

**General information**

Wellbore name	6507/5-2
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	SKARV
Discovery	6507/5-1 Skarv
Well name	6507/5-2
Seismic location	ANO9802- INLINE 1267 & X-LINE 388
Production licence	212
Drilling operator	Amoco Norway Oil Company
Drill permit	962-L
Drilling facility	WEST ALPHA
Drilling days	42
Entered date	13.08.1999
Completed date	23.09.1999
Release date	23.09.2001
Publication date	11.04.2003
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	GARN FM
Kelly bushing elevation [m]	18.0
Water depth [m]	347.0
Total depth (MD) [m RKB]	3897.0
Final vertical depth (TVD) [m RKB]	3894.5
Maximum inclination [°]	3.4
Bottom hole temperature [°C]	128
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50
NS degrees	65° 42' 59.1" N
EW degrees	7° 38' 18.83" E
NS UTM [m]	7289162.20
EW UTM [m]	437524.41



UTM zone	32
NPDID wellbore	3756

Wellbore history

General

6507/5-2 was the third well drilled on the "A" fault block of the Skarv prospect. The well was planned as a down flank appraisal well of the 6507/5-1 Donnatello oil and gas discovery. The first well on the structure was the water wet 6507/6-2 well. The primary prospect lay in the Mid Jurassic sandstones of the Garn, Ile and Tilje Formations, with a secondary prospect in the Lower Cretaceous Lange sandstones. In the 6507/5-1 discovery well the Lange sandstones contained oil and the unit of interest was named the Gråsel prospect.

Operations and results

Appraisal well 6507/5-2 was spudded on 13 August 1999 with the semi-submersible installation "West Alpha" and drilled to TD at 3897 m in Early Jurassic Åre Formation sediments. The well was drilled with seawater and hi-vis pills down to 1050 m, with "BARASILC" water based silicate mud from 1050 m to 1964 m, with "Environmul" oil based mud from 1964 m to 3623 m, and with KCl / Polymer mud from 3623 m to TD. The Tertiary and upper Cretaceous consisted mostly of claystones. The Lower Cretaceous section was dominated by claystones with thin sandstone stringers. The thickest sandstone in this interval was the Gråsel Lange sandstone, some 9 m thick. The well penetrated the Gråsel prospect down flank of the 6507/5-1 discovery. The top Jurassic consisted of Spekk Formation source rock and underlying Melke claystones. These claystones act as a seal for the underlying middle Jurassic sandstones. The Garn Sandstone of the Jurassic contained a gas water contact at 3650.5 m confirming one of the pre drilling models for the well. Oil was seen in a sidewall core, and log analysis and HGINJ data suggested well 6507/5-2 was still in the oil column. Residual oil shows were seen down to 3681.5 m in the Not Formation. The Ile and Tilje sandstones were both in the water leg. Three cores were cut in the interval 3626 m to 3810 m in the Garn, Not, Ile, Ror, and Tilje Formations. Several MDT runs were made to obtain fluid samples. A sample from 2990 m in the Lange Formation turned out to contain mud. Gas and condensate were sampled at 3615.5 m, 3637 m, and 3647 m in the Garn Formation. Water was sampled at 3651.5 m (Garn), 3658 (Not), and 3850 m (Tilje). The well was permanently abandoned as a gas and condensate appraisal 23 September 1999.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1060.00	3897.00

