



Bergvesenet

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Rapportarkivet

Bergvesenet rapport nr BV 2227	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering Fortrolig
Kommer fra ..arkiv Sulitjelma Bergverk A/S	Ekstern rapport nr "522220010"	Oversendt fra	Fortrolig pga	Fortrolig fra dato:
Tittel Possible strukture of Buvik Dolomite. Dolomitt				
Forfatter BADKAR R.		Dato 1972	Bedrift Sulitjelma Gruber A/S	
Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Fagområde	Dokument type	Forekomster		
Råstofftype	Emneord			
Sammendrag Strukturgeologisk undersøkelse av en dolomitt - forekomst ved Buvik nakken i Sørfold. Bergartene i området består av kvartsitter, kalk-marmor, dolomitt, skifer og gneis. Minst to foldefaser er observert, og dolomittforekomstene har delvis auka mektighet pga. folding.				

POSSIBLE STRUCTURE OF BUVIK DOLOMITE

R. N. Badkar M. Sc., M. A. (Cantab)

(September 1972)

1. Introduction
2. The rocks
3. Structure
4. Concluding remarks

1. Introduction

In the area of Buviknakken (map ref. 270-750, A.M.S. toposheet no. 2129 IV, 1:50 000, SØRFOLD) two important dolomite exposures were mapped by B. Romenstad (1972), and he collected a number of samples.

It was, however, difficult to know the structure of the dolomite from this work. The reasons were:

1. The area is heavily covered with vegetation with scanty exposures and
2. very little attention was given to the associated rocks, and their attitude within the area.

In the present work an attempt has been made to understand the general structure of the area, and to suggest a possible structure of the economically important dolomite horizon. As the work was aimed at knowing the attitude of the dolomite horizon, the geological mapping is selective and therefore incomplete.

2. Rocks of the area

They may be grouped as follows:

1. Quartzites
2. Calcite marbles, banded with alternate pure and impure bands.
3. Dolomite
4. Semi-pelitic calc schists and gneisses, containing varying amounts of calcite, micas, amphiboles and garnets. Varying from thin phyllitic bands to para-amphibolites.

3. Structure

The rocks show at least two phases of folding. Phase 1. is along an axis roughly NE-SW. producing a tight, overturned synform. This structure has been re-folded on an axis roughly N-S. The general dip is between 40° - 70° .

The general structural pattern suggests that the two dolomite outcrops belong to the same horizon. The outcrop north of Buvik, on the fjord edge, probably shows the true thickness of the original dolomite horizon (≈ 30 m). There is also some thickening of this horizon by folding.

The main outcrop in Eiterbecken shows steep foliation (50° - 80°) striking roughly E - W while the lithology itself comes down the valley - to north. This probably is the result of the interference of the two fold-phases, and the dolomite here shows extreme thickening, minimum about 120 m. It is however, difficult to ascertain a correct thickness as the contact are unexposed. It is further possible that the thickness may be primary, but it is suggested that, at least partly the thickness is by internal folding.

4. Concluding remarks

In this area with multi-phase folding and scanty exposures it is difficult to make a reliable assessment of the structure and extent of the dolomite horizon. But the distribution of exposures in Eiterbecken and the quality of dolomite calls for further exploration, by drilling. It is suggested that test-drilling may be carried out on the SW and W of the exposures, assuming an average dip of the horizon as 70° , due, SW and W, respectively.

