

Oil & Energy



Final Well Report

Well 6605/8-1, Stetind

Partners:



CONFIDENTIAL



REPORT
Hydro Oil & Energy
Operations

Title: **Final Well Report, well 6605/8-1**

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6605/8-1, Stetind

Licence	PL 283
Drilling permit	L-1083
Abandonment Date	24.10.2005

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WELL SUMMARY

Well 6605/8-1 is an exploration well on the Upper Cretaceous Lysing A6 Prospect situated on the western flank of the Fles North rotated fault block structure in the Vøring Basin. The well was placed to test the presence of movable hydrocarbons.

Hydro Oil and Energy on behalf of PL283 drilled the well. The well was on cost June 3rd 2005. The well was successfully spudded on June 14th and plugged and abandoned October 24th 2005.

All depths in this report are referenced to RKB unless otherwise stated.

Objectives

The main objective of the well was to:

- Prove hydrocarbon volume of economic interest in the Lysing Formation of the A6 Prospect.

Important aspects of the above objective were:

- Necessary data should be acquired to understand the reservoir development.
- Given a discovery, data should be acquired to understand reservoir and fluid properties.

The well was drilled through the Lysing Formation and 50m into strata of Turonian age. This was also the licence commitment for the first exploration well in the licence.

Secondary objective was to:

- Investigate the reservoir potential for the Nise formation.

Important aspect of the secondary objective:

- If sufficient porous sandstone was penetrated, ensure that all necessary data was acquired.

Licence owners

Production License 283 was awarded by Royal Decree 14th of June 2002 with Hydro ASA as the operator.

The licensee's percentage share of PL283 at the time of drilling of well 6605/8-1 is as follows:

Hydro	30 %
Chevron	25 %
Conoco-Phillips	25 %
Petoro	20 %

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Results

The exploration well 6605/8-1 was spudded 14th June 2005 and reached a total depth of 4513 m in the Lange Formation 24th August 2005.

The well penetrated the main target at 4184 m, a 70 m thick Lysing Formation deep-water turbidite sand of Early Coniacian age. Gas was recorded from 4180 m, and a possible free water level was inferred at 4221 m. Gas shows were also encountered in Early Campanian Nise siltstone at 3064 m and a deeper Lysing sandstone unit at 4354 m.

One 9 m long core was taken in the interval 4190-4199 m in the upper Lysing reservoir. It contained sandstones interbedded with thin mudstone layers.

A drill stem test was performed for the interval 4184-4211.5 m in the upper Lysing reservoir with a flow rate of approximately 100 000 Sm³/d.

The well was permanently plugged and abandoned 24th October 2005.

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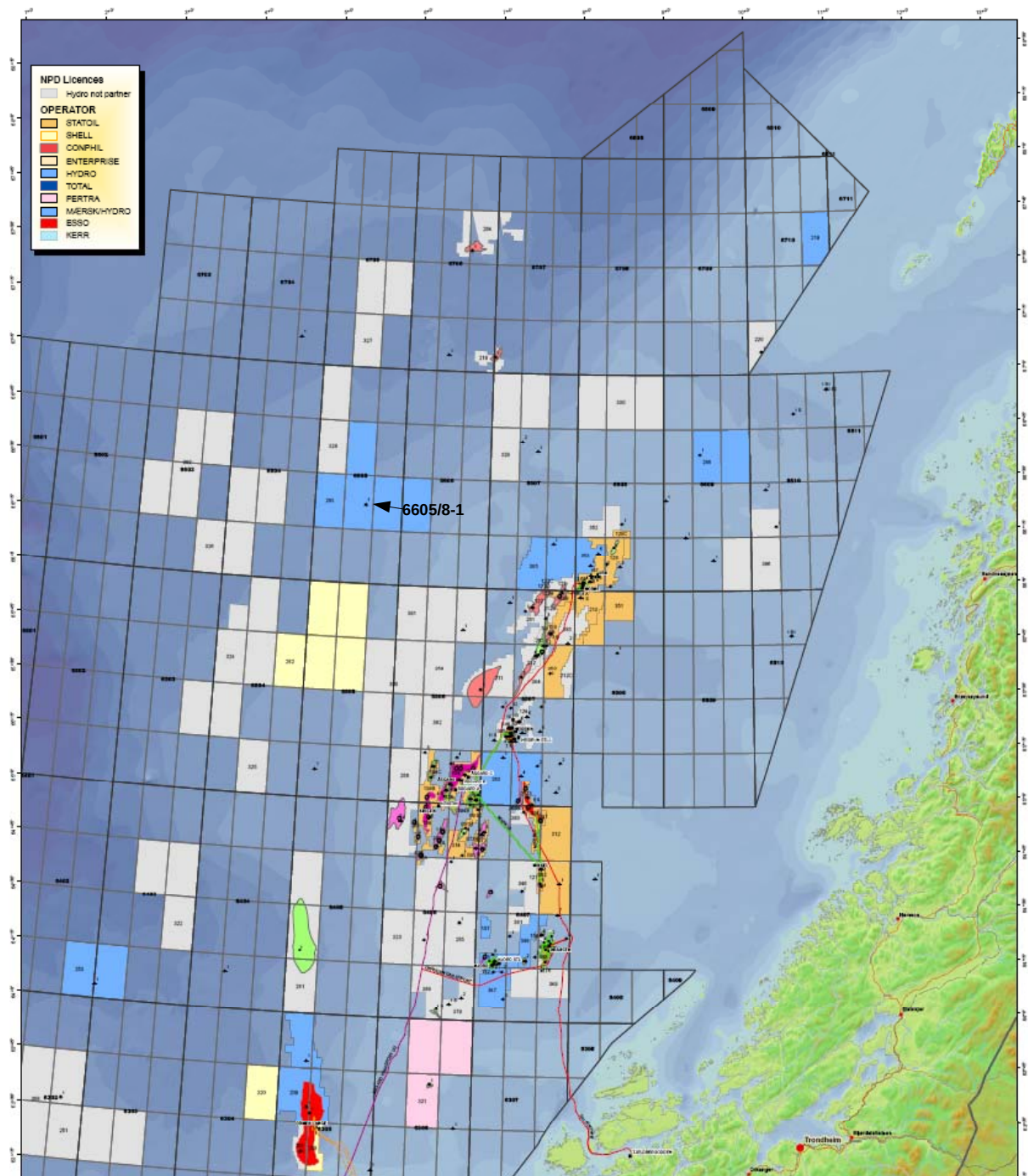
Summary of Well Data

LOCATION:	Geo: 66°21'51,69" N 05°34'39,07" E UTM: 7 364 713,1 mN 346 946,7 mE ED 50, UTM Zone32, CM 9°E
OPERATOR:	Hydro ASA
RIG:	Transocean Leader
CONTRACTOR:	Transocean
START OF OPERATION:	03.06.2005
WELL SPUDDED:	14.06.2005
REACHED TD:	24.08.2005
OFF LOCATION:	24.10.2005
STATUS:	Plugged and abandoned
FORMATION AT TD:	Lange Formation
KB ELEVATION (to MSL):	23,5m
WATER DEPTH (MSL):	838,0 m
TD DRILLER(mRKB):	4513m MD
TD LOGGER(mRKB):	4514,5m MD
Drilling depths (MD):	36" 861,5 m to 957 m 9 7/8" Pilot 957 m to 2000 m 26" 957 m to 2005 m 17 1/2" 2005 m to 2900 m 12 1/4" 2900 m to 4100 m 8 1/2" 4100 m to 4513 m
Casing / Liner depths:	30" 860,0 m to 955,5 m 20" 859,4 m to 1999,0 m 13 3/8" 861,1m to 2887,5 m 9 5/8" 2823,9m to 4099,0 m

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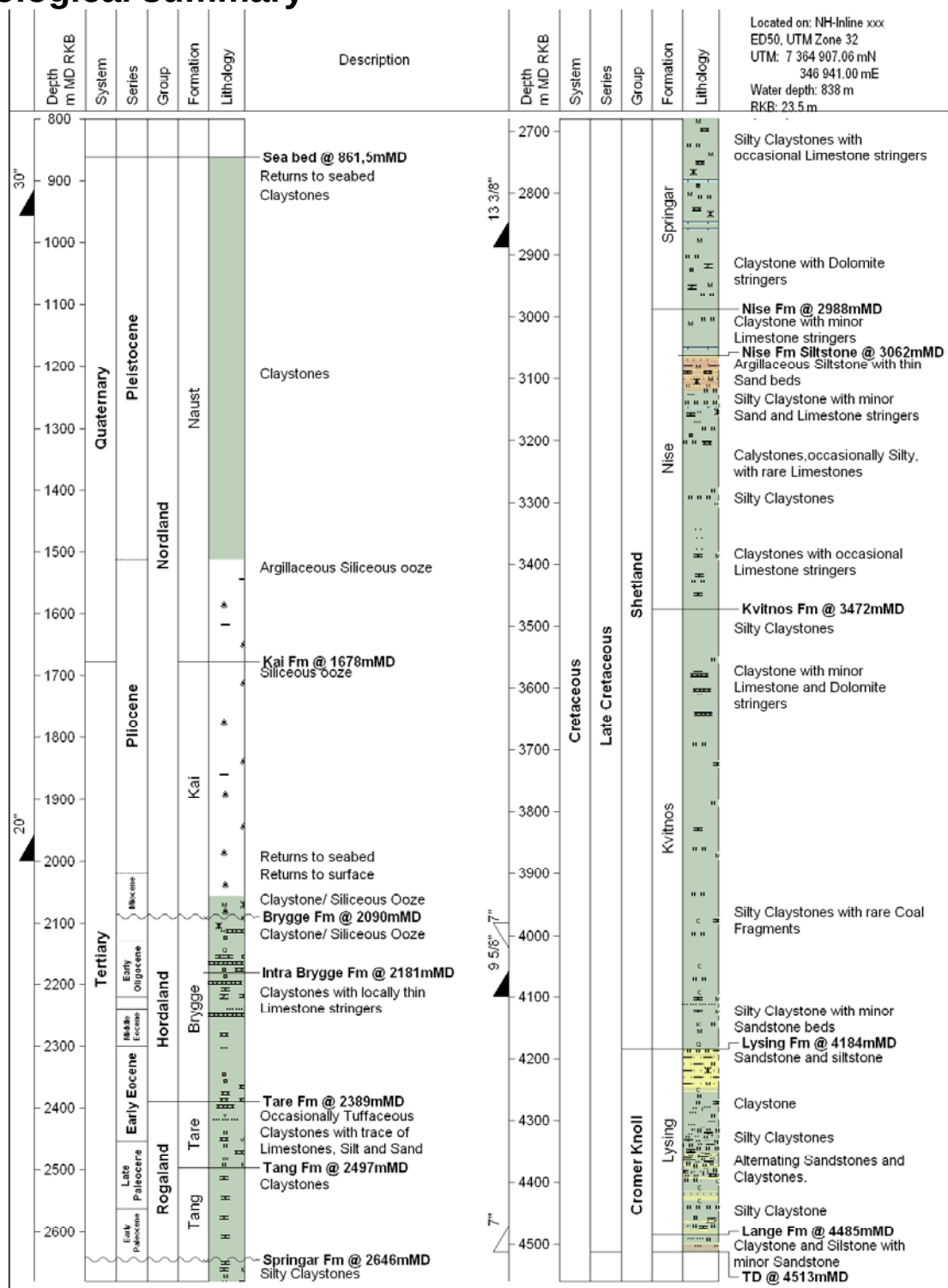
Location map



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Geological summary



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Geological Well Summary
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SECTION A: GEOLOGY, GEOPHYSICS AND PETROPHYSICS

1 DATA ACQUISITION

1.1 Lithostratigraphy

This summary is compiled predominantly from ditch cuttings.

Wireline and MWD logs were used to aid lithological interpretation and the placement of formation boundaries.

The well was drilled with returns to seabed from the sea floor at 861.5 m to 2005 m before setting 20" casing at 2000 m. Formation description from this interval is based upon MWD log. For details on sampling descriptions see attached Completion log.

Nordland Group (861.5 – 2089,5 m MD)

Naust Formation (861,5 – 1687,0 m MD)	
861,5 – 1512,0 m MD	– Claystones
1512,0 – 1678,0 m MD	– Argillaceous Siliceous Ooze
Kai Formation (1678,0 – 2089,5 m MD)	
1678,0 – 2057,0 m MD	– Siliceous Ooze
2057,0 – 2089,5 m MD	– Claystones / Siliceous Ooze

Hordaland Group (2089,5 – 2389 m MD)

Brygge Formation (2089,5 – 2389,0 m MD)	– Claystones with locally thin Limestone stringers.
---	---

Rogaland Group (2389 – 2645,5 m MD)

Tare Formation (2389,0 – 2497,0 m MD)	– Claystones, occasionally Tuffaceous, with traces of Limestone, Silt and Sand.
Tang Formation (2497,0 – 2645,5 m MD)	– Claystones.

Shetland Group (2645,5 – 4184 m MD)

Springar Formation (2645,5 – 2988,0 m MD)	
2645,5 – 2900,0 m MD	– Silty Claystones with occasional Limestone stringers
2900,0 – 2988,0 m MD	– Claystones with Dolomite stringers
Nise Formation (2988,0 – 3472,0 m MD)	
2988,0 – 3064,5 m MD	– Claystones with minor Limestone stringers
3064,5 – 3119,5 m MD	– Argillaceous Siltstones with thin Sandlayers and minor Limestone
3119,5 – 3285 m MD	– Silty Claystones with minor Sand and Limestone stringers.
3285,0 – 3380,0 m MD	– Silty Claystones with rare Limestones
3380,0 – 3472,0 m MD	– Claystones with occasional Limestone stringers.
Kvitnos Formation (3472,0 – 4184,0 m MD)	
3472,0 – 3570,0 m MD	– Silty Claystones
3570,0 – 3950,0 m MD	– Claystones with minor Limestone and Dolomite stringers
3950,0 – 4100,0 m MD	– Silty Claystones with rare Coal Fragments
4100,0 – 4184,0 m MD	– Silty Claystones with minor Sandstone beds

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Cromer Knoll Group (4184,0 – 4513 m MD)

Lysing Formation (4184,0 – 4484,5 m MD)

- 4184,0 – 4259,0 m MD – Sandstones and Siltstones
- 4259,0 – 4315,0 m MD - Claystones
- 4315,0 – 4354,0 m MD - Silty Claystones
- 4354,0 – 4395,0 m MD - Alternating Sandstones and Claystones
- 4395,0 – 4414,0 m MD - Silty Claystones
- 4414,0 – 4429,0 m MD - Interbedded Sandstones and Claystones
- 4429,0 – 4462,0 m MD - Silty Claystones with Limestone stringers
- 4462,0 – 4484,5 m MD - Alternating Silty Claystones and Sandstones

Lange Formation (4484,5 – 4513,0 m MD)

- 4484,5 – 4513,0 m MD – Claystones and Siltstones with minor Sandstone

1.2 Hydrocarbon shows description table

INTERVAL (mRKB)	SOURCE	LITHOLOGY	SHOWS DESCRIPTION
3072 - 3076	Cuttings	Sandstones	No stain, no Hydrocarbon odor, no direct fluorescence, slow blooming bright bluish white fluorescence cut, no visible cut, yellowish white fluorescence residue, no visible residue.
3076 - 3087	Cuttings	Sandstones	No stain, no Hydrocarbon odor, no direct fluorescence, slow blooming bright bluish white fluorescence cut, yellowish white fluorescence residue, No visible residue.
3087 – 3114	Cuttings	Sandstones	Poor Oil stain, no Hydrocarbon odor, weak yellow brown direct fluorescence, instant blooming bright bluish white fluorescence cut, no visible cut, yellow white fluorescence residual ring, no visible residue.

No shows were observed in cuttings from the Lysing formation. Shows descriptions from sidewall cores in Lysing Fm. are presented in Figure 1.3.2

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1.3 Logging tables MWD / LWD / Wireline

1.3.1 MWD / LWD.

Run	Hole diameter	Log type	Interval logged	Comments
		MWD / LWD	m MD	
1	36"	DIR	862,0 – 957,0	Directional only
2	9 7/8"-26"	ARC (GR-RES-APWD)-DIR-ADN-ISONIC	957,0 – 2000,0	Pilot hole. Opened to 26"
3	26"	ARC-DIR	957,0 – 1343,0	BHA tendency did not manage to keep vertical inclination.
4	26"	ARC-DIR	1343,0 – 2005,0	- 26" Section TD
5	17"	RAB-ARC-DIR-ISONIC	2005,0 – 2597,0	
6	14½"	RAB-ARC-DIR-ISONIC	2597,0 – 2734,0	Pulled out of hole due to MWD failure.
7	14½"	RAB-ARC-DIR-ISONIC	2734,0 – 2900,0	- 17½" Section TD
8	17½"	ARC-DIR	2005,0 – 2900,0	Opened form 14½" to 17½" hole.
9	12¼"	ARC-DIR-ISONIC	2900,0 – 3163,0	Pulled out of hole to change bit
10	12¼"	ARC-DIR-ISONIC	3163,0 – 3175,0	Pulled out of hole due to low penetration rate.
11	12¼"	ARC-DIR-ISONIC	3175,0 – 3521,0	Pulled out of hole due to low penetration rate.
12	12¼"	ARC-DIR-ISONIC	3521,0 – 4100,0	- 12¼" Section TD
13	8½"	GVR-ARC-DIR-ISONIC	4100,0 – 4100,0	Pulled out of hole to change bit
14	8½"	GVR-ARC-DIR-ISONIC	4100,0 – 4190,0	Drilled to coring depth
15	8½"	GVR-ARC-DIR-ISONIC	4190,0 – 4513,0	- Drilled to well TD

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1.3.2 Wireline

Section	Run #	Tool string		Start date	Start time	End date	End time	Tot hrs	Logged TD	Start depth	End depth	Min since circ.	Max temp °C	Comments
12¼"	1A	PEX-HRLA-ECS-DSI	Wireline	05.08	13:40	06.08	04:30	14:50	4100,0	3385,0	1998,0	2600	90,0	Not able to pass 3385m
8½"	2B	PEX-HRLA-ECS-DSI	Wireline	25.08	12:00	26.08	03:30	15:30	4514,5	4514,5	3687,0	1410	128,3	- Made 2 main log run due to poor heave compensation on 1 pass
8½"	2A	MDT (PS-PG)	Wireline	26.08	17:15	27.08	03:30	10:15	---	4252,7	4246,8	2960	127,9	- 2 stations, 2 tight. Lost communication with / unable to power up MDT. POOH
8½"	2B	MDT (PS-PG-2MS-2SC)	Wireline	27.08	03:30	28.08	03:50	23:00	---	4246,8	4238,5	4200	133,9	- Multisampler w/ 6xSPMC and 6xMPSR, 1x2 3/4SC and 1x1SC - 7 stations, 1 dubious (good), 6 supercharged/tight. Lost comm. as above. No sampling. POOH
8½"	2A	VSP	Wireline	28.08	03:50	28.08	13:00	09:10	---	4510,0	2710,0	4350	---	No problems
8½"	2C	MDT (PS-PG-2MS-2SC)	Wireline	28.08	13:00	29.08	02:00	37:00	---	4237,5	4191,7	6195	138,2	- Multisampler w/ 6xSPMC and 6xMPSR, 1x2 3/4SC and 1x1SC - 34 attempts to test on 22 stations. 5 good. Standard probe hydraulic failure. Guard probe pre-test & sampling. Filled 4x450ccMPSR. - Stuck. Released electrical weak point and pulled cable and cable head out of hole.
8½"	2C	(Fishing MDT tool)	Wireline	29.08	02:00	31.08	03:10	25:10	---	---	---	---	---	- Recovered 100% MDT tool and multisamplers / sample chambers
8½"		Wiper trip	DP	31.08	03:10	01.09	05:20	26:10	---	---	---	---	---	- Cool mud temp and circ out approx 100L formationfluid pumped to the well from MDT run 2C.
8½"	Misrun	MRCT	Wireline	01.09	05:20	01.09	18:00	12:40	---	---	---	1070	---	- Failure in cartridge unit. Unable to core. POOH
8½"	2A	FMI	Wireline	01.09	18:00	02.09	01:30	07:30	4514,5	4514,0	4100,0	1545	125,0	No problems
8½"	2D	MDT Dual packer (PS-1MS-2SC)	Wireline	02.09	01:30	03.09	22:00	44:30	---	4211,5	4191,0	3840	139,6	- 1 Multisampler w/ 2xSPMC and 4xMPSR, 2x2¾-gallon SC. - @ 4209,5m: Std probe, Pre-test, Transient test, filled 1x250ccSPMC, 2x450ccMPSR, 1x2 3/4 G. - @ 4211,5m: Dual packer, Minitest (VIT), filled 1x250cc, 1x450cc. - Pulled up to 4191,6m: Dual packer attempted Minitest (VIT). Ruptured packer
8½"	Misrun	MRCT	Wireline	04.09	01:30	04.09	07:45	06:15	---	---	---	---	---	- Failure in coring unit. Unable to fully retract. Pulled out to swap with backup coring unit only.
8½"	Misrun	MRCT	Wireline	04.09	07:45	04.09	14:30	06:45	---	---	---	---	---	- Noise from coring engine, unstable to operate. "Nothing works"

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Section	Run #	Tool string		Start date	Start time	End date	End time	Tot hrs	Logged TD	Start depth	End depth	Min since circ.	Max temp °C	Comments
8½"	2E	MDT Dual packer (PS-2MS)	Wireline	04.09	14:30	04.09	21:00	06:30	---	---	---	---	---	- Redressing MDT dual packer for 2MS. Internal O-ring for packer damaged. Waiting for new.
8½"		Wiper trip	DP	04.09	21:00	05.09	23:00	26:00	---	---	---	---	---	- Waiting for MDT spare parts (O-rings) for the packers. - Waiting for weather to come down for to hoist back-up MSCT from boat. - Cool mud temp and circ out approx 290L formation fluid pumped to the well from MDT run 2D.
8½"	2E Continue	MDT Dual packer (PS-2MS)	Wireline	05.09	23:00	08.09	01:00	50:00	---	4428,5	4244,0	3375	144,8	- 2 Multisampler w/ 2xSPMC and 10xMPSR. 2SC and CFA out due to failure. - @ 4244-4246m: Std.probe, 6 pre-tests all supercharged. - @ 4252-4253,5m: Std.probe, 11 pre-tests. 7 good in lower part, 4 supercharged in upper part. - @ 4253m Dual packers: 1 good pre-test and filled 1x450cc w/water and 1x450cc w/gas. - @ 4372,5-4374m: Std.probe, 7 pre-test all tight/supercharged. - @ 4426-4428,5m: Std.probe, 5 pre-test all tight/supercharged.
8½"	2A	MSCT	Wireline	08.09	01:00	08.09	18:00	17:00	---	4438,5	4148,0	5295	148,0	- Planned 50 cores. Tool failure after 44 attempts. Recovered 25 cores. 19 empty. - Tool failure due to oil leak/loss in MSCT tool.
8½"		Run and cmt 7" Prod. Liner	DP			14.09	14:30		---	---	---	---	---	Liner hanger @ 4021.0mMD, shoe @ 4512.5mMD
8½"	2A	CBL	Wireline	14.09	14:30	14.09	21:00	06:30	---	4405,0	4020,0	---	---	- Unable to pass 4405,0mMD. Overpull start logging 7" liner from 4405,0-4020mMD above liner hanger.
8½"	2B	CBL	Wireline	14.09	21:00	15.09	02:30	05:30	---	4013,0	2825,0	---	---	- Reconfigured to log 9 7/8" csg and started logging from 4013,0-2825,0mMD
8½"	2A	CCL	Wireline	17.09	10:30	17.09	18:00	07:30	---	---	---	---	---	
8½"	2B	CCL	Wireline	21.09	00:00	21.09	04:30	04:30	---	---	---	---	---	
8½"	2C-2A	CCL-USIT	Wireline	29.09	22:00	30.09	09:30	11:30	---	---	---	---	---	
8½"	2A	HSD	Wireline	30.09	09:30	30.09	17:00	07:30	---	4230,0	4230,6	---	---	- Perforated 4030,0-4030,60mMD (5shots/ft)
8½"	2F	MDT Dual packer (PS-1MS-1SC)	Wireline	30.09	17:00	04.10	10:30	89:30	---	4230,0	4230,6	---	---	- Sampling in 7" liner

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1.4 Coring tables

1.4.1 Sidewall coring table

Run: 2A			Tool type: MSCT			Hole size: 8 ½"			BHT: 148°C	
Core No.:	Schlum. Ref.	Depth (m RKB)	Lithology	Formation	Objectives	Lost	Emp ty	Rec. %	Comments	
1	37	4438,5			Biostrat		X	--	Start second interval	
2	38	4428,0			Por/perm		X	--		
3	39	4426,0			Por/perm		X	--		
4	40	4424,5			Por/perm		X	--		
5	41	4423,0			Por/perm		X	--		
6	42	4394,0			Por/perm		X	--		
7	43	4392,5			Biostrat		X	--		
8	44	4373,0			Por/perm		X	--		
9	--	4353,5			Biostrat		--	--	Tool failure POOH	
10	--	4312,0			Biostrat		--	--	--	
11	--	4291,5			Biostrat		--	--	--	
12	--	4253,0			Por/perm		--	--	--	
13	1	4246,8	100% Sst		Por/perm			100	Start first interval and up	
14	2	4246,2	100% Sst		Por/perm			100		
15	3	4245,4	100% Sst		Por/perm			100		
16	4	4244,3	100% Sst		Por/perm			50		
17	5	4241,3	90% Sst, 10% Clst		Por/perm			100		
18	6	4239,0	100% Sst		Por/perm			100		
19	7	4237,5	100% Sst		Por/perm			100		
20	8	4234,6	100% Sst		Por/perm			100		
21	9	4232,3	100% Sst		Por/perm			100		
22	10	4231,4	100% Sst		Por/perm			100		
23	11	4230,0	100% Sst		Por/perm			100		
24	12	4228,8			Por/perm		X			
25	13	4227,4	100% Sst		Por/perm			100		
26	14	4225,3	100% Sst		Por/perm			100		
27	15	4223,0	100% Sst		Por/perm			100		
28	16	4221,3	100% Sst		Por/perm			100		
29	17	4219,0	100% Sst		Por/perm			75		
30	18	4217,1	100% Clst		Por/perm			75		
31	19	4214,5	100% Sst		Por/perm			100		
32	20	4211,5	100% Sst		Por/perm			100		
33	21	4211,0	100% Sst		Por/perm			100		
34	22	4210,0	100% Sst		Por/perm			100		
35	23	4209,0	100% Sst		Por/perm			50		
36	24	4208,0	100% Sst		Por/perm			25		
37	25	4206,4	100% Sst		Por/perm			100		
38	26	4204,1	100% Clst		Por/perm			100		
39	27	4202,6	100% Clst		Por/perm			100		
40	28	4199,9			Por/perm		X			
41	29	4195,6	100% Sst		Por/perm			5		
42	30	4195,0			Por/perm		X			

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Run: 2A		Tool type: MSCT			Hole size: 8 ½"			BHT: 148°C	
Core No.:	Schlum. Ref.	Depth (m RKB)	Lithology	Formation	Objectives	Lost	Empty	Rec. %	Comments
43	31	4191,7	100% Sst		Por/perm			5	
44	32	4187,6			Por/perm		X	--	
45	33	4185,8			Por/perm		X	--	
46	34	4183,5			Biostrat		X	--	
47	35	4166,5			Biostrat		X	--	
48	36	4148,0			Biostrat		X	--	
49	--	4134,5			Biostrat		--	--	Unable to cut
50	--	4125,5			Biostrat		--	--	Unable to cut

1.4.2 Sidewall Core Description

Core #	Depth:	%	Lithology and shows:
1	4246,8	100	Sst: lt brn-clr trsl Qtz, f-v crs, ang-sbang, occ rndd, pr srt, mod hd, calc cmt, pr vis Por, r Glau, r Mic, r Coal/Org frag. Shows: No pet Od, no oil Stn, No dir Fluor, v slo blmg bl-wh Fluor cut, no vis cut, no vis res, dull yel Fluor res ring.
2	4246,2	100	Sst: lt brn-clr trsl Qtz, f-crs, ang-sbang, occ rndd, pr srt, v hd, calc cmt, pr vis Por, r Glau, r Mic. Shows: wk pet Od, no vis oil Stn, gd wk yel-brn dir Fluor, v slo blmg bl-wh Fluor cut, no vis cut, no vis res, dull yel Fluor res ring.
3	4245,4	100	Sst: lt brn-clr trsl Qtz, vf-v crs, pred f-crs, ang-sbang, occ rndd, mod srt, v hd, calc cmt, pr vis Por, r Glau, r Mic. Shows: wk pet Od, no vis oil Stn, gd yel-brn even dir Fluor, mod blmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
4	4244,3	100	Sst: clr trsl Qtz, f-v crs, pred m, sbang-sbrndd, wl srt, v hd, calc cmt, pr vis Por, r Glau, r Mic. Shows: wk pet Od, no vis oil Stn, dull yel-brn even dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, no Fluor res.
5	4241,3	90	Sst: clr trsl Qtz, f-v crs, sbang-sbrndd, pr-mod srt, v hd, calc cmt, pr vis Por, Tr Mic. Clst: dk gry-brn blk, blk, fiss, hd, micromic, org, Shows: wk pet Od, no vis oil Stn, mod yel-brn even dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, dull Fluor res.
6	4239,0	100	Sst: lt brn-clr trsl Qtz, f-crs, occ v crs, pred m, ang-sbrndd, mod-wl srt, v hd, calc cmt, pr vis Por, r Glau. Shows: wk pet Od, no vis oil Stn, gd yel-brn even dir Fluor, v slo strmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
7	4237,5	100	Clst: dk gry-brn blk, blk, v hd, non calc, micromic, vf sdy, org, Shows: N/A
8	4234,6	100	Sst: lt gry-clr trsl Qtz, f-v crs, pred m-crs, ang-sbang, mod srt, v hd, calc cmt, I/P arg, no vis Por, Tr Glau, Tr Mic. Shows: wk pet Od, no vis oil Stn, no dir Fluor, no Fluor cut, no vis cut, no vis res, no Fluor res.
9	4232,3	100	Sst: lt gry-clr trsl Qtz, f-crs, pred m, sbang-sbrndd, mod -wl srt, mod hd, slily calc cmt, pr vis Por, r Glau. Shows: wk pet Od, no vis oil Stn, gd yel-brn even dir Fluor, v slo strmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
10	4231,4	100	Sst: as at 4232,3 Shows: wk pet Od, no vis oil Stn, gd yel-brn even dir Fluor, v slo strmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.

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Core #	Depth:	%	Lithology and shows:
11	4230,0	100	Sst: lt gry-clr trsl Qtz, f-crs, occ v crs, pred m-crs, sbang-sbrndd, wl srt, mod hd, slily calc cmt, no vis Por, r Glau. Shows: wk pet Od, no vis oil Stn, gd yel-brn even dir Fluor, v slo strmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
12	4228,8		EMPTY
13	4227,4	100	Sst: lt gry-clr trsl Qtz, f-crs, occ v crs, pred f-m, sbang-sbrndd, wl srt, mod hd, slily calc cmt, no vis Por, r Glau. Shows: wk pet Od, no vis oil Stn, gd yel-brn even dir Fluor, v slo strmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
14	4225,3	100	Sst: lt brn-clr trsl Qtz, f-crs, pred m-crs, sbang-sbrndd, wl srt, hd, calc cmt, no vis Por, r Glau, r Mic, r Coal/org frg. Shows: wk pet Od, no vis oil Stn, gd yel-brn even dir Fluor, v slo strmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
15	4223,0	100	Sst: lt gry-clr trsl Qtz, m-crs, pred m, ang-sbrndd, wl srt, hd, calc cmt, no vis Por, r Glau, r Mic. Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
16	4221,0	100	Sst: lt gry-clr trsl Qtz, f-crs, pred m, ang-sbrndd, wl srt, hd, calc cmt, no vis Por, r Glau, r Mic. Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
17	4219,0	100	Sst: lt brn-clr trsl Qtz, f-v crs, pred m-crs, ang-sbrndd, mod-wl srt, hd, calc cmt, no vis Por, r Glau. Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
18	4217,1	100	Clst: dk gry-brn blk, blk, subfiss, frm-hd, slily calc, micromic. Shows: N/A
19	4214,5	100	Sst: lt gry-clr trsl Qtz, f-crs, pred m-crs, ang-sbrndd, mod-wl srt, hd, sil cmt (non calc), no vis Por, r Glau, r Pyr nod. Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, dull yel-wh Fluor res ring.
20	4211,5	100	Sst: lt gry-clr trsl Qtz, vf-v crs, pred m-crs, ang-sbrndd, mod srt, v hd, calc cmt (!), no vis Por, r Mic. Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, mod yel Fluor res.
21	4211,0	100	Sst: lt gry-clr trsl Qtz, f-crs, pred m, ang-sbang, wl srt, mod hd, calc cmt, no vis Por, r Mic, r Glau. Shows: wk pet Od, no vis oil Stn, v dull yel-brn dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, dull yel-wh Fluor res ring.
22	4210,0	100	Sst: lt brn-lt gry-clr trsl Qtz, f-crs, pred f-m, ang-sbrndd, mod-wl srt, hd, calc cmt, no vis Por, r Mic, r Glau, r Pyr nod. Shows: wk pet Od, no vis oil Stn, v dull yel-brn dir Fluor, extr slo blmg bl-wh Fluor cut, no vis cut, no vis res, dull yel-wh Fluor res ring.
23	4209,0	100	Sst: lt brn-lt gry-clr trsl Qtz, f-crs, pred m-crs, ang-sbrndd, mod-wl srt, mod hd, slily calc cmt, no vis Por. Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo strmg bl-wh Fluor cut, no vis cut, no vis res, dull yel-wh Fluor res ring.
24	4208,0	100	Sst: as at 4209,0m Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo strmg bl-wh Fluor cut, no vis cut, no vis res, dull yel-wh Fluor res ring.

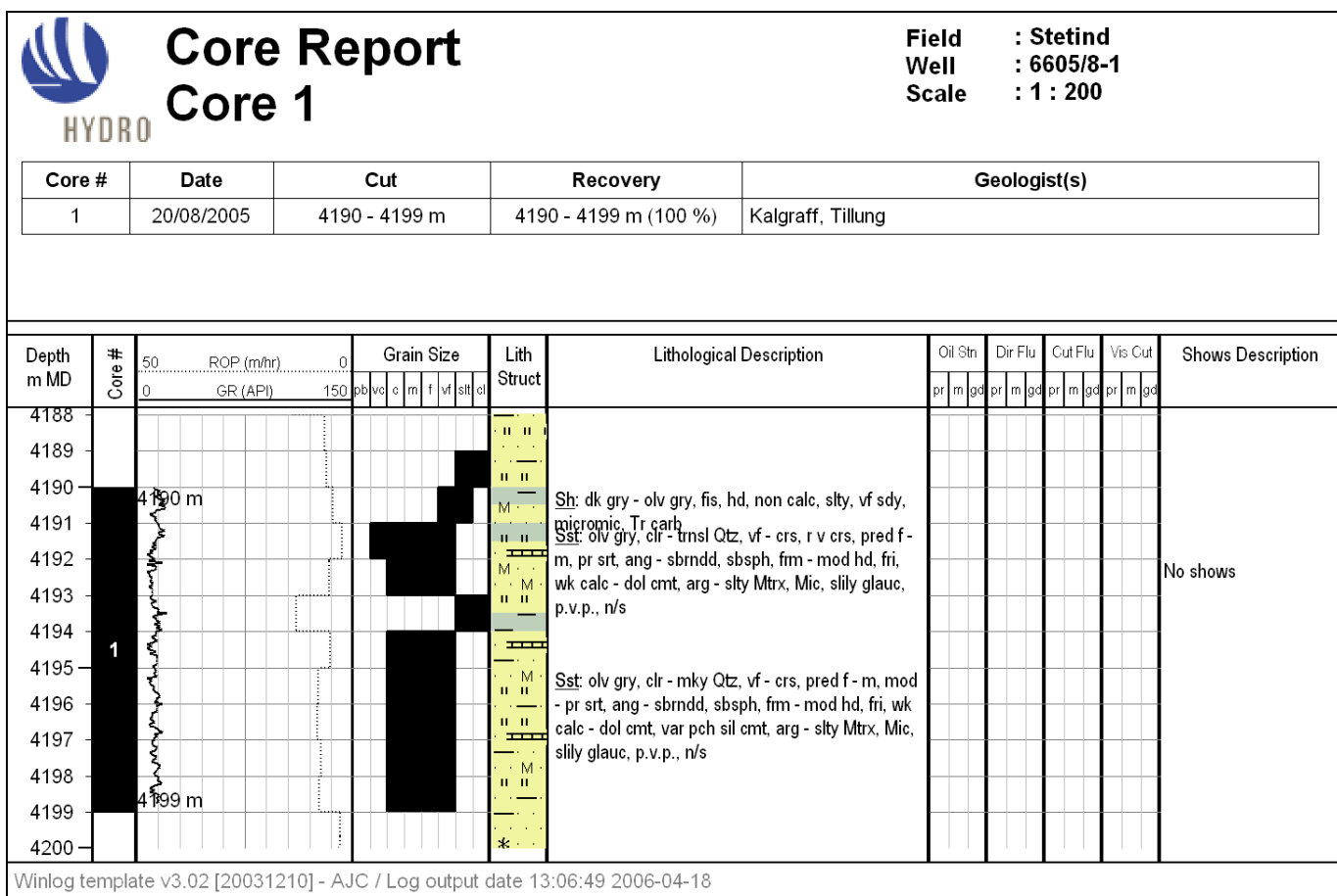
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Core #	Depth:	%	Lithology and shows:
25	4206,4	100	Sst: lt brn-clr trsl Qtz, f-v crs, ang-sbrndd, pr srt, v hd, calc cmt, no vis Por, slily org, r Glau, r Mic, r Coal/Org frg. Shows: wk pet Od, no vis oil Stn, dull yel-brn dir Fluor, extr slo strmg bl-wh Fluor cut, no vis cut, no vis res, dull yel-wh Fluor res ring.
26	4204,1	100	Clst: dk gry-gry blk, blk, frm-hd, non calc, r vf sdy, micromic, micropyr, org. Shows: N/A
27	4202,6	100	Clst: dk gry-gry blk, blk, frm-hd, non calc, r vf sdy, micromic, micropyr, org. Shows: N/A
28	4199,9		EMPTY
29	4195,6	100	Sst: lt gry-dk gry-clr trsl Qtz, f-m, ang-sbang, wl srt, v hd, sil cmt, no vis Por, r Glau, r Pyr nod. Shows: wk pet Od, no vis oil Stn, v dull yel-brn dir Fluor, extr slo strmg bl-wh Fluor cut, no vis cut, no vis res, yel-wh Fluor res.
30	4195,0		EMPTY
31	4191,7	100	Sst: lt gry-dk gry-clr trsl Qtz, f-m, ang-sbang, wl srt, v hd, sil cmt, no vis Por, r Glau, r Pyr nod. Shows: wk pet Od, no vis oil Stn, gd yel-brn dir Fluor, slo blmg bl-wh Fluor cut, no vis cut, no vis res, yel-wh Fluor res.

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2 GEOLOGICAL AND GEOPHYSICAL EVALUATION

2.1 Geological and Geophysical results

A seismic cross-section and schematic geological section through the well location is shown in Figure 2.9.1, and the prognosed vs actual formation tops are shown in Figure 2.9.2. Formation tops are listed in Figure 2.9.3.

2.2 Geographical and structural setting

The NE-striking Stetind A6 structure is located in the uplifted footwall of the Fles Fault Complex on the eastern margin of the Vigrid Syncline, central Vøring Basin. This was drilled by exploration well 6605/8-1, approx. 90 km away from wells 6706/11-1 on the Vema Dome and 6707/10-1 on the Nyk High to northeast, 6704/12-1 on the Gjallar Ridge to northwest and 6607/5-1 and -2 on the Utgard High to the east.

The structural configuration of the Norwegian Sea continental shelf is commonly interpreted to result from repeated rift episodes from Early Devonian up to late Cretaceous-Paleocene, the latter representing a precursor to continental break-up and onset of sea-floor spreading in the North Atlantic (ca. 55 Ma). The continental break-up was associated with transient, voluminous extrusive and intrusive igneous activity, present in the Stetind area as sills, dykes and hydrothermal vent complexes.

The Fles Fault Complex have played an important role in the Late Cretaceous tectonic development of the Vøring Basin, and the main fault activity can be attributed to the Campanian-Paleocene rift episode (Færseth and Lien, 2002). Cenozoic contraction lead to reverse reactivation of the Fles Fault Complex and uplift of the Lysing Formation in the Stetind area.

2.3 Geological results

The well penetrated the main target at 4184 m, a 70 m thick Lysing Formation sand of Early Coniacian age interbedded with thin mudstone beds. Gas was recorded from 4180 m, and a possible free water level was inferred at 4221 m. Gas was also recorded in a deeper Lysing sandstone unit, which occurs in the interval 4354-4429 m and is dominated by mudstone with thin sandstone interbeds.

Gas shows, including heavier components C7 and C8, were additionally recorded in a 53 m thick Early Campanian Nise siltstone at 3064 m, comprising thin layers of predominantly very fine to fine sand.

Core description and depositional model

One 9 m long core was taken in the interval 4190-4199 m in the upper Lysing reservoir. It contained sandstones interbedded with thin mudstone layers and was subdivided into five different facies (percentage of core): A) Thin-bedded, medium-grained sandstone (10%), B) Moderately sorted massive sandstone (65%), C) Poorly sorted, organic rich sandstone (13%), D) Thin-bedded fine-grained sandstone (2%), and E) Mudstone (10%). Facies B is considered to be the facies contributing to the gas bearing and producing part of the reservoir.

The sediment provenance area for the Lysing sands is interpreted to be East Greenland, based on the regional paleogeographic reconstructions (Lien, 2005; 2006). The transport direction can vary from northwest to northeast. Regardless of transport direction, the transport distance is considerable and may range from 100 km to more than 200 km. The present Greenland fjord incisions may well be inherited drainage roads from older drainage systems.

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The Lysing sandstones in the Stetind area are transported by high to low-density turbidites with associated 'linked debrites' and deposited in a deep water basin floor setting. The Stetind area is in a distal position of this depositional system.

There are no trends regarding bed-stacking pattern in the core, and no surfaces different from normal bedding surfaces are observed. The beds are probably sheet-like and the overall geometry of the Lysing Formation is probably sheet-like to large-scale fan lobe geometry. Features indicative of channels are not observed either in core, log or seismic data. However, indications of coarsening and fining upward trends are identified within the main reservoir, possibly representing autocyclic variation in distal lobe switching. The thin mudstones between the sandstones are interpreted to have a sheet-like geometry and be deposited wider than the areal extent of the associated sandstones.

2.4 Geophysical results

The pre-drill depth prognosis was based on a depth conversion with seismic stacking velocities of the 3D survey NH0202 down to the Lysing Fm. reservoir. The actual depths correspond fairly well to the prognosed depths down to Top Nise Fm., where the deviation from the prognosis is 46 m and is still within the uncertainties interval, +/- 74 m. From Top Nise Fm. down to Top Lysing Fm. reservoir, the LWD sonic log recorded velocities lower than estimated and consequently the prognosis was adjusted and the 9 5/8" casing depth set 100 m shallower. The main reservoir was penetrated 289 m shallower than originally prognosed.

2.5 References

Færseth, R.B. & Lien, T. 2002. Cretaceous evolution in the Norwegian Sea - a period characterized by tectonic quiescence. *Marine and Petroleum Geology*, 19, 1005-1027.

Lien, T. (2005). From rifting to drifting: effects on the development of deep-water hydrocarbon reservoirs in a passive margin setting, Norwegian Sea. *Norwegian Journal of Geology*, 85, 319-332.

Lien, T. (2006). Depositional model of the Lysing reservoir in PL 283, Stetind. *Hydro Report*.

2.6 VSP

A Zero Offset VSP survey was recorded from 2814 m to 4510 m MD through cased hole and open hole using a four level VSI tool. VSP stations were recorded at 15.12 m MD intervals. An array of 3X150 cu.in. airguns were used as a source, deployed from the crane of the rig.

Data quality for the Zero Offset VSP was considered to be good over the recorded interval. See figure 2.9.4.

All results are in the VSP_velocity_report.pdf created by Schlumberger.
The report is stored in SINAS Petrobank

2.7 Biostratigraphy

The biostratigraphic analyses of well 6605/8-1 (2020m - 4513mMD RKB TD) were carried out by Petrostrat (2006). Micropalaeontological analyses were undertaken both at wellsite and routinely in the office together with palynology. These analyses were supplemented by selective study of calcareous nannofossils over the reservoir to well TD section.

The analyses were mainly carried out on ditch cuttings samples (entire well section), sidewall cores and core samples.

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Micropalaeontology: 109 ditch cuttings and 8 core samples (4190-4198.8m) were analysed from the interval 2020m-4489m. Wellsite micropalaeontology was performed on 65 ditch cuttings over the interval 2130m – 2900m for positioning of the 13 3/8 inch casing shoe.

Palynology: 111 ditch cuttings, 3 sidewall cores (4202.6m – 4217.1m) and 8 core (4190-4198.8m) samples were analysed from the entire interval (2020m – 4513m).

Nannopalaeontology: 24 ditch cuttings, 3 sidewall cores (4202.6m – 4217.1m) and 4 core (4190m – 4198.8m) samples were analysed over the reservoir interval 4111m-4217m.

The basic results are documented in the Petrostrat (2006) report: “Hydro Oil & Energy Stetind 6605/8-1 Norwegian Sea Well. Biostratigraphy of the interval 2020m - 4513m”.

Figure 2.9.5 shows a summary of the age and lithostratigraphic successions of the well. These interpretations are in accordance with the Norsk Hydro standard zonation for the area and the lithostratigraphy follows Dalland *et al.* (1989).

All depths are MD RKB from a rotary table elevation of 23.5m.

2.7.1 Main stratigraphic conclusions

- There is generally close agreement between the biostratigraphy and the lithostratigraphy throughout the well. The only problem being the position of the top Tang Formation that is difficult to recognise on logs when correlated to the type level. Biostratigraphic analyses started at 2020m within the Kai Formation. This means there is no biostratigraphic support for the recognition of the Naust ‘U’ and ‘N’ units and the top of the Kai Formation within the uppermost part of the borehole.
- The well represents a relatively complete Cenozoic to Late Cretaceous (late Turonian) succession and unusually, there is evidence for Lower Miocene, Upper Eocene and Lower Paleocene; Danian sediments.
- Only two stratigraphic breaks are recognised within the well, coinciding with the top Hordaland/Brygge Formation and top Cretaceous Shetland Group (see details below). Condensed sections or intervals of minor submarine erosion generally represent age boundaries within the Cenozoic section. There is no positive biostratigraphic support for faulting within the Late Cretaceous Springar/Nise Formations and suggests that the magnitude of faulting is relatively minor and at an intra-formational level, below age and zonal definition.
- A palaeoenvironmental history has been constructed for the well based on study of the benthic biofacies. These analyses suggest that the well was located in a relatively deep marine, bathyal and off-shelf setting throughout the entire deposition of the Cretaceous – Cenozoic succession. The scarcity of calcareous foraminifera suggests depositions below a local calcite compensation depth (CCD). Rhabdammina type Deep Water Agglutinated Foraminifera (DWAF) and siliceous biofacies are developed throughout the well section. Highest abundances/diversity within the Coniacian Kvitnos Formation, ‘earliest’ Campanian Nise Formation and Campanian Springar Formation represent sea level maximums.
- The youngest sediments analysed in the well at 2020m are Early Miocene, Burdigalian age within the Kai Formation. The Opal C/T boundary identified at 2058m (log), lying towards the base of the Kai Formation is dated as Early Miocene in this well.

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- The top Hordaland Group and top Brygge Formation, identified at 2089.5m (log) and typically defined on an (up-section) decrease in interval transit times coincides with the unconformable Miocene/Oligocene boundary in this well. An intra Brygge Formation seismic reflector at 2.515sTWT and 2181mMD (log) is regionally identifiable as an intra Early Oligocene age.
- The top Rogaland Group and Tare Formation are typically developed at a level within the Early Eocene at 2389m (log). An attempt has been made to define the base Tare/top Tang Formation on criteria consistent with the standard definition using an up-section decrease in interval transit times but this has proved difficult to identify in this well. Biostratigraphic correlation suggests this level lies within the Late Paleocene, Thanetian, at a level around 2497m (log) although there is no marked biostratigraphic or seismic change at this level. Unfortunately density logs were not run over this interval to provide support to the pick based in sonic logs. Other more prominent candidate seismic reflectors appear to represent higher levels within the Early Eocene Tare Formation based on biostratigraphic correlation.
- In general, the Upper Cretaceous Shetland Group (Springar to Lange Formations) appears to be a relatively complete succession.
- The top Shetland Group and Springar Formation is well defined on wireline logs at 2645.5m (log) and equates to the Cretaceous/Cenozoic boundary in this well. Biostratigraphic control using micropalaeontology was undertaken at wellsite to locate this boundary to assist in the positioning of 13 3/8" casing shoe within the lower part of the Springar Formation prior to entering the Nise Formation.
- The top Nise Formation, defined on the sonic log by an up-section increase in interval transit times at 2988m typically occurs at an intra middle Campanian above the early/middle Campanian boundary at 3045m (ditch cuttings). The informally designated 'Nise Siltstone' unit developed within this formation is dated as an early Campanian age based on palynology (see more details below under biostratigraphy of the sand units).
- The top Kvitnos Formation, like the overlying Nise Formation, is defined on the sonic log by an up-section increase in interval transit times. This level, identified at 3472m (log) typically lies close to the Santonian/Campanian at 3420m. Two regional log markers within the Kvitnos Formation are defined by up-section increases in interval transit times. These two horizons: k68ts at 3694mMD and k66ts at 3959mMD typically correspond to the top early Santonian and top Coniacian respectively and provide stratigraphic control prior to entering the reservoir section.
- The top Lysing Formation and 'Main Lysing reservoir unit' are typically Coniacian age (see more details below). The Coniacian/Turonian boundary lies within the 'lower Lysing reservoir unit' at 4358m (ditch cuttings sample) is difficult to define in this well due to the scarcity of the standard age markers.
- The top Lange Formation is defined on GR and sonic logs at the base of sandstones defining the 'lower Lysing reservoir unit' at 4484.5mMD (log) within the late Turonian.
- The deepest sediments analysed at 4513m at the well TD within the Lange Formation are late Turonian age.

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2.7.2 Stratigraphic breaks

A stratigraphic break at the top Hordaland Group/Brygge Formation is indicated at 2089.5m (log). This coincides with the Miocene/Oligocene boundary and whereas there is evidence that the Early Miocene succession is relatively complete there is some evidence that the 'uppermost' Late Oligocene maybe missing. The break is not of major extent and possibly <2.5Ma duration.

A stratigraphic break is also inferred at the top Shetland Group/Springar Formation at 2645.5m (log). Events representing the 'earliest' Danian are present (as cavings) and suggest a complete Lower Paleocene succession but the lack of the 'latest' Maastrichtian palyno-event (*P. grallator*) suggests the 'uppermost' Springar Formation is absent. This break represents a missing duration of <2 Ma.

2.7.3 Biostratigraphy of the sand units within the well

In general the well penetrates a thick Cenozoic – Upper Cretaceous mudstone succession. Sandstones and sand units are scarce. These are assigned to the 'Nise siltstone' and Lysing Formation.

'Nise Siltstone' (3061.5m log –3115.m log); age: early Campanian

An interval of siltstones with minor sandstone interbeds is developed within the Nise Formation. The interval is informally assigned to the 'Nise Siltstone' and is time equivalent to the 'Nise Sandstone' developed elsewhere within the Vøring Basin. Biostratigraphically it is assigned to the early Campanian palyno subzone PK8B.1 and micro zone MK11. On the basis of benthonic biofacies it is of deep marine, bathyal origin and probably represents deposition of distal turbidites. Study of the microfossil reworking suggests that it at least, in part, derived from the recycling of Carboniferous and Perm-Triassic sediments.

Lysing Formation (4184m log –4484.5m log); age: spans the Coniacian –Turonian boundary;

Reservoir sandstones are found within the Lysing Formation. The reservoir consists of two sand units: The 'Main Lysing reservoir unit' (4184m log - 4253.5m log) is typically restricted to a Coniacian age (paly-zone PK7B) whereas the 'Lower Lysing reservoir unit' (4354.45m log – 4484.5m log) contains the Coniacian/Turonian boundary. Only one standard marker (*M. membraniphora*) was used to define the top of the late Turonian in this well at 4384m (paly-subzone PK7A.2). Normally this species is found in association with *S. coronatum* but this species was not identified in the section to provide more conclusive support. Additional support for a late Turonian age is, however, indicated by the recognition of two prominent high gamma regional markers (considered elsewhere to be tuffaceous). Both the k58a (4439mMD log) and k57a (4497mMD log) markers are typically late Turonian restricted.

Reworked microfossils within the 'lower Lysing reservoir unit' suggest that at least some of this unit was derived by recycling of Carboniferous sediments with East Greenland as the most likely source area. In the 'main Lysing reservoir unit', recycling from a Permo-Triassic source is indicated. Significantly there is no indication of any Jurassic reworking in either unit. Reworked microfossils from Albian - Cenomanian levels are present in both units. These maybe locally derived via rip up clasts from the underlying sediment during deposition or sourced from either an easterly or westerly direction.

Both reservoir units of the Lysing Formation appear to have been deposited under similar palaeoenvironmental conditions although there is a prominent influx of siliceous planktonic microfossils (radiolarian and diatoms) in the mudstone interval between the two sand units e.g. 4309m that may suggest a change in oceanographic conditions between deposition of the two units.

Benthic biofacies analyses indicate they both contain DWAF microfaunas and suggest a relatively deep marine, off-shelf bathyal setting. In addition, the palynofloral assemblages contain a low percentage (<10%) of spores and pollen and this suggests a distal location away from any hinterland. These observations are

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consistent with the sedimentological interpretation of the core within the 'Main Lysing reservoir unit' as being high and low density turbidites and associated linked 'debrites' with deposition on a distal basin floor fan system.

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2.8 Geochemistry

During drilling the well was monitored with respect to hydrocarbons both by standard equipment recording hydrocarbons in the mud and by a special designed analytical procedure delivered called DQ1000 (6605/8-1 Geochemical profiling).

The standard gas logging recorded elevated gas saturation in the intervals from c. 3050 mRKB to 3100 mRKB (Nise siltstone/fine sandstone), and from 4180 mRKB to 4260 mRKB (Lysing main reservoir unit).

To supplement the standard gas readings while drilling the DQ1000 tool was run. The key observations and interpretations are summarized below.

The first observation classified as a show appears at 3059.2 mRKB, ref. Figure 2.9.6 – possibly being a transition zone down to 3064.75 MRKB before entering the main show zone in the Nise Formation. The main show zone in Nise is subdivided into four. The two uppermost zones (3064.75-3077.1 mRKB) contain the highest concentrations of hydrocarbons, Figure 2.9.6. The two lowermost zones (3077.1 - 3112 mRKB) contain more of heavier components, i.e C7 and C8 are recorded here. These compounds are absent in the two shallowest zones.

In the Lysing reservoir the DQ1000 logs indicate three main hydrocarbon-bearing zones, Figure 2.9.7. The first one from 4180 - 4184 mRKB seems to precede the main sand body. The main sand body has two prominent zones (4203 - 4213 mRKB and 4221 - 4226 mRKB). All zones seem very similar, containing very dry gas with traces of C6. The content of helium, carbon dioxide and hydrogen may indicate a deep-sourced, thermogenic, mature gas.

Rock Eval

The whole well was screened to unravel if any source rock were penetrated. The resulting TOC measurements concluded that no source rocks are present in the well. Please note that the mud itself contains about 0,5% TOC (mainly glycol). The samples were cleaned prior to Rock Eval analyses. By experience this chemical is difficult to remove completely (unless sediments are extracted), and this most likely what is observed in the S1 and S2 parameters.

Maturity

Since the present data from Rock Eval are severely hampered by the mud additives, the maturity of the sediments is evaluated from the vitrinite reflectancy measurements alone. No significant deviations from an expected trend are observed.

Gas composition

Figures 2.9.8 and 2.9.9 show that according to interpretation of isotopes and composition, the gas tested in the Lysing Formation is of high maturity. The origin of the gas is in between a non-associated gas (i.e. from a pure gas prone source rock) or last stage of gas exsolved from oil. Note also the similarity of the Stetind gases, both Nise (head space) and Lysing and the gases from Vema and Nyk.

