



## Generell informasjon

|  |                                |
|--|--------------------------------|
| Brønnbane navn                           | 2/5-9                          |
| Type                                     | EXPLORATION                    |
| Formål                                   | WILDCAT                        |
| Status                                   | P&A                            |
| Faktakart i nytt vindu                   | <a href="#">lenke til kart</a> |
| Hovedområde                              | NORTH SEA                      |
| Brønn navn                               | 2/5-9                          |
| Seismisk lokalisering                    | SGT 8606 - 2203 SP 4203        |
| Utvinningstillatelse                     | <a href="#">006</a>            |
| Boreoperatør                             | Amoco Norway Oil Company       |
| Boretillatelse                           | 697-L                          |
| Boreinnretning                           | <a href="#">WEST VANGUARD</a>  |
| Boredager                                | 131                            |
| Borestart                                | 10.09.1991                     |
| Boreslutt                                | 18.01.1992                     |
| Frigitt dato                             | 18.01.1994                     |
| Publiseringssdato                        | 26.10.2009                     |
| Opprinnelig formål                       | WILDCAT                        |
| Gjenåpnet                                | NO                             |
| Innhold                                  | OIL SHOWS                      |
| Funnbrønnbane                            | NO                             |
| Avstand, boredekk - midlere havflate [m] | 22.0                           |
| Vanndybde ved midlere havflate [m]       | 69.0                           |
| Totalt målt dybde (MD) [m RKB]           | 5460.0                         |
| Totalt vertikalt dybde (TVD) [m RKB]     | 5443.0                         |
| Maks inklinasjon [°]                     | 12.5                           |
| Temperatur ved bunn av brønnbanen [°C]   | 167                            |
| Eldste penetrerte alder                  | LATE JURASSIC                  |
| Eldste penetrerte formasjon              | HAUGESUND FM                   |
| Geodetisk datum                          | ED50                           |
| NS grader                                | 56° 32' 7.18" N                |
| ØV grader                                | 3° 33' 13.43" E                |
| NS UTM [m]                               | 6265939.43                     |
| ØV UTM [m]                               | 534057.55                      |
| UTM sone                                 | 31                             |
| NPID for brønnbanen                      | 1834                           |



## Brønnhistorie

Well 2/5-9 is located in the vicinity of the 2/5-3 Sørøst Tor and the 2/5-4 discoveries on the Steinbit Terrace in the southern North Sea. The main objective was to test the hydrocarbon potential of the Late Jurassic sands in a rotated fault block, designated as the Magne structure. Secondary objectives were to determine the reservoir quality of any sand prone intervals penetrated in the well, to determine the Jurassic stratigraphy in this easterly part of the Central Graben, and to establish seismic well ties into prospective acreage surrounding the Magne prospect.

### Operations and results

Wildcat well 2/5-9 was spudded with the semi-submersible installation West Vanguard on 10 September 1991 and drilled to TD at 5460 m (5443 m TVD) in the Late Jurassic Haugesund Formation. Pore pressure reached a maximum estimated value of 15.9 ppg at TD. The well was kept vertical down to 4350 m, where angle started to build up to a maximum of 12.5 deg deviation at 4744 m. The deviation at TD was 10.4 deg. The well took 131 days to complete, from spud to abandonment. A total of 36.8 days was unscheduled events, of which rig repair, malfunction of drilling equipment, and hole problems were the major contributors. Also an additional deepening from the authorized TD at 5337 m to 5460 m in order to penetrate a reflector identified by wire line seismic logging (QSST checkshot) increased the pre-drill schedule. The well was drilled with seawater and bentonite pills down to 960 m, with KCl polymer mud from 960 m to 2880 m, and with PHPA/KCl polymer mud from 2880 m to TD. No shallow gas zones were penetrated in the well.

The top Rogaland at 3126 m and top Shetland Group at 3259 m came in 10 m and 17 m shallow to prognosis, respectively. The top Early Cretaceous at 4083 m came in 64 m shallow to prognosis and was 54 m thick, 31 m thicker than prognosed. The top Jurassic Tyne Group came in at 4137 m, 33 m shallow to prognosis, and after that a total of 1323 m of Jurassic section were penetrated without encountering any sandstone. The Mandal Formation and uppermost section of the Farsund Formation were absent, represented by the Base Cretaceous unconformity.

In the Nordland and Hordaland Groups very poor oil shows were noted in silty claystones and shales at 1215 - 1250 m and at 2740 - 2800, respectively. An oil bearing section of 33.5 m consisting of interbedded marly limestones, claystones and thin sandstone stringers was encountered at 4074 - 4107.5 m in the lowermost Shetland Group and uppermost Cromer Knoll Group. Good shows were recorded in the section, but it was tight and non-productive with a net pay of only 8.6 m. Weak shows were recorded also throughout the shales of the Tyne Group, but these are interpreted as in-situ generated hydrocarbons typical of these source rocks, when sufficiently buried.

No cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 18 January 1992 as a dry well with shows.

### Testing

No drill stem test was performed.

## Borekaks i Sokkeldirektoratet



## Faktasider

### Brønnbane / Leting

Utskriftstidspunkt: 20.5.2024 - 00:29

|                               |                               |
|-------------------------------|-------------------------------|
| Borekaksprøve, topp dybde [m] | Borekaksprøve, bunn dybde [m] |
| 970.00                        | 5460.00                       |

|  |     |
|--|-----|
| Borekaks tilgjengelig for prøvetaking? | YES |
|--|-----|

### Litostratigrafi

| Topp Dyb<br>[mMD RKB] | Litostrat. enhet                |
|-----------------------|---------------------------------|
| 91                    | <a href="#">NORDLAND GP</a>     |
| 1707                  | <a href="#">HORDALAND GP</a>    |
| 3126                  | <a href="#">ROGALAND GP</a>     |
| 3126                  | <a href="#">BALDER FM</a>       |
| 3148                  | <a href="#">SELE FM</a>         |
| 3195                  | <a href="#">LISTA FM</a>        |
| 3243                  | <a href="#">VÅLE FM</a>         |
| 3259                  | <a href="#">SHETLAND GP</a>     |
| 3259                  | <a href="#">EKOFISK FM</a>      |
| 3378                  | <a href="#">TOR FM</a>          |
| 3703                  | <a href="#">HOD FM</a>          |
| 4079                  | <a href="#">BLODØKS FM</a>      |
| 4081                  | <a href="#">HIDRA FM</a>        |
| 4083                  | <a href="#">CROMER KNOLL GP</a> |
| 4083                  | <a href="#">TUXEN FM</a>        |
| 4108                  | <a href="#">ÅSGARD FM</a>       |
| 4137                  | <a href="#">TYNE GP</a>         |
| 4137                  | <a href="#">FARSUND FM</a>      |
| 4313                  | <a href="#">HAUGESUND FM</a>    |

### Spleisede logger

| Dokument navn        | Dokument format | Dokument størrelse [KB] |
|----------------------|-----------------|-------------------------|
| <a href="#">1834</a> | pdf             | 0.97                    |

### Geokjemisk informasjon

| Dokument navn          | Dokument format | Dokument størrelse [KB] |
|------------------------|-----------------|-------------------------|
| <a href="#">1834_1</a> | pdf             | 0.67                    |





|                        |     |      |
|------------------------|-----|------|
| <a href="#">1834_2</a> | pdf | 2.79 |
|------------------------|-----|------|

#### Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

| Dokument navn                                    | Dokument format | Dokument størrelse [KB] |
|--|-----------------|-------------------------|
| <a href="#">1834_01_WDSS_General_Information</a> | pdf             | 0.62                    |
| <a href="#">1834_02_WDSS_completion_log</a>      | pdf             | 0.29                    |

#### Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

| Dokument navn                                | Dokument format | Dokument størrelse [KB] |
|--|-----------------|-------------------------|
| <a href="#">1834_2_5_9_COMPLETION_LOG</a>    | pdf             | 2.70                    |
| <a href="#">1834_2_5_9_COMPLETION_REPORT</a> | pdf             | 23.95                   |

#### Logger

| Type logg          | Topp dyp for logg [m] | Bunn dyp for logg [m] |
|--------------------|-----------------------|-----------------------|
| FMS GR             | 2872                  | 4532                  |
| FMS GR             | 4518                  | 5342                  |
| GR CNL LDL         | 4518                  | 5342                  |
| GR DLL LSS         | 950                   | 2880                  |
| GR LDL CNL NGT AS  | 2872                  | 4532                  |
| GR MSFL DLL LDL AS | 2872                  | 4150                  |
| GR MSFL PIL        | 4000                  | 4532                  |
| GR PIL AS          | 4518                  | 5342                  |
| GR PIL AS          | 5275                  | 5468                  |
| QSST               | 1022                  | 2875                  |
| QSST               | 3978                  | 4500                  |
| QSST               | 4500                  | 5320                  |
| RFT                | 3342                  | 4314                  |
| WA VSP             | 2422                  | 2650                  |
| ZO VSP             | 2592                  | 4140                  |