Cuttings available for sampling?	YES
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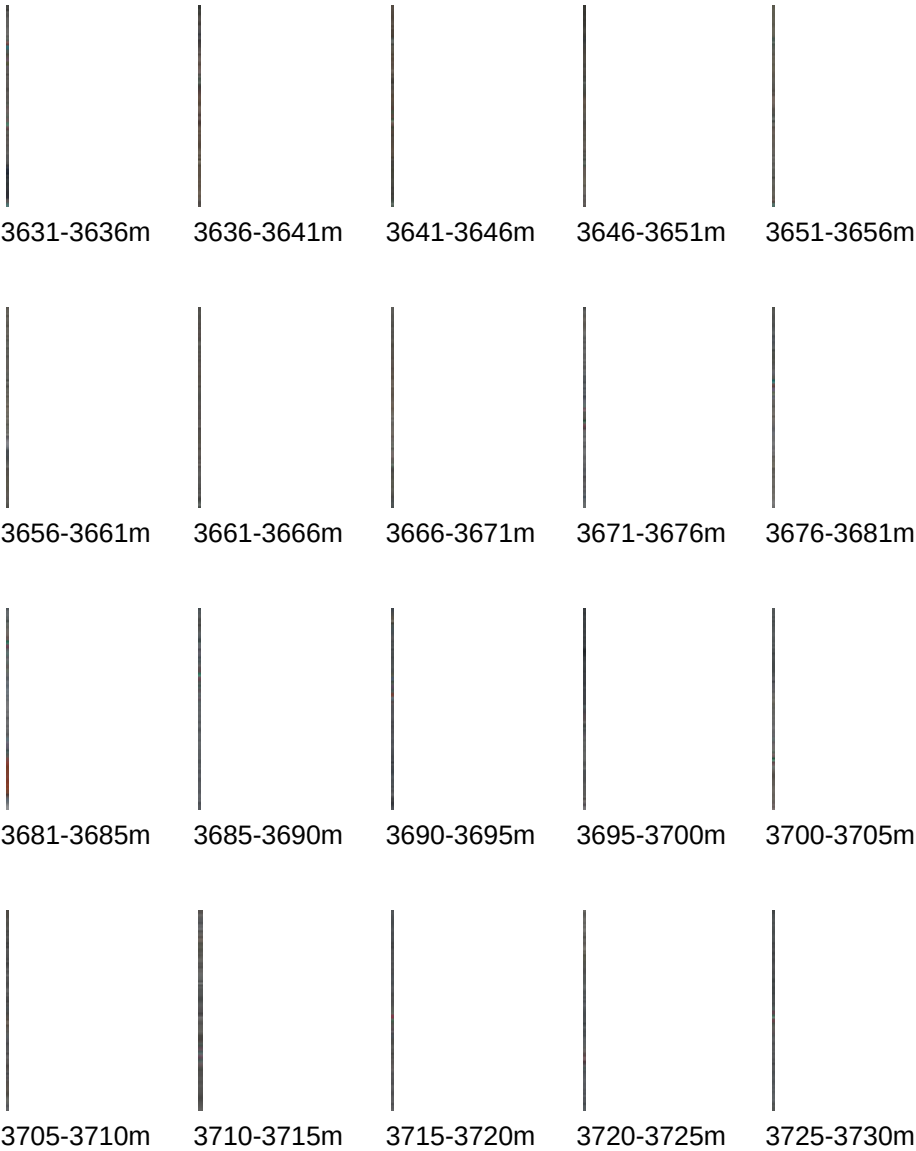


