0	> 1000,0	2,5	10
	Au oz/t	Cu %	Zn %	As %		Pb %
83-ROM-R-7	0,007	2,04	0,06	0,14		-
83-ROM-R-8	-	0,01	0,07	0,04		+
83-ROM-R-9	-	0,06	0,06	0,01		+
83-ROM-R-10	-	0,08	0,07	0,01		-
83-ROM-R-11	0,005	0,57	0,08	0,03		+
83-ROM-R-12	-	0,18	0,05	+		+

S a m p l e	Au	Cu	Zn	As	Ag	Pb
	Au oz/t	Cu %	Zn %	As %		Pb %
83-ROM-B-1	0,003	-	0,01	0,01		+
83-ROM-B-2	0,180	+	0,01	22,2		-
83-ROM-B-3	-	+	0,02	0,04		+
83-ROM-C-1	0,004	0,03	+	0,01		-
83-ROM-C-2	-	-	+	0,01		+
83-ROM-C-3	0,003	0,03	0,01	-		+
83-ROM-C-4	-	-	0,02	+		+
83-ROM-E-1	-	-	+	+		+
83-ROM-E-2	+	0,02	0,02	0,03		-
83-ROM-E-3	+	0,01	0,02	+		+
83-ROM-E-4	+	0,01	0,03	-		+
83-ROM-E-5	0,001	0,03	0,05	0,02		0,01
samples from As, Au-rpspect Gautelisfjell						
83-ROM-A-1	-	-	0,01	-		+
83-ROM-A-2	0,010	+	0,02	0,02		+
83-ROM-A-3	0,400	+	0,01	18,3		-
83-ROM-A-4	0,720	0,04	0,01	22,7		0,01
83-ROM-A-5	0,081	0,02	0,01	25,3		+
83-ROM-A-6	0,048	0,01	0,02	0,61		+
83-ROM-A-7	+	-	0,02	0,07		+



S a m p l e	Au oz/t	Cu %	Zn %	As %	Ag %	Pb %
83-ROM-A-9 slst	0,002	-	0,01	0,04		+
samples from the dump						
83-ROM-R-2 mass aspy	0,049	0,06	0,01	28,4		-
83-ROM-R-3 mass aspy + po	0,010	0,21	+	1,59		-
83-ROM-R-4 diss aspy	0,360	+	0,01	25,8		+
83-ROM-R-5 mass aspy	0,047	0,07	0,01	25,1		-
83-ROM-R-6 mass aspy	0,130	0,05	0,01	23,3		+
samples from showing 25 m south of the As, Au - prospect						
83-ROM-D-1 carb	-	-	+	-		-
83-ROM-D-2 qtz slst, diss aspy	0,003	+	0,01	0,26		+
83-ROM-D-3 qtz slst, vein aspy	0,066	0,02	0,01	16,4		-
83-ROM-D-4 qtz slst	0,021	0,01	0,03	0,06		+
83-ROM-D-5 slst	0,002	0,04	0,02	0,02		+
samples from the Grid at the As, Au-prospect						
PN-1-83 metaarenite	< 2	16,0	130,0	0,9	0,5	10
PN-2-83 metaslst	8	100,0	53,0	150,0	0,5	8
PN-3-83 metaslst	< 2	180,0	58,0	1,9	1,0	16
PN-4-83 metaslst	5	93,0	68,0	3,7	1,0	8
PN-5-83 metaslst	10	100,0	32,0	12,0	0,5	6

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
PN-6-83	3	56,0	12,0	12,0	< 0,5	8
PN-7-83	8	180,0	45,0	7,9	0,5	6
PN-8-83	< 2	40,0	7,5	0,3	0,5	6
PN-9-83	< 2	34,0	97,0	2,7	1,0	8
PO-1-83	25	180,0	150,0	170,0	1,0	18
PO-2-83	9	120,0	210,0	38,0	1,0	16
PO-3-83	< 2	120,0	120,0	8,5	1,0	14
PO-4-83	< 2	30,0	110,0	2,4	1,0	44
PO-5-83	< 2	18,0	120,0	1,0	1,0	14
PO-6-83	< 2	110,0	160,0	17,0	1,0	14
PO-7-83	7	190,0	120,0	37,0	1,0	32
PO-8-83	< 2	120,0	220,0	64,0	1,0	34
PO-9-83	14	250,0	110,0	89,0	1,0	12
PO-10-83	< 2	110,0	28,0	18,0	< 0,5	8
PO-11-83	3	100,0	52,0	37,0	1,0	18
PO-12-83	1200	670,0	95,0	400,0	6,5	14
PO-13-83	8	130,0	47,0	64,0	0,5	24
PO-14-83	24	87,0	100,0	320,0	1,5	12
PO-15-83	5	45,0	110,0	3,3	1,0	12
PO-21-83	9	100,0	110,0	52,0	1,0	12
PO-22-83	23	110,0	97,0	18,0	1,0	10
PO-23-83	63	240,0	90,0	> 1000,0	1,0	10

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
PO-24-83	3	160,0	120,0	68,0	1,0	14
PO-25-83	< 2	95,0	18,0	14,0	0,5	14
PO-26-83	4	140,0	24,0	9,9	1,0	18
PO-27-83	< 2	47,0	170,0	6,1	1,5	170
PO-28-83	5	110,0	170,0	35,0	2,0	150
PO-29-83	4	620,0	38,0	3,5	1,0	10
PO-30-83	4	78,0	83,0	8,2	1,0	6
PO-31-83	4	59,0	82,0	38,0	0,5	8
PO-32-83	< 2	100,0	50,0	1,0	0,5	14
PS-1-83	< 2	23,0	85,0	2,6	1,0	12
PS-2-83	< 2	8,5	50,0	0,8	0,5	8
PS-3-83	< 2	100,0	61,0	0,9	0,5	6
PS-4-83	< 2	110,0	97,0	96,0	1,0	8
PS-5-83	5	120,0	55,0	8,5	0,5	8
PS-6-83	5	49,0	58,0	12,0	1,0	24
PS-7-83	< 2	240,0	62,0	0,7	1,0	140

slit samples near the As, Au - prospect

I	1700	130,0	86,0	> 1000,0	< 0,5	10
II	8	290,0	100,0	240,0	0,5	14
III	11	370,0	110,0	260,0	1,0	32
IV	4200	86,0	48,0	> 1000,0	0,5	22
V	8	63,0	61,0	600,0	0,5	14



