## General information

| | |
|---|---|
| Wellbore name | 7228/2-1 S |
| Type | EXPLORATION |
| Purpose | WILDCAT |
| Status | P&A |
| Factmaps in new window | link to map |
| Main area | BARENTS SEA |
| Well name | 7228/2-1 |
| Seismic location | MN 89 - 603 SP 548 |
| Production licence | 160 |
| Drilling operator | Mobil Development Norway AS |
| Drill permit | 616-L |
| Drilling facility | ROSS RIG (2) |
| Drilling days | 122 |
| Entered date | 21.08.1989 |
| Completed date | 20.12.1989 |
| Release date | 20.12.1991 |
| Publication date | 02.12.2004 |
| Purpose - planned | WILDCAT |
| Reentry | NO |
| Content | SHOWS |
| Discovery wellbore | NO |
| Kelly bushing elevation [m] | 23.5 |
| Water depth [m] | 349.5 |
| Total depth (MD) [m RKB] | 4300.0 |
| Final vertical depth (TVD) [m RKB] | 4000.0 |
| Maximum inclination [°] | 38.6 |
| Bottom hole temperature [°C] | 130 |
| Oldest penetrated age | EARLY TRIASSIC |
| Oldest penetrated formation | HAVERT FM |
| Geodetic datum | ED50 |
| NS degrees | 72° 51' 9.75'' N |
| EW degrees | 28° 26' 29.61'' E |
| NS UTM [m] | 8084841.65 |
| EW UTM [m] | 547436.90 |
| UTM zone | 35 |
| NPDID wellbore | 1460 |

## Wellbore history

### General

Well 7228/2-1 S is located on the western margin of the Nordkapp Basin close to the Nyslepp Fault Complex. It was designed to drill a large salt induced anticline that is bisected by a major north - south trending fault. Due to the large Triassic throw on the fault, the up-thrown and downthrown parts of the structure were thought to represent separate prospects. The downthrown prospect seemed to have the thickest accumulation of Triassic Anisian/Early Ladinian deposits, and was the primary objective of the well. Secondary objectives were other Middle/Upper Triassic and Jurassic sandstones. To be able to meet all obligations and at the same time test the primary objective without leaving significant potential up-dip, the well path was planned deviated at approximately 30 degrees in a northeasterly direction along seismic line MN89-603. Several reflectors in the interval 397 m to 593 m were thought to represent sand layers with possible shallow gas. The strongest amplitude anomaly was at 435 m.

### Operations and results

Wildcat well 7228/2-1 S was spudded with the semi-submersible rig Ross Rig 21 August 1989 and drilled to TD at 4300 m in the Early Triassic Havert Formation. The well was deviated from 1475 m. At 2902 m the bottom hole assembly was lost in the hole, and the well had to be sidetracked from 2700 m. The well was drilled with seawater and hi-vis pills down to 1013 m, with KCl / polymer from 1013 m to 2206 m, with lignosulphonate from 2206 m to 3663 m, and with KCl / polymer from 3663 m to TD. No shallow gas was encountered in the well.

Reservoir quality sands were found in the Jurassic and uppermost Triassic Stø, Nordmela, Tubåen, Fruholmen, and Snadd formations. Of these the Nordmela and Tubåen sands had the best properties. The Nordmela has 32.6 m of net sand but it is silty in places. Average porosity is 17% but Vsh is relatively high at 27 %. Porosity in clean sand is greater than 20 %. The Tubåen Formation has 45 m of net sand, which varies in reservoir quality from fair to excellent. The top of the sand is silty or shaly but clean high porosity sands are found at the base. Core 3 from 1384 m to 1388 m (drillers depth) has an average measured porosity of 22 %. These sands have the best reservoir quality in the entire well. Average porosity for the Tubåen is 19 %. Klinkenberg corrected permeabilities from core data are mostly between 1.5 and 2.5 Darcies. With the good porosity and permeability the sand has excellent flow potential. The sandstones of the primary objective (Kobbe Formation) were poorly developed and of poor quality.

Hydrocarbon shows in the Stø and Nordmela formations are seen in both the Core 2 and petrophysical evaluation. The shows in the petrophysical evaluation decrease as the sand quality improves. As such, both the log and core analysis shows that the oil in core 2 is probably residual. Only occasional patchy traces of residual oil were recorded below 1342 m in the Tubåen, Fruholmen and Snadd formations. Gas levels never exceeded 6 % in this section and consisted predominantly of C1 with some C2 and C3. On penetrating a friable fine grained sandstone at 3401 m (drilled depth), in the Kobbe Formation total gas rose to a maximum of 24.1% at 3423 m. The gas was composed of 190159 ppm C1, 10364 ppm C2, 2200 ppm C3, 1192 ppm IC4 and 1040 ppm NC4. No shows were seen in these samples and gas levels decreased to an average of 4.5 % below 3430 m, composed mainly of C1 with subordinate amounts of C2 and C3.

