



General information

Lithostrat. unit	RANNOCH FM
NPDID lithostrat. unit	126
Level	FORMATION
Lithostrat. unit, parent	BRENT GP

Level below

Lithostrat. unit

Description



Rannoch Formation

Name

Named by Deegan and Scull (1977) who gave it "sub-unit" status.

Well type section

UK well 211/29-3 (Shell) from 2783 m to 2818m, coord N 61°08'06", E 01°43'36.5" ([Fig 3.10](#)).

Well reference section

Norwegian well [33/9-1](#) (Mobil) from 2602 m to 2664 m, coord N 61°15'07.5", E 01°50'25.8" ([Fig 3.11](#)).

Thickness

35 m in the type well and 62 m in [33/9-1](#).

Lithology

In the type well the formation is a light brown, fine grained, well sorted, friable, very micaceous sandstone. In the Brent Field area the lower part is more argillaceous with siltstones and thin shales.

Towards the top the formation tends to be coarser grained and less micaceous, often resulting in a distinctive gamma ray pattern suggesting a "coarsening upward" sequence. Some workers consider that the Rannoch Formation is occasionally represented on the Horda Platform by one or more such coarsening upward cycles. However, in the majority of cases these cannot be observed and the presence of the Rannoch Formation must be considered debatable.

Boundaries

The high mica content of the sandstone produces an anomalously high gamma ray log response and generally distinguishes the Rannoch Formation from the overlying and underlying sandstones. Where the [Broom Formation](#) is missing the lower boundary is gradational into the dark, silty shales of the [Dunlin Group](#). The upper boundary is normally defined by the "blocky" gamma ray log of the overlying [Etive Formation](#).

Distribution

The distribution of the Rannoch Formation is essentially the same as that of the [Brent Group](#), except on the Horda Platform where the presence of the formation is under debate.

Age

Late Toarcian to Bajocian.

Depositional environment

The formation is generally interpreted as delta front sheet sands and/or prograding shoreface sands.

Source

- Vollset, J. and Doré, A. G. (eds.) 1984: A revised Triassic and Jurassic lithostratigraphic nomenclature for the Norwegian North Sea. NPĐ-Bulletin No. 3, 53 pp.

Wellbores penetrating



Wellbore name	Wellbore completion date	Top depth [m]	Bottom depth [m]
29/3-1	15.09.1986	3862	3912
29/6-1	09.05.1982	4474	4489
29/9-1	24.02.1984	4406	4415
30/2-1	12.10.1982	3778	3793
30/2-2	04.05.1985	4075	4098
30/2-3	05.10.1992	3944	3974
30/3-1 R	26.04.1982	3852	3866
30/3-2 R	16.02.1981	2882	2891
30/3-5 S	19.06.1992	4142	4155
30/3-6 S	06.03.1994	5481	5503
30/3-7 A	29.01.1998	6517	6526
30/3-7 B	04.08.1998	5229	5259
30/3-7 BR	17.11.2001	5229	5259
30/3-7 S	12.12.1995	4910	4928
30/3-7 S	12.12.1995	5063	5070
30/3-8 A	23.05.2000	4250	4286
30/3-8 A	23.05.2000	4821	4827
30/3-8 S	04.05.2000	4243	4256
30/3-8 S	04.05.2000	4791	4797
30/3-11 S	09.09.2022	4535	4545
30/4-1	14.05.1979	5340	5359
30/4-2	16.05.1980	4036	4061
30/4-3 S	09.10.2016	4556	4583
30/6-7	24.08.1982	2737	2739
30/6-19	21.06.1986	2915	2920
30/6-19 R	25.05.1994	2914	2919
30/6-22	13.07.1988	2938	2943
30/6-22 R	02.06.1994	2937	2942
30/6-23	01.07.1990	2836	2839
30/6-25 S	06.01.1999	2704	2712
30/6-25 S	06.01.1999	2904	2916
30/6-30	18.11.2018	3350	3361
30/7-6 R	03.06.1978	4035	4051
30/7-8 R	29.01.1982	4283	4300
30/9-4 S	30.03.1985	3551	3568
30/9-6	21.04.1987	2693	2699
30/9-7	23.12.1988	3110	3137
30/9-8 R	25.09.1989	3135	3140