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2.9 Figures and Tables

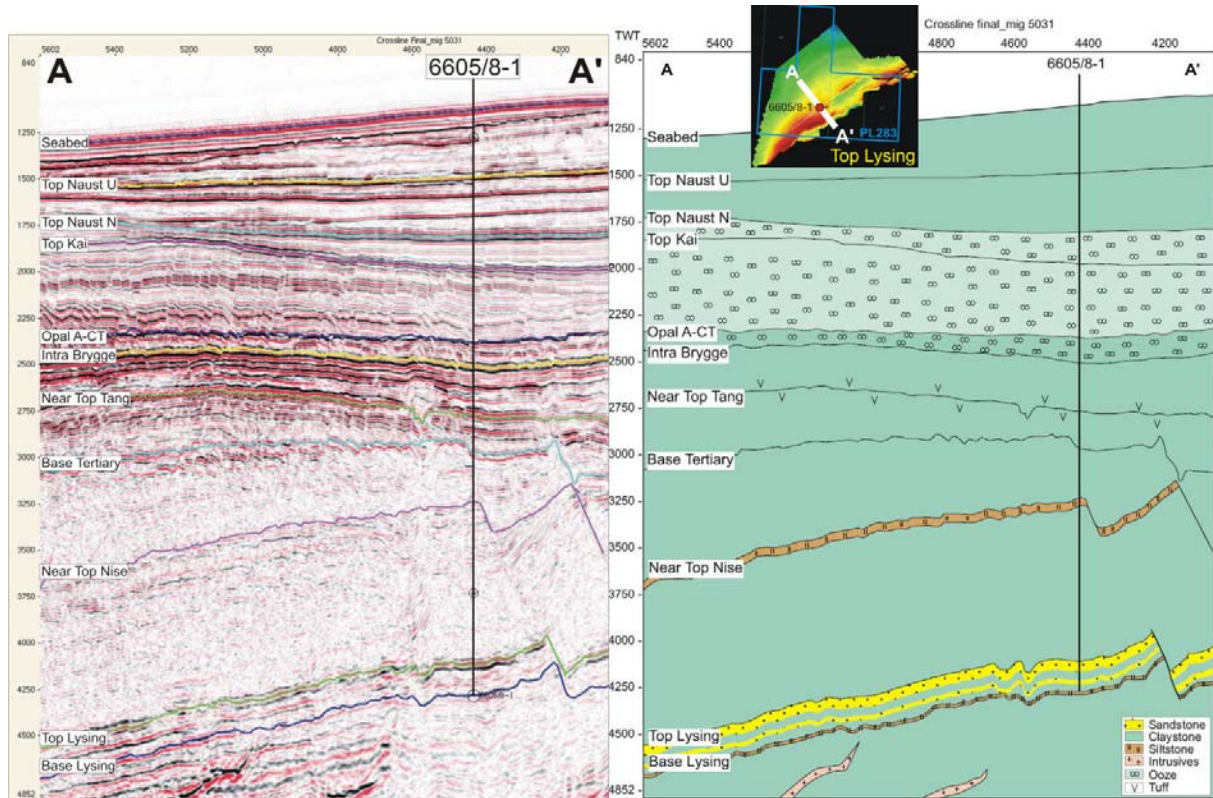
FIGURE LIST

- Figure 2.9.1 A seismic and schematic geological cross-section through 6605/8-1
- Figure 2.9.2 Well prognosis vs actual results for 6605/8-1
- Figure 2.9.3 Stratigraphic tops in time and depth
- Figure 2.9.4 VSP: Composite display (normal polarity)
- Figure 2.9.5 Biostratigraphic table
- Figure 2.9.6 Geochemical logging using dq1000 tool
- Figure 2.9.7 Geochemical logging of the main Lysing reservoir
- Figure 2.9.8 Gas isotope distributions
- Figure 2.9.9 $\delta^{13}\text{C}$ isotope of methane versus a gas composition ratio for gases in the Vøring Basin

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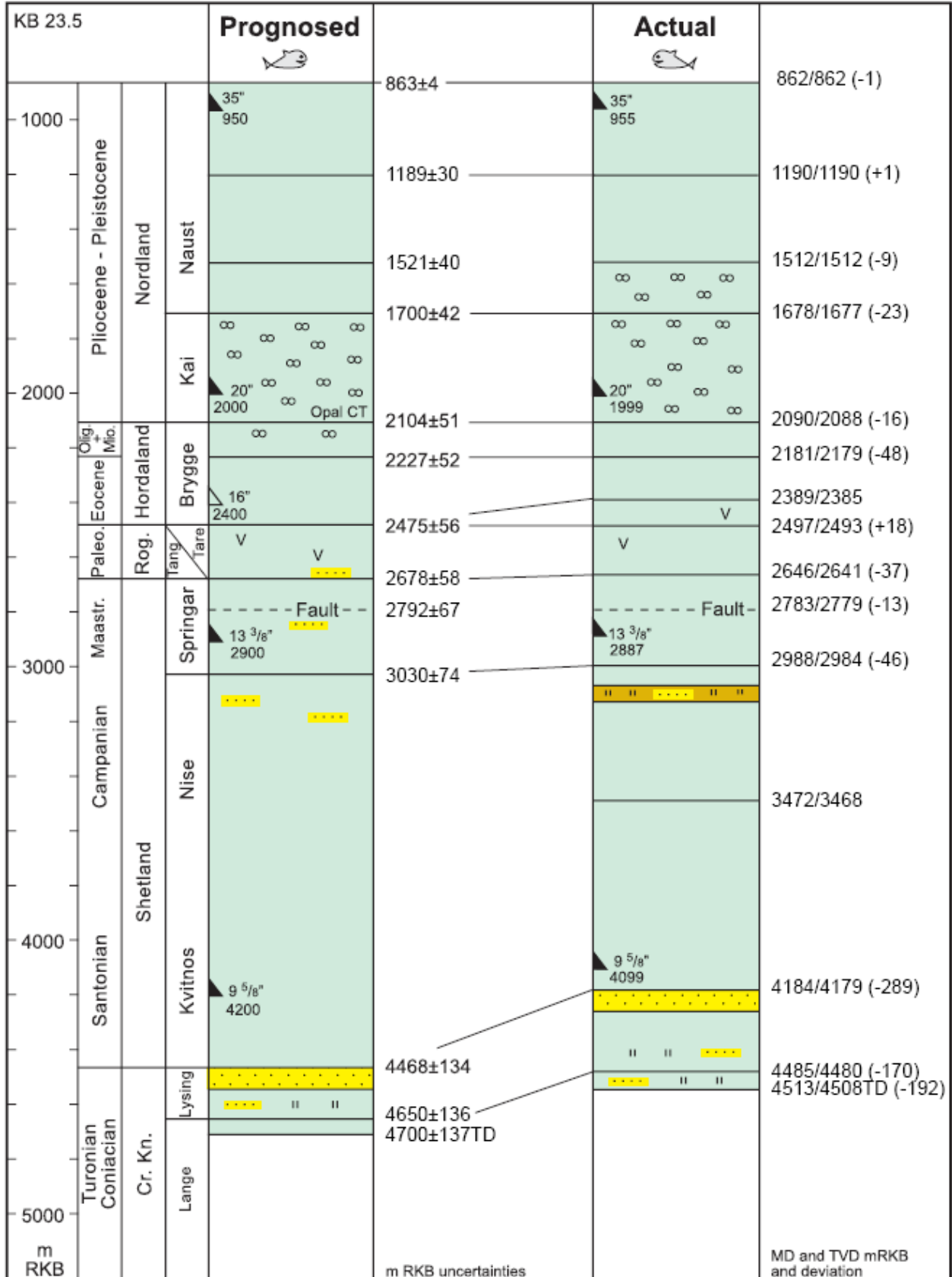
2.9.1 A seismic and schematic geological cross-section through 6605/8-1



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2.9.2 Well prognosis vs actual results for 6605/8-1



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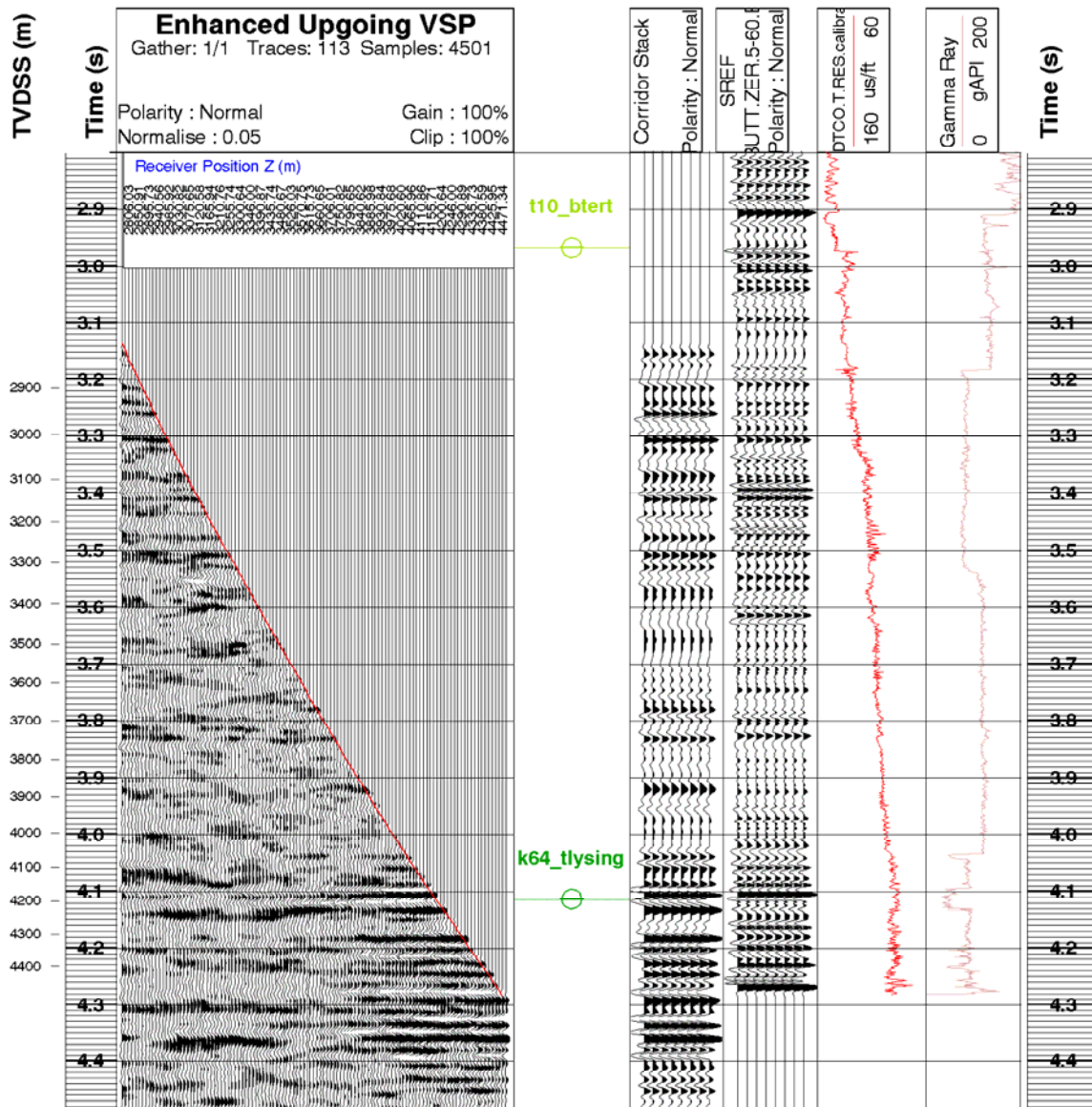
2.9.3 Stratigraphic tops in time and depth

Event	Prog. Time (TWT) (ms)	Actual Time (TWT) (ms)	Prog. Depth (m TVD RKB)	Actual Depth (m MD RKB)	Prog. Depth (m TVD MSL)	Actual Depth (m TVD MSL)	Prog. Uncert. (+/-) (m)	Actual deviation (m)	Prog. Interval velocity (m/s)	Actual Interval velocity (m/s)
Seabed	1130	1130	863	862	840	838	4	-2	1486	1483
Top Naust U	1490	1495	1189	1190	1165	1167	30	2	1810	1803
Top Naust N	1814	1819	1521	1512	1497	1489	40	-8	2050	1988
Top Kai	1986	1994	1700	1678	1677	1654	42	-23	2085	1886
Opal CT	2390	2390	2104	2058	2081	2034	51	-47	2000	1919
Top Brygge	2390	2420	2104	2090	2081	2065	51	-16		2067
Intra Brygge	2514	2515	2227	2181	2204	2156	52	-48	1980	1916
Top Tare		2728		2389		2361				1925
Top Tang	2772	2835	2475	2497	2451	2469	56	18	1920	2019
Base Tertiary	2965	2972	2678	2646	2655	2618	58	-37	2110	2175
Top Nise	3240	3270	3030	2988	3007	2961	74	-46	2560	2302
Top Nise siltstone		3329		3062		3033			3290	2441
Top Kvitnos		3626		3472		3444				2768
Top Lysing	4114	4095	4468	4184	4445	4156	134	-289		3036
Base Lysing	4254	4271	4650	4485	4627	4457	136	-170	2600	3420
TD	4286	4285	4700	4513	4677	4484	137		2600	

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2.9.4 VSP



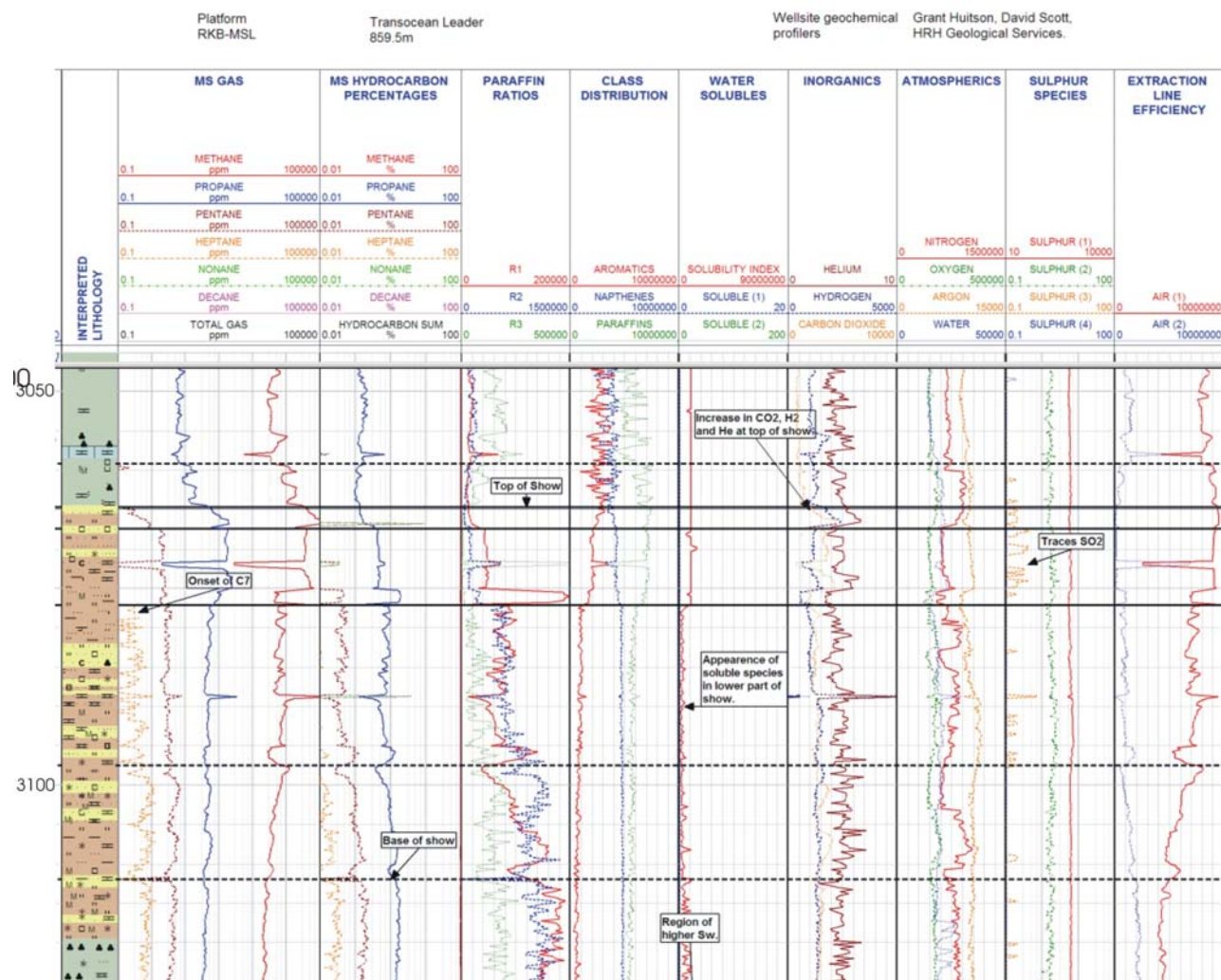
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2.9.5 Biostratigraphic table

CHRONOSTRATIGRAPHY				LITHOSTRATIGRAPHY			
PERIOD	EPOCH	STAGE	TOP DEPTH mMD RKB (drill cuttings unless otherwise stated)	GROUP	FORMATION	MEMBER	TOP DEPTH mMD RKB
Note: Biostratigraphic analyses started at 2020m within the Kai Fm.				Nordland	Naust Naust 'U' Naust 'N' Kai		861.6 1190 1512 1678
NEOGENE	Early Miocene (top not seen)	Burdigalian (TNS) Aquitanian	2020 2060				
UNCONFORMITY							
PALEOGENE	Late Oligocene	Chattian	2089.5 (log)	Hordaland	Brygge		2089.5 (log)
	Early Oligocene	Rupelian	2130				
	Late Eocene	Priabonian	2220				
	Middle Eocene	Bartonian	2240				
		Lutetian	2260				
	Early Eocene	Ypresian	2300				
	Late Paleocene	Thanetian	2454	Rogaland	Tare Tang		2389 (log) 2497 (log)
UNCONFORMITY							
CRETACEOUS	Late Cretaceous	late Maastrichtian	2645.5 (log)	Shetland	Springar		2645.5 (log)
		early Maastrichtian	2688				
		late Campanian	2778				
		middle Campanian	2937				
		early Campanian	3045		Nise		2988 (log)
		late Santonian	3420			Nise siltstone	3061.5 - 3115.3 (log)
		middle Santonian	3660		Kvitnos		3472 (log)
		early Santonian	3680				
		Coniacian	3920				
		late Turonian	4384	Cromer Knoll	Lysing	Main Lysing reservoir unit Lower Lysing reservoir unit	4184 - 4253.5 (log) 4354.5 - 4484.5 (log)
					Lange		4484.5 (log) TD 4513

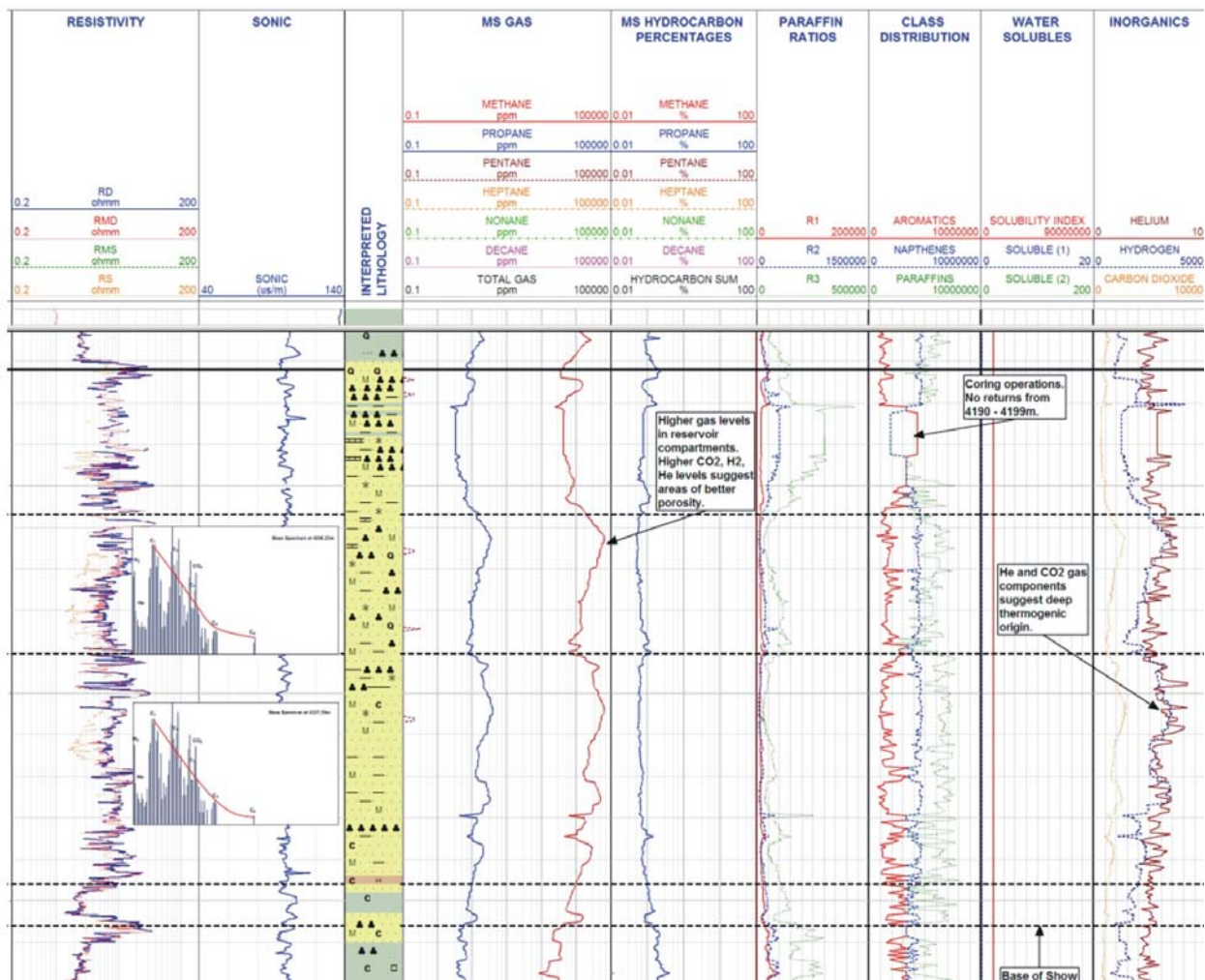
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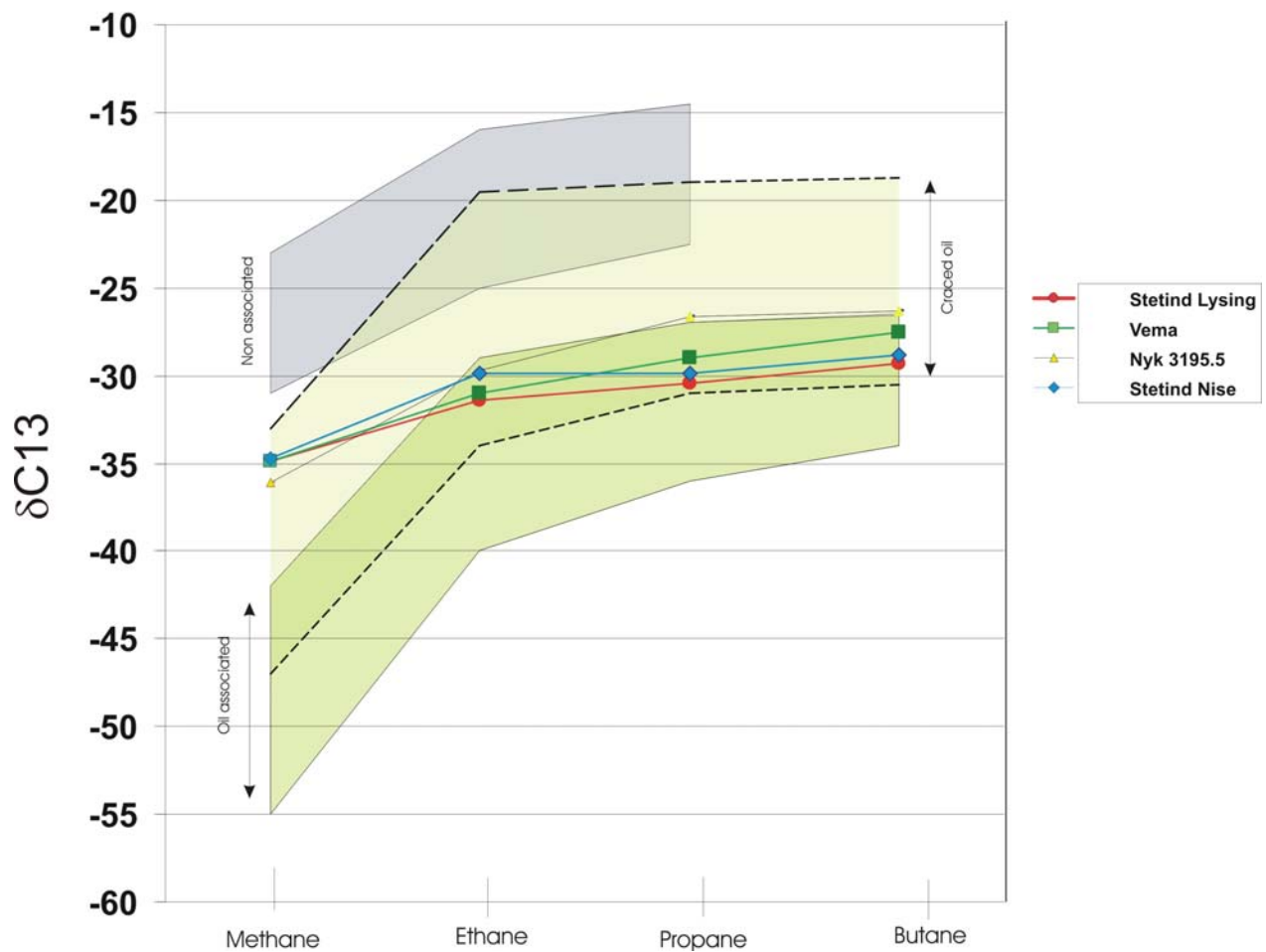
2.9.7 Geochemical logging of the main Lysing reservoir



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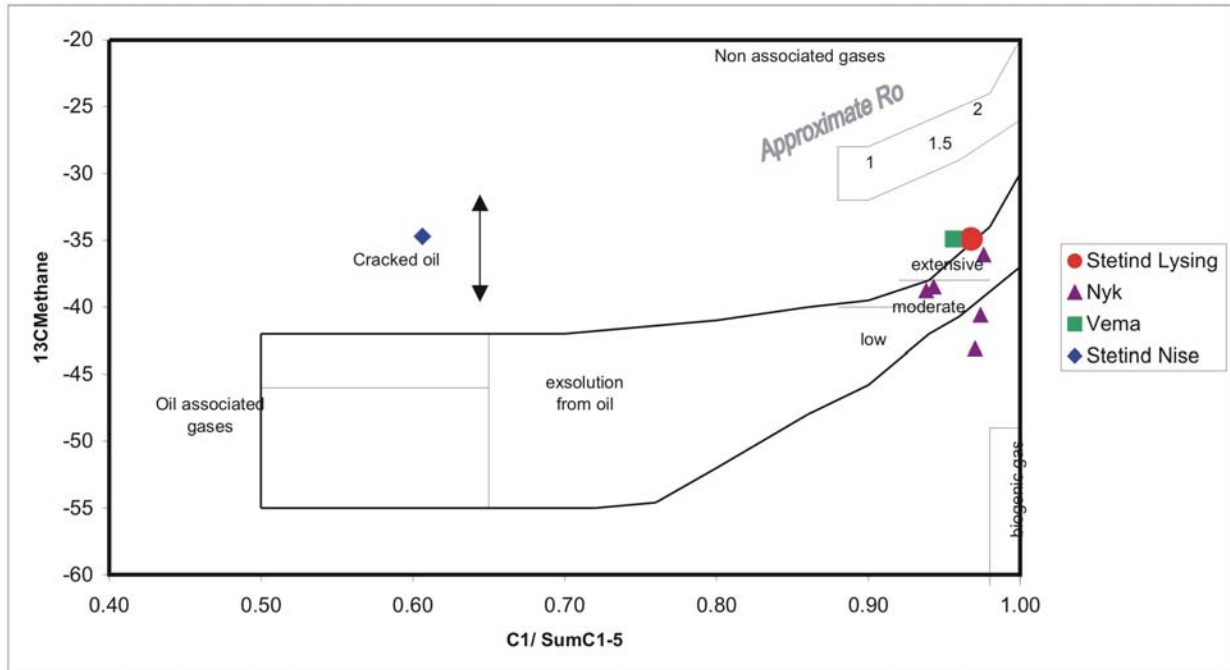
2.9.8 Gas isotope distributions



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2.9.9 $\delta^{13}\text{C}$ isotope of methane plotted versus a gas composition ratio for gases in the Vøring Basin



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3 PETROPHYSICAL EVALUATION

The evaluation covers the Lysing Formation sandstones. The petrophysical evaluation is based on all available well data including:

- Wireline logs
- Conventional core measurements from whole core and sidewall cores
- Special core analysis (SCAL) measurements
- Wireline formation tester (WFT) pressures and fluid samples
- Production and fluid samples from DST 1
- PVT analyses on fluid samples

This Chapter provides a summary of the petrophysical evaluation procedures and results.

3.1 Petrophysical Results and Discussion

The main results from the petrophysical evaluation of well 6605/8-1 are:

- The Lysing Formation sandstone contains a gas column with a residual gas below. A gas sample was also recovered from the bottom sand of the main reservoir. This sand has higher pressure than the main gas column. The reservoir has poor reservoir quality and the permeability ranges from less than 1 mD up to 20mD. The porosity in the net reservoir range from 0.09 up to 0.18, with an average of 0.13. From the log interpretation a gas water contact in the well is determined at 4211.0 m MD RKB / 4183m MSL. The zone average petrophysical parameters are shown in Figure 3.5.2. Plots of the CPI results are shown in Figures 3.5.5.
- Generally the formation pressure measurements are of poor quality. This is believed to be due to high invasion and poor reservoir quality. Only a few thin sands have good pressure measurements and no exact gradients can be drawn from the pressure data. The gas pressure gradient of 0.25 g/cc is based on the PVT analysis, while the water gradient is taken from water analysis done at reservoir conditions. By forcing the gradient through the pressure data a free water level (FWL) of 4221.0 m MD RKB / 4193m MSL is determined. A plot summarizing the formation pressures, fluid gradients and fluid contacts is shown in Figure 3.5.4.

3.2 CPI input data

3.2.1 Log data: measurements, quality and corrections

MWD/LWD logs

Schlumberger provided MWD/LWD services as summarised in Figure 1.3.1. Some depth shifts are required to match the MWD/LWD data to the reference wireline logs; these are documented in the Logtek report covering the generation of the Composite logs. The MWD/LWD data were not used in the petrophysical evaluation.

Wireline logs

Schlumberger provided the formation evaluation wireline services as summarised in Figure 1.3.2. High quality log data were recorded over the entire reservoir section.

Density, neutron and gamma ray measurements (TLD/CNL/GR) were recorded with 8" vertical resolution processing, and these logs together with the laterolog resistivity (HRLA) data were acquired with high resolution sampling of 0.0508 metres/sample. This high resolution was maintained for the petrophysical

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evaluation calculations. The petrophysical evaluation was made using the wireline resistivity, density, neutron and gamma ray logs.

Composite logs

The Composite log was made by Logtek in accordance with NPD requirements. One hybrid composite was made for the entire well, (hybrid of MWD/LWD and wireline), where the MWD/LWD data were depth shifted to match the reference wireline logs. Three petrophysical composite logs were also generated; one with merged depth matched MWD/LWD data, one with standard 0.1524 metres/sample wireline data (sonic), and one with high resolution 0.0508 metres/sample wireline data (resistivity, density, neutron and gamma ray) which was used as input to the CPI calculations. For more detailed information on MWD/LWD depth shifting and other aspects of the compositing procedures, reference is made to the Logtek report.

CPI Input logs - Environment and Invasion corrected data

The wireline contractor performed the environmental and the invasion corrections during acquisition. The corrected data were sourced from the third petrophysical composite log (refer Composite logs sub-section above). The following corrected curves were used in the petrophysical evaluation:

Gamma ray, corrected for hole size and mud weight (curve 'EHGR')

Density, corrected for bit size and mud weight (curve 'RHO8')

Neutron, corrected for hole size, stand-off, mudcake, borehole salinity, formation salinity, mud weight, pressure and temperature (curve 'HTNP')

Resistivity Rt and Rxo, invasion corrected from the five HRLA laterolog resistivity measurements, (curves 'RT_HRLT' and 'RXO_HRLT')

3.2.2 Core data: measurements, quality and corrections

One core was cut in the Lysing Formation, see Figures 1.4.3 and 1.4.4.

Sidewall cores were acquired by wireline with Schlumberger's mechanical sidewall coring tool (MSCT) as summarised in Figure 1.4.1. Due to low total sidewall core recovery, conventional core measurements could only be made on 21 samples.

Conventional core measurements were made on core plugs from both the whole cores and from the sidewall cores (refer Reslab report "Conventional Core Analysis, Well 6605/8-1"). Both the conventional and side wall core analysis were used for core-log calibrations in the petrophysical evaluation. In the CPI plot (Figure 3.5.5), whole core measurements and the sidewall core measurements are symbolised with circles.

Conventional core measurements

The conventional core measurements include porosity, permeability and grain density. Although the mud was doped with Tritium tracer, core saturation measurements were not attempted due to poor results in trying to correct for mud filtrate contamination in previous wells drilled with similar high salinity water based mud.

Core plugs from the whole cores were depth shifted to match the wireline logs as summarised in Figure 1.4.3. The shift was determined from correlations between core porosity and the density log and the gamma ray.

Special core analysis (SCAL) measurements

A SCAL programme was initiated with Reslab in the autumn of 2005 and the study is expected to be finished by the end of 2006. Evaluations are being performed on thirteen 1" core plugs from the mechanical side wall cores and six 1 ½" core plugs selected from the cored interval. The SCAL measurements include the following:

- Confining pressure measurements of porosity and formation factor (m)

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- Co/Cw measurements at 20°C and 120°C
- Mercury injection pressure
- Porous plate capillary pressure and resistivity index (n)

3.3 Evaluation Method

Shale calculation

Shale volume 'VSH' was determined from the average of gamma ray and density-neutron log shale indicators. Linear relationships were applied for both indicators. The core description, XRD and thin section work were used as input to the Vsh calculation.

Porosity calculation

The total porosity PHIT was determined by calibration of the density log with the overburden corrected core porosity. The overburden-correction factor is 0.96 and based on SCAL data measured on core plugs from this well. The core-log calibrations were constrained through the rock matrix/grain density 'Rhoma' value of 2.67 g/cc, which was determined from the histogram of the conventional core grain density measurements. The fluid density 'Rho_f' values to be used in calculating the PHIT is determined from density log versus overburden core porosity.

Water Saturation calculation

The Waxman & Smith equation was used to calculate water saturation from the wireline logs. The thin section work and XRD analysis encountered illite and kaolin in the reservoir. The Co/Cw measurements were performed on the core plugs and showed conductivity contribution. The fresh water sample taken with the MDT proved that the Waxman & Smith shaly sand equation is suitable.

Formation resistivity (R_t), and the invaded zone resistivity (R_{xo}) were taken from the Contractor's invasion corrected laterolog measurements (RT_HRLT and RXO_HRLT).

Formation temperature of approximately 146°C was measured from MDT run 2E. Run 2E was taken in 7" liner after the DST was finished. The temperature is assumed to be near the formation temperature. The gradient of 4.3°C/100m used over the reservoir section was estimated based on the measured temperature of 146°C at 4230m MD and the measured temperature at sea bottom of -1°C.

A water sample was taken with the guard probe and showed that the contamination was near zero, refer to Figure 3.5.9. The mud was doped with tritium tracer when drilling the reservoir section. Formation water resistivity R_w of 0.25 ohm-m at 145°C was used in the interpretation. This is based on the resistivity of 0.97 ohm-m measures red at 20°C on the water sample converted down to reservoir temperature.

Co/Cw measurement were measured on 1 " and 1 1/2" core plugs at laboratory temperature and at 200 bar net confining pressure. From the analysis BQv and FF* were determined. To estimate the m* the porosity at 200 bar and FF* at 200 bar were plotted. From the cross plot an m* of 1.94 was determined.

The porosity versus BQv was plotted to determine any correlation between the porosity. There are different relationships between the 1" and 1 1/2" core plug data set. This could be due to the more gentle cleaning technique used on the 1 1/2" plug set compared to the conventional cleaning procedure. Based on the plot, a constant Qv of 0.15 meq/cm³ is used in the water saturation equation.

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3.4 Fluid System

3.4.1 Formation Tester data quality

Wireline formation tester services included acquisition of formation pressures from the MDT tool and are summarised in Figure 3.5.3. Only eleven of the 66 pressure tests were considered successful, the rest of the pressure tests were tight, abandoned or supercharged. Invasion of the water based mud with high salinity into the low permeable reservoir caused a damage zone near the well bore. This may be the reason why it was difficult to get high quality formation pressure measurements in the reservoir. The MDT Mini Test analysis at 4209.4m RKB with the probe showed a very high skin factor (over 200). When sampling with the Dual packer in the same zone a high drawdown was seen in the beginning of the flow period, however, it decreased to around 6 bar at the end of the cleaning period before sampling gas.

3.4.2 Formation pressure analysis and fluid contacts

The formation pressure measurements are plotted versus depth as shown in figure 3.5.4. The formation water has been measured at reservoir temperature and pressure. The density of 0.965 g/cc was measured. The water gradient has been forced through the best point at 4231 m MD RKB in the water zone. From PVT data a gas density of 0.25 g/cc has been measured. The gradient has been drawn to the best formation pressure measurements in the gas zone. The gas gradient and the water gradient intersect at 4193m MSL (4221m MD RKB), which is evaluated to be the FWL. The GWC in the well is determined to be at the bottom of the tested interval at 4183m MSL (4212m MD RKB).

3.4.3 Fluid Sampling

MDT sampling was performed both in open hole and cased hole. A list of samples taken in open hole is given in Figure 3.5.6. Cased hole sampling was attempted in the water zone at 4230-4230.55 mMDRKB, using a dual packer MDT, after wireline perforation (deep penetration guns). Due to operational problems, however, no good MDT sample was obtained during that operation.

Hydrocarbon analysis

The calculated composition at depth 4211.4 m MD RKB is based on single flash gas and oil from sample TS-83303, and molecular weight and density of the stock tank condensate sample #6992-MA. The result (see Table 3.5.7) has been chosen to represent the reservoir gas in the upper gas zone. Due to very small amounts of condensate, however, there is a large uncertainty in the measurements, and hence also in the calculated composition.

The reservoir gas composition (see Figure 3.5.8) of sample #6992-MA, retrieved at 4253 m MD RKB, is considered to represent the lower reservoir. The results are uncertain since it is only based on the results from a single stage flash and compositional data of this sample.

Formation water analysis

The zero contaminated sample (MPSR #036) seems to represent the formation water composition with a calculated total salinity of 6472 mg/l (NaCl equivalents 0.65 wt% without alkalinity). The ion composition of the formation water sample, MPSR#036, and the calculated synthetic formation water are given in Figure 3.5.9. Note that in the rightmost column, the calculated ion composition of the Upper Lysing formation water has been corrected for the dead volume of distilled water, which is sampled together with the sampled formation water. In Figure 3.5.10, the main PVT results are presented.

The compositional analysis of the flashed gas from sample MPSR #036 is given in Figure 3.5.11.

The BTEX results in the formation water were found to be (MPSR #036):

- Benzene: 3700 µg/L

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- Toluene: 2800 µg/L
- Ethylbenzene: 70 µg/L
- m/p-Xylene: 350 µg/L
- o-Xylene: 120 µg/L

The $\text{Sr}^{87}/\text{Sr}^{86}$ isotope analysis on the formation water was measured to (MPSR #036):

- $\text{Sr}^{87}/\text{Sr}^{86}$ - 0.711451

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3.5 Figures

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FIGURE 3.5.5	CPI, Geological Data sheet
FIGURE 3.5.6	Sample list of transferred PVT bottles from the open hole MDT sampling
FIGURE 3.5.7	Reservoir gas composition, sample TS-83303 (4211.4 m MD RKB)
FIGURE 3.5.8	Reservoir gas composition, sample 6992-MA (4353 m MD RKB)
FIGURE 3.5.9	Ion composition of the formation water, MPSR #036, taken at 4231.4m MD
FIGURE 3.5.10	Main results of PVT analysis of sample MPRS #036, Upper Lysing
FIGURE 3.5.11	PNA analysis of flashed water sample MPSR #036

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3.5.1 Petrophysical input parameters

Well 6605/8-1: Petrophysical input parameters			Parameter (depths in m. MD RKB):
Calculation	Parameter Description	Units	Lysing Reservoir 4184.00-4254.2
Shale volume	Gamma ray (GR) minimum value	GAPI	30
	Gamma ray (GR) maximum value	GAPI	120
	Matrix density	G/CC	2.67
	Shale density	G/CC	2.60
	Neutron matrix porosity	FRAC	-0.02
	Neutron shale point	FRAC	0.30
Core Porosity	Horiz. helium porosity - Overburden correction	FRAC	0.96
Log Porosity	Rock matrix/grain density	G/CC	2.67
	Fluid density	G/CC	0.820
	Shale density	FRAC	2.45
Saturation (Waxman &Smit)	Formation temperature measured from MDT run 2E	DEGC	145 °C at 4230 m MD RKB / 4202 m TVD MSL
	Formation temperature curve	DEGC	4.3 °C/100
	Formation water resistivity Rw	OHMM	Rw = 0.24 @ 145 °C @ 4230m MD RKB
	Cementation factor (a)		1.00
	Cementation exponent (m*)		1.94
	Saturation exponent (n*)		2.00
	parameter (Qv)	meq/cm ³	0.15 (constant)
	parameter (B)		13.8 @ 4230 mRKB MD
Net Reservoir	Cut-off value for Effective Porosity (PHIE)	FRAC	> 0.09
	Cut-off value for Vshale (VSH)	FRAC	< 0.40

3.5.2 Reservoir zone averages

ZONE	Top m MD RKB	Bottom M MD RKB	Gross m	Net m	Net/Gross (frac)	Phie (frac)	Swe (frac)
A	4184.0	4198.6	14.6	2.0	0.14	0.107	0.87
B	4198.6	4212.7	14.1	5.0	0.35	0.137	0.73
C	4212.7	4224.5	11.8	5.8	0.50	0.121	0.96
D	4224.5	4233.7	9.2	6.4	0.69	0.131	0.85
E	4233.7	4242.9	9.2	4.0	0.43	0.117	0.89
F	4242.9	4247.2	4.3	2.1	0.50	0.133	0.77
G	4247.2	4252.1	4.9	-	-	-	-
H	4252.1	4254.3	2.2	0.9	0.42	0.144	0.73
Lysing reservoir	4184.0	4254.3	70.3	26.3	0.37	0.127	0.84

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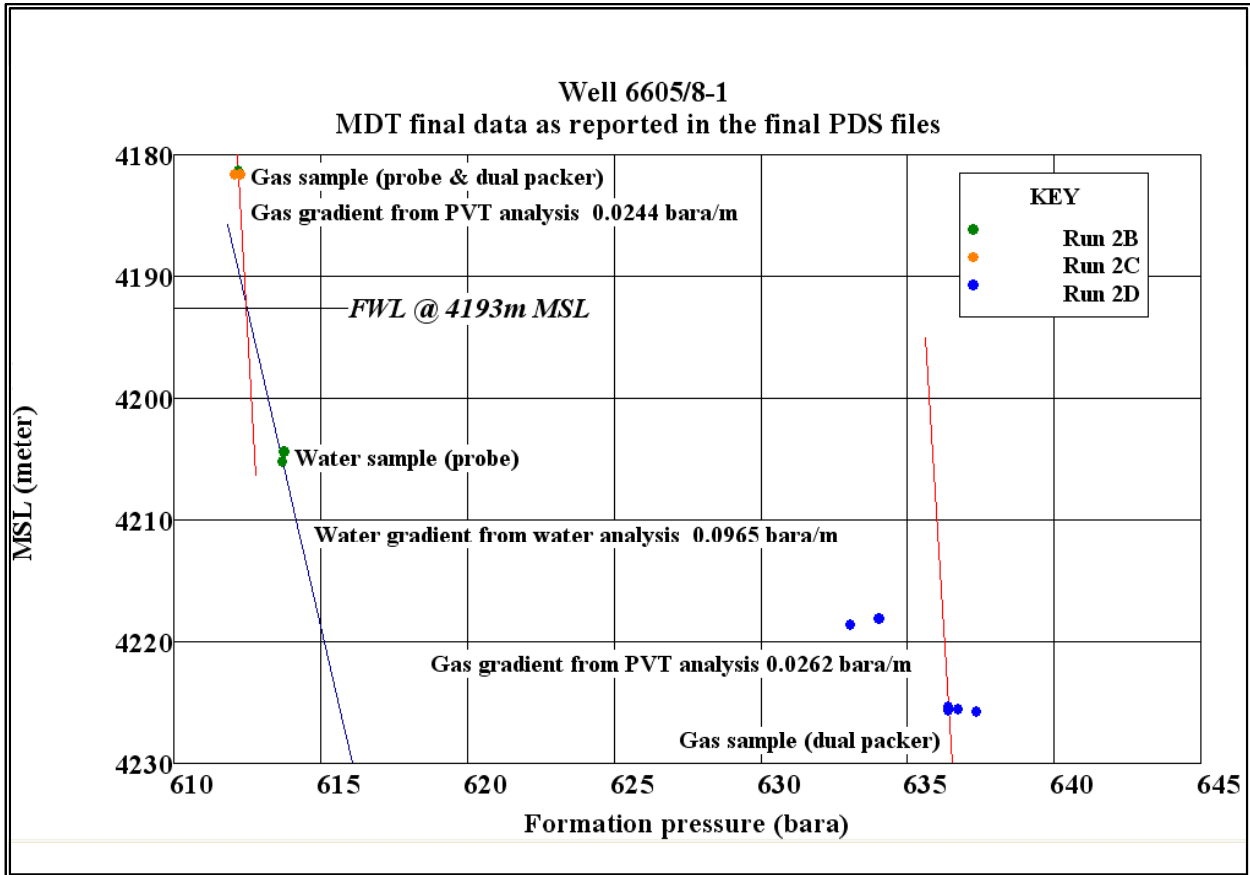
3.5.3 Formation Pressure table

Depth		Run No.	Date	TEST No.	FILE No.	Mud pressure before (bar)	Formation pressure (bar)	Mud pressure after (bar)	Mobility (md/cp)	Gauge	Comment
MD RKB (m)	MSL TVD (m)										
4252.67	4224.80	2A	28-aug-05	2	87	658.614	-	658.528	-	BQP1	Dry_Test
4252.03	4224.16	2A	28-aug-05	3	88	658.294	-	658.208	-	BQP1	Dry_Test
4248.62	4220.76	2B	28-aug-05	2	108	657.728	-	657.327	-	BQP1	Unrecognizable
4248.02	4220.16	2B	28-aug-05	3	109	656.617	-	656.346	-	BQP1	Unrecognizable
4247.19	4219.33	2B	28-aug-05	4	110	656.121	-	655.838	-	BQP1	Unrecognizable
4246.08	4218.22	2B	28-aug-05	5	111	655.602	-	655.507	-	BQP1	Dry_Test
4243.15	4215.29	2B	28-aug-05	6	112	654.830	-	655.014	-	BQP1	Unrecognizable
4240.82	4212.96	2B	28-aug-05	7	113	654.605	-	654.051	-	BQP1	Dry_Test
4240.33	4212.47	2B	28-aug-05	-1	114	-	-	-	-	BQP1	Unrecognizable
4232.34	4204.48	2B	28-aug-05	2	137	653.376	613.749	653.200	8.7	BQP1	Volumetric_Pretest
4230.01	4202.16	2B	28-aug-05	4	138	652.545	-	652.486	-	BQP1	Unrecognizable
4223.04	4195.18	2B	28-aug-05	7	140	651.392	-	650.797	-	BQP1	Unrecognizable
4210.81	4182.97	2B	28-aug-05	8	141	649.570	-	649.581	4.0	BQP1	Unrecognizable
4209.14	4181.29	2B	28-aug-05	11	142	649.329	612.187	649.294	0.02	BQP1	Volumetric_Pretest
4191.71	4163.87	2B	29-aug-05	13	143	646.341	-	646.734	-	BQP1	Unrecognizable
4237.50	4209.70	2B	29-aug-05	15	146	653.633	-	653.683	-	BQP1	Unrecognizable
4233.20	4205.30	2B	29-aug-05	17	147	652.504	613.691	652.612	11.2	BQP1	Volumetric_Pretest
4230.60	4202.80	2B	29-aug-05	20	148	652.159	-	652.197	-	BQP1	Unrecognizable
4226.80	4198.90	2B	29-aug-05	21	149	651.528	-	651.566	-	BQP1	Dry_Test
4223.10	4195.20	2B	29-aug-05	22	150	650.988	-	650.970	-	BQP1	Dry_Test
4220.70	4192.90	2B	29-aug-05	23	151	650.609	-	650.658	-	BQP1	Unrecognizable
4218.80	4191.00	2B	29-aug-05	24	155	650.428	617.477	650.575	2.6	BQP1	volumetric_limited_draw_down
4214.50	4186.60	2B	29-aug-05	25	156	650.090	-	650.071	-	BQP1	Unrecognizable
4208.20	4180.30	2B	29-aug-05	28	157	648.989	-	649.095	-	BQP1	Unrecognizable
4206.40	4178.60	2B	29-aug-05	30	158	648.809	-	648.824	-	BQP1	Unrecognizable
4204.10	4176.30	2B	29-aug-05	31	159	648.460	-	648.495	-	BQP1	Dry_Test
4202.60	4174.80	2B	29-aug-05	32	160	648.229	-	648.258	-	BQP1	Dry_Test
4199.70	4171.90	2B	29-aug-05	33	161	647.738	-	647.775	-	BQP1	Dry_Test
4195.60	4167.80	2B	29-aug-05	34	162	647.117	-	647.228	-	BQP1	Unrecognizable
4209.40	4181.60	2C	02-sep-05	-1	239	656.289	612.259	-	5.1	BQP1	Volumetric_Pretest
4211.00	4183.20	2C	02-sep-05	1	222	656.113	-	656.077	-	BQP1	Unrecognizable
4209.10	4181.20	2C	02-sep-05	5	225	655.605	-	655.572	-	BQP1	Unrecognizable
4210.80	4183.00	2C	02-sep-05	6	226	656.065	-	655.999	-	BQP1	Unrecognizable
4209.70	4181.80	2C	02-sep-05	7	227	655.722	-	655.670	-	BQP1	Unrecognizable
4208.10	4180.20	2C	02-sep-05	8	228	655.358	-	655.336	-	BQP1	Unrecognizable
4191.80	4164.00	2C	02-sep-05	10	229	652.846	-	652.886	-	BQP1	Unrecognizable
4191.00	4163.20	2C	02-sep-05	11	230	652.789	-	652.792	-	BQP1	Unrecognizable
4191.40	4163.60	2C	02-sep-05	12	231	652.950	-	652.894	-	BQP1	Unrecognizable
4196.80	4169.00	2C	02-sep-05	17	237	653.873	-	653.772	-	BQP1	Dry_Test
4208.10	4180.20	2C	02-sep-05	18	238	656.709	-	656.203	-	BQP1	Unrecognizable
4209.50	4181.60	2C	03-sep-05	-1	242	655.077	612.077	-	3.6	BQP1	Volumetric_Pretest
4253.50	4225.66	2D	07-sep-05	-1	296	662.056	636.409	-	1.9	BQP1	Volumetric_Limited_draw-down
4253.20	4225.35	2D	07-sep-05	-1	297	661.934	636.398	661.724	1.4	BQP1	Volumetric_Limited_draw-down
4253.00	4225.10	2D	07-sep-05	6	298	661.743	-	663.032	-	BQP1	Unrecognizable
4252.60	4224.70	2D	07-sep-05	7	299	662.926	-	662.750	-	BQP1	Unrecognizable
4252.30	4224.50	2D	07-sep-05	8	300	662.665	-	662.498	-	BQP1	Unrecognizable
4253.70	4225.82	2D	07-sep-05	9	302	661.594	637.360	661.813	1.8	BQP1	Volumetric_Limited_draw-down
4253.40	4225.55	2D	07-sep-05	-1	303	661.746	636.742	-	2.2	BQP1	Volumetric_Limited_draw-down
4246.00	4218.15	2D	07-sep-05	12	306	660.312	634.037	660.537	0.3	BQP1	Volumetric_Limited_draw-down
4245.70	4217.80	2D	07-sep-05	13	307	660.535	-	660.390	-	BQP1	Unrecognizable
4245.00	4217.20	2D	07-sep-05	14	308	660.255	-	660.259	-	BQP1	Unrecognizable
4246.50	4218.70	2D	07-sep-05	16	311	660.505	633.057	660.469	0.1	BQP1	Volumetric_Limited_draw-down
4246.20	4218.40	2D	07-sep-05	17	312	660.466	-	660.435	-	BQP1	Unrecognizable
4253.00	4225.10	2D	07-sep-05	18	318	662.348	-	661.870	-	BQP1	Unrecognizable
4373.80	4345.90	2D	07-sep-05	19	322	679.658	-	679.745	-	BQP1	Unrecognizable
4373.50	4345.50	2D	07-sep-05	20	323	679.670	-	679.654	-	BQP1	Unrecognizable
4373.20	4345.20	2D	07-sep-05	21	324	679.579	-	679.551	-	BQP1	Unrecognizable
4372.90	4345.00	2D	07-sep-05	22	325	679.494	-	679.487	-	BQP1	Unrecognizable
4372.60	4344.60	2D	07-sep-05	23	326	679.412	-	679.388	-	BQP1	Dry_Test
4372.60	4344.60	2D	07-sep-05	24	327	679.372	-	679.375	-	BQP1	Dry_Test
4372.30	4344.40	2D	07-sep-05	25	328	679.314	-	679.303	-	BQP1	Dry_Test
4428.00	4400.10	2D	07-sep-05	26	330	687.827	-	687.908	-	BQP1	Dry_Test
4427.70	4399.70	2D	07-sep-05	27	331	687.794	-	687.767	-	BQP1	Dry_Test
4426.40	4398.40	2D	07-sep-05	28	332	687.485	-	687.491	-	BQP1	Dry_Test
4426.10	4398.20	2D	07-sep-05	29	333	687.429	-	687.427	-	BQP1	Dry_Test
4428.23	4400.25	2D	07-sep-05	30	336	687.783	-	687.840	-	BQP1	Unrecognizable

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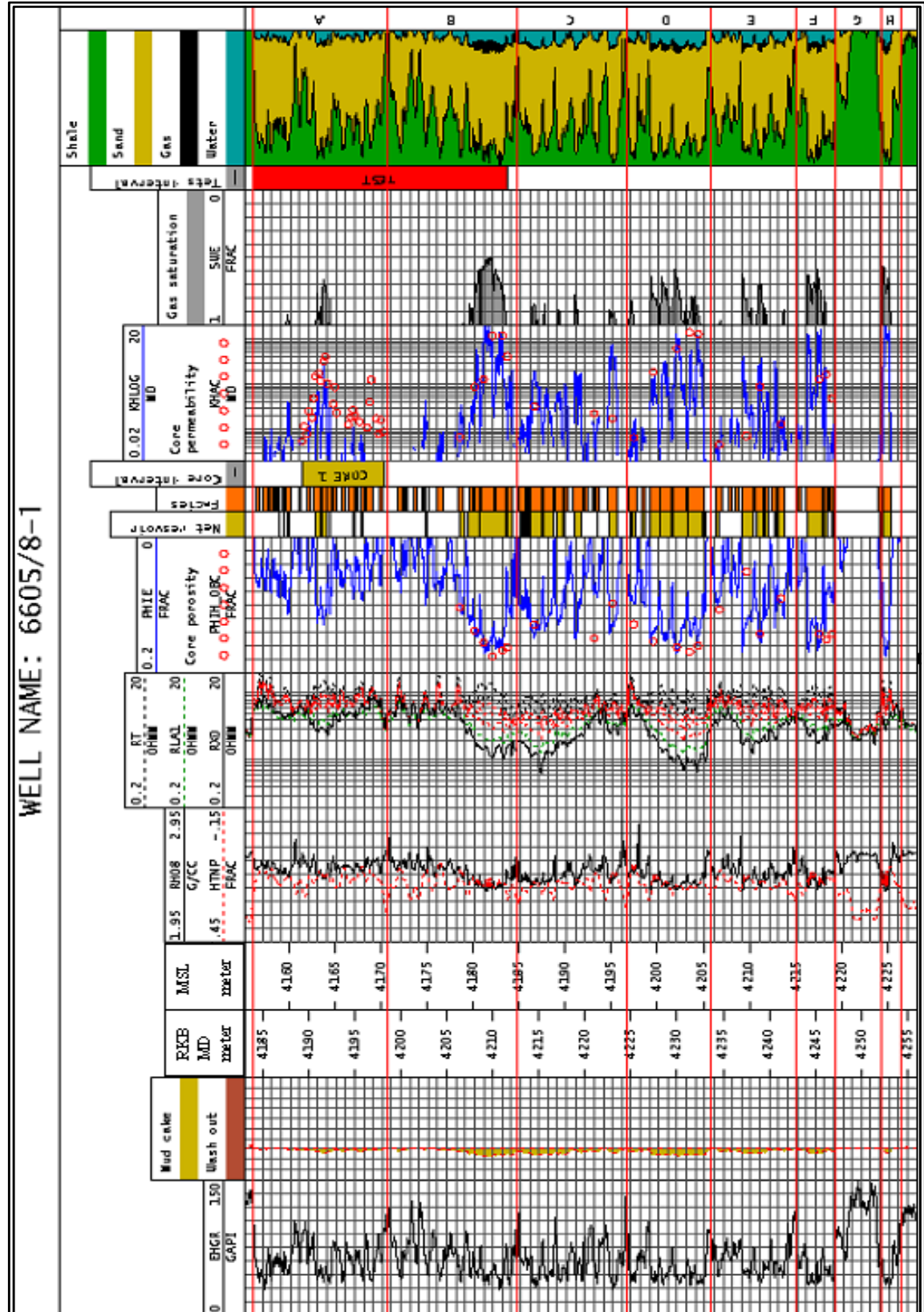
3.5.4 Formation Pressure plot, gradients and fluids



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3.5.5 CPI plot Lysing Formation



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3.5.6 Sample list of transferred PVT bottles from the open hole MDT sampling

Sample No.	Sample Date	MDT Bottle No.	Sample Nature	Sample Point	Bottle Type	Bottle No.
Run 2C						
1.01	29.08.05	MPSR 036	Bottomhole Sample	4231.4 m	CSB	4499-EA
1.02	29.08.05	MPSR 783	Bottomhole Sample	4231.4 m	CSB	7007-MA
1.03	29.08.05	MPSR 756	Bottomhole Sample	4231.4 m	CSB	5661-EA
Run 2D						
1.04	02.09.05	MRSC 113	Stock Tank Oil	4209.4 m	5 Litre Plastic Cont.	N/A
1.05	02.09.05	MPSR 694	Bottomhole Sample	4209.4 m	MPSR	N/A
1.06	02.09.05	SPMC 136	Monophasic Btm Sample	4209.4 m	SSB	1561-EA
1.07	02.09.05	MPSR 974	Bottomhole Sample	4209.4 m	MPSR	TS-83803
1.08	03.09.05	MPSR 801	Bottomhole Sample	4210.85-4211.86 m	MPSR	TS-83303
1.09	03.09.05	SPMC 188	Monophasic Btm Sample	4210.85-4211.86 m	SSB	9803-MA
Run 2E						
1.10	07.09.05	MPSR 768	Bottomhole Sample	4252.5-4253.5 m	CSB	4469-EA
1.11	07.09.05	MPSR 930	Bottomhole Sample	4252.5-4253.5 m	CSB	6992-MA

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3.5.7 Reservoir gas composition, sample TS-83303 (4211.4 m MD RKB)

TEMPERATURE, °C	15	STOCK TANK OIL:	
PRESSURE, BARA	1	DENSITY, Kg/m ³	830
GOR, Sm ³ /Sm ³	275343	Mw	181.8

	GAS PHASE		LIQUID PHASE				REC. PHASE	
FRACTION	Wt%	Mole%	Wt%	Mole%	Density	Mw	Wt%	Mole%
N2	1.085	0.700	0.000	0.000	260.0		1.081	0.699
CO2	10.544	4.327	0.000	0.000	420.0		10.502	4.325
C1	81.411	91.646	0.000	0.000	260.0		81.087	91.610
C2	4.015	2.411	0.000	0.000	358.0		3.999	2.410
C3	1.312	0.537	0.000	0.001	507.6		1.307	0.537
ISO-C4	0.231	0.072	0.000	0.000	563.3		0.230	0.072
N-C4	0.221	0.069	0.000	0.001	584.7		0.220	0.069
NEO-C5	0.001	0.000	0.000	0.000	596.7		0.001	0.000
ISO-C5	0.122	0.031	0.001	0.001	624.6		0.122	0.031
N-C5	0.079	0.020	0.001	0.003	630.9		0.078	0.020
C6	0.145	0.031	0.008	0.016	667.4	85.2	0.145	0.031
C7	0.304	0.063	0.075	0.150	760.1	90.8	0.303	0.063
C8	0.407	0.075	0.319	0.576	795.2	100.5	0.407	0.075
C9	0.121	0.019	0.490	0.779	809.2	114.2	0.122	0.020
C10+	0.000	0.000	99.107	98.471	830.4	183.0	0.395	0.039

	GAS PHASE	LIQ. PHASE	REC. PHASE
WEIGHT% C6+	0.98	100.00	1.37
MOLE% C6+	0.19	99.99	0.23
MOLEWEIGHT C6+	93.96	181.97	109.30
MOLEWEIGHT C10+	156.00	182.97	182.97
MEAN MOLE WEIGHT	18.06	181.80	18.12
MOLE DISTRIBUTION	99.96	0.04	100.00
WEIGHT DISTRIBUTION	99.60	0.40	100.00
GAS GRAVITY	0.623		
CRITICAL TEMP (K)	199.7		
CRITICAL PRESS (Bara)	47.5		
Z-FACTOR	0.998		
DENSITY (kg/m ³)	0.755		
VISCOSITY (mPa·s)	0.011		

FRACTION	GAS PHASE			LIQUID PHASE			RECOMB. PHASE		
	P	N	A	P	N	A	P	N	A
C6	96.5	3.5		95.0	5.0		96.5	3.5	
C7	25.7	52.8	21.5	42.0	40.1	17.8	25.7	52.8	21.5
C8	7.7	49.1	43.2	33.6	22.3	44.1	7.8	49.0	43.2
C9	32.1	3.0	64.9	39.6	4.1	56.3	32.2	3.0	64.7

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3.5.8 Reservoir gas composition, sample 6992-MA (4353 m MD RKB)

Opening pressure of MPRS 930: 362@20.8degC Reservoir pressure: 632 bar Reservoir temperature: 140 degC Density @ reservoir T6P 274 kg/m ³ Density @atm. T&P 0,831 g/cm ³ GCR: 42 200 Sm ³ /Sm ³				
Components	Stock tank gas (mole %)	Stock tank liq. (mole %)	Res. fluid mole %	MW g/mol* Dsty kg/m ³ **
N2	0.753	0.000	0.750	
CO2	4.038	0.000	4.022	
H2S	0.000	0.000	0.000	
C1	90.873	0.010	90.501	
C2	2.564	0.011	2.554	
C3	0.736	0.022	0.733	
iC4	0.120	0.014	0.120	
nC4	0.161	0.032	0.161	
iC5	0.086	0.061	0.086	
nC5	0.075	0.075	0.075	
C6 total	0.144	0.456	0.145	84.6
P	0.130	0.444	0.131	664.7
N	0.014	0.012	0.014	
C7 total	0.208	2.098	0.216	92.4
P	0.104	1.294	0.108	719.3
N	0.089	0.680	0.092	
A	0.015	0.124	0.016	
C8 total	0.177	6.439	0.203	104.7
P	0.073	3.654	0.087	743.8
N	0.074	1.685	0.080	
A	0.031	1.099	0.035	
C9 total	0.046	10.524	0.089	119.6
P	0.021	6.525	0.048	759.4
N	0.011	1.307	0.016	
A	0.014	2.692	0.025	
C10+	0.018	80.257	0.346	196.7
Sum	100.000	100.000	100.000	842.9
Total				
MW g/mole	18.5	181.8	19.2	*recomb. MW
Density kg/m ³	0.784	830.0	0.2	**stabil. dsty
Gas gravity	0.640	-	-	

HYN002843

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3.5.9 Ion composition of the formation water, MPSR #036, taken at 4231.4m MD

Mudfiltrate in WFS sample (%/100)		0.00				
		WFS	WFS corr.	Mudfiltrate	Formation water	Formation water, corr. for dead volume
Cl	mg/l	2 901	2 901	136655	2901	2996
SO ₄	mg/l	20	20	406	0	0 *
Br	mg/l	16	16	236	16	17
Li	mg/l	2	2	1	2	2
Na	mg/l	2 695	2 695	64 471	2695	2784
K	mg/l	411	411	48 918	411	425
Mg	mg/l	6	6	48	6	6
Ca	mg/l	137	137	435	137	142
Sr	mg/l	5	5	4	5	5
Ba	mg/l	13	13	0	13	13 **
Acetate	mg/l	273	273	894	273	282
Formate	mg/l	13	13	133	13	13

HYN002269

* Assuming no sulphate in the formation water

** Assuming some barium has precipitated with sulphate in mud filtrate

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3.5.10 Main results of PVT analysis of sample MPRS #036, Upper Lysing

GWR	4.4 Sm ³ /Sm ³
pH	6.71
CO₂	36.13 mol%
Density	1.00826 kg/Sm ³
Resistivity	0.9731 ohm*m@ 20 deg.C

HYN002270

Comments: Flashed onshore from singel phase.

General description - light, milky brown, translucent fluid.

