



Generell informasjon

Brønnbane navn	35/11-18
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	35/11-18 (Syrah)
Brønn navn	35/11-18
Seismisk lokalisering	3D survey ST9303 inline 10000 xline 1452
Utvinningstillatelse	248
Boreoperatør	Wintershall Norge AS
Boretillatelse	1593-L
Boreinnretning	BORGLAND DOLPHIN
Boredager	40
Borestart	19.08.2015
Boreslutt	27.09.2015
Frigitt dato	27.09.2017
Publiseringsdato	27.09.2017
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	INTRA HEATHER FM SS
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	TARBERT FM
3. nivå med hydrokarboner, alder	MIDDLE JURASSIC
3. nivå med hydrokarboner, formasjon	OSEBERG FM
Avstand, boredekk - midlere havflate [m]	31.0
Vanndybde ved midlere havflate [m]	366.0
Totalt målt dybde (MD) [m RKB]	3759.0
Totalt vertikalt dybde (TVD) [m RKB]	3740.0
Maks inklinasjon [°]	15.7



Temperatur ved bunn av brønnbanen [°C]	145
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	COOK FM
Geodetisk datum	ED50
NS grader	61° 9' 24.41" N
ØV grader	3° 20' 38.09" E
NS UTM [m]	6780460.23
ØV UTM [m]	518509.99
UTM sone	31
NPDID for brønnbanen	7771

Brønnhistorie

General

Well 35/11-18 was drilled to test the Syrah prospect on the Marflo Spur/Lomre Terrace, west of the Vega Field in the North Sea. The primary objective was to test the hydrocarbon potential in the Middle Jurassic Brent Group. The secondary target was to test the hydrocarbon potential in Intra Heather Formation sandstone.

Operations and results

Wildcat well 35/11-18 was spudded with the semi-submersible installation Borgland Dolphin on 19 August 2015 and drilled to TD at 3759 m (3740 m TVD) in the Early Jurassic Cook Formation. The Syrah 35/11-18 well was planned and executed as a vertical well with short deviated section below ca 3000 m through the main reservoir targets. The deviation was ca 15° from ca 3300 m to TD. No significant problem was encountered in the operations. The well was drilled with seawater down to 494 m, with KCl/Polymer/GEM mud from 494 m to 1111 m, with Performadril mud from 1111 m to 1742 m and with Innovert NS oil based mud from 1742 m to TD.

Top Draupne Formation was encountered at 3037 m and top Heather Formation came in at 3098 m. An Intra Heather Formation sandstone unit was penetrated from 3205 to 3247 m. The unit has ca 5 m gross hydrocarbon-filled sandstone in two sandstone beds on top, otherwise it consists of siltstone, claystone and limestone. Top Tarbert Formation came in at 3491 m with hydrocarbons in the topmost few meters. The Ness and Eive formations were water wet. Top Oseberg Formation came in at 3657 m with oil in the top 2 meters. Weak oil shows were described on the core from the Tarbert Formation down to 3550 m, and on cuttings over the interval 3657 to 3664 m.

One 54 m core was cut from 3498 m to 3552 m in the Middle Jurassic Tarbert - Ness formations. MDT fluid samples were taken at 3498.0 (hydrocarbons), 3540.2 m (water), 3603.5 m (water), 3657.0 m (hydrocarbons) and 3661.7 m (water)

The 35/11-18 well bore was plugged back for sidetracking and permanently abandoned on 27 September. It is classified as an oil discovery.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1120.00	3759.00

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

Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3498.0	3552.1	[m]

Total kjerneprøve lengde [m]	54.1
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
397	NORDLAND GP
397	UNDIFFERENTIATED
806	UTSIRA FM
948	HORDALAND GP
948	UNDIFFERENTIATED
1711	ROGALAND GP
1711	BALDER FM
1797	SELE FM
1827	LISTA FM
1994	VÅLE FM
2019	SHETLAND GP
2019	JORSALFARE FM
2168	KYRRE FM
2885	TRYGGVASON FM
2918	CROMER KNOLL GP
2918	RØDBY FM
2951	SOLA FM
2962	ÅSGARD FM
3037	VIKING GP



3037	DRAUPNE FM
3098	HEATHER FM
3206	INTRA HEATHER FM SS
3248	HEATHER FM
3492	BRENT GP
3492	TARBERT FM
3600	ETIVE FM
3617	RANNOCH FM
3657	OSEBERG FM
3695	DUNLIN GP
3695	DRAKE FM
3711	COOK FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
GR RES NEU DEN	3364	3750
IMAGE SONIC	366	3759
MWD - DIR	397	494
MWD - GR RES PWD DIR	1111	1742
MWD - GR RES PWD DIR NEU DEN SON	1742	3759
NMR	3364	3759
PRESSURE	3498	3676
SWC	3481	3745
VSP	1693	3750

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	486.5	36	494.0	0.00	
SURF.COND.	20	1104.0	26	1111.0	0.00	
		1114.0		1114.0	1.54	LOT
INTERM.	13 3/8	1736.0	17 1/2	1742.0	0.00	
		1745.0		1745.0	1.53	LOT
INTERM.	9 5/8	3363.8	12 1/2	3370.0	0.00	
		3373.0		3373.0	1.98	LOT
OPEN HOLE		3759.0	8 1/2	3759.0	0.00	



Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
397	1.39	8.0		KCl/Polymer GEM	
397	1.64	18.0		KCl/Polymer	
935	1.39	18.0		KCl/Polymer GEM	
1100	1.29	18.0		Performadril	
1100	1.39	24.0		KCl/Polymer GEM	
1300	1.29	28.0		Performadril	
1742	1.29	17.0		INNOVERT NS OBM	
1742	1.29	33.0		Performadril	
1831	1.29	15.0		INNOVERT NS OBM	
1831	1.44	20.0		INNOVERT NS OBM	
2100	1.29	15.0		INNOVERT NS OBM	
3019	1.33	17.0		INNOVERT NS OBM	
3370	1.44	20.0		INNOVERT NS OBM	
3373	1.59	25.0		INNOVERT NS OBM	
3552	1.59	26.0		INNOVERT NS OBM	
3759	1.59	30.0		INNOVERT NS OBM	