



Generell informasjon

Brønnbane navn	31/1-2 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	31/1-2 S (Røver Nord)
Brønn navn	31/1-2
Seismisk lokalisering	3D Survey CGG17M01: Inline: 7195. X-line: 26159
Utvinningstillatelse	923
Boreoperatør	Equinor Energy AS
Boretillatelse	1836-L
Boreinnretning	WEST HERCULES
Boredager	29
Borestart	12.12.2020
Boreslutt	12.01.2021
Plugget dato	12.01.2021
Frigitt dato	12.01.2023
Publiseringsdato	12.01.2021
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	ETIVE FM
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	OSEBERG FM
3. nivå med hydrokarboner, alder	EARLY JURASSIC
3. nivå med hydrokarboner, formasjon	DRAKE FM
Avstand, boredekk - midlere havflate [m]	31.0
Vanndybde ved midlere havflate [m]	349.0
Totalt målt dybde (MD) [m RKB]	3555.0
Totalt vertikalt dybde (TVD) [m RKB]	3470.3



Maks inklinasjon [°]	35.8
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	AMUNDSEN FM
Geodetisk datum	ED50
NS grader	60° 57' 4.79" N
ØV grader	3° 18' 33.26" E
NS UTM [m]	6757565.95
ØV UTM [m]	516751.83
UTM sone	31
NPDID for brønnbanen	9178

Brønnhistorie

General

Well 31/1-2 S was drilled to test the Røver Nord prospect on the Lomre Terrace, 9 km north-west of the Troll Field in the North Sea. The primary objective was to confirm commercial hydrocarbons in the Early-Middle Jurassic Dunlin and Brent groups.

Operations and results

A pilot hole was drilled through cap-x down to 792 m to investigate for shallow gas and water, no flow was observed.

Wildcat well 31/1-2 S was spudded with the semi-submersible installation West Hercules on 12 December 2020 and drilled to TD at 3555 m (3470.3 m TVD) m in the Early Jurassic Amundsen Formation. Operations proceeded without significant problems. The well was drilled with seawater and sweeps down to 792 m, with Glydril mud from 792 to 1728 m, with oil-based Versatec mud from 1728 to 2834 m, and with oil based Exploradril mud from 2834 to TD.

Top Brent Group was encountered at 3205 m (3120 m TVD) and consisted mainly of mudstones with coal layers (Tarbert and Ness formations) down to top Etive Formation at 3293 m (3178 m TVD). Sandstones in the Middle Jurassic Etive and Oseberg formations and the Early Jurassic Drake Formation were gas and oil bearing. MDT pressure data indicate a gas-oil contact at ca 3334 m (3249 m TVD). No oil shows were observed outside of the hydrocarbon bearing reservoir sands in the well.

One eighty-one metre core was cut from 3301 to 3382 m with 100% recovery. MDT fluid samples were taken at 3298.5 m (gas), 3321.5 m (gas), 3348.0 m (oil), and 3377.3 m (oil). The formation temperature at TD based on Horner corrected temperatures from EDTC CTEM component in the BHA is 135.2 °C.

The well was permanently abandoned on 9 January 2021 as an oil and gas discovery.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet



Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
800.00	3555.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3301.0	3382.0	[m]

Total kjerneprøve lengde [m]	81.0
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
380	NORDLAND GP
380	UNDIFFERENTIATED
825	UTSIRA FM
885	HORDALAND GP
885	UNDIFFERENTIATED
1777	ROGALAND GP
1777	BALDER FM
1849	SELE FM
1894	LISTA FM
1927	NO FORMAL NAME
1930	LISTA FM
2013	NO FORMAL NAME
2147	VÅLE FM
2234	SHETLAND GP
2234	JORSALFARE FM
2404	KYRRE FM
2680	SVARTE FM
2692	CROMER KNOLL GP
2692	RØDBY FM
2771	SOLA FM
2801	ÅSGARD FM



2862	VIKING GP
2862	DRAUPNE FM
2949	HEATHER FM
3205	BRENT GP
3205	TARBERT FM
3218	NESS FM
3293	ETIVE FM
3301	RANNOCH FM
3319	OSEBERG FM
3364	DUNLIN GP
3364	DRAKE FM
3446	COOK FM
3494	AMUNDSEN FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MDT GR	3265	3460
MSIP NGI	2250	3558
MWD - GR RES	401	1728
MWD - GR RES	2830	3555
MWD - GR RES ST	1728	2830
MWD - NEXT CMR XPT	2831	3558
VSP GR	349	3558
XLR	3293	3490
ZAIP MSIP PEX HNGS	2831	3558

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	401.0	30	401.0	0.00	
INTERM.	20	787.2	26	792.0	1.36	FIT
INTERM.	13 3/8	1722.5	17 1/2	1728.0	1.57	FIT
LINER	9 5/8	2830.0	12 1/4	2830.0	1.55	FIT

Boreslam



Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	Fløytgrense [Pa]	Type slam	Dato, måling
788	1.03	1.0	0.5	Seawater	
792	1.17	10.0	10.0	Glydril	
888	1.18	8.5	9.5	Glydril	
920	1.20	9.0	10.5	Glydril	
1661	1.30	30.0	8.0	Versatec	
1702	1.20	10.0	9.5	Glydril	
1918	1.28	28.0	8.5	Versatec	
2730	1.30	33.0	5.0	Versatec	
2817	1.28	27.0	7.0	Versatec	
2831	1.28	31.0	6.5	Versatec	
2831	1.30	17.0	4.5	Exploradrill	
2970	1.30	16.0	7.5	Exploradrill	
3301	1.31	15.0	9.5	Exploradrill	
3730	1.30	33.0	5.0	Versatec	