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3.5.11 PNA analysis of flashed water sample MPSR #036

Component	Weight%	Mol%	MW g/mol
N ₂	0.927	0.874	
CO ₂	60.251	36.133	
H ₂ S	0.000	0.000	
C ₁	37.929	62.398	
C ₂	0.537	0.472	
C ₃	0.077	0.046	
iC ₄	0.004	0.002	
nC ₄	0.006	0.003	
iC ₅	0.012	0.004	
nC ₅	0.002	0.001	
C ₆	0.003	0.001	74.7
P	0.001	0.000	
N	0.002	0.001	
C ₇	0.149	0.044	89.4
P	0.084	0.022	
N	0.006	0.002	
A	0.059	0.020	
C ₈	0.055	0.015	96.1
P	0.007	0.002	
N	0.014	0.004	
A	0.033	0.010	
C ₉	0.006	0.001	111.7
P	0.002	0.000	
N	0.000	0.000	
A	0.004	0.001	
C ₁₀ ⁺	0.041	0.007	156.0
Total	100.000	100.000	26.4
Specific gas gravity		0.911	-
Gas density		1.117	kg/m ³
GWR		4.400	Sm ³ /Sm ³

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4 Pressure and temperature summary

4.1 General

Vertical effective stress models are created to obtain the pore pressure and if necessary the shear failure gradient in a deviate well. The modeling is based on the Terzaghi's soil compaction theory and that mechanical compaction is the dominant mechanism for porosity reduction in the sediments. The effects of secondary mineralization are minimal or can be calibrated into models. Compaction is basically a one-dimensional process. As a consequence, the vertical effective stress can be used by itself to define the compaction state of the sediments. The total vertical stress or, equivalently, the overburden is usually calculated from density logs, regional correlations, or density/velocity transforms. Eaton model was used to create the pore pressure and fracture gradient.

4.2 Pore pressure gradient

Sonic pressure gradient

The pressure gradient is computed from the effective stress using the sonic data from the well. A normal pore pressure gradient of 1.04 sg is confirmed to below the Kai Formation. Below this formation there is a gradual increase of the pore pressure gradient from 1.04 to 1.50 sg. In the reservoir the pressure is on average 1.50 sg that is confirmed by the MDT data

4.3 Fracture gradient

The fracture gradient is based on a Poisson Ratio computed from LOT inversion and combined with Poisson Ratio from the DSI shear data. Further the fracture gradient in the reservoir is given by a min-frac test where the fracture gradient is computed to be 1.77 BHP and the 1.83 sg WHP. This also fits the computed fracture gradient for the Poisson Ratio from the DSI. The LOT at 2887 m is 1.62 sg and the LOT at 4100 m is 1.94 sg that is taken from the PWD (PressureWhileDrilling) sensor.

4.4 Overburden gradient

The Overburden (OBG) computation is the sum of all the bulk density layers to TD. Calculating the overburden gradient requires RHOB values from mudline to TD.

4.5 Temperature

The anticipated seafloor temperature was -1°C but the recorded seafloor temperature was $-1,5^{\circ}\text{C}$. Based on regional DST data an average formation temperature gradient of $3,78^{\circ}\text{C} / 100\text{m TVD}$ was prognosed. Based on observed temperatures (Horner plot and MDT temperatures) in this well a temperature of $158,4^{\circ}\text{C}$ at TD (4503m TVD RKB) is estimated. This gives a very high average formation temperature gradient of $4,38^{\circ}\text{C} / 100\text{m TVD}$, $0,6^{\circ}\text{C} / 100\text{m}$ higher than expected from the regional data. This local increase in formation temperature may be a result of less conductive rocks or higher geothermal gradient due to high magmatic activity or erroneous data. This can only at present be subject to speculations and should be investigated into more detail in future wells in this area.

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4.6 Figures

Figure 4.6.1 Pore pressure and fracture gradient curves for well 6605/8-1

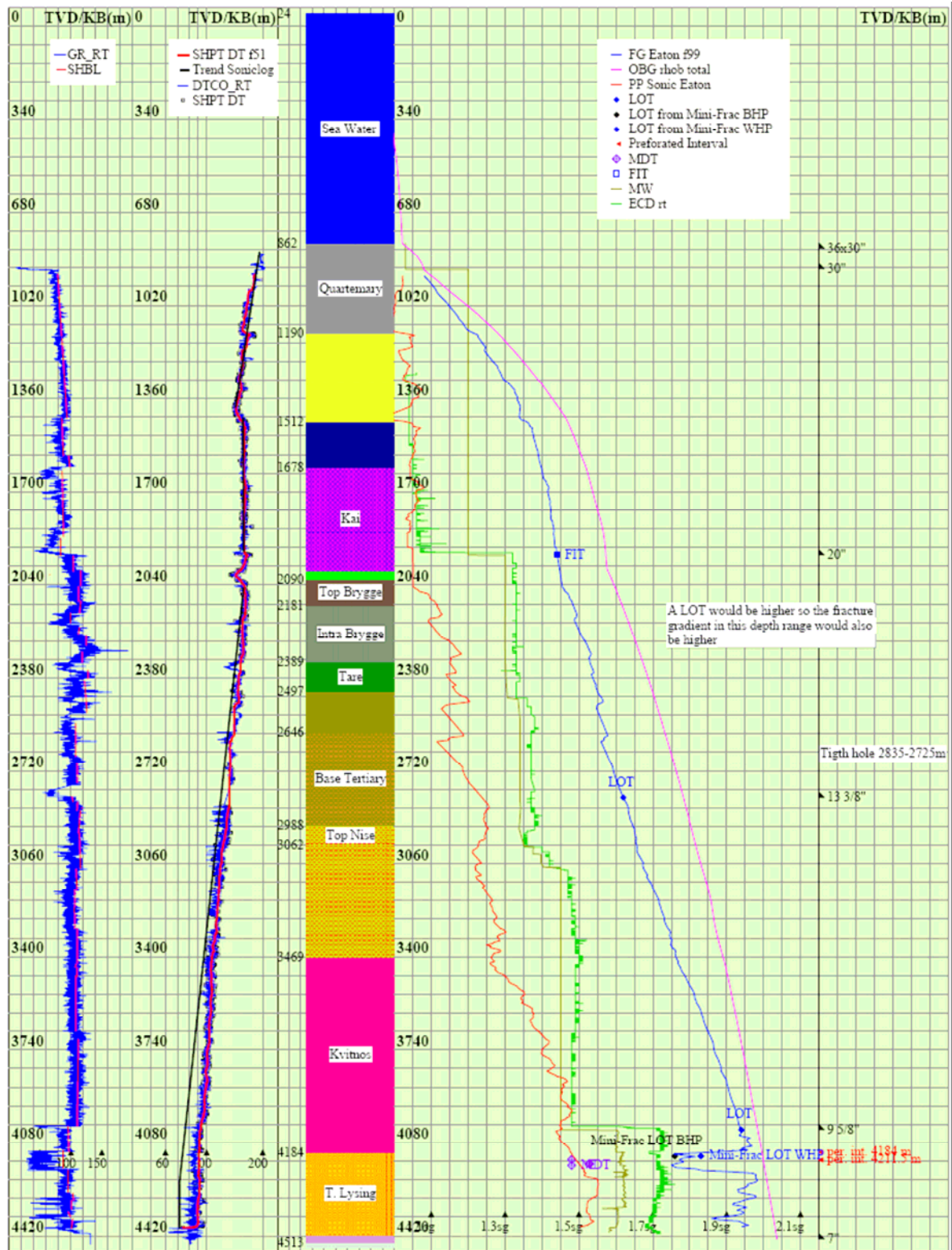
- Track # 1 Gamma ray. It is used as a lithology indicator for shale points for the sonic data set.
- Track # 2 Sonic and its derivative used to create the pore pressure curve.
- Track # 3 Lithology column.
- Track # 4 displays the results of the vertical effective stress model for well 6605/8-1. The curves are identified in the track title block. From left to right, the red curve is the pore pressure. The gold curve is the digital mud weight in. The green curve is the measured ECD. The blue curve is the fracture gradient and the pink curve the overburden.

FIGURE 4.6.2 Formation Temperature plot

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4.6.1 Formation Pressure plot, overburden and fracture gradient



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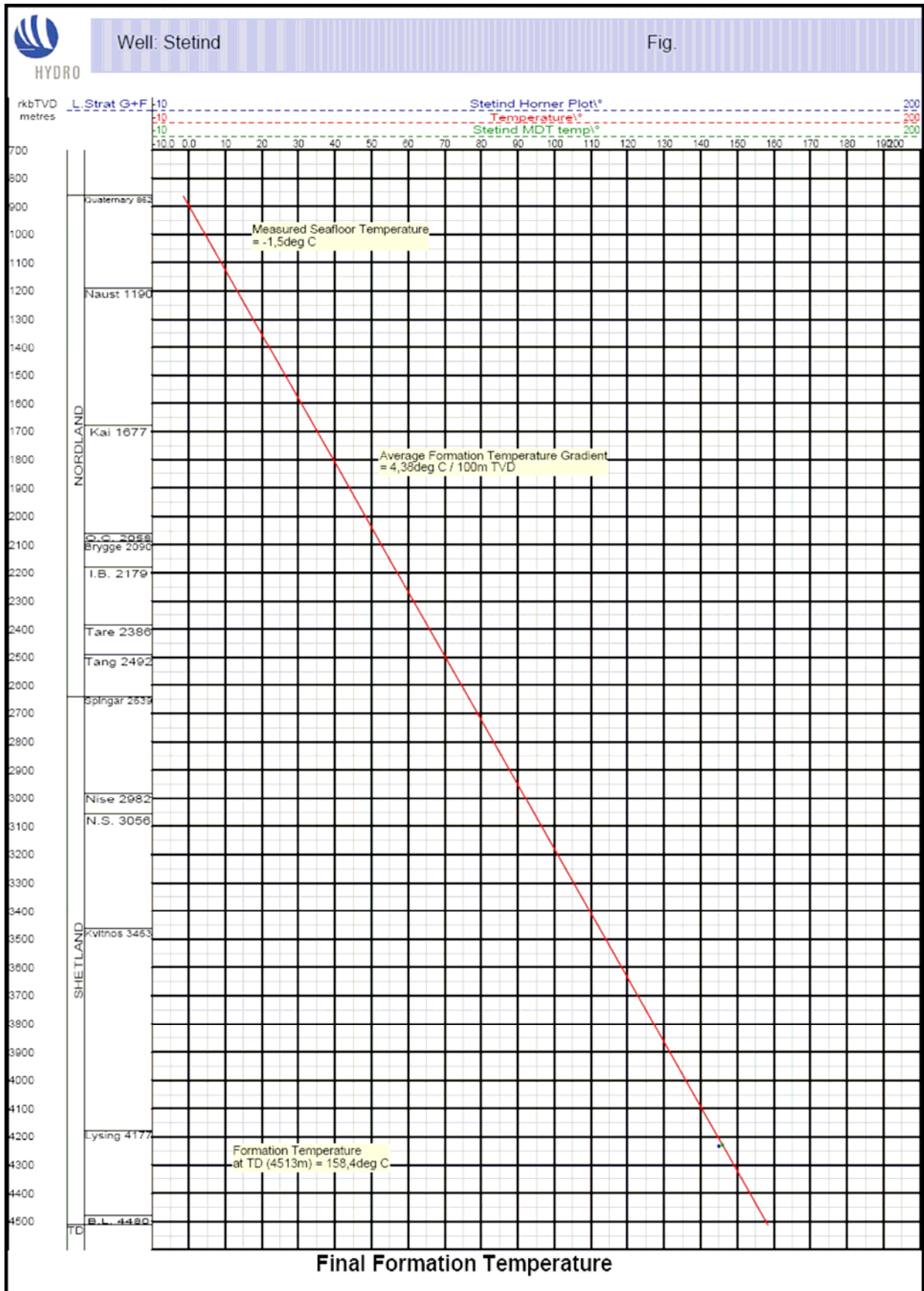
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4.6.2 Formation temperature plot



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5 Post Site Survey

5.1 Well data

1	Distance from rig floor to sea level:	23.5 m
2	Water depth (MSL):	838 m
3a	Setting depth for conductor (m RKB):	955.5 m
3b	Leak Off / Formation Integrity Test (g/cc):	N/A
4a	Setting depth (m RKB TVD) for casing on which BOP mounted:	1999 m
4b	Formation Integrity Test (g/cc):	1.44 sg
5	Depth (m RKB TVD & Two Way Time) to formation/section/layer tops:	
	Base Naust T:	949.5 m (1227 ms) *
	Base Naust S:	1190 m (1495 ms)
	Base Naust U:	1495 m (1790 ms)
	Base Naust A/	
	Near Base Pleistocene:	1512 m (1807 ms)
	Base Naust N:	1678 m (1975 ms)
	Base Kai Fm:	2088.5 m (2420 ms)
	Base Brygge Fm:	2384.5 m (2728 ms)
	Base Tare Fm:	2492.5 m (2835 ms)
	Base Tang Fm /	
	Base Tertiary:	2641.5 m (2966 ms)

* The interval between seabed and 950 m (RKB) was not logged. The depths are based on the Site Survey Report.

Note:

No chronostratigraphic information was collected in the top-hole section of the well (from seabed down to 2005 m RKB TVD). Consequently, the interpretation of the different formations in this area is based on the MWD logs, seismic character and previous work.

Mud logging commenced at 2005 m RKB TVD.

- 6 Depth interval (m RKB TVD & Two Way Time) and age of sand bodies shallower than 1000 m under the seabed. Note layers if any contain gas:

Naust S Fm:	991.5-998 m
	1084-1086.5 m
Naust U Fm:	1190-1230.5 m
	1277-1286 m

No data exists on background gas levels from seabed down to 2005 m (section drilled with returns to seabed). However, no gas related incidents were reported when drilling this interval.

- 7 By what means is the presence of gas proven:

The well is drilled with returns to seabed above 2005 m RKB TVD. Below 2005 m RKB TVD gas analyses were accomplished using flame ionisation detectors (FID) with gas measured as percentage methane (C1) equivalent in air, and chromatographic analyses expressed in parts per million.

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8 Composition and origin of gas:

C1-nC5 (< 4%)

9 Describe all measurements taken in gas bearing layers:
N/A

5.2 Seismic data

10 Given depth and extent of any gas blanking ("gass-skygging"), seismic anomalies etc.:

High reflection amplitudes were investigated at several levels within the Quaternary and Tertiary successions. In general, the high amplitudes observed can be explained by changes in lithology or by tuning effects, but the presence of gas within the sand-prone Tang Formation cannot be ruled out.

No seismic indications of gas hydrates have been observed from the 3D. Their presence cannot however be completely discounted and in theory, they may be present down to a depth of between 501m and 555m below seabed.

Shallow water flow is frequently experienced when drilling sand-prone intervals in deep water wells and has been experienced in wells in the Vema Dome and Helland Hansen areas. Thin sands are predicted within the Lower Brygge and Tang formations. Caution was therefore advised and a shallow water flow warning was issued

11 Note any indication of gas originating from deeper levels. Give description in cases where gas comes from deeper layers:

N/A

12 How does the interpretation of the site survey correspond to the well data with respect to:

12a Shallow Gas:

A 9 7/8" pilot hole was drilled to 2000m, however, no shallow gas or shallow water flow was observed.

Gas-tight industrial cement slurry was used in case of hydrates, but no hydrates were observed.

12b Sand Bodies:

The sand layers were predicted

12c Boulders:

Scattered coarse sediment up to boulder-size was anticipated in the top-hole section (i.e. within the Naust Formation), however no boulder-problems were reported

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12d Unconformities (depths in metres RKB (TVD)):

Horizon	Prognosis, P (m) ^{*)}	Observation, O (m)	O-P (m)
Base Naust S Fm	1186.5 ± 20	1190	+ 3.5 m (deeper)
Base Naust U Fm	1496.5 ± 36	1495	- 1.5 (shallower)
Base Naust A	1514.5 ± 37	1512	- 2.5 m (shallower)
Base Naust N	1696.5 ± 46	1678	- 18.5 m (shallower)
Base Kai Fm	2125.5 ± 67	2088.5	- 37 m (shallower)
Base Brygge Fm	2550.5 ± 88	2384.5	166 m (shallower)
Base Tare Fm	N/A	2492.5	N/A
Base Tang Fm (Base Tertiary)	2838.5 ± 103	2641.5	- 197 m (shallower)

The differences between the anticipated and observed depths to different formation tops were within the uncertainty limits, except for Base Brygge and Base Tang formations. The difference between the predicted and observed depths is caused by the introduction of the Tare Formation (for Base Brygge Fm) and discrepancies in either the seismic pick, the velocity model used for depth conversion or a combination of both (for Base Tang Fm).

12e Correlation to Nearby Wells:

The drilling conditions experienced in well 6605/8-1 are as predicted and similar to those encountered in tie-wells.

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SECTION B: DRILLING OPERATIONS

CONFIDENTIAL

REPORT

Hydro Oil & Energy

Operations

Transocean Leader rig team



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Prepared by : Trond Klausen
Verified by : Jan Terje Alvestad
Approved by : Terje Skram

Sign. : *Trond S. Klausen*
Sign. : *Jan T. Alvestad*
Sign. : *Terje Skram*

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1 Summary

The Stetind well (6605/8-1) was drilled with the semi submersible drilling rig "Transocean Leader".

The rig left the Onyx well on the 3rd of June 2005 and arrived at the Stetind location 4th of June 2005. The well was spudded 14th of June and abandoned 24th of October 2005, which gives a total time of 142.5 days on.

Overall time and operation summary:

Rig	Transocean Leader
Rig on contract	03.06.2005 at 14:30
Rig off contract	24.10.2005 at 01:10
Total time "rig upgrading" (NOACT)	198.5 hours (8.3 days)
Total time drilling and formation evaluation	2148 hours (89.5 days)
Total time testing	514.5 hours (21.4 days)
Total time plug & abandonment	323.5 hours (13.5 days)
Total time rig move and anchoring	234.5 hours (9.8 days)
Total operational time	3220.5 hours (134.2 days)
Downtime (excl. WOW)	418.5 hours (17.4 days) – 13 %
Waiting on weather (WOW)	79 hours (3.3 days) – 2.4 %
Final well position	7 364 907.60 mN 346 941.00 mE
Water depth	838 m at final spud location
RKB	23.5 m above MSL

All depths are referenced to RKB, 23.5 m above MSL.

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2 Mobilizing

Total time used:	87.0 hrs	
Operational time Moving:	23.0 hrs	(26 %)
Operational time Mooring:	64.0 hrs	(74 %)
Downtime:	0.0 hrs	

Transit and mooring

Rig on contract from 3rd of June 2005 at 14:30 hrs. Rig on tow from well 6406/9-1 (Onyx) to well 6605/8-1 (Stetind). Arrived at location 4th of June 2005 at 13:15 hrs.

Adjusted rig heading to 220 deg and started anchor handling with four anchor handling vessels. The rig was moored with a combined chain/wire system consisting of anchor, approximately 1400 m of chain and the remaining length as wire. Used only one anchor handler per anchor, and the anchors were run out from the rig with the anchor hanging approximately 200 m above the seafloor. At anchor setting position the anchor was lowered to seafloor and a pre-tension of 220 tons was applied immediately. Tension tested all anchors to 220 tons. Ballasted the rig to drilling draft – finished 07.06.2005 at 05:30 hrs.

All anchors were installed with a “Safe anchoring system” consisting of a bridle and pennant system allowing the anchors to be pulled out, not broken out of the seafloor upon retrieval of the anchors. The approximately 1000 m of retrieval pennant wire was hooked up to 300 m of fibre rope and all laid down on the seafloor with a ROV buoy for later retrieval by a ROV vessel.

Installed new drillers chair as per obligation in consent approval from the Petroleum Safety Authority Norway (PSA).

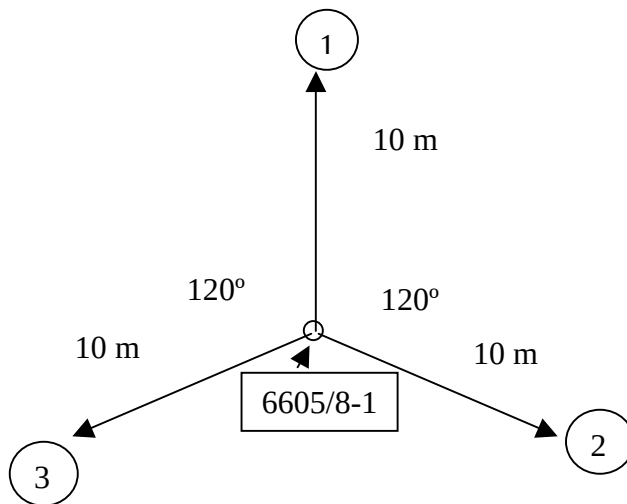
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Positioning

On 19th of April 2005 a HiROV 5 operating from the vessel Normand Tonjer installed three marker buoy stands at the proposed location for well 6605/8-1.

Each marker consisted of a concrete stand, a three metre graduated pole and a metal Grimsby buoy. The three markers were deployed 10 m in a triangular pattern at bearings of 0°, 120° and 240° from the proposed well – see sketch and pictures below:



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Below is a summary of the installed positions for the blocks:

Location	Bearing from well	UTM East	UTM North	UTM East	UTM North
		Proposed		As Installed	
1	0°	346944.00	7364915.00	346944.86	7364915.11
2	120°	346952.66	7364900.00	346953.65	7364900.54
3	240°	346935.34	7364900.00	346936.88	7364900.25

The well was spudded the 14th of June 2005, and the final position was set in the middle of buoy 1 and 3, on a straight line.

The final position is:

UTM East	UTM North
346 941.00	7 364 907.60

Comments and Recommendations

Special precaution when using Grimsby buoys as spud markers: As a result of incidences in the past of shattering on recovery due to leakage under pressure, care should be taken on recovering. Ideally they should be allowed to stabilise for 30 minutes at a depth of 50 m and then isolated on recovery to deck.

The rig Transocean Leader did not have a proper riser management system to account for high water currents and rough weather. This implied that the rig had to be operated with maximum riser tension throughout the operations.

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3 36" x 42" Hole Section / 30" Conductor

Water depth (MSL):	838.0 m	
Total depth of section (36" hole):	957.0 m	
Casing depth:	955.5 m	
Total time used:	132.5 hrs	
Operational time:	128.5 hrs	97 %
Downtime:	4.0 hrs	3 %

Drilling

The bottom hole assembly consisted of a 26" insert bit, a 26" x 36" hole opener, an 11 1/4" PowerPak mud motor and a 42" hole opener - spaced out to drill the top 20 m. Spudded the well and washed down from 861.5 m to 889 m (1300 lpm/ 20 bar, no surface RPM, 0 – 1.5 tons weight on bit). A 10 m³ hi-vis pill was pumped every 10 m. The section was drilled to 957 m and opened up to 42" down to 885 m, to make space for the 36" housing.

At total depth (TD), the hole was displaced to 1.50 sg spud mud. A wiper trip to 881 m was performed (26" bit 20 m below seabed) and the hole was found to be in good condition.

The section was drilled in 18.5 hours – resulting in an average ROP of 5.2 m/ hr.

Typical sectional drilling parameters:

4500 lpm, 160-180 bar, 4300-7200 kNm, 0-1.5 tons WOB, 15-55 surface RPM (when 42" hole opener entering wellbore)

Conductor installation

Picked up and ran the 30" shoe joint, five joints of 30" conductor and the 36" housing joint (2" wall thickness). Ran a 5" S-135 drillpipe cement stinger to 15 m above the shoe. Engaged the 36" wellhead housing to the gas mat (or hydrate plate – see picture attached). Connected the Titus grouting system. Ran the housing joint and gas mat through the splash zone on 5" V-150 drillpipe landing string. Stabbed the conductor into the well and washed down to 885 m (bottom of 42" hole), drag increasing to 30 tons. Connected Top-Drive and washed and worked the conductor from 885 m to bottom of hole at 955 m (13.5 hrs).

Landed the conductor with 2.0 m stickup, and 1 deg on bull's eye (on gas mat).

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Mixed and pumped 64 m³ of 1.65 sg gastight I-cement slurry (industrial Norcem cement). Displaced with 11 m³ of seawater at 1000 lpm to leave a 5 m cement plug inside the conductor shoe. Had good returns to seabed while pumping and displacing the cement. Dropped the Titus dart from drill floor, opened the vent valve on the 36" running tool with ROV, and sheared the Titus sleeve with 96 bar. Observed that the Titus hose going from the running tool to the hydrate plate came loose. Reconnected the hose with the ROV. Mixed 10 m³ of cement and displaced through Titus hose & ring to top-up the annulus. During the top-up job the Titus hose loosened once more, but was reconnected with the ROV.

Slacked off string weight to neutral and observed the conductor to be static, with bulls eye at 1 deg (5 hrs after start mixing cement). Released the 36" running tool and pulled out with landing string, running tool and cement stinger.



Picture of gas mat/ hydrate plate

A separate run was done with a 26" bottom hole assembly to drill out cement inside the conductor shoe prior to drilling the 9 7/8" pilot hole. Washed down from 933 m and tagged cement at 951 m. Drilled cement and cleaned the rat-hole to 957 m.

Comments and Recommendations

A mud motor was included in the bottom hole assembly to be able to spud the well without string rotation (with the 42" hole opener ~70 m behind the bit). The soft soil/ upper section of the well made this a success.

A gastight industrial cement slurry was used in case of hydrates, but no hydrates were observed.

Last survey showed 0.2° inclination. The objective of obtaining a vertical hole was obtained without using a rotary steerable system.

Had problems with the Titus grouting system. Similar problems were also experienced in the Solsikke (6403/10-1) and Ormen Lange (6305/4-1) deepwater

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wells. For future wells the Titus system should not be used if the primary cement job has been successful.

4 9 7/8" Pilot Hole Section

Total depth of section:	2000 m	
Total time used:	62 hrs	
Operational time:	62 hrs	100 %
Downtime:	0 hrs	

Drilling

Made up 26" bottom hole assembly and ran in hole to 951 m. Drilled out cement in the 30" conductor to 955.5 m and cleaned out the rat hole to 957 m. Prepared 9 7/8" bottom hole assembly including iSonic and ADN logging tools. RIH to 957 m and drilled the pilot hole to 2000 m.

No shallow gas or shallow water flow was observed

The pilot hole was drilled in 44 hrs with an average ROP of 23.7 m/h.

Comments and recommendations

Experienced some problems to maintain a vertical hole, reaming was required to keep the angle within an acceptable limit. Use of a steerable bottom hole assembly should be considered if a narrow target.

The rig was shut down for total of 5,7 days in order to complete upgrades to comply with AoC requirements (new driller's instrumented chair).

5 26" Hole Section / 20" Surface casing

Total depth of section:	2005 m	
Casing depth:	1999 m	
Total time used:	292.5 hrs	
Operational time:	248.5 hrs	(85 %)
Downtime:	44.0 hrs	(15 %)

Drilling

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The section was drilled with a rotary bottom hole assembly and a Security DBS insert bit. High viscous pills were pumped frequently for hole cleaning. Due to excessive hole inclination the bottom hole assembly configuration was changed at 1343 m from packed to pendulum type. At 1989 m the hole packed off and the string got stuck. Managed to free the drill pipe and regain circulation. Pulled out of the hole, the stabilizer was totally packed with clay. Tripped in with bit and bottom hole assembly to 1500 m, washed and reamed to bottom. Drilled 26" hole to section TD at 2005 m displaced the hole with 1.3 SG KCl/polymer mud and pulled out of the hole.

The section was drilled in 58.5 hrs with an average ROP of 17.9 m/h.

Casing

Ran 20" surface casing including shoe joint, intermediate, float and supplementary casing adaptor. Landed 18 3/4" wellhead in 36" housing. Had to re-position the rig to be able to latch and activate the rigid lock down function. No tight spots were observed when running the casing.

Mixed and pumped 270 m³ 1.60 SG lead and 94 m³ 1.60 SG tail cement slurry, displaced cement with seawater using the rig pumps. Bumped the plug with 60 bar, the plug did not hold pressure. Bled back 690 litre to the cement unit, had no further back flow.

BOP /Riser running

Rigged up and started to run riser and BOP. When picking up the fourth riser joint the link tilt system on the top drive came lose. Disassembled the link tilt and continued the operation.

Pressure-tested kill and choke lines every six riser joints. Found leak when testing joint № 22 and changed seals on choke outlets on riser joint № 22 and 21.

Completed riser and BOP running and landed and tested the BOP.

Comments and Recommendations:

As for the 9 7/8" pilot hole, it was difficult to maintain a vertical hole. Use of a steerable bottom hole assembly should be considered.

The rig was inexperienced in running this amount of riser length and used considerable more time than budgeted.

The rig was shut down for 2,4 days in order to complete modification required by the AoC (new integrated riser support ring).

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6 17" Hole Section / 13 3/8" Casing

Total depth of section:	2900 m RKB	
Casing depth:	2888 m RKB	
Total time used:	389.0 hrs	
Operational time:	344.0 hrs	(88 %)
Downtime:	45.0 hrs	(12 %)

Drilled Section: 2005 – 2900 m (895 m)
Drilling Hrs: 126 hrs (drilling and under-reaming)

The main objective of this section was to drill a 17" hole and set a 13 3/8" casing into the Springar formation (Shetland Group), and to seal of a possible fault. It was important not to drill into the prognosed hydrocarbon bearing sand in Nise formation.

Initially the plan was to set a 16" liner at 2400 m, but the higher than prognosed formation strength at the 20" shoe made it possible to leave out this string. A 16" supplementary casing adaptor was already installed in the 20" casing with a maximum allowable bit size of 17".

Drilling

It was required to correct the well direction to be able to hit the target in the Nise formation. A steerable motor assembly with a Security insert bit was run and the cement in the shoe track drilled out. The well was displaced to 1.3 SG Glydril water based drilling fluid, modified for deepwater application. Drilled 3 m new formation to 2008 m and performed a formation integrity test to 1.44 SG. This was considerably higher than expected for the ooze formation encountered below the 20" shoe.

Drilled and oriented 17" hole to 2530 m where the drilling fluid density was increased to 1.34 SG. Continued drilling 17" hole to 2597 m, the inclination was back to 0.5°. Pulled out of the hole to change bottom hole assembly.

It was important to identify the possible fault zone to be able to set the 13 3/8" casing optimal related to top Nise formation. For this purpose a GVR (GeoVision Resistivity) logging tool was included in the LWD package. Since the maximum hole size for this tool is 14 1/2" the configuration selected was 14 1/2" bit and 17 1/2" under-reamer on a rotary bottom hole assembly.

Drilled 14 1/2" x 17 1/2" hole to 2734 m where communication was lost with the MWD/LWD tools and the bottom hole assembly was pulled to surface. Changed bit

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and MWD/LWD package and laid out the 17 ½" under-reamer. Ran in hole and drilled 14 ½" hole to planned TD at 2900 m.

Changed bottom hole assembly and opened up the 14 ½" hole to 17 ½" from 2734 m to 2900 m. Made a wiper trip to the 20" shoe and pulled out of the hole. Had tight hole from TD to 2880 m.

13 3/8" Casing

A 13 3/8" casing was run with the casing shoe at 2880 m. Mixed and displaced 29.3 m³ 1.92 SG cement slurry. Lost returns during displacement, but the pump pressure development indicated that the top of the cement was rising outside the casing as planned. Bumped the plug and the casing was pressure tested to 185 bar with 1.34 SG drilling fluid in the well.

Comments and Recommendations:

Tight hole at TD might indicate that the drilling fluid density was too low at the end of the section.

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7 12 1/4" Hole / 9 5/8" Liner

Total depth of section:	4100 m RKB	
Casing depth:	4094 m RKB	
Total time used:	518.5 hrs	
Operational time Drilling:	492.5 hrs	(95 %)
Operational time Formation Evaluation:	13.5 hrs	(3 %)
Downtime Drilling:	11.0 hrs	(2 %)
Downtime Formation Evaluation:	1.5 hrs	

Drilled Section: 2900 – 4100m (1200 m)
Drilling Hrs: 177 hrs

The main objective of this section was to drill and evaluate the prognosed Nise reservoir and to set a 9 5/8" casing/liner prior to drilling in to the main target in Lysing formation.

The section TD was adjusted from planned 4200 m to 4100 m due to revised formation tops and the uncertainty to the top of the reservoir.

Drilling

The 13 3/8" shoe track was drilled out with a 12 1/4" steerable motor assembly and a Security PDC bit. Cleaned out the rat hole and drilled 3 meters of new formation. Performed leak of test with 1.34 SG drilling fluid to an equivalent fluid density of 1,62 SG with surface pressure 80 bar.

Continued to drill the 12 1/4" hole to 3076 m, observed drill breaks at 2953 m and 3043 m. At 3076 m the mud density was increased to 1.38 SG due to high gas readings. Continued drilling to 3094 m where the mud density had to be increased to 1.40 SG due to connection gas and high gas readings. Drilled further to 3163 m, started to increase the mud density to 1.45 SG from 3155 m due to tight hole on a short wiper trip at 3144 m.

Penetration rate had slowed down and the bottom hole assembly was pulled out of the hole and the bit was changed to a different style Security PDC. The bit that came out was balled up. Continued drilling to 3175 m, progress came to a stop and the bottom hole assembly was pulled to surface where the bit was found to be balled up.

Changed to rotary bottom hole assembly and a Security insert roller cone bit and continued drilling to 3521 m. The bit was pulled after having reached maximum safe service hours. Ran in hole with the same rotary bottom hole assembly and the bit from the first run. Drilled to TD of the 12 1/4" hole section at 4100 m and pulled out for logging.

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Ran in with PEX-HRLA-ECS-DSI log on wire line, was not able to pass 3380 m. Logged from this point up to the 13 3/8" shoe and continued logging with DSI from 2883 to 1996 m. Rigged down the logging equipment and made a wiper trip with 12 1/2" bit to TD prior to running 9 5/8" liner. The LWD and the wire line logs were not conclusive regarding the presence of gas in the Nise formation.

9 5/8" Liner

To be able to isolate the gas in the Nise formation at 2993 m with cement it was decided to run the 9 5/8" as a liner. Made up the liner string including automatic fill-up float valves in the shoe and Weatherford liner hanger with integrated liner top packer. Installed the liner with the shoe at 4094 m and the liner top at 2824 m.

Cemented the liner with 46 m3 1.9 SG silica cement. Bumped the plug and pressure tested the liner to 300 bar with 1.45 SG drilling fluid. Bled of pressure and observed back-flow. Decided to activate the liner top packer to reduce the amount of cement entering in to the liner. Made three attempts to activate the packer without success.

Pulled out with the liner running string and ran in with mill assembly and cleaned out the liner top. Set the liner top packer with 60 ton and pulled out of the hole.

Installed 9 5/8" tieback casing and pressure tested the well to 385 bar using 1.45 SG drilling fluid.

Comments and Recommendations

Bit balling in upper Cretaceous shale proved to be a problem and drilling fluid, bit, bottom hole assembly and bit hydraulic should be optimized to reduce this problem.

The requirement for using automatic fill up valves should be carefully evaluated, especially when running liner.

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8 8 ½" TD Section

Total depth of section:	4513 mRKB
Total time used:	753.5 hrs
Operational time Drilling:	204.0 hrs (27 %)
Operational time Formation Evaluation:	304.5 hrs (40 %)
Downtime Drilling:	58.5 hrs (8 %)
Downtime Formation Evaluation:	186.5 hrs (25 %)

Drilled Section: 4100 – 4513 (313m)
Drilling Hrs: 88.5 hrs

Drilling/ coring

Made up 8 ½" rotary bottom hole assembly with a Security mill tooth roller cone bit to drill out cement in the 9 5/8" liner. Tagged firm cement at 4010 m and drilled cement to 4019 m. Penetration rate was very slow and it was decided to pull out to change bit. Ran in with a Security PDC bit and drilled cement to 4095 m. Drilled out the remaining cement in the shoe while increasing the drilling fluid density to 1.51 SG.

Cleaned out the rat hole and drilled 3 meters of new formation. Performed leak of test with 1.51 SG drilling fluid to an equivalent fluid density of 1.97 SG with surface pressure 185 bar.

Increased the mud weight to 1.60 SG and continued to drill 8 ½" hole to 4134 m where the well was shut in after a 500 liter gain in the active system. Got no shut in pressure and the well was stable. Circulated bottom up and continued drilling.

Observed a drill break at 4155 m, this was checked according to established procedures and drilling continued to 4187 m where another drill break was observed. The well was shut in and observed a steady increase in of pressure. After some hours it became clear that the pressure increase was a result of temperature increase of the drilling fluid. Circulated over the choke and flow checked, confirmed stable well. Drilled further to 4190 m and pulled out for coring.

Ran in hole with 20' core barrel and cut core from 4190 m to 4199 m where the core jammed. The core was pulled to surface, had 100% core recovery.

Continued drilling 8 ½" hole with the same bit and bottom hole assembly as prior to coring. Had occasional higher gas readings in the interval to 4426 m where a drill break was observed. This was checked according to established procedures and drilling continued to TD at 4513 m. Made a wiper trip to the 9 5/8" shoe and back to TD where a 16 m3 1.60 SG high temperature resistant mud pill was displaced prior to pulling out of the hole for logging.

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Wire line logging

Run #1:

Logged PEX-HRLA-ECS-DSI from 4513 m (TD) to 4074 m. Logged DSI from 4074 m to 3687 m.

Performed BOP test to 35/ 550 bar – 13 hours.

Run #2-4:

Attempted to log MDT pressure points at +/- 4252 m. Tight formation. Tried at +/- 4247 m. Lost communication with MDT tool. Pulled out. Ran in the hole with new MDT string. Lost communication at 2700 m. Pulled out. Cut of 100 m logging cable, built new rope socket and ran in the hole again to 4300 m. Had some communication problems below 1000 m. Logged seven pressure points from 4246.8 m to 4238.5 m. Lost communication with the tool completely. Pulled out. Decided to run VSP log while trouble shooting on communication failure.

Run #5:

Logged zero offset VSP from 4510 m to 2710 m.

Run #6:

Replaced telemetry cartridge and made up new MDT tool string. Logged formation pressures 4232.3 m to 4193.6 m. Got tool failure – unable to get seal with single probe. Took formation pressure at 4231.4 m with guard probe. Flushed 110 liter to get samples. Took 4 x 450 cc samples of formation water. Got stuck with MDT tool string after approximately 11 hours at the same place to get samples. Had maximum pull on cable of 13700 lbs. Released the cable head (electric weak point) and pulled out wire line and cable head.

Ran in with 7" overshoot on 5" drillpipe to top of fish (+/- 4196 m). Circulated bottoms up – got 5.5% gas in returns. Engaged fish and pulled free with 40-50 tons over pull. Pulled out of hole with fish. Found all samples to be intact.

Performed a wiper trip with 8 ½" bottom hole assembly to check hole condition. Hole was in good condition. Circulated bottoms up and got 10% gas in returns.

Run #7:

Made up and ran in the hole with MRCT tool on wire line. Tool failed when attempting cut sidewall core. Pulled out.

Run #8:

Logged FMI repeat section from 4260 m to 4513 m (TD) and logged out again from 4513 m to 4100 m. Pulled out.

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Run #9:

Ran in with Dual Packer MDT with chambers for samples. Attempted to take pressure points in interval 4211 m – 4209.4 m. Two successful points and sixteen supercharged. Took formation fluid sample at 4209.4 m with standard MDT probe – 9 hrs static (formation fluid: gas). Not able to get free. Pulled maximum 14400 lbs (equal to maximum safe working load for cable head at 8000 lbs) without getting free. Inflated the dual packers. Sampled 1 x 250 cc bottle and 1 x 450 cc bottle and performed a VIT mini test with packer centre at 4211.4 m - 9 hrs static (formation fluid: gas). Total volume of formation fluid pumped into wellbore was approximately 290 liter. Deflated the dual packers and the MDT tool came free. Moved the tool string to 4191.6 m. Lost packer pressure and seal when waiting for build-up. Pulled out. Observed upper dual packer ruptured.

Run #10:

Made up and ran in the hole with MRCT tool on wire line to 4000 m. Tool failed testing. Pulled out. Not able to repair tool and not able to offload backup tool from supply boat due to bad weather.

Made wiper trip with 8 ½” bottom hole assembly while waiting for missing spare parts to redress MDT/ dual packer tools. Washed trough tight spot at 4209 m. Circulated until bottoms up was ~ 1000 m below BOP, closed upper annular and circulated through fully open choke. Recorded maximum 10.2% gas. Opened upper annular bleed-off line and circulated prior to opening upper annular. Performed flow check and circulated out possible gas from BOP cavities. Recorded max gas of 24.7%. Displaced open hole to 1.60 sg high temperature salt gel mud and pulled out.

Run#11:

Ran in with Dual Packer MDT with chambers for samples. Attempted to take pressure points in interval 4428.5 m – 4244 m. Eight successful points and 22 supercharged. Acquired fluid samples at 4231.4 m (formation fluid: water). Total volume pumped into wellbore was approximately 66 liter. Pulled out.

Run #12:

Made up and ran in the hole with MRCT tool. Cut 44 cores, recovered 25 and lost 19 (tool dressed to cut 50 cores).

Cased hole logging after DST:

Run #13:

Logged with USIT/CBL from 4400 m to 4020 m.

Run #14: (cased hole MDT)

Perforated 7” liner from 4030.6 m to 4030 m. Ran in with Dual Packer MDT with chambers for samples. Positioned the packer elements above and below the perforations and recorded formation pressure. Started pumping for clean out prior to taking sample. Was not able to continue pumping. The understanding was that the

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packers had moved and blocked the perforations. Deflated the packers and attempted to reposition the tool without success. Was not able to release the tool with maximum pull on the cable. The emergency disconnect function was activated and the cable pulled to surface. The MDT tool string was fished out on drill pipe; 55-ton pull force was required to come free.

Summary of MDT pore pressure results in Lysing:

Pressure at 4185 m MD/ 4181 m TVD: 1.48 sg – 608 bar

Pressure at 4253 m MD/ 4249 m TVD: 1.51 sg – 630 bar

Comments and recommendations

Drilling/ coring

In addition to being deepwater the well was close to be classified as HPHT. Operations procedures for HPHT drilling were implemented and experience from the drilling operation confirmed the importance of proper finger printing in this type of wells.

The leak off value 1.97 SG equivalent fluid density at the 9 5/8" shoe is calculated according to the standard method, surface pressure plus hydrostatic pressure from the fluid column. Read out from the PWD (annulus pressure while drilling) shows a lower than theoretical bottom hole pressure while doing the test. Calculated from the PWD pressure the LOT value is 1.94 SG.

Wire line logging

A high tension logging cable (7-48Z XXS) and a capstan power unit was used to be able to pull 15500 lbs if needed. When the tool string was stuck, maximum pull at surface was reduced to 13700 lbs to stay within safe working load for the cable head/ electric weak point. For future jobs, make sure cable head/ weak point is "compatible" with a high-tension cable.

The cement logs showed good bonding after the DST.

Mud properties and wellbore temperature

During MDT logging a temperature of 139.6°C was recorded at 4211.5 m. This was approximately 10°C higher than estimated. The water based 1.60 sg Glydril DW mud, with the high temperature salt gel pill placed in the open hole, showed no signs of sag or unstable mud properties.

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9 Well Testing

Total depth of section:	4513 mRKB
Casing depth:	4512.5 mRKB
Total time used:	514.5 hrs
Operational Time:	445.0 hrs (86 %)
Downtime:	42.0 hrs (11 %)
Waiting on Weather:	27.5 hrs (6 %)

Based on log results and formation samples analysis it was decided to do a well test.

Installing 7" liner

Made a wiper trip with 8 ½" bottom hole assembly. Circulated until bottoms up was ~ 1000 m below BOP, closed upper annular and circulated through fully open choke. Recorded a maximum of 7% gas on bottoms up.

A 7" liner (32 #/ft, P-110, NSCC) was run on 5" drillpipe landing string. Tagged bottom at 4513 m, pulled up 1 m and broke circulation. Circulated one open hole volume prior to cementing. Dropped the ball and sat the rotating liner hanger. Increased circulation in steps to 1600 lpm and rotated the liner with 10 rpm/ 8-10 kNm. Pumped 12 m³ of 1.75 sg spacer. Released bottom dart from cement head. Mixed and pumped 8.2 m³ of gastight silica cement slurry. Released the upper dart and displaced with mud while rotating the liner at 15 rpm. Sheared bottom dart with 300 bar and upper dart with 118 bar. Bumped plug and pressure tested the liner to 345 bar.

Activated the liner hanger packer and pressure tested to 420 bar.

Released the liner hanger running tool, racked back cement stand and circulated bottoms up. Dumped 30 m³ contaminated mud. Pulled out and laid down liner hanger running tool.

A radioactive marker (pip tag) was installed in the 7" liner at 4194 m MD for future reference.

Cleanout of 7" liner

Made up the cleanout string with a 5 7/8" flat bottom mill and a 7" casing scraper. Ran in the hole on 3 ½" drillpipe. Installed the PBR top dress mill and continued running in the hole. Washed through obstruction at 4011 m. Scraped the packer

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setting area from 4150 m – 4180 m. Ran in the hole and tagged liner top at 4020 m. Cleaned top of 7" liner with top dress mill.

Pumped wash pill and displaced well from 1.60 sg Glydril DW mud to 1.62 sg $\text{CaCl}_2/\text{CaBr}_2$ brine. Had two supply boats along rig side during this operation – one boat with brine to be pumped in the well and one boat to take onboard Glydril mud returns (to be used during P&A). A leaking valve on the brine transfer line on the rig resulted in 217 m³ of brine being pumped to pontoon tank by mistake and getting mixed with 90 m³ of KCl brine.

Pulled out of the hole with the 5 7/8" cleanout assembly. Stopped at 3475 m due to gain in trip tank. Closed in the well on the annular preventer. Checked trip tank and observed foam from the brine causing sensors to read wrong values. Added defoamer and the well were found to be static during flow checking. Continued pulling out. Activated circulation sub and washed wellhead area prior to pulling all the way out.

Pressure tested the 7" liner (and well) to 430 bar with 1.62 sg brine.

Running cement bond log

Rigged up wire line and ran in the hole with cement bond log (CBL). Logged CBL inside the 7" liner, from 4405 m to 4020 m. Pull out and reconfigured the tool string with 9 5/8" centralizer to be able to log CBL inside the 9 5/8" liner. Ran in the hole and logged CBL from 4013 m to 2825 m.

The purpose of running CBL in 9 5/8" liner was to identify top of cement to optimize plug and abandonment program.

Results:

- Top of cement behind 9 5/8" liner: 2880 m TVD
- Top of cement behind 7" liner:

Installing the test string

All DST tool assemblies were pressure tested prior to pick up.

The necessary safety announcements and procedures were adopted prior to picking up the TCP guns and commencement of running the DST string. The firing head was made up to the top of the guns.

The assembly consisting of Vertical shock absorber, Champ Packer, Safety Joint, Hydraulic Jar and TST valve was picked up as one section and made up above the TCP guns. Two gauge carriers and LPR-N were run on top of this assembly.

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A single drill collar joint is run above this to space out the ball valves and then the next sub-assembly consisting of drain valve, Omni circulating valve and RD single shot circulating/reversing valve.

One stand of drill collars was run followed by the R.A. sub with pip tag for gun correlation. Remaining drill collars were run making a total of 21 drill collars in the string to ensure sufficient weight on packer during the test.

Four slip joints were run next allowing for a total movement of 12m. This would be set up once the packer was set on depth with 2 slip joints open and 2 closed.

The main test string of 3 ½" 12.95lb PH-6 tubing was run according to pipe running tally and then the dummy fluted hanger was installed. At this point the dummy hanger was installed and the string run to T.D. with drill pipe, taking care as entering the liner. Wire line was rigged up for correlation run and the middle pipe rams closed on the joint above the dummy hanger to confirm SSTT space out. The test string was pulled back to surface and the top joint of 3 ½" tubing removed. Pup joints were installed to correct the tubing tally and put top shot on depth at 4184m MD and the 3 ½" single re-installed.

The SSTT and Retainer valve were made up to the string, hoses connected and pre-checks made prior to running in with the landing string. Landing string consisted of 86 joints of 4 ½" 23,7lb Hydril 563 tubing. Extra care was taken again after joint number 66 as the string entered the liner.

The SSLV (lubricator valve) was run one stand below the rotary table with enough distance allowed to have clearance between lubricator and the slip ring of the riser joint when the flowhead was landed off. Flowhead was spaced out to allow for rig heave.

With the flowhead and surface lines installed, the packer was set. Wire line were rigged up to perform a second correlation check as the top shot placement was critical. Guns were found to be on depth as required and operations continued with pressure testing of surface equipment.

Comments and recommendations

The tubing had been cleaned, laser measured, marked and doped with the appropriate pipe dope. The most environmentally friendly dope was sourced and applied and the tubing was ready to run with the pipe running tally complete in good time. Random checks were made to the measurements to further confirm the tally.

There was a problem whilst running the 4 ¾" drill collars as the Weatherford tongs were slipping when trying to make up the joints. Approximately an hour was used

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before the tong operator came up with a solution which was to run the tong with a 4 ½" tong die opposite a 5 ½" die. It has subsequently been discussed with the tubing contractor who have said they will look into the cost of re-machining the drill collars so they can be run using standard equipment.

The drilling contractor suggested that to keep operations as much as possible hands free that when pulling the test string the protectors be installed to the tubing joints once they were laid out on deck. This was not a bad idea in itself but the protectors were installed without cleaning or doping of the pipe. This, together with a corrosive brine and a lengthy delay between rig and base resulted in an outrageous amount of re-cuts due to corrosion of the pin and box ends. Mechanical re-cuts were a negligible amount. This is something that could and should have been avoided and reference will in future be included in procedures to avert recurrence of such an incident.

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10 Plug and Abandonment

Total time used:	323.5 hrs
Operational time:	302.0 hrs (93 %)
Downtime:	20.5 hrs (7 %)
Waiting on Weather	1.0 hrs

Ran in hole with 464 m of 3 ½" cement stinger on 5 " drill pipe to set the first P&A cement plug from 4450 m, was not able to pass 4404 m. Circulated and conditioned the mud for cementing. Set a cement plug from 4404 m to 3912 m in two stages using a total of 11.2 m3 1.90 SG cement slurry. On the first stage was used fresh water as spacer in front of and behind the slurry, on the second 1.75 SG weighted spacer was used in front and back of the slurry. The cement stinger was pulled up to 3805 m where the hole was circulated clean and the mud treated. Pulled out of the hole with drill pipe and 3 ½" cement stinger.

Ran in hole with 8 ½" bit, tagged the cement plug at 3907 m and load tested the cement with 10 ton. The bit was pulled out to 701 m where the cement plug was pressure tested to 211 bars against the shear ram. Pulled out of the hole with the 8 ½" bit.

A 9 5/8" mechanical bridge plug was run in hole on drill pipe and installed at 2990 m. Made up the cement stand and spaced out to 2983 m. Pumped 3.7 m3 1.9 SG cement slurry with 1.75 SG spacer in front of and behind the plug. Pulled out of the cement plug to 2850 m, cleaned the pipe with a wiper ball and circulated the hole clean before pulling out of the hole.

The 9 5/8" wear bushing was retrieved using the DrilQuip multi purpose tool. The bushing came free with 32-ton pull force. The multi purpose tool was also used to retrieve the 9 5/8" seal assembly. The seal assembly was pulled free with 50 ton. While releasing the seal assembly the upper annular preventer was kept close in case of any gas accumulation in the 9 5/8" x 13 3/8" annulus. No indications of gas were seen.

The 9 5/8" tieback casing was retrieved using a spear assembly. Pulled out and laid down the 9 5/8" tieback string.

Closed the shear ram and pressure tested the second cement plug to 95 bars. Ran in hole with open-ended drill pipe to set the third cement plug. Tagged the top of the second cement plug at 2868 m and load tested the plug with 10 ton. Spaced out the string and pumped 10.6 m3 1.90 SG cement slurry with 1.75 SG spacer in front of

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and fresh water behind the plug. Pulled out of the cement plug to 2680 m, cleaned the pipe with two wiper balls and circulated bottom up.

The hole was displaced with 95 m³ of 1.30 SG slop from 2680 m to 1450 m and the drill pipe was pulled out of the hole.

A 13 3/8" mechanical bridge plug was run in hole on drill pipe and installed at 1100 m and the well was displaced to 1.35 SG drilling fluid.

The 13 3/8" casing was cut at 1001.5 m. While cutting the casing the upper annular preventer was kept close in case of any gas accumulation in the 13 3/8" x 20" annulus. No indications of gas were seen. The 13 3/8" casing was retrieved using a spear assembly. Pulled out and laid down the 13 3/8" string.

Ran in hole with open-ended 5" drill pipe to set the top cement plug. The 13 3/8" bridge plug was tagged at 1100 m and a 28.7 m³ 1.90 SG was displaced with seawater as spacer in front of and behind the plug. Pulled out of the plug to 885 m and circulated bottom up before pulling out of the hole.

The cement plug was tagged at 908 m and pressure tested first after 10 hrs and then after 23 hrs without success. Set a new cement plug from 908 m to 880 m (5.4 m³ / 1.95 SG). Cleaned out the drill pipe with a wiper ball and circulated bottom up. The cement plug was tested successfully after 10.5 hrs to 88 bars for 10 minutes.

The riser was displaced to seawater and the BOP and riser was pulled in 38.5 hrs. The BOP H4 connector had regularly been filled with glycol to prevent hydrates from forming inside the lock/release mechanism. In the days prior to disconnect glycol was replaced with methanol to further reduce the risk of not being able to release from the wellhead.

Ran in hole with wellhead cutting and retrieving assembly. Landed in the wellhead and attempted to cut the 20" and 36" casings without success. Pulled out and found that all tree knives were broken. The cutting and retrieving assembly was redressed and rerun. The 20" and 36" casings were cut and the wellhead came free with 60 ton pull force. Pulled the wellhead and hydrate plate to surface.

Comments and Recommendations

The 36" wellhead extension had been fitted with a rubber coating on the outside to make it easier to break the bond between cement and pipe when pulling the wellhead. This seemed to work fine.

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11 De-mobilization

Total time used:	147.5 hrs	
Operational time:	91.5 hrs	(62 %)
Downtime:	5.5 hrs	(4 %)
Downtime WOW:	50.5 hrs	(34 %)

The rig was moored using “safe anchoring system” which is a system where the anchors are pulled backwards out of the sea bottom instead of being broken out of the bottom using a chaser ring. When installing the anchors, a tail consisting of fibre rope and chain is laid down on the bottom and buoyed off with a small buoy a short distance off the seabed. When retrieving the anchors, a vessel equipped with a ROV will connect a pennant line system with a surface buoy to the anchors tail and then an anchor handling vessel will move in, pick up the buoy and pull out the anchors using the pennant line. This system sets requirements to the anchor handling boats which have to have large spooling capacities for wire and fibre rope when mooring in such deep waters.

4 anchor handling boats and one ROV work boat were contracted for the pulling of anchors at well 6605/8-1. Due to the requirements for large spooling capacities on the anchor handling boats, the availability in the market was limited and consequently the day rates were high, and it also caused mobilisation from Aberdeen for some of the boats.

The installation of the surface buoys with “Far Saga” and “Scandi Admiral” took 38 hrs, but it was done while the rig was operating and while the boats were working the first anchors.

The anchors were all broken loose out of the sea bottom using approx. 1.5 – 3.5 hrs, and there were no damage to the anchors.

Fluke angle was changed on all anchors from 55° back to 36° in order to reset anchors to status the rig was received in. Chaser rings were also installed on all eight anchors.

There were no swivels installed on anchor no.1 and no.6 and this caused extra time due to turns in the chain had to be sorted out by the anchor handling boats.

Winch no.8 had a break down during the operations when the band break by mistake was released and full line force was transmitted to the spooling side of the traction winch. This caused a wire guide wheel to be pulled loose and sent flying over deck. The area was barricaded off, but there were personnel in the vicinity. The incident was reported to the authorities.

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Comments and Recommendations

- The rig manning have to be increased in order to run several anchors simultaneously.
- Spare anchor chain kenter links, swivels and split pins to be available on the rig.
- Anchor winch area to be seal off from access by personnel due to risk of equipment break down under the high loads present during anchor handling
- Thorough briefing all parties involved required to make the anchor handling efficient.
- Procedures for radio communications between boats, winch house and rig bridge to be agreed before commencement of operation.
- Test of pipe tracker to see anchors submerged in the sea bottom:
A test of the pipe tracker for seeing anchors submerged in the sea bottom, as can be done with flow lines, was attempted, but the results show that the pipe tracker can not be used to determine depth of the anchor and chain below seabed.

GENERAL INFORMATION

Well : 6605/8-1 **PO** : 1
Field : STETIND **Country** : NORWAY **Wellbore Type** : WELL
Licence : PL 283 **Installation** : TRANSOCEAN LEADER
UTM zone : 32 **Central Median** : 9° E **Horiz. Datum**: ED50

Location coordinates:		Surface	Target
UTM	North [m]:	7364907.6	
UTM	East [m]:	346941	
Geographical	North :	66 21'51.93"	
Geographical	East :	05 34'39.23"	

Water Depth: 838.0 m **Reference Point Height:** 23.5 m
Formation at TD: LANGE at 4439 m MD

Operator:	NORSK HYDRO PRODUKSJON AS	Share:	30.00 %
Partners:	CHEVRON TEXACO NORGE AS	Share:	25.00 %
	NORSKE CONOCOPHILLIPS AS		25.00 %
	PETORO AS		20.00 %

Total depth (RKB) :	4513.0 m MD	4508.4 m TVD
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TIME SUMMARY	Start Time	: 2005-06-03 14:30:00
	Spudding date	: 2005-06-14
	Abandonment date	: 2005-10-17

Main operation	Hours	Days	%
MOBILIZATION	178.5	7.4	5.5
DRILLING	1479.5	61.6	45.9
FORMATION EVALUATION MWD	1.0	0.0	0.0
FORMATION EVALUATION LOGGING	255.5	10.6	7.9
FORMATION EVALUATION CORING	61.5	2.6	1.9
TESTING (PRODUCTION TEST)	445.0	18.5	13.8
PLUG AND ABANDONMENT	302.0	12.6	9.4
DOWNTIME MOBILIZATION	56.0	2.3	1.7
DOWNTIME DRILLING	162.5	6.8	5.0
DOWNTIME FORM. EVAL. LOGGING	187.5	7.8	5.8
DOWNTIME FORM. EVAL. CORING	0.5	0.0	0.0
DOWNTIME TESTING (PROD. TEST)	69.5	2.9	2.2
DOWNTIME PLUG AND ABANDONMENT	21.5	0.9	0.7
Sum:	3220.5	134.2	

Hole and casing record

Hole	Track	Depth [m MD]	Casing/Tubing	Track	Depth [m MC]
36"		957.0	20"		1999
26"		2005.0	13 3/8"		2887
17"		2900.0	9 5/8"		2823
12 1/4"		4100.0	9 5/8"		4099
8 1/2"		4513.0	7"		4512

Well status: Permanently abandoned Exploration Well

CONTRACTORS:

Casing Equipment Supplier :	WEATHERFORD NORGE A/S
Cement Contractor :	BJ SERVICES
Directional Drilling Contractor :	BAKER HUGHES INTEQ
Mud Contractor :	BAKER HUGHES INTEQ
Mwd/Lwd Contractor :	SCHLUMBERGER DRILLING & MEASUREMENTS
Rig Contractor :	TRANSOCEAN OFFSHORE EUROPE LIMITED

GENERAL INFORMATION

CONTRACTORS:

Wireline Logg Contractor :	SCHLUMBERGER OFFSHORE SERVICES LTD
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DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 1 **Date:** 2005-06-03**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

14:30 End of contract with Shell, well 6406/9-1
 23:59 Rig in tow from well 6406/9-1 to well 6605/8-1

Daily report no : 2 **Date:** 2005-06-04**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

13:30 Rig in tow to location 6605/8-1. Arrived at the location at 13:15 hrs. Adjusted the rig heading to 220°.
 18:00 Handed over pennant wire for anchors no. 4 and no. 8. Adjusted the fluke angle on anchor no. 4.
 19:00 Ran anchors 4 and 8 to 1600 m.
 23:59 Hung off chain no. 8 and started to cut the anchor chain.

Daily report no : 3 **Date:** 2005-06-05**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

01:30 Hung off chain no. 4 and connected wire to ball connector on anchor no. 8 and 4.
 06:30 Ran anchor no. 4 and 8 paying out wire. Tested anchors to 220 ton.
 11:00 Prepared to run anchors no. 1 and no. 5. Wire on B.Surf was stuck on the drum. Prepared to transfer the anchor from B.Surf to N.Mariner. B.Borgstein was in bridle and S.Admiral was released to start on anchor no. 5.
 14:30 Anchor no. 1 was chaised from B.Surf to N. Mariner and the wire released from B.Surf.
 17:00 Pulled out 1620 m on anchor chain no. 5 and 1608 m on chain no. 1. Made up ball connector to anchor chain no.5 and connected the wire. Ran ball connector through the fairlead.
 19:00 Hung off anchor chain no. 1 in hangover bowl and made up the ball connector. Connected the wire.
 21:00 Ran anchors no. 5 and 1.
 22:00 Tested both anchors to 220 ton.
 23:59 Towed the bridle and handed it back to the rig. Prepared to run anchors no. 3 and 7.