From organic geochemical analyses there appears to be a mixture of condensate and residual oil present in the Stø, Nordmela and upper Tubåen Formations. These residual oils are severely biodegraded. The Hekkingen Formation is the most significant source rock interval with TOC in the range 1 % to 8 % and type II kerogen, however also Snadd and Kobbe formations contain significant source intervals with both gas- and oil-prone kerogen.

Five conventional cores were cut on the well with good recovery in each case. Cores number 1 and 4, cut in the Late Jurassic Hekkingen and Middle Triassic Snadd Formations respectively, consisted of claystones and were taken for source and cap rock studies. Core 1 was consumed in these analyses and is no longer available from the NPD. Core 2 was cut in sandstones of the Middle Jurassic Stø Formation. The third core was cut in sandstones of the Early Jurassic Tubåen Formation and the fifth core in siltstones of the Early Triassic Havert Formation. The core-to-log shifts were significant: +3.0 m for core 1, +3.4 m for core 2, +3.8 m for core 3,+6.0 m for core 4, and +9.8 m for core 5.

RFT measurements indicate moderate to good permeabilities in the Realgrunnen Group and the uppermost Snadd Formation. A segregated sample was taken from the Nordmela Formation at 1310 m but later analysis showed it to consist of mud filtrate. A total of 334 sidewall cores were attempted whereof 238 were recovered.

Well 7228/2-1 S was permanently abandoned on 20 December 1989 as dry with shows.

**Testing**

No drill stem test was performed

## Cuttings at the Norwegian Offshore Directorate

| Cutting sample, top depth [m] | Cutting samples, bottom depth [m] |
|---|---|
| 1080.00 | 4300.00 |

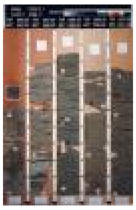
| | |
|---|---|
| Cuttings available for sampling? | YES |

## Cores at the Norwegian Offshore Directorate

| Core sample number | Core sample - top depth | Core sample - bottom depth | Core sample depth - uom |
|---|---|---|---|
| 2 | 1286.3 | 1295.5 | [m ] |
| 3 | 1384.0 | 1387.5 | [m ] |
| 4 | 2315.0 | 2320.8 | [m ] |
| 5 | 4189.0 | 4198.3 | [m ] |

| | |
|---|---|
| Total core sample length [m] | 27.8 |
| Cores available for sampling? | YES |

## Core photos


1286-1291m


1291-1295m


1384-1387m


4189-4194m


4194-4198m

### Palynological slides at the Norwegian Offshore Directorate

| Sample depth | Depth unit | Sample type | Laboratory |
|---|---|---|---|
| 480.5 | [m] | SWC | RRI |
| 500.0 | [m] | SWC | RRI |
| 500.0 | [m] | DC | MOBIL |
| 540.0 | [m] | SWC | RRI |
| 560.0 | [m] | SWC | RRI |
| 580.0 | [m] | SWC | RRI |
| 600.0 | [m] | SWC | RRI |
| 608.5 | [m] | SWC | RRI |
| 620.5 | [m] | SWC | RRI |
| 630.0 | [m] | SWC | RRI |
| 640.0 | [m] | SWC | RRI |
| 660.0 | [m] | SWC | RRI |
| 680.0 | [m] | SWC | RRI |
| 700.0 | [m] | SWC | RRI |
| 707.0 | [m] | SWC | RRI |
| 720.0 | [m] | SWC | RRI |
| 740.0 | [m] | SWC | RRI |
| 760.0 | [m] | SWC | RRI |
| 780.0 | [m] | SWC | RRI |
| 800.0 | [m] | SWC | RRI |
| 820.0 | [m] | SWC | RRI |
| 820.0 | [m] | DC | MOBIL |
| 840.0 | [m] | SWC | RRI |
| 860.0 | [m] | SWC | RRI |
| 880.0 | [m] | SWC | RRI |
| 900.0 | [m] | SWC | RRI |
| 920.0 | [m] | SWC | RRI |
| 940.0 | [m] | SWC | RRI |
| 960.0 | [m] | SWC | RRI |