30/9-9	06.11.1989	2408	2418
30/9-10	21.09.1990	3096	3114
30/9-11	19.11.1990	2507	2514
30/9-11 A	29.12.1990	2667	2679
30/9-16	08.08.1994	2989	3001
30/9-23	21.08.2009	2812	2814
30/9-28 S	26.02.2016	3301	3304
30/9-B-18	25.09.1992	3825	3831
30/9-B-18 A	23.10.1992	3694	3701
30/9-B-18 A	23.10.1992	4751	4769
30/11-7	03.02.2009	4017	4027
30/11-8 A	03.07.2011	4425	4436
30/11-8 S	20.05.2011	3993	3998
30/11-10	26.12.2014	3997	4013
30/11-14	06.07.2016	3405	3420
30/11-14 B	23.07.2016	4129	4147
31/1-1	15.02.2008	2564	2634
31/1-2 A	29.01.2021	3694	3711
31/1-2 S	12.01.2021	3301	3319
31/2-21 S	04.06.2014	3013	3032
31/4-9	07.03.1987	2398	2411
31/11-1 S	28.06.2021	2758	2827
33/5-2	18.11.1981	4079	4111
33/6-1	06.07.1979	3603	3647
33/6-5 S	16.10.2021	3358	3479
33/9-1	04.06.1974	2596	2664
33/9-3	14.11.1974	2540	2599
33/9-6	31.08.1976	3103	3140
33/9-12	03.08.1987	2517	2561
33/9-13 S	24.12.1987	2727	2810
33/9-14	09.04.1988	2836	2947
33/9-19 A	09.08.1996	2939	3070
33/9-19 S	23.07.1996	2742	2845
33/12-6	21.06.1976	3250	3285
33/12-7	27.04.1989	3248	3296
33/12-8 A	16.05.2002	5075	5098
33/12-8 S	26.04.2002	3098	3155
33/12-9 S	08.01.2012	3727	3775
34/3-4 A	13.02.2015	4089	4246
34/3-5	16.04.2015	3877	4032
34/4-14 S	19.05.2015	4350	4417



34/4-15 A	12.08.2020	3704	3802
34/4-15 S	15.07.2020	3426	3523
34/4-16 S	31.03.2021	3468	3553
34/5-2 S	04.07.2018	3481	3499
34/6-1 S	28.08.2002	3583	3659
34/6-2 A	12.12.2012	3478	3547
34/6-2 S	05.11.2012	3536	3566
34/6-3 S	24.09.2014	3759	3793
34/6-4	02.03.2016	3786	3838
34/7-5	16.03.1985	2564	2622
34/7-12	17.12.1987	2269	2334
34/7-13	13.04.1988	2523	2598
34/7-14	02.12.1989	2343	2413
34/7-15 S	03.09.1990	4513	4571
34/7-16	13.08.1990	2434	2514
34/7-16 R	15.10.1990	2435	2515
34/7-16 R2	05.07.1994	2434	2514
34/7-17	07.04.1991	2631	2697
34/7-18	17.09.1991	2328	2399
34/7-19	27.12.1991	2582	2658
34/7-19 R	12.07.1994	2589	2665
34/7-20	27.08.1992	2695	2785
34/7-21	11.12.1992	2903	2966
34/7-22	01.10.1993	2375	2456
34/7-25 S	14.09.1996	3101	3178
34/7-27	07.10.1998	2887	2930
34/7-32	27.10.2001	2557	2636
34/7-33	15.10.2008	2499	2561
34/7-E-4 AH	13.07.2020	4366	4455
34/8-1	08.03.1986	2900	2980
34/8-3	14.09.1988	2897	2964
34/8-3 A	31.10.1988	3131	3184
34/8-4 S	09.06.1991	2903	2922
34/8-5	01.04.1991	2983	3046
34/8-6	03.11.1991	3757	3880
34/8-7	16.07.1992	4714	4764
34/8-7 R	10.02.1993	4714	4764
34/8-8	24.08.1992	3008	3077
34/8-8 R	09.03.1993	3007	3077
34/8-9 S	28.12.1992	2963	2984
34/8-10 S	09.12.1993	2879	2885