Daily report no : 4 **Date:** 2005-06-06**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

02:00 Normand Mariner alongside to discharge anchor handling equipment
 03:00 Bourbon Surf alongside and penant no. 7 delivered to Bourbon Surf
 05:00 Anchor no. 7 connected and at roller of Bourbon Surf. Paid out 1400 m of chain.
 08:30 Paid out chain on anchor no. 7 and found end link and connected wire to chain no. 7.
 10:30 Ran anchor no. 3 on B. Borgstein and anchor no. 7 on Bourbon Surf
 11:30 Tension tested anchors no. 3 and 7 to 220 tons, both anchor tests accepted.
 14:30 Passed penant for anchor no. 6 to S. Admiral and penant for anchor no. 2 to Bourbon Surf.
 23:30 Ran and set anchor no. 6 with Scandi Admiral and anchor no. 2 with Bourbon Surf.
 23:59 Started to pretension # 2 and 6 ,but had to stop due to failure in one solenoid valve for the break system on winch # 2.

Daily report no : 5 **Date:** 2005-06-07**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

05:30 Debalasted the rig to operations draft.
 23:59 Continued to install new drillers chair and performed maintenance on top drive.

Daily report no : 6 **Date:** 2005-06-08**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

23:59 Continuing to install new drillers chair

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 7 **Date:** 2005-06-09**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

19:00 Continuing to install and start commissioning new drillers chair
 23:59 Install & re-build top drive.

Daily report no : 8 **Date:** 2005-06-10**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

06:00 Continued to install & re-build top drive.
 23:59 Continued commissioning of drillers chair.

Daily report no : 9 **Date:** 2005-06-11**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

01:00 Continued commissioning of drillers chair
 02:00 Prepared for building stands of new 5" S-135 drill pipe
 10:30 Built 20 stands of 5" S-135 drill pipe and racked back in derrick.
 11:00 Commissioned air operated slips.
 15:30 Continued to build stands of 5" S-135 drill pipe and rack back in derrick.
 16:30 Troubleshoot problem with park brake on draw works.
 19:00 Continued to build stands of 5" S-135 drill pipe and rack back in the derrick.
 20:00 Made up BOP test tool and laid out the same.
 23:00 Troubleshoot problem with caliper brakes on draw work failing to release instantaneously.
 23:59 Started to build stands of 5" V-150 drill pipe for landing string and rack back in the derrick

Daily report no : 10 **Date:** 2005-06-12**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

06:30 Continued to build stands of 5" V-150 drill pipe for landing string and racked back in the derrick.
 15:30 Picked up and built 26"x36"HOx42"HO assembly. Ran in hole to 216m.
 16:00 Changed saver sub on the top drive.
 16:30 Tested MWD as per Schlumberger procedure - OK.
 23:59 Troubleshoot and identified earlier reported failure on caliper brake on the draw work.

Daily report no : 11 **Date:** 2005-06-13**Midnight depth :** 0 m MD **Estimated PP:** 0.00 sg **Mud weight:** 0.00 sg**Stop time Description**

18:00 Waited for spare parts to hydraulic control system for draw work caliper brake
 23:59 Repaired on hydraulic control system for draw work caliper brake, was not successful.

Daily report no : 12 **Date:** 2005-06-14**Midnight depth :** 889 m MD **Estimated PP:** 1.03 sg **Mud weight:** 0.00 sg**Stop time Description**

10:30 Continued trouble-shooting malfunction of hydraulic control system for draw work caliper brakes.
 11:00 Continued running in hole with spud assembly to 391m
 12:30 Check and adjust draw work disc brakes.
 13:00 Continued running in hole with spud assembly to 507m.
 14:30 Test run blocks and fine tuned disc brakes on the draw work.
 18:30 Continued running into the hole to 861,5m to prepare for spudding the well.
 23:59 Spudded the well and washed and drilled 26" x 36" hole from 861,5m to 889m.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 13 **Date:** 2005-06-15**Midnight depth :** 957 m MD **Estimated PP:** 1.03 sg **Mud weight:** 0.00 sg**Stop time Description**

13:00 Drilled 26" x 36"HO x 42"HO hole from 889m to TD of section at 957m (tide corrected).
 13:30 Displaced the hole to 1.50 sg spud mud (65 m3).
 15:30 Performed a wiper trip to 881m (26" bit 20m below seabed).
 16:00 Displaced the hole to 1.50 sg spud mud (65 m3).
 18:30 Pulled out of the hole to 216m.
 22:30 Continued to pull out of the hole with BHA and racked back in the derrick.
 23:00 Made up cement stand and racked back in the derrick.
 23:59 Rigged up to run casing.

Daily report no : 14 **Date:** 2005-06-16**Midnight depth :** 957 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg**Stop time Description**

00:30 Continued rig up to run 30" x 36" casing.
 03:00 Picked up shoe joint and ran 30" casing.
 05:00 Picked up 36" housing joint and made up the same. Hung off casing string in the rotary.
 06:00 Lifted up gas mat on cellar deck and installed titus hose on the housing joint.
 08:00 Ran 5" cement stinger to 79,5m, picked up casing running tool and made up to the landing joint.
 09:00 Installed titus hose to the gas mat.
 09:30 Lowered string and engaged 36" housing to gas mat and titus hose to the titus sub.
 12:00 Closed fill up valve, skidded flat chart clear of the string, and ran housing joint and gas mat through the splash zone. Continued running in the hole on landing string to 856m.
 12:30 Observed with ROV and positioned the rig .
 14:30 Stabbed into the well and washed and worked the casing to 885m.
 23:59 Made up top drive, washed and worked down the casing from 885m to to 945m.

Daily report no : 15 **Date:** 2005-06-17**Midnight depth :** 957 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg**Stop time Description**

04:00 Washed and worked down the casing from 945m to 954.5 m and checked depth and inclination of the housing/gas mat.
 05:30 Washed and worked down the casing string from 954.5 to 955m and surveyed the housing/gas mat with ROV.
 06:00 Broke and racked back last stand of landingstring, made up cement stand.
 07:00 Skidded the rig to starboard of well in attempt to adjust the angle of the 36" housing, the bull's eye reading was still 1deg port.
 10:00 Pumped and displaced cement.
 10:30 Checked for backflow - ok, released the titus dart from TIW valve on rig floor and opened vent valve on running tool with the ROV.
 11:00 Sheared titus dart with 96 bar, observed titus hose jumped off from titus sub, reinstalled it with the ROV.
 12:00 Continued with the titus top up job (total volume 10 m3). Displaced the landing string with 7m3 seawater at 800 l/min from the cement unit.
 14:00 Slacked off string to neutral and observed that the casing was static, bulls eye was 1 deg, released the 36" running tool and picked up clear of the housing.
 15:00 Pulled out with the landing string, 36" running tool and cement stinger, laid down 36" running tool assembly.
 16:00 Laid down 2 singles of 5" stinger, racked 2 stands of 5" S-135 drillpipe, laid down TIW and SIS, rigged down cement hose and racked back the cement stand.
 18:00 Laid down 36" hole opening BHA.
 21:30 Picked up 9 1/2" monel and non magnetic stabilizer, made up 26" bit and bit sub, painted the same and ran in hole to 178m with 26" clean out assembly.
 23:59 Continued to run in hole to 410m with 26" clean out assembly on 5" drillpipe while picking up and drifting 23 singles of 5" S-135 drillpipe from the pipe deck.

Daily report no : 16 **Date:** 2005-06-18**Midnight depth :** 986 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg**Stop time Description**

04:00 Continued to run in hole to 843m with 26" clean out assembly on 5" drillpipe, picked up 46 singles of 5" S-135 drillpipe from deck while running in hole.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 16 **Date:** 2005-06-18**Midnight depth :** 986 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg

Stop time	Description
05:30	Stabbed into 36" housing aided by ROV, continued running in the hole on 5" drillpipe, started pumping seawater 500 l/min at 933m and tagged top of cement at 951m.
06:30	Drilled cement and shoe from 951m to 955.5m, cleaned out the rat hole to 957m.
07:30	Swept the hole with 10m3 1.2 sg hi-vis pill and spotted 5m3 1.20 sg spud mud in the open hole.
11:30	Observed that the well was static and pulled out of hole, broke off bit and laid down 9 1/2" monel DC and stabelizer.
15:00	Picked up 9 7/8" pilot hole BHA including iSonic and ADN, ran in hole to 168m.
15:30	Picked up one stand 5" S-135 drillpipe from deck, made up the top drive and tested MWD.
18:00	Continued running in hole from 195m to 830m, picked up 7 stands S-135 5" drillpipe from deck, filled the string after 15 stands on the way in.
19:30	Fine tuned the rig, opened compensator, stabbed into the 36" housing aided by ROV and continued running in hole to 942m.
22:30	Modified drillers chair slips actuator, meanwhile doing maintenance on top drive, racking arms and eagle light.
23:59	Drilled 9 7/8" pilot hole from 958m to 986m.

Daily report no : 17 **Date:** 2005-06-19**Midnight depth :** 1440 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg

Stop time	Description
07:00	Continued drilling 9 7/8" pilot hole from 986m to 1056m.
23:59	Continued drilling 9 7/8" pilot hole from 1056m to 1440m.

Daily report no : 18 **Date:** 2005-06-20**Midnight depth :** 2000 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.05 sg

Stop time	Description
18:30	Continued drilling 9 7/8" pilot hole from 1440m to section TD at 2000m.
20:00	Swept the hole with one 10m3 hi-vis pill, displaced hole with 60m3 1.5 sg mud and observed that the well was stable.
23:59	Pulled out of hole from section TD at 2000m to 1144m, tight spots between 1400m and 1260m, had max overpull 15 tons.

Daily report no : 19 **Date:** 2005-06-21**Midnight depth :** 1220 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.03 sg

Stop time	Description
00:30	Continued pulling out of the hole from 1144m to 956m.
02:00	Continued pulling out of hole from 956m to 168m.
03:00	Racked back 8" drill collars and jar.
04:30	Removed radioactive sources from ADN, laid down MWD elements and 9 7/8 bit.
05:30	Picked up BOP test plug, broke off ceased retainer ring and laid down BOP test plug.
06:30	Picked up the cement stand, made up the same and racked in derrick.
10:00	Picked up 26" bit, ARC and Power Pulse, made up the same and ran in hole to 190m.
10:30	Tested that the MWD was working properly.
12:30	Ran in hole with 26" BHA on 5" S-135 drillpipe from 190m to 830m, stabbed into the well aided by the ROV, continued running in hole to 930m.
23:59	Drilled 26" hole from 957m to 1220m.

Daily report no : 20 **Date:** 2005-06-22**Midnight depth :** 1343 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.03 sg

Stop time	Description
08:00	Continued to drill 26" hole from 1220m to 1313m, reamed last stand several times to reduce inclination (2.43 deg) without success.
12:00	Continued to drill 26" hole from 1313m to 1343m with reduced WOB, reamed the stand and performed survey (incl 2.77 deg Az 40.76 deg at 1321m survey depth).
14:00	Swept the hole with 20m3 hi-vis pill, displaced hole to 1.2 sg mud and monitored that the well was static for 15 minutes.
15:00	Pulled out of open hole from 1343m to 955.5m, no drag was observed .
16:00	Continued to pull out of hole from 955.5m to 190m.
18:00	Continued to pull out of hole with 26" BHA, broke off 26" bit, laid down 24" stab, 25 3/4" NM stab and pony collar.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 20 **Date:** 2005-06-22**Midnight depth :** 1343 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.03 sg**Stop time Description**

21:30 Reconfigured the 26" BHA from packed to drop assembly and ran in hole to 183m.
 22:00 Flow tested the MWD.
 23:59 Continued to run in hole from 183m to 860m, stabbed into 36" well head housing aided by the ROV, continued to run in hole to 955.5m.

Daily report no : 21 **Date:** 2005-06-23**Midnight depth :** 1655 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg**Stop time Description**

01:00 Performed maintenance service on the top drive.
 02:30 Continued to run in open hole from 955.5m to 1333m without problems, broke circulation, performed check survey and tagged bottom at 1343m observed no fill.
 06:00 Continued drilling 26" hole from 1343m to 1362m with reduced WOB to stop building angle, pumped 2 x 8m3 hi-vis pill, reamed stand after survey, saw no effect.
 17:00 Continued drilling 26" hole from 1362m to 1550m, pumped 2 x 8m3 hi-vis pill per stand.
 18:00 Swept the hole with 10m3 hi-vis pill and observed with the ROV that well was stable.
 23:00 Continued drilling 26" hole from 1550m to 1655m, pumped 2 x 8m3 1.20 sg hi-vis pill per stand.
 23:59 Repaired leak in T-pipe in hydraulic power supply system for pipe handling and iron rough neck system.

Daily report no : 22 **Date:** 2005-06-24**Midnight depth :** 1989 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg**Stop time Description**

01:00 Continued to repair leak in T-pipe in hydraulic power supply system for pipe handling and iron rough neck system.
 15:30 Washed/reamed from 1645m to 1655m, continued drilling 26" hole from 1655m to 1989m, pumped 2-3 8 m3 1.2 sg hi-vis pill per stand, the string torqued up and hole the packed off at 1989 m whilst sweeping 1.2 sg hi-vis pill across BHA, got stuck.
 21:30 Worked the string, managed to establish rotation, was unable to circulate, pulled and backreamed from 1989m to 1889m, had maximum overpull 35 ton.
 22:30 Established circulation and slowly staged up the pump rate to 4500 l/min, SPP 260 bar, 120 RPM, torque 6500 Nm, took 20 ton weight when attempting to slack off without circulation and rotation, took weight when attempting to slack off while circulating 4500 l/min, saw no increase in pump pressure.
 23:59 Pulled out of hole from 1889m to 1814m without pumping or rotating, took 10 ton overpull and high torque at 1814m, backreamed from 1814m to 1808m, 100 RPM, 1000 l/min, SPP 40 bar, stopped pumps and pulled out of hole whilst rotating 100 RPM to 1804m, took 30 ton overpull.

Daily report no : 23 **Date:** 2005-06-25**Midnight depth :** 1989 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.20 sg**Stop time Description**

01:00 Pumped 10m3 1.2 sg hi-vis pill and displaced to open hole, was not able to pull out of hole, took 15 ton overpull, continued pulling out of hole whilst rotating 100 RPM from 1804m to 1798m, took 30 ton overpull. Was not able to rotate when slacking off, backreamed from 1798m to 1737m, 4500 l/min, SPP 260 bar.
 02:00 Pumped out of the hole from 1737m to 1519m, 4500 l/min, SPP 250 bar, took 10 ton overpull if pulling faster than 3 m/min. Saw no tendencies of pack off, kept two 10m3 1.2 sg hi-vis pills in hole at any time.
 02:30 Circulated the hole above the bit clean, pumped one 10m3 1.2 sg hi-vis pill.
 04:00 Pumped out of hole from 1519m to 1288m.
 09:30 Pulled out of hole from 1288m with 26" BHA, saw no overpull, checked 26" NM stabilizer and bit, the stabilizer was heavily balled up, the bit was not, cleaned the stabilizer.
 12:00 Ran in hole with 26" BHA to 830m, stabbed into wellhead aided by ROV, continued to run in hole to 928m.
 12:30 Lubricated the top drive and travelling block.
 15:00 Filled the string and continued running in hole from 928m to 1500m (top of the Ooze formation).
 23:59 Washed and reamed from 1500m to 1946m, pumped 5m3 1.2 sg hi-vis pills as required, observed successively increasing torque when hi-vis pills passed the BHA, decided to stop pumping hi-vis pills to avoid packing off against the stabilizer.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 24 **Date:** 2005-06-26**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg

Stop time	Description
02:00	Continued washing and reaming from 1946m to TD at 1989m.
03:00	Drilled 26" hole from 1989m to section TD at 2005m.
03:30	Circulated bottoms up to 1500m, 4500 l/min, flow checked the well with the ROV for 15 minutes, the well was static. Took a survey.
05:30	Displaced the well to 1.30 sg KCl/polymer mud, 380 m3, 4500 l/min, SPP 214 bar.
10:30	Pulled out of hole from 1997m to 1519m whilst rotating 80-120 RPM, frequently lubricating the string, it was only occasionally possible to pull without rotation, maximum overpull was 30 ton.
12:00	Continued to pull out of the hole from 1519m to 950m, had no overpull.
13:00	Topped up the well with 1.2 sg hi-vis mud followed by 1.5 sg kill mud, flow checked well and the well static.
15:30	Pulled bit above the 30" housing, positioned rig and jetted the gas mat aided by the ROV.
17:00	Continued to pull out of hole from 858m to 180m.
19:00	Pulled out of the hole with the BHA, racked drill collars, laid down 26" bit, bit sub, Vision tool and MWD.
21:00	Rigged up 20" casing running equipment.
23:00	Ran 20" casing shoe, intermediate, float shoe and adaptor hanger to 49m.
23:30	Repaired leak in hydraulic hose/coupling on BX elevator.
23:59	Continued running 20" casing to 86m.

Daily report no : 25 **Date:** 2005-06-27**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg

Stop time	Description
08:00	Continued to run 20" casing from 86m to 851m, 8,4 joints per hour, filled each joint with 2,2m3 sea water.
09:30	Repositioned the rig, stabbed into 30" housing aided by the ROV.
10:00	Continued to run 20" casing from 865m to 900m, 8 joints per hour, filled each joint with 2,2m3 sea water.
10:30	Waited while deck crew handled helicopter.
14:30	Continued to run 20" casing from 900m to 1132m, 5 joints per hour, filled each joint with 2,2m3 sea water.
16:00	Picked up 20" housing joint with 18 3/4" wellhead pre-made to running tool from deck, made up the same and changed handling equipment from 20" casing to 5" landing string.
21:00	Continued to run in hole with 20" casing on 5" V-150 landing string from 1130m to 1992m, 14,1 joints per hour, filled the string as required.
21:30	Installed cement head, recorded up-weight 270 ton and down weight 150 ton, confirmed circulation through the string with 480 l/min - 40 bar, made two attempts to latch the wellhead in the 30" housing without success. The wellhead came loose on 27 ton when attempting 30 ton overpull test.
23:59	Re-positioned the rig and made two attempts to latch hanger, was unable to obtain required overpull.

Daily report no : 26 **Date:** 2005-06-28**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg

Stop time	Description
00:30	Locked down the 18 3/4" wellhead housing according to DrilQuip procedure, performed a 70 ton overpull test.
01:00	Performed think plan/tool box talk prior to cement job.
02:00	Pumped 3m3 of sea water, pressure tested surface lines to 250 bar 5 min and released the ball from the cement head.
06:00	Mixed and pumped 270m3 of 1.6 sg lead cement slurry, 1145 l/min, 28 bar.
07:30	Mixed and pumped 94,25m3 of 1.6 sg tail slurry, 1145 l/min, 26 bar, dropped the dart, started displacing cement with sea water and sheared the top plug after 6.35m3, 125 bar, total volume displaced from cement unit was 7,945m3.
09:00	Continued displacing cement with sea water using rig pumps, 300 l/min, reduced to 790 l/min prior to bump and bumped plug, 60 bar, after 11873 strokes, 32 strokes less than theoretical. Observed a pressure drop, was unable to increase pressure to over 60 bar, the plug was not holding, bled off 690 ltr to the cement unit, observed no back flow.
09:30	Released the running tool with 6000 ft-lbs torque.
12:00	Racked cement head and cement stand, pumped wiper ball, pulled out of hole with the running tool on landing string and laid out the running tool.
13:00	Laid out the cement head and cement stand.
14:00	Picked up drill collar stand, broke 26" NM stab, laid out the same and racked in derrick.
15:00	Rigged up BOP handling equipment, picked up 60 ft riser joint from deck and sat in rotary.
20:30	Skidded the BOP under rotary and made up riser joint to BOP, lifted off LMRP, installed support beams, replaced 2 mini collet connector and AX gaskets. Changed gasket on LMRP connector and reconnected the LMRP.
22:30	Disconnected riser from the BOP, laid out same and skidded the BOP back.
23:59	Prepared and started to install KT ring for a dummy run.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 27 **Date:** 2005-06-29**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg**Stop time Description**

03:00 Continued to install KT ring/ support ring in cellar deck.
 06:00 Unable to lock KT ring/support ring in place. Lowerd down KT ring and cleaned and inspected the ring. Observed that the KT ring lock down dogs would not lock properly into lock groove.
 12:00 Landed KT ring on moonpool trolley and started to remove lock down dogs for modification.
 23:59 Started to modify KT ring lock down dogs

Daily report no : 28 **Date:** 2005-06-30**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg**Stop time Description**

02:00 Continued to modify lock down dogs for KT ring.
 02:30 Picked up and engaged KT ring on support ring and locked KT ring to support ring.
 03:00 Prepared BOP for deployment to split BOP and LMRP using travelling block.
 04:00 Skidded BOP to well center and deballasted the rig to 22.5 m draft.
 06:00 Made up one joint of riser to LMRP and raised LMRP from BOP and changed out gasket on BOP kill & choke collet connectors.
 09:00 Removed bulls eye bracket and test lifted BOP from carrier to check clearance with KT ring and set down BOP on carrier again.
 11:00 Secured BOP to BOP carrier and unbolted 60 ft riser joint from the BOP. Skidded BOP clear from well center and laid out the riser joint.
 11:30 Rigged up riser handling torque equipment.
 12:00 Installed gimbal in rotary and observed no interface with spider and laid out the gimbal.
 13:00 Installed riser spider in rotary and performed prejob check-out of spider.
 14:30 Tested choke and kill line connectors and fail safe to 1035 bar
 16:00 Installed spare lift nubbing upside down in slip joint and locked in the same. Installed test plugs in kill and choke inlets.
 18:00 Ran in hole with slip joint and filled kill and choke line with water. Skidded the rig 40 m to starboard side.
 19:00 Picked up landing joint and installed new seal sub in slip joint and secured the same. Made up landing joint to slip joint.
 22:00 Engaged slip joint to KT ring and function tested the same. Stroked out inner barrel and checked the same.
 23:59 Removed goose neck from kill line and attached kill co-flex line to KT ring.

Daily report no : 29 **Date:** 2005-07-01**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg**Stop time Description**

01:00 Continued to attached kill co-flex line to KT ring.
 03:00 Removed goose neck from riser boost line and attached riser boost line to KT ring.
 05:00 Removed goose neck from choke line and attached choke co-flex line to KT ring.
 06:00 Removed goose neck from conduit line and attached conduit line to KT ring.
 11:00 Held tool box talk with new crew and continued to install co-flex hoses to KT ring.
 12:00 Installed steering hoses to KT ring and secured the same.
 14:00 Pressure tested kill and choke lines through KT ring to 35 bar / 5 min and 1035 bar / 15 min.
 16:00 Unlocked and stroked out inner barrel and re-locked barrel again. Observed fluid leak from KT ring and repaired leak.
 17:00 Broke out landing joint from slips and laid out landing joint.
 17:30 Held tool-box talk and broke out upside down hydraulic nubbing from underside of slip joint set in rotary and laid out slip joint and hydraulic nubbing.
 18:00 Changed to 500 ton BX elevator and cleared the rig floor of excess equipment prior to running riser.
 19:00 Held tool-box talk on standard operating procedure for running BOP and prepared to pick up double joint of riser.
 20:00 Held tool-box talk with new crew on standard operating procedures for running BOP and riser. Completed all pre-deployment checks and inspected derrick.
 22:30 Picked up 2 joints of riser and made up double joint of riser to BOP.
 23:30 Lifted BOP from carrier and secured mux cables to the riser.
 23:59 Ran BOP on double joint of riser through splash zone.

Daily report no : 30 **Date:** 2005-07-02**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg**Stop time Description**

01:30 Pressure tested the kill and choke lines to 35 bar/ 5 min and 545 bar /15 min.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 30 **Date:** 2005-07-02**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg

Stop time	Description
02:00	Continued to run the BOP on one joint of riser.
06:00	Broke of the bolts that keeps the top drive link tilt elevator bolted to the top drive fixed body elevator while picking up a riser joint. Stopped and investigated the situation prior to securing link tilt and laid down riser joint.
08:00	Continued to remove link tilt and pipe handler from topdrive for inspection.
09:00	Replaced hanging bolts on torque arresters on the top drive.
10:00	Re-installed bails on solid body elevators and removed link tilt arms and clamps for inspection.
13:30	Installed 500 tons BX elevator and configured hoses to operate the elevator without link tilt.
14:30	Held tool box talk with crew on riser handling without elevator link tilt.
15:00	Observed a leak from a hydraulic coupling on the rotating head, replaced the coupling.
18:30	Continued running riser and BOP from 70 m to 124 m.
19:00	Deck crew serviced helicopter, meanwhile cleared drill-floor of excess equipment.
19:30	Held tool box talk with new crew on handling of riser joints without elevator link tilt.
23:59	Continued to run riser and BOP from 124 m to 228 m.

Daily report no : 31 **Date:** 2005-07-03**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg

Stop time	Description
01:00	Pressure tested kill and choke line on joint # 11 to 35 bar / 5 min and 545 bar /10 min
07:00	Continued to run BOP on marine riser from 228 m to 419 m.
09:00	Pressure tested kill and choke line on joint # 22 to 35 bar/ 5 min and 545 bar / 10 min. Observed good high pressure test but a leak on the low pressure test.
10:30	Confirmed leak on choke line and pulled joint # 22 and change out seals on kill side. Pulled joint # 21 and observed damaged seal on choke outlet and changed out seal. Pressure tested kill and choke line to 35 bar/ 5 min and 545 bar / 10 min with joint # 20 in rotary obtaining a good test.
12:00	Ran joint # 21 and pressure tested kill and choke line to 35 bar / 5 min and to 545 bar/ 10 min, obtaining a good test. Changed out 3 seal on the choke line on joint # 22
13:00	Pressure tested choke and kill line with joint 22 in rotary to 35 bar / 5 min and to 545 bar / 10 min obtaining good test and ran BOP on riser to 419 m.
16:00	Ran BOP on marine riser from 419 m to 490 m.
16:30	Pressure tested kill and choke line on joint # 26 to 35 bar / 5 min and to 545 bar / 10 min obtaining a good test.
19:00	Ran BOP on marine riser from 490 m to 563 m.
20:30	Held tool box talk with new crew and continued to run BOP on marine riser from 563 m to 601 m.
21:30	Pressure tested kill and choke line on joint # 32 to 35 bar / 5 min and to 545 bar / 10 min obtaining a good test.
23:59	Ran BOP on riser from 601 m to 636 m.

Daily report no : 32 **Date:** 2005-07-04**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg

Stop time	Description
02:00	Ran BOP on marine riser from 636 m to 691 m.
02:30	Pressure tested kill and choke line on joint # 37 to 35 bar / 5 min and to 545 bar / 10 min obtaining a good test.
06:00	Ran BOP on marine riser from 691 m to 760 m.
12:00	Held tool box talk with new crew and ran BOP on marine riser from 760 m to 814 m.
13:00	Pressure tested kill and choke line on joint # 46 to 35 bar / 5 min and to 545 bar / 10 min obtaining a good test.
15:00	Picked up and made up slip joint and attached straps as required.
16:00	Picked up and made up landing joint and engaged KT ring.
17:00	Pressure tested kill and choke line on slip joint to 35 bar / 5 min and to 545 bar / 10 min obtaining a good test.
19:30	Hooked up saddles on KT ring and secured mux cables.
20:00	Landed BOP and locked BOP to wellhead. Confirmed lock with 25 tons overpull.
21:00	Stroked out slip joint and layed out landing joint.
23:00	Held tool box talk, changed out elevators and picked up and installed diverter.
23:59	Rigged down BOP handling equipment and layed out riser spider.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 33 **Date:** 2005-07-05**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.30 sg

Stop time	Description
02:00	Continued to rig down BOP handling equipment and lay out riser spider.
06:30	Rigged up chocks and pressure tested TIW's and topdrive inside BOP to 35/545 bar 5/10 min and mud hose to 35/345 bar 5/10 min.
07:00	Rigged down chocks and broke out TIW from topdrive and layed out same.
09:00	Slipped and cut 37 m of drill line.
10:30	Detected damaged wire and assesed situation. Slipped and cut another 37 m to remove damaged wire.
11:30	Installed pipe handler on topdrive.
12:30	Observed a fault on the IBOP roller arms. Machined down roller arm bushings and installed the bushings again
13:00	Installed 500 tons bails and Bx elevator
15:00	Unable to function the Bx elevator, troubleshoot same.
16:00	Replaced Bx elevator with 5" air operated auto elevator.
16:30	Observed a hydraulic leak on the eagle lite pipe handler. Stopped and repaired leak.
19:00	Ran in hole with 3 stands of 9 1/2" drill collars and broke out and layed down drill collars.
19:30	Held tool box talk with the new crew on the rig prior to start making up 17" bottom hole assembly
20:00	Picked up and broke off 17" bit premade to rotary assembly.
21:00	Picked up motor and made up 17" bit to motor and ran in hole. Picked up and made up MWD to motor.
22:00	Reset and calibrated both crown and floor saver.
23:59	Continued to make up 17" bottom hole assembly.

Daily report no : 34 **Date:** 2005-07-06**Midnight depth :** 2005 m MD **Estimated PP:** 1.03 sg **Mud weight:** 1.31 sg

Stop time	Description
02:00	Continued to make up 17" bottom hole assembly.
05:30	Ran in hole with 17" bottom hole assembly on 5" drill pipe from 115 m to 1080 m.
06:00	Function tested the MWD with 3000 LPM
07:30	Performed the remaining function tests of the BOP.
08:30	Function tested all valves on the diverter system. Checked the sequence and pumped through overboard line.
11:30	Continued to run in hole with 17" bottom hole assembly on 5" drill pipe from 1083 m to 1580 m.
12:30	Waited on crew change helicopter.
13:00	Changed out from air operated elevator to Bx elevator.
16:30	Continued to run in hole with 17" bottom hole assembly on 5" drill pipe from 1580m to 1850 m while picking up singles from deck.
17:30	Ran in hole with 17" bottom hole assembly on 5" drill pipe from 1850 m to 1930 m. Washed down from 1930 m to 1971 m and tagged landing collar.
20:00	Drilled out plugs, float and soft cement from 1971 m to 1985.
21:00	Performed a shut-in and choke drill with both crews.
21:30	Continued to drill out soft cement from 1985 m to 1993 m.
23:59	Pumped spacers and pills and displaced well to 1.3 sg Glydrill mud as per program.

Daily report no : 35 **Date:** 2005-07-07**Midnight depth :** 2137 m MD **Estimated PP:** 1.13 sg **Mud weight:** 1.30 sg

Stop time	Description
04:00	Continued to circulate to get even 1.3 sg mud in and out.
05:30	Recorded slow circulation rates as per program.
07:00	Drilled out hard cement from 1993 m to 1999 m, drilled out of the shoe at 1999 m and cleaned out rathole down to 2005 m.
07:30	Drilled 3 m of new formation from 2005 m to 2008 m.
08:30	Circulated for 15 min and performed a FIT test to 1.44 sg with 1.30 sg mud.
09:00	Performed a 30 minutes finger print flow check on the trip tank.
14:30	Drilled and oriented 17" hole from 2008 m to 2065.
15:30	Stopped and repaired draw-work brake problem
23:59	Drilled and oriented 17" hole from 2065 m to 2137.

DAILY REPORT

Well: 6605/8-1

PO: 1

Daily report no : 36 Date: 2005-07-08

Midnight depth : 2352 m MD Estimated PP: 1.15 sg Mud weight: 1.30 sg

Stop time	Description
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04:00	Drilled and oriented 17" from 2137 m to 2182 m.
06:30	Pulled of bottom and reduced flow rate due to plugged cutting overboard line.
07:00	Drilled and oriented 17" from 2183 m to 2189 m.
07:30	Flushed choke, kill and booster line with 1.3 sg mud.
21:30	Drilled and oriented 17" from 2189 m to 2337 m.
22:00	Flushed choke, kill and booster line with 1.3 sg mud.
23:59	Drilled and oriented 17" from 2337 m to 2352 m.

Daily report no : 37 Date: 2005-07-09

Midnight depth : 2557 m MD Estimated PP: 1.15 sg Mud weight: 1.34 sg

Stop time	Description
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07:30	Drilled and oriented 17" hole from 2352 m to 2422 m.
08:00	Flushed kill, choke and booster line and recored slow circulating rates.
17:30	Drilled and oriented 17" hole from 2422 m to 2530 m.
19:30	Carried out 2 dummy connection and circulated bottoms up . No increase in the gas observed.
22:30	Increased the mud weight from 1.3 sg to 1.34 sg based on the pore pressure prediction from log evaluation.
23:00	Recored slow circulating rates with 1.34 sg mud
23:59	Drilled and oriented 17" hole from 2530 m to 2557 m.

Daily report no : 38 Date: 2005-07-10

Midnight depth : 2597 m MD Estimated PP: 1.15 sg Mud weight: 1.34 sg

Stop time	Description
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02:30	Drilled and oriented 17" hole from 2557 m to 2597 m.
07:00	Circulated 2 times bottoms up to clean hole while reciprocating and rotating string at 95-110 RPM.
07:30	Flow-checked and fingerprinted well on trip tank, well static.
08:30	Pulled out of hole with 17" bottom hole assembly 5 stands wet from 2597 m to 2387 m.
10:00	Slugged pipe and pulled out of hole with 17" bottom hole assembly from 2387 m to 1970 m.
10:30	Flow-checked the well on trip tank , well static.
16:30	Rigged down mud bucket and continued to pull out of hole with 17" bottom hole assembly from 1970 m to 178 m.
19:00	Broke out and layed down 17" bottom hole assembly
22:00	Time out for preventive maintenance as per equipment alert.
23:59	Picked up and made up 14 1/2" by 17 1/2" under-reamer bottom hole assembly.

Daily report no : 39 Date: 2005-07-11

Midnight depth : 2673 m MD Estimated PP: 1.23 sg Mud weight: 1.34 sg

Stop time	Description
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02:00	Continued to make up 14 1/2" by 17 1/2" under-reamer bottom hole assembly
07:30	Ran in hole with 14 1/2" by 17 1/2" under-reamer bottom hole assembly from 178 m to 1243 m.
08:30	Troubleshoot problem with Bx elevator. Replaced Bx elevator with 5" air operated elevator.
12:00	Continued to run in hole with 14 1/2" by 17 1/2" under-reamer bottom hole assembly from 1243 m to 2000 m.
13:30	Continued to run in hole with 14 1/2" by 17 1/2" under-reamer bottom hole assembly from 2000 m to 2598 m.
14:00	Tagged bottom and drilled 3 m of new formation with the 14 1/2" bit from 2598 m to 2601 m.
14:30	Dropped under-reamer ball and pumped down ball and activated the 17 1/2" under-reamer.
23:59	Drilled 14 1/2" by 17 1/2" hole from 2601 m to 2673 m.

Daily report no : 40 Date: 2005-07-12

Midnight depth : 2734 m MD Estimated PP: 1.08 sg Mud weight: 1.34 sg

Stop time	Description
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12:00	Drilled 14 1/2" x 17 1/2" hole from 2673 m to 2734 m
12:30	Lost signal to MWD tool, attempted to re-establish signal without success.
16:00	Circulated bottoms up for last cuttings sample.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 40 **Date:** 2005-07-12**Midnight depth :** 2734 m MD **Estimated PP:** 1.08 sg **Mud weight:** 1.34 sg**Stop time Description**

16:30 Flow-checked and fingerprinted well on on trip tank, well static
 18:30 Pulled out of hole with 14 1/2" x 17 1/2" under-reamer assembly from 2734 m to 1971 m.
 21:30 Flow-checked well and continued to pull out of hole with 14 1/2" x 17 1/2" under-reamer assembly from 1971 m to 1070 m.
 22:00 Flow checked well prior to pulling bottom hole assembly through BOP.
 23:00 Function tested BOP on both pods according to weekly routine.
 23:59 Continued to pull out of hole with 14 1/2" x 17 1/2" under-reamer assembly from 1070 m to 585 m.

Daily report no : 41 **Date:** 2005-07-13**Midnight depth :** 2793 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.34 sg**Stop time Description**

01:30 Continued to pull out of hole with 14 1/2" x 17 1/2" under-reamer assembly from 585 m to 185 m.
 03:30 Broke upper part of bottom hole assembly and racked in derrick and laid out 17 1/2" under-reamer.
 04:30 Pulled out of hole with MWD string and dumped MWD memory data.
 05:00 Broke out and laid out MWD tool and broke off PDC bit.
 08:00 Made up new 14 1/2" bottom hole assembly.
 10:00 Ran in hole with 14 1/2" bottom hole assembly from 170 m to 1033 m.
 10:30 Filled pipe and broke circulation. Increased flow to 3200 LPM and tested MWD tool.
 14:00 Continued to run in hole with 14 1/2" bottom hole assembly from 1033 m to 2696 m. Washed down from 2666 m.
 16:00 Re-logged interval from 2666 m to 2734 m.
 23:59 Drilled 14 1/2" hole from 2734 m to 2793 m.

Daily report no : 42 **Date:** 2005-07-14**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.34 sg**Stop time Description**

16:00 Drilled 14 1/2" hole from 2793 m to 2900 m.
 19:00 Circulated 1.5 times bottoms up while reciprocating and rotating the string.
 19:30 Fingerprinted and flow-checked the well on trip tank, well static.
 23:30 Pulled out of hole with 14 1/2" bottom hole assembly from 2900 m to 1990 m.
 23:59 Flow-checked the well on trip tank, well static.

Daily report no : 43 **Date:** 2005-07-15**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.34 sg**Stop time Description**

04:00 Continued to pull out of hole with 14 1/2" bottom hole assembly from 1990 m to 180 m.
 07:00 Broke out and rack parts of the 14 1/2" bottom hole assembly and laid out bottom part.
 12:00 Picked up and made up 17 1/2" under-reamer assembly.
 17:00 Ran in hole with 17 1/2" under-reamer assembly from 175 m to 1990 m.
 19:30 Continued to run in hole with 17 1/2" under-reamer assembly from 1990 m to 2690 m.
 20:00 Filled pipe and broke circulation and staged pumps up to 3900 LPM and attempted to hydraulically open up under-reamer cutters without any success.
 20:30 Washed in hole from 2690 m while rotating the pipe at 15 RPM to resistance at 2719 m of 10 tons. Observed increase in torque and pulled out above 14 1/2" X 17 1/2" shoulder to verify that the under-reamer cutter had been opened.
 21:00 Mud pump #2 tripped on imbalance. Investigated problem and re-set pump- Isolated pump 1 which was causing the imbalance and continued using mud pump 2 and 3.
 23:59 Tagged 14 1/2" x 17 1/2" shoulder with 10 tons and started to open up 14 1/2" hole to 17 1/2".

Daily report no : 44 **Date:** 2005-07-16**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.35 sg**Stop time Description**

21:00 Continued to open up 14 1/2" hole to 17 1/2" from 2728 m to 2893 with 14 1/2" bit below under-reamer at 2900 m.
 23:59 Circulated bottoms up to clean the well while reciprocating and rotating the string.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 45 **Date:** 2005-07-17**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.36 sg

Stop time	Description
02:00	Continued to circulate to clean the well while reciprocating and rotating the string.
04:00	Pulled out of hole from 2900 m to 2730 m. Several tight spots observed from 2780-2750 m. Pulled 30 tons overpull at 2730 m. Ran in hole again to 2750 m
09:00	Opened up the 17 1/2" under-reamer and started to back-ream up to 2554 m.
11:00	Pulled out of hole 2554 m to 2026 m with no flow or rotation, no overpull observed
12:00	Ran in hole from 2026 m to 2554 m at restricted speed, no drag observed
15:00	Washed down from 2254 m to bottom at 2900 m without rotation.
19:00	Circulated to clean out well while reciprocating and rotating string
19:30	Fingerprinted and flow-checked well on trip tank, well static.
20:00	Attempted to pull out of hole, but observed a 25 ton overpull at 2890 m. Pumped out of hole from 2900 m to 2880 m with 2-5 tons overpull.
22:30	Pulled out of hole with 17 1/2" under-reamer assembly from 2880 m to 1990 m.
23:00	Continued to pull out of hole with 17 1/2" under-reamer assembly from 1990 m to 1643 m.
23:30	Unable to continue operation due to hydraulic leak on iron roughneck. Stopped and repaired valve block assembly
23:59	Continued to pull out of hole with 17 1/2" under-reamer assembly from 1643 m to 1500 m.

Daily report no : 46 **Date:** 2005-07-18**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.36 sg

Stop time	Description
03:30	Continued to pull out of hole with 17 1/2" under-reamer assembly from 1500 m to 180 m.
06:30	Broke out and laid down 17 1/2" under-reamer assembly.
07:00	Picked up and made up bore protector running tool and jet sub to V-150 landing string.
10:00	Ran in hole with bore protector running tool on landing string to 835 m.
10:30	Washed down from 835 m and landed bore protector running tool in bore protector.
11:00	Retrieved 18 3/4" bore protector with 7 tons overpull.
13:00	Pulled out of hole with 18 3/4" bore protector from 835 m.
13:30	Broke out bore protector running tool from 18 3/4" bore protector and laid out both.
15:00	Picked up and made up cement head as a stand and racked in derrick.
17:30	Picked up 13 3/8" casing hanger. Broke out casing hanger running tool and installed 13 3/8" sub sea plug set and removed lock ring. Changed out pup joint on hanger with one V-150 landing joint and laid out casing hanger again.
21:00	Rigged up 13 3/8" casing handling equipment.
23:59	Made up and baker-locked shoe, intermediate and float and continued running in hole with 13 3/8" casing as per tally to 252 m.

Daily report no : 47 **Date:** 2005-07-19**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.36 sg

Stop time	Description
17:00	Continued to run in hole with 13 3/8" casing from 252 m to 2022 m.
19:00	Picked up and made up 13 3/8" casing hanger to 13 3/8" casing
22:00	Continued to run in hole with 13 3/8" casing on 5" landing string from 2022 m to 2850 m.
23:00	Started to washed down due to tight hole from 2850 m and landed 13 3/8" casing in 18 3/4" wellhead.
23:59	Circulated to clean out hole and conditon mud prior to cement job.

Daily report no : 48 **Date:** 2005-07-20**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.34 sg

Stop time	Description
01:30	Continued to circulate to clean out hole and conditon mud prior to cement job.
02:30	Pumped 20 m3 of cement spacer with the rig pumps, pressure tested cement line to 250 bar
04:30	Attempted to launch bottom dart, but observed that dart cycle indicators for bottom and top dart turned at the same time. Shut down air supply to dart valves when both valves were half way open. Both indicators returned to closed position. Stopped for risk assessment of situation.
07:30	Circulate 180 m3 1.34 sg mud to confirm that the darts were still in the cement head.
08:00	Pumped 20 m3 1.64 sg spacer

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 48 **Date:** 2005-07-20**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.34 sg

Stop time	Description
12:00	Mixed and pumped 29.3 m ³ 1.92 sg cement 1000 l/min, released top dart, sheared plug with 300 bar after 6046 ltr using cement pumps, continued displacing cement with rig pumps, 700 l/min first 7700 stks, then staged up to 1500 l/min after cement started passing shoe, slowed down to 500 l/min 300 stks prior to theoretical bump of plug, bumped plug with 70 bar after 9438 stks (99 stks before theoretical)
12:30	Pressure tested 13 3/8" casing to 185 bar, MW 1.34 sg and checked for backflow, ok
14:00	Set and pressure tested seal assembly against middle pipe ram to 345 bar
17:00	Pressure tested BOP to 35 bar / 345 bar on blue pod from drillers panel
18:00	Function tested BOP on yellow pod from tool pushers panel
18:30	Released 13 3/8" casing hanger running tool, 50 ton overpull, re-landed running tool in 13 3/8" hanger and performed seal assembly pressure test against middle pipe ram to 345 bar
19:00	Broke off and racked cement stand in derrick
22:30	Pumped slug, pulled out of hole from 859m to surface with 13 3/8" casing running tool, cleaned and laid out same
23:00	Laid out cement head & hose, racked 1 stand of V-150 5" drill pipe in derrick
23:30	Rigged up to pressure test kelly hose and IBOP's
23:59	Flushed lines and commenced pressure test of surface equipment

Daily report no : 49 **Date:** 2005-07-21**Midnight depth :** 2900 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.34 sg

Stop time	Description
01:00	Continued pressure testing kelly hose and upper/lower IBOPs to 20 bar/5 min and 345 bar/10 min
01:30	Picked up emergency hang off tool, made up to 5" drill pup and laid out same
02:30	Removed remains of broken link tilt bolt on solid body elevator topdrive
05:00	Made up 13 3/8" wear bushing and cup tester, ran in hole to 959m with same on 5" V-150 drill pipe
05:30	Installed wear bushing, sat down 10 ton, pressurized 175 bar for 5 min against middle pipe ram to ensure full stroke and lock down of seal assembly actuator sleeve
08:30	Released 13 3/8" wear bushing running tool and cup tester with 10 ton overpull, dropped 2 3/4" hollow drift, pulled out of hole from 859m to surface, laid out wear bushing running tool and cup tester, recovered hollow drift
09:00	Cleaned and tidied drill floor prior to start make up 12 1/4" bottom hole assembly
14:30	Picked up and started running in hole to 176m with 12 1/4" rotary steerable assembly, loaded MWD tools, flow tested MWD tools and power drive, 3010 l/min, replaced jar
17:30	Continued running in hole with 12 1/4" assembly on 5" S-135 drill pipe from 176m to 430m while picking up 29 joints of drill pipe from deck. Pressure tested BOP shear ram to 305 bar.
22:00	Installed link tilt assembly on top drive and function tested same
22:30	Welded kicker plate to draw works drum
23:59	Slipped and cut drilling line

Daily report no : 50 **Date:** 2005-07-22**Midnight depth :** 2903 m MD **Estimated PP:** 1.25 sg **Mud weight:** 1.34 sg

Stop time	Description
08:00	Continued running in hole with 12 1/4" assembly on 5" S-135 drill pipe from 430m to 1650m while picking up 121 joints of drill pipe from deck, 15-20 jnts/hr, filled string at 770m and 1350m
11:00	Continued running in hole with 12 1/4" assembly from 1650m to 2800m, filled string at 2330m
11:30	Established circulation. 500 l/min, washed down and tagged top of cement at 2840m
12:00	Performed slow circulation rates down kill/choke lines up riser, down drillstring up riser and kill/choke lines at 20-30-40 SPM
13:00	Performed choke drill, circulated over choke with constant kill line pressure
20:30	Drilled cement/cement plugs and shoetrack from 2840m to 2887.5m, cleaned out shoe track and rat hole from 2887.5m to TD at 2900m
21:00	Drilled 12 1/4" hole from 2900m to 2903m
23:00	Circulated hole clean and until mudweight in equaled mudweight out (1.34 sg), 3000 l/min
23:59	Lined up for formation leak off test, pressure tested surface lines 138 bar/5 min, performed leak off test via drill string and kill line against closed upper annular to 1.62 sg

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 51 **Date:** 2005-07-23**Midnight depth :** 3032 m MD **Estimated PP:** 1.19 sg **Mud weight:** 1.34 sg

Stop time	Description
01:00	Performed 2 x 15 minute flow check finger print analyses
06:00	Continued drilling 12 1/4" hole from 2903m to 2945m, ROP 7-19 m/hr
06:30	Flushed kill and choke lines
08:00	Continued drilling 12 1/4" hole from 2945m to 2953m, ROP 6-8 m/hr, observed drilling break from 2953m to 2955m, ROP increasing from 6 m/hr to 33 m/hr
10:00	Flow checked 15 min, well static, circulated bottoms up, no gas peak
23:59	Continued drilling 12 1/4" hole from 2955m to 3032m, ROP 4-14 m/hr

Daily report no : 52 **Date:** 2005-07-24**Midnight depth :** 3076 m MD **Estimated PP:** 1.28 sg **Mud weight:** 1.38 sg

Stop time	Description
03:00	Continued drilling 12 1/4" hole from 3032m to 3043m, ROP 4-10 m/hr, observed drilling break from 3043m to 3045m, ROP increasing from 5 m/hr to 25 m/hr
05:00	Flow checked 15 min, well static, circulated bottoms up, gas peak on bottoms up 2.86% vs background gas 0.7-1.2 %
12:30	Continued drilling 12 1/4" hole from 3045m to 3076m, ROP 2-18 m/hr, stopped drilling due to increased gas readings, 13%, when starting to get returns from interval 3068m to 3072m (ROP temporarily increased from 8 m/hr to 18 m/hr)
14:00	Flow checked 15 min, well static, started to circulate bottoms up, 3500 l/min, gas level raised to 18%, flow checked and observed 600 l gain in active
16:30	Closed upper annular, monitored pressures, started to circulate riser via booster line, 3500 l/min, 67 bar, gas level raised to 18% and dropped back to 3%.
17:00	Checked pressure on drill pipe side, no pressure, opened choke to atmosphere, flow checked via choke for 15 min, well static, closed upper pipe ram 16:50 hrs
22:00	Continued circulating bottoms up via choke, poorboy degasser and trip tank, 810 l/min, 55 bar, gas out value did not drop after circulating bottoms up + 50%, gas value fluctuated between 3-5 % as level in trip tank varied, gas in value was stable 1.5%, decided to increase mud weight to 1.38 sg
23:59	Continued circulating via choke, poorboy degasser and trip tank, 810 l/min, while displacing well to 1.38 sg mud, gas out started to drop from 4% at 22:30 hrs to 2.4 % at midnight

Daily report no : 53 **Date:** 2005-07-25**Midnight depth :** 3107 m MD **Estimated PP:** 1.28 sg **Mud weight:** 1.40 sg

Stop time	Description
02:00	Continued circulating via choke, poorboy degasser and trip tank, 810 l/min, while continuing displacing well to 1.38 sg mud, gas out level 2-3%
04:00	Displaced riser through booster line to 1.38 sg mud, 3500 l/min, meanwhile observing well static on trip tank via choke line
05:00	Closed upper pipe ram, displaced kill & choke lines to 1.38 sg mud via kill line, annular bleed off valve and choke line, opened upper pipe ram and upper annular, flow checked well on trip tank via riser for 15 min, well static
08:00	Started circulating bottoms up for 15 min, did 10 min pump off test, continued circulating bottoms up, 3200 l/min, 6.4% gas on bottoms up, max gas during circulation 9.5%, flowchecked 15 min, well static, continued circulating until gas out value stabilized 0.8-1.0 %
15:30	Continued drilling 12 1/4" hole from 3076m to 3094m, 11.7 % gas peak from previous flow check, stopped drilling due to 13.7% connection gas from pipe connection at 3088.5m
20:30	Circulated while increasing mudweight to 1.40 sg, 3400 l/min, flushed kill & choke lines, took SCRs, circulated 3400 l/min for 30 min, made 10 min pump off test
23:59	Continued drilling 12 1/4" hole from 3094m to 3097.5m, ROP 1-5 m/hr, no gas peak from bottoms up and previous pump off test, drilling break 24 m/hr from 3097.5m to 3099m, flow checked 15 min, well static, continued drilling 12 1/4" hole from 3099m to 3107m, ROP 1-5 m/hr

Daily report no : 54 **Date:** 2005-07-26**Midnight depth :** 3163 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.40 sg

Stop time	Description
12:00	Continued drilling 12 1/4" hole from 3107m to 3144m
12:30	Flow checked 20 min, well stable
13:00	Started to pull out of hole from 3144m for check trip, took 20 ton overpull at 3134m, wiped same and continued pulling out of hole, took 20-30 ton overpull at 3120m, attempted to wipe area, no success, attempted to rotate, no success, broke free with 30-40 ton down weight
14:30	Ran back to TD at 3144m, circulated bottoms up, 3400 l/min, while reciprocating string, 50 RPM, no gas increase on bottoms up
23:00	Continued drilling 12 1/4" hole from 3144m to 3163m, at 3155m started to increase MW while drilling from 1.40 sg to 1.45 sg

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 54 **Date:** 2005-07-26**Midnight depth :** 3163 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.40 sg**Stop time Description**

23:30 Flow checked 15 min, well stable, displaced kill and choke lines to 1.45 sg mud and recorded SCRs
 23:59 Lubricated out of hole from 3163m to 3143m, flow 460-700 l/min, SPP 39-50 bar

Daily report no : 55 **Date:** 2005-07-27**Midnight depth :** 3163 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg**Stop time Description**

02:00 Continued to lubricate out of hole from 3143m to 2880m, inside 13 3/8" casing, took 5-10 ton overpull towards end of each stand from 3130m, flow checked well 30 min, well static
 02:30 Continued to pull out of hole from 2884m to 2870m, took gradual increase in overpull to max 25 ton, ran back in hole to 2880m
 04:00 Circulated bottoms up from 2880m, 3400 l/min
 10:00 Continued to pull out of hole from 2880m to 2887m, slugged pipe and continued to pull out of hole to surface, flow checked 15 min prior to pull BHA through BOP, well stable
 11:30 Racked back heavy weight, drill collars and MWD tools
 12:00 Broke off 12 1/4" bit, no wear or damage seen but junk slots balled up, 2 pad seals washed out on Power Drive, laid out 12 1/4" bit and Power Drive
 13:00 Laid out vision tool, power pulse and isonic for downloading of data and replacement of batteries
 14:00 Cleared rig floor, picked up new Power Drive and new 12 1/4" bit, made up same
 16:00 Picked up vision tool, power pulse and isonic, ran in hole with same and flow tested, 3000 l/min
 16:30 Continued to run in hole from 40m to 176m with 12 1/4" BHA
 22:30 Continued to run in hole from 176m to 2880m on 5" S-135 drill pipe, filled string every 20 stands, ran compensated through BOP and wellhead
 23:59 Function tested BOP on yellow pod from driller's panel and started to test same on blue pod from toolpusher's panel

Daily report no : 56 **Date:** 2005-07-28**Midnight depth :** 3175 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg**Stop time Description**

00:30 Continued to function test BOP on blue pod from toolpushers panel
 02:00 Continued to run in hole with 12 1/4" BHA from 2880m to TD at 3163m, washed down last stand
 14:00 Continued to drill 12 1/4" hole from 3163m to 3175m, 1.95% trip gas
 16:00 Flow checked 15 min, well stable, pulled wet out of hole with 12 1/4" BHA from 3175m to 2880m, inside 13 3/8" casing shoe, no overpull
 22:00 Flow checked 15 min, well stable, pumped slug, pulled out of hole from 2880m to 176m, flow checked well 15 min prior to run BHA through BOP, well stable
 23:30 Racked back heavy weight, drill collars, jar and MWD
 23:59 Broke 12 1/4" bit, laid out power drive and bit, bit balled up

Daily report no : 57 **Date:** 2005-07-29**Midnight depth :** 3289 m MD **Estimated PP:** 1.29 sg **Mud weight:** 1.45 sg**Stop time Description**

01:00 Picked up new 12 1/4" bit, 12 1/4" near bit stab, non mag pony drill collar, 12 1/4" non mag stab, made up same, BHA no. 12
 01:30 Made up MWD, dumped memory from isonic and vision tool, initialized and ran in hole with same
 02:00 Continued to run in hole from 40m to 205m with 12 1/4" BHA, picked up one stand 8" drill collar
 09:30 Continued to run in hole with 12 1/4" BHA on 5" S-135 drill pipe from 205m to 3175m, washed down last stand, ran compensated through BOP and wellhead, filled string every 1000m and flow tested MWD while filling string at 1150m, 3000 l/min
 23:59 Broke in bit, continued to drill 12 1/4" hole from 3175m to 3289m, trip gas 1,15%, boosted riser, 1600 l/min

Daily report no : 58 **Date:** 2005-07-30**Midnight depth :** 3428 m MD **Estimated PP:** 1.33 sg **Mud weight:** 1.45 sg**Stop time Description**

23:59 Continued to drill 12 1/4" hole from 3289m to 3428m, boosted riser, 1600 l/min

DAILY REPORT

Well: 6605/8-1**PO:** 1**Daily report no :** 59 **Date:** 2005-07-31**Midnight depth :** 3521 m MD **Estimated PP:** 1.33 sg **Mud weight:** 1.45 sg

Stop time	Description
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04:30	Continued to drill 12 1/4" hole from 3428m to 3452m, boosted riser, 1600 l/min
05:00	Investigated earth failure on mud pump no. 1, pump out of function, not able to sort out problem
19:30	Continued to drill 12 1/4" hole from 3452m to 3521m, riser not boosted
23:59	Flow checked, well stable, took 20 ton over pull when attempting to pull out of hole, pumped out of hole from 3521m to 3059m, 2500 l/min, max drag 10 ton

Daily report no : 60 **Date:** 2005-08-01**Midnight depth :** 3521 m MD **Estimated PP:** 1.33 sg **Mud weight:** 1.45 sg

Stop time	Description
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01:30	Continued to pump out of hole from 3035m to inside 13 3/8" casing at 2854m, 2500 l/min, max drag 10 ton
03:00	Circulated bottoms up into riser, 3000 l/min, boosted riser 1600 l/min, big lumps of cuttings (no cavings) coming across shakers
04:30	Flow checked 15 min, well static, pulled out of hole from 2854m to 2709m, boosted riser 2500 l/min, took 15 ton overpull
05:00	Circulated bottoms up into riser, 3200 l/min, boosting riser 1600 l/min
10:30	Continued to pull out of hole from 2709m to 205m, boosted riser 3200 l/min, no drag, pulled compensated through BOP
12:00	Continued to pull out of hole with 12 1/4" BHA, racked back same, broke off bit, all stabilizers in gauge
12:30	Cleared and cleaned rig floor
13:30	Made up MWD tools, dumped memory and initialized ARC - isonic tools, made up new 12 1/4" bit (re-run bit no. 7), ran in hole with same
15:00	Continued to run in hole with 12 1/4" BHA from 32m to 178m, changed out jar
21:00	Continued to run in hole with 12 1/4" BHA on 5" S-135 drill pipe, ran compensated through BOP, filled string every 1000m, flow tested MWD at 1932m
23:00	Continued to run in hole with 12 1/4" BHA from 2885m to 3498m, reamed tight spots at 2905m and 2924m, boosted riser 1500 l/min
23:59	Washed 12 1/4" hole from 3498m to 3514m, encountered fill at 3514m and reamed to bottom at 3521m

Daily report no : 61 **Date:** 2005-08-02**Midnight depth :** 3782 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg

Stop time	Description
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08:30	Drilled in bit and continued to drill 12 1/4" hole from 3521m to 3575m, max trip gas 1.98%, boosted riser 1650 l/min
23:59	Continued to drill 12 1/4" hole from 3575m to 3782m, boosted riser 1600 l/min

Daily report no : 62 **Date:** 2005-08-03**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg

Stop time	Description
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06:00	Continued to drill 12 1/4" hole from 3782m to 3870m, boosted riser 1500 l/min
21:00	Continued to drill 12 1/4" hole from 3870 m to 4100 m, section TD.
23:59	Circulated the hole clean while reciprocated the string.

Daily report no : 63 **Date:** 2005-08-04**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg

Stop time	Description
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01:00	Continued to circulate while reciprocated the string. Circulated until hole clean. Final gas readings: 0.78 %
02:00	Flowchecked and pulled out to 4004 m. Had 20 ton overpull at 4004 m.
04:30	Continued to pull out from 4004 m to 3919 m. Had 20 ton overpull at 3960 m and 3933 m. Worked passed the tight spots with 70 rpm and circulation. String become partly stuck at 3933 m.
06:00	Lubricated out of the hole from from 3919 m to 3706 m.
06:30	Flowchecked the well on trip tank to verify trip sheet.
08:30	Continued to pump out of the hole from 3706 m to 3528 m, into old hole.
10:30	Continued to pull out of the hole from 3528 m to 2838 m. Flowchecked and took torque readings.
14:30	Continued to pull out of the hole from 2900 m to 1050 m.
16:00	Flow checked prior to pull the bottom hole assembly into the BOP. Continued to pull out of the hole to 176 m.
19:00	Rack back the bottom hole assembly, laid down the logging tools and MWD. Recovered the drift. Broke out the bit.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 63 **Date:** 2005-08-04**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg**Stop time Description**

19:30 Cleaned the drill floor and removed the diverter insert packer.
 21:00 Made up a DP single to the BOP test tool. Ran in hole with jet sub/bull nose and two stands of 8" DC . Made up the BOP test tool. painted string above BOP test tool.
 21:30 Ran in the hole with the BOP test tool on V150 DP to 230 m.
 22:00 Held H2S drill with crew.
 23:30 Ran in the hole with the BOP test tool on V150 DP to 845 m.
 23:59 Washed the BOP and wellhead.

Daily report no : 64 **Date:** 2005-08-05**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg**Stop time Description**

00:30 Landed the BOP test tool in the wellhead and set down 24 ton.
 01:00 Displaced kill- and choke lines to sea water.
 07:00 Tested the BOP rams and failsafe valves to 35/545 bar on blue pod.
 08:30 Function tested the BOP on yellow pod.
 11:00 Pulled out with the BOP test tool. Laid out the BOP test tool, racked back DP stand and 2 DC stands. Recovered the 2 3/4" drift.
 13:30 Pressured tested mud hose and IBOP to 35/345 bar.
 14:00 Held pre-job meeting with crew and rigged up for logging
 15:30 Made up wireline log no.1: PEX-HRLA-ECS-DSI and tested same.
 17:30 Ran in the hole with log no.1 to 2750 m.
 19:00 Lost communication with tool string and pulled back to 650 m. Got back signals and ran back to 2750 m.
 22:00 Ran in the hole with log no.1 to 3380 m where log stood up. Attempted to pass 3380 m, negative.
 23:00 Logged up from 3370 m and into the 13 3/8" shoe. Ran back and made a repeat log from 3170 m to 3020 m.
 23:59 Pulled out with log no. 1 from 3020 m and into the shoe and logged with DSI from 2883 m.

