



Generell informasjon

Brønnbane navn	31/6-8
Type	EXPLORATION
Formål	APPRAISAL
Status	SUSPENDED
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	TROLL
Funn	31/6-1 (Troll Øst)
Brønn navn	31/6-8
Seismisk lokalisering	NH 8202 - 338 SP. 249
Utvinningstillatelse	085
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	462-L
Boreinnretning	TREASURE SEEKER
Boredager	42
Borestart	14.04.1985
Boreslutt	25.05.1985
Frigitt dato	25.05.1987
Publiseringsdato	06.06.2006
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	SOGNEFJORD FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	300.0
Totalt målt dybde (MD) [m RKB]	2138.0
Totalt vertikalt dybde (TVD) [m RKB]	2138.0
Maks inklinasjon [°]	2
Temperatur ved bunn av brønnbanen [°C]	79
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	COOK FM
Geodetisk datum	ED50
NS grader	60° 33' 21.36" N



ØV grader	3° 40' 39.07" E
NS UTM [m]	6713676.33
ØV UTM [m]	537156.05
UTM sone	31
NPDID for brønnbanen	466

Brønnhistorie

General

Appraisal well 31/6-8 was drilled in the south-west corner of the Troll East gas province, 50 m due north of well 31/6-7, which was junked and abandoned for technical reasons. The main objectives were to determine the lateral extent of the reservoir, to determine the fluid contacts in the Sognefjord Formation, and to obtain the best possible seismic correlation within the reservoir from well 31/6-1. In addition, an elaborate testing program was planned to obtain a number of reservoir engineering parameters.

Operations and results

Well 31/6-8 was spudded with the semi-submersible installation Treasure Seeker on 14 April 1985 and drilled to TD at Drilling the well proceeded without significant problems. The interval down to setting depth for 20" casing was not logged, as this interval was considered covered by logs from well 31/6-7. The well was drilled with spud mud down to 700 m, with KCl Polymer mud from 700 m to 1465 m, and with "drill in fluid" (NaCl, polymers, and CaCO₃) from 1465 m to TD. An 8 m³ Imcospot/Pipelax pill was spotted at 2054 m to free the pipe, which was stuck.

The Sognefjord Formation (1507-1661 m) was found gas bearing from 1507 m to 1573.5 m and oil bearing from 1573.5 to 1578.5 m where the oil/water contact was found. The oil zone was determined from petrophysical evaluation, core plug saturations and segregated sample recoveries. The hydrocarbon-bearing reservoir consisted of predominantly very fine to fine grained sandstones with some interbedded siltstones. The gross hydrocarbon column was 71.5 m and the net pay calculated to 67 m with an average porosity of 33% and average water saturation of 16.2 %. No hydrocarbon indications were recorded above 1507 m or below 1579 m.

Twelve cores were cut in the Late to Middle Jurassic Sognefjord and Heather Formations from 1489 m to 1700 m (148 m total recovery). FMT segregated samples were taken at 1573.2 m (0.7 Sm³ gas, 0.5 l water/filtrate, and 6 l oil in 2.75 gallon chamber) and at 1578.8 m (0.1 Sm³ gas, 0.5 l oil, and 9.8 l water/filtrate in 2.75 gallon chamber).

The well was temporarily suspended 25 May 1985, and subsequently re-entered for testing 20 July 1985.

Testing

No drill stem test was performed

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
420.00	2137.00



Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
2	1503.0	1512.0	[m]
3	1520.0	1530.0	[m]
4	1537.0	1551.0	[m]
5	1555.0	1566.0	[m]
6	1567.5	1586.0	[m]
7	1586.0	1604.0	[m]
8	1604.5	1623.0	[m]
9	1623.0	1641.0	[m]
10	1641.5	1659.0	[m]
11	1663.0	1673.0	[m]
12	1681.5	1699.0	[m]

Total kjerneprøve lengde [m]	162.0
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1503-1508m



