

**General information**

Wellbore name	6506/11-5 S
Type	EXPLORATION
Purpose	APPRAISAL
Status	RE-CLASS TO DEV
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	ÅSGARD
Discovery	6506/12-1 Smørbukk
Well name	6506/11-5
Seismic location	3D HWM 94-INLINE 4098 & CROSSLINE 1554.
Production licence	134
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	859-L
Drilling facility	TRANSOCEAN SEARCHER
Drilling days	62
Entered date	10.09.1996
Completed date	10.11.1996
Release date	10.11.1998
Publication date	24.09.2002
Purpose - planned	APPRAISAL
Reclassified to wellbore	6506/11-G-1 H
Reentry	NO
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	EARLY JURASSIC
1st level with HC, formation	TILJE FM
2nd level with HC, age	EARLY JURASSIC
2nd level with HC, formation	ÅRE FM
Kelly bushing elevation [m]	22.0
Water depth [m]	288.0
Total depth (MD) [m RKB]	4790.0
Final vertical depth (TVD) [m RKB]	4729.0
Maximum inclination [°]	16.7
Bottom hole temperature [°C]	156
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50



NS degrees	65° 5' 17.5" N
EW degrees	6° 39' 44" E
NS UTM [m]	7220497.62
EW UTM [m]	390135.87
UTM zone	32
NPDID wellbore	2794

Wellbore history

General

The main objectives of the well 6506/11-5 S were to appraise hydrocarbons in the Smørbukk Field and collect data on reservoir quality and fluid distribution, to act as an observation well during the long-term test/ interference test of well 6506/12-11 S R, and to be an injector well on the Smørbukk Field.

Operations and results

The deviated appraisal well 6506/11-5 S was spudded on 10 September 1996 with the semi-submersible installation "Transocean Searcher" and drilled to a TD of 4740 m in the Åre Formation. The well was drilled with seawater and high viscosity pills down to 622 m, Anco 2000 with glycol from 622 to 2140 m, and with oil based Anco vert from 2140 m to TD. Unexpected high formation pressure was encountered at TD and the mud weight was raised according to this. The Tilje reservoir zone and Åre 2 Formation proved to be hydrocarbon bearing as expected. Three cores (179 meter cored and recovered) were cut from the Tilje and Åre Formations. Two MDT fluid samples were taken at 4674 m in the Tilje Formation. The well was suspended on 10 November 1996 as an observation well for an extended test to be carried out in well 6506/12-11 S R. The well was then re-classified from oil and gas appraisal well to development well 6506/11-G-1 H.

Testing

The well was perforated in the Tilje 1.1 Reservoir Zone (4671 - 4685 m) and permanent pressure gauges were installed. Only a short clean up flow was carried out before the pressure gauges were installed so no flow rates were recorded. Due to technical problems with the pressure test string the test was abandoned and no pressure data to confirm communication with well 6506/12-11 S R was obtained.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
3350.00	4789.00

Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate



Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	4540.0	4609.5	[m]
2	4609.0	4656.8	[m]
3	4657.0	4718.8	[m]

Total core sample length [m]	179.1
Cores available for sampling?	YES

Core photos



4540-4545m



4545-4550m



4550-4555m



4555-4560m



4560-4565m



4565-4570m



4570-4575m



4575-4580m



4580-4585m



4585-4590m



4590-4595m



4595-4600m



4600-4605m



4605-4609m



4609-4614m



4614-4619m



4619-4624m



4624-4629m



4629-4634m



4634-4639m



4639-4644m



4644-4649m



4649-4654m



4654-4656m



4657-4662m



4662-4667m



4667-4672m



4672-4677m



4677-4682m



4682-4687m



4687-4692m



4692-4697m



4697-4702m



4702-4707m



4707-4712m



4712-4717m



4717-4719m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
3350.0	[m]	DC	RRI
3360.0	[m]	DC	RRI
3380.0	[m]	DC	RRI
3390.0	[m]	DC	RRI
3410.0	[m]	DC	RRI
3420.0	[m]	DC	RRI
3440.0	[m]	DC	RRI
3450.0	[m]	DC	RRI
3470.0	[m]	DC	RRI