S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
SL-6-83	8	100,0	180,0	74,0	1,0	170
SL-7-83	20	200,0	95,0	16,0	1,0	120
SL-8-83	8	130,0	210,0	100,0	1,0	110
SL-9-83	6	120,0	140,0	39,0	1,5	280
SL-10-83	7	100,0	39,0	56,0	1,0	68
SL-11-83	11	140,0	53,0	16,0	1,5	96
SL-12-83	7	150,0	40,0	31,0	1,0	48
SL-13-83	8	120,0	34,0	33,0	1,0	32
SL-14-83	35	210,0	54,0	9,4	1,5	52

ASSAY RESULTS ROCK SAMPLES ROMBAK PROJECT, CUNOJAVRI AREA

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-18-83	19	65,0	9,0	45,0	5,0	16
NR-34-83	< 2	160,0	270,0	12,0	1,0	430
NR-35-83	< 2	21,0	31,0	5,4	1,5	120
NR-36-83	21	190,0	49,0	6,6	1,0	8
NR-37-83	< 2	21,0	10,0	4,0	1,0	16
NR-38-83	2	60,0	53,0	16,0	1,0	26
NR-39-83	< 2	230,0	51,0	2,3	1,0	12
NR-40-83	< 2	140,0	88,0	5,1	1,0	10
NR-41-83	< 2	48,0	36,0	1,3	1,0	14
NR-42-83	4	200,0	66,0	3,7	1,0	30
NR-43-83	7	110,0	48,0	1,0	1,0	28
NR-44-83	< 2	460,0	110,0	0,9	1,5	12
NR-45-83	7	3700,0	82,0	4,5	1,5	12
NR-46-83	1500	480,0	37,0	> 1000,0	1,5	42
NR-47-83	4	34,0	17,0	140,0	<0,5	12
NR-48-93	15	23,0	18,0	110,0	<0,5	8
NR-49-83	16	15,0	90,0	45,0	1,0	780
NR-50-83	< 2	170,0	140,0	46,0	1,0	12
NR-51-83	8	240,0	110,0	15,0	1,5	12
NR-52-83	< 2	250,0	71,0	0,5	1,0	10
NR-53-83	< 2	120,0	95,0	0,5	1,0	10
NR-54-83	210	150,0	65,0	800,0	2,0	20
NR-55-83	3	110,0	110,0	4,6	1,0	10

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-56-83	< 2	39,0	96,0	19,0	1,0	10
NR-57-83	20	94,0	25,0	10,0	1,0	10
NR-58-83	< 2	54,0	55,0	4,9	1,0	6
NR-59-83	< 2	120,0	72,0	63,0	1,0	14
NR-60-83	< 2	19,0	7,0	1,6	0,5	6
NR-61-83	34	130,0	200,0	> 1000,0	3,5	520
NR-62-83	3	130,0	240,0	> 1000,0	2,0	44
NR-63-83	5	440,0	20,0	77,0	1,0	6
NR-64-83	< 2	250,0	44,0	2,9	0,5	6
NR-65-83	< 2	160,0	130,0	0,7	1,0	14
NR-66-83	< 2	320,0	94,0	0,7	1,0	10
NR-67-83	15	180,0	1000,0	11,0	2,0	1700
NR-68-83	< 2	130,0	85,0	8,6	1,0	18
NR-69-83	< 2	73,0	30,0	6,9	0,5	16
NR-70-83	< 2	2,0	37,0	21,0	0,5	8
NR-71-83	< 2	27,0	31,0	4,6	0,5	14
NR-72-83	< 2	140,0	59,0	16,0	0,5	58
NR-73-83	3	420,0	40,0	3,3	1,0	8
NR-74-83	11	240,0	47,0	7,4	2,0	4
NR-103-83	< 2	55,0	1200,0	71,0	1,0	110
NR-104-83	< 2	84,0	1100,0	17,0	1,0	78
NR-105-83	< 2	50,0	440,0	100,0	1,0	34
NR-106-83	22	160,0	> 4000,0	> 1000,0	5,0	640



S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-107-83	bio-hbl-qtz-fspar rock	< 2	100,0	1700,0	6,9	1,0	86
NR-108-83	mass sph	14	170,0	> 4000,0	> 1000,0	4,5	780
NR-109-83	graph-musc-qtz-fspar	< 2	210,0	980,0	7,1	1,0	92
samples from profiles at Vavrat							
PI-1-83	graph-qtz phyllite	4	65,0	110,0	0,9	0,5	6
PI-2-83	qtz-fspar rock	< 2	9,5	20,0	0,7	< 0,5	56
PI-3-83	mic-qtz-fspar rock	2	130,0	25,0	1,1	1,0	14
PI-4-83	qtz-fspar gneiss	13,0	7,5	25,0	2,1	< 0,5	210,0
PI-5-83	qtz phyllite	< 2	55,0	170,0	11,0	1,0	86,0
PI-6-83	qtz-fspar-bio schist	3	66,0	170,0	3,4	1,0	82,0
PI-7-83	mic-chl-qtz-fspar rock	2	25,0	140,0	16,0	1,0	94,0
PI-8-83	mic-chl-qtz-fspar rock	6	39,0	190,0	22,0	1,0	240,0
PI-9-83	qtz phyllite	< 2	51,0	240,0	2,0	1,0	210,0
PI-10-83	qtz phyllite	< 2	40,0	54,0	3,1	1,0	36,0
NSR-PI-125 E		6			600		
NSR-PI-200 E		3			290		
P2-1-83	mic-qtz-fspar rock	< 2	43,0	38,0	0,9	0,5	8,0
P2-2-83	rhyolite vein	< 2	8,0	190,0	8,6	< 0,5	46,0
P2-3-83	mic-qtz-fspar rock	11	18,0	130,0	37,0	1,0	34,0
P2-4-83	qtz-fspar gneiss	3	56,0	140,0	4,2	1,5	670,0
P2-5-83	mic-qtz-fspar rock	< 2	42,0	180,0	1,1	0,5	86,0