GEOLOGICAL MAP OF BUVIK AREA



Scale 1:15000

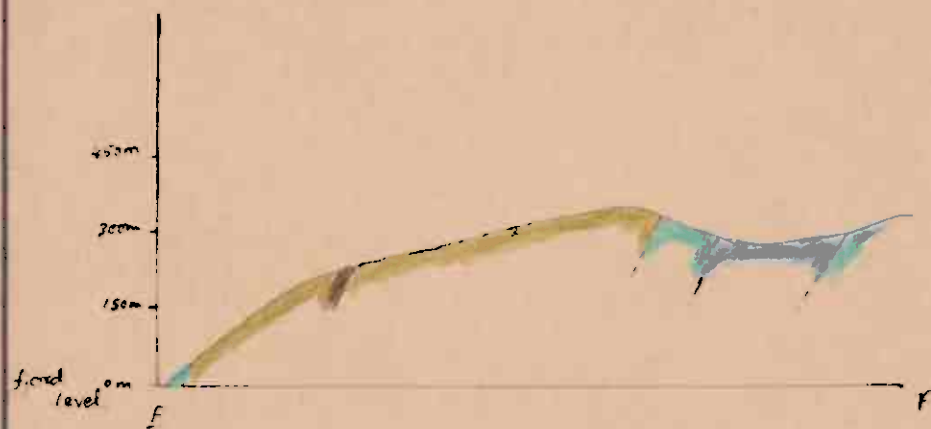
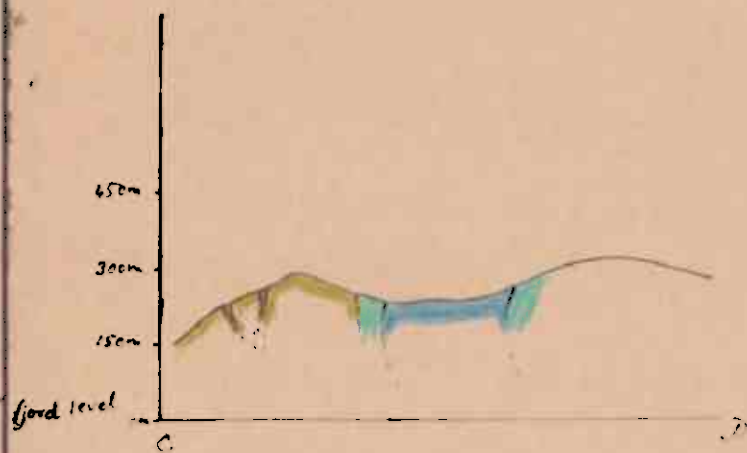
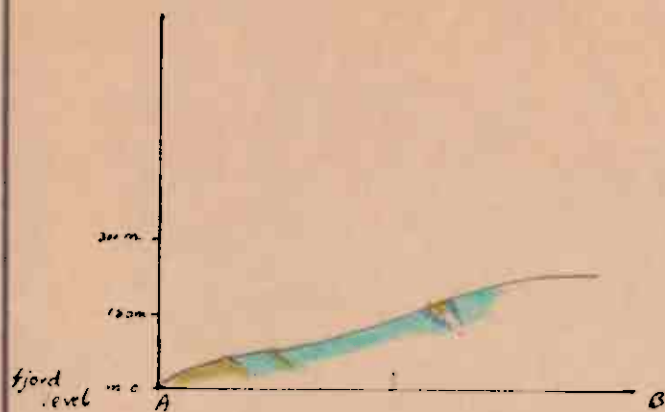
- 37  DOLOMITE
- 41  ALKALIC MARBLE
- 53  QUARTZ (MARTZITE)
- 51  CALC-SCHISTS & GNEISSES

--- APPROX LITHOLOGIC BOUNDARIES

- - - GENERAL FOLIATION DIRECTION

—●— PROFILE LINES





3 X

Possible Structure of Buvik Dolomite

R. N. Badkar M.Sc., M.A. (Cantab)

(^{September}~~Summer~~ 1972)

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2. The rocks
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4. Concluding remarks

1. Introduction

In the area of Buvknakken (map ref. ~~270~~ 270-750, A.M.S. toposheet no. 2129 IV, 1:50000, SØRFOLD)

two important dolomite exposures were mapped

by ~~R.F.~~ ^{B. Romenstad (1972)}, and he collected a number of samples.

It was, however, difficult to know the structure of the dolomite from this work. The reasons were:

- 1 the area is heavily covered with vegetation with scanty exposures and
2. very little attention was given to the associated rocks, and their attitude within the area.

In the present work an attempt has been made to understand the general structure of the area, and to suggest a possible structure of the economically important dolomite horizon. As the work was aimed at knowing the attitude of the dolomite horizon, the geological mapping is selective and therefore incomplete.

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They may be grouped as follows:

1. Quartzites
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- and 4. Semi-pelitic calc schists and gneisses, containing varying amounts of calcite, micas,

amphiboles and garnets. Varying from thin phyllitic bands to para-amphibolites.