3480.0	[m]	DC	RRI
3500.0	[m]	DC	RRI
3510.0	[m]	DC	RRI
3530.0	[m]	DC	RRI
3540.0	[m]	DC	RRI
3560.0	[m]	DC	RRI
3570.0	[m]	DC	RRI
3590.0	[m]	DC	RRI
3600.0	[m]	DC	RRI
3620.0	[m]	DC	RRI
3630.0	[m]	DC	RRI
3650.0	[m]	DC	RRI
3660.0	[m]	DC	RRI
3680.0	[m]	DC	RRI
3690.0	[m]	DC	RRI
3720.0	[m]	DC	RRI
3740.0	[m]	DC	RRI
3750.0	[m]	DC	RRI
3770.0	[m]	DC	RRI
3780.0	[m]	DC	RRI
3800.0	[m]	DC	RRI
3810.0	[m]	DC	RRI
3830.0	[m]	DC	RRI
3840.0	[m]	DC	RRI
3850.0	[m]	DC	RRI
3860.0	[m]	DC	RRI
3880.0	[m]	DC	RRI
3890.0	[m]	DC	RRI
3910.0	[m]	DC	RRI
3920.0	[m]	DC	RRI
3940.0	[m]	DC	RRI
3950.0	[m]	DC	RRI
3970.0	[m]	DC	RRI
3980.0	[m]	DC	RRI
4010.0	[m]	DC	RRI
4030.0	[m]	DC	RRI
4040.0	[m]	DC	RRI
4060.0	[m]	DC	RRI
4077.0	[m]	DC	RRI
4092.0	[m]	DC	RRI



4107.0 [m]	DC	RRI
4122.0 [m]	DC	RRI
4128.0 [m]	DC	RRI
4134.0 [m]	DC	RRI
4140.0 [m]	DC	RRI
4146.0 [m]	DC	RRI
4152.0 [m]	DC	RRI
4155.0 [m]	DC	RRI
4167.0 [m]	DC	RRI
4176.0 [m]	DC	RRI
4182.0 [m]	DC	RRI
4188.0 [m]	DC	RRI
4194.0 [m]	DC	RRI
4203.0 [m]	DC	RRI
4209.0 [m]	DC	RRI
4215.0 [m]	DC	RRI
4221.0 [m]	DC	RRI
4227.0 [m]	DC	RRI
4233.0 [m]	DC	RRI
4245.0 [m]	DC	RRI
4329.0 [m]	DC	RRI
4335.0 [m]	DC	RRI
4341.0 [m]	DC	RRI
4347.0 [m]	DC	RRI
4353.0 [m]	DC	RRI
4359.0 [m]	DC	RRI
4365.0 [m]	DC	RRI
4371.0 [m]	DC	RRI
4377.0 [m]	DC	RRI
4386.0 [m]	DC	RRI
4392.0 [m]	DC	RRI
4470.0 [m]	DC	RRI
4476.0 [m]	DC	RRI
4482.0 [m]	DC	RRI
4488.0 [m]	DC	RRI
4503.0 [m]	DC	RRI
4509.0 [m]	DC	RRI
4515.0 [m]	DC	RRI
4524.0 [m]	DC	RRI
4530.0 [m]	DC	RRI