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
P2-6-83	qtz-fspar gneiss	5	28,0	50,0	1,7	0,5	18,0
P2-7-83	mic-qtz-fspar rock	< 2	55,0	120,0	15,0	1,0	10,0
P2-8-83	mic-qtz-fspar rock	< 2	33,0	84,0	0,8	1,0	20,0
P2-9-83	rhyolite vein	< 2	26,0	14,0	1,1	< 0,5	16,0
NSR-P2-150 E		< 2		18,0			
P3-1-83	mic-qtz-fspar rock	5	18,0	79,0	14,0	1,0	18,0
P3-2-83	mic-qtz-fspar rock	6	27,0	100,0	13,0	0,5	22,0
P3-3-83	mic-qtz-fspar rock	5	31,0	92,0	15,0	1,0	12,0
P3-4-83	bio-qtz-fspar rock	25	34,0	96,0	4,0	1,0	48,0
P3-5-83	mic-grz-fspar rock	2	9,0	140,0	22,0	1,0	26,0
P4-1-83	qtz-fspar-bio schist	< 2	17,0	150,0	3,1	1,0	16,0
P4-2-83	qtz-fspar-bio schist	< 2	29,0	130,0	0,3	1,0	24,0
P4-3-83	musc-qtz-fspar rock	< 2	16,0	83,0	0,6	1,0	10,0
P4-4-83	musc-qtz-fspar rock	< 2	13,0	23,0	0,5	< 0,5	24,0
P4-5-83	musc-qtz-fspar rock	< 2	10,0	5,5	2,1	< 0,5	40,0
P4-6-83	qtz phyllite	6	31,0	130,0	20,0	1,0	270,0
P4-7-83	graph-chl-mic schist	< 2	160,0	170,0	1,0	1,5	16,0
P4-8-83	qtz phyllite	15	62,0	140,0	5,1	1,0	10,0
P4-9-83	mic-qtz-fspar rock	< 2	33,0	79,0	19,0	0,5	10,0
P4-10-83	qtz-fspar-bio rock	9	70,0	240,0	48,0	1,0	68,0
P4-11-83	qtz phyllite	2	39,0	150,0	63,0	1,0	160,0

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NRS-P4-150 E	9			0,7		
NRS-P4-175 E	< 2			0,8		
NRS-P4-175 E	8			0,7		
NRS-P4-200 E	2			0,5		
NRS-P4-200 E	3			0,7		
P6-1-83	< 2	26,0	140,0	17,0	1,0	56,0
P6-2-83	< 2	3,5	14,0	0,6	1,0	44,0
P6-3-83	< 2	10,0	110,0	1,6	1,0	34,0
P6-4-83	< 2	4,0	39,0	0,5	< 0,5	20,0
P6-5-83	< 2	19,0	160,0	1,1	1,0	16,0
P6-6-83	< 2	17,0	120,0	0,9	1,0	10,0
P10-1-83	13	15,0	340,0	7,6	1,0	170,0
P10-2-83	2	170,0	110,0	4,5	1,0	12,0
P10-3-83	< 2	170,0	140,0	1,2	1,0	16,0
P10-4-83	< 2	8,0	140,0	0,5	0,5	16,0
P10-5-83	< 2	14,0	100,0	0,5	0,5	10,0
P10-6-83	< 2	380,0	160,0	0,9	1,0	8,0
P10-7-83	< 2	4,5	7,5	0,3	< 0,5	4,0



ASSAY RESULTS ROCK SAMPLES - ROMBAK PROJECT, CALAHAVAGGE.

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-19-83	qtz-fspar rock	20	11,0	17,0	45,0	0,5	16,0
NR-20-83	qtz-fspar rock	8	200,0	52,0	66,0	1,0	88,0
NR-21-83	qtz-fspar-chl schist	< 2	26,0	50,0	2,0	< 0,5	6,0
NR-22-83	serp-chl-qtz schist	< 2	16,0	7,0	1,5	< 0,5	14,0
NR-23-83	qtz-fspar rock	< 2	16,0	34,0	2,5	< 0,5	6,0
NR-24-83	qtzrhyolite	13	9,0	32,0	12,0	< 0,5	6,0
NR-25-83	qtz-fspar-bio-chl schist	< 2	30,0	33,0	0,4	< 0,5	4,0
NR-26-84	phyllite	< 2	28,0	13,0	34,0	0,5	6,0
NR-112-83	qtz-fspar rock	5	8,5	19,0	1,1	< 0,5	16,0