34/8-11	08.02.1994	2949	3011
34/8-14 A	01.12.2008	3617	3720
34/8-14 B	25.01.2009	3809	4079
34/8-14 C	08.12.2008	3722	3820
34/8-14 D	10.02.2009	3752	3797
34/8-14 S	21.10.2008	3337	3411
34/8-15 S	19.02.2013	3546	3649
34/8-17 S	14.03.2014	4009	4069
34/10-1	08.09.1978	1871	1935
34/10-2	08.12.1978	3083	3124
34/10-3	07.06.1979	2002	2084
34/10-3 R	10.10.1987	1999	2081
34/10-4	15.10.1979	1816	1905
34/10-5	02.01.1980	2070	2134
34/10-6	22.01.1980	2197	2273
34/10-8	25.05.1980	2005	2040
34/10-9	09.05.1980	1867	1945
34/10-9 R	03.07.1980	1867	1945
34/10-12	12.09.1981	2198	2250
34/10-14	19.03.1982	2003	2069
34/10-16	11.04.1983	3412	3475
34/10-16 R	27.09.1983	3409	3472
34/10-17	08.07.1983	2937	3000
34/10-18	30.08.1983	2524	2595
34/10-21	22.10.1984	3503	3550
34/10-23	13.10.1985	4287	4335
34/10-33	15.12.1988	3374	3424
34/10-33 A	03.02.1989	3758	3851
34/10-33 C	01.08.1989	3617	3722
34/10-33 CR	27.04.1990	3617	3722
34/10-34	31.05.1991	2188	2268
34/10-36	13.07.1992	3524	3555
34/10-37	22.02.1995	2750	2796
34/10-38 S	29.05.1995	3036	3045
34/10-39 S	20.06.1995	2727	2800
34/10-40 S	13.10.1995	5712	5820
34/10-41 S	28.08.1997	2792	2863
34/10-42 S	19.09.1999	4369	4403
34/10-43 S	11.04.2001	3326	3345
34/10-47 S	02.11.2002	2910	3000
34/10-47 S	02.11.2002	3000	3285



34/10-48 S	22.12.2004	5500	5843
34/10-49 B	21.05.2006	2557	2627
34/10-49 S	08.05.2006	2557	2627
34/10-52 A	06.08.2011	3445	3470
34/10-52 B	22.08.2011	3874	3998
34/10-53 A	01.06.2011	4760	4822
34/10-53 S	24.03.2011	3890	3956
34/10-54 A	18.04.2014	4191	4203
34/10-54 S	11.02.2014	4076	4117
34/11-1	25.10.1994	4177	4221
34/11-2 S	17.05.1996	4261	4320
34/11-3	16.01.1997	4155	4197
34/11-4	14.04.1999	4292	4339
34/11-5 S	03.07.2006	7307	7370
34/11-6 S	26.01.2017	7057	7105
34/12-1	30.04.2008	4457	4499
35/4-3	17.05.2022	4277	4427
35/7-1 S	15.08.2011	4454	4515
35/8-1	24.01.1981	3680	3743
35/8-2	21.05.1982	3814	3868
35/8-3	15.10.1988	3896	3944
35/8-5 S	20.07.2003	3975	4000
35/9-1	07.05.1989	2250	2267
35/9-1 R	27.07.1989	2250	2267
35/9-2	03.04.1991	2646	2680
35/9-6 S	07.12.2010	3515	3552
35/9-7	14.04.2012	2974	3006
35/9-8	11.04.2013	3215	3256
35/9-9	18.11.2013	3092	3118
35/9-10 A	16.01.2014	3172	3203
35/9-10 S	26.11.2013	3580	3619
35/9-11 A	21.05.2014	3523	3557
35/9-11 S	15.04.2014	3522	3558
35/9-12 S	26.12.2014	3537	3556
35/10-1	16.01.1992	3460	3507
35/10-2	22.08.1996	4280	4319
35/10-4 S	10.10.2018	3761	3801
35/10-7 A	27.12.2021	3468	3492
35/10-7 S	11.12.2021	3374	3398
35/11-1	06.08.1984	2557	2583
35/11-2	04.12.1987	3487	3524



