



Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

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Kommer fra ..arkiv Falconbridge	Ekstern rapport nr Sul 304-73-23	Oversendt fra Sulfidmalm A/S	Fortrolig pga	Fortrolig fra dato:
Tittel Boulder tracing in the Pasvik area (Skogfoss - Oksfjell area).				
Forfatter B Lieungh		Dato 1973	Bedrift Sulfidmalm A/S	
Kommune Sør-Varanger	Fylke Finnmark	Bergdistrikt Finnmark	1: 50 000 kartblad 23331 24334	1: 250 000 kartblad Kirkenes
Fagområde Løsmassegeologi Geologi	Dokument type Rapport	Forekomster		
Råstofftype Malm/metall	Emneord Ni Cu			
Sammendrag Blokkleting i Skogfoss- Oksfjellområdet i Pasvikdalen				

27.7.
Nixon,
Kun dette
brevet bli
arkivert hos deg?
L.O.

A/S SULFIDMALM
INTER-OFFICE MEMORANDUM

Date: 23. august 1974

To: Falconbridge Nikkelverk A/S ✓

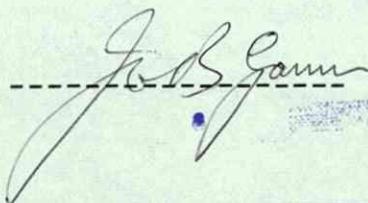
cc: W. D. Harrison, H. T. Berry, R. B. Band,
B. Lieungh

From: J. B. Gammon

Subject:

905-23. Pasvik Boulder tracing. Report No. 304/73/23.

Please find attached a report on boulder tracing in the
Pasvik area. Nothing of economic interest was discovered.



MOTTATT		03. 09. 74		BESV.	ARK.
ADM. DIR.				FORSKN./UTV.	
TEKNISK DIR.				EL. LYSEAVD.	
PERSONALDIR.				M.L. AVD.	
ADM. SJEF				R. & SM. AVD.	
INNKL. AVD.				EL. TEKN. AVD.	
REGNSK. AVD.				INSTR. AVD.	
SKIPN. AVD.				MEK. AVD.	
SJEFMET.				PROSJ. AVD.	
3	SAKSBEARB.				SVARDATO

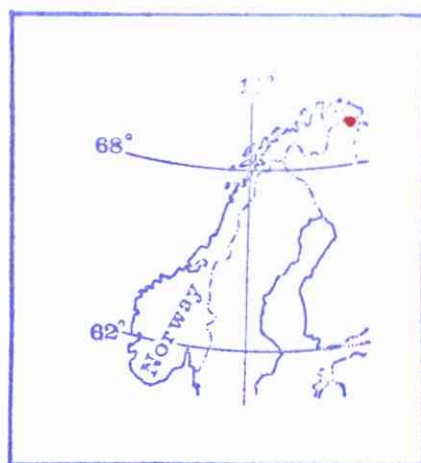
FOR FALCONBRIDGE NIKKELVERK A/S

A/S SULFIDMALM

PROJECT 905-23N

Boulder tracing in the Pasvik area.

by
B. Liungh



Report Nr. 304/~~7~~3/23

BOULDERTRACING 1973

Bouldertracers: Stellan Burman 9.7. - 24.8. 1973
 Lars-Erik Fjellstrøm 8.8. - 24.8. 1973

The bouldertracing was first concentrated on the area around Skjellvanns south and west sides in order if possible to determine the origin of a boulder fan discovered in 1971. Boulders in this fan contain pyrrhotite - pentlandite - bearing rock types. Only some less interesting boulders were found. These are boulders 1 - 73, 2 - 73, 3 - 73 and 4 - 73. None of them have been assayed.

Under the further investigations in pyrrhotite - bearing boulder with some chalcopyrite was found in a roadcut just north of drillhole no. 3. The search was intensified here and 3 boulders were sampled.

Boulder 5 - 73 pale amphibolite with rich sulphide impregnation of pyrrhotite and some chalcopyrite.
Boulder 6 - 73 pale amphibolite with rich sulphide impregnation of pyrrhotite and some chalcopyrite.
Boulder 7 - 73 pale amphibolite larger plebs in breccia of pyrrhotite and some chalcopyrite.

A short distance north of this area (1.3 km W of DDH 3) there was found in the roadcut several areas with good glacial striae. The direction of these were measured as:

N 140 - 340

N 015 - 215

where the latter direction is considered to be dominant and probably the transport direction.

On Riksvei 885 approximately 800 m east of the Skjellbekken fork there was found many quite large boulders containing massive pyrrhotite in a bend in the road. The sulphides can best be characterized as massive banded pyrrhotite ore with chalcopyrite in crossfractures.

The boulders had a large content of graphite. Samples from here are:

Boulder 8 - 73	Banded pyrrhotite ore.			
Boulder 9 - 73	Massive banded pyrrhotite ore.			
Boulder 10 - 73	"	"	"	"
Boulder 11 - 73	"	"	"	"
Boulder 12 - 73	"	"	"	"

Later some selfpotential and magnetic measurements were carried out in this area and it was apparent that the sulphides outcrop in the side of the road. Apart from this there was undertaken a more widespread bouldertracing in the area shown on the attached map. The following boulders were found:

Kobbfoss Boulder 13 - 73	Coarse grained amphibolite with weak sulphide impregnation.
Kobbfoss Boulder 14 - 73	Fine grained amphibolite with weak sulphide impregnation.
Skogfoss Boulder 15 - 73	Pyrrhotite impregnation in amphibolite.
Kobbfoss Boulder 16 - 73	Medium grained amphibolite without sulphides but lying within a magnetic zone (sample from bedrock).
Kobbfoss Boulder 17 - 73	Garnetamphibolite.

Particularly in the easternmost areas there were very small amounts of boulders to see within the moraine, possibly on account of the widespread swamps.

None of the new boulder finds showed pentlandite, but they had a weak reaction with DMG, but in several places there was a trace of chalcopyrite. The boulder finds have not given information which indicate economically important copper - nickel mineralization. The sulphide deposits east of Skjellbekken crossroads are outside the Petsamo Formation greenstones.

Polished specimens were made from the most interesting boulders:

4 specimens from the area north of DDH 3 showed:

Pyrrhotite as dominant mineral, as a rich net work in silicate.

Chalcopyrite as single larger plebs within pyrrhotite, but quantitatively subordinant.

Pyrrhotite as disseminated as small rounded grains in pyrrhotite.

Galena as a couple of very small crystals.

Rutile as a single crystal and small aggregates in pyrrhotite and silicate.

Ilmenite as irregular and partly altered laths in silicates.

3 samples from the Skjellbekken crossroads on the Pasvik road:

Pyrrhotite as the dominating ore mineral, the samples are nearly a massive pyrrhotite ore.

Sphalerite is found as discrete plebs within pyrrhotite.

Chalcopyrite as disseminated smaller single grains of quite subordinant character.

Pyrrhotite as a couple of small rounded grains within pyrrhotite.

Galena is observed as small grains within sphalerite.

One sample from Skogfoss showed only:

Pyrrhotite as the dominant mineral with chalcopyrite as some very small grains.

Conclusion:

The microscopic investigation of the most interesting boulder discoveries did not lead to the discovery of pentlandite or other nickel minerals. The samples are dominated completely by pyrrhotite with chalcopyrite only found in quite unimportant amounts.

No magnetite was found in samples from the Skjellbekken cross-roads despite the indicated magnetic anomaly over the outcrop of the sulphides.

Bilag nr 3