Daily report no : 65 **Date:** 2005-08-06**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg**Stop time Description**

00:30 Continued to log with DSI to 1996 m.
 03:00 Pulled out of the hole with log no. 1 to 200 m. Held pre-job meeting prior to laying down the tool string and recovering of the radioactive sources.
 04:30 Pulled out with log no.1. Removed the radioactive sources and laid down the logging tools. Rigged down the surface equipment.
 06:00 Changed out the BX inserts to 5". Made up the 12 1/4" wiper trip assembly.
 12:00 Ran in the hole with wiper trip assembly to 2884 m
 13:30 Slip and cut 37 m of drilling line. Held kick drill with crew.
 14:00 Lubricated traveling block, pipehandler, dolly and top drive.
 14:30 Chaged swivel packing on top drive due to hours.
 18:00 Continued to run in the hole from 2884 m to 4080 m. Washed through tight spots at 3387 m and 3624 m.
 21:30 Washed down and tagged bottom at 4100 m. No fill. Circulated bottoms. Maximum trip gas 5.7% .
 22:00 Flow checked well.
 23:59 Pulled out out of the hole from 4100 m to 3821 m. Pumped a slug and continued to pull out of the hole to 3176 m.

Daily report no : 66 **Date:** 2005-08-07**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg**Stop time Description**

00:30 Continued to pull out of the hole from 3176 m to 2826 m with the wipertrip assembly.
 01:00 Flow checked at the shoe.
 07:00 Continued to pull out of the hole from 2826 m to surface. Racked the bottom hole assembly in the derrick.
 08:30 Made up the cement head and rearranged stands in the derrick. Racked the cement stand in the derrick.
 09:30 Installed the diverter, flush mounted spider and 9 5/8" BX-elevator. Made up stab-in valve to the e to the 9 5/8" swedge.
 11:00 Rigged up casing tong and tested same. Tested the flush mounted casing spider.
 11:30 Held pre-job meeting with all involved personnel.

DAILY REPORT

Well: 6605/8-1**PO:** 1**Daily report no :** 66 **Date:** 2005-08-07**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg

Stop time	Description
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13:00	Ran 9 5/8" liner to 112 m.
13:30	Changed out a leaking hydraulic hose on BX-elevator.
16:00	Continued to run the 9 5/8" liner from 112 m to 436 m.
16:30	Investigated failure in griper function on the Eagle HTV pipe handler.
23:30	Continued to run 9 5/8" liner from 436 m to 1265 m.
23:59	Picked up the 9 5/8" liner hanger from catwalk. Installed the liner plug set.

Daily report no : 67 **Date:** 2005-08-08**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg

Stop time	Description
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01:30	Made up the liner hanger. Removed protections and inspected the shear pin, liner hanger slips and packers. Ran the liner through the rotary and set in slips.
02:00	Removed the 5" manual elevator, installed the BX-elevator and installed the 5" power slips in rotary.
06:00	Ran the 9 5/8" casing from 1275 m to 2125 m on 5" landing string.
09:00	Ran the 9 5/8" casing from 2125 m to 2884 m on 5" landing string.
12:30	Ran the 9 5/8" casing from 2884 m to 4082 m on 5" landing string.
13:00	Made up the cement stand. Broke the circulation and took hook load readings.
14:00	Washed down from 4082 m to 4100 m. Connected the cement hose.
15:00	Broke circulations in steps to 1100 lpm and 70 bar. Verified depth with index line. Pressure tested the cement hose to 345 bar.
16:00	Dropped the ball and set the liner hanger. Hold 135 bar pressure for 2 min. to set the hanger.
18:30	Released the running tool with 9 RH turns. Set down 20 ton to shear out the ball seat. Circulated one bottoms up prior to the cement job.
21:00	Pumped 20 m3 of 1.65 sg spacer. Released the lower dart. Mixed and pumped 46 m3 of 1.90 sg silica cement. Released the top dart and displaced the cement. Sheared out the top plug with 250 bar and continued to displace the cement with 2500 lpm. Bumped the plug with 1000 lpm.
21:30	Pressure tested the casing to 300 bar with 1.45 sg mud for 15 min.
22:00	Bled off the test pressure. Observed back flow.
23:00	Evaluated further action. Picked up landing string 4 m and set down 25 ton to set the liner packer. Closed the upper annulus and pressured up annulus in steps to test the liner lap. Pressure stabilized at 55 bar indicating liner packer not set.
23:59	Attempted to set packer two more times. Set down 40 ton and bled off pressure in drill pipe. No indication of setting the packer.

Daily report no : 68 **Date:** 2005-08-09**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg

Stop time	Description
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02:30	Equalised DP - to annulus pressure and stripped out of liner hanger with running tool. Positioned bottom of running string inside the PBR. Opened the annular. Bled off the drill pipe pressure. Circulated bottoms up. Dumped 48 m3 of contaminated mud.
03:00	Flowchecked for 30 min. at 2824 m.
04:00	Pumped a slug and pulled out of the hole from 2834 m to 2599 m with liner landing string.
04:30	Changed bursted hose for iron roughneck.
08:30	Pulled out of the hole with liner running string from 2599 m to 558 m.
09:30	Repaired leaking hose on upper racking arm.
11:00	Pulled out of the hole with liner running tool. Laid down the liner running tool.
12:00	laid down the cement head. Made up a single and racked back the landing stand. Cleaned the rig floor.
17:00	Picked up the pre-made 8 1/2" assembly and broke out the bit. Laid down the LWD tool.
19:30	Wire for lower racking arm parted. Set the string in the slips and installed the safety valve. Replaced the wire for the lower racking arm.
21:00	Ran in the hole with liner top dress mill assembly from 1479 m to 1947 m. Filled the drill pipe and emptied the trip tank.
23:00	Continued to run in the hole from 1947 m to 2815 m.
23:59	Established circulation above the PBR. Washed down from 2815 m to 2824 m, top liner.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 69 **Date:** 2005-08-10**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.45 sg

Stop time	Description
01:00	Continued to wash with down 650 ltrs. and 15 rpm. Entered PBR and landed top dress mill onto liner top. Set down 3 ton weight. Stopped rotation and flow. Marked the pipe and set down 60 ton to set the liner packer and hold weight for 10 min..
01:30	Dressed inside PBR and scraped packer setting area and verified top PBR @ 2824 m RKB. Pulled the top dress assembly clear of the PBR and pumped a slug.
02:30	Lost the pump pressure while pumping the slug and trip tank volume increased rapidly. Closed in and monitor the well on choke for 30 min. No pressure observed. Flow checked on full open choke for 15 min. Opened well and flow checked on trip tank for 30 min.
08:30	Pulled out of the hole with PBR top dress assembly from 2824 m.
09:00	Broke out bit and bit sub from top dress assembly.
10:30	Pressure tested the liner packer to 270 bar / 15 min.
11:00	Removed diverter packer element and made up jet sub and 3 stands of drill pipe below wear bushing running tool.
14:00	Ran in hole with wear bushing running tool and washed the wellhead area.
14:30	Landed wear bushing running tool and released 13 3/8" wear bushing according to procedure.
17:00	Pulled out of hole with 13 3/8" wear bushing
17:30	Broke out wear bushing form running tool, removed pup from wear bushing running tool and laid out same. Laid out jet sub.
18:30	Picked up and made landing joint with side entry pup in sub and with kelly cock valve installed above.
19:30	Rigged up casing handling equipment.
20:00	Held pre-job meeting with all personell involved in the casing running operation.
20:30	Troubleshoot casing tong and reset same before resuming operation.
23:59	Picked up the 9 5/8" mule shoe and ran in hole with the 9 5/8" tie-back casing as per tally to 530 m.

Daily report no : 70 **Date:** 2005-08-11**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.46 sg

Stop time	Description
11:00	Continued to run in hole with the 9 5/8" tie-back casing from 530 m to 1961 m.
11:30	Picked up the 9 5/8" casing hanger with pre-installed lock ring and made hanger up to the string.
12:00	Removed flush mounted spider and ran the casing hanger through the rotary and installed master bushings.
13:00	Removed manual elevator and installed the Bx elevator for the landing string. Partially rigged down the casing handling equipment.
16:00	Continued to run the 9 5/8" tie-back casing to 2818 m on V-150 landing string.
16:30	Started circulation at 400 lpm and continued to run in hole. Observed a 20 bar pressure increase as the mule shoe entered the PBR and landed the casing hanger.
17:00	Pressure tested the casing to 250 bar / 10 min ok.
19:00	Set the seal assembly according to procedure and pressure tested the seal assembly to 545 bar / 10 min on middel pipe ram. Unseated the casing hanger runnig tool and relanded it again and repeated the pressure test to 545 bar / 10 min.
22:00	Released the casing hanger running tool and pulled out of hole with the casing hanger running tool on V-150 landing string from 861 m.
23:00	Pressure tested the 9 5/8" casing to 385 bar / 10 min using 1.45 sg mud against closed shear ram.
23:59	Picked up and made up the 9 5/8" wear bushing to the multipurpose tool and made up same to 2 stands of 5" heavy weight drill pipe.

Daily report no : 71 **Date:** 2005-08-12**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.47 sg

Stop time	Description
02:30	Ran in hole with 9 5/8" wear bushing on V-150 landing string to 860 m
03:00	Landed the 9 5/8" wear bushing and set down 10 tons. Confirmed that the wear bushing had been set by a 7 tons overpull test.
08:30	Continued with the BOP tests to 35 / 545 bar for 5 /10 min according to procedure.
09:00	Sheared out wear bushing running tool with 12 ton overpull. Re-landed running tool in wear bushing and pulled free without any overpull confirming that the wear bushing had been set. Pumped a slug prior to start pulling out of hole.
11:30	Pulled out of hole with wear bushing running tool from 860 m and broke out and laid down running tool. Pulled 2 stands below running tool and broke off and laid out jet sub.
18:00	Made up drilling stand with 3 singles and 3 kelly kocks and pressure tested drilling stand and loose well control equipment to 35 bar/545 bar for 5 / 10 min.
18:30	Broke out testing kelly cock and test hose form drilling stand and racked same in derrick.
20:00	Made up kill single with kelly cock- pump in sub - kelly cock below 1 single of 5" drill pipe and made up co-flex hose to pump in sub.

DAILY REPORT

Well: 6605/8-1**PO:** 1**Daily report no :** 71 **Date:** 2005-08-12**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.47 sg

Stop time	Description
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22:00	Pressure tested valves on kill single to 35 bar /545 bar for 15 mins.
23:30	Broke of co-flex hose from pump in sub and hung co-flex hose in derrick.Laid out kill single to deck.
23:59	Broke out and laid down 12 1/4" bottom hole assembly.

Daily report no : 72 **Date:** 2005-08-13**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.51 sg

Stop time	Description
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02:30	Continued to lay out 12 1/4" bottom hole assembly and re-arranged stands in derrick
06:00	Picked up and made up 8 1/2" clean-out assembly
12:30	Continued to run in hole with 8 1/2" clean out assembly from 100 m to 2844 m.
20:00	Washed down to find top of cement from 2844 m to 4010 m and tagged cement at 4010 m with 15 down down weight.
21:00	Performed simualted well control choke drill.
23:59	Drilled out hard cement from 4010 m to 4012 m.

Daily report no : 73 **Date:** 2005-08-14**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.51 sg

Stop time	Description
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09:00	Continued to drill out hard cement from 4012 m to 4019 m. Based on very little progress the decision was made to pull out of hole
09:30	Flow checked well on trip tank and pumped a slug.
11:30	Pulled out of hole with 8 1/2" clean out assembly from 4019 m to 2880 m
12:00	Performed a H2S drill on rig floor.
13:00	Continued to pull out of hole with 8 1/2" clean out assembly from 2880 m to 2550 m.
13:30	Laid out one single due to broken hard band. Attempted to break out out the next drill pipe stand with roughneck,negative. Broke the connection using manual rig tong.
16:00	Continued to pull out of hole with 8 1/2" clean out assembly from 2550 m to 1430 m.
16:30	Performed time out for saftety to review safe lifting and manual pipe handling policies for the rig crew.
19:30	Pulled out of hole to 1285 m when a fragment from drill-pipe while breaking a connection, shattered window in drillers cabin. Stopped and investigated the incident. Modified the dices such that no gripping would be on the hard bending on the drill pipe and temporarily replaced the window of the drillers cabin.
21:00	Continued to pull out of hole with 8 1/2" clean out assembly from 1285 m to 745 m.
21:30	Performed a H2S drill on rig floor.
23:59	Continued to pull out of hole with 8 1/2" clean out assembly from 745 m to 50 m.

Daily report no : 74 **Date:** 2005-08-15**Midnight depth :** 4100 m MD **Estimated PP:** 1.34 sg **Mud weight:** 1.51 sg

Stop time	Description
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01:00	Broke out the 8 1/2" clean out assembly and racked in derrick. Laid out non magnetic drill collars.
04:00	Picked up and made up the 8 1/2" bottom hole assembly.
14:00	Ran in hole with the 8 1/2" bottom hole assembly from 172 m to 4005 m on 5" drill pipe.
14:30	Filled string, broke circulation and established the pumping paramters.
15:00	Continued to run in hole and cleaned the bottom to clear debris and tagged bottom at 4019 m with 1 ton and established the cutting profile of the bit.
17:30	Drilled out hard cement from 4019 m to 4046 m.
22:30	Drilled out hard cement from 4046 m to 4095 m.
23:30	Recorded slow circulation rates prior to drilling out the shoe track with 1.51 sg mud.
23:59	Broke out and laid out drilling pump joint. Picked up HPHT drilling stand and established pumping parameters.

Daily report no : 75 **Date:** 2005-08-16**Midnight depth :** 4150 m MD **Estimated PP:** 1.38 sg **Mud weight:** 1.60 sg

Stop time	Description
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00:30	Continued to drill out shoe track from 4095 m to 4100 m. Reamed over the shoe at 4099 m three times.
01:30	Drilled 3 m new formation from 4100-4103 m and pulled back into the shoe with the bit.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 75 **Date:** 2005-08-16**Midnight depth :** 4150 m MD **Estimated PP:** 1.38 sg **Mud weight:** 1.60 sg**Stop time Description**

02:30	Set compensator and spaced out prior to closing the annular preventor. Performed a leak-off test with 1.51 sg mud and obtained a leak-off of 1.97 sg at 4099 m (4094.7 m TVD).
09:00	Circulated while reciprocating the string to raise the mud weight from 1.51 sg to 1.6 sg
10:00	Recorded slow circulating rates with both mud pumps and with the cement unit at 4103 m with 1.6 sg mud
10:30	Fingerprint recorded the flow check and calibrated the coriolis flow meter
17:00	Drilled 8 1/2" hole from 4103 m to 4134 m.
21:00	Shut in well due to 500 liter gain in active. Monitored choke line pressure for 15 minutes prior to opening up the annular preventor and flow checked the well on trip tank, Well static on flow check. Closed in annular preventor and circulated bottoms up over full open choke. Maximum gas recorded was 1.8 %.
23:59	Drilled 8 1/2" hole from 4134 m to 4150 m.

Daily report no : 76 **Date:** 2005-08-17**Midnight depth :** 4187 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg**Stop time Description**

02:00	Drilled 8 1/2" hole from 4150 m to 4156 m. Observed a drilling brake at 4155 m.
02:30	Shut in well due to drilling brake. Monitored the well for 15 minutes against closed choke for pressure build up. No pressure increase seen.
03:00	Opened up the well and flow checked on trip tank for 30 min, well static.
03:30	Circulated 2/3 of bottoms up at 2100 lpm with returns over the shaker.
05:00	Closed in well and circulated the last 1/3 of bottoms up via full open choke at 500 lpm. Maximum gas level recorded was 0.7 %. Opened up the well and flow checked well on trip tank for 15 min, well static
11:30	Drilled 8 1/2" hole from 4156 m to 4187 m and observed a drilling brake at 4186 m.
18:00	Shut in well on annular and observed a pressure build up with a possible influx of 100 liter. Discussed options with shore.
22:30	Circulated at 300 lpm over the choke while maintaining a constant drill pipe pressure of 105 bar. No free gas seen on surface with a maximum gas peak of 2.7 %.
23:30	Closed in well and bleed down pressure in stages. Monitored for pressure build up, no increase observed. Flow checked the well with closed annular and fully open choke on trip tank for 30 min, well static.
23:59	Opened up the annular and flow checked the well on trip tank for 20 min, well static.

Daily report no : 77 **Date:** 2005-08-18**Midnight depth :** 4190 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg**Stop time Description**

02:00	Circulated bottoms up with 2100 lpm: Maximum gas peak observed was of 1.2 %.
03:00	Drilled 8 1/2" hole from 4187 m to 4190 m.
06:30	Circulated bottoms up at 2100 lpm with a maximum observed gas peak of 2.75 %.
07:00	Flow checked the well on trip tank, well static.
08:00	Pulled out of hole wet from 4190 m to 4093 m.
08:30	Flow checked the well on trip tank, well static.
09:00	Ran in hole with 8 1/2" bottom hole assembly from 4093 m to 4190 m
09:30	Flow checked the well on trip tank, well static.
11:00	Circulated bottoms up from 4190 m with a maximum gas peak of 0.21 %.
12:00	Pumped out of hole from 4190 m to 4083 m, inside the 9 5/8" casing.
13:00	Flow checked the well on trip tank, well static. Displaced choke and booter lines with 1.6 sg mud and pumped a slug.
15:00	Pulled out of hole with 8 1/2" bottom hole assembly from 4083 m to 3250 m. Experienced problems breaking a connection.
16:00	Remove mud bucket and broke high torque connection using manual rig tongs
20:00	Pulled out of hole with 8 1/2" bottom hole assembly from 3250 m to 1018 m.
21:00	Flow checked the well on trip tank, well static. Performed H2S drill with crew.
22:30	Pulled out of hole with 8 1/2" bottom hole assembly from 1018 m to 150 m.
23:59	Broke out and racked upper part of 8 1/2" bottom hole assembly.

Daily report no : 78 **Date:** 2005-08-19**Midnight depth :** 4199 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg**Stop time Description**

01:30	Broke out bit and laid out MWD tools .
04:00	Picked up and made up 8 1/2" core assembly.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 78 **Date:** 2005-08-19**Midnight depth :** 4199 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg

Stop time	Description
08:00	Ran in hole with 8 1/2" core assembly from 56 m to 1460 m.
09:00	Function tested both pods on the BOP according to procedure.
12:00	Ran in hole with 8 1/2" core assembly from 1460 m to 2800 m.
12:30	Changed out dies on iron roughneck.
15:30	Ran in hole with 8 1/2" core assembly from 2800 m to 4068 m.
16:00	Ran in hole with 8 1/2" core assembly from 4068 m to 4185 m.
16:30	Picked up drilling stand , broke circulation and tagged bottom at 4190 m.
18:00	Circulated bottoms from 4190 m with a maximum gas peak of 0.63 %.
19:00	Flushed choke and booster lines and dropped ball and observed a 16 bar pressure increase as the ball landed in the coring head.
22:00	Cut core number 1 as per instructions from 4190 m to 4199 m. Observed core jammed of at 4199 m. Pulled free with 30 tons overpull.
23:00	Flow checked the well on trip tank for 30 min, well static.
23:30	Pulled out of hole with 8 1/2" core assembly from 4199 m to 4068 m and flow checked the well on trip tank for 15 min, well static.
23:59	Pulled out of hole with 8 1/2" core assembly from 4068 m to 3900 m at a rate of 2 min. per stand.

Daily report no : 79 **Date:** 2005-08-20**Midnight depth :** 4199 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg

Stop time	Description
05:30	Pulled out of hole with 8 1/2" core assembly from 3900 m to 1600 m at controlled rate of 2 min. per stand.
13:00	Pulled out of hole with 8 1/2" core assembly from 1600 m to surface at controlled rate.
14:00	Broke of coring bit and recovered and laid down core.
14:30	Cleaned and cleared rig floor and prepared for cut and slip of drill line.
16:30	Slipped and cut 37 m of drill line.
17:30	Carried out derrick inspection and inspected top drive and pipe handling system.
18:30	Broke out and laid down core assembly.
22:00	Picked up and made up 8 1/2" bottom hole assembly.
23:59	Ran in hole with 8 1/2" bottom hole assembly from 195 m to 1195 m.

Daily report no : 80 **Date:** 2005-08-21**Midnight depth :** 4267 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg

Stop time	Description
03:00	Ran in hole with 8 1/2" bottom hole assembly from 1195 m to 2594 m.
03:30	Stopped and repaired broken hydraulic hose on iron roughneck spinner.
07:00	Ran in hole with 8 1/2" bottom hole assembly from 2594 m to 4179m.
08:00	Reamed and logged formation from 4179 m to 4199 m.
13:00	Drilled 8 1/2" hole from 4199 m to 4215 m.
15:00	Circulated bottoms up due to high gas reading in returns. Maximum gas reading reduced from 13,5 % to 1.5 %.
15:30	Drilled 8 1/2" hole from 4215 m to 4218 m.
16:00	Recorded slow circulation rates. Flushed choke-, booster line and choke manifold through degasser into trip tank.
23:59	Drilled 8 1/2" hole from 4218 m to 4267 m.

Daily report no : 81 **Date:** 2005-08-22**Midnight depth :** 4384 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg

Stop time	Description
23:59	Drilled 8 1/2" hole from 4267 m to 4384 m.

Daily report no : 82 **Date:** 2005-08-23**Midnight depth :** 4474 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg

Stop time	Description
11:00	Drilled 8 1/2" hole from 4384 m to 4426 m.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 82 **Date:** 2005-08-23**Midnight depth :** 4474 m MD **Estimated PP:** 1.46 sg **Mud weight:** 1.60 sg

Stop time	Description
12:00	Observed rapid increase in ROP, closed in well and checked for pressure build up. No increase observed. Opened up well and flow checked well on trip tank for 20 min, well static. Flushed choke and booster line and recorded slow circulation rates.
15:00	Drilled 8 1/2" hole from 4426 m to 4437 m.
15:30	Suspended drilling operation temporarily whilst investigating fault on Eagle lite control system while circulating.
23:59	Drilled 8 1/2" hole from 4437 m to 4474 m.

Daily report no : 83 **Date:** 2005-08-24**Midnight depth :** 4513 m MD **Estimated PP:** 1.47 sg **Mud weight:** 1.60 sg

Stop time	Description
08:30	Drilled 8 1/2" hole from 4474m to well TD 4513m
12:00	Circulated bottoms up, flow checked well 30 min, well stable
14:00	Pumped slug and pulled out of hole from TD 4513m to 4074m, within 9 5/8" casing, no overpull
15:30	Flow checked well 15 min, well stable, ran in hole to 4484m, washed down last stand from 4484m to TD 4513m, hole ok
20:00	Circulated and conditioned mud, 2 times bottoms up, wiper trip gas 0.6%
21:30	Flow checked well 15 min, well stable, displaced open hole section with 16m3 1.60 sg hi-temp salt gel pill and pumped slug
23:00	Pulled out of hole from TD 4513m to 4075m, within 9 5/8" casing, no overpull
23:59	Flow checked well 15 min, well stable, continued to pull out of hole from 4075m to 3750m

Daily report no : 84 **Date:** 2005-08-25**Midnight depth :** 4513 m MD **Estimated PP:** 1.47 sg **Mud weight:** 1.61 sg

Stop time	Description
07:30	Continued to pull out of hole from 3750m to 111m, flow checked well 25 min prior to pulling bottom hole assembly through BOP, well stable
09:30	Racked back heavy weight drill pipe and 2 stands 6 1/2" drill collars, laid out isonic
10:30	Unable to lay out equipment from rig floor due to crew servicing helicopter, monitored well on trip tank and cleaned rig floor,
11:30	Broke off bit, laid out Arc and power pulse tools
12:30	Held pre job meeting, rigged up wireline cable, sheaves and heave compensating wire
15:00	Rigged up and function tested PEX-HRLA-ECS-DSI
15:30	Failure on ECS tool, replaced same, tested logging string ok
16:00	Held pre-job meeting and installed radioactive sources
23:59	Ran in hole with logging string, logged from TD 3513m to 4074m with PEX-HRLA-ECS-DSI, logged from 4074m to approximately top of cement at 3687m with DSI, started to pull out of hole with logging string

Daily report no : 85 **Date:** 2005-08-26**Midnight depth :** 4513 m MD **Estimated PP:** 1.47 sg **Mud weight:** 1.60 sg

Stop time	Description
02:00	Continued to pull out of hole with PEX-HRLA-ECS-DSI
03:30	Rigged down and laid out PEX-HRLA-ECS-DSI, held pre job meeting prior to remove radioactive sources
04:00	Rigged down wireline cable, sheaves and heave compensating wire
08:00	Picked up BOP test tool from deck, ran in hole with same on 5" drill pipe, jetted wellhead, landed out test tool in wellhead
14:00	Pressure tested BOP via blue pod 35/550 bar, 10 min, ok, function tested BOP via yellow pod, ok
17:00	Pumped slug, pulled out of hole with BOP test plug, laid out same, cleaned rig floor
17:30	Held pre job meeting, rigged up wireline cable, sheaves and heave compensating wire
18:30	Rigged up MDT tool and function tested same, ok
22:00	Ran in hole with MDT tool, hole ok, tied in and attempted pressure sampling at 4252.7m to 4252m, tight formation
23:59	Lost communication with MDT tool when doing pressure test at 4246.8m, pulled inside 9 5/8" shoe for troubleshooting, found no surface failure, started to pull out of hole with logging string

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 86 **Date:** 2005-08-27**Midnight depth :** 4513 m MD **Estimated PP:** 1.47 sg **Mud weight:** 1.60 sg

Stop time	Description
03:30	Continued to pull out of hole with MDT, rigged down and laid out same
06:30	Rigged up new MDT, now also including 12 PVT chambers (6 x 250 cc + 6 x 450 cc) and two low shock sampling chambers (1 and 2 3/4" gallon), function tested same, ok
09:30	Ran in hole with MDT from surface to 2700m, got communication error, pulled out of hole
12:30	Cut off 100m logging cable, build new rope socket, tested MDT, ok
15:30	Ran in hole to 4300m with MDT, experienced intermittent communication problems below 1000m, tied in to reference log
18:00	Logged seven pressure points in interval 4246.8m to 4238.5m, lost communication with MDT
23:00	Pulled out of hole with MDT to within 9 5/8" casing shoe at 4099m, achieved partial communication with MDT, made one attempt to get pressure point at 4209.1m, lost communication with MDT, pulled out of hole to surface
23:59	Continued trouble shooting MDT communication error

Daily report no : 87 **Date:** 2005-08-28**Midnight depth :** 4513 m MD **Estimated PP:** 1.47 sg **Mud weight:** 1.60 sg

Stop time	Description
01:30	Continued trouble shooting MDT communication error, problem anticipated to be caused by telemetry configuration, decided to run VSP while waiting for telemetry adapter ordered by helicopter
03:00	Rigged down MDT
04:30	Rigged up VSP tool with four satellites for zero offset VSP, tested tool, ok
08:30	Ran in hole with VSP tool, tied in to reference log
11:00	Logged zero offset VSP in interval 4510m to 2710m
13:30	Pulled out of hole with VSP tool, rigged down same
17:30	Held pre job safety meeting, rigged up MDT, tested same, ok
20:30	Ran in hole with MDT, tied in to reference log
23:59	Logged MDT pressure tests in interval 4232,3m to 4209,1m

Daily report no : 88 **Date:** 2005-08-29**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
05:30	Logged MDT pressure tests in interval 4209.1m to 4193.6m, got tool failure, unable to get seal with single probe
17:00	Ran in hole with MDT from 4193.6m to 4231.4m, got pressure test with guard probe, started clean-up/sampling, pumped 110 ltr filtrate and formation water to well bore, filled 4 x 450 cc MPSR with formation water, tool stuck when attempting to release tool
23:30	Attempted to work MDT free by alternating pulling/slacking logging wire, max pull 13.700 lbs, eq. to max safe working load 8000 lbs on cable head, no success
23:59	Released the cable head and started to pull out of the hole with the wireline cable and cable head, top of fish at 4196m

Daily report no : 89 **Date:** 2005-08-30**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
01:30	Continued to pull out of hole with logging cable and cable head, rigged down wireline cable, sheaves and wireline heave compensating wire
02:30	Made up 7" overshot with 2 5/16" ID spiral grapple, one single 5" S-135 drill pipe and one 8 1/2" string stabilizer
04:30	Ran in hole with 7" fishing assembly on 5" S-135 drill pipe from 11m to 737m
05:00	Repaired failure on hydraulic steering system for iron rough neck spinner tong
12:00	Continued running in hole from 737m to 4174m with 7" fishing assembly
14:30	Circulated bottoms up, 2000 l/min, conditioned mud
16:00	Established slow circulation rate 200 l/min / 35 bar, ran in hole carefully, engaged fish at 4196m, observed 2 bar pressure increase and 5-10 ton down weight. Made several attempts to work fish before it came free, max overpull 50 ton, max down weight 10 ton
23:59	Pumped slug and started to pull fish out of the hole, flow checked well for 15 min at shoe and before entering BOP with fish, well stable

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 90 **Date:** 2005-08-31**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
00:30	Continued to pull out of the hole with fish from 300m to surface
04:00	Held pre job meeting, pulled and secured fish in rotary, released fish, installed wireline cable to fish, function tested MDT tool, ok, rigged down and laid out MDT
04:30	Broke 7" overshot and 8 1/2" string stabilizer from fishing assembly, laid out same
05:00	Cleared rig floor of fishing/wireline equipment
06:00	Made up wiper trip BHA with 8 1/2" bit, bit sub w/ported float and 8 3/8" non mag stabilizer below drill collars/jar/heavy weight drill pipe
15:30	Ran in hole with 8 1/2" wiper trip assembly from 140m to 4488m, broke circulation, washed down last stand and tagged bottom at 4513m, hole ok
17:00	Circulated bottoms up, 2000 l/min, and conditioned mud, max gas 10% on bottoms up
18:30	Circulated on mud pump no. 3 while cleaning out suction strainers on mud pumps no. 1 and 2, strainers clogged up with mud, chemicals and polymer
19:30	Displaced open hole section with 16 m3 1.60 sg hi-temp salt-gel pill, pumped slug
21:00	Flow checked well 15 min, well stable, pulled out of the hole with 8 1/2" wiper trip assembly from 4513m to 4078m, within 9 5/8" casing
23:59	Flow checked well 15 min, well stable, continued to pull out of the hole from 4078m to 2569m

Daily report no : 91 **Date:** 2005-09-01**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
05:00	Continued to pull out of hole with 8 1/2" wiper trip assembly from 2569m to 140m, flow checked well 15 min prior to pulling BHA through BOP, well stable
05:30	Racked back 8 1/2" wiper trip assembly, broke off and laid out 8 1/2" bit
07:30	Rigged up wireline sheave wheels and MRCT
10:00	Ran in hole with MRCT from surface to 4485m, tested tool at 2000m and 4000m, ok
11:00	Tied in to reference log, attempted to cut sidewall core no. 1 at 4438.5m, tool failed
18:00	Trouble shooted MRCT failure, no success, pulled out of hole, rigged down MRCT
18:30	Rigged up FMI
23:59	Ran in hole to 4260m, logged repeat section from 4260m to TD 4513m, logged from 4513m to 4100m, started pulling out of hole

Daily report no : 92 **Date:** 2005-09-02**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
00:30	Continued to pull out of hole with FMI to surface
01:30	Rigged down FMI
06:00	Rigged up Dual Packer MDT with 6 PVT chambers (2 x 250 cc + 4 x 450 cc) and two low shock chambers (1 and 2 3/4 gallon), checked tool, ok
15:00	Ran in hole with MDT to 4385m, tied in, attempted 18 pre test samples in interval 4211-4209.4m, 2 successfull, 16 super charged
23:00	Sampled 1 x 2 3/4" gallon + 1 x 250 cc + 2 x 450 cc at 4209.4m
23:59	Initiated 1 hour transient/build up test

Daily report no : 93 **Date:** 2005-09-03**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
01:00	Completed 1 hour MDT transient/build up test
03:00	Tool stuck, attempted to work MDT free by alternating slacking/pulling logging wire, max pull 14.400 lbs, equal to max safe working load for cable head, 8000 lbs, no success
12:00	Inflated dual packers on MDT, tool released when deflating packers
15:30	Tied in and resat dual packers at 4191.6m, lost packer pressure and seal when waiting for build up
16:30	Trouble shooted MDT packer, no success, released tool, no problem
18:30	Pulled out of hole with dual packer MDT from 4191.6m to surface
22:00	Rigged down MDT, observed upper dual packer ruptured
23:59	Prepared for rig up of MRCT, simultaneously started redressing MDT

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 94 **Date:** 2005-09-04**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
01:30	Continued preparing MRCT for rig up
03:00	Rigged up MRCT, 50 cores, checked tool, ok
05:00	Ran in hole with MRCT from surface to 4000m, checked tool at 2000m ok, checked tool at 4000m, tool failed
05:30	Trouble shooted MRCT failure, not able to fully retract coring unit, no success
16:00	Pulled out of hole with MRCT, unable to repair tool
21:00	Continued redressing MDT
21:30	Rigged down wireline equipment
22:00	Made up 8 1/2" wiper trip assembly: 8 1/2" bit, bit sub with portable float, 8 3/8" string stabilizer, drill collars, jar and heavy weight drill pipe
23:59	Ran in hole with 8 1/2" wiper trip assembly on 5" S-135 drill pipe from 140m to 875m

Daily report no : 95 **Date:** 2005-09-05**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
07:30	Continued running in hole with 8 1/2" wiper trip assembly from 875m to 4500m, washed through tight spot at 4209m area, filled string as required
08:30	Broke circulation in steps and tagged bottom at 4513m, circulated 2000 l/min / SPP 280 bar until bottoms up 1000m below BOP
10:00	Closed upper annular, circulated through fully open choke, 810 l/min / SPP 100 bar, max gas 10.2%, opened upper annular bleed off line and circulated out
12:30	Opened upper annular, flow checked 15 min, well static, circulated and conditioned mud, 2265 l/min / SPP 293 bar, max gas 24.7%
13:30	Displaced open hole with 16 m3 1.60 sg salt gel mud, flow checked 15 min, well static
21:30	Slugged pipe and pulled out of hole with 8 1/2" wiper trip BHA from 4513m to 141m, worked tight spot once in 4209m area, flow checked well 15 min at 9 5/8" shoe and before pulling BHA through BOP, well static
22:00	Racked back 8 1/2" wiper trip BHA, broke off bit, laid out same
22:30	Held pre job meeting, rigged up wireline sheaves and compensator line
23:59	Started rig up dual packer MDT

Daily report no : 96 **Date:** 2005-09-06**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
02:30	Continued to rig up dual packer MDT dressed with 2 x 250 cc SPMC, 10 x 450 cc MPSR and 2 x 2 3/4" gallon sample chambers, got communication error when testing tool in rotary
10:00	Troubleshooted MDT communication error, identified short circuit on two sample chambre connectors and CFA, removed failed sample chambers and CFA, checked tool, ok
12:00	Ran in hole with dual packer MDT dressed with 2 x 250 cc SPMC, 10 x 450 cc MPSR from surface to 4057m, got failure on 50V system
15:00	Troubleshooted MDT 50V failure, no success, pulled out of hole from 4057m to surface
21:30	Continued troubleshooting MDT 50V failure, replaced LFA, checked tool, ok, meanwhile function tested BOP on blue POD, ok
23:59	Ran in hole with dual packer MDT from surface to 4300m

Daily report no : 97 **Date:** 2005-09-07**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
21:00	Tied in dual packer MDT to reference log, logged MDT
23:00	Pulled out of the hole with dual packer MDT, hole ok
23:59	Started to rig down dual packer MDT

Daily report no : 98 **Date:** 2005-09-08**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
01:00	Completed rig down of dual packer MDT logging tool.

DAILY REPORT

Well: 6605/8-1**PO:** 1**Daily report no :** 98 **Date:** 2005-09-08**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
02:30	Rigged up the MSCT logging tool. Checked the MSCT logging tool, ok
05:00	Ran in hole with MSCT from surface to 4275 m. Made 3 correlation passes to come on depth.
10:00	Cut sidewall cores in interval from 4246 m to 4125 m.
10:30	Dropped down for correlation depth check.
11:30	Cut sidewall cores in interval from 4438 m to 4373 m.
12:00	Observed an oil leak in the MSCT tool.
16:00	Pulled out of the hole with the MSCT log.
17:30	Held a pre-job meeting. Pulled the MSCT log to surface, recovered the samples and laid down the logging tool.
18:00	Rigged down the wireline sheaves and the compensator line.
19:00	Made up 8 1/2" bit and ran in the hole with wipertrip assembly to 140 m.
23:59	Ran in the hole with 8 1/2" wipertrip assembly on 5" DP from 140 m to 3000 m .

Daily report no : 99 **Date:** 2005-09-09**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
02:00	Continued to run in the hole with 8 1/2" wipertrip assembly from 3000 m to 4074 m. Emptied the trip tank and broke the circulation
03:00	Continued to run in the hole with 8 1/2" wipertrip assembly from 4074 m to 4487 m.
03:30	Filled the string and established circulations. Tagged bottom at 4513 m, no fill.
04:30	Broke the circulation while rotating the string. Increased the circulation in steps to 1300 lpm. Circulated until bottoms up 1000 m below the BOP.
05:30	Closed upper annular and circulated until 1.2 times bottoms up through fully open choke and mud gas separator.
06:00	Flowchecked up choke line. Open upper annular and flowchecked up riser. Well static.
08:30	Circulated bottoms up the long way.
09:30	Took torque readings at 4510 m. Flowchecked. Pumped a 20 m3 of 1.60 sg salt gel pill and set from bottom.
11:00	Pulled out from 4510 m to 4078 m.
11:30	Took torque readings inside casing at 4078 m. Flowchecked,ok.
12:00	Pumped a slug, dropped a 2 7/8" hollow drift and pulled out of the hole from 4078 m to 3990 m.
18:30	Pulled out of the hole with the 8 1/2" cleanout assembly from 3990 m to 141 m. Flowchecked prior to pull the bottomhole assembly into the BOP.
20:30	Removed the diverter. Made up the BOP test tool. Ran in the hole with the BOP test tool and landed in the wellhead. Set down the weight of the bottom hole assembly.
23:59	Pressure tested the BOP rams to 35/570 bar. Tested the annulars to 35/517 bar.

Daily report no : 100 **Date:** 2005-09-10**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
01:30	Continued to test the BOP from blue pod. Function tested the BOP from yellow pod. Displaced the kill line to seawater/glycol.
03:30	Pulled out with the BOP test tool and laid down same.
04:00	Pulled out of hole from 141 m with the 8 1/2" wipertrip assembly.
05:00	Replaced a leaking hydraulic quick connector on elevator rotating head open function.
05:30	Continued to pull out with the 8 1/2" wipertrip assembly. Broke out the bit and bit sub. Recovered the drift.
07:00	Picked up the cement head for 7" liner and made up to 2 joints of 5" HWDP. Connected the control hoses. Pumped through the cement hose and cement head. Racked cement stand in the derrick.
08:30	Slip and cut the drilling line. Checked the function of crown-o-matic.
09:00	Cleaned and cleared the rig floor.
10:00	Rigged up the casing running equipment.
10:30	Held pre-job meeting and picked up the 7" liner shoe. Checked the float.
16:30	Ran the 7" liner to 480 m. Filled string every 5th joint.
18:00	Picked up the 7" hanger. Identified non compatible threads on crossover. Laid out hanger and x-over and casing joint no. 19.
19:00	Picked up casing joint no. 18. and x-over. Picked up the 7" liner hanger. Installed the wiper plugs and made up the hanger. Laid out the flush mounted spider.
19:30	Checked the liner hanger. Picked up 2 ea 5" DP pups.
20:00	Made up 2 ea 5" DP pup joints to liner running tool. Circulated the liner volume. Filled the PBR with water.
23:59	Ran 7" liner on 5" landing string from 500 m to 1940 m.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 101 **Date:** 2005-09-11**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
06:00	Ran 7" liner on 5" landing string from 1940 m to 4084 m. Recorded up and down weight.
06:30	Ran 7" liner on 5" landing string from 4084 m to 4495 m. .
07:00	Made up the cement stand. Ran in and tagged bottom at 4513 m. Connected the control hoses and the cement hose.
08:00	Broke the circulation and circulated 1 x open hole volume.
09:30	Dropped the liner hanger setting ball. Set the liner and released the running tool with 150 bar. Sheared out the ball seat with 230 bar.
12:00	Increased circulation in steps , rotated the liner and circulated bottoms up with 1400 lpm.
12:30	Held a pre-job meeting. Pumped 12 m3 of 1.75 sg T spacer E. Closed the IBOP with 20 bar pressure above.
13:30	Mixed 8.2 m3 of 1.90 sg Silica cement in the batch tank.
14:30	Released lower dart. Pumped 8.2 m3 of 1.9 sg silica cement. Released the top dart and displaced the cement while rotating the liner at 15 rpm. Sheared the bottom dart with 300 bar and the top dart with 118 bar.
15:00	Bumped the plug. Pressure tested the liner to 345 bar/10 min. Checked for back-flow, negative.
16:00	Set the liner packer and tested same to 420 bar/15 min. against the upper annular.
18:30	Racked back the cement stand. Installed a DP wiper and circulated bottoms up. Dumped 30 m3 of contaminated returns.
19:00	Flowchecked for 15 min. Pumped a slug.
23:59	Pulled out of the hole from 3980 m to 700 m with 5" landing string.

Daily report no : 102 **Date:** 2005-09-12**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.60 sg

Stop time	Description
00:30	Pulled out from 700 m to 480 m with 5" landing string.
04:30	Continued to pull out of the hole from 480 m and laid out 5" landing string in singles.
05:00	Laid out 2 x 5" pup joint and 7" liner running tool.
06:00	Laid down the cement head and 2 x 5" HWDP.
09:30	Changed to 3 1/2" handling equipment. Picked up 5 7/8" mill and 7" scraper assembly. Ran in the hole with 5 7/8" clean-out assembly on 3 1/2" DP to 376 m. Picked up a total of 39 joints 3 1/2" DP from deck.
17:00	Changed to 5" handling equipment. Made up the PBR top dress assembly. Ran in the hole with 2 stands of 5" HWDP and 5" DP from 376 m to 4011 m. Hit an obstruction at 4011 m.
19:30	Broke the circulation and washed / reamed down from 4011 m to 4090 m.
21:30	Continued to run in the hole from 4090 m to 4398 m. Scraped the packer setting area from 4150 m to 4180 m.
22:00	Broke the circulation and ran in the hole from 4398 m to 4420 m and tagged the liner top at 4020 m. Cleaned top of liner with top dress mill. Racked back 1 x DP stand.
23:59	While waiting on the boat to arrive with brine, rigged up for pressure testing of surface equipment. Pressure tested the mud hose and DDM kelly cocks to 35/345 bar.

Daily report no : 103 **Date:** 2005-09-13**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
10:30	While waiting on boat to arrive with brine, tested the stand pipe manifold, installed new kickerplate on drawwork, laid down 6 1/2" DC's and performed maintenance on travelling block, dolly and drawwork break.
12:00	Mixed high viscous pill for the displacement to brine.
15:00	Received CaCl2/CaBr3 brine from the boat. Displaced the kill and choke line to brine. Ran in the hole from 4393 m to 4405 m.
15:30	Held pre-job meeting and displaced the well to 1.62 sg brine.
16:00	Pumped 3 m3 of drill water to suction line. Displaced the booster line to 7m3 of 1.62 sg brine.
16:30	Pumped wash pill, 10 m3 of drill water and 20 m3 of high viscous brine pill
17:30	Stopped pumping due to discrepancy in volume between rig and the boat. Found leaking valve in transference line to pontoon tank # 5. 210 m3 of brine into tank. Changed over brine hose. Held pre-task meeting and line up to receive brine from boat.
18:00	Continued to pump 30 m3 of wash pill and 20 m3 of high viscous brine pill. Lowered the string from 4405 m to 4410 while the pill reached the 5 7/8" mill.
21:30	Displaced the well to 1.62 sg brine. Pumped 1.60 sg Glydrill DW mud from the well and over to the boat.
22:30	Filled the trip tank with brine. Pumped a slug and allowed to stabilize. Flowchecked the well on trip tank.
23:59	Pulled out of the hole with the 5 7/8" mill assembly from 4405 m to 4032 m.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 104 **Date:** 2005-09-14**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
01:00	Continued to pull out from 4032 m to 3475 m.
02:00	Flowchecked the well on trip tank due to increase in trip tank. Closed in the well on annular. Checked trip tank and observed foam in trip tank. Added defomer and flow checked, ok.
08:30	Continued to pull out of the hole from 3475 m to 868 m.
09:00	Dropped ball and activated circulation sub and washed wellhead area with 1660 lpm and 280 bar.
11:30	Continued to pull out of hole from 868 m to 394 m.
12:00	Broke out and laid down top dress mill.
13:00	Continued to pull out of hole from 394 m to 175 m while laying out 3 1/2" drill pipe to deck.
13:30	Continued to pull out of hole from 175 m and broke out and laid down scraper assembly.
14:00	Performed pre-job meeting with all personell involved in rigging up the wireline equipment.
14:30	Pressure tested the 7" liner and 9 5/8" casing to 430 bar using 1.62 sg brine for 15 min obtaining a good test.
15:30	Rigged up wireline equipmment to run cement bond log in the 7" liner.
21:00	Ran in hole and logged a cement bond log in the 7" liner from 4405 m to above the 7" liner hanger at 4020 m and pulled put of hole.
22:00	Reconfigured the CBL with 9 5/8" centralizers to log the 9 5/8" casing.
23:59	Ran in hole and started logging a cement bond log in the 9 5/8" casing from 4013 m.

Daily report no : 105 **Date:** 2005-09-15**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
02:00	Continued logging a cement bond log in the 9 5/8" casing to 2825 m and pulled out of hole
02:30	Rigged down the cement bond log and the wireline equipment.
08:30	Installed kill- and production co-flex hose on rig floor
11:00	Rigged up test tree umbilical reel on drill floor.
12:00	Rigged up tubing tong on drill floor.
12:30	Performed pre-job meeting with all personell involved in picking up and making up the perforating guns.
15:00	Picked up and made up 4 5/8" perforating guns from deck.
15:30	Continued to make up the test string bottom hole assembly
16:00	Could not make up 4 3/4" drill collars using the tubing tong. Stopped and adjusted the tong.
21:30	Continued to make up test string bottom hole assembly.
23:00	Made up chicksans to the string and pressure tested the test string bottom hole assembly to 620 bar / 10 mins - good test. Removed chicksans and made up TIW valve to 3 1/2" tubing swedge.
23:59	Continued to run in hole with test string bottom hole assembly on 3 1/2" tubing from 330 m to 473 m.

Daily report no : 106 **Date:** 2005-09-16**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
09:00	Continued to run in hole with test string bottom hole assembly on 3 1/2" tubing from 473 m to 1888 m.
10:00	Rigged up chicksans to test string and pressure tested the string to 620 bar/ 10 min and rigged down chicksans.
10:30	Continued to run in hole with test string bottom hole assembly on 3 1/2" tubing from 1888 m to 1973 m.
11:00	Circulated riser to in an attempt to even out brine weight in annulus/pipe due to back-flow from the tubing.
12:00	Stopped and repaired tubing tong due to brine contamination in electric box
16:30	Continued to run in hole with test string bottom hole assembly on 3 1/2" tubing from 1973 m to 2539 m.
17:00	Troubleshoot and repair jammed 3 1/2" operated tubing slips
19:00	Troubleshoot Eagle HTV arm. Not able to move downward. Cleaned all connections on eagle control panel which solved the problem. Stopped caused by brine back-flowing into string due to design of test string.
21:00	Continued to run in hole with test string bottom hole assembly on 3 1/2" tubing from 2539 m to 2723 m.
22:00	Attempted to pressure test the production flow manifold to 620 bar but observed a leak and aborted the test.
23:59	Continued to run in hole with test string bottom hole assembly on 3 1/2" tubing from 2723 m to 3021 m.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 107 **Date:** 2005-09-17**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
02:00	Troubleshoot the Eagle HTV arm. Not able to move downward. Replaced joy stick due to water ingress from back-flow of brine from tubing.
04:30	Continued to run in hole with test string bottom hole assembly on 3 1/2" tubing from 3021 m to 3348 m.
05:00	Rigged down 3 1/2" air operated tubing slips and removed diverter insert packer
06:00	Installed Bx elevator and picked up and made up dummy fluted hanger to test string.
10:00	Run in hole with test string bottom hole assembly and dummy fluted hanger on V-150 landing string from 3348 m to 4170 m.
10:30	Made up 3 x 5" S135 drill pipe pup joint and kelly cock to 5" V-150 joint and laid out on deck and ran in hole to 4200 m.
12:00	Rigged up for wireline and changed out drilling bails to 50' bails. Laid out Bx elevator and made up pad eye sub in top drive.
13:30	Continued to rig up for wireline and made up premade 5" V-150 joint with kelly cock to string.
14:00	Made up gamma ray / casing collar locator correlation log.
17:00	Landed fluted hanger in wellhead and set of 40 tons and closed middle pipe ram to marke pipe for space out measurement. Ran in hole with gamma ray /casing collar loacator log and logged radioactive pips in 7" liner and in test string. Pulled out of hole and laid down gamma ray/casing collar locator log.
18:00	Rigged down wireline equipment and 50' bails.
19:00	Installled drilling bails and 5" Bx elevator
19:30	Broke out and laid down landing assembly of 2 pups and 1 single to deck.
23:00	Pulled out of hole with dummy fluted hanger and test string bottom hole assembly on V-150 landing string from 4190 m to 3348 m.
23:59	Checked measurements on painted single above dummy fluted hanger and correlated with BOP space out.

Daily report no : 108 **Date:** 2005-09-18**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
01:00	Confirmed land-off mark and space out for the sub sea test tree. Racked last stand in derrick and laid out dummy fluted hanger.
01:30	Changed out Bx elevator to 3 1/2" tubing elevator.
02:00	Tubing tong operator experienced irritation in eye from spray of brine from back-flow out of the tubing. Stopped operation and started to flush eye and sent operator to medic.
02:30	Performed tool box talk and discussed the situation concerning back-flow of brine from string. A descion was made to continue the operation with increased personal protection to include goggles instead on normal safety glasses.
03:00	Laid out one single 3 1/2" tubing and made up 3 1/2" pups joints as required. Picked up and made up single again to the string.
03:30	Held tool box talk with all personnel involved in pressure testing the test string.
04:30	Pressure tested the test string to 620 bar / 10 min obtaining a good test
05:00	Rigged down the pressure testing equipment and cleared rig floor of excess equipment.
08:00	Picked up and made up the sub sea test tree to the test string. Connected the hoses to the tree and function tested the tree according to procedure.
10:00	Made up the control hoses to the retainer valve and function tested the valve.
10:30	Rigged up for pressure testing the sub sea test tree.
11:00	Pressure tested the the test string and sub sea test tree to 550 bar / 10 min. Bleed down pressure on cement unit to 30 bar, and inflow tested the sub sea test tree for 10 min. Tested the chemical injection line.
12:00	Bleed of pressure and rigged down surface test lines and cleared rig floor.
15:00	Performed a risk assesement with both offshore and onshore organization on running in hole with closed sub sea test tree due to the back-flow of brine while running in hole.
15:30	Closed sub sea test tree. Rigged up surface test line and checked for pressure build in between tester valve and sub sea test tree using the cement unit. Rigged down suface test line again.
17:30	Ran in hole with sub sea test tree and test string on 4 1/2" tubing from 3355 m to 3520 m.
18:00	Rigged up surface test line. Cement unit pumped through sub sea test tree, opening the valve at 90 bar and bleed of pressure to zero. Rigged down surface test lines.
18:30	Ran in hole with sub sea test string and test string on 4 1/2" tubing from 3520 m to 3576 m.
19:00	Stopped the opration due to a full muster at the fire drill.
20:30	Ran in hole with sub sea test tree and test string on 4 1/2" tubing from 3576 m to 3662 m.
21:30	Rigged up surface test line. Filled string and pumped through sub sea test tree using the cement unit , opening the valve at 100 bar and bleed of pressure to zero. Rigged down surface test lines.
23:59	Ran in hole with sub sea test tree and test string on 4 1/2" tubing from 3662 m to 3886 m.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 109 **Date:** 2005-09-19**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
02:00	Ran in hole with sub sea test tree and test string on 4 1/2" tubing from 3886 m to 4038 m.
03:00	Not able to tilt the Eagle HTV head in or out. Stopped and replaced joy stick on remote panel due to water ingress.
04:00	Held tool box talk and rigged up and ran tubing from 4038 m to 4115 m.
05:00	Ran in hole with sub sea test tree and test string on 4 1/2" tubing from 4115 m to 4176 m.
08:00	Picked up and made up lubricator assembly to test string and connect hoses and function test the lubricator.
08:30	Broke out and laid down lubricator valve in preparation for waiting on weather.
09:00	Picked up and made up one joint of 4 1/2" tubing and one pup joint to space out string for hang-off.
09:30	Rigged up surface test lines. Cement unit pumped through sub sea test tree, opening the valve at 260 bar and bleed off pressure to zero. Rigged down surface lines again.
10:00	Made up 5 1/2" drill pipe stand to string and ran in hole and landed test string in hanger.
12:00	Waited on weather.
23:59	Waited on weather.

Daily report no : 110 **Date:** 2005-09-20**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
05:00	Waited on weather
05:30	Pulled out of hole with test string and broke off drill pipe stand and racked in derrick. Broke out and laid down 4 1/2" tubing pup and single.
08:00	Picked up and made up lubricator assembly to test string and connect hoses and function test the lubricator.
08:30	Picked up and made up single 4 1/2" tubing above lubricator valve.
09:30	Rigged up surface test lines to string. Pressure tested the test string to 620 bar / 10 min and inflow tested the check valves. Rigged down the surface test lines.
10:00	Picked up and made up 4 1/2" tubing pup to string.
11:00	Laid out 500 tons drilling bails and picked up 50 fot bails. Made up pad eye sub to top drive and installed wire sling and the lower wireline sheave wheel.
13:30	Held toolbox talk with crew on picking up and making up the surface test tree. Installed 5" manual elevator and picked up flow head. Broke off test sub at bottom of landing joint. Made up pup joint landing joint and lowered surface test tree into mouse hole.
15:30	Installed co-flex production - and kill hose on surface test tree.
16:30	Made up the control hoses to the surface test tree and picked up same from the mouse hole.
18:00	Made up the surface test tree to the landing string.
18:30	Made final preparation and ran in hole and landed the test string in the wellhead and set down 40 tons.
22:00	Pressure tested the surface test tree, lubricator valve and test string to 620 bar according to the program.
22:30	Closed and opened the middel pipe ram to confirm the closing fluid required.
23:00	Set the production packer according to the procedure.
23:59	Closed middel pipe ram and rigged up control hoses to lubricator.

Daily report no : 111 **Date:** 2005-09-21**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
01:30	Rigged up the wireline equipment and a gamma ray/casing locator tool string
04:00	Ran in hole with the gamma ray/casing locator log and logged the pip tags in the 7" tuinbg at 4124 m and the test string pip tag at 4196,6 m and pulled out of hole.
04:30	Rigged down the wireline equipment.
05:00	Inflow tested the packer to 35 bar for 10 min.
05:30	Cycled the omni circulating valve to circulating position
07:30	Displaced the test string to a 60/40 mix of 1.07 sg glycol/water using the cement unit
08:30	Performed safety meeting with all personnel on tour prior to bringing the well on line.
09:30	Circulated the omni circulating valve to test position and applied a hold pressure of 120 bar on the annulus.
10:00	Walked up all test lines and verified valve status.
12:00	Waited on boat with glycol whilst maintaining 120 bar on annulus
12:30	Performed pre-job meeting with all personnel involved in the firing of the gun and pressured up well and fired the tubing conveyed guns.
13:00	Performed intial flow.
15:00	Performed initial build up
23:59	Performed clean-up and main flow as per program.

DAILY REPORT

Well: 6605/8-1

PO: 1

Daily report no : 112 Date: 2005-09-22

Midnight depth : 4513 m MD Estimated PP: 1.48 sg Mud weight: 1.62 sg

Stop time	Description
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23:59	Continued with main flow according to the program. The MEG injection stopped for 10 min. Found the suction valve was closed. During this time , the sonic sensor start sampling particles in the well flow which might have been hydrates. Upon start reinjection of MEG, the sonic sensor had no more registration of any particles.
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Daily report no : 113 Date: 2005-09-23

Midnight depth : 4513 m MD Estimated PP: 1.48 sg Mud weight: 1.62 sg

Stop time	Description
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02:30	Shut in LPRN valve and closed the test choke and started main build up.
04:00	Performing main build up.
07:00	Performing main build up.
09:00	Performing main build up.
10:00	Performing main build up.
12:00	Performing main build up.
14:30	Performing main build up.
15:30	Performing main build up.
16:30	Performing main build up.
19:00	Performing main build up.
20:00	Performing main build up.
20:30	Performing main build up.
22:30	Performing main build up.
23:00	Performing main build up.
23:59	Performing main build up.

Daily report no : 114 Date: 2005-09-24

Midnight depth : 4513 m MD Estimated PP: 1.48 sg Mud weight: 1.62 sg

Stop time	Description
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00:30	Performing main build up.
01:00	Performing main build up.
01:30	Performing main build up.
23:59	Performing main build up.

Daily report no : 115 Date: 2005-09-25

Midnight depth : 4513 m MD Estimated PP: 1.48 sg Mud weight: 1.62 sg

Stop time	Description
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18:00	Performing main build up.
19:00	Waited on weather to get below 2 m heave
19:30	Positioned the rig for re-latching the landing string and recorded up and down weights.
20:00	Checked for pressure below shear ram (zero bar) and spotted a high viscosity pill across the BOP
20:30	Opened up the shear ram and ran in hole and re-latched the landing string to the sub sea test tree. Performed a 10 ton overpull test of the latch.
21:30	Closed middle pipe ram and pressure tested the test string to 345 bar / 10 min against closed LPRN.
23:59	Performed mini fracture test of the reservoir

Daily report no : 116 Date: 2005-09-26

Midnight depth : 4513 m MD Estimated PP: 1.48 sg Mud weight: 1.62 sg

Stop time	Description
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01:00	Continued with the mini fracture test of the reservoir and flow checked well on trip tank for 15 min, well stable.
01:30	Pumped up the annulus and sheared out the reverse downhole circulating valve at 270 bar.
02:00	Re-arranged hoses to circulate down the test string.
05:00	Displaced the string and annulus volume to 1.62 sg mud via the choke line and over a fully open choke.
06:00	Stopped circulation and shut in well due to high H2S concentration recorded on sensors in mud shaker rom.
12:00	Circulated down the string with returns to the shakers via fully open choke to get gas level below 1 %

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 116 **Date:** 2005-09-26**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
13:00	Weighted up the mud in the active pit from 1.57 sg to 1.62 sg.
19:00	Continued to circulate down the string and annulus below middle pipe ram to 1.62 sg mud taking returns to shakers via the fully open choke and trip tank.
20:00	Displaced the kill and choke line to 1.62 sg mud and started to displace the riser to 1.62 sg mud via the booster line
21:00	Stopped pumping and initiated gas procedure due to 35 % gas in returns.
22:00	Continued displacing the riser at 800 lpm until gas level dropped back below 1 %. and increased flow rate 2500 lpm.
22:30	Checked for pressure under the middle pipe ram via the choke. Observed 122 bar and bleed down pressure via the choke
23:00	Flowchecked well on trip tank via fully open choke for 30 min, well stable.
23:59	Circulated down the string taking returns to shakers via the choke line and fully open choke.

Daily report no : 117 **Date:** 2005-09-27**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
03:00	Continued to circulate 1,0 times the annulus volume down the string with returns to the shaker via choke line and fully open choke.
04:00	Displaced choke line to seawater and closed in choke with 1.62 sg mud in kill line. Opened up choke and allowed gas/mud below middle pipe ram to u-tube into choke line. Displaced the choke line to 1.62 sg mud over the choke and recorded no free gas at surface.
04:30	Opened up the middle pipe ram and un-seated the production packer. Pulled up 4 meters and ran in hole and re-landed the fluted hanger in the wellhead. Closed in the middle pipe ram and bullheaded 2 m3 of mud into the perforated interval.
11:00	Circulated the annulus volume down the string with returns to shakers via choke line and fully open choke until gas reading below 1 %.
11:30	Flow checked well on fully open choke on the trip tank for 30 minutes, well stable.
12:00	Opened up middle pipe ram and flow checked well for 15 minutes, well stable.
14:30	Circulated the riser volume using the kill line
15:00	Flow checked well on the trip tank for 15 minutes, well stable.
15:30	Slugged the pipe and allowed the fluids to stabilize.
16:30	Broke off hoses and racked pump-in stand in derrick and broke out and laid down pup and 2 single 5" drill pipe joints.
17:30	Changed to 4 1/2" tubing handling equipment.
19:00	Pulled out of hole with the test string bottom hole assembly on 4 1/2" tubing from 4212 m to 4020 m while laying down tubing as singles to deck.
19:30	Flow checked the well on trip tank with bottom hole assembly above 7" liner hanger for 30 minutes, well stable.
23:59	Pulled out of hole with the test string bottom hole assembly on 4 1/2" tubing from 4020 m to 3400 m while laying down tubing as singles to deck.

