



# Bergvesenet

Postboks 3021, N-7441 Trondheim

BÆRBAR MASKIN

## Rapportarkivet

|                                       |                    |                                 |                      |                     |
|---------------------------------------|--------------------|---------------------------------|----------------------|---------------------|
| Bergvesenet rapport nr<br><b>7030</b> | Intern Journal nr  | Internt arkiv nr                | Rapport lokalisering | Gradering           |
| Kommer fra ..arkiv                    | Ekstern rapport nr | Oversendt fra<br>A/S sulfidmalm | Fortrolig pga        | Fortrolig fra dato: |

Tittel

Intene månedsrapporter A/S Sulfidmalm: (Highlights) 1981

Forfatter

Nixon, Frank

Dato

År

1981

Bedrift (Oppdragsgiver og/eller oppdragstaker)

A/S Sulfidmalm

Kommune

Tynset  
Sør-Varanger  
Steinkjer  
Bindal

Fylke

Hedmark  
Finnmark  
Nord-Trøndelag  
Nordland

Bergdistrikt

1: 50 000 kartblad

16203 23332 17233 18522

1: 250 000 kartblad

Røros  
Kirkenes  
Namsos  
MOSJØEN

Fagområde

Geologi  
Geofysikk  
Geokjemi  
Boring

Dokument type

Forekomster (forekomst, gruvefelt, undersøkelsesfelt)

Vakkerlien  
Pasvik Syd, polmak  
Skrattås  
Kolsvik  
Reppen

Råstoffgruppe

Malm/metall

Råstofftype

Ni, Cu, Au, Zn, Pb

**Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse**

Inneholder korte månedsrapporter fra prospekteringsleder til Hovedkontor. Går gjennom de arbeider som er utført i måneden, samt en del avtaler som er gjort.

Spesielt interessant er boring på Skrattås, i Bindalen og Pasvik. Omhandler også mindre arbeider i Ølve, Hardanger, på Eidsvoll og i Kautokeino/Masi-området.

Inneholder også noen få rapporter fra 1980 og 1982.

*F. Nixon*

A/S SULFIDMALM

R A P I F A X

T-3158

To: C.M.H. Jennings  
From: F. Nixon  
Date: January 18, 1982.

December highlights Sulfidmalm

Project 28. Bindal

No new assays of interest received. Most surface samples sent off for assay and samples for metallurgical testing forwarded to Lakefield Research.

Several new areas in the Bindal region claimed over areas of possible W mineralization.

Project 30. East Finnmark

DDH 40 was drilled down to intersect the down plunge extension of the largest ultramafic in the Skogfoss area. The hole was stopped at 481 m without any ultramafic intersection, indicating a possible faulting out of the ultramafic.

The rest of the month has been occupied with compilation, reporting and camp break up.

Reports on Skrataas and Eidsvoll are completed and in the post.

*Frank Nixon*

A/S SULFIDMALM

16  
RAP 1 FAX

T-2979  
(2 pages)

To: C.M.H. Jennings  
From: F. Nixon  
Copy: E. Wigstøl  
Date: Dec. 4, 1981.

Sulfidmalm November highlights

Project 28. Bindal

Work now closed for season with no further holes being completed. Two drill holes DDH 21 and DDH 22 were collared but had to be abandoned due to extremely poor overburden conditions.

The following assays have been received this month:

|        |             |                                      |               |
|--------|-------------|--------------------------------------|---------------|
| DDH 11 | 114-118 m   | 3.37 g/t Au including from 116-118 m | 5.618 g/t Au. |
| DDH 12 | 40 - 42 m   | 7.11 g/t Au                          |               |
| DDH 13 | 40.5-41.5 m | 5.13 g/t Au                          |               |
| DDH 16 | 34 - 36.5 m | 2.18 g/t Au including 34-35 m        | 4 g/t Au.     |

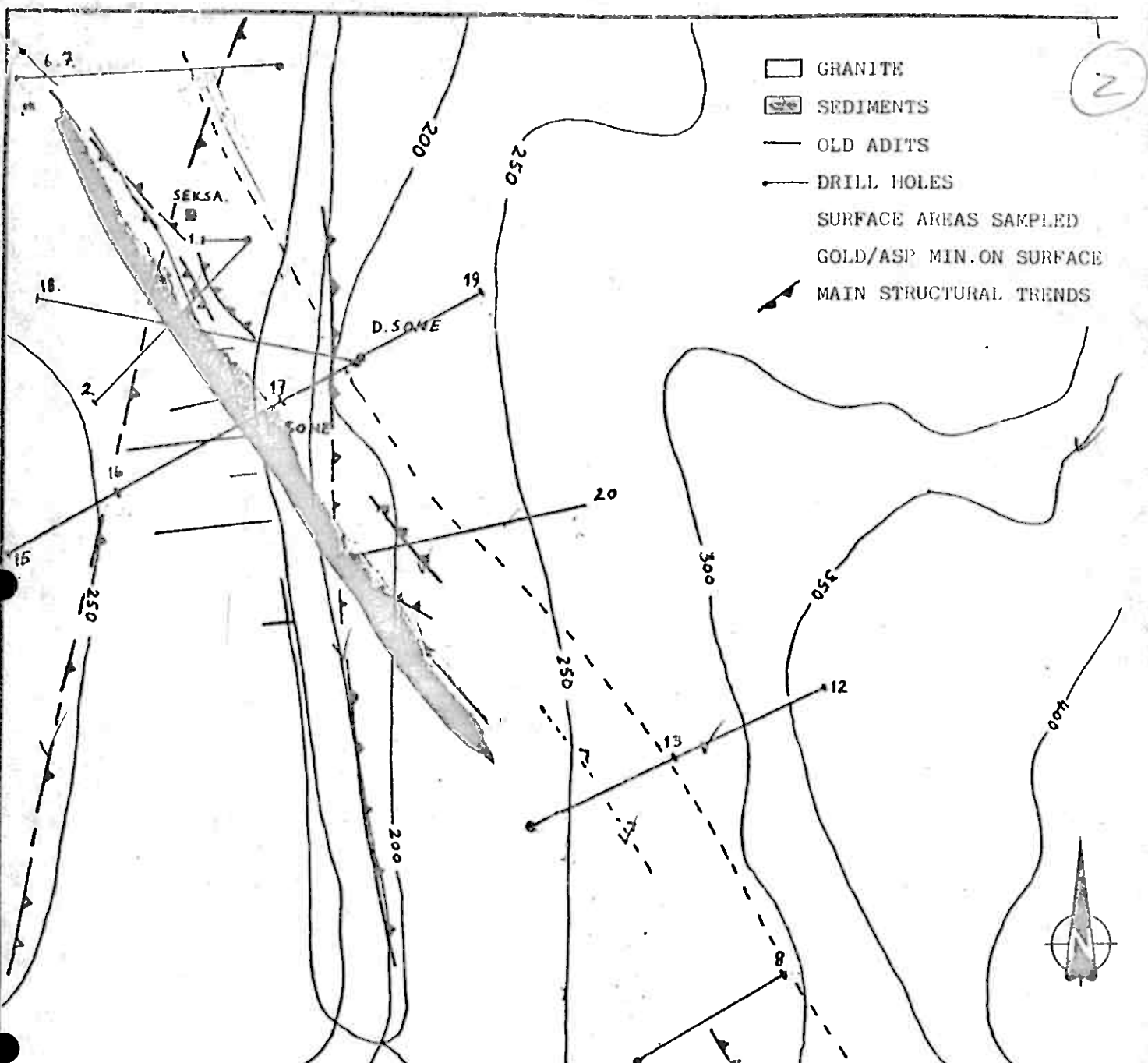
Holes 18 and 19 and many surface samples have yet to be assayed. Material is being prepared for metallurgical testing.

Project 30. East Finnmark

DDH 39 in Skogfoss Arch has been completed. This hole drilled an EM conductor in the footwall to the largest known ultramafic in the Skogfoss area. The conductor proved to be graphite and pyrrhotite.

DDH 40 is now being drilled on the down plunge extension of this large ultramafic.

Other projects - compilation and reporting.



|         |                         |          |                 |              |
|---------|-------------------------|----------|-----------------|--------------|
| DDH 1.  | 80°                     | 115.60 m | 45.75-46.00     | 6.7 g/t Au   |
|         |                         |          | 61.25-61.50     | 18 g/t Au    |
| DDH 2.  | 55°                     | 85.30 m  | no sig. assays. |              |
| DDH 3.  | 90°                     | 91.35 m  | 60.00-61.00 m   | 3.3 g/t Au   |
|         |                         |          | 65.15-66.50     | 4.88 g/t Au  |
|         |                         |          | 79.50-80.00     | 15 g/t Au    |
|         |                         |          | 87.50-89.50     | 8.11 g/t Au  |
| DDH 4.  | 50°                     | 93 m     | 17.00-18.00     | 4.05 g/t Au  |
| DDH 5.  | 45°                     | 122 m    |                 |              |
| DDH 6.  | 65°                     | 92 m     |                 |              |
| DDH 7.  | abandoned in overburden |          |                 |              |
| DDH 8.  | 40°                     | 88.20 m  | 58.50-60.25 m   | 7.83 g/t Au  |
| DDH 9.  | 35°                     |          |                 |              |
| DDH 10. | 36°                     | 144 m    | 54.00-59.00 m   | 4.42 g/t Au  |
| DDH 11. | 55°                     | 159.3 m  | 116.00-118.0    | 5.618 g/t Au |
| DDH 12. | 38°                     | 124.45 m | 40.00-42.00     | 7.11 g/t Au  |
| DDH 13. | 20°                     | 63.70 m  | 40.50-41.50     | 5.13 g/t Au  |
| DDH 14. |                         | 120.8 m  |                 |              |
| DDH 15. | 45°                     | 93.5 m   | 27.25-38.50 m   | 26.1 g/t Au  |
| DDH 16. | 65°                     | 89.95 m  | 34.00-35.00     | 4 g/t Au     |
| DDH 17. | 80°                     | 80.60 m  |                 |              |
| DDH 18. | 45°                     | 97 m     |                 |              |
| DDH 19. | 66°                     | 56.3 m   |                 |              |
| DDH 20. |                         |          |                 |              |

A/S SULFIDMALM

SUMMARY MAP  
KOLSVIK, BINDAL, NORWAY.

SCALE 1:2000

R A P I F A X

T-2979  
(2 pages)

16

To: C.M.H. Jennings  
From: F. Nixon  
Copy: E. Wigstøl  
Date: Dec. 4, 1981.

Sulfidmalm November highlightsProject 28. Bindal

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Project 30. East Finnmark

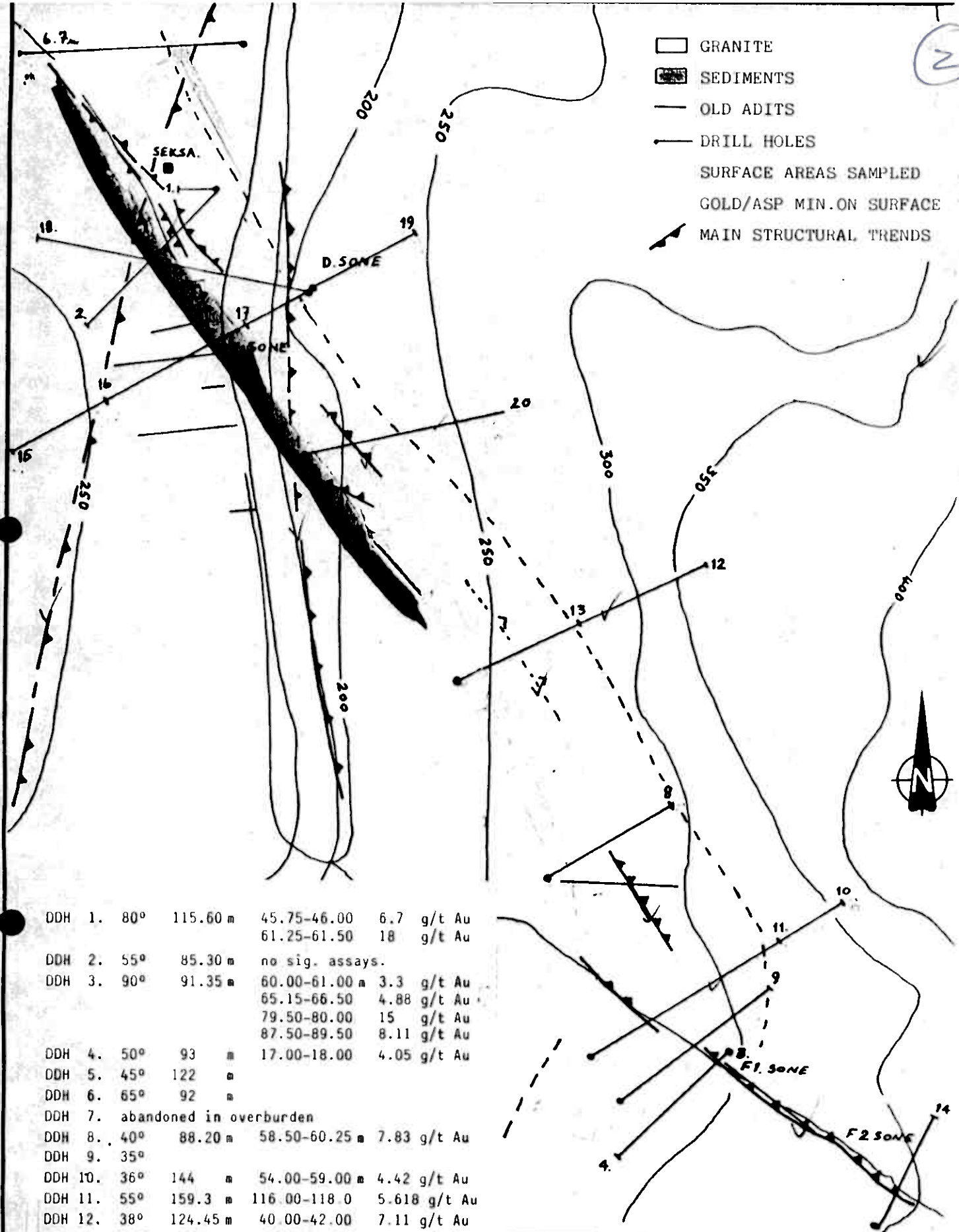
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DDH 40 is now being drilled on the down plunge extension of this large ultramafic.