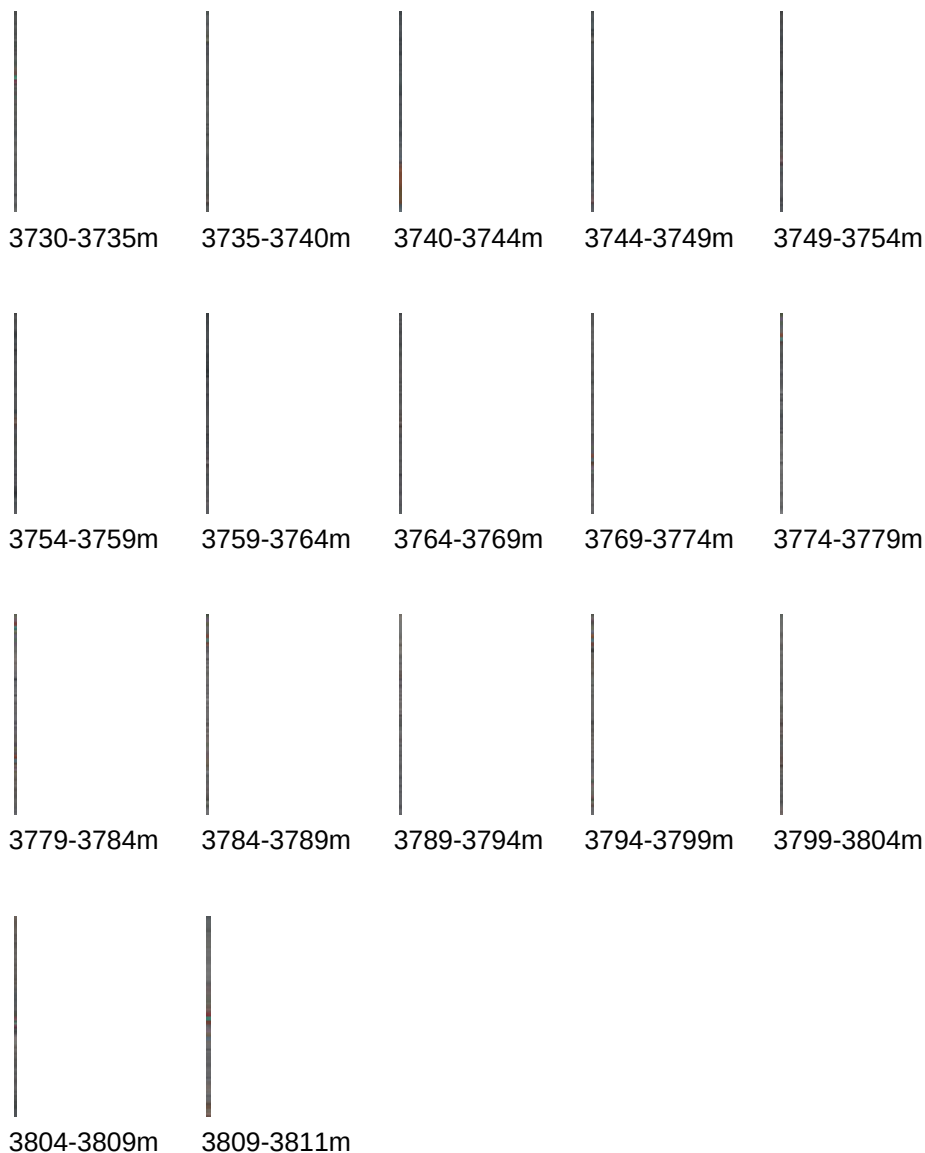
Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	3626.0	3684.8	[m]
2	3684.8	3743.8	[m]
3	3743.8	3812.3	[m]

Total core sample length [m]	186.3
Cores available for sampling?	YES

Core photos





Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1060.0	[m]	DC	RRI
1090.0	[m]	DC	RRI
1120.0	[m]	DC	RRI
1150.0	[m]	DC	RRI
1180.0	[m]	DC	RRI
1210.0	[m]	DC	RRI
1240.0	[m]	DC	RRI
1270.0	[m]	DC	RRI
1300.0	[m]	DC	RRI



1330.0	[m]	DC	RRI
1360.0	[m]	DC	RRI
1390.0	[m]	DC	RRI
1430.0	[m]	DC	RRI
1460.0	[m]	DC	RRI
1490.0	[m]	DC	RRI
1520.0	[m]	DC	RRI
1550.0	[m]	DC	RRI
1580.0	[m]	DC	RRI
1610.0	[m]	DC	RRI
1640.0	[m]	DC	RRI
1670.0	[m]	DC	RRI
1700.0	[m]	DC	RRI
1730.0	[m]	DC	RRI
1760.0	[m]	DC	RRI
1800.0	[m]	DC	RRI
1830.0	[m]	DC	RRI
1860.0	[m]	DC	RRI
1890.0	[m]	DC	RRI
1920.0	[m]	DC	RRI
1940.0	[m]	DC	RRI
1960.0	[m]	DC	RRI
1980.0	[m]	DC	RRI
2000.0	[m]	DC	RRI
2020.0	[m]	DC	RRI
2040.0	[m]	DC	RRI
2060.0	[m]	DC	RRI
2080.0	[m]	DC	RRI
2100.0	[m]	DC	RRI
2120.0	[m]	DC	RRI
2140.0	[m]	DC	RRI
2160.0	[m]	DC	RRI
2180.0	[m]	DC	RRI
2200.0	[m]	DC	RRI
2220.0	[m]	DC	RRI
2240.0	[m]	DC	RRI
2260.0	[m]	DC	RRI
2280.0	[m]	DC	RRI
2300.0	[m]	DC	RRI
2320.0	[m]	DC	RRI