#### Foringsrør og formasjonsstyrketester





| Type utforing | Utforing diam.<br>[tommer] | Utforing dybde<br>[m] | Brønnbane diam.<br>[tommer] | Brønnbane dyp<br>[m] | LOT/FIT slam eqv.<br>[g/cm3] | Type formasjonstest |
|---------------|----------------------------|-----------------------|-----------------------------|----------------------|------------------------------|---------------------|
| CONDUCTOR     | 30                         | 187.0                 | 36                          | 190.0                | 0.00                         | LOT                 |
| INTERM.       | 20                         | 950.0                 | 26                          | 960.0                | 1.75                         | LOT                 |
| INTERM.       | 13 3/8                     | 2872.0                | 17 1/2                      | 2880.0               | 2.02                         | LOT                 |
| INTERM.       | 9 5/8                      | 4515.0                | 12 1/4                      | 4525.0               | 2.23                         | LOT                 |
| OPEN HOLE     |                            | 5460.0                | 8 1/2                       | 5460.0               | 0.00                         | LOT                 |

### Boreslam

| Dybde MD [m] | Egenvekt, slam [g/cm3] | Viskositet, slam [mPa.s] | Flytegrense [Pa] | Type slam   | Dato, måling |
|--------------|------------------------|--------------------------|------------------|-------------|--------------|
| 96           | 1.03                   |                          |                  | WATER BASED |              |
| 145          | 1.20                   | 10.0                     |                  | WATER BASED |              |
| 190          | 1.20                   | 10.0                     |                  | WATER BASED |              |
| 960          | 1.02                   |                          |                  | WATER BASED |              |
| 1903         | 1.53                   | 31.0                     |                  | WATER BASED |              |
| 1909         | 1.62                   | 25.0                     |                  | WATER BASED |              |
| 2108         | 1.62                   | 26.0                     |                  | WATER BASED |              |
| 2185         | 1.62                   | 38.0                     |                  | WATER BASED |              |
| 2233         | 1.70                   | 46.0                     |                  | WATER BASED |              |
| 2347         | 1.72                   | 37.0                     |                  | WATER BASED |              |
| 2416         | 1.70                   | 50.0                     |                  | WATER BASED |              |
| 2423         | 1.70                   | 38.0                     |                  | WATER BASED |              |
| 2849         | 1.74                   | 64.0                     |                  | WATER BASED |              |
| 2880         | 1.74                   | 25.0                     |                  | WATER BASED |              |
| 2880         | 1.75                   | 24.0                     |                  | WATER BASED |              |
| 2897         | 1.67                   | 18.0                     |                  | WATER BASED |              |
| 3070         | 1.68                   | 27.0                     |                  | WATER BASED |              |
| 3730         | 1.61                   | 24.0                     |                  | WATER BASED |              |
| 3860         | 1.61                   | 30.0                     |                  | OIL BASED   |              |
| 3978         | 1.74                   | 31.0                     |                  | WATER BASED |              |
| 4090         | 1.80                   | 33.0                     |                  | WATER BASED |              |
| 4150         | 1.80                   | 32.0                     |                  | WATER BASED |              |
| 4171         | 1.80                   | 30.0                     |                  | WATER BASED |              |
| 4225         | 1.80                   | 31.0                     |                  | WATER BASED |              |
| 4372         | 1.80                   | 24.0                     |                  | WATER BASED |              |
| 4437         | 1.84                   | 25.0                     |                  | WATER BASED |              |
| 4438         | 1.74                   | 17.0                     |                  | WATER BASED |              |



|      |      |      |  |             |  |
|------|------|------|--|-------------|--|
| 4485 | 1.78 | 22.0 |  | WATER BASED |  |
| 4485 | 1.82 | 26.0 |  | WATER BASED |  |
| 4525 | 1.79 | 23.0 |  | WATER BASED |  |
| 4525 | 1.78 | 24.0 |  | WATER BASED |  |
| 4591 | 1.78 | 21.0 |  | WATER BASED |  |
| 4641 | 1.79 | 20.0 |  | WATER BASED |  |
| 4730 | 1.08 | 17.0 |  | WATER BASED |  |
| 4732 | 1.79 | 20.0 |  | WATER BASED |  |
| 4959 | 1.85 | 18.0 |  | WATER BASED |  |
| 5031 | 1.85 | 19.0 |  | WATER BASED |  |
| 5147 | 1.91 | 21.0 |  | WATER BASED |  |
| 5194 | 1.92 | 21.0 |  | WATER BASED |  |
| 5280 | 1.92 | 24.0 |  | WATER BASED |  |
| 5337 | 1.92 | 29.0 |  | WATER BASED |  |
| 5460 | 1.98 | 25.0 |  | WATER BASED |  |