



General information

Lithostrat. unit	BLÆREROT FM
NPDID lithostrat. unit	14
Level	FORMATION
Lithostrat. unit, parent	BILLEFJORDEN GP

Level below

Lithostrat. unit

Description

Blærerot Formation

Name

From the Norwegian name for Bladderwort (*Utriculária vulgaris*).

Definition

The basal stratotype is defined at 501.8 m in IKU core 7029/03-U-01 on the Finnmark Platform ([Fig 9.12](#)) . ([Fig 9.17](#)) ; Table 9.1). Increased sonic velocities, imaging the contrast between the underlying porous sandstones and overlying tight carbonates, define the transition from the [Tettegras Formation](#) into the basal beds of the Blærerot Formation. Bedrock is overlain by glacial drift at 436 m in the core so that the formation's upper part and total thickness is unknown in the type section ([Fig 9.12](#)). Bugge et al. (1995) noted that the upper 15 m of the core, dated by them to the Serpukhovian, appear to show facies characteristic for both the [Billefjorden](#) and [Gipsdalen](#) groups, "reflecting a probable gradual transition between the two groups" in this area.

Reference section

A reference section is defined in the interval from 2202 m to 2150 m in well [7128/6-1](#) ([Fig 9.9](#)); Table 9.1). No cores were cut in this well, but logs show the same pattern as in the type section.

Thickness

The preserved thickness is 65.8 m in the type well and the total thickness 52 m in the reference well.

Lithology

The lowermost five metres of the Blærerot Formation consist of intensely bioturbated grey to yellowish brown limestone and sandy dolomites in core 7029/03-U-01. Bugge et al. (1995) described these as partially dolomitised mudstones and wackestones containing gastropods, brachiopods, bivalves, trilobites, foraminifers and crinoids. Large, laminated irregular nodules, interpreted as oncoids, are present in the lower part. The carbonates are overlain by a 23 m thick coarsening-upward succession of dark grey silty shale with a total organic carbon (TOC) content of 3-4% in the lower part. The shale becomes more bioturbated and less organic-rich upwards. It contains much of the same marine fossils as in the underlying carbonate unit, but in addition abundant terrestrial plant remains are present. There is sharp transition towards the overlying 22 m thick sandstone dominated unit, which consists of two coarsening-upwards cycles with basal dark grey siltstones. The sandstones are fine- to medium-grained and contain low-angle trough cross lamination and wave ripples ([Fig 9.17](#)). Yellowish-brown silty shales with some coal abruptly overlie the apparently shallow marine succession of the lower



Blærerot Formation and these are interpreted as coastal plain deposits ([Fig 9.18](#)). Log correlation suggests that the same overall lithologies are present in the reference well [7128/6-1](#). Cuttings from the basal carbonate bed in this well include a fauna very similar to that described from the type section.

Lateral extent and variation

The formation is only known from 7029/03-U-01 and [7128/6-1](#). It is thinnest in [7128/6-1](#), which is located over the crest of a rotated fault block. The formation is missing from [7128/4-1](#) on the crest of an adjacent uplifted block. Available biostratigraphic data suggest that the Blærerot Formation interfingers laterally with the [Tettegras Formation](#) towards the south (see Bugge et al. 1995).

Age

Palynomorphs in the type section indicate a late Viséan – early Serpukhovian age in the type section (Bugge et al. 1995). A similar age range is indicated for the formation in well [7128/6-1](#) (Simon-Robertson 1992).

Depositional environments

The carbonate beds at the base of the formation record the first marine flooding of the Finnmark Platform. Initial deposition of shallow marine platform carbonates was followed by deposition of shale in lower shoreface environments. The sandstones in the top of the type section are of upper shoreface to possibly fluvial origin (Bugge et al. 1995). The entire formation represents deltaic or shoreface progradation as the depositional response to a rapid marine transgression and its development resembles that of the classical Yoredale cycles of the UK (see e.g. Elliott 1975).

Correlation

Marine sediments are not known from the [Billefjorden Group](#) onshore Spitsbergen and Bjørnøya. Age-equivalent, non-marine sediments are widespread in the region and lacustrine organic-rich shales have been reported from the Sverdrup Basin (Goodarzi et al. 1987; Davies & Nassichuk 1988). However, this unit probably represents the farthest extent of a marine transgression, presumably from the Timan-Pechora Basin to the east (c.f. Alsgaard 1993; Johansen et al. 1993) and correlative marine sequences should be expected to be present at depth in the Nordkapp Basin.

Source

- Larssen, G. B., Elvebakk, G., Henriksen, L. B., Kristensen, S. E., Nilsson, I., Samuelsberg, T. J., Svånå, T. A., Stemmerik, L. and Worsley, D. 2002: Upper Palaeozoic lithostratigraphy of the Southern Norwegian Barents Sea. NPD-Bulletin No. 9, 69 pp.

Wellbores penetrating

Wellbore name	Wellbore completion date	Top depth [m]	Bottom depth [m]
7128/6-1	08.11.1991	2150	2202
7130/4-1	08.01.2016	2680	2781

Wellbores with cores

Wellbore name	Wellbore completion date	Core length [m]