2340.0	[m]	DC	RRI
2360.0	[m]	DC	RRI
2380.0	[m]	DC	RRI
2400.0	[m]	DC	RRI
2420.0	[m]	DC	RRI
2429.0	[m]	DC	RRI
2440.0	[m]	DC	RRI
2460.0	[m]	DC	RRI
2480.0	[m]	DC	RRI
2500.0	[m]	DC	RRI
2520.0	[m]	DC	RRI
2540.0	[m]	DC	RRI
2560.0	[m]	DC	RRI
2580.0	[m]	DC	RRI
2600.0	[m]	DC	RRI
2616.0	[m]	DC	RRI
2634.0	[m]	DC	RRI
2649.0	[m]	DC	RRI
2661.0	[m]	DC	RRI
2676.0	[m]	DC	RRI
2694.0	[m]	DC	RRI
2706.0	[m]	DC	RRI
2710.5	[m]	SWC	RRI
2724.0	[m]	DC	RRI
2727.2	[m]	SWC	RRI
2736.0	[m]	DC	RRI
2752.0	[m]	DC	RRI
2766.0	[m]	DC	RRI
2784.0	[m]	DC	RRI
2796.0	[m]	DC	RRI
2814.0	[m]	DC	RRI
2826.0	[m]	DC	RRI
2833.5	[m]	SWC	RRI
2844.0	[m]	DC	RRI
2856.0	[m]	DC	RRI
2856.7	[m]	SWC	RRI
2864.0	[m]	SWC	RRI
2874.0	[m]	DC	RRI
2886.0	[m]	DC	RRI
2896.0	[m]	SWC	RRI



2904.0	[m]	DC	RRI
2916.0	[m]	DC	RRI
2932.0	[m]	DC	RRI
2950.0	[m]	DC	RRI
2951.5	[m]	SWC	RRI
2968.0	[m]	DC	RRI
2980.0	[m]	DC	RRI
2998.0	[m]	DC	RRI
3010.0	[m]	DC	RRI
3019.0	[m]	SWC	RRI
3028.0	[m]	DC	RRI
3029.0	[m]	SWC	RRI
3035.5	[m]	SWC	RRI
3044.0	[m]	SWC	RRI
3048.0	[m]	DC	RRI
3050.0	[m]	SWC	RRI
3061.0	[m]	SWC	RRI
3063.0	[m]	DC	RRI
3075.0	[m]	DC	RRI
3093.0	[m]	DC	RRI
3108.0	[m]	DC	RRI
3123.0	[m]	DC	RRI
3135.0	[m]	DC	RRI
3150.0	[m]	DC	RRI
3165.0	[m]	DC	RRI
3180.0	[m]	DC	RRI
3195.0	[m]	DC	RRI
3205.0	[m]	SWC	RRI
3210.0	[m]	DC	RRI
3234.0	[m]	DC	RRI
3249.0	[m]	DC	RRI
3264.0	[m]	DC	RRI
3279.0	[m]	DC	RRI
3294.0	[m]	DC	RRI
3309.0	[m]	DC	RRI
3324.0	[m]	DC	RRI
3339.0	[m]	DC	RRI
3354.0	[m]	DC	RRI
3369.0	[m]	DC	RRI
3384.0	[m]	DC	RRI