# ASSAY RESULTS ROCK SAMPLES - ROMBAK WINDOW

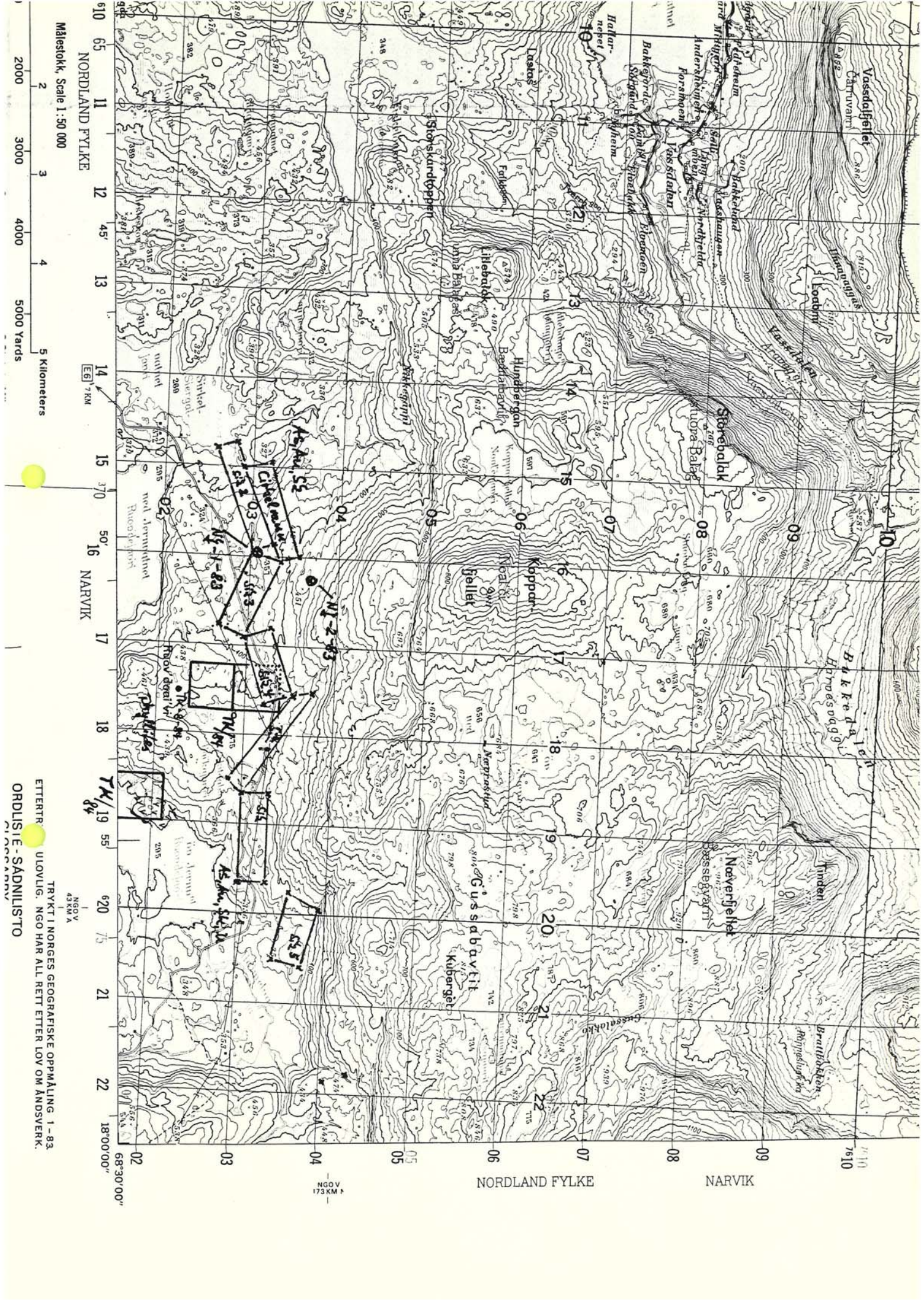
## CUNOJAVRI AREA

S a m p l e :		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Pb (ppm)
NR-148-84	magnetite-bornite ore	360	> 4000	68	6.5	22
NR-149-84	magnetite-bornite-chalcocopyrite ore	890	> 4000	280	3.6	18
NR-150-84	qtz-mica schist	8	170	69	0.2	10
NR-151-84	talc-serpentine rich conglomerate	5	53	6	0.5	6

Terje Karlsen Mutinger Haugfjellet.

S a m p l e :	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
TK-1-84	9	78	750	38.0	-	490
TK-2-84	29	190	400	400.0	-	120
TK-3-84	16	75	200	330.0	-	140
TK-4-84	13	200	1200	33.0	-	420
TK-5-84	15	240	180	6.2	-	110
TK-6-84	30	140	1200	540.0	-	240
TK-7-84	12	57	94	6.4	-	30
TK-8-84	12	870	64	1.5	-	12





Målestokk, Scale 1:50 000

2000 3000 4000 5000 Yards

5 Kilometers

NORDLAND FYLKE

NARVIK

610 65 11 12 45' 13 14 15 30' 16 17 18 19 55' 20 21 22 18°00'00"

620 75 21 22 18°30'00"