Other projects - compilation and reporting.

2

- GRANITE
- ▨ SEDIMENTS
- OLD ADITS
- DRILL HOLES
- SURFACE AREAS SAMPLED
- GOLD/ASP MIN. ON SURFACE
- MAIN STRUCTURAL TRENDS



|         |                         |          |                 |              |
|---------|-------------------------|----------|-----------------|--------------|
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|         |                         |          | 61.25-61.50     | 18 g/t Au    |
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| DDH 3.  | 90°                     | 91.35 m  | 60.00-61.00 m   | 3.3 g/t Au   |
|         |                         |          | 65.15-66.50     | 4.88 g/t Au  |
|         |                         |          | 79.50-80.00     | 15 g/t Au    |
|         |                         |          | 87.50-89.50     | 8.11 g/t Au  |
| DDH 4.  | 50°                     | 93 m     | 17.00-18.00     | 4.05 g/t Au  |
| DDH 5.  | 45°                     | 122 m    |                 |              |
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| DDH 7.  | abandoned in overburden |          |                 |              |
| DDH 8.  | 40°                     | 88.20 m  | 58.50-60.25 m   | 7.83 g/t Au  |
| DDH 9.  | 35°                     |          |                 |              |
| DDH 10. | 36°                     | 144 m    | 54.00-59.00 m   | 4.42 g/t Au  |
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| DDH 16. | 65°                     | 89.95 m  | 34.00-35.00     | 4 g/t Au     |
| DDH 17. | 80°                     | 80.60 m  |                 |              |
| DDH 18. | 45°                     | 97 m     |                 |              |
| DDH 19. | 66°                     | 56.3 m   |                 |              |
| DDH 20. |                         |          |                 |              |

A/S SULFIDMALM

S U M M A R Y M A P

KOLSVIK, BINDAL, NORWAY.

SCALE 1:2000

DRAWN F.N.

DATE Oct. 81

TRACED

To: C.M.H. Jennings / J.C. Cowan  
From: F. Nixon  
Copy: E. Wigstøl  
Date: November 3, 1981.

Sulfidmalm Oct. highlights.

Project 24. SKRATAAS

Sydvaranger have decided not to take up option this property. Project is now closed.

Project 28. BINDAL

- 1) Surface sampling has now been completed in all adits and over surface showings. Ca. 250 samples à 10 kg have been collected.
- 2) Detailed surface and adit mapping is also now completed.
- 3) DDH 19 and 20 completed.  
DDH 19. 048°/66° 56.3 m intersected, extremely fractured and brecciated granite and limestone. No mineralization of note.  
DDH 20. 087°/45°  
0 - 3.70 Overburden  
3.70 - 28.3 Granite  
Asp in fracture zones 10-12, 15-17, 20-21. 23-24 and 25-26 m  
28.3 - 33.2 Diorite  
33.2 - 50.4 Chlorite rich granite.  
Asp in brecciated section 45 - 50.4  
50.4 - 58.75 Granite. Asp breccia 58.75 - 85.0  
71.0 - 76.2 Diorite  
76.2 - 77.5 Granite  
77.5 - 82.2 Diorite  
82.2 - 89.9 Granite

The following assays have been returned this month:

DDH 8 61.5 - 73.75 m only traces.

This hole runs between 58.50 - 60.25 m 7.36 g/t Au

DDH 9 No significant values.

DDH 10 54.0 - 59.0 m 4.416 g/t

DDH 15 30.50 - 38.50 m 29.73 g/t including one value of 777 g/t. Previously reported from this hole between 27.25 - 30.50 m 17.13 g/t. This gives an average of 26.1 g/t over 11.25 m. Disregarding the high 777 value and giving this sample a value of 50 g/t gives an average of 9.94 g/t over 11.25 m.

Results from holes 11, 12, 13 and 16 are expected soon.

Project 30. EAST FINNMARK

- 1) Report on Quaternary investigations just received and now being digested. Two new boulders of weakly impregnated ultramafic thought to be part of Rømlingsås boulder train have been discovered. Assays gave 0.34 % Ni, 0.26 % Cu, 0.27 % N and 0.12 % Cu.
- 2) DDH 38 1200 E 600 S 45° 300 m drilled on same target as 36 and 37 intersected only small ultramafic horizons, and this target has now been dismissed as negative.

DDH 39 2400 E 600 S 45° is now being drilled on an EM conductor in the foot wall of the largest known ultramafic in the Skogfoss area.

Project 31. KAUTOKEINO-MASI

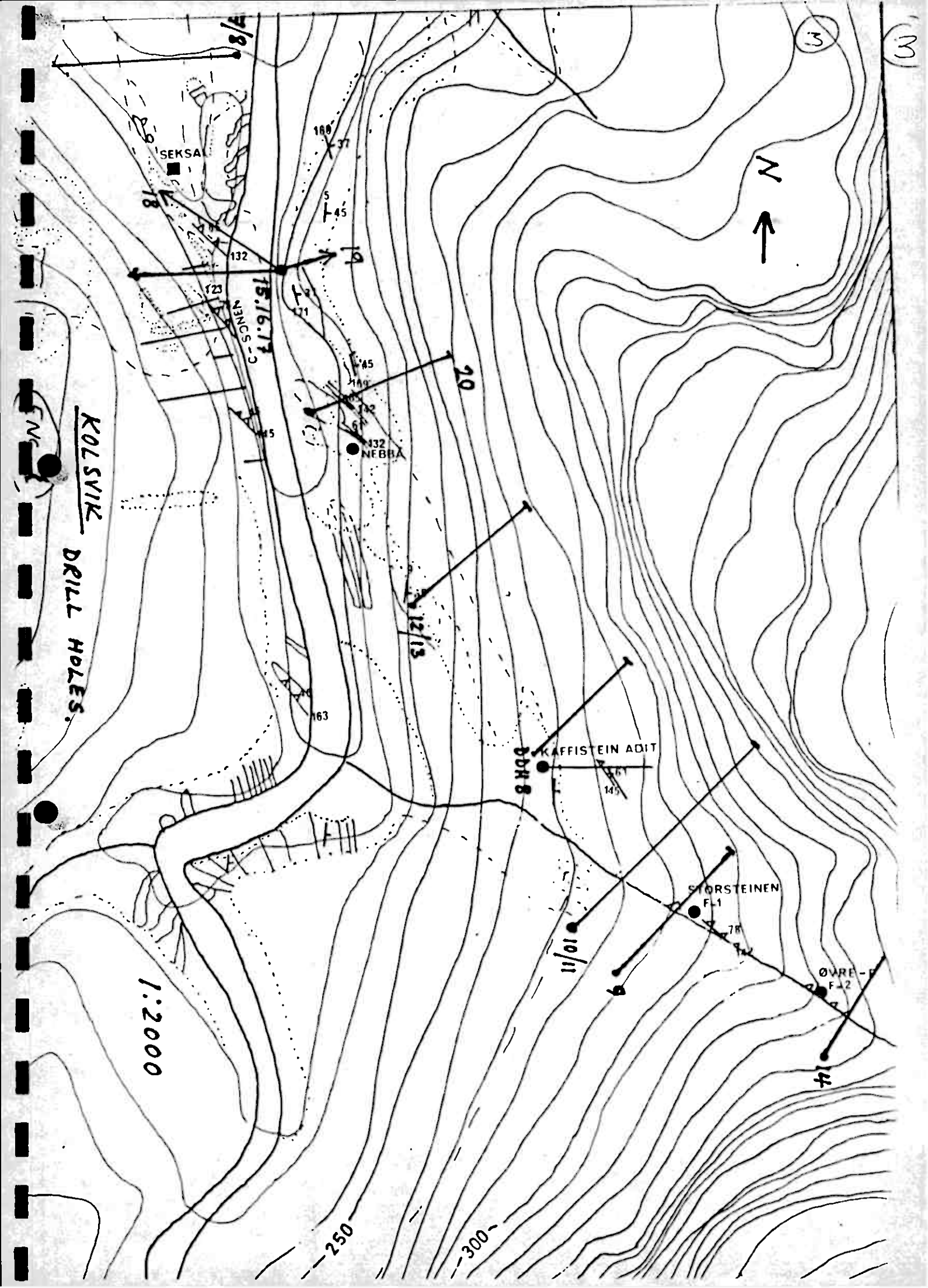
Sydvaranger operating. Assays from Suolajavri drill holes negative. A meeting has been held with Sydvaranger to outline next years work. We have criticized their approach and program and a new meeting will be held soon.

Project 33. VESTLANDET GENERELT

No field work - compilation.

Project 34 EIDSVOLL

Compilation. 45 samples have been assayed. Best assays come from Bråstad showing which is off our property - samples in range 5-115 g/t. Best samples from our area are 9 and 16 g/t. Samples from mapped out hematite quartz breccia zones were negative.



KOLSVIK

DRILL HOLES.

1:2000

①

T-2660  
(6 pages)

To: C.M.H. Jennings / J.C. Cowan  
From: F. Nixon  
Copy: E. Wigstøl  
Date: October 5, 81.

Sulfidmalm Sept. highlights

## Project 24 SKRATAAS

Field work on this project is now completed. All holes in the Bjonsaas CP anomaly have been down hole CP logged with earthing in hole 21 (35 m).

Sydvaranger are now assessing data to decide whether they want to make use of their option on the property.

## Project 28 BINDAL

Drill holes 16, 17, 18 completed and 19 started.

Drill holes 16 and 17 are in same profile as hole 15 drilling under the C zone from the east.

DDH 16 65°

|               |                                                                                  |
|---------------|----------------------------------------------------------------------------------|
| 0 - 19.30     | Overburden                                                                       |
| 19.30 - 22.60 | Diorite-dioritic gneiss                                                          |
| 22.60 - 85.50 | Granite                                                                          |
| 22.60 - 25.00 | Quartz rich, brecciated, with Asp. Visible gold as small specks between 24-25 m. |
| 25.00 - 30.00 | Weak brecciation.                                                                |
| 30.00 - 35.00 | Brecciated with quartz and Asp.                                                  |

From 35.00 Only isolated Asp specks.

Down to 50 m the granite exhibits reddish discolouration and zeolite alteration is noticeable.

DDH 17 80°

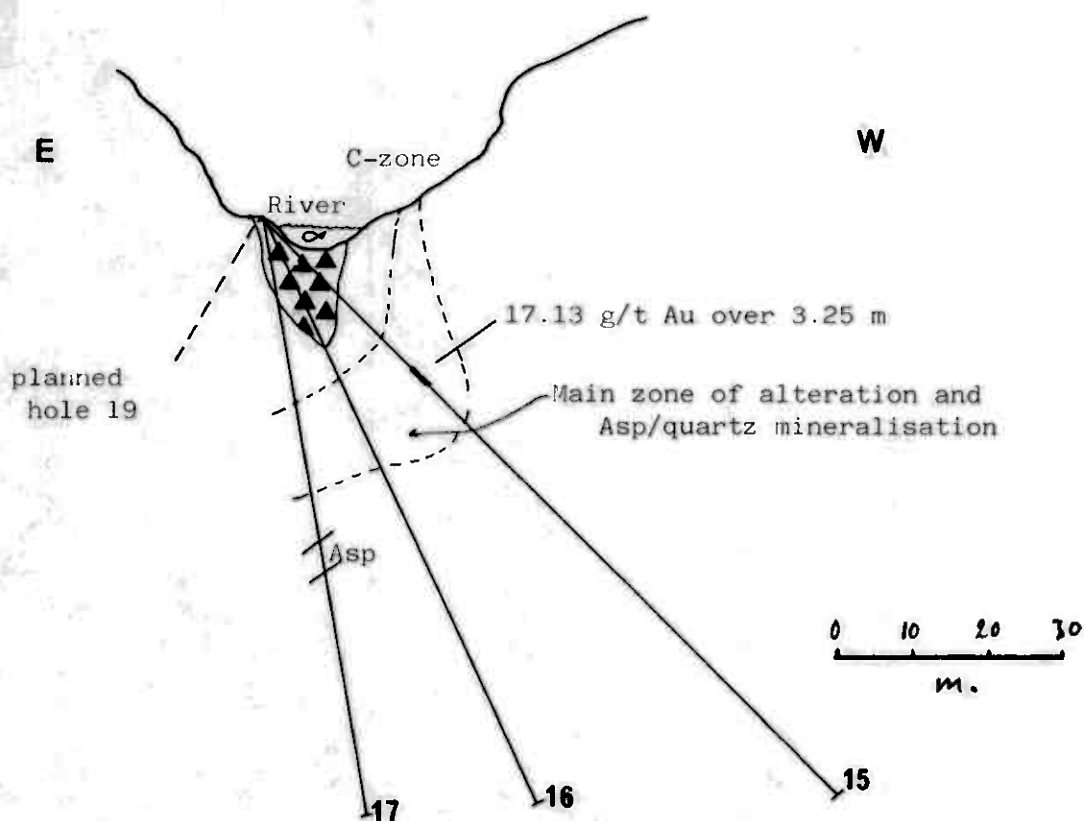
|             |                           |
|-------------|---------------------------|
| 0 - 12.7    | Overburden                |
| 12.7 - 18.5 | Limestone breccia         |
| 18.5 - 24.6 | Diorite - dioritic gneiss |
| 26.4 - 80.6 | Granite                   |

The granite is altered and brecciated in the upper portions with Asp from 24.60 - 34.0 as fracture fillings, breccia fillings and isolated grains. Asp mineralisation also between 44.0 - 48.0.