3399.0 [m]	DC	RRI
3417.0 [m]	DC	RRI
3429.0 [m]	DC	RRI
3444.0 [m]	DC	RRI
3459.0 [m]	DC	RRI
3474.0 [m]	DC	RRI
3489.0 [m]	DC	RRI
3510.0 [m]	DC	RRI
3519.0 [m]	DC	RRI
3528.0 [m]	DC	RRI
3537.0 [m]	DC	RRI
3546.0 [m]	DC	RRI
3555.0 [m]	DC	RRI
3564.0 [m]	DC	RRI
3573.0 [m]	DC	RRI
3577.8 [m]	SWC	RRI
3582.0 [m]	DC	RRI
3591.0 [m]	DC	RRI
3600.0 [m]	DC	RRI
3605.0 [m]	SWC	RRI
3609.0 [m]	DC	RRI
3618.0 [m]	DC	RRI
3635.6 [m]	C	RRI
3650.8 [m]	C	RRI
3655.7 [m]	C	RRI
3665.6 [m]	C	RRI
3672.8 [m]	C	RRI
3684.5 [m]	C	RRI
3693.6 [m]	C	RRI
3697.4 [m]	C	RRI
3701.8 [m]	C	RRI
3712.5 [m]	C	RRI
3719.5 [m]	C	RRI
3720.7 [m]	C	RRI
3726.8 [m]	C	RRI
3736.2 [m]	C	RRI
3747.8 [m]	C	RRI
3754.5 [m]	C	RRI
3765.3 [m]	C	RRI
3775.2 [m]	C	RRI



3776.6	[m]	C	RRI
3781.8	[m]	C	RRI
3791.8	[m]	C	RRI
3799.6	[m]	C	RRI
3809.0	[m]	C	RRI
3819.0	[m]	DC	RRI
3828.0	[m]	DC	RRI
3837.0	[m]	DC	RRI
3846.0	[m]	DC	RRI
3855.0	[m]	DC	RRI
3864.0	[m]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
365	NORDLAND GP
365	NAUST FM
1395	KAI FM
1831	HORDALAND GP
1831	BRYGGE FM
2019	ROGALAND GP
2019	TARE FM
2074	TANG FM
2107	SHETLAND GP
2107	NISE FM
2530	KVITNOS FM
2721	CROMER KNOLL GP
2721	LANGE FM
3207	LYR FM
3222	VIKING GP
3222	SPEKK FM
3250	MELKE FM
3614	FANGST GP
3614	GARN FM
3669	NOT FM
3696	ILE FM
3717	BÅT GP
3717	ROR FM
3772	TILJE FM



3855 [ARE FM](#)

Composite logs

Document name	Document format	Document size [MB]
3756	pdf	0.49

Geochemical information

Document name	Document format	Document size [MB]
3756_1	pdf	1.99
3756_2	pdf	1.63
3756_3	pdf	1.02

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

Document name	Document format	Document size [MB]
3756_6507_5_2_COMPLETION_LOG	.pdf	4.21
3756_6507_5_2_COMPLETION_REPORT	.PDF	83.39

Logs

Log type	Log top depth [m]	Log bottom depth [m]
ARI DSI MSFL EMS GPIT ACTS	3600	3901
ARI DSI MSFL GPIT ACTS	3550	3897
IPLT	3565	3890
MDT	2813	3616
MDT	2813	3864
MSCT GR	3044	3618
MWD - DIR RAB	3730	3897
MWD - RAB	3623	3730
MWD CDR - DIR	454	1050
MWD CDR - DIR ISON	1050	1964
MWD CDR - RAB	1964	3623
PEX DSI AITB EMS GPIT ACTS	1964	3623





VSP	988	3880
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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	450.0	36	450.0	0.00	LOT
SURF.COND.	20	1053.0	26	1054.0	1.45	LOT
INTERM.	13 3/8	1968.0	17 1/2	1970.0	1.81	LOT
INTERM.	9 5/8	3602.0	12 1/4	3603.0	0.00	LOT
OPEN HOLE		3897.0	8 1/2	3897.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
407	1.08			SEAWATER	
1050	1.36	31.0		BARASILC	
1662	1.39	39.0		BARASILC	
1914	1.50	45.0		BARASILC	
1964	1.50	30.0		BARASILC	
2518	1.61	23.0		ENVIROMUL	
3142	1.61	29.0		ENVIROMUL	
3329	1.61	28.0		ENVIROMUL	
3623	1.61	28.0		ENVIROMUL	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
4164.42	[m]
4166.38	[m]
0.00	[m]

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]
3756 Formation pressure (Formasjonstrykk)	pdf	0.22