| | | | |
|---|---|---|---|
| 980.0 | [m] | SWC | RRI |
| 1000.0 | [m] | SWC | RRI |
| 1005.0 | [m] | SWC | RRI |
| 1018.0 | [m] | DC | RRI |
| 1025.0 | [m] | SWC | RRI |
| 1030.0 | [m] | DC | RRI |
| 1040.0 | [m] | SWC | RRI |
| 1050.0 | [m] | SWC | RRI |
| 1060.0 | [m] | DC | RRI |
| 1075.0 | [m] | SWC | RRI |
| 1095.0 | [m] | SWC | RRI |
| 1095.0 | [m] | DC | MOBIL |
| 1105.0 | [m] | SWC | RRI |
| 1115.0 | [m] | SWC | RRI |
| 1125.0 | [m] | SWC | RRI |
| 1135.0 | [m] | DC | RRI |
| 1145.0 | [m] | SWC | RRI |
| 1166.5 | [m] | SWC | RRI |
| 1166.5 | [m] | DC | MOBIL |
| 1171.0 | [m] | DC | RRI |
| 1172.2 | [m] | DC | MOBIL |
| 1174.2 | [m] | DC | MOBIL |
| 1180.0 | [m] | DC | RRI |
| 1182.5 | [m] | SWC | RRI |
| 1189.0 | [m] | DC | RRI |
| 1195.0 | [m] | DC | RRI |
| 1198.0 | [m] | DC | RRI |
| 1204.0 | [m] | DC | RRI |
| 1205.0 | [m] | SWC | RRI |
| 1210.0 | [m] | SWC | RRI |
| 1216.0 | [m] | DC | RRI |
| 1225.0 | [m] | SWC | RRI |
| 1225.0 | [m] | DC | MOBIL |
| 1240.0 | [m] | DC | RRI |
| 1248.5 | [m] | SWC | RRI |
| 1255.0 | [m] | SWC | RRI |
| 1264.0 | [m] | DC | RRI |
| 1275.0 | [m] | SWC | RRI |
| 1275.0 | [m] | DC | MOBIL |
| 1279.0 | [m] | DC | RRI |

| | | | |
|---|---|---|---|
| 1286.3 | [m] | C | RRI |
| 1287.7 | [m] | C | RRI |
| 1289.0 | [m] | C | RRI |
| 1289.0 | [m] | C | ICHRON |
| 1294.0 | [m] | C | RRI |
| 1295.5 | [m] | C | RRI |
| 1300.0 | [m] | SWC | RRI |
| 1316.5 | [m] | SWC | RRI |
| 1324.0 | [m] | DC | RRI |
| 1339.0 | [m] | DC | RRI |
| 1347.0 | [m] | SWC | RRI |
| 1367.0 | [m] | SWC | RRI |
| 1375.5 | [m] | SWC | RRI |
| 1378.0 | [m] | SWC | RRI |
| 1378.0 | [m] | DC | MOBIL |
| 1381.0 | [m] | DC | RRI |
| 1384.0 | [m] | C | RRI |
| 1384.5 | [m] | C | OD |
| 1385.0 | [m] | C | RRI |
| 1386.3 | [m] | C | OD |
| 1387.5 | [m] | C | RRI |
| 1396.0 | [m] | DC | RRI |
| 1405.0 | [m] | SWC | RRI |
| 1405.0 | [m] | C | UIB |
| 1411.0 | [m] | DC | RRI |
| 1419.0 | [m] | SWC | RRI |
| 1419.0 | [m] | DC | MOBIL |
| 1426.0 | [m] | C | UIB |
| 1436.5 | [m] | C | RRI |
| 1438.0 | [m] | C | UIB |
| 1459.0 | [m] | C | UIB |
| 1464.0 | [m] | SWC | RRI |
| 1477.0 | [m] | DC | RRI |
| 1489.5 | [m] | C | OD |
| 1491.5 | [m] | C | OD |
| 1493.5 | [m] | C | OD |
| 1494.0 | [m] | SWC | RRI |
| 1494.0 | [m] | DC | MOBIL |
| 1495.5 | [m] | C | OD |
| 1498.1 | [m] | C | OD |