1508-1513m



1513-1514m



1520-1525m



1525-1530m



1537-1542m



1542-1547m



1547-1551m



1560-1565m



1555-1560m



1565-1566m



1567-1572m



1572-1577m



1577-1582m



1582-1586m



1586-1591m



1591-1596m



1596-1601m



1601-1604m



1604-1609m



1609-1614m



1614-1619m



1619-1623m



1623-1628m



1628-1633m



1633-1638m



1638-1641m



1641-1646m



1646-1651m



1651-1656m



1656-1659m



1663-1669m



1669-1673m



1681-1687m



1687-1693m



1693-1699m



1699-1700m



Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
325	NORDLAND GP
538	HORDALAND GP
985	ROGALAND GP
985	BALDER FM
1112	SELE FM
1224	LISTA FM
1256	SHETLAND GP
1256	HARDRÅDE FM
1264	UNDIFFERENTIATED
1371	CROMER KNOLL GP
1371	RØDBY FM
1385	ÅSGARD FM
1412	VIKING GP
1412	DRAUPNE FM
1485	HEATHER FM
1507	SOGNEFJORD FM
1661	HEATHER FM
1705	FENSEFJORD FM
1927	KROSSFJORD FM
1965	HEATHER FM
1985	BRENT GP
2008	DUNLIN GP
2008	DRAKE FM
2025	COOK FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
466	pdf	0.30

Dokumenter - eldre Sjøkeldirektoratets WDSS rapporter og andre relaterte dokumenter





Dokument navn	Dokument format	Dokument størrelse [KB]
466_01_WDSS_General_Information	pdf	0.37
466_02_WDSS_completion_log	pdf	0.20

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
466_05_31_6_8_Test_report	pdf	29.32
466_05_31_6_8_TEST_report_encl1	pdf	3.67
466_05_31_6_8_TEST_report_encl2	pdf	0.76
466_05_31_6_8_TEST_report_encl3	pdf	2.42

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	1538	1558	23.8
2.0	1523	1523	0.0
3.0	1416	1418	0.0

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				
2.0				
3.0				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyingde rel. luft	GOR [m3/m3]
1.0		26000			
2.0					
3.0					

Logger





Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL CCL GR	1200	1596
CET GR	1200	1596
CST	750	1442
CST	1446	1659
CST	1662	2124
DLL MSFL GR CAL	1437	1655
HDT	1100	1442
ISF LSS GR SP	687	2140
LDL CNL GR CAL	687	1442
LDL CNL NGS GR CAL	1437	2142
RFT	1487	1640
RFT	1559	1578
SHDT	1437	1659
SHDT	1647	2142
TEMP	400	1400
VELOCITY	687	2140

Foringsrør og formasjonsstyrketester

Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	411.0	36	416.0	0.00	LOT
SURF.COND.	20	687.0	26	700.0	1.54	LOT
INTERM.	13 3/8	1437.0	17 1/2	1465.0	1.59	LOT
INTERM.	9 5/8	1646.0	12 1/4	1660.0	1.57	LOT
OPEN HOLE		2138.0	8 1/2	2138.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
416	1.35			WATER BASED	16.04.1985
700	1.08	10.0	20.0	WATER BASED	17.04.1985
700	1.10	6.0	13.0	WATER BASED	18.04.1985
700	0.00			WATER BASED	19.04.1985
700	1.20	28.0	18.0	WATER BASED	21.04.1985
700	1.20	18.0	7.0	WATER BASED	21.04.1985