NGOV 173KM

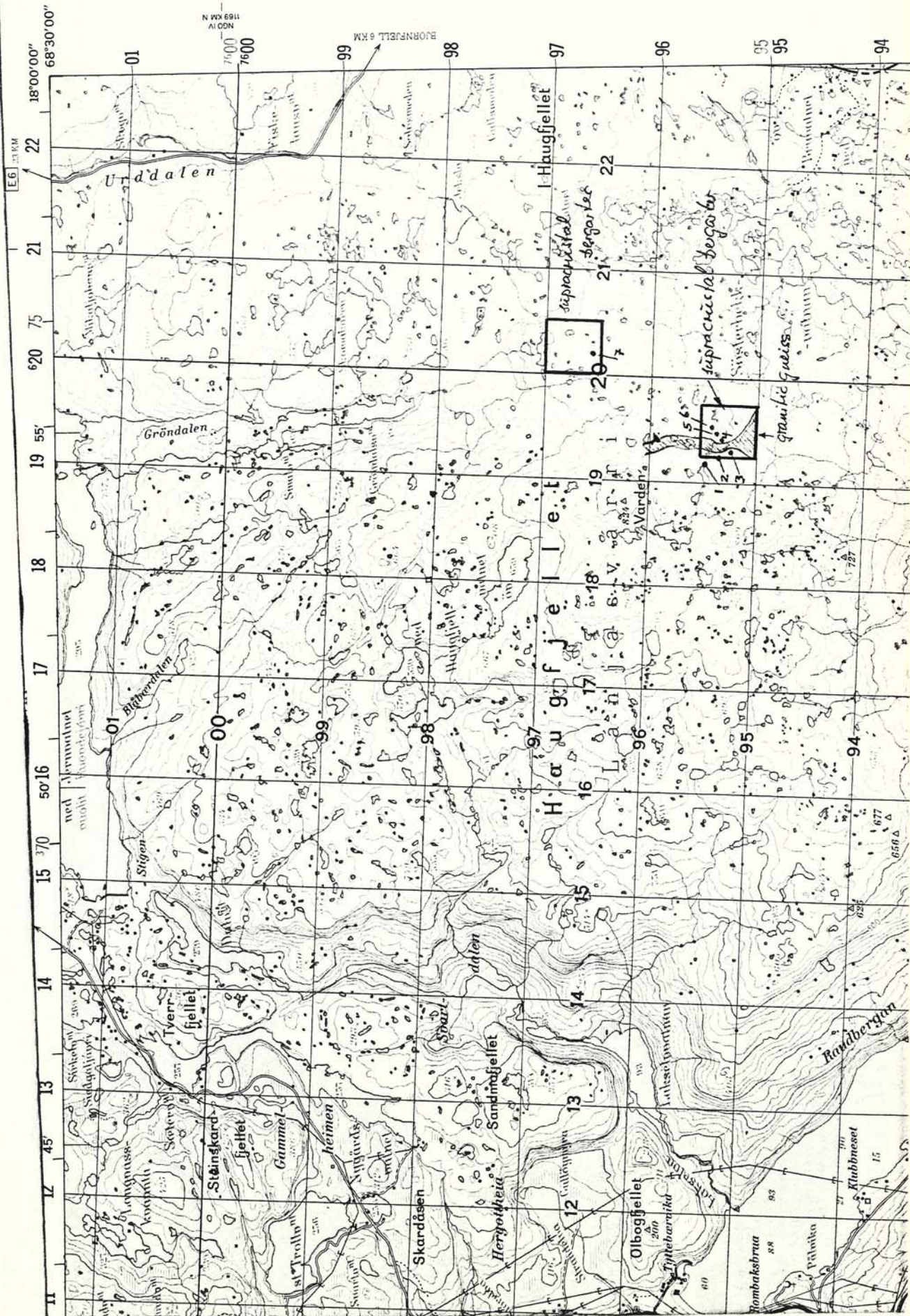
NGOV 43KM

TRYKT I NORGES GEOGRAFISKE OPPMÅLING 1-83

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ASSAY RESULTS ROCK SAMPLES

ROMBAK PROJECT

1 9 8 3/8 4 .



# TABLE OF ABBREVIATIONS

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stone: slst	= siltstone
volc	= volcanic
carb	= carbonate

## minerals:

qtz	= quartz
fspar	= feldspar
chl	= chlorite
mus c	= muscovite
bio	= biotite
trem	= tremolite
hbl	= hornblende
mic	= mica
serp	= serpentine
graph	= graphite
cy	= chalcopyrite
aspy	= arsenopyrite
py	= pyrite
po	= pyrrhotite
mt	= magnetite
sph	= sphalerite

etc. f	= felsic
mass	= massive
diss	= disseminated

ASSAY RESULTS ROCK SAMPLES - ROMBAK PROJECT, KJØRISVANN AREA.

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-1-83	qtz-fspar rock (f.volc)	< 2	130	23,0	1,0	0,5	26
NR-2-83	"	6	280	25,0	5,9	0,5	10
NR-3-83	"	6	57	6,5	2,1	< 0,5	6
NR-4-83	bio-qtz-fspar rock	81	140	88,0	0,7	1,0	10
NR-5-83	gtz-fspar-bio schist	< 2	270	30,0	0,5	0,5	4
NR-6-83	fspar-hbl gneiss	2	120	57,0	0,7	0,5	8
NR-7-83	qtz-fspar rock (f.volc)	3	170	7,5	0,2	0,5	12
		Au oz/t	Cu %	Zn %	As %		Pb %
83-ROM-R-13	qtz vein	0,001	0,06	+	0,01	-	-
83-ROM-R-14	"	-	0,02	-	+	+	+
83-ROM-R-15	"	+	0,08	+	+	0,01	0,01
83-ROM-R-16	amphibolite	-	0,03	0,01	-	+	+
83-ROM-R-17	"	-	+	0,02	0,03	-	-
83-ROM-R-18	"	-	-	0,02	-	+	+

ASSAY RESULT ROCK SAMPLES ROMBAK PROJECT, GAUTELIS AREA

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR- 8-83	qtz-fspar rock	2	110,0	12,0	10,0	1,5	150
NR- 9-83	qtz-fspar rock (f.volc)	170	100,0	510,0	1,5	4,5	1500
NR-10-83	phyllite	150	1900,0	97,0	1,8	4,0	14
NR-11-83	qtz-fspar gneiss	32	75,0	25,0	5,6	0,5	12
NR-12-83	qtz-fspar pegmatite	2	320,0	21,0	4,3	< 0,5	12
NR-13-83	metaslst	3	33,0	23,0	3,8	0,5	8
NR-14-83	py-ore	57	2000,0	25,0	18,0	2,0	10
NR-15-83	serpentine amphibolite	> 10000	310,0	30,0	3,0	1,0	200
NR-16-83	metaslst	4	210,0	45,0	8,5	1,0	12
NR-17-83	slate, + graphite	20	150,0	73,0	11,0	1,0	14
NR-28-83	cy-po ore	200	3000,0	30,0	31,0	4,0	32
NR-29-83	metaslst	< 2	130,0	57,0	2,3	1,0	350
NR-30-83	metaslst	10	220,0	99,0	4,6	1,0	12
NR-31-83	qtz-fspar rock	6	190,0	24,0	5,4	0,5	12
NR-32-83	metaslst	110	150,0	12,0	6,6	0,5	16
NR-33-83	metaslst	96	110,0	1300,0	200,0	2,0	550
NR-75-83	qtz-rich metaslst	310	69,0	47,0	13,0	1,0	8
NR-76-83	amphibolite	37	37,0	81,0	13,0	1,0	8
NR-77-83	metaslst	86	56,0	120,0	20,0	1,0	8
NR-78-83	carb., amphibolite, metaslst	80	67,0	73,0	13,0	1,0	2
NR-79-83	metaslst	55	75,0	100,0	10,0	1,0	10
NR-80-83	metaslst	27	61,0	110,0	14,0	1,0	10
NR-81-83	metaslst	250	2,5	120,0	14,0	1,0	20



S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-82-83	metaslst	13	88,0	95,0	12	1,0	8
NR-83-83	metaslst	83	90,0	100,0	29	1,0	12
NR-84-83	metaslst	21	72,0	66,0	18	0,5	6
NR-85-83	metaslst	15	95,0	97,0	16	0,5	10
NR-86-83	metaslst	8	120,0	130,0	40	0,5	12
NR-87-83	metaslst	< 2	180,0	130,0	5,7	0,5	10
NR-88-83	metaslst	< 2	100,0	93,0	140	0,5	10
NR-89-83	qtz-fspar rock	< 2	210,0	32,0	0,4	0,5	6
NR-90-83	amphibolite, metaslst	46	130,0	79,0	16	0,5	10
NR-91-83	metaslst	15	69,0	49,0	11	< 0,5	8
NR-92-83	metaslst	56	110,0	14,0	9,1	< 0,5	6
NR-93-83	metaslst	150	79,0	1900,0	18	1,0	48
NR-94-83	metaslst	15	88,0	760,0	7,1	1,0	170
NR-95-83	metaslst	52	240,0	54,0	0,8	0,5	6
NR-96-83	metaslst	32	840,0	67,0	1,3	1,0	18
NR-97-83	metaslst	3	17,0	76,0	13,0	0,5	8
NR-98-83	serpentinite	< 2	1,5	28,0	4,6	< 0,5	8
NR-99-83	metaslst,qtz-fspar rock	13	260,0	63,0	6,0	0,5	6
NR-100-83	metaslst	9	44,0	26,0	12,0	< 0,5	8
NR-101-83	metaslst	< 2	140,0	43,0	6,6	0,5	8
NR-102-83	metaslst	2	190,0	190,0	7,1	1,0	14
NR-110-83	qtz-rich metaslst	1400	1200,0	96,0	57,0	1,5	18
NR-111-83	metaslst	8	210,0	68,0	2,6	0,5	10