35/11-3 S	09.09.1989	3538	3573
35/11-4	29.12.1990	2686	2707
35/11-4 R	27.01.1992	2696	2717
35/11-5	03.11.1991	3312	3342
35/11-6	20.04.1992	3635	3678
35/11-7	29.09.1992	2511	2528
35/11-8 S	11.05.1996	3480	3505
35/11-10	23.06.1997	2728	2746
35/11-10 A	14.07.1997	3190	3212
35/11-11	22.05.1998	3085	3119
35/11-17	01.05.2014	2744	2773
35/11-18	27.09.2015	3617	3657
35/11-18 A	16.12.2015	3665	3705
35/11-20 B	15.09.2016	4725	4789
35/11-21 A	17.10.2018	2809	2847
35/11-21 S	05.09.2018	2686	2724
35/11-22 S	02.02.2019	3353	3377
35/11-23	06.11.2019	2816	2835
35/11-25 A	04.06.2021	3692	3723
35/12-4 A	17.07.2011	3373	3413
35/12-4 S	26.06.2011	3205	3250
35/12-5 S	19.06.2015	3535	3554
35/12-7	25.07.2018	2683	2708
36/1-4 S	30.01.2022	3182	3228
36/7-1	07.05.1996	2727	2770

Wellbores with cores

Wellbore name	Wellbore completion date	Core length [m]
29/9-1	24.02.1984	10
30/2-1	12.10.1982	15
30/2-2	04.05.1985	22
30/2-3	05.10.1992	20
30/3-1 R	26.04.1982	3
30/3-2 R	16.02.1981	9
30/3-5 S	19.06.1992	13
30/3-11 S	09.09.2022	10
30/6-7	24.08.1982	2
30/6-19	21.06.1986	5
30/6-22	13.07.1988	5



30/6-23	01.07.1990	3
30/6-30	18.11.2018	11
30/9-9	06.11.1989	9
30/9-11	19.11.1990	4
30/11-10	26.12.2014	16
31/1-2 S	12.01.2021	18
33/5-2	18.11.1981	17
33/6-1	06.07.1979	9
33/9-3	14.11.1974	46
33/9-12	03.08.1987	42
33/9-13 S	24.12.1987	75
33/9-14	09.04.1988	40
34/4-15 S	15.07.2020	81
34/4-16 S	31.03.2021	85
34/7-5	16.03.1985	55
34/7-12	17.12.1987	64
34/7-13	13.04.1988	64
34/7-14	02.12.1989	65
34/7-16	13.08.1990	76
34/7-19	27.12.1991	75
34/8-1	08.03.1986	74
34/8-3	14.09.1988	59
34/8-3 A	31.10.1988	17
34/8-5	01.04.1991	27
34/8-8	24.08.1992	67
34/8-10 S	09.12.1993	5
34/8-11	08.02.1994	55
34/10-1	08.09.1978	58
34/10-2	08.12.1978	11
34/10-3	07.06.1979	23
34/10-4	15.10.1979	74
34/10-14	19.03.1982	43
34/10-16	11.04.1983	51
34/10-17	08.07.1983	30
34/10-23	13.10.1985	21
34/10-33	15.12.1988	49
34/10-34	31.05.1991	80
34/10-54 S	11.02.2014	41
34/11-1	25.10.1994	40
34/11-2 S	17.05.1996	32
34/11-3	16.01.1997	28



35/8-1	24.01.1981	30
35/9-1	07.05.1989	18
35/9-2	03.04.1991	33
35/9-6 S	07.12.2010	35
35/9-11 A	21.05.2014	4
35/10-1	16.01.1992	44
35/10-7 S	11.12.2021	24
35/11-1	06.08.1984	6
35/11-2	04.12.1987	29
35/11-5	03.11.1991	24
35/11-6	20.04.1992	43
35/11-7	29.09.1992	16
35/11-10	23.06.1997	18
35/11-11	22.05.1998	17
35/11-17	01.05.2014	27
35/11-21 A	17.10.2018	30
35/11-21 S	05.09.2018	38
35/11-25 A	04.06.2021	0