In DDH 15 the zone of alteration and fracture mineralisation was logged between 22.80 and 38.40 m. Half of this section has now been assayed with the following results:

|                 |            |               |            |
|-----------------|------------|---------------|------------|
| 22.00 - 23.50 m | 0.4 g/t Au | 27.75 - 28.00 | 5.9 g/t Au |
| 23.50 - 23.75 m | 0.5 "      | 28.00 - 28.25 | 2.1 "      |
| 23.75 - 24.00 m | 0.3 "      | 28.25 - 28.50 | 35 "       |
| 24.00 - 24.25 m | 4.6 "      | 28.50 - 28.75 | 40 "       |
| 24.25 - 24.50 m | 0.5 "      | 28.75 - 29.00 | 28 "       |
| 24.50 - 25.50 m | 0.5 "      | 29.00 - 29.25 | 5.6 "      |
| 25.50 - 25.75 m | 1.1 "      | 29.25 - 29.50 | 17 "       |
| 25.75 - 26.00 m | 0.3 "      | 29.50 - 29.75 | 11 "       |
| 26.00 - 26.25 m | 1.7 "      | 29.75 - 30.00 | 8.2 "      |
| 26.25 - 27.25 m | 0.4 "      | 30.00 - 30.25 | 0.7 "      |
| 27.25 - 27.50 m | 7.8 "      | 30.25 - 30.50 | 6.4 "      |
| 27.50 - 27.75 m | 55 "       |               |            |

This gives an average of 17.13 g/t Au over 3.25 m from 27.25-30.50 m. The assays from the remaining 8 m of the mineralised zone in this hole is expected in a couple of days.



The above figure shows a cartoon of the situation in the C zone profile, the mineralisation/alteration zone seems to be flattening out towards the east. This will be tested by DDH 19 which has just been started.

DDH 18 was drilled at 45° from the same set up as 15/16/17 but swung towards the north to drill under the northerly extension of the C zone. Altered granite with Asp and quartz was intersected between 27.00 and 50.60 m. Assays have also been returned from hole 9. The core between 61.25 m - 70.0 m has been returned. All values are 0.5 g/t except for 25 cm between 63.75 - 64.00 which run 1.4 g/t.

Surface sampling with power driven drills and channel sampler is now in progress.

Test work on washed alluvial concentrates is now being carried out at the Norwegian technical highschool.

#### Project 30 EAST FINNMARK

Mapping and prospecting in the Polmak region is now completed with no significant finds of interest. Weak mineralisation associated with pyroxenites and differentiated basic bodies have all returned low values for Ni, Cu and Cr. Compilation in 1:50.000 is complete and compilation 1:10.000 underway.

Quaternary investigations in South Pasvik have indicated that the syenite boulder (0.76% Ni / 2% Cu) and ultramafic boulder 6 KM 78 (0.5% Ni / 0.5% Cu) located some 1 - 1.5 km north of Romlingsaas and previously thought to relate to the Romlingsaas boulders may relate to the Blankvann boulders and indicate a longer train with a source in the Gjeddevann area. This area is now being covered by detailed geophysics.

Two holes in the Skogfoss area have been completed this month.

DDH 36 1300 E / 450 S 45° drilled on down plunge/dip extension of weak nickel mineralisation intersected in DDH 29 (0.3% Ni) in previous drilling.

The hole drilled to 178.55 m intersected 2 bodies of serpentinite from 80.8 m - 99.9 m and between 105.6 m - 124.4 m. The upper body correlated with an ultramafic intersected in hole 29 and shows a thickening down plunge and also an increase in sulphide content with up to 5% sulphides near the footwall. Returned assays however are all low. The second ultramafic can be correlated with a talc/chlorite schist in hole 29 which ran 0.3% Ni over a couple of m. Again this body thickens and sulphides increase but assays are low.

DDH 37 at 1300 E / 625 S 45° was drilled to 275 m on the continuing down plunge extension intersected only one very thin serpentinite, indicating wither a thinning out of the body, or that we may be located on the flanks.

Project 31 KAUTOKEINO-MASI (Sydvaranger operating)

Mapping and till geochemistry have been carried out over selected areas. Detailed ground geophysics have been carried out over a helicopter EM anomaly at Suolojauri. This anomaly has now been drilled by 4 holes totalling 660 m. All holes intersected heavy pyrrhotite mineralisation with weak copper associated to volcanics. No assays available.

Project 33 VESTLANDET - GENERELT

Mainly grass-roots prospecting around the Svenningdal granite and chromite showings NW of Bindal. Selected chromite samples sent off for assessment.

Gold showings west of Narvik being visited and checked.

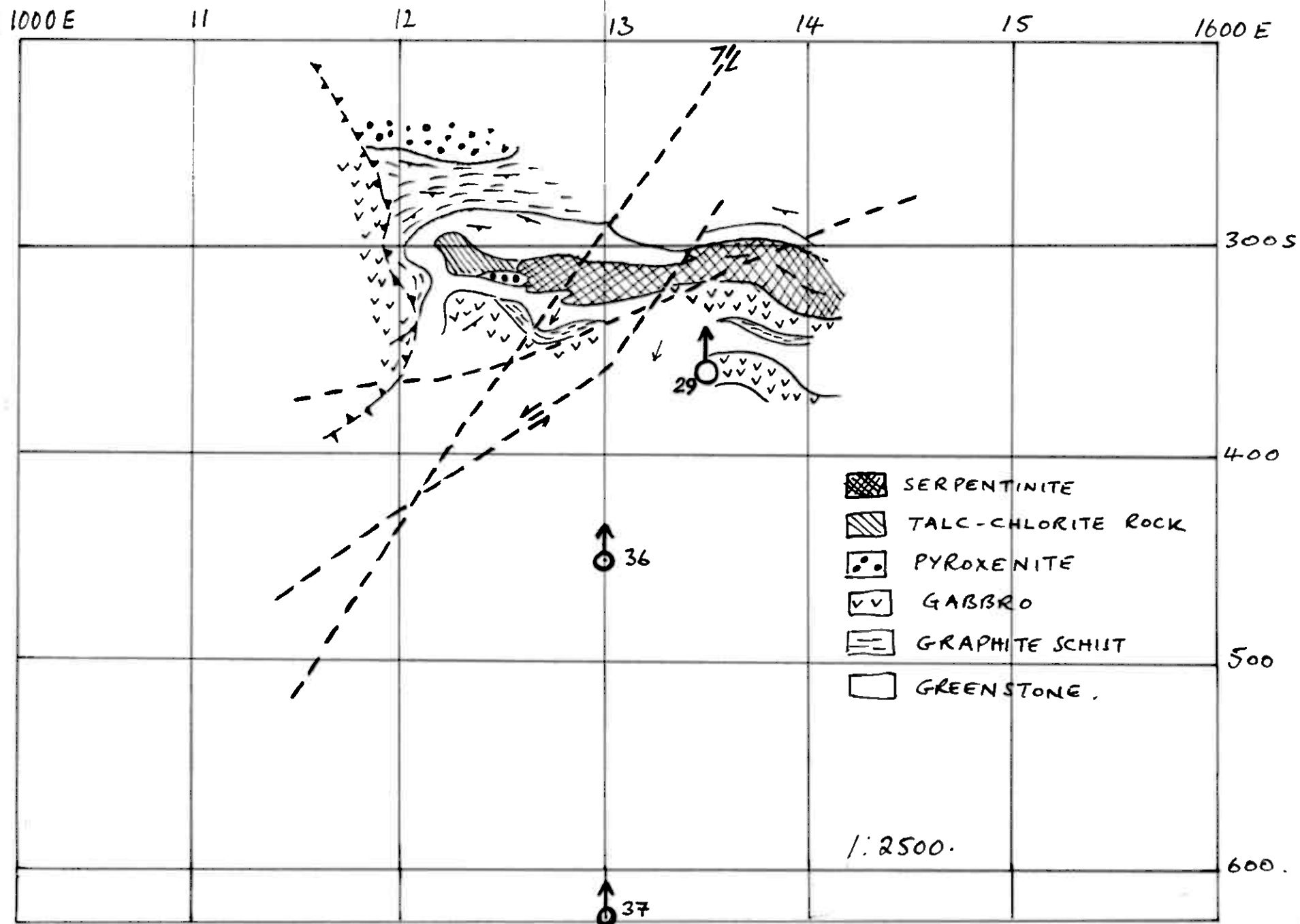
Project 34 EIDSVOLL

VLF-EM surveys have been carried out in two areas: -the Braastad showing area and Gullkis showing area. Although both showings are located on prominent tectonic structures and carry sulphides in part, no significant anomalies were recorded.

Diverse

Superior and Sydvaranger have signed a letter of intent concerning Hersjø Cu/Zn showing in the Røros area. The letter calls for a seismic investigation of the possible continuation of the Hersjø body. This work is now under way under contract to a Norwegian company (Geoteam). All preparations - drill holes - geophone fixings have now been completed and the first profile (over the known ore) has been measured. The rest of the survey is now being held up by bad weather.

9



DRILL HOLE LOCATIONS. SKOGFOSS  
PASS.

T-2530  
(5 pages)F. Nixon  
16

To: CMH Jennings / JC Cowan - Toronto

From: F Nixon

Copy: E. Wigstøl

Date: August 3, 1981

Project 24. Skrataas

Drillholes 25 and 26 have now been completed on the down plunge extension of the Bjonsaas C.P. anomaly. DDH 25 intersected 4 m of 0.28 % Cu and 0.87% Zn and DDH 26 4 m of 0.25 % Cu and 1.5% Zn. The C.P. anomaly seems to be caused by a dominant pyrite body with a minor "core" of Cp and Zn. Enclosures 1 and 2 show locations of drill holes and assay results. No further work is planned. Cores will also be assayed for Au and Ag.

Project 28. Bindal

Three drill holes completed. Hole 13 from same set-up<sup>as 12</sup> intersected between 31.10 and 34 m brecciated and quartz rich granite with good Asp and some visible gold grains.

DDH 14 was drilled on the southerly extension of the F<sub>2</sub> zone. The hole was drilled to 120.80 m but only weak Asp mineralization was intersected.

DDH 15 the first on the main C zone was drilled to 93.45 m at 44° and between 22.80 and 38.40 m intersected very good Asp mineralization where free gold could be observed at several places.

Enclosure 3 shows location of all holes to date.

Assays have been returned DDH 8.

|                 |            |
|-----------------|------------|
| 58.50 - 58.75 m | 3.6 g/t Au |
| 58.75 - 59.00   | 28. "      |
| 59.00 - 59.25   | 4.7 "      |
| 59.25 - 59.50   | 8.8 "      |
| 59.50 - 59.75   | 6.1 "      |
| 59.75 - 60.00   | 1.4 "      |
| 60.00 - 60.25   | 2.2 "      |

We are still awaiting results from other drill holes and will be sending the vast majority of samples to Canada (Swastica) for assay because of lack of capacity here.

A consultant has now completed a two week survey of the alluvial field and centered our attention on certain select areas of the deposits. These are now being sampled in detail.

Other work this month has consisted of ongoing detailed mapping in the Kolsvik area. Various attempts with geophysical surveys to trace the mineralization have not been successful. A magnetic survey has also been carried out over the alluvial deposits - looking for concentrations of magnetite - this survey was also negative.

Because of increased competitive activity of Norwegian companies with oil companies as partners in the Nordland region, an ongoing claim staking program is in progress by us. We are picking up ground that we regard as potential for Au. Ag. W.Cr Sn.

Drafts of agreement with Superior concerning the Kolsvik and Bindal areas have been put together and forwarded to Toronto for comment.

