



Bergvesenet

Postboks 3021, N-7441 Trondheim

Rapportarkivet

Bergvesenet rapport nr 7342	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
Kommer fra ..arkiv	Ekstern rapport nr	Oversendt fra F.M. Vokes	Fortrolig pga	Fortrolig fra dato:
Tittel Fremstfjell (Heimdalhaugen)				
Forfatter Vokes, F.M.		Dato År 24.09 1984	Bedrift (Oppdragsgiver og/eller oppdragstaker) Norsulfid Grong Gruber AS	
Kommune Grong	Fylke Nord-Trøndelag	Bergdistrikt	1: 50 000 kartblad 18231	1: 250 000 kartblad Grong
Fagområde Geologi	Dokument type		Forekomster (forekomst, gruvefelt, undersøkelsesfelt) Heimdalhaugen Fremstfjell	
Råstoffgruppe Malm/metall	Råstofftype Mo, Cu			
Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse Henleder oppmerksomheten på at området er geologisk ineressant ut fra sin geologiske karakter. Det settes opp 6 punkt det bør arbeides videre med. Blant disse muligheten for at området hører med til et yngre porfyr system.				

Fremstfjell (Heimdalshaugen).

This locality, situated at the SE margin of a large felsic intrusive of batholithic dimensions which intrudes the base of the volcanic/sedimentary island arc pile in the southerly Grong area, represents the first demonstrable porphyry (stock work) type of deposit found in the Norwegian Caledonides. Apart from any question of economic potential, which is still being investigated, the Fremstfjell area is raising many interesting problems of geological character which call for considerable research in the coming years. Among these are:

1. The age of the mineralization. A Caledonian age, is not the sole possibility, even though the most reasonable assumption. Post-Mesozoic block faulting in the area raises the possibility of a Tertiary age in connection with Atlantic rifting (cf. Werner Bjerger and other Greenland deposits).
2. The metal characterisation of the deposit is not yet clear. Analyses of DD cores show both Cu and Mo values, of the same order of size. However Cu values are undoubtedly higher in connection with xenoliths of the metabasic volcanic rocks which are present in abundance in this roof/border zone of the batholith. The Cu values could thus be due to contamination and not to the actual porphyry system, which could be dominantly characterized by Mo. (Such a characterization would also favour a rift-type, younger system rather than a subduction related (island arc) Caledonian system.
3. The petrography/petrology of the system is still very poorly known and the metal-bringing intrusive has yet to be identified. Considerable material exists in the form of drill core and surface exposures.
4. Definition of alteration types and zoning of both metal values, ore minerals and alteration types are other important attributes on which detailed research has only just been initiated.

5. Fluid inclusion and isotope studies need to be undertaken to characterise the ore forming fluids responsible for the deposition and to build up a satisfactory genetic model.

6. Regional research, including more mapping and petrographical/petrochemical investigations of the large batholith must be carried out to determine if other systems of a similar character have operated in the area.

24.9.84

F.M. VOKES