| | | | |
|---|---|---|---|
| 1512.0 | [m] | SWC | RRI |
| 1522.0 | [m] | C | UIB |
| 1533.0 | [m] | SWC | RRI |
| 1543.0 | [m] | C | UIB |
| 1549.0 | [m] | DC | RRI |
| 1570.0 | [m] | SWC | RRI |
| 1592.0 | [m] | SWC | RRI |
| 1592.0 | [m] | DC | MOBIL |
| 1603.0 | [m] | DC | RRI |
| 1619.0 | [m] | SWC | RRI |
| 1640.0 | [m] | SWC | RRI |
| 1657.0 | [m] | DC | RRI |
| 1672.0 | [m] | SWC | RRI |
| 1672.0 | [m] | DC | MOBIL |
| 1693.0 | [m] | DC | RRI |
| 1704.0 | [m] | SWC | RRI |
| 1729.0 | [m] | DC | RRI |
| 1735.5 | [m] | SWC | RRI |
| 1735.5 | [m] | DC | MOBIL |
| 1753.0 | [m] | DC | RRI |
| 1766.5 | [m] | SWC | RRI |
| 1772.0 | [m] | SWC | RRI |
| 1790.0 | [m] | SWC | RRI |
| 1790.0 | [m] | DC | MOBIL |
| 1801.0 | [m] | DC | RRI |
| 1811.0 | [m] | SWC | RRI |
| 1832.5 | [m] | SWC | RRI |
| 1832.5 | [m] | DC | MOBIL |
| 1852.0 | [m] | SWC | RRI |
| 1873.0 | [m] | DC | RRI |
| 1883.0 | [m] | SWC | RRI |
| 1883.0 | [m] | DC | MOBIL |
| 1891.0 | [m] | DC | RRI |
| 1911.0 | [m] | SWC | RRI |
| 1921.0 | [m] | SWC | RRI |
| 1930.0 | [m] | SWC | RRI |
| 1945.0 | [m] | DC | RRI |
| 1963.0 | [m] | SWC | RRI |
| 1963.0 | [m] | DC | MOBIL |
| 1975.0 | [m] | SWC | RRI |

| | | | |
|---|---|---|---|
| 1981.0 | [m] | DC | RRI |
| 1999.0 | [m] | DC | RRI |
| 2003.0 | [m] | SWC | RRI |
| 2030.0 | [m] | SWC | RRI |
| 2030.0 | [m] | DC | MOBIL |
| 2042.0 | [m] | SWC | RRI |
| 2059.0 | [m] | DC | RRI |
| 2072.0 | [m] | SWC | RRI |
| 2093.0 | [m] | SWC | RRI |
| 2093.0 | [m] | DC | MOBIL |
| 2103.0 | [m] | SWC | RRI |
| 2122.0 | [m] | DC | MOBIL |
| 2125.0 | [m] | DC | RRI |
| 2138.0 | [m] | SWC | RRI |
| 2150.0 | [m] | SWC | RRI |
| 2161.5 | [m] | SWC | RRI |
| 2161.5 | [m] | DC | MOBIL |
| 2176.0 | [m] | DC | RRI |
| 2187.5 | [m] | SWC | RRI |
| 2194.0 | [m] | DC | RRI |
| 2195.0 | [m] | SWC | RRI |
| 2215.0 | [m] | DC | RRI |
| 2238.0 | [m] | SWC | RRI |
| 2238.0 | [m] | DC | MOBIL |
| 2245.1 | [m] | SWC | RRI |
| 2250.0 | [m] | SWC | RRI |
| 2276.0 | [m] | SWC | RRI |
| 2287.0 | [m] | DC | RRI |
| 2305.0 | [m] | DC | RRI |
| 2316.0 | [m] | DC | MOBIL |
| 2316.9 | [m] | C | ICHRON |
| 2325.0 | [m] | SWC | RRI |
| 2346.5 | [m] | SWC | RRI |
| 2362.0 | [m] | DC | RRI |
| 2387.7 | [m] | SWC | RRI |
| 2402.0 | [m] | SWC | RRI |
| 2416.0 | [m] | DC | RRI |
| 2434.0 | [m] | DC | RRI |
| 2443.7 | [m] | SWC | RRI |
| 2443.7 | [m] | DC | MOBIL |

| | | | |
|---|---|---|---|
| 2477.5 | [m] | SWC | RRI |
| 2488.0 | [m] | DC | RRI |
| 2498.0 | [m] | SWC | RRI |
| 2524.0 | [m] | DC | RRI |
| 2542.0 | [m] | DC | RRI |
| 2560.0 | [m] | DC | RRI |
| 2566.1 | [m] | C | MOBIL |
| 2572.0 | [m] | SWC | RRI |
| 2594.5 | [m] | SWC | RRI |
| 2622.1 | [m] | SWC | RRI |
| 2632.0 | [m] | DC | RRI |
| 2656.5 | [m] | SWC | RRI |
| 2668.0 | [m] | DC | RRI |
| 2686.0 | [m] | DC | RRI |
| 2688.1 | [m] | C | MOBIL |
| 2704.0 | [m] | SWC | RRI |
| 2717.5 | [m] | SWC | RRI |
| 2748.5 | [m] | SWC | RRI |
| 2758.0 | [m] | DC | RRI |
| 2774.0 | [m] | SWC | RRI |
| 2794.0 | [m] | DC | RRI |
| 2810.5 | [m] | SWC | MOBIL |
| 2810.5 | [m] | SWC | RRI |
| 2823.0 | [m] | SWC | RRI |
| 2848.0 | [m] | DC | RRI |
| 2861.5 | [m] | SWC | RRI |
| 2888.1 | [m] | SWC | RRI |
| 2888.1 | [m] | C | MOBIL |
| 2902.0 | [m] | DC | RRI |
| 2920.0 | [m] | DC | RRI |
| 2944.0 | [m] | SWC | RRI |
| 2956.0 | [m] | DC | RRI |
| 2971.0 | [m] | SWC | RRI |
| 2995.3 | [m] | SWC | RRI |
| 2995.3 | [m] | C | MOBIL |
| 3010.0 | [m] | DC | RRI |
| 3019.0 | [m] | SWC | RRI |
| 3028.0 | [m] | DC | RRI |
| 3038.5 | [m] | SWC | RRI |
| 3064.0 | [m] | DC | RRI |