Daily report no : 118 **Date:** 2005-09-28**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
01:00	Pulled out of hole with the test string bottom hole assembly on 4 1/2" tubing from 4020 m to 3400 m while laying down tubing as singles to deck.
02:30	Disconnected cables to sub sea test tree and broke out and laid down sub sea test tree and fluted hanger. Cleared rig floor of 4 1/2" handling equipment.
03:00	Installed 3 1/2" handling equipment and diverter insert packer.
09:30	Pulled out of hole with the test string bottom hole assembly on 3 1/2" tubing from 3330 m to 2200 m while laying down tubing as singles to deck.
10:00	Flow checked well on trip tank while deck crew serviced the crew change helicopter, well stable.
15:00	Pulled out of hole with the test string bottom hole assembly on 3 1/2" tubing from 2200 m to 1162 m while laying down tubing as singles to deck.
15:30	Flow checked well on trip tank prior to pulling bottom hole assembly through BOP, well stable.
19:30	Pulled out of hole with the test string bottom hole assembly on 3 1/2" tubing from 1162 m to 297 m while laying down tubing as singles to deck.
20:00	Change out surface handling equipment to 4 1/2". Held tool box talk with all personnel involved in breaking down the bottom hole assembly.
23:30	Broke out and laid down the test string bottom hole assembly according to instructions.
23:59	Continued to break out and laid down the test string bottom hole assembly according to instructions.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 119 **Date:** 2005-09-29**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg**Stop time Description**

Stop time	Description
02:00	Unable to break connection on gauge carrier assembly with power tong. Attempted several times before breaking the connection. Unable to remove tong due to the upper jaw jammed on the pipe, troubleshoot. Managed to remove a dies from the jaw and tong came free from pipe.
04:00	Continued to brake out and lay down the test string bottom hole assembly according to instructions.
05:00	Rigged down the tubing tong and cleared the rig floor of test string handling equipment.
06:00	Rigged down the sub sea test tree umbilical reel.
07:30	Investigated and rectified malfunction in PLS system on drillers chair. Unable to activate Bx elevator and auto slips.
08:30	Picked up and broke out and laid down pump-in assembly.
09:00	Picked up and made up BOP test tool assembly.
11:30	Ran in hole with BOP test tool on V-150 landing string and landed out in 9 5/8" wear bushing with 10 tons down weight.
12:00	Displaced kill and choke lines to seawater.
17:00	Function and pressure tested the BOP to 35 / 545 bar for the rams and 35/517 on annular for 5/10 minutes .
17:30	Slugged pipe and allowed fluids to stabilize. Lined up manifold.
21:00	Pulled out of hole with BOP test tool on V-150 pipe.
21:30	Broke out , checked and laid down BOP test tool. racked 2 stands of heavy weight drill pipe
22:00	Made up 2 x safety valve and 1 x grey valve in preparation for pressure testing.
23:59	Rigged up the wireline equipment and checked USIT/CBL log.

Daily report no : 120 **Date:** 2005-09-30**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg**Stop time Description**

Stop time	Description
03:30	Ran in hole with USIT/CBL log.
06:00	Logged USIT/CBL log from 4400 m to 4020 m.
08:30	Pulled out of hole with USIT/CBL.
09:30	Rigged down the USIT/CBL logging string.
11:30	Rigged up wireline perforating guns.
14:30	Ran in hole with perforating guns and perforated the 7" casing from 4030.6 m to 4030.0 m.
16:30	Pulled out of hole with the perforating gun, all shots fired.
17:00	Rigged down the perforating gun.
20:00	Rigged up the Modular Dynamic Tester with dual packer assembly.
23:59	Ran in hole with the Modular Dynamic Tester, inflated packer and set tool at 4030.2 m.

Daily report no : 121 **Date:** 2005-10-01**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg**Stop time Description**

Stop time	Description
23:59	Recorded pressure point and started the clean-out prior to obtaining fluid sample

Daily report no : 122 **Date:** 2005-10-02**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg**Stop time Description**

Stop time	Description
04:30	Continued to pump to clean-out prior obtaining fluid sample.
06:30	Could not continue to pump. Investigated the problem and concluded that the packer assembly no longer was across the perforated interval.
14:00	Deflated the packer elements and attempted to pull string free without any success. Pulled with maximum cable tension of 9700 lbs. Started to work tool string to get free without any success.
15:30	Released the emergency cable release device and pulled out of hole with the wireline.
16:00	Rigged down the wireline equipment
19:00	Rigged up to test drill floor surface equipment and tested Upper & lower inside BOP and kelly hose to 35/545 bar for 5/10 min.
23:59	The arrived cross-over had 4 1/2" if threads instead of 3 1/2". Modify bit sub and schlumberger wireline overshot and weld the two together.

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 123 **Date:** 2005-10-03**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
03:00	Continued to modify and weld the bit sub and wireline overshot together.
04:30	Made up modified overshot to 3 1/2" drill pipe and ran in hole to 460 m.
05:00	Changed out surface handling equipment from 3 1/2" to 5".
11:30	Continued to run in hole with the overshot assembly on 5" drill pipe from 460 m to 4187 m.
12:00	Broke circulation and circulated bottom up until 500 m below BOP.
12:30	Closed in annular and lined up to circulate through the choke line and continued to circulate through fully open choke.
13:00	Observed slight increase of flow in main return line. Stopped pumping an flow checked well on trip tank for 30 min, well static.
15:30	Continued to circulate bottoms through fully open choke
18:00	Opened up annular and circulated one times the riser volume. Stopped the pumps and recorded up and down weights.
19:00	Washed down at 800 lpm and engaged the fish. Attempted to push fish down without any success. Pulled fish free with 55 tons overpull. Pulled back to 4187 m with 10 tons drag
19:30	Flow checked the well on trip tank, well static.
20:00	Pumped slug and allows the fluids to stabilize.
21:30	Pulled out of hole at a controlled rate from 4187 m to 3962 m.
22:00	Flow checked the well on trip tank, well static.
23:59	Pulled out of hole with the fish on 5" drill pipe from 3962 m to 3300 m.

Daily report no : 124 **Date:** 2005-10-04**Midnight depth :** 4513 m MD **Estimated PP:** 1.48 sg **Mud weight:** 1.62 sg

Stop time	Description
01:30	Pulled out of hole with the fish on 5" drill pipe from 3300 m to 2480 m.
02:00	Observed inconsistent hole fill. Stopped and flow checked well on trip tank, well static.
06:30	Pulled out of hole with the fish on 5" drill pipe from 2480 m to 400 m.
07:00	Changed to 3 1/2" handling equipment
08:00	Pulled out of hole with fish on 3 1/2" drill pipe from 400 m to surface.
10:30	Secured the fish in the rotary and broke out the overshot from the fish. Broke out and laid down the MDT tool string.
11:30	Ran in hole with 3 1/2" cement stinger to 464 m.
12:00	Changed to 5" surface handling equipment.
17:00	Ran in hole with the 3 1/2" cement stinger on 5" drill pipe from 464 m to 3800 m.
18:00	Picked up and made up cement stand with pump-in sub and kelly cock.
19:30	Continued to run in hole with cement stringer on 5" drill pipe. Stood up at 4404 m and set down 15 tons.
20:00	Attempted to work stinger past obstruction at 4404 m without any success.
21:00	Spaced out the string and started to circulate bottoms up until bottoms up 500 m below BOP.
22:30	Closed in the annular preventor and continued to circulate bottoms up through the choke line on a fully open choke.
23:59	Open up the annular preventor and continued to circulate the riser volume and treated the mud prior to the cement job.

Daily report no : 125 **Date:** 2005-10-05**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
01:00	Continued to circulate and treat mud prior to the cement job
01:30	Picked up and made up 5" single to the string, picked up and made up cement stand
02:00	Flushed cement hose, pressure tested the cement line to 200 bar/10 min, ok
02:30	Pumped 2 m3 fresh water spacer, started mixing mix water in the cement unit, observed mixing pump for batch mixer would not start,
04:00	Stopped and investigated problem with batch mixer pump, failure was due to bursted hydraulic hose for one of the exhaust fans running off the same hydraulic reservoir as the mixing pump, repaired bursted hose
05:00	Mixed and pumped 4.7 m3 1.9 sg cement slurry and 0.6 m3 fresh water spacer, displaced same with 34 m3 1.62 sg mud using cement pumps
06:00	Broke out and racked back cement stand, pulled out of hole at a controlled rate to 4198 m.
08:30	Circulated well clean, 2200 l/min
09:00	Racked back one stand 5" drill pipe, made up cement stand, spaced out stinger at 4152m, held tool box talk
09:30	Flushed and pressure tested cement line 200 bar / 5 min, ok
11:00	Mixed and pumped 5 m3 1.75 sg spacer, mixed and pumped 6.5 m3 1.9 sg cement slurry followed by 0.6 m3 1.75 sg spacer, displaced same with 33.3 m3 1.62 sg mud using cement pumps
11:30	Rigged down cement hose, racked back cement stand
12:00	Pulled out of hole at controlled rate with 3 1/2" cement stinger from 4152m to 3805m

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 125 **Date:** 2005-10-05**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
15:00	Circulated hole clean and treated mud, 2200 l/min, rotated string 100 RPM, flushed kill & choke lines
21:30	Flow checked well 15 min, well stable, pumped slug and pulled out of hole from 3805m to 464m
22:00	Replaced 5" auto slips with 3 1/2" auto slips, replaced BX inserts for 3 1/2" DP inserts
23:00	Continued pulling out of hole from 464m to surface, racked back 16 stands of 3 1/2" drill pipe/cement stinger
23:59	Held tool box talk, initiated slip and cut of 37m drilling line

Daily report no : 126 **Date:** 2005-10-06**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
01:00	Completed slip and cut of 37m drilling line
01:30	Performed derrick inspection, meanwhile carrying out inspection of draw work brakes
03:00	Held safety meeting, made up 8 1/2" bit, float sub w/ported float, picked up 3 joints 6 1/2" DC from deck, made up same and two stands 5" heavy weight drill pipe
10:30	Ran in hole with 8 1/2" tagging assembly on 5" drill pipe from 150m to 3887m
11:00	Washed down from 3887m and tagged top of cement at 3907m, load tested cement plug 10 tons, ok
13:30	Pumped slug, pulled out of hole with 8 1/2" tagging assembly from 3907m to 701m
21:30	Pressure tested cement plug against closed shear ram 211 bar / 10 min, continued to pull out of hole from 701m to 85m whilst laying out 63 singles of 5" drill pipe
22:00	Racked back two stands 5" heavy weight drill pipe and one stand 6 1/2" drill collar with bit sub and 8 1/2" bit
22:30	Held safety meeting, picked up and made up 9 5/8" bridge plug and running tool to 5" drill pipe
23:59	Ran in hole with 9 5/8" bridge plug at restricted running speed from surface to 300m, filled string every 5th stand as per Halliburton recommendation

Daily report no : 127 **Date:** 2005-10-07**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
01:30	Continued running in hole at restricted speed with 9 5/8" bridge plug on 5" drill pipe from 300m to 817m, filled string every 5 stand as per Halliburton recommendation. When preparing for running compensated through the BOP/well-head area, the compensator was unlocked with too high pressure causing the drill string to jump 4m
03:30	Pulled out of hole from 812m to surface, verified that the lower slips on the 9 7/8" bridge plug had not been activated
05:00	Ran in hole at restricted speed with 9 7/8" bridge plug on 5" drill pipe from surface to 817m, filled string every 5th stand
12:30	Continued to run in hole at restricted speed with 9 7/8" bridge plug from 817m to 2990m, filled string every 5th stand, ran compensated through BOP/well-head area
13:00	Sat 9 7/8" bridge plug at 2990m according to Halliburton procedure, released running tool with 18 ton overpull, load tested plug 10 ton, ok
13:30	Made up cement stand and spaced out to 2983m
14:30	Held safety meeting while circulating well 1100 l/min, flushed and pressure tested cement line 200 bar / 10 min, ok
15:00	Pumped 5m3 head spacer, mixed and pumped 3.7m3 1.9 sg cement slurry, pumped 1.85m3 1.75 sg tail spacer, displaced with 24.5m3 1.62 sg mud using cement pump
15:30	Racked back cement stand and pulled out of hole at controlled rate from 2983m to 2850m
18:30	Dropped drill pipe wiper ball and circulated hole clean 1200 l/min, stopped pumping when bottoms up above BOP, flushed kill/choke lines, continued pumping while boosting riser at the same time
23:00	Pumped slug and continued pulling out of hole with 9 7/8" bridge plug running tool on 5" drill pipe from 2850m to surface, broke off and laid out running tool
23:59	Picked up 9 5/8" multi purpose tool from deck, made up same between lowermost singles on 5" V-150 drill pipe stand

Daily report no : 128 **Date:** 2005-10-08**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
02:30	Ran in hole with 9 5/8" multi purpose tool from surface to 859m on 5" V-150 landing string, opened compensator, recorded up/down weights 70 ton, washed down 3000 l/min until landing in wellhead at 860m, stopped mud pumps and sat down 10 tons
03:30	Function tested BOP on yellow and blue PODs from toolpushers panel, ok
06:00	Released 9 5/8" wear bushing with 32 ton overpull, pumped slug and pulled out of hole with wear bushing from 860m to surface
07:00	Released 9 5/8" wear bushing from multi purpose tool, laid out same

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 128 **Date:** 2005-10-08**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
08:30	Reconfigured multipurpose tool for retrieving 9 5/8" seal assembly, spaced out, laid out pup joint
10:00	Ran in hole with 9 5/8" multi purpose tool on 5" V-150 landing string from surface to 842m
11:00	Made up top drive, closed upper annular and performed drag test, opened upper annular, washed down 3000 l/min from 842m until landed out in 9 5/8" seal assembly at 861m, sat down 10 ton, lined up trip tank and closed upper annular, pulled free 9 5/8" seal assembly with 50 ton overpull
11:30	Checked for pressure, no pressure, flow checked well 30 min, well stable
13:30	Pumped slug, opened upper annular and pulled out of hole with 9 5/8" seal assembly on V-150 landing string from 861m to surface
14:00	Broke out 9 5/8" seal assembly and multi purpose tool, laid out same
15:00	Picked up 9 5/8" casing hanger retrieve assembly, made up same to one stand of 8" drill collar, ran in hole with same from surface to 30m
16:30	Ran in hole with 9 5/8" casing hanger retrieve assembly on 5" V-150 landing string from 30m to 835m
17:30	Made up top drive and landed out in wellhead at 861m, sat down 10 ton, retrieved 9 5/8" tie back casing with 150 ton overpull
18:00	Pulled out of hole with 9 5/8" tie back casing from 861m to 835m, flow checked well 30 min, well stable
18:30	Installed 9 5/8" casing tong
21:30	Continued to pull out of hole with 9 5/8" tie back casing on 5" V-150 landing string at controlled rate from 835m to surface, set 9 5/8" casing hanger in slips in rotary
22:30	Released spear and grapple from 9 5/8" casing hanger, laid out same and racked back 8" drill collar stand
23:59	Rigged up casing handling equipment

Daily report no : 129 **Date:** 2005-10-09**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
01:00	Held safety meeting, installed adaptor ring and flush mounted spider, were not able to fit one hydraulic hose to remote operating panel for flush mounted spider
01:30	Troubleshooted and fixed problem with connecting hydraulic hose between operating panel and flush mounted spider
17:00	Retrieved and laid out 9 5/8" tie back casing hanger with two pup joints and 157 joints of 9 5/8" tie back casing, total 1960m of casing, 10-17 joints per hour
17:30	Rigged down casing handling equipment, cleaned rig floor
18:00	Changed elevators and installed diverter packer, meanwhile pressure tested cement plug against closed shear ram, 95 bar / 10 min, ok
23:59	Ran in hole with open ended 5" drillpipe from surface to 2790m

Daily report no : 130 **Date:** 2005-10-10**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg

Stop time	Description
01:00	Continued to run in hole with open ended 5" drill pipe from 2790m to 2820m, washed down 800 l/min from 2820m until tagged top of cement at 2868m, stopped pumping and sat down 10 ton, ok
01:30	Racked back one stand 5" drill pipe, picked up and installed one single 5" drill pipe for space out, installed kelly cock
03:00	Circulated bottoms up 2700 l/min / 180 bar
03:30	Installed circulation sub and cement hose
04:00	Unable to pump drill water from drill water tanks due to low water level
04:30	Flushed and pressure tested cement line 200 bar / 10 min, ok
05:00	Lining up for using pot water during mixing job
06:00	Pumped 5 m3 1.75 sg head spacer, mixed and pumped 10.6 m3 1.90 sg cement slurry, unable to transfer 1.75 sg tail spacer from pit no. 9, pumped 200 ltr pot water, displaced same with 22.6 m3 1.62 sg mud, checked for backflow, ok
06:30	Broke off and laid out circulation sub and one single 5" drill pipe
07:00	Pulled out of hole at controlled rate with open ended 5" drill pipe from 2868m to 2680m
09:00	Installed two 7" wiper balls and circulated bottoms up, 2800 l/min / 170 bar
10:00	Displaced hole from 2680m to 1450m with 95 m3 1.30 sg slop, displaced string with 11 m3 1.62 sg mud
12:30	Pumped slug and pulled out of hole with open ended 5" drill pipe from 2680m to 841m
16:30	Continued pulling out of hole with open ended 5" drill pipe from 841m to surface while breaking and laying out 87 singles
17:00	Cleaned and cleared rig floor
17:30	Held safety meeting, made up 13 3/8" EZSV bridge plug and running tool to 5" drill pipe, assessed weather conditions and decided too much heave to run bridge plug, broke off bridge plug and running tool, laid out same
19:00	Installed closed kelly cock on 5" drill pipe stand, ran in hole with same, continued to run in hole from 27m to 721m on 5" drill pipe

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 130 **Date:** 2005-10-10**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.62 sg**Stop time Description**

22:30 Pulled out of hole with 5" drill pipe while laying out 75 singles,
 23:59 Ran in hole with 5" drill pipe from surface to 655m

Daily report no : 131 **Date:** 2005-10-11**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.35 sg**Stop time Description**

04:00 Pulled out of hole with 5" drill pipe from 700m to surface while laying out 69 singles
 05:00 Held safety meeting, picked up 13 3/8" EZSV bridge plug and running tool, made up same to 5" drill pipe
 05:30 Ran in hole with 13 3/8" bridge plug and running tool on 5" drill pipe from surface to 60m
 06:00 Troubleshooting problem with extending/re-tracing iron rough neck
 09:30 Continued running in hole at controlled speed with 13 3/8" bridge plug and running tool on 5" drill pipe from 60m to 1100m, filled string every 5th stand
 10:00 Set 13 3/8" bridge plug at 1100m with 35 right hand turns, sheared out with 22 ton overpull, sat down 10 ton, ok
 12:00 Displaced hole to 1.35 sg mud, 2000 l/min
 14:30 Pumped slug, pulled out of hole with running tool for 13 3/8" bridge plug on 5" drill pipe from 1100m to surface, broke off running tool, laid out same
 16:00 Held safety meeting, made up 13 3/8" casing cutter assembly to one stand of 5" drill pipe, surface tested tool, ok
 17:00 Ran in hole with 13 3/8" casing cutter assembly on 4 stands and a double of 5" drill pipe, installed marine swivel
 19:30 Continued running in hole with 13 3/8" casing cutter assembly on 5" drill pipe from 150m to 840m, recorded up/down weights 62/68 ton, landed out marine swivel in well head at 859m with 8 ton, cutters at 1001.5m
 20:00 Recorded free rotational torque, 120 RPM / 5.4 KNm, closed upper annular, recorded rotational torque, 120 RPM / 5.4 KNm, established circulation via choke and kill lines, 560 l/min / 60 bar / torque 14-18 KNm, observed sudden pressure drop to 25 bar as 13 3/8" casing was cut at 1001.5m, increased flow to 1000 l/min / 60 bar / torque 5.4 KNm, had positive indication of casing cut
 20:30 Flow checked well 30 min with closed upper annular and open kill/choke lines, well static, opened upper annular, flow checked 10 min via riser, well static
 22:30 Pulled out of hole with 13 3/8" casing cutter assembly on 5" drill pipe from 859m to surface
 23:59 Broke off and laid out 13 3/8" casing cutter and marine swivel, casing cutters ok

Daily report no : 132 **Date:** 2005-10-12**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.35 sg**Stop time Description**

01:00 Broke off bumper sub, cleaned rig floor
 02:30 Picked up 13 3/8" spear and bumper sub, made up same to 5" V-150 landing string
 04:00 Ran in hole with 13 3/8" casing retrieval assembly on 5" V-150 landing string from surface to 840m, recorded up/down weight 68 ton / 72 ton, landed out in well head at 859m, sat down 10 ton
 04:30 Closed upper annular and lined up for flow check via choke line, pulled 13 3/8" casing free with 100 ton overpull, recorded weight equivalent to weight of block + landing string + cut 13 3/8" casing, 83 ton
 05:00 Flow checked well 30 min via choke line, well stable, opened upper annular and flow checked well 15 min via riser, well stable
 06:30 Pumped slug and attempted to pull out of hole from 859m with 140m of 13 3/8" casing / casing retrieval assembly on 5" V-150 landing string, were not able to pass through BOP with casing assembly, worked string several times before came through BOP, max overpull 15 ton
 09:00 Continued to pull out of hole from 847m to surface with 13 3/8" casing / casing retrieval assembly on 5" V-150 landing string
 09:30 Set 13 3/8" casing in rotary, removed casing retrieval assembly, laid out same
 10:00 Rigged up casing handling equipment
 12:30 Held safety meeting, broke out and laid out 13 3/8" casing hanger and 10 casing joints
 13:30 Rigged down casing handling equipment
 14:30 Picked up 13 3/8" casing spear, broke out 5" pup joint, laid out spear and pup joint
 17:00 Ran in hole from surface to 1080m with open ended 5" drill pipe, broke circulation and tagged 13 3/8" bridge plug at 1100m, pulled above bridge plug
 17:30 Held safety meeting, made up circulation sub and cement hose, flushed and pressure tested cement line to 200 bar / 10 min, ok
 19:00 Pumped 15 m3 seawater with rig pumps, mixed and pumped 27.8 m3 1.90 sg cement slurry, pumped 0.65 m3 seawater, displaced same with 6.5 m3 1.35 sg mud using cement pumps
 19:30 Pulled out of hole at controlled rate with open ended 5" drill pipe from 1103m to 885m
 21:00 Circulated bottoms up, 2950 l/min
 23:59 Pulled out of hole with open ended 5" drill pipe from 885m to 304m, while laying out 55 singles

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 133 **Date:** 2005-10-13**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
02:00	Continued to pull out of hole with open ended 5" drill pipe from 330m to surface while laying out 32 singles
04:00	Made up jet sub to 5" drill pipe and ran in hole from surface to 970m, broke circulation and tagged top of cement at 908m, sat down 10 ton, ok
04:30	Pulled out of hole with jet sub on 5" drill pipe from 908m to 816m, lined up for pressure testing from cement unit
06:30	Pressure tested surface lines 200 bar / 10 min, ok, closed shear ram and attempted pressure test to 87 bar via choke line, unable to get good test, pressure dropped steady 1 bar per min
08:00	Waiting on cement, meanwhile running in hole from 816m to 874m while reciprocating and washing BOP, 2500 l/min
10:00	Pulled out of hole with jet sub on 5" drill pipe from 874m to surface, broke out jet sub, laid out same
13:00	Held safety meeting and rigged up riser handling equipment, installed riser spider in rotary, meanwhile attempted to get 87 bar pressure test for surface cement plug via choke line, no success, pressure dropped steady 1 bar per min
14:00	Removed riser spider from rotary and replaced elevator to 5" BX
14:30	Broke and laid out cement stand
16:30	Ran in hole from surface to 299m with open ended 5" drill pipe, pulled out of hole from 299m to 199m while laying out 9 singles
17:00	Troubleshooted problem operating eagle light tubular handler
17:30	Attempted new pressure test of surface cement plug to 87 bar, no success, pressure dropped steady 1 bar/min, pressure steady when attempted pressure test to 35 bar
19:30	Continued to run in hole with open ended 5" drill pipe from 199m to 814m
20:30	Troubleshooted and fixed problem with eagle light tubular handler, operating joy stick had error on electric switch
21:00	Continued running in hole from 814m until re-tagged top of surface cement plug at 908m
21:30	Circulated bottoms up, 3800 l/min
22:30	Spaced out and installed circulation sub and cement hose, held safety meeting
23:00	Flushed and pressure tested cement line 200 bar / 10 min, ok
23:59	Pumped 15 m3 sea water, mixed and pumped 5,4 m3 1.95 sg cement slurry, pumped 0.6 m3 sea water, displaced same with 5.4 m3 1.35 sg mud using cement pumps, 800 l/min

Daily report no : 134 **Date:** 2005-10-14**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
00:30	Rigged down circulation sub and cement hose, pulled out of hole with open ended 5" drill pipe from 908m to 870m, 10m above theoretical top of cement
02:00	Dropped 7" wiper ball and circulated bottoms up, 2900 l/min, while reciprocating string between 870m and 865m, no sign of cement on bottoms up
02:30	Flushed kill & choke line and jetted BOP
03:30	Continued to pull out of hole with open ended 5" drill pipe from 840m to 224m, broke out 3m pup joint used for space out
06:00	Continued to pull out of hole with open ended 5" drill pipe from 220m to surface while laying out 23 singles
07:00	Ran in hole one 6 1/2" drill collar stand, broke off 8 1/2" bit and bit sub, laid out drill collars, bit and bit sub
07:30	Changed out from 5" to 3 1/2" pipe handling equipment
08:30	Ran in hole with open ended 3 1/2" drill pipe from surface to 467m
10:30	Pulled out of hole with open ended 3 1/2" drill pipe while laying out 27 singles
11:00	Pressure tested surface cement plug via choke line against shear ram, 88 bar / 10 min, ok
13:00	Continued to pull out of hole with open ended 3 1/2" drill pipe from 293m to surface while laying out 21 singles
13:30	Displaced riser to sea water, meanwhile cleaning and clearing drill floor
17:00	Rigged up to pull BOP on marine riser, installed riser spider and changed out to riser-head on drill floor manipulator arm, inspected and cleaned draw work brakes
18:00	Hang off travelling block, slipped and cut 54m of drilling line
21:30	Latched and pulled diverter, held safety meeting with new crew, laid out diverter, removed control lines from slip joint, laid out same, picked up landing joint and made up to slip joint
22:00	Collapsed and locked slip joint
23:00	Waiting on weather to come down for launching ROV
23:59	Jumped ROV, unlatched wellhead connector guided by ROV, pulled BOP clear of wellhead

Daily report no : 135 **Date:** 2005-10-15**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
02:00	Removed MUX saddles and broken tensioner wire no. 4 from KT-ring, wire broke at roller sheave when waiting for ROV to jump
03:00	Housed KT-ring under rotary

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 135 **Date:** 2005-10-15**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg**Stop time Description**

04:30 Laid out landing joint, installed back-up lock plates on slip joint ports
 23:00 Laid out slip joint, pulled 46 riser joints, 2-3 riser joints per hour
 23:30 De-ballasted rig to 21.5m
 23:59 Oriented riser and BOP, checked everything ready for pulling BOP through splash zone

Daily report no : 136 **Date:** 2005-10-16**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg**Stop time Description**

02:00 Pulled BOP through splash zone, removed beacon and cargo straps from flex joint and BOP
 04:00 Re-arranged conduit lines, skidded transporter under BOP, landed BOP to same, removed MUX cables, nipped down "double" riser joint from flex joint to allow skidding of BOP
 05:00 Picked up "double" riser joint clear of flex joint, skidded BOP clear of rotary, laid out "double"
 08:30 Rigged down BOP handling equipment, laid out spider, changed out to BX elevator with 5" inserts
 11:30 Picked up and made up motor driven wellhead cutter assembly with 52" opening knives, 18 3/4" casing spear, motor and bumper sub, flow tested tool in moonpool, ok
 14:00 Ran in hole from 16m to 849m with wellhead cutter/retrieval assembly on two stands of 8" drill collar and 5" V-150 drill pipe
 15:00 Positioned rig, stabbed in and landed wellhead cutter/retrieval assembly in wellhead, 10 ton, operation aided by ROV
 20:00 Started cutting 20" x 36" casing, 4000 l/min / 145 - 170 / 10-20 ton overpull, attempted to pull wellhead free, 15 min, max overpull 50 ton, no success
 22:00 Continued to cut 20" x 36" casing, 4000 l/min / 160 bar / 10-20 ton overpull
 23:59 Continued to cut 20" x 36" casing, 4200 l/min / 170 bar / 10-20 ton overpull, attempted to pull wellhead free, 15 min, max overpull 165 ton, no success

Daily report no : 137 **Date:** 2005-10-17**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg**Stop time Description**

03:00 Continued to cut 20" x 36" casing at 866m, 4250-4300 l/min / 175-184 bar / 10-20 ton overpull, attempted to pull wellhead free, 15 min, max overpull 275 ton, no success
 07:00 Released casing cutting/retrieving assembly, observed all three knives broken, pulled assembly on 5" V-150 drill pipe from wellhead at 859m to surface
 10:00 Broke out non rotating mandrel and pressure cutter, replaced piston assembly, redressed cutter assembly with new cutter knives and made up to non rotating mandrel
 12:00 Ran in hole from surface to 849m with casing cutter/retrieval assembly on two stands 8" drill collar and 5" V-150 drill pipe, recorded up/down weight 85 ton, stabbed and latched into wellhead at 859m with 5 ton down weight, operation was assisted by ROV
 15:00 Continued to cut 20" x 36" casing at 866m, 1000 - 3000 l/min / 18 - 103 bar, pulled wellhead and gas mat free with 60 ton overpull
 17:00 Pulled from seabed at 859m to surface with wellhead stumpie and gas mat on casing cutter/retrieval assembly and 5" V-150" drill pipe
 19:00 Disengaged gas mat in moonpool
 20:00 Picked up wellhead stumpie, laid out one stand of 8" drill collar and installed handling clamp on 36" housing
 21:00 Released grapple and racked cutting/retrieval assembly in derrick, laid out wellhead stumpie
 22:00 Ran in hole with cutting/retrieval assembly, broke out and laid out same
 23:59 Held safety meeting, broke and laid out six 8" drill collars from derrick, started to break and lay out 5" V-150 drill pipe

Daily report no : 138 **Date:** 2005-10-18**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg**Stop time Description**

00:30 Continued to lay out 5" V-150 drill pipe from derrick
 08:00 Deballasted rig from operation to transit draught, meanwhile laid out remaining 5" V-150 drill pipe from derrick, total no. of stands laid out 30
 08:30 Pulled on anchors no. 2 and 6, anchor no. 2 pulled off bottom
 09:00 Continued retrieving anchor no. 2, anchor no. 6 pulled off bottom
 21:00 Continued retrieving anchors no. 2 and 6, anchor no. 2 bolstered
 23:30 Continued retrieving anchor no. 6, anchor no. 7 pulled off bottom
 23:59 Continued retrieving anchors no. 6 and 7

DAILY REPORT**Well:** 6605/8-1**PO:** 1**Daily report no :** 139 **Date:** 2005-10-19**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
02:00	Continued to retrieve anchors no. 6 and 7, anchor no. 3 pulled off bottom
05:00	Continued to retrieve anchors no. 6, 7 and 3, anchor no. 6 bolstered
08:00	Continued to retrieve anchors no. 7 and 3, got problem with brakes on anchor winch no. 7, started to troubleshoot problem when accidentally released brakes on anchor winch no. 8 causing sheave on
13:30	Full stop in anchor handling operation when evaluating situation after incident on anchor winch no. 8, anchor winch no. 8 not possible to operate
21:30	Continued to retrieve anchors no. 3 and 7, anchors no. 3 and 7 bolstered
23:59	Waiting on weather, not sufficient weather window for continuing operation

Daily report no : 140 **Date:** 2005-10-20**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
06:00	Waiting on weather
11:30	Waiting on weather, meanwhile deballasted rig at 20.5m
23:59	Waiting on weather window to start anchorhandling

Daily report no : 141 **Date:** 2005-10-21**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
10:00	Waiting on weather window to start anchorhandling
19:00	Waiting on weather window to start anchorhandling
23:59	Deballasted the rig from 18 meter draft to 8 meter towing draft

Daily report no : 142 **Date:** 2005-10-22**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
07:00	Waited on weather to continue anchor operations
23:59	Anchor# 5 off seabed at 0914hrs S.Admiral. Anchor# 1off seabed at 0933hrs N.Progress. Anchor # 5 bolstered at 2248 hrs, pennant # 5 returned to the rig at 2254 hrs

Daily report no : 143 **Date:** 2005-10-23**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
23:59	Anchor # 1 bolstered at 0256 hrs, pennant returned to the rig at 0307hrs 03:20 hrs buoy # 8 onto M.Assister deck. Connector wire recieved at 0407 hrs. Anchor off seabed at 07:41 hrs. Anchor # 8 bolstered at 19:47 hrs and pennant returned to the rig at 20:00 hrs. Anchor # 4 N. Progress off bottom 16:21 hrs. M.Assister connected to towing bridle at 20:55 hrs

Daily report no : 144 **Date:** 2005-10-24**Midnight depth :** m MD **Estimated PP:** sg **Mud weight:** 1.36 sg

Stop time	Description
01:30	Continued pulling in anchor #4 Normann Progress. Anchor bolsterd at 01:10 hrs with the rig 500 meter off location. Rig transfered to Statoil
23:59	End of well 6605/8-1 Rig transfered to Statoil

TIME DISTRIBUTION

Well: 6605/8-1 **PO:** 1 **Rig:** TRANSOCEAN LEADER **Depth:** 4513.0 m MD
All sections

Operations	Hours	%	Hours	%	Acc. total
MOBILIZATION					
MOVING	23.0	0.71			
MOORING; RUNNING ANCHORS	64.0	1.99			
MOORING; PULLING ANCHORS	89.0	2.76			
TRIPPING IN CASSED HOLE	2.5	0.08			
Sum.			178.5	5.54	178.5
DRILLING					
BHA HANDLING/TESTING	104.0	3.23			
EQUIPMENT TEST	2.5	0.08			
MWD HANDLING/TESTING/SURVEYING	9.0	0.28			
TRIPPING IN CASSED HOLE	175.5	5.45			
TRIPPING IN OPEN HOLE	62.0	1.93			
DRILLING	489.0	15.18			
OTHER	45.5	1.41			
UNDERREAMING	24.0	0.75			
WELLHEAD EQUIPMENT INSTALLATION	9.0	0.28			
REAMING	25.5	0.79			
CIRC. AND COND. MUD/HOLE	80.5	2.50			
WIPER TRIP	34.5	1.07			
TRIPPING/CIRC. FOR PRESSURE DETECTION	39.5	1.23			
CASING HANDLING/TESTING	61.5	1.91			
RUNNING CASING IN CASSED HOLE	103.5	3.21			
RUNNING CASING IN OPEN HOLE	21.5	0.67			
DRILLING OUT OF CASING	6.0	0.19			
PRIMARY CEMENTING	40.5	1.26			
TRIPPING FOR CEMENT JOB	2.0	0.06			
DRILLING OUT CEMENT PLUG	8.0	0.25			
FORMATION STRENGTH TESTING	1.0	0.03			
BOP HANDLING	5.5	0.17			
BOP RUNNING/RETRIEVING	68.0	2.11			
BOP TESTING	52.5	1.63			
WELLHEAD EQUIPMENT HANDLING	3.0	0.09			
CASING RETRIEVING	0.5	0.02			
RIG MAINTENANCE	0.5	0.02			
SLIP AND CUT DRILLING LINE	5.0	0.16			
Sum.			1479.5	45.94	1658.0
FORMATION EVALUATION MWD					
LOGGING WITH MWD	1.0	0.03			
Sum.			1.0	0.03	1659.0
FORMATION EVALUATION LOGGING					
LOGGING	38.0	1.18			
LOGGING EQUIPMENT HANDLING/TESTING	44.5	1.38			
FORMATION TESTER	122.5	3.80			
SIDEWALL CORING	18.5	0.57			
VERTICAL SEISMIC	9.0	0.28			
WIPER TRIP	23.0	0.71			
Sum.			255.5	7.93	1914.5
FORMATION EVALUATION CORING					
BHA HANDLING/TESTING	9.0	0.28			
CIRCULATING FOR SAMPLE	5.0	0.16			

TIME DISTRIBUTION

Well: 6605/8-1 **PO:** 1 **Rig:** TRANSOCEAN LEADER **Depth:** 4513.0 m MD
All sections

Operations	Hours	%	Hours	%	Acc. total
FORMATION EVALUATION CORING					
TRIPPING IN CASED HOLE	31.0	0.96			
TRIPPING IN OPEN HOLE	4.0	0.12			
CORING	3.0	0.09			
CIRC. AND COND. MUD/HOLE	7.0	0.22			
SLIP AND CUT DRILLING LINE	2.5	0.08			
Sum.			61.5	1.91	1976.0
TESTING (PRODUCTION TEST)					
INFLOW TEST	0.5	0.02			
PERFORATE	1.0	0.03			
RUN LOGS FOR CORRELATION	5.5	0.17			
BHA HANDLING/TESTING	9.0	0.28			
TRIPPING IN CASED HOLE	27.0	0.84			
OTHER	13.5	0.42			
CIRC. AND COND. MUD/HOLE	6.0	0.19			
WIPER TRIP	25.5	0.79			
CASING HANDLING/TESTING	52.5	1.63			
RUNNING CASING IN CASED HOLE	18.5	0.57			
RUNNING CASING IN OPEN HOLE	1.0	0.03			
PRIMARY CEMENTING	14.0	0.43			
SET PRODUCTION PACKER	0.5	0.02			
CEMENT EVALUATION	9.5	0.29			
BOP TESTING	22.5	0.70			
PRESSURE TESTING OF DOWNHOLE EQUIPMENT	12.0	0.37			
INSTALLATION OF PRODUCTION STRING	79.5	2.47			
SLIP AND CUT DRILLING LINE	1.5	0.05			
RIG UP OR DOWN WIRELINE EQUIPMENT	9.5	0.29			
FLOW PERIOD	33.0	1.02			
KILL WELL/MINIFRAC	35.0	1.09			
SHUT IN PERIOD	68.0	2.11			
Sum.			445.0	13.82	2421.0
PLUG AND ABANDONMENT					
BHA HANDLING/TESTING	2.0	0.06			
TRIPPING IN CASED HOLE	52.5	1.63			
OTHER	3.5	0.11			
WELLHEAD EQUIPMENT INSTALLATION	10.0	0.31			
CIRC. AND COND. MUD/HOLE	10.5	0.33			
CASING HANDLING/TESTING	5.0	0.16			
TRIPPING FOR CEMENT JOB	59.0	1.83			
BOP HANDLING	14.5	0.45			
BOP RUNNING/RETRIEVING	30.5	0.95			
BOP TESTING	1.0	0.03			
WELLHEAD EQUIPMENT HANDLING	4.0	0.12			
SET CEMENT PLUG	32.5	1.01			
SET/RELEASE MECHANICAL PLUG	3.0	0.09			
TRIPPING OF CASING CUTTING EQUIPMENT	32.0	0.99			
CUT CASING/WELLHEAD	12.5	0.39			
CASING RETRIEVING	26.5	0.82			
SLIP AND CUT DRILLING LINE	3.0	0.09			
Sum.			302.0	9.38	2723.0

TIME DISTRIBUTION

Well: 6605/8-1 **PO:** 1 **Rig:** TRANSOCEAN LEADER **Depth:** 4513.0 m MD
All sections

Operations	Hours	%	Hours	%	Acc. total
DOWNTIME MOBILIZATION					
EQUIPMENT FAILURE AND REPAIR	5.5	0.17			
WAITING	50.5	1.57			
Sum.			56.0	1.74	2779.0
DOWNTIME DRILLING					
PRESSURE DETECTION	14.5	0.45			
EQUIPMENT FAILURE AND REPAIR	146.5	4.55			
SLIP AND CUT DRILLING LINE	1.5	0.05			
Sum.			162.5	5.05	2941.5
DOWNTIME FORM. EVAL. LOGGING					
EQUIPMENT FAILURE AND REPAIR	81.5	2.53			
WAITING	8.0	0.25			
STICKING/GOING STUCK WITH EQUIPMENT	20.0	0.62			
FISHING	53.5	1.66			
WIPER TRIP	24.5	0.76			
Sum.			187.5	5.82	3129.0
DOWNTIME FORM. EVAL. CORING					
FISHING	0.5	0.02			
Sum.			0.5	0.02	3129.5
DOWNTIME TESTING (PROD. TEST)					
EQUIPMENT FAILURE AND REPAIR	18.5	0.57			
WAITING	42.0	1.30			
FISHING	6.5	0.20			
OTHER	2.5	0.08			
Sum.			69.5	2.16	3199.0
DOWNTIME PLUG AND ABANDONMENT					
EQUIPMENT FAILURE AND REPAIR	16.0	0.50			
WAITING	1.0	0.03			
OTHER	4.5	0.14			
Sum.			21.5	0.67	3220.5
Reported time (100.0 % of well total 3220.5 hours) :					3220.5

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-06-11	2	1.0	Equipment failure	TRANSOCEAN SEDCO FOREX	CONTIENTAL EMSCO	Caliper breaks on draw works fails to release properly	HOISTING EQUIPMENT	OTHER ACTIVITY	DRILLING CONTRACTOI	305.00	Other Hoisting Equipment	
2005-06-11	1	3.0	Equipment failure	TRANSOCEAN SEDCO FOREX	CONTIENTAL EMSCO	Draw work park break failed to release. Found rig air pressure to low.	HOISTING EQUIPMENT	OTHER ACTIVITY	DRILLING CONTRACTOI	303.00	Traveling Equipment	
2005-06-21	4	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	CAMERON NORGE	Retainer ring on BOP test plug stuck	WELLCONTROL EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	337.01	Bop Test Tool	
2005-06-23	5	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BEST FLOW PRODUCTS	Maintenance stop on top drive	HOISTING EQUIPMENT	DRILLING	DRILLING CONTRACTOI	313.02	Top Drive	
2005-06-23	6	2.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	TRANSOCEAN OFFSHORE EUROPE LIMITED	Repaired leak in T-pipe for hydraulic supply system to pipehandler and iron rough neck	PIPE HANDLING EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	347.00	Other Pipe Handling Equipment	
2005-06-26	8	0.5	Equipment failure	WEATHERFOR NORGE A/S	VARCO BJ OIL TOOLS	Repaired leak in hydraulic hose on BX elevator	PIPE HANDLING EQUIPMENT/SYS	CASING	CASING RUNNING	345.00	Elevator	
2005-06-28	9	15.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	CAMERON NORGE	Leak on kill line when pressure testing BOP stack, removed LMRP from BOP stack, replaced AX rings on choke/kill/riser connector, re-installed LMRP, pressure tested, kill still leaking, observed damage on kill mandrel	WELLCONTROL EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	336.00	Choke/Kill System (incl. Mud/Gas Seperator)	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-07-02	10	14.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BJ OIL TOOLS	Broke of the bolts that keeps the top drive link tilt elevator bolted to the top drive fixed body elavator. Early indication of the investigation indicates that one of the bolts holding the link tilt in place had partly been sheared of prior to this incident, thus belived to be the main reason why the rst of the bolts sheared of when picking up the riser joint	PIPE HANDLING EQUIPMENT/SYS	BOP INSTALLATION AND TESTING	DRILLING CONTRACTOI	342.00	Drillfloor Tubular Handling	
2005-07-03	11	4.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	TRANSOCEAN OFFSHORE EUROPE LIMITED	Could not obtain a good pressure test on kill line on jnt # 22. Pulled jnt 22 and 21 and changed out seal. Pressure tested both on jnt 20 , 21 and 22 obtaining god tests	WELLCONTROL EQUIPMENT/SYS	BOP INSTALLATION AND TESTING	DRILLING CONTRACTOI	335.00	Riser System (incl. K/C/B Lines)	
2005-07-05	12	1.5	Other	TRANSOCEAN OFFSHORE EUROPE LIMITED		Detected damaged wire and assesed situation. Slipped and cut another 37 m to remove damaged wire.		DRILLING				
2005-07-05	10.1	6.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BJ OIL TOOLS	Installed top drive pipe handler that was removed after the link tilt incident	PIPE HANDLING EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	341.00	Vertical Pipe Handling	
2005-07-05	13	3.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BJ OIL TOOLS	Not able to function the BX elevator. Troubleshoot same and replaced elevator with air operated elevator. Bx elevator taken to mechanics shop without finding any fault.	PIPE HANDLING EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	345.00	Elevator	

DOWNTIME REPORT All installations

Installation: TOL		Well: 6605/8-1		PO: 1								
Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-07-05	14	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Observed a hydraulic leak on the eagle lite pipe handler. Stopped and repaired leak.	PIPE HANDLING EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOR	341.00	Vertical Pipe Handling	
2005-07-05	15	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BJ OIL TOOLS	Reset and calibrate both crown and floor saver.	DRILL FLOOR EQUIPMENT/SYS	DRILLING	RIG UTILITIES	312.00	Drawworks and Machinery	
2005-07-07	16	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	ELMAGO BRAKE CORPORATION	Stopped and repaired draw-work park brake problem	DRILL FLOOR EQUIPMENT/SYS	DRILLING	RIG UTILITIES	312.00	Drawworks and Machinery	
2005-07-08	17	2.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	TRANSOCEAN OFFSHORE EUROPE LIMITED	Circulated at slow rate while clearing blocked overboard cuttings line. The line had been blocked with some rags.	MUD AND BULK SYSTEMS	DRILLING	RIG UTILITIES	326.01	Cuttings Handling	
2005-07-11	18	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BJ OIL TOOLS	Troubleshoot problem with Bx elevator. Replaced Bx elevator with 5" air operated elevator.	PIPE HANDLING EQUIPMENT/SYS	DRILLING	RIG UTILITIES	345.00	Elevator	
2005-07-12	19	27.0	Equipment failure	NORSK HYDRO A/S	SCHLUMBERG DRILLING & MEASUREMENT	Lost communication with MWD tool. Found rubber from o-ring in pulser.	DRILLSTRING/DO EQUIPMENT	DRILLING	MWD/LWD	357.02	MWD/LWD	
2005-07-15	20	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	CONTIENTAL EMSCO	Mud pump #2 tripped on inbalance. Investigated problem and re-set pump- Isolated pump 1 which was causing the inbalance and continued using mud pump 1 and 2. Found rubber debris under one of the mud pump valves	MUD AND BULK SYSTEMS	DRILLING	RIG UTILITIES	325.00	Mud Supply(incl. HP mudpumps)	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-07-17	21	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Unable to continue operation due to hydraulic leak on iron roughneck. Stopped and repaired valve block assembly	PIPE HANDLING EQUIPMENT/SYS	DRILLING	RIG UTILITIES	342.00	Drillfloor Tubular Handling	
2005-07-20	22	5.5	Equipment failure	HALLIBURTON OILFIELD SERVICES NORWAY INC.	PEAK WELL SOLUTIONS	Attempted to launch bottom dart, but observed that dart cycle indicators for bottom and top dart turned at the same time. Shut down air supply to dart valves,when both valves were half way open. Both indicators returned to closed postion.	SERVICE EQUIPMENT/SYS	CEMENTING	CEMENTING	371.02	Cement: Head	
2005-07-21	24	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	CONTIENTAL EMSCO	Welded kicker plate on draw works drum	DRILL FLOOR EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	312.00	Drawworks and Machinery	
2005-07-31	25	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	CONTIENTAL EMSCO	Earth failure on mud pump no. 1, not able to sort out problem	MUD AND BULK SYSTEMS	DRILLING	DRILLING CONTRACTOI	325.00	Mud Supply(incl. HP mudpumps)	
2005-08-05	26	1.5	Equipment failure	SCHLUMBERG OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	Lost coomunication with logging tool on log run no. 1. at 2750 m. Pulled back to 650 m and got back signals. Ran back to 3380 m and performed logging.	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.01	Electric Logging Eq. in General	
2005-08-07	28	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BJ OIL TOOLS	Changed out leaking hydraulic hose on BX-elevator	PIPE HANDLING EQUIPMENT/SYS	CASING	DRILLING CONTRACTOI	345.00	Elevator	
2005-08-07	27	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	TRANSOCEAN OFFSHORE EUROPE LIMITED	Investigated function failure in gripers for Eagle HTV pipe handler.	PIPE HANDLING EQUIPMENT/SYS	CASING	DRILLING CONTRACTOI	342.00	Drillfloor Tubular Handling	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-08-08	29	41.0	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR NORGE A/S	Had back-flow through AutoFill valve after pressure testing the 9 5/8" liner. Top of cement inside 9 5/8" at 4019 m. Drill out cement.	SERVICE EQUIPMENT/SYS	CEMENTING	CEMENTING	376.06	Casing Auxilery	
2005-08-08	30	3.5	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR NORGE A/S	Attempted to set liner packer,negative.	SERVICE EQUIPMENT/SYS	TIEBACK OPERATIONS	CEMENTING	376.07	Liner Hanger	
2005-08-09	33	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Changed bursted hose on IRN	PIPE HANDLING EQUIPMENT/SYS	TIEBACK OPERATIONS	DRILLING CONTRACTOI	342.00	Drillfloor Tubular Handling	
2005-08-09	31	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Repaired leaking hose for upper racking arm	PIPE HANDLING EQUIPMENT/SYS	CASING	DRILLING CONTRACTOI	341.00	Vertical Pipe Handling	
2005-08-09	32	2.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	DP stand was lowered before the stand lift was retracted. The lifting wire parted.	PIPE HANDLING EQUIPMENT/SYS	TIEBACK OPERATIONS	DRILLING CONTRACTOI	341.00	Vertical Pipe Handling	
2005-08-10	34	0.5	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR DRILLING & INTERVENTION SERVICES	Troubleshoot casing tong and reset same before resuming operation.	PIPE HANDLING EQUIPMENT/SYS	CASING	CASING/TUBI RUNNING	342.00	Drillfloor Tubular Handling	
2005-08-14	36	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	WEATHERFOR OIL TOOLS MIDDLE EAST	Broken hardband on Drill Pipe	DRILLSTRING/DO EQUIPMENT	DRILLING	DRILLING CONTRACTOI	351.00	Drillpipe	
2005-08-14	35	3.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Pulled out of hole to 1285 m when fragment from drill-pipe when breaking a connection shattered window in drillers cabin. Stopped and investigated the incident. Modified the dices such that no gripping would be on the hard bending on the drill pipe and temporarily replaced the window of the drillers cabin.	PIPE HANDLING EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	342.00	Drillfloor Tubular Handling	

DOWNTIME REPORT All installations

Installation: TOL		Well: 6605/8-1			PO: 1							
Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-08-17	49	14.5	Other	NORSK HYDRO A/S		Closed in on a drill brake, observed pressure increase. Flow checked and circulated bootom up. No influx		DRILLING				
2005-08-21	37	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Stopped and repaired broken hydraulic hose on iron roughneck.	PIPE HANDLING EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	342.00	Drillfloor Tubular Handling	
2005-08-23	38	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Suspended drilling operation temporarily whilst investigating fault on Eagle lite control system.	PIPE HANDLING EQUIPMENT/SYS	DRILLING	DRILLING CONTRACTOI	342.00	Drillfloor Tubular Handling	
2005-08-25	39	0.5	Equipment failure	SCHLUMBERGI OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	Failure on ECS logging tool	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.15	Other logging equipment	
2005-08-26	40	33.5	Equipment failure	SCHLUMBERGI OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	Lost communication with MDT tool whil logging (Run 2A)	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.02	Formation Tester (RFT)	
2005-08-29	41	35.5	Other	SCHLUMBERGI OFFSHORE SERVICES LTD		MDT stuck in hole at 4231.4m after 11 hrs pressure test and PVT sampling		LOGGING				
2005-08-30	42	0.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Failure on hydraulic steering system for spinner tongs on iron rough neck	PIPE HANDLING EQUIPMENT/SYS	LOGGING	DRILLING CONTRACTOI	342.00	Drillfloor Tubular Handling	
2005-08-31	44	1.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	CONTIENTAL EMSCO	Suction strainers on mud pump no.1 & 2 clogged up with polymer, mud and chemical when displacing salt gel pill	MUD AND BULK SYSTEMS	LOGGING	DRILLING CONTRACTOI	325.00	Mud Supply(incl. HP mudpumps)	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-09-01	43	7.0	Equipment failure	SCHLUMBERG OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	Unable to cut sidewall cores, not able to rotate bit in coring mode, after trouble shooting, the 50V line was shutting down as well. The problem was reproduced back on surface and was identified to be caused by error in MRCT cartridge.	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.03	Side Wall Cores (CST)	
2005-09-03	45	2.0	Other	SCHLUMBERG OFFSHORE SERVICES LTD		Differential stuck with dual packer MDT after pressure test and sampling at 4209.4m, total 10 hours at wall		LOGGING				
2005-09-03	46	6.0	Equipment failure	SCHLUMBERG OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	Lost packer pressure and seal during build up test	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.02	Formation Tester (RFT)	
2005-09-04	47	11.5	Equipment failure	SCHLUMBERG OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	Not able to fully retract coring unit on tool check at 4000m when running in hole.	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.03	Side Wall Cores (CST)	
2005-09-04	47.1	24.5	Other	SCHLUMBERG OFFSHORE SERVICES LTD		Conditioning hole while waiting for MDT/MSCT spare parts/backup tool		LOGGING				
2005-09-06	48	7.5	Equipment failure	SCHLUMBERG OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	MDT communication error when testing after rig up	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.02	Formation Tester (RFT)	
2005-09-06	48.1	11.5	Equipment failure	SCHLUMBERG OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	Error on MDT 50V system, replaced LFA	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.02	Formation Tester (RFT)	
2005-09-08	50	0.5	Equipment failure	SCHLUMBERG OFFSHORE SERVICES LTD	SCHLUMBERG OFFSHORE SERVICES LTD	When starting to take the remaining 6 sidewall cores, an oil leak in MSCT tool was observed. Decided to pull out of the hole.	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.03	Side Wall Cores (CST)	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-09-10	51	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	VARCO BJ OIL TOOLS	Changed out leaking hydraulic quick connection on elevator outlet to 22BX elevator.	PIPE HANDLING EQUIPMENT/SYS	CASING	DRILLING CONTRACTOI	345.00	Elevator	
2005-09-10	52	1.5	Other	NORSK HYDRO A/S		Wrong type of x-over was made up. Had to laid down same plus casing joint below. X-over should have been ; NSCC pin down x VamTop up.		CASING				
2005-09-12	55	12.5	Waiting for materials/equip	NORSK HYDRO A/S		Supply of brine was delayed due to late boat departure from CCB.	MUD AND BULK SYSTEMS	DRILL STEM TEST	DRILLING FLUID	320.01	Drilling Fluids	
2005-09-13	53	1.0	Other	TRANSOCEAN OFFSHORE EUROPE LIMITED		Leakage in valve DW8V while displacing brine. 217 m3 CaCl/CaBr3 brine into pontoon tank #5.		DRILL STEM TEST				
2005-09-15	54	0.5	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR DRILLING & INTERVENTION SERVICES	Could not make up 4 3/4" drill collars using the tubing tong. Stopped and adjusted the tong. Re-dressed the power tong with 4 1/4" jaws on side and 5 1/2" size jaws on the other side.	SERVICE EQUIPMENT/SYS	DRILL STEM TEST	PRODUCTION TESTING	372.23	Tubing make up equipment	
2005-09-16	56	1.0	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR DRILLING & INTERVENTION SERVICES	Stopped and repaired tubing tong due to brine contamination in electric box	SERVICE EQUIPMENT/SYS	DRILL STEM TEST	PRODUCTION TESTING	372.23	Tubing make up equipment	
2005-09-16	58	0.5	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR DRILLING & INTERVENTION SERVICES	Troubleshoot and fix jammed 3 1/2" air operated slips.	PIPE HANDLING EQUIPMENT/SYS	DRILL STEM TEST	PRODUCTION TESTING	344.00	Slips and Spider	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-09-16	57	2.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Troubleshoot eagle lite arm. Not able to move downward. Cleaned all connections on eagle control panel which solved the problem	PIPE HANDLING EQUIPMENT/SYS	DRILL STEM TEST	PRODUCTION TESTING	341.00	Vertical Pipe Handling	
2005-09-17	59	2.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Troubleshoot eagle HTV arm. Not able to move downward. Replaced joy stick due to water ingress from back-flow on tubing.	PIPE HANDLING EQUIPMENT/SYS	DRILL STEM TEST	PRODUCTION TESTING	341.00	Vertical Pipe Handling	
2005-09-19	60	1.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Not able to tilt the Eagle HTV head in or out Stopped and replaced joy stick on panel due to water ingress.	PIPE HANDLING EQUIPMENT/SYS	DRILL STEM TEST	PRODUCTION TESTING	347.00	Other Pipe Handling Equipment	
2005-09-19	61	27.5	Waiting on weather					DRILL STEM TEST				
2005-09-21	62	2.0	Waiting for materials/equip	NORSK HYDRO A/S		Waited om boat to arrive with Glycol prior to perforating the well	WELLCONTROL EQUIPMENT/SYS	DRILL STEM TEST	PRODUCTION TESTING	337.05	Other Well Control Related Equipment	
2005-09-26	63	7.0	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MI NORGE	During the kill operation of the annulus 1.62 sg mud should have been pumped. However the annulus was circulated for 5 hrs without any check of the mud weight. The mud weight had dropped to 1.57 sg and had to raised to 1.62 sg again and the annulus had to be diaplaced again	MUD AND BULK SYSTEMS	DRILL STEM TEST	PRODUCTION TESTING	320.01	Drilling Fluids	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-09-29	64	2.0	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR DRILLING & INTERVENTION SERVICES	Unable to break connection on gauge carrier assembly with power tong. Attempted several times before breaking connection. Unable to remove tong due to the upper jaw jammed on the pipe, troubleshoot. Manged to remove a dies from the jaw and tong came free from pipe.	SERVICE EQUIPMENT/SYS	DRILL STEM TEST	CASING/TUBII RUNNING	372.23	Tubing make up equipment	
2005-09-29	65	1.5	Equipment failure	TRANSOCEAN OFFSHORE EUROPE LIMITED	MARITIME HYDRAULICS A/S	Investigated and rectified malfunction in PLS system on drillers chair. Unable to activate Bx elevator and auto slips.	DRILL FLOOR EQUIPMENT/SYS	DRILL STEM TEST	DRILLING CONTRACTOI	311.00	Drilling Control	
2005-10-02	69	43.0	Other	NORSK HYDRO A/S		MDT tool was stuck after completed the pressure and sampling program. Relieced the cable and pulled that to surface. Fished the MDT tool out with overshot on drillpipe.		LOGGING				
2005-10-02	69.1	8.0	Waiting for materials/equip	SCHLUMBERGI OFFSHORE SERVICES LTD		Ordered out cross-over to overshot. Arrived with wrong treads. Welded together bit sub and overshot.	SERVICE EQUIPMENT/SYS	LOGGING	ELECTRIC LOGGING	374.01	Electric Logging Eq. in General	

DOWNTIME REPORT All installations**Installation:** TOL**Well:** 6605/8-1**PO:** 1

Startdate	#	Sum hrs	Downtime Type	Responsible Contractor	Manufacturer	Short description	Equipment Type	Activity	Service Type	NSFI Code	NSFI Type	Serial Number
2005-10-05	68	1.5	Equipment failure	HALLIBURTON OILFIELD SERVICES NORWAY INC.	SCHLUMBERG CEMENT	Observed that the mixing pump to the batch mixer would not start. Stopped and investigated the problem. Fault traced to busted hydraulic hose to one of the exhaust fans running of same hydraulic reservoir as the mixing pump. Repaired busted hose.	SERVICE EQUIPMENT/SYS	PLUG AND ABANDONMEI	CEMENTING	371.01	Cement: Unit/pipe	
2005-10-07	70	3.5	Other	TRANSOCEAN OFFSHORE EUROPE LIMITED		When running in hole with 9 7/8" EZSV bridge plug, the compensator was unlocked with too high pressure when preparing for running compensated through the BOP/wellhead area. This caused the drillstring to jump 4m. Due risk of having activated lower slips on the EZSV bridge plug it was decided to pull out to surface to verify tool ok		PLUG AND ABANDONMEI				
2005-10-09	71	0.5	Equipment failure	WEATHERFOR NORGE A/S	WEATHERFOR NORGE A/S	Unabel to fit a hydraulic control hose for flush mounted spider to remote control panel - problem solved with aid of rig mechanic	PIPE HANDLING EQUIPMENT/SYS	PLUG AND ABANDONMEI	CASING RUNNING	344.00	Slips and Spider	

PO: 1

[illegible]

2006-04-21

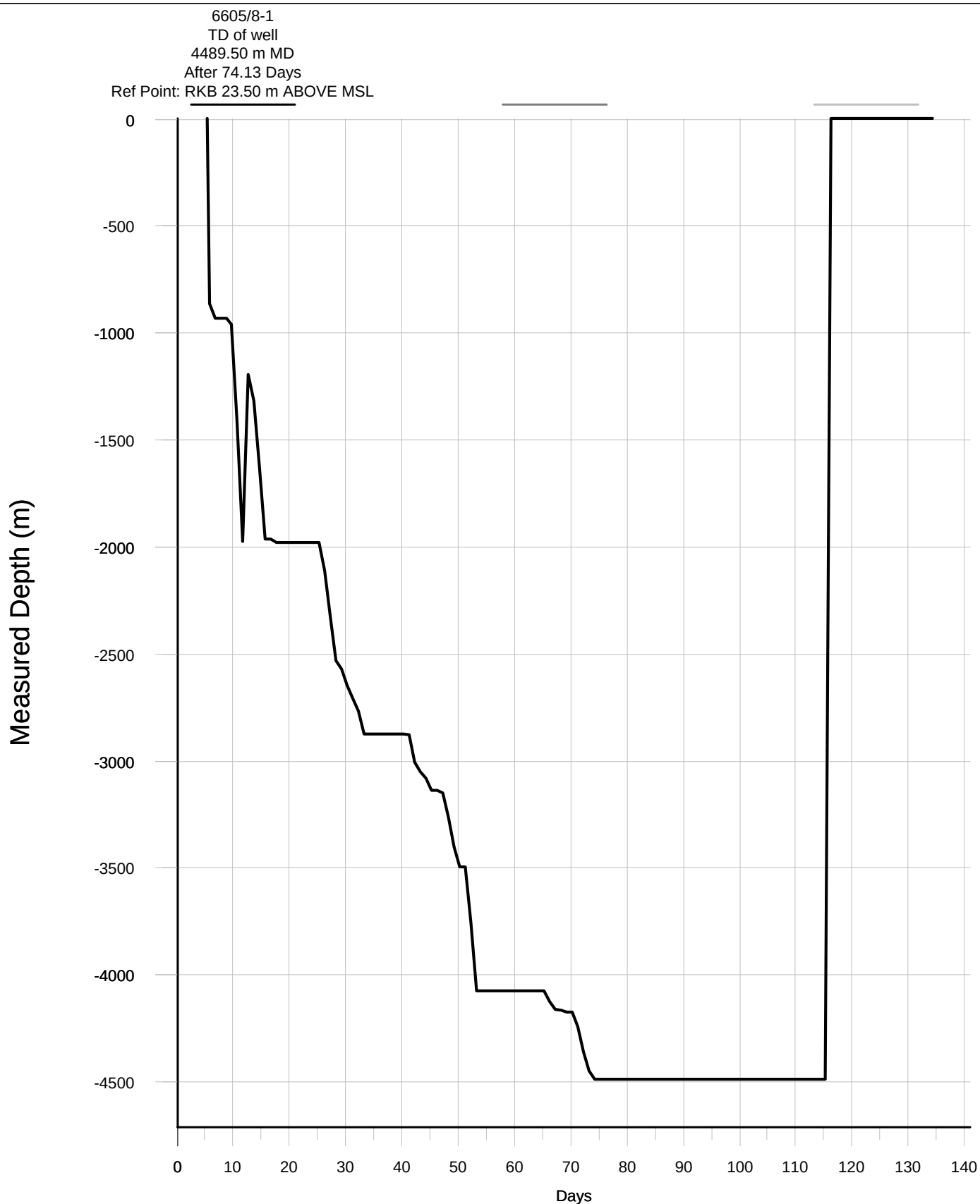


Figure 1

MD Drilling Curve

HYDRO

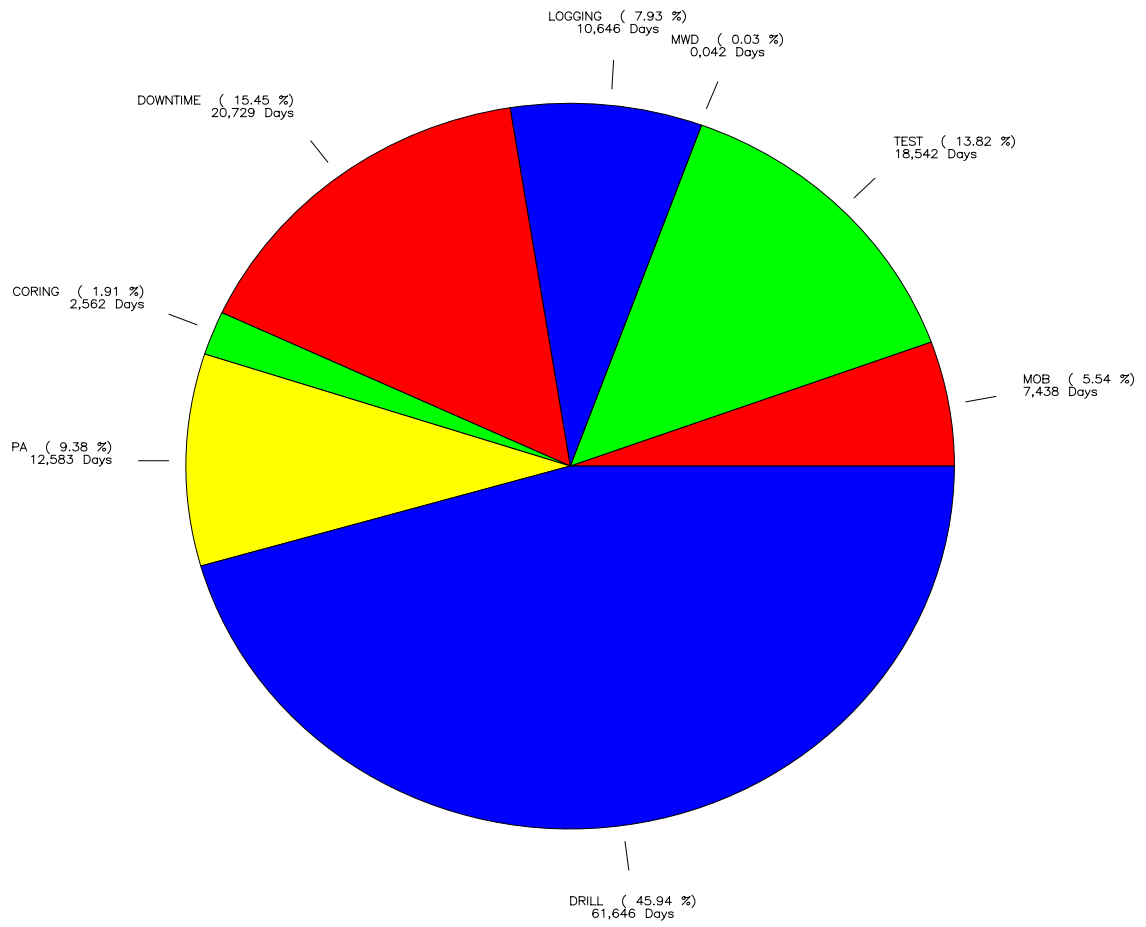


Figure 2

Time Distribution
6605/8-1

HYDRO

HOLE DEVIATION

Well: 6605/8-1 **PO:** 1 **Reference point:** RKB ; 23.5 m ABOVE MSL
Waterdepth: 838.0 m **Vertical to:** 861.4 m **Total Depth:** 4513.0 m MD
Utm zone: 32 **Central Median:** 9° E **Horizontal datum:** ED50
Template Centre Coordinates, UTM: **North :** m, **East :** m
Wellhead Coordinates, UTM: **North :** 7364907.60 m, **East :** 346941.00 m
Official Surveys: Y **Track :**
Coordinates are measured from the wellhead centre.