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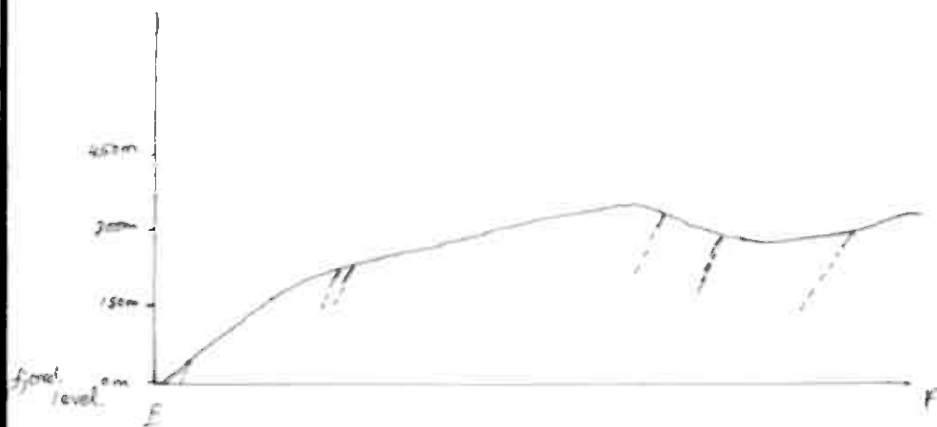
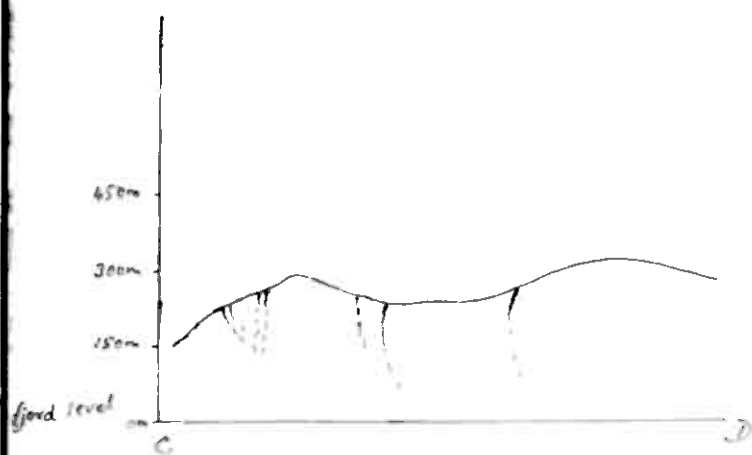
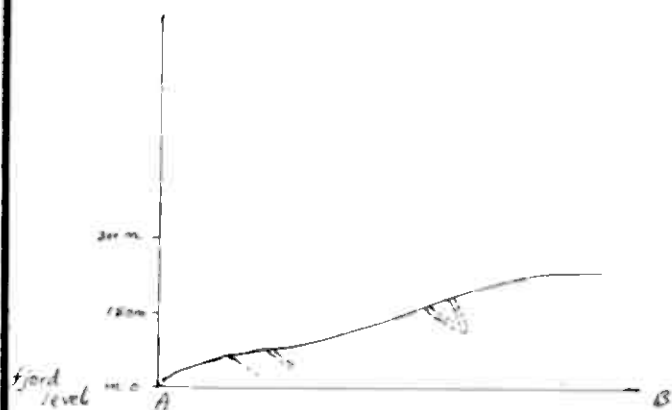
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In this area with multi-phase folding and scanty exposures it is difficult to make a reliable assessment of the structure and extent of the dolomite horizon. But the distribution of exposures in Eiterbecken and the quality of dolomite calls for further exploration, by drilling. It is suggested that test-drilling may be carried out on the SW and W of the exposures, assuming an average dip of the horizon as 7° , due, SW and W, respectively,