| | | | |
|---|---|---|---|
| 3077.0 | [m] | SWC | RRI |
| 3082.0 | [m] | DC | RRI |
| 3100.0 | [m] | DC | RRI |
| 3121.0 | [m] | DC | RRI |
| 3121.0 | [m] | DC | MOBIL |
| 3130.0 | [m] | SWC | RRI |
| 3142.5 | [m] | SWC | RRI |
| 3164.5 | [m] | SWC | RRI |
| 3172.0 | [m] | DC | RRI |
| 3184.4 | [m] | SWC | RRI |
| 3205.0 | [m] | DC | RRI |
| 3226.0 | [m] | DC | RRI |
| 3232.0 | [m] | DC | RRI |
| 3234.0 | [m] | SWC | RRI |
| 3259.0 | [m] | DC | RRI |
| 3280.0 | [m] | DC | RRI |
| 3296.5 | [m] | SWC | RRI |
| 3296.5 | [m] | SWC | MOBIL |
| 3318.0 | [m] | SWC | RRI |
| 3334.0 | [m] | DC | RRI |
| 3349.0 | [m] | DC | RRI |
| 3370.0 | [m] | DC | RRI |
| 3388.0 | [m] | DC | RRI |
| 3397.0 | [m] | SWC | RRI |
| 3406.0 | [m] | DC | RRI |
| 3421.1 | [m] | SWC | RRI |
| 3442.0 | [m] | DC | RRI |
| 3460.0 | [m] | DC | RRI |
| 3473.0 | [m] | SWC | RRI |
| 3478.0 | [m] | DC | RRI |
| 3496.0 | [m] | DC | RRI |
| 3506.0 | [m] | SWC | RRI |
| 3506.0 | [m] | DC | MOBIL |
| 3514.0 | [m] | DC | RRI |
| 3523.5 | [m] | SWC | RRI |
| 3529.0 | [m] | DC | RRI |
| 3535.0 | [m] | DC | RRI |
| 3543.0 | [m] | SWC | RRI |
| 3563.0 | [m] | SWC | RRI |
| 3584.0 | [m] | SWC | RRI |

| | | | |
|---|---|---|---|
| 3591.5 | [m] | SWC | RRI |
| 3598.0 | [m] | DC | RRI |
| 3602.0 | [m] | SWC | RRI |
| 3625.1 | [m] | SWC | RRI |
| 3625.1 | [m] | C | MOBIL |
| 3684.0 | [m] | SWC | RRI |
| 3714.0 | [m] | SWC | RRI |
| 3725.0 | [m] | SWC | RRI |
| 3752.0 | [m] | SWC | RRI |
| 3766.5 | [m] | SWC | RRI |
| 3817.0 | [m] | SWC | RRI |
| 3828.0 | [m] | SWC | RRI |
| 3846.0 | [m] | SWC | RRI |
| 3865.0 | [m] | SWC | RRI |
| 3904.0 | [m] | SWC | RRI |
| 3919.0 | [m] | DC | RRI |
| 3928.0 | [m] | SWC | RRI |
| 3940.0 | [m] | SWC | RRI |
| 3952.0 | [m] | DC | RRI |
| 3965.0 | [m] | SWC | RRI |
| 3965.0 | [m] | DC | MOBIL |
| 3974.0 | [m] | SWC | RRI |
| 3997.0 | [m] | DC | RRI |
| 4007.5 | [m] | SWC | RRI |
| 4012.0 | [m] | DC | RRI |
| 4028.0 | [m] | SWC | RRI |
| 4033.0 | [m] | DC | RRI |
| 4043.0 | [m] | SWC | RRI |
| 4066.0 | [m] | DC | RRI |
| 4069.0 | [m] | SWC | RRI |
| 4080.0 | [m] | SWC | RRI |
| 4104.0 | [m] | SWC | RRI |
| 4129.0 | [m] | SWC | RRI |
| 4155.0 | [m] | SWC | RRI |
| 4171.0 | [m] | SWC | RRI |
| 4188.0 | [m] | DC | RRI |
| 4191.0 | [m] | C | ICHRON |
| 4194.0 | [m] | SWC | RRI |
| 4196.0 | [m] | C | ICHRON |
| 4215.0 | [m] | SWC | RRI |

| | | | |
|---|---|---|---|
| 4226.0 | [m] | SWC | RRI |
| 4242.0 | [m] | SWC | RRI |
| 4268.0 | [m] | SWC | RRI |
| 4300.0 | [m] | SWC | RRI |