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-113-83	metaslst	< 2	68,0	29,0	18,0	0,5	4
NR-114-83	serpentine bearing carb	5	380,0	14,0	0,9	1,5	2
NR-115-83	qtz-fspar rock	< 2	10,0	10,0	0,8	< 0,5	6
NR-116-83	qtz-fspar rock	< 2	150,0	33,0	0,5	1,0	10
NR-117-83	metaslst	< 2	63,0	36,0	1,4	0,5	4
NR-118-83	metaslst	< 2	86,0	85,0	0,5	1,0	8
NR-119-83	metaslst	< 2	200,0	48,0	1,7	0,5	6
NR-120-83	metaslst	8	140,0	86,0	8,6	0,5	10
NR-121-83	graphite bearing f.tuff	< 2	300,0	63,0	1,7	1,0	8
NR-122-83	amhibolite	< 2	4,5	140,0	3,7	1,0	12
NR-123-83	breccia	11	54,0	99,0	11,0	1,0	28
NR-124-83	phyllite	7	38,0	140,0	83,0	1,0	16
NR-125-83	metaarenite	44	210,0	160,0	2,9	1,0	18
NR-126-83	cy-po ore (Nuorjojåkka)	32	1400,0	70,0	0,7	1,0	4
NR-127-83	cy-po ore (carb)	600	1100,0	21,0	> 1000,0	2,5	10
		Au oz/t	Cu %	Zn %	As %		Pb %
83-ROM-R-7	sulphide contact carb	0,007	2,04	0,06	0,14	-	-
83-ROM-R-8	mass mt	-	0,01	0,07	0,04	+	+
83-ROM-R-9	mass po	-	0,06	0,06	0,01	+	+
83-ROM-R-10	mass po	-	0,08	0,07	0,01	-	-
83-ROM-R-11	cy	0,005	0,57	0,08	0,03	+	+
83-ROM-R-12	mass py	-	0,18	0,05	+	+	+

S a m p l e	Au	Cu	Zn	As	Ag	Pb
	Au oz/t	Cu %	Zn %	As %		Pb %
83-ROM-B-1	0,003	-	0,01	0,01		+
83-ROM-B-2	0,180	+	0,01	22,2		-
83-ROM-B-3	-	+	0,02	0,04		+
83-ROM-C-1	0,004	0,03	+	0,01		-
83-ROM-C-2	-	-	+	0,01		+
83-ROM-C-3	0,003	0,03	0,01	-		+
83-ROM-C-4	-	-	0,02	+		+
83-ROM-E-1	-	-	+	+		+
83-ROM-E-2	+	0,02	0,02	0,03		-
83-ROM-E-3	+	0,01	0,02	+		+
83-ROM-E-4	+	0,01	0,03	-		+
83-ROM-E-5	0,001	0,03	0,05	0,02		0,01
samples from As, Au-rpspect Gautelislifjell						
83-ROM-A-1	-	-	0,01	-		+
83-ROM-A-2	0,010	+	0,02	0,02		+
83-ROM-A-3	0,400	+	0,01	18,3		-
83-ROM-A-4	0,720	0,04	0,01	22,7		0,01
83-ROM-A-5	0,081	0,02	0,01	25,3		+
83-ROM-A-6	0,048	0,01	0,02	0,61		+
83-ROM-A-7	+	-	0,02	0,07		+



S a m p l e	Au oz/t	Cu %	Zn %	As %	Ag %	Pb %
83-ROM-A-9 slst	0,002	-	0,01	0,04		+
samples from the dump						
83-ROM-R-2 mass aspy	0,049	0,06	0,01	28,4		-
83-ROM-R-3 mass aspy + po	0,010	0,21	+	1,59		-
83-ROM-R-4 diss aspy	0,360	+	0,01	25,8		+
83-ROM-R-5 mass aspy	0,047	0,07	0,01	25,1		-
83-ROM-R-6 mass aspy	0,130	0,05	0,01	23,3		+
samples from showing 25 m south of the As, Au - prospect						
83-ROM-D-1 carb	-	-	+	-		-
83-ROM-D-2 qtz slst, diss aspy	0,003	+	0,01	0,26		+
83-ROM-D-3 qtz slst, vein aspy	0,066	0,02	0,01	16,4		-
83-ROM-D-4 qtz slst	0,021	0,01	0,03	0,06		+
83-ROM-D-5 slst	0,002	0,04	0,02	0,02		+
samples from the Grid at the As, Au-prospect						
PN-1-83 metaarenite	< 2	16,0	130,0	0,9	0,5	10
PN-2-83 metaslst	8	100,0	53,0	150,0	0,5	8
PN-3-83 metaslst	< 2	180,0	58,0	1,9	1,0	16
PN-4-83 metaslst	5	93,0	68,0	3,7	1,0	8
PN-5-83 metaslst	10	100,0	32,0	12,0	0,5	6