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 13.5.2024 - 17:09

700	1.10	6.0	13.0	WATER BASED	18.04.1985
700	1.20	28.0	18.0	WATER BASED	21.04.1985
700	1.20	18.0	7.0	WATER BASED	21.04.1985
700	1.20	18.0	7.0	WATER BASED	23.04.1985
700	1.20	18.0	7.0	WATER BASED	23.04.1985
860	1.20	19.0	8.0	WATER BASED	25.04.1985
946	1.16			WATER BASED	21.08.1985
1083	1.27	18.0	5.0	WATER BASED	26.04.1985
1083	1.27	18.0	6.0	WATER BASED	25.04.1985
1083	1.27	18.0	5.0	WATER BASED	26.04.1985
1171	1.24	18.0	9.5	WATER BASED	29.04.1985
1185	1.16			WATER BASED	21.08.1985
1221	1.24	16.0	7.0	WATER BASED	29.04.1985
1221	1.23	16.0	8.0	WATER BASED	30.04.1985
1221	1.24	17.0	8.0	WATER BASED	29.04.1985
1221	1.24	16.0	7.0	WATER BASED	29.04.1985
1221	1.23	16.0	8.0	WATER BASED	30.04.1985
1354	1.23	15.0	11.0	WATER BASED	02.05.1985
1465	1.25	18.0	12.0	WATER BASED	02.05.1985
1465	1.25	19.0	12.0	WATER BASED	06.05.1985
1465	1.25	19.0	11.0	WATER BASED	06.05.1985
1465	1.26	22.0	10.0	WATER BASED	06.05.1985
1465	1.25	19.0	12.0	WATER BASED	06.05.1985
1465	1.25	19.0	11.0	WATER BASED	06.05.1985
1465	1.26	22.0	10.0	WATER BASED	06.05.1985
1482	1.16			WATER BASED	21.08.1985
1482	1.16			WATER BASED	22.08.1985
1482	1.16			WATER BASED	29.08.1985
1482	1.16			WATER BASED	14.08.1985
1482	1.16			WATER BASED	19.08.1985
1489	1.20	10.0	8.0	WATER BASED	07.05.1985
1504	1.20	15.0	10.0	WATER BASED	08.05.1985
1512	1.16			WATER BASED	05.09.1985
1512	1.16			WATER BASED	06.09.1985
1512	1.16			WATER BASED	09.09.1985
1537	1.20	25.0	14.0	WATER BASED	09.05.1985
1562	1.16			WATER BASED	29.08.1985
1562	1.16			WATER BASED	30.08.1985
1562	1.16			WATER BASED	03.09.1985
1567	1.20	49.0	12.0	WATER BASED	10.05.1985



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 13.5.2024 - 17:09

1570	1.16	15.0	14.0	WATER BASED	11.09.1985
1580	0.00			WATER BASED	23.05.1985
1605	1.20	13.0	8.0	WATER BASED	13.05.1985
1615	1.20	9.0	5.0	WATER BASED	26.07.1985
1615	1.20	9.0	5.0	WATER BASED	30.07.1985
1615	1.03			WATER BASED	30.07.1985
1615	1.03			WATER BASED	31.07.1985
1615	1.16			WATER BASED	02.08.1985
1615	1.16			WATER BASED	06.08.1985
1615	1.20	9.0	5.0	WATER BASED	30.07.1985
1615	1.03			WATER BASED	30.07.1985
1615	1.03			WATER BASED	31.07.1985
1615	1.16			WATER BASED	02.08.1985
1615	1.16			WATER BASED	06.08.1985
1619	1.16			WATER BASED	08.08.1985
1619	1.16			WATER BASED	09.08.1985
1619	1.16			WATER BASED	13.08.1985
1619	1.16			WATER BASED	08.08.1985
1619	1.16			WATER BASED	09.08.1985
1619	1.16			WATER BASED	13.08.1985
1619	1.16			WATER BASED	06.08.1985
1641	1.20	13.0	8.0	WATER BASED	13.05.1985
1660	1.20	13.0	8.0	WATER BASED	13.05.1985
1660	1.20	11.0	9.0	WATER BASED	14.05.1985
1660	1.20	13.0	7.0	WATER BASED	15.05.1985
1660	1.20	13.0	8.0	WATER BASED	21.05.1985
1660	1.20	13.0	7.0	WATER BASED	15.05.1985
1660	1.20	13.0	8.0	WATER BASED	21.05.1985
1660	1.20	11.0	9.0	WATER BASED	14.05.1985
1663	1.20	13.0	7.0	WATER BASED	21.05.1985
1689	1.20	13.0	8.0	WATER BASED	21.05.1985
1871	1.20	15.0	10.0	WATER BASED	21.05.1985
2059	1.20	15.0	8.0	WATER BASED	21.05.1985
2138	0.00				25.07.1985
2138	1.20				26.07.1985
2138	1.20	14.0	9.0	WATER BASED	22.05.1985
2138	1.20				26.07.1985
2138	1.20	14.0	9.0	WATER BASED	21.05.1985
2138	1.20	14.0	9.0	WATER BASED	22.05.1985



Trykkplott

Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspar. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
466 Formation pressure (Formasjonstrykk)	pdf	0.20