## Lithostratigraphy

| Top depth [mMD RKB] | Lithostrat. unit |
|---|---|
| 373 | ADVENTDALEN GP |
| 373 | KOLMULE FM |
| 1110 | KNURR FM |
| 1168 | HEKKINGEN FM |
| 1236 | FUGLEN FM |
| 1275 | KAPP TOSCANA GP |
| 1275 | STØ FM |
| 1300 | NORDMELA FM |
| 1345 | TUBÅEN FM |
| 1404 | FRUHOLMEN FM |
| 1523 | SNADD FM |
| 2438 | SASSENDALEN GP |
| 2438 | KOBBE FM |
| 3574 | KLAPPMYSS FM |
| 3984 | HAVERT FM |

## Composite logs

| Document name | Document format | Document size [MB] |
|---|---|---|
| 1460 | pdf | 0.77 |

## Geochemical information

| Document name | Document format | Document size [MB] |
|---|---|---|
| 1460_1 | pdf | 3.06 |

## Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

| Document name | Document format | Document size [MB] |
|---|---|---|
| 1460_01_WDSS_General_Information | pdf | 0.25 |
| 1460_02_WDSS_completion_log | pdf | 0.25 |

## Documents - reported by the production licence (period for duty of secrecy expired)

| Document name | Document format | Document size [MB] |
|---|---|---|
| 1460_7228_2_1_COMPLETION_REPORT_AND_LOG | pdf | 48.46 |

## Logs

| Log type | Log top depth [m] | Log bottom depth [m] |
|---|---|---|
| CST GR | 480 | 1000 |
| CST GR | 1005 | 2187 |
| CST GR | 1005 | 2150 |
| CST GR | 2195 | 3625 |
| CST GR | 2250 | 3543 |
| CST GR | 3563 | 3602 |
| CST GR | 3679 | 4300 |
| CST GR | 3718 | 4300 |
| DIL BHC GR SP | 373 | 3632 |
| DIL BHC GR SP | 1750 | 4124 |
| DIL BHC GR SP | 3636 | 4310 |
| FMS GR | 3637 | 3670 |
| FMS GR AMS | 3636 | 4311 |
| LDL CNL GR CAL AMS | 997 | 4309 |
| MWD - GR RES DIR | 373 | 4300 |
| RFT HP GR AMS | 1290 | 1922 |
| RFT HP GR AMS | 1310 | 0 |
| RFT HP GR AMS | 3885 | 3892 |
| SHDT GR AMS | 997 | 3635 |
| VSP | 500 | 2510 |
| VSP | 1100 | 4310 |

### Casing and leak-off tests

| Casing type | Casing diam. [inch] | Casing depth [m] | Hole diam. [inch] | Hole depth [m] | LOT/FIT mud eqv. [g/cm3] | Formation test type |
|---|---|---|---|---|---|---|
| CONDUCTOR | 30 | 473.0 | 36 | 476.0 | 0.00 | LOT |
| SURF.COND. | 20 | 997.0 | 26 | 1013.0 | 1.36 | LOT |
| INTERM. | 13 3/8 | 2186.0 | 17 1/2 | 2206.0 | 1.58 | LOT |
| INTERM. | 9 5/8 | 3633.0 | 12 1/4 | 3663.0 | 1.86 | LOT |
| OPEN HOLE | | 4300.0 | 8 1/2 | 4300.0 | 0.00 | LOT |