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
PN-6-83	3	56,0	12,0	12,0	< 0,5	8
PN-7-83	8	180,0	45,0	7,9	0,5	6
PN-8-83	< 2	40,0	7,5	0,3	0,5	6
PN-9-83	< 2	34,0	97,0	2,7	1,0	8
PO-1-83	25	180,0	150,0	170,0	1,0	18
PO-2-83	9	120,0	210,0	38,0	1,0	16
PO-3-83	< 2	120,0	120,0	8,5	1,0	14
PO-4-83	< 2	30,0	110,0	2,4	1,0	44
PO-5-83	< 2	18,0	120,0	1,0	1,0	14
PO-6-83	< 2	110,0	160,0	17,0	1,0	14
PO-7-83	7	190,0	120,0	37,0	1,0	32
PO-8-83	< 2	120,0	220,0	64,0	1,0	34
PO-9-83	14	250,0	110,0	89,0	1,0	12
PO-10-83	< 2	110,0	28,0	18,0	< 0,5	8
PO-11-83	3	100,0	52,0	37,0	1,0	18
PO-12-83	1200	670,0	95,0	400,0	6,5	14
PO-13-83	8	130,0	47,0	64,0	0,5	24
PO-14-83	24	87,0	100,0	320,0	1,5	12
PO-15-83	5	45,0	110,0	3,3	1,0	12
PO-21-83	9	100,0	110,0	52,0	1,0	12
PO-22-83	23	110,0	97,0	18,0	1,0	10
PO-23-83	63	240,0	90,0	> 1000,0	1,0	10

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
PO-24-83	3	160,0	120,0	68,0	1,0	14
PO-25-83	< 2	95,0	18,0	14,0	0,5	14
PO-26-83	4	140,0	24,0	9,9	1,0	18
PO-27-83	< 2	47,0	170,0	6,1	1,5	170
PO-28-83	5	110,0	170,0	35,0	2,0	150
PO-29-83	4	620,0	38,0	3,5	1,0	10
PO-30-83	4	78,0	83,0	8,2	1,0	6
PO-31-83	4	59,0	82,0	38,0	0,5	8
PO-32-83	< 2	100,0	50,0	1,0	0,5	14
PS-1-83	< 2	23,0	85,0	2,6	1,0	12
PS-2-83	< 2	8,5	50,0	0,8	0,5	8
PS-3-83	< 2	100,0	61,0	0,9	0,5	6
PS-4-83	< 2	110,0	97,0	96,0	1,0	8
PS-5-83	5	120,0	55,0	8,5	0,5	8
PS-6-83	5	49,0	58,0	12,0	1,0	24
PS-7-83	< 2	240,0	62,0	0,7	1,0	140

slit samples near the As, Au - prospect

I	1700	130,0	86,0	> 1000,0	< 0,5	10
II	8	290,0	100,0	240,0	0,5	14
III	11	370,0	110,0	260,0	1,0	32
IV	4200	86,0	48,0	> 1000,0	0,5	22
V	8	63,0	61,0	600,0	0,5	14



S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
SL-6-83	8	100,0	180,0	74,0	1,0	170
SL-7-83	20	200,0	95,0	16,0	1,0	120
SL-8-83	8	130,0	210,0	100,0	1,0	110
SL-9-83	6	120,0	140,0	39,0	1,5	280
SL-10-83	7	100,0	39,0	56,0	1,0	68
SL-11-83	11	140,0	53,0	16,0	1,5	96
SL-12-83	7	150,0	40,0	31,0	1,0	48
SL-13-83	8	120,0	34,0	33,0	1,0	32
SL-14-83	35	210,0	54,0	9,4	1,5	52

# ASSAY RESULTS ROCK SAMPLES ROMBAK PROJECT, CUNOJAVRI AREA

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-18-83	qtz-fspar rock	19	65,0	9,0	45,0	5,0	16
NR-34-83	quartzite	< 2	160,0	270,0	12,0	1,0	430
NR-35-83	bio-chl-qtz-fspar rock	< 2	21,0	31,0	5,4	1,5	120
NR-36-83	qtz-fspar rock	21	190,0	49,0	6,6	1,0	8
NR-37-83	qtz-fspar rock	< 2	21,0	10,0	4,0	1,0	16
NR-38-83	qtz-fspar rock	2	60,0	53,0	16,0	1,0	26
NR-39-83	qtz-fspar rock	< 2	230,0	51,0	2,3	1,0	12
NR-40-83	qtz-fspar rock	< 2	140,0	88,0	5,1	1,0	10
NR-41-83	qtz-fspar rock	< 2	48,0	36,0	1,3	1,0	14
NR-42-83	qtz-fspar rock	4	200,0	66,0	3,7	1,0	30
NR-43-83	qtz-fspar rock	7	110,0	48,0	1,0	1,0	28
NR-44-83	qtz-fspar rock	< 2	460,0	110,0	0,9	1,5	12
NR-45-83	mass po, cy	7	3700,0	82,0	4,5	1,5	12
NR-46-83	qtz-fspar rock	1500	480,0	37,0	> 1000,0	1,5	42
NR-47-83	qtz-fspar rock	4	34,0	17,0	140,0	<0,5	12
NR-48-93	qtz-fspar rock	15	23,0	18,0	110,0	<0,5	8
NR-49-83	qtz-fspar rock	16	15,0	90,0	45,0	1,0	780
NR-50-83	bio-chl schist	< 2	170,0	140,0	46,0	1,0	12
NR-51-83	qtz-fspar rock	8	240,0	110,0	15,0	1,5	12
NR-52-83	qtz-fspar rock	< 2	250,0	71,0	0,5	1,0	10
NR-53-83	qtz-fspar rock	< 2	120,0	95,0	0,5	1,0	10
NR-54-83	qtz-fspar rock	210	150,0	65,0	800,0	2,0	20
NR-55-83	qtz-fspar rock	3	110,0	110,0	4,6	1,0	10

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-56-83	< 2	39,0	96,0	19,0	1,0	10
NR-57-83	20	94,0	25,0	10,0	1,0	10
NR-58-83	< 2	54,0	55,0	4,9	1,0	6
NR-59-83	< 2	120,0	72,0	63,0	1,0	14
NR-60-83	< 2	19,0	7,0	1,6	0,5	6
NR-61-83	34	130,0	200,0	> 1000,0	3,5	520
NR-62-83	3	130,0	240,0	> 1000,0	2,0	44
NR-63-83	5	440,0	20,0	77,0	1,0	6
NR-64-83	< 2	250,0	44,0	2,9	0,5	6
NR-65-83	< 2	160,0	130,0	0,7	1,0	14
NR-66-83	< 2	320,0	94,0	0,7	1,0	10
NR-67-83	15	180,0	1000,0	11,0	2,0	1700
NR-68-83	< 2	130,0	85,0	8,6	1,0	18
NR-69-83	< 2	73,0	30,0	6,9	0,5	16
NR-70-83	< 2	2,0	37,0	21,0	0,5	8
NR-71-83	< 2	27,0	31,0	4,6	0,5	14
NR-72-83	< 2	140,0	59,0	16,0	0,5	58
NR-73-83	3	420,0	40,0	3,3	1,0	8
NR-74-83	11	240,0	47,0	7,4	2,0	4
NR-103-83	< 2	55,0	1200,0	71,0	1,0	110
NR-104-83	< 2	84,0	1100,0	17,0	1,0	78
NR-105-83	< 2	50,0	440,0	100,0	1,0	34
NR-106-83	22	160,0	> 4000,0	> 1000,0	5,0	640