Depth MD [m]	Inclination [Deg]	Direction [Deg]	Tool Type	#	Depth TVD [m]	Coordinates North [m]	East [m]	Vert. Sect [m]	Dogleg [D/30m]	Build [D/30m]	Turn [D/30m]
861.59	0.00	0.00	MWD	7	861.59	0.00	0.00	0.00	0.00	0.00	0.00
869.69	0.12	73.41	MWD	7	869.69	0.00	0.01	0.01	0.44	0.44	271.89
878.71	0.34	347.22	MWD	7	878.71	0.03	0.01	0.03	1.17	0.73	-286.66
888.17	0.54	289.38	MWD	7	888.17	0.07	-0.04	0.08	1.46	0.63	-183.42
898.67	0.30	223.47	MWD	7	898.67	0.07	-0.10	0.12	1.43	-0.69	-188.31
903.11	0.10	104.08	MWD	7	903.11	0.06	-0.11	0.12	2.43	-1.35	-806.69
916.44	0.14	269.92	MWD	7	916.44	0.06	-0.11	0.13	0.54	0.09	373.23
927.69	0.38	345.83	MWD	7	927.69	0.09	-0.13	0.16	0.99	0.64	202.43
933.92	0.20	276.11	MWD	7	933.92	0.11	-0.15	0.19	1.75	-0.87	-335.73
944.37	0.91	131.94	MWD	7	944.37	0.06	-0.11	0.12	3.10	2.04	-413.89
974.35	1.33	39.71	MWD	7	974.34	0.17	0.29	0.34	1.64	0.42	-92.29
1002.44	1.43	33.19	MWD	7	1002.43	0.71	0.69	0.99	0.20	0.11	-6.96
1030.10	1.22	38.84	MWD	7	1030.08	1.23	1.07	1.63	0.27	-0.23	6.13
1088.47	1.20	40.69	MWD	7	1088.44	2.18	1.85	2.86	0.02	-0.01	0.95
1146.38	1.89	49.15	MWD	7	1146.33	3.26	2.97	4.41	0.38	0.36	4.38
1174.85	1.59	38.56	MWD	7	1174.78	3.88	3.57	5.27	0.46	-0.32	-11.16
1203.99	1.11	40.38	MWD	7	1203.91	4.41	4.01	5.96	0.50	-0.49	1.87
1233.28	1.53	74.12	MWD	7	1233.20	4.73	4.57	6.58	0.89	0.43	34.56
1262.52	2.00	49.72	MWD	7	1262.42	5.17	5.33	7.43	0.90	0.48	-25.03
1291.37	2.34	39.70	MWD	7	1291.25	5.95	6.09	8.52	0.53	0.35	-10.42
1321.49	2.77	40.76	MWD	7	1321.34	6.97	6.96	9.85	0.43	0.43	1.06
1330.40	2.65	40.83	MWD	7	1330.24	7.29	7.24	10.27	0.40	-0.40	0.24
1350.64	2.69	37.45	MWD	7	1350.46	8.02	7.83	11.21	0.24	0.06	-5.01
1379.69	2.70	40.77	MWD	7	1379.48	9.08	8.69	12.57	0.16	0.01	3.43
1409.22	3.02	33.83	MWD	7	1408.97	10.26	9.58	14.03	0.48	0.33	-7.05
1438.19	3.10	37.78	MWD	7	1437.90	11.51	10.48	15.57	0.23	0.08	4.09
1466.82	3.38	34.52	MWD	7	1466.48	12.82	11.44	17.18	0.35	0.29	-3.42
1497.18	3.44	35.45	MWD	7	1496.79	14.30	12.47	18.97	0.08	0.06	0.92
1526.57	3.21	38.62	MWD	7	1526.13	15.66	13.50	20.67	0.30	-0.23	3.24
1555.32	3.34	34.35	MWD	7	1554.83	16.98	14.47	22.31	0.29	0.14	-4.46
1585.67	3.36	39.07	MWD	7	1585.13	18.40	15.53	24.08	0.27	0.02	4.67
1614.39	3.36	33.37	MWD	7	1613.80	19.75	16.53	25.75	0.35	0.00	-5.95
1644.36	3.42	33.18	MWD	7	1643.72	21.24	17.50	27.52	0.06	0.06	-0.19
1673.76	3.24	34.68	MWD	7	1673.07	22.65	18.45	29.22	0.20	-0.18	1.53
1701.41	3.13	34.81	MWD	7	1700.68	23.92	19.33	30.75	0.12	-0.12	0.14
1730.92	3.20	35.46	MWD	7	1730.14	25.25	20.26	32.37	0.08	0.07	0.66

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Depth MD [m]	Incli- nation [Deg]	Direc- tion [Deg]	Tool Type	#	Depth TVD [m]	Coordinates		Vert. Sect [m]	Dogleg [D/30m]	Build [D/30m]	Turn [D/30m]
						North [m]	East [m]				
1789.34	2.87	36.24	MWD	7	1788.48	27.76	22.07	35.46	0.17	-0.17	0.40
1819.83	2.77	34.21	MWD	7	1818.93	28.98	22.94	36.96	0.14	-0.10	-2.00
1848.47	2.83	32.92	MWD	7	1847.54	30.15	23.71	38.35	0.09	0.06	-1.35
1877.75	2.78	31.08	MWD	7	1876.79	31.36	24.47	39.78	0.11	-0.05	-1.89
1907.19	2.72	32.76	MWD	7	1906.19	32.56	25.22	41.18	0.10	-0.06	1.71
1935.77	2.65	32.77	MWD	7	1934.74	33.69	25.94	42.52	0.07	-0.07	0.01
1965.28	2.56	32.67	MWD	7	1964.22	34.81	26.67	43.85	0.09	-0.09	-0.10
1993.03	2.99	38.74	MWD	7	1991.94	35.90	27.46	45.20	0.56	0.46	6.56
2009.06	2.73	40.80	MWD	7	2007.95	36.52	27.97	45.99	0.52	-0.49	3.86
2040.90	1.11	6.24	MWD	7	2039.77	37.40	28.50	47.02	1.81	-1.53	-32.56
2069.58	0.74	284.71	MWD	7	2068.45	37.72	28.35	47.18	1.30	-0.39	-85.28
2098.11	2.17	251.29	MWD	7	2096.97	37.59	27.66	46.67	1.69	1.50	-35.14
2127.03	4.56	236.40	MWD	7	2125.84	36.78	26.18	45.15	2.62	2.48	-15.45
2157.88	6.90	228.52	MWD	7	2156.53	34.87	23.77	42.21	2.40	2.28	-7.66
2187.12	9.77	230.02	MWD	7	2185.46	32.12	20.55	38.13	2.95	2.94	1.54
2216.05	9.97	222.91	MWD	7	2213.96	28.71	16.97	33.34	1.28	0.21	-7.37
2244.56	9.92	212.15	MWD	7	2242.04	24.82	13.98	28.48	1.95	-0.05	-11.32
2274.56	10.40	207.04	MWD	7	2271.57	20.22	11.37	23.20	1.02	0.48	-5.11
2303.42	10.00	208.03	MWD	7	2299.98	15.69	9.01	18.09	0.45	-0.42	1.03
2331.79	7.66	207.29	MWD	7	2328.01	11.83	6.99	13.74	2.48	-2.47	-0.78
2361.08	5.84	209.57	MWD	7	2357.10	8.80	5.36	10.30	1.88	-1.86	2.34
2392.36	2.28	185.03	MWD	7	2388.29	6.80	4.52	8.16	3.72	-3.41	-23.54
2421.54	1.49	140.58	MWD	7	2417.46	5.92	4.71	7.57	1.65	-0.81	-45.70
2449.45	1.46	135.91	MWD	7	2445.36	5.39	5.18	7.48	0.13	-0.03	-5.02
2478.18	1.46	137.77	MWD	7	2474.08	4.85	5.68	7.48	0.05	0.00	1.94
2507.84	1.40	138.56	MWD	7	2503.73	4.30	6.18	7.53	0.06	-0.06	0.80
2536.31	0.74	199.56	MWD	7	2532.20	3.87	6.35	7.43	1.29	-0.70	64.28
2562.73	0.90	212.84	MWD	7	2558.61	3.53	6.18	7.12	0.28	0.18	15.08
2598.23	0.45	233.10	MWD	7	2594.11	3.22	5.91	6.73	0.42	-0.38	17.12
2626.62	0.48	223.47	MWD	7	2622.50	3.06	5.74	6.51	0.09	0.03	-10.18
2657.52	0.38	224.70	MWD	7	2653.40	2.90	5.58	6.29	0.10	-0.10	1.19
2733.60	0.43	243.49	MWD	7	2729.48	2.59	5.15	5.76	0.06	0.02	7.41
2766.42	0.61	236.28	MWD	7	2762.30	2.44	4.89	5.47	0.17	0.16	-6.59
2795.28	0.51	242.78	MWD	7	2791.16	2.29	4.65	5.19	0.12	-0.10	6.76
2825.85	0.62	235.59	MWD	7	2821.72	2.14	4.39	4.89	0.13	0.11	-7.06
2851.74	0.70	242.40	MWD	7	2847.61	1.99	4.14	4.59	0.13	0.09	7.89

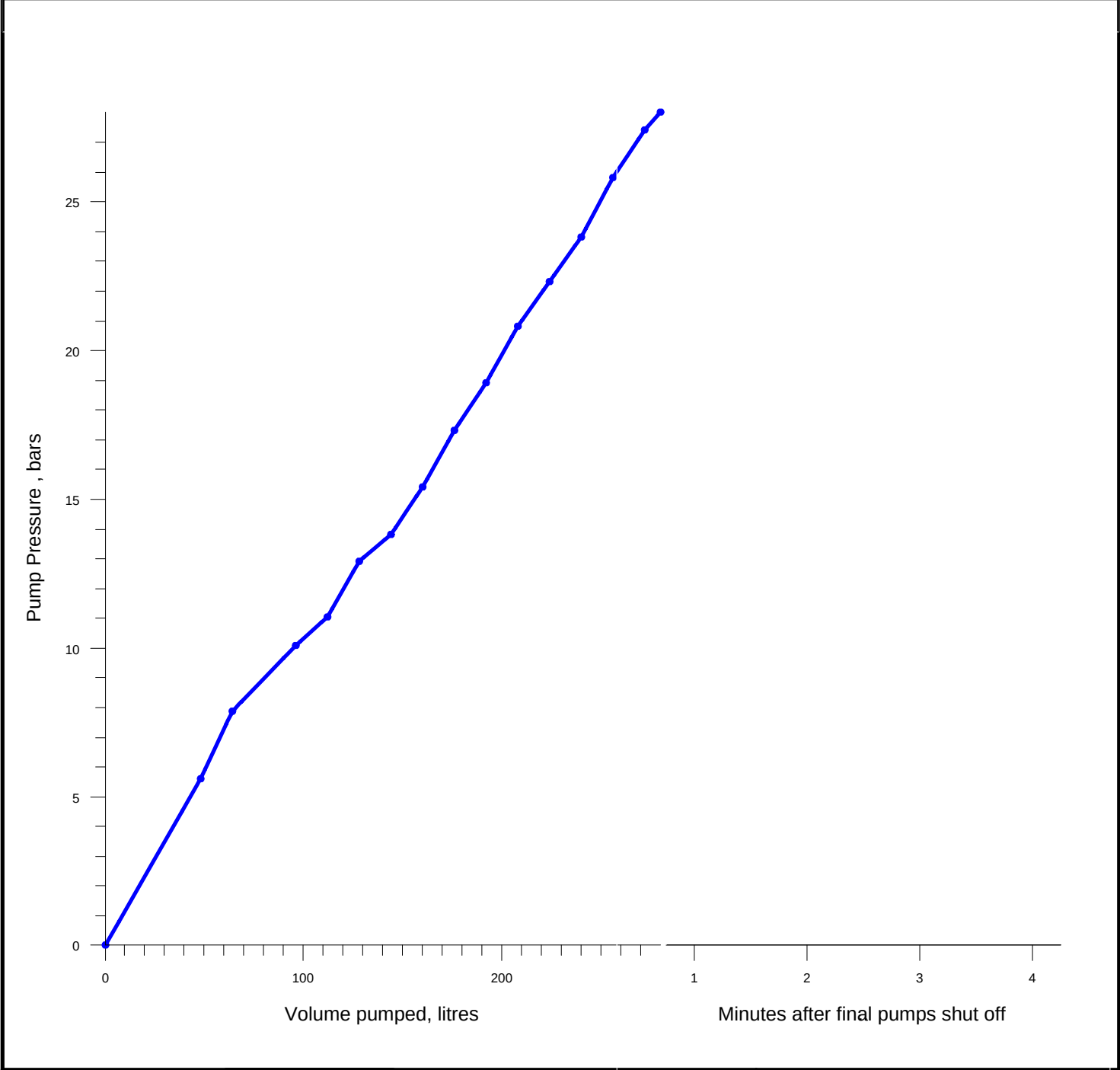
HOLE DEVIATION

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Depth MD [m]	Inclination [Deg]	Direction [Deg]	Tool Type	#	Depth TVD [m]	Coordinates North [m]	East [m]	Vert. Sect [m]	Dogleg [D/30m]	Build [D/30m]	Turn [D/30m]
2880.81	0.79	257.26	MWD	7	2876.68	1.86	3.79	4.22	0.22	0.09	15.34
2896.00	0.94	255.34	MWD	7	2891.87	1.80	3.56	3.99	0.30	0.30	-3.79
2926.28	0.24	303.07	MWD	7	2922.15	1.78	3.27	3.72	0.79	-0.69	47.29
3013.09	0.36	135.13	MWD	7	3008.96	1.68	3.31	3.71	0.21	0.04	-58.04
3097.47	0.15	232.13	MWD	7	3093.34	1.43	3.41	3.70	0.14	-0.07	34.49
3184.49	0.43	342.84	MWD	7	3180.35	1.67	3.22	3.63	0.17	0.10	38.17
3273.86	0.24	313.65	MWD	7	3269.72	2.12	2.99	3.66	0.08	-0.06	-9.80
3359.80	0.20	297.51	MWD	7	3355.66	2.31	2.73	3.57	0.03	-0.01	-5.63
3447.26	0.71	170.71	MWD	7	3443.12	1.85	2.68	3.25	0.29	0.17	-43.49
3538.03	1.24	191.92	MWD	7	3533.88	0.33	2.57	2.59	0.21	0.18	7.01
3627.52	1.24	213.61	MWD	7	3623.35	-1.42	1.83	2.32	0.16	0.00	7.27
3686.59	0.84	228.93	MWD	7	3682.41	-2.24	1.15	2.52	0.25	-0.20	7.78
3772.63	1.03	245.68	MWD	7	3768.44	-2.97	-0.03	2.97	0.12	0.07	5.84
3833.68	1.07	242.13	MWD	7	3829.48	-3.47	-1.03	3.62	0.04	0.02	-1.74
3920.74	1.51	247.82	MWD	7	3916.51	-4.28	-2.82	5.12	0.16	0.15	1.96
3979.60	1.64	251.19	MWD	7	3975.35	-4.84	-4.33	6.50	0.08	0.07	1.72
4066.07	1.45	253.58	MWD	7	4061.79	-5.55	-6.55	8.59	0.07	-0.07	0.83
4081.51	1.60	260.16	MWD	7	4077.22	-5.64	-6.95	8.95	0.45	0.29	12.78
4135.63	1.73	252.24	MWD	7	4131.32	-6.02	-8.47	10.39	0.15	0.07	-4.39
4164.27	1.86	253.63	MWD	7	4159.95	-6.28	-9.33	11.25	0.14	0.14	1.46
4202.93	1.84	258.18	MWD	7	4198.59	-6.59	-10.54	12.43	0.11	-0.02	3.53
4231.91	1.74	257.59	MWD	7	4227.55	-6.78	-11.43	13.28	0.10	-0.10	-0.61
4258.41	1.84	259.03	MWD	7	4254.04	-6.95	-12.24	14.07	0.12	0.11	1.63
4292.11	1.89	258.36	MWD	7	4287.72	-7.16	-13.31	15.12	0.05	0.04	-0.60
4320.06	2.17	256.00	MWD	7	4315.65	-7.38	-14.28	16.07	0.31	0.30	-2.53
4348.72	2.22	255.87	MWD	7	4344.29	-7.65	-15.34	17.14	0.05	0.05	-0.14
4378.07	2.11	255.17	MWD	7	4373.62	-7.93	-16.41	18.23	0.12	-0.11	-0.72
4409.01	2.19	260.67	MWD	7	4404.54	-8.17	-17.55	19.36	0.21	0.08	5.33
4438.09	2.22	254.95	MWD	7	4433.60	-8.40	-18.64	20.45	0.23	0.03	-5.90
4466.60	2.58	254.20	MWD	7	4462.08	-8.72	-19.79	21.63	0.38	0.38	-0.79
4491.52	2.63	255.57	MWD	7	4486.98	-9.02	-20.89	22.75	0.10	0.06	1.65

2006-04-21

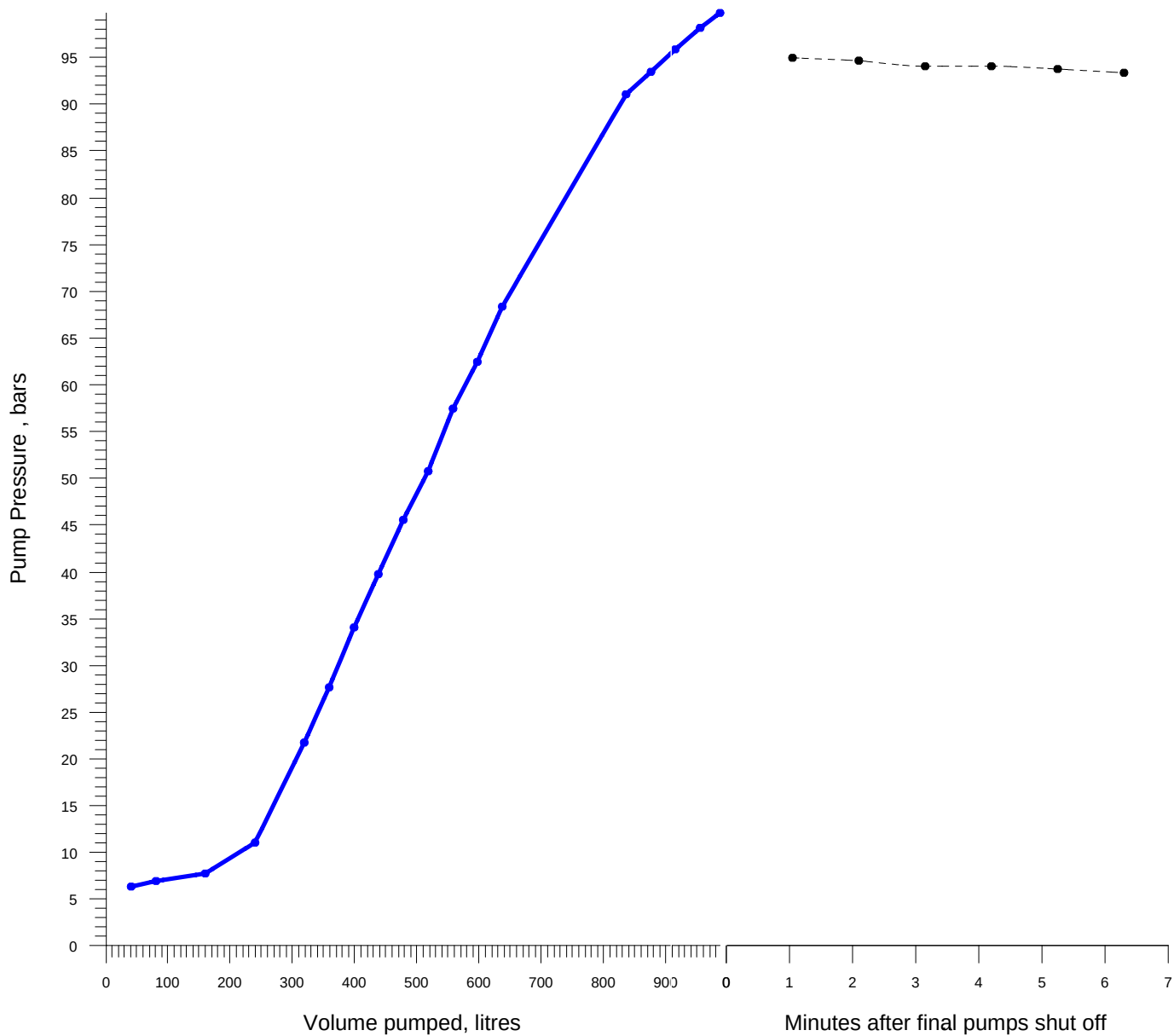
Well 6605/8-1		Test type : FIT		Test date : 2005-07-07	
Rig TRANSOCEAN LEADER	Airgap (m) 23.50	Water depth (m) 838.00	CsgOd" 20.000	Hole angle (deg) 3	
Csg Shoe (mMD/mTVD) 1999.02 / 1997.92		OH depth (mMD/mTVD) 2008.00 / 2006.89		Lithology : Clst	
Dens1.30	API WL(ml/30min)	PV (cp) 18.00	YP (Pa) 13.50	Gel0/Gel10 9.00 / 13.00	
Pump Rate (l/min)	50.00	Vol pumped (l.) 280.00	Vol bled back (l.) 280.00		
Leakoff Pressure (bar)	28.00	Max pressure (bar) 28.00	Propagation press (bar) 22.00		
Test result (sg EMD)	1.44	Shut-in pressure 24.00			
Comments					



End of Well Report 6605/8-1	Fig.: 3	FIT at 20" Casing	HYDRO
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2006-04-21

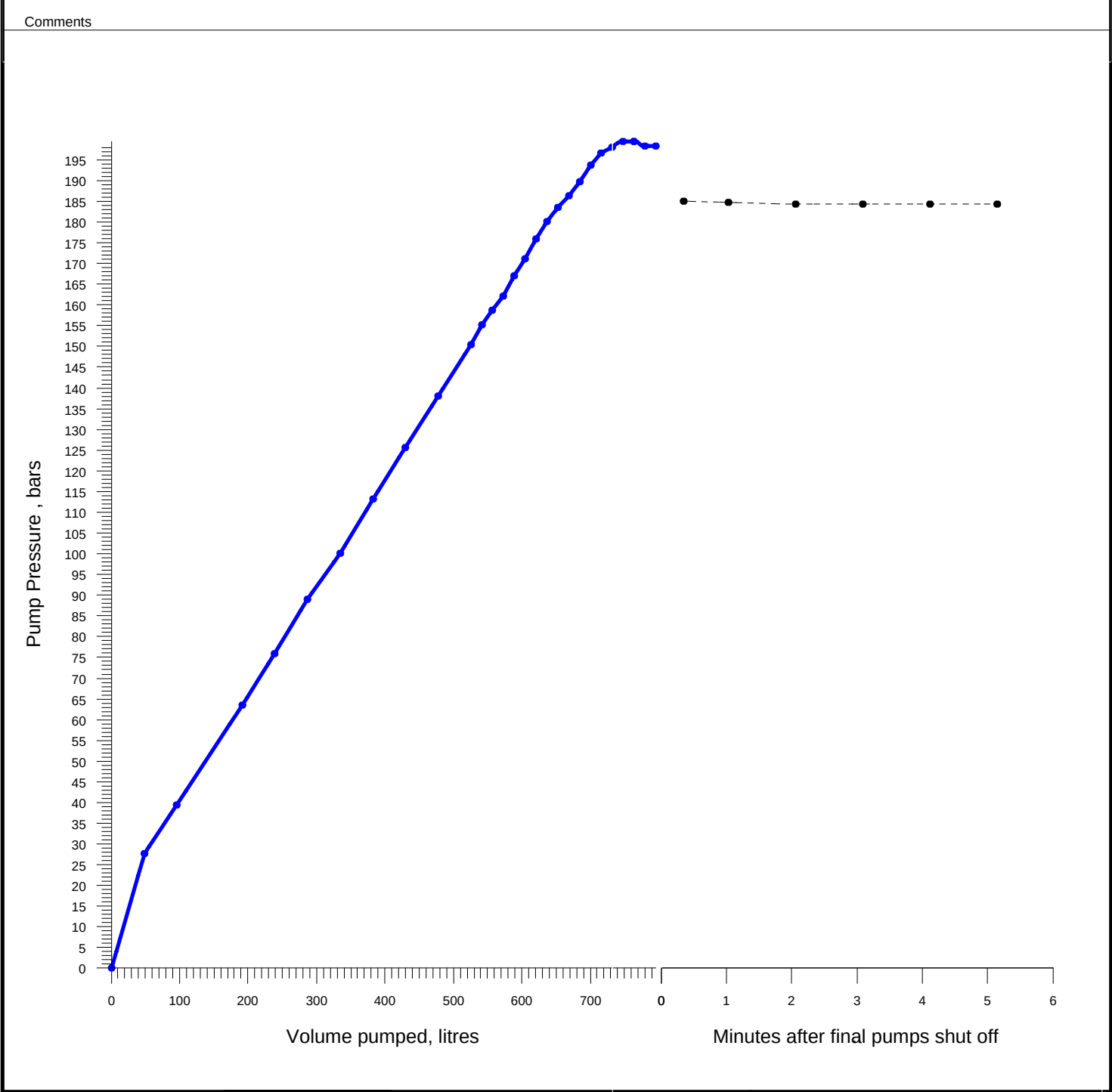
Well 6605/8-1		Test type : LOT		Test date : 2005-07-22	
Rig TRANSOCEAN LEADER	Airgap (m) 23.50	Water depth (m) 838.00	CsgOd" 13.375	Hole angle (deg) 1	
Csg Shoe (mMD/mTVD) 2887.50 / 2883.37		OH depth (mMD/mTVD) 2903.00 / 2898.87		Lithology : Cist	
Dens1.34	API WL(ml/30min)	PV (cp) 18.00	YP (Pa) 13.50	Gel0/Gel10 3.50 / 4.50	
Pump Rate (l/min) 40.00		Vol pumped (l.) 986.00		Vol bled back (l.) 652.00	
Leakoff Pressure (bar) 80.00		Max pressure (bar) 99.70		Propagation press (bar) 93.70	
Test result (sg EMD) 1.62		Shut-in pressure 99.70			
Comments					



End of Well Report 6605/8-1	Fig.: 4	LOT at 13 3/8" Casing	HYDRO
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2006-04-21

Well 6605/8-1		Test type : LOT		Test date : 2005-08-16	
Rig TRANSOCEAN LEADER	Airgap (m) 23.50	Water depth (m) 838.00	CsgOd" 9.625	Hole angle (deg) 2	
Csg Shoe (mMD/mTVD)	4099.00 / 4094.71	OH depth (mMD/mTVD) 4103.00 / 4098.71	Lithology : Clst		
Dens1.51	API WL(ml/30min) 2.80	PV (cp) 28.00	YP (Pa) 18.00	Gel0/Gel10 5.50 / 11.00	
Pump Rate (l/min)	50.00	Vol pumped (l.) 795.00	Vol bled back (l.) 795.00		
Leakoff Pressure (bar)	185.00	Max pressure (bar) 199.30	Propagation press (bar) 199.00		
Test result (sg EMD)	1.97	Shut-in pressure 184.30			



End of Well Report 6605/8-1	Fig.: 5	LOT 9 5/8" Casing	HYDRO
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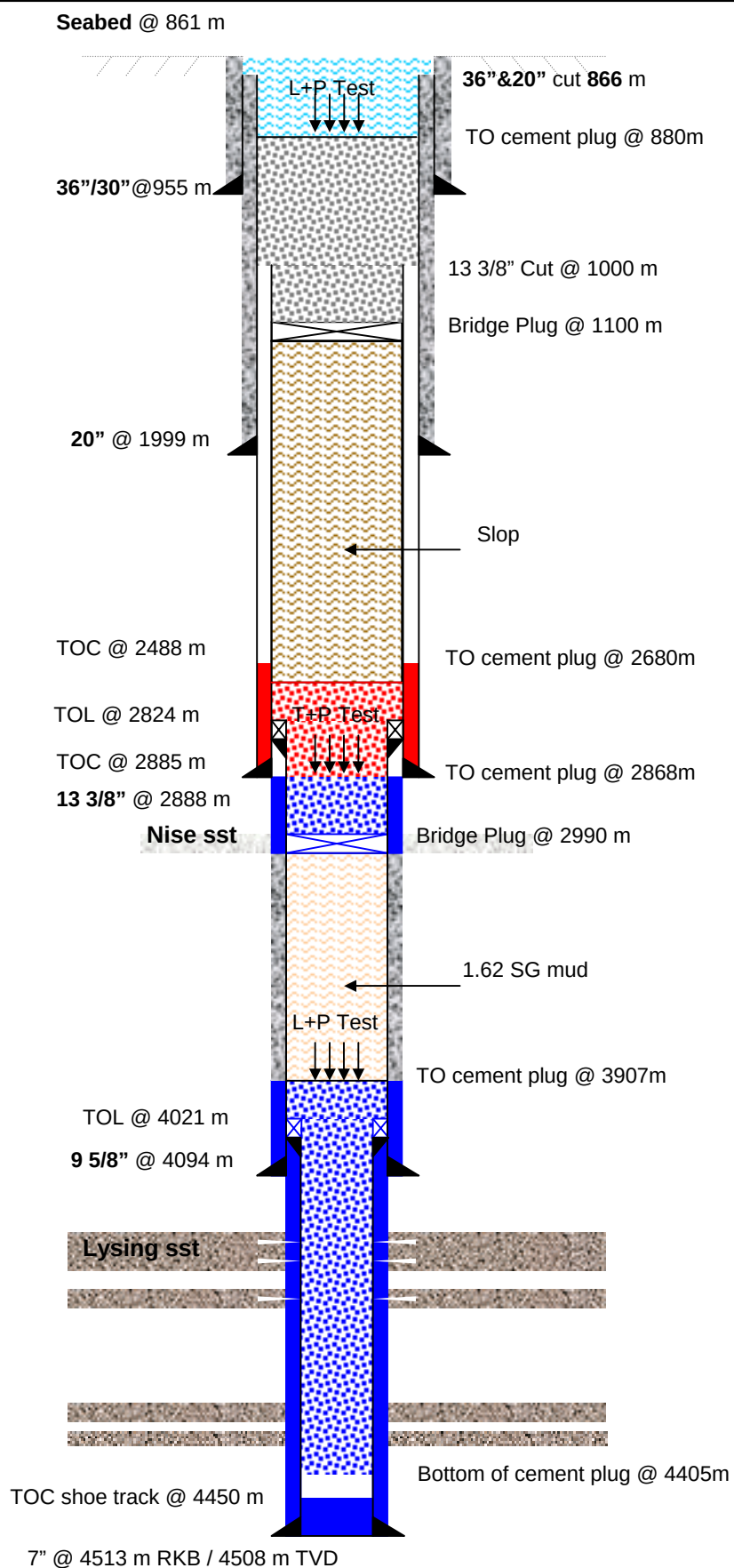
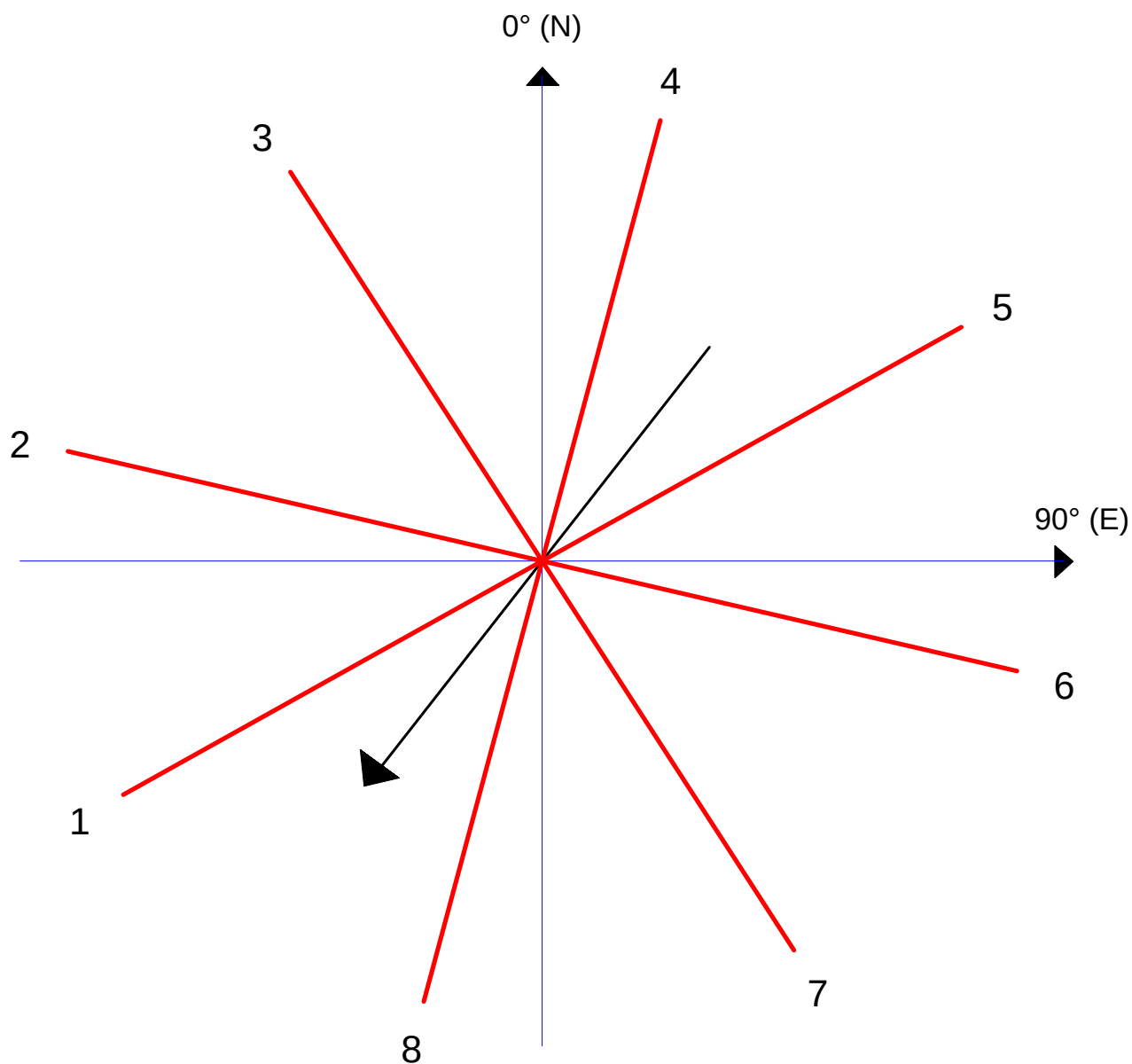


Figure 6

Abandonment Status
6605/8-1

2006-04-21



RIGHEADING 216 DEG.

ANCHOR NO	DIRECTION (DEG.)	LENGTH (m)
1	239	2557
2	284	2558
3	329	2558
4	14	2560
5	59	2560
6	104	2561
7	149	2559
8	194	2559

Figure 7

RIG ANCHORS
TRANSOCEAN LEADER
6605/8-1

HYDRO

BIT RECORD

Well: 6605/8-1

PO: 1

Bit No	RR	Type	Size (in)	Manu- fact- urer	Trade name	Serial no.	IADC code	Nozzles diameter (.32in)	Flow area (in2)	BHA no.	Depth out (m MD)	Bit meter (m)	Rot. hours (hrs)	ROP (m/hr)	Rotation min/max (rpm)	Total bit revol.	Weight min/max (kN)	Flow min/max (l/min)	Pump min/max (bar)	Cutting Structure I - O - DC - L - B	Gauge 1/16 (in)	Other Remarks	Pull Cause
1		ISRT	26.00	SDBS	EBXT02DSLPC	10374992	415W	18,18,18,20	1.052	1	957	93	16.60	5.6	11/55	134000	0/10	4200/4574	134/179	1 - 1 - NO - A - E	I	NO	TD
0		HO	36.00	ODFW		OWS		16,16,16,16,16,16	1.178	1	957	93	16.60	5.6	11/55	134000	0/10	4200/4574	134/179	1 - 2 - NO - A - E	I	NO	TD
0		HO	42.00	ODFW		OWS		8,8,8,8	0.196	1	957	93	16.60	5.6	11/55	134000	0/10	4200/4574	134/179	1 - 2 - CD - A - E	I	NO	TD
1	1	ISRT	26.00	SDBS	EBXT02DSLPC	10374992	415W	18,18,18,20	1.052	2	957	0		0.0	0/0	0	0/0	0/0	0/0	- - - -			
3		ISRT	9.88	SDBS	EBXL12D	10708430	437W	23,23,23	1.217	3	2000	1043	28.70	36.3	62/141	186	9/101	2366/2905	65/119	- - - -			TD
3		ISRT	26.00	SDBS	EBXT02DSLPC	SDRS31	415W	18,18,20,20	1.111	4	1343	386	15.80	24.4	55/103	93000	7/58	4440/4500	200/212	- - - -			
3	1	ISRT	26.00	SDBS	EBXT02DSLPC	SDRS31	415W	18,18,20,20	1.111	5	2005	662	25.57	25.9	0/117	93000	0/107	0/4558	0/260	2 - 2 - NO - A - 2	I	NO	TD
6		ISRT	17.00	SDBS	XT02C	828593	415M	20,20,22,24	1.427	6	2597	592	36.80	16.1	108/220	364	3/16	3597/3979	191/283	1 - 1 - WT - A -	I	NO	TD
7		PDC	14.50	SDBS	FS2663	10691516	S123	13,13,13,13,13,13	1.167	7	2734	137	18.60	7.4	86/216	100	5/12	3756/3536	224/288	1 - 1 - WT - A -	I	NO	DTF
0		UR	17.50	ANDE	ANDERREAMER	RB1730		8	0.049	7	2734	137		0.0	86/216	0	5/12	3756/3536	224/288	1 - 1 - - -		NO	
8		515X	14.50	SDBS	XT20	10394504	515X	24,24,24	1.325	8	2900	166	20.30	8.2	83/110	124	5/15	2644/3687	271/284	1 - 1 - WT - A - E	IN	NO	TD
5	1	PDC	14.50	SDBS	FS2663	10691516	S123	12,12,12,12,12,12	1.071	9	2900	172	18.19	9.5	0/120	110	0/17	0/3810	0/310	1 - 1 - WT - A - X	IN	NO	TD
0	1	UR	17.50	ANDE	ANDERREAMER	RB1730		8,8,8	0.147	9	2900	172		0.0	0/120	0	0/17	0/3810	0/310	- - - -			
7		PDC	12.25	SDBS	FM2763E	50139786	M323	14,14,14,14,14,14	1.052	10	3163	263	56.23	4.7	0/143	415000	0/153	0/3486	0/297	1 - 1 - CT - N - X	I	BU	PR
8		PDC	12.25	SDBS	FMF3755	10701656	M424	14,14,14,14,14,14	1.144	11	3175	12	8.70	1.4	0/149	73800	0/20	0/3468	0/301	0 - 0 - BU - A - X	I	NO	PR
9		ISRT	12.25	SDBS	EBXL12D	401302NA	437W	18,20,20	0.862	12	3521	346	49.52	7.0	96/139	317000	21/236	2945/3186	292/307	1 - 1 - WT - A - F	I	NO	HR
10	1	BIT	12.25	SDBS	FM2763	5013978		10,12,12,12,14,14	0.859	13	4100	579	39.80	14.5	0/171	355	0/8	0/2853	0/305	1 - 1 - WT - A - X	I	CT	TD
10	2	BIT	12.25	SDBS	FM2763	5013978		10,12,12,12,14,14	0.859	14	4100	0		0.0	0/0	0	0/0	2785/2830	290/305	1 - 1 - WT - A - X	I	CT	TD
10		PDC	8.50	SDBS	FM3663	10720997	M423	15,15,15,15,15,15	1.035	15	2824	0		0.0	0/0	0	0/0	460/565	30/35	- - - -			
0		MILL	12.00			M1			0.000	15	2824	0		0.0	0/0	0	0/0	460/565	30/35	- - - -			
11		MITO	8.50	SDBS	EBXSC1S	10741030	117W	20,22,22	1.049	16	4100	0		0.0	30/85	45	3/14	1330/2515	110/285	1 - 1 - NO - A - 0	1	NO	PR
10	1	PDC	8.50	SDBS	FM3663	10720997	M423	15,15,15,15,15,15	1.035	17	4190	90	15.11	6.0	70/110	79	2/14	2015/2325	235/300	1 - 1 - BT - N - X	I	CT	CP
12		CORE	8.50	SDBS	FC264LI	10636711	243		0.000	18	4199	9	2.36	3.8	90/105	13800	66/111	1000/1197	113/141	1 - 1 - NO - A - X	I	NO	CJ
10	2	PDC	8.50	SDBS	FM3663	10720997	M423	15,15,15,15,15,15	1.035	19	4513	314	57.94	5.4	0/123	351000	0/126	0/2053	0/280	1 - 1 - BT - N - X	I	BT	TD
10	3	PDC	8.50	SDBS	FM3663	10720997	M423	15,15,15,15,15,15	1.035	21	4513	0		0.0	30/33	0	0/0	1997/2295	243/296	- - - -			SIH
10	4	PDC	8.50	SDBS	FM3663	10720997	M423	15,15,15,15,15,15	1.035	22	4513	0		0.0	0/0	0	0/0	800/2395	90/290	- - - -			
10	5	PDC	8.50	SDBS	FM3663	10720997	M423	15,15,15,15,15,15	1.035	23	4513	0		0.0	0/0	0	0/0	800/2395	90/290	- - - -			SIH

BOTTOM HOLE ASSEMBLIES**Well: 6605/8-1****PO: 1**

BHA no. 1:				No. / Element / Body OD(in) / Length(m)		Depth In: 864 m MD		Out: 957 m MD	
1	EBXT02DSLPC	26.0	0.53	15	DRILL COLLAR STEEL	9.562	2.35		
2	HOLE OPENER	36.0	3.96	16	X-OVER	9.625	0.77		
3	DOWNHOLE MOTOR	11.24	8.86	17	DRILL COLLAR STEEL	8.0	8.97		
4	FLOAT SUB	6.75	1.00	18	DRILL COLLAR STEEL	8.0	8.98		
5	MEASUREMENT WHILE DRILLING	9.125	8.90	19	DRILL COLLAR STEEL	8.0	9.16		
6	NON MAG. STAB	24.0	1.86	20	DRILL COLLAR STEEL	8.0	8.67		
7	NON MAG. COLLAR	9.625	8.35	21	DRILL COLLAR STEEL	8.0	9.11		
8	DRILL COLLAR STEEL	9.5	9.26	22	JAR	8.0	9.71		
9	DRILL COLLAR STEEL	9.5	8.95	23	DRILL COLLAR STEEL	8.0	9.07		
10	DRILL COLLAR STEEL	9.5	9.33	24	DRILL COLLAR STEEL	8.0	9.28		
11	DRILL COLLAR STEEL	9.5	8.94	25	DRILL COLLAR STEEL	8.0	8.71		
12	X-OVER	9.625	1.19	26	X-OVER	7.937	0.98		
27	HWDP	5.0	55.46	14	FLOAT SUB	9.562	1.29		

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 213.64 m

BHA no. 2:				No. / Element / Body OD(in) / Length(m)		Depth In: 957 m MD		Out: 957 m MD	
1	EBXT02DSLPC	26.0	0.53	11	DRILL COLLAR STEEL	8.0	9.16		
2	BIT SUB	9.438	0.91	12	DRILL COLLAR STEEL	8.0	8.67		
3	NON MAG. STAB	24.0	1.86	13	DRILL COLLAR STEEL	8.0	9.11		
4	NON MAG. COLLAR	9.625	8.35	14	JAR	8.0	9.71		
5	DRILL COLLAR STEEL	9.5	9.26	15	DRILL COLLAR STEEL	8.0	9.07		
6	DRILL COLLAR STEEL	9.5	8.95	16	DRILL COLLAR STEEL	8.0	9.28		
7	DRILL COLLAR STEEL	9.5	9.33	17	DRILL COLLAR STEEL	8.0	8.71		
8	X-OVER	9.625	0.77	18	X-OVER	7.937	0.98		
9	DRILL COLLAR STEEL	8.0	8.97	19	HWDP	5.0	55.46		
10	DRILL COLLAR STEEL	8.0	8.98						

Total Length: 178.06 m

BHA no. 3:				No. / Element / Body OD(in) / Length(m)		Depth In: 957 m MD		Out: 2000 m MD	
1	EBXL12D	9.875	0.26	11	DRILL COLLAR STEEL	8.0	9.16		
2	NEAR BIT STAB	9.875	2.35	12	DRILL COLLAR STEEL	8.0	8.67		
3	LOGGING WHILE DRILLING TOOL	8.31	5.98	13	DRILL COLLAR STEEL	8.0	9.11		
4	NON MAG. STAB	8.31	1.00	14	JAR	8.0	9.71		
5	MEASUREMENT WHILE DRILLING	8.25	7.28	15	DRILL COLLAR STEEL	8.0	9.07		
6	LOGGING WHILE DRILLING TOOL	8.31	6.89	16	DRILL COLLAR STEEL	8.0	9.28		
7	LOGGING WHILE DRILLING TOOL	6.75	6.29	17	DRILL COLLAR STEEL	8.0	8.71		
8	X-OVER	8.31	0.71	18	X-OVER	7.937	0.98		
9	DRILL COLLAR STEEL	8.0	8.97	19	HWDP	5.0	55.46		
10	DRILL COLLAR STEEL	8.0	8.98						

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 168.86 m

BHA no. 4:				No. / Element / Body OD(in) / Length(m)		Depth In: 957 m MD		Out: 1343 m MD	
1	EBXT02DSLPC	26.0	0.53	12	DRILL COLLAR STEEL	8.0	8.97		
2	NEAR BIT STAB	9.875	2.44	13	DRILL COLLAR STEEL	8.0	8.98		
3	DRILL COLLAR STEEL	9.5	3.91	14	DRILL COLLAR STEEL	8.0	9.16		
4	NON MAG. STAB	26.0	2.11	15	DRILL COLLAR STEEL	8.0	8.67		
5	LOGGING WHILE DRILLING TOOL	9.0	6.14	16	DRILL COLLAR STEEL	8.0	9.11		
6	MEASUREMENT WHILE DRILLING	9.125	8.42	17	JAR	8.0	9.71		
7	NON MAG. STAB	24.0	1.86	18	DRILL COLLAR STEEL	8.0	9.07		
8	DRILL COLLAR STEEL	9.625	8.35	19	DRILL COLLAR STEEL	8.0	9.28		
9	DRILL COLLAR STEEL	9.5	9.26	20	DRILL COLLAR STEEL	8.0	8.71		
10	DRILL COLLAR STEEL	9.5	8.95	21	X-OVER	8.0	0.98		
11	X-OVER	9.5	0.97	22	HWDP	5.0	55.46		

Total Length: 191.04 m

BOTTOM HOLE ASSEMBLIES**Well: 6605/8-1****PO: 1**

BHA no. 5:	No. / Element / Body OD(in) / Length(m)		Depth In: 1343 m MD Out: 2005 m MD			
1	EBXT02DSLPC	26.0	0.53	11	DRILL COLLAR STEEL	8.0 8.98
2	BIT SUB	9.438	0.91	12	DRILL COLLAR STEEL	8.0 9.16
3	LOGGING WHILE DRILLING TOOL	9.0	6.14	13	DRILL COLLAR STEEL	8.0 8.67
4	MEASUREMENT WHILE DRILLING	9.125	8.42	14	DRILL COLLAR STEEL	8.0 9.11
5	NON MAG. STAB	26.0	2.11	15	JAR	8.0 9.71
6	DRILL COLLAR STEEL	9.625	8.35	16	DRILL COLLAR STEEL	8.0 9.07
7	DRILL COLLAR STEEL	9.5	9.26	17	DRILL COLLAR STEEL	8.0 9.28
8	DRILL COLLAR STEEL	9.5	8.95	18	DRILL COLLAR STEEL	8.0 8.71
9	X-OVER	9.625	0.77	19	X-OVER	8.0 0.98
10	DRILL COLLAR STEEL	8.0	8.97	20	HWDP	5.0 55.46

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 183.54 m

BHA no. 6:	No. / Element / Body OD(in) / Length(m)		Depth In: 2005 m MD Out: 2597 m MD			
1	XT02C	17.0	0.42	12	DRILL COLLAR STEEL	8.0 8.98
2	DOWNHOLE MOTOR	9.5	9.25	13	DRILL COLLAR STEEL	8.0 9.16
3	FLOAT SUB	9.5	0.92	14	DRILL COLLAR STEEL	8.0 8.67
4	STEEL STAB	17.0	1.69	15	DRILL COLLAR STEEL	8.0 9.11
5	MEASUREMENT WHILE DRILLING	9.0	6.14	16	JAR	8.0 9.71
6	MEASUREMENT WHILE DRILLING	9.5	7.54	17	DRILL COLLAR STEEL	8.0 9.07
7	MEASUREMENT WHILE DRILLING	9.5	8.42	18	DRILL COLLAR STEEL	8.0 9.28
8	STEEL STAB	16.5	2.29	19	DRILL COLLAR STEEL	8.0 8.71
9	DRILL COLLAR STEEL	9.5	3.36	20	X-OVER	7.937 0.98
10	X-OVER	9.625	0.77	21	HWDP	5.0 55.46
11	DRILL COLLAR STEEL	8.0	8.97			

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 178.90 m

BHA no. 7:	No. / Element / Body OD(in) / Length(m)		Depth In: 2597 m MD Out: 2734 m MD			
1	FS2663	14.5	0.39	12	DRILL COLLAR STEEL	8.0 8.97
2	LOGGING WHILE DRILLING TOOL	8.25	3.84	13	DRILL COLLAR STEEL	8.0 8.98
3	LOGGING WHILE DRILLING TOOL	8.375	5.57	14	DRILL COLLAR STEEL	8.0 9.16
4	NON MAG. STAB	8.375	1.52	15	DRILL COLLAR STEEL	8.0 8.67
5	MEASUREMENT WHILE DRILLING	8.375	8.33	16	DRILL COLLAR STEEL	8.0 9.11
6	LOGGING WHILE DRILLING TOOL	8.0	7.53	17	JAR	8.0 9.71
7	NON MAG. STAB	7.875	1.71	18	DRILL COLLAR STEEL	8.0 9.07
8	NON MAG. COLLAR	7.938	2.59	19	DRILL COLLAR STEEL	8.0 9.28
9	X-OVER	9.5	1.13	20	DRILL COLLAR STEEL	8.0 8.71
10	ANDERREAMER	17.5	6.86	21	X-OVER	7.937 0.98
11	X-OVER	8.875	0.54	22	HWDP	5.0 55.49

Reason pulled: DOWNHOLE TOOL FAILURE

Total Length: 178.14 m

BHA no. 8:	No. / Element / Body OD(in) / Length(m)		Depth In: 2734 m MD Out: 2900 m MD			
1	XT20	14.5	0.39	11	DRILL COLLAR STEEL	8.0 8.98
2	X-OVER	9.5	1.13	12	DRILL COLLAR STEEL	8.0 9.16
3	LOGGING WHILE DRILLING TOOL	8.25	3.84	13	DRILL COLLAR STEEL	8.0 8.67
4	LOGGING WHILE DRILLING TOOL	8.375	5.57	14	DRILL COLLAR STEEL	8.0 9.11
5	NON MAG. STAB	8.375	1.52	15	JAR	8.0 9.71
6	MEASUREMENT WHILE DRILLING	8.25	8.34	16	DRILL COLLAR STEEL	8.0 9.07
7	LOGGING WHILE DRILLING TOOL	8.25	7.53	17	DRILL COLLAR STEEL	8.0 9.28
8	NON MAG. STAB	7.875	1.71	18	DRILL COLLAR STEEL	8.0 8.71
9	NON MAG. COLLAR	7.938	2.59	19	X-OVER	7.937 0.98
10	DRILL COLLAR STEEL	8.0	8.97	20	HWDP	5.0 55.49

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 170.75 m

BOTTOM HOLE ASSEMBLIES**Well: 6605/8-1****PO: 1**

BHA no. 9:		No. / Element / Body OD(in) / Length(m)		Depth In: 2728 m MD Out: 2900 m MD			
1	FS2663	14.5	0.39	14	NON MAG. STAB	7.875	1.71
2	BIT SUB	8.0	0.88	15	NON MAG. COLLAR	7.938	2.59
3	NON MAG. STAB	14.0	2.52	16	DRILL COLLAR STEEL	8.0	8.97
4	X-OVER	9.5	1.13	17	DRILL COLLAR STEEL	8.0	8.98
5	ANDERREAMER	17.5	6.86	18	DRILL COLLAR STEEL	8.0	9.16
6	FLOAT SUB	9.5	0.92	19	DRILL COLLAR STEEL	8.0	8.67
7	X-OVER	8.875	0.54	20	DRILL COLLAR STEEL	8.0	9.11
8	NON MAG. COLLAR	8.13	3.49	21	JAR	8.0	9.71
9	X-OVER	8.68	0.33	22	DRILL COLLAR STEEL	8.0	9.07
10	LOGGING WHILE DRILLING TOOL	8.375	5.57	23	DRILL COLLAR STEEL	8.0	9.28
11	NON MAG. STAB	8.375	1.52	24	DRILL COLLAR STEEL	8.0	8.71
12	MEASUREMENT WHILE DRILLING	8.25	8.34	25	X-OVER	7.937	0.98
13	X-OVER	8.875	0.44	26	HWDP	5.0	55.49

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 175.36 m

BHA no. 10:		No. / Element / Body OD(in) / Length(m)		Depth In: 2900 m MD Out: 3163 m MD			
1	FM2763E	12.25	0.31	10	DRILL COLLAR STEEL	8.0	9.16
2	POWER DRIVE	8.31	6.27	11	DRILL COLLAR STEEL	8.0	8.67
3	LOGGING WHILE DRILLING TOOL	8.25	5.57	12	DRILL COLLAR STEEL	8.0	9.11
4	MEASUREMENT WHILE DRILLING	8.25	8.24	13	JAR	8.0	9.59
5	LOGGING WHILE DRILLING TOOL	8.25	7.53	14	DRILL COLLAR STEEL	8.0	9.07
6	NON MAG. STAB	8.31	2.28	15	DRILL COLLAR STEEL	8.0	9.28
7	NON MAG. COLLAR	7.937	7.99	16	DRILL COLLAR STEEL	8.0	8.71
8	DRILL COLLAR STEEL	8.0	8.97	17	X-OVER	7.937	0.98
9	DRILL COLLAR STEEL	8.0	8.98	18	HWDP	5.0	55.49

Reason pulled: PENETRATION RATE

Total Length: 176.20 m

BHA no. 11:		No. / Element / Body OD(in) / Length(m)		Depth In: 3163 m MD Out: 3175 m MD			
1	FMF3755	12.25	0.27	10	DRILL COLLAR STEEL	8.0	9.16
2	POWER DRIVE	8.31	6.30	11	DRILL COLLAR STEEL	8.0	8.67
3	LOGGING WHILE DRILLING TOOL	8.25	5.57	12	DRILL COLLAR STEEL	8.0	9.11
4	MEASUREMENT WHILE DRILLING	8.25	8.24	13	JAR	8.0	9.59
5	LOGGING WHILE DRILLING TOOL	8.25	7.53	14	DRILL COLLAR STEEL	8.0	9.07
6	NON MAG. STAB	8.31	2.28	15	DRILL COLLAR STEEL	8.0	9.28
7	DRILL COLLAR STEEL	7.937	7.99	16	DRILL COLLAR STEEL	8.0	8.71
8	DRILL COLLAR STEEL	8.0	8.97	17	X-OVER	8.0	0.98
9	DRILL COLLAR STEEL	8.0	8.98	18	HWDP	5.0	55.49