#### Project 30. East Finnmark

Mapping is proceeding in the Polmak region and several small ultramafics have been discovered. None however have any sulphides to date. Most magnetic anomalies in the area are seen to be caused by magnetite bearing volcanics.

Drilling has now started in the Pasvik region and the first hole is now drilling in overburden. This hole is planned to give a deeper intersection on an ultramafic previously drilled where weak sulphide mineralization (0.3% Ni) was discovered.

Quaternary investigations in the South Pasvik Nickel boulder field have revealed some possible new source areas and these are at the moment being detailed by further boulder tracing and geophysics.

#### Project 33. Vestlandet - General

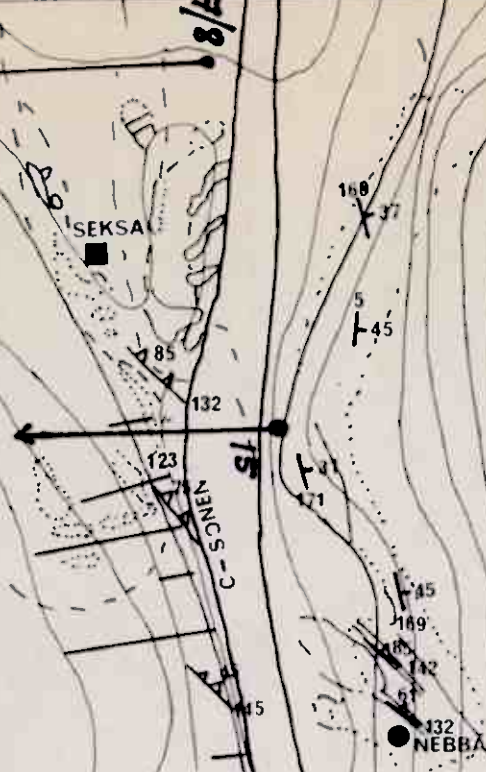
Mapping, prospecting and sampling has continued in the Olve volcanic belt with no significant discoveries to date:

Work has also started up in the Svenningdal granite area to the NE of Bindal. An old silver property has been covered by VLF. These results are being checked on the ground. A general survey of all old showings along the contacts of the Svenningdal granite is also under way.

#### Project 34. Eidsvoll

No work this month.

3



ENC. 3

KOLSVIK  
DRILL HOLES.

12/13

KAFFISTEIN ADIT  
DdH 8

STORSTEINEN  
F-1

ØVRE-F  
F-2

10/11

9

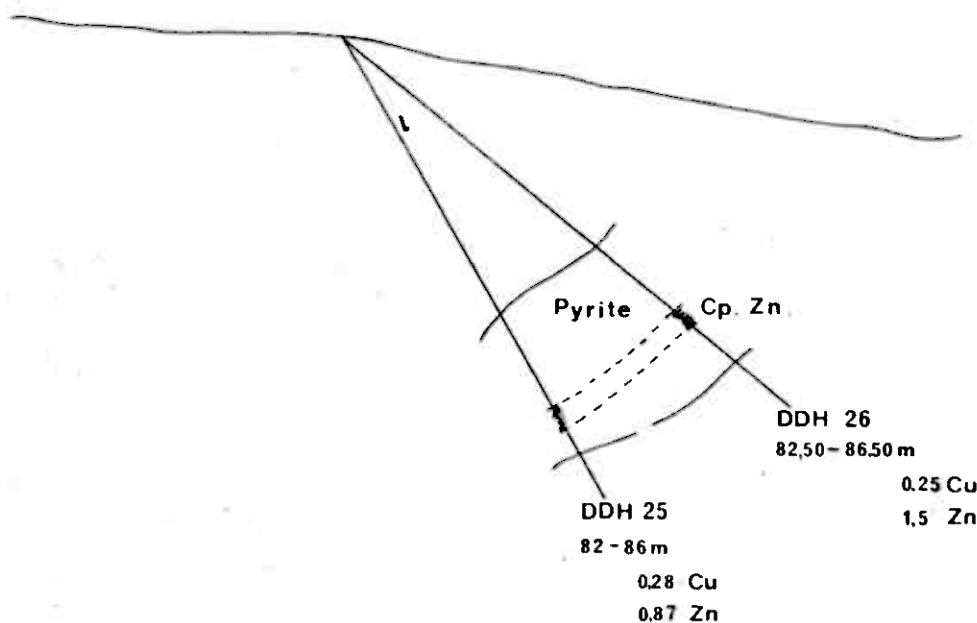
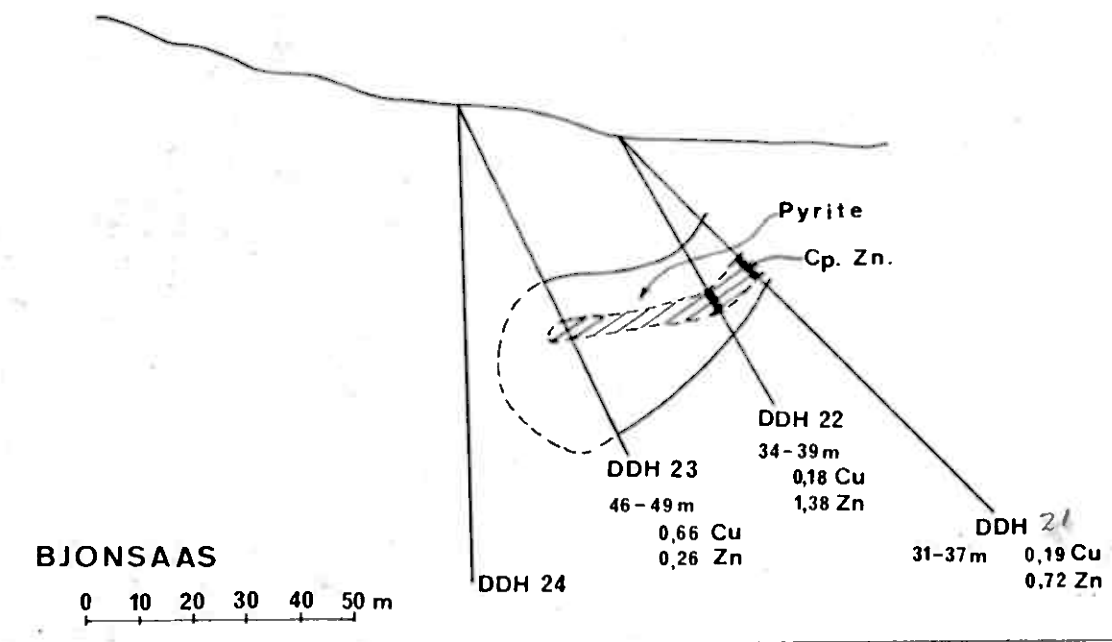
14

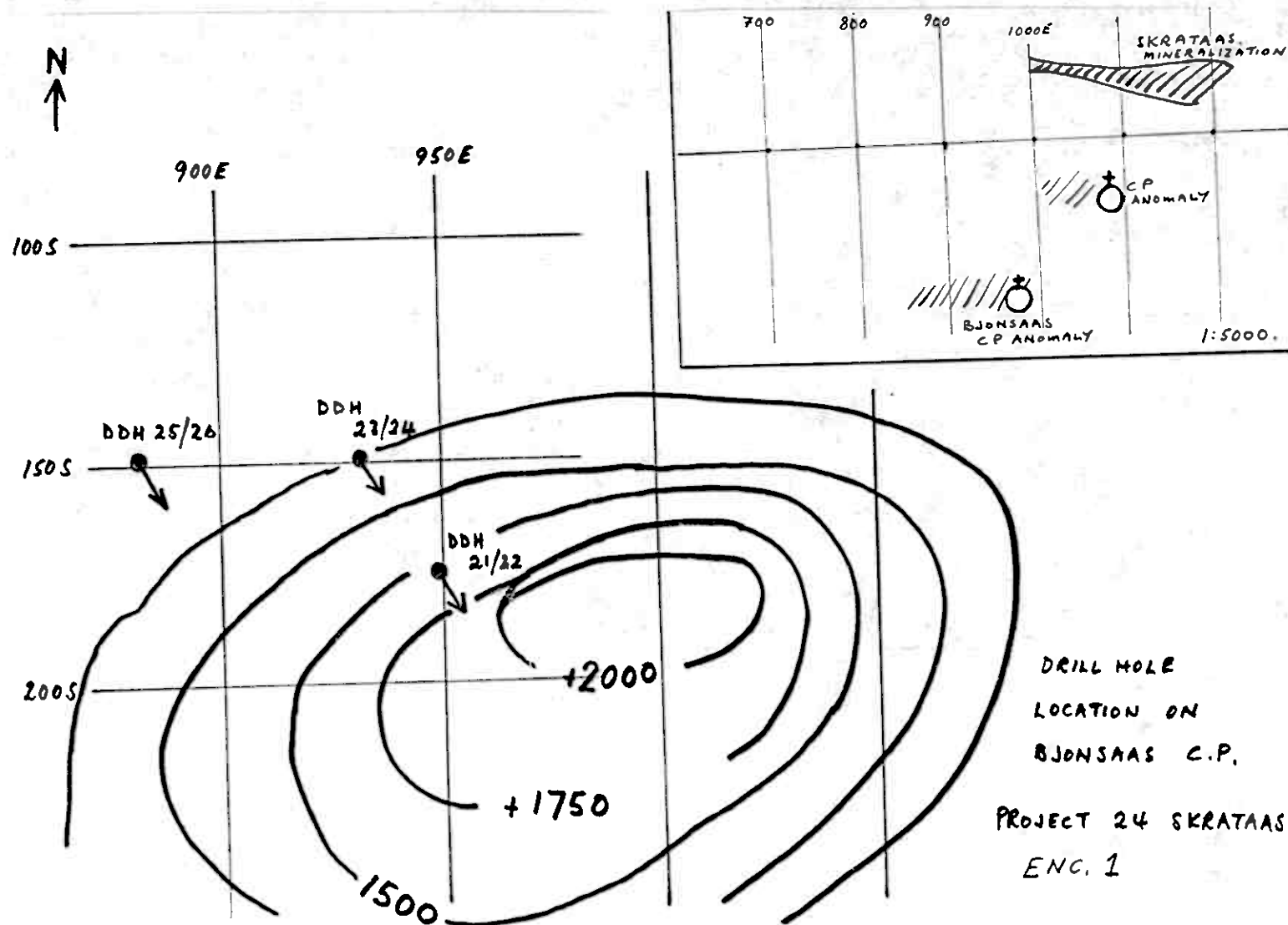
1:2000

250

300

# ENCLOSURE 2





DRILL HOLE  
LOCATION ON  
BJONSAAS C.P.  
PROJECT 24 SKRATAAS,  
ENC. 1

5

26.

F. Nixon

To: C.M.H. Jennings/J.C. Cowan, Toronto  
 From: F. Nixon  
 Copy: E. Wigstøl

T-2425✓ (1 of 3)

## Sulfidmalm activities July 81

Project 24, Skrataas

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The holes were drilled in a profile across the anomaly with hole 21 giving the shallowest intersection and hole 23 giving a down dip intersection. These three holes 21-23 all intersected sulphides - dominantly pyrite but with some cpy and sphalerite in holes 21 and 22.

Hole 24 planned to intersect deeper down dip was barren.

The mineralization is quite extensive and located to a quartz sericite schist unit. Chalcopyrite and sphalerite is much subordinate to pyrite but in places is quite noticable over core lengths of 1-2 metres.

Hole 25 has now been collared to give a down plunge intersection. Some 80 m have been delivered to Sydvaranger (Killingdal) for assay but due to holidays turn over is slow. Main mineralization zones in the holes are as follows:

|        |     |                |                               |                      |
|--------|-----|----------------|-------------------------------|----------------------|
| DDH 21 | 45° | 0 - 15.00 m    | no sulphides                  |                      |
|        |     | 15.00 - 18.25  | 2-5% sulphides dom. py        |                      |
|        |     | 18.25 - 22.25  | no sulphides                  |                      |
|        |     | 22.25 - 40.00  | 5-10% sulphides py. cpy. sph. |                      |
|        |     | 40.00 - 100.00 | no sulphides                  |                      |
| DDH 22 | 60° | 0 - 7.70       | no sulphides                  |                      |
|        |     | 7.70 - 19.75   | py present                    |                      |
|        |     |                | 22.0 - 25.0                   | 10-15% sulphides     |
|        |     | 19.75 - 24.50  | no sulphides                  |                      |
|        |     | 24.50 - 43.30  | sulphides throughout          |                      |
|        |     |                | 36.0 - 38.0                   | 15-20% py. cpy. sph. |
|        |     | 43.30 - 59.0   | no sulphides                  |                      |
| DDH 23 | 65° | 0 - 37.0       | no sulphides                  |                      |
|        |     | 37.0 - 71.0    | sulphides dom. py.            |                      |
|        |     |                | 37.0 - 43.0                   | 3-5%                 |
|        |     |                | 46.0 - 49.0                   | 20%                  |
|        |     |                | 50.0 - 65.0                   | 10-15%               |
|        |     |                | py (cpy)                      |                      |
|        |     |                | no sphalerite                 |                      |
| DDH 24 | 88° | 0 - 99.0       | no sulphides                  |                      |

## A/S SULFIDMALM

Project 28. Bindal

- A) R. Hunt and M. Wolfhard of Superior Oil, Tucson, visited Bindal property for two days.
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## A/S SULFIDMALM

- D) Three new mineralized zones have been located in 120° fault zones on the plateau to the NE of the F zone. These showings are now being detailed.
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- F) Several short surveys have been carried out on a regional scale in the Bindal area.  
At Velfjord two areas of interesting chrome mineralization have been located (separate report in post) in a layered cumulate ultramafic. The two areas have only been briefly covered and sampled and are in the process of being claimed.
- G) Some 20 skarn zones have been tested for scheelite in the Bindal area - to date only one skarn has been seen to carry any significant amounts. This is now being mapped and sampled.