4536.0 [m]	DC	RRI
4540.1 [m]	C	RRI
4552.8 [m]	C	RRI
4557.4 [m]	C	RRI
4562.9 [m]	C	RRI
4567.8 [m]	C	RRI
4573.2 [m]	C	RRI
4579.2 [m]	C	RRI
4586.7 [m]	C	RRI
4592.3 [m]	C	RRI
4598.0 [m]	DC	RRI
4606.6 [m]	DC	RRI
4611.2 [m]	C	RRI
4617.3 [m]	C	RRI
4621.6 [m]	C	RRI
4626.2 [m]	C	RRI
4631.7 [m]	C	RRI
4635.7 [m]	C	RRI
4641.6 [m]	C	RRI
4647.4 [m]	C	RRI
4655.5 [m]	C	RRI
4659.3 [m]	C	RRI
4666.4 [m]	C	RRI
4671.4 [m]	C	RRI
4676.5 [m]	C	RRI
4681.4 [m]	C	RRI
4685.5 [m]	C	RRI
4688.8 [m]	C	RRI
4693.4 [m]	C	RRI
4697.4 [m]	C	RRI
4701.9 [m]	C	RRI
4708.9 [m]	C	RRI
4712.7 [m]	C	RRI
4718.8 [m]	C	RRI
4723.0 [m]	DC	RRI
4729.0 [m]	DC	RRI
4735.0 [m]	DC	RRI
4744.0 [m]	DC	RRI
4750.0 [m]	DC	RRI
4756.0 [m]	DC	RRI



4762.0	[m]	DC	RRI
4768.0	[m]	DC	RRI
4774.0	[m]	DC	RRI
4780.0	[m]	DC	RRI
4786.0	[m]	DC	RRI
4789.0	[m]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
310	NORDLAND GP
310	NAUST FM
1462	KAI FM
1899	HORDALAND GP
1899	BRYGGE FM
2192	ROGALAND GP
2192	TARE FM
2307	TANG FM
2350	SHETLAND GP
2350	SPRINGAR FM
2539	NISE FM
2748	KVITNOS FM
3353	CROMER KNOLL GP
3353	LYSING FM
3401	LANGE FM
4094	LYR FM
4139	VIKING GP
4139	SPEKK FM
4144	MELKE FM
4213	FANGST GP
4213	GARN FM
4292	NOT FM
4329	ILE FM
4399	BÅT GP
4399	ROR FM
4463	TOFTE FM
4526	ROR FM
4528	TILJE FM
4692	ÅRE FM



Composite logs

Document name	Document format	Document size [MB]
2794	pdf	0.47

Geochemical information

Document name	Document format	Document size [MB]
2794_1	pdf	1.16

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
2794_6506_11_5_S_COMPLETION_REPORT_AND_COMPLETION_LOG	pdf	30.82

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL GR	4085	4756
DIL LDT CNT AMS GR	4224	4793
DSI NGT AMS	3300	4795
MDT AMS GR	4250	4750
MWD DPR-RAW	369	4221
SDT GR	4446	4600
TRIPPEL COMBO	4238	4738
UBI AMS GR	4425	4785
UBI DSI NGT AMS	4225	4785
VSP	2030	4729

Casing and leak-off tests





Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
CONDUCTOR	30	369.0	36	375.0	0.00	LOT
CONDUCTOR	20	616.0	26	622.0	1.44	LOT
CONDUCTOR	13 3/8	2105.0	17 1/2	2140.0	1.85	LOT
CONDUCTOR	9 5/8	4225.0	12 1/4	4238.0	1.80	LOT
LINER	7	4790.0	8 1/2	4790.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1250	1.25	16.0		ANCO 2000	
2126	1.36	22.0		ANCO 2000	
2140	1.37	26.0		ANCO 2000	
2350	1.70	50.0		ANCO VERT	
3249	1.63	49.0		ANCO VERT	
3432	1.70	48.0		ANCO VERT	
3453	1.70	50.0		ANCO VERT	
3842	1.70	54.0		ANCO VERT	
4045	1.76	57.0		ANCO VERT	
4100	1.76	57.0		ANCO VERT	
4142	1.76	60.0		ANCO VERT	
4238	1.76	57.0		ANCO VERT	
4238	1.22	30.0		ANCO VERT	
4239	1.76	57.0		ANCO VERT	
4243	1.20			DUMMY	
4281	1.22	23.0		ANCO VERT	
4419	1.20	29.0		ANCO VERT	
4452	1.20	30.0		ANCO VERT	
4530	1.20	29.0		ANCO VERT	
4572	1.20	30.0		ANCO VERT	
4757	1.20	30.0		ANCO VERT	
4790	1.34	39.0		ANCO VERT	

Pressure plots





The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
2794 Formation pressure (Formasjonstrykk)	pdf	0.28