### Drilling mud

| Depth MD [m] | Mud weight [g/cm3] | Visc. [mPa.s] | Yield point [Pa] | Mud type | Date measured |
|---|---|---|---|---|---|
| 659 | 1.38 | | | WATER BASED | 01.09.1989 |
| 1005 | 1.03 | | | WATER BASED | 01.09.1989 |
| 1172 | 1.20 | 16.0 | 18.0 | WATER BASED | 05.09.1989 |
| 1237 | 1.02 | 16.0 | 18.0 | WATER BASED | 05.09.1989 |
| 1296 | 1.20 | 13.0 | 18.0 | WATER BASED | 06.09.1989 |
| 1363 | 1.20 | 12.0 | 17.0 | WATER BASED | 07.09.1989 |
| 1363 | 1.20 | 12.0 | 16.0 | WATER BASED | 08.09.1989 |
| 1363 | 1.20 | 13.0 | 16.0 | WATER BASED | 11.09.1989 |
| 1363 | 1.20 | 13.0 | 15.0 | WATER BASED | 11.09.1989 |
| 1363 | 1.20 | 19.0 | 29.0 | WATER BASED | 11.09.1989 |
| 1384 | 1.22 | 19.0 | 25.0 | WATER BASED | 12.09.1989 |
| 1384 | 1.27 | 60.0 | 35.0 | WATER BASED | 13.09.1989 |
| 1538 | 1.27 | 22.0 | 40.0 | WATER BASED | 18.09.1989 |
| 1576 | 1.27 | 19.0 | 35.0 | WATER BASED | 18.09.1989 |
| 1667 | 1.27 | 20.0 | 34.0 | WATER BASED | 18.09.1989 |
| 1783 | 1.27 | 21.0 | 37.0 | WATER BASED | 20.09.1989 |
| 1847 | 1.27 | 17.0 | 33.0 | WATER BASED | 20.09.1989 |
| 1890 | 1.27 | 18.0 | 28.0 | WATER BASED | 21.09.1989 |
| 1935 | 1.27 | 18.0 | 29.0 | WATER BASED | 22.09.1989 |
| 1990 | 1.27 | 18.0 | 30.0 | WATER BASED | 25.09.1989 |
| 1999 | 1.26 | 17.0 | 28.0 | WATER BASED | 25.09.1989 |
| 2034 | 1.26 | 18.0 | 27.0 | WATER BASED | 25.09.1989 |
| 2059 | 1.25 | 18.0 | 31.0 | WATER BASED | 26.09.1989 |
| 2084 | 1.25 | 18.0 | 31.0 | WATER BASED | 27.09.1989 |
| 2114 | 1.25 | 17.0 | 31.0 | WATER BASED | 28.09.1989 |

| | | | | | |
|---|---|---|---|---|---|
| 2135 | 1.25 | 16.0 | 30.0 | WATER BASED | 29.09.1989 |
| 2206 | 1.26 | 16.0 | 28.0 | WATER BASED | 03.10.1989 |
| 2206 | 1.18 | 15.0 | 18.0 | WATER BASED | 04.10.1989 |
| 2206 | 1.18 | 16.0 | 14.0 | WATER BASED | 05.10.1989 |
| 2206 | 1.18 | 15.0 | 16.0 | WATER BASED | 06.10.1989 |
| 2237 | 1.15 | 18.0 | 25.0 | WATER BASED | 09.10.1989 |
| 2258 | 1.18 | 19.0 | 22.0 | WATER BASED | 09.10.1989 |
| 2312 | 1.18 | 21.0 | 26.0 | WATER BASED | 10.10.1989 |
| 2321 | 1.18 | 18.0 | 22.0 | WATER BASED | 11.10.1989 |
| 2439 | 1.19 | 17.0 | 21.0 | WATER BASED | 12.10.1989 |
| 2461 | 1.19 | 12.0 | 19.0 | WATER BASED | 13.10.1989 |
| 2461 | 1.19 | 12.0 | 19.0 | WATER BASED | 13.10.1989 |
| 2488 | 1.20 | 13.0 | 19.0 | WATER BASED | 16.10.1989 |
| 2536 | 1.20 | 13.0 | 19.0 | WATER BASED | 16.10.1989 |
| 2622 | 1.20 | 14.0 | 20.0 | WATER BASED | 16.10.1989 |
| 2701 | 1.20 | 15.0 | 15.0 | WATER BASED | 27.10.1989 |
| 2706 | 1.20 | 11.0 | 14.0 | WATER BASED | 17.10.1989 |
| 2717 | 1.20 | 17.0 | 15.0 | WATER BASED | 30.10.1989 |
| 2749 | 1.20 | 16.0 | 18.0 | WATER BASED | 30.10.1989 |
| 2800 | 1.20 | 17.0 | 19.0 | WATER BASED | 18.10.1989 |
| 2816 | 1.20 | 15.0 | 13.0 | WATER BASED | 19.10.1989 |
| 2845 | 1.20 | 16.0 | 18.0 | WATER BASED | 30.10.1989 |
| 2890 | 1.20 | 17.0 | 17.0 | WATER BASED | 31.10.1989 |
| 2902 | 1.20 | 14.0 | 15.0 | WATER BASED | 23.10.1989 |
| 2902 | 1.20 | 15.0 | 15.0 | WATER BASED | 23.10.1989 |
| 2902 | 1.20 | 14.0 | 15.0 | WATER BASED | 23.10.1989 |
| 2902 | 1.20 | 15.0 | 15.0 | WATER BASED | 23.10.1989 |
| 2902 | 1.20 | 16.0 | 15.0 | WATER BASED | 24.10.1989 |
| 2953 | 1.20 | 14.0 | 15.0 | WATER BASED | 01.11.1989 |
| 3026 | 1.20 | 12.0 | 16.0 | WATER BASED | 02.11.1989 |
| 3070 | 1.20 | 12.0 | 15.0 | WATER BASED | 03.11.1989 |
| 3100 | 1.20 | 15.0 | 17.0 | WATER BASED | 06.11.1989 |
| 3150 | 1.20 | 14.0 | 16.0 | WATER BASED | 06.11.1989 |
| 3165 | 1.20 | 14.0 | 16.0 | WATER BASED | 06.11.1989 |
| 3206 | 1.20 | 15.0 | 17.0 | WATER BASED | 07.11.1989 |
| 3277 | 1.20 | 15.0 | 15.0 | WATER BASED | 08.11.1989 |
| 3354 | 1.24 | 16.0 | 18.0 | WATER BASED | 09.11.1989 |
| 3359 | 1.24 | 19.0 | 19.0 | WATER BASED | 10.11.1989 |
| 3419 | 1.24 | 15.0 | 18.0 | WATER BASED | 13.11.1989 |
| 3474 | 1.32 | 16.0 | 18.0 | WATER BASED | 13.11.1989 |