## Project 30, East Finnmark

Drilling has still not commenced in this area due to late arrival of drill equipment.

Detailed mapping has been continued in the Skogfoss area on ultramafic targets.

In Polmak mapping has identified a major intrusive complex comprizing largely diorites, syenites and basic-ultrabasic differentiates. The latter are located along and adjacent to the Finnish border and constitute massifs of gabbroic rocks bordered by highly magnetic coarse pyroxenites containing minor sulphide impregnations. These differentiates correlate well with the distinct aeromagnetic anomaly in the area.

Quaternary investigations in the South Pasvik boulder find region have re-started with two quaternary geologists investigating in detail the possible source of our nickel rich boulders.

## Project 33, General Vestlandet

Little work this month. Graduate student is carrying out mapping in Ølve volcanic belt.

Samples from Roaldstveit and Varaldsøy assayed for gold were all negative but two samples from quartz veins at Sveio gave 11 g/t.

More work is planned for later this year.

Work in Svenningdal is expected to commence this month.

## Project 34, Eidsvoll

Mapping and sampling have now been completed in the Gullkisgruva area. Major qtz filled breccia zones have been identified. Results will now be evaluated prior to a ground geophysical survey.

A/S SULFIDMALM

rapid fax

③  
T-2427 ✓

To: L.C. Kilburn / H.T. Berry

From: F. Nixon

Date: August 4, 1981.

Enclosed is a copy of the latest draft of the proposed letter of intent between Sydvaranger and Superior/Sulfidmalm on Hersjø-Røros deposit.

Please advise any comments - suggestions or objections.

Regards

*Franklin*  
F. Nixon

3 pages to follow

Draft 3, 7/21/81, Wigstøl

modified by Stone and Hardamn

Letter of intent  
between

Aktieselskabet Sydvaranger/Killingkal and Superior Oil  
re. Hersjø Field

The Hersjø field in Holtalen, Sør-Trondelag, was in operation from 1670 until 1693 and for a short period in the 1830's. In 1948 early geophysical investigations were carried out. Røros Kobberverk began exploration in 1969, with diamond drilling following in 1970-71. From 1974, A/S Sydvaranger continued with induced polarisation studies and drilling in a joint operation with Røros Kobberverk. During 1970-77, 66 holes with a cumulative depth of 13,040 meters were drilled on the project.

Two million tons of ore assaying 1.7% Cu and 1.8% Zn, with an average ore density of 2,700 tons per axial meter, have so far been outlined. The deeper portions indicate a richer Cu ore and the economics of the Hersjø field will depend on the vertical development of the orebody. Such an investigation cannot be carried out by drilling from the top.

As a natural next step in the investigation of the deep layers of the Hersjø field, Superior Oil has suggested a seismic investigation of the orebody. Superior Oil has at its own expense carried out seismic modelling of the Hersjø field. Based on the modelling results, Superior recommends acquisition of approximately ten line kilometers of seismic data.

Superior Oil is prepared to make available the technical expertise and to cover the cost of this project. Superior Oil will interpret the results, making them available at no cost to A/S Sydvaranger.

Letter of Intent  
Hersjø Field

Superior Oil will invest up to N.Kr. 708,000 for acquisition and processing of the seismic data. Total costs of the project by Superior will be approximately N.Kr. 1,000,000

It is known that an exploration shaft with an inclination 1:10 from Høgsetvold in Kjurudalen has been proposed. The shaft has been designed to be used for operation of a mining venture if started. Approximately 1,600 meters of shaft must be driven for access to the level where further drilling can take place. The cost of an exploration shaft is understood to be estimated at N.Kr. 15 - 20 million, with an estimated construction time of two to three years. A/S Sydvaranger/Killingdal has available a concentrator in Trondheim as well as one at Kings Mines, Røros and is therefore interested in developing the Hersjø field as future feed material as soon as possible.

If the results of the seismic investigations are positive, then A/S Sydvaranger and Superior Oil will be prepared to discuss a continuation of the Project, with the object of documenting commerciality of the Hersjø field. Superior Oil's engagement will be through its affiliated company, A/S Sulfidmalm, which has also carried out mineral exploration work in the neighbouring areas.

Superior/Sulfidmalm will accept that A/S Sydvaranger will carry out the inclined shaft investigations. Superior/Sulfidmalm has the understanding that A/S Sydvaranger will be the operator of any commercial operations at Hersjø if nothing else is agreed upon.

In the case of commercial operations at Hersjø. A/S Sydvaranger will be prepared to offer Superior/Sulfidmalm a level of working interest participation in the venture, which will

Letter of Intent  
Hersjø Field

take into account the capital expended to date by both parties and the risk to which each of the parties has been exposed.

In the case of commercial operations, in which Superior/Sulfidmalm chooses not to participate, it will be agreed in advance how Superior/Sulfidmalm's expenses in connection with this venture will be repaid. This could be on a ton-øre (royalty) basis, or a net profits interest.

H.R.Hirsch has approved this.

To: C.M.H. Jennings/J.C. Cowan, Toronto  
 From: F. Nixon  
 Copy: E. Wigstøl

16.  
 T-2425 ✓ (1 of 3)

## Sulfidmalm activities July 81

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| DDH 23 | 65° | 0 - 37.0       | no sulphides                  |                           |
|        |     | 37.0 - 71.0    | sulphides dom. py.            |                           |
|        |     | 37.0 - 43.0    | 3-5%                          |                           |
|        |     | 46.0 - 49.0    | 20%                           |                           |
|        |     | 50.0 - 65.0    | 10-15%                        | py (cpy)<br>no sphalerite |
| DDH 24 | 88° | 0 - 99.0       | no sulphides                  | 74.                       |

A/S SULFIDMALM

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# A/S SULFIDMALM

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T-2315  
(3 pages)16

(1)

To: C.M.H. Jennings / J.C. Cowan  
From: F. Nixon  
Date: June 25, 1981

*June*  
Sulfidmalm activities ~~May~~

Project 33 General Vestlandet

Preliminary mapping and surface sampling have been carried out over claim areas at Ølve-Roaldstveit and Varaldsøy.

At Ølve phyllite and tuffite horizons in a greenstone-keratophyre sequence have been located. This locality has been reported as a gold occurrence with gold being worked on a minor scale at the end of the last century. An initial 31 grab and channel samples collected by us have just been returned and all showed low numbers - less than 1 g/t. Selected samples are now being reassayed.

In the Roaldstveit area zones of fine grained magnetite with pyrite bands and zones of pyrite up to 2.5 m thick have been located in a greenstone-greenschist-greywacke environment. Samples are under assay for Au and Co. Both the above areas have been mapped in detail.

Project 24 Skrataas

Drilling has commenced and to date 2 holes have been drilled on a C.P. anomaly between Skrataas and Bjønsås mine.

DDH 19 1050 E / 50 S 65° grid S

|       |   |       |                                                                                                   |
|-------|---|-------|---------------------------------------------------------------------------------------------------|
| 0     | - | 2.40  | Overburden                                                                                        |
| 2.40  | - | 5.70  | Quartz sericite schist                                                                            |
| 5.70  | - | 26.30 | Greenschist                                                                                       |
| 23.30 | - | 48.0  | Quartz sericite schist with approx. 5% sulphide impregnation, dominantly py but with some Cp + Zn |
| 48.0  | - | 52.0  | Greenschist                                                                                       |

DDH 20 1050 E / 50 S 35° grid S

|       |   |       |                                                 |
|-------|---|-------|-------------------------------------------------|
| 0     | - | 1.90  | Overburden                                      |
| 1.90  | - | 10.0  | Quartz rich schist                              |
| 10.0  | - | 24.60 | Greenschists                                    |
| 24.60 | - | 63.0  | Quartz sericite schists 5-8% sulphides as above |
| 63.0  | - | 65.50 | Greenschists                                    |

A total of 30 m have now been split and sent for assay at Sydvaranger Killingdal lab.

(T-2315)

Hole 21 is now collared on the Bjønsås CP/SP anomaly at 950 E/150 S  $45^{\circ}$  on N135W.

If holes 19 and 20 give interesting assays the zone will be drilled at depth. All holes are being followed up by down-hole and surface C.P.

#### BINDAL. PROJECT 28

To date this month 4 holes have been drilled and one abandoned.

Two holes were put down 35 m N for the seksa shaft. Both holes were collared from the same location to the east of the supposed continuation of the seksa - B zone, and drilled to the west. DDH 5.  $45^{\circ}$  122 m, DDH 6.  $65^{\circ}$  92 m. Both holes intersected a 9 m wide zone of weak alteration, quartz veined and arsenopyrite mineralized granite, at approx 20 m. Rest of holes consist of mixture of meta-sediments and granite bottoming in unaltered normal granite.

DDH7 was collared 50 m to the north, but has been abandoned for the moment with casing sitting fast at 22 m. This hole will be completed later.

The area between seksa and B zone has been covered by S.P. measurements and although a S.P. "ridge" exists this does not seem to give a real indication of mineralization as field measurements have shown that arsenopyrite seems to give very local S.P. effects. Some S.P. negative areas exist and are being assessed. This area and the C zone will now be tested with C.P.

DDH8 was collared at the opening of Kaffesteins adit and drilled  $40^{\circ}$  to the NE to intersect supposed continuation of F - Kaffestein ? zone to the north. The hole was drilled to 88 m and between 56.0-60.0 m intersected a tectonic zone in granite, quartz-rich and with visible gold at 56.5 and 59.8 m. Between 60 and 78 m the hole intersected quartz-rich granite with weak breccia structure and some arsenopyrite.

DDH9 has just been completed collared to the west of the F zone to give strike extent. The hole was drilled at  $35^{\circ}$  to N 52 E and between 40 and 85 m intersected brecciated quartz-rich granite with arsenopyrite.

Assays are in progress.

C.P. measurements have been carried out on various earths in the F zone area. As is to be expected with this type of mineralization no clear long anomalies are apparent, but the surveys do indicate a general NE dip to the F zone and also indicate possible parallel zones on the footwall side.

The next drillhole DDH 10 will test a further continuation of the F zone to the north.

(T- 2315)

Detailed surface mapping is also underway in the F zone area.

The fluvial and glaciofluvial deposits to the north of the gold showings have now been mapped in detail - 1:5000. 5 channels have been dug down through the large terrace areas as part of this work. This investigation which concludes that most of the area covered is of alluvial potential forms the base for detailed sampling which is now starting. Preliminary tests indicate a sampling rate of 6 20 kg samples per day. A separate report on the quaternary investigations is being compiled.

#### PASVIK

Detailed mapping is in progress in the Oksfjell area with special weight on structural geology. This work is preparatory to drilling which will probably commence in August.

In Polmak mapping is being continued to the north of the area completed last year.

#### EIDSVOLL

Detailed mapping and sampling of the area around Gullkisgruva is underway. Geochemistry and geophysics are planned for later next month.

Regards

To: C.M.H. Jennings/J.C. Cowan  
From: F. Nixon  
Date: May 27, 1981

Sulfidmalm activities May

Project 33 General Vestlandet

Claims have been staked in the field at Faeoy (Ni Pt), Reksteren (Asp in granite), Varaldsoy (Py Au?) and Ölve (Au).

Mineralisation at Varaldsoy has been sampled for gold assay.

At Ölve a previously reported gold occurrence in a phyllite horizon in a greenstone/keratophyre environment has been located and mapping and detailed sampling of the occurrence and sampling are now underway. The gold is supposedly occurring as extremely fine grains both in the phyllite and small quartz lenses. Minor pyrite and chalcopyrite have also been recorded. The phyllite zone is some 1-2 m wide and has been traced for some 350 m to date. Other similar looking horizons are present in the area and these are being looked at. Maps 1 and 2.

Project 34 Eidsvoll

Initial field visits paid to the area before start up of detailed mapping, sampling with some geophysics in area outlined on map 4. This area has been chosen as first priority and impressive structures associated with Gullkisgruva have been noted. Maps 3 and 4.

Project 28 Bindal

Crews have been moved into the area and have begun build up of field camps. Continued ground mapping and sampling has commenced and mapping of the Quaternary deposits north of the gold area are also underway.

Drilling and geophysics will commence in June. Map 5.

Project 24 Skrataas

No work this month. Drilling by Sydvaranger on the Bjonsaas anomaly south of Skrataas is expected to start early June. Map 6.