Reason pulled: PENETRATION RATE

Total Length: 176.19 m

BHA no. 12:		No. / Element / Body OD(in) / Length(m)		Depth In: 3175 m MD Out: 3521 m MD			
1	EBXL12D	12.25	0.31	13	DRILL COLLAR STEEL	8.0	8.97
2	STEEL STAB	12.25	2.02	14	DRILL COLLAR STEEL	8.0	8.98
3	DRILL COLLAR STEEL	8.0	3.50	15	DRILL COLLAR STEEL	8.0	9.16
4	STEEL STAB	12.25	2.57	16	DRILL COLLAR STEEL	8.0	8.67
5	LOGGING WHILE DRILLING TOOL	8.25	5.90	17	DRILL COLLAR STEEL	8.0	9.11
6	MEASUREMENT WHILE DRILLING	8.25	8.24	18	JAR	8.0	9.59
7	LOGGING WHILE DRILLING TOOL	8.25	7.53	19	DRILL COLLAR STEEL	8.0	9.07
8	NON MAG. STAB	8.31	2.28	20	DRILL COLLAR STEEL	8.0	9.28
9	DRILL COLLAR STEEL	7.937	7.99	21	DRILL COLLAR STEEL	8.0	8.71
10	DRILL COLLAR STEEL	8.0	9.15	22	X-OVER	8.0	0.98
11	DRILL COLLAR STEEL	8.0	9.00	23	HWDP	5.0	55.49
12	DRILL COLLAR STEEL	8.0	8.91				

Reason pulled: HOURS

Total Length: 205.41 m

BOTTOM HOLE ASSEMBLIES**Well: 6605/8-1****PO: 1**

BHA no. 13:	No. / Element / Body OD(in) / Length(m)		Depth In: 3521 m MD Out: 4100 m MD			
1	FM2763	12.25	0.31	11	DRILL COLLAR STEEL	8.0 8.98
2	STEEL STAB	12.25	2.02	12	DRILL COLLAR STEEL	8.0 9.16
3	DRILL COLLAR STEEL	8.0	3.50	13	DRILL COLLAR STEEL	8.0 8.67
4	STEEL STAB	12.25	2.57	14	DRILL COLLAR STEEL	8.0 9.11
5	LOGGING WHILE DRILLING TOOL	8.25	5.90	15	JAR	8.0 9.67
6	MEASUREMENT WHILE DRILLING	8.25	8.24	16	DRILL COLLAR STEEL	8.0 9.07
7	LOGGING WHILE DRILLING TOOL	8.25	7.53	17	DRILL COLLAR STEEL	8.0 9.28
8	NON MAG. STAB	8.31	2.28	18	DRILL COLLAR STEEL	8.0 8.71
9	DRILL COLLAR STEEL	7.937	7.99	19	X-OVER	8.0 0.98
10	DRILL COLLAR STEEL	8.0	8.97	20	HWDP	5.0 55.49

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 178.43 m

BHA no. 14:	No. / Element / Body OD(in) / Length(m)		Depth In: 4100 m MD Out: 4100 m MD			
1	FM2763	12.25	0.31	9	DRILL COLLAR STEEL	8.0 9.11
2	BIT SUB	8.0	0.92	10	JAR	8.0 9.67
3	NON MAG. STAB	8.31	2.28	11	DRILL COLLAR STEEL	8.0 9.07
4	DRILL COLLAR STEEL	7.937	7.99	12	DRILL COLLAR STEEL	8.0 9.28
5	DRILL COLLAR STEEL	8.0	8.97	13	DRILL COLLAR STEEL	8.0 8.71
6	DRILL COLLAR STEEL	8.0	8.98	14	X-OVER	8.0 0.98
7	DRILL COLLAR STEEL	8.0	9.16	15	HWDP	5.0 55.49
8	DRILL COLLAR STEEL	8.0	8.67			

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 149.59 m

BHA no. 15:	No. / Element / Body OD(in) / Length(m)		Depth In: 2824 m MD Out: 2824 m MD			
1	FM3663	8.5	0.31	4	MILL	12.0 12.84
2	BIT SUB	6.5	1.17	5	HWDP	5.0 54.81
3	DRILL PIPE	5.0	58.62			

Total Length: 127.75 m

BHA no. 16:	No. / Element / Body OD(in) / Length(m)		Depth In: 4100 m MD Out: 4100 m MD			
1	EBXSC1S	8.5	0.27	9	DRILL COLLAR STEEL	6.5 9.18
2	BIT SUB	6.5	1.17	10	DRILL COLLAR STEEL	6.5 9.13
3	DRILL COLLAR STEEL	6.75	8.16	11	JAR	6.75 9.35
4	DRILL COLLAR STEEL	6.5	65.27	12	DRILL COLLAR STEEL	6.5 9.22
5	JAR	6.75	9.35	13	DRILL COLLAR STEEL	6.5 9.03
6	DRILL COLLAR STEEL	6.5	27.39	14	DRILL COLLAR STEEL	6.5 9.14
7	HWDP	5.0	54.81	15	HWDP	5.0 54.81
8	DRILL COLLAR STEEL	6.5	9.65			

Reason pulled: PENETRATION RATE

Total Length: 285.93 m

BHA no. 17:	No. / Element / Body OD(in) / Length(m)		Depth In: 4100 m MD Out: 4190 m MD			
1	FM3663	8.5	0.31	7	NON MAG. STAB	8.2 1.89
2	LOGGING WHILE DRILLING TOOL	6.5	3.62	8	DRILL COLLAR STEEL	6.25 7.97
3	MEASUREMENT WHILE DRILLING	6.75	6.03	9	DRILL COLLAR STEEL	6.5 37.26
4	MEASUREMENT WHILE DRILLING	6.75	8.34	10	JAR	6.75 9.35
5	NON MAG. STAB	8.45	1.37	11	DRILL COLLAR STEEL	6.5 27.39
6	LOGGING WHILE DRILLING TOOL	7.0	7.99	12	HWDP	5.0 54.81

Reason pulled: CORE POINT

Total Length: 166.33 m

BOTTOM HOLE ASSEMBLIES**Well: 6605/8-1****PO: 1**

BHA no. 18:				No. / Element / Body OD(in) / Length(m)				Depth In: 4190 m MD Out: 4199 m MD			
1	FC264LI	8.5	0.36	9	DRILL COLLAR STEEL	6.5	9.18				
2	CORE BARREL	8.0	10.36	10	DRILL COLLAR STEEL	6.5	9.13				
3	CORE BARREL	8.0	10.59	11	JAR	6.75	9.35				
4	FLOAT SUB	6.75	0.81	12	DRILL COLLAR STEEL	6.5	9.22				
5	DRILL COLLAR STEEL	6.25	7.97	13	DRILL COLLAR STEEL	6.5	9.03				
6	DRILL COLLAR STEEL	6.5	9.30	14	DRILL COLLAR STEEL	6.5	9.14				
7	NON MAG. STAB	8.2	1.89	15	HWDP	5.0	54.81				
8	DRILL COLLAR STEEL	6.5	9.65								

Reason pulled: CORE JAMMED

Total Length: 160.79 m

BHA no. 19:				No. / Element / Body OD(in) / Length(m)				Depth In: 4199 m MD Out: 4513 m MD			
1	FM3663	8.5	0.31	10	DRILL COLLAR STEEL	6.5	9.65				
2	FLOAT SUB	6.5	3.62	11	DRILL COLLAR STEEL	6.5	9.18				
3	LOGGING WHILE DRILLING TOOL	6.75	6.03	12	DRILL COLLAR STEEL	6.5	9.13				
4	MEASUREMENT WHILE DRILLING	6.75	8.34	13	JAR	6.75	9.35				
5	NON MAG. STAB	8.45	1.37	14	DRILL COLLAR STEEL	6.5	9.22				
6	LOGGING WHILE DRILLING TOOL	7.0	7.99	15	DRILL COLLAR STEEL	6.5	9.03				
7	NON MAG. STAB	8.2	1.89	16	DRILL COLLAR STEEL	6.5	9.14				
8	DRILL COLLAR STEEL	6.25	7.97	17	HWDP	5.0	54.81				
9	DRILL COLLAR STEEL	6.5	9.30								

Reason pulled: TOTAL DEPTH/CASING DEPTH

Total Length: 166.33 m

BHA no. 21:				No. / Element / Body OD(in) / Length(m)				Depth In: 4513 m MD Out: 4513 m MD			
1	FM3663	8.5	0.31	8	DRILL COLLAR STEEL	6.5	9.13				
2	BIT SUB	6.5	1.17	9	JAR	6.75	9.35				
3	NON MAG. STAB	8.2	1.89	10	DRILL COLLAR STEEL	6.5	9.69				
4	DRILL COLLAR STEEL	6.5	9.22	11	DRILL COLLAR STEEL	6.5	9.37				
5	DRILL COLLAR STEEL	6.5	9.03	12	DRILL COLLAR STEEL	6.5	8.95				
6	DRILL COLLAR STEEL	6.5	9.14	13	HWDP	5.0	54.81				
7	DRILL COLLAR STEEL	6.5	9.18								

Total Length: 141.24 m

BHA no. 22:				No. / Element / Body OD(in) / Length(m)				Depth In: 4513 m MD Out: 4513 m MD			
1	FM3663	8.5	0.31	8	DRILL COLLAR STEEL	6.5	9.13				
2	BIT SUB	6.5	1.17	9	JAR	6.75	9.35				
3	NON MAG. STAB	8.2	1.89	10	DRILL COLLAR STEEL	6.5	9.69				
4	DRILL COLLAR STEEL	6.5	9.22	11	DRILL COLLAR STEEL	6.5	9.37				
5	DRILL COLLAR STEEL	6.5	9.03	12	DRILL COLLAR STEEL	6.5	8.95				
6	DRILL COLLAR STEEL	6.5	9.14	13	HWDP	5.0	54.81				
7	DRILL COLLAR STEEL	6.5	9.18								

Total Length: 141.24 m

BHA no. 23:				No. / Element / Body OD(in) / Length(m)				Depth In: 4513 m MD Out: 4513 m MD			
1	FM3663	8.5	0.31	8	DRILL COLLAR STEEL	6.5	9.13				
2	BIT SUB	6.5	1.17	9	JAR	6.75	9.35				
3	NON MAG. STAB	8.2	1.89	10	DRILL COLLAR STEEL	6.5	9.69				
4	DRILL COLLAR STEEL	6.5	9.22	11	DRILL COLLAR STEEL	6.5	9.37				
5	DRILL COLLAR STEEL	6.5	9.03	12	DRILL COLLAR STEEL	6.5	8.95				
6	DRILL COLLAR STEEL	6.5	9.14	13	HWDP	5.0	54.81				
7	DRILL COLLAR STEEL	6.5	9.18								

Total Length: 141.24 m

MAIN CONSUMPTION OF CASING/TUBING

Well:	6605/8-1	PO: 1					
Size	Casing string	Grade	Weight		Threads type	Length [m]	No. of joints
			[kg/m]	[lb/ft]			
20"	SURFACE	X-56	197.92	133.00	E60MT	642.3	52
20"	SURFACE	X-56	197.92	133.00	E60MT	497.3	41
13 3/8"	INTERMEDIATE	P-110	107.14	72.00	VAM TOP	2026.4	162
9 5/8"	PRODUCTION	P-110	79.61	53.50	VAM TOP	1962.9	157
9 5/8"	PRODUCTION LINER	P-110	79.61	53.50	VAM TOP	1275.1	102
7"	PRODUCTION LINER	P-110	47.62	32.00	NS-CC	411.8	36
7"	PRODUCTION LINER	P-110	47.62	32.00	VAM TOP	64.0	5
7"	PRODUCTION LINER	P-110	47.62	32.00	VAM TOP	15.7	2

CEMENT SLURRY REPORT

Well: 6605/8-1		PO: 1									
Date	CsgSize	Jobtype	Slurry Type	Pumped Volume [m3]	Density [sg]	BHCT [DegC]	Yield [l/100 kg]	Additive	Unit	Additives [../100 kg Cement]	Additives [../m3 Slurry]
2005-06-17	30"	CASING CEMENTING	TAIL SLURRY	74.10	1.65	7.00	119.04	CaCl2C	l	4.50	
								HAL400	kg	7.50	
								MICROS	l	15.00	
								NF-6	l	0.06	
2005-06-28	20"	CASING CEMENTING	DISPLACEMENT	270.00	1.60	7.00	116.38				
			LEAD			15.00		CRF-8L	l	0.00	
								GASC	l	17432.00	
								HAL400	kg	6973.00	
								HR-4L	l	6973.00	
								NF-6	l	232.00	
			TAIL SLURRY	94.25	1.60	15.00	115.93	CRF-8L	l	2156.00	
								GASC	l	6469.00	
								HAL400	kg	2588.00	
								HR-4L	l	1294.00	
2005-07-20	13 3/8"	CASING CEMENTING	DISPLACEMENT	20.00	1.64	15.00	75.12				
			WEIGHTED SPACER			62.00					
			TAIL SLURRY			62.00		HR-4L	l	1.10	
								NF-6	l	0.10	
2005-08-09	9 5/8"	LINER CEMENTING	DISPLACEMENT	45.60	1.34	62.00	102.94				
			TAIL SLURRY		1.90	75.00		CRF-8L	l	5.00	
								GASC	l	5.00	
								HAL300	kg	3.00	
								HAL400	kg	1.50	
								HR-5L	l	2.80	
2005-09-11	7"	LINER CEMENTING	DISPLACEMENT	8.20	1.60	75.00	111.37				
			TAIL SLURRY			114.00		CRF-8L	l	1.00	
								HAL300	kg	3.00	
								HAL400	kg	3.00	
								MICROS	l	22.00	
								NF-6	l	0.10	

CEMENT SLURRY REPORT

Well: 6605/8-1

PO: 1

Date	CsgSize	Jobtype	Slurry Type	Pumped Volume [m3]	Density [sg]	BHCT [DegC]	Yield [l/100 kg]	Additive	Unit	Additives [../100 kg Cement]	Additives [../m3 Slurry]
2005-09-11	7"	LINER CEMENTING	TAIL SLURRY	8.20	1.60	114.00	111.37	SCR500	l	4.00	
			DISPLACEMENT			114.00					
2005-10-05	7"	PLUG IN CASED HOLE	TAIL SLURRY	4.70	1.90	72.00	111.28	EZ-FLO	kg	0.10	
								HAL300	kg	4.00	
								HAL400	kg	3.00	
								MICROS	l	22.00	
								NF-6	l	0.10	
								SCR500	l	4.50	
								SSA-1	kg	35.00	
			FRESHWATER	0.60	1.00	72.00					
			FRESHWATER	2.00	1.00	72.00					
			DISPLACEMENT	34.00	1.62	72.00					
2005-10-05	7"	PLUG IN CASED HOLE	SPACER	0.60	1.75	72.00					
			TAIL SLURRY	6.50	1.90	72.00	111.15	EZ-FLO	kg	0.10	
								HAL300	kg	4.00	
								HAL400	kg	3.00	
								MICROS	l	22.00	
								NF-6	l	0.10	
								SCR500	l	4.50	
								SSA-1	kg	35.00	
			SPACER	5.00	1.75	72.00					
			DISPLACEMENT	33.30	1.62	72.00					
2005-10-07	9 5/8"	PLUG IN CASED HOLE	SPACER	5.00	1.75	75.00					
			TAIL SLURRY	3.70	1.90	75.00	78.09	CRF-8L	l	2.50	
								EZ-FLO	kg	0.10	
								GASCON	l	3.50	
								HAL400	kg	3.00	
								HR-5L	l	1.20	
								NF-6	l	0.10	
			SPACER	1.85	1.75	75.00					
			DISPLACEMENT	24.50	1.62	75.00					
2005-10-10	9 5/8"	PLUG IN CASED HOLE	FRESHWATER	0.20	1.00	75.00					

CEMENT SLURRY REPORT

Well: 6605/8-1		PO: 1									
Date	CsgSize	Jobtype	Slurry Type	Pumped Volume [m3]	Density [sg]	BHCT [DegC]	Yield [l/100 kg]	Additive	Unit	Additives [../100 kg Cement]	Additives [../m3 Slurry]
2005-10-10	9 5/8"	PLUG IN CASED HOLE	TAIL SLURRY	10.60	1.90	75.00	78.09	CRF-8L	l	2.50	
								EZ-FLO	kg	0.10	
								GASCON	l	3.50	
								HAL400	kg	3.00	
								HR-5L	l	1.20	
								NF-6	l	0.10	
2005-10-12	13 3/8"	PLUG IN CASED HOLE	SPACER	5.00	1.75	75.00					
			DISPLACEMENT			75.00					
			TAIL SLURRY	27.80	1.90	10.00	103.48	CACL2	l	3.50	
								CACL2	l	3.50	
								NF-6	l	0.10	
								SSA-1	kg	35.00	
2005-10-13	20"	PLUG IN CASED HOLE	SALTWATER	15.00	1.03	10.00					
			SALTWATER	0.75	1.03	10.00					
			DISPLACEMENT	6.50	1.35	10.00					
			SALTWATER	15.00	1.03	10.00					
			TAIL SLURRY	5.40	1.95	10.00	75.06	CACL2	l	4.35	
								CACL2	l	4.35	
								NF-6	l	0.10	
			SALTWATER	0.60	1.03	10.00					
			DISPLACEMENT	5.40	1.35	10.00					

TOTAL CONSUMPTION OF CEMENT ADDITIVES**Well:** 6605/8-1**PO:** 1

Section	Cement/Additive	Unit	Total Amount Used
36"	CaCl2 / ACCELERATOR: CALCIUM CHLORIDE	l	2801.00
	FLUID LOSS ADDITIVE: HALAD-400L	kg	4669.00
	MICROSILICA	l	9337.00
	NF-6	l	311.00
Section	Cement/Additive	Unit	Total Amount Used
26"	CFR-8L	l	7767.00
	GASCON	l	23831.00
	FLUID LOSS ADDITIVE: HALAD-400L	kg	8683.00
	RETARDER: HR-4L, LIQUID	l	8082.00
	NF-6	l	253.00
Section	Cement/Additive	Unit	Total Amount Used
17"	RETARDER: HR-4L, LIQUID	l	429.00
	NF-6	l	39.00
Section	Cement/Additive	Unit	Total Amount Used
12 1/4"	CFR-8L	l	2266.00
	GASCON	l	2342.00
	FLUID LOSS ADDITIVE: HALAD-300L	kg	1150.00
	FLUID LOSS ADDITIVE: HALAD-400L	kg	713.00
	RETARDER: HR-5L, LIQUID	l	1375.00
	NF-6	l	110.00
Section	Cement/Additive	Unit	Total Amount Used
8 1/2"	CFR-8L	l	80.00
	FLUID LOSS ADDITIVE: HALAD-300L	kg	240.00
	FLUID LOSS ADDITIVE: HALAD-400L	kg	240.00
	MICROSILICA	l	1758.00
	NF-6	l	65.00
	SCR-500L	l	320.00
Section	Cement/Additive	Unit	Total Amount Used
P&A	CACL2	l	1941.00
	CFR-8L	l	595.00
	FRICTION REDUCER	kg	26.80
	EDP-C469-91	l	834.00
	FLUID LOSS ADDITIVE: HALAD-300L	kg	471.00
	FLUID LOSS ADDITIVE: HALAD-400L	kg	1068.00
	RETARDER: HR-5L, LIQUID	l	287.00
	MICROSILICA	l	2591.00
	NF-6	l	819.60
	SCR-500L	l	530.00
	SSA-1, FINE SILICA	kg	12958.00

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS

Well: 6605/8-1

PO: 1

Hole section : 36"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings								Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
	MD	TVD					600	300	200	100	60	30	6	3					
2005-06-16	957	957	SPUD MUD	0.0	1.20		0	0	0	0	0	0	0	0					
2005-06-17	957	957	SPUD MUD	0.0	1.20		0	0	0	0	0	0	0	0					
2005-06-18	984	984	SPUD MUD	0.0	1.20		0	0	0	0	0	0	0	0					

Hole section : 26"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings								Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
	MD	TVD					600	300	200	100	60	30	6	3					
2005-06-19	1440	1440	SPUD MUD	0.0	1.20		0	0	0	0	0	0	0	0					
2005-06-20		0	SPUD MUD	0.0	1.05		0	0	0	0	0	0	0	0					
2005-06-21	1222	1222	SPUD MUD	0.0	1.03		0	0	0	0	0	0	0	0					
2005-06-22		0	SPUD MUD	0.0	1.03		0	0	0	0	0	0	0	0					
2005-06-23		0	SPUD MUD	0.0	1.20		0	0	0	0	0	0	0	0					
2005-06-24		0	SPUD MUD	0.0	1.20		0	0	0	0	0	0	0	0					
2005-06-25		0	SPUD MUD	0.0	1.20		0	0	0	0	0	0	0	0					
2005-06-26		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-06-27		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-06-28		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-06-29		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-06-30		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-07-01		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-07-02		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-07-03		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-07-04		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0
2005-07-05		0	KCL/POLYMER		1.30		66	46	38	29	0	0	12	10	50.0	20.0	13.0	6.5	8.0

Hole section : 17"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings								Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
	MD	TVD					600	300	200	100	60	30	6	3					
2005-07-06		0	KCL/POLYMER		1.31		72	51	42	31	0	0	11	9	50.0	21.0	15.0	11.0	14.0
2005-07-07	2137	2136	KCL/POLYMER		1.30	19.0	62	44	36	26	0	0	10	8	50.0	18.0	13.0	10.0	13.0
2005-07-08	2337	2333	KCL/POLYMER		1.30	21.0	74	51	41	29	0	0	10	8	50.0	23.0	14.0	9.0	14.0
2005-07-09	2540	2536	KCL/POLYMER		1.34	22.0	73	51	41	30	0	0	9	8	50.0	22.0	14.5	9.0	13.0
2005-07-10	2597	2593	KCL/POLYMER		1.34	22.0	73	50	43	31	0	0	9	8	50.0	23.0	13.5	9.0	14.0
2005-07-11	2667	2663	KCL/POLYMER		1.34	22.0	80	56	45	33	0	0	11	9	50.0	24.0	16.0	10.0	15.0

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS

Well: 6605/8-1

PO: 1

Hole section : 17"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings								Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
	MD	TVD					600	300	200	100	60	30	6	3					
2005-07-12	2734	2730	KCL/POLYMER		1.34	21.0	75	53	42	32	0	0	11	9	50.0	22.0	15.5	10.0	15.0
2005-07-13	2785	2781	KCL/POLYMER		1.34	21.0	78	56	42	33	0	0	13	10	50.0	22.0	17.0	5.5	7.5
2005-07-14	2900	2896	KCL/POLYMER		1.34	21.0	73	52	42	31	0	0	10	9	50.0	21.0	15.5	4.5	7.0
2005-07-15	2900	2896	KCL/POLYMER		1.34	20.0	74	52	42	31	0	0	11	9	50.0	22.0	15.0	10.0	15.0
2005-07-16	2900	2896	KCL/POLYMER		1.35	25.0	75	54	45	34	0	0	13	10	50.0	21.0	16.5	11.0	17.0
2005-07-17	2900	2896	KCL/POLYMER		1.36	23.0	83	58	48	35	0	0	13	10	50.0	25.0	16.5	5.5	8.5
2005-07-18	2900	2896	KCL/POLYMER		1.36	20.0	82	57	47	34	0	0	13	10	50.0	25.0	16.0	10.0	16.0
2005-07-19	2900	2896	KCL/POLYMER		1.36	21.0	83	58	48	35	0	0	13	10	50.0	25.0	16.5	5.5	8.5
2005-07-20	2900	2896	KCL/POLYMER		1.34	22.0	82	57	46	34	0	0	13	10	50.0	25.0	16.0	5.0	8.0
2005-07-21	2900	2896	KCL/POLYMER		1.34	20.0	80	56	45	33	0	0	12	10	50.0	24.0	16.0	5.0	7.0

Hole section : 12 1/4"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings								Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
	MD	TVD					600	300	200	100	60	30	6	3					
2005-07-22	2903	2899	KCL/POLYMER		1.34	20.0	63	45	36	26	0	0	9	7	50.0	18.0	13.5	3.5	4.5
2005-07-23	3025	3021	KCL/POLYMER		1.34	24.0	63	45	37	28	0	0	10	8	50.0	18.0	13.5	4.5	6.5
2005-07-24	3077	3073	KCL/POLYMER		1.38	17.0	71	51	43	32	0	0	14	11	50.0	20.0	15.5	5.5	8.0
2005-07-25	3104	3100	KCL/POLYMER		1.40	25.0	72	52	44	33	0	0	13	10	50.0	20.0	16.0	5.0	8.0
2005-07-27	3163	3159	KCL/POLYMER		1.45	18.0	75	54	46	35	0	0	12	9	50.0	21.0	16.5	5.0	8.0
2005-07-28	3175	3171	KCL/POLYMER		1.45	29.0	84	62	52	40	0	0	15	12	50.0	22.0	20.0	6.5	9.5
2005-07-29	3278	3274	KCL/POLYMER		1.45	25.0	87	64	53	40	0	0	14	11	50.0	23.0	20.5	5.5	9.0
2005-07-30	3421	3417	KCL/POLYMER		1.45		86	62	52	39	0	0	13	10	50.0	24.0	19.0	5.5	9.0
2005-07-31	3521	3517	KCL/POLYMER		1.45		86	62	52	39	0	0	13	10	50.0	24.0	19.0	5.5	9.0
2005-08-01	3521	3517	KCL/POLYMER		1.45	14.0	90	65	54	41	0	0	15	12	50.0	25.0	20.0	6.5	11.0
2005-08-02	3758	3754	KCL/POLYMER		1.45	24.0	88	62	51	37	0	0	12	10	50.0	26.0	18.0	5.0	11.0
2005-08-03	4100	4096	KCL/POLYMER		1.45	24.0	86	60	50	36	0	0	11	9	50.0	26.0	17.0	4.5	9.0
2005-08-04	4100	4096	KCL/POLYMER		1.45		87	60	50	36	0	0	11	9	50.0	27.0	16.5	4.5	9.0
2005-08-05	4100	4096	KCL/POLYMER		1.45		87	60	50	36	0	0	11	9	50.0	27.0	16.5	4.5	9.0
2005-08-06	4100	4096	KCL/POLYMER		1.45	31.0	90	64	53	39	0	0	11	9	50.0	26.0	19.0	5.0	10.0
2005-08-07	4100	4096	KCL/POLYMER		1.45	31.0	90	64	53	39	0	0	11	9	50.0	26.0	19.0	5.0	10.0
2005-08-08	4100	4096	KCL/POLYMER		1.45	31.0	90	64	53	39	0	0	11	9	50.0	26.0	19.0	5.0	10.0
2005-08-09	4100	4096	KCL/POLYMER		1.45		94	67	55	42	0	0	17	15	50.0	27.0	20.0	7.0	20.0
2005-08-10	4100	4096	KCL/POLYMER		1.45		94	67	55	42	0	0	17	15	50.0	27.0	20.0	7.0	20.0
2005-08-11	4100	4096	KCL/POLYMER		1.46		85	61	51	38	0	0	12	10	50.0	24.0	18.5	5.5	13.0
2005-08-12	4100	4096	KCL/POLYMER		1.47	15.0	95	67	55	41	0	0	15	13	50.0	28.0	19.5	7.5	17.0

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS

Well: 6605/8-1 PO: 1

Hole section : 12 1/4"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings								Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
	MD	TVD					600	300	200	100	60	30	6	3					
2005-08-13	4100	4096	KCL/POLYMER		1.51	23.0	93	66	54	40	0	0	14	12	50.0	27.0	19.5	6.5	15.0

Hole section : 8 1/2"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings								Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]
	MD	TVD					600	300	200	100	60	30	6	3					
2005-08-14	4100	4096	KCL/POLYMER		1.51	29.0	92	65	53	39	0	0	13	12	50.0	27.0	19.0	6.0	13.5
2005-08-15	4100	4096	KCL/POLYMER		1.51	23.0	92	64	52	37	0	0	11	10	50.0	28.0	18.0	5.5	11.0
2005-08-16	4134	4130	KCL/POLYMER		1.60	20.0	102	71	58	42	0	0	14	12	50.0	31.0	20.0	6.5	14.0
2005-08-17	4187	4183	KCL/POLYMER		1.60	21.0	100	71	58	42	0	0	15	12	50.0	29.0	21.0	7.0	14.0
2005-08-18	4190	4186	KCL/POLYMER		1.60	19.0	108	76	63	47	0	0	16	13	50.0	32.0	22.0	7.5	16.0
2005-08-19	4190	4186	KCL/POLYMER		1.60	18.0	104	73	61	45	0	0	16	12	50.0	31.0	21.0	7.5	17.0
2005-08-20	4190	4186	KCL/POLYMER		1.60	18.0	102	71	60	44	0	0	15	11	50.0	31.0	20.0	7.0	16.0
2005-08-21	4262	4258	KCL/POLYMER		1.60	24.0	104	73	61	45	0	0	16	12	50.0	31.0	21.0	6.5	16.0
2005-08-22	4385	4381	KCL/POLYMER		1.60	23.0	106	73	59	43	0	0	13	11	50.0	33.0	20.0	6.0	13.0
2005-08-23	4474	4469	KCL/POLYMER		1.60	21.0	101	70	58	41	0	0	12	9	50.0	31.0	19.5	5.5	12.0
2005-08-24	4513	4508	KCL/POLYMER		1.60	21.0	112	78	66	48	0	0	16	12	50.0	34.0	22.0	7.0	13.0
2005-08-25	4513	4508	KCL/POLYMER		1.61	19.0	112	78	66	48	0	0	16	12	50.0	34.0	22.0	7.0	13.0
2005-08-26	4513	4508	KCL/POLYMER		1.60	19.0	110	77	64	46	0	0	14	11	50.0	33.0	22.0	6.0	13.0
2005-08-27	4513	4508	KCL/POLYMER		1.60		112	79	65	48	0	0	16	12	50.0	33.0	23.0	6.5	13.0
2005-08-28	4513	4508	KCL/POLYMER		1.60		112	79	66	49	0	0	16	12	50.0	33.0	23.0	6.5	13.0
2005-08-30	4513	4508	KCL/POLYMER		1.60		115	80	66	48	0	0	16	12	50.0	35.0	22.5	6.5	13.5
2005-08-31	4513	4508	KCL/POLYMER		1.60		117	83	70	50	0	0	16	12	50.0	34.0	24.5	6.5	13.5
2005-09-01	4513	4508	KCL/POLYMER		1.60		109	76	63	45	0	0	15	11	50.0	33.0	21.5	6.0	13.0
2005-09-02	4513	4508	KCL/POLYMER		1.60		115	80	66	48	0	0	16	12	50.0	35.0	22.5	6.5	13.5
2005-09-03	4513	4508	KCL/POLYMER		1.60		117	82	69	50	0	0	16	12	50.0	35.0	23.5	6.5	13.5
2005-09-04	4513	4508	KCL/POLYMER		1.60		117	82	69	50	0	0	16	12	50.0	35.0	23.5	6.5	13.5
2005-09-05	4513	4508	KCL/POLYMER		1.60		100	68	55	39	0	0	11	9	50.0	32.0	18.0	5.5	10.0
2005-09-06	4513	4508	KCL/POLYMER		1.60		99	68	55	39	0	0	11	9	50.0	31.0	18.5	5.5	10.0
2005-09-07	4513	4508	KCL/POLYMER		1.60		98	67	55	39	0	0	12	9	50.0	31.0	18.0	5.0	10.5
2005-09-08	4513	4508	KCL/POLYMER		1.60		98	67	55	39	0	0	12	9	50.0	31.0	18.0	5.0	10.5
2005-09-09	4513	4508	KCL/POLYMER		1.60		98	67	55	39	0	0	12	9	50.0	31.0	18.0	5.0	10.5
2005-09-10	4513	4508	KCL/POLYMER		1.60		98	67	55	39	0	0	12	9	50.0	31.0	18.0	5.0	10.5
2005-09-11	4513	4508	KCL/POLYMER		1.60		98	67	55	39	0	0	12	9	50.0	31.0	18.0	5.0	10.5
2005-09-12	4513	4508	KCL/POLYMER		1.60		98	67	55	39	0	0	12	9	50.0	31.0	18.0	5.0	10.5
2005-09-13		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0	0					

DAILY MUD PROPERTIES:RHEOLOGY PARAMETERS

Well: 6605/8-1

PO: 1

Hole section : 8 1/2"

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings							Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]	
	MD	TVD					600	300	200	100	60	30	6						3
2005-09-14		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-15		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-16		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-17		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-18		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-19		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-20		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-21		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-22		0	KCL/POLYMER			1.6	0	0	0	0	0	0	0						
2005-09-23		0	KCL/POLYMER			1.6	0	0	0	0	0	0	0						
2005-09-24		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-25		0	KCL/POLYMER		1.62		0	0	0	0	0	0	0						
2005-09-26	4513	4508	KCL/POLYMER		1.62	9.1	69	47	38	28	0	0	10	8	50.0	22.0	12.5	5.0	8.0
2005-09-27	4513	4508	KCL/POLYMER		1.62	9.1	69	47	38	28	0	0	10	8	50.0	22.0	12.5	5.0	8.0
2005-09-28	4513	4508	KCL/POLYMER		1.62	11.0	69	47	38	28	0	0	10	8	50.0	22.0	12.5	5.0	8.0
2005-09-29	4513	4508	KCL/POLYMER		1.62	16.5	63	42	35	25	0	0	8	6	50.0	21.0	10.5	4.5	7.0
2005-09-30		0	KCL/POLYMER		1.62	12.8	70	46	39	27	0	0	10	7	50.0	24.0	11.0	6.0	10.0
2005-10-01		0	KCL/POLYMER		1.62	13.0	70	46	39	27	0	0	10	7	50.0	24.0	11.0	6.0	10.0
2005-10-02		0	KCL/POLYMER		1.62	15.5	69	46	39	27	0	0	10	7	50.0	23.0	11.5	6.0	10.0
2005-10-03	4513	4508	KCL/POLYMER		1.62	16.3	69	46	39	27	0	0	10	7	50.0	23.0	11.5	5.0	9.0

Hole section : P&A

WATER BASED SYSTEM

Date	Depth [m]		Mud Type	Funnel Visc [sec]	Dens [sg]	Mudtmp Out [DegC]	Fann Readings							Rheo Test [DegC]	PV [mPas]	YP [Pa]	Gel0 [Pa]	Gel10 [Pa]	
	MD	TVD					600	300	200	100	60	30	6						3
2005-10-05	4021	4017	KCL/POLYMER		1.62		92	61	51	41	0	0	16	13	50.0	31.0	15.0	7.0	12.0
2005-10-06	4021	4017	KCL/POLYMER		1.62		95	67	54	42	0	0	16	13	50.0	28.0	19.5	8.0	13.5
2005-10-07	4021	4017	KCL/POLYMER		1.62		95	67	54	42	0	0	16	13	50.0	28.0	19.5	8.0	13.5
2005-10-08	4021	4017	KCL/POLYMER		1.62		92	65	52	38	0	0	13	11	50.0	27.0	19.0	7.0	13.0
2005-10-09	4021	4017	KCL/POLYMER		1.62		92	65	52	38	0	0	13	11	50.0	27.0	19.0	7.0	13.0
2005-10-10	4021	4017	KCL/POLYMER		1.62		103	79	65	50	0	0	19	13	50.0	24.0	27.5	11.0	22.0
2005-10-11	4021	4017	KCL/POLYMER		1.35		51	37	30	21	0	0	9	8	50.0	14.0	11.5	4.0	7.0
2005-10-12		0	KCL/POLYMER		1.35	10.0	45	31	26	15	0	0	4	3	50.0	14.0	8.5	3.0	8.0
2005-10-13		0	KCL/POLYMER		1.36		64	45	37	28	0	0	11	9	50.0	19.0	13.0	4.5	7.5
2005-10-16		0	KCL/POLYMER				0	0	0	0	0	0	0	0					

DAILY MUD PROPERTIES : OTHER PARAMETERS

Well: 6605/8-1		PO: 1																								
Hole section : 36"		WATER BASED SYSTEM																								
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]				
2005-06-16	957	957	SPUD MUD	1.20					/																	
2005-06-17	957	957	SPUD MUD	1.20					/																	
2005-06-18	984	984	SPUD MUD	1.20					/																	
Hole section : 26"		WATER BASED SYSTEM																								
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]				
2005-06-19	1440	1440	SPUD MUD	1.20					/																	
2005-06-20		0	SPUD MUD	1.05					/																	
2005-06-21	1222	1222	SPUD MUD	1.03					/																	
2005-06-22		0	SPUD MUD	1.03					/																	
2005-06-23		0	SPUD MUD	1.20					/																	
2005-06-24		0	SPUD MUD	1.20					/																	
2005-06-25		0	SPUD MUD	1.20					/																	
2005-06-26		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-06-27		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-06-28		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-06-29		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-06-30		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-07-01		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-07-02		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-07-03		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-07-04		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
2005-07-05		0	KCL/POLYMER	1.30	1.3		1		/	7.5				45000	145000					16.0			3.0	162		
Hole section : 17"		WATER BASED SYSTEM																								
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]				
2005-07-06		0	KCL/POLYMER	1.31	1.5		1		/	7.4				48000	153000					15.0	18.0			3.4	111	
2005-07-07	2137	2136	KCL/POLYMER	1.30	2.4		1		/	7.5	0.0	0.3	0.3	38000	145000	1000		1000	13.5	18.0	0.0	28	3.7	60		
2005-07-08	2337	2333	KCL/POLYMER	1.30	2.0		1		/	7.6	0.0	0.2	1.4	38000	135000	920		920	14.0	16.0	0.0	36	3.5	95		
2005-07-09	2540	2536	KCL/POLYMER	1.34	2.0		1		/	7.3	0.0	0.1	1.2	35000	130000	900		900	14.5	16.0	0.0	34	3.5	97		
2005-07-10	2597	2593	KCL/POLYMER	1.34	2.0		1		/	7.3	0.0	0.1	1.3	37000	178000	920		920	16.0	16.0	0.0	38	3.5	85		

DAILY MUD PROPERTIES : OTHER PARAMETERS

Well: 6605/8-1		PO: 1																								
Hole section : 17"				WATER BASED SYSTEM																						
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]				
2005-07-11	2667	2663	KCL/POLYMER	1.34	2.0		1	/	7.5	0.0	0.1	1.0	40000	150000	640			640	16.5	15.0	0.0	42	3.3	137		
2005-07-12	2734	2730	KCL/POLYMER	1.34	2.0		1	/	7.8	0.0	0.2	1.3	39000	145000	600			600	17.5	16.0	0.0	56	3.1	199		
2005-07-13	2785	2781	KCL/POLYMER	1.34	2.1		1	/	7.7	0.2	0.2	1.3	40000	138000	600			600	16.5	16.0	0.0	35	3.3	153		
2005-07-14	2900	2896	KCL/POLYMER	1.34	1.5		1	/	7.9	1.0	0.3	1.3	50000	149000	600			600	16.5	16.0	0.3	21	3.3	143		
2005-07-15	2900	2896	KCL/POLYMER	1.34	2.0		1	/	8.0	0.6	0.2	1.2	45105	150000	600			600	17.0	16.0	0.2	28	3.2	172		
2005-07-16	2900	2896	KCL/POLYMER	1.35	1.6		1	/	7.9	1.0	0.3	1.3	43076	141000	600			600	17.0	17.0	0.3	21	3.3	168		
2005-07-17	2900	2896	KCL/POLYMER	1.36	1.4		1	/	7.8	0.4	0.2	1.2	48700	147000	600			600	16.5	18.5	0.3	21	3.3	142		
2005-07-18	2900	2896	KCL/POLYMER	1.36	1.0		1	/	8.0	0.3	0.1	1.1	45600	147000	620			620	16.5	18.5	0.3	24	3.5	119		
2005-07-19	2900	2896	KCL/POLYMER	1.36	1.0		1	/	8.0	0.3	0.1	1.1	44500	147000	620			620	16.5	18.5	0.3	21	3.5	120		
2005-07-20	2900	2896	KCL/POLYMER	1.34	1.2		1	/	8.1	0.5	0.2	1.4	43500	146000	660			660	16.5	18.5	0.3	24	3.3	154		
2005-07-21	2900	2896	KCL/POLYMER	1.34	1.0		1	/	7.0	0.5	0.2	1.4	43500	146000	660			660	16.5	18.5	0.1	20	3.3	154		
Hole section : 12 1/4"				WATER BASED SYSTEM																						
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]				
2005-07-22	2903	2899	KCL/POLYMER	1.34	1.5		1	/	8.7	1.3	0.1	1.6	42000	139500	440			440	16.0	18.0	0.0	17	3.4	134		
2005-07-23	3025	3021	KCL/POLYMER	1.34	1.6		1	/	8.9	1.2	0.0	0.6	41000	147000					16.8	19.0	0.1		3.2	168		
2005-07-24	3077	3073	KCL/POLYMER	1.38	1.3		1	/	8.4	1.1	0.0	0.9	40000	147000	240			240	17.5	18.0	0.2	28	3.4	143		
2005-07-25	3104	3100	KCL/POLYMER	1.40	1.3		1	/	8.2	1.0	0.0	0.7	39000	145500					17.5	16.5	0.2	28	3.6	110		
2005-07-27	3163	3159	KCL/POLYMER	1.45	1.4		1	/	8.0	0.9	0.0	0.6	42000	145000					18.5	17.5	0.2	25	3.8	83		
2005-07-28	3175	3171	KCL/POLYMER	1.45	1.3		1	/	7.9	0.9	0.0	0.7	45000	154000					19.0	17.0	0.3	25	3.7	98		
2005-07-29	3278	3274	KCL/POLYMER	1.45	1.7		1	/	7.9	0.8	0.0	0.7	45000	148000					19.5	16.5	0.3	28	3.6	131		
2005-07-30	3421	3417	KCL/POLYMER	1.45	1.7		1	/	7.8	0.7	0.0	0.6	45000	157000					19.0	17.0	0.2	25	3.7	95		
2005-07-31	3521	3517	KCL/POLYMER	1.45	1.7		1	/	7.8	0.7	0.0	0.6	43000	154000					19.0	17.0	0.2	25	3.7	99		
2005-08-01	3521	3517	KCL/POLYMER	1.45	1.6		1	/	7.7	0.7	0.0	0.6	45000	155000					19.5	17.0	0.2	25	3.6	124		
2005-08-02	3758	3754	KCL/POLYMER	1.45	1.2		1	/	7.5	0.6	0.0	0.7	46000	157000					19.0	17.5	0.2	25	3.7	96		
2005-08-03	4100	4096	KCL/POLYMER	1.45	1.2		1	/	7.8	0.6	0.0	0.7	40000	153000					19.5	17.0	0.2	28	3.6	129		
2005-08-04	4100	4096	KCL/POLYMER	1.45	1.2		1	/	7.8	0.6	0.0	0.7	40000	153000					19.5	17.0	0.2	28	3.6	129		
2005-08-05	4100	4096	KCL/POLYMER	1.45	1.2		1	/	7.8	0.6	0.0	0.7	40000	153000					19.5	17.0	0.2	28	3.6	129		
2005-08-06	4100	4096	KCL/POLYMER	1.45	2.0		1	/	7.5	0.0	0.0	0.6	42000	148000					19.5	17.0	0.2	30	3.6	133		
2005-08-07	4100	4096	KCL/POLYMER	1.45	2.0		1	/	7.5	0.0	0.0	0.6	42000	148000					19.5	17.0	0.2	30	3.6	133		
2005-08-08	4100	4096	KCL/POLYMER	1.45	2.0		1	/	7.5	0.0	0.0	0.6	42000	148000					19.5	17.0	0.2	30	3.6	133		
2005-08-09	4100	4096	KCL/POLYMER	1.45	2.8		1	/	11.0	1.7	0.0	0.6	38000	141000	440			440	19.5	17.0	0.2	30	3.6	143		

DAILY MUD PROPERTIES : OTHER PARAMETERS

Well: 6605/8-1			PO: 1																							
Hole section : 12 1/4"					WATER BASED SYSTEM																					
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid Oil Sand			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							[%]	[%]	[%]				
2005-08-10	4100	4096	KCL/POLYMER	1.45	2.8		1		/	11.0	1.7	0.0	0.6	38000	141000	440		440	19.5	17.0	0.2	30	3.6	143		
2005-08-11	4100	4096	KCL/POLYMER	1.46	2.3		1		/	8.1	0.4	0.0	0.8		141000	240		240	19.0	17.0	0.2	30	3.7	106		
2005-08-12	4100	4096	KCL/POLYMER	1.47	2.8		1		/	9.5	0.4	0.1	0.6	46000	145000	200		200	19.0	17.0	0.2	28	3.8	92		
2005-08-13	4100	4096	KCL/POLYMER	1.51	3.4		1		/	9.7	0.2	0.2	0.6	44000	148000	200		200	22.0	18.0	0.2	28	3.5	172		
Hole section : 8 1/2"					WATER BASED SYSTEM																					
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem [Kg/m3]	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage Solid Oil Sand			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							[%]	[%]	[%]				
2005-08-14	4100	4096	KCL/POLYMER	1.51	3.2		1		/	9.9	0.1	0.1	0.5	44000	148000	200		200	22.0	18.0	0.2	28	3.5	172		
2005-08-15	4100	4096	KCL/POLYMER	1.51	2.8		1		/	9.4	1.2	0.1	0.2	47000	149000	600		600	21.0	22.0	0.2	28	3.7	122		
2005-08-16	4134	4130	KCL/POLYMER	1.60	2.2		1		/	8.9	1.3	0.1	1.1	48000	147000	200		200	24.0	17.0	0.2	28	3.8	131		
2005-08-17	4187	4183	KCL/POLYMER	1.60	2.2		1		/	8.9	1.2	0.0	0.7	40000	151000	300		300	23.0	16.0	0.3	28	3.9	75		
2005-08-18	4190	4186	KCL/POLYMER	1.60	2.4		1		/	8.0	0.9	0.0		42000	142000				24.0	16.0		35	3.7	137		
2005-08-19	4190	4186	KCL/POLYMER	1.60	1.8		1		/	8.1	1.6	0.0	0.8	40000	147000	380		380	23.0	16.0	0.2	35	3.9	79		
2005-08-20	4190	4186	KCL/POLYMER	1.60	1.8		1		/	8.1	1.6	0.0	0.8	40000	147000	380		380	23.0	16.0	0.2	35	3.9	79		
2005-08-21	4262	4258	KCL/POLYMER	1.60	2.4		1		/	7.8	1.4	0.0	1.2	45000	145000	420		420	24.0	18.0	0.2	28	3.7	136		
2005-08-22	4385	4381	KCL/POLYMER	1.60	1.8		1		/	7.6	1.2	0.0	1.1	45000	147000	400		400	24.0	18.0	0.2	35	3.8	134		
2005-08-23	4474	4469	KCL/POLYMER	1.60	1.4		1		/	7.8	1.0	0.0	1.1	44000	148000	400		400	23.0	17.0	0.2	35	3.9	78		
2005-08-24	4513	4508	KCL/POLYMER	1.60	1.4		1		/	7.6	0.9	0.0	1.0	44000	148000	400		400	23.0	17.0	0.1	38	3.9	78		
2005-08-25	4513	4508	KCL/POLYMER	1.61	1.6		1		/	7.6	0.9	0.0	1.0	46000	148000	400		400	23.0	17.0	0.1	35	4.0	61		
2005-08-26	4513	4508	KCL/POLYMER	1.60	1.4		1		/	7.6	0.9	0.0	1.0	44000	148000				23.0	17.0	0.1	35	3.9	78		
2005-08-27	4513	4508	KCL/POLYMER	1.60	1.4		1		/	7.6	0.9	0.0	1.0	44000	149000				24.0	16.4	0.1	35	3.8	130		
2005-08-28	4513	4508	KCL/POLYMER	1.60	1.4		1		/	7.5	0.9	0.0	1.0	44000	148000				24.0	16.4	0.1	35	3.8	131		
2005-08-30	4513	4508	KCL/POLYMER	1.60	1.7		1		/	7.4	0.8	0.0	0.9	46000	148500				24.0	16.4	0.1	35	3.8	130		
2005-08-31	4513	4508	KCL/POLYMER	1.60	1.8		1		/	8.6	1.0	0.1	0.7	44000	148000				24.0	16.0	0.1	35	3.8	130		
2005-09-01	4513	4508	KCL/POLYMER	1.60	1.8		1		/	8.6	1.0	0.1	0.7	44000	148000				24.0	16.0	0.1	35	3.8	130		
2005-09-02	4513	4508	KCL/POLYMER	1.60	1.8		1		/	8.0	0.9	0.0	0.8	44000	148000				24.0	16.0	0.1	35	3.8	130		
2005-09-03	4513	4508	KCL/POLYMER	1.60	1.6		1		/	8.3	1.0	0.0	0.9	44000	148000				24.0	16.0	0.1	35	3.8	130		
2005-09-04	4513	4508	KCL/POLYMER	1.60	1.6		1		/	8.3	1.0	0.0	0.9	44000	148000				24.0	16.0	0.1	35	3.8	130		
2005-09-05	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.2	1.0	0.0	1.1	46000	146000				24.0	16.0	0.1	35	3.8	132		
2005-09-06	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.2	1.0	0.0	1.1	46000	146000				24.0	16.0	0.1	35	3.8	132		
2005-09-07	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.3	1.0	0.0	1.1	46000	146000				24.0	16.0	0.1	35	3.8	132		
2005-09-08	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.3	1.0	0.0	1.1	46000	146000				24.0	16.0	0.1	35	3.8	132		

DAILY MUD PROPERTIES : OTHER PARAMETERS

Well: 6605/8-1		PO: 1																								
Hole section : 8 1/2"		WATER BASED SYSTEM																								
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]				
2005-09-09	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.3	1.0	0.0	1.1		46000	146000				24.0	16.0	0.1	35	3.8	132	
2005-09-10	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.3	1.0	0.0	1.1		46000	146000				24.0	16.0	0.1	35	3.8	132	
2005-09-11	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.3	1.0	0.0	1.1		46000	146000				24.0	16.0	0.1	35	3.8	132	
2005-09-12	4513	4508	KCL/POLYMER	1.60	1.4		1		/	8.3	1.0	0.0	1.1		46000	146000				24.0	16.0	0.1	35	3.8	132	
2005-09-13		0	KCL/POLYMER	1.62					/																	
2005-09-14		0	KCL/POLYMER	1.62					/																	
2005-09-15		0	KCL/POLYMER	1.62					/																	
2005-09-16		0	KCL/POLYMER	1.62					/																	
2005-09-17		0	KCL/POLYMER	1.62					/																	
2005-09-18		0	KCL/POLYMER	1.62					/																	
2005-09-19		0	KCL/POLYMER	1.62					/																	
2005-09-20		0	KCL/POLYMER	1.62					/																	
2005-09-21		0	KCL/POLYMER	1.62					/																	
2005-09-22		0	KCL/POLYMER						/																	
2005-09-23		0	KCL/POLYMER						/																	
2005-09-24		0	KCL/POLYMER	1.62					/																	
2005-09-25		0	KCL/POLYMER	1.62					/																	
2005-09-26	4513	4508	KCL/POLYMER	1.62	4.4		1		/	8.7					40000	147000						0.1		-2.4	-1221	
2005-09-27	4513	4508	KCL/POLYMER	1.62	4.4		1		/	8.7					40000	147000				24.0	11.0	0.1		3.9	92	
2005-09-28	4513	4508	KCL/POLYMER	1.62	4.4		1		/	8.7					40000	147000				24.0	11.0	0.1		3.9	92	
2005-09-29	4513	4508	KCL/POLYMER	1.62	6.0		1		/	8.6					43000	141000				24.0	11.0	0.1		3.9	98	
2005-09-30		0	KCL/POLYMER	1.62	5.0		1		/	8.7					43000	141000				24.0	11.0	0.1		3.9	98	
2005-10-01		0	KCL/POLYMER	1.62	5.0		1		/	8.8					43000	141000				24.0	11.0	0.1		3.9	98	
2005-10-02		0	KCL/POLYMER	1.62	5.0		1		/	8.6					43000	141000				24.0	11.0	0.1		3.9	98	
2005-10-03	4513	4508	KCL/POLYMER	1.62	5.0		1		/	8.1					43000	141000				24.0	11.0	0.1		3.9	98	
Hole section : P&A		WATER BASED SYSTEM																								
Date	Depth [m]		Mud Type	Dens [sg]	Filtrate		Filtcake		HPHT Press/Temp [bar/DegC]	pH	Alcalinity			Inhib Chem	K+ [mg/l]	CL- [mg/l]	Ca++ [mg/l]	Mg++ [mg/l]	Tot hard [mg/l]	Percentage			CEC [Kg/m3]	ASG [sg]	LGS [Kg/m3]	Glycol [%]
	MD	TVD			API [ml]	HPHT [ml]	API [mm]	HPHT [mm]			Pm [ml]	Pf [ml]	Mf [ml]							Solid [%]	Oil [%]	Sand [%]				
2005-10-05	4021	4017	KCL/POLYMER	1.62	6.6		1		/	8.3		0.1	1.3		40000	142000				24.0	11.0	0.1		4.0	65	
2005-10-06	4021	4017	KCL/POLYMER	1.62	6.7		1		/	6.8	0.0	0.0	2.7		45000	142000				24.0	11.0	0.1		4.0	63	
2005-10-07	4021	4017	KCL/POLYMER	1.62	6.7		1		/	6.8	0.0	0.0	2.7		45000	142000				24.0	11.0	0.1		4.0	63	
2005-10-08	4021	4017	KCL/POLYMER	1.62	8.1		1		/	9.0	0.3	0.0	0.3		45000	142000				26.0	11.0	0.1		3.7	171	

TOTAL CONSUMPTION OF MUD ADDITIVES

Well: 6605/8-1

PO: 1

Section	Product/ Additive	Unit	Total Amount Used
36"	BARITE	kg	116000.00
	BENTONITE	kg	22000.00
	DUOVIS PLUS NS	kg	3014.00
Section	Product/ Additive	Unit	Total Amount Used
26"	BARITE	kg	133000.00
	BENTONITE	kg	13000.00
	DUOVIS PLUS NS	kg	3286.00
	KCL BRINE	l	520001.00
Section	Product/ Additive	Unit	Total Amount Used
17"	BARITE	kg	186000.00
	CITRIC ACID	kg	625.00
	DUOVIS PLUS NS	kg	1510.00
	GLYCOL	l	17600.00
	GLYDRIL MC	l	8000.00
	KCL POWDER	kg	12000.00
	PAC UL	kg	1100.00
	SODA ASH	kg	600.00
	SODIUM BICARBONATE	kg	1425.00
	SODIUM CHLORIDE	kg	37000.00
Section	Product/ Additive	Unit	Total Amount Used
12 1/4"	BARITE	kg	91000.00
	CITRIC ACID	kg	625.00
	DUOVIS PLUS NS	kg	1320.00
	GLYDRIL MC	l	6400.00
	KCL POWDER	kg	12000.00
	PAC UL	kg	1550.00
	SODA ASH	kg	525.00
	SODIUM BICARBONATE	kg	1050.00
	SODIUM CHLORIDE	kg	12000.00
	TROL FL	kg	3000.00
Section	Product/ Additive	Unit	Total Amount Used
8 1/2"	BARITE	kg	302500.00
	CACL2/CABR2-BRINE	l	504501.00
	CITRIC ACID	kg	1950.00
	DUOVIS PLUS NS	kg	1880.00
	GLYCOL	l	21300.00
	KCL BRINE	l	60000.00
	KCL POWDER	kg	6000.00
	PAC UL	kg	1350.00
	PREMIXED MUD	l	261000.00
	SAFE SURF WN	l	3200.00
	SODA ASH	kg	825.00
	SODIUM BICARBONATE	kg	1500.00
	SODIUM CHLORIDE	kg	4000.00
	TROL FL	kg	2700.00

TOTAL CONSUMPTION OF MUD ADDITIVES

Section	Product/ Additive	Unit	Total Amount Used
P&A	BARITE	kg	37000.00
	CITRIC ACID	kg	1175.00
	DUOVIS PLUS NS	kg	290.00
	KCL BRINE	l	89000.00
	PAC UL	kg	1000.00
	SODIUM BICARBONATE	kg	1225.00
	TROL FL	kg	300.00

LOGGING INFORMATION

Well: 6605/8-1	PO: 1	RKB:23.5	m	Rig:	TRANSOCEAN LEADER
WL Logging Contractor:	SCHLUMBERGER			LWD Contractor:	SCHLUMBERGER
Official Data:	☒				
Max. Well Deviation:	10.40	[Deg]			

Bit Run	LWD Run	WL Run	Run Char	Hole Section	Track	Drilled Top [m MD]	Drilled Bottom [m MD]	Log Suite	Log Tool Offset [m]	Logging Start	End Last Logging	Measured Temp [Deg C]	Circ. Prior to Log [min]	Time Since Circulation [min]
2	2			9 7/8"		957.0	2000.0	ADN- ARC- ISONIC						
9	9			12 1/4"		2900.0	3163.0	ARC- ISONIC- RAB						
10	10			12.6"		3163.0	3175.0	ARC- ISONIC- RAB						
7	7			14 1/2"		2734.0	2900.0	ARC- ISONIC- RAB						
5	5			17"		2005.0	2597.0	ARC- ISONIC						
6	6			17 1/2"		2597.0	2734.0	ARC- ISONIC- RAB						
8	8			17 1/2"		2734.0	2893.0	ARC- ISONIC						
3	3			26"		957.0	1343.0	ARC						
4	4			26"		1343.0	2005.0	ARC						
1	1			36"		862.0	957.0							
11	11					3175.0	3521.0	ARC- ISONIC- RAB						

LOGGING INFORMATION

Well: 6605/8-1	PO: 1	RKB:23.5	m	Rig:	TRANSOCEAN LEADER
WL Logging Contractor:	SCHLUMBERGER			LWD Contractor:	SCHLUMBERGER
Official Data:	☒				
Max. Well Deviation:	10.40	[Deg]			

Bit Run	LWD Run	WL Run	Run Char	Hole Section	Track	Drilled Top [m MD]	Drilled Bottom [m MD]	Log Suite	Log Tool Offset [m]	Logging Start	End Last Logging	Measured Temp [Deg C]	Circ. Prior to Log [min]	Time Since Circulation [min]
12	12					3521.0	4100.0	ARC- ISONIC- RAB						
13	13					4100.0	4190.0	ARC- GVR- ISONIC- RAB						
14	14					4190.0	4513.0	ARC- GVR- ISONIC- RAB						
		1	A	12 1/4"		2883.0	4100.0	DSI- ECS- HRLA- PEX		2005-08-05 13:40	2005-08-06 04:30	90.0	1218	2598
		2	A	8 1/2"		4099.0	4514.5	DSI- ECS- HRLA- PEX		2005-08-25 12:45	2005-08-26 03:30	128.0	270	1410
		2	A	8 1/2"		4099.0	4514.5	GR- MDT		2005-08-26 17:15	2005-08-27 03:30	127.9	270	2960
		2	B	8 1/2"		4099.0	4514.5	GR- MDT		2005-08-27 03:30	2005-08-28 02:30	133.9	270	4200
		2	A	8 1/2"		4100.5	4514.4	GR- VSP		2005-08-28 03:50	2005-08-29 13:00		270	4350
		2	C	8 1/2"		4099.0	4514.5	GR- MDT		2005-08-28 13:00	2005-08-28 15:00	138.2	270	6195
		2	A	8 1/2"		4100.0	4514.5	FMI- GR		2005-09-01 18:00	2005-09-02 01:00	125.0	240	1545
		2	D	8 1/2"		4099.0	4514.5	GR- MDT		2005-09-02 01:30	2005-09-03 22:00	139.6	240	3840

LOGGING INFORMATION

Well: 6605/8-1	PO: 1	RKB:23.5	m	Rig:	TRANSOCEAN LEADER
WL Logging Contractor:	SCHLUMBERGER			LWD Contractor:	SCHLUMBERGER
Official Data:	☒				
Max. Well Deviation:	10.40	[Deg]			

Bit Run	LWD Run	WL Run	Run Char	Hole Section	Track	Drilled Top [m MD]	Drilled Bottom [m MD]	Log Suite	Log Tool Offset [m]	Logging Start	End Last Logging	Measured Temp [Deg C]	Circ. Prior to Log [min]	Time Since Circulation [min]
		2	E	8 1/2"		4099.0	4514.5	GR- MDT		2005-09-05 23:00	2005-09-08 01:00	144.8	300	3375
		2	A	8 1/2"		4098.0	4514.0	GR- MSCT		2005-09-08 01:00	2005-09-08 17:30			
		3		8 1/2"		4020.0	4405.0	CBL- CCL- GR		2005-09-14 15:30	2005-09-15 02:30			
		4	A	8 1/2"		4020.0	4405.0	CBL- CCL- GR- USI		2005-09-29 22:00	2005-09-30 09:30			
		4	B	8 1/2"		4030.0	4030.6	CCL- HSD		2005-09-30 09:30	2005-09-30 17:00			
		4	C	8 1/2"		4029.8	4030.6	GR- MDT		2005-09-30 17:00	2005-10-04 10:30			