| | | | | | |
|---|---|---|---|---|---|
| 3474 | 1.32 | 16.0 | 18.0 | WATER BASED | 13.11.1989 |
| 3515 | 1.32 | 15.0 | 17.0 | WATER BASED | 14.11.1989 |
| 3587 | 1.34 | 15.0 | 18.0 | WATER BASED | 15.11.1989 |
| 3602 | 1.33 | 15.0 | 16.0 | WATER BASED | 16.11.1989 |
| 3605 | 1.33 | 15.0 | 18.0 | WATER BASED | 17.11.1989 |
| 3605 | 1.33 | 14.0 | 17.0 | WATER BASED | 20.11.1989 |
| 3611 | 1.38 | 15.0 | 15.0 | WATER BASED | 20.11.1989 |
| 3617 | 1.38 | 13.0 | 17.0 | WATER BASED | 20.11.1989 |
| 3654 | 1.38 | 15.0 | 17.0 | WATER BASED | 21.11.1989 |
| 3663 | 1.39 | 16.0 | 19.0 | WATER BASED | 22.11.1989 |
| 3663 | 1.44 | 17.0 | 19.0 | WATER BASED | 23.11.1989 |
| 3663 | 1.44 | 18.0 | 22.0 | WATER BASED | 24.11.1989 |
| 3663 | 1.44 | 19.0 | 18.0 | WATER BASED | 27.11.1989 |
| 3663 | 1.44 | 18.0 | 19.0 | WATER BASED | 27.11.1989 |
| 3663 | 1.44 | 16.0 | 19.0 | WATER BASED | 28.11.1989 |
| 3663 | 1.44 | 16.0 | 18.0 | WATER BASED | 29.11.1989 |
| 3663 | 1.44 | 18.0 | 16.0 | WATER BASED | 30.11.1989 |
| 3663 | 1.44 | 16.0 | 18.0 | WATER BASED | 27.11.1989 |
| 3671 | 1.44 | 20.0 | 15.0 | WATER BASED | 01.12.1989 |
| 3697 | 1.44 | 15.0 | 20.0 | WATER BASED | 04.12.1989 |
| 3860 | 1.44 | 17.0 | 13.0 | WATER BASED | 04.12.1989 |
| 3964 | 1.44 | 16.0 | 13.0 | WATER BASED | 04.12.1989 |
| 4002 | 1.45 | 20.0 | 14.0 | WATER BASED | 05.12.1989 |
| 4131 | 1.44 | 22.0 | 13.0 | WATER BASED | 06.12.1989 |
| 4189 | 1.46 | 23.0 | 15.0 | WATER BASED | 08.12.1989 |
| 4199 | 1.46 | 23.1 | 14.0 | WATER BASED | 08.12.1989 |
| 4280 | 1.46 | 26.0 | 13.0 | WATER BASED | 11.12.1989 |
| 4300 | 1.46 | 25.0 | 14.0 | WATER BASED | 11.12.1989 |
| 4300 | 1.46 | 26.0 | 19.0 | WATER BASED | 15.12.1989 |

## Thin sections at the Norwegian Offshore Directorate

| Depth | Unit |
|---|---|
| 1286.75 | [m ] |
| 1288.50 | [m ] |
| 1292.50 | [m ] |
| 1385.25 | [m ] |
| 1387.00 | [m ] |

## Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

| Document name | Document format | Document size [MB] |
|---|---|---|
| 1460_Formation_pressure_(Formasjonstrykk) | pdf | 0.22 |