(T-2242)

Project 30 East Finnmark

No field work this month due to winter break up. A report covering detailed relogging of the Petsamo Group drill holes has been completed and is forwarded to Canada. Evaluation of Polmak data has been continuing and lack of basic/ultramafic rocks make the area appear to be non-interesting for Ni-potential.

Samples taken from py rich units and exhalitive units and assayed for gold all gave values less than 1 p.p.m.

Maps in post.

To: C.M.H. Jennings/J.C. Cowan  
From: F. Nixon  
Date: May 27, 1981

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Maps in post.

16  
RAPIFAX

T-2148

To: J.C. Cowan  
From: F. Nixon  
Copy: E. Wigstøl  
Date: April 31, 1981

Sulfidmalm Month-end report April

Bindal

Letter of intent between Sulfidmalm and Superior signed for this project - details sent to Chris Jennings. This month has mainly gone to planning and field work starts now in May. First stages will involve mapping of Quarternary deposits.

Pasvik

Detailed ground geophysics are being carried out over 2 weak VLF anomalies near boulder finds that lie under heavy glaciofluvial cover. These anomalies, not previously detailed now look interesting in light of further interpretation of boulder trains and compilation of geochemical data.

Skrataas

Sydvaranger have accepted extended option on terms outlined previously. Appendix to contract is signed and field work being planned. This will mainly be drilling and down-hole geophysics.

Vestlandet

Planning for field season. Work has just now started up on sampling and mapping possible gold areas in Hardanger area.

General

Most of the month has been occupied with planning and preparing for field work.

Geologist Øystein Mjelde started employment from April 1st.

4444

①  
T-2061  
3 pages

①

To: J.C. Cowan  
Copy: E. Wigstøl  
From: F. Nixon  
Date: April 2, 1981.

Sulfidmalm month end report MarchBINDAL

1. Stream sediment assays - arsenic - have been received. Anomaly pattern confirms Kolsvik and Reppen areas. Anomalies immediately south of Kolsvik and some 7 km to the north will be checked out this year. The method seems to work in this environment.

2. The following new assays have been received:

Ottar gangen = some 25 m directly south of the Kaffistein adit opening. Small arsenopyrite bearing quartz lenses in granite. Area is extremely scree covered and the lenses which were approximately 50 cm wide were not mapped in detail - only being chip sampled across their width. Samples from three lenses returned 14.9, 4.5 and 3.4 g/t Au.

Kaffistein adit. A 50 cm chip sample from the shear zone in this adit returned 1.4 g/t Au.

C-zone. Assays from two new outcrops in the main quartz vein have given  
49.9 g/t over 50 cm chip over vein  
658 g/t over 50 cm chip over vein

These samples are taken from a single outcrop 8 m south of the N. Skarstoll. An 80 cm chip sample immediately south of the N. Skarstoll opening returned:

12.2 g/t over 0.3 m  
10.2 g/t over 0.5 m

Elvekroken. Arsenopyrite in late joints at this locality in the main Kolsvik river to the south of all the main showings gave assays less than 1 g/t.

3. Selected samples from Kolsvik, assayed earlier for gold, have now been assayed for silver with the following results:

| Location       | Au g/t | Ag g/t |
|----------------|--------|--------|
| Ryggen         | 30     | 11     |
| Ryggen         | 14     | 3      |
| Boliden        | 2      | 2      |
| F <sub>2</sub> | 20     | 12     |
| F <sub>2</sub> | 5      | 8      |
| F <sub>2</sub> | 30     | 6      |
| F <sub>2</sub> | 14     | 4      |

(T-2061)

A/S SULFIDMALM

| Location    | Au g/t | Ag g/t |
|-------------|--------|--------|
| C           | 17     | 3.     |
| C           | 116    | 9      |
| C           | 229    | 15     |
| C           | 886    | 46     |
| B 12        | 5      | 6      |
| B 12        | 5      | 5      |
| Skarstoll   | 450    | 17     |
| BH 3 F zone | 15     | 1      |
|             | 15     | 3      |
|             | 37     | 3      |
| BH 4 F zone | 2.9    | 1      |
|             | 63     | 12     |
|             | 1.2    | 6      |

4. Prof. Ramsay has confirmed he can carry out the planned tectonic analysis.
5. Work on agreements with ground owners over potential alluvial ground is proceeding and an agreement with main owner - Hydro Company - is imminent. A program for mapping and sampling has been made.
6. Plans for field work now complete and due to start in May. Drilling contracts signed, start early June.

PASVIK POLMAK

1. Relogging of exploration holes from mid 70's has now been completed prior to planned drilling this summer - this work is now being compiled and interpreted.
2. Ground geophysics in selected areas continues. Measurements in the South Pasvik National Park have confirmed the existence of the Tommamoen Fault with a horizontal displacement of 800 - 1000 m.
3. Plans have been made for detailed Quaternary investigations in the South Pasvik boulder area.

SKRATAAS

Sydvaranger have been offered new option period on terms discussed and agreed on by Toronto/Langton. They have not yet replied.

(T- 2061)

A/S SULFIDMALM

VESTLANDET

Literature research and plans for field work in Paleozoic greenstone belt in west of Norway underway. Definite gold indications have been noted from Ølve in association with chlorite rich schistose horizons in a volcanic environment. The gold is associated with pyrite in the schists and also with quartz/carbonate lenses. Field work will take place here in late April/May.

EIDSVOLL

Plans made for field work start up in May.

GENERAL

Svenningdal agreement now signed using 0.5% gross royalty clause.

++++

RAPIFAX

T-1952 /  
(2 pages) 16. ①

To J. C. Cowan,  
Copy E. Wigstøl,  
From F. Nixon.  
Date 2. 3. 81

SULFIDMALM MONTH-END REPORT FEB.

BINDAL.

1. Report on last years work completed and distributed.
2. Preparations for this season underway.
3. Plans for teconic analysis made, hope to have Prof. Ramsay from Dundee lead this work.
4. Work on agreements with ground owners over potential alluvial ground underway
5. We have applied for Government grant under the North Norway scheme. Amount applied for is kr. 450 000 - we hope to receive ca. kr. 200 000.
6. Most samples from the Reppen area have now been assayed. Best results give 3,74 g/t Au over 7m with best meter running 6,9. Other results are low and erratic. These results are now being interpreted together with geology and geophysics.
7. Assays from a 10 cm wide massive arsenopyrite sone in Røyskattdalen some 8 km north of Kolsvik have shown 4,5 g/t Au.

PASVIK - POLMAK.

1. Following reports completed and distributed
  - A. Polmak geology.
  - B. South-Pasvik drilling.
  - C. Skogfoss-Arch nickel potential.

With plans for more deeper drilling on the Skogfoss arch ultramafics in mind, exploration holes from the early and mid 70's are now being relogged.

2. Minor geophysics being carried out in selected areas.

SKRATAAS.

1. Sydvaranger wish to extend option period and also extend option area.  
A memo on this is in circulation. The Skrataas deposit has only a limited tonnage - 60 - 90 000 tons but three C. P. anomalies immediately to the SW indicate similar mineralization and the original Sydvaranger target of some 200 000 tons is still possible.

VESTLANDET.

1. Litterature study of Paleozoic volcanics have indicated gold possibilities in areas we have picked up.
2. Mineralogical work by R. Buchan on Faeøy samples identified both Kotulskite Pt (Bi, Te)<sub>1-2</sub> and an unusual Pd-Te-Hg mineral. It will be remembered that samples from Faeøy have given up to 11 g/t Pt.

GENERAL.

Svenningdal silver option now nearing completion using a 0,5% gross royalty clause.

RAPID FAX

To: J.C. Cowan  
From: F. Nixon  
Copy: E. Wigstøl  
Date: February 2, 1981.

Sulfidemalm Jan. Highlights

Bindal

Most time this month has gone to compiling an evaluation report on last years work in the area: -(which is now almost complete). The main conclusion of this report is that on the basis of work to date some 280.000 tons of possible, potentially mineralized rock have been outlined (at F and C) in Kolsvik with unexplored and unexposed areas offering a good potential for further tonnage. Average gold grade is practically impossible to determine to date, but typical assay sections plus recommendations for further work are outlined in the report.

Some attention has also been given to the placer potential of the Kolsvik region. It would seem that some 6.500.000 m<sup>3</sup> of primary glaciofluvial and reworked deposits with potential gold are present. Very limited sampling has given results varying from 0.003 - 0.2 g/m<sup>3</sup>. This subject is also discussed more fully in the report. Several new assays have been received from the Reppen showing but more show over 1 g/t.

Pasvik-Polmak

Data evaluation with reports on Polmak and diamond drilling in South Pasvik being completed and distributed.

Plans of South Pasvik are now a detailed quaternary interpretation based on the results to date.

A discussion of nickel potential of the Skogfoss Arch (Pettamo Group) is being compiled - this compilation outlines the possible down dip potential for sulphides in the ultramafic rocks in the Arch.

It may be recalled that Dr. D. Fraser during his visit here in July 80 cast some doubt on whether the S.Pasvik nickel boulders were good E.R. conductors (Dr. Frasers memo 5/8). Several boulder samples have been tested giving conductivity measurements of 0.01-0.07 ohm/m indicating good conductors, as did the samples originally measured in 78/79.

Skrataas

Meeting with Sydvaranger planned for February.

Other Projects

Svenningdal silver option nearing completion (ref. my memos).

F. Nixon  
T-1802  
(2 pages)

(1)

TO : J. C. Cowan, Toronto  
CC : E. Wigstøl, FNA  
FROM : F. Nixon  
DATE : December 30, 1980

16

SULFIDMALM DEC. HIGHLIGHTSBINDAL:

Further assays from D.D.H. 4 at Kolsvik between 20-30 m

|                 |            |
|-----------------|------------|
| 28.75 - 29.0 m  | 2.9 g/t Au |
| 29.0 - 29.25 m  | 63 " "     |
| 29.25 - 29.50 m | 1.2 " "    |

rest of section < 1 g/t

Some chip sample assays have also been received from the Reppen area where Asp-Py mineralization is associated with quartz- tectonic zones - the distribution of which is not yet fully understood.

Best results to date have given following assays from continuous 0.5 m chip samples across the southernmost showing:

|           |     |            |            |
|-----------|-----|------------|------------|
| Sample No | 500 | 0.5 m chip | 0.4 g/t Au |
|           | 501 | " "        | 4.7 " "    |
|           | 502 | " "        | 1.0 " "    |
|           | 503 | " "        | 6.1 " "    |
|           | 504 | " "        | 0.7 " "    |

Evaluation of this years results are now being compiled in report form.

SKRATAAS

Best assays from this years drilling have given 0.38 % Cu, 1.08 % Zn over 3 m (41-44 m) in hole 13 which was put down to test C.P. anomaly immediately south of the Skrataas Mine.

Sydvaranger have indicated verbally that they wish to prolong the option and also wish to extend the option area. This will be discussed with them in January.

OTHER PROJECTS

Date evaluation and compilation.

(T-1802)

GENERAL

Option negotiations on the silver property reported last month-end report have continued and we hope to reach an agreement with the prospector over new year.

In the meantime we have staked 8 claim blocks in the immediate area.

Regards

T-1802 /  
(2 pages)

(1)

TO : J. C. Cowan, Toronto  
CC : E. Wigstøl, FNA  
FROM : F. Nixon  
DATE : December 30, 1980

SULFIDMALM DEC. HIGHLIGHTSBINDAL:

Further assays from D.D.H. 4 at Kolsvik between 20-30 m

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rest of section < 1 g/t

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|           |     |            |            |
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|           | 502 | " "        | 1.0 " "    |
|           | 503 | " "        | 6.1 " "    |
|           | 504 | " "        | 0.7 " "    |

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SKRATAAS

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OTHER PROJECTS

Date evaluation and compilation.

(T-1802)

GENERAL

Option negotiations on the silver property reported last month-end report have continued and we hope to reach an agreement with the prospector over new year.

In the meantime we have staked 8 claim blocks in the immediate area.

Regards

(T-1311)

Geophysical surveys: - VLF dip angle and radio dhm and mag have been carried out on supposed continuation of Kolosvik zone. This survey gave no clear indications.

#### KVIKNE

Drill holes 108 and 109 have been completed

108 - 2000S/450E 90° 190m.

109 - 2000S/500E 90° 198m

Both holes drilled on Turm and possible Max.min. anomalies in continuation of Vekkerlien zone.

No mineralization found, both holes surveyed with down-hole VLF - no anomalies.

Drilling has now been terminated for the present. Field work is now detailing HEM anomalies and geological mapping in the general region.

#### EIDSVOLL

Geological mapping commenced around gold showings have established sequence of basic and acid volcanics (rhyolites). Hematite alteration zones apparent. This work continues.

# RAPIFAX

To: J.C. Cowan, Toronto  
cc: E. Wigstøl  
From: F. Nixon  
Date: Dec. 1, 1980

## Sulfidmalm November Highlights

Bindal 905.28.