S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-107-83	< 2	100,0	1700,0	6,9	1,0	86
NR-108-83	14	170,0	> 4000,0	> 1000,0	4,5	780
NR-109-83	< 2	210,0	980,0	7,1	1,0	92
samples from profiles at Vavrat						
PI-1-83	4	65,0	110,0	0,9	0,5	6
PI-2-83	< 2	9,5	20,0	0,7	< 0,5	56
PI-3-83	2	130,0	25,0	1,1	1,0	14
PI-4-83	13,0	7,5	25,0	2,1	< 0,5	210,0
PI-5-83	< 2	55,0	170,0	11,0	1,0	86,0
PI-6-83	3	66,0	170,0	3,4	1,0	82,0
PI-7-83	2	25,0	140,0	16,0	1,0	94,0
PI-8-83	6	39,0	190,0	22,0	1,0	240,0
PI-9-83	< 2	51,0	240,0	2,0	1,0	210,0
PI-10-83	< 2	40,0	54,0	3,1	1,0	36,0
NSR-PI-125 E	6			600		
NSR-PI-200 E	3			290		
P2-1-83	< 2	43,0	38,0	0,9	0,5	8,0
P2-2-83	< 2	8,0	190,0	8,6	< 0,5	46,0
P2-3-83	11	18,0	130,0	37,0	1,0	34,0
P2-4-83	3	56,0	140,0	4,2	1,5	670,0
P2-5-83	< 2	42,0	180,0	1,1	0,5	86,0

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
P2-6-83	5	28,0	50,0	1,7	0,5	18,0
P2-7-83	< 2	55,0	120,0	15,0	1,0	10,0
P2-8-83	< 2	33,0	84,0	0,8	1,0	20,0
P2-9-83	< 2	26,0	14,0	1,1	< 0,5	16,0
NSR-P2-150 E	< 2		18,0			
P3-1-83	5	18,0	79,0	14,0	1,0	18,0
P3-2-83	6	27,0	100,0	13,0	0,5	22,0
P3-3-83	5	31,0	92,0	15,0	1,0	12,0
P3-4-83	25	34,0	96,0	4,0	1,0	48,0
P3-5-83	2	9,0	140,0	22,0	1,0	26,0
P4-1-83	< 2	17,0	150,0	3,1	1,0	16,0
P4-2-83	< 2	29,0	130,0	0,3	1,0	24,0
P4-3-83	< 2	16,0	83,0	0,6	1,0	10,0
P4-4-83	< 2	13,0	23,0	0,5	< 0,5	24,0
P4-5-83	< 2	10,0	5,5	2,1	< 0,5	40,0
P4-6-83	6	31,0	130,0	20,0	1,0	270,0
P4-7-83	< 2	160,0	170,0	1,0	1,5	16,0
P4-8-83	15	62,0	140,0	5,1	1,0	10,0
P4-9-83	< 2	33,0	79,0	19,0	0,5	10,0
P4-10-83	9	70,0	240,0	48,0	1,0	68,0
P4-11-83	2	39,0	150,0	63,0	1,0	160,0

S a m p l e	Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NRS-P4-150 E	9			0,7		
NRS-P4-175 E	< 2			0,8		
NRS-P4-175 E	8			0,7		
NRS-P4-200 E	2			0,5		
NRS-P4-200 E	3			0,7		
P6-1-83	< 2	26,0	140,0	17,0	1,0	56,0
P6-2-83	< 2	3,5	14,0	0,6	1,0	44,0
P6-3-83	< 2	10,0	110,0	1,6	1,0	34,0
P6-4-83	< 2	4,0	39,0	0,5	< 0,5	20,0
P6-5-83	< 2	19,0	160,0	1,1	1,0	16,0
P6-6-83	< 2	17,0	120,0	0,9	1,0	10,0
P10-1-83	13	15,0	340,0	7,6	1,0	170,0
P10-2-83	2	170,0	110,0	4,5	1,0	12,0
P10-3-83	< 2	170,0	140,0	1,2	1,0	16,0
P10-4-83	< 2	8,0	140,0	0,5	0,5	16,0
P10-5-83	< 2	14,0	100,0	0,5	0,5	10,0
P10-6-83	< 2	380,0	160,0	0,9	1,0	8,0
P10-7-83	< 2	4,5	7,5	0,3	< 0,5	4,0



ASSAY RESULTS ROCK SAMPLES - ROMBAK PROJECT, CAINHAVAGGE.

S a m p l e		Au (ppb)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Pb (ppm)
NR-19-83	qtz-fspar rock	20	11,0	17,0	45,0	0,5	16,0
NR-20-83	qtz-fspar rock	8	200,0	52,0	66,0	1,0	88,0
NR-21-83	qtz-fspar-chl schist	< 2	26,0	50,0	2,0	< 0,5	6,0
NR-22-83	serp-chl-qtz schist	< 2	16,0	7,0	1,5	< 0,5	14,0
NR-23-83	qtz-fspar rock	< 2	16,0	34,0	2,5	< 0,5	6,0
NR-24-83	qtzrhynolite	13	9,0	32,0	12,0	< 0,5	6,0
NR-25-83	qtz-fspar-bio-chl schist	< 2	30,0	33,0	0,4	< 0,5	4,0
NR-26-84	phyllite	< 2	28,0	13,0	34,0	0,5	6,0
NR-112-83	qtz-fspar rock	5	8,5	19,0	1,1	< 0,5	16,0