—x—



GEOLOGICAL MAP OF BUVIK AREA



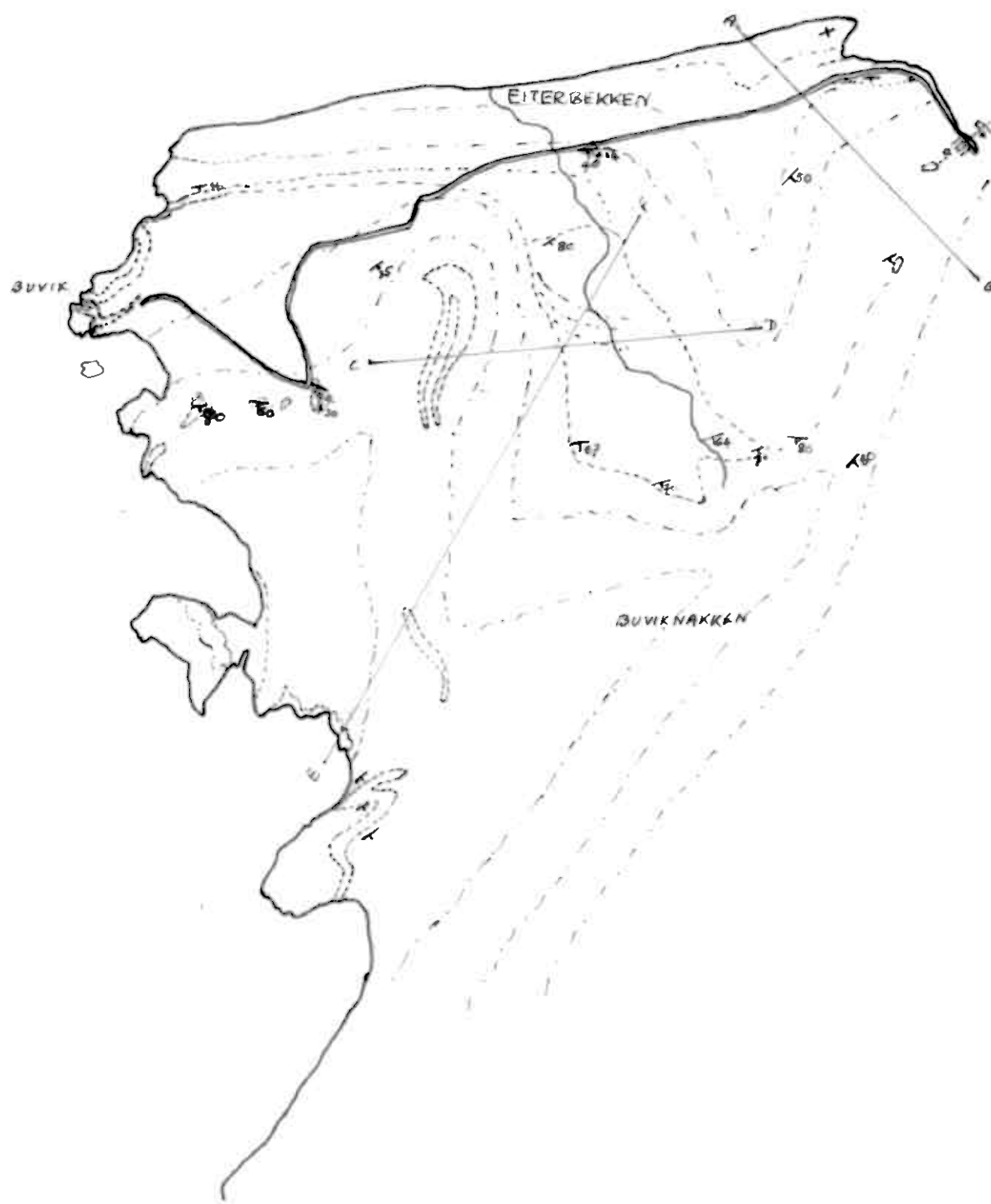
Scale 1:15000

- ☐ DOLOMITE
- ☐ CALCITE MARBLE
- ☐ QUARTZ (QUARTZITE)
- ☐ GALESSISTS & GNEISS

..... APPROX. LITHOLOGIC BOUNDARIES

--- GENERAL FOLIATION DIRECTION

—•—•— PROFILE LINES



GEOLOGICAL MAP OF BUVIK AREA



Scale 1:15000

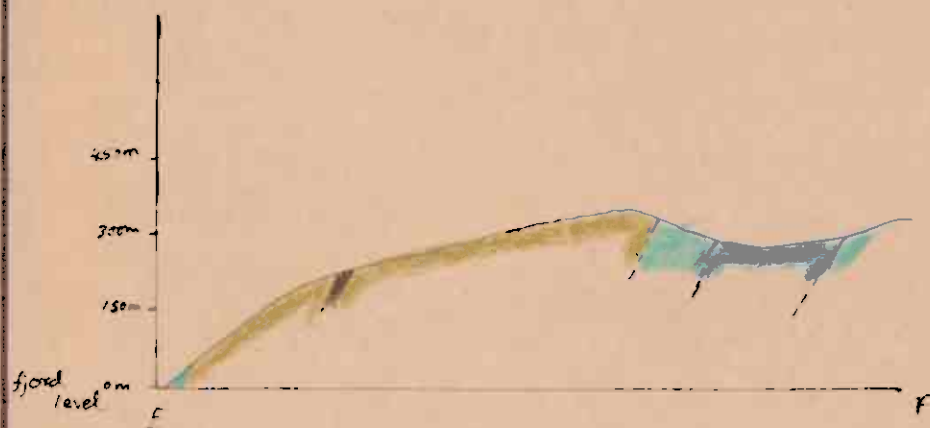
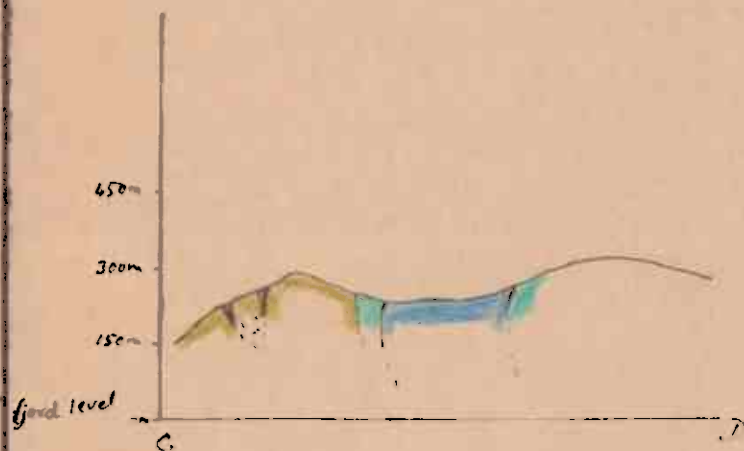
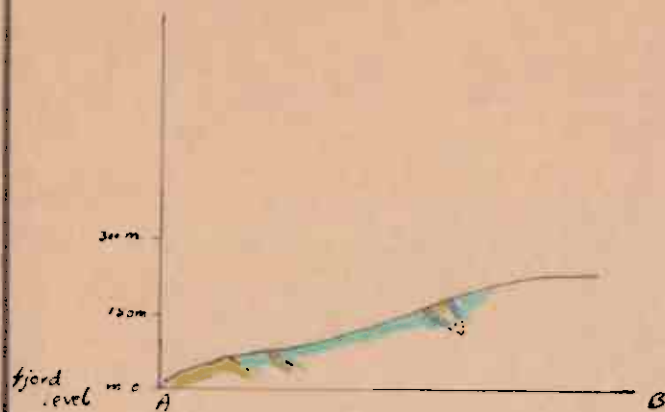
- DOLOMITE
- ALGITE MARBLE
- QUARTZ CHERT (?)
- GNEISS & GNEISES
- APPROX LITHOLOGIC BOUNDARIES
- GENERAL EROSION DIRECTION
- A — B PROFILE LINES



A/S SULITJELMA GRUBER

Sketch profiles on the
Geological map of Buvik Area

Natural Scale
(1:15000)



- ③ Adenite
- ② RB
- ⑤ Shale
- ④ Cl mt
- ① Phylloids

200m wide

from previous work

Use this + photo to
identify &



A/S SULITJELMA GRUBER

BUVIK DOLOMITTFØREKOMST
ANTATT OMRÅDE

FLYFOTO
3340-AN 13

M = 1:15000

TSH/RF 17/8-72

----- Usikker bergartgrense
Antall -----

0 ca 500 ca 1000 m

TØRFJORD

LANGVIKNESET

EITERBEKKEN

Bilvei

BUVIK

URA

KART

DOLOMITT

BUVIKNAKKEN

KVARTSBRUDD