Field work now finished for season. Data evaluation and assaying in Kristiansand. DDH 3 on F zone is assayed completely and has returned following best values.

|       |   |         |            |       |   |         |         |
|-------|---|---------|------------|-------|---|---------|---------|
| 60    | - | 60.50 m | 5.7 g/t Au | 68.5  | - | 68.75 m | 3.4 g/t |
| 60.25 | - | 60.50   | 4.7        | 70.0  | - | 70.25   | 1.0     |
| 60.50 | - | 60.75   | 1.8        | 76.25 | - | 76.50   | 1.0     |
| 60.75 | - | 61.0    | 1.0        | 77.25 | - | 77.50   | 1.7     |
| 61.5  | - | 61.75   | 1.4        | 79.50 | - | 79.75   | 15      |
| 62.0  | - | 62.25   | 1.3        | 79.75 | - | 80.0    | 15      |
| 62.25 | - | 62.50   | 2.8        | 87.50 | - | 87.75   | 3.3     |
| 65.25 | - | 65.50   | 10.6       | 87.75 | - | 88.0    | 2.0     |
| 65.50 | - | 65.75   | 3.9        | 88.0  | - | 88.25   | 37      |
| 65.75 | - | 66.0    | 2.8        | 88.25 | - | 88.50   | 1.9     |
| 66.0  | - | 66.25   | 5.5        | 88.50 | - | 88.75   | 3.5     |
| 66.25 | - | 66.50   | 1.6        | 88.75 | - | 89.00   | 6.7     |
| 67.25 | - | 67.50   | 5.3        | 89.0  | - | 89.25   | 9.6     |
| 68.0  | - | 68.25   | 1.7        | 89.25 | - | 89.50   | 1.0     |
| 68.25 | - | 68.5    | 1.0        |       |   |         |         |

The hole is a vertical hole giving an exaggerated intersection. DDH 4 assays are expected in the next few days.

Skrataas 905.24

Drilling on geophysical targets in vicinity of Skrataas mine (Sulfidmalm/Superior - Sydvaranger option) now completed.

DDH 13 to test C.P. anomaly immediately south of Skrataas mine - coordinates 1050 E/12 S. 30°S was drilled to 70 m, intersected Zn Pb Cu impregnation between 41 and 44 m. No assays yet available. DDH 14 same location as 15. 60°S drilled to 60 m, only trace of sulphides.

DDH 15 1150 E/25N 65°S to test C.P. anomaly. Drilled to 60 m, no sulphides.

DDH 16 1150 E/25 N 65° S drilled to 50 m, no sulphides.

Based on these and last years results Sydvaranger will now decide if they wish to take an option on the property (before 1.1.81).

Two holes were also drilled on CP and EM 16 anomalies near an old showing some 1.2 km east of Skrataas. Both holes 90 and 55 m respectively proved to be negative.

Kvikne 905.20.

No field work. Geological compilation.

East Finnmark 905.30

Some limited geophysics has been completed this month. Detailed logging and sample evaluation also carried out in the field. In office data evaluation.

#### Generally

We have recently entered option negotiations with a local prospector, S. Paulsen, on a silver property not far from Bindal. The mineralization is a network veining in limestone and granite. Grab samples assayed by us have returned the following.

| Cu % | Zn      | Pb % | Ag      | Au      | S %  |
|------|---------|------|---------|---------|------|
| 1.81 | 32.4    | 1.40 | 1.10 %  | 5 ppm   | 21.4 |
| 0.02 | 920 ppm | 0.06 | 36 ppm  | 1 ppm   | 0.24 |
| 1.74 | 5.40    | 2.60 | 790 ppm | 7 ppm   | 37.0 |
| 1.58 | 0.30    | 2.20 | 0.12 %  | 1.4 ppm | 36.7 |
| 0.39 | 810 ppm | 1.04 | 210 ppm | 2.3 ppm | 14.4 |
| 0.28 | 750 ppm | 0.51 | 120 ppm | 4.4 ppm | 9.7  |
| 0.58 | 0.11    | 1.46 | 220 ppm | 6.6 ppm | 38.3 |
| 0.72 | 4.00    | 0.51 | 0.12 %  | 2.0 ppm | 36.5 |

We are in process of staking ground in the area.

In Sweden Boliden have just announced the discovery of a new silver deposit. Associated with Pb-Zn mineralization near the operating Garpenberg mine in South Central Sweden. The property known as Daminsjö has reserves of more than 5 mill. tonnes with an average silver content in excess of 200 g/t. However Boliden anticipates that further evaluation and exploration will substantially increase the total reserves, possibly to as much as 15 mill. t. as the mineralization extends over an area of 10.000 m<sup>2</sup>.

# RAPIFAX

To: J.C. Cowan  
cc: E. Wigstøl  
From: Frank Nixon  
Date: December 2, 1980

As a supplement to yesterday's month end report, the following assays have just been received. Bindal, hole no. 4.

|       |               |   |             |
|-------|---------------|---|-------------|
| DDH 4 | 13.75 - 14.0  | m | <0.3 ppm Au |
| -     | 14.0 - 14.25  |   | <0.3        |
|       | 14.25 - 14.50 |   | <0.4        |
|       | 14.50 - 14.75 |   | 0.6         |
|       | 14.75 - 15.0  |   | 1.0         |
|       | 15.0 - 15.25  |   | <0.3        |
|       | 15.25 - 15.50 |   | 0.6         |
|       | 15.50 - 15.75 |   | <0.3        |
|       | 15.75 - 16.0  |   | <0.3        |
|       | 16.0 - 16.25  |   | <0.3        |
|       | 16.25 - 16.50 |   | <0.3        |
|       | 16.50 - 16.75 |   | <0.3        |
|       | 16.75 - 17.0  |   | <0.3        |
|       | 17.0 - 17.25  |   | 1.0         |
|       | 17.25 - 17.50 |   | 7.0         |
|       | 17.50 - 17.75 |   | 7.4         |
|       | 17.75 - 18.0  |   | 0.8         |
|       | 18.0 - 18.25  |   | <0.3        |
|       | 18.25 - 18.5  |   | 1.9         |
|       | 18.5 - 18.75  |   | <0.4        |
|       | 18.75 - 19.0  |   | <0.4        |
|       | 19.0 - 19.25  |   | <0.5        |
|       | 19.25 - 19.50 |   | <0.3        |
|       | 19.50 - 19.75 |   | <0.4        |
|       | 19.75 - 20.0  |   | <0.4        |

RAPIFAX

(2 pages)  
T- 1575 /

(1)

To: W. D. Harrison  
From: F. Nixon  
Copy: E. Wigstøl  
Date: October 3, 1980

SULFIDMALM SEPT. HIGHLIGHTS, 1980

GENERALLY

A.M. CLARKE AND J. LANGTON VISITED BINDAL, KAUTOKEINO AND EAST FINNMARK. BINDAL AND PASVIK WERE VISITED BY MR. KECK, COOPER, BERRY, KILBURN, MITCHELL, FELDMEYER AND WIGSTØL.

Project 20.

KVIKNE

No field work, only office compilation underway.

Project 24.

SKRATAAS

Some supplementary V.L.F. resistivity measurements carried out prior to drilling starting Oct. 5. First drill targets are C.P. anomalies to the immediate south of Skrataas Mine.

Project 28.

BINDAL

The field work on this project is now nearing completion for this season.

The Kolsvik zone has now been completed, mapped in scale 1:800, and the areas of gold showings mapped on 1:200 scale. Supplementary surface sampling has been carried out.

Two more drill holes have been completed this month on the southernmost showing - the F-zone which gave 12.5 g/t Au over 4.5 m on surface. Hole 3 drilled vertically to intersect the F-zone at depth was completed down to 95 m. Several zones of arsenopyrite were intersected and a similar "breccia" zone to the mineralized zone on surface was intersected between 60 and 80 m. The entire hole is

(T-1575) /

(2)

## A/S SULFIDMALM

is under assay over 25 cm sections. To date assays have been returned down to 39 m. The highest numbers recieved are as follows:

|               |         |
|---------------|---------|
| 22.50 - 22.75 | 2.7 g/t |
| 22.75 - 23.00 | 2.2 g/t |
| 38.25 - 38.50 | 1.6 g/t |
| 38.50 - 38.75 | 1.2 g/t |

Hole 4 was put down from the same location as 3 and drilled at 55° over the F-zone. This hole was drilled to obtain correlation concerning the numerous arsenopyrite zones intersected between 13 and 21 m. Several other Asp mineralizations were also seen. The hole was drilled to 84 m.

Three other areas in Bindal have also been mapped and sampled in detail. These are:

- |               |                                                |
|---------------|------------------------------------------------|
| Tosen         | - scheelite associated with marble             |
| Røyskattdalen | - scheelite in skarn, Asp Au min.              |
| Reppen        | - Asp Py Au associated with large quartz vein. |

The results from these areas are under compilation.

## Project 30.

EAST FINNMARK

Field work is now completed and results are now under compilation.

RAPIDFAX

F. Nixon

(1)

T-1474  
(3 pages)

To: W.D. Harrison  
Copy: E. Wigstøl  
From: F. Nixon  
Date: September 1, 1980

Sulfidmalm Highlights July-August

Project 20. Kvikne

The area flown by HEM last year (to the west of Vakkerlien) has now been covered by stream sediment geochemistry, some 800 samples being collected. Seven selected areas have been covered by ground V.L.F. - magnetics and max-min. Interesting anomalies have been picked up in most of the areas. Regional geological mapping in the Kaltberget-Vakkerlien Kvikne area has now been completed and is under compilation. - It is hoped that some stratigraphical significance regarding the meta gabbroic and ultramafic intrusions will result from this work.

Project 24. Skrataas

C.P. surveys have been carried out with seven different active groundings in the Skrataas area. Three areas to the south of Skrataas indicate zones of mineralization possibly similar to the main Skrataas ore body and lying in an echelon pattern. The anomalies are however small and do not indicate any body larger than Skrataas.

Good C.P. results were also obtained from Marka showing approx. 1 km east of Skrataas. All data is now under interpretation prior to limited drilling program due to start in mid September.

Project 28. Bindal

An area of 150 km<sup>2</sup> centered around the Bindal gold showings has now been mapped on a scale of 1:28.000. Stream sediment and rock sampling has also been covered in the same area.

This mapping has outlined various igneous rocks of the Bindal suite (granites, monzonites-monzonodiorites and diorites) cutting through a protolith of dominantly shelf sediments where limestones, orthoquartzites, sedimentary amphibolites and mica schists can be recognized. Other recognizable units of the protolith are precambrian basement migmatites? ophiolite complexes and an early plutonic suite. This regional work will now form the basis for more detailing and samp-

ling of areas of interesting geology (ore potential) and areas of mineralization discovered during the course of the regional work. Of special interest is the occurrence of large skarn and limestone units which under the initial regional work have given some interesting scheelite colours on the UV lamp.

In Kolsvik detailed mapping has now been completed over the "gold zone". The geology is extremely complex with large areas of sedimentary limestones-amphibolites - being associated with granite. Two types of granite occur in the area and As/Au mineralization is associated with both. It is not yet certain whether the two granites are different intrusions or whether one is a more altered variety of the other. Both show typical signs of alteration but sericite is limited to one whereas the other shows more feldspar alteration.

The gold and arsenopyrite veins seem to be intimately associated with a set of slightly curved NW-SE trending shear zones dipping to the northeast  $45-85^\circ$  averaging about  $70^\circ$ . At least 7 such shear zones have been mapped on surface (5 over a distance of some 100 m in the Seksa-Klondyke-Boliden area). More detailed work is now being concentrated on these areas.

The drilling in the Kolsvik area has proceeded very slowly due to repeated machine trouble and bad management by the drilling contractor.

Two holes have been drilled from the same set up between Skaret and the Seksa shaft. Drilling west to intersect the possible continuation of the Skaret and Klondyke zones at depth.

Hole 1 was drilled to a depth of 113 m at an angle of  $80^\circ$ . The core revealed extremely complex geology. No apparent large As or Au bearing quartz veins was intersected. To date two samples have given interesting numbers i.e. 45.75-46.00 6.7 g/t Au associated with qtz veins in granite and 61.25-61.50 18 g/t Au associated with rich arsenopyrite dissemination. Hole 2 drilled at  $45^\circ$  to a depth of 85.30 m gave extremely complex geology again with most of the hole being cored in sedimentary rocks. To date no values of interest have been returned.

The drill has now been moved to the southern end of the "gold zone" i.e.F. Because of the topography the drill set up is difficult at time of writing the first hole (vertical) set up to intersect the F zone at depth is down to 42 m and several areas of arsenopyrite have been noted.

#### Project 30. East Finnmark

Drilling in South Pasvik has now been terminated for the year. Some 2000 m were drilled on mag. mag-V.L.F. and V.L.F. anomalies in the hunt

for the source of the nickel bearing Romlingås boulders. No mineralization was found although several ultramafics and py. po. cpy zones in the wall rock schists were intersected.

Mapping has continued in this area northwards towards and into the Petsamo formation.

Regional ground V.L.F. mag has now been completed south to the U.S.S.R. border without revealing any significant anomalies.

In Polmak regional mapping has started to outline a sequence of meta-volcanic and sedimentary rocks not unlike the Petsamo suite. Areas of diorite of ultramafic rocks have also been outlined.

HEM coverage of the area has been completed and preliminary results are now being followed up by mapping and prospecting.

