Generell informasjon

Brønnbane navn	33/9-7
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	STATFJORD ØST
Funn	33/9-7 Statfjord Øst
Brønn navn	33/9-7
Seismisk lokalisering	
Utvinningstillatelse	037
Boreoperatør	Mobil Exploration Norway INC
Boretillatelse	165-L
Boreinnretning	DYVI ALPHA
Boredager	58
Borestart	11.09.1976
Boreslutt	07.11.1976
Frigitt dato	07.11.1978
Publiseringsdato	24.09.2015
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
Avstand, boredekk - midlere havflate [m]	26.0
Vanndybde ved midlere havflate [m]	155.0
Totalt målt dybde (MD) [m RKB]	3127.0
Temperatur ved bunn av brønnbanen [°C]	91
Eldste penetrerte alder	TRIASSIC
Eldste penetrerte formasjon	STATFJORD GP
Geodetisk datum	ED50
NS grader	61° 20' 12.17'' N
ØV grader	1° 59' 12.66'' E
NS UTM [m]	6800875.60
ØV UTM [m]	445782.73

UTM sone	31
NPDID for brønnbanen	412

Brønnhistorie

General

Well 33/9-7, was drilled on the 33/9-Alpha prospect, 2.5 km east of the Statfjord Field in the Tampen Spur area in the northern North Sea. The primary objective was to test a part of the Brent-Statfjord trend separated from the Statfjord Field to the west by a structural saddle. The primary target was the Brent Group sandstones. Sandstones within the Statfjord Group was a secondary target.

Operations and results

Wildcat well 33/9-7 was spudded with the semi-submersible installation Dyvi Alpha on 11 September 1976 and drilled to TD at 3127 m in the Statfjord Group.

Good oil and gas shows seen in a 50-meter thick sequence of interbedded sands and claystones in the lower portion of the Paleocene from 1770-1820 m. The sands although not apparently continuous, were oil stained and had good gas shows throughout the interval. Log evaluation was not practical due to washing out resulting in excessive hole sizes. The Brent Group sandstones came in sandstones at 2461 m. There was 160 m net sand with average 27% porosity. The sands were oil-filled down to a section of claystones, coals and minor sands at 2520 m. An OWC was inferred at 2533 m. No shows were observed in the Statfjord sands, but the logs indicated scattered residual oil.

A total of 103.33 m core (86% recovery) was cut in nine cores in the interval 2465 to 2597 m in the Brent Group. No fluid samples were taken on wire line.

The well was permanently abandoned on 7 November 1976 as an oil discovery.

Testing

Three drill stem tests were carried out.

DST 1 tested the interval 2489.9 m in the Brent Group. This test flowed 1080 m3 oil/day through a 3/4" choke. The GOR was 93 Sm3/Sm3, the oil gravity was 37.7 °API and the gas gravity was 0.69 (air = 1).

DST 2 and 3 both tested the interval 1780 to 1800 m in the Lista Formation. In DST 2, perforations were plugged and no fluid was produced to the surface. In DST 3, the formation produced fluid at a rate of 114 m3/day through a 1/2" choke. The fluid consisted of 70% free water, 27% emulsion, 2% bottom sediments, and 1% oil. The high water cut in this test could be a result of poor isolation of the zone due to excessively caved hole.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
273.00	3070.00

Borekaks tilgjengelig for prøvetaking?	YES

Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2465.0	2465.7	[m]
2	2474.0	2490.3	[m]
3	2493.0	2511.3	[m]
4	2511.3	2526.3	[m]
5	2527.0	2537.0	[m]
6	2537.0	2547.9	[m]
7	2550.0	2561.8	[m]
8	2575.0	2591.9	[m]
9	2592.0	2595.6	[m]

Total kjerneprøve lengde [m]	103.5
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder


2465-2466m


2474-2476m


2476-2479m


2479-2482m


2482-2484m


2484-2487m


2487-2490m


2490-2490m


2493-2495m


2495-2498m


2498-2501m


2501-2503m


2503-2506m


2506-2509m


2509-2511m


2511-2514m


2514-2516m


2516-2519m


2519-2522m


2522-2524m


2527-2529m


2529-2532m


2532-2535m


2535-2537m


2537-2539m


2539-2542m


2542-2545m


2545-2547m


2547-2548m


2550-2552m


2552-2555m


2555-2558m


2558-2560m


2560-2561m


2575-2577m


2577-2580m


2583-2585m


2585-2588m


2588-2591m


2591-2592m


2592-2594m


2594-2595m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1312.0	[m]	DC	RRI
1336.0	[m]	DC	RRI
1360.0	[m]	DC	RRI
1378.0	[m]	DC	RRI
1396.0	[m]	DC	RRI
1408.0	[m]	DC	RRI
1450.0	[m]	DC	RRI
1474.0	[m]	DC	RRI
1490.0	[m]	DC	RRI
1508.0	[m]	DC	RRI
1526.0	[m]	DC	RRI
1544.0	[m]	DC	RRI
1562.0	[m]	DC	RRI
1580.0	[m]	DC	RRI
2452.0	[m]	DC	UOS
2455.0	[m]	DC	UOS
2458.0	[m]	DC	UOS
2461.0	[m]	DC	UOS
2464.0	[m]	DC	UOS

Litostratigrafi

Top depth [mMD RKB]	Lithostrat. unit
181	NORDLAND GP
895	UTSIRA FM
980	HORDALAND GP
1651	ROGALAND GP
1651	BALDER FM
1680	LISTA FM
1851	SHETLAND GP
2447	CROMER KNOLL GP
2452	VIKING GP
2452	HEATHER FM
2461	BRENT GP

2700	DUNLIN GP
2958	STATFJORD GP

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
412_01_WDSS_General_Information	pdf	0.28

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
412_33_9_7_COMPLETION_LOG	pdf	2.34
412_33_9_7_COMPLETION_REPORT	pdf	5.42

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsventil størrelse [mm]
1.0	2490	2493	19.0
2.0	1780	1800	0.0

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

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	1079	100808	0.836		
2.0					

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL	1250	3050
CDM	1828	3126
DLL MSFL	2400	3125
FDC CNL	1520	1851
ISF SON	239	3123
SRS	293	3126

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	268.0	36	273.0	0.00	
SURF.COND.	20	490.0	26	500.0	0.00	
INTERM.	13 3/6	1830.0	17 1/2	1850.0	0.00	
INTERM.	9 5/8	3095.0	12 1/2	3127.0	0.00	