RAPIFAX

T-1311 ✓

To: W.G. Harrison

Copy: E. Wigstøl

From: F. Nixon

SURFIDMALM HIGHLIGHTS JUNE

General

A.M.C., S.N.C. visited Bindal, SNC also visited Eidsvoll gold area.  
J. McDougall on grand tour of operations.

Pasvik

Geological mapping in progress in Skogfoss Arch. Mapping and  
and prospecting have also just commenced in the Palmak and Jarfjord  
areas. In South Pasvik 12 holes have been drilled to date on VLF  
and Mag. anomalies in the vicinity of the boulder finds. Several  
ultramafic bodies have been intersected and also sulphides in the  
wall rocks but to date no interesting nickel values.

Max.min. surveys have been carried out over the drill program  
area and mostly confirm VLF anomalies and give better resolution.

The first 12 drill holes have tested the area around and to  
the east of the boulders (the region of the late ice movement). Drill-  
ing will now commence on anomalies to the south east of the boulders  
(area of main ice movement). A summary of drill results to date is  
given below.

- DDH 14 12500N/5025W 70°E 50m VLF.  
Mainly amphibolite and quartz feldspar gneiss. VLF anomaly  
caused by pp min. 7.50-10.40 m in garnet amph.
- DDH 15 12500N/5125W 70°E 61.40m VLF.  
Mainly amphibolite mica schist and quartz feldspar gneiss.  
VLF anomaly due to pp min. over 29.30 - 32.60 m in mica schist.
- DDH 16 12400N/4985W 70°E 60m VLF/Mag.  
Mainly amph. (magnetite) and quartz feldspar gneiss. VLF ano-  
mally due to pp & CPY over 14.40-15.20 in quartz-feldspar gneiss.
- DDH 17 12000N/5050W 90° 50m Mag.  
Ultramafic - ml. peridotite from 25.65 - 36.50. No sulphides.
- DDH 18 12300N+5500W 90° 43.30m Mag.  
M. peridotite 8.45 - 28.00 No sulphides.

(T-1311)

- DDH 19 12800N/5500W 90° 50.30 m Mag. weak VLF.  
Dominately amphibolitic lithology.  
38-39 m graphite with po & cpy.  
Cause of anomaly uncertain.
- DDH 20 12615N/5715W 70° E 82.25m Mag.  
Quartz-feldspar gneiss. Hole was expected to intersect  
ultramafic dipping to west (located under lake).
- DDH 21 13200N/5975W 90° 51.10m VLF on nose of mag.  
Amphibolite and quartz-feldspar gneiss.  
VLF caused by po cpy at 8.40-10.85 and 13.65 - 13.80.
- DDH 22 12605N/5800W 90° 70.80m Mag.  
Metaperidotite 24.20 - 68.00. No sulphides.
- DDH 23 12800N/6010W 50°E 74.80. VLF weak mag.  
Dominantly amphibolitic lithologies.  
18.10 - 34.20 heavy sulphide impregnation. Assays  
run 0.1% Ni, 0.1% Cu.
- DDH 24 12600N/5925W 60°E in progress VLF.  
15.80-15.90 graphite.  
19.40-19.45 10% sulphides in quartz feldspar gneiss.
- DDH 25 12800N/5860W 75°W VLF. Mag.  
in progress.

Regional VLF MAG surveys and boulder tracing - mapping continues.

#### BINDAL

Field work now in progress. Detailed investigations in Kolsvik and Grytdalen. Regional stream sediment and sampling in progress. Field camps established in Finnås and Kalklavsdaalen.

Regional geological mapping and prospecting has shown the Bindal massif to be a complex batholith with at least 12 intrusive phases: - many skarns have also been discovered with po and cp mineralization. Some of these are now being sampled in detail.

Drilling has started in Kolsvik. The first set up is between the Klondyke and Seksa showings. DDH 1 80°W was drilled down to 80m and cut through a mixture of granitic rocks and sedimentary inclusions with several quartz veins. No "breccia" structure was noted but arsenopyrite was visible in several places notably from 57-70m. No assays yet available from this zone. In the upper portions of the hole 6 g/t Au was recorded over 0.25cm from altered granite. The second hole in this profile is in progress drilling 55°W and is at present at 50m. The Klondyke zone is expected to be intersected around 65m.

A/S SULFIDMALM  
INTER-OFFICE MEMORANDUM

Date: June 1, 1980

To: W.D. Harrison

cc: E. Wigstøl

From: F. Nixon

Subject:

May Highlights

All projects have now been commenced and drilling has started up in Pasvik, Bindal (3/6) and Kvikne. Due to this timing a mid-monthly progress report on results will be sent medio June.

RAPIFAX T-1165 V

Att. W.D. Harrison  
Toronto

Copy: E. Wigstøl  
From: F. Nixon  
Date: April 30, 1980

APRIL HIGHLIGHTS

PASVIK

Geophysical ground work has continued in Pasvik. Also some detailed work prior to drilling has been carried out. Drilling contract has been signed and due to start in latter part of May. Results of 1979 till sampling program have now been received and are being plotted.

Ultrabasic samples from the Skogfoss arch area have been collected from previous drilling for pet. and chemical work and comparison with Russian and S.Pasvik ultramafics.

Compilation of data from Polmak and Jarfjord continues and all plans for field season are now complete.

BINDAL

Plans for summer field work are now complete and work will start in latter part of May.

Almost all assay results for gold have now been received and have passed through Toronto. The numbers vary from 0 - over 800 g/t Au. The very high numbers (over 100 g/t) are located to quartz veins near granite/amphibolite contacts. Some interesting numbers are also located to the tectonic "breccia" quartz-arsenopyrite mineralization type. The main zone of this mineralization has been found in 6 locations over a 850 strike length and 200 m elevation difference. Sampling at the southernmost outcrop gives 6.5 g/t over 1.25 m. Approx. 100 m N along strike 12 g/t Au over 4 m. Another 100 m to the N our sampling on the zone gave poor results but older assays have recorded high values. 140 m N of this point sampling of the outcropping "breccia" zone has given values of 9 and 6 g/t. Assays from the northernmost part of the zone are still being awaited from Nikkelverk but are expected to give similar numbers.

(T-1165) ✓

The geology and vein tectonics of the area where high value quartz veins are found near amphibolite xenolithes in the granite is complex and much more detailed work will be carried out here. Some of the samples have given extremely high gold values.

As mentioned in my telex the report is expected to be complete the first week of May.

As an aside to the Bindal project a study of the tectono-stratigraphic situation of the Norwegian Caledonides indicates that granite batholiths and bodies of similar origin (continental) and age span to the Bindal granite exist all along the margin of the Scandinavian Caledonides. Areas of considered potential interest are being quietly picked up.

#### KVIKNE

Drilling is still going extremely slowly and expressed indignation to the drilling company will hopefully improve matters.

Winter geophysical coverage of HEM anomalies was completed after Easter and all anomalies tested with mag. and V.L.F. gave indications of plunging isolated anomaly sources. These will be checked during the summer.

#### GENERAL

All plans for the main field season are now complete and May will mark the beginning of the bulk of the field work.

*Frank Hixon.*

## EINDALEN - PROJECT 28 - 1980

Our involvement in the area in 1980 will be concentrated on the area SE of the Tosenfjorden where we have claims. Besides the rights we have leased from the state, we have acquired 212 of our own.

The field season 1980 will have two aims:

1. Regional work
2. Local work within limited areas.

1. The regional work will mainly be collecting of stream sediments with emphasis on As, W and Sn. This will take place parallel to geological mapping particularly in the border areas between the granite and the adjoining rock types.

In suitable areas it will be attempted to wash heavy minerals.

2. Detailed investigation will be carried out in 6-7 areas where showings of Au, W and Sn were known earlier. These deposits are mainly vein and breccia deposits of the Kolsvik type, but also skarn deposits are known.

Tectonics and the relationship between veins and wall rock will be emphasized, something which seems to be of importance in Kolsvik. Sampling will be carried out by special teams.

Areas which at present are selected for more detailed sampling are:

1. Kolsvik
2. Reppen
3. Kalklavdalen - Finlien

#### KOLSVIK

Because of the topography, the work in this area will primarily concentrate on the northern half of the "breccia zone" plus the amphibolite.

The following program is planned:

1. Geophysics. Both EM and MAG will be carried out. Arsenopyrite is expected to give an EM anomaly. The contrast between the amphibolite and the adjoining granite/sediments is expected to give a magnetic anomaly. Hopefully this will give a better indication of where to drill.

2. Diamond drilling based on geology and possibly the result of geophysics.
3. Additional sampling.
4. Detailed prospecting and sampling of the N-S tectonic zone.

#### REPPEN

The geological features are relatively well known from mapping in 1979. At this time planned sampling was not carried out. Survey sampling from 1978 indicates 5-10 g Au/t over 1-2 m in a quartz zone which has a strike length of some 2-300 m. Some follow-up work ought to be carried out.

#### KALKLAVDALEN - FINLIEN

Both Au, Ag, W and Sn are known in this area. The deposits are partly as skarn partly as quartz veins/breccias. This area will partly be covered by regional geological and geochemical work planned, some specific areas will be the target of more extensive work.

- a) Detailed mapping
- b) Sampling

In all 15 - 20 people will participate in the project in 1980.

These will spread over:

- |                              |   |
|------------------------------|---|
| 1. Geology - regional        | 4 |
| 2. Geochemistry - " -        | 4 |
| 3. Geophysics Kolsvik        | 2 |
| 4. Sampling                  | 2 |
| 5. Diamond drilling          |   |
| 6. Geological follow-up work |   |
| 7. Line cutting              |   |
| 8. Claiming                  |   |

PROPOSED BUDGET FOR INCREASED  
BINDAL PROJECT

Surveys

|                |                |         |
|----------------|----------------|---------|
| Salaries       | 100.000        |         |
| Transportation | 70.000         |         |
| Field expenses | 55.000         |         |
| Assistents     | <u>160.000</u> |         |
|                | 554.000        | 554.000 |

Diamond drilling

|                   |               |         |
|-------------------|---------------|---------|
| Salaries          | 25.000        |         |
| Transportation    | 50.000        |         |
| Contract payments | 600.000       |         |
| Field expenses    | 35.000        |         |
| Assays            | <u>50.000</u> |         |
|                   | 760.000       | 760.000 |

Camp operation

|               |        |        |
|---------------|--------|--------|
| Camp supplies | 20.000 | 20.000 |
|---------------|--------|--------|

|                   |       |       |
|-------------------|-------|-------|
| <u>Mineralogy</u> | 5.000 | 5.000 |
|-------------------|-------|-------|

|                        |       |       |
|------------------------|-------|-------|
| <u>Option payments</u> | 3.000 | 3.000 |
|------------------------|-------|-------|

|                             |        |               |
|-----------------------------|--------|---------------|
| <u>Property maintenance</u> | 10.000 | <u>10.000</u> |
|-----------------------------|--------|---------------|

1.352.000

|                    |  |         |
|--------------------|--|---------|
| ÷ Government grant |  | 350.000 |
|--------------------|--|---------|

kr 1.002.000

Att W. D. Harrison.  
Toronto

RAPIDAX

T-1074 ✓

Kvikne 29.3.80

Pasvik.

Field work well under way. Line cutting, magnetics and V.L.F. in progress. Data on Polmak and Jarfjord areas under compilation.

Kvikne.

Drilling has started, but delays are caused by weather conditions. Hole 108 on 2000S-450E has reached a depth of 110m.

Ground follow-up surveys on helicopter EM-VLF-MAG. of area to the west and south of Vakkerlien has started. First priority areas are based on coincident low-frequency EM and mag. So far results have indicated anomalies of similar geometry to Vakkerlien.

Bindal.

Several assay results have now been received- results vary from 0 to 200 g/t Au and are now being compiled into report. Approx. 270 assay results have still to be received.

Program for the summer has been revised and expanded in accordance with budget supplement.

A total of 212 claims covering 53 km<sup>2</sup> have now been applied for and granted.

Studies of photomosaics of the Bindal area indicate several granitic phases and the "Bindal granite" probably represents a huge batholith with the enclosed sedimentary rocks being roof pendants. A batholith of such an outcrop size is probably part of a range of even greater extent and Prof. Sturt from Bergen has now field evidence (granite cutting fossil dated sed.) of granites of similar age at Møksteren, Reksteren and Tysnes to the south of Bergen. An arsenopyrite occurrence is also noted here. The area will be checked.

Regards F. Nixon

Kopi E. Wigstøl.

RAPIDOFAX

T-937 ✓

To W.D. Harrison  
Copy E. Wigstøl  
From F. Nixon

Sulfidmalm January Highlights

PASVIK

Report on the status of this project is now under completion. Assessment of data on Polmak and Jarfjord areas being undertaken.

KVIKNE

Drilling has resumed but difficulties due to extreme cold have resulted in little progress.

BINDAL

Several assay results have now been received - results has expected vary from zero to over 30g/t. These results are now being compiled into the status report which is being prepared. Some 200 samples are being sent to Swastica in Canada for gold and W assays.

Plans for this years work are underway

GENERAL

Renovations to our office space have caused much chaos during January but are now nearing completion.